

A Catalog of Scolytidae and Platypodidae (Coleoptera), Part 2: Taxonomic Index

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ABSTRACT—Cataloged in two volumes is the world fauna of Scolytidae (including two subfamilies, 25 tribes, 225 genera, and about 5,812 species) and of Platypodidae (including three subfamilies, seven tribes, 32 genera, and 1,463 species). The higher categories are listed phylogenetically, together with pertinent bibliographic citations of literature listed in a previously published bibliography. Within each genus the species are listed alphabetically together with: (1) a citation of the original description (and original genus, if different from the present genus), (2) the kind of type and its sex, if known, (3) type locality (with lectotype designation, if applicable), (4) type repository, (5) a representation of published figures, (6) geographical distribution, (7) host distribution, (8) three categories of notes, and (9) citations of references to all published literature from 1758 to 1991. Reference citations for each species are divided into eight subject areas, with authors listed alphabetically (including year and page citations) within each of the subject areas. Synonyms for genera and for species-group names are listed by chronological priority below the valid name for the taxon together with type validation data, notes, and references. Infrasubspecific names are cited under notes of the valid taxon. An appendix to the catalog includes: (a) a world host-list, with the beetle species reported to attack each plant species listed, and (b) a supplement to the previously published bibliography (Wood & Bright 1987) that updates the original to the end of 1989. An index lists all nominate taxa and their associated nomen nudums. This is the first serious attempt to catalog the world fauna of Scolytidae since 1910 and Platypodidae since 1914.

The following pages contain the first serious attempt to list and catalog the world fauna of Scolytidae since Hagedorn (1910d) and of Platypodidae since Strohmeyer (1914b, 1914c). Also included is a supplement to the bibliography that was Part 1 of this catalog, that updates the literature citations to the end of 1989. Citations of taxonomic and biogeographic articles are included to 1991.

Items of special interest and concern to us that have arisen during preparation of this volume include the following: (a) The quantity of known biological information was a surprise. It was expected that at least 20 percent of all nominate species would be cited only once by the original description and that an additional 20 percent would be cited fewer than five times. A superfi-

cial review suggests that species cited only once constitute less than 5 percent of the total, and those cited fewer than five times only slightly more than an additional 5 percent. (b) The rate at which species are being transported through commerce to establish breeding populations in extra-territorial areas of the earth should be a matter for worldwide alarm. Following a century when scarcely one species per decade reached the USA, at least six species were established there between 1985 and 1989; four additional species were reported in 1990 and three more in 1991. The economic impact of these introduced species is already being felt and will increase. The fact that three of these 13 reproduce by the normal bisexual method suggests that a significant gap in plant inspection procedures at

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ports of entry exists and should be a matter for great concern to agriculture and forestry. More extensive and more thorough surveys designed to detect introduced species, especially in the vicinity of major ports of entry, are urgently needed. Similar patterns of spread through commerce are a worldwide concern for all nations; none are exempt. (c) Closely related to the preceding factor is the need for more thorough training and additional research opportunities for developing insect taxonomists. We are not aware of any serious young taxonomic specialists in Scolytidae or Platypodidae either in graduate school or in professional service anywhere in the world. The identification of these insects is often unusually difficult and professional competence requires 10 to 20 years of experience in this field. Amateur and half-trained specialists frequently make gross errors in judgment, as attested by the number and distribution of synonyms listed in this volume. These errors are frequently costly at a level that is frightening to anyone who studies the consequences of them. Immediate attention to this problem is needed for all insect groups having enormous economic concern, such as the Scolytidae. All species of Scolytidae are internal plant parasites and, consequently, are potential vectors of plant disease or are of concern due to direct attack on plant hosts.

SCHEDL FACTOR IN SCOLYTIDAE RESEARCH

This catalog would not be complete, or even understandable, without at least a brief comment on the procedures and activities of Karl Eduard Schedl (1898-1979). Schedl was a major factor in the study of Scolytidae and Platypodidae for more than 50 years. He became interested in Scolytidae at the age of 17 when he observed the frass produced by an *Ips* species that was attacking a broken pine that fell across the World War I military trench in which he was concealed. Following the war, he received training in forest ecology and soon thereafter became interested in systematics. He published 342 articles on bark beetle taxonomy and is the author of more than 2,000 nominate species. Although he occasionally used the word "evolution," or other terms adopted from the New Systematics, his concept of the species was entirely morphological in the pre-1940 sense. His use of the subspecies designation was not

that of a geographical race, but of any minute morphological deviation from his "type" (usually they were no more than aberrations). He told SLW that he did not accept the International Code on Zoological Nomenclature as binding for him; for this reason, he formulated his own code of nomenclature which was not written or discussed with colleagues.

Schedl had the habit of placing a manuscript name on a specimen he could not identify. These names often then remained in his collection for decades and were cited repeatedly in the literature by himself or others before they were formally described or associated with a previously named species. Another confusing habit, both to himself and to colleagues, was his recognition of a "male holotype" and a "female holotype" for each species. This habit led, on numerous occasions, to the double description of species (and creation of homonymous synonyms). Fortunately, he published a list of the Platypodidae type material in his collection (Schedl 1978a) and, later, a similar volume for Scolytidae (Schedl 1979c). These catalogs are only partly complete, but list the "holotypes," lectotypes, and neotypes in his collection. Many of these designations are invalid and, consequently, should be used with caution. Many of the species he had previously named from syntypic series were incorrectly given a "holotype," most of the lectotypes are listed with no indication of their geographical origin or of other data associated with the selection, and, in our opinion, none of the neotypes meet the requirements of the Code.

Another item requiring an explanation, in order for the reader to understand this catalog, is how a significant portion of the Eggers Collection came into the possession of Schedl. Near the end of World War II, Hans Eggers, the acknowledged world authority on Scolytidae at that time, contacted W. H. Anderson, curator of Scolytidae and Platypodidae at the Smithsonian Institution, and offered to sell his collection to them for \$4,000. The Smithsonian accepted the offer and paid the full amount to Eggers in advance. Eggers began to pack and ship the collection to Washington, but he died when less than one-third of it had been sent. Because of the military occupation of Germany and travel difficulties in Europe at the close of the war, a European entomologist was engaged to complete the packing and shipping of the collection. That entomologist was Karl E. Schedl (Anderson,

W. H. & Anderson 1971:1-2). Only a fragment of that portion of the Eggers Collection placed in the care of Schedl arrived in Washington, while a substantial portion of both type and non-type material appeared in the collection of Schedl.

Schedl (1979c:2) published an account of how this significant portion of the Eggers Collection came into his hands. He told this same, but much more detailed, account to SLW in September 1965 at Lienz. However sincere this Schedl account might have been, it is contradicted by an account given by Mrs. Viktor Butovitsch (daughter of Hans and Elsa Eggers) on separate occasions to L. G. E. Kalshoven and F. G. Browne and reported to SLW. In her account, Schedl simply took what he wanted for his own use. The documentable facts bearing on this transaction are: (1) At the time of her husband's death, Elsa Eggers was senile to the point that "she did not even know her own name." After Hans died, their daughter was her legal guardian and conducted all of her personal business, none of which involved the collection or Schedl. (2) In 1952 and again in 1961, W. H. Anderson and S. L. Wood together examined and reviewed a large number (more than 20) of Smithsonian Institution (USNM) loan forms that were typewritten, single-spaced, and signed by Karl E. Schedl acknowledging receipt of several hundred primary and secondary types taken on loan from the Eggers Collection while Schedl prepared it for shipment. These loan forms had been imposed upon Schedl by the U.S. military attache who supervised Schedl's packing and sorting of the collection. Schedl apparently did not know those forms were sent directly to the Smithsonian Institution. According to W. H. Anderson, and D. M. Anderson (his successor), and confirmed by our own independent observations, none of that material was ever returned to Washington. In our catalog, problems related to conflicting statements on repositories are cited repeatedly. Similar problems with unreturned loans from the Forest Research Institute, Dehra Dun, from CSIRO, Canberra, and from other institutions are cited throughout the catalog.

In order for the user of this catalog to understand how a dozen Eichhoff types came into the possession of Schedl, the following is given. As told by Schedl to SLW in September 1965, near the close of World War II, Schedl was a major in the German army and had some responsibility

for the management of forested areas in the Nazi (German) occupied countries of Europe. Schedl was in Poland when the eastern front collapsed, and before he fled he stopped at the Stettin Museum where the Dohrn Collection was housed (that collection included a dozen or more of Eichhoff types). When Schedl reached the museum, it had been abandoned except for the curator of Coleoptera who was just leaving. According to Schedl, when he asked the curator about the Eichhoff types, the curator told him to take them and flee for his life. Except for these specimens, the material in the Stettin Museum was destroyed by the war.

MATERIALS AND METHODS

As mentioned in the Introduction to Part 1 of this catalog (Wood & Bright 1987), the catalog had its beginnings in 1946 when SLW began taxonomic and author card files in conjunction with a systematic search of literature treating Scolytidae and Platypodidae worldwide. These card files were continued until about 1980, but are reasonably complete only to 1970. These files are supplemented by a pinned collection of more than 100,000 specimens of Scolytidae and 3,000 of Platypodidae and a large collection of duplicate material preserved in ethanol. Of this material, most, including more than 2,000 biological species, were collected by himself from North and South America, Asia, Australia, Europe, Japan, New Guinea, and Sri Lanka. In addition, from 1960 to 1990, SLW exchanged identified specimens with several major museums and with Browne, Krivolutskaya, Kurenzov, Murayama, Schedl, etc. He has provided an identification service to professional colleagues in exchange for a portion of the specimens submitted by them for identification from 1945 until the present time. In order to authenticate the identification of species, he has taken examples for direct comparison to primary types to: AMNH (New York), CAS (San Francisco), MCZ (Cambridge), USNM (Washington), CNCI (Ottawa) in North America; BMNH (London), IZL (Leningrad), IZM (Moscow), MZU (Helsinki), MNHN (Paris), NHMW (Wien), Schedl Collection (Lienz) in Europe; FRI (Dehra Dun), Nobuchi Collection (Ibaraki) in Asia. Numerous primary and secondary types have been examined through brief loans from numerous other museums and private sources. He has examined authentic specimens

of about two-thirds of the nominate species listed below.

DEB became acquainted with cataloging procedures during 1961-1963 while he was a graduate student working with SLW. This interest intensified during the 1970s, and in 1981, the authors united their efforts to compile this catalog. DEB has collected extensively in Canada, USA, and Mexico in North America and in Borneo. He has been a research scientist at the Canadian National Collection of Insects, Arachnids, and Nematodes (CNCI, Ottawa) since 1966. He has visited the following museums for the purpose of studying type material for this project and related research: CAS (San Francisco), FMNH (Chicago), MCZ (Cambridge), USNM (Washington), Wood Collection in North America; BMNH (London), MNHN (Paris), NHMW (Wien) in Europe. Numerous additional primary types have been examined through brief loans from other museums and private sources. An identification service, similar to that outlined above, has been provided since 1966.

In order for the user to understand and deal effectively with errors that may be found in the catalog, an understanding of the procedures followed in compiling it is essential. Basic information on each taxon included in the catalog was organized on data sheets of two kinds: (1) genus-group category sheets, and (2) species-group category sheets. On these sheets, the name, author(s), type data, type repository data, original genus, subsequent genus, source of original description, valid name of taxon, notes, geographical distribution, and hosts were listed on one side of the sheet. On the reverse or back side of each sheet, citations were written by hand under each of the eight categories cited in the introduction of Part I of this catalog (Wood & Bright 1987:3-16). SLW was responsible for the review of literature published from 1758 to 1959; he and his staff worked at the M. L. Bean Life Science Museum, Brigham Young University, Provo, Utah, USA. DEB was responsible for the review of literature from 1960 to 1989; he and his staff worked at the Canadian National Collection of Insects, Arachnids, and Nematodes, Canada Department of Agriculture, Ottawa, Ontario, Canada.

In the review of literature available to us (Wood & Bright 1987, references not marked by an [*] asterisk), each of us (SLW and DEB) extracted names to be indexed and wrote the beetle names, author, year of publication

(including subletters), and page numbers on slips of paper. These data were then copied by technical staff on the back side of the data sheets cited above in the appropriate subject areas on those sheets. Many of the references marked with an asterisk (*) in the 1987 volume have since been found and the data have been indexed.

The senior author entered: (Item A) the basic taxonomic and distributional data from the data sheets into an IBM/PS Model 30 computer that had been networked with other museum computers to expand capacity. Each nominate taxon was then assigned a code number based on (a) three digits to identify the genus name, (b) three digits to identify the valid species name, and (c) two digits to identify the subspecies or synonym names. A word processor specialist then entered by computer number (Item B) all citations of each taxon in the appropriate subject areas for literature published from 1758 to 1959. The same procedure was followed at Ottawa for entering on a similar computer (Item C) all citations from 1960 to 1989. Copies of data diskettes, along with a hard copy of their contents, were then sent from Ottawa to Provo. The word processor specialist then combined in the computer Items B and C, alphabetized and edited the citations, then transferred the combined Items B and C to Item A to produce a rough draft of the full text of the catalog. On a few occasions, an error was made in entering the proper code number. We hope we have found and corrected all such errors, but the user should be alerted to the fact that all may not have been found.

At this point, the senior author then reviewed his taxonomic card files that were a composite of his entries from original literature that had been supplemented by entries from similar files microfilmed for him by the Smithsonian Institution and representing 50 years of independent research at Washington. Entries in the rough draft data base were then checked and supplemented by the card file entries, thus significantly expanding and verifying entries in the rough draft. Hard copies of the corrected manuscript were then prepared and given to each author for detailed review and were checked item by item with the original data sheets. The final draft was prepared following entry of these corrections.

In the review of original articles, names were often cited on only one page even though the

name of that taxon may have appeared many times within that article. We note also that, in using the supplementary card file, indexers who prepared those files may have cited (a) only page one of the article, or (b) the entire article (e.g., pages 1-40) as applying to this taxon, when in reality the name is cited only once on page 34. Even though this may be misleading, it enabled us to cite definite references to numerous articles we could not examine (those marked by an [*] asterisk in the bibliography).

The assignment of articles to eight subject areas, while a good idea, was not as practical as one might have supposed. Many published articles were clearly assignable to one or more definite subject areas; others were not. We sometimes disagreed on the proper assignment, and even found ourselves assigning a given article to one subject area on one day and to a different subject area the next. One should pay attention to all eight subject areas when reviewing literature for a more restricted subject.

We fully realize that cataloging is an on-going process to which many contribute. The articles we have found and reviewed, for the most part, represent only those segments of literature in which key words attracted reviewers' attention. There is a large quantity of literature hidden in the archives of ecology, forestry, systematics, etc., which has not yet come to the attention of catalogers, that will be very useful. Perhaps this catalog will stimulate others to contribute additional information from such hidden sources.

PROCEDURES

Species contained in this catalog are organized under two families: Scolytidae and Platypodidae. All species assigned to these families from 1758 to 1991 and their synonyms known to us are included. Within each family, the subfamilies, tribes, and genera are organized phylogenetically as presented in Wood (1986a) for Scolytidae. Because there is no modern classification of Platypodidae available, this family is organized on a tentative phylogenetic arrangement that is based on a combination of Strohmeier (1914b, 1914c), Schedl (1939p), and tentative concepts of SLW. The references listed under family, subfamily, and tribe headings are not intended to be exhaustive, but include only those works thought to be significant in the development of classification of the group. Citations of references listed

under each species are as complete as our resources permitted. As indicated above, the cutoff date is 1989 for all subject areas except for taxonomic and geographical data.

The species within each genus that are recognized here as valid are listed in bold type in alphabetical order with their authors. The author name is followed in regular type by: (a) the year and page in which the name was first validated in nomenclature (this date is the one given in Part 1 of the bibliography of this catalog [Wood & Bright 1987] regardless of other considerations, and, in some instances, is known to be technically incorrect; most discrepancies are noted). When the species was originally named in a genus other than the one to which it is now assigned, that original genus is given in parentheses following the page number and before the period [.] (b) The period is followed by an indication of the kind of primary type on which the taxon is based (holotype, lectotype, neotype, syntype) and the sex of the type, if known. The type information is concluded by a semicolon [;]. (c) The semicolon is followed by the type locality, as given in the original publication. When a discrepancy between the published type locality and that given on the labels of the type is known, the change is noted. Several authors, notably Schedl, listed all localities from which both primary and secondary types came; when this situation was found, we listed all localities. The type locality information is concluded with a semicolon [;]. (d) The semicolon is followed by a designation of the type repository as published with the original description. When the designated repository is different from the present location of the type, the change is noted. For example, several hundred of the Eggers types that belong to the Smithsonian Institution are presently in NHMW, Wien (see above remarks under "Schedl Factor . . ."). The names of most repositories are reduced to initials of the repository, and these initials are followed by the name of the city (or for Madagascar, by the name of the island). The full names of the repositories are given at the end of this Introduction. The full names of infrequently cited repositories are given in full. Personal collections are cited by the name of the owner, followed by the city name, if known. (e) When lectotypes have been designated, the name, year, and page of lectotype designation are given following a comma after the repository name and city.

Indented below each valid species name, the

following may appear: (a) figures: the citation of figures is given only when a figure of suitable quality is available. Poor quality figures and multiple citations were avoided. (b) Geographical distribution is given alphabetically with the countries of a particular continent clustered but separated from one another by a slash [/]. Subdivisions within a country are separated by commas. A few departures from normal geographical designations are incorporated in this section: (1) the Bahama Islands and Trinidad Island are treated as islands of the Antilles Islands, not as part of their adjacent continents; (2) Sakhalin Island (USSR), the Japanese Islands, Taiwan, and Hong Kong are all treated as part of Asia; (3) the Andaman Islands and Nicobar Islands are treated as part of India; (4) Malaya refers only to the continental peninsula and includes Singapore, it is not synonymous with Malaysia; (5) in order to conserve space for the frequently cited Malayan Archipelago, the inaccurate designation "Indonesia" was employed to include most of Indonesia, but excluded all of New Guinea, and included insular Malaysia; and (6) African islands were listed separately but clustered with African countries, except Madagascar which is treated as a separate land mass. (c) Hosts are listed alphabetically by the scientific names used by the authors of the articles cited. In most instances, we did not modernize the nomenclature or correct errors in spelling of hosts unless we were thoroughly familiar with the names. (d) Notes fall into three categories that are designated by numbers: category (1) notes include information that impacts nomenclature; category (2) notes pertain to synonymy; and category (3) notes convey significant messages from the authors of the present catalog to the reader and cite redescrptions, nomen nudums, and other information of importance.

Subspecies are geographical races that form distinctive populations that may intergrade with other subspecies. Because bark and ambrosia beetles are essentially internal plant parasites that are subjected while within their host to very limited environmental stresses, geographical races are uncommon in these families. Subspecies are recognized here only when sufficiently thorough studies have been made to convince the authors that recognizable geographical races exist. Almost all of Schedl's subspecies, and those of most other authors prior to 1960, are either aberrations that have no status in

nomenclature or are cryptic (or sibling) species that are actually good species that lack obvious diagnostic characters. The names of subspecies recognized here have the subspecific and author names in bold type and are indented below the name of the species to which they belong. When subspecies are recognized, the names of synonyms of each subspecies are listed below the bold type name of the subspecies to which they belong.

Synonyms are indented below the valid names to which they belong; they are given in italics in chronological priority. The data on their types are listed as given for the valid species names to which we have added the original and other significant citations that establish synonymy.

Nomen nudums that have been cited in synonymy are listed in the index and in the category (3) Notes under the valid names. Nomen nudums of unknown species affinity were omitted from this catalog.

Under the side-heading "References," below each nominate taxon, the citations to published literature are presented. These are organized under the eight subject areas described in Wood & Bright (1987:16). These citations are organized alphabetically by author name(s). Author names are spelled as in Wood & Bright (1987) and exclude diacritic marks or spelling changes used to compensate for the removal of diacritic marks (except, Dobner = Doebner).

Eight genera, of which five are known only as fossils, are listed in the *Incerta Cedis* category. The types of two living genera in this category were from Africa and are now lost. Their placement must await additional information. The eighth genus was named so recently that we have not had time to locate the types.

ACKNOWLEDGMENTS

This segment of the catalog is an index to the work of others. We recognize and appreciate the efforts of the thousands of authors who have contributed toward the expansion of our knowledge of the Scolytidae and Platypodidae. We sincerely appreciate the help we have received from hundreds of librarians who have made special efforts to procure photocopies of needed articles for our use. We also thank the many curators of collections who assisted us as we examined type material at their museums, and those who arranged for loans that enabled us to resolve numerous taxonomic problems.

We are most appreciative to a dedicated staff who endured much or all of the seven years required by this project, for their help in this monotonous and boring task. The staff at Brigham Young University consisted of Rita Farias Espinel (1 year), Nadja Kummer (1 year), Inelda Loni (1 year), Pilar Pizarro Sweany (3 years) who aided in the extraction of citations; Carla Jolayne Rice (2 years) operated the computer; Dr. C. Selby Herrin (7 years) did all of the computer programming, consulting, maintenance, and management. The staff at Ottawa consisted of Jemifer Read (4 years) who aided with bibliography preparation, Robert E. Skidmore (2 years) was a general project assistant, Derrick Bell (1 year) was a computer entry specialist, Larry Spears (2 years) was the computer programmer and consultant.

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We thank our colleagues who kindly consented to prepare translations of this Introduction for the benefit of users.

INTRODUCTION

Les pages qui suivent représentent le premier essai sérieux d'un catalogage de la faune mondiale des Scolytidae depuis Hagedorn (1910d) et des Platypodidae depuis Strohmeyer (1914b, 1914c). Est également incorporé un supplément de mise à jour de la bibliographie (cf. 1^{ère} partie de ce catalogue) jusqu'à la fin de 1989. Les notes de systématique et de biogéographie sont incluses jusqu'en 1991.

Les faits d'un intérêt particulier qui sont apparus durant la préparation de ce volume sont les suivants: (a) la quantité d'informations biologiques connues a été une surprise. Nous pensions qu'au moins 20% des espèces nominales ne seraient citées qu'une seule fois par la description originale, et qu'environ 20% des autres espèces seraient citées moins de 5 fois. Une estimation rapide montre que les espèces qui ne sont citées qu'une fois ne représentent que moins de 5% du total, et que celles citées moins de 5 fois représentent un peu plus de 5%. (b) Le taux d'introduction des

espèces par le biais des échanges commerciaux et qui s'établissent hors de leur zone d'origine doit être un sujet d'inquiétude au niveau mondial. Après un siècle durant lequel à peine un espèce par décennie atteignait les Etats-Unis d'Amérique, au moins six espèces s'y sont établies entre 1985 et 1989; quatre autres espèces ont été repertoriées en 1990, et encore trois autres en 1991. L'impact économique de ces espèces introduites se fait d'ores et déjà sentir et ne fera que s'accroître. Le fait que trois de ces treize espèces se reproduisent normalement suggère qu'il existe une lacune très significative dans les procédures phytosanitaires portuaires et ceci doit être un sujet de préoccupation pour l'agriculture et la sylviculture. Des procédures plus rigoureuses destinées à détecter d'éventuelles introductions, en particulier à proximité des terminaux portuaires, devraient être mises en place de manière urgente. Ce type de dissémination par les circuits commerciaux est un sujet de préoccupation pour toutes les Nations, aucune n'en est exempte. (c) En rapport étroit avec le facteur précédent, apparaît la nécessité impérieuse de développer la taxonomie des insectes et de former sérieusement des taxonomistes. A notre connaissance, il n'y a actuellement pas dans le monde de jeunes taxonomistes spécialisés dans l'étude des Scolytidae ou des Platypodidae, que ce soit dans les Universités, ou dans des organismes publics. L'identification de ces insectes est souvent d'une rare difficulté, et une compétence professionnelle dans ce domaine ne s'acquiert que sur une période de 10 à 20 ans. Les amateurs et les professionnels non spécialistes commettent souvent de grossières erreurs de jugement comme cela est attesté dans le présent volume par le nombre des synonymes. Ces erreurs sont souvent coûteuses par les conséquences qu'elles entraînent. Une attention immédiate à ces problèmes d'introduction est indispensable pour tous les groupes d'insectes d'importance économique comme les Scolytidae. Toutes les espèces de cette famille sont des parasites internes de plantes et sont de ce fait des vecteurs potentiels de maladies ou des prédateurs directs des plantes-hôtes.

LE CAS SCHEDL

Notre catalogue serait incomplet, ou même incompréhensible, sans au moins un bref commentaire sur le comportement et les activités de

Karl Eduard Schedl (1898-1979). Schedl fut un acteur important dans l'étude des Scolytidae et des Platypodidae pendant plus de cinquante ans. Il s'intéressa aux Scolytidae vers l'âge de 17 ans lorsqu'il observa le "frass" produit par une espèce d'*Ips* attaquant un pin cassé qui était tombé en travers d'une tranchée dans laquelle il se trouvait pendant la Première Guerre mondiale. Après cette guerre il suivit des cours d'entomologie forestière et s'intéressa rapidement à la systématique des Scolytidae. Il a publié 342 notes de taxonomie et est l'auteur de plus de 2 000 espèces nominales. Bien qu'utilisant parfois le mot "évolution" ou d'autres termes adoptés par la "Nouvelle Systématique," son concept personnel de l'espèce était entièrement morphologique, dans le sens pre-1940. L'utilisation qu'il fait de la sous-espèce ne concerne pas une "race" géographique, mais uniquement de très faibles variations morphologiques déviant du "type" (il ne s'agissait de rien d'autre que d'aberrations). Il raconta un jour à SLW qu'il considérait que les règles du Code international de nomenclature zoologique n'étaient pas un obligation pour lui. Pour cette raison il formula son propre code de nomenclature qui ne fut jamais écrit, et qui de ce fait ne put jamais être discuté.

Schedl avait pour habitude de placer un nom provisoire sous chaque individu qu'il ne pouvait identifier immédiatement. Quelquesuns de ces noms sont restés ainsi pendant des décennies, bien que lui et d'autres les aient cités de nombreuses fois dans la littérature, avant qu'ils ne soient formellement publiés ou rapportés à une espèce déjà connue. Une autre habitude déroutante qui lui était propre, ainsi qu'à d'autres collègues, était la désignation d'un holotype mâle et d'un holotype femelle pour chaque espèce. Cette habitude amena en de nombreuses occasions à une double description des espèces (et donc à la création de synonymes qui sont aussi des homonymes). Fort heureusement il a publié une liste des matériaux typiques de Platypodidae de sa collection (Schedl 1978a), et un peu plus tard un volume similaire pour les Scolytidae (1979c). Ces catalogues sont incomplets, mais recensent les "holotypes," lectotypes et neotypes de sa collection. Beaucoup de ces désignations sont invalides et doivent en conséquence être utilisées avec prudence. Un grand nombre de ses "holotypes" proviennent de séries syntypiques, la plupart des lectotypes sont désignés sans indication

d'origine géographique ou d'éléments associés à ce choix. Enfin à notre avis, aucun des néotypes n'est conforme aux règles du Code.

Un dernier élément nécessitant une explication afin que les utilisateurs du catalogue comprennent bien le problème, es comment une partie de la Collection Eggers parvint en possession de Schedl. Vers la fin de la Seconde Guerre mondiale, Hans Eggers, le spécialiste mondial des Scolytidae à cette époque, contacta W. H. Anderson, Conservateur des Scolytidae et Platypodidae à la Smithsonian Institution et offrit de vendre sa collection pour 4 000 \$. La Smithsonian accepta l'offre et paya la totalité de la somme immédiatement. Eggers commença le conditionnement et l'expédition de sa collection à Washington, mais décéda brutalement alors que seulement un tiers de la collection avait été expédiée. Du fait de l'occupation militaire en Allemagne et des difficultés de déplacement en Europe à la fin de la guerre, un entomologiste européen fut embauché pour terminer l'expédition. Cet entomologiste était Karl E. Schedl (Anderson, W. H. & Anderson 1971:1-2). Force est de constater que seulement une petite partie du reste de la collection Eggers confiée aux soins de Schedl arriva à Washington, alors qu'une partie substantielle du matériel typique et non-typique se retrouva dans la collection Schedl.

Schedl (1979c:2) a expliqué comment cette part significative de la collection Eggers est entrée en sa possession. Il répéta ceci, de manière beaucoup plus détaillée à SLW en septembre 1965 à Lienz. Cependant, pour sincère que soit le récit de Schedl il est en contradiction avec ce que raconta Mme Butovitsch (femme de Viktor Butovitsch et fille de Hans et Elsa Eggers) à diverses occasions à L. G. E. Kalshoven et F. G. Browne, propos qui furent rapportés à SLW. Dans cette version, Schedl aurait simplement conservé ce qui lui plaisait pour son usage personnel. Les faits avérés en rapport avec la transaction sont les suivants: (1) A la mort de son mari, Elsa Eggers était sénile au point "de ne pouvoir se souvenir de son propre nom." Après la mort de Hans, leur fille devenue le "tuteur" legal s'occupait de toutes ses affaires, mais en aucun cas de ce qui concernait la collection de son père ou de Schedl. (2) En 1952, et de nouveau en 1961, W. H. Anderson et S. L. Wood en étudiant un grand nombre (plus de 20) feuilles de prêt de la Smithsonian, constatèrent qu'elles étaient

toutes tapées à la machine, à intervalle simple, et signées par K. E. Schedl qui reconnaissait donc *de facto* avoir en communication plusieurs centaines de types primaires et secondaires pris dans la collection Eggers pendant qu'il préparait l'expédition du reste de cette collection. La rédaction de ces feuilles de prêt fut imposée à Schedl par l'Attaché militaire U.S. qui supervisait le tri et la préparation de la collection. Il semble que Schedl ignorait que ces feuilles étaient envoyées immédiatement à la Smithsonian à Washington. Selon W. H. Anderson et D. M. Anderson (son successeur), et confirmé par nos propres observations, aucun de ces matériaux ne fut jamais rendu à Washington. Dans notre catalogue, nous soulevons de nombreux cas d'incohérence sur le lieu de conservation de ces matériaux. D'autres problèmes de cette nature concernant des prêts du Research Institute, Dehra Dun; du CSIRO, Canberra; et d'autres instituts sont cités tout au long du catalogue.

Enfin, pour que l'utilisateur de notre catalogue sache comment une douzaine de types de Eichhoff parvinrent en possession de Schedl, nous pouvons rapporter ce que Schedl lui-même raconta à SLW en Septembre 1965. Vers la fin de la guerre, Schedl était officier dans l'armée Allemande et occupait des fonctions de responsabilité dans la gestion des régions forestières des pays occupés par les troupes Allemandes. Schedl était alors en Pologne quand le front Est s'écroula. Avant de s'enfuir il s'arrêta au Musée de Stettin où était conservée la collection Dohrn (qui contenait une douzaine ou plus de types de Eichhoff). Lorsque Schedl arriva au Musée, seul le conservateur de la section Coléoptères était encore présent, mais s'appêtait à fuir. Selon les dires de Schedl, lorsqu'il demanda à ce conservateur les types de Eichhoff, celui-ci lui dit de les prendre et de s'enfuir. Toutes les collections du Musée de Stettin furent complètement détruites, sauf ces quelques spécimens.

MATERIELS ET METHODES

Comme il est fait mention dans l'Introduction de la Partie 1 (Wood & Bright 1987), les prémices de ce catalogue remontent à 1946 lorsque SLW commença un fichier taxonomique et d'auteurs, en même temps qu'il entreprenait de manière systématique des recherches sur la littérature traitant des

Scolytidae et des Platypodidae du monde. Ces fichiers furent continués jusqu'aux environs de 1980, mais ne sont, à cette date, vraiment complets que jusqu'en 1970. Ces fichiers sont accompagnés d'une collection d'insectes piqués comprenant plus de 100 000 spécimens de Scolytidae et 3 000 Platypodidae, ainsi qu'une importante collection de doubles conservés en alcool. La plupart de ce matériel, incluant en outre plus de 2 000 espèces biologiques, fut récolté par lui-même sur le continent américain, en Asie, en Australie, en Europe, au Japon, en Nouvelle-Guinée et au Sri Lanka. De plus, de 1960 à 1990, SLW a échangé des spécimens identifiés avec plusieurs Musées ainsi qu'avec Browne, Krivolutskaya, Kurenzov, Murayama, Schedl, etc. Il a fourni des identifications à ses collègues professionnels en échange d'une partie du matériel soumis de 1945 à aujourd'hui. Afin de s'assurer de l'identité des espèces, il a procédé à des comparaisons directes avec les types primaires des institutions suivantes: AMNH (New York), CAS (San Francisco), MCZ (Cambridge, Mass.), USNM (Washington), CNCI (Ottawa) en Amérique du Nord; BMNH (Londres), IZL (St. Peterbourg), IZM (Moscou), MZU (Helsinki), MNHN (Paris), NHMW (Vienne), la Collection Schedl (Lienz) en Europe; FRI (Dehra Dun), la Collection Nobuchi (Ibaraki) en Asie. De nombreux types primaires et secondaires ont été étudiés à l'occasion de prêts de nombreux autres Musées ou collections privées. Il a examiné les spécimens originaux d'environ deux tiers des espèces nominales citées ci-après.

DEB s'engagea dans ce projet en 1961-1963, lorsque étudiant, il travaillait avec SLW. Son intérêt s'est intensifié dans les années 1970, et en 1981 ils unirent leurs efforts pour compiler et compiler ce catalogue. DEB a récolté de manière intensive au Canada, aux USA, au Mexique et à Bornéo. DEB est chercheur au Canadian National Collection of Insects, Arachnids and Nematodes (CNCI, Ottawa) depuis 1966. Dans le cadre de ses recherches et de la réalisation du présent projet, il a effectué des missions d'étude des matériels typiques dans les Musées suivants: CAS (San Francisco), FMNH (Chicago), MCZ (Cambridge, Mass.), USNM (Washington), la Collection Wood pour l'Amérique du Nord; BMNH (Londres), MNHN (Paris), NHMW (Vienne) en Europe. De nombreux types primaires ont également été étudiés à l'occasion de prêts de nombreux

autres Musées ou collections privées. Un service d'identification, du même type que celui cité plus haut, a été mis en place depuis 1966.

De façon à ce que l'utilisateur comprenne et sache gérer les erreurs qui pourront être relevées dans le catalogue, il nous semble nécessaire de décrire les méthodes et procédures qui ont été utilisées pour son edification.

Les informations de base concernant chaque taxon ont été saisies sur des fiches de deux sortes: (1) fiches du groupe-genre, et (2) fiches du groupe-espèce. Sur ces fiches figurent le nom, le (les) auteur(s), les renseignements concernant le type, labels (étiquettes), lieu de dépôt, nom de genre original, nom de genre actuel, référence de la description originale, nom valide du taxon, notes diverses, distribution géographique ainsi que les plantes-hôtes. Au revers de ces fiches sont reportées à la main des références de rapportant aux huit rubriques citées dans l'Introduction de la Partie 1 de ce catalogue (Wood & Bright 1987:3-16). SLW est responsable pour ce qui concerne la littérature publiée de 1758 à 1959. Lui et son équipe ont travaillé au Monte L. Bean Life Science Museum, Brigham Young University, Provo, Utah, USA. DEB est responsable de la littérature des années 1960 à 1989. Lui et son équipe ont travaillé à la Canadian National Collection of Insects, Arachnids and Nematodes, Canada Department of Agriculture, Ottawa, Ontario, Canada.

Dans la littérature que nous avons pu consulter (Wood & Bright 1987), références sans astérisque [*], chacun de nous (SLW et DEB) a relevé les noms à indexer et a extrait le nom de l'insecte, l'auteur, l'année de publication (y compris l'indexation alphabétique) et les ont reporté sur des fiches. Ces renseignements furent ensuite recopiés par des collaborateurs de l'équipe au dos des fiches décrites précédemment, dans les différentes rubriques. Beaucoup des références marquées d'un astérisque [*] dans le volume de 1987 ont été consultées depuis et leur contenu a donc été indexé.

SLW a saisi: (rubrique A) les renseignements taxonomiques et biogéographiques de base sur un IBM/PS2 Model 60, relié par réseau à d'autres ordinateurs afin d'étendre ses capacités. A chaque taxon un numéro de code était attribué de la manière suivante: (a) trois chiffres pour identifier le nom du genre, (b) trois chiffres pour identifier le nom valide de l'espèce, et (c) deux chiffres pour identifier la

sous-espèce ou les noms synonymes. Un spécialiste en traitement de texte a saisi ensuite (rubrique B) toutes les citations pour chaque taxon dans les champs appropriés pour la littérature couvrant la période 1758-1959. La même procédure a été suivie à Ottawa pour la saisie sur un ordinateur similaire (rubrique C) de toutes les mentions entre 1960 et 1989. Des disquettes des informations ainsi que des copies-papiers étaient alors envoyées d'Ottawa à Provo. Le spécialiste en traitement de texte réunissait alors les éléments B et C, procédait à leur classement, puis transférait l'ensemble dans la rubrique A pour produire une copie brute du texte complet du catalogue. A quelques occasions il y eut des erreurs de saisie dans le code. Nous espérons avoir retrouvé et corrigé toutes ces erreurs, mais nous devons prévenir l'utilisateur qu'il peut en subsister encore quelques unes.

A ce moment, le premier auteur a repris toutes ses fiches qui étaient un composite de ses relevés dans la littérature originale complétées par des renseignements tirés de fiches similaires microfilmées provenant de la Smithsonian Institution et qui représentaient 50 années de travaux équivalents et indépendants à Washington. Les saisies du texte brut étaient alors vérifiées et complétées avec ces fiches, ce qui accroissait significativement leur volume et permettait de comparer les saisies du text brut. Des copies-papier du manuscrit corrigé étaient fournies à chaque auteur pour vérification et comparées rubrique par rubrique avec les relevés originaux. Le text définitif était alors mis au point en tenant compte de ces corrections.

Dans la bibliographie originale, les noms des taxons étaient souvent cités par une seule page même si le nom du taxon apparaissait plusieurs fois dans le cours de l'article. Nous avons également noté que, en utilisant les fiches complémentaires, les personnes qui avaient préparés ces fiches avaient pu: (a) seulement fait apparaître la première page de l'article, ou (b) la pagination complète (e.g., pages 1-40) s'appliquant à ce taxon, alors que son nom n'était cité qu'une seule fois page 34. Bien que ceci puisse être déroutant, cette situation nous permet de donner des références complètes à de nombreuses publications que nous n'avons pu consulter nous-mêmes, celles précédées d'un astérisque [*] dans la bibliographie.

L'attribution des articles dans nos 8 rubriques, bien que représentant une bonne idée, ne fut pas aussi aisée que nous l'avions supposé.

Beaucoup des articles publiés pouvaient facilement être classés dans une ou deux rubriques, alors que d'autres ne l'étaient pas. Nous nous sommes souvent opposés sur l'attribution à donner, et nous sommes même trouvés dans la situation où un jour l'attribution était faite dans une rubrique et dans une autre rubrique le lendemain. Nous vous recommandons la plus grande attention sur le choix dans les 8 rubriques si vous recherchez des sujets très précis.

Nous avons clairement réalisé que le catalogage était une opération à laquelle beaucoup de choses contribuent. La plupart des articles que nous avons trouvés et analysés, ne représentent qu'une partie de la littérature dans laquelle des mots-clés ont attiré l'attention des "reviewers." Il y a une énorme quantité de renseignements cachés dans les publications d'écologie, de sylviculture, de systématique, etc., qui n'a pas encore attiré l'attention, et qui seront de la plus grande utilité. Nous espérons que le présent catalogue pourra stimuler nos collègues qui nous feront connaître des références utiles dans cette littérature "cachée."

PROCEDURES

Les espèces mentionnées dans cet ouvrage sont rangées dans deux familles: Scolytidae et Platypodidae. Toutes les espèces assignées à ces familles entre 1758 et 1991, ainsi que les synonymes qui nous sont connus sont également incluses. Pour les Scolytidae, l'arrangement des sous-familles, tribus et genres suit la phylogénie de Wood (1986a). Du fait de l'absence de classification récente des Platypodidae, cette famille est présentée selon une hypothèse de phylogénie reposant sur une combinaison de Strohmeier (1914b, 1914c), Schedl (1939p) et les hypothèses de SLW. Les références citées pour le groupe-famille, les sous-familles et tribus ne se prétendent pas exhaustives, mais ne comprennent que les références que nous pensons significatives dans l'étude de la classification supérieure. Les références données pour chaque espèce sont aussi complètes que possible. Comme déjà signalé précédemment, la date limite pour les références est 1989 pour toutes les rubriques, et 1991 pour la systématique et la biogéographie.

Les espèces que nous reconnaissons valides dans chaque genre sont imprimées en caractères gras, par ordre alphabétique avec le nom de leur descripteur. Le nom du descripteur

est suivi en caractères "bas-de-casse" par: (a) l'année de parution et la page à laquelle le nom fut validé pour la première fois dans la nomenclature (la date est celle donnée dans la Partie 1 [Wood & Bright 1987], sans autre considération, même si dans quelques cas nous la savons incorrecte; la plupart de ces divergences sont notées). Quand l'espèce fut originellement décrite dans un autre genre que celui auquel elle est maintenant rattachée, le genre original est donné entre parenthèses () après la pagination et avant le point [.]. (b) Ce point est suivi d'indications sur la catégorie de type sur lequel le taxon est fondé (holotype, lectotype, néotype, syntype), ainsi que le sexe de ce type s'il est connu. Ces informations sur le type sont suivies d'un point-virgule [;]. (c) Ce point-virgule est suivi de la localité typique donnée dans la publication originale. Quand une divergence entre la localité-type publiée et celle portée par les étiquettes du spécimen a été relevée, elle est signalée. Plusieurs auteurs, notamment Schedl, faisaient figurer la totalité des localités des types primaires et secondaires. Dans une telle situation, nous avons également fait figurer l'ensemble de ces localités. Ces renseignements sont suivis d'un point-virgule [;]. Ce point-virgule est suivi d'une indication du lieu de conservation du type tel qu'il a été publié dans la description originale. Quand le lieu de conservation est différent de celui publié, la modification est signalée. Par exemple, plusieurs centaines de types d' Eggers appartenant à la Smithsonian Institution sont actuellement conservés à Vienne (NHMW) (voir ci-dessus les remarques dans le paragraphe "Le cas Schedl"). Les noms de la plupart des institutions où sont déposés les types sont réduits à leurs initiales qui sont suivies du nom de la ville (ou pour Madagascar par le nom de l'île). Les noms complets de ces institutions sont données à la fin de l'introduction. Les noms non abrégés figurent pour les institutions citées peu fréquemment. Les collections personnelles sont citées par le nom de leur propriétaire, suivi du nom de la ville si elle est connue. (c) Quand des lectotypes ont été désignées, le nom, l'année et la page de designation sont données après la virgule suivant les renseignements sur le lieu de dépôt.

En retrait, sous chaque nom d'espèce valide, peuvent apparaître les renseignements suivant: (a) figures: la mention d'une figure est donnée seulement lorsque celle-ci est de qualité

suffisante. Les figures peu significatives et ses citations multiples sont évitées. (b) La distribution géographique est donnée alphabétiquement par pays pour chaque continent qui sont séparés les uns des autres par une barre penchée [/]. Les subdivisions par pays sont séparées par des virgules. Quelques exceptions existent: (1) les îles Bahamas et celles formant la Trinidad sont traitées comme des îles des Antilles et non comme des morceaux des pays voisins; (2) les Îles Shakalines (CEI), les îles de l'archipel nippon, Taiwan et Hong-Kong sont traitées comme des portions de l'Asie; (3) Andaman et Nocobar son considérées comme des morceaux de l'Inde; (4) "Malaya" se rapporte uniquement à la partie continentale de la péninsule et comprend Singapour. Ce terme n'est pas synonyme de "Malaysia;" (5) afin réduire l'espace utilisé par le terme fréquemment publié de "Malayan Archipelago," le terme impropre de "Indonesia" a été utilisé pour couvrir la plus grande partie de l'Indonésie, mais en excluant la totalité de la Nouvelle-Guinée, tout en conservant la "Malaysia" insulaire; (6) les îles africaines sont nommées séparément mais sont rattachées aux pays du continent, sauf Madagascar qui est traité comme un bloc continental. (c) Les plantes-hôtes figurent par ordre alphabétique en suivant les noms scientifiques utilisés par les auteurs cités. Dans la plupart des cas, nous n'avons pas réactualisé la nomenclature botanique ou corrigé les fautes d'impression, sauf quand nous étions très au courant des corrections à apporter sur certain noms. (d) Les publications rentrent dans 3 catégories qui sont désignées par des chiffres: les publications de la Catégorie (1) contiennent des informations concernant la nomenclature; les publications de la Catégorie (2) concernent la synonymie; et les notes de la Catégorie (3) renferment des renseignements provenant des auteurs du présent catalogue et citent les redescriptions, les *nominae nuda*e et d'autres informations de première importance.

Les sous-espèces constituent des races géographiques qui forment des populations distinctes mais qui peuvent chevaucher avec d'autres sous-espèces. Parce que les Scolytidae et les Platypodidae son essentiellement des parasites internes de plantes, ils sont peu sujet (tant qu'ils sont dans leur hôte) aux "stress" environnementaux, de ce fait, les races géographiques sont peu nombreuses dans ces deux familles. Nous n'avons reconnu ici des

sous-espèces que lorsque des travaux suffisamment précis existent pour convaincre les auteurs de la réalité d'une race géographique. De fait, la quasi totalité des sous-espèces décrites par Schedl, et celles de la plupart des auteurs, décrites antérieurement à 1960, sont soit des aberrations qui ne possèdent aucun statut dans la nomenclature ou sont des espèces cryptiques (sibling-species) qui nécessitent une redéfinition de leurs caractères. Les noms des sous-espèces reconnues dans le présent ouvrage sont imprimés en caractères gras ainsi que le nom de leur auteur et sont en retrait par rapport au nom de l'espèce. Quand des sous-espèces sont reconnues, les noms des synonymes de chaque sous-espèce figurent sous le nom en caractère gras auquel elle doivent être rapportées.

Les synonymes son placés en retrait sous le nom valide auxquels ils doivent être rapportées; ils apparaissent en caractères italiques dans l'ordre chronologique de priorité. Les renseignements donnés sur les types de ces synonymes figurent sous la même forme que pour les espèces valides, nous y avons ajouté les citations originales ou significatives pour ce qui concerne la synonymie.

Les *nominae nuda*e qui sont placés en synonymie figurent dans l'index et dans la catégorie Notes (3) sous leur nom valide. Les *nominae nuda*e des espèces dont les affinités spécifiques sont inconnues ne figurent pas dans le catalogue.

Dans les références, sous chaque taxon nominal, figurent les citations publiées dans la littérature. Celles-ci sont regroupées dans les 8 rubriques proposées dans Wood & Bright (1987:16). Ces mentions apparaissent par ordre alphabétique de nom(s) d'auteur(s). Les noms d'auteurs apparaissent comme dans Wood & Bright (1987) et ne tiennent pas compte des signes diacritiques ou des modifications d'orthographe relatives cette absence de signes diacritiques (sauf Dobner =Doebner).

Huit genres qui ne sont connus que comme fossiles figurent dans la catégorie *Incertae Sedis*. Les types de deux genres afrotropicaux actuels, mais perdus, figurent dans cette rubrique, leur position systématique ne pouvant être précisée sans autres information les concernant. Le huitieme genre a été décrit si récemment que nous n'avons pu encore localiser les types.

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Nous sommes reconnaissants aux milliers d'entomologistes qui ont contribué à l'accroissement de nos connaissances sur les Scolytidae et les Platypodidae. Nous avons très sincèrement apprécié l'aide particulière reçue de centaines de bibliothécaires qui nous ont procuré les photocopies d'articles qui nous étaient nécessaires. Nous remercions également les nombreux conservateurs qui ont apporté leur aide dans l'étude de matériaux typiques déposés dans leurs institutions, ainsi que ceux qui nous ont communiqué des matériaux permettant de résoudre de nombreux problèmes taxonomiques.

Nous sommes particulièrement reconnaissants à notre équipe durant les sept années qui furent nécessaires pour mener à bien ce travail, pour les tâches répétitives et souvent lassantes qu'ils ont eu à effectuer. L'équipe à Brigham Young University était composée de Rita Farías Espinel (1 année), Nadja Kummer (1 année), Imelda Lom (1 année), Pilar Pizarro Sweany (3 années) qui nous ont aidé dans "l'extraction" des citations; Carla Jolayne Rice (2 années) pour son travail à l'ordinateur; le Dr. C. Selby Herrin qui eut pendant 7 ans la responsabilité de la préparation des programmes informatiques, la maintenance et l'organisation. L'équipe d'Ottawa comprenait Jennifer Read (4 années) qui s'occupa de la préparation de la bibliographie, Robert E. Skidmore (2 années), assistant principal du projet, Derrik Bell (1 année) spécialiste de la saisie informatique, Larry Spears (2 années), programmeur et consultant.

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Traduit et adapté par J. J. Menier, MNHN, Paris.

EINLEITUNG

Die folgenden Seiten enthalten den ersten ernsthaften Versuch seit Hagedorn (1910d) die Weltfauna der Scolytiden und seit Strohmeier

(1914b, 1914c) die der Platypodiden aufzulisten und zu katalogisieren. Auch ist eine Ergänzung zur Bibliographie beigefügt, die als Band 1 dieses Katalogs erschien, und die Literature bis Ende 1989 erfasst. Zitate der systematischen und biogeographischen Literatur sind bis einschliesslich 1991 angemerkt.

Während der Erstellung dieses Bandes ergab sich eine Reihe von Tatsachen besonderen Interesses, darunter: (a) Der Umfang der biologischen Information war eine Überraschung. Es war erwartet, dass mindestens 20 Prozent der beschriebenen Arten lediglich einmal in Form der Originalbeschreibung zitiert wurden und das weitere 20 Prozent weniger als 5 mal zu finden seien. Ein erster Überblick lässt vermuten, dass weniger als 5 Prozent der Arten nur einmal zitiert wurden und wenig mehr als weitere 5 Prozent der gesamten Zitate weniger als 5 Veröffentlichungen betrafen. (b) Alarmierend ist die Rate, mit der Arten durch den Handel ausserhalb ihres Verbreitungsgebietes verschleppt werden und sich dort vermehren. Nach einem Jahrhundert, in dem kaum eine Art pro Jahrzehnt die USA erreichte, wurden zwischen 1985 und 1989 mindest 6 Arten eingeschleppt; weitere vier 1990 und 1991 zusätzlich drei. Der wirtschaftliche Impakt der eingeschleppten Arten ist bereits fühlbar und wird zunehmen. Die Tatsache, dass sich drei dieser 13 Arten ganz normal bisexuell fortpflanzen, lässt auf fehlerhaften Verfahren bei der Einfuhrkontrolle schliessen und sollte Land- und Forstwirtschaft nachdenklich stimmen. Häufigere und gründlichere Kontrollverfahren für die Entdeckung eingeschleppter Schädlinge sind besonderes in der Nähe von Einfuhrhäften dringend notwendig. Die Verschleppung durch den Handel ist eine weltweite Sorge für alle Nationen, keine ausgenommen. (c) Verbunden mit dieser Sorge ist der Bedarf an besserer Ausbildung und zusätzlichen Forschungsmöglichkeiten für Systematiker in der Entomologie. Uns ist kein junger Specialist bekannt, der sich ernsthaft mit der Taxonomie der Scolytiden oder Platypodiden befasst sei es als Graduiertes oder Berufstätiger irgendwo in der Welt. Die Bestimmung dieser Insekten ist oft ungewöhnlich schwierig und professionelle Kompetenz bedarf einer 10 bis 20 jährigen Erfahrung. Amateure und inkompetente Fachkräfte machen grobe Fehler wie sich aus der Zahl und Verbreitung der in diesem Band aufgeführten

Synonyma ergibt. Dergleichen Fehler können so kostspielig sein, dass jedem schwindlig wird, der die Konsequenzen bedenkt. Dieses Problem bedarf der schnellen und erhöhten Aufmerksamkeit für alle Insektengruppen mit grosser wirtschaftlicher Bedeutung wie den Scolytiden. Alle Borkenkäferarten sind minierende Pflanzenschädlinge und folglich potentielle Vektoren von Pflanzenkrankheiten neben dem direkten Befall der Wirtspflanzen.

SCHEDL UND DIE BORKENKAFER-FORSCHUNG

Dieser Katalog wäre nicht vollständig oder verständlich ohne auf die Methoden und Arbeiten von Karl Eduard Schedl (1898-1979) einzugehen. Für mehr als 50 Jahre war Schedl ein "Hauptfaktor" im Studium der Scolytiden und der Platypodiden. Sein Interesse an Borkenkäfer begann mit 17 Jahren als er das Bohrmehl einer *Ips*-Art in einer Kiefer beobachtete, die im Ersten Weltkrieg über einen Schützengraben gefallen war, in dem er sich befand. Nach dem Krieg studierte er Forstwissenschaften und interessierte sich alsbald für die Systematik. Er veröffentlichte 342 Artikel über die Borkenkäfer-Taxonomie und beschrieb mehr als 2,000 Arten. Obgleich er gelegentlich den Begriff "Evolution" oder andere Termini der Neuen Systematik benutzte, so war sein Konzept vom Artbegriff ein ausschliesslich morphologisches der Vorkriegszeit. Seine Beschreibung von Unterarten beruhte nicht auf geographischen Rassen sondern auf minuziösen Abweichungen von seinem "Typ" (gewöhnlich waren dies lediglich Aberrationen). SLW erzählte er, dass er den "International Code on Zoological Nomenclature" nicht für sich verbindlich halte; er verfuhr deshalb nach eigenen Regeln, die weder aufgeschrieben noch mit Kollegen diskutiert wurden.

Schedl pflegte einem Insekt, das er nicht bestimmen konnte, einen Manuskriptnamen zu geben. Diese Namen blieben oft für Jahrzehnte in seinen Sammlungen bestehen und wurden von ihm oder anderen wiederholt zitiert bevor sie formal beschrieben oder einer früher beschriebenen Art zugeordnet wurden. Eine andere Gepflogenheit, die ihn selbst und andere verwirrte, war die Beschreibung eines "München-Holotyps" und eines "Weibchen-Holotyps" für jede Art. Dieses Verfahren führte

vielfach zur Doppelbeschreibung einer Art (und homonymen Synonyma). Zum Glück veröffentlichte er eine List der Typenmaterials, das sich in seiner Sammlung befand, zunächst für die Platypodiden (Schedl 1978a), später für die Scolytiden (Schedl 1979c). Diese Kataloge sind nur teilweise vollständig führen aber "Holotypen," die Lectotypen und Neotypen in seiner Sammlung auf. Viele der Zuordnungen sind ungültig und sollten deshalb mit Vorsicht benutzt werden. Viele Arten, die er zuvor aus syntypischen Serien benannt hatte, erhielten unkorrekter Weise einen "Holotyp," die meisten Lectotypen werden ohne Hinweis auf die geographische Herkunft oder anderen Daten ihrer Auswahl aufgeführt und u.E. entspricht keiner der Neotypen den Anforderungen des "International Codes."

Um dem Leser den Katalog verständlich zu machen, wäre auch zu erläutern, wie ein bedeutender Teil der Eggers Sammlung in den Besitz Schedl's kam. Gegen Ende des Zweiten Weltkrieges nahm Hans Eggers, seiner Zeit die weltweit anerkannte Autorität auf dem Gebiet der Borkenkäfer, Verbindung mit W. H. Anderson, dem Kurator für Scolytiden und Platypodiden am Smithsonian Institut auf und bot ihm seine Sammlung für \$4,000 an. Das Institut akzeptierte das Angebot und bezahlte Eggers im Voraus. Eggers begann damit die Sammlung zu verpacken und nach Washington zu senden, starb aber bevor ein Drittel der Sammlung unterwegs war. Wegen der militärischen Besetzung Deutschlands und den Reiseschwierigkeiten in Europa zu Kriegsende wurde ein europäischer Entomologe engagiert, der die Versendung der Sammlung abwickeln sollte. Dieser Entomologe war Karl E. Schedl (Anderson, W. H. & Anderson 1971:1-2). Lediglich ein Bruchteil der Eggers Sammlung, die Schedl übergeben war, kam in Washington an, während ein beachtlicher Teil des Typen- und Nichttypenmaterials in Schedl's Sammlung auftauchte.

Schedl (1979c:2) berichtete wie dieser bedeutende Teil der Eggers Sammlung in seine Hände kam. Dasselbe erzählte er SLW im September 1965 in Lienz ausführlicher. Wie aufrichtig Schedl's Bericht auch gewesen sein mag, er steht im Gegensatz zu dem, was Frau (Mrs.) Viktor Butovitsch (Tochter von Hans und Elsa Eggers) bei unterschiedlichen Gelegenheiten L. C. E. Kalshoven und F. G. Browne erzählt hat und SLW berichtet wurde. Ihr

zufolge nahm sich Schedl einfach was er haben wollte. Dokumentierbare Fakten dieser Transaktion sind: (1) Beim Tod ihres Mannes war Elsa Eggers so senil, dass "sie nicht einmal ihre eigenen Namen wusste." Nach Hans Tod war die Tochter ihr gesetzmässiger Vormund und führte all ihre persönlichen Geschäfte, keines betraf die Sammlung oder Schedl. (2) 1952 und wiederum 1961 haben W. H. Anderson und S. L. Wood zusammen eine grössere Zahl (mehr als 20) von (USNM) Leihscheinen des Smithsonian Institut durchgeschickt; auf den maschinen-geschriebenen und unterszeichneten Formularen bestätigt Karl E. Schedl den Empfang von mehreren hundert primären und sekundären Typen, ausgeliehen von der Eggers Sammlung während er sie für den Versand vorbereitete. Der U. S. Militär-Attaché, der Schedl's Verpacken und Sortieren der Sammlung beaufsichtigte, hatte Schedl die Leihscheine auferlegt. Offenbar wusste Schedl aber nicht, dass diese Leihscheine direkt an das Smithsonian Institute gesandt wurden. W. H. Anderson und D. M. Anderson (seinem Nachfolger) zufolge sowie bestätigt durch eigene unabhängige Beobachtungen wurde das Material niemals Washington zurückgegeben. In unserem Katalog werden wiederholt Probleme zitiert die widersprüchliche Angaben über Sammlungsorte betreffen. Ähnliche Probleme bestehen mit nicht zurückgegebenen Ausleihen vom Forest Research Institute, Dehra Dun, vom CSIRO, Canberra, und anderen Institutionen und sind im Katalog erwähnt.

Zum Verständnis der Katalogbenutzer wird im folgenden erläutert wie Schedl in den Besitz eines Dutzend der Eichhoff Typen gelangte. Wie Schedl im September 1965 erzählte, war Schedl zu Ende des Zweiten Weltkrieges Major im deutschen Heer und mit der Bewirtschaftung von Wäldern in den bestzten Gebieten betraut. Als die Ostfront zusammenbrach war Schedl in Polen. Bevor er floh besuchte er das Stettiner Museum wo sich die Dohrn Sammlung befand (die Sammlung enthielt ein Dutzend oder mehr Eichhoff Typen). Als Schedl das Museum erreichte, war es verlassen mit Ausnahme des Kurators für Coleopteren. Gemäss Schedl empfahl ihm der Kurator die Eichhoff Typen, nach denen er gefragt hatte, mitzunehmen und um sein Leben zu rennen. Abgesehen von diesen Exemplaren wurde das Material des Stettiner Museums durch Kriegseinwirkung vernichtet.

MATERIAL UND METHODEN

Wie in der Einleitung zum Teil I des Katalogs (Wood & Bright 1987) erwähnt wurde der Katalog 1946 begonnen, indem SLW anfang Sach- und Autorenregister im Rahmen einer systematischen Erfassung der Scolytiden- und Platypodiden-Literatur aufzustellen. Diese Karteien wurden bis 1980 geführt, sind aber nur bis 1970 einigermaßen vollständig. Diese Karteien wurden durch eine Sammlung von mehr als 100,000 genadelten Exemplaren der Scolytidae und 3,000 Platypodidae sowie eine umfangreiche Duplikatensammlung in Ethanol ergänzt. Das meiste Material, das mehr als 2,000 biologische Arten umschliesst, hat er selbst in Nord- und Sudamerika, Asien, Australien, Europa, Japan, Neu Guinea und Sri Lanka gesammelt. Zusätzlich hat SLW 1960 bis 1990 bestimmte Exemplare mit mehreren grossen Museen sowie mit Browne, Krivolutskaya, Kurenzov, Murayama, Schedl etc. ausgetauscht. Im Austausch gegen einem Teil der Exemplare hat er seit 1945 bis heute für Kollegen eingesandtes Material bestimmt. Um die Bestimmung von Arten authentisch abzusehern hat er Proben mit den primären Typen verglichen beim: AMNH (New York), CAS (San Francisco), MCZ (Cambridge), USNM (Washington), CNCI (Ottawa) in Nordamerika; beim BMNH (London), IZL (St. Petersburg/Leningrad), IZM (Moskau), MZU (Helsinki), MNHN (Paris), NHMW (Wien), Schedl Sammlung (Lienz) in Europa; FRI (Dehra Dun), Nobuchi Sammlung (Ibaraki) in Asien. Auf dem Weg der Ausleihe wurden zahlreiche primäre und sekundäre Typen von vielen anderen Museen und aus privaten Quellen examiniert. Er hat die authentischen Exemplare von etwa zwei Dritteln der aufgeführten Arten untersucht.

DEB wurde mit dem Katalogisieren vertraut als er 1961-1963 als Student mit SLW arbeitete. Sein Interesse verstärkte sich in den 1970ern und beide Autoren vereinigten ihre Kräfte 1981, um diesen Katalog zu schaffen. DEB sammelte weitgehend in Canada, USA, dem nordamerikanischen Mexico und in Borneo. Seit 1966 ist er als Wissenschaftler in der Forschung an der Canadian National Collection of Insects, Arachnids, and Nematodes (CNCI, Ottawa) tätig. Er besuchte zum Studium des Typenmaterials für dieses Projekt und verwandte Forschung die folgenden Museen: CAS

(San Francisco), FMNH (Chicago), MCZ (Cambridge), USNM (Washington), Wood Collection in Nordamerika; BMNH (London), MNHN (Paris), NHMW (Wien) in Europa. Kurzfristige Ausleihen von anderen Museen und aus privaten Quellen dienten der Untersuchung weiterer Ersttypen. Ein Bestimmungsservice, ähnlich dem oben beschriebenen, wurde seit 1966 angeboten.

Um dem Benutzer den Umgang mit Fehlern zu erleichtern, die im Katalog enthalten sein mögen, ist es wichtig zu verstehen, in welcher Prozedur die Aufstellung erfolgte. Die Grundinformation über jedes Taxon im Katalog wurde auf zwei verschiedene Blätter verteilt: (1) Gattungs-Gruppen-Blätter und (2) Blätter der Artengruppen-Kategorie. Auf diesen Blättern wurde auf der einen Seite der Name, Autor(en), Angaben über Type, Aufbewahrungsort, ursprüngliche Gattung, spätere Gattung, Quelle der Originalbeschreibung, gültiger Name des Taxons, Notizen, geographische Verbreitung und Wirtspflanzen aufgeführt. Auf der Rückseite des Blattes wurden mit Handschrift unter jeder der acht, in der Einleitung des Teils 1 erwähnten Kategorien (Wood & Bright 1987:3-16) die Zitate eingetragen. SLW war für die Durchsicht der Literatur von 1758-1959 verantwortlich; er und seine Mitarbeiter arbeiteten im M. L. Bean Life Science Museum, Brigham Young University, Provo, Utah, USA. DEB war für die Literaturdurchsicht von 1960-1989 verantwortlich; er und seine Mitarbeiter waren an der Canadian National Collection of Insects, Arachnids, and Nematodes, Canada Department of Agriculture, Ottawa, Ontario, Canada, tätig.

Bei der Durchsicht der uns zugänglichen Literatur (Wood & Bright 1987, Quellenangaben ohne Stern-Markierung) wählte jeder von uns (SLW und DEB) Namen aus, die im Index erfasst werden sollten, und schrieb Käfernamen, Autor, Publikationsjahr (einschliesslich des zugeordneten Buchstaben) und Seitenzahlen auf Papierschnitzel. Diese Daten wurden von technischen Mitarbeitern auf die Rückseite der oben erwähnten Datenblätter im entsprechenden Gegenstandsbereich übertragen. Viele der Literaturangaben, die noch in dem Band von 1987 mit einem Stern (*) versehen waren, wurden inzwischen gefunden und deren Daten im Index aufgenommen.

Der Erste Autor übertrug; (Item A) die grundsätzlichen taxonomischen Daten und die

Verbreitung von den Datenblättern in einen IBM/PS Model 60-Komputer, der mit anderen Museums-Komputern verbunden war, um die Kapazität zu erhöhen. Jedes nominate Taxon erhielt dann eine Kodexnummer bestehend aus (a) drei Digits für die Identifizierung des Gattungsnamen, (b) drei Digits für den gültigen Artenamen und (c) zwei Digits für die Identifizierung der Unterart oder einer synonymen Bezeichnung. Ein Word-Prozessor-Spezialist fütterte dann mithilfe einer Komputernummer (Item B) alle Zitate eines Taxons in die entsprechende Gegenstandskategorie der Literatur von 1758-1959. Dasselbe Verfahren wurde in Ottawa für das Einbringen aller Zitate von 1960-1989 in einen ähnlichen Komputer (Item C) angewendet. Kopien der Disketten wurden darauf von Ottawa nach Provo gesandt. Der Word-Prozessor Spezialist kombinierte Item B und C, alphabetisierte und redigierte die Zitate. Er übertrug dann die kombinierten B und C Informationen auf Item A um einen Entwurf des vollen Textes des Katalogs ausdrucken zu lassen. Gelegentlich war die Eingabe der richtigen Kodenummer fehlerhaft. Wir hoffen aber, dass wir all diese Fehler gefunden und korrigiert haben. Der Leser sei jedoch darauf hingewiesen, dass vielleicht nicht alle Fehler gefunden wurden.

Daraufhin sah der Erstautor seine taxonomische Kartei durch, die seine Eintragungen von der Originalliteratur mit den Eintragungen ähnlicher Karteien zusammenfasste, die das Smithsonian Institut ihm als Mikrofilm zur Verfügung stellte und 50 Jahre unabhängige Forschungsarbeit in Washington repräsentiert. Die Eintragungen auf dem ersten Ausdruck wurden durchgesehen und durch die Kartei-Eintragungen ergänzt; auf diese Weise wurde der Inhalt des Entwurfs erweitert und verifiziert. Harte Kopien des korrigierten Manuskripts wurden dann jedem Autor zu eingehenden Durchsicht gegeben und Stück für Stück mit dem Originaltext der Datenblätter verglichen. Nach Eintragung dieser Korrekturen erfolgte der endgültige Ausdruck.

Bei der Bearbeitung der Originalartikel wurden Namen oftmals nur auf einem Blatt zitiert, obgleich der Name des Taxons mehrmals in dem Artikel erwähnt wurde. Wir bemerken auch, dass in der ergänzenden Kartei (a) nur die erste Seite des Artikels oder (b) der gesamte Artikel (z.B. p. 1-40), der das Taxon betrifft, genannt wird, wenn in Wirklichkeit der Name

nur einmal auf Seite 34 erwähnt ist. Obgleich dies irreführend sein mag, es gab uns die Möglichkeit definitive Hinweise auf Arbeiten zu geben, die wir nicht einsehen konnten (solche Artikel, die in der Bibliographie mit einem [°] Stern versehen sind).

Die Zuordnung der Artikel zu acht Sachgebieten war zwar eine gute Idee doch nicht so praktisch wie man denken möchte. Viele Publikationen waren einwandfrei einem oder mehreren Sachgebieten zuzuordnen, andere jedoch nicht. Manchmal konnten wir uns über die Zuordnung nicht einigen und bemerkten, dass wir selbst einen gegebenen Artikel an einem Tage so am anderen Tage einem anderen Sachgebiet zuordneten. Bei der Suche nach einer sehr speziellen information sollte man deshalb alle acht Sachgebiete berücksichtigen.

Wir wissen, dass Katalogisieren ein fortdauernder Vorgang ist, zu dem viele beitragen. Die Artikel, die wir gefunden und verarbeitet haben, repräsentieren insgesamt nur jene Literaturstellen, die durch Schlüsselworte auffielen. Es gibt eine grosse Menge Literatur in den Archiven der Ökologie, Forstwirtschaft, Systematik usw., die sehr nützlich wäre doch noch nicht von Katalogen erfasst wurde. Vielleicht stimuliert dieser Katalog Andere zusätzliche informationen aus verborgenen Quellen beizusteuern.

VERFAHREN

Die in diesem Katalog aufgeführten Arten erscheinen unter zwei Familien: Scolytidae und Platypodidae. Soweit uns bekannt, wurden alle Arten, die diesen Familien von 1758 bis 1991 zugeordnet wurden, mit ihren Synonyma aufgenommen. Innerhalb der Familien wurde die Unterfamilie, der Tribus und die Gattung phylogenetisch angeordnet wie bei Wood (1986a) für die Scolytidae. Da es keine neuere Klassifikation für Platypodiden gibt, wurde für diese Familie eine vorläufige Aufstellung vorgenommen, die sich auf Strohmeier (1914b, 1914c), Schedl (1939p) und vorläufige Konzepte von SLW stützt. Die unter Familie, Unterfamilie und Tribus gemachten Literaturhinweise sollen nicht vollständig sein sondern auf solche Arbeiten hinweisen, die für die Entwicklung einer Klassifizierung wichtig sind. Die Literaturhinweise zu jeder Art sind so vollständig wie es uns möglich war. Wie

erwähnt ist das Enddatum für alle Sachgebiete 1989 mit Ausnahme der taxonomischen und geographischen Informationen.

Die Arten innerhalb jeder Gattung, die als gültig anzusehen sind, werden in alphabetischer Reihenfolge mit Autor(en) fettgedruckt aufgeführt. Der Autorenname folgt in gewöhnlicher Schrift nach: (a) Jahr und Site der ersten gültigen Einführung in die Nomenklatur. (Dieses Datum entspricht dem in Teil 1 der Bibliographie dieses Katalogs [Wood & Bright 1987] ohne Berücksichtigung anderer Überlegungen, obgleich dies in einiger Fällen technisch inkorrekt ist; die meisten Widersprüche sind vermerkt.) Wenn eine Art ursprünglich einen anderen Gattungsnamen trug als heute, wird der alte Gattungsname in Klammern nach der Seite und vor dem Punkt (.) genannt. (b) Dem Punkt folgt ein Hinweis auf die Art des Primärtyps, auf dem die Beschreibung des Taxons basiert (Holotyp, Lectotyp, Neotyp, Syntyp) und das Geschlecht soweit bekannt. Die Typeninformation endet mit einem Semikolon (;). (c) Dem Semikolon folgt der Fundort wie in der Originalveröffentlichung angegeben. Widersprüche zwischen publizierten Typenfundort und dem auf dem Etikett angegebenen sind vermerkt. Mehrere Autoren, besonderes Schedl, führen alle Orte auf, von denen sowohl Primär- wie Sekundärtypen kamen; in diesem Fall haben wir alle Fundorte aufgeführt. Die Fundortinformation endet mit einem Semikolon (;). (d) Dem Semikolon folgt die Angabe über die Deponierung der Typen wie sie in der Originalbeschreibung veröffentlicht wurde. Weicht der angegebene Aufbewahrungsort von dem heutigen ab, so wird der Wechsel vermerkt. So befinden sich z.B. heute mehrere hundert der Eggers Typen, die dem Smithsonian Institut gehören, im NHMW, Wien (s. die Bemerkungen unter "Schedl und die Borkenkäferforschung"). Die Namen der meisten Deponierungsorte sind auf die Anfangsbuchstaben beschränkt; dieser Bezeichnung folgt der Ortsname (oder für Madagascar der Name der Insel). Die vollständigen Namen der Deponierungsorte sind am Ende der Einleitung aufgeführt. Die vollen Namen der gelegentlich zitierten Deponierungsorte sind ausgeschrieben. Private Sammlungen sind mit dem Namen des Eigentümers bezeichnet, gefolgt vom Ortsnamen soweit bekannt. (e) Wurden Lectotypen ausgeworfen, folgen Name, Jahr und Seite

dieser Lectotypendesignierung einem Komma (.) nach der Angabe von Sammlung und Ortsnamen.

Unter jedem gültigen Artnamen mag eingetragen sein: (a) Abbildungen: Auf Abbildungen wird nur hingewiesen, wenn sie in geeigneter Güte vorliegen. Abbildungen geringerer Qualität und Mehrfachzitate wurden vermieden. (b) Die geographische Verbreitung wird alphabetisch innerhalb eines Kontinents mit Schrägstrichen (/) zwischen den Kontinenten angegeben. Landesteile sind durch ein Komma (,) getrennt. Einige Abweichungen von den üblichen geographischen Bezeichnungen sind: (1) die Bahamas und Trinidad werden als Antillen behandelt, nicht als Teile der angrenzenden Kontinente; (2) Sachalin (Russland), die japanischen Inseln, Taiwan und Hong Kong wurden als Teil Asiens behandelt; (3) die Andamanen und Nikobaren als Teil Indiens; (4) Malaya bezeichnet nur die kontinentale Halbinsel und schliesst Singapur ein, es ist nicht synonym mit Malaysia; (5) um Platz für das häufig zitierte malayische Archipel zu behalten, wurde die ungenaue Bezeichnung "Indonesien" benutzt. Es schliesst fast ganz Indonesien ohne New Guinea und das insulare Malaysien ein; und (6) afrikanische Inseln wurden getrennt aufgeführt aber mit den afrikanischen Ländern zusammengefasst, während Madagaskar als separate Landmasse behandelt wird. (c) Wirtspflanzen werden alphabetisch mit dem wissenschaftlichen Namen angegeben, den die Autoren in ihren Artikeln benutzen. In den meisten Fällen haben wir davon abgesehen die Nomenklatur zu ändern oder orthographische Fehler zu korrigieren, es sei, wir waren mit dem Namen völlig vertraut. (d) Mit Nummern versehene Bemerkungen gehören drei Kategorien an: Kategorie (1), die Information betrifft die Nomenklatur; Kategorie (2), die Bemerkungen betreffen Synonyma; und Kategorie (3), die Bemerkungen enthalten wichtige Mitteilungen der Autoren dieses Katalogs für den Leser und zitieren Wiederbeschreibungen, nomina nuda und andere wichtige Informationen.

Unterarten sind geographische Rassen, die eigene Populationen bilden sich aber mit anderen Unterarten vermischen können. Da Borken- und Ambrosiakäfer als subcorticale Parasiten in der Wirtspflanze sehr begrenztem Umweltstress ausgesetzt sind, treten geographische Rassen in diesen Familien seltener auf. Unterarten werden hier nur bestätigt, wenn

fundierte Untersuchungen die Autoren von der tatsächlichen Existenz einer geographischen Rasse überzeugen. Fast alle der Schedl'schen Unterarten und jene der meisten anderen Autoren vor 1960 sind entweder Aberrationen ohne Nomenklaturstatus oder "cryptic (or sibling)" Arten, also gute Arten, denen offensichtliche diagnostische Merkmale fehlen. Die Namen der anerkannten Unterarten und ihrer Autoren sind fett gedruckt und unter dem Namen der Art eingesetzt, zu der sie gehören.

Synonyma sind unter dem gültigen Namen genannt, zu dem sie gehören; sie sind nach ihrer chronologischen Priorität kursiv wiedergegeben. Die Angaben über ihre Typen sind entsprechend dem gültigen Artennamen aufgelistet, unter dem sie vereint wurden. Wir haben das Originalzitat und andere wichtigen Hinweise hinzugefügt, welche die Synonymie etablieren.

Nomina nuda sind im Index und in den Kategorie (3) Bemerkungen unter dem gültigen Namen vermerkt. Die Nomina nuda unbekannter Artenzuordnung wurden aus diesem Katalog herausgelassen.

Unter "References" befinden sich die Literaturhinweise unter jedem Taxon. Diese sind unter acht Sachgebieten angeordnet wie in Wood & Bright (1987:16) beschrieben. Die Anordnung dieser Zitate ist alphabetisch nach Autorennamen. Autorennamen werden wie in Wood & Bright (1987) unter Weglassung diakritischer Zeichen oder orthographischer Anpassung buchstabiert mit Ausnahme des Umlauts (Dobner = Doebner).

Acht Gattungen, von denen fünf nur als Fossil bekannt sind, werden in der Kategorie *Incerta Sedis* genannt. Die Typen von zwei lebenden Gattungen kamen von Afrika und gingen verloren. Ihre Platzierung bedarf weiterer Informationen. Die achte Gattung wurde so kurzlich beschrieben, dass wir keine Zeit hatten die Typen zu lokalisieren.

DANKSAGUNGEN

Dieser Teil des Katalogs ist ein Index der Arbeit Anderer. Wir anerkennen und schätzen die Anstrengungen Tausender von Autoren, die Beiträge zur Kenntnis der Scolytiden und Platypodiden geleistet haben. Wir fühlen uns tief für die Hilfe verpflichtet, die wir von Hunderten von Bibliothekaren erfahren haben; sie bemühten sich uns Fotokopien der

benötigten Arbeiten zu besorgen. Wir danken auch vielen Kuratoren von Sammlungen, die uns bei der Prüfung des Typenmaterials in ihren Museen halfen oder solches ausliehen. Dies hat uns geholfen zahlreiche taxonomische Probleme zu lösen.

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INTRODUCCIÓN

Las páginas que siguen contienen el primer intento serio de relacionar y catalogar la fauna mundial de Scolytidae desde Hagedorn (1910d) y de Platypodidae desde Strohmeier (1914b, 1914c). También se incluye un suplemento a la bibliografía que constituyó la 1ª Parte de este catálogo, que pone al día las referencias bibliográficas hasta el año 1989 inclusive. Las citas de artículos taxonómicos y biogeográficos incluyen hasta 1991.

Entre los temas de especial interés, o en las que nos hemos visto particularmente implicados, podemos mencionar: (a) La cantidad de información biológica conocida resultó sorprendente. Se consideraba que al menos un 20% de todas las especies nominadas habrían

sido citadas solamente una vez aparte de la descripción original, y que otro 20% habrían sido citadas menos de 5 veces. Una revisión superficial sugiere que las especies citadas sólo una vez representan menos del 5% del total, y que aquellas citadas menos de 5 veces sólo representan un porcentaje ligeramente superior a otro 5%. (b) Los niveles de transporte de especies a través del comercio, estableciéndose poblaciones reproductoras en áreas extradistribucionales del planeta, debería ser un tema preocupante a nivel mundial. Después de un siglo en que las especies que llegaban a los Estados Unidos superaban escasamente una por década, entre 1985 y 1989 se establecieron al menos seis especies, cuatro especies más fueron registradas en 1990, y tres más en 1991. El impacto económico de estas especies introducidas ya se está percibiendo y se incrementará. El hecho de que tres de esas trece especies se reproduzcan por la vía bisexual normal sugiere que existen lagunas significativas en los procedimientos de inspección de plantas en los puertos de entrada. Ello debería ser un tema de gran importancia en los campos agrícola y forestal. Se precisan urgentemente controles más profundo y más rigurosos, diseñados para detectar especies introducidas, especialmente en la vecindad de los puertos de entrada más importantes. Los patrones de dispersión de este tipo, a través del comercio, tienen una implicación mundial y conciernen a todos los países, sin excepción. (c) Un punto estrechamente relacionado con el anterior es la necesidad de un adiestramiento en mayor profundidad, y más oportunidades de investigación, para los taxónomos de insectos que se hallan en periodo de formación. Cualquier taxónomo joven y serio, especialista en Scolytidae y Platypodidae, ya sea en la Universidad o en un servicio profesional en cualquier parte del mundo, resulta prácticamente ignorado. Pero la identificación de estos insectos a menudo es particularmente difícil, y llegar a alcanzar una competencia profesional requiere de 10 a 20 años de experiencia en el tema. Los aficionados y los especialistas pobremente adiestrados, con frecuencia cometen errores serios de criterio, como lo muestran el número y la repartición de los sinónimos recogidos en este volumen. Con frecuencia esos errores son tan lamentables que llegan a asustar a cualquiera que estudie sus consecuencias. Este problema requiere una atención inmediata

en todos aquellos grupos que, como los Scolytidae, tienen enormes implicaciones económicas. Todas las especies de Scolytidae son parásitos endógenos de plantas y, en consecuencia, constituyen vectores potenciales de enfermedades de plantas o bien enemigos directos de la planta hospedante.

SCHEDL Y LOS SCOLYTIDAE

Este catálogo no estaría completo, o incluso sería incomprensible, sin un breve comentario acerca de los métodos y de las actividades de Karl Eduard Schedl (1898-1979). Durante más de 50 años, Schedl ejerció una gran influencia en el estudio de los Scolytidae y de los Platypodidae. Se interesó en los Scolytidae a la edad de 17 años, durante la Primera Guerra Mundial, cuando observó los vestigios del ataque de una especie de *Ips* en un pino caído sobre la trinchera donde se hallaba refugiado. Después de la guerra, recibió una formación en ecología forestal y poco después pasó a interesarse en la sistemática. Publicó 342 artículos sobre taxonomía de escolítidos, y fue el autor de más de 2.000 especies nominadas. Aunque ocasionalmente utilizó la palabra "evolucion" y otros términos adoptados de la Sistemática Moderna, su concepto de especie fue enteramente morfológico, en el sentido asumido antes de 1940. Su utilización de la designación de subespecies no era en el sentido de una raza geográfica, sino en el de cualquier minúscula desviación morfológica de su "tipo" (en general no eran más que aberraciones). Le explicó a SLW que no aceptaba el Código Internacional de Nomenclatura Zoológica como vinculante para él; por esta razón, formuló su propio código de nomenclatura, el cual no fue nunca escrito o debatido con otros colegas.

Schedl tenía la costumbre de poner nombres inéditos a aquellos ejemplares que no podía identificar. Esos nombres a menudo permanecían en su colección durante décadas y fueron citados repetidamente en la literatura, tanto por el propio Schedl como por otros autores, antes de que fueran descritos formalmente o bien asociados con especies previamente nominadas. Otra costumbre que llevaba a confusión, tanto para él como para sus colegas, era que reconocía un "holotipo macho" y un "holotipo hembra" para cada especie. En numerosas ocasiones esta costumbre ha conducido a descripciones dobles de especies (y

al establecimiento de sinónimos y homónimos). Afortunadamente, publicó una lista del material típico de Platypodidae de su colección (Schedl 1978a) y, más tarde, un volumen similar dedicado a los Scolytidae (Schedl 1979c). Estos catálogos sólo son parcialmente completos, pero dan una relación de "holotipos," lectotipos y neotipos de su colección. Muchas de esas designaciones no son válidas y, en consecuencia, deberían usarse con cautela. Se mencionan "holotipos" en muchas de las especies que había nominado previamente a partir de series sintípicas, muchos de los lectotipos se relacionan sin indicar el origen geográfico o los datos en los que se basa la elección de los mismos, y, en nuestra opinión, ninguno de los neotipos cumple los requisitos del Código.

Para una mejor comprensión de este catálogo es necesario explicar el sistema por el cual Schedl consignó una porción significativa de la colección de Eggers. Hacia el final de la Segunda Guerra Mundial, Hans Eggers, reconocido como la autoridad mundial en Scolytidae en esta época, contactó con W. H. Anderson, conservador de Scolytidae y Platypodidae en el Smithsonian Institution, y ofreció vender su colección a esa institución por 4.000 dólares. El Smithsonian Institution aceptó la oferta y pagó por adelantado a Eggers la cantidad total estipulada. Eggers empezó a embalar y a remitir la colección a Washington, pero murió habiendo enviado menos de un tercio de la misma. A causa de la ocupación militar de Alemania y de las dificultades para viajar por Europa a finales de la guerra, un entomólogo europeo se encargó de completar el embalaje y envió de la colección. Ese entomólogo fue Karl E. Schedl (Anderson, W. H. & Anderson 1971:1-2). Solamente una porción de la parte de la colección puesta bajo la tutela de Schedl llegó a Washington, mientras que una parte sustancial del material, tanto típico como no típico, apareció en la colección de Schedl.

Schedl (1979c:2) publicó el relato de cómo llegó a sus manos esta porción significativa de la colección de Eggers. Este mismo relato, aunque mucho más detallado, se lo contó a SLW en Lienz, en Septiembre de 1965. Sin embargo, por muy sincera que haya sido esta explicación, se contradice con lo relatado por la Sra. Butovitsch (esposa de Viktor Butovitsch e hija de Hans y de Elsa Eggers) en ocasiones diferentes a L. G. E. Kalshoven y F. G. Browne y referido a SLW. Según este relato, Schedl simplemente

tomó lo que precisaba para su propio uso. En relación con este asunto, los hechos documentados son: (1) Cuando su marido murió, Elsa Eggers se hallaba en estado semil, hasta el punto de que "incluso no sabía cual era su propio nombre." Después de la muerte de Hans, su hija era su representante legal y gestionaba todos sus asuntos personales, ninguno de los cuales tenía relación con la colección o de Dr. Schedl. (2) En 1952, y de nuevo en 1961, W. H. Anderson y S. L. Wood examinaron y repasaron conjuntamente una gran cantidad (más de 20) de hojas de préstamo del Smithsonian Institution (USNM), mecanografiadas a simple espacio y firmadas por Karl E. Schedl reconociendo haber recibido cientos de tipos primarios y secundarios sacados de la Colección Eggers mientras Schedl preparaba la misma para su envío. Dichas hojas de préstamo fueron firmadas por Schedl a instancias del agregado militar americano que supervisó el embalaje y la preparación de la colección. Aparentemente, Schedl ignoraba que esas hojas fueron enviadas directamente al Smithsonian Institution. Según W. H. Anderson y D. M. Anderson (su sucesor), estos materiales no fueron nunca devueltos a Washington, lo cual confirma las observaciones propias hechas independientemente. En nuestro catálogo, se cita repetidamente las diferentes explicaciones relacionadas con la problemática sobre el depósito de los materiales. A lo largo del catálogo también se citan problemas similares de préstamos no devueltos y pertenecientes al Forest Research Institute, Dehra Dun, y al CSIRO, Canberra.

La explicación que sigue es para que el lector comprenda como una docena de tipos de Eichhoff llegaron a la colección de Schedl. Según contó Schedl a SLW en Septiembre de 1965, cerca del final de la Segunda Guerra Mundial, Schedl era comandante del ejército alemán y tenía ciertas responsabilidades en la gestión de bosques de los países ocupados por Alemania. Schedl se hallaba en Polonia cuando cayó el frente del Este y, antes de efectuar la retirada, pasó por el Stettin Museum, donde se conservaba la colección Dohrn (la cual incluía una docena o más de tipos de Eichhoff). Cuando Schedl llegó, el museo había sido abandonado por casi todo el personal excepto por el conservador de Coleoptera, el cual estaba a punto de marcharse. Según Schedl, cuando le pregunto al conservador por los tipos de Eichhoff, éste le

dijo que los tomara y seguidamente huyó para salvarse. A excepción de estos ejemplares, los materiales del Stettin Museum fueron destruidos por la guerra.

MATERIAL Y MÉTODOS

Como ya se mencionó en la Introducción de la 1^a Parte de este catálogo (Wood & Bright 1987), los inicios del mismo tuvieron lugar en 1946, cuando SLW empezó a confeccionar fichas taxonómicas y de autores, en conjunción con una búsqueda sistemática de la literatura sobre Scolytidae y Platypodidae a nivel mundial. Esas fichas se hallan suplementadas por una colección de más de 100.000 ejemplares de Scolytidae y 3.000 de Platypodidae montados, y por una gran colección de material duplicado conservado en etanol. Gran parte de este material, incluyendo más de 2.000 especies biológicas, fue recolectado por él mismo en Norteamérica, Sudamérica, Asia, Australia, Europa, Japón, Nueva Guinea y Sri Lanka. Además, entre 1960 y 1990, SLW intercambió ejemplares identificados con diversos museos importantes y con Browne, Krivolutskaya, Kurenzov, Murayama, Schedl, etc. Ha proporcionado un servicio de identificación a colegas profesionales, recibiendo a cambio una parte de los ejemplares recibidos para estudio desde 1945 hasta la actualidad. Con el fin de confirmar la identificación de las especies, ha seleccionado ejemplares comparados directamente con tipos primarios en el AMNH (New York), CAS (San Francisco), MCZ (Cambridge), USNM (Washington), CNCI (Ottawa) en Norteamérica; BMNH (London), IZL (Leningrad/St. Petersburg), IZM (Moscow), MZU (Helsinki), MNHN (Paris), MHNW (Wien), Colección Schedl (Lienz) en Europa; FRI (Dehra Dun), Colección Nobuchi (Ibaraki) en Asia. Numerosos tipos primarios y secundarios han sido examinados a través de préstamos de corta duración facilitados por otros museos y de fuentes privadas. Ha examinado ejemplares confirmados de unos dos tercios de las especies nominadas que se relacionan más adelante.

DEB se familiarizó con los métodos de catalogación durante 1961-1963, mientras trabajaba con SLW como postgraduado. Este interés se incrementó durante la década de 1970, y en 1981 ambos autores unieron sus esfuerzos para recopilar este catálogo. DEB ha realizado colecciones exhaustivas en Canadá,

Estados Unidos y México, por lo que se refiere a Norteamérica, así como en Borneo. Ha sido investigador científico en la Canadian National Collection of Insects, Arachnids and Nematodes (CNCI, Ottawa) desde 1966. Con el fin de estudiar material típico para este proyecto e investigaciones relacionadas, ha visitado los siguientes museos: CAS (San Francisco), FMNH (Chicago), MCZ (Cambridge), USNM (Washington) y Colección Wood, por lo que se refiere a Norteamérica; BMNH (London), MNHN (Paris) y NHMW (Wien), en Europa. Numerosos tipos primarios adicionales han sido examinados a través de préstamos de corta duración de otros museos y de fuentes privadas. Desde 1966 ha proporcionado un servicio de identificación similar al descrito anteriormente.

En aras de una mayor comprensión y para que el usuario pueda enfrentarse de manera efectiva con los errores que puedan hallarse en este catálogo, es esencial que se entiendan los métodos seguidos en su recopilación. La información básica de cada taxón que se incluye en el catálogo ha sido organizada en hojas de datos de dos tipos: (1) hojas de datos a nivel de género, y (2) hojas de datos a nivel de especie. En esas hojas, el nombre del autor(es), datos del tipo, lugar de depósito, género original, género subsiguiente, fuente de la descripción original, nombre válido del taxón, notas, distribución geográfica, y hospedantes, se anotaban en una cara de la hoja. Al reverso de la misma se escribían a mano las citas en cada una de las ocho categorías mencionadas en la 1ª Parte de este catálogo (Wood & Bright 1987:3-16). SLW se responsabilizó de revisar la literatura publicada entre 1758 y 1959; junto con su equipo, en el M. L. Bean Life Science Museum, Brigham Young University, Provo, Utah, Estados Unidos. DEB se responsabilizó de revisar la literatura desde 1960 a 1989; junto con su equipo, en la Canadian Collection of Insects, Arachnids and Nematodes, Canada Department of Agriculture, Ottawa, Ontario, Canada.

Durante la revisión de la literatura a que tuvimos acceso (Wood & Bright 1987, referencias no marcadas con un [*] asterisco), cada uno de nosotros (SLW y DEB) extrajo los nombres para ser incluidos en los índices y anotó sobre papel los nombres de los coleópteros, autor, año de publicación (incluyendo letras suplementarias), y número de páginas. Después, el equipo técnico copiaba estos datos en el reverso de las hojas antes mencionadas,

sobre las áreas temáticas apropiadas de las mismas. Muchas de las referencias marcadas con un asterisco (*) en el volumen de 1987 had sido localizadas posteriormente y los datos se han incluido en los índices.

El primer autor registró: (Conjunto A) la información básica taxonómica y distribución de los coleópteros en las hojas de datos, en una ordenadora IBM/PS2 Modelo 60, conectado por una red informática con las ordenadoras del museo para ampliar su capacidad. A cada taxón nominado se le asignó un número de código basado en (a) tres dígitos para identificar el nombre genérico, (b) tres dígitos para identificar el nombre válido específico, y (c) dos dígitos para identificar las subespecies o sinónimos. Después, un especialista en proceso de textos entró mediante notación de ordenadora (Conjunto B) todas las citas de cada taxón en las áreas temáticas apropiadas, recogidas en la literatura publicada entre 1758 y 1959. El mismo procedimiento fue seguido en Ottawa, entrando todas las citas entre 1960 y 1989 en una ordenadora similar (Conjunto C). Desde Ottawa se enviaron a Provo copias de los disquettes con los datos conjuntamente con una copia sobre papel del contenido de los mismos. El especialista en proceso de textos combinó entonces los Conjuntos B y C, editó en orden alfabético las citas y, a continuación, transfirió la combinación de los Conjuntos B y C al Conjunto A, obteniendo un primer borrador del texto completo del catálogo. En escasas ocasiones se había producido un error al introducir el número de código apropiado. Confiamos en haber detectado y corregido todos esos errores, pero el usuario debe estar advertido de que quizá nos ha pasado desapercibido alguno de ellos.

En esta fase, el primer autor revisó sus fichas taxonómicas, compuestas de datos de la literatura original y suplementadas con datos de fichas similares microfilmadas por el Smithsonian Institution por encargo suyo, y que representaba 50 años de investigación llevada a cabo independientemente en Washington. A continuación, las entradas del primer borrador de la base de datos fueron revisadas y se suplementaron con las entradas de las fichas, con lo cual se ampliaron y se verificaron. Seguidamente se prepararon copias sobre papel del manuscrito corregido para cada autor, para hacer una revisión detallada, contrastándolo punto por punto con las hojas de datos orig-

inales. Después de entrar las correcciones pertinentes se preparó el borrador final.

En la revisión de los artículos originales, los nombres a menudo eran citados en una sola página, incluso aunque el nombre del taxón en cuestión apareciera muchas veces en el artículo. Conviene también mencionar que al usar las fichas suplementarias, los recopiladores que prepararon esas fichas podían citar (a) sólo la primera página del artículo, o (b) el artículo completo (por ejemplo, páginas 1-40) correspondiente a un taxón en cuestión, mientras que, en realidad, el nombre se citaba una sola vez en la página 34. Incluso aunque esto pueda resultar equivoco, nos permitió citar referencias concretas de numerosos artículos que no pudimos examinar (aquellos marcados con un [*] asterisco en la bibliografía).

La asignación de los artículos a una de las ocho áreas temáticas, aunque es una buena idea, no resultó tan práctica como suponíamos. Muchos de los artículos publicados eran claramente asignables a una o más áreas temáticas definidas, pero otros no. A veces discrepábamos sobre la asignación apropiada e incluso acontecía que un día asignábamos un artículo dado a una área temática y al día siguiente los asignábamos a otra distinta. Se deberían considerar las ocho áreas cuando se esté revisando la literatura de un tema específico.

Somos plenamente conscientes de que la tarea de catalogación es un proceso continuo al que muchos contribuyen. La mayoría de los artículos que hemos localizado y revisado representan sólo parte de la literatura en que las palabras clave atrajeron la atención de los revisores. Existe una gran cantidad de literatura diluida en los archivos de ecología, temas forestales, sistemática, etc., que debe ser muy útil, pero que no ha captado la atención de los catalogadores. Este catálogo tal vez estimulará a otros a contribuir con información adicional procedente de esas fuentes.

PROCEDIMIENTO

Las especies contenidas en este catálogo se reparten en dos familias: Scolytidae y Platypodidae. Se incluyen todas las especies asignadas a estas familias desde 1758 hasta 1991 y los sinónimos que conocemos de las mismas. Dentro de cada familia las subfamilias, tribus y géneros se han ordenado filogenéticamente, a la manera presentada por Wood (1986a) para los

Scolytidae. Dado que no hay una clasificación moderna disponible de Platypodidae, esta familia se ha organizado siguiendo una ordenación filogenética tentativa basada en una combinación de las de Strohmeier (1914b, 1914c), Schedl (1939p) y en conceptos tentativos de SLW. Las referencias que se relacionan en los niveles de familia, subfamilia y tribu no pretenden ser exhaustivas, sino incluir sólo aquellos trabajos que se han considerado relevantes para el desarrollo de la clasificación del grupo. Las citas de referencias que se incluyen en cada especie son tan completas como lo han permitido nuestras fuentes. Como ya hemos indicado, se ha llegado hasta el año 1989 en el caso de todas las áreas temáticas, excepto para los datos taxonómicos y geográficos.

Las especies de cada género que aquí se consideran como válidas, se relacionan en negrita y en orden alfabético, con el autor correspondiente. El nombre del autor va seguido, en letra redonda, de (a) el año y la página en que el nombre fue validado nomenclatorialmente por vez primera (esta fecha es la que se corresponde con la bibliografía de la 1^a Parte de este catálogo: Wood & Bright 1987) independientemente de otras consideraciones y, en algunos casos, se sabe que es técnicamente incorrecta; se mencionan numerosas discrepancias de este tipo. Cuando la especie fue originalmente nominada bajo un género distinto del que ahora se le asigna, este género original se menciona entre paréntesis, seguido del número de página y de un punto [.]. (b) El punto va seguido de una indicación de la clase de tipo primario sobre el que se basa el taxón (holotipo, lectotipo, neotipo, sintipo) y del sexo del mismo, si se conoce. La información concerniente al tipo se cierra con un punto y coma [;]. (c) Al punto y coma sigue la localidad típica, tal como viene dada en la publicación original. Cuando se ha observado una discrepancia entre la localidad típica publicada y la que aparece en las etiquetas del tipo, se menciona dicho cambio. Algunos autores, particularmente Schedl, relacionaron la totalidad de las localidades de donde provenían todos los tipos, primarios y secundarios; en estos casos se han relacionado todas las localidades. La información de la localidad tipo se cierra con un punto y coma [;]. (d) Al punto y coma sigue la designación del depósito del tipo, tal y como aparece en la descripción original. Cuando el lugar de depósito designado es diferente del lugar donde

se halla actualmente el tipo, se menciona el cambio. Por ejemplo, varios cientos de tipos de Eggers que pertenecen en el Smithsonian Institution se hallan actualmente en el MHNW, Wien (veanse los comentarios del apartado "Schedl y los Scolytidae"). Los nombres de numerosas instituciones de depósito de tipos se abrevian con las iniciales de las mismas, seguidas del nombre de la ciudad (o, como en el caso de Madagascar, por el nombre de una isla). Los nombres completos se relacionan al final de esta Introducción. Cuando se trata de instituciones escasamente citadas, se menciona el nombre completo. Las colecciones personales se citan con el nombre del propietario, seguido del nombre de la ciudad, si se conoce. (e) Cuando se han designado lectotipos, se indica el nombre, el año y la página de designación del lectotipo en cuestión, sigue una coma y el nombre de la institución y la ciudad.

Debajo de cada nombre específico válido, aparece seguidamente la siguiente información: (a) Figuras: sólo se mencionan citas de figuras cuando son de buena calidad. Se han evitado las citas a figuras de calidad mediocre, así como una excesiva proliferación de citas. (b) La distribución geográfica se da en orden alfabético por países de un continente dado, uno a continuación de otro pero separados por barras [/]. Las subdivisiones dentro de un país se han separado con comas. Incluimos en esta sección unos cuantos casos que se apartan de las designaciones geográficas ordinarias: (1) las islas Bahamas y la isla Trinidad son tratadas como islas pertenecientes a las Antillas, no como parte de sus continentes adyacentes; (2) la isla Sakhalin (USSR), el archipiélago de Japón, Taiwan y Hong Kong son tratadas como formando parte de Asia; (3) las islas de Andaman y Nicobar se tratan como parte de la India; (4) Malaya indica solamente la península continental e incluye Singapur, no es sinónima de Malasia; (5) con el fin de ahorrar espacio en el caso del archipiélago Malayo, que se cita con mucha frecuencia, se ha empleado la imprecisa designación "Indonesia" que incluye la mayor parte de Indonesia y Malasia insular, pero excluye Nueva Guinea; y (6) las islas africanas se relacionan separadamente pero incorporadas en la lista de países africanos; se exceptúa Madagascar por ser tratada como una masa continental aparte. En muchos casos no hemos actualizado la nomenclatura o no hemos corregido los errores de los nombres de los hospedantes, a

menos que se tratara de nombres muy familiares. (d) Las notas se dividen en tres categorías que se designan con números: las notas de la categoría (1) incluyen información especialmente relacionada con la nomenclatura; las notas de la categoría (2) se refieren a la sinonimia; y las notas de la categoría (3) contienen mensajes de los autores del presente catálogo para el lector que son de especial significación, y citan redescriptiones, *nominae nuda*e y otras informaciones de importancia.

Las subespecies son razas geográficas que forman poblaciones diferenciadas y que pueden integrarse con otras poblaciones. Dado que los escolítidos y los platypódidos son esencialmente parásitos endógenos de plantas, y que mientras se hallan en el interior del hospedante están sujetos a presiones ambientales muy limitadas, las razas geográficas son poco frecuentes en esas familias. En este catálogo sólo se reconocen subespecies cuando se han hecho estudios lo suficientemente profundos como para convencer a los autores de que existen razas geográficas reconocibles. Casi todas las subespecies de Schedl, y las de muchos otros autores anteriores a 1960, son, o bien aberraciones sin categoría nomenclatorial formal, o bien especies crípticas (o gemelas), es decir, buenas especies que no tienen caracteres diagnósticos obvios. Los nombres de las subespecies reconocidas aquí, con los autores correspondientes, se presentan en negrita y seguidos debajo del nombre de la especie a la que pertenecen. Cuando se reconocen subespecies, los nombres de los sinónimos se relacionan debajo del nombre en negrita de la subespecie a que pertenecen.

Los sinónimos se sitúan debajo, y seguido, del nombre válido al cual pertenecen; se indican en cursivas y en orden cronológico. Los datos de sus tipos se relacionan como en el caso de los nombres de especies válidas, además se añade la cita original y otras referencias relevantes que conciernen al establecimiento de la sinonimia.

Los *nominae nuda*e que han sido citados como sinónimos se relacionan en el índice y en las notas de la categoría (3), bajo los nombres válidos. En el presente trabajo los *nominae nuda*e de los que no se conoce su afinidad con alguna especie han sido omitidos.

Bajo el subtítulo de "References" debajo de cada taxón nominado, se presentan las citas bibliográficas. Dichas citas se organizan en las ocho áreas temáticas descritas por Wood & Bright (1987:16), y están ordenadas alfabéti-

camente por el nombre del autor(es). Los nombres de los autores se deletrean como en Wood & Bright (1987) y excluyen signos diacríticos o cambios de letras usadas para compensar dichos signos (excepto Dobner = Doebner).

Ocho géneros, cinco de los cuales sólo se conocen como fósiles, se relacionan en la categoría *Incertae Sedis*. Los tipos de dos géneros actuales que se incluyen en esta categoría procedían de África y se han perdido. Su ubicación deberá aguardar información adicional. El octavo género had sido nominado tan recientemente que no hemos tenido tiempo de localizar los tipos.

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Esta parte del catálogo es un índice del trabajo hecho por otros. Reconocemos y apreciamos los esfuerzos de cientos de autores que han contribuido a la ampliación de nuestros conocimientos sobre Scolytidae y Platypodidae. Apreciamos sinceramente la ayuda recibida de cientos de bibliotecarios que han puesto especial empeño en proporcionarnos fotocopias de los artículos que necesitábamos consultar. También agradecemos a los numerosos conservadores de colecciones el que nos ayudaran cuando examinábamos material típico de sus museos, y a aquellos que gestionaron los préstamos que nos permitieron resolver numerosos problemas taxonómicos.

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MUSEUMS CITED

LIST OF MUSEUMS CITED BY ACRONYMS

AMNH	New York	American Museum of Natural History
BMNH	London	British Museum of Natural History
BPBM	Honolulu	B. P. Bishop Museum
CAS	San Francisco	California Academy of Science
CNCI	Ottawa	Canadian National Collection of Insects, Arachnids, and Nematodes
CSIRO	Canberra	Commonwealth Scientific and Industrial Research Organization
DZSA	Sao Paulo	Departamento de Zoologia, Secretaria da Agricultura
FMNH	Chicago	Field Museum of Natural History
FRI	Dehra Dun	Forest Research Institute
IPKE	Eberswalde	Institut für Pflanzenschutzforschung Kleinmachnow (Strohmeier Collection)
IRSM	Madagascar	Institut de Recherche Scientifique de Madagascar, Tananarive
IRSNB	Brussels	Institut Royal des Sciences Naturelles de Belgique
ISBN	Novosibirsk	Institute of Soil Biology, Academy of Science, Far Eastern Branch
IZAS	Beijing	Institute of Zoology, Academia Sinica
IZL	Leningrad	Institute of Zoology at Leningrad (St. Petersburg)
IZM	Moscow	Institute of Zoology at Moscow
IZW	Warsaw	Institute of Zoology at Warszawa
LACM	Los Angeles	Los Angeles County Museum
MACN	Buenos Aires	Museo Argentino de Ciencias Naturales
MCG	Genova	Museo Civico Genova
MCZ	Cambridge	Museum of Comparative Zoology
MHNB	Bukarest	Museum d'Histoire Naturelle Bukarest
MHNG	Geneve	Museum d'Histoire Naturelle
MNB	Berlin	Museum für Naturkunde der Humboldt University at Berlin
MNHN	Paris	Museum National d'Histoire Naturelle
MRCB	Tervuren	Musee Royal du Congo Belgique

MZU	Helsinki	Museum Zoologicum Universitatis	Bukarest	MHNB	Museum d'Histoire Naturelle Bukarest
MZUSP	Sao Paulo	Museum de Zoologie, Universidade de Sao Paulo	Budapest	NHMB	Naturhistorisches Museum Budapest
NHMB	Budapest	Naturhistorisches Museum Budapest	Cambridge	MCZ	Museum of Comparative Zoology
NHMBS	Basel	Naturhistorischen Museum	Canberra	CSIRO	Commonwealth Scientific and Industrial Research Organization
NHML	Luxemburg	Museum d'Histoire Naturelle du Gran-Duche de Luxemburg	Chicago	FMNH	Field Museum of Natural History
NHMW	Wien	Naturhistorisches Museum Wien	Columbus	OSUC	Ohio State University Collection, USA
NHR	Stockholm	Naturhistoriska Riksmusset	Copenhagen	UZMC	Universitets Zoologiske Museum
NICP	Pretoria	National Insect Collection, Plant Protection Research Institute	Dehra Dun	FRI	Forest Research Institute
NMHN	Santiago	Museo Nacional de Historia Natural	Dresden	SMTD	Staatliches Museum fur Tierkunde in Dresden
NMV	Melbourne	National Museum of Victoria	Eberswalde	IPKE	Institut fur Pflanzenschutzforschung Kleinmachnow (Strohmeier Collection)
Nobuchi	Ibaraki	Nobuchi Collection, now at Insect Museum, National Institute of Agro-Environmental Sciences, Yatabe, Tukuba, Ibaraki 305, Japan	Eberswalde	ZIFH	Zoologische Institut der Forstliche Hochschule
OSUC	Columbus	Ohio State University Collection, USA	Geneve	MHNG	Museum d'Histoire Naturelle
PPST	Tokyo	Plant Protection Station	Genova	MCG	Museo Civico Genova
RCFS	Stockholm	Royal College of Forestry	Helsinki	MZU	Museum Zoologicum Universitatis, Helsinki
RNI	Leiden	Rijksmuseum van Natuurlijke Historie	Honolulu	BPBM	B. P. Bishop Museum
SAM	Adelaide	South Australian Museum	Ibaraki	Nobuchi	Nobuchi Collection
SMUK	Lawrence	Snow Museum at University of Kansas	Lawrence	SMUK	Snow Museum at University of Kansas
SMTD	Dresden	Staatliches Museum fur Tierkunde	Leiden	RNH	Rijksmuseum van Natuurlijke Historie, Leiden
Strohmeier	Eberswalde	Institut fur Pflanzenschutzforschung Kleinmachnow	Leningrad	IZL	Institute of Zoology at Leningrad
TMP	Pretoria	Transvaal Museum	London	BMNH	British Museum of Natural History
USNM	Washington	United States National Museum	Los Angeles	LACM	Los Angeles County Museum
UZI	Upsalla	Universitets Zoologiska Institut	Lund	ZIDSU	Zoological Institute, Department of Systematics, Lund University
UZMC	Copenhagen	Universitets Zoologisk Museum	Luxemburg	NHML	Museum d'Histoire Naturelle du Gran-Duche de Luxemburg
Wood	Washington	The S. L. Wood Collection will be transferred to USNM, Washington about 1994; until then it is in his office	Madagascar	IRSM	Institut de Recherche Scientifique de Madagascar
ZIDSU	Lund	Zoological Institute, Department of Systematics, Lund University	Melbourne	NMV	National Museum of Victoria
ZIFH	Eberswalde	Zoologische Institut der Forstliche Hochschule	Moscow	IZM	Institute of Zoology at Moscow
ZMA	Amsterdam	Zoological Museum	Munchen	ZSSM	Zoologischen Staatssammlung des Bayerischen Staates
ZSSM	Munchen	Zoologischen Staatssammlung des Bayerischen Staates	New York	AMNH	American Museum of Natural History
			Novosibirsk	ISBN	Institute of Soil Biology, Academy of Science, Far Eastern Branch
			Ottawa	CNCI	Canadian National Collection of Insects, Arachnids, and Nematodes
			Paris	MNHN	Museum National d'Histoire Naturelle
			Pretoria	NICP	National Insect Collection, Plant Protection Research Institute
			Pretoria	TMP	Transvaal Museum
			San Francisco	CAS	California Academy of Science
			Santiago	NMHN	Museo Nacional de Historia Natural
			Sao Paulo	DZSA	Departamento de Zoologia, Secretaria da Agricultura
			Sao Paulo	MZUSP	Museum de Zoologie, Universidade Sao Paulo
			Stockholm	NHR	Naturhistoriska Riksmusset
			Stockholm	RCFS	Royal College of Forestry, Stockholm

LIST OF MUSEUMS CITED BY CITY

Adelaide	SAM	South Australian Museum
Amsterdam	ZMA	Zoological Museum, Amsterdam
Basel	NHMBS	Naturhistorischen Museum
Beijing	IZAS	Institute of Zoology, Academia Sinica
Berlin	MNB	Museum fur Naturkunde der Humboldt University at Berlin
Brussels	IRSNB	Institut Royal des Sciences Naturelles de Belgique
Buenos Aires	MACN	Museo Argentino de Ciencias Naturales

Tervuren	MRCB	Musee Royal du Congo Belgique
Tokyo	PPST	Plant Protection Station
Upsalla	UZI	Universitets Zoologiska Institut
Warsaw	IZW	Institute of Zoology, Warszawa
Washington	USNM	United States National Museum
Wien	NHMW	Naturhistorisches Museum Wien

KEY TO SUBJECT AREAS

(ay) = Anatomy, physiology, genetics, etc.

(bv) = Behavior, including all aspects of the study of pheromones.

(cn) = Surveys, manipulation of populations, economic damage, risk-ratings, epidemics, insecticides, chemical or cultural control, economic impact, quarantine; excluded is biological control.

(ec) = Predators, parasites, biological control, effect of weather and climate, disease agents or vectors, competition, interaction with fungi, interspecific competition.

(hb) = Habits, life cycle, host selection, population dynamics.

(ds) = Geographical distribution, host distribution, faunal lists, all references to fossils.

(tx) = Nomenclature, classification, keys for identification, taxonomic descriptions when those descriptions are a major feature, phylogeny.

(ms) = Reviews, articles about scientists, laboratory or field techniques, marginal or non-science articles; chemical synthesis of pheromones is identified as (bv ms).

Catalog of Scolytidae

Family Scolytidae Latreille

Notes: The following is a list of significant contributions to knowledge of higher classification in this family. This list is not intended to include all published references on this topic.

Dermestes (part)

References: Bechstein 1805; DeGeer 1775; Linnaeus 1758, 1767a.

Bostrichus (part)

References: Fabricius 1775, 1787, 1792.

Bostrichidae (division Xylophaga)

References: Altum 1874, 1881; Eichhoff 1864b: 17–48, 1868d; Erichson 1836: 45; Herbst 1793: 111; Latreille 1807: 275; Paykull 1800: 153; Redtenbacher 1845: 36; Westwood 1836.

Scolytus

References: Geoffroy 1762.

Scolytidarii

References: Latreille 1807: 273.

Scolytidae (also includes the French term Scolytides)

References: Balachowsky 1949a: 1–320; Barbey 1901: 1–124; Bargmann 1906; Bau 1888: 382; Beal & Massey 1945: 57; Bedel 1888b: 385; Beeson 1941 (1961: 279–310); Blackwelder 1947: 777–788; Blandford 1894d: 53–141, 1895a: 315–328, 1895b: 81–96, 1896e: 97–144, 1897a: 145–184, 1898b: 224, 1904: 225–281, 1905: 281–298; Blatchley & Leng 1916: 576; Bright 1972: 1–108, 1978: 1–241; Brimblecombe 1953: 1–39; Broun 1880: 537; Browne 1961c: 1–255; Brues & Melander 1932: 444, 446; Chamberlin 1939, 1958; Chapuis 1869: 1–61, 1873: 209–269; Costa Lima 1956: 272; Eichhoff 1868, 1877, 1878b, 1881a; Endrodi 1959: 1–96; Everts 1899: 2–6; Felt 1903; Ferrari 1867a; Fitch 1956a: 38–39; Ganglbauer 1903; Gemminger & Harold 1872: 669; Handlirsch 1825: 690; Hansen, V. 1939, 1955, 1956; Hess 1898, 1900; Hopkins 1914, 1915b, 1915c: 165, 224–225; Judeich & Nitsche 1883, 1895; Kalshoven 1958b, 1960c, 1963; Kaston 1936; Keen 1929, 1938, 1952; Kholodkovskii 1888: 181, 1889; Kirby 1837: 191–197; Krivolutsкая 1956, 1958; Kurenzov 1941a; Kurenzov & Kononov 1961; Lacordaire 1866: 149, 356; Latreille 1807: 273; LeConte 1876: 341; LeConte & Horn 1883: 512; Lekander 1962a, 1968; Leng 1920: 337; Lindemann 1875c: 151, 1877c; Lovendal 1889b: 5–6, 1898; Lucas 1920: 57; Mamaeva 1975: 187; Murayama 1954b, 1963b; Niisima 1910a; Nobuchi 1985c: 1–32; Perkins 1900; Perris 1853, 1863; Pfeffer 1955a: 1–324; Ratzeburg 1837, 1839; Reitter 1894a, 1913a, 1916; Schedl 1959n, 1961k, 1962k, 1977b; Schimitschek 1937c; Stark, V. N. 1952; Stebbing 1914; Swaine 1909, 1918a:

1–143; Wood, S. L. 1961a, 1978a, 1982b, 1986; Wood, S. L. & Bright 1987.

Ipidae

References: Blackman 1922: 1–130, 18 pls.; Cecconi 1906; Csiki 1906: 77; Eggers 1904, 1932b, 1943c; Escherich 1897: 229–239; Fuchs 1904: 253; Ganglbauer 1902: 311; Hagedorn 1910a, 1910b; Kleine 1908, 1939; Nusslin 1882, 1911, 1912; Reitter 1906: 707; Swaine 1909; Verhoff 1896.

Tomocidae (Based on the erroneous concept that *Tomicus* = *Ips*)

References: Bau 1888: 385; Boas 1923; Eichhoff 1878b: 210; Henschel 1861, 1876a; Lacordaire 1866: 357, 372; LeConte 1876: 345; Lindemann 1876: 151; Thomson 1859: 145, 1865: 345; Wollaston 1854: 288.

Eccoptogasteridae

References: Tredl 1907: 4.

Subfamily Hylesininae Erichson

Hylesinus

References: Fabricius 1801.

Hylesinen

References: Erichson 1836: 46.

Hylesini

References: Barbey 1901: 17; Karaman 1972: 55; LeConte 1876: 345; Redtenbacher 1849a: familie 37.

Hylesinina

References: Thomson 1859: 146, 1865: 347.

Hylesinides

References: Blandford 1896e: 142; Ferrari 1867a: 3; Lacordaire 1866: 357; Nusslin 1912.

Hylesinidae (used as a subfamily name)

References: Bau 1888: 379; Chapuis 1869: 15, 1873: 223; Lindemann 1876: 151.

Hylesininae [subfamily]

References: Bright 1978: 40; Hagedorn 1909: 162, 1910a: 24, 35, 1910d: 7; Hopkins 1915c: 225; Leng 1920: 337–338; Lovendal 1889b: 6; Nusslin 1911: 428; Tredl 1907: 8; Wood, S. L. 1972a: 397–399, 1978a: 107, 1982b: 56, 1986: 29.

Hylesinini [tribe]

References: Bedel 1888b: 388; Eichhoff 1880: 33–34, 1883a: 99; Handlirsch 1925: 691; Jacquelin du Val & Fairmaire 1868: 109; Numberg 1954: 14; Reitter 1894: 39, 1913a: 27, 31; Spessivtsev 1913a: 28; Wood, S. L. 1978a: 111, 1982b: 108, 1986: 36.

Hylesinae

References: Lucas 1820: 32.

Tribe Hylastini LeConte

Hylastes

References: LeConte 1876: 357; LeConte & Horn 1883: 521.

Hylastides

References: Barbey 1901: 18; Nusslin 1912: 273.

Hylastini

References: Lucas 1920: 32; Murayama 1963b: 47; Nobuchi 1985c: 4; Reitter 1913a: 27, 49; Wood, S. L. 1978a: 110, 1982b: 79, 1986: 34.

Hylurgopina

References: Balachowsky 1949a: 122; Nunberg 1954: 15.

Genus *Scierus* LeConte

SCIERUS LECONTE 1876: 390. Type-species: *Scierus annectens* LeConte, monobasic.

Keys: Bright 1976d: 41, Wood 1982b: 79.

References: (ay) Nobuchi 1969a: 51. (hb) Bright & Stark 1973: 21; Wood, S. L. 1982b: 79, 1986a: 35. (ds) Bright 1976d: 41; Bright & Stark 1973: 21; Hagedorn 1910d: 7; Leng 1920: 338; Wood, S. L. 1982b: 79–82, 1986a: 35. (tx) Arnett 1960: 1034, 1041, 1968: 1034, 1041; Bedel 1888b: 389, 409; Blatchley & Leng 1916: 665; Bright 1976d: 41; Bright & Stark 1973: 21; Bruck 1936a: 42; Chamberlin 1939: 190, 1958: 97–98; Hagedorn 1910a: 43, 1910d: 7; LeConte 1876: 390; LeConte & Horn 1883: 525; Lucas 1920: 584; Stewart, K. W. 1965: 924–927; Swaine 1909: 144, 1918a: 44, 1924f: 287; Wood, S. L. 1961a: 42, 1982b: 79–82, 1986a: 35.

annectens LeConte 1876: 390. Lectotype, sex²; Anticosta Island, Quebec, Canada; MCZ, Cambridge, designated by Wood 1982b: 81.

Figures: Bright 1976d: 200, 205 (adult), Stewart 1965: 926 (galleries).

Distribution: North America (Alaska/ Alberta, British Columbia, New Brunswick, Newfoundland, Northwest Territories, Ontario, Prince Edward Island, Quebec in Canada/ Arizona, California, Colorado, Idaho, Maine, Montana, New Hampshire, New Mexico, Oregon, Utah, Washington in USA).

Hosts: *Picea engelmannii*, *Picea glauca*, *P. sp.*, rarely *Pinus contorta*, *Pseudotsuga menziesii*.

References: (ay) Stewart, K. W. 1965. (cn) Beckwith 1972; Keen 1938: 128; Lindgren 1980a: 70; Massey & Wygant 1954: 21; Ruppel 1967: 87; Schuder 1969: 76; Smith, G. J. & Melvin 1974b. (ce) Furniss, R. L. & Carolin 1977: 374; Keen 1938: 128; Knight 1961b; Massey & Wygant 1954: 21; Stewart, K. W. 1965; Swaine 1924d: 9; Werner & Holsten 1984. (hb) Bright 1976d: 41; Bright & Stark 1973: 21; Chamberlin 1939: 190, 1958: 97; Furniss, R. L. & Carolin 1977: 374; Keen 1938: 128; Knight 1961b; Lindgren 1980a: 70; Massey & Wygant 1954: 21; Stewart, K. W. 1965; Swaine

1909: 44, 1918a: 73, 1924: 927; Watson 1928: 620; Wood, S. L. 1982b: 80. (ds) Ashworth 1977; Beaulne 1956; Beckwith 1972a; Bedel 1888b: 388; Blatchley & Leng 1916: 665; Bright 1964: 170, 1971a: 125, 1976d: 41; Bright & Stark 1973: 21; Chamberlin 1925, 1939: 190, 1958: 97; Dodge 1938: 31; Elias 1982b, 1983, 1985: 39; Furniss, R. L. & Carolin 1977: 374; Gantreau 1974: 6; Gantreau & Melvin 1974: 14; Hagedorn 1910d: 8; Henshaw 1882: 269, 1885: 149; Hopping 1922; Keen 1929a: 22, 1938: 128; Kleine 1914b: 409, 1934a: 127; Kusch 1967; Leng 1920: 338; Miller, R. F., Morgan, & Hicock 1955: 501; Morgan, A. V. & Morgan 1980: 1110; Patterson & Hatch 1945: 150; Ruppel 1967: 87; Schuder 1969: 76; Schwert et al. 1985; Smith, G. J. & Melvin 1974b; Stewart, K. W. 1965; Still, Tidsbury, & Melvin 1974a; Swaine 1909: 144; Swaine et al. 1924: 1–27; Werner & Holsten 1984; Wood, S. L. 1951a: 127, 1969c: 116, 1972a: 399, 1982b: 80. (tx) Beckwith 1972a; Benoit 1985: 235; Blatchley & Leng 1916: 665; Bright 1976d: 41, 200, 205; Bruck 1936a; Chamberlin 1939: 190, 1958: 97; Dodge 1938; Hagedorn 1910a: 45; Hopkins 1901b: 33, 1914: 129; Keen 1929a: 22; Kusch 1967; LeConte 1876: 390; Pardy 1974, 1977, 1983; Swaine 1909: 144, 1918a: 73, 1924f: 287; Titus, Meikle, & Harrison 1985: 115; Wood, S. L. 1972a: 399, 1982b: 80.

pubescens Swaine 1924f: 287. Holotype ♀; Jasper Park, Alberta, Canada; CNCI, Ottawa.

Distribution: North America (Alaska/ Alberta, British Columbia, Yukon in Canada/ Colorado, Idaho, Montana in USA).

Hosts: *Abies lasiocarpa*, *Picea engelmannii*.

References: (bv) Furniss, M. M., Baker, & Hostetler 1976: 1300. (cn) Lindgren 1980a: 70; Ruppel 1967: 87. (cc) Werner & Holsten 1984. (hb) Bright 1976d: 43; Chamberlin 1939: 190, 1958: 98; Furniss, R. L. & Carolin 1977: 374; Lindgren 1980a: 70; Ruppel 1967: 87. (ds) Bright 1976d: 43; Chamberlin 1925, 1939: 190, 1958: 97; Elias 1985: 39; Furniss, R. L. & Carolin 1977: 374; Gast et al. 1989: 381; Kleine 1934a: 127; Leng & Mutchler 1927: 51; Ruppel 1967: 87; Werner & Holsten 1984; Wood, S. L. 1972a: 399, 1982b: 81. (tx) Bruck 1936a; Bright 1967b: 679, 1976b: 43; Chamberlin 1939: 190, 1958: 98; Furniss, R. L. & Carolin 1977: 374; de Ruelle 1970: 113; Swaine 1924f: 287; Wood, S. L. 1972a: 399, 1982b: 81.

Genus *Hylurgops* LeConte

HYLURGOPS LECONTE 1876: 359. Type-species: *Hylastes pinifex* Fitch, subsequent designation by Hopkins 1914: 123.

Hylesinites Germar 1813: 15. Type-species: *Hylesinites electricus* Germar, monobasic. Synonymy: Schedl 1947a: 23.

References: **(tx)** Germar 1813: 15; Schedl 1947a: 23.

Hylastites Hagedorn 1906: 117. Type-species: *Hylastites schellwieni* Hagedorn, monobasic. Synonymy: Schedl 1947a: 24.

References: **(tx)** Hagedorn 1906: 117; Schedl 1947a: 24.

Myelophilites Hagedorn 1906: 118. Type-species: *Myelophilites dubius* Hagedorn, monobasic. Synonymy: Schedl 1947a: 22.

References: **(tx)** Hagedorn 1906: 118; Schedl 1947a: 22.

Hylescierites Schedl 1947a: 29. Type-species: *Hylescierites granulatus* Schedl, monobasic. Synonymy: Wood 1986c: 266.

References: **(tx)** Schedl 1947a: 29; Wood, S. L. 1986c: 266.

Keys: Murayama 1963b: 56 for Japan; Pfeffer 1944b: 104 for Europe; Tsai & Huang 1964b: 237 for China; Blandford 1896e: 144, Bright 1976d: 43, Wood 1982b: 82 for North America.

References: **(ay)** Nobuchi 1969a: 49; Schonherr 1970b: 309. **(bv)** Chararas, Deaveau, & Kogane-Charles 1960: 921–923; Schonherr 1970b: 309; Wood, S. L. 1892b: 82. **(cc)** Nickle 1976b. **(hb)** Bright & Stark 1973: 22; Escherich 1923b: 480; Postner 1974: 396; Saalas 1914: 72, 78; Wood, S. L. 1982b: 79–82, 1986a: 35. **(ds)** Bright & Stark 1973: 22; Chamberlin 1939: 204–208, 1958: 118–120; Hagedorn 1910d: 7; Leng 1920: 339; Patterson 1945: 151; Scheerpeltz & Winkler 1930: 256; Swaine 1918a: 80–81; Wood, S. L. 1982b: 79–82, 1986a: 35. **(tx)** Arnett 1960: 1034, 1041, 1968: 1034, 1041; Balachowsky 1949a: 122; Beal & Massey 1945: 44, 92; Bedel 1888b: 389, 408; Blandford 1896e: 144; Blatchley & Leng 1916: 666–667; Bright 1976d: 43–47; Bright & Stark 1973: 22; Bruck 1936a: 43; Chamberlin 1939: 204–208, 1958: 118–120; Choo 1983: 54; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 17; Escherich 1923b: 480; Fitch 1858; Hagedorn 1910d: 7; Hopkins 1914: 123; Karaman 1971: 1–178; Kostin 1973: 1–247; LeConte 1876: 389; LeConte & Horn 1883: 525; Leng 1920: 339; Lucas 1920: 343; Munro 1926: 1–27; Murayama 1963b: 55–62; Nunberg 1954: 21; Pfeffer 1944b: 97, 104, 1955: 118–120, 1989a: 36; Postner 1974: 396; Reitter 1913a: 49–51; Saalas 1914: 72, 78; Schedl 1947a: 22, 1952a: 448; Scheerpeltz & Winkler 1930: 256; Schmitschek 1937: 44–48; Spessivtsev 1922: 460–461, 1931: 24, 84; Stark 1952: 196–207; Stresemann et al. 1989: 353; Swaine 1909: 113, 1913: 87–92, 1918a: 80–81; Tsai & Huang 1964b: 235–241; Wood, S. L. 1961: 42, 1982b: 82–93, 1986a: 35; Yin & Huang 1981: 556.

batnensis (Brisout) 1883: 146 (*Hylastes*). Syntypes, sex?; Algeria; not given. Figures: Grune 1979: 48.

Distribution: Africa (Algeria/ Morocco), Europe (Hungary/ Italy/ Romania).

Hosts: *Cedrus atlantica*.

References: **(bv)** Grune 1979: 49. **(cc)** Peyerimhoff 1934: 52; Pfeffer 1960. **(ds)** Brisout de Barnville 1883: 146; Grune 1979: 49; Hagedorn 1910d: 8; Kleine 1912b: 162, 1914a: 16, 1934a: 126; Kocher 1953: 133; Peyerimhoff 1933b: 363, 1934: 52; Pfeffer 1947d: 128, 1960; Pittioni 1943: 176; Reitter 1894a: 60, 1916: 283; Schaufuss 1915: 12. **(tx)** Balachowsky 1949a: 130; Brisout de Barnville 1883: 146; Eggers 1914: 89–90; Endrodi 1973: 233; Grune 1979: 48, 49; Hagedorn 1910a: 45; Pfeffer 1944b: 100, 1955a: 107; Postner 1974: 396; Reitter 1894a: 60, 1913a: 51, 1916: 283; Schedl 1934f: 1636, 1968c, 1979c: 35.

gergeri Eggers 1911a: 119 (*Hylastes*). Holotype, sex?; Hungariae meridionalis loco Oravicza; Eggers Collection, in NHMW, Wien. Synonymy: Eggers 1933a: 97.

References: **(cc)** Pfeffer 1955b: 84. **(ds)** Endrodi 1958b; Kleine 1912b: 162, 1913a: 34; Luigioni 1929: 994; Nunberg 1954: 20; Pfeffer 1989a: 38; Schaufuss 1915: 127. **(tx)** Eggers 1911a: 119, 1912: 49, 1914: 39–40, 1933a: 97, 1933f: 2; Endrodi 1957a: 307, 1957b: 412, 1973: 233; Luigioni 1929: 994; Nunberg 1954: 20; Pfeffer 1944b: 100, 1955a: 110; Reitter 1913a: 51; Schedl 1934f: 1636, 1979c: 103.

fallax Wichmann 1911a: 100. Syntypes?; Vallombrosa (bei Florence), Italy; not located; article not seen. Synonymy: Schedl 1934f: 1636, Pfeffer 1944b: 100.

References: **(tx)** Eggers 1912a: 49, 1914: 89–90; Endrodi 1957: 412; Pfeffer 1944b: 100; Reitter 1913a: 51; Schedl 1934f: 1636; Wichmann 1911a: 100.

bouvouloiri (Chapuis) 1869: 22 (*Hylastes*). Syntypes, sex?; Algeria; IRSNB, Brussels.

Distribution: Africa (Algeria).

Hosts: *Cedrus atlantica*.

References: **(cc)** Pfeffer 1960. **(hb)** Peyerimhoff 1926: 385. **(ds)** Hagedorn 1910d: 8; Kleine 1912b: 166, 1914b: 166; Peyerimhoff 1926: 385, 1933b: 363; Pfeffer 1935: 159, 1947d: 128, 1960; Reitter 1894a: 63; Schedl 1971d: 426. **(tx)** Chapuis 1869: 22, 1873: 130; Gemminger & Harold 1872: 2669; Hagedorn 1910a: 45; Pfeffer 1944b: 102; Reitter 1894a: 62, 1913a: 50; Schedl 1934f: 1635.

◦ *corpulentus* Schedl 1947a: 27. Holotype, sex?; fossil in Baltic amber; Geologisch-Palaontologische Inst. Albertus Univ., Königsberg.

Figures: Schedl 1947a: 27–28 (adult).

Distribution: Europe (fossil in Baltic amber).

References: **(ds)** Spahr 1981. **(tx)** Schedl 1947a: 16, 27.

- **dubius (Hagedorn)** 1906: 118 (*Myelophilites*). Holotype, sex?; fossil in Baltic amber; Geologisch-Palaeontologische Inst. Albertus Univ., Königsgberg. Figures: Schedl 1947a: 25 (adult). Distribution: Europe (fossil in Baltic amber). Notes: (1) Schedl 1947a: 24 (to *Hylurgops*). (3) Schedl 1947a: 24 (redescribed). References: (ds) Hagedorn 1907a, 1907b, 1910d: 13; Keilbach 1982: 255; Kleine 1912a: 163, 1912b: 169; Krausse 1920: 169, 175; Spahr 1981. (tx) Hagedorn 1906: 118, 1907a, 1907b, 1910a: 56; Hopkins 1914: 125; Keler 1928: 25; Krausse 1920: 169, 175; Schedl 1947a: 15–16, 22, 24. (ms) Keilbach 1982: 255.
- **electricus (Germar)** 1813: 15 (*Hylesinities*). Holotype, sex?; fossil in Baltic amber; not located. Distribution: Europe (fossil in Baltic amber). Notes: (3) Schedl 1947a: 23 (original description quoted). References: (ds) Germar 1813; Giebel 1856: 148; Hagedorn 1907a, 1910d: 16; Handlirsche 1908; Keilbach 1982: 255; Kleine 1912a: 163, 1912b: 170; Schlechtendal 1888: 486; Scudder 1891: 540; Spahr 1981. (tx) Germar 1813: 15; Giebel 1856: 148; Hagedorn 1910a: 48; Hopkins 1914: 123; Keler 1927a: 22; Schlechtendal 1888: 486; Schedl 1947a: 23. (ms) Keilbach 1982: 255.
- eusulcatus Tsai & Huang** 1964b: 239, 241. Holotype ♂; Miyalo, Szechuan, China; IZAS, Beijing. Distribution: Asia (Sichuan, Yunnan in China). Hosts: *Abies delavayi*, *Picea asperata*. References: (tx) Tsai & Huang 1964b: 239, 241.
- glabratus (Zetterstedt)** 1828: 343 (*Hylurgus*). Holotype, sex?; Lapponia (Sweden); not located. Figures: Balachowsky 1949a: 123, Chararas 1962c: 402, Stark 1952: 196 (adult). Distribution: Asia (Heilongjiang in China/ Japan/ Korea/ Taiwan/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Czechoslovakia/ Denmark/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Spain/ Sweden/ Switzerland/ W USSR). Hosts: *Pinus cembra*, *P. montana*, *P. mugo*, *P. silvestris*, *P. spp.*, rare *Abies alba*, *A. spp.*, *Cedrus* sp., *Larix* spp., *Picea excelsa*, *P. jezoensis*, *P. koraiensis*, *P. obovata*. References: (ay) Escherich 1923b: 429, 480, 568; Fuchs 1912a; Klimesch 1914: 215; Lekander 1959b: 31; Marcu 1933a: 36; Nunberg 1928a: 140; Sherb 1971; Schwerdtfeger 1929: 404. (bv) Adlung 1960: 430–435; Annila 1975: 8–9; Barr, B. A. 1969: 641; Butovitsch 1971; Crone 1979: 53; Nuorteva 1956c: 23; Tragardh 1930b: 106; Vasechko 1978a. (cn) Anonymous 1929c: 644; Dudich 1946; Eckstein 1926: 577; Eidmann 1965c, 1973; Escherich 1923b: 429, 480, 568; Esterberg 1959; Gabler 1955; Grandi 1951; Hess & Beck 1914: 259, 1927: 320; Inouye 1949a: 13, 104, 1949b, 1949c, 1955; Inouye & Yamaguchi 1955a: 235; Ishikura 1966; Joly 1976; Judeich & Nitsche 1895: 447, 523; Juutinen 1960: 22; Kholodkovskii 1912: 286; Kontkanen 1932: 60; Kozikowsky 1929: 255; Kurenzov 1935c: 188, 1950a: 15; Marcu 1926c: 62; Mokrzecki 1925c: 44; Muller 1912: 185; Nilssen 1978a; Nosek 1951: 105, 1952b: 100; Nusslin 1913: 205; Oda, Kato, & Nobuchi 1964; Pfeffer 1948a: 800, 1950c: 2; Pierce, W. D. 1917: 81; Rhumbler 1922: 279, 1927: 291; Saalas 1949: 341, 364; Sajejve 1928: 329; Schimitschek 1935a: 202, 1937c: 48, 1938b: 114, 119, 1947g: 168, 1952a: 208, 1955b: 100, 1955c: 78, 1961a: 154; Schuster 1918: 102; Schwerdtfeger 1944a: 179, 1957a: 184; Sinreich 1961: 166; Smith, J. B. 1900: 365; Spaic 1956: 88; Strohmeier 1950: 21; Tragardh & Butovitsch 1936: 578; Vasechko 1964; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 354; Wilke 1931: 583, 657–674. (ce) Adeli 1964: 397; Annila 1975: 11, 1977; Balazy & Michalski 1964b; Bovey 1970; Butovitsch 1971; Chararas 1957a, 1958b, 1959c, 1959e, 1959g, 1960a: 31; Eidmann 1965c; Felt 1906: 665; Galoux 1947c; Gyorfi 1941b; Heqvist 1963: 151; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 64; Jahn & Sinreich 1960b; Kangas 1946b: 23; Karpinski 1932a: 107; Kleine 1908c: 181, 1944: 69; Kosariyevskaya & Mamajev 1962: 450–451; Kostin 1960: 104; Kurenzov 1964: 20; Nechleba 1928b: 126, 1928c: 111, 1929a: 26; Nestertschuk 1930: 163; Nishiguchi 1959: 271; Nosek 1951: 105, 1952b: 100; Nunberg 1930: 202; Nuorteva 1956a: 17, 1957b: 68, 1959d: 203, 1968a, 1970, 1971: 69–71; Nusslin 1927: 291; Palmén 1946: 194; Pfeffer 1932a: 13, 1943b: 180, 1950c: 2; Purrini 1977a, 1978a; Saalas 1917a: 18, 1928: 650, 1930: 119, 1949: 341, 346, 1951: 15; Schimitschek 1930a: 281, 329, 1931b: 487, 1935a: 202, 1936a: 559, 1952a: 208, 1953b: 532, 1955a: 67, 69, 1955c: 78, 1964e; Schuster 1918: 102; Schwerdtfeger 1929: 404, 1944a: 179, 1957a: 184; Seitner 1913a: 27; Sitowski 1930: 2; Szczepanski 1960a: 410; Thompson, W. R. 1943: 52; Wiackowski 1957a: 80; Wilke 1931: 583, 657–674. (hb) Adlung 1960: 430–435; Annila 1977; Anonymous 1929c: 644; Barbey 1901: 45; Budkov 1897; Byers 1984a; Chararas 1958a, 1959c: 113–129, 1959g: 215–233, 1960a: 35, 1982c: 402; Charvat 1950; Dombrowski 1887; Eckstein 1897, 1926: 577; Eichhoff 1881a: 36, 91, 1882a: 241; Escherich 1923b: 429, 480, 568; Felt 1906: 665; Fuchs 1907: 38; Gabler 1955; Gornostaev 1916: 310; Grandi 1951; Gyorfi 1957; Hennings 1908b, 1908d; Henschel 1882b, 1885b, 1895a: 135; Hess & Beck 1914: 259, 1927: 320; Inouye et al. 1955: 64; Joly 1976; Judeich & Nitsche 1895: 447, 523; Karpinski & Strawinski 1948: 154; Kholodkovskii 1912: 286; Knoche 1905: 364; Kostin 1960: 131; Krivolutskaya 1956: 829, 1960; Kurenzov 1935a: 20, 26, 1948b: 104,

- 1950d: 198; Lekander 1959b: 31; Lengerken 1939: 39, 1954: 76; Morstatt 1924: 12; Niisima 1908: 18; Nilssen 1984; Numberg 1929c: 119, 1947c: 106; Nuorteva 1956c: 23, 1968a, 1970; Nusslin 1898: 277, 1904: 13, 1905a: 89, 1907: 613, 1913: 205, 1927: 291; Oiu & Hua 1958: 266; Pfeffer 1941c: 4; Postner 1974: 396; Rhumbler 1922: 279, 1927: 291; Rupertsberger 1880: 225; Saalas 1913a: 68, 78, 1949: 341, 364, 1951: 15; Schimitschek 1930a: 281, 329, 1955a: 67, 69; Schwedtfeger 1929: 404, 1944a: 179, 1957a: 184, 1981: 190; Simmel 1919b: 108; Spessivtsev 1913a: 65, 1928a: 221; Stark 1926a: 332, 1952: 197; Stebbing 1909b: 14; Tragardh 1919: 237–248, 1930b: 106, 1930c: 478, 1939b: 157; Vasechko 1978a; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 354. (ds) Acloque 1896; Ammann & Knabl 1913, 1923; Balachowsky 1943a; Barthe 1896; Bau 1888; Bedel 1888b; Belousov 1916, 1917: 334; Bielz 1887; Bistrom & Vaisanen 1988: 42; Blandford 1894c; Blatchley & Leng 1916: 666; Borchert 1951; Budkov 1897; Butovitsch & Heqvist 1947; Chararas 1962c: 402; Charvat 1950; Cho 1957; Choo 1983: 55; Choo & Woo 1983, 1985: 164; Choo, Woo, & Park 1983: 175; Duftschmidt 1825: 99; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Ernich 1953; Escherich 1923b: 429, 480, 568, 1932b; Esterberg 1928, 1959; Fleischer et al. 1923; Fuchs 1905a, 1907: 38, 1913; Gaubil 1849: 128; Gornostaev 1917: 308–315; Grill 1895: 307; Grouzelle 1905; Grune 1979: 53; Gyorfi 1941b; Hagedorn 1910d: 9; Hamilton 1894b: 407; Hansen 1939; Hellen 1947; Henschel 1895a: 135; Henshaw 1895: 44; Heyden 1881: 177, 1890: 132, 1893: 177; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Holdhaus & Deubel 1910: 145; Holzel 1946: 81; Horion 1951, 1954a: 108; Huhta et al. 1985: 406; Ihssen 1939: 336; Inouye 1949b; Ishikura 1966; Jamnicky 1960a; Janovsky & Tegshzhargal 1985: 406; Joly 1976; Judeich & Nitsche 1895: 447, 523; Karpinski 1932a: 107; Karpinski & Strawinski 1948: 154; Kestercanek 1881a: 12; Kiefer et al. 1942: 528; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 217, 267, 1912b: 166, 1913a: 34, 1914b: 248, 254, 1934a: 126; Ko 1969: 278; Kono & Tamanni 1939: 88, 92; Kontkanen 1932: 60; Krivolutskaya 1956: 829, 1960, 1983; Kurenzov 1935a: 20, 26, 1935c: 188, 1936b: 351, 1938a: 64, 1951b: 15, 1964: 20; Kurir 1947c: 9; Langhoffer 1915c: 157; Leng 1918: 211; Liegel 1886: 43; Lindberg 1924: 192; Lindberg & Saris 1952: 58; Lomnicki 1886a: 240, 1913b: 148; Lucht 1987: 276; Luigioni 1929: 994; Lundberg 1974: 92; Marcu 1926c: 62; Michalski 1957c: 163; Munster 1928: 289; Murayama 1929b: 2, 1929d: 1, 1930a: 1, 1930b: 7, 1936a: 123, 1936b: 117, 1937b: 374, 1939: 137, 1942a: 54, 1948: 2, 1951c: 3, 1953a: 5; Negrn 1966b: 399, 1968a: 454; Niisima 1908: 18; Nobuchi 1966b: 11, 1967: 19, 1985c: 4; Numberg 1927a: 212, 1928b: 85, 1954: 22; Nuorteva 1956b: 168, 1971: 67; Nusslin 1898: 277; Orest 1926c: 61; Palm 1946: 120, 1948a: 90; Palmen 1946: 194; Pfeffer 1924b: 472, 1935: 157, 1947e: 1, 1950b: 74, 1989a: 37; Pierce, W. D. 1917: 81; Pittioni 1943: 176; Platonoff 1942: 63, 1943: 141; Pomerantzev 1907a: 177–192, 1907b: 426, 492; Poppius 1900: 107; Postner 1974: 396; Rapp 1934: 725; Redtenbacher 1874: 366; Reitter 1894a: 63, 1916: 282; Roubal 1941: 260; Saalas 1913a: 68, 78, 1917a: 18, 1930: 119, 1931: 70; Sahlberg 1900: 104; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1225; Schaum 1859: 95, 1862: 100; Schedl 1971f: 147, 1980a: 9, 1981b: 51; Schilsky 1909: 188; Schimitschek 1938b: 114; Schreiner 1897: 369; Schwarz 1886: 56; Schwedtfeger 1981: 190; Seidlitz 1872: 391; Smith, J. B. 1900: 365, 1910: 909; Stark 1926a: 332, 1926b: 101, 1926j: 124, 1931a: 21, 1931d: 543, 1952: 197; Stein 1868: 113; Stein & Weise 1877: 163; Strand 1946: 596; Swaine 1909: 113; Thomson 1865: 350, 1868: 215; Tragardh 1939b: 157; Tredl 1907: 9; Wegelius 1960: 106; Westhoff 1882: 236; Wichmann 1927a: 60; Wilke 1931: 583, 657–674; Wiren 1945: 43; Yanovskii 1977; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1984; Zetterstedt 1828: 342, 1840: 192; Zinovjev 1955: 187. (tx) Acloque 1896; Anonymous 1891: 92; Balachowsky 1943a, 1949a: 123; Bedel 1888b: 390; Blandford 1894a: 58; Blatchley & Leng 1916: 666; Charvat 1950; Choo 1983: 55; Csiki 1909; Doebner 1860; Dombrowski 1887; Eggers 1911: 119–120, 1912c: 206, 1914: 40; Eichhoff 1881a: 36, 91, 1883a: 101, 122; Endrodi 1957b; Escherich 1923b: 429, 480, 568; Fauvel 1887, 1889; Fleischer 1927; Florov 1949: 69; Formanek 1907: 29; Fuchs 1912a, 1913; Gabler 1955; Gemminger & Harold 1872: 2669; Grune 1979: 52, 53; Hagedorn 1910a: 45; Henschel 1895a: 135; Heyden 1890: 132, 1893: 177; Hopkins 1915c: 211; Joly 1976; Judeich & Nitsche 1895: 447, 523; Karpinski & Strawinski 1948: 154; Koch 1928: 76, 1932: 111; Kono & Tamanni 1939: 92; Krivolutskaya 1956: 829, 1958: 119; Kuhnt 1913: 1053; Kurenzov 1941a: 121, 1948b: 104; Lekander 1959b: 31; Letzner 1891: 372; Lucht 1987: 276; Luigioni 1929: 994; Murayama 1930: 11–12, 1936a: 123, 1937b: 374, 1939: 137–138, 1953a: 5, 1954b: 156; Negrn 1966b: 399; Niisima 1910a: 8; Nobuchi 1966b: 11, 1966d: pl. 1; Numberg 1928a: 140, 1929c: 119, 1947: 99–108, 1954: 22; Pfeffer 1932b: 14, 1941c: 4, 1944b: 102, 1947e: 1, 1955a: 119, 1989a: 37; Pfeil 1862: 436; Portevin 1935: 319; Postner 1974: 396; Quaschik 1953: 35; Redtenbacher 1874: 366; Reitter 1894a: 63, 1900a: 59, 1913a: 50, 1916: 282; Rhumbler 1922: 279, 1927: 291; Riley 1891b: 92; Rupertsberger 1880: 225; Saalas 1913a: 68, 78, 1949: 341, 364; Sahlberg 1871: 206; Schedl 1934f: 1635, 1952f: 87, 1980a: 9, 1981b: 51; Scherb

- 1971; Schimitschek 1937c: 48, 1955c: 78; Schlechtendal & Wunsche 1879: 124; Schwarz 1886: 56; Seidlitz 1872: 391; Spessittsev 1913a: 65, 1922a: 461, 491, 1925a: 169, 1925b: 8, 1928a: 222–228, 1931: 25; Stark 1952: 197; Stebbing 1909b: 14; Swaine 1909: 113, 1918a: 61; Thomson 1865: 350, 1868: 218; Zetterstedt 1828: 343, 1838: 5, 1840: 192.
- paykulli* Duftschmidt 1825: 99 (*Hylesinus*). Syn- types, sex?; Wien, Austria; not located. Synonymy: Hagedorn 1910d: 9.
References: (ds) Duftschmidt 1825: 99; Schaum 1859: 95, 1862: 100; Schilsky 1909: 188; Stein 1868: 113; Stein & Weise 1877: 163. (tx) Doebner 1860; Duftschmidt 1825: 99; Hagedorn 1910d: 9.
- decumanus* Erichson 1836: 51 (*Hylesinus*). Syn- types, sex?; Europe; not located. Synonymy: Thomson 1865: 350, Eichhoff 1881a: 92.
References: (ay) Wichmann 1912a: 9. (bv) Wichmann 1912a: 7. (cn) Barbey 1925: 83; Fleischer 1877a: Herleim 1878; Hess 1898: 368; Keller 1910: 27; Kellner 1880: 422; Koch 1913: 91; Koppen 1882; Pierce, W. D. 1917: 69. (ec) Fleischer 1877a, 1877b. (hb) Barbey 1901: 18, 45, 1925: 83, 1942; Eichhoff 1881a: 92; Fleischer 1877a; Hess 1898: 368; Keller 1910: 27; Kellner 1880: 422; Ratzeburg 1837: 182, 1839: 164, 222. (ds) Bielz 1851; Blanche & Robert 1889; Brancsik 1871; Calwer 1884, 1893; Chapuis 1869: 20, 1873: 228; Cho 1957; Favre 1890; Fleischer 1877b; Gaubil 1849: 127; Gozis 1875: 79; Gredler 1866: 369; Hagedorn 1910d: 9; Kaltenbach 1874: 686; Kleine 1912a: 161, 1912b: 166; Ko 1969: 278; Koppen 1882: 234; Kraatz 1869: 59; Lacordaire 1866: 359; Lindemann 1884b: 263; Lokaj 1868: 63; Miller 1868: 27; Murayama 1929b: 2, 1930b: 8, 1937b: 375, 1942a: 51, 1949a: 12; Pfeffer 1935: 157; Pierce, W. D. 1917: 69; Ratzeburg 1837: 182, 1839: 164, 222; Redtenbacher 1858: 824; Reitter 1869b: 153; Sahlberg 1871: 206; Schamm 1859: 95, 1862: 100; Schilsky 1909: 188; Seidlitz 1891a: 559, 1891b: 604; Stein 1868: 113; Stein & Weise 1866: 163; Stierlin 1898: 432; Stierlin & Gautard 1871: 291; Swaine 1909: 114; Wessel 1877: 390. (tx) Balachowsky 1949a: 124; Barbey 1901: 18, 45; Bertolini 1872; Blandford 1898c; Brancsik 1871; Chapuis 1869: 14, 20, 1873: 228; Doebner 1860; Eggers 1911a: 119–120; Eichhoff 1864b: 24, 1881a: 92; Erichson 1836: 51; Escherich & Escherich 1897; Hagedorn 1910a: 45; Hamilton 1894: 407; Koch 1913: 91, 1928: 74, 80; Lacordaire 1866: 359; Letzner 1891: 372; Motschulsky 1860a: 156; Murayama 1930b: 8, 12, 30, 1937b: 375; Pfeil 1862: 436; Ratzeburg 1837: 182, 1839: 164, 222; Redtenbacher 1849a: 364, 1849b: 27, 1858: 824; Schedl 1934f: 1635; Seidlitz 1891a: 559, 1891b: 604; Stierlin 1898: 432; Swaine 1909: 114; Thomson 1865: 350. (ms) Eggers 1910a, 1910b; Hartig 1834: 108.
- tenebrosus* Sahlberg 1836: 139 (*Hylesinus*). Syn- types, sex?; Finland; not located. Synonymy: Westhoff 1882: 236, Letzner 1891: 372.
References: (ds) Calwer 1884, 1893; Chapuis 1869: 21, 1873: 229; Gozis 1875: 79; Hagedorn 1910d: 9; Schaum 1862: 10; Stein 1868: 113; Stein & Weise 1877: 163. (tx) Balachowsky 1949a: 124; Chapuis 1869: 21, 1973: 229; Gemminger & Harold 1872: 2670; Kraatz 1964: 140; Letzner 1891: 372; Sahlberg 1836: 139; Westhoff 1882: 236.
- *granulatus* (Schedl) 1947a: 30 (*Hylescierites*). Holotype, sex?; Baltische Bernstein; Geologisch-Palaeontologische Inst. Albertus-Univ., Königs- berg.
Distribution: Europe (fossil in Baltic amber).
References: (tx) Schedl 1947a: 30.
- imitator* (Reitter) 1900: 59 (*Hylastes*). Holotype, sex?; Chabarowka, W. Koltze, E. Siberia; NHMB, Budapest.
Distribution: Asia (N China/ Japan/ Siberia, Ussuri in E USSR).
Hosts: *Picea* sp., *Pinus* sp.
Notes: (1) Reitter 1913a: 51 (to *Hylurgops*). (3) A Wood homotype of *spessittsevi* cannot be distinguished from *imitator* determined by Kurenzov and Michalski, synonymy is suspected.
References: (cn) Kurenzov 1935c: 189. (ec) Krivosheina 1974. (hb) Kurenzov 1935a: 24, 1948b: 106, 1950d: 198; Kurenzov & Kononov 1961: 598–599. (ds) Arnoldi et al. 1955: 671; Hagedorn 1910d: 10; Kleine 1912b: 162, 1914b: 249; Krivolutskaya 1983; Kurenzov 1935a: 24, 1935c: 189, 1936a: 111, 1936b: 350, 1938a: 59, 1965, 1967; Kurenzov & Kononov 1961: 595, 598–599; Pfeffer 1935: 157; Stark 1931d: 542, 1952: 199. (tx) Eggers 1911a, 1914: 187, 1933a: 98, 1933f: 55, 1940b: 61, 1941c: 119; Hagedorn 1910a: 45; Kurenzov 1941a: 123, 1948b: 106; Reitter 1900: 59, 1913a: 51; Schedl 1934f: 1636, 1979c: 121; Sokanovskii 1958: 38; Stark 1952: 199.
- incomptus* (Blandford) 1897a: 145 (*Hylastes*). Syn- types, sex?; Andres Chalchicomula, now Ciudad Serdan, Puebla, Mexico; BMNH, London.
Figures: Schwedtfeger 1957d: 364–365 (galler- ies).
Distribution: North America (Guatemala/ Hon- duras/ Chiapas, Chihmahua, Distrito Federal, Durango, Gnerro, Hidalgo, Mexico, Morelos, Puebla, Tlaxcala, Veracruz in Mexico/ Arizona, New Mexico in USA).
Hosts: *Pinus durangensis*, *P. engelmannii*, *P. leiophylla*, *P. pseudostrabus*, *P.* spp.
References: (hb) Atkinson & Equihua 1985a: 67; Atkinson et al. 1986: 13; Burgos & Saucedo 1983:

- 48; Schwerdtfeger 1957: 362; Wood, S. L. 1982b: 84. **(ds)** Atkinson & Equihua 1985a: 67, 1985b: 228, 1988: 90; Atkinson et al. 1986: 13; Blackwelder 1947; Burgos & Saucedo 1983: 48; Ferrer 1942; Furniss, R. L. & Carolin 1977: 365; Hagedorn 1910d: 10; Kleine 1912b: 166, 1914b: 347; Schedl 1977e: 42; Schwerdtfeger 1957d: 362–367; Wood, S. L. 1957c: 397, 1982b: 84. **(tx)** Blandford 1897a: 145; Hagedorn 1910a: 45; Schedl 1940a: 338, 1955g: 5; Wood, S. L. 1957c: 397, 1982b: 8.
- grandicollis* Swaine 1917: 17. Lectotype, sex[?]; Cloudcroft, New Mexico; CNCI, Ottawa, designated by Bright 1967b: 675. Synonymy: Wood 1957c: 397.
- References: **(cn)** Swaine 1918a: 80. **(hb)** Chamberlin 1939: 207; Swaine 1918a: 80. **(ds)** Chamberlin 1928, 1939: 207; Leng 1920: 339. **(tx)** Bright 1967b: 675; Chamberlin 1939: 204, 207; de Ruelle 1970: 102; Swaine 1917: 17, 1918a: 80; Wood, S. L. 1957c: 397.
- inouyei* Nobuchi 1959a: 10. Holotype, sex[?]; Ubus near Kagura, Hokkaido, Japan; Nobuchi Collection, Ibaraki.
- Distribution: Asia (Japan).
- Hosts: *Picea excelsa*, *P. glehnii*, *P. jezoensis*, *Pinus sylvestris*, *P. strobus*.
- References: **(ec)** Nishiguchi 1959: 271, 1960c. **(tx)** Nobuchi 1959a: 10.
- interstitialis* (Chapuis) 1875: 196 (*Hylastes*). Syntypes, sex[?]; Nagasaki and Kinshiu, Japan; IRSNB, Brussels.
- Figures: Nobuchi 1966d: pl. 1.
- Distribution: Asia (Heilongjiang, Jilin, Liaoning in China/ Japan/ Korea/ Taiwan/ Kamchatka, Siberia, Ussuri in E USSR).
- Hosts: *Pinus koraiensis*, *P. densiflora*, *P. parviflora*, *P. spp.*, *Abies holophylla*, *Picea jezoensis*, *P. koraiensis*.
- References: **(ay)** Sasakawa & Yoshiyasu 1983. **(cn)** Inouye 1949a: 107, 1949b; Ko & Morimoto 1985; Kurenzov 1935c: 189; Murayama 1954a: 4; Oda, Kato, & Nobuchi 1964; Shiraki 1952. **(ec)** Cooreman 1963: 45; Krivosheina 1974; Kurenzov 1934a: 53. **(hb)** Arnoldi et al. 1955: 672; Kurenzov 1935a: 25, 1948b: 105, 1950d: 160; Kurenzov & Kononov 1961: 598; Stark 1952: 200; Stebbing 1909b: 14. **(ds)** Anonymous 1980g; Blandford 1894c; Choo 1983: 56; Choo & Woo 1985: 164; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1983: 176; Hagedorn 1910d: 10; Inouye 1949b; Kleine 1912b: 166, 1914b: 254, 1934a: 126; Ko 1969: 278; Krivolutskaya 1983; Ku 1964; Kurenzov 1934a: 53, 1935a: 25, 1935c: 189, 1936b: 350, 1965, 1967; Kurenzov & Kononov 1961: 595, 598, 599; Murayama 1936a: 142, 1937b: 366, 368, 1940a: 231, 1942a: 54, 1948: 2, 1949a: 12, 1949c: 99, 1950b: 1290, 1951c: 3, 1953a: 6, 1953c: 147, 1954a: 4, 1955: 98, 101; Nakane et al. 1963: 381; Nobuchi 1966b: 12, 1967: 19, 1985c: 4; Nohira & Ogawa 1986; Schedl 1960e: 171; Shiraki 1952; Stark 1952: 200. **(tx)** Blandford 1894d; Chapuis 1875: 196; Choo 1983: 56; Eggers 1933a: 97, 1933f: 55, 1940b: 61, 1941c: 119; Hagedorn 1910a: 45; Hansen, V. 1955: 172; Kurenzov 1941a: 122, 1948b: 105; Murayama 1937b: 368, 1940a: 231, 1950b: 1290, 1953a: 6, 1954b: 156, 1955: 98, 101; Nakane et al. 1963: 381, pl. 191; Niisima 1910a: 7; Nobuchi 1966b: 12, 1966d: pl. 1; Pfeffer 1944b: 102; Reitter 1913a: 51; Schedl 1934f: 1635, 1941a: 42, 1979c: 128.
- niponicus* Murayama 1936a: 123, 142. Holotype ♂; Kamikochi, Nagano Prefecture, Japan; Kiushu University. Synonymy: Wood 1992b: 83.
- References: **(ds)** Murayama 1936a: 123, 142; Nobuchi 1966b: 12, 1985: 4. **(tx)** Murayama 1936a: 123, 142, 1954b: 157; Nobuchi 1966b: 12; Wood, S. L. 1992b: 83.
- junnanicus* Sokanovskii 1959b: 93–94. Syntypes, sex[?]; Yunnan, China; Sokanovskii Collection.
- Distribution: Asia (Yunnan in China).
- Hosts: *Pinus armandii*, *P. tabulaeformis*.
- References: **(tx)** Sokanovskii 1959b: 93–94.
- longipennis* (Blandford) 1896e: 143 (*Hylastes*). Lectotype ♀; Rancho de Popocatepetl, Mexico, Mexico; BMNH, London, designated by Wood 1982b: 87.
- Distribution: North America (Mexico in Mexico).
- Hosts: *Pinus patula*, *P. sp.*
- References: **(bv)** Chow et al. 1988. **(hb)** Wood, S. L. 1982b: 87. **(ds)** Atkinson & Equihua 1985a: 68, 1985b: 228; Blackwelder 1947; Ferrer 1942; Hagedorn 1910d: 10; Kleine 1912b: 162, 1914b: 347; Wood, S. L. 1982b: 87. **(tx)** Blandford 1896e: 143; Hagedorn 1910a: 45; Schedl 1940a: 338; Wood, S. L. 1982b: 87.
- longipilus* (Reitter) 1894a: 63 (*Hylastes*). Syntypes, sex[?]; Chabarowka, Ostsibirien, USSR; NHMB, Budapest.
- Distribution: Asia (Heilongjiang, Liaoning, Shansi, Siehnan in China/ Japan/ Korea/ Taiwan/ Sakhalin Island, Siberia in E USSR).
- Hosts: *Pinus armandii*, *P. koraiensis*, *P. massoniana*, *P. tabulaeformis*, *Picea jezoensis*.
- References: **(cn)** Inouye 1955: 1. **(hb)** Budkov 1897; Krivolutskaya 1956: 829; Kurenzov 1950d: 201; Kurenzov & Kononov 1961: 599; Stark 1952: 202. **(ds)** Budkov 1897; Hagedorn 1910d: 10; Heyden 1898: 77; Kleine 1912b: 166, 1914b: 249; Kono 1935b: 64–66; Kono & Tamanuki 1939: 89, 91–92; Krivolutskaya 1956: 829, 1983; Kurenzov 1936a: 111, 1938a: 64; Kurenzov & Kononov 1961: 595, 599; Nobuchi 1964: 132, 1985c: 4; Reitter 1894a: 63. **(tx)** Eggers 1911a, 1914: 187, 1933f: 2; Hagedorn 1910a: 45; Krivolutskaya 1956: 829, 1958: 121; Kurenzov 1941a: 126; Pfeffer 1944b: 102; Reitter 1894a: 63, 1900: 59, 1913a: 51;

- Schedl 1934f: 1636, 1941a: 42, 1954b: 197; Stark 1952: 202; Yang 1989c.
- likiangensis* Tsai & Huang 1964b: 237, 240. Holotype ♂; Likiang, Yunnan, China; IZAS, Beijing. Synonymy: suspected, not confirmed. References: (tx) Tsai & Huang 1964b: 237, 240.
- major** Eggers 1944a: 67. Holotype ♂; Flussgebiet des Soling-Lo-Flusses, Yunnan, China; Eggers Collection, in NHMW, Wien. Distribution: Asia (Fujian, Hunan, Xizang [Tibet], Yunnan in China). Hosts: *Pinus armandii*, *P. massoniana*, *P. tabulaeformis*, *P. yunnanensis*. References: (ds) Yin & Huang 1981: 556. (tx) Eggers 1944a: 67; Schedl 1953c: 22, 1955b: 45; Yin & Huang 1981: 556.
- palliatius** (Gyllenhal) 1813: 340 (*Hylesinus*). Syn-types, sex[?]; Sweden; Uppsala University. Figures: Stark 1952: 203 (adult). Distribution: Africa (Algeria), Asia (Heilongjiang in China/ Japan/ Korea/ Turkey/ Sakhalin Island, Siberia, Ussuri in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Ireland/ Italy/ Netherlands/ Norway/ Poland/ Spain/ Sweden/ Switzerland/ Yugoslavia). Hosts: *Abies alba*, *A. nordmanniana*, *A. pectinata*, *Picea excelsa*, *P. koraiensis*, *P. microsperma*, less common in *Pinus*, *Larix*, *Cedrus*. References: (ay) Escherich 1923b: 429, 480, 568; Feytaud 1950a; Francke-Grossmann 1959, 1966c; Fuchs 1912a; Hadorn 1933; Leisewitz 1906: 91; Livingston & Berryman 1972: 1793, 1799; Marcu 1933a: 36; Munro 1917b: 123; Nunberg 1928a: 140; Nusslin 1912c: 275; Scherb 1971; Sedlaczek 1902b: 244; Wichmann 1912: 8–10. (bv) Annila 1971a: 12, 1975: 8–9; Annila & Petaisto 1978; Barr, B. A. 1969: 641; Borden & Wood 1966: 253; Butovitsch 1971; Byers, Anderbrant, & Lofqvist 1989; Chararas & Deschamps 1962; Chararas et al. 1982: 109; Eidmann 1987; Grune 1979: 53; Kevdina 1897: 108, 116; Klimetzek et al. 1986: 270; Kohnle 1985; Linsenmaier 1972: 154–155; Loytyniemi, Heliövaara, & Repo 1988b; Loytyniemi & Hiltunen 1976; Luitjes 1982; Magema, Gasper, & Severin 1982; Mozolevskaya, Lebedeva, & Galaseva 1979; Naumann-Etienne 1978a; Novak, V. 1962b; Nuorteva 1956c: 15; Nuorteva & Nuorteva 1968; Perttunen 1957: 102; Rozhkov 1970: 137; Saarenmaa 1978; Schneider 1955: 233; Schroeder 1988a; Schroeder & Lindelow 1989; Sjodin et al. 1989; Vite, Volz, & Paiva 1986; Volz 1988; Wichmann 1912a: 9; Winter, K. 1980; Wood, D. L. & Bushing 1963: 1069. (en) Anonymous 1946i: 1, 4; 1960f: 76, 1977r, 1978w, 1979p, 1980g; Bakke 1960: 318; Baosej 1954: 321; Bejer-Petersen 1959a, 1978: 166; Besceci 1963; Butovitsch & Spaak 1939; Byers, Anderbrant, & Lofqvist 1989; Chararas 1961c: 93, 1978; Chorbadzhievo 1929; Crooke 1955b; Eidmann 1965c, 1973, 1987; Escherich 1923b: 429, 480, 568, 1932a; Esterberg 1959; Feytaud 1950a; Fleischer 1877a; Forbes 1910; Francke-Grossmann 1954a; Funke 1870; Gabler 1955; Galoux 1948c; Grandi 1951; Hanson 1937, 1940a, 1943; Hartig 1861: 324, 330, 1877: 190, 195; Hasek 1955, 1969: 5; Herlein 1878; Hess 1880, 1898: 365, 1907: 245, 262; Hess & Beck 1914: 259, 1927: 319; Inouye 1955; Inouye & Yamaguchi 1955a: 235; Jablókoff 1953: 325; Jacentkovsky 1933: 270; Jahn 1952a: 98; Jahn & Sinreich 1959: 1; Joly 1976; Judeich & Nitsche 1895: 447, 521; Juntinen 1960: 22; Kamp 1950; Kangas 1934d, 1966b; Karner & Kliefoth 1976; Kholodkovskii 1912: 279, 304; Koch 1913: 92; Kolbe 1987a; Koppen 1882: 236, 243; Kovacevic 1952: 69; Kozikowsky 1929: 253; Krol 1980a; Kurenzov 1935c: 187, 1950a: 13, 1956a: 90; Laidlaw 1947: 52; Lekander 1952b: 5, 1955b: 17; Lekander & Rennerfelt 1955: 10; Lekander, M. 1951: 50; Maksymov 1950: 554; Marcu 1926c: 62; Mathiesen 1952: 285; Mathiesen-Kaarik 1953: 10, 25; Mokrzejcki 1925c: 44; Müller 1912: 184; Mumford 1960: 29, 1961: 25, 43, 1965: 22, 1966: 28, 58; Munro 1917a: 25; Nestertschuk 1930: 172; Niemeyer & Thalenhorst 1974; Nosek 1951: 106–107, 1952b: 100; Novak, V. 1959b: 73, 1976; Nuorteva 1959c: 1026; Nuorteva & Nuorteva 1968; Nusslin 1883: 152, 1913: 238; Oppermann 1985; Paulian 1943: 324; Pfeffer 1949b: 150, 1950c: 1; Pierce, W. D. 1917: 69; Pomocnicze 1876: 161; Rhumbler 1922: 279, 1927: 291; Saalas 1949: 341, 365; Sajevyc 1925: 329; Schimitschek 1961a: 154; Schwerdtfeger 1968a; Sierpinski 1954a: 63–67, 1971b: 10–11; Sinreich 1961: 166; Subansenee 1971; Tite 1956: 59; Titova 1966; Tragardh 1927c: 73; Tragardh & Butovitsch 1936: 553; Trappen 1932: 141; Vasechko 1964; Vite 1984b; Wachtl 1901: 381; Wardle 1929: 325; Weber 1926: 577; Wichmann 1927b: 350; Wilke 1931: 669; Wolff & Krause 1922: 107; Zarco 1946a: 252; Zwoller 1949: 399. (ee) Annila 1975: 11, 13, 1977; Annila & Petaisto 1978; Apfelbeck 1916b; Baert & Maelfait 1977; Baisch 1954: 321; Bakshi 1950, 1951; Balazy 1962, 1965a; Balazy & Michalski 1960, 1964b; Balazy et al. 1977; Belanovskii 1930; Beran 1936; Brammanis 1938; Butovitsch 1971; Chararas 1957a, 1955b, 1958c: 1653–1654, 1959b: 1407–1410, 1959c: 113–129, 1959e, 1959g: 215–233, 1960a: 31; Cooreman 1963: 45; Eck 1978; Eckstein 1926: 577; Eidmann 1965c, 1974b; Elliot & Morley 1907; Fleischer 1877a, 1877b; Francke-Grossmann 1931, 1959, 1966c; Fuchs 1930, 1937; Galoux 1947b, 1947c: 433, 1947d; Gaulle 1906: 237; Gerlach 1922; Gilanders 1906; Graham 1969: 878; Grossmann 1931a; Györfi 1941b, 1952b; Heliövaara & Lilja 1989; Heqvist 1957a, 1963: 151, 1967: 70; Hirschmann 1960, 1971a, 1971b: 39, 41; Hirschmann &

- Wisniewski 1982, 1983; Hirschmann & Zirngiebl-Nicol 1961; Hubault 1923a; Inouye & Yamaguchi 1955a: 235; Jahn & Sinreich 1960b; Jakaitis & Valenta 1976: 20; Jamnicki 1957c; Kakulyia & Maglakelidze 1973; Kangas 1946b: 22; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1975, 1978, 1980a, 1983; Kleine 1908c: 181, 1909a: 44, 76, 1944: 69; Kolubajiv & Kalandra 1954: 36; Kosarievskaya & Mamajev 1962: 450-451; Kostin 1964: 105; Krivosheina 1974; Krogerus 1927: 122; Krol 1980a; Kuhn 1949a: 279; Kurenzov 1934a: 54; Lavasz 1941: 195; Livingston & Berryman 1972: 1793, 1799; Loytyniemi & Hiltunen 1976; Luitjes 1976; Majewski, T. & Wisniewski 1978a: 5, 8-9; Mathiesen 1952: 285; Mathiesen-Kaarik 1953: 10, 25, 1960c; Meyer 1918: 178; Michalski & Ratajczak 1989; Moor & Neffeler 1983, 1984; Mozolevskaya, Lebedeva, & Galaseva 1979; Naumann-Etienne 1978a; Niemyer & Thalenhorst 1974; Nikitsky 1978; Nishiguchi 1959: 271; Nosek 1951: 106-107, 1952b: 100; Novak, V. 1962b; Nunberg 1930: 201; Nuorteva 1956a: 17, 1957b: 52, 1959d: 193, 1961a, 1961c: 119-120, 1967a, 1968a, 1970, 1971: 69; Nuorteva & Nuorteva 1968; Nusslin 1927: 291; Okolow 1963; Palmen 1946: 194; Perris 1852: 497, 1856a: 224; Pfeffer 1923a: 330, 1932a: 11, 1933: 43, 1943b: 180, 1949b: 150, 1950c: 1, 1952a: 159, 1957a: 196, 1959: 4; Poinar 1975: 159; Purrini 1977a, 1978a, 1980; Purrini & Weiser 1985: 66; Rondani 1873: 149; Roubal 1934a: 86; Ruhm 1956b: 3; Saalas 1917a: 18, 1928: 649, 1949: 341, 365, 1951: 13; Saarenmaa 1978; Schedl 1936f: 172; Schimitschek 1930a: 340, 1930c: 281, 1931b: 487 1935a: 202, 1936a: 559, 1937c: 48, 1938b: 114, 1938c: 2112, 1939d: 2112, 1941a: 313; 1941b: 59, 1944: 166, 1947g: 191, 1948e: 97, 1949b: 165, 1952a: 208, 1952c: 59, 1953b: 526, 1955a: 67, 69, 1955c: 78, 1964e; Schmidt 1881: 43; Schneeberg 1925: 495; Schneider-Orelli & Kuhn 1948: 518; Schwerdtfeger 1944a: 179, 1950b: 62, 1955b: 92, 1957a: 184; Sedlaczek 1908: 49, 1921: 325, 1935a: 153, 158; Sinreich 1958: 197; Slander 1958: 51; Strolmeyer 1950: 21; Subansanee 1971; Szczepanski 1960: 407, 414; Tenkacova & Mituch 1987; Thalenhorst 1949d: 264, 1958: 34; Thaler 1902: 278, 1903: 400; Thompson, W. R. 1943: 52; Thompson, W. R. & Simmonds 1964: 21, 1965: 74,84; Titova 1966; Tragardh 1917: 28, 1921e: 64, 1927a: 195, 1928: 775; Tvermur 1967: 484, 496; Vietinghoff 1924: 336; Vitzthum 1923: 125, 1926: 427; Wallace 1953: 164; Wiackowski 1957a: 43; Wichmann 1955a: 98, 1956: 60, 1958: 233; Wilke 1931: 669; Winter, K. 1980; Wisniewski 1979b, 1979c: 5, 1980; Wisniewski & Hirschmann 1984; Woodring 1966b: 106; Zethner-Moller & Rudinsky 1967: 907; Zimovjev 1957: 345, 1958: 382; Zmur 1985b. (hb) Alkan 1946: 142; Altunn 1881c: 267, 1889c; Annila 1977; Annila & Petaisto 1978; Anonymous 1866: 422, 1946i: 1, 4; Apfelbeck 1916b, 1917; Barbey 1901: 18, 46; Bargmann 1906; Beffa 1961; Bejer-Petersen 1957, 1978; Beling 1873; Beran 1936; Besceli 1963; Bevan 1962c: 95; Boas 1923: 323; Borodajewsky 1929b; Bykov 1987; Chararas 1962c: 406; Charvat 1950; Chorbadzhievo 1929; Dallimore & Munro 1922; Dombrowski 1887; Eckstein 1897, 1926: 577; Eichhoff 1881a: 36, 93, 1882a: 241, 1882d: 337; Eidmann 1974b; Elton et al. 1964; Escherich 1923b: 429, 480, 568; Everts 1900, 1903: 752; Feytaud 1950a; Fleischer 1877a; Fuchs 1904a, 1905c: 340, 1907: 52, 1911b; Gabler 1955; Gillanders 1906, 1908; Cornostaev 1916: 311; Grandi 1951; Gyorf 1957; Hacker 1885; Hadorn 1933; Hagedorn 1903a; Hartig 1861: 324, 330, 1877: 190, 195; Helmbacher 1924; Hennings 1908d; Henschel 1876a: 43, 240, 1885b, 1895a: 135; Hess 1880, 1898: 365; Hess & Beck 1914: 259, 1927: 319; Holmgren 1867: 120; Joly 1976; Judeich & Nitsche 1895: 447, 521; Kangas 1949c; Karpinski 1933b: 24; Karpinski & Strawinski 1948: 154; Karsch 1883: 143; Kholodkovskii 1912: 279, 304; Kleine 1908a: 98; Kliefoth 1976; Knoche 1905: 354; Knotek 1894a: 553, 1899b: 2, 1901: 565; Koch 1909: 333; Kohnle 1985; Krivolutskaia 1956: 829, 1960, 1973: 132; Kurenzov 1935a: 25, 1948b: 100, 1950d: 199; Lekander 1959a: 84; Lengerken 1939: 39, 1954: 82; Lindemann 1881a: 236; Loos 1913: 406; Louzil 1961: 41, 144; Luitjes 1976; MacDougall 1899: 152; Magema, Gaspar, & Severin 1982; Maksymov 1950: 554; Marcu 1941: 402; Michalski 1959a: 291; Mozolevskaya, Lebedeva, & Galaseva 1979; Munro 1916a: 275, 1916b: 119, 1917a: 25, 1917b: 123, 1926: 54; Naumann-Etienne 1978a; Nordlinger 1856: 35; Nunberg 1929: 100, 1929c: 119; Nuorteva 1956c: 15, 1967a, 1968a, 1970; Nusslin 1898: 277, 1906b: 14, 16, 1913: 238, 1927: 291; Paulian 1943: 324; Perris 1852: 497, 1856a: 224; Petrenko 1966; Pfeffer 1941b: 1, 1941c: 5, 1952a: 159, 1989a: 37; Postner 1974: 397; Qiu & Huo 1958: 267; Ratzeburg 1837: 148, 180, 1839: 158, 221; Rhumbler 1922: 279, 1927: 291; Rozhkov 1970: 137; Rupertsberger 1879: 231, 1880: 225; Saalas 1913a: 68, 79, 1949: 341, 365, 1951: 13; Schimitschek 1930a: 281, 340, 1944: 166, 1955a: 67, 69; Schmidt 1881: 43; Schnaider 1954: 172, 1955: 233-236; Schnaider & Sierpinski 1955: 60; Schneider-Orelli 1947b: 156; Schwerdtfeger 1944a: 179, 1957a: 184, 1981: 190; Sedlaczek 1921: 335, 1935a: 153, 158; Slander 1958: 151; Sommerville 1890b: 255; Spessivtsev 1913a: 64, 1938: 159; Stark 1926a: 332, 1952: 202; Subansanee 1971; Taschenberg 1880: 209; Thalenhorst 1958: 34; Tragardh 1914: 85, 1921e: 64, 1927c: 73, 1939b: 151, 190; Tschorbadjiev 1929: 162; Wachtl 1901: 381; Weber 1926: 577; Wichmann 1927b: 350; Winter, K. 1980; Wolff & Krause 1922: 107; Zimovjev 1957: 345, 1958: 382. (ds) Aeloque 1896; Allen, A. 1951b; Ammann

- & Knabl 1913, 1923; Andersch 1851; Annala et al. 1972: 8; Anonymous 1928c: 202, 1960f: 76, 1977r, 1978w, 1979p, 1980g; Arnoldi et al. 1955: 673; Audras & Schaefer 1957; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Bedel 1888b; Bejer-Petersen & Jorim 1977: 13; Belousov 1916, 1917: 335; Bickhardt 1916; Bielz 1851, 1857; Bistrom & Vaisanen 1988: 42; Blanchere & Robert 1889; Boas 1923: 323; Borchert 1951; Brakman 1966b: 204; Brancsik 1871; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calver 1884; Chapuis 1869: 22, 1873: 230; Chapuis & Candeze 1853; Chararas 1962c: 406; Charvat 1950; Choo & Woo 1989b; Chorbadzhevo 1924d, 1929; Chrystal 1937; Dallimore & Munro 1922: 189–193; Dejean 1821, 1825, 1837; Donisthorpe 1933b; Duprez 1938a; Eder 1934; Eggers 1904; Eidmann 1974b; Endrodi 1958b; Ericson & Sandin 1893; Ermisch 1953; Escalera 1919; Escherich 1923b: 429, 480, 568, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 639; Fairmaire 1884; Favre 1890; Fleischer 1877b; Fleischer et al. 1921b; Florov 1949: 72; Fowler 1891; Fuchs 1904a, 1905a, 1905c: 340, 1907: 52; Gaidiene 1976; Gaubil 1849: 128; Gomostaev 1917: 308–315; Cozis 1875: 79; Gredler 1866: 369, 1875: 114; Grill 1895: 307; Grouzelle 1905; Grune 1979: 53; Gyllenhal 1827: 618; Gyorfi 1941b; Hagedorn 1903a, 1910a: 10; Hallet 1923c; Hansen, V. 1939, 1956, 1964: 458; Hellen 1947; Helliesen 1916: 83; Hennig 1954: 257; Henschel 1895a: 135; Heyden 1876: 296; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Hickin 1963; Holdhaus & Denbel 1910: 145; Holmgren 1867: 120; Holz 1946: 81; Horion 1951; Hubault 1923b; Huhta et al. 1986; Ihssen 1939: 336; Jablokov 1953: 325; Jazentkovsky 1933: 270, 1939: 77; Jannicky 1960a; Jansson 1935: 77; Jazentkovsky 1912: 288; Johnson, W. F. & Halbert 1902: 818; Joly 1976; Judeich & Nitsche 1895: 447, 521; Kaltenbach 1874: 686; Kangas 1949c; Karpinski 1925: 216, 1926: 82, 1931: 22, 1933b: 24, 1948b: 229; Karpinski & Strawinski 1948: 154; Kersten 1933: 73; Kestercanek 1881a: 12; Kiefer et al. 1942: 528; Klefbeck & Sjoberg 1960: 238; Kleine 1912a: 128, 217, 267, 1912b: 162, 1913a: 34, 1934a: 126; Kloft & Hinks 1945: 218; Knotek 1892a: 33, 1894a: 553, 1899b: 2, 1901: 565; Koca 1905: 191; Kolbe 1987a; Koltze 1901: 152; Kono 1938b: 64, 66; Kono & Tamamuki 1939: 89, 91; Koppen 1882: 236, 253; Koschitsky 1900: 83; Kraatz 1869: 59; Krivolutskaya 1956: 829, 1960, 1965: 228, 1973: 132, 1983; Kurenzov 1934a: 54, 1935a: 25, 1935c: 187, 1936b: 351, 1965; Kurir 1947c: 7; Lacordaire 1866: 359; Langhoffer 1915c: 157; Larroche & Torossian 1971; Leclercq 1971; Lekander 1955b: 17; Lentz 1857: 137; Liegel 1886: 43; Lindberg & Saris 1952: 59; Lindemann 1884b: 263; Lokaj 1868: 63; Lonnicki 1886a: 240, 1913b: 148; Loos 1913: 406; Lovendal 1890c: 210; Lucht 1987: 276; Luigioni 1929: 994; Lundberg 1974: 92, 1979: 31; Lundblad 1950c: 114; Maren 1926c: 62; Matthew & Fowler 1883: 42; Mequignon 1936: 15, 40; Michalski 1957: 163; Mumford 1960: 29, 1961: 25, 43, 1965: 22, 1966: 25, 58; Munro 1916a: 275; Murayama 1939: 138, 1940a: 231, 1946: 27; Nakane et al. 1963: 381; Negru 1966b: 400, 1968a: 455; Nobuchi 1964: 132, 1985c: 4; Numberg 1928b: 88, 100, 1954: 23; Nuorteva 1971: 67; Nusslin 1898: 277; Orest 1926b: 81–87, 1926c: 62; Palm 1946: 120, 1948a: 90, 1962: 183; Palmen 1946: 194; Perris 1876a: 253, 1877a: 413; Pfeffer 1924b: 471, 1928b: 2, 1931b: 74–75, 1935: 159, 1947c: 2, 1950b: 73, 1984: 277, 1989a: 37; Pierce, W. D. 1917: 69; Pittioni 1943: 175; Platonoff 1940: 11, 1943: 141, 1952: 63; Pomerantzev 1907b: 426, 491; Poppius 1900: 107; Postner 1974: 397; Rapp 1934: 726; Ratzeburg 1837: 148, 180, 1839: 158, 221; Redtenbacher 1858: 825, 1874: 366; Reitter 1869b: 153, 1894a: 63, 1916: 282; Roubal 1910: 230, 1941: 260; Rozhkov 1970: 137; Ruskov 1928c: 61; Saalas 1913a: 68, 79, 1917a: 18, 1931: 69; Sahlberg 1900: 104; Saint-Albin 1949: 2; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1225; Schamm 1862: 100; Schedl 1954b: 198, 1959b: 99, 1965b: 111, 1967c: 69, 1971f: 147, 1978e: 37, 1980a: 10, 1981b: 51; Scheepeltz & Winkler 1930: 256; Schilsky 1909: 188; Schmitschek 1937: 114, 1938b: 114; Schiodte 1873: 99; Schreiner 1897: 369; Schwerdtfeger 1981: 190; Seidl 1876: 1; Seidlitz 1872: 391, 1891a: 559, 1891b: 604; Sharp & Fowler 1893: 34; Sielke 1875: 281; Sparre-Schneider 1889: 60; Stark 1926a: 332, 1926b: 124, 1927b: 88, 1931a: 21, 1931d: 543, 1952: 202; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 147, 1830: 364; Stierlin 1898: 432; Stierlin & Gantard 1871: 291, 1906: 205; Strand 1946: 596; Strand & Hanssen 1935: 70; Strach 1861: 123; Sturm 1826: 156, 1843: 229; Subansence 1971: 114–123; Thomson 1865: 349, 1868: 218; Tomic 1957: 207–210; Tragardh 1914: 55, 1939b: 151, 190; Tredl 1907: 9; Tschorbadjiev 1929: 162; Verhoff 1891: 22; Villa & Villa 1833: 26; Wanka 1908: 231; Wegelius 1960: 106; Welch, R. C. 1968: 121; Wessel 1877: 390; Westhoff 1882: 237; Wichmann 1927a: 60, 1955a: 98; Wiepken 1883: 89; Wilke 1931: 669; Winter, T. G. 1983: 48; Yanovskii 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1984: 415; Zetterstedt 1828: 342, 1840: 191; Zinovjev 1955: 187; Zivojinovic 1960; Zoufal 1920: 21. (tx)

- 1914: 187, 1929e: 42–43, 1933f: 2; Eichhoff 1864b: 24, 1881a: 36, 93, 1883a: 101, 120, 123; Endrodi 1957b; Escherich 1923b: 429, 480, 568; Everts 1902: 752, 1922: 639; Fauvel 1887, 1889; Ferrant 1911; Fleischer 1905, 1927; Formanek 1907: 29; Fuchs 1912a; Gabler 1955; Gemminger & Harold 1872: 2670; Grune 1979: 52, 53; Guillaenders 1908; Gyllenhal 1813: 340, 1827: 618; Hagedorn 1910a: 46, 1910d: 10; Hansen, V. 1956, 1964: 458; Hasek 1961: 5; Henry 1892: 15; Henschel 1876a: 43, 240, 1895a: 135; Iablokoff-Khnzorian 1961: 105; Joly 1976, 1976b: fig. 136; Judeich & Nitsche 1895: 447, 521; Kalina 1970: 129; Karpinski & Strawinski 1948: 154; Knotek 1892a: 33; Koch 1913: 92, 1932: 106; Krivolutsкая 1956: 829, 1958: 120; Kuhn 1913: 1053; Kurenzov 1941a: 124, 1948b: 100; Lacordaire 1866: 359; Letzner 1891: 372; Leunis 1886: 178; Lindemann 1881a: 236; Louzil 1960: 105; Lovendal 1889b: 33, 1890c: 210, 1898: 114; Lucht 1987: 276; Luigioni 1929: 994; Munro 1916a: 275, 1916b: 119, 1917b: 123; Murayama 1939: 138, 1940a: 231; Nakane et al. 1963: 381, pl. 191; Negru 1966b: 400; Nordlinger 1856: 35; Numberg 1928a: 140, 1929c: 119, 1947: 99–108, 1954: 23; Nusslin 1912c: 275; Perris 1877a: 413; Pfeffer 1932b: 15, 1941b: 1, 1941c: 5, 1944b: 102, 1947c: 2, 1955a: 120, 1957: 196–207, 1989a: 37; Portevin 1935: 319; Postner 1974: 397; Quaschik 1953: 35; Ratzeburg 1837: 148, 180, 1839: 158, 221; Redtenbacher 1849a: 364, 1849b: 27, 1858: 825, 1874: 366; Reitter 1894a: 63, 1913a: 50, 1916: 282; Rhumbler 1922: 279, 1927: 291; Rupertsberger 1879: 231, 1880: 225; Saalas 1913a: 68, 79, 1949: 341, 365; Sahlberg 1836: 137; Schedl 1934f: 1636, 1952f: 87, 1954b: 198, 1959h: 99, 1980a: 10, 1981b: 51; Schimitschek 1937c: 48, 1955c: 78; Schlechtendal & Wunsche 1879: 124; Seidlitz 1872: 391, 1891a: 559, 1891b: 604; Sharp & Fowler 1893: 34; Sherb 1971; Sokanovskii 1954: 15; Spessivtsev 1913a: 64, 1922a: 461, 490, 1925a: 169, 1925b: 7, 1931: 24; Stark 1952: 202; Stephens 1829a: 147, 1829b: 12, 1830: 364; Stierlin 1898: 432; Taschenberg 1880: 209; Thomson 1865: 349, 1868: 218; Zetterstedt 1828: 342, 1840: 191. (**ms**) Escherich 1932b; Fuchs 1911b; Gotz 1877; Hartig 1834: 412, 414; Kozikowsky 1929: 253; Lekander 1959a: 84; Michalski 1959a: 291; Wichmann 1961: 331–332; Yang 1989c (hb).
- rufus* Marsham 1802: 57 (*Ips*). Syntypes, sex?; England; not located. Synonymy: Hagedorn 1910d: 11.
References: (**ds**) Murray 1853: 61; Stephens 1829a: 147, 1830: 365, 1839: 209. (**tx**) Crotch 1866; Hagedorn 1910d: 11; Marsham 1802: 57; Stephens 1829a: 147, 1829b: 12, 1830: 365, 1839: 209.
- picus* Marsham 1802: 58 (*Ips*). Syntypes, sex?; England; not located. Synonymy: Balachowsky 1949a: 125.
References: (**ds**) Stephens 1829a, 1830: 365, 1839: 209. (**tx**) Balachowsky 1949a: 125; Marsham 1802: 58; Stephens 1829a, 1829b: 12, 1830: 365, 1839: 209.
- abietiperda* Bechstein 1818: 187 (*Bostrichus*). Syntypes, sex?; Europe; not located. Synonymy: Ratzeburg 1837: 180, Murayama 1939: 138.
References: (**hb**) Feisthanel 1835. (**ds**) Sturm 1826: 156; Villa & Villa 1833: 26. (**tx**) Bechstein 1818: 74, 187; Murayama 1939: 138; Ratzeburg 1837: 180.
- marginatus* Duftschmidt 1825: 104 (*Hylesinus*). Syntypes, sex?; Wien, Austria; not located. Synonymy: Ratzeburg 1837: 180, Hagedorn 1910d: 10.
References: (**ds**) Duftschmidt 1825: 104. (**tx**) Duftschmidt 1825: 104; Hagedorn 1910d: 10; Murayama 1939: 138; Ratzeburg 1837: 180.
- fuscus* Duftschmidt 1825: 105 (*Hylesinus*). Syntypes, sex?; Linz, Austria; not located. Synonymy: Hagedorn 1910d: 10.
References: (**ds**) Dejean 1821; Duftschmidt 1825: 105. (**tx**) Dejean 1821; Duftschmidt 1825: 105; Hagedorn 1910d: 10; Murayama 1937: 372, 1939: 138.
- rufescens* Stephens 1830: 364 (*Hylurgus*). Syntypes, sex?; London, England; not located. Synonymy: Hagedorn 1910d: 11.
References: (**ds**) Murray 1883: 61; Stephens 1829a: 146–147, 1830: 364, 1839: 209. (**tx**) Hagedorn 1910d: 11; Murayama 1939: 138; Stephens 1829a: 147, 1829b: 12, 1830: 364, 1839: 209.
- helferi* Villa 1835: 49 (*Hylurgus*). Syntypes, sex?; Europe; not located. Synonymy: Murayama 1939: 138, Balachowsky 1949a: 125.
References: (**ds**) Heyden, Reitter, & Weise 1883: 181; Stein & Weise 1877: 163. (**tx**) Balachowsky 1949a: 125; Eichhoff 1883a: 123; Gemminger & Harold 1872: 2670; Murayama 1939: 138; Villa 1835: 49.
- parvus* Eggers 1933f: 2. Holotype, sex?; Wladiwostok, Ostsibirien, USSR; Eggers Collection, in NHMW, Wien. Synonymy: Sokanovskii 1954: 15.
References: (**hb**) Kurenzov 1948a: 50, 1950d: 161; Stark 1952: 204. (**ds**) Stark 1952: 204. (**tx**) Eggers 1933f: 2; Nobuchi 1959a: 11; Sokanovskii 1954: 15; Stark 1952: 204.
- * *piger* Wickham 1913: 27. Holotype, sex?; fossil in Colorado Miocene; not located.
Distribution: North America (fossil in Colorado Miocene).
References: (**ds**) Chamberlin 1939: 2, 4; Leng 1920: 363; Wickham 1913: 5, 27, 1920: 363. (**tx**) Chamberlin 1939: 2, 4; Wickham 1913: 5, 27.

* *pilosellus* Schedl 1947a: 26. Holotype, sex?; fossil in Baltic amber; Geologisch-Paläontologische, Inst. Albertus Univ., Königsberg. Figures: Schedl 1947a: 26 (adult). Distribution: Europe (fossil in Baltic amber). References: (ds) Keilbach 1982: 255; Schedl 1967b; Spahr 1981. (tx) Schedl 1947a: 16, 26. (ms) Keilbach 1982: 255.

planirostris (Chapuis) 1869: 21 (*Hylastes*). Lectotype ♀; Suanpan, Mexico; IRSNB, Brussels, designated by Wood 1972b: 146.

Figures: Schwerdtfeger 1957d: 366 (galleries).

Distribution: North America (Guatemala/ Baja California Sur, Chiapas, Chihuahua, Distrito Federal, Durango, Michoacan, Morelos, Oaxaca, Puebla, Tlaxcala, Veracruz in Mexico/ Arizona, New Mexico in USA).

Hosts: *Pinus ayacahuite*, *P. leiophylla*, *P. patula*, *P. pseudostrobus*, *P. spp.*

References: (ay) Thomas, J. B. 1967. (bv) Livingston, W. H. et al. 1983. (cc) Livingston, R. L. 1980; Livingston, W. H. et al. 1981, 1983. (hb) Atkinson & Equihua 1985a: 67; Atkinson et al. 1986: 15; Burgos & Saucedo 1983: 48; Schwerdtfeger 1957d: 365; Wood, S. L. 1982b: 85. (ds) Atkinson & Equihua 1985a: 67, 1985b: 228, 1988: 90; Atkinson et al. 1986: 15; Blackwelder 1947: 756; Blandford 1986: 144; Burgos & Saucedo 1983: 48; Chapuis 1869: 21, 1873: 229; Ferrer 1942; Hagedorn 1910d: 11; Kleine 1912b: 166, 1914b: 347, 358; Schedl 1940a: 338, 1963c: 156, 1966f: 76, 1977e: 42; Schwerdtfeger 1957d: 365, 385; Wood, S. L. 1982b: 85. (tx) Atkinson et al. 1986: 15; Blandford 1896: 144; Chapuis 1869: 21, 1873: 229; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46, 1910d: 11; Hopkins 1905b: 81; Schedl 1955g: 6; Thomas, J. B. 1967; Wood, S. L. 1972b: 146, 1982b: 85.

knausi Swaine 1917: 17. Lectotype, sex?; Clondcroft, New Mexico; CNCI, Ottawa, designated by Bright 1967b: 675. Synonymy: Wood 1972b: 146.

References: (hb) Chamberlin 1939: 207; Swaine 1918a: 81. (ds) Chamberlin 1939: 207; Leng 1920: 339. (tx) Bright 1967b: 675; Chamberlin 1939: 207; de Ruelle 1970: 102; Swaine 1917: 17, 1918a: 81; Wood, S. L. 1972b: 146.

porosus (LeConte) 1868: 175 (*Hylastes*). Lectotype ♀?; California [USA]; MCZ, Cambridge, designated by Wood 1972b: 147.

Figures: Kusch 1967: 10.

Distribution: North America (Alaska/ Alberta, British Columbia, Saskatchewan in Canada/ Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA).

Hosts: *Pinus attenuata*, *P. contorta*, *P. flexilis*, *P.*

jeffreyi, *P. ponderosa*, *P. radiata*, *P. spp.*, rarely *Picea spp.*

References: (cn) Brown, R. W. & Winter 1981; Chamberlin 1924; Doane et al. 1936; Hopkins 1902c: 13; James & Limane 1980: 14; Keen 1938: 27, 1952c: 154; Lindgren 1980a: 63; Schuder 1969: 78; Smith, G. J. & Melvin 1974a; Swaine 1918a: 81–83. (cc) Harrington & Cobb 1983; Keen 1938: 27; Kinn 1971; Livingston, R. L. 1980; Powell, J. M. & Skaley 1975. (hb) Bright 1976d: 46; Bright & Stark 1973: 23; Chamberlin 1939: 207, 1958: 119; Doane et al. 1936; Keen 1938: 27, 1952c: 154; Lindgren 1980a: 63; Swaine 1918a: 81–82; Wood, S. L. 1982b: 85. (ds) Bright 1976d: 46; Bright & Stark 1973: 23; Brown, R. W. & Winter 1981; Chamberlin 1925, 1939: 207, 1958: 119; Choo, Woo, & Kim 1981: 202; Evans, D. 1983: 33, 1985: 12; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 365; Hagedorn 1910d: 11; Henshaw 1882: 269, 1885: 149; Hopkins 1902c: 13; Hopping 1922; Keen 1929a: 24, 1938: 27, 1952c: 154; Kleine 1912b: 162, 1914b: 389, 1934a: 126; Kusch 1967; Leng 1920: 339; McComb et al. 1953: 3; Patterson & Hatch 1945: 151; Powell, J. M. & Kaley 1975; Schuder 1969: 78; Smith, G. J. & Melvin 1974a; Susut & Melvin 1974; Swaine 1909: 146; Wickham 1896a: 310; Winter 1983: 51; Wood, S. L. 1948: 32, 1951a: 127, 1972a: 399, 1982b: 85. (tx) Bright 1976d: 46; Chamberlin 1939: 207, 1958: 119; Evans, D. 1983: 33; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46, 1910d: 11; Keen 1929a: 24; Kusch 1967: 10; LeConte 1868: 175, 1876: 388; Pardy 1983; Swaine 1909: 146, 1917: 16, 1918a: 81–82; Wood, S. L. 1948, 1951a: 47, 1972a: 399, 1972c: 147, 1982b: 85–87.

lecontei Swaine 1917: 16. Holotype ♀; Colorado [USA]; CNCI, Ottawa. Synonymy: Wood 1972b: 147.

References: (cn) Chamberlin 1924; Doane et al. 1936; Essig 1926: 518, 1958: 518; Keen 1929: 57, 1938: 27, 1952c: 154; Ruppel 1967: 52; Schuder 1969: 74; Swaine 1918a: 81–82. (cc) Keen 1938: 27. (hb) Chamberlin 1939: 207, 1958: 119; Doane et al. 1936; Essig 1926: 518, 1958: 518; Hopkins 1902: 13; Keen 1929: 57, 1938: 27, 1952c: 154; Swaine 1918a: 81–82. (ds) Chamberlin 1917, 1925, 1939: 207, 1958: 119; Essig 1926: 518, 1958: 518; Hagedorn 1910d: 11; Hopping 1922; Keen 1929a: 25, 57, 1938: 27, 1952c: 154; Leng 1920: 339; Patterson & Hatch 1945: 151; Ruppel 1967: 52; Schuder 1969: 74; Swaine 1909: 146; Wood, S. L. 1948: 33. (tx) Bright 1967b: 675; Bruck 1936a; Chamberlin 1917: 326–327, 1939: 207, 1958: 119; Hoebeke 1978; Keen 1929a: 25; LeConte 1868: 175, 1876: 388; de Ruelle 1970: 102; Ruppel 1967: 52; Schuder 1969: 74; Swaine 1917: 16, 1918a: 81–82; Wood, S. L. 1972b: 147.

reticulatus Wood 1972d: 71. Holotype ♂; Summit Lake, Shasta Co., California; Wood Collection.

Distribution: North America (Alaska/ British Columbia, Northwest Territories in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA).

Hosts: *Picea engelmannii*, *P. sitchensis*, *Pinus attenuata*, *P. contorta*, *P. jeffreyi*, *P. monticola*, *P. muricata*, *P. ponderosa*, *P. radiata*, *Pseudotsuga menziesii*, *Tsuga heterophylla*.

References: (cn) Lindgren 1980a: 64. (ec) Stephen & Dahlsten 1976b: 292. (hb) Bright 1976d: 47; Bright & Stark 1973: 23; Lindgren 1980a: 64; Wood, S. L. 1982b: 88. (ds) Bright 1976d: 47; Bright & Stark 1973: 23; Furniss, R. L. & Carolin 1977: 365; Wood, S. L. 1982b: 88. (tx) Bright 1976d: 47; McNamara 1977: 196; Wood, S. L. 1972d: 71, 1982b: 88.

rugipennis (Mannerheim) 1843: 297 (*Hylastes*). Syntypes, sex?, Sitka Island, Alaska [USA]; not at MZU, Helsinki, lost?.

Figures: Bright 1976d: 200, 205.

Notes: (1) Wood 1982b: 89 (subspecies established).

***rugipennis rugipennis*:**

Distribution: North America (Alaska/ British Columbia, Yukon in Canada/ California, Oregon, Washington in USA).

Hosts: *Picea engelmannii*, *P. sitchensis*, *Pinus attenuata*, *P. contorta*, *P. lambertiana*, *P. monticola*, *P. muricata*, *P. radiata*, *Pseudotsuga menziesii*.

Notes: (1) Wood 1982b: 89 (subspecies).

References: (bv) Barr, B. A. 1969: 641; Chapman 1963: 675,676; Daterman, Rudinsky, & Nagel 1965; Oester, Ryker, & Rudinsky 1978; Ohmart & Voight 1982: 340. (cn) Brown, R. W. & Winter 1981; Chamberlin 1924; Doane et al. 1936; Essig 1926: 518, 1958: 518; Hopkins 1899b: 21, 1899c: 342, 449, 1904a: 19; James & Linnane 1980: 14; Keen 1929: 57, 1952c: 154; Lindgren 1980a: 63; Schuder 1969: 78; Smith, G. J. & Melvin 1974a; Swaine 1918a: 81. (ec) Chamberlin 1918a; DeLeon 1934a; Deyrup & Gara 1978: 275; Mason, W. R. M. 1978; Ohmart & Voight 1982: 340; Werner & Holsten 1984. (hb) Bright 1976d: 46; Bright & Stark 1973: 24; Chamberlin 1939: 206, 1958: 118; Chittenden 1890; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Essig 1926: 518, 1958: 518; Hopkins 1899b: 21, 1899c: 342, 449, 1904a: 19; Keen 1929: 57, 1952c: 154; Lindgren 1980a: 64; Pierce 1907: 294; Swaine 1918a: 81; Wood, S. L. 1982b: 89. (ds) Bright 1976d: 46; Bright & Stark 1973: 24; Chamberlin 1917, 1918a, 1925, 1939: 206, 1958: 118; Chapman, J. H. 1963: 675–676;

Chapuis 1869: 20, 1873: 228; Chittenden 1890; Cockerell et al. 1907; Currie 1905; Essig 1926: 518, 1958: 518; Evans, D. 1983: 33; Fall 1906: 203; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 365; Gautreau & Melvin 1974: 13; Hagedorn 1910d: 11; Hannilton 1894a: 36; Henshaw 1885: 149; Hopping 1922; Keen 1929a: 25, 57, 1952c: 154; Kleime 1912a: 218, 1912b: 166, 1934a: 126; Kusch 1967; Lacordaire 1866: 359; Leng 1920: 339; Leonard 1928: 516; Melsheimer 1853: 88; Murayama 1957a: 36; Ohmart & Voight 1982: 340,345; Patterson & Hatch 1945: 151; Ruppel 1967: 52; Schuder 1969: 76; Schwarz 1900: 537, 1910: 185; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a: 13; Susut & Melvin 1974; Swaine 1909: 115; Van Dyke 1924: 26; Werner & Holsten 1984; Wickham 1896a: 310, 1896b: 170; Wood, S. L. 1948: 31, 1982b: 89. (tx) Bright 1976d: 46; Chamberlin 1939: 206, 1958: 118; Chapuis 1869: 20, 1873: 228; Evans 1983: 33; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; Hopkins 1905b: 81; Jacques 1951: 350; Keen 1929a: 25; Kusch 1967: 10; Lacordaire 1866: 359; LeConte 1857: 22, 1868: 176, 1876: 390; Mannerheim 1843: 125, 297, 1853: 238; Swaine 1909: 115, 1918a: 81; Wood, S. L. 1969c: 116, 1982b: 89.

rugipennis pinifex (Fitch) 1858: 729 (*Hylastes*). Lectotype ♀; New York [USA]; USNM, Washington, designated by Wood 1982b: 90.

Distribution: North America (Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Quebec in Canada/ Alabama, Arizona, California, Colorado, Connecticut, District of Columbia, Georgia, Idaho, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Utah, Virginia, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Pinus balfouriana*, *P. contorta*, *P. flexilis*, *P. resinosa*, *P. strobus*, *P. virginiana*, *Picea* spp., *Larix americana*.

Notes: (1) Wood 1982b: 90 (reduced to subspecies). (3) Intergradation and/or apparent hybridization occur in interior southern British Columbia.

References: (ay) Hopkins 1894g: 280; Packard 1883: 280–282; Thomas, J. B. 1957: 4, 1967. (bv) Clemens 1916; Gardner 1957a; Hosking & Knight 1975. (cn) Anonymous 1989b; Balch 1945; Beal et al. 1952; Becker, W. D. 1955d, 1959b, 1962, 1964a, 1964c; Blackman 1950; Chamberlin 1918, 1924; Chenier & Philogene 1989a; Clemens 1916: 297; Doane et al. 1936; Felt 1906: 649, 665–666, 1926: 325, 1930a: 325; Harrington 1881: 32; Hopkins 1892b,

- 1899c: 449; Keen 1929: 57; Kondo & Taylor 1985; Lindquist, O. H. & Syme 1981: 59; Martin, J. L. 1965; Packard 1890: 709; Peirson 1927: 80; Smith, J. B. 1900: 365; Swaine 1918a: 81; Syme & Nystrom 1988: 56; Thomas, J. B. 1965a. (cc) Blackman & Stage 1918; Cooreman 1963: 45; Gardner 1957a; Graham 1921, 1923: 22–40; Reid 1955: 341; Tomalak, Welch, & Galloway 1989b: 2; Vitzthum 1926: 427. (hb) Baker, W. L. 1972: 252; Beal & Massey 1945: 92–93; Blackman 1919a: 90–95, 1950; Blackman & Stage 1918; Bright 1976d: 44; Bright & Stark 1973: 23; Chamberlin 1939: 206; Chapman 1963: 673–676; Chittenden 1899a; Clemens 1916; Currie 1905: 74; Dillon & Dillon 1961: 809; Doane et al. 1936; Felt 1926: 325, 1930a: 325; Harrington 1902a: 116; Hopkins 1893: 144, 1894g: 58, 1899; Keen 1929a: 57; Packard 1883b: 282, 1890: 709; Peirson & Dimond 1927: 80, 109; Pierce 1907: 294; Reid 1955: 312, 1957d: 437, 441; Schwarz 1885a: 50, 80; Swaine 1912b: 142, 1918a: 81; Wolcott & Montgomery 1933: 165; Wood, S. L. 1982b: 90. (ds) Anonymous 1926c: 516; Atkinson 1991: 154; Beal & Massey 1945: 92–93; Beaulne 1950; Blackman 1950; Blatchley & Leng 1916: 666; Bright 1976d: 44; Bright & Stark 1973: 23; Britton 1920a; Chamberlin 1917: 326, 1918: 33, 1925, 1939: 206; Chittenden 1899a; Deyrup 1981b: 2; Dodge 1938; Felt 1926: 325, 1930a: 325; Frost 1912: 308; Hagedorn 1910d: 11; Hamilton 1889: 159, 1890: 44, 1891: 132; Harrington, W. H. 1894: 16; Henshaw 1885: 149, 1887: 8; Heyden 1890: 132; Hopkins 1893a: 144, 1893b: 213; Hopping 1922; Hubbard & Schwarz 1878b: 643, 666; Keen 1929a: 57; Kleine 1912b: 166, 1914b: 399, 1934a: 126; Leng 1920: 339; Lindquist, O. H. & Syme 1981: 59; McComb et al. 1953: 3; Packard 1890: 709–710, 722, 826; Proctor 1946: 207; Provancher 1877: 574; Schedl 1940a: 338, 1971f: 147; Schwarz 1886: 56, 1888a: 50, 1904: 185; Schwerdtfeger 1957: 365; Smith, J. B. 1900: 365, 1910: 405; Snow 1881: 70, 1883: 44, 1906: 175, 1907: 188; Swaine 1909: 114; Swaine & Craighead 1924; Syme & Nystrom 1988: 56; Thomas, J. B. 1955: 341; Ulke 1902: 56; Vitzthum 1926: 467–503; Wickham 1896c: 168; Wolcott & Montgomery 1933: 165; Wood, S. L. 1951a: 127, 1982b: 90. (tx) Anonymous 1891: 92; Beal & Massey 1945: 92–93; Blandford 1894d: 58, 1895c: 6; Blatchley & Leng 1916: 666; Bright 1976d: 44; Chamberlin 1939: 205–206; Chapuis 1869: 20, 1873: 228; Clemens 1916; Dillon & Dillon 1961: 801, 809; Dodge 1938: 14, 32; Eichhoff 1896: 605; Fitch 1858: 729; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; Hamilton 1891: 132; Heyden 1890: 132; Hopkins 1904: 19, 1905: 81, 1914: 123, 1915c: 211; LeConte 1868: 176, 1876: 389–390; LeConte & Horn 1883: 525; Lindquist, O. H. & Syme 1981: 59; Provancher 1877: 574; Riley 1891b: 92; Schwarz 1896: 56; Swaine 1909: 114, 1918a: 81; Syme & Nystrom 1988: 56; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1955: 76; Wood, S. L. 1982b: 90. (ms) Swaine 1912b: 142.
- *schellwieni* (Hagedorn) 1906: 117 (*Hylastites*). Holotype, sex?, fossil in Baltic amber; Geologisch-Palaeontologische Inst. Albertus Univ., Königsberg, lost. Distribution: Europe (fossil in Baltic amber). Notes: (1) Schedl 1947a: 24 (to *Hylurgops*). (3) Schedl 1947a: 24 (original description quoted). References: (ds) Hagedorn 1907a, 1907b, 1910d: 11; Keilbach 1982: 255; Kleine 1912a: 163, 1912b: 162; Spahr 1981. (tx) Hagedorn 1906: 117, 1907a, 1907b, 1910a: 46; Keler 1928: 24; Schedl 1947a: 15, 24. (ms) Keilbach 1982: 255.
- spessittsevi* Eggers 1914: 187. Lectotype ♂; Ostsibirien, USSR; USNM, Washington, designated by Anderson & Anderson 1971: 30. Figures: Nobuchi 1967: pl. 1. Distribution: Asia (“Manchuria” [Heilongjiang?] in China/ Japan/ Korea/ Siberia in E USSR). Hosts: *Pinus koraiensis*, *P. pumila*, *Larix dahurica*, *Picea obovata*, *P. jezoensis*. Notes: (1) Kurenzov 1941a: 125 (original spelling of *spessiuzzeffi* amended). (3) Synonymy suspected, see *imitator* note 3). References: (cn) Kurenzov 1935c: 187. (ec) Kurenzov 1934a: 50. (hb) Kurenzov 1950d: 200; Stark 1952: 205. (ds) Arnoldi et al. 1955: 673; Florov 1949: 74; Kleine 1934a: 127; Krivolutskaya 1983; Kurenzov 1934a: 50, 1935c: 187, 1938a: 59; Manal 1931: 25; Nobuchi 1966e: 54, 1967: 19, 1985c: 4; Stark 1931d: 542, 1952: 205. (tx) Anderson, W. H. & Anderson 1971: 30; Eggers 1914: 187, 1922c, 1933f: 2; Krivolutskaya 1958: 120; Kurenzov 1941a: 125, 1948b: 106; Murayama 1942: 57; Nobuchi 1966e: 54, 1967: pl. 1, 1985c: 4; Pfeffer 1944b: 102; Schedl 1934f: 1636; Sokanovskii 1959: 95; Stark 1952: 205.
- modestus* Murayama 1937b: 367. Syntypes 8, sex?; Pie Biro du Kongosan, Korea; Murayama Collection in USNM, Washington. Synonymy: Wood 1992b: 83. References: (ds) Cho 1957; Choo 1983: 57; Ko 1969: 278; Murayama 1937b: 367–368. (tx) Murayama 1937b: 367–368; Wood, S. L. 1992b: 83.
- squamosus* Murayama 1942: 51, 56. Holotype, sex?; Manchukuo; Murayama Collection at USNM, Washington. Synonymy: Murayama 1942: 56, a probable variety. Notes: (3) Murayama 1941a: 51 (cited as possible variety of *spessittsevi*).

References: (tx) Murayama 1942a: 51, 56.

subcostulatus (Mannerheim) 1853: 239 (*Hylastes*).

Holotype, sex?, Kenai Peninsula, Alaska, [USA]; not in MZU, Helsinki, lost?.

Notes: (1) Wood 1982b: 91 (subspecies established).

subcostulatus subcostulatus:

Distribution: North America (Alaska/ British Columbia in Canada/ Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA).

Hosts: *Pinus contorta*, *P. jeffreyi*, *P. ponderosa*, *P. spp.*, *Picea engelmannii*, *P. spp.*, *Pseudotsuga menziesii*.

Notes: (1) Wood 1982b: 91 (subspecies established).

References: (cn) Anonymous 1967f; Blackman 1931c; Chamberlin 1924; Doane et al. 1936; Hopkins 1902c: 14, 1904a: 19; Keen 1929: 57, 1952c: 154; Lindgren 1980a: 64; Schuder 1969: 78; Stevens, Brewer, & Leatherman 1980: 25; Swaine 1918a: 81–82. (ec) Blackman 1931c; DeLeon 1934a; Furniss, R. L. & Carolin 1977: 365; Livingston, W. H. et al. 1983; Stephen & Dahlsten 1976b: 292; Thompson, W. R. & Simmonds 1964: 21, 1965: 27. (hb) Blackman 1931c: 34; Bright 1976d: 44; Bright & Stark 1973: 22; Chamberlin 1939, 1958; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 365; Hopkins 1904a: 19; Keen 1929: 57, 1952c: 154; Lindgren 1980a: 64; Pierce 1907: 295; Stevens, Brewer, & Leatherman 1980: 25; Swaine 1918a: 81–82; Wood, S. L. 1982b: 91.

(ds) Anonymous 1967f; Bright 1976d: 44; Bright & Stark 1973: 22; Chamberlin 1917: 326, 1925, 1939: 206, 1958: 118; Cockerell et al. 1907; Currie 1905: 74; Evans 1983: 33; Fall 1906: 203; Furniss, M. M. & Furniss 1977; Furniss, R. L. & Carolin 1977: 365; Hagedorn 1910d: 9, 12; Hamilton 1894: 36; Henshaw 1885: 149; Hopkins 1902c: 13, 141; Hopping 1922; Keen 1929a: 24, 57, 1949a: 93, 1952c: 154; Kleine 1912b: 166, 1914b: 347, 389, 1934a: 124; Lacordaire 1866: 359; Lange 1937: 173; Leng 1920: 339; Patterson & Hatch 1945: 151; Schedl 1940a: 338; Schuder 1969: 78; Smith, G. S. 1930; Swaine 1909: 115; Wickham 1896b: 179; Wood, S. L. 1982b: 91. (tx) Blandford 1895b: 144, 146; Bright 1976d: 44; Chamberlin 1939: 206, 1958: 118; Eggers 1929e: 54; Eichhoff 1896: 606; Evans 1983: 33; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; Keen 1929a: 24; Lacordaire 1866: 359; LeConte 1857: 22, 1868: 176, 1876: 389–390; Mannerheim 1853: 239; Swaine 1909: 115, 1918a: 81–82; Wood, S. L. 1969c: 116, 1982b: 91.

crustatus Mannerheim 1853: 239 (*Hylastes*).

Holotype, sex?, Kenai Peninsula, Alaska, USA; not in MZU, Helsinki, lost?. Synonymy: Wood 1982b: 91.

References: (ds) Hagedorn 1910d: 9; Hamilton 1894a: 36; Henshaw 1885: 149; Kleine 1912a: 218, 1912b: 162; Lacordaire 1866: 359; Leng 1920: 339; Swaine 1909: 1. (tx) Gemminger & Harold 1872: 2669; Hagedorn 1910a: 45; Lacordaire 1866: 359; LeConte 1857: 22, 1868: 177, 1876: 381, 389; Mannerheim 1853: 239; Swaine 1909: 113; Wood, S. L. 1969c: 115, 1982b: 91.

subcostulatus alternans (Chapuis) 1869: 22 (*Hylastes*). Syntypes, sex?, Mexique; IRSNB, Brussels.

Distribution: North America (Chiapas, Chihuahua, Distrito Federal, Durango, Guerrero, Hidalgo, Mexico, Morelos, Puebla in Mexico/ S Arizona, S New Mexico in USA).

Hosts: *Pinus chihuahuana*, *P. leiophylla*, *P. ponderosa*, *P. spp.*

Notes: (1) Wood 1982b: 92 (reduced to subspecies). (3) Intergradation between subspecies occurs from central Arizona and New Mexico to northern Mexico.

References: (ay) Thomas, J. B. 1967. (hb) Atkinson & Equihua 1985a: 69; Atkinson et al. 1986: 15; Burgos & Saucedo 1983: 49; Wood, S. L. 1982b: 92. (ds) Atkinson & Equihua 1985a: 69; Atkinson et al. 1986: 15; Blackwelder 1947; Blandford 1897a: 146; Burgos & Saucedo 1983: 49; Ferrer 1942; Leng 1920: 339; Schedl 1963c: 156; Swaine 1909: 116; Thomas, J. B. 1966; Wood, S. L. 1982b: 92. (tx) Blandford 1897a: 146; Chapuis 1869: 22, 1873: 230; Eggers 1929e: 54; Eichhoff 1896: 606; Gemminger & Harold 1872: 2669; Schedl 1940a: 338; Swaine 1909: 116, 1918a: 82; Thomas, J. B. 1967; Wood, S. L. 1982b: 92.

sulcatus Eggers 1933a: 97. Holotype, sex?, China: Szechuan, Tatsienlu Tjiji, Urwaldrodungen; Eggers Collection, in NHMW, Wien.

Distribution: Asia (Sichuan in China).

References: (tx) Eggers 1933a: 97–98; Sokanovskii 1959b: 93–94.

transbaicalicus Eggers 1941b: 119. Holotype, sex?, Wladiwostok, USSR; USNM, Washington.

Figures: Nakane et al. 1963: pl. 191.

Distribution: Asia (Japan/ E USSR).

Hosts: *Pinus koraiensis*.

Notes: (1) Murayama 1963b: 61 (synonym of *interstitialis*). Sokanovskii 1958: 38 (synonym of *imitator*).

References: (ds) Nakane et al. 1963: 381; Nobuchi 1985c: 5. (tx) Anderson, W. H. & Anderson 1971: 34; Eggers 1941b: 119; Nakane 1963: 381; Nakane et al. 1963: pl. 191; Nobuchi 1964: 132, 1985c: 5; Sokanovskii 1958: 38.

tuberculatus Eggers 1933a: 98. Holotype ♀; Tatsienhu Tjiji, Szechuan, China; USNM, Washington.

Distribution: Asia (Sichuan in China).

References: (tx) Anderson, W. H. & Anderson 1971: 34; Eggers 1933a: 98.

° **tuberculifer** Wood 1988: 32. Holotype, sex?; fossil in Baltic amber; Geologisch-Palaeontologische Inst. Albertus Univ., Königsberg.

Distribution: Europe (fossil in Baltic amber).

References: (tx) Wood, S. L. 1988: 32.

tuberculatus Schedl 1947a: 28. Holotype, sex?; fossil in Baltic amber; Geologisch-Palaeontologische Inst. Albertus Univ., Königsberg, pre-occupied by Eggers 1933a: 198.

References: (tx) Schedl 1947a: 16, 28; Spahr 1981.

Genus *Hylastes* Erichson

HYLASTES ERICHSON 1836: 47. Type-species: *Bostrichus ater* Paykull, designated by Westwood 1840: 39, Thomson 1859: 146.

Keys: Blackman 1941: 3, Bright 1976: 47, and Wood 1982b: 93 for North America; Murayama 1963b: 48 for Japan; Tsai & Huang 1964: 23 for China; Pfeffer 1944b: 98 for Europe.

Notes: (3) Species named by Stebbing 1908b: 14–15 as *Hylastes himalayensis* and *H. longifoliae* belong to *Cossoninae* (Curculionidae) and are here transferred to that subfamily.

References: (ay) Nobuchi 1969a: 49; Schonherr 1970b. (bv) Rudinsky & Zethner-Moller 1967: 911–912; Schonherr 1970b. (cn) Cooke 1954: 163–169; Rudinsky & Zethner-Moller 1967: 911–912; Simmonds 1966; Wellenstein 1954: 448–503; Zethner-Moller & Rudinsky 1967: 897–898. (ec) Koerber 1985; Lindquist 1970a: 980; MacDougall 1920; Nickle 1976b; Nickle & Welch 1984: 637; Pax 1921: 43–56; Rudinsky & Zethner-Moller 1967: 911–912; Webber & Gibbs 1989; Zethner-Moller & Rudinsky 1967: 897–898. (hb) Beal & Massey 1945: 52, 58, 93; Brammanis 1930: 168–177; Bright & Stark 1973: 25; Butovitsch 1934: 10; Judeich & Nitsche 1895: 445; Postner 1974: 392; Wood, S. L. 1982b: 93, 1986a: 36; Zethner-Moller & Rudinsky 1967: 897–898. (ds) Bright & Stark 1973: 25; Danks 1979; Hagedorn 1915; Hagedorn 1910d: 7–12; Patterson & Hatch 1945: 151; Rudinsky & Zethner-Moller 1967: 911–912; Schedl 1967b; Sedlaczek 1921: 334–339; Stoakley 1968: 182–188; Tragardh 1920: 1–6; Trappen 1935: 141; Winkler 1932: 1632; Wood, S. L. 1982b: 93, 1986a: 36; Zethner-Moller & Rudinsky 1967: 897–898. (tx) Acatay 1945: 3; Arnett 1960: 1034, 1041, 1968: 1034, 1041; Balachowsky 1949a: 127–133; Barbey 1901: 41; Bedel 1885b: 388–389 (as *Tomicus*); Blackman 1922b: 48, 63, 1941: 1–27, 1950: 301–302; Blandford 1893d: 425, 1894d: 56, 1895b: 81, 84–85, 1896e: 118,

142–144; Blatchley & Leng 1916: 667, 669; Brethes 1921: 433–435; Bright 1976d: 47–53, 1978: 47; Bright & Stark 1973: 25; Bruck 1936a: 43, 46; Chamberlin 1939: 208–215, 1958: 114–117; Chapuis 1869: 8, 16, 1873: 224; Choo 1983: 57; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 17; Eichelbaum 1903: 60–70; Eichhoff 1864b: 23–24, 29, 44, 46, 1881a: 35, 76, 1883a: 100; Erichson 1836: 47; Escherich 1923b: 457–480; Espinos 1967: 121–125; Fisher 1937: 115, 118, 130; Fuchs 1912a: 4–47; Gabler 1955: 222; Gemminger & Harold 1872: 2669; Hagedorn 1909b: 137–138, 1910a: 43–46, 1910d: 7–12; Hansen, V. 1955: 169–176, 1956: 177–185; Hanson, H. S. 1940a: 511–534, 1940b: 19–45; Hopkins 1914: 122, 1915: 122, 127, 177, 209; Jacquelin du Val & Fairmaire 1868: 99, 107; Karaman 1972: 69–71; Keen 1952: 73, 128, 154; Krivolutskaya 1958: 123; Kurenzov 1941: 131; Lacordaire 1866: 1358; LeConte 1868: 174, 1876: 387; LeConte & Horn 1883: 521, 524; Lekander 1965: 196–201, 1968a: 107–110; Leng 1920: 339; Lovendal 1889: 10–11, 30; Lucas 1920: 341; Lugger 1899: 233; Munro 1917: 123–158, 1926: 41, 54, 1946: 7–55; Murayama 1963b: 48–55; Niisima 1909: 137; Nunberg 1954: 17–20; Nusslin 1911a, 1912c; Perris 1856: 223; Pfeffer 1944b: 97–105, 1955: 105–118, 1989a: 37; Postner 1974: 392; Prell 1926: 68; Provancher 1877: 574; Redtenbacher 1845: 51, 96, 154, 164; Reitter 1894a: 38, 59–63, 1913a: 49–51; Saalas 1914: 79–80; Schedl 1947: 12–45, 1952a: 448, 1955g: 3, 1959n: 378–383, 1968c: 155–158, 1981b: 48; Scheerpeltz & Winkler 1930: 256; Schmitschek 1937: 44–45, 85; Spessivtsev 1922: 461, 1931: 84; Stark 1931: 339–343, 1952: 208–219; Stresemann et al. 1989: 351; Swaine 1909: 144, 1918a: 44, 47, 77–80; Swan 1942: 86–90; Thomson 1859: 146; Tsai & Huang 1964: 229–234; Westwood 1840: 39; Wichmann 1927: 347–372; Wollaston 1854: 304; Wood, S. L. 1961a: 42, 1967d: 36–37, 1982b: 93–107, 1986a: 36; Yin & Huang 1981: 556.

ambiguus Blandford 1894c: 57. Holotype, sex?; Fujisan, Japan; BMNH, London.

Distribution: Asia (Japan).

References: (hb) Stebbing 1909b: 14. (ds) Blandford 1894c: 57; Hagedorn 1910d: 7; Kleine 1912b: 162, 1914b: 254; Nobuchi 1985c: 4. (tx) Blandford 1894c: 57; Hagedorn 1910a: 45; Murayama 1954b: 155; Pfeffer 1944b: 102; Schedl 1934b: 1636, 1968c; Sokanovskii 1956: 40; Stebbing 1909b: 14.

° **americanus** Wickham 1913: 27. Holotype, sex?; fossil in Colorado Miocene; not located.

Distribution: North America (fossil in Colorado Miocene).

References: (ds) Chamberlin 1939: 2, 4; Leng 1920: 363; Wickham 1913: 5, 27, 1920: 363. (tx) Chamberlin 1939: 2, 4; Wickham 1913: 5, 27.

angustatus (Herbst) 1793: 111 (*Bostrichus*). Syn-types, sex[?]; Europe; not located.
 Figures: Pfeffer 1989: pl. 3.
 Distribution: Africa (introduced into South Africa), Asia (Turkey), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Norway/ Poland/ Spain/ Sweden/ Switzerland/ W Turkey, W USSR).
 Hosts: *Pinus sylvestris*, *P. pinaster*, rarely *Picea excelsa*.
 Notes: (3) Letzner 1891: 372 (*graphus* Duftschmidt, nomen nudum, synonymy).
 References: (ay) Escherich 1923b: 481; Feytaud 1950a; Fuchs 1912a: 16, 33, 42; Marcu 1933a: 37; Scherb 1971. (bv) Barr, B. A. 1969: 641; Dutoh 1975; Grune 1979: 51; Jones, T. 1966; Naumann-Etienne 1978a; Nuorteva 1956c: 28. (cn) Acatay 1943a: 62; Altum 1887: 392–396; Anonymous 1946i: 1, 3, 1985j; Barbey 1925: 204; Bevan & Jones 1971; Blateny 1924; Boas 1933; Boden 1903; Borthwick 1980: 59, 1981: 44, 1983b: 78; Browne 1968: 341; Butovitsch & Spaak 1939; Champion 1917: 173; Chorbadzhievo 1929; Dobrodejev 1924; Dutoit 1975; Eckstein 1926: 577; Escherich 1923b: 481; Feytaud 1950a; Gabler 1955; Gornostaev 1917; Grandi 1951; Hess 1898: 381; Hess & Beck 1914: 249, 1927: 303; Joly 1976; Jones, T. 1966; Judeich & Nitsche 1895: 453; Kamp 1956b: 471; Kangas 1934, 1937; Kauschinger 1893: 150; Kholodkovskii 1912: 304; Koch 1910: 18, 1913: 22; Komarek 1931; MacDongal 1914, 1915; Mayne 1926; Mokrzecki 1925; Mostovsky 1923; Muller 1912: 185; Orest 1926; Pax 1921: 185; Pfeffer 1933: 43; Phillips, D. H. & Bevan 1967: 7; Pierce, W. D. 1917: 74; Schimitschek 1944: 167, 1955c: 79; Schmidt 1881: 42; Schuster 1918: 102; Schwerdtfeger 1950b: 44, 1957a: 189; Siemasko 1937; Thaler 1902: 278, 1903: 400; Wachtl 1883b: 319; Webb, D. 1974: 9; Weber, H. 1926: 577; Wichmann 1927b: 352. (ec) Anonymous 1985j; Chararas 1959c; Dereksen 1941; Caloux 1947b; Gyorfi 1941b; Jakaitis & Valenta 1976: 20; Kangas 1937; Kleine 1908c: 181; Naumann-Etienne 1978a; Novak, P. 1952: 413; Nuorteva 1956a: 16; Perris 1852: 504, 1856a: 228; Pfeffer 1923a: 330, 1928b: 9, 1933: 43, 1943b: 181; Poinar 1975: 157; Ratzburg 1869a: 59; Ruhm 1956b: 3; Schuster 1918: 102; Schwerdtfeger 1944a: 183, 1950b: 44, 1957a: 189; Tullgren 1916; Wiackowski 1957a: 43; Wingfield & Knox-Davies 1980; Wingfield & Marasas 1983; Wingfield, Strass, & Tribe 1985; Zolk 1937. (hb) Acatay 1943a: 62; Altum 1881c: 268, 1887a, 1889c; Anonymous 1946i: 1, 3, 1985j; Barbey 1913: 172, 1925: 204; Bargmann 1906: 316; Bevan & Jones 1971; Bielussov 1917; Boden 1903; Browne 1968: 341; Budge 1949; Budkov 1897; Bukowsky 1930; Ceconi 1924; Chararas 1962c: 306; Charvat 1950; Chorbadzhievo 1929; Eckstein 1889, 1897, 1926: 577; Eichhoff 1881a: 36, 89,

1883d: 676; Escherich 1923b: 481, 619–622; Everts 1903: 752; Feytaud 1950a; Fuchs 1904a; Gabler 1955; Caloux 1947: 13; Grandi 1951; Gyorfi 1947: 3, 1957; Hagedorn 1903a; Henschel 1861: 80, 1876a: 86, 240, 1880b: 257; Herbst 1793: 111; Hess 1898: 381; Hess & Beck 1914: 249, 1927: 303; Jazentkovsky 1931b: 23–30, 38, 75, 89, 165; Joly 1976; Jones, T. 1971; Judeich & Nitsche 1895: 453; Karpinski 1932b: 52–56, 1933b: 24; Karpinski & Strawinski 1948: 154; Karsch 1883: 143; Kauschinger 1883: 110, 1893: 150; Kemmer 1919: 170; Kholodkovski 1912: 304; Lengerken 1939: 61; Marcu 1927b: 425–427; Munro 1926: 55; Naumann-Etienne 1978a; Nunnberg 1929: 101; Nuorteva 1956c: 28; Nusslin 1898: 277; Perris 1852: 504, 1856a: 228; Pfeffer 1933: 3–54, 1941b: 2, 1955; Postner 1974: 394; Ratzburg 1837: 137, 179, 1839: 166, 210; Scheidter 1925: 2–3; Schevyrew 1887b; Schimitschek 1944: 167; Schmidt 1881: 42; Schwerdtfeger 1944a: 183, 1949: 1, 1957a: 189, 1981: 194; Sedlacek 1918: 253–283; Spessivtsev 1913a: 67; Stark 1926a: 333, 1952: 216; Taschenberg 1880: 210; Tschorbadjev 1929: 163; Wachtl 1883: 319; Webb, D. 1974: 9; Weber, H. 1926: 577; Wichmann 1927b: 352. (ds) Aeloque 1896; Andersch 1851; Anonymous 1970c: 13; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Bedel 1888b; Bejer-Petersen 1977: 16; Bielz 1887; Bistrom 1978; Blanchere & Robert 1884; Borchert 1951; Brakman 1966b: 204; Brancsik 1871, 1906; Browne 1968: 341; Bucking 1932; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Calwer 1884, 1893; Carpentier & Delaby 1908; Ceconi 1897; Champion 1893; Chapuis 1869: 19, 1873: 227; Chararas 1962c: 306; Charvat 1950; Chorbadzhievo 1924d, 1929; Correa de Barros 1907; Crotch 1863; Debatisse 1945; Dejean 1837; Donisthorpe 1898; Eckstein & Butovitsch 1931; Eder 1934; Eggert 1904; Endrodi 1958b; Ernisch 1953; Escherich 1923b: 481, 1932b; Eyquem 1891; Favre 1890; Fjellberg 1966: 154; Forster 1849: 440; Fowler 1891; Fuchs 1904a, 1905a; Ganglbauer 1904; Gaubil 1849: 128; Girard 1881a; Gozis 1875: 79; Gredler 1866: 369; Grill 1895: 307; Gronzelle 1905; Grune 1979: 51; Gyllenhal 1827: 618; Gyorfi 1941b; Hagedorn 1903a, 1910d: 8–10; Hansen, V. 1939, 1956, 1964: 458; Heinemann 1908a; Hellen 1947; Heliessen 1916: 83; Hepburn 1966; Heyden 1876: 296, 1898: 77; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Horion 1951; Jasilkowski 1906; Jazentkovsky 1912: 288; Joly 1976; Jones 1965: 145; Judeich & Nitsche 1895: 453; Kaltenbach 1874: 686; Kamp 1956b: 471; Karpinski 1925: 216, 1932b: 52, 1933b: 24, 1948b: 229; Karpinski & Strawinski 1948: 154; Kemmer 1919: 170; Kersten 1933: 77; Kestereanek 1881a: 12; Kiefer et al. 1942: 528; Klefbeck & Sjobeck 1960: 231; Kleine 1912a: 263, 1912b: 162, 1913a: 34, 1914b:

248, 1934a: 126; Kloft & Hinks 1945: 218; Koca 1905: 191; Koltze 1901: 152; Koschitsky 1900: 83; Kotula 1873b: 79; Kraatz 1869: 59; Krol 1877: 34; Kurir 1947c: 8; Kvamme 1985: 50; Lacordaire 1866: 358; Langhoffer 1915c: 157; Larroche & Torossian 1971; Lentz 1857: 137; Lindemann 1884b: 263; Lokaj 1868: 63; Lomnicki 1886a: 240, 1913b: 148; Lucht 1987: 276; Luigioni 1929: 994; Marcu 1927b: 425; Matthew & Fowler 1883: 42; Mequignon 1936: 15; Munro 1916: 275–281, 1917: 123–158, 1920: 1–35, 1921: 87; Munster 1928: 289; Murray 1853: 61; Novak, P. 1952: 413, 1964; Nunberg 1928b: 88, 1954: 20; Nusslin 1898: 277; Oliveira 1887: 326; Pacher 1865: 151; Perris 1876a: 253, 1877b: 413; Pfeffer 1928b: 9, 1931b: 74, 1933: 3–54, 1947e: 14, 1984: 277, 1989a: 40; Pierce, W. D. 1917: 74; Pittioni 1943: 175; Pomerantzev 1907b: 492; Poppius 1900: 107; Postner 1974: 394; Rapp 1934: 724; Ratzeburg 1837: 137, 179, 1839: 166, 219; Redtenbacher 1858: 825, 1874: 367; Reitter 1869b: 153, 1894a: 62, 1916: 284; Revy & Siroki 1942: 82; Roubal 1941: 260; Rye 1865: 82; Sahlberg 1900: 104; Sainte-Claire & Mequignon 1938: 444; Schaschl 1854: 132; Schaufuss 1915: 1226; Schaum 1859: 95, 1862: 100; Schedl 1965h: 111, 1967c: 74, 1968c, 1971d: 428, 1980a: 10, 1981b: 50; Schilsky 1909: 187; Schneider & Leder 1977: 54; Schwerdtfeger 1981: 194; Sedlacek 1921: 334–339; Seidlitz 1872: 391, 1891a: 558, 1891b: 604; Sharp 1920: 205; Sharp & Fowler 1873: 34; Stark 1926a: 333, 1926b: 102, 1952: 216; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1824a: 147, 1830: 364, 1839: 209; Stierlin 1898: 431; Stierlin & Gautard 1871: 291, 1906: 205; Strauch 1861: 123; Sturm 1826: 156, 1843: 228; Thomson 1865: 349; Tragardh 1920, 1923, 1929, 1935; Tredl 1907: 9; Tschorbadjev 1929: 163; Villa & Villa 1833: 26; Wachtl 1870: 259; Wanka 1908: 231, 1915: 213; Westhoff 1882: 236; Wichmann 1927a: 61; Wiepken 1883: 89; Wiren 1962: 152; Zoufal 1920: 21. (tx) Acatay 1943: 62; Acloque 1896; Bach 1854; Balachowsky 1949a: 132; Bedel 1888b; Bertolini 1872; Borthwick 1981: 47; Brancsik 1871; Carpentier & Delaby 1908; Chapuis 1869: 19, 1873: 224; Charvat 1950; Chorbadzhievo 1924d; Csiki 1909; Doebner 1860; Donisthorpe 1931: 121; Duffy 1953; Eggers 1923b; Eichhoff 1864b: 46, 1881a: 36, 89, 1883a: 101, 122; Endrodi 1957a, 1957b; Erichson 1836: 47, 51; Escherich 1923b: 481, 619–622; Escherich & Escherich 1897; Everts 1903: 752; Fauvel 1889; Ferrant 1911; Fleischer 1905, 1927; Formanek 1907: 28; Fuchs 1912a; Gabler 1955; Gemminger & Harold 1872: 2669; Grune 1979: 51; Gyllenhal 1813: 142, 1827: 618; Hagedorn 1910a: 45; Hansen, V. 1955, 1956, 1964: 458; Henschel 1876d: 86, 240; Herbst 1793: 111; Hopkins 1915c: 221; Iablokoff-Khnzorian 1961: 105; Jacqueline du Val & Fairmaire 1868: 99; Joly 1976; Judeich &

Nitsche 1895: 453; Karpinski & Strawinski 1948: 154; Koch 1910: 18, 1913: 22; Kugelann 1794: 524; Kuhlnt 1913: 1053; Lacordaire 1866: 358; Lekander 1965: 1917; Letzner 1891: 372; Leunis 1886: 178; Lindemann 1875: 196–252; Lucas 1920: 341; Lucht 1987: 276; Luigioni 1928: 994; Murayama 1939: 135; Nunberg 1954: 20; Panzer 1775a: 287; Perris 1877a: 413; Pfeffer 1932b: 15, 1941b: 2, 1944b: 102, 1947e: 14, 1955a: 16, 1989a: 40; Portevin 1935: 321; Postner 1974: 394; Quaschik 1953: 35; Ratzeburg 1837: 137, 179, 1839: 166, 219, 1876: 66; Redtenbacher 1849a: 365, 1849b: 27, 1858: 825, 1874: 367; Reitter 1894a: 62, 1913a: 53, 1916: 284; Rey 1892b: 30; Sahlberg 1836: 137; Schedl 1934f: 1636, 1952f: 87, 1957b: 149, 1959n: 380–381, 1968c, 1980a: 10, 1981b: 50; Scherb 1971; Schimitschek 1955c: 79; Seidlitz 1872: 391, 1891a: 558, 1891b: 604; Spesivtsev 1913a: 64–67, 1922a: 462, 490, 1931: 26, 1938: 159–162; Stark 1952: 216; Stephens 1829a: 147, 1829b: 12, 1830: 364, 1839: 209; Stierlin 1898: 431; Strohmeyer 1914e: 8; Taschenberg 1880: 210; Thomson 1865: 349; Tsai & Li 1959: 85. (ms) Escherich 1932b; Hartig 1834: 412, 413; Heinemann 1908a; Henschel 1880b: 257; Kirsten 1988; Lucas 1920: 341; Ratzeburg 1871b: 400; Ritter 1929: 554; Wichmann 1927: 61, 1961: 336.

angusticollis Eggers 1929c: 9. Holotype, sex?; Wladimir (Wolhynien), USSR; IZL, Leningrad.

Distribution: Europe (W USSR).

Hosts: *Picea* sp.

Notes: (3) Schedl 1979c: 20 (lectotype designation invalid). A report of this species from Belgium requires confirmation.

References: (ds) Kleine 1934a: 126; Leclercq 1971; Stark 1952: 219; Winter, T. G. 1983: 14. (tx) Eggers 1929c: 9; Schedl 1934f: 1636, 1979c: 20; Sokanovskii 1958: 38; Stark 1952: 219.

asperatus Wood 1975a: 24. Holotype ♀; New Mexico [USA]; Wood Collection.

Distribution: North America (Coahuila in Mexico/ Arizona, New Mexico in USA).

Hosts: Presumably *Pinus* sp., *Pseudotsuga flahuatii*.

References: (ds) Atkinson & Equihua 1988: 90; Wood, S. L. 1982b: 104. (tx) McNamara 1984: 753; Wood, S. L. 1975a: 24, 1982b: 104.

ater (Paykull) 1800: 153 (*Bostrichus*). Lectotype ♀; England: Surrey-Bramshill; not located, designated by Lekander 1965a: 185.

Figures: Stark 1952: 212 (adult).

Distribution: Africa (Azores Islands), Asia (Fujian, "Manchuria" [Heilongjiang?] in China/ Japan/ Korea/ Turkey/ E USSR), Australia (introduced), Europe (Austria/ Belgium/ Bulgaria/ Denmark/ England/ Finland, France/ Germany/ Greece/ Italy/ Netherlands/ Norway/ Poland/ Portugal/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia),

New Zealand (introduced), South America (introduced to Chile).

Hosts: *Pinus* spp., *Picea* spp., uncommon in *Abies* spp., *Taxus baccata*, *Pseudotsuga menziesii*.

Notes: (3) Stephens 1829a: 147 (*Ips boleti* Marsham, nomen nudum, *I. niger* Marsham, nomen nudum, synonymy).

References: (ay) Beaver 1970: 198–206; Chararas 1956a, 1971b; Clark, A. F. 1932: 1–20; Escherich 1923b: 458, 480; Feytaud 1950a; Francke-Grosman 1966; Fuchs 1912a; Grocholski, Michalski, & Nowak 1977; Grocholski et al. 1978; Marcu 1933a: 36; Munro 1917b: 123; Numberg 1928a: 140; Nusslin 1912c: 275; Scherb 1971; Schroder 1901: 461, 1902: 85; Sedlacek 1902b: 244; Wichmann 1912a: 9–10. (bv) Annala 1971: 12; Barr, B. A. 1969: 641; Borden & Wood 1966: 253; Chararas 1971b; Grune 1979: 47; Hosking 1977; Naumann-Etienne 1978a; Nuorteva 1956c: 22; Pertunen 1957: 102; Rudinsky & Zethner-Moller 1967: 912; Wichmann 1912a: 9, 1953a: 107; Wood, D. L. & Bushing 1963: 1069. (cn) Adams 1950; Anonymous 1921p: 1–4, 1939f, 1945e: 1, 1946i: 1–2, 1977r, 1979p, 1979q, 1982h, 1982i; Bain 1973a; Barbey 1925: 203; Bedhall 1960: 12; Besceci 1963; Bevan 1966; Block 1906: 7; Boden 1903; Boomsma & Adams 1943; Brakman 1967; Browne 1968: 342; Butovitsch & Spaak 1939; Chararas 1961c: 93; Chorbadzhievo 1929; Ciesla 1988; Clark 1932a, 1932b; Collinge 1915: 789–791; Doom 1949; Dowding 1974; Dugdale 1965b; Eckstein 1915, 1926: 525; Egorov 1958: 1492; Elgstrand 1921: 225–229; Elton 1946, 1947; Escherich 1917, 1923b: 458, 480, 1930a; Espanol 1964a; Esterberg 1959; Faulds 1989; Feytaud 1950a; Fisher 1937c; Gabler 1955; Grandi 1951; Green, F. G. 1923; Gurev 1928: 144; Hanson, H. S. 1937, 1940a, 1943, 1952; Hartig 1861: 324, 1877: 190; Hess 1880, 1898: 380, 1907: 263; Hess & Beck 1914: 249, 1927: 303; Horn 1937: 271; Hosking 1977; Hrubik 1973; Inouye 1949b; Jacentkovsky 1933: 271; Joly 1976; Judeich & Nitsche 1895: 447, 453; Kangas 1937; Kauschinger 1893: 150; Keller 1903b: 52; Kholodkovskii 1912: 278, 303; Kobakhidze 1960: 1853; Koch 1913: 29; Koppen 1882: 236, 243; Laidlaw 1947: 56; Lekander 1955b: 17; Lekander, M. 1951: 51; Lohrenz 1907: 40; Lonshehakov & Lur'e 1960; Luitjes 1958: 211; Mamaev 1929: 134–142; Marcu 1926c: 62; Mathiesen 1952: 285; Mathiesen-Kaarik 1953: 6, 21; Miller, D., & Clark 1935: 302, 1935b: 149–154; Milligan 1978; Minko 1958, 1961: 5, 12, 1962; Moore, K. M. 1962b, 1963: 71; Muller 1912: 185; Munro 1917a: 25, 1922: 136; Nelson 1931; Nestertschnik 1930: 176; Nemmann & Marks 1976: 93; Nusslin 1913: 205; Pfeffer 1933: 43, 1948d: 235; Pierce, W. D. 1917: 74; Poloshenzew 1926; Pospelow 1924; Rawlings 1957: 11, 1958: 243; Reisseneger 1889: 299; Rhumbler 1922: 279, 1927: 291; Rodzianko 1915: 1–15;

Saalas 1949: 366, 341; Schimitschek 1937c: 48, 1938b: 114, 1955a: 39, 41, 1955c: 78, 1961a: 154; Schmidt 1881: 41; Schoyen 1914: 448; Schuster 1918: 102; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 183, 1950b: 44, 1957a: 189; Sedlacek 1921: 339; Sinreich 1961: 166; Swan 1942: 86–90; Sylven 1920: 1–19; Thaler 1898: 389, 1902: 278, 1903: 400; Tragardh 1917: 28, 1920c: 1–6, 1927c: 76, 1938a: 11, 1942: 465; Villasenor 1966; Wachtl 1883b: 319, 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 349; Wolff & Krause 1922: 84; Wulker 1923: 435, 1924: 1–20, 1929: 289; Xambu 1897: 50; Zarco 1964a: 254; Zethner-Moller & Rudinsky 1967: 497; Zetterstedt 1828: 343, 1840: 191; Zinovjev 1955: 187; Zondag 1965b, 1966, 1968, 1982. (ec) Apfelbeck 1916b; Balazy 1965a; Balazy & Michalski 1960; Barbey 1927; Brammanis 1940; Brimblecombe 1952; Cameron 1940; Chararas 1959d, 1964a, 1964b; Clark 1936; Cooreman 1963: 45; Crooke & Kirklund 1956: 135–145; Dale, P. S. 1964, 1967; Domanski 1983; Dowding 1974; Elton et al. 1964; Faulds 1989; Filipascu 1960; Francke-Grosman 1966c; Fuchs 1914b, 1929a, 1937; Galoux 1947b; Gauss 1954a: 423; Gillanders 1906; Gyorf 1941b; Hirschmann & Wisniewski 1982, 1983; Hosking 1977; Jakaitis & Valenta 1976: 20; Kakuliya & Shalibashvili 1976a; Kangas 1937; Kaya 1984; Kharitov 1924: 199–204; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 181, 1909a: 44, 78; Kobakhidze 1960: 1853; Kostenko 1929; Kostin 1964: 106; Leatherdale 1970: 424, 429; Lovendal 1890a: 130; MacGillavry 1906: 27; Malunka 1968; Majewski & Wisniewski 1978a: 8–10; Mathiesen 1952: 285; Mathiesen-Kaarik 1953: 6, 21, 1960; Michalski & Ratajczak 1989; Miller, D. & Clark 1935: 302; Nauman-Etienne 1978a; Novak, P. 1952: 413; Nuorteva 1956a: 17, 1967a, 1968a, 1970, 1971; Nusslin 1927: 291; Okolow 1963; Palmen 1944: 60, 1946: 194; Perris 1852: 497, 1856a: 241; Pfeffer 1923a: 330, 1928: 2, 1933: 43; Poinar 1975: 157; Ratzeburg 1869a: 59; Rawlings & Wilson 1949: 28; Rennerfelt 1951: 122; Roubal 1934a: 86; Ruhm 1955d: 72, 1956b: 3, 1957: 351, 1958: 295, 1969; Saalas 1917a: 18, 1928: 651, 1949: 341, 366; Scheibelreiter 1976; Schimitschek 1941b: 59, 1955a: 39, 41; Schuster 1918: 102; Schwerdtfeger 1944a: 183, 1950b: 44, 1957a: 189; Sedlacek 1900: 503, 1908: 52, 1935a: 163; Stammer 1933: 152; Stark 1925b: 80; Stora 1938: 20; Thompson, W. R. & Simmonds 1964: 83–84, 1965: 21; Vitzthum 1923: 107; Wallace 1953: 164; Wiackowski 1957a: 43; Wichmann 1953a: 107, 1955a: 92, 1956: 60; Wisniewski 1979b, 1979c: 5, 1980; Woodring & Moser 1970; Zondag 1976b, 1979; Zondag, Bain, & Faulds 1976. (hb) Alkan 1946: 142; Altum 1881a, 1881c: 268, 1887a, 1887d, 1888a, 1889c; Anonymous 1921p: 1,

- 1946i: 1–2; Apfelbeck 1916b, 1917; Aullo 1918: 163–171; Baeta Neves & Goes 1944; Barbey 1901: 10, 18, 42, 1925: 203; Bargmann 1906; Belfa 1961; Besceci 1963; Binzer 1881a; Boas 1923: 320; Boden 1903; Boomsma & Adams 1943; Brakman 1967; Browne 1968: 342; Budge 1949; Budkov 1897; Bukowsky 1930; Champion 1917: 173–174; Chapuis 1869: 19, 1873: 227; Chararas 1962c: 299, 1964a; Charvat 1950; Chorbadzhievo 1929; Clark, A. F. 1932a, 1932b; Dallimore & Munro 1922: 189–193; Dombrowski 1887; Eckstein 1889, 1897, 1915, 1926: 575, 1936; Eichhoff 1881a: 35, 76, 1881d: 435, 1883d: 676, 1883e: 50; Elton et al. 1964; Escherich 1923b: 458, 480; Evans 1952: 141; Everts 1903: 751; Feytaud 1950a; Florov 1949: 76; Fuchs 1904a, 1911b; Gabler 1955; Gillanders 1906, 1908; GornostaeV 1916: 311; Grandi 1951; Gyorfı 1957; Hadlington 1951a; Hagedorn 1903a; Hartig 1861: 324, 1877: 190; Henschel 1876a: 87, 240, 1880b: 257, 1895a: 134; Hess 1880, 1898: 380, 1907: 263; Hess & Beck 1914: 249, 1927: 303; Hickin 1963; Holmgren 1867: 113, 120; Hopkins 1915c: 221; Hufnagl & Puzyr 1951: 104; Imms 1925: 509; Jaurisch 1892: 21; Joly 1976; Judeich & Nitsche 1895: 447, 453; Karpinski 1933b: 24; Karpinski & Strawinski 1948: 154; Kauschinger 1883: 110, 1893: 150; Kholodkovski 1912: 278, 303; Knoche 1905: 354; Knotek 1894a: 553; Kostin 1960: 13; Lengerken 1939: 61, 1954: 82; Lohrenz 1907: 40; Loos 1913: 405; Louzil 1961: 40; Lovendal 1890a: 130; Lumardoni & Leonardi 1889: 420; MacGillavry 1906: 27; Miller, D. & Clark 1935: 302; Milligan 1978; Munro 1916a: 275, 1916b: 119, 1917a: 25, 1917b: 123–158, 1926: 55; Naumann-Etienne 1978a; Nunberg 1929: 100; Nuorteva 1956c: 22, 1967a, 1968a, 1970; Nusslin 1898: 276, 1906b: 16, 1913: 205, 1927: 291; Palm 1955d: 135; Perris 1852: 497, 1856a: 241; Petrenko 1966; Pfeffer 1941b: 2; Postner 1944: 393; Ratzburg 1837: 179, 1839: 159, 219; Rhumbler 1922: 279, 1927: 291; Rimski-Korsakov et al. 1949: 297; Rupertsberger 1879: 231, 1880: 225; Saalas 1913a: 68, 79, 1949: 341, 366; Schmidt 1881: 41; Schnaider 1954: 173; Schwerdtfeger 1944a: 183, 1957a: 189, 1981: 194; Schwappach et al. 1929; Sedlaczek 1900: 503, 1921: 339, 1935a: 163; Simmel 1928: 154; Spessivtsev 1913a: 66, 1928a: 223; Stark 1926a: 332, 1952: 212; Swann 1942: 86; Taschenberg 1880: 210; Tragardh 1914: 82, 1927c: 76, 1929a: 311, 1930c: 470, 1939b: 144, 194; Tschorbadjiev 1929: 163; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 349; Wolff & Krause 1922: 84; Zethner-Moller & Rudinsky 1967: 898. (ds) Acloque 1896; Alfken 1924: 405; Alma & Van Boven 1976; Ammann & Knabl 1913, 1923; Andersch 1851; Anonymous 1960: 319, 1977r, 1979p; Audras & Schaefer 1957; Baeta Neves & Goes 1944; Bain 1974: 15; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Bednall 1960: 12; Bejer-Petersen & Jorum 1977: 15; Bielz 1851, 1887; Binaghi 1967; Blair 1949; Blanchere & Robert 1889; Boas 1923: 320; Borchert 1951; Brakman 1966b: 204, 1967; Brancsik 1871, 1906; Bright 1987a: 2; Brimblecombe 1953: 5; Browne 1968: 342; Bruggemann 1878; Brundin 1934; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calver 1884, 1893; Carpentier & Delaby 1908; Cecconi 1924; Chadwick & Nikitin 1968; Chapuis 1869: 19, 1873: 227; Chapuis & Candeze 1853; Chararas 1962c: 299, 1964a; Charvat 1950; Cho 1952; Choo 1983: 57; Choo & Woo 1985: 164; Chorbadzhievo 1924d, 1929; Chrystal 1937; Ciesla 1988; Clark 1932a, 1932b; Crotch 1863; Csiki 1942c; Dallimore & Munro 1922; Debatisse 1945; Dejean 1821, 1825, 1837; Doom 1949; Duftschmidt 1825; Dugdale 1965b; Eckstein & Butovitsch 1931; Eder 1934; Eggers 1904; Elton 1946, 1947; Endrodi 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 458, 480, 1930a, 1932b; Esterberg 1928, 1959; Evans 1952: 141; Eyquem 1891; Favre 1890; Forster 1849; Fowler 1891; Fricken 1889: 275; Fuchs 1904a, 1905a, 1919: 252; Ganglbauer 1904; Gaubil 1849: 128; Gammitz 1928: 92; Georghion 1977: 73; Gobang 1870: 133; GornostaeV 1917; Gozis 1875: 79; Gredler 1866: 368; Grill 1895: 307; Grune 1979: 47; Gyllenhal 1827: 618; Gyorfı 1941b; Hagedorn Havelka 1945; Heinemann 1908a; Hellen 1928: 1903a, 1910d: 8; Hansen, V. 1939, 1956, 1964: 458, 99, 1947; Helliesen 1916: 83; Henschel 1895a: 134; Heyden 1876: 296, 1881: 177, 1893: 177; Heyden, Reitter, & Weise 1883: 180, 1891: 667, 1906: 710; Hickin 1963; Holdhaus & Deubel 1910: 173; Holmgren 1867: 113, 120; Horion 1951; Hosking 1977; Ihssen 1939: 336; Illiger 1805: 130; Inouye 1949b; Jacentkovsky 1933: 271; Jannicky 1960a; Janovsky & Tegshzhargal 1985: 406; Jasilkowski 1906; Jazentkovsky 1912: 287; Jenistea 1933: 123, 1934: 61; Johnson & Halbert 1902: 818; Joly 1976; Judeich & Nitsche 1895: 447, 453; Kaltenbach 1874: 686; Karpinski 1925: 216, 1926: 82, 1931: 23, 1933a: 290, 1933b: 24; Karpinski & Strawinski 1948: 154; Keler 1902: 67, 1925b: 271; Kersten 1933: 73; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 230; Kleime 1912a: 262, 264, 267, 1912b: 162, 1913a: 34, 1914b: 249, 251, 1934a: 126; Kloft & Hinks 1945: 218; Knotek 1892a: 32, 1894a: 553; Ko 1969: 276; Koltze 1901: 151; Koppen 1882: 236, 243; Koschitsky 1900: 83; Kostenko 1929; Kotula 1873b: 79; Kraatz 1869: 59; Krivolutskaya 1983; Krol 1877: 34; Kurir 1947c: 8; Kuschel 1972; Lacordaire 1866: 358; Langhoffer 1915c: 157; Larroche & Torossian 1971; Leatherdale 1970: 424, 429; Leclercq 1971; Lekander 1955b: 17; Lentz 1857: 137; Liegel 1886: 43; Lindberg & Saris 1952: 59; Lindemann 1884b: 263; Linnaniemi 1935: 45; Lokaj 1868: 63; Lomnicki 1886a: 240, 1913b: 148; Loos 1913:

405; Lovendal 1890c: 210; Lucht 1987: 276; Luigioni 1929: 994; Luna de Carvalho 1950: 15; Lunardoni & Leonardi 1889: 420; Lundblad 1950c: 115; Mahler 1987: 232; Mandl 1931: 25; Marcu 1926c: 62; Matthews & Fowler 1883: 41; Mequignon 1936: 15, 24; Milligan 1978; Minko 1961: 512; Moore, K. M. 1963: 71; Munro 1916a: 275, 1922: 136; Munster 1922a: 155; Murayama 1929b: 2, 1929e: 41, 1930a: 7, 1930b: 7, 1937b: 375; Murray 1853: 60; Negru 1966b: 399, 1968a: 454; Neumann 1979; Nobuchi 1985c: 3; Novak, P. 1952: 413; Numberg 1928b: 88, 100, 1954: 20; Nusslin 1898: 276; Orest 1926c: 62; Oswald 1976; Pachter 1853: 49, 1865: 151; Palm 1955d: 135, 1957: 47, 1962a: 183–184; Palmen 1944: 60, 1946: 194; Perris 1876a: 253, 1877a: 413; Pfeffer 1928b: 2, 1931b: 74, 1935: 159, 1947c: 14, 1947d: 127, 1947e: 14, 1984: 277, 1989a: 39; Pierce, W. D. 1917: 74; Pittioni 1943: 175; Platonoff 1940: 11, 1943: 141; Pomerantzev 1907b: 492; Poppius 1900: 107; Postner 1974: 393; Rapp 1934: 723; Ratzburg 1837: 179, 1839: 159, 219; Rawlings 1948: 413, 1957: 11; Redtenbacher 1858: 826, 1874: 367; Reitter 1869b: 152, 1894a: 60, 1916: 283; Rimski-Korsakov et al. 1949: 297; Roubal 1941: 260; Saalas 1913a: 68, 79, 1917a: 18, 1931: 70; Sahlberg 1900: 104; Sainte-Claire 1914: 471; Sainte-Claire & Mequignon 1938: 444; Schaschl 1854: 132; Schanfuiss 1915: 1226; Schaum 1859: 95, 1862: 100; Schedl 1960e: 171, 1967c: 74, 1971d: 430, 1971f: 146, 1980a: 10, 1981b: 49; Scheerpeltz & Winkler 1930: 256; Schiodte 1873: 99; Schilsky 1909: 187; Schimitschek 1938b: 114; Schneider & Leder 1977: 54; Schwerdtfeger 1981: 194; Seidlitz 1872: 390, 1875: 281, 1891a: 558, 1891b: 603; Sharp & Fowler 1893: 34; Stark 1926a: 332, 1926b: 101, 1926j: 124, 1931a: 23, 1952: 212; Stein 1868: 113; Stein & Weise 1877: 163; Stenius 1936: 3, 18; Stephens 1829a: 147, 1830: 364, 1839: 209; Stierlin 1898: 431; Stierlin & Gautard 1871: 290, 1906: 205; Strand 1946: 597, 1953: 59–63; Strand & Hanssen 1935: 70; Strauch 1861: 123; Sturm 1826: 156, 1843: 228; Thomson 1859: 146, 1865: 348, 1868: 215; Tragardh 1914: 92, 1939b: 144, 194; Tredl 1907: 9; Tschorbadjiev 1929: 163; Ulanowski 1884: 6; Verd-court 1952: 80; Villa & Villa 1833: 26; Villaseñor 1966; Wanka 1908: 231; Westhoff 1882: 236; Wichmann 1927a: 60–61, 1955a: 92; Wiepken 1883: 59; Winter, T. C. 1983: 45; Wiren 1945: 43, 1962: 147; Yanovskii 1989: 64; Yanovskii & Tegsh-zhargal 1984: 406; Zivojinovic 1960; Zondag 1982; Zoufal 1920: 20. (tx) Acloque 1896; Alkan 1946: 142; Altman 1844; Bach 1854; Bain 1977a: 4; Balachowsky 1949a: 128; Barbey 1901: 10, 18, 42; Beaver 1970a; Bedel 1888b: 388, 390; Beffa 1964; Bertolini 1872; Blackman 1941; Blair 1949: 69; Boas 1923: 320; Brancsik 1871; Calver 1858; Carne et al. 1980; Carpentier & Delaby 1908; Castelman 1840; Ceballos 1945; Chapuis 1869:

19, 1873: 227; Chapuis & Candeze 1853; Chararas 1962c: 302; Charvat 1950; Chorbadzhievo 1924d; Clark 1932b; Dejean 1821, 1825; Doebner 1860; Dombrowski 1887; Duffy 1953; Duftschmidt 1825; Eggers 1929e: 43, 1933f: 3–4; Eichhoff 1864b: 46, 1881a: 35, 76, 1883a: 100, 121; Endrodi 1927a: 307–308, 413, 1957b; Erichson 1836: 47; Escherich 1923b: 48, 458; Escherich & Escherich 1897; Everts 1903: 751; Fabricius 1792: 368, 1801: 395; Fairmaire 1964: 21–27, 31; Ferrant 1911; Fleischer 1905, 1927; Formanek 1907: 28; Fricken 1889: 275; Fuchs 1912a; Gabler 1955; Gay 1955: 12; Gemminger & Harold 1872: 2669; Gillanders 1908; Grocholski, Michalski, & Nowak 1977: 709; Grune 1979: 46–47; Gyllenhal 1813: 343, 1827: 618; Hagedorn 1910a: 45; Hansen, V. 1939, 1955, 1956, 1964: 458; Henry 1892: 14–15; Henschel 1876a: 87, 240, 1895a: 134; Herbst 1793: 121; Heyden 1893: 177; Hopkins 1914: 122; Iablokoff-Khznorian 1961: 105; Illiger 1907: 321; Imms 1925: 509; Jablonsky 1785: 121; Jacquelin du Val & Fairmaire 1868: 99; Joly 1976, 1976b: fig. 138; Judeich & Nitsche 1895: 447, 453; Karpinski & Strawinski 1948: 154; Knotek 1892a: 32; Koch 1913: 29; Kuhnt 1913: 1053; Lacordaire 1866: 358; Lekander 1965a: 184–195; Letzner 1891: 372; Leunis 1886: 178; Lohse 1984: 151; Louzil 1961: 105; Lovendal 1889b: 30, 1890c: 210, 1898: 106; Lucht 1987: 276; Luigioni 1929: 994; Lunardoni & Leonardi 1889: 420; Milligan 1978: fig. 1, 3; Munro 1916a: 275–281, 1916b: 119, 1917b: 123; Murayama 1930b: 7, 11, 30, 1937b: 375; Negru 1966b: 399; Numberg 1928a: 140, 1954: 20; Nuorteva 1971: 67; Nusslin 1912c: 275; Paiva 1861b; Palm 1965: 135; Paykull 1800: 153; Perris 1877a: 413; Pfeffer 1932b: 15, 1941b: 2, 1944b: 100, 1947c: 14, 1955a: 112, 1989a: 39; Portevin 1935: 320; Postner 1974: 393; Quaschik 1953: 35; Ratzburg 1837: 179, 1839: 159, 219; Redtenbacher 1849a: 365, 1849b: 27, 1858: 826, 1874: 367; Reitter 1894a: 60, 1913a: 52, 1916: 283; Rhumbler 1922: 279, 1927: 291; Rupertsberger 1879: 231, 1880: 225; Saalas 1913a: 68, 79, 1949: 341, 366; Sahlberg 1836: 138; Schedl 1934f: 1636, 1947a: 21, 1952f: 86, 1968c, 1980a: 10, 1981b: 49; Scherb 1971; Schimitschek 1937c: 48, 1955c: 78; Schlechtendal & Wunsche 1879: 124; Seidlitz 1872: 390, 1891a: 558, 1891b: 603; Sokanovskii 1954: 16, 1958: 38, 1960: 677; Spessivtsev 1913a: 66, 1922a: 461, 490, 1925a: 170, 1925b: 6, 1928: 221–250, 1931: 26–27; Stark 1952: 212; Stephens 1829a: 147, 1829b: 12, 1830: 364, 1839: 209; Stierlin 1898: 431; Strand 1953: 62; Strohmeier 1914: 32; Swaine 1918a: 77; Swan 1943: 87; Taschenberg 1880: 210; Thomson 1859: 146, 1865: 348, 1868: 215; Tsai & Li 1959: 84; Westwood 1840: 39. (ms) Alma 1975; Anonyms 1960y: 319; Brimblecombe 1952; Burton et al. 1968: 190; Chararas 1959d, 1971a: 853; Escherich 1932b;

Fuchs 1911b; Hartig 1834: 412–413; Heinemann 1908a; Henschel 1880b: 257, 1880c: 60; Lovendal 1890a: 130; Ratzeburg 1871b: 400; Ritter 1929: 554; Sedlaczek 1920: 125; Wichmann 1961: 336. *chloropus* Duftschmidt 1825: 102 (*Hylesinus*).

Syntypes, sex?; Europe; not located. Synonymy: Hagedorn 1910d: 8.

References: (ds) Dejean 1821, 1825, 1837; Duftschmidt 1825: 102; Hagedorn 1910d: 8; Illiger 1805: 130; Schilsky 1909: 187. (tx) Dejean 1821, 1825; Duftschmidt 1825: 102; Fabricius 1801: 394; Hagedorn 1910d: 8.

pinicola Bedel 1888b: 390. Syntypes, sex?; Europe; not located, replacement name for *ater* Paykull 1800. Synonymy: Balachowsky 1949a: 128.

References: (ds) Bedel 1888b: 390; Schilsky 1909: 187. (tx) Balachowsky 1949a: 128; Bedel 1888b: 390.

* *aterites* Schedl 1947a: 21. Holotype, sex?; fossil in Baltic amber; Geologisch-Palaeontologische Inst. Albertus Univ., Königsberg
Distribution: Europe (fossil in Baltic amber).
References: (ds) Spahr 1981. (tx) Schedl 1947a: 16, 21.

attenuatus Erichson 1836: 50. Syntypes, sex?; Germany; not located.

Figures: Pfeffer 1989a: pl. 3.

Distribution: Africa (Azores Islands), Asia ("Manchuria" [Heilongjiang?] in China/ Japan/ Korea/ Taiwan/ E USSR), Europe (Austria/ England/ Finland/ France/ Germany/ Greece/ Norway/ Poland/ Spain/ Sweden/ Switzerland/ W USSR).

Hosts: *Pinus* spp.

Notes: (3) Balachowsky 1949a: 130 (Ratzeburg's use of *opacus* was a misidentification of *attenuatus*).

References: (ay) Escherich 1923b: 480; Fuchs 1912a; Grocholski et al. 1978; Marcu 1933a: 37. (bv) Barr, B. A. 1969: 641; Grune 1970: 49. (cn) Anonymous 1946i: 1, 4, 1978w; Barbey 1925: 204; Block 1906: 7; Boden 1903; Browne 1968: 342; Eckstein 1926: 577; Escherich 1923b: 480; Espanol 1964a; Gabler 1955; Hanson 1937; Hess 1898: 380; Hess & Beck 1914: 249, 1927: 303; Joly 1976; Judeich & Nitsche 1895: 447, 453; Kauschinger 1893: 150; Nusslin 1913: 205; Pfeffer 1933: 43; Pierce, W. D. 1917: 69; Rhumbler 1922: 279, 1927: 291; Schimitschek 1955c: 79; Schuster 1918: 102; Schwerdtfeger 1950b: 44, 1957a: 189; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 352. (cc) Espanol 1964a; Gyorfi 1941b; Kleine 1908c: 181; Nosek 1959a: 118; Nusslin 1927: 291; Palmén 1944: 60; Perris 1852: 504, 1856a: 229; Pfeffer 1923a: 330, 1928b: 9, 1933: 43, 1943b: 181; Poinar 1975: 158; Ruhm 1956b: 3, 1958: 295; Schuster 1918: 102; Schwerdtfeger 1950b: 44, 1957a: 189; Wiackowski 1957a: 43; Wichmann 1955a: 105. (hb) Altum 1881c: 268,

1887a, 1887d; Anonymous 1946i: 1, 4; Barbey 1901: 44, 1925: 204; Bargmann 1906; Boden 1903; Browne 1968: 342; Budge 1949; Chapuis 1869: 19, 1873: 27; Chararas 1962c: 305; Charvat 1950; Dombrowsky 1887; Eckstein 1889, 1897, 1926: 577; Eichhoff 1881a: 36, 87, 1881d: 435; Elton et al. 1964; Escherich 1923b: 480; Everts 1903: 752; Fuchs 1904a; Gabler 1955; Gyorfi 1957; Hagedorn 1903a; Henschel 1895a: 134; Hess 1898: 380; Hess & Beck 1914: 249, 1927: 303; Joly 1976; Judeich & Nitsche 1895: 447, 453; Karpinski & Strawinski 1948: 154; Kauschinger 1883: 110, 1893: 150; Kholodkovskii 1889: 267; Knoche 1905: 354; Knotek 1894a: 553; Lengerken 1939: 61; Marcu 1927b: 424; Munro 1926: 57; Niisima 1908b: 18; Nosek 1959a: 118; Nunberg 1929: 101; Nusslin 1898: 277, 1913: 205, 1927: 291; Palm 1947b: 44; Perris 1852: 504, 1856a: 229; Pfeffer 1941b: 2; Postner 1974: 394; Ratzeburg 1837: 180; Rhumbler 1922: 279, 1927: 291; Saalas 1913a: 69, 80; Schwerdtfeger 1957a: 189, 1981: 194; Spessitsev 1913a: 67; Stark 1926a: 332, 1952: 215; Stebbing 1909b: 14; Wachtl 1901: 381; Weber 1926: 577; Wichmann 1927b: 352; Zethner-Moller & Rudinsky 1967: 898. (ds) Acloque 1896; Allen, A. 1951b; Anonymous 1978w; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Bedel 1888b; Bielz 1887; Blanchere & Robert 1889; Blandford 1894c; Borchert 1951; Brakman 1966b: 204; Brancsik 1871; Bright 1987a: 2; Browne 1968: 342; Calwer 1884, 1893; Champion 1894; Chapuis 1869; Charvat 1950; Choo & Woo 1985: 164; Eggers 1904; Endrodi 1958b; Escalera 1919; Escherich 1923b: 480, 1932b; Eyquem 1891; Favre 1890; Fjellberg 1966: 154; Forster 1849: 440; Frey 1937; Fuchs 1904a; Gaubil 1849: 128; Gerhardt 1897; Gozis 1875: 79; Gredler 1866: 369; Grune 1979: 49; Gyorfi 1941b; Hagedorn 1903a, 1910d: 8; Hallett 1923b: 13–14; Hansen, V. 1939, 1956; Heinemann 1908a; Hellen 1921, 1947; Henschel 1895a: 134; Heyden 1876: 296; Heyden, Reitter, & Weise 1883: 181, 1891: 668; Horion 1951; Joly 1976; Judeich & Nitsche 1895: 447, 453; Kamp 1979; Karpinski 1925: 216, 1948a: 173; Karpinski & Strawinski 1948: 154; Kerston 1933: 77; Kester-canek 1881a: 12; Kiefer et al. 1942: 528; Klefbeck & Sjoberg 1960: 230–231; Kleine 1912a: 262, 267, 1912b: 162, 1913a: 34, 1914b: 254, 1934a: 126; Kloft & Hinks 1945: 218; Knotek 1892a: 33, 1894a: 553; Kolbe, W. 1916: 257; Koltze 1901: 152; Kotula 1873b: 79; Kraatz 1869: 59; Krol 1877: 34; Kurir 1947c: 8; Lacordaire 1866: 358; Langhoffer 1915c: 157; Leclercq 1971; Lekander 1965a: 184–195, 1965b: 197; Liegel 1886: 43; Lindemann 1884b: 263; Lokaj 1868: 63; Lomnicki 1886a: 240, 1913b: 148; Lucht 1987: 276; Luigioni 1929: 994; Marcu 1927b: 424; Mequignon 1936: 15, 32; Munro 1920b: 257, 1921: 87; Munster 1928: 288; Murayama 1936a: 122,

1940a: 231, 1942a: 53, 1951c: 3, 1953a: 5; Niisima 1908b: 18; Nobuchi 1966b: 13, 1985c: 4; Numberg 1928b: 88, 102, 1954: 20; Nussling 1898: 277; Pacher 1865: 151; Palm 1947a: 178, 1947b: 44; Palmén 1944: 60; Perris 1876a: 253, 1877a: 413; Pfeffer 1928b: 9, 1931b: 74, 1947d: 127, 1947e: 14, 1950b: 76, 1984: 277, 1989: 39; Pierce, W. D. 1917: 69; Pittioni 1943: 176; Postner 1974: 394; Ratzeburg 1837: 180; Redtenbacher 1849a: 367, 1858: 825; Reitter 1869b: 153, 1894a: 62, 1916: 284; Roubal 1941: 260; Saalas 1913a: 69, 80, 1931: 68; Sahlberg 1900: 104; Saint-Albin 1949: 2; Sainte-Claire 1914: 471; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1226; Schaum 1859: 95, 1862: 100; Schedl 1967c: 74, 1971d: 428, 1980a: 11, 1981b: 50; Schilsky 1909: 187; Schwerdtfeger 1981: 194; Seidlitz 1872: 391, 1891a: 558, 1891b: 604; Sharp 1920: 205; Stark 1926a: 332, 1926b: 101, 1926j: 124, 1952: 215; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 431; Stierlin & Gautard 1871: 291, 1906: 205; Strauch 1861: 123; Treddl 1907: 9; Walker 1921: 153; Wanka 1908: 231, 1915: 213; Westhoff 1882: 236; Wichmann 1927a: 61, 1955a: 105; Wiepken 1883: 89; Winter, T. G. 1983; Wiren 1962: 152, 1963; Zoufal 1920: 21. (**tx**) Acloque 1896; Bach 1854; Balachowsky 1949a: 130; Barbey 1901: 44; Bedel 1888b; Bertolini 1872; Blandford 1894d; Brancsik 1871; Chapuis 1869: 19, 1873: 227; Charvat 1950; Doebner 1860; Dombrowski 1887; Donisthorpe 1931: 121–122; Duffy 1953; Eggert 1923b: 135–136; Eichhoff 1864b: 24, 1881a: 36, 87, 1883a: 100; Endrodi 1957a: 307; Erichson 1836: 50; Escherich 1923b: 480; Everts 1903: 752; Ferrant 1911; Fleischer 1927; Fuchs 1912a; Gabler 1955; Gemminger & Harold 1872: 2669; Grune 1979: 48–49; Hagedorn 1910a: 45; Hansen, V. 1955: 514, 1956; Henschel 1895a: 134; Iablockoff-Khnzorian 1961: 105; Joly 1976; Judeich & Nitsche 1895: 447, 453; Karpinski & Strawinski 1948: 154; Knotek 1892a: 33; Lacordaire 1866: 358; Letzner 1891: 372; Lucht 1987: 276; Luigioni 1929: 994; Murayama 1936a: 122–123, 1940a: 231, 1953a: 5, 1954b: 156; Nobuchi 1966b: 13; Numberg 1954: 20; Perris 1877a: 413; Pfeffer 1932b: 15, 1933: 3–54, 1941b: 2, 1944b: 102, 1947e: 14, 1955a: 117, 1989: pl. 3; Portevin 1935: 321; Postner 1974: 394; Quaschik 1953: 35; Ratzeburg 1837: 180; Redtenbacher 1849a: 365, 1849b: 27, 1858: 825, 1874: 367; Reitter 1894a: 62, 1913a: 53, 1916: 284; Rey 1892b: 30; Rhumbler 1922: 279, 1927: 291; Saalas 1913a: 69, 80; Schedl 1934f: 1636, 1952f: 87, 1968c, 1979c: 31, 1980a: 11, 1981b: 50; Schimitschek 1955c: 79; Seidlitz 1872: 391, 1891a: 558, 1891b: 604; Spessivtsev 1913a: 67, 1922a: 462, 1931: 27; Stark 1952: 215; Stebbing 1909b: 14; Steirlin 1898: 431; Strohmeier 1914c: 80. (**ms**) Eggert 1910b; Escherich 1932b;

Heinemann 1908a; Ratzeburg 1871b: 40; Ritter 1929: 554

brumeus Erichson 1836: 48. Syntypes, sex[?]; Germany; MNB, Berlin.

Figures: Pfeffer 1989a: pl. 3–4.

Distribution: Asia ("Manchuria" [Heilongjiang?]) in China/ Himachal Pradesh, Uttar Pradesh in India/ Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Germany/ Greece/ Norway/ Poland/ Scotland/ Sweden/ W USSR).

Hosts: *Pinus excelsa*, *P. koraiensis*, *P. sylvestris*, *Picea excelsa*, *P. ajanensis*, *P. obovata*, *Abies webbi-ana*.

Notes: (3) Beeson 1941 (1961: 287) (*himalabietis*, nomen nudum, no status). Hansen 1955: 170 (*pupillatus* Eggert, nomen nudum, synonymy). Schedl 1979c: 30 (citation of holotype invalid).

References: (**ay**) Beaver 1970a: 198–206; Grocholski, Michalski, & Nowak 1977; Marcu 1933a: 36; Zethmer-Moller & Rudinsky 1967: 902. (**bv**) Barr, B. A. 1969: 641; Loyttyniemi, Heliovaara, & Repo 1988b; Nuorteva & Nuorteva 1968; Pulliainen 1973; Schroeder & Lindelow 1989. (**cn**) Bejer-Petersen 1959a; Brakman 1967; Browne 1968: 342; Elmstrom 1985; Eidmann 1977; Fystro & Bakke 1962; Nuorteva & Nuorteva 1968. (**cc**) Bakke 1960: 313; Cooreman 1963: 45; Eidmann 1974b; Heqvist 1961; Hubenthal 1902: 291; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1983; Kleine 1908c: 181; Lmdberg 1984; Mathiesen-Kaarik 1960c; Nuorteva 1967a, 1971; Nuorteva & Laine 1968; Nuorteva & Nuorteva 1968; Palm 1958: 27; Pfeffer 1923a: 330, 1932a: 19, 1959: 5; Pulliainen 1973b; Wisniewski & Michalski 1984. (**hb**) Brakman 1967; Eichhoff 1881a: 35, 82; Eidmann 1974b, 1977b; Fuchs 1904a; Györfi 1957; Henschel 1895a: 134; Karpinski & Strawinski 1948: 154; Nilssen 1984; Nuorteva 1967a; Palm 1955d: 135; Pfeffer 1941c: 5; Ratzeburg 1837: 180; Saalas 1913a: 69, 79. (**ds**) Allen, A. 1954; Ammann & Knabl 1923; Barthe 1896; Bejer-Petersen & Jorim 1977: 13; Bielz 1851, 1887; Bistrom 1978; Bistrom & Vaisanen 1988: 42; Blair 1949: 89; Blanchere & Robert 1889; Borchert 1951; Brakman 1966: 204, 1967; Browne 1968: 342; Calwer 1884, 1893; Chapuis 1869: 19, 1873: 227; Eidmann 1974b; Fjellberg 1966: 154; Fleischer et al. 1921a; Fuchs 1904a, 1905a; Gaubil 1849: 128; Gillerfors 1966; Gralicki & Konca 1978: 515; Hansen, V. 1939, 1956, 1971; Havelka 1945: 53; Hellen 1947; Henschel 1895a: 134; Heyden, Reitter, & Weise 1883: 180, 1891: 667; Horion 1951; Hulsta et al. 1986; Jasilkowski 1906; Kaltenbach 1874: 686; Karpinski 1948a: 173; Karpinski & Strawinski 1948: 154; Klefbeck & Joberg 1960: 230; Kleine 1913a: 89; Kozirowsky 1921: 180; Kraatz 1869: 59; Lacordaire

1866: 358; Leclercq 1971; Lokaj 1868: 63; Lomnicki 1913b: 148; Luigioni 1929: 994; Lundberg 1974: 92, 1979: 31, 1981: 151; Micke 1915: 111; Negru 1966b: 399; Nunberg 1925b: 88, 101, 1954: 20; Nuorteva 1971: 67; Palm 1955d: 135, 1962a: 183–184, 1985; Pfeffer 1924b: 471, 1989a: 39; Poppius 1900: 107; Ratzeburg 1837: 180; Redtenbacher 1874: 367; Reitter 1869b: 153, 1894a: 61, 1916: 283; Roubal 1941: 260; Saalas 1913a: 69, 79; Sahlberg 1900: 104; Schaniffuss 1915: 1227; Schaum 1859: 95, 1862: 100; Schedl 1980a: 11; Schilsky 1909: 187; Seidlitz 1891a: 558, 1891b: 603; Stein 1868: 113; Stein & Weise 1877: 163; Strand 1953: 61; Tredl 1907: 9; Wegelius 1960: 106; Wichmann 1924: 15; Winter, T. G. 1983: 51; Yanovskii 1989: 64. **(tx)** Bach 1854; Beaver 1970a; Bertolini 1872; Blair 1949: 89; Chapuis 1869: 19, 1873: 227; Doebner 1860; Duffy 1953; Eggers 1940h: 61; Eichhoff 1864b: 24, 1881a: 35, 82, 1883a: 100, 121; Endrodi 1957a: 413; Erichson 1836: 48; Fleischer 1927; Gemminger & Harold 1872: 2669; Grocholski, Michalski, & Nowak 1977; Hagedorn 1919d: 8; Hansen, V. 1955, 1956, 1964: 458; Henschel 1895a: 134; Karpinski & Strawinski 1948: 154; Lacordaire 1866: 358; Lekander 1965a: 184–195; Letzner 1891: 372; Lohse 1984: 151; Luigioni 1929: 994; Negru 1966b: 399; Nunberg 1954: 20; Nuorteva 1971: 67; Pfeffer 1932b: 15, 1941c: 5, 1944b: 101, 1955a: 114, 1989: pl. 3, 4; Portevin 1935: 320; Ratzeburg 1837: 180; Redtenbacher 1849a: 793, 852, 1849b: 27, 1874: 367; Reitter 1894a: 61, 1913a: 53, 1916: 283; Rey 1892b: 30; Saalas 1913a: 69, 79; Schedl 1934f: 1636, 1979c: 30, 1980a: 11; Seidlitz 1891a: 558, 1891b: 603; Strand 1953: 61; Wichmann 1924: 15, 1927: 60.

aterrimus Eggers 1933f: 3. Syntypes, sex?; Sibirien und Russland, auch aus Bulgarien; repository not indicated, now at NHMW, Wien (Schedl 1979c: 30). Synonymy: Pfeffer 1965: 64. References: **(cn)** Kurenzov 1935c: 189; Pfeffer 1948d: 235; Schimitschek 1944: 167, 1952c: 60. **(ec)** Schimitschek 1941a: 313. **(hb)** Kurenzov 1948b: 106, 1950d: 162; Schimitschek 1944: 167; Stark 1952: 213. **(ds)** Hansen, V. 1955: 173; Havelka 1945; Kadyrov 1989; Kurenzov 1935c: 189; Marikovskii 1956b: 73; Schedl 1941a: 42; Stark 1952: 213; Zinovjev 1955: 187. **(tx)** Eggers 1933f: 3, 1934b: 25; Kurenzov 1941a: 129, 1948b: 106; Pfeffer 1941a: 42, 1955a: 14, 1965: 64; Schedl 1941a: 42, 1979c: 30; Sokanovskii 1954: 16, 1958: 38; Stark 1952: 213. **(ms)** Klapperich 1945–48: 97.

cunicularius Erichson 1836: 49. Syntypes, sex?; Harz, Germany; not located.

Figures: Pfeffer 1989a: pl. 3–4.

Distribution: Asia (Sichuan, Xinjiang, Yunnan in China/ Japan/ Sakhalin Island, E USSR), Europe (Austria/ Belgium/ Bulgaria/ Denmark/ England/

Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Poland/ Sweden/ Switzerland/ W USSR).

Hosts: *Picea excelsa*, *P. obovata*, *P. jezoensis*, *Pinus sylvestris*, *P. koraiensis*, rare in *Larix europaea*.

Notes: (3) Ratzeburg 1839: 220 (cites *Hylesinus scabrifrons* St. as a synonym). Eggers 1940h: 61 (*subalpinus*, nomen nudum, synonymy by Hansen 1955: 172).

References: **(ay)** Eichelbaum 1903; Escherich 1923b: 458, 480; Francke-Crosman 1959, 1966c; Fuchs 1912a; Hadorn 1933; Lekander 1959b: 49, 1959d: 92; Marcu 1933a: 37; Marcus 1930: 644; Munro 1917b: 123; Nusslin 1912c: 275; Scherb 1971; Sedlaczek 1902b: 244; Wichmann 1912a: 9–10. **(bv)** Annala 1975: 8–9; Barr, B. A. 1969: 641; Borodin 1968a; Crune 1979: 47; Naumann-Etienne 1978a; Nuorteva 1956c: 17; Nuorteva & Nuorteva 1968; Prell 1926: 68; Schroeder & Lindelow 1989; Wichmann 1912a: 7, 1953a: 107. **(cn)** Barbey 1925: 37; Bejer-Petersen 1959a; Browne 1968: 343; Chararas 1961c: 93; Chorbadzhievo 1929; Eckstein 1926: 577; Ehnstrom et al. 1974; Eidmann 1977b; Escherich 1923b: 458, 480, 1936; Esterberg 1959; Fleischer 1877a; Francke-Crosman 1954a; Gabler 1955; Georgescu et al. 1957: 357, 401, 471; Grandi 1951; Hansen, V. 1937; Hartig 1877: 196; Hess 1880, 1898: 378; Hess & Beck 1914: 249; Judeich & Nitsche 1895: 447, 453; Juutinen 1960: 23; Kalandra 1944; Kalandra & Pfeffer 1940; Kauschinger 1893: 150; Kleiber 1930: 183; Kobakhidze 1960: 1853; Koch 1910: 18; Lekander 1954b: 11; Lekander, M. 1951: 51; Lohrenz 1907: 41; Maksymov 1950: 554; Marcu 1926c: 62; Marker-Kohlfurt 1896: 84; Mathiesen-Kaarik 1953: 6, 23; Mitscherlich et al. 1950a: 128, 1950b: 196; Muller 1912: 185; Munro 1917a: 25; Nestertschuk 1930: 176; Nilssen 1978a; Nosek 1951: 106, 1952b: 98; Novak, V. 1967; Novak, V., Hrozinka, & Stary 1976: 32; Nuorteva & Nuorteva 1968; Nusslin 1883: 152, 1913: 205; Olmesorge 1955: 279; Pfeffer 1948a: 800, 1950c: 2; Pierce, W. D. 1917: 81; Rhumbler 1922: 279, 1927: 291; Rossem 1957: 60; Saalas 1949: 342, 367; Schimitschek 1937c: 49, 1955a: 35, 1955c: 79; Schmidt 1881: 42; Schneeberg 1925: 495; Schwappach et al. 1929: 186; Schwarz 1938b: 144; Schwerdtfeger 1944a: 183, 1950b: 60, 1957a: 189; Scott, J. M. & King 1973: 108; Sedlaczek 1921: 338; Severin 1902a: 81; Strohmeyer 1956: 22; Thaler 1902: 278, 1903: 400; Titova 1966; Tragardh 1927c: 76, 1936a: 147, 1938a: 11, 1942: 465; Tragardh & Butovitsch 1936: 578; Turcek 1967: 15, 25, 34, 55–59, 83; Vasechko 1964; Villasenor 1966; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 349; Wilke 1931: 641; Wolff & Krause 1922: 16; Zethner-Moller & Rudinsky 1967: 897. **(ce)** Annala 1975: 11, 13, 1977; Bakké 1957; Balazy 1964a; Balazy & Michalski 1960; Barbey 1927; Branmanis 1940;

- Brauns 1950a; Domanski 1983; Eulefeld 1906; Fleischer 1877a; Francke-Grosnann 1959, 1966c; Fuchs 1929a, 1930; Galoux 1947b; Ganchev, Mirchev, & Chernev 1983; Gauss 1954a: 423; Gruenwald 1986; Gyorfi 1941b; Hirschmann 1960; Hirschmann & Wisniewski 1982, 1983; Jakaitis & Valenta 1976: 20; Kangas 1946b: 23; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 181; Kobakhidze 1960: 1853; Krogens 1927: 122; Kuhn 1949a: 316; Livingston & Bryrman 1972: 1793; Lovendal 1890a: 130; Lundberg 1984; Mathiesen-Kaarik 1953: 6, 23; Naumann-Etienne 1978a; Nosek 1951: 106, 1952b: 98; Nuorteva 1956a: 17, 1968a, 1970, 1971; Nuorteva & Nuorteva 1968; Nusslin 1927: 291; Palmen 1946: 194; Pfeffer 1923a: 330, 1932a: 19, 1943b: 180, 1950c: 3, 1959: 5; Poinar 1975: 158; Prell 1926: 68; Purrini 1977a; Purrini & Weiser 1984, 1985; Ratzeburg 1869a: 57; Rennerfelt 1951; Ruhm 1956b: 3, 1958: 295; Saalas 1917a: 18, 1928: 651, 1949: 342, 367; Schedl 1936f: 172; Schimitschek 1955a: 35; Schwerdtfeger 1944a: 183, 1950b: 60, 1957a: 189; Sedlacek 1908: 56, 1935a: 163; Thompson, W. R. & Simmonds 1964: 84, 1965: 21; Titova 1966; Tragardh 1936a: 146; Vitzthum 1923: 143, 1926: 427; Wauthoz 1952: 11; Wichmann 1953a: 107, 1956: 60; Wietinghoff 1924: 327; Wilke 1931: 641; Woodring & Moser 1970; Zumm 1985b. (hb) Altum 1881a, 1881c: 268, 1889c; Annila 1977; Barbey 1901a: 10, 18, 43, 1925: 37; Bargmann 1906; Beffa 1961; Boas 1923: 321; Browne 1968: 343; Budge 1949; Butovitsch & Spaak 1939; Chararas 1962c: 303; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887; Eckstein 1889, 1897, 1915, 1926: 577, 1936; Eichhoff 1881a: 35, 83, 1882a: 241; Eidmann 1977b; Escherich 1923b: 458, 480; Everts 1903: 751; Fleischer 1877a; Fuchs 1904a, 1911b; Gabler 1955; Ganchev, Mirchev, & Chernev 1983; Gornostaev 1916: 311; Grandi 1951; Grohmann 1913: 235-261; Gyorfi 1957; Hadorn 1933; Hagedorn 1903a; Hartig 1877: 196; Helmbacher 1924; Henschel 1876a: 21, 240, 1895a: 134; Hess 1880, 1898: 378; Hess & Beck 1914: 249; Hochmut 1966; Holleben 1845; Hufnagl & Puzyr 1951: 104; Judeich & Nitsche 1895: 447, 453; Karpinski 1933b: 24; Karpinski & Strawinski 1948: 154; Kanschinger 1883: 110, 1893: 150; Kholer 1894a: 553; Knotek 1894a: 553; Krivolutskaya 1956: 829; Kurenzov 1948b: 106, 1950d: 161; Lekander 1954b: 11, 1959b: 49; Lengerken 1939: 61, 1954: 82; Lindemann 1881: 236; Lohrenz 1907: 41; Loos 1913: 405; Louzil 1961: 40; Lovendal 1890a: 130; Lunardon & Leonardi 1889: 421; Maksymov 1950: 554; Merker 1853; Merker & Sattler 1952; Misson 1936: 222; Mumro 1916a: 275, 1917a: 25, 1917b: 123, 1926: 55; Naumann-Etienne 1978a; Nilssen 1984; Nilsson 1987; Nordlinger 1856: 37; Novak, V., Hrozinka, & Stary 1976: 32; Numberg 1929a: 101, 1929c: 119; Nuorteva 1956c: 17, 1968a, 1970; Nusslin 1898: 276, 1906b: 16, 1913: 205, 1927: 291; Ohnesorge 1955: 279; Palm 1956: 63; Petrenko 1966; Pfeffer 1941c: 5; Postner 1974: 395; Ratzeburg 1837: 132, 180, 1839: 220; Rhumbler 1922: 279, 1927: 291; Rupertsberger 1880: 225; Saalas 1913a: 68, 80, 1949: 342, 367; Schedl 1935c; Schimitschek 1955a: 35; Schmidt 1881: 42; Schnaider 1954: 173; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 183, 1957a: 189, 1981: 194; Sedlacek 1921: 338, 1934: 275, 1935a: 163; Severin 1902a: 81; Simmel 1916: 196, 1928: 154; Spessivtsev 1913a: 67, 1928a: 223, 1934: 207; Stark 1926a: 332, 1952: 214; Taschenberg 1880: 210; Tragardh 1927c: 76, 1929a: 311, 1930c: 470, 1938: 10-14, 1939b: 145, 194; Tschorbadjiev 1929: 163; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 349; Wolff & Krausse 1922: 86; Zethner-Moller & Rudinsky 1967: 8. (ds) Acloque 1896; Ammann & Knabl 1913, 1923; Andersch 1851; Audras & Schaefer 1957; Balazy & Michalski 1960; Barthe 1896; Ban 1888; Bedel 1888b; Bejer-Petersen & Jorum 1977: 15; Benick 1921; Bielz 1851, 1887; Bistrom & Vaisanen 1988: 42; Boas 1923: 321; Borchert 1951; Brakman 1966: 204; Brancsik 1871, 1906; Browne 1968: 343; Buresh & Lazarov 1956; Burlini 1942: 43; Calwer 1884; Cecconi 1924; Chapuis 1869: 19, 1873: 227; Chapuis & Candeze 1853; Charvat 1950; Chorbadzhievo 1924d, 1929; Chrystal 1937; Croteh 1863; Debatisse 1945; Eder 1934; Eggers 1904; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Escherich 1923b: 458, 480, 1932b; Esterberg 1928, 1959; Everts 1922: 639; Favre 1890; Fanvel 1885; Fleischer et al. 1921a; Florov 1949: 74; Forster 1849: 440; Fowler 1891; Fricken 1889: 275; Fuchs 1904a, 1905a; Gaubil 1849: 128; Gornostaev 1917; Gozis 1875: 79; Gredler 1866: 368; Grill 1895: 307; Grouzelle 1905; Grune 1979: 47; Gyorfi 1941b; Hagedorn 1903a, 1910d: 9; Hansen, V. 1939, 1956, 1964: 458; Havelka 1945; Hellen 1947; Heller 1881: 173; Henschel 1895a: 134; Heyden 1876: 296; Heyden, Reitter, & Weise 1883: 181, 1891: 667, 1906: 710; Holdhaus & Deubel 1910: 145, 160, 199; Holzel 1946: 81; Horion 1951; Hubault 1923b; Ihssen 1939: 336; Jacentkowsky 1912: 287; Jasilkowski 1906; Judeich & Nitsche 1895: 447: 453; Kaltenbach 1874: 686; Karpinski 1926: 82, 1932b: 52, 1933a: 290, 1933b: 24, 1948b: 229; Karpinski & Strawinski 1948: 154; Karsch 1887; Kersten 1933: 73; Kestercanek 1881a: 12; Kharitsov 1924: 199-204; Kiefer et al. 1942: 528; Klefbeck 1946: 205; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 128, 262, 267, 1912b: 162, 1913a: 34, 1914a: 16, 1934a: 126; Kloft & Hinks 1945: 218; Knotek 1892a: 32, 1894a: 553; Komarek 1931; Kono 1939b: 64, 67; Kono & Tamanski 1939: 90, 92; Kovacevic 1924: 21-22; Kraatz 1869: 59; Krivolutskaya 1956: 829, 1983; Kurir 1947c: 16; Lacordaire 1866: 358;

- Langhoffer 1915c: 157; Lentz 1857: 137; Liegel 1886: 54; Lindberg & Saris 1952: 59; Lindemann 1884b: 263; Lokaj 1868: 63; Lomnicki 1913b: 148; Loos 1913: 405; Lucht 1987: 276; Luigioni 1929: 994; Lunardoni & Leonardi 1889: 421; Lundberg 1974: 92, 1979: 31, 1981: 151; Lundblad 1950c: 115; Marcu 1926c: 62; Matthew & Fowler 1883: 41; Mequignon 1936: 48; Micke 1915: 111; Miller 1868: 27; Munro 1916a: 275, 1921: 87; Munster 1928: 288; Negro 1966b: 399, 1968a: 454; Nobuchi 1985c: 4; Numberg 1927a: 213, 1928b: 88, 102, 1954: 20; Nuorteva 1971: 67; Nusslin 1898: 276; Orest 1926c: 62; Pacher 1865: 151; Palm 1946: 120, 1948a: 90, 1956: 63; Pahlen 1946: 194; Perris 1876a: 253, 1877a: 413; Pfeffer 1924b: 471, 1931b: 74, 1947e: 2, 1950b: 73–74, 1989a: 38; Pierce, W. D. 1917: 81; Pittioni 1943: 175; Platonoff 1940: 11, 1943: 141; Pomerantzev 1907b: 492; Poppius 1900: 107; Postner 1974: 395; Prediger 1888: 274; Prell 1926: 68; Prossen 1913: 82; Rapp 1934: 724; Ratzeburg 1837: 132, 180, 1839: 220; Redtenbacher 1858: 826, 1874: 367; Reitter 1869a: 20, 1869b: 152, 1894a: 61, 1916: 283; Roubal 1941: 261; Saalas 1913a: 68, 80, 1916: 91–95, 110–116, 1917a: 18, 1931: 69; Sahlberg 1900: 104; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1226; Schaum 1859: 95, 1862: 100; Schedl 1954b: 197, 1964a, 1971d: 433, 1980a: 11, 1981b: 50; Schilsky 1909: 187; Schiodte 1873: 99; Schwerdtfeger 1981: 194; Seidlitz 1872: 390, 1891a: 558, 1891b: 604; Sharp & Fowler 1893: 34; Stark 1926a: 332, 1926b: 121, 1926j: 124, 1927b: 88, 1931a: 23, 1931d: 543, 1952: 214; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 431; Stierlin & Gautard 1871: 291, 1906: 205; Strand 1946: 597; Titova 1961: 121; Tomic 1957; Tragardh 1919: 237–248, 1920: 1–6, 1939b: 145, 194; Tredl 1907: 9; Tschorbadjev 1929: 163; Villasenor 1966; Vauthoz 1952; Wegelius 1960: 106; Wessel 1877: 390; Westhoff 1882: 236; Wichmann 1924: 15, 1927a: 61; Wiepken 1883: 89; Wilke 1931: 641; Wilken 1864: 373; Winter, T. C. 1983: 45; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1984: 415; Zoufal 1920: 20. (**tx**) Acloque 1896; Bach 1854; Bakke 1960: 318; Balachowsky 1949a: 129; Barbey 1901: 10, 18, 43; Beaver 1970a; Bedel 1888b; Belfa 1961; Boas 1923: 321; Brancsik 1871; Chapuis 1869: 19, 1873: 227; Chapuis & Candeze 1853; Charvat 1950; Chorbadzhievo 1924d; Doebner 1860; Dombrowsky 1887; Duffy 1953; Eggers 1933b: 4, 1940: 61; Eichhoff 1864b: 24, 1881a: 35, 83, 1883a: 100, 121; Endrodi 1957a: 308, 1957b: 412–413; Erichson 1836: 49; Escherich 1923b: 458, 480; Escherich & Escherich 1897; Everts 1903: 751, 1922: 639; Fauvel 1885, 1889; Ferrant 1911; Fleischer 1905, 1927; Formanek 1907: 28; Fricken 1889: 275; Fuchs 1912a; Gabler 1955; Gemminger & Harold 1872: 2669; Grune 1979: 46–47; Hagedorn 1910a: 45; Hansen, V. 1955: 172, 1956, 1964: 458; Henry 1892: 15; Henschel 1876a: 21, 240, 1895a: 134; Jacquelin du Val & Fairmaire 1868: 99; Judeich & Nitsche 1895: 447, 453; Karpinski & Strawinski 1948: 154; Kirchner 1860: 91; Knotek 1892a: 32; Koch 1910: 18, 1928: 105; Kraatz 1864: 140; Krivolutskaya 1956: 829, 1958: 123; Kuhnt 1913: 1053; Kurenzov 1941a: 128, 1945b: 106; Lacordaire 1866: 358; Lekander 1959b: 49; Letzner 1891: 372; Leonis 1886: 178; Lindemann 1881a: 236; Louzil 1961: 105; Lovendal 1889b: 32, 1898: 110; Lucht 1987: 276; Luigioni 1929: 994; Lunardoni & Leonardi 1889: 421; Munro 1916a: 275, 1917b: 123, 1920, 1926; Negro 1966: 399; Nordlinger 1848: 251, 1856: 37; Novak, V., Hrozinka, & Sary 1976: 32; Numberg 1929c: 119, 1954: 20; Nusslin 1912c: 275; Perris 1877a: 413; Pfeffer 1932b: 15, 1941c: 5, 1944b: 100–101, 1947c: 2, 1955a: 110, 1989: pl. 3, 4; Portevin 1935: 320; Postner 1974: 395; Quaschik 1953: 35; Ratzeburg 1837: 132, 180, 1839: 220; Redtenbacher 1849a: 365, 1849b: 27, 1855: 826, 1874: 367; Reitter 1894a: 61, 1913a: 52–53, 1916: 283; Rhumbler 1922: 279, 1927: 291; Rupertsberger 1880: 225; Saalas 1913a: 68, 80, 1949: 342, 367; Schedl 1934f: 1636, 1935: 37–43, 1952f: 87, 1954b: 197, 1968c, 1979c: 72, 239, 1980a: 11, 1981b: 50; Scherb 1971; Schilsky 1888: 354; Schimitschek 1937c: 49, 1955c: 79; Sedlacek 1912: 306; Seidlitz 1872: 390, 1891a: 558, 1891b: 604; Sokanovskii 1954: 16; Spessivtsev 1921a: 962, 1922: 461–462, 1925a: 170, 1925b: 7, 1934: 207–220; Steirlin 1898: 431; Taschenberg 1880: 210; Wichmann 1911a: 100. (**ms**) Escherich 1932b; Fuchs 1911b; Lovendal 1890a: 130; Ritter 1929: 554; Schedl 1938c: 4; Sedlacek 1934: 27.
- rotundicollis* Reitter 1894a: 60. Syntypes, sex?; Subalpinen Region des Schneeberges bei Wien, Austria; N11MB, Budapest. Synonymy: Balachowsky 1949a: 129.
Notes: (1) Reitter 1913a: 52 (elevated from variety to species).
References: (**cc**) Pfeffer 1959: 5. (**ds**) Horion 1951; Kleine 1934a: 126; Reitter 1894a: 60, 1916: 283; Roubal 1941: 261; Schilsky 1909: 187; Wichmann 1927a: 61. (**tx**) Balachowsky 1949a: 129; Fleischer 1927; Pfeffer 1932b: 14, 1955a: 11; Reitter 1894a: 60, 1913a: 53, 1916: 283; Schedl 1934f: 1636.
- starki* Eggers 1933f: 1 (*Hylurgops*). Holotype, sex?; Russland (Briansk); IZL, Leningrad. Synonymy: Sokanovskii 1954: 16.
References: (**cc**) Poinar 1975: 160. (**hb**) Stark 1952: 206. (**ds**) Klefbeck & Sjoberg 1960: 229; Stark 1952: 206. (**tx**) Eggers 1933f: 1–2; Michalski 1969: 566; Schedl 1979c: 236; Sokanovskii 1954: 16; Stark 1952: 206.
- exilis* Chapuis 1869: 20. Holotype, sex?; Nuorlean [presumably New Orleans, Louisiana, USA]; IRSNB, Brussels.
Distribution: North America (Alabama, District of

Columbia, Florida, Louisiana, Mississippi, North Carolina, South Carolina, E Texas in USA).

Hosts: *Pinus elliottii*, *P. plaustris*, *P. taeda*, *P.* spp. Notes: (3) Atkinson 1989b: 325 placed this rare species as a synonym of *tenuis* without examining the holotype; they are quite distinct. Blackman 1941: 21 (re-described).

References: (cn) Blackman 1950. (ec) Drooz 1985: 340. (hb) Beal & Massey 1945: 96; Blackman 1950; Chamberlin 1939: 211; Deyrup & Atkinson 1987a: 64. (ds) Beal & Massey 1945: 96; Blackman 1950; Blatchley & Leng 1916: 669; Chamberlin 1939: 211; Chapuis 1869: 20, 1873: 228; Deyrup & Atkinson 1987a: 64; Drooz 1985: 340; Hagedorn 1910d: 9; Henshaw 1885: 149; Kirk 1970; Kleine 1912b: 162, 1914b: 383, 407; Leng 1920: 339; Ostmark 1968; Schwarz 1878d: 969; Swaine 1909: 145; Wood, S. L. 1982b: 97. (tx) Atkinson 1989b: 325; Beal & Massey 1945: 96; Blackman 1922: 64, 1941: 21–23; Blatchley & Leng 1916: 669; Chamberlin 1939: 211; Chapuis 1869: 20, 1873: 228; Gemminger & Harold 1872: 2669; Hagedorn 1910a: 45; LeConte 1876: 389, 1878a: 469; Swaine 1909: 145, 1918a: 79; Wood, S. L. 1982b: 97.

flohri (Eggers) 1930a: 166 (*Hylurgops*). Holotype ♀; Mexico (Salazar); MNB, Berlin.

Distribution: North America (Distrito Federal, Hidalgo, Mexico, Morelos, Oaxaca in Mexico).

Hosts: *Pinus* sp.

Notes: (1) Wood 1966b: 24 (to *Hylastes*).

References: (hb) Atkinson et al. 1986: 13; Wood, S. L. 1982b: 100. (ds) Atkinson & Equihua 1985a: 70, 1988: 90; Atkinson et al. 1986: 13; Blackwelder 1947; Ferrer 1942; Schedl 1940a: 338, 1972g: 38; Wood, S. L. 1982b: 100. (tx) Eggers 1930a: 166; Wood, S. L. 1966b: 24, 1982b: 100.

fulgidus Blackman 1941: 18. Holotype ♀; Las Vegas Hot Springs, New Mexico [USA]; USNM, Washington.

Figures: Atkinson et al. 1986: 14.

Distribution: North America (Honduras/ Baja California Norte, Chiapas, Durango, Michoacan, Morelos, Zacatecas in Mexico/ Arizona, Colorado, Kansas, Nevada, New Mexico in USA).

Hosts: *Pinus edulis*, *P. ponderosa*, *P.* spp.

References: (ay) Thomas, J. B. 1967. (hb) Atkinson et al. 1986: 13; Burgos & Saucedo 1983: 51; Wood, S. L. 1982b: 95. (ds) Atkinson & Equihua 1985a: 69, 1985b: 228, 1988: 90; Atkinson et al. 1986: 13; Blackwelder & Blackwelder 1948; Burgos & Saucedo 1983: 51; Thomas, J. B. 1967; Wood, S. L. 1982b: 95. (tx) Atkinson et al. 1986: 13; Blackman 1941: 18; Thomas, J. B. 1967; Wood, S. L. 1982b: 95.

gracilis LeConte 1868: 174. Lectotype ♀; Tahoe Valley, California [USA]; MCZ, Cambridge, designated by Wood 1972b: 145.

Figures: Bright & Stark 1973: 147.

Distribution: North America (British Columbia in Canada/ Guatemala/ Baja California Norte, Chiapas, Chihuahua, Coahuila, Durango, Guerrero, Hidalgo, Mexico, Michoacan in Mexico/ Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA).

Hosts: *Pinus durangensis*, *P. edulis*, *P. monophylla*, *P. montezumae*, *P. ponderosa*, *P.* spp., *Pseudotsuga flahuatii*, rarely *Abies concolor*.

Notes: (3) Blackman 1941: 19 (re-described).

References: (bv) Miller, Madden, & Borden 1986: 85. (cn) Keen 1952c: 154; Schuder 1969: 74; Swaine 1918a: 78. (ec) Massey 1961: 359. (hb) Bright 1976d: 52; Bright & Stark 1973: 27; Chamberlin 1939: 212, 1958: 115; Keen 1952c: 154; Swaine 1918a: 78; Wood, S. L. 1982b: 101. (ds) Atkinson & Equihua 1985a: 70, 1985b: 228; Bright 1976d: 52; Bright & Stark 1973: 27; Chamberlin 1939: 212, 1958: 115; Cockerell et al. 1907; Elias 1985: 39; Fall 1906: 203; Fall & Cockerell 1907: 218; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 364; Hagedorn 1910d: 9; Henshaw 1882: 269, 1885: 149; Keen 1952c: 154; Kleine 1912b: 162, 1914b: 389; Leng 1920: 339; Miller, R. F., Morgan, & Hicock 1985: 500; Muskus, A. 1984: 41; Patterson & Hatch 1945: 151; Schedl 1977e: 42; Schuder 1969: 74; Snow 1881: 70, 1907: 188; Swaine 1909: 147; Wickham 1896a: 310, 1898: 312; Wood, S. L. 1972a: 400, 1982b: 101. (tx) Blackman 1941: 19–20; Bright 1976d: 52; Bright & Stark 1973: 147; Chamberlin 1939: 212, 1958: 115; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 45; Hopkins 1899: 449; LeConte 1868: 174, 1876: 388, 1878c: 472; Muskus, A. 1984: 41; Swaine 1909: 147, 1918a: 78; Wood, S. L. 1969e: 121, 1972a: 400, 1972b: 145, 1972c: 195, 1975a: 22, 1982b: 101.

vastans Chapuis 1869: 17. Holotype ♀; Mexico; IRSNB, Brussels. Synonymy: Wood 1972b: 145.

References: (hb) Schwerdtfeger 1957d: 362. (ds) Blackwelder 1947; Blandford 1896e; Chapuis 1869: 17, 1873: 225; Ferrer 1942; Hagedorn 1910d: 12; Kleine 1912b: 162, 1914b: 347, 358; Schwerdtfeger 1957d: 362. (tx) Blandford 1896e; Chapuis 1869: 17, 1873: 225; Hagedorn 1910a: 46; Schedl 1940a: 338, 1955g: 5; Wood, S. L. 1969e: 121, 1972b: 145.

longus LeConte 1876: 388. Holotype ♀; Colorado [USA]; MCZ, Cambridge. Synonymy: Wood 1972c: 195.

Notes: (3) Blackman 1941b: 16 (re-described). References: (cn) Keen 1952c: 155; Swaine 1918a: 78. (hb) Keen 1952c: 155; Swaine 1918a: 78. (ds) Cockerell 1893; Cockerell et al. 1907; Fall & Cockerell 1907: 218; Hagedorn 1910d: 10; Henshaw 1882: 267, 1885: 149; Keen 1952c: 155; Kleine 1912b: 162, 1914b: 396; Leng 1920: 339; Snow 1883: 44, 1906: 175, 1907: 188; Swaine 1909: 145; Wickham 1896a:

310, 1896b: 170. (**tx**) Blackman 1941: 5, 16–17; Hagedorn 1910a: 46; LeConte 1876: 388; Swaine 1909: 145, 1918a: 78; Wood, S. L. 1972e: 195.

asper Swaine 1917: 19. Holotype ♀; Larimer Co., Colorado [USA]; CNCI, Ottawa. Synonymy: Wood 1975a: 22.

Notes: (3) Blackman 1941: 14 (re-described).

References: (**hb**) Swaine 1918a: 77. (**ds**) Leng 1920: 339. (**tx**) Blackman 1941: 14; Bright 1967b: 674; de Ruelle 1970: 101; Swaine 1917: 19, 1918a: 77; Wood, S. L. 1975a: 22.

nitidus Swaine 1917: 19. Holotype, sex?; Las Vegas, New Mexico [USA]; CNCI, Ottawa. Synonymy: Wood 1972b: 145.

Notes: (3) Blackman 1941: 17 (re-described).

References: (**ay**) Thomas, J. B. 1967. (**cc**) Kinn 1971; Swaine 1918a: 77–78. (**ds**) Leng 1920: 339; Thomas, J. B. 1966. (**tx**) Blackman 1941: 17–18; Bright 1967b: 674; de Ruelle 1970: 101; Swaine 1917: 19–20, 1918a: 77–78; Thomas, J. B. 1967; Wood, S. L. 1972b: 145, 1975: 22.

lifuanus Fauvel 1872: 199. Syntypes, sex?; Lifu Island (near New Caledonia); not located.

Distribution: Lufou Island near New Caledonia.

Notes: (1) This species is obviously assigned to the wrong genus.

References: (**ds**) Fauvel 1872: 199; Hagedorn 1910d: 10; Kleine 1912b: 162, 1914b: 300. (**tx**) Fauvel 1872: 199; Gemminger & Harold 1972: 2670; Hagedorn 1910a: 45.

linearis Erichson 1836: 49. Syntypes, sex?; Germany; MNB, Berlin.

Figures: Balachowsky 1949a: 126.

Distribution: Africa (Algeria/ Canary Islands/ Madeira Island/ Morocco/ introduced to South Africa), Asia (Israel/ Syria), Europe (Belgium/ Corsica/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Portugal/ Spain/ W USSR/ Yugoslavia).

Hosts: *Pinus halepensis*, *P. pinaster*, *P. spp.*

References: (**ay**) Michalski, Grocholski, & Nowak 1983. (**bv**) Grune 1979: 49; Mendel, Madar, & Golan 1985. (**cn**) Anonymous 1970c: 13; Espanol 1964a; Grandi 1951; Joly 1976; Muller 1912: 185; Pfeffer 1933: 43; Souphieff & Scherbinovskaya 1937: 47; Wachtl 1901a: 381. (**cc**) Kleine 1908c: 181; Nosek 1959a: 118; Novak, P. 1952: 413; Pfeffer 1928b: 9, 1933: 43; Wichmann 1916: 18, 1955a: 95. (**hb**) Beffa 1961; Cabral 1959; Chararas 1962c: 306; Dombrowsky 1887; Eichhoff 1881a: 35, 85; Everts 1903: 752; Fuchs 1904a; Grandi 1951; Györfi 1957; Hagedorn 1903a; Halperin & Holzschuh 1984: 25; Henschel 1895a: 135; Joly 1976; Karpinski & Strawinski 1948: 154; Krivolutskaia 1960: 77; Lengerken 1939: 62, 1954: 82; Mendel, Madar, & Golan 1985; Nosek 1959a: 118; Nunberg 1929: 101; Peyerimhoff 1919: 252; Pfe-

fer 1941b: 2; Postner 1974: 395; Ratzeburg 1837: 180; Stark 1952: 210; Wachtl 1901: 381; Wichmann 1916: 18; Zocchi 1959: 103. (**ds**) Aeloque 1896; Anonymous 1970c: 13; Audras & Schaefer 1957; Barthé 1896; Bedel 1888b; Benick 1921; Blanchère & Robert 1889; Brakman 1966b: 204; Brancsik 1871, 1906; Cabral 1959; Calwer 1854, 1893; Chapuis 1869: 18, 1873: 226; Chararas 1962c: 306; Endrodi 1958b, 1956: 217; Escalera 1919; Escherich 1932b; Everts 1922: 639; Fauvel 1885, 1897; Favre 1890; Fuchs 1904a; Ganglbauer 1904; Gaubil 1849: 128; Gozis 1875: 79; Gredler 1866: 369; Grune 1979: 49; Hagedorn 1903a, 1910d: 10; Halperin & Holzschuh 1984: 25; Hariri 1971: 262; Henschel 1895a: 135; Hepburn 1966; Heyden 1876: 296; Heyden, Reitter, & Weise 1853: 181, 1891: 667, 1906: 710; Holdhaus 1923: 115; Horion 1951; Huther 1951: 277; Jansson 1940: 63; Jazentkovsky 1912: 257; Joly 1976; Kaltenbach 1874: 686; Karpinski & Strawinski 1948: 154; Kestercanek 1881a: 12; Kleine 1912a: 263, 1912b: 162, 1913a: 34, 1934a: 126; Koltze 1901: 152; Kraatz 1869: 59; Krivolutskaia 1960: 77; Lacordaire 1866: 358; Langhoffer 1915c: 157; Leclercq 1971; Lokaj 1868: 63; Lomnicki 1856a: 240, 1913b: 148; Lucht 1987: 276; Luigioni 1929: 994; Lundblad 1958: 489; Mequignon 1936: 54; Moragues 1889: 32; Novak, P. 1952: 413; Nunberg 1928b: 101, 1954: 19; Oliveira 1887: 326; Perris 1856a: 229, 1876a: 253, 1877a: 413; Peyerimhoff 1919: 252, 1933b: 367; Pfeffer 1928b: 9, 1931b: 74, 1947c: 11, 1947d: 126, 1984: 277, 1989a: 38; Pittioni 1943: 175; Postner 1974: 395; Ragusa 1924: 115; Rapp 1934: 724; Ratzeburg 1837: 180; Redtenbacher 1858: 825, 1874: 367; Reitter 1869b: 153, 1894a: 61, 1916: 284; Revy & Siroki 1942: 82; Roubal 1941: 261; Sainte-Claire 1914: 471; Sainte-Claire & Mequignon 1938: 444; Schanfuss 1915: 1226; Schaum 1859: 95, 1862: 100; Schedl 1963e: 154, 1964a, 1967c: 69, 1971d: 424, 1980a: 11, 1981b: 50; Schedl, Lindberg, & Lindberg 1959: 14; Scheidt 1919: 165; Schilsky 1909: 187; Schmitz 1898: 157; Seidlitz 1872: 391, 1891a: 558, 1891b: 604; Souphieff & Scherbinovskaya 1937: 49; Stark 1952: 210; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 431; Stierlin & Gautard 1871: 191, 1906: 205; Stranch 1861: 123; Tredl 1907: 9; Wanka 1915: 213; Wessel 1877: 390; Wichmann 1927a: 61, 1955a: 98; Zivoinovic 1960: 24; Zocchi 1959: 103. (**tx**) Aeloque 1896; Bach 1854; Balachowsky 1949a: 131; Bedel 1888b; Beffa 1961; Bertolini 1872; Brancsik 1871; Cabral 1959; Chapuis 1869: 18, 1873: 226; Doebner 1860; Dombrowsky 1887; Eichhoff 1864b: 46, 1881a: 35, 85, 1883a: 100, 122; Endrodi 1957b; Erichson 1836: 49; Everts 1903: 752, 1922: 639; Fauvel 1885, 1889; Fleischer 1927; Formanek 1907: 28; Gemminger & Harold 1872: 2670; Grune 1979: 45–49; Hagedorn 1910a: 45; Henschel 1895a: 135; Joly 1976;

Karpinski & Strawinski 1948: 154; Kuhnt 1913: 1053; Lacordaire 1866: 358; Letzner 1891: 372; Lovendal 1898: 111; Lucht 1987: 276; Luigioni 1929: 994; Michalski, Grocholski, & Nowak 1983; Numberg 1954: 19; Pfeffer 1932b: 15, 1941b: 2, 1944b: 102, 1947e: 11, 1955a: 115, 1989a: 37; Portevin 1935: 320; Postner 1974: 395; Ratzeburg 1837: 180; Redtenbacher 1849a: 793, 852, 1849b: 27, 1858: 825, 1874: 367; Reitter 1894a: 61, 1913a: 53, 1916: 284; Schedl 1934f: 1636, 1957b: 150, 1959n:382, 1968c, 1980a: 11, 1981b: 50; Schedl, Lindberg, & Lindberg 1959: 14; Seidlitz 1872: 391, 1891a: 558, 1891b: 604; Stark 1952: 210; Stierlin 1898: 431; Wichmann 1916: 18.

corticiperda Erichson 1836: 50. Syntypes, sex?; Portugal; not located. Synonymy: Balachowsky 1949a: 132 (synonym or geographical race?), Schedl 1934f: 1636.

References: (hb) Eichhoff 1881a: 35, 86. (ds) Blanchere & Robert 1889; Calwer 1884, 1893; Fauvel 1885; Heyden, Reitter, & Weise 1883: 181; Kleine 1914a: 16; Lacordaire 1866: 358; Reitter 1894a: 61; Schaum 1859: 95, 1862: 100; Stein 1868: 113; Stein & Weise 1877: 163; Tredl 1907: 9. (tx) Balachowsky 1949a: 132; Bertolini 1872; Doebner 1860; Eichhoff 1864b: 46, 1881a: 35, 86, 1883a: 100, 122; Erichson 1836: 50; Fauvel 1885; Gemminger & Harold 1872: 2669; Lacordaire 1866: 358; Pfeffer 1944b: 102; Reitter 1894a: 61; Schedl 1934f: 1636.

variolosus Perris 1852: 181. Syntypes, sex?; presumably France (not seen); not located. Synonymy: Letzner 1891: 372; Hagedorn 1910d: 10. References: (hb) Perris 1856a: 229. (ds) Hagedorn 1910d: 10; Kraatz 1869: 59; Lacordaire 1866: 358; Redtenbacher 1874: 367; Schaum 1859: 95, 1862: 100; Schilksy 1909: 187; Stein 1868: 113; Stein & Weise 1877: 163. (tx) Balachowsky 1949a: 113; Doebner 1860; Eichhoff 1864b: 24; Hagedorn 1910d: 10; Lacordaire 1866: 358; Letzner 1891: 372; Perris 1852: 181, 1856a: 367; Redtenbacher 1874: 367; Sharp 1920: 205.

clausi Wollaston 1854: 305. Holotype, sex?; Madeira Island; BMNH, London. Synonymy: Hagedorn 1910d: 10.

References: (ds) Wollaston 1854: 305, 1857: 100. (tx) Gemminger & Harold 1872: 2669; Hagedorn 1910d: 10; Wollaston 1854: 305, 1857: 100, 1865: 251.

flavicornis Lindberg 1950: 19. Holotype, sex?; Puente Fria, Tenerife Island, Canary Islands; MZU, Helsinki. Synonymy: Schedl 1959n:382; Schedl, Lindberg, & Lindberg 1959: 14.

References: (ds) Lindberg 1950: 19. (tx) Lindberg 1950: 19; Schedl 1959n:382; Schedl, Lindberg, & Lindberg 1959: 14.

longicollis Swaine 1918a: 79. Holotype, sex?; Atlanta, Idaho [USA]; CNCI, Ottawa.

Distribution: North America (Alberta, British Columbia in Canada/ California, Idaho, Montana, Oregon, South Dakota, Washington in USA).

Hosts: *Pinus contorta*, *P. monticola*, *P. ponderosa*.

Notes: (3) Blackman 1941: 21 (redescribed).
References: (cn) Lindgren 1980a: 63; Swaine 1918a: 78, 79. (ec) Harrington & Cobb 1983; Kinn 1971; Ross, D. A. 1967; Stephen & Dahlsten 1976b: 2. (hb) Bright 1976d: 52; Bright & Stark 1973: 28; Chamberlin 1939: 212, 1958: 115; Lindgren 1980a: 63; Wood, S. L. 1982b: 98. (ds) Bright 1976d: 52; Bright & Stark 1973: 28; Chamberlin 1925, 1939: 212, 1958: 115; Furniss, R. L. & Carolin 1977: 364; Leng 1920: 339; Patterson & Hatch 1945: 152; Ross, D. A. 1967; Wood, S. L. 1972a: 400, 1982b: 98. (tx) Blackman 1941: 21; Bright 1967b: 674, 1976d: 52; Bruck 1936a; Chamberlin 1939: 212, 1958: 115; Hoebeke 1978; de Ruelle 1970: 101; Swaine 1918a: 78-79; Wood, S. L. 1972a: 400, 1982b: 98.

lowei Paiva 1861b: 211. Syntypes, sex?; Canary Islands (Teneriffe and Palma); not located.

Distribution: Canary Islands (Teneriffe, Palma).

Hosts: *Pinus canariensis*.

References: (cn) Souphieff & Scherbinovskaya 1937: 102. (ds) Hagedorn 1910d: 10; Kleine 1912b: 162, 1914a: 20; Lindberg 1950: 19; Peyerimhoff 1933b: 371; Schedl, Lindberg, & Lindberg 1959: 14; Souphieff & Scherbinovskaya 1937: 102; Uyttenboogaart 1937: 116. (tx) Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; Paiva 1861b: 211; Schedl 1934f: 1636; Schedl, Lindberg, & Lindberg 1959: 14; Wollaston 1864: 269, 1865: 251.

macer LeConte 1868: 175. Lectotype ♂; California [USA]; MCZ, Cambridge, designated by Wood 1982b: 104.

Figures: Bright 1976d: 200, 206.

Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, Oregon, South Dakota, Utah, Washington, Wyoming in USA).

Hosts: *Pinus ponderosa*, *P. spp.*, rarely *Picea engelmannii*.

Notes: (3) Blackman 1941: 16 (redescribed).
References: (ay) Ting 1936: 96. (bv) Barr, B. A. 1969: 641. (cn) Chamberlin 1924; Doane et al. 1936; Keen 1929: 57, 1938: 27, 1952c: 155; Lindgren 1980a: 63; Schuder 1969: 76; Swaine 1918a: 78-79. (ec) Golcen & Cobb 1978; Hansen et al. 1988; Harrington & Cobb 1983; Keen 1938: 2. (hb) Bright 1976d: 49; Bright & Stark 1973: 26; Chamberlin 1958: 116; Doane et al. 1936; Keen 1929: 57, 1938: 27, 1952c: 155; Lindgren 1980a: 63; Schwarz 1894b: 255; Swaine 1918a: 78-79; Wood, S. L. 1982b: 104. (ds) Atkinson 1989a: 59; Bright 1976d: 49; Bright & Stark 1973: 26; Cham-

berlin 1925, 1958: 116; Evans, D. 1983: 33; Fall 1906: 203; Furniss, R. L. & Carolin 1977: 364; Hagedorn 1910d: 10; Henshaw 1882: 269, 1885: 149; Hopping 1922; Keen 1929a: 25, 57, 1938: 27, 1952c: 155; Kleine 1912b: 162, 1914b: 389, 1934a: 126; Lange 1937: 173; Leng 1920: 339; Patterson & Hatch 1945: 151; Schuder 1969: 76; Swaine 1909: 145, 1918a: 78; Wickham 1896a: 310; Wood, S. L. 1972a: 401, 1982b: 104. **(tx)** Blackman 1941: 16; Bright 1976d: 49, 200, 206; Bruck 1936a; Chamberlin 1939: 214; 1958: 115; Evans, D. 1983: 33; Fall 1926: 208; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; Keen 1929a: 25; LeConte 1868: 175, 1876: 388, 1878c: 472; Swaine 1909: 145, 1915: 368, 1916: 78–79, 1918a: 78–79; Wood, S. L. 1972a: 401, 1982b: 104.

mexicanus Wood 1967d: 36. Holotype ♀; 62 km W Toluca, Mexico, Mexico; Wood Collection.

Distribution: North America (Durango, Mexico, Morelos in Mexico/ S Arizona in USA).

Hosts: *Pinus* spp.

References: **(hb)** Atkinson et al. 1986: 13. **(ds)** Atkinson & Equihua 1985b: 228; Atkinson et al. 1986: 13; Wood, S. L. 1982b: 100. **(tx)** de Ruette 1970: 101; Wood, S. L. 1967d: 36–37, 1982b: 100.

niger Wood 1974a: 7. Holotype ♂; 31 km E Tulancingo, Hidalgo, Mexico; Wood Collection.

Distribution: North America (Hidalgo in Mexico).

Hosts: *Pinus* sp.

References: **(ds)** Atkinson & Equihua 1985b: 228; Wood, S. L. 1982b: 101. **(tx)** Wood, S. L. 1974a: 7, 1982b: 101.

nigrinus (Mannerheim) 1852: 356 (*Hylurgus*). Holotype ♀; Sitka Island, Alaska [USA]; MZU, Helsinki.

Figures: Furniss & Carolin 1977: 364.

Distribution: North America (Alaska/ Alberta, British Columbia, Northwest Territories, Yukon in Canada/ California, Idaho, Montana, Washington in USA).

Hosts: *Pinus ponderosa*, *P. spp.*, *Picea* spp., *Pseudotsuga menziesii*, *Tsuga* sp., *Larix* sp., *Abies* spp.

Notes: (1) LeConte 1868: 174 (to *Hylastes*). (3) Blackman 1941: 13 (re-described).

References: **(ay)** Chapman, J. A. 1969b, 1972; Thomas, J. B. 1967; Zethner-Moller & Rudinsky 1967. **(bv)** Chapman, J. A. 1962a: 4, 1963: 675–676, 1966: 55; Daterman, Rudinsky, & Nagel 1965; Jacobson 1972; Nijholt 1973b: 589; Rudinsky 1966b, 1966c; Rudinsky & Daterman 1964a; Rudinsky & Zethner-Moller 1967; Witosky, Schowalter, & Hansen 1986b, 1987; Zethner-Moller & Rudinsky 1967. **(cn)** Chamberlin 1924; Doane et al. 1936; Essig 1926: 519, 1958: 519; Graham 1963; Keen 1929: 57, 1938: 27, 1952c: 155; Rudinsky & Zethner-Moller 1967; Ruppel 1967: 52; Schuder 1969: 81; Swaine 1918a: 78–79; Witosky 1989; Zethner-Moller & Rudinsky 1967. **(ec)** Chamberlin 1918a; Furniss, M. M.

1966; Furniss, R. L. & Carolin 1977: 364; Harrington & Cobb 1983; Harrington, Cobb, & Lownsberry 1985; Hendrickson 1962b: 595; Keen 1938: 27; Ross, D. A. 1967; Rudinsky & Zethner-Moller 1967; Witosky & Hansen 1985; Witosky, Schowalter, & Hansen 1986a; Zethner-Moller & Rudinsky 1967. **(hb)** Bright 1976d: 51; Bright & Stark 1973: 26; Chamberlin 1958; Chapman, J. A. 1962a; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Essig 1926: 519, 1958: 519; Furniss, R. L. & Carolin 1977: 364; Graham 1963; Hamilton 1894: 36; Harrington, Cobb, & Lownsberry 1985; Keen 1929: 57, 1938: 27, 1952c: 155; Nijholt 1980: 203; Rudinsky & Daterman 1964a; Swaine 1918a: 78–79; Wood, S. L. 1982b: 105; Zethner-Moller & Rudinsky 1967. **(ds)** Bedard 1938a; Blackwelder & Blackwelder 1948; Bright 1976d: 51; Bright & Stark 1973: 26; Chamberlin 1917: 355, 1918a: 24, 1925, 1958: 115; Chapman, J. A. 1963b: 675–676; Chapuis 1869: 18, 1873: 226; Essig 1926: 519, 1958: 519; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 364; Hagedorn 1910d: 10; Hamilton 1894a: 36; Henshaw 1885: 149; Hopping 1922; Keen 1929a: 25, 1929c: 57, 1938: 27, 1952c: 155; Kleine 1912b: 162, 1914b: 389, 1934a: 126; Leech 1946: 64; Leng 1920: 339; Nijholt 1973: 589; Patterson & Hatch 1945: 151; Ross, D. A. 1967; Ruppel 1967: 52; Schuder 1969: 81; Swaine 1909: 145, 1918a: 78; Wood, S. L. 1957c: 396, 1972a: 401, 1982b: 105; Zethner-Moller & Rudinsky 1967: 897–911. **(tx)** Blackman 1941: 4, 13; Bright 1976d: 51; Chamberlin 1939: 213–214, 1958: 115; Chapuis 1869: 18, 1873: 226; Fall 1926: 208; Furniss, R. L. & Carolin 1977: 364; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; Keen 1929a: 25; LeConte 1857: 22, 1868: 174, 1876: 388; Mannerheim 1852: 356; Swaine 1918a: 78–79; Wood, S. L. 1957c: 396, 1969c: 116, 1972a: 401, 1982b: 105. **(ms)** Essig 1931: 699.

yukonis Fall 1926: 207. Holotype ♂; White Horse, Yukon Territory, Canada; MCZ, Cambridge. Synonymy: Wood 1957c: 396.

Notes: (3) Blackman 1941: 14 (original description quoted).

References: **(ds)** Leng & Mutchler 1933: 51. **(tx)** Blackman 1941: 14; Fall 1926: 207; Wood, S. L. 1957c: 396.

opacus Erichson 1836: 51. Syntypes, sex²; presumably Germany; MNB, Berlin.

Figures: Pfeffer 1989a: pl. 3.

Distribution: Asia ("Manchuria" [Heilongjiang?]) in China/ Japan/ Korea/ E USSR, Europe (Austria/ Belgium/ Bulgaria/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Norway/ Poland/ Sweden/ Switzerland/ W USSR), North America (introduced to New York in USA).

Hosts: *Pinus* spp., *Picea* spp., rare in *Larix* spp.

References: **(ay)** Escherich 1923b: 480; Feytaud

- 1950a; Fuchs 1912a; Marcu 1933a: 3; Uchastnova 1958: 40. (**bv**) Barr 1969: 641; Grune 1979: 51; Leclercq, Simon, & Verstraeten 1967; Naumann-Etienne 1978a; Nuorteva 1956c: 92; Nuorteva & Nuorteva 1968; Schroeder & Lindelow 1989. (**cn**) Anonymous 1921p: 4, 1946i: 1, 3; Barbey 1925: 204; Browne 1968: 343; Chorbadzhievo 1929; Eckstein 1926: 577; Egorov 1958: 1492; Escherich 1917: 97-115, 1923b: 480; Esterberg 1959; Feytaud 1950a; Fischer 1937c; Gabler 1955; Hanson 1937; Hess 1880, 1898: 381; Hess & Beck 1914: 249, 1929: 303; Inouye 1949a: 108, 1949b, 1949c; Joly 1976; Judeich & Nitsche 1895: 453; Kangas 1937; Koch 1913: 22; Lonshehakov & Lur'e 1960; Muller 1912: 185; Nestertschuk 1930: 176; Nuorteva & Nuorteva 1968; Nusslin 1913: 205, 1927: 291; Pfeffer 1933: 43; Pierce, W. D. 1917: 74; Rhumbler 1922: 279, 1927: 291; Saalas 1949: 342; Schimitschek 1955c: 79; Schuster 1918: 102; Schwerdtfeger 1944a: 183, 1950b: 44, 1957a: 189; Thaler 1902: 278, 1903: 400; Tullgren 1916: 104; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 352. (**cc**) Andreev 1988; Balazy 1965a; Hirschmann & Wisniewski 1982, 1983; Kangas 1937; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 181, 1909a: 44, 78, 1944: 74; Kostenko 1929; Kostin 1964: 106; Leclercq, Simon, & Verstraeten 1967; Naumann-Etienne 1978a; Nosek 1959a: 118; Nuorteva & Nuorteva 1968; Nusslin 1927: 291; Palm 1958: 22, 24; Palmén 1944: 60, 1946: 194; Pfeffer 1923a: 330, 1928b: 9, 1933: 43, 1943b: 181; Poinar 1975: 159; Ruhm 1956b: 3, 1958: 295; Saalas 1928: 651, 1949: 342; Schuster 1918: 102; Schwerdtfeger 1944a: 183, 1950b: 44, 1957a: 189; Sedlaczek 1935a: 163; Stora 1938: 20; Uchastnova 1958: 40; Vietinghoff 1924: 327; Wiackowski 1957a: 95; Wisniewski & Michalski 1984; Yanovskii 1977b. (**hb**) Altum 1881c: 268; Anonymous 1921p: 4, 1946i: 1, 3; Barbey 1901: 10, 18, 44, 1925: 204; Binzer 1881a; Browne 1968: 343; Budge 1949; Budkov 1897; Chararas 1962c: 306; Chorbadzhievo 1929; Dombrowsky 1887; Eckstein 1889, 1926: 577; Eichhoff 1881a: 36, 90; Elton et al. 1964; Escherich 1923b: 480; Evans 1952: 141; Everts 1903: 752; Feytaud 1950a; Fuchs 1904a; Gabler 1955; Gornostaev 1916: 311; Gyorfí 1957; Hagedorn 1903a; Henschel 1876a: 87, 240, 1880b: 257, 1895a: 135; Hess 1880, 1898: 381; Hess & Beck 1914: 249, 1927: 303; Joly 1976; Judeich & Nitsche 1895: 453; Karpinski 1933b: 24; Karpinski & Strawinski 1948: 154; Kemner 1919: 176; Knoche 1905: 354; Lengerken 1939: 61, 1954: 82; Marcu 1941: 402; Munro 1926: 57; Naumann-Etienne 1978a; Nordlinger 1856: 37; Nosek 1959a: 118; Numberg 1929: 101; Nuorteva 1956c: 92; Nusslin 1898: 277, 1913: 205; Petrenko 1966; Pfeffer 1941b: 2; Postner 1974: 394; Ratzeburg 1837: 180, 1839: 159, 219; Rhumbler 1922: 279, 1927: 291; Saalas 1913a: 69, 80, 1949: 342, 1952: 217; Schwerdtfeger 1944a: 183, 1957a: 189; Sedlaczek 1935a: 163; Stark 1926a: 333, 1952: 217; Taschenberg 1880: 210; Tschorbadjiev 1929: 163; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 352; Zethner-Moller & Rudinsky 1967: 898. (**ds**) Aeloque 1896; Allen, A. 1951b; Ammann & Knabl 1923; Andersch 1851; Arnoldi et al. 1955: 676; Andras & Schaefer 1957; Barthe 1896; Bau 1888; Bedel 1888b; Bejer-Petersen & Jorrm 1977: 16; Benick 1921; Bistrom 1978; Blanchere & Robert 1889; Borchert 1951; Brakman 1966: 204; Brancsik 1871, 1906; Browne 1968: 343; Budkov 1897; Buresh & Lazarov 1956; Calwer 1884, 1893; Carpentier & Delaby 1908; Champion 1893; Chapuis 1869: 18, 1873: 226; Chararas 1962c: 306; Choo 1983: 59; Choo & Woo 1985: 164; Chorbadzhievo 1924d, 1929; Chrystal 1937; Crotch 1863; Csiki 1942c; Debatisse 1945; Dejean 1821, 1825, 1837; Eckstein & Butovitch 1931; Eder 1934; Eggers 1904; Ericson & Sandin 1893; Escherich 1923b: 480, 1932b; Esterberg 1928, 1959; Evans 1952: 141; Eyquem 1891; Fjellberg 1966: 154; Forster 1849: 440; Fowler 1891; Fuchs 1904a; Gaubil 1849: 128; Gillerfors 1966; Gornostaev 1917; Gozis 1875: 79; Grune 1979: 51; Hagedorn 1903a, 1910d: 10; Hallett 1923c; Hansen, V. 1939, 1956, 1964: 459; Heinemann 1908a; Hellen 1947; Henschel 1895a: 135; Hepburn 1966; Heyden 1876: 296, 1898: 77; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Horion 1951; Huhta et al. 1986; Inouye 1949b; Jazentkovsky 1912: 288; Johnson & Halbert 1902: 818; Joly 1976; Judeich & Nitsche 1895: 453; Karpinski 1925: 216, 1926: 82, 1931: 23, 38, 1933b: 24; Karpinski & Strawinski 1948: 154; Kemner 1919: 176; Kersten 1933: 73; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 262, 267, 1912b: 162, 1913a: 34, 1914b: 248, 251, 1934a: 126; Kloft & Hinks 1945: 218; Ko 1969: 277; Koltze 1901: 152; Kostenko 1929; Kraatz 1869: 59; Krivolitskaya 1983; Kurenzov 1936a: 111, 1938a: 59; Kurir 1947c: 8; Lacordaire 1866: 358; Langhoffer 1915c: 157; Leclercq 1971; Leiler & Prutz 1977; Lentz 1857: 137; Lokaj 1868: 63; Lonnicki 1913b: 148; Lovendal 1890c: 210; Lucht 1987: 276; Lundberg 1980: 149, 1981: 151; Mahler 1987: 232; Matthew & Fowler 1883: 42; Mcquignon 1936: 15; Munro 1921: 87; Munster 1928: 289; Murrayama 1929b: 2, 1929e: 41, 1930a: 7, 1930b: 7, 1937b: 375; Numberg 1928b: 88, 102, 1954: 20; Nusslin 1898: 277; Palm 1957: 46, 1986; Palmén 1944: 60, 1946: 194; Pfeffer 1928b: 9, 1931b: 74, 1933: 3-54, 1935: 159, 1947c: 11, 1947d: 127, 1950b: 76, 1984: 277, 1989a: 39; Pierce, W. D. 1917: 74; Pittioni 1943: 176; Postner 1974: 394; Prossen 1913: 82; Rapp 1934: 725; Ratzeburg 1837: 180, 1839: 159, 219; Redtenbacher 1858: 825, 1874: 367; Reitter 1869b: 153,

1894a: 62, 1916: 284; Roubal 1941: 261; Rye 1866c: 258; Saalas 1913a: 69, 80, 1931: 69; Sahlberg 1900: 104; Sainte-Claire & Mequignon 1935: 444; Schaufuss 1915: 1227; Schann 1862: 100; Schedl 1960e: 171, 1971f: 146, 1980a: 12, 1981b: 49; Schilsky 1909: 188; Schiodte 1873: 99; Schwerdtfeger 1981: 194; Seidlitz 1872: 391, 1891a: 558; Siebke 1875: 281; Sharp & Fowler 1893: 34; Stark 1926a: 333, 1926b: 101, 1926j: 124, 1927b: 88, 1931a: 23, 1931d: 544, 1952: 217; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 147; Stierlin & Gautard 1871: 291, 1906: 225; Strohmeyer 1914a: 32; Sturm 1826: 156, 1843: 228; Thomson 1865: 349, 1868: 218; Tredl 1907: 9; Tschorbadjiev 1929: 163; Westhoff 1882: 236; Wichmann 1927a: 61; Wiepken 1883: 89; Winter, T. C. 1983: 51; Wood, S. L. 1992b: 85; Yanovskii 1974, 1977a; Yanovskii & Tegshzhargal 1985: 406. **(tx)** Aclouque 1896; Bach 1854; Balachowsky 1949a: 132; Barbey 1901: 10, 18, 44; Beaver 1970a; Bedel 1885b; Bertolini 1872; Brancsik 1871; Carpentier & Delaby 1908; Chapuis 1869: 18, 1873: 226; Choo 1983: 59; Chorbadzhievo 1924d; Csiki 1909; Dejean 1821, 1825; Doebner 1860; Dombrowsky 1887; Duffy 1953; Eichhoff 1864b: 24, 1881a, 1883a: 101, 122; Endrodi 1957b; Erichson 1836: 51; Escherich 1923b: 481; Escherich & Escherich 1897; Everts 1903: 752; Fauvel 1889; Fleischer 1927; Formanek 1907: 28; Fuchs 1912a; Gabler 1955; Gemminger & Harold 1872: 2670; Grune 1979: 50, 51; Hagedorn 1910a: 46; Hansen, V. 1955, 1956, 1964: 459; Henschel 1876a: 87, 240, 1895a: 135; Jacquelin du Val & Fairmaire 1868: 99; Joly 1976; Judeich & Nitsche 1895: 453; Karpinski & Strawinski 1948: 154; Koch 1913: 22; Kuhnt 1913: 1053; Lacordaire 1866: 358; Lekander 1965: 197; Letzner 1891: 372; Lovendal 1889b: 33, 1890c: 210, 1898: 113; Lucht 1987: 276; Munro 1917: 123-158, 1919: 1-35, 1926: 1-27; Murayama 1930b: 7, 11, 30, 1937b: 375; Nordlinger 1856: 37; Nunberg 1954: 20; Pfeffer 1932b: 15, 1941b: 2, 1944b: 102, 1947c: 11, 1955a: 117, 1989a: 39; Portevin 1935: 321; Postner 1974: 394; Quaschik 1953: 35; Ratzeburg 1837: 180, 1839: 159, 219; Redtenbacher 1858: 825, 1874: 367; Reitter 1894a: 62, 1913a: 53, 1916: 284; Rhumbler 1922: 279, 1927: 291; Saalas 1913a: 69, 80, 1949: 342; Schedl 1934f: 1636, 1941a: 42, 1952f: 87, 1968c, 1980a: 12, 1981b: 49; Schimitschek 1955c: 79; Seidlitz 1872: 391, 1891a: 558; Spessivtsev 1913: 67, 1922a: 462, 1925a: 170, 1931: 28; Stark 1952: 217; Stephens 1829a: 147; Stierlin 1898: 431; Strohmeyer 1914e: 8; Taschenberg 1880: 210; Thomson 1865: 349, 1868: 218. **(ms)** Escherich 1932b; Heinemann 1908a; Henschel 1880b: 257, 1880c: 60; Ratzeburg 1871b: 40; Ritter 1929: 554. *simplex* Rey 1892b: 30. Syntypes, sex?, not given, apparently France; not located. Synonymy: Schedl 1934f: 1636, Balachowsky 1949a: 132.

References: **(ds)** Hagedorn 1910d: 8; Schilsky 1909: 188. **(tx)** Balachowsky 1949a: 132; Reitter 1913a: 53; Rey 1892b: 30; Schedl 1934f: 1636.

parallelus Chapuis 1875: 196. Syntypes, sex?; Nipon et a Kinskiu [Japan]; IRSNB, Brussels.

Figures: Nobuchi 1966d: pl. 1.

Distribution: Asia (Heilongjiang, Shaanxi, Sichuan in China/ Japan/ Korea/ Taiwan/ E USSR).

Hosts: *Pinus densiflora*, *P.* spp.

References: **(ay)** Sasakawa & Yoshiyasu 1983. **(cn)** Choo 1983: 60; Inouye 1949a: 13, 109, 1949b, 1949c; Ko & Morimoto 1985; Shiraki 1952. **(cc)** Kurenzov 1934a: 57; Pfeffer 1932a: 19. **(hb)** Kurenzov 1948b: 105, 1950d: 163; Stark 1952: 218; Stebbing 1909b: 14. **(ds)** Anonymous 1980g; Blandford 1894c; Choo 1983: 60; Choo & Woo 1985: 164; Hagedorn 1910d: 11; Kleine 1912b: 162, 1914b: 254, 1934a: 126; Ko 1969: 277; Krivolutskaya 1983; Kurenzov 1934a: 57; Murayama 1934c: 298, 1936a: 123, 1948: 2, 1949a: 12, 1951c: 3, 1953a: 5, 1953c: 147, 1955: 98; Nakane et al. 1963: 381; Nobuchi 1966b: 14, 1967: 19, 1985c: 4; Nohira & Ogawa 1986; Shiraki 1952; Stark 1931d: 543, 1952: 218; Yanovskii & Tegshzhargal 1985: 415. **(tx)** Blandford 1894d; Chapuis 1875: 196; Choo 1983: 60; Hagedorn 1910a: 46; Murayama 1934c: 298, 1936a: 123, 1953a: 5, 1954b: 156, 1955: 98; Nakane et al. 1963: 381, pl. 191; Niisima 1910a: 7; Nobuchi 1966b: 14, 1966d: pl. 1; Pfeffer 1932: 1-23, 1944b: 97, 101, 1955a: 113; Schedl 1934f: 1636, 1962q: 492, 1979c: 185; Sokanovskii 1958: 38; Stebbing 1909b: 14.

plumbeus Blandford 1894d: 57. Syntypes, sex?; Nagasaki et a Hiogo, Japan; IRSNB, Brussels, automatic.

Figures: Nobuchi 1966d: pl. 1.

Distribution: Asia (Heilongjiang, Jilin, Liaoning, Shaanxi, Shandong in China/ Japan/ Korea/ Taiwan/ E USSR), Europe (Finland/ Sweden/ W USSR).

Hosts: *Pinus koraiensis*, *P. densiflora*, *Picea ajanensis*, *P. excelsa*, *P. obovata*, *P. jezoensis*, *Abies nephrolepis*.

References: **(ay)** Sasakawa & Yoshiyasu 1983. **(bv)** Choo, Woo, & Park 1988; Rozhkov 1970: 138. **(cn)** Anonymous 1980g; Inouye 1949a: 13, 109, 1949b, 1949c; Ko & Morimoto 1985; Oda, Kato, & Nobuchi 1964; Shiraki 1952. **(cc)** Kurenzov 1934a: 50; Wisniewski & Michalski 1984. **(hb)** Kurenzov 1948b: 105, 1950d: 163; Rozhkov 1970: 138; Stark 1952: 218; Stebbing 1909b: 14; Wang 1982. **(ds)** Anonymous 1980g; Arnoldi et al. 1955: 676; Blandford 1894c; Butovitsch & Heqvist 1947; Cho 1957; Choo 1983: 60; Choo & Woo 1985: 164; Choo, Woo, & Nobuchi 1983: 172, 1988a: 134; Choo, Woo, & Park 1983: 175, 1988; Hagedorn 1910d: 11; Inouye 1949b; Kleine 1912b: 162,

1914b: 254; Ko 1969: 277; Krivolutskaia 1983; Kurenzov 1934a: 50, 1936a: 111, 1938a: 59, 1941: 129–131, 1950: 163; Murayama 1934c: 298, 1936b: 116, 1937b: 371, 1948: 2, 1949a: 12, 1951c: 3, 1953a: 5, 1953c: 147, 1955: 98; Nakane et al. 1963: 381; Nobuchi 1966b: 14, 1967: 19, 1985c: 4; Pfeffer 1935: 157; Rozhkov 1970: 138; Shiraki 1952; Stark 1952: 218; Yanovskii & Tegshzhargal 1985: 415. (tx) Blandford 1894d: 57; Choo 1983: 60; Eggers 1933f: 55; Hagedorn 1910a: 46; Hansen, V. 1955: 175; Kurenzov 1941a: 130, 1948b: 105; Murayama 1934c: 298, 1937b: 371, 1953a: 5, 1954b: 156, 1955: 98; Nakane et al. 1963: 381, pl. 191; Niisima 1910a: 7; Nobuchi 1966b: 14, 1966d: pl. 1; Pfeffer 1944b: 97, 102, 1955a: 110; Schedl 1934f: 1636, 1963q: 478; Stark 1952: 218; Stebbing 1909b: 14.

obscurus Chapuis 1875: 197. Syntypes, sex?; Nagasaki et a Hiogo, Japan; IRSNB, Brussels, preoccupied by Marsham 1802: 57. Synonymy: Murayama 1963b: 53.

References: (ds) Postner 1974: 395. (tx) Chapuis 1875: 197; Murayama 1963b: 53; Postner 1974: 395; Schedl 1934f: 1636, 1968c.

septentrionali Eggers 1923b: 135. Lectotype, sex?; Stockholm, Sweden; USNM, Washington, designated by Anderson & Anderson 1971: 29. Synonymy: Lekander 1965b: 197.

References: (cn) Kontkanen 1932: 62; Kurenzov 1935c: 189. (ds) Kontkanen 1932: 62; Krivolutskaia 1983; Kurenzov 1935c: 189; Stark 1931a: 23, 1931d: 544. (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1923b: 135, 1933f: 55; Hansen, V. 1955: 175; Lekander 1965b: 197; Schedl 1934b: 1636.

fushunensis Murayama 1940a: 235 (*Hylurgops*). Syntypes 2, ♂ ♀; Fushun, Manchuria; Murayama Collection in USNM, Washington. Synonymy: Wood 1992b: 83.

References: (ds) Murayama 1940a: 231, 235, 1942a: 54. (tx) Murayama 1940a: 231, 235; Wood, S. L. 1992b: 83.

porculus Erichson 1836: 49. Holotype ♂; Pennsylvania [USA]; MNB, Berlin.

Figures: Swaine 1918a: pl. 21 (adult).

Distribution: North America (Manitoba, New Brunswick, Ontario, Quebec in Canada/ Alabama, Arkansas, Connecticut, District of Columbia, Florida, Georgia, Indiana, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Pinus* spp.

Notes: (3) Blackman 1941: 10 (redescribed).

References: (ay) Thomas, J. B. 1967. (bv) Turnbow & Franklin 1980. (cn) Beal et al. 1952; Blackman 1950; Chamberlin 1924; Chenier &

Philogene 1989a; Doane et al. 1936; Hopkins 1899c: 448; Lindquist, O. H. & Syme 1981: 58; Martin, J. L. 1965; Packard 1890; Smith, J. B. 1900: 365; Swaine 1918a: 78–79; Syme & Nystrom 1988: 56. (ec) Felt 1906: 752; Hines, J. W. & Heikkinen 1977; Tomalak, Welch, & Calloway 1989b: 20. (hb) Baker, W. L. 1972: 252; Beal & Massey 1945: 94–96; Blackman 1950; Bright 1976d: 48; Chittenden 1890; Doane et al. 1936; Drooz 1985: 340; Felt 1906: 752; Hopkins 1899c: 448; Packard 1890; Schwarz 1888a: 50; Skinner 1905: 248; Swaine 1918a: 78–79; Wood, S. L. 1982: 103. (ds) Anonymous 1926c: 517; Atkinson et al. 1991: 154; Beal & Massey 1945: 94–96; Beaulne 1956; Blackman 1950; Blackwelder 1939; Blackwelder & Blackwelder 1948; Blatchley & Leng 1916: 668; Bright 1976d: 48; Chamberlin 1925; Chittenden 1890; Deyrup & Atkinson 1987b: 67; Dodge 1938; Drooz 1985: 340; Hagedorn 1910d: 11; Henshaw 1885: 149; Hopkins 1893a: 143, 1899: 448; Hubbard & Schwarz 1878: 643; Kirk 1969, 1970; Kleine 1912b: 162, 1914b: 398, 1934a: 126; Lacordaire 1866: 358; Leng 1920: 339; Leonard 1928: 517; Lindquist, O. H. & Syme 1981: 58; Martin 1865: 40–43; Melsheimer 1853: 88; Packard 1890: 724; Provancher 1877: 28; Schedl 1971f: 146; Schwarz 1878d: 469, 1888a: 80; Smith, J. B. 1900: 365, 1910: 404; Swaine 1909: 145; Syme & Nystrom 1988: 56; Turnbow & Franklin 1980; Wood, S. L. 1982b: 103. (tx) Beal & Massey 1945: 94–96; Blackman 1941: 10, 12–13; Blandford 1898c: 5; Blatchley & Leng 1916: 668; Bright 1976d: 48; Dodge 1938: 14, 38; Eggers 1934b: 25; Eichhoff 1896: 605–606, 610; Erichson 1836: 49; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; Lacordaire 1866: 358; LeConte 1868: 149, 174, 1876: 388–389, 1878a: 469; Schedl 1952k: 159, 1979c: 197; Swaine 1909: 145, 1917: 18, 1918a: 78–79; Syme & Nystrom 1988: 56; Thomas, J. B. 1967; Titus, Meikle, & Harrison 1985: 75; Wood, S. L. 1972b: 145, 1982b: 103.

carbonarius Fitch 1858: 730. Holotype ♀; Albany, New York [USA]; USNM, Washington. Synonymy: LeConte 1876: 389.

References: (cn) Harrington 1881: 33. (ds) Fitch 1858: 730; Hagedorn 1910d: 11; Leng 1920: 339; Swaine 1909: 146. (tx) Eichhoff 1896: 606; LeConte 1876: 389; Swaine 1909: 146; Zimmermann 1868: 149.

cavernosus Zimmermann 1868: 149 (*Hylurgus*). Lectotype ♂; Atlantic states [USA]; MCZ, Cambridge, designated by Wood 1982b: 103. Synonymy: Eichhoff 1896: 606.

References: (cn) Hopkins 1899c: 356. (hb) Hopkins 1899c: 255–347. (ds) Frost 1912: 308; Hamilton 1894a: 36; Henshaw 1885: 149; Hubbard & Schwarz 1878: 643; Leng 1920: 339; Provancher 1877: 574; Smith, J. B. 1900: 365; Swaine 1909: 14. (tx) Eichhoff 1896: 606,

- 610; Gemminger & Harold 1872: 2669; LeConte 1868: 174, 1876: 389; Provancher 1877: 574; Swaine 1909: 146; Wood, S. L. 1982b: 103; Zimmermann 1868: 149.
- granosus* Chapuis 1869: 17. Syntypes, sex?; Southern and Middle states [USA]; IRSNB, Brussels. Synonymy: LeConte 1876: 389. References: (ds) Leng 1920: 339; Swaine 1909: 146. (tx) Blackman 1941: 11; Chapuis 1869: 17, 1873: 225; Eggers 1934b: 25, 27; Eichhoff 1896: 606, 610; LeConte 1876: 389; Swaine 1909: 146.
- scaber* Swaine 1917: 18. Holotype, sex?; Virginia [USA]; CNCI, Ottawa. Synonymy: Eggers 1934b: 25. References: (hb) Blackman 1950; Swaine 1918a: 77. (ds) Anonymous 1926c: 517; Blackman 1950: Leng 1920: 339; Leonard 1928: 517. (tx) Bright 1967b: 674; Eggers 1934b: 25; Hoebeke 1978; de Ruette 1970: 101; Swaine 1917: 18–19, 1918a: 77.
- swaini* Eggers 1934: 25. Holotype ♂; Frater, Ontario, Canada; USNM, Washington. Synonymy: Blackman 1941: 11. References: (ds) Blackwelder 1939. (tx) Anderson, W. H. & Anderson 1971: 33; Blackman 1941: 11; Eggers 1934: 25; Schedl 1952k: 159, 1979c: 249.
- webbi* Blackman 1941: 10. Holotype ♀; Elmore, South Dakota [USA]; USNM, Washington. Synonymy: Wood 1972b: 146. References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1941: 10; Wood, S. L. 1972b: 146.
- canadensis* Blackman 1941: 15. Holotype ♀; Aweme, Manitoba, Canada; USNM, Washington. Synonymy: Wood 1972b: 146. References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1941: 15; Wood, S. L. 1972b: 146.
- retifer* Wood 1982a: 227. Holotype ♂; Km 54 Carretera Toluca-Morelia, Mexico, Mexico; Wood Collection. Distribution: North America (Mexico in Mexico). Hosts: *Pinus montezumae*. References: (tx) Wood, S. L. 1982a: 227.
- ruber* Swaine 1915b: 367. Holotype, sex?; Golden, British Columbia, Canada; CNCI, Ottawa. Distribution: North America (Alberta, British Columbia, Northwest Territories in Canada/Arizona, Idaho, Montana, Oregon, Washington in USA). Hosts: *Pseudotsuga menziesii*. References: (bv) Rudinsky 1966b: 356–361, 1966c: 218–219; Rudinsky & Daterman 1964a. (cn) Anonymous 1963j; Brown, R. W. & Winter 1981; Chamberlin 1924; Doane et al. 1936; Essig 1926: 518, 1958: 518; Keen 1952c: 155; Schuder 1969: 81; Swaine 1918a: 78–79. (ec) Chamberlin 1918a; Ross, D. A. 1967; Zethner-Moller & Rudinsky 1967: 908–90. (hb) Bright 1976d: 49; Bright & Stark 1973: 26; Chamberlin 1958: 116; Doane et al. 1936; Essig 1926: 518, 1958: 518; Keen 1952c: 155; Rudinsky & Daterman 1964a; Swaine 1918a: 78–79; Wood, S. L. 1982b: 99. (ds) Anonymous 1963j; Bright 1976d: 49; Bright & Stark 1973: 26; Brown, R. W. & Winter 1981; Chamberlin 1918a: 25, 1958: 116; Essig 1926: 518, 1958: 518; Furniss, R. L. & Carolin 1977: 364; Hopping 1922; Keen 1929a: 25, 1952c: 155; Kleine 1934a: 126; Leng 1920: 339; Patterson & Hatch 1945: 151; Ross, D. A. 1967; Schuder 1969: 81; Smith, G. S. 1929; Winter, T. G. 1983: 46; Wood, S. L. 1972a: 401, 1982b: 99. (tx) Blackman 1941: 8–9; Bright 1967b: 674, 1976d: 49; Chamberlin 1939: 214–215, 1958: 116; Hoebeke 1978; Keen 1929a: 2; Swaine 1915b: 367, 1918a: 78–79; Wood, S. L. 1972a: 401.
- salebrosus* Eichhoff 1868b: 146. Lectotype ♂; Carolina [USA]; USNM, Washington, designated by Wood 1982b: 97. Distribution: North America (Alabama, Arkansas, Florida, Georgia, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, South Carolina, Texas, Virginia in USA). Hosts: *Pinus* spp. Notes: (3) Blackman 1941: 5 (redescribed). References: (bv) Atkinson, Foltz, & Connor 1988; Goldman, Cleveland, & Parker 1978; Turnbull & Franklin 1980. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 252; Beal & Massey 1945: 94–96; Blackman 1950; Deyrup & Atkinson 1987a: 64; Drooz 1985: 340; Swaine 1918a: 77; Wood, S. L. 1982b: 9. (ds) Atkinson 1991: 154; Beal & Massey 1945: 94–96; Blackman 1941: 5, 1950; Blatchley & Leng 1916: 668; Deyrup & Atkinson 1987a: 64; Drooz 1985: 340; Frost 1975: 37; Goldman, Cleveland, & Parker 1978; Hagedorn 1910d: 11; Kirk 1969, 1970; Kleine 1912b: 162, 1914b: 392; Leng 1920: 339; Leonard 1928: 517; Sturm 1843: 229; Swaine 1909: 146; Turnbull & Franklin 1980; Wood, S. L. 1982b: 97. (tx) Beal & Massey 1945: 94–96; Blackman 1941: 5; Blandford 1898c: 5; Blatchley & Leng 1916: 668; Eggers 1929e: 54; Eichhoff 1868b: 146, 1896: 606–607, 610; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; LeConte 1868: 177, 1876: 389; Rabaglia & Lanier 1981; Schedl 1979c: 218; Swaine 1909: 146, 1918a: 77; Wood, S. L. 1973c: 177, 1979b: 134, 1982b: 97.
- scobimosus* Eichhoff 1868b(May): 146. Syntypes, sex?; Carolina [USA]; Hamburg Museum, lost. Synonymy: Eggers 1929e: 54; Wood 1982b: 97. Notes: (3) Blackman 1941: 7 (redescribed). References: (hb) Beal & Massey 1945: 94–96. (ds) Anonymous 1926c: 517; Beal & Massey 1945: 94–96; Brimley 1942; Chapuis 1869: 23, 1873: 225; Hagedorn 1910d: 11; Kleine

- 1912b: 162, 1914b: 392; Leng 1920: 339; Swaine 1909: 147. **(tx)** Beal & Massey 1945: 94-96; Blackman 1941: 7-8; Chapuis 1869: 23, 1873: 225; Eggers 1929e: 54; Eichhoff 1868b: 146, 1896: 606; Gemminger & Harold 1872: 2670; Hagedorn 1910d: 46; LeConte 1876: 389; Schedl 1979c: 222; Swaine 1909: 147, 1918a: 78; Wood, S. L. 1973c: 177, 1982b: 97.
- scabripennis* Zimmermann 1868(September): 149. Syntypes, sex?; Atlantic states [USA]; MCZ, Cambridge. Synonymy: Blandford 1898c: 5.
References: **(ds)** Leng 1920; Swaine 1909: 146; Zimmermann 1868: 149. **(tx)** Blandford 1898c: 5; Eichhoff 1896: 606; Swaine 1909: 146; Zimmermann 1868: 149.
- scandinaviensis* Lekander 1965b: 199. Holotype ♀; Boda, Otland, Sweden; RCFs, Stockholm.
Distribution: Europe (Sweden).
References: **(ds)** Gillerfors 1966; Grune 1979: 51; Postner 1974: 396. **(tx)** Grune 1979: 51; Lekander 1965b: 199.
- subopacus* Blackman 1941: 19. Holotype ♂; Capitan Mountains, New Mexico [USA]; USNM, Washington.
Distribution: North America (Colorado, New Mexico, Utah, Wyoming in USA).
Hosts: *Abies lasiocarpa*.
References: **(hb)** Chamberlin 1958: 117; Wood, S. L. 1982b: 107. **(ds)** Blackwelder & Blackwelder 1948; Chamberlin 1958: 117; Hellen 1947; Numberg 1928b: 88; Wood, S. L. 1951a: 127, 1972a: 401, 1982b: 107. **(tx)** Blackman 1941: 19; Chamberlin 1958: 117; Wood, S. L. 1951a: 127, 1972a: 401, 1982b: 107.
- substriatus* Strohmeyer 1914e: 7. Syntypes 2, sex?; Wernyi (Ala-Tau-Gebirge) und Juldus (Kuldsha) in Turkestan; Strohmeyer Collection.
Figures: Strohmeyer 1914e: 8 (adult), Stark 1952: 211 (adult).
Distribution: Asia (Turkey/ Turkestan in W USSR).
Notes: (3) Pfeffer 1944b: 101 (*piccae*, nomen nudum, Pfeffer 1965: 64 gives synonymy).
References: **(hb)** Kostin 1960: 131; Krivolutskaia 1960: 131; Stark 1952: 211. **(ds)** Kadyrov 1989; Kleine 1914b: 247; Marikovskii 1956: 76; Parfentev 1951: 428; Stark 1952: 211. **(tx)** Numberg 1955: 75-80; Pfeffer 1944b: 101, 1965: 64; Schedl 1934f: 1636, 1968c; Sokanovskii 1958: 23, 38, 46; Stark 1952: 211; Strohmeyer 1914e: 7-8.
- suspectus* Bright 1972d: 31. Holotype ♀; Hope River, St. Andrew Parish, Jamaica; BMNH, London.
Distribution: Antilles Islands (Jamaica).
References: **(ds)** Bright 1985c: 170. **(tx)** Bright 1972d: 31, 1985c: 170.
- techangensis* Tsai & Huang 1964a: 233. Holotype ♂; Techang, Szechuan, China; IZAS, Beijing.
Distribution: Asia (Sichuan, Xizang [Tibet], Yunnan in China/ Assam in India).
Hosts: *Pinus armandii*, *P. insularis*, *P. tabulaeformis*, *P. yunnanensis*.
Notes: (1) Originally named as a subspecies of *parallelus* Chapuis. Yin & Huang 1984: 44 (a good species).
References: **(ds)** Yin & Huang 1981: 556. **(tx)** Tsai & Huang 1964a: 233; Yin & Huang 1981: 556, 1984: 44.
- tenuis* Eichhoff 1868b: 147. Syntypes, sex?; Amerique Boreale; Hamburg Museum, lost.
Figures: Atkinson 1989b: 326.
Distribution: North America (Hidalgo, Morelos in Mexico/ Alabama, Arizona, Arkansas, California, District of Columbia, Florida, Georgia, Idaho, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, Nevada, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Virginia, West Virginia in USA).
Hosts: *Pinus* spp.
Notes: (3) Blackman 1941: 22 (re-described).
References: **(bv)** Atkinson, Foltz, & Connor 1988; Dixon & Payne 1979b; Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. **(en)** Blackman 1950; Doane et al. 1936; Hopkins 1899c: 448; Roling & Kearby 1977. **(ec)** Dixon & Payne 1979; Felt 1906: 752; Hines, J. W. & Heikenen 1977; Roling & Kearby 1977. **(hb)** Atkinson, Foltz, & Connor 1988; Atkinson et al. 1986: 13; Baker, W. L. 1972: 252; Beal & Massey 1945: 94-96; Blackman 1922b, 1950; Bright 1976d: 49; Bright & Stark 1973: 25; Burgos & Saucedo 1983: 51; Chamberlin 1939: 211; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Drooz 1985: 340; Felt 1906: 752; Hopkins 1899c: 445, 448; Pierce 1907: 294; Schwarz 1888a: 80; Wood, S. L. 1982b: 96. **(ds)** Atkinson 1989b: 325; Atkinson & Equihua 1985a: 69; Atkinson, Foltz, & Connor 1988; Atkinson et al. 1986: 13; Beal & Massey 1945: 94-96; Blackman 1922b, 1950; Blatchley & Leng 1916: 668; Bright 1976d: 49; Bright & Stark 1973: 25; Burgos & Saucedo 1983: 51; Chamberlin 1939: 211; Chapuis 1869: 19, 1873: 227; Deyrup & Atkinson 1987a: 64, 1987b: 67; Drooz 1985: 340; Hagedorn 1910d: 12; Hamilton 1895a: 346, 578; Henshaw 1885: 149; Hubbard & Schwarz 1878: 469; Kirk 1969, 1970; Kleine 1912b: 162, 1914b: 385, 1934a: 126; Leng 1920: 339; Schwarz 1878d: 469, 1888a: 50; Snow 1907: 188; Swaine 1909: 147; Turnbow & Franklin 1980; Wood, S. L. 1982b: 96. **(tx)** Atkinson 1989b: 325-326; Beal & Massey 1945: 94-96; Blackman 1922b: 64, 1941: 22; Blatchley & Leng 1916: 668; Bright 1976d: 49; Chamberlin 1939: 211; Chapuis 1869: 19, 1873: 227; Eichhoff 1868b: 147; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; LeConte 1868: 175, 1876: 388-389, 1878a: 469; Schedl 1979c:

251; Swaine 1909: 147; Wood, S. L. 1982b: 96; Zimmermann 1868: 149.

criticus Eichhoff 1868b: 147. Syntypes 2, sex?; Amerique Boreale; Hamburg Museum, lost. Synonymy: Blackman 1941: 22.

References: **(tx)** Blackman 1941: 22; Eggers 1929e: 54, 1939c; Eichhoff 1868b: 147.

pusillus Blackman 1941: 23. Holotype ♀; Florida [USA]; USNM, Washington. Synonymy: Wood 1972b: 146.

References: **(ds)** Blackwelder & Blackwelder 1948; DeLeon 1942a. **(tx)** Blackman 1941: 23; Wood, S. L. 1972b: 146.

parvus Blackman 1941: 24. Holotype ♀; Williams,

Arizona [USA]; USNM, Washington. Synonymy: Wood 1972b: 146.

References: **(ds)** Blackwelder & Blackwelder 1948. **(tx)** Blackman 1941: 24–25; Wood, S. L. 1972b: 146.

minutus Blackman 1941: 25. Holotype ♀; Lake Tahoe, Nevada [USA]; USNM, Washington. Synonymy: Wood 1972b: 146.

References: **(cn)** Keen 1952c: 155; Schuder 1969: 81. **(hb)** Chamberlin 1958: 117; Keen 1952c: 155. **(ds)** Blackwelder & Blackwelder 1948; Chamberlin 1958: 117; Keen 1952c: 155; Schuder 1969: 81; Wood, S. L. 1972a: 400. **(tx)** Blackman 1941: 25; Chamberlin 1958: 117; Wood, S. L. 1972a: 400, 1972b: 146.

Tribe Hylesinini Erichson

Hylesinini [tribe]

References: Leng 1920:338; Lucas 1920:32; Nobuchi 1985c:6; Wood, S. L. 1978a:111, 1982b:108, 1986:36.

Hylesini

References: Balachowsky 1949a:83–84.

Phloeotrupides

References: Chapuis in Lacordaire 1866:357, 1869:111, 1873:219; Ferrari 1867a:3; Lacordaire 1866:357, 370.

Phloeotrupidae

References: Hagedorn 1908:369.

Phloeotrupinae

References: Hagedorn 1910a:24–25, 1910d:5.

Phloeotrupini

References: Handlirsch 1925:691.

Phloeobori

References: Blandford 1893d:426.

Phloeoborini

References: Hagedorn 1910a:24–25, 1910d:5; Hopkins 1915c:225.

Dactylipalpi

References: Blandford 1893d:426.

Hylastinides

References: Nusslin 1912b:273.

Alniphagini

References: Murayama 1963b:29, 1965b:29.

Genus *Hylastinus* Bedel

HYLASTINUS BEDEL 1888b: 388. Type-species: *Ips obscurus* Marsham, original designation.

Keys: Pfeffer 1984b: 11, Reitter 1913a: 45 for Europe.

References: (ay) Nobuchi 1969a: 52; Schonherr 1970b. (bv) Schonherr 1970b. (hb) Wood, S. L. 1986a: 38. (ds) Postner 1974: 413; Scheerpeltz & Winkler 1930: 256; Wood, S. L. 1986a: 38. (tx) Arnett 1960: 1041, 1968: 1041; Balachowsky 1949a: 102–105; Beal & Massey 1945: 58, 89; Bedel 1888b: 388; Blatchley & Leng 1916: 664–665; Bright & Stark 1973: 6, 11, 21; Bruck 1936a: 42; Chamberlin 1939: 116, 192–193, 1958: 53, 101; Dodge 1938: 17; Escherich 1923b: 479; Formanek 1907: 22–23; Hagedorn 1910d: 7; Karaman 1972: 64; Lucas 1920: 32, 341; Numberg 1954: 39–40; Pfeffer 1984b: 11, 1989a: 28; Reitter 1913a: 27, 45; Schimitschek 1937: 44–46; Spessivtsev 1922: 464, 1925: 163, 1931: 86; Stark 1952: 182–184; Swaine 1909: 110, 1918a: 44, 73; Winkler 1932: 1635; Wood, S. L. 1961a: 42, 1982b: 108, 1986a: 37–38.

achillei Reitter 1894a: 54. Holotype, sex?; Laverdure, Algier; NHMB, Budapest.

Distribution: Africa (Algeria), Asia (Syria).

Notes: (3) Schedl note in his collection lists this as a synonym of *obscurus* Marsham.

References: (ds) Eggers 1944c: 143; Hagedorn 1910d: 7; Kleine 1912b: 165, 1914a: 16; Reitter 1894a: 54; Schaufuss 1915: 1222. (tx) Eggers 1944c: 143; Hagedorn 1910a: 45; Pfeffer 1984b: 12; Reitter 1894a: 54, 1913a: 46; Schedl 1934f: 163; Semenov 1902: 27.

fankhauseri Reitter 1894a: 54. Syntypes, sex?; Schweiz; NHMB, Budapest.

Distribution: Europe (Austria/ SW France/ N Italy/ Switzerland).

Hosts: *Cytisus laburnum*, *C. alpinum*, *C. triflorus*.

Notes: Balachowsky 1949a: 103 (elevated to species rank from subspecies of *obscurus* Marsham).
References: (ay) Escherich 1923b: 479; Fuchs 1912a; Marcu 1933a: 33; Nusslin 1911a: 51, 59, 1912c: 28. (bv) Barr, B. A. 1969: 641. (cn) Escherich 1923b: 479; Grandi 1951; Nusslin 1913: 240; Rhumbler 1927: 292; Schimitschek 1937c: 47, 1955c: 77. (cc) Kleine 1908c: 181; Sedlaczek 1935a: 162. (hb) Barbey 1901: 2, 18, 47, 1905; Bargmann 1906; Beffa 1949, 1961; Cecconi 1924; Egger 1974b; Escherich 1923b: 479; Fuchs 1906b, 1907: 12, 46; Grandi 1951; Hennings 1908d; Lengerken 1939: 52, 1954: 72; Masutti 1964; Nusslin 1913: 240; Pruess 1957b: 2339; Rhumbler 1927: 292; Sedlaczek 1935a: 162. (ds) Balachowsky 1943a; Barbey 1905; Beffa 1949; Breit 1903; Escherich 1923b: 479; Fuchs 1905a, 1906b, 1907: 12, 46; Hagedorn 1910d: 9; Horion 1951; Kleine 1912a: 264, 266, 1912b: 165, 1913a: 34, 1934a: 127; Langhoffer 1915c: 157; Linder 1953: 71; Numberg 1964a: 233; Pfeffer 1989a: 29; Pittioni 1943: 176; Prossen 1913: 82; Rapp 1934: 722; Reitter 1916: 280; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1222; Schedl 1980a: 7; Schilsky 1909: 187; Tredl 1907: 8. (tx) Balachowsky 1943a: 168, 1949a: 103; Barbey 1901: 2, 18, 47; Beffa 1949, 1961; Escherich 1923b: 479; Fuchs 1912a; Hagedorn 1910a: 45; Nusslin 1911a: 51, 59, 1912c: 280; Pfeffer 1955a: 103, 1984b: 12; Portevin 1935: 318; Quaschik 1953: 35; Reitter 1894a: 54, 1913a: 46, 1916: 280; Rhumbler 1927: 292; Schedl 1934f: 1635, 1980a: 7; Schimitschek 1937c: 47, 1955c: 77; Spessivtsev 1919: 251.

obscurus (Marsham) 1802: 57 (*Ips*). Syntypes, sex?; probably England; presumably in BMNH, London, not located.

Figures: Bright 1976d: 200, 205 (adult).

Distribution: Africa (Algeria/ Canary Islands/ Madeira Island/ Morocco), Europe (Austria/ Belgium/ Denmark/ England/ France/ Germany/ Italy/ Portugal/ Spain/ Switzerland/ W USSR/ Yugoslavia), North America (introduced: British Columbia, Nova Scotia, Ontario, Quebec in Canada/ introduced: California, Connecticut, Idaho, Indiana, Maryland, Massachusetts, Michigan,

Montana, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Utah, Virginia, Washington, Wisconsin in USA), South America (introduced: Chile).

Hosts: *Medicago sativa*, *Melilotus* sp., *Ononis natrix*, *Spartium scoparium*, *Trifolium pratense*, *Ulex europaeus*, *Cytisus biflorus*, *C. hirsutus*, *C. laburnum*, *C. nigricans*.

Notes: (1) Bedel 1888b: 388 (to *Hylastinus*). (3) Schedl 1960b: 162 and note in his collection lists as synonym *granulatus* Eggers, *elongatus* Eggers, *eichhoffi* Eggers; all are nomen nudums.

References: (ay) Aslam 1961: 439, 460, 471. (bv) Grune 1979: 77; Gustafson, J. & Morrison 1960b; Kamm & Buttery 1984; Leath & Byers 1973; Meixner 1937: 1218. (cn) Anonymous 1968f; App 1951: 68–69, 1952: 37–38, 1956: 161–164, 1960: 2969–2972; App & Everly 1950; Armitage et al. 1953: 232; Balachowsky 1963a: 1272; Beaulieu 1929; Blackburn & Stivers 1952: 7–8; Crosby & Leonard 1916: 2864; Davidson & Lyon 1987: 253; Davis 1954: 154; Dean 1909: 71, 1916: 3; Deane & Morrison 1957a: 34–35, 1957b: 28; Dickason & Everly 1955: 13–14; Eckstein 1926: 572; Elliott 1952: 25–27; Essig 1926: 517, 1958: 517; Everly 1956: 159–160; Everly & App 1949a, 1949b; Everly & Davis 1956: 70; Folsom 1909: 164, 1909b: 92–96; Gibson 1911: 12, 1912, 1913: 13; Garman 1906: 48; Gossard 1911: 79, 1914: 79; Graham & Newton 1959; Grandi 1951; Gustafson & Morrison 1958: 11–20, 1960b; Gyrisco & Marshall 1950: 82–86; Gyrisco et al. 1954: 327–331, 1959: 473–475; Hardee, Forsythe, & Gyrisco 1964; Hatch 1938: 194; Herrick 1915: 701; Hill, D. S. 1983: 620; Hopkins 1906c: 635; Huard 1916: 37; Hudson 1926: 92–93; Hunter 1899: 240–285; Koehler, C. S. 1959b: 2412; Koehler, C. S. & Gyrisco 1959a: 658, 1959b: 760; Koehler, C. S. et al. 1961; Lieberman 1951: 131–132; Lincoln 1942: 129; Lincoln et al. 1943: 127; Linger 1948: 16; Lockhead 1914: 82, 1915: 60; Lockwood & Gammon 1952: 175; Manis & Portman 1950: 16; Marchal 1914: 9–13; Marshall et al. 1949: 315, 318; McCarthy & Emery 1894: 153; Metcalf & Flint 1928: 384, 1939: 439, 1951: 500; Miller 1955: 148–151; Mills 1906: 252, 1941: 12; Morrison & Gustafson 1958: 93; Morshel 1972: 119–120; Moznette 1917: 3; Muller 1912: 184; Negru 1966: 397–405; Newton, R. C. & Graham 1960: 865–867; O'Kane 1914: 116; Osborn 1939: 209–211; Parks 1921: 6, 10; Pettit 1910: 279; Pieters 1918: 682, 1923: 25; Poos 1943: 5; Poos et al. 1955: 183; Portman & Barr 1952: 5; Portman & Manis 1954: 16; Pruess 1956: 27, 70, 1957: 2339, 1959: 1143; Pruess & Weaver 1958: 491, 1959a: 1166–1167, 1959b: 3; Robertson 1919: 599; Rockwood 1926: 1–48; Sanderson 1899, 1912: 200, 1921: 189; Saunders 1882: 43; Schimitschek 1937c: 47, 1955c: 77; Schuh & Mote 1948: 118; Schwardt et al. 1947: 364; Shull 1944: 15; Soraci

1957: 90–91; Sorenson 1936: 219–223; Stear 1918: 187; Stirrett 1948: 68; Stookey 1920: 18–20; Swaine 1910d: 42, 1918a: 73; Thompson, L. S. 1966; Trappen 1934: 141; Troop 1911: 13; Wanka 1920: 202–213; Waters, N. D. 1964: 907–910; Weaver 1950: 20, 1954a: 50, 1954b: 57; Weaver & Haynes 1955: 190, 192; Weaver et al. 1957: 255; Webster 1898: 203, 1899: 143, 1901, 1905: 1, 1906: 1, 1908: 1, 1910: 1; Westgate & Hillman 1906: 114, 1908: 569, 1911: 37, 1922: 37; Wheeler 1950: 226, 293; Wichmann 1927b: 379; Woodside 1960: 449–450; Woodside & Turner 1956: 640; Zoog 1948: 460–470, 1950: 332–342, 1951: 511, 531. (cc) Buchet 1923; Byers, R. A. 1974; Chararas 1959c; Kevan 1944: 278; Kleine 1908c: 181; Metcalf & Flint 1928: 384, 1939: 439, 1951: 500; Miller 1955: 151; Nosek 1959a: 118, 1959b: 87; Pfeffer 1923a: 330, 1942a: 18; Poos et al. 1955: 183; Pruess 1957b: 2339, 1959: 1143; Pruess & Weaver 1959a: 1166, 1959b: 3; Roubal 1946: 145; Schedl 1958d: 183; Sedlacek 1935a: 153; Singh 1977: 98; Wichmann 1955a: 92. (hb) App & Everly 1950; Balachowsky 1963a: 1274; Beal & Massey 1945: 89–90; Beaulieu 1929; Beffa 1949, 1961; Bright 1976d: 40; Bright & Stark 1973: 21; Chamberlin 1939: 192, 1958: 101; Chapman 1869b: 6–8; Davidson & Lyon 1987: 253; Dean 1916; Deyrup & Atkinson 1987a: 401; Essig 1926: 517, 1958: 517; Evans 1952: 141; Folsom 1909: 164; Gast et al. 1989: 381; Grandi 1951; Gustafson, J. & Morrison 1958, 1960a; Hill, D. S. 1983: 620, 1987: 339; Hudson 1925; Karpinski & Strawinski 1948: 154; Karsch 1883: 143; Koehler, C. S. 1959a, 1959b: 2412; Koehler, C. S. & Gyrisco 1959b: 766; Koehler, C. S. et al. 1961; Lengerken 1939: 52, 1941: 156, 1954: 72; Lincoln 1942: 129; Metcalf & Flint 1928: 384, 1939: 439, 1951: 500; Morrison, F. O. & Gustafson 1960; Morschel 1972: 119–120; Morstatt 1924: 44; Munro 1926: 53; Newton & Graham 1960; Nosek 1959a: 118, 1959b: 87; Pruess 1957b: 2339; Rockwood 1926: 1; Saunders 1882: 43; Sedlacek 1935a: 153; Stark 1952: 182; Swaine 1918a: 73; Thompson, L. S. 1966; Webster 1910: 1; Westgate & Hillman 1922: 37; White, R. E. 1983; Wichmann 1927b: 379; Wood, S. L. 1982b: 108. (ds) Aeloque 1896; Anonymous 1926c: 516, 1968f; Atkinson & Equihua 1970; Atkinson et al. 1991: 154; Audras & Schaefer 1957; Balachowsky 1963a: 1272; Bangsholt 1975: 95; Beal & Massey 1945: 89–90; Beaulieu 1956; Bedel 1888b: 391; Beffa 1949; Bejer-Petersen & Jorum 1977: 10; Blatchley & Leng 1916: 664; Brakman 1966b: 204; Bright 1976d: 40, 200, 205; Bright & Stark 1973: 21; Britton 1920a; Buck 1955b: 191; Buckingham 1930; Carpentier & Delaby 1908; Chaigneau 1959; Chamberlin 1917: 326, 1939: 192, 1958: 101; Chittenden 1895a; Correa de Barros 1913; Crowson 1971: 51; Davis 1894: 41, 47; Deane & Morrison 1957b; Deyrup 1981b: 2; Deyrup &

- Atkinson 1987a: 64; Dodge 1938; Endrodi 1958b, 1986: 217; Essig 1926: 617, 1958: 517; Evans 1952: 141; Everts 1922: 639, 1925; Fauvel 1897; Fowler 1891; Frost & Dietrich 1929; Gast et al. 1989: 381; Grune 1979: 77; Hansen, V. 1939, 1956, 1964: 458; Hellen 1947; Heyden, Reitter, & Weise 1906: 709; Hill, D. S. 1983: 620; Horion 1951; Jansson 1940: 63; Johnson, W. F. & Halbert 1902: 818; Karpinski & Strawinski 1948: 154; Klefbeck & Sjöberg 1960: 228-229; Kleine 1914b: 407; Klofts & Hinks 1945: 217; Knowlton 1932: 79-83; Koca 1905: 191; Kozikowski 1921: 180; Langhoffer 1915c: 157; Leclercq 1971; Leng 1920: 338; Lengerken 1941: 156; Leonard 1928: 516; Lomnicki 1913b: 147; Lucht 1987: 276; Lundblad 1958: 489; Mahler 1987: 232; Matthews & Fowler 1883: 42; Murray 1853: 61; Negru 1966b: 399, 1968a: 454; Nunberg 1928b: 88, 97, 1954: 40, 1960: 155; Patterson & Hatch 1945: 150; Pfeffer 1989a: 29; Pimentel & Wheeler 1973: 663; Pittioni 1913: 174; Proctor 1946: 207; Rapp 1934: 721; Reitter 1894a: 54, 1916: 280; Riley & Howard 1894: 273; Roubal 1941: 258; Rye 1866c: 258, 1871a: 83, 1871b: 107; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1222; Schedl 1963e: 154, 1967c: 68, 1971d: 425, 1971f: 146, 1972n: 349, 1978c: 293, 1980a: 8, 1981b: 59; Schedl, Lindberg, & Lindberg 1959: 13; Scheerpeltz & Winkler 1930: 256; Schilsky 1909: 187; Schmitz 1898: 157; Schul & Mote 1948: 118; Sharp & Fowler 1893: 34; Smith, J. B. 1910: 404; Stark 1952: 182; Stephens 1829a: 147, 1830: 364, 1839: 209; Sturm 1843: 229; Swaine 1909: 110, 1911: 97, 1918a: 83; Webster 1899, 1901: 64, 1907: 67; Welch, R. C. 1968b: 121; Wichmann 1927a: 58, 1955a: 92; Winter, T. G. 1983: 45; Wood, S. L. 1972a: 401, 1982b: 108; Zoufal 1920: 20. (tx) Acloque 1896; Aslam 1961: 439-440, 459-460, 470-471; Balachowsky 1949a: 102, 1963a: 1274; Beal & Massey 1945: 89-90; Beaulieu 1923; Bedel 1888b: 388, 391; Beffa 1949, 1961; Benoit 1985: 134; Blatchley & Leng 1916: 664; Bright 1976d: 40; Brick 1936a: 42; Carpentier & Delahy 1908; Chamberlin 1917: 326, 1939: 192, 1958: 101; Comstock 1948: 542; Crotch 1966; Csiki 1907; Dodge 1938: 14, 31; Edwards 1959; Eggers 1944e: 140; Endrodi 1957b; Everts 1922: 639; Fauvel 1889; Fleischer 1927; Formanek 1907: 23; Grune 1979: 76-77; Gustafson & Morrison 1960: 99; Hansen, V. 1956, 1964: 458; Hopkins 1914: 123; Hopkins & Rumsey 1896: 264; Illiger 1807: 321; Karpinski & Strawinski 1948: 154; Kulnt 1913: 1057; Lucht 1987: 276; Marsham 1802: 57; Meixner 1937: 1218; Muesebeck 1942: 97, 1950: 133; Murayama 1937: 371; Negru 1966b: 399; Nunberg 1954: 40; Pfeffer 1942a: 18, 1955a: 104, 1984b: 12, 1989a: pl. 2; Portevin 1935: 317; Reitter 1894a: 54, 1913a: 45, 1916: 280; Schedl 1934f: 1635, 1952f: 86, 1960b: 162, 1980a: 8, 1981b: 59; Schedl, Lindberg, & Lindberg 1959: 13; Schimitschek 1937c: 47, 1955c: 77; Spessivtsev 1922a: 464, 1925a: 163, 1931: 34; Stephens 1829a: 147, 1829b: 12, 1830: 364, 1839: 209; Stresemann et al. 1989: 354; Swaine 1909: 110, 1913: 41-43, 1918a: 73; Titus, Meikle, & Harrison 1985: 75; Treddl 1907: 8, 20; Weber 1913: 51; White, R. E. 1983: 328-329; Wollaston 1871: 264; Wood, S. L. 1972a: 401, 1982b: 108. (ms) Dickel 1907; Hatch 1938: 194; Kevan 1962: 160; Koch 1977: 12; Pries 1956: 27; Weber 1913: 5.
- crenatus* Olivier 1795b: 12 (*Scolytus*). Syntypes, sex?; Paris, France; presumably in MNHN, Paris, not located; preoccupied by Fabricius 1787: 37. Synonymy: Balachowsky 1949a: 102. Notes: (1) While in *Hylesinus*, this name became a junior homonym; *obscurus* became a replacement name. References: (tx) Balachowsky 1949a: 102; Olivier 1795b: 12; Redtenbacher 1849: 852.
- trifolii* Muller 1807: 47 (*Dermestes*). Syntypes, sex?; central Europe; not located. Synonymy: Chapman 1869b: 6. References: (ay) Fuchs 1912e; Imhoff 1856: 228. (cn) Berlese 1915; Case 1881: 465; DelGuercio 1915; Fletcher 1899; Kleine 1932a: 295; Knot 1950: 55; Lintner 1881: 193; Lochhead 1900: 71; Lugger 1899a: 317; Muller 1803: 47; Packard 1890: 227; Rhumbler 1927: 292; Riley 1880a: 179, 1881b: 515 (or 866), 1889: 218; Smith, J. B. 1893: 99; Wachtl 1901: 381; Weber, H. 1926: 572; White 1888: 138. (hb) Bach 1864; Barbey 1901: 19, 47, 1905; Bedel 1876: 158; Berlese 1915; Budge 1949; Cecconi 1900: 160-165, 1924; DelGuercio 1915: 235-301; Eichhoff 1881: 97, 1892b: 99; Everts 1903: 748; Fagel & Guillaume 1935: 335; Fuchs 1904, 1906b; Henschel 1895a: 136; Howard 1898; Kleine 1932a: 295; Knotek 1894a: 553; Kunstler 1871: 62-63; Lintner 1879: 631, 1881: 16, 193, 1882: 247, 1884: 142-164, 187-207; Lochhead 1900: 71; Lugger 1899a: 317; Morstatt 1924: 16, 44; Nordlinger 1855: 185, 1856: 41, 1869: 334; Nusslin 1898: 277; Packard 1890: 227; Poeteren 1935; Ratzeburg 1837: 131, 182, 1839: 158, 222; Rhumbler 1927: 292; Riley 1878: 248, 1879, 1880a: 179-180, 1881b: 515 (or 866), 1889; Riley & Howard 1889: 218; Rupertsberger 1879: 231, 1880: 226; Saunders 1881: 43-44, 1882: 43; Schmitt 1844: 389-397; Schroder 1896: 357; Taschenberg 1864: 272-273, 1880: 210; Titus & Pratt 1904: 66; Wachtl 1901: 38; Wahl 1927: 21-48; Weber, H. 1926: 572; Webster 1893a, 1893b, 1894, 1896; Weed 1888: 133, 1891: 53-55. (ds) Andersch 1851; Bach 1849c; Barbey 1901: 47, 1905; Barthe 1896; Ban 1888; Bedel 1876; Blanchere & Robert 1889; Brancsik 1906; Brandis 1890: 185; Calver 1884, 1893; Cecconi 1897, 1900; Chapuis

1869: 23, 1873: 231; Chapuis & Candeze 1853; Crotch 1863; Dejean 1821, 1825, 1837; Eggers 1904; Eyquem 1891; Favre 1890; Fletcher 1891, 1897; Fremet 1948; Fricken 1889: 274; Fuchs 1906b; Gaubil 1849: 128; Gozis 1875: 79; Gredler 1866; Grill 1895: 307; Hagedorn 1910d: 12; Hall 1888; Hamilton 1889: 218, 1894b: 407; Henschel 1895a: 136; Henshaw 1887: 8, 1895: 44; Heyden 1876: 297; Heyden, Reitter, & Weise 1883: 181, 1891: 668; Judeich & Nitsche 1895: 454, 488; Kaltenback 1874: 121, 126, 776; Kleine 1912a: 161, 267, 1912b: 165, 1913a: 34, 1914a: 22, 1932a: 295, 1934a: 127; Knotek 1892a: 33, 1894a: 553; Kraatz 1869: 59; Lacordaire 1866: 359; Leder 1871: 131; Leng 1920: 338; Lentz 1857: 137; Lintner 1879: 631, 1881: 193, 1884: 142–164; Lma de Carvalho 1950: 15; McCarthy 1894: 98; Mjoberg 1903: 110; Nusslin 1898: 277; Perris 1876a: 253, 1877a: 413, 416; Ragusa 1924: 115; Ratzeburg 1837: 131, 182, 1839: 158, 222; Redtenbacher 1858: 825, 1874: 367; Pfeil 1865: 225; Saunders 1882: 43–44; Schaum 1859: 95, 1862: 100; Schilsky 1909: 187; Schwarz 1886: 55; Seidlitz 1891a: 559, 1891b: 604; Sharp & Fowler 1893: 34; Smith, J. B. 1892: 99; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 432; Stierlin & Gautard 1871: 291, 1906: 205; Sturm 1826: 156; Swaine 1909: 110; Tredl 1907: 8; Villa & Villa 1833: 26; Westhoff 1882: 237; White 1888: 138; Wiepken 1883: 89; Wollaston 1854: 304, 1857: 99, 1865: 2. **(tx)** Bach 1854, 1864; Balachowsky 1949a: 102; Barbey 1901: 19, 47; Bedel 1888b: 391; Bertolini 1872; Cecconi 1900; Chapman, T. A. 1869b: 6–8; Chapuis 1869: 23, 1873: 231; Chapuis & Candeze 1853; Dejean 1821, 1825; Doebner 1860; Eichhoff 1864b: 24, 1883a: 101, 123, 1896: 606; Everts 1903: 748; Fauvel 1887; Ferrant 1911; Fleischer 1905; Fricken 1889: 274; Fuchs 1912a; Gemminger & Harold 1872: 2671; Henschel 1895a: 136; Hagedorn 1910a: 46; Jacquelin du Val & Fairmaire 1868: 99; Knotek 1892a: 33; Lacordaire 1866: 359; Letzner 1891: 372; Leunis 1886: 178; Lovendal 1889b: 34, 1898: 118; Muller 1807: 47; Nordlinger 1856: 41; Perris 1877a: 413, 416; Ratzeburg 1837: 131, 182, 1839: 158, 222; Redtenbacher 1849a: 792, 1858: 825, 1874: 367; Rhumbler 1927: 292; Rupertsberger 1879: 231, 1880: 226; Schedl 1934f: 1635; Schwarz 1886: 55; Seidlitz 1891a: 559, 1891b: 604; Semenov 1902: 221; Spessivtsev 1922: 464; Stierlin 1898: 432; Swaine 1909: 110, 1918a: 72–73; Taschenberg 1880: 210; Wollaston 1854: 304, 1857: 99, 1871: 264. **(ms)** Eggers 1910a, 1910b; Keler 1956: 283, 1963: 316.

crenatulus Duftschmidt 1825: 104 (*Hylesinus*).
Syntypes, sex?, Linz, Austria; presumably in

MNB, Berlin, not located. Synonymy: Letzner 1891: 372; Hagedorn 1910d: 12.

References: **(ds)** Duftschmidt 1825: 104; Schaum 1862: 100; Schilsky 1909: 187; Stein 1868: 11. **(tx)** Balachowsky 1949a: 102; Doebner 1860; Duftschmidt 1825: 104; Hagedorn 1910d: 12; Letzner 1891: 372; Redtenbacher 1849a: 365, 1849b: 27.

fuscescens Stephens 1830: 365 (*Hylurgus*). Syntypes, sex?; London, England; BMNH, London. Synonymy: Hagedorn 1910d: 12.

References: **(ds)** Stephens 1830: 365, 1839: 209. **(tx)** Hagedorn 1910d: 12; Stephens 1829b: 12, 1830: 365, 1839: 209.

piccus Stephens 1830: 365 (*Hylurgus*). Syntypes, sex?; London, England; BMNH, London. Synonymy: Hagedorn 1910d: 12.

References: **(tx)** Hagedorn 1910d: 12; Stephens 1830: 365.

kroaticus Fuchs 1912a: 49. Syntypes, sex?; Croatia; not located. Synonymy: Schedl 1964k: 210.

References: **(ay)** Fuchs 1912a: 49. **(ds)** Csiki 1914; Kleine 1913a: 34; Langhoffer 1915c: 157; Pfeffer 1936: 89; Schaufuss 1915: 1222. **(tx)** Fuchs 1912a: 49; Michalski 1969b: 566; Pfeffer 1955a: 103; Reitter 1913a: 46; Schedl 1934f: 1635, 1964k: 210, 1979c: 70.

pilosus Eggers 1944c: 140. Holotype ♂; Algeria; USNM, Washington. Synonymy: Schedl 1960b: 162.

References: **(tx)** Anderson, W. H. & Anderson 1971: 25; Eggers 1944c: 140; Quaschik 1953: 35; Schedl 1960b: 162.

tiliae Semenov 1902: 271. Syntypes 9 ♂ ♀; Transcaucasia; Borzhom, USSR, 4000'; not located.

Distribution: Europe (Caucasus in W USSR).

Hosts: *Tilia parvifolia*, *T. intermedia*.

References: **(bv)** Grune 1979: 77. **(hb)** Stark 1952: 183; Vinogradov-Nikitin 1911b. **(ds)** Grune 1979: 77; Hagedorn 1910d: 12; Heyden, Reitter, & Weise 1906: 709; Kleine 1912b: 165, 1934a; Postner 1974: 414; Schaufuss 1915: 1222; Stark 1927b: 87, 1952: 183. **(tx)** Grune 1979: 77; Hagedorn 1910a: 46, 1910d: 12; Michalski 1969b: 566; Pfeffer 1984b: 12; Postner 1974: 414; Reitter 1913a: 46; Schedl 1934f: 1635; Semenov 1902: 271; Spessivtsev 1931: 34; Stark 1952: 183.

Genus *Kissophagus* Chapuis

KISSOPHAGUS CHAPUIS 1869: 34. Type-species: *Hylesinus hederæ* Schmitt, monobasic.

Keys: Reitter 1913a: 44.

Notes: (1) Bedel 1888b: 391, and a few others, used the invalid spelling *Cissophagus*.

References: **(ay)** Fuchs 1912: 53; Nusslin 1911: 3, 48, 80, 253, 1912: 25, 54, 81, 272–273, 283, 289; Schonherr 1970b. **(bv)** Barr, B. A. 1969: 642; Schonherr 1970b. **(hb)** Eichhoff 1881: 119;

Wood, S. L. 1986a: 38. (ds) Hagedorn 1910d: 24; Schedl 1981b: 60; Scheerpeltz & Winkler 1930: 256; Wood, S. L. 1986a: 38. (tx) Balachowsky 1949a: 85, 99-101; Bedel 1888b: 391; Butovitsch 1929: 16; Chapuis 1869: 34, 1873: 243; Eggers 1943c: 63; Eichhoff 1881: 119, 1883a: 37; Fuchs 1912: 53; Gemminger & Harold 1872: 2671; Hagedorn 1910a: 35, 57-58, 1910d: 24; Hopkins 1914: 124, 134, 1915: 226; Karaman 1972: 66; Lepesme 1942: 203-204; Lucas 1920: 356; Murayama 1958: 932, 1963: 31-33; Nunberg 1954: 41-42; Pfeffer 1955: 102, 1989a: 29; Reitter 1894: 54, 1913: 40, 44-45; Schedl 1958d: 188, 192, 1959n: 412-420, 1981b: 60; Scheerpeltz & Winkler 1930: 256; Schimitschek 1937: 44-48; Spessivtsev 1931a: 86; Stark 1952: 180; Winkler 1932: 1635; Wood, S. L. 1986a: 38.

erimacellus Wichmann 1916: 18. Holotype, sex?; Brioni, Korfu, Istrien, Yugoslavia; not indicated. Distribution: Europe (Yugoslavia).

Hosts: *Hedera* sp.

References: (hb) Wichmann 1916: 18. (ds) Kleine 1934a: 134; Luigioni 1929: 993. (tx) Luigioni 1929: 993; Schedl 1934f: 1635; Wichmann 1916: 18, 1916b: 432-433.

hederae (Schmidt) 1843: 108 (*Hylesinus*). Syntypes, sex?; Germany; presumably MNB, Berlin.

Figures: Balachowsky 1949a: 101, 104, Pfeffer 1989a: pl. 2, Postner 1974: 414.

Distribution: Africa (Algeria), Europe (Austria/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Spain/ W USSR).

Hosts: *Hedera helix*.

Notes: (3) Schedl 1963b: 261 (*gallicus* Eggers, nomen nudum, *hispidus* Eggers, nomen nudum, synonymy).

References: (ay) Burrini et al. 1988; Imhoff 1856: 228; Marcu 1933a: 33; Nusslin 1911a: 51, 59, 82, 255, 1912c: 282; Sedlacek 1902b: 244. (bv) Grune 1979: 81. (cn) Grandi 1951; Kleine 1932a: 296; Nusslin 1913: 240; Rhumbler 1922: 282, 1927: 292; Wachtl 1901: 381. (cc) Carpon 1882; Kleine 1908c: 182; Nosek 1959a: 118, 1959b: 87; Nusslin 1927: 294; Perris 1856a: 244; Sedlacek 1935a: 162. (hb) Bach 1864; Barbey 1901: 19, 53; Eggers 1906; Eichhoff 1881a: 37, 119; Grandi 1951; Henschel 1895a: 140; Kleine 1932a: 296; Lengerken 1939: 52, 1954: 72; Morov 1964: 88; Munro 1926: 53; Nordlinger 1856: 42; Nosek 1959a: 118, 1959b: 87; Nusslin 1898: 277, 1913: 240, 1927: 294; Perris 1856a: 244; Pfeffer 1989a: 29; Rhumbler 1922: 282, 1927: 292; Rupertsberger 1880: 226; Schmidt 1843: 108; Sedlacek 1935a: 162; Stark 1952: 181; Wachtl 1901: 381. (ds) Acloque 1896; Andras & Schaefer 1957; Barthe 1896; Bauduer 1876; Bennett 1893; Brakman 1966b: 204; Calwer 1884, 1893; Chapuis 1869: 34, 1873: 243; Chapuis & Candeze 1853; Eggers 1904, 1906; Endrodi 1958b; Escalera

1919; Fowler 1882a, 1891; Ganglbauer 1882; Gaubil 1849: 127; Gozis 1875: 79; Grune 1979: 81; Hagedorn 1910d: 24; Henschel 1895a: 140; Heyden 1876: 297; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 709; Horion 1951, 1956: 123; Kaltenback 1874: 292; Kleine 1912a: 263, 267, 1912b: 182, 1913a: 34, 1914b: 246, 1932a: 296, 1934a: 134; Kloft & Hinks 1945: 217; Kraatz 1869: 59; Lacordaire 1866: 260; Langhoffer 1915c: 156; Linder 1953: 71; Lucht 1987: 277; Luigioni 1929: 993; Matthews & Fowler 1883: 42; Nosek 1958b: 93; Nunberg 1954: 42; Nusslin 1898: 277; Paganetti-Hummeler 1901: 150; Perris 1876a: 254, 1877: 414; Pfeffer 1936: 89, 1947d: 127, 1989a: 29; Pittioni 1943: 176; Postner 1974: 415; Ragusa 1924: 115; Rapp 1934: 722; Redtenbacher 1874: 369; Reitter 1894a: 55, 1916: 280; Rye 1871b: 106-107; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1221; Schaum 1859: 95, 1862: 100; Schedl 1961b: 187, 1980a: 7, 1981b: 60; Scheerpeltz & Winkler 1930: 255; Schilsky 1909: 187; Schmidt 1843: 108; Seidlitz 1891a: 560; Sharp & Fowler 1893: 34; Stark 1927a: 87, 1952: 181; Stein 1868: 113; Stein & Weise 1877: 163; Tredl 1907: 10; Wessel 1877: 391; Wichmann 1927a: 57. (tx) Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 100; Barbey 1901: 19, 53; Bedel 1888b: 408; Chapuis 1869: 89, 1873: 242; Chapuis & Candeze 1853; Csiki 1907; Doebner 1860; Eichhoff 1864b: 26, 1881a: 37, 119, 1883a: 102; Endrodi 1957b; Fauvel 1887; Gebien 1907: 197; Gemminger & Harold 1872: 2671; Grune 1979: 81; Hagedorn 1909a, 1910a: 58, 1910d: 24; Henschel 1895a: 140; Hopkins 1914: 124; Kuhnt 1913: 1051; Lacordaire 1866: 360; Lucas 1900: 356; Lucht 1987: 277; Luigioni 1929: 993; Muller 1902: 116, 1903: 155; Nordlinger 1856: 42; Nunberg 1954: 42; Nusslin 1911a: 51, 59, 82, 255, 1912c: 282; Perris 1877a: 414; Pfeffer 1932b: 3, 1955a: 103, 1989a: pl. 2; Portevin 1935: 317; Postner 1974: 414; Redtenbacher 1849a: 792, 1849b: 27, 1874: 369; Reitter 1894a: 55, 1894c: 45, 1902b: 117, 1913a: 44, 1916: 280; Rey 1885: 128; Rhumbler 1922: 282, 1927: 292; Rupertsberger 1880: 226; Schedl 1934f: 1635, 1963h: 261, 1980a: 7, 1981b: 60; Schmidt 1843: 108; Seidlitz 1891a: 560; Semenov 1903: 80; Spessivtsev 1931: 34; Stark 1952: 181; Stresenmann et al. 1989: 354. (ms) Eggers 1910b; Koch 1977: 12; Lucas 1920: 356.

vicinus Comolli 1837: 36 (*Hylesinus*). Syntypes, sex?; Provinciae Novocomi, Italy; not located. Synonymy: Balachowsky 1949a: 100.

References: (ds) Bedel 1888b: 391, 408; Blanchere & Robert 1889; Calwer 1884; Hagedorn 1910d: 24; Heyden, Reitter, & Weise 1883: 181; Schaum 1859: 95, 1862: 100; Stark 1936a: 148; Stein 1868: 113; Stein & Weise 1877. (tx) Balachowsky 1949a: 100; Bedel 1888b: 391, 408; Comolli 1837: 36; Doebner 1860;

Eichhoff 1864b: 46, 1883a: 102; Fauvel 1889: Gemminger & Harold 1872: 2675; Hagedorn 1910a: 49; Schedl 1934f: 1634; Stark 1936a: 148. (ms) Eggers 1910b.

novaki Reitter 1894c: 45. Syntypes, sex?; Dalmatia, Yugoslavia; NHMB, Budapest.

Figures: Grune 1979: 80.

Distribution: Africa (Algeria), Europe (Austria/W USSR/Yugoslavia).

Hosts: *Hedera helix*, *H. colehica*.

Notes: (3) Note in Schedl Collection treats this as a synonym of *hederae* (Schmidt).

References: (bv) Grune 1979: 81. (cn) Grandi 1951; Wachtl 1901: 381. (cc) Kleine 1908c: 182; Novak, P. 1952: 412. (hb) Eggers 1906; Grandi 1951; Stark 1952: 181; Wachtl 1901: 381. (ds) Balachowsky 1949a: 101; Eggers 1906, 1912f; Grune 1979: 81; Hagedorn 1910d: 24; Heyden, Reitter, & Weise 1906: 709; Horion 1951; Kleine 1912b: 182, 1913a: 307, 1914b: 246, 1934a: 134; Kocher 1953: 133; Langhoffer 1915c: 156; Luigioni 1929: 993; Novak, P. 1952: 412, 1964: 115; Pfeffer 1947d: 127; Pittioni 1943: 174; Ragusa 1924: 115; Reitter 1894a: 55, 1916: 280, 349; Schaufuss 1915: 1221; Schedl 1980a: 7; Schilsky 1909: 187; Stark 1927b: 87, 1952: 181; Tredl 1907: 10; Wichmann 1927a: 56–57. (tx) Balachowsky 1949a: 101; Csiki 1907; Eggers 1912f: 29, 1923b: 138–139; Grune 1979: 80–81; Hagedorn 1910a: 58; Luigioni 1929: 993; Muller 1902: 116, 1903: 155; Pfeffer 1955a: 103; Portevin 1935: 317; Reitter 1894a: 55, 1894c: 45, 1902b: 117, 1913a: 45, 1916: 280, 349; Schedl 1934f: 1635, 1980a: 9; Stark 1952: 181.

binodus Reitter 1913a: 45. Holotype, sex?; Istrien [Yugoslavia]; NHMB, Budapest. Synonymy: Reitter 1916: 349; Eggers 1923b: 138.

References: (ds) Horion 1935; Luigioni 1929: 993; Reitter 1916: 280; Schaufuss 1915: 1221.

(tx) Eggers 1923b: 138; Luigioni 1929: 993; Reitter 1913a: 45, 1916: 280, 349; Schedl 1934f: 1635.

nuesslini Reitter 1913a: 44. Holotype, sex?; Westlichen Kaukasus (Tscherkessien), USSR.

Distribution: Europe (W USSR).

Hosts: *Hedera helix*.

References: (hb) Stark 1952: 182. (ds) Kleine 1934a: 134; Schedl 1934f: 1635; Stark 1927b: 87, 1952: 182. (tx) Reitter 1913a: 44; Schedl 1934f: 1635; Stark 1952: 182.

Genus *Pteleobius* Bedel

PTELEOBIUS BEDEL 1888b: 392, 441. Type-species: *Bostrichus vittatus* Fabricius, subsequent designation by Hopkins 1914: 128.

Keys: Balachowsky 1949a: 94; Reitter 1913a: 42.

References: (ay) Nobuchi 1969a: 51; Schonherr 1970b. (bv) Schonherr 1970b. (cc) Apel 1983; Petrescu & Popescu 1960: 360–361. (hb) Wood, S. L. 1986a: 35. (ds) Postner 1974: 412; Schedl

1951b: 59; Winkler 1932: 1634; Wood, S. L. 1986a: 35. (tx) Apel 1983; Balachowsky 1949a: 94–96; Bedel 1888b: 388, 392–393, 441; Escherich 1923b: 479; Fornanek 1907: 19; Karaman 1972: 67; Marcu 1930: 238–242; Murayama 1963: 16; Nunberg 1954: 37–39; Pfeffer 1955: 97, 1989: 28; Postner 1974: 412; Reitter 1913a: 40, 42–43; Schedl 1959: 41, 1963b: 262, 1981b: 59; Scheerpeltz & Winkler 1930: 255; Schimitschek 1937: 45–46; Spessivtsev 1931: 33, 85; Stark 1952: 173–176; Stresemann et al. 1989: 353; Trappen 1935: 141; Wood, S. L. 1962: 77, 1966: 20, 1986a: 38.

kraatzii (Eichhoff) 1864b: 307 (*Hylesinus*). Syntypes 5, sex?; Maner des Nationalmuseums zu Pesth [Budapest, Hungary]; Hamburg Museum, lost.

Figures: Grune 1979: 72; Pfeffer 1989a: pl. 2, Stark 1952: 175.

Distribution: Africa (Algeria), Asia (Turkey), Europe (Austria/ Bulgaria/ France/ Greece/ Hungary/ Italy/ Spain/ W USSR).

Hosts: *Ulmus campestris*, *U. effusa*, *U. montana*, *U. spp.*, rare in *Fraxinus excelsior*, *Sorbus aucuparia*.

References: (ay) Escherich 1923b: 479; Fuchs 1912a; Kleine 1921: 26; Marcu 1931c: 23. Nusslin 1912c: 282. (bv) Barr, B. A. 1969: 643; Grune 1979: 73; Maksimovic 1979a, 1979b. (cn) Berlese 1915; Chorbadzhievo 1929; Clinton & McCormick 1936; Escherich 1923b: 479; Garcia-Tejero 1955: 231; Gradojevic 1940; Grandi 1951; Kalandra & Pfeffer 1935: 6; Kholodkovskii 1912: 295; Maksimovic & Motal 1983; Manjlovic 1986b; Marcu 1926c: 60; Maslov 1963b; Nusslin 1913: 238; Pfeffer 1979: 149; Pierce, W. D. 1917: 96; Rhumbler 1922: 281, 1927: 293; Tubeuf 1936: 507; Vajda 1952: 114; Wachtl 1901: 381. (cc) Escherich 1935; Fleischer 1911; Gyorfı 1941b; Kleine 1908c: 180; Maksimovic 1979a, 1979b, 1986a; Maksimovic & Motal 1983; Nosek 1959a: 118, 1959b: 85; Novak, P. 1952: 412; Nuorteva 1957b: 52; Nusslin 1927: 293; Pfeffer 1928b: 2, 8, 1979: 149; Schatzmayr 1929: 16–18; Sedlaczek 1935a: 162; Sengonca & Leiss 1984; Thompson, W. R. 1943: 97; Wichmann 1916: 18; Zvierzomb-Zubovsky & Rostoff 1918: 1–36. (hb) Barbey 1901: 20, 62; Bargmann 1906; Beffa 1961; Berlese 1915; Ceceoni 1924; Chorbadzhievo 1929; Clinton & McCormick 1936; Dombrowsky 1887; Eichhoff 1881: 140, 1892b: 99; Escherich 1923b: 479; Everts 1903: 745; Goidanich 1946: 100; Grandi 1951; Gyorfı 1957; Henschel 1895a: 149; Karpinski & Strawinski 1948: 154; Kholodkovskii 1912: 295; Maksimovic 1979a, 1979b; Manjlovic 1986b; Marcu 1941: 402; Maslov 1963a: 80–100, 1963b, 1963c: 848; Nosek 1959a: 118, 1959b: 85; Nusslin 1898: 275, 1906b: 14, 1913: 238, 1927: 293; Orest 1927: 59; Pfeffer 1942a: 11; Postner 1974: 412; Rhumbler 1922: 281, 1927: 293; Rupertsberger 1880: 227; Schwerdtfeger 1981: 187; Sedlaczek

- 1935a: 162; Spessivtsev 1913a: 55; Stark 1926a: 330, 333, 1952: 174; Tschorbadjiev 1929: 161; Wachtl 1901: 381; Wichmann 1916: 18. (**ds**) Acloque 1896; Audras & Schaefer 1957; Barthe 1896; Bedel 1888b: 411; Blanchere & Robert 1889; Brakman 1966b: 203; Brancsik 1906; Bucking 1932; Buresh & Lazarov 1956; Calwer 1884, 1893; Carpentier & Delaby 1908; Chapuis 1869: 30, 1873: 232; Chorbadzhievo 1929; Clinton & McCormick 1936; Endrodi 1958a, 1958b; Escalera 1919; Escherich 1923b: 479, 1932b; Everts 1922: 639, 1925; Eyquem 1891; Fuchs 1905a; Ganglbauer 1982; Gózis 1875: 79; Grune 1979: 73; Gyorfi 1941b; Hagedorn 1910d: 17; Henschel 1895a: 149; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 709; Horion 1951; Karaman 1971; Karpinski 1948a: 173; Karpinski & Stravinski 1948: 154; Keler 1925b: 271; Kleine 1912a: 267, 1912b: 173, 1913a: 34, 85, 87, 1934a: 130; Koca 1905: 191; Lacordaire 1866: 363; Leclercq 1971; Lucht 1987: 277; Luigioni 1929: 992; Marcu 1926c: 60; Negru 1966b: 399, 1968a: 454; Negru & Rosca 1967: 141; Novak, P. 1952: 412; Nunberg 1928b: 88, 97, 1954: 39; Nusslin 1898: 275; Orest 1926c: 60; Palm 1976; Pascovici 1962; Perris 1876a: 255, 1877a: 415; Pfeffer 1928b: 218, 1931b: 73, 1947d: 126, 1989a: 28; Pierce, W. D. 1917: 96; Pittioni 1943: 174; Pjatnitskii 1930a: 163; Postner 1974: 412; Reitter 1894a: 52, 1916: 279; Revy & Siroki 1942: 82; Roubal 1941: 257; Ruskov 1928c: 61; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1220; Schedl 1980a: 6, 1981b: 60; Schilsky 1893: 356, 1909: 187; Schwerdtfeger 1981: 187; Stark 1926a: 330, 333, 1926g: 154, 1927b: 87, 1952: 174; Stein 1868: 113; Stein & Weise 1877: 163; Tredl 1907: 8; Tschorbadjiev 1929: 161; Wichmann 1927a: 56. (**tx**) Acloque 1896; Balachowsky 1949a: 95; Barbey 1901: 20, 62; Bedel 1888b: 393, 414; Beffa 1961; Bertolini 1872; Carpentier & Delaby 1908; Ceballos 1945; Chapuis 1869: 30, 1873: 232; Csiki 1907; Dombrowsky 1887; Eichhoff 1864b: 307, 1868b: 403, 1881a: 39, 140, 1883a: 103, 126; Endrodi 1957b; Escherich 1923b: 479; Everts 1903: 745, 1922: 639; Fleischer 1927; Formanek 1907: 19; Fuchs 1912a; Gebien 1907: 197; Gemming & Harold 1872: 2674; Grune 1979: 72-73; Hagedorn 1910a: 82; Henry 1892: 13; Henschel 1895a: 149; Kalandra & Pfeffer 1935: 1-17; Karaman 1971; Karpinski & Stravinski 1948: 154; Kulnt 1913: 1050; Lacordaire 1866: 363; Lucht 1987: 277; Luigioni 1929: 992; Negru 1966b: 399; Nunberg 1954: 39; Nusslin 1912c: 282; Perris 1877a: 415; Pfeffer 1932b: 13, 1942a: 11, 1955a: 98, 1989: pl. 2; Portevin 1935: 317; Postner 1974: 412; Qnaschik 1953: 35; Reitter 1887b: 194, 1894a: 52, 1913a: 43, 1916: 279; Rhumbler 1922: 281, 1927: 293; Rupertsberger 1880: 227; Schedl 1934f: 1634, 1959: 41, 1980a: 6, 1981b: 60; Spessivtsev 1913a: 55-56, 1931: 32-33; Stark 1952: 174; Wichmann 1916: 18. (**ms**) Escherich 1932b; Kholodkovskii 1893: 390. *putonii* Eichhoff 1868b: 403 (*Hylesinus*). Syn-types, sex?; Madrid, Spain; Hamburg Museum, lost. Synonymy: Hagedorn 1910d: 17, Schedl 1934f: 163. References: (**ds**) Calwer 1893; Heyden, Reitter, & Weise 1883: 181; Schilsky 1909: 187; Stein 1868: 113; Stein & Weise 1877: 163. (**tx**) Balachowsky 1949a: 95; Eichhoff 1868b: 403; Gemming & Harold 1872: 2675; Hagedorn 1910d: 17; Reitter 1887b: 194; Schedl 1934f: 163.
- vittatus (Fabricius)** 1792: 368 (*Bostrichus*). Syn-types (2), sex?; Holsatiae ligno Dom Daldorff; UZMC, Copenhagen. Figures: Duffy 1953: 11, Grune 1979: 72, Pfeffer 1989a: pl. 1, Postner 1974: 411, Stark 1952: 175. Distribution: Asia (Israel/ Turkey), Europe (Austria/ Bulgaria/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Spain/ Switzerland/ W USSR). Hosts: *Ulmus campestris*, *U. effusa*, *U. montana*. Notes: (3) Stephens 1829a: 146, (*Ips maculosus* Kirby, nomen nudum, synonymy). Schedl 1958k: 141 (*Hylesinus debilis* Chapuis, nomen nudum, synonymy). References: (**ay**) Escherich 1923b: 479, 497; Fuchs 1912a; Kleine 1921: 26; Marcu 1931c: 238; Nunberg 1928a: 140; Nusslin 1911a: 59, 1912c: 282. (**bv**) Barr, B. A. 1969: 643; Grune 1979: 73; Klimetzek, Bartels, & Francke 1989; Maksimovic 1979a: 285; Mori & Paupoomchareon 1989; Prell 1926: 68; Wichmann 1953a: 107. (**cn**) Acatay 1943a: 60; Barbey 1925: 603; Buismann 1933a; Chorbadzhievo 1926: 175-241, 1929; Clinton & McCormick 1936; Eckstein 1926: 577; Escherich 1923b: 479, 497; Gabler 1955; Garcia-Tejero 1955: 231; Georgescu et al. 1957: 357, 446; Goidanich 1937; Goidanich & Goidanich 1934; Grandi 1951; Hess 1900: 48, 1907: 275; Hess & Beck 1914: 248, 1927: 302; Hofinger 1922; Judeich & Nitsche 1895: 447, 472; Kalandra & Pfeffer 1935: 6; Kholodkovskii 1912: 285, 295; Liese & Butovitsch 1931: 114; Luchnik 1925: 9-15; Lustner et al. 1935: 81; Marcu 1926c: 60; Maslov 1963b; Nosek 1952b: 98; Nusslin 1913: 238; Pfeffer 1989a: 28; Pierce, W. D. 1917: 96; Rhumbler 1922: 281, 1927: 293; Roepke 1933: 17; Schimitschek 1935b: 145, 1937c: 47, 1944: 163, 1955a: 76, 152; Schinder 1960: 20, 1961: 18; Schmidt 1881: 90; Schwerdtfeger 1944a: 172, 1957a: 151; Spaic 1956: 88; Tubeuf 1935: 73, 1936: 507; Vajda 1952: 114; Wachtl 1901: 381; Weber 1926: 577. (**ec**) Beaver 1965b, 1967b, 1967c: 145, 146; Cooreman 1963: 46; Crowson 1981a; Escherich 1935; Frausen 1937b; Graham 1969: 880; Gyorfi 1941b; Kleine 1908c: 180, 1909a: 44, 77, 1944: 73; Knoche 1908b: 202; Kostenko 1929; Maksimovic 1979a: 285; Meyer 1934: 616; Nikitsky 1978; Nosek 1952b: 98,

- 1959a: 118, 1959b: 85; Novak, P. 1952: 411; Nusslin 1927: 293; Perris 1856a: 244, 1862: 189; Pfeffer 1928b: 2, 8, 1979: 149; Prell 1926: 68; Ratzeburg 1869a: 176; Roepke 1935: 124; Ruschka 1925: 201; Scheidter 1936: 235; Schimitschek 1936a: 560, 1955a: 152, 1964e; Schwerdtfeger 1944a: 172, 1957a: 181; Sedlaczek 1935a: 162; Sengonca & Leisse 1984; Thompson, W. R. 1943: 97; Wichmann 1953a: 107. **(hb)** Acatay 1943a: 60-61; Altum 1889c; Ashe 1949; Baclı 1864; Barbey 1901: 20, 63, 1925: 603; Beaver 1967a: 141-150, 1967b: 160, 1970b: 698; Beffa 1961; Bellevoye 1876; Braun 1941c; Bukowsky 1930; Ceconi 1906, 1924; Chorbadzhiyev 1929; Clinton & McCormick 1936; Dallimore & Munro 1922; Decaux 1890e, 1890f; Dombrowsky 1887; Eckstein 1897, 1926: 577; Eichhoff 1881a: 39, 142, 1892b: 99; Escherich 1923b: 479, 497; Everts 1903: 745; Fransen 1937: 195-217; Frauenfeld 1860; Fuchs 1904a, 1911b; Gabler 1955; Gillanders 1908; Girard 1873; Goidanich 1937: 417-425, 1946; Grandi 1951; Guram 1933; Gyorfi 1957; Hennings 1908c: 215; Henschel 1876a: 240, 1895a: 150; Hess 1900: 48; Hess & Beck 1914: 248, 1927: 302; Jacobi 1906: 147; Judeich & Nitsche 1895: 447, 472; Karpinski & Strawinski 1948: 154; Karsch 1883: 143; Keller 1913: 242; Kirby, S. G. & Fairhurst 1983; Knotek 1894a: 553; Lengerker 1939: 52, 1954: 72; Lichtenstein 1918: 93; Maksimovic 1979a, 1979b; Marcu 1941: 401; Maslov 1963a: 80-100, 1963b: 18, 1963c: 840; Munro 1926: 50; Nordlinger 1856: 41; Nosek 1959a: 118, 1959b: 85; Nusslin 1898: 275, 1904: 8, 1905a: 88, 1906b: 14, 1913: 238, 1927: 293; Orest 1927: 59; Ormerod 1877: 186; Perris 1856a: 244; Pfeffer 1942a: 11; Postner 1974: 412; Prell 1926: 62-76; Ratzeburg 1837: 184; Rhumbler 1922: 281, 1927: 293; Roepke 1935: 121-124; Rupertsberger 1880: 227; Scheidter 1936: 235; Schimitschek 1939c: 271, 1944: 163, 1955a: 152; Schindler 1860: 20, 1861: 18; Schmidt 1881: 90; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Sedlaczek 1935a: 162; Spessivtsev 1913a: 55; Stark 1926a: 333, 1952: 175; Strohmeier 1916: 117; Tschorbadjiev 1929: 161; Wachtl 1901: 381; Weber 1926: 577. **(ds)** Acloque 1896; Andersch 1851; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Beaver 1966: 160, 1968: 698; Bedel 1888b: 393, 411; Bielz 1851, 1887; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 203; Brancsik 1871, 1906; Bukowsky 1930; Buresh & Lazarov 1956; Calver 1884, 1893; Carpentier & Delaby 1908; Ceconi 1906; Chapman, J. A. 1972: 106; Chapman, T. A. 1869d: 26-31; Chapuis 1869: 32, 1873: 234; Chapuis & Candeze 1853; Chorbadzhiyev 1924d, 1929; Clinton & McCormick 1936; Crotch 1863; Dallimore & Munro 1922: 189-193; Debatisse 1945; Dejean 1825, 1837; Duffy 1945: 175; Duftschmidt 1825; Eggers 1904; Endrodi 1958a, 1958b; Escalera 1919; Escherich 1923b: 479, 497, 1932b; Everts 1922: 639, 1925; Fowler 1891; Fricken 1889: 280; Fuchs 1904a, 1905a; Gaubil 1849: 127; Gillen 1947; Goidanich 1946: 101; Gozis 1875: 79; Gredler 1866: 372; Grune 1979: 73; Guram 1933: 225-236; Gyorfi 1941b; Hagedorn 1910d: 18; Hellen 1947; Henschel 1895a: 150; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 709; Horion 1951; Jacentkowsky 1935: 21; Johnson, W. F. & Halbert 1902: 518; Judeich & Nitsche 1895: 447, 472; Kaltenback 1874: 535; Kamp 1979; Karpinski 1948a: 173; Karpinski & Strawinski 1948: 154; Keler 1925b: 270; Kester-canek 1881a: 12; Kleine 1912a: 267, 1912b: 173, 1913a: 34, 1934a: 130; Kloft & Hinks 1945: 217; Knotek 1892a: 34, 1894a: 553; Koca 1905: 191; Kolbe, W. 1918: 211; Kostenko 1929; Kraatz 1869: 59; Kurir 1947c: 24; Lacordaire 1866: 363; Langhoffer 1915c: 156; Leclercq 1971; Leesberg 1874: 64; Lentz 1857: 138; Lomnicki 1913b: 147; Lucht 1987: 277; Luigioni 1929: 992; Marcu 1926c: 60; Matthews & Fowler 1883: 42; Munro 1921: 87; Negrı 1966b: 399, 1968a: 454; Novak, P. 1952: 411; Numberg 1928b: 87, 97, 1954: 35; Nusslin 1898: 275; Orest 1926c: 60; Pascovici 1962; Pascovici et al. 1963: 153-175; Perris 1876a: 254, 1877a: 414; Pfeffer 1928b: 2, 1931b: 73, 1935: 159, 1947a: 126, 1989a: 28; Pierce, W. D. 1917: 96; Pittioni 1943: 174; Pjatnitskii 1930a: 163; Postner 1974: 412; Ragusa 1924: 115; Ratzeburg 1837: 184; Redtenbacher 1858: 828, 1874: 371; Reitter 1869b: 153, 1889a: 63, 1894a: 52, 1916: 279; Revy & Siroki 1942: 82; Roubal 1935b: 72, 1941: 257; Rye 1866a: 197, 1890: 268; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1220; Schaum 1859: 95, 1862: 100; Schedl 1961b: 186, 1964f, 1967c: 69, 1980a: 6, 1981b: 60; Scheerpeltz & Winkler 1930: 255; Schilsky 1889: 364, 1909: 187; Schwerdtfeger 1881: 187; Seidlitz 1891a: 561, 1891b: 606; Seitner & Notzel 1925: 187-196; Sharp & Fowler 1925: 187-196; Stark 1926a: 333, 1926j: 125, 1927b: 87, 1952: 175; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 146; Stierlin 1898: 434; Stierlin & Gantard 1871: 292; Sturm 1843: 229; Tredl 1907: 8; Treussens 1952: 90; Tschorbadjiev 1929: 161; Uyttenboogaart 1904: 143; Villa & Villa 1833: 26; Welch, R. C. 1968b: 19; Wichmann 1927a: 56. **(tx)** Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 94; Barbey 1901: 20, 63; Beaver 1970b; Bedel 1888b: 393, 411; Beffa 1961; Bertolini 1872; Brancsik 1871; Carpentier & Delaby 1908; Chapuis 1869: 32, 1873: 234; Chapuis & Candeze 1853; Chorbadzhiyev 1924d; Csiki 1907; Dejean 1825; Doebner 1860; Dombrowsky 1887; Duffy 1953: 11; Duftschmidt 1825; Eggers 1929e: 43; Eichhoff 1864b: 30, 1881a: 39, 142, 1883a: 103, 126; Endrodi 1957b; Erichson 1836: 56; Escherich 1923b: 479, 497; Everts 1903: 745, 1922: 639; Fabricius 1787: 38, 1792: 368, 1801: 395; Fauvel

1889; Ferrant 1911; Fleischer 1927, 1905; Formanek 1907: 19; Fricken 1889: 280; Fuchs 1912a; Gabler 1955; Gebien 1907: 197; Gemminger & Harold 1872: 2674; Gillanders 1908; Girard 1873; Gmelin 1790: 1603; Grune 1979: 72–73; Hagedorn 1910a: 49; Henschel 1876a: 240, 1895a: 150; Herbst 1793: 122; Hopkins 1914: 128; Illiger 1907: 321; Jablonsky 1785: 122; Jacentkowsky 1935: 21; Jacobi 1906: 147; Judeich & Nitsche 1895: 447, 472; Kalandra & Pfeffer 1935; Karpinski & Strawinski 1948: 154; Knotek 1892a: 34; Kuhnt 1913: 1050; Lacordaire 1866: 363; Letzner 1891: 373; Lucht 1987: 277; Luigioni 1929: 992; Negru 1966b: 399; Nordlinger 1848: 252, 1856: 41; Nunberg 1928a: 140, 1954: 38; Nusslin 1911a: 59, 1912e: 282; Panzer 1795a: 289; Pfeffer 1932b: 13, 1942a: 11, 1955a: 98, 1989: pl. 1, 2; Portevin 1935: 317; Postner 1974: 412; Quaschik 1953: 35; Ratzeburg 1837: 184; Redtenbacher 1849a: 362, 1849b: 27, 1858: 828, 1874: 371; Reitter 1889a: 63, 1894a: 52, 1913a: 43, 1916: 279; Rey 1887: 231; Rhumbler 1922: 281, 1927: 293; Rupertsberger 1880: 227; Schedl 1934f: 1634, 1952f: 86, 1958c: 560, 1958k: 141, 1959r: 41, 1980a: 6, 1981b: 60; Schimitschek 1937c: 47, 1955c: 76; Seidlitz 1891a: 561, 1891b: 606; Spessivtsev 1913a: 55–63, 1931: 32–33; Stark 1952: 175; Stephens 1829a: 146; Stierlin 1898: 434. (ms) Escherich 1932b; Fuchs 1911b; Kholodkovskii 1893: 390; Mori & Paupoomchareon 1988, 1989.

sericeus Marsham 1802: 55 (*Ips*). Syntypes, sex?; England; not located. Synonymy: Hagedorn 1910d: 18.

References: (tx) Hagedorn 1910d: 18; Marsham 1802: 55; Stephens 1830: 361.

furcatus Marsham 1802: 55 (*Ips*). Syntypes, sex?; England; not located. Synonymy: Hagedorn 1910d: 18.

References: (tx) Hagedorn 1910d: 18; Marsham 1802: 55.

coadunatus Marsham 1802: 58 (*Ips*). Syntypes, sex?; England; presumably in BMNH, London. Synonymy: Gemminger & Harold 1872: 2675.

References: (ds) Murray 1853: 60; Stephens 1829a: 146, 1830: 360, 1839: 208. (tx) Gemminger & Harold 1872: 2675; Marsham 1802: 58; Stephens 1829a: 146, 1829b: 12, 1830: 360, 1839: 208.

Genus *Cryptocurus* Schedl

CRYPTOCURUS SCHEDL 1957e: 869. Type-species: *Cryptocurus spinipennis* Schedl, monobasic.

Hyloperus Browne 1970: 546. Type-species: *Hyloperus bicornis* Browne = *Cryptocurus spinipennis* Schedl, original designation. Synonymy: Wood 1983a: 648.

References: (tx) Browne 1970: 546; Wood, S. L. 1983a: 648.

References: (hb) Wood, S. L. 1986a: 39. (ds)

Wood, S. L. 1986a: 39. (tx) Schedl 1957e: 869, 1959n: 411–412; Wood, S. L. 1983: 648, 1986a: 39.

spinipennis Schedl 1957e: 870. Holotype ♂; Tanganyika: Moshi District; BMNH, London. Figures: Browne 1970: 547 (male, female).

Distribution: Africa (Nigeria/ Tanzania).

Hosts: *Piptadenia buchananii*.

References: (tx) Browne 1970: 547; Schedl 1957e: 869–870, 1959n: 412, 1979c: 235.

bicornis Browne 1970: 546 (*Hyloperus*). Holotype ♀; Mambilla Plateau, Gyl Nyaki at 5000 ft., Nigeria; BMNH, London. Synonymy: Wood 1985: 267.

References: (tx) Browne 1970: 546; Roberts 1969: 125; Wood, S. L. 1985: 267.

caudatus Browne 1970: 547 (*Hyloperus*). Holotype ♂; Mambilla Plateau, Gyl Nyaki at 5000 ft., Nigeria; BMNH, London. Synonymy: Wood 1985: 267.

References: (tx) Browne 1970: 547; Roberts 1969: 125; Wood, S. L. 1985: 267.

Genus *Neopteleobius* Nobuchi

NEOPTLEOBIUS NOBUCHI 1971a: 125. Type-species: *Hylesinus scutulatus* Blandford, original designation.

References: (hb) Wood, S. L. 1986a: 39. (ds) Wood, S. L. 1986a: 39. (tx) Choo, Woo, & Nobuchi 1988b: 135; Nobuchi 1971a: 125; Schedl 1972q: 255; Wood, S. L. 1986a: 39.

scutulatus (Blandford) 1894c: 67 (*Hylesinus*). Syntypes, sex?; Kiga, Subashiri, Nagasaki, Omori, and Oyama, Japan; BMNH, London.

Figures: Nobuchi 1971a: 125.

Distribution: Asia (Japan/ Korea).

Hosts: *Zelkova serrata*, *Ulmus japonica*, *Castanea pubinervis*, *Cercidiphyllum japonicum*, *Acer mono*, *Alnus japonica*, *Gleditsia japonica*.

Notes: (1) Nobuchi 1971a: 126 (to *Neopteleobius*). References: (ds) Blandford 1894c: 67; Choo 1983: 49; Choo & Woo 1985: 164; Choo, Woo, & Nobuchi 1988a: 135; Choo, Woo, & Park 1983: 176; Hagedorn 1910d: 19; Kleime 1934a: 130; Murayama 1929b: 2, 1930b: 13, 30, 1937b: 375; Nobuchi 1985: 6. (tx) Blandford 1894c: 67; Choo 1983: 50; Choo & Woo 1985: 164; Choo, Woo, & Nobuchi 1988a: 135; Hagedorn 1910a: 49; Murayama 1930b: 13, 30, 1937b: 375, 1954b: 158; Nobuchi 1971a: 125–126; Schedl 1934f: 1634, 1959r: 41, 1963h: 259, 1972q: 255.

trepanatus Wichmann 1914c: 137 (*Pteleobius*). Syntypes, sex?; Kioko, Japan; 2 in Pic-Digion Collection and 1 in Wichmann Collection. Synonymy: Murayama 1963b: 18.

References: (tx) Murayama 1963b: 18; Schedl 1934f: 1634; Wichmann 1914c: 137.

Genus *Alniphagus* Swaine

ALNIPHAGUS SWAINE 1918a: 73. Type-species: *Hylesinus aspericollis* LeConte, original designation.

Hylastinoides Spessivtsev 1919: 249. Type-species: *Hylastes alni* Niisima, monobasic. Synonymy: Swaine 1919b: 279.

References:

Keys: Wood 1982b: 119 for North America.

References: (**hb**) Bright & Stark 1973: 41; Wood, S. L. 1982b: 119, 1986a: 39. (**ds**) Bright & Stark 1973: 41; Bruck 1936a: 43; Leng 1920: 338; Spessivtsev 1919: 278, 1931a: 86; Swaine 1918a: 73; Wood, S. L. 1982b: 119, 1986a: 39. (**tx**) Arnett 1960: 1041, 1968: 1041; Bright 1978: 74; Bright & Stark 1973: 41; Bruck 1936a: 43; Chamberlin 1939: 117, 193–194, 1958: 53, 99–100; Krivolutskaya 1958: 122–123; Murayama 1963: 30–31; Schedl 1950b: 113–115; Spessivtsev 1919: 249, 279, 1931a: 86; Stark 1952: 207; Swaine 1918a: 73, 1919b: 279; Winkler 1932: 1632; Wood, S. L. 1982b: 119, 1986a: 39.

alni (Niisima) 1909: 137 (*Hylastes*). Lectotype ♀; Tomakomai, Iburi Prov. and Jozankei, Tomimoto, Japan; Nobuchi Collection, Ibaraki, lectotype labeled by Nobuchi (?) but never published.

Figures: Nakane et al. 1963: pl. 191.

Distribution: Asia (N Japan/ Sakhalin Island, Siberia in E USSR).

Hosts: *Alnus fruticosa*, *A. hirsuta*, *A. incana* var. *glauca*.

Notes: (3) Sokanovskii 1958: 38 (named aberration as var. *imitator*, no status). Schedl 1950b: 114 (redescribed).

References: (**cn**) Anonymous 1980g; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 188. (**ec**) Inouye & Yamaguchi 1955a: 235; Kurenzov 1934a: 51, 1964: 20. (**hb**) Krivolutskaya 1973: 132; Kurenzov 1935a: 19, 27, 1948b: 114; Stark 1952: 207. (**ds**) Anonymous 1980g; Kleine 1914b: 254, 1934a: 130; Krivolutskaya 1965a: 228, 1973: 132; Kurenzov 1934a: 51, 1935a: 19, 27, 1935c: 188, 1936a: 111, 1936b: 350, 1938a: 63, 1964: 20; Nakane et al. 1963: 382; Stark 1952: 207. (**tx**) Hagedorn 1910a: 45; Krivolutskaya 1958: 122; Kurenzov 1941a: 127–128, 1948b: 114; Murayama 1954b: 155; Nakane et al. 1963: 382, pl. 191; Niisima 1909: 137; Schedl 1934f: 1636, 1948a: 236, 1950b: 114–115, 1979c: 16; Sokanovskii 1958: 38; Spessivtsev 1919: 249; Stark 1952: 207.

aspericollis (LeConte) 1876: 380 (*Hylesinus*). Lectotype ♂; California (at Santa Barbara?) [USA]; MCZ, Cambridge, designated by Wood 1982b: 120.

Figures: Borden 1969: 875, Bright & Stark 1973: 151, Furniss & Carolin 1977: 344, Wood 1982: 121.

Distribution: North America (Alaska/ British

Columbia in Canada/ California, Idaho, Montana, Oregon, Utah, Washington in USA).

Hosts: *Alnus rhombifolia*, *A. rubra*, *A. tenuifolia*. Notes: (1) Swaine 1918a: 73 (to *Alniphagus*).

References: (**cn**) Borden 1969: 870; Currie 1905: 75; Doane et al. 1936; Essig 1926: 517, 1958: 517; Hatch 1938: 193; Hopkins 1899b: 16, 1904a: 20; Keen 1938: 131, 1952c: 169; Ruppel 1967: 6; Schuh & Mote 1948: 118; Swaine 1918a: 73. (**cc**) Borden 1969; Deyrup & Gara 1978: 274; Keen 1938: 131; Furniss, R. L. & Carolin 1977: 344; Kinn 1971; Muesebeck 1942: 93, 1946: 427, 1948a: 236, 1950: 128; Poinar 1975. (**hb**) Anderson, R. F. 1960: 244; Borden 1969: 870; Bright 1976d: 74; Bright & Stark 1973: 42; Chamberlin 1939: 193–194, 1958: 99–100; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Essig 1926: 517, 1958: 517; Furniss, M. M. & Johnson 1987: 378; Furniss, R. L. & Carolin 1977: 344; Hopkins 1899b: 16, 1901e: 67, 1904a: 20; Keen 1938: 131, 1952c: 169; Pierce 1907: 293; Swaine 1918a: 73; Wood, S. L. 1982b: 120. (**ds**) Anderson, R. F. 1960: 244; Borden 1969; Bright 1976d: 74; Bright & Stark 1973: 42; Chamberlin 1914: 326, 1917, 1939: 193–194, 1958: 99–100; Currie 1905: 75; Essig 1926: 517, 1958: 517; Fall 1906: 203; Furniss, M. M. & Johnson 1987: 378; Furniss, R. L. & Carolin 1977: 344; Hagedorn 1910d: 15; Henshaw 1882: 269, 1885: 149; Hopping 1922: 128–134; Keen 1929a: 22, 1938: 131, 1952c: 169; Kleine 1912b: 162, 170, 1914b: 389, 1934a: 130; Leng 1920: 338; Patterson & Hatch 1945: 150; Ruppel 1967: 60; Schedl 1969a: 203; Schuh & Mote 1948: 118; Smith, G. S. 1930; Swaine 1909: 112; Wood, S. L. 1972a: 407, 1982b: 120. (**tx**) Anderson, R. F. 1960: 244; Benoit 1986: 9; Borden 1969: 875; Bright 1976d: 74, 201, 207; Bright & Stark 1973: 151; Bruck 1936a; Chamberlin 1939: 192–193, 1958: 99–100; Furniss, R. L. & Carolin 1977: 344; Hagedorn 1910a: 48; Keen 1929a: 22; LeConte 1876: 380; Schedl 1948a: 236, 1950b: 115; Swaine 1909: 112, 1918a: 73; Wood, S. L. 1972a: 407, 1982b: 120–121. (**ms**) Hatch 1938: 193.

hirsutus Schedl 1948a: 236. Holotype ♂; Copper Mountain, British Columbia, Canada; Schedl Collection in NHMW, Wien.

Distribution: North America (British Columbia in Canada/ California, Oregon, Washington in USA).

Hosts: *Alnus sinuata*, *A. tenuifolia*.

References: (**hb**) Bright 1976d: 76; Bright & Stark 1973: 42; Chamberlin 1958: 100; Wood, S. L. 1982b: 12. (**ds**) Borden 1969: 871; Bright 1964: 169, 1976d: 76; Bright & Stark 1973: 42; Chamberlin 1958: 100; Furniss, R. L. & Carolin 1977: 345; Wood, S. L. 1972a: 407, 1982b: 120. (**tx**) Bright 1964: 169, 1976d: 76; Chamberlin 1958: 100; de Ruelle 1970: 97; Schedl 1948a: 236,

1950b: 115, 1979c: 117; Wood, S. L. 1972a: 407, 1982b: 120.

Genus *Hylesinus* Fabricius

HYLESINUS FABRICIUS 1801: 390. Type-species: *Hylesinus crenatus* Fabricius, subsequent designation by Westwood 1838: 39.

Keys: Murayama 1963b: 6 for Japan, Wood 1982b: 110 for North America.

References: (ay) Nobuchi 1969a: 53, 57; Schonherr 1970b. (bv) Chararas 1960b: 3872-3874; Schonherr 1970. (cn) Craighead 1922. (ec) Jamnicky 1961b: 268; (hb) Barbey 1901: 59; Bargmann 1900: 169; Bright & Stark 1973: 41; Browne 1961c: 64; DelGuercio 1931: 1-74; Eichhoff 1881: 133; Escherich 1923b: 479; Jamnicky 1961b: 268; Judeich & Nitsche 1895: 444-445; Marcu 1930: 238; Munro 1926: 1-27; Paillot 1917: 329-334; Picard & Rabaud 1914: 226-269; Postner 1974: 408; Scott 1962: 1-8; Wood, S. L. 1982b: 110, 1986a: 39. (ds) Browne 1961c: 64; Hagedorn 1910d: 15; Postner 1974: 408; Wood, S. L. 1982b: 110, 1986a: 39. (tx) Allen, A. A. 1970: 246; Bach 1854: 142; Balachowsky 1949a: 84-94; Bedel 1888b: 389, 392; Beeson 1938: 288, 1941 (1961: 287-288); Blanchard 1845; Blandford 1895b: 142, 154, 1897a: 154; Blatchley & Leng 1916: 662-664; Boas 1923: 313; Chapuis 1869: 29, 1873: 237; Choo, Woo, & Nohuchi 1988b; Doebner 1862: 159; Eggers 1920: 118; Eichhoff 1864: 29, 44, 46, 1881a: 133, 1883a: 101; Endrodi 1957: 414; Erichson 1836: 56; Fabricius 1801: 390; Formanek 1907: 17; Hagedorn 1910a: 47, 1910d: 15; Jacquelin du Val & Fairmaire 1868: 102; Karaman 1971: 59-61; Kostin 1973: 244; Kurenzov 1941: 113, 1951: 78-80; Lacordaire 1807: 279, 1810: 224, 1829: 91, 1866: 362; LeConte 1876: 378; LeConte & Horn 1883: 523; Lucas 1920: 32, 342, 367; Murayama 1963b: 6; Niisima 1909: 125-130; Nunberg 1954: 35-37; Pfeffer 1955: 93, 1989a: 26; Postner 1974: 408; Provancher 1877: 571; Ratzeburg 1837: 170-184, 1839: 183; Reitter 1894: 51, 1913a: 41; Saalas 1914: 70, 76; Schedl 1936a: 521, 1940a: 338, 1947a: 20, 1953d: 74, 1959k: 39-42, 1962q: 456, 1965f: 3-15, 1981b: 57; Scheerpeltz & Winkler 1930: 255; Schimitschek 1937: 45-46; Spessivtsev 1922: 463-464, 1925: 162, 1931: 29-31, 85; Stark 1931: 81-84, 1936: 148-153, 1952: 155-173; Streseman et al. 1989: 353; Swaine 1909: 111; Thomson 1859: 146; Westwood 1838: 39, 1840: 139; Winkler 1932: 1634; Wood, S. L. 1977d: 511, 1982b: 110, 1986: 38-39, 1986a: 39; Zimmermann 1868: 148.

Leperisinus Reitter 1913a: 41. Type-species: *Bostrichius fraxini* Pavyer = *Hylesinus varius* Fabricius, subsequent designation by Swaine 1918a: 70. Synonymy: Reitter 1916: 349, Wood 1977d: 511.

References: (ec) Lindquist 1970a: 978, 980. (hb) Anderson, R. F. 1960: 244. (ds) Ander-

son, R. F. 1960: 244; Bright & Stark 1973: 41; Schedl 1936g: 520; Scheerpeltz & Winkler 1930: 258; Marcu 1930: 238-242. (tx) Anderson, R. F. 1960: 244; Arnett 1960: 1041, 1968: 1041; Balachowsky 1949a: 90; Beal & Massey 1945: 58, 88; Blackman 1922: 48, 62; Bright 1976d: 77-81; Bruck 1936a: 42, 1938: 42; Chamberlin 1939: 116, 184-188, 1958: 53, 95-97; Dodge 1938: 16, 30; Endrodi 1957: 414; Leng 1920: 338; Reitter 1913a: 40-42, 1916: 349; Saalas 1913a: 304-306(?); Schedl 1959k: 39-42; Swaine 1918a: 42, 70-71; Wichmann 1923: 48, 62; Wood, S. L. 1967: 79-97, 1977: 511-512.

Apidocephalus Wickham 1916: 18. Type-species: *Apidocephalus hydropicus* Wickham, monobasic. Synonymy: Wood 1992b: 80.

References: (tx) Wickham 1916: 18; Wood, S. L. 1992b: 80.

aculeatus Say 1826: 322. Syntypes, sex?; Missouri [USA]; Say Collection, lost.

Figures: Bright 1976d: 201, 207, Ives & Wong 1988: 230.

Distribution: North America (Manitoba, Nova Scotia, Ontario, Quebec in Canada/ Arkansas, Colorado, Connecticut, District of Columbia, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Fraxinus americana*, *F. spp.*

References: (ay) Baker, B. H. 1964: 187-194; Hopkins 1894g; Thomas, J. B. 1967. (bv) Baker, B. H. 1964: 187-194; Turnbow & Franklin 1980. (cn) Anonymous 1962h, 1977f; Baker, B. H. 1964: 187-194; Baker, W. L. 1972: 249; Beal et al. 1952; Blackman 1950; Britton 1931: 512; Doane et al. 1936; Drooz 1985: 341; Essig 1926: 519; Felt 1924: 273, 1926: 247, 273, 1930a: 247, 1942: 6; Felt & Rankin 1932: 153; Fiske 1908; Haldeman 1850; Herbert 1920: 360-363; Herrick 1935: 30, 374; Ives & Wong 1988: 231; Keen 1952c: 169; MacAloney & Ewan 1964; McDaniel 1933: 25; Packard 1890: 543; Pierson 1927: 31; Schneider 1963: 661; Smith, J. B. 1900: 365; St. George 1932b: 3; Stein, J. D. & Kennedy 1972: 107; Swaine 1918a: 71-72. (ec) Baker, W. L. 1972: 249; Bushing 1965: 461; Davis 1891: 66, 1892; Felt 1906: 288; Fiske 1908: 24; Galford 1969b; Hoffmann 1938: 118; Marsh 1979: 157; Mason, W. R. M. 1978; Matthews 1970; Richerson, J. V. & Borden 1972a; Sterrett 1916; Swaine 1925c: 263. (hb) Baker, B. H. 1964: 187-194; Baker, W. L. 1972: 249; Beal & Massey 1945: 88-89; Blackman 1922b: 62-63, 1950; Bright 1976d: 78; Chamberlin 1939: 184-

186; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Drooz 1985: 341; Essig 1926: 519; Fall & Cockerell 1907: 218; Felt 1906: 288, 1926: 247, 273, 1930a: 247, 273; Felt & Rankin 1932: 153; Galford 1969b; Gast et al. 1989: 382; Herbert 1920: 363, 1935: 30, 374; Hopkins 1894g: 280, 1904a: 20, 1904b: 321; Ives & Wong 1988: 231; Keen 1952c: 169; Knaus 1886: 76; MacAloney & Ewan 1964; McDaniel 1933: 25; Packard 1890: 543; Pierce 1907: 293; Pierson 1927: 31; Stein, J. D. & Kennedy 1972: 107; Swaine 1907: 194, 1918a: 71–72; Underhill 1951: 5; Wenzel 1905: 124; Wood, S. L. 1982b: 112. **(ds)** Anonymous 1926c: 516, 1977f; Atkinson et al. 1991: 156; Baker, B. H. 1964: 187–194; Beal & Massey 1945: 88–89; Beaulne 1956; Blackman 1922b: 62–63, 1950; Blatchley & Leng 1916: 663; Bright 1976d: 78; Britton 1920a; Chamberlin 1917: 326, 1939: 184–186; Chapuis 1869: 32, 1873: 240; Cockerell et al. 1907; Currie 1905: 75; Deyrup 1981b: 2; Deyrup & Atkinson 1987a: 64; Dodge 1938; Drooz 1985: 341; Essig 1926: 519; Felt 1926: 247, 273, 1930a: 247, 273; Felt & Rankin 1932: 153; Frost 1912: 308; Frost & Dietrich 1929; Furniss, R. L. & Carolin 1977: 366; Gast et al. 1989: 382; Glick 1939; Hagedorn 1910d: 15; Henshaw 1885: 149; Hopkins 1893a: 142, 1893b: 213; Hubbard & Schwarz 1878a: 666; Keen 1952c: 169; Kirk 1970; Kleine 1912b: 173, 1914b: 385, 1934a: 139; Knaus 1887: 88; Leng 1920: 338; Leonard 1928: 516; Melsheimer 1853: 87; Morgan, A. V. & Morgan 1980: 1110, 1986: 76; Patterson & Hatch 1945: 150; Pily & Morgan 1987; Proctor 1946: 207; Provancher 1877: 571; Riley 1894: 227; Say 1826: 322, Slosson 1906: 325; Smith, J. B. 1900: 365, 1910: 404; Swaine 1909: 111; Turnbow & Franklin 1980; Ulke 1902: 56; Wickham 1896b: 170; Wood, S. L. 1957c: 399, 1982b: 112. **(tx)** Beal & Massey 1945: 88–89; Benoit 1985: 134; Blackman 1922b: 62–63; Blatchley & Leng 1916: 663; Bright 1976d: 78, 201, 207; Chamberlin 1939: 184–186; Chapuis 1869: 32, 1873: 240; Dodge 1938: 30–31; Eichhoff 1896: 607; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 48; Ives & Wong 1988: 230; LeConte 1876: 379, 437; Provancher 1877: 571; Say 1824: 181, 1826: 322; Schedl 1957b: 150; Schwarz 1889b: 149; Swaine 1909: 111–112, 1916b: 190, 1917: 356, 1918a: 71–72; Thomas, J. B. 1967; Titus, Meikle, & Harrison 1985: 81; Underhill 1951: 5; Wood, S. L. 1957c: 399, 1982b: 112; Zimmermann 1868: 148. **(ms)** Swaine 1907: 194, 1925c: 263.

imperialis Eichhoff 1868c: 149. Syntypes, sex?; Wisconsin and Georgia [USA]; Hamburg Museum, lost. Synonymy: Wood 1973c: 178, 1977c: 386.

Notes: (3) The identity of this synonym is based on a male specimen in the Schedl Collection at NHMW, Wien, labeled "Amer. Bor., Ulke;

Coll. Eichhoff," obtained by Schedl from the Stettin Museum before its destruction.

References: **(hb)** Chamberlin 1939: 188; Swaine 1918a: 71; Underhill 1951: 6. **(ds)** Anonymous 1926c: 516; Chamberlin 1917, 1939: 188; Dodge 1936: 30; Hagedorn 1910d: 17; Henshaw 1885: 149; Keen 1929a: 22; Kleine 1912b: 171, 1914b: 388; Leng 1920: 338; Leonard 1928: 516; Swaine 1909: 112. **(tx)** Chamberlin 1939: 188; Dodge 1936: 30; Eichhoff 1868c: 149, 1896: 607; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 48; Keen 1929a: 22; LeConte 1868: 169, 1876: 379; Schedl 1979c: 122; Swaine 1909: 112, 1918a: 71; Underhill 1951: 6; Wood, S. L. 1973c: 178, 1977c: 386.

cinereus Swaine 1917: 15 (*Leperisimus*). Lectotype ♀; Hudson, Quebec, Canada; CNCI, Ottawa, designated by Bright 1967b: 676. Synonymy: Wood 1957c: 399.

References: **(cn)** Doane et al. 1936; Swaine 1918a: 71–72. **(hb)** Chamberlin 1939: 186; Doane et al. 1936; Swaine 1918a: 71–72; Underhill 1951: 6. **(ds)** Beaulne 1956; Chamberlin 1939: 186; Kleine 1934a: 130; Leng 1920: 338. **(tx)** Bright 1967b: 676; Chamberlin 1939: 186; Hoebeke 1978; de Ruelle 1970: 104; Swaine 1917: 15, 1918a: 71–72; Underhill 1951: 6; Wood, S. L. 1957c: 399.

antipodus Schedl 1951d: 17. Syntypes, sex?; Rengo, Chile; Schedl Collection in NHMW, Wien, and NMHN, Santiago.

Distribution: South America (Chile).

Notes: (1) Schedl 1979c: 22 (citation of holotype invalid).

References: **(ds)** Schedl 1972d: 137. **(tx)** Schedl 1951d: 17, 1972d: 137, 1979c: 22.

atomarius Chapuis 1869: 29. Holotype, sex?; Bresil; IRSNB, Brussels.

Distribution: South America (Brazil).

References: **(ds)** Blackwelder 1947; Hagedorn 1910d: 15; Kleine 1912b: 70, 1914b: 33. **(tx)** Chapuis 1869: 29, 1873: 234; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 4.

aztecus Wood 1980b: 354. Holotype ♂; Chapingo, Mexico, Mexico; Wood Collection.

Figures: Atkinson et al. 1986: 14.

Distribution: North America (Mexico, Morelos in Mexico).

Hosts: *Fraxinus uhdei*.

References: **(hb)** Atkinson & Equihua 1985a: 71; Atkinson et al. 1986: 15; Burgos & Saucedo 1983: 52; Wood, S. L. 1982b: 11. **(ds)** Atkinson 1989a: 59; Atkinson & Equihua 1985a: 71; Atkinson et al. 1986: 15; Burgos & Saucedo 1983: 52; Wood, S. L. 1982b: 11. **(tx)** Wood, S. L. 1980b: 354, 1982b: 116.

bicolor Philippi in Philippi & Philippi 1864: 375. Syntypes, sex[?]; Prov. Valdivia invenit om. Landbeck [Chile]; NMHN, Santiago, preoccupied by Brulle 1832: 250.

Distribution: South America (Chile).

Notes: (1) This junior homonym is probably a member of another genus (*Xylechinus* ?) where synonymy probably exists. When its identity is established, a name change will be needed.

References: (ds) Blackwelder 1947; Brethes 1925: 202; Gemminger & Harold 1872: 2674; Hagedorn 1910d: 15. (tx) Bertolini 1872; Hagedorn 1910a: 48; Philippi & Philippi 1864: 375; Porter 1932: 106; Schedl 1951d: 16.

bicolor (Eggers) 1939b: 4 (*Leperisinus*). Holotype, sex[?]; Nordost-Birma (Kambaiti, 7000 ft.); NHR, Stockholm.

Distribution: Asia (Burma).

Notes: (1) This junior homonym is not renamed because synonyms of *bicolor* Eggers apparently exist.

References: (ds) Blackwelder 1947; Brethes 1925: 202; Kleine 1912b: 170, 1914b: 332; Schedl 1972d: 137. (tx) Eggers 1939b: 4; Schedl 1951d: 1, 1972d: 137.

botschamnikovi Stark 1931c: 81. Lectotype, sex[?]; Kreise von Lenkoran (Ortschaft Aleksejevka, Forstbezirk Suvand), USSR; IZL, Leningrad, designated by Michalski 1969a: 888.

Figures: Stark 1952: 159 (antenna, galleries).

Distribution: Asia (W USSR).

Hosts: *Fraxinus* sp.

References: (hb) Stark 1952: 158. (ds) Arnoldi et al. 1955: 661–662; Kleine 1934a: 128; Pfeffer 1935: 157; Schedl 1934f: 1634; Sokanovskii 1959a: 276; Stark 1936a: 148, 1952: 158. (tx) Michalski 1969a: 888, 1969b: 565; Pfeffer 1935: 157; Schedl 1934f: 1634; Sokanovskii 1959a: 276; Stark 1931c: 81, 1936a: 148, 1952: 158.

californicus (Swaine) 1916b: 190 (*Leperisinus*). Holotype ♀; San Diego, California [USA]; CNCI, Ottawa.

Figures: Bright & Stark 1973: 151, Ives & Wong 1988: 230, Swaine 1916b: pl. 8 (adult, galleries).

Distribution: North America (Manitoba, Saskatchewan in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Montana, New Mexico, North Dakota, Oklahoma, Oregon, Texas, Utah in USA).

Hosts: *Fraxinus americana*, *F. latifolia*, *F. pennsylvanica*, *F. velutina*, *Olea europaea*.

Notes: (3) Essig 1958: 517 (*Leperisinus californicus*, nomen nudum).

References: (bv) Barr, B. A. 1969: 642; Daterman, Rudinsky, & Nagel 1965; Rudinsky & Vernoff 1979; Vernoff & Rudinsky 1980. (cn) Anonymous 1964j, 1976e, 1977f; Burke 1939: 40; Cereške & Emond 1989: 25; Doane 1923: 217; Doane et al. 1936; Ebeling 1950, 1959; Essig

1917: 53, 1926: 517, 1958: 517; Ives & Wong 1988: 231; Keen 1938: 131; McKnight, M. E. & Aarhus 1973; Schuh & Mote 1948: 118; Stein, J. D. & Kennedy 1972: 106; Swaine 1918a: 71; Wilkamsky 1920: 339–340. (ec) Bushing 1965: 462; Furniss, R. L. & Carolin 1977: 366; Keen 1938: 131; Marsh 1979: 150; Massey 1971; Morrill 1917: 15–61; Poinar 1975: 164; Thompson, W. R. 1943: 69; Vernoff 1980. (hb) Bright 1966: 305, 1976d: 80; Bright & Stark 1973: 41; Chamberlin 1939: 187, 1958: 96–97; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Ebeling 1950; Essig 1926: 517, 1958: 517; Furniss, R. L. & Carolin 1977: 366; Ives & Wong 1988: 231; Keen 1938: 131; McKnight, M. E. & Aarhus 1973; Stein, J. D. & Kennedy 1972: 106; Swaine 1918a: 71; Underhill 1951: 1; Vernoff 1980; Wood, S. L. 1982b: 116. (ds) Anonymous 1964j, 1976e, 1977f; Bright 1976d: 80; Bright & Stark 1973: 41; Chamberlin 1939: 187, 1958: 96–97; Ebeling 1950; Essig 1926: 517, 1958: 517; Furniss, R. L. & Carolin 1977: 366; Gast et al. 1989: 382; Hopping 1922: 128–134; Keen 1929: 22, 1938: 131; Kleine 1934a: 130; Leng 1920: 338; Schuh & Mote 1948: 118; Snow 1906: 175; Wood, S. L. 1972a: 406, 1982b: 116. (tx) Blackman 1943: 396; Bright 1966b: 305, 1967b: 676, 1976d: 80; Bright & Stark 1973: 151; Bruck 1936a; Chamberlin 1939: 187, 1958: 96–97; Hoebeke 1978; Ives & Wong 1988: 230; Keen 1929a: 22; de Ruelle 1970: 104; Swaine 1916b: 190, 192, 1918a: 71; Underhill 1951: 1; Wood, S. L. 1967b: 89, 1972a: 406, 1972e: 147, 1977: 386, 1982b: 116.

hoferi Blackman 1943c: 394 (*Leperisinus*). Holotype ♀; Sabino Canyon, Arizona [USA]; USNM, Washington. Synonymy: Wood 1972c: 147.

References: (cn) Anonymous 1968g, 1968k, 1969e. (hb) Underhill 1951: 32. (ds) Anonymous 1968g, 1969e; Blackwelder & Blackwelder 1948; Wood, S. L. 1960b: 61, 1972b: 147, 1977c: 386. (tx) Blackman 1943c: 394; Underhill 1951: 32; Wood, S. L. 1972c: 147, 1977: 386.

caseariae Wood 1986c: 272. Holotype ♂; Acajete, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Casearia* sp.

References: (tx) Wood, S. L. 1986c: 272.

cholodkovskiji Berger 1916: 246. Syntypes, sex[?]; Ussuri, USSR; not located.

Distribution: Asia (Heilongjiang in China/ Ussuri in E USSR).

Hosts: *Fraxinus mandshurica*.

References: (cn) Kurenzov 1935c: 188, 1951c: 78. (ec) Kurenzov 1934a: 57, 1951d: 24. (hb) Kurenzov 1935a: 19, 1948b: 126, 1951d: 24; Stark 1952: 161. (ds) Kleine 1934a: 128; Krivolutskaia 1983; Krivolutskaia & Kupyanskaya 1970; Kurenzov

- 1934a: 57, 1935a: 19, 1935c: 188, 1936b: 350; Stark 1936a: 149, 1952: 161. (tx) Berger 1916: 246; Kurenzov 1941a: 106, 1948b: 126, 1951: 24; Schedl 1934f: 1634; Stark 1936a: 149–150, 1952: 161.
- cingulatus** Blandford 1894c: 67. Syntypes 5, sex[?]; Lake Junsai, Japan; BMNH, London.
 Figures: Nakane et al. 1963:pl. 191, Stark 1952: 170 (adult).
 Distribution: Asia (Manchuria in China/ Japan/ Korea/ Ussuri in E USSR).
 Hosts: *Fraxinus rhyncophylla*, *F. longicuspis*, *F. mandschurica japonica*, *F. lamuginosa serrata*, *Juglans* sp., *Olea cuspidata*.
 References: (cn) Kleine 1932a: 296; Kurenzov 1951c: 78; Shiraki 1952. (ec) Beeson 1922c; Kurenzov 1951d: 24. (hb) Beeson 1922c; Kleine 1932a: 296; Kurenzov 1935a: 19, 27, 1948b: 127, 1951d: 2; Stark 1952: 16. (ds) Beeson 1921: 514–518, 1922c: 495; Blandford 1894c; Cho 1955; Choo 1983: 48; Choo & Woo 1985: 164; Hagedorn 1910d: 15; Kleine 1912b: 170, 1914b: 255, 1932a: 296, 1934a: 128; Ko 1969: 277; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1935a: 19, 27, 1936b: 350; Nakane et al. 1963: 381; Nobuchi 1985: 6; Shiraki 1952; Stark 1936a: 149, 1952: 169. (tx) Blandford 1894c: 67; Choo 1983: 48; Eggers 1922c; Hagedorn 1910a: 48; Kurenzov 1941a: 107, 1948b: 127, 1951: 26; Nakane et al. 1963: 381, pl. 191; Niisima 1909: 129; Schedl 1934f: 1634, 1954b: 198; Sokanovskii 1958: 38; Stark 1936a: 149, 1952: 169.
- cordipennis** Lea 1910: 144. Syntypes, sex[?]; Cairns, Queensland [Australia]; NMV, Melbourne.
 Distribution: Australia (Queensland), New Guinea.
 Hosts: *Cryptocaria* sp.
 References: (ds) Schedl 1965g: 25. (tx) Lea 1910: 144; Schedl 1938f: 34.
- papuanus** Eggers 1923a: 133. Syntypes, sex[?]; Insel Yule bei Neu Guinea; MCG, Genova and Eggers Collection in NHMW, Wien. Synonymy: Wood 1985: 268.
 References: (ds) Schedl 1965g: 25. (tx) Eggers 1923a: 133, 1927c: 70; Lea 1910: 144; Schedl 1938f: 34, 1979c: 183; Wood, S. L. 1985: 268.
- costatus** Blandford 1894c: 63. Holotype, sex[?]; Junsai, Japan; BMNH, London.
 Figures: Nakane et al. 1963:pl. 191.
 Distribution: Asia (Japan/ Korea/ Ryuku Island/ Taiwan/ Sakhalin Island, E USSR).
 Hosts: *Fraxinus mandschurica*, *F. sieboldiana*, *Cladrastris shikokiana*.
 References: (hb) Kurenzov 1935a: 19, 27, 1951d: 24; Stark 1952: 158. (ds) Blandford 1894c; Hagedorn 1910d: 15; Kleine 1912b: 170, 1914b: 255, 1934a: 128; Kurenzov 1935a: 19, 27; Murayama 1936a: 124; Nobuchi 1985: 7; Stark 1936a: 149, 1952: 158. (tx) Blandford 1894c: 63; Hagedorn 1910a: 48; Kurenzov 1941a: 105, 1941b: 24; Murayama 1936a: 124; Niisima 1909: 125; Schedl 1934f: 1634, 1954b: 198, 1958k: 141; Stark 1936a: 149–150, 1952: 158.
- tristis* Blandford 1894c: 66. Syntypes, sex[?]; Ichiuchi, Japan; BMNH, London. Synonymy: Schedl 1958k: 141.
 References: (ds) Blandford 1894c: 66; Choo 1957; Choo 1983: 49; Choo & Woo 1985: 164; Choo, Woo, & Nobuchi 1985a: 135; Hagedorn 1910d: 19; Kleine 1912b: 171, 1914b: 255, 1934a: 129; Ko 1969: 278; Murayama 1929b: 2, 1930b: 9, 1936b: 115, 1937b: 375, 1950b: 1290, 1953c: 148, 1955: 101; Nakane et al. 1963: 381; Nobuchi 1967: 19, 1985: 6; Shiraki 1952. (tx) Blandford 1894c: 66; Choo 1983: 49; Eggers 1923a: 134, 1933f: 5; Murayama 1930b: 9, 13, 30, 1937b: 375, 1950b: 1290, 1955: 101; Nakane et al. 1963: 381; Niisima 1909: 128; Schedl 1934f: 1634, 1954b: 198, 1958k: 141, 1979c: 256; Stark 1936: 153.
- crenatus** (Fabricius) 1787: 37 (*Bostrichus*). Syntypes 2, sex[?]; Germania; UZMC, Copenhagen.
 Figures: Grune 1979: 68, Louzil 1961: 105, Okolow 1970: 174, Pfeffer 1989a:pl. 1, Stark 1952: 161.
 Distribution: Africa (Algeria/ Morocco), Asia (E USSR), Europe (Austria/ Belgium/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
 Hosts: *Fraxinus excelsa*, *F. mandschurica*, *F. oxyphylla*, *F. spp.*, *Juglans nigra*, *Syringia vulgaris*, rare in *Quercus* spp., *Tilia* spp.
 Notes: (3) Stephens 1829a: 146 (*Ips sulcatus* Marsham, nomen nudum, synonymy).
 References: (ay) Escherich 1923b: 479, 503; Feytaud 1950a; Fuchs 1912a; Kleine 1921: 22, 26; Leisewitz 1906: 66; Marcu 1931c: 238; Numberg 1928a: 140; Nusslin 1911a: 255, 1912c: 282; Okolow 1970; Ritchie 1917: 224; Wichmann 1912a: 9. (bv) Barr, B. A. 1969: 641; Grune 1979: 69; Okolow 1970; Prell 1930c: 642, 1931: 368; Wichmann 1912a: 9–10. (cn) Archer 1866; Barbey 1925: 625; Berlese 1915; Browne 1968: 343; Eckstein 1926: 577; Escherich 1923b: 479, 503; Feytaud 1950a; Forbes 1910; Gabler 1955; Gradojevic 1940; Hess 1900: 46, 1907: 275; Hess & Beck 1914: 244, 1927: 298; Judeich & Nitsche 1895: 447, 476; Keller 1903b: 38; Kholodkovskii 1912: 285, 294; Kleine 1932a: 296; Kopper 1882: 247; Kovacevic 1957: 67; Kruel 1950: 8; LeComte 1951: 116; Lokaj 1906: 22; Marcu 1926c: 60; Mokrzecki 1926b: 4; Muller 1912: 184; Nusslin 1913: 204; Pfeffer 1948a: 800, 1950c: 2; Rhumbler 1922: 280, 1927: 292; Saalas 1949: 340, 348; Scheidter 1916: 214–215; Schimitschek 1937c: 46, 1944a: 173, 1955a: 144–145, 1955c: 76; Schwappach et al. 1929: 186; Schwerdtfeger

- 1944a: 173, 1957a: 181; Spaic 1955: 448, 1956: 88; Thaler 1898: 391; Wachtl 1901: 381; Weber, H. 1926: 577; Wolff & Krause 1922: 74; Zakharov & Levkovich 1951: 296; Zieger 1950b: 38. (cc) Androic 1966: 49; Apel 1983; Balazy & Michalski 1960, 1964b; Chararas 1959c; Elliot & Morley 1907; Fuchs 1938; Gauss 1954a: 423; Heqvist 1963; Jannicky 1957b: 13, 1957c; Kleine 1908c: 180, 1909a: 43, 1944: 78; Knoche 1908b: 202; Michalski & Seniczak 1972, 1974; Nosek 1959a: 118, 1959b: 87; Numberg & Wiackowski 1958: 130; Nuorteva 1957b: 58; Nusslin 1927: 292; Okolow 1963, 1970; Perris 1856a: 244; Pfeffer 1928b: 2, 8, 1943b: 181, 1950c: 2; Poinar 1975: 159; Rafeb 1962; Ratzeburg 1869a: 176; Rondani 1873: 150; Ruhm 1956b: 3; Saalas 1930: 118, 1949: 340, 369; Schimitschek 1955a: 144-145; Schwerdtfeger 1944a: 173, 1957a: 181; Sedlaczek 1935a: 162; Sitowski 1930: 7; Stefanov 1949a: 109; Szczepanski 1960a: 412, 415; Thompson, W. R. 1943: 52; Vietinghoff 1924: 336; Wiackowski 1957a: 77. (hb) Altum 1876b, 1879a, 1881c: 278, 1889c; Apel 1983; Bach 1864; Barbey 1901: 20, 60, 1925: 625; Bargmann 1906; Barrere 1872: 53; Beffa 1949, 1961; Berlese 1915; Boas 1923: 318; Brandt 1948; Browne 1968: 343; Budge 1949; Bukowsky 1930; Chapman 1868a, 1868b, 1869a: 26-31, 1972: 106; Decaux 1890e, 1890f; Dombrowsky 1887; Eckstein 1889, 1897, 1926: 577; Eggers 1899b; Eichhoff 1881a: 38, 134, 1892b: 99; Escherich 1917: 97-115, 1923b: 479, 503; Everts 1900, 1903: 743; Fextaud 1950a; Forbes 1899, 1904a, 1906b; Fuchs 1911b; Gabler 1955; Gillanders 1908; Girard 1873; Gornostayev 1916: 309; Guerin-Meneville 1845a; Gyorfi 1957; Hagedorn 1903a; Hennings 1908b, 1908c: 213, 1908d; Henschel 1876: 208, 240, 1895a: 147; Hess 1900: 36, 1907: 275; Hess & Beck 1914: 244, 1927: 298; Hickin 1963; Judeich & Nitsche 1895: 447, 476; Karpinski & Strawinski 1948: 154; Keller 1913: 242; Kholodkovskii 1912: 285, 294; Kleine 1932a: 296; Knotek 1894a: 553, 1897: 146, 1898b: 322; Lengerken 1939: 51, 1954: 72; Louzil 1961: 43, 150; Lumardoni & Leonardi 1889: 437; MacDougall 1921: 110, 1925: 37; Madan 1930: 99; Munro 1926: 49; Nordlinger 1856: 39; Nosek 1959a: 118, 1959b: 87; Numberg 1929c: 117; Nusslin 1898: 278, 1906b: 16, 1913: 204, 1927: 292; Okolow 1970; Perris 1856a: 244; Peyerimhoff 1919: 250, 1926: 385; Pfeffer 1942a: 18, 1989a: 26; Postner 1974: 408; Prell 1930c: 642, 1931: 368; Rafeb 1962; Ratzeburg 1837: 183, 1839: 223; Rumbler 1922: 280, 1927: 292; Rimski-Korsakov et al. 1949: 304; Ritchie 1917: 224; Rupertsberger 1880: 227; Saalas 1913a: 69, 76, 1949: 340, 348; Scheidter 1916: 214-215; Schimitschek 1955a: 144-145; Schonherr 1955: 56-60; Schroder 1896: 357; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 173, 1957a: 181, 1981: 187; Sedlaczek 1935a: 162; Simmel 1924: 227; Spessivtsev 1913a: 52; Stark 1926a: 333, 1952: 160; Stefanov 1949a: 109; Tragardh 1914: 83; Wachtl 1901: 381; Weber, H. 1926: 577; Wolff & Krause 1922: 74; Zvierezomb-Zubovsky 1918: 1-35. (ds) Aclouque 1896; Andersch 1851; Androic 1966: 49; Audras & Schaefer 1957; Bain 1974: 15; Balazy & Michalski 1960; Bangsholt 1975: 95; Barthe 1896; Bartindale & Bartindale 1948: 138; Bau 1888; Beck 1817; Bedel 1888b; Beffa 1949; Beeson 1938: 288; Bejer-Petersen & Jorum 1977: 7; Benick 1921; Bieltz 1851, 1887; Blanchere & Robert 1889; Boas 1923: 318; Bokowsky 1930; Borchert 1951; Brakman 1966b: 203; Brancsik 1871; Browne 1968: 343; Buck 1955b: 191; Buckingham 1932; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Carpentier & Delaby 1908; Ceconni 1897; Chapman 1868a, 1869d; Chapuis 1869: 30, 1873: 238; Chapuis & Candeze 1853; Crotch 1863; Debatisse 1945; Dejean 1837; Duftschmidt 1825; Eder 1934; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 479, 503, 1932b; Everts 1900, 1922: 638, 1925; Fauvel 1885; Favre 1890; Forbes 1899; Forster 1849: 440; Fowler 1891; Fricken 1889: 280; Fuchs 1904a, 1905a, 1906b; Gabler 1949b; Gaubil 1849: 127; Gornostayev 1917; Gozis 1875: 79; Gredler 1868, 1886: 370; Grill 1895: 308; Grune 1979: 69; Gyllenhall 1827: 618; Hagedorn 1903a, 1910d: 15; Hansen, V. 1939, 1956, 1964: 457; Hellen 1947; Helliesen 1916: 83; Henschel 1895a: 147; Heyden 1876: 298; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 709; Horion 1951; Jazentkovsky 1912: 287; Judeich & Nitsche 1895: 447, 476; Kadyrov 1989; Kaltenbach 1874: 428; Karpinski 1926: 82, 1931: 21, 1933b: 23; Karpinski & Strawinski 1948: 154; Kersten 1933: 72; Kestercanek 1881a: 12; Kiefer et al. 1942: 528; Klefbeck & Sjoberg 1960: 228-229; Kleime 1912a: 262-263, 267, 1912b: 170, 1913a: 34, 1932a: 296, 1934a: 128; Kloft & Hinks 1945: 217; Knotek 1892a: 34, 1894a: 553, 1898b: 322; Koca 1905: 191; Koltze 1901: 152; Koppen 1882: 247; Koschitsky 1900: 83; Kovacevic 1957: 67; Kraatz 1869: 59; Kurir 1947c: 22; Lacordaire 1866: 363; Langhoffer 1915c: 156; Leclercq 1971; LeComte 1951: 116; Lentz 1857: 138; Lindemann 1884b: 263; Lomnicki 1886a: 241, 1913b: 147; Lucht 1987: 276; Luigioni 1929: 992; Lumardoni & Leonardi 1889: 437; Lundberg 1988; Mahler 1987: 232; Marcu 1926c: 60; Matthews & Fowler 1883: 42; Mayne 1953: 310; Michalski 1957: 162; Moreau 1948: 47; Munster 1928: 288; Murray 1853: 60; Negri 1966b: 398, 1968a: 454, 1968c: 91; Numberg 1928b: 87, 96, 1954: 36; Nusslin 1898: 278; Orest 1926c: 60; Palm 1959: 60, 214, 348; Perris 1876a: 254, 1877a: 414; Peyerimhoff 1919: 250, 1926: 385; Pfeffer 1928b: 2, 8, 1931b: 73, 1989a: 26; Pittioni 1943: 174; Pjatnitskii 1930a: 163; Postner 1974: 408; Prossen 1913: 82; Rapp 1934: 719; Ratzeburg 1837: 183, 1839: 223;

Redtenbacher 1858: 828, 1874: 371; Reitter 1869b: 153, 1894a: 51, 1916: 278; Rimski-Korsakov et al. 1949: 304; Rivers 1886: 66; Roubal 1941: 257; Saalas 1913a: 69, 76, 1913b: 118, 1931: 67; Sahlberg 1900: 104; Sainte-Claire 1914: 468; Sainte-Claire & Mequignon 1935: 443; Schaufuss 1915: 1219; Schamm 1859: 95, 1862: 100; Schedl 1960a: 79, 1961b: 187, 1971f: 146, 1980a: 5, 1981b: 58; Scheerpeltz & Winkler 1930: 255; Schilsky 1909: 187; Schiodte 1873: 100; Schwerdtfeger 1987: 187; Seidlitz 1872: 392, 1891a: 560, 1891b: 606; Sharp & Fowler 1893: 34; Sielike 1875: 282; Stark 1926a: 333, 1927b: 87, 1936a: 148, 1952: 160; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 146, 1830: 359, 1839: 207; Stierlin 1898: 434; Stierlin & Gautard 1871: 291; Strohmeyer 1912e: 250; Sturm 1843: 229; Thomson 1865: 350, 1868: 218; Tragardh 1914: 83; Trell 1907: 8; Villa & Villa 1833: 26; Westhoff 1882: 237; Wichmann 1927a: 55–56; Winter, T. C. 1983: 42. (tx) Aeloche 1896; Apel 1983; Arnoldi et al. 1955: 662; Bach 1854, 1864; Balachowsky 1949a: 86; Barbey 1901: 20, 60; Bechstein et al. 1805: 102; Bedel 1888b; Beffa 1949, 1961; Bertolini 1872; Boas 1923: 318; Brancsik 1871; Carpentier & Delaby 1908; Castelnau 1840; Chapuis 1869: 30, 1873: 238; Chapuis & Candeze 1853; Cieslar 1894; Csiki 1907; Doelner 1860; Dombrowski 1857; Duffy 1953; Duftschmidt 1825; Eggers 1911a: 73, 1920, 1929e: 42; Eichhoff 1864b: 30, 1881a: 38, 134, 1883a: 103, 125; Endrodi 1957b; Erichson 1836: 56; Escherich 1923b: 479, 503; Escherich & Escherich 1897; Everts 1903: 743, 1922: 638; Fabricius 1787: 37, 1792: 366, 1801: 390; Fairmaire 1864: 151; Fauvel 1885, 1889; Ferrant 1911; Fleischer 1927; Formanek 1907: 18; Fricken 1889: 280; Fuchs 1912a; Gabler 1949b, 1955; Gemminger & Harold 1872: 2674; Gillanders 1908; Girard 1873; Gmelin 1790: 1602; Grune 1979: 68–69; Gyllenhal 1813: 339, 1827: 68; Hagedorn 1910a: 48; Hansen, V. 1956, 1964: 457; Henschel 1876a: 208, 240, 1895a: 147; Herbst 1793: 112; Hopkins 1914: 123, 1915c: pls. 9, 11, fig. 9; Houlbert 1922a: pl. 1, 1922b: 251; Illiger 1907: 321; Jacquelin du Val & Fairmaire 1868: 102; Judeich & Nitsche 1895: 447, 476; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 154; Knotek 1892a: 34; Kulmt 1913: 1050; Lacordaire 1866: 363; Latrielle 1807: 279; Lepesme 1944: 273; Letzner 1891: 373; Leunis 1886: 179; Louzil 1961: 105; Lovendal 1889b: 41, 1898: 92; Lucas 1920: 342; Lucht 1987: 276; Luigioni 1929: 992; Lunardoni & Leonardi 1889: 437; Lundberg 1988; Negru 1966b: 398; Nordlinger 1856: 39; Nunberg 1928a: 140, 1929c: 117, 1954: 36; Nusslin 1911a: 255, 1912c: 282; Okolow 1970: 171–200; Olivier 1795b: 12; Panzer 1795a: 286; Paykull 1800: 150; Perris 1877a: 414; Pfeffer 1932b: 12, 1942a: 18, 1955a: 94, 1989: pl. 1; Portevin 1935: 316; Postner 1974: 408; Quaschik

1953: 35; Ratzeburg 1837: 183, 1839: 223; Redtenbacher 1849a: 362, 1849b: 27, 1858: 828, 1874: 371; Reitter 1894a: 51, 1913a: 41, 1916: 278; Rhumbler 1922: 250, 1927: 292; Ritchie 1917: 224; Rupertsberger 1880: 227; Saalas 1913a: 69, 76, 1949: 340, 348; Schedl 1934f: 1634, 1952f: 86, 1980a: 5, 1981b: 58; Schimitschek 1937c: 46, 1955c: 76; Seidlitz 1872: 392, 1891a: 560, 1891b: 606; Sokanovskii 1959a: 276; Spessivtsev 1913a: 52–53, 1922a: 464, 492, 1925a: 162, 1931: 31; Stark 1931c: 81, 1936a: 148–150, 1952: 160; Stephens 1829a: 146, 1829b: 12, 1830: 359, 1839: 207; Stierlin 1898: 434; Stresemann et al. 1989: 355; Thomson 1865: 350, 1868: 218; Westwood 1840: 39. (ms) Cieslar 1894; Escherich 1932b; Fuchs 1911b; Lucas 1920: 342.

criddlei (Swaine) 1918a: 72 (*Leperisinus*). Holotype ♂; Aweine, Manitoba, Canada; CNCI, Ottawa.

Distribution: North America (Manitoba, Ontario, Quebec, Saskatchewan in Canada/ Colorado, Iowa, Kansas, Michigan, Minnesota, Montana, North Dakota, South Dakota in USA).

Hosts: *Fraxinus americana*, *F. pennsylvanica*.

References: (ay) Thomas, J. B. 1967. (cn) Doane et al. 1936; Ives & Wong 1988: 231; Stein, J. D. & Kennedy 1972: 119; Swaine 1918a: 71–72. (hb) Bright 1976d: 79; Chamberlin 1939: 186–187; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Stein, J. D. & Kennedy 1972: 119; Swaine 1918a: 71–72; Underhill 1951: 6; Wood, S. L. 1982b: 114. (ds) Beaulne 1956; Bright 1976d: 79; Chamberlin 1939: 186–187; Deyrup 1981b: 2; Deyrup & Atkinson 1987a: 64; Dodge 1938; Furniss, R. L. & Carolin 1977: 366; Gast et al. 1989: 382; Kleine 1934a: 130; Leng 1920: 338; Wood, S. L. 1957c: 399, 1982b: 114. (tx) Benoit 1985: 134; Bright 1967b: 676, 1976d: 79; Chamberlin 1939: 186–187; Dodge 1938: 20–21; Hoebeke 1978; de Ruelle 1970: 104; Swaine 1918a: 71–72; Thomas, J. B. 1967; Titus, Meikle, & Harrison 1985: 81; Underhill 1951: 6; Wood, S. L. 1957c: 399, 1982b: 114.

dolus Schedl 1975e: 453. Holotype ♀; 7 km E Coonoor, Nilgiri, Madras, India; MHNG, Geneva. Distribution: Asia (Tamil Nadu in India).

References: (tx) Schedl 1975e: 453, 1979c: 83.

* **dromiscens** Scudder 1893: pl. 1. Holotype, sex?; fossil in Colorado Miocene [USA]; not located.

Figures: Scudder 1893: pl. 1.

Distribution: North America (fossil in Colorado Miocene in USA).

References: (ds) Hagedorn 1910d: 16; Handlirsch 1908; Kleine 1912a: 163, 1912b: 170; Leng 1920: 363; Wickham 1920: 363. (tx) Hagedorn 1910a: 48; Keler 1928: 2; Scudder 1893: pl. 1.

elatus Niisima 1913a: 2. Syntypes, sex?; Nishino (Hokkaido), Japan; Nobuchi Collection, Ibaraki. Figures: Krivolutskaia 1968: 51.

Distribution: Asia (Japan).

- Hosts: *Ulmus campestris*, *U. davidiana japonica*.
References: **(hb)** Krivolutskaya 1968: 50–53, 1973: 130. **(ds)** Kleine 1934a: 128; Krivolutskaya 1968: 50–53, 1973: 13; Nobuchi 1985b: 6; Stark 1936a: 148. **(tx)** Krivolutskaya 1968: 50–51; Murayama 1954b: 157, 1958: 931–932; Niisima 1913a: 2; Schedl 1934f: 1634; Stark 1936a: 148.
- elegans Thomson** 1858: 145. Holotype, sex?; Gabun; not located, apparently lost.
Distribution: Africa (Gabun).
Notes: (1) A species 2.5 mm in length, resembling *H. fraxini* but without pronotal crenulations; it is obviously a member of another genus, possibly *Hylesinopsis*.
References: **(ds)** Hagedorn 1910d: 16; Kleine 1912b: 170. **(tx)** Hagedorn 1910a: 48; Thomson 1858: 145.
- eos Spessivtsev** 1919: 248. Syntypes ♂?; Vladivostok and Manchuria; not located.
Figures: Stark 1952: 171 (declivity, galleries).
Distribution: Asia (Heilongjiang in China/ Ussuri, Siberia in E USSR).
Hosts: *Fraxinus excelsior*, *F. mandshurica*, *Juglans mandshurica*.
References: **(ec)** Kurenzov 1934a: 50, 1935c: 189, 1951d: 24. **(hb)** Kurenzov 1935a: 19, 26, 1935c: 189, 1948b: 126, 1951d: 24; Stark 1952: 170. **(ds)** Kleine 1934a: 130; Krivolutskaya 1983; Kurenzov 1934a: 50, 1935a: 19, 26, 1935c: 189, 1936b: 350; Nobuchi 1985: 6; Spessivtsev 1919: 248; Stark 1936a: 149, 1952: 170. **(tx)** Kurenzov 1941a: 108, 1948b: 126; Michalski 1969b: 565; Schedl 1934f: 1634, 1979c: 91; Spessivtsev 1919: 248; Stark 1936a: 149–151, 1952: 170.
- extractus Scudder** 1893: 159. Holotype, sex?; Florissant, Colorado, Miocene [USA]; not located.
Figures: Scudder 1893: pl. 1, fig. 22.
Distribution: North America (fossil in Colorado Miocene in USA).
References: **(ds)** Hagedorn 1910d: 16; Handlirsch 1908; Hopkins 1900a: 66; Kleine 1912a: 163, 1912b: 170; Leng 1920: 363; Scudder 1893: 159; Wickham 1913: 5, 1920: 363. **(tx)** Wickham 1911b: 53, 69, 1913: 5. **(tx)** Keler 1928: 191; Scudder 1893: 159.
- facilis Heer** 1856: 25. Holotype, sex?; Bernstein, Aix-en-Provence [France]; not located.
Figures: Heer 1856: pl. 1, fig. 8, Scudder 1885: 787 (adult).
Distribution: Europe (fossil in Oligocene Baltic amber in France).
References: **(ds)** Hagedorn 1910d: 16; Handlirsch 1908; Kleine 1912a: 163, 1912b: 170; Scudder 1885: 787, 1891: 540. **(tx)** Heer 1856: 25; Keler 1928: 6.
- fasciatus LeConte** 1868: 170. Holotype ♂; York County, Pennsylvania [USA]; MCZ, Cambridge.
Distribution: North America (District of Colum-
- bia, Missouri, New Jersey, Pennsylvania, West Virginia in USA).
Hosts: *Fraxinus americana*.
References: **(ay)** Khalaf 1980: 339. **(cn)** Blackman 1950; Doane et al. 1936; MacAloney & Ewan 1964; Stein, J. D. & Kennedy 1972: 11. Swaine 1918a: 70–71. **(hb)** Blackman 1950; Bright 1976d: 79; Chamberlin 1939: 188; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; MacAloney & Ewan 1964; Stein, J. D. & Kennedy 1972: 118; Swaine 1918a: 70–71; Underhill 1951: 6; Wood, S. L. 1982b: 115. **(ds)** Anonymous 1926c: 516; Blackman 1950; Blatchley & Leng 1916: 664; Bright 1976d: 79; Chamberlin 1939: 188; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Hagedorn 1910d: 16; Henshaw 1882: 269, 1885: 149; Kleine 1912b: 170, 1914b: 398; Leng 1920: 338; Leonard 1928: 516; Morgan, Amme, Morgan, & Elias 1985: 1822; Smith, J. B. 1910: 404; Swaine 1909: 112; Wood, S. L. 1982b: 115. **(tx)** Blatchley & Leng 1916: 664; Bright 1976d: 79; Chamberlin 1939: 188; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 48; LeConte 1868: 170, 1876: 380; Swaine 1909: 112, 1918a: 70–71; Underhill 1951: 6; Wood, S. L. 1956c: 248, 1966: 248, 1982b: 115.
- guatemalensis (Wood)** 1967b: 89 (*Leperisinus*). Holotype ♀; Volcan Pacaya, Esquintla Prov., Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Three tree species, none resembling *Fraxinus*.
Notes: (1) Wood 1982b: 118 (to *Hylesinus*).
References: **(hb)** Wood, S. L. 1982b: 118. **(ds)** Wood, S. L. 1982b: 118. **(tx)** Wood, S. L. 1967b: 89–90, 1982b: 118.
- hydropicus (Wickham)** 1916: 18 (*Apidocephalus*). Holotype, sex?; fossil in Miocene at Florissant, Colorado [USA]; not located.
Distribution: North America (fossil in Colorado Miocene in USA).
References: **(tx)** Wickham 1916: 18; Wood, S. L. 1992b: 80.
- irresolutus Walker** 1859: 261. Holotype, sex?; Ceylon; BMNH, London, lost.
Distribution: Asia (Sri Lanka).
Notes: (1) Holotype lost, Blandford notes in BMNH, London, state that it was probably not a Scolytidae, but he did not indicate the correct family.
References: **(tx)** Gemminger & Harold 1872: 2674; Walker 1859: 261.
- laticollis Blandford** 1894c: 65. Syntypes 3, sex?; Sapporo, Japan; BMNH, London.
Figures: Stark 1952: 164, 167 (adult), 165, 167 (galleries), Tsai & Li 1959: 80.
Distribution: Asia (Heilongjiang in China/ Japan/ Siberia, Ussuri in E USSR).
Hosts: *Fraxinus mandshurica japonica*, *F.*

lauginosa serrata, *F. rhynchophylla*, *F. spaethiana*, *Juglans sieboldiana*.

References: (cn) Kurenzov 1935c: 188, 1951c: 78. (ce) Kurenzov 1934a: 57, 1951d: 24. (hb) Kurenzov 1935a: 19, 27, 1948b: 127, 1951d: 24; Stark 1952: 165. (ds) Blandford 1894c; Hagedorn 1910d: 17; Kleine 1912b: 171, 1934a: 129; Kurenzov 1934a: 57, 1935a: 19, 27, 1935c: 188, 1936a: 111, 1936b: 350, 1938a: 59; Nobuchi 1985: 6; Nunberg 1964a: 234; Stark 1936a: 149, 1952: 165. (tx) Blandford 1894c: 65; Eggers 1923a: 133, 1933f: 5; Hagedorn 1904d: 17, 1910a: 48; Kurenzov 1941a: 109, 1948b: 127, 1951: 24; Murayama 1954b: 158; Niisima 1909: 127; Schedl 1934f: 1634; Sokanovskii 1954: 15; Stark 1936a: 149–150, 1952: 165; Tsai & Li 1959: 80.

striatus Eggers 1933b: 4. Lectotype ♂; Vladivostok, USSR; USNM, Washington, designated by Anderson & Anderson 1971: 31. Synonymy: Sokanovskii 1954: 15.

References: (cn) Kurenzov 1935c: 193, 1951c: 78. (hb) Kurenzov 1935a: 19, 26, 1948b: 128, 1951d: 24; Stark 1952: 165. (ds) Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1926, 1935a, 1935c: 193, 1936b: 350; Stark 1936a: 148–149, 1952: 165. (tx) Anderson, W. H. & Anderson 1971: 31; Eggers 1933b: 4; Kurenzov 1941a: 112, 1948b: 128; Michalski 1969b: 565; Nunberg 1964: 234; Schedl 1979c: 238; Sokanovskii 1954: 15; Stark 1936a: 148–149, 1952: 165.

◦ *lineatus* Forster 1891: 401. Holotype, sex?; Brunstatt im Elsass [France], Bemstein; not located.

Figures: Forster 1891: pl. 12, fig. 16.

Distribution: Europe (fossil in Oligocene Baltic amber in France).

References: (ds) Hagedorn 1910d: 17; Handlirsch 1908; Kleine 1912a: 163, 1912b: 171. (tx) Forster 1891: 401; Keler 1928: 18.

lubarskii Stark 1936a: 153. Lectotype, sex?; Ussuri-land, USSR; IZL, Leningrad, designated by Michalski 1969a: 889.

Figures: Stark 1952: 166 (galleries).

Distribution: Asia (Ussuri in E USSR).

Hosts: *Fraxinus mandshuricus*.

Notes: (3) Sokanovskii 1954: 166 (*pravdini* may be a synonym).

References: (ce) Kurenzov 1934a: 52. (hb) Kurenzov 1935a: 19, 26, 1948b: 128; Stark 1952: 165. (ds) Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934a: 52, 1935a: 19, 26, 1936a: 109, 1938a: 59; Stark 1936a: 148, 153, 1952: 165. (tx) Kurenzov 1941a: 111, 113, 1948b: 128; Michalski 1969a: 889, 1969b: 565; Pfeiffer 1944a: 131; Sokanovskii 1954: 166; Stark 1936a: 148, 153, 1952: 165.

macmahoni (Stebbing) 1909b: 16 (*Sphaerotrypes*).

Syntypes 2, sex?; Suliman Mountains, Baluchistan and Dera Ismail Khan (labeled: Zhob, Bahuchistan); FRI, Dehra Dun.

Distribution: Asia (Jammu, Kashmir, Punjab in India/ Baluchistan in Pakistan).

Hosts: *Fraxinus excelsior hookeri*, *F. floribunda*, *Olea cuspidata*.

Notes: (3) Syntypes examined. Beeson 1941 (1961: 287) (*fraxinoides*, nomen nudum).

References: (cn) Kleine 1932a: 296; Stebbing 1914: 494. (ce) Beeson 1922c; Stebbing 1914: 494.

(hb) Beeson 1922c; Kleine 1932a: 296; Stebbing 1914: 494. (ds) Beeson 1921a: 514–518, 1922c, 1941(1961: 287); Kleine 1932a: 296, 1934a: 129.

(tx) Beeson 1921a: 514–518; Schedl 1959j: 172, 1959k: 39; Stebbing 1909: 4, 16, 1914: 494.

fraxinoides Schedl 1959k: 39 (*Leperisinus*). Holotype?, ♀?; Kashmir, Putshai, Lolab, India, lost?. Synonymy: Wood 1985: 268.

Notes: (3) Schedl 1959k: 39 cites a holotype that was never returned to the Forest Research Institute, nor is it in his collection; all specimens sent to him are accounted for; his female paratype appears to be the missing holotype.

References: (ds) Beeson 1922: 496, 1941 (1961: 287); Kleine 1934a: 129. (tx) Schedl 1959j: 172, 1959k: 39; Wood, S. L. 1985: 268.

alternans Schedl 1959j: 172. Holotype ♂; Rawalpindi, Punjab, India; Schedl Collection in NHMW, Wien. Synonymy: Wood 1985: 268.

References: (tx) Schedl 1959j: 172, 1979c: 17; Wood, S. L. 1985: 268.

mandshuricus Eggers 1922c: 15. Lectotype, sex?; Mandschuren an Esche; USNM, Washington, designated by Anderson & Anderson 1971: 19.

Distribution: Asia (Manchuria [Heilongjiang?] in China/ E USSR).

Hosts: *Fraxinus* sp.

References: (hb) Stark 1952: 173. (ds) Kleine 1934a: 129; Murayama 1939: 137, 1942a: 54; Schedl 1934f: 1634; Stark 1952: 173. (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1922c: 15; Murayama 1939: 137; Schedl 1934f: 1634, 1979c: 148; Stark 1952: 173.

mexicanus (Wood) 1956c: 249 (*Leperisinus*). Holotype ♂; Tecamachalco, Puebla, Mexico; SMUK, Lawrence.

Distribution: North America (Aguascalientes, Durango, Puebla in Mexico/ SW Texas in USA).

Hosts: Oleaceae (*Fraxinus anomala* or similar).

References: (hb) Wood, S. L. 1956c: 249, 1982b: 115. (ds) Wood, S. L. 1956c: 249, 1982b: 115. (tx) Wood, S. L. 1956c: 249, 1982b: 115.

nanulus Schedl 1940c: 433. Holotype, sex?; Kokoda, 1200 ft., Papua, New Guinea; BMNH, London.

Distribution: New Guinea.

References: (tx) Schedl 1940c: 433–436, 1946c: 96, 1979c: 163.

nilgirinus Eggers 1923a: 133. Holotype, sex?; Nilgiri Hills, Ostindien; Hamburg Museum, lost. Distribution: Asia (Kerala in India/ Sri Lanka), New Guinea, Philippine Islands.

Hosts: *Drypetes sepiaria*, *Flindersia* sp.

References: (tx) Eggers 1923a: 133, 1927c: 70; Schedl 1959j: 172.

persimilis Eggers 1927c: 70. Lectotype ♂; Philippinen: Mindoro, Provinz Mindoro, Calapan; USNM, Washington, designated by Anderson & Anderson 1971: 24. Synonymy: Schedl 1959i: 172.

References: (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1927c: 70; Schedl 1959i: 172, 1979c: 191.

robustus Schedl 1975e: 453 (*Trogloeditica*). Holotype ♀; India: Madras, Nilgiri, 7 km a l'est de Coonoor, 1350 m; MHNG, Geneve. Synonymy: Wood 1985: 268.

References: (tx) Schedl 1975e: 453; Wood, S. L. 1985: 268.

nobilis Blandford 1894c: 64. Holotype, sex?; Sapporo, Japan; BMNH, London.

Distribution: Asia (Japan/ E USSR).

Hosts: *Fraxinus mandshurica*.

References: (cn) Kurenzov 1951c: 78. (ec) Kurenzov 1951d: 24. (hb) Kurenzov 1948b: 126, 1951d: 24; Stark 1952: 162. (ds) Blandford 1894c: 64; Hagedorn 1910d: 17; Kleine 1912b: 171, 1914b: 255, 1934a: 129; Nobuchi 1955b: 6; Stark 1936a: 149, 1952: 162. (tx) Blandford 1894c: 64; Hagedorn 1910a: 49; Kurenzov 1941a: 111, 114, 1951: 24, 1948b: 126; Niisima 1909: 126; Schedl 1934f: 163, 1954b: 198; Stark 1936a: 149, 1952: 16.

oregonus (Blackman) 1943c: 396 (*Leperisimus*). Holotype ♀; Forest Grove, Oregon [USA]; USNM, Washington.

Figures: Furniss & Carolin 1977: 366.

Distribution: North America (California, Oregon in USA).

Hosts: *Fraxinus latifolia*.

References: (bv) Vernoff & Rudinsky 1980. (cn) Hopkins 1904a: 20. (ec) Furniss, R. L. & Carolin 1977: 366; Vernoff 1980. (hb) Chamberlin 1958: 97; Furniss, R. L. & Carolin 1977: 366; Hopkins 1904a: 20; Underhill 1951: 1; Vernoff 1980; Wood, S. L. 1982b: 114. (ds) Blackman 1943c: 396; Blackwelder & Blackwelder 1948; Chamberlin 1958: 97; Furniss, R. L. & Carolin 1977: 366. (tx) Blackman 1943c: 396; Chamberlin 1958: 97; Furniss, R. L. & Carolin 1977: 366; Underhill 1951: 1; Wood, S. L. 1982b: 114.

orni Fuchs 1906a: 51. Syntypes, sex?; Karawanken, Austria; Fuchs Collection, not located.

Distribution: Enrope (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ England/ France/ Hungary/ Italy/ Norway/ Poland/ Romania/ W USSR).

Hosts: *Fraxinus ornus*, *F. excelsior*.

Notes: (3) See note (3) under *wachtli*.

References: (ay) Escherich 1923b: 479, 502; Fuchs 1912a; Marcu 1931c: 238; Negru 1968b: 807; Nunberg 1928a: 140; Nusslin 1912c: 282. (bv) Barr, B. A. 1969: 642; Prell 1930c: 64. (cn) Chorbadzhievo 1929; Escherich 1923b: 479, 502; Gabler 1955; Kleine 1932a: 296; Scheidter 1916: 214, 216; Schwerdtfeger 1944a: 174, 1957a: 181. (cc) Balazy & Michalski 1964a, 1964b; Gyorfi 1941b; Jamnický 1957b: 20, 1957c; Karpinski 1932a: 101; Kielczewski & Seniczak 1972; Kleine 1905c: 180; Michalski & Seniczak 1972, 1974; Nosek 1959a: 118, 1959b: 85; Nunberg 1930: 204; Okolow 1963; Ruhm 1956b: 3; Schwerdtfeger 1944a: 174, 1957a: 181; Szczepanski 1960a: 406–408, 411, 413–415; Tudor 1969: 33. (hb) Beffa 1949, 1961; Chorbadzhievo 1929; Escherich 1923b: 479, 502; Fuchs 1906b; Gabler 1955; Hoffmann 1936: 45, 1937: 28; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 154; Kleine 1932a: 296; Lengerken 1939: 44, 1954: 72; Nosek 1959a: 118, 1959b: 85; Pfeffer 1942a: 7; Prell 1930c: 643; Scheidter 1916: 214, 216; Schwerdtfeger 1944a: 174, 1957a: 181; Simmel 1914: 156, 1924: 225, 1928: 152; Stark 1952: 173; Tschorbadjiev 1929: 160; Underhill 1951: 5; Wagner 1914: 161–164. (ds) Allen, A. A. 1970; Andras & Schaefer 1957; Balachowsky 1943a; Beffa 1949; Bejer-Petersen & Jorrum 1977: 9; Brakman 1966b: 203; Browne 1980b: 380, 1981a: 126; Buresh & Lazarov 1956; Chorbadzhievo 1929; Endrodi 1958b; Escherich 1923b: 479, 502, 1932b; Fuchs 1906a: 51, 1906b; Gyorfi 1941b; Hansen, V. 1964: 457; Heyden, Reitter, & Weise 1906: 709; Hoffmann 1936; Horion 1935, 1951; Karpinski 1931: 18, 1932a: 101, 1933b: 23, 1948b: 229; Karpinski & Strawinski 1948: 154; Kleine 1912a: 267, 1912b: 171, 1913a: 34, 85, 1932a: 296; Kolbe, W. 1916: 257; Kummernann 1919: 50; Langhoffer 1915c: 156; Lazorko 1963; Leclercq 1971; Linder 1953: 71; Luigioni 1929: 992; Michalski 1957: 162; Nunberg 1928b: 87, 97, 1954: 37, 1960a: 155; Pfeffer 1931b: 73, 1935: 157, 1989a: 27; Pittioni 1943: 176; Prossen 1913: 82; Reitter 1916: 279, 349; Ronbal 1941: 257; Ruskov 1928c: 61; Rydh 1977; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1220; Schilsky 1909: 187; Stark 1936a: 149, 1952: 173; Strand 1963: 105–110; Tredl 1907: 8; Tschorbadjiev 1929: 160; Vrydagh 1955b: 36; Wichmann 1927a: 56, 1929: 56; Winter, T. G. 1983: 42. (tx) Allen, A. A. 1970: 247; Balachowsky 1949a: 90–93; Beffa 1949, 1961; Duffly 1953; Escherich 1923b: 479, 502; Fleischer 1927; Fuchs 1906a: 51, 1912a; Gabler 1955; Hansen, V. 1964: 457; Hoffmann 1936, 1937; Kalina 1969; Karpinski & Strawinski 1948: 154; Lazorko 1963; Luigioni 1929: 992; Nunberg 1928a: 140, 1954: 37; Nusslin 1912c: 282; Pfeffer 1932b: 13, 1942a: 7, 1955a: 96; Quaschik 1953: 35; Reitter 1913a: 42, 1916:

279, 349; Schedl 1934f: 1634, 1958k: 141; Stark 1936a: 149, 1952: 173; Underhill 1951: 5; Wagner 1914: 161; Weber 1913: 51. (**ms**) Escherich 1932b; Weber 1913: 51.

pravdini Stark 1936a: 151, 153. Lectotype, sex?; Ussuriland, USSR; IZL, Leningrad, designated by Michalski 1969a: 889.

Distribution: Asia (Ussuri in E USSR).

Hosts: *Fraxinus mandshurica*.

Notes: (3) Sokanovskii 1954: 166 (near *lubarskii*, validity doubtful).

References: (**cn**) Kurenzov 1951c: 78. (**ec**) Kurenzov 1951d: 24–27. (**hb**) Kurenzov 1935a: 27, 1948b: 127, 1951d: 24; Stark 1952: 166. (**ds**) Krivolitskaya 1983; Kurenzov 1935a: 27; Stark 1936a: 149, 153, 1952: 166. (**tx**) Michalski 1969a: 889, 1969b: 565; Pfeffer 1944a: 131; Kurenzov 1941a: 111, 1948b: 127; Sokanovskii 1954: 166; Stark 1936a: 149, 151, 153, 1952: 166. (**ms**) Pfeffer 1944a: 131.

pruinus Eichhoff 1868c: 149. Syntypes, sex?; Amer. Bor.; Hamburg Museum, lost.

Distribution: North America (Ontario in Canada/ Illinois, Indiana, Kentucky, Michigan, Missouri, New Hampshire, New York, North Carolina, North Dakota, Pennsylvania, Tennessee, Vermont in USA).

Hosts: *Fraxinus americana*.

References: (**hb**) Bright 1976d: 78; Chamberlin 1939: 188; Chapuis 1869: 32, 1873: 240; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Dodge 1938; Leng 1920: 338; Swaine 1918a: 71–72; Underhill 1951: 6; Wood, S. L. 1982b: 112. (**ds**) Bright 1976d: 78; Chamberlin 1939: 188; Chapuis 1869: 32, 1873: 240; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Dodge 1938: 30; Leng 1920: 338; Swaine 1909: 112; Wood, S. L. 1982b: 112. (**tx**) Bright 1976d: 78; Chamberlin 1939: 188; Chapuis 1869: 32, 1873: 240; Dodge 1938: 30; Eichhoff 1868c: 149, 1895: 607; Gemminger & Harold 1872: 2674; LeConte 1868: 177, 1876: 379; Schedl 1979c: 200; Swaine 1909: 112, 1918a: 71–72; Underhill 1951: 6; Wood, S. L. 1982b: 112.

prutenskyi Sokanovskii 1959a: 276. Holotype, sex?; Russia: Kirghizie; Sokanovskii Collection.

Distribution: Asia (USSR in central Asia).

Hosts: *Fraxinus sogdiana*.

References: (**tx**) Sokanovskii 1959a: 276.

regius (Schedl) 1942c: 166 (*Leperisimus*). Holotype ♂; New-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (**tx**) Schedl 1942c: 166.

shabliovskiyi Kurenzov 1941a: 113, 229. Syntypes, sex?; Ussuri, USSR; Mountainous-Taiga Station, Academy of Science, Vladivostok, USSR.

Distribution: Asia (Ussuri in E USSR).

Hosts: *Fraxinus mandshurica*.

References: (**hb**) Kurenzov 1951d: 24; Stark 1952:

159. (**ds**) Krivolitskaya 1983; Stark 1952: 159. (**tx**) Kurenzov 1941a: 113, 229; Stark 1952: 159.

toranio (Danthione) 1788: 270 (*Byrrhus*). Syntypes, sex?; Europe; not located.

Figures: Balachowsky 1949a: 87, Grune 1979: 68, Postner 1974: 408, Stark 1952: 163, Tominić 1967: 80.

Distribution: Africa (Algeria/ Morocco), Asia (Israel/ introduced: Japan/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Poland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), South America (introduced: Argentina).

Hosts: *Fraxinus excelsior*, *F. ornus*, *Fagus* sp., *Olea europaea*, *Syringa* spp.

References: (**cn**) Garcia-Tejero 1955: 230; Russo 1954: 6. (**ec**) Boucek 1957a, 1957b: 80, 1958; Chararas 1956b; Heqvist 1957b: 48; Ruhm 1956b: 3; Thompson, W. R. 1943: 53. (**hb**) Györfi 1957; Karpinski 1933b: 23; Lengerken 1939: 51; Peyerimhoff 1926: 385; Russo 1932: 87–101, 1939a: 4, 1954: 65. (**ds**) Escherich 1932b; Györfi 1940: 47; Horion 1935; Karpinski 1931: 18, 22, 38, 1933b: 23; Kortzas 1955: 177; Kozikowsky 1921: 180; Luigioni 1929: 992; Neresheimer & Wagner 1918: 134; Nunberg 1954: 36; Peyerimhoff 1926: 385; Pfeffer 1930b: 119, 1931b: 73, 76; Rapp 1934: 719; Reitter 1916: 349; Schilsky 1909: 187. (**tx**) Balachowsky 1936: 545, 1949a: 87; Danthione 1788: 270; Kuhnt 1913: 1050; Lesne 1908: 30; Luigioni 1929: 992; Nunberg 1954: 36; Pfeffer 1932b: 6; Portevin 1935: 316; Reitter 1916: 349; Schedl 1934f: 1634.

oleiperda Fabricius 1792: 366 (*Bostrichus*). Syntypes 2, sex?; Gallia meridionali; UZM, Copenhagen. Synonymy: Bedel 1888b: 410 (?), Lesne 1908: 30, Reitter 1916: 278, Balachowsky & Mesnil 1936: 545.

References: (**ay**) Bugnion 1887b; DelGuercio 1931, 1939; Escherich 1923b: 470, 506; Feytaud 1950a; Fuchs 1912a; Kleine 1921: 25; Nunberg 1928a: 140; Nusslin 1911a: 5, 51, 254, 1912c: 282; Nuzzaci 1972. (**bv**) Balachowsky 1963a: 1264; Balachowsky & Chararas 1964; Barr, B. A. 1969: 641; Grune 1979: 69; Rudinsky & Vallo 1979; Tominić 1967. (**cn**) Acatay 1943a: 60; Andres, F. de 1979; Ayoutantis, Kortzas, & Pelecassis 1951: 15–17; Bardia 1946; Berlese 1915; Boyer 1840; Browne 1968: 344; Chorbadzhevo 1924d; Costa 1857; DelGuercio 1913: 59–75, 1931; Eckstein 1926: 577; Escherich 1923b: 479, 506; Essig 1917: 62; Feytaud 1950a; Fröhlich & Rodewald 1969: 191, 195, 198; Gabler 1955; Galvao 1939; Gentry, J. W. 1961, 1965: 110; Georgescu et al. 1957: 357, 414; Gokmen 1949; Gonzales de Andres 1939: 119–124; Coureau 1861: 114, 1865: 26; Graf 1977; Hofinger 1922: Iyriboz 1940b: 53;

- Kholodkovskii 1912: 294; Kleine 1932a: 296; Millet 1960; Mokrzecki 1926b: 4; Mourikis & Vassilaina-Alexopoulou 1975: 142; Muller 1912: 184; Mussche et al. 1987; Navarro 1917: 554-563; Nusslin 1913: 238; Olalquiaga Faure 1955: 68; Pelekassis 1962; Picard 1921: 19; Rhumbler 1922: 250, 1927: 292; Riley, G. B. 1960; Scheidter 1916: 214-215, 1918: 87-114; Schimitschek 1937c: 46, 1938c: 2125, 1944: 163, 1955a: 144-145, 1955c: 76; Schwerdtfeger 1944a: 174, 1957a: 181; Solla 1892: 231; Souphieff & Scherbinovskaya 1937: 102; Talhouk 1954: 307; Tominic 1967; Topi 1911a: 54, 1911b: 138; Touzeau 1957: 27; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1927b: 353, 378; Wyniger 1962a: 90, 1962b: 297; Zvierzomb-Zubovsky 1918: 1-36. (ec) Apel 1983; Arambourg 1944: 15, 101, 1964: 115; Balachowsky 1963a: 1264; Balazy & Michalski 1964b; Boucek 1972b: 273; Chararas 1956b, 1957d; Elliot & Morley 1907; Graham 1969: 880; Haeselbarth 1967; Heqvist 1963; Jamnicky 1957b: 18, 20, 1957c; Karpinski 1932a: 101; Kleine 1908b: 202, 1908c: 180, 1909a: 43, 1944: 80; Lima & Costa 1962: 287; Novak, P. 1952: 412; Nusslin 1927: 292; Perris 1856a: 241; Pfeffer 1943b: 180; Rondani 1873: 149, 1876: 64; Russo 1926b: 75-84; Scheidter 1936: 234; Schimitschek 1955a: 144-145; Schwerdtfeger 1944a: 174, 1957a: 181; Sedlaczek 1935a: 162; Silvestri 1911: 392; Stefanov 1949a: 110; Talhouk 1961: 215; Thanassouloupoulos & Thanassouloupoulos 1984; Thompson, W. R. 1943: 53; Thompson, W. R. & Simmonds 1964: 69, 1965: 21; Tominic 1967, 1972; Touzeau 1958: 24; Tudor 1969: 32,33; Wichmann 1955a: 92; Yayla 1983. (hb) Acatay 1943a: 60; Apel 1983; Balachowsky 1963a: 1264; Balbi 1944; Barbey 1901: 20, 60; Beffa 1949, 1961; Bellevoye 1876: 171-180; Berlese 1915; Bodenheimer 1930; Bonnemaison 1953; Browne 1968: 344; Bugnion 1887a: 218-224, 1887b; Bukowsky 1930; Chorbadzhievo 1924d; Costa 1857; Damiano 1963: 458; Decaux 1890e, 1890f; DelGuercio 1931: 41, 1939; Eckstein 1926: 577; Eichhoff 1881a: 38, 135, 1892b: 99; Escherich 1923b: 479, 506; Everts 1903: 744; Feytaud 1950a; Forbes 1899; Fuchs 1904a, 1907: 44; Gabler 1955; Galvao 1939; Gillanders 1908; Girard 1873; Graf 1977; Hagedorn 1903a; Hennings 1908b, 1908c: 214; Henschel 1888, 1895a: 149; Hickin 1963; Hill, D. S. 1987: 339; Iyriboz 1940b: 53; Karpinski & Strawinski 1948: 154; Kholodkovskii 1912: 294; Kleine 1932a: 296; Knoche 1908a: 44; Knotek 1897: 136, 145, 1898b: 322, 1907: 281; Lengerken 1954: 72; Lumardoni & Leonardi 1889: 438; Madan 1930: 99; Masutti 1964; Munro 1926: 49; Nusslin 1898: 274, 1906b: 10, 1913: 238, 1927: 292; Nuzzaci 1972: 61-81; Palm 1941: 205, 1954b: 28; Perris 1856a: 241; Pfeffer 1942a: 7, 1989a: 27; Postner 1974: 409; Rhumbler 1922: 280, 1927: 292; Rimski-Korsakov et al. 1949: 304; Rupertsberger 1880: 227; Scheidter 1916: 214-215, 1936: 234; Schimitschek 1944: 163, 1955a: 144-145; Schwerdtfeger 1944a: 174, 1957a: 181, 1981: 187; Sedlaczek 1935a: 162; Silvestri 1911: 392; Spessivtsev 1913a: 54; Stark 1952: 163; Stefanov 1949a: 110; Tominic 1967; Topi 1911a: 54, 1911b: 138; Touzeau 1957: 27; Tschorbadjiev 1929; Viana 1964: 128; Wachtl 1901: 381; Weber 1926: 577; Wichmann 1927b: 353, 378. (ds) Acloque 1896; Audras & Schaefer 1957; Bakke 1963b: 121; Balachowsky 1963a: 1264; Balbi 1944; Barthe 1896; Bedel 1888b: 393, 410; Beffa 1949; Bejer-Petersen & Jorum 1977: 7; Blanchere & Roberts 1889; Bodenheimer 1930; Borchert 1951; Brakman 1966a: 51, 1966b: 203; Browne 1968: 344; Buck 1955b: 191; Bukowsky 1930; Buresh & Lazarov 1956; Calwer 1884, 1893; Carpentier & Delaby 1908; Chapman 1869d; Chapuis 1869: 30, 1873: 238; Chapuis & Candeze 1853; Chorbadzhievo 1924d; Chrystal 1937; Crotch 1863; Debatisse 1945; Dejean 1837; Dzhabazishvili 1961a; Eggers 1899a, 1904, 1918; Endrodi 1958b; Escherich 1923b: 479, 503; Everts 1922: 638, 1925; Fagel & Guillaume 1935: 545-546; Fauvel 1885; Favre 1890; Forbes 1899; Fowler 1882: 78, 1891; Fuchs 1904a, 1905a, 1907: 44; Centry, J. W. 1961, 1965: 110; Cozis 1875: 79; Gredler 1866: 371; Grill 1895: 308; Grune 1979: 69; Hagedorn 1903a, 1904e, 1906, 1910d: 17; Hansen, V. 1939, 1956, 1964: 457; Hellen 1947; Henschel 1895a: 149; Heyden 1876: 298, 1879: 140; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 709; Hickin 1963; Horion 1951; Jonescu 1950: 27; Kaltenback 1874: 436; Karpinski 1932a: 101; Karpinski & Strawinski 1948: 154; Kestercanek 1881a: 112; Klefbeck & Sjoberg 1960: 228-229; Kleine 1912a: 263, 267, 1912b: 171, 1913a: 34, 1932a: 296, 1934a: 129; Kloft & Hinks 1945: 217; Knotek 1898b: 322; Kobakhidze 1957: 178; Koltze 1901: 152; Kolubajiv 1934: 64; Kossman 1899: 188; Kraatz 1869: 59; Lacordaire 1866: 363; Langhoffer 1915c: 156; Leclercq 1971; Lomnicki 1913b: 147; Lucht 1987: 276; Lumardoni & Leonardi 1889: 438; Lundberg 1961: 68; Matthews & Fowler 1883: 42; Mourikis & Vassilaina-Alexopoulou 1975: 142; Munro 1921: 88; Negru 1957: 129, 1966b: 398, 1968a: 454, 1968c: 91; Negru & Rosca 1967: 141; Nordlinger 1868b: 186; Novak, P. 1952: 412, 1964; Numberg 1928b: 88, 96, 1960a: 155; Nusslin 1898: 274; Olivier 1795b: 13; Palm 1941: 205, 1954b: 28, 1959: 19, 29, 130, 349, 1964: 193, 1965: 167; Pelekassis 1962; Pergallo 1881b: 71; Perris 1876a: 254, 1877a:

- 414; Pfeffer 1926a: 11, 1936: 90, 1989a: 27; Pittionii 1943: 176; Pjatnitskii 1930a: 163; Postner 1974: 409; Prossen 1913: 82; Ragusa 1924: 114; Redtenbacher 1858: 828, 1874: 371; Reitter 1894a: 51; Revy & Siroki 1942: 82; Rimski-Korsakov et al. 1949: 304; Roubal 1941: 257; Ruffinelli Rey 1976; Ruskov 1928c: 61; Sainte-Claire & Mequignon 1938: 443; Schanfuß 1915: 1219; Schaum 1859: 95, 1862: 100; Schedl 1952f: 186, 1958f: 34, 1961b: 187, 1966f: 95, 1969g: 290, 1971b: 529, 1971d: 433, 1979i: 290, 1980a: 6, 1981b: 58; Schilsky 1909: 187; Schiodte 1873: 100; Schwerdtfeger 1981: 187; Seidlitz 1891a: 560, 1891b: 600; Sharp & Fowler 1893: 34; Souphieff & Scherbinovskaya 1937: 102; Stark 1926g: 154, 1927b: 87, 1936a: 148, 1952: 163; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 425; Strauch 1861: 123; Talhouk 1954: 307, 1961: 215; Tredl 1907: 8; Tschorbadjiev 1929; Viana 1964: 128; Vrydagh 1955b: 36; West 1938: 184; Wichmann 1927a: 54-55, 1955a: 92; Winter, T. G. 1983: 42. **(tx)** Aeloque 1896; Apel 1983; Balachowsky 1949a: 57, 1963a: 1264; Balachowsky & Mesnil 1935: 545-546; Barbey 1901: 20, 60; Bedel 1888b; Beffa 1949, 1961; Bertolini 1872; Carpentier & Delaby 1908; Castelnau 1840; Chapuis 1869: 30, 1873: 238; Chapuis & Candeze 1853; Chorbadzhievo 1924d; Csiki 1907; Danthione 1788: 270; Doebner 1860; Duffy 1953; Eggers 1922c: 15, 1929e: 43, 1934: 36; Eichhoff 1864b: 30, 1881a: 35, 135, 1883a: 103, 126; Endrodi 1957b; Erichson 1836: 56; Escherich 1923b: 479, 506; Everts 1903: 744, 1922: 638; Fabricius 1792: 366, 1801; Fairmaire 1864: 152; Fauvel 1885, 1889; Fuchs 1912a; Gabler 1955; Gemminger & Harold 1872: 2674; Gillanders 1908; Girard 1873; Grune 1979: 69; Hagedorn 1906, 1910a: 49; Hansen, V. 1956, 1964: 457; Henschel 1895a: 149; Herbst 1793: 119; Heyden 1875: 391; Iablokoff-Khuzorian 1961: 69; Illiger 1907: 321; Karpinski & Strawinski 1948: 154; Lacordaire 1866: 363; Lesne 1908: 30; Letzner 1891: 373; Lovendal 1889b: 41, 1896: 95; Lucht 1957: 276; Lumardonni & Leonardi 1889: 438; Negru 1966b: 398; Numberg 1928a: 140; Nusslin 1911a: 5, 51, 254, 1912c: 282; Perris 1877a: 414; Pfeffer 1932b: 12, 1942a: 7, 1955a: 95, 1989a: pl. 1; Postner 1974: 409; Quaschik 1953: 35; Redtenbacher 1842: 21, 1858: 828, 1874: 371; Reitter 1894a: 51, 1913a: 41; Rey 1887: 231, 1892b: 30; Rhumbler 1922: 280, 1927: 292; Rupertsberger 1880: 227; Schedl 1934f: 1634, 1952f: 86, 1958f: 34, 1980a: 6, 1981b: 58; Schimitschek 1937c: 46, 1955c: 76; Seidlitz 1891a: 560, 1891b: 606; Spessivtsev 1913a: 54, 1922a: 464, 492, 1931: 31; Stark 1931c: 81, 1936a: 148, 1952: 163; Stierlin 1898: 435; Tominic 1967: 80.
- scaber* Marsham 1802: 56 (*Ips*). Syntypes, sex[?]; Horto Kensingtoniano, England; probably BMNH, London. Synonymy: Nordlinger 1868: 186, Schaum 1859: 95.
- References: **(ds)** Murray 1853: 60; Schaum 1859: 95, 1862: 100; Schilsky 1909: 187; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 146, 1830: 360, 419, 1839: 208. **(tx)** Hagedorn 1910d: 17; Marsham 1802: 56; Nordlinger 1868: 186; Schaum 1859: 95; Stephens 1829a: 146, 1829b: 12, 1830: 360, 419, 1839: 20.
- suturalis* Redtenbacher 1842: 21. Syntypes, sex[?]; Europe; not located. Synonymy: Schaum 1859: 95, Nordlinger 1868b: 186.
- References: **(ds)** Hagedorn 1910d: 17; Nordlinger 1868b: 186; Schaum 1859: 95, 1862: 100; Stein 1868: 113; Stein & Weise 1877: 16. **(tx)** Balachowsky 1949a: 57; Nordlinger 1868b: 186; Redtenbacher 1842: 21; Schaum 1859: 95.
- esau* Gredler 1866: 370. Syntypes, sex[?]; Tirol, Austria; not located. Synonymy: Reitter 1916: 278, Balachowsky 1949a: 57.
- References: **(ds)** Blanchere & Roberts 1889; Calwer 1884, 1893; Gredler 1866: 371; Hagedorn 1910d: 17; Kraatz 1869: 59; Schilsky 1909: 187; Stein & Weise 1877: 163. **(tx)** Balachowsky 1949a: 57; Bertolini 1872; Gemminger & Harold 1872: 267; Gredler 1886: 370; Reitter 1916: 278.
- tupolevi* Stark 1936a: 151. Lectotype, sex[?]; Kirghiz, Jelal-a ad, USSR; IZL, Leningrad, designated by Michalski 1969a: 889.
- Figures: Greckin 1956: 1482, Stark 1952: 169.
- Distribution: Asia (Yunnan in China/ Kirghiz, Tadzhikistan, Turkistan in central Asia in USSR).
- Hosts: *Fraxinus* spp.
- References: **(cn)** Greckin 1956: 1482. **(hb)** Greckin 1956: 1482; Stark 1952: 168. **(ds)** Kadyrov 1988: 43, 45, 1989; Stark 1952: 168. **(tx)** Greckin 1956: 1482; Michalski 1969a: 889; Pfeffer 1944a: 131; Schedl 1936a: 151, 1951: 29, 1952k: 158; Sokanovskii 1958: 38; Stark 1936a: 151, 1952: 168.
- tupolevi* Eggers 1942c: 28 (*Leperisinus*). Lectotype, sex[?]; Turkestan, USSR; USNM, Washington, designated by Anderson & Anderson 1971: 35. Synonymy: Pfeffer 1944a: 131, Stark 1951: 229.
- References: **(ds)** Stark 1936a: 148, 151. **(tx)** Anderson, W. H. & Anderson 1971: 35; Eggers 1942c: 28; Pfeffer 1944a: 131; Schedl 1952k: 158; Stark 1936a: 148, 151, 1951: 229. **(ms)** Pfeffer 1944a: 131.
- tupolevi denticulosus* Sokanovskii 1956: 44. Syntypes, sex[?]; Tadzhikistan, USSR; Sokanovskii Collection, not located.
- References: **(tx)** Sokanovskii 1956: 44, 1958: 38.
- varius* (Fabricius) 1775: 60 (*Bostrichus*). Holotype, sex[?]; Hafniae; UZMC, Copenhagen.
- Figures: Bevan 1987: 114, Brandt 1960: pl. 28,

Grune 1979: 70, Hasek 1961: 5, Louzil 1961: 105, Pfeffer 1989a: pl. 1, Stark 1952: 172.

Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Norway/ Poland/ Romania/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Fraxinus* spp., rare or accidental in *Olea* sp., *Juglans* sp., *Quercus* sp., *Robinia* sp.

Notes: (3) Stephens 1829a: 146 (*Ips griseus* Marsham, nomen nudum, synonymy).

References: (ay) Lesne 1911a: 627; Sherb 1971. (bv) Grune 1979: 71. (cn) Anonymous 1979p; Archer 1866; Berwig 1950; Browne 1968: 385; Picard 1921: 19. (ec) Apel 1983; Hintze-Podufal & Druschke 1988; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978; Kohnle & Vite 1984a; Pedrosa-Macedo 1979; Perris 1856a: 244. (hb) Apel 1983; Browne 1968: 385; Decaux 1890e; Guerin-Meneville 1856; Hoffmann 1937; Pedrosa-Macedo 1979; Perris 1856a: 244; Postner 1974: 410; Schwerdtfeger 1981: 187. (ds) Anonymous 1979p; Bedel 1888b: 393, 410; Browne 1968: 385; Chapuis & Candeze 1853; Dejean 1821, 1825, 1837; Duftschmidt 1825; Gaulil 1849: 127; Grune 1979: 70–71; Heger 1985a: 79; Hoffmann 1936; Lucht 1987: 276; Murray 1853: 60; Pittioni 1943: 174; Postner 1974: 410; Reitter 1869b: 153; Sahlberg 1903c: 79; Schaum 1859: 95, 1862: 100; Schedl 1960a: 79, 1961b: 187, 1980a: 6, 1981b: 58; Schilsky 1890: 189, 1909: 187; Schwerdtfeger 1981: 187; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 146; Sturm 1826: 156; Villa & Villa 1835: 26; Winter, T. G. 1983: 15. (tx) Apel 1983; Bedel 1888b: 393, 410; Castelnau 1840; Chapuis & Candeze 1853; Dejean 1821, 1825; Doebner 1860; Duftschmidt 1825; Eggers 1929e: 43, 1933g: 18; Eichhoff 1864b: 31; Fabricius 1775: 60, 1801: 391; Gmelin 1790: 1603; Grune 1979: 70–71; Hoffmann 1936, 1937: 25–28; Letzner 1891: 373; Lucht 1987: 276; Marsham 1802: 54; Olivier 1795b: 12; Postner 1974: 410; Schedl 1942: 156, 1952f: 86, 1958k: 141, 1959k: 141, 1965g: 25, 1980a: 6, 1981b: 58; Scherb 1971; Schindt, G. 1980: 16; Stephens 1829a: 146.

melanoccephalus Fabricius 1792: 368 (*Bostrichus*).

Syntypes 2, sex?; Daniae ligno Dom. Lund.; UZMC, Copenhagen. Synonymy: Ratzeburg 1837: 183, Eggers 1933g: 17.

Notes: (3) Stephens 1929a: 146 (*Bostrichus minutus* Panzer, nomen nudum, synonymy).

References: (ds) Hagedorn 1910d: 16; Holdhaus & Deubel 1910: 145; Kestercanek 1881a: 11; Stein 1868: 114; Stein & Weise 1877: 165; Swaine 1909: 149. (tx) Eggers 1931c: 17, 1933g: 17; Fabricius 1792: 368; Herbst 1793: 115; Kestercanek 1881b: 254; Panzer 1795a: 289; Ratzeburg 1837: 183; Swaine 1909: 149,

pubescens Fabricius 1798: 161 (*Anthrribus*). Holotype, sex?; Europe; UZMC, Copenhagen. Synonymy: Ratzeburg 1837: 183, Eggers 1933g: 18. References: (tx) Eggers 1929e, 1933g: 18; Fabricius 1792: 368, 1798: 161; Herbst 1793: 121; Ratzeburg 1837: 183.

fraxini Panzer 1799: 15 (*Bostrichus*). Syntypes, sex?; Germania; not located. Synonymy: Ratzeburg 1837: 183, Letzner 1891: 373, Eggers 1929e: 43.

Notes: (3) Endrodi 1957a: 308 (named aberration *uniformis*, no status).

References: (ay) Chararas 1956a; Escherich 1923b: 433, 479, 499; Feytaud 1950a; Fuchs 1912a; Hadorn 1933; Hopf 1937, 1938; Imhoff 1856: 228; Kaston 1936: 629; Kleine 1921: 23; Leisewitz 1906: 76; Marcu 1931c: 2; Numberg 1928a: 140; Nusslin 1911a: 89, 156, 337, 1912c: 271, 282; Ritchie 1917: 224; Robertson 1961; Schwerdtfeger 1926: 90, 1929: 361; Sedlacek 1902b: 244, 1907: 82; Verhoeff 1896: 111; Wichmann 1912a: 9–10. (bv) Bakke 1973; Barr, B. A. 1969: 642; Chararas 1960a; Jacobson 1972; Meixner 1937: 1214; Nuorteva 1956c: 58; Prell 1926: 68; Rudinsky & Vallo 1979; Schonherr 1955: 56–60, 1970a: 305–307; Schneider-Orelli 1947c: 94; Spaic 1964b; Wichmann 1912a: 9, 1967. (cn) Acatay 1943a: 58; Aerts 1921; Andres, F. de. 1979; Androic 1966: 49; Archer 1866; Barbey 1925: 621; Berlese 1915; Borodin 1915; Breny et al. 1952; Chorbazhiev 1926, 1929; Colbeau 1871: 18; Collinge 1915: 789–791; Dzhabazhivili 1961: 751–757; Eckstein 1898a, 1926: 574; Escherich 1923b: 433, 479, 499, 1929, 1932a; Esterberg 1959; Feytaud 1950a; Fisher 1943: 1; Fr. 1931: 71; Frickhinger 1931; Gabler 1955; Garcia-Tejero 1955: 230; Gentry, J. W. 1963: 110; Georgescu et al. 1957: 357, 413; Gois 1944; Gradojevic 1940; Grandi 1951; Guse 1885; Hasek 1961: 5; Hess 1900: 43, 1907: 273; Hess & Beck 1914: 246, 1927: 300; Hierholzer 1954a: 341; Jacentkovsky 1933: 271; Judeich & Nitsche 1895: 447, 476; Kamuishnui 1925: 53–55; Kanschinger 1893: 192; Keller 1885a: 25, 1903b: 37; Kevan 1944: 278; Kholodkovskii 1912: 278, 294; Khratova 1964; Kleine 1932a: 296; Kock 1932: 155; Konig, E. 1957: 101; Koppen 1882: 236, 248; Korolkova 1954: 93, 1960: 7–58; Kovacevic 1957: 67; Lorenz 1907: 43; Loos 1919: 283–288; Luitjes et al. 1954: 126; MacDougall 1921, 1925; Macedo 1938; Marcu 1926: 60; McLaine 1936: 768, 1937: 6; Mokrzecki 1926b: 4; Monro 1936: 64; Mostanskis 1923: 219–240; Mostovskiy 1923: 287–288; Muller 1912: 184; Nosek 1951: 106, 1952b: 98; Novak, V., Hrozinka, & Stary 1976: 106; Nusslin 1898: 278, 1913: 206; Ormerod 1883: 4; Osservatorio 1914, 1917, 1918; P. 1890: 280; Pelekassis 1962; Poeteren

- 1925; Pomocnicze 1876: 165; Ratzburg 1871c: 80; Reh 1927; Rhumbler 1927: 306; Russo 1954: 65; Saalas 1949: 340, 348; Schidter 1916: 214–215; Schevyrev 1905b: 1100; Schimitschek 1936b: 74, 1937b: 9, 1937c: 46, 1944: 162, 1955a: 142–143, 1955c: 76; Schindler, K. 1860: 21, 1861: 18; Schmidt 1881: 89; Schwappach et al. 1929: 186; Schwarz 1936: 16; Schwerdtfeger 1944a: 171, 173, 1956a: 19; Sitowski 1933: 353–358; Souphieff & Scherbinovskaya 1937: 102; Spaic 1955: 448; Spassky 1916: 219–226; Stock 1929: 1219; Tschorbadzhiiev 1925: 57–61; Thales 1898: 391; Topi 1911a: 54, 1911b: 138; Tubeuf 1935: 73, 1936: 501; Vajda 1952: 121; Vassiliev 1916: 20–23; Villaseñor 1966; Voute & de Vries Broekman 1965; Vrydagh 1955b: 36; Wachtl 1901: 375, 381; Warburton 1920: 247–253; Weber 1926: 574; Wichmann 1927b: 352; Wolff & Krausse 1922: 76; Zakharov & Lerkovich 1951: 299; Zieger 1950b: 38; Zivojinovic 1963: 450, 1966; Zolk 1935: 614–640; Zvierzomb-Zubovsky 1918: 1–36. (cc) Arambourg 1944: 119, 1964: 115; Askew 1965: 142; Balazy 1963, 1965a; Balazy & Michalski 1964a, 1964b; Balazy et al. 1977; Bernihard 1963: 158; Boucek 1958; Brammanis 1940; Chararas 1956b, 1957c, 1957d, 1959c, 1960a; Cooreman 1963: 46; Elliot & Morley 1907; Escherich 1925a; Fuchs 1914b; Gabler 1947b; Galoux 1947b; Gaille 1906: 236; Gauss 1954: 423; Giraud & Laboulbene 1877: 414, 425, 427–428; Graham 1969: 876; Gusteleva 1980a: 78, 1983: 6; Gyorfi 1941b; Heqvist 1957b: 48, 1963; Hierholzer 1954a: 341; Hirschmann 1960, 1971b: 41; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zirngiebl-Nicol 1961; Jannicky 1957b: 24, 1957c, 1959b: 814, 1962; Kielczewski 1976; Kielczewski & Seniczak 1972; Kielczewski & Wisniewski 1980a, 1983; Kleine 1908c: 180, 1909a: 43, 1910: 346, 1944: 78; Kneiff 1923: 246; Knoche 1907b: 476, 1908b: 200; Kokueva 1900: 569; Korolkova 1954: 93, 1960: 18; Kostenko 1929; Krezal 1959: 574; Lovendal 1890a: 131; Meyer 1934: 615; Michalski & Ratajczak 1989; Michalski & Seniczak 1972, 1974; Nikitsky 1978; Nosek 1951: 106, 1952b: 98, 1959a: 118, 1959b: 85; Novak 1952: 411; Numberg 1930: 204; Nunberg & Wiackowski 1958: 130; Nuorteva 1957b: 52; Nusslin 1927: 293; Okolov 1963; Pettersen 1976b; Pfeffer 1923a: 330, 1925b: 2, 8, 1935: 157, 1943b: 179; Pfeffer & Priboda 1950: 1; Poinar 1975: 164; Prell 1926: 68; Purrini & Ormieres 1981; Ratzburg 1869a: 176; Rondani 1871: 233, 1873: 149; Ruhm 1956b: 3; Rummukainen 1954: 27; Ruschka 1921: 241; Saalas 1930: 118, 1949: 340, 348; Schaarschmidt 1959: 803; Schedl 1958d: 185; Schimitschek 1930a: 281, 1941a: 317, 1955a: 142–143; Schwerdtfeger 1929: 361, 1944a: 171, 173; Sedlaczek 1935a: 157; Silvestri 1911: 392; Simmel 1924: 225–228; Sitowski 1930: 3–5; Sokanovskii 1936: 74; Stammer 1933: 152; Stefanov 1949a: 109; Szczepanski 1960a: 407–409, 413, 415; Thompson, W. R. 1943: 52, 69; Tudor 1969: 32, 33; Uvarov 1913; Vistinghoff 1924: 336; Vitzthum 1923: 101, 1926: 408; Westerboer 1963: 254; Wichmann 1957c: 66, 1958: 233, 1967; Wisniewski 1979b; Zinovjev 1957: 348. (hb) Acattay 1943a: 58; Adeli 1972: 14; Adelong 1905; Aerts 1921; Altum 1881c: 275, 1881e, 1883a, 1889c; Anonymous 1920: 126; Bach 1864; Badoux 1898; Barbey 1901: 20, 61, 1905, 1913, 1925: 621; Bargmann 1906; Bates 1844; Baudys 1929; Beffa 1949, 1961; Bellevoye 1876; Berlese 1915; Blankwaardt 1956: 141–150; Boas 1923: 314; Borodajewsky 1930c; Brandt 1948, 1960: 136, 137; Braum 1941c; Budenberg 1884: 83–93; Budge 1949; Bugnion 1887a; Bukowsky 1930; Ceconni 1906, 1924; Chapman 1959, 1868a, 1868b, 1869a; Chararas 1957c: 145–155, 1958a, 1960b: 3572–3574; Chorbadzhievo 1929; Dallimore & Munro 1922: 189–193; Decaux 1890f; DelCnercio 1931: 51–62; Eckstein 1889, 1897, 1926: 574, 1936, 1939b; Eggens 1899b; Eichhoff 1881a: 38, 135 1882b, 1882e: 322, 1883e: 50, 1889: 151, 1892b: 99; Escherich 1917: 97–115, 1923b: 433, 479, 499; Everts 1900, 1903: 7–44; Feytaud 1950a; Forbes 1899; Frankenberg 1941; Frauenfeld 1860; Fuchs 1904a, 1904b, 1906b, 1907: 12; Furst 1888: 109; Gabler 1955; Geyr 1924; Gillanders 1905; Girard 1873; Gornostaev 1916: 309; Gozis 1944; Graber 1879: 130; Grandi 1951; Grieb 1899; Gyorfi 1957; Hadorn 1933; Hagedorn 1903a; Hennings 1907a: 326, 1907c: 603, 1908b, 1908d; Henschel 1876a: 209, 240, 1880a, 1882b, 1886, 1888, 1895a: 148; Herbert 1920: 363; Hess 1895b, 1900: 43, 1907: 273; Hess & Beck 1914: 246, 1927: 300; Hickin 1963; Holmgren 1867: 121; Hopf 1937, 1938; Hufnagl & Puzr 1951: 106; Jacobi 1906: 145; Jannicky 1961a, 1962; Jemmett 1913; Judeich & Nitsche 1895: 447, 476; Kamp 1953a: 18; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 154; Karsch 1883: 143; Kauschinger 1893: 192; Keller 1907a: 179, 1907b: 361, 1913: 242; Kholodkovskii 1889: 278, 1912: 278, 294; Kleine 1932a: 296; Knoche 1900: 387, 1904: 15, 1905: 354, 1906: 266, 1907b: 476, 1907d: 285, 1908a: 44; Knotek 1894a: 553, 1897: 145, 1898b: 322, 1907: 281; Konig 1957: 101; Lekander 1959a: 84; Lengerken 1939: 36, 1954: 72; Lohrenz 1907: 43; Louzil 1960: 40, 149; Lovendal 1890a: 131; Lunardoni & Leonardi 1889: 436; MacDougall 1921: 106; Madon 1930: 99; Marcu 1941: 402; Munro 1926: 48; Nordlinger 1856: 40, 1870a: 188; Nosek 1959a: 118, 1959b: 85; Novak, B.

- 1976; Novak, V., Hrozinka, & Stary 1976: 106; Nunberg 1929a: 95, 1929c: 117; Nuorteva 1956c: 55; Nusslin 1905a: 83, 1906a: 56, 1906b: 10, 1907: 613, 1913: 206, 1927: 293; Orest 1927: 59; Ormerod 1877: 183; Pachmeyer 1891b: 239; Peyerimhoff 1919: 250; Pfeffer 1942a: 7, 1989a: 27; Ratzburg 1837: 132, 183, 1839: 159, 224, 1871c: 80; Rey 1892a: 18; Rhumbler 1927: 306; Rimski-Korsakov et al. 1949: 272; Ritchie 1917: 224; Rupertsberger 1879: 231, 1880: 227; Russo 1926, 1932: 87–113, 1954: 65; Saalas 1913a: 69, 76, 1949: 340, 348; Sahlberg 1903a: 14; Scheidter 1916: 214–215; Schevyrew 1905b: 1100; Schimitschek 1930a: 281, 1939c: 274, 1944: 162, 1955a: 142–143; Schindler, K. 1860: 21, 1861: 18; Schmidt 1881: 89; Schneider-Orelli 1947b: 156, 1947c: 94; Schroder 1896: 357; Schwappach et al. 1929: 186; Schwerdtfeger 1929: 361, 1944a: 171, 173; Sedlacek 1935a: 157; Silvestri 1911: 392; Simmel 1924: 225; Spessivtsev 1913a: 52; Stark 1926a: 333, 1952: 171; Stefanov 1949a: 109; Strohmeier 1916: 116; Taschenberg 1880: 216; Topi 1911a: 54, 1911b: 138; Tragardh 1914: 83, 1930c: 477, 1931: 55, 1939b: 157, 167; Tschorbadjiev 1929: 160; Underhill 1951: 5; Voute & de Vries Broekman 1965; Wachtl 1901: 375, 381; Weber 1926: 574; Wichmann 1910b: 209, 1927b: 352; Wolff & Krause 1922: 76; Zinovjev 1957: 348. (ds) Aaronsohn 1914: 590–594; Acatay 1943: 58–60; Aclouque 1896; Adeli 1972: 14; Ammann & Knabl 1913, 1923; Andersch 1851; Androic 1966: 49; Audras & Schaefer 1957; Bain 1974: 15; Balachowsky 1949a; Barbey 1905; Barthe 1896; Bau 1888; Beck 1817; Beffa 1949; Bejer-Petersen & Jorun 1977: 9; Bielz 1851, 1887; Blackwelder 1947; Blanchere & Roberts 1889; Boas 1923: 314; Borchert 1951; Brakman 1966b: 203; Brancsik 1871, 1906; Bruck 1955b: 191; Bukowsky 1930; Buresh & Lazarov 1956; Calwer 1893; Carpentier & Delaby 1908; Cecconi 1906; Chadwick & Nikitin 1968; Chaigneau 1959; Chapman, R. F. 1959; Chapman, T. P. 1868a, 1869d: 26–31, 1872: 106; Chapuis 1869: 32, 1873: 240; Chapuis & Candeze 1853; Chararas 1958a: 199; Chorbadzhievo 1924d, 1929; Chrystal 1937; Colbeau 1871; Crotch 1863; Dallimore & Munro 1922; Debitasse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eder 1934; Eggens 1904, 1912f: 29; Endrodi 1958a, 1958b, 1981: 185, 1986: 217; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 423, 479, 499, 1929, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 638, 1925; Eyquem 1891; Fauvel 1885; Favre 1890; Forbes 1899; Forster 1849: 440; Fowler 1891; Fr. 1931: 71; Fricken 1889: 279; Fuchs 1904a, 1905a, 1906b, 1907: 12; Gabler 1949b; Ganglbauer 1904; Gaubil 1849: 127; Gentry, J. W. 1965: 110; Gerhardt 1898a; Gobang 1855: 745; Cornstaeve 1917; Gozis 1875: 79; Gredler 1866: 370; Grill 1895: 308; Gyllenhal 1827: 619; Gyrofi 1941b; Hagedorn 1903a, 1910d: 16; Hansen, V. 1939, 1956, 1964: 457; Heinemann 1908a; Hellen 1947; Henschel 1895a: 148; Heyden 1876: 298; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 709; Holmgren 1867: 121; Horion 1951; Hubault 1923b; Ihssen 1939: 336; Illiger 1805: 130; Jazentkovsky 1912: 287, 1933: 271; Johnson, W. F. & Halbert 1902: 818; Joly 1960; Judeich & Nitsche 1895: 447, 476; Kaltenbach 1874: 546; Kamp 1953a: 18, 1961; Karpinski 1925: 216, 1931: 22, 1933b: 23, 1948b: 229; Karpinski & Strawinski 1948: 154; Keler 1922b: 210; Kersten 1933: 72; Kestercanek 1881a: 12; Kiefer et al. 1942: 528; Klefbeck & Sjöberg 1960: 228–229; Kleine 1912a: 262–263, 267, 1912b: 170, 1913a: 34, 1914a: 16, 1932a: 296, 1934a: 128; Kloft & Hinks 1945: 217; Knotek 1892a: 34, 1894a: 553, 1898b: 322; Koca 1905: 191; Kocher 1953: 133; Koltze 1901: 152; Koppen 1882: 236, 243; Kortzas 1955: 177; Koschitzky 1900: 83; Kostenko 1929; Kovacevic 1957: 67; Kraatz 1869: 59; Kuchlein 1955: 372; Kurir 1947c: 22; Lacordaire 1866: 363; Langhoffer 1915c: 156; Leclercq 1971; Leng 1918: 211; Liegel 1886: 43; Lindemann 1884b: 263; Lokaj 1868: 63; Lomnicki 1886a: 241, 1913b: 147; Luigioni 1929: 992; Luijtes et al. 1954: 126; Lunardoni & Leonardi 1889: 436; Lundberg 1956a: 186; Lundblad 1950b: 72; Marcu 1926c: 60; Matthews & Fowler 1883: 42; Michalski 1957: 162; Moragues 1889: 32; Munro 1921: 88, 1936: 63–66; Munster 1928: 288; Murayama 1940a: 232, 1942a: 51; Negru 1957: 129, 1966: 398, 1968a: 454, 1968c: 91; Negru & Rosca 1967: 141; Nilsson 1954: 64; Normand 1937: 268; Novak, P. 1952: 411, 1964; Nunberg 1928b: 87, 96, 1954: 37; Nusslin 1898: 278; Oliveira 1887: 327; Orest 1926c: 60; Pacher 1853: 49, 1865: 151; Palm 1959: 57, 214; Pelekassis 1962; Peragallo 1881b: 71; Perris 1876a: 254, 1877a: 414; Peyerimhoff 1919: 250; Pfeffer 1924b: 471, 1928b: 2, 8, 1931b: 73, 1950b: 76, 1989a: 271; Prell 1926: 62–76; Prossen 1913: 82; Ragusa 1924: 115; Ramnyk 1956: 425; Rapp 1934: 720; Ratzburg 1837: 132, 183, 1839: 159, 224, 1871: 80–87; Redtenbacher 1858: 828, 1874: 371; Reitter 1869b: 153, 1894a: 51, 1916: 279; Revy & Siroki 1942: 82; Rimski-Korsakov et al. 1949: 272; Roubal 1928: 454, 1935b: 72, 1941: 257; Ruskov 1928c: 61; Saalas 1913a: 69, 76, 1931: 67; Sahlberg 1900: 105; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1938: 443; Schaschl 1854: 133; Schaufuss 1915: 1220; Schaum 1859: 95, 1862: 100; Schilsky 1909: 187; Schiodte 1873: 101; Schwarz 1886: 55; Seidlitz 1872: 392,

- 1891a: 560, 1891b: 606; Sharp & Fowler 1893: 34; Siebke 1875: 282; Simmel 1914: 156; Sokanovskii 1936: 74; Souphieff & Scherbinovskaya 1937: 102; Stark 1926a: 333, 1926j: 124, 1927b: 87, 1936a: 148, 1952: 171; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 146, 1830: 360, 1839: 208; Stierlin 1898: 435; Stierlin & Gautard 1871: 292; Sturm 1826: 156, 1843: 229; Thomson 1859: 146, 1865: 351, 1868: 215; Tragardh 1914: 83, 1939b: 157, 167; Tredl 1907: 8; Tressens 1952: 90; Tschorbadjiev 1929: 160; Underhill 1951: 5; Verdcourt 1952: 80; Villa & Villa 1833: 26; Villasenor 1966; Wachtl 1870: 259; Welch, R. C. 1968b: 19; Wessel 1877: 391; Westhoff 1882: 237; Wichmann 1910b: 209, 1924: 15, 1927a: 56; Wiepken 1883: 89; Winter, T. G. 1983: 15; Zonfal 1920: 20. (tx) Aeloque 1896; Allen, A. A. 1970: 247; Bach 1854, 1864; Badoux 1898; Balachowsky 1949a: 90; Barbey 1901: 20, 61; Bechstein 1818: 76, 216; Bechstein et al. 1805: 107; Beffa 1949, 1961; Bertolini 1872; Blankenwaardt 1956; Boas 1923: 314; Brancsik 1871; Brandt 1960: pl. 28; Calwer 1858; Carpentier & Delaby 1908; Ceballos 1945; Chapuis 1869: 32, 1873: 240; Chapuis & Candeze 1853; Chorbadzhievo 1924d; Cieslar 1894; Csiki 1907; Dejean 1821, 1825; Doebner 1860; Duffy 1953; Duftschmidt 1825; Eggers 1912f, 1929e: 43, 1931a: 17, 1939b: 4; Eichhoff 1864b: 30, 1881a: 38, 135, 1883a: 103, 126, 1896: 607; Endrodi 1957a: 308, 1957b; Erichson 1836: 56; Escherich 1923b: 433, 479, 499; Escherich & Escherich 1897; Everts 1903: 744, 1922: 638; Fabricius 1801: 390; Faivel 1885, 1887, 1889; Ferrant 1911; Fleischer 1905, 1927; Formanek 1907: 18; Fricken 1889: 279; Fuchs 1906, 1912a; Gabler 1949b, 1955; Gemminger & Harold 1872: 2674; Gillanders 1908; Girard 1873; Gyllenhal 1813: 345, 1827: 619; Hagedorn 1910a: 48; Hansen, V. 1956, 1964: 457; Hasek 1961: 5; Henry 1892: 15; Henschel 1876a: 209, 240, 1895a: 148; Illiger 1907: 321; Jacobi 1906: 145; Judeich & Nitsche 1895: 447, 476; Kalina 1970: 129; Karpinski & Strawinski 1948: 154; Knotek 1892a: 34, 1892b: 235, 1894b: 87; Kuhn 1913: 1050; Kunnemann 1919: 50; Lacordaire 1866: 363; Lepesme 1944: 273; Letzner 1891: 373; Leunis 1886: 179; Lindemann 1875c: 156; Louzil 1961: 105; Lovendal 1889b: 42, 1898: 96; Luigioni 1929: 992; Lunardoni & Leonardi 1889: 436; Meixner 1937: 1214; Murayama 1940a: 232; Negru 1966b: 318; Nordlinger 1848: 252, 1856: 40, 1870a: 188; Novak, V., Hrozinka, & Stary 1976: 106; Numberg 1928a: 140, 1929c: 117, 1930: 200–208, 1954: 37; Nusslin 1911a: 89, 156, 337, 1912c: 271, 282; Panzer 1799: 15; Perris 1877a: 414; Pfeffer 1932b: 12, 1942a: 7, 1955a: 95, 1989a: pl. 1; Portevin 1935: 316; Quaschik 1953: 35; Ratzburg 1837: 132, 183, 1839: 159, 224; Redtenbacher 1849a: 362, 1849b: 27, 1858: 828, 1874: 371; Reitter 1887b: 193, 1894a: 51, 1913a: 42, 1916: 279; Rey 1887: 231; Rhumbler 1927: 306; Ritchie 1917: 224; Rupertsberger 1879: 231, 1880: 227; Saalas 1913a: 69, 76, 1913b: 304–306, 1949: 340, 348; Sahlberg 1903a: 14; Schedl 1934f: 1634, 1958k: 141; Schlechtendal & Wunsche 1879: 124; Schimitschek 1937c: 46, 1955c: 76; Schmidt, G. 1980: 16; Schwarz 1886: 55; Seidlitz 1872: 392, 1891a: 560, 1891b: 606; Spessivtsev 1913a: 52, 1919: 249, 1921a: 315, 1922a: 463, 1925a: 162, 1932: 29–30; Stark 1936a: 148–153, 1952: 171; Stephens 1829a: 146, 1829b: 12, 1830: 360, 1839: 208; Stierlin 1898: 435; Strand 1963: 105–110; Stresemann et al. 1989: 355; Swaine 1918a: 70; Taschenberg 1880: 216; Thomson 1858: 145, 1859: 146, 1865: 351, 1868: 215; Verhoeff 1896: 111; Wagner 1914: 161; Zimmermann 1868: 148; Zivojinovic 1963: 448. (ms) Brandt, H. 1960: 136–137; Chararas 1971a: 853; Cieslar 1894; Escherich 1932b; Gusteleva 1983: 6; Heinemann 1908a; Knoche 1907d: 2551; Knotek 1894b: 87; Lekander 1959a: 84; Lovendal 1890a: 131; Macedo 1938: 4; Ritter 1929: 554; Schwappach 1924: 56; Sedlaczek 1907: 82.
- haemorrhoidalis* Marsham 1802: 56 (*Ips*). Syntypes, sex?; England; presumably BMNH, London. Synonymy: Hagedorn 1910d: 16. References: (ds) Hagedorn 1910d: 16; Stephens 1829a: 146, 1830: 359, 1839: 208. (tx) Hagedorn 1910d: 16; Marsham 1802: 55–56; Stephens 1829a: 146, 1829b: 12, 1830: 359, 1839: 208.
- picipennis* Stephens 1830: 359. Syntypes, sex?; near London and in Lancashire, England, BMNH, London. Synonymy: Hagedorn 1910d: 16. References: (ds) Hagedorn 1910d: 16; Stephens 1829a: 146, 1830: 359, 1839: 208. (tx) Hagedorn 1910d: 16; Stephens 1829a: 146, 1829b: 12, 1830: 359, 1839: 208.
- henscheli* Knotek 1892b: 234. Syntypes ♀?; Herzegovina, Prisma walde bei Nevesinje [Yugoslavia]; not located. Synonymy: Hagedorn 1910d: 16. References: (hb) Knotek 1894a: 553. (ds) Hagedorn 1910d: 16; Knotek 1892a: 34, 1894a: 553; Reitter 1894a: 5; Schilsky 1909: 187. (tx) Hagedorn 1910d: 16; Knotek 1892a: 34, 1892b: 234–235, 1894b: 87; Reitter 1894a: 51, 1913a: 42; Schedl 1934f: 1634.
- wachtli* Reitter 1887b: 193. Syntypes, sex?; S. France; NHMB, Budapest. Distribution: Europe (S France/ Greece/ Italy/ Romania/ Spain/ Switzerland). Hosts: *Fraxinus* sp.

Notes: (1) Balachowsky 1949a: 91 (treated as a subspecies of *orni* Fuchs). (3) If Balachowsky is correct, then *orni* must take this name. Schedl 1958k: 149 (incorrectly treated as a synonym of *varius*).

References: (ec) Kleine 1908c: 180. (hb) Underhill 1951: 5. (ds) Barthe 1896; Calver 1893; Chararas 1958d: 200; Hagedorn 1910d: 19; Heyden, Reitter, & Weise 1891: 669, 1906: 709; Kleine 1912b: 171, 1913a: 87; Reitter 1894a: 52; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1220; Stark 1936a: 148; Tredl 1907: 8. (tx) Balachowsky 1949a: 93; Fauvel 1887, 1889; Fuchs 1906; Hagedorn 1910a: 49; Portevin 1935: 316; Reitter 1887b: 193, 1894a: 52, 1913a: 42; Schedl 1934f: 1634, 1958k: 141, 1979c: 269; Stark 1936a: 148; Underhill 1951: 5.

Genus *Ficicis* Lea

FICICIS LEA 1910: 147. Type-species: *Ficicis varians* Lea, subsequent designation by Hopkins 1914: 122.

Ficiphagus Murayama 1958: 930. Type-species: *Phlocosinus goliathoides* Murayama = *Hylesinus despectus* Walker, original designation. Synonymy: Schedl 1962q: 486.

References: (tx) Murayama 1958: 930; Schedl 1962q: 486.

References: (hb) Wood, S. L. 1986a: 39. (ds) Wood, S. L. 1986a: 39. (tx) Hopkins 1914: 122; Lea 1910: 147; Lucas 1920: 295; Murayama 1958: 930; Schedl 1936g: 521; Wood, S. L. 1986a: 39.

bakeri (Sampson) 1921: 27 (*Hylesinus*). Holotype ♂?; B. N. Borneo; BMNH, London.

Distribution: Indonesia (Borneo, Sumatra), Philippine Islands (Luzon/Samar).

References: (ds) Browne 1970: 545; Sampson 1921: 27. (tx) Sampson 1921: 27.

sumatranus Eggers 1923a: 134 (*Hylesinus*). Holotype ♂; Tandjong Morawa (Sumatra); RNH, Leiden. Synonymy: Browne 1970: 545.

References: (ds) Schedl 1966b: 9. (tx) Beaver 1976b: 533; Browne 1970: 545; Eggers 1923a: 134, 1927b: 406; Michalski 1969b: 570; Nobuchi 1983: 299; Schedl 1958b: 498, 1979c: 246.

brevipilosus (Schedl) 1942c: 167 (*Hylesinus*).

Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea, New Hebrides.

Hosts: Liana.

References: (tx) Schedl 1942c: 167, 1955b: 283.

despectus (Walker) 1859: 261 (*Hylesinus*). Holotype, sex?; Ceylon; BMNH, London.

Figures: Nobuchi 1967: pl. I, Schedl 1951k: 142. Distribution: Asia (Burma/ Andaman Islands, Assam, Karnataka, Kerala, Maharashtra, Nicobar Islands, Tamil Nadu, Uttar Pradesh in India/ Japan/ Sri Lanka/ Tonkin Island in Vietnam), Aus-

tralia (Queensland), Fiji, Indonesia (Java, Sumatra), New Guinea, Philippine Islands (Luzon), Samoan Islands.

Hosts: *Ficus* spp., *Artocarpus* spp., rare in *Anogeissus* sp., *Buchanania sessilifolia*, *Mangifera indica*, *Santalum* sp., *Sterculia macrophylla*.

Notes: (3) Schedl 1951i: 41 (cites *laticus* Eggers, nomen nudum, synonymy).

References: (hb) Beeson 1922c: 495; Browne 1961c: 64–65; Kalshoven 1958b: 162; Kleine 1932a: 296. (ds) Beaver & Browne 1975: 290; Beeson 1922c: 495; Browne 1961c: 64, 1966: 242–243, 1981b: 599; Hagedorn 1910d: 16; Kleine 1912b, 1914b: 273, 1932a: 296, 1934a: 129; Lacordaire 1866: 363; Miwa 1931: 268; Ohno et al. 1988a: 91, 1989: 59; Sampson 1921: 26; Schedl 1959a: 471, 1962b: 186, 1965g: 23, 1966b: 6, 1971a: 275, 1975a: 452, 1975e: 446. (tx) Eggers 1923a: 135, 1925: 160; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 48; Lacordaire 1866: 363; Motschulsky 1863: 516; Nobuchi 1983: 299; Sampson 1921: 26; Schedl 1951i: 41, 1951k: 142, 1959a: 471, 1959j: 171; Walker 1859: 261.

granulifer Motschulsky 1863: 516 (*Hylesinus*).

Syntypes 2 ♂; Des Montagnes de Nura-Ellia, Ceylon; IZM, Moscow. Synonymy: Sampson 1921: 27, Schedl 1958j: 171, Wood 1969c: 118. Notes: Wood 1969c: 118 (syntypes examined).

References: (tx) Eggers 1923a: 135; Gemminger & Harold 1872: 2674; Motschulsky 1863: 516; Sampson 1921: 27; Schedl 1958j: 171; Wood, S. L. 1969c: 118.

scobipennis Chapuis 1869: 30 (*Hylesinus*). Holotype, sex?; Ceylon; presumably in IRSNB, Brussels. Synonymy: Sampson 1921: 27, Schedl 1954a: 138.

References: (ds) Chapuis 1869: 30, 1873: 238. (tx) Chapuis 1869: 30, 1873: 238; Eggers 1923a: 135; Gemminger & Harold 1872: 2675; Sampson 1921: 27; Schedl 1954a: 131, 1979c: 222.

porcatus Chapuis 1869: 31 (*Hylesinus*). Syntypes, sex?; Nouvelle-Hollande; IRSNB, Brussels. Synonymy: Numberg 1956d: 211.

References: (cn) Anonymous 1941c: 97. (cc) Roberts 1976: 374. (hb) Anonymous 1941c: 97; Froggatt 1899: 268; Morstatt 1924: 23; Roberts 1976: 374; Wylie & Shanahan 1975. (ds) Beaver 1976b: 533, 1987b: 9; Browne 1966: 243, 1968c: 111, 1970: 540, 1974a: 64, 1980a: 372, 1980c: 484, 1981a: 125, 1986b: 334; Hagedorn 1910d: 17; Kleine 1912b, 1914b: 298; Nobuchi 1967: 18, 1985: 6; Olmo et al. 1988a: 91, 1989: 59; Roberts 1976: 374; Schedl 1962b: 186, 1962i: 72, 75, 1964c: 305, 1965g: 23, 1966b: 8, 1971f: 146, 1972a: 143, 1972b: 267, 1975i: 345. (tx) Chapuis 1869: 31, 1873: 239; Gemminger & Harold 1872: 2675; Hagedorn 1910a: 49; Nobuchi 1983: 299; Numberg 1956d: 211; Schedl 1939e: 327, 1962q: 486, 1970i: 222.

- kochelei* Lea 1910: 148. Syntypes 2, sex?; Australia: Queensland, Barron Falls; NMV, Melbourne. Synonymy: Schedl 1970i: 222.
References: (ds) Brimblecombe 1953: 8; Schedl 1936g: 521. (tx) Lea 1910: 148; Lucas 1920: 295; Schedl 1936g: 521, 1955b: 279, 1970i: 222.
- similis* Eggers 1923a: 136 (*Hylesinus*). Holotype, sex?; Sumatra; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1959j: 171.
References: (tx) Eggers 1923a: 136; Schedl 1954a: 139, 1959j: 171, 1979c: 229.
- subcostatus* Eggers 1923a: 137 (*Hylesinus*). Holotype, sex?; Sumatra; USNM, Washington. Synonymy: Nunberg 1956d: 210.
References: (ds) Schedl 1962i: 75; Wood, S. L. 1960a: 14–15. (tx) Anderson, W. H. & Anderson 1971: 32; Beeson 1929: 221; Eggers 1923a: 137, 1927b: 406; Nunberg 1956d: 210; Schedl 1951k: 132, 142, 1954a: 137, 1955b: 279, 284, 287, 1979c: 240; Wood, S. L. 1960a: 14–15.
- crassus* Beeson 1929: 220 (*Hylesinus*). Holotype ♂; Upolu; Vailima (Samoa); BMNH, London. Synonymy: Schedl 1951k: 132, 1954a: 137.
References: (ds) Beeson 1938b: 288. (tx) Beeson 1929: 220; Nunberg 1956: 210; Schedl 1951k: 132, 1954a: 137; Wood, S. L. 1960: 14.
- subopacus* Eggers 1930c: 10 (*Hylesinus*). Holotype, sex?; Fiji: Fitchi Inseln near Viti Levu, Suva; BMNH, London. Synonymy: Schedl 1939e: 327, Nunberg 1956: 210.
References: (ds) Beeson 1938b: 288. (tx) Eggers 1930c: 10; Nunberg 1956: 210; Schedl 1939e: 327, 1950f: 35–36, 1951k: 132, 1979c: 243.
- insularum* Beeson 1940: 192 (*Hylesinus*). Holotype ♀; Tiamoto Islands: Makatea (Mangareva Expedition); BPBM, Honolulu. Synonymy: Beaver 1991:(in press).
References: (tx) Beaver 1991:(in press); Beeson 1940: 192.
- samoanus* Schedl 1951k: 142 (*Hylesinus*). Syntypes ♂; Samoa: Upolu, Tapatapao; BPBM, Honolulu, and Schedl Collection in NHMW, Wien. Synonymy: Wood 1992b: 82–83.
Notes: (1) Schedl 1979c: 218 (citation of holotype invalid).
References: (hb) Beaver 1976b: 533. (ds) Beaver 1976b: 533; Browne 1966: 243. (tx) Schedl 1951k: 132, 142, 1979c: 218; Wood, S. L. 1992b: 82–83.
- goliathoides* Murayama 1955: 94 (*Phloeosinus*). Syntypes 4, sex?; Koyama, Kogoshima pref., Japan; USNM, Washington. Synonymy: Schedl 1962q: 486.
References: (ds) Murayama 1955: 94; Nobuchi 1967: 20, 1985: 6. (tx) Murayama 1955: 94, 1958: 970; Nobuchi 1967:pl. 1; Schedl 1962q: 486.
- elongatus* (Schedl) 1942c: 167 (*Hylesinus*). Syntypes 2, sex?; Australien, Cairns, Queensland; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
Notes: (1) Schedl 1979c: 89 (citation of holotype invalid).
References: (tx) Schedl 1942c: 167, 1979c: 89.
- javanus* (Eggers) 1923a: 135 (*Hylesinus*). Lectotype ♂; Buitenzorg auf Java; USNM, Washington, designated by Anderson & Anderson 1971: 16.
Distribution: Asia (India/ Malaya), Indonesia (Borneo, Java), Philippine Islands (Luzon, Mindoro).
Hosts: *Ficus* spp., rare in *Acanthocephalus cadamba*, *Shorea leprosula*.
References: (ay) Gardner 1934b: 1–17. (cn) Mathur & Singh 1961a: 70; Yunus & Hua 1980: 228, 259. (hb) Beeson 1933: 10. (ds) Beeson 1933: 10; Eggers 1926a; Kleine 1934a: 129; Mathur & Singh 1961a: 70; Nunberg & Chujo 1961: 358; Schedl 1936d: 1, 1936j: 19; Yunus & Hua 1980: 228, 259. (tx) Anderson, W. H. & Anderson 1971: 16; Beeson 1929: 221, 1933: 10; Eggers 1923a: 135, 1926a: 299, 1927b: 406; Gardner 1934b: 1–17; Schedl 1936j: 19, 1937e: 543, 1939e: 328, 1942a: 169, 1942d: 1, 1951i: 50, 1954a: 138, 1958g: 171, 1959a: 472, 1979c: 129.
- maculipennis* (Schedl) 1975g: 217 (*Hylesinus*). Holotype ♀?; Papua, Porotop, Luth. Miss. Sawmill [New Guinea]; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Ficus* sp.
References: (tx) Schedl 1975g: 217.
- pacificus* (Beeson) 1929: 221 (*Hylesinus*). Holotype, sex?; Samoa: Savaii: Salailua; BPBM, Honolulu.
Distribution: Samoan Islands.
References: (ds) Beaver 1976b: 533; Beeson 1938b: 288. (tx) Beeson 1929: 221–223; Eggers 1930: 10; Schedl 1951k: 132.
- pellitus* (Schedl) 1955b: 288 (*Hylesinus*). Holotype ♀; Opulo, Samoa; Schedl Collection in NHMW, Wien. Synonymy: Beaver 1991: 91.
References: (tx) Beaver 1976b: 533, 1991: 91; Schedl 1955b: 288, 1979c: 187.
- pertinax* (Schedl) 1975g: 217 (*Hylesinus*). Holotype ♀?; W New Guinea, Vogelkop; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 217, 1979c: 191.
- philippinensis* (Eggers) 1923a: 137 (*Hylesinus*). Lectotype ♂; Los Banos auf Luzon (Philippine Islands); USNM, Washington, designated by Anderson & Anderson 1971: 24.
Distribution: Asia (Tonkin Island in Vietnam), New Guinea, Philippine Islands (Luzon), Samoan Islands.
Hosts: *Ficus* spp.

- References: (**hb**) Beeson 1929: 221; Kalshoven 1956: 162. (**ds**) Beeson 1929: 221, 1935b: 258; Eggers 1926a: 299; Kleine 1934a: 129; Schedl 1979c: 192. (**tx**) Anderson, W. H. & Anderson 1971: 24; Beeson 1929: 221; Eggers 1923a: 137–138, 1926a: 299, 1927b: 406, 1930c: 10, 1939c: 114; Nunberg 1956d: 211; Schedl 1942a: 169, 1942c: 163, 1951k: 131, 142, 1954a: 138.
- robustus** (Eggers) 1939d: 223 (*Hylesinus*). Holotype ♀; Fiji Ins. (Taveuni); BMNH, London. Distribution: Australia (Queensland), Fiji Islands. Notes: (3) Schedl 1950f: 42 (described male). References: (**ds**) Browne 1974a: 64; Schedl 1962i: 75. (**tx**) Eggers 1939d: 223; Schedl 1950f: 36, 42, 1955b: 278, 284, 1979c: 212.
- sulcinodis** (Schedl) 1974d: 458 (*Hylesinus*). Holotype, sex?; Panganda Logging Area, Watut Valley, Morobe Distr., New Guinea; CSIRO, Canberra. Distribution: New Guinea. References: (**tx**) Schedl 1974d: 458, 1979c: 246.
- varians** Lea 1910: 147. Syntypes, sex?; Australia: N. S. Wales, Gosford; Sydney; presumably NMV, Melbourne. Distribution: Australia (Queensland, New South Wales). Hosts: *Ficus aspersa*, *F. europea*, *F. stenocarpa*, *Melicope neurococca*, *Morus alba*, *Pseudomorus brunoniana*, etc. References: (**bv**) Gray, B. 1974c. (**hb**) Gray, B. 1974c; Hintze-Podufal & Druschke 1988. (**ds**) Schedl 1936g: 521, 1962i: 73, 1964f, 1965g: 25, 1971d: 428, 1971f: 147, 1972a: 143. (**tx**) Hopkins 1914: 122; Lea 1910: 147; Lucas 1920: 295; Schedl 1936g: 521, 1942c: 163, 1948g: 25, 1958i: 214.
- wallacei** (Blandford) 1896b: 197 (*Hylesinus*). Holotype ♂; Mysol (Malay Archipelago); BMNH, London. Distribution: Asia (Singapore), Indonesia (Mysol Island), New Guinea. Hosts: *Ficus* sp., *Dracontomelum mangiferum*. References: (**ds**) Hagedorn 1910d: 19; Kleine 1912b: 17; Schedl 1936g: 521, 1979f: 103. (**tx**) Blandford 1896b: 197; Hagedorn 1910a: 49; Schedl 1979c: 269.
- Genus *Hylesinopsis* Eggers
- HYLESINOPSIS** EGGERS 1920: 40. Type-species: *Hylesinopsis dubius* Eggers, monobasic. *Pseudohylesinus* Eggers 1919: 234. Type-species: *Pseudohylesinus togonus* Eggers, monobasic, preoccupied by Swaine 1917: 11. References: (**tx**) Eggers 1919: 234, 1922b: 165. *Metahylesinus* Eggers 1922b: 165. Type-species: *Pseudohylesinus togonus* Eggers, automatic, replacement name for *Pseudohylesinus* Eggers 1919: 234. Synonymy: Wood 1984b: 225. References: (**tx**) Eggers 1919: 234, 1922b: 165; Schedl 1950d: 2, 1951g: 1104, 1957d: 9, 188, 1957e: 865–883, 1958d: 188, 1959n: 75–83, 1960g: 75; Wood, S. L. 1984b: 225.
- Pseudophloeotribus* Eggers 1933e: 18. Type-species: *Pseudophloeotribus africanus* Eggers, monobasic. Synonymy: Schedl 1957d: 9, Wood 1984b: 225. References: (**tx**) Eggers 1933e: 18; Schedl 1951g: 1104, 1957d: 9, 1960g: 75; Wood, S. L. 1984b: 225.
- Trypographus* Schedl 1950e: 213. Type-species: *Trypographus joveri* Schedl, monobasic. Synonymy: Wood 1983a: 648. References: (**tx**) Schedl 1950e: 213, 1957e: 865–883, 1959n: 123–124; Wood, S. L. 1983a: 648.
- Chilodendron* Schedl 1953d: 74. Type-species: *Chilodendron planicolle* Schedl, monobasic. Synonymy: Wood 1983a: 648. References: (**tx**) Schedl 1953d: 74; Wood, S. L. 1983a: 648.
- Glochicopterus* Schedl 1954e: 75. Type-species: *Glochicopterus baphiae* Schedl, monobasic. Synonymy: Wood 1983a: 648, 1984b: 225. References: (**tx**) Schedl 1954e: 75, 1959n: 403–404, 1961k: 403; Wood, S. L. 1983a: 648, 1984b: 225.
- Hapalophloeus* Schedl 1965e: 363. Type-species: *Metahylesinus brinckei* Schedl, original designation. Synonymy: Wood 1984b: 225. References: (**tx**) Schedl 1965e: 363; Wood, S. L. 1984b: 225.
- Hemihylesinus* Schedl 1967e: 224. Type-species: *Hemihylesinus endroedyi* Schedl, monobasic. Synonymy: Wood 1984b: 226. References: (**tx**) Schedl 1967e: 224; Wood, S. L. 1984b: 226.
- Aridiamerus* Schedl 1982: 284. Type-species: *Aridiamerus angolensis* Schedl, monobasic. Synonymy: Wood 1988b: 188. References: (**tx**) Schedl 1982: 284; Wood, S. L. 1988b: 188.
- Keys: Lepesme 1942a: 203. References: (**ay**) Nobuchi 1969a: 53. (**tx**) Eggers 1920: 40; Lepesme 1942a: 203; Schedl 1950e: 210–211, 213, 1959n: 127–130, 1960g: 127; Wood, S. L. 1986a: 39, 1988b: 188–189.
- acacicolens** Wood 1987: 547. Holotype, sex?; Kenya: Rift Valley; NHMW, Wien, automatic. Distribution: Africa (Kenya/ Zaire). Hosts: *Acacia* sp. References: (**tx**) Wood, S. L. 1987: 547. *africanus* Schedl 1963h: 259 (*Alniophagus*). Holotype, ♂; Kenya: Rift Valley; NHMW, Wien, preoccupied by Eggers 1933e: 19. References: (**tx**) Schedl 1963h: 259, 1979c: 14; Wood, S. L. 1987: 547.
- africanus** (Eggers) 1933e: 19 (*Pseudophloeotribus*). Holotype, sex?; N. Rhodesia: Livingstone, Zambesi R.; BMNH, London. Distribution: Africa (Zambia/ Zimbabwe).

- Notes: (1) Schedl 1957d: 9 (to *Metahylesinus*, = *Hylesinopsis*).
- References: (ds) Beaver & Loytyniemi 1985a: 65. (tx) Eggers 1933e: 19; Schedl 1957d: 9, 1960g: 76.
- alluaudi (Lepesme)** 1942a: 207 (*Kissophagus*). Holotype, sex?; Kenya: Molo, Nau Escarpment, Afrique orientale anglaise, Station 19, 2,420 m; MNHN, Paris.
- Distribution: Africa (Kenya).
- Notes: (1) Schedl 1962j: 188 (to *Chilodendron*, = *Hylesinopsis*).
- References: (tx) Lepesme 1942a: 207; Schedl 1959n: 413, 1962j: 188.
- angolanus Wood** 1988a: 32. Holotype ♂; Angola; Schedl Collection in NHMW, Wien, automatic.
- Distribution: Africa (Angola).
- References: (tx) Schedl 1982: 284; Wood, S. L. 1988a: 32, 1988b: 188.
- angolensis** Schedl 1982: 284 (*Aridiamerus*). Holotype ♂; Angola; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1959p: 24.
- Notes: (1) Wood 1988b: 188 (to *Hylesinopsis*).
- References: (ds) Ferreira 1965: 1111. (tx) Schedl 1959p: 24, 1982: 284; Wood, S. L. 1988b: 188.
- angolensis Schedl** 1959p: 24. Holotype, sex?; Riv. Tchimboma, affl. dr. Cuango-Muque pres des sources de celui-ci, litiere, Alto Chicapa, Angola; IRSNB, Brussels.
- Distribution: Africa (Angola).
- References: (ds) Schedl 1959p: 16, 24. (tx) Schedl 1959p: 16, 24.
- arabiae Schedl** 1975h: 353. Holotype, sex?; Jemen, Wadi Zabid; NHMB, Budapest.
- Distribution: Asia (Yemen in Arabian Peninsula).
- References: (tx) Schedl 1975h: 353.
- atakora (Schedl)** 1951g: 1105 (*Rhopalopschion*). Syntypes 2, sex?; Togo, Klouto, Monts Togo, 500–800 m. Dahomey: Koussoukoingou, Atokoka, 600–700 m; A. Villiers Collection, and Schedl Collection in NHMW, Wien.
- Distribution: Africa (Dahomey/ Togo).
- Notes: (1) Schedl 1979c: 29 (citation of holotype invalid).
- References: (tx) Nunberg 1956b: 200, 203; Schedl 1951g: 1103, 1105–1106, 1957d: 9, 1960g: 77, 1979c: 29.
- ater (Nunberg)** 1967b: 315 (*Trypographus*). Holotype, sex?; Congo: Kivu, Kavimvira (Uvira); MRCB, Tervuren.
- Figures: Nunberg 1967b: 335.
- Distribution: Africa (Zaire).
- References: (tx) Nunberg 1967b: 315, 335.
- baphiae (Schedl)** 1954e: 75 (*Glochicopterus*). Syntypes, sex?; Gold Coast: Mpraeso and Sunyani; BMNH, London.
- Figures: Schedl 1954e: 76 (antenna), Nunberg 1967b: 335.
- Distribution: Africa (Ghana).
- Hosts: *Baphia pubescens*, *Anthoecleista nobilis*.
- References: (ds) Browne 1973a: 279; Schedl 1961k: 404; Thompson, G. H. 1963: 45. (tx) Nunberg 1967b: 313, 335; Schedl 1954e: 49, 75–76, 1961k: 404, 1979c: 34.
- brincki (Schedl)** 1957c: 323 (*Metahylesinus*). Syntypes, sex?; SW Africa: Kaokoveld, Sanitatas about 85 miles WSW Ohopoho. Kaokoveld, Anabib (Orupembe) 100 miles W Ohopoho. Kaokoveld, Ohopoho. Transvaal: Kruger National Park, Letaba Camp; ZIDSU, Lund, Sweden.
- Distribution: Africa (Namibia/ South Africa).
- References: (ds) Schedl 1960g: 77, 1965e: 350, 1982: 278. (tx) Schedl 1957c: 323, 1960g: 77, 1963h: 262, 1965e: 350, 363.
- confusus (Eggers)** 1935c: 300 (*Kissophagus*). Holotype, sex?; Uganda (Gura R., 7500 ft.); BMNH, London.
- Figures: Schedl 1959n: 44 (adult, galleries).
- Distribution: Africa (Cameroon/ Kenya/ Uganda/ Zaire).
- Hosts: *Bosquicia angolensis*, *Ficus cf capensis*, *Rhus* sp.
- References: (hb) Gardner 1957a: 31; Schedl 1959n: 44. (ds) Gardner 1957a: 31; Lepesme 1942a: 207; Mayne & Donis 1962: 304; Schedl 1961d: 177, 1965e: 350, 1972k: 295. (tx) Browne 1973a: 285; Eggers 1935c: 300; Lepesme 1942a: 207; Schedl 1948c: 664, 1954: 878, 1955f: 257, 1959n: 41.
- decellei (Nunberg)** 1969a: 394 (*Trypographus*). Holotype, sex?; Ivory Coast: Bingerville; MRCB, Tervuren.
- Distribution: Africa (Ivory Coast).
- References: (tx) Nunberg 1969a: 394.
- dimorphus (Schedl)** 1937f: 16, reprint p. 2 (*Metahylesinus*). Syntypes ♀; Kati (presumably West Africa); NHML, Luxemburg and Schedl Collection in NHMW, Wien.
- Distribution: Africa (West Africa).
- Notes: (1) Schedl 1979c: 81 (citation of holotype invalid).
- References: (tx) Schedl 1937f: 16, 1960g: 77, 1979c: 81.
- dubius Eggers** 1920: 40. Syntypes 2, sex?; Kinchana (Kongostaat); 1 in Hamburg Museum, lost, 1 in Schedl Collection in NHMW, Wien.
- Figures: Schedl 1960g: 127.
- Distribution: Africa (Angola/ Cameroon/ Ghana/ Liberia/ Uganda/ Zaire).
- Hosts: *Bosquicia angolensis*, *Morus lactea*, *M. mesozygia*, *Treculia africana*.
- Notes: (1) Schedl 1979c: 85 (citation of holotype invalid).
- References: (hb) Browne 1963a: 231; Schedl 1960g: 127. (ds) Browne 1963a: 231; Ferreira 1965: 1111; Schedl 1959p: 16, 1960g: 127, 1965e: 351, 1966c: 223, 1972e: 279, 1972k: 295, 1977d:

277. (tx) Eggers 1920: 40; Schedl 1954e: 49, 1960g: 127, 1979c: 85.
- emarginatus (Nunberg)** 1973: 6 (*Trypographus*). Holotype ♂?; Zaire: Massif Ruwenzori, P.N.A., riv. Mukandwe, affl. Talya, 1,580 m; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Nunberg 1973: 6.
- endoedyi (Schedl)** 1967e: 224 (*Hemihylesinus*). Holotype, sex?; Brazzaville, Filou brook; Kindamba, Meyoi settlement (Congo); NHMB, Budapest.
Distribution: Africa (Zaire).
References: (tx) Schedl 1967e: 224, 1979c: 90.
- ericus (Schaufuss)** 1897a: 217 (*Diamerus*). Holotype, sex?; Natal; Hamburg Museum, lost.
Distribution: Africa (Natal in South Africa).
References: (tx) Eggers 1922b: 165; Schaufuss 1897a: 217.
- fasciatus (Hagedorn)** 1909a: 737 (*Kissophagus*). Holotype, sex?; Ostafrika, Amani; MNB, Berlin.
Distribution: Africa (Cameroon/ Nigeria/ Tanzania/ Zaire).
Hosts: *Ficus* spp., *Pygeum africanum*.
Notes: (1) Schedl 1962j: 188 (to *Chilodendron*, =*Hylesinopsis*).
References: (hb) Gardner 1957a: 31; Kleine 1932a: 296. (ds) Gardner 1957a: 31; Hagedorn 1909a: 737, 1910a: 25; Lee, R. F. 1971: 31; Lepesme 1942a: 204; Kleine 1912b: 182, 1914b: 321, 1932a: 296. (tx) Eggers 1932c: 28; Hagedorn 1909a: 737, 1910a: 58; Lepesme 1942a: 20; Powell, W. 1980: 29; Schedl 1959n: 417, 1962j: 188.
- ficus (Schedl)** 1954d: 878 (*Kissophagus*). Syntypes, sex?; Cote d'Ivoire, Adiopodoume; MNHN, Paris, and Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast).
Hosts: *Ficus polita*.
Notes: (1) Schedl 1979c: 96 (citation of holotype invalid).
References: (tx) Schedl 1954d: 878, 1959n: 418, 1962j: 188, 1979c: 96.
- fuscipennis (Chapuis)** 1869: 44 (*Phloeotribus*). Syntypes, sex?; Caffria [South Africa]; IRSNB, Brussels? (or Hamburg Museum, lost?).
Distribution: Africa (South Africa/ Zimbabwe).
References: (cn) Anonymous 1970c: 13. (hb) Schedl 1961k: 397–398. (ds) Anonymous 1970c: 13; Browne 1984a: 151; Hagedorn 1910d: 30–31; Kleine 1914b: 318; Schedl 1961k: 397, 1975k: 276. (tx) Chapuis 1869: 44, 1873: 252; Eggers 1927a: 196, 1932c: 23, 1933e: 23; Hagedorn 1910a: 40; Hopkins 1914: 122; Kleine 1934: 128; Schedl 1941d: 382, 1950c: 206, 1961k: 397.
- globosus Hagedorn** 1912c: 352 (*Hapalogenius*). Syntypes, sex?; PondoLand, im Ecoswald; MNB, Berlin. Synonymy: Eggers 1927a: 196.
References: (ds) Kleine 1912b: 169, 1914b: 318, 1934a: 128. (tx) Eggers 1927a: 196; Hagedorn 1912c: 352; Hopkins 1914: 122.
- granulatus (Lepesme)** 1942a: 206 (*Kissophagus*). Holotype, sex?; Mont Cameroun, versant Sud-Ouest, 1,800–2,000 m; MNHN, Paris.
Figures: Lepesme 1942: 206 (adult), Schedl 1959n: 419 (galleries).
Distribution: Africa (Cameroon/ Zaire).
Hosts: *Ficus cf capensis*.
Notes: (1) Schedl 1962j: 188 (to *Chilodendron*, =*Hylesinopsis*).
References: (ec) Schedl 1958d: 190–191. (tx) Lepesme 1942a: 206; Schedl 1959n: 418; 1960b: 162, 1962j: 188.
- hirsutus (Schedl)** 1957e: 869 (*Trypographus*). Holotype, sex?; Tanganyika, Shume; BMNH, London.
Distribution: Africa (Tanzania).
Hosts: *Ficus* sp.
Notes: (3) Browne 1973a: 285 (a synonym of *confusus* Eggers).
References: (ds) Gardner 1957a: 32; Schedl 1960g: 123. (tx) Browne 1973a: 285; Schedl 1957e: 869, 1960g: 123.
- hispidus (Eggers)** 1935c: 299 (*Metahylesinus*). Holotype, sex?; Congostaat (Leverville); MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Eggers 1935c: 299; Schedl 1960g: 78.
- horridus (Eggers)** 1924: 99 (*Hylesinus*). Holotype, sex?; Tshela (Congostaat); MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Pentaclethra eetveldeana*.
References: (hb) Schedl 1958d: 194, 1960g: 78. (ds) Schedl 1960g: 78. (tx) Eggers 1924: 99–100, 1927a: 172; Schedl 1957d: 9, 1957e: 865–866, 1960g: 78.
- joveri (Schedl)** 1950e: 213 (*Trypographus*). Syntypes, sex?; Cote d'Ivoire Adiopodoume; MNHN, Paris.
Figures: Schedl 1960g: 124.
Distribution: Africa (Ivory Coast).
Hosts: *Ficus polita*.
References: (hb) Cachan 1957: 15. (ds) Schedl 1964f: 617, 1971g: 192. (tx) Schedl 1950e: 213, 1954: 870, 1957e: 869, 1960g: 124.
- niger (Schedl)** 1952j: 7 (*Hapalogenius*). Syntypes 2, sex?; Uganda; Schedl Collection in NHMW, Wien.
Distribution: Africa (Uganda).
Hosts: "Nudarira."
Notes: (1) Schedl 1979c: 166 (citation of holotype invalid).
References: (ds) Schedl 1960g: 79. (tx) Schedl 1952j: 7, 1960g: 79, 1979c: 166.

- oblongus** (Eggers) 1935c: 299 (*Pseudophloeotribus*). Holotype, sex?: Uganda (Gura R. 7500 ft.); BMNH, London.
Distribution: Africa (Kenya/ Uganda).
References: (ds) Gardner 1957a. (tx) Eggers 1935c: 299; Powell, W. 1980: 29; Schedl 1960g: 79–80.
- orientalis** (Eggers) 1943c: 72 (*Metahylesinus*). Holotype, sex?: Mozambique: environ d'Andrade, Vallee du Revoue; MNHN, Paris.
Distribution: Africa (Mozambique/ Tanzania).
References: (ds) Schedl 1960g: 80. (tx) Eggers 1943c: 72; Schedl 1960g: 80.
- pauliani** (Lepesme) 1942a: 204 (*Kissophagus*). Holotype, sex?: Mont Cameroun, versant Sud-Ouest, 1,800–2,000 m; MNHN, Paris.
Distribution: Africa (Cameroon).
Notes: (1) Schedl 1962b: 188 (to *Chilodendron*, =*Hylesinopsis*).
References: (tx) Lepesme 1942a: 204; Schedl 1959n: 420, 1962b: 188.
- punctatus** (Eggers) 1932c: 28 (*Kissophagus*). Holotype, sex?: Congo Belge; USNM, Washington.
Distribution: Africa (Ethiopia/ Zaire).
Notes: (1) Schedl 1962b: 188 (to *Chilodendron*, =*Hylesinopsis*).
References: (ds) Lepesme 1942a: 207. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1932c: 28, 1943c: 64; Lepesme 1942a: 207; Schedl 1959n: 420, 1962b: 188.
- quadrilateratus** (Schedl) 1957d: 24 (*Metahylesinus*). Holotype ♂; Congo Belge, Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Baphia pubescens*, *B. soldheidii*.
References: (ds) Schedl 1960g: 80. (tx) Schedl 1957d: 24, 1960g: 80, 1963h: 262.
- rhodesianus** (Eggers) 1933c: 19 (*Pseudophloeotribus*). Holotype, sex?: N Rhodesia: Mazabuka; BMNH, London.
Distribution: Africa (Zambia).
Hosts: *Lonchocarpus* sp.
Notes: (1) Schedl 1957d: 9 (to *Metahylesinus*, =*Hylesinopsis*).
References: (ds) Beaver & Loytyniemi 1985a: 65. (tx) Eggers 1933c: 19–20; Schedl 1951g: 1105, 1957d: 9, 1960g: 81.
- saudiarabiae** (Schedl) 1971d: 434 (*Chilodendron*). Holotype ♀; Arabie-Seoudite, Abha; MHNG, Geneve.
Distribution: Asia (Saudi Arabia).
Hosts: *Ficus* sp.
References: (tx) Schedl 1971d: 434, 1979c: 220.
- secutus** Wood 1987: 547. Holotype ♀; Uganda, Mpanga; BMNH, London, automatic.
Distribution: Africa (Uganda).
References: (tx) Schedl 1965f: 4; Wood, S. L. 1987: 547.
- africanus** Schedl 1965f: 4 (*Hylesinus*). Holotype ♀; Uganda, Mpanga; BMNH, London, preoccupied by Eggers 1933a: 19.
References: (tx) Schedl 1965f: 4; Wood, S. L. 1987: 547.
- senegambiensis** (Schedl) 1941d: 382 (*Haapalogenius*). Holotype, sex?: Senegambien; Schedl Collection in NHMW, Wien.
Distribution: Africa (Senegal).
References: (tx) Schedl 1941d: 382, 1960g: 81.
- seriatus** (Eggers) 1940c: 228 (*Pseudophloeotribus*). Holotype, sex?: Congostaat: Rutshuru; MRCB, Tervuren.
Distribution: Africa (Kenya/ Zaire).
Hosts: *Albizzia gummiifera*, *A. sp.*, *Cinchona ledgeriana*.
Notes: (1) Schedl 1957d: 9 (to *Metahylesinus*, =*Hylesinopsis*).
References: (tx) Eggers 1940c: 228; Schedl 1957d: 9.
- cinchonae** Schedl 1952j: 8 (*Haapalogenius*). Holotype, sex?: Congo Belge, Kivu: Mulunga; MRCB, Tervuren. Synonymy: Wood 1992b:(in press).
References: (ds) Gardner 1957a: 31. (tx) Eggers 1940c: 228–229; Schedl 1952j: 8, 1957d: 18, 1961k: 401; Wood, S. L. 1992b:(in press).
- squamosus** (Eggers) 1936b: 28 (*Pseudophloeotribus*). Holotype, sex?: Abyssinia: Mulu, above Muger Valley, circa 8,000 ft.; BMNH, London.
Distribution: Africa (Ethiopia).
Notes: (1) Schedl 1957d: 9 (to *Metahylesinus*, =*Hylesinopsis*).
References: (tx) Eggers 1936b: 28–29; Schedl 1957d: 9, 1960g: 82.
- striatus** (Schedl) 1957e: 865 (*Metahylesinus*). Holotype, sex?: Tanganyika, Arusha; BMNH, London.
Distribution: Africa (Tanzania).
Hosts: *Acacia* sp.
References: (ds) Browne 1970: 539; Gardner 1957a: 31. (tx) Schedl 1957e: 865, 1960g: 82.
- sulcatus** (Eggers) 1944b: 93 (*Metahylesinus*). Holotype, sex?: Belgisch-Congo: Libenge; MRCB, Tervuren.
Distribution: Africa (Zaire).
Notes: (3) Numberg 1969a: 396 (described female).
References: (ds) Beaver & Loytyniemi 1989. (tx) Beaver & Loytyniemi 1989; Eggers 1944b: 93; Numberg 1969a: 396; Schedl 1960g: 82.
- togonus** (Eggers) 1919: 234 (*Pseudohylesinus*). Syntypes 2 ♂, 1 ♀; Misahohe and Bismarckburg in Togo; MNB, Berlin and Eggers Collection (USNM, Washington or NHMW, Wien?).
Figures: Schedl 1960g: 76.
Distribution: Africa (French Guinea/ Ghana/ Nigeria/ Senegal/ Sudan/ Togo).

References: (**ds**) Schedl 1960g: 82, 1961d: 177, 1962h: 57, 1962k: 1063, 1965e: 350, 1965g: 19, 1966a: 275, 1968b: 144, 1971e: 1, 1972e: 279, 1975h: 350, 1975k: 276, 1977d: 277. (**tx**) Eggers 1919: 234, 1935a: 299, 1943e: 72, 1944b: 93; Schedl 1950d: 21–22, 1954e: 47, 1955d: 268, 1960g: 76, 82–83, 1962k: 1063.

variegatus (**Eggers**) 1936b: 29 (*Pseudophlocotribus*). Holotype, sex?; Abyssinia: Jem-Jem Forest, circa 8,000 ft.; BMNH, London.

Distribution: Africa (Ethiopia).

Notes: (1) Schedl 1957d: 9 (to *Metahylesinus*, =*Hylesinopsis*).

References: (**tx**) Eggers 1936b: 29–30, 1940c: 228; Schedl 1957d: 9, 1960g: 83.

Genus *Rhopalopselion* Hagedorn

RHOPALOPSELION HAGEDORN 1909a: 740. Type-species: *Rhopalopselion bituberculatum* Hagedorn, monobasic.

Hapalogenius Hagedorn 1912c: 352. Type-species: *Hapalogenius globosus* Hagedorn, monobasic. Synonymy: Schedl 1951g: 1104.

References: (**tx**) Hagedorn 1912c: 352; Hopkins 1914: 122, 1915c: 227; Nunberg 1956: 195; Schedl 1951g: 1104, 1957d, 1957e: 865–883, 1958d: 188, 1959n: 392–403, 1965f: 6.

References: (**ay**) Nobuchi 1969a: 48. (**hb**) Wood, S. L. 1986a: 39. (**ds**) Schedl 1960g: 141, 1961k: 392; Wood, S. L. 1986a: 39. (**tx**) Hagedorn 1909a: 740, 1910a: 29, 32–33, 1910d: 6; Hopkins 1914: 129, 1915c: 227; Lucas 1920: 572; Nunberg 1956: 203; Schedl 1951g: 1104–1105, 1957d, 1958d: 188, 1959n: 114–123, 1960g: 141, 1961k: 392–403, 1965f: 3–15; Wood, S. L. 1986a: 39.

acaciae (**Schedl**) 1957d: 18 (*Hapalogenius*). Holotype ♀; Congo Belge: Kivu, Hembé Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Acacia pennata*.

References: (**hb**) Schedl 1961k: 393. (**ds**) Schedl 1961k: 393. (**tx**) Schedl 1957d: 18, 25, 1961k: 393, 395, 1979c: 9.

atrum **Eggers** 1935c: 295. Holotype, sex?; Congoaate. (Equateur: Flandria); MRCB, Tervuren. Distribution: Africa (Zaire).

Hosts: *Cola diversifolia*.

References: (**hb**) Ghesquire 1933a: 30–36; Mayne & Donis 1951: 333. (**ds**) Ghesquire 1933a: 30–36, 1933b: 780; Kleine 1934a: 125; Nunberg 1961a: 328. (**tx**) Eggers 1935c: 285, 295; Nunberg 1956b: 200, 203; Schedl 1960g: 116, 1962k: 1064.

bimaculatus (**Eggers**) 1933c: 22 (*Hapalogenius*). Holotype, sex?; Natal: (Weenen); BMNH, London.

Distribution: Africa (Natal in South Africa).

References: (**ds**) Schedl 1961k: 393. (**tx**) Eggers 1933c: 22–23; Schedl 1957c: 323, 1961k: 393.

bituberculatum **Hagedorn** 1909a: 740. Holotype, sex?; Kamerun; MNB, Berlin.

Distribution: Africa (Cameroon).

References: (**ds**) Hagedorn 1910d: 6; Kleine 1912b: 161, 1914b: 309. (**tx**) Eggers 1935c: 296; Hagedorn 1909a: 740, 1910a: 33; Hopkins 1914: 129; Lucas 1920: 572; Nunberg 1956b: 203; Schedl 1957d: 27, 1960g: 116.

confusum **Eggers** 1944b: 93. Holotype, sex?; Belgisch-Congo, Mayumbe; MRCB, Tervuren. Distribution: Africa (Ghana/ Zaire).

Hosts: *Bosqueia angolensis*, *Baphia* sp.

References: (**cn**) Thompson, G. H. 1960. (**ds**) Schedl 1960g: 117; Thompson, G. H. 1960, 1963: 6. (**tx**) Eggers 1944b: 93; Nunberg 1956b: 200, 203; Schedl 1954e: 49, 1960g: 117.

congoum (**Schedl**) 1950c: 206 (*Hapalogenius*). Syntypes, sex?; Congo Belge, Mulungu, Kivu; IRSNB, Brussels, and Schedl Collection in NHMW, Wien, restricted by Schedl 1979c: 63 to IRSNB specimens.

Figures: Schedl 1961k: 394.

Distribution: Africa (Zaire).

Hosts: *Albizzia grandibractea*, *Berkheya spekeana*, *Cinchona ledgeriana*, *Kigelia lauceolata*, *Milletia hylobia*, *Pycnostachya coerulea*, *Syzygium cf guineensis*.

References: (**ce**) Mayne & Donis 1951: 331; Schedl 1958d: 190–191. (**hb**) Schedl 1950c: 206, 1952j: 1, 1961k: 394–396. (**ds**) Mayne & Donis 1962: 306; Schedl 1952j: 1, 1957c: 206, 1957e: 866, 1961k: 394. (**tx**) Schedl 1950c: 206, 1961k: 394, 1979c: 63.

conjungens **Schedl** 1965f: 5. Holotype, sex?; Kenya, Kakamege; BMNH, London. Distribution: Africa (Kenya).

Hosts: *Craibia elliotti*, *Celtis zenkeri*.

References: (**tx**) Schedl 1965f: 5.

dentatum **Nunberg** 1956b: 200. Holotype, sex?; Belgian Congo; IZV, Warsaw.

Distribution: Africa (Zaire).

References: (**tx**) Nunberg 1956b: 200.

grande **Schedl** 1957d: 25. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Schedl 1960g: 115.

Distribution: Africa (Zaire).

Hosts: *Baphia pubescens*, *B. soldheidii*.

References: (**ce**) Schedl 1958d: 185, 194. (**hb**) Schedl 1958d: 185, 1960g: 117–118. (**ds**) Schedl 1960g: 117. (**tx**) Schedl 1957d: 25, 1960g: 115, 117.

immaturus (**Schedl**) 1957e: 867 (*Hapalogenius*). Holotype, sex?; Uganda, Bodongo; BMNH, London.

Distribution: Africa (Kenya/ Tanzania/ Uganda).

Hosts: *Khaya anthotheca*, *Dombeya mastersi*, *Rauwolfia inebrians*.

References: (**ds**) Gardner 1957a: 31; Schedl

- 1961k: 398. (tx) Schedl 1957e: 867, 1961k: 398, 1979c: 121.
- immune** Eggers 1943c: 71. Holotype, sex?; Mozambique (Haut Sagadze, Canxix); "typen in Paris Museum"; however, it is in the Schedl Collection in NHMW, Wien (apparently taken on loan by Schedl 1979c: 122 after Eggers' death before Eggers returned it to MNHN, Paris).
Distribution: Africa (Mozambique/Zaire).
References: (ds) Numberg 1952: 19, 1965b: 19. (tx) Eggers 1943c: 71, 1944b: 93; Numberg 1952: 19, 1956b: 200, 1965b: 19; Schedl 1954e: 74, 1960g: 119, 1979c: 122.
- intermedium** Schedl 1957d: 26. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Baphia pubescens*, *B. soldheidii*.
References: (hb) Schedl 1958d: 185, 188, 1960g: 119–120. (ds) Schedl 1960g: 119–120. (tx) Schedl 1957d: 26, 1960g: 119–120.
- lesnei** (Eggers) 1943e: 73 (*Hapalogenius*). Syn-types, sex?; Portugiesisch Ostafrika (Zambeze), Nova Choupanga 1928; Chemba 1928; Mozambique: Haut Sagadze, Chanxix 1928; MNHN, Paris.
Distribution: Africa (Mozambique).
References: (ds) Schedl 1961k: 399. (tx) Eggers 1943e: 73; Schedl 1957e: 866, 1961k: 399, 1979c: 138.
- lonchocarpae** (Schedl) 1959q: 707 (*Hapalogenius*). Holotype ♀?; Kenya, Coast; BMNH, London.
Distribution: Africa (Kenya).
Hosts: *Lonchocarpus* sp. pods.
References: (ds) Schedl 1959q: 705, 1961k: 399. (tx) Schedl 1959q: 707, 1961k: 399, 1979c: 140.
- maculatum** (Schedl) 1957d: 19 (*Hapalogenius*). Holotype ♂; Congo Belge, Kivu, Rutschuru; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Acacia sieberiana*.
References: (hb) Schedl 1961k: 400. (ds) Schedl 1961k: 400. (tx) Schedl 1957d: 19, 1961k: 400, 1979c: 143.
- nitidum** Schedl 1957d: 27. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Baphia pubescens*, *B. soldheidii*.
References: (ds) Schedl 1960g: 122. (tx) Schedl 1957b: 153, 1957d: 27, 1960g: 122.
- occidentalis** (Schedl) 1967e: 225 (*Hapalogenius*). Holotype ♂; Brazzaville, Orstom Park, Congo; NHMB, Budapest.
Distribution: Africa (Zaire).
References: (tx) Schedl 1967e: 225, 1979c: 178.
- orientale** Schedl 1957b: 153. Syntypes, sex?; Tanganyika, Arusha; BMNH, London, restricted by Schedl 1979c: 180 to BMNH, London specimens.
Distribution: Africa (Tanzania).
References: (hb) Schedl 1960g: 122. (ds) Gardner 1957a: 32. (tx) Schedl 1957b: 150, 153, 1960g: 122, 1965f: 5, 1979c: 180.
- primus** (Schedl) 1971e: 6. (*Hapalogenius*). Holotype, sex?; Angola, Tscha-Muchito; Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola).
References: (tx) Schedl 1971e: 6–7, 1979c: 199.
- pusillus** (Gerstaecker) 1855: 639 (*Hylesinus*). Holotype, sex?; Mozambique; MNB, Berlin.
Distribution: Africa (Mozambique).
Notes: (1) Eggers 1927a: 196 (to *Hapalogenius*, =*Rhopalopselion*).
References: (ds) Hagedorn 1910d: 17; Kleine 1912b: 171, 1914b: 321; Lacordaire 1866: 36; Schedl 1961k: 400. (tx) Chapuis 1869: 8, 1873: 216; Eggers 1927a: 196, 1932c: 23, 1933e: 23; Gemminger & Harold 1872: 2675; Gerstaecker 1855: 639; Hagedorn 1910a: 49; Lacordaire 1866: 363; Schedl 1941d: 382, 1961k: 400.
- rufus** (Schedl) 1957e: 866 (*Hapalogenius*). Holotype ♀; Tanganyika, Magamba; BMNH, London.
Distribution: Africa (Tanzania).
Hosts: *Albizzia* sp.
References: (ds) Schedl 1961k: 401. (tx) Schedl 1957e: 866, 1961k: 401, 1979c: 215.
- subseriatus** (Schedl) 1957e: 866 (*Hapalogenius*). Holotype, sex?; Uganda, Budongo; BMNH, London.
Distribution: Africa (Uganda).
Hosts: *Cynometra alexandrii*.
References: (ds) Schedl 1961k: 403, 1963a: 29, 1965f: 4. (tx) Schedl 1957e: 866, 1961k: 403, 1963a: 29, 1979c: 243.
- suturalis** (Schedl) 1965f: 6 (*Hapalogenius*). Holotype ♀; Kenya, Kitale; BMNH, London.
Distribution: Africa (Kenya).
Hosts: *Albizzia gummifera*.
References: (tx) Schedl 1965f: 6, 1979c: 247.
- thompsoni** Schedl 1954e: 74. Syntypes ♂; Koforidua, Mpraeso and Sunyani, Gold Coast; BMNH, London.
Distribution: Africa (Ghana).
Hosts: *Cola cariofolia*, *Baphia pubescens*, *Distemonanthus benthamianus*.
References: (hb) Browne 1963a: 229; Thompson, G. H. 1963: 6. (ds) Browne 1963a: 229; Schedl 1960g: 122, 1964j: 40, 1965e: 350; Thompson, G. H. 1963: 6. (tx) Schedl 1954e: 49, 74, 1957d: 27, 1960g: 122.

Genus *Phloeoborus* Erichson

- PHLOEOBORUS ERICHSON 1836: 54. Type-species: *Phloeoborus rudis* Erichson, subsequent designation by Hopkins 1914: 126.
Phloeotrupes Erichson 1836: 53. Type-species: *Phloeotrupes grandis* Erichson, subsequent

designation by Hopkins 1914: 127. Synonymy: Wood 1977c: 383.

References: **(tx)** Blanchard 1845; Erichson 1836: 53; Hagedorn 1910a: 28, 1910d: 6; Hopkins 1914: 127; Kleine 1932: 9–11; Lacordaire 1866: 371; Lucas 1920: 504; Wood, S. L. 1977c: 383.

Keys: Blandford 1897a: 150, Eggers 1942b: 267, Wood 1982b: 122.

References: **(ay)** Numberg 1951: 263; Schonherr 1970b. **(bv)** Barr, B. A. 1969: 642; Schonherr 1970b. **(hb)** Wood, S. L. 1982b: 121, 1986a: 39. **(ds)** Hagedorn 1910d: 5; Wood, S. L. 1982b: 121, 1986a: 39. **(tx)** Blandford 1897a: 148; Eggers 1942: 267–269; Erichson 1836: 54; Hagedorn 1910a: 27, 1910d: 5; Kleine 1932: 9–11; Lacordaire 1866: 372; Lucas 1920: 503; Numberg 1951: 26; Schedl 1940c: 203–208; Strohmeier 1909: 248–251; Wood, S. L. 1977c: 383, 1982b: 121–128, 1986a: 39.

asper Erichson 1836: 55. Holotype ♂; Brasilien; MNB, Berlin.

Figures: Blandford 1897a: 14.

Distribution: Antilles Islands (Trinidad), North America (Chiapas, Veracruz in Mexico/ Nicaragua), South America (Brazil/ Cayenne/ Ecuador/ Guyana/ Venezuela).

References: **(hb)** Atkinson & Equihua 1986a: 419; Wood, S. L. 1982b: 123. **(ds)** Atkinson & Equihua 1986a: 419; Blackwelder 1947: 786; Blandford 1897a: 150; Chapuis 1869: 15, 1873: 223; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 335; Lacordaire 1866: 371; Schedl 1973d: 151, 1976a: 50; Wood, S. L. 1982b: 123. **(tx)** Blandford 1897a: 150; Chapuis 1869: 15, 1873: 223; Eggers 1933b: 2, 1942b: 267, 273, 1943d: 241, 243; Erichson 1836: 55; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Lacordaire 1866: 371; Strohmeier 1909: 251; Wood, S. L. 1973c: 180, 1982b: 123.

imbricornis Eichhoff 1868b: 148. Holotype ♂; Mexico; Hamburg Museum, lost. Synonymy: Chapuis 1869: 8, Strohmeier 1909: 251.

References: **(ds)** Blackwelder 1947; Blandford 1897a: 150, 153; Ferrer 1942; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 347. **(tx)** Blandford 1897a: 150, 154; Chapuis 1869: 8, 1873: 216; Eggers 1942b: 266; Eichhoff 1868b: 148; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Schedl 1940a: 338; Strohmeier 1909: 251.

ovatus Chapuis 1869: 15. Lectotype ♂; Cayenne; IRSNB, Brussels, designated by Wood 1982b: 123. Synonymy: Blandford 1897a: 150, Strohmeier 1909: 251, Wood 1973c: 180.

References: **(ds)** Blackwelder 1947; Gemminger & Harold 1872: 2679; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 338. **(tx)** Blandford 1897a: 150; Chapuis 1869: 15, 1873: 223;

Eggers 1942b: 267, 269; Hagedorn 1910a: 28; Strohmeier 1909: 251; Wood, S. L. 1973c: 180.

rugatus Blandford 1897a: 153. Lectotype ♀; Chontales, Nicaragua; BMNH, London, designated by Wood 1982b: 123. Synonymy: Wood 1973c: 180.

Notes: (3) Strohmeier 1909: 249 (described male).

References: **(hb)** Swabey 1935: 6. **(ds)** Blackwelder 1947; Hagedorn 1903b: 546, 1910d: 5; Kleine 1912b: 158, 1914b: 338, 357; Swabey 1935: 6. **(tx)** Blandford 1897a: 150, 153; Eggers 1933b: 2, 1942b: 267, 269, 1943d: 241; Hagedorn 1903b: 546, 1910a: 28; Schedl 1952h: 64, 69; Strohmeier 1909: 249, 251; Wood, S. L. 1973c: 180.

aspericollis Strohmeier 1909: 248. Holotype ♂; Llanos, Ecuador; Strohmeier Collection.

Distribution: South America (Ecuador).

References: **(ds)** Blackwelder 1947: 786; Kleine 1912b: 158, 1914b: 343. **(tx)** Eggers 1942b: 267, 1943d: 241; Hagedorn 1910a: 28; Strohmeier 1909: 248.

belti Blandford 1897a: 151. Holotype ♀; Chontales, Nicaragua; BMNH, London.

Distribution: North America (Nicaragua).

References: **(ds)** Blackwelder 1947; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 357; Wood, S. L. 1982b: 12. **(tx)** Blandford 1897a: 150–151; Eggers 1942b: 267; Hagedorn 1910a: 28; Strohmeier 1909: 251.

bodei Eggers 1930a: 164. Lectotype ♂; Bolivia; USNM, Washington, designated by Anderson & Anderson 1971: 6.

Distribution: North America (El Salvador), South America (Argentina/ Bolivia/ Brazil/ Peru/ Venezuela).

Notes: Eggers 1942b: 273 (aberration named as var. *pupillatus*).

References: **(ds)** Blackwelder 1947; Schedl 1960a: 79, 1973d: 151, 1976a: 50. **(tx)** Anderson, W. H. & Anderson 1971: 6; Eggers 1930a: 164–165, 1942b: 267, 273, 1943d: 241.

cristatus Chapuis 1869: 13. Holotype, sex?, Bogota [Colombia]; IRSNB, Brussels.

Distribution: South America (Colombia/ Ecuador/ Peru/ Venezuela).

References: **(ds)** Blackwelder 1947; Blandford 1897a: 150; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 341; Schedl 1973d: 152. **(tx)** Blandford 1897a: 150; Chapuis 1869: 13, 1873: 221; Eggers 1929e: 53, 1942: 267, 1943d: 241; Hagedorn 1910a: 28; Schedl 1952h: 68.

radulosus Blandford 1897a: 153. Syntypes, sex?; Ecuador; BMNH, London, Fry Collection (now in NHMBS, Basel), and Schaufuss Collection. Synonymy: Eggers 1929e: 53.

References: **(ds)** Blandford 1897a: 150, 153; Hagedorn 1910d: 5; Kleine 1912b: 158,

1914b: 34. (tx) Blandford 1897a: 150, 153; Eggers 1929e: 53, 1942b: 267; Hagedorn 1910a: 28; Schedl 1952h: 68; Strohmeier 1909: 251.

ellipticus Chapuis 1869: 15. Holotype, sex?; Bresil; IRSNB, Brussels.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947; Blandford 1897a: 150; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 335. (tx) Blandford 1897a: 150; Chapuis 1869: 15, 1873: 225; Eggers 1942b: 267; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Strohmeier 1909: 251.

freyi Schedl 1955d: 274. Holotype ♂; Rio de Janeiro, Brasilien; Frey Museum, Tutzing (now at NHMBS, Basel).

Distribution: South America (Brazil).

References: (ds) Schedl 1973d: 152. (tx) Schedl 1955d: 274.

gaujonii Fairmaire 1887: 16. Holotype, sex?; Equateur; MNHN, Paris.

Distribution: South America (Ecuador).

References: (ds) Blackwelder 1947; Hagedorn 1910d: 5; Kleine 1912b: 158. (tx) Eggers 1942a: 266; Fairmaire 1887: 16; Hagedorn 1910a: 28.

grandis (Erichson) 1836: 54 (*Phloeotrupes*). Syn-types, sex?; Brazil, Nova Fribourg; MNB, Berlin. Distribution: South America (Brazil).

Notes: (1) Wood 1977c: 383 (to *Phloeoborus*).

References: (ay) Imhoff 1856: 227. (ds) Blackwelder 1947; Chapuis 1869: 11, 1873: 219; Hagedorn 1910d: 6; Kleine 1912a: 159, 1914b: 335; Lacordaire 1830: 127, 1866: 371; Sturm 1826: 156, 1843: 229. (tx) Chapuis 1869: 11, 1873: 219; Erichson 1836: 54; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 29; Hopkins 1914: 127; Lacordaire 1866: 371; Lucas 1920: 504; Strohmeier 1909: 250; Wood, S. L. 1977c: 383.

granosus Eichhoff 1868b: 148. Holotype, sex?; Brasilia; Hamburg Museum, lost.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947; Hagedorn 1910d: 5; Kleine 1912b: 15. (tx) Eggers 1942b: 266–267; Eichhoff 1868b: 148; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 2.

granulatus Eggers 1943d: 243. Holotype ♂; Franz. Guyana (Maroni); Strohmeier Collection.

Distribution: South America (Cayenne).

References: (tx) Eggers 1943d: 241, 243.

grossus Chapuis 1869: 13. Holotype ♂?; Colombie; IRSNB, Brussels.

Distribution: South America (Colombia/ Peru).

References: (ds) Blackwelder 1947; Blandford 1897a: 150; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 341; Schedl 1960a: 77. (tx) Blandford 1897a: 150; Chapuis 1869: 13, 1873: 221; Eggers 1942b: 267–268; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Strohmeier 1909: 250.

guayanensis Eggers 1942b: 268. Holotype ♂; Franz. Guayana; Eggers Collection, in NHMW, Wien.

Distribution: South America (Cayenne).

References: (tx) Eggers 1942b: 267–270.

intermedius Eggers 1930a: 165. Holotype ♂; Brit. Guyana; Eggers Collection, in NHMW, Wien.

Distribution: South America (Guyana).

References: (ds) Blackwelder 1947. (tx) Eggers 1930a: 165, 1942b: 267–268.

irregularis Eggers 1942b: 270. Holotype ♂; Peru; BMNH, London.

Distribution: South America (Peru).

References: (tx) Eggers 1942b: 267–271.

lunulatus Eggers 1943d: 242. Lectotype ♀; Brasil; USNM, Washington, designated by Anderson & Anderson 1971: 18.

Distribution: South America (Brazil).

References: (tx) Anderson, W. H. & Anderson 1971: 18; Eggers 1943d: 241–242.

mamillatus Chapuis 1869: 14. Holotype ♂?; Brazil, Nova-Fribourg; IRSNB, Brussels.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947; Blandford 1897a: 151; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 33. (tx) Blandford 1897a: 151; Chapuis 1869: 14, 1873: 222; Eggers 1942b: 267–269; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Strohmeier 1919: 251.

procerus (Erichson) 1836: 54 (*Phloeotrupes*). Holotype, sex?; Brazil; MNB, Berlin.

Distribution: South America (Brazil).

Notes: (1) Wood 1977c: 383 (to *Phloeoborus*).

References: (ds) Blackwelder 1947; Hagedorn 1910d: 6; Kleine 1912b: 159, 1914b: 335; Lacordaire 1866: 37; Schedl 1973d: 152. (tx) Eggers 1933g: 17, 1942b: 266; Erichson 1836: 54; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 29; Lacordaire 1866: 371; Lucas 1920: 50; Wood, S. L. 1977c: 383.

sipolisii Fairmaire 1887: 16. Holotype, sex?; Minas-Geraes, Brazil; MNHN, Paris. Synonymy: Eggers 1933g: 17, 1942b: 266.

References: (ds) Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 335. (tx) Eggers 1931c: 17, 1933g: 17, 1942b: 266; Fairmaire 1887: 16; Hagedorn 1910a: 2.

punctatorugosus Chapuis 1869: 14. Holotype ♂; Nouvelle-Grenade [Colombia]; IRSNB, Brussels.

Figures: Blandford 1897a: pl. 6, fig. 15.

Distribution: North America (Costa Rica/ Mexico/ Nicaragua), South America (Brazil/ Cayenne/ Colombia).

Hosts: *Coffea arabica*, *Inga* sp., *Lecythis costaricensis*, *Psidium guajava*.

References: (hb) Wood, S. L. 1982b: 124. (ds) Blackwelder 1947; Blandford 1897a: 151, 154; Ferrer 1942; Hagedorn 1910d: 5; Kleine 1912b:

158, 1914b: 341, 347, 357; Schedl 1960a: 77, 79, 1973d: 152; Wood, S. L. 1982b: 124. **(tx)** Blandford 1897a: 151, 154; Chapuis 1869: 14, 1873: 222; Eggers 1942b: 267, 1943d: 241; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Schedl 1940a: 338, 1940c: 205; Strohmeyer 1909: 251; Wood, S. L. 1977c: 208, 1982b: 124.

breviusculus Chapuis 1969: 14. Holotype ♂; Cayenne; IRSNB, Brussels. Synonymy: Wood 1977b: 209.

References: **(ds)** Blackwelder 1947; Blandford 1897a: 151; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 338. **(tx)** Blandford 1897a: 151; Chapuis 1869: 14, 1873: 222; Eggers 1942b; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Strohmeyer 1909: 251; Wood, S. L. 1977b: 209.

nitidicollis Chapuis 1869: 14. Lectotype ♀; Nova Fribourg, Rio de Janeiro [Brasil]; IRSNB, Brussels, designated by Wood 1982b: 124. Synonymy: Eggers 1942b: 267.

Notes: Strohmeyer 1909: 251 (synonymy ?), Wood 1982b: 124 (synonymy ?).

References: **(ds)** Blackwelder 1947; Blandford 1897a: 150; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 335, 357. **(tx)** Blandford 1897a: 150; Chapuis 1869: 14, 1873: 222; Eggers 1942b: 267; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Strohmeyer 1909: 251; Wood, S. L. 1982b: 124.

punctatus (Schedl) 1976a: 64 (*Phloeotrupes*). Holotype ♀; Santo Leopoldina, Espirito Santa, Brasil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: **(tx)** Schedl 1976a: 64.

rudis Erichson 1836: 55. Lectotype ♀; Brazil; MNB, Berlin, designated by Wood 1982b: 127.

Figures: Blandford 1897a: pl. 6, fig. 13.

Distribution: North America (Belize/ Costa Rica/ El Salvador/ Guatemala/ Nicaragua/ Panama), South America (Argentina/ Brazil/ Cayenne/ Guyana/ Peru/ Venezuela).

References: **(hb)** Wood, S. L. 1982b: 127. **(ds)** Atkinson 1989a: 59; Blackwelder 1947; Blandford 1897a: 151; Bruch 1914a; Chapuis 1869: 13, 1873: 220; Hagedorn 1903b: 546, 1910d: 5; Kleine 1912b: 158, 1914b: 335, 338, 357; Lacordaire 1866: 371; Schedl 1966f: 80, 1970c: 91, 1972g: 41, 1973d: 152, 1976a: 50, 1978c: 291; Wood, S. L. 1982b: 127. **(tx)** Blandford 1897a: 150–151; Castelnau 1840; Chapuis 1869: 13, 1873: 220; Eggers 1930: 165–166, 1942b: 267–268, 1943d: 241; Erichson 1836: 55; Gemminger & Harold 1872: 2679; Hagedorn 1903b: 546, 1910a: 28; Hopkins 1914: 126, 1915: pl. 9, fig. 10, pl. 11, fig. 10; Lacordaire 1866: 371; Lucas 1920: 503; Nunberg 1956a: 144; Strohmeyer 1909: 250; Wood, S. L. 1973c: 180, 1982b: 127.

elongatus Chapuis 1869: 13. Holotype ♂; Bresil;

IRSNB, Brussels. Synonymy: Strohmeyer 1909: 250; Wood 1973c: 180.

References: **(ds)** Blackwelder 1947; Blandford 1897a: 150; Hagedorn 1903b: 546, 1910d: 5; Kleine 1912b: 158, 1914b: 335. **(tx)** Blandford 1897a: 150; Chapuis 1869: 13, 1873: 221; Eggers 1942b: 267; Gemminger & Harold 1872: 2679; Hagedorn 1903b: 546, 1910a: 28; Strohmeyer 1909: 250; Wood, S. L. 1973c: 180.

rigipennis Eggers 1942b: 271. Holotype ♀; San Salvador, Costa Rica; USNM, Washington. Synonymy: Wood 1973c: 180.

References: **(hb)** Viana 1964: 128. **(ds)** Schedl 1970e: 89, 1972g: 38, 1973d: 152; Viana 1964: 128. **(tx)** Anderson, W. H. & Anderson 1971: 28; Eggers 1942b: 267, 271; Schedl 1948d: 36, 1955d: 274, 1958f: 34; Wood, S. L. 1973c: 180.

scaber Erichson 1836: 55. Lectotype ♀; Bahia, Brazil; MNB, Berlin, designated by Wood 1982b: 126.

Distribution: Antilles Islands (Jamaica/ Trinidad), North America (Belize/ Costa Rica/ Guatemala/ Veraacruz in Mexico/ Nicaragua/ Panama), South America (Bolivia/ Brazil/ Cayenne/ Colombia/ Guyana/ Peru/ Venezuela).

Hosts: *Brosimum* sp., *Ficus* sp.

References: **(hb)** Atkinson & Equihua 1986a: 419; Bondar 1950: 479; Vitzthum 1926: 489; Wood, S. L. 1982b: 126. **(ds)** Atkinson & Equihua 1986a: 419; Blackwelder 1947; Blandford 1897a: 152–153; Bright 1972d: 32, 1985c: 170; Chapuis 1869: 13, 1873: 221; Ferrer 1942; Cowdey 1926: 27; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 335, 338, 341, 347, 357, 358; Lacordaire 1866: 371; Schedl 1960a: 75, 1966f: 78, 1972g: 38, 1973d: 152; Wood, S. L. 1982b: 126. **(tx)** Blandford 1897a: 149, 152–153; Bright 1972d: 32, 1985c: 170; Chapuis 1869: 13, 1873: 221; Eggers 1933b: 2, 1933g: 17, 1942b: 267–268, 1943d: 241; Erichson 1836: 55; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28; Lacordaire 1866: 371; Lucas 1920: 503; Nunberg 1956a: 144; Schedl 1940a: 338, 1952h: 64, 69, 1958c: 2, 1960a: 75; Strohmeyer 1909: 251; Wood, S. L. 1974d: 285, 1982b: 126. **(ms)** Lucas 1920: 503.

caelatus Blanchard 1846: 204 (*Phloeotrupes*).

Syntypes, sex?; Bolivia; MNHN, Paris. Synonymy: Eggers 1933g: 17.

References: **(ds)** Hagedorn 1910d: 6; Kleine 1912b: 159, 1914b: 344. **(tx)** Blanchard 1846: 204; Eggers 1933g: 17, 1942b: 267; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 29; Schedl 1952h: 64, 69.

sericeus Chapuis 1869: 13. Lectotype ♂; Cayenne; IRSNB, Brussels, designated by Wood 1982b: 126. Synonymy: Strohmeyer 1909: 251; Eggers 1942b: 267.

References: **(tx)** Chapuis 1869: 13, 1873: 221; Eggers 1942b: 267–268; Gemminger &

Harold 1872: 2679; Schedl 1940a: 338, 1952b: 64, 69; Strohmeyer 1909: 251; Wood, S. L. 1982b: 126.

opacithorax Schedl 1940c: 205. Syntypes ♀; Panzos, Guatemala; Institut. Pflanzenschutzforschung Kleimmachnow. Synonymy: Wood 1974d: 285.

Notes: (3) Schedl 1972q: 255 (described male).

References: (tx) Eggers 1942b: 266–267; Schedl 1940c: 205–206, 1972q: 255; Wood, S. L. 1974d: 285.

signatus Strohmeyer 1909: 248. Holotype ♀; Jataly (Brasilía); Strohmeyer Collection.

Distribution: South America (Bolivia/ Brazil/ Paraguay).

References: (ds) Blackwelder 1947: 786; Kleine 1912b: 158; Schedl 1972g: 41. (tx) Eggers 1942b: 267, 1943d: 241; Hagedorn 1910a: 28; Schedl 1951d: 16; Strohmeyer 1909: 248, 251.

similis Eggers 1942b: 272. Lectotype ♀; Brasilien; Goyaz; USNM, Washington, designated by Anderson & Anderson 1971: 30. Synonymy: Eggers 1943d: 241.

Notes: (3) Schedl 1979c: 229 (citation of holotype invalid).

References: (tx) Anderson, W. H. & Anderson 1971: 30; Eggers 1942b: 267, 272–273, 1943d: 241.

sulcifrons Eichhoff 1868b: 148. Holotype, sex?; Brasilía; Hamburg Museum, lost.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947; Hagedorn 1910d: 5; Kleine 1912b: 158, 1914b: 335. (tx) Eggers 1942b: 266–267; Eichhoff 1868b: 148; Gemminger & Harold 1872: 2679; Hagedorn 1910a: 28.

Genus *Dactylipalpus* Chapuis

DACTYLIPALPUS CHAPUIS 1869: 12. Type-species: *Dactylipalpus transversus* Chapuis, subsequent designation by Hopkins 1914: 120.

Dactylopselaphus Gemminger & Harold 1872: 2678. Type-species: *Dactylipalpus transversus* Chapuis, automatic, unneeded replacement name for *Dactylipalpus* Chapuis 1869: 12.

References: (tx) Gemminger & Harold 1872: 2678.

Ethadopselaphus Blandford 1896d: 321. Type-species: *Ethadopselaphus cicatricosus* Blandford, original designation. Synonymy: Hagedorn 1910d: 5.

References: (tx) Blandford 1896d: 321; Hagedorn 1910d: 5; Lucas 1920: 276; Rohrl 1914: 189.

Keys: Eggers 1933c: 200.

References: (ay) Schonherr 1970b. (bv) Schonherr 1970b. (hb) Wood, S. L. 1986a: 39. (ds) Beeson 1941 (1961: 372); Browne 1961c: 66; Wood, S. L. 1986a: 39. (tx) Beeson 1941 (1961: 372);

Blandford 1896d: 321; Chapuis 1869: 12, 1873: 220; Eggers 1933c: 200–202; Hagedorn 1908: 369–370, 1909: 162, 1910a: 25–26, 1910d: 5; Hopkins 1914: 120–121, 1915: 227; Kleine 1932: 7–11; Nymberg 1951: 262; Schedl 1959n: 368; Strohmeyer 1911: 18; Wood, S. L. 1986a: 39.

africanus Eggers 1919: 229. Holotype ♂; Ostafrika; Ukani; Hamburg Museum, lost.

Distribution: Africa (Cameroon/ Tanzania).

References: (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1919: 229, 1922b: 164, 1933c: 201; Hagedorn 1908, 1910a: 6; Schedl 1959n: 370, 1979c: 14.

biseriatus Browne 1973a: 282. Holotype ♂; Zaire; Kivu, Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Browne 1973a: 282.

camerunus Hagedorn 1908: 371. Holotype ♂; Kamerun; MNB, Berlin.

Figures: Schedl 1959n: 372 (female).

Distribution: Africa (Cameroon/ Congo/ Ghana/ Kenya/ Togo/ Uganda/ Zaire/ Zambia).

Hosts: *Celtis soyauxii*, *Chrysophyllum lacourtianum*, *Scorodophloeus zenkeri*, *Trichilia* sp.

Notes: (3) Eggers 1922b: 164 (described female).

References: (hb) Beaver & Loytyniemi 1955a: 64; Browne 1963a: 231. (ds) Beaver & Loytyniemi 1955a: 64; Browne 1963a: 231; Gardner 1957a: 30; Hagedorn 1910d: 5; Kleine 1912b: 156, 1914b: 309; Mayne & Donis 1960: 102–103; Schedl 1964f: 617, 1966c: 222, 1967e: 209, 1971g: 190, 1982: 278; Strohmeyer 1909: 250; Thompson, G. H. 1963: 37. (tx) Eggers 1920: 230, 1922b: 164, 1927a: 197, 1933c: 200, 1933e: 17; Hagedorn 1908: 371, 1910a: 26; Roberts 1969: 124; Schedl 1941d: 379, 1953g: 241, 1954: 47, 1955f: 257, 1959n: 370–371, 1979c: 50; Strohmeyer 1909: 249–250.

cicatricosus (Blandford) 1896d: 321 (*Ethadopselaphus*). Syntypes, sex?; Natal [South Africa]; BMNH, London.

Distribution: Africa (Angola/ Natal in South Africa/ Tanzania/ Zaire/ Zambia).

References: (hb) Loytyniemi, Beaver, & Loytyniemi 1954. (ds) Ferreira 1965: 1110; Hagedorn 1910d: 5; Kleine 1912b: 156, 1914b: 319; Schedl 1959p: 15. (tx) Blandford 1896d: 321; Eggers 1927a, 1933c: 201; Hagedorn 1910a: 26; Hopkins 1914: 121; Roberts 1969: 124; Schedl 1941d: 379, 1950d: 6, 1959n: 373, 1959p: 15; Wood, S. L. 1961b: 8.

marmoratus Strohmeyer 1914d: 73. Syntypes ♂ ♀; Kolassini (Deutsch-Ostafrika), and Natal; Strohmeyer Collection. Synonymy: Eggers 1927a: 197.

References: (ds) Kleine 1914b: 321. (tx) Blandford 1896d: 321; Eggers 1924: 110, 1927: 197, 1933: 201; Schedl 1950: 6; Strohmeyer 1914d: 73.

- flocosus Hagedorn** 1912c: 351. Holotype, sex?; Nord-Kamerun; MNB, Berlin.
Distribution: Africa (Cameroon).
References: (ds) Kleine 1912b: 156, 1914b: 309. (tx) Eggers 1933c: 201–202; Hagedorn 1910a: 26, 1912c: 351; Schedl 1959n: 374.
- grouvellei (Blandford)** 1896d: 322 (*Ethadopselaphus*). Holotype, sex?; Begoro in Ashanti [Ghana]; BMNH, London.
Figures: Mayne & Donis 1962: 304.
Distribution: Africa (Cameroon/ French Guinea/ Ghana/ South Africa/ Togo/ Uganda/ Zaire/ Zambia).
Hosts: *Bosqueia* sp., *Clrysophyllum* sp., *Drypetes* sp., *Rinorea* sp., *Strombosia scheffleri*, *Symphonia globulifera*.
References: (ds) Beaver & Loytyniemi 1985a: 65; Hagedorn 1910d: 5; Kleine 1912b: 156, 1914b: 308; Schedl 1972e: 279. (tx) Blandford 1896d: 322; Eggers 1924: 110, 1927a: 197, 1933c: 201; Gardner 1957: 31; Hagedorn 1910a: 26; Mayne & Donis 1962: 304; Schedl 1941: 379, 1950d: 6, 1954e: 47, 1955d: 268, 1959n: 374; Strohmeier 1909: 249.
- similis Hagedorn** 1908: 370. Holotype ♀; Buea, Kamerun; MNB, Berlin. Synonymy: Eggers 1927a: 197, Schedl 1959n: 374.
References: (ds) Gardner 1957a; Hagedorn 1910d: 5; Kleine 1912b: 156, 1914b: 308; Mayne & Donis 1962: 303; Schedl 1971g: 190, 1977d: 280. (tx) Eggers 1924: 110, 1927a: 197, 1933c: 201; Hagedorn 1908: 370, 1910a: 26; Schedl 1941d: 379, 1954e: 47, 1959n: 374; Strohmeier 1909: 249.
- imitans Eggers** 1922b: 164. Holotype ♀; Ebolowa in Kamerun; USNM, Washington.
Distribution: Africa (Cameroon).
References: (tx) Anderson, W. H. & Anderson 1971: 15; Eggers 1922b: 164, 1933c: 200, 1933e: 17; Schedl 1959n: 376.
- niger Schedl** 1961f: 87. Holotype ♂; Luzon, Laguna, Mt. Makiling (Philippines); Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
References: (ds) Schedl 1966b: 4. (tx) Nobuchi 1983: 299; Schedl 1961f: 87, 1979e: 166.
- unctus Wood** 1961b: 8. Holotype ♀; Mt. Makiling, Laguna, Philippine Islands; BMNH, London.
Synonymy: Wood 1988a: 33.
References: (tx) Nobuchi 1983: 299; Wood, S. L. 1961b: 8, 1988a: 33.
- orientalis Eggers** 1933e: 16. Lectotype ♂; Uganda; Mpanga Forest, Toro; USNM, Washington, designated by Anderson & Anderson 1971: 23.
Distribution: Africa (Uganda/ Zaire/ Zambia).
References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (ds) Beaver & Loytyniemi 1985a: 65. (tx) Anderson, W. H. & Anderson 1971: 23; Eggers 1933e: 200, 1933e: 16; Schedl 1953g: 241, 1959n: 376.
- parricida Eggers** 1919: 230. Holotype, sex?; Condue, belgisch Congo; Hamburg Museum, lost, Eggers cotype in NHMW, Wien.
Figures: Schedl 1959n: 369 (male)
Distribution: Africa (Cabun/ Zaire).
Hosts: *Garcinia polyantha*.
References: (ds) Schedl 1972e: 279. (tx) Eggers 1919: 230, 1933c: 201; Schedl 1959n: 377, 1962k: 1062, 1979c: 186; Wood, S. L. 1961b: 8.
- transversus Chapuis** 1869: 12. Syntypes ♀; Malacca, Celebes; IRSNB, Brussels.
Distribution: Asia (Andaman Islands, Assam, Nicobar Islands in India/ Malaya/ Taiwan/ Thailand/ Tonkin Island and Vietnam), Australia (Queensland/ New South Wales), Indonesia (Aru, Celebes, Java, Mollucas, Sumatra, Ternate), New Guinea, Philippine Islands (Luzon/ Mindoro).
Hosts: *Anthocephalus cadamba*, *Ficus religiosa*, *Manuglieta insignis*, *Mesua ferrea*, *Myristica philippinensis*.
References: (en) Yunus & Hua 1980: 228. (hb) Beeson 1922c: 495; Browne 1961c: 66; Kalshoven 1958b: 161; Kleine 1932a: 295. (ds) Beeson 1922c: 495, 1941 (1961: 287); Browne 1961c: 66, 1968c: 111, 1980c: 482; Eggers 1926a; Hagedorn 1910d: 5; Hagen 1890; Kalshoven 1932: 242; Kleine 1912b: 156, 1914b: 284, 289, 295, 1932a: 295, 1934a: 125; Mesa 1935: 93; Miwa 1931: 268; Ohno, Yoneyama, & Nakazawa 1982a: 3, 1987: 93; Ohno et al. 1988a: 91, 1989: 59; Schedl 1936g: 520, 1937f: 15, 1938g: 424, 1961c: 69, 1962b: 186, 1966b: 5, 1971c: 368, 1974c: 262, 1975a: 454; Yunus & Hua 1980: 228. (tx) Chapuis 1869: 12, 1873: 220; Eggers 1926a: 299, 1927b: 391, 1933: 200; Gemminger & Harold 1872: 2678; Hagedorn 1908, 1909a, 1910a: 26; Hopkins 1914: 120; Nobuchi 1983: 299; Schedl 1936g: 520, 1937f: 15–17, 1938g: 424, 1940b: 434, 1959j: 171, 1959n: 369, 1961f: 87; Strohmeier 1909: 250, 1911b: 18; Wood, S. L. 1961b: 8.
- quadratocollis Chapuis** 1869: 12. Syntypes 2 ♂; Ternate; IRSNB, Brussels. Synonymy: Strohmeier 1909: 251; Hagedorn 1910d: 5.
References: (tx) Chapuis 1869: 12, 1873: 220; Gemminger & Harold 1872: 2678; Hagedorn 1908, 1910d: 5; Strohmeier 1909: 250.

Tribe Tomicini Thomson

Tomicidae (Based on the erroneous concept that *Tomicus* = *Ips*)

Notes: Through an unfortunate error in identification, Latreille associated the genus *Ips* with the name *Dermestes piniperda* Linnaeus and this error was perpetuated for more than a century. However, he clearly designated *piniperda* Linnaeus as the type-species of his genus *Tomicus*. When a family-group name is based on *Tomicus*, that name is automatically linked to the type-species of *Tomicus* even though the author of the family-group name had made an error in identification.

References: Thomson 1859: 145, 1865: 345.

Tomicides (Based on *Tomicus* = *Ips*)

References: Ferrari 1867a: 3; Lacordaire 1866: 357, 372.

Tomicini (Based on *Tomicus* = *Ips*)

References: Barbey 1901: 21; Eichhoff 1878b: 7, 71, 1881a: 34, 42, 1883a: 106; LeConte & Horn 1883: 112; Lovendal 1889b: 6.

Tomicinae (Based on *Tomicus* = *Ips*)

References: Hagedorn 1908: 375.

Tomicini (Based on *Tomicus* = *Blastophagus*)

References: Wood, S. L. 1978a: 111, 1982b: 129, 1986: 40.

Hylurgidae

References: Zimmermann 1868: 141.

Hylurgini

References: LeConte 1876: 373; LeConte & Horn 1883: 515; Murayama 1963b: 34; Nobuchi 1985: 5; Reitter 1894: 39, 1913a: 27; Yin, Huang, & Li 1984: 52.

Hylurgides

References: Nusslin 1912: 273.

Hylurgina

References: Balachowsky 1949a: 137; Numberg 1954: 15.

Xylechinides

References: Barbey 1901: 19; Nusslin 1912: 273.

Dendroctonides

References: Nusslin 1912: 273.

Genus *Chaetoptelius* Fuchs

CHAETOPTELIUS FUCHS 1913: 43. Type-species: *Hylesinus vestitus* Mulsant & Rey, automatic.

Homarus Broun 1881: 740. Type-species: *Homarus mundulus* Broun, monobasic, preoccupied by Weber 1795.

References: (tx) Broun 1881: 740, 1882: 409; Hagedorn 1910d: 33.

Acrantus Broun 1882: 409. Type-species: *Homarus mundulus* Broun, automatic, replacement name for *Homarus* Broun; preoccupied by Wagler 1830. Synonymy: Wood 1980c: 90.

References: (tx) Broun 1882: 409; Hagedorn 1910a: 55–59, 1910d: 33; Hutton 1904: 219; Schedl 1958a: 557–560, 1959: 41, 1963h: 262; Winkler 1932: 1634; Wood, S. L. 1962: 77, 1966b: 29, 1980c: 90.

Chaetophorus Fuchs 1912a: 46. Type-species: *Hylesinus vestitus* Mulsant & Rey; monobasic; preoccupied by Kirby & Spence 1825: 255. Synonymy: Balachowsky 1949a: 96, Wood 1980c: 90.

References: (tx) Balachowsky 1949a: 96; Fuchs 1912a: 46; Reitter 1913a: 43; Wood, S. L. 1980c: 90.

References: (cn) Hedden, R. L. 1983. (hb) Wood, S. L. 1986a: 42. (ds) Wood, S. L. 1986a: 42. (tx) Balachowsky 1949a: 85, 96; Browne 1970: 546; Fuchs 1913: 43; Pfeffer 1955: 92; Reitter 1913a: 43; Spessivtsev 1931: 85; Stark 1952: 176–177; Wood, S. L. 1986a: 42.

bimaculatus (Schedl) 1936g: 520 (*Leperisinus*). Syntypes, sex?; Australia: Queensland, Blackall Ranges; SAM, Adelaide.

Distribution: Australia (New South Wales/Queensland).

Hosts: Liana.

References: (ds) Schedl 1936g: 520. (tx) Schedl 1936g: 520, 1938f: 34, 1958i: 214.

impar (Schedl) 1975g: 216 (*Hylesinus*). Holotype, ♀; New Guinea: Papua, Porotop, Luth. Miss. Sawmill; Schedl Collection at NHMW, Wien.

Distribution: New Guinea.

Hosts: *Araucaria hunsteinii*.

References: (tx) Schedl 1975g: 216.

mundulus (Broun) 1881: 740 (*Homarus*). Syntypes 3, sex?; New Zealand: Whangarei Harbour; BMNH, London.

Distribution: New Zealand.

References: (ds) Hagedorn 1910d: 33; Hutton 1904: 219; Kleine 1912b: 190. (tx) Broun 1881: 740, 1882: 409; Hopkins 1914: 116, 122; Lucas 1920: 71; Schedl 1959: 41; Wood, S. L. 1962: 77, 1966b: 29. (ms) Lucas 1920: 71.

opacus Broun 1895: 417 (*Acrantus*). Holotype, sex?; New Zealand: Mount Te Aroha; BMNH, London. Synonymy: Wood 1966b: 29.

References: (tx) Broun 1895: 417; Schedl 1959: 41; Wood, S. L. 1962: 77, 1966b: 29.

opimus Wood 1985: 270 (*Acrantus*). Holotype ♂; Pak Pak on S coast Bombarai, Vogelkop, Dutch New Guinea; Wood Collection.

Distribution: New Guinea.

References: (tx) Wood, S. L. 1985: 270.

tricolor (Schedl) 1938f: 34 (*Leperisinus*). Holotype ♂; Australia; Schedl Collection at NHMW, Wien. Figures: Schedl 1938f: 35 (tibia).

Distribution: Australia (Queensland).

Hosts: *Baloghia lucida*.

References: (tx) Schedl 1938f: 34, 1948g: 25, 1958i: 214.

versicolor Wood 1988a: 31. Holotype, sex?; New Zealand: Nelson; BMNH, London, automatic.

Distribution: New Zealand.

References: (tx) Wood, S. L. 1988a: 31.

tricolor Schedl 1958c: 560 (*Acrantus*). Holotype, sex?; New Zealand: Nelson; BMNH, London, preoccupied by Schedl 1935.

References: (tx) Schedl 1935f: 34, 1948g: 25, 1958c: 560.

vestitus (Mulsant & Rey) 1860: 340, 1861a: 87 (*Hylesinus*). Syntypes, sex?; France: Environs d'Hyeres; MNHN, Paris.

Figures: Acatay 1969: 25–26, Balachowsky 1949a: 23, 97, 114, Grune 1979: 78, Postner 1974: 414 (adult, antenna).

Distribution: Africa (Algeria/ Canary Islands/ Morocco/ Tunisia), Asia (Punjab, Uttar Pradesh in India/ Iran/ Israel/ Syria/ Turkey), Europe (Bulgaria/ Corsica/ France/ Greece/ Hungary/ Italy/ Sardinia/ Sicily/ Spain/ Crimea in W USSR/ Yugoslavia).

Hosts: *Pistacia atlantica*, *P. integerrima*, *P. lentiscus*, *P. terebinthus*, *P. vera*, apparently rare in *Cotynius cogyria*, *Olea europea*, *Smilax aspersa*.

Notes: (3) Stark 1952: 177 (named aberration *eldaricus*, no status).

References: (ay) Fuchs 1912a: 46; Kaston 1936: 645; Lekander 1959b: 23; Lesne 1911a: 627; Marcu 1933a: 34; Russo 1926a: 103–260; Schedl 1931a: 75; Wichmann 1912a: 9–10. (bv) Balachowsky & Chararas 1964; Barr, B. A. 1969: 640; Grune 1979: 79; Wichmann 1912a: 9. (cn) Acatay 1969; Anagnostopoulos 1938: 497–544; Balachowsky 1963a: 1272; Berlese 1915; Constantino 1937; Davatchi 1958: 1–166; Gentry, J. W. 1965: 134; Kiriukhin 1946: 5, 8–24, 1947: 58–66; Mourikis & Vassilaina-Alexopoulou 1975: 145; Pelekassis 1962; Pelekassis et al. 1960: 45; Schimitschek 1944: 163; Schneider 1958: 65–68. (ce) Chararas 1956b, 1957d; Fry 1989: 15; Gantier & Russo 1925; Halperin & Holzschuh 1984: 24; Hinton 1945: 230; Jammicky 1957b: 26; Kleine 1944: 79; Mendel 1986d: 130; Novak, P. 1952: 412; Rizk & Abdalla 1981; Rizk & Ardini 1981b, 1981c; Russo 1926a: 103–260, 1926b: 84, 1936b: 93; Schvester 1957b: 93; Teocchi 1965: 4; Thompson, W. R. 1943: 29, 53; Thompson, W. R. & Simmonds 1964: 11; Tidor 1969: 34. (hb) Acatay 1969; Adeli 1972: 13; Alkan 1956: 220; Balachowsky 1963a: 1272; Barbey 1901: 21, 63; Beffa 1949, 1961; Berlese 1915; Cecconi 1906; Davatchi 1958: 74; Eichhoff 1881a: 39, 144; Gantier & Russo 1925: 150–158; Cobeil 1935; Halperin & Holzschuh 1984: 24; Keller 1913: 242; Knotek 1897: 136, 148, 1898b: 324, 1907: 281; Lekander 1959a: 83, 1959b: 23; Nusslin 1898: 274; Peyerimhoff 1919: 250; Postner 1974: 414; Rizk & Abdalla 1981; Rizk & Ardini 1981a, 1981b; Russo 1925a: 286–291, 1926a: 103–260, 1939a: 4; Schimitschek

1944: 163; Schneider 1958: 65; Schvester 1957b: 93; Spessivtsev 1922b: 75; Stark 1952: 176. (ds) Acatay 1969; Acoque 1896; Adeli 1972: 13; Alkan 1959a: 804; Balachowsky 1963a: 1272; Barthe 1896; Beeson 1961: 285; Beffa 1949; Calwer 1884, 1893; Cecconi 1906; Davatchi 1958; Endrodi 1958b; Escalera 1919; Gentry, J. W. 1965: 134; Grune 1979: 79; Hagedorn 1910d: 18; Halperin & Holzschuh 1984: 24; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 709; Kadyrov 1988: 43, 44, 1989; Kiriukhin 1946: 3–5; Kleine 1912b: 173, 1913a: 307, 1914a: 16, 1934a: 130; Knotek 1898b: 324; Kobakhidze 1957: 178; Krause 1910: 171, 1911: 67; Lacordaire 1866: 363; Langhoffer 1915c: 156; Luigioni 1929: 992; Moragues 1889: 32; Mourikis & Vassilaina-Alexopoulou 1975: 145; Normand 1937: 268; Novak, P. 1952: 412, 1964; Nusslin 1898: 274; Pelekassis 1962; Peyerimhoff 1919: 250; Pfeffer 1936: 89; Postner 1974: 414; Ragusa 1924: 115; Reitter 1894a: 52, 1913a: 43; Russo 1936b: 93; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1221; Schedl 1961b: 186, 1964j, 1967c: 69, 1969g: 288, 1971d: 426, 1971f: 146, 1972n: 349, 1979i: 288; Schedl, Lindberg, & Lindberg 1959: 13; Stark 1927b: 87, 1952: 176; Stein 1868: 113; Stein & Weise 1877: 163; Tredl 1907: 8; Uyttenboogart 1904: 143. (tx) Acatay 1969: 25, 26; Acoque 1896; Balachowsky 1949a: 96, 1963a: 1272; Barbey 1901: 21, 63; Beffa 1949, 1961; Eichhoff 1864b: 31, 1881a: 39, 144, 1883a: 126; Endrodi 1957a: 307, 1957b; Fauvel 1889; Fuchs 1912a: 46; Gemminger & Harold 1872: 2675; Grune 1979: 78, 79; Hagedorn 1910a: 49, 1914: 118; Lacordaire 1866: 363; Lekander 1959b: 23; Lucas 1920: 175; Luigioni 1929: 992; Mulsant & Rey 1860: 340, 1861a: 87, 1861b: 340; Postner 1974: 414; Reitter 1887b: 193, 1894a: 52, 1913a: 43; Rey 1892b: 30; Schedl 1931a: 75, 1934f: 1634; Schedl, Lindberg, & Lindberg 1959: 13; Spessivtsev 1922: 75–77; Stark 1952: 176; Weber, L. 1913: 51. (ms) Lekander 1959a: 83; Lucas 1920: 175; Weber, L. 1913: 51.

indigenus Wollaston 1864: 267 (*Hylesinus*). Holotype, sex?; Hierro, Canary Islands; BMNH, London. Synonymy: Schedl, Lindberg, & Lindberg 1959: 13.

References: (cn) Souphieff & Scherbinskaja 1937: 25. (ds) Hagedorn 1910d: 17; Kleine 1912b: 171, 1914a: 20; Souphieff & Scherbinskaja 1937: 25. (tx) Gemminger & Harold 1872: 2674; Hagedorn 1910a: 48; Schedl 1934f: 1634; Schedl, Lindberg, & Lindberg 1959: 13; Wollaston 1864: 267, 1865: 249.

Genus *Xylechinosomus* Schedl

XYLECHINOSOMUS SCHEDL 1963d: 209. Type-species: *Xylechinus taunayi* Eggers, original designation.

References: (hb) Wood, S. L. 1986a: 42. (ds)

Wood, S. L. 1986a: 42. (tx) Schedl 1963d: 209, 1966f: 75; Wood, S. L. 1986a: 42.

brasilensis (Schedl) 1951m: 95 (*Pseudohylesinus*). Syntypes, sex?; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection (2 ♀) in NHMW, Wien, and Plamann Collection.

Figures: Pedrosa-Macedo & Schonherr 1985: 8. Distribution: South America (Brazil).

Hosts: *Araucaria brasiliensis*.

Notes: Schedl 1979c: 45 (citation of holotype invalid).

References: (ds) Pedrosa-Macedo & Schonherr 1985: 8. (tx) Bright 1969: 35; McNamara 1977: 198; Pedrosa-Macedo & Schonherr 1985: 8; Schedl 1951m: 95. 1979c: 45.

araucariae Schedl 1963c: 210. Holotype ♂; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection at NHMW, Wien. Synonymy: Wood 1988b: 190.

References: (tx) Schedl 1963c: 210, 1966e: 43; Wood, S. L. 1988b: 190.

contractus (Chapuis) 1869: 23 (*Hylastes*). Syntypes, sex?; Bresil, St. Paul; IRSNB, Brussels.

Figures: Pedrosa-Macedo & Schonherr 1985: 9 (as *taunayi*).

Distribution: South America (Brazil).

Hosts: *Araucaria angustifolia*.

References: (ds) Hagedorn 1910d: 408; Kleine 1912b: 165, 1914b: 335; Pedrosa-Macedo & Schonherr 1985: 9. (tx) Chapuis 1869: 23, 1873: 231; Eggers 1940h: 61; Gemminger & Harold 1872: 2669; Hagedorn 1910a: 40, 45, 1910d: 8; Pedrosa-Macedo & Schonherr 1985: 9; Schedl 1963j: 477, 1966d: 142, 1966f: 75.

taunayi Eggers 1928c: 84 (*Xylechinus*). Lectotype, sex?; Brasil, Sao Paulo (Campos do Jordao); USNM, Washington. Synonymy: Schedl 1963j: 477.

References: (ds) Blackwelder 1947; Schedl 1970e: 80. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1928c: 84; Pedrosa-Macedo & Schonherr 1985: 9; Schedl 1937h: 164-165, 1960b: 162, 1963d: 209, 1963j: 477, 1966e: 42.

hirsutus Schedl 1963d: 211. Holotype ♂; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection at NHMW, Wien.

Figures: Pedrosa-Macedo & Schonherr 1985: 10. Distribution: South America (Brazil).

Hosts: *Araucaria brasiliensis*.

References: (ds) Pedrosa-Macedo & Schonherr 1985: 10. (tx) Pedrosa-Macedo & Schonherr 1985: 10; de Ruelle 1970: 115; Schedl 1963d: 211, 1966e: 43.

humilis (Blanchard) 1851: 427 (*Hylastes*). Syntypes (?), sex?; Chile; not located.

Distribution: South America (Chile).

Notes: (3) Chapuis 1869: 24 (re-described).

References: (ds) Blackwelder 1947; Hagedorn 1910d: 10; Kleine 1912b: 166, 1914b: 332; Lacor-

daire 1866: 363; Schedl 1965g: 26, 1972d: 137. (tx) Blanchard 1851: 427; Bright 1972: 35; Eggers 1929e: 53; Gay 1852: 427; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 45; Lacordaire 1866: 363; Porter 1932: 106; Schedl 1965g: 26, 1972d: 137.

minimus Schedl 1963d: 212. Holotype ♀; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection at NHMW, Wien.

Figures: Pedrosa-Macedo & Schonherr 1985: 11. Distribution: South America (Brazil).

Hosts: *Araucaria angustifolia*.

References: (ds) Pedrosa-Macedo & Schonherr 1985: 11. (tx) Pedrosa-Macedo & Schonherr 1985: 11; Schedl 1963d: 212, 1966d: 43.

pilosus Wood 1985: 274. Holotype ♂; Curitiba, Parana, Brazil; Wood Collection.

Distribution: South America (Parana in Brazil).

Hosts: *Araucaria angustifolia*.

References: (tx) Wood, S. L. 1985: 274.

sachtlebeni Schedl 1963d: 209. Holotype ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection at NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1963d: 209.

valdivianus (Eggers) 1942a: 15 (*Xylechinus*). Holotype, sex?; Chile (Valdivia); Hamburg Museum, lost.

Distribution: South America (Chile).

Hosts: *Araucaria* sp.

References: (ds) Schedl 1972d: 138. (tx) Eggers 1942a: 15; Schedl 1955e: 255, 1963d: 209, 1966d: 43, 1972d: 138.

Genus *Sinophloeus* Brethes

SINOPHLOEUS BRETHES 1922: 433. Type-species: *Sinophloeus porteri* Brethes, monobasic.

References: (hb) Wood, S. L. 1986a: 42. (ds) Wood, S. L. 1986a: 42. (tx) Brethes 1922: 433; Wood, S. L. 1986a: 42.

porteri Brethes 1922: 434. Holotype, sex?; Province de Cautin, Chile; Brethes Collection, not located. Figures: Brethes 1922: 434 (antenna, tarsus). Distribution: South America (Chile).

Hosts: *Nothophagus obliqua*.

References: (ds) Blackwelder 1947; Schedl 1967d: 5, 1972d: 136, 1975d: 2. (tx) Brethes 1922: 434; Porter 1932: 106; Schedl 1951d: 16, 1966e: 43, 1972d: 136.

destructor Eggers 1942a: 15. Holotype, sex?; Chile (Chillan); Hamburg Museum, lost. Synonymy: Wood 1988a: 34.

Notes: (3) Schedl 1951d: 16 (cited in *Blastophagus*).

References: (ds) Schedl 1972d: 135. (tx) Eggers 1942a: 15; Schedl 1951d: 16, 1972d: 135; Wood, S. L. 1988a: 34.

Genus *Dendrotrupes* Broun

DENDROTRUPES BROUN 1881: 741. Type-species: *Dendrotrupes costiceps* Broun, subsequent designation by Hopkins 1914: 120.

References: (hb) Wood, S. L. 1986a: 42. (ds) Hagedorn 1910d: 34; Wood, S. L. 1986a: 42. (tx) Broun 1881: 741; Hagedorn 1910a: 46–47; Hopkins 1914: 120; Wood, S. L. 1966b: 20, 1967d: 77, 1986a: 42.

costiceps Broun 1881: 741. Syntypes 2 ♀; Tairua, New Zealand; BMNH, London.

Distribution: New Zealand.

References: (ds) Hagedorn 1910d: 34; Hutton 1904: 219; Kleine 1912b: 190, 1914b: 304. (tx) Broun 1881: 741; Hagedorn 1910a: 47; Hopkins 1914: 120; Lucas 1920: 230; Schedl 1962i: 74; Wood, S. L. 1966b: 23. (ms) Lucas 1920: 230.

vestitus Broun 1881: 741. Syntypes ♂; Tairua, New Zealand; BMNH, London. Synonymy: Schedl 1962i: 74, Wood 1966b: 23.

References: (ds) Hagedorn 1910d: 34; Hutton 1904: 219; Kleine 1912b: 190, 1914b: 304. (tx) Broun 1881: 741; Hagedorn 1910a: 47; Lucas 1920: 230; Schedl 1962i: 74; Wood, S. L. 1966b: 23. (ms) Lucas 1920: 230.

zealandicus Wood 1992b: 86. Holotype ♂; Rotorua, New Zealand; Wood Collection.

Distribution: New Zealand.

References: (tx) Wood, S. L. 1992b: 86.

Genus *Hylurgopinus* Swaine

HYLURGOPINUS SWAINE 1918a: 43, 74. Type-species: *Hylastes rufipes* Eichhoff, original designation.

References: (cn) Epstein 1969: 304–306; Martin 1936: 297–306; Matthews 1935: 5. (hb) Wood, S. L. 1982b: 141, 1986a: 42. (ds) Wood, S. L. 1982b: 141, 1986a: 42. (tx) Arnett 1960: 1041; Beal & Massey 1945: 58, 90; Bruck 1936a: 43; Dodge 1938: 17; Swaine 1918a: 43–44, 74; Wood, S. L. 1982b: 141, 1986a: 42.

rufipes (Eichhoff) 1868c(May): 147 (*Hylastes*). Lectotype, sex?; Carolina [USA]; USNM, Washington, designated by Wood 1982b: 142.

Figures: Bevan 1987: 113, Bright 1976d: 200, 206, Copley 1981: 62, Ives & Wong 1988: 226, White 1983: 328, Whitten & Reeks 1967a: 114, 1967b: 169.

Distribution: North America (Manitoba, New Brunswick, Ontario, Quebec, Saskatchewan in Canada/ Alabama, Connecticut, Delaware, District of Columbia, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, Tennessee, Vermont, Virginia, West Virginia in USA).

Hosts: *Ulmus* spp.

References: (ay) Fortin 1948, 1949: 16–59;

Kaston 1936: 613–650; Krause & Fingerhut 1983; Lyons 1982; Thomas, J. B. 1957: 3, 1967. (bv) Barr, B. A. 1969: 641; Borg & Norris 1969: 730–733; Davidson, A. G. et al. 1964; Dethier 1947; Gardiner 1979; Kaston & Riggs 1938: 467; Lanier 1981a, 1983b; Lyons, Baren, & Van 1984; Millar et al. 1986; O'Callahan, Gallagher, & Lanier 1980; Peacock 1974, 1979; Swedenborg, Jones, & Ryker 1989; Swedenborg et al. 1988; Turnbow & Franklin 1980; Weaver, N. 1978b; Whitten & Reeks 1967a, 1967b; Wolfenbarger 1946: 62; Wollerman 1979c. (cn) Al-Azawi & Casida 1958; Al-Azawi & Norris 1959; Alexander 1944: 41; Alexander et al. 1939: 45–50, 57–66, 1942: 50–66, 1943: 207–315, 1944: 33–43, 1945: 33–43, 1946: 33–43; Allington 1958; Anderson, R. F. 1960: 243; Andrew et al. 19..; Andrews 1951: 12–16; Anonymous 1954a: 1, 1960q, 1961h, 1962h, 1962z, 1963j, 1963r, 1963y, 1965b, 1966f, 1966k, 1966u, 1967f, 1967k, 1967t, 1968g, 1968p, 1969e, 1970h, 1970m: 3, 1971e, 1971j, 1971v, 1972t, 1973b, 1974d, 1975k, 1976e, 1977f, 1978e, 1979d; Appleby 1976: 47; Baker, R. M. 1936: 4; Baker, W. C. 1941: 476; Balachowsky 1957; Balch & Reeks 1950: 144; Banfield 1968; Barry 1935: 46–48; Beal 1958; Beal & Massey 1945: 90–92; Becker, W. B. 1936: 50, 1937a, 1937b: 56, 1937c: 375, 1938: 63, 1939a: 63, 1939b: 112–121, 1940a: 65–66, 1941: 71, 1942: 66, 1943: 40–42, 1944: 41, 1945a: 40–42, 1945b, 1945c: 29, 1946a: 41–42, 1946b: 43, 1947: 40, 1948: 42–43, 1950, 1955b, 1964b, 1965; Becker, W. B. & Tomlinson 1938; Benton 1951: 20; Blackman 1950; Blagbrough 1952: 468–469; Boullard 1976; Bourne et al. 1937: 46–61; Boyce 1948: 299–300; Boyd 1945: 118–119, 1953: 143–144; Brasier & Gibbs 1973; Britton 1934: 257, 1935: 256, 1937: 289, 1939; Britton & Friend 1935: 398; Britton et al. 1935: 147–262; Bromley 1944: 59, 1949; Browne 1968b: 347; Buchanan 1941: 367–369; Buchholz 1949: 152–153; Calkins & Michener 1953: 18; Cannon, Barger, & Groth 1985; Carter, J. C. & Carter 1974; Ceballos & Cordoba 1945a; Clinton & McCormick 1935: 68–70, 1936; Collins 1935: 128–132, 1938: 192–195, 1941: 369–370; Collins et al. 1936: 169, 1942: 130; Comtois 1988: 173; Conners & Savila 1945; Connola et al. 1947b: 43; Copley 1981; Craighead 1941, 1942a, 1942b: 375–376; Cusumano & Wasser 1965: 230–234; Dance 1964; Daviault 1945: 280, 1946: 115, 1948: 146–147; Davidson, A. G. et al. 1958, 1964; Davidson, R. H. & Lyon 1979; Davis 1937: 238; Diamon 1949: 58–60; Dietrich 1936: 217; Doane 1958b; Doane et al. 1936; Donohoe 1944: 452; Drake et al. 1947: 111; Drooz 1985: 342; Edelman & Malysheva 1959a, 1959b; Ehrenberg 1954; Elliott, K. R. & Hildahl 1963: 83, 1964: 83, 1965: 87; Elliott, K. R. & Laut 1966: 72; Elliott, K. R., Laut, & Brandt 1967; Enale et al. 1977, 1978; Falker 1940: 129; Felt 1905: 288, 1924: 273, 1926: 247, 273, 1930a: 247,

- 273, 1933: 21, 1933a: 1-23, 1934a, 1935: 232, 1942: 8; Felt & Bromley 1937: 18, 1941, 1941a: 180, 1942: 169-171, 1943: 326-327; Fettes 1964, 1967; Finnegan 1957: 276, 1964: 117-124; Finnegan & Sippell 1964, 1967; Flint & Farrar 1948: 23; Forbes, Underwood, & Cuming 1965: 31; Forbes et al. 1958: 19, 1961: 28; Fortin 1947: 192-200, 1948: 79, 142-180, 1949: 142-180; Friend 1940, 1941, 1942a: 537, 1943: 281-282, 1944: 303; Fystro 1960; Gagnon 1964; Gardiner 1947: 39, 1951: 109, 1952: 18, 1976a, 1979; Gardiner & Webb 1980; Garman 1899; Gentry, C. R. et al. 1979: 778; Gold & Kiesling 1977; Griswold 1948: 1-5; Hagnan 1946: 133-135; Hamel 1980: 75; Hart, J. H. & Kennedy 1981; Hastings, A. R. & O'Brien 1973: 62; Herrick 1935: 76; Hildahl & Wong 1965: 36-38; Himelick & Neely 1961a, 1961b; Hiratsuka, Cerezke, & Petty 1980: 9; Hiratsuka & Petty 1981: 75; Hiratsuka et al. 1982: 8; Hord & Quirke 1956; Howse et al. 1981: 45; Ives & Wong 1988: 227; Jacot 1934: 838, 1936: 627; Janes & Strong 1961; Janes, Strong, & Hart 1963; Johansen 1912: 463; Johnson, W. T. & Lyon 1976: 218; Jones, T. H. 1939: 1-8, 1947: 17; Jones, T. H. & Moses 1943: 79-85; Jones, W. L. & Welch 1982; Kalandra 1945b: 142; Karnosky 1976; Kaston 1936: 610-650, 1939: 1-39; Kaston & Becker 1936: 807; Kaston & Riggs 1937: 98-108, 1938: 467-469; Keenan 1946: 10-13; Keenan et al. 1948: 57; Knoll 1934: 865; Knutson 1947: 39, 1948: 55; Kondo & Moody 1987: 29; Kondo & Taylor 1985: 19; Kondo et al. 1972; Landwehr, Phillipson, & Ascerno 1981; Landwehr et al. 1981; Lanier 1981a, 1989; Lannon 1949: 53-55; Leach 1940b: 227; Lewis 1952: 134; Liming 1948: 24; Liming et al. 1949: 7; Linder 1931: 67; Lindquist, O. H. & Syme 1981: 59; Lintner 1887: 77-125; Lyons 1956: 602; MacAloney & Ewan 1964; Magasi 1977, 1980, 1981a, 1981b: 24, 1982, 1983, 1984, 1985, 1986b: 29, 1987: 26, 1988: 44, 1989: 31; Magasi, Sterner, & Forbes 1977: 26; Magasi, Sterner, & Newell 1978: 28; Magasi et al. 1981; Maloy & Inglis 1978; Marquis 1956: 9, 112-114; Marshall 1951: 133-135; Martin 1936: 297-306, 1935a: 195-203, 1938b: 450-477, 1946: 481-486; Martineau 1984, 1985: 220; Martineau & Ouellette 1970: 41; Mathiesen 1950: 74; Matthysse 1951: 108-109, 1959: 3, 11-12; Matthysse et al. 1954: 739-746; May 1934: 11, 1938: 3, 1940: 149, 1953: 60-68; May & Collins 1938: 52-54; Mazzone & Peacock 1985; McCallum 1946: 206-208; McCallum et al. 1951: 4; McDaniel 1933: 25-26, 1935: 143; McGugan 1958: 53, 62, 1959: 1-114; McKenzie 1937: 11; McKenzie & Becker 1937: 14, 1950: 1-4, 1951: 3-4; Metcalf & Flint 1939: 720, 1951: 798; Milbrath 1949: 16-19; Moody, B. H. 1988: 28; Moody, B. H. & Cerezke 1983: 10, 1984, 1985; Morris 1951: 52-55; Nash 1952: 123 in ed. 2, 1957: 96-100; Neal 1979: 778; O'Callaghan, Galagher, & Lanier 1980; Ouellet 1956: 87; Parker 1948: 175-182, 195; Parker et al. 1947: 9, 29-30; Parks 1936: 24-25; Patmore 1961; Peacock 1974, 1975; Peclunam 1937: 13; Peirson 1927: 58; Perumal, Purdy, & Roy 1981; Peterson, C. W. & Wysong 1965; Petty, J. 1978: 73; Petty, J. et al. 1976; Pfeffer 1979: 149; Phillipson, Ascerno, & Landwehr 1986; Pomerleau 1945: 282, 1946: 13-16, 1947: 102-104, 1949: 54-55, 1961, 1965: 1592-1595; Potts 1949: 6; Prentice & Hildahl 1958: 62; Quattlebaum 1981; Randall 1943: 52; Rankin et al. 1941a: 549; Rudio 1935: 141-152, 344; Reed 1947: 8-10, 1951: 103-104; Renlund 1971: 5, 1972: 1, 1975: 5, 1976: 5; Riley 1878: 245, 1879: 207-257; Robert 1947b: 1, 1948: 182-188, 1949: 136, 1952: 141-146, 1958: 433-436; Robert & Davault 1949: 57; Rose, A. H. 1967; Rose, A. H. & Lindquist 1982a, 1982b: 187; Roy, Z. 1948: 235; Roy et al. 1988; Rudinsky 1960a; Schuder 1953: 69-72, 1955: 116, 1959: 62; Schwartz 1975b: 14, 1979: 204, 1980: 201, 1982: 206; Sinclair, W. A. 1978; Sippell, Dance, & Rose 1966: 54, 1967: 63; Sippell, Gross, & Rose 1969: 62; Sippell, MacDonald, & Rose 1963: 56, 1964: 61, 1965: 64; Sippell, Rose, & Larsen 1968: 60; Smith, C. C. & Forbes 1965; St. George 1949: 95; Stein, J. D. & Kennedy 1972: 120; Sterner 1976; Sterner & Davidson 1983: 20; Stewart 1947: 6, 1949: 1-2; Strobel & Lanier 1981; Strong 1936: 28, 1937: 21, 1938: 19, 1939: 24, 1940: 25; Strong, Janes, & Morofsky 1955; Sundaram 1976; Swaine 1918a: 74; Swenk 1909: 92; Swingle & Whitten 1950: 3-4, 1967; Swingle et al. 1949: 151; Syme & Nystrom 1988: 56; Takai, Kondo, & Thomas 1979; Thomas, J. B. 1972; Thompson, H. E. & Matthysse 1972; Thompson, H. E., Parady, & Keen 1961; Thomson, M. J., Barnes, & Davis 1972: 9; Tomalak & Welch 1981; Treece & Hamilton 1957: 13, 15; Trullinger 1949: 83; Tubeuf 1935: 77; Vajda 1952: 126; Wade 1961; Walker & Leeling 1968; Walker, C. 1973c; Wallace 1941: 374-375, 1942: 537-538, 1943a: 288, 1945: 359; Wallner & Hart 1968: 1-6; Walter et al. 1943: 6; Warner 1952: 55; Watson & Raizenne 1948: 45, 1949: 50; Weaver et al. 1950: 6-10; Weber, R. 1969, 1970, 1976; Weidhaas 1965, 1967; Welch 1953: 641-644; Welch & Collins 1940: 15; Welch & Matthysse 1955: 3, 1958: 3, 6-7; Welch et al. 1934: 11; Whitten 1941: 2, 1942: 1, 1953: 2, 1954: 36, 1960, 1961, 1964, 1967; Whitten & Baker 1939: 630-634; Whitten & Reeks 1967a, 1967b; Whitten & Swingle 1958: 3; Whitten et al. 1948: 7-8, 18, 20; Willis, W. C., Kramer, & Thompson 1963, 1964, 1965; Wilson, C. L. 1961, 1962, 1963; Wilson, C. L., McDaniel, & Seymour 1961; Wilson, C. L. & Tucker 1966; Wilson, C. L., Tucker, & McDaniel 1967; Wilson, M. C., Schuder, & Provonsha 1982: 91; Wolfenbarger 1946: 62, 1959: 1-106; Wollerman 1979c; Wood, S. L. 1966b; Woodward 1948: 51-69; Wootton 1962; Worthley 1935b: 2,

- 1936: 177; Worthley & Lining 1935: 526–528; Wysong, D. S. 1951: 34–35, 1967; Wysong, D. S. & Peterson 1966; Wysong, D. S. & Willis 1968; Zappe 1945: 323; Zentmyer et al. 1946: 9. (ec) Andrew et al. 19...; Anonymous 1974d; Baker, W. C. 1941; Baker, W. L. 1972: 250; Becker, W. B. 1940a, 1940b, 1943, 1944, 1945b, 1946b; Bouchard 1975; Brasier & Gibbs 1973; Bromley 1944b; Buchanan 1941; Bushing 1965: 460; Butl & Ellis 1981; Collins 1935, 1935b; Comtois 1988: 173; Euale et al. 1977, 1978; Finnegan & Sippel 1964, 1967; Furniss, R. L. & Carolin 1977: 364; Gagnon 1964; Gardiner 1976, 1981; Gold & Kiesling 1977; Graham 1967: 115; Holmes 1980; Jacot 1936; Jones & Moses 1943; Karnosky 1976; Kaston 1937: 351, 1939: 3; Kaston & Becker 1937: 807; Lanier 1983b; Lanier, Schubert, & Manion 1988; Leach 1940b: 227; Magasi et al. 1981; Maloy & Inglis 1978; Marsh 1979: 157; Martin 1936: 297, 1946a: 486; Matthews, R. W. 1970; May 1934: 11; Metcalf & Flint 1939: 720, 1951: 798; Moody, B. H. 1982; Mook & Wolfenbarger 1943: 76; Morton 1984; Murdoch & Campana 1981; O'Callahan, Gallagher, & Lanier 1980; Parker 1948: 195, 1949: 175; Peace 1960: 5; Peacock 1975; Pfeffer 1979: 149; Pirone, Dodge, & Rickett 1960: 700; Pomerleau 1961: 361, 1965; Rankin 1941a: 549; Robert 1947b: 1; Sinclair, W. A. 1978; Stakman & Harrar 1957: 245; Stark, R. W. 1982; Stillwell 1977; Strobel & Lanier 1981; Swingle & Whitten 1967; Takai, Kondo, & Thomas 1979; Thomas, J. B. 1972; Thompson, H. E. & Matthyse 1972; Thompson, H. E., Pady, & Keen 1961; Thompson, W. R. 1943: 52; Tomalak & Welch 1981; Tomalak, Welch, & Galloway 1988; Walker 1957: 320; Watson, W. Y. & Sippell 1961: 403; Webber, J. F. & Gibbs 1989; Weber, R. 1969, 1970, 1976; Westerboer 1963: 348; Whitten 1960, 1964, 1967; Whitten & Reeks 1967a, 1967b; Woodring 1966c: 133. (hb) Allington 1958; Anderson, R. F. 1960: 243; Baker, W. L. 1972: 250; Beal et al. 1958; Becker, W. D. 1935b: 1061–1065, 1936, 1937b, 1937c: 375, 1939b; Blackman 1950; Brasier & Gibbs 1973; Browne 1968b: 347; Buchanan 1941; Chamberlin 1939: 195–196; Clinton & McCormick 1935, 1936; Collins 1935, 1938b: 192–195; Collins et al. 1936: 171–176; Comtois 1988: 173; Davidson, A. G. et al. 1964; Davidson, R. H. & Lyon 1979: 371; Deyrup & Atkinson 1987a: 64; Dillon & Dillon 1961: 808; Doane et al. 1936; Drooz 1985: 342; Edelman & Malysheva 1959b; Eidmann 1962: 161; Felt 1926: 247, 273, 1930a: 247, 273; Furniss, R. L. & Carolin 1977: 364; Gardiner 1981; Gardiner & Roden 1977; Hanula & Berisford 1984; Hart, J. H. & Kennedy 1981; Herrick 1935: 76; Hoffmann 1941; Hopkins 1904b: 320; Ives & Wong 1988: 227; Janes & Strong 1961; Jones 1939; Kaston 1939: 3; Kaston & Riggs 1937: 98; Lanier 1983b; Lyons 1956: 602; MacAloney & Ewan 1964; Martin, C. H. 1938b: 470; Martineau 1984, 1985: 220; McDaniel 1933: 25, 1935: 143; Metcalf & Flint 1939: 720, 1951: 798; Nash 1952: 123 in ed. 2; Peirson 1927: 58; Robert 1948: 182; Rose, A. H. & Lindquist 1982a, 1982b; Stark, R. W. 1982; Stein, J. D. & Kennedy 1972: 120; Strong, Janes, & Morofsky 1955; Swain 1948: 155; Swaine 1918a: 74; Swedenborg et al. 1988; Thomas, J. B. 1972; Thompson, H. E. & Matthyse 1972; Thompson, H. E., Pady, & Keen 1961; Wallace 1940: 296; Wallace & Beard 1942: 86–87; Weber, R. 1969, 1970, 1976; White, R. G. 1983; Whitten 1953: 2, 1960, 1964, 1967; Whitten & Reeks 1967a, 1967b; Wood, S. L. 1982b: 142. (ds) Anderson, R. F. 1960: 243; Anonymous 1926c: 516, 1962z, 1963j, 1963r, 1963y, 1964h, 1965b, 1966f, 1966k, 1966u, 1967f, 1967k, 1967t, 1968g, 1968p, 1970h, 1972t, 1973b, 1975k, 1976e, 1977f, 1978e, 1979d; Balachowsky 1951; Beal & Massey 1945: 90–92; Beaulne 1956; Becker, W. D. 1936, 1938, 1939a, 1939b: 112, 1940a, 1941, 1942, 1943, 1944; Becker, W. D. & Tomlinson 1938: 363; Blackman 1950; Blatchley & Leng 1916: 667; Britton 1920a; Browne 1968b: 347; Butl & Ellis 1981; Chamberlin 1939: 195–196; Chapuis 1869: 23, 1873: 231; Clinton & McCormick 1936; Davidson et al. 1958; Deyrup & Atkinson 1987a: 64; Dietrich 1936: 217; Dodge 1938; Drooz 1985: 342; Felt 1926: 247, 273, 1930a: 247, 273; Furniss, R. L. & Carolin 1977: 364; Hagedorn 1910d: 11; Hamilton 1936: 159; Harrington 1884: 276; Hildahl & Wong 1965; Hoffmann 1940: 54, 1942: 12; Hord & Quirke 1956; Johnson, W. T. & Lyon 1976: 218, 219; Kaston 1938: 240; Kleine 1912b: 166, 1914b: 392, 1934a: 127; Knoll 1934a: 866; Leng 1920: 338; Leonard 1928: 516; Lindquist, O. H. & Syme 1981: 59; Morgan, A. V. & Morgan 1980: 1110; Morris 1951: 52; O'Callaghan, Gallagher, & Lanier 1980; Pechuman 1937: 13; Pomerleau 1947a: 102; Reed 1951: 103; Schedl 1977d: 281; Schneider & Farrier 1969: 412; Schroeder & French 1961; Still, Tidsbury, & Melvin 1974b; Swaine 1909: 114; Syme & Nystrom 1988: 56; Turnlow & Franklin 1980; Walker, C. 1973c; Wallace 1940: 296; Watson & Sippel 1961; Whitten & Reeks 1967a, 1967b; Willis, W. C., Kramer, & Thompson 1963, 1964, 1965; Wilson, C. L., Tucker, & McDaniel 1967; Winter, T. G. 1983: 46; Wood, S. L. 1982b: 142; Wysong, D. S. & Peterson 1966; Wysong, D. S. & Willis 1968. (tx) Anderson, R. F. 1960: 243; Baker, W. L. 1972: 251; Beal & Massey 1945: 90–92; Benoit 1985: 135; Bevan 1987: 113; Blatchley & Leng 1916: 667; Borrer & DeLong 1954; Bright 1976d: 200, 206; Bruck 1936a: 126; Chamberlin 1939: 195–196; Chapuis 1869: 23, 1873: 231; Copley 1981: 62; Davidson et al. 1964: 4; Dillon & Dillon 1961: 801, 808; Dodge 1938: 16, 32; Edwards 1959; Eichhoff 1868c: 147, 1896: 605–606, 610; Finnegan & Sippel 1964: 4; Gemminger

& Harold 1872: 2670; Hagedorn 1910a: 46; Hart & Kennedy 1981: 3; Ives & Wong 1988: 226; Jacques 1951: 350; Johnson, W. T. & Lyon 1976: 219; LeConte 1868: 170, 177, 1876: 389–390; Lindquist, O. H. & Syme 1981: 59; Martineau 1984: 205; Muesebeck 1942: 97, 1950: 133; Pardy 1974, 1977, 1983; Rabaglia & Lanier 1981; Rose, A. H. & Lindquist 1982a, 1982b: 187; Stein, J. D. & Kennedy 1972: 120; Strong, Janes, & Morofsky 1955: 5; Swaine 1909: 114, 1911: 221, 1918a: 74; Syme & Nystrom 1988: 56; Thomas, J. B. 1957: 5, 1967; Titus, Meikle, & Harrison 1955: 76; White, R. E. 1983: 328; Whitten 1960: 6; Whitten & Reeks 1967a: 114, 1967b: 169; Wood, S. L. 1979b: 134, 1982b: 142. (**ms**) Ashby 1967; Beal 1955; Block 1938b; Craighead 1942b; Elbreunberg 1954; Gardiner & Roden 1977; Liming 1948: 24; Liming et al. 1949: 7; Moody, B. H. 1982; Patmore 1961; Roy 1948: 235; Roy et al. 1985.

opaculus LeConte 1868 (September): 170 (*Hylesinus*). Syntypes 2, sex?; Pennsylvania [USA]; MCZ, Cambridge. Synonymy: Eichhoff 1896: 606.

References: (**cn**) Davidson, R. H. & Lyon 1987: 401; Garman 1899: 60, 73–75; Herrick 1935: 76; Lintner 1887b: 90, 124; Packard 1890: 227; Smith, J. B. 1900: 365; Thompson, H. E., Willis, & Keen 1978; Wilson 1909: 92. (**cc**) Bejer-Petersen 1978; Felt 1906: 258; Thompson, H. E., Willis, & Keen 1978. (**hb**) Caulfield 1891; Chapman 1911; Chittenden 1890; Davidson, R. H. & Lyon 1987: 401; Felt 1906: 257, 288; Harrington 1884b; Herrick 1935: 76; Johansen 1913: 1–18; Lintner 1887b: 90, 124; Moffat 1885: 23; Packard 1890: 227; Perkins 1890: 67; Pierce 1907: 293; Riley 1879: 45; Schwarz 1888a: 113, 1889d: 176; Thompson, H. E., Willis, & Keen 1978. (**ds**) Caulfield 1891: 75; Chapman 1910; Chittenden 1870; Deyrup 1981b: 4; Hamilton 1895a: 346, 378; Harrington 1884: 218; Henshaw 1882: 269, 1885: 149; Hopkins 1893a: 142, 1893b: 213; Hubbard & Schwarz 1878a: 666; Leng 1920: 338; Schwarz 1886: 55, 1888a: 113; Smith, J. B. 1900: 365, 1910: 404; Swaine 1909: 115. (**tx**) Blandford 1898c: 5; Chapman 1910; Eichhoff 1896: 605–606, 610; Gemminger & Harold 1872: 2675; LeConte 1868: 170, 1876: 379, 380; Schwarz 1886: 55, 1889b: 149, 1889d: 176; Swaine 1909: 115, 1911a: 221; Wood, S. L. 1979b: 134.

Genus *Pseudohylesinus* Swaine

PSEUDOHYLESINUS SWAINE 1917: 11. Type-species: *Pseudohylesinus grandis* Swaine, = *Hylurgus sericeus* Mannerheim, original designation.

Keys: Blackman 1942b: 5, Bright 1969: 15, Wood 1982b: 130.

References: (**ay**) Nobuchi 1969a: 49. (**bx**) Chap-

man, J. A. 1957: 3–4; Chapman, J. A. & Dyer 1960: 30–33; Chapman, J. A. & Kinghorn 1955: 368. (**cn**) Anderson, R. F. 1960: 240; Furniss, M. M. 1951. (**cc**) Ashraf & Berryman 1969: 12. (**hb**) Anderson, R. F. 1960: 240; Bright 1965, 1966a, 1969: 1–46, 1976d: 66–74; Bright & Stark 1973: 35; Cornelius 1954a: 51, 1955: 712; Cowlin 1955: 37–38; Furniss, M. M. 1958: 43–48; Hogan 1950: 429; Johnson 1964: 26; Johnson & Zingg 1967: 816–819; Richmond & Kinghorn 1951: 31; Wood, S. L. 1982b: 129, 1986a: 42. (**ds**) Anderson, R. F. 1960: 240; Bright 1965, 1966a, 1969: 1–46, 1976d: 66–74; Bright & Stark 1973: 35; Chamberlin 1918: 28–30; Hopping 1922: 128–134; Wood, S. L. 1982b: 129, 1986a: 42. (**tx**) Blackman 1942b: 1–32; Bright 1964a, 1965, 1967: 1422, 1969: 1–46, 1976d: 66–74; Bright & Stark 1973: 35; Bruck 1936a: 43; Chamberlin 1939: 196–204, 1955: 101–114; Eggers 1920: 234, 1922: 165; Keen 1938: 122–125; Numberg 1959: 167; Schedl 1950: 2, 1957: 9; Swaine 1917: 11, 1918a: 74–77; Wood, S. L. 1982b: 129–141, 1986a: 42.

dispar Blackman 1942b: 11. Holotype ♀; Veronia, Oregon [USA]; USNM, Washington.

Figures: Bright 1969: 43, 46, figs. 52–53.

Distribution: (See subspecies).

Notes: (1) Bright 1969: 20 (subspecies established). The subspecies intergrade in southern Oregon.

References: (**cc**) Furniss, R. L. & Carolin 1977: 371; Hertert, Miller, & Partridge 1975: 201; Kim 1971; Mason, W. R. M. 1978. (**hb**) Bright 1976d: 68; Bright & Stark 1973: 35; Chamberlin 1958: 107–108; Furniss, R. L. & Carolin 1977: 371; Lowe & Moyer 1980; Wood, S. L. 1982b: 133. (**ds**) Blackwelder & Blackwelder 1948; Bright 1969: 20, 1976d: 68; Bright & Stark 1973: 35; Chamberlin 1958: 107–108; Furniss, R. L. & Carolin 1977: 371; Hertert, Miller, & Partridge 1975: 201; Patterson & Hatch 1945: 151; Wood, S. L. 1972a: 402, 1982b: 133. (**tx**) Blackman 1942b: 11; Bright 1969: 20, 1976d: 68; Chamberlin 1958: 107–108; Wood, S. L. 1972a: 402, 1982b: 133.

dispar dispar:

Distribution: North America (California, W Nevada, S Oregon in USA).

Hosts: *Abies amabilis*, *A. concolor*, *A. grandis*, *A. magnifica*, *Tsuga mertensiana*.

Notes: Bright 1969: 20 (subspecies).

References: (**tx**) Bright 1969: 20; Wood, S. L. 1982b: 133.

dispar pullatus Blackman 1942b: 9. Holotype ♀; Mount Rainier National Park, Washington [USA]; USNM, Washington.

Distribution: North America (British Columbia in Canada/N Oregon, Washington in USA).

Hosts: *Abies amabilis*, *A. grandis*, *A. procera*.

Notes: (1) Bright 1969: 21 (reduced to subspecies).

References: (**cc**) Mason, W. R. M. 1978; (**hb**) Chamberlin 1958: 113; Wood, S. L. 1952b: 134. (**ds**) Blackwelder & Blackwelder 1948; Bright 1976d: 69; Chamberlin 1958: 113; Patterson & Hatch 1945: 151; Wood, S. L. 1952b: 134. (**tx**) Blackman 1942b: 6, 9–11; Bright 1969: 21, 1976d: 69; Chamberlin 1958: 113; Wood, S. L. 1956c: 247, 1982b: 134.

granulatus (LeConte) 1868: 175 (*Hylastes*). Holotype ♂; published as Oregon [type marked only by a coded blue disc] [USA]; MCZ, Cambridge.

Figures: Bright 1969: 43, figs. 38–39, 56–57; Furniss & Carolin 1977: 371, Thomas & Wright 1961: 4. Distribution: North America (Alaska/ British Columbia in Canada/ California, N Idaho, W Montana, Oregon, Washington in USA).

Hosts: *Abies amabilis*, *A. grandis*, *A. lasiocarpa*, *A. magnifica*, *A. procer*, *Tsuga heterophylla*.

Notes: (1) Swaine 1918a: 74 (to *Pseudohylesinus*).

References: (**bv**) Daterman, Rudinsky, & Nagel 1965; Rudinsky 1966b: 356–361; Shea 1960. (**cn**) Anonymous 1960i, 1960j: 6, 1961h; Bongberg 1957; Browne 1968: 604; Burke 1906: 89; Chamberlin 1924; Cowlin 1958: 12, 15; Currie 1905: 75; Doane et al. 1936; Essig 1926: 518; Gruenfeld et al. 1954: 30–34; Hatch 1938: 193; Hopkins 1904a: 19; Keen 1938: 27, 125, 1952b: 162; Orr, P. W. 1966; Ruppel 1967: 82; Ryker & Rudinsky 1979: 206; Schuder 1969: 74; Sterner & Davidson 1981: 35; Swaine 1918a: 74–75; Thomas, C. M. & Wright 1961; Wright et al. 1956: 322, 325. (**cc**) Ashraf & Berryman 1969: 14; Bushing 1965: 465; Chamberlin 1918a; Deyrup & Gara 1978: 275; Furniss, R. L. & Carolin 1977: 371; Hertert, Miller, & Partridge 1975: 901; Keen 1938: 27, 125; Livingston, R. L. 1980; McMullen, Fiddick, & Wood 1981; Richerson, J. V. & Borden 1972a; Shea 1960; Thomas, C. M. 1957: 1; Thomas, C. M. & Wright 1961; Wright et al. 1956: 322. (**hb**) Bright 1969: 23, 1976d: 69; Bright & Stark 1973: 35; Browne 1968b: 604; Chamberlin 1939: 200, 1958: 109–110; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Dyer & Nijholt 1965: 3; Essig 1926: 518; Furniss, R. L. & Carolin 1977: 371; Gast et al. 1989: 352; Hopkins 1904a: 19; Keen 1938: 27, 125, 1952c: 162; McMullen, Fiddick, & Wood 1981; Pierce 1907: 392; Ryker & Rudinsky 1979: 206; Swaine 1918a: 74, 75; Thomas 1957: 1–3. (**ds**) Ashraf & Berryman 1969: 14; Blackman 1942b: 14–15; Blackwelder & Blackwelder 1948; Bongberg 1957; Bongberg & Bennett 1960: 1–10; Bright 1969: 23, 1976d: 69; Bright & Stark 1973: 35; Browne 1968b: 604; Chamberlin 1917: 326, 1918a: 1–40, 1925, 1939: 200, 1958: 109–110; Currie 1905; Essig 1926: 518; Furniss, R. L. & Carolin 1977: 371; Gast et al. 1989: 352; Hagedorn 1910d: 9; Hall & Eaton 1960; Henshaw 1882: 269, 1885: 149; Hertert, Miller, & Partridge 1975: 901; Hopping 1922:

Keen 1929a: 23, 1938: 27, 125, 1952c: 162; Kleine 1912b: 166, 1914b: 389, 1934a: 129; Laursen 1979; Leng 1920: 338; Patterson & Hatch 1945: 151; Ruppel 1967: 82; Schuder 1969: 74; Shea 1960; Swaine 1909: 113; Thomas, C. M. & Wright 1961: 1–7; Wood, S. L. 1972a: 402, 1982b: 137. (**tx**) Benoit 1986: 36; Blackman 1942b: 6, 14–15; Bright 1969: 23, 1976d: 69; Bruck 1936a; Chamberlin 1939: 200, 1958: 109–110; Furniss, R. L. & Carolin 1961: 4; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 45; Keen 1929a: 23; LeConte 1868: 175, 1876: 389–390; LeConte & Horn 1883: 525; Ryker & Rudinsky 1979: 206; Schedl 1951m: 95; Swaine 1909: 113, 1918a: 74–75; Thomas, C. M. & Wright 1961: 4; Wood, S. L. 1972a: 402, 1982b: 137. (**ms**) Hatch 1938: 193.

maculosus Blackman 1942b: 12. Holotype ♀; Chiricahua Mountains, Arizona [USA]; USNM, Washington.

Distribution: North America (Arizona, New Mexico, Utah in USA).

Hosts: *Abies concolor*; accidental in *A. lasiocarpa*. Notes: Larval instars 3 and 4 and pupae feed and develop in the phloem.

References: (**hb**) Wood, S. L. 1982b: 135. (**ds**) Blackwelder & Blackwelder 1948; Furniss, R. L. & Carolin 1977: 372; Wood, S. L. 1982b: 135. (**tx**) Blackman 1942b: 6, 12–13; Bright 1969: 22; Wood, S. L. 1982b: 135.

magnus Wood 1956c: 247. Holotype ♀; 40 km W Ciudad Hidalgo, Michoacan, Mexico, 2900 m; SMUK, Lawrence.

Distribution: North America (Michoacan in Mexico).

Hosts: *Abies religiosa*.

References: (**hb**) Wood, S. L. 1982b: 135. (**ds**) Bright 1969: 23; Wood, S. L. 1982b: 135. (**tx**) Bright 1969: 23; Wood, S. L. 1956c: 247, 1982b: 135.

nebulosus (LeConte) 1859: 285 (*Hylesinus*). Holotype ♂; Table Mountain, California [USA]; MCZ, Cambridge.

Figures: Bright 1969: 43–44, 46, figs. 34–35, 50–51, Bright & Stark 1973: 149 (adult), Kusch 1967: 10.

Distribution: W North America.

Notes: (1) Swaine 1918a: 75 (to *Pseudohylesinus*), Bright 1969: 16 (subspecies established). (3) Chamberlin 1917: 354 (*griseus* Swaine, nomen nudum).

References: (**bv**) Chapman & Kinghorn 1958: 366, 371–372; Jacobson 1972; Oester, Rudinsky, & Ryker 1981; Rudinsky 1966b: 356–361, 1966c: 218–219; Rudinsky & Daterman 1964a; Ryker & Oester 1982; Stoszek 1973b; Stoszek & Rudinsky 1967. (**cn**) Anonymous 1962; Browne 1968: 604; Chamberlin 1924; Craighead 1927: 1–12; Doane et al. 1931; Essig 1926: 518, 1958: 518; Graham 1963; Hamilton 1894: 35; Hatch 1938: 193; Hopkins 1903b: 136, 1904a: 19–20; Johnson, D. W. &

O'Neil 1986; Keen 1938: 119, 1952c: 162; Lindgren, B. 1950a: 70; Loomis, Hofacker, & Tucker 1986; Miller 1929: 994; Ruppel 1967: 82; Ryker & Rudinsky 1979: 204; Schabel 1971; Schuder 1969: 81; Smith, G. J. & Melvin 1974a; Sterner & Davidson 1981: 35; Stoszek 1973b; Stoszek & Rudinsky 1967; Swaine 1918a: 75. **(ce)** Ashraf & Berryman 1969: 14; Atkins 1966b: 982; Bedard 1933a; Burks 1973, 1979: 778; Bushing 1965: 465; Bushing & Bright 1965: 203; Chamberlin 1918a; Craighead et al. 1927; Deyrup & Gara 1978: 275; Furniss, M. M. et al. 1974: 389, 1977: 1068; Furniss, R. L. & Carolin 1977: 372; Keen 1938: 119; Kinn 1971; Marsh 1979: 150; Matthews 1970; McMullen & Atkins 1962a: 17; Miller 1929: 994; Safranyik 1974; Schmitz & Rudinsky 1968: 1-42; Smiley & Moser 1984; Stoszek 1973b. **(hb)** Bright 1969: 16, 1976d: 67; Bright & Stark 1973: 35; Browne 1968: 604; Chamberlin 1939: 198-200, 1958: 106-108; Currie 1905: 75; Doane et al. 1936; Essig 1926: 518, 1958: 518; Furniss, M. M. et al. 1977: 1068; Furniss, R. L. & Carolin 1977: 372; Graham 1963; Harris 1954: 16; Hopkins 1904a: 19-20; Keen 1938: 119, 1952c: 162; Lindgren, B. 1950a: 70; McCullen & Atkins 1959b: 419; Nijholt 1980: 203; Pierce 1907: 293; Rudinsky & Daterman 1964a; Ryker & Oester 1982; Ryker & Rudinsky 1979: 204; Stoszek 1963b; Stoszek & Rudinsky 1967; Swaine 1918a: 75; Walters & McMullen 1956: 197; Wood, S. L. 1982b: 132. **(ds)** Bedard 1935a; Blackman 1942b; Blackwelder & Blackwelder 1948; Bright 1969: 16, 1976d: 67; Bright & Stark 1973: 35; Browne 1968: 604; Chamberlin 1917: 353-354, 1918a: 1-40, 1925, 1939: 198-200, 1958: 106-107; Currie 1905; Essig 1926: 518, 1958: 518; Evans, D. 1983: 35; Furniss, M. M. 1978; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 372; Cantreau & Melvin 1974: 14; Hagedorn 1910d: 12; Henshaw 1882: 269; Hopping 1922; Keen 1929a: 23, 1938: 119, 1952c: 162; Kleine 1934a: 129; Kusch 1967; Lacordaire 1866: 363; Leng 1920: 339; McComb et al. 1953: 3; Oester, Rudinsky, & Ryker 1981; Patterson & Hatch 1945: 150; Ruppel 1967: 82; Schuder 1969: 81; Smith, G. J. & Melvin 1974a; Still, Tidsbury, & Melvin 1974a: 14; Stoszek & Rudinsky 1967: 310; Susut & Melvin 1974; Wickham 1896a: 309; Wood, S. L. 1948: 29, 1951a: 127, 1972a: 402, 1982b: 132. **(tx)** Benoit 1986: 36; Blackman 1942b: 5-8; Bright 1969: 16, 1976d: 67; Bruck 1936a: 37; Chamberlin 1939: 198-200, 1958: 106-107; Evans, D. 1983: 35; Gemminger & Harold 1872: 2674; Hagedorn 1919d: 12; Hopkins 1903b: 136; Keen 1929a: 23; Kusch 1967: 10; Lacordaire 1866: 363; LeConte 1859: 285, 1868: 170, 1876: 380; Pardy 1974, 1977, 1983; Ryker & Rudinsky 1979: 204; Swaine 1909: 113, 1917: 13-14, 1918a: 75; Wood, S. L. 1951a: 127, 1972a:

402, 1982a: 402. **(ms)** Hatch 1938: 193; Hopkins 1903b: 136; Schabel 1971.

nebulosus nebulosus:

Distribution: North America (Alaska/ W Alberta, British Columbia in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Washington in USA).

Hosts: *Pseudotsuga menziesii*, rare in *Tsuga heterophylla*.

Notes: (1) Bright 1969: 16 (subspecies established). (3) Blackman 1942b: 7 (re-described).

References: **(bv)** McLean & Borden 1977: 677. **(ce)** Deyrup & Gara 1978: 275; Matthews 1970. **(hb)** Bright & Stark 1973: 35; Nijholt 1980: 203; Wood, S. L. 1982b: 132. **(ds)** Bright 1969: 16; Bright & Stark 1973: 35; Furniss, M. M. 1978; Cast et al. 1959: 385; Wood, S. L. 1982b: 132. **(tx)** Bright 1969: 16; Bright & Stark 1973: 149; Wood, S. L. 1982b: 132.

nebulosus serratus Bruck 1936b: 37. Holotype ♂; West Fork of San Gabriel Canyon, Los Angeles Co., California [USA]; OSUC, Columbus.

Distribution: North America (S California in USA).

Hosts: *Pseudotsuga macrocarpa*.

Notes: (1) Bright 1969: 18 (reduced to subspecies).

References: **(hb)** Bright & Stark 1973: 35; Chamberlin 1939: 198; Wood, S. L. 1982b: 133. **(ds)** Blackman 1942b; Blackwelder & Blackwelder 1948; Bright 1968: 18; Bright & Stark 1973: 35; Chamberlin 1939: 198; Furniss, R. L. & Carolin 1977: 372; Wood, S. L. 1982b: 133. **(tx)** Blackman 1942b: 5, 8-9; Bright 1969: 18; Bruck 1936b: 37; Chamberlin 1939: 198; Wood, S. L. 1982b: 133.

nobilis Swaine 1917: 12. Lectotype ♀; Santiam National Forest, Oregon [USA]; CNCI, Ottawa, designated by Bright 1967b: 679.

Figures: Bright 1969: 43, 46, figs. 42-43, 58-59.

Distribution: North America (Oregon, Washington in USA).

Hosts: *Abies amabilis*, *A. procera*, *Tsuga heterophylla*.

Notes: Blackman 1942b: 19 (re-described).

References: **(bv)** Daterman, Rudinsky, & Nagel 1965. **(cn)** Doane et al. 1936; Keen 1938: 125, 1952c: 162; Schuder 1969: 75; Sterner & Davidson 1981: 35. **(ce)** Furniss, R. L. & Carolin 1977: 372; Keen 1938: 125; McMullen, Fiddick, & Wood 1981. **(hb)** Bright 1976d: 71; Chamberlin 1939: 202, 1958: 110-111; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 372; Keen 1938: 125, 1952c: 162; McMullen, Fiddick, & Wood 1981; Swaine 1918a: 74; Wood, S. L. 1982b: 138. **(ds)** Blackman 1942b; Blackwelder & Blackwelder 1948; Bright 1969: 27, 1976d: 71; Chamberlin 1917: 354, 1925, 1939:

202, 1958: 110–111; Furniss, R. L. & Carolin 1977: 372; Keen 1929a: 24, 1938: 125, 1952c: 162; Kleine 1934a: 129; Leng 1920: 338; Patterson & Hatch 1945: 151; Schuder 1969: 75; Swaine 1918a: 74; Wood, S. L. 1972a: 403, 1982b: 138. (**tx**) Blackman 1942b: 7, 19–20; Bright 1967b: 679, 1969: 27, 1976d: 71; Chamberlin 1939: 202, 1958: 110–111; Keen 1929a: 24; de Ruelle 1970: 112; Swaine 1917: 12–13, 1918a: 74; Wood, S. L. 1972a: 403, 1982b: 138.

furnissi Blackman 1942b: 21. Holotype ♀; Mount Rainier National Park, Washington [USA]; USNM, Washington. Synonymy: Bright 1969: 27.

References: (**hb**) Chamberlin 1958: 113. (**ds**) Blackwelder & Blackwelder 1948; Chamberlin 1958: 113; Patterson & Hatch 1945: 151. (**tx**) Blackman 1942b: 21, 27; Bright 1969: 27; Chamberlin 1958: 113.

pini Wood 1969c: 122. Holotype ♀; Pacific Grove, California [USA]; Wood Collection.

Figures: Bright 1969: 43, 46, figs. 48–49, 64–65 (all as *sericeus*).

Distribution: North America (W British Columbia in Canada/ W California, W Oregon, W Washington in USA).

Hosts: *Pinus contorta*, *P. muricata*, *P. radiata*.

Notes: (3) The species cited as *sericeus* prior to 1969 except for Mannerheim and those who cite his work, is actually *pini*.

References: (**bv**) Ohmart & Voight 1982: 340. (**cn**) Anonymous 1954i: 961; Doane et al. 1936: Essig 1926: 518, 1958: 518; Hopkins 1904a: 20; Keen 1952c: 155; Lindgren 1980a: 70; Swaine 1918a: 75–76. (**ce**) Bushing & Bright 1965: 203; Furniss, R. L. & Carolin 1977: 372; Ohmart & Voight 1982: 340; Schedl 1958d: 192. (**hb**) Chamberlin 1939: 203, 1958: 112–113; Currie 1905: 75; Doane et al. 1936; Essig 1926: 518, 1958: 518; Furniss, R. L. & Carolin 1977: 372; Hopkins 1904a: 20; Keen 1952c: 155; Lindgren 1980a: 70; Pierce 1907: 293; Schwarz 1894b: 254; Swaine 1918a: 75–76. (**ds**) Anonymous 1958a: 7; Blackman 1942b; Blackwelder & Blackwelder 1948; Bright 1969: 33; Bright & Stark 1973: 35; Chamberlin 1917: 354, 1925, 1939: 203–204, 1958: 112–113; Currie 1905; Essig 1926: 518, 1958: 518; Furniss, R. L. & Carolin 1977: 372; Hamilton 1894a: 35; Hopping 1922; Keen 1929a: 24, 1952c: 155; Kleine 1934a: 129; Leng 1920: 339; Ohmart & Voight 1982: 340; Schedl 1971f: 148; Wickham 1896a: 309; Wood, S. L. 1982b: 141. (**tx**) Blackman 1942b: 7, 24–26; Bright 1969: 33, 1970: 499–500; Bruck 1936a; Chamberlin 1939: 203–204; Hamilton 1894: 35; Keen 1929a: 24; Swaine 1917: 14, 1918a: 75–76; Wood, S. L. 1969c: 122, 1982b: 141.

sericeus (Mannerheim) 1843: 296 (*Hylurgus*). Holotype ♀; Sitka, Alaska; MZU, Helsinki.

Figures: Bright 1969: 43, 45–46, figs. 44–45, 60–61 (all as *grandis*), 1976d: 201, 207, Swaine 1918a: pl. 21 (adult), Thomas & Wright 1961: 4. Distribution: Asia (introduced in Japan), North America (Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA).

Hosts: *Abies amabilis*, *A. grandis*, *A. procera*, *A. veitchii*, *Pseudotsuga menziesii*, *Tsuga heterophylla*.

Notes: (3) Most citations of this name from 1917 to 1969, except for those who cite Mannerheim or his work, refer to the species treated above as *P. pini*.

References: (**bv**) Zhong & Schowalter 1989. (**cn**) Anonymous 1958a: 7; Ryker & Rudinsky 1979: 206. (**ce**) Bushing & Bright 1965: 203; Deyrup & Gara 1978: 276; Furniss, R. L. & Carolin 1977: 372; Marsh 1979: 158; Schedl 1958d: 192. (**hb**) Bright 1976d: 73; Bright & Stark 1973: 35; Furniss, R. L. & Carolin 1977: 372; Ryker & Rudinsky 1979: 206; Wood, S. L. 1982b: 139. (**ds**) Dejean 1837; Furniss, R. L. & Carolin 1977: 372; Hagedorn 1910d: 12, 19; Henshaw 1885: 149; Kleine 1912a: 218, 1912b: 166, 1914b: 389; Melsheimer 1853: 88; Swaine 1909: 113; Wickham 1896a: 309; Wood, S. L. 1972a: 403, 1982b: 139. (**tx**) Bright 1976d: 73, 201, 207; Gemminger & Harold 1872: 2675; Hagedorn 1910a: 46; LeConte 1857: 22, 1868: 170, 1876: 370–380; Mannerheim 1843: 296, 1852: 356, 385; Ryker & Rudinsky 1979: 206; Schwarz 1892: 239; Swaine 1909: 113; Wood, S. L. 1969c: 116, 1972a: 403, 1977c: 387, 1978b: 398, 1982b: 139. (**ms**) Essig 1931: 699.

grandis Swaine 1917: 13. Lectotype ♀; Saanichton, British Columbia; CNCI, Ottawa, designated by Bright 1967b: 679. Synonymy: Wood 1969c: 116.

Notes: (3) Blackman 1942b: 22 (redescribed). References: (**ay**) McGehehey & Nagel 1969. (**bv**) Jacobson 1975; Rudinsky 1966b: 356–361, 1966c: 218–219; Shea 1960. (**cn**) Anonymous 1960i, 1960j: 6, 1961h; Bongberg 1957; Browne 1968b: 603; Chamberlin 1924; Cowlin 1957: 27–28, 1958: 12, 15; Doane et al. 1936; Essig 1926: 517, 1958: 518; Gruenfeld et al. 1956: 30–43; Hogan 1950; Keen 1938: 126; McGehehey & Nagel 1967; Morris, E. V. 1969: 61; Orr, P. W. 1966; Rudinsky & Terriere 1959: 485–488; Ruppel 1967: 82; Schuder 1969: 74; Sterner & Davidson 1981: 35; Strible 1957: 12, 14; Swaine 1918a: 75–76; Thomas, G. M. & Wright 1961: 1–7; War & Buckhorn 1955: 13; Wright et al. 1956: 322–325. (**ce**) Ashraf & Berryman 1969: 14, 19; Chamberlin 1918a; Keen 1938: 125; Kinn 1966, 1971; McGehehey & Nagel 1967: 1572–1574, 1969: 269–279; McMullen, Fiddick, & Wood 1981; Shea 1960; Thomas, G. M. 1957: 1–3; Thomas, G. M. & Wright 1961; Wickman 1968: 218; Wright et al. 1956: 322. (**hb**) Bright 1976d: 72; Bright &

- Stark 1973: 35; Browne 1968b: 603; Chamberlin 1939: 200–201, 1958: 109–110; Doane et al. 1936; Dyer & Nijholt 1965: 3; Essig 1926: 517, 1958: 518; Keen 1938: 125; McGhehey & Nagel 1969: 269–279; McMullen, Fiddick, & Wood 1981; Struble 1937d: 11; Swaine 1918a: 75, 76; Thomas, C. M. & Wright 1961. (**ds**) Allen, S. J. 1969: 13; Blackman 1942b; Blackwelder & Blackwelder 1948; Bongberg 1957; Bright 1969: 29, 1976d: 72; Browne 1968: 603; Chamberlin 1918a1–4, 1925, 1939: 200–201, 1958: 109–110; Essig 1926: 517, 1958: 518; Evans, D. 1983: 35; Hopping 1922: Keen 1929a: 23, 1938: 125; Kleine 1934a: 129; Leng 1920: 339; McComb et al. 1953: 3; McGhehey & Nagel 1969: 269–279; Patterson & Hatch 1945: 151; Ruppel 1967: 82; Schuder 1969: 74; Shea 1960; Thomas, G. M. & Wright 1961; Wood, S. L. 1972a: 403. (**tx**) Blackman 1942b: 22–23; Bright 1967: 679, 1969b: 29, 1969c: 116, 1976b: 679, 1976d: 72, 201, 207; Chamberlin 1939: 200–201, 1958; Evans, D. 1983: 35; Hoebeke 1978; Keen 1929a: 23; Numberg 1959c: 167; de Ruelle 1970: 112; Swaine 1917: 13–14, 1918a: 75–76; Thomas, G. M. & Wright 1961; Wood, S. L. 1970: 112.
- gasamatsui* Nobuchi 1971b: 160. Holotype ♂; Takanishi, Nagano, Japan; Nobuchi Collection, Ibaraki. Synonymy: Wood 1977c: 387. References: (**tx**) McNamara 1977: 198; Nobuchi 1971b: 160; Wood, S. L. 1977c: 387, 1978b: 398.
- sitchensis** Swaine 1917: 12. Holotype ♂; Menzies Bay, Vancouver Island, British Columbia [Canada]; CNCI, Ottawa. Figures: Bright 1969: 43, 46, figs. 46–47, 62–63; Furniss & Carolin 1977: 374. Distribution: North America (Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA). Hosts: *Picea sitchensis*. Notes: (3) Blackman 1942b: 24 (redescribed). References: (**cn**) Doane et al. 1936; Dominik 1966a; Hatch 1938: 193; Keen 1938: 128, 1952c: 155; Schuder 1969: 78; Swaine 1918a: 75, 76. (**ec**) Deyrup & Gara 1978: 276; Furniss, R. L. & Carolin 1977: 372; Keen 1938: 128; Mason, W. R. M. 1978; Schedl 1958d: 187. (**hb**) Bright 1976d: 72; Bright & Stark 1973: 35; Chamberlin 1939: 202–203, 1958: 111–112; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 372; Keen 1938: 128, 1952c: 165; Swaine 1918a: 75–76; Wood, S. L. 1982b: 140. (**ds**) Blackman 1942b: 23–24; Blackwelder & Blackwelder 1948; Bright 1969: 31, 1976d: 72; Bright & Stark 1973: 35; Chamberlin 1925, 1939: 202–203, 1958: 111; Furniss, R. L. & Carolin 1977: 372; Hopping 1922; Keen 1929a: 24, 1938: 128, 1952c: 165; Kleine 1934a: 129; Leng 1920: 339; Patterson & Hatch 1945: 151; Schuder 1969: 78; Wood, S. L. 1972a: 403, 1982b: 140. (**ms**) Hatch 1938: 193.
- tsugae** Swaine 1917: 11. Holotype ♀; Stanley Park, Vancouver, British Columbia; CNCI, Ottawa. Figures: Bright 1969: 43, figs. 41–42, 56–57. Distribution: North America (SE Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA). Hosts: *Tsuga heterophylla*, *T. mertensiana*, rarely *Abies procera*. Notes: (3) Blackman 1942b: 16 (redescribed). References: (**ay**) McGhehey & Nagel 1969. (**bv**) Daterman, Rudinsky, & Nagel 1965; McLean & Borden 1977: 677. (**cn**) Brown, R. W. & Winter 1981; Browne 1968b: 604; Doane et al. 1936; Hatch 1938: 193; Holsten, Werner, & Laurent 1980; Hopkins 1901: 251, 1904a: 20; Keen 1952c: 167; McGhehey & Nagel 1967; Richmond & Kinghorn 1951: 31; Ruppel 1968: 82; Ryker & Rudinsky 1979: 207; Swaine 1918a: 74–75. (**cc**) Deyrup & Gara 1978: 276; Furniss, R. L. & Carolin 1977: 374; McGhehey & Nagel 1969. (**hb**) Bright 1976d: 70; Bright & Stark 1973: 35; Browne 1968b: 604; Chamberlin 1939: 201, 1958: 110; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 374; Holsten, Werner, & Laurent 1980; Hopkins 1901e: 67, 1904a: 20; Keen 1952c: 167; McGhehey & Nagel 1967: 1572–1574, 1969: 269–279; McLean & Borden 1977: 684; Ryker & Rudinsky 1979: 207; Swaine 1918a: 74–75; Wood, S. L. 1982b: 138. (**ds**) Blackwelder & Blackwelder 1948; Bright 1969: 25, 1976d: 70; Bright & Stark 1973: 35; Brown, R. M. & Winter 1981; Chamberlin 1925, 1939: 201, 1958: 110; Evans, D. 1983: 35; Furniss, R. L. & Carolin 1977: 374; Hopping 1922; Keen 1929a: 24, 1938: 129, 1952c: 167; Kleine 1934a: 129; Leng 1920: 339; McGhehey & Nagel 1969; Patterson & Hatch 1945: 151; Ruppel 1967: 82; Swaine 1919b: 9; Winter, T. G. 1983: 23; Wood, S. L. 1972a: 402, 1982b: 138. (**tx**) Blackman 1942b: 16–17; Bright 1967b: 679, 1969: 25, 1976d: 70; Chamberlin 1939: 201, 1958: 110; Evans, D. 1983: 35; Hoebeke 1978; Keen 1929a: 24; de Ruelle 1970: 112; Rudinsky 1979: 207; Ryker & Rudinsky 1979: 207; Schedl 1951m: 95; Swaine 1917: 11, 1918a: 74–76, 1919b: 9; Wood, S. L. 1972a: 402, 1982b: 138. (**ms**) Hatch 1938: 193.
- obesus** Swaine 1917: 15. Holotype ♀; Inverness, British Columbia; CNCI, Ottawa. Synonymy: Bright 1969: 25. Notes: (3) Blackman 1942b: 17 (description quoted). References: (**cn**) Swaine 1918a: 74, 76. (**hb**)

- Chamberlin 1939: 203, 1958: 112; Swaine 1918a: 74, 76. (**ds**) Blackman 1942b; Blackwelder & Blackwelder 1948; Chamberlin 1939: 203, 1958: 112; Keen 1929a: 24; Leng 1920: 339. (**tx**) Blackman 1942b: 6, 17; Bright 1967b: 679, 1969: 25; Bruck 1936a; Chamberlin 1939: 203, 1958: 112; Keen 1929a: 24; de Ruelle 1970: 112; Swaine 1917: 15, 1918a: 74, 76.
- keeni* Blackman 1942b: 17. Holotype ♀; Cannon Beach, Oregon [USA]; USNM, Washington. Synonymy: Bright 1969: 25.
References: (**hb**) Chamberlin 1958: 114. (**ds**) Blackwelder & Blackwelder 1948; Chamberlin 1958: 114. (**tx**) Blackman 1942b: 17–18; Bright 1969: 25; Chamberlin 1958: 114.
- similis* Blackman 1942b: 18. Holotype ♀; Paradise Valley, Washington [USA]; USNM, Washington. Synonymy: Bright 1969: 25.
References: (**hb**) Chamberlin 1958: 113. (**ds**) Blackwelder & Blackwelder 1948; Chamberlin 1958: 113; Patterson & Hatch 1945: 151. (**tx**) Blackman 1942b: 18; Bright 1969: 25; Chamberlin 1958: 113.
- variegatus* (Blandford) 1897a: 145 (*Hylastes*). Holotype ♀; erroneously given as Volcan de Chiriqui, Panama; probably from S Mexico or Guatemala (Wood 1982b: 136); BMNH, London. Figures: Atkinson et al. 1986: 18.
Distribution: North America (Distrito Federal, Hidalgo, Mexico, Michoacan, Morelos, Nuevo Leon, Oaxaca, Tlaxcala in Mexico).
Hosts: *Abies religiosa*.
Notes: (3) Potential hosts do not occur south of Guatemala; consequently, the published type locality is erroneous. Larval instars 3 and 4 and pupae are xylophagous and occur 1–2 cm below the surface of the wood.
References: (**hb**) Atkinson et al. 1986: 17; Burgos & Saucedo 1983: 54; Wood, S. L. 1982b: 136. (**ds**) Atkinson & Equihua 1985a: 72, 1985b: 229; Atkinson et al. 1986: 17; Bright 1969: 22, 1972b: 1496; Burgos & Saucedo 1983: 54; Hagedorn 1910d: 12; Kleine 1912b: 166, 1914b: 349; Wood, S. L. 1982b: 136. (**tx**) Atkinson et al. 1986: 18; Blackman 1942: 7; Blandford 1897a: 145; Bright 1969: 22; Hagedorn 1910a: 46; Muskus, A. 1984: 47; Wood, S. L. 1982b: 136.
- mexicanus* Blackman 1942b: 13. Holotype ♀; Distrito Federal, Mexico; USNM, Washington. Synonymy: Bright 1969: 22.
References: (**ds**) Blackwelder 1947; Ferrer 1942; Holroyd & Barrett 1966: 112. (**tx**) Blackman 1942b: 13–14; Bright 1969: 22; Schedl 1940a: 338.
- References: (**hb**) Wood, S. L. 1986a: 42. (**ds**) Wood, S. L. 1986a: 42. (**tx**) Wood, S. L. 1986a: 42; Wood, S. L. & Huang 1986: 465.
- indicus* Wood 1986b: 468. Holotype ♂; Rangirum, Darjeeling, Bengal, India; FRI, Dehra Dun.
Distribution: Asia (Bengal in India).
Hosts: *Quercus lanellosa*.
References: (**tx**) Wood, S. L. 1986b: 468.
- rugatus* Wood & Huang 1986: 467. Holotype ♂; Xishuangbanna, Yunnan, China; IZAS, Beijing.
Distribution: Asia (Yunnan in China).
Hosts: *Cassia* sp.
References: (**tx**) Wood, S. L. & Huang 1986: 467.
- sinensis* Wood & Huang 1986: 467. Holotype ♀; Lijiang, Yunnan, China; IZAS, Beijing.
Distribution: Asia (Yunnan in China).
References: (**tx**) Wood, S. L. & Huang 1986: 467.
- tibetensis* Wood & Huang 1986: 466. Holotype ♀; Zayu, Xizang [Tibet]; IZAS, Beijing.
Distribution: Asia (Xizang [Tibet] in China).
References: (**tx**) Wood, S. L. & Huang 1986: 466.
- tiliae* (Niisima) 1909: 2 (*Kissopagus*). Syntypes, sex?; Sapporo, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Tilia cordata* var. *japonica*.
Notes: (1) Wood & Huang 1986: 465 (to *Pseudoxylechinus*).
References: (**ds**) Nobuchi 1985b: 7. (**tx**) Murayama 1957c: 931, 1958: 932; Niisima 1909: 2, 1910a: 2; Schedl 1934f: 1635, 1954b: 198; Wood, S. L. & Huang 1986: 465.
- uniformis* Wood & Huang 1986: 465. Holotype ♂; Nanjiang, Sichuan, China; IZAS, Beijing.
Distribution: Asia (Sichuan in China).
References: (**tx**) Wood, S. L. & Huang 1986: 465.
- variegatus* Wood & Huang 1986: 466. Holotype ♂; Jiangxian, Shanxi, China; IZAS, Beijing.
Distribution: Asia (Shanxi in China).
Hosts: *Elaeagnus* sp.
References: (**tx**) Wood, S. L. & Huang 1986: 466.

Genus *Xylechinus* Chapuis

- Xylechinus* CHAPUIS 1869: 36. Type-species: *Hylesinus (Deudroctonus) pilosus* Ratzeburg, monobasice.
Pruniphagus Murayama 1958: 930. Type-species: *Pruniphagus gummensis* Murayama, original designation. Synonymy: Wood 1986a: 42.
References: (**tx**) Murayama 1958: 930; Wood, S. L. 1986a: 42.
- Squamasinus* Nunberg 1964b: 431. Type-species: *Squamasinus chiliensis* Nunberg, original designation. Synonymy: Wood 1980c: 96.
References: (**tx**) Nunberg 1964b: 431; Wood, S. L. 1980c: 96.
- Xylechinops* Browne 1973a: 283. Type-species:
- Genus *Pseudoxylechinus* Wood & Huang
PSEUDOXYLECHINUS WOOD & HUANG 1986: 465.
Type-species: *Pseudoxylechinus uniformis* Wood & Huang, original designation.

Xylechinus australis Schedl, original designation. Synonymy: Wood 1986a: 42.

References: (tx) Browne 1973a: 283; Wood, S. L. 1986a: 42.

Keys: Blandford 1987a: 157, Wood 1982b: 143 for North America.

References: (ay) Fuchs 1912: 1–51; Nobuchi 1969a: 52; Nusslin 1911, 1912; Schonherr 1970b. (bv) Barr, B. A. 1969: 643. (cn) Escherich 1923: 468–479. (hb) Bright & Stark 1973: 34; Eichelbaum 1903: 60–70; Wichmann 1927: 358, 364; Wood, S. L. 1982b: 143, 1986a: 42. (ds) Bright & Stark 1973: 34; Hagedorn 1910d: 25; Schedl 1981b: 61; Schaeperclaus & Winkler 1930: 256; Wood, S. L. 1982b: 143, 1986a: 42. (tx) Arnett 1960: 1041; Balachowsky 1949a: 98; Blackman 1940a: 123; Blandford 1897a: 143, 157; Bright 1978: 65; Bruck 1936a: 42; Chamberlin 1939: 104, 116, 183, 1958: 94; Chapuis 1869: 36, 1873: 244; Eggers 1939c: 114–123, 1942a: 13–15; Eichhoff 1881a: 121; Hagedorn 1909: 737, 1910a: 35, 63–64; Hopkins 1914: 131, 1915c: 226; Krivolutskaia 1958: 106, 113; Kurenzov 1941: 114–116; Milani 1898: 122; Pfeffer 1981b: 61; Reitter 1894: 54–55, 1906: 709, 1913a: 40, 44; Saalas 1914: 304–306; Schedl 1937: 31, 1957d: 1–162, 1959n: 421, 1981b: 61; Schimitschek 1937: 44–47; Seidlitz 1891: 151, 560, 605; Wood, S. L. 1961: 43, 1982b: 143, 1986a: 42; Yin, Huang, & Li 1984: 63.

africanus Browne 1973a: 285. Holotype, sex?; Cameroun: Maroua; MRCB, Tervuren.

Figures: Browne 1973a: 284.

Distribution: Africa (Cameroons).

Notes: (3) This species is probably a *Hylesinopsis* (not seen).

References: (tx) Browne 1973a: 284–285.

americanus Blackman 1922c: 117. Holotype ♂; Orono, Maine [USA]; USNM, Washington.

Figures: Blackman 1922c: figs. 15–16 (adult).

Distribution: North America (Ontario, Quebec in Canada/ Maine, New York in USA).

Hosts: *Picea glauca*, *P. rubens*.

References: (ay) Chararas 1956c. (cn) Blackman 1950; Hopkins 1904a: 26. (hb) Blackman 1950; Bright 1976d: 65; Chamberlin 1939: 184; Chararas 1956c; Hopkins 1904a: 26; Wood, S. L. 1982b: 146. (ds) Anonymous 1926c: 515; Blackman 1950; Bright 1976d: 65; Chamberlin 1925, 1939: 184; Currie 1905; Leng & Mntchler 1927: 52; Leonard 1928: 515; Wood, S. L. 1982b: 146. (tx) Blackman 1922c: 117–119, 1940a: 123–124; Bright 1976d: 65; Chamberlin 1939: 184; Chararas 1956c: 1; Wood, S. L. 1982b: 146.

arisanus Eggers 1939c: 114. Holotype, sex?; Formosa (Mt. Arisan); M. Chujou Collection at Taihoku Universitat, Taiwan.

Distribution: Asia (Taiwan).

References: (ds) Nobuchi 1967: 19. (tx) Eggers 1939c: 114–115.

australis Schedl 1957d: 31. Holotype, sex?; Afrique du Sud: Colonie du Cap, Steynsburg; MNHN, Paris.

Figures: Browne 1973a: 284, Schedl 1959n: 422 (adult, antenna).

Distribution: Africa (Malawi/ South Africa).

Hosts: *Cussonia spicata*.

References: (ds) Browne 1973a: 283; Schedl 1982: 278. (tx) Browne 1957d: 31, 1973a: 283–284; Powell, W. 1980: 29; Schedl 1957d: 31, 1959n: 422; Wood, S. L. 1986a: 42.

avarus Wood 1969b: 1. Holotype ♀; Volcan Irazu, Cartago, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Oreocpanax umbigenus*.

References: (hb) Wood, S. L. 1982b: 145. (ds) Wood, S. L. 1982b: 145. (tx) Wood, S. L. 1969b: 1, 1982b: 145.

bergeri Spessivtsev 1919: 249. Syntypes, sex?; E. Siberia, Vladivostok; not located.

Figures: Stark 1952: 178 (adult).

Distribution: Asia (Heilongjiang in China/ Siberia in E USSR).

Hosts: *Phellodendron amurense*.

References: (ay) Chararas 1956c. (cn) Kurenzov 1935c: 189. (ec) Kurenzov 1934a: 51. (hb) Chararas 1956c; Kurenzov 1935a: 19, 27, 1948b: 125; Stark 1952: 178. (ds) Krivolutskaia 1983; Kurenzov 1934a: 51, 1935a: 19, 27, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 59; Stark 1952: 178. (tx) Chararas 1956c; Kurenzov 1941a: 115–116, 1948b: 125; Schedl 1934f: 163–4; Spessivtsev 1919: 249–251; Stark 1952: 178.

capensis (Schedl) 1971e: 6 (*Dacryophthorus*).

Holotype ♀?; Sudafrica, Cape Prov.; Schedl Collection at NHMW, Wien.

Distribution: Africa (South Africa).

References: (tx) Schedl 1971e: 6, 1979c: 51.

chiliensis (Nunberg) 1964b: 432 (*Squamosinus*).

Holotype, sex?; Chili; NHMB, Budapest.

Figures: Nunberg 1964b: 431 (adult, antenna).

Distribution: South America (Chile).

References: (ds) Schedl 1972d: 139. (tx) Nunberg 1964b: 431, 432; Schedl 1972d: 139.

darjeelingensis Schedl 1971c: 371. Holotype ♀?; India: Darjeeling; Schedl Collection at NHMW, Wien.

Distribution: Asia (Bengal in India).

Hosts: *Quercus lamellosa*.

References: (tx) Schedl 1971c: 371.

freiburgi Schedl 1972g: 57. Holotype ♂; Brasilien, N. Freiburg; Schedl Collection at NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 57.

fuliginosus Blandford 1897a: 158. Holotype ♀; Volcan de Chiriqui, Panama; BMNH, London.

Distribution: North America (Costa Rica/ Panama).

- Hosts: *Oreopanax xalapensis*.
References: (hb) Wood, S. L. 1982b: 148. (ds) Blackwelder 1947; Hagedorn 1910d: 25; Kleine 1912b: 182, 1914b: 358; Wood, S. L. 1982b: 148. (tx) Blandford 1897a: 158; Hagedorn 1910a: 64; Wood, S. L. 1982b: 148.
- gummensis (Murayama)** 1958: 931 (*Pruniphagus*).
Holotype ♂; Mt. Manza, Gumma Pref., Japan; Murayama Collection at USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Prunus grayana*.
References: (ds) Nobuchi 1985b: 7. (tx) Murayama 1958: 931.
- imperialis (Schedl)** 1958f: 39 (*Pseudochramesus*).
Syntypes ♂; Argentinien: Buenos Aires: Tigre; Schedl Collection at NHMW, Wien, and Viana Collection.
Distribution: South America (Argentina).
Notes: (1) Schedl 1979c: 122 (citation of holotype invalid).
References: (hb) Viana 1964: 127. (ds) Viana 1964: 127. (tx) Schedl 1958f: 39, 1966f: 102, 1979c: 122.
- calvus** Schedl 1979e: 60. Holotype ♂; Buenos Aires, Pilar Island [Argentina]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1988b: 190.
References: (tx) Schedl 1979e: 60; Wood, S. L. 1988b: 190.
- irrasus Blandford** 1897a: 157. Lectotype ♂; Volcan de Agua, 8500–10,500 ft., Guatemala; BMNH, London, designated by Wood 1982b: 147.
Figures: Blandford 1896e: pl. 6, figs. 17–18.
Distribution: North America (Guatemala).
References: (ds) Blackwelder 1947; Hagedorn 1910d: 25; Kleine 1912b: 182, 1914b: 358; Wood, S. L. 1982b: 147. (tx) Blandford 1897a: 157; Wood, S. L. 1982b: 147.
- maculatus Schedl** 1951d: 18. Syntypes ♀; Chile, Quillota; Mus. Nac. Hist. Nat., Santiago, and Schedl Collection at NHMW, Wien.
Distribution: South America (Chile).
Hosts: *Nothofagus pumilio*.
Notes: (1) Schedl 1979c: 144 (citation of holotype invalid).
References: (ds) Schedl 1966f: 95, 1972d: 139. (tx) Schedl 1951d: 18, 1955e: 255, 1966e: 44, 1972d: 139, 1979c: 144.
- marmoratus Blandford** 1897a: 159. Lectotype ♀; Capetillo, Guatemala; BMNH, London, designated by Wood 1982b: 149.
Distribution: North America (Guatemala/ Veracruz in Mexico).
Hosts: *Oreopanax* sp., *O. xalapensis*.
References: (hb) Wood, S. L. 1982b: 149. (ds) Blackwelder 1947; Hagedorn 1910d: 25; Kleine 1912b: 182, 1914b: 358; Wood, S. L. 1982b: 149. (tx) Blandford 1897a: 159; Hagedorn 1910a: 64; Wood, S. L. 1982b: 149.
- mexicanus Wood** 1974a: 7. Holotype ♂; Yerba Buena, 32 km N Bochil, Chiapas, Mexico; CNCI, Ottawa.
Distribution: North America (Chiapas, Morelos in Mexico).
Hosts: *Oreopanax xalapensis*.
References: (hb) Atkinson et al. 1986: 19; Burgos & Saucedo 1983: 54. (ds) Atkinson et al. 1986: 19; Burgos & Saucedo 1983: 54; Wood, S. L. 1982b: 149. (tx) McNamara 1984: 759; Wood, S. L. 1974a: 7, 1982b: 149.
- minor Eggers** 1928c: 84. Holotype ♂?; Brasil, Sao Paulo; Eggers Collection, in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947. (tx) Eggers 1928c: 84–85.
- montanus Blackman** 1940a: 123. Holotype ♀; Sula, Montana [USA]; USNM, Washington.
Figures: Bright 1976d: 195, 200, 206.
Distribution: North America (Alaska/ Alberta, British Columbia, Saskatchewan in Canada/ California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington in USA).
Hosts: *Picea engelmannii*, *P. glauca*, *P.* sp., rare in *Larix occidentalis*.
References: (ay) Chararas 1956c. (bv) Furniss, M. M. & Carolin 1977: 375. (cn) Doane et al. 1936. (ce) Furniss, R. L. & Carolin 1977: 375; Werner & Holsten 1984. (hb) Bright 1976d: 76; Bright & Stark 1973: 34; Chamberlin 1958: 94–95; Chararas 1956c; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 375. (ds) Blackwelder & Blackwelder 1948; Bright 1964: 170, 1976d: 76; Bright & Stark 1973: 34; Chamberlin 1958: 94–95; Elias 1985: 13; Furniss, R. L. & Carolin 1977: 375; Gast et al. 1989: 385; Werner & Holsten 1984; Wood, S. L. 1951a: 127, 1972a: 404. (tx) Blackman 1940a: 123–124; Bright 1976d: 76, 195, 200, 206; Chamberlin 1958: 94–95; Chararas 1956c; Wood, S. L. 1972a: 404, 1982b: 147.
- nigrosetosus Hagedorn** 1909a: 737. Syntypes, sex?; Argentina, Gebirge Neuquem; Hamburg Museum, lost.
Distribution: South America (Argentina).
References: (ds) Blackwelder 1947; Bruch 1914a; Hagedorn 1906, 1910d: 25; Kleine 1912b: 182, 1914b: 333. (tx) Hagedorn 1906, 1909a: 737, 1910a: 64.
- obscurus Eggers** 1941b: 222. Holotype, sex?; Fukien (Khatun, 2300 m); Alexander Koenig Museum, Bonn.
Distribution: Asia (Fujian in China).
References: (tx) Eggers 1941b: 222.
- ougeniae Wood** 1988a: 37. Holotype ♀; Asan R., Dehra Dun; FRI, Dehra Dun.
Distribution: Asia (Uttar Pradesh in India).
Hosts: *Ougenia dalbergioides*.
References: (tx) Wood, S. L. 1988a: 37.

padus Wood 1958a: 38. Holotype ♀; Mundali, Chakrata, Uttar Pradesh, 8500'; FRI, Dehra Dun. Distribution: Asia (Yunnan in China/ Himachal Pradesh, Talrathachl, Uttar Pradesh in India).

Hosts: *Prunus padus*.

Notes: (3) Beeson 1941(1961: 285) (cited as *Alniphagus padus*, nomen nudum).

References: (tx) Wood, S. L. 1988a: 38.

pilosus (Ratzeburg) 1837: 178 (*Hylesinus*). Syn-types, sex?; Harze in Menge, Germany; MNB, Berlin (?).

Figures: Grune 1979: 74. Postner 1974: 413 (adult, antenna, galleries), Stark 1952: 178 (adult, galleries), Tsai & Li 1959: 80.

Distribution: Asia (Heilongjiang in China/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Poland/ Romania/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Picea* spp., rarely *Abies* sp., *Larix* sp.

References: (ay) Chararas 1956a: 113–213, 1956c: 93, 100–101; Eichelbaum 1903; Escherich 1923b: 479, 571; Fuchs 1912a; Lekander 1959b: 33; Marcu 1933a: 33; Robertson 1961; Sedlaczek 1902b: 244; Wichmann 1912a: 9–10. (bv) Annila 1975: 8; Barr, B. A. 1969: 643; Grune 1979: 75; Nuorteva 1956c: 17; Rozhkov 1970: 135; Tragardh 1930b: 107; Wichmann 1912a: 9. (cn) Borcea 1924; Escherich 1923b: 479, 571; Esterberg 1959; Gabler 1955; Greckin 1962b: 766; Hess & Beck 1914: 265, 1927: 320; Judeich & Nitsche 1895: 447, 526; Jnntinen 1960: 20; Koppen 1882: 247; Kurenzov 1935c: 187, 1950a: 13; Marcu 1926c: 61; Nestertschuk 1930: 176; Nosek 1951: 106; Nusslin 1913: 238; Pfeffer 1949b: 150; Pierce, W. D. 1917: 70; Rhumbler 1922: 280, 1927: 292; Saalas 1949: 340, 349; Schimitschek 1937c: 47, 1952a: 209, 1955a: 57, 1955c: 76, 1956: 339; Schwerdtfeger 1944a: 179, 1957a: 185; Strohmeier 1950: 21; Stolina 1969: 610–627; Trappen 1935: 141; Wachtl 1901: 381. (cc) Annila 1975: 11, 1977; Apfelbeck 1916b; Balazy & Michalski 1964b; Barbey 1927; Chararas 1959c, 1959d; Gyorfı 1962: 214; Heqvist 1963, 1967: 70; Kangas 1946b: 23; Kleine 1905c: 182, 1944: 69; Knoche 1905b: 204; Kostin 1964: 102; Kurenzov 1934a: 52; Nosek 1951: 106; Nuorteva 1956a: 17, 1957b: 53, 1968a, 1970, 1971; Nusslin 1927: 292; Palmén 1946: 194; Pfeffer 1923a: 332, 1932a: 15, 1949b: 150, 1959: 5; Ruhm 1956b: 3; Rybinski 1903: 28; Saalas 1917a: 18, 1925: 652, 1930: 119, 1949: 340, 349, 1951: 16; Schedl 1958d: 187, 192; Schimitschek 1930a: 281, 1931b: 487, 1952a: 209, 1953b: 531, 1955a: 57; Schwerdtfeger 1944a: 179, 1957a: 185; Sedlaczek 1935a: 163; Thalenhorst 1958: 34; Wichmann 1954d: 437, 1955a: 106; Yanovskii 1977b. (hb) Annila 1977; Apfelbeck 1916b; Barbey 1901: 19, 53, 1913; Beffa 1949,

1961; Borcea 1924; Budkov 1897; Cecconi 1906, 1924; Chapman 1869a: 199; Chararas 1956c, 1962: 381; Charvat 1950; Eckstein 1897; Eichhoff 1881a: 37, 121, 1892b: 99; Escherich 1923b: 479, 571; Florov 1949: 59; Fuchs 1904a, 1907: 12; Gabler 1955; Gornostaev 1916: 310; Gyorfı 1957; Hagedorn 1903a; Hennings 1908d; Henschel 1895a: 140; Hess & Beck 1914: 265, 1927: 320; Jaroschka 1889: 258; Judeich & Nitsche 1895: 447, 526; Kangas 1949c; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 154; Kharitonov 1924: 199–204; Knotek 1899b: 1, 1901: 565; Kostin 1960: 131; Krivolutskaya 1956: 827, 1960; Kurenzov 1935a: 20, 1948b: 109, 1950d: 196; Kurenzov & Kononov 1961: 598; Lekander 1959b: 33; Lengerken 1939: 52, 1954: 72; Lindemann 1880a: 161, 163; Milani 1898: 121–136; Nordlinger 1856: 36; Nunberg 1929: 95; Nuorteva 1956c: 17, 1968a, 1970; Nusslin 1898: 277, 1913: 238, 1927: 292; Opanausenko & Kononenko 1966; Pfeffer 1941c: 10, 1989a: 30; Postner 1974: 413; Ratzeburg 1837: 178, 1839: 218; Rhumbler 1922: 280, 1927: 292; Rozhkov 1970: 135; Rupertsberger 1880: 226; Saalas 1913a: 67, 77, 1949: 340, 349, 1951: 16; Schimitschek 1930a: 281, 1955a: 57; Schwerdtfeger 1944a: 179, 1957a: 185, 1981: 190; Sedlaczek 1935a: 163; Simmel 1916: 191; Spessivtsev 1913a: 62; Stark 1952: 179; Thalenhorst 1958: 34; Tragardh 1929a: 314, 1930b: 107, 1930c: 478, 1931: 61; Wachtl 1901: 381. (ds) Allen, A. 1947; Ammann & Knabl 1923; Bakke & Kvamme 1977; Bangsholt 1975: 95; Beffa 1949; Bejer-Petersen & Jorum 1977: 10; Belousev 1916, 1917: 334–357; Bistrom & Vaisanen 1988: 42; Borcea 1924: 221–260; Borchert 1951; Brakman 1966b: 204; Buckingham 1932; Budkov 1897; Calwer 1893; Cecconi 1906; Chapuis 1869: 36, 1873: 244; Charvat 1950; Chorbadzhievo 1924d; Crotch 1863; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 479, 571, 1932b; Esterberg 1928, 1959; Forster 1849: 440; Fowler 1882a, 1891; Fuchs 1904a, 1905a, 1905b, 1907: 12; Gaubil 1849: 127; Gornostaev 1917: 308–315; Greckin 1962b: 706; Gredler 1875: 114; Grill 1895: 308; Gronzelle 1905; Grune 1979: 75; Hagedorn 1903a, 1904e, 1910d: 25; Hansen, V. 1929: 140–141, 1939, 1956, 1964: 457; Heinemann 1908a; Hellen 1947; Henschel 1895a: 140; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 709; Holdhaus & Deibel 1910: 145; Horion 1951; Judeich & Nitsche 1895: 447, 526; Kaltenback 1874: 686; Kamp 1979; Kangas 1948b: 128, 1949c: 169; Karpinski 1931: 19, 22, 38, 1933b: 23, 1948b: 229; Karpinski & Strawinski 1948: 154; Kiefer et al. 1942: 528; Kinelski et al. 1959: 245; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 128, 217, 263, 267, 1912b: 182, 1913a: 34; Kloft & Hinks 1945: 217; Knotek 1899b: 1, 1901: 565; Kolbe, W. 1921: 82; Koppen 1882: 247; Kozikowsky & Kuntze 1925: 19; Kraatz 1869: 59; Krivolutskaya 1956:

- 827, 1960, 1983; Kurenzov 1934a: 52, 1935a: 20, 1935c: 187, 1936a: 111, 1936b: 351, 1938a: 61, 1951: 222, 1965, 1967; Kurenzov & Kononov 1961: 595; Kunr 1947c: 15; Lacordaire 1866: 361; Lazorko 1963; Leclercq 1971; Lindberg & Saris 1952: 58; Lindemann 1884b: 263; Lokaj 1868: 63; Lomnicki 1913b: 147; Lucht 1987: 277; Luigioni 1929: 992; Lundberg 1974: 92; Mahler 1987: 232; Marcu 1926c: 61; Matthews & Fowler 1883: 42; Michalski 1957: 163; Negru 1966b: 399, 1968a: 454; Nunberg 1927a: 212, 1928b: 87, 97, 1954: 41, 1960b: 155; Nuorteva 1971: 66; Nusslin 1898: 277; Orest 1926c: 60; Palmén 1946: 194; Pfeffer 1924b: 472, 1930b: 120, 1931b: 75, 1947e: 3, 1950b: 73, 1989a: 30; Pierce, W. D. 1917: 70; Pittioni 1943: 174; Postner 1974: 413; Prossen 1913: 82; Rapp 1934: 722; Ratzeburg 1837: 178, 1839: 218; Redtenbacher 1874: 370; Reitter 1869b: 153, 1894a: 55, 1916: 279; Roubal 1922: 78, 1941: 257; Rozhkov 1970: 135; Rye 1866c: 258, 1871b: 107; Saalas 1913a: 67, 77, 1916: 91–95, 110–116, 1917a: 18, 1919: 1–415, 1930: 119, 1931: 70; Sahlberg 1900: 105; Schaufuss 1915: 1221; Schaum 1859: 95, 1862: 100; Schedl 1967c: 69, 1981b: 61; Scheerpeltz & Winkler 1930: 256; Schilsky 1909: 187; Schiodte 1873: 100; Schwerdtfeger 1981: 190; Seidlitz 1872: 392, 1891a: 560, 1891b: 605; Sharp & Fowler 1893: 34; Shirskaia 1961: 1–165; Stark 1926b: 102, 1926j: 125, 1931d: 544, 1952: 179; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 433; Stierlin & Gautard 1871: 391; Strand 1946: 595; Sturm 1826: 102; Thomson 1865: 353, 1868: 218; Tredl 1907: 10; Vrydagh 1954: 63; Wegelius 1960: 106; Westhoff 1882: 237; Wichmann 1927a: 57, 1955a: 106; Wilke 1931: 670; Wilken 1864: 373; Wiren 1945: 43; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 408, 1985: 408; Zinovjev 1955: 186, 1958: 379–393. (tx) Bach 1854; Balachowsky 1949a: 98; Barbey 1901: 19, 53; Beffa 1949, 1961; Blackman 1922c: 117–119, 1940: 123; Chapuis 1869: 36, 1873: 248; Chararas 1956c; Charvat 1950; Chorbadzhievo 1924d; Csiki 1907; Doebner 1860; Eggers 1929e: 49–50; Eichhoff 1864b: 27, 1881a: 37, 121, 1883a: 102, 124; Endrodi 1957b; Escherich 1923b: 479, 571; Fleischer 1927; Formanek 1907: 23; Fuchs 1912a; Gabler 1955; Gebien 1907: 197; Gemminger & Harold 1872: 2673; Grune 1979: 74, 75; Hagedorn 1910a: 64; Hansen, V. 1956, 1964: 457; Henschel 1895a: 140; Judeich & Nitsche 1895: 447, 526; Karpinski & Strawinski 1948: 154; Koch 1928: 91, 1932: 117; Krivolitskaya 1956: 827, 1958: 114; Kurenzov 1941a: 114–115, 1948b: 109; Lacordaire 1866: 361; Lazorko 1963; Lekander 1959b: 33; Letzner 1844: 69, 1891: 373; Lindemann 1879: 83, 1881: 161–163; Lucas 1920: 674; Lucht 1987: 277; Luigioni 1929: 992; Negru 1966b: 399; Nordlinger 1856: 36; Numberg 1954: 41; Pfeffer 1932b: 13, 1941c: 10, 1947c: 3, 1955a: 100; Postner 1974: 413; Ratzeburg 1837: 178, 1839: 218; Redtenbacher 1849: 793, 852, 1849b: 27, 1874: 370; Reitter 1894a: 55, 1894c: 45, 1913a: 44, 1916: 279; Rhumbler 1922: 280, 1927: 292; Rupertsberger 1880: 226; Saalas 1913a: 67, 77, 1949: 340, 349; Schedl 1934f: 1634, 1947: 32, 1981b: 61; Schimitschek 1937c: 47, 1955c: 76; Seidlitz 1872: 392, 1891a: 560, 1891b: 605; Sokanovskii 1929: 521–526, 1958: 38; Spessivtsev 1913a: 62, 1919: 249–251, 1922a: 464, 1925a: 164, 491, 1931: 34–35; Stark 1952: 179; Stierlin 1898: 433; Stresemann et al. 1989: 352; Thomson 1865: 353, 1868: 218; Tsai & Li 1959: 80; Yin, Huang, & Li 1984: 63. (ms) Chararas 1959d; Escherich 1932b; Heinemann 1908a; Kangas 1971: 27; Lucas 1920: 674; Schimitschek 1930b: 407.
- planicolle (Schedl)** 1953d: 74 (*Chilodendron*). Syn-types 2 ♀; Madagascar: Mt. d'Ambre; MNHN, Paris, and Schedl Collection in NHMW, Wien. Figures: Schedl 1977b: 14. Distribution: Madagascar. Notes: (1) Schedl 1979c: 196 (citation of holotype invalid). Wood 1992: (in press) (to *Xylechinus*). References: (ds) Schedl 1977b: 15. (tx) Schedl 1953d: 74, 1977a: 14, 1977b: 14, 15, 1979c: 196; Wood, S. L. 1992: (in press).
- porteri Brethes** 1925: 202. Holotype, sex?; Loncoche, Chile; not given. Figures: Rhum 1976: 138. Distribution: South America (Chile). References: (cc) Hirschmann 1972; Ruhm 1969. (hb) Ruhm 1976: 138. (ds) Blackwelder 1947; Schedl 1972d: 139. (tx) Brethes 1925: 202; Ruhm 1976: 138; Schedl 1972d: 139.
- roeri Schedl** 1977c: 395. Holotype, sex?; Südwestafrika: Grootfontein, Farm Mariabronn; Alexander Koenig Museum, Bonn. Distribution: Africa (Namibia). References: (tx) Schedl 1977c: 395.
- scabiosus Blandford** 1897a: 158. Lectotype ♀; Volcan de Agua, 8500–10,500 ft., Guatemala; BMNH, London, designated by Wood 1982b: 144. Distribution: North America (Guatemala). References: (ds) Blackwelder 1947; Hagedorn 1910d: 25; Kleime 1912b: 182, 1914b: 358; Wood, S. L. 1982b: 144. (tx) Blandford 1897a: 158; Hagedorn 1910a: 64; Schedl 1979c: 220; Wood, S. L. 1982b: 144.
- spathifer Schedl** 1955e: 256. Lectotype ♂; Chile (Prov. Malleco, Laguna de Malleco, 900 m); Schedl Collection in NHMW, Wien, designated by Wood 1985: 270. Distribution: South America (Argentina/Chile). Hosts: *Lomatia hirsuta*. References: (ds) Schedl 1972d: 138. (tx) Schedl 1955e: 255–256, 1963h: 259, 1972d: 138; Wood, S. L. 1985: 270.
- lomatiae* Schedl 1975d: 2 (*Pteleobius*). Holotype ♂; Argentinien, Nahuel Huapi Natl. Park;

Schedl Collection in NHMW, Wien. Synonymy: Wood 1985: 270.

References: (tx) Schedl 1975d: 2; Wood, S. L. 1985: 270.

squamiger Schedl 1979e: 60. Holotype ♂; Cordoba, Dep. de Calamuchita, El Sauce Argentina; MACN, Buenos Aires.

Distribution: South America (Argentina).

References: (tx) Schedl 1979e: 60.

squamosus (Schedl) 1942c: 165 (*Phloeosinus*). Holotype ♂?; Australien; Schedl Collection at NHMW, Wien.

Distribution: Australia (Tasmania).

References: (ds) Schedl 1979a: 161. (tx) Razzauti 1956: 142; Schedl 1942c: 165, 1955b: 279, 1963h: 262.

sulcatus Schedl 1966f: 100. Holotype ♀; S. Argentine, Chubut, El Hoyo; NHMB, Budapest.

Distribution: South America (Argentina).

References: (tx) Schedl 1966f: 100.

tessellatus Blandford 1897a: 159. Holotype ♀; Volcan de Agua, Guatemala; BMNH, London.

Distribution: North America (Guatemala/ Honduras/ Chiapas, Oaxaca in Mexico).

Hosts: *Oreopanax* sp.

References: (hb) Wood, S. L. 1982b: 147. (ds) Atkinson & Equilna 1988: 102; Blackwelder 1947; Hagedorn 1910d: 25; Kleine 1912b: 182, 1914b: 358; Wood, S. L. 1982b: 147. (tx) Blandford 1897a: 159; Hagedorn 1910a: 64; Wood, S. L. 1982b: 147.

uniformis Schedl 1982: 281. Holotype, sex?; Zimbabwe; Transvaal Museum, Pretoria.

Distribution: Africa (Zimbabwe).

References: (tx) Schedl 1982: 281.

variatus (Chapuis) 1869: 40 (*Phloeosinus*). Holotype, sex?; Chili; IRSNB, Brussels.

Distribution: South America (Chile).

References: (hb) Zocchi 1956: 140, 142. (ds) Blackwelder 1947; Hagedorn 1910d: 28; Kleine 1912b: 183, 1914b: 332; Schedl 1972d: 140. (tx) Chapuis 1869: 40, 1873: 248; Hagedorn 1910a: 66; Schedl 1972d: 140; Zocchi 1956: 140, 142.

vittatus Schedl 1966f: 100. Holotype ♂?; Chile; Schedl Collection in NHMW, Wien.

Distribution: South America (Chile).

References: (ds) Schedl 1966f: 96, 1972d: 140. (tx) Schedl 1966f: 100, 1972d: 140.

Genus *Hylurgus* Latreille

HYLURGUS LATREILLE 1807: 274. Type-species: *Bostrichus ligniperda* Fabricius, monobasic.

References: (ay) Nobuchi 1969a: 50; Nusslin 1911, 1912; Schonherr 1970b. (bv) Schonherr 1970b. (cn) Doebner 1862: 158; Espanol 1967: 121–125; Simmonds 1966. (hb) Nusslin 1906: 13–14; Wood, S. L. 1986a: 42. (ds) Hagedorn 1910d: 12; Karaman 1972: 82; Schedl 1981b: 53; Scheerpeltz 1930: 256; Wood, S. L. 1986a: 42. (tx) Balachow-

sky 1949a: 133; Blackman 1941: 2; Chapuis 1969: 33, 1973: 241; Eichhoff 1964: 24–46, 1878b: 399–400, 1881: 98; Erichson 1836: 52; Hagedorn 1910: 54–55; Hopkins 1914: 123, 1915c: 209, 226; Latrielle 1807: 274; LeConte 1868: 168; Pfeffer 1989a: 35; Reitter 1894: 58, 1913a: 47, 49; Schedl 1935f: 40, 1959a: 383–384, 1981b: 53; Schimitschek 1937: 44–48; Swan 1942: 89; Wollaston 1954: 301; Wood, S. L. 1986a: 42; Zimmermann 1868: 142.

indicus Wood 1985: 273. Holotype ♀; Kumaon (region), W. Almora, U. P., India; FRI, Dehra Dun.

Distribution: Asia (Uttar Pradesh in India).

Hosts: *Pinus roxburghii*.

Notes: (1) Beeson 1941 (1961: 288) (*chir*, nomen nudum).

References: (tx) Wood, S. L. 1985: 273.

ligniperda (Fabricius) 1787: 37 (*Bostrichus*). Holotype, sex?; Germania; UZMC, Copenhagen.

Figures: Bain 1977a. Balachowsky 1949a: 138, Chararas 1962c: 373, Grune 1979: 56. Joly 1976b: fig.137, Pfeffer 1989a: pl. 2, Postner 1974: 400.

Distribution: Africa (Azores Islands/ Canary Islands/ Madeira Island/ Morocco/ introduced to South Africa/ Tunisia), Asia ("Manchuria" in China/ Japan/ Turkey), Australia (introduced in South Australia), Europe (Austria/ Belgium/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Portugal/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), New Zealand, St. Helena Island (introduced), South America (introduced to: Brazil/ S Chile/ Uruguay). Hosts: *Pinus* spp.

Notes: (3) Wachtl 1881b: 227 (*maritimus* Reitter, nomen nudum, synonymy).

References: (ay) Escherich 1923b: 480; Fabre, J. P. & Carle 1975; Feytaud 1950a; Francke-Grosman 1959; Fuchs 1912a: 3–54; Marcu 1933a: 34; Menier & Carle 1976: 92; Nunberg 1928a: 140; Nusslin 1911a: 59, 255, 1912c: 269, 277; Sasakawa & Yoshiyasu 1983; Wichmann 1912a: 7–10. (bv) Barr, B. A. 1969: 641; Fabre, J. P. & Carle 1975; Grune 1979: 57; Menier & Carle 1976: 92; Wichmann 1912a: 9. (cn) Anonymous 1970c: 13, 1974q, 1977r, 1978w, 1979q, 1980g; Bain 1977a; Block 1906: 7; Boden 1903; Chararas 1976c, 1978; Ciesla 1988; Donisthorpe 1931: 173; Eckstein 1917, 1926: 577; Egorov 1958: 1492; Escherich 1923b: 480; Espanol 1964a; Esterberg 1959; Faulds 1988, 1989; Feytaud 1950a; Gabler 1955; Garcia de Viedma 1964; Giebel 1856; Gmelin 1787a; Gois 1944; Grandi 1951; Hanson, H. S. 1940a; Hartig 1861: 324, 1877: 190; Hess 1880, 1898: 381; Hess & Beck 1914: 249, 1927: 303; Hosking 1979a; Hrubik 1973; Jabllokov 1953: 327; Joly 1976; Judeich & Nitsche 1895: 447, 454; Kholodkovskii 1912: 302; Koch 1913: 22; Marcu

- 1926c: 61; Mumford 1965: 22, 1966: 25; Nusslin 1913: 238; Pfeffer 1933: 43; Rhumbler 1922: 280, 1927: 292; Ruhm 1958: 295; Russo 1946a: 24, 40; Schimitschek 1937c: 48, 1944: 166, 1955c: 78; Schuster 1918: 102; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 183, 1950b: 44, 1957a: 189; Trappen 1935: 141; Wachtl 1901: 381; Weber, H. 1926: 577; Wolff 1920: 235; Wolff & Krausse 1922: 84; Zondag 1982. (**cc**) Apfelbeck 1916b; Balazy 1965a; Chararas 1964b; Faulds 1989; Francke-Grosman 1959; Fuchs 1911: 182, 1929a: 248–285, 1930, 1937, 1938: 123–190; Galoux 1947b; Gyorfi 1941b: 49–65; Hirschmann 1960, 1971b: 41; Hirschmann & Wisniewski 1982, 1983; Jakaitis & Valenta 1976: 20; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 182, 1909a: 44, 76, 1944: 72–73, 76, 82 [parasite numbers 14, 61, 70, 117, 303, 425, 436]; Knoche 1908b: 202; Kostenko 1929; Kostin 1964: 104; Majewski, T. & Wisniewski 1978a: 5; Michalski & Ratajczak 1989; Novak, P. 1952: 413; Nusslin 1927: 292; Perris 1852: 497, 1854a: 101, 1856a: 204; Pfeffer 1928b: 2, 1933: 43; Ruhm 1956b: 3; Russo 1946a: 24, 40; Schuster 1918: 102; Schwerdtfeger 1944a: 183, 1950b: 44, 1957a: 189; Wiackowski 1957a: 43; Wichmann 1955a: 92, 101; Wingfield & Knox-Davies 1980; Wingfield, Strauss, & Tribe 1985; Zondag 1979. (**hb**) Altum 1881c: 268, 1885a, 1887a, 1887d, 1888a, 1889c; Apfelbeck 1916b: 438, 1917; Bach 1864; Bain 1977a; Barbey 1901: 19, 48; Bargmann 1906: 316–318; Beffa 1961; Boden 1903; Budge 1949; Cabral 1959; Cecconi 1924; Chararas 1962c: 371; Charvat 1950; Decelle 1972b: 516; Dombrowsky 1887; Eckstein 1897, 1917, 1926: 577; Eichhoff 1881a: 36, 98, 1881d: 435, 1883d: 676; Elton et al. 1964; Escherich 1923b: 480; Evans 1952: 141; Everts 1903: 750; Fabre, J. P. & Carle 1975; Feytaud 1950a; Fuchs 1904a; Gabler 1955; Germar 1813; Gmelin 1787a; Gois 1944; Grandi 1951; Gyorfi 1957; Hartig 1861: 324, 1877: 190; Hennings 1908b; Henschel 1880b, 1895a: 136; Hesse 1880, 1898: 381; Hess & Beck 1914: 249, 1927: 303; Jaursch 1892: 21; Joly 1976; Judeich & Nitsche 1895: 447, 454; Kholodkovskii 1912: 302; Knoche 1905: 354; Kostin 1960: 131; Lengerken 1939: 57, 1954: 76; Loos 1913: 406; Lumarconi & Leonardi 1889: 422; Normand 1937: 268; Nordlinger 1856: 36; Nusslin 1898: 277, 1906: 13, 1913: 238, 1927: 292; Perris 1852: 497, 1856a: 204, 221; Pfeffer 1941b: 7; Postner 1974: 401; Ratzeburg 1837: 131, 178, 1839: 159, 218; Rhumbler 1922: 280, 1927: 292; Rudnev & Kozak 1974a; Rupertsberger 1879: 231, 1880: 226; Russo 1946b: 297, 311–314; Saalas 1923: 59, 333, 549; Scheidter 1934; Schimitschek 1944: 166; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 183, 1957a: 189, 1981: 194; Spessivtsev 1913a: 48; Stanek 1969: 256; Stark 1926a: 332, 1952: 194; Swann 1942: 86; Takahashi 1989: 403; Wachtl 1901: 381; Weber, H. 1926: 577; Wissman 1846: 24; Wolff 1920: 235; Wolff & Krausse 1922: 84; Zocchi 1959: 103. (**ds**) Acloque 1896; Ammann & Knabl 1923; Andersch 1851; Anonymous 1970c: 13, 1974q, 1977r, 1978w, 1980g; Arnoldi et al. 1955: 670; Andras & Schaefer 1957; Baeta Neves 1947, 1952a; Barthe 1896; Bau 1888; Bedel 1885b: 392, 408; Bejer-Petersen & Jorum 1977: 20; Binaghi 1967; Blanchere & Robert 1889; Borchert 1951; Borges & Serrano 1989; Brakman 1966b: 204; Brancsik 1871, 1906; Bright 1987a: 2; Brimblecombe 1953: 11; Browne 1980d: 492; Cabral 1959; Calwer 1884, 1893; Carpentier & Delaby 1908; Chapuis 1869: 33, 1873: 241; Chapuis & Candeze 1853; Chararas 1962c: 371; Charvat 1950; Ciesla 1988; Debatisse 1945; Decelle 1972a, 1972b: 516; Duftschmidt 1825; Eckstein & Butovitch 1931; Eder 1934; Eggers 1904; Endrodi 1958b, 1986: 217; Escalera 1919; Escherich 1923b: 480; Esterberg 1959; Evans, J. W. 1952: 141; Everts 1922: 639, 1925; Eyquem 1891; Fauvel 1885; Favre 1890; Filipejev 1934; Forster 1840: 440; Fowler 1882a; Fricken 1889: 278; Friederichs 1919; Fuchs 1904a, 1905a; Ganglbauer 1904; Gaubil 1849: 127; Georghion 1977: 74; Gillerfors 1988; Gozis 1875: 79; Grune 1979: 57; Gyllenhal 1827: 618; Gyorfi 1941b; Hagedorn 1910d: 12–13; Hallett 1923b: 13–14; Hansen, V. 1939, 1956, 1964: 459; Heinemann 1908a; Hellen 1947; Henschel 1895a: 136; Heyden 1876: 297; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Holdhaus 1923: 115; Horion 1951; Hosking 1979a; Illiger 1805: 130; Israelson 1984; Jablokkoff 1953: 327; Jacentkovsky 1912: 287; Jansson 1940: 53, 63; Joly 1976; Judeich & Nitsche 1895: 447, 454; Kaltenbach 1874: 686; Karpinski 1925: 216, 1926: 82, 1931: 22, 38, 1933b: 24; Keler 1925b: 271; Kersten 1933: 73; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 161, 263, 267, 1912b: 168, 1913a: 34, 1914a: 16, 1934a: 128, 603–606; Kloft & Hinks 1945: 217; Koltze 1901: 152; Koschitsky 1900: 83; Kostenko 1929; Kotula 1873b: 80; Kraatz 1869: 59; Krol 1877: 34; Kugelann 1794: 523; Kurir 1947c: 8; Langhoffer 1915c: 157; Leclercq 1971; Lentz 1857: 137; Liebmann 1939: 153; Lokaj 1868: 63; Lomnicki 1886a: 240, 1913b: 147; Loos 1913: 406; Lucht 1987: 276; Luigioni 1929: 994; Luna de Carvalho 1947: 15; Lumarconi & Leonardi 1889: 422; Lumdblad 1958: 489; Marcu 1926c: 61; Mequignon 1936: 25; Mitter 1984: 6; Moragues 1889: 32; Mumford 1965: 22, 1966: 28; Murayama 1936a: 123, 1951c: 3, 1955: 103; Nakane et al. 1963: 382; Neumann 1979; Nobuchi 1966b: 16; Nohira & Ogawa 1986; Novak, P. 1952: 413; Numberg 1928b: 88, 99, 1954: 34; Nusslin 1898: 277; Oliveira 1887: 326; Orest 1926c: 61; Perris 1876a: 253, 1877a: 414; Peyerimhoff 1919: 252, 1933b: 367–400; Pfeffer 1928b: 2, 1931b: 74, 1933: 3–54, 1947c: 15, 1984: 277–278, 1989a: 35; Pittioni 1943: 174; Postner 1974: 401; Ragusa

- 1924: 115; Rapp 1934: 723; Ratzeburg 1837: 131, 178, 1839: 159, 218; Redtenbacher 1858: 827, 1874: 368; Reitter 1869b: 153, 1894a: 58, 1916: 282; Ronbal 1941: 259; Ruffinelli Rey 1967: Sainte-Claire 1914: 470; Sainte-Claire & Mcquignon 1938: 444; Schanfuss 1915: 1224; Schann 1859: 95, 1862: 100; Schedl 1961b: 184, 1963e: 155, 1966f: 95, 1967c: 69, 1971d: 425, 1972n: 348, 1975k: 274, 1980a: 9, 1981b: 53, 1982: 278; Schedl, Lindberg, & Lindberg 1959: 14; Scheerpeltz & Winkler 1930: 256; Schilsky 1909: 187; Schiodte 1888: 486; Schmidt 1939: 81; Schmitz 1898: 157; Schonherr & Pedrosa-Macedo 1981: 50; Schwedtfeger 1981: 194; Scudder 1891: 540; Seidlitz 1872: 391, 1891a: 559, 1891b: 605; Stark 1926a: 332, 1926b: 101, 1926j: 124, 1927b: 88, 1952: 194; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 432; Stierlin & Gautard 1871: 291; Strauch 1861: 123; Sturm 1826: 156, 1843: 229; Thomson 1859: 146, 1865: 356; Tredd 1907: 10; Tressens 1952: 90; Uyttenboogaart 1937: 116; Viedma 1964: 61; Villa & Villa 1833: 26; Westhoff 1882: 237; Wichmann 1927a: 60, 1955a: 92, 101; Wiepkin 1883: 89; Wollaston 1854: 302, 1857: 99; Zetterstedt 1828: 341, 1840: 191; Zocchi 1959: 103; Zondag 1982; Zoufal 1920: 20. **(tx)** Acloque 1896; Bach 1854, 1864; Bain 1977: 1-7, 1977a; Balachowsky 1949a: 138-139; Barbey 1901: 19, 48; Bechstein et al. 1805: 106; Bedel 1888b: 392, 408; Beffa 1961; Bertolini 1872; Branesik 1871; Cabral 1959; Calwer 1858; Carne et al. 1980; Carpentier & Delaby 1908; Castelnau 1840; Ceballos 1945; Chapuis 1869: 33, 1873: 241; Chapuis & Candeze 1853; Chararas 1962c: 373; Charvat 1950; Csiki 1908; Decelle 1972: 516-518; Doebner 1860; Dombrowsky 1887; Duftschmidt 1825: 100; Eggers 1904: 94, 1911: 119-120, 1914: 186, 1929e: 43, 1942a: 13; Eichhoff 1864b: 25, 1878d: 400, 1881a: 36, 98, 1883a: 101, 123; Endrodi 1957a: 307, 1957b; Erichson 1836: 52; Escherich 1923b: 480, 1932b; Escherich & Escherich 1897; Everts 1903: 750, 1922: 639; Fabricius 1787: 37, 1792: 367, 1801: 391; Fauvel 1885, 1889; Fleischer 1927; Formanek 1907: 26; Fricken 1889: 278; Fuchs 1912a; Cahler 1955; Gemminger & Harold 1872: 2671; Giebel 1856; Gmelin 1790; Grune 1979: 56, 57; Gyllenhal 1813: 335, 1827: 618; Hagedorn 1910a: 54-55; Hansen, V. 1956, 1964: 459; Henry 1892: 14; Henschel 1895a: 136; Herbst 1793: 107; Hopkins 1914: 123, 134; Illiger 1907: 321; Jacquelin du Val & Fairmaire 1868: 99-100; Joly 1976, 1976b: fig. 137; Judeich & Nitsche 1895: 454, 477; Kalina 1975; Karpinski 1933b: 24; Keler 1927a: 229; Koch 1913: 22; Kugelann 1794: 523; Kulmt 1913: 1052; Latreille 1807: 274; Letzner 1891: 373; Leunis 1886: 179; Lindemann 1879: 54; Lovendal 1898: 68; Lucas 1920: 343; Lucht 1987: 276; Luigioni 1929: 994; Lunardonì & Leonardì 1889: 422; Mannerheim 1843: 124; Milligan 1978: fig. 3; Murayama 1936a: 123-124, 1954b: 157, 1955: 103; Nakane et al. 1963: 352, pl. 191; Nobuchi 1966b: 16, 1966d: pl. 1; Nordlinger 1848: 250, 1856: 36; Numberg 1928a: 140, 1954: 34; Nusslin 1911a: 59, 255, 1912c: 269, 277; Olivier 1795b: 8-9; Panzer 1795a: 286; Paykull 1800: 149; Perris 1877a: 414; Pfeffer 1932b: 14, 1941b: 7, 1947e: 15, 1955a: 127, 1989a: 35, pl. 2; Portevin 1935: 318; Postner 1974: 401; Quaschik 1953: 35; Ratzeburg 1837: 131, 178, 1839: 159, 218; Redtenbacher 1849: 363, 852, 1849b: 27, 1858: 827, 1874: 368; Reitter 1894a: 58, 1913a: 49, 1916: 282; Rhumbler 1922: 280, 1927: 292; Rupertsberger 1879: 231, 1880: 226; Sahlberg 1836: 135; Schedl 1934f: 1635, 1947a: 21, 1952f: 87, 1955d: 273, 1957b: 150, 1957c: 324, 1959n: 354, 1980a: 9, 1981b: 53; Schedl, Lindberg, & Lindberg 1959: 14; Schimitschek 1937c: 48, 1955c: 78; Schiodte 1888: 486; Schlechtendal & Wunsche 1879: 124; Seidlitz 1872: 391, 1891a: 559, 1891b: 605; Sharp 1877: 10; Spessivtsev 1913a: 48, 1922: 450, 490, 1931: 23; Stanek 1969: 256; Stark 1952: 194; Stierlin 1872: 391, 1898: 432; Stresemann et al. 1989: 353; Sulzer 1776: 20; Swan 1942: 86-89, 1943: 89; Thomson 1859: 146, 1865: 356; Wachtl 1881a: 300, 1881b: 227; Wissman 1846: 24; Wollaston 1854: 302-303, 1857: 99, 1864: 268, 1865: 249-250, 1869: 299, 321; Zetterstedt 1828: 341, 1840: 191. **(ms)** Escherich 1932b; Germar 1813; Hartig 1834: 412, 413; Heinemann 1908a; Henschel 1880b; Lucas 1920: 343; Ratzeburg 1871b: 400; Schaum 1854: 148.
- elongatus* Herbst 1793: 117 (*Bostrichus*). Syntypes, sex?, Deutschland; not located. Synonymy: Ratzeburg 1837: 178; Hagedorn 1910d: 13. References: **(hb)** Stark 1952: 195. **(ds)** Hagedorn 1910d: 13; Heyden, Reitter, & Weise 1883, 181, 1891: 668, 1906: 710; Kleine 1912b: 168, 1934a: 128; Kolenati 1846: 38; Lacordaire 1866: 259; Reitter 1894a: 59; Stark 1952: 195; Stein & Weise 1877: 163; Sturm 1833: 26; Villa & Villa 1833: 26. **(tx)** Balachowsky 1949a: 138; Gemminger & Harold 1872: 2671; Grune 1979: 57; Hagedorn 1910a: 55, 1910d: 13; Herbst 1793: 117; Iablokoff-Khinzorian 1961: 157; Illiger 1907: 321; Lacordaire 1866: 359; Panzer 1795a: 289; Ratzeburg 1837: 178; Reitter 1894a: 59, 1913a: 49; Schedl 1934f: 1635; Stark 1952: 195.
- flavipes* Panzer 1795: 61 (*Hylesinus*). Syntypes, sex?, article not seen; not located. Synonymy: Ratzeburg 1837: 178. References: **(ds)** Lacordaire 1866: 359; Sturm 1826: 156; Villa & Villa 1833: 26. **(tx)** Herbst 1793: 117; Illiger 1907: 321; Lacordaire 1866: 359; Panzer 1795: 61, 1795a: 289; Ratzeburg 1837: 178. **(ms)** Hartig 1834: 412, 413.
- longulus* Kolenati 1846: 38. Syntypes, sex?, Shamlogh, territorii Airum, montis Kaepes-Daghl,

provinciae Transcausicae Elisabethopol; not located. Synonymy: Stark 1952: 195.

References: **(hb)** Stark 1952: 95. **(ds)** Arnoldi et al. 1955: 671; Hagedorn 1910d: 13; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Kleine 1912b: 168, 1934a: 128; Kolenati 1846: 38; Lacordaire 1866: 359; Postner 1974: 401; Reitter 1894a: 59; Stark 1952: 195; Stein & Weise 1877: 163. **(tx)** Gemminger & Harold 1872: 2671; Hagedorn 1910a: 55; Kolenati 1846: 38; Lacordaire 1866: 359; Postner 1974: 401; Reitter 1894a: 59, 1913a: 49; Schedl 1934f: 1635; Stark 1952: 195.

micklitzii Wachtl 1881b: 227. Syntypes, sex?, Dalmatia (propro Ragusam et Lesina insula); not located.

Figures: Balachowsky 1949a: 140, Grune 1979: 56; Questienne 1979: 117; Wachtl 1881b: pl. 6.

Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Israel/ Turkey), Europe (France/ Germany/ Greece/ Hungary/ Italy/ Sardinia/ Sicily/ Caucasus in W USSR/ Yugoslavia).

Hosts: *Pinus halepensis*, *P.* spp.

References: **(bv)** Grune 1979: 57; Mendel 1985a; Mendel, Madar, & Golan 1985. **(cn)** Grandi 1951; Questienne 1979: 117; Vanderberg 1975: 212; Wachtl 1901: 381. **(ec)** Fry 1989: 16; Halperin & Holzschuh 1984: 25; Mendel 1986c: 115; Novak 1952: 413. **(hb)** Grandi 1951; Halperin & Holzschuh 1984: 25; Henschel 1895a: 136; Mendel, Madar, & Golan 1985; Peyerimhoff 1919: 252; Questienne 1979: 117; Wachtl 1901: 381. **(ds)** Barthe 1856; Calver 1893; Chararas 1962c: 376; Eggers 1912f; Escalera 1919; Fairmaire 1883: 114; Fauvel 1885; Friedrichs 1919; Ganglbauer 1904; Grune 1979: 57; Hagedorn 1910d: 13; Halperin & Holzschuh 1984: 25; Henschel 1895a: 136; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Horion 1935; Joffre 1960; Kleine 1908c: 182, 1912b: 168, 1914a: 16, 1934a: 128; Langhoffer 1915c: 157; Luigioni 1929: 994; Normand 1937: 268; Novak, P. 1952: 413, 1964; Peyerimhoff 1919: 252, 1933b: 367; Pfeffer 1947d: 128; Pittioni 1943: 176; Postner 1974: 401; Reitter 1894a: 59, 1916: 282, 349; Sainte-Claire & McQuignon 1938: 444; Schaufuss 1915: 1224; Schedl 1938d: 450, 1964j, 1967c: 69, 1969g: 289, 1972n: 348, 1978e: 36, 1979i: 289; Schilsky 1909: 187; Treddl 1907: 10. **(tx)** Balachowsky 1949a: 138–140; Csiki 1908; Eggers 1912f: 29, 1914: 186; Eichhoff 1883a: 101, 123; Fauvel 1885, 1889; Grune 1979: 56, 57; Hagedorn 1910a: 55; Henschel 1895a: 136; Luigioni 1924: 994; Portevin 1935: 318; Questienne 1979: 117; Postner 1974: 401; Reitter 1894a: 59, 1913a: 49, 1916: 282, 349; Schedl 1934f: 1635; Wachtl 1881a: 299, 1881b: 227.

Genus *Tomicus* Latreille

TOMICUS LATREILLE 1802/3: 203. Type-species: *Hylesinus piniperda* Fabricius = *Dermestes piniperda* Linnaeus, monobasic.

Blastophagus Eichhoff 1864b: 25. Type-species: *Dermestes piniperda* Linnaeus, subsequent designation by Lacordaire 1866: 360, preoccupied by Gravenhorst 1827: 23. Synonymy: Wood 1961e: 319.

References: **(cn)** Aitkin 1945: 273–364; Gornas 1962: 38–42. **(ds)** Scheerpeltz & Winkler 1930: 256; Tragardh 1930: 468–480; Trappen 1935: 141. **(tx)** Balachowsky 1949a: 133–137; Chapuis 1869: 39, 1873: 247; China 1960: 69–72; Dammerman 1950: 164; Eggers 1929f: 103–104; Eichhoff 1864b: 25, 1878d: 399–400; ICZN 1963b: 276, 669; Kostin 1973: 246; Krivolutskaya 1958: 115; Lacordaire 1866: 360; LeConte 1876: 386; Lekander 1971: 271–276; Murayama 1963: 34–43; Reitter 1913a: 47; Saalas 1914: 71–77; Schedl 1934f: 1635, 1946b: 50–58, 1951j: 96, 1952a: 448; Schimitschek 1937: 40–45; Sierpinski 1959: 37–48; Spessivtsev 1931: 86; Stark 1952: 187; Wood, S. L. 1961e: 319–321, 1963: 1–3.

Myelophilus Eichhoff 1878d: 400. Type-species: *Dermestes piniperda* Linnaeus, automatic. Synonymy: Wood 1961e: 319.

References: **(cn)** Andreeva & Gorjaceva 1960: 102–107; Brammanis 1928: 1–20; Butovitsch 1947: 9; Frohlich 1927: 101; Koehler & Zdanowicz 1954: 19–59; MacDougall 1920: 1–42; Pfeffer 1933: 3–54; Prozorov 1929: 17; Ritzema 1920: 28–60, 113–115; Schwerdtfeger 1944: 80–81; Sedlaczek 1921: 334–339; Trappen 1935: 341. **(hb)** Comostaev 1917: 308–315; Nuorteva 1962: 171–173. **(ds)** Galoux 1947: 12; Hanson, H. S. 1937: 185–236, 1940: 483–536; Kangas 1932: 156–160, 1934: 9–12; Karaman 1971: 78; Kontkanen 1929: 68–77; Munro 1919: 1–35, 1926: 1–27, 1928: 31–39, 1929: 61–65; Tragardh 1920: 1–6; Viedma 1964: 61–63. **(tx)** Balachowsky 1949a: 136; China 1960: 69–72; Dammerman 1950a: 13–14, 1950b: 154; Eggers 1929f: 103–104; Eichhoff 1978d: 399–400; ICZN 1963b: 276; Reitter 1913a: 47; Schedl 1951j: 96; Schimitschek 1937: 44–45; Spessivtsev 1922: 465; Swan 1942: 89; Wood, S. L. 1961e: 319–321, 1963: 1–3.

Keys: Balachowsky 1949a: 135, Murayama 1963b: 35, Schedl 1946b: 52.

Notes: (3) The name *Tomicus* was properly validated (Latreille 1802/3: 203), but an unfortunate error in identification by Latreille caused *piniperda* to be associated with the generic name *Ips* until the error was discovered in the late 19th century. Misuse of the name persisted until corrected by Wood 1961e and ICZN 1963b (China 1963a).

References: (ay) Nobuchi 1969a: 50; Schonherr 1970b. (bv) Barr, B. A. 1969: 643; Kangas 1981; Schonherr 1970b; Vite 1976. (cn) Andreeva & Gorjaceva 1960; Kangas 1966b, 1981; Torrent & Romanyk 1967: 84. (cc) Lindquist 1970a: 980. (hb) Chararas 1960a: 35; Wood, S. L. 1986a: 42. (ds) Kangas 1964c; Wood, S. L. 1986a: 42. (tx) China 1963a; Choo, Woo, & Nobuchi 1988b; Hopkins 1915c: 221; ICZN 1963b: 276; Kalshoven 1952: 180; Latrielle 1802/3: 203, 1807: 276; Pfeiffer 1959a: 35; Schedl 1981b: 52; Wiebes 1962a; Wood, S. L. 1961e: 319–321, 1963: 1–117, 1982b: 150, 1986a: 42.

brevipilosus (Eggers) 1929f: 103 (*Blastophagus*). Syntypes 2, sex[?]; [Fukien] China; Eggers Collection, in NHMW, Wien.

Figures: Nobuchi 1966: pl. 1.

Distribution: Asia (Fujian in China/ Assam in India/ Japan/ Korea).

Hosts: *Pinus insularis*, *P. koraiensis*, *P. parviflora*.

Notes: (1) Schedl 1979c: 46 (citation of holotype invalid). (3) Schedl 1941a: 42 (cited *fukienensis* Eggers, nomen nudum, synonymy by Murayama 1963b: 37).

References: (ay) Sasakawa & Yoshiyasu 1983. (ds) Choo 1983: 51; Choo & Woo 1985: 164; Choo, Woo, & Park 1983: 175; Nobuchi 1966d: 14, 1985c: 5. (tx) Choo 1983: 51; Eggers 1929f: 103–104, 1941b: 222; Murayama 1954b: 158; Nobuchi 1966d: 14, pl. 1; Schedl 1934f: 1635, 1941a: 42, 1946b: 52–54, 1979c: 46.

hasianus Murayama 1959b: 75 (*Blastophagus*).

Holotype, sex[?]; Shillong, Assam, India; USNM, Washington. Synonymy: Wood 1992b: 85.

References: (cn) Browne 1968: 690; Ishikura 1966. (hb) Browne 1968: 690. (ds) Beeson 1961: 285; Browne 1968: 690; Ishikura 1966; Kleine 1934a: 128; Murayama 1957a: 36. (tx) Dammerman 1950: 154–155; Murayama 1959b: 75; Schedl 1946b: 55; Wood 1985: 270, 1992b: 85.

multisetosus Murayama 1963b: 37 (*Blastophagus*). Holotype ♂; Mt. Manza, Gumma pref., Japan; Murayama Collection in USNM, Washington. Synonymy: Wood 1992b: 85.

References: (ds) Nobuchi 1985c: 5. (tx) Murayama 1963b: 37; Wood, S. L. 1992b: 85.

destruens (Wollaston) 1865: 45 (*Hylurgus*). Syntypes, sex[?]; Madeira; BMNH, London.

Figures: Lekander 1971: 273.

Distribution: Africa (Madeira Islands), Asia (Cyprus/ Israel/ Turkey), Europe (S France/ Italy/ Mallorca Island/ Portugal/ Spain).

Hosts: *Pinus* spp.

References: (ay) Chararas 1975. (bv) Carle 1974c, 1978; Carle, Descoins, & Gallois 1978; Mendel, Madar, & Golan 1985. (cn) Braquehais 1973; Carle 1974a, 1975c; Halperin, Mendel, & Golan 1982; Mendel 1987; Schwester 1986; Souphieff &

Scherbinovskaja 1937: 102. (cc) Carle 1971, 1974a, 1975c; Chararas 1971; Fry 1989: 18; Halperin & Holzschuh 1984: 28; Kaya 1984; Laumond & Carle 1971; Laumond & Ritter 1971; Mendel 1985, 1986c: 115, 1986d: 130; Mendel & Halperin 1981; Poinar 1975: 150; (hb) Carle 1971; Halperin & Holzschuh 1984: 28; Mendel 1987; Mendel, Madar, & Golan 1985. (ds) Hagedorn 1910d: 13; Halperin & Holzschuh 1984: 28; Kleine 1912b: 169, 1914a: 22; Souphieff & Scherbinovskaja 1937: 102; Wollaston 1854: 303, 1857: 99. (tx) Balachowsky 1949a: 136; Eggers 1929e: 52–53; Gemminger & Harold 1872: 2671; Hagedorn 1910a: 55; Lekander 1971b: 271; Schedl 1934f: 1635; Wollaston 1854: 303, 1857: 99, 1965: 45, 250.

minor (Hartig) 1834: 443 (*Deudroctonus*). Syntypes, sex[?]; description not seen; not located.

Figures: Alkan 1946: 140, Bakke 1960: 300, Balachowsky 1949a: 104, Barbey 1925: 248, Chararas 1962c: 234, Grune 1979: 54, Li & Zhou 1980: 188; Nobuchi 1966d: pl. 1, Schimitschek 1944: 164 (adult), Stark 1952: 189 (adult).

Distribution: Asia ("Manchuria," Henan, Jiangxi, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea/ Taiwan/ Turkey/ Sakhalin Island, E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Cyprus/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ Turkey/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., rarely *Picea* spp., *Abies* spp.

Notes: (3) Krausse 1920: 169, 172–173 (named as aberrations var. *flavipennis*, var. *flavus*, var. *fuscipennis*, no status). Mader 1937: 316 (aberration *nigripennis*, no status).

References: (ay) Chararas 1975; Escherich 1923b: 429, 479, 532; Feytaud 1950a; Francke-Grosmann 1956b, 1959, 1966c; Fuchs 1912a; Gurando & Tsarichkova 1974; Kleine 1920: 217; Leisewitz 1906: 84; Marcu 1933a: 34; Nunberg 1928a: 140; Ritchie 1917: 213; Scherb 1971; Schwerdtfeger 1929: 361; Sedlacek 1902b: 244, 1907: 82; Wichmann 1912: 9–10. (bv) Annala 1971a: 12; Annala & Petaisto 1978; Barr, B. A. 1969: 643; Bergman 1971; Boocock 1959c; Chararas & Deschamps 1962; Eidmann 1965b, 1974b; Ellefsen 1980c; Fuhrer & Kerck 1978a; Gidaszewski 1974; Grune 1979: 55; Kangas, Pertunen, & Oksanen 1970, 1971; Kevdina 1897: 108; Langstrom 1980a, 1983a, 1984; Langstrom & Hellqvist 1985; Lanier et al. 1984; Lanne et al. 1987; Loytyniemi & Hiltunen 1976; Loytyniemi, Heliovaara, & Repo 1988b; Meixner 1937: 1214, 1217; Nuorteva 1956c: 58; Prell 1926: 68, 1930c: 626, 1931: 365; Raisanen et al. 1986; Rozhkov 1970: 136; Schimitschek 1948h: 14; Sierpinski 1959: 38; Soderkvist 1970; Wichmann 1912a: 9,

- 1953a: 105, 1967. (cn) Acatay 1943: 3, 1943b: 64; Agafonov & Kuklin 1979; Andersson & Lekander 1966: 681; Androic 1966: 48; Anonymous 1921q: 7, 1980g; Ass & Funtikow 1941; Aullo 1923: 8-11; Badoux 1921: 163-173; Bakke 1960: 299, 1968: 441-602; Barbey 1922a, 1925: 227, 1927: 107; Berezina & Kurenzov 1935: 1-52; Bergman 1971; Besceli 1963: 50-57; Bevan 1962a: 1-8; Blanchere & Robert 1889; Boocock 1959b, 1959c; Borcea 1924: 211-260; Brammanis 1940: 257-340; Brandt 1925: 166-171; Braun 1867; Browne 1968b: 691; Butovitsch 1960b, 1977; Butovitsch & Spaak 1939: 1-120; Capek 1966; Capek et al. 1957; Chorbazhievo 1926: 175-241, 1929; Christiansen 1970; Crooke 1955b; Dehlen & Langstrom 1977; Delfin 1980; Donaubauer 1960; Duda 1974; Eckstein 1898a, 1915, 1921, 1926: 572, 1939a: 33-42, 81-92; Egorov 1958: 1492; Elmstrom 1985; Eidmann 1964, 1965c, 1970a, 1973; Eidmann & Klingstrom 1976: 246; Escherich 1917: 97-115, 1923b: 429, 479, 532, 1929: 69-90, 1932a; Esterberg 1959; Falck 1916: 164; Fedorov 1930: 225-229; Feytaud 1927: 113-121, 140, 144, 1946, 1950a: 18-26; Findlay 1959: 1-7, 167-174; Fystro & Bakke 1962; Gabler 1953b, 1955; Galoux 1948d; Georgescu et al. 1957: 357, 472; Geschwind 1919: 111, 199; Gidaszewski 1974; Godberson 1925; Gois 1944; Gradojevic 1938; Grandi 1951; Green 1923: 208-224; Golovyanko 1926: 1-87; Gyorfi 1959; Hagedorn 1910c; Haget 1949; Hanson, H. S. 1937: 185-236, 1940a: 483-536, 1940c: 247-251, 1943, 1950; Hartig 1861: 324, 330, 1877: 189, 196; Hasek 1961; Heqvist 1965; Hess 1880, 1898: 391, 1907: 271; Hess & Beck 1914: 256, 1927: 314; Hilden 1922; Hopkins 1894c, 1894d, 1899c: 311; Hubault 1945; Ilinskii 1928: 33-94, 523-542; Inouye 1949a: 8, 88, 1949b, 1949c; Jablokoff 1953: 327; Jahn 1952a: 98, 1960b; Joly 1949b: 254, 1976; Judeich & Nitsche 1895: 447, 463; Kailidis 1966a: 56; Kailidis & Markalas 1988; Kalandra 1948a; Kamuislmui 1925: 14-16; Kangas 1934d: 1-68, 1937, 1958d: 162; Kaplan & Mokrzecki 1988; Karaman 1964: 440-443; Kauschinger 1893: 149; Keller 1903b: 53, 1923: 41-45; Kholodkovskii 1912: 285, 299; Klimesch 1931: 40; Koch 1913: 10, 101, 1913: 95; Koehler 1958: 30; Konig, D. 1923: 1065; Koppen 1882: 246; Kozikowsky 1929: 255; Kratochvil 1941: 23-30; L. 1896: 557; Laidlav 1941: 32-37; Lang 1896: 557; Langstrom 1980a; Lauenstein 1966; Legowski 1987; Lekander 1954b: 7, 1955b: 17; Lekander & Rennerfelt 1955: 10; Lekander, M. 1951: 23; Li & Zhou 1988; Listov 1971; Lolrenz 1907: 38; Lonshchakov & Lure 1960; Loytyniemi 1978; Loytyniemi et al. 1979; Lozovoi 1949a: 245, 1961: 91-113; Lunden 1980; MacDougall 1916: 1-33, 1917: 1-38; Marker-Kohlfurt 1896: 84; Masniina 1957: 15-17; Mathiesen 1951: 205, 1952: 284; Mathiesen-Kaarik 1953: 6; Megalov & Bazhenov 1927: 1-29; Methner 1931: 422; Meves 1888b: 157, 1896: 153; Michalski & Schmidt 1957: 55-62; Mokrzecki 1928: 272, 1933: 287; Mostovsky 1923: 287-288; Mozolevskaya 1954, 1985; Muller 1891: 52; Murayama 1954a: 12, 25; Nestertschuk 1930: 176; Niemeyer 1974: 288, 1975: 150; Niemeyer & Thalenhorst 1974; Nosek 1952b: 98; Novak, V., Hrozinka, & Stary 1976: 56; Nusslin 1913: 205; Oda, Kato, & Nobuchi 1964; Olofsson 1980; Ossowski 1941: 75-79, 1942: 252; P. 1879: 211; Panshin 1963: 108-111; Pawlowitsch 1883: 11; Persson 1980; Pfeffer 1933: 43, 1940c: 273; Pierce, W. D. 1917: 69; Polozencev 1926: 1-5; Polozencev, Rubcova, & Naumenko 1968; Polozencev & Zolotov 1969; Polubojarinoff 1929: 45-52; Pomocnicze 1876: 156; Prosoroff 1929: 17; R. P. 1948: 193; Ratzeburg 1871c: 81; Reisch 1960; Reisseneger 1889: 299; Rettich 1928; Rhumbler 1922: 280, 1927: 291; Ritchie 1917: 213-234; Romanyk 1963a: 26; Ronge 1971; Rossler 1926: 239; Rudnev 1926: 32-69, 1965b, 1966; Ryvkin 1951: 80-81; Saalas 1929: 178, 1949: 341, 361; Sargos 1947: 7; Schenk 1952: 440; Schevyrew 1905b: 110; Schimitschek 1935b: 146, 1936b: 74, 1937c: 48, 1944: 163, 1947g: 191, 1948h: 14, 1949b: 178, 1950: 46, 1951a: 101, 1952c: 59, 1955a: 29, 1955b: 102, 1955c: 77, 1961a: 154; Schmidt 1881: 41; Schneeberg 1925: 495; Schuster 1918: 102; Schwappach et al. 1904: 79, 1929: 186; Schwerdtfeger 1944a: 171, 176, 1950b: 49, 1968a, 1981: 189; Sedlaczek 1921: 339, 1936: 200; Shiraki 1952; Shirskaia 1961: 1-165; Sierpinski 1962, 1966: 58, 1969b: 109-127, 1971b; Sinreich 1958: 197, 1962; Sitowski 1930: 1-13; Slander 1948: 10; Soderkvist 1970; Stefanov 1946: 1; Stehli 1936: 128; Sureyya 1931: 1-32; Sylven 1916: 153-161, 1920: 1-19; Templin 1973: 104; Thaler 1902: 278; Titova 1966; Tolskii 1927; Tragardh 1917: 28, 1927c: 65, 70, 1938a: 12, 1941: 115; Tragardh & Butovitsch 1933a: 235; Trofimov 1979; Troshinin 1932: 552-556; Tubeuf 1936: 501; Tuovinen 1957: 1-4; Vajda 1952: 114; Vietinghoff 1951: 453; Villasenor 1966; Vorontzov 1910: 1-5, 1912: 7-8, 1968; Voute 1942: 12, 617; Wachtl 1883b: 319, 1901: 381; Wadde-Love & Webb 1948: 109-110; Wardle 1929: 323; Weber, H. 1926: 573; Wei 1960: 63-69; Wichmann 1927b: 352, 1933: 129; Wohlmann 1936: 41; Wolff 1920: 233, 1921: 227-247, 1924b: 167; Wolff & Krausse 1922: 83; Wilker 1924: 1-20; Yamane 1981: 470; Yano 1919: 470; Yanovskii & Korotkov 1984; Zarco 1946a: 252; Zhang et al. 1958: 27; Zhuravlev & Osmolovskii 1949: 51, 52; Zivojinovic 1963: 449; Zolk 1935: 614-640, 1937: 147-172. (ce) Acatay 1943b: 64; Agafonov & Kuklin 1979; Annala & Petaisto 1978; Apfelbeck 1916b; Ass & Funtikow 1941; Bakke 1960: 299, 1968a; Balazy et al. 1977; Barbey 1927; Batra & Michie 1963: 474; Blinova-Lazarevskaya 1974; Bogdanova 1988; Boncek 1957b: 79, 1958; Brammanis 1940; Butovitsch

- 1977; Bychawska 1953; Cameron 1940: 46-52; Chararas 1957d, 1959a, 1959e, 1975; Cooreman 1963: 45; Eidmann 1965c, 1974b; Elliot & Morley 1907; Francke-Grosman 1931, 1952a, 1956b, 1959, 1966c; Fuchs 1937; Fuhrer & Kerck 1978a; Galoux 1947b, 1947c; Gauss 1954a: 423; Gidaszewski 1974; Graham 1969: 877; Grossmann 1931a; Gurando 1973, 1974, 1977, 1978; Gurando & Tsarichkova 1974; Gyofii 1941b, 1943: 84; Haesselbarth 1967; Heliovaara & Lilja 1959; Henningsson & Lundstrom 1974; Heqvist 1957a, 1957b: 42, 1963, 1965: 23; Hirschmann & Wisniewski 1952, 1953; Hirschmann & Zirmgibel-Nicol 1961; Inouye et al. 1955: 70; Jannicky 1957b: 13, 18, 1957c, 1961b; Joly 1949a: 7; Kaarik 1973; Kakuliya 1963a; Kakuliya & Devdariami 1965; Kangas 1932: 12, 1937, 1955c: 93; Kangas, Pertunen, & Oksanen 1971; Karpinski 1932a: 100; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1953; Kielczewski & Wisniewski 1977b, 1977c, 1978, 1980a, 1980b, 1983; Kleine 1905c: 182, 1909a: 45, 76, 1910: 349, 1944: 69; Kobinajiv & Kalandra 1954: 30; Kostenko 1929; Kostin 1964: 103; Koyama 1963; Laidlaw 1941b: 32; Langstrom 1950a, 1953b, 1954; Langstrom & Hellqvist 1955; Li & Zhou 1988: 69; Loytyniemi & Hiltunen 1976; Lozovoi 1948a: 69, 1949a: 245; Lukashova 1956; Lundberg 1954; Majewski, T. & Wisniewski 1978a: 9; Masutti 1959: 268, 294; Mathiesen 1951: 205, 1952: 284; Mathiesen-Kaarik 1953: 6, 1960c; Meyer 1934: 611; Michalski 1952; Michalski & Ratajczak 1959; Niemeyer & Thalenhorst 1974; Nikitiuk 1951: 59, 1952: 41; Nosek 1952b: 95; Nunberg 1930: 202; Nunberg & Wiackowski 1958: 130; Nuorteva 1956a: 17, 1957b: 52, 1967a, 1968a, 1970, 1971: 69; Nusslin 1927: 291, 300; Okolow 1963; Olofsson 1950; Palmén 1944: 60, 1946: 194; Panshin 1963; Perris 1852: 497, 1853: 571; Pettersen 1976b; Pfeffer 1923a: 330, 1928b: 4, 1933: 43, 1943b: 179, 1950: 1; Pishchik 1950a; Poinar 1975: 150; Prell 1926: 68; Ratzeburg 1869a: 92; Rennerfelt 1951: 122; Rondani 1873: 151; Roubal 1934a: 86; Ruhm 1969; Saalas 1917a: 18, 1930: 118, 1949: 341, 361; Schedl 1936f: 152, 1958d: 185, 192; Scheerpeltz 1935: 15; Scheerpeltz & Hoffer 1948: 281; Schimitschek 1930a: 281, 1936a: 560, 1941b: 59, 1946: 9, 1950: 46, 1955a: 29, 1964e; Schremmer 1956: 217; Schuster 1918: 102; Schwerdtfeger 1929: 361, 1944a: 171, 176, 1950b: 49; Sedlacek 1908: 52, 1935a: 163; Sitowski 1930: 6; Stark 1925b: 80; Stefanov 1949a: 97; Sundfor 1979; Sylven 1913: 144, 1916a: 157; Szczepanski 1960a: 409; Thompson, W. R. 1943: 80; Thompson, W. R. & Simmonds 1964: 30, 1965: 19; Titova 1966; Tragardh 1925a: 170, 1927a: 198, 1928: 773, 1941: 115; Vaartaja 1947: 44; Vietinghoff 1924: 327; Vitzthum 1923: 101, 1926: 427; Wichmann 1933: 129-130, 1952b: 23, 1953a: 105, 1954b: 63, 1954d: 438, 1955a: 94, 1967; Wisniewski 1979b; Wudker 1924: 11; Yanovskii 1977b; Yanovskii & Korotkov 1954; Yasumatsu & Watanabe 1965: 69; Zarco 1946: 463-468; Zinovjev 1957: 332. (**hb**) Acatay 1943a: 64; Adelmg 1905; Agafonov & Kuklin 1979; Alkan 1946: 140; Altum 1879c, 1881c: 260, 1883c, 1884, 1885b, 1889a, 1889c, 1900b, 1900c; Annala & Petaisto 1978; Anonymous 1920: 62, 1921q: 7, 1972b; Apfelbeck 1916b, 1917; Arndt 1920; Awerkiew 1941; Bach 1864; Bakke 1960a: 299, 1965a; Balachowsky 1963a: 1251; Barbey 1901: 10, 19, 51, 1913, 1925: 227; Bargmann 1897a, 1899b, 1900; Beeson 1940a: 483-485, 1940b: 248; Boffa 1949, 1961; Bejer-Petersen 1957; Bergman 1971; Besceli 1963; Bevan 1962a; Bierpinski 1959: 40; Binzer 1879, 1881b; Blanchere & Robert 1889; Bokowsky 1930; Boocock 1959c; Borcea 1924; Borodajewsky 1912: 497-499, 1914: 217-218, 1065-1067, 1915: 1222-1247, 1916: 1223-1244; Brandes 1899, 1900, 1901; Brandt 1919, 1925, 1929a, 1948; Browne 1968: 691; Budge 1949; Budkov 1897; Bukowsky 1930; Byers 1954a; Ceconi 1906, 1924; Chararas 1960a: 36; Charvat 1950; Chittenden 1890; Chorbadzhievo 1929; Demakov 1988; Dombrowsky 1887; Drugescu 1950; Duda 1974; Eckstein 1889, 1897, 1913, 1915, 1921, 1926: 573, 1928, 1936, 1939a; Eichhoff 1881a: 37, 115, 1892b: 99; Eidmann 1965b, 1974b; Eidmann & Klingstrom 1976: 246; Ellefsen 1980c; Elton et al. 1964; Escherich 1923b: 429, 479, 532; Everts 1900, 1902, 1903: 746; Falek 1916: 164; Feytaud 1927, 1946, 1950a; Fisher 1931; Flohrer 1948; Fuchs 1904a, 1907: 54; Gabler 1955; Gidaszewski 1974; Giggelberger 1868; Gillanders 1905; Cois 1944; Gornostaev 1916: 310; Grandi 1951; Greze 1926: 22-26; Gronberg 1914; Gyofii 1957; Hagedorn 1903a, 1910c; Hanson, H. S. 1940b; Hartig 1861: 324, 330, 1877: 189, 196; Henschel 1876a: 98, 1895a: 138; Hess 1880, 1898: 391, 1907: 271; Hess & Beck 1914: 256, 1927: 314; Holmgren 1867: 116, 125; Hopkins 1899c: 311; Hufnagl 1887: 5012, 1889; Hufnagl & Puzyr 1951: 106; Inouye et al. 1955: 70; Jakobjuk 1927: 225-227, 1928: 102-103; Jannicky 1961b; Joly 1949a: 7, 1976a, 1976b; Judeich & Nitsche 1895: 447, 463; Kalandadze 1927; Kangas 1951: 225; Karpinski 1933b: 24; Karpinski & Strawinski 1948: 154; Kanschinger 1883: 109, 1893: 149; Keller 1907a: 179, 1907b: 361, 1913: 241; Kholodkovskii 1889: 277, 1912: 285, 299; Kleine 1908a: 98, 1911: 158; Knoche 1900: 389, 1904: 5, 1905: 354, 1906: 266, 1907b: 476; Knotek 1894a: 553, 1897: 150, 1898b: 325; Kostin 1960: 131; Kozikowsky & Nunberg 1925: 135; L. 1896: 557; Lagerberg 1911: 352; Lang 1893: 136; Langstrom 1979b, 1983a, 1983b; Langstrom & Hellqvist 1955; Lekander 1954b: 17, 1959a: 84; Lengerken 1939: 37, 1954: 76; Lohrenz 1907: 38; Loos 1896: 32; Louzil 1961: 41; Lumadoni & Leonard 1889:

- 429; Lunden 1980; Madon 1930: 99; Maslov & Demakov 1982; Massutti 1959: 268, 294, 1964; Milani 1894: 140-144; Mozolevskaya 1985; Munro 1916b: 115, 1926: 51; Naegeli 1928: 68; Niisima 1908b: 18; Nordlinger 1856: 35, 1868: 262; Novak, V., Hrozinka, & Stary 1976: 56; Nurnberg 1929: 99, 1929c: 118, 1946a: 7; Nuorteva 1956c: 58, 1962a: 45, 1967a, 1968a, 1970; Nusslin 1898: 277, 1904: 14, 1905a: 88, 1906a: 56, 1913: 205, 1927: 291, 300; Ossowski 1941: 75, 1942: 252; Paulian 1949a: 988; Pauly 1894: 379; Perris 1852: 497, 1876b: 173; Petrenko 1966; Pfeffer 1941b: 2, 1989a: 36; Pomerantzev 1907: 177-192; Postner 1974: 398; Prell 1930c: 626, 1931: 365; Pruffer 1948: 1; Ratzburg 1837: 135, 177, 1839: 165, 217, 1871c: 81; Rhumbler 1922: 280, 1927: 291; Rimski-Korsakov et al. 1949: 271; Ritchie 1915: 352, 1917: 213; Romanyk 1963a: 26, 27; Rozhkov 1970: 136; Rudnev & Kozak 1974a, 1974b; Rupertsberger 1879: 231, 1880: 226; Saalas 1913a: 67, 78, 1949: 341, 461; Samal 1928: 141; Schenk 1952: 440; Schevyrew 1905b: 1100; Schimitschek 1930a: 281, 1944: 163, 1946: 9, 1955a: 29; Schmidt 1881: 4; Schroder 1896: 357; Schwappach et al. 1929: 186; Schwerdtfeger 1929: 361, 1944a: 171, 176, 1981: 189; Sedlaczek 1921: 339, 1935a: 163; Seitner 1911: 99; Severin 1901: 754, 755; Sierpinski 1959: 38, 1962: 211-223; Soderkvist 1970; Spessivtsev 1913a: 60, 1925: 78-81, 205-212, 300-301, 1925d: 105, 1927: 15-19, 1928a: 232, 377-378, 1931: 339-343, 1938: 162; Stark 1926a: 164-167, 334, 1952: 188; Stefanov 1949a: 97; Stehli 1936: 128; Taschenberg 1880: 208; Tragardh 1911: 29, 1914: 83, 1917: 1-28, 1918: 1-28, 1919: 67-114, 154-174, 1924: 311-338, 1927: 191-216, 1927c: 65, 70, 1929: 773-780, 1930c: 469, 1931: 55, 1935: 1-268, 1938: 10-14, 1939b: 158, 186; Trofimov & Lipatkin 1986; Tschorbadjiev 1929: 162; Virkki 1960: 316; Voute 1942: 617; Wachtl 1901: 381; Weber, H. 1926: 573; Wei 1959: 237; Wichmann 1927b: 352; Wissman 1846: 24; Wolff 1920: 233, 1927: 75; Wolff & Krausse 1922: 83; Yakubyuk 1959: 40; Zinovjev 1957: 332. (ds) Acloque 1896; Ammann & Knabl 1923; Andersch 1851; Androic 1966: 48; Anonymous 1980g; Arru, Covassi, & de Bellis 1966: 33; Andras & Schaefer 1957; Bakke 1960: 299; Barbey 1922a, 1926; Barthe 1896; Ban 1888; Bedel 1888b: 392, 409; Belfa 1949; Bejer-Petersen & Jorum 1977; Bistrom & Vaisanen 1988: 42; Blanchere & Robert 1889; Blandford 1894c; Borcea 1924; Borchert 1951; Brakman 1966a: 51, 1966b: 204; Branesik 1871; Browne 1968: 691; Bucking 1932; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1963; Butovitsch & Heqvist 1947; Calwer 1893; Capek et al. 1957; Ceconi 1897, 1906; Champion 1894; Chapuis 1869: 33, 1873: 241; Chapuis & Eichhoff 1875; Charvat 1950; Chittenden 1890; Cho 1955, 1957; Choo 1983: 52; Choo & Woo 1985: 164; Chorbazhievo 1924d, 1929; Chrystal 1937; Eder 1934; Eggers 1904; Eidmann 1974b; Endrodi 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 429, 479, 532, 1929, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 639, 1925; Fauvel 1885; Favre 1890; Fedorov 1930; Feytaud 1927; Florov 1949: 65; Forster 1849: 440; Fowler 1882a, 1891; Fricken 1889: 277; Fuchs 1904a, 1905a, 1907: 54; Gabler 1949b; Gaubil 1849: 127; Georghion 1977: 73; Gornostaev 1917: 308-315; Gozis 1875: 79; Gredler 1866: 369; Grill 1895: 308; Grune 1979: 55; Gussmann 1919: 79; Gyorf 1941b; Hagedorn 1903a, 1910d: 13; Hansen, V. 1939, 1956, 1964: 459; Heinemann 1908a; Hellen 1947; Helliesen 1916: 83; Hennig 1954: 261; Henschel 1895a: 138; Heyden 1876: 297, 1898: 77; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 709; Hickin 1963; Hohngren 1867: 116, 125; Horion 1949, 1951; Imoye 1949b; Jablokov 1953: 327; Jazentkovsky 1933: 271, 1939: 76; Jazentkovsky 1912: 287, 1922: 7-9, 1924: 278-296; Joly 1949b: 254, 1976; Judeich & Nitsche 1895: 447, 463; Kailidis 1966a: 58, 1985; Kailidis & Markalas 1988; Kaltenbach 1874: 686; Kangas 1934a, 1970: 120-122; Karaman 1964; Karpinski 1925: 216, 1926: 82, 1931: 22, 25, 1932a: 100, 1933b: 24; Karpinski & Strawinski 1948: 154; Kersten 1933: 70, 73; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 161, 262, 264, 267, 1912b: 169, 1913a: 34, 1914b: 249, 255, 1934a: 128; Kloft & Hinks 1945: 217; Knotek 1892a: 33, 1894a: 553, 1898b: 325; Ko 1969: 274; Koppen 1882: 246; Koschitzky 1900: 83; Kostenko 1929; Kraatz 1869: 59; Krause 1920: 169, 172; Krivolutskaya 1983; Krogerus 1921b: 115; Ku 1964; Kurenzov 1967; Kurir 1947c: 14; Lacordaire 1866: 360; Lang 1894: 136-137; Langhoffer 1915c: 157; Larroche & Torossian 1971; Leclercq 1971; Lekander 1955b: 17; Lentz 1857: 138; Lindemann 1884b: 263; Liro 1916: 126-132; Lokaj 1868: 63; Lomnicki 1886a: 240, 1913b: 147; Lucht 1987: 276; Luigioni 1929: 993; Lunardoni & Leonardi 1899: 429; Lundberg 1978a, 1979: 31; Lundsblad 1950c: 114; Malazgirt 1966: 64; Marchant & Borden 1976; Matthews & Fowler 1883: 42; Mequignon 1936: 25; Michalski 1957: 163; Mirzoiian 1950: 140; Mokrzecki 1928: 272; Moragues 1889: 32; Munro 1919: 1-35, 1921: 87, 1926: 1-27; Murayama 1929b: 2, 1929c: 43, 1930a: 1, 1930b: 8, 12, 30, 1934c: 298, 1936a: 124-125, 1939: 137-139, 1940a: 232, 1942a: 54, 1948: 2, 1949a: 11, 1949c: 100, 1951c: 3, 1953a: 6, 1953c: 148, 1954a: 12, 25; Nakane et al. 1963: 382; Negru 1966b: 400; Niisima 1908b: 18; Nobuchi 1966d: 15, 1967: 19, 1985c: 5; Numberg 1928b: 88, 99, 1954: 33; Nuorteva 1956b: 168, 1971: 65; Nusslin 1898: 277; Orten 1886: 279; Pacler 1865: 151; Palm 1962a: 143, 1962b: 183; Palmien 1944: 60, 1946: 194; Perris 1877a: 414; Pfeffer 1924b: 472, 1928b: 4, 1931b: 74, 1935:

- 159, 1947e: 15, 1984: 277, 1989a: 36; Pierce, W. D. 1917: 69; Pittioni 1943: 174; Pjatnitskii 1930a: 164; Pomerantzev 1907b: 491, X; Poppins 1900: 108; Postner 1974: 398; Prosen 1913: 82; Rapp 1934: 721; Ratzelburg 1837: 135, 177, 1839: 165, 217; Redtenbacher 1858: 827, 1874: 368; Reitter 1869b: 153, 1894a: 53, 1916: 251; Rimski-Korsakov et al. 1949: 271; Rodzianko 1915: 1–15; Roubal 1941: 259; Rozhkov 1970: 136; Rudnev 1965b; Saalas 1913a: 67, 78, 1917a: 18, 1919: 1–415, 1929: 168–180, 1930: 118, 1931: 68; Sahlberg 1900: 105; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1224; Schaum 1859: 95, 1862: 100; Schedl 1959b: 100, 1971d: 428, 1980a: 8, 1981b: 52; Schilsky 1909: 187; Schimitschek 1951a: 101; Schiodte 1873: 100; Schwerdtfeger 1951: 159; Seidlitz 1872: 391, 1891a: 559, 1891b: 605; Sharp 1871: 74, 84; Sharp & Fowler 1893: 34; Shiraki 1952; Siebke 1875: 282; Sierpinski 1966: 58; Sokanovskii 1936: 74; Sparre-Schneider 1889: 60; Stark 1926a: 334, 1926b: 102, 1926j: 125, 1927a: 15, 1927b: 88, 1931d: 544, 1936e: 142, 1952: 188; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin & Gantard 1871: 291, 1906: 205; Strand 1946: 596; Strauch 1861: 123; Sturm 1843: 229; Thomson 1865: 354, 1868: 218; Tragardh 1914: 83, 1939b: 158, 186; Tschorbaldjev 1929: 162; Tullgren 1916: 104; Villasenor 1966; Wadde-Love & Webb 1948: 109; Westhoff 1882: 237; Wichmann 1927a: 59, 1955a: 94; Wiepkau 1883: 89; Winter, T. G. 1983: 27; Wolff 1927: 75; Yanovskii 1974a, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1984: 407; Zinovjev 1955: 187; Zoufal 1920: 20. **(tx)** Acloque 1896; Alkan 1946: 140; Bach 1854, 1864; Bakke 1960: 300; Balachowsky 1949a: 135–136; Barbey 1901: 10, 19, 51; Bedel 1888b: 392, 409; Belfa 1949, 1961; Bertolini 1872; Blanchere & Robert 1889; Blandford 1894d; Brancsik 1871; Ceballos 1945; Chapuis 1869: 33, 1873: 241; Chapuis & Eichhoff 1875: 197; Chararas 1962c: 234; Charvat 1950; Choo 1983: 52; Chorbadzhievo 1924d; Csiki 1907; Dammerman 1950b; Doebner 1860; Dombrowsky 1887; Duffy 1953; Eggers 1911a: 75–76, 1929f: 103, 1933f: 56, 1940g: 36, 1941b: 222; Eichhoff 1864b: 25, 1878d: 400, 1881a: 37, 115, 1883: 102, 123; Endrodi 1957b; Erichson 1836: 53; Escherich 1923b: 429, 479, 523; Escherich & Escherich 1897; Everts 1903: 746, 1922: 639; Fauvel 1885; Ferrant 1911; Fleischer 1905, 1927; Flohrer 1948; Formanek 1907: 20; Fricken 1889: 277; Fuchs 1912a; Gabler 1949b, 1955; Gemminger & Harold 1872: 2671; Gillanders 1906; Grasse 1949; Grune 1979: 54, 55; Hagedorn 1904e, 1910a: 56; Hansen, V. 1956, 1964: 459; Hartig 1834: 443; Henschel 1876a: 98, 1895a: 138; Hopkins 1909a: 3; Iablokoff-Khnzorian 1961: 105; Jacobson 1895: 523; Jeannel 1949: 988; Joly 1976, 1976b: fig. 136, 247; Judeich & Nitsche 1895: 447, 463; Karpinski & Strawinski 1948: 154; Knotek 1892a: 33; Koch 1913: 10, 95, 101, 1925: 95, 1932: 106; Kranse 1920: 169, 172–173; Kuhlnt 1913: 1051; Lacordaire 1866: 360; Letzner 1891: 372; Leunis 1886: 179; Lindemann 1879: 54; Louzil 1961: 105; Lovendal 1889b: 37, 1898: 79; Lucht 1987: 276; Luigioni 1929: 993; Lamardoni & Leonardi 1889: 429; Mader 1937: 316; Meixner 1937: 1217, 1214; Munro 1916b: 115; Murayama 1930b: 8, 1934c: 298, 1936a: 124, 1939: 137–139, 1940a: 232, 1953a: 6, 1954b: 158; Nakane et al. 1963: 382, pl. 191; Negrin 1966b: 400; Nobuchii 1966d: 15; Nordlinger 1856: 35; Novak, V. et al. 1976: 56; Nunberg 1928a: 140, 1929c: 118, 1954: 33; Perris 1877a: 414; Pesson & Chararas 1969: 687; Pfeffer 1932b: 14, 1941b: 2, 1947e: 15, 1955a: 126, 1989: pl. 2; Platonoff 1943: 141; Portevin 1935: 319; Postner 1974: 398; Quaschik 1953: 35; Ratzelburg 1837: 135, 177, 1839: 165, 217; Redtenbacher 1849: 364, 1849b: 27, 1858: 827, 1874: 368; Reitter 1894a: 53, 1913a: 48, 1916: 281; Rhumbler 1922: 280, 1927: 291; Ritchie 1915: 352, 1917: 213; Rupertsberger 1879: 231, 1880: 226; Saalas 1913a: 67, 78, 1949: 341, 361; Schedl 1934f: 1635, 1946b: 52, 55, 1980a: 8, 1981: 52; Scherb 1971; Schimitschek 1937c: 48, 1955c: 77; Schlechtendal & Wunsche 1879: 124; Seidlitz 1872: 391, 1891a: 559, 1891b: 605; Sokanovskii 1929: 521–526, 1936: 73–74; Spessivtsev 1913a: 59–60, 1919: 250–251, 1921a: 315–326, 1922a: 465–466, 1925a: 165, 1925b: 9, 1925d: 105, 1928: 221–250, 1931: 37–38; Stark 1952: 188; Stresemann et al. 1989: 352; Taschenberg 1880: 208; Thomson 1865: 354, 1868: 218; Wissman 1846: 24. **(ms)** Boocock 1959b; Brandes 1901; Byers 1984a; DeGryse 1934: 481; Escherich 1932b; Hartig 1834: 412, 413; Heinemann 1908a; Kalandadze 1927; Kangas 1958c: 93; Kozikowsky 1929: 255; Lekander 1959a: 84; Maslov & Demakov 1982; Mastunura 1931; Mozolevskaya 1984; Panshin 1962; Ritter 1929: 553; Schimitschek 1955b: 102; Schwappach 1924: 56; Sedlaczek 1907: 82, 1936: 200; Sinter 1962; Sundfor 1979; Thalenhorst 1962: 347; Vorontzov 1968; Wei 1959: 237; Wichmann 1961: 33; Yamane 1981: 470.
- corsicus* Eggers 1911a: 75 (*Myelophilus*). Holotype, sex[?]; Corsica; Leonhard Collection. Synonymy; Eggers 1933c: 56.
- References: **(ay)** Lhoste & Roche 1960. **(cn)** Schimitschek 1938c: 2114, 1939d: 2112, 1944: 163, 1947g: 168. **(ce)** Pfeffer 1943b: 181; Schimitschek 1941a: 305, 1946b: 9. **(hb)** Schimitschek 1944: 163, 1946: 9. **(ds)** Buresh & Lazarov 1956; Kleine 1912b: 169; Normand 1937: 268, 1949: 104; Pfeffer 1936: 89, 1947d: 127; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1938: 444. **(tx)** Balachowsky 1949a: 136; Eggers 1911a: 75, 1929f: 103, 1933f: 56, 1940g: 36, 1944c: 142; Lhoste & Roche 1960: fig. 3; Pfeffer 1955a: 124; Reitter 1913a: 48; Schedl 1934f: 1635, 1946b: 55.

pilifer (Spessivtsev) 1919: 250 (*Myelophilus*).
Holotype, sex?; Vladivostok, USSR; repository not given.

Figures: Tsai & Li 1959: 84.

Distribution: Asia (Hebei, Heilongjiang in China/ Amur, Siberia, Ussuri in E USSR).

Hosts: *Pinus armandii*, *P. koraiensis*, *P. tabulaeformis*.

References: (cn) Kurenzov 1935c: 189. (ec) Kurenzov 1934a: 57. (hb) Krivolutskaya 1956: 828; Kurenzov 1935a: 19, 28, 1948b: 105, 1950d: 143; Stark 1952: 190; Wang 1982. (ds) Krivolutskaya 1956: 828, 1983; Kurenzov 1934a: 57, 1935a: 19, 28, 1935c: 189, 1936a: 112, 1935a: 59, 1965, 1967; Pfeffer 1935: 159; Stark 1952: 190. (tx) Eggers 1929f: 103, 1933f: 55–56; Krivolutskaya 1956: 828, 1958: 116, 147; Kurenzov 1941a: 118–119, 1948b: 105, 1959: 143, 161; Schedl 1934f: 1635, 1946b: 52, 56, 1953e: 22; Spessivtsev 1919: 250; Stark 1952: 190; Tsai & Li 1959: 84; Yin, Huang, & Li 1984: 55.

piniperda (Linnaeus) 1758: 355 (*Dermestes*). Syn-
types, sex?; Europe; UZI, Upsalla.

Figures: Alkan 1946b: 140, Bakke 1960: 310, Balachowsky 1949a: 26, 104, Barbey 1925: 248, Chararas 1962c: 226, Grune 1979: 54, Postner 1974: 398.

Distribution: Africa (Algeria/ Madeira Islands), Asia (Henan, Hunan, Jiangsu, Jilin, Liaoning, Shanxi, Sichuan, Yunnan, Zhejiang in China/ Assam in India/ Israel/ Japan/ Korea/ Mongolia/ Taiwan/ Turkey/ Sakhalin Island, "Transbaicalia", Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ France/ Finland/ Germany/ Greece/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), Philippine Islands (Basilan Island).

Hosts: *Pinus* spp., rarely *Picea* spp.

Notes: (3) Escalera 1919: 104 (cited as aberration var. *pallidus*, no status), Fransen 1948: 216 (as aberrations var. *rubescens* Krausse, no status, var. *rubripennis* Reitter, no status), Stephens 1829a: 147 (*Ips fumatus* DeGeer, nomen nudum, synonymy).

References: (ay) Aslam 1961: 441; Chararas 1971b, 1974, 1975, 1981; Chararas et al. 1963; Escherich 1914: 182, 1923b: 429, 479, 519; Feytaud 1950a; Francke-Grosman 1949a; Fuchs 1912a; Hemmigny 1804: 178; Imhoff 1856: 227; Kaston 1936: 629; Keler 1920: 128; Kleine 1923: 214–217; Knoche 1908c: 228; Lekander 1959b: 33, 1959d: 92; Leisewitz 1906: 80; Lesne 1911a: 627; Marcu 1933a: 34; Marcus 1930: 644; Menier & Carle 1976: 89; Munro 1917b: 142; Numberg 1925a: 140; Nusslin 1911a: 155, 378, 1912c: 271; Perttunen, Oksanen, & Kangas 1970; Ritchie 1917: 213; Robertson 1961; Sasakawa & Yoshiyasu 1983; Scherb 1971; Schoneherr 1970b; Schroeder 1902: 85; Schwerdtfeger 1926: 90, 1929: 361;

Sedlaczek 1902b: 244, 1907: 82; Thomas, J. B. 1967; Tomalak, Michalski, & Grocholski 1984; Verhoff 1896: 111; Wichmann 1912a: 9. (bv) Annala 1971a: 11, 1975: 8; Annala & Petaisto 1978; Anonymous 1966w, 1974u; Bakke 1968: 443–602, 1973; Barlow 1966; Barr, B. A. 1969: 643; Bergman 1971; Boocock 1959c; Bouhot, Lientier, & Debonzie 1988a, 1988b; Butovitsch & Ringselle 1968: 23; Byers 1988: 429; Byers, Anderbrant, & Lofqvist 1989; Byers, Lanne & Lofqvist 1989; Byers et al. 1985; Carle 1978; Carle, Descoins, & Gallois 1978; Chararas 1968a, 1971b, 1974a, 1976c; Chararas & Berton 1961: 235–243; Chararas & Deschamp 1962; Chararas, Desveaux, & Kogame-Charles 1978a; Chararas et al. 1982: 1094; Doom & Luitjes 1971b; Ehnstrom 1975; Eidmann 1965b, 1974b; Ellefsen 1980c; Ericsson et al. 1985; Espanol 1964a; Francke & Heeman 1976; Fuhrer & Kerck 1978a; Gidaszewski 1974; Grune 1979: 55; Haggstrom 1976; Hallgren, Lekander, & Lonner 1972; Jacobson 1972; Jotland 1975a; Kangas 1965: 61, 1967b, 1968: 177–180, 353–364, 1975; Kangas, Oksanen, & Perttunen 1970; Kangas, Perttunen, & Oksanen 1967: 181, 211, 1971; Kangas et al. 1965: 61–73, 1967: 87; Kevdina 1897: 108; King, C. J. 1976b; Klassen, Ridgway, & Inscoc 1982; Klimetzek et al. 1986: 27; Langstrom 1975, 1979a, 1979c, 1980a, 1983a, 1984, 1986: 351; Langstrom & Hellqvist 1985; Lanier et al. 1984; Lanne et al. 1987; Leclercq, Simon, & Verstraeten 1967; Lindemann 1875: 143–146; Loytyniemi & Hiltunen 1976; Loytyniemi, Heliovaara, & Repo 1988a, 1988b; Luitjes 1976; Lutyk 1984; Magma, Gaspar, & Severin 1982; Meixner 1937: 1214; Menier & Carle 1976: 89; Naegeli 1928; Naumann-Etienne 1978a; Nilsson, S. 1974b; Nuorteva 1954: 184, 1956c: 22; Nuorteva & Nuorteva 1968; Oksanen 1968: 1–13; Oksanen, Kangas, & Perttunen 1968; Oksanen, Perttunen, & Kangas 1970; Perrot 1977; Perttunen 1958: 12–18, 1959: 65, 1960, 1963; Perttunen & Boman 1965; Perttunen & Hayrinen 1969, 1970; Perttunen, Kangas, & Oksanen 1968: 205–222; Perttunen, Oksanen, & Kangas 1970; Prell 1925b: 166, 1926: 62, 1930c: 626, 1931: 367; Raisanen et al. 1986; Rozhkov 1970: 136; Saarenmaa 1987, 1988a, 1988b; Savory et al. 1970; Schlyter et al. 1988; Schneider 1955: 235; Schoneherr 1970b, 1972; Schroeder 1987, 1988a, 1988b; Schroeder & Eidmann 1987; Schroeder & Lindelow 1989; Schwerdtfeger 1981: 188; Shepherd 1965: 213; Sierpinski 1971a; Sjodin et al. 1989; Soderkvist 1970; Speight 1980; Srot 1968; Vite, Volz, & Paiva 1986; Volz 1988; Wichmann 1912a: 9; Yasunuga 1962: 197–200; Yasunuga, Oshina, & Kuwatsuka 1962; Yoshikawa et al. 1986; Zumm 1989. (cn) Acatay 1943a: 62, 1943b: 3; Aclouque 1914; Adkin 1918: 83; Agafonov & Kuklin 1979; Andersson, S. O. 1961a, 1961b: 228–230, 1971, 1973; Andersson, S. O. & Lekander 1966: 681–696;

- Andrianova 1950; Androic 1966: 48; Anonymous 1900e: 569, 1921q: 1; Anonymous 1967r, 1971i, 1971p, 1971t, 1972i, 1972j, 1974i, 1974r, 1974u, 1975j, 1975i, 1975n, 1975w, 1979p, 1950g, 1984b; Antoine 1935: 269; Arbois de Joinville 1885; Ass & Funtikow 1941; Astiaso 1970; Aullo 1918: 163-171, 1919: 19-28, 46-47, 1923: 8-11, 1929: 77-82; Axelsson & Brakenhielm 1980: 43; Azavedo 1967: 1-21; Bacta Neves 1945: 1-15, 1952a, 1955: 44-53, 1957, 1958; Babina 1966: 25-29; Badoux 1921: 163-173; Bakke 1960: 308, 1968: 441-602; Barbey 1922a, 1924a, 1925: 247, 1927: 1-7; Barbina 1966, 1967: 53-58; Barlow 1966; Becker 1950; Bednall 1960: 12; Bejer-Petersen 1959a; Berdennikova 1949, 1954: 84; Berezina & Kurenzov 1935: 1-52; Bergman 1971; Bergman & Templin 1976; Bevan 1962: 1-8, 1964b, 1967a, 1967b, 1969, 1974: 304, 1987: 124; Bevan & Davies 1970, 1971; Bjorkhem et al. 1977; Blanchere & Robert 1889; Blandford 1892a; Blatchford 1983: 31; Boa 1898; Bogdanova 1982, 1986; Boocock 1959b, 1959c; Borcea 1924: 221-260; Borodajewsky 1914: 1065-1067, 1915a: 1222-1247; Borodin 1915: 1-87; Brammanis 1928: 1-20; Brandt 1925: 167-171; Braum 1867; Brooks & Brown 1936: 1-46; Bruneau 1950; Butovitsch 1930a: 51-54, 1946, 1953: 1-4, 1960a, 1960b, 1972, 1977; Butovitsch & Ringselle 1968: 23; Bychawska & Swiezynska 1979; Byers, Anderbrant, & Lofqvist 1989; Capek 1966; Capek et al. 1957; Carle, Vincq, & Bizet 1979; Chararas 1957e, 1959d: 135-167, 1959h: 2109-2111, 1962a, 1962d: 206-209, 1976c, 1977e, 1978; Chararas & Hamza 1972; Chéniclet, Bernard-Dagan, & Pauly 1988; Chorbadzhievo 1929; Christiansen 1970; Chrystal 1931, 1935, 1949b: 3-11; Clarival 1926: 26-32; Collinge 1915: 789-791; Cotta 1919: 10-16, 70-80; Coulson, J. R. 1951: 9; Crooke 1954, 1955b, 1956: 44-53, 1957, 1960: 166-196; Crooke & Kirklund 1956: 135-145; Curtis 1846; Davies & King 1973; Dehlen & Langstrom 1976, 1977; Delfin 1969, 1977, 1980; Dengler 1930: 122-126; Dobrodeev 1924: 70-76; Doom 1949; Doom & Luitjes 1970, 1971a, 1971b; Dowding 1974; Duda 1974; Eckstein 1890, 1898a, 1915, 1926: 372, 1930a: 120-121, 1930b, 1935, 1939a, 1939c: 32-41, 81-92; Egorov 1958: 1492; Ehnstrom 1985; Eichhoff 1880b: 367; Eidmann 1964, 1965c, 1970a, 1971, 1973, 1985a; Eidmann & Klingstrom 1976: 240; Eliescu & St. Negru 1956; Elsnier 1963: 97-103; Elton 1946, 1947, 1949a, 1949b, 1951, 1964: 1-54; Elton & Blackvaardt 1953; Elton & Voute 1950; Escalera 1919: 103-108; Escherich 1917: 97-155, 1929, 1932a; Espanol 1964a: 110-114, 1967: 121-125; Esterberg 1959; Fahlgren 1971; Federov 1930: 225-229; Ferreira & Ferreira 1986; Feytaud 1927: 113-121, 140-144, 1946, 1950a, 1950b; Findlay 1959; Florov 1934: 106-134; Forbes 1910; Fransen 1937a: 285-297, 1937b: 13-21; Franz 1948e; Fritz 1896; Fumke 1870; Fystro & Bakke 1962; Gabler 1955; Galoux 1948d; Gasste 1976; Georgebits 1974; Georgescu et al. 1957: 357, 471; Gidaszewski 1974; Giggelberger 1867; Gillanders 1916: 200-209; Gmelin 1787a; Godbersen 1925; Godha et al. 1964; Gois 1944; Golovyanko 1926: 1-87; Gradojevic 1938; Grandi 1951; Grechkin 1962b: 707; Green 1923: 208-224; Gusev 1928: 144; Gyorfi 1946: 193, 1959; II. 1867; Hagedorn 1910c; Haget 1949; Haggstrom 1976; Hallgren, Lekander, & Lonner 1972; Halperin 1976a; Hamon 1980; Hanson, II. S. 1937: 185-236, 1940a: 483-536, 1940b: 64-79, 1940c: 247-251, 1943, 1950: 18-26; Hartig 1811: 321, 331, 1820: 320, 331, 1832: 280, 288, 1861: 322, 330, 1879: 188, 195; Hartl & Mills 1983; Hasek 1955, 1961; Headlee 1914: 631-698; Heikkila 1978; Heqvist 1965; Hess 1898: 383, 1907: 265; Hess & Beck 1914: 252, 1927: 252; Hilden 1922; Hopkins 1894c, 1894d, 1899c: 311; Horegott 1960; Horn 1937: 271; Hrubik 1973; Hubault 1945; Huss 1969, 1975; Inouye 1949a: 7, 79, 1949b, 1949c; Jablokoff 1953: 327; Jacentkovsky 1933: 271; Jahn 1952a: 98, 1960b; Jazentkovsky 1922: 7-9, 1924: 278-296; Joly 1949b: 254, 1976; Jondelius 1971; Jondelius et al. 1970: 42-49, 1973; Jorgenson & Bejer-Petersen 1951, 1952; Judeich 1886: 67; Judeich & Nitsche 1895: 447, 462; Kailidis 1964c, 1966a, 1966b: 56; Kailidis & Markalas 1988; Kalandra 1948a; Kamuishnuii 1925: 14-16; Kangas 1934d, 1937, 1950b: 162, 1958d: 162, 1966; Kaplan & Mokrzejcki 1988; Karaman 1964: 440-443; Kauschinger 1893: 146; Keller 1903b: 52; Kemner 1913: 191-210; Kharitonov 1924: 199-204; Kholodkovskii 1912: 278, 297; Kilsbergam 1980; King, C. J. 1977a; Kirchner 1860: 91; Klausner 1954: 286; Kleiser 1859: 98; Klimesch 1931: 40; Klopfer 1897: 31; Ko 1984; Ko & Morimoto 1985; Kobakhidze 1960: 1851; Koch 1913: 95; Koehler 1958: 30, 1968: 133-139, 1986: 145; Koehler & Zdanowicz 1954: 19-59; Kollar 1840: 257, 363; Konig, D. 1923: 1065, 1924: 1112, 1308; Konopka 1871: 35; Kontkauen 1932: 59; Koppen 1882: 236, 243; Korsch 1964: 144-145; Kozikowsky 1929: 253; Kratochvil 1941: 23; Krol 1980a, 1980b; Kruel 1950: 6; Kurenzov 1956b: 29; L. 1896: 557; Laidlaw 1941: 32-37, 1947: 52; Lampa 1905: 51; Lang 1896: 557; Langstrom 1975, 1979a, 1979c, 1980a, 1980c; Langstrom & Hellqvist 1988a, 1988b; Langstrom, Hellqvist, & Ehnstrom 1984; Lanz 1975; Larroche 1973; Lauenstein 1966; Legowski 1987; Lekander 1954b: 7, 1955b: 17, 1966, 1970, 1971a, 1974b, 1975b; Lekander & Rennerfelt 1955: 10; Lekander, M. 1951: 23; Lesne 1913: 213; Lieviens, Lieutier, & Delplanque 1985b; Lientier, Favre, & Garcia 1988; Lindelow & Jacobaeus 1955; Liro 1916: 126-132; Listov 1971; Lofting 1949: 14; Lohrenz 1907: 39; London 1938: 187; Loytyniemi 1978; Loytyniemi et al. 1979; Lozovoi 1949a: 245, 1954: 1175-1176; Lucas 1850: 48;

- Ludge 1971; Luitjes 1957: 137, 1958: 211; Luitjes et al. 1954: 127; Lunden 1980; MacDougall 1913: 1-17, 1914: 1-19, 1915: 1-27, 1917: 1-38, 1925: 1-37; Madler 1830: 346; Maksimovic & Milanovic 1964, 1966; Marchal & Foex 1918: 1-35; Marcu 1926c: 61, 1930: 327-336; Marie 1924: 328-330; Marn 1921: 81; Martinek 1974: 3; Mascev et al. 1980; Masutti 1969; Mathiesen 1951: 229, 1952: 279; Mathiesen-Kaarik 1953: 6, 20; Mattsson 1921: 81-101; McFadden et al. 1982; Megalov & Bazhanov 1927: 1-29; Methner 1931: 422; Meves 1887: 30, 1888b: 157, 1896: 153; Michalski 1966; Michalski & Schmidt 1957: 55; Michalski & Witkowski 1959: 45, 1960, 1962, 1963a, 1963b; Mokrzecki 1928: 272, 1933: 284; Mola 1929: 35; Molina 1964: 55-57; Morrill 1953: 275; Morris 1929: 43-44; Mostovsky 1923: 287-288; Mozo-levskaya 1979, 1984, 1985; Mukai et al. 1987; Mulder, Wellinga, & van Daalen 1975; Muller 1891: 52, 1912: 184; Mumford 1963: 21; Munro 1914: 170-176, 1917: 123-158, 1922: 136; Murayama 1954a: 4; Nechleba 1927: 115-117; Nestertschuk 1930: 172; Neves et al. 1986; Niemeyer 1974: 288, 1975: 150; Niemeyer & Thalenhorst 1974; Nilsson, B. 1971; Nilsson, S. 1974a: 32, 1974b, 1974c, 1975a, 1975c; Nordlinger 1870b: 261; Nosek 1951: 107, 1952b: 98; Novak, V. 1972a; Novak, V., Hrozinka, & Stary 1965: 57; Nuorteva 1955c: 1, 1955d: 99, 1959c: 1025, 1964: 1-17; Nuorteva & Nuorteva 1968; Nusslin 1883: 151, 1913: 205; Oberdiek 1927: 101-114; Oda, Kato, & Nobuchi 1964; Ohmart 1980; Olofsson 1980; Oppermann 1985; Ormerod 1883: 84, 1890: 113; Ossowski 1941: 75-79, 1942: 252; Otto 1969: 1033-1036; Ozols, G. E. 1960; P. 1879: 211; Paitier 1959: 31; Palm 1948b: 714; Park & Byun 1988; Park, K. N. & Lee 1972; Pawlowitsch 1883: 10; Pawlowski 1962; Persson 1980; Pfeffer 1933: 43, 1940c: 273; Picard 1921: 17; Pierce, W. D. 1917: 69; Polozencev 1926: 1-5, 1966: 9-12; Polozencev, Rubcova, & Nanmenko 1968; Polozencev & Zolotov 1969; Pomocnicze 1876: 155; Prosoroff 1929: 17; Questienne 1979: 115; Ratzeburg 1834: 23; Redfern, Gregory, & Low 1979; Regnander 1976, 1977; Reisch 1960; Reisseneger 1889: 297; Rettich 1928: 15-17; Rhumbler 1922: 280, 1927: 291; Richter 1914: 282; Richter, D. 1962: 219-225; Rinski-Korsakov 1921: 36-43; Ritchie 1917: 213-234; Rodzianko 1915: 1-15; Roepke 1931: 161; Roessler 1926: 239; Romanyk 1963a: 26, 1963b: 159, 1966; Rudnev 1965b, 1966; Rulm 1958: 308; Russo 1946a: 24, 26, 1946b: 297-314; Ryle 1928: 254-259; Rylvkin 1951: 80-81; Saalas 1919: 1-415, 1929: 168-180, 1949: 341, 353; Saaremaa 1983, 1985b; Sachtleben 1925: 32; Saito 1930: 139-146; Sargos 1947: 7; Sasscer 1917: 221; Sauvard, Lientier, & Leveux 1987; Savory et al. 1970: 161-174; Schedl 1928: 109; Schenk 1952: 440; Scheyvrew 1905b: 1098; Schimitschek 1937c: 47, 1938c: 2114, 1939d: 2112, 1944: 163, 1947g: 191, 1950: 46, 1951a: 101, 1952c: 60, 1955a: 29, 1955b: 102, 1955c: 77, 1961a: 154; Schindler 1969b: 136; Schmidt 1881: 39; Schonauer 1857: 29; Schonberg 1925: 887-888; Schonherr 1964: 37-40; Schulze 1927: 335; Schuster 1918: 102; Schvester 1967: 373-384; Schwappach 1904: 78; Schwappach et al. 1929: 186; Schwardtfeger 1944a: 170, 175, 1944c: 80, 1946b: 62, 1948b: 137, 1950a: 67, 1950b: 49, 1957a: 182, 1968a; Sedlaczek 1921: 339, 1936: 200; Selys-Lonchamps 1880: 151-152; Shiperovich 1926: 472-475; Shiraki 1952; Shirskaya 1961: 1-165; Siemaszko 1939: 1-54; Sierpinski 1962: 211-223, 1966, 1969a: 51-54, 1969b: 109-127, 1971a, 1971b; Silva, F. A. E. & Serrao 1967; Sinreich 1958: 197, 1961: 166, 1962; Smelyanets 1977; Smelyanets, Lopatina, & Lomakin 1981; Soderkvist 1970; Souphieff & Scherbinovskaja 1937: 47, 102; Spaic 1964a: 226-236; Speight 1980; Srot 1966: 663, 1968; Sukhovolskii 1981; Sureyya & Hovasse 1931: 1-32; Sylven 1916: 153-161, 1920: 1-19; Szmidt 1960, 1983; Templin 1973: 104; Templin & Templin 1974; Thaler 1898: 388, 1902: 278; Thompson 1939: 1-26; Titova 1959: 110-126, 1966; Tolskii 1927; Torrent & Romanyk 1966; Toth 1971; Tragardh 1917: 28, 1918: 1-28, 1918c: 98, 1919: 67-114, 154-174, 1921e: 64, 1923: 401-424, 1924: 311-338, 1927: 191-216, 1927c: 65, 1929: 773-780, 1932: 264, 1935: 487-495, 1938a: 11, 1939a: 325, 1941: 115, 1942: 459; Tragardh & Butovitsch 1933a: 234, 1935: 1-268, 1936: 562, 1937: 292, 1938: 191; Trebra 1783: 79; Triggiani 1984; Trinchiera 1921: 1-12; Troeng, Linder, & Langstrom 1979; Trofimov 1979; Tullgren 1916: 104; Turcek 1964: 310, 1967: 15; Valenta 1960: 116-131; Vappula 1965: 152; Vestjordet 1971; Viedma & Junco 1963: 918-922; Vietinghoff 1951: 453; Villasenor 1966; Virkki 1960: 3-16; Vorontsov 1968; Vorontzov 1910: 1-5, 1911: 1-116; Voute 1942: 12, 617, 1947a: 143, 1960: 947, 1963: 459-462; Voute & de Vries Broekman 1965; Wachtl 1883b: 319, 1901: 377, 381; Wadde-Love & Webb 1948: 109-110; Wardle 1929: 323; Weber, H. 1926: 572; Wei 1960: 63-69; Weiss 1915: 133-135, 313-315, 1916: 212-216; Wichmann 1927b: 352; Wikstrom 1934: 122; Willkomm 1863: 250; Wilson, C. F. & Becker 1960: 86; Wolff 1920: 229, 1924b: 166; Wolff & Krausse 1922: 78; Wollfe 1949: 479; Yanane 1981: 470; Yanovskii & Korotkov 1984; Zarco 1946a: 251, 1946b: 463-468; Zhuravlev & Osmolovskii 1949: 52; Zivojinovic 1963: 449; Zolk 1935: 614-640, 1937: 147-172; Zschiesche 1932: 270; Zwolfer 1960, 1963. (cc) Acatay 1943b; Agafonov & Kuklin 1979; Allken 1924; Andreev 1988; Annila 1975: 11, 1977; Annila & Perttunen 1964: 35-45; Annila & Petaisto 1978; Anonymous 1972j, 1982e; Antoine 1935: 269; Apfelbeck 1916b; Ass & Fimtikow 1941; Aube 1844; Bakke 1957, 1968a; Balazy 1962; Balazy & Michalski 1964b; Balazy et

- al. 1977; Barbey 1924b, 1927; Barbey & Ferriere 1923; Beaver 1974b; Belanowskii 1930; Boas 1900; Bogdanova 1987, 1988; Bovey 1970; Brammanis 1940: 257-340; Brandt 1930; Burzynski 1971; Butovitsch 1925: 33, 1946, 1977; Butovitsch, Notini, & von Wettstein 1960; Butovitsch & Ringselle 1968: 23; Butovitsch & Spaak 1939: 1-120; Bychawska 1985; Cameron 1940: 46-52; Carpelan 1944; Chararas 1957d, 1959a, 1959c, 1959d, 1959e, 1959h, 1962d, 1964a, 1964b, 1968: 238, 1975; Chararas, Desveaux, & Kogane-Charles 1978a; Chararas & Hamza 1972; Chararas et al. 1962, 1982: 1094; Cobb et al. 1968; Cole 1973: 286; Cooreman 1963: 45; Crooke 1954; Dowding 1974; Eckstein, F. 1921; Ehnstrom 1963b; Eichhoff 1883c: 161; Eidmann 1965c, 1974b; Eidmann & Nuorteva 1968: 135-148; Elliot & Morley 1907; Escherich 1942: 649; Fagerstrom et al. 1978; Francke-Grossmann 1931, 1952a; Fry 1989: 18; Fuchs 1914b, 1929a, 1930, 1937, 1938; Fuhrer & Kerck 1978a; Galoux 1947b, 1947c, 1947d, 1948a; Gaulle 1906: 236-237; Gauss 1954a: 423; Gidaszewski 1974; Gillanders 1906; Giraud & Laboulbene 1877: 427; Graham 1969: 878; Grossmann 1931a; Guanfjing 1989; Gyorfı 1941b, 1943: 84, 1952b; Haesselbarth 1967; Hartig 1832: 280, 288; Hartl & Mills 1983; Heliovaara & Lilja 1989; Hemmingsson & Lundstrom 1974; Heqvist 1957a, 1963; Herald & Mercadier 1984; Hirschmann 1960, 1971b: 40; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zirn-gebl-Nicol 1961; Huss 1975; Ierusalimov 1975; Inouye et al. 1955: 72; Jakaitis 1979a: 145; Jakaitis & Valenta 1976: 12; Jammicky 1957b: 18, 1957c, 1961b; Joly 1949a: 7; Jong & Saarenmaa 1985; Kaarik 1973; Kailidis 1966b: 56; Kailidas & Markalas 1988; Kakuliya & Lazarevskaya 1965; Kangas 1932: 12, 1937, 1950: 145-177, 1953: 224-228, 1954a: 48, 1954b, 1958c: 93, 1968: 353-364, 1970: 75-83, 120-122; Kangas, Perttunen, & Oksanen 1971; Karpinski 1932a: 100; Kaya 1984; Kerstens 1961: 137; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kishi 1969, 1972; Klausner 1954: 286; Kleine 1907a: 109, 1907b: 150, 1908b: 207, 1908c: 182, 1909a: 44, 76, 1910: 346, 1943: 84, 1944: 68; Kneiff 1923: 246; Knoche 1907b: 474, 1908b: 200; Kobakhidze 1960: 1851; Kolubajiv 1954: 55; Kolubajiv & Kalandra 1954: 30; Koehler, W. 1968; Kokueva 1900: 569; Kostenko 1929; Kostin 1964: 103; Koyama 1963; Kraemer 1950b: 382; Kratochvil 1941: 23-30; Krivosheina 1974; Krol 1980a, 1980b, 1984; Kudela 1981; Kudela & Wolf 1964: 1023-1026; Laidlaw 1941b: 32; Langstrom 1980a, 1984; Langstrom & Hellqvist 1985, 1988a, 1988b; Larroche 1973; Leclercq, Simon, & Verstraeten 1967; Lekander 1954a: 3, 1962b, 1966; Li & Zhou 1980: 68; Lieutier, Chéniclet, & Garcia 1989; Lieutier, Favre, & Garcia 1988; Lieutier & Vallet 1982; Lieutier & Yart 1989; Lieutier et al. 1988, 1989; Lovaszy 1941: 194-204; Lovendal 1890a: 131; Loytyniemi & Hiltunen 1976; Lozovoi 1948a: 69, 1949a: 245, 1954: 1175; Luitjes 1976; Lukasheva 1986; Lundberg 1984; Lutyk 1984; MacGillaoiry 1906: 27; Majewski 1965: 33-36; Majewski, T. & Wisniewski 1978: 5; Maslov et al. 1980; Mathiesen 1951: 229, 1952: 279; Mathiesen-Kaarik 1953: 6, 20; Mazur 1973, 1979, 1985; Meyer 1934: 612; Michalski 1982, 1988; Michalski & Ratajczak 1989; Mozolevskaya 1979, 1981; Naumann-Etienne 1978a; Nechleba 1928b: 125-126, 1928c: 111, 1929a: 24-25; Niemeyer & Thal-enhorst 1974; Nikitsky 1978; Nilsson, B. 1975a, 1975c; Nilsson, S. 1974b; Nishiguchi 1957: 69-73, 1959: 271; Nosek 1951: 107, 1952b: 98, 1959a: 118; Novak, P. 1952: 412; Nunberg 1930: 200; Nunberg & Wiackowski 1958: 130; Nuorteva 1956a: 17, 1957b: 49, 1959d: 201, 1961a, 1962b: 45, 1963b, 1964b: 1-17, 1967a, 1968a, 1970, 1971: 69; Nuorteva & Laine 1968; Nuorteva & Nuorteva 1968; Nuorteva & Saari 1980; Nuorteva & Salonen 1968: 49-55, 1969: 13; Nusslin 1927: 291, 300; Okolow 1963; Olofsson 1980; Palmén 1944: 60, 1946: 194; Park, K. N. & Lee 1972; Perris 1852: 493, 1853: 601, 1854a: 101, 1854b: 626, 1856a: 208, 1862: 177; Perttunen 1959: 65, 1960: 86; Perttunen & Boman 1965; Perttunen & Hayrinen 1969: 105-122, 1970: 41-46; Perttunen, Oksanen, & Kangas 1970: 249-250; Pfeffer 1923a: 330, 1928b: 2, 1933: 43, 1943b: 179; Pfeffer & Prihoda 1950: 1; Piou & Lieutier 1989; Pischik 1979, 1980a; Poinar 1972, 1975: 160; Prell 1925b: 166, 1926: 62; Ratzberg 1869a: 60, 89; Reisch 1972; Rennerfelt 1951: 128; Rondani 1873: 151; Roubal 1934a: 86; Ruhm 1956b: 3, 1957: 351, 1960: 207, 1969; Rumbold 1931c: 848; Rummukainen 1954: 12; Rupertsberger 1893a: 216, 1893b: 290; Russo 1946a: 24, 26; Saalas 1917a: 18, 1928: 651, 1930: 118, 1949: 341, 353; Saarenmaa 1983, 1984, 1985a, 1985b, 1987; Salonen 1965: 88-96, 1968: 31-37, 1973; Sauvard 1989; Schedl 1936f: 161; Scheerpeltz 1935: 18; Scheucher 1959: 263; Schimitschek 1930a: 281, 1941a: 305, 1941b: 59, 1950: 46, 1955a: 29; Schonherr 1972; Schremmer 1956: 217; Schroeder & Eidmann 1986; Schuster 1918: 102; Schvester, Carle, & Riom 1970: 244; Schwerdtfeger 1929: 361, 1944a: 170, 175, 1950a: 67, 1950b: 49, 1957: 182; Sedlaczek 1908: 47, 1935a: 153; Shepherd 1966: 515; Sitowski 1930: 2; Smelyanets 1977; Smelyanets, Lopatina, & Lomakin 1981; Srot 1966a, 1968; Stammer 1933: 152; Stark 1925b: 80, 205-212, 300-301, 1926j: 125, 346, 1927: 15-19, 1931: 339-343; Stefanov 1946: 1, 1949a: 97; Struble 1930b: 116; Sukhovolskii 1982; Sunfor 1979; Sylven 1913: 144, 1916a: 157; Szczepanski 1960a: 407; Szyszko, Tracz, & Szpojda 1984; Templin & Templin 1974; Tenkacova & Mituch 1987; Thalénhorst 1958: 29; Thompson, W. R. 1943: 80; Thompson, W. R. &

- Simmonds 1964: 30, 1965: 2; Titova 1966; Tomalak, Michalski, & Crocholski 1984; Toth 1971, 1976; Tragardh 1925a: 170, 1927a: 195, 1928: 773, 1941: 115; Triggiani 1983, 1984; Tvermyr 1967; Vaartaja 1947: 44; Vietinghoff 1924: 327; Vite 1952a: 101; Vite & Pitman 1967: 683-701; Voolma 1978: 91; Voute 1957: 172; Wallace 1953: 164; Westerboer 1963: 349; Wiackowski 1957a: 43; Wichmann 1954a: 438, 1955a: 95, 101, 1958: 230; Wisniewski 1979b, 1980; Wulker 1924: 9; Yanovskii & Korotkov 1984; Yasumatsu & Watanabe 1965: 69; Yasunaga 1962b; Yoshikawa et al. 1986; Zinovjev 1957: 332. **(hb)** Acatay 1943a: 62-63; Adelung 1905; Adkin 1918: 83; Agafonov & Kuklin 1979; Alkan 1946: 140; Altum 1879b, 1879c, 1881c: 253, 1883c, 1884, 1885b, 1886, 1887a, 1887c, 1889a, 1889c, 1890a, 1890b, 1890c, 1891, 1897; Andersen, J. & Nilssen 1983: 1459; Annila 1969: 187, 1971: 10, 1977; Annila & Petaisto 1978; Annila et al. 1972: 22; Anonymous 1866: 421, 1900d: 569, 1921q: 1, 1972b, 1972j, 1972r; Apfelbeck 1916b, 1917; Arndt 1920; Astiaso 1970; Aullo 1919; Averkiew 1941; Bach 1864; Baeta Neves 1945, 1955; Bakke 1968a; Barbey 1901: 10, 19, 49, 1913, 1924a, 1925: 247, 1942; Barbina 1966, 1967; Bargmann 1899b, 1900, 1907: 500-502; Barrere 1872: 53; Becker, G. 1950; Beffa 1949, 1961; Behlen 1826; Berg 1827; Bergman 1971; Bevan 1974: 304, 1987: 124; Binzer 1879, 1881a; Blanchere & Robert 1889; Blandford 1894b; Boas 1897b, 1898, 1900, 1923: 324; Bogdanova 1982; Bonnemaison 1953; Boocock 1959c; Borcea 1924; Brandes 1899, 1900, 1901; Brandt 1919, 1925, 1926, 1929a, 1930, 1948; Braum 1941c; Brownie 1968: 691; Brownie, J. M. & Bevan 1966; Budge 1949; Budkov 1897; Bukowsky 1930; Busse 1931; Butovitsch 1925a, 1925b: 41-43, 1930a, 1960a, 1972; Bykov 1987; Cabral 1959; Cecconi 1906, 1924; Chamberlin 1939: 215; Chararas 1957e, 1960a: 36, 1962a, 1962d, 1964a, 1968a; Charvat 1950; Chevandier 1851a, 1851b, 1851c; Chittenden 1890; Chorbadzhievo 1929; Clarival 1926; Curtis 1846; Czech 1883; Dallimore & Munro 1922: 189-193; Demakov 1988; Demme 1925; Doebner 1862a; Dombrowsky 1887; Doom & Luitjes 1971a, 1971b; Drugesco 1980; Duda 1974; Eckstein 1859: 209-212, 1897, 1898d, 1913, 1915, 1926: 572, 1928, 1935, 1936, 1939a, 1939b, 1939c; Eckstein, F. 1939; Eichloff, F. 1834a; Eichloff, W. J. 1879, 1881a: 37, 101, 1882a: 241, 1882b: 707, 1882d: 337, 1882e: 322, 1883d: 674, 1883e: 50; Eidmann 1962: 161, 1965, 1974b; Eidmann & Klingstrom 1976: 240; Eidmann & Nuorteva 1968; Ellefsen 1980c; Elton et al. 1964; Escherich 1914: 182, 1923b: 429, 479, 519, 1930b; Everts 1900, 1903: 746; Feisthamel 1835; Ferguson 1924; Ferreira & Ferreira 1986, 1989; Feytaud 1927, 1946, 1950a; Fisher 1931; Floerick 1924; Flohrer 1948; Fransen 1948; Fritz 1896; Fuchs 1904a, 1905c: 340, 1907: 54, 1911b; Gabler 1955; Galaseva 1976; Galoux 1948a; Georgebits 1974; Gidazewski 1974; Giggelberger 1868; Gillanders 1906, 1908; Girard 1873; Gmelin 1787a; Gois 1944; Gomostaev 1916: 310; Grandi 1951; Grohmann 1913: 325-361; Gronberg 1914; Gyorfi 1957; Hagedorn 1903a, 1910c; Hallgren, Lekander, & Lonner 1972; Halperin 1978; Hanson, H. S. 1940b; Hartig 1811: 321, 331, 1820: 320, 330, 1832: 280, 288, 1861: 322, 330, 1877: 188, 195; Hennequy 1804; Hennings 1907a: 326, 1907c: 607, 1908b, 1908c: 215, 1908d; Henry 1905; Henschel 1876a: 92, 242, 1880b, 1895a: 139; Hess 1884, 1898: 383, 1907: 265; Hess & Beck 1914: 308, 1927: 308; Hickins 1963; Holmgren 1867: 113, 122; Hopkins 1899c: 311; Hoy 1830: 126; Hufniagl 1887: 512; Hufniagl & Puzyr 1951: 105; Inouye et al. 1955: 72; Jacobi 1906: 148; Jakubjuk 1927; Jamnicky 1956b, 1956c, 1961b; Janin & Lieutier 1988; Jester 1817; Joly 1949a: 7, 1976a, 1976b; Jotland 1975a; Judeich 1875a: 260, 1880: 150, 1886: 67; Judeich & Nitsche 1895: 447, 462; Juutinen 1978; Kailidis 1964c, 1966a; Kalandadze 1927; Kangas 1949c, 1954b, 1975; Karpinski 1933b: 24; Karpinski & Strawinski 1948: 154; Kauschinger 1883: 107, 1893: 146; Keller 1907a: 178, 1907b: 361; Kholodkovskii 1912: 278, 297; King, C. J. 1977b; Kleine 1908a: 98; Knoche 1900: 387, 1904: 5, 1905: 354, 1906: 266, 1907b: 150-156, 474, 1907e: 51, 1908a: 44; Knotek 1894a: 553; Kollar 1840: 257, 363; Konca & Galicki 1977; Kostin 1960: 131; Kozikowsky & Nunberg 1925: 135; Kraemer 1950b: 382; Krausse 1922a: 550, 1922b: 28-30, 1922c: 770, 1925: 77-78, 1927: 87-88; Kudela 1981; Kurenzov 1948b: 105, 1950d: 197; L. 1896: 557; L. B. 1908: 620, 680; Lagerberg 1911: 382; Landin 1953: 24, 99; Lang 1893: 137; Langstrom 1975, 1979b, 1979c, 1983a, 1986: 351; Langstrom & Hellqvist 1985; Langstrom, Hellqvist, & Elmstrom 1984; Larroche 1972, 1975; Lekander 1954b: 7, 1959a: 84, 1959b: 33, 1970; Lengerken 1939: 35, 1954: 76; Levieux, Lientier, & Delplanque 1985b; Li & Zhou 1980: 68; Lientier et al. 1984; Linde 1948: 16-22; Lindgren 1980a: 61; Lofting 1949: 14; Lohrenz 1907: 39; Loos 1896: 530, 1913: 412; Louzil 1961: 42; Lovendal 1890a: 131; Luitjes 1976; Lunardoni & Leonardi 1889: 423; Lundén 1980; Lutyk 1988; MacDongall 1899: 152, 1900a: 359, 1900b: 328, 1917: 125; MacGillivray 1906: 27; Madon 1930: 99; Magma, Gaspar, & Severin 1982; Marcu 1941: 402; Maslov & Demakov 1982; Masutti 1969; Mayewski, Z. 1965; McMullen & Atkins 1961: 197; Michalski 1959a: 291; Michalski & Witowski 1962; Molina 1964; Mozolevskaia 1979, 1985; Muchaschawria 1960; Mukhashabriia 1960: 205; Munro 1916b: 114, 1917b: 142, 1926: 52; Naegele 1928: 68; Naumann-Etienne 1978a; Negru & Pirvescu 1966: 148; Nisima 1908b: 18; Nilsson, S. 1974b, 1975b; Nordlinger 1856: 35, 1868: 262.

- 1870b: 261; Nosek 1959a: 118; Novak, V., Hrozinka, & Stary 1976: 57; Numberg 1929: 97, 1929c: 117, 1946a: 1; Nuorteva 1954: 184, 1956c: 22, 1964b, 1967a, 1968a, 1970; Nussliu 1898: 277, 1904: 2, 1905a: 33, 1906a: 55, 1906b: 7, 1907: 613, 1913: 205, 1927: 291; 300; Oberdieck 1927: 191–214; Oken 1836: 1682; Ossowski 1941: 75, 1942: 252; Park, K. N. & Lee 1972; Pauly 1894: 378; Perris 1852: 493, 1856a: 208, 1876b: 173; Petkov 1963: 217; Petrenko 1966; Peyerimhoff 1915: 61, 1919: 251; Pfeffer 1941b: 2, 1989a: 36; Portier 1959: 31; Postner 1974: 399; Prell 1926: 62–76, 1930c: 626, 1931: 367; Questienne 1979: 115; Ratzeburg 1834: 27, 1837: 132, 171, 1839: 157, 209; Regnander 1937; Rlumblcr 1922: 280, 1927: 291; Rimski-Korsakov et al. 1949: 271; Ritchie 1915: 352, 1917: 213; Romanyk 1963a: 26; Rozhkov 1970: 136; Rudnev & Kozak 1974a, 1974b; Rupertsberger 1879: 231, 1880: 226, 1893: 290; Russo 1946a: 26, 1946b: 297–298; Saalas 1913a: 66, 77, 1949: 341, 353; Saarenmaa 1983, 1985a, 1985b, 1987, 1988a, 1988b, 1989; Salonen 1973; Salonen, Pulliainen, & Koponen 1968; Samal 1928: 141; Sandall 1975; Sauvard 1989; Sauvard, Lieutier, & Levieux 1987; Schenk 1952: 440; Schevyrew 1905b: 1098, 1905c: 192; Schimitschek 1930a: 281, 1944: 163, 1955a: 29; Schmidt 1881: 39; Schneider-Orelli 1947b: 156, 1947c: 94; Schoyen 1915: 140–149, 1917: 154–159; Schroder 1896: 357; Schroeder & Risberg 1989; Schulze 1927: 335; Schwester 1967; Schwappach et al. 1929: 186; Schwerdtfeger 1929: 361, 1944a: 170, 175, 1957a: 182, 1981: 188; Sedlacek 1921: 339, 1935a: 153; Seitner 1911: 99; Severin 1901: 754, 766; Shepherd 1966: 515; Sinreich 1969; Soderkvist 1970; Sommerville 1890b: 255; Speight 1980; Spessivtsev 1913a: 59, 1923: 212, 1925d: 105, 1928a: 232, 1938: 159; Srot 1966: 563–576, 1968: 375–390; Stark 1926a: 333, 1927a: 15, 1952: 190; Stefanov 1949a: 97; Taschenberg 1880: 204; Thalenhorst 1958: 29; Toth 1971; Tragardh 1911: 24–30, 1914: 83, 1921e: 64, 1927c: 65, 1930c: 469, 1931: 55, 1939b: 151, 172; Triggiani 1984; Tschorbadjev 1929: 161; Van Rossem, Burger, & Van de Bund 1974; Vite 1952a: 101; Voute 1942: 617; Voute & de Vries Broekman 1965; Wachtl 1901: 377, 381; Weber, H. 1926: 572; Wichmann 1924: 15, 1927b: 352; Wilson, G. F. & Becker 1960: 86; Wissman 1846: 24; Wolff 1920: 229, 1924: 166–170, 1927: 75; Wolff & Krause 1922: 78; Yakubynk 1959: 40; Yang 1989c; Yoshikawa et al. 1986; Zimmermann 1898: 344; Zinovjev 1957: 332; Zocchi 1959: 103. (ds) Acloque 1896, 1914; Alken 1924: 365; Allen, A. 1951b; Ammann & Knabl 1913, 1923; Andersch 1851; Andersen, J. & Nilssen 1983: 1459; Androic 1966: 48; Angus 1964: 179; Anonymous 1928c: 202, 1967r, 1972j, 1978i, 1978w, 1979p, 1980g; Arru, Covassi, & de Bellis 1966: 33; Audras & Schaefer 1957; Avierezomb 1919: 829; Badoux 1921; Baeta Neves 1945, 1952a, 1955; Bakke 1960: 308; Balachowsky 1944b; Barbey 1914: 41–96, 1922a, 1924b, 1926; Barbina 1966, 1967; Barlow 1966; Barthe 1896; Bau 1888; Baudisch 1899; Beck 1817; Bedel 1888b: 392, 409; Bednall 1960: 12; Belfa 1949; Behlen 1826; Bejer-Petersen & Jorun 1977: 19; Berg 1827; Bielz 1851, 1857; Binaghi 1967; Bistrom & Vaisanen 1988: 42; Blanchere & Robert 1889; Blandford 1894b, 1894c; Boas 1923: 324; Borcea 1924; Borchert 1951; Brakman 1966b: 204; Brancsik 1871, 1906; Browne 1968: 691; Bruggemann 1878; Brunden 1934; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Cabral 1959; Calwer 1893; Capek et al. 1957; Carpelan 1944; Carpentier & Delaby 1908; Ceconi 1897, 1906; Chamberlin 1939: 215–216; Champion 1917: 173–174; Chapuis 1869: 33, 1873: 241; Chapuis & Candeze 1853; Chapuis & Eichhoff 1875; Chararas 1964a; Charvat 1950; Chittenden 1890; Cho 1955, 1957; Choo 1983: 53; Choo & Woo 1985: 164; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1983; Chorbadzhievo 1924d, 1925: 57–61, 1926: 175–241, 1929; Chrystal 1937; Crooke 1957; Crooke & Bevan 1957; Crotch 1863; Dallimore & Munro 1922; Debatisse 1945; Decaux 1890h; Dejean 1821, 1825; Doom 1949; Duff 1945: 175; Duftschmidt 1825; Eckstein & Butovitsch 1939c; Eder 1934; Eggers 1904; Eidmann 1974b; Elton 1946, 1947, 1949a, 1949b, 1951; Elton & Blankvaardt 1953; Elton & Voute 1940; Endrodi 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1914: 182, 1923b: 429, 479, 519, 1929, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 639, 1925; Eyquem 1891; Fanvel 1897; Favre 1890; Fedorov 1930; Feige 1918; Feytaud 1927; Fleischer et al. 1921a; Florov 1949: 62; Forster 1849: 440; Fowler 1882a, 1891; Frey 1937; Fricken 1889: 276; Friedrichs 1919; Fuchs 1904a, 1905a, 1905c: 340, 1907: 54, 1913; Fuge 1919: 252; Gabler 1949b; Ganglbauer 1904; Gaubil 1849: 127; Gannitz 1928: 92; Georgebits 1974; Georghiou 1977: 73; Gillerfors 1966; Girard 1881c: 39; Gobang 1855: 745; Goeze 1777: 130; Gomostaev 1917: 308–315; Gozis 1875: 79; Grechkin 1962b: 707; Gredler 1866: 369; Grill 1895: 308; Grune 1979: 55; Gyllenhal 1827: 618; Gyorf 1941b; Hagedorn 1903a, 1910d: 14; Halperin 1963: 83, 1976a, 1978; Hamilton 1894b: 407; Hansen, V. 1939, 1956, 1964: 459; Heinemann 1905a; Hellen 1947; Helliesen 1916: 83; Hennig 1954: 257, 261, 263; Henschel 1895a: 139; Heyden 1876: 297, 1898: 77; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 709; Hickin 1963; Holdhaus 1923: 115; Holmgren 1867: 113, 122; Horegott 1960; Horion 1949, 1951; Hubault 1923b; Hukkinen et al. 1936: 48; Ihssen 1939: 336; Illiger 1805: 130; Inouye 1949b; Jablokoff 1953: 327; Jacentkovsky 1912: 287, 1933: 271, 1934: 84–105,

- 1939: 76; Jammicky 1960a; Janovsky & Tegshzhargal 1985: 407; Jansson 1935: 77, 1940: 63; Jemmett 1913: 1-44; Johnson & Halbert 1902: 819; Joly 1949b: 254, 1976; Judeich & Nitsche 1894: 447, 462; Kailidis 1966a: 56, 1985; Kailidis & Markalas 1988; Kaltenback 1874: 686; Kangas 1934a: 9-12, 1934c: 1-68, 1949c, 1967b; Karaman 1964; Karpinski 1925: 216, 1926: 82, 1931: 22, 24, 1932a: 100, 1933b: 24, 1948b: 229; Karpinski & Strawinski 1948: 154; Karppinen 1961b: 213; Kaszab 1977: 66; Keler 1923: 41-45, 1925b: 271; Kempers 1902: 67; Kersten 1933: 70, 72; Kestercanek 1881a: 12; Kevan 1946: 241; Kiefer et al. 1942: 528; Kienitz 1924: 1182; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 161, 262, 264, 267, 1912b: 169, 1913a: 34, 1914b: 249, 255, 1934a: 128; Kloft & Hinks 1945: 217; Knotek 1892a: 33, 1894a: 553; Ko 1969: 274; Koltze 1901: 152; Kontkanen 1932: 59; Koppen 1882: 236, 243; Koschitsky 1900: 83; Kostenko 1929; Kotula 1873b: 80, 1874: 24; Kraatz 1869: 59, 1876c: 107; Krausse 1920: 169; Krivolutskaya 1983; Krogerus 1921b: 115; Krol 1877: 34; Ku, K. 1964; Kurenzov 1937, 1950: 117, 122, 1965, 1967; Kurir 1947c: 7; Lacordaire 1866: 360; Langhoffer 1915c: 157; Larroche & Torossian 1971; Leclercq 1971; Lekander 1955b: 17; Leng 1920: 339; Lentz 1857: 138; Lesne 1913: 213; Liegel 1886: 43; Lindberg & Saris 1952: 58; Lindemann 1884b: 263; Linnaniemi 1935: 45; Lokaj 1868: 63; Lonnicki 1886a: 240, 1913b: 147; Loos 1913: 412; Lovendal 1890c: 210; Lucht 1987: 276; Luigioni 1929: 993; Luitjes 1957: 137; Luitjes et al. 1954: 127; Luma de Carvalho 1947: 15; Lumardonni & Leonardi 1889: 423; Lundblad 1950c: 114, 1958: 489; Malazgirt 1966: 64; Mandl 1931: 25; Marchant & Borden 1976; Marcu 1926c: 61; Matthews & Fowler 1883: 42; Mequignon 1936: 15, 24; Meves 1888a: 13; Michalski 1957: 163; Mirzoian 1950: 140; Mokrzecki 1928: 272; Mumford 1963: 21; Munro 1919: 1-35, 1922: 136, 1926: 1-27; Murayama 1929b: 2, 1929e: 42, 1930a: 1, 1930b: 8, 12, 30, 1934: 298, 1936a: 125, 1936b: 116, 125, 1939: 135-137, 1940a: 232, 1942a: 54, 1948a: 2, 1949a: 11, 1949c: 100, 1950b: 1291, 1951c: 3, 1953a: 7, 1953c: 148, 1954a: 4, 1955: 98; Murray 1853: 60; Nakane & Acane 1950: 123; Nakane et al. 1983: 382; Negru 1966: 148, 1966b: 400, 1968a: 455; Negru & Pirvescu 1966: 148; Niisima 1908b: 18; Nobuchii 1966d: 15, 1967: 19, 1985c: 5; Normand 1949: 104; Novak, P. 1952: 412; Numberg 1928b: 88, 98, 1930: 200-208, 1954: 32; Nuorteva 1956b: 168, 1971: 66; Nusslin 1898: 277; Oliveira 1887: 327; Orest 1926c: 60; Pacher 1865: 151; Palm 1962a, 1962b; Palmén 1944: 60, 1946: 194; Pawlowski 1962: 241; Perris 1876a: 254, 1877a: 414; Peyerimhoff 1919: 251, 1933b: 363; Pfeffer 1924b: 471, 472, 1928b: 2, 1931b: 74, 1933: 3-54, 1935: 159, 1936: 90, 1947d: 126, 1947e: 15, 1950b: 73, 1984: 277, 1989a: 36; Pierce, W. D. 1917: 69; Pittioni 1943: 174; Pjatnitskii 1930a: 164; Platonoff 1940: 11, 1942: 63, 1943: 141; Pomerantzev 1907a: 177-192, 1907b: 423, 491, X; Poppius 1900: 108; Postner 1974: 399; Prossen 1913: 82; Pruffer 1948: 1; Rapp 1934: 720; Ratzeburg 1837: 132, 171, 1839: 157, 209; Razzauti 1921: 119; Redtenbacher 1858: 827, 1874: 368; Reitter 1869b: 153, 1894a: 53, 1916: 281; Revy & Siroki 1942: 82; Rimski-Korsakov et al. 1949: 271; Romajnyk 1963b: 159, 1966; Roubal 1936b: 193, 1941: 259; Rozhkov 1970: 136; Rudnev 1965b; Ruskov 1928c: 61; Rye 1866a: 197, 1866b: 65, 1866c: 259, 1874: 205, 1890: 269; Saalas 1913a: 66, 77, 1917a: 18, 1930: 118, 1931: 168; Sahlberg 1900: 105, 1903b: 63; Sainte-Claire & Mequignon 1938: 444; Sasscer 1917: 221; Sawamoto 1940b: 141, 144; Schaschl 1854: 133; Schaufuss 1915: 1223; Schaum 1853: 295, 1859: 95, 1862: 100; Schedl 1959h: 99, 1961b: 184, 1963c: 154, 1964j, 1967c: 69, 1969g: 288, 1971d: 427, 1971f: 146, 1973c: 376, 1978e: 36, 1979i: 289, 1980a: 9, 1981b: 53; Scheerpeltz & Winkler 1930: 256; Schilsky 1909: 187; Schimitschek 1951a: 101; Schiodte 1873: 100; Schmitz 1898: 157; Schmidt 1959: 8-9, 1960: 83; Schwerdtfeger 1981: 188; Seidl 1876: 4; Seidlitz 1872: 391, 1891a: 559, 1891b: 605; Sharp & Fowler 1893: 34; Shiraki 1952; Siebke 1875: 282; Sierpinski 1966; Silva, F. A. E. & Serrao 1967; Souphieff & Scherbinovskaja 1937: 47, 102; Sparre-Schneider 1889: 60; Stark 1926a: 333, 1926b: 102, 1927a: 15-19, 1927b: 88, 1931a: 24, 1931d: 544, 1936e: 142, 1952: 190; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 147, 1830: 363, 1839: 209; Stierlin 1898: 432; Stierlin & Gautard 1871: 291, 1906: 205; Straby 1975: 8; Strand 1946: 596; Strand & Hanssen 1935: 70; Strauch 1861: 123; Sturm 1826: 156, 1843: 229; Thomson 1865: 354, 1868: 218; Tragardh 1914: 83, 1939b: 151, 172; Tredl 1907: 10; Tschorbajdjev 1929: 161; Ulanowski 1884: 6; Vappula 1965: 152; Villa & Villa 1833: 26; Villasenor 1966; Voute 1957: 173, 1963; Wachtl 1870: 259; Wadde-Love & Webb 1948: 109; Wegelin 1960: 106; Wessel 1877: 391; Westhoff 1882: 237; Wichmann 1924: 15, 1927a: 58, 1955a: 95, 101; Wiepken 1883: 89; Winter, T. C. 1983: 27; Wiren 1945: 43; Wolff 1927: 75; Yakubjuk 1959: 50; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 407; Zetterstedt 1828: 342, 1840: 191; Zinovjev 1955: 187; Zocchi 1959: 103; Zoufal 1920: 20. (tx) Aeloque 1896; Alkan 1946: 140; Altman 1844; Aslam 1961: 441, 442, 459, 472; Anllo 1919; Bach 1854, 1864; Bakke 1960: 310; Balachowsky 1944b, 1949a: 135; Barbey 1901: 10, 19, 49; Bechstein 1818: 75, 189; Bechstein et al. 1805: 881; Bedel 1888b: 392, 409; Belfa 1949, 1961; Behlen 1826; Bertolini 1872; Bevan 1987: 116; Blanchere & Robert 1889; Blandford 1894b, 1894d; Boas 1923: 324; Bramesik 1871; Bruck 1936a; Burton et al. 1968:

- 191; Cabral 1959; Calwer 1858; Carpentier & Delaby 1908; Castellan 1840; Ceballos 1945; Chamberlin 1939: 215–216; Chapuis 1869: 33, 1873: 241; Chapuis & Candèze 1853; Chapuis & Eichhoff 1875: 197; Chararas 1962c: 226; Charvat 1950; Chevrolat 1838; Choo 1983: 53; Chorbadzhiev 1924d; Csiiki 1907; Dammernan 1950b: 13; DeGeer 1775; Dejean 1821, 1825; Doelmer 1860, 1862a; Dombrowsky 1887; Duffy 1953: 11; Duftschmidt 1825; Eggers 1929c, 1929e: 43, 1929f: 103, 1933f: 56, 1943b: 50–51; Eichhoff 1864b: 25–26, 1878d: 400, 1881a: 37, 101, 1883a: 102, 124; Endrodi 1957b: 413; Erickson 1836: 48; Escalera 1919: 104; Escherich 1923b: 429, 479, 519; Escherich & Escherich 1897; Everts 1903: 746, 1922: 639; Fabricius 1775, 1787: 37, 1792: 367, 1801: 392; Fairmaire 1864: 149; Fankhauser 1912a; Fauvel 1889, 1906; Ferrant 1911; Fleischer 1905, 1927; Flohrer 1948; Formanek 1907: 20; Fransen 1948: 213–216; Fricken 1889: 276; Fuchs 1912a, 1913; Gabler 1949b, 1955; Gemminger & Harold 1872: 2671; Gillanders 1908; Girard 1873; Gmelin 1790: 1602; Goetze 1777: 130; Grune 1979: 54, 55; Gyllenhal 1813: 337, 1827: 618; Hagedorn 1910a: 56; Hansen, V. 1956, 1964: 459; Henry 1892: 15; Henschel 1876a: 92, 242, 1895a: 139; Herbst 1798: 106; Hopkins 1909a: 2, 3, 1914: 117, 125, 131, 1915c: 220–221; Houllbert 1922a: pl. 1, 1922b: 251; Iablokoff-Klunzorian 1961: 105; ICZN 1963: 276; Illiger 1907: 321; Jacobi 1906: 148; Jacquelin du Val & Fairmaire 1868: 109; Joly 1976, 1976b: 243; Judeich & Nitsche 1895: 447, 462; Karpinski & Strawinski 1948: 154; Knotek 1892a: 33; Koch 1913: 10, 95, 1928: 78, 1932: 110; Krausse 1920: 169; Kuhn 1913: 1051; Kurenzov 1941a: 120–121, 1948b: 105; Lacordaire 1866: 360; Latreille 1803: 204, 1804: 108; LeConte 1876: 386; Lekander 1959b: 33; Letzner 1891: 373; Lemis 1886: 179; Lieutier et al. 1984: 33; Lindemann 1879: 54; Linnaeus 1758: 355, 1767: 143; Louzil 1961: 105; Lovendal 1889b: 35, 1890c: 210, 1898: 70; Lucas 1920: 427; Lucht 1987: 276; Luigioni 1929: 993; Luardoni & Leonardi 1889: 423; Marsham 1802: 57; Meixner 1937: 12, 14; Munro 1916b: 114, 1917b: 142; Murayama 1903b: 8, 1934e: 298, 1936a: 125, 1939: 137, 139, 1940a: 232, 1950b: 1291, 1953a: 7, 1954b: 159, 1955: 98; Nakane et al. 1963: 382, pl. 191; Negru 1966b: 400; Niisima 1909: 130, 1910a: 6, 1913a: 2; Nobuchi 1966d: 15; Nordlinger 1848: 249, 1856: 35; Novak, V., Hrozinka, & Stary 1976: 57; Numberg 1928a: 140, 1929c: 117, 1954: 32; Nusslin 1911a: 155, 378, 1912c: 271; Olivier 1795b: 8; Panzer 1795a: 287; Paykull 1800: 152; Perris 1877a: 414; Pfeffer 1932b: 14, 1941b: 2, 1947e: 15, 1955a: 124, 1989a: 36, pls. 1–2, 1989a: 36; Portevin 1935: 318; Postner 1974: 399; Quaschik 1953: 35; Questionne 1979: 114; Ratzeburg 1837: 132, 171, 1839: 157, 209; Redtenbacher 1849: 364, 1849b: 27, 1858: 827, 1874: 365; Reitter 1894a: 53, 1913a: 45, 1916: 251; Rumbler 1922: 280, 1927: 291; Ritchie 1915: 352, 1917: 213; Rupertsberger 1879: 231, 1880: 226; Saalas 1913a: 66, 77, 1949: 341, 353; Sahlberg 1836: 136; Sandhall 1975: 85; Sawamoto 1940b: 141–144; Schedl 1928: 109–111, 1934f: 1635, 1946b: 51–52, 1952f: 87, 1959h: 99, 1950a: 9, 1981b: 53; Scherb 1971; Schimitschek 1937c: 47, 1955e: 77; Schlechtendal & Wimsche 1879: 124; Seidlitz 1872: 391, 1891a: 559, 1891b: 605; Sokanovskii 1929: 521–526, 1936: 73–74, 1954: 15, 1959b: 93, 94; Speight 1980: 158; Spessivtsev 1913a: 59–60, 1919: 250–251, 1921a: 315, 1922a: 465–490, 1922b: 75–80, 1923: 200–214, 1925a: 165, 1925b: 9, 1925d: 105, 1928: 221–256, 1931: 37–38, 1935: 159–162; Stark 1952: 190; Stephens 1829a: 147, 1829b: 12, 1830: 363, 1839: 209; Stierlin 1898: 432; Stresemann et al. 1989: 352; Taschenberg 1880: 204; Thomas, J. B. 1967; Thomson 1865: 354, 1868: 218; Verhoeff 1896: 111; Westwood 1840: 39; Wilson, G. F. & Becker 1960: 86; Wissman 1846: 24; Zetterstedt 1828: 342, 1840: 191; Zivojinovic 1963: 448. (ms) Andersson, S. O. 1975; Anonyms 1971p, 1972i, 1974i, 1974r, 1975j, 1978n; Bevan 1964b; Boocock 1959b; Borgreve 1881; Brandes 1901; Burton et al. 1965: 190; Chararas 1959d, 1971a: 853; Chararas & Berton 1961; Crooke 1954: D. 1879; Eckstein 1898c, 1898d; Eichhoff 1880b: 367; Elsner 1963; Escherich 1932b; Fuchs 1911b; Gotz 1877; Hartig 1834: 412, 413; Hedstrom 1976; Heinemann 1908a; Henschel 1880b; Kalandadze 1927; Kalandra 1971: 106; Kangas 1958c: 93; Kholodkovskii 1893: 309; Kozikowsky 1929: 253; Kraatz 1876c: 107; Laudin 1953: 24, 99; Lekander 1959a: 84, 1971a, 1975b; Lientier 1984a; Lovendal 1890a: 131; Lucas 1920: 427; Martinek 1974: 3; Maslov & Demakov 1982; Mastumura 1931; McFadden et al. 1982; Merino-Rodriguez 1966: 38; Michalski 1959a: 291; Mozolevskaya 1984; Olofsson 1975; Ratzeburg 1871b: 400; Ritter 1929: 553; Sandhall 1975; Schimitschek 1955b: 102; Schwappach 1924: 56; Schwerdtfeger 1946b: 62; Sedlaczek 1902a: 175, 1907: 82, 1936: 200; Sinreich 1962, 1969; Sunfor 1979; Vorontzov 1968; Wichmann 1961: 333; Yamane 1981: 470.
- testaceus* Fabricius 1787: 37 (*Bostrichus*). Synonyms: sex?; Europe; UZMC, Copenhagen. Synonymy: Ratzeburg 1837: 171, Hagedorn 1910d: 14.
- References: (cn) Hartig 1811: 320, 330, 1820: 320, 330, 1832: 280, 288. (cc) Hartig 1832: 280, 288. (hb) Hartig 1811: 320, 330, 1820: 320, 330, 1832: 280, 288; Jester 1817. (ds) Beck 1817; Dejean 1821, 1825; Hagedorn 1910d: 14; Herbst 1793: 110; Stephens 1829a: 147; Sturm 1826: 156. (tx) Balachowsky 1949a: 136; Bechstein et al. 1805: 105; Dejean 1821, 1825; Eggers 1929e: 43; Fabricius 1787: 37, 1792: 367, 1801: 394; Fransen 1948: 216;

Gmelin 1790: 1603; Hagedorn 1910d: 14; Panzer 1795a: 288; Ratzburg 1837: 171; Sahlberg 1836: 137; Schedl 1946b: 52; Stephens 1829a: 147; Villers 1879: 214.

abietinus Fabricius 1792: 367 (*Bostrichus*). Syn-types 2, sex?; Germania: UZMC, Copenhagen. Synonymy: Zimsen 1964: 189.

References: (tx) Eggers 1929c: 43; Fabricius 1791: 391, 1792: 367; Herbst 1793: 120; Jablonsky 1785: 120; Panzer 1795a: 286; Zimsen 1964: 189.

analogus LeConte 1868: 172 (*Hylurgus*). Holotype, sex?, New York [USA]; MCZ, Cambridge. Synonymy: LeConte 1876: 386.

References: (ds) Henshaw 1882: 269; Leng 1920: 339. (tx) Balachowsky 1949a: 136; Gemminger & Harold 1872: 2671; LeConte 1868: 172, 1876: 386; Schedl 1946b: 52.

major Eggers 1943b: 50 (*Blastophagus*). Syntypes 3, sex?, Kobe, Japan; 2 in MNB, Berlin, 1 in Hamburg Museum transferred to Eggers Collection, this syntype is now in NHMW, Wien. Synonymy: Schedl 1946b: 52.

References: (tx) Eggers 1943b: 50–51; Schedl 1946b: 52, 1955d: 273, 1979c: 145; Sokanovskii 1954: 290.

puellus (Reitter) 1894a: 53 (*Myclophilus*). Syn-types, sex?, Permskoe, Siberia, USSR; NHMB, Budapest.

Distribution: Asia (Sakhalin Island, Siberia, Ussuri in E USSR).

Hosts: *Picea jezoensis*, *P. ajanensis*, *Pinus koraiensis*.

References: (cn) Kurenzov 1935c: 187, 1950a: 13, 1956a: 90. (ec) Kurenzov 1934a: 54. (hb) Budkov 1897; Krivolutskaya 1956: 828; Kurenzov 1935a: 28, 1948b: 109, 1950d: 197; Stark 1952: 193. (ds) Budkov 1897; Hagedorn 1910d: 15; Heyden 1898: 77; Kleine 1912b: 169, 1914b: 249; Krausse 1920: 169, 175; Krivolutskaya 1956: 828, 1983; Kurenzov 1934a: 54, 1935a: 28, 1935c: 187, 1936a: 113, 1936b: 351, 1938a: 64, 1963b: 115, 1965, 1967; Nobuchi 1985c: 5–6; Reitter 1894a: 53; Stark 1952: 193. (tx) Eggers 1929f: 103, 1933f: 56; Hagedorn 1910a: 56; Krausse 1920: 169, 175; Krivolutskaya 1956: 828, 1958: 115, 147; Kurenzov 1941a: 119–121, 1948b: 109, 1950: 219; Reitter 1894a: 53, 1913a: 48; Schedl 1934f: 1635, 1946b: 52, 58; Spessivtsev 1919: 23; Stark 1952: 193.

starki Eggers 1929f: 104 (*Blastophagus*). Lectotype, sex?, Ussuri, USSR; USNM, Washington, designated by Anderson & Anderson 1971: 31. Synonymy: Eggers 1933f: 56.

References: (tx) Anderson, W. H. & Anderson 1971: 31; Eggers 1929f: 103–104, 1933f: 56; Schedl 1934f: 1635, 1946b: 52, 58, 1979c: 236.

puellus orientalis Krivolutskaya 1956: 828 (*Blastophagus*). Holotype, sex?, Kranogorak, near Krasnogorsk, Kotan River Valley, Sakhalin Island; not located.

References: (ds) Kurenzov 1967. (tx) Krivolutskaya 1956: 828, 1958: 115.

Genus *Dendroctonus* Erichson

DENDROCTONUS ERICHSON 1836: 52. Type-species: *Bostrichus micans* Kugelann, subsequent designation by International Commission on Zoological Nomenclature 1963b (China 1963a: 276–278).

Keys: Hopkins 1909a: 69, Wood 1963: 26, 1982b: 151; Yin, Huang, & Li 1984: 56 for China.

References: (av) Lanier 1968: 4167; Nobuchi 1969a: 50; Schofer & Lanier 1970; Schonherr 1970b. (bv) Anonymous 1972w; Bakke 1971b, 1973; Chapman, J. A. 1957: 3–4; Kangas 1981;

Kinser et al. 1969: 477–478; Pitman 1969: 905–906; Pitman et al. 1968: 168–169, 1969: 363–366; Schonherr 1970b; Schurig et al. 1983; Stark, R. W. 1965b. (cn) Annand 1947: 15; Bailey 1958: 2–3;

Barbey 1901: 55; Becker, G. 1951: 186–209, 1952: 170–177, 1953: 339–373; Bigger 1945: 32–36; Craighead 1925: 340–354, 1928: 886–887, 1941:

367–392; Craighead et al. 1931: 1001–1018; Felt 1906: 337; Garcia de Viedma 1963: 257–277; Gobeil 1939: 71–89; Hewitt 1914: 501–518; Iida

1930: 173–178; Johnson 1940: 773–776; Judeich & Nitsche 1895: 445–446; Kangas 1981; Kataev 1968a; Keen 1949: 427–432; Klotz 1958: 31, 50–

52; Krantz 1965: 145–153; Lunn 1925: 162; Maskew & Strong 1920: 721–735; Matson & Hain 1985; McGraw & Farrier 1969: 162; Nelson 1934:

327–353; Preston 1925: 49–61; Price 1955: 18; Rumbold 1931: 847–873; Schmitz & Taylor 1969:

8; Shull 1944: 5–6; Silver & Ross 1955: 118; Snyder 1927: 46; Swaine 1924: 1–26, 1925: 261–266; Torrent & Romanyk 1967: 84; Wickman

1965: 14; Yasinski & Pierce 1957: 1–18; Yates 1910: 517. (cc) Ashraf & Berryman 1969: 12–14; Chapman 1962b: 88; Chararas & Berton 1961:

235–243; Johnson, M. A. & Croteau 1987; Lindquist 1970a: 980; McCain, Koehler, & Tjosvold 1987; Rice 1968: 53–56; Richmond & McGuffin 1945: 43; Vite & Luhl 1975: 178. (hb)

Anderson, R. F. 1960: 214; Bright & Stark 1973: 28; Burgos & Saucedo 1983: 55; Hopkins 1909b:

1–169; Miller, J. M. & Keen 1960: 51; Schwerdtfeger 1955: 1; Wood, S. L. 1963, 1982b: 150, 1986a: 42. (ds) Allison 1978; Bright & Stark 1973:

28; Burgos & Saucedo 1983: 55; Chamberlin 1918: 1–40, 1939: 144–168, 1958: 64–79; Hagedorn 1910d: 19–23; Harrington 1884: 278; Her-

rick 1910; Hopping 1922: 128–134; McGugan et al. 1958: 32, 75, 1959: 1–114; Provancher 1877:

572; Scheerpeltz & Winkler 1930: 250; Swaine 1909: 95; Wood, S. L. 1963: 1–117, 1982b: 150, 1986a: 42. (tx) Anderson, R. F. 1960: 214; Arnett

1960: 1041; Balachowsky 1949a: 133; Beal & Massey 1945: 58; Blackman 1922b: 56–57; Blandford 1895b: 143–146; Bright 1976d: 53; Bright & Stark 1973: 28; Bruck 1936a: 41; Chamberlin

1939: 144–168, 1958: 64–79; Chapuis 1869: 34,

1873: 242; China 1963a: 276–278; Dietz 1890: 27; Dodge 1938: 26–27; Eichhoff 1864b: 26, 44, 46, 1881a: 125; Erichson 1836: 52; Hagedorn 1910a: 59–60; Hopkins 1902: 3, 1909a: 1–164, 1909b: 1–169; ICZN 1963b; Krivolitskaya 1958: 115; Kurenzov 1941: 116–117; Lacordaire 1866: 360; LeConte 1876: 384; LeConte & Horn 1883: 523; Lyon 1958: 82; Munro 1923: 192; Nunberg 1954: 30–31; Pfeffer 1955: 121–123, 1989a: 34; Reitter 1894: 53, 1913a: 47; Saalas 1914: 304–306; Schedl 1938: 40, 1940a: 339, 1955g: 4, 1951b: 53; Schimitschek 1937; Spessivtsev 1931: 86; Swaine 1914: 13–35, 1918a: Thatcher, T. O. 1957: 28; Thomas, J. B. 1965: 375–400; Wood, S. L. 1961: 43, 319–321, 1963: 1–117, 1982b: 150, 1986a: 42; Yin & Hnang 1981: 556; Yin, Huang, & Li 1984: 56; Zimmermann 1868: 148–149. (ms) Chararas 1971a: 853; Kongkathip, Kongkathip, & Sookkho 1987; Schurig et al. 1983.

adjunctus Blandford 1897a: 147. Lectotype ♂; Totonicepan, Guatemala; BMNH, London, designated by Wood 1982b: 167.

Figures: Schwerdtfeger 1959a: 44 (adult, galleries), Wood 1963: 7, 13.

Distribution: North America (Guatemala/ Chi-luahua, Mexico, Morelos, Puebla in Mexico/ Arizona, Colorado, New Mexico, Utah in USA).

Hosts: *Pinus ayacahuite*, *P. hartwegii*, *P. leiophylla*, *P. montezuma*, *P. ponderosa*, *P. pseudostrobus*, *P. rudis*, *P. tenuifolia*.

References: (ay) Barras & Perry 1971a; Farris 1969: 528; Francke-Grosmann 1966c; Hopkins 1909a: 157; Lanier, Hendrichs, & Flores 1988b; Lyon 1958: 582–584; Payne et al. 1973; Stock, M. W., Gregoire, & Furniss 1957; Thomas, J. B. 1967. (bv) Barr, B. A. 1969: 640; Du 1987; Hughes, Renwick, & Vite 1976; Johnson, N. E. & Pettinger 1961a: 6; Klassen, Ridgway, & Inscoc 1982; Livingston, W. H. et al. 1983; Lucht, Frye, & Schmid 1974; Payne & Wood 1981: 491; Schmid 1974; Schwerdtfeger 1960c. (cn) Alatorre Rosas 1978; Anonymous 1965p, 1969e, 1970h, 1970t, 1971v, 1972p, 1972t, 1974v, 1975e, 1976f, 1977g; Baker, B. H. 1969; Beatty 1980: 4; Becker, C. 1951: 9, 1952a; Buffam & Flake 1971; Cahill & Lister 1971; Celaya 1978; Chansler 1967; Chansler & Pierce 1966: 1357–1359; Cibrian & Campos 1950; Flake & Germain 1970: 24; Frye 1971b: 25; Fuller & Hostetler 1980; Gentry, C. R. et al. 1979: 808; Germain, Weiss, & Loomis 1973a, 1973b: 41; Hamel 1980: 782; Islas-Salas 1968, 1974; Johnson, D. W. & Creasap 1978a; Johnston 1939; Kinzer & Reeves 1985; Klein, W. H. 1968; Klein, W. H. & Parker 1970: 17; Klein, W. H. & Stipe 1971: 15; Klein, W. H. & Tegethoff 1970; Klein, W. H. et al. 1973: 25; Lessard 1978; Lessard & Walters 1978: 24; Lister & Cahill 1970: 22; Lowe & Moyer 1980; Lucht 1966: 29; Massey & Rodriguez 1967b; McGregor

1977b; Neal 1979: 808; Parker, D. L. 1971a, 1973b, 1974; Parker, D. L., Stipe, & Tegethoff 1972; Parker, D. L. et al. 1977: 35; Payne & Wood 1981: 491; Ragenovich 1979, 1980b: 20; Reeves, J. M. & Kinzer 1978; Rogers, T. J. 1981; Schwerdtfeger 1953a: 120, 1954: 280, 1955: 63, 1956b: 41, 1957b: 584–637, 1959a: 42, 54, 1960c; Smith, R. H., Trostle, & McCambridge 1977; Stevens, Brewer, & Leatherman 1980: 21, 1982: 22; Stevens & Flake 1974; Walters, J. W. & Lessard 1978: 11. (cc) Barras & Parry 1971a; Becker, C. 1952b, 1953, 1954, 1955; Berryman 1966b: 519; Carlson 1979: 1114; Chansler 1967; Cibrian & Campos 1980; Davidson 1978; Francke-Grosmann 1966c; Furniss, R. L. & Carolin 1977: 347; Kaarik 1973; Livingston, R. L. 1980; Livingston, R. L. & Berryman 1972: 1793; Livingston, R. L. et al. 1983; Mason, W. R. M. 1978; Massey 1966a, 1966c: 424–440; Massey, Lucht, & Schmid 1977; Perusquia 1982; Poinar 1975: 151; Schwerdtfeger 1960c: 1; Villa Castillo 1985. (hb) Atkinson et al. 1956: 15; Becker, C. 1951, 1952a, 1953, 1954, 1955; Chansler 1967: 760–767; Cibrian & Campos 1980; Cooper, M. E. & Stephen 1978: 574; Furniss, R. L. & Carolin 1977: 347; Hopkins 1909a: 157; Hughes, Renwick, & Vite 1976; Islas-Salas 1968: 21, 1974; Lucht, Frye, & Schmid 1974; Martinez, C. 1978; Massey 1966c; Massey, Lucht, & Schmid 1977; Massey & Rodriguez 1967b; Schmid 1974; Schwerdtfeger 1956b: 41, 1959a: 42, 54, 1960c; Stevens, Brewer, & Leatherman 1980: 21, 1982: 22; Wood, S. L. 1963: 51, 1982b: 167. (ds) Acciavatti & Walters 1977; Acciavatti & Weiss 1974; Anonymous 1968p, 1969e, 1970h, 1972t, 1975e, 1977g; Atkinson & Equihua 1955a: 73, 1955b: 229; Atkinson et al. 1956: 16; Baker, B. H. 1969; Bates 1832; Becker, C. 1951: 186–209, 1952a, 1953, 1954: 41–57; Blackwelder 1947; Chansler 1967; Choo, Woo, & Kim 1981: 202; DeLeon 1935; Dominguez & Carrillo 1976: 141; Furniss, R. L. & Carolin 1977: 347; Hagedorn 1910d: 19; Hopkins 1909a: 157; Hughes, Renwick, & Vite 1976; Kleine 1912b: 176, 1914b: 355; Lanier, Hendrichs, & Flores 1988b; Massey & Rodriguez 1967b; Perusquia 1978; Schedl 1963c: 156, 1977e: 42; Schwerdtfeger 1959: 43–44; Thomas, J. B. 1966; Wood, S. L. 1963: 51, 1982b: 167. (tx) Blandford 1895b: 147, 1897a: 147; Chamberlin 1939: 144; DeLeon 1938; Hagedorn 1910a: 60; Hopkins 1909a: 157; Lanier, Hendrichs, & Flores 1988a, 1988b; Perusquia 1978; Schedl 1955g: 8; Thomas, J. B. 1965c, 1967; Wood, S. L. 1963: 7, 13, 51, 1982b: 167. (ms) Anonymous 1972p; Thalenhorst 1962: 347.

convexifrons Hopkins 1909a: 87. Holotype ♀; Williams, Arizona [USA]; USNM, Washington. Synonymy: Wood 1963: 52.

References: (ay) Hopkins 1909a: 87–90; Lyon 1958: 583. (bv) Barr, B. A. 1969: 640; Bedard, W. D. Jr., Silverstein, & Wood 1970; Bedard,

- W. D. Jr. et al. 1969. (**cn**) Anonymous 1958a: 6, 1960i, 1960j; 18, 1961b, 1962b, 1964d; Beal 1939; Blackman 1931c: 29–30; Bongberg 1956a, 1962; Doane et al. 1936; Escherich 1912a, 1913; Essig 1926: 513, 1958: 513; Felt 1924: 252–259, 1926: 249, 252, 1930a: 249, 252; Hopkins 1908d: 549, 1909b: 53–56; Keen 1938: 102, 1952c: 135; Lucht & Moore 1963: 19; Pearson 1950: 154; Price 1958: 61–63; Swaine 1925: 261–266; Yasinski 1957: 1–3; Yasinski & Pierce 1957: 4. (**cc**) Anonymous 1964d, 1964w; Blackman 1931c; Davidson 1961: 354; Hopkins 1909b: 53–56; Keen 1938: 102; Massey 1961: 354; Swaine 1925c: 263; Thompson, W. R. 1965: 14; Thompson, W. R. & Simmonds 1964: 27. (**hb**) Anonymous 1963a; Beal 1939: 11–12; Blackman 1931c; Bongberg 1959a; Chamberlin 1939: 158–159; Doane et al. 1936; Essig 1926: 513, 1958: 513; Felt 1926: 249, 252, 1930a: 249, 252; Hopkins 1909a: 87–90, 1909b: 53–56; Keen 1938: 102, 1952c: 135. (**ds**) Anonymous 1958a: 6, 1960: 12; Blackwelder 1947; Bongberg 1956a; Bongberg & Bennett 1960: 1; Chamberlin 1925, 1939: 158–159; DeLeon 1938; Essig 1926: 513, 1958: 513; Felt 1926: 249, 252, 1930a: 249, 252; Ferrer 1942; Hagedorn 1910d: 20; Hopkins 1909a: 87–90, 1909b: 53–56; Keen 1929a: 17, 1938: 102, 1952c: 135; Kleine 1912b: 176, 1914b: 386, 1934a: 132; Leng 1920: 338. (**tx**) Chamberlin 1939: 158–159; DeLeon 1938; Hagedorn 1910a: 60; Hopkins 1909a: 87–90; Keen 1929a: 17; Muesebeck 1942: 95, 1950: 131; Schedl 1940a: 339; Wood, S. L. 1963: 51–52. (**ms**) Bongberg 1959a; Swaine 1925c: 263.
- approximatus** Dietz 1890: 28, 31. Lectotype ♀; Colorado [USA]; Philadelphia Academy of Science, designated by Hopkins 1909a: 102. Figures: Wood 1963: 7, 13 (as *parallelocollis*). Distribution: North America (Guatemala/ Honduras/ Chiapas, Chihuahua, Distrito Federal, Durango, Guerrero, Mexico, Michoacan, Morelos, Oaxaca, Puebla, Tlaxcala, Veracruz in Mexico/ Arizona, Colorado, New Mexico, Utah in USA). Hosts: *Pinus ayacahuite*, *P. chihuahuanana*, *P. engelmannii*, *P. hartwegii*, *P. leiophylla*, *P. montezumae*, *P. ponderosae*, *P. rudis*, *P. teocote*. Notes: (3) Wood 1982a: 164 (from 1909 to 1969 this species was erroneously cited by all authors as *D. parallelocollis*). References: (**ay**) Hopkins 1909a: 104; Lanier, Hendrichs, & Flores 1988a, 1988b; Lyon 1958: 583; Stock, M. W., Gregoire, & Furniss 1987. (**cn**) Anonymous 1958a: 6, 1975d; Beal 1939: 11–12; Blackman 1931c: 30; Bongberg 1956a; Burke 1908: 115; Craighead et al. 1931; Doane et al. 1936; Felt 1906: 249, 254, 1926: 248, 251–254; Felt & Rankin 1932: 405; Hopkins 1899c: 392, 1903a: 61, 1903e: 281; 1904a: 44, 1905b: 81, 1905c: 11, 1909b: 75–80; Keen 1938: 102, 1952c: 135; Schwarz 1902: 32; Schwerdtfeger 1957b: 585, 1959a: 43, 56; Stevens, Brewer, & Leatherman 1982: 23; Swaine 1925: 261–266; Yasinski 1956: 1–3; Yasinski & Pierce 1957: 4. (**cc**) Blackman 1931c; Furniss, R. L. & Carolin 1977: 348; Hopkins 1903: 281, 1909b: 75–80; Keen 1938: 102; Massey 1961: 358; Swaine 1925c: 263; Thompson, W. R. & Simmonds 1965: 27. (**hb**) Atkinson et al. 1986: 16; Blackman 1931: 30; Burke 1908; Chamberlin 1939: 159; Doane et al. 1936; Felt 1926: 248, 254, 1930a: 248, 254; Felt & Rankin 1932: 405; Furniss, R. L. & Carolin 1977: 348; Hopkins 1899c: 392, 1903: 281, 1904a: 44, 1909a: 104, 1909b: 77; Keen 1938: 102, 1952c: 135; Pierce 1907: 294; Schwerdtfeger 1959a: 43, 56; Stevens, Brewer, & Leatherman 1982: 23; Wood, S. L. 1982b: 164. (**ds**) Anonymous 1958a: 6, 1975d; Atkinson & Equihua 1985a: 73, 1985b: 229; Atkinson et al. 1986: 16; Bongberg 1956a; Chamberlin 1925, 1939: 159; Cockerell et al. 1907; Fall & Cockerell 1907: 218; Felt 1926: 248, 254, 1930a: 248, 254; Felt & Rankin 1932: 405; Ferrer 1942; Furniss, R. L. & Carolin 1979; Hagedorn 1910d: 19; Hendricks & Enkerlin 1979; Henshaw 1895: 44; Hopkins 1903a, 1909a: 104, 1909b: 75–80; Keen 1929a: 17, 1938: 102, 1952c: 135; Kleine 1912b: 175, 1914b: 386, 1934a: 132; Lanier, Hendrichs, & Flores 1988a, 1988b; Leng 1920: 338; Schedl 1955g: 11; Swaine 1909: 95; Wickham 1896a: 310; Wood, S. L. 1957c: 396, 1982b: 164. (**tx**) Chamberlin 1939: 159; Dietz 1890: 28, 31; Hagedorn 1910a: 60; Hopkins 1905b: 80, 1909a: 104; Keen 1929a: 17; Lanier, Hendrichs, & Flores 1988a, 1988b; Muesebeck 1942: 95, 1950: 130; Schedl 1940a: 339; Swaine 1909: 95; Wood, S. L. 1957c: 396, 1969c: 121, 1982b: 164.
- armandi** Tsai & Li 1959: 80. Holotype, sex?; North China; IZAS, Beijing. Figures: Tsai & Li 1959: 82, Li, Dang, & Shi 1977: 186; Li & Zhou 1980: 186. Distribution: Asia (Shanxi, Sichuan, Yunnan in China). Hosts: *Pinus armandii*, *P. tabulaeformis*. References: (**cn**) McFadden et al. 1982; Yang 1989c. (**cc**) Li & Zhou 1980: 67; Yang 1987, 1989c. (**hb**) Li & Zhou 1980: 67; Yang 1989c. (**tx**) Li, Dang, & Shi 1977: 67; Tsai & Li 1959: 80, 82. (**ms**) McFadden et al. 1982.
- prosorovi** Kurenzov & Kononov 1966: 29. Holotype, sex?; Yunnan Province, China; Institute of Soil Biology, Academy of Science, Far Eastern Branch, Novosibirsk USSR. Synonymy: Wood 1988a: 34. References: (**tx**) Kurenzov & Kononov 1966: 29; Tsai & Li 1959: 80; Wood, S. L. 1988a: 34.
- brevicomis** LeConte 1876: 386. Holotype ♀; middle California [USA]; MCZ, Cambridge.

Figures: Bright & Stark 1973: 149, Swaine 1914: 13 (adult), 1918a:pl. 12 (adult), Wood 1963: 5, 11, 13, 16.

Distribution: North America (British Columbia in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, W Texas, Utah, Washington in USA).

Hosts: *Pinus ponderosa*, *P. coulteri*, rarely other *Pinus* spp.

Notes: (1) It is obvious from LeConte's treatment of this species that the intended original spelling of the name was *brevicornis*; however, the misspelling is so widely established that a correction should not be attempted.

References: (ay) Borden 1969: 874; Cerezke 1964: 488; Francke-Grosmann 1966c; Godbee & Franklin 1978: 1087; Hopkins 1909a: 81–85; Hughes 1973c; Hughes & Renwick 1977a; Lanier, Hendrichs, & Flores 1988a, 1988b; Lyon 1958: 583; Miller, J. M. & Keen 1960; Paine & Birch 1983; Payne 1970, 1975; Payne et al. 1973; Renwick 1967; Renwick et al. 1976; Smith, R. H. 1965b, 1966e; Stock, M. W., Gregoire, & Furniss 1987; Sturgeon & Robertson 1985; Tate & Bedard 1967: 1618; Thomas, J. B. 1967. (bv) Amila 1971a: 14; Anonymous 1965a; Bakke 1973; Barlow 1966; Barr, B. A. 1969: 640; Bedard, W. D. Jr. 1980; Bedard, W. D. Jr. & Wood 1974b, 1981; Bedard, W. D. Jr. et al. 1969, 1980, 1985; Bellas, Brownlee, & Silverstein 1969; Borden 1967: 1182; Borden et al. 1980: 108; Browne, L. E. 1978; Browne, L. E. et al. 1979; Byers 1982, 1983a, 1983c, 1987, 1988a, 1988b, 1989; Byers & Wood 1980, 1981b; Byers et al. 1984; Callahan & Shifrine 1960: 146; Chararas 1979b; Chararas et al. 1982: 1095; Christiansen & Huse 1980: 473; Coke, Williams, & Natarajun 1977; Daterman 1979; DeMars & Roettgering 1982; DeMars et al. 1986; Du 1987; Dudley 1971; Eaton & Lejeune 1967; Ferrell 1971: 1722; Franklin 1968; Gara & Coster 1968: 77–86; Gara & Vite 1962; Gargiullo & Berisford 1981: 392; Coheen et al. 1985; Gore, Pearce, & Silverstein 1976; Gustafson 1972; Gustafson, Bedard, & Wood 1971; Hawksworth 1985; Hughes 1973c; Hughes & Pitman 1970: 329–336; Hughes & Renwick 1977a; Hughes, Renwick, & Vite 1976: 1167; Hymum & Berryman 1980: 185; Inscoc 1982; Inscoc & Beroza 1976: 169; Jacobson 1965, 1972; Johnson, Philip C. 1966a; Kinzer et al. 1969; Klassen, Ridgway, & Inscoc 1982; Knolle & Schafer 1975; Kocienski & Ostrow 1976; Kohnle & Vite 1984b; Kozlowski 1969: 121; Lanier et al. 1972: 1922; Libbey et al. 1974a; Lindgren et al. 1983: 307; Look 1976b; McGregor & Miller 1989; McMullen & Atkins 1962b: 1321; McNew 1970; Meyer 1977; Miller, J. M. & Keen 1960; Miller, M. C. et al. 1989; Moeck, Wood, & Lindah 1981; Moore 1972: 62; Mori 1974a, 1974b, 1976d; Mundy, Lipkowitz, & Dirks 1975;

Ohmart & Voight 1952: 340; Paine & Birch 1983; Payne 1970, 1974b, 1975; Payne & Wood 1981: 479; Pitman 1966b, 1969a, 1969d; Pitman & Vite 1969: 147, 1971; Raffla & Berryman 1982a: 97; Renwick, Pitman, & Vite 1976; Renwick & Vite 1968: 65–68, 1970; Rodin et al. 1971; Roelofs 1978; Roettgering 1973; Rudinsky 1973a: 511, 1973b: 581, 1979a: 408; Rudinsky & Michael 1973, 1974; Rudinsky et al. 1974: 90, 1976; Ryker 1988; Sen & Mori 1986; Shepherd 1965: 212; Silverstein 1969, 1970a, 1970b, 1971b, 1974, 1977; Silverstein & Young 1976: 2; Silverstein et al. 1968: 889–891; Smith, R. H. 1961b, 1966a: 1–12, 1967a: 1746–1747, 1969: 1–13, 1977; Stark, R. W. 1966; Stark, R. W. et al. 1968; Stephen & Dahlsten 1976a; Stewart, T. E. et al. 1977; Sturgeon 1980a; Tilden & Bedard 1985, 1988; Tilden et al. 1979, 1981, 1983, 1987; Trostle 1971; Vite 1962, 1969, 1970b: 249–350, 1975; Vite & Pitman 1967, 1968: 168–170, 1969a, 1970; Wasserman & Barber 1969; Weaver, N. 1975a; Whitesell & Buchanan 1986; Wood, D. L. 1962a: 473, 1967b, 1968, 1970a, 1970b, 1976b, 1978, 1979a, 1980b; Wood, D. L. & Bedard 1974a, 1974b, 1977; Wood, D. L. & Bushing 1963: 1077; Wood, D. L. & Silverstein 1970; Wood, D. L. & Stark 1964; Wood, D. L. & Vite 1961: 80; Wood, D. L. et al. 1976; Wright, R. H. 1974: 135; Yadav, Vidyasagar, & Reddy 1986. (cn) Amman & Rasmussen 1969: 63; Anderson, R. F. 1948: 596, 1960: 218; Andrews & Monts 1978: 2; Annand 1941, 1942, 1943, 1944: 7, 1945, 1948, 1949; Anonymous 1940i: 580, 1951i: 812, 1955g: 30, 1955h: 49, 1955j: 4, 8, 1958a: 3, 5, 1959j: 2, 1960i, 1960j: 1, 1960q, 1960r, 1961e, 1961h, 1961i, 1961s, 1962h, 1962i, 1962p, 1963j, 1963k, 1963y, 1964h, 1964i, 1964u, 1965b, 1965c, 1965r, 1966f, 1966u, 1967f, 1967h, 1967t, 1968g, 1968h, 1968p, 1969e, 1969f, 1969m, 1970h, 1970k, 1970t, 1971e, 1971i, 1971v, 1972h, 1973c, 1973n, 1974f, 1974v, 1975d, 1975e, 1975g, 1975t, 1976f, 1976g, 1976h, 1977g, 1977h, 1977i, 1977x, 1978a, 1978b: 34, 1978f, 1978g, 1978h: 4, 1978z, 1979a, 1979e: 4, 1979f, 1979g, 1980a, 1980m: 30, 1981g, 1981j, 1982c, 1983d, 1983f, 1984d, 1984f, 1985i, 1986b: 5, 1987e: 3, 1987f, 1987g, 1988b, 1988f; Bailey 1957: 29–31; Baker 1924: 599; Baker, B. H. 1969; Bakke 1973; Balch, Webb, & Fettes 1955b; Barlow 1966; Beal 1950, 1951: 59; Beal et al. 1955; Beatty 1950: 3, 1983; Becker, G. 1951; Bedard, W. D. Jr. & Wood 1974a, 1974b; Beeson 1918; Bega et al. 1966: 439–440; Benedict 1959: 245–249; Bennet 1983; Berryman 1967b; Berryman, DeMars, & Stark 1970; Bongberg 1947, 1956a, 1957, 1962; Boone 1925: 7, 58; Bousfield, Hagle, & Kohler 1985; Boyce 1923, 1928; Browne, F. C. 1968b: 223; Browne, L. E. 1978; Browne, L. E. et al. 1979; Buckhorn 1955: 1–3, 10, 1957; Buckhorn & Orr 1961: 17, 1962: 1415; Burke 1917: 88, 1926: 57; Bushing & Wood 1964: 510; Cahill & Lister 1971;

- Carter 1942: 46; Caverhill 1925: 16; Caylor & Thorley 1970; Ceballos & Cordoba 1945b; Chamberlin 1920b, 1920c, 1922: 69-71, 1924, 1927a, 1927b, 1927c, 1939: 153-154, 1958: 67-71; Chrystal 1949: 3-11; Ciesla, Dewey, & Tunnock 1971: 21; Cottrell 1967: 98; Coulson, R. N. & Witter 1954: 520; Cowlin 1955: 34; Coyle 1940: 90-91; Craighead 1925a, 1925c: 341-346, 1927: 6-7, 1930: 5, 1931, 1942a: 368-383, 1944, 1952; Craighead & Middleton 1930; Craighead et al. 1931; Currie 1905: 74; Curtis & Hadfield 1977a, 1977b; Curtis & Johnson 1975; Curtis & Tegethoff 1978; Dahlsten 1976a; Dahlsten & Rowney 1983; Daterman 1979; DeCryse 1938: 27, 1947: 3, 1949b; DeMars 1963: 1112-1116; DeMars & Roettgering 1982: 4; DeMars et al. 1980; DeNitto & Pierce 1983; DeNitto & Wenz 1983; Doane et al. 1936; Dolph 1971, 1977; Dolph & Pettinger 1968: 33, 1969: 7, 1971: 5; Downing 1954; Dudley 1971; Dyer 1952; Eaton 1956, 1959; Eaton & Lejeune 1967; Ebeling 1929: 652; Elliott 1924: 43; Ernst 1950; Essig 1926: 513, 1958: 514; Evenden 1924, 1926b, 1940: 949-955; Felt 1920: 249, 250, 1924: 250, 1930a: 249, 250; Forest, Lyon, & Wickman 1960; Friend 1943; Fuller & Hostetler 1980; Furniss, R. L. 1943: 33-34; Furniss, R. L. & Struble 1946: 20-21; Geiler 1975; Gentry, G. R. 1979: 810; Gibson 1923: 16, 1927: 444; Gordon 1938: 70-74; Graham, D. A. 1979; Graham, K. 1963; Graham, S. A. 1939b, 1952; Greene, L. 1983; Gregg, Filip, & Hadfield 1980: 38; Gregg, Goheen, & Bridgwater 1978: 43; Gregg & Hadfield 1978; Gustafson 1972; Gustafson, Bedard, & Wood 1971; Hagle et al. 1987: 36; Hall, R. C. 1946: 54, 62, 1958a: 341-347, 1958b, 1961; Hall, R. W., Shea, & Haverty 1982; Hamel 1980: 784; Hart, D. 1984; Hatch 1938: 193; Haverty, Shea, & Hall 1985; Hawley 1937: 91; Hawthorne 1962, 1963, 1964, 1965b; Hayes 1959: 1-54; Heisley 1933: 23; Helzner & Moyer 1979; Herrick 1935: 250; Hetrick 1949b; Hewitt 1915: 29, 1916: 851-876; Hodges et al. 1979: 892; Hofacker & Loomis 1982: 12, 1983: 14; Hofacker, Loomis, & Gilstrap 1988: 19; Hofacker, Loomis, & Tricker 1984: 23, 1987; Hofacker, Loomis, & Worrall 1989; Hoffman et al. 1988: 7; Holland & Tkacz 1984; Hopkins 1899b: 11, 20, 26, 1901a: 251, 1902d: 21, 1902e: 3, 1903: 281, 1904a: 18, 1906c: 632, 1907c: 515, 1908c: 162, 1909b: 42-49, 1909c: 59, 1910f: 2, 1910g: 59, 1912b: 3, 5, 1919: 504; Hopping 1915, 1921: 9, 1922: 129, 132, 1924a, 1925b, 1934; Hosmer 1930: 716-717, 739-740; Howard 1906: 15, 1916: 1-24, 1920: 1-36, 1922: 24, 1923: 30, 1924a: 410; Hoyt 1952: 40, 1953: 19, 22; Huffaker, Shoemaker, & Cutierrez 1978; Hynnum & Berryman 1981: 845; Ishikura 1966; Jaenicke 1920: 1, 1921a: 447-450, 1921b: 37; Jemison 1955: 30-31; Jemison et al. 1956: 50; Johnson, Philip C. 1940, 1949, 1951a: 32-37, 1954b: 1, 1967, 1968; Keen 1923: 689, 1926: 178, 1927a: 1-20, 1929: 31, 1931: 428, 1936: 919-927, 1938: 99, 1939: 5, 1943: 249-253, 1945: 4, 1946: 2-6, 1949a: 48, 1949b: 427, 1950: 186-187, 1952c: 129, 132, 1955c: 1-4, 1958b: 174, 1966; Keen & Furniss 1937: 482-504; Keen & Patterson 1927: 599; Keen & Salman 1942: 854; Klein, W. H. 1966: 17, 1967, 1968; Klein, W. H. & McGregor 1966; Klein, W. H. & Parker 1970: 17; Klein, W. H. & Stipe 1971: 16; Klein, W. H. & Tegethoff 1970; Kliejumas 1985; Kliejumas & Pierce 1986; Klotz 1958: 31; Knapp 1985; Knapp et al. 1989: 6; Knight 1976; Knopf, J. 1978, 1981; Knopf, J. et al. 1978: 30, 31; Kondo & Moody 1987: 112; Kowal 1961c; Krauch 1930: 1085-1097; Lang et al. 1978; Leach et al. 1937: 318; Lessard 1978; Lessard & Walters 1978: 24; Liebhold et al. 1986: 325; Lindgren 1980a: 61; Linnane 1984; Lister 1971a, 1971b, 1972a, 1972b, 1973a, 1973b, 1973c, 1973d, 1973e, 1973f, 1973g, 1973h, 1973i, 1981, 1982; Lister & Cahill 1970: 22; Lively 1954: 205-206; Livingston 1987b; Livingston et al. 1988: 4; Loomis, Hofacker, & Tucker 1985: 39, 1986; Lowe & Moyer 1980; Lyon 1959b: 323-327, 1960, 1965: 59, 1971; Lyon & Swain 1968: 4; Lyon & Wickman 1960; MacDaniels 1940: 506-508; Marlatt 1928: 1-34, 1929: 1-39, 1931: 45-47, 1933: 22-23, 1934: 28-29; Martin 1937: 122, 144; Martorell 1943: 132; Massey 1956a: 23; Mattson & Haack 1987; McCambridge 1978; McPherson, Wilson, & Stehr 1970b: 1018; Metcalf & Flint 1951: 797; Miller, J. M. 1921a: 40, 1921b: 37, 1926: 897, 1929: 994, 1939: 4, 1945: 14; Miller, J. M. & Keen 1960: 1; Miller, J. M. & Patterson 1927: 597; Molnar et al. 1969: 117; Mokrzecki 1926b: 3; Moody 1988: 86; Moore 1957: 548; Morris, E. V. & Monts 1976: 3; Mote 1945b: 98; Mothershead & Stacey 1965: 307-336; Moyer 1977; Munns et al. 1928: 334; Neal 1979: 810; Ogle 1920: 81; Ollieu & Mason 1967: 10, 1968: 13; Ollieu, Stipe, & Hoffman 1980: 26; Orr, P. W. 1942: 44, 1954: 2-3, 1963a, 1963b; Osborne 1962: 1; Otvos 1965: 1184-1199, 1970: 4650-4651; Overhulser 1986; Owen 1986: 4; Packard 1890: 722; Paine 1984a, 1984b; Patterson 1923: 38, 1927c: 3, 1929: 1-19; Payne & Wood 1981: 479; Peirson 1922: 629, 1946: 273; Perry 1951: 159; Pettinger 1979; Pettinger & Dolph 1967: 26, 1969, 1970: 10, 1971: 7; Pettinger & Johnson 1973a: 13, 1973b: 9, 1974; Pierce & Kliejumas 1981; Pierce, J. R. 1966: 13, 1971: 10; Pierce, J. R. & Srago 1973: 15; Pierce, J. R., Srago, & Fujii 1970: 14; Pierce, J. R., Wood, & Fujii 1977: 15; Pitman 1970; Prebble 1944: 34; Preston 1925: 51; Price 1957: 99; Pronin 1952: 186; Raffa & Berryman 1982b: 806; Ragenovich 1979, 1980b: 20; Richmond 1947: 112; Ringle 1940: 348-349; Robinson, L. A. & Dooling 1978: 11; Roelofs 1978; Roettgering 1973; Rogers, T. J. 1981; Rogers, T. J. & Hessburg 1985; Rogers, T. J. & Maffei 1987: 2.

- 1958: 2; Rosecrans 1947: 8; Ross 1954: 142; Rudinsky 1960a, 1979a: 408; Rudinsky & Terriere 1959: 465; Ruppel 1967: 32; Ryker & Rudinsky 1979: 209; Salman 1933, 1933a: 136, 1934: 1016–1017, 1937: 1, 1935a: 613, 1935b: 120; Salman & Bammlhofer 1931: 776; Salman & Bongberg 1942: 533; Sand & Bryan 1989: 28; Schatt 1959: 1–40; Scheller 1961; Schmid 1976b; Schniltz & Kliejmas 1984; Seal 1964; Shea, P. J., Haverty, & Hall 1984; Silver & Ross 1958: 75, 1959: 88, 1960: 98, 1961: 98, 1962b: 111, 1963a: 109, 1965a: 116; Smith, A. 1978, 1980, 1981; Smith, R. F. & Huffaker 1973: 36, 1974; Smith, R. H. 1961c, 1963b, 1967, 1970, 1979, 1981, 1982, 1986, 1989; Smith, R. H., Trosstle, & McCambridge 1977; Smith, R. H. et al. 1981; Smith, R. S. Jr. & Roettgering 1982; Smith, R. S. Jr. et al. 1984; Snyder 1925: 311; Sowder 1951: 1; Stark, R. W. 1966, 1968b: 689–697, 1973; Stark, R. W. & Cobb 1969; Stark, R. W. & Dalleske 1970; Stark, R. W. & Waters 1985; Stephen & Dahlsten 1976a; Stevens 1959a: 2, 1981; Stevens, Brewer, & Leatherman 1980: 21, 1982: 22; Stipe et al. 1987; Stipe, Valcarce, & Tegethoff 1977: 22; Stodieck 1937: 10; Strong 1935: 23, 1936: 27, 1940: 23; Struble 1937d: 9, 1948: 129, 1955: 1; Struble & Hall 1955: 3; Sugden & Ross 1960a; Swaine 1910d: 42, 1913: 41–43, 90, 1914: 13, 1915: 89, 1918a: 60, 62, 1920b: 642, 1928b: 501; Swezey & Dahlsten 1983; Swezey et al. 1982; Tanimoto 1978; Teillon et al. 1973; Telfer 1982; Thatcher, T. O. 1961; Thier & Hoffman 1983; Tilden et al. 1979, 1983; Tragardh & Butovitsch 1937: 294; Treece & Hamilton 1957: 15; Tripp, Ross, & Van Sickle 1978: 78; Tunnock & Dooling 1977: 28; Van Den Bosch 1968; Van Den Bosch & Telford 1964; Villarreal Martinez 1957: 11; Vite 1961, 1962, 1969, 1970b; Vite & Pitman 1970: 1132–1135; Vite & Rudinsky 1962; Vite & Wood 1961; Wallace 1941: 169; Wallace & Beard 1943: 291; Walters, J. 1958: 326; Walters, J. W. & Lessard 1978: 11; Waters 1985b; Waters, Stark, & Wood 1985; Wear 1979; Wear & Buckhorn 1955: 13; Weaver 1934: 101, 1943: 8; Webb 1905: 632, 1906: 515; Whiteside 1951: 1–11, 1957: 2–3, 17, 31–40; Whitnall 1944: 20; Wickman & Lyon 1962: 395; Wood, D. L. 1979a, 1979b, 1980a, 1980b; Wood, D. L. & Bedard 1974a; Wood, D. L. et al. 1985; Wood, R. O. & Doidge 1972: 10; Wright, K. H. 1965; Wygant 1959: 274; Yuill 1941: 702–709. (cc) Annala 1969: 182; Annala & Perttunen 1964: 42; Ashraf & Berryman 1969: 11, 1970: 201; Barras & Hodges 1969: 492; Beal 1931: 575, 1934: 1132–1139, 1953; Bedard, W. D., Jr. 1966a: 936, 1980b; Bedard, W. D. Jr. & Wood 1974a; Bega et al. 1956, 1966; Berryman 1964, 1965a, 1965b: 1225, 1966a, 1966b: 519, 1967a: 1009–1014, 1967b: 260–262, 1970a, 1974: 583; Berryman, Stark, & Dudley 1970; Berryman et al. 1970; Borden 1967: 1182; Bovey 1970; Browne, L. E. et al. 1979; Burks 1979: 799; Bushing 1965: 458, 1968b: 2886; Bushing & Bright 1965: 202; Byers, J. A. 1989a, 1989b; Byers, J. A. & Wood 1980; Byers, J. A. et al. 1977; Callahan 1953: 1–2; Callahan & Shifrine 1960: 146; Carter 1933; Chamberlin 1939: 153–154; Chararas 1958b; Cobb 1968; Cobb & Stark 1970; Cobb et al. 1968; Craighead et al. 1927; Dahlsten 1970; Dahlsten & Bushing 1970; Dahlsten & Herman 1965: 8–10; Dahlsten & Rowney 1980; Dale & DeNitto 1956; Davidson 1966; DeCryse 1947b; DeMars 1966a, 1966b: 3552; DeMars, Dahlsten, & Stark 1970; DeMars & Roettgering 1982; DeMars et al. 1970, 1986; Eaton 1959; Edmunds 1973: 776; Felix, Uhrenholdt, & Parmeter 1971: 1697; Francke-Grosman 1966c; Froggatt 1923; Fry 1989: 16; Furniss, M. M. & Hallin 1955; Furniss, R. L. & Carolin 1977: 348; Galoux 1947b; Gariginlo & Berisford 1981: 392; Geiler 1975; Goheen & Cobb 1975, 1980; Goheen et al. 1985; Graham 1939b, 1952; Green, L. 1983; Haget 1950; Haliburton 1943; Hanover 1975; Hawksworth 1985; Helms, Cobb, & Whitney 1971; Hetrick 1949b; Hirschmann & Wisniewski 1982; Hoffiard & Coster 1976: 130; Holst 1936: 513–518; Hopkins 1903: 281, 1909b: 42–49; Hopping 1915, 1928b; Howard 1927: 24; Hurlbutt 1967; Johnson, Philip C. 1966a, 1966b, 1967, 1968; Keen 1929b: 735, 1929d: 108, 1936: 919, 1938: 99, 1943: 249, 1946: 2, 1950: 186, 1953b: 720, 1958b: 174; Keen & Furniss 1937: 482; Keen & Patterson 1927: 599; Keen & Salmon 1942: 854; Kinn 1970a, 1971; Leach et al. 1937: 318; Livingston, R. L. & Berryman 1972: 1793; Lu et al. 1957: 336; Mason, W. R. M. 1978; Massey 1957: 32, 1966c: 424; Mathre 1964a, 1966; Mattson & Haack 1957; Metcalf & Flint 1951: 797; Miller, J. M. 1929: 994, 1930: 17, 1931: 303, 1933: 443; Miller, J. M. & Keen 1960: 1–391; Miller, J. M. & Patterson 1927: 597; Munns et al. 1928: 334; Nelson & Beal 1929: 1101; Nickle 1963: 386–389; Nickle & Welch 1984: 638; Nishiguchi 1970; Orr 1945: 739; Otvos 1965, 1970a, 1970c, 1977, 1979; Otvos & Stark 1985; Owen et al. 1987; Paine 1984a, 1984b; Paine & Birch 1983; Parmeter et al. 1989; Patterson 1927c: 3, 1929: 18; Person 1928: 565, 1931: 696, 1940: 390–396, 1950: 154; Pettey & Shaw 1986; Pitman 1969d, 1973; Pitman & Vite 1971; Poinar 1970, 1975: 153; Reid 1957d: 445, 1963a: 234; Reid & Gates 1970: 621; Renwick 1967: 355–360; Rice 1968, 1969: 386; Rudinsky 1962b, 1962c, 1973b: 551; Rumbold 1931c: 847, 851, 1936: 419; Salman 1934: 1016, 1935a: 613; Salman & Bongberg 1942: 533; Schmitt 1959: 35; Shifrine & Phaff 1956: 52; Smith, R. H. 1963b, 1966a, 1966b, 1966c: 63–65, 1977; Smith, R. H., Peloquin, & Passof 1969; Sowder 1942d: 841, 1951: 1; Stark, R. W. 1970; Stark, R. W. & Cobb 1969: 13–15; Stark, R. W. & Dahlsten 1970; Stark, R. W. et al. 1968; Stephen & Dahlsten 1976a, 1976b; Stevens 1981; Stevens & Hawksworth 1970; Struble 1930b: 106, 1942a:

- 98, 1942d: 8-1; Sturgeon 1979, 1980a; Sugden & Ross 1960a, 1960b; Swaine 1925c: 262; Swezey & Dahlsten 1983; Swezey et al. 1982; Thomas, G. M. & Poinar 1973: 275; Thompson, W. R. & Simmonds 1964: 29, 1965: 14; Thong & Webster 1972a, 1972b, 1983; Vite & Pitman 1969; Wallace & Beard 1943: 291; Waters 1985b; Weaver 1959: 15; Webb 1906b: 17, 1945: 70; Webber & Gibbs 1989; Westveld 1939: 472-473, 500; Wheeler 1940: 636; Whitney & Cobb 1972; Wickman 1977; Wood, D. L., Parmeter, & Dahlsten 1988; Wood, D. L. & Stark 1968: 148; Woodring & Moser 1970. **(hb)** Anderson, N. H. & Anderson 1968: 29; Anderson, R. F. 1948, 1960: 218; Annala 1969: 187; Ashraf & Berryman 1969: 6; Beatty 1983; Berryman 1967a, 1969a, 1970a, 1970c, 1974: 581; Berryman, DeMars, & Stark 1970; Berryman, Stark, & Dudley 1970; Bongberg 1959a; Bright & Stark 1973: 29; Browne, L. E. 1972; Callahan & Shifrine 1960: 146; Chamberlin 1939: 153-154, 1958: 67-71; Cooper & Stephen 1978: 574; Coulson, R. N. & Witter 1984: 522; Coulson, R. N. et al. 1976b: 357, 1978: 476, 1985; Craighead 1953; DeMars 1963, 1966a, 1966b, 1970; DeMars, Dahlsten, & Stark 1970; DeMars & Roettgering 1982; DeMars et al. 1970, 1980, 1986; Doane et al. 1936; Dudley 1971, 1981b; Eaton 1956, 1959; Eaton & Lejeune 1967; Eidmann 1962: 161; Essig 1926: 513, 1942: 605, 1958: 514; Evan 1952: 140; Felt 1926: 249-250, 1930a: 249-250; Foltz et al. 1976: 342; Froggatt 1923; Furniss, R. L. & Carolin 1977: 348; Gara & Vite 1962; Geiler 1975; Graham 1939b, 1952, 1963; Green, Beroza, & Hall 1960: 142; Hagle et al. 1987: 36; Herrick 1935: 250; Hopkins 1899b: 11, 20, 26, 1901e: 66, 1903: 281, 1904a: 18, 1909a: 81-85; Hughes & Pitman 1971; Johnson, N. E. 1960a: 8; Johnson, Philip C. 1967; Keen 1929: 31, 1933b: 297, 1938: 99, 1952c: 129, 132, 1955c: 1-4, 1966; Kozlowski 1969: 121; Lindgren 1980a: 61; McPherson, Wilson, & Stehr 1970b: 1018; Metcalf & Flint 1951: 797; Miller, J. M. 1933: 443; Miller, J. M. & Keen 1960: 1; Morstatt 1924: 54; Nishiguchi 1970; Person 1928: 565; Pierce 1907: 294; Reid 1957d: 445, 1963a: 229; Roettgering 1973; Ryker & Rudinsky 1979: 209, 210; Salman 1933a: 136; Stark, R. W. 1966, 1968a, 1970; Stark, R. W. & Dahlsten 1970; Stephen & Dahlsten 1966b, 1976a; Stevens, Brewer, & Leatherman 1980: 21, 1982: 22; Struble 1937d: 9, 1955: 1; Struble & Hall 1955: 3; Swaine 1918a: 60, 62; Thatcher, T. O. 1961; Vite 1962; Vite, Gara, & Scheller 1964: 461-470; Wagner et al. 1979: 1129; Waters 1985b; Webb 1906b: 17; White, R. E. 1983: 329; White-side 1951: 1; Wood, D. L. & Bedard 1974a, 1977; Wood, S. L. 1963: 29, 1982b: 154; Yuill 1941: 703. **(ds)** Acciavatti & Walters 1977; Acciavatti & Weiss 1974; Anderson, R. F. 1960: 218; Amund 1944: 7; Anonymous 1958a: 3, 5, 1962i, 1963j, 1963k, 1963y, 1964h, 1964i, 1965b, 1965r, 1966f, 1966u, 1967f, 1967t, 1968g, 1969e, 1969f, 1969m, 1970h, 1973c, 1973n, 1974f, 1975d, 1975e, 1975g, 1975t, 1976f, 1976g, 1976h, 1977g, 1977h, 1977i, 1977x, 1978a, 1978b: 34, 1978f, 1978g, 1978h: 4, 1978z, 1979a, 1979f, 1979g, 1980a, 1980m: 30, 1981g, 1981j, 1982c, 1983d, 1983f, 1984d, 1984f; Baker, B. H. 1969; Berryman 1967; Berryman & Stark 1962a; Bongberg 1956a, 1957; Bongberg & Bennett 1960: 1; Bright & Stark 1973: 29; Browne 1968b: 223; Bushing & Wood 1964: 511; Chamberlin 1917: 324, 1925, 1939: 153-154, 1958: 67-71; Choo, Woo, & Kim 1981: 202; Craighead 1953; Currie 1905; Curtis & Johnson 1975; DeLeon 1938; DeMars & Roettgering 1982; Downing 1963: 6; Dudley 1971; Dyer 1952; Eaton 1956; Eaton & Lejeune 1976; Essig 1926: 513, 1958: 514; Evans, D. 1983: 31; Evans, J. W. 1952: 140; Evenden 1924; Fall 1906: 203; Felt 1926: 249-250, 1930a: 249-250; Furniss, R. L. & Carolin 1977: 348; Gast et al. 1989: 385; Gredley et al. 1922; Hagedorn 1910d: 20; Hall & Eaton 1960: 8; Hendricks & Enkerlin 1979; Henshaw 1882: 269, 1885: 147; Hopkins 1909a: 81-85, 1909b: 42-49; Hopping 1922, 1924b: 125-128; Ishikura 1966; Keen 1929: 31, 1929a: 16, 1929d: 108, 1933: 297, 1938: 99, 1952c: 129, 132, 1955c: 1-4, 1966; Kleine 1912b: 176, 1914b: 390, 1934a: 132; Lanier, Hendricks, & Flores 1988; Lejeune, McMullen, & Atkins 1961; Leng 1920: 338; Lyon 1958: 582; Marchant & Borden 1976; McPherson, Wilson, & Stehr 1970: 1018; Mendel & Argaman 1986; Miller, J. M. & Keen 1960: 1; Patterson & Hatch 1945: 149; Perry 1951: 149, 159; Perusquia 1978; Powell, J. A. & Hogue 1979: 312; Powell, J. M. 1969: 2; Reid 1963a: 229; Rosecrans 1947: 8; Ruppel 1967: 32; Smith, C. S. 1930; Smith, R. H. 1961b; Stephen & Dahlsten 1976a; Struble 1955: 1; Sugden & Ross 1960a; Swaine 1909: 96, 1913: 90, 1914: 13; Swezey et al. 1982; Thatcher, T. O. 1961; Vite 1961; Wood, S. L. 1963: 29, 1972a: 404, 1982b: 154. **(tx)** Anderson, R. F. 1960: 218; Benoit 1985: 89; Berryman 1967: 260-262 (as *brevicornis*); Bright & Stark 1973: 149; Bruck 1936a; Chamberlin 1939: 153-154, 1958: 67-71; DeLeon 1938; Dietz 1890; Essig 1942: 605; Evans, D. 1983: 31; Hagedorn 1910a: 60; Hopkins 1902e, 1909a: 81-85, 1915c: 199; Hughes, Renwick, & Vite 1976: 1167; Keen 1929a: 16; Lanier, Hendricks, & Flores 1988a; LeConte 1876: 386; Miller, J. M. & Keen 1960; Muesebeck 1942: 95, 1950: 131; Perusquia 1978; Powell, J. A. & Hogue 1979: 312; Ryker & Rudinsky 1979: 209; Swaine 1909: 96, 1918a: 60, 62; Thomas, J. B. 1965c, 1967; Wood, S. L. 1963: 5, 11, 13, 16, 29-38, 1972a: 404, 1982b: 154-159. **(ms)** Amman & Rasmussen 1969; Anonymous 1959j: 2; Beal 1950, 1953; Beal et al. 1955; Bellas, Brownlee, & Silverstein 1969; Bernardi & Crasselli 1981; Berryman 1964, 1970c; Berryman & Stark 1962a; Bongberg 1956b, 1959a; Brand &

Scott 1955; Browne, L. E. 1972; Brownlee & Silverstein 1968; Burke 1930; Byers 1988a; Callahan 1953a; Carter 1933; Caylor & Thorley 1970; Chamberlin 1927a, 1927b, 1927c; Chiararas 1971a: 853; Coke, Williams, & Natarajan 1977; DeMars 1963, 1965; Ernst 1950; Essig 1931: 685; Graham, D. A. 1979; Hatch 1935: 193; Hughes & Pitman 1971; Keen 1923: 689, 1927a: 1-20, 1952b: 49; Klotz 1958: 31; Knolle & Schaffer 1975; Kocienski & Ostrow 1976; Lipkowitz & Mundy 1976; Lipkowitz, Mundy, & Geeseman 1973; Lipkowitz, Mundy, & Matsko 1976; Lively 1954: 205; Look 1976b; Masaki et al. 1982; Matteson, Sadhu, & Peterson 1986; McNew 1970; Meyer 1977; Mori 1974a, 1974b, 1976d; Mothershead & Stacey 1965; Mundy, Lipkowitz, & Dirks 1975; Person 1931: 696; Pettinger 1979; Prebble 1944: 34; Rodin et al. 1971; Rohwer 1950: 195; Schmitt 1959: 35; Seu & Mori 1986; Silverstein 1970b; Smith, R. F. & Huffaker 1973: 36; Smith R. H. 1961a, 1961b; Stark, R. W. 1966, 1968a; Stewart, T. E. et al. 1977; Swaine 1925c: 262; Trehan, Kad, & Gupta 1986; Wasserman & Barber 1969; Wear 1979; Whitesell & Buchanan 1986; Whitnall 1944: 20; Yadav, Vidyasagar, & Reddy 1986.

barberi Hopkins 1909a: 85. Holotype ♀; Williams, Arizona [USA]; USNM, Washington. Synonymy: Wood 1963: 31.

References: (ay) Hopkins 1906b: 147, 1909a: 85-87; Lyon 1958: 583. (bv) Miller & Keen 1960: 3. (cn) Anonymous 1955j: 9, 1956p: 110, 1958a: 6, 1960g, 1960j: 18; Bailey 1957: 37; Blackman 1931c: 32-33; Bongberg 1956a, 1957; Burke 1908; Craighead & Middleton 1930: 5; Craighead et al. 1931: 1008; Doane et al. 1936; Essig 1926: 512, 1958: 513; Felt 1924: 251-254, 1926: 249-251, 1930a: 249-250; Hopkins 1909b: 49-52; Keen 1938: 100, 1952c: 133; Massey 1956b: 110, 1957: 29-34, 1958: 90, 1960a: 1, 1960b, 1961: 1-9, 1961: 35-359; Miller, J. M. & Keen 1960: 3; Miller, J. M. & Wales 1929: 436; Orr 1954: 3; Pearson 1950: 154; Price 1956: 23, 27, 1957: 95-99, 1958: 61-62; Swaine 1919: 62; Yasinski 1956: 1-3; Yasinski & Pierce 1957: 4. (cc) Becker, C. 1952b; Blackman 1931c; Hopkins 1909b: 49-52; Keen 1935: 100; Massey 1957: 31, 1961, 1964: 37-40; Miller, J. M. & Keen 1960: 103. (hb) Beal 1939: 10-11; Blackman 1931c; Bongberg 1959a, 1960: 62; Burke 1908; Chamberlin 1939: 155-156; Doane et al. 1936; Essig 1926: 512, 1958: 513; Felt 1926: 249, 251, 1930a: 249-250; Hopkins 1909a: 85, 87; Keen 1938: 100, 1952c: 133; Massey 1961: 354; Miller, J. M. & Keen 1960: 3. (ds) Anonymous 1958a: 6, 1960: 12; Bongberg 1956a, 1957; Bongberg & Bennett 1960: 1; Chamberlin 1925, 1939: 155-156; Craighead & Middleton 1930; Essig 1926: 512, 1958: 513; Felt 1926: 249, 251, 1930a: 249-250; Hagedorn

1910d: 20; Hopkins 1909a: 85-87, 1909b: 49-52; Keen 1938: 100-102, 1952c: 133; Kleine 1912b: 176, 1914b: 385; Leng 1920: 338; Massey 1961f. (tx) Chamberlin 1939: 155-156; Hagedorn 1910a: 60; Hopkins 1909a: 85-87; Hughes, Renwick, & Vite 1976: 1167; Jacques 1951: 350; Muesebeck 1942: 95, 1950: 131; Wood, S. L. 1963: 29-31. (ms) Bongberg 1959a.

frontalis Zimmermann 1868: 149. Holotype ♂; Carolina [USA]; MCZ, Cambridge.

Figures: Kowal 1961b: 10, Smith 1962: 5, Wood 1963: 5, 11, 13.

Distribution: North America (Honduras/ Guatemala/ Chiapas, Gnerro, Nuevo Leon in Mexico/ Alabama, Arizona, Arkansas, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA).

Hosts: *Pinus echinata*, *P. engelmannii*, *P. glabra*, *P. oocarpa*, *P. palustris*, *P. ponderosa*, *P. rigida*, *P. strobus*, *P. taeda*, *P. virginiana*.

Notes: (3) Hopkins 1902e: 3 (*pinicida*, nomen nudum). Lanier, Hendrichs, & Flores 1988a gave the distribution in eastern Mexico as extending from Nuevo Leon to Guatemala, but cited only three localities two of which require confirmation. References: (ay) Anderson, W. W., Berisford, & Kimmich 1979; Anonymous 1962z, 1973r; Barras 1967: 485, 1975; Barras & Hodges 1974; Barras & Perry 1972; Barras & Taylor 1973; Bennett, W. H. 1966b; Bridges 1982, 1983; Brotschol et al. 1977; Dickens & Payne 1977, 1978a, 1978b; Farris 1969: 527; Florence & Kulhavy 1981; Florence, Johnson, & Coster 1982; Francke-Grosman 1965, 1966c; Hedden & Billings 1977; Hodges & Barras 1974; Hodges, Barras, & Mouldin 1968a: 1462-1472; Hopkins 1894g, 1909a: 90-95; Hughes 1973c; Kudon & Berisford 1981; Lanier, Hendrichs, & Flores 1988a, 1988b; Lyon 1958: 583; Miller, M. C. 1979a, 1979b, 1981; Miller, M. C. et al. 1978, 1979; Mizell & Nebeker 1979b; Namkoong 1979; Namkoong et al. 1979; Osgood & Clark 1963: 1106; Payne 1970, 1971, 1975, 1980a; Payne & Dickens 1976; Payne et al. 1973, 1982; Renwick 1967; Renwick & Hughes 1975; Renwick, Hughes, & Tanletin 1973; Renwick et al. 1976; Roberds, Hain, & Nunnally 1987; Stock, M. W., Gregoire, & Furniss 1987; Thomas, J. B. 1964; Tomescu & Clark 1976; Van Sambeck & Bridges 1980, 1981; Vite et al. 1974; White, R. E., Franklin, & Agosin 1979; Willis, N. P. & Hodgson 1970. (bv) Alexander, Skelly, & Webb 1981; Anderson, R. F. 1961; Andryszak et al. 1982; Anonymous 1968a, 1971ff, 1979a; Baker, W. L. 1972: 240; Bakke 1973; Barr, B. A. 1969: 640; Barras 1967; Belanger & Price 1979; Belanger 1979b; Belanger, Osgood, & Hatchell 1979; Belanger & Wiseman 1979; Bennett, W. H. 1968,

- 1971; Bennett, W. H. & Ceisla 1971; Bennett, W. H. & Ostmark 1972; Berisford & Payne 1988a, 1988b; Berryman 1988; Billings 1984b, 1988a, 1988b; Billings, Gara, & Hrutfiord 1976: 117; Birch 1978b; Birch & Svihra 1979b; Birch et al. 1980; Borden et al. 1981: 561; Brand et al. 1976, 1977; Bridges 1982; Bridges & Guinn 1980; Brown & Franklin 1977; Bunt, Coster, & Johnson 1980; Cameron, R. S. 1987; Chararas et al. 1982: 1095; Ciesla 1966; Clark & Osgood 1966; Cook & Hain 1985a; Copony & Morris 1972; Coster 1969: 1008–1011, 1970b, 1970c: 1186–1187, 1972; Coster & Gara 1968: 69–76; Coster & Johnson 1979a, 1979b; Coster & Payne 1974; Coster & Vite 1972; Coster et al. 1977a, 1978; Coulson, R. N. et al. 1972, 1973a, 1974, 1975, 1976a, 1976b, 1976c, 1977, 1978, 1986; Coyne & Critchfield 1974; Davis & Nagel 1956: 210–211; Deangelis, Nebeker, & Hodges 1986; DeMars & Hain 1980; Dickens 1977a, 1977b; Dickens & Payne 1977, 1978a; Dixon & Osgood 1961; Dixon & Payne 1979b, 1980; Drew 1977; D'Silva & Peck 1972; Du 1987; Dyer 1973, 1975: 979; Dyer & Safranyik 1977: 77; Fåres, Sharpe, & Magnuson 1980a, 1980b; Fargo, Wagner, & Coulson 1985; Fargo et al. 1978, 1979; Flamm, Conlson, & Payne 1988; Florence, Johnson, & Coster 1982; Foltz et al. 1976b; Franklin 1968, 1969b; Gammill, Fitzpatrick, & Neel 1978; Gara 1967b: 349; Gara & Coster 1968: 77–86; Gara, Vite, & Cramer 1965; Gargiullo & Berisford 1981; Goeden & Norris 1965b: 776; Gollod 1980; Gore, Pearce, & Silverstein 1976; Hain et al. 1978; Hedden & Billings 1979; Hedden & Reed 1980; Heikkinen 1977; Hetrick 1960; Hicks, R. R. 1980; Hicks, R. R., Coster, & Watterson 1979; Hicks, R. R. et al. 1980a; Hodges & Pickard 1971; Hodges et al. 1979; Hoffmann & Anderson 1945; Hughes 1973c, 1975, 1976; Hurst, G. D. & Matteson 1986; Hyche 1975; Hynum 1980; Inscoc & Beroza 1976: 169; Jacobson 1965, 1972; Johnson, Paul C. & Coster 1980; Johnson, Philip C. & Coster 1978, 1979; Kalkstein 1974c, 1976; Kinn 1986b; Kinzer et al. 1969; Klassen, Ridgway, & Inscoc 1982; Kohnle & Vite 1984b; Kowal 1960c; Ku, T., Sweeney, & Shelburne 1976, 1977; Kushmail & Cain 1981; Kushmail et al. 1979; Lashomb & Nebeker 1979; Lewis 1971b, 1973; Look 1976b; Lorio 1966b, 1976; Lorio & Yandle 1978; MacGowan 1980; Magnus & Roy 1978; Maki, Hazel, & Hall 1981; Mawby 1984; McCarty et al. 1980; McClelland, Hain, & Mawby 1979; McGregor & Miller 1989; Meister & Scharf 1983; Miller, M. C. et al. 1989; Moore, G. E., Taylor, & Smith 1979; Mori 1975b, 1976d; Moser, J. C. & Dell 1979; Moser, J. C. et al. 1987; Mundy et al. 1971; Nebeker et al. 1985; Nijolt 1973b: 589; O'Donnell, Payne, & Walsh 1986; Orr, W. W. & Rodriguez 1967; Payne 1970: 249–350, 1971, 1973, 1974a, 1974b, 1974c, 1975, 1980a, 1980b, 1981b, 1983, 1984a, 1984b, 1986; Payne & Billings 1985; Payne, Coster, & Johnson 1977, 1979; Payne & Coulson 1985; Payne, Coulson, & Thatcher 1974; Payne & Dixon 1976; Payne, Dixon, & Richerson 1984; Payne & Richerson 1979a, 1979b, 1985; Payne & Wood 1981: 479; Payne et al. 1976, 1978, 1982, 1985, 1988; Pitman 1969a; Pitman & Vite 1969: 147; Pitman et al. 1968: 168–169; Plummer et al. 1976; Pope, D. N. et al. 1980; Reeve, Coster, & Johnson 1980; Renwick 1968: 65–68, 1970b, 1972; Renwick, Hughes, & Talletin 1973; Renwick, Hughes, & Vite 1975; Renwick & Vite 1968, 1969: 1222–1223, 1970: 249–350; Richerson, B. A. 1978; Richerson, J. V., McCarty, & Payne 1980; Richerson, J. V. & Payne 1978, 1980; Roberts, E. A. et al. 1982; Roelofs 1978; Rose-Chaffin 1967b; Rudinsky 1973a, 1973b: 584, 1979a: 408; Rudinsky & Michael 1973, 1974; Rudinsky et al. 1974; Ryker 1988; Ryker, Libbey, & Rudinsky 1979: 793; Schmitt et al. 1988; Schnell 1976; Schowalter 1981; Schowalter, Coulson, & Crossley 1981; Silverstein 1970a, 1970b; Silverstein & Young 1976: 20; Stein & Coster 1977; Stephen & Kinn 1980; Stewart, T. E. et al. 1977; Svihra 1982; Svihra, Payne, & Birch 1980; Thatcher, R. C. & Connor 1985; Thatcher, R. C., Coster, & Payne 1978; Thomas, H. A. 1981; Tomescu et al. 1975; Trostle 1971; Tsao 1966: 11–16; Tsao & Yu 1967: 13–20; Turnbow & Franklin 1980; Vite 1968, 1969, 1970b: 249–350, 1974, 1975; Vite & Crozier 1968: 87–93; Vite, Gara, & von Scheller 1964: 461–470, 1985; Vite, Hughes, & Renwick 1976; Vite & Pitman 1967: 683–701, 1968, 1969: 117; Vite & Renwick 1968: 61–68, 1971a; Vite et al. 1974, 1985; Wagner, Flamm, & Conlson 1985; Wagner, T. L. et al. 1981, 1982; Watterson, Payne, & Richerson 1982; Weaver, N. 1978a; Weber & Schnrig 1984; White, J. D. 1981; White, J. D. & Richmond 1979; White, R. A. 1980b; Whitesell & Buchanan 1986; Wood, D. L. 1967b, 1967c, 1978, 1979a; Wood, D. L. & Silverstein 1970: 557–558; Wright, R. H. 1974: 135; Yu & Tsao 1967. (cn) Alatorre 1978; Alatorre Rosas 1978; Aldrich et al. 1958: 200–202; Alexander, Skelly, & Webb 1981; Alvarado 1939a; Amman & Rasmussen 1969: 631; Anderson & Bremer 1967: 71–73; Anderson, N. H. 1967a; Anderson, R. F. 1947: 2–6, 1948: 596, 1960: 216, 1966, 1971b, 1977: 17; Anderson, R. L. et al. 1982: 189; Anderson, W. C., Guildin, & Vasievich 1985, 1987; Anonymous 1919c: 43, 1924c: 10, 1924f: 40, 1933b: 21, 1939: 644, 1941i: 812, 1943a: 1, 1950f: 4, 1952h: 6, 1955j: 14, 1958a: 4, 7, 1960a, 1960c, 1960f, 1960j: 1, 1960m, 1960n, 1961f, 1961g, 1961h, 1961i, 1961q, 1961s, 1962f, 1962h, 1962v, 1962w, 1962x, 1962z, 1963c, 1963i, 1963j, 1963v, 1963w, 1963y, 1964g, 1964h, 1964s, 1964u, 1965b, 1965p, 1965r, 1966f, 1966h, 1966n, 1967b, 1967c, 1967f, 1967t, 1968c, 1968g, 1968p, 1969b, 1969e, 1969m, 1970a, 1970g, 1970h,

- 1970j; 2, 1970t, 1971e, 1971m; 2, 1971v, 1971aa, 1971ab, 1971ad, 1971af, 1971bb, 1971dd, 1971gg, 1972a, 1972f, 1972n, 1972t, 1973h, 1973j, 1973k, 1973n, 1974e, 1974t, 1974v, 1974w; 3, 1975b, 1975f, 1975r, 1975t, 1976e, 1976f, 1976k, 1977b, 1977d, 1977f, 1977g, 1977m, 1977u, 1977v, 1977w, 1977x, 1978a, 1978c, 1978e, 1978y, 1978z, 1979a, 1979d, 1979v, 1979w, 1979x, 1979y, 1979z, 1980h, 1980n, 1980p, 1980r, 1980s, 1980t, 1980n, 1980w, 1980y, 1980aa, 1981b, 1981c, 1981d, 1981k, 1981m, 1981n, 1981p, 1981q, 1981r, 1981t, 1981u, 1981v, 1982a, 1982m, 1982n, 1983, 1985: 47, 1987, 1988f; Appleby 1976: 48; Ascencio 1979; Atkinson & Wilkinson 1979; Bailey 1976; Baker, B. H. 1963; Baker, W. L. 1972: 240; Bakke 1973; Balch, Webb, & Fettes 1955: 453-465; Barber 1975; Barber & Bassett 1976; Barker 1954: 1-2; Barker & Nettles 1954: 1-2; Bamhill 1947: 221-222; Barras 1973; Barron 1970b; 2, 1971: 57-59; Barry 1972, 1975a, 1975b, 1976, 1977a, 1977b, 1980, 1981, 1985; Barry & Bassett 1969a, 1970a, 1970b, 1970c, 1970d, 1971a, 1971b, 1972, 1973, 1974a, 1974b, 1976; Barry, McDowell, & Bassett 1965, 1969; Barry, McDowell, & Gentry 1973; Barry & Ragenovich 1976; Barry & Remion 1970; Barry & Terry 1972; Barry, Ward, & McDowell 1972, 1973; Barry & Wilson 1969, 1971; Barry, Wilson, & McDowell 1969a, 1969b; Barry et al. 1968; Bassett 1974, 1980a, 1980b, 1980c; Bassett, McDowell, & Landgraf 1970; Beal 1933: 328-336, 1948, 1956, 1966; Beal et al. 1952, 1955, 1964: 31; Bean 1963: 26, 1966: 41; Becker 1951; Beeson 1918; Belanger 1979a, 1980a, 1980b, 1981c, 1989; Belanger, Hedden, & Tainter 1986; Belanger & Malac 1980; Belanger, Porterfield, & Rowell 1980; Belanger & Price 1979; Belanger et al. 1979, 1983; Bell & Bassett 1966a, 1966b, 1966c, 1966d, 1966e, 1966f, 1967, 1968, 1968a, 1968b, 1968c, 1968d, 1970; Bell, Bassett, & Ciesla 1965a, 1965b, 1965c, 1966, 1968; Bell, Bassett, & Franklin 1965; Bell, Bassett, & Wilson 1968a, 1968b, 1968c; Bell & Ciesla 1966; Bell, Ciesla, & Bassett 1967; Bell, Ciesla, & Franklin 1965; Bell & Clerke 1967; Bell, Clerke, & Wilson 1968a, 1968b; Bell, Drake, & Overgaard 1967; Bell, Flavell, & Ciesla 1966; Bell, Knighten, & Ciesla 1966a, 1966b; Bell, Lambert, & Ciesla 1965, 1966; Bell, Lambert, & Wilson 1968; Bell, McDowell, & Bassett 1970; Bell, McDowell, & Wilson 1969, 1970; Bell, Plaugher, & Ciesla 1966; Bell, Rauschenbarger, & Ciesla 1966; Bell, Wilson, & Lambert 1967; Bennett, W. H. 1954, 1955: 2-12, 1956a: 3-6, 1956b, 1966b, 1968, 1971, 1972; Bennett, W. H. & Ciesla 1971; Bennett, W. H. & Ostmark 1966, 1968, 1972; Bennett, W. H. et al. 1958: 1-35; Bentley 1931: 104-105; Berisford 1980; Berisford & Brady 1981, 1986; Berisford, Brady, & Ragenovich 1981; Berisford & Payne 1988a, 1988b; Berisford et al. 1980, 1981, 1986; Berryman 1988; Biesbrock, Woodard, & Downs 1976; Billings 1974b, 1977a, 1977b, 1979, 1980a, 1980b, 1982a, 1982b, 1984a, 1988a, 1988b; Billings & Bryant 1982, 1983, 1983a; Billings, Bryant, & Wilson 1985; Billings & Doggett 1980a, 1980b; Billings & Goyer 1987; Billings & Hynnum 1980; Billings & Pase 1979a, 1979b; Birch & Svihra 1979b; Blackman 1950; Blanche et al. 1955; Bongberg 1956a, 1957, 1962; Brady et al. 1980; Branham et al. 1985; Brender 1977; Bridges 1981; Brielegel 1955: 66, 1957: 68, 1958: 5-8; Brodie & Degroot 1976; Brown, M. W., Nebeker, & Honea 1987; Browne 1968b: 224; Bryant 1985; Buchanan 1964, 1965: 34; Buckhorn 1957; Bulhoff, Leuschner, & Arndt 1980; Bulhoff, Leuschner, & Wellman 1979a, 1979b; Bulhoff & Riesenman 1979; Bulhoff & Wellman 1980; Bulhoff, Wellman, & Daniel 1982; Bush, P. B. et al. 1987; Caird 1935: 709-733; Cameron, R. S. 1957; Cann 1952: 150-153; Carothers 1980b, 1980c; Carruth 1941: 6; Ceballos & Cordoba 1945a; Chaffin 1967; Chamberlin 1939: 165-167; Chellman & Wilkenson 1975, 1980; Chittenden 1897: 67-75, 1899: 55-61; Chrystal 1949b: 3-11; Ciesla 1966: 397, 1968, 1969, 1979; Ciesla, Bassett, & Franklin 1967; Ciesla, Bell, & Curlin 1967; Ciesla, Bell, & Franklin 1965c; Ciesla, Lambert, & Franklin 1965b; Clark 1974; Clark & Osgood 1964: 1-4; Cleland et al. 1982; Clerke 1969, 1973; Clerke, Barry, & Wilson 1973a, 1973b; Clerke & Bassett 1969a; Clerke, Bassett, & Applegate 1970; Clerke, Bassett, & Knighton 1968; Clerke, Bassett, & Lambert 1968; Clerke, Bassett, & Wilson 1969; Clerke, Bell, & Wilson 1968; Clerke & Gentry 1973; Clerke, Hanson, & Barry 1971; Clerke, Landgraf, & Bassett 1968a, 1968b, 1968c; Clerke, Landgraf, & McDowell 1969; Clerke & Marshall 1972; Clerke & McDowell 1969, 1972a, 1972b, 1972c, 1972d, 1973a, 1973b; Clerke, Price, & Wilson 1972; Clerke & Raffa 1974a, 1974b; Clerke & Ward 1972a, 1979; Clerke & Wilson 1970, 1973, 1974; Coleman 1974, 1976, 1982; Cook & Hain 1953b, 1956b, 1956c; Copony & Morris 1972; Coster 1977a, 1978, 1979, 1980; Coster & Hertel 1980; Coster & Johnson 1980; Coster & Ragenovich 1976; Coster & Searcy 1979; Coster et al. 1973; Coulson, J. R. 1981: 7; Coulson, R. N. 1973, 1975b, 1980a, 1984b; Coulson, R. N., Graham, & Lovelady 1985; Coulson, R. N., Pulley, & Edson 1979; Coulson, R. N. & Witter 1984: 520; Coulson, R. N. & Stark 1982; Coulson, R. N. et al. 1972, 1973a, 1973b, 1975a, 1976, 1979, 1980, 1980a, 1985, 1989; Coyne & Lott 1976; Coyne et al. 1954: 89-99; Craighead 1925a: 577-586, 1925b: 976-979, 1925c: 349-351, 1927: 9.

- 1935: 134, 1942b, 1951; Craighead & Middleton 1930; Craighead & St. George 1928: 2, 11, 1930: 433-435, 1935: 26-34, 1940; Craighead et al. 1930: 4; Crawford 1963, 1967; Crisp et al. 1981; Cruikshank 1944: 58-59; Crutchfield 1976a, 1976b; Currie 1905: 100; Daniels et al. 1979; Daniels, Leuschner, & Burkhart 1976; Davis & Nagel 1956: 210-211; Demmon 1955: 70-73, 1956: 71-74; de Steigner & Hedden 1988; de Steigner, Hedden, & Pye 1987; DeMars, Hain, & Slaughter 1979; DeMars et al. 1982; Dixon & Osgood 1961: 1-34; Doane et al. 1936; Doggett 1971; Downing, Ciesla, & Rauschenberger 1968; Downing, Ward, & Ciesla 1970: 25; Drake 1970, 1974; Drew 1978; Drooz 1955: 343; Dull 1980, 1982: 8; Dyer 1973; Dyer et al. 1953: 8, 19; Dziadzio 1978; Ebel, Merkel, & Kowal 1964, 1971, 1975, 1977, 1980; Ebel et al. 1959; Eikenbary, Arnold, & Pinkston 1974; Elliot & Mobley 1938: 332-335; Elmagraby et al. 1986; Erickson 1978; Escherich 1912a; Essig 1926: 513, 1958: 514; Fargo et al. 1978; Fatzinger & Dixon 1965: 451-455; Felt 1905: 6, 1924: 252, 1926: 252, 1930a: 241, 252, 1937b; Felt & Bromley 1943: 326-327; Felt & Rankin 1932: 405; Ferguson 1977; Fiske 1908: 24-26; Fitzpatrick & Lashomb 1979; Flamm, Coulson, & Payne 1988; Flavell 1969; Flavell & Bassett 1966, 1967, 1969a, 1969b, 1969c; Flavell & Bell 1966a, 1966b; Flavell, Bell, & Bassett 1968; Flavell, Bell, & Ciesla 1966a, 1966b; Flavell & Lambert 1971; Flavell & Wilson 1969; Flory, Nettles, & Barker 1955: 10-12; Flory et al. 1947: 26-27; Foltz 1979; Foltz, Pulley, & Pope 1980; Foltz et al. 1976, 1977; Folweiler 1951; Forbes 1930: 103; Ford 1951; Foster, D. 1982; Foster, J. H. 1912; Franklin 1967: 43-44, 1967: 355-360, 1969: 117-125, 1969: 119-120, 1970a: 53-57, 1970b, 1970c: 175-182; Franklin, Astin, & Lambert 1963; Franklin & Green 1965: 202-203; Friend 1942b: 144-145, 1943; Gambliel et al. 1985; Gara 1966a, 1966b, 1967b: 355-360; Gaumer & Gara 1967: 373-377; Geiler 1975; Gentry, C. R. et al. 1979: 802; Gerhart & Ahler 1949: 636-639; Ghent 1979a, 1979b; Ghent & Barry 1977; Ghent & Ragenovich 1976; Goehring 1980; Gold, Mawby, & Hain 1980a; Golden 1975; Goldhammer, Stephen, & Paine 1989; Goyer & Finger 1980; Graham 1939b, 1952; Gmitter 1957; Hagedorn 1910d: 20; Hain & Cook 1988a, 1988b; Hain & Matson 1984; Hain & McClelland 1980; Hain et al. 1978, 1979, 1983; Haines, Haines, & Liles 1976; Halperin 1976a; Ham & Hertel 1984; Hamel 1980: 776; Hammerle 1952; Hammond 1980; Hanson, J. B., Barry, & Baker 1971, 1973; Hanson, S. 1940; Harrison 1956; Hastings, A. R. & O'Brien 1973: 65; Hastings, F. L., Brady, & Jones 1959; Hastings, F. L. & Coster 1981; Hastings, F. L. & Jones 1976; Hastings, F. L., Jones, & Franklin 1981a, 1981b, 1981c; Hastings, F. L., Jones, & Kislow 1977; Hastings, F. L. et al. 1981; Hay, E. 1976; Hazel, Hall, & Maki 1977; Hedden 1978b, 1979, 1985; Hedden, Barras, & Coster 1981; Hedden & Lorio 1985; Heller et al. 1955: 483-487, 1959: 595-606, 695; Heller, R. C. 1968: 387-434; Hepting 1952; Hertel 1980, 1981; Hertel, Branham, & Swain 1985; Hertel & Mason 1984; Hertel & Wallace 1983; Hetrick 1940b: 554-555, 1941, 1943: 30, 1949b, 1960; Hicks, R. R., Coster, & Mason 1987; Hicks, R. R., Coster, & Watterston 1978, 1979; Hicks, R. R. & Mason 1982; Hicks, R. R. et al. 1980a, 1980b, 1981; Hinds 1912: 15; Hitchings & Levi 1981; Hodges 1966; Hodges & Lorio 1970: 1651-1671; Hodges & Pickard 1971; Hodges & Thatcher 1976; Hodges et al. 1979, 1985; Hofacker & Loomis 1982: 26, 1983: 28; Hofacker, Loomis, & Gilstrap 1988: 4; Hofacker, Loomis, & Tucker 1984: 44, 1987; Hofacker et al. 1989: 6; Hoffard 1980a, 1980b, 1980c, 1980d, 1981a, 1981b, 1985; Hoffard, Carothers, & Wilson 1980; Hoffard & Ghent 1979; Hoffard & Johnson 1980; Hoffard & Lambert 1980a, 1980b, 1980c; Hoffard, Lambert, & Barry 1981; Hoffard, St. Clair, & Ianniello 1980; Hoffard & Williams 1983; Hoffard et al. 1979; Hoffmann & Anderson 1945: 436-439; Honea, Nebeker, & Straka 1987; Hopkins 1892a: 353, 1892b: 64, 1892c, 1893a: 143, 1893c: 187, 1894b: 213, 1894c, 1894d: 126, 1894g: 280, 1896d: 246, 250, 1897a: 35, 1897b: 94, 147, 1897c: 41, 29, 1898a: 104, 1899a: 343, 1899b: 13-14, 27, 1899c: 245, 250, 394, 448, 1901a: 250, 1901b: 8, 1902e, 1903b: 59, 1903e: 270-275, 1904a: 41, 44, 46, 1904b: 270-275, 1905b: 80, 1906c: 632, 1907c: 515, 1908: 131, 1908c: 163, 1908d: 549, 1909b: 56-72, 1909c: 58, 1909d: 574, 1910a, 1910f: 1, 1910g: 58, 1911b: 5, 1911c: 66, 1919: 43, 1919: 503, 1921: 1-15; Hough 1882: 259; Howard 1906: 14, 1920: 1-36, 1923: 31, 1924a: 411; Hoyt 1951b: 17; Huber & Barry 1981; Huber, Hoffard, & Ghent 1983; Huber & Williams 1983; Huffaker 1964; Hyche 1965, 1975, 1976, 1977; Hyland 1971; Ifju, Ferguson, & Odervald 1977; Ifju et al. 1979; Islas-Salas 1968; Jackson et al. 1954: 25; Jones, A. S., Hastings, & Kislow 1980; Jones, G. D. & Ford 1953: 1-6; Jump & Tsao 1972, 1973; Kalkstein 1976; Kelley, W. 1986; Kellogg 1951: 796; Kelly, M. W. et al. 1982; Kerr 1957: 36, 38; Ketcham 1964a, 1964b; Kirby 1954: 5; Kline & Graham 1979; Knox & Schroeder 1963; Knull 1934b: 716-718; Koenigs & Beers 1980; Kowal 1953: 106, 1956a: 4, 1957b: 19, 1957d: 175, 1957e: 7, 1958a: 399, 1959a: 39, 1959b: 161, 1960c: 1-6, 1961b, 1961d, 1962, 1964; Kowal & Coyne 1952: 91; Kowal & Ebel 1971; Kroll & Reeves 1978; Ku, T., Shelburne, & Sweeney 1979; Ku, T., Sweeney, & Shelburne 1976, 1977, 1980, 1981a, 1981b; Kucera 1969; Kucera & Barry 1973; Kucera & Nachod 1972; Kucera & Pierce 1974; Kulhavy 1984, 1986; Kulhavy, Mitchell, & Conner 1988a, 1988b; Kushmaul & Cain 1981; Kushmaul et al. 1979; Landgraf 1966b; Landgraf, Barry, &

- McDowell 1969; Landgraf & Bassett 1968; Landgraf, Grady, & Rauschenberger 1969; Landgraf, Knighten, & McDowell 1969; Landgraf & McDowell 1969a, 1969b; Landgraf et al. 1969; Lara, R. R. 1966; Lassen 1975; Lathrop 1961; Leach et al. 1937: 318; Lee 1954a: 5, 1954b: 767; Lee & Coyne 1955: 4; Leng 1920: 338; Leuschner 1979a, 1980; Leuschner & Maine 1980; Leuschner & Newton 1974; Leuschner, Newton, & Neal 1974; Leuschner, Shore, & Smith 1979; Leuschner & Young 1978; Leuschner et al. 1978; Levi 1978, 1981, 1982; Levi & Dietrich 1976; Lewis, Payne, & Coulson 1973; Lih & Stephen 1983; Limit & Stephen 1978, 1982; Loomis, Hofacker, & Tucker 1985: 4, 1986; Lorio 1966b, 1968a: 565-566, 1978a, 1978b, 1980a, 1980b, 1984, 1986; Lorio & Bennet 1974; Lorio & Branham 1988; Lorio, Mason, & Antry 1982; Lorio & Sommers 1980, 1981, 1985, 1986; Lorio & Zarnoch 1984; Lugger 1899a: 315; Lutken 1930: 23; MacDonald et al. 1989; MacGowan 1980; Maine & Leuschner 1978; Maine, Leuschner, & Tipton 1980; Maki, Hazel, & Hall 1981; Marlatt 1933: 29, 47-48; Marshall & Barry 1973; Mask 1982; Mason, A. B. 1911: 30, 35; Mason, G. N. 1979, 1980a, 1980b; Mason, G. N. & Bryant 1984; Mason, G. N., Hertel, & Thatcher 1982, 1983; Mason, G. N. & Howard 1980; Mason, G. N. & Jones 1969: 2; Mason, G. N. et al. 1981, 1985; Mathews 1978; Mattoon 1915a: 35, 1915b: 25, 1926: 21, 1940: 42, 1954: 42; Mattson & Haack 1987; Mawby 1980a; Mawby & Gold 1984b; Mawby & Hain 1985a, 1985b; Mawby, Hain, & Doggett 1989; Mayyasi et al. 1975; McArdle 1956: 3, 12; McCambridge & Kowal 1957: 2-4; McCambridge & Rossell 1957: 12; McCambridge et al. 1958: 2-7; McClelland, Hain, & Mawby 1979; McDowell & Clerke 1973; McDowell & Ward 1971; McMin 1965; McNab 1983; Mead 1973c: 2, 3; Merkel 1956: 130, 1957: 119, 1979; Merkel & Kowal 1956: 2-5; Merkel & Kulman 1955: 2; Merkel et al. 1955: 60, 62; Metcalf & Flint 1951: 797; Middleton 1924: 148, 1928a: 375, 1928b: 423; Miller, M. C. 1979a, 1979b; Miller, M. C. et al. 1978, 1979; Millers 1971: 37; Mizell, Neel, & Lashomb 1981; Mokrzecki 1926b: 3; Moody, C. W. 1980; Moore 1932: 21; Moore, G. E. 1970a, 1973, 1978, 1980, 1981; Moore, G. E., Hertel, & Bhattacharyy 1980; Moore, G. E. & Layman 1978; Moore, G. E. & Taylor 1976; Moore, G. E., Taylor, & Smith 1979; Moore, G. E. & Thatcher 1973a, 1973b; Morris, C. L. 1975, 1976, 1979; Morris, C. L. & Copony 1974; Morris, C. L. & Wain 1978; Moser & Pickard 1964; Moser, J. C. & Browne 1978; Mumford 1966: 20; Munns et al. 1928: 336; Murphy 1917: 27; Nagel 1959: 1; Nagel & Davis 1956: 20-21; Nagel et al. 1956: 20, 1957: 894-898; Neal 1979: 802; Nebeker 1979, 1981; Nebeker, Hackney et al. 1978; Nebeker, Hocking et al. 1978; Nebeker & Hodges 1985; Nebeker et al. 1985; Nettleton, Conner, & Ryan 1985; Newton, C. M. & Lenschner 1973; Nieland 1943: 8-9; O'Byrne 1946b: 12, 1946c: 1-5; O'Donnell, Payne, & Walsh 1986; Ollien 1969; Ollien & Mason 1967: 5, 1968: 4; Ollien & Williamson 1965; Orr, L. W. & Kowal 1956: 654; Orr, W. W. & Rodriguez 1967; Osgood 1957: 1-19; Ostmark & Bennett 1969a, 1969b; Overgaard 1970: 1016-1017; Packard 1890: 722; Page & Ruffin 1940: 3-4; Paine 1983; Paine, Stephen, & Cates 1988, 1988b; Paine, Stephen, & Mason 1985; Paine, Stephen, & Taha 1984; Paine et al. 1985; Pase & Fagala 1980; Patterson, D. W. 1978; Payne 1980a, 1980b, 1988; Payne & Billings 1988, 1989; Payne, Coster, & Johnson 1979; Payne, Coulson, & Thatcher 1974; Payne & Richerson 1979a, 1979b; Payne & Wood 1979: 479; Payne et al. 1985; Paz 1975; Peclanec 1958: 43-47; Perry 1951: 159; Phelps 1977; Plumb 1958: 9; Pope, D. N. et al. 1980; Poterfield & Rowell 1981; Powell, J. M. 1969: 2; Price, T. S. 1950, 1987; Price, T. S. & Doggett 1978; Price, T. S. & Godbee 1974; Price, T. S. & Thomas 1979; Pulley, Coulson, & Foltz 1979; Pulley, Flamm, & Coulson 1988; Pulley et al. 1976, 1977; Raffa & Beryman 1983: 806; Ragenovich 1976a, 1976b, 1976c, 1976d, 1977b, 1977c, 1977d, 1978a, 1978b, 1978c; Ragenovich & Coster 1974; Rauschenberger 1968: 30-31; Rauschenberger & Barry 1971; Rauschenberger & Bell 1968; Rauschenberger, Marshall, & Wilson 1973; Rauschenberger & McDowell 1969b, 1969c, 1971; Rauschenberger & Wilson 1972; Reamer 1964; Reed, Burkhardt, & Leuschner 1979, 1980; Reed et al. 1980, 1981; Reed, Hedden, & Daniels 1982; Richerson, B. A. 1978; Remion 1980; Richerson, J. V., McCarty, & Payne 1980; Richerson, J. V. & Payne 1980; Richmond et al. 1978; Riesenman 1977; Riley 1893: 140; Robertson, F. D. 1987; Robertson, R. L. & Whitefield 1968a: 1-6; Robinson, J. V. 1981; Rodriguez 1966: 8-11, 1968: 73; Roelofs 1978; Rogers, T. J. 1977a, 1977b, 1978a, 1978b, 1978c: 23; Rose-Chaffin 1964a, 1964b, 1966a, 1966b, 1967b: 1481-1482, 1968: 53-63; Ross & Mattoon 1939: 45-48; Roton 1987; Rndinsky 1979a: 408; Rush & Knauer 1975; Rykiel et al. 1984; Sader & Miller 1976; Salazar 1982; Sanbeek 1982; Sand & Bryan 1947: 28; Sanders et al. 1985; Schanfuss 1892a: 316; Schnell 1976; Schoene 1924: 5-27, 1926: 4, 23; Schowalter, Coulson, & Crossley 1981; Schowalter et al. 1981, 1982; Schreuder et al. 1980; Schroeder 1965; Schuder 1969: 79; Schwarz 1896: 81; Shamoun 1978; Shamoun & Levi 1985; Sharpe & Hsin-i 1985; Sharpe et al. 1985; Shea 1985; Shore & Leuschner 1977, 1978; Sinclair, S. A. 1978a, 1979, 1980; Sinclair, S. A. & Ifju 1977, 1979; Sinclair, S. A., Ifju, & Heikkenen 1977a, 1977b; Sinclair, S. A., McLain, & Ifju 1979a, 1979b; Skelley et al. 1985; Smith, D. P. 1987; Smith, J. D. 1977a, 1977b, 1978a, 1978b; Smith, J. D. &

- Twardus 1979; Smith, J. L. & Mead 1981; Smith, R. F. 1961, 1962; Smith, R. F. & Huffaker 1973: 36, 1974; Smith, R. K. 1961, 1962b: 113–116, 1963; Snow et al. 1989; Snyder 1923: 134, 1936: 19; Snyder et al. 1923: 414; Speers 1956: 130; Speers et al. 1955: 100; St. George 1924: 37–38, 1925: 50–51, 1928: 15, 1929b: 1–8, 1930: 825–828, 1931: 16; St. George & Beal 1929: 17, 37; Stark, R. W. 1973; Steiguer & Hedden 1988; Stephen 1983; Stephen & Coulson 1980; Stephen & Kinn 1980; Stephen & Lih 1985; Stephen, Lih, & Wallis 1988, 1989; Stephen & Paine 1984, 1985b; Stephen, Paine, & Lih 1983; Stephen, Searcy, & Hertel 1980; Stephen & Taha 1976, 1979a, 1979b; Stephen et al. 1988, 1988a; Stephenson 1956: 220; Sterrett 1914: 10; Stevens 1981; Stevens, Brewer, & Leatherman 1982: 22; Stimac & Cambell 1980; Struble 1937d: 9; Stultz 1977; Swain, K. M. & Fox 1979; Swain, K. M. & Remion 1981; Swaine 1925: 261–266; Taha & Stephen 1981, 1984; Taha, Stephen, & Motamedi 1980; Taylor, J. F. & Moore 1978; Thatcher, R. C. 1957: 13, 1973, 1974, 1977, 1979a, 1979b, 1980a, 1980b, 1982, 1984; Thatcher, R. C. & Barry 1982; Thatcher, R. C., Coster, & Payne 1978; Thatcher, R. C., Mason, & Hartel 1985; Thatcher, R. C. & Pickard 1964, 1966: 556; Thatcher, R. C. et al. 1980, 1982; Thatcher, T. O. 1961; Thomas, G. M. & Poinar 1973: 275; Thomas, H. A. et al. 1975; Thompson, W. H. 1985; Thompson, J. H., Barry, & Gentry 1976; Thompson, J. H. & Bassett 1975, 1976a, 1976b; Thompson, J. H. & Bradburn 1976; Thompson, J. H. & McDowell 1976a, 1976b; Thompson, J. H., McDowell, & Brooks 1975, 1976; Toko & Landgraf 1979; Turnbow 1982; Turnbow, Franklin, & Nagel 1978; Turnbow et al. 1982, 1983; Twardus 1976, 1977a, 1977b, 1977c, 1978; Twardus & Hertel 1978b; Twardus, Hertel, & Ryan 1978; Uhler 1980; Underhill & Fronk 1947: 33; Upton 1945: 100–101; Valentine, H. T. 1981; Van den Bosch 1968; Van Sambeek 1982; Vasievich & Thompson 1985; Vite 1968, 1969, 1970b, 1972; Vite & Coster 1973; Wagner et al. 1979; Walker 1956: 1–8; Walker, L. C. 1968, 1980; Walters, E. 1981, 1982; Walters, E. & Weldon 1978, 1982a, 1982b; Walters, F. C. & Leuschner 1978, 1979; Walters, J. W. & Lessard 1978: 11; Ward et al. 1985; Ward, J. D. G. 1971a, 1971b, 1974, 1975a, 1975b, 1975c, 1975d; Ward, J. D. G. & Barry 1972a, 1972b, 1975; Ward, J. D. G. & Bassett 1970; Ward, J. D. G., Bassett, & Erickson 1973; Ward, J. D. G., Bassett, & Lambert 1975; Ward, J. D. G., Bassett, & McDowell 1970a, 1970b, 1974, 1975a, 1975b; Ward, J. D. G., Bassett, & Wilson 1970a, 1970b; Ward, J. D. G. & Clerke 1970, 1972a, 1972b; Ward, J. D. G. & Gentry 1974; Ward, J. D. G., Kucera, & Downing 1971: 27; Ward, J. D. G., Knauer, & Barry 1970; Ward, J. D. G. & Marshall 1973a, 1973b; Ward, J. D. G. & McDowell 1970, 1971, 1973a, 1973b, 1973c; Ward, J. D. G., McDowell, & Bassett 1970a, 1970b; Ward, J. D. G., McDowell, & Bradburn 1974; Ward, J. D. G., McDowell, & Wilson 1972, 1973; Ward, J. D. G. & Mistretta 1978: 49; Ward, J. D. G., Rush, & McDowell 1975; Ward, J. D. G. & Thompson 1975; Ward, J. D. G., Thompson, & Bassett 1975; Ward, J. D. G. & Wilson 1970a, 1970b, 1971, 1972, 1973a, 1973b, 1973c, 1973d; Ward, J. D. G., Wilson, & Barry 1973; Ward, J. D. G., Wilson, & Knighten 1972; Ward, J. D. G., Wilson, & McDowell 1972, 1973; Ward, J. D. G. et al. 1974; Waters, W. E. 1973, 1974, 1985b; Waters, W. E., Stark, & Wood 1985; Webb 1908: 117; Weitzman 1975; Westbrook, Hertel, & Searcy 1981; Williams, I. L. 1980; Williams, T. M. et al. 1989; Williamson, D. L. 1971a, 1971b, 1972; Williamson, D. L. & Vite 1971; Williston, Rogers, & Anderson 1980; Wilson, E. T., Clerke, & Ward 1974; Wilson, M. C., Schuder, & Provonsha 1982: 119; Wood, D. L. 1979a; Wood, D. L. et al. 1985; Wood, J. R. 1977, 1979; Woodard & Biesbrock 1976; Woodson 1985; Wootten 1963; Wygant 1959: 274; Wykoff et al. 1947: 34; Wyman 1932: 47; Yates 1977: 103; Young, R. L. & Leuschner 1977; Zarnoch, Lorio, & Sommers 1984; Zavitz 1905: 632, 1906a: 126, 1906b: 515, 1907: 549, 1908: 574. (cc) Alexander 1977; Alexander, Skelly, & Webb 1981; Alexander et al. 1980; Anderson, N. H. & Brewer 1976; Anderson, R. F. & Doggett 1980; Anderson, R. L., Hoffard, & Mistretta 1982; Anonymous 1924f: 40, 1963c, 1963v, 1964c, 1964q; Atkinson & Wilkensen 1979; Baker, W. L. 1972: 240; Barras 1969, 1970: 1187–1190, 1972, 1973, 1975; Barras & Hodges 1969: 489–493; Barras & Marler 1974; Barras & Perry 1972; Barras & Taylor 1973; Beal 1927c, 1933, 1934, 1953; Beal et al. 1952: 48–50; Belanger 1980a; Belanger & Hatchell 1981; Belanger, Hedden, & Lemartz 1988; Belanger, Hedden, & Tainter 1986; Belanger & Price 1979; Bennett & Ciesla 1971; Bennett & Pickard 1966: 404; Berisford 1974: 869, 1980; Berisford, Turnbow, & Brady 1982; Berryman 1966b: 519, 1974: 583, 1988; Biel et al. 1977; Billings 1985; Billings & Cameron 1984; Birch 1978b; Birch & Svihra 1979b; Blackwell et al. 1986; Blanche et al. 1983; Borden 1983; Borden et al. 1981: 561; Bramble & Holst 1935, 1940: 881–889; Brand & Barras 1977; Brand et al. 1977; Bridges 1978, 1979, 1983, 1985, 1987a, 1987b; Bridges, Marler, & McSparrin 1984; Bridges & Moser 1983, 1984, 1986; Bridges, Nettleton, & Conner 1985; Bridges & Perry 1985, 1987; Burks 1979: 774; Bushing 1965: 458; Caird 1935; Callahan 1955c; Callahan & Shifrine 1960: 146; Cameron & Bellings 1988; Camors & Payne 1972, 1973; Campbell & Smith 1978, 1980; Carruth 1941; Cary 1932; Chamberlin 1939: 165–167; Clark 1964, 1965a, 1973b, 1974; Clark & Osgood 1964c; Clark, Webb, & Franklin 1979; Clausen 1931, 1956: 67, 1978: 294; Clerke

- & Mahan 1978; Cook, S. P. & Hain 1955b, 1956a, 1957a, 1957b, 1985a, 1985c; Cook, S. P., Hain, & Nappen 1956; Coster, Geer, & Johnson 1981; Coster, Hicks, & Watterston 1978; Coster & Payne 1974; Coster & Ragenovich 1976; Coster & Searcy 1979, 1981; Coster et al. 1977a, 1977b, 1978; Coulson 1984a; Coulson, Hain, & Payne 1974; Coulson, Pulley, & Edson 1979; Coulson et al. 1974, 1975a, 1975b, 1976, 1980a, 1983, 1985; Coyne & Critchfield 1974; Craighead 1925a; Craighead & St. George 1940; Craighead et al. 1927; Crawford 1912; Cross & Moser 1971; Deangelis, Hodges, & Nebeker 1956; DeMars & Hain 1980; DeMars, Hain, & Slaughter 1979; Dix & Franklin 1974, 1977, 1978, 1981, 1983; Dixon & Osgood 1961: 1-34; Dixon & Payne 1979a, 1979b, 1980; Doggett 1971; Drew 1977; Dwinell 1988; Ebel, Merkel, & Kowal 1968; Egan 1978b; Fares, Goeshi, & Sharpe 1981; Fares, Sharpe, & Magnuson 1980a; Fares et al. 1980; Fargo, Wagner, & Coulson 1985; Fargo et al. 1978; Felix, Uhrenholdt, & Parmeter 1971: 1697; Finger 1978: 50; Fiske 1908; Flamm, Coulson, & Payne 1988; Flamm et al. 1986, 1987; Flavel et al. 1970; Floves & Enkerlin 1978; Foltz et al. 1976b; Ford 1951: 3-4; Francke-Grossmann 1965: 143, 1966c; Franklin 1969a, 1969b, 1970a, 1970b, 1970c; Franklin & Green 1965; Franklin, R. H. 1967: 43; Frazier et al. 1981; Fry 1989: 16; Furniss, R. L. & Carolin 1977: 351; Gagne et al. 1980, 1982; Galoux 1947d; Gambliel et al. 1985; Gara, Vite, & Cramer 1966: 55-66; Gargiullo & Berisford 1981; Ganner & Gara 1967; Geer, Coster, & Johnson 1981; Geiler 1975; Goldhammer 1988; Goldhammer, Stephen, & Paine 1989; Gosling, D. C. L. 1980; Goyer & Finger 1980; Goyer & Smith 1981; Goyer et al. 1980, 1985; Graham 1939b, 1952, 1967: 115; Green 1903a; Grissell 1979: 764; Grossmann 1931a; Hain & Ben Alya 1985; Hain et al. 1979, 1985; Haliburton 1943; Ham & Hertel 1984; Hammerle 1952: 8; Hanson, Baker, & Barry 1973; Hanson, Barry, & Baker 1971; Happ, Happ, & Barras 1975, 1976; Hare 1969; Harrar & Elis 1940; Harrar & Martland 1940a: 8, 1940b: 211; Hazel, Hall, & Maki 1977; Hedden 1978a; Hedden & Belanger 1985; Hedden & Billings 1979; Hedden & Reed 1980; Hemingway, McGraw, & Barras 1977; Hertert 1976; Hetrick 1941: 168, 1949a: 93-94, 1949b: 466-468, 1949c, 1960; Hicks, R. R. 1980; Hicks, R. R., Coster, & Watterston 1979; Hicks, R. R. et al. 1978, 1981; Hirschmann 1972a, 1972b, 1972e, 1972f; Hirschmann & Wisniewski 1982, 1983; Hodges 1966; Hodges, Elam, & Watson 1977; Hodges & Lorio 1969, 1973, 1975; Hodges & Pickard 1971; Hodges et al. 1985, 1989; Holst 1936: 513-518, 1937: 676; Hopkins 1892a, 1893f, 1894i, 1897a: 35, 1897c: 29, 41, 1901b: 8, 1903: 270-275, 1909b: 56-72; Howe et al. 1971; Hunter & Moser 1968: 119-124; Hunter, Rosario, & Moser 1989; Hurlbutt 1967; Hyche 1977; Hyland 1971; Jennings & Pase 1986; Johnson, Paul C. & Coster 1979, 1980; Joye & Perry 1976; Kalkstein 1974b, 1974c, 1976, 1981a, 1981b; Kaya 1984; King 1972; Kinn 1976, 1978, 1979, 1980, 1982, 1983a, 1983b, 1984b, 1984c, 1986: 114; Kinn & Stephen 1981; Kinn & Witosky 1977, 1978; Knell & Allen 1979; Kowal 1960c; Kroll, Conner, & Fleet 1980a, 1980b; Kroll & Fleet 1979; Kroll & Reeves 1978; Ku, T., Sweeney, & Shellburne 1976, 1980, 1981a; Kudon 1979b; Kudon & Berisford 1980, 1981a, 1985; Kullhavy, Mitchell, & Conner 1985a, 1985b; Kushmail & Cain 1981; Lanier et al. 1972: 1922; Leach et al. 1937: 318; Leuschner et al. 1976; Leuschner, Matney, & Burkhardt 1977; Lewis 1971b, 1973; Lindquist 1970a: 983, 1970b, 1971, 1975b: 427; Lindquist & Hunter 1965; Limit & Stephen 1983; Lorio 1968a, 1968b, 1973, 1985; Lorio & Bennett 1974; Lorio & Hodges 1965a, 1968b, 1974, 1977; Lorio, Howe, & Martin 1972; Lorio & Hughes 1971; Lorio & Sommers 1980; MacGuidwin & Smart 1979; MacGuidwin, Smart, & Allen 1980; MacGuidwin et al. 1980; Majewski, T. & Wisniewski 1978b; Maki, Hazel, & Hall 1981; Marler & Barras 1978b; Marsh 1979: 148; Martinat 1987; Mason, R. R. 1971; Mason, W. R. M. 1984; Massey 1956: 14-24, 1957: 31, 1958: 30, 1966a, 1966c: 424; Matthews 1970; Mattoon 1926: 21, 1954: 42; Mattson & Haack 1987; Mayyasi et al. 1976; McClelland & Hain 1979; McGregor & Miller 1989; Mead et al. 1979; Merkel 1956: 130; Metcalf & Flint 1951: 797; Michaels 1984; Michaels, Sappington, & Stenger 1985, 1986; Michaels, Stenger, & Sappington 1986; Miller, J. M. 1931: 303; Miller, J. M. & Keen 1960: 144; Miller, M. C. 1983; Miller, M. C. et al. 1978; Mizell, Frazier, & Nebeker 1984; Mizell & Nebeker 1978, 1981, 1984; Moore, G. E. 1970a, 1970b, 1971: 28-37, 1972a, 1972b, 1972c, 1973b, 1977b, 1981; Moore, G. E. & Layman 1978; Moore, G. E. & Thatcher 1973a; Moser & Thompson 1986; Moser, J. C. 1975, 1976a, 1976b, 1979, 1981; Moser, J. C. & Branham 1988; Moser, J. C. & Bridges 1983, 1986; Moser, J. C. & Cross 1975; Moser, J. C. & Dell 1980; Moser, J. C. & Roton 1971; Moser, J. C., Thatcher, & Pickard 1971; Moser, J. C. & Vercammen-Grandjean 1979; Moser, J. C., Wilkinson, & Clark 1974; Moser, J. C. et al. 1978; Mott & Thomas 1977; Muesebek 1938: 285; Munns et al. 1925: 336; Nebeker & Mizell 1980; Nebeker & Purser 1980; Nebeker et al. 1978, 1988; Nelson 1934: 327; Nelson & Beal 1929: 17, 37; Orr, W. W. & Rodriguez 1967; Otvos 1979; Overgaard 1968: 1197-1202, 1970; Pabst & Skorowski 1980; Paine, Birch, & Svihra 1981; Paine, Cates, & Stephen 1985; Paine & Stephen 1987b, 1987c, 1987d, 1988; Paine, Stephen, & Cates 1985, 1988a, 1988b; Palmer & Coster 1968; Payne 1980a, 1984a; Payne, Coulson, & Thatcher 1974; Payne, Dickens, & Richerson 1984; Payne

- & Richerson 1979a, 1979b, 1985; Payne & Stephen 1957a; Perusquia 1982; Pickard 1965; Poinar 1975: 154; Poinar & Deschamps 1981: 87; Porterfield & Rowell 1981; Powell, J. M. 1969: 2; Pulley, Flamm, & Coulson 1988; Ragenovich 1977a, 1980a; Reeve, Coster, & Johnson 1980; Reid 1957d: 445; Reid & Gates 1970: 621; Rhumbold 1931: 851-862, 1932: 17; Richerson, B. A. 1978; Richerson, J. V. & Borden 1972a; Richerson, J. V., McCarty, & Payne 1980; Richerson, J. V. & Payne 1979; Rippen 1982; Rodriguez 1968; Rodriguez, L. 1962; Rose-Chaffin 1967b; Rose-Chaffin, Genel, & Krogstad 1966; Roton 1978; Rumbold 1931c: 847, 1936: 419; Ryker, Libbey, & Rudinsky 1979: 793; Schmitt 1980; Schmitt & Goyer 1983a, 1983b; Schowalter, Coulson, & Crossley 1981; Schowalter et al. 1981; Sikowski, Pabst, & Tomson 1979; Singh 1977: 96; Skelly 1976; Skelly, Alexander, & Webb 1981; Slaby 1947: 379; Smiley & Moser 1970, 1974, 1975, 1976; Smith, M. T. & Goyer 1980, 1982; Smith, R. K. 1962, 1963; St. George 1928: 15; Stakman 1957: 245; Stark, R. W. 1975; Stein & Coster 1977; Stephen & Kinn 1980; Stephen, Lih, & Wallis 1989; Stephen & Paine 1985b; Stephen, Paine, & Lih 1985; Stephen & Taha 1976; Stephen et al. 1988; Stevens 1981; Stultz 1977; Swaine 1925c: 262; Taylor, J. F., Pederson, & Moore 1977; Tejada & Patton 1979; Thatcher, R. C. 1960: 1-25, 1973; Thatcher, R. C. & Pickard 1964: 840-842, 1966: 955-957, 1967; Thatcher, R. C. et al. 1980; Thompson, W. A. & Moser 1986; Triplehorn 1970; Turnbow 1980; Turnbow & Franklin 1979, 1982; Turnbow, Franklin, & Nagel 1978; Van Sambeek 1978; Verrall 1941: 552; Vite & Crozier 1968; Vite & Renwick 1968; Vite & Williamson 1970: 233-239; Wagner, Flamm, & Coulson 1985; Wagner, T. L. et al. 1981, 1982, 1984a, 1984b; Waters 1985b; Webb 1906b: 20, 1945: 70; Webb & Franklin 1978; Webber & Gibbs 1989; Welbourn 1983: 115; White, J. D. 1981; White, R. E. & Franklin 1976; Whitney 1971: 1502; Williamson, D. L. 1971a, 1971b; Williamson, D. L. & Vite 1971; Woodring 1966b: 86, 1966c: 115; Woodring & Moser 1970, 1975; Wright 1935: 536; Younan 1979. (**hb**) Alvarado 1939a; Anderson, R. F. 1948, 1960: 216, 1961; Andryszak et al. 1982; Anonymous 1971w, 1971y, 1971ac, 1971ee, 1975u, 1977e, 1977w, 1979a, 1981c, 1981t, 1985k: 47; Ascencio 1979; Baker, W. L. 1972: 240; Barras & Hodges 1969, 1974; Barras & Perry 1972; Beal, Bennett, & Ketcham 1964; Beal & Massy 1945, 1964; Beeson 1918: 114-124; Belanger 1981a; Belanger & Wiseman 1979; Bennett, W. H. 1955, 1956a, 1960b, 1966b; Bennett, W. H. & Ciesla 1971; Bennett, W. H. & Kite 1970; Bennett, W. H. & Ostmark 1972; Berryman 1969a, 1974: 583, 1988; Billings 1979; Billings & Kibbe 1978; Blackman 1922b: 57-59, 1950; Bongberg 1959a; Borden 1983; Bridges, Thoeny, & Tiarks 1988a, 1988b; Browne 1968: 224; Burkhardt & Daniels 1980; Chamberlin 1939: 165-167; Chittenden 1897b, 1899a; Ciesla 1966, 1969; Clark & Osgood 1964c, 1966: 305-310; Clarke, A. L., Webb, & Franklin 1979; Clausen 1978: 294; Coleman 1974, 1976; Cook & Hain 1985a, 1989; Cooper & Stephen 1978; Coster & Gara 1968; Coster, Geer, & Johnson 1981; Coster, Hicks, & Watterston 1978; Coster & Johnson 1979a, 1979b; Coster & Vite 1972; Coster et al. 1977b; Coulson 1974, 1977, 1979, 1980b, 1984b; Coulson & Witter 1984: 520; Coulson et al. 1975, 1976a, 1976b, 1976c, 1977, 1978, 1979, 1980a, 1985, 1989; DeMars & Hain 1980; Dillon & Dillon 1961: 808; Dixon & Osgood 1961; Dixon & Payne 1979a; Doane et al. 1936; Drooz 1985: 343; Eikenbary, Arnold, & Pinkston 1974; Elmagraby et al. 1986; Essig 1926: 513, 1958: 514; Fargo, Wagner, & Coulson 1985; Fargo et al. 1978, 1979, 1982; Fatzinger & Dixon 1965; Feldman, Curry, & Coulson 1980, 1981; Feldman et al. 1981; Felt 1926: 252, 1930a: 241, 252; Felt & Rankin 1932: 405; Flamm & Coulson 1988; Flamm, Coulson, & Payne 1988; Florence, Johnson, & Coster 1982; Foltz 1976; Foltz et al. 1976b; Frank 1974; Franklin 1970b; Franklin, R. H. 1967; Fronk 1947: 7; Furniss, R. L. & Carolin 1977: 351; Gagne et al. 1980, 1981, 1982; Gara 1967; Gara & Coster 1968; Geer, Coster, & Johnson 1981; Geiler 1975; Gold, Mawby, & Hain 1980b; Goldhammer 1988; Goldman & Franklin 1977; Gonzales 1988; Goyer & Finger 1980; Graham 1939b, 1952; Gunter 1957; Hain 1980; Hain et al. 1978; Ham & Hertel 1984; Happ, Happ, & Barras 1971; Hedden & Billings 1979; Hedden & Reed 1980; Hicks et al. 1980a; Hicks, R. R., Coster, & Watterston 1979; Hines, G. S. 1979b; Hines, G. S., Stephen, & Taha 1980; Hines, G. S., Taha, & Stephen 1980; Hodges & Thatcher 1976; Hoffmann & St. George 1949: 70; Hopkins 1894g, 1899a: 343, 1899c: 245, 290, 394, 448, 1901b: 8, 1903: 270-275, 1904a: 41, 44, 46, 1909a: 90-95; Hyland 1971; Hynum 1980; Johnson, P. C. & Coster 1980; Kalkstein 1976; Ketchum 1964b; Kinn 1981, 1986b; Kinn & Witsosky 1978; Kowal 1960c; Kowal & Ebel 1971; Kozikowsky 1913: 346, 347; Kroll & Reeves 1978; Lara, R. R. 1966; Lashomb & Nebeker 1979; Lewis 1973; Lorio & Hodges 1977; Lugger 1899a: 315; MacDonald et al. 1989; Marler & Barras 1978a; Mawby & Gold 1984a, 1984b; Mawby, Hain, & Doggett 1989; Mayyasi et al. 1976; McClelland & Hain 1979; Metcalf & Flint 1951: 797; Michaels 1984; Mizell & Nebeker 1978, 1979a, 1979b; Moore, G. E. 1978, 1980; Morris, C. L. & Swain 1978; Morstatt 1924: 40; Moser, J. C. 1976a, 1983; Moser, J. C. & Browne 1978; Moser, J. C. & Dell 1979; Mott, Thomas, & Namkoong 1977, 1978; Namkoong 1979; Nebeker 1985; Nebeker, Hackney, & Hocking 1981; Nebeker et al. 1978b; Orr, W. W. & Rodriguez 1967; Osgood & Clark 1963; Page, R. H. & Millsaps

- 1941; Paine, Cates, & Stephens 1988; Paine, Stephen, & Cates 1988a; Paine, Stephen, & Taha 1984; Palmer & Coster 1968; Payne 1980a; Paz 1975; Pickard 1965; Pierce 1907: 294; Plumb 1958: 9; Pope, D. N. et al. 1980; Price, T. S. & Godbee 1974; Pulley, Flamm, & Coulson 1985; Pulley et al. 1977; Reamer 1964; Reeve, Coster, & Johnson 1980; Reid 1957d: 445; Richerson, B. A. 1978; Richerson, J. V., McCarty, & Payne 1980; Richerson, J. V. & Payne 1979; Robertson, R. L. & Whitehead 1968a; Rodriguez, L. 1962; Rose-Chaffin 1967b; Rose-Chaffin, Genel, & Krogstad 1966; Ryan, G. W. et al. 1980; Sambeek & Bridges 1980, 1981; Sambeek & Kile 1981; Schowalter et al. 1981; Skelly et al. 1985; Smith, R. K. 1962: 1-168, 1962b; St. George 1929b: 1; Stein & Coster 1977; Stephen & Kinn 1980; Stephen, Lih, & Wallis 1989; Stephen & Taha 1976; Stephen et al. 1988a; Stevens, Brewer, & Leatherman 1982: 22; Strong 1938: 17; Struble 1937d: 9; Taha & Stephen 1981; Taha, Stephen, & Motamedi 1980; Thatcher, R. C. 1960, 1967: 599; Thatcher, R. C. & Barry 1982; Thatcher, R. C. & Conner 1985; Thatcher, R. C., Coster, & Payne 1978; Thatcher, R. C. & Pickard 1967; Thatcher, R. C. et al. 1980, 1982; Thatcher, T. O. 1961; Thompson & Moser 1986; Turnbow & Franklin 1982; Van Sambeek & Kile 1981; Vite, Huges, & Renwick 1976; Wagner, Flamm, & Coulson 1985; Wagner, T. L. et al. 1979, 1980, 1981, 1982, 1984a; Waters 1985b; Watterson, Payne, & Richerson 1982; Webb 1906b: 20; Webb & Franklin 1978; White, R. E. 1983: 329; Williams, I. L. 1980; Wood, S. L. 1963: 39, 1982b: 159; Yates, H. O. 1972b; Younan 1979; Yu & Tsao 1967: 95. (ds) Acciavatti & Walters 1977; Acciavatti & Weiss 1974; Anderson, R. F. 1960: 216; Anderson, R. L. & Barry 1980: 43; Anonymous 1958a: 4, 7, 1963j, 1963y, 1964e, 1964h, 1964u, 1965b, 1965r, 1966f, 1966h, 1966n, 1967f, 1967t, 1968g, 1968p, 1969e, 1969n, 1970h, 1972t, 1973b, 1973j, 1973p, 1973r, 1973y, 1974e, 1975d, 1975t, 1976e, 1977f, 1977g, 1977u: 39, 1977v: 41, 1977x, 1978e, 1978z, 1979a, 1979d; Barras 1973; Barras & Hodges 1969; Beal & Massey 1945; Bennett 1954; Bennett & Ciesla 1971; Berrymann 1988; Blackman 1922b: 57-59, 1950; Blatchley & Leng 1916: 653; Bongberg 1956a, 1957; Bongberg & Bennett 1960: 1; Browne 1968b: 224; Camors & Payne 1973; Chamberlin 1925, 1939: 165-167; Chittenden 1897b, 1899a, 1903; Choo, Woo, & Kim 1981: 202; Clark 1974; Cooper & Stephen 1975; Coster & Johnson 1979; Coster & Ragenovich 1976; Coster et al. 1977; Coulson, R. N. et al. 1974, 1976, 1976a, 1977, 1978, 1979b; Craighead & Middleton 1930; Currie 1905; Dixon & Osgood 1961; Drooz 1985: 343; Essig 1926: 513, 1958: 514; Fargo et al. 1978, 1979; Felt 1926: 252, 1930a: 241, 252; Felt & Rankin 1932: 405; Ferrer 1942; Flamm, Coulson, & Payne 1988; Foltz et al. 1976b; Furniss, R. L. & Carolin 1977: 351; Gagne et al. 1980, 1981; Goyer & Finger 1978; Grodley et al. 1922; Halperin 1976a; Hendricks & Enkerlin 1979; Henshaw 1855: 147; Hodges & Pickard 1971; Hodges et al. 1979; Hoffmann & St. George 1949: 70; Hopkins 1893a: 143-144, 148, 1903a, 1909a: 90-95, 1909b: 56-72; Hymmn 1980; Kalksten 1976; Karpinski 1932b: 55, 1933: 52-56; Keen 1949b: 427; Kellogg 1951: 796; King 1972; Kirk 1969, 1970; Kleine 1912b: 176, 1914b: 383, 1934a: 132; Knoll 1934: 716-718; Kowal 1960c; Kudon & Berisford 1981; Lanier, Hendricks, & Flores 1985a, 1985b; Lashomb & Nebeker 1979; Linit & Stephen 1983; Marchant & Borden 1976; Mayyasi et al. 1976; McClelland, Hain, & Mawby 1979; Mendel 1986b; Merkel 1957: 119; Merkel & Kowal 1956: 2; Mizell & Nebeker 1978; Moore 1972; Mumford 1966: 20; Nagel 1959: 1; Nebeker, Hackney, & Hocking 1981; Nebeker et al. 1978b; Orr, W. W. & Rodriguez 1967; Perry 1951: 159; Perusquia 1978; Pulley et al. 1977; Reeve, Coster, & Johnson 1980; Richerson & Payne 1979; Roton 1978; Rudinsky 1973a; Rudinsky et al. 1974: 91; Sambeek & Bridges 1980, 1981; Schedl 1940a: 339, 1977: 42, 1978e: 37; Schuder 1969: 79; Smith, R. K. 1962; Stein & Coster 1977; Stephen & Taha 1976; Swaine 1909: 96-97; Thatcher, T. O. 1961; Thomas, J. B. 1966; Turnbow & Franklin 1980; Upton 1945: 100; Wagner et al. 1979, 1982; Webb & Franklin 1978; Wilkenson 1975; Wood, S. L. 1963: 39, 1982b: 159. (tx) Anderson, R. F. 1960: 216; Beal & Massey 1945: 82-85; Benoit 1955: 89; Blackman 1922b: 57-59; Blatchley & Leng 1916: 653; Chamberlin 1939: 165-167; Dietz 1890; Dillon & Dillon 1961: 808; Dixon & Osgood 1961; Eikenbary, Arnold, & Pinkston 1974; Gemminger & Harold 1872: 2671; Hagedorn 1910a: 60; Hopkins 1902e, 1903b: 80, 1909a: 90-95, 1915c: 203-204; Jacques 1951: 350; Kowal 1961b: 10; Lanier, Hendricks, & Flores 1985a, 1985b; LeConte 1868: 173, 1876: 384, 386; Muesebeck 1942: 95, 1950: 131; Perusquia 1978; Smith, R. K. 1962: 5; Swaine 1909: 86; Thomas, J. B. 1965c, 1967; Vite, Coster, & Cameron 1978; Wood, S. L. 1963: 5, 11, 13, 39, 1982b: 159; Yates, H. O. 1972b; Zimmermann 1868: 149. (ms) Allen, D. C., Cleland, & Kocaoglu 1982; Amman & Rasmussen 1969; Anderson, N. H. & Bremer 1967; Anderson, R. F. 1966; Anderson, R. F. et al. 1980; Anonymous 1968c, 1971w, 1973k, 1975n, 1975u, 1977m, 1978ae, 1980r, 1980z, 1981d, 1981s, 1985k: 47, 1987, 1985f, 1985k; Barras 1972; Beal 1927a, 1948, 1953, 1956, 1961: 81; Beal et al. 1955; Belanger et al. 1979; Billings 1984a; Billings & Hynnum 1980; Billings, Roberts, & Payne 1981; Bongberg 1956b, 1959a; Branham et al. 1985; Bridges 1979; Bridges & Guinn 1980; Bridges, Thoeny, & Tiarks 1985a, 1985b; Buhyoff & Leuschner 1978; Buhyoff, Leuschner, & Arndt 1980; Buhyoff & Riesenman 1979; Chamberlin

- 1931; Chararas 1971a: 853; Ciesla, Bell, & Curlin 1967; Clark, E. W. 1964, 1965a, 1965b; Clark, E. W. & Osgood 1964a, 1964c, 1966; Cleland et al. 1982; Clerke & Mahan 1978; Coulson 1984b; Coulson et al. 1972, 1975a, 1975b; Coyne 1954b; Coyne et al. 1954; Craighead 1942b; Craighead & St. George 1930; D'Silva & Peck 1972; Daniels et al. 1979; Eckstein 1900c; Fatzinger & Dixon 1965; Feldman, Curry, & Coulson 1980; Feldman et al. 1985; Ferguson 1977; Folweiler 1951; Ford 1951; Franklin, R. H. 1967; Gammill, Fitzpatrick, & Neel 1978; Gara 1966a, 1966b, 1967a; Gold, Mawby, & Hain 1980a, 1980b; Coyer et al. 1980; Green et al. 1980; Hain 1980; Hedden & Reed 1980; Heller 1955; Heller et al. 1959: 595; Hertel 1980; Hines, G. S. 1979b; Hines, G. S., Stephen, & Taha 1980; Hines, G. S., Tara, & Stephen 1980; Hitchings & Levi 1981; Holst 1937; Hopkins 1910a; Hurst, G. D. & Matteson 1986; Hyche 1976; Hymun 1980; Johnson, Philip C. 1977; Johnson, Philip C. & Coster 1978; Kerr 1957: 36-38; Ketcham & Shea 1977, 1982; Kinn 1981; Kirby 1954: 5; Knox & Schroeder 1963; Kowal 1957b: 19; Kroll & Reeves 1978; Kucera 1969; Kucera & Nachod 1972; Kullhavy & Johnson 1983; Lassen 1975; Lee 1954a: 5, 1954b: 767; Lee & Coyne 1955: 4; Leuschner et al. 1977; Levi 1981, 1982; Levi & Dietrich 1976; Lewis, Payne, & Coulson 1973; Limit & Stephen 1978; Lintner 1894: 292; Look 1976b; Lorio & Branham 1988; Lorio & Zarnoch 1984; Magnus & Roy 1978; Marler & Barras 1978a; Mask 1982; Mason, G. N. 1979; Mathews 1978; Mawby 1980a, 1980b; Mawby & Gold 1984a, 1984b; Mayyasi et al. 1976; Meister & Scharf 1983; Michaels, Sappington, & Stenger 1986; Michaels, Stenger, & Sappington 1986; Miller, M. C. 1983; Moore, G. E. & Taylor 1976; Moore, G. E. & Thatcher 1973b; Mori 1975b, 1976b; Moser, J. C. & Branham 1988; Moser, J. C. & Browne 1978; Mott & Thomas 1977; Mott, Thomas, & Nankoong 1977; Mundy et al. 1971; Nance, Polmer, & Keith 1975; Nebeker 1981; Nebeker & Mizell 1980; Nebeker et al. 1978; Osgood 1957: 1; Ostmark & Bennett 1969a, 1969b; Paine 1985a; Pase & Fagala 1980; Payne 1973; Payne et al. 1976, 1978; Plumb 1958: 9; Pulley et al. 1976; Redlich et al. 1987; Reed, Burkhart, & Leuschner 1979; Reed, Hedden, & Daniels 1982; Reed et al. 1980, 1981; Rippen 1982; Robinson, J. V. 1981; Ryan, G. W. et al. 1980; Rykiel et al. 1984; Schreuder et al. 1980; Schroeder 1965; Shamoun & Levi 1985; Silverstein 1970b; Sinclair, S. A. 1980; Sinclair, S. A. & Ifju 1977, 1979; Sinclair, S. A., Ifju, & Heikkinen 1977b; Sinclair, S. A., McLain, & Ifju 1979a, 1979b; Skelley et al. 1988; Smith, J. L. & Mead 1981; Snyder et al. 1923: 414; Stephen & Paine 1985a; Stewart, T. E. et al. 1977; Stimal & Cambell 1980; Swaine 1925c: 262; Taylor, J. F. & Moore 1978; Thalenhorst 1972: 36; Thatcher, R. C. 1957: 13, 1974, 1977, 1980a, 1982, 1984; Thatcher, R. C. & Wilson 1982; Thatcher, R. C. et al. 1981; Thomas, H. A. 1981; Tomescu & Clark 1976; Turnbow 1982; Turnbow et al. 1983; Uhler 1980; Valentine, H. T. 1981; Vite 1968; Vite & Coster 1973; Wagner, T. L. et al. 1984a; Walker, L. C. 1980; Walters, F. C. & Leuschner 1979; Warren 1985; Waters, W. E. 1973; Weber, R. & Schurig 1984; Whitesell & Buchanan 1986; Wiseman 1979; Woodward & Biesbrock 1976; Youman 1979; Zarnoch, Lorio, & Sommers 1984.
- arizonicus* Hopkins 1909a: 95. Holotype ♀; Williams, Arizona [USA]; USNM, Washington. Synonymy: Wood 1963: 41, 1973c: 188. References: (ay) Hopkins 1909a: 95-97. (cn) Bongberg 1956a; Doane et al. 1936; Essig 1926: 512, 1958: 513; Felt 1924: 251-254, 1926: 249, 254, 1930a: 249, 254; Hopkins 1902e, 1904a: 42, 44, 46, 1909b: 72-73; Keen 1938: 102, 1952c: 135. (ce) Hopkins 1909b: 72-73; Keen 1938: 102; Swaine 1925c: 263. (hb) Chamberlin 1939: 158; Doane et al. 1936; Essig 1926: 512, 1958: 513; Felt 1926: 249, 254, 1930a: 249, 254; Hopkins 1904a: 42, 44, 46, 1909a: 95-97, 1909b: 70; Keen 1938: 102, 1952c: 135. (ds) Bongberg 1956a; Chamberlin 1925, 1939: 158; Essig 1926: 512, 1958: 513; Felt 1926: 249, 254, 1930a: 249, 254; Hagedorn 1910d: 20; Hopkins 1909a: 95-97, 1909b: 72-73; Keen 1929a: 17, 1938: 102, 1952c: 135; Kleine 1912b: 176, 1914b: 386, 1934a: 132; Leng 1920: 338. (tx) Chamberlin 1939: 158; Hagedorn 1910a: 60; Hopkins 1902e, 1909a: 95-97; Keen 1929a: 17; Muesebeck 1942: 95, 1950: 131; Wood, S. L. 1963: 41, 1973c: 188. (ms) Swaine 1925c: 263.
- jeffreyi* Hopkins 1909a: 114. Holotype ♀; Little Yosemite, California [USA]; USNM, Washington. Figures: Wood 1982b: 174. Distribution: North America (Baja California Norte in Mexico/ California, S Oregon in USA). Hosts: *Pinus jeffreyi*, accidental in *P. ponderosa*. References: (ay) Higby 1981; Higby & Stock 1982; Hopkins 1909a: 114-116; Lyon 1958: 583; Smith, R. H. 1965a; Stock, M. W., Amman, & Higby 1984. (bv) Barr, B. A. 1969: 640; Hawksworth 1985; Inscoc 1982; Klassen, Ridgway, & Inscoc 1982; Lanier & Wood 1968: 527; McPherson, Wilson, & Stehr 1970b: 1018; Pitman 1969a; Renwick & Pitman 1979; Silverstein & Young 1976: 20; Smith, R. H. 1961b: 359-365, 1963: 827-831, 1969: 1-13, 1971: 1-7. (cn) Anderson, R. F. 1960: 221; Anonymous 1940i: 580, 1941i: 812, 1955h: 49, 1955j: 3, 1958a: 3, 6, 1960i, 1960j: 1, 10, 1960q, 1960r, 1961e, 1961h, 1961i, 1961s, 1962h, 1962i, 1963k, 1963y, 1964i, 1964n, 1965e, 1966i, 1967h, 1968h, 1969e, 1969f, 1971i, 1972h, 1973c, 1974f, 1975g, 1976f, 1976g, 1977h, 1978a, 1978b: 35, 1978f, 1979g, 1980a, 1980m: 30,

- 1981g, 1982b, 1982c, 1983d, 1984d, 1986b: 5, 1987c: 3; Bongberg 1956a, 1957; Burke 1919: 123; Craighead 1927: 8, 1930: 5; Craighead & Middleton 1930; Craighead et al. 1931: 1016; DeNitto 1984; DeNitto & Pierce 1981, 1983; Downing 1954; Eaton 1956: 1-7, 1959: 1-33; Essig 1924: 256, 1926: 513, 1958: 514; Felt 1924: 256, 1926: 248, 256, 1930a: 248, 256; Gentry et al. 1980: 806; Hall, R. C. 1958b, 1961; Hamell 1980: 780; Hawthorne 1962, 1963, 1964; Helzner & Moyer 1979; Hofacker & Loomis 1982: 15, 1983: 17; Hofacker, Loomis, & Gilstrap 1988: 39; Hofacker, Loomis, & Tucker 1984: 31, 1987; Hofacker, Loomis, & Worrall 1989; Hoffman et al. 1988: 7; Hopkins 1909b: 101-103, 1909d: 574, 1912b: 4-5; Hopping 1922: 130, 1925b; Johnson, Philip C. 1940: 773-776, 1949; Keen 1929: 37, 1938: 107-109, 1949b: 427, 1952c: 140; Knapp et al. 1989: 6; Loomis, Hofacker, & Tucker 1985: 47, 1986; McPherson, Wilson, & Stehr 1970b: 1018; Miller, J. M. 1929: 997; Moyer 1977; Neal 1979: 805; Ollieu, Stipe, & Hoffman 1980: 26; Patterson 1923: 9, 1945: 14; Pierce, J. R. 1971: 12; Pierce, J. R. & Srago 1973: 16; Pierce, J. R., Srago, & Fujii 1977: 14; Pierce, J. R., Wood, & Fujii 1977: 15; Pronin 1952: 186; Pronos, Dale, & Borrecco 1981; Rosecrans 1947: 9; Ryker & Rudinsky 1979: 211; Salman 1933a: 134, 1938: 119-123; Schuder 1969: 78; Schultz & Allison 1981, 1982; Schultz, DeNitto, & Allison 1981; Schultz & Pronos 1982; Seal 1964; Smith, R. H. 1961c, 1971a, 1982, 1983b; Smith, R. H. & Roettgering 1982; Smith, R. H. et al. 1981; Stevens 1959a: 2; Swartz & Dahlsten 1980; Teillon et al. 1973; Thier & Hoffman 1983; Tkacz 1986; Vite & Wood 1961: 68; Vogler & Schultz 1985; Wenz 1984; Wenz & DeNitto 1983; Wenz & Smith 1983. (ce) Burke 1919: 123; Callahan & Shifrine 1960: 146; Craighead et al. 1927; Eaton 1959; Furniss, R. L. & Carolin 1977: 352; Hawksworth 1985; Hopkins 1909b: 101-103; Keen 1938: 107; Kinn 1971; Lindquist 1970b, 1971; Mathre 1964: 353-388, 1966; Miller 1929: 997; Shifrine & Phaff 1956: 45; Smith, R. H. 1965a; Swaine 1925c: 262; Thompson, W. R. 1943: 39. (hb) Anderson, R. F. 1960: 221; Bongberg 1959a; Bright & Stark 1973: 32; Chamberlin 1939: 159, 1958: 72-73; Eaton 1956, 1959; Essig 1926: 513, 1958: 514; Felt 1926: 248, 256, 1930a: 248, 256; Furniss, R. L. & Carolin 1977: 352; Higby 1981; Higby & Stock 1982; Hopkins 1909a: 114-116; Keen 1929: 37, 1938: 107, 1952c: 140; Ryker & Rudinsky 1979: 211; Smith, R. H. 1971a; Swartz & Dahlsten 1980; Wood, S. L. 1982b: 177. (ds) Anderson, R. F. 1960: 221; Anonymous 1958a: 3, 6, 1962i, 1963k, 1963y, 1964u, 1969e, 1969f, 1973c, 1974f, 1975g, 1976f, 1976g, 1977h, 1978a, 1978b: 35, 1978f, 1979g, 1980: 30, 1980a, 1981g, 1982b, 1982c, 1983d, 1984d; Bongberg 1956a, 1957; Bonberg & Bennett 1960: 1; Bright & Stark 1973: 32; Chamberlin 1917, 1925, 1939: 159, 1958: 72-73; Craighead & Middleton 1930; Downing 1963: 5; Eaton 1956; Essig 1926: 513, 1958: 514; Felt 1926: 248, 256, 1930a: 248, 256; Furniss, R. L. & Carolin 1977: 352; Hagedorn 1910d: 20; Hall & Eaton 1960; Hopkins 1909a: 114-116, 1909b: 101-103, 1922; Keen 1929: 37, 1929a: 17, 1938: 107, 1949a: 93, 1952c: 140; Kleine 1912b: 176, 1914b: 390, 1934a: 132; Lange 1937: 172; Lanier & Wood 1968: 527; Leng 1920: 335; McPherson, Wilson, & Stehr 1970b: 1018; Renwick & Pitman 1979; Rosecrans 1947: 9; Salman 1933a: 134; Schuder 1969: 78; Smith, R. H. 1961b, 1971a; Wood, S. L. 1982b: 177. (tx) Anderson, R. F. 1960: 221; Chamberlin 1939: 159, 1958: 72-73; Hagedorn 1910a: 60; Hopkins 1909a: 114, 116; Keen 1929a: 17; Muesebeck 1942: 95, 1950: 131; Renwick & Pitman 1979; Ryker & Rudinsky 1979: 211; Wood, S. L. 1963: 57, 1982b: 177. (ms) Bongberg 1959a; Swaine 1925c: 262; Swartz & Dahlsten 1980.
- mexicanus** Hopkins 1905b: 80. Lectotype ♀: Sacramento, Amecameca, Mexico, Mexico; USNM, Washington, designated by Wood 1982b: 163. Figures: Atkinson et al. 1986: 14; Schwerdtfeger 1957d: 54-55 (galleries).
- Distribution: North America (Guatemala/ Honduras/ Chiapas, Chihuahua, Distrito Federal, Durango, Hidalgo, Mexico, Michoacan, Morelos, Oaxaca, Puebla, Tlaxcala, Zacatecas in Mexico). Hosts: *Pinus ayacahuite*, *P. lawsoni*, *P. leiophylla*, *P. montezuma*, *P. oocarpa*, *P. ponderosa*, *P. pseudostrobus*, *P. ruidis*, *P. teocote*, *P. tenuifolia*.
- References: (ay) Francke-Grosman 1966c; Hopkins 1909a: 97-99; Lanier, Hendrichs, & Flores 1988a, 1988b. (bv) Chararas et al. 1982: 1095; Payne & Wood 1981: 49. (cn) Alatorre Rosas 1978; Ascencio Cerda & Serrato Barajas 1984; Becker, G. 1951: 186-209, 1952a: 652-657; Burgos, Islas, & Villa 1975a, 1975b; Felt 1926: 248, 254, 1930: 248, 254; Hopkins 1909b: 74-75; Islas-Salas 1974; Johnston 1939; Martinez, F. B., Islas, & Villa 1975; Ordish 1966; Payne & Wood 1981: 492; Perry 1951: 159; Ramirez 1921: 662-663; Schwerdtfeger 1956b: 47, 1957b: 585, 1959a: 54; Torrent & Romanyk 1967: 81, 1968. (ce) Becker, G. 1952b, 1954, 1955; Flores & Enkerlin 1978; Francke-Grosman 1966c; Hopkins 1909b: 74-75; Lindquist 1971; Muesebeck 1942: 95, 1950: 131; Perusquia 1982; Swaine 1925c: 263. (hb) Atkinson et al. 1986: 16; Beal, Bennett, & Ketcham 1964; Becker, G. 1951: 186-209, 1952a: 682-687, 1954: 23, 1955; Burgos & Saucedo 1983: 55; Burgos, Islas, & Villa 1975a, 1975b; Felt 1926: 248, 254, 1930: 249, 254; Hopkins 1909a: 97-99; Islas-Salas 1974; Martinez, F. B., Islas, & Villa 1975; Ordish 1966: 121; Perry 1955: 1; Schwerdtfeger 1956b: 47, 1959a: 54; Wood, S. L. 1982b: 163. (ds) Atkinson & Equihua 1985a: 72, 1985b: 229, 1988: 88; Atkinson et al.

1986: 16; Bates 1832; Becker, G. 1951, 1952a; Blackvelder 1947; Burgos & Saucedo 1983: 55; DeLeon 1938; Felt 1926: 248, 254, 1930a: 249, 254; Ferrer 1942; Hagedorn 1910d: 20; Hendricks & Enkerlin 1979; Hopkins 1909a: 97–99, 1909b: 74–75; Kleine 1912b: 176, 1914b: 348, 1934a: 132; Lanier, Hendrichs, & Flores 1988a, 1988b; Perry 1951: 159; Perusquia 1978; Schedl 1963b: 157; Wood, S. L. 1963: 39, 1974d: 288, 1982b: 163. **(tx)** Atkinson et al. 1986: 14; DeLeon 1938; Hagedorn 1910a: 60; Hopkins 1905b: 80, 1909a: 97–99; Lanier, Hendrichs, & Flores 1988a, 1988b; Muskus, A. 1984: 44; Perusquia 1978; Schedl 1940a: 339, 1952e: 122, 1955g: 10; Wood, S. L. 1963: 39, 1974d: 288, 1982b: 163. **(ms)** Swaine 1925c: 263.

micans (Kugelann) 1794: 523 (*Bostrichus*). Syn-types, sex?; Prussia; not located.

Figures: Bakke 1956b: 88, Balachowsky 1949a: 26, 104, Bevan 1987: 13, Grune 1979: 58, Pfeffer 1989a: pl. 2, Postner 1974: 401 (adult), Wood 1963: 9; Yin, Huang, & Li 1984: 57.

Distribution: Asia (Heilongjiang, Liaoning, Qinbai, Sichuan in China/ Turkey/ Sakhalin Island in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Picea excelsa*, uncommon in *Abies* spp., *Larix* sp., *Pinus* spp.

Notes: (3) This is a biologically and anatomically distinct geographical replacement of *D. punctatus* LeConte.

References: **(ay)** Battisti 1985; Bugnion 1887b; Cerezke 1964: 450; Chararas & Courtois 1976; Chikoidze 1977; Escherich 1923b: 431, 479, 557; Feytaud 1950a; Francke-Grosmann 1949a: 219–225, 1951: 143, 1959; Fuchs 1912a; Hansen et al. 1951; Hopkins 1909a: 143–147; Imhoff 1856: 228; Leisewitz 1906: 52; Lindemann 1879: 53–87; Mechnikova 1962, 1965, 1967; Numberg 1928a: 140; Nusslin 1912c: 279; Schwerdtfeger 1926: 90; Stock, M. W., Gregoire, & Furniss 1987; Tommeras & Mustaparta 1985; Tommeras, Mustaparta, & Gregoire 1985; Tskhadaya 1983; Verhoeff 1896: 111; Wichmann 1912a: 9. **(bv)** Barr, B. A. 1969: 640; Berryman 1988; Bevan & King 1983; Brown, J. M. B. & Bevan 1966; Carle, Granet, & Perrot 1979b; Cerezke 1964: 498; Chararas & Deschamps 1962; Chararas et al. 1982: 1094; Fu, Wu, & Ning 1984; Gregoire 1981, 1985, 1988; Grune 1979: 59; Kevdina 1897: 108; Kobakhidze et al. 1969; Kozłowski 1969: 121; Krivosheina & Aksentev 1984; Lemperiere & Bailley 1986: 18; Meixner 1937: 1215; Nuorteva 1956c: 94; Prell 1930c: 638, 1931: 364; Reid 1958d: 505; Sheperd 1965: 212; Simionescu 1978; Tondemur 1976; Tommeras 1989; Tommeras, Mustaparta, & Gregoire

1985; Vasechko 1978a; Vite 1980; Voolma 1978; Vouland & Carle 1977; Wichmann 1912a: 9, 1967. **(cn)** Acatay 1968: 18–36, 1971; Anonymous 1901e: 564, 1978i, 1982f, 1982g, 1983a, 1985a, 1985c, 1985e, 1986a, 1986c, 1986d, 1987a, 1987c, 1988a, 1988g, 1988h, 1988k, 1989a; Antoine 1935: 264; Ass & Funtikow 1941; Baer 1913: 659–671; Barbey 1925: 74; Barlow 1966; Battisti 1985; Battisti, Menardi, & Sala 1986; Bejer-Petersen 1958, 1959a, 1976, 1978, 1981, 1989; Bergmuller 1904; Berryman 1988; Besceli 1967: 19; Besceli & Ekici 1975; Bevan 1964b, 1982, 1983, 1987: 1222; Bevan & King 1983; Blatchford 1983: 29; Brandt 1970: 323; Brichtet 1900a; Brichtet et al. 1902, 1903; Brown, J. M. B. & Bevan 1966: 1; C. J. Q. 1905: 183; Carle 1975b; Carle, Granet, & Perrot 1979b; Chararas 1957e, 1961b: 78, 1961c: 103, 1978; Coulson, J. R. 1981: 9; Crooke 1962: 1–7; Dominik 1966a: 175–184; Doom 1965: 420–423; Du Merle 1988; Eckstein 1903, 1915, 1917, 1926: 575, 1930b; Ehnstrom et al. 1974; Eidmann 1925: 5–8; Elton 1947, 1949a, 1949b, 1950: 759–764, 1951; Elton & Blankwaardt 1953; Elton & Voute 1950; Escherich 1912a, 1929, 1936, 1959; Evans, H. F. 1985, 1989; Evans, H. F., King, & Wainhouse 1985; Everaerts, Gregoire, & Merlin 1988; Feytaud 1950a; Fleischer 1877a; Florov 1949: 21; Francke-Grosmann 1954a: 108–117; Francke-Grosmann & Ruhm 1954: 48–53; Friedrich 1951: 37–38; Cabeev & Gnat 1986; Gabler 1955; Galoux 1947: 12, 1948e; Gaprindashvili et al. 1967: 167–172, 1968: 735–740; Gluck 1876; Godwin 1956: 119–123; Gohm et al. 1953: 1–5, 1954; Gomostaev 1917: 308–315; Gradojevic 1933: 789–790; Grandi 1951; Gregoire 1988, 1989; Gregoire & Merlin 1985; Gregoire, Merlin, & Pasteels 1984; Gregoire et al. 1985a, 1985b; Guse 1885; Gyorfi 1948: 32–44; Haarlov & Petersen 1952: 43–91; Haenel 1914: 214–222; Hartig 1877: 195; Henriksen 1951, 1958: 1–371, 1961: 175–232; Herlein 1878; Hess 1898: 373; Hess & Beck 1914: 259, 1927: 316; Hierholzer 1951a; Hopkins 1909b: 141–146; Hrubik 1973; Husson 1955: 534; Husson & Stander 1954: 355–359, 534–538; Immadze 1984; Janmicky 1959: 156–163, 1959a; Jazentkovsky 1922: 7–9; Joly 1976; Judeich & Nitsche 1895: 447, 458; Juutinen 1953: 35, 1955: 1–112, 1960: 20; Kalandra & Pfeffer 1940; Kandadze et al. 1965: 397; Kangas 1939, 1947: 1–192, 1950b: 146, 1952: 155, 1958a: 192, 1958d: 164, 1966b; Kauschinger 1893: 150; Keller 1903b: 49; Kholodkovskii 1912: 278, 300; King & Evans 1985; Kneiff 1939: 170; Kobakhidze 1960: 1851, 1964: 309, 1965: 323–330, 1967: 65–68, 1968: 211–216, 1969: 57–59; Kobakhidze, Tvardze, & Kraveishlili 1970; Kobakhidze et al. 1967: 401–403, 431–434, 1968: 116–118, 227–230; Koch 1913: 10, 95; Komarek et al. 1931: 1–256; Koppen 1882: 246; Kovacevic 1952: 69; Kozikowsky 1929: 254; Kraemer 1953: 463–512; Krusen & Masnina 1968:

- 24–27; Kurashvili et al. 1964: 671–678; Kurenzov 1935c: 188, 1950a: 13; Lekander 1955b: 17, 1966; Lekander, M. 1951: 22; Lemperiere & Bailley 1986: 18; Lemperiere et al. 1988; Levieux, Lientier, & Delplanque 1985a; Lofting 1950: 27; Lohrenz 1907: 41; Loos 1919: 283–288, 1925: 53; Lozovoi 1966: 1–90; Lozovoi & Tropin 1965, 1967; Luitjes et al. 1954: 118, 1958: 201; Markov 1985; Martinek 1953a: 372; Melikadze et al. 1975; Mehnikova 1962: 234–240; Merker 1965: 10–44; Merker & Kleine 1940: 255–261; Metzger 1897: 59; Nechleba 1929: 24–26; Nestertschuk 1930: 173; Nosek 1951: 106, 1952b: 98; Novak, V., Hrozinka, & Stary 1976: 31; Nuorteva 1955c: 1, 1957a: 352; Nusslin 1913: 202, 238; O. B. 1905: 466; Obertreis 1897: 93; Olmesorge 1955: 280; Palm 1948b: 212–213; Paulian 1943: 324; Petersen 1952: 299–322; Pfeffer 1932: 1–23, 1948a: 800, 1949b: 150, 1950c: 2; Pierce, W. D. 1917: 65; Poeteren 1936: 1–88; Polozhenchev & Zolotov 1969: 3–6; Prossoroff 1929: 1–54; Pschorn-Walcher 1966; Quievy 1905: 334; Raskatov 1972; Reisch 1960; Rhumbler 1922: 280, 1927: 292; Rieben 1949: 182; Rodary 1959: 849; Rudinsky 1960a; Rudnev 1966; Rudnev & Khramtsov 1962; Ruhm 1955: 52–55, 1956: 424, 1958: 286; Saalas 1916: 91–95, 110–116, 1949: 341, 351; Schimitschek 1937c: 47, 1955a: 58, 1955c: 77, 1956: 345, 1961a: 154; Schimitschek & Wien 1963: 219–257; Schmidt 1881: 43; Schonherr 1958b: 88–90; Schouteden 1927: 114; Schulze 1927: 336; Schvester 1956; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 171, 178, 1950b: 60, 1953c: 209, 1957a: 184; Serez 1979; Severin 1902a: 72–81, 1902b: 145–152, 1908: 239; Shavliashvili 1984; Shavliashvili & Berozashvili 1976; Shavliashvili, Mukhashavria, & Zharkov 1976; Shavliashvili & Zharkov 1985; Sick 1939: 110; Smith 1985; Stoling 1969: 610–627; Sukhovolskii 1981; Supatasvili 1957: 611; Supatasvili, Muhasavrija, & Mirusidze 1964; Supatasvili et al. 1964: 68–72, 169–173, 1966: 362; Tamanuki 1933: 1–54; Thalenhorst 1953: 17; Torka 1933: 120–121; Torrent & Romanyk 1967: 81, 1968; Tragardh 1916: 484–486, 1917: 20, 28, 1919: 1–415, 1927c: 72, 1930: 468–480; Trappen 1935: 141; Trofimov 1979; Tubeuf 1933: 193–357; Tubeuf & Habesreiters 1933: 472–476; Tullgren 1916: 104; Tvaradze 1984; Ulrici 1873: 150; Vappula 1965: 152; Voolma 1978, 1980b; Vorontzov 1968; Voute 1947: 3, 1947c: 85; Voute & de Vries Broekman 1965; Wachtl 1901: 381; Wagner 1954: 544; Weber, H. 1926: 574; Whittle & Anderson 1987; Wichmann 1927b: 350; Willkomm 1863: 249; Wolff & Krausse 1922: 77. (ce) Alfken 1924; Anonymous 1985b, 1985c, 1988k; Antoine 1935: 264; Ass & Funtikow 1941; Baisier & Gregoire 1988; Baisier et al. 1988; Balazy & Michalski 1960, 1964b; Barbey 1927; Battisti 1985; Battisti, Menardi, & Sala 1986; Bejer-Petersen 1976, 1989; Bernhard 1963: 114; Berryman 1988; Besceci, Varol, & Ekici 1968; Bevan 1983; Bevan & King 1983; Brammanis 1935; Brown, J. M. B. & Bevan 1966; Carle 1975b; Ceiam & Istrate 1976; Chararas 1959a, 1959c, 1960d: 1917–1919; Chararas et al. 1982: 1094; Evans, H. F. 1987; Evans, H. F. & King 1989; Fleischer 1877a; Forsslunds 1941; Francke-Grosmann 1948, 1950a: 773–780, 1954b: 108–117, 1959; Francke-Grosmann & Ruhm 1954: 45–53; Fry 1989: 16; Fuchs 1932; Galoux 1947b, 1947c; Gaprindashvili, Gumberidze, & Kharazishvili 1967; Graham 1956; Gregoire 1977, 1988; Gregoire, Marlin, & Pasteels 1984; Gregoire et al. 1985a, 1989; Gyrfi 1941b, 1948; Haarlov & Bejer-Petersen 1952; Hansen, T. E. et al. 1981; Heqvist 1963; Hirschmann 1960, 1971a, 1971b: 40; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zimigiebl-Nicol 1961; Hopkins 1909b: 141–146; Hughs & Jackson 1958: 125; Imnadze 1978; Isaev, Khlebopros, & Nedorezov 1980: 195; Izhevskij 1988; Jammicky 1961b; Kalandadze et al. 1965; Kangas 1939, 1946b: 21, 1952, 1954a: 48, 1954b, 1958a: 192; Kleine 1908c: 183, 1909a: 46, 77, 1944: 70; Knoche 1908b: 204; Kobakhidze 1960: 1851, 1964, 1965: 325, 1967; Kobakhidze & Supatashvili 1971; Kobakhidze, Tvaradze, & Kraveishvili 1970; Kobakhidze et al. 1967, 1968, 1973a, 1973b; Kolomiets 1981; Kolomiets & Bogdanova 1978, 1979a, 1979b; Kraemer 1949: 59; Krushev & Mashmina 1968; Kurashvili et al. 1974; Kurashvili, Chanishvili, & Kakuliya 1964; Kurenzov 1934a: 54; Lemperiere & Bailley 1986: 18; Levieux, Lientier, & Delplanque 1985a; Lozovoi & Tropin 1965, 1967; Maslov & Nizharadze 1973; Matuashvili et al. 1974; Merlin et al. 1985; Meyer 1934: 612; Muesebeck 1942: 95, 1950: 131; Nechleba 1929a: 25; Nishiguchi 1970; Nosek 1951: 106, 1952b: 98; Nuorteva 1957a: 352, 1971; Nusslin 1927: 292, 300; Palmén 1944: 60, 1946: 194; Perris 1856a: 244; Pfeffer 1923a: 330, 1932a: 6, 1943b: 181, 1949b: 150, 1950c: 2, 1952a: 159, 1957a: 196, 1959: 4; Poinar 1972, 1975: 154; Polozhentsev 1966a; Pomotskaya 1979; Raskatov 1972; Ratzeburg 1869a: 79; Rodary 1959: 849; Ruhm 1956b: 3, 1957a: 246, 1969; Saalas 1917a: 18, 1949: 341, 349, 351; Schedl 1958d: 189; Schencher 1959: 263; Schimitschek 1930a: 295, 1955a: 58, 1964c: 141; Schwerdtfeger 1944a: 171, 178, 1950b: 60, 1953c: 209, 1957a: 184; Sedlaczek 1935a: 154; Serez 1979; Shavliashvili & Berozashvili 1976; Sitowski 1930: 6; Stefanov 1949a: 97; Sukhovolskii 1982; Swaine 1925c: 262; Thompson, W. R. 1943: 39; Tondeur & Gregoire 1979; Tvaradze 1984; Vitzthum 1923: 107; Voolma 1978, 1980b, 1986; Weber, L. 1900: 105, 1902: 108; Wiackowski 1957a: 86; Wichmann 1952b: 22, 1954d: 433; Wichmann, H. E. 1967; Woodring & Moser 1970; Zuzm 1985b. (hb) Acatay 1968; Altum 1876a, 1879c, 1881c: 262, 1889b, 1889c; Bach 1864;

- Balachowsky 1963a: 1255; Barbey 1901: 10, 20, 56, 1913, 1925: 74; Bargmann 1906; Battisti, Menard, & Sala 1886; Bandisch 1903; Beffa 1949, 1961; Bejer-Petersen 1955, 1957b, 1978; Bergmuller 1903; Berryman 1988; Besceli 1967; Besceli, Varol, & Ekici 1968; Bevan 1982, 1983, 1987: 122; Bevan & King 1983; Blandford 1894b; Boas 1923: 334; Brandes 1901; Brandt 1948; Brichtet 1898, 1900a; Brown, J. M. B. & Bevan 1966; Bugnion 1887b; C. J. Q. 1905: 183; Carle 1975b; Carle, Granet, & Perrot 1979a, 1979c; Chararas 1957e, 1960e: 797, 1961b: 78, 1961c: 103, 1962: 210; Charvat 1950; Dombrowsky 1887; Eckstein 1889, 1897, 1915, 1917, 1926: 575, 1936, 1939b; Eggers 1899c; Eichhoff 1881a: 37, 125, 1882d: 337; Eidmann 1962: 161; Elton 1950; Escherich 1923b: 431, 479, 557; Essig 1942: 604; Everts 1900; F. 1900; Feytaud 1950a; Fleischer 1877a; Francke-Grosmann 1954b; Fuchs 1904a, 1905c: 339, 1906b, 1911b; Gabler 1955; Gerhard 1908; Gornostaev 1916: 310; Graber 1879: 130; Grandi 1951; Gregoire 1985, 1988; Gregoire & Merlin 1985; Gyorfi 1948, 1957; Hagedorn 1903a; Hansen, T. E. et al. 1981; Hartig 1877: 195; Helmbacher 1924; Hennings 1905b; Henschel 1876a: 40, 242, 1885b, 1895a: 142; Hess 1898: 373; Hess & Beck 1914: 259, 1927: 316; Hesse 1898; Hierholzer 1951a; Hopkins 1909a: 143-147; Husson & Stauder 1954: 355; Istrate 1971; Jacobi 1906: 145; Jammicky 1961b; Joly 1976; Judeich & Nitsche 1895: 447, 458; Kangas 1951: 225, 1952, 1954b; Karpinski 1933b: 23; Karpinski & Stravinski 1948: 154; Kauschinger 1883: 109, 1893: 150; Kholodkovskii 1889: 264, 1912: 278, 300; Kneiff 1939: 170; Knoche 1904: 391, 1905: 357; Knotek 1899b: 4, 1901: 567; Kobakhidze 1967, 1968; Kobakhidze & Sikharulidze 1967; Kobakhidze et al. 1968; Koch 1909: 320; Kollar 1858: 23; Kolomiets 1981; Kolomiets & Bognanova 1982; Kozikowsky 1913: 341; Kozlowski 1969: 121; Kraemer 1953: 463; Krivohitskaya 1956: 828; Krivosheina & Aksentev 1984; Kurenzov 1935a: 20, 28, 1948b: 109, 1950d: 159; Lekander 1959a: 83; Lemperiere & Bailley 1986: 18; Lemperiere et al. 1988; Lengerken 1939: 35, 1954: 72; Levieux, Lientier, & Delplanque 1985a; Lindemann 1978: 53-87, 1880a: 163; Lohrenz 1907: 41; Loos 1913: 406; Louzil 1961: 42; Lozovoi & Tropin 1965, 1967; Lnik & Voolma 1980; Luardoni & Leonardi 1889: 432; Madon 1930: 112; Manegeaux & Cochon 1897: 206-209; Marcu 1941: 402; Maslov & Nizharadze 1973; Melnikova 1962, 1965; Nishiguchi 1970; Nordlinger 1856: 35; Novak, V., Hrozinka, & Stary 1976: 31; Numburg 1929: 96; Nuorteva 1956c: 94; Nusslin 1898: 278, 1906b: 16, 1913: 202, 1913: 238, 1927: 292, 300; O. B. 1905: 466; Ohnesorge 1955: 280; Paulian 1943: 324; Pauly 1892b: 258; Perris 1856a: 244; Petrenko 1966; Pfeffer 1941c: 2, 1952a: 159; Pomerantzev 1907: 177-192; Postner 1974: 402; Prell 1930c: 638, 1931: 364; Ratzeburg 1837: 136, 177, 1839: 165, 217; Reid 1958d: 505; Rhumbler 1922: 280, 1927: 292; Rimski-Korsakov et al. 1949: 267; Roigas & Voolma 1977; Rupertsberger 1880: 226; Saalas 1913a: 69, 77, 1949: 341, 351; Schimitschek 1930a: 295, 1955a: 58; Schmidt 1881: 43; Schneider 1897: 352; Schneider-Orelli 1947b: 156; Schulze 1927: 336; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 171, 178, 1957a: 184; Sedlacek 1935a: 154; Severin 1902a: 72-81, 1908: 239; Shavliashvili 1984; Shavliashvili, Mukhashavria, & Zharkov 1976; Simionescu 1978; Spessivtsev 1913a: 57, 1928a: 223; Stark 1926a: 330, 333, 1952: 185; Stefanov 1949a: 97; Taschenberg 1880: 216; Tragardh 1927c: 72, 1929a: 309, 1930c: 469, 1939b: 145, 169; Tredl 1908b: 138; Ulrici 1873: 150; Vasechko 1978a; Voolma 1980a; Voute & de Vries Brockman 1965; Wachtl 1901: 381; Wahl 1897: 589; Weber 1926: 574; Wichmann 1927b: 350; Wolff & Krausse 1922: 77; Wood, S. L. 1963: 82. (ds) Acatay 1968, 1971; Acloque 1896; Alken 1924: 365; Ammann & Knabl 1913, 1923; Andersch 1851; Anonymous 1978i, 1983a; Austara et al. 1983; Bakke 1956b; Bakke & Kvamme 1977; Balazy & Michalski 1960; Barthe 1896; Battisti 1985, 1987; Bau 1888; Beffa 1949; Bejer-Petersen 1952; Bejer-Petersen & Jonum 1977: 19; Berryman 1988; Bevan & King 1983; Blanchere & Robert 1889; Blandford 1894b; Boas 1923: 334; Borchert 1951; Brakman 1966b: 204; Brancsik 1906; Brichtet 1898; Browne, J. M. B. & Bevan 1966; Brundin 1934; Bucking 1932; Buresh & Lazarov 1956; Calwer 1884, 1893; Chapuis 1869, 1873; Chapuis & Candeze 1853; Charvat 1950; Dejean 1821, 1825, 1837; Duftschmidt 1825; Dzhambazishvili 1959; Eder 1934; Eggers 1904; Elton 1947, 1949a, 1949b, 1951; Elton & Blankwaardt 1953; Elton & Voute 1950; Endrodi 1958b; Ericson & Sandin 1893; Ermisch 1953; Escherich 1929, 1932b; Esterberg 1928, 1959; Everts 1900; Fairmaire 1864: 150; Fricken 1889: 278; Fuchs 1904a, 1905a, 1905c: 339, 1906b; Gabler 1949b; Gaubil 1849: 127; Gamitz 1928: 92; Cohn 1954: 382-433; Gozis 1875: 79; Gradojevic 1933; Granet & Perrot 1977; Gredler 1866: 369; Gregoire 1988; Grill 1895: 305; Grouzelle 1905; Grime 1979: 59; Gyorfi 1941b; Hagedorn 1903a, 1910d: 21; Hansen, V. 1939, 1956, 1957: 167-168, 1964: 459; Hellen 1947; Hennig 1954: 257; Henschel 1895a: 142; Heyden 1876: 297; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 709; Hopkins 1909a: 142-147, 1909b: 141-146; Horion 1949, 1951; Jacentkovsky 1939: 77; Jazentkovsky 1912: 287; Joly 1976; Judeich & Nitsche 1895: 447, 458; Kaltenbach 1874: 686; Karpinski 1925: 216, 1931: 22, 1933b: 23, 1948b: 229; Karpinski & Strawinski 1948: 154; Kestercanek 1881a: 12; Kiefer et al. 1942: 528; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 215, 262, 263, 267, 1912b: 176, 1913a: 34,

- 1914b: 248, 249, 1934a: 132; Knotek 1899b: 4, 1901: 567; Kobakhidze 1965: 325, 1967; Kobulajiv 1934: 63; Koch 1910: 319–340; Koltze 1901: 152; Kono 1939b: 64; Kono & Tamaniuki 1939: 55, 91; Koppen 1882: 246; Kraatz 1869: 59; Krivolitskaya 1956: 528, 1953; Krogerus 1921b: 115; Kurenzov 1934a: 54, 1935a: 20, 25, 1935c: 155, 1936b: 351, 1938a: 64, 1965, 1967; Kurir 1947c: 7; Lacordaire 1866: 361; Langhoffer 1915c: 157; Lazorko 1963; Leclercq 1971; Lekander 1955b: 17; Lentz 1857: 138; Lemis 1856: 179; Lindemann 1884b: 263; Lokaj 1868: 63; Lomnicki 1856a: 241, 1913b: 147; Loos 1913: 406; Lovendal 1890c: 210; Lucht 1957: 276; Luigioni 1929: 993; Luitjes et al. 1954: 118; Lunardoni & Leonardi 1889: 432; Lundberg 1979: 31; Lundblad 1950c: 114; Mandl 1931: 25; Marchant & Borden 1976; Melnikova 1965: 1867; Negru 1966b: 400, 1968a: 45; Nunberg 1925b: 55, 1954: 31; Nuorteva 1956b: 165, 1971: 66; Nusslin 1895: 278; Pacher 1865: 151; Palm 1946: 120; Palmén 1944: 60, 1946: 194; Pauly 1894: 193, 233, 253, 316, 357; Penecke 1927: 235; Perris 1876a: 254, 1877a: 414; Peterson 1922: 299, 1952: 299–322; Pfeffer 1924b: 471, 1931b: 74, 1935: 159, 1936: 59, 1947e: 1, 1950b: 73, 1959a: 34; Pierce, W. D. 1917: 65; Pomerantzev 1907b: 491; Postner 1974: 402; Prossen 1913: 82; Rapp 1934: 721; Ratzeburg 1837: 136, 177, 1839: 165, 217; Redtenbacher 1858: 826, 1874: 369; Reitter 1869a: 20, 1869b: 153, 1894a: 53, 1916: 281; Rimski-Korsakov et al. 1949: 267; Roubal 1941: 255; Rudinsky 1960; Saalas 1913a: 69, 77, 1917a: 18, 1931: 70; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1914: 444; Schaschl 1854: 132; Schaufuss 1915: 1222; Schann 1854: 145, 1859: 95, 1862: 100; Schedl 1952f: 87, 1980a: 8, 1981b: 54; Scheerpeltz & Winkler 1930: 256; Schilsky 1909: 187; Schiodte 1873: 100; Schmaus 1960: 32; Seidl 1876: 4; Seidlitz 1872: 392, 1891a: 559, 1891b: 605; Serez 1979; Siebke 1875: 282; Sokanovskii 1960; Stark 1926a: 330, 333, 1926b: 102, 1926j: 125, 1931a: 21, 1952: 185; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 433; Stierlin & Gautard 1871: 291, 1906: 205; Strand 1946: 595; Strand & Hanssen 1935: 70; Sturm 1826: 102, 1843: 229; Swaine 1919b: 5; Thomson 1865: 355, 1868: 219; Torka 1933: 121; Tragardh 1939b: 145, 169; Tredl 1907: 11, 1908b: 138; Vapula 1965: 152; Voute 1947c: 85; Westhoff 1882: 237; Whittle & Anderson 1987; Wichmann 1927a: 57–58; Winter, T. G. 1983: 9; Wiren 1945: 43; Wood, S. L. 1963: 82; Yamovskii & Tegshzhargal 1955: 407; Yin & Huang 1981: 556; Zinovjev 1955: 187; Zoufal 1920: 20. (tx) Acatay 1968: 19; Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 134; Barbey 1901: 10, 20, 56; Beffa 1949, 1961; Bejer-Petersen 1957; Bertolini 1872; Bevan 1983; Blandford 1894b; Boas 1923: 334; Calwer 1858; Ceballos 1945; Chapuis 1869, 1873; Cha-
 puis & Candeze 1853; Charvat 1950; Crotch 1966; Csiki 1907; Dejean 1821, 1825; Doehner 1860; Dombrowsky 1887; Dufschmidt 1825; Eggers 1936e: 89; Eichhoff 1864b: 27, 1881a: 37, 125, 1883a: 102, 124; Erichson 1836: 45, 53; Escherich 1923b: 431, 479, 557; Escherich & Escherich 1897; Essig 1942: 604; Ferrant 1911; Fleischer 1905; Fricken 1889: 278; Fuchs 1906, 1912a: Gabler 1949b, 1955; Gemminger & Harold 1872: 2672; Grune 1979: 55, 59; Hagedorn 1910a: 60; Hansen, V. 1956, 1964: 458; Henry 1892: 13; Henschel 1876a: 40, 242, 1895a: 142; Hopkins 1909a: 143–147, 1914: 120; Houllbert 1922a: pl. 1, 1922b: 251; Jacobi 1906: 145; Jacquelin du Val & Fairmaire 1868: 101; Joly 1976; Judeich & Nitsche 1895: 447, 458; Karpinski & Strawinski 1948: 154; Koch 1913: 95, 110, 1928: 90, 102, 1932: 142; Krivolitskaya 1956: 528, 1955: 115; Kugelann 1794: 523; Kuhnt 1913: 1051; Kurenzov 1941a: 116, 1948b: 109; Lacordaire 1866: 361; Lazorko 1963; Letzner 1891: 373; Lindemann 1879: 53; Louzil 1961: 105; Lovendal 1889b: 38, 1890c: 210, 1898: 87; Lucas 1920: 230; Lucht 1957: 276; Luigioni 1929: 993; Lunardoni & Leonardi 1889: 432; Meixner 1937: 1215; Negru 1966: 400; Nordlinger 1848: 250, 1856: 35; Novak, V., Hrozinka, & Stary 1976: 3; Nunberg 1925a: 140, 1954: 31; Nusslin 1912c: 279; Panzer 1795a: 288; Perris 1877a: 414; Pfeffer 1932b: 13, 1941c: 2, 1947e: 1, 1955a: 121, 1959a: pl. 2; Portevin 1935: 318; Postner 1974: 402; Quaschik 1953: 35; Ratzeburg 1837: 136, 177, 1839: 165, 217; Redtenbacher 1849: 363, 1849b: 27, 1858: 826, 1874: 369; Reitter 1894a: 53, 1913a: 47, 1916: 281; Rhumbler 1922: 280, 1927: 292; Rudnev 1966: 123; Rupertsberger 1880: 226; Saalas 1913a: 69, 77, 1914: 304–306, 1949: 341, 351; Schedl 1934f: 1635, 1952f: 87, 1980a: 8, 1981b: 54; Schimitschek 1937c: 47, 1955c: 77, 1958: 26–63; Sedlaczek 1912: 308; Seidlitz 1872: 392, 1891a: 559, 1891b: 605; Sokanovskii 1960: 676; Spessivtsev 1913a: 57–55, 1922a: 465, 1925a: 164, 1925b: 9; Stark 1952: 185; Stierlin 1898: 433; Stresemann et al. 1959: 351; Swaine 1919b: 5; Taschenberg 1850: 216; Thomas, J. B. 1965c; Thomson 1865: 355, 1868: 219; Verhoeff 1896: 111; Whittle & Anderson 1987; Wood, S. L. 1963: 9, 82; Yin & Huang 1981: 556. (ms) Anonymous 1901e: 564; Bevan 1964b; Brandes 1901; Escherich 1932b; Fuchs 1911b; Gregoire et al. 1985b; King & Evans 1955; Kozikowsky 1929: 254; Lekander 1959a: 83; Lieutier 1984a; Lucas 1920: 230; Luitjes et al. 1958: 201; Ritter 1929: 554; Rohrl 1914a: 131; Schimitschek 1961c: 193; Swaine 1925c: 262; Thalenhorst 1960: 605; Tondeur 1976; Vorontzov 1968.
- murrayanae* Hopkins 1909a: 140. Holotype ♀; Keystone, Wyoming [USA]; USNM, Washington. Figures: Ives & Wong 1988: 78, Wood 1963: 9, 13. Distribution: North America (Alberta, British

Columbia, Manitoba, Ontario in Canada/ Colorado, Idaho, Michigan, Minnesota, Montana, Utah, Wyoming in USA).

Hosts: *Pinus banksiana*, *P. contorta*, *P. strobus*.

Notes: (3) Hopkins 1902e: 3 (*shoshone*, nomen nudum).

References: (ay) Cerezke 1964: 488; Duncan, B. 1987; Hopkins 1909a: 138–142; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966. (bv) Barr, B. A. 1969: 640. (cn) Anderson, R. F. 1960: 225; Brown, C. E., Hopkins, & Robins 1960: 86; Browne 1968b: 224; Cerezke & Emond 1989: 21; Clapp 1942: 31; Craighead 1927: 9; Doane et al. 1936; Drooz 1985: 350; Essig 1926: 514, 1958: 515; Felt 1924: 261, 1926: 248, 261, 1930a: 248, 261; Hatch 1938: 193; Hewitt 1914: 501–518; Hopkins 1909b: 136–139; Ives, Lawrence, & Robins 1974: 71; Jannone & Binghi 1959; Keen 1938: 109, 1952c: 141; Kondo & Moody 1987: 108; Lindgren, B. 1980a: 61; Lindquist, O. H. & Syme 1981: 38; Moody 1988: 77; Powell, J. M., Wong, & Melvin 1972: 15; Robins et al. 1974: 40; Ruppel 1967: 32; Silver & Ross 1960: 98, 1961: 98, 1962b: 111, 1963a: 110; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1910d: 42, 1913: 41–43, 89, 1914: 28, 40, 1918a: 61, 64, 1925: 261–266; Syme & Nystrom 1988: 35; Tripp & Blauel 1969: 103; Tripp, Robins, & Blauel 1970: 89; Tripp, Ross, & Van Sickle 1977: 81; Unger 1976; Watts 1947: 27; Wilson, L. F. 1977: 70; Wood, C. S., Van Sickle, & Humble 1987: 13. (cc) Burks 1979: 799; Callahan & Shifrine 1960: 146; Craighead et al. 1927; DeLeon 1934a; Furniss, R. L. & Carolin 1977: 353; Hopkins 1909b: 136–139; Keen 1938: 109; Muesebeck 1942: 95, 1950: 131; Reid 1955: 316; Tomalak, Welch, & Galloway 1989: 21. (hb) Anderson, R. F. 1960: 225; Bright 1976d: 59; Browne 1968: 224; Chamberlin 1939: 164–165, 1958: 77–78; Doane et al. 1936; Drooz 1985: 350; Essig 1926: 514, 1958: 515; Felt 1926: 248, 261, 1930a: 248, 261; Furniss, M. M. & Johnson 1987: 378; Furniss, R. L. & Carolin 1977: 353; Hopkins 1909a: 138–142; Ives & Wong 1988: 79; Keen 1938: 109, 1952c: 141; Lindgren, B. 1980a: 61; Reid 1955: 316; Swaine 1918a: 61, 64; Wilson, L. F. 1977: 70; Wood, S. L. 1963: 88, 1982b: 189. (ds) Anderson, R. F. 1960: 225; Bright 1976d: 59; Brown, C. E., Hopkins, & Robins 1960: 86; Browne 1968b: 224; Chamberlin 1925, 1939: 164–165, 1958: 77–78; Drooz 1985: 350; Duncan, B. 1987; Essig 1926: 514, 1958: 515; Evans, D. 1983; Evans, D., Lowe, & Hunt 1978; Felt 1926: 248, 261, 1930a: 248, 261; Furniss, M. M. & Johnson 1987: 378; Furniss, R. L. & Carolin 1977: 353; Gast et al. 1989: 385; Gautreau 1974: 5; Gautreau & Melvin 1974: 13; Hagedorn 1910d: 22; Hopkins 1909a: 138–142, 1909b: 136–139; Hopping 1922: 130; Jannone & Binaghi 1959; Keen 1929a: 18, 1938: 109, 1952c: 141; Kleine 1912b: 176, 1914b:

397, 1934a: 133; Kusch 1967; Leng 1920: 338; Lindquist, O. H. & Syme 1981: 38; Mank 1934: 81; McComb et al. 1953: 3; Patterson & Hatch 1945: 150; Ruppel 1967: 32; Smith, G. J. 1974a, 1974b; Smith, C. J. & Melvin 1974a, 1974b; Smith, C. S. 1930; Still, Tidsbury, & Melvin 1974a: 13; Susut & Melvin 1974; Swaine 1913: 89, 1914: 28; Syme & Nystrom 1988: 35; Wood, S. L. 1951a: 127, 1963: 88, 1972a: 405, 1982b: 189. (tx) Anderson, R. F. 1960: 225; Benoit 1985: 89; Bright 1976d: 59; Chamberlin 1939: 164–165, 1958: 77–78; Evans, D. 1983: 31; Hagedorn 1910a: 60; Hopkins 1909a: 72, 138, 140–142; Ives & Wong 1988: 78; Keen 1929a: 18; Kusch 1967; Lindquist, O. H. & Syme 1981: 38; Pardy 1983; Swaine 1918a: 61, 64; Syme & Nystrom 1988: 38; Thatcher, T. O. 1954: 3–6; Thomas, J. B. 1965c, 1967; Thomas, J. B. & Krywienczyk 1966; Wood, S. L. 1963: 9, 13, 88, 1972a: 405, 1982b: 189. (ms) Hatch 1938: 193.

parallelocollis Chapuis 1869: 36. Holotype ♀; Mexico; IRSNB, Brussels.

Figures: Wood 1963: 9 (as *aztecus*).

Distribution: North America (Guatemala/ Honduras/ Chiapas, Chihuahua, Durango, Guerrero, Jalisco, Mexico, Michoacan, Morelos, Oaxaca, Sinaloa in Mexico).

Hosts: *Pinus leiophylla*, *P. montezumae*, *P. oocarpa*, *P. tenuifolia*, *P. spp.*

Notes: (3) Citations of this name in original data by all authors from 1909 to 1969 refer to *D. approximatus* Dietz.

References: (ay) Francke-Grosmann 1966c. (bv) Barr, B. A. 1969: 640. (cn) Anonymous 1960i, 1975r; Becker, G. 1951: 186–209, 1952a: 682–687; Felt 1924: 254, 1926: 248, 254, 1930a: 248, 254; Hopkins 1909b: 75; Massey & Rodriguez 1967a; Perry 1951: 159; Schwerdtfeger 1957b: 585, 1959: 56. (cc) Becker, G. 1951: 186–209, 1952b: 682–687, 1954, 1955; Berryman 1966a: 519, 1966b; Francke-Grosmann 1966c; Livingston, R. L. & Berryman 1972: 1793; Massey 1961: 359, 1966c: 424; Massey & Rodriguez 1967a; Swaine 1925c: 263. (hb) Atkinson et al. 1986: 17; Becker, G. 1951: 186–209, 1952a: 682–687, 1954, 1955; Burgos & Saucedo 1983: 56; Felt 1926: 248, 254, 1930a: 248, 254; Massey & Rodriguez 1967a; Perry 1955: 5; Wood, S. L. 1963: 46, 1982b: 178. (ds) Anonymous 1975e; Atkinson & Equihua 1985a: 73, 1985b: 229, 1988: 88; Atkinson et al. 1986: 17; Becker, G. 1951: 186–209, 1952a: 682–687; Blackwelder 1947; Blandford 1897a; Bongberg & Bennett 1960: 1; Burgos & Saucedo 1983: 56; DeLeon 1938; Felt 1926: 248, 254, 1930a: 248, 254; Ferrer 1942; Hagedorn 1910d: 22; Kleine 1912b: 176, 1914b: 348, 1934a: 133; Massey & Rodriguez 1976a; Peresquia 1978; Perry 1940: 339, 1951: 159, 1955g: 11; Schedl 1940a: 339, 1955g: 11, 1963c: 157, 1977e: 42; Wood, S. L.

1957c: 396, 1963: 46, 1982b: 178. (tx) Blandford 1897a; Chapuis 1869: 36, 1873: 244; DeLeon 1938; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 60; Hopkins 1905b: 80–81; Muesebeck 1942: 95, 1950: 131; Pernisquia 1978; Thomas, J. B. 1965c; Wood, S. L. 1957c: 396, 1963: 5, 13, 46, 1969c: 121, 1982b: 178. (ms) Swaine 1925c: 263.

aztecus Wood 1963: 69. Holotype ♂; San Raphael, Mexico, Mexico; Wood Collection. Synonymy: Wood 1969c: 121.

References: (bv) Barr, B. A. 1969: 640. (tx) Thomas, J. B. 1965c; Wood, S. L. 1963: 69, 1969c: 121.

***ponderosae* Hopkins** 1902c: 10. Lectotype ♀; Spearfish, South Dakota [USA]; USNM, Washington, designated by Wood 1982b: 171.

Figures: Bright 1976d: 195, 200, 206, Struble & Johnson 1955: 3 (all stages), Swaine 1914: 26 (adult), Wood 1963: 7, 13.

Distribution: North America (British Columbia in Canada/Baja California Norte in Mexico/Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA).

Hosts: *Pinus albicaulis*, *P. balfoviriana*, *P. contorta*, *P. coulteri*, *P. edulis*, *P. flexilis*, *P. lambertiana*, *P. monophylla*, *P. monticola*, *P. ponderosa*, *P. strobiformis*, rare (accidental?) in *P. jeffreyi*.

References: (ay) Amman 1982a; Farris 1965a: 3–4; Frye, Flake, & Germain 1974: 753; Godbee & Franklin 1978: 1087; Guenther 1978; Higby 1981; Higby & Stock 1982; Hopkins 1906b: 147–148, 1909a: 109; Hughes 1973c; Langor 1988: 431; Lanier & Wood 1969: 517–519; Lyon 1958: 553; McCambridge 1962: 723; McCambridge & Mata 1969; Nunberg 1928a: 145; Payne et al. 1973; Pierce et al. 1987; Pitman & Vite 1969; Schonherr 1970b; Smith, R. H. 1965a; Stevenson 1967: 203; Stock, M. W. & Amman 1980, 1983; Stock, M. W., Amman, & Higby 1984; Stock, M. W., Gregoire, & Furniss 1987; Stock, M. W. & Guenther 1979; Stock, M. W., Guenther, & Pitman 1978; Stock, M. W. & Higby 1980; Stock, M. W., Pitman, & Guenther 1979; Sturgeon 1980b, 1980c; Sturgeon & Mitton 1986a; Sturgeon & Robertson 1985; Thomas, J. B. 1967; Trostle 1986; Whitehead 1981, 1986; Whitehead et al. 1989; Whitney & Farris 1970. (bv) Amman 1972a, 1975, 1976, 1977, 1978, 1982a, 1985b, 1988a, 1989a; Amman & Cole 1982; Annala 1971a: 12; Anonymous 1965a; Baker, B. H., Amman, & Trostle 1971; Bakke 1973; Barr, B. A. 1969: 640; Bartos 1988a, 1988b; Berryman 1968a: 61, 1976b, 1988; Berryman et al. 1978, 1985; Billings 1975; Billings, Gara, & Hrutford 1976; Borden 1984; Borden, Chong, & Fuchs 1983; Borden, Chong et al. 1983; Borden, Conn et al. 1983; Borden & Lacey 1985; Borden & Lindgren 1988a, 1988b;

Borden et al. 1987; Cerezke 1989; Chararas et al. 1982: 1095; Chatelain & Schenk 1983; Christiansen & Huse 1980: 473; Cochran 1972; Cole, D. M. 1973; Cole, W. E. 1969, 1973, 1975; Cole, W. E., Amman, & Jensen 1976; Cole, W. E., Guyon, & Jensen 1981; Cole, W. E. & Shepherd 1967; Conn et al. 1983, 1984; Cox, R. C. 1967b; Creasap 1977a; Dixon et al. 1988a, 1988b; Du 1987; Fares, Sharpe, & Magnuson 1980a, 1980b; Fargo et al. 1979: 628; Gara, Geiszler, & Littke 1984; Gargiullo & Berisford 1981: 392; Geiszler, Gara, & Littke 1984; Coheen et al. 1985; Gray, B. 1972; Gries et al. 1988; Grossman 1988: 10; Hall 1989; Hawksworth 1985; Hughes 1973c, 1973d; Hughes, Renwick, & Vite 1976: 1167; Hunt & Borden 1988, 1989; Hunt & Smirle 1988; Hunt et al. 1986, 1989; Hynum 1978b; Hynum & Berryman 1980, 1981; Inscoc 1982; Inscoc & Beroza 1976: 172; Jacobson 1972; Klassen, Ridgway, & Inscoc 1982; Klein, Parker, & Jensen 1978; Langor 1989; Larsson et al. 1983; Lant 1985; Libbey, Ryker, & Yandell 1985; Lindgren 1983; Lindgren & Borden 1989; Lister & Lant 1987; Mata 1972; McCambridge 1962, 1964: 1–4, 1967b, 1968b, 1969, 1970, 1971, 1974b; McChehey 1965: 1153, 1969: 2, 1971; McGregor & Miller 1989; McMullen & Safranyik 1985; Miller, J. M. & Keen 1960: 146; Miller, M. C. et al. 1989; Miller, R. H. & Berryman 1986; Miller, R. H., Whitney, & Berryman 1986; Moeck 1980; Moeck, Wood, & Lindahl 1981; Nijholt, McMullen, & Safranyik 1981; Olsen, R. C. 1969; Payne & Wood 1981: 480; Pierce et al. 1987; Pitman 1966b, 1969a: 143–149, 1971; Pitman, Stock, & McKnight 1978; Pitman & Vite 1969: 143–149; Raffa 1980, 1981, 1988a, 1988b; Raffa & Berryman 1982a, 1982c, 1983a, 1983b, 1987; Rasmussen 1974, 1980, 1987; Renwick & Pitman 1979; Renwick & Vite 1968: 65–68, 1970; Rudinsky 1973a: 512, 1974, 1979a: 408; Rudinsky & Michael 1973; Rudinsky et al. 1974; Ryker 1988; Ryker & Libbey 1982; Ryker & Rudinsky 1976b, 1982; Ryker & Yandell 1983; Safranyik 1970a: 4192, 1989; Safranyik & Jahren 1970a: 11, 19, 1970b: 35–36; Safranyik & Vithayasai 1971; Schmitz, R. F. 1988a, 1988b; Schmitz, R. F. et al. 1980; Schonherr 1970b, 1976, 1977; Shepherd 1960: 1001, 1965a: 207–215, 1965b, 1966: 507–518; Shepherd & Cook 1962, 1963; Silverstein 1970a, 1970b; Silverstein & Young 1976: 20; Stark, R. W. 1978; Stark, R. W. et al. 1968; Stock, M. W. & Borden 1983: 549; Stock, M. W. & Guenther 1979; Svihra & Volney 1983: 519; Syed & Graham 1987; Thomas, T. L. & Agee 1986; Trostle 1971; Vanderval et al. 1988; Vite 1969, 1970b: 249–250, 1975; Vite & Pitman 1967: 683–701, 1968: 169–170, 1969: 113–117; Waring & Pitman 1983; Weber, R. & Schurig 1984; Whitehead 1986; Whitehead et al. 1989; Wood, D. L. 1967b, 1968, 1970a, 1976, 1980b; Yandell 1984.

- (cn) Ahern 1988; Alexander, N. E., Borden, & Vakenti 1976; Allen, J. W. & White 1981; Allen, S. J. 1969: 12, 1977, 1978, 1979; Allen, S. J. & Unger 1975: 5, 1976: 3; Allen, S. J. & Wood 1973a: 5, 1973b: 6; Amman 1969: 1-8, 1970: 134-139, 1975, 1976, 1983a, 1983b, 1985a, 1988a, 1988b, 1989a, 1989b; Amman & Anhold 1989; Amman & Baker 1972; Amman, Baker, & Stipe 1973; Amman, Lessard, et al. 1988; Amman & McGregor 1985; Amman, McGregor, & Dolp 1985; Amman, McGregor, et al. 1988; Amman & Rasmussen 1969: 631-634, 1974; Amman & Schmitz 1958; Amman et al. 1977, 1988, 1989; Anderson, L. S. et al. 1976; Anderson, R. F. 1960: 221; Andrews 1968a: 141, 1968b: 146, 1969b: 135, 1982; Andrews & Erickson 1973a: 5, 1973b: 3, 1975, 1976: 2; Andrews & Monts 1977: 2, 1978: 2, 1979: 2; Andrews & Vanderwal 1971: 4; Andrews, Vanderwal, & Baumann 1969: 136; Andrews, Vanderwal, & Wood 1970: 4; Anhold 1986a, 1986c, 1986d, 1988; Anhold, & Jenkins 1987; Ammand 1941, 1942: 26, 1947a: 30, 1947b, 1948: 34, 1949: 26; Anonymous 1940i: 580, 1941i: 812, 1955g: 9, 1955j: 8, 1958a: 4, 1960, 1960g: 8, 1960h: 3, 1960i, 1960j: 1, 1961s, 1962h, 1963b, 1963y, 1964h, 1964u, 1965b, 1965r, 1966f, 1966i, 1966u, 1967h, 1967t, 1968g, 1968p, 1969e, 1969f, 1969m, 1970h, 1970k, 1970t, 1971e, 1971i, 1972f, 1972g, 1972t, 1973b, 1973n, 1974e, 1974f, 1974n, 1974v, 1975e, 1975f, 1975g, 1975aa, 1976, 1976e, 1976f, 1976g, 1976h, 1976q, 1977g, 1977h, 1977i, 1977n, 1977x, 1978a, 1978f, 1978b: 35, 1978g, 1978h, 1978q, 1978r, 1978s, 1978z, 1979a, 1979e: 4, 1979f, 1979g, 1980a, 1980m: 30, 1981a, 1981g, 1981j, 1981v, 1982b, 1982c, 1983b, 1983d, 1983f, 1984a, 1984d, 1984f, 1985i: 5, 1986b: 5, 1986e, 1986f, 1987e: 3, 1987i, 1988b, 1988c; Arno & Hoff 1989; Averill 1978a; Averill & Leatherman 1975, 1983; Averill & Lister 1982; Averill et al. 1977; Bailey 1957: 30-37; Baker, B. H. 1969; Bakke 1973; Baldwin, P. H. 1965: 79; Baltensweiler 1985; Bartos & Downing 1988, 1989; Bauman 1967: 168, 1968: 184, 1969: 158; Beal 1937b: 1-5, 1939: 1-9, 1943: 359-366, 1950, 1951: 58; Beatty 1980: 3, 1983; Beaveric 1912; Becker, C. 1951; Beddows 1968: 216, 1969: 195; Beeson 1918: 114-124; Bennett 1981, 1983; Bennett & Bonsfield 1979; Benson, Watson, & Wyllie 1973; Bentz, B. et al. 1989; Berryman 1969: 1033, 1973: 1480, 1976b, 1978, 1979, 1982a, 1983, 1987, 1988; Berryman & Ashraf 1970: 1235; Berryman & Stark 1985; Berryman et al. 1978; Beveridge & Thier 1982; Blackman 1931c; Bollenbacher & Gibson 1986; Bongberg 1956a, 1957, 1962; Boone 1925; Borden, Chong, & Bergvinson 1988; Borden, Chong, & Lacey 1986; Borden & Lacey 1985; Borden & Lindgren 1988a, 1988b; Borden et al. 1983; Bonsfield & Carlson 1978; Bonsfield, Eder, & Bennett 1985; Bonsfield, Hagle, & Kohler 1988; Bonsfield, McGregor, & Kohler 1973; Brennan 1982; Brohman, Brickell, & McGregor 1972; Browne 1968b: 225; Brues 1920: 70; Buckman 1973; Buell 1953; Burke 1906: 4, 1908; Buttrick 1912: 456; Byler et al. 1986; Cahill 1971a, 1971b, 1972a, 1972b, 1972c, 1972d, 1973a, 1973b, 1973c, 1975a, 1975b, 1975c, 1975d, 1976, 1977, 1978; Cahill & Johnson 1976; Cahill & Lister 1971; Cahill, Lister, & Brown 1973; Cahill & Yarger 1976; Call 1989; Carlson & Cole 1965; Ceballos & Cordoba 1945a; Celaya 1980; Cerezke 1989; Cerezke, Borden, & Trott 1984; Cerezke & Emond 1989: 11; Chamberlin 1939: 156-158, 1958: 72; Chansler, Cahill, & Stevens 1970: 3; Chansler & Pierce 1966: 1357-1359; Chatelain & Schenk 1984; Cheng 1989; Chrystal 1949b: 3-11; Ciesla 1971, 1974, 1978; Ciesla, Dewey, & Timnock 1971: 17; Ciesla, McGregor, & Meyer 1971; Cole, D. M. 1973, 1978, 1985a, 1985b, 1985c, 1989; Cole, W. E. 1962a, 1964a, 1967: 860-861, 1974, 1978a, 1980, 1989; Cole, W. E. & Amman 1969: 7, 1980; Cole, W. E., Amman, & Jensen 1976, 1985; Cole, W. E. & Cahill 1976; Cole, W. E., Cahill, & Lessard 1983; Cole, W. E. & Jensen 1985; Cole, W. E. & McGregor 1983a, 1985, 1988; Cole, W. E. & Sheperd 1967: 13-15; Cole, W. E. & Weenig 1967: 857-858; Colling 1988; Collis & Alexander 1966a, 1966b; Cottrell 1967: 88, 1968: 37, 1973: 6; Cottrell & Adams 1973; Cottrell & Doidge 1972: 3; Cottrell & Erickson 1977: 2, 1978: 2; Cottrell & Fiddick 1962, 1968, 1972; Cottrell & Koot 1975, 1976; Cottrell & Monts 1970a, 1970b; Cottrell, Unger, & Fiddick 1979: 21; Cottrell & Wood 1971: 3; Coulson & Witter 1984: 524; Cox, R. C. 1967a, 1968, 1969, 1972; Craighead 1924, 1925a: 347-348, 1925c, 1927: 7-8, 1930: 5, 1938, 1942a, 1942b: 368-386, 1947, 1948, 1949, 1951, 1952; Craighead & Middleton 1930; Creasap 1976a, 1976b, 1976c, 1977a, 1977b, 1977c, 1977e, 1977f, 1977g, 1977h, 1977i, 1977j, 1977k, 1978a, 1978b; Creasap & Hostetler 1978; Creasap & Minnemeyer 1976; Crookston 1977, 1978, 1979; Crookston & Stark 1985; Currie 1905: 100; Curtis & Hadfield 1977a, 1977b; Curtis & Johnson 1975; Curtis & Tegethoff 1978; Dahlsten & Herman 1965: 8-10; Dahlsten & Dreistadt 1984; Dale & Kliejunas 1986; Daniel, T. C. 197.; Davis 1938: 31; Davis & White 1989; DeNitto 1984; DeNitto & Pierce 1981; DeNitto & Schmitz 1982b; Dewey & Clinton 1980; Dewey et al. 1974; Dillman & White 1982a, 1982b; Dillman et al. 1980, 1981; Doane et al. 1936; Dobie & Wright 1978; Doidge 1967: 196, 1968: 109, 1969: 107, 1972: 4, 1973a: 7, 1973b: 4, 1975: 5, 1976: 3; Doidge & Koot 1977: 2, 1978: 4; Dolph 1971; Dolph & Hadfield 1971; Dolph & Pettinger 1968: 16, 1969: 7, 1971: 4; Dolph & Wear 1963; Dooling, Dewey, & Ciesla 1973: 29; Downing 1954; Dyer & Hall 1979; Dyer, M. I. & Kovacic 1977; Emerson 1982; Erickson & Wood 1979: 2; Escherich 1912a, 1913; Essig 1926: 514, 1958:

- 515; Evenden 1924; Felt 1924: 256, 1926: 248, 256, 1930a: 248, 256; Felt & Rankin 1932: 405; Fiddick 1967: 4, 1968a, 1968b: 6, 1969c, 1970b, 1970c: 4, 1971b, 1979, 1980: 2; Fiddick & Molnar 1966: 4; Fiddick, Molnar, & Harris 1966: 2; Fiddick & Van Sickle 1979: 3, 1980: 4, 1982: 4; Fiedler 1989; Finnis 1976; Flake 1973; Flake & Germain 1970: 24; Foiles 1972; Freeling & Seaver 1980; Frye 1971b: 26, 1974a, 1974b, 1975; Frye & Landis 1975; Frye et al. 1977: 1221; Fuchs & Borden 1985; Fuller 1983; Fuller & Hostetler 1980; Gara & Coster 1968: 77-86; Gara et al. 1985, 1986; Gates 1947: 7, 1948: 28-29, 1951: 38-40; Geiler 1975; Geistlinger 1967: 120, 1968: 127, 1969: 121; Gentry, G. R. et al. 1979: 806; Gerber, Tonks, & Ross 1983; Germain & Wygant 1967: 1-4; Gibson, K. E. 1977, 1978a, 1978b, 1978c, 1981, 1982a, 1982b, 1983, 1988a, 1988b, 1989a, 1989b; Gibson, K. E. & Bennett 1975, 1985; Gibson, K. E. & Dooling 1985; Gibson, K. E. & McGregor 1979; Gibson, K. E., McGregor, & Amman 1985; Gibson, K. E., McGregor, & Bennett 1980; Gibson, K. E., McGregor, & Dewey 1980; Gibson, K. E., McGregor, & Oakes 1985; Gibson, K. E. & Oakes 1987: 87; Gibson, K. E. et al. 1984, 1987, 1988; Gillette 1903: 118; Gillman & Bailey 1977, 1978: 6; Graham 1939b, 1952; Graham & Miller 1989; Grant, J. 1967b: 187, 1968a: 199, 1968b: 206, 1969b: 182; Grant, J., Lund, & Beddows 1970: 8; Gray & Borden 1989; Gregg, Filip, & Hadfield 1980: 37; Gregg, Coheen, & Bridgewater 1978: 42; Gregg & Hadfield 1978; Gregson 1978; Griffin, D. N. 1975; Grigel 1976; Guillette 1902; Guise 1976; Hacussler 1952: 145; Hagle et al. 1937: 37; Haight, Brodie, & Dahms 1985; Hall, P. M. 1989; Hall, P. M., Dyer, & McMullen 1978; Hall, R. C. & Davies 1968; Halperin 1976a; Hamel 1977, 1978, 1980: 708, 1989; Hamel & McGregor 1976b, 1976c; Hamel, McGregor, & Berg 1975a, 1975b; Hamel, McGregor, & Meyer 1974; Hamel, McGregor, & Oakes 1977a, 1977b, 1977c; Hamel & Oakes 1977a, 1977b, 1977c; Hamel, Oakes, & Hothem 1977; Hamel et al. 1975; Haneman 1983; Hanna 1937: 10; Haraden 1982; Harris 1982; Harris & Dawson 1979: 4; Harris, Dawson, & Brown 1982, 1983; Harris, Dawson, & Goodenough 1978; Harvey, E. C. 1967; Hawthorne 1963b; Heinrichs 1983; Hellen et al. 1959: 1; Heller et al. 1959: 1-8; Helzner & Moyer 1979; Hester 1941: 8-9, 1968: 47; Hester & Edward 1939: 15-16; Hiratsuka, Cerezke, & Petty 1980: 7; Hiratsuka & Petty 1981: 73; Hiratsuka et al. 1982: 4; Hobbs 1985; Hobbs & Holland 1983; Hodges 1985; Hofacker & Loomis 1982: 3, 1983: 3; Hofacker, Loomis, & Gilstrap 1988: 7; Hofacker, Loomis, & Tucker 1984: 5, 1987; Hoffman et al. 1988: 2; Holland 1984; Holland & Tkacz 1984; Honing 1970: 21; Hopkins 1901a: 251, 1902b: 63, 1902c: 10, 1902d: 21, 1902e, 1903: 275-281, 1904a: 41-46, 1905c: 5, 22, 1906a, 1906c: 631, 1906d: 254, 1907c: 515, 1908c: 162, 1909b: 90-101, 1909c: 59, 76, 1909d: 574, 1910e, 1910f: 2, 1910g: 59, 76, 1912b: 4, 7; Hostetler 1978; Hostetler & Young 1979a, 1979b; Houseweart & Wygant 1971; Howard 1906: 13, 1909: 21; Hoyt 1950: 16, 1951b: 16, 1953: 21; Hynnum & Berryman 1981; Isley 1941: 101-103; Ives & Wong 1988: 75; James & Linnane 1979, 1980; James et al. 1985; Jamieson 1968b; Johnson, D. W. 1952; Johnson, D. W. & Averill 1983; Johnson, D. W. & Creasap 1978a, 1978b; Johnson, D. W. & Curtis 1986; Johnson, D. W. & Minnemeyer 1976, 1977: 31; Johnson, P. C. 1967: 7, 1972; Johnson, P. C. & Schmitz 1965; Johnson, W. T. & Lyon 1976: 53; Katovich & Lavigne 1986: 222; Kaufmann & Stevens 1984; Keen 1938: 106, 1949b: 427, 1950: 147-148, 1952a: 688, 1952c: 129, 139, 1958b: 177-179; Keysor 1986a, 1986b, 1986c; Kinghorn 1955a: 501; Klein, W. H. 1966: 16, 1967, 1968, 1969, 1970, 1973a, 1973b, 1974, 1975a, 1975b, 1976a, 1976b, 1976c, 1976d, 1978, 1979a, 1979b, 1979c, 1982; Klein, W. H., Bennett, & Young 1978a, 1978b, 1978c; Klein, W. H. & McGregor 1966; Klein, W. H. & Parker 1970: 14; Klein, W. H., Parker, & Jensen 1978; Klein, W. H. & Stipe 1971: 13; Klein, W. H., Stipe, & Frandsen 1972; Klein, W. H. & Tegethoff 1970; Klein, W. H. et al. 1973: 24; Knapp 1985; Knapp et al. 1989: 3; Knight 1958a: 35, 1959a: 56, 1959b: 1-6, 1960b: 1199-1202, 1960c: 1-4, 1976; Knight & Wilford 1954: 3-4; Knight & Yasinski 1956: 1-4; Knopf, J. 1978, 1981; Knopf, J., Klein, & Tegethoff 1977: 18; Knopf, J. et al. 1978: 28; Kohler 1976; Kohler, Dooling, & Bousefield 1985; Kondo & Moody 1987: 17; Kondo & Taylor 1985: 9; Kovacic, Dyer, & Cringan 1985; Kulhavy, Partridge, & Stark 1978; Landgraf 1959: 1-19, 1966a: 25; Landgraf & Ostmark 1958: 3; Landis, Averill, & Frye 1977: 28; Lang et al. 1978; Laut 1981, 1985; Laut & Leatherman 1977; Lawson 1980; Lea et al. 1937: 318; Leach 1940b: 218; Lee 1989; Leng 1920: 338; Lessard 1978, 1979a, 1979b, 1979c, 1981b, 1982a, 1984a, 1984b, 1984c, 1985a, 1989; Lessard & Fuller 1981, 1982; Lessard & Johnson 1981; Lessard & Walters 1978: 23; Lindgren 1980a, 1983a, 1983b, 1985; Lindgren & Borden 1989; Lindgren et al. 1989; Linnane 1984; Lister 1971a, 1971b, 1972a, 1972b, 1973a, 1973b, 1973c, 1973d, 1973e, 1973f, 1973g, 1973h, 1973i, 1981, 1982; Lister & Cahill 1970: 22; Lister & Hildebrand 1984; Lister & Laut 1987; Lister & Letterman 1978; Lister & Young 1981; Livingston, R. L. 1979, 1989; Livingston, R. L. et al. 1988: 2; Loomis, Hofacker, & Tucker 1985: 7; Lotan & Perry 1983: 12; Loveless 1979; Lowe & Moyer 1980; Lucht 1966: 28, 29; Lucht & Moore 1963: 19; Lyon 1969; Lyon & Swain 1968: 1-4; MacLauchlan et al. 1988; Mahoney 1978b; Manning 1982; Manning et al. 1982; Marlatt 1928:

- 1-34; Martinsson 1978; Massey 1951, 1956a: 20; Massey, Wygant, & Washburn 1950; Massey et al. 1952: 861-862, 1953b: 601-604; Mata 1972; Mattson & Haack 1987; McBride, J. K. 1982; McCambridge 1967: 920-928, 1968b: 137-140, 1969: 1-3, 1972, 1974a, 1978, 1981, 1982a, 1982b; McCambridge, Amman, & Trostle 1979; McCambridge, Laut, & Gosnell 1975; McCambridge & Mata 1969: 507-512; McCambridge & Stevens 1982; McCambridge & Trostle 1972; McCambridge et al. 1982; McGregor 1972, 1973a, 1973b, 1973c, 1974, 1977a, 1977b, 1978a, 1978b, 1979, 1981, 1982a, 1982b, 1985, 1988; McGregor, Amman, & Cole 1981; McGregor, Bennett, & Meyer 1979; McGregor & Berg 1973; McGregor, Bousfield et al. 1974; McGregor & Cole 1985a; McGregor & Dewey 1971; McGregor & Ferry 1974; McGregor, Furniss et al. 1974; McGregor, Gibson, & Oakes 1982; McGregor, Hamel, & Lood 1976; McGregor, Hamel, & Meyer 1978; McGregor, Hamel, & Oakes 1977a, 1977b; McGregor, Hamel et al. 1978; McGregor & Kohler 1973; McGregor, Kohler, & Ferry 1974; McGregor & Lood 1970, 1973; McGregor, Mark et al. 1978; McGregor & Meyer 1973, 1983; McGregor, Oakes, & Meyer 1983; McGregor & Shipe 1975; McGregor & Tunnock 1971; McGregor et al. 1974, 1975a, 1977: 24, 1985, 1987, 1989; McGugan 1966; McLeod 1976; McMullen 1980; McMullen & Betts 1981, 1982; McMullen & Safranyik 1985; McMullen et al. 1986: 7; Metcalf & Flint 1951: 797; Michalson 1975; Michalson & Findeis 1979; Miller, J. M. 1924: 50, 1927a: 162; Miller, J. M. & Keen 1960: 146; Miller, R. H. & Berryman 1985; Miller, R. H., Berryman, & Ryan 1986; Miller, R. H., Whitney, & Berryman 1986; Mills 1983; Minnemeyer 1971a, 1971b, 1971c, 1971d, 1971e, 1971f, 1971g, 1971h, 1972a, 1972b, 1972c, 1972d, 1973a, 1973b, 1974; Mitchell, R. G. 1983, 1989; Mitchell, R. G., Martin, & Stuart 1983; Mitchell, R. G., Waring, & Pitman 1983; Moeck 1988; Moeck & Safranyik 1984; Mogren 1955: 1477, 1956b: 61-63, 1958: 1; Molnar, Harris, & Ross 1965: 96, 1967: 111; Molnar, Ross, & Fiddick 1971: 78, 1972: 83; Molnar et al. 1968: 110, 1969: 112, 1970: 100; Monts 1967: 79, 1968: 75, 1969: 82; Moody 1982, 1988: 15; Moody & Cerezke 1983: 7, 1984, 1985; Moore, J. A., Mahoney, & Schenk 1981; Morris, E. V. 1967: 151; Morris, E. V., Brown, & Wegwitz 1970: 4; Morris, E. V., Cottrell, & Wood 1979: 5; Morris, E. V. & Monts 1972: 2, 1973a: 5, 1973b: 8, 1975: 16, 1976: 2; Morris, E. V. & Vanderwal 1968: 163; Morris, E. V. & Wood 1977: 4, 1978: 4; Moulson 1985d; Moyer 1977; Munns et al. 1928: 334; Murray, J. C. 1982; Murtha & Wiart 1987, 1989; Mutch 1981; Neal 1979: 805; Newton, M. & Holt 1971; Nielson 1986; Nielson & Mackay 1986; Nijholt & McMullin 1980; Nijholt, McMullin, & Safranyik 1981; O'Neil 1984, 1986, 1988; O'Neil & Lessard 1983, 1984; O'Neil & Sharon 1988: 11; Ollieu, Stipes, & Hoffman 1950: 26; Orr, P. W. 1954: 251, 1954: 2, 1963b, 1966; Orr, P. W., Pettinger, & Dolph 1965, 1966; Ostmark 1956: 3; Ostmark & Wilford 1956: 4-5, 13; Overhulser 1986; Owen 1986: 4; Page, Haverty, & Richmond 1985; Parker, D. L. 1971a, 1971b, 1973b, 1973c, 1973d, 1974, 1976, 1977, 1978, 1980; Parker, D. L. & Acciavatti 1975; Parker, D. L. & Stevens 1979; Parker, D. L. & Stipe 1974; Parker, D. L. et al. 1977: 35; Patterson, J. E. 1930: 3; Patterson, V. B. et al. 1973: 18; Payne & Wood 1981: 480; Pearson 1950: 154; Peirson 1922: 629; Peterman 1977; Peterson, R. M. 1982; Pettinger 1979; Pettinger & Dolph 1967: 13, 1969, 1970: 10, 1971: 6; Pettinger & Johnson 1973a: 1, 1973b: 9, 1974; Pierce, J. R. 1966: 14, 1970: 11, 1971: 12; Pierce, J. R. & Srago 1973: 15; Pierce, J. R., Srago, & Fujii 1977: 14; Pierce, J. R., Wood, & Fujii 1977: 15; Pitman 1970, 1971; Pitman, Stock, & McKnight 1978; Plank 1984; Plank, Snellgrove, & Fahey 1986; Powell, J. M. 1966: 1-19, 1967: 189-201, 1969: 1-11; Poyner 1947: 24-25; Preston 1925: 51; Price 1955: 15-17, 1956: 21-24, 1957: 81-99; Pronos & Dale 1981; Pronos & Schultz 1984a, 1984b; Raffa 1988b; Raffa & Berryman 1982a, 1983a, 1986; Ragenovich 1979, 1980b: 20; Raimo & Haneman 1981; Raimo & Sharon 1981; Reed & Errico 1987; Reed, F. L. C. 1982; Richmond 1985; Robertson, J. 1979; Robinson, L. A. & Dooling 1978: 8; Roe & Amman 1970: 1-23; Rogers, S. W. 1976; Rogers, T. J. 1981; Rogers, T. J. & Hessburg 1985; Rogers, T. J. & Maffei 1987: 2, 1988: 2; Ross, D. A. 1965a: 8-10, 1965b; Ross, D. A., Baranyay, & Fiddick 1973: 84; Ross, D. A., Van Sickle, & Wood 1981: 81; Rost 1978; Rudinsky 1979a; Ruppel 1967: 32; Ryker & Rudinsky 1979: 209; Safranyik 1970a, 1976a, 1976b, 1976c, 1982a, 1982b, 1985a; Safranyik, Shrimpton, & Whitney 1974, 1976; Safranyik, Van Sickle, & Manning 1981; Safranyik & Whitney 1980; Safranyik et al. 1989; Salmon 1933; Sampson, Betters, & Brenner 1980; Sampson, Betters, & Love 1980; Sartwell, C. 1969: 255, 1971b, 1988; Sartwell, C. & Dolph 1976; Sartwell, C. & Stevens 1975; Schenk et al. 1980; Schlotz 1972; Schmid 1972a, 1976b, 1987; Schmid & Averill 1989; Schmid, Mata, & McCambridge 1985; Schmidt, W. 1982; Schmitz, R. F. 1984, 1985a, 1985b, 1989; Schmitz, R. F. et al. 1989; Schonherr 1976; Schultz & Kliejmas 1983; Schultz & Roettgering 1984; Schwandt et al. 1986; Schwarz 1902: 32; Seal 1964; Sharon & O'Neil 1985; Sharpnack & Wong 1982; Shea 1989; Shea & McGregor 1987; Shore et al. 1989; Shrimpton 1976, 1982, 1983; Shrimpton & Thomson 1981; Silver & Ross 1964b: 112, 1965a: 114; Skorheim & Kistler 1975; Smith, A. 1978, 1980, 1981; Smith, G. J. & Melvin 1974a, 1974b; Smith, C. W. 1953: 11; Smith, R. H. 1963b, 1969: 13, 1970: 1180-1181, 1976b, 1981, 1982; Smith, R. F.

- & Huffaker 1973: 36, 1974; Smith, R. H., Trostle, & McCambridge 1977; Snyder 1949: 35–36, 1950: 75–78; Stark, R. W. 1973, 1978; Stark, R. W. & Cobb 1969: 13–15; Stark, R. W. & Waters 1985; Stark, R. W. et al. 1980; Stemmer & Davidson 1981: 6, 1982, 1983: 11; Stevens 1981; Stevens, Brewer, & Leatherman 1980: 21; Stevens & Hall 1960; Stevens, McCambridge, & Edminster 1980; Stevens & Mitchell 1970: 1–4; Stevens et al. 1974; Stipe 1975a, 1976b; Stipe, Valcarce, & Tegethoff 1977: 20; Stipe et al. 1987; Stock, A. J. & Gorley 1989; Stock, M. W. & Guenther 1979; Stock, M. W., Guenther, & Pitman 1978; Strong 1936: 1–120, 1937: 20, 1938: 15, 1939: 23, 1940: 23–25, 1941: 492; Struble & Johnson 1955: 1, 1967: 1–4; Stuart 1984; Stuart et al. 1983; Sturgeon & Mitton 1986b; Sugden & Ross 1965; Swaine 1905: 631, 1906: 515, 1907: 548, 1908: 10–11, 1908: 574, 1909: 95, 1913: 90, 1914: 1–40; Swingle 1959: 44–45; Tanimoto 1978; Tearoe 1976; Tegethoff, Hinds, & Eslyn 1977; Telfer 1982; Terrell 1962; Thier & Beveridge 1979; Thier & Hoffman 1983; Thomas, P. R. 1986; Thompson, G. 1975; Thompson, J. 1984; Tilden 1985; Tripp 1976; Tripp & Blauel 1969: 104; Tripp, Ross, & Baranyay 1974: 78; Tripp, Ross, & Hunt 1975: 83; Tripp, Ross, & Van Sickle 1977: 75, 1978: 77; Troxell et al. 1980; Tunnock 1966: 20, 1970: 23; Tunnock & Dooling 1977: 27; Tunnock et al. 1984; Turnbull 1982; Unger 1975: 12, 1976, 1977, 1982; Unger & Fiddick 1979: 4; Valcarce 1978; Vandenburg 1989; Vanderwal 1969: 146; Van Sickle 1982, 1989; Vining 1982; Vite 1969, 1970b; Vogler & Dale 1982; Vogler & Schultz 1985; Wagner et al. 1979: 1135; Walsh & Keleta 1981; Walsh, Keleta, & Olienyk 1981; Walsh et al. 1981; Walters, J. W. & Lessard 1978: 11; Waring & Pitman 1985; Washburn & Knopf 1959; Waters 1985b, 1985c; Waters, Stark, & Wood 1985; Wear 1979; Weaver 1949: 26; Weber, F. P. 1970, 1976; Wellner 1978; White, W. B., Bousefield, & Young 1983; Whitney 1971, 1976; Whitney et al. 1978; Wilford 1965; Winquist & Vandenbrink 1982; Wood, C. S. & Van Sickle 1983: 9, 1987: 10, 1989: 10; Wood, C. S., Van Sickle, & Shore 1984: 79, 1985: 12; Wood, C. S., Van Sickle, & Humble 1987: 10; Wood, D. L. 1980b; Wood, D. L. et al. 1985; Wood, R. O. 1967: 104, 1968a, 1968b, 1969: 90, 1970, 1982; Wood, R. O. & Doidge 1971: 4, 1972: 3; Wood, R. O., Geistlinger, & Doidge 1970: 3; Wood, R. O. & Koot 1973a: 20, 1973b: 10; Wood, R. O. & Unger 1977: 2, 1978: 2; Wood, R. O. & Wood 1975: 8, 1976: 3; Woodward 1940: 49–51; Wortendyke 1968; Wright, K. H. 1965; Wygant 1938: 15, 1939: 14, 1942c, 1942d, 1945: 14, 1959: 274; Wykoff et al. 1947: 36; Yarger 1975, 1976; Yasinski 1956: 2–8; Yasinski & Pierce 1957: 6, 1958: 3, 9; Yuill 1940. (cc) Alfaro 1977; Amman 1970, 1972a, 1972c, 1973, 1976, 1977, 1984, 1989a; Amman & Baker 1972; Amman, Baker, & Stipe 1973; Amman & Baldwin 1960; Amman & Cole 1983; Amman, McGregor, & Dolp 1985; Amman & Pace 1976; Amman & Pasck 1986; Amman & Rasmussen 1969, 1974; Amman et al. 1977; Ashraf & Berryman 1969: 13, 1970: 206; Atkins 1966a: 286; Ayer et al. 1986; Baldwin, P. H. 1965: 79; Ball & Dahlsten 1973: 1455; Ballard, Walsh, & Cole 1982a, 1982b, 1984; Baltensweiler 1985; Barras & Hodges 1969: 492; Bartos 1985a, 1985b; Bartos & Amman 1989; Beal 1943; Bedard 1966a: 936; Berryman 1966b: 519, 1974: 583, 1976, 1978, 1987, 1988; Berryman, Stenseth, & Wollkind 1984; Billings & Gara 1975; Billings, Gara, & Hrutford 1976; Blackman 1931c; Brand et al. 1975; Buckhorn 1975; Bull 1983; Burks 1979: 799; Cabrera 1978; Callahan & Shifrine 1960: 146; Carter, S. W. 1978, 1982; Chamberlin 1939: 156–158, 1958: 72; Chapman 1969a; Cobb & Stark 1970: 147–149; Cobb et al. 1968; Cochran 1972; Cole, D. M. 1973, 1978; Cole, D. M. & Jensen 1980; Cole, W. E. 1962b, 1967, 1972b, 1973a, 1973b, 1973c, 1975, 1978b, 1981; Cole, W. E. & Amman 1980; Cole, W. E. & Jensen 1985; Cole, W. E. & Shepherd 1967; Craighead et al. 1927; Creasap 1977a; Crookston & Stark 1985; Dahlsten & Stephen 1974; Davidson 1958, 1979; DeLeon 1939: 13; Dyer, M. I. & Kovacic 1977; Fares, Sharpe, & Magnuson 1980a; Farmer 1965; Farris 1965a; Felix, Uhrenholdt, & Parmeter 1971: 1697; Francke-Grosman 1931; Frye, Flake, & German 1974: 753; Frye & Landis 1975; Fuller 1983; Furniss, M. M. & Schenk 1969: 518–519; Furniss, R. L. & Carolin 1977: 353; Gara 1988; Gargiullo & Berisford 1981: 392; Geiler 1975; Geiszler et al. 1980; Gibson, K. E. & Bennett 1979; Goheen & Cobb 1975, 1980; Goheen et al. 1985; Graham 1939b, 1952; Graves 1899; Gray, B. et al. 1972; Grossman 1931a; Hamel & McGregor 1976a; Hanover 1975; Harvey, R. D. 1979; Hawksworth 1985; Hawksworth, Lister, & Cahill 1983; Helms, Cobb, & Whitney 1971; Hinds et al. 1984; Hofacker et al. 1989: 9; Hopkins 1903: 275–281, 1905c: 5, 22, 1909b: 90–101; Hopping 1950c: 74; Howard 1927: 25; Hunt, D. W. A. 1986; Hunt, D. W. A. et al. 1984; Hunt, R. S. & Morrison 1986; James, Stewart, & Williams 1984; Johnson, Nagel, & Rudinsky 1965: 552; Johnson, D. W. 1982; Johnson, D. W. et al. 1976; Jones, R. & Brindley 1970: 313–316; Keen 1938: 106, 1950: 187, 1958b: 177; Kidd & Reid 1979; Kinn 1971; Knight 1959a: 56, 1960, 1960b: 1199; Knight & Yasinski 1956: 1; Korstian 1925: 448; Kovacic 1983b; Kovacic, St. John, & Dyer 1984; Kulhavy, Partridge, & Stark 1978, 1984; Langor 1989; Lea et al. 1937: 318; Leach 1940b: 218; Lessard 1981a, 1983; Lessard et al. 1985; Lindquist, E. E. 1970b, 1971; Livingston, R. L. 1980; Livingston, R. L. & Berryman 1972: 1793; Logan & Amman 1986; Lotan & Perry 1983: 12; MacVean & Brewer 1981; Marsh 1979: 169; Mason, W. R. M. 1978; Massey 1966a;

- Massey & Wygant 1949; Mattson & Haack 1987; McAlpine 1964; McCambridge 1974b, 1980; McCambridge et al. 1982; McGhehey & Nagel 1966; McGregor & Cole 1985; McGregor, Williams, & Carlson 1977; Metcalf & Flint 1951: 797; Miller & Keen 1960: 146; Mills 1983; Mitchell, R. C., Waring, & Pitman 1983; Moeck & Safranyik 1984f, 1984g, 1984h; Mogren 1955b: 1477, 1956b: 61; Moody 1982; Morrison & Hunt 1985; Muesebeck 1942: 95, 1950: 131; Munns et al. 1928: 334; Nelson 1934: 328; Nelson & Beal 1929: 1101; Nickle & Welch 1984: 638; Olsen, R. C. 1969; Otvos & Stark 1985; Owen et al. 1987; Parent 1969: 112; Parker, D. L. & Davis 1971; Parker, D. L. & Stipe 1974; Parker, D. L., Stipe, & Tegethoff 1972; Patterson 1930: 3; Person 1928: 577, 1940: 391; Peterman 1977; Peterson 1978; Pettey & Shaw 1986; Pitman & Vite 1969; Poinar 1975: 155; Potts 1984; Powell, J. M. 1962, 1963, 1965, 1967, 1969; Powell, J. M., Wong, & Melvin 1972: 15; Raffa 1980, 1981, 1988b; Raffa & Berryman 1982c, 1983a, 1983b, 1987; Rasmussen 1974, 1976; Reid, R. W. 1957c: 111, 1969: 182–183; Reid, R. W. & Gates 1970: 617–622, 1972; Reid, R. W. & Shrimpton 1971; Reid, R. W., Whitney, & Watson 1967: 1115–1126; Rice 1968, 1969: 382–386; Richerson, J. V. & Borden 1972; Robinson-Jeffrey 1963; Roe & Amman 1970; Rumbold 1931c: 848, 1941: 589–601; Safranyik 1970c, 1971, 1974, 1976a, 1978a, 1989; Safranyik & Jahren 1970a, 1970b; Safranyik, Shrimpton, & Whitney 1974, 1975a; Safranyik & Vithayasai 1971; Safranyik & Whitney 1985; Schmid 1968a, 1968c, 1969a: 1237–1241, 1969b: 242, 1970b: 969–977, 1970c: 705–713, 1971, 1972b; Schmitt 1959: 35; Schmitz, R. F. 1988a, 1988b; Schmitz, R. F. et al. 1980, 1989; Schonherr 1971; Schrenk 1903: 9; Shepherd 1966; Shepherd & Cook 1962; Shrimpton 1973a, 1973b, 1974, 1975, 1978, 1983; Shrimpton & Reid 1973; Shrimpton & Thompson 1985; Shrimpton & Watson 1971; Shrimpton & Whitney 1968, 1979; Sigler, Whitney, & Carmichael 1982; Singh 1979: 97; Smith, R. H. 1965a: 440–442; Spanlding 1904: 76; Stakman 1957: 245; Stark, R. W. 1975, 1978; Stark, R. W. & Cobb 1969; Stark, R. W. et al. 1968; Stephen & Dahlsten 1976b: 290; Stevens 1981; Strongman 1987; Struble 1942a: 98, 1965; Sturgeon 1980b, 1980c; Sugden & Ross 1965; Swaine 1925c: 262; Taylor-Vinje 1940: 763; Terrell 1954b; Thompson, W. R. & Simmonds 1964: 27, 1965: 14; Thomson et al. 1983; Thomson, A. J. & Safranyik 1989; Thomson, A. J. & Shrimpton 1984; Tkacz & Schmitz 1986; Waring & Pitman 1983; Waters 1985b; Watson 1970: 1054–1056, 1971; Webber & Gibbs 1989; Whiteside 1935; Whitney 1965, 1971; Whitney, Bandoni, & Oberwinkler 1987; Whitney & Farris 1970; Whitney & Kharadly 1984; Whitney & Spanier 1982; Woodring 1966c; Wygant 1938, 1942a; Yamaoka, Swanson, & Hiratsuka 1987; Yuill 1937. (hb) Alfaro 1977; Amman 1969b, 1972b, 1973, 1975, 1976, 1977, 1978, 1980b, 1982a, 1982b, 1985a, 1989a; Amman & Cole 1983; Amman, McGregor, & Dolp 1985; Amman & Pace 1976; Amman & Pasek 1986; Amman et al. 1977; Anderson, R. F. 1960: 221; Anonymous 1963b; Baker, B. H. 1968; Beal 1937b; Beatty 1983; Bennett 1981; Berryman 1969a, 1974: 580, 1976b, 1982a, 1988; Berryman et al. 1978; Billings 1975; Billings & Gara 1975; Billings, Gara, & Hrutfiord 1976; Blackman 1931c: 9; Bongberg 1959a; Bright 1976d: 56; Bright & Stark 1973: 31; Browne 1968: 225; Browne, L. E. 1972; Bries 1920, 1947; Burke 1908; Burnell 1977; Carlson 1963; Carlson & Cole 1965; Carter, S. W. 1978, 1982; Chamberlin 1939: 156–155, 1958: 72; Cole, D. M. 1973; Cole, W. E. 1962b, 1972b, 1973a, 1975, 1976b; Cole, W. E., Amman, & Jensen 1976; Cole, W. E. & Shepherd 1967; Cole, W. E. & Weening 1967; Coulson & Witter 1984: 524; Coulson et al. 1978: 476, 1985; Craighead 1953; Creasap 1977a; Doane et al. 1936; Essig 1926: 514, 1958: 515; Fargo et al. 1979: 628; Felt 1926: 248, 256, 1930a: 248, 256; Felt & Rankin 1932: 405; Furniss, R. L. & Carolin 1977: 353; Gara, Geiszler, & Littke 1984; Geiler 1975; Geiszler, Gallucci, & Gara 1980; Geiszler & Gara 1978; Gerber, Tonks, & Ross 1983; Gibson, K. E. 1978a, 1985a, 1988b; Gibson, K. E. & Bennett 1978; Graham 1939b, 1952; Gray, B. et al. 1972; Gregson 1978; Hagle et al. 1987: 37; Hamel & McGregor 1976a; Hay 1956: 567–571; Higby 1981; Higby & Stock 1982; Holland 1984; Hopkins 1903: 275–281, 1904a: 41–46, 1905c: 5, 22, 1909a: 109–114; Hymmn & Berryman 1980, 1981; Ives & Wong 1988: 75; Johnson, P. C. 1967; Jones, R. C. & Brindley 1970; Keen 1938: 106, 1952c: 129, 139; Klein, Parker, & Jensen 1978; Knight 1959a: 56, 1959b: 1, 1960b, 1960b: 1199; Langor 1988: 431, 1989; Larson et al. 1983; Lindgren 1980a: 62; Linton et al. 1987; Lotan & Perry 1983: 12; Mata 1972; McCambridge 1967a, 1967b, 1968b, 1969, 1970, 1971, 1974b, 1980; McCambridge, Amman, & Trostle 1979; McCambridge & Mata 1969; McCambridge & Trostle 1972; McGhehey 1969, 1971; McGregor 1985; McKnight, R. C. 1979a; McMullen et al. 1988; Metcalf & Flint 1951: 797; Miller & Keen 1960: 146; Mills 1983; Moody 1982; Parker, D. L. 1980; Parker, D. L. & Stevens 1979; Person 1928: 577; Person, H. L. 1940; Peterman 1974b; Pierce 1907: 294; Raffa & Berryman 1982a, 1986; Raffa 1980, 1981, 1988b; Rasmussen 1974, 1980; Rost 1978; Ryker & Rudinsky 1979: 209; Safranyik 1965, 1971, 1982b, 1989; Safranyik & Jahren 1970a, 1970b; Safranyik & Linton 1981c, 1985b; Safranyik, Shrimpton, & Whitney 1974; Safranyik & Vithayasai 1971; Safranyik & Whitney 1985; Safranyik et al. 1989; Sartwell, C. 1969; Schmid 1972b; Schmitz 1988a, 1988b; Schmitz et al. 1989;

- Shepherd 1956, 1959, 1962, 1963, 1966; Shrimpton 1982; Shrimpton & Thomson 1983; Smith, G. W. 1953: 11; Smith, H. W. & Furniss 1966; Stark, R. W. 1978; Stevens, Brewer, & Leathernan 1980: 21, 1982: 22; Stevens et al. 1974; Stock, M. W. & Guenther 1979; Strongman 1987; Struble 1965; Struble & Johnson 1955: 1; Thompson, A. J. & Shrimpton 1984; Waters 1985b; White, R. E. 1983: 329; Whiteside 1936; Whiteside & Beal 1937; Whitney 1971; Wood, S. L. 1963: 57, 1982b: 171. (**ds**) Acciavatti & Walters 1977; Acciavatti & Weiss 1974; Amman 1972b, 1972c, 1973, 1977; Amman & Cole 1983; Anderson, R. F. 1960: 221; Anonymous 1958a: 4, 1960: 8, 1963y, 1964h, 1964u, 1965b, 1965r, 1966f, 1966n, 1967t, 1968g, 1968p, 1969e, 1969f, 1969m, 1970h, 1972t, 1973b, 1973n, 1974e, 1974f, 1975e, 1975f, 1975g, 1976e, 1976f, 1976g, 1976h, 1977g, 1977h, 1977i, 1977n, 1977x, 1978a: 35, 1978f, 1978g, 1978z, 1978h: 4, 1979a, 1979f, 1979e: 4, 1980a, 1980m: 30, 1981g, 1981j, 1982b, 1982c, 1983d, 1983f, 1984d, 1984f; Baker, B. H. 1969; Berryman 1969: 1033, 1976, 1988; Billings, Gara, & Hrutfiord 1976; Bongberg 1956a, 1957, 1960: 62; Bongberg & Bennett 1960: 1; Bright 1976d: 56; Bright & Stark 1973: 31; Browne 1968: 225; Chamberlin 1925, 1939: 156–158; Choo, Woo, & Kim 1981: 202; Cockerell et al. 1907; Cole, W. E. 1975; Cole, W. E., Amman, & Jensen 1976; Cole, W. E. & Shepherd 1967; Craighead 1953; Currie 1905; Curtis & Johnson 1975; Dahlsten & Stephen 1974; Essig 1926: 514, 1958: 515; Evans, D. 1983: 32; Evans, D., Lowe, & Hunt 1978; Evenden 1924; Felt 1926: 248, 256, 1930a: 248, 256; Felt & Rankin 1932: 405; Frye et al. 1977: 1221; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 353; Gast et al. 1989: 385; Gredley et al. 1922; Hagedorn 1910d: 22; Halperin 1976a; Hay 1956; Hopkins 1902c: 10, 1903a, 1909a: 109–114, 1909b: 90–101; Hynum & Berryman 1981; Johnson, W. T. & Lyon 1976: 53; Keen 1929a: 17, 1938: 106, 1952c: 129, 139; Kleine 1912b: 176, 1914b: 387, 1934a: 133; Klein, Parker, & Jensen 1978; Korstian 1925: 448; Kusch 1967; Marchant & Borden 1976; McCambridge, Amman, & Trostle 1979; McCambridge & Trostle 1972; Nijholt, McMullen, & Safranyik 1981; Peterman 1977; Raffa & Berryman 1982a, 1983a; Reid & Gates 1970; Rudinsky et al. 1974: 91; Ruppel 1967: 32; Safranyik 1976, 1989; Schedl 1978e: 37; Smith, G. J. & Melvin 1974a, 1974b; Smith, R. H., Cramer, & Carpender 1981; Still, Tidbury, & Melvin 1974a: 13; Stock & Guenther 1979; Susut & Melvin 1974; Thomson, A. J. & Safranyik 1989; Watson 1970; Whitney 1971; Wong, H. R. & Petty 1978; Wood, S. L. 1963: 57, 1972a: 404, 1982b: 171. (**tx**) Amman 1982b; Amman & Cole 1983; Anderson, R. F. 1960: 221; Anonymous 1963b: 37, 1986f; Beatty 1983; Benoit 1985: 89; Bright 1976d: 56, 195, 200, 206; Chamberlin 1939: 156–157; Doidge 1975, 1976, 1977; Evans, D. 1983; Gregson 1978: 5; Hagedorn 1910a: 60; Hopkins 1902c: 10, 1902e, 1909a: 109–114, 1915c: 204; Ives & Wong 1988: 74; Johnson, D. W. & Creasap 1978: 16; Keen 1929a: 17; Kusch 1967: 10; Lotan & Perry 1983: 12; Nunnberg 1928a: 145; Pardy 1983; Ryker & Rudinsky 1979: 209; Safranyik, Shrimpton, & Whitney 1974: 7; Sturgeon & Mitton 1986a; Swaine 1909: 98, 1918a: 65; Thatcher 1957: 28; Thomas, J. B. 1965c, 1967; Wood, S. L. 1963: 7, 13, 57, 1972a: 404, 1982b: 171. (**ms**) Amman 1982b; Amman & Rasmussen 1969, 1974; Anonymous 1974k, 1981v, 1983b; Ballard, Walsh, & Cole 1980; Barger, R. L. 1982; Bartos & Downing 1989; Beal 1927a, 1950; Bongberg 1959a; Brennan 1982; Browne, L. E. 1972; Burke 1930; Burnell 1977; Carey & Wilcox 197.; Carlson 1963; Carlson & Cole 1965; Chararas 1971a: 853; Ciesla 1974, 1978; Clark, W. R. 1978; Cole, D. M. & Jensen 1980; Cole, W. E. 1962a, 1962b, 1963a, 1963b, 1964a, 1964b, 1976a; Cole, W. E., Amman, & Jensen 1976; Cole, W. E. & Weenig 1967; Cook 1942: 4, 8; Craighead 1938, 1942b; Crookston 1978; Dahlsten & Dreistadt 1984; DeMars 1984; Dillman & White 1982a, 1982b; Dillman et al. 1980, 1981; Emerson 1982; Geiszler, Gallucci, & Gara 1980; Gregson 1978; Gries et al. 1988; Haraden 1982; Harris 1982; Harris & Dawson 1979: 4; Harris, Dawson, & Brown 1983; Harris, Dawson, & Goodenough 1978; Heinrichs 1983; Hopkins 1908e: 347; Hunt 1988; Jamieson 1986c; Jones, R. G. & Brindley 1970; Keen 1952b: 49; Klein, W. H. 1970, 1973b, 1975a, 1976a, 1979b, 1982; Klein, W. H., Bennett, & Young 1978c, 1980; Klein, W. H. et al. 1978; Lessard, Hansen, & Eilers 1986; Linton et al. 1987; McCambridge et al. 1982; McGhehey & Nagel 1966; McGugan 1966; McMullen et al. 1988; Moeck 1988; Moody 1982; Mori & Igarashi 1988; Morrow 1972; Moulson 1985; Peterson, R. M. 1982; Pettinger 1979; Pollack & Pollack 1977; Reed, F. L. C. 1982; Reed, W. J. & Errico 1987; Robertson, J. 1979; Safranyik 1980, 1988a; Safranyik, Shrimpton, & Whitney 1975b, 1976; Safranyik et al. 1989; Schmid 1972a; Schmitt 1959: 35; Shrimpton 1974, 1976; Silverstein 1970b; Smith, H. W. & Furniss 1966; Stage 1973a, 1973b; Stahl 1939; Stevens, McCambridge, & Edminster 1980; Strickman & Drawbaugh 1982; Stuart 1984; Swaine 1925c: 262; Tegethoff, Hinds, & Eskin 1977; Thalenhorst 1972: 36; Turnbull 1982; Van Sickle 1982; Vanderwal et al. 1988; Vite & Pitman 1969: 113; Wear 1979; Weaver 1949: 26; Weber, F. P. 1970; Weber, R. & Schurig 1984; Whitney 1976; Wingquist & Vandenbrink 1982; Young, W. 1982.
- monticolae* Hopkins 1905c: 11. Lectotype ♀; Kootenai, Idaho [USA]; USNM, Washington, designated by Wood 1982b: 171. Synonymy: Thatcher, T. O. 1957: 28, Wood 1963: 58.

- References: (ay) Atkins 1966b: 983; Atkins & Farris 1962a; Cerezke 1964: 477; Hopkins 1909a: 105–109; Lyon 1958: 582–584; Reid 1958a: 464, 1961b; Robertson 1961; Stock, M. W., Amman, & Higby 1984. (bv) Anderson, R. F. 1977: 17; Cahill 1960; Callahan & Shifrine 1960: 146; Miller & Keen 1960: 102; Nuorteva 1956c: 97; Reid 1958a: 464, 1958d: 505, 1963a; Shepherd 1965: 213; Wood, D. L. 1962a: 473; Wood, D. L. & Vite 1961: 80; Zethner-Moller & Rudinsky 1967: 575–582. (cn) Anderson, R. F. 1948: 140, 1948: 596, 1960: 221; Annand 1941: 26, 1945: 7–8, 1946: 21, 30–31, 1947: 34, 1948: 596; Anonymous 1939: 643, 1940i: 580, 1941i: 811, 1955h: 50, 1955j: 3, 1958a: 3–4, 1960g: 9, 1960h, 1960i, 1960j: 1, 5, 6, 10, 13, 18, 1960q, 1960r, 1961e, 1961h, 1961i, 1961s, 1962h, 1962i, 1963e: 16, 1963j, 1963k, 1963y, 1965c; Bailey 1956: 30–31, 37–38; Baker 1924: 599; Balch, Webb, & Fettes 1955b: 453–465; Beal 1951: 58–59; Becker, C. 1951; Bedard 1938c: 35–40; Beeson 1918: 114–124; Benedict 1959: 245–249; Bongberg 1956a, 1957, 1962; Boocock 1959b; Boone 1925: 7, 57; Boyce 1923: 157–158, 1923a: 1–7, 1928; Brown, A. W. A. 1940b, 1942: 8, 1943: 8; Browne, G. S. 1953: 3, 1954; Brues 1920: 69; Brunner 1914: 4; Buckhorn & Orr 1985, 1961: 9, 1962: 10; Burke 1908, 1919: 123; Bushing & Wood 1964: 510; Caverhill 1925: 16–18; Chamberlin 1924, 1927a, 1927b, 1927c, 1939: 155–156, 1958: 71–72; Chrystal 1949b: 3–11; Clements 1953: 1–5; Cole, W. E. 1970; Cooley 1917: 94–102; Craighead 1925a: 348–349, 1927: 5–8, 1930: 4, 1931: 1009–1016, 1938, 1942: 368–386, 1947, 1948, 1949; Craighead & Middleton 1930; Craighead & St. George 1938: 26–34; Craighead et al. 1931; DeGryse 1943: 142, 1947: 3, 1949b; Doane et al. 1936; Dowden 1952, 1953, 1953: 216; Downing 1954; Dyer 1952; Eaton 1941: 710–713, 1956; Elliott 1924: 43; Ernst 1950; Escherich 1913; Essig 1926: 513, 1958: 514; Evans 1950: 107; Evans & Dyer 1951: 110; Evenden 1924a: 11, 63, 1924b: 593–595, 1925, 1930: 52–53, 1931: 391–393, 1934, 1935: 12, 1940: 12, 1943, 1948; Evenden & Gibson 1940: 271, 275; Evenden & Hopping 1924: 12, 43; Evenden & Struble 1945: 13–14; Evenden et al. 1943: 1–25; Fanner 1965: 1304–1305; Felt 1924: 255, 1926: 248, 255, 1930a: 248, 255; Felt & Rankin 1932: 405; Flint 1935: 5; Friend 1943; Furniss, R. L. 1943: 34; Furniss, R. L. & Struble 1946: 20; Gardiner 1942: 55, 1946: 75, 1947: 93–94, 1950: 105, 1955: 16–17; Gibson 1923: 16, 1931: 575, 1943: 396–398, 1957; Giese et al. 1958; Graham 1939b, 1952; Hall, R. C. 1937: 201–216, 1958b, 1961; Hall, R. C. & Eaton 1960; Hastings 1931: 17–19; Hatch 1938: 193; Hawthorne 1962, 1963, 1964; Heller, R. C. 1968b; Herrick 1935: 250; Hetrick 1940b; Hewitt 1915: 29, 1916: 851–876; Hoffmann & Merkel 1948: 467; Hopkins 1899b: 8, 14, 1901a: 251, 1902d: 21, 1902e, 1904a: 19, 42, 45–46, 1905c: 11, 1907c: 515, 1908d: 548, 1909b: 80–90, 1909c: 59, 1909d: 574, 1909f: 2, 1910g: 59, 1912b: 3–4, 1914: 132–133, 1917: 92, 1919: 506; Hopping, G. R. 1937: 62, 1946a: 1–8, 1947a, 1948, 1950b: 26–29, 74–75; Hopping, G. R. & Beall 1948: 141–145; Hopping, G. R. & Mathers 1945: 88–108; Hopping, R. 1921: 7, 11–12, 1922: 129, 1924a: 125–128, 1934 Hoyt 1952: 41; Inouye & Yamaguchi 1959: 1; Jaenicke 1921a: 448; Jamison 1956: 5, 45, 50, 1957: 32; Johnson 1940: 773–776, 1951b, 1958; Keen 1928: 33–36, 1929: 31, 1931: 430, 1933a: 13, 1938: 102–106, 1939: 5, 1949b: 427, 1950: 146, 1952a: 688, 1952c: 129, 135, 1958b: 176–179; Kenney et al. 1950: 73, 1951: 63; Kinghorn 1953: 4, 1955a: 501–504; Kolbe 1951: 15–16; Landgraf 1959: 1–19; Landgraf & Ostmark 1958: 3; Leech 1944: 63, 1945: 64, 1946: 62, 1947: 79–80; Lejeune 1959: 66–68; Lyon 1959b: 323–327, 1960, 1965: 59; MacNay 1947: 56; Marlatt 1931: 45–47, 1933: 23, 1934: 29; Martin 1937: 122; Martorell 1943: 132; Massey 1956a: 14; Mathers 1946: 120, 1947: 2, 5; McCambridge 1975b; McCambridge & Trostle 1970: 1–6; McCuffin 1949a: 105, 1950: 100, 1953: 116; McCuffin & Reid 1951: 99, 1952: 96; McGugan et al. 1959: 1–114; Metcalf & Flint 1951: 797; Miller, J. M. 1921: 1, 40, 1927a: 163, 1929: 994, 1931: 303–321, 1933: 443–446; Miller, J. M. & Keen 1960: 102; Moreno Noriega 1956: 20–31; Morse 1932: 430–432; Moss 1958: 704; Mote 1945b: 99; Munns et al. 1928: 334; Myers 1974; Offalax 1943: 186–189; Ogle 1920: 81; Orchard et al. 1952: 85; Orr, P. W. 1954: 2–3, 1963a; Orr, P. W. & Pettinger 1964; Osborne 1962: 1–6; Ostmark 1956: 6; Ostmark & Wilford 1956: 5, 13; Patterson, G. K. 1945: 149; Patterson, J. E. 1923: 38, 1927c: 1–9, 1929: 1–19, 1930: 2; Peirson 1941: 413; Powell, J. M. 1961; Prebble 1944: 34, 1954: 216; Preston 1925: 49–61; Price 1957: 81–84; Pronin 1952: 186; Randall 1952: 3; Reeks et al. 1945: 64, 1946: 62; Reid, R. W. 1961, 1963a; Richmond 1933: 60–61, 1947: 73, 1951: 53, 1953a: 86, 1953b: 48; Ringle 1940: 348–349; Roscerans 1947: 9; Ross 1952: 3, 1954: 141; Ross & Jones 1951: 113–123, 1952: 109–110, 1953: 132–133; Rudinsky 1960a; Rumbold 1931: 847–873, 1941: 589–601; Rust 1935b: 688–691; Safranyik & Graham 1971; Salman 1933a: 134–136, 1938b: 120; Sand & Bryan 1947: 28; Scheller 1961; Schuder 1969: 79; Seal 1964; Sharp & Stevens 1962: 548–550; Silver & Ross 1955: 118, 1956: 94, 1957: 81, 1958: 75, 1959: 87, 1960: 97, 1961: 97,

- 1962b: 110, 1963a: 109; Smith, G. W. 1953: 11; Smith, J. H. 1941: 10; Stevens 1957a: 1-3, 1959a: 2; Strong 1935: 22, 1936: 22, 27, 1939: 22; Struble 1937d: 9, 1942: 702-709, 841-844, 1965: 7; Struble & Carpelan 1941: 153-156; Struble & Johnson 1955: 1-4; Swaine 1906: 515, 1907: 162, 1908: 574, 1910d: 42, 1913: 41-43, 1914: 20, 26-28, 1916: 632, 1918a: 61, 65, 1920b: 642, 1925: 261-266, 1928b: 501, 1933: 26; Terrell 1950: 1-18; Thatcher, T. O. 1961; Trappe & Harris 1955: 16; Tunmuck 1973: 910; Twinn 1932: 149-168, 1934: 123, 1938: 133, 1942: 55-56, 1943: 70, 1943: 8-9; Van den Bosch & Telford 1964; Vite & Wood 1961: 67; Wear & Buckhorn 1955: 13; Weaver 1934: 101-103; Weir 1931: 128; Westveld 1939: 395, 415; Wheeler 1940: 636; Whiteside 1957: 2-3, 13-14, 31-40, 43; Wickman & Lyon 1962: 395-399; Wygant 1959: 274; Wykoff et al. 1947: 36; Yuill 1941: 702-709. (ec) Allen, J. 1959: 573-576; Andersch 1851; Anonymous 1964r, 1964v; Bakshi 1950; Berisford et al. 1971: 237; Bucher 1963: 133; Burke 1919; Burks 1979: 795; Bushing 1965: 459; Cahill 1960: 1-4; Callahan & Shifrine 1960: 146; Carlson & Cole 1965: 13; Carter 1933; Chamberlin 1939: 155-156, 1958: 71-72; Cole, W. E. 1962: 1-4, 1970; Craighead et al. 1927; Cushman 1931: 301-304; Davidson 1958; DeGryse 1947b; DeLeon 1933: 32-36, 1934a: 51-61, 1934b: 297-317, 1935a: 131-134, 1935c: 411-424; Dowden 1953; Eaton 1941; Galoux 1947b, 1947d; Goeden & Norris 1964b: 745; Graham 1939b, 1952; Grissell 1979: 764; Gyorfí 1952b; Haget 1950; Hirschmann 1978d; Hopkins 1905e: 11, 1909b: 80-90; Hopping, G. R. 1950c: 74, 1951: 21; Hopping, G. R. & Beall 1948; Hopping, R. 1928b; Howard 1927: 25; Keen 1938: 102, 1950: 186, 1958b: 176; Khan 1957a: 519-523; Kinghorn 1960b; Korstian 1925: 448; Lanier & Wood 1968: 517-526; Lindquist 1970b; Lindquist & Hunter 1965; Mason, W. R. 1978; Mathre 1964: 353-358, 1966; McAlpine 1964; Metcalf & Flint 1951: 797; Miller, J. M. 1929: 994, 1931: 313; Miller, J. M. & Keen 1960: 76, 106; Munns et al. 1928: 334; Nishiguchi 1970; Nuorteva 1959d: 193; Patterson 1927c: 3, 1929: 18, 1930: 2; Person 1928: 577, 1940: 391; Poinar 1975: 154; Reid 1955: 316, 1957c: 111, 1957d: 445, 1958b: 3; Reid, R. W. 1961, 1962b, 1962c, 1963a, 1963b, 1965; Richmond 1933: 60; Robinson & Grunchenko 1964: 527-532; Robinson, R. C. 1961, 1962: 609-614; Rudinsky 1962b, 1962c: 1-7; Rumbold 1941: 589; Rust 1933: 733, 1935b: 688; Safranyik & Graham 1971; Shepherd & Watson 1959: 2; Shifrine & Phaff 1956: 48; Smetana 1971: 152; Smith, R. H. 1963: 827-831; Stark, R. W. & Cook 1957: 376; Steiner 1932: 437-444; Stevens & Hawksworth 1970; Struble 1942a: 97, 1942d: 841, 1958: 1; Struble & Carpelan 1941: 153; Swaine 1925c: 262; Sweetman 1936: 107; Taylor-Vinje 1940: 763; Thomas, J. B. 1955: 341; Thompson, W. R. 1943: 39; Thompson, W. R. & Simmonds 1964: 109, 1965: 14; Thorne 1935: 131-144; Tsuneda et al. 1986; Wood, D. L. 1961a. (hb) Anderson, R. F. 1948, 1960: 221; Atkins & Farris 1962: 25; Bongberg 1959a; Brues 1920; Burke 1905; Cahill 1960; Cerezke 1964; Chamberlin 1939: 155-156, 1958: 71-72; DeLeon et al. 1934; Doane et al. 1936; Eaton 1956; Essig 1926: 513, 1958: 514; Evans 1952: 140; Evenden 1943; Felt 1926: 248, 255, 1930a: 248, 255; Felt & Rankin 1932: 405; Graham 1939b, 1952; Hay 1956, 1957: 567-571; Herrick 1935: 250; Hopkins 1899b: 8, 14, 1901e: 67, 1904a: 19, 42, 45-46, 1905c: 11, 1909: 105-109; Keen 1929: 31, 1938: 102, 1952c: 129, 135; Kozikowsky 1913: 341; Metcalf & Flint 1951: 797; Miller, J. M. & Keen 1960: 102; Nishiguchi 1970; Nuorteva 1956c: 97; Person 1928: 577; Reid, R. W. 1955: 316, 1956: 1, 1957a: 1-65, 1957d: 445, 1958a: 464, 1958b: 3, 1958d: 505, 1962a, 1962b, 1962c, 1969; Reid, R. W. & Gates 1970; Richmond 1933: 60; Salman 1933a: 134; Smith, G. W. 1953: 11; Stevens 1957a: 1; Struble 1937d: 9; Struble & Johnson 1955: 1; Swaine 1918a: 61, 65; Thatcher, T. O. 1961. (ds) Anderson, R. F. 1960: 221; Anonymous 1958a: 3-4, 1960: 9, 1962i, 1963j, 1963k, 1963y, 1964h, 1964u; Bongberg 1956a, 1957; Bongberg & Bennett 1960: 1; Brown, A. W. A. 1940a: 13; Brown, G. S. 1953, 1954, 1956; Bushing & Wood 1964: 510; Cerezke 1964: 477; Chamberlin 1917: 323, 1925, 1939: 155-156, 1958: 71-72; Craighead & Middleton 1930; Downing 1963: 7; Dyer 1952; Eaton 1956; Essig 1926: 513, 1955: 514; Evans 1952: 140; Evenden 1924, 1943; Felt 1926: 248, 255, 1930a: 248, 255; Felt & Rankin 1932: 405; Gredley et al. 1922; Hagedorn 1910d: 22; Hall & Eaton 1960; Hay 1956: 557-561; Hopkins 1903a, 1909a: 105-109, 1909b: 80-90; Hopping, R. 1922, 1924b; Keen 1929: 31, 1929a: 17, 1938: 102, 1952c: 129, 135; Kleine 1912b: 176, 1914b: 390, 1934a: 132; Knowlton 1958: 1-27; Leech 1946: 62, 1947: 79; Lejeune, McMullen, & Atkins 1961; Leng 1920: 335; MacKay 1948: 93, 1950: 113; McComb et al. 1953: 3; Patterson & Hatch 1945: 149; Peyerimhoff 1933b: 392; Reid 1961, 1962a, 1963a; Robinson 1961; Rosecrans 1947: 9; Ross & Jones 1953: 132; Schuder 1969: 79; Smith, C. S. 1929; Swaine 1909: 97, 1914: 20, 26; Thatcher, T. O. 1935: 261, 1961; Thomas, J. B. 1955: 341; Wood, S. L. 1948: 21, 1951a: 127. (tx) Anderson, R. F. 1960: 221; Chamberlin 1939: 155-156, 1958: 71-72; Hagedorn 1910a: 60; Hopkins 1902e, 1905c: 11, 1909a:

- 105–109; Jacques 1951: 351; Keen 1929a: 17; Muesebeck 1942: 95, 1950: 131; Swaine 1909: 97, 1918a: 61, 65, 67; Thatcher, T. O. 1957: 28; Wood, S. L. 1963: 57–58. (ms) Anonymous 1964; Bongberg 1956b, 1959a; Boocock 1959b; Carter 1933; Cerezke 1962, 1963; Chamberlin 1927a, 1927b, 1927c; Cole, W. E. 1970; Craighead 1938; Ernst 1950; Evenden 1925; Furniss, M. M. 1962a: 963; Hatch 1938: 193; McCambridge 1975b; Prebble 1944: 34; Swaine 1925c: 262.
- pseudotsugae* Hopkins** 1905c: 11. Neotype ♀; Grants Pass, Oregon [USA]; USNM, Washington, designated by Wood 1982b: 199. Figures: Bedard 1950a: 3–7, Ives & Wong 1988: 79, Ryker & Rudinsky 1979: 204, Swaine 1914: 30 (adult), 1918a: pl. 12 (adult), Wood 1963: 9, 13. Distribution: North America (SW Alberta, British Columbia in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Washington, Wyoming in USA). Hosts: *Pseudotsuga menziesii*, *P. macrocarpa*, less common in *Larix occidentalis*, *Tsuga heterophylla*. References: (ay) Atkins 1966b, 1966c, 1967a, 1967b, 1969, 1975; Atkins & Chapman 1957: 80–86; Atkins & Farris 1958, 1962: 25–32, 1962a; Bennett & Borden 1971; Cerezke 1964: 488; Chapman 1955d: 2, 1969b, 1972; Chapman & Wilson 1956: 427–428; Dewey 1973: 180, 181; Dickens et al. 1984, 1985; Duncan, B. 1987; Fang & Allen 1955; Farris 1965a: 3–4; Farris & Ibaraki 1972; Furniss, M. M. 1967b; Furniss, M. M. & Tovar 1980; Godbee & Franklin 1978: 1087; Groberman & Borden 1982; Hopkins 1909a: 121–126; Hughes 1973c; Ibaraki & Sahota 1976; Jantz & Johnsey 1964: 233; Lyon 1958: 583; McCambridge & Mata 1969: 507; McMullen 1977; Nijholt & Sahota 1974; Pitman & Vite 1974; Ryan 1959: 520; Ryker, Libbey, & Rudinsky 1979; Safranyik 1967: 209; Sahota 1970, 1971, 1973, 1975; Sahota, Chapman, & Nijholt 1970; Sahota & Ibaraki 1973; Sahota, Peet, & Bartels 1984; Stock, M. W., Gregoire, & Furniss 1987; Thomas, J. B. 1967; Thompson, S. N. & Bennett 1971; Thong & Webster 1975a; Zethner-Moller & Rudinsky 1967b. (bv) Alcock 1982; Allen & Rudinsky 1959: 482–484; Allen, D. et al. 1958: 2–10; Amula 1971a: 11; Ashraf & Berryman 1969: 6; Atkins 1957a: 2–3, 1958, 1959: 328–329, 1959a: 164–165, 1959b: 283, 1960a: 941–954, 1960b, 1965a, 1965c: 3540, 1966a: 287, 1966b, 1967: 181–187, 1968, 1969; Atkins & McMullen 1958: 3, 1960, 1962; Baker, B. H., Hostetler, & Furniss 1977; Baker, B. H. & Trostle 1973; Bakke 1973; Barr, B. A. 1969: 640; Billings, Gara, & Hrutfiord 1976: 177; Borden 1967: 1182, 1971b; Borden & Bennett 1969: 782–785; Borden, Brownlee, & Silverstein 1968: 635; Borden & Groberman 1981; Borden, Silverstein, & Brownlee 1968: 597–603; Callahan & Shifrine 1960: 146; Chansler 1968a: 1–4; Chapman, J. A. 1954, 1955a: 4, 1955d: 2, 1963: 675, 1964b, 1966: 55; Chapman, J. A. & Dyer 1969: 31; Chararas et al. 1982: 1095; Clair 1977; Cole 1975; Des Champs 1962; Dickens et al. 1984, 1985; Du 1987; Dyer & Chapman 1965: 48, 1971; Eglitis 1980b; Fitzgerald & Nagel 1972; Franklin 1968; Furniss, M. M. & Orr 1970; Furniss, M. M. & Schmitz 1971; Furniss, M. M. et al. 1972, 1974, 1977, 1979, 1981; Gariullo & Berisford 1981: 392; Goeden & Norris 1965b: 774; Groberman & Borden 1981, 1982; Hanover & Furniss 1966; Hawksworth 1985; Heikkinen, Herman, & Hrutfiord 1965: 1457–1459; Heikkinen & Hrutfiord 1965; Hertel, Hain, & Anderson 1969: 1090; Hopping, G. R. 1942; Hughes 1973c; Hynum & Berryman 1980: 185; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1965, 1972; Jantz 1965b, 1966; Jantz & Rudinsky 1965: 935–941, 1966: 3; Johnson, N. E. 1960a, 1962: 659, 1967: 199, 1963: 1–14; Johnson, N. E. & Pettinger 1961a: 6; Johnson, N. E., Wright, & Orr 1961: 13; Kimney & Furniss 1943: 20; Kinzer et al. 1971; Klassen, Ridgway, & Inscoc 1982; Knopf, J. & Pitman 1972; Lejeune, McMullen, & Atkins 1961; Libbey, Dehlschlager, & Ryker 1983; Libbey et al. 1976; Lindgren et al. 1988; Look 1976a, 1981; Madden et al. 1988; Mathews & Mathews 1978: 196; McCambridge 1962; McGregor et al. 1984; McLean & Borden 1977: 677; McMullen & Atkins 1959: 416–426, 1962, 1962b: 1310; Michael & Stone 1958: 11–18; Miller, J. M. & Keen 1960: 99; Mori & Ogoche 1988; Mori et al. 1978; Nijholt, McMullen, & Safranyik 1981; Payne & Wood 1981: 480; Perittume 1959: 65; Pitman 1973; Pitman, Hedden, & Gara 1974; Pitman & Vite 1970: 661–664, 1974; Plummer et al. 1976; Reed & Hanover 1985; Reed, Hanover, & Furniss 1986; Reid 1958d: 506; Renwick & Vite 1968: 65–68; Ringold et al. 1975; Roelofs 1978; Rudinsky 1963: 23, 1966a: 98, 1966b: 356–361, 1966c: 218–219, 1968b: 248–250, 1969b: 884–885, 1969c, 1970: 249–350, 1973a: 511, 1973b, 1979a; Rudinsky & Daterman 1964a: 1339–1352; Rudinsky, Kline, & Diekman 1975; Rudinsky & Michael 1972, 1973; Rudinsky & Ryker 1976, 1977, 1979, 1980; Rudinsky & Terriere 1959: 485–488; Rudinsky & Vite 1956: 258–267; Rudinsky et al. 1972, 1973, 1974a, 1976a, 1976b; Ryan 1959: 520, 1961: 1308–1309, 1962: 403–409, 1962: 737–738, 1965: 1331–1336; Ryker 1988; Ryker, Libbey, & Rudinsky 1979; Ryker & Rudinsky 1976c; Schneider & Rudinsky 1969: 1181; Shepherd 1965: 213; Shorey 1972; Silverstein 1977; Silverstein & Young 1976: 20; St. Clair, Goulding, & Rudinsky 1977; Stock & Borden 1983: 549; Trostle 1971; Vite 1970b: 249–350, 1975; Vite & Pitman 1967: 683–701; Vite et al. 1972; Weaver, N. 1978a; Wood, D. L. 1967b, 1968, 1970, 1978, 1980b; Wood, D. L. &

- Bushling 1963: 1076; Wright, K. H. & Lejeune 1967; Wright, L. C., Berryman, & Wickman 1984; Zethner-Moller & Rudinsky 1966, 1967a: 897-911, 1967b: 575-582, 1971d; Zhong & Schowalter 1989. (cn) Allen & Rudinsky 1959; Amman 1976; Amman & Rasmussen 1969: 631; Anderson, R. F. 1960: 228; Andrews 1967: 147, 1968a: 141, 1968b: 146, 1969b: 135; Andrews & Erickson 1973b: 17, 1976: 7; Andrews & Monts 1977: 5, 1978: 2, 1979: 3; Andrews & Vanderwal 1971: 3; Andrews, Vanderwal, & Baumann 1969: 136; Andrews, Vanderwal, & Wood 1970: 4; Anhold 1986; Anonymous 1939: 643, 1940i: 580, 1952a: 52, 1955j: 2, 1956b: 110, 1958a: 3, 5, 1960g: 9, 1960h, 1960j: 1, 1960q, 1960r, 1961e, 1961h, 1961i, 1961s, 1962h, 1962i, 1962p, 1963: 17, 1963j, 1963k, 1963q, 1963y, 1964h, 1964i, 1964n, 1965b, 1965c, 1965r, 1966f, 1966i, 1967e, 1967f, 1967h, 1967t, 1968g, 1968h, 1968p, 1969e, 1969f, 1969m, 1970h, 1970t, 1971d, 1971f, 1971i, 1971j: 4, 1971v, 1971aj, 1972f, 1972h, 1972t, 1972y, 1973c, 1973n, 1974f, 1974v, 1975d, 1975f, 1975g, 1975t, 1975y, 1976f, 1976g, 1976h, 1977g, 1977h, 1977i, 1977n, 1977x, 1978a, 1978b: 34, 1978f, 1978g, 1978h: 4, 1978z, 1979a, 1979e: 4, 1979f, 1980k, 1981j, 1981v, 1982b, 1983f, 1984d, 1984f, 1985i, 1986b, 1987e, 1988b; Bailey 1955, 1957: 32-33, 1958: 25-27, 34; Baker, B. H. 1969; Bakke 1973; Balch, Webb, & Fettes 1955a: 453-465, 1955b: 3-9; Bare & Philipps 1976; Bauman 1967: 168, 1968: 184, 1969: 158; Beal 1939: 6, 1950: 58; Beal et al. 1935: 14, 1955; Beatty 1983; Bedard 1933a, 1937b: 103-105, 1950a; Beddows 1968: 220; Bedford 1969: 23; Beeson 1918; Belluschi & Johnson 1969: 30-32; Belluschi, Johnson, & Heikkinen 1965: 252-256; Bennett 1983; Bongberg 1956a, 1957, 1962; Bousfield & Coulson 1978; Bousfield, Hagle, & Kohler 1988; Brown, A. W. A. 1940b; Brown, C. E., Hopkins, & Robins 1960: 84; Brown, C. E., Robins, & Stevenson 1960: 85, 1961: 85; Brown, C. E. & Stevenson 1963: 97, 1964: 99; Browne 1968b: 226; Brunner 1915: 5; Buckhorn & Orr 1958, 1959, 1961: 14; Byler et al. 1986; Cahill & Lister 1971; Cahill, Lister, & Brown 1973; Caverhill 1925: 17; Cerezke & Emond 1989: 19; Chamberlin 1918: 17, 1925, 1939: 159-161, 1958: 73-75; Chansler & Pierce 1966: 1357-1359; Ciesla, Dewey, & Timnock 1971: 17; Ciesla & Koot 1976; Ciesla et al. 1971; Cornelius 1954: 50-51, 1955: 711-712; Cottrell 1967: 88, 1968: 30, 1969: 32, 1973: 7; Cottrell & Adams 1973; Cottrell & Doidge 1972: 5; Cottrell & Erickson 1977: 4; Cottrell & Fiddick 1962, 1968, 1972; Cottrell & Koot 1975; Cottrell & Monts 1970a, 1970b; Cottrell, Unger, & Fiddick 1979: 22; Cottrell & Wood 1971: 3; Coulson & Witter 1984: 527; Cowan & Nagel 1965: 32; Cowlin 1956: 35-37, 1957: 25, 1958: 11, 15; Craighead 1927: 11, 1930: 5, 1947; Craighead & Middleton 1930; Craighead et al. 1931: 1016; Curtis & Hadfield 1975, 1977a, 1977b; Curtis & Johnson 1975; Des Champs 1962; Dewey & Clinton 1980; Doane et al. 1936; Doidge 1968: 109, 1969: 107, 1972: 2, 1973a: 7, 1973b: 3, 1975: 3, 1976: 6; Doidge & Koot 1977: 11, 1978: 11, 1979: 5; Dolph & Hadfield 1971; Dolph & Pettinger 1968: 25, 1969: 6, 1971: 3; Dolph et al. 1975; Dooling, Dewey, & Ciesla 1973: 29; Dyer 1952; Edmonds & Eglitis 1989; Edwards, B. M. 1982; Erickson & Wood 1979: 5; Escherich 1912a, 1913; Essig 1926: 514, 1958: 515; Evans, D. 1949: 106; Evans, D. & Dyer 1951: 110, 1952: 108, 1953: 130; Evans, D. & Silver 1954: 139; Evenden & Wright 1955: 1-4; Fang & Allen 1955: 79-82; Felt 1924: 258, 1926: 247, 248, 258, 1930a: 247, 258; Felt & Rankin 1932: 405; Fiddick 1968a: 5, 1968b: 6, 1969a, 1969c, 1970a, 1970b, 1970c: 4; Fiddick & Germain 1970: 25; Fiddick & Molnar 1966: 4; Fiddick, Molnar, & Harris 1966: 3; Fiddick & Van Sickle 1979: 6, 1980: 11, 1982: 13; Fuller & Hostetler 1980; Furniss, M. M. 1958: 43-44, 1959: 1-6, 1962b: 1-10, 1962c: 486-491, 1967: 1323-1326, 1968: 1384-1389; Furniss, M. M., Livingston, & McGregor 1981; Furniss, M. M. & Orr 1970: 1-4; Furniss, M. M. & Schenk 1969; Furniss, M. M. et al. 1977, 1979, 1981; Furniss, R. L. 1936, 1937: 11, 1937: 103-105, 1941: 211-213, 1941a: 1-5, 1941b; Gardner 1956: 17; Geistlinger 1968: 127, 1969: 121, 1976: 120; Gentry, G. R. et al. 1979: 771; Gerber, Tonks, & Ross 1983; Germain, Weiss, & Loomis 1973b: 41, 1978a; Gibson 1923: 16, 1957: 266-268; Gibson et al. 1984, 1987; Giese et al. 1958; Gillman & Bailey 1977, 1978: 7; Glascock 1953: 45-46; Graham 1939b, 1952; Grant, J. 1967b: 187, 1968a: 199, 1968b: 206, 1969b: 182; Grant, J., Lund, & Beddows 1970: 3; Gregg, Filip, & Hadfield 1980: 38; Hagle et al. 1987: 38; Hagenstein & Furniss 1955: 167-168; Hall, P. M., McLean, & Murtha 1983; Hall, R. C. 1961; Hall, R. C. & Eaton 1960; Hamel 1980: 754; Hamel et al. 1975; Harris & Dawson 1979: 6; Hatch 1938: 193; Hawthorne 1962, 1963, 1964, 1965b; Hayes 1959: 1-54; Hedden & Gara 1976; Hedden & Pitman 1978; Heller, R. C. 1968a; Helzner & Moyer 1979; Herrick 1935: 138; Hofacker & Loomis 1982: 3, 1983: 3; Hofacker, Loomis, & Gilstrap 1988: 15; Hofacker, Loomis, & Tucker 1984: 4, 1987; Hofacker et al. 1989; Hoffman 1924: 53, 1948; Hoffman, J. et al. 1988: 7; Hollbrook 1945; Holland & Tkacz 1984; Honing 1970: 21; Hopkins 1899b: 10, 15, 21, 22, 26, 1901a: 251, 1904a: 19, 45, 47, 1905c: 11, 1906a, 1907c: 515, 1908d: 549, 1909b: 106-114, 1909c: 59, 1909d: 574, 1910e, 1910f: 3, 1910g: 59, 1912a, 1912b: 4, 6; Hopping, G. R. 1942: 205, 1947b: 150-153; Hopping, R. 1904: 19, 45, 1921: 9-10, 1922: 131, 1932: 61, 1934, 1937: 62; Hoyt 1953: 21; Hunt 1954: 14; Ishikura 1966; Ives 1972: 12; Jaenicke 1927: 162; James & Gogeen 1981; James et al. 1985; Jardine 1965: 47, 1969:

- 49; Johnsey 1984; Johnson, D. W. & Creasap 1978a, 1978b: 18; Johnson, D. W. & Curtis 1986; Johnson, D. W. & Minnemeyer 1976, 1977: 32; Johnson, N. E. 1960a, 1960b: 1; Johnson, N. E. & Belluschi 1969: 290–295; Johnson, N. E. & Molatore 1961: 928–931; Johnson, N. E., Orr, & Wright 1959: 1–3; Johnson, N. E. & Pettinger 1961a: 1, 1961b; Johnson, N. E., Wright, & Orr 1961; Johnson, Philip C. 1958; Johnson, W. T. & Lyon 1976: 53; Keen 1938: 119–122, 1952a: 689, 1952c: 129, 155, 1958: 175–179; Khan 1960: 91–97; Kimmey et al. 1951: 63; Kinghorn 1953: 4, 1955a: 501–504, 1957: 3–4, 1960a, 1961; Kinghorn & Webb 1950: 3; Klein, W. H. 1966: 17, 1967, 1968; Klein, W. H. & McGregor 1966; Klein, W. H. & Parker 1970: 14; Klein, W. H. & Tegethoff 1970; Klein, W. H. & Stipe 1971: 14; Klein, W. H. et al. 1973: 24; Knapp 1985; Knapp et al. 1989: 5; Knight & Wilford 1954: 4; Knopf, J. 1978, 1981; Knopf, J., Klein, & Tegethoff 1977: 19; Knopf, J. et al. 1978: 30; Kohler, Dooling, & Bousefield 1985; Kondo & Moody 1987: 105; Landgraf 1959: 1–19, 1966a: 27; Landgraf & Ostmark 1958: 6; Landis, Averill, & Frye 1977: 30; Leach 1940b: 224; Leech 1946: 63, 1947: 80; Lejeme 1956: 80–82; Lejeme, McMullen, & Atkins 1961; Lessard & Fuller 1981; Lindgren 1980a: 62, 1988; Lindgren et al. 1988; Linnane 1984; Lister & Cahill 1970: 22; Lister & Hildebrand 1984; Livingston 1987a; Livingston et al. 1988: 3; Loomis, Hofacker, & Tucker 1985: 12, 1986; Lowe & Moyer 1980; Lucht 1966: 29; Lucht & Moore 1963: 18; MacKay 1948: 94, 1949: 114, 1950: 114, 120, 1955: 149; Mahaffay 1948: 64–65; Manville, McMullen, & Reimer 1988; Massey 1956a: 23, 1956b: 110; Mathers 1951: 3; McArdle 1956: 12; McGregor, Bousfield, & Almas 1972; McGregor, Oakes, & Dooling 1983; McGregor, Oakes, & Meyer 1955; McGregor et al. 1974, 1977: 24, 1984, 1985; McCugan 1959: 1–114, 1966; McMullen 1970: 46, 1977; McMullen & Atkins 1961: 197–203, 1962b; Miller, J. M. 1929: 994; Miller, J. M. & Keen 1960: 99; Mills 1983; Mitchell, R. C. & Sartwell 1974; Molnar 1962b: 121; Molnar, Harris, & Ross 1965: 96, 1967: 111; Molnar, McMimi, & Foster 1963; Molnar, Ross, & Fiddick 1971: 78, 1972: 83; Molnar et al. 1968: 113, 1970: 99; Moody 1988: 76, 81; Morris, E. V. 1967: 161; Morris, E. V., Cottrell, & Wood 1979: 4; Morris, E. V. & Monts 1972: 7, 1973a: 9, 1975: 16, 1976: 3; Morris, E. V. & Wood 1977: 4, 1978: 3; Morris, E. V. & Vanderval 1968: 172; Moyer 1977; Neal 1979: 771; Nijholt, McMullen, & Safranyik 1981; O'Neil & Sharon 1988: 7; Ollien & Mason 1968: 13; Ollien, Stipe, & Hoffman 1980: 26; Orr, P. W. 1954: 1–2, 1954: 251, 1963a, 1963b, 1966; Orr, P. W. & Pettinger 1964; Orr, P. W., Pettinger, & Dolph 1965, 1966; Ostmark 1956: 4, 1957: 1–14; Ostmark & Wilford 1956: 5, 13; Overhulser 1986; Owen 1986: 8; Parker, D. L. 1971a, 1973b, 1974; Parker, D. L., Stipe, & Tegethoff 1972; Patterson, V. B. et al. 1973: 18; Payne & Wood 1981: 480; Pettinger 1979; Pettinger & Dolph 1967: 21, 1969, 1970: 9, 1971: 6; Pettinger & Johnson 1973a: 1, 1973b: 9, 1974; Phipps 1957: 29–30; Pierce, J. R. 1966: 13, 1977: 10; Pierce, J. R. & Srago 1973: 15; Pierce, J. R., Srago, & Fujii 1977: 14; Pitman 1973; Pitman & McKnight 1978; Pitman & Vite 1970; Prebble 1944: 34, 1954: 220; Prialux 1953: 20; Price 1956: 21–22, 1957: 81–86, 1958: 58–59, 67; Richmond 1953a: 42–43, 1953b: 48, 1953c: 86–87; Richmond & Kinghorn 1951: 31; Ringold et al. 1975; Robinson, L. A. & Dooling 1978: 9; Roelofs 1978; Rogers, T. J. 1981; Rogers, T. J. & Hessburg 1985; Ross, D. A. 1954: 142, 1967: 23–24; Ross, D. A., Baranyay, & Fiddick 1973: 85; Ross, D. A. & Jones 1951: 114, 1953: 133; Ross, D. A., Van Sickle, & Wood 1981: 83; Rudinsky 1960a, 1966a, 1979a; Rudinsky & Terriere 1959: 485; Rudinsky, Terriere, & Allen 1960: 949–953; Rudinsky et al. 1973; Ruppel 1967: 33; Ruppel & Pass 1970; Ryan & Rudinsky 1962; Ryker & Rudinsky 1979: 205; Safranyik 1979; Saliota & Peet 1988; Schabel 1971; Scheller 1961; Schmid 1976b; Schmidt, F. H. 1966: 1050–1055; Schuder 1969: 81; Schwandt et al. 1986; Sharon & O'Neil 1985; Shorey 1972; Silver & Ross 1956: 93–94, 1957: 81, 86, 1958: 75, 1959: 87, 1960: 96, 1961: 97, 1962b: 210, 1963a: 108, 1964b: 111, 1965a: 114; Skovsgaard 1968, 1972; Smith, A. H. 1978, 1979, 1980; Smith, A. H. & Johnsen 1985; Smith, C. J. & Melvin 1974a, 1974b; Smith, C. W. 1953: 14; Smyth 1959: 278; Sterner & Davidson 1981: 35, 1983: 49; Stevens 1981; Stevens & Hall 1960; Stipe, Valcarce, & Tegethoff 1977: 21; Stipe et al. 1987; Swaine 1910d: 42, 1913: 41–43, 1913: 90, 1914: 40, 1918a: 61–62, 1925: 261–266; Telfer 1982; Thier & Hoffman 1983; Tripp, Ross, & Baranyay 1974: 79; Tripp, Ross, & Hunt 1975: 84; Tripp, Ross, & Van Sickle 1977: 76, 1978: 79; Tunnock 1963: 10, 1966: 21; Tunnock & Dooling 1977: 28; Tunnock et al. 1984; Unger 1975, 1976, 1977; Unger & Fiddick 1979; Van den Bosch 1968; Vite 1970b; Wallis, Godfrey, & Richmond 1974: 7; Walters, J. 1956: 1–11, 1958: 326–327; Walters, J. & Campbell 1955: 3–4; Walters, J. W. & Lessard 1978: 11; Wear 1979; Wear & Buckhorn 1955: 13; Wear & Dilworth 1955: 88; Wear & Lauterbach 1956: 169–171; Wear, Pope, & Lauterbach 1964; Wert & Roettgering 1968: 42; Whiteside 1957: 2–43, 1958: 295–302; Wood, C. S. & Van Sickle 1983: 21, 1987: 17, 1989: 18; Wood, C. S., Van Sickle, & Humble 1987: 19; Wood, C. S., Van Sickle, & Shore 1984: 7, 1985: 19; Wood, D. L. 1980b; Wood, R. O. 1967: 104, 1968a, 1968b: 88, 1969: 90; Wood, R. O. & Doidge 1971: 3, 1972: 11; Wood, R. O., Ceistlinger, & Doidge 1970: 3; Wood, R. O. & Koot 1973a: 19, 1973b: 13; Wood, R. O. & Unger 1977: 6, 1978: 6; Wood, R. O. & Wood 1975: 7, 1976: 3; Wright 1952: 53–54;

- Wright, E. & Wright 1954: 1-12; Wright, K. H. 1965, 1967: 17-20; Wright, K. H. & Harvey 1967: 4, 20; Wright, K. H. & Lauterbach 1955; Wright, K. H. & Lejeune 1967; Wygant 1959: 274; Wykoff et al. 1947: 29; Yasinski 1956: 1, 3; Yasinski & Pierce 1957: 8, 1958: 3-4, 9-13; Zethner-Moller & Rudinsky 1967: 903. **(cc)** Alfaro & Borden 1980: 1260; Amman 1970, 1972c: 528; Annala 1969: 182; Annala & Perttunen 1964: 42; Anonymous 1962p, 1971g; Ashraf & Berryman 1969: 11, 1970: 203; Atkins 1957a: 106, 1961: 467, 1966b: 953-991, 1966c: 3, 1967; Atkins & McMullen 1958, 1960, 1962; Baker, B. H. & Trostle 1973; Bedard 1933a, 1938: 189-197; Belluschi & Johnson 1969; Borden & McClaren 1970; Brunner 1915; Burke 1905; Burks 1979: 799; Bushing 1965: 459; Callahan & Shifrine 1960: 146; Castello, Shaw, & Furniss 1976; Chamberlin 1918a, 1939: 159-161, 1958: 73-75; Chansler 1968a; Cobb et al. 1968; Cole 1973: 286, 1975; Coster & Gara 1968: 69-76; Cowan & Nagel 1965; Craighead et al. 1927; Crockett & Hansley 1978; Cross & Moser 1971; Dahlsten & Herman 1965; Davidson 1958; DeLeon 1934b; Deyrup 1975; Deyrup & Gara 1978: 274; Dyer, Shovsgaard, & McMullen 1968: 15-16; Farris 1965b; Fitzgerald & Nagel 1972; Foltz et al. 1976: 342; Furniss, M. M. 1964, 1965b: 8-11, 1966, 1967, 1968; Furniss, M. M. & Orr 1970; Furniss, M. M. & Schenk 1969; Furniss, M. M. & Tovar 1980; Furniss, M. M. et al. 1974, 1977, 1979; Furniss, R. L. 1936, 1941a; Furniss, R. L. & Carolin 1977: 357; Galoux 1947b, 1947d; Gara & Coster 1968: 77-86; Gargiullo & Berisford 1981: 392; Graham 1939b, 1952: 42, 1956; Gregg, Goheen, & Bridgwater 1978: 43; Gregg & Hadfield 1978: 20; Grissell 1979: 764; Gyorfi 1952b; Hagen & Caltagirone 1969: 241-248; Hanover 1975; Hanover & Furniss 1966: 23-28; Harrington, Furniss, & Shaw 1981; Harrington, Shaw, & Furniss 1981; Harwood & Rudinsky 1966: 36; Hawksworth 1985; Hedden & Gara 1976; Hirschmann & Wisniewski 1982, 1983; Hopkins 1905c: 11, 1909b: 106-114; Hopping, G. R. 1947b; Hurlbutt 1967; James & Goheen 1981; James, Stewart, & Williams 1984; Johnsey, Nagel, & Rudinsky 1965; Johnson, N. E. 1958: 5, 1960a, 1963b, 1967: 199; Johnson, N. E. & Belluschi 1969; Johnson, N. E. & Pettinger 1961a; Johnson, N. E., Wright, & Orr 1961; Kaston 1939: 11; Kaya 1984; Keen 1938: 119; Khan 1957a: 519-523, 1957b: 637, 1960; Kinghorn 1957a: 3; Kinn & Witcosky 1978: 249; Kline & Rudinsky 1964: 1-52; Leach 1940b: 224; Lindquist, E. E. 1971; Lu et al. 1956: 35, 1957: 336-343; MacKay 1955: 149; Marsden, Furniss, & Kline 1981; Marsh 1979: 158; Mason, W. R. M. 1978; Massey 1966a, 1967: 779-786, 1969b: 43-52; Matthews 1970; McAlpine 1964; McGregor, Williams, & Carlson 1977; McMullen 1956: 3-4, 1964, 1966, 1977; McMullen & Atkins 1962a: 17, 1962b; McMullen & Walters 1956: 2-3; Miller, J. M. 1929: 994; Miller, J. M. & Keen 1960: 99; Mills 1983; Mitchell, R. G. & Sartwell 1974; Nagel, W. P. & Fitzgerald 1975; Nuorteva 1959d: 193; Parent 1969: 112; Perittimen 1959: 65; Pitman 1973; Poinar 1975: 155; Purrini 1977a; Reid 1957c: 111, 1963a: 229; Richerson, V. V. & Borden 1971, 1972a, 1972b; Ross, D. A. 1967; Rudinsky 1962b, 1962c: 7; Rudinsky & Zethner-Moller 1967: 913; Rumbold 1936: 419-437; Rust 1933: 733; Ryan, R. B. 1961b, 1962b, 1965; Ryan, R. B. & Rudinsky 1962; Sahota & Peet 1988; Schenk, Berryman, & Dale 1976: 1079; Schmidt 1966; Schmitz, R. F. & Rudinsky 1968: 42; Shepherd 1966: 513; Singh 1977: 97; Smith 1959: 275-280; Stevens 1981; Stevens & Hawksworth 1970; Stoszek & Rudinsky 1967: 310-311; Swaine 1925c: 263; Taylor, L. R. 1963; Thompson, W. R. & Simmonds 1964: 93, 1965: 14; Thomson 1954: 45; Thong & Webster 1973, 1975a, 1975b, 1983; Watson 1971: 1381; Weiser 1970: 436-441; Welch, H. E. 1963: 380; Whiteside, Wessela, & Compton 1956: 1-60; Wickman 1977; Woodring 1966a: 78, 1966b: 92; Woodring & Moser 1970; Wright, K. H. & Harvey 1967; Wright, K. H. & Lauterbach 1958; Wright, K. H. & Lejeune 1967; Wright, L. C., Berryman, & Wickman 1984; Zethner-Moller & Rudinsky 1967: 907. **(hb)** Alcock 1982; Anderson, R. F. 1960: 228; Annala 1971: 10; Anonymous 1971f, 1971g; Ashraf & Berryman 1969: 7, 1970: 203; Atkins 1957a, 1958, 1959b, 1960a, 1961, 1965a, 1965c, 1966a: 286, 1966b, 1966c, 1967a, 1967b, 1975; Atkins & Farris 1962: 25; Atkins & McCullen 1955; Baker, B. H., Hostetler, & Furniss 1977: 289; Bare & Philipps 1976; Beatty 1983; Bedard 1933a, 1933b, 1933c: 1128-1134, 1937b, 1950a: 1-8, 1950b; Bennett & Borden 1971; Berryman 1974: 580; Bongberg 1959a; Borden 1967: 1176; Borden, Brownlee, & Silverstein 1968: 633; Bright 1976d: 63; Bright & Stark 1973: 33; Browne 1968b: 226; Chamberlin 1939: 159-161, 1958: 73-75; Chansler 1968a; Chapman 1955a, 1963: 673-676; Chapman & Kinghorn 1958: 365-369; Cole 1975; Cooper & Stephen 1978: 574; Cornelius 1955; Coulson & Witter 1984: 527; Coulson et al. 1976b: 357; Craighead 1953; DeLeon et al. 1934; DeMars 1963; des Champs 1962; Doane et al. 1936; Dudley 1971: 1303; Dyer, Shovsgaard, & McMullen 1968; Eidmann 1962: 161; Essig 1926: 514, 1958: 515; Evenden & Wright 1955; Felt 1926: 247, 248, 258, 1930a: 247, 256; Felt & Rankin 1932: 405; Foltz et al. 1976: 342; Fredericks & Jenkins 1988; Fronk 1947; Furniss, M. M. 1962c, 1964: 178, 1965a: 440, 1976b, 1980; Furniss, M. M. & Orr 1970; Furniss, M. M. & Tovar 1980; Furniss, M. M. et al. 1979; Furniss, R. L. & Carolin 1977: 357; Gerber, Tonks, & Ross 1983; Graham 1939b, 1952; Hagle et al. 1987: 38; Hendrickson 1960, 1965: 595; Herrick 1935: 138; Hopkins 1899b: 10,

- 15, 21–22, 26, 1901e: 67, 1904a: 19, 45, 47, 1905e: 11, 1909a: 121–126; Howse 1973; Ives & Wong 1988: 79; Jantz 1965a, 1965b: 2988–2989; Johnsey 1965: 21–27, 1984; Johnsey, Nagel, & Rudinsky 1965; Johnson, N. E. 1960a, 1960b: 2, 1962, 1963b; Johnson, N. E. & Belluschi 1969; Johnson, N. E. & Furniss 1967: 31–33; Johnson, N. E. & Pettinger 1961a, 1961b; Kaston 1939: 11; Kaston & Riggs 1937: 98; Keen 1938: 119, 1952c: 129, 155; Lejeune, McMullen, & Atkins 1961; Lindgren, B. 1980a: 62; Lyons 1956: 602; MacMullen & Atkins 1962; Manville, McMullen, & Reimer 1988; McCambridge & Mata 1969: 507; McCowan & Rudinsky 1958: 1; McLean & Borden 1977: 684; McMullen 1964, 1965, 1970, 1977; McMullen & Atkins 1959a: 67, 1959b: 416, 1961, 1962a, 1962b; McMullen & Walters 1956b: 3; Miller, J. M. & Keen 1960: 99; Mills 1983; Morstatt 1924: 21; Nijholt 1980: 203; Reid 1956: 6, 1958d: 506, 1962a: 533, 1963a: 229; Rudinsky 1966a, 1973b; Rudinsky & Daterman 1964a; Rudinsky et al. 1972, 1973; Ryker & Rudinsky 1979: 205; Sahota & Peet 1988; Sahota, Chapman, & Nijholt 1970; Sahota, Peet, & Bartels 1984; Schmidt, F. H. 1966; Schmitz, R. F. & Rudinsky 1968; Shepherd 1966: 513; Skovsgaard 1968, 1972; Smith, C. W. 1953: 14; Swaine 1918a: 61–62; Taylor, L. R. 1963; Vite & Rudinsky 1957: 156–167; Walters & McMullen 1956: 197; Wood, S. L. 1963: 106, 1982b: 199; Wright, K. H. & Lejeune 1967. (ds) Acciavatti & Weiss 1974; Allen, S. J. 1969: 12, 1977, 1978: 5, 1979: 4; Allen, S. J. & Koot 1970: 11, 1971: 15; Allen, S. J. & Unger 1975: 8, 1976: 6; Allen, S. J. & Wood 1973a: 5, 1973b: 9; Amman 1972c: 528; Anderson, R. F. 1960: 228; Anonymous 1958a: 3, 5, 1960: 9–10, 1962i, 1963j, 1963k, 1963y, 1964h, 1964u, 1965b, 1965r, 1966f, 1967g, 1967t, 1968g, 1968p, 1969e, 1969f, 1969m, 1970h, 1972t, 1973c, 1973n, 1974f, 1975f, 1975g, 1975t, 1976f, 1976g, 1976h, 1977g, 1977h, 1977i, 1977n, 1977x, 1978a, 1978f, 1978g, 1978z, 1978b: 34, 1978h: 4, 1979a, 1979f, 1979e: 4, 1981j, 1982b, 1983d, 1983f, 1984d, 1984f; Baker, B. H. 1969; Bedard 1933a, 1938a; Berryman & Stark 1962a; Bongberg 1956a, 1957, 1960: 92; Bongberg & Bennett 1960: 1; Bright 1976d: 63; Bright & Stark 1973: 33; Brown, A. W. A. 1940a: 11; Brown, C. E., Hopkins, & Robins 1960: 84; Brown, C. E., Robins, & Stevenson 1961: 85; Brown, C. E. & Stevenson 1963: 97; Browne 1968: 226; Chamberlin 1917, 1918a, 1925, 1939: 159–161, 1958: 73–75; Chapman 1963; Cole 1975; Craighead 1953; Craighead & Middleton 1930; Curtis & Johnson 1975; Downing 1963: 9; Duncan, B. 1987; Dyer 1952; Essig 1926: 514, 1958: 515; Evans, D. 1983: 32; Evans, D. & Dyer 1953: 130; Evans, D., Lowe, & Hmt 1978; Evenden & Wright 1955; Fall 1906: 203; Felt 1926: 247, 248, 258, 1930a: 247, 255; Felt & Rankin 1932: 405; Furniss, M. M. 1962c, 1975, 1980; Furniss, M. M. & Furniss 1972; Furniss, M. M. & Orr 1970; Furniss, M. M. et al. 1974; Furniss, R. L. & Carolin 1977: 357; Gast et al. 1989: 385; Credley et al. 1953; Hagedorn 1910d: 22; Hall & Eaton 1960; Hopkins 1903a, 1909a: 121–126, 1909b: 106–114; Hopping, R. 1922; Ishikura 1966; Jantz & Rudinsky 1965; Johnsey, Nagel, & Rudinsky 1965; Johnson, N. E. 1960a, 1960b; Johnson, N. E. & Pettinger 1961a: 1; Johnson, W. T. & Lyon 1976: 53; Keen 1929a: 17, 1938: 119, 1952c: 129, 155; Kimmey et al. 1943: 1–54, 1951: 63; Kleine 1912b: 176, 1914b: 357, 1934a: 133; Kusch 1967; Leech 1947: 80; Leng 1920: 338; Lyons 1956: 602; MacKay 1948: 93, 1950: 114; Marchant & Borden 1976; McComb et al. 1953: 3; McMullen 1977; McMullen & Atkins 1962b; Murayama 1957a: 36; Nijholt, McMullen, & Safranyik 1981; Nijholt & Sahota 1974; Patterson & Hatch 1945: 149; Pitman 1973; Ross & Jones 1953: 133; Ross, D. A. 1967; Rudinsky et al. 1972; Ruppel 1967: 33; Ryan & Rudinsky 1962; Ryker, Libbey, & Rudinsky 1979; Schuder 1969: 81; Smith, C. J. & Melvin 1974a, 1974b; Smith, C. S. 1929; Snow 1883: 44, 1907: 188; Swaine 1913: 90, 1914: 30; Thatcher, T. O. 1935: 261; Wood, S. L. 1948: 23, 1951a: 127, 1963: 106, 1972a: 406, 1982b: 199; Wright, K. H. & Lejeune 1967. (tx) Anderson, R. F. 1960: 228; Anonymous 1971f: 8, 1971g: 12; Benoit 1985: 89; Bright 1976d: 63; Chamberlin 1939: 159–161, 1958: 73–75; Doidge 1973b, 1975, 1976; Duncan, B. 1987; Evans, D. 1983: 32; Hagedorn 1910a: 60; Hatch 1927: 302; Hopkins 1905c: 11, 1909a: 121–126; Ives & Wong 1988: 79; Jantz & Johnsey 1964: 1328; Johnson 1960a; Keen 1929a: 17; Kusch 1967: 10; McMullen 1977: 1; Morris, E. V., Cottrell, & Wood 1979: 4; Muesebeck 1942: 95, 1950: 131; Parly 1983; Ryker & Rudinsky 1979: 204–205; Skovsgaard 1968; Swaine 1918a: 61–62; Thomas, J. B. 1965c, 1967; Wood, S. L. 1963: 9, 13, 106, 1972a: 406, 1982b: 199; Wright, K. H. & Lauterback 1958: 7. (ms) Anman & Rasmussen 1969; Anonymous 1981v; Atkins 1959a; Atkins & Farris 1958; Bare, Bethel, & Schreuder 197.; Beal 1950; Beal et al. 1935, 1955; Berryman & Stark 1962a; Bongberg 1959a; Borden & Bennett 1969; Chamberlin 1931; Chapman & Kinghorn 1955; Chapman & Wilson 1956; Clair 1977; Cornelius 1955; DeMars 1963: 1112; Fang & Allen 1955; Furniss, M. M. 1960, 1962a, 1962c, 1964: 178, 1979; Furniss, M. M. & Oakes 1973; Glascock 1953; Hall, P. M. 1983; Harris & Dawson 1979: 6; Hatch 1938: 193; Hollbrook 1948; Hmt 1954: 14; Jantz & Johnsey 1964: 233; Johnson, N. E. 1962; Johnson, N. E. & Furniss 1967; Johnson, N. E. & Molatore 1961; Keen 1952b: 49; Look 1981; Mahaffay 1948: 64; Marsden, Furniss, & Kline 1981; McCagan 1966; McMullen & Atkins 1959a: 67; McMullen & Walters 1956b: 3; Mori & Ogoche 1988; Mori et al. 1978; Pettinger 1979;

Prebble 1944: 34; Prialix 1953: 20; Ruppel & Pass 1970; Ryan 1962b; Sahota & Peet 1958; Schabel 1971; Schmidt 1966; St. Clair, Goulding, & Rudinsky 1977; Swaine 1925c: 263; Thomson, M. G. 1954: 45; Wear 1979; Wear & Lauterbach 1956: 169.

punctatus LeConte 1868: 173. Holotype ♀; northern New York [USA]; MCZ, Cambridge.

Figures: Wood 1963: 9.

Distribution: North America (Alaska/ Alberta, British Columbia, New Brunswick, Newfoundland, Northwest Territories, Ontario, Quebec, Yukon in Canada/ N Idaho, Montana, New York, Pennsylvania, West Virginia in USA).

Hosts: *Picea glauca*, *P. rubens*, *P. sitchensis*.

Notes: (3) This is a biologically and anatomically distinct geographical replacement of *micans*.

References: (ay) Duncan, B. 1987; Furniss, M. M. & Johnson 1959; Hopkins 1909a: 142–143. (bv) Barr, B. A. 1969: 641; Schofer & Lanier 1970: 1487–1488. (cn) Browne 1968b: 226; Drooz 1985: 350; Felt 1924: 261, 1926: 261, 1930a: 250, 261; Hopkins 1902e: 3, 1909b: 139–141; Lindgren 1950a: 62; Packard 1890: 722; Swaine 1915a: 61, 65; Tripp & Robins 1968: 101; Tripp, Robins, & Blaul 1970: 59; Tripp, Stevenson, & Baranyay 1967: 99. (cc) Furniss, R. L. & Carolin 1977: 359; Hopkins 1909b: 139–141; Swaine 1925c: 262; Werner & Holsten 1984. (hb) Bright 1976d: 58; Browne 1965: 226; Chamberlin 1939: 167; Drooz 1985: 350; Felt 1926: 261, 1930a: 250, 261; Furniss, M. M. & Johnson 1959; Furniss, R. L. & Carolin 1977: 359; Gara & Holsten 1975; Gast et al. 1959: 382; Hopkins 1909a: 142–143; Ives & Wong 1988: 77; Lindgren, B. 1950a: 62; Swaine 1915a: 61, 65; Wood, S. L. 1963: 85, 1982b: 187. (ds) Anonymous 1926c: 516; Ashworth 1977; Blatchley & Leng 1916: 653; Bright 1976d: 58; Browne 1968b: 226; Chamberlin 1925, 1939: 167; Drooz 1985: 350; Duncan, B. 1987; Evans, D. 1983: 32; Evans, D., Lowe, & Hunt 1978; Felt 1926: 261, 1930a: 250, 261; Furniss, R. L. & Carolin 1977: 359; Gara & Holsten 1975; Gast et al. 1959: 382; Hagedorn 1910d: 23; Hamilton 1894: 35; Henshaw 1882: 269, 1885: 149; Hopkins 1909a: 142–143, 1909b: 139–141; Kleine 1912b: 176, 1914b: 398, 1934a: 133; Kusch 1967; Leng 1920: 338; Leonard 1928: 516; Morgan, A. V. & Morgan 1980; Schwarz 1886: 56; Swaine 1909: 98, 1919b: 5; Van Dyke 1924: 25; Werner & Holsten 1984; Wood, S. L. 1963: 85, 1972a: 405, 1982b: 187. (tx) Benoit 1985: 89; Blatchley & Leng 1916: 653; Bright 1976d: 58; Chamberlin 1939: 167; Dietz 1890: 28; Evans, D. 1983: 32; Furniss, M. M. & Johnson 1989; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 60; Hopkins 1902e: 3, 1909a: 142–143; Johnson, C. W. 1897: 73–77; Kusch 1967; LeConte 1868: 173, 1876: 384–385; Muesebeck 1942: 95, 1950: 131; Schwarz 1886: 56; Swaine 1909: 98, 1915a: 61, 65,

1919b: 5; Thomas, J. B. 1965c; Titus, Meikle, & Harrison 1955: 55; Wood, S. L. 1963: 9, 85, 1972a: 405, 1982b: 187. (ms) Swaine 1925c: 262.

johanseni Swaine 1919b: 5. Holotype ♀♀; Sandstone Rapids, Coppermine River, Northwest Territories [Canada]; CNCI, Ottawa. Synonymy: Wood 1963: 86.

References: (cn) Doane et al. 1936; Swaine 1925: 261–266, 1933: 29. (cc) Steffansson 1921: 743; Swaine 1925c: 262. (hb) Chamberlin 1939: 165; Doane et al. 1936; Swaine 1933: 29; Watson 1928: 620. (ds) Chamberlin 1925, 1939: 165; Keen 1929a: 19; Leng & Mutchler 1927: 51; Swaine 1919b: 5; Van Dyke 1924: 25. (tx) Bright 1967b: 674; Chamberlin 1939: 165; Keen 1929a: 19; de Ruelle 1970: 100; Swaine 1919b: 5; Wood, S. L. 1963: 85. (ms) Swaine 1925c: 262.

rhizophagus Thomas & Bright 1970: 479. Holotype ♂; 16 km SW El Salto, Durango, Mexico; CNCI, Ottawa.

Distribution: North America (Chihuahua, Durango, Guerrero, Morelos in Mexico).

Hosts: *Pinus durangensis*, *P. engelmannii*.

Notes: (3) This species breeds only in the roots of seedlings.

References: (ay) Furniss, M. M. & Campos 1984. (hb) Thomas, J. B. & Bright 1970: 479; Wood, S. L. 1982b: 187. (ds) Atkinson & Equihua 1985b: 229; Perusquia 1978; Thomas, J. B. & Bright 1970: 479; Wood, S. L. 1982b: 187. (tx) McNamara 1977: 196; Perusquia 1978; Thomas, J. B. & Bright 1970: 479; Wood, S. L. 1974d: 280, 1982b: 187.

rufipennis Kirby 1837: 195. Syntypes 2 ♀; Boreal North America; BMNH, London.

Figures: Bevan 1987: 113; Cottrell 1966, Ives & Wong 1988: 76. Swaine 1914: 33 (adult), 1915a: pl. 12 (adult), 1924d: pl. 1 (adult), pls. 2–5 (galleries), Wood 1963: 9, 13 (as *obesus*).

Distribution: North America (Alaska/ all provinces in Canada/ Arizona, California, Colorado, Idaho, Maine, Michigan, Minnesota, Montana, New Hampshire, New Mexico, New York, Oregon, Pennsylvania, South Dakota, Utah, Washington, Wyoming in USA).

Hosts: *Picea* spp.

Notes: (3) Hopkins 1902e: 3 (*californicus*, *dietzi*, *fletcheri*, *keeni*, *wickhami*, nomen nudum).

References: (ay) Chapman 1972; Cottrell 1978; Coulson & Witter 1984: 528; Eglitis 1985; Frye, Flake, & Germain 1974; Gray, T. & Dyer 1972; Hall, P. M. & Dyer 1974; Ives & Wong 1988: 77; Linnane 1985; Linton et al. 1984; Miller, L. K. & Werner 1987; Rose & Lindquist 1977: 119; Safranyik & Linton 1985a, 1987b, 1988; Sahota & Ibaraki 1979; Sahota, Peet, & Ibaraki 1987; Stock, M. W., Gregoire, & Furniss 1987; Thomas, J. B. 1957: 4; Werner & Holsten 1985. (bv) Anonymous 1971z; Baker, B. H. & Kemperman 1974;

- Baker, B. H., Hostetler, & Furniss 1977: 289; Dyer 1973, 1975; Dyer & Hall 1977a, 1980, 1983; Dyer, Hall, & Safranyik 1975; Dyer & Safranyik 1977; Ford 1986; Furniss, M. M., Baker, & Hostetler 1976; Furniss, M. M. et al. 1979; Hard 1987, 1989; Hard, Werner, & Holsten 1983; Hawksworth 1985; Holsten 1984; Inscoc 1982; Inscoc & Beroza 1976: 168; Klassen, Ridgway, & Inscoc 1982; Kline et al. 1974; Lawko & Dyer 1974; McGregor & Miller 1989; McGregor et al. 1984; Miller, M. C. et al. 1989; Moeck 1978, 1981; Nijholt, McMullen, & Safranyik 1981; Payne & Wood 1981: 480; Rudinsky 1979a: 407; Rudinsky & Michael 1973, 1974; Rudinsky et al. 1974; Safranyik & Linton 1988; Sahota & Ibaraki 1979; Sahota & Thomson 1979; Schmid 1980; Silverstein & Young 1976: 20; Vite et al. 1972; Wagner et al. 1982: 496; Worrall & Harrington 1988; Wright, R. H. 1974: 135; Wright, R. H., Chapman, & Dyer 1974. (cn) Anderson, R. F. 1960: 225; Andrews 1968a: 141; Andrews & Erickson 1973a: 14, 1973b: 14, 1975, 1976: 4; Andrews & Monts 1977: 4, 1978: 2, 1979: 3; Andrews & Vanderwal 1971: 3; Anhold, J. A. 1986, 1987; Annand 1946, 1947a, 1947b, 1949; Anonymous 1971v, 1972e, 1972q, 1972t, 1973n, 1974e, 1974v, 1975b, 1975c, 1975e, 1975f, 1975w, 1975x, 1975z, 1976f, 1976h, 1976n, 1977g, 1977i, 1978a, 1978b, 1978g, 1978h: 4, 1978p, 1979a, 1979e: 4, 1979f, 1981e, 1981v, 1982b, 1983c, 1983f, 1983g, 1984f, 1985h, 1988d; Averill 1978b; Baker, B. H. & Curtis 1972, 1973; Baker, B. H. & Kemperman 1974; Baker, B. H., Hostetler, & Laurent 1977; Beatty 1983; Beckwith 1972; Bennett 1983; Bennett & Beatty 1984; Bousfield, Hagle, & Kohler 1988; Brown, R. M. & Winter 1981; Buffam 1971; Buffam & Yasinski 1971; Buffam et al. 1973; Byler et al. 1986; Cahill 1979; Cahill & Lister 1971; Cahill, Lister, & Brown 1973; Cameron 1989; Cerezke & Emond 1989: 11; Chittenden 1898a: 96; Churcher 1985; Ciesla, Dewey, & Tunnock 1971: 17; Clarke, L. J. & Carew 1981, 1983a, 1983b, 1983c, 1984, 1985: 20, 1986: 22; Clarke, L. J. et al. 1982: 24; Comtois 1988: 171; Cottrell 1973: 5, 1978; Cottrell & Adams 1973; Cottrell & Doidge 1972: 3; Cottrell & Erickson 1977: 4, 1978: 4; Cottrell & Fiddick 1972; Cottrell & Koot 1975, 1976; Cottrell, Unger, & Fiddick 1979: 21; Cottrell & Wood 1971: 3; Conlson & Witter 1984: 528; Crosby & Curtis 1970, 1971; Curtis & Hadfield 1977a, 1977b; Curtis & Johnson 1975, 1978; Dewey & Clinton 1980; Doidge 1972: 1, 1973a: 8, 1973b: 4, 1977: 4, 1978: 2; Doidge & Koot 1979: 2, 3, 4, 15; Dolph & Hadfield 1971; Dolph & Pettinger 1971: 3, 5; Drooz 1985: 349; Dyer 1973, 1975; Dyer & Hall 1977a; Dyer, Hall, & Safranyik 1975; Dyer & Safranyik 1977; Dyer & Taylor 1971; Eglitis 1981, 1982b, 1984a, 1985; Erickson & Wood 1979: 5; Felt 1906: 753, 1924: 261, 1926: 249, 261, 1930a: 249, 261; Fiddick 1971b: 2, 1978, 1979, 1980: 3; Fiddick, Harvey, & Silver 1965; Fiddick & Van Sickle 1979: 6, 1980: 11, 1982: 8; Fletcher 1899; Forbes, Underwood, & Van Sickle 1973: 25, 1975: 23; Frye 1971b: 25; Frye & Flake 1972; Frye & Wygant 1971; Frye et al. 1977; Fuller & Hostetler 1980; Furniss, M. M., Baker, & Hostetler 1976; Furniss, M. M. et al. 1979; Gardiner, L. M. 1970; Gentry, C. R. et al. 1979: 813; Germain, Weiss, & Loomis 1973a, 1973b: 41; Gibson, K. E. 1982c, 1985b; Gibson, K. E. et al. 1984, 1987; Gillman & Bailey 1977, 1978: 7; Graham 1963; Gregg & Hadfield 1978; Gregg, Filip, & Hadfield 1980: 38; Gregg, Goheen, & Bridgwater 1978: 45; Hagle et al. 1987: 34; Hamel 1980: 787; Hard 1974: 10, 1982, 1985; Hard & Holsten 1985; Hard, Werner, & Holsten 1983; Harris, Dawson, & Brown 1978; Harvey 1897: 176, 1898: 173-178; Harvey, E. C., Jardine, & Silver 1964; Helzner & Moyer 1979; Hinds & Buffam 1971; Hiratsuka et al. 1982: 7; Hodgkinson 1983; Hofacker & Loomis 1982: 3, 1983: 3; Hofacker, Loomis, & Gilstrap 1988: 18; Hofacker, Loomis, & Tucker 1984: 6, 1987; Hofacker et al. 1989; Hoffman et al. 1988: 3; Holland 1983; Holland & Tkacz 1984; Holsten 1979, 1980, 1981a, 1981b, 1982, 1987; Holsten, Laurent, & Averill 1980: 64; Holsten & Werner 1984; Holsten, Werner, & Laurent 1980; Holsten & Wolfe 1979; Holsten & Zogas 1979; Holsten et al. 1979; Honing 1970: 18; Hopkins 1891a, 1894c, 1894d, 1898d: 69, 1899a: 343, 1899b: 8, 21, 1899c: 392, 447, 1909b: 136; Hostetler, Rush, & Laurent 1977: 3; Hough 1882: 259; Howard 1898: 97-98; Ives 1972: 8; Ives, Blanel, & Robins 1971: 69, 1972: 74; Ives, Brandt, & Lant 1970: 77; Ives, Brandt, & Lawrence 1969; Ives, Lawrence, & Robins 1974: 71; Ives & Wong 1988: 77; James & Goheen 1981; James & Linnane 1979, 1980: 13; James et al. 1985; Johnson 1897: 73-77; Johnson, D. W. & Averill 1983; Johnson, D. W. & Creasap 1978a, 1978b: 16; Johnson, D. W. & Curtis 1986; Johnson, D. W. & Minnemeyer 1976, 1977: 32; Klein, W. H. & Parker 1970: 15; Klein, W. H. & Stipe 1971: 15; Klein, W. H. et al. 1973: 25; Kline et al. 1974; Knapp 1985; Knapp et al. 1989: 4; Knopf, J. 1978; Knopf, J., Klein, & Tegethoff 1977: 19; Knopf, J. et al. 1978: 33; Kohler, Dooling, & Bousefield 1985; Kondo & Moody 1987: 19; Kondo & Taylor 1985: 11; Landis, Averill, & Frye 1977: 29; Lawko & Dyer 1974; Lessard 1976, 1978, 1982b; Lessard & Fuller 1981; Lessard & Walters 1978: 24; Lindgren 1980a: 62, 1988; Lindquist, O. H. & Syme 1981: 38; Linnane 1983, 1984, 1985; Linnane & Telfer 1984; Lister & Cahill 1970: 22; Lister & Hildebrand 1984; Lister et al. 1976; Livingston et al. 1988: 4; Logan, Schmid, & Mehl 1980; Loomis, Hofacker, & Tucker 1985: 15, 1986; Magasi 1979, 1980, 1981a, 1981b: 22, 1982b, 1983, 1984b, 1985, 1986a: 8, 1986b, 1987: 9, 1988: 13, 1989: 6; Magasi,

- Sternier, & Forbes 1977: 24; Martineau 1984, 1985: 20; Martineau & Lavallee 1973: 43; McCambridge & Knight 1972; McGregor 1977b; McGregor et al. 1984; Miller, W. F. 1979; Mills 1983; Mitchell, J. C. & Schmid 1973; Moeettini & Cahill 1989; Moeck 1981; Molnar, Ross, & Fiddick 1971: 77, 1972: 82; Monts 1978; Moody 1988: 18; Moody & Cerezke 1983: 9, 1984, 1985; Morris, E. V. & Monts 1971: 9, 1972: 5, 1973a: 9; Morris, E. V. & Wood 1978: 4; Moyer 1977; Murtha & Cozens 1985; Neal 1979: 813; Neilson 1986; Nijholt, McMullen, & Safranyik 1981; O'Neil & Sharon 1988: 21; Ostaff & Newell 1981; Owen 1986: 4; Packard 1890: 814; Parker, D. L. 1971a, 1973a, 1973b, 1974; Parker, D. L., Stipe, & Tegethoff 1972; Parker, D. L. et al. 1977: 35; Patterson, V. B. et al. 1973: 12, 1975: 44; Payne & Wood 1981: 480; Peck 1875: 1-21, 1876: 295, 1879: 34; Pettinger 1979; Pettinger & Dolph 1970: 9, 1971: 7; Pettinger & Johnson 1973a: 1, 1973b: 11, 1974; Petty, J. et al. 1972: 4; Ragenovich 1979, 1980b: 21, 1982; Raimo & Sharon 1981; Robins et al. 1973: 30, 1974: 40; Rogers, T. J. 1981; Rogers, T. J. & Hessburg 1985; Rogers, T. J. & Malfei 1987: 2, 1988: 2; Rose, A. H. & Lindquist 1977: 118; Ross, D. A., Baranyay, & Fiddick 1973: 86; Ross, D. A., Van Sickle, & Wood 1981: 82; Rudinsky 1979a: 407; Ruppel 1977; Rush et al. 1978: 35; Ruth, Miller, & Sutherland 1982: 24; Ryker & Rudinsky 1979: 207; Safranyik & Linton 1981a, 1981b, 1982, 1987a; Safranyik 1985a, 1988b, 1988c; Safranyik & Petty 1971; Safranyik, Petty, & Smith 1972; Sahota & Ibaraki 1979, 1980; Schmid 1970: 3, 1972e, 1977: 3, 1981; Schmid & Beckwith 1972, 1975; Schmid & Frye 1976; Schmid & Hinds 1974; Schwandt et al. 1986; Sharon & O'Neil 1985; Singh & Clarke 1981: 6, 1982a: 4, 1982b: 2; Skelly et al. 1988; Smith, A. H. 1981; Smith, A. H. & Johnsen 1985; Smith, G. J. 1973, 1974a, 1974b; Smith, J. B. 1900: 364, 1901b: 92; Sternier & Davidson 1981: S. 1982, 1983: 13; Stevens 1981; Stipe 1976a; Stipe et al. 1987; Stipe, Valcarce, & Tegethoff 1977: 21; Swaine 1918a: 61, 64, 1925: 261-266, 1933: 29; Syme & Nystrom 1988: 38; Telfer 1982; Thier & Hoffmann 1983; Thomas, P. R. 1986; Titus 1987: 24; Tkacz 1986; Tripp, Ross, & Baranyay 1974: 79; Tripp, Ross, & Hunt 1975: 84; Tripp, Ross, & Van Sickle 1977: 77, 1978: 79; Tunmuck et al. 1984; Walters, J. W. & Lessard 1978: 11; Weed & Fiske 1898: 67-69; Werner, Baker, & Rush 1977: 2; Werner, Elert, & Holsten 1983; Werner, Hard, & Holsten 1988; Werner, Hastings, & Averill 1983; Werner & Holsten 1983; Werner, Holsten, & Hastings 1986; Werner et al. 1984, 1986; Wilson, L. F. 1977: 70; Wong, H. R. & Melvin 1973; Wood, C. S. & Van Sickle 1983: 6, 1987: 19, 1989: 19; Wood, C. S., Van Sickle, & Humble 1987: 20; Wood, C. S., Van Sickle, & Shore 1984: 7, 1985; Wood, R. O. & Doidge 1971: 3, 1972: 16; Wood, R. O. & Koot 1973: 13; Wood, R. O. & Unger 1977: 4, 1978: 3; Wood, R. O. & Wood 1975: 12, 1976: 7; Worrall & Harrington 1988; Yarger, Holsten, & Laurent 1978: 73. (cc) Amman 1972c: 528; Baker, B. H., Hostetler, & Furniss 1977: 293; Baker, B. H. & Kemperman 1974; Beal 1953; Beckwith 1972b; Buffam et al. 1973; Chansler 1968b; Comtois 1988: 171; Cottrell 1966, 1978; Crockett & Hansley 1978; Dyer 1975; Dyer & Hall 1977, 1980; Dyer, Hall, & Safranyik 1975; Dyer & Taylor 1971; Felt 1906: 753; Frye 1971a; Frye, Flake, & Germain 1974; Furniss, M. M., Baker, & Hostetler 1976; Furniss, M. M. et al. 1979; Furniss, R. L. & Carolin 1977: 359; Hard 1957, 1989; Hard & Holsten 1985; Hard, Werner, & Holsten 1983; Hawksworth 1985; Hinds & Buffam 1971; Holsten 1984; James & Coheen 1981; Kaya 1984; Marsh 1979: 169; Massey & Wygant 1973; Mills 1983; Mitchell, J. C. & Schmid 1973; Otvos 1979; Safranyik 1978b; Safranyik & Linton 1982, 1982a, 1982b, 1985, 1987b; Sahota & Thomson 1979; Schmid 1976a; Schmid & Frye 1976; Stevens 1981; Thomson, A. J. & Sahota 1981; Thong & Webster 1983; Tomalak, Welch, & Galloway 1989: 9; Vitzthum 1926: 459; Werner & Holsten 1984, 1985a, 1985b. (hb) Anderson, R. F. 1960: 225; Beatty 1983; Beckwith 1972b; Beckwith, Wolff, & Zasada 1977; Bennett & Beatty 1984; Berryman 1974: 580; Bright 1976d: 60; Bright & Stark 1973: 32; Chittenden 1890; Comtois 1988: 171; Cooper & Stephen 1978: 578; Cottrell 1966, 1978; Drooz 1985: 349; Dyer 1975; Dyer & Hall 1977; Eglitis 1984a; Felt 1926: 249, 261, 1930a: 249, 261; Frye, Flake, & Germain 1974; Furniss, M. M., Baker, & Hostetler 1976; Furniss, M. M. et al. 1979; Furniss, R. L. & Carolin 1977: 359; Gara & Holsten 1975; Gast et al. 1989: 385; Graham 1963; Gray, T. & Dyer 1972; Hagle et al. 1987: 34; Holland 1983; Holsten 1981b, 1982; Holsten, Werner, & Laurent 1980; Hopkins 1899a: 343, 1899c: 392, 447, 1899d: S. 21; Lawko & Dyer 1974; Lindgren, B. 1950a: 62; Linnane & Telfer 1984; Martineau 1984, 1985: 20; Mills 1983; Rose, A. H. & Lindquist 1977: 118-119; Ryker & Rudinsky 1979: 207; Safranyik 1978b; Sahota & Thomson 1979; Schmid 1970a; Schmid & Beckwith 1972, 1975; Schwarz 1899d: 175, 1894b: 255; Smith 1900: 364; Swaine 1918a: 61, 64; Thompson, A. J. & Sahota 1981; Watson 1931: 126-127; Weed & Fiske 1898: 67; Werner, Baker, & Rush 1977; Werner & Holsten 1985a, 1985b; White, R. E. 1983: 329; Wilson, L. F. 1977: 70; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 192. (ds) Acciavatti & Walters 1977; Allen, S. J. 1977, 1979: 5; Allen, S. J. & Unger 1975, 1976: 5; Allen, S. J. & Wood 1973a: 5, 1973b: 6; Amman 1972c: 528; Anderson, R. F. 1960: 225; Anonymous 1972t, 1973n, 1974e, 1975e, 1975f, 1976f, 1976h, 1976n, 1977g, 1977i, 1978g, 1978h: 4, 1979a, 1979e: 4, 1979f, 1982b, 1983f, 1984f; Ashworth 1977; Atwood 1945; Austara

- et al. 1983; Baker, B. H. & Curtis 1973; Baker, B. H., Hostetler, & Laurent 1977; Beckwith 1972a; Blatchley & Leng 1916: 655; Bright 1971a: 125, 1976d: 60; Bright & Stark 1973: 32; Brown, R. M. & Winter 1981; Buffam et al. 1973; Chamberlin 1925; Chittenden 1890; Cottrell 1978; Curtis & Johnson 1975; Dodge 1938; Drooz 1985: 349; Duncan, B. 1987; Dyer 1975; Dyer & Hall 1977; Dyer & Safranyik 1977; Elias 1982a, 1982b, 1982d, 1985: 39; Elias, Short, & Clark 1986; Evans, D. 1983: 32; Evans, D., Lowe, & Hunt 1978; Felt 1906: 753, 1926: 249, 261, 1930a: 249, 261; Ferrer 1942; Frye, Flake, & Germain 1974; Frye et al. 1977: 1221; Furniss, M. M., Baker, & Hostetler 1976; Furniss, R. L. & Carolin 1977: 359; Furniss, M. M. et al. 1977; Gara & Holsten 1975; Gantreau & Melvin 1974: 13; Hagedorn 1910d: 23; Hamilton 1894a: 35–36; Harrington 1890: 189; Henshaw 1885: 149; Hopkins 1891a; Johnson, C. W. 1901b: 92; Kleine 1912b: 176, 1934a: 133; Kusch 1967; Leng 1920: 338; Lindquist, O. H. & Syme 1981: 38; Melsheimer 1853: 87; Morgan, A. V. & Morgan 1980; Nijholt, McMullen, & Safranyik 1981; Provancher 1877: 572–573, 1878: 13–14; Safranyik & Linton 1982; Sahota & Ibaraki 1980; Sahota & Thomson 1979; Schmid & Beckwith 1972, 1975; Schwarz 1886: 56; Smith, G. J. 1974a, 1974b; Smith, J. B. 1900: 364, 1910: 404; Still, Tidsbury, & Melvin 1974a, 1974b; Susut & Melvin 1974; Swaine 1909: 98; Syme & Nyström 1988: 38; Thomson & Sahota 1981; Tredd 1907; Werner & Holsten 1984; Wickham 1896a: 309; Winter, T. G. 1983: 9; Wood, S. L. 1972a: 405, 1982b: 192. (tx) Anderson, R. F. 1960: 225; Beckwith 1972, 1972a; Benoit 1985: 89; Blatchley & Leng 1916: 655; Bright 1976d: 60; Cottrell 1966; Dietz 1890: 28; Dodge 1938: 27; Evans, D. 1983: 32; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 60; Ives & Wong 1988: 76; Kirby 1837: 195, 1878: 13–14; Kusch 1967; LeConte 1868: 173, 1876: 384–385; Lindquist, O. H. & Syme 1981: 38; Mannerheim 1853: 238; Muesebeck 1942: 95, 1950: 131; Pardy 1977, 1983; Provancher 1877: 572–573; Ryker & Rudinsky 1979: 207, 208; Schedl 1940a: 339; Schwarz 1886: 56, 1889d: 175; Swaine 1909: 98–99, 1918a: 61, 64–65; Syme & Nyström 1988: 38; Thatcher, T. O. 1954: 3; Thomas, J. B. 1957: 4; Titus, Meikle, & Harrison 1985: 55; Wood, S. L. 1963: 93, 1969c: 116, 1972a: 405, 1982b: 192. (ms) Anonymous 1972e, 1972q, 1981v; Beal 1953; Eckstein 1900c; Gries et al. 1988; Harris, Dawson, & Brown 1978; Linton & Safranyik 1988; Logan, Schmid, & Mehl 1980; Pettinger 1979.
- obesus* Mannerheim 1843: 296 (*Hylurgus*). Holotype ♀; Insula Sitkha; MZU, Helsinki. Synonymy: LeConte 1876: 385, Wood 1963: 93.
- References: (ay) Chapman 1969b; Farris 1965a: 3–4; Hopkins 1909a: 135–138; Schofer & Lanier 1970; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966. (bv) Annala 1971a: 12; Baker, W. L. 1972: 246; Barr, B. A. 1969: 640; Chapman, J. A. & Dyer 1969: 31; Dyer 1970; Dyer & Chapman 1971; Dyer, Shovsgaard, & McMullen 1968; Dyer & Taylor 1968; Jacobson 1972; Schmid & Frye 1977; Wygant & Lejeune 1967. (cn) Anderson, R. F. 1948: 140, 1960: 227; Andrews 1969a: 131, 1969b: 136; Andrews & Molnar 1969; Andrews, Vanderwal, & Baumann 1969: 131; Andrews, Vanderwal, & Wood 1970: 4; Annand 1947: 34; Anonymous 1958a: 4, 6, 1960i, 1965r, 1966f, 1966u, 1967t, 1968p, 1969m, 1970t; Baker, B. H. 1969; Baker, W. L. 1972: 247; Baldwin, P. H. 1968a: 90–99, 1968b, 1968c: 1–4; Bauman 1967: 168, 1968: 184, 1969: 158; Beddows 1968: 215, 1969: 192; Bongberg 1957; Brown, C. E. & Stevenson 1964: 99, 1965: 101; Browne 1968b: 225; Cahill 1974; Chansler 1968: 47; Chansler & Pierce 1966: 1357–1359; Chrystal 1915: 73, 1916: 65, 1916: 796, 1917: 44; Collins & Harris 1970; Cottrell & Fiddick 1962, 1968; Cottrell, Holms, & Ross 1965, 1966b; Cottrell & Ross 1964; Craighead 1947; Crosby 1966; Crosby & Baker 1966; Crosby & Curtis 1968, 1970b; Doane et al. 1936; Doidge 1967: 196; Dolph & Pettinger 1968: 40, 1969: 6; Downing 1957: 113; Dyer 1969: 41–45, 1970: 18–21; Dyer, Skousgaard, & McMullen 1968: 15–16; Dyer & Taylor 1968: 769–776; Essig 1926: 512, 1958: 513; Felt 1924: 260, 1930a: 249, 260; Felt & Rankin 1932: 406; Fiddick 1968a, 1968b: 5, 1969a, 1969b, 1969c, 1970a, 1970b, 1970c, 1971a: 6; Fiddick, Molnar, & Harris 1966: 3; Forbes, Underwood, & Van Sickle 1969a: 24, 1970: 27; Foster & Hook 1972: 6; Francke-Grosman 1954a; Geistlinger 1967: 127, 1968: 135; Germain & Wygant 1967: 1–4; Grant, J. 1967a: 181, 1967b: 187, 1968a: 199, 1968b: 203, 1969a, 1969b: 181; Grant, J. & Cottrell 1964, 1968; Grant, J., Lund, & Beddows 1970: 34; Hall, R. C. & Eaton 1960; Hatch 1938: 193; Hewitt 1914: 851–876, 1915: 30, 1916: 1–40, 1917: 1–70; Hofacker, Loomis, & Tucker 1984: 55; Hopkins 1899: 15, 1902d: 21, 1902e: 3, 1903: 60, 1909b: 132; Hopping, R. 1921: 10, 1922: 131; Ishikura 1966; Jaenicke 1927: 163; Jammone & Binaghi 1959: 62–85; Keen 1938: 127, 1952c: 164; Klein, W. H. 1966: 17, 1967, 1968; Klein, W. H. & McGregor 1966; Klein, W. H. & Tegethoff 1970; Knight 1969: 448; Koplin 1967: 179–187; Landgraf 1966: 26; Little, J. D. 1966: 145; Lucht 1966: 28; Lund 1967: 212, 1968: 234, 1969: 204; Massey & Wygant 1954: 5; Miller-Weeks 1985: 20; Molnar, Harris, & Ross 1965: 95, 1967: 111; Molnar et al. 1970: 98, 1968: 111, 1969: 113; Monts 1967: 78, 1968: 75, 1969: 81; Morris, E. V. 1969: 60; Morris, E. V., Brown, & Wegwitz 1970: 12; Morris, O. N.

- & Olsen 1970: 5; Orr, P. W. 1966; Orr, P. W., Pettinger, & Dolph 1965, 1966; Packard 1875: 589-610, 1877: 22-29; Pettinger & Dolph 1967: 35, 1969; Richmond & Kinghorn 1951: 31; Robins et al. 1973: 23; Ross, D. A. 1963, 1968: 10-12; Ruppel 1967: 32; Schabel 1971; Schmid & Frye 1977; Schofer & Lanier 1970: 1487-1488; Schuder 1969: 78; Shook & Baldwin 1970: 1345-1354; Silver & Ross 1959: 88, 1964b: 110, 1965a: 112; Swaine 1910d: 42, 1913: 41-43, 1914: 33-40, 1918a: 66; Tearoe 1976; Tripp & Blauel 1969: 99; Tripp & Robins 1965: 101; Tripp, Robins, & Blauel 1970: 55; Van den Bosch 1968; Van Dyke 1924: 25; Washburn & Downing 1960; Werner 1978; Wood, R. O. 1967: 104, 1968: 102; Wood, R. O., Geistlinger, & Doidge 1970: 3; Wood, R. O. & Ruth 1966; Wygant & Lejeune 1967. (**cc**) Ashraf & Berryman 1970: 206; Baldwin, P. H. 1968a, 1968c; Burks 1979: 799; Bushing 1965: 459; Clausen 1975: 294; Collis & Harris 1970; Dyer 1969; Dyer, Shovsgaard, & McMullen 1968; Farris 1965a; Foltz et al. 1976: 342; Keen 1938: 127; Knight 1969; Koplín 1967b, 1972; Koplín & Baldwin 1970: 510-515; Laumond & Ritter 1971; Marsh 1979: 158, 169; Mason, W. R. M. 1975; Massey 1965b, 1966a, 1969b: 43-52; Massey & Wygant 1954: 5; Matthews 1970; McGugan & Coppel 1962; Poinar 1975: 155; Ross, D. A. 1968; Schmid & Frye 1977; Shook & Baldwin 1970; Stewart 1965: 924; Swaine 1925c: 262. (**hb**) Anderson, R. F. 1960: 227; Atkins 1966a: 286; Baker, W. L. 1972: 247; Baldwin, P. H. 1968a; Bongberg 1959a; Browne 1968b: 225; Chamberlin 1939: 164, 1958: 77; Clausen 1975: 294; Doane et al. 1936; Essig 1926: 512, 1955: 513; Felt 1930a: 249, 260; Felt & Rankin 1932: 406; Grant, J. & Cottrell 1964, 1968; Hopkins 1909a: 135-138; Keen 1938: 127, 1952c: 164; Knight 1969; Mansingh 1971: 996; Massey & Wygant 1954: 5; Schmid & Frye 1977; Swaine 1909: 97, 1918a: 66; Werner 1978; Wood, S. L. 1963: 93; Wygant & Lejeune 1967. (**ds**) Allen, S. J. 1967: 55, 1968: 51; Anderson, R. F. 1960: 227; Anonymous 1958a: 4, 6, 1965r, 1966f, 1966u, 1967t, 1968p, 1969m; Bain 1974: 15; Baker, B. H. 1969; Bongberg 1957; Brown, C. E. & Stevenson 1965: 101; Browne 1968b: 225; Chamberlin 1917: 324, 1925, 1939: 164, 1958: 77; Chapuis 1869, 1873; Dejean 1837; Essig 1926: 512, 1955: 513; Felt 1930a: 249, 260; Felt & Rankin 1932: 406; Gautreau 1974: 5; Grant, J. & Cottrell 1964, 1968; Hagedorn 1910d: 22; Hall & Eaton 1960; Hamilton 1894: 35; Hopkins 1909a: 135-138; Hopping, R. 1922; Ishikura 1966; Jannone & Binaghi 1959; Keen 1929a: 18, 1935: 127, 1952c: 164; Kleine 1912b: 176, 1934a: 133; Kusch 1967; Leng 1920: 338; Melsheimer 1853: 87; Patterson & Hatch 1945: 150; Provancher 1877: 13, 572; Ross, D. A. 1968; Ruppel 1967: 32; Schuder 1969: 78; Schwarz 1900: 537, 1910: 155; Shook & Baldwin 1970: 1345-1354; Swaine 1909: 97, 1914: 33; Van Dyke 1924: 25; Wood, S. L. 1963: 93; Wygant & Lejeune 1967. (**tx**) Anderson, R. F. 1960: 227; Chamberlin 1939: 164, 1958: 77; Chapuis 1869: 35, 1873: 243; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 60; Hopkins 1902e: 3, 1909a: 135-138; Keen 1929a: 18; Kusch 1967; LeConte 1868: 173, 1876: 385; Mannerheim 1843: 296 (reprint p. 124), 1852: 356, 1853: 238; Muesebeck 1942: 95, 1950: 131; Provancher 1877: 572; Schedl 1940: 339; Swaine 1918a: 62, 66-67; Thomas, J. B. 1965c, 1967; Thomas, J. B. & Krywienczyk 1966; Wood, S. L. 1963: 9, 13, 93, 1969c: 116. (**ms**) Bongberg 1959a; Essig 1931: 699; Hatch 1938: 193; Schabel 1971; Swaine 1925c: 262.
- similis* LeConte 1957: 59. Lectotype ♀?; Oregon [USA]; MCZ, Cambridge, designated by Wood 1982b: 192. Synonymy: LeConte 1868: 173. References: (**cn**) Cook & Davis 1891: 15; Essig 1926: 512; Fall & Cockerell 1907: 218; Packard 1890: 721-722. (**hb**) Essig 1926: 512. (**ds**) Cockerell et al. 1907; Essig 1926: 512; Fall 1906: 203; Ferrer 1942; Hamilton 1894: 35; Henshaw 1882: 269; Hopkins 1903a: 60; Hubbard & Schwarz 1878a: 666; Lacordaire 1866: 361; Leng 1920: 338; Provancher 1877: 373, 1878: 13; Slossen 1902: 319; Snow 1907: 188; Swaine 1909: 97; Wickham 1896a: 310. (**tx**) Deitz 1890: 28, 30; Lacordaire 1866: 361; LeConte 1857: 22, 59, 1868: 173, 1876: 385; Schedl 1940a: 339; Swaine 1909: 97.
- picaperda* Hopkins 1901b: 16. Neotype ♀; Camp Carabou, Maine [USA]; USNM, Washington, designated by Wood 1982b: 192. Synonymy: Wood 1963: 94. References: (**ay**) Hopkins 1909a: 126-130; Thomas, J. B. 1957: 4. (**bv**) Balch 1942a. (**cn**) Anderson, R. F. 1960: 227; Anonymous 1956f: 108; Atwood 1944: 37, 1945: 8; Balch 1931: 66, 1932: 52, 1933: 48, 1934: 680, 1936: 23-31, 1939: 1-5, 1940: 1-5, 1941: 1-4, 1942a: 621-629, 1942b: 37, 1942c: 900-906; Balch & Hawboldt 1944: 51; Balch & Simpson 1932: 162-163; Balch, Simpson, & Prebble 1934: 57-59; Balch, Webb, & Fettes 1955a; Beeson 1918: 114-124; Belyea & Prebble 1951; Blackman 1950; Boutin 1926: 70; Brown, A. W. A. 1940b, 1941: 8, 1943: 6; Brues 1920: 70; Burke 1906: 4-5; Ceballos & Cordoba 1945d; Chamberlin 1939: 163; Chrystal 1949b: 3-11; Connola et al. 1956; Craighead 1924: 39, 1925c, 1927: 10, 1930: 4, 1942b; Craighead & Middleton 1930; Currie 1905: 52; DeGryse 1947: 4, 1949b; Doane et al. 1936; Dunn 1936: 9; Escherich 1912a, 1913; Fall & Cockerell 1907:

- 218; Felt 1906: 338, 379, 693, 1924: 258, 1926: 249, 258, 1930a: 241, 249, 258; Felt & Bromley 1943: 326–327; Felt & Rankin 1932: 406; Forbes et al. 1956: 110–111, 1957: 16, 1958: 13, 21; Gobeil 1935: 60–65, 1936: 97–103, 181–204, 1938: 111, 1939a: 71–89, 1941: 632–640, 1941: 730–737, 1943: 1–15; Graham 1922b, 1939b, 1952: Harrison 1945: 36; Hawbolt 1944: 6, 1947: 36, 1948: 39; Hopkins 1901a: 250, 1901b, 1902d: 22, 1902e, 1903: 265–270, 1904a: 26, 1905: 10–11, 1906a: 5, 1907c: 515, 1908b, 1908c: 160, 1909b: 114–126, 1909c: 58, 75, 1910a, 1910e, 1910f: 2, 1910g: 58, 75; Huffaker 1964; Kennedy 1948: 117; Leach 1940b: 224; Leng 1920: 338; Levesque 1946: 529; Lunn 1925: 162; Marquis 1956: 10–11, 110–111; Massey & Wygant 1954: 5; McIntyre 1939: 879; McCugan 1959: 1–114; Morris 1958: 177–178; Murayama 1917: 27; Murphy 1917: 27; Nash 1937: 1–4, 1940: 70–72, 1952: 70 in ed. 1, 75 in ed. 2; Osborne 1938: 111; Parr 1943: 420; Pierson 1922: 632, 1923: 25, 1927: 118, 1932: 7, 1933: 59–73; Peirson & Dimond 1959: 24; Prebble 1954: 220; Reeks 1946: 26; Reeks & Barter 1951: 140; Reeks et al. 1945: 6, 1946: 10, 1948: 14, 1949: 15, 1953: 11; Rendall 1941: 52, 1943: 38–39; Richmond & McGuffin 1945: 42; Ross 1954: 142; Seavey 1937: 69, 1939: 71; Shenefelt & Benjamin 1955: 64–85; Sippel & MacDonald 1958: 32; Swaine 1910d: 42, 1913: 41–43, 1918a: 66, 1924d: 1–20, 1924e: 567, 1925: 261–266, 1928: 1–20, 1929: 145–146, 1931: 1–4, 1933: 12–14; Swaine et al. 1924: 85; Thomas, J. B. 1958: 393–394; Twinn 1933: 74, 1934: 123, 1943: 8, 1943: 70; Waters & McIntyre 1954: 10. **(cc)** Anonymous 1956f: 108; Cary 1917; Chamberlin 1939: 163; Craighead et al. 1927; DeGryse 1947b; Felt 1906: 579; Gobeil 1936b; Graham 1922b, 1939b, 1952; Hopkins 1901b, 1903: 265–270, 1909b: 114–126; Leach 1940b: 224; Lunn 1925: 162; Massey & Wygant 1954: 5; Pierce 1908: 386; Price 1956: 22; Reeks & Barter 1951: 140; Riley 1940: 611; Rumbold 1936: 419–437; Swaine 1921: 345, 1924d: 1–20, 1925c: 262; Thomas, J. B. 1958: 393; Thompson, W. R. 1943: 40; Webb 1945: 70; Weiss & West 1920: 2. **(hb)** Anderson, R. F. 1960: 227; Blackman 1950; Bontin 1926: 100–107, 1927: 120–121; Brues 1920, 1947; Chamberlin 1939: 163; DeLeon et al. 1934; Doane et al. 1936; Evans 1952: 140; Felt 1906: 379, 1926: 249, 258, 1930a: 241, 249, 258; Felt & Rankin 1932: 406; Gobeil 1935: 60–65, 1936a, 1936b, 1936c; Graham 1939b, 1952; Hopkins 1901b, 1901e: 68, 1903: 265–270, 1904a: 26, 1909a: 130; Massey & Wygant 1954: 5; Nash 1937: 1, 1952: 70 in ed. 1, 75 in ed. 2; Peirson 1927: 118–120; Peirson & Dimond 1959: 24; Pierce 1907: 294; Simpson 1929b: 146; Swaine 1911b: 87, 1918a: 66, 1924d: 1–20, 1924e: 567, 1929: 145; Swaine et al. 1924: 85; Watson 1927: 120, 1928: 613–635, 1931: 126. **(ds)** Anderson, R. F. 1960: 227; Anonymous 1926c: 516; Balch 1933; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 653; Brown, W. J. 1930: 246; Chamberlin 1925, 1939: 163; Cockerell et al. 1907; Craighead & Middleton 1930; Currie 1905; Dodge 1938; Evans 1952: 140; Felt 1926: 249, 258, 1930a: 241, 249, 258; Felt & Rankin 1932: 406; Gredley et al. 1922; Hagedorn 1910d: 22; Hopkins 1909a: 126–130, 1909b: 114–126; Kleine 1912b: 176, 1914b: 398, 1934a: 133; Lejeune 1946: 46; Leonard 1928: 516; Loughlan et al. 1945: 1; McIntyre 1939: 879; Proctor 1946: 207; Reeks & Smith 1945: 3; Schedl 1940: 339; Swaine 1909: 97, 1911b: 87; Wickham 1896a: 310. **(tx)** Anderson, R. F. 1960: 227; Blatchley & Leng 1916: 653; Chamberlin 1939: 163; Dodge 1938: 14, 27–28; Hagedorn 1910a: 60; Hopkins 1901b: 16, 1902e, 1909a: 126–130, 1915c: 199; Muesebeck 1942: 95, 1950: 131; Swaine 1909: 97, 1918a: 62, 66; Thomas, J. B. 1957: 4; Wood, S. L. 1963: 93. **(ms)** Balch, Webb, & Fettes 1955a; Craighead 1942b; Daviault 1974; Hopkins 1908e: 347, 1910a; Swaine 1925c: 262.
- engelmanni* Hopkins 1909a: 130. Holotype ♀; Capitan, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1963: 95.
- References: **(ay)** Cerezke 1964: 488; Hopkins 1909a: 130–133; Lyon 1958: 583. **(bv)** Anonymous 1953b; Knight 1961; Nagel 1953: 32; Shepherd 1965: 212. **(cn)** Alexander 1958: 14; Anderson, R. F. 1948: 140, 1960: 225; Anand 1944: 6, 1945: 20, 33, 1946: 30, 1947: 34, 1949: 10; Anonymous 1940i: 580, 1946h, 1952e: 96, 1953b, 1955c: 10, 1955j: 5, 1956p: 110, 1958a: 3, 6, 1960: 3, 1960g: 6, 1960h, 1960i, 1960j: 1, 1960k, 1960q, 1961h, 1961s, 1962b, 1962h, 1963: 16, 1963y, 1964u; Bailey 1955: 40–41, 1957: 31–38; Balch, Webbs, & Fettes 1955b: 453–465; Baldwin, P. H. 1965: 79; Beal 1951: 58–59; Becker, W. B. 1951; Benedict 1959: 245–259; Bloch 1946: 102–103, 1950a: 24–26, 1950b: 78–84, 1951: 22; Bongberg 1956a, 1957, 1960: 62, 1962; Brown, C. E., Cumming, & Robins 1957: 74, 1958: 67; Brown, C. E., Robins, & Stevenson 1960: 85, 1961: 85; Brown, C. E. & Stevenson 1963: 97; Buckhorn & Orr 1961: 19, 1962: 18; Buell 1953; Carhart 1949: 14–15, 41–42; Chansler 1959: 124; Chrystal 1949b; Craighead 1944, 1947, 1951, 1952; Craighead & Brown 1945: 4; Davis & Nagel 1956: 210–211; Doane et al. 1936; Dowden 1951: 216, 1953: 216, 1959: 267–270; Epley 1953; Escherich 1912a, 1913; Essig 1926: 512; Evenden 1937, 1953: 56–57; Felt 1924: 252–259, 1926: 259, 1930a: 249, 259; Findlay 1959: 1–7; Fitzgerald 1954: 24–25.

- 53-56; Forbes 1956; Funk 1950; Gardiner 1950: 105; Graham 1939b, 1952; Grinols 1952; Haessler 1952: 145; Hatch 1938: 193; Heddergott 1952; Hetson 1950: 182-183; Hopkins 1908c: 161, 1909b: 126-132, 1909c: 58-59, 1909d: 574, 1910f: 2, 1910g: 57, 1912b: 36; Hoyt 1951a: 50, 1951b: 15, 1952: 41, 68, 1953: 20-21; Hunt 1954: 14; Jannone & Binaghi 1959; Johnson, Philip C. 1958; Keen 1938: 126, 1952c: 129, 163, 1958: 175, 178-179; Kelly 1948: 14; Kenney et al. 1950: 73, 1951: 63-64; Kinghorn 1955a: 501; Knight 1957: 47-48, 1958: 90, 1958: 603-607, 1960a: 249-252, 1960c: 1-4, 1961; Knight, McCambridge, & Wilford 1956; Knight & Wilford 1954: 2-8; Knight et al. 1956: 1; Koplin 1967: 2187; Landgraf 1959: 1-19; Landgraf & Ostmark 1958: 4; Lejeune 1959: 66-68; Lucht & Moore 1963: 17; Massey 1947: 6, 1953: 31, 1956a: 14, 1956b: 110; Massey & Wygant 1954: 1, 18-23, 35; Massey et al. 1953a: 951-955; McComb 1955: 1; McGugan et al. 1958: 75-76, 1959: 1-114; Mielke 1950: 882-888; Miller, P. C. 1970: 206-212; Mitchell, M. E. & Love 1973; Morse 1953a: 13, 1953b: 16, 1953c: 35, 1953d: 14, 1953e: 34, 1953f: 17; Morse et al. 1953: 56-63; Mote 1945a: 36; Mueller 1959: 1; Nagel 1958: 90; Nagel & Chansler 1959: 131; Nagel et al. 1956a: 48, 1956b: 20, 1957: 894-898; Neff 1955: 10; Nelson 1950: 182, 1954: 503-505; Nordwall 1953: 798; Olson 1953: 30; Orr, P. W. 1963a, 1963b, 1966; Orr, P. W. & Pettinger 1964; Orr, P. W., Pettinger, & Dolph 1965, 1966; Ostmark 1957: 48; Ostmark & Wilford 1956: 2-3; Parker 1959: 60-62; Prater 1951: 18-21; Prebble 1944: 48; Price 1955: 13-17, 1956: 21-26, 1957: 81-99, 1958: 56-69; Retting 1952: 50-51; Richmond 1951: 54, 1953a: 43, 1953b: 48; Richmond & McGuffin 1945: 43; Ronco 1961: 1-6; Ross & Jones 1951: 114, 121-123; Rudinsky 1960a; Salter 1949: 66; Schaeffer 1954: 860-862; Schwerdtfeger 1959a: 43; Shuder 1969: 76; Silver & Ross 1956: 95, 1957: 82, 1958: 75, 1959: 88, 1960: 98, 1961: 98, 1962b: 111, 1963a: 110; Smith, G. W. 1953: 14, 1955: 208-209; Sommers 1953: 60; Spencer 1945: 9-11; Strobl 1948c: 62; Swaine 1910d: 42, 1917: 321-328, 1918a: 65; Terrell 1950: 1-18; Thomson 1951: 4, 1954: 45; Thomson & Walters 1951: 3; Timnock 1963: 11; Vaux 1954: 506-510; Villarreal Martinez 1957: 11-19; Watts 1950: 11, 40, 54; Wear & Buckhorn 1955: 13; Webb 1908: 117; Whiteside 1957: 34-40; Wilford 1953: 30, 1957: 15, 1960: 458; Wygant 1945: 14, 1958: 181-184, 1959: 274; Wygant & Nelson 1949: 417-422; Wykoff et al. 1947: 36; Yasinski 1956: 2-3; Yasinski & Pierce 1955: 5-12; Yeager 1953: 596-616. (ec) Amman & Baldwin, 699-706; Anonymous 1962a, 1962b; Baldwin, P. H. 1960, 1965: 79; Bethlahmy 1974, 1975; Bue 1955; Burks 1979: 799; Bushing 1965: 458; Callahan & Shifrine 1960: 146; Carhart 1949; Cole 1973: 286; Craft 1955; Craighead et al. 1927: 10; Davidson 1951: 560, 1954: 485, 1955: 58-67, 1958: 661-670; Graham 1939b, 1952, 1956; Hawkworth & Hinds 1959; Hopkins 1909b: 126-132; Keen 1938: 126; Kendrick 1962: 776; Knight 1957: 47, 1958b: 603, 1961a, 1961b; Knight, McCambridge, & Wilford 1956; Knight et al. 1956: 1-12; Love 1955: 113-118; Mason, W. R. M. 1978; Massey 1956: 14, 24, 1956: 110, 1962a: 95; Massey & Wygant 1954: 1; Miller, P. C. 1965: 6913-6914; Nordwall 1953: 798; Ostmark 1957b: 48; Otvos 1965: 1186; Poinar 1972, 1975: 153; Reid 1963a: 23; Richerson, J. V. & Borden 1972a; Ronco 1961, 1967; Terrell 1954: 1; Wickerham 1960. (hb) Anderson, R. F. 1960: 225; Anonyms 1953b, 1960: 3, 1960k; Baldwin, P. H. 1960; Bongberg 1959a; Chamberlin 1939: 161, 1958: 75-76; Craighead 1953; Doane et al. 1936; Essig 1926: 512; Felt 1926: 259, 1930a: 249, 259; Graham 1939b, 1952; Hopkins 1909a: 71, 130-133, 1909b: 126-132; Keen 1938: 126, 1952b: 129, 163; Knight 1961: 209; Kozikowsky 1913: 341; Massey 1953: 31; Massey & Wygant 1954: 1; McCambridge 1967a; McComb 1955: 1; McMullen & Atkins 1961: 197; Nagel 1953: 32; Nagel & Davis 1956: 20; Schwerdtfeger 1959a: 43; Smith, G. W. 1953: 14; Swaine 1918a: 65; Terrell 1954: 1; Yeager & Riordan 1953: 596. (ds) Annand 1944: 6; Anonymous 1958a: 3, 6, 1960: 6, 1962z, 1963y, 1964u; Bongberg 1956a, 1957; Brown, C. E., Cumming, & Robins 1957: 74, 1958: 67; Brown, C. E., Robins, & Stevenson 1961: 85; Brown, C. E. & Stevens 1963: 97; Chamberlin 1917: 324, 1925, 1939: 161, 1958: 75-76; Craighead 1953; Essig 1926: 512; Evenden 1937; Felt 1926: 259, 1930a: 249, 259; Gredley et al. 1922; Hagedorn 1910d: 20; Hopkins 1909a: 130-133, 1909b: 126-132; Jannone & Binaghi 1959; Keen 1929a: 18, 1938: 126, 1952c: 163, 129; Kleine 1912b: 176, 1914b: 386, 1934a: 132; Knight 1961; Leng 1920: 338; MacKay 1950: 114-115; McComb et al. 1953: 3; Murayama 1957a: 36; Patterson & Hatch 1945: 149; Reid 1963a: 231; Shuder 1969: 76; Wood, S. L. 1951a: 127. (tx) Anderson, R. F. 1960: 225; Chamberlin 1939: 161, 1958: 75-76; Hagedorn 1910a: 60; Hopkins 1909a: 130-133; Keen 1928a: 18; Muesebeck 1942: 95, 1950: 131; Swaine 1918a: 65; Wood, S. L. 1963: 93-95. (ms) Block 1950a, 1950b, 1951a, 1951b, 1952; Bongberg 1956b, 1959a; Carhart 1949; Davis & Nagel 1956; Funk 1950; Furniss, M. M. 1962a; Hatch 1938: 193; Hill 1954; Hunt 1954: 14; Kelly 1948: 14; Morse 1953a: 13, 1953b: 16, 1953c: 35, 1953d: 14, 1953e: 34, 1953f: 17;

- Mueller 1959: 1; Neff 1955: 10; Olson 1953: 30; Prater 1951: 18; Prebble 1944: 48; Retting 1952: 50; Thomson, M. G. 1954: 45; Wichmann 1961: 331.
- borealis* Hopkins 1909a: 133. Holotype ♀; Eagle, Alaska [USA]; USNM, Washington. Synonymy: Wood 1963: 96.
- References: **(ay)** Hopkins 1909a: 133–135. **(cn)** Anderson, R. F. 1960: 27; Anonymous 1958a: 4, 7, 1960j: 2,4, 1961h, 1963y; Bongberg 1956a, 1957, 1962; Brown, C. E. & Stevenson 1963: 97; Crosby 1963; Doane et al. 1936; Downing 1957: 112, 1959; Essig 1926: 512, 1958: 513; Evans, D. 1949: 107, 1952: 140; Evans, D. & Dyer 1951: 110; Felt 1924: 260, 1926: 260, 1930a: 249, 260; Hewitt 1917: 35, 37, 40; Hopkins 1902e, 1909b: 132–136; Hopping, R. 1921: 10, 1946: 3–8; Jannone & Binaghi 1959; Keen 1938: 127, 1952c: 164; MacKay 1948: 93, 1949: 114–115; Massey 1956a: 17; Massey & Wygant 1954: 5; Shuder 1969: 76; Silver & Ross 1960: 98, 1961: 98, 1962b: 111, 1963a: 110; Swaine 1910d: 42, 1913: 41–43, 1918a: 61, 66, 1924d: 1–26; Twinn 1934: 123; Washburn & Downing 1960. **(ce)** Hopkins 1909b: 132, 136; Keen 1938: 127; Massey 1962: 67–75; Massey & Wygant 1954: 5; Poinar 1975: 153; Swaine 1924d: 1, 1925a: 262. **(hb)** Anderson, R. F. 1960: 227; Bongberg 1959a; Chamberlin 1939: 163–164, 1958: 76–77; Doane et al. 1936; Essig 1926: 512, 1958: 513; Evans 1952: 140; Felt 1926: 260, 1930a: 249, 260; Hopkins 1909a: 133–135; Keen 1938: 127, 1952c: 164; Massey & Wygant 1954: 5; Swaine 1918a: 61, 66, 1924d: 1. **(ds)** Anderson, R. F. 1960: 227; Anonymous 1958a: 4, 7, 1963y; Blatchley & Leng 1916: 655; Bongberg 1956a, 1957; Bongberg & Bennett 1960: 1–10; Brown, A. W. A. 1940a: 8, 1955: 104; Brown, C. E. & Stevenson 1963: 97; Chamberlin 1925, 1939: 163–164, 1958: 76–77; Essig 1926: 512, 1958: 513; Evans 1952: 140; Felt 1926: 260, 1930a: 249, 260; Hagedorn 1910d: 20; Hopkins 1909a: 133–135, 1909b: 132, 136; Hopping, R. 1921: 10, 1922: 131; Jannone & Binaghi 1951; Keen 1929a: 18, 1938: 127, 1952c: 164; Kleine 1912a: 218, 1912b: 176, 1934a: 132; Leng 1920: 338; MacKay 1948: 93, 1949: 114; McGuffin & Reid 1952: 98; Sherman 1910: 197; Shuder 1969: 76; Van Dyke 1924: 25. **(tx)** Anderson, R. F. 1960: 227; Blatchley & Leng 1916: 655; Chamberlin 1939: 163–164, 1958: 76–77; Hagedorn 1910a: 60; Hopkins 1902e, 1909a: 133–135; Keen 1929a: 18; Muesebeck 1942: 95, 1946: 427, 1950: 131; Swaine 1918a: 61, 66; Wood, S. L. 1963: 96. **(ms)** Bongberg 1959a; Swaine 1925c: 262.
- simplex* LeConte 1868: 173. Lectotype ♂; Canada; MCZ, Cambridge, designated by Wood 1982b: 197. Figures: Ives & Wong 1988: 78, Wood 1963: 9, 13. Distribution: North America (Alaska/ all provinces in Canada/ Maine, Michigan, Minnesota, New Hampshire, New York, Vermont, West Virginia in USA).
Hosts: *Larix laricina*.
References: **(ay)** Cerezke 1964: 488; Duncan, B. 1987; Furniss, M. M. 1976b; Hopkins 1909a: 117–121; Langor 1987; Schofer & Lanier 1970: 1487–1488; Stock, M. W., Gregoire, & Furniss 1987; Thomas, J. B. 1957: 4, 1967. **(bv)** Baker, B. H., Hostetler, & Furniss 1977; Baker, W. L. 1972: 248; Barr, B. A. 1969: 641; Benoit & Blais 1984; Bergdahl 1982; Inscoue 1982; Langor 1985; Langor & Raske 1987; Schooley & Pardy 1981; Werner 1986; Werner et al. 1983. **(cn)** Anderson, R. F. 1960: 228; Anonymous 1967f, 1977x, 1978z, 1979a, 1979b, 1980, 1981, 1981e, 1983c, 1984c, 1987d, 1988d; Applejohn 1965; Baker, B. H., Hostetler, & Laurent 1975, 1977; Baker, B. H. & Laurent 1975; Baranyay & Stevenson 1966: 85; Benoit & Blais 1984; Benoit et al. 1982, 1983; Bergdahl 1982; Bergdahl, Smeltzer, & Halik 1984; Blackman 1950; Britton 1915, 1916: 125–134; Brown, C. E., Hopkins, & Robins 1960: 86; Brown, C. E. & Stevenson 1964: 99; Browne 1968b: 227; Caltrell 1969, 1970; Clarke, L. J. 1982: 24; Clarke, L. J. & Carew 1981, 1983a, 1983b, 1983c, 1984, 1984b, 1985, 1986, 1987, 1988; Clarke, L. J. et al. 1979: 26, 1980: 26, 1981: 27; Dearborn & Stark 1986: 7; Doane et al. 1936; Drooz 1985: 349; Emond, F. J. 1969; Fall & Cockerell 1907: 218; Felt 1906: 752, 1924: 261, 1926: 247, 257, 1930a: 256; Felt & Rankin 1932: 405; Foster, H. R. 1961, 1962, 1963, 1964; Gautreau 1970; Gridale 1962; Gridale & MacLeod 1962; Herrick 1935: 138; Hewitt 1914: 501–518, 1917: 36; Hodson & Christenson 1941: 1–12, 1942: 1–9; Hofacker, Loomis, & Tucker 1984: 55; Holsten, Eglitis, & Laurent 1981; Holsten, Laurent, & Averill 1980: 64; Holsten, Werner, & Laurent 1980; Hopkins 1898a: 105, 1898d: 68, 1899a: 343, 1899c: 394, 1907c: 515, 1909b: 103–106; Hostetler, Rnsh, & Laurent 1976, 1977; Howse et al. 1981: 40; Ives & Wong 1988: 79; Jackson, G. G. 1962; Jansons 1963, 1964; Kondo & Moody 1987: 20; Kondo & Taylor 1985, 1986; Lachance et al. 1981, 1984; Langor & Raske 1984, 1989; Lanier 1981; Layton, C. R. 1966, 1967, 1969, 1970; Lindquist, O. H. & Syme 1981: 38; Livesey, F. 1966; Lyons 1956: 602; Magasi 1977a, 1977b, 1979, 1980, 1981a, 1981b, 1982a, 1982b, 1983, 1984a, 1984b, 1985, 1986a, 1986b, 1987, 1988, 1989; Martineau 1985: 43; McGuffin & Barker 1947: 57; McCugan et al. 1959: 1–114; Mills 1983; Moody 1988: 19; Moody, Singh, & Clarke 1978: 4, 1979a, 1979b, 1979c, 1980, 1982; Mortenson, Emond, & Melvin 1974; Newell, R. 1977, 1978; Packard 1890: 722; Petty

- 1967; Pierson 1927: 79; Prentice & Hildahl 1959: 65; Rose, A. H. & Lindquist 1980; Rudinsky 1979a: 407; Rush 1977, 1986; Rush et al. 1978: 35; Sajan 1981; Schooley & Pardy 1981; Silver & Ross 1960: 98, 1961: 98, 1963a: 117; Singh & Clarke 1980: 10, 1981: 6, 1982a: 4, 1982b: 3; Singh, Moody, & Clarke 1982; Sippl, MacDonald, & Rose 1960: 61, 1961: 61, 1962: 69; Sterner & Davidson 1981: 8, 1982, 1983: 14; Susut 1967, 1969; Swaine 1906: 515, 1913: 89, 1913: 41-43, 1918a: 61, 62, 1925: 261-266; Syme & Nystrom 1988: 38; Teillin, Burns, & Kelley 1981, 1982, 1983, 1986: 25; Teillon, Kelley, & Schultz 1980; Teillon, Kelley, & Keenan 1979; Thomson 1964; Trieselman 1963; Trimmell 1962; Tripp & Blanel 1969: 104; Tripp & Robins 1968: 101; Tripp, Robins, & Blanel 1970: 89; Unger 1975, 1976, 1978a, 1978b, 1978c, 1979; Unger & Fiddick 1979; Weed & Fiske 1898: 69; Weir & Biggs 1974; Wescott 1970; Wexer 1942: 79; Wilson, L. F. 1977: 70; Yarger, Holsten, & Laurent 1978. **(ce)** Baker, B. H., Hostetler, & Furniss 1977; Blackman & Stage 1918: 39; Bushing 1965: 459; Felt 1906: 752; Furniss, R. L. & Carolin 1977: 361; Graham 1947: 63-65; Heqvist 1957b: 44; Hirschmann 1972a; Hirschmann & Wisniewski 1982, 1983; Hopkins 1909b: 103-106; Hurlbutt 1967; Langor 1985; Langor & Raske 1988b; Mason, W. R. M. 1978; Mills 1983; Swaine 1925c: 263; Tomalak, Welch, & Galloway 1989b: 17; Viereck 1925; Woodring & Moser 1970. **(hb)** Anderson, R. F. 1960: 228; Baker, B. H., Hostetler, & Furniss 1977; Baker, W. L. 1972: 248; Blackman 1950; Blackman & Stage 1918; Bright 1976d: 62; Browne 1968b: 227; Chamberlin 1939: 162; Comtois 1988: 172; Cooper & Stephen 1978: 574; Doane et al. 1936; Drooz 1985: 349; Eidmann 1962: 161; Evans 1952: 140; Felt 1906: 752, 1926: 247, 257, 1930a: 256; Felt & Rankin 1932: 405; Fronk 1947; Furniss, M. M. 1976b; Furniss, R. L. & Carolin 1977: 361; Gobeil 1936c; Harrington 1884b, 1891: 27; Herrick 1935: 138; Holsten, Werner, & Laurent 1980; Hopkins 1899a: 343, 1899c: 392, 447, 1909a: 117-121; Ives & Wong 1988: 79; Kaston & Riggs 1937: 98; Langor 1985; Langor & Raske 1984, 1987a, 1987b; Lyons 1956: 602; Martineau 1985: 43; Mills 1983; Peirson 1927: 79; Pierce 1907: 294; Prebble 1933: 145-146; Reid 1956: 16; Rose & Lindquist 1980: 59; Schooley & Pardy 1981; Schwarz 1889d: 175; Simpson 1929: 274-279; Swaine 1911b: 81, 1912b: 142, 1918a: 61-62; Weed & Fiske 1898: 69; Werner 1986; Wilson, L. F. 1977: 70; Wolcott & Montgomery 1933: 165; Wood, S. L. 1963: 103, 1982b: 197. **(ds)** Anderson, R. F. 1960: 228; Anonymous 1926c: 516, 1967f, 1976x, 1978z; Ashworth et al. 1981; Baker, B. H., Hostetler, & Furniss 1977; Baker, B. H., Hostetler, & Laurent 1977; Baranyay & Stevenson 1966: 85; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 653; Bright 1971a: 125, 1976d: 62; Brown A. W. A. 1940a: 23; Brown, C. E., Hopkins, & Robins 1960: 86; Browne 1968b: 227; Chamberlin 1925, 1939: 162; Cockerell et al. 1907; Deyrup 1981b: 4; Dodge 1938; Drooz 1985: 349; Drouin & Turnock 1967; Duncan, B. 1987; Evans, D., Lowe, & Hmt 1975; Evans, J. W. 1952: 140; Felt 1926: 247, 257, 1930a: 248, 256; Felt & Rankin 1932: 405; Ferrer 1942; Furniss, R. L. & Carolin 1977: 361; Hagedorn 1910d: 23; Harrington 1891: 27; Henshaw 1882: 269, 1885: 149; Hopkins 1909a: 117-121, 1909b: 103-106; Kleine 1912b: 176, 1914b: 395, 1934a: 133; Kusch 1967; Leng 1920: 338; Leonard 1928: 516; Lindquist, O. H. & Syme 1981: 38; Morgan, Anne, Morgan, & Elias 1985c; Provancher 1878: 13-14; Schwarz 1886: 56; Still, Tidsbury, & Melvin 1974b; Swaine 1909: 99, 1911b: 81; Syme & Nystrom 1988: 38; Wickham 1896a: 310; Wolcott & Montgomery 1933: 165; Wood, S. L. 1963: 103, 1972a: 406, 1982b: 197; Woods 1963. **(tx)** Anderson, R. F. 1960: 228; Benoit 1985: 89; Blatchley & Leng 1916: 653; Bright 1976d: 62; Chamberlin 1939: 162; Dietz 1890: 28, 31; Dodge 1938: 14, 26-27; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 60; Hopkins 1909a: 117-121, 1915c: 199; Ives & Wong 1988: 78; Jacques 1951: 351; Kusch 1967; LeConte 1868: 173, 1876: 384-385; Lindquist, O. H. & Syme 1981: 38; Muesebeck 1942: 95, 1950: 131; Pardy 1974, 1983; Provancher 1878; Schedl 1938f: 38, 1940a: 339; Schwarz 1886: 56, 1888: 162, 1889d: 175; Swaine 1909: 99, 1918a: 61-62; Syme & Nystrom 1988: 38; Thomas, J. B. 1957: 4, 1965c, 1967; Titus, Meikle, & Harrison 1985: 56; Wood, S. L. 1963: 9, 13, 103, 1972a: 406, 1982b: 197. **(ms)** Langor & Raske 1988a; Swaine 1912b: 142, 1925c: 263.
- terebrans (Olivier)** 1795b: 6 (*Scolytus*). Syntypes \varnothing , sex \varnothing ; Amerique Septentrionale [USA]; MNHN, Paris (\varnothing), not found there.
- Figures: Kowal 1961b: 10, Wood 1963: 7, 11, 13.
- Distribution: North America (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Indiana, Louisiana, Maryland, E Massachusetts, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, E Texas, Virginia, West Virginia in USA).
- Hosts: *Pinus echinata*, *P. elliotii*, *P. palustris*, *P. rigida*, *P. serotina*, *P. strobus*, *P. taeda*.
- References: **(ay)** Godwin & Franklin 1978; Hopkins 1894g: 274-280, 1906b: 145, 1909a: 147-150; Hughes 1973c; Miller, M. C. 1979a, 1979b, 1981; Payne et al. 1973; Sanders 1960: 4; Stock, M. W., Gregoire, & Furniss 1987; Thomas, J. B. 1967. **(bv)** Anderson, R. F. 1961; Anonymous 1979a; Atkinson, Foltz, & Connor 1985; Baker, W. L. 1972: 244; Barker, J. A. 1976; Barker, J. A. & Schmid 1976; Barr, B. A. 1969: 641; Bennett & Ciesla 1972; Birch 1978b; Cameron, R. S. 1987;

- Clark 1970; Drew 1977; Fatzinger et al. 1987; Godbee 1974; Godbee & Franklin 1976, 1978; Goldman, Cleveland, & Parker 1978; Goldman & Parker 1978a; Hetrick 1960; Hodges & Pickard 1971: 50; Hughes 1973c, 1975; Krawielitzkl et al. 1983; Payne & Wood 1981: 492; Payne et al. 1987; Phillips 1988: 430; Phillips et al. 1988, 1989; Rauschenberger 1968; Siefried et al. 1986; Smith, R. H. 1957: 241, 1963a: 817; Smith, R. H. & Lee 1972; Thatcher, R. C. & Connor 1985; Turnbow & Franklin 1980; Vite, Gara, & Scheller 1964: 461-470; Vite & Pitman 1967: 683-701; Wagner, Flamm, & Coulson 1985; White, R. A. 1980b. **(cn)** Adams 1937: 3; Anderson, D. A. 1947: 7-8; Anderson, R. F. 1960: 223, 1966; Anonymous 1943a: 1, 1952h: 7, 1955j: 14, 1958a: 4, 7, 1958j: 8, 1960a, 1960c, 1960f, 1960i, 1960j: 21, 1960m, 1960n, 1960p, 1960q, 1961g, 1961h, 1961q, 1961s, 1962h, 1962v, 1962w, 1962x, 1964h, 1964s, 1964u, 1964y, 1965b, 1965r, 1966f, 1966h, 1966u, 1967f, 1967t, 1968g, 1968p, 1969e, 1969m, 1970h, 1970j: 6, 1970t, 1971e, 1971h: 4, 1971v, 1972f, 1973b, 1973j: 47, 1974e, 1974w: 8, 1975d, 1976e, 1977u, 1977v: 42, 1979a, 1980v, 1981u, 1985k: 45; Bailey 1976; Baker, W. L. 1972: 244; Barker & Nettles 1954: 6; Beal 1958; Beal et al. 1952: 50-51; Bean 1966: 43; Becker, W. 1972a, 1972b; Bennett, W. H. 1954, 1955: 2-4, 8-12, 1956a: 2, 10-13, 1958, 1958b, 1962, 1965a: 358, 1966; Bennett, W. H. & Ostmark 1959, 1972; Bennett et al. 1958: 1-35; Berisford et al. 1986; Blackman 1950; Bongberg 1956a, 1962; Briegleb 1955: 68, 1956: 50, 1957: 67-68, 1958: 9; Bucera, Ward, & Wallace 1970; Buchanan 1964, 1965: 35; Cameron, R. S. 1987; Ciesla 1969; Clark 1970: 151-152; Clements 1974; Clements & Williams 1981; Clerke & Ward 1972b; Coleman 1977, 1982; Cooper 1958: 22-23; Coulson & Witter 1984: 530; Craighead 1930: 4, 1935: 136, 1951; Craighead & Middleton 1930; Cross 1953: 34; Demon 1955: 74-75, 1956: 74-75; Doane et al. 1936; Downing, Ciesla, & Rauschenberger 1968; Downing, Ward, & Ciesla 1970: 29; Drew 1978; Drooz 1985: 346; Elbel, Merkel, & Kowal 1964, 1968, 1971, 1975, 1977; Eikenbary, Arnold, & Pinkston 1974; Elliot & Mobley 1938; Fatzinger 1985a, 1985b; Fatzinger & DeBarr 1969: 1-4; Fatzinger et al. 1987; Feduccia & Mann 1975; Felt 1901: 480-481, 1902b: 64, 1906: 343, 1924: 262, 1926: 248, 262, 1930a: 248, 262; Felt & Bromley 1942: 170, 1944: 213; Felt & Rankin 1932: 406; Ferguson, Gibbs, & Thatcher 1960: 1-25; Fiske 1858; Fitch 1858: 728; Flory et al. 1955: 8; Friend 1942b: 145; Gentry, C. R. et al. 1979: 795; Goldman, Cleveland, & Parker 1979; Graham 1939b; Hanel 1980: 771; Hammerle 1952; Harrington 1881: 32; Harris 1826, 1841: 72, 1842: 72, 1852a: 75-76, 1862: 86, 1890: 86; Harrison 1956; Heppling 1952; Hertel & Williams 1975; Hertel, Williams, & Merkel 1977; Hetrick 1957, 1960; Hodges & Pickard 1971: 49; Hofacker & Loomis 1982: 26, 1983: 28; Hofacker, Loomis, & Gilstrap 1988: 62; Hofacker, Loomis, & Tucker 1984: 42, 1987; Hofacker et al. 1989; Hoffard & Oak 1980; Hopkins 1892b, 1893a: 143, 1894b: 213, 1894c, 1894d, 1897c: 141, 1899a: 343, 1899b: 27, 1899c: 284, 333, 415, 447, 1901i, 1904b: 12, 1905: 81, 145, 147, 1909b: 146-153, 1909c: 62, 1910d, 1910g: 61; Hoyt 1951: 16, 1952: 40, 1953: 22; Jackson et al. 1954: 26; Jones 1951: 16, 1952, 1953: 22; Jones & Ford 1952: 1-4; Jordan & Dyer 1956: 1-12; Keen 1949b: 427; Kislow, Jones, & Hastings 1979; Koch, P. 1972; Kowal 1950b: 28, 1953: 106, 1955d: 4, 1956a: 5, 1957b: 20, 1957d: 175, 1957e: 6, 1958a: 402, 1959a: 39, 1959b: 160, 1960c, 1961b, 1961d, 1962, 1964; Kowal & Coyne 1952: 91; Kowal & Elbel 1971, 1977; Kucera, Ward, & Wallace 1970: 104-106; Landgraf 1966b; LeBaron 1871: 42; Lee 1954a: 5; Lee & Coyne 1955: 4; Lee & Smith 1953: 105, 1955: 1-14; Lewis 1973; Livingston 1956: 55; Loomis, Hofacker, & Tucker 1986; Lugger 1899a: 317; Mask 1982; Mason, C. N. & Jones 1969: 5; Massey 1956a: 17; Merkel 1957: 119, 1977, 1978, 1979, 1981; McCambridge 1958: 1, 8; McCambridge & Kowal 1957: 4-5; Merkel & Kowal 1956: 3; Merkel & Kulman 1955: 4; Miller, M. C. 1979a, 1979b; Mistretta 1978: 51; Moore, G. E. 1977a, 1978b, 1982; Moore, C. E. & Thatcher 1973b; Moser 1989; Nagel 1959: 4; Neal 1979: 795; Nieland 1943: 8; Nord, Jones, & Hastings 1985; O'Byrne 1946: 1-4, 7; Ollieu & Mason 1967: 7, 1968: 8; Orr & Kowal 1956: 655; Ostron 1955: 104; Outcalt & Stubbs 1979; Overgaard, Balmer, & Roberts 1977; Packard 1890: 721, 858; Payne & Wood 1981: 492; Pechanac 1957: 41-42, 1958: 47; Phelps 1977; Polioka 1938: 130, 1940: 230; Price, T. S. & Godbee 1978; Rauschenberger 1968; Robertson, R. L. & Whitefield 1968c: 1-8; Robinson, J. V. 1981; Ross & Mattoon 1939: 48; Ross, E. W. 1982; Rudinsky 1960a; Ruhm 1958: 319; Saunders 1879: 182, 1880: 5, 1884: 55; Schwerdtfeger 1959a: 43; Seal 1964; Smith, E. A. 1877: 1-55; Smith, J. B. 1900: 364; Smith, R. F. 1961; Smith, R. H. 1954a: 155-157, 1954b: 100, 1955a: 1-3, 1955b: 99-100, 1958: 190-194, 1962: 113-116; Smith, R. H. & Kowal 1968: 1430; Smith, R. H. & Lee 1957: 1-7, 1967: 1-12; Smith, R. K. 1961; Stephenson 1956: 220-221; St. George 1929b: 11, 1949: 97; Stewart, K. F. 1965; Stokes 1975d; Swaine 1918a: 61, 64, 1925: 261-266; Thatcher, R. C. 1957: 7, 1960, 1973; Thomas, C. 1876: 146; Wagner 1984; Walker 1956: 1-8; Walker, L. C. 1968; Ward, J. D. G., Kucera, & Downing 1971: 30; Williams, I. L. 1980; Wootten 1963: 23; Younan 1979. **(ec)** Baker, W. L. 1972: 244; Barras 1969: 520; Barras & Perry 1971b; Becker, G. 1952b; Bennett & Tatter 1988; Birch 1978b; Blakeslee & Oak 1979; Bridges 1978, 1981; Drew 1977; Fatzinger & DeBarr 1969; Felt 1906: 342; Godbee 1974; Godbee & Franklin

- 1978; Goldman, Cleveland, & Parker 1978: 373; Graham 1939b; Hetrick 1949c, 1960; Highley & Tatter 1985, 1987; Hill, T. M. & Fox 1972; Hines & Skelly 1972; Hirschmann & Wisniewski 1952, 1953; Hodges & Pickard 1979: 47, 50; Holt 1961: 93; Hopkins 1897c: 141, 1901b: 12, 1909b: 146–153; Kowal 1960c; Lindquist & Hunter 1965; Lorio 1973; Massey 1962: 67–75, 1966a; Moser 1976: 512, 1989; Moser & Branham 1988; Nelson & Beal 1929: 1102; Poinar 1975: 156; Rane & Tattar 1983, 1987; Rauschenberger 1968; Smith, R. H. 1963a; Smith, R. H. & Lee 1972; Swaine 1925c: 262; Tattar et al. 1981; Thatcher, R. C. 1973; Wagner, Flamm, & Coulson 1955; Wilkinson et al. 1978; Woodring 1966c: 123; Woodring & Moser 1970; Younan 1979. (**hb**) Anderson, R. F. 1960: 223, 1961; Anonymous 1970j: 6, 1979a, 1985k: 45; Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 244; Beal & Massey 1945; Becker, W. 1972b; Bennett, W. H. 1955, 1956a, 1960b; Blackman 1922b, 1950; Bongberg 1956a, 1959a; Chamberlin 1939: 167; Chittenden 1890; Ciesla 1969; Clark 1970; Coleman 1977; Coulson & Witter 1984: 530; Craighead 1953; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Drooz 1985: 346; Eikenbary, Arnold, & Pinkston 1974; Fatzinger 1985a, 1985b; Felt 1906: 342, 1926: 248, 262, 1930a: 248, 262; Felt & Valens 1932: 406; Fiske 1858; Flamm & Coulson 1988; Godbee 1974; Godbee & Franklin 1976, 1978; Goldman, Cleveland, & Parker 1978; Goldman & Parker 1978a, 1978b; Graham 1939b; Harris 1841: 72, 1862: 86; Hoffmann & St. George 1949: 71; Hopkins 1894g, 1899a: 343, 1899c: 284, 333, 415, 447, 1901b: 12, 1909a: 147–150; Koch, P. 1972; Kowal & Ebel 1971; Lee & Smith 1955: 2; Lewis 1973; Lugger 1899a: 317; Moore, C. E. 1982; Ostmark 1968; Packard 1890: 721; Pierce, W. D. 1907: 294; Price, T. S. & Godbee 1978; Robertson, R. L. & Whitefield 1968c; Saunders 1884: 55; Schwarz 1858a: 80; Schwerdtfeger 1959a: 43; Smith, R. H. 1957: 241; Smith, R. H. & Lee 1972; St. George 1929b: 11; Swaine 1918a: 61, 64; Thatcher, R. C. 1960; Thatcher, R. C. & Connor 1955; Thatcher, R. C., Coster, & Payne 1978; Wagner, Flamm, & Coulson 1955; Williams, I. L. 1980; Wood, S. L. 1963: 71, 1982b: 179; Younan 1979. (**ds**) Adams & Moore 1963; Anderson, R. F. 1960: 223; Anderson, R. L. & Barry 1980: 47; Anderson, W. W. et al. 1983; Anonymous 1958a: 4, 7, 1960q: 3, 1963j, 1963y, 1964h, 1964u, 1965b, 1965r, 1966f, 1966h, 1966u, 1967f, 1967t, 1968g, 1968p, 1969e, 1969m, 1970h, 1973b, 1973j: 47, 1974e, 1975d, 1976e, 1977u, 1977v: 42; Beal & Massey 1945; Becker, W. 1972a, 1972b; Bennett 1954; Blackman 1922b, 1950; Blackwelder 1947; Blandford 1895b, 1897a; Bongberg 1956a; Britton 1920a; Chamberlin 1925, 1939: 167; Chapuis 1869, 1873; Chittenden 1890; Cockerell 1893; Craighead 1953; Craighead & Middleton 1930; Deyrup & Atkinson 1987a: 64; Drooz 1985: 346; Felt 1926: 248, 262, 1930a: 248, 262; Felt & Rankin 1932: 406; Frost 1964: 144; Goldman, Cleveland, & Parker 1978; Hagedorn 1910d: 23; Hamilton 1895a: 346, 378; Henshaw 1855: 149; Hoffmann & St. George 1949: 71; Hopkins 1893a: 143, 1909a: 147–150, 1909b: 146–153; Howden & Vogt 1951; Kirk 1969, 1979; Kleine 1912b: 176, 1934a: 133; Lacordaire 1866: 361; Leng 1920: 338; Melsheimer 1853: 87; Merkel 1957: 119; Merkel & Kowal 1956: 3; Nagel 1959: 4; Ostmark 1968; Provancher 1877: 572, 1878: 13–14; Schwarz 1878d: 469, 1886: 56, 1888a: 80; Sherman 1910: 197; Smith, J. B. 1900: 364, 1910: 404; Smith, R. H. & Lee 1972; Snow 1907: 64; Swaine 1909: 99; Townsend 1889: 235; Turnbow & Franklin 1980; Ulke 1902: 56; Wickham 1896a: 309, 1896c: 168; Wood, S. L. 1963: 71, 1982b: 179. (**tx**) Anderson, R. F. 1960: 223; Beal & Massey 1945; Benoit 1985: 89; Blackman 1922b: 57–58; Blandford 1895b, 1897a: 146; Chamberlin 1939: 167; Chapuis 1869: 35, 1873: 243; Dietz 1890: 28–29; Eikenbary, Arnold, & Pinkston 1974; Erichson 1836: 53; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 60; Hopkins 1909a: 147–150, 1915c: 199; Kowal 1961b: 10; Lacordaire 1866: 361; LeConte 1868: 173, 1876: 384–385, 1878a: 469; Lee & Smith 1955: 2; Lindeman 1879: 54; Mnesebeck 1942: 95, 1950: 131; Olivier 1795b: 6; Provancher 1877: 572; Swaine 1909: 99, 1918a: 61, 64; Thomas, J. B. 1965c, 1967; Wood, S. L. 1963: 7, 11, 13, 71, 1982b: 179; Zimmermann 1868: 149. (**ms**) Anderson, R. F. 1966; Anderson, R. F. et al. 1980; Anonymous 1955k: 45; Beal 1955, 1961: 81; Bongberg 1959a; Eckstein 1900c; Foltz, Merkel, & Wilkinson 1984; Jones 1952; Kowal 1957b: 20; Lee 1954a: 5; Lee & Coyne 1955: 4; Lewis 1973; Mask 1982; Moore, C. E. & Thatcher 1973b; Moser & Branham 1988; Robinson, J. V. 1981; Ross, E. W. 1982; Smith, R. H. 1956: 7; Swaine 1925c: 262; Thatcher, R. C. 1957: 7; Thatcher, R. C. et al. 1981; Wagner 1984.
- valens** LeConte 1859: 59. Holotype ♂; San Francisco, California [USA]; MCZ, Cambridge. Figures: Balachowsky 1949a: 23. Ives & Wong 1958: 75. Swaine 1914: 2 (adult), 1918a: pl. 12 (adult), Wood 1963: 7, 11, 13. Distribution: North America (Alberta, British Columbia, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Guatemala/ Honduras/ Baja California, Chiapas, Chihuahua, Distrito Federal, Durango, Hidalgo, Mexico, Michoacan, Morelos, Puebla, Tlaxcala in Mexico/ Arizona, California, Colorado, Idaho, Illinois, Indiana, Kansas, Maine, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, South

Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Pinus* spp., uncommon in *Abies* spp., *Larix laricina*, *Picea* spp.

References: (ay) Boving & Craighead 1931; Bruhn 1947: 21; Cerezke 1964: 482; Chapman 1969b, 1972; Dewey 1973: 180; Furniss, M. M. & Campos 1984; Hopkins 1906b: 147, 1909a: 151–157, 1911a: 15, 16; Hughes 1973c; Kaston 1936: 645; Lekander 1959b: 36; Lyon 1958: 583; Numberg 1928a: 139; Powell 1905: 237; Sanders 1960: 4; Schedl 1931a: 75; Stickney 1921: 15; Stock, M. W., Gregoire, & Furniss 1987; Thomas, J. B. 1957: 4; Thomas, J. B. & Krywienczyk 1966; Ting 1936: 96. (bv) Anonymous 1979a; Baker, W. L. 1972: 246; Barr, B. A. 1969: 641; Eaton & Rodriguez 1967b; Evans, W. C. 1972; Gardner 1957a; Goheen et al. 1985; Hall, R. W. 1983; Hobson, Kubo, & Wood 1988: 439; Hughes 1973c; Lanier & Burkholder 1974; Miller, J. M. & Keen 1960: 103; Rudinsky 1966a: 106; Rudinsky & Michael 1973; Rudinsky & Ryker 1977; Ryker 1988; Ryker & Rudinsky 1976a; Schmitz 1988; Silverstein & Young 1976: 20; Stark, R. W. et al. 1968; Vite & Pitman 1967: 683–701; Wolfenbarger 1946: 61; Zethner-Moller & Rudinsky 1967: 575–582. (cn) Anderson, R. F. 1947: 7–8, 1960: 223, 1966; Anonymous 1958a: 3, 1960q, 1961h, 1962h, 1962i, 1962z, 1963j, 1963k, 1963y, 1964i, 1964y, 1965b, 1965c, 1965i, 1966f, 1966i, 1967f, 1967h, 1968h, 1969e, 1971i, 1972h, 1973b, 1974m, 1975e, 1978b: 35, 1978f, 1978z, 1979a, 1980a, 1980m: 32, 1981g, 1982c, 1983d, 1984d; Baker, W. L. 1972: 246; Barr, B. A., Hanson, & Koehler 1978; Bauman 1969: 166; Beal 1939: 12; Beal et al. 1952: 50–51; Beatty 1980: 13, 1983; Becker, C. 1951, 1952a, 1955d, 1959b: 173–174, 1972a, 1972b; Bennett 1983; Bess 1944: 14–16; Blackman 1931c, 1950; Browne 1968b: 227; Burke 1908: 115, 1932: 366, 1937: 29; Chaffin, Ramirez-Genel, & Krogstad 1966; Chamberlin 1924; Chenier & Philogene 1989; Compere 1915: 574; Coulson & Witter 1984: 530; Craighead 1927: 4–5, 1930: 4, 1951; Currie 1905: 74; DeLeon 1942b; Doane et al. 1936; Drooz 1985: 347; Eaton & Rodriguez 1967b: 21–24; Ebel, Merkel, & Kowal 1964, 1968; Ebel et al. 1959; Elliot & Mobley 1938; Erickson & Wood 1979: 6; Essig 1926: 514, 1958: 516; Evans & Dyer 1951: 110; Felt 1924: 263, 1926: 248, 263, 1930a: 248, 263; Felt & Bromley 1914, 1942: 170, 1944: 213; Felt & Rankin 1932: 406; Fiddick 1980; Fiddick & Van Sickle 1980: 7; Flake & Germain 1970: 24; Fuller & Hostetler 1980; Gentry, C. R. et al. 1979: 808; Gibson et al. 1987; Gillette 1903: 118–119; Gillman & Bailey 1977; Goulding et al. 1988: 37; Graham 1939b, 1952; Hagle et al. 1987: 35; Hall, R. W. 1984; Hamel 1980: 782; Herbert 1919: 337; Herrick 1935: 250; Hofacker & Loomis 1982: 7, 1983: 8; Hofacker, Loomis, & Gilstrap 1988: 49;

Hofacker, Loomis, & Tucker 1984: 14; Hofacker et al. 1989; Hopkins 1899b: 14, 1902c: 12, 1903: 61, 1904a: 19, 46, 1905b: 81, 1905c: 11, 17, 1909b: 153–165, 1909e: 62, 1910d, 1910g: 61, 1912b: 6; Hopping, R. 1921: 12; Hoyt 1951b: 16–17, 1952: 16–17; James & Limane 1980: 14; Johnson, D. W. & Averill 1983; Johnson, D. W. & Creasap 1978a; Jones & Ford 1952: 1–4; Keen 1929: 37–41, 1938: 109, 1949b: 427, 1952c: 142; Klein, W. H. 1966: 20; Klein, W. H. & McGregor 1966; Kliejunas 1985; Knight & Wilford 1954: 4; Kondo & Moody 1987: 109; Kondo & Taylor 1985; Kowal & Ebel 1971, 1977; Lamm 1951: 38; Leech 1945: 66; Lessard & Fuller 1981; Lindgren, B. 1980a: 62; Lindquist, O. H. & Syme 1981: 38; Linnane 1984; Lister & Hildebrand 1984; MacAloney & Schmiede 1962; Martin, J. L. 1965: 40–43; Martinez, F. B., Islas, & Villa 1975; Merkel 1957: 119; Miller, J. M. & Keen 1960: 103; Moreno Noriega 1956: 23, 35; Neal 1979: 808; Orr, P. W. & Pettinger 1964; Ostmark 1956: 8; Ostmark & Wilford 1956: 6; Owen 1986: 4; Parr 1943: 419; Patterson, V. B. et al. 1973: 7; Pearson 1950: 154; Perry 1951: 159; Pierce, J. R. 1966: 14, 1971: 12; Pierson 1927: 108, 121; Reeks et al. 1945: 66; Renlund 1971: 6; Robertson, R. L. & Whitefield 1968c: 1–8; Rogers, T. J. 1981; Rogers, T. J. & Hessburg 1985; Rogers, T. J. & Maffei 1987: 3; Rose-Chaffin 1966: 12–24, 1967b: 4181–4182; Ruhm 1964; Ruppel 1967: 33; Ryker & Rudinsky 1979: 201; Schuder 1969: 78; Schultz & Kliejunas 1984; Schwerdtfeger 1956b: 48, 1957b: 585, 1959a: 57; Shenefelt & Benjamin 1955: 84; Silver & Ross 1958: 75, 1959: 88, 1960: 97, 1961: 98; Sippel, Rose, & Gross 1974: 57; Smith, C. W. 1953: 14; Smith, R. H. 1961a: 1–8, 1971b, 1981; Sowder 1951: 23; Sterner & Davidson 1981: 17; Stevens, Brewer, & Leatherman 1980: 24, 1982: 24; Stevens & Hall 1960; Sugden & Ross 1960a; Svihra 1988, 1989; Swaine 1910d: 42, 1913: 41–43, 1913: 90, 1914: 20–21, 1918a: 61, 63, 1925: 261–266; Swaine & Craighead 1924: 1–27; Syme & Nystrom 1988: 38; Telfer 1982; Thomas, J. B. 1965a; Tunnock 1963: 10; Van Dyke 1922: 180; Villarreal Martinez 1857: 11–19; Walthier 1933: 47, 1933: 828–831; Weidman & Robbins 1947: 428, 431–433; Wenz 1985; Wenz & Pronos 1983; Wheeler 1940: 636; Whiteside 1951: 3; Wilson, L. F. 1977; Wolfenbarger 1946: 61; Wood, C. S., Van Sickle, & Shore 1984: 12; Wood, R. O. 1967: 114, 1968: 102; Wood, R. O. & Doidge 1972: 20; Wykoff et al. 1947: 31; Yasinski & Pierce 1957: 14, 1958: 7. (ce) Becker, C. 1954, 1955; Bedard 1966a: 936; Blackman 1931c: 31–32; Brand et al. 1975; Callahan 1955c: 916–917; Callahan & Shifrine 1960: 146; Chaffin, Ramirez-Genel, & Krogstad 1966; Cobb et al. 1968; Craighead et al. 1927; Dale & DeNitto 1986; DeLeon 1934a,

- 1942: 1-4; Francke-Grosman 1954b; Furniss, R. L. & Carolin 1977: 362; Gardiner 1957a; Goheen & Cobb 1978; Goheen et al. 1985; Graham 1922: 15, 1939b, 1952; Harrington & Cobb 1983; Hines, J. W. & Heikkinen 1977; Holst 1936; Hopkins 1905c: 11, 1909b: 153-165; Hopping, R. 1928b; Hunt, R. S. & Cobb 1970, 1982; Kaya 1984; Keen 1938: 109; Kinn 1971; Lindquist & Hunter 1965; Livingston, W. H., Mangini, & Mielke 1951; Livingston, W. H. et al. 1983; Massey 1961: 358; Mathre 1964: 353-388, 1966; Miller, J. M. & Keen 1960: 103; Orr 1945: 739; Otvos 1977; Otvos & Stark 1955; Owen et al. 1987; Parmeter et al. 1989; Pettey & Shaw 1986; Poinar 1972, 1975: 156; Raffa & Smalley 1988a; Reid 1955: 316; Rice 1968; Rose-Chaffin 1967b; Ruhm 1964; Schmitz 1988; Shifrime & Pfaff 1956: 41-55; Sowder 1951: 23; Stark, R. W. et al. 1968; Stephen & Dahlsten 1976b: 292; Struble 1942d: 843; Sugden & Ross 1960a, 1960b; Swaine 1925c: 262; Thomas, J. B. 1955: 342; Tomalak, Welch, & Galloway 1989b: 22. (hb) Anderson, R. F. 1960: 223; Anonymous 1979a; Atkinson et al. 1986: 17; Baker, W. L. 1972: 246; Barr, B. A., Hanson, & Koeler 1978; Beal & Massey 1945; Beatty 1983; Becker, C. 1951: 186-209, 1952a, 1954, 1955; Blackman 1915, 1919a: 90, 1931c, 1950; Bright 1976d: 57; Bright & Stark 1973: 30; Browne 1968b: 227; Burgos & Saucedo 1983: 57; Burke 1908, 1932; Chaffin, Ramirez-Genel, & Krogstad 1966; Chamberlin 1939: 167-168, 1958: 75-79; Chapman & Kinghorn 1958: 364-369; Coulson & Witter 1984: 530; DeLeon 1942b; Doane et al. 1936; Drooz 1985: 347; Eaton & Rodriguez 1967b; Essig 1926: 514, 1942: 604, 1955: 516; Felt 1926: 248, 263, 1930a: 248, 263; Felt & Rankin 1932: 406; Francke-Grosman 1954b; Furniss, R. L. & Carolin 1977: 362; Graham 1939b, 1952; Hagle et al. 1987: 35; Harrington 1902a: 116; Herrick 1935: 250; Hoffmann & St. George 1949: 73; Hopkins 1899b: 14, 1904a: 19, 46, 1905c: 11, 1909a: 151-157; Ives & Wong 1988: 79; Keen 1929: 37, 1938: 109, 1952c: 142; Kowal & Ebel 1971; Lekander 1959b: 36; Lindgren 1980a: 26; MacAloney & Schmiede 1962; Martinez, F. B., Islas, & Villa 1975; Miller, J. M. & Keen 1960: 103; Perry 1955: 2; Pierce 1907: 294; Pierson 1927: 108, 121; Powell 1905: 237-239; Reid 1955: 316, 323; Robertson, R. L. & Whitefield 1968c; Rose-Chaffin 1967b; Ryker & Rudinsky 1979: 210; Schmitz 1988; Schwerdtfeger 1956b: 48, 1959a: 57, 1960: 1-33; Smith, G. W. 1953: 14; Smith, R. H. 1961a, 1971b; Stevens, Brewer, & Leatherman 1950: 24, 1982: 24; Swaine 1907: 191, 193, 1918a: 61, 63; Trimble 1924: 384; Watson 1931: 126; Whiteside 1951: 3; Wilson, L. F. 1977; Wood, S. L. 1963: 76, 1982b: 182. (ds) Acciavatti & Weiss 1974; Adams & Moore 1963; Anderson, R. F. 1960: 223; Anonymous 1926c: 516, 1958a: 3, 1962i, 1962z, 1963j, 1963k, 1963y, 1965b, 1966f, 1969e, 1973b, 1974m, 1975e, 1978b: 35, 1978f, 1978z, 1979g, 1980a, 1980m: 32, 1981g, 1982c, 1984d; Atkinson & Equihua 1955a: 74, 1985b: 229; Atkinson et al. 1986: 17; Beal & Massey 1945: 81-82; Beaulne 1956; Becker, C. 1951, 1952a, 1954: 40, 1972a; Bedard 1938a; Berryman & Stark 1962a; Blackman 1950; Blackwelder 1947; Blatchley & Leng 1916: 654; Bright 1971a: 125, 1976d: 57; Bright & Stark 1973: 30; Britton 1920a; Brown, A. W. A. 1934, 1940a: 22; Browne 1968b: 227; Burgos & Saucedo 1983: 57; Chamberlin 1917: 323, 1918: 9, 1925, 1927b, 1939: 167-168, 1958: 78-79; Chapuis 1869, 1873; Cockerell et al. 1907; Currie 1905; DeLeon 1938; Dewey, Ciesla, & Meyer 1974; Deyrup & Atkinson 1987b: 67; Dodge 1936; Downing 1963: 8; Drooz 1985: 347; Eaton & Rodriguez 1967b; Essig 1926: 514, 1958: 516; Evans, D. 1983: 32; Fall 1906: 203; Felt 1926: 248, 263, 1930a: 248, 263; Felt & Rankin 1932: 406; Ferrer 1942; Frost 1912: 308; Furniss, M. M. & Furniss, R. L. 1972; Furniss, R. L. & Carolin 1977: 362; Gast et al. 1989: 385; Hagedorn 1910d: 23; Hall & Eaton 1960; Hatch 1924; Hendricks & Enkerlin 1979; Henshaw 1882: 269; Hoffmann & St. George 1949: 73; Hopkins 1902c: 12, 1903a, 1909a: 151-157, 1909b: 153-165; Hopping, R. 1921: 12, 1922: 130, 132; Horning & Barr 1970: 40; Keen 1929: 37, 1929a: 19, 1938: 109, 1949a: 93, 1952c: 142; Kleine 1912b: 176, 1914b: 358, 357, 1934a: 133; Knowlton 1931: 10; Kusch 1967; Lacordaire 1866: 361; Lange 1937: 172; Leng 1920: 338; Leonard 1928: 516; Lindquist, O. H. & Syme 1981: 38; Mank 1934: 81; McComb et al. 1953: 3; Merkel 1957: 119; Patterson & Hatch 1945: 150; Peresquia 1978; Perry 1951: 159; Powell, J. A. & Hogue 1979: 312; Proctor 1946: 207; Provancher 1877: 572; Ramirez 1921: 662-663; Ruppel 1967: 33; Schedl 1963c: 157, 1969: 78, 1977c: 42; Smith, G. S. 1929; Smith, J. B. 1910: 404; Smith, R. H. 1961a, 1971b; Snow 1881: 70, 1883: 44, 1906: 175, 1907: 188; Sugden & Ross 1960a; Swaine 1909: 100, 1913: 90, 1914: 20, 1919b: 9; Syme & Nystrom 1988: 38; Thomas, J. B. 1955: 342, 1966: 873; Van Dyke 1922: 180; Wickham 1896b: 170, 1898: 312; Wood, S. L. 1948: 22, 1951a: 127, 1963: 76, 1972a: 405, 1982b: 182. (tx) Anderson, R. F. 1960: 223; Beal & Massey 1945: 81-82; Benoit 1985: 89; Blackman 1922b: 1-130; Blandford 1895b: 146; Blatchley & Leng 1916: 654; Boving & Craighead 1931; Bright 1967d: 57; Chamberlin 1939: 167-168, 1955: 78-79; Chapuis 1869: 35, 1873: 243; DeLeon 1938; Dodge 1935: 26-29; Essig 1942: 604; Evans, D. 1983: 32; Hagedorn 1910a: 60; Hopkins 1905b: 81, 1909a: 151-157, 1915c: 184, 187, 194, 196, 199, 204; Ives & Wong 1988: 78; Keen 1929a: 19; Kusch 1967; Lacordaire 1866: 361; LeConte 1857: 22, 59, 1859: 59, 1868: 173, 1876: 385, 1878c: 472; Lekander 1959b: 36; Lindquist, O. H. & Syme 1981: 38; Muesebeck 1942: 95, 1950: 131; Numberg

- 1928a: 139; Pardy 1974, 1977, 1983; Peresquia 1978; Powell, J. A. & Houge 1979: 312; Ryker & Rudinsky 1979: 210; Schedl 1931a: 75, 1940a: 339, 1955g: 14; Swaine 1909: 100, 1918a: 61, 63, 1919b: 9; Syme & Nystrom 1988: 38; Thatcher, T. O. 1954: 3; Thomas, J. B. 1957: 4, 1965c, 1967; Thomas, J. B. & Bright 1970: 480; Thomas, J. B. & Krywienczyk 1966; Titus, Meikle, & Harrison 1985: 56; Wood, S. L. 1963: 7, 11, 13, 76, 1972a: 405, 1974d: 280, 1982b: 152. (**ms**) Anderson, R. F. 1966; Berryman & Stark 1962a; Burke 1930; Chamberlin 1931; Chenier & Philogene 1989; Essig 1931: 685; Goulding et al. 1988: 37; Svihra 1988; Swaine 1907: 191, 193, 1925c: 262.
- beckeri* Thatcher 1954: 4. Holotype ♀; Totonicanpan, Guatemala; USNM, Washington. Synonymy: Wood 1963: 78.
References: (**cn**) Schwerdtfeger 1959a: 43. (**ec**) Becker 1952b, 1954: 22, 1955. (**hb**) Becker 1954, 1955; Perry 1955: 5–6; Schedl 1955g: 15; Schwerdtfeger 1959a: 43. (**tx**) Thatcher, T. O. 1954: 3–4; Wood, S. L. 1963: 78.
- vitei* Wood 1974d: 289. Holotype ♂; Patzum, Guatemala; Wood Collection.
Figures: Wood 1982b: 161 (posterolateral area of pronotum).
Distribution: North America (Guatemala/ Chiapas, Nuevo Leon (?) in Mexico).
Hosts: *Pinus pseudostrobus*, *P. teocote*.
Notes: (3) Existence of the Nuevo Leon population requires confirmation.
References: (**ay**) Lanier, Hendricks, & Flores 1988a, 1988b. (**bv**) Inscoc 1982; Klassen, Ridgway, & Inscoc 1982; Payne & Wood 1981: 492; Renwick & Pitman 1979. (**cn**) Payne & Wood 1981: 492. (**cc**) Flores & Enkerlin 1978. (**hb**) Wood, S. L. 1982b: 158. (**ds**) Atkinson & Equihua 1985b: 229; Hendricks & Enkerlin 1979; Lanier, Hendricks, & Flores 1988a, 1988b; Renwick & Pitman 1979; Wood, S. L. 1982b: 158. (**tx**) Lanier, Hendricks, & Flores 1988a, 1988b; Wood, S. L. 1974d: 289, 1982b: 158.
- Genus *Hylurdrectonus* Schedl
- HYLURDRECTONUS** SCHEDL 1938f: 40. Type-species: *Hylurdrectonus piniarius* Schedl, monobasic.
Xylogopinus Schedl 1972h: 64. Type-species: *Xylogopinus araucariae* Schedl, = *Hylurdrectonus corticinus* Wood, monobasic. Synonymy: Wood 1980c: 94.
References: (**tx**) Schedl 1972h: 64; Wood, S. L. 1980c: 94.
References: (**hb**) Wood, S. L. 1986a: 42. (**ds**) Wood, S. L. 1986a: 42. (**tx**) Gray, B. 1973: 50; Schedl 1938f: 40; Wood, S. L. 1986a: 42.
- araucariae* Schedl 1964d: 213. Lectotype, sex?; New Guinea, Waw, Morobe District, 1200 m; Schedl Collection in NHMW, Wien, subsequent designation by Schedl 1979c: 24.
Figures: Gray 1968: 309.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (**hb**) Gray, B. 1973: 50. (**tx**) Gray, B. 1968: 309; Schedl 1964d: 213, 1966c: 43, 1979c: 24; Wood, S. L. 1980c: 94.
- corticinus* Wood 1980c: 94. Holotype, sex?; 1 km E Heads Hump logging area, Bulolo, M. Dist., New Guinea; CSIRO, Canberra, automatic.
Distribution: New Guinea.
Hosts: *Araucaria hunstienii*.
References: (**tx**) Wood, S. L. 1980c: 94.
- araucariae* Schedl 1972h: 64 (*Xylogopinus*).
Holotype, sex?; 1 km E Heads Hump logging area, Bulolo, M. Dist., New Guinea; CSIRO, Canberra, preoccupied by Schedl 1964.
Notes: (1) Wood 1980c: 94 (to *Hylurdrectonus*).
References: (**bv**) Gray, B. 1973a, 1973b, 1974d; Wylie 1982. (**cn**) Browne 1968b: 347; Gray, B. 1971a, 1971b, 1971c, 1974a, 1975, 1976; Gray, B. & Lamb 1975; Gray, B. & Wylie 1974; Johnson, N. E. 1976: 410; Wylie 1982. (**ec**) Gray, B. & Lamb 1975. (**hb**) Browne 1968b: 347; Gray, B. 1968: 308, 1974d; Gray, B. & Lamb 1975; Gray, B. & Wylie 1974. (**ds**) Browne 1968b: 347; Gray, B. 1968: 308, 1975; Schedl 1968e: 261, 1969e: 155. (**tx**) Gray, B. 1973b; Schedl 1972h: 64, 1979c: 24; Wood, S. L. 1980c: 94.
- nanus* Browne 1984d: 87. Holotype, sex?; Papua New Guinea; BMNH, London.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (**tx**) Browne 1984d: 87.
- piniarius* Schedl 1938f: 40. Lectotype ♂; Queensland, Australia; Schedl Collection at in NHMW, Wien, designated by Schedl 1979c: 195.
Figures: Schedl 1938f: 40–41.
Distribution: Australia (Queensland), New Guinea.
Hosts: *Araucaria biduillii*, *A. cunninghamii*.
References: (**bv**) Weber, R. & Schurig 1984. (**cn**) Browne 1968b: 347; Wylie & Shanahan 1975. (**hb**) Brimblecombe 1945: 84; Browne 1968b: 347; Gray, B. 1973: 53; Wylie & Shanahan 1975. (**ds**) Browne 1968b: 347; Gray, B. 1968: 308; Schedl 1979a: 158. (**tx**) Carne et al. 1980; Schedl 1938f: 40–41, 1979c: 195. (**ms**) Weber, R. & Schurig 1984.
- Genus *Hylurgonotus* Schedl
- HYLURGONOTUS** SCHEDL 1952a: 448. Type-species: *Hylurgonotus brunneus* Schedl = *Hylurgus tuberculatus* Eggers, monobasic.
References: (**ay**) Nobuchi 1969a: 49. (**hb**) Wood, S. L. 1986a: 43. (**ds**) Wood, S. L. 1986a: 43. (**tx**) Schedl 1952a: 448; Wood, S. L. 1986a: 43.

- antipodus** (Eggers) 1942a: 14 (*Blastophagus*). Holotype, sex?; Valdivia, Chile; Hamburg Museum, lost.
 Figures: Ruhm 1976: 135.
 Distribution: South America (Chile).
 Hosts: *Araucaria araucana*.
 Notes: (1) Schedl 1979c: 22 (invalid designation of lectotype to replace lost holotype).
 References: (cc) Hirschmann 1972c, 1972d; Mahunka 1972; Ruhm 1969. (hb) Ruhm 1976. (ds) Schedl 1965g: 25, 1967d: 5, 1972d: 135. (tx) Eggers 1942a: 14; Ruhm 1976: 135; Schedl 1951d: 16, 1955e: 256, 1965g: 25, 1966e: 43, 1972d: 135, 1979c: 22.
- armaticeps** Schedl 1955e: 257. Syntypes ♀?; Chile: Llaina Cantin; Schedl Collection in NHMW, Wien, and Kuschel Collection.
 Figures: Ruhm 1965a: 268.
 Distribution: South America (Chile).
 Hosts: *Araucaria* sp.
 Notes: (1) Schedl 1979c: 25 (citation of holotype invalid).
 References: (ay) Ruhm 1965a. (bv) Ruhm 1986. (cc) Hirschmann 1972b, 1972c. (hb) Ruhm 1965a, 1986. (ds) Schedl 1972d: 133. (tx) Ruhm 1965a: 268; Schedl 1955e: 256–257, 1972d: 133, 1979c: 25.
- solidus** (Schedl) 1967d: 6 (*Blastophagus*). Holotype, sex?; Nahuelbuta (W), Arauco, Caramavida, Chile, 720–1000 m; ZSSM, Munchen.
 Distribution: South America (Chile).
 Hosts: *Araucaria* sp.
 References: (ds) Schedl 1972d: 136. (tx) Schedl 1967d: 6, 1972d: 136.
- tuberculatus** (Eggers) 1942a: 13 (*Hylurgus*). Holotype ♀; Bolivia oder Chile; Hamburg Museum, lost.
 Distribution: South America (Argentina/ Chile).
 Hosts: *Araucaria* sp.
 References: (ds) Schedl 1972d: 134. (tx) Eggers 1942a: 13; Schedl 1951d: 16, 1972d: 134.
- brunneus** Schedl 1952a: 448. Holotype ♂; Gob. Rio Negro, Argentina; Schedl Collection at NHMW, Wien. Synonymy: Wood 1986a: 43.
 References: (ay) Ruhm 1965a: 264. (bv) Ruhm 1986. (cc) Ruhm 1965a: 264, 1969, 1986. (hb) Gams & Grinberge 1970: 794–798; Ruhm 1965a: 264, 1986. (ds) Schedl 1965g: 25–26, 1966c: 43, 1967d: 5, 1972d: 134, 1973d: 161. (tx) Schedl 1951d: 16, 1952a: 448, 1955e: 256, 1972d: 134; Wood, S. L. 1986a: 43; Wylie & Yule 1977.
- Genus *Pachycotes* Sharp
- PACHYCOTES SHARP 1877: 10. Type-species: *Pachycotes ventralis* Sharp = *Hylastes peregrinus* Chapuis, monobasic.
 References: (hb) Wood, S. L. 1986a: 43. (ds) Hagedorn 1910d: 80; Wood, S. L. 1986a: 43. (tx) Hagedorn 1910a: 133; Schedl 1938f: 37; Sharp 1877: 10; Wood, S. L. 1986a: 43.
- araucariae** Schedl 1975f: 340. Holotype ♂; Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 Hosts: *Araucaria cunninghamii*.
 References: (tx) Schedl 1975f: 340.
- australis** Schedl 1938f: 38. Syntypes ♂; Dorrigo, New S. Wales and Gallangowen, Queensland, Australia; SAM, Adelaide, restricted by Schedl 1979c: 32.
 Figures: Schedl 1938f: 39.
 Distribution: Australia (New South Wales/ Queensland).
 Hosts: *Araucaria cunninghamii*.
 References: (cn) Brimblecombe 1956. (hb) Brimblecombe 1956. (ds) Schedl 1959d: 56, 1975h: 352. (tx) Came et al. 1980; Schedl 1938f: 38, 1959d: 67, 1979c: 32.
- clavatus** Schedl 1938f: 39. Syntypes ♂; Sydney and New S. Wales, Australia; BMNH, London, and Schedl Collection in NHMW, Wien.
 Distribution: Australia (New South Wales/ Queensland).
 Hosts: *Araucaria cunninghamii*.
 Notes: Schedl 1979c: 58 (citation of holotype invalid).
 References: (ds) Schedl 1979a: 158. (tx) Came et al. 1980; Schedl 1938f: 39, 1979c: 58.
- kuscheli** Schedl 1972b: 267. Holotype ♀; Middle-gate, Norfolk Island, Pacific Islands; CSIRO, Canberra.
 Distribution: Norfolk Island.
 Hosts: *Araucaria heterophylla*.
 References: (tx) Schedl 1972b: 267.
- minor** Wood 1985: 273. Holotype ♂; Palen Creek, 96 km S Brisbane, Australia, CSIRO, Canberra.
 Distribution: Australia (Queensland).
 Hosts: *Araucaria cunninghamii*.
 References: (tx) Wood, S. L. 1985: 273.
- peregrinus** (Chapuis) 1869: 21 (*Hylastes*). Holotype, sex?; Nouvelle-Zelande; IRSNB, Brussels.
 Figures: Milligan 1979: fig. 3.
 Distribution: New Zealand.
 Hosts: *Araucaria* sp., *Pseudotsuga menziesii* (plantations).
 References: (bv) Alma & van Boven 1976; Hosking 1977. (cn) Bain 1977c; Froggatt 1927; Hosking 1977; Zondag 1982. (cc) Hosking 1977. (hb) Bain 1977c; Froggatt 1927. (ds) Browne 1980a: 373; Hagedorn 1910d: 11; Hosking 1977; Hutton 1904: 219; Kleine 1912b: 166, 1914b: 304; Zondag 1982. (tx) Broun 1880; Chapuis 1869: 21, 1873: 229; Gemminger & Harold 1872: 2670; Hagedorn 1910a: 46; Milligan 1978: fig. 3; Schedl 1938f: 37, 1955b: 279.
ventralis Sharp 1877: 10. Holotype, sex?; New

Zealand; BMNH, London. Synonymy: Schedl 1938f: 37.

References: **(cn)** Anonymous 1943: 24, 1954k: 40; Bain 1977: 1-7. **(hb)** Anonymous 1954k: 40; Clark, A. F. 1932a: 235-243. **(ds)** Clark, A. F. 1932a; Hagedorn 1910d: 80; Hutton 1904: 219; Kleine 1913b: 148, 1914b: 304. **(tx)** Broun 1880; Hagedorn 1910a: 133; Hopkins 1914: 126; Lucas 1920: 473; Schedl 1938f: 37,

1955b: 279, 1962i: 74; Sharp 1877: 10. **(ms)** Lucas 1920: 473.

villosus Schedl 1962i: 75. Holotype ♀; W. Australien, Murchison River; Frey Collection in NHMBS, Basel.

Distribution: Australia (Western Australia).

Hosts: *Araucaria* sp.

References: **(ds)** Schedl 1962i: 73-75.

Tribe Phrixosomini Wood

Phrixosomini

References: Wood, S. L. 1978a: 111, 1982b: 204, 1986: 43.

Genus *Phrixosoma* Blandford

PHRIXOSOMA BLANDFORD 1897a: 148. Type-species:

Phrixosoma rude Blandford, monobasic.

Bothryperus Hagedorn 1909a: 742. Type-species:

Bothryperus psaltes Hagedorn, monobasic.

Synonymy: Schedl 1963h: 258.

References: (tx) Eggers 1927a: 196; Hagedorn

1909a: 742, 1910a: 29–30, 1910d: 6; Hopkins

1914: 117, 1915c: 227; Lucas 1920: 145;

Schedl 1941d: 383, 1957d, 1959n: 341–358,

1961k: 341–358, 1963h: 258.

Neohylesinus Eggers 1920: 118. Type-species:

Neohylesinus quadrioculatus Eggers, mono-

basic. Synonymy: Eggers 1927a: 196.

References: (tx) Eggers 1920: 118, 1927a: 196.

Sphaerosinus Eggers 1929a: 40. Type-species:

Sphaerosinus striatus Eggers, monobasic. Syn-

onymy: Wood 1982b: 204.

References: (tx) Chamberlin 1939: 189; Eggers

1929a: 40–41; Wood, S. L. 1982b: 204.

Keys: Wood 1982b: 204.

References: (hb) Schedl 1960f: 10, 1961k: 341;

Wood, S. L. 1982b: 204–207, 1986a: 43. (ds)

Schedl 1961k: 341; Wood, S. L. 1982b: 204–207,

1986a: 43. (tx) Blandford 1897a: 148; Hagedorn

1910a: 79, 1910d: 39; Lucas 1920: 507; Schedl

1959m: 545–557, 1961k: 341, 1963h: 258; Wood,

S. L. 1982b: 204–207, 1986a: 43.

brasilienis Schedl 1959m: 546. Holotype ♂?;

Matto Grosso, Rio Caragnata [Brasil]; Schedl Col-

lection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Schedl 1973d: 153. (tx) Schedl

1959m: 546.

caraibica Schedl 1966f: 101. Holotype ♀?; Guade-

loupe; Schedl Collection in NHMW, Wien.

Distribution: Antilles Islands (Guadeloupe).

References: (ds) Bright 1955c: 171; Schedl 1966f:

78. (tx) Bright 1955c: 171; Schedl 1966f: 101.

clusiae Wood 1969b: 1. Holotype ♀; Zamorano,

Morazan, Honduras; Wood Collection.

Distribution: Central America (Honduras).

Hosts: *Clusia flava*.

References: (ds) Wood, S. L. 1982b: 207. (tx)

Wood, S. L. 1969b: 1, 1982b: 207.

costata (Schedl) 1941d: 383 (*Bothryperus*). Holo-

type, sex?; Kamerun; Schedl Collection in

NHMW, Wien.

Figures: Schedl 1941d: 384.

Distribution: Africa (Cameroon).

References: (ds) Schedl 1961k: 342. (tx) Schedl

1941d: 382–384, 1961k: 342, 1979c: 67.

crebra Wood 1971: 2. Holotype ♀; 5 km S Colonia

(near Buenaventura), Valle de Cauca, Colombia;

Wood Collection.

Distribution: South America (Colombia).

Hosts: *Rheedia madruno*.

References: (tx) Wood, S. L. 1971: 2.

frustrata Wood 1971: 3. Holotype ♀; 8 km S Co-

lonia (near Buenaventura), Valle de Cauca,

Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Rheedia madruno*.

References: (tx) Wood, S. L. 1971: 3.

fuscovillosa (Schedl) 1957d: 29 (*Bothryperus*).

Holotype, sex?; Congo Belge; Yangambi; MRCB,

Tervuren.

Figures: Schedl 1961k: 345 (galleries).

Distribution: Africa (Zaire).

Hosts: *Allanblackia floribunda*, *Barteria nigriti-*

ana, *Cleistanthus polystachyus*, *Harungana*

madagascariensis.

References: (hb) Schedl 1961k: 342–345. (ds)

Mayne & Donis 1962: 302; Schedl 1961k: 342–

345. (tx) Schedl 1957d: 29, 1961k: 342–345,

1979c: 102.

garcinia (Schedl) 1957d: 30 (*Bothryperus*). Holo-

type, sex?; Congo Belge; Yangambi; MRCB, Ter-

vuren.

Figures: Schedl 1961k: 345 (galleries).

Distribution: Africa (Zaire).

Hosts: *Conopharyngia durissima*, *Garcinia*

punctata.

References: (ec) Schedl 1958d: 190–192. (hb)

Schedl 1961k: 346. (ds) Schedl 1961k: 344. (tx)

Schedl 1957d: 30, 1961k: 344–346, 1979c: 102.

magna Blackman 1943c: 392. Holotype ♀; Bolivia;

USNM, Washington.

Figures: Blackman 1943c: pl. 17, figs. 37–40.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947. (tx) Black-

man 1943c: 392.

major (Eggers) 1940c: 229 (*Bothryperus*). Holo-

type, sex?; Albertville, Congostaat; MRCB, Tervu-

ren.

Distribution: Africa (Angola/ Zaire).

Hosts: *Garcinia polyantha*.

References: (ds) Ferreira 1965: 1112, Schedl

1959j: 16, 1961k: 348. (tx) Eggers 1940c: 229;

Schedl 1961k: 348.

minor Wood 1956c: 248. Holotype ♂; La Ceiba,

Honduras; Wood Collection.

Figures: Wood 1956c: 249 (male, female heads).

Distribution: North America (Costa Rica/ Hondu-

ras/ Oaxaca in Mexico/ Panama), South America

(Brazil/ Colombia/ Venezuela).

Hosts: *Rheedia edulis*, *Symphonia globulifera*.

References: (hb) Wood, S. L. 1982b: 206. (ds)

Atkinson & Equihua 1986a: 419; Schedl 1976a:

51; Wood, S. L. 1982b: 206. (tx) Wood, S. L.

1956c: 248–249, 1969b: 1, 1982b: 206.

nigra (Eggers) 1933e: 21 (*Bothryperus*). Holotype, sex?; Uganda; BMNH, London.

Figures: Schedl 1961k: 347 (galleries).

Distribution: Africa (Uganda/Zaire).

Hosts: *Haronga paniculata*, and "Mudirira" stem.

References: (hb) Schedl 1961k: 347–349. (ds) Kleine 1934: 125; Schedl 1961k: 348. (tx) Eggers 1933e: 21; Schedl 1961k: 348.

obesa Blackman 1943c: 393. Holotype ♀; Gatun, Canal Zone, Panama; USNM, Washington.

Distribution: North America (Costa Rica/Panama), South America (Colombia/Brazil).

Hosts: *Rheedia madruno*, *Symphonia globulifera*.

References: (hb) Wood, S. L. 1982b: 205. (ds) Blackwelder 1947; Wood, S. L. 1982b: 205. (tx) Blackman 1943c: 393; Wood S. L. 1956c: 248, 1982b: 205.

parva Blackman 1943c: 393. Holotype ♀; Cayamas, Cuba; USNM, Washington.

Distribution: Antilles Islands (Cuba).

References: (ds) Blackwelder 1947; Bright 1985c: 171. (tx) Blackman 1943c: 393–394; Bright 1985c: 171.

peruviana Eggers 1951: 148. Holotype ♀; Peru; Schedl Collection in NHMW, Wien.

Distribution: South America (Peru).

References: (tx) Eggers 1951: 148.

psaltes (Hagedorn) 1909a: 742 (*Bothryperus*). Syn-types (2), sex?; Kamerun; MNB, Berlin.

Figures: Schedl 1961k: 341 (adult), 351 (galleries).

Distribution: Africa (Cameroon/Zaire).

Hosts: *Garcinia* sp., *Synsepalum subcordatum*.

References: (cn) Ghesquiere 1933a: 34–35, 1933b: 784, 786. (hb) Schedl 1961k: 349–354. (ds) Ghesquiere 1933a: 34–35; Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 309; Schedl 1961k: 350, 1964f: 617, 1967e: 209, 1971e: 2. (tx) Eggers 1927a: 196, 1933e: 21; Hagedorn 1909a: 742, 1910a: 30; Hopkins 1914: 117, 135; Lepesme 1947: 648–649; Lucas 1920: 145; Schedl 1939g: 170, 1941d: 383, 1950d: 6, 1961k: 341, 350, 1964m: 304, 1979c: 200. (ms) Lucas 1920: 145.

quadrioculata (Eggers) 1920: 119 (*Neohylesinus*). Holotype, sex?; Buta (Kongo); MCG, Genova.

Figures: Schedl 1961k: 343 (adult), 353 (galleries).

Distribution: Africa (Zaire).

Hosts: *Garcinia polyantha*, *G. punctata*, *Pentadesma lebrunii*.

References: (cn) Mayne & Donis 1951: 332. (ec) Mayne & Donis 1951: 332; Schedl 1958d: 188. (hb) Schedl 1961k: 354–357. (ds) Browne 1981b: 600; Kleine 1934a: 125; Schedl 1961k: 354, 1964f: 617, 1971g: 190. (tx) Eggers 1920: 119, 1927a: 196, 1933e: 21; Schedl 1941d: 382, 1950d: 6, 1961k: 343, 354–357.

rude Blandford 1897a: 148. Lectotype, sex?; Volcan de Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 205.

Figures: Blandford 1897a: pl. 6, fig. 12.

Distribution: North America (Costa Rica/Panama).

Hosts: *Rheedia edulis*.

References: (hb) Wood, S. L. 1982b: 205. (ds) Blackwelder 1947; Hagedorn 1910d: 39; Kleine 1913b: 117; Wood, S. L. 1982b: 205. (tx) Blackman 1943c: 392; Blandford 1897a: 148; Hagedorn 1910a: 79, 1914: 127; Lucas 1920: 507; Schedl 1959m: 546; Wood, S. L. 1982b: 205. (ms) Lucas 1920: 507.

sinuosa (Schedl) 1941d: 392 (*Bothryperus*). Holotype ♀?; Span. Guinea; Schedl Collection in NHMW, Wien.

Distribution: Africa (Spanish Guinea).

References: (tx) Schedl 1941d: 382, 1961k: 357, 1979c: 231.

striata (Eggers) 1929a: 41 (*Sphaerosinus*). Holotype, sex?; Amer. bor.; ZMA, Amsterdam.

Distribution: America (Central or South?).

References: (ds) Chamberlin 1939: 189; Leng & Mutchler 1933: 51. (tx) Chamberlin 1939: 189; Eggers 1929a: 41.

uniseriata (Eggers) 1940c: 230 (*Bothryperus*).

Holotype, sex?; Equateur (Bokuma), Congostaat; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Conopharymia durissima*, *Garcinia punctata*.

References: (hb) Schedl 1961k: 358. (ds) Schedl 1961k: 358. (tx) Eggers 1940c: 230; Schedl 1957d: 30, 1961k: 358, 1979c: 206.

viriosa Wood 1971: 2. Holotype ♀; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Rheedia madruno*.

References: (tx) Wood, S. L. 1971: 2–3.

Tribe Hyorrhynchini Hopkins

Hyorrhynchinae

References: Hopkins 1915c: 225.

Hyorrhynchini

References: Murayama 1963b: 62–64; Nobuchi 1955c: 3; Wood, S. L. 1986: 43–44.

Sueinae

References: Murayama 1955: 7.

Genus *Sucus* Murayama

SUEUS MURAYAMA 1951a: 1. Type-species: *Sucus sphaerotrypoides* Murayama = *Hyorrhynchus niisimai* Eggers, original designation.

Parasphaerotrypes Murayama 1955: 933. Type-species: *Sphaerotrypes controversae* Murayama, original designation. Synonymy: Wood 1992:(in press).

References: (tx) Murayama 1955: 933, 1963: 70–72; Wood, S. L. 1986a: 46, 1992:(in press).

Neohyorrhynchus Schedl 1962p: 202. Type-species: *Hyorrhynchus niisimai* Eggers, original designation. Synonymy: Wood 1983a: 650.

References: (tx) Schedl 1962p: 202; Wood, S. L. 1983a: 650.

References: (ay) Nobuchi 1969a: 47. (hb) Wood, S. L. 1986a: 44. (ds) Wood, S. L. 1986a: 44. (tx) Murayama 1951a: 1; Wood, S. L. 1986a: 44.

niisimai (Eggers) 1926b: 133 (*Hyorrhynchus*). Holotype ♀; Japan: Urakawa (Hakodate); USNM, Washington.

Figures: Nakane et al. 1963:pl. 191, Nobuchi 1964:pl. 1–2.

Distribution: Asia (Bengal in India/ Japan/ Malaya/ Sri Lanka), Fiji Islands, Indonesia (Java), New Guinea.

Hosts: *Cinnamomum obtusifolium*, *Citrus* spp., *Cornus controversa*, *Elaeagnus decipiens*, *Eurya japonica*, *Litsea domarensis*, *Machilus thunbergii*, *Osbeckia aspera*, *Parabenzoin praecox*, *Rhus succedanea*.

References: (hb) Beaver 1984; Beaver & Browne 1975: 588; Roberts 1976: 376; Takahashi 1989: 403. (ds) Beaver & Browne 1975: 588; Browne 1974a: 64; Murayama 1950c: 63; Nakane et al. 1963: 381; Nobuchi 1955: 3; Nohira & Ogawa 1986; Roberts 1976: 376; Schedl 1971a: 275, 1971c: 361, 367. (tx) Anderson, W. H. & Anderson 1971: 22; Eggers 1926b: 133, 1936e: 79, 81; Huang & Yin 1983; Murayama 1950c: 62; Nakane et al. 1963: 381, pl. 191; Nobuchi 1964: 130, pl. 1, 2; Schedl 1934f: 1635, 1954b: 198, 1962p: 202.

pilosus Eggers 1936e: 81 (*Hyorrhynchus*). Holotype ♀; Java: Salatiga (600 m hoch); Kalshoven Collection. Synonymy: Schedl 1962p: 202.

Notes: (3) Schedl 1954a: 146 (described male). References: (hb) Browne 1961c: 60; Kalshoven 1958b: 162. (ds) Browne 1961c: 60; Schedl 1959a: 473. (tx) Eggers 1936e: 81;

Schedl 1942d: 2, 1950g: 894, 1954a: 144–146, 1959a: 473, 1962p: 202.

controversae Murayama 1950: 62 (*Sphaerotrypes*). Lectotype ♀; Daidominamiyama, Kochi pref., Skikiu, Japan; USNM, Washington, designated by Wood 1992b: 85.

References: (tx) Murayama 1950: 62; Wood, S. L. 1992b: 85.

sphaerotrypoides Murayama 1951a: 2. Holotype ♀; Sue, Ohshima VIII, Nishimuro County, Wakayama Pref., Japan; Murayama Collection in USNM, Washington. Synonymy: Wood 1983a: 650.

References: (ds) Murayama 1951a: 2, 1952a: 19, 1953a: 8, 1953c: 150, 1955: 98. (tx) Murayama 1951a: 2, 1952a: 19, 1953a: 8, 1954b: 161, 1955: 98; Wood, S. L. 1983a: 650.

striatulus (Schedl) 1954a: 145 (*Hyorrhynchus*).

Holotype ♀; Java (?); Schedl Collection in NHMW, Wien.

Distribution: Indonesia (apparently Java).

Notes: (1) Schedl 1962p: 202 (to *Neohyorrhynchus*, = *Sucus*).

References: (tx) Schedl 1954a: 144–145, 1962p: 202.

Genus *Hyorrhynchus* Blandford

HYORRHYNCHUS BLANDFORD 1894d: 55. Type-species: *Hyorrhynchus lewisi* Blandford, monobasic.

References: (ay) Nobuchi 1969a: 47. (hb) Wood, S. L. 1986a: 44. (ds) Browne 1961c: 60; Wood, S. L. 1986a: 44. (tx) Blandford 1894d: 55; Browne 1961c: 60; Gardner 1934: 1–17; Hagedorn 1910a: 36, 1910d: 7; Murayama 1950: 61; Niisima 1905: 18, 1909: 131; Wood, S. L. 1986a: 44; Yin & Huang 1981: 557.

birmanus Eggers 1939b: 1. Syntypes, sex?; Nordost-Birma (Kambaiti, 7000 Fuss hoch); NHR, Stockholm.

Distribution: Asia (Burma).

References: (tx) Eggers 1927b, 1939b: 1–2.

blandfordi Sampson 1913: 446. Holotype ♂; Kali Pokri, Darjeeling; BMNH, London.

Figures: Yin & Huang 1981: 557.

Distribution: Asia (Bengal in India).

References: (ds) Yin & Huang 1981: 557. (tx) Huang & Yin 1983; Sampson 1913: 446–447; Yin & Huang 1981: 557.

ebianensis Huang & Yin 1983: 339. Holotype, sex?; China; IZAS, Beijing.

Distribution: Asia (China).

References: (tx) Huang & Yin 1983: 339.

elongatus Eggers 1939b: 2. Holotype ♀; Nordost-Birma (Kambaiti, 7000 Fuss hoch); NHR, Stockholm.

Distribution: Asia (Burma).

References: (tx) Eggers 1939b: 2.

- flavopannus** Huang & Yin 1983: 338. Holotype, sex?; China; IZAS, Beijing.
Distribution: Asia (China).
References: (tx) Huang & Yin 1983: 338.
- kalimpongensis** Maiti & Saha 1988: 41–50. Holotype ♂; Samsingh, Darjeeling Dist., West Bengal, India.
Distribution: Asia (Bengal in India).
References: (tx) Maiti & Saha 1988: 41–50.
- levisi** Blandford 1894d: 60. Syntypes, sex?; Sapporo [Japan]; BMNH, London.
Figures: Nakane et al. 1963:pl. 191.
Distribution: Asia (Japan/Taiwan), Indonesia (Java).
Hosts: *Acer pictum*, *Caesalpinia sappan*, *Cornus controversa*, *Fagus japonica*, *Ulmus campestris*.
References: (hb) Krivolutskaya 1965a: 228, 1973: 132. (ds) Blandford 1894c: 60; Hagedorn 1910d: 7; Kleine 1912b: 162, 1914b: 254, 1934a: 126; Krivolutskaya 1965a: 227, 1973: 132; Miwa 1931: 268; Murayama 1949c: 99, 1950c: 62, 1953c: 148; Nakane et al. 1963: 38; Nobuchi 1967: 18, 1985: 3. (tx) Blandford 1894d: 60; Eggers 1926b: 135; Hagedorn 1910a: 36; Hopkins 1914: 123; Murayama 1950c: 62, 1954b: 159, 1959c: 62; Nakane et al. 1963: 381, pl. 191; Niisima 1909: 131, 1910a: 2; Nobuchi 1966: 52; Sampson 1913: 447; Schedl 1934f: 1635, 1962p: 202.
- granulatus** Eggers 1936e: 80. Holotype ♀; Java: Buitenzorg; Kalshoven Collection. Synonymy: Schedl 1962p: 202.
References: (hb) Kalshoven 1958b: 162. (tx) Eggers 1936e: 80; Schedl 1962p: 202.
- drescheri** Eggers 1936e: 82. Holotype ♀; Java (Batoerraden); ZMA, Amsterdam. Synonymy: Schedl 1962p: 202.
References: (tx) Eggers 1936e: 80–82; Schedl 1962p: 202.
- obesus** Browne 1977b: 369. Holotype, sex?; Malaysia: Penang, Telok Bahang; BMNH, London.
Distribution: Asia (Malaya).
References: (hb) Beaver & Browne 1978: 588. (ds) Beaver & Browne 1978: 588. (tx) Browne 1977b: 369.
- sensarmai** Maiti & Saha 1988: 41–50. Holotype ♂; Debrepani, Darjeeling Dist., West Bengal, India; FRI, Dehra Dun.
Distribution: Asia (Bengal in India).
References: (tx) Maiti & Saha 1988: 41–50.
- shiva** Maiti & Saha 1988: 41–50. Holotype ♂; Samsingh, Darjeeling Dist., West Bengal, India; FRI, Dehra Dun.
Distribution: Asia (Assam, Bengal in India).
References: (tx) Maiti & Saha 1988: 41–50.
- tuberopectus** Huang & Yin 1983: 340. Holotype, sex?; China; IZAS, Beijing.
Distribution: Asia (China).
References: (tx) Huang & Yin 1983: 340.
- unicornis** Nobuchi 1966e: 51. Holotype, sex?; Gamushi, Hokkaido, Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1966e:pl. 2.
Distribution: Asia (Japan).
References: (ds) Nobuchi 1985: 3. (tx) Nobuchi 1966e: 51, pl. 2.

Genus *Pseudohyorrhynchus* Murayama

- PSEUDOHYORRHYNCHUS** MURAYAMA 1950c: 61. Type-species: *Pseudohyorrhynchus wadai* Murayama, original designation.
References: (hb) Wood, S. L. 1986a: 44. (ds) Wood, S. L. 1986a: 44. (tx) Murayama 1950c: 61, 1963: 65–66; Wood, S. L. 1986a: 44.
- wadai** Murayama 1950c: 61. Holotype, sex?; Daidominamiyama, Kochi Pref., Japan; Murayama Collection in USNM, Washington.
Figures: Nakane et al. 1963:pl. 191.
Distribution: Asia (Japan).
Hosts: *Cornus controversa*.
References: (ds) Murayama 1950c: 61, 1953c: 149; Nakane et al. 1963: 381; Nobuchi 1985: 3. (tx) Murayama 1950c: 61; Nakane et al. 1963: 381, pl. 191; Schedl 1954b: 198, 1962p: 202.

Tribe Diamerini Hagedorn

Diamerinae

References: Hagedorn 1909a: 734, 1909b: 162, 1910a: 24, 29, 1910d: 6.

Diamerini

References: Wood, S. L. 1975a: 11, 1986: 44.

Strombophorini

References: Schedl 1959n: 75.

Sphaerotrypini

References: Murayama 1963b: 5, 66–68; Nobuchi 1985c: 2.

Genus *Acacacis* Lea

ACACACIS LEA 1910: 149. Type-species: *Acacacis abundans* Lea, monobasic.

Trogloditica Sampson 1922b: 148. Type-species: *Trogloditica trahax* Sampson, monobasic. Synonymy: Wood 1978a: 116.

References: (tx) Sampson 1922b: 148; Schedl 1960g: 125; Wood, S. L. 1978a: 116.

Pseudoacacacis Schedl 1963j: 477. Type-species: *Acacacis borneensis* Browne, original designation. Synonymy: Wood 1978a: 116.

References: (tx) Browne 1965a: 189; Schedl 1963j: 477, 1964h: 423; Wood, S. L. 1978a: 116.

Neodiameris Schedl 1971a: 282. Type-species: *Neodiameris granulicollis* Schedl, original designation. Synonymy: Wood 1979b: 133.

References: (tx) Schedl 1971a: 282; Wood, S. L. 1979b: 133.

Notes: (3) An unpublished manuscript by Schedl 1978 treating Australian species cites *spectabilis* Schedl, nomen nudum.

References: (hb) Wood, S. L. 1986a: 45. (ds) Browne 1961c: 65; Schedl 1960g: 125; Wood, S. L. 1986a: 45. (tx) Browne 1960: 201–220, 1961c: 65, 1965a: 189; Lea 1910: 149; Lucas 1920: 67; Schedl 1960g: 125; Wood, S. L. 1978a: 116, 1979b: 133, 1986a: 45.

abundans Lea 1910: 149. Syntypes, sex?, Hobart, Mount Wellington, Bruni Island, etc., in Tasmania. Emerald in Victoria; SAM, Adelaide.

Figures: Schedl 1936g: 525 (antenna).

Distribution: Australia (New South Wales/Queensland/South Australia/Tasmania/Victoria), New Zealand.

Hosts: *Acacia* spp.

References: (ds) Brimblecombe 1953: 3; Nicholls 1923: 15–17; Schedl 1936g: 525, 1959d: 67, 1979a: 158. (tx) Hopkins 1914: 116; Lea 1910: 149; Lucas 1920: 67; Schedl 1936g: 525, 1955b: 278–279, 1958i: 214, 1959d: 67. (ms) Lucas 1920: 67.

bicornis Wood 1988a: 34. Holotype ♂; near Bulolo, Morobe District, New Guinea; Wood Collection. Distribution: New Guinea.

Hosts: Tree seedling.

References: (tx) Wood, S. L. 1988a: 34.

borneensis Browne 1962c: 203. Holotype ♀; Sarawak: Kuching, F.C.B.6317; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: *Vatica* sp.

References: (tx) Browne 1962c: 203, 1965a: 187; Schedl 1963j: 477, 1964h: 423; Wood, S. L. 1978a: 116.

carphoboroides (Nunberg) 1960a: 287 (*Trogloditica*). Holotype, sex?, Tanganyika Terr., Katesh, Contrefort Sud du Mt. Hanang, 1850 m; MRCB, Tervuren.

Figures: Nunberg 1960a: 290.

Distribution: Africa (Tanzania).

References: (tx) Nunberg 1960a: 287, 290; Schedl 1962k: 1064.

globosus (Eggers) 1935c: 298 (*Trogloditica*). Holotype ♀?; Congostaat: Elisabethville; MRCB, Tervuren.

Figures: Schedl 1960g: 125.

Distribution: Africa (Mozambique/Zaire).

References: (tx) Eggers 1935c: 298; Schedl 1960g: 125.

granulicollis (Schedl) 1971a: 282 (*Neodiameris*). Holotype ♂; Ceylon: Central Prov., Hantane Estate, Kandy; Schedl Collection in NHMW, Wien.

Figures: Schedl 1971a: 283.

Distribution: Asia (Sri Lanka).

Hosts: Liana.

References: (tx) Schedl 1971a: 282–283; Wood, S. L. 1979b: 133.

kivuensis (Nunberg) 1967b: 314 (*Trogloditica*). Holotype, sex?, Kivu, foret Biambwe, terr. Lubero, 950 m; MRCB, Tervuren.

Figures: Nunberg 1967b: 335.

Distribution: Africa (Zaire).

References: (tx) Nunberg 1967b: 314, 335.

malayanus Browne 1962c: 202. Holotype ♀; Malaya: Selangor, Kepong, F.C.B.5225; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Fissistigma elegans*.

References: (hb) Browne 1961c: 66. (ds) Browne 1961c: 66, 1962c: 202. (tx) Browne 1962c: 202.

minor Schedl 1936g: 525. Syntypes, sex?, Australia, New South Wales: Sidney and Wollongong; SAM, Adelaide, restricted by Schedl 1979c: 154 to SAM, Adelaide specimens.

Distribution: Australia (New South Wales).

References: (ds) Brimblecombe 1953: 3; Schedl 1936g: 525. (tx) Browne 1962c: 202; Schedl 1936g: 525, 1958i: 214, 1979c: 154.

squamosus (Eggers) 1933e: 20 (*Trogloditica*). Holotype ♀?; N. Rhodesia: Mwendwa (27 degrees 40' Ost, 13 degrees Sud); BMNH, London.

Distribution: Africa (Zaire/Zambia).

References: (ds) Beaver & Loeytyniemi 1985a:

65; Schedl 1960g: 126. (tx) Eggers 1933e: 20, 1934b: 27, 1935c: 298; Schedl 1960g: 125–126, 128.

syrutscheki (Wichmann) 1913a: 143 (*Dendrosinus*). Holotype ♀; Morogoro, Deutsch-Ost-Afrika; NHMW, Wien.

Distribution: Africa (Tanzania).

References: (tx) Eggers 1934: 27; Schedl 1960g: 126; Wichmann 1913a: 143.

trahax (Sampson) 1922b: 148 (*Trogloditica*). Holotype, sex?; Siam: Rajburi and Chiengarni Div.; BMNH, London.

Distribution: Asia (Thailand).

Hosts: *Sindora siamensis*.

Notes: (3) Wood, S. L. 1978a: 116 (to *Acacis*).

References: (cn) Mathur & Singh 1961a: 55. (hb) Beaver & Browne 1975: 296. (ds) Beaver & Browne 1975: 296; Beeson 1961: 301; Kleine 1934a: 131; Mathur & Singh 1961i: 55. (tx) Eggers 1933e: 20; Sampson 1922b: 148; Wood, S. L. 1978a: 116.

zeylanicus Wood 1988a: 34. Holotype ♂; Buttala, Sri Lanka, 50 m; USNM, Washington.

Distribution: Asia (Sri Lanka).

Hosts: Liana.

References: (tx) Wood, S. L. 1988a: 34.

Genus *Pseudodiamerus* Eggers

PSEUDODIAMERUS EGGERS 1933e: 18. Type-species: *Pseudodiamerus striatus* Eggers, monobasic.

References: (hb) Wood, S. L. 1986a: 45. (ds) Wood, S. L. 1986a: 45. (tx) Eggers 1933e: 18; Schedl 1950d: 2, 1959n: 387–389; Wood, S. L. 1986a: 45.

aspericollis Eggers 1936c: 33. Holotype, sex?; S. Rhodesia: Salisbury; BMNH, London.

Distribution: Africa (Zimbabwe).

References: (tx) Eggers 1936c: 33–34; Schedl 1959n: 387.

obscurus Eggers 1943e: 72. Syntypes, sex?; Mozambique (Chimoio); MNHN, Paris.

Figures: Schedl 1959n: 388 (adult).

Distribution: Africa (Mozambique/South Africa).
References: (tx) Eggers 1943e: 72; Schedl 1959n: 388.

obscura Schedl 1962b: 189 (*Phloeoditica*). Holotype, sex?; Basutoland; Schedl Collection at NHMW, Wien. Synonymy: Wood 1988b: 189. References: (tx) Schedl 1962b: 189; Wood, S. L. 1988b: 189.

obscura Schedl 1963h: 261 (*Phloeoditica*). Holotype, sex?; Basutoland; Schedl Collection at NHMW, Wien. Synonymy: Wood 1988b: 189. References: (tx) Schedl 1962b: 189, 1963h: 261; Wood, S. L. 1988b: 189.

striatus Eggers 1933e: 18. Holotype ♂; Angola; BMNH, London.

Figures: Schedl 1959n: 388 (antenna).

Distribution: Africa (Angola/Zaire).

References: (tx) Eggers 1933e: 18, 1936c: 33–34, 1943e: 72; Schedl 1950d: 2, 1959n: 388.

Genus *Bothrosternoides* Schedl

BOTHROSTERNOIDES SCHEDL 1969a: 210. Type-species: *Bothrosternoides malayensis* Schedl, monobasic.

References: (hb) Wood, S. L. 1986a: 45. (ds) Wood, S. L. 1986a: 45. (tx) Schedl 1969a: 210; Wood, S. L. 1986a: 45.

malayensis Schedl 1969a: 211. Holotype ♀; Singapore, Malaya; PPST, Tokyo.

Distribution: Asia (Singapore in Malaya).

Hosts: Nyatoh log.

References: (tx) Schedl 1969a: 210–211, 1979c: 146.

Genus *Diamerus* Erichson

DIAMERUS ERICHSON 1836: 57. Type-species: *Hylesinus hispidus* Klug, monobasic.

Acanthurus Eichhoff 1886: 24. Type-species: *Acanthurus spinipennis* Eichhoff = *Hylesinus curvifer* Walker, designated by Hopkins 1914: 116. Synonymy: Hagedorn 1909a: 736.

References: (tx) Eichhoff 1886: 24; Hagedorn 1909a: 736; Hopkins 1914: 116; Lucas 1920: 69.

Lissoclastus Schaufuss 1905: 71. Type-species: *Lissoclastus pimelioides* Schaufuss, monobasic. Synonymy: Eggers 1922b: 164.

References: (tx) Eggers 1922b: 164; Hagedorn 1910a: 54, 1910d: 30; Lucas 1920: 378; Schaufuss 1905: 71.

References: (ay) Nobuchi 1969a: 48. (bv) Schedl 1960f: 10. (hb) Browne 1961c: 57, 1968b: 232; Schedl 1960g: 142, 1977b: 21; Wood, S. L. 1986a: 45. (ds) Browne 1961c: 57; Schedl 1960g: 142, 1977b: 21; Wood, S. L. 1986a: 45. (tx) Beeson 1941 (1961: 72); Blanchard 1845; Blandford 1895a; Browne 1938: 23, 1948: 894, 1961e: 57; Chaptuis 1869: 50, 1873: 258; Eggers 1922b: 164–165, 1927b: 391–392, 1930a: 167, 1933e: 18; Erichson 1836: 57; Gardner 1934: 3, 6–7; Hagedorn 1909a: 736, 1909b: 137–138, 162, 1910a: 29–32, 54, 1910d: 61, 1913: 253; Hopkins 1914: 120, 1915c: 227; Sampson 1922: 148; Schedl 1936g: 524, 1941d: 383, 1959k: 39–42, 1960f: 10, 1960g: 142–154, 1977b: 21; Wood, S. L. 1986a: 45.

ater Hagedorn 1909a: 735. Holotype, sex?; Nilgiri Hills; Hamburg Museum, lost.

Distribution: Asia (Burma/ Yunnan in China/ Assam, Bengal, Bombay, Kerala, Tamil Nadu in India).

Hosts: *Ficus* spp.

References: (ds) Beeson 1961: 287; Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 268, 1934a: 125; Schedl 1969c: 47. (tx) Eggers 1925: 157; Hagedorn 1909a: 734–735, 1910a: 32; Schedl 1959k: 40.

- batoensis** Eggers 1927b: 392. Lectotype ♀; Batoe Inseln (Tanah Masa); USNM, Washington, designated by Anderson & Anderson 1971: 5. Distribution: Indonesia (Batoe Island). References: (ds) Schedl 1966b: 11. (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1927b: 392; Nobuchi 1983: 299; Schedl 1979c: 36.
- brevicollis** Eggers 1923a: 131. Holotype ♂?; Moroka, Sudost-New Guinea (1300 m); MCC, Genova. Distribution: New Guinea. References: (tx) Eggers 1923a: 131.
- caesius** Hagedorn 1909a: 735. Holotype, sex?; Sumatra; MNB, Berlin. Distribution: Indonesia (Sumatra). References: (ds) Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 285. (tx) Hagedorn 1909a: 735, 1910a: 32.
- cherenus** Eggers 1919: 230. Syntypes, sex?; Harrar in Abessinien; Hamburg Museum, lost. Distribution: Africa (Ethiopia). References: (tx) Eggers 1919: 230; Schedl 1937b: 397, 1960g: 143, 1979c: 56.
- cinerascens** Fairmaire 1897: 195. Holotype, sex?; Madagascar; not located. Distribution: Madagascar. References: (ds) Alluaud 1900: 438; Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 325. (tx) Fairmaire 1897: 195; Hagedorn 1910a: 32, 1913b.
- curvifer** (Walker) 1859: 261 (*Hylesinus*). Holotype, sex?; Ceylon; BMNH, London. Distribution: Asia (Burma/ Hainan Island, Yunnan in China/ Andaman Islands, Assam, Bengal, Himachal Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Sri Lanka/ Tonkin Island in Vietnam), Australia (Queensland), Indonesia (Anboina, Borneo, Java, Sumatra), New Guinea, Philippine Islands. Hosts: *Artocarpus integrifolia*, *Ficus* spp., *Macaranga andamanica*, *Symplocos* sp. References: (en) Roonwal 1954: 87. (ce) Thompson, W. R. 1943: 40. (hb) Beaver & Browne 1978: 586; Browne 1961c: 57; Kalshoven 1958b: 161. (ds) Beaver & Browne 1978: 586; Beeson 1961: 287; Brimblecombe 1953: 5; Browne 1960: 201, 1961c: 57, 1980d: 490, 1986c: 662; Hagedorn 1910d: 6; Kalshoven 1958: 161; Kleine 1912b: 160, 1914b: 272, 1934a: 125; Lacordaire 1866: 363; Motschulsky 1863: 515; Roonwal 1954: 87; Schedl 1959a: 472, 1962b: 186, 1965g: 23, 1966b: 11, 1969c: 47, 1971a: 275, 1974c: 262, 1975a: 454. (tx) Browne 1961c: 56; Eggers 1927b: 392, 1936a: 79; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 32; Kalshoven 1959b: 93, 1960d; Lacordaire 1866: 363; Nobuchi 1983: 299; Schedl 1942d: 1, 1954a: 138, 1959a: 472, 1959k: 40, 1965g: 23; Walker 1859: 261.
- spinipennis** Eichhoff 1886: 24 (*Acanthurus*). Syntypes, sex?; Sumatra (Soepajang; Sum. Exp.; Boenga mas); Hamburg Museum, lost. Synonymy: Eggers 1927b: 392 (synonymy?), Kalshoven 1959b: 93. Notes: (1) Kalshoven 1959b: 93 (Synonymy based on 2 specimens in RNH, Leiden examined by Eichhoff). References: (ds) Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 285. (tx) Browne 1955: 343; Eggers 1923a: 130–131, 1927b: 392; Eichhoff 1886: 24; Hagedorn 1909a: 736, 1910a: 32, 116; Kalshoven 1959b: 93.
- dissimilis** Hagedorn 1909a: 735. Holotype, sex?; Tharawaddy, Burma; H. E. Andrews Collection, not located. Synonymy: Schedl 1959k: 40. References: (ds) Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 278. (tx) Hagedorn 1909a: 734–735, 1910a: 32; Kalshoven 1959b: 93; Schedl 1959k: 40.
- eggersi** Schedl 1937b: 397. Holotype, sex?; Cheren [Eritrea]; Schedl Collection at NHMW, Wien. Distribution: Africa (Eritrea in Ethiopia/ Somalia). References: (tx) Schedl 1937b: 397, 1960g: 144, 1979c: 87.
- fici** Blandford 1898: 426. Holotype ♂?; E Himalayas, Tieta Valley; BMNH, London. Distribution: Asia (Burma/ Yunnan, Xizang [Tibet] in China/ Assam, Bengal in India/ Sri Lanka/ Tonkin Island in Vietnam). Hosts: *Ficus elastica*, *F.* spp. Notes: (3) Beeson 1941(1961: 287) (*naganus*, nomen nudum, synonymy in Schedl 1959k: 40; Beeson series examined by Wood in 1981). References: (en) Kleine 1932a: 295; Stebbing 1914: 472. (ce) Beeson 1922c: 495; Stebbing 1914: 472. (hb) Beeson 1922c: 495; Kleine 1932a: 295; Stebbing 1914: 472. (ds) Beeson 1922c: 495, 1961: 287; Hagedorn 1910d: 6; Kleine 1912b: 160, 1932a: 295; Schedl 1975a: 452. (tx) Blandford 1898a: 426; Hagedorn 1909a, 1910a: 32, 1912a: 337; Schedl 1959k: 40; Stebbing 1914: 472.
- granifer** Browne 1984d: 87. Holotype, sex?; New Guinea; Popondetta; BMNH, London. Distribution: New Guinea. Hosts: *Myristica* sp. References: (tx) Browne 1984d: 87.
- granulatus** Eggers 1923a: 131. Holotype ♀; Sumatra; USNM, Washington. Distribution: Indonesia (Sumatra). References: (ds) Schedl 1966b: 12. (tx) Anderson, W. H. & Anderson 1971: 14; Eggers 1923a: 131, 1927b: 406, 1936e: 79; Nobuchi 1983: 299.
- griseopubescens** Schedl 1951i: 52. Holotype ♀; Philippinen, Mt. Makiling, Prov. Laguna, Luzon; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Luzon). References: (ds) Schedl 1966b: 12. (tx) Nobuchi 1983: 299; Schedl 1951i: 52, 1979c: 111.

hispidus (Klug) 1832: 202 (*Hylesinus*). Syntypes, sex[?]; Madagascar; MNB, Berlin.

Distribution: Africa (Kenya/ Tanzania), Madagascar.

References: (ay) Imhoff 1856: 228. (hb) Schedl 1977b: 23. (ds) Allmand 1900: 438–442; Chapuis 1869: 50, 1873: 258; Fairmaire 1897: 165; Gerstaecker 1873: 250; Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 325; Lacordaire 1866: 367; Maire & Lesne 1917: 39; Schedl 1960g: 144. (tx) Castelneau 1840; Chapuis 1869: 50, 1873: 258; Erichson 1836: 57; Gemminger & Harold 1872: 2677; Hagedorn 1909a: 736, 1910a: 32, 1910d: 6, 1913b: 253; Hopkins 1914: 120; Klug 1832: 202–203; Lacordaire 1866: 367; Lucas 1920: 230; Schaufuss 1897b: 215; Schedl 1955d: 272, 1960g: 144, 1977b: 23. (ms) Lucas 1920: 230.

impar Chapuis 1869: 50. Syntypes, sex[?]; Guinea, Senegal; IRSNB, Brussels.

Figures: Mayne & Donis 1962: 305, Schedl 1960g: 143.

Distribution: Africa (Angola/ Cameroon/ "French Equatorial Africa"/ Ghana/ Guinea/ Ivory Coast/ Nigeria/ Senegal/ Togo/ Uganda/ Zaïre).

Hosts: *Antitaria* sp., *Bosqueia angolensis*, *B.* spp., *Celtis* sp., *Dalhousica* sp., *Ficus* spp., *Garcinia* sp., *Gossweilerodendron* sp.

References: (bv) Schedl 1960f: 53. (cn) Chesquiere 1933a: 30, 36; Thompson, G. H. 1960. (ec) Schedl 1961e: 144, 1972c: 57. (hb) Browne 1963a: 230; Schedl 1960g: 144; Thompson, G. H. 1963: 38. (ds) Browne 1963a: 230, 1975a: 758; Ferreira 1965: 111; Gardner 1957a: 31; Chesquiere 1933a: 30, 36, 1933b: 780; Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 307–309; Lepesme 1948: 145; Mayne & Donis 1960: 102, 1962: 304; Nunberg 1952: 17, 1961a: 328, 1965b: 17; Schedl 1959p: 16, 1960f: 39, 1960g: 144, 1962k: 1064, 1965e: 351, 1965f: 3, 1971e: 2, 1971g: 190, 1972e: 280, 1972k: 295; Thompson, G. H. 1960, 1963: 38. (tx) Chapuis 1869: 50, 1873: 258; Eggers 1920: 123–124, 1922b: 164, 1927b: 392, 1940e: 227–228; Gemminger & Harold 1872: 2678; Hagedorn 1909a: 734, 736, 1909b: 162, 1910a: 32; Lepesme 1948: 145; Mayne & Donis 1962: 305; Nunberg 1952: 17; Roberts 1969: 124; Schaufuss 1897a: 215–217, 1905: 3, 71; Schedl 1939g: 170, 1950d: 6, 15, 1953g: 241, 1954e: 49, 1955d: 268, 1959: 16, 1960g: 143–144, 1962j: 10, 64, 1965f: 3.

impar nanus Hagedorn 1909a: 734. Holotype, sex[?]; Togo; MNB, Berlin.

Notes: (1) Cited as a variety; its status has not been determined. (3) Schedl 1960g: 151 (cited in Kamerlin).

References: (ds) Nunberg 1961a: 328; Schedl 1960g: 151, 1962k: 1065. (tx) Hagedorn 1909a: 734, 1910a: 32, 1910d: 6; Schedl 1954e: 47, 1960g: 151, 1962k: 1065.

imperfectus Eggers 1940c: 227. Holotype, sex[?]; Franz. Congo: Ogowe; MRCB, Tervuren.

Distribution: Africa (Burkina Faso/ Ghana/ Nigeria/ Zambia).

Hosts: *Ficus exasperata*, *Triplochiton scleroxylon*.

References: (hb) Browne 1963a: 231. (ds) Beaver & Loeytyniemi 1985a: 65; Browne 1963a: 231; Schedl 1960i: 151, 1962k: 1065, 1964j: 40, 1965g: 19; Thompson, G. H. 1963: 39. (tx) Eggers 1940c: 227; Roberts 1969: 124; Schedl 1954e: 49, 1960g: 151, 1962k: 1065, 1979c: 122.

inermis Eggers 1940c: 228. Holotype, sex[?]; Congostaat: Haut Uele; MRCB, Tervuren.

Distribution: Africa (Kenya/ Tanzania/ Zaïre).

References: (ds) Nunberg 1952: 17, 1965b: 17. (tx) Eggers 1920: 124, 1940c: 228; Nunberg 1952: 17; Schedl 1960g: 152, 1979c: 124.

interstitialis (Lea) 1910: 145 (*Hylesinus*). Syntypes, sex[?]; Queensland: Cairns; SAM, Adelaide.

Distribution: Asia (Andaman Islands), Australia (New South Wales/ Queensland), Indonesia (Sarawak in Borneo, Temate), New Guinea, Philippine Islands.

Hosts: *Artocarpus anisophylla*.

References: (ds) Brimblecombe 1953: 5; Browne 1966: 242, 1985a: 190; Ohno, Yoneyama, & Nakazawa 1987: 93; Ohno et al. 1988a: 91, 1989: 60; Schedl 1936g: 524, 1965g: 25, 1966b: 12, 1972a: 143. (tx) Browne 1966: 242; Eggers 1940h: 62; Lea 1910: 145; Nobuchi 1983: 299; Schedl 1936g: 524, 1940c: 206, 1955b: 279, 1955i: 214, 1965g: 25.

subsulcatus Eggers 1923a: 130. Lectotype ♀; Australia (Somerset); USNM, Washington, designated by Anderson & Anderson 1971: 33. Synonymy: Eggers 1940h: 62.

References: (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1923a: 130, 1927b: 406, 1940h: 62; Schedl 1979c: 244.

lignivorus Browne 1955: 343. Holotype ♂; Malay Peninsula: Kelantan, Temangan; BMNH, London.

Distribution: Asia (Malaya).

References: (hb) Browne 1961c: 158. (tx) Browne 1955: 343, 1961c: 58.

luteus Hagedorn 1909a: 735. Holotype, sex[?]; Sumatra; MNB, Berlin.

Distribution: Asia (Malaya), Indonesia (Java, Sumatra).

Hosts: *Artocarpus kunstleri*, *Garcinia* sp.

References: (hb) Beaver & Browne 1978: 587; Browne 1938a, 1961c: 59; Kalshoven 1958b: 161. (ds) Beaver & Browne 1978: 587; Beeson 1961: 287; Browne 1938a, 1961c: 59, 1983a: 554; Hagedorn 1910d: 6; Kalshoven 1958: 162; Kleine 1912b: 160. (tx) Eggers 1927b: 406, 1936e: 77; Hagedorn 1909a: 734–735, 1910a: 32; Schedl 1939e: 328, 1979c: 143.

mangiferae Browne 1955: 344. Holotype ♀; Malay Peninsula: Malacca; BMNH, London.

Distribution: Asia (Malaysia).

- Hosts: *Mangifera indica*.
References: (hb) Browne 1961c: 59. (ds) Browne 1961c: 59. (tx) Browne 1955: 344.
- matangi Sampson** 1919: 108. Holotype ♂?; Sarawak: Mt. Matang; BMNH, London.
Distribution: Asia (Xizang [Tibet] in China), Indonesia (Sarawak in Borneo).
References: (ds) Sampson 1919: 108; Schedl 1975a: 454. (tx) Eggers 1927b: 406; Sampson 1919: 107–108; Schedl 1979c: 149.
- merinjaki Sampson** 1919: 107. Holotype ♂?; Sarawak: Mt. Merinjak; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo), Philippine Islands (Luzon/ Mindanao).
Notes: (3) Schedl 1938g: 424 (described female).
References: (ds) Sampson 1919: 107; Schedl 1938g: 424, 1966b: 13. (tx) Eggers 1923a: 132; Nobuchi 1983: 299; Sampson 1919: 107–108; Schedl 1938g: 424, 1951i: 50, 1979c: 151.
- minor Eggers** 1936e: 79. Holotype ♀; Java: Semarang, Teak-forest; Kalshoven Collection, not located.
Distribution: Indonesia (Java).
Hosts: *Ficus cf glabella*, *Tectona grandis*.
References: (hb) Kalshoven 1958b: 162. (tx) Eggers 1936e: 79–80; Schedl 1979c: 154.
- nigrisetosus Eggers** 1936e: 79. Holotype ♂; Java (Nr. 528b); Kalshoven Collection, not located.
Distribution: Asia (Bengal in India), Indonesia (Java).
Hosts: *Macaranga denticulata*, *Mangifera indica*, *Terminalia tomentosa*.
References: (hb) Kalshoven 1958b: 162. (tx) Eggers 1936e: 79; Schedl 1942a: 169, 1959k: 40, 1979c: 167.
- obtusus Eggers** 1936e: 78. Holotype, sex?; Java (G. Tangkoeban Praho, 4000–5000 Fuss hoch, Preanger); ZMA, Amsterdam.
Distribution: Indonesia (Java).
References: (tx) Eggers 1936e: 78; Schedl 1979c: 176.
- opacus Eggers** 1923a: 132. Lectotype ♀; Si Rambe, Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 23.
Distribution: Asia (Maharashtra in India), Indonesia (Sumatra).
References: (tx) Anderson, W. H. & Anderson 1971: 23; Browne 1955: 341; Eggers 1923a: 132.
- parvus Eggers** 1943e: 71. Holotype, sex?; Mozambique (Vallee du Pungoue Guenguere); MNHN, Paris, on loan to Schedl in NHMW, Wien.
Distribution: Africa (Mozambique).
Notes: (1) Eggers died before the holotype could be returned to MNHN, Paris; the holotype was then taken on loan by Schedl and has not been returned.
References: (tx) Eggers 1943e: 71; Schedl 1960g: 152, 1979c: 186.
- pimelioides (Schaufuss)** 1905: 71 (*Lissoclastus*). Syntypes, sex?; Kamerun; Hamburg Museum, lost.
Distribution: Africa (Cameroon/Tanzania/Zaire).
Hosts: *Bosqueria angolensis*.
Notes: (1) Eggers 1922b: 164 (to *Diamerus*).
References: (ds) Hagedorn 1910d: 30; Kleine 1912b: 157, 1914b: 310; Roberts 1969: 125; Schedl 1960g: 152, 1965f: 3. (tx) Eggers 1920: 123, 1922b: 164; Hagedorn 1909b: 162, 1910a: 54; Hopkins 1914: 124; Lucas 1920: 375; Schaufuss 1905: 1, 71; Schedl 1960g: 152, 1965g: 19; Strohmeier 1910c: 70. (ms) Lucas 1920: 378.
- tuberculatus** Hagedorn 1909a: 734. Holotype, sex?; Kamerun; MNB, Berlin. Synonymy: Hagedorn 1909b: 162.
References: (ds) Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 309. (tx) Eggers 1920: 123, 1922b: 164–165; Hagedorn 1909a: 734, 1909b: 162, 1910a: 32.
- propinquus Nunberg** 1969a: 399. Holotype, sex?; Ivory Coast; MRCB, Tervuren.
Distribution: Africa (Ivory Coast).
References: (tx) Nunberg 1969a: 399.
- pulverulentus Gerstaecker** 1873: 249. Syntypes 2 ♀; Auf den Bura-Bergen, am See Jipe und bei Endara; MNB, Berlin, USNM, Washington.
Distribution: Africa (Cameroon/ French Guinea/ Ghana/ Kenya/ Mozambique/ Somalia/ Tanzania/ Zaire/ Zanzibar).
Hosts: *Ficus* spp.
References: (en) Anonymous 1970c: 13. (hb) Loyttyniemi, Beaver, & Loyttyniemi 1984. (ds) Anonymous 1970c: 13; Beaver & Loyttyniemi 1985a: 66; Gardner 1957a: 31; Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 323; Kolbe 1897: 283; Schedl 1960g: 19, 153, 1965e: 351, 1970h: 180, 1971e: 2, 1971g: 190, 1975k: 276, 1982: 278. (tx) Eggers 1920: 123–124, 1923a: 131, 1927a: 197, 1943e: 71; Gemminger & Harold 1872: 2678; Gerstaecker 1873: 249; Hagedorn 1910a: 32; Schedl 1937b: 397, 1950d: 17, 1954e: 47, 1955c: 30, 1955d: 268, 271, 1960g: 153, 1965g: 19, 1979c: 204.
- puncticollis Eggers** 1927c: 68. Lectotype ♀; Philippinen: Luzon, Provinz Rizal, Montalban; USNM, Washington, designated by Anderson & Anderson 1971: 27.
Distribution: Philippine Islands (Luzon).
References: (ds) Schedl 1966b: 13. (tx) Anderson, W. H. & Anderson 1971: 27; Browne 1955: 343; Eggers 1927c: 68; Nobuchi 1983: 299; Schedl 1951i: 52, 1979c: 205.
- ritsemae (Eichhoff)** 1886: 25 (*Acanthurus*). Holotype ♂; Sumatra (Serdang); RNH, Leiden.
Distribution: Indonesia (Java, Sumatra).
References: (en) Kalshoven 1932: 243. (hb) Browne 1961c: 58. (ds) Browne 1961c: 58; Eichhoff 1886: 25; Hagedorn 1910d: 6; Hagen 1890; Kalshoven 1932: 243; Kleine 1912b: 160, 1914b: 285. (tx) Browne 1961: 58; Eichhoff 1886: 25;

- Hagedorn 1909a, 1910a: 32; Kalshoven 1959b: 93. 1960d.
nigrescens Eggers 1936e: 77. Holotype, sex?; Java (C. Slamet, Batoerraden); ZMA, Amsterdam.
 Synonymy: Kalshoven 1959b: 93.
 References: (tx) Browne 1961: 58; Eggers 1936e: 72–79; Kalshoven 1959b: 93; Schedl 1979c: 167.
- striatus* Eggers 1927c: 67. Lectotype ♀; Philippines: Mindoro, San Teodoro; USNM, Washington, designated by Anderson & Anderson 1971: 31.
 Distribution: Asia (Yunnan in China/ Bengal in India/ Malaya), Philippine Islands (Mindoro).
 References: (hb) Browne 1961c: 59. (ds) Browne 1955: 345, 1961c: 59; Schedl 1966b: 13. (tx) Anderson, W. H. & Anderson 1971: 31; Browne 1955: 343, 345; Eggers 1927c: 67, 1936e: 78; Nobuchi 1983: 299; Schedl 1951i: 50, 1979c: 238.
- variegatus* Schedl 1959k: 41. Holotype ♀; Dehra Dun, Thano R.; supposedly deposited in FRI, Dehra Dun.
 Distribution: Asia (Burma/ Madhya Pradesh, Tamil Nadu, Uttar Pradesh in India).
 Hosts: *Ficus bengalensis*, *F. religiosa*, *F. rumplii*, *F. spp.*
 Notes: (3) Beeson 1941(1961: 287) (*variegatus*, nomen nudum). All specimens sent by FRI, Dehra Dun, to Schedl are accounted for; none were ever returned to FRI by him; one of the Schedl paratypes at NHMW, Wien, may be the missing holotype.
 References: (ds) Beeson 1961: 287. (tx) Schedl 1959k: 41, 1979c: 264.
- Genus *Sphaerotrypes* Blandford
- SPHAEROTRYPES BLANDFORD 1894d: 61. Type-species: *Sphaerotrypes pila* Blandford, subsequent designation by Hopkins 1914: 129.
 References: (ay) Nobuchi 1969a: 47. (hb) Browne 1961c: 60; Schedl 1961k: 335; Wood, S. L. 1986a: 45. (ds) Browne 1961c: 60; Schedl 1961k: 335; Wood, S. L. 1986a: 45. (tx) Beeson 1921: 514–518, 1941: 385–387; Blandford 1894d: 61, 1897a: 151; Browne 1938: 23, 1961: 60; Choo 1983: 42; Choo, Woo, & Nobuchi 1988b; Gardner 1934: 3, 5–6; Carthwaite 1940: 94–106; Hagedorn 1909a: 739–740, 1910a: 35, 50–51, 1910d: 18, 61; Hopkins 1914: 129, 1915c: 227; Kalshoven 1958: 163; Lucas 1920: 602; Murayama 1951: 2, 1963: 68–71; Schedl 1957d, 1959k: 39–42, 1959n: 335–340, 1961k: 335; Stebbing 1907: 28; Strohmeyer 1911: 18; Wood, S. L. 1986a: 45; Yin & Huang 1981: 558.
- bangensis* Eggers 1927c: 73. Lectotype, sex?; Philippines: Mindanao, Prov. Zamboanga, Port Banga; USNM, Washington, designated by Anderson & Anderson 1971: 5.
 Distribution: Asia (Vietnam), Philippine Islands (Mindanao).
 References: (ds) Schedl 1966b: 14. (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1927c: 73; Nobuchi 1983: 299; Schedl 1953b: 123.
- barbatus* Hagedorn 1909a: 739. Syntypes, sex?; Nordost-Sumatra; Kamerun; MNB, Berlin.
 Distribution: Indonesia (Sumatra).
 References: (ay) Heymons 1920b: 98. (ds) Eggers 1920; Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 285; Numberg 1964a: 234. (tx) Eggers 1920: 122; Hagedorn 1909a: 739, 1910a: 51; Numberg 1964a: 234; Strohmeyer 1911: 20.
- bengalensis* Wood 1988a: 35. Holotype ♂; Samsingh, Kalimpong, Bengal, India; FRI, Dehra Dun.
 Distribution: Asia (Bengal in India).
 Hosts: *Sahaje jahara*.
 References: (tx) Wood, S. L. 1988a: 35.
- bicolor* Eggers 1927c: 70. Holotype ♀; Borneo, Sandakan; USNM, Washington.
 Distribution: Indonesia (Borneo).
 References: (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1927c: 70.
- biseriatus* Schedl 1964g: 243. Holotype, sex?; Sarawak, Serapah; BMNH, London.
 Distribution: Indonesia (Sarawak in Borneo).
 Hosts: *Vatica* sp.
 References: (ds) Browne 1980c: 482, 1984c: 448; Ohno, Yoneyama, & Nakazawa 1982b: 7. (tx) Nobuchi 1983: 299; Schedl 1964g: 243.
- blandfordi* Schaufuss 1897b: 102. Holotype, sex?; Birma; Hamburg Museum, lost.
 Distribution: Asia (Burma).
 References: (ds) Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 278. (tx) Eggers 1925: 152, 1927c: 72; Hagedorn 1910a: 51; Schaufuss 1897b: 102; Strohmeyer 1911: 20.
- boettcheri* Eggers 1927c: 72. Holotype ♀; Philippines: Mindoro, Suban; USNM, Washington.
 Distribution: Philippine Islands (Mindoro).
 References: (ds) Schedl 1966b: 14. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1927c: 72; Nobuchi 1983: 299.
- brevisetosus* Browne 1979: 599. Holotype, sex?; Malaysia; BMNH, London.
 Figures: Beaver & Browne 1978: 576.
 Distribution: Asia (Malaysia).
 References: (hb) Beaver & Browne 1978: 599. (tx) Beaver & Browne 1978: 576; Browne 1979: 599.
- brunneus* Heymons 1920b: 98. Holotype, sex?; Bisheriges Deutsch-Sudwestafrika; Hamburg Museum, lost.
 Distribution: Africa (Kenya).
 References: (ds) Schedl 1961k: 336. (tx) Eggers 1932: 27; Heymons 1920b: 98; Schedl 1961k: 336.
- bryanti* Browne 1961a: 300. Holotype ♂; Sarawak: Mt. Merinjak, 2200 ft.; BMNH, London.

- Distribution: Indonesia (Sarawak in Borneo).
References: **(ds)** Browne 1955a: 190. **(tx)** Browne 1961a: 300.
- carinatus** Eggers 1927c: 71. Holotype ♀; Borneo, Sandakan; USNM, Washington.
Distribution: Indonesia (Sarawak in Borneo).
References: **(hb)** Browne 1961c: 60–61. **(ds)** Browne 1961c: 60–61, 1986c: 662. **(tx)** Anderson, W. H. & Anderson 1971: 9; Eggers 1927c: 71.
- carpini** Eggers 1926b: 134. Lectotype, sex?; Sapporo, Japan; USNM, Washington, designated by Anderson & Anderson 1971: 9.
Distribution: Asia (Japan).
Notes: (3) Murayama 1966: 68 (treated as a synonym of *pila*).
References: **(ds)** Nobuchi 1985: 2. **(tx)** Anderson, W. H. & Anderson 1971: 9; Eggers 1926b: 134; Krivolutskaya 1970: 211; Michalski 1969b: 566; Murayama 1966: 68; Schedl 1934f: 1635, 1954b: 198.
- coimbatorensis** Stebbing 1906: 395. Syntypes 2 ♂; India; FRI, Dehra Dun.
Distribution: Asia (Burma/ Karnataka, Maharashtra, Tamil Nadu in India/ Sri Lanka).
Hosts: *Anogeissus acuminata*, *A. latifolia*.
Notes: (3) Schedl 1959k: 40 (Schedl confused at least three species under this name).
References: **(en)** Mathur & Singh 1961b: 41; Roonwal 1954: 73; Stebbing 1914: 490. **(ec)** Stebbing 1914: 490. **(hb)** Stebbing 1914: 490. **(ds)** Beeson 1921a: 514–518, 1961: 297; Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 268, 1934a: 131; Mathur & Singh 1961b: 41; Roonwal 1954: 73. **(tx)** Beeson 1921a: 514–518; Eggers 1927c: 74; Hagedorn 1910a: 51; Murayama 1911: 19; Schedl 1959k: 40–41; Stebbing 1906: 395, 1907: 24, 1908b: 4, 1914: 490; Strohmeier 1911b: 19.
- congonus** Eggers 1932c: 27. Holotype, sex?; Congostaat; Bukama; MRCB, Tervuren.
Distribution: Africa (Angola/ Zaire).
References: **(ds)** Ferreira 1965: 1111; Schedl 1961k: 336. **(tx)** Eggers 1932c: 27; Schedl 1961k: 336.
- costatus** Wood 1988a: 35. Holotype ♂; North Andaman Island; FRI, Dehra Dun.
Distribution: Asia (North Andaman Island in India).
Hosts: *Dipterocarpus turbinatus*.
References: **(tx)** Wood, S. L. 1988a: 35.
- cristatus** Wood 1988a: 36. Holotype ♂; Gilmale, Ratnapura District, Sri Lanka; USNM, Washington.
Distribution: Asia (Sri Lanka).
Hosts: *Doonia cordifolia*, *Vateria copalifera*.
References: **(tx)** Wood, S. L. 1988a: 36.
- expressus** Schedl 1937b: 398. Syntypes ♀; Ussambara, Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
- References: **(ds)** Schedl 1975k: 276. **(tx)** Schedl 1937b: 398, 1961k: 337, 1979c: 94.
- globulus** Blandford 1894d: 63. Syntypes, sex?; India, Belgaum; BMNH, London.
Distribution: Asia (Bangladesh/ Burma/ Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Sri Lanka).
Hosts: *Anogeissus latifolia*, *Lagerstroemia lanceolata*, *L. parviflora*, *Shorea robusta*, *Terminalia arjuna*, *T. tomentosa*.
References: **(cn)** Kleine 1932a: 296; Mathur & Singh 1960c: 6, 1961a: 45, 1961b: 41; Pierce, W. D. 1917: 193; Roonwal 1954: 73; Stebbing 1914: 487. **(ec)** Stebbing 1914: 487. **(hb)** Beaver & Browne 1975: 295; Kleine 1932a: 296; Stebbing 1914: 487. **(ds)** Beaver & Browne 1975: 295; Beeson 1921a: 514–518; Browne 1980b: 380; Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 268, 1932a: 296, 1934a: 131; Mathur & Singh 1961b: 41, 1961a: 45, 1960c: 6; Pierce, W. D. 1917: 193; Roonwal 1954: 73; Schedl 1962b: 186. **(tx)** Beeson 1915: 296, 1921a: 514–518, 1922: 495; Blackman 1936: 536; Blandford 1894d: 63; Eggers 1927c: 74; Hagedorn 1910a: 51; Schedl 1959k: 42; Stebbing 1914: 487; Strohmeier 1911b: 19.
- grandis** Schedl 1957d: 31. Holotype, sex?; Gold Coast; Schedl Collection in N11MW, Wien.
Figures: Schedl 1961k: 337–338.
Distribution: Africa (Chana/ Uganda/ Zaire).
References: **(ds)** Gardner 1957a: 32; Schedl 1961k: 337. **(tx)** Schedl 1955i: 211, 214, 1957d: 31, 1961k: 337–338.
- hagedorni** Eggers 1920: 122. Holotype, sex?; Kamerun; MNB, Berlin.
Distribution: Africa (Cameroon/ Nigeria).
References: **(cn)** Kudler 1978; Anderson, W. H. & Anderson 1971: 16. **(ds)** Roberts 1966a; Schedl 1961k: 338, 1962k: 1065. **(tx)** Eggers 1920: 122, 1932c: 27–28; Nunberg 1964: 234; Roberts 1969: 128; Schedl 1961k: 338, 1962k: 1065.
- helferi** Eggers 1925: 152, 154. Holotype, sex?; Tenneserim, Birma; Prague Museum.
Distribution: Asia (Burma).
References: **(tx)** Eggers 1925: 152, 154.
- inermis** Browne 1981a: 127. Holotype, sex?; intercepted; Sablayan, Philippines to Takamatsu, Japan; BMNH, London.
Distribution: Philippine Islands.
Hosts: *Shorea* sp.
References: **(tx)** Browne 1981a: 127; Nobuchi 1893: 299.
- insularis** Eggers 1927c: 74. Holotype ♀; Philippines: Mindanao, Prov. Lanao, Kolambagan; USNM, Washington.
Distribution: Philippine Islands (Mindanao).
References: **(ds)** Schedl 1966b: 14. **(tx)** Anderson, W. H. & Anderson 1971: 16; Eggers 1927c: 74; Nobuchi 1983: 299.

- juglansi Tsai & Yin** 1966: 239. Holotype ♂; Shensi, Shihchuan, China; IZAS, Beijing.
Distribution: Asia (Anhui, Shanxi, Sichuan in China).
Hosts: *Juglans regia*, *Pterocarpa stenoptera*.
References: (ds) Krivolutskaya 1983. (tx) Krivolutskaya 1970: 207; Tsai & Yin 1966: 239.
- juglansis Krivolutskaya & Kupyanskaya** 1973: 210. Holotype, sex?; Primorye region, Russian SFSR; not located, presumably at Vladivostok.
Figures: Krivolutskaya 1970: 208–209.
Distribution: Asia (E USSR).
Hosts: *Juglans* sp.
References: (tx) Krivolutskaya 1970: 208–209; Krivolutskaya & Kupyanskaya 1973: 210.
- limbatus Eggers** 1943d: 244. Holotype, sex?; Indien; Strohmeier Collection.
Distribution: Asia (India).
References: (tx) Eggers 1943d: 244.
- magnus Tsai & Yin** 1966: 234. Holotype ♂; Szechwan: Miyalo, 2600 m; IZAS, Beijing.
Distribution: Asia (Sichuan, Yunnan in China).
Hosts: *Tsuga chinensis*.
References: (tx) Tsai & Yin 1966: 234.
- minutus Browne** 1961a: 302. Holotype ♀?; Malaya: Penang; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Shorea leprosula*, *Vatica* sp.
References: (hb) Browne 1961c: 61. (ds) Beaver & Browne 1978: 600; Browne 1961a: 302, 1961c: 61. (tx) Browne 1961a: 302.
- moseri Eggers** 1927c: 73. Lectotype, sex?; Philippines: Mindanao, Prov. Zamboanga, Port Banga; USNM, Washington, designated by Anderson & Anderson 1971: 21.
Distribution: Philippine Islands (Mindanao).
References: (ds) Schedl 1966b: 14, 1969a: 204. (tx) Anderson, W. H. & Anderson 1971: 21; Eggers 1927c: 73; Nobuchi 1983: 299; Schedl 1951i: 50.
- palawanus Eggers** 1927c: 74. Syntypes 2, sex?; Philippines: Palawan, Binaluan; I in Linmaniemi Collection, Turki, Finland, Eggers syntype in Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Palawan).
References: (ds) Schedl 1966b: 14. (tx) Eggers 1927c: 74; Nobuchi 1983: 299.
- pentacme Wood** 1988a: 36. Holotype ♂; Mohynin Res., Myitkyina, Burma; FRI, Dehra Dun.
Distribution: Asia (Burma).
Hosts: *Pentacme suavis*.
References: (tx) Wood, S. L. 1988a: 36.
- philippinensis Strohmeier** 1911b: 18. Holotype, sex?; Philippine Is.: Mindanao, Zamboanga; Philippine Bureau of Science, Manila.
Distribution: Philippine Islands (Mindanao).
Hosts: *Hopsea* sp.
References: (cn) Kleine 1932a: 296. (hb) Kleine 1932a: 296. (ds) Kleine 1912b: 174, 1914b: 290, 1932a: 296; Schedl 1966b: 15. (tx) Nobuchi 1983: 299; Strohmeier 1911b: 18–20.
- pila Blandford** 1894d: 62. Syntypes, sex?; Hitoyoshi, Japan; BMNH, London.
Figures: Nakane et al. 1963:pl. 191.
Distribution: Asia (China/ Korea/ Japan/ Taiwan).
Hosts: *Distylium racemosum*, *Quercus acutissima*, *Q. myrsinaefolia*, *Thea japonica*.
Notes: (3) Murayama 1966: 68 (*carpini* Eggers a synonym of *pila*).
References: (cn) Anonymous 1980g; Shiraki 1952. (ds) Anonymous 1980g; Blandford 1894c; Choo 1957, 1983: 42; Choo & Woo 1985: 163; Choo, Woo, & Nobuchi 1988a: 133; Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 255, 1934a: 131; Ko 1969: 283; Murayama 1929b: 2, 1930b: 9, 1937b: 375, 1953b: 150, 1955: 100; Nakane et al. 1963: 381; Nobuchi 1967: 18; Shiraki 1952. (tx) Blandford 1894d: 62; Choo 1983: 42; Eggers 1926b: 134, 1927c: 74; Hagedorn 1910a: 151; Hopkins 1914: 129; Murayama 1930a: 9, 13, 30, 1937b: 375, 1954b: 161, 1955: 100, 105, 1963b: 68; Nakane et al. 1963: 381, pl. 191; Niisima 1910a: 7; Schedl 1934f: 1635, 1955d: 273; Strohmeier 1911b: 19, 1914: 32.
- imitans Eggers** 1926b: 134. Lectotype, sex?; Japan, Takaoberg bei Hachioji; USNM, Washington, designated by Anderson & Anderson 1971: 15. Synonymy: Murayama 1965b: 9.
References: (ds) Nobuchi 1985: 2. (tx) Anderson, W. H. & Anderson 1971: 15; Eggers 1926b: 134; Murayama 1965b: 9; Schedl 1934f: 1635; Yin & Huang 1981: 558.
- pygeumi Schedl** 1955i: 214. Syntypes, sex?; Kenya: Londiani; BMNH, London.
Distribution: Africa (Kenya/ South Africa/ Tanzania).
Hosts: *Pygum africanum*.
References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Browne 1970: 539; Gardner 1957a: 32; Schedl 1961k: 339. (tx) Schedl 1955i: 211, 214, 1961k: 339.
- pyri Tsai & Yin** 1966: 240. Holotype ♂; Yunnan: Menghai [China]; IZAS, Beijing.
Distribution: Asia (Shanxi, Sichuan, Yunnan in China).
Hosts: *Pyrus betulacifolia*.
References: (tx) Tsai & Yin 1966: 240.
- quadrituberculatus Sampson** 1922b: 150. Holotype, sex?; Assam, Chittagong; BMNH, London.
Distribution: Asia (Bangladesh/ Assam in India), Philippine Islands (Luzon).
Hosts: *Drimyocarpus resemosus*, *Parashorea plicata*, *Pentacme contorta*, *P. suavis*.
References: (hb) Beaver & Browne 1975: 296. (ds) Beaver & Browne 1975: 296; Beeson 1961: 297; Browne 1970: 539; Kleine 1934a: 131; Schedl 1938g: 424. (tx) Eggers 1927c: 70–71; Sampson 1922b: 150; Schedl 1938g: 424, 1959k: 42.

querci Stebbing 1908b: 5. Syntypes, sex?; India: N-W Himalaya, Kumaon; FRI, Dehra Dun, lost. Distribution: Asia (Anhui, Habei, Shanxi, Sichuan, Yunnan in China/ Maharashtra, Punjab, Uttar Pradesh in India).

Hosts: *Quercus dilatata*, *Q. incana*, *Q. semicarpifolia*.

References: (cn) Stebbing 1914: 493. (cc) Stebbing 1914: 493. (hb) Stebbing 1914: 493. (ds) Beeson 1921a: 514–518, 1961: 297; Kleine 1914b: 268. (tx) Beeson 1921a: 514–518; Hagedorn 1910a: 51; Stebbing 1908b: 5, 1914: 493.

globulus Stebbing 1909b: 21 (*Chramesus*). Holotype, sex?; Kathian, Chakrata, U.P., India on holotype, published as Jaunsar, North-West Himalaya, India; FRI, Dehra Dun, preoccupied by Blandford 1894. Synonymy: Wood 1992b: 84.

Notes: (1) Beeson 1921a: 514 (to *Sphaerotrypes*).

References: (cn) Pierce 1917: 193; Stebbing 1914: 498. (cc) Beeson 1922c: 499; Stebbing 1914: 498. (hb) Beeson 1915b, 1922c: 499; Stebbing 1914: 498. (ds) Beeson 1915b, 1922c, 1961: 297; Heyden, Reitter, & Weise 1906: 98; Pierce 1917: 193. (tx) Eggers 1927c; Hagedorn 1909a; Stebbing 1909b: 21, 1914: 498; Wood, S. L. 1992b: 84.

tectus Beeson 1921a: 514. Holotype, sex?; Kathian, Chakrata, U.P., India; FRI, Dehra Dun, automatic. Synonymy: Wood 1992b: 84–85.

References: (cn) Kleine 1932a: 296. (cc) Beeson 1922c: 499. (hb) Beeson 1922c: 499; Kleine 1932a: 296. (ds) Beeson 1921a: 514–518, 1922c: 499, 1961: 298; Kleine 1932a: 296, 1934a: 131. (tx) Beeson 1921a: 514–518; Browne 1970: 545; Schedl 1964g: 243; Wood, S. L. 1992b: 84–85.

ranasinghei Wood 1988a: 37. Holotype ♂; Kanneliya, Sri Lanka; USNM, Washington.

Distribution: Asia (Sri Lanka).

References: (tx) Wood, S. L. 1988a: 37.

rufopalliatu Schedl 1939e: 338. Syntypes, sex?; Malaya, Selangor: Sungei Buloh For. Res.; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Shorea parvifolia*.

References: (cn) Mathur & Singh 1961a: 41. (hb) Browne 1938a, 1961c: 61. (ds) Beeson 1961: 297; Browne 1938a, 1961c: 61; Mathur & Singh 1961a: 41. (tx) Schedl 1939e: 338.

swalikensis Stebbing 1906: 389. Syntypes, sex?; India: United Provinces E into Nepal; FRI, Dehra Dun, lost.

Figures: Stebbing 1914: 476 (adult).

Distribution: Asia (Bangladesh/ Burma/ Assam, Bengal, Madhya Pradesh, Uttar Pradesh in India/ Nepal).

Hosts: *Shorea robusta*, *S. assamica*.

References: (cn) Browne 1968: 655; Kleine 1932a: 296; Mathur & Singh 1961a: 37; Pierce, W. D. 1917: 193; Stebbing 1914: 476. (cc) Beeson 1922c: 498, 1923; Pierce, W. D. 1917: 193; Stebbing 1914: 476. (hb) Beeson 1915b: 296, 1922c: 498, 1923, 1934: 539–543; Browne 1968: 655; Coks 1889; Gardner 1930: 15–18, 1934: 1–17; Kleine 1932a: 296; Stebbing 1908a: 109, 1914: 476. (ds) Beaver & Browne 1975: 296; Beeson 1915b: 296, 1919b: 10–15, 1921a: 514–518, 1922c: 498, 1923, 1934: 539–543, 1961: 297; Browne 1968: 655, 1980a: 370; Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 268, 1932a: 296, 1934a: 131; Mathur & Singh 1961a: 37; Pierce, W. D. 1917: 193; Schedl 1975a. (tx) Beeson 1921a: 514–518; Eggers 1925: 159; Hagedorn 1910a: 51; Schedl 1955d: 272, 1959k: 42; Stebbing 1906: 389, 1907a: 23–24, 1908b: 3, 1914: 476; Strohmeyer 1911b: 19.

assamensis Stebbing 1907a: 23. Holotype ♀; Kuchugaon, Goalpara, Assam; FRI, Dehra Dun. Synonymy: Beeson 1915b: 296.

References: (cn) Pierce, W. D. 1917: 193; Stebbing 1914: 481. (cc) Stebbing 1914: 481. (hb) Beeson 1915b: 296; Stebbing 1914: 481. (ds) Beeson 1915b: 296, 1921a: 514–518; Kleine 1914b: 268; Pierce, W. D. 1917: 193. (tx) Beeson 1921a: 514–518; Hagedorn 1910a: 50; Stebbing 1907a: 23, 1908b: 4, 1914: 310, 314, 481.

subtectus Browne 1970: 545. Holotype, sex?; India: Nilgiri Hills; BMNH, London.

Distribution: Asia (Assam, Maharashtra, Tamil Nadu in India).

Hosts: *Hopea parviflora*, *H. wrightiana*.

Notes: (3) Beeson 1941 (1961: 297) (*dulcispei*, nomen nudum).

References: (ds) Beeson 1941 (1961: 297). (tx) Browne 1970: 545; Schedl 1959k: 41.

sulcatus Browne 1986a: 90. Holotype, sex?; Tanjung Mani (Sarawak) to Inabari, Japan, imported; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: Medang (Lauraceae) log.

References: (tx) Browne 1986a: 90.

tanaganus Schaufuss 1897b: 101. Holotype, sex?; Ostafrika; Hamburg Museum, lost.

Figures: Kudler 1978: 24.

Distribution: Africa (Ostafrika[Tanzania?]).

References: (cn) Kudler 1978. (hb) Heymons 1920: 99. (ds) Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 321; Schedl 1961k: 340. (tx) Eggers 1932c: 27; Hagedorn 1910a: 51; Kudler 1978: 24; Schaufuss 1897b: 101; Schedl 1937b: 398, 1961k: 339–340; Strohmeyer 1911: 20.

tsugae Tsai & Yin 1966: 240. Holotype ♂; Ningshen [China]; IZAS, Beijing.

Distribution: Asia (Shanxi, Sichuan, Yunnan in China).

Hosts: *Tsuga chinensis*.

References: (tx) Tsai & Yin 1966: 240.

ulmi Tsai & Yin 1966: 240. Holotype ♂; Shansi, Shihchuan [China].

Distribution: Asia (Shanxi, Sichuan in China).

Hosts: *Ulmus pumila*.

References: (tx) Tsai & Yin 1966: 240.

variegatus Eggers 1932c: 26. Holotype, sex?; Congostaat (Lusindoi); MRCB, Tervuren.

Figures: Schedl 1961k: 339.

Distribution: Africa (Zaire).

References: (en) Anonymous 1970c: 13. (ds)

Anonymous 1970e: 13; Schedl 1961k: 340, 1970h: 180, 1975k: 276. (tx) Eggers 1932c: 26–27; Schedl 1937b: 398, 1961k: 339–340.

yunnanensis Tsai & Yin 1966: 240. Holotype ♀; Yunnan: Menghai [China]; IZAS, Beijing.

Distribution: Asia (Yunnan in China).

Hosts: *Quercus* sp.

References: (tx) Tsai & Yin 1966: 240.

Genus *Pernophorus* Strohmeier

PERNOPHORUS STROHMEIER 1910d: 92. Type-species: *Acanthophorus brevicollis* Strohmeier, automatic.

Acanthophorus Strohmeier 1910c: 69. Type-species: *Acanthophorus brevicollis* Strohmeier, monobasic, preoccupied by Audinet-Serville 1832: 152.

References: (tx) Lucas 1920: 68; Strohmeier 1910c: 69, 1910d: 92.

Notes: (1) Replacement name for *Acanthophorus* Strohmeier 1910c: 69.

References: (ay) Nobuchi 1968a: 48. (hb) Schedl 1960g: 84–89; Wood, S. L. 1986a: 46. (ds) Wood, S. L. 1986a: 46. (tx) Hopkins 1914: 116, 132, 1915c: 227; Schedl 1941d: 385, 1960g: 84–89; Strohmeier 1910d: 92; Wood, S. L. 1986a: 46.

abhorrens Eggers 1943e: 71. Holotype, sex?; Zambeze (Environ de Chemba); MNHN, Paris. Figures: Schedl 1960g: 85.

Distribution: Africa (Mozambique/ Uganda).

Hosts: *Vitex cuneata*.

Notes: (1) There are 4 Eggers cotypes in Schedl Collection in NHMW, Wien.

References: (hb) Schedl 1960g: 84–85. (ds) Numberg 1952: 18, 1965b: 18; Schedl 1960g: 84–85, 1975k: 276, 1977c: 394. (tx) Eggers 1943e: 71; Numberg 1952: 18; Schedl 1960g: 84–85.

armatus Eggers 1933e: 21. Holotype ♂; Port. Ost. Africa (Ankuaze); BMNH, London.

Distribution: Africa (Mozambique/ Zambia).

References: (ds) Browne 1973a: 280; Lee 1971: 31. (tx) Eggers 1933e: 21–22; Schedl 1960g: 86.

brevicollis (Strohmeier) 1910c: 70 (*Acanthophorus*). Syntypes 1♂, 3♀; Usambara occidentalis (Mgila); Strohmeier Collection.

Distribution: Africa (Tanzania).

Hosts: *Usambara occidentalis*.

References: (hb) Schedl 1960g: 86. (ds) Kleine 1912b: 187, 1914b: 323; Schedl 1960g: 86. (tx) Eggers 1933e: 21; Hopkins 1914: 126; Lucas 1920: 68; Schedl 1941d: 385, 1960g: 86; Strohmeier 1910c: 70–71, 1910d: 93. (ms) Lucas 1920: 68.

obscurus Eggers 1940c: 230. Holotype, sex?; Congostaat: Haut Uele (Moku Moto); MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Eggers 1940c: 230; Schedl 1940c: 230, 1960g: 88–89.

pondoanus Eggers 1933e: 22. Holotype ♂; Sudafrica: Pondoland, Port St. Johns; BMNH, London.

Distribution: Africa (South Africa).

References: (tx) Eggers 1933e: 22; Schedl 1960g: 89.

Genus *Strombophorus* Hagedorn

STROMBOPHORUS HAGEDORN 1909a: 740. Type-species: *Strombophorus crenatus* Hagedorn, subsequent designation by Hopkins 1914: 130.

References: (hb) Schedl 1960f: 10; Wood, S. L. 1986a: 46. (ds) Wood, S. L. 1986a: 46. (tx) Hagedorn 1909a: 740, 1910a: 29, 33–34, 1910d: 7; Hopkins 1914: 130, 1915c: 227; Lucas 1920: 618; Nobuchi 1969a: 48; Schedl 1957d, 1959q: 705–710, 1960g: 89–114; Wood, S. L. 1986a: 46.

camerunus Hagedorn 1909a: 742. Syntypes, sex?; Kamerun; MNB, Berlin.

Distribution: Africa (Cameroon).

References: (ds) Hagedorn 1910d: 7; Kleine 1912b: 161, 1914b: 310. (tx) Eggers 1919: 231–232, 1920: 117–118; Hagedorn 1909a: 742, 1910a: 34; Schedl 1957d: 21, 1960g: 90–91.

capensis Schedl 1965h: 113. Holotype, sex?; Cape Prov., Alexandria; Transvaal Museum, Pretoria.

Distribution: Africa (South Africa).

Hosts: *Celtis africana*.

References: (ds) Schedl 1975k: 276. (tx) Schedl 1965h: 113.

celtis Schedl 1955i: 214. Syntypes, sex?; Uganda: Kiwafu; BMNH, London, and Schedl Collection in NHMW, Wien.

Distribution: Africa (Uganda).

Hosts: *Celtis durandii*, *C. kraussiana*.

Notes: (1) Schedl 1979c: 55 (citation of holotype invalid).

References: (ds) Gardner 1957a: 32; Schedl 1960g: 91. (tx) Schedl 1955i: 211, 214, 1960g: 91, 1979c: 55.

cordatus Hagedorn 1909a: 741. Holotype, sex?; Kamerun; MNB, Berlin.

Distribution: Africa (Cameroon).

References: (ds) Hagedorn 1910d: 7; Kleine 1912b: 161. (tx) Eggers 1919: 231–232; Hagedorn 1909a: 740–742, 1910a: 34; Schedl 1960g: 91.

- crenatus** Hagedorn 1909a: 740. Syntypes, sex?; Kamerun; MNB, Berlin, lost except for slide mounts of antenna and mouthparts. Figures: Nunberg 1961a: 333, 335. Distribution: Africa (Cameroon/ Guinea/ Zaire). Hosts: *Millettia duchesnii*. References: (ee) Schedl 1960g: 92. (ds) Hagedorn 1910d: 7; Kleine 1912b: 161, 1914b: 310; Schedl 1960g: 92, 1964f: 617, 1965e: 350, 1967e: 209, 1971g: 192, 1972e: 279. (tx) Eggers 1919: 232, 1932c: 24; Hagedorn 1909a: 740–742, 1910a: 34; Hopkins 1914: 130, 133; Lucas 1920: 618; Roberts 1969: 128; Schedl 1950d: 6, 1955d: 268, 1960g: 92, 1962k: 1063.
- nudus** Nunberg 1961a: 332. Holotype ♂; Congo: Stanleyville, Yangambi; MRCB, Tervuren. Synonymy: Schedl 1962j: 96. References: (tx) Nunberg 1961a: 332–333, 335; Schedl 1962j: 96, 1962k: 1063.
- dialiumi** Schedl 1957d: 20. Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren. Distribution: Africa (Nigeria/ Zaire). Hosts: *Dialium corbisieri*. References: (hb) Schedl 1960g: 94. (ds) Schedl 1962k: 1064, 1964j: 39. (tx) Schedl 1957d: 19–20, 1960g: 94.
- elongatus** Eggers 1919: 231. Holotype, sex?; Daressalaam (Ostafrika); Hamburg Museum, lost. Distribution: Africa (Tanzania). References: (tx) Eggers 1919: 231–232; Schedl 1960g: 95.
- ericus** (Schaufuss) 1897a: 217 (*Diamerus*). Holotype, sex?; Natal; Hamburg Museum, lost. Distribution: Africa (Natal in South Africa/ Uganda/ Zaire). Hosts: *Celtis zenkeri*, *Gossweilerodendron balsamiferum*, *Oxystigma oryphyllum*. References: (ee) Schedl 1958d: 185, 193, 1960g: 95. (hb) Browne 1963a: 230; Schedl 1960g: 95. (ds) Beaver & Loeytyniemi 1989; Browne 1963a: 230; Hagedorn 1910d: 6; Kleine 1912b: 160, 1914b: 319; Schedl 1959q: 705, 1960g: 95, 1964f: 617, 1964j: 39, 1965e: 350, 1965g: 19, 1971g: 192. (tx) Beaver & Loeytyniemi 1989; Eggers 1922b: 165; Hagedorn 1910a: 32; Roberts 1969: 129; Schaufuss 1897a: 217–218; Schedl 1950d: 6, 1960b: 162; 1960g: 95.
- variegatus** Eggers 1940c: 231. Holotype, sex?; Congostaat: Elisabethville; MRCB, Tervuren. Synonymy: Schedl 1950d: 6. References: (tx) Eggers 1940c: 231; Schedl 1950d: 6.
- flavipubens** Schedl 1959q: 706. Holotype ♀; Tanganyika: Gologolo; BMNH, London. Distribution: Africa (Tanzania). Hosts: *Catha edulis*. References: (ds) Schedl 1959q: 705–706. (tx) Schedl 1959q: 706, 1960g: 99.
- granulifer** Eggers 1932c: 23. Holotype, sex?; Congostaat (Mayumbe: Pulu Banzi); USNM, Washington. Distribution: Africa (Zaire). References: (tx) Anderson, W. H. & Anderson 1971: 14; Eggers 1932c: 23, 25; Schedl 1936b: 136, 1960g: 99.
- hispidus** Eggers 1932c: 26. Holotype, sex?; Congostaat (Lulonga-Befale); MRCB, Tervuren. Distribution: Africa (Zaire). References: (tx) Eggers 1932c: 26; Schedl 1936b: 136, 1960g: 99.
- intermedius** Eggers 1920: 117. Holotype, sex?; Kamerun; USNM, Washington. Distribution: Africa (Cameroon/ Fernando Po Island). References: (ds) Schedl 1960g: 100. (tx) Anderson, W. H. & Anderson 1971: 16; Eggers 1920: 117–118; Roberts 1969: 129; Schedl 1941d: 385, 1957d: 21, 1960g: 100.
- interstitialis** Browne 1963b: 241. Holotype ♀; Nigeria: Calabar; BMNH, London. Distribution: Africa (Nigeria). Hosts: *Lonchocarpus* sp. References: (tx) Browne 1963b: 241; Roberts 1969: 129.
- kaszabi** Schedl 1967e: 223. Holotype ♀; Kindamba, Meya, Bangon Forest, Congo; NHMB, Budapest. Distribution: Africa (Zaire). References: (tx) Schedl 1967e: 223–224.
- laevis** Eggers 1919: 232. Holotype, sex?; Kamerun; USNM, Washington. Distribution: Africa (Cameroon). References: (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1919: 232, 1920: 117–118; Schedl 1957d: 21, 1960g: 100.
- latus** Eggers 1919: 233. Holotype, sex?; Nkolentangan (Span. Guinea); MNB, Berlin. Distribution: Africa (Equatorial Guinea). References: (tx) Eggers 1919: 233; Schedl 1960g: 100.
- lukengeae** Schedl 1957d: 20. Holotype, sex?; Congo Belge: Bas-Congo, Jombo de Bombo, N. Ouest de Tshela; MRCB, Tervuren. Distribution: Africa (Zaire). Hosts: *Dialium corbisiera*, *D. pachyphyllum*, *D.* sp. References: (ee) Schedl 1958d: 188, 1960g: 101–103. (hb) Schedl 1960g: 101–103. (ds) Mayne & Donis 1962: 313; Schedl 1960g: 101–103, 1964j: 40. (tx) Roberts 1969: 129; Schedl 1957d: 20, 1960g: 101–103.
- major** Schedl 1941d: 385. Holotype ♀; Usambara: Derema (Tanganyika); Schedl Collection in NHMW, Wien. Distribution: Africa (Tanzania). References: (tx) Schedl 1941d: 385, 1957d: 21, 1960g: 104.

- millettiae** Schedl 1957d: 21. Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Angola/ Zaire).
Hosts: *Millettia duchesnii*.
References: (bv) Schedl 1960f: 39. (ce) Schedl 1958d: 193–194, 1960g: 104. (hb) Schedl 1960g: 104. (ds) Mayne & Donis 1962: 313; Schedl 1959p: 16, 1960f: 39, 1960g: 104. (tx) Schedl 1957d: 21, 1960g: 104.
- minor** Eggers 1919: 233. Holotype, sex?; Kamerun; USNM, Washington.
Distribution: Africa (Cameroon).
References: (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1919: 233, 1944b: 92; Schedl 1960g: 106.
- minutissimus** Schedl 1936b: 136. Holotype ♀; Stanleyville, Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1936b: 136, 1960g: 106.
- movoliae** Schedl 1957d: 22. Holotype ♀; Congo Belge: Kivu, Mulungu; MRCB, Tervuren.
Figures: Schedl 1957d: 23 (female).
Distribution: Africa (Zaire).
Hosts: Liana known as *Movolia*.
References: (hb) Schedl 1960g: 106. (ds) Mayne & Donis 1962: 313. (tx) Numberg 1961: 336; Schedl 1957d: 22–23, 1960g: 106.
- nigrescens** Schedl 1941d: 387. Holotype ♂; Nairobi, Kenya; Schedl Collection in NHMW, Wien.
Distribution: Africa (Kenya).
References: (tx) Schedl 1941d: 387, 1960g: 108.
- occidentalis** Schedl 1941d: 385. Holotype ♂; Spanish Guinea; Schedl Collection in NHMW, Wien.
Distribution: Africa (Equatorial Guinea).
References: (tx) Schedl 1941d: 385, 1957d: 21, 1960g: 108.
- pilifer** (Eggers) 1927a: 172 (*Hylesinus*). Holotype, sex?; Belg.-Congo (Haut Uele: Watsa); MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Eggers 1927a: 172–173; Schedl 1960g: 109.
- pusillus** Eggers 1932c: 24. Holotype, sex?; Congostaat (Mayumbe: Pulu Banzi); USNM, Washington.
Distribution: Africa (Zaire).
References: (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1932c: 24–25, Schedl 1936b: 136, 1957d: 10, 1960g: 109.
- spinosus** Eggers 1932c: 25. Holotype, sex?; Congostaat (Mayumbe: Pulu Banzi); USNM, Washington. Synonymy: Schedl 1957d: 10.
References: (tx) Anderson, W. H. & Anderson 1971: 31; Eggers 1932c: 25; Schedl 1941d: 386, 1957d: 10, 1960g: 110.
- setulosus** Schedl 1941d: 386. Holotype ♂; Kuango, Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1941d: 385–386, 1960g: 109.
- spathulatus** Schedl 1941d: 386. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1941d: 385–386, 1960g: 110.
- testudo** Eggers 1944b: 92. Holotype, sex?; Belgisch-Congo (Equateur: Flandria); MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Eggers 1944b: 92; Schedl 1960g: 110.
- vagans** Schedl 1957d: 23. Holotype, sex?; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Cillaeus contractus*, *Croton haumanianus*, *Millettia duchesnei*, *Pterygota bequaerti*.
References: (bv) Schedl 1960f: 39. (hb) Schedl 1960g: 110. (ds) Schedl 1960f: 39, 1960g: 110. (tx) Schedl 1957d: 23, 1960g: 110.
- vittatus** Eggers 1935c: 297. Holotype ♀; Congostaat (Haut-Uele: Yebo Moto); MRCB, Tervuren.
Figures: Numberg 1961a: 335, 337. Schedl 1960g: 89.
Distribution: Africa (Burkina Faso/ Zaire).
References: (hb) Schedl 1960g: 112. (ds) Mayne & Donis 1962: 313; Schedl 1960g: 112, 1971g: 192, 1972e: 279. (tx) Eggers 1935c: 297, 1940c: 231; Schedl 1960g: 89, 112, 1962k: 1064.
- pseudomovoliae** Numberg 1961a: 336. Holotype ♂; Bas-Congo: Kimmwenza; MRCB, Tervuren. Synonymy: Schedl 1962r: 96.
References: (tx) Numberg 1961a: 335–337; Schedl 1962k: 1064, 1962r: 96.

Tribe Bothrosternini Blandford

Bothrosterni

References: Blandford 1896e: 120.

Bothrosterninae

References: Hopkins 1915c: 225.

Bothrosternini

References: Leng 1920: 337; Wood, S. L. 1975a: 111, 1982b: 208–255, 1986: 46.

Genus *Cnesinus* LeConte

CNESINUS LeConte 1868: 171. Type-species: *Cnesinus strigicollis* LeConte, monobasic.

Nemophilus Chapuis 1869: 27. Type-species: *Nemophilus strigillatus* Chapuis = *Cnesinus strigicollis* LeConte, subsequent designation by Hopkins 1914: 125. Synonymy: LeConte 1876: 378.

References: (tx) Chapuis 1869: 27, 1873: 235; Hopkins 1914: 125; LeConte 1876: 378; Swaine 1909: 89.

Keys: Wood 1968a: 88, 1982b: 209 for North and Central America.

References: (hb) Wood, S. L. 1986a: 46. (ds) Wood, S. L. 1982b: 208, 1986a: 46. (tx) Arnett 1960: 1040, 1968: 1040; Beal & Massey 1945: 57, 71; Blackman 1943c: 371; Blandford 1896e: 132, 135; Blatchley & Leng 1916: 586; Chamberlin 1939: 240–241; Eggers 1940a: 123–141; Hagedorn 1910a: 130, 1910d: 80; LeConte 1868: 171, 1876: 378; LeConte & Horn 1883: 523; Leng 1920: 337; Lucas 1920: 193; Swaine 1909: 89, 1918a: 39; Wood, S. L. 1961a: 42, 1967b: 79, 1968a: 88–110, 1982b: 208–245, 1986a: 46.

acuminatus Schedl 1978c: 298. Holotype ♂; Brasilien, Nova Teutonia, 300–350 m; Schedl Collection at NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1978c: 298.

adusticus Wood 1967b: 87. Holotype ♀; Los Almendros, Paraiso, Honduras; Wood Collection. Distribution: North America (Costa Rica/ Honduras), South America (Colombia).

Hosts: *Acacia pennatula*, *Coffea arabica*.

References: (ds) Wood, S. L. 1982b: 244. (tx) Wood, S. L. 1967b: 87, 1982b: 244.

adustus Schedl 1948f: 266. Syntypes ♀; Costa Rica: Turrialba; Eggers specimens, in NHMW, Wien. Figures: Wood 1968a: 97.

Distribution: North America (Costa Rica/ Honduras).

Hosts: *Valeriana scandens*.

Notes: (1) Schedl 1979c: 12 (citation of holotype invalid).

References: (hb) Wood, S. L. 1982b: 239. (ds) Wood, S. L. 1982b: 239. (tx) Schedl 1948f: 266, 1979c: 12; Wood, S. L. 1967b: 87, 1974d: 279, 1982b: 239.

atrodeclivis Wood 1968a: 108. Holotype ♀;

Zamorano, Morazan, Honduras; Wood Collection. Synonymy: Wood 1974d: 279.

References: (tx) Wood, S. L. 1968a: 97, 108, 1974d: 279.

adrena Schedl 1973d: 169. Holotype ♀; Brasilien, Mato Grosso, Utiariti, 325 m, Rio Papagaio; MZUSP, Sao Paulo.

Distribution: South America (Brazil).

References: (tx) Schedl 1979c: 12; Wood, S. L. 1973d: 169.

alienus Wood 1974a: 3. Holotype ♂; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Bejuno blanco (liana).

References: (tx) Wood, S. L. 1974a: 3.

ampliatius Schedl 1935i: 21. Syntypes, sex?; Argentinien, Buenos Aires, Isla Martin Garcia; Viana Collection, and Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Notes: (1) Schedl 1979c: 19 (citation of holotype invalid).

References: (hb) Viana 1964: 128. (ds) Blackwelder 1947; Viana 1964: 128. (tx) Schedl 1935i: 21–22, 1979c: 19.

amplipennis Schedl 1963d: 219. Holotype, sex?; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1963d: 219, 1979c: 19.

annectens Wood 1967b: 86. Holotype ♀; Zamorano, Morazan, Honduras; Wood Collection.

Distribution: North America (Honduras).

Hosts: *Verbisina agricultorum*.

References: (hb) Wood, S. L. 1967b: 87, 1982b: 233. (ds) Wood, S. L. 1982b: 233. (tx) McNamara 1977: 194; Wood, S. L. 1967b: 86, 1982b: 233.

atavus Wood 1968a: 106. Holotype ♂; Rinconada, Veraacruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: Herbaceous plant.

References: (hb) Wood, S. L. 1982b: 233. (ds) Wood, S. L. 1982b: 233. (tx) Wood, S. L. 1968a: 106, 1982b: 233.

ater Schedl 1952d: 352. Holotype ♀; Brasilien, Santa Catarina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947; Schedl 1966f: 82, 1973d: 153, 1976a: 50, 1978c: 291. (tx) Schedl 1952d: 352, 1979c: 29.

atrocis Wood 1982a: 226. Holotype ♀; Cerro Punta (labeled Volcan Chiriqui), Panama; Wood Collection.

Distribution: North America (Panama).

References: (tx) Wood, S. L. 1982a: 226.

- beaveri** Wood 1974a: 2. Holotype ♀; about 260 km N Xavantina, Mato Grosso, Brazil; BMNH, London. Distribution: South America (Brazil). References: (hb) Beaver 1973a. (ds) Beaver 1973a. (tx) Wood, S. L. 1974a: 2.
- bicinctus** Schedl 1954b: 29. Syntypes, sex?; Brasilien: Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection. Distribution: South America (Brazil). Hosts: Lauraceae. Notes: (1) Schedl 1979c: 37 (citation of holotype invalid). References: (ds) Schedl 1966f: 82. (tx) de Ruetten 1970: 90; Schedl 1954b: 29, 1979c: 37.
- bicolor** Eggers 1943a: 376. Holotype ♀; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1943a: 376; Schedl 1979c: 38.
- bicornus** Wood 1967b: 80. Holotype ♀; Morelia, Michoacan, Mexico; Wood Collection. Distribution: North America (Michoacan, Morelos in Mexico). References: (ds) Atkinson et al. 1986: 48. (tx) Wood, S. L. 1967b: 80–81, 1968a: 93.
- bicostatus** Schedl 1936i: 106. Holotype ♂; Costa Rica, Turrialba, 800 m; Schedl Collection in NHMW, Wien. Figures: Wood 1968a: 90. Distribution: North America (Costa Rica), South America (Venezuela). Hosts: *Nectandra* sp. References: (ds) Blackwelder 1947; Wood, S. L. 1982b: 215. (tx) Schedl 1936i: 106–107, 1979c: 39; Wood, S. L. 1968a: 90, 1972e: 193, 1982b: 215.
- bispinatus** Schedl 1976a: 62. Holotype ♀?; Brasilien; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 62.
- bisulcatus** Schedl 1948f: 266. Holotype ♀; Colombia; Schedl Collection in NHMW, Wien. Distribution: South America (Colombia). References: (tx) Schedl 1948f: 266, 1951m: 77, 1979c: 41.
- bituberculatus** Schedl 1966f: 102. Holotype ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (ds) Schedl 1966f: 82. (tx) Schedl 1966f: 102, 1979c: 41.
- blackmani** Schedl 1948f: 268. Holotype ♂; Tampico, Mexico; USNM, Washington, automatic, replacement name for *nitidus* Blackman. Figures: Blackman 1943c: pl. 15, figs. 12–13; Wood 1968a: 90. Distribution: North America (Guatemala/ Veracruz in Mexico/ Panama), South America (Colombia). References: (ds) Wood, S. L. 1982b: 219. (tx) Schedl 1948f: 268, 1960i: 104; Wood, S. L. 1968a: 90, 1982b: 219.
- nitidus** Blackman 1943c: 377. Holotype ♂; Tampico, Mexico; USNM, Washington, preoccupied by Eggers 1943a: 376. References: (ds) Blackwelder 1947. (tx) Anderson, W. H. & Anderson 1971: 22; Blackman 1943c: 377; Nunberg 1956d: 207; Schedl 1940a: 331, 1948f: 268, 1960i: 104, 1979c: 169.
- mexicanus** Nunberg 1956d: 207. Holotype ♂; Tampico, Mexico; USNM, Washington, unnecessary replacement name for *nitidus* Blackman. References: (tx) Nunberg 1956d: 207; Schedl 1960i: 104.
- brighti** Wood 1974: 6. Holotype ♀; 14 km SE Teopisca on Highway 24, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas in Mexico). References: (ds) Wood, S. L. 1982b: 226. (tx) McNamara 1984: 753; Wood, S. L. 1974: 6, 1982b: 226.
- carbonarius** Schedl 1952d: 354. Holotype ♂; Brasilien; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (ds) Schedl 1966f: 83, 1976a: 50. (tx) Schedl 1952d: 354, 1979c: 53.
- carinatus** Wood 1967b: 88. Holotype ♀; Ciudad Hidalgo, Michoacan, Mexico; Wood Collection. Distribution: North America (Michoacan, Morelos in Mexico). Hosts: *Persea americana*, (?) *Crataegus* sp. References: (hb) Atkinson et al. 1986: 19; Burgos & Saucedo 1983: 59; Wood, S. L. 1982b: 242. (ds) Atkinson & Equihua 1985b: 230; Atkinson et al. 1986: 19; Burgos & Saucedo 1983: 59; Wood, S. L. 1982b: 242. (tx) Muskus, A. 1984: 53; Wood, S. L. 1967b: 88–89, 1982b: 242.
- coffea** Schedl 1939n: 12. Holotype ♀; Colombia: La Esperanza; BMNH, London. Figures: Schedl 1939n: 13. Distribution: South America (Colombia). Hosts: *Coffea arabica*. References: (ds) Blackwelder 1947. (tx) Schedl 1939n: 12, 1979c: 59.
- colombianus** Wood 1967b: 84. Holotype ♂; El Bosque, Caicedonia, Valles, Colombia; Wood Collection. Distribution: South America (Colombia). References: (tx) Wood, S. L. 1967b: 84.
- coracius** Wood 1974a: 6. Holotype ♀; 8 km S Simojovel, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas in Mexico). References: (ds) Wood, S. L. 1982b: 228. (tx) McNamara 1984: 753; Wood, S. L. 1974a: 6, 1982b: 228.

- cornutus** Wood 1983a: 655. Holotype ♀; San Tlatotico, Morelos, Mexico; Wood Collection. Distribution: North America (Morelos in Mexico). Hosts: Compositae. References: (hb) Atkinson et al. 1986: 19. (ds) Atkinson et al. 1986: 19. (tx) Wood, S. L. 1983a: 655.
- costulatus** Blandford 1896e: 137. Lectotype ♀; Panama: Volcan de Chiriqui, Chiriqui; BMNH, London, designated by Wood 1982b: 234. Figures: Blackman 1943c: pl. 15, figs. 6–7, Wood 1968a: 97. Distribution: North America (Costa Rica/ Oaxaca, Veracruz in Mexico/ Panama). South America (Colombia/ Venezuela). Hosts: *Persea americana*. References: (hb) Wood, S. L. 1982b: 234. (ds) Atkinson & Equihua 1985b: 230; Blackwelder 1947; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 339, 365; Wood, S. L. 1982b: 234. (tx) Blandford 1896e: 137; Hagedorn 1910a: 131; Schedl 1936i: 106–107, 1979c: 67; Wood, S. L. 1968a: 97, 1972b: 144, 1982b: 234.
- similis** Blackman 1943c: 375. Holotype ♀; Panama; USNM, Washington. Synonymy: Wood 1972c: 144. References: (ds) Blackwelder 1947. (tx) Blackman 1943c: 375; Wood, S. L. 1972c: 144.
- cubensis** Blackman 1943c: 371. Holotype, sex?; Cayamas, Cuba; USNM, Washington. Figures: Blackman 1943c: pl. 15, figs. 1–2. Distribution: Antilles Islands (Cuba). References: (ds) Blackwelder 1947; Bright 1985c: 171. (tx) Blackman 1943c: 371–372; Bright 1985c: 171.
- degener** Wood 1968a: 105. Holotype ♀; 11 km N Matias Romero, Oaxaca, Mexico; Wood Collection. Figures: Wood 1968a: 90. Distribution: North America (Oaxaca, Veracruz in Mexico). Hosts: *Sechium edule*, *Serjania* sp. References: (hb) Wood, S. L. 1982b: 225. (ds) Atkinson & Equihua 1988: 86; Wood, S. L. 1982b: 225. (tx) Wood, S. L. 1968a: 90, 105, 1982b: 225.
- denotatus** Wood 1968a: 107. Holotype ♀; Barro Colorado Island, Canal Zone, Panama; Wood Collection. Distribution: North America (Costa Rica/ Panama). Hosts: *Oreopanax capitatus*. References: (hb) Wood, S. L. 1982b: 238. (ds) Wood, S. L. 1982b: 238. (tx) Wood, S. L. 1968a: 107, 1982b: 238.
- deperditus** Wood 1974a: 4. Holotype ♀; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Quercus humboldti*. References: (tx) Wood, S. L. 1974a: 4.
- discretus** Wood 1985: 271. Holotype ♂; Rancho Grande, Aragua, Venezuela; Wood Collection. Distribution: South America (Venezuela). References: (tx) Wood, S. L. 1985: 271.
- dividiuus** Schedl 1935i: 22. Lectotype ♀; Argentinien, Buenos Aires, Tigre; Schedl Collection in NHMW, Wien, designated by Wood 1985: 267. Figures: Schedl 1951m: 79. Distribution: South America (Argentina/ Brazil). Hosts: *Acacia nigra*. Notes: (1) Schedl 1979c: 83 (citation of holotype invalid). References: (hb) Viana 1964: 128. (ds) Blackwelder 1947; Schedl 1973d: 153; Viana 1964: 128. (tx) Schedl 1935i: 22, 1958f: 34, 1979c: 83.
- dryographus** Schedl 1951m: 78. Lectotype ♀; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Wood 1985: 267. Synonymy: Wood 1985: 267. Notes: (1) Schedl 1979c: 84 (citation of holotype invalid). References: (hb) Viana 1964: 128. (ds) Pedrosa-Macedo & Schonherr 1985: 12; Schedl 1966f: 83, 1970e: 80, 1973d: 153, 1976a: 50; Viana 1964: 128. (tx) Pedrosa-Macedo & Schonherr 1985: 12; Schedl 1951m: 78, 1979c: 84; Wood, S. L. 1985: 267.
- laevicollis** Schedl 1951m: 79. Lectotype ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Wood 1985: 267. Synonymy: Wood 1985: 267. Notes: (1) Schedl 1979c: 135 (citation of holotype invalid). References: (ds) Schedl 1971f: 146; 1973a: 366, 1973d: 162, 1976a: 50, 1979e: 57. (tx) Schedl 1951m: 79, 1979c: 135; Wood, S. L. 1985: 267.
- electinus** Wood 1967b: 82. Holotype ♂; Mazamitla, Jalisco, Mexico; Wood Collection. Figures: Wood 1968a: 90. Distribution: North America (Jalisco, Morelos, Veracruz in Mexico). Hosts: *Persea americana*. References: (hb) Atkinson et al. 1986: 20; Wood, S. L. 1982b: 223. (ds) Atkinson & Equihua 1985b: 229; Atkinson et al. 1986: 20; Wood, S. L. 1982b: 223. (tx) Wood, S. L. 1967b: 82–83, 1968a: 90, 1982b: 223.
- electus** Wood 1975a: 23. Holotype ♂; Cartago, Cartago, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). References: (hb) Wood, S. L. 1982b: 217. (ds) Wood, S. L. 1982b: 217. (tx) Wood, S. L. 1967b: 81, 1975a: 23, 1982b: 217.
- elegans** Blandford 1896e: 140. Lectotype ♀; Guatemala: Cerro Zunil; BMNH, London, designated by Wood 1982c: 226. Figures: Blandford 1896e: pl. 6, figs. 17–18, Wood 1968a: 90.

Distribution: North America (Guatemala/ Honduras/ Chiapas, Hidalgo, Oaxaca, Puebla, Veracruz in Mexico/ Panama), South America (Venezuela).

Hosts: *Arbutus* sp., *Inga* sp., *Rosa* sp., *Rubus* sp., *Serjania* sp., *Struthanthus* sp., *Vitis* sp.

References: (hb) Wood, S. L. 1982b: 226. (ds) Atkinson & Equihua 1988: 86; Blackwelder 1947; Ferrer 1942; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 339, 352, 365; Wood, S. L. 1982b: 226. (tx) Blandford 1896e: 140; Hagedorn 1910a: 131; Schedl 1936i: 106, 1940a: 331, 1951m: 78, 1952d: 352, 1979c: 88; Wood, S. L. 1967b: 79, 1968a: 90, 1982b: 226.

elegantis Wood 1967b: 79. Holotype ♀; Volcan Zamil, Quezaltenango, Guatemala; Wood Collection.

Figures: Bright 1972b: 1490.

Distribution: North America (Guatemala/ Chiapas, Oaxaca in Mexico).

Hosts: *Arbutus* sp., *Quercus* sp.

References: (hb) Wood, S. L. 1982b: 227. (ds) Wood, S. L. 1982b: 227. (tx) McNamara 1977: 194; Wood, S. L. 1967b: 79–80, 1973c: 174, 1982b: 227.

zapotecus Bright 1972b: 1493. Holotype ♀; 5 km N Suchixtepec, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 174.

References: (tx) Bright 1972b: 1490, 1493; McNamara 1977: 194; Wood, S. L. 1973c: 174.

equihuai Wood 1982a: 226. Holotype ♀; between Cuetzalan and Pasa del Jardin, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla, Veracruz in Mexico).

Hosts: *Croton* sp.

References: (tx) Wood, S. L. 1982a: 226.

foratus Wood 1967b: 81. Holotype ♂; El Bosque, Caicedonia, Valles, Colombia; Wood Collection.

Distribution: South America (Colombia).

References: (tx) Wood, S. L. 1967b: 81–82.

frontalis Wood 1968a: 104. Holotype ♀; Puerto Viejo, Heredia, Costa Rica; Wood Collection.

Figures: Wood 1968a: 97.

Distribution: North America (Costa Rica).

Hosts: Liana.

References: (hb) Wood, S. L. 1982b: 236. (ds) Wood, S. L. 1982b: 236. (tx) Wood, S. L. 1968a: 97, 104, 1982b: 236.

fulgens Wood 1974a: 4. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Rubus* sp.

References: (hb) Burgos & Saucedo 1983: 59. (ds) Burgos & Saucedo 1973: 59; Wood, S. L. 1982b: 228. (tx) Schedl 1979c: 103; Wood, S. L. 1974a: 4, 1982b: 228.

fulgidus Wood 1974a: 5. Holotype ♂; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Quercus humboldtii*.

References: (tx) Wood, S. L. 1974a: 5.

garrulus Schedl 1940a: 332. Holotype ♀; Yauतेpec [presumably Morelos in Mexico], incorrectly published as Yucatan; Schedl Collection in NHMW, Wien.

Distribution: North America (Morelos in Mexico).

References: (ds) Atkinson & Equihua 1985b: 230, 1986: 48; Blackwelder 1947; Ferrer 1942. (tx) Schedl 1940a: 332–333.

gibbosus Wood 1968a: 101. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection.

Figures: Wood 1968a: 93.

Distribution: North America (Costa Rica).

Hosts: Liana.

References: (hb) Wood, S. L. 1982b: 229. (ds) Wood, S. L. 1982b: 229. (tx) Wood, S. L. 1968a: 93, 101, 1982b: 229.

gibbulus Wood 1968a: 100. Holotype ♀; Villa Mills, Cartago, Costa Rica, 3000 m; Wood Collection.

Figures: Wood 1968a: 93.

Distribution: North America (Costa Rica).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 229. (tx) Wood, S. L. 1968a: 93, 100, 1982b: 229.

gibbus (Chapuis) 1869: 28 (*Nemophilus*). Holotype, sex?; Cumana (Venezuela); IRSNB, Brussels.

Distribution: South America (Venezuela).

References: (ds) Blackwelder 1947; Hagedorn 1910d: 80; Kleine 1913b: 148; 1914b: 339. (tx) Chapuis 1869: 28, 1873: 236; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 131.

gracilis Blandford 1896e: 141. Holotype ♀; Panama: Volcan Chirqui, Chirqui; BMNH, London.

Figures: Wood 1968a: 90.

Distribution: North America (Belize/ Costa Rica/ Honduras/ Oaxaca, Veracruz in Mexico/ Panama), South America (Colombia).

Hosts: *Coffea arabica*, *Pearcea americana*, *Serjania* sp.

References: (ec) Wichmann 1955a: 107. (hb) Beaver 1973a; Wood, S. L. 1982b: 216. (ds) Atkinson & Equihua 1988: 86; Beaver 1973a; Blackwelder 1947; Bright 1985c: 171; Hagedorn 1910d: 80; Kleine 1914b: 365; Wichmann 1955a: 107; Wood, S. L. 1982b: 216. (tx) Blandford 1896e: 141; Bright 1985c: 171; Eggers 1940a: 137; Hagedorn 1910a: 131; Schedl 1951m: 79, 1979c: 107; Wood, S. L. 1967b: 85, 1968a: 90, 1972c: 144, 1982b: 216.

substrigatus Blackman 1943c: 376. Holotype ♀; Santander, Colombia; USNM, Washington.

Synonymy: Wood 1972c: 144.

- References: (ds) Blackwelder 1947. (tx) Blackman 1943c: 376–377; Wood 1972c: 144.
- grandis** Schedl 1935f: 273. Holotype ♀; Brazil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947. (tx) Schedl 1935f: 273, 1979c: 105.
- guadeloupensis** Eggers 1940a: 137. Holotype, sex?; Guadeloupe (Trois-Rivieres, 250 m); Fleutiaux Collection (MNHN, Paris?).
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1955c: 171. (tx) Bright 1955c: 171; Eggers 1940a: 137; Wood, S. L. 1967b: 86.
- hispidus** Eggers 1943a: 378. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: (ds) Schedl 1976a: 50. (tx) Anderson, W. H. & Anderson 1971: 14; Eggers 1943a: 378; Schedl 1979c: 118.
- insularis** Eggers 1940a: 138. Lectotype, sex?; Guadeloupe (Courbeyre, Environ de Trois-Rivieres); USNM, Washington, designated by Anderson & Anderson 1971: 15.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1955c: 171; Schedl 1966f: 83. (tx) Anderson, W. H. & Anderson 1971: 15; Bright 1955c: 171; Eggers 1940a: 138; Schedl 1979c: 125.
- intermedius** Schedl 1936i: 105. Holotype ♂; Costa Rica: Turrialba, 800 m; Schedl Collection in NHMW, Wien.
Figures: Wood 1968a: 90.
Distribution: North America (Costa Rica, Panama).
Hosts: *Nectandra* sp.
References: (hb) Wood, S. L. 1952b: 218. (ds) Blackwelder 1947; Wood, S. L. 1952b: 218. (tx) Schedl 1936i: 105, 1979c: 126; Wood, S. L. 1968a: 90, 1982b: 218.
- laetus** Schedl 1978c: 299. Holotype ♀; Brasil, Corcovado, Guanabara; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1978c: 299.
- lecontei** Blandford 1896c: 135. Lectotype ♂; Guatemala: Quiche Mts., El Quiche; BMNH, London, designated by Wood 1952b: 231.
Figures: Wood 1968a: 93.
Distribution: North America (Costa Rica/ Guatemala/ Panama).
Hosts: *Croton gossypifolia*, *C.* sp.
References: (hb) Wood, S. L. 1952b: 231. (ds) Blackwelder 1947; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 365; Wood, S. L. 1952b: 231. (tx) Blandford 1896c: 135; Hagedorn 1910a: 131; Schedl 1979c: 138; Wood, S. L. 1968a: 93, 1982b: 231.
- longicollis** Eggers 1940a: 137. Holotype, sex?; Guadeloupe; USNM, Washington.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1955c: 171. (tx) Anderson, W. H. & Anderson 1971: 18; Bright 1955c: 171; Eggers 1940a: 137; Schedl 1952d: 353.
- lucaris** Wood 1974a: 5. Holotype ♂; Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Rubus* sp., *Vismia* sp.
References: (tx) Wood, S. L. 1974a: 5.
- marginicollis** Eggers 1931a: 15. Holotype, sex?; Tropisches Amerika (Antillen oder Columbien); MNB, Berlin.
Distribution: South America (Antilles Islands or Colombia).
References: (ds) Blackwelder 1947; Bright 1955c: 171. (tx) Bright 1955c: 171; Eggers 1931a: 15; Schedl 1979c: 149.
- meris** Wood 1952a: 226. Holotype ♀; La Cumbre, Valle, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Coffea arabica*.
References: (ds) Wood, S. L. 1952b: 239. (tx) Schedl 1979c: 153; Wood, S. L. 1952a: 226, 1952b: 239.
- minax** Schedl 1952d: 352. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien.
Figures: Wood 1968a: 97.
Distribution: North America (Mexico).
References: (tx) Schedl 1952d: 352; Wood, S. L. 1968a: 97.
- minitropis** Wood 1968a: 105. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection.
Figures: Wood 1968a: 97.
Distribution: North America (Costa Rica).
References: (hb) Wood, S. L. 1952b: 244. (ds) Wood, S. L. 1952b: 244. (tx) Wood, S. L. 1968a: 97, 105, 1982b: 244.
- minor** Wood 1955: 272. Holotype ♀; Grecia, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
References: (tx) Wood, S. L. 1955: 272.
- minusculus** Schedl 1952d: 353. Holotype ♀?; Guyan. Ven. Mor.; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
References: (tx) Schedl 1952d: 353, 1979c: 155.
- myelitis** Wood 1967b: 84. Holotype ♂; Teziutlan, Puebla, Mexico; Wood Collection.
Distribution: North America (Puebla, Veracruz in Mexico).
Hosts: *Persea americana*.
References: (hb) Wood, S. L. 1952b: 223. (ds) Atkinson & Equihua 1955b: 230; Wood, S. L. 1952b: 223. (tx) Wood, S. L. 1967b: 84, 1982b: 223.

- nebulosus** Wood 1983a: 655. Holotype ♀; Pachuca, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo in Mexico).
References: (hb) Atkinson & Equihua 1985a: 74. (ds) Atkinson & Equihua 1985a: 74. (tx) Wood, S. L. 1983a: 655.
- niger** Wood 1967b: 83. Holotype ♂; Cerro Punta, Chiriqui, Panama; Wood Collection.
Figures: Wood 1968a: 90.
Distribution: North America (Panama).
References: (hb) Wood, S. L. 1982b: 221. (ds) Wood, S. L. 1982b: 221. (tx) Wood, S. L. 1967b: 83, 1968a: 90, 1982b: 221.
- nitidus** Eggers 1943a: 376. Lectotype, sex?; Bolivia (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 22.
Distribution: South America (Bolivia).
References: (ds) Anderson, W. H. & Anderson 1971: 22; Schedl 1972g: 42. (tx) Eggers 1940a: 137, 1943a: 376–377; Schedl 1940a: 331, 1948f: 268, 1952d: 354.
- noquerae** Atkinson 1989: 57. Holotype ♀; Mexico: Veracruz, Xalapa; USNM, Washington.
Distribution: North America (Veracruz in Mexico).
Hosts: *Psittacanthus schiedeanus*.
References: (tx) Atkinson 1989: 57.
- novateutonicus** Schedl 1951m: 77. Syntypes, sex?; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien and Plaumann Collection.
Figures: Schedl 1951m: 77 (male).
Distribution: South America (Brazil).
Hosts: *Canella* sp.
Notes: (1) Schedl 1979c: 172 (citation of holotype invalid).
References: (ds) Schedl 1967d: 2, 1973d: 153. (tx) Schedl 1951m: 77, 1979c: 171.
- ocularis** Blandford 1896e: 140. Holotype, sex?; Venezuela [probably Colonia Tovar]; BMNH, London.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 339; LePelley 1968: 443. (tx) Blandford 1896e: 140; Eggers 1931b: 34; Hagedorn 1910a: 131.
- paleatus** Blandford 1896e: 138. Holotype ♀; Guatemala: El Tumbador; BMNH, London.
Figures: Blandford 1896e: pl. 6, fig. 16.
Distribution: North America (Guatemala).
References: (ds) Blackwelder 1947; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 365; Wood, S. L. 1982b: 225. (tx) Blandford 1896e: 138; Hagedorn 1910a: 131; Wood, S. L. 1982b: 225.
- paraguayensis** Schedl 1936i: 107. Holotype ♂; Paraguay; Schedl Collection in NHMW, Wien.
Distribution: South America (Paraguay).
References: (ds) Blackwelder 1947; Schedl 1973d: 153. (tx) Schedl 1936i: 107, 1979c: 184.
- parvicornis** Wood 1983a: 656. Holotype ♀; Ruinas de Xochicalco, Morelos, Mexico; Wood Collection.
Distribution: North America (Morelos in Mexico).
References: (hb) Atkinson et al. 1986: 48. (ds) Atkinson et al. 1986: 48. (tx) Wood, S. L. 1983a: 656.
- perplexus** Wood 1968b: 102. Holotype ♂; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection.
Figures: Wood 1968a: 93.
Distribution: North America (Costa Rica).
References: (tx) Schedl 1979c: 190; Wood, S. L. 1968a: 93, 1968b: 102.
- pilatus** Wood 1975a: 24. Holotype ♀; 13 km W El Palmito, Sinaloa, Mexico; CNCI, Ottawa.
Distribution: North America (Sinaloa in Mexico).
References: (ds) Wood, S. L. 1982b: 240. (tx) McNamara 1977: 753; Wood, S. L. 1975a: 24, 1982b: 240.
- pilosus** Eggers 1943a: 378. Holotype ♀; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Eggers 1943a: 378; Schedl 1979c: 194.
- plaumanni** Schedl 1963d: 220. Holotype ♂; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1976a: 50. (tx) Eggers 1943a: 378; Schedl 1963d: 220, 1979c: 196.
- porcatus** Blandford 1896e: 137. Lectotype ♀; Volcan de Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 236.
Figures: Blandford 1896e: pl. 6, 15–15a, Wood 1968a: 97.
Distribution: North America (Costa Rica/ Guatemala/ Panama), South America (Venezuela).
Hosts: *Oreopanax capitatus*, *O. sp.*, *Quercus* sp., liana.
References: (ds) Blackwelder 1947; Bright 1979b: 1496; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 339, 365; Wood, S. L. 1982b: 236. (tx) Blackman 1943c: 375; Blandford 1896e: 137; Eggers 1931b: 35; Hagedorn 1910a: 131; Schedl 1936i: 106–107, 1979c: 197; Wood, S. L. 1968a: 97, 1972c: 193, 1982b: 236.
- promiulus** Wood 1977b: 212. Holotype ♀; Volcan Colima, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco, Morelos in Mexico).
Hosts: *Persea americana*.
References: (hb) Atkinson et al. 1986: 20; (ds) Atkinson & Equihua 1985b: 230; Atkinson et al. 1986: 20; Wood, S. L. 1982b: 239. (tx) Wood, S. L. 1977b: 212, 1982b: 239.

- pullus** Blandford 1896e: 141. Lectotype ♀; Cerro Zunil, Guatemala; BMNH, London, designated by Wood 1982b: 217.
 Figures: Wood 1968a: 90.
 Distribution: North America (Guatemala/ Veracruz in Mexico/ Panama).
 Hosts: *Persea americana*.
 References: (hb) Wood, S. L. 1982b: 217. (ds) Blackwelder 1947; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 365; Wood, S. L. 1982b: 217. (tx) Blandford 1896e: 141; Hagedorn 1910a: 131; Wood, S. L. 1968a: 90, 1982b: 217.
- pumilus** Eggers 1931b: 34. Holotype, sex?; Sao Paulo (Brazil); USNM, Washington.
 Distribution: South America (Brazil).
 References: (ds) Anderson, W. H. & Anderson 1971: 26; Blackwelder 1947. (tx) Eggers 1931b: 34.
- punctatus** Blandford 1896e: 136. Holotype ♀; Panama: Volcan Chiriqui, Chiriqui; BMNH, London.
 Figures: Blandford 1896e: pl. 6, Wood 1968a: 90.
 Distribution: North America (Costa Rica/ Puebla in Mexico/ Panama).
 Hosts: *Guazuma ulmifolia*, *Persea americana*.
 References: (ds) Blackwelder 1947; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 365; Wood, S. L. 1982b: 220. (tx) Blandford 1896e: 136; Hagedorn 1910a: 131; Wood, S. L. 1967b: 84, 1968a: 90, 1982b: 220.
- pusillus** Schedl 1948f: 267. Holotype, sex?; Brazil, Blumenau; Schedl Collection in NHMW, Wien.
 Distribution: South America (Brazil).
 References: (tx) Schedl 1948f: 267, 1979c: 206.
- quaesitus** Schedl 1940a: 331. Holotype ♀; Mexico: "Tibayas" [possible error for Tacubaya, Distrito Federal]; Schedl Collection in NHMW, Wien.
 Distribution: North America (Distrito Federal in Mexico).
 References: (ds) Blackwelder 1947; Ferrer 1942; Wood, S. L. 1982b: 229. (tx) Schedl 1940a: 331–333, 1979c: 209; Wood, S. L. 1982b: 229.
- reticulatus** (Chapuis) 1869: 29 (*Hylesinus*). Holotype, sex?; Bogota (Colombia); IRSNB, Brussels.
 Distribution: South America (Colombia).
 Notes: (1) Eggers 1933b: 18 (to *Cnesinus*).
 References: (ds) Blackwelder 1947; Hagedorn 1910d: 18; Kleine 1912b: 171, 1914b: 341. (tx) Chapuis 1869: 29, 1873: 237; Eggers 1931c, 1933g: 18; Gemminger & Harold 1872: 2675; Hagedorn 1910a: 49.
- reticulosus** Wood 1974a: 2. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Vismia cayennensis*.
 References: (tx) Wood, S. L. 1974a: 2.
- retifer** Wood 1967b: 85. Holotype ♂; Fort Clayton, Canal Zone, Panama; Wood Collection.
 Figures: Wood 1968a: 90.
 Distribution: North America (Panama).
 Hosts: *Serjania* sp.
 References: (hb) Wood, S. L. 1982b: 215. (ds) Wood, S. L. 1982b: 215. (tx) Wood, S. L. 1967b: 85–86, 1968a: 90, 1982b: 215.
- robai** Blackman 1943c: 374. Holotype, sex?; Santander Department, Colombia; USNM, Washington.
 Figures: Blackman 1943c: pl. 15, fig. 5.
 Distribution: South America (Colombia).
 Hosts: *Coffea arabica*.
 References: (ds) Blackwelder 1947; Schedl 1961c: 1. (tx) Blackman 1943c: 374; Wood, S. L. 1961c: 1.
- shoenherri** Schedl 1976a: 63. Holotype ♀; Brasilien, Rio Negrinho; Schedl Collection in NHMW, Wien.
 Distribution: South America (Brazil).
 References: (ds) Pedrosa-Macedo & Schonherr 1985: 13; Schonherr & Pedrosa-Macedo 1981: 51. (tx) Pedrosa-Macedo & Schonherr 1985: 13; Schedl 1976a: 63.
- setosus** Eggers 1943a: 377. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
 Distribution: South America (Bolivia).
 References: (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1943a: 377; Schedl 1979c: 226.
- setulosus** Blandford 1896e: 139. Lectotype ♂; Panama: Tole, Chiriqui; BMNH, London, designated by Wood 1982b: 242.
 Figures: Atkinson et al. 1986: 18, Blackman 1943c: pl. 15, figs. 3–4, 6, Wood 1968a: 97.
 Distribution: North America (Guatemala/ Honduras/ Chiapas, Colima, Guerrero, Jalisco, Morelos, Oaxaca, Tamaulipas in Mexico/ Panama).
 Hosts: *Acacia pennatula*, *Arbutus xalapensis*, *Conocarpus erecta*, *Clytastoma binatum*, *Ficus* sp., *Morisonia americana*, *Serjania mexicana*.
 References: (ec) Equihua & Atkinson 1986: 625. (hb) Atkinson et al. 1986: 20; Equihua & Atkinson 1986: 625; Wood, S. L. 1982b: 242. (ds) Atkinson & Equihua 1985b: 230, 1988: 86; Atkinson et al. 1986: 20; Blackwelder 1947; Equihua & Atkinson 1986: 625; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 365; Wood, S. L. 1982b: 242. (tx) Atkinson et al. 1986: 18; Blandford 1896e: 139; Hagedorn 1910a: 131; Schedl 1938i: 21; Wood, S. L. 1968a: 97, 1972c: 144, 1982b: 242.
- flavopilosus** Schedl 1940a: 333. Holotype ♂?; Mexico: Comitán; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972c: 144.
 References: (ds) Blackwelder 1947; Ferrer 1942. (tx) Schedl 1940a: 332–334, 1948f: 266, 1979c: 97; Wood, S. L. 1967b: 88, 1972c: 144.
- panamensis** Blackman 1943a: 372. Holotype ♂; Panama; USNM, Washington. Synonymy: Wood 1972c: 144.
 References: (ds) Blackwelder 1947. (tx) Blackman 1943a: 372; Wood, S. L. 1972c: 144.
- cognatus** Blackman 1943a: 373. Holotype ♂; El

- Peten Prov., Guatemala; USNM, Washington. Synonymy: Wood 1972c: 144.
References: (ds) Blackwelder 1947. (tx) Blackman 1943a: 373–374; Wood 1967b: 83, 1972b: 144.
- squamosus** Wood 1968a: 102. Holotype ♀; Lower Rio Tempisque, Guanacaste, Costa Rica; Wood Collection.
Figures: Wood 1968a: 97.
Distribution: North America (Costa Rica/Panama), South America (Venezuela).
Hosts: *Serjania* spp.
References: (hb) Wood, S. L. 1982b: 236. (ds) Wood, S. L. 1982b: 236. (tx) Wood, S. L. 1968a: 97, 102, 1982: 236.
- strigicollis** LeConte 1868: 171. Lectotype ♀; Illinois [USA]; MCZ, Cambridge, designated by Wood 1982b: 241.
Figures: Wood 1968a: 97.
Distribution: North America (Campeche, Chiapas, Veracruz in Mexico/ District of Columbia, Florida, Georgia, Illinois, Louisiana, Maryland, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA).
Hosts: *Amerimonon browniei*, *Ardesia paniculata*, *Bunelia lanuginosa*, *Carya* sp., *Coccolobis laurifolia*, *Dipholis salicifolia*, *Fagus grandifolia*, *Liquidambar styraciflua*, *Loucheocarpus castilloi*, *Magnolia glauca*, *Pyrus communis*, *Quercus* sp., *Smilax* sp., *Toxoxylon pomiferum*.
Notes: (3) Schwarz 1886: 54 (redescribed).
References: (bv) Atkinson, Foltz, & Connor 1988; Timbow & Franklin 1980. (cn) Smith, J. B. 1900: 365. (hb) Atkinson, Foltz, & Connor 1988; Beal & Massey 1945: 71–72; Chamberlin 1939: 241; Deyrup & Atkinson 1987a: 64; Hopkins 1899a: 343, 1907a; Pierce 1907: 293; Schwarz 1891e: 79; Wood, S. L. 1982b: 241. (ds) Anonymous 1926c: 515; Beal & Massey 1945: 71–72; Blackwelder 1947; Blatchley & Leng 1916: 586; Chamberlin 1939: 241; Cooper 1935; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Estrada & Atkinson 1988: 203; Ferrer 1942; Frost 1975: 37; Hagedorn 1910d: 80; Hamilton 1887: 66, 1895a: 378; Henshaw 1882: 269, 1885: 149; Hopkins 1899: 343, 1907a: 113; Kirby 1970; Kirk 1969; Kleine 1913b: 148, 1914b: 352, 1934a: 167; Knull 1932: 65–66; Leng 1920: 337; Leonard 1928: 515; Schedl 1960a: 75; Schwarz 1875d: 469, 1886: 54, 1890: 87, 1891e: 79; Smith, J. B. 1900: 365, 1910: 404; Swaine 1909: 89; Timbow & Franklin 1980; Ulke 1902: 56; Wood, S. L. 1982b: 241. (tx) Beal & Massey 1945: 71–72; Blackman 1943c: 371–373; Blandford 1896e: 136, 139; Blatchley & Leng 1916: 586; Chamberlin 1939: 241; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 131; Hopkins 1914: 118; LeConte 1868: 171, 1876: 378, 1878a: 469, 1876: 378; Lucas 1920: 193; Schedl 1940a: 331; Schwarz 1886: 54; Swaine 1909: 89; Wood, S. L. 1968a: 97, 1982b: 241. (ms) Lucas 1920: 193.
- strigillatus** Chapuis 1869: 27 (*Nemophilus*). Syn-types, sex?; Amerique boreale, Texas [USA]; IRSNB, Brussels. Synonymy: LeConte 1876: 378.
References: (ds) Blandford 1896e; Leng 1920: 337; Swaine 1909: 89. (tx) Blandford 1896e: 136, 139; Chapuis 1869: 27, 1873: 235; Gemminger & Harold 1872: 2672; LeConte 1876: 378; Swaine 1909: 89.
- sulcatus** Eggers 1931b: 34. Holotype, sex?; Sao Paulo (Brasil); Prague Museum.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947. (tx) Eggers 1931b: 34.
- teres** Blandford 1896e: 141. Syntypes, sex?; Venezuela [probably Colonia Tovar]; BMNH, London.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947; Hagedorn 1910d: 80; Kleine 1913b: 148, 1914b: 339. (tx) Blandford 1896e: 141; Hagedorn 1910a: 131.
- teretis** Wood 1974a: 3. Holotype ♀; 7 km NW Socopo, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Nectandra* sp.
References: (tx) Wood, S. L. 1974a: 3.
- theocallus** Bright 1972b: 1493. Holotype ♀; 24 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa.
Distribution: North America (Oaxaca in Mexico).
Notes: (3) A probable synonym of *elegans* Blandford.
References: (ds) Wood, S. L. 1982b: 227. (tx) Bright 1972b: 1493; McNamara 1977: 194; Wood, S. L. 1982b: 227.
- transitus** Schedl 1976a: 63. Holotype ♀; Corcovado, Guanabara, Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 63.
- triangularis** Wood 1974a: 5. Holotype ♀; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: Uvo de Monte (shrub).
References: (tx) Wood, S. L. 1974a: 5.
- vestitus** Eggers 1933b: 16. Holotype, sex?; Venezuela (Colonia Tovar); MNHN, Paris.
Distribution: South America (Venezuela).
Hosts: Bamboo.
References: (ds) Blackwelder 1947. (tx) Eggers 1933b: 2, 16–17.
- vevator** Schedl 1963d: 220. Holotype ♀; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1963d: 220, 1979c: 266.

Genus *Pagiocerus* Eichhoff

PAGIOCERUS EICHHOFF 1868c: 148. Type-species: *Pagiocerus rimosus* Eichhoff = *Bostrichus frontalis* Fabricius, subsequent designation by Hopkins 1914: 126.

References: (cn) Linsley 1944: 202. (hb) Hopkins 1907: 112; Lipes 1968: 32; Wood, S. L. 1986a: 48. (ds) Wood, S. L. 1986a: 48. (tx) Blandford 1895b: 49, 1896e: 134; Blatchley & Leng 1916: 586; Chamberlin 1939: 241–242; Chapuis 1869: 26, 1873: 234; Eggers 1940a: 123–141; Eichhoff 1868c: 148; Hagedorn 1910a: 131, 1910d: 79–80; Hopkins 1914: 126; Lucas 1920: 477; Schedl 1960h: 6, 1965i: 300; Swaine 1909: 128, 1918a: 39; Wood, S. L. 1986a: 48.

cribricollis Eichhoff 1868e: 148. Holotype, sex[?]; Brasilia; Hamburg Museum, lost.

Distribution: South America (Brazil).

References: (hb) Hopkins 1907a; Wood, S. L. 1982b: 245–246. (ds) Blackwelder 1947: 787; Chapuis 1869: 27, 1873: 235; Eichhoff 1868c: 148; Hagedorn 1910d: 80; Hopkins 1907a; Kleine 1913b: 148, 1914b: 336; Wood, S. L. 1982b: 245–246. (tx) Arnett 1960: 1040, 1968: 1040; Chapuis 1869: 27, 1873: 235; Eichhoff 1868c: 148; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 132; Lucas 1920: 477; Schedl 1965i; Wood, S. L. 1982b: 245–246. (ms) Lucas 1920: 477.

frontalis (Fabricius) 1801: 389 (*Bostrichus*). Syn-types, sex[?]; Carolina [USA]; UZMC, Copenhagen. Figures: Atkinson et al. 1986: 18, 49, Blandford 1986e: pl. 6, fig. 6–7.

Distribution: Antilles Islands (Cuba/ Guadeloupe), North America (Costa Rica/ El Salvador/ Guatemala/ Honduras/ Distrito Federal, Mexico, Morelos, Nayarit, Queretaro, Puebla, Veracruz in Mexico/ Panama/ Florida, Georgia, North Carolina, South Carolina, Texas in USA), South America (Argentina/ Bolivia/ Brazil/ Chile/ Colombia/ Ecuador/ Peru/ Venezuela).

Hosts: *Ocotea* spp., *Persea americana*, *P. spp.*, *Zea mays*.

Notes: (1) Eggers 1929e: 42 (to *Pagiocerus*). (3) Economic damage to mature and stored grain of maize occurs in northern South America; infested grain shipped from this area has been intercepted in many countries.

References: (ay) Saldarriaga 1985. (bv) Saldarriaga 1985. (cn) Anonymous 1941a: 429; Mumford 1965: 28; Piedra 1949, 1950; Wood, S. L. 1977a: 72. (hb) Atkinson et al. 1986: 20, 48; Beccari 1963: 399; Burgos & Saucedo 1983: 60; Deyrup & Atkinson 1987a: 64; Gould 1948: 776; Linsley 1944: 205; Peck, Kukulova-Peck, & Borden 1985; Saldarriaga 1985; Soukup 1942: 328; Wille 1934: 4–8, 1943: 245; Wood, S. L. 1982b: 246; Yust 1957: 92–96. (ds) Atkinson & Equihua 1985a: 74, 1985b: 230, 1988: 92; Atkinson et al.

1986: 20, 48; Beaver 1973a; Blackwelder 1947: 787; Bright 1972d: 29, 1985c: 171; Burgos & Saucedo 1983: 60; Deyrup & Atkinson 1987a: 64; Ferrer 1942; Gnaglini 1966: 218; Kirk 1969; Kleine 1934a: 167; Mumford 1965: 28; Nunberg 1963c: 97; Schedl 1960a: 75, 1965i, 1966f: 78, 1971f: 147, 1972d: 140, 1973d: 153, 1974e: 50, 1978c: 291; Wood, S. L. 1977a: 72, 1982b: 246. (tx) Anderson, W. H. 1948: 215; Atkinson et al. 1986: 18, 49; Bright 1972d: 29, 1985c: 171; Eggers 1928c: 92, 1929e: 42, 1940a: 136; Fabricius 1801: 389; Lepesme 1944: 237; Muskus, A. 1984: 50; Saldarriaga 1985; Schedl 1940a: 329–330, 1960h: 6, 1962m: 62–64, 1965i, 1972d: 140, 1974e; Wood, S. L. 1982b: 246.

rimosus Eichhoff 1868c: 148. Syn-types, sex[?]; Cuba; Hamburg Museum, lost. Synonymy: Eggers 1928c: 92.

References: (cn) Barber 1919: 59; Ebeling 1959; Soukup 1942: 320; Wille 1943: 364–366. (hb) Bondar 1950: 479; Chamberlin 1939: 242; Hopkins 1907a: 112–113; Linsley 1944–205. (ds) Blatchley & Leng 1916: 586; Chamberlin 1939: 242; Chapuis 1869: 26, 1873: 234; Ebeling 1959; Ferrer 1942; Hagedorn 1910d: 80; Hopkins 1907a: 112–113; Kleine 1913b: 148, 1914b: 332, 342, 352, 364, 378; Leng 1920: 337; Swaine 1909: 128. (tx) Blandford 1896e: 49, 134; Blatchley & Leng 1916: 586; Chamberlin 1939: 242; Chapuis 1869: 26, 1873: 234; Eggers 1928c: 92, 1929e: 46; Eichhoff 1868c: 148; Gemminger & Harold 1872: 2672; Hagedorn 1910a: 132; Hopkins 1914: 126; Lepesme 1944: 237; Lucas 1920: 477; Schedl 1940a: 329–331, 1960h: 6, 1965i; Swaine 1909: 128. (ms) Lucas 1920: 477.

hubbardi Schwarz 1886: 54 (*Bothrosternus*). Holotype, sex[?]; St. Lucie, Florida [USA]; USNM, Washington. Synonymy: Anderson 1948: 215.

References: (hb) Chamberlin 1939: 242. (ds) Blatchley & Leng 1916: 585; Chamberlin 1939: 242; Hagedorn 1910d: 79; Henshaw 1887: 8, 1895: 44; Kleine 1913b: 147, 1914b: 384, 1934a: 167; Leng 1920: 337; Schwarz 1886: 54; Swaine 1909: 87. (tx) Anderson, W. H. 1948: 215; Blandford 1896e: 131; Blatchley & Leng 1916: 585; Chamberlin 1939: 242; Eggers 1943a: 373; Hagedorn 1910a: 129; Schwarz 1886: 54; Swaine 1909: 87.

fiorii Eggers 1908c: 215 (*Hylastinus*). Holotype, sex[?]; Genua (Italia); Andr. Fiori Collection, Bologna. Synonymy: Schedl 1960h: 6.

References: (cn) Ceballos 1957; Mumford 1960: 35, 1961: 21, 1962: 32, 1963: 38; Yust 1957: 92; Yust & Ceballos 1958: 468–469. (cc) Wichmann 1955a: 97. (hb) Viana 1964: 128; Yust 1957: 92. (ds) Blackwelder 1947: 787; Ferrer 1942; Hagedorn 1910d: 9; Kleine 1912b: 165; Mumford 1960: 35, 1961: 29,

- 1962: 32, 1963: 38; Viana 1964: 128; Wichmann 1955a: 97. **(tx)** Eggers 1908c: 215, 1940a: 136, 1940h: 62; Hagedorn 1910a: 45; Pfeffer 1984b: 12; Reitter 1913a: 46; Schedl 1934f: 1635, 1939d: 412, 1940a: 329, 231, 1960h: 6.
- chiriquensis* Eggers 1928c: 92. Holotype, sex?; Panama: Volcan Chiriqui; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1960h: 6. References: **(ds)** Blackwelder 1947: 787; Ferrer 1942. **(tx)** Eggers 1928c: 92; Schedl 1940a: 329, 331, 1951d: 17, 1960h: 6.
- zeae* Eggers 1928c: 92. Lectotype, sex?; South American corn kernels; USNM, Washington, designated by Anderson & Anderson 1971: 36. Synonymy: Eggers 1940h: 62, Schedl 1960h: 6. References: **(hb)** Linsley 1944: 206; Stark 1952: 147. **(ds)** Bekman 1929: 155–166; Stark 1952: 147. **(tx)** Anderson, W. H. & Anderson 1971: 36; Eggers 1928c: 92, 1940h: 62, Lepesme 1944: 237; Schedl 1960h: 6; Stark 1952: 147.
- nitidus* Eggers 1930a: 170. Holotype, sex?; Venezuela (Caracas); MNB, Berlin. Synonymy: Schedl 1960g: 6. References: **(ds)** Blackwelder 1947: 787. **(tx)** Eggers 1930a: 170–171; Schedl 1960h: 6.
- carabicus* Eggers 1940a: 136. Holotype, sex?; Trois Rivieres, Guadeloupe; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1960h: 6. References: **(tx)** Eggers 1940a: 136; Schedl 1960h: 6.
- luederwaldti* Eggers 1928c: 93. Holotype, sex?; Brasil, Sao Paulo; Museum Paulista, Sao Paulo. Distribution: South America (Brazil). References: **(ds)** Blackwelder 1947: 787. **(tx)** Eggers 1928c: 93; Schedl 1965i.
- major* Schedl 1976a: 64. Holotype ♂?; Linhares, E. Santo, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: **(tx)** Schedl 1976a: 64.
- punctatus* Eggers 1928c: 93. Holotype ♂; Brasil (Cormba, Matto Grosso); Eggers Collection, in NHMW, Wien. Figures: Pedrosa-Macedo & Schonherr 1985: 14. Distribution: South America (Brazil). References: **(ds)** Blackwelder 1947: 787; Pedrosa-Macedo & Schonherr 1985: 14; Schedl 1966f: 82, 1967d: 2, 1972g: 42, 1976a: 50; Schonherr & Pedrosa-Macedo 1981: 51. **(tx)** Eggers 1928c: 93, 1930: 170; Pedrosa-Macedo & Schonherr 1985: 14; Schedl 1965i.
- Genus *Eupagiocerus* Blandford
- EUPAGIOCERUS BLANDFORD 1896c: 133. Type-species: *Eupagiocerus dentipes* Blandford, monobasic.
- nevermanni* Schedl 1962r: 85. Type-species: *Eupagiocerus nevermanni* Schedl = *Eupagiocerus ater* Eggers, monobasic. Synonymy: Wood 1965: 31. References: **(tx)** Schedl 1962r: 85; Wood, S. L. 1965: 31.
- Keys: Wood 1965: 31. References: **(hb)** Wood, S. L. 1986a: 48. **(ds)** Wood, S. L. 1986a: 48. **(tx)** Blandford 1896c: 133; Hagedorn 1910a: 129, 1910d: 79; Lucas 1920: 282; Schedl 1962r: 85; Wood, S. L. 1965: 31, 1982b: 249, 1986a: 46–48.
- ater* Eggers 1931a: 14. Holotype ♂; Caracas, Venezuela; MNB, Berlin. Distribution: North America (Costa Rica/Panama), South America (Peru/Venezuela). Hosts: *Serjania* sp. References: **(hb)** Wood, S. L. 1965, 1982b: 252. **(ds)** Blackwelder 1947: 787; Wood, S. L. 1982b: 252. **(tx)** Eggers 1931a: 14; Schedl 1963h: 258; Wood, S. L. 1965: 32, 1982b: 252.
- nevermanni* Schedl 1952d: 350. Holotype ♀?; Turrialba, Costa Rica; Schedl Collection in NHMW, Wien. Synonymy: Wood, S. L. 1965: 32. References: **(tx)** Schedl 1952d: 350, 1962r: 85; Wood, S. L. 1965: 32.
- serratus* Wood 1961d: 104. Holotype ♂; Paraiso, Canal Zone, Panama; USNM, Washington. Synonymy: Wood, S. L. 1965: 32. References: **(tx)** Wood, S. L. 1961d: 104, 1965: 32.
- dentipes* Blandford 1896c: 133. Lectotype ♂; El Tumbador, Guatemala; BMNH, London, designated by Wood 1982b: 251. Distribution: North America (Guatemala/ Chiapas in Mexico/ Panama). Hosts: Liana. References: **(hb)** Wood, S. L. 1982b: 251. **(ds)** Blackwelder 1947: 787; Bright 1972b: 1496; Hagedorn 1903b: 546, 1910d: 79; Kleine 1913b: 148, 1914b: 364; Wood, S. L. 1982b: 251. **(tx)** Blandford 1896c: 133; Eggers 1930a: 171, 1931a: 14, 1931c: 18, 1933b: 2, 16, 1933g: 18; Hagedorn 1903b: 546, 1910a: 130; Hopkins 1914: 121; Lucas 1920: 282; Wood, S. L. 1972c: 145, 1982b: 251. **(ms)** Lucas 1920: 282.
- clarus* Wood 1965: 33. Holotype ♀; Rio Viejo, Volcan Chiriqui, Panama; Wood Collection. Synonymy: Wood 1972c: 145. References: **(tx)** Wood, S. L. 1965: 33, 1972c: 145.
- vastus* Wood 1965: 34. Holotype ♀; Puerto Viejo, Heredia Province, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: Liana. References: **(hb)** Wood, S. L. 1982b: 250. **(ds)** Wood, S. L. 1982b: 250. **(tx)** Wood, S. L. 1965: 34, 1982b: 250.

Genus *Bothrosternus* Eichhoff

BOTHIROSTERNUS EICHHOFF 1865c: 150. Type-species: *Bothrosternus truncatus* Eichhoff, monobasic.

Keys: Wood 1982b: 247 for North and Central America.

References: (ay) Nobuchi 1969a: 47. (hb) Wood, S. L. 1982b: 247, 1986a: 46. (ds) Wood, S. L. 1982b: 247, 1986a: 46. (tx) Blandford 1896c: 131–132; Blatchley & Leng 1916: 595; Chamberlin 1939: 239–240; Chapuis 1869: 24, 1873: 232; Eggers 1933b: 14, 1943a: 372; Eichhoff 1865c: 150; Hagedorn 1910a: 128, 1910d: 79; LeConte & Horn 1853: 523; Leng 1920: 337; Lucas 1920: 145; Swaine 1909: 86, 1918a: 39; Wood, S. L. 1982b: 247, 1986a: 46–48.

affinis Eggers 1933b: 14. Holotype, sex?; Venezuela (San Esteban); MNHN, Paris.

Distribution: South America (Venezuela).

Hosts: Liana.

References: (ds) Blackwelder 1947: 757. (tx) Eggers 1933b: 2, 14–15.

artestrigosus Schedl 1939k: 722. Syntypes, sex?; Nova Teutonia, Sta. Catarina, Brasilien; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Figures: Schedl 1939k: 721.

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 21 (citation of holotype invalid).

References: (ds) Blackwelder 1947: 757; Schedl 1973a: 366, 1978c: 291. (tx) Schedl 1939k: 722–723, 1979c: 27.

brevis Eggers 1933b: 15. Holotype ♀; Brasil (Sao Paulo); USNM, Washington.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 757; Bright 1981c: 152; Schedl 1966f: 83. (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1931c: 18, 1933b: 2, 15, 1933g: 18; Schedl 1979c: 46.

definitus Wood 1968a: 109. Holotype ♀; Finca Gromaco on Rio Coto Brus, Puntarenas Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica/Panama).

Hosts: Liana.

References: (tx) Wood, S. L. 1968a: 109.

foveatus (Blackman) 1943c: 375 (*Cnesimus*). Holotype ♀; Trece Aguas, Alta Verapaz, Guatemala; USNM, Washington.

Figures: Blackman 1943c: pl. 15, figs. 9–11.

Distribution: North America (Costa Rica/El Salvador/Guatemala/Oaxaca, Veracruz in Mexico).

Hosts: *Cupania guatemalensis*, *Orcopanax capitatus*, *Serjania* sp.

Notes: (3) Male unknown, hundreds of females have been collected from galleries in all stages of completion.

References: (hb) Wood, S. L. 1982b: 247. (ds) Blackwelder 1947; Wood, S. L. 1982b: 247. (tx) Blackman 1943c: 375–376; Wood, S. L. 1982b: 247.

hirsutus Wood 1955: 271. Holotype ♂; Rancho Grande, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Serjania* sp., *Tabebuia* sp.

Notes: (3) Males and females occurred in equal numbers.

References: (tx) Wood, S. L. 1985: 271.

isolatus Bright 1972d: 28. Holotype ♂; Clydesdale, St. Andrew Parish, Jamaica; CNCI, Ottawa.

Figures: Bright 1972d: 35, 75.

Distribution: Antilles Islands (Jamaica).

Notes: Bright 1985: 179 (described female).

References: (ds) Bright 1985c: 171. (tx) Bright 1972d: 28, 35, 75, 1985c: 171, 177, 179; McNamara 1977: 194.

lucidus Wood 1974a: 6. Holotype ♂; about 260 km N Xavantina, Mato Grosso, Brazil (12 degrees 49' S, 51 degrees 46' W); BMNH, London.

Distribution: South America (Brazil).

References: (hb) Beaver 1973a. (ds) Beaver 1973a; Wood, S. L. 1974a: 6.

striatus Eggers 1933b: 16. Holotype, sex?; Venezuela; USNM, Washington.

Distribution: South America (Venezuela).

References: (ds) Blackwelder 1947: 757. (tx) Anderson, W. H. & Anderson 1971: 31; Eggers 1933b: 14, 16.

subopacus Schedl 1963d: 217. Holotype ♀; Nova Teutonia, Santa Catarina, Brasil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1963d: 217, 1979c: 243.

suturalis Eggers 1931b: 32. Holotype, sex?; Sao Paulo, Brasil; Prage Museum.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 757; Pedrosa-Macedo & Schonherr 1985: 15; Schedl 1966f: 83, 1973d: 154, 1976a: 50. (tx) Eggers 1931b: 32–33; Pedrosa-Macedo & Schonherr 1985: 15; Schedl 1979c: 247.

truncatus Eichhoff 1865c: 150. Holotype ♂; Venezuela; Schedl Collection in NHMW, Wien.

Distribution: North America (Panama), South America (Venezuela).

Hosts: *Serjania* sp.

Notes: (3) Males very rare, present in less than 10 percent of the series collected from their galleries.

References: (ds) Atkinson & Equihua 1988: 55; Blackwelder 1947: 757; Chapuis 1869: 26, 1873: 234; Gemminger & Harold 1872: 2694; Hagedorn 1903b: 546, 1910d: 79; Kleine 1913b: 147, 1914b: 339; Schedl 1966f: 79, 1976a: 50. (tx) Chapuis 1869: 26, 1873: 234; Eggers 1933b: 2, 14–16; Eichhoff 1865c: 150; Hagedorn 1903b: 546, 1910a: 129; Hopkins 1914: 117; Lucas 1920: 145; Schedl 1979c: 257; Wood, S. L. 1982b: 247. (ms) Lucas 1920: 145.

Genus *Sternobothrus* Eggers

STERNOBOTHRUS EGGERS 1943a: 372. Type-species: *Bothrosternus cancellatus* Chapuis, original designation.

Keys: Wood 1982b: 254 for Central America.

References: (hb) Wood, S. L. 1986a: 48. (ds) Wood, S. L. 1986a: 48. (tx) Eggers 1943a: 372; Wood, S. L. 1982b: 253–254, 1986a: 46–48.

bicaudatus (Blandford) 1896e: 133 (*Bothrosternus*). Syntypes 2, sex?; Volcan de Chiriquí, Chiriquí, Panama; BMNH, London.

Figures: Blandford 1896e: pl 6, fig. 4.

Distribution: North America (Panama), South America (Venezuela).

Hosts: *Nectandra* sp.

Notes: (1) Eggers 1943a: 373 (to *Sternobothrus*). References: (hb) Beaver 1973a; Wood, S. L. 1982b: 255. (ds) Beaver 1973a; Blackwelder 1947: 787; Blandford 1896e: 133; Eggers 1943a: 372–373; Hagedorn 1910d: 79; Kleine 1913b: 147, 1914b: 364; Wood, S. L. 1982b: 255. (tx) Blandford 1896e: 133; Hagedorn 1910a: 129; Wood, S. L. 1982b: 255.

cancellatus (Chapuis) 1869: 25 (*Bothrosternus*). Holotype ♀; Nova Fribourg, Bresil; IRSNB, Brussels.

Distribution: South America (Argentina/ Brazil).

Notes: (1) Eggers 1943a: 373 (to *Sternobothrus*). References: (ds) Blackwelder 1947: 787; Gemminger & Harold 1872: 2694; Hagedorn 1910d: 79; Kleine 1913b: 147, 1914b: 336. (tx) Chapuis 1869: 25, 1873: 233; Eggers 1931b: 31, 1943a: 372–373; Hagedorn 1910a: 129; Schedl 1939j: 564, 1951h: 284, 1952d: 351, 1958f: 34.

carinatus Eggers 1943a: 373. Holotype ♀; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia/ Peru).

References: (ds) Blackwelder 1947: 787. (tx) Eggers 1943a: 373; Schedl 1952d: 351.

costatus (Chapuis) 1869: 25 (*Bothrosternus*). Syntypes 2, sex?; Bresil; IRSNB, Brussels.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 787; Hagedorn 1910d: 79; Kleine 1913b: 147. (tx) Chapuis 1869: 25, 1873: 233; Eggers 1943a: 372–373; Hagedorn 1910a: 129.

lacordairei (Chapuis) 1869: 25 (*Bothrosternus*). Syntypes, sex?; Nova-Fribourg, Bresil; IRSNB, Brussels.

Distribution: South America (Brazil).

Notes: (1) Eggers 1943a: 373 (to *Sternobothrus*). References: (ds) Blackwelder 1947: 787; Gemminger & Harold 1872: 2694; Hagedorn 1910d: 79; Kleine 1913b: 147, 1914b: 336. (tx) Chapuis 1869: 25, 1873: 233; Eggers 1943a: 372; Hagedorn 1910a: 129.

lobatus Eggers 1943a: 374. Holotype ♂; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 787. (tx) Eggers 1943a: 374.

opaculus Schedl 1963d: 218. Holotype ♂; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1963d: 218.

rufonitidus Schedl 1952d: 351. Holotype ♀; Paraguay; Villarica; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina/ Paraguay).

References: (ds) Schedl 1966f: 83, 1967d: 2, 1973d: 162. (tx) Schedl 1951h: 284, 1952d: 351.

sculpturatus (Blandford) 1896e: 132 (*Bothrosternus*). Lectotype ♀; Bugaba, Chiriquí, Panama; BMNH, London, designated by Wood 1982d: 254.

Figures: Blandford 1896e: pl. 6, fig. 3, 3a-6.

Distribution: North America (Costa Rica/ Oaxaca in Mexico/ Panama), South America (Argentina/ Brazil/ Colombia/ Venezuela).

Hosts: *Nectandra* sp.

Notes: (1) Eggers 1943a: 373 (to *Sternobothrus*). References: (hb) Beaver 1973a; Wood, S. L. 1982b: 254. (ds) Beaver 1973a; Blackwelder 1947: 787; Bright 1972b: 1497; Hagedorn 1910d: 79; Kleine 1913b: 147, 1914b: 364; Santoro 1957b: 25; Schedl 1966f: 83, 1972g: 42, 1973d: 154, 1978c: 291; Wood, S. L. 1982b: 254. (tx) Blandford 1896e: 132; Eggers 1943a: 372–373; Hagedorn 1910a: 129; Hopkins 1915c: pl. 9, fig. 13, pl. 12, fig. 13; Schedl 1939j: 564, 1958f: 34, 1979c: 223; Wood S. L. 1982b: 254.

tuberculatus Eggers 1951: 152. Holotype ♀; Brasil (Blumenau); Eggers Collection, in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Schedl 1972g: 42, 1973d: 154. (tx) Eggers 1951: 152.

Tribe Phloeotribini Chapuis

Phloeotribidae

References: Chapuis 1869: 42, 1873: 250.

Phloeotribi

References: LeConte & Horn 1883: 521.

Phloeotribinae

References: Hopkins 1915c: 225; Tredl 1907: 7.

Phloeotribini

References: Leng 1920: 335; Nobuchi 1985c: 7; Wood, S. L. 1978a: 112, 1982b: 256–281, 1986: 48.

Phloeotribina

References: Balachowsky 1949a: 105; Nunberg 1954: 15; Reitter 1913a: 31.

Phthorophloeidae

References: Nusslin 1912: 273.

Genus *Aricerus* Blandford

ARICERUS BLANDFORD 1894a: 133. Type-species: *Aricerus chapuisi* Blandford, subsequent designation by Hopkins 1914: 117.

Hylesinus fici Lea 1910: 143. Type-species: *Hylesinus fici* = *Aricerus eichhoffi* Blandford, monobasic. Synonymy: Schedl 1936g: 523. References: (tx) Blackman 1943c: 384; Blandford 1897a: 162; Lea 1910: 143; Schedl 1936g: 523; Wood, S. L. 1986a: 49.

References: (hb) Wood, S. L. 1986a: 49. (ds) Wood, S. L. 1986a: 49. (tx) Blandford 1894a: 133, 1897a: 142; Hagedorn 1910a: 42, 1910d: 30; Hopkins 1914: 117; Schedl 1936g: 523; Wood, S. L. 1986a: 49.

analis Schedl 1975g: 216. Holotype ♂; New-Britannien; Schedl Collection in NHMW, Wien. Distribution: New Britain Island. References: (tx) Schedl 1975g: 216, 1979c: 19.

chapuisi Blandford 1894a: 134. Syntypes ♀; Australia; BMNH, London.

Distribution: Australia (Queensland).

Hosts: *Ficus* sp.

References: (ds) Brimblecombe 1953: 3; Hagedorn 1910d: 30; Kleine 1912b: 157, 1914b: 298; Schedl 1936g: 523, 1962i: 73. (tx) Blandford 1894a: 134; Hagedorn 1910a: 43; Hopkins 1914: 117; Schedl 1936g: 524.

eichhoffi Blandford 1894a: 135. Syntypes, sex?; New South Wales, Australia; BMNH, London.

Figures: Blandford 1894a: 134 (antenna), Reeks 1948c: 371 (adult).

Distribution: Australia (New South Wales/Queensland), New Guinea.

Hosts: *Ficus carica*, *F. macrophylla*, *F. rubiginosa*, *F.* spp.

References: (cn) Froggatt 1899 (as *Hylesinus porcatus*); MacLeay 1882: 348; Tryon 1894: 63. (hb) Froggatt 1899 (as *Hylesinus porcatus*). (ds) Brimblecombe 1953: 3; Hagedorn 1910d: 30;

Kleine 1912b: 187, 1914b: 299; Schedl 1936g: 523, 1950b: 183. (tx) Blandford 1894a: 135; Carne et al. 1980; Eggers 1929c; Hagedorn 1910a: 43; Schedl 1979c: 87.

fici Lea 1904: 103. Syntypes, sex?; Sydney Narabeen National Park, New South Wales; SAM, Adelaide. Synonymy: Lea 1910: 143 (synonymy?). Eggers 1929c: 54, Schedl 1936g: 523.

References: (cn) Anonymous 1941c: 97; Froggatt 1907; Hadlington 1951a; Reeks 1948c: 371. (hb) Anonymous 1941c: 97; Froggatt 1907; Hadlington 1951a; Reeks 1948c: 371. (ds) Anonymous 1944: 21–22; Hagedorn 1910d: 16; Kleine 1914b: 298; Schedl 1936g: 523, 1962i: 73, 1965g: 25. (tx) Anonymous 1941c: 95–99, 116, 1944c: 21–22, 1948m: 171; Eggers 1929c: 54; Gay 1955: 12; Hagedorn 1910a: 47; Lea 1904: 103, 1910: 143; Schedl 1936g: 523, 1958i: 214, 1965g: 25.

Genus *Phloeotribus* Latreille

PHLOEOTRIBUS LATREILLE 1796: 50. Type-species: *Hylesinus oleae* Fabricius = *Scolytus scarabacoides* Bernard, monobasic.

Phloeophthorus Wollaston 1854: 299. Type-species: *Phloeophthorus perfoliatus* Wollaston. Synonymy: Blackman 1943c: 384.

References: (hb) Eichhoff 1881: 144; Tredl 1907: 7. (ds) Postner 1974: 341. (tx) Balachowsky 1949a: 109–116; Bedel 1888b: 394; Blackman 1943c: 384; Chapuis 1869: 42, 1873: 250; Eichhoff 1864b: 28, 1881a: 39, 1883a: 104; Escherich 1923b: 478; Formanek 1907: 15; Guillebeau 1893: 57, 1896: 154; Hagedorn 1910d: 32; Hoffmann 1942: 73; Judeich & Nitsche 1895: 445; Karaman 1972: 84; Lacordaire 1866: 363; Nunberg 1954: 25–29; Pfeffer 1955a: 130–133, 1972b: 23–45; Postner 1974: 391; Reitter 1894: 48, 1913a: 32; Schedl 1962q: 489; Seitner 1920: 282; Spessivtsev 1931: 84; Stark 1952: 296–300; Swaine 1911a: 220–224; Tredl 1907: 7; Winkler 1932: 1640; Wollaston 1854: 299.

Dryotomus Chapuis 1869: 46. Type-species: *Dryotomus puberulus* Chapuis, monobasic, preoccupied by Swainson 1831: 301. Synonymy: Schedl 1962q: 487.

References: (tx) Blandford 1897a: 142; Chapuis 1869: 46, 1873: 254; Hagedorn 1910d: 30; Lucas 1920: 251; Schedl 1962q: 487; Wood, S. L. 1962: 76.

Phthorophloeus Rey 1885: 128. Type-species: *Phloeophthorus spinulosus* Rey, monobasic. Synonymy: Blackman 1943c: 384.

References: (tx) Balachowsky 1949a: 102–109; Beal & Massey 1945: 59, 76; Blackman 1922: 42–53, 1943c: 384; Blatchley & Leng 1916: 656–655; Bruck 1936a: 41, 126; Chamberlin 1939: 115, 139–144, 1958: 52, 63–64; Dodge 1938: 17, 25; Escherich 1923b: 427–489, 600–

- 601; Guillebeau 1893: 57; Jacquelin du Val & Fairmaire 1868: 101, 108; Koch 1925; Krivolutskaya 1958: 114; Leng 1920: 335; Lucas 1920: 507; Nunberg 1954: 27; Nusslin 1927: 255-261; Pfeffer 1955: 128-129; Postner 1974: 391; Priego 1932: 434; Reitter 1894: 7, 1913: 32, 36; Rey 1885: 128; Saalas 1914: 70, 75, 1917: 480-482, 1919; Schedl 1962q: 489; Scheerpeltz & Winkler 1930: 256; Schimitschek 1937: 45; Simmel 1916; Spessivtsev 1931: 22-23, 84; Stark 1932: 244; Swaine 1918a: 58-60.
- Elzearius* Guillebeau 1893: 64. Type-species: *Elzearius crenatus* Guillebeau, monobasic. Synonymy: Balachowsky 1949a: 108. References: (tx) Balachowsky 1949a: 108; Guillebeau 1893: 64, 1896: 154.
- Eulytocerus* Blandford 1897a: 161. Type-species: *Eulytocerus championi* Blandford, monobasic. Synonymy: Wood 1977c: 383. References: (tx) Blandford 1897a: 161; Hagedorn 1910a: 38, 1910d: 30; Wood, S. L. 1977c: 383.
- Comesiella* DelGuercio 1925b: 218. Type-species: *Comesiella sicula* DelGuercio = *Phloeophthorus pubifrons* Guillebeau, monobasic. Synonymy: Balachowsky 1949a: 112. References: (tx) Balachowsky 1949a: 112; DelGuercio 1925b: 210-218, 1931: 63-74; Schedl 1962q: 489.
- Nephlocotribus* Eggers 1943a: 349. Type-species: *Phloeotribus nubilis* Blandford, subsequent designation by Wood 1983a: 648. Synonymy: Wood 1983a: 648. References: (tx) Eggers 1943a: 349; Schedl 1962q: 488; Wood, S. L. 1983a: 648.
- Dryotomicus* Wood 1962: 76. Type-species: *Dryotomicus puberulus* Chapuis, automatic. Synonymy: Wood 1982b: 256. References: (tx) Wood, S. L. 1962: 76, 1982b: 256. Keys: Blandford 1897a: 162, Wood 1982b: 257 for North America; Bright 1978: 92 for Canada; Pfeffer 1972b: 31 for Europe. Notes: (1) The original spelling of *Phloeotribus* Latreille (1796: 50) was declared an inadvertent error in spelling by the International Commission on Zoological Nomenclature (ICZN 1979: 132). (3) *Lacordaire* 1866: 365 (*mexicanus* Lacordaire, nomen nudum, and *villosulus* Lacordaire, nomen nudum, have been cited by several authors but have never been validated or listed in synonymy). Wood 1992b: 80 (*Phloeotribus zimmermanni* Wickham 1916: 19 transferred to Curculionidae). References: (ay) Nobuchi 1968a: 52; Schonherr 1970b. (hb) Barbey 1901: 65; Eichhoff 1881a: 39, 147; Morris 1850a: 144-145, 1850b: 502-503, 1860a: 130-131, 1860b: 118-120; Tredl 1907: 7; Wood, S. L. 1986a: 49. (ds) Postner 1974: 390; Wood, S. L. 1982b: 256-281, 1986a: 49. (tx) Arnett 1960: 1041, 1968: 1041; Balachowsky 1949a: 105-107; Bedel 1888b: 359, 394; Blackman 1943c: 384; Blanchard 1845; Blandford 1897a: 162; Bright 1978: 92; Chapuis 1869: 43, 1873: 251; DelGuercio 1913: 59-75; Eggers 1940: 123-141; Eichhoff 1864b: 29, 44, 46, 1881a: 104, 1883a: 104; Erichson 1836: 56; Hagedorn 1910a: 39, 1910d: 30; Holthius 1976; Jacquelin du Val & Fairmaire 1868: 102; Lacordaire 1866: 364; Latreille 1796: 50, 1803: 204, 1804: 108, 1807: 280, 1810: 224, 1829: 92; LeConte 1868: 168, 1876: 376; LeConte & Horn 1883: 522; Lintner 1885b: 575, 1887a: 837, 1887b: 77-125; Lucas 1920: 504; Pfeffer 1952a: 465, 1989a: 31; Postner 1974: 390; Reitter 1894: 47, 1913: 32; Schedl 1962q: 487, 1981b: 46; Stark 1952: 294-296; Spessivtsev 1931a: 84; Swaine 1909: 130-131, 1911: 22; Winkler 1932: 1640; Wood, S. L. 1967b: 79-97, 1969c: 120-122, 1975c: 122, 1977c: 383, 1982b: 256-281, 1986a: 49; Zimmermann 1868: 147-148.
- acaciae** (Lea) 1910: 146 (*Phloeophthorus*). Syn-types, sex?; Tasmania; SAM, Adelaide. Distribution: Australia (New South Wales/Tasmania/Victoria). Hosts: *Acacia* sp. Notes: (3) Schedl 1958i: 216 (erroneously treated this species in *Xylechinus*). References: (ds) Schedl 1936g: 523. (tx) Lea 1910: 146; Schedl 1936g: 523, 1958i: 214, 216.
- amplus** Wood 1977c: 390. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection. Distribution: South America (Venezuela). References: (tx) Wood, S. L. 1977c: 390.
- argentinae** Blackman 1943c: 386. Holotype ♀; El Quemado, Argentina; USNM, Washington. Figures: Blackman 1943c: figs. 28-30. Distribution: South America (Argentina). References: (ds) Blackwelder 1947: 785; Schedl 1973d: 161. (tx) Blackman 1943c: 386; McNamara 1984: 753; Schedl 1951m: 82-83.
- argentinensis** (Schedl) 1952a: 447 (*Phthorophloeus*). Syntypes ♀; Misiones, Argentina, Prov. Concep., Sta Maria; Schedl Collection in NHMW, Wien, and Viana Collection. Distribution: South America (Argentina). Notes: (1) Schedl 1979c: 25 (citation of holotype invalid). References: (hb) Viana 1964: 126. (ds) Schedl 1978c: 291; Viana 1964: 126. (tx) Schedl 1952a: 447, 1979c: 25.
- armatus** Blandford 1897a: 166. Holotype ♂; Volcan de Chiriqui, Panama; BMNH, London. Figures: Bright 1972b: 1490. Distribution: North America (Guatemala/ Honduras/ Oaxaca in Mexico/ Panama), South America (Colombia). References: (hb) Wood, S. L. 1982b: 276. (ds) Beaver 1973b; Blackwelder 1947: 785; Hagedorn

- 1903b: 546, 1910d: 30; Kleine 1912b: 188, 1914b: 359; Wood, S. L. 1982b: 276. **(tx)** Blandford 1897a: 166; Eggers 1933b: 2, 4; Hagedorn 1903b: 546, 1910a: 40; Wood, S. L. 1973: 180, 1982b: 276.
- mixtecus* Bright 1972b: 1494. Holotype ♀; 26 miles S Juchatengo, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 181. References: **(tx)** Bright 1972b: 1490, 1494; McNamara 1977: 197; Wood, S. L. 1973c: 180–181.
- asperulus* Eggers 1943a: 353. Holotype ♀; Bolivia (Cochabamba); Eggers Collection, holotype and 2 Eggers cotypes in NHMW, Wien. Distribution: South America (Bolivia). References: **(tx)** Eggers 1943a: 353.
- atavus* Wood 1969b: 6. Holotype ♀; Laguna Volcan Poas, Heredia Prov., Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Clusia* sp., *Podocarpus oleifolius*. References: **(hb)** Wood, S. L. 1982b: 262. **(ds)** Wood, S. L. 1982b: 262. **(tx)** Wood, S. L. 1969b: 6, 1982b: 262.
- biguttatus* Blandford 1897a: 169. Holotype ♂; Bugaba, Chiriqui, Panama; BMNH, London. Distribution: North America (Panama), South America (Colombia/Venezuela). Hosts: *Brosimum* sp. References: **(hb)** Wood, S. L. 1982b: 277. **(ds)** Blackwelder 1947: 785; Hagedorn 1910d: 30; Kleine 1912b: 188, 1914b: 359; Wood, S. L. 1982b: 277. **(tx)** Blandford 1897a: 169; Hagedorn 1910a: 40; Wood, S. L. 1982b: 277.
- brasilienis* (Schedl) 1951m: 85 (*Phthorophlocus*). Holotype ♀?; Brasilien, Bahia, Cachoeirinha-Una; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: **(tx)** Schedl 1951m: 85.
- brevicollis* (Kolenati) 1846: 38 (*Hylesinus*). Syn-types, sex?; Iberia et Armenia; Acad. Petropoli. Figures: Grune 1979: 40. Distribution: Asia (Turkey), Europe (Hungary/W USSR). Hosts: *Colutea arborescens*, *Fagus orientalis*, *Olea europaea*. References: **(bv)** Grune 1979: 45. **(ec)** Wichmann 1916: 14. **(hb)** Stark 1952: 299; Wichmann 1916: 14. **(ds)** Endrodi 1958b; Fedorov 1930; Grune 1979: 45; Hagedorn 1910d: 32; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 708; Kleine 1912b: 189, 1934a: 137; Kolenati 1846: 38; Lacordaire 1866: 363; Luigioni 1929: 991; Mirzoian 1950: 140; Pfeffer 1982a: 465; Postner 1974: 392; Reitter 1894a: 48; Schaufuss 1915: 1217; Schedl 1959h: 100, 1971b: 426; Stark 1952: 299; Stein & Weise 1877: 164. **(tx)** Endrodi 1957a, 1957b, 1973: 233; Gemminger & Harold 1872: 2674; Grune 1979: 40, 45; Hagedorn 1910a: 42; Kolenati 1846: 38; Lacordaire 1866: 363; Luigioni 1929: 991; Pfeffer 1955a: 131, 1982a: 465; Postner 1974: 392; Reitter 1894a: 48, 1913a: 33; Schedl 1934f: 1640, 1962q: 489; Stark 1952: 299; Wichmann 1916: 14, 1916b: 432–433. **(ms)** Endrodi 1973.
- caucasicus* Reitter 1891a: 32. Syntypes, sex?; Araxesthal bei Ordubad; N11MB, Budapest. Figures: Stark 1952: 295 (female head), Swaine 1911a: 224 (antenna, metatibia). Distribution: Europe (W USSR). Hosts: *Fraxinus excelsior*. References: **(bv)** Barr, B. A. 1969: 642; Grune 1979: 41. **(cn)** Gentry, J. W. 1965: 110; Greckin 1956: 1482; Iyriboz 1940b: 52; Kholodkovskii 1912: 293; Morris, H. M. 1937: 22. **(ec)** Kleine 1908c: 178, 1944: 78; Meyer 1934: 616; Nuorteva 1957b: 52; Thompson, W. R. 1943: 87. **(hb)** Eggers 1906; Greckin 1956: 1482; Iyriboz 1940b: 52; Kholodkovskii 1912: 293; Postner 1974: 390; Spessivtsev 1913a: 46; Stark 1952: 294; Zvierezomb & Zubovsky 1918. **(ds)** Eggers 1906; Gentry, J. W. 1965: 110; Georghiou 1977: 74; Grune 1979: 41; Hagedorn 1910d: 30; Heyden, Reitter, & Weise 1891: 669, 1906: 708; Kadyrov 1988: 43, 45, 1989; Kleine 1912b: 188, 1913a: 89, 1934a: 137; Mirzoian 1950: 140; Pfeffer 1989a: 31; Pjatnitskii 1930a: 163; Reitter 1894a: 47; Stark 1927b: 86, 1952: 294; Tredl 1907: 7. **(tx)** Grune 1979: 40–41; Hagedorn 1910a: 40; Reitter 1891a: 32–33, 1894a: 47, 1913a: 32; Schedl 1934f: 1640; Spessivtsev 1913a: 46; Stark 1952: 274; Swaine 1911a: 22.
- championi* (Blandford) 1897a: 161 (*Eulytocerus*). Holotype ♂; Volcan de Chiriqui, Chiriqui, Panama, 3500–4000 ft.; BMNH, London. Distribution: North America (Costa Rica/Panama). References: **(ds)** Blackwelder 1947: 785; Hagedorn 1910d: 30; Kleine 1912b: 187, 1914b: 358; Wood, S. L. 1982b: 261. **(tx)** Blandford 1897a: 161; Hagedorn 1910a: 39; Hopkins 1914: 121; Schedl 1935h: 344; Wood, S. L. 1977c: 383, 387, 1982b: 261.
- substriatus* Schedl 1935h: 344 (*Eulytocerus*). Holotype ♂; Costa Rica, Turrialba, 800 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977c: 387. References: **(ds)** Blackwelder 1947: 785. **(tx)** Schedl 1935h: 344, 1979c: 244; Wood, S. L. 1977c: 387.
- collaris* Chapuis 1869: 46. Holotype, sex?; Nouvelle-Grenade; IRSNB, Brussels. Distribution: South America (Venezuela). Hosts: *Clusia* sp. References: **(ds)** Blackwelder 1947: 785; Hagedorn 1910d: 30; Kleine 1912b: 188, 1914b: 341. **(tx)** Chapuis 1869: 46, 1873: 254; Gemminger & Harold 1872: 2676; Hagedorn 1910d: 40.
- contortus* Schedl 1973d: 167. Holotype ♀?; Brasilien, Amazonas, Maturaca, alto Rio Cauaburi; MZUSP, Sao Paulo.

Distribution: South America (Brazil).

References: (tx) Schedl 1973d: 167.

contractus Chapuis 1869: 46. Holotype, sex[?]; Bresil; IRSNB, Brussels.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 785; Kleine 1912b: 188, 1914b: 336; Schedl 1972g: 41. (tx) Chapuis 1869: 46, 1873: 254; Gemminger & Harold 1872: 2676.

crenatus (Guillebeau) 1893: 64 (*Elzearius*). Syntypes, sex[?]; Nord de la Hongrie; not located.

Distribution: Europe (Hungary).

References: (ds) Schilsky 1909: 187. (tx) Guillebeau 1893: 64; Hopkins 1914: 121; Schedl 1934f: 1641.

cristatus (Fauvel) 1889: 71 (*Phlocophthorus*). Syntypes, sex[?]; Europe; MNHN, Paris.

Figures: Balachowsky 1949a: 114, Kalina 1970: 119–120.

Distribution: Africa (Algeria), Europe (Corsica/ France/ Italy/ Spain/ Switzerland/ Yugoslavia).

Hosts: *Spartiium junceum*, *Retama* sp., *Genista* sp., *Calycotoma* sp.

Notes: (3) Guillebeau 1893 (named aberrations as varieties *corsicus*, *lineigera*, *mayeti*, *pubifrons*, *sharpi*, no status).

References: (en) Grandi 1951. (ec) Novak, P. 1952: 415; Wichmann 1916: 14. (hb) Grandi 1951; Russo 1932: 87–113; Wichmann 1916: 14.

(ds) Balachowsky 1949a: 112; Barthe 1896; Ganglbauer 1904; Hagedorn 1910d: 32; Heyden, Reitter, & Weise 1906: 705; Kleine 1912b: 189, 1914a: 16, 1934a: 137; Langhoffer 1915c: 156; Luigioni 1929: 991; Novak, P. 1952: 415, 1964; Pfeffer 1947d: 126; Pittioni 1943: 176; Reitter 1894a: 49; Sainte-Claire & Mequignon 1938: 446; Schanfuss 1915: 1217; Tredl 1907: 7. (tx) Balachowsky 1949a: 112; Eggers 1941c: 120; Fauvel 1889: 71; Guillebeau 1893; Hagedorn 1910a: 42; Hoffmann 1942: 74; Kalina 1970: 119–120; Luigioni 1929: 991; Pfeffer 1955a: 131, 1972: 39; Reitter 1894a: 49, 1913a: 36; Schedl 1934f: 1640, 1962q: 489; Wichmann 1916: 14.

helveticus Guillebeau 1893: 60 (*Phlocophthorus*).

Syntypes, sex[?]; Valais, Sierre, Switzerland; not located. Synonymy: Balachowsky 1949a: 112, Pfeffer 1972b: 39.

References: (ds) Barthe 1896; Luigioni 1929: 991; Schanfuss 1915: 1217. (tx) Balachowsky 1949a: 112; Guillebeau 1893: 60; Luigioni 1929: 991; Pfeffer 1955a: 131, 1972b: 39; Reitter 1913a: 34; Schedl 1934f: 1640.

latus Wichmann 1916: 14 (*Phlocophthorus*). Syntypes, sex[?]; St. Andraa bei Rovigno; not given. Synonymy: Pfeffer 1972b: 39.

References: (ec) Novak, P. 1952: 415; Rusehka 1916: 29; Szczepanski 1960a: 409; Wichmann 1916: 14. (hb) Wichmann 1916: 14. (ds)

Kleine 1934a: 137; Luigioni 1929: 991; Novak, P. 1952: 415; Pfeffer 1947d: 128; Pittioni 1943: 176; Schedl 1967c: 69. (tx) Luigioni 1929: 991; Pfeffer 1955a: 131, 1972b: 39; Schedl 1934f: 1640, 1958k: 141; Wichmann 1916: 14, 1916b: 432–433.

geschwindi Seitner 1920: 283 (*Phlocophthorus*).

Syntypes, sex[?]; Heimat; not located. Synonymy: Pfeffer 1972b: 39.

References: (ds) Luigioni 1929: 991; Pfeffer 1935: 158. (tx) Luigioni 1929: 991; Pfeffer 1955a: 131, 1972b: 39; Schedl 1934f: 1640; Seitner 1920: 283.

ovalis Eggers 1941c: 120 (*Phlocophthorus*). Holotype, sex[?]; Mallorca (Balearen); Eggers Collection, holotype and 2 Eggers cotypes in Schedl Collection in NHMW, Wien. Synonymy: Pfeffer 1972b: 39.

References: (tx) Eggers 1941c: 120; Pfeffer 1972b: 39.

pctinicornis Balachowsky 1949a: 116. Syntypes, sex[?]; France; MNHN, Paris. Synonymy: Schedl 1955k: 142; Pfeffer 1972b: 39.

References: (tx) Balachowsky 1949a: 116; Pfeffer 1972b: 39; Schedl 1958k: 141–142.

cylindricus Schedl 1951m: 82. Syntypes ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Distribution: South America (Argentina/ Brazil).

Notes: (1) Schedl 1979c: 74 (citation of holotype invalid).

References: (hb) Viana 1964: 127. (ds) Viana 1964: 127. (tx) de Ruetten 1970: 105; Schedl 1951m: 82, 1955f: 34, 1979c: 74.

demessus Blandford 1897a: 165. Lectotype ♀; Tuxpan or Tuxpan, Mexico; BMNH, London, designated by Wood 1982b: 275.

Distribution: North America (Costa Rica/ Chihuahua, Jalisco, Veracruz in Mexico/ Panama).

Hosts: *Croton* sp.

References: (bv) Kirkendall 1984. (hb) Atkinson & Equihua 1985b: 230; Kirkendall 1984; Wood, S. L. 1982b: 275. (ds) Atkinson 1989a: 59; Atkinson & Equihua 1985b: 230; Blackwelder 1947: 785; Ferrer 1942; Hagedorn 1910d: 30; Kleine 1912b: 188, 1914b: 349, 359; Wood, S. L. 1982b: 275. (tx) Blandford 1897a: 165; Hagedorn 1910a: 40; Schedl 1940a: 337; Wood, S. L. 1969b: 7, 1973c: 181, 1982b: 275.

tuberculatus Eggers 1951: 147. Holotype ♀; Costa Rica (Turrialba); USNM, Washington, preoccupied by Eggers 1943a: 348. Synonymy: Wood 1973c: 181.

References: (tx) Eggers 1951: 147; Schedl 1962q: 487; Wood, S. L. 1973c: 181.

eggersi Schedl 1962q: 487. Holotype ♀; Costa Rica (Turrialba); USNM, Washington, automatic. Synonymy: Wood 1973c: 181.

- References: (tx) Schedl 1962q: 487; Wood, S. L. 1973c: 181.
- dentifrons (Blackman)** 1921: 3 (*Phthorophloeus*).
 Syntypes ♀; A. & M. College (Starkville), Mississippi and SMUK, Lawrence, Kansas [USA]; USNM, Washington.
 Distribution: North America (District of Columbia, Florida, Illinois, Kansas, Louisiana, Michigan, New Jersey, New Mexico, New York, North Carolina, North Dakota, Pennsylvania, South Carolina, Texas, Virginia, West Virginia in USA).
 Hosts: *Celtis occidentalis*, *C.* sp., *Condalia obtusifolia*.
 References: (cn) Anonymous 1971e, 1972k; Blackman 1950; Doane et al. 1936. (ec) Burks 1979: 856; Bushing 1965: 463. (hb) Baker, W. L. 1972: 240; Beal & Massey 1945: 76–80; Blackman 1922b, 1950; Chamberlin 1939: 143; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Drooz 1985: 350; Wood, S. L. 1982b: 272. (ds) Atkinson et al. 1991: 146; Beal & Massey 1945: 76–80; Blackman 1922b, 1950; Chamberlin 1939: 143; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Dodge 1938: 25–26; Drooz 1985: 350; Furniss, R. L. & Carolin 1977: 370; Kleine 1934a: 138; Leng & Mutchler 1927: 51; Wood, S. L. 1982b: 272. (tx) Beal & Massey 1945: 76–80; Blackman 1921: 3, 1922b; Chamberlin 1939: 143; Dodge 1938: 25–26; de Ruelle 1970: 107; Wood, S. L. 1982b: 272.
- despectus Schedl** 1966f: 98. Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien.
 Distribution: South America (Venezuela).
 References: (ds) Schedl 1966f: 79. (tx) Schedl 1966f: 98.
- destructor Wood** 1969b: 123. Holotype ♂; Morelia, Michoacan, Mexico; Wood Collection.
 Distribution: North America (Michoacan, Morelos in Mexico).
 Hosts: *Prunus persica*, *P. serotina*, *P.* sp.
 References: (hb) Atkinson et al. 1986: 21; Burgos & Saucedo 1983: 62; Wood, S. L. 1982b: 271. (ds) Atkinson & Equihua 1985a: 76, 1985b: 230; Atkinson et al. 1986: 21; Burgos & Saucedo 1983: 62; Wood, S. L. 1982b: 271. (tx) Wood, S. L. 1969b: 123–124, 1982b: 271.
- discrepans Blandford** 1897a: 163. Holotype ♀; Volcan de Chiriqui, Panama; BMNH, London.
 Distribution: North America (Guatemala/ Chiapas, Morelos in Mexico/ Panama).
 Hosts: *Prunus persica*.
 References: (hb) Atkinson et al. 1986: 21. (ds) Atkinson et al. 1986: 21; Blackwelder 1947: 785; Hagedorn 1910d: 31; Kleine 1912b: 188, 1914b: 358. (tx) Blandford 1897a: 163; Eggers 1942a: 16; Hagedorn 1910a: 40; Wood, S. L. 1969b: 163, 1982b: 264.
- erimaceus Schedl** 1973d: 168. Holotype ♀?; Brasilien, Sao Paulo, Itu, Fazenda Pau d'Alho; MZUSP, Sao Paulo.
 Distribution: South America (Brazil).
 References: (tx) Schedl 1973d: 168.
- erosus Schedl** 1951m: 83. Syntypes ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
 Figures: Schedl 1951m: 84 (adult).
 Distribution: South America (Argentina/ Brazil).
 Notes: (1) Schedl 1979c: 91 (citation of holotype invalid).
 References: (ds) Schedl 1973a: 366, 1973d: 152, 1976a: 50. (tx) Schedl 1951h: 284, 1951m: 83, 1979c: 91.
- fici Wood** 1977c: 393. Holotype ♂; Universidad de los Andes Campus, Merida, Merida, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Ficus* sp. (strangler fig).
 References: (tx) Wood, S. L. 1977c: 393.
- fraxini (Eggers)** 1913c: 239 (*Phloeophthorus*).
 Syntypes 4, sex?; Algeria (Bongie); 2 syntypes in Eggers Collection, in NHMW, Wien.
 Distribution: Africa (Algeria).
 Hosts: *Fraxinus oxyphylla*.
 References: (hb) Peyerimhoff 1915: 60. (ds) Kleine 1914a: 16; Nunberg 1964a: 234; Pfeffer 1935: 158, 1947d: 127. (tx) Eggers 1913c: 239; Pfeffer 1955a: 131; Schedl 1934f: 1640.
- frontalis (Olivier)** 1795b: 13 (*Scolytus*).
 Syntypes, sex?; Amerique septentrionale: MNHN, Paris, not located.
 Figures: Swaine 1911a: 224 (antenna, metatibia).
 Distribution: North America (Guanajuato in Mexico/ Alabama, District of Columbia, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA).
 Hosts: *Celtis occidentalis*, *Morus alba*, *M. rubra*.
 References: (ay) Hopkins 1894g. (bv) Turnbow & Franklin 1980. (cn) Anonymous 1970r, 1971n; Blackman 1950; Doane et al. 1936; Packard 1890: 612; Smith, J. B. 1900: 364; Swaine 1918a: 59. (ce) Ashmead 1896: 233; Burks 1979: 791; Bushing 1965: 463; Chittenden 1893d: 249, 1898: 78, 1901; Deyrup 1981b: 4; Felt 1906: 336, 725; Marsh 1979: 146; Muesebeck 1936: 10; Pierce, W. D. 1908: 386; Solomon 1968: 1024; Thompson, W. R. 1943: 86. (hb) Atkinson & Equihua 1985a: 76; Baker, W. L. 1972: 240; Blackman 1922b: 53–55, 1950; Chamberlin 1939: 142; Chittenden 1890; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Felt 1906: 725; Hopkins 1894g: 280; Keen 1929a: 297, 1933b: 297; Kirkendall 1984: 239; Packard 1890: 612; Swaine 1918a: 59; Wood, S. L. 1982b: 270. (ds) Anonymous 1926c:

- 515; Atkinson & Equihua 1985a: 76; Atkinson et al. 1991: 156; Beal & Massey 1945: 76–80; Blackman 1922b: 53–55, 1950; Blatchley & Leng 1916: 657; Britton 1920a; Chamberlin 1939: 142; Chittenden 1890; Dejean 1821, 1825, 1837; Deyrup 1981b: 4; Deyrup & Atkinson 1987b: 68; Hagedorn 1910d: 31; Hamilton 1895a: 378; Henshaw 1885: 149; Hopkins 1893a: 142–144, 148, 1893b: 213, 1903e: 320, 1905b: 78; Kirk 1969, 1970; Kleine 1912b: 188, 1914b: 341, 392, 1934a: 138; Leng 1920: 338; Leonard 1928: 515; Melsheimer 1853: 87; Riley 1894: 227; Smith, J. B. 1900: 364, 1910: 403; Swaine 1909: 131; Tumbow & Franklin 1980; Wickham 1916: 19; Wood, S. L. 1982b: 270. **(tx)** Blackman 1921: 3–4, 1922b: 53–55; Blatchley & Leng 1916: 657; Bruck 1936a; Chamberlin 1939: 142; Dejean 1821, 1825; Eichhoff 1896: 608; Fabricius 1801: 389; Gemminger & Harold 1872: 2676; Hagedorn 1910a: 40; Hopkins 1905b: 77; Jacques 1951: 349; LeConte 1876: 377; Olivier 1795b: 13; Schwarz 1895: 146; Swaine 1909: 131, 1911: 220, 1918a: 59; Wood, S. L. 1972c: 151, 1982b: 270; Zimmermann 1868: 148.
- granicollis* Eichhoff 1868c: 149 (*Phlocophthorus*).
Lectotype ♂; published Am. bor., type labeled Carolina boreale; USNM, Washington, designated by Wood 1982b: 270. Synonymy: LeConte 1876: 377, Eichhoff 1896: 608.
References: **(ds)** Leng 1920: 338; Swaine 1909: 131. **(tx)** Chapuis 1869: 43, 1873: 251; Eichhoff 1868c: 149, 1896: 608; Gemminger & Harold 1872: 2675; LeConte 1868: 177, 1876: 377; Swaine 1909: 131; Wood, S. L. 1982b: 270.
- moriperda* Hopkins 1905b: 77 (*Phlocophthorus*).
Lectotype ♀; Irapuato, Guanajuato, Mexico; USNM, Washington, designated by Wood 1972c: 151. Synonymy: Wood 1972c: 151.
References: **(ds)** Blackwelder 1947: 785; Ferrer 1942; Hagedorn 1910d: 33; Kleine 1912b: 189, 1914b: 349. **(tx)** Hagedorn 1910a: 40; Hopkins 1905b: 77; Schedl 1940a: 337, 1950i: 146; Wood, S. L. 1972c: 151.
- furvus* Wood 1969b: 124. Holotype ♂; Turrialba, Cartago Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Guatemala/ Panama).
Notes: (3) Blandford 1897a: 165 (erroneously treated this species under *P. sulcifrons*).
References: **(hb)** Wood, S. L. 1982b: 280. **(ds)** Atkinson & Equihua 1985b: 230; Kleine 1914b: 358–359; Wood, S. L. 1982b: 280. **(tx)** Wood, S. L. 1969b: 124, 1982b: 280.
- geminus* Wood 1983a: 657. Holotype ♂; Acatlan, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Fiens* sp.
References: **(cc)** Equihua & Atkinson 1986: 625. **(hb)** Equihua & Atkinson 1986: 625. **(ds)** Equihua & Atkinson 1986: 625. **(tx)** Wood, S. L. 1983a: 657.
- harringtoni* Blackman 1943a: 388. Holotype ♀; Aguaray, Argentina; USNM, Washington.
Distribution: South America (Argentina).
References: **(ds)** Blackwelder 1947: 785. **(tx)** Blackman 1943a: 388.
- hebes* Schedl 1978c: 294. Holotype ♂; Brasilien, Encruzilhada; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1978c: 294.
- hercegoviniensis* (Seitner) 1920: 284 (*Phlocophthorus*). Syntypes, sex?; Herzegovina (Yugoslavia); not located.
Distribution: Europe (Bulgaria/ Greece/ Yugoslavia).
Hosts: *Cytisus veldeni*.
References: **(ds)** Pfeffer 1935: 158, 1947a: 129, 1982a: 465; Schedl 1967c: 69. **(tx)** Pfeffer 1955a: 130; Schedl 1934f: 1640; Seitner 1920: 284.
- hirtellus* Schedl 1966f: 99. Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
References: **(ds)** Schedl 1966f: 79. **(tx)** Schedl 1966f: 99.
- hirtus* Wood 1977c: 393. Holotype ♂; Caparrapi, Cundinamarca, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: Arbol de Sangregao.
References: **(tx)** Wood, S. L. 1977c: 393.
- hispidulus* Eggers 1934a: 78. Holotype, sex?; Venezuela; Hamburg Museum, lost; neotype ♂; Venezuela; designated by Schedl 1979c: 118 from 1 of 2 Eggers cotypes in NHMW, Wien.
Distribution: South America (Venezuela).
References: **(ds)** Blackwelder 1947: 785. **(tx)** Eggers 1934a: 78, 1940a: 123; Schedl 1979c: 118.
- huapiaie* (Schedl) 1979c: 59 (*Phthorophloeus*). Holotype ♀; Nahuel Huapi National Park, Argentina; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
References: **(ay)** Naumann-Etienne 1978b. **(hb)** Naumann-Etienne 1978b. **(ds)** Naumann-Etienne 1978b. **(tx)** Schedl 1979c: 59.
- hylurgulus* Schedl 1959i: 405. Holotype, sex?; Peru; Huaraz; Frey Museum, Tutzing [now in NHMBS, Basel].
Distribution: South America (Peru).
References: **(tx)** Schedl 1959i: 405.
- hystrix* Wood 1969b: 7. Holotype ♂; Rio Damitas in the Dota Mts., San Jose Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
References: **(hb)** Wood, S. L. 1982b: 260. **(ds)** Wood, S. L. 1982b: 260. **(tx)** Wood, S. L. 1969b: 7, 1982b: 260.

- ingae** Wood 1977c: 389. Holotype ♂; Bugo, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Inga* sp. (fruiting pods).
References: (tx) Wood, S. L. 1977c: 389.
- insularis** Eggers 1940a: 123. Lectotype ♀; Gadeloupe (Trois-Rivieres); USNM, Washington, designated by Anderson & Anderson 1971: 16.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1981c: 115, 1985c: 171. (tx) Anderson, W. H. & Anderson 1971: 16; Bright 1985c: 171; Eggers 1934a: 78, 1940a: 123.
- jujuya** Blackman 1943c: 389. Holotype ♀; Santa Clara, Jujuy, Argentina; USNM, Washington.
Distribution: South America (Argentina).
References: (hb) Viana 1964: 127. (ds) Blackwelder 1947; Viana 1964: 127. (tx) Blackman 1943c: 389; Schedl 1958f: 34.
- lecontei** Schedl 1962q: 487. Holotype ♂; La Veta Pass, Colorado [USA]; MCZ, Cambridge, automatic.
Distribution: North America (Alberta, British Columbia in Canada/California, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Washington, Wyoming in USA).
Hosts: *Abies lasiocarpa*, *Picea engelmannii*, *P. pungens*, *Pseudotsuga menziesii*.
References: (ec) Deyrup & Gara 1978: 275; Furniss, R. L. & Carolin 1977: 369; Marsh 1979: 157. (hb) Bright 1976b: 93; Furniss, M. M. & Johnson 1987: 378; Furniss, R. L. & Carolin 1977: 369; Wood, S. L. 1982b: 269. (ds) Bright 1976b: 93; Elias 1985: 39; Elias, Short, & Clark 1986; Furniss, M. M. & Johnson 1987: 379; Furniss, R. L. & Carolin 1977: 369; Gast et al. 1989: 385; Miller, R. F., Morgan, & Hicock 1985: 501; Wood, S. L. 1982b: 269. (tx) Bright 1962b: 93; Schedl 1962q: 487; Wood, S. L. 1982b: 269.
- puberulus** LeConte 1879: 519. Holotype ♂; La Veta Pass, Colorado [USA]; MCZ, Cambridge, preoccupied by Chapuis 1869: 46.
Notes: (3) Swaine 1911a: 231 (redescription).
References: (cn) Beckwith 1972a; Swaine 1918a: 59. (ec) Bright 1976a; Matthews 1970. (hb) Chamberlin 1939: 141, 1958: 63; Swaine 1918a: 59. (ds) Beckwith 1972a; Bedard 1938a; Chamberlin 1939: 141, 1958: 63; Henshaw 1882: 269, 1885: 149; Kleine 1912b: 188, 1914b: 397; Leng 1920: 338; Smith, G. S. 1930; Swaine 1909: 132; Wickham 1896a: 309; Wood, S. L. 1948: 18, 1951a: 127. (tx) Beckwith 1972a, 1972b; Bruck 1935: 126, 1936a; Chamberlin 1939: 141, 1958: 63; Gemminger & Harold 1872: 2676; LeConte 1879: 519; Schedl 1951m: 85, 1962q: 487; Swaine 1909: 132, 1911a: 221, 1918a: 59.
- levis** Wood 1977c: 392. Holotype ♂; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: "Graptero" tree.
References: (tx) Wood, S. L. 1977c: 392.
- liminaris** (Harris) 1852a: 79 (*Tomicus*). Holotype ♀; New England [USA]; MCZ, Cambridge.
Figures: Blackman 1921: pl. 1, fig. 2 (adult), Bright 1976d: 196, Davidson & Lyon 1979: 423; Rexrode 1982: 390, Swaine 1911a: 224 (antenna, metatibia), Wilson 1909: 99 (all stages).
Distribution: North America (Manitoba, New Brunswick, Ontario, Quebec in Canada/Connecticut, District of Columbia, Florida, Iowa, Kentucky, Maryland, Massachusetts, Michigan, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Virginia, West Virginia in USA).
Hosts: *Prunus americana*, *P. angustifolia*, *P. persica*, *P. serotina*.
References: (ay) Baker, B. H. 1964; DelGuercio 1931; Rexrode & Krause 1981. (bv) Baker, B. H. 1964; Rexrode 1981; Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. (cn) Alderman et al. 1913: 35; Baker, B. H. 1964: 187–194; Bentley 1930: 92; Blackman 1950; Brooks 1916: 6, 1917: 1–15; Chamberlin 1924, 1939: 144; Chandler 1939: 33, 1950: 18–19; Chandler & Flint 1935a: 10, 1939a: 10–12; Chittenden 1899b; Cockerell 1894; Cook 1891; Currie 1905: 19; Davidson & Lyon 1979: 423, 1987: 453; Davis 1895, 1896; DelGuercio 1925b, 1931; Devereaux 1881, 1883, 1884; Felt 1906: 452; Fletcher 1894: 7, 1896: 155, 1899, 1902: 242; Gentry, C. R. et al. 1980: 297, 1982: 302; Gossard 1908: 62, 301, 1909: 3, 51, 1911: 118, 1913: 31, 1914: 8; Hadley 1917: 125; Haldeman 1850; Harris 1855: 200, 206, 1863: 88, 1890: 88; Hoerner 1929: 449–465; Kleine 1932a: 297; Kovach & Gorsuch 1955; Kulman 1964a: 258–266; Linden 1882; Lindquist, O. H. & Syme 1981: 84; Lintner 1885b: 575, 1896: 270, 1887b: 111, 124, 1893: 365–368; MacNay & Creelman 1958: 17; Metcalf & Flint 1928: 602, 1939: 627, 1951: 700; Morris, M. H. 1850a: 144, 1850b: 502, 1860a: 131, 1860b: 119; Morschel 1972: 179; O'Kane 1914: 242; Packard 1890: 227, 590; Parrott 1912: 209; Peairs 1941: 334–335; Quaintance 1908: 122; Rexrode & Baumgras 1984; Riley 1881b: 515 (or 866); Roling & Kearby 1977; Sanderson 1912: 653, 1921: 582; Saunders 1883: 195; Schultz & Allen 1977; Slingerland 1893: 700; Smith, J. B. 1900: 364; Snow 1893: 365; Strickland 1916: 1099, 1922: 208; Swaine 1910d: 42, 1918a: 59–60; Syme & Nystrom 1988: 80; Talbert & Mumeek 1939: 160; Twigg 1911: 320; Webster 1891: 452, 1893: 111; Wilson 1909: 91–108. (ec) Burks 1979: 800; Bushing 1965: 464; Felt 1906: 452; Metcalf & Flint 1928: 602, 1939: 627, 1951: 700; Rexrode 1981; Rexrode & Baumgras 1984; Roling & Kearby 1977; Rose, A. H. & Lindquist 1982b: 248; Schultz & Allen 1975, 1977; Tomalak,

Welch, & Galloway 1989: 8. (**hb**) Baker, B. H. 1964; Baker, W. L. 1962: 240; Beal & Massey 1945: 76–80; Blackman 1922b: 55–56, 1950; Bright 1976d: 92; Caulfield 1891; Chamberlin 1939: 144; Chandler 1939; Chittenden 1899b; Davidson & Lyon 1979: 423, 1987: 453; DelGuercio 1931; Devereaux 1881; Deyrup & Atkinson 1987a: 64; Dillon & Dillon 1961: 807; Drooz 1985: 350; Essig 1942: 603; Felt 1906: 428, 452; Felt & Cockerell 1907: 217; Gossard 1913; Hopkins 1893a: 147, 1893b: 213, 1904b: 320; Keen 1933b: 297; Kirkendall 1984: 240; Kleine 1932a: 297; Lintner 1887b: 111, 124; Metcalf & Flint 1928: 602, 1939: 627, 1951: 700; Morschel 1972: 179; Morstatt 1924: 36, 38; Packard 1890: 227; Pierce 1907: 293; Rexrode 1982; Riley 1881b: 515 (or 866); Ross 1956: 342; Samders 1883: 195; Schwarz 1888a: 113; Snow 1893: 365; Swaine 1910c: 58, 1918a: 59–60; Talbert & Murmeek 1939: 160; Titus & Pratt 1904: 29; Wood, S. L. 1982b: 264; Zocchi 1956: 140–141. (**ds**) Anonymous 1926c: 515; Baker, B. H. 1964; Beal & Massey 1945: 76–80; Blackman 1922b: 55–56, 1950; Blatchley & Leng 1916: 657; Bright 1967d: 92; Canfield 1891: 75; Chamberlin 1939: 144; Chandler & Flint 1935a; Chapuis 1869: 39, 1873: 247; Chittenden 1899b; Cockerell 1894: 69; Cockerell et al. 1907; Currie 1905; Davis 1896; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Dodge 1938; Drooz 1985: 350; Hagedorn 1910d: 31; Henshaw 1885: 149; Hopkins 1893a: 141; Hubbard & Schwarz 1878a: 666; Kirk 1970; Kleine 1912b: 188, 1932a: 297, 1934a: 137; Leng 1920: 338; Leonard 1928: 515; Lindquist, O. H. & Syme 1981: 84; MacNay & Creelman 1958: 17; Quaintance 1908: 122; Razzanti 1956: 141; Schultz & Allen 1977; Schwarz 1888a: 113; Smith, J. B. 1900: 364, 1910: 403; Swaine 1909: 131, 1910c: 58; Syme & Nystrom 1988: 80; Turnbow & Franklin 1980; Ulke 1902: 56; Wood, S. L. 1982b: 264. (**tx**) Beal & Massey 1945: 76–80; Benoit 1985: 196; Blackman 1921: 4–5, 1922b: 55–56; Blatchley & Leng 1916: 657; Bright 1976d: 92, 196; Chamberlin 1939: 144; Chapuis 1869: 39, 1873: 247; Comstock 1948: 542; Davidson & Lyon 1979: 423; DelGuercio 1925b; Dillon & Dillon 1961: 801, 807; Dodge 1938: 16, 25; Drooz 1985: 350; Essig 1942: 603; Gemminger & Harold 1942: 2673; Hagedorn 1910a: 40; Harris 1852a: 79; Jacques 1951: 349; LeConte 1868: 148, 1876: 377; Lindquist, O. H. & Syme 1981: 84; Muesebeck 1942: 99, 1950: 136; Rexrode 1982: 390; Rexrode & Kransse 1981: 760; Ross 1956: 342; Say 1826: 320; Schwarz 1889b: 113, 149; Swaine 1909: 131–132, 1911a: 220, 1911b: 81, 1913: 41–43, 1918a: 59–60; Syme & Nystrom 1988: 80; Wood, S. L. 1972c: 151, 1982b: 264; Zocchi 1956: 140–141. (**ms**) Slingerland 1893: 700.

mississippiensis Blackman 1921: 4 (*Phthorophloeus*). Lectotype ♀; Agric. Coll. (Starkville),

Mississippi [USA], designated by Wood 1972c: 151. Synonymy: Wood 1972c: 151.

References: (**cn**) Blackman 1950. (**hb**) Baker, W. L. 1972: 240; Blackman 1921: 4–5, 1922b: 53, 1950; Chamberlin 1939: 143. (**ds**) Blackman 1950; Chamberlin 1939: 143; Kleine 1934a: 138; Leng & Mutchler 1927: 51. (**tx**) Blackman 1921: 4–5; Chamberlin 1939: 143; de Ruelle 1970: 107; Wood, S. L. 1972c: 151.

lineatus Eggers 1951: 148. Holotype ♀; Brasil (Blumenau); Eggers Collection, in NHMW, Wien. Distribution: South America (Brazil). References: (**tx**) Eggers 1951: 148.

longipilus Eggers 1943a: 355. Holotype, sex?; Bolivia: Cochabamba; MNHN, Paris. Distribution: South America (Bolivia). References: (**tx**) Eggers 1943a: 355.

major Stebbing 1907a: 36. Holotype, sex?; Assam, India; not at FRI, Dehra Dun, lost? Distribution: Asia (Assam in India). Notes: (1) This species obviously does not belong to this genus; the types are lost, consequently, the correct genus cannot be determined; it may be an Anobiidae. References: (**tx**) Stebbing 1907a: 36.

marginatus Eggers 1933a: 4. Holotype ♂; Venezuela (Colonia Tovar); MNHN, Paris. Distribution: South America (Venezuela). References: (**ds**) Blackwelder 1947; Schedl 1971f: 147. (**tx**) Eggers 1932: 2, 1933a: 4.

maroccanus (Guillebeau) 1896: 152 (*Phlocophthorus*). Holotype ♂; Tanger; not located. Distribution: Africa (Algeria/Morocco). Hosts: *Olea europaea*, *Retama* sp. References: (**hb**) Peyerimhoff 1915: 60. (**ds**) Escalera 1919; Hagedorn 1910d: 32; Kleine 1912b: 189, 1914a: 16, 18; Pfeffer 1947d: 127. (**tx**) Guillebeau 1896: 152; Hagedorn 1910a: 42; Pfeffer 1955a: 131; Reitter 1913a: 35; Schedl 1934f: 1640.

maurus Wood 1969b: 6. Holotype ♂; near Rincon, Osa Peninsula, Puntarenas Prov., Costa Rica; Wood Collection. Distribution: North America (Costa Rica/Vera Cruz in Mexico). Hosts: *Ficus* sp. References: (**hb**) Atkinson & Equihua 1986a: 419; Wood, S. L. 1982b: 279. (**ds**) Atkinson & Equihua 1986a: 419; Wood, S. L. 1982b: 279. (**tx**) Wood, S. L. 1969b: 6, 1982b: 279.

mayeti (Guillebeau) 1893: 62 (*Phlocophthorus*). Holotype, sex?; Oran (Algeria); not located. Distribution: Africa (Algeria). Hosts: *Fraxinus* sp., *Pistacia* sp. Notes: (3) Pjatnitskii 1934: 636 (*asiaticus*, nomen nudum, synonymy in Pfeffer 1972b: 44). Pfeffer 1972b: 43 (*pistaciae* Wichmann, nomen nudum, synonymy). References: (**ds**) Hagedorn 1910d: 33; Kleine

- 1914a: 16; Reitter 1894a: 49. (**tx**) Guillebeau 1893: 62; Pfeffer 1972b: 44; Pjatnitskii 1934: 636; Reitter 1894a: 49, 1913a: 36; Schedl 1934f: 1640.
- minor Wood** 1977c: 391. Holotype ♂; 27 km NE Montoya, Santander, Colombia; Wood Collection. Distribution: South America (Colombia).
Hosts: *Pseudobornedra* sp.
References: (**tx**) Wood, S. L. 1977c: 391.
- muricatus (Eggers)** 1929c: 9 (*Phloeophthorus*). Syntypes ♂ ♀; Bulgarien; Eggers Collection, in NHMW, Wien, and in Sokanovskii Collection. Figures: Stark 1952: 297 (galleries).
Distribution: Europe (Bulgaria/ Hungary/ Romania).
Hosts: *Fraxinus ornus*.
References: (**hb**) Stark 1952: 297. (**ds**) Buresh & Lazarov 1956; Kleine 1934a: 137; Negri & Rosca 1967: 141; Pfeffer 1936: 90; Pjatnitskii 1930a: 162; Postner 1974: 392; Stark 1952: 297. (**tx**) Eggers 1929c: 9; Endrodi 1973: 233; Pfeffer 1955a: 131; Postner 1974: 392; Schedl 1934f: 1640; Stark 1952: 297.
- nahueliae (Schedl)** 1979e: 59 (*Phthorophloeus*). Holotype ♀; Nahuel Huapi National Park, Argentina; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
Hosts: *Nothofagus dombeyi*.
References: (**ay**) Naumann-Etienne 1978b. (**hb**) Naumann-Etienne 1978b. (**ds**) Naumann-Etienne 1978b. (**tx**) Schedl 1979e: 59.
- nanus Wood** 1974a: 8. Holotype ♂; 260 km N Xavantina, Mato Grosso, Brazil; BMNH, London.
Distribution: South America (Brazil).
References: (**hb**) Beaver 1973b. (**ds**) Beaver 1973b; Wood, S. L. 1974a: 8. (**tx**) Wood, S. L. 1974a: 8.
- nebulosus Wood** 1977c: 390. Holotype ♂; Piedras Blancas, 11 km W Medellin, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Croton guianensis*.
References: (**tx**) Wood, S. L. 1977c: 390.
- neglectus Schedl** 1964m: 303. Holotype, sex?; Bolivia: Cochabamba; USNM, Washington, automatic, replacement name for *eggersi* Schedl 1963i: 60.
Distribution: South America (Bolivia).
References: (**tx**) Schedl 1963i: 60, 1964m: 303.
- striatus Eggers** 1943a: 351. Holotype, sex?; Bolivia: Cochabamba; USNM, Washington, preoccupied by Eggers 1943a: 346.
References: (**tx**) Eggers 1943a: 351.
- eggersi* Schedl 1963i: 60. Holotype, sex?; Bolivia: Cochabamba; USNM, Washington, automatic, replacement name for *striatus* Eggers 1943, preoccupied by Schedl 1962q: 487.
References: (**tx**) Schedl 1963i: 60, 1964m: 303.
- nitidicollis (Eggers)** 1943a: 347 (*Phthorophloeus*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: (**tx**) Anderson, W. H. & Anderson 1971: 22; Eggers 1943a: 347.
- novateutonicus (Schedl)** 1951m: 84 (*Phthorophloeus*). Syntypes ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Argentina/ Brazil).
Notes: (1) Schedl 1979e: 172 (citation of holotype invalid).
References: (**ds**) Numberg 1958a: 480. (**tx**) Numberg 1958a: 480; de Ruelle 1970: 107; Schedl 1951m: 84, 1958f: 34, 1979e: 172.
- nubilus Blandford** 1897a: 163. Lectotype ♀; Cerro Zunil, Guatemala; BMNH, London, designated by Wood 1982b: 262.
Distribution: North America (Costa Rica/ Guatemala/ Veracruz in Mexico/ Panama).
References: (**ds**) Blackwelder 1947; Ferrer 1942; Hagedorn 1910d: 31; Kleine 1912b: 188, 1914b: 349, 358; Wood, S. L. 1982b: 262. (**tx**) Blandford 1897a: 163; Eggers 1940a: 123, 1942a: 16, 1943a: 344; Hagedorn 1910a: 40; Schedl 1940a: 337; Wood, S. L. 1982b: 262.
- opacicollis Eggers** 1943a: 353. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: (**tx**) Anderson, W. H. & Anderson 1971: 23; Eggers 1943a: 353.
- opimus Wood** 1969b: 7. Holotype ♂; Zamerano, Morazan, Honduras; Wood Collection.
Distribution: North America (Guatemala/ Honduras/ Jalisco, Morelos in Mexico).
Hosts: *Ficus* spp., *Celtis iguanae*, *Serjania triquetra*.
References: (**ec**) Equihua & Atkinson 1986: 625. (**hb**) Burgos & Saucedo 1983: 62; Equihua & Atkinson 1986: 625; Wood, S. L. 1982: 275. (**ds**) Burgos & Saucedo 1983: 62; Equihua & Atkinson 1986: 625; Wood, S. L. 1982b: 275. (**tx**) Wood, S. L. 1969b: 7, 1982b: 275.
- ovatus (Eggers)** 1943a: 347 (*Dryotomus*). Holotype ♂; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: (**tx**) Anderson, W. H. & Anderson 1971: 23; Eggers 1943a: 347.
- pacificus Bright** 1982a: 128. Holotype ♀; Coco Island (Costa Rica); LACM, California.
Figures: Bright 1982a: 129.
Distribution: North America (Isla del Coco in Costa Rica).
References: (**tx**) Bright 1982a: 128-129.
- perfoliatus (Wollaston)** 1854: 301 (*Phloeophthorus*). Syntypes 2, sex?; Maderae: Lombo das Vacas; BMNH, London.

Distribution: Africa (Madeira Island), Europe (Corsica/ Sardinia/ Spain).

Hosts: *Calycotome* sp., *Cytisus* sp.

References: (ds) Hagedorn 1910d: 33; Lacordaire 1866: 364; Stein 1868: 113; Stein & Weise 1877: 163; Wollaston 1854: 301, 1857: 99. (tx) Balachowsky 1949a: 115; Hopkins 1914: 126; Lacordaire 1866: 364; Letzner 1891: 374; Pfeffer 1972b: 34; Schedl 1934f: 1641; Wollaston 1854: 301, 1857: 99.

abeillei Guillebeau 1893: 58 (*Phloeophthorus*).

Syntypes, sex?; Corse; not located. Synonymy: Pfeffer 1972b: 34.

References: (ce) Kleine 1908c: 179. (ds) Eggers 1912f; Hagedorn 1910d: 32; Heyden, Reitter, & Weise 1906: 708; Kleine 1912b: 189; Luigioni 1929: 991; Ragusa 1924: 114; Reitter 1894a: 48; Sainte-Claire 1914: 468; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915b: 1217; Treddl 1907: 7. (tx) Balachowsky 1949a: 112; Eggers 1912f; Guillebeau 1893: 58; Hagedorn 1910a: 42; Luigioni 1929: 991; Pfeffer 1972b: 34; Reitter 1894a: 48, 1913a: 33; Schedl 1934f: 1640.

perniciosus Wood 1982a: 229. Holotype ♂; Patzcuaro-Ario de Rosales highway, Michoacan, Mexico; Wood Collection.

Distribution: North America (Michoacan, Morelos in Mexico).

Hosts: *Prunus scrotina*.

References: (hb) Atkinson & Equihua 1985b: 230; Burgos & Saucedo 1983: 64. (ds) Atkinson & Equihua 1986: 230; Burgos & Saucedo 1983: 64; Wood, S. L. 1982a: 229. (tx) Wood, S. L. 1982a: 229.

peruensis Schedl 1942: 67. Holotype ♂; Peru: Rio Toro; Schedl Collection in NHMW, Wien.

Distribution: South America (Peru).

Notes: (1) Schedl 1952h: 69 (1942 journal containing original description lost before mailing, reprinted in 1952h: 69).

References: (tx) Numberg 1956a: 144; Schedl 1942: 67, 1952h: 64, 69.

peyerimhoffi (Eggers) 1913c: 239 (*Phloeophthorus*). Syntypes 2 ♂; Algier; Eggers Collection, I in NHMW, Wien.

Distribution: Africa (Algeria/ Morocco), Europe (Spain).

Hosts: *Cytisus triflorus*, *Genista munidica*, *Retana bovei*.

Notes: (1) Schedl 1979e: 192 (citation of holotype invalid).

References: (hb) Peyerimhoff 1915: 60. (ds) Kleine 1914a: 16; Pfeffer 1947d: 127. (tx) Eggers 1913c: 239; Pfeffer 1955a: 130, 1982a: 466; Schedl 1934f: 1641, 1979c: 192.

peiceae Swaine 1911a: 220. Lectotype ♀; Ste. Anne de Bellevue, P. Q., Canada; CNCI, Ottawa, designated by Bright 1967b: 677.

Figures: Ashworth & Brophy 1972: 2983, Ashworth, Clayton, & Bickley 1972: 180, Swaine 1911a: 224 (antenna, metatibia).

Distribution: North America (Alaska/ Manitoba, Northwest Territories, Ontario, Quebec, Yukon in Canada/ Maine, Minnesota, New York in USA).

Hosts: *Picea glauca*.

References: (ay) Thomas, J. B. 1967. (en) Blackman 1950; Chamberlin 1924; Doane et al. 1936; Hopkins 1901b: 11; Lindquist, O. H. & Syme 1981: 84; Syme & Nystrom 1988: 80; Swaine 1918a: 59; Swaine & Craighead 1924. (ce) Hopkins 1901b: 11; Tomalak, Welch, & Galloway 1989: 6; Werner & Holsten 1984. (hb) Blackman 1950; Bright 1976d: 94; Chamberlin 1939: 143; Doane et al. 1936; Hopkins 1901b: 11; Swaine 1918a: 59; Wood, S. L. 1982b: 270. (ds) Anonymous 1926c: 515; Ashworth 1977, 1980; Ashworth & Brophy 1972: 2984; Ashworth, Clayton, & Bickley 1972: 183; Ashworth & Cvanara 1983; Ashworth et al. 1981; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 658; Bright 1976d: 94; Chamberlin 1925, 1939: 143; Dodge 1938: 15, 25-26; Elias 1982b, 1982d, 1983; Furniss, R. L. & Carolin 1977: 370; Kleine 1912b: 188, 1934a: 138; Leng 1920: 338; Leonard 1928: 515; Lindquist, O. H. & Syme 1981: 84; Miller, Fitzgerald, & Buhay 1987; Miller, R. F. & Morgan 1982; Morgan, Anne, Morgan, & Elias 1985; Morgan, A. V. & Morgan 1979, 1980: 1110; Schwert et al. 1985; Syme & Nystrom 1988: 80; Werner & Holsten 1984; Williams, N. E. et al. 1981; Wood, S. L. 1982b: 270. (tx) Ashworth & Brophy 1972: 2983; Ashworth, Clayton, & Bickley 1972: 180; Blatchley & Leng 1916: 658; Bright 1967b: 677, 1967d: 94, 1976d: 201, 208; Chamberlin 1939: 143; Dodge 1938; Hoebeke 1978; Lindquist, O. H. & Syme 1981: 84; de Ruelle 1970: 106; Schwert & Morgan 1980; Schwert et al. 1985; Swaine 1911a: 220, 1918: 59; Syme & Nystrom 1988: 80; Thomas, J. B. 1967; Wood, S. L. 1982b: 270.

picipennis Eggers 1943a: 352. Holotype ♂; Bolivia: Cochabamba; USNM, Washington.

Distribution: South America (Bolivia).

References: (ds) Pedrosa-Macedo & Schonherr 1985: 16; Schedl 1972g: 41, 1976a: 51. (tx) Anderson, W. H. & Anderson 1971: 25; Eggers 1943a: 352; Pedrosa-Macedo & Schonherr 1985: 16.

pilula (Erichson) 1847: 138 (*Hylesinus*). Lectotype ♂; Peru; MNB, Berlin, designated by Wood 1973: 181.

Figures: Schedl 1953f: 80 (male).

Distribution: North America (Chiapas in Mexico), South America (Brazil/ Colombia/ Peru/ Venezuela).

Hosts: *Brosimum* sp.

References: (ce) Beaver 1973b. (hb) Beaver 1973b; Wood, S. L. 1982b: 280. (ds) Beaver 1973b; Blackwelder 1947; Hagedorn 1910d: 17;

- Kleine 1912b: 171; Schedl 1960a: 77, 1966f: 80; Wood, S. L. 1952b: 280. (tx) Eggers 1929c: 52, 1943a: 350, 1951: 147; Erichson 1847: 138; Hagedorn 1910a: 49; Schedl 1952h: 69; Wood, S. L. 1973c: 181, 1977b: 209, 1982b: 280.
- obliquus* Chapuis 1869: 45. Syntypes, sex?; Mexique, Nouvelle Grenade; IRSNB, Brussels. Synonymy: Wood 1973c: 181.
References: (ds) Blackwelder 1947; Blandford 1897a; Ferrer 1942; Hagedorn 1910d: 31; Kleine 1912b: 188, 1914b: 341, 349. (tx) Blandford 1897a; Chapuis 1869: 45, 1873: 253; Gemminger & Harold 1872: 2676; Hagedorn 1910a: 40; Schedl 1940a: 337; Wood, S. L. 1969c: 121, 1973c: 181.
- obesus* Kirsch 1875: 283. Holotype, sex?; Peru; SMTD, Dresden. Synonymy: Eggers 1929c: 52.
References: (ds) Hagedorn 1910d: 31; Kleine 1912b: 188. (tx) Eggers 1929c: 52; Hagedorn 1910a: 40; Kirsch 1875: 283; Schedl 1952h: 69.
- manni* Blackman 1943c: 385. Holotype ♀; Rio Madeira, Brazil; USNM, Washington, Synonymy: Wood 1973c: 181.
References: (ds) Blackwelder 1947. (tx) Blackman 1943c: 385; Wood, S. L. 1973c: 181.
- australis* Schedl 1953f: 80. Holotype ♂; Queensland, Australia (intercepted); Schedl Collection in NHMW, Wien. Synonymy: Wood 1977b: 209.
Notes: (3) One specimen intercepted from an imported log; it is not established in Australia.
References: (tx) Schedl 1953f: 80; Wood, S. L. 1977b: 209.
- porteri* Bruch 1914b: 25. Syntypes, sex?; Chile (cerca de Concepcion and Santiago); Porter Collection and Bruch Collection.
Distribution: South America (Chile).
Hosts: *Persica vulgaris*, *Prunus domestica*.
References: (ds) Blackwelder 1947; Schedl 1972d: 132. (tx) Bruch 1914b: 25; Porter 1932: 106; Schedl 1972d: 132.
- profanus* Schedl 1963d: 212. Holotype ♀; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) de Ruelle 1970: 107; Schedl 1963d: 212.
- pruni* Wood 1956c: 253. Holotype ♀; 15 miles NW Chihuahua, Chihuahua, Mexico; SMUK, Lawrence. Figures: Atkinson et al. 1986: 18 (adult).
Distribution: North America (Chiapas, Chihuahua, Guerrero, Hidalgo, Jalisco, Michoacan, Morelos, Nuevo Leon, Veracruz in Mexico/ Arizona, Colorado, New Mexico, South Dakota in USA).
Hosts: *Prunus communis*, *P. persica*, *P. serotina*, *P. virginiana*, *P. sp.*
References: (hb) Atkinson & Equihua 1985a: 75; Atkinson et al. 1986: 21; Burgos & Saucedo 1983: 61; Wood, S. L. 1982b: 266. (ds) Atkinson & Equihua 1985a: 75, 1985b: 230; Atkinson et al. 1986: 21; Burgos & Saucedo 1983: 61; Furniss, R. L. & Carolin 1977: 370; Thatcher 1951: 80; Wood, S. L. 1960b: 61, 1982b: 266. (tx) Atkinson et al. 1986: 18; Muskus Arrieta 1954: 63; de Ruelle 1970: 107; Wood, S. L. 1956c: 253, 1982b: 266.
- pseudocristatus* (Pfeffer) 1972b: 40 (*Phloeophthorus*). Holotype (?), sex?; Anatolien, Turkey; Prage Museum.
Distribution: Asia (Turkey), Europe (Greece).
Hosts: *Spartium junceum*.
References: (tx) Pfeffer 1972b: 40.
- pseudoscabricollis* Atkinson 1989: 329. Holotype ♂; Lake Corpus Christi State Park, San Patricio Co., Texas [USA]; USNM, Washington.
Distribution: North America (S Texas in USA).
References: (tx) Atkinson 1989: 329.
- puberulus* (Chapuis) 1869: 46 (*Dryotomus*). Holotype, sex?; Cayenne; IRSNB, Brussels.
Distribution: South America (Cayenne/Venezuela).
References: (ds) Blackwelder 1947; Chapuis 1869: 46, 1873: 254; Hagedorn 1903b: 546, 1910d: 30, 32; Kleine 1912b: 188, 1914b: 338; Schedl 1973d: 152; Wood, S. L. 1972a: 409. (tx) Chapuis 1869: 46, 1873: 254; Hagedorn 1903b: 546, 1910a: 38, 40; Hopkins 1914: 121; Lucas 1920: 251; Schedl 1962q: 487; Wood, S. L. 1962: 76, 1972a: 409. (ms) Lucas 1920: 251.
- pubifrons* (Guillebeau) 1893: 59 (*Phloeophthorus*). Syntypes, sex?; Marseille, Hyeres, Corse; Tanger; Frejus; Espagne; not located.
Distribution: Africa (Algeria), Europe (Albania/ Corsica/ Cyprus/ France/ Greece/ Italy/ Sardinia/ Sicily/ Spain/ Yugoslavia).
Hosts: Olbaumes.
References: (ce) Kleine 1908c: 179. (ds) Barthe 1896; Escalera 1919; Heyden, Reitter, & Weise 1906: 708; Kleine 1914a: 16; Luigioni 1929: 991; Pfeffer 1947d: 126; Pittioni 1943: 176; Reitter 1894a: 49; Sahlberg 1903c: 79; Schaufuss 1915: 1217; Tredl 1907: 7. (tx) Balachowsky 1949a: 112; Guillebeau 1893: 59; Luigioni 1929: 991; Pfeffer 1955a: 131, 1972b: 36; Reitter 1894a: 49, 1913a: 34; Schedl 1934f: 1641.
- corsicus* Guillebeau 1893: 60 (*Phloeophthorus*). Syntypes, sex?; Corse; not located. Synonymy: Pfeffer 1972b: 36.
References: (ce) Novak, P. 1952: 415. (ds) Eggers 1912f; Novak, P. 1952: 415, 1964; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1217. (tx) Balachowsky 1949a: 112; Eggers 1912f; Guillebeau 1893: 60; Pfeffer 1972b: 36; Reitter 1913a: 34; Schedl 1934f: 1640.
- lineigera* Guillebeau 1893: 60 (*Phloeophthorus*). Syntypes ♀; Barjols (France); not located. Synonymy: Pfeffer 1972b: 36.
References: (cn) Wachtl 1901: 381. (ce)

- Novak, P. 1952: 415. (**hb**) Wachtl 1901: 381. (**ds**) Barthe 1896; Novak, P. 1952: 415; Reitter 1894a: 49; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1217. (**tx**) Balachowsky 1949a: 112; Guillebeau 1893: 60; Pfeffer 1927b: 36; Reitter 1894a: 49, 1913a: 35; Schedl 1934f: 1640.
- sicula* DelGuercio 1925b: 210 (*Comesiella*). Syn-types, sex[?]; Sicily, Calabria, and Sardinia; not located. Synonymy: Pfeffer 1972b: 36.
References: (**ay**) DelGuercio 1931: 63–74. (**cn**) DelGuercio 1925b: 210–218, 1931: 63–74. (**hb**) DelGuercio 1931: 63–74. (**ds**) Luigioni 1929: 992. (**tx**) Balachowsky 1949a: 112; DelGuercio 1925b: 210–218; Luigioni 1929: 992; Pfeffer 1972b: 36; Schedl 1934f: 1634, 1962q: 489.
- guillebeui* Reitter 1913a: 35 (*Phloeophthorus*). Holotype ♀; Dalmatien: Castelnuovo; NHMB, Budapest. Synonymy: Pfeffer 1972b: 37.
References: (**ec**) Novak, P. 1952: 415. (**ds**) Langhoffer 1915c: 156; Novak, P. 1952: 415; Schaufuss 1915: 1217. (**tx**) Pfeffer 1955a: 131, 1972: 37; Reitter 1913a: 35; Schedl 1934f: 1640.
- quercinus* Wood 1969b: 123. Holotype ♀; 16 km E Pachuca, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Quercus* sp.
References: (**hb**) Wood, S. L. 1982b: 263. (**ds**) Wood, S. L. 1982b: 263. (**tx**) Wood, S. L. 1969b: 123, 1982b: 263.
- remorsus* Wood 1977c: 391. Holotype ♂; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Quercus humboldtii*.
References: (**tx**) Wood, S. L. 1977c: 391.
- rhododactylus* (Marsham) 1802: 58 (*Ips*). Syn-types, sex[?]; England; not located.
Figures: Aslam 1961: 442, 459, 472, Balachowsky 1949a: 110, 114 (adult), Pfeffer 1898a: pl. 2, Swaine 1911a: 224 (antenna, metatibia).
Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Europe (Austria/ Corsica/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Italy/ Hungary/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
Hosts: *Calycotome spinosa*, *Cytisus*, sp., *Genista* sp., *Retama sphaerocarpa*, *Sarothamnus scoparius*, *Spartium junceum*, *Ulex europaeus*.
References: (**ay**) Aslam 1961: 441; Escherich 1923b: 478; Fuchs 1912a; Lekander 1959b: 60; Numberg 1928a: 140; Nusslin 1911a: 51, 59, 89, 1912c: 282; Wichmann 1912a: 9. (**bv**) Barr, B. A. 1969: 642; Crme 1979: 45; Prell 1931: 366; Wichmann 1912a: 9. (**cn**) Barbey 1925: 72; Escherich 1923b: 478; Fleischer 1877a; Forbes 1910; Hartig 1861: 330; Herlein 1878; Judeich & Nitsche 1895: 447, 528; Koppen 1882: 247; Nusslin 1913: 240; Rhumbler 1922: 282, 1927: 294; Scheyvrew 1905b: 1092; Schimitschek 1937c: 46, 1955c: 72; Wachtl 1901: 381; Wichmann 1927b: 352, 358. (**ec**) Elliot & Morley 1907; Fleischer 1877a; Graham 1969: 879; Heqvist 1967: 70; Jannicky 1957b: 25; Kevan 1944: 278; Kleine 1908c: 179, 1909a: 43, 78, 1944: 74, 75; Nuorteva 1957b: 52; Nusslin 1927: 293; Perris 1853: 620; Pfeffer 1928b: reprint p. 7, 9; Roubal 1946: 145; Ruhm 1956b: 3; Scheidter 1936: 235; Sedlaczek 1935a: 162; Silvestri 1911: 392; Szczepanski 1960a: 409. (**hb**) Anonymous 1920: 66; Barbey 1901: 21, 64, 1925: 72; Beffa 1949; Budge 1949; Cecconi 1924; Chapman 1869b; Dombrowsky 1887; Eichhoff 1881a: 39, 146, 1892b: 991; Escherich 1923b: 478; Everts 1903: 742; Fleischer 1877a; Gillanders 1908; Hagedorn 1903a; Hartig 1861: 330; Henschel 1888, 1895a: 150; Jaroschka 1885; Judeich & Nitsche 1895: 447, 528; Karpinski & Strawinski 1948: 153; Lekander 1959b: 60; Lengerken 1939: 51, 1954: 72; Lindemann 1880a: 161; Lovendal 1890b: 196; Masutti 1964; Munro 1926: 50; Nusslin 1898: 250, 1913: 240, 1927: 293; Pfeffer 1942a: 18; Prell 1931: 366; Ratzeburg 1837: 178, 1839: 218; Rhumbler 1922: 282, 1927: 294; Rupertsberger 1880: 226; Schedl 1951b: 47; Scheidter 1936: 235; Scheyvrew 1905b: 1092; Schmitt 1843: 110; Sedlaczek 1935a: 162; Silvestri 1911: 392; Stark 1952: 295; Wachtl 1901: 381; Wichmann 1927b: 352, 358. (**ds**) Anmann & Knabl 1913, 1923; Audras & Schaefer 1957; Bangsholt 1977: 95; Barthe 1896; Bedel 1888a, 1888b: 394, 412; Beffa 1949; Bielz 1857; Blanchere & Robert 1889; Borchert 1951; Brancsik 1871, 1906; Calwer 1884, 1893; Chapuis 1869: 43, 1873: 251; Correa de Barros 1913; Crotch 1863; Debatisse 1945; Eggers 1904; Endrodi 1958b; Escalera 1919; Escherich 1923b: 478, 1932b; Everts 1922: 637, 1925; Faivel 1897; Forster 1849: 440; Fowler 1891; Gaubil 1849: 128; Gozis 1875: 80; Grill 1895: 308; Grouzelle 1905; Gyllenhal 1827: 619; Hagedorn 1903a, 1910d: 33; Hansen, V. 1939, 1956; Hellen 1947; Henschel 1895a: 150; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 708; Jansson 1940: 53, 63; Johnson & Halbert 1902: 819; Judeich & Nitsche 1895: 447, 528; Kaltenbach 1874: 686; Kamp 1979; Karpinski & Strawinski 1948: 153; Kestercanek 1881a: 12; Kleine 1912b: 189, 1913a: 34, 1934a: 137; Kloft & Hinks 1945: 218; Kolbe, W. 1911: 11; Koppen 1882: 247; Kraatz 1869: 59; Lacordaire 1866: 364; Langhoffer 1915c: 156; Leder 1871: 131; Lengerken 1939: 35; Lindemann 1884b: 263; Lokaj 1868: 63; Lomnicki 1913b: 147; Lovendal 1890c: 210; Lucht 1987: 275; Luigioni 1929: 991; Lumlblad 1958: 489; Matthews & Fowler 1883: 42; Murray 1853: 61; Numberg 1925b: 88, 95, 1954:

25; Nusslin 1898: 280; Pfeffer 1926b: 58, 1928b: 7 (reprint), 9, 1930b: 120, 1931b: 73, 1947d: 126, 1989a: 32; Pittioni 1943: 174; Prossen 1913: 82; Ragusa 1924: 114; Rapp 1934: 718; Ratzeburg 1837: 178, 1839: 218; Redtenbacher 1858: 828, 1874: 379; Reitter 1894a: 48, 1916: 276; Ronbal 1935b: 72, 1941: 265; Rye 1866c: 259; Sainte-Claire & Mequignon 1938: 446; Scharfuss 1915: 1217; Schamm 1859: 95, 1862: 100; Schedl 1963e: 154, 1967c: 69, 1971d: 428, 1972n: 347, 1980a: 4; Schilsky 1909: 187; Schiodte 1873: 100; Schmitz 1898: 157; Schneider & Leder 1977: 54; Seidlitz 1872: 392, 1891a: 561, 1891b: 606; Sharp & Fowler 1893: 34; Stark 1927b: 86, 1952: 298; Stein 1868: 113; Stein & Weise 1877: 163; Stephens 1829a: 147, 1829b: 12, 1830: 365, 419, 1839: 209; Thomson 1865: 352, 1868: 218; Tredd 1907: 7; Welch, R. C. 1968b: 121; Wichmann 1927a: 52. **(tx)** Aslam 1961: 441–442, 459, 472; Bach 1854; Balachowsky 1949a: 113; Barbey 1901: 21, 64; Bedel 1888b: 394, 412; Beffa 1949; Bertolini 1872; Blandford 1891a; Brancsik 1871; Chapuis 1869: 43, 1873: 251; Doebner 1860; Dombrowsky 1887; Eggars 1913c, 1943a: 353; Eichhoff 1864b: 28, 1881a: 39, 146, 1883a: 104, 127; Endrodi 1957a, 1957b; Ericson & Sandin 1893; Escherich 1923b: 478; Everts 1903: 742, 1922: 637; Fleischer 1927; Formanek 1907: 16; Fuchs 1912a; Gemminger & Harold 1872: 2675; Gillanders 1908; Grune 1979: 45; Guillebeau 1893; Gyllenhal 1827: 619; Hagedorn 1904e, 1910a: 42; Hansen, V. 1956, 1964: 458; Henschel 1895a: 150; Hoffmann 1942; Hopkins 1905b: 77; Judeich & Nitsche 1895: 447, 528; Kalina 1970: 121; Karpinski & Strawinski 1948: 153; Kuhnt 1913: 1049; Lacordaire 1866: 364; Lekander 1959b: 60; Letzner 1891: 374; Lovendal 1889b: 43, 1890c: 210, 1898: 101; Lucht 1987: 275; Luigioni 1929: 991; Marsham 1802: 58; Michalski 1969b: 568; Negri 1966b: 400; Numborg 1928a: 140, 1954: 28; Nusslin 1911a: 51, 59, 89, 1912c: 282; Pfeffer 1932b: 11, 1942a: 18, 1955a: 132, 1959a: pl. 2; Portevin 1935: 314; Quaschik 1953: 35; Ratzeburg 1837: 178, 1839: 218; Redtenbacher 1849a: 793, 852, 1849b: 27, 1858: 828, 1874: 370; Reitter 1894a: 48, 1913a: 33, 1916: 276; Rey 1885: 128; Rhumbler 1922: 282, 1927: 294; Rupertsberger 1880: 226; Russo 1932: 87–113; Sahlberg 1836: 139; Schedl 1934f: 1641, 1952f: 86, 1980a: 4, 1981b: 47; Schimitschek 1937c: 46, 1955c: 72; Schmitt 1843: 110; Seidlitz 1872: 392, 1891a: 561, 1891b: 606; Spessivtsev 1922a: 459; Stark 1952: 298; Stephens 1829a: 147, 1830: 365, 419, 1939: 209; Stresemann et al. 1989: 354; Swaine 1911a: 222; Thomson 1865: 352, 1868: 218. **(ms)** Escherich 1932b; Schimitschek 1930b: 407.

spartii Nordlinger 1847: 217 (*Hylesinus*). Syntypes, sex[?]; Schwarzwald, Deutschland; not located. Synonymy: Blandford 1891a: 213, Pfeffer 1972b: 33.

References: **(ay)** Inhoff 1856: 228. **(cn)** Judeich & Nitsche 1895: 417. **(ec)** Perris 1856a: 244; Rondani 1873: 149. **(hb)** Barbey 1901: 21, 64, 1905; Buddenberg 1884; Ceconi 1906; Eichhoff 1881a: 39, 145, 1892b: 99; Henschel 1895a: 150; Judeich & Nitsche 1895: 447; Lindemann 1881: 161–163; Nordlinger 1856: 36; Perris 1856a: 244. **(ds)** Barbey 1905; Barthe 1896; Bau 1888; Ceconi 1897, 1906; Chapuis 1869: 42, 1873: 250; Chapuis & Candeze 1853; Fauvel 1885; Grill 1895: 308; Henschel 1895a: 150; Heyden, Reitter, & Weise 1883: 181, 1891: 669; Judeich & Nitsche 1895: 447; Kaltenback 1874b: 104, 776; Kestercanek 1881a: 12; Lacordaire 1866: 364; Perris 1876a: 254, 1877a: 414; Rosenhauer 1856: 301; Schamm 1859: 95, 1862: 100; Schilsky 1909: 187; Seidlitz 1891a: 561, 1891b: 606; Stein 1868: 113. **(tx)** Bach 1854; Balachowsky 1949a: 113–115; Barbey 1901: 21, 64; Blandford 1891a: 213; Buddenberg 1884: 87–93; Chapuis 1869: 42, 1873: 250; Chapuis & Candeze 1853; Doebner 1860; Eichhoff 1864b: 28, 1881a: 39, 145, 1883a: 104, 126; Endrodi 1957a; Fauvel 1885, 1887, 1889; Guillebeau 1893; Henschel 1895a: 150; Hoffmann 1942: 74; Judeich & Nitsche 1895: 447; Lacordaire 1866: 364; Letzner 1891: 373; Nordlinger 1847: 217, 1848: 250, 1856: 36; Perris 1877a: 414; Pfeffer 1972b: 33; Portevin 1935: 314; Redtenbacher 1849a: 793, 852, 1849b: 27; Rey 1892b: 30; Schedl 1934f: 1641; Seidlitz 1891a: 561, 1891b: 606.

tarsalis Forster 1849: 383 (*Hylesinus*). Syntypes, sex[?]; Europe; not located. Synonymy: Letzner 1891: 373; Balachowsky 1949a: 115; Pfeffer 1972b: 33.

References: **(cc)** Gaulle 1906: 236; Kokueva 1900: 568. **(hb)** Bach 1864; Rupertsberger 1880: 227. **(ds)** Acloque 1896; Blanchere & Robert 1889; Brancsik 1871; Buddenberg 1879a: 109, 1884: 87–93; Calver 1884, 1893; Eyquem 1891; Gozis 1875: 80; Gredler 1866: 370; Heyden 1876: 298, 1879: 139; Horion 1951; Kraatz 1869: 59; Lacordaire 1866: 364; Leder 1871: 131; Redtenbacher 1874: 370; Schamm 1859: 95, 1862: 100; Schilsky 1909: 187; Stein 1868: 113; Stein & Weise 1888: 163; Westhoff 1882: 237. **(tx)** Acloque 1896; Bach 1864; Balachowsky 1949a: 115; Bertolini 1872; Brancsik 1871; Doebner 1860; Fairmaire 1864: 32; Forster 1849: 383; Gemminger & Harold 1872: 2675; Guillebeau 1893; Jacqueline du Val & Fairmaire 1868: 101; Lacordaire 1866: 364; Letzner 1891: 373; Pfeffer 1972b: 33; Redtenbacher 1874: 370; Rupertsberger 1880: 227.

retamae Perris 1864a: 300 (*Hylesinus*). Syntypes, sex[?]; Madrid; not located. Synonymy: Hagedorn 1910d: 33.

References: **(ec)** Perris 1856a: 243. **(hb)** Perris

1856a: 243. (**ds**) Calwers 1884, 1893; Cozis 1875; Hagedorn 1910d: 33; Heyden, Reitter, & Weise 1883: 181; Schilsky 1909: 187; Stein 1868: 113; Stein & Weise 1877: 164. (**tx**) Gemminger & Harold 1872: 2675; Perris 1864a: 300.

rhododactylus austriacus Guillebeau 1893: 58 (*Phlocophthorus*). Syntypes, sex?; Austria; not located. Status: Treated as a subspecies by Pfeffer 1972b: 33. Synonymy: Balachowsky 1949a: 115.

References: (**ds**) Schilsky 1909: 187. (**tx**) Balachowsky 1949a: 115; Guillebeau 1893: 58; Hagedorn 1910d: 33; Pfeffer 1972b: 33; Schedl 1934f: 1641.

rhododactylus vinogradovi Semenov 1902: 269 (*Phlocophthorus*). Lectotype, sex ?; ♂ ♀; Transcaucasia: Borzhom designated by Michalski 1969: 893. Status: Pfeffer 1972b: 33 (a possible geographical race).

References: (**hb**) Stark 1952: 298. (**ds**) Buresh & Lazarus 1956; Hagedorn 1910d: 33; Heyden, Reitter, & Weise 1906: 708; Kleine 1912b: 189, 1934a: 137; Pfeffer 1936: 89; Schaufuss 1915: 1217; Stark 1927b: 87, 1952: 298. (**tx**) Hagedorn 1910a: 40; Michalski 1969: 893; Pfeffer 1955a: 131, 1972b: 33; Reitter 1913a: 33; Schedl 1934f: 1641; Semenov 1902: 269; Stark 1952: 298.

rugulosus Eggers 1951: 147. Syntypes 1♂, 1♀; Brasil (Corumba, im Staate Matto Grosso), and Argentinien (Prov. Chaco); both deposited in Eggers Collection, now in NHMW, Wien.

Distribution: South America (Argentina/ Brazil). References: (**ds**) Schedl 1966f: 82, 1971f: 147, 1973d: 152, 1978c: 292. (**tx**) Eggers 1951: 147; Schedl 1951m: 83.

scabratus Blandford 1897a: 164. Lectotype ♂; Volcan de Chiriqui, 4000–6000 ft.; BMNH, London, designated by Wood 1982b: 274.

Distribution: North America (Panama).

References: (**ds**) Blackwelder 1947; Hagedorn 1910a: 32; Kleine 1912b: 188, 1914b: 359; Wood, S. L. 1982b: 274. (**tx**) Blandford 1897a: 164; Hagedorn 1910a: 40; Wood, S. L. 1982b: 274.

scabricollis (Hopkins) 1916a: 656 (*Phlocophthorus*). Holotype ♂; Hessville, Indiana [USA]; USNM, Washington.

Distribution: North America (Illinois, Indiana, Ohio in USA).

Hosts: *Ptelea trifoliata*, *Staphylea trifolia*.

References: (**cn**) Blackman 1950. (**hb**) Blackman 1950; Chamberlin 1939: 141; Sanderson & Appleby 1971: 103. (**ds**) Blackman 1950; Blatchley & Leng 1916: 656; Chamberlin 1939: 141; Deyrup 1981b: 4; Leng 1920: 338; Wood, S. L. 1982b: 274. (**tx**) Blatchley & Leng 1916: 656; Chamberlin 1939: 141; Hopkins 1916a: 656; Wood, S. L. 1982b: 274.

scarabaeoides (Bernard) 1788: 270 (*Scolytus*). Syntypes, sex?; France and Italy; Bernard Collection, lost. Neotype ♀; Callia meridionalis; UZM, Copenhagen, designated by Wood 1975c: 122.

Figures: Balachowsky 1949a: 17, 23 (adult), Balachowsky & Mesnil 1935: 544–545 (adult), Grune 1979: 40, Postner 1974: 390 (adult), Russo 1963a, 1964: 299, Swaine 1911a: 224 (antenna, metatibia). Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Israel/ Syria/ Turkey), Europe (Bulgaria/ Corsica/ Cyprus/ France/ Greece/ Hungary/ Italy/ Sardinia/ Spain/ Switzerland/ Yugoslavia).

Hosts: *Olea europaea*, *Pistacia lentiscus*.

Notes: (3) Dejean 1837: 331 (*americanus*, nomen nudum, synonymy by Schedl 1955k: 141). Schedl 1958k: 141 (*occidentalis* Bedel cited in Balachowsky 1949a: 107; this is a black specimen of *scarabaeoides* that was apparently never validated). Schedl 1979j: 120 (*dalmatinus* Eggers, nomen nudum, synonymy).

References: (**ay**) Chararas 1956c; DelGuercio 1931; Nusslin 1912c: 282; Russo 1937: 3–244; Scherb 1971. (**bv**) Balachowsky & Chararas 1964; Barr, B. A. 1969: 642; Grune 1979: 41; Kirkendall 1984: 240; Neunenschwander & Alexandrakis 1982. (**cn**) Andres de 1979; Ayontantis, Kortzas, & Pelecassis 1951: 15–17; Balchowsky 1963a: 1269; Bardia 1946; Berlese 1915; Bonnet 1935; Browne 1968b: 540; Castro 1948: 122–132; Constantino 1955: 131–161; DelGuercio 1925b, 1931; Essig 1917; Ferri 1949; Fiori 1952; Frediani 1945; Galvao 1939; Garcia-Tejero 1955: 231; Gentry, J. W. 1965: 110; Gonzales de Andres 1939: 118–124; Grandi 1951; Jarraya 1979; Koroneos 1939; Laboulbene 1895: 313; Linkfield & Damiano 1963; Liotta 1981; Moneo Trallero 1954: 45; Morris, H. M. 1927: 65–67, 1935: 39–44; Mourikis & Vassilaina-Alexopoulou 1975: 142; Mumford 1961: 30, 1963: 40; Mussehe et al. 1987; Negru 1966: 397–405; Nusslin 1913: 240; Ocete, Ocete, & Perez 1986; Paulian 1943: 324; Pelekassis 1962; Picard 1921: 17; Renand 1941: 235; Rumbler 1927: 292; Rosa 1914: 301–305; Russo 1926: 75–86, 1939, 1950a: 1, 1954: 65–95, 1963a, 1963b; Santorio 1951: 15–17; Schimitschek 1937c: 46, 1944: 154, 1955c: 72; Seabra 1908a: 184; Souphieff & Scherbinovskaja 1937: 44; Talhouk 1954: 307; Todd 1927: 39–50; Topi 1911a: 52; Venturi 1960. (**cc**) Arambourg 1944: 15, 101, 1964: 114; Boucek 1958; Cambi 1915; Chararas 1956b; Fry 1989: 17; Graham 1969: 879; Gyorfı 1941a: 87; Haesselbarth 1967; Halperin & Holzschuh 1984: 27; Heqvist 1957b: 48; Jannicky 1957b: 13, 25; Kleine 1908c: 178, 1909a: 43, 77, 1944: 74; Liotta 1981; Mendel 1985, 1986c: 115, 1986d: 130; Novak, P. 1952: 414; Nusslin 1927: 293; Ruschka & Fulmek 1915: 402; Russo 1926b: 84, 1963a; Selvester 1957b: 93; Silvestri 1911: 389; Talhouk 1961: 213; Thanassoulopoulos & Thanassoulopoulos 1984; Thompson, W. R. 1943: 87; Thomp-

- son, W. R. & Simmonds 1964: 33, 1965: 69; Tudor 1969: 32; Wichmann 1916: 17. (**hb**) Balachowsky 1963a: 1269; Balachowsky & Mesnil 1935: 544–545; Boffa 1949, 1961; Berlese 1915; Bonnemaison 1953; Browne 1968b: 540; Buysson 1926: 95–98; Chararas 1956c; DelGuercio 1931; Evans 1952: 141; Fiori 1952; Galvao 1939, 1956; Grandi 1951; Halperin & Holzschuh 1954: 27; Herbaut et al. 1987; Jarraya 1979; Kirkendall 1984: 239; Lepiney & Mimeur 1932: 44; Liotta 1951; Malenotti 1924a, 1924b; Martelli 1927: 4; Masntti 1964; Moneo Trallero 1954: 45; Morstatt 1924: 37; Nusslin 1913: 240, 1927: 293; Ocete, Ocete, & Perez 1986; Paulian 1943: 324; Peyerimhoff 1926: 385; Postner 1974: 340; Rhumbler 1927: 292; Rosa 1914: 301–305; Russo 1932, 1937, 1939a: 3, 1954: 65, 69, 1963a, 1963b, 1964; Schimitschek 1944: 154; Schvester 1957b: 93; Silvestri 1911: 389; Stark 1952: 295; Topi 1911a: 52; Wichmann 1916: 17. (**ds**) Andras & Schaefer 1957; Balachowsky 1944b, 1963a: 1269; Barthe 1896; Bedel 1888b: 394, 412; Boffa 1949; Browne 1968b: 540; Buresh & Lazarov 1956; Calvin 1960; Chaigneau 1959; Dejean 1837: 331; Eggers 1912f; Endrodi 1956: 217; Evans, D. 1952: 141; Ganglbauer 1904; Gentry, J. W. 1965: 110; Georghiou 1977: 74; Grune 1979: 41; Hagedorn 1910d: 32; Halperin & Holzschuh 1954: 27; Heyden, Reitter, & Weise 1891: 669, 1906: 708; Horion 1951; Kleine 1912b: 188, 1913a: 87, 307, 1914a: 16, 1934a: 137; Kobakhidze 1957: 178; Kocher 1953: 133; Kortzas 1955: 177; Langhoffer 1915c: 156; Luigioni 1929: 990; Monriks & Vassilaina-Alexopoulou 1975: 142; Mumford 1961: 30, 1963: 40; Negru 1966b: 400; Novak, P. 1952: 414, 1964; Numberg 1964a: 234; Palm 1976; Pelekassis 1962; Peyerimhoff 1926: 385; Pfeffer 1936: 89, 1947d: 126, 128; Ragusa 1924: 114; Reitter 1916: 275; Sainte-Claire 1914: 468; Sainte-Claire & Mequignon 1938: 446; Schedl 1961b: 187, 1964a, 1967c: 69, 1969g: 288, 1971d: 430, 1971f: 147, 1979i: 288, 1980a: 4; Schilsky 1909: 187; Souphieff & Scherbinovskaja 1937: 44; Stark 1952: 295; Straby 1971: 7; Talhouk 1954: 307, 1961: 213; Tredl 1907: 7; Tressens 1952: 90; Tymchak 1978: 11, 1980: 15. (**tx**) Balachowsky 1944b, 1949a: 106–107, 1963a: 1269–1270; Bedel 1887: 191, 1888b; Boffa 1949, 1961; Bernard 1788: 270; Ceballos 1945; Chararas 1956c; Dejean 1837: 331; DelGuercio 1925b; Eggers 1912f, 1929e: 43, 55; Gebien 1907: 197; Grune 1979: 40–41; Hagedorn 1910a: 40; Kuhnt 1913: 1044; Lesne 1908: 30; Lucas 1920: 504; Luigioni 1929: 990; Negru 1966b: 400; Nusslin 1912c: 282; Portevin 1935: 313; Reitter 1913a: 32, 1916: 275; Rhumbler 1927: 292; Russo 1963a, 1964: 299; Schedl 1934f: 1640, 1952k: 159, 1955k: 141–142, 1979j: 120, 1980a: 4; Scherb 1971; Schimitschek 1937c: 46, 1955c: 72; Stark 1952: 295; Swaine 1911a: 222–224; Wichmann 1916: 17; Wood, S. L. 1975c: 122. (**ms**) Lucas 1920: 504.
- oleae* Fabricius 1792: 366 (*Bostrichus*). Lectotype ♀; *Gallia meridionalis*; UZMC, Copenhagen. designated by Wood 1975c: 122. Synonymy: Bedel 1887: 191, Balachowsky 1949a: 106, Wood 1975c: 122.
- References: (**ay**) Nusslin 1911a: 255. (**cn**) Acoque 1914; Boyer 1840; Frohlich & Rodewald 1969: 191; Gois 1944; Goureau 1861: 115, 1865: 27; Iyriboz 1940b: 48; Kleine 1932a: 297; Madan 1910: 67; Morris, H. M. 1935: 54, 1937: 22; Riviere 1911: 304; Schimitschek 1935c: 2125; Seabra 1908a: 184; Wachtl 1901: 381; Wyniger 1962a: 90, 1962b: 298. (**ec**) Elliot & Morley 1907; Perris 1852: 515; Wichmann 1955a: 98; Yafla 1953. (**hb**) Barbey 1901: 21, 65; Bodenheimer 1930, 1935; Bugnion 1887a: 224–225; Eichhoff 1881a: 39, 147, 1892b: 99; Frohlich & Rodewald 1969: 191; Girard 1873; Gois 1944; Henschel 1895a: 150; Iyriboz 1940b: 48; Kleine 1932a: 297; Knotek 1897: 136, 143, 1898b: 320, 1907: 281; Lengerken 1954: 72, 1959: 51; Lunardoni & Leonardi 1889: 443; Madon 1930: 99; Morstatt 1924: 36; Nordlinger 1855: 186; Nusslin 1898: 274; Perris 1852: 515; Riviere 1911: 304; Rupertsberger 1880: 227; Topi 1911: 52–57; Wachtl 1901: 381; Westwood 1870: 308; Xamben 1889a: 212, 1892: 477–484, 1893: 101. (**ds**) Acoque 1896, 1914; Blanchere & Robert 1889; Bodenheimer 1930, 1935; Chapuis 1869: 43, 1873: 251; Chapuis & Candeze 1853; Dejean 1821, 1825, 1837; Escalera 1919; Eyquem 1891; Fauvel 1855; Gambil 1849: 127; Georghiou 1977: 74; Gozis 1875: 80; Henschel 1895a: 150; Heyden, Reitter, & Weise 1883: 181; Kaltenbach 1874: 436; Kleine 1914a: 16, 1932a: 297; Knotek 1898b: 320; Lunardoni & Leonardi 1889: 443; Nusslin 1898: 274; Paragello 1881b: 71; Perris 1876a: 254, 1877a: 414; Pittioni 1943: 176; Redtenbacher 1858: 829, 1874: 371; Reitter 1894a: 47; Schaum 1859: 95, 1862: 100; Schneider & Leder 1977: 54; Stein 1868: 113; Stein & Weise 1877: 164; Strach 1861: 122; Sturm 1843: 229; Wichmann 1955a: 98. (**tx**) Acoque 1896; Balachowsky 1949a: 106; Barbey 1901: 21, 65; Bedel 1887: 191, 1888b: 391; Bertolini 1872; Calver 1858; Castelnau 1840; Chapuis 1869: 43, 1873: 251; Chapuis & Candeze 1853; Chevrolat 1838; Dejean 1821, 1825; Doebner 1860; Eggers 1929e: 43; Eichhoff 1864b: 29, 1881a: 39, 147, 1883a: 104, 128; Erichson 1836: 57; Fabricius 1792: 366, 1801: 395; Fairmaire 1864: fig. 154; Fauvel 1885, 1887, 1889; Gemminger & Harold 1872: 2676; Girard 1873; Henschel 1895a: 150; Herbst 1793: 120; Hopkins 1914: 127, 1915c: pl. 9, fig. 8, pl. 11, fig. 8; Illiger 1907: 321; Jablonsky 1785: 120;

- Jacquelin du Val & Fairmaire 1868: 102; Latreille 1803: 204, 1804: 108, 1807: 280; Lepesme 1944: 273; Lesne 1908: 30; Luardoni & Leonard 1889: 443; Nordlinger 1847: 217, 1848: 256; Nusslin 1911a: 255; Olivier 1795b: 13; Perris 1877a: 414; Redtenbacher 1858: 829, 1874: 371; Reitter 1891a: 33, 1894a: 47; Rey 1892b: 30; Rupertsberger 1880: 227; Schedl 1934f: 1640; Wood, S. L. 1975c: 122; Zimmermann 1868: 148.
- oleiphilus* DelGuercio 1925a: 196–208. Syntypes, sex?; Italy; not located. Synonymy: Balachowsky 1949a: 106.
References: (hb) Russo 1932: 87–113. (ds) Kleine 1934a: 137. (tx) Balachowsky 1949a: 106; DelGuercio 1925a: 196–208, 1931: 1–74; Eggers 1944c: 143; Schedl 1934f: 1640, 1952k: 159.
- schoenbachi* Kirsch 1866: 214. Syntypes, sex?; Bogota, Colombia; MNB, Berlin.
Distribution: South America (Bolivia/ Colombia).
References: (ds) Blackwelder 1947; Hagedorn 1910d: 32; Kleine 1912b: 188, 1914b: 341. (tx) Eggers 1943a: 354; Gemminger & Harold 1872: 2676; Hagedorn 1910a: 40; Kirsch 1866: 149, 214; Schedl 1951m: 72.
- boliviae* Blackman 1943c: 387. Holotype ♀; Mapiro, Bolivia; USNM, Washington, Synonymy: Schedl 1951m: 72.
References: (ds) Blackwelder 1947: 785. (tx) Blackman 1943c: 387; Schedl 1951m: 72.
- serratus* Eggers 1943a: 354. Holotype ♂; Bolivia; Cochabamba; Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
Notes: (1) The published type repository was MNHN, Paris, but Eggers died before it could be sent there.
References: (ds) Schedl 1966f: 80. (tx) Eggers 1943a: 354.
- setulosus* Eichhoff 1868c: 149. Lectotype ♂; type labeled Colombia, published as Carolina; IRSNB, Brussels, designated by Wood 1973c: 182.
Distribution: Antilles Islands (Cuba), North America (Costa Rica/ Guatemala/ Honduras/ Campeche, Chiapas, Jalisco, Veracruz in Mexico/ Panama), South America (Bolivia/ Brazil/ Colombia/ Peru/ Venezuela).
Hosts: *Brosimum alicastrum*, *B. sp.*, *Cedrela mexicana*, *Celtis iguanaea*, *Croton gossypifolius*, *Ficus cotinifolia*, *F. sp.*
References: (cc) Cooreman 1963: 46; Schaar-schmidt 1959: 803; Vitzthum 1926: 464. (hb) Atkinson & Equihua 1956a: 419; Wood, S. L. 1982b: 278. (ds) Atkinson 1959a: 59; Atkinson & Equihua 1956a: 419; Blackwelder 1947; Blandford 1897a; Bright 1955c: 171; Chapuis 1869: 44, 1873: 252; Estrada & Atkinson 1958: 203; Hagedorn 1910d: 32, 1923b: 546; Kleine 1912b: 188, 1914b: 341, 358–359, 1934a: 137; Pedrosa-Macedo & Schonherr 1985: 17; Schedl 1966f: 77, 1972g: 41, 1973d: 152, 1976a: 51; Wood, S. L. 1982b: 278. (tx) Blandford 1897a; Bright 1955c: 171, 177; Chapuis 1869: 44, 1873: 252; Eggers 1929e: 52, 1930a: 168, 1933b: 5; Eichhoff 1868c: 149, 1896: 608; Gemminger & Harold 1872: 2676; Hagedorn 1903b: 546, 1910a: 40; Nunberg 1956a: 144; Pedrosa-Macedo & Schonherr 1985: 17; Schedl 1937g: 66, 1951: 81; Vitzthum 1926: 407–503; Wood, S. L. 1973c: 182, 1974d: 286; 1977b: 209, 1982b: 278; Zimmermann 1868: 148.
- radis* Eichhoff 1868e: 149. Syntypes (?) ♂; Brazil; Hamburg Museum, lost. Synonymy: Wood 1974d: 286.
Notes: (1) Wood 1982b: 279 (Synonymy based on 2 possible syntypes in IRSNB, Brussels, identified by Eichhoff).
References: (hb) Beaver 1973b. (ds) Beaver 1973b; Blackwelder 1947; Chapuis 1869: 45, 1873: 253; Hagedorn 1910d: 32; Kleine 1912b: 188, 1914b: 336, 338, 341; Schedl 1972g: 41. (tx) Chapuis 1869: 45, 1873: 253; Eggers 1930a; Eichhoff 1868c: 149; Gemminger & Harold 1867: 2676; Hagedorn 1910a: 40; Wood, S. L. 1974d: 286, 1982b: 279.
- dubius* Eichhoff 1868c: 150. Holotype ♂; Colombia; MNB, Berlin. Synonymy: Wood 1977b: 209.
References: (tx) Eichhoff 1868c: 150, 1896: 608; Wood, S. L. 1977b: 209
- puncticollis* Chapuis 1869: 45. Syntypes, sex?; Bresil; IRSNB, Brussels. Synonymy: Eggers 1929e: 52.
References: (cn) Green 1916: 608–636; Kleine 1932a: 297. (hb) Kleine 1932a: 297. (ds) Blackwelder 1947; Hagedorn 1910d: 32; Kleine 1912b: 188, 1914b: 336, 343, 1932a: 297; Lengerken 1939: 51. (tx) Chapuis 1869: 45, 1873: 253; Eggers 1929e: 52; Gemminger & Harold 1872: 2676; Hagedorn 1910a: 40, 1912a.
- asperatus* Blandford 1897a: 166. Holotype ♂; Panajachel, Guatemala; BMNH, London. Synonymy: Wood 1973c: 182.
References: (ds) Blackwelder 1947: 785; Bright 1972d: 39; Hagedorn 1910d: 30; Kleine 1912b: 188, 1914b: 358–359. (tx) Blandford 1897a: 166; Bright 1972d: 39; Hagedorn 1910a: 40; Wood, S. L. 1972c: 150, 1973c: 182.
- sodalis* Blandford 1897a: 168. Lectotype ♂; Cerro Zamil, Guatemala; BMNH, London, designated by Wood 1974d: 286. Synonymy: Wood 1974d: 286.
References: (ds) Blackwelder 1947; Hagedorn 1910d: 32; Kleine 1912b: 188, 1914b: 358–359. (tx) Blandford 1897a: 168; Hagedorn 1910a: 40; Wood, S. L. 1972c: 150, 1974d: 286.
- spinipennis* Eggers 1930a: 168. Holotype ♂; Colombia, probably Colonia Tovar (taken by

- Moritz); MNB, Berlin. Synonymy: Wood 1977b: 209.
References: (ds) Blackwelder 1947; Hoganson & Ashworth 1982: 255. (tx) Eggers 1930a: 168; Wood, S. L. 1977b: 209.
- bolivianus* Eggers 1933b: 5. Holotype ♂; Bolivien (Cochabamba); USNM, Washington. Synonymy: Wood 1974d: 286.
References: (ds) Anderson, W. H. & Anderson 1971: 7; Blackwelder 1947: 785.
(tx) Eggers 1933b: 5; Wood, S. L. 1974d: 286.
- atlanticus* Schedl 1951m: 81. Holotype ♂; Cuba; Schedl Collection in NHMW, Wien. Synonymy: Bright 1985: 177.
References: (tx) Bright 1985: 177; Schedl 1951m: 81.
- sharpi* (Guillebeau) 1893: 62 (*Phloeophthorus*).
Synatypes, sex?; Alger; not located.
Figures: Postner 1974: 392 (adult).
Distribution: Africa (Algeria), Europe (France).
Hosts: *Spartium junceum*.
References: (bv) Grune 1979: 45. (ec) Bachmaier 1973. (ds) Grune 1979: 45; Kleine 1914a: 16; Reitter 1894a: 49. (tx) Balachowsky 1949a: 115–116; Grune 1979: 45; Guillebeau 1893: 62; Pfeffer 1955a: 131; Reitter 1894a: 49, 1913a: 36; Schedl 1934f: 1641; Seitner 1920: 283.
- simplex* Wood 1967b: 95. Holotype ♀; Fort Clayton, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Liana.
References: (hb) Wood, S. L. 1982b: 267. (ds) Wood, S. L. 1982b: 267. (tx) Wood, S. L. 1967b: 95, 1982b: 267.
- simplicidens* Wood 1977c: 359. Holotype ♂; Finca La Hermosa, Salento, Caldas, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: "Guamo."
References: (tx) Wood, S. L. 1977c: 359.
- spinulosus* (Rey) 1885: 127 (*Phloeophthorus*).
Holotype ♀; Switzerland, Fribourge; not located.
Figures: Balachowsky 1949a: 109, 114 (adult), Chararas 1962c: 386, Grune 1979: 42, Postner 1974: 391 (adult), Stark 1952: 30 (declivity).
Distribution: Asia (Japan/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Czechoslovakia/ Denmark/ Finland/ France/ Germany/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
Hosts: *Abies pectinata*, *Picea excelsa*.
References: (ay) Escherich 1923b: 478, 500; Fuchs 1912a; Lekander 1959b: 60; Nunberg 1928a: 140; Nusslin 1911a: 59, 1912c: 282; Wichmann 1912a: 9–10. (bv) Barr, B. A. 1969: 642; Grune 1979: 43; Nuorteva 1956c: 94; Prell 1930c: 643, 1931: 366; Tragardh 1930b: 107; Trappen 1935: 152; Wichmann 1912a: 9. (cn) Escherich 1923b: 478, 600; Esterberg 1959; Gabler 1955; Grandi 1951; Inouye & Yamaguchi 1955a: 235; Jacentovsky 1933: 271; Juntinen 1960: 19; Kozikowsky 1929: 254; Muller 1912: 184; Nestertschuk 1930: 176; Nosek 1951: 106, 1952b: 98; Nusslin 1913: 239; Pfeffer 1949b: 150, 1950c: 3; Rhumbler 1922: 280, 1927: 293; Schimitschek 1937c: 46, 1955c: 72; Schwerdtfeger 1944a: 181, 1957a: 186; Wachtl 1901: 381; Wardle 1929: 322; Wichmann 1927b: 358. (ec) Balazy & Michalski 1964b; Graham 1969: 880; Heqvist 1960, 1963: 153; Inouye & Yamaguchi 1955a: 235; Jannicky 1957b: 18; Kangas 1946b: 23; Karpinski 1932a: 108; Kleine 1905c: 175, 1944: 80; Kolubajiv & Kalandra 1954: 30; Kostin 1964: 109; Michalski & Ratajczak 1989; Nosek 1951: 106, 1952b: 98; Nunberg 1930: 200; Nuorteva 1957c: 68, 1971; Nusslin 1927: 293; Pfeffer 1923a: 329, 1932a: 6, 1949b: 150, 1950c: 3, 1959: 2, 1960: 345; Saalas 1917a: 222, 1928: 652; Schedl 1958d: 157; Schimitschek 1930a: 281; Schwerdtfeger 1944a: 181, 1957a: 186; Szczepanski 1960a: 410; Thompson, W. R. 1943: 86; Tragardh 1925: 173; Wichmann 1955a: 106; Zumr 1985b. (hb) Beffa 1949, 1961; Chararas 1962c: 386; Charvat 1950; Escherich 1923b: 478, 600; Everts 1903: 742; Florov 1949: 68; Fuchs 1904a; Gabler 1955; Gornostaev 1916: 309; Grandi 1951; Jaroschka 1885; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 153; Keler 1931: 46; Knotek 1897: 136, 144, 1898b: 321; Kostin 1960: 132; Krivolutskaya 1956: 827, 1960; Lekander 1959b: 60; Lengerken 1939: 51, 1954: 72; Lindberg 1963: 243; Nunberg 1929a: 95, 1929c: 116; Nuorteva 1956c: 94; Nusslin 1898: 280, 1913: 239, 1927: 293; Pfeffer 1932, 1941c: 4, 12, 1989a: 31; Postner 1974: 341; Prell 1930c: 643, 1931: 366; Rhumbler 1922: 280, 1927: 293; Saalas 1913a: 75; Schedl 1981b: 46; Schimitschek 1930a: 281; Schwerdtfeger 1944a: 181, 1957a: 186, 1981: 192; Simmel 1916: 191; Spessivtsev 1913a: 47; Stark 1926a: 332, 1952: 300; Tragardh 1919: 237–248, 1930b: 107, 1931: 62, 1939b: 156; Tredl 1908b: 138; Wachtl 1901: 381; Wichmann 1927b: 358; Zumr 1987a. (ds) Ammann & Knabl 1923; Bakke & Kvamme 1977; Bau 1888; Beffa 1949; Bejer-Petersen & Jorum 1977: 12; Brakman 1966b: 204; Butovitsch & Heqvist 1947; Chararas 1962c: 386; Charvat 1950; Eggers 1904; Endrodi 1958b; Escalera 1919; Escherich 1923b: 478, 600, 1932b: 637; Esterberg 1928, 1959; Everts 1922: 637, 1925; Fleischer 1920; Fuchs 1904a, 1905a; Georghiou 1977: 74; Gornostaev 1917; Grune 1979: 43; Hagedorn 1910d: 33; Hansen, V. 1939, 1956, 1964: 458; Harde & Kostlin 1965: 267; Helten 1947; Heyden, Reitter, & Weise 1891: 669, 1906: 708; Heyrovsky 1927; Holdhaus & Deubel 1910: 145, 160; Horion 1951; Huther 1951: 277; Jacentovsky 1912: 287; Karpinski 1926: 81, 1931: 18, 21, 1932a: 108, 1933b: 23, 1948b: 229; Karpinski & Strawinski 1948: 153; Keler 1922b: 210;

- Kiefer et al. 1942: 528; Klefbeck & Sjöberg 1960: 230; Kleine 1912b: 190, 1913a: 34, 1934a: 138; Knotek 1898b: 321; Kono & Tamamiki 1939: 93; Kozikowsky 1921: 180; Krivolutskaya 1956: 827, 1960, 1983; Kurir 1947c: 14; Langhoffer 1915c: 156; Lazorko 1963; Lomnicki 1913b: 147; Lucht 1987: 275; Luigioni 1929: 991; Lundberg 1977; Mequignon 1936: 48; Michalski 1957: 162; Munster 1928: 288; Negru 1968a: 455; Numberg 1928b: 87, 1954: 28, 1960a: 154, 1964a: 234; Nuorteva 1971: 67; Nusslin 1898: 280; Pfeffer 1924b: 471, 1926b: 58, 1931b: 74, 1949b: 150, 1950b: 73, 1960: 345, 1989a: 31; Pittioni 1943: 174; Prossen 1913: 82; Rapp 1934: 719; Reitter 1894a: 49, 1916: 276; Ronbal 1922: 78, 1941: 266, 1946: 153; Saalas 1913a: 75, 1917a: 222, 1931: 70; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1217; Schedl 1980a: 5, 1981b: 46; Scheerpeltz & Winkler 1930: 255; Schilsky 1909: 187; Schwerdtfeger 1981: 192; Simmel 1916: 191–196; Stark 1926a: 332, 1926j: 124, 1931a: 21, 1931d: 542, 1952: 300; Strand 1946: 600; Tragardh 1939b: 156; Tredl 1907: 7, 1908b: 138; Vrydagh 1954: 64; Wanka 1915: 213; Wichmann 1927a: 53, 1955a: 106; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1984: 406; Zinovjev 1955: 187. (tx) Balachowsky 1949a: 108; Boffa 1949, 1961; Chararas 1962c: 386; Charvat 1950; Eichhoff 1883a: 127; Endrodi 1957b; Escherich 1923b: 478, 600; Everts 1903: 742, 1922: 637; Fauvel 1887; Fleischer 1927; Formanek 1907: 16; Fuchs 1912a; Gabler 1955; Grune 1979: 42–43; Guillebeau 1893; Hagedorn 1910a: 42; Hansen, V. 1956, 1964: 458; Hopkins 1914: 127; Kalina 1970: 129; Karpinski & Stravinski 1948: 153; Klefbeck & Sjöberg 1960: 230; Koch 1928: 92; Krivolutskaya 1956: 827, 1958: 114; Kuhnt 1913: 1049; Lazorko 1963; Lekander 1959b: 60; Lovendal 1898: 102; Lucht 1987: 275; Luigioni 1929: 991; Numberg 1928a: 140, 1929c: 116, 1930: 200–208, 1954: 28; Nusslin 1911a: 59, 1912c: 282; Pfeffer 1932b: 11, 1941c: 4, 12, 1947e: 1, 1955a: 129; Portevin 1935: 314; Quaschik 1953: 35; Reitter 1894a: 49, 1913a: 36, 1916: 276; Rey 1885: 127; Rhumbler 1922: 280, 1927: 293; Saalas 1913a: 75, 1916: 110–116; Schedl 1934f: 1641, 1980a: 5, 1981b: 46; Schimitschek 1937c: 46, 1955c: 72; Sokanovskii 1960: 677; Spesivtsev 1913a: 47, 1922a: 490–491, 1925a: 161, 1925b: 5, 1931: 22; Stark 1925: 78–81, 1952: 300; Stresemann et al. 1989: 351; Swaine 1918c: 59; Vrydagh 1854: 64. (ms) Escherich 1932b; Kozikowsky 1929: 254; Wichmann 1961: 332.
- rhododactylus* Ratzburg 1837: 178 (*Hylesinus*).
 Syntypes, sex?; Europe; not located, preoccupied. Synonymy: Hagedorn 1910d: 33.
 References: (ds) Chapman 1869: 6–8. (tx) Balachowsky 1949a: 108; Blandford 1891: 468; Hagedorn 1910d: 33; Ratzburg 1837: 178.
- chapuisi* Blandford 1891a: 213 (*Phloeophthorus*).
 Syntypes, sex?; Europe; not located, automatic replacement name for *rhododactylus* Ratzburg. Synonymy: Hagedorn 1910d: 33.
 References: (ds) Schilsky 1909: 187. (tx) Blandford 1891a: 213; Schedl 1934f: 1641.
- perrisi* Guillebeau 1893: 62 (*Phloeophthorus*).
 Syntypes, sex?; Prusse; Perris Collection, not located. Synonymy: Balachowsky 1949a: 108.
 References: (ds) Schilsky 1909: 187. (tx) Balachowsky 1949a: 108; Guillebeau 1893: 62; Schedl 1934f: 1641.
- squamatus* Wood 1969b: 7. Holotype ♂; Tapanti, Cartago Prov., Costa Rica; Wood Collection.
 Distribution: North America (Costa Rica).
 References: (ds) Wood, S. L. 1982b: 267. (tx) Wood, S. L. 1969b: 7–8, 1982b: 267.
- squamiger* Wood 1977c: 392. Holotype ♂; Colonia Tovar, Aragua, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Inga* sp.
 References: (tx) Wood, S. L. 1977c: 392.
- striatus* (Eggers) 1943a: 346 (*Phthorophlocus*).
 Holotype ♂?; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
 Distribution: South America (Bolivia).
 References: (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1943a: 346.
- subcostatus* Eggers 1943a: 352. Syntypes 1♂, 1♀; Bolivia: Cochabamba; Eggers Collection, in NHMW, Wien.
 Distribution: South America (Bolivia).
 References: (tx) Eggers 1943a: 352, 1951: 148.
- subovatus* Blandford 1987a: 167. Lectotype ♂; El Reposo, Guatemala; BMNH, London, designated by Wood 1982b: 277.
 Distribution: North America (Guatemala/ Honduras), South America (Venezuela).
 Hosts: Unidentified tree.
 References: (hb) Wood, S. L. 1982b: 277. (ds) Blackwelder 1947; Hagedorn 1910d: 32; Kleine 1912b: 188, 1914b: 358; Wood, S. L. 1982b: 277. (tx) Blandford 1987a: 167; Hagedorn 1910a: 40; Wood, S. L. 1982b: 277.
- sulcifrons* Chapuis 1869: 45. Syntypes ♀; Nouvelle Grenade; IRSNB, Brussels.
 Distribution: South America (Colombia).
 Notes: (3) Blandford 1897a: 165 (The species cited as *sulcifrons* actually is *furvus*).
 References: (ds) Blackwelder 1947; Blandford 1897a; Hagedorn 1910d: 32; Kleine 1912b: 188, 1914b: 341. (tx) Blandford 1897a: 165; Chapuis 1869: 45, 1873: 253; Gemminger & Harold 1872: 2676; Hagedorn 1910a: 40; Wood, S. L. 1969b: 6, 1969c: 121.
- suturalis* Eggers 1943a: 349. Holotype ♀; Bolivia (Cochabamba); USNM, Washington.
 Distribution: South America (Bolivia).

- References: **(tx)** Anderson, W. H. & Anderson 1971: 33; Eggers 1942a: 16, 1943a: 349.
- tetricus** Wood 1977c: 389. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Eschweilera* sp.
References: **(tx)** Wood, S. L. 1977c: 387, 389.
- texanus** Schaeffer 1908: 222. Lectotype ♂; Esparza Ranch, Brownsville, Texas [USA]; USNM, Washington, designated by Wood 1982b: 273.
Distribution: North America (Nuevo Leon in Mexico/ Florida, Louisiana, South Carolina, Texas in USA).
Hosts: *Celtis iguaneus*, *C. laevigatus*, *Condalia obtusifolia*.
References: **(ec)** Equihua & Atkinson 1986: 625. **(hb)** Equihua & Atkinson 1986: 625; Wood, S. L. 1982b: 273. **(ds)** Chamberlin 1939: 144; Equihua & Atkinson 1986: 625; Kirk 1969; Leng 1920: 338; Wood, S. L. 1982b: 273. **(tx)** Blackman 1921: 4; Chamberlin 1939: 144; Hagedorn 1910a: 40; Schaeffer 1908: 222; Swaine 1918a: 59; Wood, S. L. 1982b: 273.
- transversus** Chapuis 1869: 44. Syntypes 4, sex[?]; Colombie; IRSNB, Brussels.
Distribution: South America (Colombia).
References: **(ds)** Blackwelder 1947; Hagedorn 1910d: 32; Kleine 1912b: 188, 1914b: 341. **(tx)** Chapuis 1869: 44, 1873: 252; Gemminger & Harold 1872: 2676; Hagedorn 1910a: 40.
- tuberculatus** (Eggers) 1943a: 348 (*Dryotomus*). Holotype, sex[?]; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: **(tx)** Anderson, W. H. & Anderson 1971: 35; Eggers 1943a: 348; Schedl 1962q: 487.
- uniseriatus** Eggers 1943a: 350. Lectotype ♀; Bolivia: Cochabamba; USNM, Washington, designated by Anderson & Anderson 1971: 35.
Distribution: South America (Bolivia).
References: **(tx)** Anderson, W. H. & Anderson 1971: 35; Eggers 1943a: 350–351.
- venezuelensis** (Schedl) 1936i: 105 (*Phloeophthorus*). Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
Hosts: *Eschweilera* sp.
References: **(ds)** Blackwelder 1947: 785. **(tx)** Eggers 1943a: 346; Schedl 1936i: 105.
- vesculus** Wood 1977c: 392. Holotype ♀; 5 km W El Pino, Zulia, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Ochroma* sp.
References: **(tx)** Wood, S. L. 1977c: 392.
- vestitus** Eggers 1943a: 349. Holotype ♀; Bolivia, Cochabamba; USNM, Washington.
Distribution: South America (Bolivia).
References: **(tx)** Anderson, W. H. & Anderson 1971: 35; Eggers 1942a: 16, 1943a: 349.
- willei** Schedl 1937g: 66. Syntypes, sex[?]; Lima, Peru; Schedl Collection in NHMW, Wien and IPKE, Eberswalde.
Distribution: South America (Chile/ Peru).
References: **(ds)** Blackwelder 1947; Schedl 1965g: 25, 1972d: 133. **(tx)** Schedl 1937g: 66, 1955e: 255, 1965g: 25, 1972d: 133.
- chiliensis** Eggers 1942a: 16. Holotype, sex[?]; Chile (Quillota bei Valparaiso); Hamburg Museum, lost, Eggers cotype in NHMW, Wien. Synonymy: Schedl 1955e: 255.
References: **(tx)** Eggers 1942a: 16; Schedl 1951d: 16, 1955e: 255.

Tribe Phloeosinini Nusslin

Phloeosinides

References: Nusslin 1912: 273.

Phloeosinina

References: Numberg 1954: 15.

Phloeosina

References: Balachowsky 1949a: 105; Reitter 1913a: 31.

Phloeosinini

References: Nobuchi 1985c: 8; Wood, S. L. 1978a: 112, 1982b: 282–347, 1986: 49.

Genus *Phloeocranus* Schedl

PHLOEOCRANUS SCHEDL 1942d: 7. Type-species: *Phloeocranus bruchoides* Schedl, monobasic.

Diamerides Browne 1949b: 893. Type-species:

Diamerides litseae Browne = *Phloeocranus bruchoides* Schedl. Synonymy: Schedl 1954a: 137.

References: (tx) Browne 1949b: 893; Schedl 1954a: 137.

References: (hb) Wood, S. L. 1986a: 51. (ds) Wood, S. L. 1986a: 51. (tx) Browne 1961: 59; Schedl 1942d: 7, 1954a: 137; Wood, S. L. 1986a: 51.

bruchoides Schedl 1942d: 8. Syntypes, sex[?]; Java, Semarang teak-forest; Schedl Collection in NHMW, Wien, and Kalshoven Collection.

Figures: Wood 1986a: 50 (adult).

Distribution: Asia (Uttar Pradesh in India/ Malaya/ Sri Lanka, Indonesia (Java).

Hosts: *Litsea anara*, L. sp.

References: (hb) Kalshoven 1958b: 162. (tx) Schedl 1942d: 8, 1972p: 152; Wood, S. L. 1986a: 50 (adult).

litseae Browne 1949: 894 (*Diamerides*). Holotype ♀; Malaya: Kelantan, Jeram; BMNH, London. Synonymy: Schedl 1954a: 137.

References: (hb) Browne 1961c: 59. (ds) Browne 1949: 894, 1961c: 59, 1970: 539. (tx) Browne 1949: 894; Schedl 1954a: 137, 1972p: 152, 1979c: 140.

Genus *Phloeoditica* Schedl

PHLOEODITICA SCHEDL 1962b: 189. Type-species: *Kissophagus curtus* Eggers, subsequent designation by Wood 1986a: 52.

Notes: (1) The generic affinity of *curtus* was verified; the other species are unknown to us.

References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Browne 1966: 233–247; Schedl 1962b: 189, 1963h: 260; Wood, S. L. 1986a: 52.

curtus (Eggers) 1925: 155 (*Kissophagus*). Syntypes 3, sex[?]; Tenasserim; Prague Museum and Eggers Collection, Eggers syntype in NHMW, Wien.

Distribution: Asia (Burma/ Andaman Islands, Assam, Karnataka, Tamil Nadu in India).

Hosts: *Pongamia glabra*.

References: (ds) Schedl 1971a: 275. (tx) Eggers 1925: 155; Schedl 1962b: 184, 189, 1963h: 260.

elegans Schedl 1962b: 190. Holotype ♀; Tonkin: Reg. de Hoa-Binh; MNHN, Paris.

Distribution: Asia (Tonkin Island in Vietnam).

References: (ds) Schedl 1965a: 339. (tx) Schedl 1962b: 190.

phloeosinoides Browne 1966: 243. Holotype, sex[?]; Philippines: Tawi Tawi, Tarawakan; UZMC, Copenhagen.

Distribution: Philippine Islands (Tarawakan).

References: (tx) Browne 1966: 243; Nobuchi 1983: 299.

setosus (Eggers) 1939b: 3 (*Kissophagus*). Holotype, sex[?]; Nordost-Birma (Kambaiti); NHR, Stockholm. Distribution: Asia (Burma).

References: (tx) Eggers 1939b: 3; Schedl 1962b: 188, 1963h: 260.

Genus *Dendrosinus* Chapuis

DENDROSINUS CHAPUIS 1869: 28. Type-species: *Hylesinus globosus* Eichhoff, monobasic.

References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Arnett 1960: 1040, 1968: 1040; Bruck 1936a: 42; Chamberlin 1939: 116, 191–192; Chapuis 1869: 28, 1873: 234; Eggers 1930: 167; Hagedorn 1910a: 51, 1910d: 18; Lucas 1920: 230; Schedl 1958f: 33–46; Wood, S. L. 1982b: 282–285, 1986a: 52.

ater Eggers 1930a: 167. Holotype ♂; OstBolivia [Cochabamba]; USNM, Washington.

Distribution: South America (Argentina/ Bolivia/ Brazil).

Notes: (1) On the reprint [Eggers 1930a: 167] sent to Beeson, Eggers had inserted in ink the word "Cochabamba" after the OstBolivia type locality. References: (ds) Blackwelder 1947: 785; Schedl 1960a: 77. (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1930a: 167; Schedl 1958f: 38, 1960a: 77, 1979c: 29.

hirsutus Schedl 1958f: 38. Lectotype ♀; Argentinien, Santa Fe, Dep. Garay; Schedl Collection in NHMW, Wien, designated by Wood 1985: 268. Synonymy: Wood 1985: 268.

References: (tx) Schedl 1958f: 38, 1979c: 117; Wood, S. L. 1985: 268.

bourreriae Schwarz 1920: 225. Holotype, sex[?]; Marathon, Key Vaca, Florida [USA]; USNM, Washington.

Figures: Schwarz 1920: 223, 225 (adult, galleries). Distribution: Antilles Islands (Jamaica/ Puerto Rico), North America (Florida in USA).

Hosts: *Bourreria havanensis*, *Engenia luxifolia*, *Torrubia longifolia*.

References: (bv) Barr, B. A. 1969: 641. (cn) Doane et al. 1936. (hb) Chamberlin 1939: 191; Doane et al. 1936; Wood, S. L. 1982b: 283. (ds) Blackwelder 1947: 785; Bright 1972d: 37, 1985c: 171; Chamberlin 1939: 191; Kleine 1934a: 131;

Leng & Mutchler 1927: 51; Wolcott 1936: 318, 1948: 354; Wood, S. L. 1982b: 283. (tx) Bright 1972d: 37, 1985c: 171; Bruck 1936a; Chamberlin 1939: 191; Eggers 1930a: 168, 1934b: 27; de Ruette 1970: 100; Schedl 1979c: 441; Schwarz 1920: 222–225; Wood, S. L. 1982b: 283.

lima Eggers 1930a: 166. Holotype, sex?; Portorico; MNB, Berlin. Synonymy: Eggers 1934b: 27.

References: (tx) Eggers 1930a: 166, 1934b: 27.

globosus (Eichhoff) 1868c: 149 (*Hylesinus*). Holotype, sex?; America bor.; Hamburg Museum, lost. Distribution: South America (Argentina/ Bolivia/ Venezuela).

References: (ds) Blackwelder 1947: 785; Blandford 1897a: 156; Chapuis 1869: 28, 1873: 234; Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 339, 341; Leng & Mutchler 1927: 51; Schedl 1971f: 146. (tx) Blandford 1897a: 156; Chapuis 1869: 28, 1873: 234; Eggers 1930a: 168, 1931c: 185; Eichhoff 1868c: 149; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 52; Hopkins 1914: 120; LeConte 1868: 177; Lucas 1920: 230; Schedl 1958f: 34; Schwarz 1920: 222–224. (ms) Lucas 1920: 230.

mexicanus Wood 1983a: 656. Holotype ♂; Estacion de Biología, Chamela, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: *Guapira* sp.

References: (ce) Equihua & Atkinson 1986: 626. (hb) Atkinson et al. 1986: 50; Equihua & Atkinson 1986: 626. (ds) Atkinson et al. 1986: 50; Equihua & Atkinson 1986: 626. (tx) Wood, S. L. 1983a: 656.

paraguayensis Eggers 1930a: 168. Holotype, sex?; Paraguay; USNM, Washington.

Distribution: South America (Brazil/ Paraguay).

References: (ds) Blackwelder 1947: 785; Schedl 1966f: 83, 1978c: 292. (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1930a: 168; Schedl 1979c: 184.

puncticollis Blandford 1897a: 156. Holotype, sex?; Colombia; BMNH, London.

Distribution: South America (Colombia).

References: (ds) Blackwelder 1947: 785; Hagedorn 1910d: 18; Kleine 1912b: 174, 1914b: 341. (tx) Blandford 1897a: 156; Eggers 1930a: 167; Hagedorn 1910a: 52.

transversalis Blandford 1897a: 156. Lectotype ♀; San Andres Tuxtla, Veracruz, Mexico; BMNH, London, designated by Wood 1982b: 284.

Distribution: North America (Costa Rica/ Veracruz in Mexico).

Hosts: Liana.

References: (hb) Wood, S. L. 1982b: 283. (ds) Atkinson 1989a: 59; Blackwelder 1947: 785; Ferrer 1942; Hagedorn 1910a: 18; Kleine 1912b: 174, 1914b: 348; Wood, S. L. 1982b: 283. (tx) Bland-

ford 1897a: 156; Hagedorn 1910a: 52; Schedl 1940a: 335; Wood, S. L. 1982b: 283.

cittifrons Blandford 1897a: 156. Syntypes, sex?; Brazil; BMNH, London.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 785; Hagedorn 1910a: 18; Kleine 1912b: 174, 1914b: 336; Schedl 1973c: 153, 1976a: 51. (tx) Blandford 1897a: 156; Hagedorn 1910a; Schedl 1979c: 265; Schwarz 1920: 224.

Genus *Hyleops* Schedl

HYLEOPS SCHEDL 1938f: 35. Type-species: *Hyleops glabratus* Schedl, monobasic.

References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Schedl 1938f: 35; Wood, S. L. 1986a: 52.

glabratus Schedl 1938f: 36. Syntypes ♂; Nanaingo, Queensland, Australia; BMNH, London, and Schedl Collection in NHMW, Wien.

Figures: Schedl 1938f: 35.

Distribution: Australia (Queensland).

Hosts: *Araucaria cunninghamii*.

References: (bv) Wylie 1982. (en) Wylie 1982; Yule 1873. (hb) Wylie 1982. (ds) Schedl 1975h: 352. (tx) Schedl 1938f: 36, 1979c: 105.

Genus *Carphotoreus* Wood

CARPHOTOREUS WOOD 1973c: 171. Type-species: *Chaetophloeus alni* Bright, original designation.

References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Wood, S. L. 1973c: 171, 1982b: 285, 1986a: 52.

alni (Bright) 1972b: 1492 (*Chaetophloeus*). Holotype ♀; 42 km S Juchatengo, Oaxaca, Mexico; CNCI, Ottawa.

Figures: Bright 1972b: 1490.

Distribution: North America (Oaxaca in Mexico).

Hosts: *Alnus* sp.

Notes: (1) Wood 1973c: 171 (to *Carphotoreus*).

References: (ds) Wood, S. L. 1982b: 285. (tx) Bright 1972b: 1490, 1492; McNamara 1977: 194; Wood, S. L. 1973c: 171, 1982b: 285.

Genus *Catenophorus* Nunberg

CATENOPHORUS NUNBERG 1956b: 195. Type-species: *Catenophorus congouus* Nunberg, original designation.

References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Nunberg 1956b: 195; Wood, S. L. 1986a: 52.

congouus Nunberg 1956b: 197. Holotype ♀; Belgian Congo; IZW, Warsaw.

Distribution: Africa (Zaire).

References: (tx) Nunberg 1956b: 197.

Genus *Cladoctonus* Strohmeier

CLADOCTONUS STROHMEIER 1911b: 17. Type-species: *Cladoctonus affinis* Strohmeier, monobasic.

- Hoplites* Eggers 1923a: 140. Type-species: *Hoplites banosus* Eggers, monobasic, preoccupied by Dejean 1833: 150.
References: (tx) Eggers 1923a: 140–141, 1940a: 123–141; Wood, S. L. 1961c: 2, 1982b: 286.
- Hoplitontus* Wood 1961c: 2. Type-species: *Hoplites banosus* Eggers, automatic, replacement name for *Hoplites* Eggers. Synonymy: Schedl 1963h: 264.
References: (tx) Schedl 1963h: 264; Wood, S. L. 1961c: 2, 1982b: 286.
- Hoplitophthorus* Wood 1961c: 2. Type-species: *Hoplitophthorus sentosus* Wood = *Hoplites interruptus* Eggers, original designation. Synonymy: Schedl 1963h: 264.
References: (tx) Schedl 1963h: 264; Wood, S. L. 1961c: 2, 1982b: 286.
- Notes: (3) Schedl 1957b: 150, 1959n: 392 (cites *robustus*, nomen nudum).
References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Hopkins 1914: 226; Lucas 1920: 188; Schedl 1957d: 66, 1959n: 389–392, 1963h: 264; Strohmeier 1911b: 17–18; Wood, S. L. 1982b: 286, 1986a: 52.
- affinis** Strohmeier 1911h: 17. Holotype, sex?; Aethiopia; Strohmeier Collection.
Figures: Strohmeier 1911h: 17 (antenna, tibia), Schedl 1959n: 390 (antenna).
Distribution: Africa (Ethiopia).
References: (ds) Kleine 1912b: 169, 1914b: 324; Schedl 1979b: 415, 1982: 278. (tx) Eggers 1920: 118; Hopkins 1914: 118; Lucas 1920: 188; Schedl 1959n: 390; Strohmeier 1911h: 17–18; Wichmann 1911b: 174. (ms) Lucas 1920: 188.
- amanicus** Eggers 1920: 118. Holotype, sex?; Amani, Ostafrika; Hamburg Museum, lost. Neotype, ♀; Kenya; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 17.
Distribution: Africa (Kenya/ Tanzania).
Hosts: *Acacia xanthophloea*.
References: (ds) Gardner 1957a: 30. (tx) Eggers 1920: 118, 1932c: 23, 1936c: 33–34; Schedl 1959n: 391, 1979c: 17.
- atrocis** Wood 1974a: 12. Holotype ♂; about 260 km N Xavantia, Mato Grosso, Brazil, at 12 degrees 49' South, 51 degrees 46' West; BMNH, London.
Distribution: South America (Brazil).
References: (tx) Wood, S. L. 1974a: 12.
- banosus** (Eggers) 1923a: 141 (*Hoplites*). Lectotype, sex?; Philippine Islands: Los Banos (Luzon); USNM, Washington, designated by Anderson & Anderson 1971: 5.
Distribution: Indonesia (Java), Philippine Islands (Luzon).
References: (hb) Kalshoven 1958b: 163. (ds) Schedl 1966b: 5. (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1923a: 141, 1927b: 406, 1940a: 125; Nobuchi 1983: 299; Schedl 1963h: 262, 1979c: 33; Wood, S. L. 1961c: 2.
- nonseptis* Schedl 1942a: 173 (*Phloecosinus*). Syntypes, sex?; Philippinen, Los Banos; BMNH, London, and Schedl Collection in NHMW, Wien. Synonymy: Schedl 1963h: 262.
References: (hb) Zocchi 1956: 141. (ds) Nobuchi 1983: 299; Razzauti 1956: 141; Schedl 1966b: 10. (tx) Schedl 1942a: 173, 1963h: 262; Zocchi 1956: 141.
- brevisetosus** Bright 1972d: 46. Holotype ♂?; Duncans, Trelawny Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 35.
Distribution: Antilles Islands (Jamaica).
References: (ds) Bright 1985c: 171. (tx) Bright 1972d: 35, 46, 1985c: 171; McNamara 1977: 194.
- contractus** Schedl 1975f: 340. Holotype, sex?; Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 340.
- corumbensis** (Eggers) 1951: 149 (*Hoplites*). Holotype, sex?; Brasil (Corumba, Staat Matto Grosso; Eggers Collection, in NHMW, Wien).
Distribution: South America (Bolivia/ Brazil).
References: (tx) Eggers 1951: 149; Schedl 1979c: 66; Wood, S. L. 1961c: 2.
- boliviae* Wood 1961d: 106 (*Hoplitophthorus*). Holotype ♀; route between Boyuibe to Charagua via Cueva, Ingri, etc., Bolivia; USNM, Washington.
Synonymy: Wood 1985: 266.
References: (tx) Schedl 1963j: 479; Wood, S. L. 1961d: 106, 1985: 266.
- cupensis** (Wood) 1961d: 107 (*Hoplitophthorus*). Holotype ♂; Cayamas, Cuba; USNM, Washington.
Figures: Atkinson 1989a: 63.
Distribution: Antilles Islands (Cuba), North America (Campeche in Mexico).
Hosts: *Brosimum alicastrum*.
References: (ds) Atkinson 1989a: 59; Bright 1985c: 171. (tx) Atkinson 1989a: 63; Bright 1985c: 171; Schedl 1963j: 479; Wood, S. L. 1961d: 107.
- eggersi** Wichmann 1911b: 174. Syntypes 3, sex?; Aethiopia (Harras); Wichmann Collection, not located.
Distribution: Africa (Ethiopia/ Kenya/ Tanzania).
Hosts: *Acacia* sp.
References: (ds) Gardner 1957a: 30; Schedl 1959q: 705, 1975h: 350, 1975k: 275, 1977c: 394. (tx) Eggers 1920: 118, 1936c: 33–35; Schedl 1958: 705, 1959n: 391, 1979c: 86; Wichmann 1911b: 174, 1914: 414.
- elongatus** Schedl 1967c: 222. Holotype, sex?; Mount Fouari reservation near Gabon and Nigeria; NHMB, Budapest.
Distribution: Africa (Gabon/ Nigeria).
References: (ds) Schedl 1972e: 279. (tx) Schedl 1967c: 222, 1979c: 89.

interruptus (Eggers) 1940a: 126. Holotype, sex?; Guadeloupe; Flentiaux Collection, cotype Eggers Collection, this cotype in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe), South America (Colombia).

Hosts: *Artocarpus* sp. *Citrus sinensis*.

References: (ds) Bright 1985c: 171. (tx) Bright 1985c: 171; Eggers 1940a: 126; Wood, S. L. 1961c: 2.

sentus Wood 1961c: 3 (*Hoplitophthorus*). Holotype ♂; La Cuchilla, Sevilla, Colombia; Wood Collection. Synonymy: Wood 1985: 267.

References: (ds) Bright 1985c: 171. (tx) Bright 1985c: 171; Wood, S. L. 1961c: 3, 1961d: 107, 1985: 267.

major (Eggers) 1940a: 125 (*Hoplites*). Holotype, sex?; Guadeloupe (Trois-Rivières); MNHN, Paris, cotype Eggers Collection, this cotype in NHMW, Wien.

Distribution: Antilles Islands (Guadeloupe).

Hosts: *Ficus laurifolia*.

References: (ds) Bright 1985c: 171. (tx) Bright 1985c: 171; Eggers 1940a: 125–126, 1951: 149; Schedl 1979c: 145; Wood, S. L. 1961c: 2.

natalensis Eggers 1936c: 34. Holotype, sex?; Natal: Malvern; BMNH, London.

Figures: Schedl 1959r: 389 (adult).

Distribution: Africa (Natal in South Africa).

Hosts: *Acacia* sp.

References: (tx) Eggers 1936c: 34–35; Schedl 1959n: 392, 1979c: 163.

similis Nunberg 1969a: 391. Holotype, sex?; Cote d'Ivoire, Bingerville; MRCB, Tervuren.

Distribution: Africa (Ivory Coast).

References: (tx) Nunberg 1969a: 391.

tuberculatus Schedl 1973a: 369. Holotype, sex?; Bolivien, Guayaramerin (Beni), 200 m from river; NHMB, Budapest.

Distribution: South America (Bolivia).

References: (tx) Schedl 1973a: 369.

Genus *Phloeosinopsioides* Schedl

PHLOEOSINPSIOIDES SCHEDL 1964k: 317. Type-species: *Phloeosinopsis triseriatus* Schedl, automatic replacement name for *Phloeosinopsis* Schedl 1964c: 297 (nec 1936j: 23).

Phloeosinopsis Schedl 1964c: 297. Type-species: *Phloeosinopsis triseriatus* Schedl, original designation, preoccupied by Schedl 1936j: 23.

References: (tx) Schedl 1964c: 297.

References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Schedl 1964c: 297, 1964k: 317; Wood, S. L. 1986a: 52.

formosanus (Schedl) 1935k: 479 (*Xylechinus*). Holotype ♂; Formosa; Schedl Collection in NHMW, Wien.

Distribution: Asia (Taiwan), Philippine Islands (Luzon).

References: (ds) Nobuchi 1967: 19, 1983: 299;

Schedl 1966b: 6. (tx) Schedl 1935k: 479, 1936g: 524, 1961f: 88, 1979c: 99.

leai (Schedl) 1936g: 524 (*Xylechinus*). Syntypes ♂?; Queensland: Cairns district; SAM, Adelaide, restricted by Schedl 1979c: 137.

Distribution: Australia (Queensland).

References: (ds) Schedl 1936g: 524. (tx) Schedl 1936g: 524, 1979c: 137.

pumilus Wood 1985: 274. Holotype ♂; Bulolo, Morobe District, New Guinea; Wood Collection. Distribution: New Guinea.

Hosts: Liana.

References: (tx) Wood, S. L. 1985: 274.

triseriatus Schedl 1964c: 297 (*Phloeosinopsis*). Holotype ♀; Sumba-Insels; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Sumba Island), New Guinea.

Hosts: Liana.

References: (tx) Schedl 1964c: 297, 1964m: 317, 1979c: 256.

papuanus Schedl 1970a: 128 (*Xylechinus*). Holotype, sex?; New Guinea, Long Island L. A., Bulolo, Morobe District; CSIRO, Canberra. Synonymy: Wood 1985: 269.

References: (tx) Schedl 1970a: 128–129; Wood, S. L. 1985: 269.

Genus *Phloeosinus* Chapuis

PHLOEOSINUS CHAPUIS 1869: 37. Type-species: *Hylesinus thujae* Perris, subsequent designation by Hopkins 1914: 126.

Phloeosinities Hagedorn 1906: 118. Type-species: *Phloeosinities rehi* Hagedorn, subsequent designation by Hopkins 1914: 126. Synonymy: Hagedorn 1910d: 25, Wood 1992: (in press).

References: (tx) Hagedorn 1906: 118, 1910d: 25; Pfeffer 1989a: 32; Schedl 1947a: 33.

Keys: Blackman 1942c: 400 and Wood 1982b: 287 for North America; Bright 1976d: 82–83 for Canada; Schedl 1950b: 36 for Europe and part of Asia, 1947a: 34 for fossil species; Murayama 1963b: 22 for Japan.

Notes: (3) Keremidiev 1966: 401–411 (*passerinii*, nomen nudum).

References: (ay) Fuchs 1912: 5–48; Gardner 1934: 37, 1950b; Nusslin 1911, 1912. (cc) Cushman 1919: 534; Massey 1969: 43–52. (hb) Barbey 1901: 58; Eichhoff 1881: 131; Postner 1974: 415; Schedl 1958k: 152, 188, 192; Tredl 1907: 10; Wood, S. L. 1986a: 52. (ds) Nobuchi 1969a: 53; Wood, S. L. 1986a: 52. (tx) Arnett 1960: 1035, 1041, 1968: 1035, 1041; Balachowsky 1949a: 117–121; Barbey 1901: 58; Beal & Massey 1945: 56; Bedel 1888b: 389, 393; Beeson 1941: 377–378; Blackman 1922: 48, 59–60, 1942c: 397–404, 1943: 398; Blandford 1894d: 68, 1897a: 143, 160; Blatchley & Leng 1916: 658–659; Bright 1975: 135, 1976d: 81–91; Bright & Stark 1973: 42;

- Browne 1961c: 61, 1963c: 53; Bruck 1933: 54–56, 1935: 41, 1936a: 41; Chamberlin 1939: 115, 168–182, 1958: 53, 79–94; Chapman 1957: 3–4; Chapuis 1869: 37, 1873: 245; Choo 1983: 45–48; Decaux 1890: 124; Dodge 1938: 17; Eggers 1936: 90, 1939: 114–123; Eichhoff 1881a: 38, 1883a: 103; Formanek 1907: 17; Gardner 1934: 3, 7; Hagedorn 1906: 119, 1910a: 35, 64–66, 1910d: 25; Hoffmann 1938: 16; Hopkins 1914: 126, 1915: 199, 202, 209, 226; Hopping, R. 1922: 128–134; Karaman 1972: 86; Keen 1938: 32, 56; LeConte 1876: 381; LeConte & Horn 1883: 522–523; Leng 1920: 338; Mickle 1953: 32–33; Murayama 1955: 88–98, 1963b: 21–29; Niisima 1909: 123–125, 1942: 69–74; Nunberg 1954: 29–30; Pfeffer 1943a: 103–118, 1955: 133–140; Postner 1974: 415; Reitter 1894: 49, 1913: 31, 36; Sampson 1910: 35; Schedl 1936j: 23, 1939n: 12, 1941d: 383, 1947a: 33, 1950b: 35–38, 58–61, 81–84, 96–98, 1951: 112–116, 1960g: 130–141, 1966b: 9, 1980a: 5, 1981b; Scheerpeltz & Winkler 1930: 255; Schimitschek 1937: 45–60; Sokanovskii 1954: 18; Spesivtsev 1931: 85; Stark 1952: 301–308; Stebbing 1905: 8; Swaine 1909: 128, 1913: 41–43, 1918a: 67–70; Tsai & Yin 1965: 84–99; Winkler 1932: 1641; Wood, S. L. 1974g: 236–237, 1982b: 286–315, 1986a: 52; Zocchi 1956: 139–225.
- abietis** Tsai & Yin 1964: 92, 95. Holotype ♂; Yunnan, China; IZAS, Beijing.
Distribution: Asia (Yunnan in China).
Hosts: *Abies delavayi*.
References: (tx) Tsai & Yin 1964: 92, 95.
- acatayi** Schedl 1958e: 33. Syntypes ♂ ♀; Türkei: Bozdag bei Acipayam; Forstlichen Fakultät der Univ. Istanbul, and Schedl Collection in NHMW, Wien.
Distribution: Asia (Turkey).
Hosts: *Cedrus libani*, *C. libanotica*, *Juniperus excelsa*.
Notes: Schedl 1979c: 10 (citation of holotype invalid).
References: (ay) Courtois et al. 1965. (bv) Chararas, Berton, & Bregeant 1964; Chararas, Desveaux, & Kogane-Charles 1978b. (cn) Ekici 1971. (hb) Acatay 1961: 3; Chararas, Berton, & Bregeant 1964; Ekici 1971: 56. (ds) Acatay 1961: 3; Chararas 1976a; Schedl 1959h: 100. (tx) Schedl 1958e: 33, 1959h: 100, 1979c: 10.
- antennatus** Swaine 1924b: 146. Holotype ♂; Strawberry, California [USA]; CNCI, Ottawa in USA).
Distribution: North America (California, Oregon in USA).
Hosts: *Libocedrus decurrens*, rare in *Cupressus* sp., *Pinus contorta*, *Pseudotsuga menziesii*.
Notes: (3) Blackman 1942c: 415 (redescribed).
References: (cn) Anonymous 1983d; Doane et al. 1936; Keen 1938: 32; Razzanti 1956: 141; Schuder 1969: 75. (ec) Keen 1938: 32; Razzanti 1956: 141. (hb) Bright & Stark 1973: 45; Chamberlin 1939: 177, 1958: 84; Doane et al. 1936; Keen 1938: 32; Razzanti 1956: 141; Wood, S. L. 1982b: 310; Zocchi 1956: 141. (ds) Anonymous 1983d; Blackman 1942c: 415; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 45; Chamberlin 1925, 1939: 177, 1958: 84; Furniss, R. L. & Carolin 1977: 367; Keen 1929a: 19, 1938: 32; Kleine 1934a: 135; Leng & Mutchler 1927: 51; Schuder 1969: 75; Wood, S. L. 1972a: 408, 1982b: 310. (tx) Blackman 1942c: 415; Bright 1967b: 676; Chamberlin 1939: 177, 1958: 84; Keen 1929a: 19; de Ruelle 1970: 105; Swaine 1924b: 146; Wood, S. L. 1957e: 400, 1972a: 408, 1982b: 310; Zocchi 1956: 141.
- pseudotsugae* Chamberlin 1955: 117. Holotype ♂?; Tiller, Oregon [USA]; CAS, San Francisco.
Synonymy: Wood 1957c: 400.
References: (hb) Chamberlin 1958: 83. (ds) Chamberlin 1958: 83. (tx) Chamberlin 1955: 117, 1958: 83; de Ruelle 1970: 106; Wood, S. L. 1957c: 400.
- ° **arcessitus** (Scudder) 1893: 165 (*Phlocosinites*).
Holotype, sex?; Florissant, Colorado Miocene [USA]; Scudder Collection.
Distribution: North America (fossil in Colorado Miocene in USA).
References: (tx) Scudder 1893: 165.
- arisanus** Niisima 1942: 73. Syntypes, sex?; Formosa (Arisan-Berg); Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1967: pl. 1.
Distribution: Asia (Taiwan).
Hosts: *Chamaecyparis formosanus*.
References: (cn) Razzanti 1956: 141. (ec) Razzanti 1956: 141. (hb) Zocchi 1956: 141. (ds) Niisima 1942: 73; Nobuchi 1967: 19. (tx) Niisima 1942: 73; Nobuchi 1967: pl. 1; Zocchi 1956: 141.
- arizonicus** Blackman 1942c: 424. Holotype ♂; Santa Catalina Mountains, Arizona [USA]; USNM, Washington.
Figures: Blackman 1942c: figs. 4, 4A (male declivity).
Distribution: North America (Arizona in USA).
Hosts: *Cupressus arizonica*.
References: (cn) Razzanti 1956: 141. (ec) Razzanti 1956: 141. (hb) Razzanti 1956: 141; Wood, S. L. 1982b: 310; Zocchi 1956: 141. (ds) Blackwelder & Blackwelder 1948; Furniss, R. L. & Carolin 1977: 367; Wood, S. L. 1982b: 310. (tx) Blackman 1942c: 424; Wood, S. L. 1982b: 310; Zocchi 1956: 141.
- armatus** Reitter 1887b: 192. Holotype ♂; Syrien; NHMW, Wien.
Figures: Balachowsky 1961: 247, 249, Chararas 1964c: 21, Grime 1979: 82, Schimitschek 1944: 157, 160 (male, galleries).
Distribution: Asia (Crete/ Cyprus/ Israel/ Lebanon/ Syria/ Turkey), North America (introduced in S California in USA).
Hosts: *Cupressus sempervirens*, *C. spp.*

Notes: (3) Schedl 1950b: 112 (redescribed).

References: (ay) Chararas 1963c; Chararas et al. 1980. (bv) Balachowsky & Chararas 1964; Chararas 1964c, 1967a, 1980b: 561, 1982; Chararas et al. 1980; Grune 1979: 83; Mendel 1984. (cn) Acatay 1943a: 65, 1958: 129–130; Balachowsky & Chararas 1961: 245–257; Browne 1968b: 538; Chararas 1961a: 250, 1963: 3468–3470, 1964c; Klapperich 1973: 166; Mendel 1983a, 1987; Mendel et al. 1983; Morris, H. M. 1937: 21; Razzauti 1956: 141; Schimitschek 1938a: 298, 1938c: 2118, 1939d: 2118, 1944: 156. (cc) Acatay 1958; Annila & Perttunen 1964: 42; Balachowsky & Chararas 1964; Chararas 1963c; Fry 1989: 17; Halperin & Holzschuh 1984: 27; Mendel 1984, 1985, 1986a, 1986c: 115, 1986d: 130; Mendel & Halperin 1982; Razzauti 1956: 141. (hb) Acatay 1943a: 65, 1958; Balachowsky 1961; Balachowsky & Chararas 1964; Browne 1961c: 64, 1968b: 538; Chararas 1961a: 250, 1963c, 1964c; Halperin & Holzschuh 1984: 27; Henschel 1895a: 145; Lesne 1938: 169–170; Mendel 1984, 1987; Postner 1974: 417; Razzauti 1956: 141; Schimitschek 1938a: 298, 1944: 156; Zocchi 1956: 141. (ds) Balachowsky 1961; Browne 1968b: 538; Chararas 1964c; Chararas & Berton 1961: 235; Georghiou 1977: 74; Grune 1979: 83; Hagedorn 1910d: 26; Halperin 1966: 70; Halperin & Holzschuh 1984: 27; Hariri 1971: 262; Henschel 1895a: 145; Kleine 1912b: 183; Koch 1939: 291; Pfeffer 1935: 157, 1943a: 1, 8; Postner 1974: 417; Reitter 1894a: 50; Schedl 1961b: 185, 1967c: 69, 1969g: 259, 1971d: 433, 1979i: 289; Schimitschek 1938a: 298; Wood, S. L. 1992b: 85. (tx) Balachowsky 1961: 247, 249; Balachowsky & Chararas 1964: 15; Chararas 1964c: 21; Eggers 1931c: 186; Grune 1979: 82–83; Hagedorn 1910a: 65; Henschel 1895a: 145; Iablokoff-Khnzorian 1961: 157; Nunberg 1948b: 14; Pfeffer 1943a: 1, 8, 1955a: 134; Postner 1974: 417; Reitter 1887b: 192, 1894a: 50, 1913a: 37; Schedl 1934f: 1641, 1950b: 112; Zocchi 1956: 141. (ms) Chararas 1971a: 853; Mendel 1986a.

andresi Eggers 1927d: 120. Lectotype ♂; Stambul, auf türkischem Friedhof aus Cypressen; USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Eggers 1931c: 186, Pfeffer 1935: 156, Schedl 1950b: 112. References: (ds) Georghiou 1977: 74; Kleine 1934: 136; Pfeffer 1935: 157. (tx) Anderson, W. H. & Anderson 1971: 4; Eggers 1927d: 120, 1931c: 186; Michalski 1969b: 568; Schedl 1934f: 1641, 1950b: 112.

* *assimilis* (Schedl) 1947a: 37 (*Phloeosinites*). Holotype, sex?; Baltic amber; Geologisch-Paleontologische Institut, Albertus Universität, Königsberg. Distribution: Europe (fossil in Baltic amber). References: (ds) Spahr 1981. (tx) Schedl 1947a: 17, 37.

australis Schedl 1938f: 36. Holotype, sex?; Australia; Schedl Collection in NHMW, Wien. Figures: Schedl 1938f: 37 (antenna).

Distribution: Australia.

Notes: (3) Schedl 1939f: 30 (named var. *negausensis*, later transferred it to *cribratus*).

References: (cn) Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Razzauti 1956: 141; Zocchi 1956: 141. (ds) Nobuchi 1983: 299; Schedl 1965g: 25, 1966b: 10. (tx) Schedl 1938f: 36; Zocchi 1956: 141.

baumanni Hopkins 1905b: 79. Holotype ♂; Tacubaya, Distrito Federal, Mexico; USNM, Washington.

Figures: Bernal Redondo 1964: 8.

Distribution: North America (El Salvador/ Distrito Federal, Hidalgo, Morelos, Puebla in Mexico/ Arizona in USA).

Hosts: *Cupressus arizonicus*, *C. benthami*, *C. lindleyi*, *C. lusitanica*.

Notes: (3) Blackman 1942c: 437 (redescribed).

References: (cn) Razzauti 1956: 141. (cc) Bernal Redondo 1964; Razzauti 1956: 141. (hb) Atkinson et al. 1986: 23; Bernal Redondo 1964: 1–16; Burgos & Saucedo 1983: 65; Razzauti 1956: 141; Wood, S. L. 1982b: 298. (ds) Atkinson & Equihua 1985a: 77; Atkinson et al. 1986: 23; Blackman 1942c: 437; Blackwelder 1947; Burgos & Saucedo 1983: 65; Dominguez & Carrillo 1976: 141; Ferrer 1942; Furniss, R. L. & Carolin 1977: 367; Hagedorn 1910d: 26; Kleine 1912b: 183, 1914b: 348, 1934a: 135; Schedl 1963c: 157, 1977e: 41; Wood, S. L. 1982b: 298. (tx) Bernal Redondo 1964: 8; Blackman 1942c: 437; Hagedorn 1910a: 65; Hopkins 1905b: 79; Muskus, A. 1984: 57; Schedl 1940a: 337; Wood, S. L. 1982b: 298.

bicolor (Brulle) 1832: 250 (*Hylesinus*). Syntypes, sex?; commune par M. de Laporte from Moree (Loir-et-Cher dept., France); not given.

Figures: Balachowsky 1949a: 118, Grune 1979: 82, Pfeffer 1989a: pl. 2, Schedl 1960g: 133, Stark 1952: 307 (male).

Distribution: Africa (Algeria/ Libya/ Morocco/ Tanzania/ Tunisia), Asia (Hebei, Jiangsu, Shandong, Shanxi, Sichuan, Yunnan in China/ Israel/ Syria/ Turkey), Europe (Albania/ Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Portugal/ Romania/ Sardinia/ Sicily/ Spain/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Biota orientalis*, *Cunninghamia lanceolata*, *Cupressus* spp., *Juniperus* spp., *Sequoia* sp., *Thuja* spp., *Callitris articulata*.

Notes: (3) Eggers 1934: 26 (identity discussed). Brulle 1832: 25 described the median frontal carina of the female; a carina is absent in both sexes of *Hylesinus toranio* (= *oleiperda*), thus removing that species from the consideration

given by Eggers. Reitter 1913: 37 (aberration *nigripes*, no status).

- References: (ay) Chararas 1956a, 1956c; Marcu 1933a: 33; Negru 1968b: 802; Nusslin 1912c: 286; Parkin 1940: 367; Robertson 1961. (bv) Balachowsky & Chararas 1964: 15; Chararas 1967a, 1969, 1980b: 561, 1982; Chararas, Desceaux, & Kogane-Charles 1978b; Chararas & Deschamps 1962; Chararas et al. 1982: 1094. (cn) Acatay 1943a: 68; Anastasiadis 1963: 164–166; Baeta Neves 1952a; Chorbadzhevo 1929; Colbrant & Hatt 1962: 21–28; Crivellari 1950: 35–36; Favard 1957; Hammad 1961; Hoffmann 1938, 1952b: 402; Hrubik 1973, 1974; Schimitschek 1938a: 293, 1951a: 101, 1955c: 72; Wachtl 1901: 381. (cc) Acatay 1958: 129–130; Balachowsky & Chararas 1964: 16; Chararas 1956b, 1957d, 1959c, 1969: 1080–1083; Chararas et al. 1982: 1094; Fintzescu 1930; Kleine 1908c: 182; Thompson, W. R. 1943: 82; Tudor 1969: 34. (hb) Acatay 1943a: 68, 1955; Adeli 1972: 14; Baeta Neves & Goes 1944; Boffa 1949, 1961; Cecconi 1924; Chararas 1956a: 113–213, 1962c: 401, 1969; Chorbadzhevo 1929; Decaux 1889, 1890d, 1890e, 1890f, 1890g, 1891a; Favard 1957; Girard 1873; Hammad 1961; Knotek 1897: 144, 1898b: 321; Lesne 1938: 170; Parkin 1940: 364–367; Peyerimhoff 1919: 249; Schimitschek 1938a: 293; Simmel 1928: 154; Stark 1952: 307; Tschorbadjiev 1929: 159; Wachtl 1901: 381. (ds) Acloque 1896; Adeli 1972: 14; Andras 1966: 32; Andras & Schaefer 1957; Baeta Neves 1952a: 4–8; Baeta Neves & Goes 1944; Barthe 1896; Bedel 1888b: 393, 411; Boffa 1949; Blanchere & Robert 1889; Buresh & Lazarov 1956; Chararas 1962c: 401; Chararas & Berton 1961: 235; Chorbadzhevo 1929; Escalera 1919; Escherich 1932b; Ganglbauer 1904; Georghiou 1977: 74; Heyden, Reitter, & Weise 1891: 669, 1906: 708; Hoffmann 1938: 14–16, 1952b: 402; Kleine 1913a: 34; Knotek 1898b: 321; Koca 1905: 191; Koch 1939: 290; Kolubajiv 1934: 64; Langhoffer 1915c: 156; Luigioni 1929: 991; Novak, P. 1964; Peyerimhoff 1919: 249, 1933b: 373; Pfeffer 1936: 90; Pittioni 1943: 174; Pjatnitskii 1930a: 163; Postner 1974: 416; Ragusa 1924: 114; Reitter 1894a: 50, 1916: 276, 349; Sainte-Claire 1914: 468; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1218; Schaum 1859: 95, 1862: 100; Schilsky 1909: 187; Schimitschek 1938a: 293, 1951a: 101; Stark 1927b: 86, 1952: 307; Stein 1868: 113; Stein & Weise 1877: 163; Strauch 1861: 123; Tredl 1907: 10; Tschorbadjiev 1929: 159; Wichmann 1927a: 54. (tx) Acloque 1896; Balachowsky 1949a: 120; Bedel 1888b: 393, 411; Boffa 1949, 1961; Brulle 1832: 250; Chararas 1956c; Csiki 1905; Doebner 1860; Eggers 1922b, 1934b: 26; Girard 1873; Hammad 1961; Iablokoff-Khmzorian 1961: 71; Luigioni 1929: 991; Nusslin 1912c: 286; Peyerimhoff 1918: 260; Pfeffer 1932b: 12; Portevin 1935: 314; Reitter 1894a: 50, 1913a: 37, 1916: 276, 349; Rey 1892b: 30; Schedl 1934f: 1641, 1950b: 96; Schimitschek 1955c: 72; Semenov 1903: 79; Stark 1952: 307. (ms) Escherich 1932b; Hrubik 1974. *aubei* Perris 1855: 78 (*Hylestinus*). Syntypes (♀) ♀; Department des Landes, France; MNHN, Paris. Synonymy: Reitter 1916: 349, Eggers 1934b: 26.
- Notes: (3) Schedl 1950b: 96 (re-described).
- References: (ay) Ferriera, M. C. 1989; Nusslin 1912: 286. (bv) Barr, B. A. 1969: 642; Ferriera, M. C. 1989; Grune 1979: 83. (cn) Browne 1968b: 538; Kleine 1932a: 296; Mendel 1983a, 1987; Mendel et al. 1983; Moussion 1988; Rabasse 1980; Razzauti 1956: 130, 144; Schimitschek 1938c: 2118, 1944: 154. (cc) Arambourg 1964: 115; Ferriera, M. C. 1989; Fry 1989: 17; Halperin & Holzschuh 1984: 27; Kleine 1944: 74, 80; Mendel 1986a, 1986c: 115, 1986d: 130; Mendel & Halperin 1981; Nosek, P. 1952: 415, 1959a: 118, 1959b: 87; Perris 1856a: 283; Razzauti 1956: 130, 144; Schedl 1960i: 131; Szczepanski 1960a: 408; Tudor 1969: 34; Wichmann 1955a: 94, 98; Yang 1989. (hb) Baeta Neves & Goes 1944; Bodenheimer 1930: 354, 380; 1935; Borzi 1882; Browne 1968b: 538; Csiki 1906: 13; Decaux 1889: 161–164, 1890f: 137; Eichhoff 1881a: 38, 132, 1892b: 99; Escalera 1919: 105; Fintzescu 1930a: 246; Gardner 1957: 31; Gusev & Rimski-Korsakov 1934: 1940; Halperin & Holzschuh 1984: 27; Henschel 1895a: 146; Hoch 1888: 146; Jazentkowsky 1931; Kleine 1932a: 296, 1944: 125–133; Knotek 1894a: 553–554, 1907: 280–282; Kraemer 1951: 248; Langhoffer 1915b: 156, 1915c: 74; Lezava 1929: 4; Luigioni 1929: 91; Luardoni & Leonardi 1889: 434; Mendel 1987; Nikitin & Sajzev 1926; Nosek 1959a: 118, 1959b: 87; Perris 1856a: 283; Peyerimhoff 1933: 373–383; Pfeffer 1989a: 33; Pittioni 1943: 174; Porta 1932: 345; Postner 1974: 416; Razzauti 1956: 130, 144; Roubal 1931: 454, 1936: 4, 1942: 265; Rupertsberger 1880: 226; Schedl 1960i: 131, 1981b: 62; Schedl & Lindberg 1959: 13; Schilsky 1888: 121; Schimitschek 1937: 46, 1938a: 293, 1941a: 317–320, 1944: 154, 1951a: 101; Sorauer 1930: 570; Tredl 1907: 10; Tschorbadjiev 1939: 159–160; Wagner 1926: 152; Wichmann 1927: 53, 80; Zocchi 1956: 141, 144, 168–188. (ds) Arru, Covassi, & de Bellis 1966: 32; Baeta Neves & Goes 1944; Barthe 1896; Blanchere & Robert 1889; Bodenheimer 1935; Browne 1968b: 538; Calwer 1884; Cecconi 1897, 1906: 956–958, 1924: 315–316; Chapuis 1869: 37, 1873: 245; Eggers 1912f; Endrodi 1958b; Fauvel 1885; Ferreira, M. C. 1989; Georghion 1977: 74; Gozis 1875: 79; Grune 1979: 83; Hagedorn 1910d: 26, 28; Halperin 1966: 70; Halperin & Holzschuh

- 1884: 27; Henschel 1895a: 146; Heyden, Reitter, & Weise 1883: 181; Hopkins 1900c; Horion 1951; Kamp 1963, 1979; Klapperich 1951: 109; Kleine 1912a: 92, 1912b: 183, 1932a: 296, 1934a: 135, 1934b: 607–608; Knotek 1892a: 33, 1894a: 553; Kocher 1953: 133; Korotnew 1926: 71; Leonardi 1889: 81–83; Lucht 1987: 277; Lunardoni & Leonardi 1889: 434; Mayet 1904: 93; Negrn 1966b: 400; Novak, P. 1952: 415; Nunberg 1964a: 234; Ortzen 1886: 279; Palm 1976; Perris 1876a: 255, 1877a: 415; Pfeffer 1932: 12, 28, 1936: 90, 1943a: 3, 1947d: 127; Pjatnitskii 1930: 163; Postner 1974: 416; Roubal 1935b: 72, 1941: 265; Sainte-Claire Deville 1912: 148; Schaum 1859: 95, 1862: 100; Schedl 1959b: 100, 1960g: 131, 1961b: 185, 1967c: 74, 1969g: 289, 1971d: 431, 1972n: 349, 1978e: 36, 1979i: 289, 1980a: 5, 1981b: 62; Scheyrew 1905: 74; Schilsky 1909: 187; Schwarz 1886: 56; Simmel 1928: 154; Stein 1868: 113; Stein & Weise 1877: 163; Tressens 1952: 90; Wichmann 1955a: 94, 98. **(tx)** Balachowsky 1949a: 117–121; Bertolini 1872; Chapuis 1869: 37, 1873: 245; Doebner 1860; Eggers 1910: 212, 1912f: 29, 1934b: 26–27, 1936b: 32, 52; Eichhoff 1864b: 30, 1866: 276, 1881a: 38, 66, 132, 1883a: 103, 125; Endrodi 1957a, 1957b; Faivel 1885, 1889; Gemminger & Harold 1872: 2672; Grune 1979: 82–83; Hagedorn 1910a: 65; Henschel 1895a: 146; Hoffmann 1938: 114, 1942: 73; Hopkins 1900c; Jacobson 1927: 453, 478; Kalina 1969; Knotek 1892a: 33, 1894: 534, 1897: 144–145; Lucht 1987: 277; Lunardoni & Leonardi 1889: 434; Negrn 1966b: 400; Perris 1855: 78, 1877a: 415; Peyrerimhoff 1918: 260, 1919: 249; Pfeffer 1943a: 3–12, 1947: 127–128, 1955a: 138, 1989a: pl. 2; Powell, W. 1980: 29; Postner 1974: 416; Reitter 1887b: 192–193, 1894: 50, 1906: 708, 1913: 37, 1916: 276; Rey 1892b: 30; Rupertsberger 1880: 226; Schaufuss 1916: 1218; Schedl 1934f: 1641, 1950b: 96, 1952f: 86, 1957d: 9, 1960g: 131, 133, 1980a: 5, 1981b: 62; Schmidt, G. 1980: 25; Schwarz 1886: 56; Seidlitz 1891: 151; Spessivtsev 1931: 28–29; Wichmann 1916: 16; Zocchi 1956: 141, 144–188. **(ms)** Eggers 1910a, 1910b; Mendel 1986a.
- prae-notatus* Gredler 1866: 370 (*Phloeophthorus*). Syntypes, sex?; Tirol, Austria; not given. Synonymy: Balachowsky 1949a: 121. References: **(ds)** Gredler 1866: 370; Kraatz 1869: 59; Schilsky 1909: 187; Stein & Weise 1877: 163. **(tx)** Balachowsky 1949a: 121; Gredler 1866: 370; Schedl 1950b: 96.
- transcaspicus* Semenov 1903: 79. Syntypes 4 ♂, 6 ♀; Prov. Transcaspiica: Mont. Kopet-dagh inter Kisil-arvat et Kara-kala; Semenov and Scheyrew Collections. Synonymy: Schedl 1950b: 96. References: **(hb)** Stark 1952: 305. **(ds)** Hagedorn 1910d: 28; Kadyrov 1959; Kleine 1912b: 183, 1934a: 136; Pfeffer 1943a: 3; Stark 1952: 305. **(tx)** Hagedorn 1910a: 65; Iablokoff-Khuzorian 1961: 71, 157; Pfeffer 1943a: 3, 1955a: 134; Reitter 1913a: 38; Schedl 1934f: 1641, 1950b: 96; Semenov 1903: 79; Stark 1952: 305.
- hercegovinensis* Eggers 1922d: 120. Lectotype ♀; Herzegovina, ohne nähere Ortsbezeichnung; USNM, Washington, designated by Anderson & Anderson 1971: 14. Synonymy: Schedl 1950b: 96. References: **(ds)** Buresh & Lazarov 1956; Pfeffer 1943a: 10, 1947d: 129. **(tx)** Anderson, W. H. & Anderson 1971: 14; Eggers 1922d: 120; Endrodi 1957a; Iablokoff-Khuzorian 1961: 157; Pfeffer 1943a: 10, 1955a: 134; Schedl 1934f: 1641, 1950b: 96.
- schumensis* Eggers 1922d: 166. Lectotype ♂; Schumewald, Bezirk Wilhelmsstäl (Deutsch-Ostafrika); USNM, Washington, designated by Anderson & Anderson 1971: 29. Synonymy: Schedl 1957d: 9. References: **(bv)** Curry 1965. **(cn)** Razzauti 1956: 141. **(ec)** Razzauti 1956: 141. **(hb)** Razzauti 1956: 141; Zocchi 1956: 141. **(ds)** Gardner 1957a; Kleine 1934a: 135. **(tx)** Anderson, W. H. & Anderson 1971: 29; Eggers 1922d: 166; Schedl 1957d: 9; Zocchi 1956: 141.
- *brunni* (Hagedorn) 1906: 119 (*Phlocosinites*). Holotype, sex?; Bernstein; not located. Figures: Schedl 1947a: 38 (adult). Distribution: Europe (fossil in Baltic amber). References: **(ds)** Hagedorn 1907a, 1907b, 1910d: 28; Kleine 1912a: 163; Spahr 1981. **(tx)** Hagedorn 1906: 119, 1907a, 1907b, 1910a: 65; Keler 1928: 27; Schedl 1947a: 15, 17, 38.
- camphoratus* Tsai & Yin 1964: 93, 96. Holotype ♂; Yunnan, China; IZAS, Beijing. Distribution: Asia (Yunnan in China/Thailand). Hosts: *Cinnamomum camphora*, *C. iners*. References: **(ds)** Beaver 1990a: 250. **(tx)** Tsai & Yin 1964: 93, 96.
- canadensis* Swaine 1917: 8. Lectotype ♀; Ste. Anne de Bellevue, Quebec, Canada; CNCI, Ottawa, designated by Bright 1967b: 676. Distribution: North America (New Brunswick, Ontario, Quebec in Canada/ Maine, Michigan, Minnesota, New Hampshire, New York, Ohio in USA). Hosts: *Thuja occidentalis*. Notes: (3) Blackman 1942c: 463 (redescribed). References: **(ay)** Robertson 1961; Thomas, J. B. 1957: 4, 1967. **(bv)** Hosking & Knight 1975. **(cn)** Anonymous 1962z, 1963r; Blackman 1950; Browne 1968b: 539; Chamberlin 1924; Doane et al. 1936; Janson & Bowser 1975: 11; Johnson, W. T. & Lyon 1976: 48; Lindquist, O. H. & Syme 1981: 83; Moody 1988: 65; Razzauti 1956: 141;

Rose, A. H. & Lindquist 1980: 77; Schuder 1969: 82; Swaine 1918a: 68–69; Syme & Nystrom 1988: 80. (**cc**) Burks 1979: 800; Bushing 1965: 462; Cross & Moser 1975; Marsh 1979: 158; Matthews 1970; Muesebeck 1979: 1128; Poinar 1975: 165; Razzanti 1956: 141; Sanwal 1960: 1127–1131; Schedl 1932: 1–2; Thompson, W. R. 1943: 82; Tomalak, Welch, & Calloway 1989: 18; Tudor 1969: 34. (**hb**) Baker, W. L. 1972: 248; Blackman 1950; Bright 1976d: 84; Browne 1968b: 539; Chamberlin 1939: 171; Doane et al. 1936; Johnson, W. T. & Lyon 1976: 48; Razzanti 1956: 141; Rose, A. H. & Lindquist 1980: 77; Swaine 1918a: 68–69; Wood, S. L. 1982b: 308; Zocchi 1956: 141. (**ds**) Anonymous 1926c: 516, 1962z, 1963r; Beaulne 1956; Blackman 1942c, 1950; Blackwelder & Blackwelder 1948; Bright 1976d: 84; Browne 1968b: 539; Chamberlin 1925, 1939: 171; Dodge 1938; Drooz 1985: 352; Hatch 1924; Kleine 1934a: 135; Leng 1920: 338; Leonard 1928: 516; Lindquist, O. H. & Syme 1981: 83; Morgan, Anne, Morgan, & Elias 1985; Schuder 1969: 82; Syme & Nystrom 1988: 80; Wood, S. L. 1982b: 308. (**tx**) Beaulieu 1923; Benoit 1985: 196; Blackman 1942c: 463; Bright 1967b: 676, 1976d: 83–84; Chamberlin 1939: 171; Dodge 1938: 29; Drooz 1985: 351; Hoebeke 1978; Johnson, W. T. & Lyon 1976: 49; Lindquist, O. H. & Syme 1981: 83; Rose, A. H. & Lindquist 1980: 77; de Ruelle 1970: 105; Schedl 1939n: 12; Swaine 1917: 8, 1918a: 68–69; Syme & Nystrom 1988: 80; Thomas, J. B. 1957: 4, 1967; Wood, S. L. 1970: 105, 1982b: 308; Zocchi 1956: 141.

cedri Brisout 1883: 146. Syntypes, sex?; Algeria (Foret de Batna); MNHN, Paris.

Notes: (3) Schedl 1950b: 8 (redescribed).

References: (**bv**) Chararas 1982; Chararas, Desveaux, & Kogane-Charles 1978b; Chararas, Juster, & Bahmain-Oligo 1968: 309–316. (**cn**) Chararas 1977c; Hoffmann 1938: 14–16; Razzanti 1956: 141; Schimitschek 1944: 162. (**cc**) Chararas, Desveaux, & Kogane-Charles 1978a; Peyerimhoff 1934: 52; Pfeffer 1960; Razzanti 1956: 141. (**hb**) Chararas, Berton, & Bregeant 1964: 1436–1438; Peyerimhoff 1919: 249; Razzanti 1956: 141; Schimitschek 1944: 162; Strohmeier 1907c: 82; Zocchi 1956: 141. (**ds**) Chararas 1967a; Chararas & Kontroumpas 1977; Hagedorn 1910d: 26; Hoffmann 1938: 14–16; Kleine 1912b: 183, 1914a: 16, 1934a: 135; Peyerimhoff 1919: 249, 1933b: 363, 1934: 52; Pfeffer 1935: 157, 1943a: 1, 9, 1947d: 128, 1960; Reitter 1894a: 50; Schedl 1971d: 426. (**tx**) Brisout 1883: 146; Eggers 1914; Hagedorn 1901a: 65; Pfeffer 1943a: 1, 9, 1955a: 134; Reitter 1894a: 50, 1913a: 38; Schedl 1934f: 1641, 1950b: 81, 1958c: 33; Strohmeier 1907: 82–84; Zocchi 1956: 141. (**ms**) Chararas 1971a: 853.

cedri cedri:

Distribution: Africa (Algeria), Europe (Spain).

Hosts: *Cedrus atlantica*.

Notes: (1) Balachowsky 1969: 649 named the “Nord de l’Afrique” subspecies as *maura* without recognizing that an automatic subspecies *cedri cedri* already existed for it.

References: (**tx**) Balachowsky 1969: 649.

cedri maura Balachowsky 1969: 649. Syntypes, sex?; Nord de l’Afrique; not indicated. Automatically preoccupied.

References: (**tx**) Balachowsky 1969: 649 (foot-note).

cedri libani Balachowsky 1969: 649. Syntypes, sex?; Proche-Orient [presumably Syria]; not indicated.

Distribution: Asia (Syria/Turkey).

Hosts: *Cedrus libanotica libani*.

Notes: (1) A formal type series was not designated for the geographical race in Syria.

References: (**tx**) Balachowsky 1969: 649.

cristatus (LeConte) 1868: 170 (*Hylesinus*). Holotype, sex?; California [USA]; Carnegie Museum of Natural History, Pittsburgh.

Figures: Blackman 1942c: figs. 16 (female), 17 (male), Johnson & Lyon 1976: 47.

Distribution: North America (Durango, Sonora in Mexico/ Arizona, California, W Texas in USA).

Hosts: *Cupressus arizonica*, *C. forbsci*, *C. macrocarpa*, *Juniperus* sp., *Thuja* sp.

Notes: (3) Blackman 1942c: 443 (redescribed).

References: (**cn**) Anonymous 1960q, 1966f, 1968g, 1969e, 1974e, 1974r, 1986b: 8; Compere 1915: 574; Craighead & Middleton 1930; Doane et al. 1936; Essig 1915a: 312, 1926: 516, 1958: 516; Felt 1926: 247, 1942; Herrick 1935: 250; Hopkins 1899b: 7, 1903b: 39; Keen 1938: 131, 1952c: 169; Lauderdale 1952: 17; Razzanti 1956: 141; Riley 1893a: 262; Swaine 1918a: 69. (**ec**) Bushing 1965: 462; Cushman 1919; Keen 1938: 131; Kinn 1971; Muesebeck 1938: 285; Razzanti 1956: 141. (**hb**) Branigan 1915: 574; Burke 1930: 181, 1932: 366, 1933: 54–55; Chamberlin 1939: 180; Doane et al. 1936; Essig 1915a: 312, 1926: 516, 1958: 516; Felt 1926: 247; Herbert 1919: 337, 1920: 361, 1920b: 1–22; Herrick 1935: 250; Hopkins 1899b: 7, 1903b: 39; Jacobson 1927: 655; Keen 1938: 131, 1952c: 169; Razzanti 1956: 141; Riley & Howard 1893: 262; Ryan 1931: 354–355; Swaine 1918a: 69; Wickson 1899: 259; Wood, S. L. 1982b: 302; Zocchi 1956: 141. (**ds**) Anonymous 1944r, 1965b, 1966f, 1968g, 1969e, 1974c; Atkinson & Equihua 1985b: 230; Atkinson et al. 1991: 156; Blackman 1942c: 443; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 52; Chamberlin 1925, 1939: 180; Craighead & Middleton 1930; Essig 1926: 516, 1958: 516; Fall 1906: 203; Felt 1926: 247, 1930a: 247, 1942: 6; Furniss, R. L. & Carolin 1977: 367; Hagedorn 1910d: 26; Henshaw 1882: 269, 1885: 149; Hopkins 1900c; Keen 1929a: 20, 1938: 131, 1952c: 169; Kleine 1912b: 183, 1914b:

390, 1934a: 135; Leng 1920: 338; Sampson 1919: 113; Swaine 1909: 129. **(tx)** Blackman 1942c: 443; Blandford 1897a: 160; Chamberlin 1939: 180; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 65; Hopkins 1900c, 1903b: 39–40; Johnson, W. T. & Lyon 1976: 47; Keen 1929a: 20; Keler 1928: 17; LeConte 1868: 170, 1876: 381; Sampson 1919: 113; Swaine 1909: 129, 1918a: 69; Wood, S. L. 1972c: 147, 1982b: 302; Zocchi 1956: 141.

chiricahua Blackman 1942c: 444. Holotype ♂; Chiricahua National Monument, Arizona [USA]; USNM, Washington. Synonymy: Wood 1972c: 147.

References: **(cn)** Razzanti 1956: 141. **(ce)** Razzanti 1956: 141. **(hb)** Razzanti 1956: 141; Zocchi 1956: 141. **(ds)** Blackwelder & Blackwelder 1948. **(tx)** Blackman 1942c: 444; Wood, S. L. 1972c: 147; Zocchi 1956: 141.

cupressi Hopkins 1903b: 35. Holotype ♂; Golden Gate Park, San Francisco, California [USA]; USNM, Washington.

Figures: Blackman 1942c: figs. 12–13 (declivity), Bright 1976d: 84, Bright & Stark 1973: 153, Zondag 1976a.

Distribution: Australia (introduced), New Zealand (introduced), North America (Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA), Panama (introduced).

Hosts: *Chamaecyparis nootkatensis*, *Cupressus macrocarpa*, *C. sargentii*, *C. sp.*, *Sequoia sempervirens*, *Thuja plicata*.

Notes: (3) Blackman 1942c: 441 (re-described).

References: **(cn)** Anonymous 1960q, 1962h, 1964h, 1965b, 1967f, 1967t, 1969i, 1970h, 1980a, 1983c; Blair 1937: 171; Browne 1968b: 539; Burke 1932: 46–47, 1933: 54–55; Chamberlin 1924; Doane et al. 1936; Dugdale 1965b; Essig 1915a: 313, 1926: 516, 1958: 516; Felt 1926: 247, 1942: Hadlington 1951a; Herrick 1935: 250; Hopkins 1903b: 35, 1904a: 41, 45–46; Johnson, W. T. & Lyon 1976: 46; Keen 1938: 131, 1952c: 168; Kershaw 1973; Lauderdale 1951: 23; Razzanti 1956: 141; Schuder 1969: 75; Shaw et al. 1985; Swaine 1918a: 69; Zondag 1976a, 1982. **(ce)** Barr, W. F. 1947: 58; Bushing 1965: 462; Keen 1938: 131, 1952c: 168; Marsh 1979: 148; Razzanti 1956: 141. **(hb)** Bright 1976d: 89; Bright & Stark 1973: 49; Browne 1968b: 539; Burke 1932; Chamberlin 1939: 181; DeLeon 1952: 76–78; Doane et al. 1936; Essig 1915a: 313, 1926: 576, 1942: 604, 1958: 516; Felt 1926: 247, 1942: 6; Hadlington 1951a; Herbert 1919: 337, 1920: 361, 1920b: 1–22; Herrick 1935: 250; Hopkins 1903: 35, 1904a: 41, 45–46; Johnson, W. T. & Lyon 1976: 46; Keen 1938: 131, 1952c: 168; Pierce 1907: 294; Razzanti 1956: 141; Swaine 1918a: 69; Wood, S. L. 1982b: 297; Zocchi 1956: 141; Zondag 1976a. **(ds)** Anonymous 1964h, 1965b, 1967f, 1967t, 1969i, 1970h, 1980a; Blackman 1942c: 441; Blackwelder & Black-

welder 1948; Bright 1976d: 89; Bright & Stark 1973: 49; Browne 1968b: 539; Chamberlin 1925, 1939: 181; Currie 1905: 100; Dugdale 1965b; Essig 1926: 516, 1958: 516; Felt 1926: 247, 1930a: 247; Furniss, R. L. & Carolin 1977: 367; Hagedorn 1906, 1910d: 26; Hopping 1922; Johnson, W. T. & Lyon 1976: 46; Keen 1929a: 20, 1938: 131, 1952c: 168; Kleine 1912b: 183, 1914b: 390, 1934a: 135; Kuschel 1972; Leng 1920: 338; Schuder 1969: 75; Swaine 1909: 129; VanDyke 1925: 46; Wood, S. L. 1977a: 72, 1982b: 297; Zondag 1982. **(tx)** Blackman 1942c: 441; Bright 1976d: 90; Bright & Stark 1973: 153; Brick 1936a; Carne et al. 1980; Chamberlin 1939: 181; Essig 1942: 604; Furniss, R. L. & Carolin 1977: 368; Hagedorn 1906, 1910a: 66; Hopkins 1903b: 35; Keen 1929a: 20; Swaine 1909: 129, 1918a: 69, 1924b: 145; Wood, S. L. 1972: 148, 1982: 297; Zocchi 1956: 141; Zondag 1976a. **(ms)** Hopkins 1903b: 35.

nitidus Swaine 1924b: 145. Holotype ♂; Santiam N. F., Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1972c: 148.

Notes: (3) Blackman 1942c: 440 (re-described). References: **(cn)** Keen 1938: 32, 1952c: 168; Razzanti 1956: 141. **(ce)** Keen 1938: 32; Razzanti 1956: 141. **(hb)** Chamberlin 1939: 177, 1958: 89; Keen 1938: 32, 1952c: 168; Razzanti 1956: 141; Zocchi 1956: 141. **(ds)** Blackman 1942c: 440; Blackwelder & Blackwelder 1948; Chamberlin 1925, 1939: 177, 1958: 89; Keen 1938: 32, 1952c: 168; Leng & Mutchler 1927: 51; Murayama 1957a: 36; Patterson & Hatch 1945: 150; Wood, S. L. 1972a: 408. **(tx)** Blackman 1942c: 440; Bright 1976b: 677; Chamberlin 1939: 177, 1958: 89; de Ruette 1970: 105; Swaine 1924b: 145; Wood, S. L. 1972a: 408, 1972c: 148; Zocchi 1924b: 141.

blackwelderi Blackman 1943c: 397. Holotype ♂; Ciricito, Panama Canal Zone; USNM, Washington. Synonymy: Wood 1972c: 148.

References: **(cn)** Razzanti 1956: 141. **(ce)** Razzanti 1956: 141. **(hb)** Razzanti 1956: 141. **(ds)** Blackwelder 1947. **(tx)** Blackman 1943c: 397; Wood, S. L. 1972c: 148.

deleoni Blackman 1942c: 454. Holotype ♂; Jacala, Hidalgo, Mexico; USNM, Washington.

Distribution: North America (Chihuahua, Durango, Hidalgo, Jalisco, Michoacan, Morelia, Oaxaca in Mexico).

Hosts: *Juniperus deppeana*, *J. flaccida*, *J. sp.*, *Cupressus sp.*

References: **(cn)** Razzanti 1956: 141. **(ce)** Razzanti 1956: 141. **(hb)** Atkinson et al. 1986: 23; Burgos & Saucedo 1983: 65; Razzanti 1956: 141; Wood, S. L. 1982b: 294; Zocchi 1956: 141. **(ds)** Atkinson & Equihua 1985b: 230, 1988: 94; Atkinson et al. 1986: 23; Burgos & Saucedo 1983: 65; Wood, S. L. 1982b: 294. **(tx)** Blackman 1942c: 454; Wood, S. L. 1982b: 294; Zocchi 1956: 141.

dentatus (Say) 1826: 258 (*Hylurgus*). Syntypes, sex?; [presumably] Milton, Massachusetts [USA]; Say Collection, lost.

Figures: Blackman 1921:pl. 1, fig. 3, 1942c:fig. 24 (declivity).

Distribution: North America (Ontario in Canada/Alabama, Arkansas, District of Columbia, Florida, Georgia, Illinois, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, West Virginia in USA).

Hosts: *Chamaecyparis thyoides*, *Juniperus silvicola*, *J. virginiana*, *Thuja occidentalis*.

References: (ay) Hopkins 1894g; Kudon & Berisford 1981. (bv) Baker, W. L. 1972: 248; Berisford 1975; Turnbow & Franklin 1980. (cn) Anonymous 1962z, 1963r; Baker, W. L. 1972: 248; Blackman 1950; Chamberlin 1924: 270; Doane et al. 1936; Drooz 1985: 351; English 1958: 38; Essig 1926: 517, 1958: 517; Felt 1926: 247, 270, 1930a: 247, 270, 1942; Felt & Bromley 1931: 437–443, 1943: 327; Felt & Rankin 1932: 269; Fitch 1858; Fuller & Hostetler 1980; Harris 1841: 73, 1842: 73, 1852a: 77, 1862: 87, 1890: 87; Hopkins 1894g: 280, 1904a: 25; LeBaron 1871: 42; Lintner 1887b: 90; Mallis 1960; McDaniel 1934: 246; Packard 1881: 244–245, 1890: 860, 904–905; Razzauti 1956: 141; Riley & Howard 1890: 350; Seaver 1921: 770; Smith, J. B. 1900: 365; Swaine 1918a: 68, 70. (cc) Ashraf & Berryman 1969: 13; Berisford 1974a, 1975; Burks 1979: 853; Bushing 1965: 462; Drooz 1985: 351; Felt 1901: 522–523, 1906: 391; Grissell 1979: 765; Kudon 1979b; Kudon & Berisford 1980, 1981a, 1981b; Marsh 1979: 158; Matthews 1970; Pierce 1908: 387; Razzauti 1956: 141; Reid 1957b: 6; Riley 1890b: 350. (hb) Baker, W. L. 1972: 248; Beal & Massey 1945: 85–88; Blackman 1922b: 60, 1950; Britton 1929: 666–768; Chamberlin 1917: 353–356, 1919: 326, 1939: 169; Chittenden 1890; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Drooz 1985: 351; Essig 1926: 517, 1958: 517; Felt 1906: 391, 1926: 247, 270, 1930a: 247, 270, 1942: 8; Felt & Rankin 1932: 269; Fitch 1858: 750; Harris 1841: 73, 1852: 77, 1862: 87; Hopkins 1894g: 280, 1904a: 25; Knaus 1856: 77; Lintner 1887b: 90; Morstatt 1924: 30; Packard 1890: 860; Perris 1877a: 414; Pierce 1907: 293; Razzauti 1956: 141; Swaine 1918a: 68, 70; Wood, S. L. 1982b: 294; Zocchi 1956: 141. (ds) Anonymous 1926c: 516, 1962z, 1963r; Atkinson et al. 1991: 156; Beal & Massey 1945: 85–88; Berisford 1974a; Blackman 1922b, 1942c: 452, 1950; Blackwelder & Blackwelder 1948; Blatchley & Leng 1916: 658; Britton 1911: 208, 1920a; Chamberlin 1917: 353–356, 1925, 1939: 169; Chapuis & Candeze 1853; Chittenden 1890; Currie 1905; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Dodge 1938; Drooz 1985:

351; Essig 1926: 517, 1958: 517; Felt 1926: 247, 270, 1930a: 247, 270; Felt & Rankin 1932: 269; Cowley 1926: 37; Hagedorn 1910d: 26; Henshaw 1885: 149; Hopkins 1893a: 142, 145, 1893b: 213, 1900c; Kirk 1970; Kleine 1912b: 183, 1914b: 386, 1934a: 135; Kudon & Berisford 1981; Leng 1920: 338; Leonard 1928: 516; Melsheimer 1853: 87; Perris 1876a: 253, 1877a: 414; Schwarz 1886: 56; Scudder 1886b: 196; Smith, J. B. 1900: 365, 1910: 404; Swaine 1909: 129; Turnbow & Franklin 1980; Ulke 1902: 56; Wickham 1896c: 168; Wood, S. L. 1982: 294. (tx) Beal & Massey 1945: 85–88; Blackman 1922b: 60, 1942c: 452; Blandford 1897a: 160; Blatchley & Leng 1916: 658; Chamberlin 1939: 169; Chapuis & Candeze 1853; Dodge 1938: 29; Eichhoff 1896: 608; Gemminger & Harold 1872: 2674; Hopkins 1900c; Hagedorn 1910a: 66; Keler 1928: 15; LeConte 1868: 170, 177, 1876: 380–381; Lucas 1920: 504; Say 1826: 258, 319; Schwarz 1886: 56; Swaine 1909: 129, 1917: 9, 1918a: 68, 70; Wood, S. L. 1982b: 294; Zocchi 1956: 141. (ms) Lucas 1920: 504.

graniger Eichhoff 1868c: 147 (*Dendroctonus*).

Lectotype ♂; published as “Texas,” type labeled “Am. Bor.”; USNM, Washington, designated by Wood 1982b: 294. Synonymy: Eichhoff 1896: 608.

References: (cn) Swaine 1918a: 70. (cc) Hopkins 1891b: 258; Pierce 1908: 387. (hb) Pierce 1907: 294; Swaine 1918a: 70; Zocchi 1956: 140. (ds) Chamberlin 1939: 170; Chapuis 1869: 39, 1873: 247; Henshaw 1885: 149; Leng 1920: 338; Schwarz 1886: 56; Swaine 1909: 129. (tx) Chapuis 1869: 39, 1873: 247; Eichhoff 1868c: 147, 1896: 608, 610; Gemminger & Harold 1872: 2672; LeConte 1868: 177, 1876: 382, 436–437; Schwarz 1886: 56; Swaine 1909: 129, 1918a: 70; Wood, S. L. 1982b: 294; Zocchi 1956: 140.

haagi Eichhoff 1868c: 148 (*Dendroctonus*).

Lectotype ♀; Amerique Boreale; USNM, Washington, designated by Wood 1982b: 295. Synonymy: Schwarz 1896: 56; Blackman 1942: 452.

References: (cn) Swaine 1918a: 70. (hb) Swaine 1918a: 70; Zocchi 1956: 140. (ds) Chapuis 1869: 39, 1873: 247; Henshaw 1885: 149; Leng 1920: 338; Schwarz 1886: 56; Swaine 1909: 130. (tx) Blandford 1897a: 160; Chapuis 1869: 39, 1873: 247; Eichhoff 1868c: 148, 1896: 608, 610; Gemminger & Harold 1872: 2672; LeConte 1868: 177, 1876: 382, 436–437; Leng 1920: 338; Schwarz 1886: 56; Swaine 1909: 130, 1918a: 70; Wood, S. L. 1982b: 295; Zocchi 1956: 140.

enivus Blackman 1921: 5. Syntypes ♀; Nachez, Mississippi [USA]; USNM, Washington, Synonymy: Blackman 1942c: 452.

References: (ds) Chamberlin 1925, 1939: 170; Kleine 1934a: 135; Leng & Mutchler 1927: 51.

(**tx**) Blackman 1921: 5, 1922: 60, 1942c: 452; Chamberlin 1939: 170.

dubiosus Schedl 1972a: 145. Holotype ♂; ?Queensland, Australia; Queensland Museum, Brisbane. Distribution: Australia (?Queensland). References: (**tx**) Schedl 1972a: 145.

frontalis Bruck 1933c: 55. Holotype ♂; Rialto, California [USA]; USNM, Washington. Figures: Blackman 1942c: figs. 3, 3A (declivity), Furniss & Carolin 1977: 221. Distribution: North America (California in USA). Hosts: *Cupressus forbesi*, *C. guadeloupensis*, *C. macrocarpa*.

Notes: (3) Blackman 1942c: 421 (redescribed). References: (**cn**) Razzauti 1956: 141. (**ec**) Razzauti 1956: 141. (**hb**) Bright & Stark 1973: 47; Chamberlin 1939: 173; Razzauti 1956: 141; Wood, S. L. 1982b: 313; Zocchi 1956: 141. (**ds**) Blackman 1942c: 421; Blackwelder 1939; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 47; Chamberlin 1939: 173; Furniss, R. L. & Carolin 1977: 367; Wood, S. L. 1982b: 313. (**tx**) Blackman 1942c: 421; Bright 1966b: 305; Bruck 1933c: 55; Chamberlin 1939: 173; Furniss, R. L. & Carolin 1977: 221; de Ruelle 1970: 105; Wood, S. L. 1982b: 313; Zocchi 1956: 141.

granulatus Bruck 1936b: 33. Holotype ♂; Santa Anna Canyon, Orange Co., California [USA]; OSUC, Columbus. Synonymy: Bright 1966b: 305.

Notes: (3) Blackman 1942c: 419 (redescribed). References: (**cn**) Razzauti 1956: 141. (**ec**) Razzauti 1956: 141. (**hb**) Chamberlin 1939: 173; Razzauti 1956: 141; Zocchi 1956: 141. (**ds**) Blackman 1942c: 419; Blackwelder 1939; Blackwelder & Blackwelder 1948; Chamberlin 1939: 173. (**tx**) Blackman 1942c: 419; Bright 1966b: 305; Bruck 1936b: 33; Chamberlin 1939: 173; Zocchi 1956: 141.

fulgens Swaine 1924b: 147. Holotype ♂; Northfork, California [USA]; CNCI, Ottawa.

Figures: Blackman 1942c: figs. 7–8 (male declivity).

Distribution: North America (California, Oregon in USA).

Hosts: *Libocedrus decurrens*.

Notes: (3) Blackman 1942c: 427 (redescribed). References: (**cn**) Doane et al. 1936; Keen 1935: 32; Razzauti 1956: 141; Salman 1933a: 133; Schuder 1969: 75. (**ec**) Keen 1935: 32; Razzauti 1956: 141. (**hb**) Bright & Stark 1973: 47; Chamberlin 1939: 178, 1958: 91; Doane et al. 1936; Keen 1935: 32; Razzauti 1956: 141; Wood, S. L. 1982b: 306; Zocchi 1956: 141. (**ds**) Blackman 1942c: 427; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 47; Chamberlin 1925, 1939: 178, 1958: 91; Furniss, R. L. & Carolin 1977: 367; Keen 1929a: 22, 1938: 32; Kleine 1934a: 135; Leng & Mutchler 1927: 51; Salman 1933a: 133; Schuder 1969: 75;

Wood, S. L. 1972a: 408, 1982b: 306. (**tx**) Blackman 1942c: 427; Bright 1967b: 676; Chamberlin 1939: 178, 1958: 91; Keen 1929a: 22; de Ruelle 1970: 105; Swaine 1924b: 147; Wood, S. L. 1972a: 408, 1972c: 148, 1982b: 306; Zocchi 1956: 141.

splendens Blackman 1942c: 428. Holotype ♂; Pinehurst, Oregon [USA]; USNM, Washington. Synonymy: Wood 1972c: 148.

References: (**hb**) Chamberlin 1955: 91; Zocchi 1956: 142. (**ds**) Blackwelder & Blackwelder 1948; Chamberlin 1958: 91; Razzauti 1956: 142. (**tx**) Blackman 1942c: 427–428; Chamberlin 1958: 91; Wood, S. L. 1972c: 148; Zocchi 1956: 142.

furnissi Blackman 1942c: 469. Holotype ♂; Flagstaff, Arizona [USA]; USNM, Washington.

Figures: Blackman 1942c: figs. 27–28 (declivity). Distribution: North America (Arizona, Colorado, New Mexico, Utah, Wyoming in USA).

Hosts: *Juniperus deppeana*, *J. monosperma*, *J. osteosperma*.

References: (**cn**) Razzauti 1956: 141. (**ec**) Razzauti 1956: 141. (**hb**) Razzauti 1956: 141; Wood, S. L. 1982b: 306; Zocchi 1956: 141. (**ds**) Blackwelder & Blackwelder 1948; Furniss, R. L. & Carolin 1977: 367; Wood, S. L. 1982b: 306. (**tx**) Blackman 1942c: 469; Wood, S. L. 1982b: 306; Zocchi 1956: 141.

gifuensis Murayama 1954b: 190. Holotype ♂; Japan: Naka town, Gifu pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Chamaecyparis obtusa*, *Cryptomeria japonica*, *Thujaopsis dolobratius*.

Notes: (1) Original spelling was *gifensis*, all subsequent usage by Murayama was *gifuensis*; because it is named for Gifu prefecture, the original spelling is treated as a lapsus calami and subsequent spelling is preserved.

References: (**ds**) Murayama 1955: 96; Nobuchi 1985: 8. (**tx**) Murayama 1954b: 159, 190, 1955: 96.

gillerforsi Bright 1987: 3. Holotype ♀; Azores: P. Acores, Pico; CNCI, Ottawa.

Distribution: Atlantic Islands (Azores).

References: (**tx**) Bright 1987: 3.

granosus Schedl 1962b: 191. Holotype ♀?; China, Lilong; NHMBS, Basel.

Distribution: Asia (Lilong in China).

References: (**tx**) Schedl 1962b: 191.

granulipennis Schedl 1975g: 218. Holotype, sex?; New Guinea, War; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (**tx**) Schedl 1975g: 218.

henschii Reitter 1901c: 201. Holotype ♀; Herzegovina; NHMB, Budapest.

Distribution: Asia (Lebanon/ Syria), Europe (W USSR/ Yugoslavia).

Hosts: *Cupressus lucitanica* var. *glauca*, *C. sp.*, *Juniperus* spp., *Thuja* spp.

References: (cc) Novak 1952: 415; Wichmann 1916: 17. (hb) Seitner 1914: 268; Stark 1952: 303; Wichmann 1916: 17. (ds) Hagedorn 1910d: 27; Heyden, Reitter, & Weise 1906: 708; Kleine 1912b: 183, 1913a: 307, 1934a: 135; Novak, P. 1952: 415, 1964; Pfeffer 1943a: 13; Pittioni 1943: 176; Postner 1974: 417; Schaufuss 1915: 1218; Stark 1952: 303; Tredl 1907: 10. (tx) Eggers 1911a, 1914, 1937b: 334; Hagedorn 1910a: 65; Iablokoff-Khnzorin 1961: 157; Michalski 1969b: 568; Pfeffer 1943a: 13, 1955a: 136, 1965: 64; Postner 1974: 417; Reitter 1901c: 201, 1913: 39; Schedl 1934f: 1641, 1950b: 60; Stark 1952: 303; Wichmann 1916: 17.

stoeckleini Schedl 1935a: 241. Syntypes, sex?; Dalmatien, Makarska; IPKE, Eberswalde, MNB, Berlin, Stocklein Collection. Synonymy: Pfeffer 1965: 64.

Notes: (1) Schedl 1979c: 237 (citation of holotype invalid). (3) Schedl 1950b: 59 (redescription).

References: (bv) Grune 1979: 85. (cn) Razzauti 1956: 130, 202. (ec) Novak, P. 1952: 415; Razzauti 1956: 130, 202. (hb) Razzauti 1956: 130, 202; Zocchi 1956: 142, 202–205. (ds) Grune 1979: 85; Novak, P. 1952: 415; Pfeffer 1943a: 14; Razzauti 1956: 142; Schedl 1967c: 75. (tx) Grune 1979: 85; Pfeffer 1943a: 14, 1955a: 136, 1965: 64; Schedl 1935a: 241, 1950b: 59, 1952k: 159, 1979c: 237; Zocchi 1956: 142, 202–205.

krimaecus Eggers 1937b: 334. Holotype ♂; Sudrussland (Krim); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1950b: 59; Pfeffer 1965: 64.

Notes: (3) Sokanovskii 1954: 18 (described female).

References: (hb) Stark 1952: 303. (ds) Pfeffer 1943a: 14; Stark 1952: 303. (tx) Eggers 1937b: 334; Pfeffer 1943a: 14, 1955a: 136, 1965: 64; Schedl 1950b: 59; Sokanovskii 1954: 18; Stark 1952: 303.

inermis Numberg 1948b: 14. Syntypes ♂; Ghazir near Beyrount (Syria-Liban); IZW, Warsaw. Synonymy: Schedl 1952k: 159; Pfeffer 1965: 64.

References: (tx) Numberg 1948b: 14; Pfeffer 1965: 64; Schedl 1952k: 159.

hoferi Blackman 1942c: 412. Holotype ♂; Ute Pass, Colorado [USA]; USNM, Washington.

Figures: Blackman 1942c: fig. 2 (male declivity), Bright 1976d: 84 (declivity), 216 (gallery).

Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Nevada,

New Mexico, North Dakota, Texas, Utah, Wyoming in USA).

Hosts: *Juniperus deppeana*, *J. osteosperma*, *J. scopulorum*.

References: (cn) Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Bright 1976d: 89; Furniss, M. M. & Johnson 1987: 376; Gast et al. 1989: 382; Razzauti 1956: 141; Wood, S. L. 1982b: 315; Zocchi 1956: 141. (ds) Blackwelder & Blackwelder 1948; Bright 1976d: 89; Furniss, M. M. & Johnson 1987: 376; Furniss, R. L. & Carolin 1977: 367; Gast et al. 1989: 382; Wood, S. L. 1948: 24, 1951a: 127, 1982b: 315. (tx) Blackman 1942c: 412; Bright 1976d: 84, 89, 216; Wood, S. L. 1982b: 315; Zocchi 1956: 141.

hopehi Schedl 1953e: 23. Holotype, sex?; China: Sienhsien, Hopeh; Eggers Collection, in NHMW, Wien.

Distribution: Asia (Hebei, Ningxia, Shanxi, Sichuan in China).

Hosts: *Biota orientalis*, *Juniperus chinensis*, *Sabina chinensis*, *Thuja orientalis*.

References: (ds) Choo 1983: 46; Choo & Woo 1985: 163. (tx) Choo 1983: 46; Schedl 1953e: 23.

hoppingi Swaine 1915b: 364. Lectotype ♀; Camp 6, California [USA]; CNCI, Ottawa, designated by Bright 1967b: 676.

Distribution: North America (British Columbia in Canada/ California in USA).

Hosts: *Cupressus macnabiana*, *C. macrocarpa*, *C. sargentii*, *Juniperus occidentalis*, *J. scopulorum*, *Libocedrus decurrens*.

Notes: (3) Blackman 1942c: 411 (redescribed).

References: (cn) Doane et al. 1936; Essig 1926: 517, 1958: 517; Keen 1938: 32; Razzauti 1956: 141; Schuder 1969: 75; Swaine 1918a: 67. (ec) Keen 1938: 32; Razzauti 1956: 141. (hb) Bright 1976d: 88; Bright & Stark 1973: 45; Chamberlin 1939: 175, 1958: 83; Doane et al. 1936; Essig 1926: 517, 1958: 517; Keen 1938: 32; Razzauti 1956: 141; Swaine 1918a: 67; Wood, S. L. 1982b: 309; Zocchi 1956: 141. (ds) Blackman 1942c: 411; Blackwelder & Blackwelder 1948; Bright 1976d: 88; Bright & Stark 1973: 45; Chamberlin 1925, 1939: 175, 1958: 83; Essig 1926: 517, 1958: 517; Furniss, R. L. & Carolin 1977: 367; Hopping 1922, 1925a: 105–106; Keen 1929a: 19, 1938: 32; Kleine 1934a: 135; Leng 1920: 338; Schuder 1969: 75; Wood, S. L. 1972a: 409, 1972c: 149, 1982b: 309. (tx) Blackman 1942c: 411; Bright 1967b: 676, 1976d: 88; Bruck 1936a; Chamberlin 1939: 175, 1958: 83; Hoebeke 1978; Keen 1929a: 19; de Rnette 1970: 105; Swaine 1915b: 364, 1917: 9, 1918a: 67, 1924b: 147; Wood, S. L. 1972a: 409, 1982b: 309; Zocchi 1956: 141.

woodi Bright 1966b: 296. Holotype ♂; Cypress Camp, 12 miles W Hat Creek, Shasta County, California [USA]; Wood Collection. Synonymy: Wood 1972c: 149.

References: (tx) Bright 1966b: 296; de Ruelle 1970: 106; Wood, S. L. 1972c: 149.

jubatus Sampson 1919: 112. Syntypes ♂ ♀; India; BMNH, London.

Distribution: Asia (Uttar Pradesh in India).

Hosts: *Cupressus torulosa*.

References: (cn) Mathur & Singh 1960a: 40; Razzauti 1956: 141. (cc) Chandhry & Wali-ur-Rehman 1979; Razzauti 1956: 141. (hb) Razzauti 1956: 141; Zocchi 1956: 141. (ds) Beeson 1961: 290; Chandhry & Wali-ur-Rehman 1979; Kleine 1934a: 135; Mathur & Singh 1960a: 40. (tx) Sampson 1919: 112; Zocchi 1956: 141.

keeni Blackman 1942c: 414. Holotype ♂: Mount Rainier National Park, Washington [USA]; USNM, Washington.

Distribution: North America (British Columbia in Canada/ Idaho, Washington in USA).

Hosts: *Chamaecyparis nootkatensis*, *Juniperus scopulorum*.

References: (cn) Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Bright 1976d: 88; Chamberlin 1958: 84; Razzauti 1956: 141; Wood, S. L. 1982b: 314; Zocchi 1956: 141. (ds) Blackwelder & Blackwelder 1948; Bright 1976d: 88; Chamberlin 1958: 84; Furniss, R. L. & Carolin 1977: 367; Patterson & Hatch 1945: 150; Wood, S. L. 1972a: 409, 1982b: 314. (tx) Blackman 1942c: 414; Bright 1976d: 88; Chamberlin 1958: 84; Wood, S. L. 1972a: 409, 1982: 314; Zocchi 1956: 141.

kinabaluensis Bright 1989: 80. Holotype ♂; Borneo: Panar Laban, Mount Kinabalu N. P., Sabah, 3437 m; CNCI Ottawa.

Figures: Bright 1989: 81.

Distribution: Indonesia (Borneo).

Hosts: *Podocarpus* sp.

References: (tx) Bright 1989: 81.

kiushuensis Murayama 1955: 93. Holotype ♂; Japan: Koyama, Kagoshima pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Actinodaphne longifolia*.

References: (ds) Murayama 1955: 93, 97; Nobuchi 1985: 8. (tx) Murayama 1955: 93, 97.

kumamotoensis Murayama 1955: 91. Holotype ♂; Japan: Waifu, Kumamoto pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Cinnamomum camphora*.

References: (ds) Murayama 1955: 91, 97; Nobuchi 1985: 6. (tx) Murayama 1955: 91, 97.

lewisi Chapuis 1875: 198. Holotype, sex?; Japan; IRSNB, Brussels.

Figures: Nakane et al. 1963: pl. 191.

Distribution: Asia (Guizhou in China/ Japan/ Taiwan).

Hosts: *Actinodaphne longifolia*, *Chamaecyparis* spp., *Cryptomeria japonica*, *Thujaopsis dolobrata*.

Notes: (3) Schedl 1950b: 5S (re-described).

References: (cn) Anonymous 1950g; Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Razzauti 1956: 141; Takahashi 1989: 403; Zocchi 1956: 141. (ds) Anonymous 1950g; Blandford 1894c; Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 255, 1934a: 135; Murayama 1948: 2, 1949a: 12, 1949c: 100, 1950b: 1291, 1951c: 3, 1953a: 7, 1953c: 148, 1955: 98; Nakane et al. 1963: 382; Niisima 1942: 70; Nobuchi 1967: 19, 1985: 8; Pfeffer 1943a: 5; Schedl 1960e: 171. (tx) Blandford 1894d; Chapuis 1875: 198; Eggers 1941b: 222; Hagedorn 1910a: 65; Murayama 1950b: 1291, 1953a: 7, 1954b: 159, 1955: 98; Nakane et al. 1963: 382, pl. 191; Niisima 1909: 123, 1910a: 6, 1942: 70; Pfeffer 1943a: 5; Schedl 1934f: 1641, 1950b: 58; Zocchi 1956: 141.

minutus Blandford 1894d: 71. Holotype, sex?; Ichinchi, Japan; BMNH, London. Synonymy: Schedl 1950b: 58.

References: (ds) Blandford 1894c; Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 255; Murayama 1955: 96; Niisima 1942: 72; Pfeffer 1943a: 5. (tx) Blandford 1894d: 71; Hagedorn 1910a: 65; Murayama 1954b: 160, 1955: 96; Niisima 1942: 72; Pfeffer 1943a: 5; Schedl 1934f: 1641, 1950b: 58.

machilus (Schedl) 1959j: 173 (*Hylesinus*). Holotype, sex?; Uttar Pradesh: Chakrata, Chachpur; FRI, Dehra Dun, not present.

Distribution: Asia (Fujian, Hunan in China/ Uttar Pradesh in India).

Hosts: *Machilus odoratissima*, *Cinnamomum camphora*.

Notes: (1) The holotype was never returned by Schedl to the Forest Research Institute; since all specimens sent to Schedl are accounted for, the missing holotype apparently is the "paratype" in the Schedl Collection in the NHMW, Wien.

References: (tx) Schedl 1959j: 173.

cinnamomi Tsai & Yin 1964: 94, 96. Holotype ♂; Fukien, China; IZAS, Beijing. Synonymy: Wood 1985b: 196.

References: (tx) Tsai & Yin 1964: 94, 96; Wood, S. L. 1985b: 196.

osumiensis Murayama 1955: 90. Holotype ♂; Japan: Kishira, Kagoshima pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Podocarpus nagi*.

References: (cn) Mumford 1960: 9. (ds) Mumford 1960: 9; Murayama 1955: 90, 97; Nobuchi 1985: 8. (tx) Murayama 1955: 90, 97.

pacificus Wood 1960a: 15. Holotype ♂; Caroline Islands: Ngeroi (Garakayo), Palau Islands; FMNH, Chicago.

Distribution: Micronesia (Palau Islands in Caroline Islands).

References: (tx) de Ruelle 1970: 105; Wood, S. L. 1960a: 15.

palearis Wood 1969b: 2. Holotype ♂; 16 km E Chiapa de Corzo, Chiapas, Mexico; Wood Collection.

Distribution: North America (Chiapas in Mexico).
Hosts: *Juniperus* sp.

References: (hb) Wood, S. L. 1982b: 295. (ds) Wood, S. L. 1982b: 295. (tx) Wood, S. L. 1969b: 2, 1982b: 295.

perlatus Chapuis 1875: 198. Syntypes, sex[?]; Japan (Hiogo); IRSNB, Brussels.

Distribution: Asia (Sichuan in China/ Japan/ Korea/ Taiwan).

Hosts: *Cunninghamia lanceolata*, *C. sinensis*, *Chamaecyparis* spp., *Cryptomeria* sp., *Juniperus* sp., *Sabina chinensis*, *Taxus* sp., *Thujiopsis* sp.

Notes: (3) Schedl 1950b: 82 (redescribed).

References: (bv) Choo, Woo, & Park 1988. (cn) Anonymous 1977r; Razzanti 1956: 141; Shiraki 1952; Zhao & Cao 1987. (ec) Razzanti 1956: 141; Yasumatsu & Watanabe 1965: 69. (hb) Razzanti 1956: 141; Takahashi 1989: 403; Zhao & Cao 1987; Zocchi 1956: 141. (ds) Anonymous 1977r; Bain 1974: 15; Blandford 1894c; Cho 1957; Choo 1983: 46; Choo & Woo 1985: 164; Choo, Woo, & Park 1988; Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 255, 1934a: 135; Ko 1969: 280; Ku 1964; Murayama 1929b: 2, 1930a: 6, 1930b: 9, 1934d: 505, 1936a: 125, 1937b: 375, 1949e: 100, 1953a: 8, 1953c: 149, 1955: 97; Nakane et al. 1963: 382; Niisima 1942: 69; Nobuchi 1967: 20, 1985c: 8; Pfeffer 1943a: 5; Shiraki 1952. (tx) Chapuis 1875: 198; Choo 1983: 46; Hagedorn 1910a: 65; Murayama 1930b: 9, 1934: 505–512, 1936a: 125, 1937b: 375, 1952a: 22, 1953a: 8, 1954b: 160, 1955: 97; Nakane et al. 1963: 382, pl. 191; Niisima 1909: 124, 1910a: 6, 1942: 69; Pfeffer 1943a: 5; Schedl 1934f: 1641, 1950b: 82; Zocchi 1956: 141. (ms) Mastumura 1931.

pertuberculatus Eggers 1939c: 115. Holotype, sex[?]; Formosa (Mt. Arisan); M. Chujo Collection, not located.

Distribution: Asia (Taiwan).

References: (cn) Razzanti 1956: 141. (ec) Razzanti 1956: 141. (hb) Razzanti 1956: 141; Zocchi 1956: 141. (ds) Niisima 1942: 73; Nobuchi 1967: 20. (tx) Eggers 1939c: 115; Niisima 1942: 73; Zocchi 1956: 141.

phoebe Wood 1988b: 198. Holotype ♂; Nauri Landowne, Uttar Pradesh, India; FRI, Delhi Dim.

Distribution: Asia (Uttar Pradesh in India).

Hosts: *Phoebe lanceolata*.

References: (tx) Wood, S. L. 1988b: 198.

phylocladus Bright 1989: 81. Holotype ♂; Borneo: Laying-Laying, Mount Kinabalu N. P., Sabah, 2621 m; CNCI, Ottawa.

Figures: Bright 1989: 81.

Distribution: Indonesia (Borneo).

Hosts: *Phylocladus hypophallus*.

References: (tx) Bright 1989: 81.

pini Swaine 1915b: 362. Lectotype ♀; Riding Mts., Manitoba; CNCI, Ottawa, designated by Bright 1967b: 677.

Figures: Blackman 1942c: fig. 1 (declivity).

Distribution: North America (Alaska/ Alberta, British Columbia, Manitoba, Northwest Territories, Quebec, Yukon in Canada/ Idaho, Michigan, Montana in USA).

Hosts: *Picea glauca*, *Pinus banksiana*.

Notes: (3) Blackman 1942c: 407 (redescribed).

References: (cn) Chamberlin 1924; Doane et al. 1936; Razzanti 1956: 141; Swaine 1918a: 67, 69. (ec) Razzanti 1956: 141; Werner & Holsten 1984. (hb) Baker, W. L. 1972: 248; Bright 1976d: 84; Chamberlin 1939: 175; Doane et al. 1936; Gast et al. 1989: 383; Razzanti 1956: 141; Swaine 1918a: 67, 69; Wood, S. L. 1982b: 291; Zocchi 1956: 141. (ds) Ashworth, 1977, 1980; Ashworth & Cvanara 1983; Blackman 1942c: 407; Blackwelder & Blackwelder 1948; Bright 1976d: 84; Chamberlin 1925, 1939: 175; Dodge 1938; Drooz 1985: 352; Furniss, R. L. & Carolin 1977: 367; Gast et al. 1989: 383; Keen 1929a: 19; Kleine 1934a: 135; Leng 1920: 338; Morgan, A. V. & Morgan 1979, 1980: 1110; Schwert & Morgan 1980; Werner & Holsten 1984; Wood, S. L. 1982b: 291. (tx) Blackman 1942c: 407; Bright 1967b: 677, 1976d: 83–84; Chamberlin 1939: 175, 1955; Dodge 1938; Keen 1929a: 19; de Ruelle 1970: 106; Swaine 1915b: 362, 1918a: 67, 69; 1934: 205; Wood, S. L. 1957c: 400, 1972c: 149, 1982b: 291; Zocchi 1956: 141.

piceae Swaine 1934: 205. Holotype ♀; Berry Mountain Brook, Cascapedia River, Gaspé Co., Quebec, Canada; CNCI, Ottawa. Synonymy: Wood 1957c: 400.

Notes: (3) Blackman 1942c: 408 (redescribed).

References: (cn) Razzanti 1956: 141. (ec) Razzanti 1956: 141. (hb) Chamberlin 1939: 179; Razzanti 1956: 141; Zocchi 1956: 141. (ds) Beaulne 1956; Blackman 1942c: 408; Blackwelder 1939; Blackwelder & Blackwelder 1948; Chamberlin 1939: 179. (tx) Blackman 1942c: 408; Bright 1967b: 677; Chamberlin 1939: 179, 1955; de Ruelle 1970: 106; Swaine 1934: 205; Wood, S. L. 1957c: 400; Zocchi 1956: 141.

alaskanus Blackman 1942c: 409. Holotype ♂; Eagle, Alaska [USA]; USNM, Washington. Synonymy: Wood 1972c: 149.

References: (cn) Beckwith 1972a; Razzanti 1956: 141. (ec) Razzanti 1956: 141. (hb) Razzanti 1956: 141; Zocchi 1956: 141. (ds) Beckwith 1972a; Blackwelder & Blackwelder 1948; Evans, D., Lowe, & Hunt 1978. (tx) Beckwith 1972a; Blackman 1942c: 409; Chamberlin 1955; Wood, S. L. 1972c: 149; Zocchi 1956: 141.

podocarpus **Browne** 1986b: 663. Holotype ♂; Vietnam: Qui Nhon to Tagonoura (Japan), imported; BMNH, London.

Distribution: Asia (Vietnam).

Hosts: *Podocarpus* sp.

References: (tx) Browne 1986b: 663.

pulchellus **Blandford** 1894d: 69. Holotype, sex?; Wada Toge, Japan; BMNH, London.

Distribution: Asia (Japan).

Hosts: *Acanthopanax spinosus*, *Benzoin* sp., *Machilus thunbergii*, *Parabenzoin praecox*, *Quercus* sp., *Styrax* spp.

Notes: (3) Schedl 1950b: 83 (original description quoted).

References: (cn) Razzanti 1956: 141. (cc) Razzanti 1956: 141. (hb) Razzanti 1956: 141; Zocchi 1956: 141. (ds) Blandford 1894c; Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 255; Murayama 1953c: 149, 1955: 96; Nobuchi 1955: 8; Pfeffer 1943a: 5. (tx) Blandford 1894d: 69; Hagedorn 1910a: 65; Murayama 1954b: 160, 1955: 96, 1963b: 23; Nobuchi 1959a: 10; Pfeffer 1943a: 5; Schedl 1934f: 1641, 1950b: 83, 1953e: 23; Zocchi 1956: 141.

dubius **Blandford** 1894d: 70. Holotype, sex?; Kurigahara (Japan); BMNH, London. Synonymy: Murayama 1963b: 23.

Notes: (3) Schedl 1950b: 83 (original description quoted).

References: (cn) Razzanti 1956: 141. (cc) Razzanti 1956: 141. (hb) Razzanti 1956: 141; Zocchi 1956: 141. (ds) Blandford 1894c; Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 255; Murayama 1955: 96, 1966: 23; Pfeffer 1943a: 5. (tx) Blandford 1894d: 70; Hagedorn 1910a: 65; Murayama 1954b: 159, 1955: 96, 1963b: 23; Nobuchi 1959a: 10; Pfeffer 1943a: 5; Schedl 1934f: 1641, 1950b: 83; Zocchi 1956: 141.

izuensis **Nobuchi** 1959a: 9. Holotype, sex?; Japan: Mt. Amagi, Shizuoka pref.; Nobuchi Collection, Ibaraki. Synonymy: Murayama 1963b: 23.

References: (ds) Nobuchi 1955: 8. (tx) Murayama 1963b: 23; Nobuchi 1959a: 9.

punctatus **LeConte** 1876: 352. Lectotype ♀; Oregon [USA]; MCZ, Cambridge, designated by Wood 1982b: 304.

Figures: Blackman 1942c: figs. 9–12, Bright 1976d: 83, 105, 201, 207.

Distribution: North America (Alaska/ British Columbia in Canada/ California, N Idaho, W Montana, W Nevada, Oregon, Washington in USA).

Hosts: *Chamaecyparis nootkatensis*, *Juniperus occidentalis*, *Libocedrus decurrens*, *Sequoia gigantea*, *S. sempervirens*, *Thuja occidentalis*, *T. plicata*, *Tsuga heterophylla*.

Notes: (3) Blackman 1942c: 429 (redescribed).

References: (bv) Barr, B. A. 1969: 642; Dater-

man, Rudinsky, & Nagel 1965. (cn) Anonymous 1962h, 1956: 5; Browne 1968b: 539; Chamberlin 1917: 353–356, 1924; Doane et al. 1936; Essig 1926: 517, 1955: 517; Fowler 1902b: 80; Hatch 1935: 193; Hopkins 1903a: 60, 1903b: 35, 1904a: 18; Keen 1938: 131, 1952c: 167; Razzanti 1956: 141; Rudinsky & Terriere 1959: 485–488; Ruppel 1967: 76; Salman 1933a: 133; Schuder 1969: 75; Schuh & Mote 1948: 120; Silver & Ross 1960: 97, 1962b: 112; Swaine 1918a: 67, 69; Wood, R. O. & Koot 1973a: 22. (cc) Burks 1979: 798; Bushing 1965: 463; Bushing & Bright 1965: 203; Deyrup & Gara 1978: 275; Hirschmann & Wisniewski 1982, 1983; Keen 1938: 131; Kinn 1966, 1971; Marsh 1979: 150; Matthews 1970; Razzanti 1956: 141; Townes, H. & Townes 1962. (hb) Bright 1976d: 87; Bright & Stark 1973: 48; Browne 1968b: 539; Chamberlin 1939: 171, 1958: 85; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Essig 1926: 517, 1955: 517; Hopkins 1903b: 35, 1904a: 18; Keen 1938: 131, 1952c: 167; Pierce 1907: 293; Razzanti 1956: 141; Swaine 1918a: 67, 69; Wood, S. L. 1952b: 304; Zocchi 1956: 141. (ds) Allen, S. J. 1969: 13; Blackman 1942c: 429; Blackwelder & Blackwelder 1948; Blatchley & Leng 1916: 659; Bright 1976d: 87; Bright & Stark 1973: 48; Browne 1968b: 539; Chamberlin 1925, 1939: 171, 1958: 85; Currie 1905: 73; Essig 1926: 517, 1955: 517; Fall 1906: 203; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 367; Gast et al. 1990: 385; Hagedorn 1910d: 27; Henshaw 1882: 269, 1885: 149; Hopkins 1900c, 1903a; Hopping 1922, 1925a; Keen 1929a: 20, 1938: 131, 1952c: 167; Kleine 1912b: 183, 1914b: 407, 1934a: 135; Leng 1920: 338; Patterson & Hatch 1945: 150; Ruppel 1967: 76; Salman 1933a: 133; Schuder 1969: 75; Schuh & Mote 1948: 120; Schwarz 1886: 55; Swaine 1909: 130; Wood, S. L. 1972a: 409, 1982b: 304. (tx) Benoit 1985: 196; Blackman 1942c: 429; Blatchley & Leng 1916: 659; Bright 1976d: 83, 87, 195, 201, 207; Chamberlin 1939: 171, 1958: 85; Hagedorn 1910a: 66; Hatch 1927: 302; Hopkins 1900c, 1903b: 35; Keen 1929a: 20; LeConte 1876: 382; Schwarz 1886: 55; Swaine 1909: 130, 1917: 9, 1918a: 67, 69, 1924b: 147; Wood, S. L. 1966b: 27, 1972a: 409, 1972c: 149, 1982b: 304; Zocchi 1956: 141. (ms) Essig 1931: 685; Hatch 1938: 193.

rubicundulus **Swaine** 1924b: 144. Holotype ♀; Hossack Meadows, Tulare Co., California [USA]; CNCI, Ottawa. Synonymy: Wood 1972c: 149.

Notes: (3) Blackman 1942c: 431 (redescribed).

References: (cn) Doane et al. 1936; Keen 1938: 131, 1952c: 168; Razzanti 1956: 141; Schuder 1969: 81. (cc) Keen 1938: 131; Kinn 1971; Razzanti 1956: 141. (hb) Chamberlin 1939: 176, 1958: 86; DeLeon 1952; Doane et al. 1936; Keen 1938: 131, 1952c: 168; Razzanti 1956: 141; Zocchi 1956: 141. (ds) Blackman

- 1942c: 431; Blackwelder & Blackwelder 1948; Chamberlin 1939: 176, 1958: 86; DeLeon 1952; Keen 1929a: 21, 1938: 131, 1952c: 168; Kleine 1934a: 135; Leng & Mutchler 1927: 51; Schuder 1969: 81. (tx) Blackman 1942c: 431; Bright 1967b: 677; Bruck 1936a; Chamberlin 1939: 176, 1958: 86; Keen 1929a: 21; de Ruelle 1970: 106; Schuder 1969: 81; Swaine 1924b: 144; Wood, S. L. 1972c: 149; Zocchi 1956: 141.
- buckhorni* Blackman 1942c: 432. Holotype ♂; Portland, Oregon [USA]; USNM, Washington. Synonymy: Wood 1966b: 27. References: (cn) Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Chamberlin 1958: 87; Razzauti 1956: 141; Zocchi 1956: 141. (ds) Blackwelder & Blackwelder 1948; Chamberlin 1958: 87. (tx) Blackman 1942c: 432; Chamberlin 1958: 87; Wood, S. L. 1966b: 27; Zocchi 1956: 141.
- kaniksu* Blackman 1942c: 434. Holotype ♂; Metaline Falls, Washington [USA]; USNM, Washington. Synonymy: Wood 1966b: 27. References: (cn) Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Chamberlin 1958: 88; Razzauti 1956: 141; Zocchi 1956: 141. (ds) Blackwelder & Blackwelder 1948; Chamberlin 1958: 88; Patterson & Hatch 1945: 150. (tx) Blackman 1942c: 434; Chamberlin 1958: 88; de Ruelle 1970: 105; Wood, S. L. 1966b: 27; Zocchi 1956: 141.
- rusti* Blackman 1942c: 435. Holotype ♂; Metaline Falls, Washington [USA]; USNM, Washington. Synonymy: Wood 1966b: 27. References: (cn) Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Chamberlin 1958: 88; Razzauti 1956: 141; Zocchi 1956: 141. (ds) Blackwelder & Blackwelder 1948; Chamberlin 1958: 88; Patterson & Hatch 1945: 150. (tx) Blackman 1942c: 435; Chamberlin 1958: 88; Wood, S. L. 1966b: 27; Zocchi 1956: 141.
- chamberlini* Blackman 1942c: 470. Holotype ♂; Alturas, California [USA]; USNM, Washington. Synonymy: Wood 1972c: 149. References: (cn) Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Chamberlin 1958: 92; Razzauti 1956: 141; Zocchi 1956: 141. (ds) Blackwelder & Blackwelder 1948; Chamberlin 1958: 92; Wood, S. L. 1972a: 408. (tx) Blackman 1942c: 470; Bright 1966b: 305; Chamberlin 1958: 92; Furniss, M. M. & Furniss 1972; Wood, S. L. 1972a: 408, 1972c: 149; Zocchi 1956: 141.
- ° *regimontanus* (Hagedorn) 1906: 119 (*Phlocosinites*). Holotype, sex?; Bernstein; not located. Figures: Schedl 1947a: 40 (adult). Distribution: Europe (fossil in Baltic amber). References: (ds) Hagedorn 1907a, 1907b, 1910d: 28; Kleine 1912a: 163, 1912b: 183; Spahr 1981.
- (tx) Hagedorn 1906: 119, 1907a, 1907b, 1910a: 65; Keler 1928: 27; Schedl 1947a: 15, 17, 39.
- ° *rehi* (Hagedorn) 1906: 118 (*Phlocosinites*). Holotype, sex?; Bernstein; apparently lost. Distribution: Europe (fossil in Baltic amber). Notes: (3) Schedl 1947a: 35 (original description quoted). References: (ds) Hagedorn 1907a, 1907b, 1910d: 28; Kleine 1912a: 163, 1912b: 183; Spahr 1981. (tx) Hagedorn 1906: 118, 1907a, 1907b, 1910a: 65; Hopkins 1914: 126; Keler 1928: 26; Schedl 1947a: 15, 35.
- ° *robustus* (Schedl) 1947a: 36 (*Phlocosinites*). Holotype, sex?; Baltic amber; Geologisch-Paleontologische Institut, Albertus Universitat, Konigsberg. Distribution: Europe (fossil in Baltic amber). References: (ds) Spahr 1981. (tx) Schedl 1947a: 17, 36.
- rudis* Blandford 1894d: 73. Syntypes, sex?; Kashiwage and Kobe, Japan; BMNH, London. Figures: Grune 1979: 84; Nakane et al. 1963: pl. 191. Distribution: Asia (Japan/ Korea), Europe (introduced into France). Hosts: *Chamaecyparis obtusa*, *Cryptomeria japonica*, *Juniperus chinensis*, *Thuja japonica*, *Thujopsis dolabrata*. Notes: (3) Schedl 1950b: 34 (re-described). References: (bv) Grune 1979: 85. (cn) Anonymous 1977r, 1978w, 1979p, 1980g; Grandi 1951; Razzauti 1956: 130, 205. (cc) Razzauti 1956: 130, 205; Wichmann 1955a: 101; Yasumatsu & Watanabe 1965: 60. (hb) Balachowsky 1961; Grandi 1951; Postner 1974: 417; Razzauti 1956: 130, 205; Zocchi 1956: 141, 205–208. (ds) Anonymous 1977r, 1978w, 1979p, 1980g; Blandford 1894c; Chararas 1967a; Choo 1983: 47; Choo & Woo 1985: 164; Choo, Woo, & Nobuchi 1988a: 133; Choo, Woo, & Park 1983: 175; Grune 1979: 85; Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 255, 1934a: 135; Lucht 1987: 277; Murayama 1953a: 8, 1955: 97; Nakane et al. 1963: 382; Niisima 1942: 71; Nobuchi 1985: 8; Pfeffer 1943a: 5; Postner 1974: 417; Schedl 1954b: 198, 1981b: 63; Wichmann 1955a: 101. (tx) Balachowsky 1949a: 120, 1961; Blandford 1894d: 73; Choo 1983: 47; Grune 1979: 84–85; Hagedorn 1910a: 65; Hoffmann 1942; Lucht 1987: 277; Murayama 1952a: 19, 1953a: 8, 1955: 97; Nakane et al. 1963: 382, pl. 191; Niisima 1910a: 6, 1942: 71; Pfeffer 1943a: 5; Postner 1974: 417; Schedl 1934f: 1641, 1950b: 84, 1954b: 198, 1955d: 273, 1981b: 63; Schmidt, G. 1980: 25; Zocchi 1956: 141, 205–208.
- shotoensis* Murayama 1955: 88. Holotype ♂; Japan: Onide, Shodojima, Kagawa pref; Murayama Collection in USNM, Washington. Synonymy: Wood 1992b: 84. References: (cn) Mumford 1960: 37. (ds)

Mumford 1960: 37; Murayama 1955: 88, 96; Nobuchi 1985: 8. (tx) Murayama 1955: 88, 96; Wood, S. L. 1992b: 84.

sannohensis Murayama 1954b: 190. Holotype ♂; Japan: Sannohe, Aomori pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Guizhou in China/ Japan).

Hosts: *Chamaecyparis obtusa*, *Cryptomeria japonica*, *Thujaopsis dolobrata*.

References: (ds) Murayama 1955: 97, 103. (tx) Murayama 1954b: 161, 190, 1955: 97, 103.

scopulorum Swaine 1924b: 148. Holotype ♂; Williams Lake, British Columbia; CNCI, Ottawa.

Figures: Blackman 1942c: fig. 26 (male declivity), Bright 1976d: 83 (ceclivity), 216 (galleries).

Notes: (1) Wood 1982b: 302 (subspecies established). (3) Blackman 1942c: 465 (redescribed).

References: (cn) Doane et al. 1936; Keen 1938: 131, 1952c: 168; Razzauti 1956: 141. (cc) Keen 1938: 131; Razzauti 1956: 141. (hb) Bright 1976d: 87; Chamberlin 1939: 179, 1958: 93; Doane et al. 1936; Keen 1938: 131, 1952c: 168; Razzauti 1956: 141; Zocchi 1956: 142. (ds) Blackman 1942c: 465; Blackwelder & Blackwelder 1948; Bright 1976d: 87; Chamberlin 1925, 1939: 179, 1958: 93; Furniss, R. L. & Carolin 1977: 368; Hopping 1925a: 105–106; Keen 1929a: 20, 1938: 131, 1952c: 168; Kleine 1934a: 135; Leng & Mutehler 1927: 51; Patterson & Hatch 1945: 150; Wood, S. L. 1972a: 408, 1982b: 302. (tx) Blackman 1942c: 465; Bright 1967b: 677, 1976d: 83, 87; Chamberlin 1939: 179, 1958: 83; Keen 1929a: 20; de Ruelle 1970: 106; Schedl 1939n: 12; Swaine 1924b: 148; Wood, S. L. 1972a: 408, 1982b: 302; Zocchi 1956: 142.

scopulorum scopulorum:

Distribution: North America (Alberta, British Columbia in Canada/ Oregon, Washington in USA).

Hosts: *Juniperus scopulorum*.

References: (tx) Bright 1976d: 83, 216; Swaine 1924b: 148; Wood, S. L. 1982b: 302.

scopulorum neomexicanus Blackman 1942c: 460. Holotype ♂; Vermejo, New Mexico [USA]; USNM, Washington.

Distribution: North America (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Texas, Utah in USA).

Hosts: *Cupressus arizonicus*, *Juniperus deppeana*, *J. monosperma*, *J. osteosperma*.

Notes: (1) Wood 1982b: 303 (reduced to subspecies).

References: (cn) Razzauti 1956: 141. (cc) Razzauti 1956: 141. (hb) Razzauti 1956: 141; Zocchi 1956: 141. (ds) Blackwelder & Blackwelder 1948; Drooz 1985: 352; Wood, S. L. 1948: 26, 1951a: 127, 1982b: 303. (tx) Blackman 1942c: 460; Wood, S. L. 1972c: 149, 1982b: 303; Zocchi 1956: 141.

texanus Blackman 1942c: 462. Holotype ♂; Mon-

tell, Uvalde County, Texas [USA]; USNM, Washington. Synonymy: Wood 1972c: 149.

References: (hb) Baker, W. L. 1972: 248; Zocchi 1956: 142. (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1942c: 462; McNamara 1984: 753; Wood, S. L. 1972c: 149; Zocchi 1956: 142.

sequoiae Hopkins 1903b: 33. Holotype ♀; Sonoma Co., California [USA]; USNM, Washington.

Figures: Blackman 1942c: figs. 19–21 (male, female), Bright 1976d: 84, 215, Duncan 1983: 9, Ryker & Rudinsky 1979: 205, Swaine 1918a: pl. 15 (male declivity), White 1983: 330.

Distribution: North America (Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA).

Hosts: *Chamaecyparis lawsoniana*, *C. nootkatensis*, *Cupressus macrocarpa*, *Libocedrus decurrens*, *Sequoia sempervirens*, *Thuja plicata*.

Notes: (3) Blackman 1942c: 446 (redescribed).

References: (bv) Daterman, Rudinsky, & Nagel 1965. (cn) Anonymous 1970; Chamberlin 1924; Doane et al. 1936; Duncan 1983: 9; Essig 1926: 517, 1958: 517; Hatch 1938: 193; Hofacker et al. 1989; Hopkins 1903b: 33, 1904a: 18, 45; Keen 1938: 131; Razzauti 1956: 141; Ruppel 1967: 76; Ryker & Rudinsky 1979: 212; Swaine 1918a: 69–70. (ec) Burks 1979: 836; Bushing 1965: 463; Hirschmann & Wisniewski 1982, 1983; Keen 1938: 131; Kinn 1966, 1971; Marsh 1979: 158; Matthews 1970; Razzauti 1956: 141. (hb) Bright 1976d: 89; Bright & Stark 1973: 50; Chamberlin 1939: 179, 1958: 89; Daterman, Rudinsky & Nagel 1965; DeLeon 1952; Doane et al. 1936; Duncan 1983: 9; Essig 1926: 517, 1958: 517; Hopkins 1901e: 66, 1903b: 33, 1904a: 18, 45; Keen 1938: 131; Pierce 1907: 294; Razzauti 1956: 141; Ryker & Rudinsky 1979: 212; Swaine 1918a: 69–70; White, R. E. 1983: 330; Zocchi 1956: 142. (ds) Blackman 1942c: 446; Blackwelder & Blackwelder 1948; Bright 1976d: 89; Bright & Stark 1973: 50; Chamberlin 1925, 1939: 179, 1958: 89; Currie 1905: 74; DeLeon 1952: 76–78; Essig 1926: 517, 1958: 517; Furniss, M. M. & Furniss 1972, 1977; Furniss, R. L. & Carolin 1977: 368; Hagedorn 1906, 1910d: 27; Hopping 1922; Keen 1929a: 21, 1938: 131; Kleine 1912b: 183, 1914b: 390, 1934a: 135; Leng 1920: 338; Ruppel 1967: 76; Swaine 1909: 130; Wood, S. L. 1957c: 400, 1972a: 408, 1982b: 300. (tx) Benoit 1986: 35; Blackman 1942c: 446; Bright 1976d: 84, 89, 215; Chamberlin 1939: 179, 1958: 89; Duncan 1983: 9; Hagedorn 1906, 1910a: 66; Hopkins 1903b: 33; Keen 1929a: 21; Ryker & Rudinsky 1979: 204, 212; Schedl 1950f: 36; Swaine 1909: 130, 1918a: 69–70; White, R. E. 1983: 330; Wood, S. L. 1957c: 400, 1972a: 408, 1982b: 300; Zocchi 1956: 142. (ms) Hatch 1938: 193.

squamosus Blackman 1942c: 448. Holotype ♂; Naselle, Washington [USA]; USNM, Washing-

ton, preoccupied by Schedl 1942c: 165. Synonymy: Wood 1957c: 400.

References: (cn) Anonymous 1961h, 1961s, 1963y, 1965r; Bongberg 1962; Crosby 1963, 1966; Crosby & Baker 1966; Crosby & Curtis 1968, 1970, 1970b, 1971; Hard 1974: 11; Holsten, Werner, & Laurent 1980; Keen 1952c: 168. (hb) Holsten, Werner & Laurent 1980; Keen 1952c: 168; Zocchi 1956: 142. (ds) Anonymous 1963y, 1965r; Blackwelder & Blackwelder 1948; Keen 1952c: 168; Patterson & Hatch 1945: 150. (tx) Blackman 1942c: 448; Schedl 1950f: 37; Wood, S. L. 1957c: 400; Zocchi 1956: 142.

blackmani Schedl 1950f: 36. Holotype ♂; Naselle, Washington [USA]; USNM, Washington, automatic. Synonymy: Wood 1957c: 400.

References: (hb) Zocchi 1956: 141. (tx) Schedl 1950f: 36; Wood, S. L. 1957: 400; Zocchi 1956: 141.

seriatus Blandford 1894d: 72. Syntypes, sex[?]; Higo, Japan; BMNH, London.

Distribution: Asia (Japan).

Hosts: *Chamaecyparis obtusa*, *Cinnamomum camphora*.

References: (cn) Razzauti 1956: 141. (ce) Razzauti 1956: 141. (hb) Razzauti 1956: 141; Zocchi 1956: 142. (ds) Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 255; Murayama 1949c: 100, 1953a: 8, 1953c: 149, 1955: 98; Niisima 1942: 72; Nobuchi 1985: 8; Pfeffer 1943a: 5. (tx) Blandford 1894d: 72; Hagedorn 1910a: 65; Murayama 1953a: 9, 1955: 98; Niisima 1942: 72; Pfeffer 1943a: 5; Schedl 1934f: 1641, 1950b: 82, 1954b: 198; Zocchi 1956: 142.

serratus (LeConte) 1868: 170 (*Hylesinus*). Holotype ♂; Middle States, [USA]; MCZ, Cambridge. Figures: Blackman 1942c: fig. 25 (male declivity), Bright 1976d: 83.

Distribution: Antilles Islands (Jamaica), North America (Chihuahua, Durango, Hidalgo, Tlaxcala in Mexico/ Arizona, California, Idaho, New Mexico, Oregon, Washington in USA).

Hosts: *Juniperus deppeana*, *J. monosperma*, *J. occidentalis*, *J. osteosperma*, *J. scopulorum*, *J. sp.* Notes: (1) LeConte 1876: 381 (to *Phloeosinus*). (3) Blackman 1942c: 456 (redescribed).

References: (cn) Swaine 1918a: 70. (hb) Bright 1976d: 84; Bright & Stark 1973: 44; Chamberlin 1939: 170; Schwarz 1889d: 176; Swaine 1918a: 70; Wood, S. L. 1982b: 296; Zocchi 1956: 142. (ds) Anonymous 1926c: 516; Atkinson & Equihua 1985a: 77, 1985b: 230; Blackman 1942c: 457; Blackwelder & Blackwelder 1948; Bright 1976d: 84, 1985c: 171; Bright & Stark 1973: 44; Chamberlin 1925, 1939: 170; Cockerell et al. 1907; Fall & Cockerell 1907: 218; Furniss, R. L. & Carolin 1977: 368; Henshaw 1882: 269, 1885: 149; Leng 1920: 338; Leonard 1928: 516; Schwarz 1886: 56;

Smith, J. B. 1900: 365; Swaine 1909: 130; Wickham 1896a: 309; Wood, S. L. 1982b: 296. (tx) Blackman 1942c: 456; Blandford 1897: 160; Bright 1976d: 83–84, 1985c: 171; Chamberlin 1939: 170; Gemminger & Harold 1872: 2675; LeConte 1868: 170, 1876: 380–381; Schwarz 1886: 56, 1889d: 176; Swaine 1909: 130, 1918a: 70; Wood, S. L. 1969b: 2, 1972c: 150, 1974d: 286, 1977c: 357, 1982b: 296; Zocchi 1956: 142.

utahensis Swaine 1915b: 363. Lectotype ♀; Stockton, Utah [USA]; CNCI, Ottawa, designated by Bright 1967b: 677. Synonymy: Wood 1972c: 150.

Notes: (3) Blackman 1942c: 458 (redescribed). References: (cn) Doane et al. 1936; Keen 1952c: 168; Swaine 1918a: 68. (hb) Chamberlin 1939: 175; Doane et al. 1936; Keen 1952c: 168; Swaine 1918a: 68; Zocchi 1956: 142. (ds) Blackman 1942c: 458; Blackwelder & Blackwelder 1948; Chamberlin 1939: 175; Keen 1929a: 20, 1952c: 168; Leng 1920: 338. (tx) Blackman 1942c: 458; Bright 1967b: 677; Chamberlin 1939: 175; Keen 1929a: 20; de Ruelle 1970: 106; Swaine 1915b: 363, 1918a: 68; Wood, S. L. 1972c: 150; Zocchi 1956: 142.

rugosus Swaine 1917: 9. Lectotype ♀; Scaffold Meadow, Tulare Co., California [USA]; CNCI, Ottawa, designated by Bright 1967b: 677. Synonymy: Wood 1974d: 286.

References: (cn) Doane et al. 1936; Keen 1952c: 168; Razzauti 1956: 141; Swaine 1918a: 68. (ce) Razzauti 1956: 141. (hb) Bright & Stark 1973: 49; Chamberlin 1939: 172, 1958: 93; Doane et al. 1936; Keen 1952c: 168; Razzauti 1956: 141; Swaine 1918a: 69; Zocchi 1956: 141. (ds) Anonymous 1926c: 516; Blackman 1942c: 467; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 49; Chamberlin 1939: 172; Hopping 1922, 1925a; Keen 1929a: 20, 1952c: 168; Kleine 1934a: 135; Leng 1920: 338; Leonard 1928: 516. (tx) Blackman 1942c: 467; Bright 1966b: 305, 1967b: 677; Chamberlin 1939: 172, 1958: 93; Keen 1929a: 22; de Ruelle 1970: 106; Schedl 1939n: 12–13; Swaine 1917: 9, 1918a: 69; Wood 1974: 286; Zocchi 1956: 141.

juniperi Swaine 1917: 10. Lectotype ♀; Scaffold Meadow, Tulare Co., California [USA]; CNCI, Ottawa, designated by Bright 1967b: 677, preoccupied by Doebner 1860: 261. Synonymy: Wood 1972c: 150.

Notes: (3) Blackman 1942c: 455 (redescribed). References: (cn) Doane et al. 1936; Keen 1938: 131, 1952c: 167; Razzauti 1956: 141; Swaine 1918a: 69. (ce) Keen 1938: 131; Razzauti 1956: 141. (hb) Chamberlin 1939: 172, 1958: 92; Doane et al. 1936; Keen 1953: 131, 1952c: 167; Razzauti 1956: 141; Swaine 1918a: 69; Zocchi 1956: 141. (ds) Blackman 1942c: 455; Blackwelder & Blackwelder 1948; Cham-

berlin 1925, 1939: 172, 1958: 92; DeMarseul 1869; Gaubil 1849: 128; Hopping 1922; Keen 1929: 21, 1938: 131, 1952c: 167; Leng 1920: 338; McComb et al. 1953: 4; Patterson & Hatch 1945: 150; Thatcher 1935: 261; Wood, S. L. 1972a: 407. (**tx**) Blackman 1942c: 455; Bright 1967b: 677; Chamberlin 1939: 172, 1958: 92; Eichhoff 1866: 275; Fauvel 1887; Hoebeke 1978; Hopkins 1909a: 3; Keen 1929a: 21; de Ruette 1970: 105; Swaine 1917: 10, 1918a: 69; Wood, S. L. 1972a: 407, 1972c: 150; Zocchi 1956: 141.

aciculatus Bruck 1931: 127. Holotype ♂; Chiricahua Mountains, Cochise Co., Arizona [USA]; CAS, San Francisco. Synonymy: Wood 1972c: 150.

Notes: (3) Blackman 1942c: 459 (re-described). References: (**ay**) Thomas, J. B. 1967. (**cn**) Keen 1952c: 168. (**hb**) Chamberlin 1939: 174; Keen 1952c: 168; Razzauti 1956: 141; Zocchi 1956: 141. (**ds**) Blackman 1942c: 459; Blackwelder & Blackwelder 1948; Chamberlin 1939: 174; Keen 1952c: 168; Leng & Mutchler 1933. (**tx**) Blackman 1942c: 459; Bruck 1931: 127; Chamberlin 1939: 174; de Ruette 1970: 105; Thomas, J. B. 1967; Zocchi 1956: 141.

neotropicus Schedl 1939n: 12. Holotype ♀; Jamaica; BMNH, London. Synonymy: Wood 1977c: 387.

References: (**cn**) Razzauti 1956: 141. (**cc**) Razzauti 1956: 141. (**hb**) Garraway & Freeman 1981; Razzauti 1956: 141; Zocchi 1956: 141. (**ds**) Blackwelder 1947; Bright 1972d: 38. (**tx**) Bright 1972d: 38; Schedl 1939n: 12; Wood, S. L. 1977c: 387; Zocchi 1956: 141.

setosus Bruck 1933c: 54. Holotype ♂; Mt. St. Helena, California [USA]; OSUC, Columbus.

Distribution: North America (California in USA). Hosts: *Cupressus sargentii*.

Notes: (3) Blackman 1942c: 422 (re-described). References: (**cc**) Marsh 1979: 140. (**hb**) Bright & Stark 1973: 44; Chamberlin 1939: 172; Zocchi 1956: 142. (**ds**) Blackman 1942c: 422; Blackwelder 1939; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 44; Chamberlin 1939: 172; Furniss, R. L. & Carolin 1977: 368; Razzauti 1956: 142; Wood, S. L. 1982b: 309. (**tx**) Blackman 1942c: 422; Bruck 1933c: 54; Chamberlin 1939: 172; de Ruette 1970: 106; Wood, S. L. 1982b: 309; Zocchi 1956: 142.

° *sexspinus* (Schedl) 1947a: 35 (*Phlocosinites*). Holotype, sex?; Baltic amber; Geologisch-Paleontologische Institut, Albertus Universität, Königsberg.

Distribution: Europe (fossil in Baltic amber). References: (**ds**) Spahr 1981. (**tx**) Schedl 1947a: 17, 35, 1972: 68–72.

shensi Tsai & Yin 1964: 90, 95. Holotype ♂; Yunnan, China; IZAS, Beijing.

Distribution: Asia (Shanxi, Yunnan in China).

Hosts: *Juniperus chinensis*, *Sabina chinensis*.

References: (**tx**) Tsai & Yin 1964: 90, 95.

similis Eggers 1925: 155. Holotype ♂; Tenasserim (Birma); Prague Museum.

Distribution: Asia (Burma).

Notes: (3) This is probably a *Hyledius*.

References: (**hb**) Zocchi 1956: 142. (**ds**) Razzauti 1956: 142. (**tx**) Eggers 1925: 155; Zocchi 1956: 142.

sinensis Schedl 1953e: 23. Syntypes ♂ ♀; Fukien, Kuatun, China; Schedl Collection in NIHMW, Wien and Klapperich Collection.

Distribution: Asia (Fujian, Hunan, Jiangxi, Shanxi, Sichuan in China).

Hosts: *Cunninghamia lanceolata*, *C. sinensis*.

References: (**ds**) Schedl 1960e: 171. (**tx**) McNamara 1984: 753; Schedl 1953e: 23, 1955h: 45.

spinus Blackman 1942c: 417. Holotype ♂; Chiricahua Mountains, "N. Mex." [actually in Arizona, USA]; USNM, Washington.

Figures: Blackman 1942c: figs. 5 (male), 6 (female).

Distribution: North America (Chihuahua in Mexico/ Arizona, New Mexico in USA).

Hosts: *Cupressus arizonica*, *Juniperus deppeana*.

References: (**hb**) Wood, S. L. 1982b: 313; Zocchi 1956: 142. (**ds**) Blackwelder & Blackwelder 1948; Furniss, R. L. & Carolin 1977: 368; Razzauti 1956: 142; Wood, S. L. 1960b: 61, 1982b: 313. (**tx**) Blackman 1942c: 417, 427; Wood, S. L. 1982b: 313; Zocchi 1956: 142.

° *squalidens* (Scudder) 1890: 468 (*Hylastes*). Holotype ♂; Ontario, Canada from fossil juniper branch; not located.

Distribution: North America (fossil in Ontario, Canada).

Hosts: Juniper.

Notes: (1) Scudder 1886: 194 (description without name).

References: (**hb**) Chamberlin 1939: 2–3. (**ds**) Chamberlin 1939: 2–3; Hagedorn 1910d: 27; Hopkins 1900c; Hubbard 1892: 28; Kleine 1912a: 212, 1912b: 183; Leng 1920: 363; Scudder 1890: 468, 1891: 540, 1893: 159; Wickham 1920: 363. (**tx**) Chamberlin 1939: 2–3; Hagedorn 1910a: 66; Hopkins 1900e; Keler 1928: 13; Scudder 1886: 194, 1890: 468.

squamulatus Chapuis 1869: 39. Holotype, sex?; Himalaya; IRSNB, Brussels.

Distribution: Asia (Assam, Uttar Pradesh in India).

Hosts: *Machilus odoratissima*.

References: (**cc**) Beeson 1922c: 496. (**hb**) Beeson 1922c: 496; Stebbing 1909b: 17; Zocchi 1956: 140–142; (**ds**) Beeson 1922c: 496; Chapuis 1869: 39, 1873: 247; Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 276; Razzauti 1956: 142. (**tx**) Chapuis 1869: 39, 1873: 247; Eggers 1923a: 138; Gem-

- minger & Harold 1872: 2673; Hagedorn 1910a: 66; Stebbing 1909b: 17; Zocchi 1956: 140–142.
- swainei** **Bruck** 1933c: 56. Lectotype ♀; Fairfax, Cypress Ridge, Marin Co., California [USA]; CNCI, Ottawa, designated by Bright 1967b: 677, automatic.
- Distribution: North America (California in USA).
Hosts: *Cupressus sargentii*, *Juniperus occidentalis*.
References: (cn) Doane et al. 1936; Keen 1938: 32. (ec) Keen 1938: 32; Marsh 1979: 150. (hb) Bright & Stark 1973: 48; Chamberlin 1939: 173; Doane et al. 1936; Keen 1938: 32; Wood, S. L. 1982b: 312; Zocchi 1956: 142. (ds) Blackman 1942c: 418; Blackwelder 1939; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 46; Chamberlin 1939: 173; Furniss, R. L. 1977: 368; Keen 1938: 32; Wood, S. L. 1982b: 312. (tx) Blackman 1942c: 418; Bruck 1933c: 56; Chamberlin 1939: 173; Wood, S. L. 1982b: 312; Zocchi 1956: 142.
- minutus** Swaine 1917: 9. Lectotype ♀; Fairfax, Cypress Ridge, Marin Co., California [USA]; CNCI, Ottawa, designated by Bright 1967b: 677, preoccupied by Blandford 1894d: 71.
References: (cn) Swaine 1918a: 67. (hb) Chamberlin 1925; Swaine 1918a: 67. (ds) Chamberlin 1925; Hopping 1922; Keen 1929a: 19; Kleine 1934a: 135; Leng 1920: 338. (tx) Blackman 1942c: 418; Bright 1967b: 677; Bruck 1933: 56; Hoebeke 1978; Keen 1929a: 19; de Ruelle 1970: 105; Swaine 1917: 9, 1918a: 67, 1924b: 147.
- tacubayae** **Hopkins** 1905b: 78. Holotype ♀; Mexico; USNM, Washington.
Figures: Atkinson et al. 1986: 24.
Distribution: North America (Guatemala/ Distrito Federal, Hidalgo, Mexico, Morelos, Veracruz in Mexico).
Hosts: *Cupressus benthamii*, *C. lindleyi*, *C. lusitanica*.
Notes: (3) Blackman 1942c: 466 (redescribed).
References: (hb) Atkinson et al. 1986: 25; Burgos & Saucedo 1983: 67; Inde 1921: 401; Wood, S. L. 1982b: 312; Zocchi 1956: 142. (ds) Atkinson & Equihua 1985a: 78, 1985b: 231, 1988: 94; Atkinson et al. 1986: 25; Blackman 1942c: 466; Blackwelder 1947; Burgos & Saucedo 1983: 67; Ferrer 1942; Hagedorn 1910d: 27; Kleine 1912b: 183, 1914b: 348, 1934a: 135; Schedl 1963c: 157, 1977e: 41; Wood, S. L. 1982b: 312. (tx) Atkinson et al. 1986: 24; Blackman 1942c: 466; Hagedorn 1910a: 66; Hopkins 1905b: 78–79; Schedl 1940a: 337; Wood, S. L. 1982b: 312; Zocchi 1956: 142.
- taxodii** **Blackman** 1922b: 61. Holotype ♀; Columbia, Mississippi [USA]; USNM, Washington.
Figures: Blackman 1942c: figs. 22–23.
Notes: (1) Wood 1982b: 293 (subspecies established). (3) Blackman 1942c: 450 (redescribed).
References: (cn) Blackman 1950; Doane et al. 1936; Hopkins 1904a: 42; Schuder 1969: 82. (ec) Bushing 1965: 463. (hb) Atkinson & Equihua 1985a: 76; Baker, W. L. 1972: 248; Beal & Massey 1945: 85–88; Blackman 1950; Chamberlin 1939: 174; Doane et al. 1936; Drooz 1985: 351; Hopkins 1904a: 42; Wood, S. L. 1982b: 293; Zocchi 1956: 142. (ds) Atkinson & Equihua 1985a: 76; Atkinson et al. 1986: 25; Beal & Massey 1945: 85–88; Blackman 1942c: 450, 1950; Blackwelder & Blackwelder 1948; Burgos & Saucedo 1983: 64; Chamberlin 1939: 174; Deyrup 1981b: 4; Drooz 1985: 351; Kirk 1969; Leng & Mutchler 1927: 51; Schuder 1969: 82; Wood, S. L. 1982b: 293. (tx) Beal & Massey 1945: 85–88; Blackman 1922b: 61, 1942c: 450; Chamberlin 1939: 174; de Ruelle 1970: 106; Wood, S. L. 1982b: 293; Zocchi 1956: 142.
- taxodii taxodii:**
Distribution: North America (Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Virginia in USA).
Hosts: *Taxodium distichum*.
References: (tx) Blackman 1922b: 61, 1942c: 450; Wood, S. L. 1956c: 250, 1982b: 293.
- taxodii taxodiicola** **Wood** 1956c: 250. Holotype ♂; Tomazunchale, San Luis Potosi, Mexico; SMUK, Lawrence.
Distribution: North America (Durango, Mexico, Morelos, Puebla, San Luis Potosi in Mexico).
Hosts: *Taxodium mucronatum*.
Notes: (1) Wood 1982b: 293 (reduced to subspecies).
References: (tx) Wood, S. L. 1956c: 250, 1982b: 293.
- thujae** (**Perris**) 1855:LXXVII (*Hylesinus*). Syntypes, sex[?]; Department des Landes, France; MNHN, Paris.
Figures: Postner 1974: 415 (adult).
Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Turkey), Europe (Albania/ Austria/ Bulgaria/ Corsica/ Czechoslovakia/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Portugal/ Romania/ Sardinia/ Sicily/ Spain/ Switzerland/ W USSR/ Yugoslavia).
Hosts: *Biota orientalis*, *Callitris* sp., *Chamaecyparis* spp., *Cupressus* spp., *Juniperus* spp., *Platycladus orientalis*, *Sequoia* spp., *Thuja* spp., *Wellingtonia* spp.
References: (ay) Bugnion 1887b; Doom 1964b; Escherich 1923b: 478, 600; Lekander 1969: 52; Lesne 1911a: 627; Nunberg 1928a: 140; Nusslin 1911a: 59, 255, 1912c: 285. (bv) Chararas 1976a, 1980b: 561, 1982; Grune 1979: 83; Prell 1930c: 643. (cn) Chorbadzhiev 1929; Colbrant & Hatt 1962: 21–28; Doom 1964b: 354–357; Escherich 1923b: 478, 618; Gabler 1955; Grandi 1951; Hoffmann 1938; Kamp 1956b: 472; Kleine 1932a: 296; Monsson 1988; Nusslin 1913: 240; Ohnesorge 1955: 280; Paulian 1943: 324; Rabasse 1980; Razzahti 1956: 130, 189; Rhumbler 1922: 282, 1927:

- 292; Schimitschek 1937b: 9, 1955c: 76; Schwerdtfeger 1944a: 183, 1957a: 189; Szczepanski 1973; Vogt, H. 1972; Wachtl 1901: 381. (ce) Balachowsky & Chararas 1964; Chararas 1957d, 1959c; Graham 1969: 880; Jannicky 1957b: 25; Karpinski 1932a: 93; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 182, 1909a: 45, 78; Kneiff 1923: 246; Michalski & Ratajczak 1989; Nosek 1959a: 118, 1959b: 87; Novak, P. 1952: 416; Nusslin 1927: 294; Perris 1856a: 243; Pfeffer 1923a: 330, 1928b: 7, 1943b: 179; Razzauti 1956: 130, 189; Ruschkamp 1930: 140; Scheidter 1936: 234; Schwerdtfeger 1944a: 183, 1957a: 189; Sedlaczek 1935a: 162; Szczepanski 1960a: 409, 1973; Thompson, W. R. 1943: 87; Wichmann 1955a: 105. (hb) Anonymous 1920: 125; Baeta Neves & Goes 1944; Barbey 1901: 20, 58; Bargmann 1906; Beffa 1949, 1961; Borzi 1882; Buddenberg 1883: 133-140; Bugnion 1887b: 129-138; Cecconi 1924; Chararas 1962c: 390; Chorbadzhievo 1929; Dallimore & Munro 1922: 189-193; Decaux 1890d, 1890e, 1890f, 1893: 267; Doom 1964b: 354-357; Eichhoff 1881a: 38, 132, 1892b: 99; Escherich 1923b: 478, 618; Gabler 1955; Girard 1873; Grandi 1951; Henschel 1895a: 146; Kamp 1951b, 1956a: 54-57; Karpinski & Strawinski 1948: 153; Kleine 1932a: 296; Knotek 1894a: 553, 1907: 281; Kozikowsky & Numberg 1925: 135; Kraemer 1957: 247; Lengerken 1954: 72; Lesne 1938: 170; Lunardoni & Leonardi 1889: 434; Maisner 1962: 55-58; Munro 1926: 47; Nordlinger 1870a: 187; Nosek 1959a: 118, 1959b: 87; Nusslin 1898: 274, 1913: 240, 1927: 294; Ohnesorge 1955: 280; Owen 1977; Paulian 1943: 324; Perris 1856a: 243; Peyerimhoff 1919: 250; Postner 1974: 416; Prell 1930c: 643; Rafes 1962; Razzauti 1956: 130, 189; Rhumbler 1922: 282, 1927: 292; Rupertsberger 1880: 226; Saalas 1932: 67-73; Schedl 1981b: 62; Scheidter 1936: 234; Schwerdtfeger 1944a: 183, 1957a: 189; Sedlaczek 1935a: 162; Seitner 1914: 270; Stark 1952: 304; Strohmeyer 1907c: 82; Torka 1906: 400; Tschorbadjiev 1929: 160; Wachtl 1901: 381; Zocchi 1956: 141-142, 189-202, 1959: 103. (ds) Acloque 1896; Arru, Covassi, & de Bellis 1966: 33; Audras & Schaefer 1957; Baeta Neves & Goes 1944; Barthe 1896; Beare 1923: 14-15; Bedel 1888b: 394, 411; Beffa 1949; Blackman 1942c: 400; Blanchere & Robert 1889; Brakman 1966b: 204; Buresh & Lazarov 1956; Calwer 1884; Carpentier & Delaby 1908; Cecconi 1897; Chapuis 1869: 30, 1873: 247; Chararas 1962c: 390; Chararas & Berton 1961: 235; Chorbadzhievo 1929; Dallimore & Munro 1922; Donisthorpe 1931: 173; Eggers 1904; Escalera 1919; Escherich 1923b: 479, 618, 1932b; Favre 1890; Fuchs 1905a; Gozis 1875: 79; Gredler 1866: 372; Grune 1979: 83; Hagedorn 1910d: 28; Heinemann 1908b; Hennig 1954: 264; Henschel 1895a: 146; Heyden 1879: 139; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 708; Hoffmann 1938: 14-16; Hopkins 1900c; Horion 1951, 1956: 123; Jazentkovsky 1912: 287; Kamp 1956b: 472; Karpinski 1926: 81, 1932a: 98, 1948b: 229; Karpinski & Strawinski 1948: 153; Kinelski et al. 1959: 245; Kleine 1912b: 183, 1913a: 34, 87, 1932a: 296, 1934a: 135; Kloft & Hinks 1945: 218; Koch 1977: 38; Knotek 1892a: 33, 1894a: 553; Koca 1905: 191; Kraatz 1869: 59; Krausse 1910: 171, 1911: 67; Lacordaire 1866: 363; Langhoffer 1915c: 156; Leclercq 1971; Lengerken 1939: 35; Lichtenstein & Picard 1920: 54-55; Lomnicki 1913b: 147; Lucht 1987: 277; Luigioni 1929: 991; Lunardoni & Leonardi 1889: 434; Novak, P. 1952: 416; Numberg 1928b: 84, 87, 95, 1954: 30, 1960b: 154; Nusslin 1898: 274; Owen 1977; Palm 1976; Perris 1876a: 255, 1877a: 415; Peyerimhoff 1919: 250, 1933b: 383; Pfeffer 1924b: 471, 1928b: 7, 1931b: 73, 1935: 157, 1943a: 11, 1947d: 128, 1989a: 33; Pittioni 1943: 176; Postner 1974: 416; Rapp 1934: 719; Reclaire & Von der Wiel 1946: 75; Redtenbacher 1874: 370; Reitter 1894a: 50, 1916: 277; Roubal 1935b: 72, 1941: 265; Sainte-Claire 1914: 468; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1218; Schaum 1859: 95, 1862: 100; Schedl 1967c: 70, 1980a: 5, 1981b: 62; Schilsky 1909: 187; Stark 1927b: 86, 1952: 304; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 434; Strauch 1861: 123; Tredl 1907: 10; Tschorbadjiev 1929: 160; Welch, R. C. 1968: 4, 1970: 140; White, M. G. 1966: 24; Wichmann 1916b: 432-433, 1927a: 53, 1955a: 105; Williams 1965; Winter, T. G. 1983: 20; Zocchi 1959: 103. (tx) Acloque 1896; Balachowsky 1949a: 119; Barbey 1901: 20, 58; Bedel 1888b: 394, 411; Beffa 1949, 1961; Bertolini 1872; Carpentier & Delaby 1908; Chapuis 1869: 39, 1873: 247; Doebner 1860; Eichhoff 1864b: 30, 1866: 275, 1881a: 38, 132, 1883a: 103; Endrodi 1957b; Escherich 1923b: 479, 618; Fauvel 1887, 1889; Fleischer 1927; Formanek 1907: 17; Gabler 1955; Gebien 1907: 197; Gemminger & Harold 1872: 2673; Girard 1873; Grune 1979: 83; Hagedorn 1901a: 65; Henschel 1878a, 1895a: 146; Hopkins 1900c, 1914: 126; Iablokoff-Khnzorian 1961: 71; Kalina 1969; Karpinski & Strawinski 1948: 153; Knotek 1892a: 33; Kraatz 1864: 140; Kuhnt 1913: 1050; Lacordaire 1866: 363; Lekander 1969: 52; Lucht 1987: 277; Luigioni 1929: 991; Lunardoni & Leonardi 1889: 434; Nordlinger 1870a: 187; Numberg 1928a: 140, 1948b: 17, 1954: 30; Nusslin 1911a: 255, 59, 1912c: 285; Perris 1855:LXXVII (77), 1877a: 415; Pfeffer 1932b: 12, 1943a: 11, 1955a: 137; Portevin 1935: 314; Postner 1974: 416; Quaschik 1953: 35; Redtenbacher 1874: 370; Reitter 1894a: 50, 1901c: 201, 1913a: 38, 1916: 277; Rhumbler 1922: 282, 1927: 292; Rupertsberger 1880: 226; Schedl 1934f: 1641, 1950b: 60, 1952f: 86, 1980a: 5, 1981b: 62; Schimitschek

- Stresemann et al. 1989: 352; Wood, S. L. 1974g: 236; Zocchi 1956: 141–142, 189–202. (**ms**) Escherich 1932b.
- juniperi* Doebner 1860: 261 (*Dendroctonus*). Syntypes, sex?; Wurtemberg, Germany; not located. Synonymy: Kraatz 1864: 140, DeMarseul 1869: 155, Schedl 1950b: 60. References: (**hb**) Nordlinger 1856: 37. (**ds**) Gozis 1875: 79; Hagedorn 1910d: 28; Kraatz 1864: 146; Lacordaire 1866: 361; Schaum 1862: 100; Schilsky 1909: 187; Stein 1868: 113; Stein & Weise 1877: 163; (**tx**) Balachowsky 1949a: 119; DeMarseul 1869: 155; Doebner 1860: 261; Eichhoff 1866: 275–278; Kraatz 1864: 140; Lacordaire 1866: 361; Marseul 1869: 155; Nordlinger 1856: 37; Schedl 1950b: 60.
- impressus* Rey 1885: 125. Syntypes, sex?; France; not located. Synonymy: Schedl 1950b: 60. References: (**ds**) Fauvel 1885; Schilsky 1890: 196. (**tx**) Eichhoff 1883a: 125; Fauvel 1885, 1887; Rey 1885: 125, 1887: 230, 1892b: 30; Schedl 1950b: 60.
- serrifer* Wichmann 1916: 12. Syntypes, sex?; Brioni and Parenzo [Yugoslavia]; Wichmann Collection, not located. Synonymy: Schedl 1950b: 60, 1964m: 304. References: (**ec**) Jannicky 1957b: 25; Kleine 1944: 81; Nuorteva 1957b: 64; Ruschka 1916: 25; Wichmann 1916: 17. (**hb**) Pfeffer 1941b: 19; Stark 1952: 304; Wichmann 1916: 17. (**ds**) Buresh & Lazarov 1956; Endrodi 1958b; Escherich 1932b; Horion 1951; Kleine 1934a: 135; Luigioni 1929: 991; Pfeffer 1936: 89, 1943a: 10; Pittioni 1943: 176; Roubal 1941: 265; Stark 1952: 304; Wichmann 1927a: 54. (**tx**) Endrodi 1957a, 1957b; Luigioni 1929: 991; Nunberg 1948b: 17; Pfeffer 1932b: 12, 1941b: 19, 1943a: 10, 1955a: 135; Schedl 1934f: 1641, 1950b: 60; 1964k: 222, 1964n: 304; Stark 1952: 304; Wichmann 1916: 12, 17, 1916b: 432–433. (**ms**) Escherich 1932b.
- prostratus* Peyerimhoff 1918: 259. Syntypes, sex?; Algeria; MNHN, Paris. Synonymy: Balachowsky 1949a: 120, Schedl 1950b: 60. References: (**cn**) Hoffmann 1938: 14–16. (**ds**) Hoffmann 1938: 14–16; Kleine 1934a: 135; Pfeffer 1943a: 12. (**tx**) Balachowsky 1949a: 120; Peyerimhoff 1918: 259; Pfeffer 1943a: 12, 1955a: 135; Schedl 1934f: 1641, 1950b: 60, 1960b: 162.
- transversarius* Schedl 1936g: 522. Syntypes, sex?; Queensland: Blackall Ranges; SAM, Adelaide, restricted by Schedl 1979c: 254. Distribution: Australia (Queensland). References: (**hb**) Zocchi 1956: 142. (**ds**) Schedl 1936g: 522. (**tx**) Schedl 1936g: 522, 1979c: 254; Zocchi 1956: 142.
- * *tuberculifer* (Schedl) 1947a: 37 (*Phloeosinus*). Holotype, sex?; Baltic amber; Geologisch-Paleontologische Institut, Albertus Universitat, Konigsberg. Distribution: Europe (fossil in Baltic amber). References: (**tx**) Schedl 1947a: 17, 37.
- turkestanicus* Semenov 1902: 269. Lectotype ♂; Turkestaniae rossicae, Bukhara orientalis; Semenov Collection, designated by Michalski 1969a: 893. Figures: Stark 1952: 306 (male). Distribution: Europe (Turkestan in W USSR). Hosts: *Juniperus communis*, *J. pseudosabinae*. Notes: (3) Schedl 1950b: 96 (redescribed). References: (**cn**) Greckin 1956: 1480; Mahnovskii 1952: 62–65; Razzauti 1956: 142; Yagdyev 1981. (**ec**) Razzauti 1956: 142. (**hb**) Greckin 1956: 1480; Kostin 1960: 132; Prutenskii 1938: 130–131; Razzauti 1956: 142; Stark 1952: 305; Zocchi 1956: 141–142. (**ds**) Hagedorn 1910d: 28; Kadyrov 1988: 43, 45, 1989; Kleine 1912b: 183, 1914b: 245–246, 1934a: 136; Pfeffer 1943a: 3, 9; Stark 1952: 305. (**tx**) Hagedorn 1910a: 65; Iablokoff-Khuzorian 1961: 157; Michalski 1969a: 893, 1969b: 568; Pfeffer 1943a: 3, 9, 1955a: 134; Reitter 1913a: 38; Schedl 1934f: 1641, 1950b: 97; Semenov 1902: 269; Stark 1952: 305; Zocchi 1956: 141–142.
- vandykei* Swaine 1915b: 366. Lectotype ♀; published as Huckleberry Meadow, Fresno Co., California, type labeled Millwood, California [USA]; CNCI, Ottawa, designated by Bright 1967b: 677. Distribution: North America (California, Oregon in USA). Hosts: *Libocedrus decurrens*. Notes: (3) Blackman 1942c: 425 (redescribed). References: (**cn**) Doane et al. 1936; Essig 1926: 517; Keen 1938: 32; Schuder 1969: 75; Swaine 1918a: 68. (**ec**) Keen 1938: 32; Marsh 1979: 148. (**hb**) Bright & Stark 1973: 47; Chamberlin 1939: 176, 1958: 90; Doane et al. 1936; Essig 1926: 517; Keen 1938: 32; Swaine 1918a: 68; Wood, S. L. 1982b: 305; Zocchi 1956: 142. (**ds**) Blackman 1942c: 475; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 47; Chamberlin 1925, 1939: 176, 1958: 90; Essig 1926: 517; Furniss, R. L. & Carolin 1977: 368; Hopping 1922, 1925a; Keen 1929a: 20, 1935: 32; Kleine 1934a: 136; Leng 1920: 338; Schuder 1969: 75; Wood, S. L. 1972a: 407, 1982b: 305. (**tx**) Blackman 1942c: 425; Bright 1967b: 677; Chamberlin 1939: 176, 1958: 90; Hoebeke 1978; Keen 1929a: 20; de Ruette 1970: 106; Swaine 1915b: 366, 1918a: 68; Wood, S. L. 1972a: 407, 1982b: 305; Zocchi 1956: 142.
- russus* Swaine 1924b: 148. Holotype ♀; San Bernardino Mountains, California [USA]; CNCI, Ottawa. Synonymy: Blackman 1942c: 425. References: (**hb**) Chamberlin 1939: 178. (**ds**) Chamberlin 1939: 178; Leng & Mutchler 1927: 51. (**tx**) Blackman 1942c: 425; Bright

1967b: 677; Chamberlin 1939: 178; de Ruelle 1970: 106; Swaine 1924b: 148.

variolatus Bruck 1931: 126. Holotype ♂?; Mount Saint Helena, Napa Co., California [USA]; CAS, San Francisco.

Figures: Blackman 1942c: figs. 14–15.

Distribution: North America (California in USA).

Hosts: *Cupressus sargentii*.

Notes: (3) Blackman 1942c: 438 (re-described).

References: (cn) Keen 1938: 131. (cc) Keen 1938: 131; Kinn 1971. (hb) Bright & Stark 1973: 49; Chamberlin 1939: 174; Keen 1938: 131; Wood, S. L. 1982b: 299; Zocchi 1956: 142. (ds) Blackman 1942c: 438; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 49; Chamberlin 1939: 174; Furniss, R. L. & Carolin 1977: 368; Keen 1938: 131; Kleine 1934a: 136; Leng & Mutchler 1933: 94; Wood, S. L. 1982b: 299. (tx) Blackman 1942c: 438; Bruck 1931: 126, 1936a; Chamberlin 1939: 174; de Ruelle 1970: 106; Wood, S. L. 1982b: 299; Zocchi 1956: 142.

• **wolffi** (Schedl) 1947a: 40 (*Phloeosinities*). Holotype, sex?; Baltic amber; Geologisch-Paleontologische Institut, Albertus Universitat, Konigsberg. Figures: Schedl 1947a: 41 (adult).

Distribution: Europe (fossil in Baltic amber).

References: (ds) Spahr 1981. (tx) Schedl 1947a: 17, 40.

Genus *Hyledius* Sampson

HYLEDIUS SAMPSON 1921: 35. Type-species: *Hylesius asper* Sampson = *Olonthogaster nitidicollis* Motschulsky, monobasic.

Holonthogaster Gemminger & Harold 1872: 2676. Type-species: *Olonthogaster nitidicollis* Motschulsky, automatic.

References: (tx) Gemminger & Harold 1872: 2676; Lucas 1920: 331.

Olonthogaster Motschulsky 1866: 401. Type-species: *Olonthogaster nitidicollis* Motschulsky, subsequent designation by Hopkins 1914: 67. Status: International Commission on Zoological Nomenclature (ICZN 1981: 67) suppressed this name to preserve *Phloeosinus*. Synonymy: Wood 1986a: 52.

References: (tx) Hagedorn 1910a: 161, 1910d: 118; Lucas 1920: 455; Motschulsky 1866: 410; Wood, S. L. 1969c: 113, 1974: 236, 1986a: 52.

Hylurgulus Eggers 1927b: 392. Type-species: *Hylurgulus sumatranus* Eggers, monobasic. Synonymy: Wood 1986a: 52.

References: (tx) Eggers 1927b: 382–393; Schedl 1959a: 472; Wood, S. L. 1986a: 52.

Phloeosinopsis Schedl 1936j: 23. Type-species: *Phloeosinopsis armatus* Schedl = *Phloeosinus spinifer* Schedl, original designation. Synonymy: Wood 1986a: 52.

References: (tx) Browne 1963c: 53; Schedl 1936j: 23; Wood, S. L. 1974g: 236.

Notes: (3) Browne 1961c: 64 (cites *rugicollis* Schedl, nomen nudum).

References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Sampson 1921: 35; Schedl 1958k: 152; Wood, S. L. 1986a: 52.

birmanus (Eggers) 1923a: 138 (*Phloeosinus*). Holotype ♀; Birma; Hamburg Museum, lost, Prague Museum, Eggers cotype apparently in NHMW, Wien.

Distribution: Asia (Burma).

References: (ds) Nobuchi 1983: 299; Razzauti 1956: 141; Schedl 1966b: 6. (tx) Eggers 1923a: 138, 1925: 152, 1927b: 391; Schedl 1958k: 141.

borneensis (Schedl) 1942a: 172 (*Phloeosinus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.

Distribution: Asia (Vietnam), Indonesia (Borneo).

References: (hb) Zocchi 1956: 141. (ds) Razzauti 1956: 141; Schedl 1965a: 339, 1975a: 454. (tx) Schedl 1942a: 172, 1953b: 123; Zocchi 1956: 141.

brunneus (Browne) 1950a: 373 (*Phloeosinus*). Holotype ♀; Pontianak (Kalimantan) to Shimizu (imported to Japan from Indonesia); BMNH, London.

Distribution: Probably Indonesia.

References: (tx) Browne 1980a: 373.

canus (Browne) 1972: 20 (*Phloeosinus*). Holotype, sex?; Thailand; BMNH, London.

Distribution: Asia (Thailand).

References: (ds) Beaver & Browne 1975: 292. (tx) Browne 1972: 20.

ceylonicus (Schedl) 1959a: 473 (*Phloeosinus*). Syn-types ♂; Millawitiya Estate, Ceylon; Schedl Collection in NHMW, Wien.

Distribution: Asia (Yunnan in China/ Sri Lanka).

Hosts: *Myristica dactyloides*.

References: (ds) Schedl 1959a: 473. (tx) Schedl 1959a: 473.

concinulus (Walker) 1859: 261 (*Hylurgus*). Holotype ♂; Ceylon; BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: *Myristica dactyloides*.

References: (hb) Zocchi 1956: 141. (ds) Hagedorn 1910d: 26; Kleine 1912b: 183, 1914b: 273; Lacordaire 1866: 359; Razzauti 1956: 141; Schedl 1959a: 473, 1979c: 361. (tx) Gemminger & Harold 1872: 267; Hagedorn 1910a: 66; Lacordaire 1866: 359; Motschulsky 1863: 575; Schedl 1959a: 473; Walker 1859: 261; Wood, S. L. 1988b: 189; Zocchi 1956: 141.

nudifrons Motschulsky 1866: 402. Holotype ♂; Ceylon; IZM, Moscow. Synonymy: Wood 1985b: 189.

References: (ds) Hagedorn 1910d: 118; Kleine 1914b: 274. (tx) Gemminger & Harold 1872: 2676; Hagedorn 1910a: 161; Motschulsky 1866: 402; Wood, S. L. 1969c: 119, 1988b: 189.

- cribratus (Blandford)** 1896b: 198 (*Phloeosinus*). Holotype ♂; Sumatra; BMNH, London. Distribution: Asia (Hainan Island in China/Malaya), Indonesia (Sumatra), Philippine Islands (Mindanao). Hosts: *Kuena furfuracea*, *Myristica philippinensis*, *Palaquium gutta*, *Pterocymbium* sp. Notes: (3) Schedl 1942a: 173 (described male). References: (cn) Browne 1961c: 61; Hill, D. S. 1983: 607; Kalshoven 1954: 5; Yunus & Hua 1980: 229. (hb) Beaver & Browne 1978: 592; Browne 1961c: 62–63; Hill, D. S. 1983: 607; Kalshoven 1954, 1958b: 163; Zocchi 1956: 141. (ds) Beaver & Browne 1978: 592; Browne 1961a: 303, 1961c: 62, 1981a: 125; Corbett 1924; Hagedorn 1910d: 28; Hill, D. S. 1983: 607; Kleine 1912b: 183, 1914b: 285; Razzanti 1956: 141; Schedl 1938g: 424, 1971c: 363; Yunus & Hua 1980: 229. (tx) Blandford 1896b: 198; Browne 1970: 543; Eggers 1923a: 138, 1925: 155; Hagedorn 1910a: 66; Schedl 1938g: 424, 1939f: 30; Zocchi 1956: 141.
- malayensis** Schedl 1936j: 22 (*Phloeosinus*). Syn-types, sex?, Malay Peninsula, Selangor: Sungai Bulog; BMNH, London, restricted by Schedl 1979c: 147. Synonymy: Browne 1970: 543. Notes: (3) Schedl 1939f: 30 (var. *nagaensis*, no status), 1942a: 173 (described male). References: (cn) Mathur & Singh 1960b: 84; Yunus & Hua 1980: 229. (hb) Browne 1961c: 63; Zocchi 1956: 141. (ds) Browne 1949b, 1961b: 63; Mathur & Singh 1960b: 84; Razzanti 1956: 141; Schedl 1936j: 22; Yunus & Hua 1980: 229. (tx) Browne 1949b, 1970: 543; Schedl 1936j: 22, 1939e: 328, 1942a: 173, 1958h: 498; Zocchi 1956: 141.
- detersus (Chapuis)** 1869: 38 (*Phlocosinus*). Holotype ♂; Ceylan; IRSNB, Brussels. Distribution: Asia (Sri Lanka). Hosts: *Artocarpus heterophyllus*. References: (cn) Holmes 1947: 109. (hb) Stebbing 1909b: 17; Zocchi 1956: 140–141. (ds) Chapuis 1869: 39, 1873: 247; Hagedorn 1910d: 29; Holmes 1947: 3, 109; Kleine 1912b: 183, 1914b: 273; Razzanti 1956: 141; Schedl 1959a: 472. (tx) Chapuis 1869: 38–39, 1873: 246–247; Eggers 1923a: 138; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 66; Schedl 1959a: 472; Stebbing 1909b: 17; Zocchi 1956: 140–141.
- hylurgulus (Eggers)** 1940h: 62 (*Phlocosinus*). Lectotype ♀; Sud-Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 33, automatic. Distribution: Indonesia (Sumatra). References: (hb) Zocchi 1956: 141. (ds) Razzanti 1956: 141. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1940h: 62; Schedl 1942a: 173; Zocchi 1956: 141.
- sumatranus** Eggers 1927b: 393 (*Hylurgulus*). Lectotype ♀; Sud-Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 33, preoccupied by Eggers 1923a: 140. References: (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1927b: 393, 1940h: 62.
- imitans (Eggers)** 1927c: 75 (*Phloeosinus*). Lectotype ♂; Philippines: Mindanao, Provinz Lanao, Kolambugan; USNM, Washington, designated by Anderson & Anderson 1971: 15. Distribution: Asia (Malaya), Philippine Islands (Mindanao). Hosts: *Myristica* sp. References: (hb) Zocchi 1956: 141. (ds) Browne 1961c: 64, 1980a: 371; Nobuchi 1983: 299; Razzanti 1956: 141; Schedl 1966b: 10. (tx) Anderson, W. H. & Anderson 1971: 15; Eggers 1927c: 75; Schedl 1934d: 92, 1939e: 328; Zocchi 1956: 141.
- jiri (Wood)** 1988b: 198 (*Olonthogaster*). Holotype ♀; Jiri Forest, Cachar, Assam, India; FRI, Dehra Dun. Distribution: Asia (Assam in India). Hosts: *Myristica longifolia*. References: (tx) Wood, S. L. 1988b: 198.
- nitidicollis (Motschulsky)** 1866: 401 (*Olonthogaster*). Holotype ♂; Ceylon; IZM, Moscow. Distribution: Asia (Laos/ Malaya/ Sri Lanka), Indonesia (Sumatra), New Guinea, Philippine Islands (Luzon/ Mindanao). Hosts: *Alphitonia* sp., *Litsea domarensis*, *Myristica philippinensis*, *M. fragrans*. References: (hb) Kalshoven 1958b: 163. (ds) Hagedorn 1910d: 118; Kleine 1914b: 274; Schedl 1959a: 473. (tx) Gemminger & Harold 1872: 2676; Hagedorn 1910a: 161; Hopkins 1914: 122, 126; Lucas 1920: 455; Motschulsky 1866: 401; Schedl 1959a: 473; Wood, S. L. 1969c: 119. (ms) Lucas 1920: 455.
- asper** Sampson 1921: 35 (*Hyledius*). Holotype ♂; Luang Prabang, Houei Ko, Laos; BMNH, London. Synonymy: Wood 1988b: 198. References: (cn) Yunus & Hua 1980: 229. (hb) Browne 1961c: 64. (ds) Browne 1961c: 64; Nobuchi 1983: 299; Sampson 1921: 35; Schedl 1966b: 9; Yunus & Hua 1980: 229. (tx) Sampson 1921: 35; Schedl 1954a: 139, 1958k: 152, 1966b: 9; Wood, S. L. 1988b: 198.
- latus** Eggers 1923a: 138 (*Phloeosinus*). Syntypes ♂; Liangigas (Sumatra); 3 in Stettin Museum, 2 in Eggers Collection, 2 Eggers syntypes in NHMW, Wien. Synonymy: Schedl 1958k: 152, 1966b: 9. Notes: (3) Schedl 1979c: 137 (citation of holotype invalid). References: (hb) Zocchi 1956: 141. (ds) Browne 1961a: 302, 1980a: 371, 1983a: 555, 1984b: 287; Ohno et al. 1988a: 91; Razzanti 1956: 141. (tx) Eggers 1923a: 138, 1927c: 75; Schedl 1934d: 92, 1958k: 152, 1966b: 9, 1979c: 137; Zocchi 1956: 141.
- vagans** Eggers 1923a: 139 (*Phloeosinus*). Holo-

type, sex?; Insel Yule bei Neu Guinea (1), and Sommerset, Australia (3); MCG, Genova and Eggers Collection (USNM, Washington?).
Synonymy: Schedl 1958k: 152.

References: **(hb)** Zocchi 1956: 142. **(ds)** Schedl 1938g: 424. **(tx)** Eggers 1923a: 139; Schedl 1934d: 92, 1958k: 152, 1966b: 9; Zocchi 1956: 142.

philippinensis Schedl 1934d: 91 (*Phlocosinus*).
Holotype ♀?; Philippinen, Mt. Makiling, Laguna, Luzon; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 152.

References: **(hb)** Zocchi 1956: 141. **(ds)** Razzauti 1956: 141. **(tx)** Schedl 1934d: 91–92, 1942d: 2, 1958k: 152; Zocchi 1956: 141.

papuanus (Schedl) 1936g: 521 (*Phlocosinus*).
Syn-types, sex?; North-East Papua: Mt. Lamington, 1300–1500 feet, New Guinea; SAM, Adelaide, restricted by Schedl 1979c: 184.

Distribution: New Guinea.

References: **(hb)** Zocchi 1956: 141. **(ds)** Razzauti 1956: 141; Schedl 1936g: 521. **(tx)** Schedl 1936g: 521, 1979c: 184; Zocchi 1956: 141.

penangensis (Schedl) 1975j: 295 (*Phlocosinus*).
Holotype ♀; Penang, Lamb; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

References: **(tx)** Beaver & Browne 1978: 592; Schedl 1975j: 295.

regalis (Wood) 1988b: 198 (*Olonthogaster*).
Holotype ♀; Weddegala, Ratnapura District, Sri Lanka; USNM, Washington.

Distribution: Asia (Sri Lanka).

Hosts: *Myristica dactyloides*.

References: **(tx)** Wood, S. L. 1988b: 198.

solomonicus (Browne) 1980c: 494 (*Phlocosinus*).
Holotype, sex?; Viru Harbour (Solomon Islands) to Tagonoura (imported to Japan from Solomon Islands); BMNH, London.

Distribution: Solomon Islands.

References: **(ds)** Olmo et al. 1988a: 91, 1989: 60. **(tx)** Browne 1980c: 494.

spinifer (Browne) 1963c: 53 (*Phlocosinus*).
Holotype, sex?; Malay Peninsula, Selangor: Sungai Buloh; BMNH, London, automatic.

Figures: Schedl 1936j: 24.

Distribution: Asia (Malaya).

References: **(ds)** Browne 1986c: 662. **(tx)** Browne 1963c: 53.

armatus Schedl 1936j: 23 (*Phlocosinopsis*).
Holotype, sex?; Malay Peninsula, Selangor: Sungai Buloh; BMNH, London, preoccupied by Reitter 1887b: 192.

References: **(ds)** Browne 1961c: 64, 1963c: 24; Schedl 1936j: 23.

subcarinatus (Schedl) 1942a: 173 (*Phlocosinus*).
Holotype, sex?; Malaya, Rotan Tinggi F. R.; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

Hosts: Myristiceae.

References: **(hb)** Zocchi 1956: 142. **(ds)** Browne 1961c: 64; Razzauti 1956: 142. **(tx)** Schedl 1942a: 173; Zocchi 1956: 142.

sumatranus (Eggers) 1923a: 140 (*Phlocosinus*).
Holotype ♀; Si Rambe auf Sumatra; MCG, Genova.

Distribution: Indonesia (Si Rambe Island near Sumatra).

References: **(hb)** Zocchi 1956: 142. **(ds)** Razzauti 1956: 142. **(tx)** Anderson, W. H. & Anderson 1971: 33; Eggers 1923a: 140, 1925: 152, 1927b: 393, 1940: 62; Zocchi 1956: 142.

takahashii (Browne) 1981b: 600 (*Phlocosinus*).
Holotype, sex?; Katapaung (Borneo) to Omaegaki (imported to Japan from Borneo); BMNH, London.

Distribution: Indonesia (Borneo).

References: **(tx)** Browne 1981b: 600.

tuberculosis (Browne) 1970: 544 (*Phlocosinus*).
Holotype ♀; Burma: Katha, Pinwe; BMNH, London.

Distribution: Asia (Burma).

Hosts: *Castanopsis* sp.

References: **(ds)** Browne 1980c: 483; Mathew 1982, 1987: 188. **(tx)** Beaver & Browne 1978: 593; Browne 1970: 544.

vilis (Blandford) 1896b: 199 (*Phlocosinus*).
Syn-types ♂ ♀; Sumatra; BMNH, London.

Distribution: Indonesia (Sumatra).

References: **(hb)** Zocchi 1956: 142. **(ds)** Browne 1970: 539, 1980a: 371; Hagedorn 1910d: 118; Kleine 1912b: 183, 1914b: 285. **(tx)** Blandford 1896b: 199; Hagedorn 1910a: 66; Schedl 1942a: 173; Zocchi 1956: 142.

xanthophylli (Browne) 1949b: 896 (*Phlocosinus*).
Holotype, sex?; Malaya: Kelantan, Jeram; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Xanthophyllum* sp.

References: **(hb)** Browne 1961c: 64; Zocchi 1956: 142. **(ds)** Browne 1961c: 64. **(tx)** Browne 1949b: 896; Zocchi 1956: 141.

Genus *Pseudochramesus* Blackman

PSEUDOCRAMESUS BLACKMAN 1939: 87. Type-species: *Chramesus acuteclavatus* Hagedorn, original designation.

Keys: Blackman 1939: 88.

References: **(hb)** Wood, S. L. 1986a: 52. **(ds)** Wood, S. L. 1986a: 52. **(tx)** Blackman 1939: 87–88; Schedl 1958f: 33–46; Wood, S. L. 1986a: 52.

abbreviatus Schedl 1951m: 94. Syntypes, sex?; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Distribution: South America (Brazil).

- Notes: (1) Schedl 1979c: 8 (citation of holotype invalid).
References: (tx) de Ruette 1970: 112; Schedl 1951m: 90, 94, 1979c: 8.
- acuteclavatus (Hagedorn)** 1909a: 742 (*Chramesus*). Holotype, sex?; La Plata, Argentina; Hamburg Museum, lost.
Distribution: South America (Argentina/ Bolivia/ Brazil).
Notes: (1) Blackman 1939: 87 (to *Pseudo-chramesus*), (3) Blackman 1939: 87 (redescribed).
References: (ds) Blackwelder 1947; Bruch 1914a; Hagedorn 1910d: 19; Kleine 1914b: 333; Nunberg 1962: 223; Schedl 1972g: 42. (tx) Blackman 1938b: 534, 1939: 87; Hagedorn 1909a: 742, 1910a: 67; Nunberg 1962: 223; Schedl 1938i: 23.
- brasilensis Schedl** 1948f: 265. Syntypes ♀; Brasil, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 45 (citation of holotype invalid).
References: (ds) Schedl 1966f: 82. (tx) Schedl 1948f: 265, 1979c: 45.
- costulatus Blackman** 1939: 91. Holotype ♂; Boyuibe to Charagua, Bolivia; USNM, Washington.
Distribution: South America (Argentina/ Bolivia).
References: (ds) Blackwelder 1947. (tx) Blackman 1939: 91.
- diplosquamosus Schedl** 1963d: 215. Holotype ♀; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1963d: 215.
- harringtoni Blackman** 1939: 93. Holotype ♂; Aguio, Bolivia; USNM, Washington.
Distribution: South America (Argentina/ Bolivia).
References: (ds) Blackwelder 1947; Nunberg 1962: 223. (tx) Blackman 1939: 93; Nunberg 1962: 223.
- multiseriatus Schedl** 1978c: 296. Holotype ♀; Argentina, Tablillas Salta; Schedl Collection in NHMW, Wien. Synonymy: Wood 1988b: 189.
References: (tx) Schedl 1978c: 296; Wood, S. L. 1988b: 189.
- jaliscoensis Wood** 1987: 549. Holotype ♂; Carretera Barra Navidad-Puerto Vallarta, Jalisco, Mexico; Wood Collection.
Figures: Atkinson 1989a: 64.
Distribution: North America (Jalisco in Mexico).
Hosts: *Cynometra oaxacana*.
References: (tx) Atkinson 1989a: 64; Wood, S. L. 1987: 549.
- manni Blackman** 1939: 88. Holotype ♀; Beni River, below Riberalta, Bolivia; USNM, Washington.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947. (tx) Blackman 1939: 88; Schedl 1948f: 265.
- opacus Schedl** 1963d: 216. Syntypes ♂; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (3) Schedl 1979c: 179 (citation of holotype invalid).
References: (hb) Beaver 1973b. (ds) Beaver 1973b; Schedl 1973d: 153. (tx) Schedl 1963d: 216, 1979c: 179.
- semibrunneus (Eggers)** 1951: 145 (*Chramesus*). Holotype ♀; Brasil; USNM, Washington.
Distribution: South America (Brazil).
Hosts: *Piptadenia* sp.
Notes: (1) Wood 1986c: 269 (to *Pseudo-chramesus*).
References: (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1951: 145; Schedl 1979c: 223; Wood, S. L. 1986c: 269.
- setifer Schedl** 1951m: 93. Holotype ♀; Brasilien, Bahia, Cachoerinha-Una; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1966f: 82. (tx) Schedl 1951m: 93.
- vianai Schedl** 1958f: 39. Syntypes ♂ ♀; Argentinien: Buenos Aires; Tigre; Schedl Collection in NHMW, Wien, and Viana Collection.
Distribution: South America (Argentina).
Notes: (3) Schedl 1979c: 267 (citation of holotype invalid).
References: (hb) Viana 1964: 128. (ds) Schedl 1979e: 57; Viana 1964: 128. (tx) Schedl 1958f: 39, 1979c: 267.

Genus *Chramesus* LeConte

- CHRAMESUS LECONTE 1868: 168. Type-species: *Chramesus hicorniae* LeConte, monobasic.
- Rhopalopleurus* Chapuis 1869: 46. Type-species: *Rhopalopleurus tuberculatus* Chapuis, subsequent designation by Hopkins 1914: 128. Synonymy: LeConte 1876: 374.
References: (tx) Blackman 1938b: 535; Chapuis 1869: 46, 1873: 254; Hopkins 1914: 128; LeConte 1876: 374; Lucas 1920: 572; Swaine 1909: 88, 1918a: 58.
- Thaumasiulus* Reitter 1913a: 39. Type-species: *Dendrosinus bouuairi* Reitter = *Rhopalopleurus rotundatus* Chapuis, monobasic. Synonymy: Eggers 1940h: 61.
References: (tx) Eggers 1940h: 61; Lucas 1920: 636; Reitter 1913a: 39.
- Prochramesus* Wood 1956c: 254. Type-species: *Prochramesus annectans* Wood, original designation. Synonymy: Schedl 1963h: 258.
References: (tx) Schedl 1963h: 258; Wood, S. L. 1956c: 254.
- Keys: Blackman 1938b: 536; Wood 1982b: 316.
References: (hb) Wood, S. L. 1986a: 52. (ds) Wood, S. L. 1986a: 52. (tx) Beal & Massey 1945:

- 58, 75; Blackman 1922: 48, 50, 1935b: 534–545, 1939: 86–88; Blandford 1897a: 142, 169; Blatchley & Leng 1916: 659–660; Bruck 1936a: 41, 123–125; Chamberlin 1939: 115, 135–139; Dodge 1938: 17; Eggers 1940a: 123–141; Hagedorn 1910a: 66, 1910d: 19; LeConte 1868: 168, 1876: 374; LeConte & Horn 1883: 522; Leng 1920: 338; Lucas 1920: 183; Rohwer 1919: 4–8; Schedl 1958f: 33–46, 1959m: 545–557, 1963h: 262; Swaine 1909: 88, 1918a: 40, 58; Wood, S. L. 1956c: 253, 1967b: 79–96, 1986a: 52.
- aberrans** Schedl 1951m: 90. Syntypes ♂; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection. Distribution: South America (Brazil). Notes: (1) Schedl 1979c: 8 (citation of holotype invalid). References: (tx) Numberg 1962: 226; Schedl 1951m: 90, 1979c: 8.
- acacicolens** Wood 1969b: 3. Holotype ♂; Finca La Pacifica, 4 km NW Canas, Guanacaste Prov., Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Acacia* sp. References: (hb) Wood, S. L. 1982b: 346. (ds) Wood, S. L. 1982b: 346. (tx) Wood, S. L. 1969b: 3, 1982b: 346.
- advena** Schedl 1951m: 91. Syntypes ♀; Brasilien, Bahia, Cachoeirinha-Una; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). Notes: (3) Schedl 1979c: 12 (citation of holotype invalid). References: (ds) Schedl 1972g: 42, 1976a: 51. (tx) Schedl 1951m: 91, 1979c: 12.
- annectens** (Wood) 1956c: 254 (*Prochramesus*). Holotype ♀; Nochistlan, Oaxaca, Mexico; SMUK, Lawrence. Distribution: North America (Hidalgo, Morelos, Oaxaca, Puebla in Mexico). Hosts: *Agave* sp., *Hechtia podantha*, *Nolena* sp. Notes: (1) A typographical error in the original description qualifies as a lapsus calami; consequently, the spelling is corrected here from *annectans* to *annectens*. Schedl 1963h: 262 (to *Chramesus*). References: (hb) Atkinson & Equihua 1985b: 231; Atkinson et al. 1986: 22; Burgos & Saucedo 1983: 67; Wood, S. L. 1982b: 327. (ds) Atkinson & Equihua 1985a: 79, 1985b: 231; Atkinson et al. 1986: 22; Burgos & Saucedo 1983: 67; Wood, S. L. 1982b: 327. (tx) Muskus, A. 1984: 60; de Ruetter 1970: 112; Schedl 1963h: 262; Wood, S. L. 1956c: 254, 1969b: 2; 1982b: 327.
- aquilus** Wood 1974a: 10. Holotype ♂; 13 km N Ocosingo, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas, Morelos in Mexico). References: (hb) Atkinson et al. 1986: 22, 50; Burgos & Saucedo 1983: 68. (ds) Atkinson et al. 1986: 22, 50; Burgos & Saucedo 1983: 68; Wood, S. L. 1982b: 333. (tx) McNamara 1984: 752; Wood, S. L. 1974a: 10, 1982b: 33.
- argentinensis** Schedl 1952a: 456. Syntypes 2 ♀; Argentina, Buenos Aires, Isla Martin Garcia; Schedl Collection in NHMW, Wien, and Viana Collection. Distribution: South America (Argentina). Notes: (3) Schedl 1979c: 24 (citation of holotype invalid). References: (hb) Viana 1964: 127. (ds) Viana 1964: 127. (tx) Schedl 1952a: 456, 1979c: 24.
- asperatus** Schaeffer 1908: 220. Lectotype ♀; Chiricahua Mts., Arizona [USA]; USNM, Washington, designated by Blackman 1935b: 539. Distribution: North America (Arizona, New Mexico in USA). Hosts: *Robinia neomexicana*. Notes: (3) Blackman 1935b: 538 (re-described). References: (cc) Furniss, R. L. & Carolin 1977: 346. (hb) Bright & Stark 1973: 52; Chamberlin 1939: 138; Furniss, R. L. & Carolin 1977: 346; Wood, S. L. 1982b: 337. (ds) Blackwelder 1939; Bright & Stark 1973: 52; Chamberlin 1939: 138; Furniss, R. L. & Carolin 1977: 346; Leng 1920: 338; Wickham 1896b: 170; Wood, S. L. 1982b: 337. (tx) Blackman 1935b: 536–539, 1943c: 391; Bruck 1936a: 123, 125; Chamberlin 1939: 138; Hagedorn 1910a: 67; Schaeffer 1908: 220; Wood, S. L. 1956c: 256, 1960b: 61, 1972c: 143, 1982b: 337.
- gibber** Blackman 1935b: 541. Holotype ♀; Clouderoft, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1972c: 143. References: (hb) Chamberlin 1939: 139. (ds) Blackwelder 1939; Chamberlin 1939: 139. (tx) Blackman 1935b: 541; Chamberlin 1939: 139; Wood, S. L. 1972c: 143.
- aspericollis** Schedl 1938i: 23. Syntypes ♂ ♀; Argentinien, Buenos Aires, Isla Martin Garcia; Schedl Collection in NHMW, Wien and Viana Collection. Figures: Schedl 1938i: 23. Distribution: South America (Argentina/ Santa Catarina in Brazil). Notes: (3) Schedl 1979c: 28 (citation of holotype invalid). References: (ay) Thomas, J. B. 1967. (hb) Bruch 1940: 19–28; Viana 1964: 127. (ds) Blackwelder 1947; Schedl 1967d: 2, 1973d: 153; Viana 1964: 127. (tx) Bruch 1940: 19–28; Schedl 1938i: 23, 1951b: 284, 1951m: 73, 92, 1958f: 34, 1979c: 28; Thomas, J. B. 1967.
- asperulus** Schedl 1978c: 294. Holotype ♀; Brasilien, Encruzilhada, 980 m, Bahia; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil).

- References: **(ds)** Schedl 1976a: 51. **(tx)** Schedl 1978c: 294.
- atkinsoni** Wood 1981: 123. Holotype ♂; Cerro Chipinque, Monterrey, Nuevo Leon, Mexico; Wood Collection.
Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Carya* sp., *Persea* sp.
References: **(hb)** Atkinson & Equihua 1985b: 231. **(ds)** Atkinson & Equihua 1985b: 231; Wood, S. L. 1982b: 335. **(tx)** Wood, S. L. 1981: 123, 1982b: 335.
- badius** Schedl 1951m: 88. Holotype ♂; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1951m: 88, 1979c: 32.
- bicolor** Wood 1967b: 91. Holotype ♂; La Lima, Cortez, Honduras; Wood Collection.
Distribution: North America (Honduras).
Hosts: *Cestrum scandens*.
References: **(hb)** Wood, S. L. 1982b: 345. **(ds)** Wood, S. L. 1982b: 345. **(tx)** Wood, S. L. 1967b: 91–92, 1982b: 345.
- bispinus** Wood 1982a: 225. Holotype ♂; Tenerife, Valle, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Passiflora mollissima*.
References: **(tx)** Wood, S. L. 1982a: 225.
- bolivianus** Schedl 1973a: 370. Holotype ♀?; Bolivien, Valle of Rio Abaho (La Paz), 3,200 m; NHMB, Budapest.
Distribution: South America (Bolivia).
References: **(tx)** Schedl 1973a: 370.
- brasiliensis** Nunberg 1962: 224. Holotype ♂; Serra do Urucum, Corumba, Estado de Mato Grosso, Brasilien; DZSA, Sao Paulo.
Figures: Nunberg 1962: 225.
Distribution: South America (Brazil).
Notes: (3) In his collection, Schedl treated this as a synonym of *corumbensis* [not examined by us].
References: **(tx)** Nunberg 1962: 224–225.
- cecropiae** Wood 1969b: 5. Holotype ♂; 4 km SW Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Cecropia* leaf petiole.
References: **(ds)** Wood, S. L. 1982b: 330. **(tx)** Wood, S. L. 1969b: 5, 1982b: 330.
- chapuisi** LeConte 1876: 375. Holotype ♀; Louisiana [USA]; MCZ, Cambridge.
Distribution: North America (San Luis Potosi, Veracruz in Mexico/Florida, E Kansas, Louisiana, Maryland, Mississippi, Pennsylvania, Texas in USA).
Hosts: *Celtis occidentalis*, *C.* sp., *Rhamnus capraefolia*, possibly *Robinia* sp.
Notes: (3) Blackman 1938b: 542 (redescribed).
References: **(cn)** Blackman 1950; Doane et al. 1936. **(hb)** Baker, W. L. 1972: 239; Blackman 1922b: 51–52, 1950; Chamberlin 1939: 137; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Wood, S. L. 1982b: 341. **(ds)** Atkinson 1989b: 327; Blackman 1922b: 51–52, 1950; Blackwelder 1939; Blatchley & Leng 1916: 660; Chamberlin 1939: 137; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Drooz 1985: 352; Hagedorn 1910d: 19; Henshaw 1882: 269, 1885: 149; Kirk 1970; Kleine 1912b: 175, 1914b: 385, 1934a: 132; Knull 1934: 211; Leng 1920: 338; Schwarz 1886: 54; Swaine 1909: 88; Wickham 1896b: 170; Wood, S. L. 1982b: 341. **(tx)** Atkinson 1989b: 327; Blackman 1922b: 51–52, 1938b: 542–543; Blatchley & Leng 1916: 660; Chamberlin 1939: 137; Hagedorn 1910a: 67; LeConte 1876: 375; Schwarz 1886: 54; Swaine 1909: 88; Wood, S. L. 1956c: 258, 1982b: 341.
- corniger** Wood 1974a: 8. Holotype ♂; Lago Catemaco, Veracruz, Mexico; CNCI, Ottawa.
Distribution: North America (Veracruz in Mexico).
References: **(ds)** Wood, S. L. 1982b: 329. **(tx)** McNamara 1984: 752; Wood, S. L. 1974a: 8, 1982b: 329.
- corumbensis** Eggers 1951: 145. Holotype ♀; Brasil (Corumba, im Staate Matto Grosso); Eggers Collection, in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Eggers 1951: 145; Nunberg 1962: 226; Schedl 1952a: 456, 1979c: 66.
- crenatus** Wood 1956c: 257. Holotype ♂; Veracruz, Mexico; SMUK, Lawrence.
Distribution: North America (Campeche, Oaxaca, Veracruz, Yucatan in Mexico).
Hosts: *Loucheocarpus castilloi*.
References: **(hb)** Wood, S. L. 1982b: 344. **(ds)** Atkinson & Equihua 1988: 88; Estrada & Atkinson 1988: 204; Wood, S. L. 1982b: 344. **(tx)** de Ruette 1970: 99; Schedl 1979c: 68; Wood, S. L. 1956c: 257, 1967b: 91, 1969b: 3, 1982b: 344.
- cylindricus** Schedl 1952a: 455. Holotype ♂; Argentina, Misiones, Dep. Concep., Sta. Maria; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
Notes: (3) Schedl 1976a: 65 (described female).
References: **(tx)** Schedl 1952a: 454–455, 1976a: 65, 1979c: 73.
- demissus** Wood 1967b: 93. Holotype ♂; Volcan Pacaya, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Tree seedling.
References: **(hb)** Wood, S. L. 1982b: 330. **(ds)** Wood, S. L. 1982b: 330. **(tx)** Wood, S. L. 1967b: 93–94, 1982b: 330.
- dentatus** Schaeffer 1908: 221. Lectotype ♀; Huachuca Mts., Arizona [USA]; USNM, Washington, designated by Blackman 1938b: 544.

Distribution: North America (Distrito Federal in Mexico/ Arizona, California in USA).

Hosts: *Quercus* sp.

References: (hb) Bright & Stark 1973: 53; Chamberlin 1939: 138; Wood, S. L. 1982b: 323. (ds) Atkinson & Equihua 1985a: 78; Blackwelder 1939; Bright & Stark 1973: 53; Chamberlin 1939: 138; Keen 1929a: 15; Kleine 1934a: 132; Wood, S. L. 1982b: 323. (tx) Blackman 1938b: 537, 543–544; Bruck 1936a: 123–125; Chamberlin 1939: 138; Eggers 1930a: 169; Hagedorn 1910a: 67; Keen 1929a: 15; Schaeffer 1908: 221; Wood, S. L. 1982b: 323.

barbatus Eggers 1930a: 169. Holotype ♂; Valle de Mexico; MNB, Berlin. Synonymy: Wood 1972e: 192.

References: (ds) Blackwelder 1947; Ferrer 1942. (tx) Eggers 1930a: 169; Schedl 1940a: 336; Wood, S. L. 1972e: 191–192.

denticulatus Wood 1971: 6. Holotype ♂; 20 km SW El Vigia, Merida, Venezuela; Wood Collection.

Distribution: North America (Costa Rica), South America (Venezuela).

Hosts: Bignoniaceae liana.

References: (ds) Wood, S. L. 1982b: 322. (tx) Wood, S. L. 1971: 6, 1982b: 322.

dentipes Schedl 1978c: 295. Holotype ♂; Brasilien, Nova Teutonia, 300–500 m, 27 degrees 11' Lat., 52 degrees 23' Long.; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1978c: 295.

deplanatus Eggers 1940a: 124. Holotype ♀; Guadeloupe (Gourbeyre); lost in shipment from Eggers to Washington, lectotype in MNHN, Paris, designated by Anderson & Anderson 1971: 11.

Distribution: Antilles Islands (Guadeloupe).

Notes: (3) Schedl 1963h: 263 (treated as a synonym of *rotundatus* [not examined by us]).

References: (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1940a: 124; Schedl 1963h: 263.

disparilis Wood 1974a: 9. Holotype ♂; Lagos de Colores, Chiapas, Mexico; CNCI, Ottawa.

Distribution: North America (Chiapas in Mexico).

Hosts: *Acacia* sp.

References: (ds) Wood, S. L. 1982b: 346. (tx) McNamara 1984: 752; Wood, S. L. 1974a: 9, 1982b: 346.

editus (Bright) 1972b: 1495 (*Prochramesus*). Holotype ♀; 20.5 km N Oaxaca, Oaxaca, Mexico; CNCI, Ottawa.

Figures: Bright 1972b: 1490.

Distribution: North America (Durango, Morelos, Oaxaca in Mexico).

Hosts: *Lupinus* sp.

References: (hb) Atkinson & Equihua 1985a: 78; Atkinson et al. 1986: 22. (ds) Atkinson & Equihua 1985a: 78; Atkinson et al. 1986: 22; Wood, S. L.

1982b: 327. (tx) Bright 1972b: 1490, 1495; McNamara 1977: 198; Wood, S. L. 1982b: 327.

erimaceus Schedl 1967d: 7. Holotype ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) Schedl 1978c: 295 (described female).

References: (tx) Schedl 1967d: 7, 1978c: 295, 1979c: 91.

eurapterus Schedl 1963d: 214. Holotype ♂; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Schedl 1973d: 153. (tx) Schedl 1963d: 214, 1973d: 168–169, 1979c: 93.

exilis Wood 1983a: 653. Holotype ♂; El Tuito, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: *Suaeda* sp.

References: (hb) Atkinson & Equihua 1985b: 231.

(ds) Atkinson & Equihua 1985b: 231. (tx) Wood, S. L. 1983a: 653.

exul Wood 1983a: 653. Holotype ♂; 9 km SE Totolapan, Oaxaca, Mexico; Wood Collection.

Distribution: North America (Jalisco, Oaxaca in Mexico).

Hosts: Leguminosae, *Croton pseudoniveus*, C. sp.

References: (ec) Equihua & Atkinson 1986: 625.

(hb) Equihua & Atkinson 1986: 625. (ds)

Equihua & Atkinson 1986: 625. (tx) Wood, S. L.

1983a: 653.

globosus Hagedorn 1909a: 742. Holotype, sex?; Argentinien, La Plata; Hamburg Museum, lost.

Distribution: South America (Argentina).

References: (hb) Bruch 1940; Viana 1964: 127.

(ds) Blackwelder 1947; Bruch 1914a; Hagedorn

1910d: 19; Kleine 1912b: 175, 1914b: 333; Schedl

1978c: 291, 1979e: 57; Viana 1964: 127. (tx)

Bruch 1940; Hagedorn 1909a: 742, 1910a: 67;

Schedl 1938i: 23, 1951h: 284, 1952a: 445, 1958f:

34, 1961i: 223.

gracilis Wood 1969b: 2. Holotype ♂; University of Costa Rica Campus, San Jose, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica/Panama).

Hosts: *Bambusa vulgaris*.

References: (hb) Wood, S. L. 1982b: 328. (ds)

Wood, S. L. 1982b: 328. (tx) Wood, S. L. 1969b:

2, 1982b: 328.

granulatus (Eggers) 1928c: 94 (*Pagiocerus*). Holotype, sex?; Ostbolivien; Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia).

Notes: (1) Schedl 1963f: 60 (to *Chramesus*).

References: (ds) Blackwelder 1947. (tx) Eggers

1928c: 94; Schedl 1963f: 60.

granulipennis Schedl 1959m: 547. Holotype ♂; Rondon [Santa Catarina, Brazil]; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1959m: 547, 1979c: 111.

hicoriae LeConte 1868: 168. Holotype ♂; Pennsylvania [USA]; MCZ, Cambridge.

Figures: Bright 1976d: 196, 201, 20S, Dillon & Dillon 1961: 80L.

Distribution: North America (Ontario, Quebec in Canada/ Connecticut, Delaware, District of Columbia, Georgia, Illinois, Iowa, Kansas, Maryland, Massachusetts, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Vermont, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Carya* spp.

Notes: (3) Blackman 1938b: 537 (re-described).

References: (ay) Hopkins 1894g; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966. (bv)

Rolin & Kearby 1975b; Turnbow & Franklin 1980.

(cn) Blackman 1950; Chamberlin 1924; Davis

1954: 18; Doane et al. 1936; Donaldson 1966; Felt

1906: 448, 1923: 90, 1926: 247, 274, 1930a: 247,

274; Felt & Rankin 1932: 255; Herrick 1935: 122,

374; Levison 1909: 364; Lindquist, O. H. & Syme

1981; Luggler 1899a: 316; Packard 1890: 296;

Rhoads 1924: 143–150; Schwartz 1975b: 16, 1979:

208, 1980: 207, 1982: 212; Smith, J. B. 1893: 537,

1900: 364; Swaine 1918a: 58; Webster 1899: 68–

73. (ce) Burks 1979: 791; Bushing 1965: 458;

Chittenden 1901; Felt 1906: 448; Pierce 1908:

385; Swaine 1925c: 263; Thompson, W. R. 1943:

31. (hb) Baker, W. L. 1972: 239; Beal & Massey

1945: 75–76; Blackman 1950; Bright 1976d: 94;

Chamberlin 1939: 136; Deyrup & Atkinson 1987a:

64; Dillon & Dillon 1961: 807; Doane et al. 1936;

Felt 1906: 448, 1926: 247, 274, 1930a: 247, 274;

Felt & Rankin 1932: 255; Herrick 1935: 122, 274;

Hopkins 1894g; Luggler 1899a: 316; Morstatt

1924: 28; Packard 1890: 296; Pierce 1907: 293;

Riley 1892b: 268; Simeone 1964: 707–708; Smith,

J. B. 1890b: 53; Swaine 1907: 194, 1918a: 58;

Wood, S. L. 1982b: 335. (ds) Anonymous 1926c:

515; Beal & Massey 1945: 75–76; Beaulne 1941,

1956; Blackman 1922b: 50–51, 1924, 1950; Black-

welder 1939, 1947; Blandford 1897a; Blatchley &

Leng 1916: 660; Bright 1976d: 94; Britton 1920a;

Chamberlin 1939: 136; Chittenden 1898: 78;

Cockerell et al. 1907; Deyrup 1981b: 4; Deyrup &

Atkinson 1987a: 64; Dodge 1938; Drooz 1985:

352; Felt 1923: 90, 1926: 247, 274, 1930a: 247,

274; Felt & Rankin 1932: 255; Hagedorn 1910d:

19; Hamilton 1891: 65, 1892: 268, 1895a: 378;

Harrington 1884a; Henshaw 1882: 269, 1885: 149;

Hopkins 1893a: 140, 1893b: 212; Hubbard &

Schwarz 1878a: 666; Kirk 1970; Kleine 1912b:

175, 1914b: 394, 1934a: 132; Leng 1920: 338;

Leonard 1928: 515; Lindquist, O. H. & Syme

1981; Schwarz 1886: 54; Smith, J. B. 1890b: 53,

1900: 364, 1910: 403; Swaine 1909: 88; Turnbow

& Franklin 1980; Ulke 1902: 56; Wood, S. L. 1982b:

335. (tx) Beal & Massey 1945: 75–76; Blackman

1938b: 535–538, 1943c: 391; Blandford 1897a: 170;

Blatchley & Leng 1916: 660; Bright 1976d: 94,

196, 201, 20S; Bruck 1936: 124; Chamberlin 1939:

136; Dillon & Dillon 1961: 80L, 807; Dodge 1938:

15–24; Eggers 1951: 145; Gemminger & Harold

1872: 2677; Hagedorn 1910a: 67; Hamilton 1892;

Hopkins 1894: 280, 1914: 118; Jacques 1951: 349;

LeConte 1868: 168, 1876: 375; Lindquist, O. H.

& Syme 1981; Lucas 1920: 183; Schaeffer 1908:

220; Schedl 1938i: 23; Schwarz 1886: 54; Swaine

1909: 88, 1918a: 58; Thomas, J. B. 1967; Thomas,

J. B. & Krywienczyk 1966; Wood, S. L. 1982b:

335. (ms) Lucas 1920: 183; Swaine 1907: 194,

1925c: 263.

lecontei Chapuis 1869: 46 (*Rhopalopleurus*).

Lectotype ♂; Amerique Boreale; IRSNB,

Brussels, designated by Wood 1982b: 335.

Synonymy: LeConte 1876: 375.

References: (hb) Chamberlin 1939: 137. (ds)

Chamberlin 1939: 137; Leng 1920: 338;

Swaine 1909: 88. (tx) Blackman 1938b: 537;

Chapuis 1869: 46–47, 1873: 255; Chamberlin

1939: 137; Gemminger & Harold 1872: 2676;

LeConte 1876: 375; Swaine 1909: 88, 1918a:

58; Wood, S. L. 1982b: 335.

hylurgoides Schedl 1963d: 214. Syntypes ♀; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) Schedl 1979c: 120 (citation of holotype invalid).

References: (tx) Schedl 1963d: 214, 1979c: 120.

impolitus Wood 1971: 6. Holotype ♂; Campamento Rio Grande, 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Rosa de Montana (prob. *Brownia* sp.).

References: (tx) Wood, S. L. 1971: 6.

imporcatus Wood 1971: 5. Holotype ♂; 7 km NW Socopo, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Palito de Cruz.

References: (tx) Wood, S. L. 1971: 5–6.

incomptus Wood 1967b: 90. Holotype ♂; Morelia, Michoacan, Mexico; Wood Collection.

Distribution: North America (Michoacan in Mexico).

Hosts: *Clematis* sp.

References: (hb) Wood, S. L. 1982b: 322. (ds)

Wood, S. L. 1982b: 322. (tx) Wood, S. L. 1967b:

90, 1982b: 322.

ingens Wood 1969b: 3. Holotype ♂; Tapanti, Cartago Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Liana.

- References: **(hb)** Wood, S. L. 1952b: 325. **(ds)** Wood, S. L. 1952b: 325. **(tx)** McNamara 1977: 194; Wood, S. L. 1969b: 3, 1952b: 325.
- macrocornis** Wood 1971: 3. Holotype ♂; Merida, Yucatan, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Bambusia vulgaris*.
References: **(tx)** Wood, S. L. 1971: 3.
- marginatus** Wood 1974a: 11. Holotype ♂; Mexico: USNM, Washington.
Distribution: North America (Guerrero, Morelos in Mexico).
Hosts: *Crotolaria* sp., *Dalea lasiostachys*, *Desmodium cogantii*.
References: **(hb)** Atkinson et al. 1986: 22; Burgos & Saucedo 1983: 69. **(ds)** Atkinson & Equihua 1988: 88; Atkinson et al. 1986: 22, 50; Burgos & Saucedo 1983: 69; Wood, S. L. 1982b: 337. **(tx)** Wood, S. L. 1974a: 11, 1982b: 337.
- microporosus** Wood 1974a: 10. Holotype ♂; El Sumidero, 24 km N Tuxtla Gutierrez, Chiapas, Mexico; CNCI, Ottawa.
Distribution: North America (Chiapas in Mexico).
References: **(ds)** Wood, S. L. 1982b: 343. **(tx)** McNamara 1984: 752; Wood, S. L. 1974a: 10, 1982b: 343.
- mimosae** Blackman 1938b: 544. Holotype ♀; Brownsville, Texas [USA]; USNM, Washington.
Distribution: North America (Nuevo Leon, Tamaulipas in Mexico/ Texas in USA).
Hosts: *Cassia lindheimeriana*, *Leucaena pulverulenta*, *Mimosa* sp.
References: **(hb)** Chamberlin 1939: 139; Wood, S. L. 1952b: 326. **(ds)** Blackwelder 1939, 1947; Chamberlin 1939: 139; Ferrer 1942; Wood, S. L. 1952b: 326. **(tx)** Blackman 1938b: 544; Chamberlin 1939: 139; McNamara 1984: 753; Schedl 1940a: 337; Wood, S. L. 1952b: 326.
- minor** Eggers 1951: 144. Lectotype ♂; Brasil (Corumba, im Staate Mato Grosso); USNM, Washington, designated by Anderson & Anderson 1971: 20.
Distribution: South America (Brazil).
References: **(tx)** Anderson, W. H. & Anderson 1971: 20; Eggers 1951: 144; Schedl 1951m: 88, 1962r: 97, 1979c: 154.
- minulus** Wood 1969c: 126. Holotype ♀; La Ceiba, Honduras; Wood Collection.
Distribution: North America (Honduras/ Oaxaca in Mexico).
Hosts: Leguminosae.
References: **(ds)** Atkinson & Equihua 1986a: 420; Wood, S. L. 1952b: 345. **(tx)** Wood, S. L. 1969c: 126, 1982b: 345.
- neglectus** Schedl 1978c: 296. Holotype, ♀; Brasilien, Nova Teutonia, Santa Catarina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1978c: 296.
- opacicollis** Eggers 1940a: 124. Holotype, sex?; Guadeloupe (Environ de Trois-Rivieres); MNHN, Paris.
Distribution: Antilles Islands (Guadeloupe).
References: **(ds)** Bright 1981c: 153, 1985c: 171. **(tx)** Bright 1972d: 35, 74, 1985c: 171, 177; Eggers 1940a: 124; Schedl 1979c: 175.
- opacicollis nitidus** Eggers 1940a: 125. Holotype, sex?; Insel Martinique (St. Pierre); Flechtiana Collection, not located.
References: **(tx)** Eggers 1940a: 124-125; Schedl 1979c: 179.
- brevisetosus** Bright 1972d: 40. Holotype, ♂; Whitefield Hall, St. Thomas Parish, Jamaica; CNCI, Ottawa. Synonymy: Bright 1985c: 177.
References: **(ds)** Bright 1972d: 40, 1985c: 177; McNamara 1977: 194.
- orimocensis** Wood 1971d: 4. Holotype ♂; Campamento Rio Grande, 30 km E Palmar, Bolivar, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: apparently *Celtis iguanae*.
References: **(hb)** Wood, S. L. 1971d: 4. **(tx)** Wood, S. L. 1971d: 4.
- ovalis** Schedl 1952a: 454. Holotype ♀; not given with description, added by Schedl (1979c: 181) as: Loreto Misiones, Rep. Argentina; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
References: **(tx)** Schedl 1952a: 454, 1979c: 181.
- parcus** Wood 1971: 6. Holotype ♂; Rancho Grande, Aragua, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Tabebuia* sp.
References: **(hb)** Beaver 1973b; Wood, S. L. 1971: 6. **(ds)** Beaver 1973b. **(tx)** Wood, S. L. 1971: 6.
- peniculus** Wood 1971: 8. Holotype ♂; 30 km N Canon Zancudo, Zulia, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Liana.
References: **(tx)** Wood, S. L. 1971: 8.
- periosus** Wood 1969b: 5. Holotype ♂; 5 km W Jaltipan, Veracruz, Mexico; Wood Collection.
Distribution: North America (Veracruz in Mexico).
Hosts: probably *Lonchocarpus* sp.
References: **(hb)** Wood, S. L. 1952b: 342. **(tx)** Wood, S. L. 1969b: 5, 1982b: 342.
- peruanus** Schedl 1961i: 223. Holotype ♂; Peru, Unibamba, Ollantaitambo, Dept. Cruza; Schedl Collection in NHMW, Wien.
Distribution: South America (Peru).
References: **(ds)** Schedl 1960a: 77. **(tx)** Schedl 1960a: 77, 1961i: 223, 1979c: 191.
- phloeosinites** Schedl 1951m: 89. Syntypes ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.

- Distribution: South America (Brazil).
Notes: (3) Schedl 1979c: 193 (citation of holotype invalid).
References: (tx) Schedl 1951m: 89, 1979c: 192.
- phloeotriboides** Schedl 1958f: 41. Holotype, sex?; Argentinien: Gran Chaco; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
References: (tx) Schedl 1958f: 41, 1979c: 193.
- priscus** Wood 1971: 7. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Phoradendron* sp.
References: (tx) Wood, S. L. 1971: 7.
- pumilus** (Chapuis) 1869: 47 (*Rhopalopleurus*). Holotype ♂; Teapa, Tabasco, Mexico; IRSNB, Brussels.
Figures: Atkinson et al. 1986: 24, 51.
Distribution: North America (Costa Rica/ Guatemala/ Honduras/ Chiapas, Jalisco, Michoacan, Morelos, Nayarit, Tabasco in Mexico/ Panama).
Hosts: *Canavalia marivendbergi*, *C. villosa*, *Phaseolus* sp.
Notes: (1) Schwarz 1886: 54 (to *Chramesus*).
References: (cc) Wichmann 1955a: 107. (hb) Atkinson et al. 1986: 23, 50; Burgos & Saucedo 1983: 68; Wood, S. L. 1982b: 332. (ds) Atkinson & Equihua 1988: 88; Atkinson et al. 1986: 23, 50; Blackwelder 1947; Blandford 1897a: 170; Burgos & Saucedo 1983: 68; Ferrer 1942; Hagedorn 1910d: 19; Henshaw 1885: 149; Kleine 1912b: 175, 1914b: 348; Schwarz 1886: 54; Wichmann 1955a: 107; Wood, S. L. 1982b: 332. (tx) Atkinson et al. 1986: 24, 51; Blandford 1897a: 170; Burgos & Saucedo 1983: 68; Chapuis 1869: 47, 1873: 255; Gemminger & Harold 1872: 2676; Hagedorn 1910a: 67; Schedl 1940a: 337; Schwarz 1886: 54; Wood, S. L. 1972c: 143, 1982b: 332.
- tumidulus** Blandford 1897a: 170. Lectotype ♀; Las Mercedes, Guatemala; BMNH, London, designated by Wood 1972c: 143. Synonymy: Wood 1972c: 143.
References: (cn) Downes & Williams 1950. (ds) Blackwelder 1947; Hagedorn 1910d: 19; Kleine 1912b: 175, 1914b: 358. (tx) Blandford 1897a: 170; Hagedorn 1910a: 67; Schaeffer 1908: 221; Wood, S. L. 1967b: 93, 1972c: 143.
- panamensis** Blackman 1943c: 391. Holotype ♀; Canal Zone, Panama; USNM, Washington. Synonymy: Wood 1972c: 143.
References: (ds) Blackwelder 1947. (tx) Blackman 1943c: 391; Wood, S. L. 1972c: 143.
- mexicanus** Schedl 1948f: 264. Holotype ♀; Comitán, Chiapas; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972c: 143.
References: (tx) Schedl 1948f: 264, 1979c: 152; Wood, S. L. 1972c: 143.
- punctatus** Wood 1967b: 94. Holotype ♂; Volcan Pacaya, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Liana, possibly *Canavalia* sp.
References: (hb) Wood, S. L. 1982b: 339. (ds) Wood, S. L. 1982b: 339. (tx) Wood, S. L. 1967b: 94, 1982b: 339.
- quadridens** Wood 1956c: 256. Holotype ♂; Atlixco, Puebla, Mexico; SMUK, Lawrence.
Distribution: North America (Puebla in Mexico).
Hosts: Leguminosae liana.
References: (hb) Wood, S. L. 1982b: 331. (ds) Wood, S. L. 1982b: 331. (tx) de Ruelle 1970: 99; Wood, S. L. 1956c: 256, 1982b: 331.
- robustus** Schedl 1948f: 264. Holotype ♂; Cuba; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Cuba).
References: (ds) Bright 1985c: 171. (tx) Bright 1985c: 171; Schedl 1948f: 264, 1979c: 212.
- rotundatus** (Chapuis) 1869: 47 (*Rhopalopleurus*). Syntypes 3 ♂; Guadeloupe; IRSNB, Brussels.
Distribution: Antilles Islands (Guadeloupe), North America (Veracruz in Mexico).
Hosts: *Inga vera*.
Notes: (3) Schedl 1963h: 263 treated *deplanatus* as a synonym of *rotundatus* [not examined by us].
References: (cc) Wichmann 1955a: 96. (ds) Blackwelder 1947; Bright 1981c: 153, 1982b: 164, 1985c: 171; Ferrer 1942; Fleutiaux & Salle 1890: 457; Hagedorn 1910d: 19; Kleine 1912b: 175; Wichmann 1955a: 96. (tx) Bright 1985c: 171; Chapuis 1869: 47, 1873: 255; Eggers 1940a: 124, 1940h: 61; Gemminger & Harold 1872: 2677; Hagedorn 1910a: 67; Schedl 1940a: 337, 1963h: 263.
- bonnairei** Reitter 1894c: 45 (*Dendrosimus*). Syntypes, sex?; intercepted at Marseille, France; NHMB, Budapest. Synonymy: Eggers 1940h: 61.
References: (ay) Marcu 1933a: 34. (ds) Hagedorn 1910d: 18; Heyden, Reitter, & Weise 1906: 709; Kleine 1912b: 174. (tx) Eggers 1940h: 61; Hagedorn 1910a: 52; Reitter 1894c: 45, 1913a: 39; Schedl 1934f: 1634, 1979c: 43; Wichmann 1913a: 144.
- securus** Wood 1983a: 653. Holotype ♂; Estacion de Biología, Chemela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: Leguminosae, *Loucheocarpus* sp.
References: (cc) Equihua & Atkinson 1986: 626. (hb) Equihua & Atkinson 1986: 626. (ds) Equihua & Atkinson 1986: 626. (tx) Wood, S. L. 1983a: 653.
- secus** Wood 1969b: 4. Holotype ♂; Laguna Santa Maria, Nayarit, Mexico; Wood Collection.
Distribution: North America (Nayarit, Oaxaca in Mexico).
Hosts: Liana, and *Acacia* sp.
References: (hb) Wood, S. L. 1982b: 325. (ds)

- Wood, S. L. 1952b: 325. (tx) Wood, S. L. 1969b: 4, 1982b: 325.
- setiger** Schedl 1951m: 92. Syntypes ♂ ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (3) Schedl 1979c: 226 (citation of holotype invalid).
References: (ds) Schedl 1972g: 42. (tx) Schedl 1951m: 91–92, 1979c: 226.
- setosus** Wood 1960b: 61. Holotype ♂; Madera Canyon, Santa Cruz Co., Arizona [USA]; Wood Collection.
Distribution: North America (Chihuahua in Mexico/ Arizona in USA).
Hosts: *Rhamnus betulacfolia*, *Morus alba*.
References: (ds) Wood, S. L. 1982b: 337. (tx) Wood, S. L. 1960b: 61, 1982b: 337.
- signatipennis** Schedl 1962r: 97. Holotype ♀; Hamburgfarm on Rio Reventazon, Limon, Costa Rica; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
References: (hb) Wood, S. L. 1982b: 333. (ds) Wood, S. L. 1982b: 333. (tx) Schedl 1962r: 97, 1979c: 228; Wood, S. L. 1982b: 333.
- simplicis** Wood 1971: 3. Holotype ♂; La Carbonera Experimental Forest 50 km NW Merida, Merida, Venezuela.
Distribution: South America (Venezuela).
Hosts: Native bamboo.
References: (tx) Wood, S. L. 1971: 3.
- solicitatus** Wood 1971: 8. Holotype ♂; Campamento Rio Grande, 30 km E Palmar, Bolivar, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Liana.
References: (tx) Wood, S. L. 1971: 8.
- spinus** Brethes 1921: 167. Syntypes, sex?; La Plata, Argentina; not located.
Distribution: South America (Argentina/ Brazil).
Hosts: *Acacia cavenia*.
References: (hb) Viana 1964: 127. (ds) Schedl 1973d: 153; Viana 1964: 127. (tx) Brethes 1921: 167; Schedl 1952a: 446.
- cristatus** Schedl 1963d: 213. Syntypes ♀; Brasilien, Santa Catarina, Nova Teutonia, 300 bis 500 m; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Notes: (3) Schedl 1979c: 70 (citation of holotype invalid). Schedl note in his collection treats this as a synonym of *spinus* Brethes.
References: (ds) Escalera 1919. (tx) de Ruetten 1970: 99; Schedl 1963d: 213, 1979c: 69.
- striatus** Eggers 1943a: 344. Holotype ♀?; Bolivien (Coehabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: (tx) Anderson, W. H. & Anderson 1971: 31; Eggers 1943a: 344; de Ruetten 1970: 99.
- strigatus** Wood 1960b: 62. Holotype ♂; Atlitico, Puebla, Mexico; Wood Collection, automatic.
Distribution: North America (Morelos, Puebla in Mexico).
Hosts: *Acacia* sp.
References: (hb) Atkinson et al. 1986: 23, 50; Wood, S. L. 1982b: 339. (ds) Atkinson et al. 1986: 23, 50; Wood, S. L. 1982b: 339. (tx) Wood, S. L. 1960b: 62, 1982b: 339.
- striatus** Wood 1956c: 256. Holotype ♂; Atlitico, Puebla, Mexico; Wood Collection, preoccupied by Eggers 1943a: 344.
References: (tx) Wood, S. L. 1956c: 256, 1960b: 62.
- strigilis** Wood 1971: 4. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
References: (tx) Wood, S. L. 1971: 4–5.
- subopacus** Schaeffer 1908: 221. Lectotype ♀; Huachuca Mts., Arizona [USA]; USNM, Washington, designated by Blackman 1935b: 541.
Distribution: North America (Honduras/ Colima, Jalisco, Oaxaca, Tamaulipas in Mexico/ Arizona, Louisiana, Texas in USA).
Hosts: *Celtis iguanaea*, *C. sp.*, *Condalia obtusifolia*, *C. sp.*
References: (ec) Equihua & Atkinson 1986: 626. (hb) Chamberlin 1939: 138; Equihua & Atkinson 1986: 626; Wood, S. L. 1982b: 334. (ds) Atkinson & Equihua 1985b: 231; Chamberlin 1939: 138; Drooz 1985: 352; Equihua & Atkinson 1986: 626; Leng 1920: 338; Wood, S. L. 1982b: 334. (tx) Blackman 1935b: 536, 539–541; Bruck 1936a: 123–124; Chamberlin 1939: 138; Hagedorn 1910a: 67; Schaeffer 1908: 221; Schedl 1945f: 264; Wood, S. L. 1956c: 255, 1972e: 143, 1982b: 334.
- canus** Blackman 1935b: 541. Holotype ♀; Tallulah, Louisiana [USA]; USNM, Washington. Synonymy: Wood 1972c: 143.
References: (hb) Chamberlin 1939: 138. (ds) Blackwelder 1942; Chamberlin 1939: 138. (tx) Blackman 1935b: 541; Chamberlin 1939: 138; Wood, S. L. 1972c: 143.
- subtuberculatus** Eggers 1951: 146. Holotype ♂; Colombia (Hochland von Bogota); Eggers Collection, in NHMW, Wien.
Distribution: South America (Colombia).
References: (tx) Eggers 1951: 146; Schedl 1951: 146, 1979c: 245.
- tibialis** Wood 1983a: 654. Holotype ♂; Urpanapan, Veracruz, Mexico; Wood Collection.
Distribution: North America (Veracruz in Mexico).
Hosts: *Ohmeca recta*.
References: (hb) Atkinson & Equihua 1986a: 420. (ds) Atkinson & Equihua 1986a: 420. (tx) Wood, S. L. 1983a: 654.

- tuberculatus** (Chapuis) 1869: 47 (*Rhopalopleurus*). Syntypes 2 ♂; Nouvelle-Grenade; IRSNB, Brussels.
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947; Hagedorn 1910d: 19; Kleine 1912b: 175, 1914b: 341. (tx) Chapuis 1869: 47, 1873: 255; Eggers 1951: 146; Gemminger & Harold 1872: 2677; Hagedorn 1910a: 67; Hopkins 1914: 128.
- unicornis** Wood 1969b: 4. Holotype ♂; Laguna Santa Maria, Nayarit, Mexico; Wood Collection.
Distribution: North America (Colima, Jalisco, Nayarit in Mexico).
Hosts: *Mimosa ervendbergi*.
References: (hb) Wood, S. L. 1982b: 323. (ds) Atkinson & Equihua 1988: 88; Wood, S. L. 1982b: 323. (tx) McNamara 1977: 194; Wood, S. L. 1969b: 4, 1982b: 323.
- variabilis** Wood 1974a: 9. Holotype ♂; Lago Catemaco, Veracruz, Mexico; CNCI, Ottawa.
Distribution: North America (Veracruz in Mexico).
References: (ds) Wood, S. L. 1982b: 343. (tx) McNamara 1984: 753; Wood, S. L. 1974a: 9, 1982b: 343.
- variegatus** Eggers 1943a: 345. Holotype ♀?; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Eggers 1943a: 345; Schedl 1979c: 264.
- varius** Wood 1969b: 4. Holotype ♂; 27 km N Ixmiquilpan, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Acacia* sp.
References: (hb) Wood, S. L. 1982b: 325. (ds) Wood, S. L. 1982b: 325. (tx) Wood, S. L. 1969b: 4, 1982b: 325.
- vastus** Wood 1967b: 92. Holotype ♂; Cerro Punta, Chiriqui, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: *Inga* sp.
References: (hb) Wood, S. L. 1982b: 340. (ds) Wood, S. L. 1982b: 340. (tx) Wood, S. L. 1967b: 92, 1982b: 340.
- vinealis** Wood 1971: 7. Holotype ♂; 30 km N Canon Zancudo, Zulia, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Liana.
References: (tx) Wood, S. L. 1971: 7.
- vitiosus** Wood 1969c: 125. Holotype ♂; Rosamorada, Nayarit, Mexico; Wood Collection.
Distribution: North America (Jalisco, Nayarit in Mexico).
Hosts: *Inga paterno*, *Lonchocarpus constrictus*, *L. guatemalensis*.
References: (ec) Equihua & Atkinson 1986: 626. (hb) Equihua & Atkinson 1986: 626; Wood, S. L. 1982b: 340. (ds) Equihua & Atkinson 1986: 626; Wood, S. L. 1982b: 340. (tx) Wood, S. L. 1969c: 125, 1982b: 340.
- visteriae** Wood 1974a: 11. Holotype ♂; Bay St. Louis, Mississippi [USA]; USNM, Washington.
Distribution: North America (Mississippi in USA).
Hosts: *Wisteria* sp.
Notes: (3) Atkinson 1989: 327 treated this as a synonym of *chapuisii*, apparently on the basis of female characters; males differ strikingly.
References: (ds) Drooz 1985: 352; Wood, S. L. 1982b: 341. (tx) Atkinson 1989: 327; Wood, S. L. 1974a: 11, 1982b: 341.
- xalapae** Atkinson 1989: 58. Holotype ♂; Mexico: Veracruz, Xalapa; USNM, Washington.
Distribution: North America (Veracruz in Mexico).
References: (tx) Atkinson 1989: 58.
- xylophagus** Wood 1956c: 255. Holotype ♂; Rosario, Sinaloa, Mexico; SMUK, Lawrence.
Distribution: North America (Nayarit, Sinaloa in Mexico).
Hosts: *Inga paterno*.
References: (hb) Wood, S. L. 1982b: 344. (ds) Wood, S. L. 1982b: 344. (tx) de Ruelle 1970: 99; Wood, S. L. 1956c: 255, 1982b: 344.

Tribe Hypoborini Nusslin

Hypoborinae

References: Nusslin 1911: 376, 429.

Hypoborina

References: Balachowsky 1949a: 150.

Hypoborini

References: Wood, S. L. 1975a: 112, 1982b: 348–368, 1986: 53.

Genus *Zygophloeus* Schedl

ZYGOPHLOEUS SCHEDL 1958i: 215. Type-species:

Zygophloeus australis Schedl, monobasic.

References: (hb) Wood, S. L. 1986a: 54. (ds)

Wood, S. L. 1986a: 54. (tx) Schedl 1958i: 215;

Wood, S. L. 1986a: 54.

australis Schedl 1958i: 215. Holotype, sex?: New

South Wales, Lisarow; CSIRO, Canberra.

Distribution: Australia (New South Wales).

Hosts: *Acacia decurrens*.

References: (tx) Schedl 1958i: 214–215.

Genus *Glochiphorus* Strohmeier

GLOCHIPHORUS STROHMEIER 1910e: 126. Type-

species: *Glochiphorus globosus* Strohmeier, monobasic.

References: (ds) Schedl 1977b: 30. (hb) Wood,

S. L. 1986a: 54. (ds) Wood, S. L. 1986a: 54. (tx)

Hopkins 1914: 122, 133, 1915c: 226; Lucas 1920:

303; Schedl 1963h: 263, 1977b: 30; Strohmeier

1910e: 126; Wood, S. L. 1986a: 54.

alienus Schedl 1982: 283. Holotype, sex?: Transvaal;

Transvaal Museum, Pretoria.

Distribution: Africa (South Africa).

References: (tx) Schedl 1982: 283.

globosus Strohmeier 1910e: 127. Syntypes ♂ ♀;

Madagascar insula; Strohmeier Collection.

Figures: Strohmeier 1910e: 130 (mouthparts, antenna, leg).

Distribution: Madagascar.

References: (ds) Hagedorn 1913: 253; Kleine

1912b: 169, 1914b: 325; Schedl 1977b: 30. (tx)

Hopkins 1914: 122, 133; Lucas 1920: 303; Schedl

1953d: 68, 1977b: 30, 1979c: 106; Strohmeier

1910e: 127. (ms) Lucas 1920: 303.

Genus *Chaetophloeus* LeConte

CHAETOPHLOEUS LECONTE 1876: 382. Type-species:

Hylesinus hystrix LeConte, monobasic.

Renocis Casey 1886: 257. Type-species: *Renocis*

heterodoxus Casey, monobasic. Synonymy: Schedl 1963h: 263.

References: (tx) Blackman 1940b: 373–401;

Bruck 1936a: 41, 119–120; Casey 1886: 257;

Chamberlin 1939: 114, 124–125, 1958: 52,

58–60; Hagedorn 1910a: 63, 1910d: 13; Leng

1920: 338; Lucas 1920: 565; Nunberg 1955:

208; Schedl 1940a: 337, 1960h: 5, 1963h: 263;

Swaine 1909: 144, 1918a: 39.

Pseudocryphalus Swaine 1917: 20. Type-species:

Pseudocryphalus brittaini Swaine = *Renocis*

heterodoxus Casey, original designation. Syn-

onymy: Blackman 1940b: 374.

References: (tx) Blackman 1940b: 376; Bruck

1936a: 41, 121–123; Chamberlin 1939: 115,

133–134; Dodge 1935: 24; Eggers 1931c: 185;

Leng 1920: 338; Swaine 1917: 20, 1918a: 40,

57–58.

Keys: Blackman 1940b: 376, Wood 1982b: 349.

References: (hb) Wood, S. L. 1986a: 54. (ds)

Wood, S. L. 1982b: 349, 1986a: 54. (tx) Arnett

1960: 1042, 1968: 1042; Bright 1972d: 34; Bright

& Stark 1973: 53; Bruck 1936a: 42; Chamberlin

1939: 182–183; Hagedorn 1910a: 66, 1910d: 19;

LeConte 1876: 382; LeConte & Horn 1983: 523;

Leng 1920: 238; Lucas 1920: 175; Schedl 1960g,

1960h, 1963h: 263, 1965e: 361; Wood, S. L.

1967b: 78–97, 1982b: 349, 1986a: 54.

andinus Wood 1971: 9. Holotype ♂; 3 km E

Laguillas, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Mimosa* sp., and a liana.

References: (tx) Wood, S. L. 1971: 9.

atlanticus Bright 1981c: 158. Holotype ♂?; Man-o-

war Cay, nr. Abaco, Bahamas; CNCI, Ottawa.

Distribution: Antilles Islands (Bahama Islands).

References: (ds) Bright 1985c: 171. (tx) Bright

1981c: 158, 1985c: 171.

braziliensis (Blackman) 1940b: 398 (*Renocis*).

Holotype ♀; Ceara, Brazil; USNM, Washington.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947. (tx) Blackman

1940b: 398, 1943c: 390; Wood, S. L. 1969b: 8.

chapini (Blackman) 1943c: 390 (*Renocis*). Holo-

type ♀; Ocho Rios, Jamaica; USNM, Washington.

Distribution: Antilles Islands (Jamaica).

References: (ds) Blackwelder 1947; Bright 1972d:

34, 1985c: 171. (tx) Blackman 1943c: 390–391;

Bright 1972d: 34, 1985c: 171.

confinis Wood 1983a: 652. Holotype ♂; Cuerna-

vaca, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: *Phoradendron* sp.

References: (hb) Atkinson et al. 1986: 52. (ds)

Atkinson et al. 1986: 52. (tx) Wood, S. L. 1983a:

652.

coronatus (Chapuis) 1869: 39 (*Phlocosinus*). Holo-

type ♂; Yucatan, [Mexico]; IRSNB, Brussels.

Distribution: North America (Yucatan in Mexico).

Notes: (1) Wood 1972c: 142, 1982b: 357 (to

Chaetophloeus). (3) Blackman 1942a: 357 (origi-

nal description quoted).

References: (hb) Zocchi 1956: 140–141. (ds)

Blackwelder 1947; Blandford 1897a; Ferrer 1942;

Hagedorn 1910d: 26; Kleine 1912b: 183, 1914b:

348; Razzauti 1956: 141; Wood, S. L. 1982b: 357.

(tx) Blackman 1942c: 397–474; Blandford 1897a;

Chapuis 1869: 39, 1873: 247; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 65; Schedl 1940a: 337; Wood, S. L. 1972c: 142, 1982b: 357; Zocchi 1957: 140–141.

cubensis Bright 1981c: 159. Holotype ♂[?]; Mapor, Las Villas, Cuba; CNCI, Ottawa.

Distribution: Antilles Islands (Cuba).

References: (ds) Bright 1985c: 171. (tx) Bright 1981c: 159, 1985c: 171.

fasciatus (Blackman) 1940b: 385 (*Renocis*). Holotype ♀; Tucson, Arizona [USA]; USNM, Washington.

Distribution: North America ("Mexico"/ S Arizona, S California, New Mexico, W Texas in USA).

Hosts: *Larrea tridentata*, *Prosopis* spp.

References: (cn) Anonymous 1974p. (hb) Bright & Stark 1973: 55. (ds) Anonymous 1974p; Atkinson et al. 1991: 156; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 55; Furniss, R. L. & Carolin 1977: 345; Ward, C. R. et al. 1977: 30; Wood, S. L. 1982b: 362. (tx) Blackman 1940b: 385–387; Wood, S. L. 1982b: 362.

heterodoxus (Casey) 1886: 258 (*Renocis*). Holotype ♀; Reno, Nevada [USA]; USNM, Washington.

Figures: Bright 1976d: 201, 208 (adult).

Distribution: North America (British Columbia, Manitoba, Saskatchewan in Canada/ Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Texas, Utah, Washington, Wyoming in USA).

Hosts: *Amelanchier* spp., *Cercocarpus* spp., *Cowania mexicana*, *Peraphyllium ramosissimum*, *Prunus* spp., *Purshia mexicana*, *Pyrus malus*, *Ribes* spp.

References: (cn) Anonymous 1971e, 1972k; Doane et al. 1936; Keen 1938: 132. (ec) Furniss, M. M. & Barr 1975: 16; Furniss, R. L. & Carolin 1977: 345; Keen 1938: 132; Tomalak, Welch, & Garroway 1969b. (hb) Bright & Stark 1973: 55; Chamberlin 1939: 124–125, 1958: 58; Doane et al. 1936; Furniss, M. M. & Barr 1975: 16; Furniss, R. L. & Carolin 1977: 345; Keen 1938: 132. (ds) Blackwelder & Blackwelder 1948; Bright 1976d: 95; Bright & Stark 1973: 55; Chamberlin 1939: 124–125, 1958: 58; Furniss, R. L. & Carolin 1977: 345; Gast et al. 1989: 385; Hagedorn 1910d: 13; Henshaw 1887: 7, 1895: 44; Keen 1929a: 15, 1938: 132; Kleine 1912b: 169, 1914b: 389; Leng 1920: 338; Patterson & Hatch 1945: 149; Swaine 1909: 144; Thatcher 1935: 261; Wood, S. L. 1948: 16, 1951a: 127, 1957c: 402. (tx) Blackman 1940b: 387–389; Bright 1976d: 95, 201, 208; Bruck 1933a: 240, 1936a: 119–120; Casey 1896: 358; Chamberlin 1939: 124–125, 1955: 118, 1958: 58; Eggers 1951: 151; Hagedorn 1910a: 63; Hopkins 1914: 128; Keen 1929a: 15; Lucas 1920: 565; Swaine 1909: 144; Wood, S. L. 1951a: 149, 1957c: 402, 1972c: 142, 1982b: 355. (ms) Lucas 1920: 565.

brittaini Swaine 1917: 20 (*Pseudocryphalus*). Lectotype ♂; Salmon Arm, British Columbia

[Canada]; CNCI, Ottawa, designated by Bright 1967b: 679. Synonymy: Wood 1957c: 402.

Notes: (3) Blackman 1940b: 394 (description quoted).

References: (cn) Swaine 1918a: 57. (hb) Chamberlin 1939: 133; Swaine 1918a: 57. (ds) Blackwelder & Blackwelder 1948; Chamberlin 1939: 133; Keen 1929a: 15; Kleine 1934a: 138; Leng 1920: 338. (tx) Blackman 1940b: 398; Bright 1967b: 679; Bruck 1936a: 35, 121–122; Chamberlin 1939: 133; Eggers 1951: 149; Hoebeke 1978; Keen 1929a: 16; de Ruelle 1970: 112; Swaine 1917: 20–21, 1918a: 57–58; Wood, S. L. 1957c: 402.

criddlei Swaine 1917: 21 (*Pseudocryphalus*). Lectotype ♂; Aweme, Manitoba [Canada]; CNCI, Ottawa, designated by Bright 1967b: 679. Synonymy: Wood 1957c: 402.

Notes: (3) Blackman 1940b: 395 (original description quoted).

References: (cn) Swaine 1918a: 57. (hb) Chamberlin 1939: 134; Swaine 1918a: 57. (ds) Blackwelder & Blackwelder 1948; Chamberlin 1939: 134; Kleine 1934a: 138; Leng 1920: 338. (tx) Blackman 1940b: 395; Bright 1967b: 679; Bruck 1936a: 123; Chamberlin 1939: 134; Dodge 1938: 24; Eggers 1951: 149; Hoebeke 1978; de Ruelle 1970: 112; Swaine 1917: 21, 1918a: 57; Wood, S. L. 1957c: 402.

brunneus Blackman 1940b: 389 (*Renocis*). Holotype ♀; Clouderoft, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1972c: 142.

References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1940b: 389; McNamara 1984: 759; Wood, S. L. 1972c: 142.

fuscus Blackman 1940b: 391 (*Renocis*). Holotype ♀; Williams, Arizona [USA]; USNM, Washington. Synonymy: Wood 1972c: 142.

References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1940b: 391–392; Wood, S. L. 1972c: 142.

commixtus Blackman 1940b: 392 (*Renocis*). Holotype ♀; Williams, Arizona [USA]; USNM, Washington. Synonymy: Wood 1972c: 142.

References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1940b: 392–394; Wood, S. L. 1972c: 142.

howdeni Bright 1972d: 36. Holotype ♀; Barbecue Bottom, Trelawny Parish, Jamaica; CNCI, Ottawa.

Figures: Bright 1972d: 35, 74.

Distribution: Antilles Islands (Jamaica).

References: (ds) Bright 1985c: 171. (tx) Bright 1972d: 35–36, 74, 1985c: 171; McNamara 1977: 194.

- hystrix (LeConte)** 1858: 81 (*Hylesinus*). Holotype ♂; San Diego, California [USA]; MCZ, Cambridge.
Distribution: North America (Baja California Norte in Mexico/ S California in USA).
Hosts: *Rhus integrifolia*, *R. ovata*, *R. laurina*.
References: (hb) Bright & Stark 1973: 54; Chamberlin 1939: 182. (ds) Bright & Stark 1973: 54; Bruck 1933a: 239; Chamberlin 1939: 182; Fall 1906: 203; Hagedorn 1910d: 19; Henshaw 1882: 269, 1885: 149; Keen 1929a: 22; Kleine 1914b: 390, 1934a: 132; Leng 1920: 338; Swaine 1909: 88; Wood, S. L. 1982b: 351. (tx) Blaisdell 1892: 36; Bruck 1936a; Chamberlin 1939: 182; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 66; Hopkins 1914: 118; Keen 1929a: 22; LeConte 1858: 81, 1868: 171, 1876: 382; Lucas 1920: 175; Swaine 1909: 88; Wood, S. L. 1956c: 251, 1982b: 351. (ms) Lucas 1920: 175.
- insularis (Blackman)** 1940b: 400 (*Renocis*). Holotype ♀; Key West, Florida [USA]; USNM, Washington.
Distribution: Antilles Islands (Bahama Islands/ Cuba/ Virgin Islands), North America (Florida in USA).
Hosts: *Acras sapota*, *Manilkara* spp.
References: (hb) Wood, S. L. 1982b: 359. (ds) Atkinson et al. 1991: 156; Blackwelder 1947; Bright 1985c: 171; Wood, S. L. 1982b: 359. (tx) Blackman 1940b: 400–401, 1943c: 390; Bright 1985c: 171; Wood, S. L. 1982b: 359.
- lasius Wood** 1956c: 251. Holotype ♀; Nochistlan, Oaxaca, Mexico; SMUK, Lawrence.
Distribution: North America (Chiapas, Morelos, Oaxaca in Mexico).
Hosts: *Rhus* sp.
References: (hb) Atkinson & Equihua 1985b: 231. (ds) Atkinson & Equihua 1985b: 231. (tx) Wood, S. L. 1956c: 251.
- maclayi (Bruck)** 1936b: 35 (*Pseudocryphalus*). Holotype ♀; Westwood Hills, Los Angeles Co., California [USA]; OSUC, Columbus.
Distribution: North America (S California in USA).
Hosts: *Encelia californica*.
Notes: (3) Blackman 1940b: 382 (redescribed).
References: (hb) Bright & Stark 1973: 55; Chamberlin 1939: 134. (ds) Blackwelder 1939; Blackwelder & Blackwelder 1948; Bright & Stark 1973: 55; Chamberlin 1939: 134; Wood, S. L. 1982b: 354. (tx) Blackman 1940b: 382–383; Bruck 1936a: 35–36, 121–123, 1936b: 35, 1940: 382; Chamberlin 1939: 134; Wood, S. L. 1956c: 252, 1982b: 354.
- mandibularis Bright** 1981c: 160. Holotype ♂; Tabago; USNM, Washington.
Distribution: Antilles Islands (Tabago).
References: (tx) Bright 1981c: 160.
- mexicanus (Blackman)** 1940b: 397 (*Renocis*). Holotype ♀; Guadalajara, Jalisco, Mexico; USNM, Washington.
Figures: Atkinson et al. 1986: 24, 53.
Distribution: North America (Guatemala/ Jalisco, Morelos in Mexico/ Arizona in USA).
Hosts: *Eysenhardtia polyotacha*, *E. sp.*
References: (hb) Atkinson et al. 1986: 25; Burgos & Saucedo 1983: 69. (ds) Atkinson & Equihua 1985a: 79; Atkinson et al. 1986: 25, 52; Blackwelder 1947; Burgos & Saucedo 1983: 69; Williams 1947: 5; Wood, S. L. 1982b: 357. (tx) Atkinson et al. 1986: 24, 53; Blackman 1940b: 397; Eggers 1951: 149; Schedl 1940a: 337; Wood, S. L. 1967b: 95, 1972c: 142, 1982b: 357.
- mexicanus Eggers** 1951: 149 (*Renocis*). Holotype ♂?; Mexico; Eggers Collection, in NHMW, Wien, preoccupied by Blackman 1940b: 397. Synonymy: Wood 1972c: 142.
References: (tx) Eggers 1951: 149; Nunberg 1956d: 208, 1959c: 168; Wood, S. L. 1956c: 253, 1972c: 142.
- eggersti Wood** 1956c: 253 (*Renocis*). Holotype ♂?; Mexico; Eggers Collection, in NHMW, Wien, automatic. Synonymy: Wood 1972c: 142.
References: (tx) Wood, S. L. 1956c: 253, 1972c: 142.
- blackmani Nunberg** 1956d: 208 (*Renocis*). Holotype ♂?; Mexico; Eggers Collection, in NHMW, Wien, automatic. Synonymy: Wood 1972c: 142.
References: (tx) Nunberg 1956d: 208, 1959c: 168.
- minimus Wood** 1967b: 95. Holotype ♂; Armeria, Colima, Mexico; Wood Collection.
Distribution: North America (Colima, Jalisco in Mexico).
Hosts: *Apoplanesia paniculata*.
References: (cc) Equihua & Atkinson 1986: 626. (hb) Equihua & Atkinson 1986: 626; Wood, S. L. 1982b: 358. (ds) Atkinson & Equihua 1985b: 231; Equihua & Atkinson 1986: 626; Wood, S. L. 1982b: 358. (tx) Wood, S. L. 1967b: 95, 1982b: 358.
- parkinsoniae (Blackman)** 1940b: 378 (*Renocis*). Holotype ♀; Catalina Springs, Arizona [USA]; USNM, Washington.
Figures: Bright & Stark 1973: 153 (adult).
Distribution: North America (Baja California Sur in Mexico/ S Arizona, S California in USA).
Hosts: *Cercidium microphyllum*.
References: (hb) Bright & Stark 1973: 55. (ds) Blackwelder & Blackwelder 1948; Bright & Stark 1973: 55; Furniss, R. L. & Carolin 1977: 345; Wood, S. L. 1982b: 361. (tx) Blackman 1940b: 378; Bright & Stark 1973: 153; Schedl 1952c: 122; Wood, S. L. 1982b: 361.
- penicillatus (Bruck)** 1933a: 239 (*Renocis*). Holotype ♂; Peter's Canyon, Orange Co., California [USA]; CAS, San Francisco.

- Distribution: North America (Baja California Norte, Queretaro, San Luis Potosi in Mexico/California, Colorado, New Mexico, Utah in USA). Hosts: *Rhus integrifolia*, *R. microphylla*, *R. ovata*, *R. trilobata*.
Notes: (3) Blackman 1940b: 395 (redescribed).
References: (cn) Doane et al. 1936. (hb) Bright & Stark 1973: 54; Chamberlin 1939: 125; Doane et al. 1936. (ds) Atkinson 1989a: 59; Atkinson & Equihua 1985b: 231; Blackwelder 1939, 1947; Blackwelder & Blackwelder 1948; Bright 1972b: 1496; Bright & Stark 1973: 54; Chamberlin 1939: 125; Ferrer 1942; Furniss, R. L. & Furniss 1977: 345; Wood, S. L. 1982b: 361. (tx) Blackman 1940b: 395–396; Bruck 1933a: 239, 1936a: 119–120; Chamberlin 1939: 125; de Ruelle 1970: 113; Schedl 1940a: 337; Wood, S. L. 1982b: 361.
- phoradendri** Wood 1969b: 8. Holotype ♂; Zamorano, Morazan, Honduras; Wood Collection. Distribution: North America (Costa Rica/Honduras). Hosts: *Phoradendron robustissimum*, *P.* sp.
Notes: Wood 1969c: 122 (correction of spelling lapsus calami).
References: (ds) Wood, S. L. 1982b: 360. (tx) Wood, S. L. 1967b: 96, 1969b: 8, 1969c: 122, 1982b: 360.
- pouteriae** Wood 1986c: 269. Holotype ♂; Campo Experimental, INIF, Escarcega, Campeche, Mexico; Wood Collection. Distribution: North America (Campeche in Mexico).
Hosts: *Pouteria campechana*.
References: (ds) Estrada & Atkinson 1988: 204. (tx) Wood, S. L. 1986c: 269.
- pruinosis** (Blackman) 1940b: 383 (*Renocis*). Holotype ♀; San Bernardino Co., California [USA]; USNM, Washington. Distribution: North America (S Arizona, S California in USA).
Hosts: *Encelia farinosa*.
References: (hb) Bright & Stark 1973: 55. (ds) Blackwelder & Blackwelder 1948; Bright & Stark 1973: 55; Wood, S. L. 1982b: 353. (tx) Blackman 1940b: 383; McNamara 1984: 759; Wood, S. L. 1982b: 353.
- struthanthi** Wood 1967b: 96. Holotype ♂; Volcan de Colima, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco, Morelos, Oaxaca, Puebla, Veracruz in Mexico).
Hosts: *Phoradendron* spp., *Psittacanthus schiedeanus*, *Struthanthus deppeanus*, *S. venetus*.
References: (hb) Wood, S. L. 1982b: 359. (ds) Wood, S. L. 1982b: 359. (tx) McNamara 1977: 194; Wood, S. L. 1967b: 96, 1982b: 359.
- sulcatus** (Wood) 1956c: 252 (*Renocis*). Holotype ♀; Ixmiquilpan, Hidalgo, Mexico; SMUK, Lawrence. Distribution: North America (Hidalgo, San Luis Potosi in Mexico).
Hosts: *Flourensia cernuda*, (?) *Rhus* sp.
References: (hb) Atkinson & Equihua 1988: 88. (ds) Atkinson & Equihua 1985b: 231, 1988: 88; Wood, S. L. 1982b: 356. (tx) Wood, S. L. 1956c: 252, 1982b: 356.

Genus *Cryphyophthorus* Schedl

CRYPHYOPHTHORUS SCHEDL 1953c: 294. Type-species: *Cryphyophthorus eggersi* Schedl, original designation.

References: (hb) Wood, S. L. 1986a: 54. (ds) Wood, S. L. 1986a: 54. (tx) Schedl 1953c: 294; Wood, S. L. 1986a: 54.

eggersi Schedl 1953c: 294. Holotype, sex?; Sumatra, Sibolangit; Eggers specimens in Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Sumatra).

Hosts: "in Blütenstielen einer Euphorbiaceae."

Notes: (3) Schedl 1953c: 295 (*Eriosinus sumatranus*, nomen nudum).

References: (tx) Schedl 1953c: 294–295, 1961e: 132, 1979c: 87.

hylesiniformis (Schedl) 1961e: 132 (*Ptilopodius*).

Holotype, sex?; Madagascar, Montagne d'Ambre, Plateau; IRSM, Madagascar.

Distribution: Madagascar.

References: (hb) Schedl 1977a: 43. (tx) Schedl 1961e: 132, 1962r: 93, 1977a: 43.

Genus *Liparthrum* Wollaston

LIPARTHNUM WOLLASTON 1854: 294. Type-species: *Liparthrum bituberculatum* Wollaston, original designation.

Erineosinus Blackman 1920a: 53. Type-species: *Erineosinus squamosus* Blackman, monobasic. Synonymy: Wood 1957c: 399.

References: (tx) Blackman 1920a: 53, 1922b: 74–75, 1928a: 186; Wood, S. L. 1957c: 399.

Phloeochilus Schedl 1953c: 292. Type-species: *Phloeochilus palaquius* Schedl, original designation. Synonymy: Schedl 1963h: 263.

References: (tx) Browne 1961c: 70; Schedl 1953c: 292, 1963h: 263.

Phloeotrypatus Wood 1960a: 16. Type-species: *Phloeotrypatus palauensis* Wood, original designation. Synonymy: Schedl 1963h: 263.

References: (tx) Schedl 1963h: 263; Wood, S. L. 1960a: 16.

Dacryophthorus Schedl 1971a: 281. Type-species: *Dacryophthorus briucki* Schedl, original designation. Synonymy: Wood 1984b: 226.

References: (tx) Schedl 1971a: 281; Wood, S. L. 1984b: 226.

Trypanophellos Bright 1982b: 166. Type-species: *Trypanophellos uccopinus* Bright, original designation. Synonymy: Wood 1992b: 81.

References: (tx) Bright 1982b: 166, 1985c: 171; Wood, S. L. 1992b: 81.

Keys: Schedl 1959f: 36 for Europe and Atlantic Islands; Wood 1982b: 364 for North America.

Notes: (1) International Commission on Zoological

Nomenclature (ICZN) 1981a: 64 (*Leiparthurum* Wollaston 1854: 294, amended in Wollaston 1864: 265, declared an inadvertent error in original spelling).

References: (**hb**) Barbey 1901; Eichhoff 1881a: 169; Tredd 1907: 13; Wood, S. L. 1986a: 54. (**ds**) Wood, S. L. 1986a: 54. (**tx**) Aube 1862: 355; Balachowsky 1949a: 150–155; Bright 1968a: 637, 1975: 133; Brooke 1975: 135; Eichhoff 1878b: 107, 1883a: 108; Ferrari 1867a: 5, 18; Goz 1885: 278; Hagedorn 1910a: 68, 1910d: 28; ICZN 1981a: 64; Karaman 1972: 90; Lacordaire 1866: 376; Lucas 1920: 378; Pfeffer 1941: 234–235, 1955: 148, 1989a: 40; Reitter 1894: 55, 1913: 54, 58–60; Schedl 1959f: 35–53, 1963h: 263; Schedl, Lindberg, & Lindberg 1959: 1–78; Semenov 1902: 272; Spesivtsev 1931a: 87; Stark 1952: 237–243; Winkler 1932: 1632; Wollaston 1854: 294, 1864: 265; Wood, S. L. 1957c: 399, 1969c: 121–122; 1974f: 234–235, 1976b, 1986a: 54.

albosetum Bright 1968a: 638. Holotype ♂; 35 km NW Penjamo, Baja California Sur; CAS, San Francisco.

Figures: Bright 1968a: 639 (outline of adult).

Distribution: North America (Baja California Sur, Sonora in Mexico).

Hosts: Shrub, *Jatropha cinerca*.

References: (**hb**) Atkinson & Equihua 1988: 92. (**ds**) Atkinson & Equihua 1988: 92; Furniss, M. M. 1978; Wood, S. L. 1982b: 366. (**tx**) Bright 1968a: 638–639; Wood, S. L. 1982b: 366.

americanum Wood 1969b: 8. Holotype ♀; Lower Rio Tempisque, Guanacaste Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Ficus* sp.

References: (**hb**) Wood, S. L. 1982b: 366. (**ds**) Wood, S. L. 1982b: 366. (**tx**) Wood, S. L. 1969b: 8, 1982b: 366.

arizonicum Wood 1959a: 57. Holotype ♂; Miller Canyon, Huachuca Mountains, Arizona [USA]; Wood Collection.

Distribution: North America (Chihuahua, Durango in Mexico/ Arizona in USA).

Hosts: *Arbutus arizonicus*, A. sp.

References: (**ay**) Thomas, J. B. 1967. (**cc**) Furniss, R. L. & Carolin 1977: 366. (**hb**) Bright 1968a: 638; Furniss, R. L. & Carolin 1977: 366; Wood, S. L. 1982b: 364. (**ds**) Bright 1968a: 638; Furniss, R. L. & Carolin 1977: 366; Thomas, J. B. 1967; Wood, S. L. 1959a: 57, 1960b: 60, 1982b: 364. (**tx**) Bright 1968a: 638; Thomas, J. B. 1967; Wood, S. L. 1959a: 57, 1982b: 364.

arnoldi Semenov 1902: 272. Lectotype, sex?; Transcaucasia: Tiflis; not located, designated by Michalski 1969a: 891.

Figures: Schedl 1952: 242 (adult).

Distribution: Europe (Caucasus, Black Sea Coast in W USSR).

Hosts: *Periploca graeca*.

Notes: (3) Schedl 1959f: 50 (redescribed).

References: (**hb**) Stark 1952: 241. (**ds**) Hagedorn 1910d: 28; Heyden, Reitter, & Weise 1906: 709; Kleine 1912b: 185, 1934a: 136; Negru 1968c: 91; Pittioni 1943: 176; Schaufuss 1915: 1229; Schedl 1950f: 50, 1961b: 187; Stark 1927b: 85, 1952: 241. (**tx**) Eggers 1910f; Hagedorn 1910a: 69; Michalski 1969a: 891, 1969b: 566; Pfeffer 1941a: 391, 396; Reitter 1913a: 59; Schedl 1934f: 1637, 1959f: 50; Semenov 1902: 272, 1903: 79; Stark 1952: 241.

babadjanidis Eggers 1910f: 558. Holotype, sex?;

Babadjanides in Elisabetpol, provinciae Transcaucasiae (USSR); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1959f: 50.

References: (**hb**) Stark 1952: 242. (**ds**) Pjatnitskii 1930a: 164; Schaufuss 1915: 1229; Stark 1952: 242. (**tx**) Eggers 1910f: 555; Pfeffer 1941a: 391, 395; Reitter 1913a: 60; Schedl 1934f: 1637, 1959f: 50–51; Stark 1952: 242.

artemisiae Wollaston 1854: 299. Syntypes, sex?; Ins. Desertae Borealis (Madeira Islands); BMNH, London.

Distribution: Africa (Madeira Islands).

Hosts: *Artemisia argentea*.

Notes: (3) Schedl 1959f: 48 (redescribed).

References: (**ds**) Fauvel 1897; Gemminger & Harold 1872: 2681; Hagedorn 1910d: 28; Kleine 1912b: 185, 1914a: 22, 1934a: 136; Lacordaire 1866: 377; Lundblad 1958: 489; Schedl 1959f: 48, 1963e: 155; Schmitz 1898: 157; Wollaston 1854: 299, 1857: 97. (**tx**) Hagedorn 1910a: 69; Lacordaire 1866: 377; Schedl 1934f: 1637, 1959f: 47–48; Wollaston 1854: 299, 1857: 97, 1865: 247.

artocarpus Wood 1958b: 193. Holotype ♂; Hattikeri, S. Kanara Div., Bombay, India; FRI, Dehra Dun.

Distribution: Asia (Maharashtra in India).

Hosts: *Artocarpus integrifolia*.

Notes: (3) Beeson 1941 (1961: 290) (*artocarpus*, nomen nudum).

References: (**tx**) Beeson 1941 (1961: 290); Wood, S. L. 1988b: 193.

australis Schedl 1975k: 279. Holotype, sex?; Transvaal: Kruger National Park, Pafuri; Transvaal Museum, Pretoria.

Figures: Schedl 1975k: 281.

Distribution: Africa (South Africa).

Hosts: *Lonchocarpus capassa*.

References: (**tx**) Schedl 1975k: 279, 281.

bartschti Muhl 1891: 202. Syntypes, sex?; Wien, Austria; not given.

Distribution: Europe (Austria/ Caucasus in W USSR).

Hosts: *Viscum album*.

Notes: (3) Schedl 1959f: 49 (redescribed).

References: (**cn**) Wachtl 1901: 351. (**cc**) Kleine 1908c: 186; Nosek 1959a: 118, 1959b: 87. (**hb**)

- Heymons 1921: 81–90; Lengerken 1954: 76; Nosek 1959a: 118, 1959b: 87; Schumacher 1918: 203; Stark 1952: 243; Wachtl 1901: 381. (**ds**) Endrodi 1958b; Hagedorn 1910d: 28; Heyden, Reitter, & Weise 1906: 709; Horion 1951; Kleine 1912b: 185, 1913a: 35, 1934a: 136; Lucht 1987: 277; Nosek 1958b: 93; Pfeffer 1989a: 40; Pittioni 1943: 174; Reitter 1894a: 55; Schaufuss 1915: 1220; Schedl 1959f: 49, 1980a: 13; Schilsky 1909: 187; Schumacher 1918: 203; Stark 1952: 243; Tredl 1907: 12; Wichmann 1927a: 64. (**tx**) Eggers 1910f; Endrodi 1957a, 1957b; Formanek 1907: 24; Hagedorn 1910a: 69; Lucht 1987: 277; Muhl 1891: 201–202; Pfeffer 1932b: 3, 1941a: 391, 396, 1941d: 26; Reitter 1894a: 55, 1913a: 60; Schedl 1934f: 1637, 1959f: 49, 1980a: 13; Semenov 1903: 79; Stark 1952: 243.
- bicaudatum** Wollaston 1865: 44, 248. Holotype, sex?; Gomeram; BMNH, London.
Distribution: Africa (Goimera, Gran Canaria, Tenerife in Canary Islands).
Hosts: *Euphobia balsamifera*, *E. regis-jubae*.
Notes: (3) Schedl 1959f: 53 (re-described).
References: (**cn**) Souphieff & Scherbinovskaja 1937: 27. (**ds**) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 28; Kleine 1912b: 175, 1914d: 28, 1934a: 136; Peyerimhoff 1923a: 47; Schedl 1959f: 53; Schedl, Lindberg, & Lindberg 1959: 15; Souphieff & Scherbinovskaja 1937: 27; Uyttenboogaart 1937: 116. (**tx**) Eichhoff 1878b: 116; Hagedorn 1910a: 69; Peyerimhoff 1923a: 47; Schedl 1934f: 1637, 1959f: 53; Schedl, Lindberg, & Lindberg 1959: 15; Wollaston 1865: 44, 248.
- bituberculatum** Wollaston 1854: 297. Syntypes, sex?; Maderam sylvaticam; BMNH, London.
Distribution: Africa (Madeira Island, 2000–4000 ft.).
Notes: (3) Schedl 1959f: 47 (re-described).
References: (**cn**) Souphieff & Scherbinovskaja 1937: 25. (**ds**) Fauvel 1897; Gemminger & Harold 1872: 2681; Hagedorn 1910d: 28; Jansson 1940: 63; Kleine 1912b: 185, 1914a: 22; Lacordaire 1866: 377; Lundblad 1958: 489; Schedl 1959f: 47, 1963e: 155; Schmitz 1898: 157; Souphieff & Scherbinovskaja 1937: 25; Wollaston 1854: 297, 1857: 97. (**tx**) Eichhoff 1878b: 107; Ferrari 1868: 251–254; Hagedorn 1910a: 69; Hopkins 1914: 124; Lacordaire 1866: 377; Schedl 1934f: 1637, 1959f: 47; Wollaston 1854: 297, 1857: 97, 1862b: 173, 1864: 265, 1865: 246.
- brincki** (Schedl) 1971a: 281 (*Dacryophthorus*). Holotype, sex?; Western Prov.: Yakkala, 18 miles NE Colombo; ZIDSU, Lund, Sweden.
Figures: Schedl 1971a: 283.
Distribution: Asia (Sri Lanka).
Hosts: *Wendlandia bicuspida*.
Notes: (1) Wood 1984b: 226 (to *Liparthrum*).
References: (**tx**) Schedl 1971a: 281, 283, 1979c: 47.
- carapae** Wood 1971: 9. Holotype ♂; Campamento Rio Grande, 30 km E Palmar, Bolivar, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Carapa guianensis*.
References: (**hb**) Wood, S. L. 1971: 9–10.
- colechicum** Semenov 1903: 79. Syntypes, sex?; Caucaso occidentali: Prov. Pontica: Chosta; Semenov Collection and Silantjev Collection.
Distribution: Africa (Algeria), Europe (Caucasus in W USSR/ Yugoslavia).
Hosts: *Laurus nobilis*.
Notes: (3) Schedl 1959f: 46 (re-described).
References: (**cc**) Kono & Watanabe 1935: 69; Ruschka 1916: 26; Wichmann 1916: 19. (**hb**) Heymons 1921: 81–90; Lengerken 1939: 59, 1954: 76; Stark 1952: 239; Wichmann 1916: 19. (**ds**) Hagedorn 1910d: 28; Heyden, Reitter, & Weise 1906: 709; Kleine 1912b: 185, 1913a: 313, 1934a: 136; Schaufuss 1915: 1229; Schedl 1959f: 46; Stark 1927b: 88, 1952: 239. (**tx**) Eggers 1910f; Hagedorn 1910a: 69; Michalski 1969b: 566; Pfeffer 1941a: 391, 396, 1941d: 21; Reitter 1913a: 60; Schedl 1934f: 1637, 1959f: 46; Semenov 1903: 79; Stark 1952: 239; Wichmann 1916: 19, 1916b: 432–433.
- cracentis** Wood 1969b: 9. Holotype ♀; 29 km W Niltipee, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Thevetia* sp.
References: (**hb**) Wood, S. L. 1982b: 365. (**ds**) Wood, S. L. 1982b: 365. (**tx**) Wood, S. L. 1969b: 9, 1982b: 365.
- curtum** Wollaston 1854: 298. Holotype, sex?; Maderam australem, in horto Loweano prope Funchal; BMNH, London.
Distribution: Africa (Fuerteventura, Gomera, Gran Canaria, Hierro, Lanzarote, La Palma, Pajara, Tenerife in Canary Islands/ Madeira Island).
Hosts: *Euphorbia* sp., *Ficus carica*, *Spartocystus nubigeus*.
Notes: (3) Schedl 1959f: 44 (re-described; *frontale* Eggers, nomen nudum, synonymy).
References: (**cn**) Souphieff & Scherbinovskaja 1937: 25. (**ds**) Borges & Serrano 1989; Bright 1987a: 3; Fauvel 1887; Gemminger & Harold 1872: 2681; Hagedorn 1910d: 28; Israelson 1984, 1985: 17; Jansson 1940: 63; Kleine 1912b: 185, 1914a: 20, 22; Lacordaire 1866: 277; Lundblad 1958: 489; Schedl 1959f: 43, 1963e: 155, 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 15; Schmitz 1898: 157; Souphieff & Scherbinovskaja 1937: 25; Wollaston 1854: 298, 1857: 97. (**tx**) Eichhoff 1878b: 109; Hagedorn 1910a: 69; Lacordaire 1866: 377; Lucas 1920: 378; Schedl 1934f: 1637, 1959f: 15, 43; Schedl, Lindberg, & Lindberg 1959: 15; Wollaston 1854: 298, 1857: 97, 1861b: 39, 1862b: 173, 1864: 266, 1865: 246. (**ms**) Lucas 1920: 378. *ciliatum* Eggers 1928b: 283. Holotype ♂; Gran

Canaria (Santa Brigida); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1939n: 15. References: **(cn)** Souphieff & Scherbinovskaja 1937: 102. **(ds)** Kleine 1934a: 136; Souphieff & Scherbinovskaja 1937: 102; Uyttenboogaart 1937: 116. **(tx)** Eggers 1928b: 283; Schedl 1934f: 1637.

genistae (Aube) 1862: 388 (*Hypoborus*). Syntypes, sex[?]; Hyeres (France); not located.

Figures: Balachowsky 1949a: 153, Kalina 1970: 117. Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Israel), Europe (Corsica/ S France/ Greece/ Italy/ Sardinia/ Sicily/ Spain/ Crimea, Caucasus in W USSR/ Yugoslavia).

Hosts: *Anagyris foetida*, *Calycotoma spinosa*, *Cytisus* sp., *Genista horrida*, *G. numidica*, *Retania sphaerocarpa*, *Spartium junceum*.

Notes: (3) Schedl 1959f: 51 (re-described).

References: **(cn)** Grandi 1951. **(cc)** Halperin & Holzschuh 1984: 27; Kleine 1908c: 186; Novak, P. 1952: 413. **(hb)** Eichhoff 1881a: 45, 170; Grandi 1951; Halperin & Holzschuh 1984: 27; Kalina 1970: 116; Masutti 1964; Peyerimhoff 1919: 251; Rupertsberger 1880: 229; Wachtl 1876a: 458. **(ds)** Acloque 1896; Barthe 1896; Calwer 1893; Eggers 1912f; Gemminger & Harold 1872: 2684; Gozis 1875: 80; Hagedorn 1910d: 28; Halperin & Holzschuh 1984: 27; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 709; Kleine 1912b: 185, 1934a: 136; Lacordaire 1866: 380; Novak, P. 1952: 413, 1964; Perris 1876a: 255, 1877a: 415; Peyerimhoff 1919: 251; Pfeffer 1947d: 127, 1977: 270; Reitter 1894a: 56; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1229; Schedl 1959f: 51, 1967c: 70, 1971d: 426; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 12; Wachtl 1876a: 458. **(tx)** Acloque 1896; Aube 1862: 388; Balachowsky 1949a: 154; Eggers 1912f; Eichhoff 1864b: 46, 1868d: 419, 1878b: 111, 1881a: 45, 170, 1883a: 109, 132; Fauvel 1889; Ferrari 1867a: 18, 1867b: 114; Hagedorn 1910a: 69; Kalina 1970: 117; Lacordaire 1866: 380; Muhl 1891: 201; Perris 1877a: 415; Pfeffer 1941a: 390, 394, 1977: 270–271; Portevin 1935: 322; Reitter 1894a: 56, 1913a: 59; Rupertsberger 1880: 229; Schedl 1934f: 1637, 1959f: 51; Semenov 1902: 272.

genistae georgi Knotek 1895: 89. Syntypes, sex[?]; Quarantaininsel St. Georges vor Salamis; not located. Synonymy: Schedl 1959f: 51.

Notes: (1) Pfeffer 1977: 271 (treated as a subspecies).

References: **(cc)** Kleine 1908c: 186. **(hb)** Knotek 1897: 157, 1898b: 326; Stark 1952: 240. **(ds)** Hagedorn 1910d: 29; Heyden, Reitter, & Weise 1906: 709; Kleine 1912b: 185, 1913a: 307, 1934a: 136; Knotek 1898b: 326; Langhoffer 1915c: 157; Pittioni 1943: 176; Reitter 1894a: 56; Schaufuss 1915: 1229; Stark

1952: 240. **(tx)** Csiki 1907; Eggers 1910f; Hagedorn 1910a: 69; Knotek 1895: 89; Pfeffer 1941a: 390, 392, 1977: 271; Reitter 1894a: 56, 1913a: 59; Schedl 1959f: 51; Stark 1952: 240.

albidum Wichmann 1916: 21. Syntypes, sex[?]; Insel St. Andraa bei Rovigno, Umgebung von Pola, Insel Brione (Istrien); not given. Synonymy: Schedl 1959f: 51. Pfeffer 1977: 277.

References: **(cc)** Kleine 1944: 83; Ruschka 1916: 28; Wichmann 1916: 21. **(hb)** Heymons 1921: 81–90; Lengerken 1939: 59, 1954: 76; Wichmann 1916: 21. **(ds)** Kleine 1934a: 136; Pittioni 1943: 176. **(tx)** Pfeffer 1941a: 390, 392, 1977: 277; Schedl 1934f: 1637, 1959f: 51; Wichmann 1916: 21.

cytisi Eggers 1927d: 121. Syntypes 2, sex[?]; Herzegovina (Dresnica); Landesmuseum Sarajevo (Yugoslavia), and Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1959f: 51.

References: **(ds)** Kleine 1934a: 136. **(tx)** Eggers 1927d: 121; Pfeffer 1941a: 389, 392, 1977: 272; Schedl 1934f: 1637, 1959f: 51.

peyrinhoffi Pfeffer 1941d: 26. Syntypes, sex[?]; Algeria (Laverdure, Djebel Aurez); Pfeffer Collection. Synonymy: Balachowsky 1949a: 154. References: **(ds)** Pfeffer 1947d: 128. **(tx)** Balachowsky 1949a: 154; Pfeffer 1941a: 390, 393, 1941d: 26.

hispaniolum Bright 1951c: 161. Holotype ♀; San Cristobal, Dominican Republic; NHMBS, Basel. Distribution: Antilles Islands (Dominican Republic in Hispanola).

References: **(ds)** Bright 1955c: 171. **(tx)** Bright 1981: 161, 1985c: 171.

inarmatum Wollaston 1860: 364. Syntypes, sex[?]; Maderae; BMNH, London.

Distribution: Africa (Comera, Gran Canaria, Hierro, Langarote, La Palma, Tenerife in Canary Islands/ Madeira Island/ Morocco).

Hosts: *Euphorbia dendroides*, *E. piscatoria*.

Notes: (3) Schedl 1959f: 38 (re-described).

References: **(cn)** Souphieff & Scherbinovskaja 1937: 28. **(hb)** Peyerimhoff 1926: 386. **(ds)** Fauvel 1897; Gemminger & Harold 1872: 2681; Hagedorn 1910d: 29; Jansson 1940: 63; Kleine 1912b: 185, 1914a: 20, 22, 1934a: 136; Lundblad 1958: 489; Peyerimhoff 1923a: 47, 1925: 10, 1926: 356; Schedl 1963e: 155, 1964a, 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 16; Schmitz 1898: 157; Souphieff & Scherbinovskaja 1937: 28. **(tx)** Eichhoff 1878b: 113; Hagedorn 1910a: 69; Peyerimhoff 1923a: 47; Pfeffer 1941: 389, 391; Schedl 1934f: 1637, 1959f: 38; Schedl, Lindberg, & Lindberg 1959: 16; Wollaston 1860: 364–365, 1861b: 39, 1862b: 173, 1864: 266, 1865: 247.

laurivorus Schedl 1968a: 23. Holotype, sex[?]; Topaktas bei Doryvol; Schedl Collection in NHMW, Wien.

Distribution: Asia (Turkey).

Hosts: *Laurus nobilis*.

References: (tx) Schedl 1968a: 23.

longifolia (Stebbing) 1903a: 267 (*Cryphalus*). Syn-types, sex?; types labeled Toris Valley, NW Himalayas, published as NW Himalayas: Jaunsar Div., Heshahr State: Taklesh; FRI, Dehra Dun.

Figures: Stebbing 1914: 534 (adult, galleries).

Distribution: Asia (Bashahr, Punjab, Uttar Pradesh in India).

Hosts: *Pinus roxburghii*.

References: (cn) Pierce, W. D. 1917: 74; Stebbing 1903a: 267, 1914: 533; Troup 1916: 1–126. (ce) Stebbing 1914: 533. (hb) Stebbing 1903a: 267, 1914: 533. (ds) Beeson 1961: 290; Hagedorn 1910d: 44; Kleine 1913b: 118, 1914b: 276, 1934a; Pierce, W. D. 1917: 74; Stebbing 1903a: 267. (tx) Hagedorn 1910a: 87; Stebbing 1903a: 267, 1914: 533.

loweanum Wollaston 1867: 118. Syntypes, sex?; S. Antao, S. Vicente, S. Iago, and Fogo; BMNH, London.

Distribution: Africa (Fogo, Santo Antao, Sao Vicente, St. Iago in Cape Verde Islands).

Hosts: *Euphorbia tuckeyana*.

Notes: (3) Schedl 1959f: 40 (partial redescription).

References: (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 29; Kleine 1912b: 185, 1914a: 23; Schedl 1959f: 40. (tx) Eggers 1928b; Hagedorn 1910a: 69; Schedl 1959f: 40; Wollaston 1867: 118.

lowei Wollaston 1862: 174. Syntypes, sex?; Teneriffan, Garachico; BMNH, London.

Distribution: Africa (Gomera, Tenerife in Canary Islands).

Hosts: *Euphorbia regis-jubae*, *E. sp.*

Notes: (3) Schedl 1959f: 40 (redescribed).

References: (cn) Souphieff & Scherbinovskaja 1937: 102. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 29; Kleine 1912b: 185, 1914a: 20, 1934a: 136; Peyerimhoff 1923a: 47; Schedl 1959f: 40, 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 16; Souphieff & Scherbinovskaja 1937: 102; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 115; Peyerimhoff 1923a: 47; Schedl 1934f: 1637, 1959f: 40; Schedl, Lindberg, & Lindberg 1959: 16; Wollaston 1861b: 40, 1862b: 174, 1864: 267, 1865: 248.

mandibulare Wollaston 1854: 295. Syntypes, sex?; Maderam borealem; BMNH, London.

Distribution: Africa (Madeira Island).

Notes: (3) Schedl 1959f: 45 (original description quoted).

References: (cn) Souphieff & Scherbinovskaja 1937: 25. (ds) Fauvel 1897; Gemminger & Harold 1872: 2681; Hagedorn 1910d: 29; Jansson 1940: 63; Kleine 1912b: 185, 1914a: 22; Lacordaire 1866: 377; Lundblad 1958: 489; Schedl 1959f: 45, 1963e: 155; Schmitz 1895: 157; Souphieff & Scherbinovskaja 1937: 25; Wollaston 1854: 295,

1857: 97. (tx) Eichhoff 1878b: 117; Hagedorn 1910a: 69; Lacordaire 1866: 377; Schedl 1934f: 1637, 1959f: 45; Wollaston 1854: 295, 1857: 97, 1865: 245.

meridensis Wood 1971: 10. Holotype ♂; 5 km E Lagunillas, Merida, Venezuela; Wood Collection. Distribution: South America (Venezuela).

Hosts: Compositae shrub.

References: (tx) Wood, S. L. 1971: 10.

mexicanum Wood 1983a: 657. Holotype ♂; Cuernavaca, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: *Ficus sp.*

References: (hb) Atkinson & Equihua 1985b: 231; Atkinson et al. 1986: 52. (ds) Atkinson & Equihua 1985b: 231; Atkinson et al. 1986: 52. (tx) Wood, S. L. 1983a: 657.

mori (Aube) 1862: 387 (*Hypoborus*). Syntypes, sex?; Frejus; not located.

Figures: Balachowsky 1949a: 154.

Distribution: Africa (Algeria/ Tunisia), Europe (Corsica/ S France/ Greece/ Hungary/ Italy/ Yugoslavia).

Hosts: *Genista corsica*, *G. scorpius*, *Morus alba*.

Notes: Schedl 1959f: 41–42 (redescription; cites *brevi* Eggers, nomen nudum, *elongatum* Eggers, nomen nudum, synonymy).

References: (ay) Nusslin 1911a: 255. (cn) Grandi 1951; Kleine 1932a: 296. (ce) Kleine 1908c: 186. (hb) Beffa 1949, 1961; Eichhoff 1881a: 44, 169; Grandi 1951; Heymons 1921: 81–90; Kleine 1932a: 296; Lengerken 1939: 59; Rupertsberger 1880: 229; Stark 1952: 239; Wachtl 1876a: 458. (ds) Acloque 1896; Barthe 1896; Beffa 1949; Escalera 1919; Gemminger & Harold 1872: 2684; Gozis 1875: 80; Hagedorn 1910d: 29; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 709; Kleine 1912b: 185, 1913a: 307, 1914: 16, 1932a: 296, 1934a: 136; Lacordaire 1866: 380; Langhoffer 1915c: 157; Lucht 1987: 277; Perris 1876a: 254, 1877a: 414–415; Pfeffer 1947d: 127; Reitter 1894a: 55; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1229; Schedl 1959f: 41, 1964a, 1971d: 430; Stark 1952: 239; Stein 1867: 114; Stein & Weise 1877: 164; Teocchi 1965b; Treidl 1907: 12; Wachtl 1876a: 458; Wood, S. L. 1957c: 399. (tx) Acloque 1896; Anbe 1862: 387; Balachowsky 1949a: 154; Beffa 1949, 1961; Csiki 1907; Eggers 1927d, 1944c: 140; Eichhoff 1864b: 46, 1868d: 419, 1876a: 378, 1878b: 112, 1881a: 44, 169, 1883a: 108, 131; Fauvel 1889; Ferrari 1867a: 18, 1867b: 114; Hagedorn 1910a: 69; Lacordaire 1866: 380; Lucht 1987: 277; Muhl 1891: 201; Nusslin 1911a: 255; Perris 1877a: 414–415; Peyerimhoff 1911: 314; Pfeffer 1941a: 390, 392, 1941d: 26; Portevin 1935: 322; Reitter 1894a: 55, 1913a: 58; Rupertsberger 1880: 229; Schedl 1934f: 1637, 1959f: 41; Stark 1952: 239; Wood, S. L. 1957c: 399.

corsicum Eichhoff 1878a: 383, 1878b: 110. Holotype, sex?; Corsica; Hamburg Museum, lost. Synonymy: Schedl 1959f: 41.

References: (ec) Kleine 1908c: 186. (hb) Eichhoff 1881a: 45, 170. (ds) Barthe 1896; Hagedorn 1910d: 28; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 709; Kleine 1912b: 185, 1934a: 136; Pfeffer 1935, 1947d: 127; Pittioni 1943: 176; Reitter 1894a: 56; Sainte-Claire 1914: 469; Sainte-Claire & Mequignon 1935: 445; Schaufuss 1915: 1229; Stein & Weise 1877: 164; Tredl 1907: 12. (tx) Balachowsky 1949a: 154; Eichhoff 1878a: 383, 1878b: 110, 1881a: 45, 170, 1883a: 109, 133; Hagedorn 1910a: 69; Muhl 1891: 201; Pfeffer 1941a: 391, 394; Reitter 1894a: 56, 1913a: 59; Schedl 1934f: 1637, 1959f: 41.

dalmatinum Eggers 1944c: 140. Holotype, sex?; Dalmatien; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1959f: 41.

References: (tx) Eggers 1944c: 140; Schedl 1959f: 41.

necopinus (Bright) 1982b: 166 (*Trypanophellos*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Distribution: Antilles Islands (Cuba). References: (tx) Bright 1982b: 166; Wood, S. L. 1992b: 81.

nigrescens Wollaston 1865: 44. Lectotype, sex?; Teneriffan; BMNH, London, designated by Israelsen 1980: 201.

Distribution: Africa (Gran Canaria, La Palma, Tenerife in Canary Islands/ Morocco), Asia (Turkey).

Hosts: *Cytisus proliferus*, *Laurus canariensis*.

Notes: (3) Schedl 1959f: 42 (re-described).

References: (cn) Souphieff & Scherbinovskaja 1937: 26. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 29; Kleine 1912b: 185, 1914a: 20; Palm 1967: 41; Schedl 1959f: 42, 1961b: 186, 1964a, 1971b: 430; Schedl, Lindberg, & Lindberg 1959: 16; Souphieff & Scherbinovskaja 1937: 26. (tx) Hagedorn 1910a: 69; Schedl 1934f: 1637, 1959f: 42; Schedl, Lindberg, & Lindberg 1959: 16; Wollaston 1865: 44, 246.

degener Lindberg 1953: 18. Holotype, sex?; publication not seen. Synonymy: Israelsen 1980: 201.

Notes: (3) Schedl 1959f: 38 (re-described).

References: (ds) Palm 1967: 50; Schedl 1959f: 38, 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 15. (tx) Lindberg 1953: 18; Schedl 1959f: 38; Schedl, Lindberg, & Lindberg 1959: 15.

palaquius (Schedl) 1953c: 292 (*Phloeochilus*). Syn-types, sex?; Malaya, Selangor Kepong; BMNH, London, and Schedl Collection in NHMW, Wien. Distribution: Asia (Malaya).

Hosts: *Palaquium maingayi*.

Notes: (1) Schedl 1963h: 263 (to *Liparthrum*). (3) Schedl 1979c: 182 (citation of holotype invalid).

References: (ds) Browne 1961c: 70, 1980a: 372. (tx) Schedl 1953c: 292, 294, 1963h: 263, 1979c: 182.

palauiensis (Wood) 1960a: 17 (*Phloeotrypetus*). Holotype ♀; Caroline Islands (Palau); USNM, Washington.

Figures: Wood 1960a: 17 (outline of adult).

Distribution: Micronesia (Palau in Caroline Islands).

References: (tx) Wood, S. L. 1960a: 17.

pruni Wood 1983a: 657. Holotype ♂; Aranza, Michoacan, Mexico; Wood Collection.

Distribution: North America (Michoacan in Mexico).

Hosts: *Prunus serotina*.

References: (ds) Atkinson & Equihua 1985b: 231. (tx) Wood, S. L. 1983a: 657.

sabahensis Bright 1990: 485. Holotype ♀; Borneo: Sabah, Mt. Kinabalu N. P., Liwagu Trail, 1558–1890 m; CNCI, Ottawa.

Figures: Bright 1990: 486–487 (adult).

Distribution: Indonesia (Borneo).

Hosts: Fallen rotten fruit.

References: (tx) Bright 1990: 485.

squamosum (Blackman) 1920a: 53 (*Erineosinus*). Lectotype, sex?; Agricultural College (Starkville), Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 367.

Distribution: North America (Indiana, Mississippi in USA).

Hosts: *Maclura pomifera*.

Notes: (1) Wood 1957c: 399 (to *Liparthrum*).

References: (hb) Blackman 1922b: 74–75; Bright 1968a: 637; Chamberlin 1939: 272; Wood, S. L. 1982b: 367. (ds) Blackman 1922b: 74–75; Bright 1968a: 637; Chamberlin 1939: 272; Deyrup & Atkinson 1987b: 67; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 367. (tx) Blackman 1920a: 53, 1922b: 74–75, 1928a: 186; Bright 1968a: 637; Chamberlin 1939: 272; Schedl 1960g: 5; Wood, S. L. 1957c: 399, 1982b: 367.

thetvetiae Wood 1981: 123. Holotype ♀; Las Piedras Moyotepec, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: *Thevetia ovata*.

References: (hb) Atkinson et al. 1986: 52. (ds) Atkinson et al. 1986: 52; Wood, S. L. 1982b: 366. (tx) Atkinson et al. 1986: 55; Wood, S. L. 1981: 123, 1982b: 366.

timianensis Wood 1988b: 193. Holotype ♀; south end of Timian Island; Wood Collection.

Distribution: Micronesia (Timian in Mariana Islands).

References: (tx) Wood, S. L. 1988b: 193.

Genus *Hypoborus* Erichson

HYPOBORUS ERICHSON 1836: 62. Type-species: *Hypoborus ficus* Erichson, monobasic.

References: (ay) Escherich 1923: 468; Fuchs

1912: 5–40; Nobuchi 1969a: 53; Nusslin 1911, 1912. **(hb)** Eichhoff 1881a: 45, 171; Heymons 1920: 103, 1921: 88–89; Lengerken 1939; Tredl 1907: 13; Wood, S. L. 1986a: 54. **(ds)** Wood, S. L. 1986a: 54. **(tx)** Balachowsky 1949a: 151–152; Bedel 1888b: 397, 413; Blandford 1895: 83, 174; Eichhoff 1864b: 35, 1866: 276–277, 1867: 391, 1872: 132, 1878b: 117–118, 1883a: 109, 132; Erichson 1836: 62; Ferrari 1867: 18, 114; Gaubil 1849: 126; Coz 1885: 278; Hagedorn 1910a: 35, 61, 115, 1910d: 29; Hopkins 1914: 123, 133, 1915: 175, 195, 210, 226; Jacquelin du Val & Fairmaire 1868: 106, 108; Lacordaire 1866: 373, 379; Lindemann 1876: 148–168, 345, 1877: 174–187; Lucas 1920: 345; Luigioni 1929: 995; Nobuchi 1969a: 53; Pfeffer 1941: 388, 1955: 148, 1989a: 40; Redtenbacher 1874: 375; Reitter 1894: 38, 47, 56, 1913: 54–60, 1916: 285; Schedl 1934f: 1637, 1958i: 215, 1960b: 5, 1977b: 25; Schilsky 1888: 121; Seidlitz 1891: 151–152; Spessivtsev 1931: 87; Stark 1952: 243–244; Stebbing 1903: 278, 1910: 41; Wachtl 1876: 455; Winkler 1932: 1632; Wollaston 1857: 97–98, 1860: 365; Wood, S. L. 1960a: 16, 1986a: 54.

ficus Erichson 1836: 62. Syntypes, sex?; Sudlich Europa; MNB, Berlin.

Figures: Balachowsky 1949a: 16, 20, 151 (adult), Hill 1983: 495.

Distribution: Africa (Algeria/ Azores Islands/ Morocco/ Tunisia), Asia (Israel/ Turkey), Europe (Bulgaria/ France/ Greece/ Hungary/ Italy/ Sardinia/ Spain/ Switzerland/ Yugoslavia), Madagascar.

Hosts: *Ficus carica*.

References: **(ay)** Fuchs 1912: 31; Nusslin 1911a: 51, 89, 277, 338, 378. **(cn)** Acatay 1943: 61; Balachowsky 1963: 1276; Barbey 1906d; Berlese 1915; Botinica & Colic 1954: 18–23; Chorbadzhievo 1929; Dominguez Garcia-Tejero 1944, 1955: 231; Frohlich & Rodewald 1969: 72; Gentry, J. W. 1965: 128; Coureaux 1861: 113; Grandi 1951; Greckin 1956: 1484; Hammad 1961; Hill, D. S. 1983: 570; Kleine 1932a: 296; Koppen 1882: 251; Mourikis & Vassilaina-Alexopoulou 1975: 144; Mumford 1961: 25; Pelekassis 1962; Picard 1921: 17; Pierce, W. D. 1917: 103; Schimitschek 1938c: 2125, 1941: 319–321, 1944: 168, 1952c: 60; Talhouk 1950: 134; Wachtl 1901: 381. **(ce)** Balachowsky 1927b, 1963a: 1276; Berland 1934; Fintzescu 1930: 245–246; Fry 1959: 16; Graham 1969: 876; Halperin & Holzschuh 1984: 25; Heqvist 1967: 68; Hlinsky 1917: 1–19; Kleine 1908c: 186, 1909a: 46, 78–80, 1944: 74; Kono & Watanabe 1935: 69; Lichtenstein & Picard 1917: 440–447, 1920: 34–55; Mendel 1986c: 115, 1986d: 130; Novak, P. 1952: 413; Perris 1853: 620, 1856a: 244; Picard 1919: 64; Picard & Lichtenstein 1917: 284–287; Rondani 1873: 151; Ruschka 1916: 25; Silvestri 1911: 394; Sokanovskii 1936: 74; Thompson, J. R. 1943: 56; Thompson, W. R. & Simmonds 1964: 22, 1965: 5;

Trabut 1923: 117–124; Wichmann 1916: 22, 1954: 545–546, 1955a: 102. **(hb)** Acatay 1943a: 61–62, 148; Adeli 1972: 14; Adelhng 1905; Balachowsky 1927a: 263–264, 1963a: 1276; Barbey 1906d; Beffa 1949, 1961; Berland 1934: 215; Berlese 1915; Bodenheimer 1930, 1935; Bonnemaïson 1953; Cecconi 1906: 970–971; Chorbadzhievo 1929; Eggers 1914: 187; Eichhoff 1881a: 45, 171; Frohlich & Rodewald 1969: 72; Grandi 1951; Greckin 1956: 1484; Halperin & Holzschuh 1984: 25; Hammad 1961; Henschel 1895a: 162; Heymons 1920: 103, 1921: 87–89; Hill, D. S. 1983: 570, 1987: 339; Keller 1913: 242; Kleine 1932a: 296; Knotek 1894a: 557; Lengerken 1939: 40, 59, 1954: 76; Lepiney & Mimeur 1932: 45; Lunardoni & Leonardi 1889: 457; Madon 1930: 99; Masi 1934: 97–102; Masutti 1964; Nusslin 1898: 274; Perris 1856a: 244; Peyerimhoff 1919: 251; Pfeffer 1989a: 40; Schedl 1981b: 63; Schimitschek 1944: 168; Silvestri 1911: 394; Stark 1952: 244; Tschorbadjiev 1929: 164; Wachtl 1876a: 458, 1901: 381; Wichmann 1916: 22; Widiez 1932: 415–445; Xambeu 1889: 274; 1892: 473, 1893: 104, 1898b: 274; Zocchi 1959: 103, 105. **(ds)** Acloque 1896; Adeli 1972: 14; Alkan 1964: 367–381; Audras & Schaefer 1957; Baeta Neves 1964: 5; Balachowsky 1927a, 1963a: 1276; Barbey 1906: 93–97; Barthe 1896; Bedel 1888b: 397, 413; Beffa 1949; Bertolini 1872: 200; Blanchere & Robert 1889; Bodenheimer 1930: 266–267, 1935; Bright 1987a: 3; Calver 1884, 1893; Chorbadzhievo 1929; Dejean 1837: 333; Eggers 1920: 124; Endrodi 1957b: 421, 1958a: 28, 1958b; Escalera 1919: 105; Fanel 1885, 1897: 66; Ganglbauer 1904; Gaubil 1849: 126; Gemminger & Harold 1872: 2684; Gentry, J. W. 1965: 128; Georghiou 1977: 74; Cozis 1875: 80; Gredler 1866: 373; Gridelli 1930: 393; Hagedorn 1910d: 29; Halperin & Holzschuh 1984: 25; Hammad 1961: 151; Henschel 1895a: 162; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 709; Hill, D. S. 1983: 570; Holdhaus 1923: 115; Jansson 1940: 63; Kadyrov 1988: 43, 45, 1989; Keller 1913: 243; Kestercanek 1881a: 12; Kleine 1908: 205–208, 225, 227, 1909: 41–50, 76–79, 120–121, 140–141, 1912b: 186, 1913a: 35, 1914a: 16, 1928: 297, 1932a: 296; Knotek 1892a: 37, 1894a: 557; Kobakhidze 1957: 178; Kocher 1961: 247; Koppen 1882: 251; Kraatz 1869: 59; Krausse 1910: 171, 1911: 67; Lacordaire 1866: 380; Langhoffer 1915a: 63, 1915c: 157; Leonardi 1923: 429; Lepiney & Mimeur 1932: 45; Lezhava 1929: 5; Liebmann 1945: 144; Lucht 1987: 277; Lunardoni & Leonardi 1889: 457; Lundblad 1958: 489; Masutti 1964: 180; Mayet 1904: 93; Moragues 1889: 32; Motschulsky 1866: 403; Mourikis & Vassilaina-Alexopoulou 1975: 144; Mumford 1961: 25; Negrn 1966b: 400, 1968a: 455; Normand 1937: 268; Novak, P. 1952: 413; Nusslin 1898: 274, 284; Orten 1886: 279; Paganetti-Hummel 1901: 150, 1918: 103; Palm 1962: 145, 1965: 10; Pelekassis 1962; Perris 1876a:

255, 1877a: 415; Peyerimhoff 1919: 251; Pfeffer 1936: 90, 1947d: 126, 1959a: 40; Picard 1919: 89–96; Pierce, W. D. 1917: 103; Ragusa 1924: 115; Redtenbacher 1858: 833, 1874: 374; Reitter 1894a: 56; Rossenhauer 1856: 301; Sahlberg 1903c: 79; Sainte-Claire 1914: 470; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1229; Schaum 1859: 96, 1862: 101; Schedl 1961b: 186, 1963e: 155, 1964a: 95–97, 1964j: 40, 1967c: 70–75, 1967f: 163, 1968a: 23, 1969g: 285–290, 1971d: 427, 1971f: 146, 1977b: 26, 1978e: 36, 1979i: 290, 1981b: 63; Schilsky 1888: 121, 1909: 187; Schmitz 1898: 157; Seidlitz 1891: 151–152; Sokanovskii 1936: 74; Stark 1927b: 88, 1952: 244; Stein 1868: 114; Stein & Weise 1877: 164; Sturm 1843: 230; Talhouk 1950: 134, 137; Treddl 1907: 13; Tressens 1952: 90; Tschorbadjiev 1928: 138, 1929: 164–165, 179; Umnov 1940: 43; Wachtl 1876a: 458–459; Wichmann 1955a: 102; Winogradov 1926: 266, 275; Wollaston 1857: 98; Zocchi 1959: 103, 105. **(tx)** Acloue 1896; Aube 1862; Balachowsky 1949a: 151, 1963a: 1276; Bedel 1888b: 397, 413; Beffa 1949, 1961; Bertolini 1872, 1899; Calwer 1858; Castelnan 1840; Csiki 1907; Eggers 1914; Eichhoff 1864b: 35, 1866: 277, 1878b: 118–119, 1881a: 45, 171, 1883a: 109, 132; Endrodi 1957b; Erichson 1836: 62; Fauvel 1884b: 315, 1885, 1889; Ferrari 1867: 18, 59, 1967b: 114; Hagedorn 1910a: 61; Hammad 1961; Henschel 1895a: 162; Hill, D. S. 1983: 495; Hopkins 1914: 123–133; Jacquelin du Val & Fairmaire 1865: 106; Kalina 1975; Knotek 1892a: 37; Lacordaire 1866: 380; Lindemann 1877a: 176, 186–187; Lucas 1920: 345; Lucht 1987: 277; Luigioni 1929: 995; Lunardoni & Leonardi 1889: 457; Negru 1966b: 400; Nusslin 1911a: 51, 89, 277, 338, 378; Perris 1877a: 415; Pfeffer 1955a: 145; Portevin 1935: 323; Redtenbacher 1858: 833, 1874: 374–375; Reitter 1894a: 56, 1906: 709, 1913a: 60; Schedl 1934f: 1637, 1953d: 68–69, 1977b: 26, 1981b: 63; Sokanovskii 1936: 73–74; Stark 1952: 244; Wichmann 1916: 22–23; Wollaston 1857: 98, 1865: 249. **(ms)** Lucas 1920: 345.

siculus Ferrari 1867a: 18. Syntypes, sex?; Europe; NHMW, Wien. Synonymy: Ferrari 1867a: 18. References: **(hb)** Wachtl 1876a: 458. **(ds)** Stein & Weise 1877: 164; Wachtl 1876a: 458. **(tx)** Balachowsky 1949a: 151; Ferrari 1867a: 18.

tanganyikaensis Schedl 1972k: 296. Holotype, sex?; Tanganyika, Usa River, 3900 feet; NHMB, Budapest.

Distribution: Africa (Tanzania).

References: **(tx)** Schedl 1972k: 296.

Genus *Styracoptinus* Wood

STYRACOPTINUS WOOD 1962: 77. Type-species: *Styracopterus murex* Blandford, automatic.

Styracopterus Blandford 1896d: 323. Type-species: *Styracopterus murex* Blandford, monobasic, preoccupied by Traquair 1890: 492.

References: **(tx)** Blandford 1896d: 323; Hagedorn 1910a: 35, 70; Hopkins 1914: 130, 1915c: 226; Lucas 1920: 619; Schedl 1959n: 414–417; Wood, S. L. 1962: 77.

Afrotrypetus Bright 1981a: 113. Type-species: *Afrotrypetus euphorbiae* Bright, original designation. Synonymy: Wood 1983a: 649.

References: **(tx)** Bright 1981a: 113; Wood, S. L. 1983a: 649.

References: **(hb)** Wood, S. L. 1986a: 54. **(ds)** Schedl 1961k: 414; Wood, S. L. 1986a: 54. **(tx)** Schedl 1961k: 414; Wood, S. L. 1962: 77, 1986a: 54.

cavipennis (Schedl) 1969d: 13 (*Styracopterus*). Holotype, sex?; Mozambique; Schedl Collection in NHMW, Wien.

Distribution: Africa (Mozambique).

References: **(ds)** Schedl 1969d: 3. **(tx)** Schedl 1969d: 13–14.

euphorbiae (Bright) 1981a: 114 (*Afrotrypetus*). Holotype ♀; Stellenbosch, South Africa; USNM, Washington.

Figures: Bright 1981a: 115–116 (adult).

Distribution: Africa (South Africa).

Hosts: *Euphorbia dregei*.

References: **(tx)** Bright 1981a: 114–116.

ferreirai (Schedl) 1969d: 12 (*Styracopterus*). Holotype, sex?; Porto Henrique (Maputo); Instituto de Investigacao Cientifica de Mocambique.

Distribution: Africa (Mozambique).

References: **(ds)** Schedl 1969d: 3. **(tx)** Schedl 1969d: 12.

murex (Blandford) 1896d: 324 (*Styracopterus*). Syntypes 3 ♂♂; British Bechuanaland; BMNH, London.

Distribution: Africa (Mozambique/ South Africa/ Tanzania/ Zimbabwe).

Hosts: *Acacia* sp., *Spirostachys africana*.

References: **(cn)** Anonymous 1970c: 13. **(cc)** Schedl 1958d: 190. **(hb)** Schedl 1961k: 414–417. **(ds)** Anonymous 1970c: 13; Browne 1950b: 381; Gardner 1957a; Hagedorn 1910d: 25–29; Kleine 1912b: 187, 1914b; Schedl 1961k: 414, 1962h: 57, 1962k: 1066, 1965g: 19, 1969d: 4, 1982: 275. **(tx)** Blandford 1896d: 324; Eggers 1922: 174; Hagedorn 1910a: 70; Hopkins 1914: 130; Lucas 1920: 619; Schedl 1950c: 203, 1957b: 150, 1958d: 190, 1961k: 414–416, 1962k: 1066, 1965g: 19; Wood, S. L. 1962: 77. **(ms)** Lucas 1920: 619.

Genus *Dacryostactus* Schaufuss

DACRYOSTACTUS SCHAUFUSS 1905: 79. Type-species: *Dacryostactus kolbei* Schaufuss, monobasic.

References: **(ay)** Nusslin 1912: 210. **(hb)** Heymons 1920a: 82, 88, 1920b: 97–144; Wood, S. L. 1986a: 55. **(ds)** Wood, S. L. 1986a: 55. **(tx)** Hagedorn 1910a: 35, 69–70, 1910d: 28; Hopkins 1914: 120, 1915c: 226; Schaufuss 1905: 79; Schedl 1961k: 404–413; Wood, S. L. 1986a: 55.

kolbei Schaufuss 1905: 4. Syntypes, sex?; Africa mer. occid. (Wetmansdorp); MNB, Berlin.
Figures: Schedl 1961k: 407 (antenna), 409 (galleries).
Distribution: Africa (Angola/ Namibia).
Hosts: Meliaceae sp.
References: (ay) Nusslin 1912: 206. (ec) Schedl 1958d: 190. (hb) Heymons 1920a: 86–87, 1920b:

97–144; Lengerken 1939: 39–40, 59, 61, 1954: 76; Schedl 1961k: 405. (ds) Hagedorn 1910d: 28; Kleine 1912b: 183, 1914b: 317, 1934a: 136; Schedl 1969d: 3. (tx) Hagedorn 1910a: 70; Hopkins 1914: 120; Schaufuss 1905: 4, 79; Schedl 1950d: 17, 1958d: 190, 1961k: 405–413, 1979c: 134.

Tribe Polygraphini Chapuis

Polygraphidae

References: Chapuis 1869: 45, 1873: 256.

Polygraphi

References: LeConte 1876: 374; LeConte & Horn 1883: 521.

Polygraphini

References: Lucas 1920: 51; Nobuchi 1955c: 9; Nusslin 1911: 430; Reitter 1913a: 27; Wood, S. L. 1978a: 112, 1982b: 369–391, 1986: 55.

Polygraphina

References: Balachowsky 1949a: 141; Nunberg 1954: 15.

Carphoboridae

References: Nusslin 1912(1911): 430.

Genus *Serrastus* Nunberg

SERRASTUS NUNBERG 1969a: 392. Type-species: *Serrastus ivoriensis* Nunberg = *Chortastus similis* Eggers, monobasic.

References: (hb) Wood, S. L. 1986a: 56. (ds) Browne 1973c: 26–28; Wood, S. L. 1986a: 56. (tx) Browne 1973c: 26–28; Nunberg 1969a: 392; Wood, S. L. 1986a: 56.

serrifer (Hagedorn) 1909a: 739 (*Chortastus*).

Holotype, sex?; Kamerun; MNB, Berlin.

Distribution: Africa (Cameroon).

References: (ds) Hagedorn 1910d: 24; Kleine 1912b: 181, 1914b: 310. (tx) Browne 1973c: 29; Eggers 1923a: 179, 1924: 100; Hagedorn 1909a: 737–739, 1910a: 57; Schedl 1959n: 405, 1977a: 38.

similis (Eggers) 1924: 100 (*Chortastus*). Holotype

♂; Mayumbe, Tshela; MRCB, Tervuren.

Figures: Browne 1973c: 27, Schedl 1959n: 406 (galleries).

Distribution: Africa (Ivory Coast/ Nigeria/ Zaïre).

Hosts: *Musanga cercopioides*.

Notes: (1) Schedl 1972q: 261 (to *Serratus*).

References: (ce) Schedl 1958d: 187, 1972q: 261. (hb) Browne 1963a: 232, 1973c: 28; Roberts 1969b: 123; Schedl 1958d: 187, 192. (ds) Browne 1963a: 232, 1973c: 28; Mayne & Donis 1962: 303; Schedl 1962h: 57, 1962k: 1063, 1964f: 617, 1966c: 223, 1967e: 209, 1971g: 190, 1972e: 279, 1977d: 277, 1979b: 415. (tx) Browne 1965a: 188, 1973c: 27–28; Eggers 1924: 100; Schedl 1950d: 7, 1959n: 405, 1962k: 1063, 1972q: 261, 1979c: 229.

ivoriensis Nunberg 1969a: 393. Holotype ♂;

Bringerville, Ivory Coast; MRCB, Tervuren.

Synonymy: Schedl 1972q: 261.

References: (tx) Nunberg 1969a: 393; Schedl 1972q: 261.

Genus *Halystus* Schedl

HALYSTUS SCHEDL 1982: 283. Type-species: *Halystus namibiae* Schedl, monobasic.

Phloeographus Wood 1984b: 229. Type-species:

Phloeographus namibiae Wood = *Halystus*

namibiae Schedl, original designation. Synonymy: Wood 1985b: 188.

References: (tx) Wood, S. L. 1984b: 229, 1985b: 188.

References: (hb) Wood, S. L. 1986a: 56. (ds) Wood, S. L. 1986a: 56. (tx) Schedl 1982: 283; Wood, S. L. 1986a: 56, 1985b: 188.

namibiae Schedl 1982: 283. Holotype ♀; Namibia; Schedl Collection in NHMW, Wien.

Distribution: Africa (Namibia).

References: (tx) Schedl 1982: 283; Wood, S. L. 1985b: 188.

namibiae Wood 1984b: 229 (*Phloeographus*). Holotype ♀; SW Africa, Damara, Farm Bethanis 20.25, S-14–24E; NHMW, Wien. Synonymy: Wood 1985b: 188.

References: (tx) Wood, S. L. 1984b: 229, 1986a: 56, 1985b: 188.

Genus *Cardroctonus* Schedl

CARDROCTONUS SCHEDL 1965e: 361. Type-species: *Cardroctonus orientalis* Schedl, original designation.

References: (hb) Wood, S. L. 1986a: 56. (ds) Wood, S. L. 1986a: 56. (tx) Schedl 1965e: 361; Wood, S. L. 1986a: 56.

africanus (Nunberg) 1964b: 433 (*Carphoborus*).

Holotype, sex?; Ost-Afrika; NHMB, Budapest.

Figures: Nunberg 1964b: 432.

Distribution: Africa (Tanzania).

Notes: (1) Schedl 1965e: 361 (to *Cardroctonus*).

References: (tx) Nunberg 1964b: 432–433; Schedl 1965e: 361.

congonus Schedl 1965e: 362. Holotype ♂?; Congo, Mayumbe; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

References: (tx) Schedl 1965e: 362, 1979c: 62.

orientalis Schedl 1965e: 361. Holotype, sex?; Tanganyika, Mpala; Schedl Collection in NHMW, Wien, lost?

Distribution: Africa (Tanzania).

Notes: (1) Specimen labeled as the holotype is missing from its pin.

References: (tx) Schedl 1965e: 361, 1979c: 180; Wood, S. L. 1986a: 56.

Genus *Polygraphus* Erichson

POLYGRAPHUS ERICHSON 1836: 57. Type-species: *Hylesinus pubescens* Fabricius = *Dermestes polygraphus* Linnaeus, monobasic.

Lepisonus Kirby 1837: 193. Type-species: *Apate* (*Lepisonus*) *rufipennis* Kirby, subsequent designation by Hopkins 1914: 124. Synonymy: Swaine 1918a: 55.

References: (tx) Hopkins 1914: 124, 1915c: 226; Kirby 1837: 57, 193; Swaine 1918a: 55.

Spongotarsus Hagedorn 1908: 372. Type-species: *Spongotarsus quadrioculatus* Hagedorn, monobasic. Synonymy: Schedl 1972p: 153.

- References: (tx) Hagedorn 1908: 372, 1910a: 78, 1910d: 39; Hopkins 1914: 129, 135, 1915c: 226; Schedl 1972p: 153; Wood, S. L. 1986a: 56.
- Pseudopolygraphus* Seitner 1911: 99, 105. Type-species: *Polygraphus grandiclava* Thomson, subsequent designation by Hopkins 1914: 128. Synonymy: Hopkins 1915c: 222.
- References: (tx) Endrodi 1957b: 415; Hopkins 1914: 128, 1915c: 222; Seitner 1911: 99–109; Schedl 1955a: 3; Swaine 1918a: 55.
- Ozophagus* Eggers 1919: 234. Type-species: *Ozophagus camerunus* Eggers, subsequent designation by Wood 1982b: 386. Synonymy: Schedl 1950d: 2.
- References: (tx) Eggers 1919: 234–235; Schedl 1950d: 2; Wood, S. L. 1982b: 386.
- Nipponopolygraphus* Nobuchi 1981c: 12. Type-species: *Nipponopolygraphus kaimochii* Nobuchi, original designation. Synonymy: Wood 1992b: 81.
- References: (tx) Nobuchi 1981c: 12; Wood, S. L. 1992b: 81.
- Keys: Schedl 1955a: 5, Murayama 1956: 278, Wood 1982b: 387.
- Notes: (3) Beeson 1941: 379–380, 1961: 301, (*Urdugraphus*, nomen nudum, no status, with *U. difficilis* Beeson, nomen nudum = *Polygraphus difficilis* Wood as the only species). Scudder 1893: 158 (*Polygraphus worthini*, a fossil [is not a Scolytidae]).
- References: (ay) Fuchs 1912: 5–44; Nobuchi 1969a: 54; Nusslin 1911, 1912b, 1912c; Schonherr 1970b. (bv) Barr, B. A. 1962: 642; Schonherr 1970b. (cn) Balch 1941: 1–4; Barbey 1901: 55; Borodajewskii 1929: 515–521; Butovitsch 1941: 297–360; Escherich 1923: 446–447, 474–475; Inouye & Yamaguchi 1955: 72–94; Judeich & Nitsche 1895: 455–456; Swaine 1913: 87–92, 1924: 1–26. (cc) Nickle 1976b. (hb) Nusslin 1904: 1–15; Postner 1974: 406; Rohrl 1914: 189–193; Schedl 1958d: 193, 1961k: 358, 1977b: 15, 1981b: 55; Tragardh 1930b: 63, 1930c: 469–480; Wood, S. L. 1982b: 387, 1986a: 56. (ds) Beeson 1922: 342–343, 1941: 379–380; Hagedorn 1910d: 37–38; Karaman 1972: 95; Postner 1974: 406; Provancher 1877: 570; Schedl 1961k: 358, 1977b: 15, 1981b: 55; Scheerpeltz & Winkler 1930: 87; Swaine 1909: 140–141; Tredl 1907: 11; Wood, S. L. 1982b: 387, 1986a: 56. (tx) Arnett 1960: 1042, 1968: 1042; Balachowsky 1949a: 141–143; Beeson 1941: 379–380; Blandford 1896b: 74; Bright 1978: 202; Bruck 1936a: 38–51, 108–126; Chamberlin 1939: 6, 28, 59, 121–122, 126; Chapnis 1869: 48, 1873: 250; Choo 1983: 43; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 17; Eggers 1940a: 99–108; Eichhoff 1864: 22, 32, 36, 44, 1881a: 37, 122; Erichson 1836: 37; Gardner 1834: 4, 11; Hagedorn 1908: 371, 1909: 137–138, 1910a: 71, 76–77; Hilton 1968: 21–44; Hopkins 1914: 128, 1915c: 195, 222, 226; Kangas 1947: 1–192; Kostin 1973: 250; Krivolutskaia 1958: 124–132; Kurenzov 1941: 72, 137; Lacordaire 1866: 365; LeConte 1868: 169, 1876: 374–376; LeConte & Horn 1883: 521; Murayama 1954: 165–167, 1956: 275–292; Niisima 1909: 132; Nishiguchi 1957: 75–78; Nobuchi 1979b: 2; Pfeffer 1955, 141–145, 1989a: 41; Postner 1974: 406; Reitter 1913a: 54–56; Saalas 1914: 71–81; Schedl 1950d: 2, 1955a: 3–25, 1957d: 1–162, 1961k: 358–391, 1965f: 3–15, 1972p: 153; 1977b: 15–16, 1981b: 55; Schimitschek 1937: 49; Sedlaczek 1912: 305–310; Spessivtsev 1922: 466, 1931: 87; Stebbing 1914; Stolina 1969: 610–627; Swaine 1918a: 39, 55; Tsai & Yin 1965: 323–340; Wood, S. L. 1961a: 44, 1982b: 387, 1986a: 56; Yin & Huang 1981: 558; Yogo 1958: 143–146.
- abietis* Kurenzov 1941a: 131, 229. Syntypes, sex?; Coast (Primorsky) Region (upper course of the river Suputinka) (Siberia); ISBN, Novosibirsk, USSR.
- Figures: Schedl 1955a: 11 (antenna).
- Distribution: Asia (Ussuri, Siberia in E USSR).
- Hosts: *Abies holophylla*.
- Notes: (3) Schedl 1955a: 13 (redescribed).
- References: (hb) Kurenzov 1948b: 101, 1950d: 202; Stark 1952: 229. (ds) Krivolutskaia 1983; Kurenzov 1965, 1967; Murayama 1956a: 276; Stark 1952: 229. (tx) Kurenzov 1941a: 131, 229, 1948b: 101; Michalski 1969b: 566; Murayama 1956a: 276, 280; Schedl 1955a: 13; Stark 1952: 229.
- aequalis* Schedl 1961e: 129. Holotype, sex?; Madagascar, Antaniditra pres Perinet; IRSM, Madagascar.
- Distribution: Madagascar.
- Hosts: *Ochrocarpos* sp. twigs.
- Notes: (3) Schedl 1961e: 129 (named aberration as subsp. *aequalis solidus*, without designation of type material, no status in nomenclature).
- References: (hb) Schedl 1977b: 16. (tx) Schedl 1961e: 129, 1977b: 16–17.
- aequatus* Schedl 1961e: 129. Holotype, sex?; Madagascar, Antaniditra pres Perinet; IRSM, Madagascar.
- Distribution: Madagascar.
- Hosts: *Ochrocarpos* sp. twigs.
- References: (hb) Schedl 1977b: 17. (ds) Schedl 1977b: 17. (tx) Schedl 1961e: 129–130, 1977b: 17.
- afzeliae* Schedl 1954d: 880. Syntypes ♂ ♀; Cote d'Ivoire, Languedou; restricted MNHN, Paris by Schedl 1979c: 15.
- Distribution: Africa (Ivory Coast/ Zaire).
- Hosts: *Afzelia bella*, *Dialium corbisieri*.
- References: (hb) Schedl 1961k: 361. (ds) Schedl 1961k: 361, 1979b: 415. (tx) Schedl 1954d: 870, 880, 1961k: 361, 1979c: 15.
- amoenus* (Schaufuss) 1891: 10 (*Hyburgus*). Syntypes, sex?; Madagascar; Hamburg Museum, lost.
- Distribution: Madagascar.
- Hosts: *Leptolaene multiflora*, *Neodypsis baroni*, *Ochrocarpos* sp., *Symphonia chusoides*.

- Notes: (3) Schedl 1953d: 83 (redescribed male), 1979c: 18 (neotype designation invalid).
References: (hb) Anonymous 1892: 164–165; Schedl 1977b: 17. (ds) Allnau 1900: 435–442; Fairmaire 1892b; Hagedorn 1910d: 38; Kleine 1913b: 116, 1914b: 325; Schedl 1970d: 233, 1977b: 17. (tx) Fairmaire 1892b; Hagedorn 1910a: 77, 1913b: 254; Murayama 1956: 289; Schaufuss 1891: 10–11, 18; Schedl 1953d: 68, 83–84, 1961e: 128, 1965c: 52, 1970d: 233, 1977b: 17, 1979c: 18.
- angusticollis** Schedl 1965c: 52. Holotype, sex?; Madagascar Est, det. Sambava, R. N. XII, Marojejy Ouest, 1600 m; IRSM, Madagascar.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 52, 1977b: 19.
- angustus** Tsai & Yin 1965: 335. Holotype ♀; Muli, Szechwan, China; IZAS, Beijing.
Distribution: Asia (Sichuan in China).
Hosts: *Picea asperata*.
References: (tx) Tsai & Yin 1965: 335.
- anogeissi** Wood 1958b: 194. Holotype ♀; Kirwatti, E. Kanara, Bombay, India; FRI, Dehra Dun.
Distribution: Asia (Burma/ Bengal, Maharashtra in India/ Sri Lanka).
Hosts: *Anogeissus acuminata*, *Bassia latifolia*, *Odina wodier*.
Notes: (3) Beeson 1941(1961: 292) (*bassiae*, nomen nudum).
References: (cn) Roonwal 1954: 72. (ds) Roonwal 1954: 72. (tx) Wood, S. L. 1958b: 194.
- apicalis** Schedl 1957d: 33. Holotype ♂ ♀; Congo Belge, Kivu, Contrefort Sud du Mt. Kahuzi, 2,200 m; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Clitandra* cf. *staudii*.
References: (ds) Schedl 1961k: 362. (tx) Schedl 1957d: 33, 1961k: 362.
- aterrimus** Strohmeyer 1905b: 69. Syntypes, sex?; Kulu, Himalaya occidentalis; Strohmeyer Collection.
Figures: Stebbing 1914: 522 (adult, galleries).
Distribution: Asia (Himachal Pradesh, Punjab, Uttar Pradesh in India/ Thailand).
Hosts: *Pinus griffithii*, rare in *P. roxburghii*, *Cedrus deodara*, *Abies webbiana*.
Notes: (3) Beeson 1941(1961: 294) (*melanotus*, nomen nudum).
References: (cn) Pierce, W. D. 1917: 52; Stebbing 1903a: 258, 1914: 527. (ec) Stebbing 1914: 527. (hb) Beaver & Browne 1975: 294; Stebbing 1903a: 258, 1914: 527. (ds) Beaver & Browne 1975: 294; Beeson 1961: 292–294; Bhasin, Roonwal, & Singh 1958; Browne 1972b: 19, 1980a: 370; Hagedorn 1910d: 38; Kleine 1913b: 116, 1914b: 271, 276, 1934a: 141; Pierce, W. D. 1917: 52; Stebbing 1903a: 258. (tx) Beeson 1922c: 497; Browne 1972: 19; Hagedorn 1910a: 77; Schedl 1967a: 128; Stebbing 1914: 527; Strohmeyer 1905b: 69.
- niger** Stebbing 1914: 520. Syntypes, sex?; Jaunsar, North-West Himalaya, India; FRI, Dehra Dun. Synonymy: Beeson 1922c: 497.
References: (cn) Beeson 1922a; Pierce, W. D. 1917: 75; Stebbing 1914: 520. (ec) Beeson 1922c: 497; Chararas 1959c; Stebbing 1914: 520. (hb) Beeson 1922c: 497; Stebbing 1914: 520. (ds) Beeson 1922a, 1922c: 497; Pierce, W. D. 1917: 75. (tx) Stebbing 1914: 520.
- basutoae** Schedl 1957d: 32. Holotype ♀; Basoutoland; MNHN, Paris.
Distribution: Africa (Basoutoland in South Africa).
References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Browne 1970: 540; Schedl 1970h: 180, 1975k: 276. (tx) Schedl 1957d: 32, 1961k: 362.
- bicolor** Eggers 1935c: 302. Holotype, sex?; Congostaat (Lisafa); MRCB, Tervuren.
Distribution: Africa (Ghana/ Nigeria/ Tanzania/ Uganda/ Zaire).
Hosts: *Entandrophragma angolense*, *Khaya* sp., *Stereulia quinqueloba*.
References: (hb) Roberts 1969b: 126. (ds) Browne 1984b: 287; Mayne & Donis 1962: 310; Schedl 1959q: 705, 1961k: 363, 1965f: 4. (tx) Eggers 1935c: 302; Schedl 1952g: 50, 1959q: 705, 1961k: 362–363, 1965f: 4.
- latus** Eggers 1935c: 303. Holotype, sex?; Congostaat (Lisafa); MRCB, Tervuren [Eggers cotype in NHMW, Wien]. Synonymy: Schedl 1961k: 363.
References: (tx) Eggers 1935c: 303, 1939g: 170, 1939i: 383; Schedl 1961k: 383.
- binotatus** Schedl 1957d: 41. Holotype ♀; Congo Belge, Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Carapa procera*.
References: (ec) Schedl 1961k: 364. (hb) Schedl 1961k: 364. (ds) Schedl 1961k: 364. (tx) Schedl 1957d: 41, 1961k: 364.
- brunneus** Eggers 1919: 236. Syntypes 3 ♂ ♀; Kamerun; 2 ♀ Schreiner Collection in Hamburg Museum, lost, 1 ♂ Eggers syntype in NHMW, Wien.
Distribution: Africa (Cameroon/ Nigeria).
References: (hb) Roberts 1969b: 126. (ds) Browne 1965a: 188, 1980d: 493; Schedl 1965e: 351, 1967e: 209, 1971g: 191. (tx) Eggers 1919: 236–237, 1922b: 167; Schedl 1961k: 364.
- carphoboroides** Eggers 1919: 237. Holotype ♀?; Kamerun; Eggers Collection, in NHMW, Wien.
Distribution: Africa (Cameroon/ Ivory Coast/ Nigeria/ Zaire).
Hosts: *Azelia bella*.
References: (hb) Roberts 1969b: 126. (ds) Cachan 1957: 15; Schedl 1961k: 365, 1964f: 617. (tx) Eggers 1919: 237, 1922b: 167, 1932c: 30; Schedl 1950e: 211, 1954d: 870, 1961k: 365, 1965f: 7.

- confusus** Eggers 1940b: 99. Holotype ♀; Congostaat; Eggers Collection, in NHMW, Wien.
Distribution: Africa (Zaire).
References: (ds) Nunberg 1961a: 328. (tx) Eggers 1940b: 99; Schedl 1961k: 370.
- congonus** Eggers 1940b: 100. Holotype ♂; Congostaat; Eggers Collection, in NHMW, Wien.
Figures: Schedl 1961k: 366.
Distribution: Africa (Zaire).
References: (ec) Krezal 1959: 611; Smiley & Moser 1984. (ds) Schedl 1966e: 223. (tx) Eggers 1940b: 100; Schedl 1950d: 2, 6, 1961k: 365–366.
- convexifrons** Wood 1951b: 32. Holotype ♀; Logan Dry Canyon, Utah [USA]; USNM, Washington.
Figures: Atkinson & Equihua 1988: 99.
Distribution: North America (Alaska/ Alberta, British Columbia, Quebec, Yukon in Canada/ Coahuila in Mexico/ Colorado, New Mexico, South Dakota, Utah in USA).
Hosts: *Picea engelmannii*, *P. glauca*.
References: (cn) Lindgren 1980a: 69. (ec) Werner & Holsten 1984. (hb) Bright 1976d: 102; Chamberlin 1958: 57–58; Gara & Holsten 1975; Lindgren 1980a: 69; Wood, S. L. 1982b: 370. (ds) Atkinson & Equihua 1988: 100; Bright 1976d: 102; Chamberlin 1958: 57–58; Furniss, R. L. & Carolin 1977: 370; Gara & Holsten 1975; Hilton 1968: 34; Keen 1929a: 14; Morgan 1988a; Werner & Holsten 1984; Wood, S. L. 1951a: 127, 1972a: 411, 1982b: 370. (tx) Atkinson & Equihua 1988: 99; Bright 1976d: 102; Chamberlin 1958: 57–58; Hilton 1968: 34; Keen 1929a: 14; Wood, S. L. 1951b: 32, 1972a: 411, 1982b: 390.
- coronatus** Eggers 1919: 237. Holotype ♀; Kamerun; Eggers Collection, in NHMW, Wien.
Distribution: Africa (Cameroon/ French Guinea/ Ghana/ Nigeria).
Hosts: *Albizia gummifera*, *Antiaris africana*, *Khaya grandifolia*, *Triplochiton scleroxylon*.
References: (hb) Roberts 1969b: 126; Thompson, C. H. 1963: 60. (ds) Browne 1985b: 291; Schedl 1961k: 366, 1962h: 57, 1962k: 1065, 1965e: 351, 1971g: 191, 1972e: 280; Thompson, C. H. 1963: 60. (tx) Eggers 1919: 237, 1922b: 167; Schedl 1954e: 49, 1957d: 10, 1961k: 366.
- pygmaeus** Eggers 1919: 239. Holotype ♀; Kamerun; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1954e: 49.
References: (tx) Eggers 1919: 239, 1922b: 167; Schedl 1954e: 49, 1955d: 268, 1957d: 10.
- creber** Schedl 1961e: 128. Holotype, sex?; Madagascar, Betsatrapy pres Perinet; IRSM, Madagascar.
Figures: Schedl 1977b: 19 (galleries).
Distribution: Madagascar.
Hosts: *Garcinia verrucosa*, *Symphonia cf urophylla*.
References: (hb) Schedl 1977b: 19. (ds) Schedl 1977b: 19. (tx) Schedl 1961e: 128, 1977b: 19.
- difficilis** Wood 1988b: 194. Holotype ♀; Sitoli, C. Almora; FRI, Dehra Dun.
Distribution: Asia (Himachal Pradesh, Punjab, Uttar Pradesh in India).
Hosts: *Pinus roxburghii*.
Notes: (3) Beeson 1941 (1961: 301) (*Urdugrampus difficilis*, nomen nudum).
References: (tx) Beeson 1941 (1961: 301); Wood, S. L. 1988b: 194.
- dimorphus** Schedl 1957d: 39. Holotype ♀; Congo Belge; Hembe-Bitale; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Carapa grandiflora*, *Grewia mildbraedii*.
References: (cc) Schedl 1961k: 367. (hb) Schedl 1961k: 367. (ds) Schedl 1961k: 367. (tx) Schedl 1957d: 39, 1961k: 367.
- fulvipennis** Niisima 1941: 131. Syntypes 2 ♂; Honshu (Yatsugatake-Berg, Prov. Kai), Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1979b: pl. 3 (adult).
Distribution: Asia (Japan).
Hosts: *Abies veitchii*.
References: (ds) Murayama 1954b: 165, 1956a: 276; Nobuchi 1979b: 4, 1985c: 9. (tx) Murayama 1954b: 165, 1956a: 276, 279; Niisima 1941: 131; Nobuchi 1979b: 4, pl. 3.
- gracilis** Niisima 1909: 132, 136. Holotype, sex?; Mionai, Teshio, Japan; Nobuchi Collection, Ibaraki.
Figures: Schedl 1955a: 23 (antenna).
Distribution: Asia (Japan/ Sakhalin Island and E USSR).
Hosts: *Picea glehni*, *P. jezoensis*, *Abies sachalinensis*.
Notes: (3) Schedl 1955a: 23 (original description quoted).
References: (cn) Inouye 1955; Inouye & Yamaguchi 1955a: 235. (cc) Inouye 1954: 174; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 82; Kabir & Giese 1966a: 891; Tamanuki 1933: 1–54; Yasumatsu & Watanabe 1965: 69. (hb) Inouye 1954: 174; Inouye et al. 1955: 82; Krivolutskaya 1956: 830, 1973: 133; Kurenzov 1948b: 112, 1950d: 234; Stark 1952: 221; Strohmeier 1910a: 223. (ds) Kleine 1934a: 141; Kono, H. 1938b: 64, 1938c: 45–46; Kono, H. & Tamanuki 1939: 88, 92; Krivolutskaya 1956: 830, 1973: 133, 1983; Kurenzov 1951b: 17; Murayama 1954b: 200, 1956a: 276; Nobuchi 1979b: 4, 1985c: 9; Stark 1952: 221. (tx) Hagedorn 1910a: 78; Krivolutskaya 1956: 830, 1958: 125; Kurenzov 1938a: 133, 1948b: 112; Murayama 1954b: 200, 1956a: 276–280; Niisima 1909: 132, 136, 1941: 130; Nobuchi 1979b: 4, pl. 3; Schedl 1934f: 1636, 1955a: 23; Stark 1952: 221.
- grandiclava** Thomson 1886: 62. Holotype, sex?; Gallia; not given.
Figures: Pfeffer 1989: pl. 4 (adult), Schedl 1955a: 8 (antenna).
Distribution: Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ France/ Germany/ Hungary/

Norway/ Poland/ Romania/ Sweden/ Switzerland/ W USSR).

Hosts: *Prunus avium*, *P. cerasus*, *P. padus*.

Notes: (3) Schedl 1955a: 8 (redescribed).

References: (ay) Escherich 1923b: 481, 513, 549; Fuchs 1912a; Leisewitz 1906: 77; Rohrl 1914c: 189; Scherb 1971; Wichmann 1912a: 9. (bv) Barr, B. A. 1969: 642; Grune 1979: 65; Wichmann 1912a: 9–10. (cn) Baisch 1954: 302; Barbey 1925: 78, 343; Brandt 1952; Escherich 1923b: 481, 513, 549; Fice 1962: 197–204; Grandi 1951; Heyrovsky 1929: 37–38; Kholodkovskii 1912: 302; Kleine 1932a: 297; Mokrzecki 1925c: 44; Nosek 1951: 106; Nusslin 1913: 259; Pfeffer 1948a: 800; Pierce, W. D. 1917: 75; Rhumbler 1922: 302, 1927: 315; Schimitschek 1937c: 49, 1938b: 114, 119, 1955a: 81, 84, 147, 1955c: 79; Schwerdtfeger 1944a: 174, 1957a: 182; Trappen 1935: 141; Wachtl 1901: 377, 381; Wichmann 1927b: 352. (cc) Baisch 1954: 302; Chararas 1959c; Kleine 1908c: 184, 1944: 75; Nosek 1951: 106, 1956: 204, 1959a: 118, 1959b: 87; Nusslin 1927: 315; Pfeffer 1928b; Ruhm 1956b: 3; Rybinski 1897: 61; Schedl 1958d: 189; Schimitschek 1955a: 81, 84, 147; Schwerdtfeger 1944a: 174, 1957a: 182; Wiackowski 1957a: 85. (hb) Barbey 1901: 19, 55, 1913, 1925: 78, 343; Charvat 1950; Eggers 1906; Escherich 1923b: 481, 513, 549; Escherich & Ball 1908; Grandi 1951; Györfi 1957; Karpinski & Strawinski 1948: 155; Kholodkovskii 1912: 302; Kleine 1932a: 297; Lengerken 1939: 57, 1954: 76; Michalski 1959a: 291; Nosek 1956: 204, 1959a: 118, 1959b: 87; Numberg 1929c: 119, 1947c: 99, 1960b: 153; Nusslin 1898: 277, 1913: 259, 1927: 315; Pfeffer 1941b: 19; Postner 1974: 407; Rhumbler 1922: 302, 1927: 315; Schedl 1981b: 56; Schimitschek 1955a: 81, 84, 147; Schwerdtfeger 1944a: 174, 1957a: 182; Seitner 1911: 100; Spessivtsev 1913a: 51; Stark 1952: 221; Strohmeyer 1910a: 221; Taschenberg 1901: 311; Wachtl 1901: 277, 381; Wichmann 1927b: 352. (ds) Brakman 1966b: 205; Bucking 1932; Buresh & Lazarov 1956; Charvat 1950; Eggers 1904, 1906; Endrodi 1958b; Escherich 1923b: 481, 513, 549, 1932b; Fuchs 1905a; Grune 1979: 65; Hagedorn 1910d: 38; Hansen, K. 1967; Hennig 1954: 261; Heyden, Reitter, & Weise 1906: 710; Horion 1951; Hubenthal 1926: 294; Jannicky 1960a: 820–831; Karpinski 1932b: 53; Karpinski & Strawinski 1948: 155; Klapperich 1951: 109; Kleine 1912a: 262, 267, 1913a: 34, 1913b: 116, 1932a: 297, 1934a: 141; Kozikowsky 1921: 180; Kozikowsky & Kuntze 1925: 19; Kurir 1947c: 9; Langhoffer 1915c: 157; Leclercq 1971; Lesne 1922: 267; Lonnicki 1913b: 147; Lucht 1987: 276; Muhl 1911: 66; Numberg 1928b: 88, 103, 1954: 25, 1960b: 153; Nusslin 1898: 277; Pfeffer 1924b: 471, 1928b, 1931b: 75, 1936: 90, 1947e: 2, 1950b: 74, 76, 1989a: 42; Pierce, W. D. 1917: 75; Prossen 1913: 82; Postner 1974: 407; Reitter 1894a: 58, 1894b: 253, 1916: 285; Roubal

1941: 261; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1228; Schedl 1980a: 12, 1981b: 56; Schilsky 1909: 187; Schimitschek 1938b: 114, 119; Scholz 1929: 258; Stark 1952: 221; Tredl 1907: 11; Wichmann 1927a: 62–63. (tx) Balachowsky 1949a: 143–144; Barbey 1901: 19, 55; Charvat 1950; Csiki 1905; Endrodi 1957a: 307, 1957b: 415; Escherich 1923b: 481, 513, 549; Fauvel 1889: 69; Fleischer 1927; Formanek 1907: 25; Fuchs 1912a; Grune 1979: 65; Hagedorn 1910a: 77; Hopkins 1914: 128, 1915c: 222; Karpinski & Strawinski 1948: 155; Koch 1932: 134; Kulnt 1913: 1052; Lovendal 1898: 83; Lucht 1987: 276; Numberg 1929c: 119, 1947: 99–108, 1954: 25; Pfeffer 1932b: 16, 1941b: 19, 1947e: 3, 1955a: 142, 1989a: 42, pl. 4; Postner 1974: 407; Quaschik 1953: 35; Reitter 1894a: 58, 1894b: 253, 1913a: 55, 1916: 285; Rhumbler 1922: 302, 1927: 315; Schedl 1934f: 1636, 1939g: 171, 1955a: 8, 1980a: 12, 1981b: 56; Scherb 1971; Schimitschek 1937c: 49, 1955c: 79; Sedlaczek 1912: 310; Sokanovskii 1954: 16; Spessivtsev 1913a: 51, 1922a: 466, 491, 1931: 39; Stark 1952: 221; Stebbing 1908b: 6; Stresemann et al. 1989: 351; Taschenberg 1901: 311; Thomson 1886: 62. (ms) Escherich 1932b; Hansen, K. 1967; Michalski 1959a: 291.

cembrae Seitner 1911: 109. Syntypes, sex?; Dachstein; not given. Synonymy: Schedl 1934f: 1636.

References: (ay) Wichmann 1912a: 9. (bv) Wichmann 1912a: 9–10. (cn) Koch 1913: 114. (ds) Fuchs 1913. (tx) Endrodi 1957b: 415; Fuchs 1913; Koch 1913: 114; Schedl 1934f: 1636, 1955a: 8; Seitner 1911: 109.

grandis Numberg 1967b: 318. Holotype ♀?; Kivu, Mont Kahuzi, Congo, Km 82; MRCB, Tervuren. Figures: Numberg 1967a: 336.

Distribution: Africa (Zaire).

References: (tx) Numberg 1967a: 336, 1967b: 318.

granulatus Eggers 1932c: 29. Holotype, sex?; Congostaat (Haut-Uele, Yebo Moto); MRCB, Tervuren.

Distribution: Africa (Ghana/ Nigeria/ Tanzania/ Uganda/ Zaire).

Hosts: *Carapa grandiflora*, *Entandrophragma* spp., *Khaya* spp.

References: (hb) Browne 1963a: 232; Schedl 1961k: 368. (ds) Browne 1963a: 232, 1973a: 280, 1980a: 373; Gardner 1957a: 31; Murayama 1954b: 165; Schedl 1959q: 705, 1961k: 368, 1962h: 57, 1962k: 1065, 1964j: 39, 1971f: 148, 1972e: 280, 1977d: 278. (tx) Eggers 1932c: 29; Nisima 1941: 125; Roberts 1969b: 127; Schedl 1939g: 366, 1961k: 368, 1972q: 256.

tanzanicus Browne 1970: 549. Holotype ♀; Tanganyika: Moshi; BMNH, London. Synonymy: Schedl 1972q: 256.

References: (tx) Browne 1970: 549; Schedl 1972q: 256.

- granulicauda** Schedl 1939g: 171. Syntypes ♂ ♀; Nyanza: Ukerewe I.; Conrads Collection, and Schedl Collection in NHMW, Wien.
Distribution: Africa (Ukerewe Island in Tanzania/ Uganda).
Hosts: "Zazana."
Notes: (3) Schedl 1979c: 111 (citation of holotype invalid).
References: (ds) Schedl 1961k: 369, 1967e: 209. (tx) Schedl 1939g: 171–172, 1961k: 369, 1979c: 111.
- granulifer** Eggers 1935c: 303. Holotype ♂; Congo: Congo; Eggers Collection, in NHMW, Wien.
Distribution: Africa (Ghana/ Tanzania/ Uganda/ Zaire).
Hosts: *Carapa grandiflora*, *Entandrophragma* spp., *Faurca saligna*, *Khaya* spp., *Turraecanthus africana*.
References: (ec) Schedl 1961k: 370. (hb) Roberts 1969: 127; Schedl 1961k: 370. (ds) Browne 1965: 188, 1973a: 280; Lee 1971: 31; Schedl 1961k: 370, 1962h: 57, 1962k: 1065, 1964j: 39, 1966c: 223, 1967e: 210. (tx) Browne 1970: 549; Eggers 1935c: 303–304; Powell, W. 1980: 29; Schedl 1939g: 171, 1961k: 370, 1962k: 1065.
- hoppingi** Swaine 1925a: 51. Holotype ♀; San Francisco Peak, Arizona [USA]; CNCI, Ottawa.
Distribution: North America (north rim of Grand Canyon, San Francisco Mountains in N Arizona in USA).
Hosts: *Picea engelmannii*.
References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 122; Doane et al. 1936. (ds) Chamberlin 1939: 122; Furniss, R. L. & Carolin 1977: 370; Hilton 1968: 32; Kleine 1934a: 141; Leng & Mutchler 1933: 51; Wood, S. L. 1982b: 390. (tx) Bright 1967b: 679; Chamberlin 1939: 122; Hilton 1968: 32; de Ruelle 1970: 112; Swaine 1925a: 51; Wood, S. L. 1951a: 127, 1951b: 32, 1982b: 390.
- horyurensis** Murayama 1937b: 368. Syntypes, sex?; Horyuri, Prov. Kankyo-sud, Korea; Murayama Collection in USNM, Washington.
Figures: Nobuchi 1979b: pl. 3.
Distribution: Asia (Manchuria in China/ Japan/ Korea/ Taiwan/ Sakhalin Island and E USSR).
Hosts: *Larix dahurica coreana*, *Abies* spp., *Pinus* sp.
Notes: (3) Schedl 1955a: 14 (original description quoted).
References: (ds) Cho 1957; Choo 1983: 43; Choo & Woo 1985: 163; Choo, Woo, & Nobuchi 1988a: 13; Ko 1969: 281; Krivolitskaya 1955: 132, 1983; Murayama 1937a: 2, 1937b: 368, 1940a: 232, 1942a: 55, 1948: 6, 1954b: 165, 1955: 104, 1956a: 276, 281; Nobuchi 1979b: 5, 1985c: 9. (tx) Choo 1983: 43; Murayama 1937b: 368, 1940a: 232, 1954b: 165, 1955: 104, 1956a: 276; Niisima 1941: 127; Nobuchi 1979b: 5, pl. 3; Schedl 1955a: 14.
- japonicus** Nunberg 1956d: 208. Syntypes 1 ♂, 1 ♀; Honshu (Uchimappe-Staatswald bei Aonori); Nobuchi Collection, Ibaraki, automatic.
Figures: Nobuchi 1979b: pl. 3.
Distribution: Asia (Japan).
Hosts: *Abies* sp.
References: (tx) Nunberg 1956d: 208 (8 December), 1959c: 168.
- granulatus** Niisima 1941: 125. Syntypes 1 ♂, 1 ♀; Honshu (Uchimappe-Staatswald bei Aonori); Nobuchi Collection, Ibaraki, preoccupied by Eggers 1932c: 29.
References: (tx) Murayama 1956: 282; Niisima 1941: 125; Nunberg 1956: 208, 1959: 158.
- uchimappensis** Murayama 1956a: 279, 282. Syntypes 1 ♂, 1 ♀; Honshu (Uchimappe-Staatswald bei Aonori); Nobuchi Collection, Ibaraki, automatic, unneeded replacement name.
Notes: (1) Because the only date given on the Murayama 1956a publication is December 1956, it must be assumed that the date was 31 December.
References: (ds) Murayama 1956a: 276, 279 (December); Nobuchi 1979b: 12. (tx) Murayama 1956a: 276, 279, 282; Nobuchi 1979b: 12, pl. 3, 1985c: 10.
- jezoensis** Niisima 1909: 135. Syntypes, sex?; Tayoroma and Onupumai in der Prov. Teshio, Tomakomai; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1979b: pl. 3, Schedl 1955a: 18 (antenna).
Distribution: Asia (Japan/ Korea/ Kamchatka, Sakhalin Island, Siberia in E USSR).
Hosts: *Picea* spp., *Abies nephrolepis*.
Notes: (3) Schedl 1955a: 15 (*rubripes* Eggers, nomen nudum, synonymy), 1955a: 18 (re-described).
References: (cn) Anonymous 1950g; Inouye 1954: 167–180, 1955; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 187, 1956a: 90; Yamagisawa 1952: 105. (ce) Inouye & Yamaguchi 1955a: 235; Kamijo 1981; Kurenzov 1934a: 57, 1964: 20; Nishiguchi 1960c: 64–73; Yasamatsu & Watanabe 1965: 69. (hb) Krivolitskaya 1956: 830; Kurenzov 1935a: 29, 1948b: 112, 1950d: 203, 1951b: 16; Kurenzov & Kononov 1961: 599; Stark 1952: 224; Strohmeyer 1910a: 223. (ds) Anonymous 1950g; Kleine 1913b: 116, 1914b: 256, 1934a: 141; Kono 1938b: 64, 92; Kono & Tamamuki 1939: 88, 92; Krivolitskaya 1956: 830, 1983; Kurenzov 1934a: 57, 1935a: 29, 1935c: 187, 1936a: 111, 1936b: 351, 1938a: 59, 1964: 20, 1965, 1967; Kurenzov & Kononov 1961: 595; Murayama 1956a: 276, 279; Nobuchi 1979b: 6, 1985c: 9; Stark 1952: 224. (tx) Eggers 1926b: 135; Hagedorn 1910a: 78; Krivolitskaya 1956: 830, 1958: 125; Kurenzov 1941a: 132, 1948b: 112; Murayama 1954b: 200, 1956a: 276, 279; Niisima 1909: 135, 1910a: 1, 1913a: 3, 1929: 376–381, 1941: 128; Nobuchi 1979b: 6, pl. 3; Schedl 1934f: 1636, 1955a: 18; Stark 1952: 224.

junnanicus Sokanovskii 1959b: 93. Holotype, sex?; Yunnan, China; IZAS, Beijing.

Distribution: Asia (Burma/ Sichuan, Yunnan in China).

Hosts: *Pinus armandii*, *P. densata*, *P. khasya*, *P. yunnanensis*, *Picea likiangensis*.

Notes: (3) Beeson 1941 (1961: 242) (*burnanicus*, nomen nudum).

References: (ds) Kleine 1934a: 141. (tx) Beeson 1941 (1961: 242); Sokanovskii 1959b: 93, 95.

kaimochii (Nobuchi) 1981c: 13 (*Nipponopolygraphus*). Holotype ♀?; Shionomisaki, Wakayama; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1981c: 13.

Distribution: Asia (N Burma/ Japan).

Hosts: *Castanopsis cuspidata*, *Quercus incana*.

References: (tx) Nobuchi 1981c: 13–14.

querci Wood 1988b: 195. Holotype ♀; Mehalkhali [Burma?]; FRI, Dehra Dun. Synonymy: Wood 1992b: 84.

References: (tx) Wood, S. L. 1988b: 195, 1992b: 84.

kasukumbii Schedl 1957d: 40. Holotype ♀; Congo Belge: Luki; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Anthontha macrophylla*, *Carapa procera*, *Cistanthera* sp., *Nesogordonia* sp.

References: (ec) Schedl 1961k: 371. (hb) Schedl 1961k: 371. (ds) Schedl 1961k: 371. (tx) Schedl 1957d: 40, 1961k: 371.

kisoensis Niisima 1941: 131. Syntypes, sex?; Honshu (Kiso Kais, Wald Prov., Shinano; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1966d: pl. 2.

Distribution: Asia (Japan/ Sakhalin Island).

Hosts: *Picea* sp., *Pinus densiflora*, *P. pumila*, *Larix leptolepis*.

References: (cn) Anonymous 1980g. (ds) Anonymous 1980g; Murayama 1948: 2, 1949a: 13, 1954b: 165, 1956a: 276; Nobuchi 1966d: 16, 1979b: 6, 1985c: 9. (tx) Murayama 1954b: 165, 1956a: 276, 280; Niisima 1941: 131; Nobuchi 1966d: 16, pl. 2, 1979b: 6.

kivuensis Schedl 1957d: 37. Holotype ♀; Congo Belge: Kivu, Hembe Bitale; MRCB, Tervuren.

Distribution: Africa (Tanzania/ Uganda/ Zaire).

Hosts: *Carapa grandiflora*, *Faurea saligna*, *Ficus* sp.

References: (cc) Schedl 1961k: 372. (hb) Schedl 1961k: 372. (ds) Murayama 1951c: 4; Nunberg 1960a: 287; Schedl 1957d: 37, 1961k: 372, 1962k: 1066.

knochei Eggers 1919: 238. Holotype ♀; Kamerun; Eggers Collection, in NHMW, Wien.

Distribution: Africa (Cameroon/ French Guinea).

References: (tx) Eggers 1919: 238; Schedl 1961k: 374.

longifolia Stebbing 1902: 255. Holotype ♀; labeled Tons Valley, Tehri Garhwal, Uttar Pradesh, India, published as NW Himalayas: Bashahr St.: Taklesh: Jaunsar Div., Tehri-Carhwal; FRI, Dehra Dun. Figures: Stebbing 1914: 525–526 (all stages, galleries).

Distribution: Asia (Himachal Pradesh, Uttar Pradesh in India).

Hosts: *Pinus roxburghii*.

References: (cn) Beeson 1915a: 317–325, 1922c: 497; Huque 1966; Pierce, W. D. 1917: 75; Stebbing 1903a: 225, 1914: 524; Troup 1916: 1–126. (ec) Beeson 1922c: 497; Stebbing 1914: 524. (hb) Beeson 1915a, 1922c: 497; Champion 1922: 232–246; Gardner 1934: 1–17; Stebbing 1903a: 255, 1909b: 16, 1914: 524; Strohmeyer 1910a: 222.

(ds) Beeson 1922a: 342–343, 1922c: 497, 1961: 292; Hagedorn 1910d: 38; Kleine 1913b: 116, 1914b: 269, 276, 1934a: 141; Pierce, W. D. 1917: 75; Qadri 1951a: 368, 1951b: 68; Schedl 1969c: 47; Stebbing 1903a: 255. (tx) Hagedorn 1910a: 77; Stebbing 1902: 255, 1908b: 10, 1909b: 16, 1911: 85, 1914: 524.

himalayensis Stebbing 1908b: 8. Holotype ♂; labeled Ringali, Chakrata, Uttar Pradesh, published as NW Himalayan Forests, India; FRI, Dehra Dun. Synonymy: Wood 1988b: 189.

References: (cn) Beeson 1922a: 342–343; Pierce, W. D. 1917: 75; Stebbing 1914: 522. (ec) Beeson 1922c: 497; Chararas 1959c; Stebbing 1914: 522. (hb) Beeson 1922c; Stebbing 1914: 522. (ds) Beeson 1922a: 342–343, 1922c: 497; Kleine 1913b: 116, 1914b: 276; Pierce, W. D. 1917: 75. (tx) Stebbing 1908b: 8, 10, 1914: 522; Wood, S. L. 1988b: 189.

longipilis Schedl 1957d: 35. Holotype ♀; Congo Belge: Hembe-Bitale; MRCB, Tervuren.

Figures: Schedl 1961k: 375 (male, female), 383 (galleries).

Distribution: Africa (Zaire).

Hosts: *Allanblackia floribunda*, *Garcinia polyantha*, *Pentadesma lebrunii*.

References: (ec) Schedl 1961k: 374. (hb) Schedl 1961k: 374. (ds) Schedl 1961k: 374. (tx) Schedl 1957d: 35, 1961k: 374–376.

major Stebbing 1902: 234. Syntypes ♂ ♀; labeled Simla, Himachal Pradesh, India, published as NW Himalaya, India; FRI, Dehra Dun.

Figures: Yin & Huang 1981: 560.

Distribution: Asia (Bhutan/ Xizang [Tibet] in China/ Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India/ Nepal).

Hosts: *Pinus griffithii*, rare in *Abies fabri*, *P. gardiana*, *Picea morinda*, *Cedrus deodara*.

References: (cn) Beeson 1922a; Browne 1968b: 579; Chandry 1966; Chatterjee 1917b: 1–4; Cotes 1893b; Huque 1966; Pierce, W. D. 1917: 52; Stebbing 1903a: 234, 1914: 501. (ec) Beaver & Browne 1975: 294; Beeson 1922c: 497; Chararas 1959c;

- Stebbing 1914: 501. (**hb**) Beaver & Browne 1975: 294; Beeson 1922c: 497; Browne 1968b: 579; Cotes 1893b; Stebbing 1903a: 234, 1908a: 106, 1910: 32, 1911a: 3, 1914: 501. (**ds**) Beaver & Browne 1975: 294; Beeson 1922a: 342–343, 1922c: 497, 1961: 293; Browne 1968b: 579; Cotes 1893b; Hagedorn 1910d: 38; Kleine 1912b: 183, 1913b: 116, 1914b: 268, 276, 1934a: 141; Pierce, W. D. 1917: 52; Qadri 1951b: 67; Razzauti 1956: 141; Schedl 1973b: 210, 1974a: 85; Stebbing 1903a: 234; Yin & Huang 1981: 560; Zethner 1973. (**tx**) Hagedorn 1910a: 66, 77; Stebbing 1902: 234, 1908b: 6, 1914: 501; Yin & Huang 1981: 560.
- majusculus** Schedl 1957d: 34. Holotype ♂; Ruanda: Ihembe; MRCB, Tervuren. Distribution: Africa (Uganda/Zaire). Hosts: *Clitandra* cf. *staudtii*, *Symphonia globulifera*. References: (**ce**) Schedl 1961k: 377. (**hb**) Schedl 1961k: 377. (**ds**) Schedl 1961k: 377. (**tx**) Browne 1970: 549; Schedl 1957d: 34, 1961k: 377, 1972p: 153.
- symphoniae* Browne 1970: 549. Holotype, sex?; Uganda: W. Mengo; BMNH, London. Synonymy: Schedl 1972p: 153. References: (**tx**) Browne 1970: 549; Schedl 1972p: 153.
- meakanensis** Niisima 1935: 2. Syntypes, sex?; Mt. Meakan, Hokkaido, Japan; Nobuchi Collection, Ibaraki. Figures: Nobuchi 1979b: pl. 3. Distribution: Asia (Japan). Hosts: *Pinus pumila*. References: (**ds**) Browne 1966d: 17; Murayama 1948: 2, 1949a: 13, 1956a: 276; Nobuchi 1979b: 7, 1985c: 9. (**tx**) Murayama 1954b: 200, 1956a: 276–281; Niisima 1935: 2, 1941: 126; Nobuchi 1966d: 17, 1979b: 7, pl. 3.
- militaris** (Eggers) 1919: 235 (*Ozophagus*). Syntypes, sex?; Amani und Daressalaam (Ostafrika); Hagedorn syntypes in Hamburg Museum, lost, Eggers syntypes in NHMW, Wien. Distribution: Africa (Tanzania/Zaire). Notes: (3) Schedl 1979c: 153 (citation of holotype invalid). References: (**ds**) Numberg 1960a: 287, 1961a: 329; Schedl 1962k: 1066, 1964e: 68. (**tx**) Eggers 1919: 235, 1922h: 166–167; Schedl 1950d: 2, 1961k: 377, 1962k: 1066, 1979c: 153.
- minutissimus** Schedl 1972c: 286. Holotype ♀; Ghana, Kumasi, Nhasi, 330 m; NHMB, Budapest. Distribution: Africa (Ghana). References: (**tx**) Schedl 1972c: 286.
- miser** Blandford 1894d: 76. Syntypes, sex?; Nikko, Japan; BMNH, London. Distribution: Asia (Japan/ Korea). Hosts: *Abies nephrolepis*. Notes: (3) Schedl 1955a: 24 (original description quoted).
- References: (**cn**) Shiraki 1952. (**ds**) Blandford 1894c; Cho 1957; Hagedorn 1910d: 38; Kleine 1913b: 116, 1914b: 256, 1934a: 141; Ko 1969: 282; Murayama 1929b: 2, 1930a: 3, 12, 1937b: 375, 1954b: 166, 1956a: 276; Shiraki 1952. (**tx**) Blandford 1894d: 76; Hagedorn 1910a: 77; Murayama 1930b: 12, 30, 1937b: 375, 1954b: 166, 1956a: 276, 280; Niisima 1941: 130; Schedl 1934f: 1636, 1955a: 24; Stebbing 1908b: 6.
- montanus** Schedl 1957d: 42. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Distribution: Africa (Zaire). Hosts: “Mukoshi.” References: (**ce**) Schedl 1961k: 378. (**hb**) Schedl 1961k: 378. (**ds**) Schedl 1961k: 378. (**tx**) Schedl 1957d: 42, 1961k: 378.
- musangae** (Schedl) 1957d: 28 (*Chortastus*). Holotype, sex?; Congo Belge: Yangambi; MRCB, Tervuren. Figures: Schedl 1957d: 29 (adult). Distribution: Africa (Zaire). Hosts: *Musanga cecropioides*. Notes: (1) Browne 1973c: 17 (to *Polygraphus*). References: (**ds**) Schedl 1977a: 38. (**tx**) Browne 1973c: 17; Schedl 1957d: 28, 1959n: 403, 1977a: 38, 1979c: 162.
- nanus** Schedl 1955a: 22. Holotype ♀; Germany: Bavaria: Regensburg; not given in original publication, Schedl Collection in NHMW, Wien (Schedl 1979c: 163). Figures: Schedl 1955a: 22 (antenna). Distribution: Europe (Germany). Notes: (3) A probable synonym of *subopacus* Thomson. References: (**tx**) Horion 1957: 21; Schedl 1955a: 22.
- natalensis** Eggers 1919: 238. Syntypes, sex?; Durban in Natal; MNB, Berlin, 4 syntypes in Eggers Collection, in NHMW, Wien. Distribution: Africa (Angola/ Kenya/ South Africa/ Zaire). Hosts: *Rhus* sp. References: (**cn**) Anonymous 1970c: 13. (**ds**) Anonymous 1970c: 13; Beaver & Loytyniemi 1985a: 66; Ferreira 1965: 1112; Schedl 1959p: 16, 1959q: 705, 1961k: 378, 1962h: 57, 1962k: 1066, 1965h: 111, 1982: 278. (**tx**) Eggers 1919: 238, 1927a: 197; Schedl 1953g: 241, 1955f: 257, 1961k: 378, 1962k: 1066.
- nigrielytris** Niisima 1913a: 2. Syntypes, sex?; Prov. Teshio (Hokkaido), Japan; Nobuchi Collection, Ibaraki. Figures: Nakane et al. 1963: pl. 191, Nobuchi 1979b: pl. 3. Distribution: Asia (Japan/ Kamchatka, Sakhalin Island in E USSR). Hosts: *Sorbus commixta*. Notes: (3) Schedl 1955a: 14 (original description quoted). References: (**hb**) Krivolutskaya 1965a: 231, 1973:

- 133; Kurenzov & Kononov 1961: 599. (**ds**) Kleine 1934a: 141; Krivolutskaya 1965a: 230, 1973: 133; Kurenzov 1963b: 114, 1965, 1967; Kurenzov & Kononov 1961: 595; Murayama 1954b: 166, 1956a: 276; Nakane et al. 1963: 382; Nobuchi 1979b: 7, 1985c: 9. (**tx**) Krivolutskaya 1958: 129; Murayama 1954b: 166, 1956a: 276; Nakane et al. 1963: 382, pl. 191; Niisima 1913a: 2, 1941: 131; Nobuchi 1979b: 7, pl. 3; Schedl 1934f: 1636, 1955a: 14.
- nobuchii** Choo & Woo 1989: 57. Holotype ♂; Korea: Mt. Hanla, Jeju province, 1700 m; not given.
Figures: Choo & Woo 1989: 60.
Distribution: Asia (Korea).
Hosts: *Abies koreana*.
References: (**tx**) Choo & Woo 1989: 57.
- oblongus** Blandford 1894d: 75. Syntypes, sex?; Chiuzenji and Subashiri, Japan; BMNH, London.
Distribution: Asia (Japan).
Hosts: *Abies firma*, *A. mariesii*.
References: (**cn**) Anonymous 1980g, (**ds**) Anonymous 1980g; Blandford 1894c; Hagedorn 1910d: 38; Kleine 1913b: 116, 1914b: 256, 1934a: 141; Murayama 1949c: 101, 1954b: 166, 1956a: 276. (**tx**) Blandford 1894d: 75; Eggers 1933a: 101; Hagedorn 1904d, 1910a: 77; Murayama 1954b: 166, 1956a: 276–280; Niisima 1910a: 7, 1941: 125; Schedl 1934f: 1636, 1955a: 11; Stebbing 1908b: 6.
- occidentalis** Schedl 1954d: 879. Syntypes ♂ ♀; Cote d'Ivoire, Adiopodoume; type restricted to MNHN, Paris specimens by Schedl 1979c: 176.
Distribution: Africa (Ivory Coast).
References: (**ds**) Browne 1950a: 373; Schedl 1966c: 223, 1972e: 280, 1979b: 415. (**tx**) Schedl 1954d: 879, 1961k: 379, 1979c: 176–177.
- occidentalis minusculus** Schedl 1966c: 236. Holotype ♀; Dimonika, Cote d'Ivoire; MNHN, Paris.
Notes: (3) Either this is a good species or else it is an aberration with no standing in nomenclature, status doubtful.
References: (**tx**) Schedl 1966c: 236.
- orientalis** (Eggers) 1922b: 166 (*Ozophagus*). Syntypes 2 ♀; Kirumba, Deutsch-Ostafrika; 1 in Methner Collection, 1 Eggers syntype, in NHMW, Wien.
Distribution: Africa (Tanzania/Zaire).
Notes: (3) Schedl 1979c: 181 (citation of holotype invalid).
References: (**ds**) Schedl 1961k: 379, 1972k: 295. (**tx**) Eggers 1922b: 166–167; Schedl 1950d: 2, 1961k: 379, 1979c: 181.
- parvulus** Murayama 1956a: 279, 283. Holotype ♀; West Park, Fukuoka City, Japan; Murayama Collection in USNM, Washington.
Figures: Nakane et al. 1963: pl. 191, Nobuchi 1979b: pl. 3.
Distribution: Asia (Japan).
Hosts: *Prunus* sp.
- References: (**cn**) Anonymous 1980g, (**ds**) Anonymous 1980g; Murayama 1956a: 276; Nakane et al. 1963: 382; Nobuchi 1979b: 8, 1985c: 9. (**tx**) Murayama 1956a: 276–279, 283; Nakane et al. 1963: 382, pl. 191; Nobuchi 1979b: 8, pl. 3.
- perlaetus** Schedl 1953d: 84. Lectotype ♂; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189.
Distribution: Madagascar.
References: (**tx**) Murayama 1956: 290; Schedl 1953d: 84, 1977b: 21, 1979c: 189.
- pini** Stebbing 1914: 522. Syntypes ♂ ♀; labeled Chogaum Dist., Bashar, Uttar Pradesh, India, published as NW Himalayas, India; FRI, Dehra Dun, automatic.
Figures: Stebbing 1914: 524–525 (galleries).
Distribution: Asia (Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India).
Hosts: *Abies webbiana*, *Cedrus deodara*, *Picea morinda*, *Pinus exelsa*.
References: (**cn**) Beeson 1922a; Browne 1968b: 580; Huque 1966; Pierce, W. D. 1917: 69; Stebbing 1914: 522. (**ce**) Beeson 1922c: 497; Chararas 1959c; Stebbing 1914: 522. (**hb**) Beeson 1922c; Browne 1968b: 580; Stebbing 1914: 522. (**ds**) Beeson 1922a: 342–343, 1922c: 497, 1961: 294; Browne 1968b: 580; Pierce, W. D. 1917: 69; Qadri 1951a: 368, 1951c: 238; Schedl 1969c: 48, 1973b: 210, 1974a: 86; Zethner 1973. (**tx**) Eggers 1929e: 55; Stebbing 1914: 522.
- minor** Stebbing 1903a: 234. Syntypes, sex?; labeled Chogaum Dist., Bashar, Uttar Pradesh, India, published as NW Himalayas, India; FRI, Dehra Dun, preoccupied by Lindemann 1875: 242.
References: (**cn**) Stebbing 1903a: 239. (**ce**) Hughes & Jackson 1958: 76; Vitzthum 1923: 145; Woodring & Moser 1970. (**hb**) Stebbing 1903a: 239, 1908a: 109, 1911a: 6; Strohmeier 1910a: 222. (**ds**) Hagedorn 1910d: 38; Kleine 1914b: 269, 1934a: 141; Murayama 1956: 280; Razzauti 1956: 141; Stebbing 1903a: 239. (**tx**) Eggers 1929e; Hagedorn 1910a: 66, 77; Stebbing 1903a: 234, 255, 1908b: 8, 1914, 1928: 55.
- poligraphus** (Linnaeus) 1758: 355 (*Dermestes*). Syntypes, sex?; Europa; presumably Upsala [Sweden].
Figures: Bevan 1987: 115 (adult), Grune 1979: 64, Nobuchi 1979b: pl. 3, Schedl 1955a: 16 (antenna).
Distribution: Africa (introduced in South Africa), Asia (Gansu, Neimeng, Qinhai, Shanxi in China/ Japan/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Norway/ Poland/ Romania/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Picea* spp., less common in *Abies* spp., *Larix siberica*, *Pinus* spp.

Notes: (1) The frequently used spelling, *polygraphus*, is an unjustified, subsequent emendation with no status in nomenclature. (3) Schedl 1955a: 15 (redescribed), 1955a: 18 (*sapporoensis* Eggers, nomen nudum, synonymy). Stephens 1829a: 144 (*Tomicus affinis*, nomen nudum).

References: (ay) Escherich 1923b: 449, 481, 573; Feytaud 1950a; Francke-Grosmann 1959; Fuchs 1912a; Hadorn 1933; Hansen, T. E. 1986: 103; Leisewitz 1906: 78; Lekander 1959b: 7, 1959d: 91; Milani 1895: 92; Numberg 1928a: 140; Nusslin 1911a: 59, 89, 129, 155, 255, 278; Rohrl 1914c: 189; Vogel 1986, 1988; Wichmann 1912a: 9–10. (bv) Annila 1975: 11; Annila & Petaisto 1978; Barr, B. A. 1969: 643; Birgersson et al. 1984: 105; Butovitsch 1971; Grune 1979: 65; Kohnle, Francke, & Bakke 1985; Kohnle & Vite 1984b; Leuze 1981; Novak, V. 1962b; Prell 1931: 367; Rozhkov 1970: 139; Schurig, Leyrer, & Kohnle 1985; Schnaider 1955: 233; Schneider-Orelli 1947c: 94; Vite 1980; Wichmann 1912a: 9, 1967; Winter, K. 1980. (cn) Anonymous 1948k: 7, 1978w; Austara et al. 1983; Baisch 1954: 301; Barbey 1906a, 1922b, 1924a, 1925: 78; Bejer-Petersen 1978; Bevan 1964b, 1966; Borcea 1924: 221–260; Browne 1968b: 580; Chararas 1961b: 80, 1961c: 92; Chorbadzheivo 1929; Chrystal 1949b: 3–11; Eckstein 1926: 578; Eidmann 1985b; Escherich 1917: 97–115, 1923b: 449, 481, 573, 1930a, 1932a, 1936; Esterberg 1959; F. F. 1900; Fankhauser 1900; Feytaud 1950a; Fice 1961: 173–204; Francke-Grosmann 1954a; Gabler 1955; Galoux 1948b, 1948d, 1948e; Georgescu et al. 1957: 357, 459; Gmelin 1787a; Gradojevic 1933: 789–790, 1940; Grandi 1951; Gyrofi 1950: 384–400, 1959; Hagedorn 1903a; Hanson, H. S. 1940a, 1951: 83–91; Hartig 1861: 330, 1877: 196; Hasek 1955, 1961: 5; Henry 1906; Hess 1898: 369; Hess & Beck 1914: 267, 1927: 322; Hrubek 1973; Jacentkovsky 1933: 271; Jahn 1952a: 98; Jazentkovsky 1922: 7–9; Joly 1976; Joseph 1878; Judeich & Nitsche 1895: 447, 518; Juutinen 1960: 24; Kalandra 1944, 1948a, 1948c: 33–38; Kangas 1939, 1949: 168–174; Kataev 1968: 125; Keller 1903b: 49; Kholodkovskii 1912: 302; Kisielowski 1978; Kleiber 1930: 183; Kleiser 1859: 98; Koch 1913: 101; Kontkanen 1932: 61; Kovacevic 1924: 21–22, 1952: 69; Kozikovsky 1929: 253; Krol 1980a; Krucl 1950: 7; Kudler, Pivetz, & Jancarik 1956: 100; Kuhn 1949b: 64; Kurenzov 1950a: 15; Lanz 1975; Lekander 1954b: 11, 1955b: 17; Lekander, M. 1951: 51; Lozovoi 1950c: 308; Maksymov 1950: 554; Marcu 1926c: 62; Martinek 1953a: 372; Mokrzecki 1925c: 44; Mostauskis 1923: 219–240; Mostovsky 1923: 287–288; Muller 1912: 184; Nestertschuk 1930: 176; Nordlinger 1870b: 261; Nosek 1951: 106, 1952b: 98; Novak, V. 1959b: 73; Novak, V., Hrozinka, & Stary 1976:

33; Nusslin 1912a: 293, 1913: 206; Ohnesorge 1955: 279; Pfeffer 1940c: 273, 1947c: 204, 1948c: 800, 1950c: 2; Pierce, W. D. 1917: 69; Popovic 1931: 57; Rakhov 1961: 207–213, 1962; Ratzeburg 1871c: 81; Rhumbler 1922: 302, 1927: 315; Ruhm 1958: 287; Ryschka 1925: 197–202; Rylvkin 1951: 80–81; Saalas 1949: 341, 368; Schedl 1938b: 332; Schimitschek 1932c: 250, 1937c: 49, 1947g: 191, 1949b: 172, 1952a: 208, 1955a: 57, 60, 1955c: 79, 1961a: 154; Schmidt 1881: 44; Schneeberg 1925: 495; Schneider-Orelli 1948a: 77, 1948b: 72; Schneider-Orelli & Kuhn 1948: 518; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 179, 1950b: 62, 1957a: 185; Sedlaczek 1921: 338; Severin 1902a: 81; Shirskaya 1961: 165; Shishov 1928: 373–375; Sierpinski 1958: 89; Sinreich 1961: 166; Spaic 1956: 88; Strohmeier 1950: 21; Thalenhorst 1953: 16; Thaler 1898: 390; Titova 1966; Tomic 1957: 207–210; Tragardh 1917: 28, 1927c: 77; Troitskii 1968: 40–43; Tubeuf 1933: 257–357; Vajda 1949: 271; Vite 1984b; Wachtl 1901: 377, 381; Wardle 1929: 322; Weber, H. 1926: 578; Wilke 1931: 641; Wolff & Krausse 1922: 86; Zivojinovic 1950: 299–310; Zolk 1935: 614–640, 1937: 147–172; Zwolfer 1949: 399. (ec) Annila 1975: 11, 1977; Annila & Petaisto 1978; Baisch 1954: 301; Balazy 1962, 1963a: 69–80, 1964, 1965a, 1968; Balazy & Michalski 1960, 1964a, 1964b; Barbey 1906a, 1927; Belanowskii 1930; Borodin 1967b; Brammanis 1938; Buhl 1989; Bushing 1965: 465; Butovitsch 1971; Chararas 1957c, 1957d, 1958b, 1959a, 1959c, 1959d, 1959e, 1960a: 30; Fleischer 1911; Francke-Grosmann 1931, 1952a, 1959; Fuchs 1914b, 1930, 1937, 1938; Gabler 1947b; Galoux 1947b: 12, 1947c, 1947d; Glauss 1954a: 423; Grossmann 1931a; Gyrofi 1941b, 1952b, 1962: 215; Hellrigl & Schwenke 1985: 48; Heqvist 1955: 95, 1956, 1967: 70; Hirschmann & Wisniewski 1982, 1983; Hubault 1923a; Jannicky 1957b: 26; Joly 1949a: 7; Kangas 1939, 1946c: 21; Karpinski 1932a: 95; Kielczewski 1976, 1978; Kielczewski & Balazy 1966; Kielczewski, Bodon, & Balazy 1967: 161–163; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 184, 1909a: 46, 77, 1944: 69; Kobulajiv & Kalandra 1954: 30; Komarek et al. 1931: 1–256; Kraemer 1950b: 380, 1953: 463–512; Krol 1980a; Kuhn 1949a: 279; Kuriv 1947: 1–12; Loos 1893: 174, 1894: 472; Lundberg 1984; Majewski & Wisniewski 1978a: 10; Marsh 1979: 295; Meyer 1918: 178; Michalski 1962b; Michalski & Ratajczak 1989; Nosek 1951: 106, 1952b: 98; Novak, V. 1962b; Numberg 1930: 201; Nuorteva 1956a: 17, 1957b: 53, 1968a, 1970, 1971; Nusslin 1927: 300; Okolow 1963; Palmén 1946: 194; Pfeffer 1923a: 331, 1932a: 15, 1943b: 179, 1947c: 204, 1950c: 2, 1957a: 196, 1959: 3; Poinar 1975: 167; Redikortzev 1947: 249; Reisch 1972; Rondani 1873: 149; Ronbal 1934a: 86; Ruhm 1956b: 3; Rupertsberger 1893a: 215;

- Ruschka 1925: 199; Saalas 1917a: 18, 1928: 649, 1930: 118, 1949: 341, 368, 1951: 13; Schimitschek 1930a: 326, 1931b: 487, 1932c: 250, 1952a: 208, 1953b: 531, 1955a: 57, 60, 1964e, 1967; Schneider-Orelli 1947c: 94; Schwester 1950: 50; Schwerdtfeger 1944a: 179, 1950b: 62, 1957a: 185; Sedlaczek 1908: 53, 1935a: 153; Sitowski 1930: 4; Slander 1958: 151; Speyer 1937: 87; Stolina 1959: 216; Smidfor 1979; Szczepanski 1960a: 409; Tenkacova & Mituch 1987; Thalenhorst 1958: 34; Thompson, W. R. 1943: 92; Titova 1966; Tragardh 1925a: 171; Tsankov & Rosnev 1978; Tvermyr 1967: 483; Vietinghoff 1924: 331; Vitzthum 1923: 98; Wettstein 1951: 53, 56; Wichmann 1953b: 59, 1954d: 437, 1955a: 105, 1967; Wilke 1931: 641; Winter, K. 1980; Wisniewski 1979b; Zetlmer-Moller & Rudinsky 1967: 575-582; Zmoxjev 1958: 382; Zmr 1985b. (**hb**) Altun 1881c: 280, 1889c; Amila 1977; Amila & Petaisto 1978; Anonymous 1921g: 56, 1948k: 7; Apfelbeck 1916b: 429-439, 1917; Balazy 1968; Barbey 1901: 19, 54, 1922b, 1924a, 1925: 78; Bargmann 1906; Beffa 1961; Bejer-Petersen 1978; Berg 1827; Boas 1923: 337; Bonnemaison 1953; Borcea 1924; Borodajewsky 1928, 1929b, 1930: 805-811; Browne 1968b: 580; Chararas 1961b: 80; Charvat 1950; Chorbadzhievo 1929; Eckstein 1889, 1897, 1926: 578, 1939b; Eichhoff 1881a: 37, 122, 1882a; Eidmann 1962: 161; Escherich 1923b: 449, 481, 573; Feytaud 1950a; Fuchs 1904a, 1907: 52; Gabler 1955; Gornostaev 1916: 310; Grandi 1951; Gyorf 1957; Hacker 1885; Hadorn 1933; Hagedorn 1903a; Hansen, T. E. 1976, 1986: 103; Hartig 1861: 330, 1877: 196; Hennings 1908c: 218; Henry 1906; Henschel 1876a: 42, 242, 1885b, 1895a: 141; Hess 1898: 369; Hess & Beck 1914: 267, 1927: 322; Holmgren 1867: 126; Joly 1949a: 7, 1976; Judeich & Nitsche 1895: 447, 518; Kangas 1949c: 168-174; Karpinski 1933b: 24; Karpinski & Strawinski 1948: 155; Kholodkovskii 1889: 269, 1912: 302; Kisielowski 1978; Knotek 1894a: 553; Komarek 1925a: 102; Kraemer 1950b: 380, 1953: 463; Krivolitskaya 1956: 831, 1973: 133; Kurenzov & Kononov 1961: 599; Lekander 1954b: 11, 1959a: 83, 1959b: 7; Lengerken 1939: 57, 1954: 76; Loos 1894: 472, 1913: 406; Louzil 1961: 41; Lunardoni & Leonardi 1889: 430; Maksymov 1950: 554; Michalski 1959a: 291; Nordlinger 1855: 185, 1856: 38, 1869: 334, 1870b: 261; Novak, V., Hrozinka, & Sary 1976: 33; Nulberg 1947c: 99; Nuorteva 1968a, 1970; Nusslin 1898: 277, 1906b: 14, 1913: 206, 1927: 300; Olmesorge 1955: 279; Orest 1927: 59; Pfeffer 1941c: 5; Postner 1974: 406; Prell 1931: 367; Ratzeburg 1837: 163, 182, 1839: 196, 222, 1871c: 81; Rhumbler 1922: 302, 1927: 315; Rimski-Korsakov et al. 1949: 267; Rozhkov 1970: 139; Rupertsberger 1879: 231, 1880: 227; Saalas 1913a: 68, 81, 1949: 341, 368, 1951: 13; Schedl 1981b: 56; Schimitschek 1930a: 326, 1939c: 272, 1955a: 57, 60; Schmidt 1881: 44; Schnaider & Sierpinski 1955: 60; Schneider-Orelli 1947b: 157; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 179, 1957a: 185, 1981: 190; Sedlaczek 1921: 338, 1935a: 135, 1981: 190; Seitner 1911: 99; Severin 1902a: 81; Shishov 1928a: 673; Slander 1958: 151; Spessivtsev 1913a: 50, 1923: 200, 1938: 160; Speyer 1937: 87; Stark 1926a: 334, 1927a: 15, 1952: 224; Strohmeier 1910a: 222; Thalenhorst 1958: 34; Tragardh 1914: 83, 1927c: 77, 1929a: 314, 1930c: 474, 1939b: 149, 188; Tschorbadjev 1929: 164; Wachtl 1876: 454, 1901: 377, 381; Weber, H. 1926: 578; Winter, K. 1980; Wolff & Krausse 1922: 86; Zmoxjev 1958: 382. (**ds**) Allen, A. 1947; Anonymous 1978w; Andras & Schaefer 1957; Bakke & Kvanne 1977; Balazy & Michalski 1960; Barbey 1922b; Barthe 1896; Ban 1888; Bejer-Petersen & Jorrm 1977: 20; Berg 1827; Bistrom & Vaisanen 1988: 42; Boas 1923: 337; Borcea 1924; Borchert 1951; Brakman 1966b: 205; Brancsik 1906; Browne 1968b: 580; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Charvat 1950; Chorbadzhievo 1929; Chrystal 1937; Debatisse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eder 1934; Eggers 1904; Escherich 1923b: 449, 481, 573, 1930a; Esterberg 1928, 1959; Fleischer et al. 1923; Frey 1937; Fricken 1889: 281; Fuchs 1904a, 1905a, 1907: 52; Gabler 1949b; Gambil 1849: 127; Goetze 1777: 130; Gornostaev 1917; Gradojevic 1933; Grouzelle 1905; Grune 1979: 65; Gyllenhal 1827: 620; Gyorf 1941b; Hagedorn 1904e, 1910d: 38; Hansen, V. 1939, 1951: 83-91, 1956, 1964: 460; Heimemann 1908a; Hennig 1954: 261; Henschel 1895a: 141; Herger 1885a: 79; Heyden 1879: 140; Heyden, Reitter, & Weise 1891: 669, 1906: 710; Holdhaus & Deubel 1910: 145, 160; Holmgren 1867: 126; Horion 1951; Hubault 1923b; Ihssen 1939: 336; Jacentkovsky 1933: 271, 1939: 77; Janovsky & Tegshzhargal 1985: 408; Jazentkovsky 1912: 287; Joly 1976; Judeich & Nitsche 1895: 447, 518; Kaltenbach 1874: 156; Kangas 1948b: 128, 1949c; Karpinski 1925: 216, 1926: 82, 1931: 23, 1932a: 95, 1932b: 52, 1933b: 24, 1948b: 229; Karpinski & Strawinski 1948: 155; Keler 1922b: 210, 1925b: 271; Kersten 1933: 73; Kiefer et al. 1942: 528; Klapperich 1951: 109; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 128, 262, 264, 267, 1913a: 34, 1913b: 116, 1934a: 141; Kloft & Hinks 1945: 218; Knotek 1892a: 39, 1894a: 553; Koltze 1901: 152; Kontkanen 1932: 61; Kozikowsky 1921: 180; Kozikowsky & Kuntze 1925: 19; Krivolitskaya 1956: 831, 1965: 230, 1973: 133, 1983; Kurenzov 1951b: 16, 1965, 1967; Kurenzov & Kononov 1961: 595; Kurir 1947c: 7; Lacordaire 1866: 366; Langhoffer 1915c: 157; Leclercq 1971; Lekander 1955b: 17, 1959: 1-127; Lesne 1922: 267; Lindberg & Saris 1952: 59; Loos 1913: 406, 1919: 283-288; Lucht 1987: 276; Lunardoni & Leonardi 1889: 430; Lundberg 1974: 92, 1981: 151; Lundblad 1950c: 115; Marcu 1926c: 62; Mequignon 1936: 48;

- Michalski 1957: 163; Negru 1966b: 400, 1965a: 455; Nobuchi 1979b: 8, 1985c: 9; Numberg 1927a: 213, 1928b: 88, 103, 1954: 25; Nuorteva 1971: 67; Nusslin 1898: 277; Orest 1926c: 62; Palm 1946: 120, 1948a: 76, 90; Palmen 1946: 194; Pfeffer 1924b: 471, 1931b: 73, 1935: 159, 1947e: 2, 1948c: 64, 1950b: 73, 1957: 196–207, 1959: 555–560, 1989a: 42; Pierce, W. D. 1917: 69; Pittioni 1943: 174; Platonoff 1943: 141; Poppius 1900: 108; Postner 1974: 406; Prossen 1913: 82; Ratzeburg 1837: 163, 182, 1839: 196, 222; Redtenbacher 1874: 372; Reitter 1894a: 58, 1894b: 253, 1916: 286; Rinski-Korsakov et al. 1949: 267; Roubal 1935a: 37, 1935b: 72, 1941: 261; Rozhkov 1970: 139; Saalas 1913a: 68, 81, 1917a: 18, 1930: 118, 1931: 68; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1227; Schedl 1961k: 380, 1980a: 12, 1981b: 56; Schilsky 1909: 187; Schwerdtfeger 1981: 190; Sharp & Fowler 1893: 34; Sick 1939: 110; Snow 1907: 188; Stark 1926a: 334, 1926b: 103, 1926j: 125, 1931a: 24, 1931d: 545, 1952: 224; Stein & Weise 1877: 164; Stephens 1829a: 144, 1830: 355; Strand 1946: 598; Sturm 1826: 102, 1843: 229; Thomson 1865: 357; Tragardh 1914: 83, 1917: 1–28, 1935: 1–268, 1939b: 149, 188; Treddl 1907: 11; Tschorbadjiev 1929: 164; Wachtl 1876a: 454; Westhoff 1882: 237; Wichmann 1927a: 62, 1955a: 105; Wilke 1931: 641; Winter, T. C. 1983: 22; Wiren 1945: 43; Yanovskii 1977a; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1984: 408; Zinovjev 1955: 187; Zivojinovic 1960. (tx) Altman 1844; Baer 1911; Balachowsky 1949a: 145; Barbey 1901: 19, 54; Bechstein 1818: 75, 214; Bechstein et al. 1805: 100; Beffa 1961; Boas 1923: 337; Charvat 1950; Csiki 1908; Dejean 1821, 1825; Duftschmidt 1825; Eggers 1914: 41, 1923b: 136, 1929e: 43, 1935: 301; Eichhoff 1851a: 37, 122, 1883a: 102, 124; Endroid 1957b; Escherich 1923b: 449, 481, 573; Fabricius 1776, 1787: 37, 1792: 365, 1801: 387; Fankhauser 1912a; Faivel 1887, 1889: 69; Fleischer 1927; Formanek 1907: 25; Fricken 1889: 281; Fuchs 1912a; Gabler 1949b, 1955; Gemminger & Harold 1872: 2677; Gmelin 1790: 1601; Goetze 1777: 130; Grune 1979: 64, 65; Gyllenhal 1813: 349, 1827: 620; Hagedorn 1910a: 77; Hansen, V. 1956, 1964: 460; Henry 1892: 14–15; Henschel 1876a: 42, 242, 1895a: 41; Herbst 1793: 108; Hopkins 1915c: 222; Joly 1976; Judeich & Nitsche 1895: 447, 518; Kalina 1970: 129; Karpinski & Strawinski 1948: 155; Knotek 1892a: 39; Koch 1913: 101, 1928: 99, 1932: 132; Krivolutskaia 1956: 831, 1958: 127; Kurenzov 1941a: 134; Lacordaire 1866: 366; Lekander 1959b: 7; Linnaeus 1758: 355, 1767: 143; Louzil 1961: 108; Lucas 1920: 522; Lucht 1987: 276; Linnardoni & Leonardi 1889: 430; Marsham 1802: 52; Negru 1966b: 276; Nobuchi 1979b: 8, pl. 3; Nordlinger 1848: 251, 1856: 38; Novak, V., Hrozinka, & Stary 1976: 33; Numberg 1928a: 140, 1930: 200–208, 1954: 25; Nusslin 1911a: 59, 89, 129, 155, 255, 278; Pfeffer 1932b: 16, 1941c: 5, 1947e: 2, 1955a: 144, 1989a: 42, pl. 4; Pomerantzev 1907b: 491; Portevin 1935: 322; Postner 1974: 406; Quaschik 1953: 35; Ratzeburg 1837: 163, 182, 1839: 196, 222; Redtenbacher 1874: 372; Reitter 1894a: 58, 1894b: 253, 1913a: 55–56, 1916: 286; Rey 1892b: 30; Rhumbler 1922: 302, 1927: 315; Rupertsberger 1879: 231, 1880: 227; Saalas 1913a: 68, 81, 1916: 91–95, 1949: 341, 368; Sahlberg 1836: 142; Schedl 1934f: 1636, 1952f: 87, 1955a: 15, 1957b: 150, 1961k: 380, 1962p: 202, 1980a: 12, 1981b: 56; Scherb 1971; Schimitschek 1937c: 49, 1955c: 79; Sedlacek 1912: 306, 1921: 334–339; Sokanovskii 1928: 667–668, 1960: 677; Spesivtsev 1913a: 50, 1919: 246–250, 1922a: 467, 491, 1923: 200–214, 1925a: 167, 1925b: 14, 1929: 678–682; Stark 1925: 78–81, 1927: 15–19, 1931: 339–343, 1952: 224; Stebbing 1908b: 6; Stephens 1829a: 144, 1829b: 12, 1830: 355; Strand 1960: 171; Stresemann et al. 1989: 351; Thomson 1868: 357. (ms) Bevan 1964b; Chararas 1959d; Hartig 1834: 218; Heinemann 1908a; Kozikowsky 1929: 253; Lekander 1959a: 83; Lucas 1920: 522; Michalski 1959a: 291; Schaum 1854: 148; Schedl 1938b: 332; Schurig, Leyer, & Kohlme 1985; Sedlacek 1902a: 126; Sundfor 1979.
- pubescens* Fabricius 1792: 368 (*Bostrichus*).
Holotype, sex?; Germaniae; UZMC, Copenhagen, 2 syntypes, 1 has been eliminated by transfer, the other automatically became the holotype. Synonymy: Ratzeburg 1837: 182, Balachowsky 1949a: 155.
- References: (ay) Heeger 1866; Imhoff 1856: 228; Sedlacek 1902b: 244. (cn) Bouvier & Lesne 1922: 826–830; F. F. 1900: 16; Fleischer 1877a; Hansen, T. E. 1976; Hanson, H. S. 1951; Herlein 1878; Merker-Kohlfurt 1896: 84; Thaler 1903: 400. (cc) Belanovskii 1930; Elliot & Morley 1907; Fleischer 1877a; Perris 1856a: 244; Rondani 1873: 158; Roubal 1946: 145; Stark 1925b: 80. (hb) Bach 1864; Bargmann 1906; Eichhoff 1882c: 705; Fleischer 1877a; Heeger 1866: 533–537; Judeich 1876c: 96, 1876d: 255; Perris 1856a: 244; Taschenberg 1880: 203; Thum 1885: 24. (ds) Acloque 1896; Ammann & Knabl 1913, 1923; Andersch 1851; Barthe 1896; Beck 1817; Blanchere & Robert 1889; Brancsik 1871; Calwer 1884, 1893; Chapuis 1869; Chapuis & Candeze 1853; Duftschmidt 1825; Ericson & Sandin 1893; Favre 1890; Fowler 1891; Gozis 1875: 80; Gredler 1866: 372, 1875: 115; Grill 1895: 309; Henry 1907: 188–196; Heyden 1876: 295; Heyden, Reitter, & Weise 1883: 181; Kaltenbach 1874: 686; Kestercanek 1881a: 12; Krautz 1869: 59; Lacordaire 1866: 366; Lentz 1857: 138; Lesne 1923: 480–481; Lindemann 1884b: 264; Lokaj 1868: 63; Lomnicki 1913b: 147; Matthews & Fowler 1883: 42; Pachet 1865: 151;

- Perris 1876a: 254, 1877a: 414; Rapp 1934: 722; Redtenbacher 1858: 829; Reitter 1869b: 153; Rye 1871a: 82, 1871b: 197; Schaschl 1854: 133; Schann 1859: 95, 1862: 100; Schilsky 1909: 187; Schiodte 1873: 101; Seidl 1876: 4; Seidlitz 1872: 392, 1891a: 561, 1891b: 606; Siebke 1875: 283; Sparre-Schneider 1889: 60; Stein 1868: 113; Stein & Weise 1877: 164; Stephens 1939: 206; Stierlin 1898: 433; Stierlin & Gautard 1871: 292, 1906: 205; Thomson 1859: 146, 1865: 356, 1868: 219; Winter, T. G. 1983: 22. **(tx)** Aeloque 1896; Bach 1854, 1864; Balachowsky 1949: 155; Bechstein 1818: 75, 216; Bechstein et al. 1805: 103; Bertolin 1872; Brancsik 1871; Calver 1858; Castelnau 1840; Chapuis 1869: 48, 1973: 256; Chapuis & Candeze 1853; Doebner 1860; Duftschmidt 1825; Eggers 1929a: 43; Eichhoff 1864b: 33, 1883a: 102; Erichson 1836: 58; Escherich & Escherich 1897; Fabricius 1792: 368, 1801: 394; Fairmaire 1864: fig. 155; Ferrant 1911; Fleischer 1905; Hopkins 1915c: 222; Houbert 1922a: pl. 1; Illiger 1907: 321; Jablonsky 1785: 121; Jacquelin du Val & Fairmaire 1868: 100; Kuhlnt 1913: 1052; Lacordaire 1866: 366; Letzner 1891: 373; Leunis 1886: 178; Lovendal 1889b: 38, 1898: 83; Redtenbacher 1849a: 362, 1849b: 27, 1868: 829; Reitter 1894: 253; Rey 1892b: 30; Schedl 1934f: 1636, 1955a: 15–16; Sedlacek 1912: 307; Seidlitz 1872: 293, 1891a: 561, 1891b: 606; Spessivtsev 1913: 50, 1922a: 467; Stephens 1939: 206; Stierlin 1898: 433; Taschenberg 1880: 203; Thomson 1859: 46, 1865: 356, 1868: 219, 1871: 394, 1886: 11, 61; Westwood 1840: 39. **(ms)** Gotz 1877.
- punctifrons* Thomson 1886: 11. Syntypes, sex?; Sweden; not given. Synonymy: Schedl 1955a: 15. Notes: (3) Schedl 1955a: 15 (*sapporoensis* Eggers, nomen nudum, synonymy). Sokanovskii 1960: 675 (named aberration as var. *bicolor*; no status). Krivolutskaia 1956: 826 (cites var. *krivolutskaianus* as a synonym, no status, description not found). References: **(ay)** Lekander 1959b: 9. **(bv)** Annala 1975: 8; Grune 1979: 67. **(cn)** Barbey 1925: 78; Eidmann 1965c; Esterberg 1959; Juntinen 1960: 23; Mathiesen-Kaarik 1953: 11; Nestertschuk 1930: 176; Palm 1946: 122; Saalas 1949: 341, 370; Titova 1966; Wilke 1931: 669. **(ce)** Annala 1975: 11, 1977; Balazy & Michalski 1964b; Eidmann 1965c; Heqvist 1963: 152; Karpinski 1932a: 103; Kosariyevskaya & Manajev 1962: 450; Lundberg 1954; Mathiesen-Kaarik 1953: 11; Nuorteva 1956a: 17, 1959d: 203, 1968a, 1970, 1971: 69; Ogibin 1973b: 421; Pfeffer 1960: 345; Saalas 1917a: 18, 1928: 652, 1930: 119, 1949: 341, 1951: 16; Sokanovskii 1936: 92; Szczepanski 1960a: 408; Thompson, W. R. 1943: 92; Titova 1966; Wilke 1931: 669; Zinovjev 1957: 331, 1958: 382. **(hb)** Annala 1977; Barbey 1925: 78; Karpinski 1933b: 25; Karpinski & Strawinski 1948: 155; Krivolutskaia 1956: 830; Kurenzov 1945b: 112, 1950d: 234; Lekander 1959b: 9; Lindberg 1963: 243; Numberg 1947c: 99; Nuorteva 1968a, 1970; Ogibin 1973b: 421; Pfeffer 1989a: 42; Saalas 1913a: 68, 81, 1949: 341, 370, 1951: 16; Spessivtsev 1923: 200, 1928a: 232; Stark 1952: 226; Tragardh 1939b: 190; Zinovjev 1957: 331, 1958: 382. **(ds)** Butovitsch & Heqvist 1947; Ericson & Sandin 1893; Esterberg 1959; Florov 1949: 77; Grill 1895: 309; Grune 1979: 67; Hagedorn 1910d: 38; Hansen 1939; Heyden, Reitter, & Weise 1891: 669; Jaccntkovsky 1939: 77; Janovsky & Tegshzhargal 1985: 408; Karpinski 1932a: 103, 1932b: 52–56, 1933b: 25, 1948b: 229; Karpinski & Strawinski 1948: 155; Klefbeck & Sjoberg 1960: 230; Kleine 1913b: 116, 1934a: 141; Krivolutskaia 1956: 830; Kurenzov 1951b: 16; Lundberg 1977, 1979: 31; Murayama 1956a: 276; Numberg 1954: 25; Nuorteva 1971: 67; Pfeffer 1960: 345, 1989a: 42; Saalas 1913a: 68, 81, 1917a: 18, 1930: 119, 1931: 68; Sahlberg 1900: 105; Schaufuss 1915: 1228; Schilsky 1909: 187; Sokanovskii 1936: 74, 1960; Stark 1931a: 24, 1931d: 545, 1952: 226; Strand 1946: 598; Tragardh 1939b: 190; Wilke 1931: 669; Yanovskii 1989: 64; Yanovskii & Tegshzhargal 1984: 408; Zinovjev 1955: 187, 1958, 1959. **(tx)** Eggers 1914: 42, 188, 1922c: 16; Fauvel 1889; Grune 1979: 67; Hagedorn 1910a: 77; Hopkins 1914: 128; Karpinski & Strawinski 1945: 155; Krivolutskaia 1956: 830, 1958: 126; Kurenzov 1941a: 133–134, 1948b: 112; Lekander 1959b: 9; Murayama 1956a: 276–279; Numberg 1954: 25; Pfeffer 1955a: 144, 1959a: 42, pl. 4; Reitter 1913: 55; Saalas 1913a: 68, 81, 1916: 91–95, 110–116, 1949: 341, 370; Schedl 1934f: 1636, 1955a: 16; Sokanovskii 1936: 73–74, 1960: 675; Spessivtsev 1922: 467, 491, 1923: 200–214, 1925a: 167, 1925b: 14, 1931: 41; Stark 1952: 226; Thomson 1886: 11.
- griseus* Eggers 1923b: 136. Syntypes, sex?; Hammarstedt (Smaland), Schweden; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1955a: 16. Notes: (1) Schedl 1979c: 113 (citation of holotype invalid). References: **(ay)** Lekander 1959b: 20. **(cc)** Heqvist 1963: 152; Pfeffer 1960: 345. **(hb)** Lekander 1959b: 20; Stark 1952: 226. **(ds)** Klefbeck & Sjoberg 1960: 230; Pfeffer 1960: 345; Stark 1952: 226; Strand 1960: 171. **(tx)** Eggers 1923b: 136; Lekander 1959b: 20; Schedl 1934f: 1636, 1955a: 11, 16, 1979c: 113; Sokanovskii 1954: 226; Stark 1952: 226.
- potens* Schedl 1965c: 53. Holotype, sex?; Madagascar, Ankaraniopoty; MNHN, Paris. Distribution: Madagascar.

- References: (tx) Schedl 1965c: 53, 1977b: 21.
- primus** Wichmann 1915b: 217. Syntypes 2 ♂, 1 ♀; Kamerun; MNB, Berlin.
Distribution: Africa (Cameroon/Tanzania/Zaire).
References: (ds) Schedl 1961k: 380–381, 1964e: 68, 1964f: 617, 1964j: 39, 1967e: 210, 1975h: 350. (tx) Eggers 1920: 239, 1922b: 167; Schedl 1952i: 10, 1961k: 380–381; Wichmann 1915b: 217.
- camerunus** Eggers 1919: 235 (*Ozophagus*).
Lectotype ♂; Kamerun; USNM, Washington, designated by Anderson & Anderson 1971: 8.
Synonymy: Schedl 1961k: 380.
References: (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1919: 235, 1922b: 167; Schedl 1950d: 2, 1961k: 380.
- opacicolis** Eggers 1940b: 100. Holotype, sex?; Congostaat (Dioba); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1961k: 381.
References: (tx) Eggers 1940b: 100; Schedl 1961k: 381.
- proximus** Blandford 1894d: 75. Syntypes 2, sex?; Sapporo, Japan; BMNH, London.
Figures: Nakane et al. 1963: pl. 191, Nobuchi 1966d: pl. 2, 1979b: pl. 3, Schedl 1955a: 11 (antenna), Tsai & Li 1959: 85.
Distribution: Asia (Heilongjiang in China/ Japan/ Korea/ Sakhalin Island, Siberia in E USSR).
Hosts: *Abies* spp., *Picea jezoensis*, *P. koraiensis*, *Pinus* spp., *Larix dahurica*, *Abies sachalinensis*, *A. nephrolepis*.
Notes: (3) Kurenzov 1948a: 50 (named form *nigricans*, no status). Schedl 1955a: 11 (re-described species; cites *ussuriensis*, nomen nudum), Schedl 1979c: 262 (citation of holotype invalid).
References: (ay) Sasakawa & Yoshiyasu 1983. (bv) Koizumi 1969, 1977; Nuorteva 1956c: 67; Yamaguchi 1963; Yamaguchi et al. 1963. (cn) Anonymous 1980g; Inouye 1954: 167–180, 1955, 1963; 160–164; Inouye & Yamaguchi 1955a: 235, 1959: 27; Koizumi 1969, 1977; König 1954: 147; Kurenzov 1935c: 187, 1956a: 90; Mamaev 1972; Shiraki 1952; Tamanuki 1940a: 262; Yanagisawa 1952: 105; Zhang et al. 1958: 27. (ec) Banne, Mikata, & Kodama 1983: 445; Inouye 1954: 169; Inouye & Yamaguchi 1955a: 235, 1955b; Inouye et al. 1955: 84; Kabir 1981; Kamijo 1981; Kokueva 1900: 569; Kurenzov 1934a: 53, 1964: 20; Yamaguchi 1963: 53–73; Yamaguchi et al. 1963; Yasamatsu & Watanabe 1965: 70. (hb) Inouye 1954: 169; Inouye et al. 1953, 1954, 1955: 84; Koizumi 1955: 49; Krivolutskaya 1956: 837, 1973: 133; Kurenzov 1935a: 19, 1948a: 50, 1948b: 101, 1950d: 203; Nuorteva 1956c: 67; Stark 1952: 227; Strohmeyer 1910a: 223; Yamaguchi 1963; Yamaguchi et al. 1963. (ds) Anonymous 1980g; Blandford 1894c; Cho 1957; Choo 1983: 44; Choo & Woo 1985: 163; Hagedorn 1910d: 39; Inouye & Koizumi 1953: 107, 1954: 129; Kleine 1913b: 116, 1914b: 256, 1934a: 141; Ko 1969: 282; Koizumi 1955: 52; Kono, H. 1938b: 64, 1938c: 45–46; Kono, H. & Tamanuki 1939: 88, 90; Krivolutskaya 1956: 837, 1958: 127, 1965a: 230, 1973: 133; Krivolutskaya & Kupvanskaya 1970; Krivosheina & Mamaev 1986: 97; Ku 1964; Kurenzov 1934a: 53, 1935a: 19, 1935c: 187, 1936a: 111, 1936b: 351, 1938a: 59, 1951b: 16, 1964: 20; Mandl 1931: 25; Murayama 1929b: 2, 1930a: 1, 1930b: 12, 1936b: 116, 1937b: 369, 375, 1948, 1949a: 13, 1950b: 1292, 1951c: 4, 1954b: 166, 1956a: 276–287; Nakane et al. 1963: 382; Nobuchi 1966d: 17, 1979b: 9, 1985c: 9; Shiraki 1952; Stark 1952: 227. (tx) Blandford 1894d: 75; Choo 1983: 44; Eggers 1927d: 121, 1933a: 99; Hagedorn 1904d, 1910a: 77; Krivolutskaya 1956: 837, 1958: 127; Kurenzov 1941a: 134, 1948a: 50, 1948b: 101; Murayama 1930b: 12–17, 1934: 298, 1937b: 369, 375, 1950b: 1292, 1954b: 166, 1956a: 276; Nakane et al. 1963: 382, pl. 191; Niisima 1909: 134, 1910a: 1, 1941: 123; Nobuchi 1966d: 17, pl. 2, 1979b: 9; Schedl 1934f: 1636, 1955a: 11, 1979c: 262; Stark 1952: 227; Stebbing 1908b: 6; Tsai & Li 1959: 85. (ms) Mastumura 1931.
- laticollis** Eggers 1926b: 135. Holotype ♂; Nopporo; Eggers Collection, in NHMW, Wien. Synonymy: Murayama 1956: 287.
References: (tx) Eggers 1926b: 135; Murayama 1956: 287; Niisima 1941: 123–124; Schedl 1934f: 1636, 1955a: 11; Sokanovskii 1960: 675
- magnus** Murayama 1956a: 279, 282. Holotype ♀; Nishimata, Aki County, Kochi pref., Japan; Murayama Collection in USNM, Washington. Synonymy: Wood 1992b: 84.
References: (ds) Murayama 1956a: 276, 279, 282; Nobuchi 1979b: 7, 1985c: 9. (tx) Murayama 1956a: 276, 279, 282; Nobuchi 1979b: 7; Wood, S. L. 1992b: 84.
- pseudobrunneus** Schedl 1971e: 7. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1971e: 7.
- quadrioculatus** (Hagedorn) 1908: 373 (*Spongotarsus*). Holotype, sex?; Sumatra; Hamburg Museum, lost.
Distribution: Indonesia (Sumatra).
References: (ds) Hagedorn 1910d: 39; Kleine 1913b: 117, 1914b: 285. (tx) Hagedorn 1908: 373, 1910a: 78; Hopkins 1914: 129.
- ruandae** Schedl 1957d: 34. Holotype ♀; Ruanda; Ithembe; MRCB, Tervuren.
Figures: Schedl 1961k: 381 (adult).
Distribution: Africa (Zaire).
Hosts: *Chrysophyllum africanum*, *Clitandra cf staudtii*.
References: (cc) Schedl 1961k: 381. (hb) Schedl 1961k: 381. (ds) Schedl 1961k: 381, 1979b: 415. (tx) Schedl 1957d: 34, 1961k: 381.

***rudis* Eggers** 1933a: 99. Syntypes, sex?: Nitou Tatsienlu, Szechuan, China; Eggers Collection, in NHMW, Wien.

Figures: Schedl 1955a: 19 (antenna).

Notes: (3) Schedl 1955a: 19 (re-described).

References: (**ds**) Murayama 1937b: 369; Yin & Huang 1981: 560. (**tx**) Eggers 1933a: 99; Murayama 1937b: 369; Schedl 1955a: 19; Yin & Huang 1981: 560.

***rudis likiangensis* Tsai & Yin** 1965: 334. Holotype ♂; Likiang, Yunnan, China; IZAS, Beijing.

Distribution: Asia (Yunnan in China).
Hosts: *Larix potanini*, *Picea likiangensis*, *Pinus armandi*.

References: (**tx**) Tsai & Yin 1965: 328–329, 334.

***rudis retiventriculus* Tsai & Yin** 1965: 334. Holotype ♂; Kangding, Szechwan, China; IZAS, Beijing.

Distribution: Asia (Sichuan in China).

Hosts: *Picea asperata*.

Notes: (1) If subspecies are justified, then this one must automatically take the name *rudis rudis*.

References: (**tx**) Tsai & Yin 1965: 328–329, 334.

***rufipennis* (Kirby)** 1837: 193 (*Apate*). Syntypes, sex?: Boreal America, Lat. 65; BMNH, London. Figures: Bright 1976d: 202, 209, Clarke & Carew 1983c, Kusch 1967: 10, Swaine 1918a: pl. 21 (male).

Distribution: North America (Alaska/ all provinces in Canada/ Arizona, Colorado, District of Columbia, Idaho, Maine, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming in USA). Apparently introduced into South Africa (Schedl 1961k: 380).

Hosts: *Picea engelmannii*, *P. glauca*, *P. pungens*, *P. rubra*, *P. spp.*, *Abies fraseri*, *Larix laricina*, *Pinus strobus*.

References: (**ay**) Hatch 1926; Hopkins 1894g; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienczyk 1966. (**bv**) Furniss, M. M., Baker, & Hostetler 1976: 1300; Gardner 1957a; Hosking & Knight 1975; Raske, A. K. & Bowers 1983; Rudinsky, Oester, & Ryker 1978. (**cn**) Anonymous 1970c: 13; Baker, W. L. 1972: 264; Balch 1941; Becker, Abbott, & Rick 1956: 664; Beckwith 1972; Bongberg 1957; Browne 1968b: 580; Chamberlin 1924; Chenier & Philogene 1989a; Clarke & Carew 1983a, 1983c, 1984b, 1985: 19, 1986: 20, 1987, 1988: 32; Connola et al. 1956; Craighead 1924: 41; Doane et al. 1936; Drooz 1985: 352; Eidmann & Klingstrom 1976: 238; Fall & Cockerell 1907: 217; Felt 1906: 386, 1924: 269, 1926: 247–248, 269, 1930a: 247, 269; Felt & Rankin 1932: 406; Fitch 1858; Gahan 1927: 1–39;

Graham 1922b; Herrick 1935: 136; Hewitt 1914: 501–518, 1917: 13; Hopkins 1893c, 1894c, 1894d, 1894g: 280, 1897c: 42, 1901b: 33, 1904a: 25; Hough 1878: 163; Johnson 1897: 72–73; Keen 1952c: 166; Kondo & Moody 1978: 64, 73; Kondo & Taylor 1985: 32; Lindgren 1980a: 69; Lindquist, O. H. & Syme 1981: 91; Magasi 1987: 59; Massey & Wygant 1954: 21; Merkel & Kowal 1956: 7; Moody, B. H. 1988: 63; Mumford 1960: 38; Packard 1890: 721; Pierson 1923: 26, 1927: 80; Rodary 1959: 852; Rose, A. H. & Lindquist 1977: 119, 1980: 59; Ruppel 1967: 81; Schooley & Pardy 1981; Schuder 1969: 76; Schwarz 1938b: 144, 1938c: 288; Singh & Clarke 1982b: 2; Smith, C. J. & Melvin 1974a, 1974b; Sterner & Davidson 1983: 14; Swaine 1910d: 42, 1913: 41–43, 89, 1918a: 55, 1918b: 860, 1924d: 9, 1929: 145–146, 1933: 29; Swaine & Craighead 1924: 1–27; Swaine et al. 1924: 18; Syme & Nystrom 1988: 86; Thomas, J. B. 1958: 394; Titus 1987: 15; Tripp, Stevenson, & Baranyay 1967: 100; Walker 1912: 61; Watson 1928: 613–631. (**cc**) Ashmead 1893b; Ashraf & Berryman 1969: 13; Beanlands 1967; Beckwith 1972b; Blackman 1919: 49; Blackman & Stage 1918: 42; Bugabee 1956; Burks 1979: 798; DeLeon 1934a: Felt 1906: 386; Furniss, R. L. & Carolin 1977: 370; Gardiner 1957a; Graham 1922b; Grissell 1979: 765; Heqvist 1957b: 44; Hilton 1968: 29; Hirschmann 1978c; Hopkins 1891b: 257, 1897c: 42, 1901b: 33; Knight 1961: 212; Langor 1985; Marsh 1979: 158; Massey & Wygant 1954: 21; Matthews 1970; Morley 1939: 244; Pierce 1908: 386; Price 1966; Reid 1955: 312, 1957b: 6; Rodary 1959: 852; Ross, D. A. 1968; Ruschka 1925: 197; Stewart 1965: 926; Swaine 1921: 345, 1924d: 9, 1925c: 264; Thomas, J. B. 1958: 394; Thompson, W. R. 1943: 92; Thompson, W. R. & Simmonds 1964: 34, 1965: 73; Tomalak, Welch, & Galloway 1989a, 1989b; Werner & Holsten 1984. (**hb**) Anderson, R. F. 1960: 241; Baker, W. L. 1972: 264; Beal & Massey 1945; Beckwith 1972b; Beckwith, Wolff, & Zasada 1977; Blackman 1919a; Blackman & Stage 1918; Boutin 1926, 1927; Bright 1976d: 103; Browne 1968b: 580; Chamberlin 1939: 122–123, 1958: 56–58; Chittenden 1890; DeLeon et al. 1934; Dillon & Dillon 1961: 806; Doane et al. 1936; Drake 1921; Eidmann & Klingstrom 1976: 238; Felt 1906: 386, 1926: 247–248, 269, 1930a: 247, 269; Felt & Rankin 1932: 406; Fitch 1858; Furniss, M. M. et al. 1979: 1357; Furniss, R. L. & Carolin 1977: 370; Gara & Holsten 1975; Cobeil 1936b, 1936c; Herrick 1935: 138; Hilton 1968: 29; Hopkins 1892: 257, 1893a: 141, 1893b: 212, 1893c: 129, 1894g, 1901b: 33, 1904a: 25; Keen 1952c: 166; Knight 1961: 213; Lindgren 1980a: 69; Massey & Wygant 1954: 21; Morley 1939: 244; Mott 1954: 1; Packard 1890: 721–722; Pierce 1907: 293; Pierson 1923: 26, 1927: 80, 121; Raske, A. K. & Bowers 1983; Reid 1955: 312–319; Rose, A. H. & Lindquist 1977:

- 120, 1980: 59, 1980d; Rudinsky, Oester, & Ryker 1978; Schwarz 1889d: 176; Simpson 1929b: 146–151; Strohmeier 1910a: 222; Swaine 1918a: 551, 1924d: 9, 1929: 145; Swaine et al. 1924: pl. 21; Watson 1928: 618; Wolcott & Montgomery 1933: 165; Wood, S. L. 1982b: 387; Yang 1989c. (**ds**) Anderson, R. F. 1960: 241; Anonymous 1926c: 515, 1970c: 13; Ashworth 1977, 1980; Ashworth & Brophy 1972: 2984; Ashworth, Clayton, & Bickley 1972: 183; Ashworth & Cvanara 1983; Ashworth et al. 1981; Austara et al. 1983; Bain 1974: 15; Beal & Massey 1945: 73–74; Beanlands 1967; Beaulne 1956; Beckwith 1972a; Bedard 1938a; Blatchley & Leng 1916: 661; Bongberg 1957; Bright 1971a: 125, 1976d: 103; Brown 1932: 209, 1934; Browne 1968b: 580; Chamberlin 1925, 1939: 122–123, 1958: 56–58; Chittenden 1890; Cockerell et al. 1907; Currie 1905; Deyrup 1968b: 4; Dodge 1938; Drake 1921: 201; Drooz 1985: 352; Eidmann 1935; Elias 1982a, 1982b, 1982d, 1983, 1985: 39; Elias, Short, & Clark 1986; Evans, D. 1983: 35; Evans, D., Lowe, & Hunt 1978; Felt 1926: 247–248, 269, 1930a: 247, 269; Felt & Rankin 1932: 406; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 370; Gara & Holsten 1975; Gardiner, F. 1879: 211–213; Gast et al. 1989: 385; Gautreau 1974: 6; Hagedorn 1910d: 39; Hamilton 1894a: 35; Henshaw 1885: 149; Hilton 1968: 29; Hoffmann 1956: 91; Hopkins 1893a: 141, 145–146; Houghton 1905; Keen 1929a: 14, 1952c: 166; Kleine 1913b: 116, 1914b: 385, 1934a: 141; Kusch 1967; Lacordaire 1866: 363; Leng 1920: 338; Leonard 1928: 515; Lindquist, O. H. & Syme 1981: 91; MacGillivray, A. & Houghton 1902; McComb et al. 1953: 3; Melsheimer 1853: 88; Merkel & Kowal 1956: 7; Miller, R. F. & Morgan 1982; Miller, R. F., Morgan, & Hicock 1985: 501; Morgan, A. V. & Morgan 1979, 1980: 1110; Morgan, Anne, Morgan, & Elias 1985; Mumford 1960: 38; Numberg 1961b: 609; Patterson & Hatch 1945: 149; Price 1966: 239; Proctor 1946: 206; Provancher 1877: 571; Ross, D. A. 1968; Ruppel 1967: 81; Schuder 1969: 76; Schwert & Morgan 1980; Schwert et al. 1985; Smith, C. J. & Melvin 1974a, 1974b; Still, Tidbury, & Melvin 1974a, 1974b; Susnt & Melvin 1974; Swaine 1909: 141, 1913: 89, 1919b: 7; Syme & Nystrom 1988: 86; Van Dyke 1924: 25; Weimer & Holsten 1984; Wickham 1896a: 309; Williams, N. E. et al. 1981; Winter, T. G. 1983: 22; Wolcott & Montgomery 1933: 165; Wood, S. L. 1951a: 127, 1972a: 411, 1982b: 387. (**tx**) Beal & Massey 1945: 73–74; Beckwith 1972a, 1972b; Benoit 1985: 206; Blatchley & Leng 1916: 661; Bright 1976d: 103, 202, 209; Bruck 1936a: 110; Chamberlin 1939: 122–123, 1958: 56–58; Clarke & Carew 1983c; Dillon & Dillon 1961: 801, 805; Dodge 1938: 15, 24; Evans, D. 1983: 35; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 78; Hilton 1968: 29; Hopkins 1914: 124, 1915c: 222; Keen 1929a: 14; Kirby 1837: 193; Kusch 1967: 10; Lacordaire 1866: 363; LeConte 1857: 22, 1868: 168–169, 1873: 336, 1876: 376, 1878c: 472; LeConte & Horn 1883: 522; Lindquist, O. H. & Syme 1981: 91; Mannerheim 1853: 237; Pardy 1974, 1977; Provancher 1877: 570–571; Rose, A. H. & Lindquist 1980: 59; Schedl 1957b: 150, 1961k: 380, 1962p: 202, 1967a: 120; Schwarz 1889b: 149, 1889d: 176; Swaine 1918a: 55–56, 1919b: 7 part E, 1925a: 51; Syme & Nystrom 1988: 86; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienczyk 1966; Titus, Meikle, & Harrison 1985: 108; Wood, S. L. 1966: 29, 1972a: 411, 1982b: 387. (**ms**) Beanlands 1966; Chamberlin 1931; Chemier & Philogene 1989a; Swaine 1925c: 264.
- nigriceps* Kirby 1837: 194 (*Apate*). Holotype ♂; Boreal America, Lat. 65; BMNH, London. Synonymy: LeConte 1868: 169. References: (**hb**) Wolcott & Montgomery 1933: 165. (**ds**) Blatchley & Leng 1916: 662; Lacordaire 1866: 363; Leng 1920: 338; Melsheimer 1853: 88; Swaine 1909: 141; Wolcott & Montgomery 1933: 165. (**tx**) Blatchley & Leng 1916: 662; Hopkins 1915c: 222; Kirby 1837: 194; Lacordaire 1866: 363; LeConte 1868: 168, 1873: 336, 1876: 376; Swaine 1909: 141.
- brevicornis* Kirby 1837: 194 (*Apate*). Holotype ♀; Boreal America, Lat. 65; BMNH, London. Synonymy: LeConte 1868: 169. References: (**ds**) Blatchley & Leng 1916: 662; Hagedorn 1910d: 38; Henshaw 1885: 149; Kleine 1913b: 116; Lacordaire 1866: 363; Leng 1920: 338; Melsheimer 1853: 88; Swaine 1909: 141. (**tx**) Blatchley & Leng 1916: 662; Gemminger & Harold 1872: 2674; Hagedorn 1910a: 77; Hopkins 1915c: 222; Kirby 1837: 194; Lacordaire 1866: 363; LeConte 1868: 177, 1873: 336, 1876: 376; Swaine 1909: 141, 1918a: 56.
- sagittatus* Mannerheim 1853: 237. Holotype ♀; Kenai Peninsula, Alaska; MZU, Helsinki. Synonymy: LeConte 1868: 169. References: (**ds**) Lacordaire 1866: 366; Leng 1920: 338; Swaine 1909: 141. (**tx**) Lacordaire 1866: 366; LeConte 1857: 22, 1868: 168, 1876: 376; Mannerheim 1853: 237; Swaine 1909: 141, 1918a: 55; Wood, S. L. 1969c: 116.
- rufus* (Eggers) 1936c: 83 (*Spongotarsus*). Holotype ♀?; Java, Batoerraden; ZMA, Amsterdam [1 Eggers cotype, in NHMW, Wien]. Distribution: Indonesia (Java). References: (**tx**) Eggers 1936c: 83–84.
- sachalinensis* Eggers 1926b: 135. Syntypes, sex?; Aihama auf Sachalin und Sapporo, Japan; 2 Eggers syntypes, in NHMW, Wien. Distribution: Asia (Heilongjiang in China/ Japan/ Sakhalin Island, Ussuri in E. USSR). Hosts: *Pinus koraiensis*, *Picea obovata*, *P. jezoensis*, *P. koraiensis*, *Larix gmelinii*. Notes: (1) Schedl 1955a: 21 (= *subopacus* Thomson),

1979c: 218 (citation of holotype invalid), Tsai & Yin 1965: 2 (a good species).

References: **(cn)** Kurenzov 1935c: 187. **(cc)** Kurenzov 1934a: 54. **(hb)** Krivolutskaya 1956: 831, 1973: 133; Kurenzov 1935a: 19, 29, 1950d: 234; Kurenzov & Kononov 1961: 599; Qui & Huo 1958: 267; Stark 1952: 222. **(ds)** Arnolli et al. 1955: 679; Kono, H. & Tamamki 1939: 88, 92; Krivolutskaya 1956: 831, 1965a: 229, 1973: 133, 1983; Kurenzov 1934a: 54, 1935a: 19, 29, 1935c: 187, 1936a: 111, 1936b: 351, 1938a: 61, 1941: 135–137, 1951b: 16, 1965, 1967; Kurenzov & Kononov 1961: 595, 599; Murayama 1954b: 200, 1956a: 276; Stark 1952: 222. **(tx)** Eggers 1926b: 135; Krivolutskaya 1956: 831, 1958: 127; Kurenzov 1941a: 135; Murayama 1956a: 276; Nissima 1941: 130; Schedl 1934f: 1636, 1955a: 21, 1979c: 218; Stark 1952: 222; Tsai & Yin 1965: 2.

sachalinensis frontalis Kurenzov 1941a: 136. Holotype, sex?; Ussuri; Kurenzov Collection. Synonymy: Schedl 1955a: 21 (= *subopacus* Thomson).

References: **(tx)** Kurenzov 1941a: 136; Schedl 1955a: 21.

sculptor Schedl 1965c: 54. Holotype ♀; Madagascar, Montagne d'Ambre, Grand Plateau; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

Notes: (1) Schedl labeled the female holotype as a male.

References: **(tx)** Schedl 1965c: 53–54, 1977b: 21.

seriatus Reitter 1913a: 56. Syntypes, sex?; Ostsibirien: Sajon bei Ussinsk, USSR; NHMB, Budapest.

Distribution: Asia (E USSR).

Hosts: *Pinus sylvestris*, *Larix sibirica*.

References: **(hb)** Stark 1952: 229. **(ds)** Pfeffer 1935: 158; Stark 1931d: 545, 1952: 229. **(tx)** Eggers 1914: 41, 1922c: 12–18, 1927d: 121; Reitter 1913a: 56; Schedl 1934f: 1636; Sokanovskii 1954: 16; Stark 1952: 229.

setosus Schedl 1979j: 128. Holotype ♀; India; FRI, specimen on loan to Schedl (in NHMW, Wien).

Distribution: Asia (Himachal Pradesh, Punjab, Uttar Pradesh in India).

Hosts: *Pinus griffithii*, *P. roxburghii*.

Notes: (3) Beeson 1941(1961: 294) (*setosus*, nomen nudum).

References: **(ds)** Beeson 1961: 294; Kleine 1934a: 141. **(tx)** Schedl 1979j: 128.

shariensis Niisima 1941: 127. Syntypes, sex?; Hokkaido (Shari Prov. Kitami); Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1979b: pl. 3 (adult).

Distribution: Asia (Japan).

Hosts: *Prunus ssiiori*.

References: **(ds)** Murayama 1956a: 276; Nobuchi 1979b: 10, 1985c: 10. **(tx)** Murayama 1954b: 200,

1956a: 276, 281; Niisima 1941: 127; Nobuchi 1979b: 10, pl. 3.

sinensis Eggers 1933a: 100. Syntypes, sex?; China: Szechuan, Tatsienlu Kinlung; 2 Eggers syntypes, in NHMW, Wien.

Figures: Li & Zhon 1980: 191 (adult, galleries), Schedl 1955a: 10 (antenna).

Distribution: Asia (Shanxi, Sichuan in China).

Hosts: *Pinus armandi*, *P. tabulaeformis*.

Notes: (3) Schedl 1955a: 10 (redescribed), 1979c: 230 (citation of holotype invalid).

References: **(cc)** Li & Zhon 1980: 71. **(hb)** Li & Zhon 1980: 71; Yang 1989c. **(ds)** Murayama 1937b: 369. **(tx)** Eggers 1933a: 100; Murayama 1937b: 369; Schedl 1955a: 9–10, 1979c: 230.

squameus Yin & Huang 1981: 558. Holotype, sex?; China; IZAS, Beijing.

Distribution: Asia (Qinhai, Sichuan, Xizang [Tibet] in China).

Hosts: *Picea asperata*, *Pinus armandii*, *P. densata*, *P. griffithii*.

References: **(ds)** Yin & Huang 1981: 558. **(tx)** Yin & Huang 1981: 558–559.

squamosus (Schedl) 1975c: 384 (*Blastophagus*). Holotype, sex?; Dordjula, Bhutan; NHMBS, Basel.

Figures: Yin & Huang 1981: 559.

Distribution: Asia (Bhutan).

Notes: (1) Wood 1986c: 288 (to *Polygraphus*).

References: **(tx)** Schedl 1975c: 384–385, 1979c: 236; Wood, S. L. 1986c: 288.

squamulatus Niisima 1941: 129. Syntypes, sex?; Sachalin (Chimmai), Hokkaido (Prov. Teshio); Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1979b: pl. 3 (adult).

Distribution: Asia (Japan/ Sakhalin Island in E USSR).

Hosts: *Picea jezoensis*.

References: **(ds)** Krivolutskaya 1958: 132; Murayama 1956a: 276; Nobuchi 1979b: 11, 1985c: 10. **(tx)** Kurenzov 1967; Murayama 1956a: 276–279; Niisima 1941: 129; Nobuchi 1979b: 11, pl. 3.

ssiori Niisima 1909: 132. Holotype, sex?; Tomakomai, Prov. Iburi, Sapporo, Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1979b: pl. 3, Schedl 1955a: 7 (antenna).

Distribution: Asia (Japan/ Sakhalin Island in E USSR).

Hosts: *Prunus* spp.

Notes: (3) Schedl 1955a: 6 (redescribed).

References: **(hb)** Krivolutskaya 1965: 232, 1973: 134; Strohlmeyer 1910a: 222. **(ds)** Kleine 1913b: 116, 1914b: 256, 1934a: 141; Krivolutskaya 1965: 231, 1973: 134; Murayama 1949c: 101, 1954b: 166, 1956a: 276; Nobuchi 1979b: 11, 1985c: 10. **(tx)** Hagedorn 1910a: 78; Murayama 1956a: 276; Niisima 1909: 132, 1910a: 3, 7, 1941: 128; Nobuchi 1979b: 11, pl. 3, 1985c: 10; Schedl 1934f: 1636, 1954b: 166, 1955a: 6.

subopacus Thomson 1871: 393. Syntypes, sex?; Sweden; not given.

Figures: Chararas 1962c: 297, Nobuchi 1979b: pl. 3, Pfeffer 1989: pl. 4, Schedl 1955a: 21 (antenna), Postner 1974: 406 (adult).

Distribution: Asia (Heilongjiang in China/ Japan/ Korea/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Czechoslovakia/ Finland/ France/ Hungary/ Norway/ Poland/ Sweden/ Switzerland/ W USSR).

Hosts: *Pinus* spp., *Picea* spp., *Abies siberica*.

Notes: (3) Reitter 1911: 47–55 (cites aberration *xaverti*, no status, synonymy in Schedl 1955a: 21). Schedl 1955a: 20 (redescribed). See also *nanus* Schedl.

References: (ay) Escherich 1923b: 481; Feytaud 1950; Fuchs 1912a; Lekander 1959b: 9; Scherb 1971; Wichmann 1912a: 9. (bv) Barr, B. A. 1969: 643; Grune 1979: 67; Nuorteva 1956c: 92; Wichmann 1912a: 9–10. (cn) Baisch 1954: 302; Barbey 1925: 78; Bouvier & Lesne 1922; Escherich 1917: 97–115, 1923b: 481; Esterberg 1959; Feytaud 1950a; Fuchs 1911b; Juutinen 1960: 23; Kangas 1939; Kholodkovskii 1912: 302; Koch 1913: 114; Kontkaven 1932: 61; Kovacevic 1924: 21–22; Kurenzov 1935c: 188; Lekander 1954b: 11; Lekander, M. 1951: 51; Muller 1912: 184; Nestertschuk 1930: 176; Nusslin 1913: 259; Pfeffer 1948a: 800; Pierce, W. D. 1917: 70; Rhumbler 1922: 302, 1927: 315; Saalas 1949: 341, 369; Schimitschek 1937c: 49, 1955c: 79; Schwerdtfeger 1944a: 179, 1957a: 185; Shiraki 1952; Shirskaya 1961: 165; Titova 1966; Trappen 1935: 142; Wilke 1931: 670. (ce) Baisch 1954: 302; Heqvist 1963: 152; Kangas 1939, 1946b: 21; Karpinski 1932a: 95; Kleine 1908c: 184, 1909a: 46, 76, 1944: 69; Kurenzov 1934a: 56; Lundberg 1984; Michalski & Ratajczak 1989; Nuorteva 1956a: 16, 1957b: 68, 1971; Nusslin 1927: 300; Pfeffer 1932a: 15, 1943b: 179, 1957a: 196; Ruhm 1956b: 3; Saalas 1917a: 18, 1928: 649, 1930: 119, 1937: 153, 1949: 341, 369, 1951: 13; Schwerdtfeger 1944a: 179, 1957a: 185; Titova 1966; Wiackowski 1957a: 80; Wichmann 1954d: 438; Wilke 1931: 670; Zinovjev 1957: 330, 1958: 382. (hb) Barbey 1925: 78; Budkov 1897; Charvat 1950; Escherich 1923b: 481; Feytaud 1950a; Fuchs 1911b; Gornostae 1916: 310; Gyorfi 1957; Henschel 1895a: 142; Karpinski 1926: 81–83, 1933b: 25; Karpinski & Strawinski 1948: 155; Kholodkovskii 1912: 302; Krivolutsкая 1956: 831, 1960: 77; Kurenzov 1935a: 20, 1948b: 104, 1950d: 204; Kurenzov & Kononov 1961: 599; Lekander 1954b: 11, 1959b: 9; Lengerken 1939: 57, 1954: 76; Lundberg 1963: 243; Numberg 1947c: 99; Nuorteva 1956c: 92; Nusslin 1904: 8, 1905a: 88, 1913: 259, 1927: 300; Pfeffer 1941c: 5; Postner 1974: 407; Rhumbler 1922: 302, 1927: 315; Saalas 1913a: 68, 81, 1949: 341, 369, 1951: 13; Schedl 1981b: 56; Schwerdtfeger 1944a: 179, 1957a: 185, 1981: 191; Seitner 1911: 99; Spessixtsev 1923: 200;

Stark 1952: 223; Tragardh 1939b: 190; Zinovjev 1957: 330, 1958: 382. (ds) Bakke & Kvanme 1977; Belousov 1916, 1917: 334–337; Bistrom & Väisänen 1988: 42; Borchert 1951; Budkov 1897; Butovitsch & Heqvist 1947; Calwer 1893; Charvat 1950; Cho 1957; Choo 1983: 45; Choo & Woo 1985: 163; Csiki 1941; Endrodi 1955b: 415; Ericson & Sandin 1893; Escherich 1923b: 481, 1932b; Esterberg 1959; Florov 1949: 80; Fuchs 1905a; Gornostae 1917; Grill 1895: 309; Grune 1979: 67; Hagedorn 1910d: 39; Hansen, V. 1939; Henschel 1895a: 142; Heyden, Reitter, & Weise 1883: 181, 1891: 669, 1906: 710; Horion 1951, 1957: 21; Hubenthal 1913; Kaisila 1952: 18; Karpinski 1931: 23, 82, 1932a: 95, 1932b: 53, 1933b: 25, 1948b: 229; Karpinski & Strawinski 1948: 155; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 267, 1913a: 34, 1913b: 116, 1934a: 141; Ko 1969: 282; Kontkanen 1932: 61; Krivolutsкая 1956: 831, 1958: 124, 1960: 77, 1983; Kurenzov 1934a: 56, 1935a: 20, 1935c: 188, 1936b: 351, 1938a: 64, 1951b: 16, 1963b: 114, 1965, 1967; Kurenzov & Kononov 1961: 595, 599; Lesne 1922: 267; Lindberg & Saris 1952: 59; Lucht 1987: 276; Lundberg 1956a: 183, 1974: 92, 1979: 31; Martinek 1953: 366–374; Munster 1928: 288; Murayama 1929b: 2, 1929d: 6, 1930a: 1, 1930b: 12, 1937b: 375, 1956a: 276, 1957a: 36; Nobuchi 1966d: 17, 1979b: 12, 1985c: 10; Numberg 1954: 25; Nuorteva 1971: 67; Palm 1946: 122, 1948a: 76, 90; Pfeffer 1924b: 472, 1930b: 120, 1931b: 75, 1947e: 3, 1948c: 64, 1950b: 74, 1989a: 42; Pierce, W. D. 1917: 70; Pittioni 1943: 176; Platonoff 1942: 63; Postner 1974: 407; Prossen 1913: 82; Reitter 1894a: 58, 1916: 286; Roubal 1941: 262; Saalas 1913a: 68, 81, 1917a: 18, 1930: 119, 1931: 68; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 444; Schaufuss 1915: 1228; Schedl 1980a: 12, 1981b: 56; Schilsky 1909: 187; Schmaider 1936: 366; Schwerdtfeger 1981: 191; Shiraki 1952; Sinovjev 1955: 189; Sokanovskii 1960; Stark 1931a: 24, 1931d: 544, 1952: 223; Strand 1946, 1960: 171; Tragardh 1939b: 190; Tredl 1907: 11; Wegelius 1960; Wichmann 1927a: 62; Wilke 1931: 670; Yanovskii 1977a; Yanovskii & Tegshzhargal 1985: 408; Zinovjev 1955: 187. (tx) Baisch 1954: 302; Balachowsky 1949a: 147; Chararas 1962c: 297; Charvat 1950; Choo 1983: 45; Eggers 1914: 41, 188; Eichhoff 1883a: 102, 124; Endrodi 1957a: 307, 1957b: 415; Escherich 1923b: 481; Fuchs 1912a; Grune 1979: 66, 67; Hagedorn 1910a: 78; Henschel 1895a: 142; Karpinski & Strawinski 1948: 155; Koch 1913: 114, 1928: 99, 1932: 134; Krivolutsкая 1956: 831, 1958: 129; Kuhnt 1913: 1052; Kurenzov 1941a: 136, 1948b: 104; Lekander 1959b: 9; Lucht 1987: 67; Murayama 1930b: 12, 30, 1937b: 375, 1954b: 200, 1956a: 276, 1958: 280; Niisima 1941: 128; Nobuchi 1966d: 17, pl. 2, 1979b: 12, pl. 3; Numberg 1954: 25; Pfeffer 1932b: 16, 1941c: 5, 1947e: 3, 1955a: 143, 1989a: 42, pl. 4; Postner 1974: 407; Quaschik 1953: 35; Reitter

- 1894a: 55, 1911: 55, 1913a: 56, 1916: 286; Rhumbler 1922: 302, 1927: 315; Saalas 1913a: 68, 81, 1916: 91–95, 1919a: 1–415, 1949: 341, 369; Schedl 1934f: 1636, 1955a: 20–21, 1980a: 12, 1981b: 56; Scherb 1971; Schimitschek 1937c: 49, 1955c: 79; Sokanovskii 1960: 676; Spessivtsev 1922a: 466, 491, 1923: 200–214, 1925a: 167, 1925b: 14, 1929: 678–682, 1931: 39; Stark 1952: 223; Stresmann et al. 1989: 351; Thomson 1871: 393, 1886: 11. (ms) Escherich 1932b; Schimitschek 1930b: 407.
- subopacus minor* Lindemann 1875: 242. Syn-types, sex[?]; Europe; not given. Synonymy: Stark 1952: 222.
- References: (tx) Lindemann 1875: 242; Stark 1952: 222.
- subsulcatus** Schedl 1957d: 38. Holotype ♀; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Garcinia punctata*.
References: (cc) Schedl 1961k: 382. (hb) Schedl 1961k: 382. (ds) Schedl 1961k: 382–383, 1967e: 210. (tx) Schedl 1957d: 38, 1961k: 382–383.
- sulcatus** Schedl 1952i: 10. Holotype, sex[?]; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Garcinia polyantha*.
References: (cc) Schedl 1961k: 385. (hb) Schedl 1961k: 384. (ds) Mayne & Donis 1962: 310; Schedl 1961k: 384, 1964f: 617. (tx) Schedl 1952i: 10, 1957d: 38, 1961k: 384.
- sumatranus** Schedl 1961c: 72. Syntypes ♂; Sumatra: Takengon; RNH, Leiden, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
Hosts: *Pinus merkusii*.
References: (tx) Schedl 1961c: 72.
- szemaensis** Tsai & Yin 1965: 335. Holotype ♂; Szemao, Yunnan, China; IZAS, Beijing.
Distribution: Asia (Burma/ Sichuan, Yunnan in China).
Hosts: *Pinus densata*, *P. khasya*, *P. yunnanensis*, *P. spp.*, *Picea asperata*.
References: (tx) Tsai & Yin 1965: 335.
- taiwanensis** Schedl 1967a: 128. Holotype ♀; Koshun, Taiwan to Tokyo interception; PPST, Tokyo.
Distribution: Asia (Taiwan).
Hosts: *Picea morrisonicola*.
References: (ds) Nobuchi 1967: 19. (tx) Schedl 1967a: 128–129.
- tenuipennis** Schedl 1957d: 43. Holotype ♀; Congo Belge; Kivu, Hembe-Bitale; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Alchornea hirtella*, *Pentadesma lebrunii*.
References: (hb) Schedl 1961k: 386. (ds) Schedl 1961k: 386. (tx) Schedl 1957d: 43, 1961k: 385–386.
- tenuis** Schedl 1952i: 10. Holotype ♀; Congo Belge; Yangambi; MRCB, Tervuren.
References: Schedl 1961k: 387, 391 (galleries).
Distribution: Africa (Zaire).
Hosts: *Garcinia* spp., *Congopharyngia durissima*, *Fagara macrophylla*.
Notes: (3) Schedl 1957d: 41 (described male).
References: (ay) Van Ryn-Tournel 1972. (cc) Schedl 1958d: 190–191, 1961k: 386. (hb) Schedl 1961k: 386. (ds) Mayne & Donis 1962: 310; Schedl 1961k: 386, 1972k: 295, 1975b: 350. (tx) Schedl 1952i: 10, 1957d: 41, 1961k: 386–390.
- thitsi** Wood 1992b: 86. Holotype, sex[?]; Burma: Nanma Reserve, Hsipaw River, Mandalay; BMNH, London.
Distribution: Asia (Burma).
Hosts: *Melanorrhoea usitata*.
Notes: (1) Beeson 1941: 357, 1961: 295 used *thitsi*, nomen nudum. Browne 1970: 550 described and designated a lectotype for Beeson's name without validating it.
References: (ds) Beeson 1941: 357, 1961: 295. (tx) Browne 1970: 550; Wood, S. L. 1992b: 86.
- trenchi** Stebbing 1905: 6. Syntypes 3 ♀; labeled Shinghar Forest, published as Chilgoza Forests, Suliman Range north of Zhob, Belichistan; FRI, Debra Dun.
References: Stebbing 1915: pl. K opposite p. 511, fig. 1.
Distribution: Asia (Punjab in India/ Pakistan).
Hosts: *Pinus gerardiana*.
References: (cn) Beeson 1918: 114–124; Browne 1968b: 581; Pierce, W. D. 1917: 75; Stebbing 1914: 510. (cc) Beeson 1922c; Stebbing 1914: 510. (hb) Beeson 1922c: 497; Browne 1968b: 581; Stebbing 1908a: 106, 1909b: 18, 1911a: 7, 1914: 510; Strohmeyer 1910a: 222. (ds) Beeson 1922c, 1961: 294; Browne 1968b: 581; Kleine 1913b: 116, 1914b: 276, 1934a: 141; Pierce, W. D. 1917: 75. (tx) Hagedorn 1910a: 78; Stebbing 1905: 6, 1908b: 9–10, 1909b: 18, 1914: 510.
- tropicus** Eggers 1932c: 29. Holotype ♂; Congostaat (Albertville); MRCB, Tervuren.
Distribution: Africa (Ghana/ Ivory Coast/ Ukerewe Island in Tanzania/ Zaire).
Hosts: *Sorindeia lemairci*.
References: (cc) Schedl 1961k: 390. (hb) Roberts 1969b: 127; Schedl 1961k: 390. (ds) Browne 1965: 188; Schedl 1961k: 390, 1962k: 1066, 1964j: 39, 1967e: 210, 1971g: 191, 1979b: 415. (tx) Eggers 1932c: 29; Schedl 1939g: 170, 1939i: 383, 1961k: 390.
- ugandae** Schedl 1965f: 7. Holotype ♀; Uganda, Mpanga; BMNH, London.
Distribution: Africa (Uganda).
References: (tx) Schedl 1965f: 7.
- verrucifrons** Tsai & Yin 1965: 335. Holotype ♂; Likiang, Yunnan, China, 3000–3100 m; IZAS, Beijing.
Distribution: Asia (Sichuan, Yunnan in China).

Hosts: *Pinus armandii*, *P. densata*, *P. yunnanensis*, *P. spp.*

References: (ds) Yin & Huang 1981: 561. (tx) Tsai & Yin 1965: 331, 335; Yin & Huang 1981: 561.

vexator (Browne) 1970: 551 (*Spongotarsus*). Holotype, sex?; Burma: Mamma Reserve, Hsipaw Reserve, Mandalay; BMNH, London.

Distribution: Asia (Burma).

Hosts: *Melanorrhoea usitata*.

References: (ds) Browne 1970: 551, 1981b: 598. (tx) Browne 1970: 551.

vietnamensis Schedl 1965a: 340. Holotype, sex?; rov. Ha-Tinh, Vietnam, 150 m; NHMB, Budapest. Distribution: Asia (Vietnam).

References: (tx) Schedl 1965a: 340.

zambianus Beaver in Beaver & Loytyniemi 1985a: 66. Holotype, sex?; Zambia, Kitwe Chati; BMNH, London.

Distribution: Africa (Zambia).

Hosts: *Brahystegia utilis*, *Julbernardia paniculata*.

References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (tx) Beaver & Loytyniemi 1985a: 66.

zhungdianensis Tsai & Yin 1965: 334. Holotype ♂; Zhungdian, Yunnan, China; IZAS, Beijing.

Figures: Yin & Huang 1981: 559.

Distribution: Asia (Sichuan, Xizang [Tibet], Yunnan in China).

Hosts: *Abies fabri*, *Larix potanini*, *Picea asperata*, *Pinus armandii*, *P. griffithii*.

References: (ds) Yin & Huang 1981: 559. (tx) Tsai & Yin 1965: 327, 334; Yin & Huang 1981: 559.

Genus *Carphoborus* Eichhoff

CARPHOBORUS EICHHOFF 1864b: 27. Type-species: *Hylesinus minimus* Fabricius, monobasic.

Estenoborus Reitter 1913a: 58. Type-species: *Hylesinus perrisi* Chapuis, monobasic. Synonymy: Wood 1982b: 371.

References: (tx) Balachowsky 1949a: 149; Davatchi 1958: 76; Reitter 1913a: 58; Wood, S. L. 1954b: 502–526, 1982b: 371–386, 1986: 56.

Keys: Balachowsky 1949a: 143; Pfeffer 1941e: 169 for Europe, Wood 1954b: 507, 1982b: 372 for North America, Bright 1976d: 96 for Canada.

References: (ay) Fuchs 1912; Nobuchi 1969a: 54; Nusslin 1911, 1912. (cn) Judeich & Nitsche 1895: 445–446. (hb) Beeson 1941: 371; Bright & Stark 1973: 56; Escherich 1923: 470–481; Furniss, R. L. & Carolin 1977: 345; Nunnberg 1928: 137–173; Postner 1974: 403; Schedl 1981b: 54; Tragardh 1930: 469–480, 1931: 58–63; Wood, S. L. 1982b: 54, 1986a: 56. (ds) Bright & Stark 1973: 56; Hagedorn 1910d: 24; Postner 1974: 403; Schedl 1934f: 1636, 1981b: 54; Scheerpeltz & Winkler 1930: 256; Wood, S. L. 1982b: 371, 1986a: 56. (tx) Arnett 1960: 1042; Balachowsky 1949a: 141, 145; Beal & Massey 1945: 58, 74; Beeson 1922: 342–343; Blackman 1922b: 48–49, 1950: 314; Bright 1976d: 96; Bright & Stark 1973: 56; Bruck 1933:

103–104, 1936a: 111–112; Chamberlin 1939: 126–128; Chapuis 1869: 40, 1873: 248; Dodge 1938: 17, 24; Eichhoff 1864b: 27, 1868e: 150, 1881a: 129; Formanek 1907: 15, 24; Hagedorn 1909: 138, 1910a: 35, 62–63; Heyden, Reitter, & Weise 1906: 709; Hopkins 1914: 117, 134, 1915c: 195, 203, 226; Karaman 1971: 93; Keen 1938: 31, 1953: 37–38; Kostin 1973: 250; Kurenzov 1941: 71; LeConte 1868: 168, 172, 1876: 383; LeConte & Horn 1883: 523; Pfeffer 1941e: 169–170, 1955a: 11, 16–21, 52–64, 140, 145, 1985a: 470, 1989a: 43; Postner 1974: 403; Reitter 1894a: 47, 56, 58, 1913a: 54–58; Roonwal 1971: 305; Schedl 1946c: 32, 1959i: 408, 1981b: 54; Schimitschek 1937: 44–45; Spessivtsev 1922a: 466, 1925a: 167; Swaine 1909: 87, 1918a: 39, 56–57, 1931: 87; Tenenbaum 1915: 137; Wood, S. L. 1954b: 502–526, 1982b: 371–386, 1986a: 56.

andersoni Swaine 1919b: 6E. Holotype ♀; Sandstone Rapids, Coppermine River, Northwest Territories, Canada; CNCI, Ottawa.

Figures: Bright 1976d: 98 (declivity), Wood 1954b: 519.

Distribution: North America (Alaska/ N Alberta, Northwest Territories, Yukon in Canada).

Hosts: *Picea glauca*.

Notes: (3) Wood 1954b: 518 (redescribed), 1982b: 382 (fossil remains from Ontario, Minnesota, New York).

References: (cn) Doane et al. 1936. (cc) Swaine 1925c: 264; Werner & Holsten 1984. (hb) Bright 1976d: 99; Chamberlin 1939: 130; Doane et al. 1936; Wood, S. L. 1954b: 518, 1982b: 380. (ds) Ashworth 1977, 1980; Ashworth & Cvanara 1983; Ashworth et al. 1981; Chamberlin 1939: 130; Kleine 1934a: 134; Leng & Mutchler 1927: 51; Miller, R. F. & Morgan 1982; Morgan, A. V. & Morgan 1980: 1110; Pily, Morgan, & Morgan 1987; Schwert & Morgan 1980; Swaine 1919b: 6; Werner & Holsten 1984; Wood, S. L. 1982b: 380. (tx) Bright 1967b: 673, 1976d: 98; Bruck 1933b: 104, 106, 1936a: 112, 115–116; Chamberlin 1939: 130; de Ruelle 1970: 98; Swaine 1919b: 6E; Wood, S. L. 1954b: 518–519, 1982b: 380.

bicornis Wood 1986c: 269. Holotype ♀; Fayette, Alabama [USA]; Wood Collection.

Figures: Atkinson 1989b: 334 (frons)

Distribution: North America (Alabama, District of Columbia, Florida, Pennsylvania, South Carolina in USA).

Hosts: *Pinus clausa*, *P. virginiana*.

References: (ds) Atkinson 1989b: 334. (tx) Atkinson 1989b: 334; Wood, S. L. 1986c: 269.

bifurcus Eichhoff 1868c: 147. Syntypes, sex?; Am. bor. [USA]; Hamburg Museum, lost.

Figures: Atkinson 1989b: 334 (frons), Blackman 1922b: pl. 5, fig. 27 (adult), Wood 1954b: 503.

Distribution: North America (District of Columbia, Florida, Georgia, Maryland, Mississippi,

Missouri, New York, North Carolina, Oklahoma, Pennsylvania, Tennessee, Virginia, West Virginia in USA).

Hosts: *Pinus echinata*, *P. elliottii*, *P. taeda*, *P. virginiana*, *P.* spp.

Notes: (3) Wood 1954b: 525 (redescribed).

References: (**bv**) Atkinson, Foltz, & Connor 1988.

(**cn**) Blackman 1950; Doane et al. 1936; Packard 1890: 725–726, 1891: 179; Smith, J. B. 1900: 364; Swaine 1918a: 57. (**ec**) Hines, J. W. & Heikkinen 1977. (**hb**) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 239; Blackman 1922b: 49–50, 1950; Chamberlin 1939: 128; Chittenden 1890; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Packard 1890: 725; Pierce 1907: 294; Schwarz 1885a: 80; Swaine 1918a: 57; Wood, S. L. 1982b: 385. (**ds**) Anonymous 1926c: 515; Atkinson 1989b: 334, 1991: 156; Blackman 1922b: 49–50, 1950; Blatchley & Leng 1916: 660; Chamberlin 1939: 128; Chittenden 1890; Deyrup 1981b: 4; Deyrup & Atkinson 1987a: 64; Drooz 1985: 352; Hagedorn 1910d: 24; Henshaw 1885: 149; Kleine 1912b: 181, 1934a: 134; Leng 1920: 338; Leonard 1928: 515; Schwarz 1885a: 80; Smith, J. B. 1900: 364, 1910: 404; Swaine 1909: 87, 1919b: 6; Ulke 1902: 56. (**tx**) Atkinson 1989b: 334; Beal & Massey 1945: 75; Blackman 1922b: 49–50; Blatchley & Leng 1916: 660; Bruck 1933b: 103, 106, 1936a: 116; Chamberlin 1939: 128; Chapuis 1869: 97, 1873: 249; Eichhoff 1868c: 147; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 63; Hopkins 1909a: 3; LeConte 1876: 172, 1876: 383; Schedl 1979c: 40; Swaine 1909: 87, 1918a: 57, 1919b: 6, 1924a: 235; Wood, S. L. 1954b: 503, 509, 525, 1982b: 385; Zimmermann 1868: 148.

bicristatus Chapuis 1869: 41. Syntypes, sex?; type labeled Carolina, published as America boreale, Etas du Sud et du Milieu; IRSNB, Brussels. Synonymy: Wood 1954b: 525.

References: (**cn**) Doane et al. 1936; Packard 1890: 726; Swaine 1918a: 57. (**hb**) Beal & Massey 1945: 74–75; Blackman 1922b: 49, 1950; Chamberlin 1939: 128; Doane et al. 1936; Packard 1890: 726; Pierce 1907: 294; Swaine 1918a: 57. (**ds**) Anonymous 1926c: 515; Beal & Massey 1945: 74–75; Blackman 1922b: 49, 1950; Chamberlin 1925, 1939: 128; Hagedorn 1910d: 24; Henshaw 1885: 149; Kleine 1912b: 181, 1914b: 390, 1934a: 134; Leng 1920: 338; Leonard 1928: 515; Smith, J. B. 1900: 364, 1910: 404; Swaine 1909: 87, 1919b: 6. (**tx**) Beal & Massey 1945: 74–75; Blackman 1922b: 49; Bruck 1933b: 103, 1936a: 116; Chamberlin 1939: 128; Chapuis 1869: 41, 1873: 249; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 63; LeConte 1876: 383–384; Swaine 1909: 87, 1918a: 57, 1919b: 6; Wood, S. L. 1954b: 525.

blaisdelli Swaine 1924a: 234. Holotype ♂; Camp Baldy, San Bernardino Co., California [USA]; CNCI, Ottawa.

Figures: Wood 1954: 511 (declivity).

Distribution: North America (S California in USA).

Hosts: *Pseudotsuga macrocarpa*.

Notes: (3) Wood 1954b: 509 (redescribed).

References: (**cn**) Doane et al. 1936. (**hb**) Bright & Stark 1973: 57; Chamberlin 1939: 131; Doane et al. 1936; Wood, S. L. 1954b: 509, 1982b: 374. (**ds**) Bright & Stark 1973: 57; Chamberlin 1939: 131; Kleine 1934a: 134; Leng & Mutchler 1927: 51; Wood, S. L. 1982b: 374. (**tx**) Bright 1976b: 673; Bruck 1933b: 103, 105, 1936a: 116–117; Chamberlin 1939: 131; de Ruelle 1970: 98; Swaine 1924a: 234–235; Wood, S. L. 1954b: 507, 509, 512, 1982b: 374.

cressatyi Bruck 1936b: 36. Holotype ♂; Arroyo Seco, Los Angeles Co., California [USA]; CAS, San Francisco. Synonymy: Wood 1954b: 509.

References: (**hb**) Chamberlin 1939: 129; Wood, S. L. 1954b: 509. (**ds**) Blackwelder 1939; Chamberlin 1939: 129. (**tx**) Bruck 1936a: 111–114, 1936b: 36–37; Chamberlin 1939: 129; Wood, S. L. 1954b: 509.

bonnairei Brisout 1884:LII. Syntypes, sex?; Batna, Algeria; not given.

Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Syria/ Turkey).

Hosts: *Pinus halepensis*, *P. maritima*.

References: (**cn**) Grandi 1951. (**hb**) Grandi 1951; Karpinski 1933b: 26; Peyerimhoff 1919: 251. (**ds**) Hagedorn 1910d: 24; Karpinski 1931: 25, 1933b: 25; Kleine 1912b: 181; Kocher 1953: 133; Kleine 1914a: 16; Normand 1937: 268; Peyerimhoff 1919: 251, 1933b: 367; Pfeffer 1947d: 128, 1984: 277; Reitter 1894a: 57. (**tx**) Balachowsky 1949a: 148; Brisout 1884:LII; Hagedorn 1910a: 62; Pfeffer 1941e: 170, 176, 1955a: 146, 1985a: 473; Reitter 1894a: 57, 1913a: 58; Schedl 1934f: 1636.

henscheli Reitter 1887b: 192. Syntypes, sex?; Smyrna; NHMB, Budapest. Synonymy: Pfeffer 1941e: 176.

Notes: (3) Wichmann 1915a: 105 (redescribed).

References: (**ay**) Pfeffer 1955a: 471. (**ec**) Halperin & Holzschuh 1984: 23. (**hb**) Fuchs 1904a; Halperin & Holzschuh 1984: 23; Henschel 1895a: 144. (**ds**) Fuchs 1904a; Hagedorn 1910d: 24; Halperin & Holzschuh 1984: 23; Henschel 1895a: 144; Heyden, Reitter, & Weise 1906: 709; Kleine 1912b: 181; Pfeffer 1985a: 471; Reitter 1894a: 57. (**tx**) Balachowsky 1949a: 148; Cieslar 1894; Fleischer 1927; Hagedorn 1910a: 62; Henschel 1894a: 144; Pfeffer 1941e: 170, 176–177, 1985a: 471; Reitter 1887b: 192, 1894a: 57, 1913a: 57; Schedl 1934f: 1637, 1979c: 116; Wichmann 1915a: 105–106.

boswelliae (Stebbing) 1903a: 261 (*Cryphalus*).

Holotype ♀; Bhamburda reserve near Poona in the Bombay Presidency; FRI, Dehra Dun.

Figures: Stebbing 1914: 537 (all stages).

Distribution: Asia (Maharashtra in India).

Hosts: *Boswellia serrata*.

Notes: (3) This name was used erroneously for *latus* from 1915 to 1988.

References: (cn) Pierce, W. D. 1917: 69; Roonwal, Chatterjee, & Thapa 1960: 1, 1961a: 4; Stebbing 1903a: 261, 1914: 537. (cc) Stebbing 1914: 537. (hb) Roonwal 1971b; Stebbing 1903a: 261, 1908a: 110, 1914: 537. (ds) Beeson 1961: 285; Bhasin, Roonwal, & Singh 1958; Hagedorn 1910d: 41; Kleine 1913b: 118, 1914b: 269, 1934a: 134; Pierce, W. D. 1917: 69; Roonwal 1971b; Roonwal, Chatterjee, & Thapa 1960: 1, 1961a: 4; Schedl 1969c: 48; Stebbing 1903a: 261. (tx) Beeson 1922: 495; Hagedorn 1910a: 85; Roonwal 1971b: 306; Stebbing 1903a: 261, 1914: 537.

brevisetosus Wood 1954b: 514. Holotype ♀; Saratoga, Wyoming [USA]; USNM, Washington.

Distribution: North America (Utah, SW Wyoming in USA).

Hosts: *Picea pungens*.

References: (hb) Wood, S. L. 1954b: 514, 1982b: 379. (ds) Wood, S. L. 1960b: 59, 1982b: 379. (tx) de Ruelle 1970: 98; Wood, S. L. 1954b: 514, 1960b: 59, 1982b: 379.

carri Swaine 1917: 16. Holotype ♂; Edmonton, Alberta, Canada; CNCI, Ottawa.

Figures: Bright 1976d: 98, 201, 208, Kusch 1967: 10, Wood 1954b: 519.

Distribution: North America (Alaska/ Alberta, Manitoba, New Brunswick, Northwest Territories, Yukon in Canada/ Montana, South Dakota, Wyoming in USA).

Hosts: *Picea engelmannii*, *P. glauca*, *P. rubens*.

Notes: (3) Wood 1954b: 524 (redescription).

References: (cn) Doane et al. 1936; Swaine 1918a: 57. (cc) Werner & Holsten 1984. (hb) Bright 1976d: 100; Chamberlin 1939: 131; Doane et al. 1936; Furniss, M. M. & Johnson 1987: 375; Swaine 1918a: 57; Wood, S. L. 1982b: 385. (ds) Ashworth 1980; Ashworth & Cvanara 1983; Ashworth et al. 1981; Bright 1976d: 100; Chamberlin 1923, 1939: 131; Elias 1985: 39; Evans, D., Lowe, & Hunt 1978; Furniss, M. M. & Johnson 1987: 375; Furniss, R. L. & Carolin 1977: 345; Gast et al. 1989: 385; Hopping 1922; Keen 1929a: 15; Kleine 1934a: 134; Kusch 1967; Leng 1920: 338; Miller, Fitzgerald, & Buhay 1987; Miller, R. F. & Morgan 1982; Miller, R. F., Morgan, & Hicock 1985: 500; Morgan, A. V. & Morgan 1980; Schwert & Morgan 1980; Werner & Holsten 1984; Wood, S. L. 1982b: 385. (tx) Bright 1967b: 673, 1976d: 98, 100, 201, 208; Bruck 1933b: 103, 105; Chamberlin 1939: 131; Dodge 1938: 24; Hoebeke 1978; Keen 1929a: 15; Kusch 1967: 10;

de Ruelle 1970: 98; Schedl 1979c: 54; Swaine 1917: 16, 1918a: 57, 1924a: 235; Titus, Meikle, & Harrison 1985: 39; Wood, S. L. 1954b: 509, 519, 524, 1982b: 385.

cholodkovskiyi Spessivtsev 1916: 64. Syntypes ♂ ♀; State Forest Biklan, left bank of the Kama, Government Ufa, East Russia; not given.

Figures: Grune 1979: 62, Pfeffer 1985a: 471, Stark 1952: 232–233 (adult, galleries).

Distribution: Asia (E USSR), Europe (Finland/ Norway/ Poland/ Sweden/ NW USSR).

Hosts: *Pinus sylvestris*, *Larix dahurica*.

Notes: (3) Karpinski 1933b: 28 (named var. *borealis*, no status).

References: (bv) Grune 1979: 63; Tragardh 1930b: 101. (cn) Anonymous 1929c: 645; Esterberg 1959; Kontkanen 1932: 61; Lonshehakov & Lure 1960; Nestertschuk 1930: 176. (cc) Galoux 1947c; Karpinski 1932a: 95; Kostin 1964: 107; Pfeffer 1960: 345; Rafes 1962; Tragardh 1925a: 170, 1927a: 210. (hb) Anonymous 1929c: 645; Kangas 1949c; Karpinski 1933b: 25; Karpinski & Strawinski 1948: 155; Petrenko 1966; Postner 1974: 405; Rafes 1962; Spessivtsev 1923: 211, 1925d: 105, 1928a: 222; Tragardh 1923: 401–424, 1925: 169–174, 1930b: 101, 1930c: 476, 1931: 58. (ds) Arnoldi et al. 1955: 680; Butovitsch & Heqvist 1947; Esterberg 1959; Florov 1949: 82; Grune 1979: 63; Hansen, V. 1939; Hellen 1947; Kangas 1948b: 128, 1949c; Karpinski 1931c: 18, 23, 1932a: 95, 1933b: 25; Karpinski & Strawinski 1948: 155; Klefbeck & Sjoberg 1960: 230; Kontkanen 1932: 61; Krivolutskaya 1983; Kurenzov 1967; Mandl 1931: 25; Nunberg 1954: 26; Nuorteva 1971: 71; Pfeffer 1960: 345; Postner 1974: 405; Rudnev 1958: 372; Sokanovskii 1960; Stark 1928: 377–378, 1931a: 25, 1931d: 546, 1952: 232; Strand 1946: 598; Yanovskii 1977a; Yanovskii & Tegshzhargal 1983, 1985: 407; Zinovjev 1955: 187. (tx) Eggers 1922c; Grune 1979: 62–63; Karpinski & Strawinski 1948: 155; Klefbeck & Sjoberg 1960: 230; Nunberg 1954: 26; Pfeffer 1941e: 169, 173, 1955a: 146, 1985a: 471; Postner 1974: 405; Schedl 1934f: 1637; Sokanovskii 1960: 676; Spessivtsev 1916: 64–65, 1922a: 467, 491, 1923: 211–213, 1925a: 168, 1925b: 36, 1925d: 105, 1928: 228–235, 1931: 42–43; Stark 1952: 232.

convexifrons Wood 1954b: 516. Holotype ♀; Chiricahua National Monument, Arizona [USA]; USNM, Washington.

Figures: Atkinson & Equihua 1988: 89, Wood 1954b: 511.

Distribution: North America (Baja California Norte, Chihuahua, Coahuila, Durango in Mexico/ Arizona, New Mexico in USA).

Hosts: *Pinus edulis*, *P. cembroides*, *P. leiophylla*.

References: (hb) Wood, S. L. 1954b: 516. (ds) Atkinson & Equihua 1988: 86. (tx) Atkinson &

Equihua 1955: 89; Wood, S. L. 1954b: 508, 511, 516, 1952b: 379.

costatus Wichmann 1915a: 106. Syntypes ♀; Janssar Forest, N.W. Himalayas, 5000 feet; not given.

Distribution: Asia (Himachal Pradesh, Kashmir, Uttar Pradesh in India).

Hosts: *Pinus gregii*, *P. griffithii*, *P. ponderosa*, *P. roxburghii*.

References: (cc) Beeson 1922c: 494. (hb) Beeson 1922c: 494; Roonwal 1971b. (ds) Beeson 1922c: 494, 1961: 285; Kleine 1934a: 134; Roonwal 1969c: 48; Schedl 1969c: 48. (tx) Roonwal 1971b; Schedl 1979c: 67; Wichmann 1915a: 106.

declivis Wood 1954b: 522. Holotype ♀; Lake Tenaya, Yosemite National Park, California [USA]; USNM, Washington.

Figures: Wood 1954b: 511.

Distribution: North America (California in USA).

Hosts: *Pinus aristata*, *P. contorta*.

References: (hb) Bright & Stark 1973: 59; Wood, S. L. 1954b: 522. (ds) Bright & Stark 1973: 59; Wood, S. L. 1952b: 383. (tx) de Ruelle 1970: 98; Wood, S. L. 1954b: 508, 511, 522, 1952b: 383.

dummi Swaine 1924a: 235. Holotype ♀; Nictor Lake, New Brunswick, Canada; CNCI, Ottawa.

Figures: Wood 1954b: 519.

Distribution: North America (New Brunswick in Canada/ Michigan in USA).

Hosts: *Larix laricina*, rare or accidental in *Picea rubens*.

Notes: (3) Wood 1954b: 518 (re-described).

References: (cn) Doane et al. 1936. (hb) Bright 1976d: 99; Chamberlin 1939: 132; Doane et al. 1936; Wood, S. L. 1954b: 518. (ds) Beaulne 1956; Bright 1976d: 99; Chamberlin 1939: 132; Kirken-dall 1982; Kleine 1934a: 134; Leng & Mutchler 1927: 51; Wood, S. L. 1952b: 382. (tx) Bright 1967b: 673, 1967d: 99; Bruck 1933b: 104; Chamberlin 1939: 132; de Ruelle 1970: 98; Swaine 1924a: 234–235; Titus, Meikle, & Harrison 1985: 39; Wood, S. L. 1954b: 518–519, 1952b: 382.

frontalis Wood 1954b: 515. Holotype ♀; Ventura County, California [USA]; USNM, Washington.

Distribution: North America (S California, S Nevada in USA).

Hosts: *Pinus monophylla*.

References: (hb) Bright & Stark 1973: 59; Wood, S. L. 1954b: 515, 1952b: 375. (ds) Bright & Stark 1973: 59; Wood, S. L. 1952b: 375. (tx) de Ruelle 1970: 98; Wood, S. L. 1954b: 508, 512, 515, 1952b: 375.

intermedius Wood 1954b: 523. Holotype ♂; New Castle, Colorado [USA]; USNM, Washington.

Figures: Bright 1976d: 98 (declivity), Wood 1954b: 511.

Distribution: North America (Alaska/ N California, Colorado, Montana, Oregon, Washington in USA).

Hosts: *Picea engelmannii*, *Pinus contorta*.

References: (cn) Lindgren 1980a: 61. (cc) Matthews 1970; Werner & Holsten 1984. (hb) Bright 1976d: 100; Bright & Stark 1973: 59; Chamberlin 1955: 62; Lindgren 1980a: 61; Wood, S. L. 1954b: 523. (ds) Bright 1964: 170, 1976d: 100; Bright & Stark 1973: 59; Chamberlin 1955: 62; Werner & Holsten 1984; Wood, S. L. 1972a: 410, 1952b: 384. (tx) Bright 1964: 170, 1976d: 98; Chamberlin 1955: 62; de Ruelle 1970: 98; Wood, S. L. 1954b: 508, 511, 523, 1972a: 410, 1952b: 384.

jurinskii Eggers 1910e: 36. Holotype, sex?; Irkutsk (Sibirien); T. O. Jurinski Collection in Jakutsk.

Distribution: Asia (E USSR).

Hosts: *Pinus sylvestris*, *Abies siberica*.

References: (ay) Karpinski 1933b: 26. (hb) Stark 1952: 235. (ds) Florov 1949: 84; Karpinski 1931: 25, 1933b: 26; Kleine 1914b: 247; Pfeffer 1935: 157; Stark 1931d: 546, 1952: 235; Yanovskii & Tegshzhargal 1955: 407. (tx) Eggers 1910e: 36; Hagedorn 1910a: 62; Pfeffer 1941e: 170, 174, 1955a: 146, 1955a: 471; Reitter 1913: 57; Schedl 1934f: 1637; Stark 1952: 235.

latus Wood 1955b: 192. Holotype ♀; Bachar, Balaghet, C.P., India; FRI, Dehra Dun.

Distribution: Asia (Madhya Pradesh in India).

Hosts: *Boswellia serrata*.

Notes: (3) Beeson 1941 (1961: 285) (*latus*, nomen nudum). Most references to *boswelliae* prior to 1955 are to this species.

References: (ds) Beeson 1922: 495, 1961: 285; Bhasin, Roonwal, & Singh 1955. (tx) Roonwal 1971: 314; Schedl 1979c: 137; Wood, S. L. 1955b: 192.

marani Pfeffer 1941e: 177. Syntypes, sex?; Attica (Kaessariani prope Athenas, Hagios Theodores), Morea (Diakophto), Greece; Prague Museum.

Distribution: Europe (Greece).

Hosts: *Pinus halepensis*.

References: (bv) Grune 1979: 63. (ds) Grune 1979: 63; Pfeffer 1947d: 128; Postner 1974: 405. (tx) Grune 1979: 63; Pfeffer 1941e: 170, 177, 1955a: 473; Postner 1974: 405; Schedl 1979c: 148.

mexicanus Bright 1972b: 1491. Holotype ♀; 14 km E El Palmito, Durango, Mexico; CNCI, Ottawa.

Distribution: North America (Durango in Mexico).

Hosts: *Pinus lumholtzii*.

References: (ds) Wood, S. L. 1952b: 377. (tx) Bright 1972b: 1491; McNamara 1977: 194; Wood, S. L. 1952b: 377.

minimus (Fabricius) 1801: 395 (*Hylesinus*). Syntypes 4, sex?; Saxoniae; UZMC, Copenhagen.

Figures: Grune 1979: 62; Pfeffer 1955a: 473, 1959: pl. 6, Stark 1952: 236 (adult), Postner 1974: 404 (adult).

Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Israel/ SW Siberia/ Turkey), Europe (Albania/ Austria/ Bulgaria/ Czechoslovakia/ Finland/ France/ Germany/ Greece/

Hungary/ Italy/ Netherlands/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ Caucasus in W USSR/ Yugoslavia).

Hosts: *Pinus* spp., *Cedrus libanotica*.

Notes: (1) Eichhoff 1864b: 27 (to *Carphoborus*). (3) Schedl 1979c: 123 (*ater* Eggers, nomen nudum, synonymy).

References: (ay) Chararas 1971b; Chararas & Koutroumpas 1977; Courtois et al. 1965; Escherich 1923b: 481, 547; Feytaud 1950a; Lekander 1959b: 60; Nunberg 1928a: 140; Nusslin 1911a: 51, 59, 109, 255, 278. (bv) Chararas 1966b: 2492–2495, 1971b; Chararas, Desveaux, & Kogane-Charles 1978a; Grune 1979: 63; Mendel, Madar, & Golan 1985; Rutledge, Chararas, & Ducauze 1988. (cn) Anonymous 1979p; Barbey 1925: 247; Chararas 1972; Chorbadzhievo 1929; Eckstein 1926: 579; Escherich 1923b: 481, 547; Esterberg 1959; Feytaud 1950a; Grandi 1951; Gyorfi 1946: 193; Hess & Beck 1927: 347; Joly 1976; Judeich & Nitsche 1895: 447, 505; Koch 1913: 125; Lohrenz 1907: 42; Maksimovic & Milanovic 1964, 1966; Nusslin 1883: 152, 1913: 223; Pfeffer 1933: 43; Rhumbler 1927: 320; Schimitschek 1935b: 147, 1937b: 9, 1937c: 49, 1950: 46, 1955a: 41, 1955a: 73, 1955c: 79; Schwerdtfeger 1944a: 177, 1950b: 50, 1957a: 183; Slander 1948: 10; Wachtl 1883b: 319, 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 353; Wohlmann 1936: 41; Wolff 1920: 235; Wolff & Krausse 1922: 87. (ce) Chararas 1959a; Chararas, Desveaux, & Kogane-Charles 1978a; Elliot & Morley 1907; Gaulle 1906: 237; Gyorfi 1941a: 87, 1962: 213; Haeselbarth 1967; Heqvist 1967: 70; Kleine 1908c: 183, 1909a: 45, 77, 1944: 73; Kobulajiv & Kalandra 1954: 30; Kostenko 1929; Mendel 1986c: 115, 1986d: 130; Nosek 1959a: 118; Nunberg 1930: 202; Nuorteva 1957b: 52; Nusslin 1927: 320; Pfeffer 1928b: 3, 1933: 43, 1960: 346; Rafes 1962; Rondani 1873: 147; Ruhm 1956b: 3; Ruskov 1928: 57–64; Schimitschek 1936a: 558, 1950: 46, 1955a: 41, 73; Schwerdtfeger 1944a: 47, 1950b: 50, 1957a: 183; Sedlaczek 1935a: 163; Thompson, W. R. 1943: 27; Tragardh 1927a: 198. (hb) Altum 1875, 1881c: 274, 1890b; Bach 1864; Barbey 1901: 20, 57, 1925: 247; Bargmann 1906; Belfa 1961; Budge 1949; Chararas 1966b, 1972; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887; Eckstein 1889, 1897, 1926: 579; Eichhoff 1881a: 38, 129, 1882a: 241; Escherich 1923b: 481, 547; Everts 1903: 749; Feytaud 1950a; Grandi 1951; Gyorfi 1957; Henschel 1876a: 92, 240, 242, 1895a: 144; Hess & Beck 1927: 339; Joly 1976; Judeich & Nitsche 1895: 447, 505; Karpinski 1933b: 26; Karpinski & Strawinski 1948: 155; Knotek 1894a: 553, 1898b: 333; Lekander 1959b: 60; Lengerken 1939: 59, 1954: 76; Lezhava 1959: 630; Lohrenz 1907: 42; Lunardoni & Leonardi 1889: 432; Mendel, Morgan, & Golan 1985; Nosek 1959a: 118; Nusslin 1895: 278, 1913: 223, 1927: 320; Pfeffer 1941b: 3;

Postner 1974: 404; Rafes 1962; Ratzeburg 1837: 178, 1839: 218; Rhumbler 1927: 320; Rimski-Korsakov et al. 1949: 288; Rupertsberger 1850: 226; Schedl 1981b: 55; Schimitschek 1955a: 41, 73; Schwerdtfeger 1944a: 177, 1957a: 183, 1981: 189; Sedlaczek 1935a: 163; Spessivtsev 1913a: 61; Stark 1926a: 334, 1952: 235; Tschorbadjiev 1929: 164; Wachtl 1901: 381; Weber 1926: 579; Wichmann 1927b: 353; Wolff 1920: 235; Wolff & Krausse 1922: 87. (ds) Acloque 1896; Anonymous 1979p; Arnoldi et al. 1955: 681; Andras & Schaefer 1957; Barthe 1896; Bistrom & Vaisanen 1988: 42; Borchert 1951; Brakman 1966b: 205; Calwer 1884, 1893; Chapuis 1869: 40, 1873: 248; Charvat 1950; Chorbadzhievo 1929; Dejan 1821, 1825, 1837; Eggers 1904; Endrodi 1958b; Escherich 1923b: 481, 547, 1932b; Esterberg 1959; Everts 1922: 639; Favre 1890; Forster 1849: 440; Fowler 1891; Gaubil 1849: 127; Gozis 1875: 79; Grune 1979: 63; Hagedorn 1910d: 24; Halperin 1963: 83; Hellen 1947; Hennig 1954: 263; Henschel 1879a, 1895a: 144; Heyden 1876: 298; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Horion 1951; Jacentkovsky 1912: 287; Joly 1976; Judeich & Nitsche 1895: 447, 505; Kaltenbach 1874: 686; Karpinski 1931: 25, 1933b: 26; Karpinski & Strawinski 1948: 155; Kersten 1933: 77; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 230; Kleine 1909b: 217–220, 1912a: 263, 267, 1912b: 181, 1913a: 34, 1934a: 134; Knotek 1892a: 33, 1894a: 553, 1898b: 333; Kolubajiv 1934: 63; Kostenko 1929; Kozikowsky 1921: 180; Kraatz 1869: 59; Krogemus 1944: 32; Kurir 1947c: 6; Lacordaire 1866: 361; Lezhava 1959: 630; Lomnicki 1913b: 147; Lucht 1987: 276; Lunardoni & Leonardi 1889: 432; Nunberg 1928b: 88, 103, 1954: 26; Nusslin 1898: 278; Perris 1876a: 256, 1877a: 416; Peyerimhoff 1933b: 373; Pfeffer 1928b: 3, 1931b: 74, 1933: 3–54, 1935: 159, 1947d: 126–127, 1947e: 17, 1960: 346, 1984: 277, 1989a: 43; Pittioni 1943: 174; Pomerantzev 1907a: 177, 192, 1907b: 491; Postner 1974: 404; Rapp 1934: 722; Ratzeburg 1837: 178, 1839: 218; Redtenbacher 1858: 827, 1874: 369; Reitter 1869b: 153, 1894a: 57, 1916: 286; Rimski-Korsakov et al. 1949: 288; Ronbal 1935b: 72, 1941: 262; Ruskov 1928c: 61; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1229; Schann 1859: 95, 1862: 100; Schedl 1959h: 100, 1961b: 184, 1967c: 70, 1969g: 289, 1971d: 428, 1980a: 13, 1981b: 55; Scheerpeltz & Winkler 1930: 53; Schilsky 1909: 187; Schneider & Leder 1977: 54; Schwerdtfeger 1981: 189; Seidlitz 1891a: 560; Stark 1926a: 334, 1926b: 103, 1926j: 125, 1927b: 88, 1952: 235; Stein 1868: 113; Stein & Weise 1877: 163; Stierlin 1898: 433; Trappen 1935: 142; Tredl 1907: 11; Tschorbadjiev 1929: 164; Westhoff 1882: 237; Wichmann 1927a: 63–64. (tx) Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 148; Barbey 1901: 20, 57; Belfa 1961; Chapuis 1869: 40, 1873: 248; Charvat 1950; Csiki

1907; Dejean 1821, 1825; Doehmer 1860; Dombrowsky 1887; Eggers 1929e: 43, 49; Eichhoff 1864b: 27, 1881a: 38, 129, 1883a: 103, 125; Endrodi 1957a: 307, 1957b; Erichson 1836: 53; Escherich 1923b: 481, 547; Everts 1903: 749, 1922: 639; Fabricius 1798: 158, 1801: 395; Fauvel 1889; Ferrant 1911; Ferrari 1867: 6; Fleischer 1927; Formanek 1907: 24; Gemminger & Harold 1872: 2673; Grune 1979: 62–63; Hagedorn 1910a: 62; Henschel 1876a: 42, 240, 242, 1895a: 144; Hopkins 1909a: 3, 1914: 117; Houlbert 1922a: 4–16, pl. 1; Jacquelin du Val & Fairmaire 1868: 109; Joly 1976; Judeich & Nitsche 1895: 447, 505; Kalina 1975; Karpinski & Strawinski 1948: 155; Keler 1928: 31; Knotek 1892a: 33; Koch 1913: 125, 1932: 122; Kubnt 1913: 1051; Lacordaire 1866: 361; Lekander 1959b: 60; Letzner 1891: 373; Lemnis 1886: 179; Lindemann 1879: 54; Lucas 1920: 165; Lucht 1987: 276; Lunardoni & Leonardi 1889: 432; Numberg 1928a: 140, 1954: 26; Nusslin 1911a: 51, 59, 109, 255, 278; Perris 1877a: 416; Pfeffer 1932b: 16, 1941b: 3, 1941e: 170, 174, 1947e: 17, 1955a: 147, 1985a: 473, 1989a: 42, pl. 6; Portevin 1935: 322; Postner 1974: 404; Quaschik 1953: 35; Ratzeburg 1837: 178, 1839: 218; Redtenbacher 1849a: 793, 852, 1849b: 27, 1858: 827, 1874: 369; Reitter 1887b: 192, 1894a: 57, 1913a: 57, 1916: 286; Rey 1887: 232; Rumbler 1927: 320; Rupertsberger 1880: 226; Schedl 1934f: 1637, 1980a: 13, 1981b: 55; Schimitschek 1937c: 49, 1955c: 79; Seidlitz 1891a: 560; Semenov 1902: 273; Spessivtsev 1913a: 61, 1916: 65–67, 1922a: 467, 490, 1931: 44–45; Stark 1952: 235; Stierlin 1898: 433; Stresemann et al. 1889: 351; Wichmann 1915: 105–106, 1955a: 105; Wood, S. L. 1954b: 506. (**ms**) Escherich 1932b; Lucas 1920: 165.

squamulatus Redtenbacher 1858: 369 (*Hylesinus*).

Syntypes, sex?; Europe; not given. Synonymy: Letzner 1891: 373, Hagedorn 1910d: 24.

References: (**ds**) Hagedorn 1910d: 24; Redtenbacher 1874: 370; Schilsky 1909: 187; Stein & Weise 1877: 163. (**tx**) Balachowsky 1949a: 148; Hagedorn 1910d: 24; Letzner 1891: 373; Redtenbacher 1858: 369, 1874: 370; Schedl 1934f: 1637.

balgensis Murayama 1943b: 99. Lectotype ♂; District of Balga, Manchoukuo, China; USNM. Washington, designated by Wood 1992: 52. Synonymy: Wood 1992b: 52.

References: (**tx**) Murayama 1943b: 99; Wood, S. L. 1992b: 52.

perplexus Wood 1960b: 59. Holotype ♀; 16 km E Kamas, Utah [USA]; Wood Collection.

Distribution: North America (Utah in USA).

Hosts: *Pinus ponderosa*.

References: (**tx**) Wood, S. L. 1960b: 59–60, 1982b: 384.

perrisi (Chapuis) 1869: 31 (*Hylesinus*). Syntypes, sex?; Corse; IRSNB, Brussels.

Figures: Balachowsky 1949a: 146; Grune 1979: 60; Pfeffer 1985a: 471; Stark 1952: 321 (female).

Distribution: Africa (Algeria/Tunisia), Asia (Uttar Pradesh in India/ Iran/ Syria), Europe (Bulgaria/ Corsica/ France/ Greece/ Hungary/ Italy/ Romania/ Sardinia/ Sicily/ Spain/ Caucasus in W USSR/ Yugoslavia).

Hosts: *Cercis siliquastrum*, *Pistacia* spp., *Olea europaea*.

References: (**bv**) Grune 1979: 61. (**cn**) Chorbazhievo 1929; Gentry, J. W. 1965: 134; Grechkin 1956: 1483; Scheider 1958: 69. (**cc**) Graham 1969: 878; Halperin & Holzschuh 1984: 23; Kleine 1908c: 183, 1909a: 46, 78, 1944: 74; Mendel 1986c: 115; Novak, P. 1952: 413; Rafes 1962. (**hb**) Adeli 1972: 13; Balachowsky 1963a: 1278; Chorbazhievo 1929; Davatchi 1958; Eichhoff 1881a: 39, 143; Greekin 1956: 1483; Halperin & Holzschuh 1984: 23; Knotek 1897: 136, 150, 1898b: 326, 1899b: 4, 1901: 567, 1907: 281; Kostin 1960: 131; Masutti 1964; Nusslin 1898: 274; Peyerimhoff 1915: 60, 1919: 259; Postner 1974: 405; Rafes 1962; Roonwal 1971b; Schneider 1958: 69; Spessivtsev 1922b: 77; Stark 1952: 231; Tschorbadjiev 1929: 164. (**ds**) Adeli 1972: 13; Balachowsky 1963a: 1278; Barthe 1896; Beeson 1961: 287; Buresh & Lazarov 1956; Calver 1893; Chorbazhievo 1929; Davatchi 1958: 75–76; Gentry, J. W. 1965: 134; Georghion 1977: 73; Grune 1979: 60–61; Hagedorn 1910d: 24; Halperin & Holzschuh 1984: 23; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Kleine 1908c: 181–183, 1912b: 181, 1913a: 245, 307, 1914a: 16, 1934a: 134, 1934b: 623, 629; Knotek 1897: 136, 150–151, 1898b: 326, 1899b: 4, 285, 1901: 567, 1907: 280–282; Kobakhidze 1957: 178; Langhoffer 1915c: 157; Makhnovskii 1959: 67; Negru 1965: 117; Negru & Rosca 1967: 141; Normand 1937: 268; Novak, P. 1952: 413; Nusslin 1898: 274, 284; Perris 1877a: 415; Peyerimhoff 1915: 60, 1919: 251–252; Pfeffer 1936: 90; Pjatnitskii 1930a: 164; Postner 1974: 405; Ragusa 1924: 115; Reitter 1894a: 58; Roonwal 1971b; Sainte-Claire 1914: 470; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1229; Schedl 1961b: 186, 1964a: 95, 1967c: 70, 1969c: 48, 1969g: 289, 1971d: 430; Stark 1927b: 88, 1952: 231; Stein & Weise 1877: 164; Tennenbaum 1915: 135; Tredl 1907: 11; Tschorbadjiev 1929: 164. (**tx**) Balachowsky 1949a: 149–150, 1963a: 1278; Bedel 1857: cxc; Chapuis 1869: 31, 1873: 239; Csiki 1907; Eichhoff 1881a: 39, 143; Fauvel 1889; Gemminger & Harold 1872: 2675; Grune 1979: 60–61; Hagedorn 1910a: 62; Iablokoff-Khnzorian 1961: 157; Kalina 1975; Perris 1877a: 415; Pfeffer 1941e: 169, 172, 1955a: 145–146, 1985a: 471; Portevin 1935: 322; Postner 1974: 405; Reitter 1894a: 58, 1913a: 58; Roonwal 1971b; Schedl 1934f: 1637, 1959n: 409–410,

- 1962p: 202; Sokanovskii 1954: 16; Spessivtsev 1922: 77; Stark 1952: 231.
- abachidsei* Stark 1952: 232. Syntypes, sex?; Georgia, USSR; IZL, Leningrad. Synonymy: Sokanovskii 1954: 16.
- References: **(hb)** Stark 1952: 232. **(ds)** Stark 1952: 232. **(tx)** Iablokoff-Khuzorian 1961: 157; Michalski 1969b: 566; Sokanovskii 1954: 16; Stark 1952: 232.
- kushkensis* Sokanovskii 1954: 16. Holotype ♂; Turkmenia: Kushk, USSR; Sokanovskii Collection. Synonymy: Makhnovskii 1959: 67.
- References: **(cn)** Greckin 1956: 1483; Znamenskii 1960: 59–62. **(hb)** Greckin 1956: 1483; Makhnovskii 1959: 67; Znamenskii 1960. **(ds)** Kadyrov 1985: 43, 1989. **(tx)** Makhnovskii 1959: 67; Michalski 1969b: 566; Pfeffer 1955a: 146, 1985a: 471; Schedl 1962p: 202; Sokanovskii 1954: 16, 1958: 39.
- piceae* Wood 1974a: 11. Holotype ♂; Dixie Pass, Malheur National Forest, Oregon [USA]; Wood Collection.
- Distribution: North America (Oregon in USA).
- Hosts: *Picea engelmannii*.
- References: **(hb)** Wood, S. L. 1982b: 384. **(ds)** Wood, S. L. 1982b: 384. **(tx)** Wood, S. L. 1974a: 11, 1982b: 384.
- pini* Eichhoff 1881a: 131. Syntypes, sex?; Sudfrankreich; Hamburg Museum, lost.
- Figures: Grune 1979: 60, Pfeffer 1985a: 471.
- Distribution: Africa (Algeria/ Tunisia), Asia (Cyprus/ Turkey), Europe (Corsica/ France/ Greece/ Hungary/ Italy/ Sardinia/ Yugoslavia).
- Hosts: *Pinus halepensis*.
- References: **(ay)** Chararas 1971b; Pfeffer 1985a: 471. **(bv)** Chararas 1971b; Grune 1979: 61. **(cn)** Chararas 1976c; Wachtl 1901: 381. **(cc)** Kleine 1908c: 183; Novak, P. 1952: 413. **(hb)** Eichhoff 1881a: 38, 131; Henschel 1895a: 144; Karpinski 1933b: 26; Knotek 1897: 150, 1898b: 3, 325, 1901: 566; Luardoni & Leonardi 1889: 432; Peyerimhoff 1919: 251; Postner 1974: 405; Wachtl 1901: 381. **(ds)** Arnoldi et al. 1955: 680; Barthe 1896; Eggers 1912f; Fowler 1891; Georgioliou 1977: 73; Grune 1979: 61; Hagedorn 1910d: 24; Henschel 1895a: 144; Heyden, Reitter, & Weise 1883: 181, 1891: 668, 1906: 710; Karpinski 1931: 25, 1933b: 26; Kleine 1912b: 181, 1913a: 307, 1914a: 16, 1934a: 134; Knotek 1898b: 3, 325, 1901: 566; Langhoffer 1915c: 157; Luardoni & Leonardi 1889: 432; Novak, P. 1952: 413, 1964; Peyerimhoff 1919: 251; Pfeffer 1984: 277, 1985a: 471; Pittioni 1943: 176; Postner 1974: 405; Reitter 1894a: 57; Sainte-Claire 1914: 470; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1229; Schedl 1964a: 95, 1967c: 70, 1971d: 427; Tredl 1907: 11. **(tx)** Balachowsky 1949a: 148; Csiki 1907; Eggers 1912f: 29; Eichhoff 1881a: 38, 131, 1883a: 103, 125; Grune 1979: 60–61; Hagedorn 1910a: 62; Henschel 1895a: 44; Luardoni & Leonardi 1889: 432; Peyerimhoff 1931: 274; Pfeffer 1941e: 170, 178, 1955a: 146, 1985a: 471; Portevin 1935: 322; Postner 1974: 405; Reitter 1894a: 57, 1913a: 57; Schedl 1934f: 1637, 1979c: 195; Semenov 1902: 273.
- atritus* Peyerimhoff 1931: 274. Syntypes ♀; Hyeres, Algeria, not given. Synonymy: Balachowsky 1949a: 148.
- References: **(cn)** Acatay 1943a: 64; Schimitschek 1944: 167. **(hb)** Acatay 1943a: 64; Schimitschek 1944: 167. **(ds)** Arnoldi et al. 1955: 680; Normand 1937: 268; Peyerimhoff 1933b: 367; Pfeffer 1947d: 126; Sainte-Claire & Mequignon 1938: 445. **(tx)** Balachowsky 1949a: 148; Peyerimhoff 1931: 274–275; Pfeffer 1941e: 170, 178; Schedl 1934f: 1636.
- pinicolens* Wood 1954b: 512. Holotype ♀; Logan Dry Canyon, Utah [USA]; USNM, Washington.
- Figures: Bright 1964: 168, Bright & Stark 1973: 155, Wood 1954b: 503, 511.
- Distribution: North America (Arizona, California, Colorado, S Idaho, Nevada, New Mexico, Oregon, Utah, Wyoming in USA).
- Hosts: *Pinus cembroides*, *P. edulis*, *P. engelmannii*, *P. flexilis*, *P. lambertiana*, *P. leiophylla*, *P. monophylla*, *P. ponderosa*, *P. spp.*
- References: **(cn)** Hopkins 1904a: 18. **(hb)** Bright & Stark 1973: 58; Chamberlin 1958: 62; Gast et al. 1989: 383; Hopkins 1904a: 18; Wood, S. L. 1954b: 512, 1982b: 377. **(ds)** Bright & Stark 1973: 55; Chamberlin 1958: 62; Furniss, R. L. & Carolin 1977: 345; Gast et al. 1989: 383; Wood, S. L. 1951a: 127, 1972a: 410, 1982b: 377. **(tx)** Bright 1964: 165; Bright & Stark 1973: 155; Chamberlin 1958: 62; Hoebeke 1978; Wood, S. L. 1954b: 508, 511–512, 1972a: 410, 1977c: 384, 1982b: 377.
- tuberculatus* Bright 1964: 165. Holotype ♀; Crooked Creek, Mono Co., California [USA]; CAS, San Francisco. Synonymy: Wood 1977c: 384.
- References: **(hb)** Bright & Stark 1973: 59. **(ds)** Bright & Stark 1973: 59. **(tx)** Bright 1964: 165, 168; Wood, S. L. 1977c: 384.
- ponderosae* Swaine 1924a: 236. Holotype ♀; Midday Valley, Merritt, British Columbia [Canada]; CNCI, Ottawa.
- Figures: Bright 1976d: 98, 196, Wood 1954b: 519.
- Distribution: North America (British Columbia in Canada/ N California, Idaho, Montana, Utah in USA).
- Hosts: *Pinus contorta*, *P. ponderosae*.
- Notes: (3) Wood 1954b: 521 (re-described).
- References: **(cn)** Doane et al. 1936; Lindgren 1980a: 61. **(hb)** Bright 1976: 100; Bright & Stark 1973: 59; Chamberlin 1939: 131, 1958: 63; Doane et al. 1936; Lindgren 1980a: 61; Wood, S. L. 1954b: 521, 1982b: 382. **(ds)** Baine 1974: 15; Bright 1976d: 100; Bright & Stark 1973: 59; Chamberlin

1939: 131, 1958: 63; Gast et al. 1989: 355; Keen 1929a: 15; Kleine 1934a: 134; Leng & Mutchler 1927: 51; Wood, S. L. 1951a: 127, 1972a: 410, 1982b: 382. (**tx**) Bright 1967b: 673, 1976d: 98, 100, 196; Bruck 1933b: 104–106, 1936a: 112, 118; Chamberlin 1939: 131, 1958: 63; Keen 1929a: 15; de Ruette 1970: 99; Swaine 1924a: 236; Wood, S. L. 1951a: 127, 1951b: 31, 1954b: 503, 518, 521, 1960b: 59, 1972a: 410, 1982b: 382.

pseudotsugae Wood 1954b: 522. Holotype ♂; Prescott National Forest, Arizona [USA]; USNM, Washington.

Figures: Wood 1954b: 511.

Distribution: North America (N Arizona in USA).

Hosts: *Pseudotsuga menziesii*.

References: (**hb**) Wood, S. L. 1954b: 522. (**ds**) Wood, S. L. 1982b: 383. (**tx**) Wood, S. L. 1954b: 508, 511, 522, 1982b: 383.

radiatae Swaine 1918a: 56–57. Holotype ♀; Carmel, California [USA]; CNCI, Ottawa.

Figures: Wood 1954b: 519.

Distribution: North America (Carmel area in California in USA).

Hosts: *Pinus radiata*.

References: (**cn**) Doane et al. 1936; Keen 1929: 57; Swaine 1918a: 56, 57. (**hb**) Bright & Stark 1973: 60; Chamberlin 1939: 129; Doane et al. 1936; Keen 1929: 57; Swaine 1918a: 56, 57; Wood, S. L. 1954b: 520, 1982b: 382. (**ds**) Bright & Stark 1973: 60; Chamberlin 1925, 1939: 129; Hopping 1922; Keen 1929: 57, 1929a: 15; Kleine 1934a: 134; Leng 1920: 338; Wood, S. L. 1982b: 382. (**tx**) Bright 1967b: 673; Bruck 1933b: 103–105, 1936a: 111–115; Chamberlin 1939: 129; Keen 1929a: 15; de Ruette 1970: 99; Swaine 1918a: 56–57, 1924a: 236; Wood, S. L. 1954b: 508, 519–520, 1982b: 382.

rossicus Semenov 1902: 272. Syntypes 4 ♂ ♀; Distr. Jelabuga prov. Vjatkinsk, USSR; P. Semenov Collection and J. Scheyvrew Collection.

Figures: Pfeffer 1955a: 471, Stark 1952: 234 (adult).

Distribution: Asia (E USSR), Europe (Finland/Sweden/W USSR).

Hosts: *Picea excelsa*, *P. obovata*, uncommon in *Abies sibirica*.

References: (**bv**) Grune 1979: 53; Hellen 1921. (**cn**) Esterberg 1959; Hellen 1921; Juutinen 1960: 30. (**cc**) Kangas 1946b: 23; Palmén 1944: 60; Pfeffer 1960: 345; Rafes 1962; Saalas 1917a: 222, 1951: 16. (**hb**) Karpinski 1933b: 26; Krivolitskaya 1960; Lindberg 1963: 243; Postner 1974: 405; Rafes 1962; Saalas 1951: 16; Spessivtsev 1923: 200; Stark 1952: 234. (**ds**) Belousov 1916, 1917: 334–337; Butovitsch & Heqvist 1947; Esterberg 1959; Grune 1979: 63; Hagedorn 1910d: 24; Hansen, V. 1939; Hellen 1947; Heyden, Reitter, & Weise 1906: 710; Karpinski 1931: 25, 1933b: 26; Klefbeck & Sjoberg 1960: 230; Kleine 1912b:

181, 1934a: 134; Krivolitskaya 1960: 1983; Nuorteva 1971: 71; Palm 1946: 122; Palmén 1944: 60; Postner 1974: 405; Saalas 1917a: 222; Schaufuss 1915: 1229; Stark 1931a: 25, 1952: 234; Zinovjev 1955: 187. (**tx**) Eggers 1923b; Grune 1979: 63; Hagedorn 1910a: 62; Murayama 1943: 95; Pfeffer 1941e: 169, 173, 1955a: 146, 1955a: 471; Postner 1974: 405; Reitter 1913a: 56; Schedl 1934f: 1637; Semenov 1902: 272; Spessivtsev 1916: 66–67, 1922a: 467–468, 491, 1923: 202–204, 1925a: 165, 1931: 42; Stark 1952: 234.

sansoni Swaine 1924a: 235. Holotype ♂; Banff, Alberta [Canada]; CNCI, Ottawa.

Figures: Wood 1954b: 519.

Distribution: North America (Alberta in Canada/Colorado, Oregon, Utah, Wyoming in USA).

Hosts: *Picea engelmannii*, *P. glauca*, *P. pungens*, *P. spp.*

Notes: (3) Wood 1954b: 517 (re-described).

References: (**cn**) Doane et al. 1936. (**hb**) Bright 1976d: 99; Chamberlin 1939: 131; Doane et al. 1936; Furniss, M. M. & Johnson 1987: 376; Wood, S. L. 1954b: 517, 1982b: 380. (**ds**) Bright 1976d: 99; Chamberlin 1939: 132; Furniss, M. M. & Johnson 1987: 376; Kleine 1934a: 134; Leng & Mutchler 1927: 51; Wood, S. L. 1972a: 410, 1982b: 380. (**tx**) Bright 1967b: 673, 1976d: 99; Bruck 1933b: 104–106; Chamberlin 1939: 132; de Ruette 1970: 99; Swaine 1924a: 235–236; Wood, S. L. 1954b: 508, 517–519, 1972a: 410, 1982b: 380.

engelmanni Wood 1951b: 31. Holotype ♀; Logan Dry Canyon, Utah [USA]; USNM, Washington. Synonymy: Wood 1954b: 517.

References: (**tx**) Wood, S. L. 1951b: 31, 1954b: 517.

simplex LeConte 1876: 383. Lectotype ♀; Mojave Desert, California [USA]; MCZ, Cambridge, designated by Wood 1982b: 379.

Figures: Wood 1954b: 511.

Distribution: North America (Baja California Norte in Mexico/California in USA).

Hosts: *Pinus sabiniana*, rare in *P. jeffreyi* and *P. ponderosa*.

Notes: (3) Wood 1954b: 513 (re-described).

References: (**cn**) Doane et al. 1936; Packard 1890: 725; Swaine 1918a: 56. (**hb**) Bright & Stark 1973: 57; Chamberlin 1939: 129; Doane et al. 1936; Swaine 1918a: 56; Wood, S. L. 1954b: 513, 1982b: 379. (**ds**) Bright & Stark 1973: 57; Chamberlin 1925, 1939: 129; Fall 1906: 203; Hagedorn 1910d: 24; Henshaw 1882: 269, 1885: 149; Hopping 1922; Keen 1929a: 15; Kleine 1912b: 51, 1914b: 390, 1934a: 134; Leng 1920: 338; Swaine 1909: 85; Wood, S. L. 1982b: 379. (**tx**) Bruck 1933b: 103–104, 1936a: 36, 111–113; Chamberlin 1939: 129; Hagedorn 1910a: 63; Keen 1929a: 15; LeConte 1876: 383; Schedl 1947a: 37; Swaine 1909: 85, 1918a: 56, 1924a: 234; Wood, S. L. 1951a: 128, 1954b: 508, 511–513, 1982b: 379.

- swainei* Bruck 1933b: 105. Holotype, sex?; Mt. Diablo, California [USA]; OSUC, Columbus. Synonymy: Wood 1954b: 513.
References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 130; Doane et al. 1936; Wood, S. L. 1954b: 513. (ds) Blackwelder 1939; Chamberlin 1939: 130. (tx) Bruck 1933b: 105–106, 1936a: 112, 117–118; Chamberlin 1939: 130; Wood, S. L. 1954b: 513.
- taireiensis* Murayama 1943b: 98. Holotype, sex?; Tairei, Manchuria; Murayama Collection in USNM, Washington.
Distribution: Asia ("Manchuria" in China/ Korea).
Hosts: *Picea koraiensis*.
References: (ds) Murayama 1943b: 97. (tx) Murayama 1943b: 97–98.
- teplouchovi* Spessivtsev 1916: 65. Syntypes ♂ ♀; Village Iljinskoe, right bank of Obwa, tributary of Kama, Government Perm, and Solvytshegodsk Government Vologda, East Russia; not given.
Figures: Pfeffer 1985a: 471, Stark 1952: 236, 238 (declivity, galleries), Tsai & Li 1959: 87.
Distribution: Asia (Heilongjiang, Liaoning in China/ E USSR), Europe (N Finland/ N Sweden/ W USSR).
Hosts: *Picea excelsa*, *P. koraiensis*, *P. obovata*, *Larix siberica*, *Abies siberica*.
References: (bv) Grune 1979: 63; Rozhkov 1970: 139. (cn) Esterberg 1959; Kurenzov 1935c: 188. (cc) Kurenzov 1934a: 54; Pfeffer 1960: 345; Rafes 1962. (hb) Karpinski 1933b: 26; Krivolutskaya 1960; Kurenzov 1935a: 20, 29, 1948b: 111; Lindberg 1963: 242; Lundberg 1963a; Postner 1974: 405; Rafes 1962; Rozhkov 1970: 139; Stark 1952: 236. (ds) Butovitsch 1960b: 114; Esterberg 1959; Florov 1949: 81; Grune 1979: 63; Karpinski 1933b: 26; Kleine 1934a: 134; Krivolutskaya 1960, 1983; Kurenzov 1934a: 54, 1935a: 20, 29, 1935c: 188, 1936b: 351, 1967; Mandl 1931: 25; Nuorteva 1971: 71; Pfeffer 1960: 345; Postner 1974: 405; Rozhkov 1970: 139; Sokanovskii 1960; Stark 1931d: 546, 1952: 236; Yanovskii 1977a; Yanovskii & Tegshzhargal 1985: 408; Zinovjev 1955: 187. (tx) Eggers 1922c; Grune 1979: 63; Klefbeck & Sjoberg 1960: 235; Kurenzov 1941a: 137–138, 1948b: 111; Pfeffer 1941: 176, 1955a: 146, 1985a: 471; Postner 1974: 405; Schedl 1934f: 1637; Sokanovskii 1960: 676; Spessivtsev 1916: 65–66, 1922a: 468, 491, 1931: 44–46; Stark 1952: 236; Tsai & Li 1959: 87.
- vandykei* Bruck 1933b: 104. Holotype ♂; Mount St. Helena, California [USA]; OSUC, Columbus.
Figures: Bright 1976d: 98 (declivity), Wood 1954b: 503, 511.
Distribution: North America (British Columbia in Canada/ California, W Oregon, W Washington in USA).
Hosts: *Pseudotsuga menziesii*.
Notes: (3) Wood 1954b: 510 (redescribed).
- References: (bv) Daterman, Rudinsky, & Nagel 1965. (cn) Doane et al. 1936. (cc) Deyrup & Gara 1978: 274. (hb) Bright 1976d: 97; Bright & Stark 1973: 58; Chamberlin 1939: 130, 1958: 62; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Wood, S. L. 1954b: 510, 1982b: 375. (ds) Blackwelder 1939; Bright 1976d: 97; Bright & Stark 1973: 99; Chamberlin 1939: 130, 1958: 62; Furniss, R. L. & Carolin 1977: 345; Miller, R. F., Morgan, & Hicock 1985: 500; Wood, S. L. 1972a: 410, 1982b: 375. (tx) Bright 1976d: 97–98; Bruck 1933b: 104–105, 1936a: 36, 114–115; Chamberlin 1939: 130, 1958: 62; de Ruelle 1970: 99; Wood, S. L. 1954b: 503, 510–512, 1972a: 410, 1982b: 375.
- zhobi* (Stebbing) 1909b: 18 (*Phloeosinus*). Holotype ♀; labeled Skinjikai, Zhob, Baluchistan, published as North Zhob and Takt-i-Suliman mountains; FRI, Dehra Dun.
Figures: Stebbing 1914: pl. K, opposite p. 511, fig. 2.
Distribution: Asia (Pakistan).
Hosts: *Pinus gerardiana*.
References: (cn) Stebbing 1914: 496. (cc) Stebbing 1914: 496. (hb) Beeson 1922c: 496; Roonwal 1971b: 314; Stebbing 1909b: 18, 1911a: 7, 1914: 496; Zocchi 1956: 142. (ds) Beeson 1922c: 496, 1961: 285; Kleine 1934a: 134; Roonwal 1971b. (tx) Beeson 1922c: 496; Roonwal 1971b: 314; Stebbing 1909b: 6, 18, 1914: 496; Zocchi 1956: 142.

Genus *Bothinodroctonus* Schedl

BOTHINODROCTONUS SCHEDL 1969a: 208. Type-species: *Bothinodroctonus bicinctus* Schedl, monobasic.

References: (hb) Wood, S. L. 1986a: 57. (ds) Wood, S. L. 1986a: 57. (tx) Schedl 1969a: 208; Wood, S. L. 1986a: 57.

bicinctus Schedl 1969a: 209. Holotype ♂; Borneo (Sarawak), Sejingkat to Tokyo, intercepted; PPST, Tokyo.

Figures: Schedl 1969a: 209.

Distribution: Indonesia (Borneo).

Notes: (3) Schedl 1969a: 209 (had the sexes reversed).

References: (tx) Schedl 1969a: 209, 1979c: 37.

indicus Wood 1988b: 191. Holotype ♀; Tavargati, Belgaum Div., Bombay [India]; FRI, Dehra Dum.
Distribution: Asia (Bengal, Maharashtra in India/ Sri Lanka).

Hosts: *Odina wodier*.

References: (tx) Wood, S. L. 1988b: 191.

setosus Wood 1988b: 192. Holotype ♀; North Andaman Island; Wood Collection.

Distribution: Asia (North Andaman in Andaman Islands).

Hosts: *Canarium euphyllum*.

References: (tx) Wood, S. L. 1988b: 192.

Genus *Carphobius* Blackman

CARPHOBIUS BLACKMAN 1943c: 398. Type-species: *Carphobius arizonicus* Blackman, original designation.

Keys: Wood 1982b: 369.

References: **(hb)** Wood, S. L. 1982b: 369, 1986a: 57. **(ds)** Wood, S. L. 1982b: 369, 1986a: 57. **(tx)** Arnett 1960: 1041; Blackman 1943c: 398; Schedl 1972q: 255; Wood, S. L. 1982b: 369, 1986a: 57.

arizonicus Blackman 1943c: 398. Holotype ♀; Miller Canyon, Huachuca Mountains, Arizona [USA]; USNM, Washington.

Figures: Atkinson & Equihua 1988: 87; Blackman 1943c: figs. 41–45.

Distribution: North America (Chihuahua, Durango, Mexico in Mexico/ Arizona, New Mexico in USA).

Hosts: *Juniperus deppeana*.

Notes: Breeds in insect-girdled twigs in living trees.

References: **(hb)** Wood, S. L. 1982b: 370. **(ds)** Atkinson & Equihua 1988: 86; Thomas, J. B. 1966; Wood, S. L. 1960b: 60, 1982b: 370. **(tx)** Atkinson & Equihua 1988: 87; Blackman 1943c: 398; Wood, S. L. 1960b: 60, 1982b: 370.

cupressi Wood 1974a: 12. Holotype ♂; San Marcos, Guatemala; Wood Collection.

Distribution: North America (Guatemala).

Hosts: *Cupressus lucitanica*.

References: **(hb)** Wood, S. L. 1982b: 370. **(ds)** Wood, S. L. 1982b: 370. **(tx)** Wood, S. L. 1974a: 12, 1982b: 370.

pilifer Wood 1983a: 652. Holotype ♀; Tres Marias, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: *Cupressus lindleyi*.

References: **(hb)** Atkinson et al. 1986: 25. **(ds)** Atkinson & Equihua 1985a: 79; Atkinson et al. 1986: 25. **(tx)** Wood, S. L. 1983a: 652.

Genus *Chortastus* Schaufuss

CHORTASTUS SCHAUFUSS 1905: 15. Type-species: *Chortastus camerunus* Schaufuss, monobasic.

Afrochramesus Schedl 1971g: 197. Type-species: *Afrochramesus baguenai* Schedl, original designation. Synonymy: Wood 1984b: 224.

References: **(tx)** Schedl 1971g: 197; Wood, S. L. 1984b: 224.

Keys: Browne 1973c: 17–30; Schedl 1977a: 37–38.

References: **(bv)** Schedl 1960f: 10. **(hb)** Browne 1973c: 17–30; Schedl 1958d: 192, 1977a: 37–38; Wood, S. L. 1986a: 57. **(ds)** Browne 1973c: 17–30; Hagedorn 1910d: 24; Schedl 1977a: 37–38; Wood, S. L. 1986a: 57. **(tx)** Browne 1973c: 17–30; Hagedorn 1909a: 737, 1910a: 35, 56–57; Hopkins 1914: 118, 1915c: 226; Schaufuss 1905: 15; Schedl 1957d: 28, 1957e: 865–883, 1959n: 393, 1977a: 37–38; Wood, S. L. 1986a: 57.

baguenai (Schedl) 1971g: 197 (*Afrochramesus*).

Holotype, sex?; Guinea espanola, Evinayong; Instituto Espanol de Entomologia, Madrid.

Distribution: Africa (Spanish Guinea).

References: **(tx)** Schedl 1971g: 197.

camerunus Schaufuss 1905: 15 (reprint p. 8). Syn-types ♂ ♀; Nord-Kamerun; Hamburg Museum, lost.

Figures: Browne 1973c: 23, Schedl 1959n: 392, 395, 397 (male, antenna, galleries).

Distribution: Africa (Cameroon/ Gabon/ Zaire).

Hosts: *Celtis bryciji*, *Staudtia stipitata*.

References: **(ec)** Schedl 1958d: 187. **(ds)** Browne 1973c: 22, 1981a: 126; Hagedorn 1910d: 24; Kleine 1912b: 181, 1914b: 310; Nunberg 1961a: 328; Schedl 1962h: 57, 1962k: 1063, 1964f: 617, 1966c: 222, 1967e: 209, 1971g: 190, 1977d: 250; Wood, S. L. 1957e: 1273. **(tx)** Browne 1973c: 22–23; Hagedorn 1910a: 57; Hopkins 1914: 118, 132; Lucas 1920: 183; Schaufuss 1905: 15 (reprint p. 8); Schedl 1950d: 7, 1957e: 868, 1959n: 395, 398, 1962k: 1063, 1977a: 38, 1979c: 50. **(ms)** Lucas 1920: 183.

medius Eggers 1924: 100. Syntypes ♂ ♀; Albertville (Congostaat); 1 in MRCB, Tervuren, 2 in Eggers Collection, in NHMW, Wien, type restricted to Tervuren syntype by Schedl 1979c: 150.

Figures: Schedl 1959n: 40 (galleries).

Distribution: Africa (Zaire).

Hosts: *Staudtia stipitata*.

References: **(ec)** Schedl 1958d: 187. **(hb)** Schedl 1958d: 187. **(ds)** Browne 1973c: 24; Schedl 1977a: 38. **(tx)** Browne 1973c: 24; Eggers 1924: 100, 1935c: 351; Schedl 1950d: 7, 1959n: 400, 1959n: 40, 1977a: 38, 1979c: 150.

brunneus Nunberg 1967b: 317. Holotype ♀♀; Bas-Congo, Kinwenda; MRCB, Tervuren. Synonymy: Browne 1973c: 24.

References: **(tx)** Browne 1973c: 24; Nunberg 1967b: 317, 336, 1976a: 317.

minimus Hagedorn 1909a: 738. Syntypes 3, sex?; Kamerun; MNB, Berlin.

Figures: Schedl 1959n: 396 (galleries).

Distribution: Africa (Cameroon/ Zaire).

Hosts: *Staudtia gaboensis*, *S. stipitata*.

References: **(bv)** Schedl 1960f: 65. **(ds)** Browne 1973c: 25; Ghesquiere 1933a: 33–35, 1933b: 783; Hagedorn 1910d: 24; Kleine 1912b: 181, 1914b: 310; Schedl 1960f: 39, 1977a: 38. **(tx)** Browne 1973c: 25; Eggers 1923a: 179, 1924: 100–101, 1935c: 299–301; Hagedorn 1909a: 738, 1910a: 57; Schedl 1959n: 402, 1977a: 38.

agnatus Eggers 1935c: 301. Lectotype ♂; Kamerun; USNM, Washington, designated by Anderson & Anderson 1971: 3. Synonymy: Browne 1973c: 25.

Notes: (3) Schedl 1962k: 1062 (cites *biseriatus* Eggers, nomen nudum, synonymy).

References: **(ec)** Schedl 1958d: 187. **(hb)**

- Schedl 1958d: 187, 191. (**ds**) Schedl 1966c: 222, 1967e: 209, 1977a: 38, 1977d: 280. (**tx**) Anderson, W. H. & Anderson 1971: 3; Browne 1973c: 25; Eggers 1935c: 301; Schedl 1959n: 394, 1962k: 1062, 1977a: 38, 1979c: 15.
- sulcatus* Eggers 1935c: 301. Syntypes, sex?; Congostaat (Sankuru); MRCB, Tervuren. Synonymy: Browne 1973c: 25.
References: (**tx**) Browne 1973c: 25; Eggers 1935c: 301–302; Schedl 1959n: 407.
- orientalis* Schedl 1957e: 868. Holotype, sex?; Tanganyika, Kushoto; BMNH, London.
Distribution: Africa (Tanzania).
Hosts: *Ocotea usambarensis*.
References: (**ds**) Browne 1973c: 21, 1984a: 151;
- Gardner 1957a: 30; Schedl 1977a: 38. (**tx**) Browne 1973c: 21; Schedl 1957e: 868, 1959n: 404, 1977a: 38, 1979c: 180.
- schenklingi* Hagedorn 1909a: 737. Syntypes ♂ ♀; Kamerun; MNB, Berlin.
Figures: Browne 1973c: 23.
Distribution: Africa (Cameroon/ Gabon).
References: (**hb**) Roberts 1969b: 123. (**ds**) Browne 1973c: 21, 1980b: 382; Hagedorn 1910d: 24; Kleine 1912b: 181, 1914b: 310; Schedl 1962h: 57, 1962k: 1063, 1965e: 350, 1966c: 223, 1971g: 190, 1977a: 38; Wood, S. L. 1957e: 1273. (**tx**) Browne 1973c: 23; Eggers 1923a: 179, 1924: 100–101; Hagedorn 1909a: 737, 1910a: 57; Schedl 1959n: 404, 1962k: 1063.

Subfamily Scolytinae Latreille

See also citations of Family Scolytidae.

Scolytinae

References: Balachowsky 1949a: 2; Bedel 1888b: 386, 405; Handlirsch 1925: 690; Hopkins 1915c: 165, 224–225; LeConte & Horn 1883: 512; Leng 1920: 337; Lucas 1920: 57; Numberg 1954: 13–14; Wood, S. L. 1978a: 106, 109, 112, 1982b: 56, 1986a: 57; Yin, Huang, & Li 1984: 18.

Eccoptogasteridae

References: Tredl 1907: 4.

Eccoptogasterinae

References: Hagedorn 1909: 162, 1910a: 24, 120, 1910d: 79; Lucas 1920: 24; Nusslin 1911: 428; Reitter 1906: 707; Tredl 1907: 5.

Eccoptogasterini

References: Spessivtsev 1913a: 28.

Tribe Scolytini Latreille

See also citations of Family Scolytidae and Subfamily Scolytinae.

Scolytini

References: Barbey 1901: 16; Bedel 1888b: 386, 405; Eichhoff 1881a: 33, 39, 1883a: 98, 104; Ferrari 1867a: 3; Handlirsch 1925: 690; Hopkins 1915c: 165, 224–225; LeConte & Horn 1883: 512; Leng 1920: 337; Lovendal 1889: 5–6; Lucas 1920: 57; Wood, S. L. 1972g: 243, 1978a: 112, 1982b: 62, 1986a: 57.

Scolytidae verae

References: Chapuis 1869: 53, 1873: 261.

Scolytides

References: Blandford 1896e: 119.

Camptoceridae (also includes the French Camptocerides)

References: Chapuis 1869: 49, 1873: 257; Ferrari 1867a: 3; Hopkins 1915c: 225; Lacordaire 1866: 357, 366; Leng 1920: 337.

Camptocerinae

References: Hopkins 1915c: 225.

Camptocerini

References: Leng 1920: 337.

Eccoptogasteridae

References: Tredl 1907: 5.

Eccoptogasterini

References: Reitter *in* Heyden, Reitter, & Weise 1906: 707.

Genus *Cnemonyx* Eichhoff

CNEMONYX EICHHOFF 1868c: 150. Type-species:

Cnemonyx galeritus Eichhoff, monobasic.

Ceratolepis Chapuis 1869: 52. Type-species:

Ceratolepis jucundus Chapuis, monobasic.

Synonymy: Wood 1972c: 140.

References: (tx) Blandford 1896e: 52, 126–127;

Chapuis 1869: 52, 1873: 260; Hagedorn 1910a: 126–127, 1910d: 82; Schedl 1962q: 485; Wood, S. L. 1972c: 140, 1972g: 244.

Loganius Chapuis 1869: 52. Type-species:

Loganius flavicornis Chapuis, monobasic. Synonymy: Wood 1972c: 140.

References: (tx) Blandford 1896e: 128–131; Chamberlin 1939: 236–237; Chapuis 1869: 52, 1873: 260; Hagedorn 1910a: 127–128, 1910d: 81; Schwarz 1894: 44; Swaine 1909: 126; Thatcher 1950: 89; Wood, S. L. 1967c: 119, 1972c: 140, 1972g: 244.

Minuhus Eggers 1912: 206. Type-species: *Minuhus*

barbatus Eggers, monobasic. Synonymy: Eggers 1923: 138.

References: (tx) Eggers 1912: 206, 1923: 138.

Coptodryas Schedl 1948f: 262. Type-species:

Coptodryas hylurgoides Schedl, monobasic, preoccupied by Hopkins 1915. Synonymy: Wood 1972g: 244.

References: (tx) Schedl 1948f: 262, 1952b: 363; Wood, S. L. 1972g: 244.

Coptosomus Schedl 1952b: 363. Type-species:

Coptodryas hylurgoides Schedl, automatic. Synonymy: Wood 1972g: 244.

References: (tx) Schedl 1952b: 363; Wood, S. L. 1972g: 244.

Keys: Blandford 1896e: 128, Wood, S. L. 1982b: 394.

References: (hb) Wood, S. L. 1986a: 58. (ds) Wood, S. L. 1986a: 58. (tx) Arnett 1960: 1040, 1968: 1040; Blandford 1896e: 124; Chapuis 1869: 52, 1873: 260; Eggers 1923: 138; Eichhoff 1868c: 150; Hagedorn 1910a: 128, 1910d: 81; Wood, S. L. 1972c: 140, 1972g: 244, 1982b: 393, 1986a: 58.

acuminatus Schedl 1976a: 61. Holotype, sex?; Encruzilhada, Bahia, Brazil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 61.

amazonicus (Eggers) 1929d: 60 (*Loganius*). Lectotype ♂; Brasilia (Santarem, Amazonas), designated by Anderson & Anderson 1971: 4.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 4; Browne 1970: 543; Eggers 1929d: 60; Schedl 1962q: 486; 1979c: 17; Wood, S. L. 1972g: 244.

amazonicus Schedl 1952d: 349 (*Ceratolepis*). Syntypes, sex?; Brasilien, Santarem; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962q: 486.

References: (tx) Schedl 1952d: 349, 1962q: 486; Wood, S. L. 1972g: 244.

atratus (Blandford) 1896e: 129 (*Loganius*). Lectotype ♀; Bugaba, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 398.

Distribution: North America (Costa Rica/Panama).

- References: (hb) Wood, S. L. 1982b: 398. (ds) Blackwelder 1947: 788; Hagedorn 1910d: 81; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 398. (tx) Blandford 1896e: 129; Hagedorn 1910a: 128; Wood, S. L. 1969a: 9, 1972g: 244, 1982b: 398.
- nitens* Wood 1969a: 9. Holotype ♂; Puerto Viejo, Heredia Prov., Costa Rica; Wood Collection. Synonymy: Wood 1972e: 190, 1972g: 244. References: (tx) Wood, S. L. 1969a: 9, 1972e: 190, 1972g: 244.
- barbatus** (Eggers) 1912c: 207 (*Minulius*). Holotype, sex?; Creta (intercepted?); Museo Zoologico, Universitatis Havniae [now Copenhagen]. Distribution: Unknown, presumably South America (intercepted at Crete). Notes: (1) Wood 1972g: 244 (to *Cnemomyx*). (3) Schedl 1939d: 407 (citation of *minulus* Eggers, nomen nudum, is apparently this species). References: (cc) Wichmann 1955a: 96. (ds) Wichmann 1955a: 96. (tx) Eggers 1912c: 207, 1923b: 138; Hopkins 1914: 125; Lucas 1920: 419; Reitter 1913: 12; de Ruelle 1970: 99; Schedl 1939d: 407, 1962q: 486, 1979c: 34; Wood, S. L. 1972c: 140, 144, 1972g: 244. (ms) Lucas 1920: 419.
- boliviae** (Blackman) 1943c: 378 (*Camptocerus*). Holotype ♀; San Borja, Beni, Bolivia; USNM, Washington. Distribution: South America (Bolivia). Notes: (1) Wood 1972g: 244 (to *Cnemomyx*). References: (tx) Blackman 1943c: 378–379; Wood, S. L. 1972g: 244.
- brevisetosus** Schedl 1939d: 407. Syntypes, sex?; Isla Martin Garcia, Argentina; Schedl Collection in NHMW, Wien and Viana Collection. Distribution: South America (Argentina). Notes: (1) Schedl 1979c: 47 (citation of holotype invalid). References: (hb) Viana 1964: 129. (ds) Blackwelder 1947: 787; Schedl 1979e: 57; Viana 1964: 129. (tx) Schedl 1939d: 407, 1951b: 283, 1951m: 75, 1952a: 445, 1979c: 47; Wood, S. L. 1972g: 244.
- confinis** (Wood) 1961d: 94 (*Loganius*). Holotype ♀; 4 miles E La Pas on road to Las Cruces, Baja California, Mexico; CAS, San Francisco. Distribution: North America (Baja California Sur in Mexico). Hosts: *Sapium biloculare*. References: (tx) Wood, S. L. 1961d: 94, 1972g: 244.
- creber** Schedl 1951m: 76. Syntypes ♂; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien and Plaumann Collection. Distribution: South America (Brazil). Notes: (1) Schedl 1979c: 68 (citation of holotype invalid). References: (ds) Schedl 1967d: 1. (tx) Schedl 1951m: 75–76, 1979c: 68; Wood, S. L. 1972g: 244.
- difformis** (Schedl) 1951m: 74 (*Loganius*). Syntypes, sex?; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien and Plaumann Collection. Distribution: South America (Brazil). Notes: (1) Wood, S. L. 1972g: 244 (to *Cnemomyx*), Schedl 1979c: 80 (citation of holotype invalid). References: (ds) Numberg 1958a: 484. (tx) Numberg 1958a: 484; Schedl 1951b: 284, 1951m: 74, 1958f: 34, 1979c: 80; Wood, S. L. 1972g: 244.
- cirratus** Numberg 1958: 480, 482 (*Loganius*). Holotype ♂?; Santa Catarina, Brazil; IZV, Warsaw. Synonymy: Wood 1972g: 244. References: (tx) Numberg 1958: 480, 482; Schedl 1960i: 103; Wood, S. L. 1972g: 244.
- equihuai** Wood 1983: 654. Holotype ♂; Km 150 carr. Melaque-Puerto Vallarta, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: *Hura polyandra*. References: (tx) Wood, S. L. 1983: 654.
- errans** (Blandford) 1896e: 127 (*Ceratolepis*). Lectotype ♂; “Mexican” tobacco refuse intercepted at Paris; BMNH, London, designated by Wood 1972e: 192. Distribution: South America (Brazil). Notes: (3) Original description cites source of type series as “Mexican” tobacco refuse; Brazil obviously was the source because all known specimens are from Brazil. References: (cc) Wichmann 1955a: 107. (ds) Blackwelder 1947: 787; Ferrer 1942; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 353; Wichmann 1955a: 107. (tx) Blackman 1943c: 380; Blandford 1896e: 127; Hagedorn 1910a: 127; Schedl 1936i: 104, 1940a: 329–330, 1952d: 343, 1962q: 486, 1979c: 91; Wood, S. L. 1972e: 192, 1972g: 244, 1982b: 399.
- brasiliensis** Schedl 1936i: 104 (*Ceratolepis*). Syntypes, sex?; Rio Grande do Sul, Brasil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972g: 244. Notes: (1) Schedl 1952d: 343 (to *Cnemomyx*). References: (hb) Viana 1964: 128. (ds) Blackwelder 1947: 787; Viana 1964: 128. (tx) Schedl 1936i: 104, 1951g: 289, 1951m: 75–76, 1952a: 445, 1952d: 343, 1962q: 486, 1979c: 44; Wood, S. L. 1972e: 192, 1972g: 244.
- barbatus** Schedl 1954b: 24 (*Ceratolepis*). Syntypes ♂ ♀; Brasilien; Nova Teutonia; Schedl Collection in NHMW, Wien and Plaumann Collection, preoccupied by Eggers 1912. Synonymy: Wood 1985: 267. Notes: (1) Schedl 1979c: 34 (citation of holotype invalid). References: (tx) Schedl 1954b: 24, 1962q: 486, 1979c: 34; Wood, S. L. 1972g: 244, 1985: 267.
- schedli** Wood 1972g: 244. Syntypes ♂ ♀; Brasilien; Nova Teutonia; Schedl Collection in

NHMW, Wien and Plamann Collection, automatic, unnecessary replacement name. Synonymy: Wood 1985: 267. References: (tx) Wood, S. L. 1972g: 244, 1985: 267.

euphorbiae Wood 1986c: 270. Holotype ♀; Canon de Lobos, Yautepec, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: Euphorbiaceae.

References: (tx) Wood, S. L. 1986c: 270.

evidens Wood 1983: 654. Holotype ♂; Las Granjas, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: *Ficus* sp.

References: (ds) Atkinson et al. 1986: 52. (tx) Atkinson et al. 1986: 52; Wood, S. L. 1983: 654.

exiguus (Blandford) 1896e: 130 (*Loganius*). Lectotype ♂; Bugaba, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 402.

Distribution: North America (Costa Rica/Panama).

Hosts: (?) *Protium* sp.

References: (hb) Wood, S. L. 1982b: 401. (ds) Blackwelder 1947: 788; Hagedorn 1910d: 81; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 401. (tx) Blandford 1896e: 130; Hagedorn 1910a: 128; Wood, S. L. 1972e: 193, 1972g: 244, 1982b: 402.

pumilus Eggers 1929d: 65 (*Loganius*). Holotype ♂; Costa Rica (Turrialba); USNM, Washington. Synonymy: Wood 1972e: 193.

References: (ds) Blackwelder 1947: Nunberg 1958a: 484. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1929d: 65; Nunberg 1958a: 484; Wood, S. L. 1972e: 193, 1972g: 244.

exilis (Wood) 1967c: 119 (*Loganius*). Holotype ♂; Volcan de Agua, Guatemala; Wood Collection.

Distribution: North America (Guatemala).

Hosts: Euphorbiaceae.

References: (hb) Wood, S. L. 1982b: 411. (ds) Wood, S. L. 1982b: 411. (tx) Wood, S. L. 1967c: 119, 1972g: 244, 1982b: 411.

fastigiatus (Wood) 1961d: 93 (*Loganius*). Holotype ♀; 15 km NW Acatlan, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: Leche Sillo (Euphorbiaceae).

References: (hb) Wood, S. L. 1982b: 409. (ds) Wood, S. L. 1982b: 409. (tx) Wood, S. L. 1961d: 93, 1972g: 244, 1982b: 409.

ficus (Schwarz) 1896: 44 (*Loganius*). Lectotype ♂; Key West, Florida [USA]; USNM, Washington, designated by Wood 1982b: 402.

Distribution: Antilles Islands (Bahama Islands/St. Croix in Virgin Islands), North America (Florida in USA).

Hosts: *Ficus aurea*.

References: (cn) Doane et al. 1936. (ec) Ashmead 1894: 33; Bushing 1965: 462; Pierce 1908: 391; Riley 1891c: 122. (hb) Chamberlin 1939: 236–237; Doane et al. 1936; Wood, S. L. 1982b: 402. (ds) Ashmead 1894; Atkinson et al. 1991: 157; Blatchley & Leng 1916: 587; Bright 1985c: 171; Chamberlin 1939: 236–237; Hagedorn 1910d: 81; Henshaw 1895: 44; Kleine 1913b: 149, 1934a: 168; Leng 1920: 337; Swaine 1909: 126; Wood, S. L. 1982b: 402. (tx) Blatchley & Leng 1916: 587; Bright 1985c: 171; Chamberlin 1939: 236–237; Hagedorn 1910a: 128; Schwarz 1896: 44; Swaine 1909: 126, 1918a: 48; Wood, S. L. 1961d: 88, 1962: 78, 1972g: 244, 1982b: 402.

nubilus Blackman 1943c: 380 (*Ceratolepis*).

Holotype ♂; St. Croix, Virgin Islands; USNM, Washington. Synonymy: Wood 1962: 78.

References: (ds) Blackwelder 1947: 787. (tx) Blackman 1943c: 380; Schedl 1954b: 24, 1962q: 486; Wood, S. L. 1962: 78, 1972g: 244.

flavicornis (Chapuis) 1869: 53 (*Loganius*). Syn- types, sex?; Cumana; IRSNB, Brussels.

Distribution: South America (Argentina/ Brazil/ Venezuela).

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956; Viana 1964: 129. (ds) Blackwelder 1947: 788; Bruch 1914a; Costa Lima 1956; Gemminger & Harold 1872: 2694; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 340; Schedl 1960a: 77, 1976a: 50; Viana 1964: 129. (tx) Chapuis 1869: 53, 1873: 261; Costa Lima 1956; Eggers 1929d: 60, 1931c: 18, 1933g: 18; Hagedorn 1910a: 128; Hopkins 1914: 124; Schedl 1939d: 412, 1939m: 169, 1948d: 36, 1958c: 2, 1958f: 34; Schwarz 1896: 45; Wood, S. L. 1972g: 244.

scaliger Hagedorn 1910b: 5 (*Loganius*). Holotype ♂; Argentina; Hamburg Museum, lost. Synonymy: Eggers 1933g: 18, Wood 1972g: 244.

References: (ds) Bruch 1914a; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 333. (tx) Eggers 1933g: 18; Hagedorn 1910a: 128, 1910b: 5; Wood, S. L. 1972g: 244.

vianai Schedl 1951h: 289. Syntypes, sex?; Argentinien, Buenos Aires: Tigre; Schedl Collection in NHMW, Wien, and Viana Collection. Synonymy: Wood 1985: 267.

Notes: Schedl 1979c: 267 (citation of holotype invalid).

References: (hb) Viana 1964: 129. (ds) Viana 1964: 129. (tx) Schedl 1951h: 288–289, 1979c: 267; Wood, S. L. 1972g: 244, 1985: 267.

fulvifuscus Wood 1979b: 137. Holotype ♀; 27 km NE Montoya, Santander, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Cespedesia macrophylla*.

References: (tx) Wood, S. L. 1979b: 137.

galeritus Eichhoff 1868c: 150. Holotype, sex?; Chili; Schedl Collection in NHMW, Wien.

Distribution: South America (Chile).

References: (ds) Blackwelder 1947: 787; Bruch 1914a; Chapuis 1869: 52, 1873: 260; Gemminger & Harold 1872: 2694; Kleine 1913b: 150, 1914b: 332; Schedl 1972d: 132, 1973d: 161. (tx) Chapuis 1869: 52, 1873: 260; Eggers 1923b: 138; Eichhoff 1868c: 150; Hagedorn 1910a: 128; Hopkins 1914: 118; Lucas 1920: 193; Schedl 1939d: 407, 1972d: 132, 1979c: 102; Wood, S. L. 1972g: 244.

glaber (Eggers) 1929d: 64 (*Loganius*). Holotype ♂; Ostbolivia; USNM, Washington.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1929d: 64; Wood, S. L. 1972g: 244.

glabratus (Schedl) 1940a: 329 (*Loganius*). Holotype ♀; Tumbala, Chiapas, Mexico; Schedl Collection in NHMW, Wien.

Distribution: North America (Chiapas, Oaxaca in Mexico).

References: (hb) Atkinson & Equihua 1986a: 420. (ds) Atkinson & Equihua 1986a: 420; Blackwelder 1947: 788; Ferrer 1942; Wood, S. L. 1982b: 398. (tx) Schedl 1939k: 722, 1940a: 329, 1979c: 105; Wood, S. L. 1972g: 244, 1982b: 398.

gracileus Wood 1969b: 10. Holotype ♂; 57 km SE El Cameron, Oaxaca, Mexico; Wood Collection.

Distribution: North America (Oaxaca in Mexico). Hosts: Euphorbiaceae.

References: (hb) Wood, S. L. 1982b: 410. (ds) Wood, S. L. 1982b: 410. (tx) Wood, S. L. 1969b: 10, 1972g: 244, 1982b: 410.

hylurgoides (Schedl) 1948f: 262 (*Coptodryas*). Holotype, sex?; Brasil, St. Catharina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (1) Wood 1972g: 244 (to *Cnemomyx*). (3) Schedl 1952b: 363 (treated in *Coptosomus*).

References: (tx) Schedl 1948f: 262, 1952b: 363, 1979c: 120; Wood, S. L. 1972g: 244.

impressus (Wood) 1961d: 90 (*Loganius*). Holotype ♂; Chilpancingo, Guerrero, Mexico; Wood Collection.

Distribution: North America (Guerrero in Mexico). Notes: Wood 1972g: 244 (to *Cnemomyx*).

References: (ds) Wood, S. L. 1982b: 407. (tx) Wood, S. L. 1961d: 90, 1972g: 244, 1982b: 407.

insidiosus (Schedl) 1939m: 171 (*Loganius*). Syntypes, sex?; Buenos Aires, Isla Martin Garcia; Schedl Collection in NHMW, Wien, and Viana Collection.

Distribution: South America (Argentina/ Bolivia). Notes: (1) Schedl 1952d: 344 (to *Cnemomyx*), 1979c: 125 (citation of holotype invalid).

References: (ds) Blackwelder 1947: 788. (tx) Schedl 1939m: 171, 1952d: 344, 1979c: 125; Wood, S. L. 1972g: 244.

insignis Wood 1969b: 9. Holotype ♂; Moravia, Cartago Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Virola* sp.

References: (hb) Wood, S. L. 1982b: 397. (ds) Wood, S. L. 1982b: 397. (tx) Wood, S. L. 1969b: 9, 1972g: 244, 1982b: 397.

jucundus (Chapuis) 1869: 52 (*Ceratolepis*). Holotype ♂; Nova-Fribourg; IRSNB, Brussels.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 787; Gemminger & Harold 1872: 2694; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 336; Schedl 1973d: 151. (tx) Chapuis 1869: 52, 1873: 260; Eggers 1933: 14; Hagedorn 1910a: 127; Hopkins 1914: 117; Schedl 1952d: 349, 1962q: 486; Wood, S. L. 1972g: 244.

liratus (Wood) 1961d: 92 (*Loganius*). Holotype ♀; 20 km E Matamoros, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: Euphorbiaceae.

Notes: (1) Wood 1972g: 244 (to *Cnemomyx*).

References: (hb) Atkinson & Equihua 1985b: 231; Atkinson et al. 1986: 52; Wood, S. L. 1982b: 409. (ds) Atkinson & Equihua 1985b: 231, 1988: 86; Atkinson et al. 1986: 52; Wood, S. L. 1982b: 409. (tx) Wood, S. L. 1961d: 92, 1967c: 119, 1972g: 244, 1982b: 409.

longicollis (Blandford) 1896e: 128 (*Loganius*). Holotype ♀; "Mexico" tobacco refuse intercepted at Paris; BMNH, London.

Figures: Blandford 1896e: pl. 6.

Distribution: South America (Brazil).

Notes: (1) Wood 1982b: 411 (to *Cnemomyx*; the "Mexican" tobacco refuse cited in the original description is now known to have originated in Brazil).

References: (cc) Wichmann 1955a: 107. (ds) Blackwelder 1947: 788; Ferrer 1942; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 353; Wichmann 1955a: 107. (tx) Blandford 1896e: 128; Hagedorn 1910a: 128; Schedl 1940a: 329; Wood, S. L. 1972g: 244, 1982b: 411.

maculicornis (Blandford) 1896e: 127 (*Ceratolepis*). Lectotype ♀; Tole, Panama; BMNH, London, designated by Wood 1982b: 399.

Distribution: North America (Costa Rica/ Honduras/ Panama), South America (Colombia).

Hosts: *Virola* sp.

References: (hb) Wood, S. L. 1982b: 399. (ds) Blackwelder 1947: 788; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 399. (tx) Blandford 1896e: 127; Hagedorn 1910a: 127; Schedl 1962q: 486; Wood, S. L. 1972g: 244, 1982b: 399.

minor Schedl 1951m: 75. Syntypes, sex?; Brasilien, Santa Catarina; Schedl Collection in NHMW, Wien, and Plaumann Collection.

- Distribution: South America (Argentina/ Brazil).
Notes: (1) Schedl 1979c: 154 (citation of holotype invalid).
References: (ds) Nunberg 1964a: 234; Schedl 1966f: 82. (tx) Nunberg 1964a: 234; Schedl 1951m: 75, 1979c: 154; Wood, S. L. 1972g: 244.
- minusculus (Blandford)** 1896c: 130 (*Loganius*). Holotype ♂; Volcan de Chiriqui, Panama; BMNH, London.
Distribution: North America (Costa Rica/ Guatemala/ Veracruz in Mexico/ Panama).
Hosts: *Vismia* spp.
References: (ds) Blackwelder 1947: 788; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 401. (tx) Blandford 1896e: 130; Hagedorn 1910a: 128; Wood, S. L. 1972e: 193, 1972g: 244, 1982b: 401.
vismiae Eggers 1929d: 63 (*Loganius*). Holotype ♂; Costa Rica (La Caja, 8 km westlich San Jose); MNB, Berlin. Synonymy: Wood 1972e: 193.
References: (bv) Winning 1930: 42. (hb) Winning 1930: 42. (ds) Blackwelder 1947. (tx) Eggers 1929d: 63; Wood, S. L. 1972e: 193, 1972g: 244.
- niger (Eggers)** 1933b: 13 (*Ceratolepis*). Holotype, sex?; Franz. Guayana (St. Laurent du Maroni); MNHN, Paris.
Distribution: South America (Cayenne).
Notes: (3) Schedl 1962q: 485 (erroneously transferred this species to *Camptocerus* and renamed it *nigricans*; because the error occurred after 1960, the name has no status in nomenclature, since homonymy did not exist).
References: (ds) Blackwelder 1947: 787; Schedl 1960a: 77. (tx) Eggers 1933b: 13–14; Schedl 1952d: 349, 1960a: 77, 1962q: 486, 1979c: 166; Wood, S. L. 1974d: 278.
- nigrellus Wood** 1974d: 278. Holotype ♀; 16 miles W Tehuantepec, Oaxaca, Mexico; Wood Collection, automatic.
Distribution: North America (Oaxaca in Mexico).
Hosts: Euphorbiaceae.
References: (hb) Wood, S. L. 1982b: 404. (ds) Wood, S. L. 1982b: 404. (tx) Wood, S. L. 1974d: 278, 1982b: 404.
niger Wood 1961d: 95 (*Loganius*). Holotype ♀; 16 miles W Tehuantepec, Oaxaca, Mexico; Wood Collection, preoccupied by Eggers 1933.
References: (tx) Wood, S. L. 1961d: 95, 1972g: 244, 1974d: 278.
- opacus Wood** 1969b: 10. Holotype ♂; Playa del Coco, Guanacaste, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Hippomane macinella*.
References: (hb) Wood, S. L. 1982b: 408. (ds) Wood, S. L. 1982b: 408. (tx) Wood, S. L. 1969b: 10, 1972g: 244, 1982b: 408.
- panamensis (Blandford)** 1896e: 129 (*Loganius*). Lectotype ♂; Tole, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 400.
Distribution: North America (Costa Rica/ Panama), South America (Venezuela).
Hosts: *Vismia guianensis*.
Notes: (3) Wood 1972g: 244 (to *Cnemomyx*).
References: (hb) Wood, S. L. 1982b: 400. (ds) Blackwelder 1947: 788; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 400. (tx) Blandford 1896e: 129; Eggers 1929d: 62–63; Hagedorn 1910a: 128; Schedl 1972q: 255; Wood, S. L. 1969b: 9, 1972g: 244, 1982b: 400.
- parvus (Nunberg)** 1972b: 195 (*Loganius*). Holotype ♂; Sao Paulo, Itaquera; MZUSP, Sao Paulo. Figures: Nunberg 1972b: 196.
Distribution: South America (Brazil).
References: (tx) Nunberg 1972a, 1972b: 195–196.
- prociduus (Wood)** 1961d: 91 (*Loganius*). Holotype ♀; La Ceiba, Honduras; Wood Collection.
Distribution: North America (Honduras/ Veracruz in Mexico).
Notes: (1) Wood 1972g: 244 (to *Cnemomyx*).
References: (ds) Wood, S. L. 1982b: 407. (tx) Wood, S. L. 1961d: 91, 1972g: 244, 1982b: 407.
- protivorus Wood** 1979b: 137. Holotype ♂; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Protium* sp.
References: (tx) Wood, S. L. 1979b: 137.
- recavus Wood** 1969b: 11. Holotype ♂; 48 km E Tehuantepec, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca, Puebla in Mexico).
Hosts: "Leche Sillo" (Euphobiaceae).
References: (hb) Wood, S. L. 1982b: 404. (ds) Wood, S. L. 1982b: 404. (tx) Wood, S. L. 1969b: 11, 1982b: 404.
- rugulosus (Eggers)** 1929d: 64 (*Loganius*). Holotype ♀; Ostbolivia; USNM, Washington.
Distribution: South America (Bolivia).
Notes: (1) Wood 1972g: 244 (to *Cnemomyx*).
References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1929d: 64; Wood, S. L. 1972g: 244.
- setulosus (Eggers)** 1929d: 62 (*Loganius*). Holotype ♂; Ostbolivia; Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 788. (tx) Eggers 1929d: 62; Schedl 1979c: 226; Wood, S. L. 1972g: 244.
- similis (Eggers)** 1929d: 63 (*Loganius*). Lectotype ♂; Ostbolivia; USNM, Washington, designated by Anderson & Anderson 1971: 30.
Distribution: South America (Bolivia).
Notes: (1) Wood 1972g: 244 (to *Cnemomyx*).
References: (ds) Blackwelder 1947: 788; Schedl 1966f: 80. (tx) Anderson, W. H. & Anderson 1971:

30; Eggers 1929d: 63; Schedl 1979c: 229; Wood, S. L. 1972g: 244.

splendens (Wood) 1961d: 88 (*Loganius*). Holotype ♂; "Mexico" (intercepted at San Pedro, California); USNM, Washington.

Distribution: North America ("Mexico," Jalisco in Mexico).

Hosts: *Cybstax donnell-smithii*, *Hyppomane mancinnella*.

References: (cc) Equihua & Atkinson 1986: 626. (hb) Atkinson & Equihua 1988: 86; Equihua & Atkinson 1986: 626. (ds) Atkinson & Equihua 1988: 86; Equihua & Atkinson 1986: 626; Wood, S. L. 1982b: 405. (tx) Wood, S. L. 1961d: 88, 1972g: 244, 1982b: 405.

squamifer Wood 1979b: 138. Holotype ♂; Tikal, Peten, Guatemala; Wood Collection.

Distribution: North America (Guatemala).

References: (ds) Estrada & Atkinson 1988: 204; Wood, S. L. 1982b: 406. (tx) Wood, S. L. 1979b: 138, 1982b: 406.

vagabundus (Wood) 1961d: 89 (*Loganius*). Holotype ♂; Key West, Florida [USA]; USNM, Washington.

Distribution: Antilles Islands (Antigua/ Dominican Republic in Hispanola/ Puerto Rico/ Virgin Islands), North America (Panama/ Florida in USA).

Hosts: *Pisida piscipala*.

References: (ds) Atkinson et al. 1991: 157; Bright 1981c: 153, 1985c: 171; Browne 1970: 543; Wood, S. L. 1982b: 406. (tx) Bright 1985c: 171; Browne 1970: 543; Wood, S. L. 1961d: 89, 1972g: 244, 1982b: 406.

vestitus (Eggers) 1929d: 59 (*Loganius*). Lectotype ♂; Ostbolivia; USNM, Washington, designated by Anderson & Anderson 1971: 35.

Distribution: South America (Bolivia/ Venezuela).

Hosts: *Trichilis propinguis*.

References: (ds) Blackwelder 1947: 788; Schedl 1966f: 80, 1976a: 50. (tx) Anderson, W. H. & Anderson 1971: 35; Eggers 1929d: 59; Schedl 1979c: 266; Wood, S. L. 1972g: 244.

vismiacolens Wood 1979b: 138. Holotype ♀; Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Vismia* sp.

Notes: (1) Wood, S. L. 1981: 123 (lapsus calami corrected).

References: (tx) Wood, S. L. 1979b: 138, 1981: 123.

Genus *Camptocerus* Latreille

CAMPTOCERUS LATREILLE 1829: 91. Type-species: *Hylesinus aeneipennis* Fabricius, monobasic.

Keys: Wood 1982b: 412.

References: (hb) Wood, S. L. 1986a: 58. (ds) Wood, S. L. 1986a: 58. (tx) Blandford 1896c: 124-126; Chapuis 1869: 50-51, 1873: 258-259; Erichson 1836: 59; Hagedorn 1910a: 125-126,

1910d: 82; Lacordaire 1860: 368; Latreille 1829: 91; Schedl 1962q: 485; Wood, S. L. 1972g: 243, 1982b: 411-412, 1986a: 58.

aeneipennis (Fabricius) 1801: 392 (*Hylesinus*). Lectotype ♂; lectotype labeled Essequibo (Guyana), published as *America meridionali*; UZMC, Copenhagen, designated by Wood 1982b: 412.

Distribution: North America (Costa Rica/ Panama), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Colombia/ Guyana/ Suriname/ Venezuela).

Hosts: *Protium* spp.

References: (bv) Winning 1930: 42. (ec) Vitzthum 1926: 456. (hb) Beaver 1972; Bondar 1950: 479; Girard 1873; Winning 1930: 42-45; Wood, S. L. 1982b: 414. (ds) Beaver 1972; Blackwelder 1947: 787; Browne 1970: 543; Bruch 1914a; Chapuis 1869: 50, 1873: 258; Dejean 1821, 1825, 1837; Hagedorn 1903b: 545, 1910d: 82; Kleine 1913b: 151, 1914b: 336, 338, 1934a: 168; Lacordaire 1830: 127, 1866: 368; Nunberg 1962: 223; Schedl 1960a: 78, 1966f: 79, 1967d: 1, 1970e: 80, 1972g: 41, 1973d: 150, 1976a: 49, 1978c: 291; Sturm 1843: 229; Wood, S. L. 1982b: 414. (tx) Browne 1970: 543; Castelnau 1840; Chapuis 1869: 50, 1873: 258; Chevrolat 1838; Dejean 1821, 1825; Eggers 1928c: 90-91, 1929e: 43, 45, 1931c, 1933b: 12, 1933g: 17; Erichson 1836: 59; Fabricius 1801: 392; Gemminger & Harold 1872: 2678; Girard 1873; Hagedorn 1903b: 545, 1910a: 126, 1914: 117; Hopkins 1915c: pl. 9, fig. 15, pl. 12, fig. 15; Illiger 1907: 321; Lacordaire 1866: 368; Lucas 1920: 162; Schedl 1952h: 68, 1955d: 274, 1960a: 78; Wood, S. L. 1972g: 243, 1982b: 412, 414. (ms) Lucas 1920: 162.

gibbus Fabricius 1801: 392 (*Hylesinus*). Holotype ♀; type labeled Essequibo (Guyana), published as *America meridionali*; UZMC, Copenhagen. Synonymy: Wood 1972g: 243.

References: (ds) Hagedorn 1910d: 82; Kleine 1913b: 151; Lacordaire 1866: 369. (tx) Eggers 1931c: 17, 1933g: 17; Erichson 1836: 59; Fabricius 1801: 392; Gemminger & Harold 1872: 2678; Hopkins 1910a: 126; Lacordaire 1866: 369; Wood, S. L. 1972g: 243.

angustior Eggers 1928c: 91. Lectotype ♂; Bolivia (Yungas, 1,000 m); USNM, Washington, designated by Anderson & Anderson 1971: 4.

Distribution: South America (Bolivia/ Brazil/ Colombia/ Peru).

References: (ds) Blackwelder 1947: 787. (tx) Anderson, W. H. & Anderson 1971: 4; Eggers 1928c: 91, 1933b: 12; Schedl 1979c: 20.

atterimus Eggers 1933b: 12. Syntypes 1 ♂, 1 ♀; ♂, Brasil (Amazonenstromgebiet), ♀, Franz. Guayana (Passoura); MNHN, Paris, and Eggers Collection (USNM, Washington or NHMW, Wien?).

Distribution: South America (Cayenne/ Brazil).

References: (hb) Beaver 1972. (ds) Beaver 1972;

Blackwelder 1947: 787; Schedl 1966f: 81, 1972g: 41, 1973d: 150. (tx) Eggers 1933b: 12; Schedl 1979c: 30.

auricomus Blandford 1896c: 125. Syntypes, sex[?]; Chontales, Nicaragua, Bugaba and Volcan de Chiriqui, Panama; BMNH, London.

Distribution: North America (Costa Rica/ Nicaragua/ Panama), South America (Guyana/ Venezuela). Hosts: *Cedrela* sp., *Protium* sp., *Rhacodia edulis*. References: (hb) Atkinson & Equihua 1986a: 420; Wood, S. L. 1982b: 416. (ds) Atkinson & Equihua 1986a: 420; Beaver 1972: 249; Blackwelder 1947: 787; Hagedorn 1903b: 546, 1910d: 82; Kleine 1913b: 151, 1914b: 365; Wood, S. L. 1982b: 416. (tx) Blandford 1896c: 125; Eggers 1943d: 245; Hagedorn 1903b: 546, 1910a: 126; Muskus, A. 1984: 69; Schedl 1979c: 31; Wood, S. L. 1969b: 11, 1982b: 416.

charpentierae Schedl 1970f: 582. Holotype ♂; Guyane française, Massikiri-Haut Oyapock; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil/ Cayenne). References: (tx) Schedl 1970f: 582, 1979c: 56.

costatus Chapuis 1869: 51. Holotype ♂; Bresil; IRSNB, Brussels.

Distribution: Antilles Islands (Trinidad), South America (Brazil). References: (ds) Blackwelder 1947: 787; Gemminger & Harold 1872: 2694; Hagedorn 1910d: 82; Kleine 1913b: 151, 1914b: 336; Schedl 1973d: 150; Sturm 1843: 229. (tx) Chapuis 1869: 51, 1873: 259; Eggers 1933b: 13; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 126.

infidelis Wood 1969b: 11. Holotype ♀; Peralta, Cartago, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

References: (hb) Wood, S. L. 1982b: 415. (ds) Wood, S. L. 1982b: 415. (tx) Wood, S. L. 1969b: 11, 1982b: 415.

inoblitus (Schedl) 1939k: 722 (*Loganius*). Holotype ♂; Brasilien, Sta. Catharina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (1) Wood 1972g: 243 (to *Camptocerus*). (3) Schedl 1951: 75 (described male).

References: (hb) Viana 1964: 129. (ds) Beaver 1972; Blackwelder 1947: 788; Schedl 1966f: 81, 1973d: 151, 1976a: 49; Viana 1964: 129. (tx) Beaver 1972; Schedl 1939k: 722, 1951h: 283, 1951m: 75, 1958f: 34, 1979c: 124; Wood, S. L. 1972g: 243.

latipilis Schedl 1973d: 166. Holotype ♂; Brasilien, Para, Benfica, Ananindena; MZUSP, Sao Paulo.

Distribution: South America (Brazil).

References: (tx) Schedl 1973d: 166, 1979c: 137.

major (Eggers) 1929d: 60 (*Loganius*). Holotype ♀; Chanchamajo; Eggers Collection, in NHMW, Wien.

Distribution: South America (Brazil/ Peru).

References: (ds) Blackwelder 1947: 788; Schedl 1976a: 49. (tx) Eggers 1929d: 60; Schedl 1952d: 343, 1952h: 68, 1979c: 146; Wood, S. L. 1972g: 244.

uiseriatius Schedl 1972g: 54. Holotype ♂; Brasilien, Corcovado, Guanabara; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170.

References: (tx) Schedl 1972g: 54, 1979c: 261; Wood, S. L. 1989: 170.

morio (Schedl) 1952d: 348 (*Loganius*). Holotype ♂; Brasilien, Santa Catarina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1952d: 348, 1979c: 159; Wood, S. L. 1972g: 244.

niger (Fabricius) 1801: 393 (*Hylesinus*). Lectotype ♂; type labeled Essequibo [Guyana], published as America meridionali; UZMC, Copenhagen, designated by Wood 1982b: 415.

Distribution: North America (Costa Rica), South America (Brazil/ Cayenne/ Colombia/ Guyana/ Peru).

Hosts: *Protium* sp.

References: (hb) Beaver 1972. (ds) Beaver 1972; Blackwelder 1947: 788; Chapuis 1869: 51, 1873: 259; Hagedorn 1903b: 546, 1910d: 82; Kleine 1913b: 151, 1914b: 338; Lacordaire 1866: 369; Schedl 1966f: 79, 1973d: 151; Wood, S. L. 1982b: 415. (tx) Chapuis 1869: 51, 1873: 259; Eggers 1928c: 91, 1929e: 43, 46, 1933b: 1, 1933g: 20, 1934b: 27, 1943d: 243–244; Erichson 1836: 59; Fabricius 1801: 393–394; Gemminger & Harold 1872: 2678; Hagedorn 1903b: 546, 1910a: 126; Illiger 1907: 321; Lacordaire 1866: 369; Schedl 1940c: 205, 1962e: 486; Wood, S. L. 1982b: 415.

squamiger Chapuis 1869: 51. Syntypes 1 ♂, 1 ♀; Cayenne; IRSNB, Brussels. Synonymy: Eggers 1934b: 27.

References: (ds) Hagedorn 1910d: 82; Kleine 1913b: 151, 1914b: 338. (tx) Chapuis 1869: 51, 1873: 259; Eggers 1934b: 27; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 126.

striatulus Hagedorn 1904: 547. Syntypes, sex[?]; French Guyana; MNHN, Paris. Synonymy: Eggers 1933g: 20.

References: (ds) Hagedorn 1910d: 82; Kleine 1913b: 151, 1914b: 338. (tx) Eggers 1933b: 1, 1933g: 20; Hagedorn 1904: 547, 1910a: 126.

occidentalis Eggers 1928c: 91. Lectotype ♂; Bolivia (Yungas de la Paz); USNM, Washington, designated by Anderson & Anderson 1971: 23.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 23; Eggers 1928c: 91–92; Schedl 1979c: 176.

opacicollis (Eggers) 1929d: 61 (*Loganius*). Holotype ♂; Ostbolivia; Eggers Collection, in NHMW, Wien.

- Distribution: South America (Bolivia/ Brazil).
Notes: (1) Wood 1972g: 243 (to *Camptocerus*).
References: (ds) Blackwelder 1947: 788; Schedl 1966f: 95, 1973d: 151. (tx) Eggers 1929d: 61; Schedl 1951b: 283, 1952d: 343, 1962q: 487, 1979c: 178; Wood, S. L. 1972g: 243.
- aquilus* Wood 1972g: 244. Holotype ♂; Brazil: 12 degrees 49' S, 51 degrees 46' W [apparently near Aldeia Caraya, Goias, on or near the Rio Araguaia]; BMNH, London. Synonymy: Wood 1985: 266.
References: (hb) Beaver 1972. (ds) Schedl 1976a: 49. (tx) Wood, S. L. 1972g: 244, 1985: 266.
- orientalis* Eggers 1943d: 244. Holotype ♂; Brasil (Salobro, Prov. de Bahia); Strohmeyer Collection. Distribution: South America (Brazil).
References: (ds) Numberg 1962: 223; Schedl 1973d: 151, 1976a: 49. (tx) Eggers 1943d: 244; Schedl 1966f: 98, 1979c: 180.
- tectus* Eggers 1943d: 244. Holotype ♂; Brasil (Sarria da Bernada, Pernambuco); Strohmeyer Collection. Synonymy: Wood 1989: 170.
References: (ds) Schedl 1966f: 80, 1976a: 50. (tx) Eggers 1943d: 244; Schedl 1966f: 98, 1979c: 250; Wood, S. L. 1989: 170.
- quadridens* Blackman 1943c: 379. Holotype ♂; Cooper's, near source of Rio Aejeta, Canal Zone, Panama; USNM, Washington. Distribution: North America (Panama).
References: (ds) Blackwelder 1947: 788; Wood, S. L. 1982b: 412. (tx) Blackman 1943c: 379–381; Wood, S. L. 1982b: 412.
- rectus* Wood 1972g: 245. Holotype ♂; Venezuela: 40 km E Canton, Barinas; Wood Collection. Distribution: South America (Venezuela).
Hosts: *Protium tenuifolium*.
References: (tx) Wood, S. L. 1972g: 245.
- seriatus* Eggers 1933b: 12. Holotype ♀; Franz. Guayana (Les roches de Kourou); MNHN, Paris. Distribution: South America (Brazil/ Cayenne).
References: (ds) Blackwelder 1947: 788; Numberg 1962: 223; Schedl 1966f: 79. (tx) Eggers 1933b: 12–13.
- suturalis* (Fabricius) 1801: 393 (*Hylesinus*). Syn-types 4, sex?; labeled Essequibo [Guyana], published as America meridionali; UZMC, Copenhagen.
Distribution: South America (Brazil/ Guyana).
References: (ds) Blackwelder 1947: 788; Hagedorn 1910d: 82; Kleine 1913b: 151; Lacordaire 1866: 369; Schedl 1966f: 79, 1972g: 79, 1973d: 151. (tx) Eggers 1929e: 43, 45; Erichson 1836: 59; Fabricius 1801: 393; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 126; Illiger 1907: 321; Lacordaire 1866: 369; Wood, S. L. 1972g: 243.
- fasciatus* Fabricius 1801: 392 (*Hylesinus*). Syn-types 1 ♂, 1 ♀; labeled Essequibo [Guyana], published as America meridionali; UZMC, Copenhagen. Synonymy: Wood 1972g: 243.
References: (ds) Hagedorn 1910d: 82; Kleine 1913b: 151; Lacordaire 1866: 369. (tx) Eggers 1929e: 43; Erichson 1836: 59; Fabricius 1801: 392–393; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 126; Illiger 1907: 321; Lacordaire 1866: 369; Wood, S. L. 1972g: 243.
- ciuctus* Chapuis 1869: 51. Holotype, sex?; Amerique meridionale; IRSNB, Brussels. Synonymy: Wood 1972g: 243.
References: (tx) Chapuis 1869: 51, 1873: 259; Gemminger & Harold 1872: 2678; Wood, S. L. 1972g: 243.
- hirtipennis* Schedl 1973d: 165. Holotype ♂; Brasilien, Tefe (= Ega); MZUSP, Sao Paulo. Synonymy: Wood 1989: 170.
References: (tx) Schedl 1973d: 165, 1979c: 118; Wood, S. L. 1989: 170.

Genus *Scolytopsis* Blandford

SCOLYTOPSIS BLANDFORD 1896e: 120, 123. Type-species: *Scolytopsis puncticollis* Blandford, monobasic. Keys: Eggers 1937a: 82–83, Wood 1982b: 417.
References: (hb) Wood, S. L. 1986a: 58. (ds) Blackwelder 1947: 788; Wood, S. L. 1986a: 58. (tx) Blandford 1896e: 120, 123–124; Eggers 1937a: 82–83; Hagedorn 1910a: 124–125, 1910d: 89; Wood, S. L. 1982b: 417, 1986a: 58.

brasiliensis Eggers 1931a: 16. Holotype ♂; Brazil (Sta. Catharina; Lages); USNM, Washington. Figures: Pedrosa-Macedo & Schonherr 1985: 7. Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 788; Pedrosa-Macedo & Schonherr 1985: 7; Schedl 1966f: 81, 1967d: 1, 1973d: 150; Schonherr & Pedrosa-Macedo 1981: 50. (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1931a: 16–17, 1937a: 82; Pedrosa-Macedo & Schonherr 1985: 7; Schedl 1979c: 45.

laticollis Wood 1968b: 14. Holotype ♀; 31 km SE Cameron, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico).
Hosts: (?) *Plumeria* sp., etc.
References: (hb) Wood, S. L. 1982b: 418. (ds) Wood, S. L. 1982b: 418. (tx) Wood, S. L. 1968b: 14, 1982b: 418.

orinocanus Wood 1971: 18. Holotype ♀; Campamento Rio Grande, 30 km E Palmar, Bolivar, Venezuela; Wood Collection. Distribution: South America (Venezuela).
Hosts: *Terminalia guianensis*.
References: (hb) Wood, S. L. 1971: 18. (tx) Wood, S. L. 1971: 18.

peruanus Eggers 1937a: 83. Lectotype ♀; Peru (Marcapata); USNM, Washington, designated by Anderson & Anderson 1971: 24. Distribution: South America (Peru).
References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1937a: 83; Schedl 1952h: 68, 1979c: 191.

puncticollis Blandford 1896: 123. Syntypes, sex?; Toroda, Las Mercedes, Zapote, and Río María Linda, Guatemala; BMNH, London.

Distribution: Antilles Islands (Cuba), North America (Costa Rica/ Guatemala/ Veracruz in Mexico), South America (Argentina/ Brazil/ Paraguay).

Notes: (3) Schedl 1948d: 35 (*Scolytus episternatus*, nomen nudum, synonymy in Schedl 1950i: 147).

References: (cc) Equihua & Atkinson 1986: 627; Wichmann 1955a: 107. (hb) Atkinson & Equihua 1986a: 420; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 417–418. (ds) Atkinson & Equihua 1985b: 232, 1986a: 420; Blackwelder 1947: 788; Bruch 1914a; Equihua & Atkinson 1986: 627; Ferrer 1942; Hagedorn 1910d: 87; Kleine 1913b: 154, 1914b: 334, 336, 365; Wichmann 1955a: 107; Wood, S. L. 1982b: 417–418. (tx) Blandford 1896: 123; Eggers 1931a: 16, 1936a: 87, 1937a: 83; Hagedorn 1910a: 125; Hayward 1942: 25; Hopkins 1914: 129; Lucas 1920: 572; Schedl 1940a: 329, 1948d: 35, 1950i: 147, 1952a: 444; Wood, S. L. 1961d: 87, 1982b: 417–418. (ms) Lucas 1920: 572.

toba Wichmann 1914c: 136. Holotype, sex?; Santa Sofia, Paraguay; NHMW, Wien. Synonymy: Wood 1985: 269.

References: (ds) Blackwelder 1947: 788; Kleine 1914b: 334. (tx) Eggers 1937a: 83; Wichmann 1914c: 136; Wood, S. L. 1985: 269.

argentinensis Eggers 1937a: 84. Lectotype ♂; Argentinien (Prov. Tucuman); USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Wood 1985: 269.

Notes: (1) Schedl 1979c: 25 (invalid designation of lectotype).

References: (hb) Viana 1964: 129. (ds) Blackwelder 1947: 788; Schedl 1966f: 81; Viana 1964: 129. (tx) Anderson, W. H. & Anderson 1971: 4; Eggers 1937a: 83–84; Schedl 1950i: 147, 1951b: 283, 1952a: 444–445, 1958f: 36, 1979c: 25; Wood, S. L. 1985: 269.

bruchii Schedl 1939m: 170 (*Scolytus*). Lectotype ♂; Misiones, orillas del Ignazu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 48. Synonymy: Wood 1985: 269.

References: (hb) Viana 1964: 126. (ds) Blackwelder 1947: 788; Viana 1964: 126. (tx) Schedl 1939m: 170, 1979c: 48; Wood, S. L. 1985: 269.

cubensis Wood 1961d: 87. Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1989: 175.

References: (ds) Bright 1985c: 171. (tx) Bright 1985c: 171; Wood, S. L. 1961d: 87, 1989: 175.

Genus *Scolytus* Geoffroy

SCOLYTUS GEOFFROY 1762: 309. Type-species: *Bostrichus scolytus* Fabricius, subsequent designation by International Commission on Zoological Nomenclature (ICZN) 1963a: 416, China 1963b: 416.

Ekkoptogaster Herbst 1793: 124. Type-species:

Bostrichus scolytus Fabricius, subsequent designation by Hopkins 1914: 121. Synonymy: China 1962b: 8.

References: (tx) China 1962b: 8; Herbst 1793: 124; Hopkins 1914: 121.

Coptogaster Illiger 1807: 321. Type-species: *Bostrichus scolytus* Fabricius, subsequent designation by Hopkins 1914: 118. Synonymy: Isotypical synonym of *Scolytus*.

References: (tx) Bedel 1888b: 386; China 1962b: 8; Hopkins 1914: 118; Illiger 1807: 321; Swaine 1909: 103.

Eccoptogaster Gyllenhal 1813: 346. Type-species: *Bostrichus scolytus* Fabricius, automatic, invalid emendation of *Ekkoptogaster* Herbst. References: (tx) Blackman 1922: 41–42, 1934: 4; Butovitsch 1928: 2–3; Chamberlin 1917: 325; China 1962b: 3–8, 1963b: 416; Eggers 1912: 207, 1914: 184–185; Ganglbauer 1903: 311; Gyllenhal 1813: 346; Hagedorn 1910a: 121–124, 1910d: 82–89; Herbst 1793: 124; Ratzeburg 1837: 168, 1839: 225; Reitter 1906: 707, 1913a: 13–26; Sampson 1923b: 269; Simmel 1928: 171; Spessivtsev 1913: 29–44, 1931: 7–19; Swaine 1909: 103, 1918a: 50–52; Tredl 1907: 5; Wichmann 1912: 8–9; Zimmerman 1868: 142.

Scolytochelus Reitter 1913a: 23. Type-species: *Ips multistriatus* Marsham, subsequent designation by Wood 1982b: 419. Synonymy: Schedl 1948b: 4, Wood 1982b: 419.

References: (tx) Reitter 1913a: 23; Schedl 1948b: 4; Wood, S. L. 1982b: 419.

Ruguloscolytus Butovitsch 1929: 20. Type-species: *Bostrichus rugulosus* Muller, subsequent designation by Wood 1982b: 419. Synonymy: Wood 1982b: 419.

References: (tx) Butovitsch 1929: 20; Wood, S. L. 1982b: 419.

Archacoscolytus Butovitsch 1929: 21, 23. Type-species: *Scolytus claviger* Blandford. Synonymy: Nomen nudum, no status (originally presented as a species group name, no generic standing).

References: (tx) Butovitsch 1929: 21, 23; Tsai, Yin, & Huang 1962: 3, 13.

Spinuloscolytus Butovitsch 1929: 21, 24. Type-species: *Ips multistriatus* Marsham, subsequent designation by Wood 1986a: 59. Synonymy: Nomen nudum, no status (originally presented as a species group name, no generic standing).

References: (tx) Butovitsch 1929: 21, 24; Wood, S. L. 1986a: 59.

Tubuloscolytus Butovitsch 1929: 21, 33. Type-species: *Eccoptogaster intricatus* Ratzeburg, subsequent designation by Wood 1986a: 59. Synonymy: Nomen nudum, no status (originally presented as a species group name, no generic standing).

References: **(tx)** Butovitsch 1929: 21, 33; Wood, S. L. 1986a: 59.

Pygmaecoscolytus Butovitsch 1929: 21, 28. Type-species: *Bostriachus pygmaeus* Fabricius, subsequent designation by Wood 1986a: 59. Synonymy: *Nomen nudum*, no status (originally presented as a species group name, no generic standing).

References: **(tx)** Butovitsch 1929: 21, 28; Wood, S. L. 1986a: 59.

Pinetoscolytus Butovitsch 1929: 22, 48. Type-species: *Scolytus marawitzi* Semenov, monobasic. Synonymy: *Nomen nudum*, no status (originally presented as a species group name, no generic standing).

References: **(tx)** Butovitsch 1929: 22, 48.

Confusoscolytus Tsai & Huang 1962: 4, 14. Type-species: *Eccoptogaster confusus* Eggers, monobasic. Synonymy: Wood 1983a: 649.

References: **(tx)** Tsai & Huang 1962: 4, 14; Wood, S. L. 1983a: 649.

Keys: Blackman 1934: 6 and Wood 1982b: 420 for North America; Bright 1976d: 25 for Canada; Schedl 1937: 156 for South America; Schedl 1948: 4 and Michalski 1973a: 137 for Europe and Asia; Yin & Huang 1980: 47 and Yin, Huang, & Li 1984: 18 for China.

References: **(ay)** Lekander 1967; Norris & Baker 1968: 955–962; Nusslin 1911, 1912; Rice 1968: 53–56; Schonherr 1970b; Van Ryn-Tournal 1975.

(bv) Vite 1975; Yates, M. C. 1984. **(cn)** Annand 1947: 15; Bromley 1948, 1949: 79–85; Chapman 1957: 3–4; Dietrich 1957: 33–36; Dietrich & Balin 1949: 7–11; Eichhorn & Pschorn-Walcher 1971; Felt 1933: 45–51, 1935: 231–236; Hilton 1970: 12–13; Jacot 1934: 858–859; Karaman 1972: 40–45; Karpick 1956: 160, 162; Kitchunov 1914; Ksenjopolsky 1914; Lanier et al. 1984; Liese 1952: 59–70; Martin 1936: 297–306; Myczkowski 1954: 635–636; Orr 1955: 4, 7; Peace 1954: 155–164, 1960: 38; Perry 1925: 410–413; Plumb 1950a: 110–111, 1950b: 8; Riley 1880: 298; Schlyter & Anderbrant 1987; Svatovitche-Bielikova 1915: 89–106; Theobald 1914; Vite 1975; Whitesides 1957: 31–40; Yoneyama & Phaff 1960. **(ec)** Cushman 1931: 301–304; Eichhorn & Pschorn-Walcher 1971; Johnson, P. C. 1966b; Linquist, E. E. 1970: 980; Lipa 1968: 69–78; Nickle 1967b; Peace 1960: 17; Pettersen 1976b. **(hb)** Wood, S. L. 1986a: 58. **(ds)** Balachowsky 1963a: 1255; Blackwelder 1947: 788; Bright & Stark 1973: 14; Chararas 1960a: 35; Sokanovskii 1966; Wood, S. L. 1982b: 419, 1986a: 58; Yin, Huang, & Li 1984: 18. **(tx)** Anderson, R. F. 1960: 235; Apel 1983; Arnett 1960: 1040, 1968: 1040; Balachowsky 1944: 1–26, 1949a: 52, 1963: 1255, 1969: 647–655; Barbey 1901: 34; Beal & Massey 1945: 57, 66; Bedel 1888b: 286; Beeson 1918: 114–124, 1961: 296; Blackman 1934: 1–30; Blandford 1896a: 120–123; Blatchley & Leng 1916: 587–591; Bright 1976d: 25–40; Bright

& Stark 1973: 14; Butovitsch 1929: 1–72; Chamberlin 1939: 219–236, 1958: 40–51; Chapuis 1869: 53–61, 1873: 261–269; Chararas 1960a: 35; China 1962b: 3–8, 1963b; Choo 1983: 37–42; Decaux 1890: 124; Desbrochers 1892: 10–17; Dodge 1938: 16, 20–21; Eggers 1939: 114–123; Eichhoff 1864: 31, 44, 46, 1881: 148; Fisher 1937: 129; Fourcroy 1785: 139; Geoffroy 1762: 309; Hopkins 1914: 129, 135, 1915c: 219–220; ICZN 1963a: 416; Judeich & Nitsche 1895: 443; Kammerman 1950: 12; Keen 1938; Krivolutskaia 1958: 108–113, 1965; Kurenzov 1941: 75–105; Lacordaire 1866: 386–387; Latreille 1807: 204; LeConte 1876: 370–371; LeConte & Horn 1883: 520; Lekander 1951: 72–78, 1967: 123–129, 1967b; Lindemann 1875; MacLeay 1882: 347; Marsham 1802 (as *Ips*); Michalski 1968b: 184–199, 1969a: 888–898, 1969c: 659–663, 1973a; Muller 1776: 57; Munro 1926: 1–27; Murayama 1954b: 154–155; Niisima 1909: 116; Nunberg 1930: 200–208, 1954; Olivier 1789; Pfeffer 1955: 70–90, 1989a: 44; Reitter 1894: 39, 1913: 13; Roberts 1869: 85–91; Saalas 1914: 70, 74–75; Sawamoto 1943: 143; Schedl 1948b: 1–67, 1950j: 96, 1954a: 137, 1959m: 545–557, 1981b: 39; Scheepeltz & Winkler 1930: 255; Scheyrew 1890; Schimitschek 1937: 43; Schlyter & Anderbrant 1987; Schonherr 1970b; Semenov 1904: 37–38; Sokanovskii 1954: 13, 1966: 380–393; Spessivtsev 1913: 29–44, 1931: 7–19; Stresemann et al. 1989: 353; Swaine 1909: 104, 1918: 50; Thatcher 1940: 89; Trappen 1935: 140; Tsai & Li 1959; Tsai, Yin, & Huang 1962: 3, 13; Tsai et al. 1962; Wood, S. L. 1967c: 119–141, 1982b: 419–450, 1986a: 58; Van Ryn-Tournal 1975; Yin & Huang 1980: 47, 1981: 555; Yin, Huang, & Li 1984: 18.

abaensis Tsai & Yin 1962: 10. Holotype ♂; Miyalo, Abo Tibetan, China; IZAS, Beijing.

Figures: Michalski 1973a: pl. 27. Yin, Huang, & Li 1984: 40 (adult).

Distribution: Asia (Ningxi, Shaanxi, Shanxi, Sichuan in China).

Hosts: *Cotoneaster microphylla* var. *gracilis*.

References: **(ds)** Michalski 1973a: 91; Yin, Huang, & Li 1984: 40. **(tx)** Michalski 1973a: 91–92, pl. 27; Tsai & Yin 1962: 10, 16; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 40.

amazonicus Schedl 1972g: 52. Holotype ♀; Amazonas, Manaus; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil).

References: **(ds)** Browne 1970: 543. **(tx)** Schedl 1972g: 52, 1979c: 18.

amygdali Guerin-Meneville 1847: 47. Holotype ♀; St. Talle, Amandia, France; IRSNB, Brussels. Figures: Balachowsky 1963a: 1261, Michalski 1973a: pl. 28.

Distribution: Africa (Egypt/ Morocco), Asia (Cyprus/ India/ Israel/ Pakistan/ Syria/ Turkey/ E USSR), Europe (Austria/ Bulgaria/ Corsica/

France/ Greece/ Italy/ Sardinia/ Sicily/ Spain/ W USSR/ Yugoslavia).

Hosts: *Amelanchier ovalis*, *Amygdalus communis*, *Mespilus germanica*, *Prunus* spp.

Notes: (3) Eggers 1912a: 49 (described form *mailleri*, no status in nomenclature).

References: (ay) Batra 1956: 63–75; Butovitsch 1929: 50–51. (cn) Acloque 1914; Anonymous 1967m; Balachowsky 1963a: 1261; Berlese 1915; Blair 1920: 15; Chorbadzhievo 1925, 1926, 1927, 1929; Fiori 1950; Garcia-Tejero 1944, 1955: 226; Gentry, J. W. 1965: 90; Grandi 1951; Hill, D. S. 1983: 509; Janjua 1947: 85–92; Janjua & Samel 1941; Jolles 1932: 251–256; Kleine 1932a: 303; Lichtenstein & Picard 1920: 54–55; Martelli 1914: 165–170, 677, 1915: 165; Mathur & Singh 1960a: 43; Morris, H. M. 1930: 47–55, 1937: 22; Picard 1921: 16; Pierce, W. D. 1917: 25; Priego 1915: 1–6; Sarra 1930: 223–227; Schaefer, L. 1964; Schimitschek 1931c: 2125; Talhouk 1976; Wachtl 1901: 381; Wilkinson 1925: 9–10; Zaklama, Awadallah, & Abdallah 1978: 187. (cc) Arambourg 1964: 115; Chararas 1956b, 1957d; Fintzescu 1930; Jammicky 1957b: 26; Kleine 1908c: 77, 1944: 79; Mendel & Gurevitz 1985; Novak 1952: 409; Russo 1926b: 84; Schaefer, L. 1964; Silvestri 1911: 1387; Thompson, W. R. 1943: 105; Thompson, W. R. & Simmonds 1964: 36, 1965: 6; Tudor 1969: 33. (hb) Anonymous 1967m; Balachowsky 1963a: 1261; Balachowsky & Mesnil 1935; Batra 1956: 63–75; Berlese 1915; Bodenheimer 1930; Chittenden 1890; Chorbadzhievo 1929; Dombrowsky 1892; Eichhoff 1881a: 41, 158; Fry 1989: 18; Grandi 1951; Gurevitz 1965; Henschel 1895a: 154; Hill, D. S. 1983: 509; Janjua 1950; Karaman 1967: 185; Kleine 1932a: 303; Lindemann 1887: 197; Mendel 1986c: 115; Roberti 1975; Rupertsberger 1880: 2289; Russo 1926: 75–86, 1931: 327–349, 1932: 87–113, 1939a: 4; Schedl 1981b: 41; Silvestri 1911: 387; Smith, J. B. 1886: 127; Stark 1952: 138; Talhouk 1976; Taschenberg 1901: 107; Tschorbadjiev 1929: 157; Wachtl 1901: 381. (ds) Acloque 1896, 1914; Anonymous 1967m; Balachowsky 1944b, 1963a: 1261; Barthe 1896; Batra 1856: 63–75; Blanchere & Robert 1889; Bodenheimer 1930; Brancsik 1874: 135; Buresh & Lazarov 1956; Butovitsch 1929: 50–51; Calwer 1884, 1893; Chapuis 1869: 61, 1873: 269; Chapuis & Candeze 1853; Chittenden 1890; Chorbadzhievo 1924d, 1929; Eggers 1912f: 29; Endrodi 1958b; Escalera 1919; Fairmaire 1880a, 1880b; Gemminger & Harold 1872: 2694; Gentry, J. W. 1965: 90; Georghiou 1977: 75; Gozins 1875: 80; Guerin-Meneville 1847: 47; Hagedorn 1910d: 83; Henschel 1895a: 154; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Hill, D. S. 1963: 154, 1987: 337; Horion 1935, 1951; Israelson 1968: 154; Kleine 1913a: 307, 313, 1913b: 151, 1914a: 16, 1932a: 303, 1934a: 168; Kobakhidze 1957: 178;

Lacordaire 1866: 387; Langhoffer 1915c: 156; Lindemann 1887: 177; Lucht 1987: 275; Luigioni 1929: 990; Mathur & Singh 1960a: 43; Michalski 1973a: 92; Novak, P. 1952: 409, 1964; Nunberg 1964a: 234; Ortzen 1886: 279; Perris 1876a: 254, 1877a: 414; Pfeffer 1936: 90, 1947d: 129, 1955: 77; Pierce, W. D. 1917: 25; Pittioni 1943: 176; Ragusa 1924: 114; Reitter 1894a: 43, 1916: 272, 349; Sainte-Claire 1914: 468; Sainte-Claire & Mequignon 1938: 442; Schanfuss 1915: 1206; Schedl 1950d: 15, 1958g: 166, 1959l: 100, 1964a: 94–95, 1967c: 68, 1969g: 288, 1971d: 433, 1978e: 36, 1980a: 1, 1981b: 41; Scheyvrew 1890c: 470; Schilsky 1909: 187; Seidlitz 1891a: 557; Smith, J. B. 1886: 127; Sokanovskii 1966: 389; Stark 1952: 138; Stein 1868: 114; Stein & Weise 1877: 164; Strauch 1861: 122; Tredl 1907: 6; Tschorbadjiev 1929: 157; Wichmann 1927a: 51. (tx) Acloque 1896; Anonymous 1967m: 1078; Balachowsky 1944b: 607, 1949a: 55, 1963a: 1261; Bertolini 1872; Brancsik 1874: 135–136; Butovitsch 1929: 50–51; Chapuis 1869: 61, 1873: 269; Chapuis & Candeze 1853; Chorbadzhievo 1924d; Csiki 1906; Desbrochers 1891; Dombrowsky 1892; Eggers 1911: 74, 1912a: 49, 1912f: 29; Eichhoff 1881a: 41, 158–159, 1883a: 105, 130; Endrodi 1957a, 1957b; Fauvel 1887; Guerin-Meneville 1847: 46–47; Hagedorn 1910a: 123; Henschel 1895a: 154; Israelson 1969: 154; Kuhnt 1913: 1048; Lacordaire 1866: 387; Lucht 1987: 275; Luigioni 1929: 990; Michalski 1973a: 92–94, pl. 28; Perris 1877a: 414; Portevin 1935: 311; Reitter 1894a: 43, 1913a: 22, 1916: 272, 349; Rupertsberger 1880: 228; Schedl 1934f: 1632, 1948b: 15, 1950d: 15, 1958g: 166, 1964a: 94–95, 1967c: 68, 74, 1980a: 1, 1981b: 41; Seidlitz 1891: 557; Semenov 1902: 268; Sokanovskii 1930: 803, 1966: 388–389; Stark 1952: 138; Taschenberg 1901: 107. (ms) Balachowsky 1963a: 1261.

amygdali rufipennis Brancsik 1874: 135. Synonyms: sex?, Trieste, Italy; not located. Synonymy: Schedl 1948b: 15.

References: (hb) Dombrowsky 1892. (ds) Reitter 1894a: 43; Sokanovskii 1966: 389; Stein & Weise 1877: 164. (tx) Brancsik 1874: 135; Dombrowsky 1892; Reitter 1894a: 43; Schedl 1934f: 1632, 1948b: 15; Sokanovskii 1966: 389.

anatolicus Eggers 1911a: 74 (*Eccoptogaster*). Lectotype ♂; Burna, Asiae Minoris; USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Schedl 1948b: 15. References: (ds) Kleine 1913b: 151; Sokanovskii 1966: 389. (tx) Anderson, W. H. & Anderson 1971: 4; Balachowsky 1949a: 55; Butovitsch 1929: 6; Eggers 1911a: 74; Endrodi 1957: 420; Reitter 1913a: 22; Schedl 1934f: 1632, 1948b: 15; Sokanovskii 1955: 389.

aegyptiacus Pic 1919: 55. Holotype, sex?, Chizeh, Egypt; Alfieri Collection and Pic Collection (in

- MHNN, Paris?). Synonymy: Pic 1919: 55, Balachowsky 1949a: 55.
References: (ay) Butovitsch 1929: 6, 50. (bv) Maksimovic 1979: 285. (cn) Hammad 1961. (ce) Maksimovic 1979: 285. (hb) Hammad 1961: 151; Maksimovic 1979: 285. (ds) Butovitsch 1929: 6, 50. (tx) Balachowsky 1949a: 55; Butovitsch 1929: 6, 50; Hammad 1961: 151; Pic 1919: 55; Schedl 1934f: 1634, 1948b: 14.
- angustatus** Browne 1970: 575. Holotype, sex?; Brazil: Santarem; BMNH, London.
Figures: Browne 1970: 575.
Distribution: South America (Brazil/ Guyana).
References: (ds) Schedl 1976a: 49. (tx) Browne 1970: 575–576.
- antennatus** Schedl 1935f: 272. Holotype ♀; Brazil, Sao Paulo; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (3) Schedl 1976a: 59 (described male).
References: (ds) Blackwelder 1947: 788; Schedl 1973d: 150. (tx) Schedl 1935f: 272, 1937h: 155–156, 1976a: 59, 1979c: 22.
- aomoriensis** Nobuchi 1973a: 16. Holotype ♀; Japan: Aburakawa, Aomori; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1973a: pl. 1.
Distribution: Asia (Japan).
References: (tx) Nobuchi 1973a: 16.
- aratus** Blandford 1894d: 79. Holotype ♂; Junsai, Japan; BMNH, London.
Figures: Michalski 1973a: 29, Nobuchi 1973a: pl. 1, Tsai & Li 1959: 77, Yin, Huang, & Li 1984: 33.
Distribution: Asia (Heilongjiang in China/ Japan/ Korea/ E USSR).
Hosts: *Ulmus* spp., *Pruinus* spp., *Mahis pumila*, *Machilus japonica*.
References: (ay) Butovitsch 1929: 6, 37. (cn) Anonymous 1950g. (ce) Kurenzov 1934a: 57. (hb) Krivolutskaya 1973: 130; Kurenzov 1935a: 19, 23, 1948b: 119; Stark 1952: 127. (ds) Anonymous 1950g; Blandford 1894c; Butovitsch 1929: 6, 37; Choo 1983: 38; Choo & Woo 1985: 163; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Krivolutskaya 1965: 227, 1973: 130, 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934a: 57, 1935a: 19, 23, 1936b: 350, 1938a: 58; Michalski 1973a: 94; Nobuchi 1973a: 17; Sokanovskii 1966: 381; Stark 1952: 127; Yin, Huang, & Li 1984: 33. (tx) Blandford 1894d: 79; Butovitsch 1929: 6, 37; Choo 1983: 38; Hagedorn 1910a: 123; Krivolutskaya 1958: 109–110, 1965: 227; Kurenzov 1941a: 81–82, 1948b: 119; Michalski 1968b: 189–190, 1973a: 94–96, pl. 29; Murayama 1936: 87–118, 1958: 929; Niisima 1905: 67, 71–73, 1909: 120, 1910a: 6; Nobuchi 1973a: 17, pl. 1; Schedl 1934f: 1633, 1948b: 33; Sokanovskii 1954: 14, 1966: 381, 389; Stark 1952: 127–128; Tsai & Li 1959: 77; Tsai, Yin, & Huang 1962: 4, 8; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 33.
- acquipunctatus* Niisima 1905: 71. Syntypes, sex?; Honshiu: Gifu, Hokkaido: Sapporo and Tomakomai in Prov. Iburi; Nobuchi Collection, Ibaraki. Synonymy: Schedl 1948b: 33.
Notes: (3) Niisima 1909: 121 (reduced to a variety of *aratus*).
References: (ay) Butovitsch 1929: 6, 43. (ds) Butovitsch 1929: 6, 43; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Sokanovskii 1966: 389. (tx) Butovitsch 1929: 6, 43; Niisima 1905: 71, 1909: 121; Schedl 1934f: 1633, 1948b: 33; Sokanovskii 1966: 389.
- intermedius* Kurenzov 1941: 82. Holotype, sex?; Primorye, USSR; Kurenzov Collection, Vladivostok. Synonymy: Michalski 1973a: 94.
References: (tx) Kurenzov 1941: 82; Michalski 1973a: 94.
- brevipennis* Kurenzov 1941a: 100. Lectotype ♀; Initio fluvii Suputinka, Primorye, USSR; IZL, Leningrad, designated by Michalski 1973a: 94. Synonymy: Sokanovskii 1954: 14.
References: (hb) Kurenzov 1948b: 119; Stark 1952: 143. (ds) Sokanovskii 1966: 389; Stark 1952: 143. (tx) Kurenzov 1941a: 100, 1948b: 119; Michalski 1968a: 110, 1973a: 94; Schedl 1948b: 20; Sokanovskii 1954: 14; 1966: 389; Stark 1952: 143.
- atratus** Chapuis 1869: 58. Holotype ♀; Colombie; IRSNB, Brussels.
Distribution: South America (Colombia).
References: (ay) Butovitsch 1929: 6. (cn) Kurenzov 1935c: 189. (ds) Blackwelder 1947: 788; Butovitsch 1929: 6; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 342; Kurenzov 1935c: 189, 1936a: 110; Murayama 1935c: 189, 1954b: 154, 1955: 103. (tx) Butovitsch 1929: 6; Chapuis 1869: 58, 1873: 264; Eggers 1931a: 16; Hagedorn 1910a: 123; Krivolutskaya 1958: 110; Murayama 1950b: 1289, 1954b: 154, 1955: 103; Niisima 1909: 179; Schedl 1937h: 155–156, 160.
- azerbaidzhanicus** Michalski 1964: 662. Holotype ♂; Lenkoran, Azerbaijan, USSR; IZL, Leningrad. Figures: Michalski 1973a: pl. 30.
Distribution: Europe (W USSR).
Hosts: *Carpinus betulus*.
References: (ds) Michalski 1973a: 97. (tx) Michalski 1964: 662, 1968a: 111, 1968b: 192, 1973a: 97–98, pl. 30; Sokanovskii 1966: 389.
- aztecus** Wood 1967c: 120. Holotype ♀; 43 km E Morelia, Michoacan, Mexico; Wood Collection.
Distribution: North America (Michoacan in Mexico).
Hosts: *Abies religiosa*.
References: (hb) Wood, S. L. 1982b: 440. (ds) Wood, S. L. 1982b: 440. (tx) Wood, S. L. 1967c: 120, 1982b: 440.

- barbatus** Schedl 1976a: 59. Holotype ♂; Encruzillada, 980 m. Bahia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 59.
- barinensis** Wood 1971: 18. Holotype ♂; Campamento Cachicamo, 40 km E Canton, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: "Hevecito."
References: (hb) Kirkendall 1984: 235; Wood, S. L. 1971d: 18. (tx) Wood, S. L. 1971: 18.
- belokanicus** Stark 1941: 302. Holotype ♂; Belokany, Azerbaijan, USSR; IZL, Leningrad.
Figures: Michalski 1968a: 112, 1973a: pl. 31.
Distribution: Europe (Azerbaijan in USSR).
Hosts: *Acer* sp.
References: (hb) Stark 1952: 128. (ds) Michalski 1973a: 98; Sokanovskii 1966: 389; Stark 1952: 128. (tx) Lozovoi 1960: 14; Michalski 1968a: 111–112, 1968b: 191, 1969b: 659, 1973a: 98–99, pl. 31; Schedl 1952q: 486; Sokanovskii 1954: 14, 1966: 389; Stark 1941: 302, 1952: 128–129.
- betulae** Niisima 1943: 141. Holotype ♂; Pompira (Hokkaido), Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1973a: pl. 1.
Distribution: Asia (Japan).
Hosts: *Betula platyphylla*.
References: (en) Archer 1866. (ds) Michalski 1973a: 59; Murayama 1954b: 197. (tx) Michalski 1969b: 660, 1973a: 59–60; Murayama 1954b: 197; Niisima 1943: 141; Nobuchi 1973a: pl. 1; Sawamoto 1943: 144.
- bicinctus** Schedl 1972g: 52. Holotype ♀; Brasil, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 52.
- bicolor** Eggers 1931a: 15. Holotype, sex?, Guya. Ven. Mor.; MNB, Berlin.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 788; Horion 1935. (tx) Eggers 1931a: 15–16.
- binodus** Wood 1982a: 230. Holotype ♀; Uxpanapa, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Combretum* sp.
References: (hb) Atkinson & Equihua 1986a: 420. (ds) Atkinson & Equihua 1986a: 420. (tx) Wood, S. L. 1982a: 230.
- bituberculatus** Puzyr 1951: 46. Holotype ♂; Lobau, Nied. "Ost."; Schedl Collection in NHMW, Wien.
Distribution: Europe (Austria).
References: (hb) Schedl 1981b: 44. (ds) Lucht 1987: 275; Schedl 1980a: 1, 1981b: 44. (tx) Lucht 1987: 275; Puzyr 1951: 46; Schedl 1980a: 1, 1981b: 44.
- bolivianus** Schedl 1966f: 97. Holotype ♀; Bolivien; Schedl Collection in NHMW, Wien.
Figures: Yin, Huang, & Li 1984: 25 (adult, galleries).
Distribution: South America (Bolivia).
References: (tx) Schedl 1966f: 97, 1979c: 43.
- butovitschi** Stark 1936: 153. Lectotype ♂; Suchan, Primorye, USSR; IZL, Leningrad, designated by Michalski 1968b: 194.
Figures: Michalski 1968a: 114, 1973a: pl. 1, Yin, Huang, & Li 1984: 25.
Distribution: Asia (Hebei, Shaanxi in China/ Mongolia/ E USSR).
Hosts: *Ulmus propinqua*, *U. japonica*, *U. pumila*.
References: (en) Kurenzov 1935c: 189. (ec) Kurenzov 1934a: 52; Yang 1959. (hb) Kurenzov 1935a: 20, 23; Stark 1952: 135; Yin, Huang, & Li 1984: 25. (ds) Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934a: 52, 1935a: 20, 23, 1935c: 189, 1936b: 350; Michalski 1973a: 24; Sokanovskii 1960: 676; Stark 1952: 135; Yanovskii & Tegshzhargal 1985: 404; Yin, Huang, & Li 1984: 25. (tx) Kurenzov 1941a: 96–97; Lindeman 1961: 98, 100; Michalski 1968a: 113–114, 1968b: 194, 1973a: 24–27, pl. 1; Pfeffer 1944a: 131; Schedl 1948b: 63, 1952k: 258; Sokanovskii 1960: 676, 1966: 385; Stark 1936e: 153, 1951: 229, 1952: 135–136; Tsai, Yin, & Huang 1962: 4, 6–7; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 25. (ms) Pfeffer 1944a: 131.
- butovitschi** Eggers 1942c: 35. Syntypes 2 ♀; Suchan, Primorye, USSR; Eggers Collection, both syntypes in NHMW, Wien. Synonymy: Pfeffer 1944: 131.
References: (hb) Kurenzov 1948b: 120. (ds) Sokanovskii 1966: 381; Stark 1936e: 153. (tx) Eggers 1942c: 35–36; Kurenzov 1948b: 120; Pfeffer 1944: 131; Schedl 1948b: 63, 1952k: 158; Sokanovskii 1960: 676, 1966: 381; Stark 1951: 229.
- carinatus** Chapuis 1869: 55. Syntypes 2 ♂; Carthage [Argentina]; IRSNB, Brussels.
Distribution: South America (Argentina).
References: (ay) Butovitsch 1929: 6. (hb) Eichhoff 1881a: 41, 164. (ds) Blackwelder 1947; Butovitsch 1929: 6; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 342; Schedl 1973d: 161. (tx) Bedel 1857: 191; Butovitsch 1929: 6; Chapuis 1869: 55, 1873: 263; Eichhoff 1881a: 41, 164, 1883a: 105, 130; Fanvel 1889; Hagedorn 1910a: 123; Hoffmann 1939: 37; Schedl 1937h: 155, 161, 1958f: 35–36.
- carpini** (Ratzeburg) 1837: 157 (*Eccoptogaster*). Syntypes, sex?; Germany; ZIFH, Eberswalde.
Figures: Barbier & Menier 1975: 118; Balachowsky 1949a: 78; Michalski 1973: pl. 32.
Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/

Netherlands/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Carpinus* spp., *Fagus* spp., *Ostrya carpinifolia*.

References: (ay) Escherich 1923b: 477, 515; Scholz 1905: 144. (bv) Barbier & Menier 1975; Barr, B. A. 1969: 643; Chararas 1980b: 562; Grune 1979: 35; Meixner 1937: 1214; Michalski 1959c: 167; Prell 1930c: 629, 1931: 368. (cn) Acatay 1943a: 57–58; Barbey 1925: 637; Chorbadzhievo 1929; Escherich 1923b: 477, 515; Gabler 1955; Georgescu et al. 1957: 357, 406; Hess & Beck 1914: 242, 1927: 297; Judeich & Nitsche 1895: 444; Kleine 1932a: 303; Nusslin 1913: 232; Packard 1890: 860; Pierce, W. D. 1917: 137; Pomerantzev 1903: 118, 1938: 19; Rhumbler 1927: 285; Schimitschek 1955a: 156, 1955c: 73; Schwerdtfeger 1944a: 174, 1957a: 182; Wachtl 1901: 350; Wichmann 1927b: 358. (ec) Apel 1983; Barbier & Menier 1975; Boucek 1957b: 80; Chararas 1957d; Ehnstrom 1983; Fleischer 1911; Graham 1969: 875; Jammicky 1957b: 20, 1957c; Kleine 1908c: 177, 1909a: 42, 1944: 72–73; Meyer 1934: 612; Nosek 1959a: 118, 1959b: 87; Nusslin 1927: 285; Pfeffer 1923a: 329, 1928b: 7, 1931b: 73, 1943b: 180; Schimitschek 1936a: 560, 1955a: 156; Schwerdtfeger 1944a: 174, 1957a: 182; Thompson, W. R. 1943: 105. (hb) Acatay 1943a: 57; Altum 1881c: 250; Apel 1983; Barbey 1925: 637; Barbier & Menier 1975; Bukowsky 1930; Butovitsch 1929: 6, 36; C. 1928; Ceconni 1924; Chittenden 1890; Chorbadzhievo 1929; Decaux 1890f, 1892: 241, 1893: 42; Dombrowsky 1887, 1892; Eckstein 1897; Ehnstrom 1983; Eichhoff 1881a: 41, 153; Escherich 1923b: 477, 515; Gabler 1953; Gyorf 1957; Hagedorn 1903a; Henschel 1876a: 206, 242, 1895a: 155; Hess & Beck 1914: 242, 1927: 297; Judeich & Nitsche 1895: 444; Karpinski 1933b: 23; Karpinski & Strawinski 1945: 153; Kleine 1932a: 303; Knotek 1894a: 553, 1897: 142, 1898b: 320; Lengerken 1939: 50; Lunardoni & Leonardi 1889: 451; Marcu 1941: 401; Michalski 1959c: 167; Michel 1935: 41–43; Nordlinger 1856: 45; Nosek 1959a: 118, 1959b: 87; Nusslin 1898: 276, 1913: 232, 1927: 285; Packard 1890: 860; Palm 1955b: 145; Pomerantzev 1903: 118–124; Portevin 1935: 310; Postner 1974: 386; Prell 1930c: 629, 1931: 368; Ratzeburg 1837: 186, 1839: 230; Rhumbler 1927: 285; Rupertsberger 1880: 228; Schedl 1981b: 42; Schimitschek 1955a: 156; Schwerdtfeger 1944a: 174, 1957a: 182, 1981: 188; Simmel 1928: 154–155, 159; Smith, J. B. 1886: 127; Spessivtsev 1913a: 44; Stark 1952: 133; Taschenberg 1880: 243; Tschorbadjiev 1929: 155; Wachtl 1901: 350; Wichmann 1910b: 209, 1927b: 358. (ds) Aeloque 1896; Arnoldi et al. 1955: 650; Audras & Schaefer 1957; Balachowsky 1943a, 1944b, 1949a: 167; Barthe 1896; Ban 1888; Bedel 1888b: 388, 405–406; Borchert 1951; Brakman 1966b: 203; Bucking

1932; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1929: 6, 36; Calwer 1884, 1893; Chapuis 1869: 60, 1873: 268; Chapuis & Candez 1853; Chittenden 1890; Chorbadzhievo 1924d, 1929; Eder 1934; Eggers 1904; Endrodi 1958a, 1958b; Escalera 1919; Escherich 1923b: 477, 515, 1932b; Fauvel 1885; Fedorov 1930; Fowler 1891; Gaubil 1849: 127; Gemming & Harold 1872: 2695; Gerhardt 1902; Gozis 1875: 80; Grune 1979: 35; Hagedorn 1903a, 1910d: 83; Hellen 1947; Henschel 1895a: 155; Heyden 1876: 296; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Horion 1951; Jazentkovsky 1912: 286; Judeich & Nitsche 1895: 444; Kaltenback 1874: 639; Karpinski 1925: 215, 1931: 18, 21, 38, 1933b: 23, 1948b: 228; Karpinski & Strawinski 1945: 153; Klefbeck & Sjoberg 1960; Kleine 1912a: 267, 1913a: 34, 1913b: 151, 1932a: 303, 1934a: 168; Knotek 1892a: 35, 1894a: 553, 1898b: 320; Koltze 1901: 152; Kraatz 1869: 59; Kurir 1947c: 22; Lacordaire 1866: 387; Langhoffer 1915c: 156; Leclercq 1971; Lomnicki 1886a: 241, 1913b: 147; Lucht 1987: 275; Luigioni 1929: 990; Lunardoni & Leonardi 1889: 451; Michel 1935: 41; Michalski 1973a: 100; Negru 1966b: 398, 1968a: 454; Numberg 1928b: 87, 93, 1954: 92; Nusslin 1898: 276; Palm 1955b: 144–145, 1959: 19, 26, 346; Perris 1876a: 254, 1877a: 414; Pfeffer 1928b: 7, 1931b: 73, 1989a: 51; Pierce, W. D. 1917: 137; Pittioni 1943: 174; Postner 1974: 386; Rapp 1934: 717; Ratzeburg 1837: 186, 1839: 230; Redtenbacher 1855: 838, 1874: 373; Reitter 1869b: 154, 1894a: 42, 1916: 271; Revy & Siroki 1942: 82; Roubal 1941: 255; Ruskov 1928c: 61; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1204; Schaum 1859: 95, 1862: 101; Schedl 1961b: 185, 1966f: 81, 1980a: 1, 1981b: 42; Scheyvrew 1890c: 469; Schilsky 1891: 157, 1909: 187; Schmans 1960: 32; Schwerdtfeger 1981: 188; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Simmel 1925: 154–171; Smith, J. B. 1886: 127; Sokanovskii 1966: 390; Stark 1926b: 101, 1927b: 86, 1952: 133; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 436; Sturm 1843: 229; Tredl 1907: 6, 1915a: 153; Tschorbadjiev 1929: 155; Westhoff 1882: 238; Wichmann 1910b: 209, 1927a: 50. (tx) Aeloque 1896; Apel 1983; Bach 1854; Balachowsky 1943a: 167, 1944b: 22, 1949a: 69, 81; Barbier & Menier 1975: 118; Bedel 1888b: 388, 405–406; Butovitsch 1929: 6, 36; Chapuis 1869: 60, 1873: 268; Chapuis & Candez 1853; Chorbadzhievo 1924d; Csiki 1906; Desbrochers 1891; Dombrowsky 1887, 1892; Eggers 1908: 215, 1911a: 75, 1912a: 47, 1913a: 286, 1914: 108, 1923b: 133; Eichhoff 1881a: 41, 153, 1883a: 105, 129; Endrodi 1957b: 420; Escherich 1923b: 477, 515; Escherich & Escherich 1897; Fauvel 1885, 1889; Ferrant 1911; Formanek 1907: 10; Gabler 1955; Grune 1979: 34–35; Hagedorn 1910a: 123; Henschel 1876a: 206, 242, 1895a: 155; Judeich & Nitsche 1895: 444; Kalina 1969;

- Karpinski & Strawinski 1948: 153; Knotek 1892a: 35; Kuhn 1913: 1048; Lacordaire 1866: 357; Letzner 1891: 374; Lemis 1886: 183; Lucht 1957: 275; Luigioni 1929: 990; Lmardoni & Leonardi 1889: 451; Meixner 1937: 1217; Michalski 1959c: 169, 1967: 315, 1973a: 100–101, 1973a:pl. 32; Negrn 1966b: 398; Nordlinger 1848: 255, 1856: 45; Nunberg 1954: 92; Perris 1877a: 414; Pfeffer 1932b: 10, 1955a: 89–90; Postner 1974: 356; Quaschik 1953: 35; Ratzeburg 1837: 186, 1839: 230; Redtenbacher 1849: 792, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 42, 1913a: 20, 1916: 271; Rhumbler 1927: 285; Rupertsberger 1880: 228; Schedl 1934f: 1633, 1948b: 30, 1952f: 86, 1980a: 1, 1981b: 42; Schimitschek 1937: 43, 1955c: 73; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Sokanovskii 1954: 15, 1966: 389–390; Spesivtsev 1913a: 44, 1931: 19; Stark 1941: 299–302, 1952: 133–134; Stierlin 1898: 436; Stresemann et al. 1989: 353; Taschenberg 1880: 243. (ms) Esch-erich 1932b.
- peregrinus* Eggers 1908c: 214 (*Eccoctogaster*).
Holotype ♂; not given, Eggers (1912a: 47) gave Sos, Gallia meridionalis; USNM, Wash-ington. Synonymy: Schedl 1948b: 31.
References: (ay) Butovitsch 1929: 37. (ds) Arnoldi et al. 1955: 657; Butovitsch 1929: 37; Hagedorn 1910d: 85–86; Kleine 1913b: 152. (tx) Anderson, W. H. & Anderson 1971: 24; Balachowsky 1949a: 81; Butovitsch 1929: 37; Eggers 1908c: 214–215, 1912a: 47; Endrodi 1957: 420; Hagedorn 1910a: 123; Reitter 1913a: 22; Schedl 1934f: 1633, 1948b: 31, 1979c: 189.
- balcanicus* Eggers 1911a: 75. Syntypes ♂♀; Bjelasnica-planina in Bosnia (Michalski 1973a: 100 gives Kievo prope Sarajevo, Yugoslavia); repository? Synonymy: Balachowsky 1949a: 81. References: (ay) Butovitsch 1929: 6, 37. (hb) Simmel 1928: 161. (ds) Butovitsch 1929: 6, 37; Horion 1935; Kleine 1913a: 307, 1913b: 151, 1934a: 165; Reitter 1916: 349; Schaufuss 1915: 1206; Sokanovskii 1966: 390. (tx) Balachowsky 1949a: 81; Butovitsch 1929: 6, 37; Eggers 1911a: 75, 1913a: 286, 1923b: 133; Michalski 1973a: 100; Reitter 1916: 349; Schedl 1934f: 1633, 1948b: 81, 1979c: 32; Simmel 1928: 156, 161; Sokanovskii 1954: 15, 1966: 390.
- caudatus* Eggers 1931b: 35. Lectotype ♂; Rio de Janeiro, Brazil; USNM, Washington, designated by Anderson & Anderson 1971: 9.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1931b: 35–37; Schedl 1979c: 55.
- pseudocaudatus* Eggers 1931: 37. Holotype, sex?; Sao Paulo; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1963h: 257.
References: (ds) Blackwelder 1947: 788; Eggers 1931: 37; Schedl 1963h: 257.
- chelogaster* Schedl 1958g: 168. Syntypes 2♂, 2♀; Asam, Naga Hills, 3000 ft.; 4 syntypes in Schedl Collection in NHMW, Wien.
Distribution: Asia (Assam in India).
Hosts: *Ulmus lancifolia*.
Notes: (1) Schedl 1979c: 56 (citation of holotype invalid). (3) A series is in the FRI, Dehra Dun, but none of the specimens sent to Schedl were ever returned, all 4 syntypes are in the NHMW, Wien.
References: (cn) Mathur & Singh 1961b: 63. (ds) Beeson 1961: 296; Mathur & Singh 1961: 63. (tx) Schedl 1958g: 168–169, 1979c: 56.
- chikisanii* Niisima 1905: 69. Syntypes, sex?; Sapporo and Mt. Moiva, Hokkaido, Japan; Nobuchi Collection, Ibaraki.
Figures: Michalski 1973a:pl. 16, Nobuchi 1973a:pl. 1, Sokanovskii 1966: 374.
Distribution: Asia (Shanxi in China/ Japan/ Korea/ E USSR).
Hosts: *Ulmus carpinifolia*, *U. laciniata*, *U. campestris*, *U. japonica*.
References: (ay) Butovitsch 1929: 47. (ce) Inouye et al. 1955: 88; Kurenzov 1934a: 52. (hb) Inouye et al. 1955: 88; Kurenzov 1935a: 23, 1948b: 119; Stark 1952: 114. (ds) Butovitsch 1929: 47; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Krivolutskaia 1983; Kurenzov 1934a: 52, 1935a: 23, 1936a: 111, 1936b: 350, 1938a: 58; Michalski 1973a: 60; Murayama 1954b: 197; Nobuchi 1973a: 17; Sokanovskii 1966: 381; Stark 1952: 114. (tx) Butovitsch 1929: 47; Hagedorn 1910a: 123; Krivolutskaia 1955: 110, 1965: 225–226; Kurenzov 1941a: 85–87, 1948b: 119; Michalski 1969c: 660, 1973a: 60–62, pl. 16; Murayama 1954b: 197; Niisima 1905: 69, 1909: 118; Nobuchi 1973a: 17, pl. 1; Schedl 1934f: 1633, 1941a: 42–43; 1948b: 42; Sokanovskii 1954: 14, 1966: 381–384; Stark 1952: 114.
- curviventralis* Niisima 1905: 70. Syntypes, sex?; Hokkaido: Mt. Moiva, near Sapporo; Nobuchi Collection, Ibaraki. Synonymy: Sokanovskii 1954: 14.
References: (ay) Butovitsch 1929: 6, 47. (cn) Kurenzov 1935c: 189. (hb) Kurenzov 1935a: 19, 24, 1948b: 120; Stark 1956: 126. (ds) Butovitsch 1929: 6, 47; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Kurenzov 1935a: 19, 24, 1935c: 189, 1936b: 350; Murayama 1936a: 122, 1940a: 230, 1942a: 53, 1954b: 154; Stark 1952: 126. (tx) Butovitsch 1929: 6, 47; Hagedorn 1910a: 123; Kurenzov 1941a: 86, 1948b: 120; Murayama 1936a: 122, 1940a: 230, 1954b: 154; Niisima 1905: 70, 1909: 119; Nobuchi 1973a:pl. 1; Schedl 1934f: 1633, 1948b: 41; Sokanovskii 1954: 14, 1956: 383, 1966: 386; Stark 1952: 126–127.
- mandschuricus* Schedl 1941a: 42. Syntypes, sex?; Weishache, Manchuria; Frey Collection in NHMBS, Basel, IPKE, Eberswalde, Schedl

Collection in NHMW, Wien. Synonymy: Sokanovskii 1954: 14.

References: (tx) Schedl 1941a: 42, 1948b: 40, 1979c: 148; Sokanovskii 1954: 14.

claviger Blandford 1894d: 80. Holotype ♂; Kiga, Japan; BMNH, London.

Figures: Michalski 1973a: pl. 2, Nobuchi 1973a: pl. 1, Sokanovskii 1966: 382.

Distribution: Asia (Japan/ Korea/ E USSR).

Hosts: *Carpinus cordata*, *C. japonica*, *C. laxiflora*.

References: (ay) Butovitsch 1929: 23–24. (bv) Barr, B. A. 1969: 643. (cn) Kurenzov 1935c: 187; Shiraki 1952. (ec) Kurenzov 1934a: 57. (hb) Kurenzov 1935a: 19, 22, 1948b: 114; Stark 1952: 95. (ds) Blandford 1894c; Butovitsch 1929: 23–24; Cho 1957; Choo 1983: 38; Choo & Woo 1985: 163; Choo, Woo, & Park 1983: 176; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Ko 1969: 283; Kurenzov 1934a: 57, 1935a: 19, 22, 1935c: 187, 1936b: 350, 1965; Michalski 1973a: 27; Murayama 1929b: 2, 1930b: 5, 1936b: 118, 1937b: 374, 1954b: 154; Nobuchi 1973a: 18; Shiraki 1952; Sokanovskii 1966: 388; Stark 1952: 95. (tx) Blandford 1894d: 80; Butovitsch 1929: 23–24; Choo 1983: 38; Claus 1958; Eggers 1914: 185; Hagedorn 1910a: 123; Kurenzov 1941a: 77–78, 1948b: 114; Michalski 1973a: 27–28, pl. 2; Murayama 1930b: 5–6, 1934c: 298, 1937b: 374, 1954b: 154; Niisima 1909: 122; Nobuchi 1973a: 18, pl. 1; Schedl 1934f: 1632, 1948b: 58; Sokanovskii 1954: 13, 1966: 382, 388; Stark 1952: 95–96, 146–147; Tsai, Yin, & Huang 1962: 4.

platystylus Wichmann 1915b: 213. Holotype ♂; Eastern Siberia (Amur), USSR; Wichmann Collection, not located. Synonymy: Schedl 1948b: 58.

References: (ay) Butovitsch 1929. (hb) Arnoldi et al. 1955: 657; Stark 1952: 146. (ds) Butovitsch 1929: 9; Sokanovskii 1966: 388; Stark 1952: 146. (tx) Butovitsch 1929: 9; Kurenzov 1941a: 93–95; Murayama 1930: 38; Schedl 1948b: 58; Sokanovskii 1954: 13, 1966: 388; Stark 1952: 146; Wichmann 1915b: 213–214.

conidens Brown 1970: 574. Holotype ♀; Brazil: Bahia; BMNH, London.

Distribution: South America (Brazil).

References: (tx) Brown 1970: 574–575.

convexus Schedl 1972g: 53. Holotype, sex?; Brasilia, Bocaina (Pa.), 20.0.8, 49.04, 1000 m; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 53, 1979c: 65.

costellatus Chapuis 1869: 58. Holotype ♀; Bresil, Nova-Fribourg; IRSNB, Brussels.

Distribution: North America (Costa Rica), South America (Brazil/Venezuela).

Hosts: Liana.

References: (ay) Butovitsch 1929: 6. (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Black-

welder 1947: 788; Blandford 1896e: 121–123; Butovitsch 1929: 6; Costa Lima 1956; Ferrer 1942; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 336, 353; Wood, S. L. 1982b: 444. (tx) Blandford 1896e: 121–123; Butovitsch 1929: 6; Chapuis 1869: 58, 1873: 266; Costa Lima 1956; Hagedorn 1910a: 123; Schedl 1937h: 155–156, 1940a: 329; Wood, S. L. 1982b: 444.

cristatus Wood 1969b: 12. Holotype ♂; Lower Rio Tempisque, Guanacaste, Costa Rica; Wood Collection.

Figures: Wood 1969b: 13.

Distribution: North America (Costa Rica/ Colima, Jalisco in Mexico), South America (Venezuela).

Hosts: Liana.

References: (ec) Equihua & Atkinson 1986: 627. (hb) Atkinson et al. 1986: 54; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 445. (ds) Atkinson & Equihua 1988: 100; Atkinson et al. 1986: 54; Equihua & Atkinson 1986: 627; Estrada & Atkinson 1988: 204; Wood, S. L. 1982b: 445. (tx) Wood, S. L. 1969b: 12–13, 1982b: 445.

dahuricus Chapuis 1869: 60. Holotype ♂; Siberie, Daourie [USSR]; IRSNB, Brussels.

Figures: Michalski 1973a: pl. 34, Nobuchi 1973: pl. 1, Tsai & Li 1959: 78.

Distribution: Asia (Heilongjiang in China/ Japan/ Sakhalin Island/ E USSR).

Hosts: *Betula* spp.

References: (ay) Butovitsch 1929: 7, 37; Takenouchi 1974. (cn) Kurenzov 1935c: 189. (hb) Budkov 1897; Krivolutskaya 1973: 130; Kurenzov 1935a: 21, 1948b: 117; Stark 1952: 133; Yin, Huang, & Li 1984: 31. (ds) Budkov 1897; Butovitsch 1929: 7, 37; Dejean 1937; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Heyden 1881: 177, 1893: 177, 1898: 76; Kleine 1913b: 151, 1914b: 250; Krivolutskaya 1973: 130, 1983; Kurenzov 1935a: 21, 1935c: 189, 1938a: 61; Michalski 1973a: 104; Murayama 1954b: 154; Nobuchi 1973a: 18; Reitter 1894a: 42; Scheyrew 1890c: 471; Sokanovskii 1966: 381; Stark 1952: 133; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 31. (tx) Blandford 1894d: 78–79; Butovitsch 1929: 7, 37; Chapuis 1869: 60, 1873: 268; Eggers 1922d: 116, 1933d: 75; Hagedorn 1910a: 123; Heyden 1893: 177; Krivolutskaya 1958: 109–110; Kurenzov 1935: 21–22, 1941a: 79–81, 1948b: 117; Michalski 1968b: 194, 1969c: 659, 1973a: 104–107, pl. 34; Murayama 1954b: 154; Niisima 1943: 140–142; Nobuchi 1973a: 19, pl. 1; Reitter 1894a: 42, 1913a: 21; Sawamoto 1943: 144; Schedl 1934f: 1633, 1948b: 34; Semenov 1902: 267; Sokanovskii 1930: 803, 1954: 15, 1966: 381; Stark 1938: 129, 1941: 301, 1952: 133–135; Tsai & Li 1959: 78; Tsai, Yin, & Huang 1962: 3–4, 8; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 31.

agnatus Blandford 1894d: 78. Holotype ♀; Junsai,

Japan; BMNH, London. Synonymy: Niisima 1943: 142.

References: (ay) Butovitsch 1929: 6, 47. (ds) Butovitsch 1929: 6, 47; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 259, 1934a: 168. (tx) Blandford 1894d: 78; Butovitsch 1929: 6, 47; Hagedorn 1910a: 123; Niisima 1905: 67, 1909: 119, 1910a: 2, 1943: 142; Schedl 1934f: 1633, 1947c: 63, 1948b: 28.

possyeti Stark 1938: 129. Lectotype ♀; Posieti, southern Primorye, USSR; IZL, Leningrad, designated by Michalski 1973a: 104. Synonymy: Schedl 1948b: 34.

References: (hb) Kurenzov 1948b: 117; Stark 1952: 134. (ds) Kurenzov 1965; Sokanovskii 1966: 389; Stark 1952: 134. (tx) Kurenzov 1948b: 117; Michalski 1968a: 113, 1973a: 104; Schedl 1948b: 34; Sokanovskii 1954: 15, 1966: 389; Stark 1938: 129, 1952: 134.

dentatus Bright 1964: 167. Holotype ♂; Cone Peak, Monterey Co., California [USA]; CAS, San Francisco.

Figures: Bright 1964: 165, Edson 1967: 49 (adult), 57 (galleries).

Distribution: North America (California in USA).

Hosts: *Abies bracteata*.

References: (ay) Thomas, J. B. 1967. (ec) Furniss, R. L. & Carolin 1977: 403; Kinn 1971. (hb) Bright & Stark 1973: 14; Edson 1967: 22; Furniss, R. L. & Carolin 1977: 403; Wood, S. L. 1982b: 443. (ds) Bright & Stark 1973: 14; Edson 1967: 22; Furniss, R. L. & Carolin 1977: 403; Wood, S. L. 1982b: 443. (tx) Bright 1964: 167–168; Edson 1967: 22, 49; Thomas, J. B. 1967; Wood, S. L. 1982b: 443.

dimidiatus Chapuis 1869: 57. Syntypes ♂ ♀; Toxpan [Veracruz, Mexico], and Cuba; IRSNB, Brussels.

Figures: Blandford 1896e: pl. 5.

Distribution: Antilles Islands (Cuba), North America (Costa Rica/ Guatemala/ Veracruz in Mexico), South America (Venezuela).

Hosts: *Lonchocarpus margaritensis*, *L. sp.*

References: (ay) Butovitsch 1929: 7. (cn) Downes & Williams 1950: 39; Ishikura 1966. (hb) Kirkendall 1984: 235; Wood, S. L. 1982b: 447. (ds) Blackwelder 1947: 788; Blandford 1896e: 121–122; Bright 1972d: 27, 1985c: 171; Butovitsch 1929: 7; Ferrer 1942; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Ishikura 1966; Kleine 1913b: 151, 1914b: 353, 365, 378; Murayama 1957a: 36; Schedl 1963c: 156, 1977e: 41; Wood, S. L. 1982b: 447. (tx) Blandford 1896e: 121–122; Bright 1972d: 27, 1985c: 171; Browne 1970: 574; Butovitsch 1929: 7; Chapuis 1869: 57, 1873: 265; Hagedorn 1910a: 123; Schedl 1935f: 272, 1940a: 329; Wood, S. L. 1956c: 258, 1982b: 447.

ecksteini Butovitsch 1929: 26. Holotype ♂; Massota, Caucasus, USSR; Butovitsch Collection, Stockholm.

Figures: Michalski 1973a: pl. 3.

Distribution: Europe (W USSR), Asia (Iran).

Hosts: *Ulmus carpinifolia*.

References: (ay) Butovitsch 1929: 26. (cn) Goidanich & Goidanich 1934, (hb) Stark 1952: 96. (ds) Butovitsch 1929: 26; Kleine 1934a: 168; Michalski 1973a: 28; Sokanovskii 1966: 387; Stark 1952: 96. (tx) Butovitsch 1929: 26; Michalski 1973a: 28–30, pl. 3; Murayama 1930: 9–10; Schedl 1934f: 1632, 1948b: 63; Sokanovskii 1958: 37, 1966: 385–387; Stark 1952: 96–97.

eichhoffi Reitter 1894a: 40. Holotype ♂; Lenkoran, Azerbaijan, USSR; NHMB, Budapest.

Figures: Michalski 1973a: pl. 17, Sokanovskii 1966: 384.

Distribution: Europe (Bulgaria/ Azerbaijan in USSR), Asia (Iran).

References: (ay) Butovitsch 1929: 7, 42. (cn) Chorbadzhievo 1929. (hb) Adeli 1972: 14; Chorbadzhievo 1929; Stark 1952: 111; Tschorbadjiev 1929: 154. (ds) Adeli 1972: 14; Buresh & Lazarov 1956; Butovitsch 1929: 7, 42; Chorbadzhievo 1924d, 1929; Hagedorn 1910d: 54; Heyden, Reitter, & Weise 1906: 708; Kleine 1913b: 151, 1934a: 168; Michalski 1973a: 63; Reitter 1894a: 40; Schaufuss 1915: 1206; Sokanovskii 1966: 383; Stark 1952: 111; Tschorbadjiev 1929: 154. (tx) Balachowsky 1949a: 73; Butovitsch 1929: 7, 42; Chorbadzhievo 1924d; Eggers 1908b: 144, 1941c: 123; Hagedorn 1910a: 123; Michalski 1973a: 63–64, pl. 17; Reitter 1894a: 40, 1913a: 15–16; Schedl 1934f: 1633, 1948b: 43, 1964k: 221; Sokanovskii 1966: 383–384; Stark 1952: 111.

iranicus Eggers 1941c: 123. Holotype ♀; Iran (Astrabad); Eggers Collection (not listed by either Anderson & Anderson 1971 or Schedl 1979c). Synonymy: Michalski 1973a: 63.

References: (tx) Eggers 1941c: 123; Michalski 1973a: 63; Schedl 1948b: 48.

ellipticus Murayama 1958: 929. Holotype, sex?; Onino-oshidashi, Naganohara, Gumma pref., Japan; Murayama Collection in USNM, Washington.

Figures: Nobuchi 1973a: pl. 1.

Distribution: Asia (Japan).

Hosts: *Sorbus commixta*.

References: (ds) Nobuchi 1973a: 20. (tx) Murayama 1958: 929; Nobuchi 1973a: 20, pl. 1.

elongatus Schedl 1972g: 54. Holotype ♀; Brasilien, S. Caraca, S. Barbara, M. Gerais, 1450 m; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 54, 1979c: 90.

ensifer Eichhoff 1880: 163. Syntypes ♂; Paris, France; Hamburg Museum, lost.

Figures: Balachowsky 1949a: 58 (adult), Michalski 1973a: pl. 4.

Distribution: Asia (E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Greece/ Hungary/ Italy/ Poland/ Romania/ Sicily/ W USSR/ Yugoslavia).

Hosts: *Ulmus* spp., *Prunus* spp., *Zelkova carpinifolia*.

Notes: (3) Michalski 1973a: 33 (named form *talyphensis*, no status).

References: (ay) Butovitsch 1929: 30–31; Escherich 1923b: 477. (bv) Grune 1979: 33; Maksimovic 1979a: 285; Meixner 1937: 1214; Michalski 1959c: 167; Prell 1930c: 631. (cn) Brasier 1983: 100; Escherich 1923b: 477; Goidanich & Goidanich 1934; Kholodkovskii 1912: 291; Marcu 1926c: 59; Mokrzecki 1926b: 4; Pfeffer 1979: 148; Rhumbler 1927: 285; Schwerdtfeger 1944a: 172, 1957a: 181; Tubenfl 1936: 506; Vajda 1952: 114, 121; Wichmann 1927b: 353, 359. (ce) Balazy 1965a; Balazy & Michalski 1962c; Brasier 1983: 100; Escherich 1935; Graham 1969: 876; Kleine 1908c: 177; Kostenko 1929; Lipa 1968; Lipa & Chmielewski 1977; Maksimovic 1979c: 285; Nosek 1959a: 118, 1959b: 87; Pfeffer 1928b: 2, 1931b: 73, 1943b: 180, 1979: 148; Rafes 1962; Schwerdtfeger 1944a: 172, 1957a: 181; Szczepanski 1961: 5; Wisniewski 1984. (hb) Decaux 1890d: 124–125, 1890e, 1890f; Dombrowsky 1887; Eggers 1906; Eichhoff 1881a: 41, 163; Escherich 1923b: 477; Gyorf 1957; Kholodkovskii 1912: 291; Lengerken 1939: 49, 1954: 65; Lindemann 1964: 78–83; Maksimovic 1979a: 285; Maslov 1963a: 80–100, 1963c: 848; Michalski 1959c: 167, 1962a, 1962d: 273–276; Nosek 1959a: 118, 1959b: 87; Pfeffer 1942a: 11; Prell 1930c: 631; Postner 1974: 385; Rafes 1962; Rhumbler 1927: 285; Rimski-Korsakov et al. 1949: 267; Schedl 1981b: 44; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Spessivtsev 1913a: 29; Stark 1952: 108; Wichmann 1927b: 353, 359. (ds) Aeloque 1896; Balachowsky 1943a, 1944b; Barthe 1896; Bayer 1936a; Bedel 1888b: 388, 406; Butovitsch 1929: 30–31; Csiki 1914; Eggers 1906; Endrodi 1955b; Escherich 1923b: 477, 1932b; Grune 1979: 33; Hagedorn 1910d: 84; Heyden, Reitter, & Weise 1891: 670, 1906: 708; Jacentkovsky 1912: 286, 1935: 19; Kalandra & Pfeffer 1935; Kleine 1913a: 89, 1913b: 151, 1934a: 168; Kostenko 1929; Langhoffer 1915c: 156; Lucht 1987: 275; Luigioni 1929: 990; Marcu 1926c: 59; Michalski 1957a: 73, 1957b: 461, 1960: 233, 1967: 310–311, 1968b: 196, 1973a: 30; Numberg 1954: 88, 1960a: 160; Orest 1926c: 59; Pascovici 1962; Pfeffer 1928b: 2, 1930b: 119, 1931b: 73, 1959a: 46; Postner 1974: 385; Reitter 1894a: 44, 1913a: 23, 1916: 272; Rimski-Korsakov et al. 1949: 267; Ronbal 1941: 255; Sainte-Claire & Mequignon 1938: 443; Schanfuss 1915: 1206; Schedl 1967c: 68, 1980a: 1, 1981b: 44; Schwerdtfeger 1951: 187; Semenov 1909: 38; Sokanovskii 1966: 388; Spessivtsev 1913a: 29; Stark 1927b: 86, 1952: 108; Tredl 1907: 7; Wichmann 1927a: 51; Zvierzomb & Zubovsky 1918. (tx) Aeloque 1896; Balachowsky 1943a, 1944b: 8–9, 1949a: 60, 1963a: 1241; Bedel 1888b: 388, 406; Butovitsch 1929: 30–31; Dombrowsky 1887; Eggers 1910f: 557–

558, 1911a: 122, 1913a: 286, 1914: 184–185; Eichhoff 1881a: 41, 163, 1883a: 105, 130; Endrodi 1957a, 1957b; Escherich 1923b: 477; Faivel 1883: 106, 1889; Grune 1979: 33; Hagedorn 1910a: 123; Hoffmann 1939: 36–37; Jacentkovsky 1935: 19; Lucht 1987: 275; Luigioni 1929: 990; Meixner 1937: 1214; Michalski 1957b: 461, 1959c: 169, 1962b: 199, 1973a: 30–33, pl. 4; Numberg 1954: 88, 1960: 160; Pfeffer 1932b: 10, 1942a: 11, 1955a: 76, 1965: 61, 1989a: pl. 5; Portevin 1935: 311; Postner 1974: 385; Quaschik 1953: 35; Reitter 1894a: 44, 1913a: 23, 1916: 272; Rey 1892: 30; Rhumbler 1927: 285; Schedl 1934f: 1633, 1948b: 60, 1957: 168, 1967: 68, 1980a: 1, 1981b: 44; Scheyrew 1893a: 116–118, 1893b: 74–77; Semenov 1904: 38; Sokanovskii 1966: 382, 384, 388; Spessivtsev 1913: 29–30, 1921: 8; Stark 1952: 108. (ms) Escherich 1932b; Rohrl 1914b: 157; Schimitschek 1930b: 407.

esuriens Blandford 1894c: 77. Syntypes ♂; Japan: Jumsai, Miyanosita, and Chiuzenji; IRSNB, Brussels.

Figures: Michalski 1973a: pl. 18, Nobuchi 1973a: pl. 2, Tsai & Li 1959: 75, Yin, Huang, & Li 1984: 28.

Distribution: Asia (Heilongjiang, Jilin in China/Japan/Sakhalin Island in E USSR).

Hosts: *Ulmus* spp., *Fraxinus mandshurica*.

References: (ay) Butovitsch 1929: 7, 47. (ce) Inouye et al. 1955: 90; Yasumatsu & Watanabe 1965: 70. (hb) Inouye et al. 1955: 90; Stark 1952: 112; Stebbing 1909b: 21; Yin, Huang, & Li 1984: 28. (ds) Blandford 1894c: 77; Butovitsch 1929: 7, 47; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Krivolutskaia 1983; Kurenzov 1936b: 350; Michalski 1973a: 64; Murayama 1954b: 155; Nakane et al. 1963: 381; Nobuchi 1973a: 20; Sokanovskii 1966: 383; Stark 1952: 112; Yin, Huang, & Li 1984: 28. (tx) Blandford 1894c: 77; Butovitsch 1929: 7, 47; Eggers 1908e; Hagedorn 1910a: 123; Kurenzov 1941a: 87–88; Michalski 1964: 666–668, 1968a: 111, 1969c: 661, 1973a: 64–68, pl. 18; Murayama 1936: 147, 1954b: 155; Nakane et al. 1963: 381, pl. 191; Niisima 1905: 67–69, 1909: 117, 1943: 142; Nobuchi 1973a: 20, pl. 2; Reitter 1913: 15; Schedl 1934f: 1633, 1948b: 43; Sokanovskii 1954: 14, 1966: 383–384; Stark 1952: 112–114; Stebbing 1909b: 21; Tsai & Li 1959: 75; Tsai, Yin, & Huang 1962: 4, 7; Wichmann 1916: 13; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 28. (ms) Eggers 1910b.

sachalinensis Michalski 1964: 666. Holotype ♂; Baynukly, prope Proomaisk, Sakhalin; IZL, Leningrad. Synonymy: Michalski 1969c: 661.

References: (tx) Michalski 1964: 666, 1968a: 111, 1969c: 661; Sokanovskii 1966: 383.

fagi Walsh 1867b: 58. Syntypes 6, sex?; Southern Illinois [USA]; not given.

Distribution: North America (Illinois, Mississippi, Texas in USA).

Hosts: *Fagus grandifolia*, rare in *Celtis occidentalis*, *Quercus nuttallii*.

References: (ay) Butovitsch 1929: 7. (cn) Blackman 1950; Chamberlin 1924; Drooz 1985: 356; Packard 1890: 520, 611; Riley 1880b: 298; Swaine 1918a: 51; Walsh 1867b: 58. (ce) Felt 1906: 722. (hb) Baker, W. L. 1972: 238; Beal & Massey 1945; Blackman 1922b, 1950; Chamberlin 1939: 227; Clittenden 1890; Drooz 1985: 356; Felt 1906: 722; Packard 1890: 520, 611; Pierce 1907: 292; Smith, J. B. 1886: 127; Swaine 1918a: 51. (ds) Atkinson et al. 1991: 157; Beal & Massey 1945; Blackman 1922b: 42, 47, 1950; Blackwelder 1939; Blatchley & Leng 1916: 589; Butovitsch 1929: 7; Chamberlin 1939: 227; Clittenden 1890; Drooz 1985: 356; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Henshaw 1885; Kleine 1913b: 151, 1914b: 399, 1934a: 168; Leng 1920: 337; Smith, J. B. 1886: 127; Swaine 1909: 104; Wood, S. L. 1982b: 427. (tx) Beal & Massey 1945; Blackman 1922b: 42, 47, 1934: 11–12; Blatchley & Leng 1916: 589; Butovitsch 1929: 7; Chamberlin 1939: 227; Hagedorn 1910a: 123; LeConte 1868: 166, 1876: 371–372; Swaine 1909: 104, 1910a: 33, 1918a: 51; Walsh 1867b: 58; Wood, S. L. 1982b: 427.

facialis Schedl 1973d: 164. Holotype ♂; Brasilien, Amazona, Maturaca, alto Rio Canaburi; MZUSP, Sao Paulo.

Distribution: South America (Brazil).

References: (tx) Schedl 1973d: 164, 1979c: 94.

frontalis Blandford 1894d: 79. Holotype ♂; Fukushima, Japan; BMNH, London.

Figures: Michalski 1973a:pl. 35, Nobuchi 1973a:pl. 2. Distribution: Asia (Japan/Taiwan).

Hosts: *Ulmus campestris* var. *major*.

References: (ay) Butovitsch 1929: 7, 37. (cn) Anonymous 1950a. (hb) Takahashi 1989: 403. (ds) Anonymous 1950g; Blandford 1894c; Butovitsch 1929: 7, 37; Choo & Woo 1983; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Michalski 1973a: 107; Murayama 1953a: 4, 1953c: 144, 1954b: 155, 1955: 101; Nakane et al. 1963: 381; Nobuchi 1967: 18, 1973a: 21; Sokanovskii 1966: 388. (tx) Blandford 1894d: 79; Butovitsch 1929: 7, 37; Eggers 1939c: 115; Hagedorn 1910a: 123; Michalski 1969c: 660, 1973a: 107–109, pl. 35; Murayama 1934c: 298, 1943: 97, 1953a: 4, 1954b: 155, 1955: 101; Nakane et al. 1963: 381, pl. 191; Niisima 1905: 70, 1909: 117–119, 1910a: 5; Nobuchi 1973a: 21, pl. 2; Schedl 1934f: 1633, 1948b: 26, 1979c: 100; Sokanovskii 1958: 37, 1966: 388; Stark 1941: 299; Strohmeier 1914: 32.

formosanus Eggers 1939c: 115. Lectotype ♀; Formosa; USNM, Washington, designated by Anderson & Anderson 1971: 13. Synonymy: Schedl 1962p: 486.

References: (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1939c: 15; Schedl 1962p: 486, 1979c: 99.

golbachii Schedl 1951g: 288. Syntypes ♂: Argentinien, Misiones, Pto. Bemberg; Schedl Collection in NHMW, Wien and Fundacion Mignel Lillo, Tucuman.

Distribution: South America (Argentina).

Notes: (1) Schedl 1979c: 106 (citation of holotype invalid).

References: (tx) Schedl 1951g: 288, 1979c: 106.

gretschkini Sokanovskii 1956: 42. Holotype ♂; prope Ordjonikidzabad, Tajikistan, USSR; Sokanovskii Collection.

Figures: Greckin 1956:1454, Michalski 1973a:pl. 36.

Distribution: Asia (Tajikistan in E USSR).

Hosts: *Prunus* spp.

References: (cn) Greckin 1956: 1483. (hb) Greckin 1956: 1483; Kulnich 1965: 138–140; Makhnovskii 1966: 92. (ds) Kadyrov 1988: 43–44; Michalski 1973a: 109; Sokanovskii 1956: 42–43, 1958: 37, 1960, 1966: 389. (tx) Greckin 1956: 1484; Michalski 1968a: 113–114, 1968b: 195, 1973a: 109–111, pl. 36; Sokanovskii 1956: 42–43, 1958: 37, 1960, 1966: 389.

hermosus Wood 1968b: 12. Holotype ♂; 18 km N Tlaxco (Tlaxcala), Puebla, Mexico; Wood Collection.

Figures: Bright 1972b: 1490, Wood 1968b: 12.

Distribution: North America (Nuevo Leon, Puebla in Mexico).

Hosts: *Abies religiosa*, *Pseudotsuga menziesii*.

References: (hb) Wood, S. L. 1982b: 437. (ds) Atkinson & Equilma 1988: 100; Wood, S. L. 1982b: 437. (tx) Wood, S. L. 1968a: 12, 1968b: 12, 1982b: 437.

silvaticus Bright 1972b: 1489. Holotype ♂; Cerro Potosi, Nuevo Leon, Mexico, 11,000 ft.; CNCI, Ottawa. Synonymy: Wood 1975a: 22.

References: (tx) Bright 1972b: 1489–1490; McNamara 1977: 199; Wood, S. L. 1975a: 22.

incognitus Eggers 1951: 154. Holotype ♀; Mexico; Eggers Collection, in NHMW, Wien.

Distribution: North America ("Mexico").

References: (ds) Schedl 1972g: 38; Wood, S. L. 1982b: 448. (tx) Eggers 1951: 154; Schedl 1979c: 123; Wood, S. L. 1982b: 448.

intricatus (Ratzeburg) 1837: 186 (*Eccoptogaster*). Syntypes, sex?; Frankreich durch Bayern bis Schweden; not given, possibly in ZIFH, Eberswalde.

Figures: Balachowsky 1949a: 178, Bevan 1987: 115, Michalski 1973a:pl. 37, Sokanovskii 1966: 386.

Distribution: Africa (Morocco/ Tunisia), Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Quercus* spp., *Betula* sp., *Carpinus* sp., *Fagus* spp., *Ostrya* sp.

Notes: (3) Schedl 1979c: 119 (cites as synonym *eccoptus* Eggers, nomen nudum).

References: (ay) Butovitsch 1929: 7, 34–35; Chararas & Kontroumpas 1977; Courtois et al. 1965; Doganlar 1984; Escherich 1923b: 478, 507; Feytaud 1950a; Gahan 1900; Keler 1920: 134; Lesne 1911a: 627; Negru 1968b: 803; Numberg 1928a: 140; Nobnchi 1969a: 46; Scholz 1905: 144; Yates, M. G. 1984. (bv) Barr, B. A. 1969: 643; Chararas 1980b: 563; Doganlar & Schopf 1984; Grune 1979: 39; Habermann & Schopf 1987, 1988; Meixner 1937: 1214; Michalski 1959c: 174; Nuorteva 1956c: 94; Prell 1926: 69, 1930c: 642, 1931: 365; Schonherr 1970b; Yates, M. G. 1984. (cn) Acatay 1943a: 57; Aerts 1921; Anonymous 1935: 500, 1977r; Archer 1866; Barbey 1925: 419; Baryshman 1955; Bellevoye 1896; Browne 1968: 644; Chararas 1972; Chorbadzhievo 1929; Compte Sart & Caminero 1982; Eckstein 1900b, 1926: 573; Edelman & Malysheva 1959a: 368, 1959b; Elton 1947, 1951; Elton & Voute 1950; Escherich 1923b: 478, 507; Esterberg 1959; Feytaud 1946, 1950a; Fisher 1937: 110–128; Gabler 1955; Gehin 1857b: 42; Georgescu et al. 1957: 357, 425; Gibbs 1978b; Goidanich & Goidanich 1934; Cois 1944; Gusev 1928: 144; Gyorfı 1959; Hess 1900: 53, 1907: 278; Hess & Beck 1914: 242, 1924: 296; Hoffmann 1934; Hofinger 1922; Judeich & Nitsche 1895: 444, 481; Kamp 1951: 85; Kholodkovskii 1912: 290; Kleine 1932a: 304; Koning 1926: 312–313; Koppen 1882: 250; Kovacevic 1957: 69; Lekander, M. 1951: 22; Lindblom 1936: 26; Lohrenz 1907: 49; Maar & Voore 1935: 641–651; Macedo 1938: 3–7; Marcu 1926c: 59; Muller 1912: 184; Nosek 1951: 109; Nusslin 1913: 232; Nypels 1899: 7; Packard 1890: 860; Picard 1921: 17; Pierce, W. D. 1917: 40; Rhumbler 1922: 274, 1927: 285; Roepke 1931: 162, 1947: 114–116; Saalas 1949: 340, 347; Sakharov 1926; Schimitschek 1944: 153, 1951a: 101, 1955a: 135, 1955c: 73, 1961a: 154; Schwerdtfeger 1944a: 174, 1957a: 181; Sedlaczek 1919: 78–79; Simmel 1928: 154–171; Sinreich 1961: 166; Szontagh 1985; Tragardh 1917: 28; Tsap 1965: 103–107, 1966; Vorontzov 1968; Wachtl 1901: 380; Weber, H. 1926: 573; Wichmann 1927b: 356, 361; Wolff & Kranse 1922: 69; Yates, M. G. 1981; Zakharov & Levkovich 1951: 294; Zvierzomb & Zubovsky 1918. (ce) Adeli 1964; Apel 1983; Arambourg 1964: 115; Balazy et al. 1977; Beaver 1967a: 145; Boucek 1957b: 80; Brammanis 1940; Capek 1986, 1987; Chararas 1957d; Doganlar, Schopf, & Bonbosch 1984; Donisthorpe 1933a; Eisenhauer 1989; Elliot & Morley 1907; Espanol 1967a; Fry 1989: 18; Fuchs 1937, 1938; Ganlle 1906: 237; Gauss 1954a: 423; Gibbs 1978b; Gillanders 1906; Graham 1969: 877; Guseynov 1981; Gyorfı 1941b, 1943: 84, 1952b; Heqvist 1963; Hirschmann & Wisniewski 1982, 1983; Jammicky 1957b: 20, 1957c; Johnson, M. A. & Croteau 1987; Keilezewski 1976; Keilezewski,

Moser, & Wisniewski 1983; Keilezewski & Wisniewski 1978, 1983; Kleine 1905c: 177, 1909a: 42; Kolubajiv 1954: 22; Kostenko 1929; Lloyd 1944: 180; Majewski & Wisniewski 1978a: 10; Manukovska 1987; Michalski & Ratajczak 1989; Nosek 1951: 109, 1959a: 118, 1959b: 85; Numberg 1930: 204; Nuorteva 1957b: 68; Nusslin 1927: 285; Nypels 1899: 7; Otten 1940: 197; Perris 1856a: 244; Pettersen 1976b; Pfeffer 1923a: 329, 1928b: 2, 1943b: 179; Poinar 1975: 167; Prell 1926: 69; Ratzeburg 1869: 176; Rondani 1873: 162; Ruhm 1955c: 176, 1956b: 3; Rummukainen 1954: 27; Saalas 1930: 118, 1949: 340, 347; Schimitschek 1941a: 313, 1955a: 135; Schwerdtfeger 1944a: 174, 1957a: 181; Sedlaczek 1935a: 162; Sitowski 1930: 2; Stefanov 1949a: 97, 106; Thompson, W. R. 1943: 105; Tudor 1969: 34; Vietinghoff 1924: 336; Wahl 1926; Wichmann 1958: 233; Yates, M. G. 1981, 1984. (hb) Acatay 1943a: 57; Adeli 1964, 1972: 14; Aerts 1921; Altum 1881c: 248; Apel 1983; Audonin 1837; Balachowsky & Mesnil 1935; Barbey 1901: 16, 38, 1913, 1925: 419, 1942; Bargmann 1906; Beffa 1949, 1961; Boas 1923: 343; Bonnemaıson 1953; Brandt 1948, 1960: 136; Browne 1968: 644; Budge 1949; Bukowsky 1930; C. 1928; Cecconi 1924; Chapman 1869c: 126–131; Chararas 1972; Chittenden 1890; Chorbadzhievo 1929; Dallimore & Munro 1922; Decaux 1890e, 1890f; Doganlar & Schopf 1984; Dombrowsky 1887, 1892; Eckstein 1889, 1897, 1898a: 182–188, 1926: 573; Edelman & Malysheva 1959b; Eichhoff 1881a: 41, 155, 1882c: 705; Escherich 1923b: 478, 507; Everts 1903: 741; Feytaud 1946, 1950a; Fisher 1936a; Furst 1888: 626; Gabler 1955; Gahan 1900; Gibbs 1978b; Gillanders 1906, 1908; Cois 1944; Gyorfı 1957; Habermann & Schopf 1987; Henschel 1876a: 207, 242, 1895a: 155; Hess 1900: 53, 1907: 278; Hess & Beck 1914: 242, 1927: 296; Holmgren 1867: 139; Jacobi 1906: 145; Joly 1950; Judeich & Nitsche 1895: 444, 481; Kamp 1951a; Karpinski & Strawinski 1948: 153; Kholodkovskii 1912: 290; Kirby, S. G. & Fairhurst 1982; Kleine 1932a: 304; Kleimert 1980: 68; Knotek 1894a: 553, 1897: 142, 1898b: 320; Koning 1926: 312; Kostin 1960: 130; Lengergen 1939: 50, 1954: 69; Lindemann 1881b: 171–173; Lohrenz 1907: 49; Lozovoi 1960: 15; Lunardoni & Leonardi 1889: 453; Madon 1930: 99; Masutti 1964; Michalski 1959c: 174; Munro 1926: 46; Nordlinger 1856: 42; Nosek 1959a: 118, 1959b: 85; Nuorteva 1956c: 94; Nusslin 1913: 232, 1927: 285; Packard 1890: 860; Palm 1959: 346; Pena 1928: 155; Perris 1856a: 244; Pfeffer 1989a: 51; Postner 1974: 386; Prell 1926: 62–76, 1930c: 642, 1931: 365; Ratzeburg 1837: 186, 1839: 228; Rhumbler 1922: 274, 1927: 285; Rimski-Korsakov et al. 1949: 272; Roepke 1947: 114; Rupertsberger 1879: 231, 1880: 228; Saalas 1913a: 69, 75, 1949: 340, 347; Samal 1928: 140; Schedl 1981b: 41; Schimitschek 1944: 153, 1955a: 135; Schwap-

- pach et al. 1929: 185; Schwerdtfeger 1944a: 174, 1957a: 181, 1981: 188; Sedlaczek 1935a: 162; Seiff 1927: 34; Simmel 1928: 154–155; Smith, J. B. 1856: 127; Spessivtsev 1913a: 43; Stark 1926a: 331, 1927a: 18, 1952: 131; Stefanov 1949a: 97, 106; Taschenberg 1880: 240, 244; Tragardh 1914: 85, 1939b: 155, 165; Tredl 1915a: 153; Tschorbadjiev 1929: 155; Vitomskii 1925a: 182; Wachtl 1901: 380; Weber, H. 1926: 573; Wichmann 1927b: 356, 361; Wolff & Krausse 1922: 69; Yates, M. C. 1984. (ds) *Acloque* 1896; Adeli 1964, 1972; Ammann & Knabl 1923; Andersch 1851; Anderson, R. F. 1960: 235; Anonymous 1977r; Audouin 1837; Andras & Schaefer 1957; Baer 1926: 176–178; Balachowsky 1935: 22, 1944b; Barthe 1896; Bau 1888; Bedel 1888b: 388, 406; Beffa 1949; Bejer-Petersen & Jorum 1977: 6; Benick 1921; Bielz 1887; Blanchere & Robert 1889; Boas 1923: 343; Borchert 1951; Brakman 1966a, 1966b: 203; Brancsik 1906; Browne 1968: 644; Buck 1955: 191, 1982; Buecking 1932; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1929: 7, 34–35; Calwer 1884, 1893; Carpentier & Delaby 1908; Chapman 1870b; Chappell 1867: 216; Chapuis 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chitenden 1890; Chorbadzhievo 1924d, 1929; Chrystal 1937; Croteh 1863; Crowson 1971: 51, 1987; Crowson & Hunter 1964: 200; Dallimore & Munro 1922: 189–193; Debatisse 1945; Duffy 1945: 175; Eder 1934; Eggers 1904; Elton 1947, 1951; Elton & Voute 1950; Endrodi 1958b, 1986: 217; Ericson & Sandin 1893; Ermisch 1953; Escherich 1923b: 478, 507, 1932b; Esterberg 1928, 1959; Everts 1922: 637, 1925; Eyquem 1891; Fedorov 1930; Fisher 1936a; Forster 1849: 440, 1891; Fricken 1889: 283; Fuss 1874; Gabler 1949b; Gaubil 1849: 127; Gemming & Harold 1872: 2695; Gillerfors 1966; Gozis 1875: 80; Grill 1895: 312; Grune 1979: 39; Gyorf 1941b; Hagedorn 1910d: 84; Hansen, V. 1939, 1956, 1964: 456; Heinemann 1905a; Hellen 1947; Hennig 1954: 265; Henschel 1895a: 155; Heyden 1876: 295; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Hicken 1963; Hoffmann 1934; Holmgren 1867: 139; Horion 1951; Jansson 1954: 259; Jazentkovsky 1912: 286; Judeich & Nitsche 1895: 444, 481; Kaltenbach 1874: 624, 646; Karpinski 1925: 215, 1926: 81, 1931: 21; Karpinski & Strawinski 1948: 153; Keler 1922b: 210, 1925b: 270; Kempers 1902: 67; Kersten 1933: 72; Klefbeck & Sjoberg 1960; Kleine 1912a: 262, 267, 1913a: 34, 1913b: 151, 1914a: 19, 1932a: 304, 1934a: 168; Knotek 1892a: 35, 1894a: 553, 1898b: 320; Koltze 1901: 152; Koluhajiv 1934: 65; Koppen 1882: 250; Koschitsky 1900: 83; Kostenko 1929; Kovacevic 1957: 69; Kraatz 1869: 59; Kurir 1947c: 21; Lacordaire 1866: 387; Langhoffer 1915e: 156; Leclercq 1971; Lentz 1857: 140; Lindeman 1964: 112; Lindemann 1884b: 264; Lokaj 1868: 63; Lomnicki 1886a: 241, 1913b: 147; Lucht 1987: 275; Luigioni 1929: 990; Lamardoni & Leonardi 1889: 453; Lundberg 1981: 151; Lundblad 1950b: 72; Marcu 1926c: 59; Matthews & Fowler 1883: 42; Meinert 1857: 70; Michalski 1973a: 111; Minkevici 1867: 299–304; Munro 1928: 288; Negru 1966b: 398, 1968a: 454, 1968c: 91; Nimberg 1928b: 87, 1954: 92; Orest 1926c: 59; Palm 1959: 28, 212; Perris 1876a: 254, 1877a: 414; Pfeffer 1928b: 2, 1931b: 73, 1989a: 51; Pierce, W. D. 1917: 40; Pittioni 1943: 174; Pogge 1927: 564; Portevin 1935: 310; Postner 1974: 386; Prossen 1913: 82; Ragusa 1924: 114; Rapp 1934: 717; Ratzeburg 1837: 186, 1839: 228; Redtenbacher 1858: 838, 1874: 373; Reitter 1869b: 153, 1894a: 42, 1913: 21, 1916: 272; Rimski-Korsakov et al. 1949: 272; Rohrig 1955: 37; Roubal 1935b: 72, 1941: 255; Saalas 1913a: 69, 75, 1930: 118, 1931: 67; Sahlberg 1900: 106; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1205; Schaum 1859: 95, 1862: 100; Schedl 1952f: 85, 1961b: 185, 1964a: 94, 96, 1967c: 68, 1980a: 1, 1981b: 41; Schevyrew 1890c: 470; Schilsky 1909: 187; Schimitschek 1937: 43, 1951a: 101; Schiodte 1873: 105; Schneider & Leder 1977: 54; Schwerdtfeger 1981: 188; Seidlitz 1891a: 557, 1891b: 602; Sharp & Fowler 1893: 34; Sick 1939: 110; Smith, J. B. 1856: 127; Stark 1926a: 331, 1926f: 82–84, 101, 1926j: 124, 1927b: 86, 1941: 301, 1952: 131; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 436; Sturm 1843: 229; Thomson 1865: 375, 1868: 224; Tragardh 1914: 85, 1939b: 155, 165; Tredl 1907: 6; Tschorbadjiev 1929: 155; Ulanowski 1884: 6; Welch, R. C. 1980: 271; Westhoff 1882: 238; Wichmann 1924: 15, 1927a: 50–51; Winter, T. G. 1983: 49. (tx) *Acatay* 1943: 56–57; *Acloque* 1896; Altman 1844; Apel 1883; Bach 1854; Balachowsky 1935: 22, 1944b: 21–22, 1949a: 77; Barbey 1901: 16, 38; Barbier & Menier 1875: 118; Bedel 1888b: 388, 406; Beffa 1949, 1961; Bertolini 1872; Boas 1923: 343; Butovitsch 1929: 7, 34–35; Carpentier & Delaby 1908; Ceballos 1945; Chapuis 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chevrolat 1838; Choo, Woo, & Nobuchi 1988b; Chorbadzhievo 1924d; Cieslar 1894; Claus 1955; Csiki 1906; Desbrochers 1891; Dombrowsky 1857, 1892; Duffy 1953; Eggers 1923b: 133–134, 1929e: 42, 1942c: 34; Eichhoff 1864b: 32, 1881a: 41, 155–157, 1883a: 105, 130; Endrodi 1957b: 420; Ericson 1836: 59; Escherich 1923b: 478, 507; Escherich & Escherich 1897; Everts 1903: 741, 1922: 637; Ferrant 1911; Formanek 1907: 10; Fricken 1889: 283; Gabler 1949b, 1955; Gillanders 1908; Grune 1979: 38–39; Gyllenhal 1813: 348–349; Hagedorn 1910a: 123; Hansen, V. 1956, 1964: 456; Henry 1892: 10; Henschel 1876a: 207, 242, 1895a: 155; Iablukoff-Khnzorian 1961: 85; Jacobi 1906: 145; Judeich & Nitsche 1895: 444, 481; Kalina 1970: 129; Karpinski & Strawinski 1948: 153; Knotek 1892a: 35, 1892b: 235, 1894b: 87; Kuhn 1913: 1048; Lacordaire 1866: 387; Letzner

1844: 65, 1891: 372; Lennis 1886: 183; Lindemann 1881b: 171; Lovendal 1889b: 48, 1898: 62; Lucht 1987: 275; Luigioni 1929: 990; Lunardon & Leonardi 1889: 453; Meixner 1937: 1214; Michalski 1959c: 174, 1967: 315, 1973a: 111–113, pl. 37; Negrn 1966b: 398; Nobuchi 1973a: 14; Nordlinger 1848: 253, 1856: 42; Nunberg 1928a: 140, 1954: 92; Perris 1877a: 414; Pfeffer 1932b: 10, 1944: 130–131, 1955a: 89, 1989a: pl. 1; Postner 1974: 386; Qnaschik 1953: 35; Ratzeburg 1837: 186, 1839: 228; Redtenbacher 1849: 792, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 42, 1908b: 23, 1913a: 21–22, 1916: 272; Rey 1892b: 30; Rhumbler 1922: 274, 1927: 285; Rupertsberger 1879: 231, 1880: 228; Saalas 1913a: 69, 75, 1949: 340, 347; Schedl 1934f: 1633, 1948b: 24–25, 1952f: 86, 1964a: 94, 96, 1967c: 68, 1980a: 1, 1981b: 41; Scheyrew 1893a: 118–119, 1893b: 77–80; Schimitschek 1955c: 73; Seidlitz 1891a: 557, 1891b: 602; Semenov 1902: 267; Sokanovskii 1954: 14; Spessivtsev 1913a: 43, 1922a: 458, 491, 1925a: 153, 1931: 11, 19; Stark 1941: 306, 1950: 229, 1952: 131; Stephens 1830: 362; Stierlin 1898: 436; Stresemann et al. 1989: 353; Taschenberg 1880: 240, 244; Thomson 1865: 375, 1868: 224. (ms) Cieslar 1894; Doganlar 1984; Eckstein 1927; Escherich 1932b; Heinemann 1908a; Knotek 1894b: 187; Macedo 1938: 4; Merino-Rodriguez 1966: 48; Ritter 1929: 553; Schwappach 1924: 56; Stark 1958: 231; Vorontzov 1968.

picicolor Stephens 1830: 362. Syntypes 1 ♂, 2 ♀; Wittersham near Rye, England; BMNH, London. Synonymy: Michalski 1973a: 111.

Notes: (3) Although this is the senior available name, *intricatus* is retained because of its longstanding, widely accepted use.

References: (ds) Stephens 1830: 362. (tx) Butovitsch 1929: 7; Michalski 1973a: 111; Schedl 1948b: 24; Stephens 1829b: 12, 1830: 362.

penicillatus Reitter 1913a: 21. Holotype ♂; Beih Marocco; NHMB, Budapest. Synonymy: Balachowsky 1949a: 77.

References: (ay) Butovitsch 1929: 9, 37. (ds) Butovitsch 1929: 9, 37; Sokanovskii 1966: 388. (tx) Balachowsky 1949a: 77; Butovitsch 1929: 9, 37; Endrodi 1957: 420; Reitter 1913a: 21; Schedl 1934f: 1633, 1948b: 24; Sokanovskii 1966: 388.

simmeli Eggers 1923b: 133 (*Eccoctogaster*). Syntypes, sex?; Pakalehne am Schneeberg (Innerkrain); Eggers Collection, in NHMW, Wien. Synonymy: Balachowsky 1949a: 77.

Notes: (3) Schedl 1979c: 230 (citation of holotype invalid).

References: (ay) Butovitsch 1929: 7, 27. (hb) Simmel 1928: 156–171. (ds) Butovitsch 1929: 7, 27; Sokanovskii 1966: 388. (tx) Balachowsky 1949a: 77; Butovitsch 1929: 7, 27; Eggers 1923b: 133–134; Schedl 1934f: 1633, 1948b: 24, 1979c: 230; Sokanovskii 1966: 388.

lenkoranus Eggers 1942c: 34. Holotype, sex?; Lenkoran, Azerbaijan, USSR; Eggers Collection, not found. Although no cotypes were designated, Schedl 1979c: 138 reports 2 cotypes in NIMW, Wien. Synonymy: Balachowsky 1949a: 77.

References: (hb) Stark 1952: 132. (ds) Sokanovskii 1966: 388; Stark 1952: 132. (tx) Balachowsky 1949a: 77; Eggers 1942c: 34; Endrodi 1957: 420; Pfeffer 1944a: 131; Schedl 1948b: 24, 1979c: 138; Sokanovskii 1954: 14, 1966: 388; Stark 1952: 132. (ms) Pfeffer 1944a: 131. *tiburtinus* Claus 1958: 712. Type, a piece of *Quercus* wood with engravings; Germany: Thuringen, Muhlhausen; not located. Synonymy: Schedl 1963g: 46 (genus and species uncertain, based on gallery).

References: (tx) Claus 1958: 712; Schedl 1963g: 46

jacobsoni (Spessivtsev) 1919: 246 (*Eccoctogaster*). Lectotype, sex?; Vladivostock, USSR; IZL, Leningrad, designated by Michalski 1968b: 189.

Figures: Michalski 1968a: 110, 1973a: pl. 19, Nobuchi 1973a: pl. 2, Tsai & Li 1959: 75.

Distribution: Asia (Heilongjiang, Liaoning in China/ Japan/ E USSR).

Hosts: *Ulmus lacinata*, *U. propinqua*, *U. japonica*, *Carpinus betulus*, *Pyrus ussuriensis*.

Notes: (3) Kurenzov 1935a: 22 (describes form *montana*, no status in nomenclature).

References: (ay) Butovitsch 1929: 7, 49. (cn) Kurenzov 1935c: 189; Pfeffer 1979: 149. (ce) Krovolsheina 1974; Kurenzov 1934a: 57, 1964: 19; Pfeffer 1979: 149. (hb) Kurenzov 1935a: 19, 22, 1948b: 118; Stark 1952: 115; Yin, Huang, & Li 1984: 30. (ds) Butovitsch 1929: 7, 49; Kleine 1934a: 168; Krivolutskaia 1958: 108, 112–113, 1983; Krivolutskaia & Kupyanskaya 1970; Kurenzov 1934a: 57, 1935a: 19, 22, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 60, 1964: 19, 1965, 1967; Michalski 1973a: 68; Nobuchi 1973a: 22; Sokanovskii 1966: 381; Stark 1952: 115; Yin, Huang, & Li 1984: 30. (tx) Butovitsch 1929: 7, 49; Krivolutskaia 1958: 112; Kurenzov 1941a: 91–92, 1948b: 118; Michalski 1968a: 109–110, 1968b: 189, 1973a: 68–70, pl. 19; Nobuchi 1973a: 22, pl. 2; Schedl 1934f: 1633, 1941a: 42, 1948b: 39; Sokanovskii 1966: 381–385; Spessivtsev 1919: 246–247; Stark 1952: 115–116; Tsai & Li 1959: 75; Tsai, Yin, & Huang 1962: 4, 7; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 30. *rimskii* Kurenzov 1941a: 103. Lectotype ♀;

Ussuriisk, Primorye, USSR; Gornotayozhnaya Stanciya AN SSR, designated by Krivolutskaia 1985: 4. Synonymy: Krivolutskaia 1985: 4.

Notes: (3) Michalski 1973a: 119 (treated as a synonym of *mali*).

References: (ce) Krivolutskaia 1984: 3. (ds) Krivolutskaia 1984: 3; Sokanovskii 1966: 389. (tx) Krivolutskaia 1984: 3, 1985: 4; Kurenzov

- 1941a: 103; Michalski 1973a: 119; Schedl 1947c: 63, 1948b: 29; Sokanovskii 1966: 389; Stark 1952: 144.
- japonicus** Chapuis 1875: 199. Holotype ♂; Kiushiu, Japan; IRSNB, Brussels. Figures: Krivolutskaya 1984: 5, Michalski 1973a: pl. 38, 41, Yin, Huang, & Li 1984: 39. Distribution: Asia (Hebei, Heilongjiang, Jilin, Liaoning, Neimeng, Shanxi, Sichuan in China/ Japan/ Korea/ E USSR). Hosts: *Ulmus* spp., *Prunus* spp., *Pyrus* spp., *Fraxinus* spp., *Malus pumila*, *Acer mono*. Notes: (3) Stark 1935: 24 (*fraxini*, nomen nudum, synonymy by Michalski 1973a: 122). References: (ay) Butovitsch 1929: 58. (cn) Anonymous 1980g; Clausen 1931; Kurenzov 1935c: 192; Pfeffer 1979: 149; Shiraki 1952. (cc) Inouye et al. 1955: 92; Pfeffer 1979: 149; Yang 1989. (hb) Inouye et al. 1955: 92; Kurenzov 1935a: 22; Lindeman 1961: 100, 1978; Stark 1952: 143; Yin, Huang, & Li 1984: 38. (ds) Anonymous 1980g; Blandford 1894c; Butovitsch 1929: 58; Cho 1957; Choo 1983: 39; Choo & Woo 1985: 163; Choo, Woo, & Nobuchi 1983: 172, 1988a: 133; Clausen 1931; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Ko 1969: 283; Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970; Ku 1964; Kurenzov 1935a: 22, 1935c: 192, 1936a: 110, 1936b: 350; Michalski 1973a: 113; Murayama 1929b: 2, 1930b: 6, 1936b: 116, 1937b: 375, 1942a: 53, 1950b: 1290, 1954b: 155; Nakane et al. 1963: 381; Nobuchi 1973a: 22; Shiraki 1952; Sokanovskii 1960, 1966: 390; Stark 1935: 24, 1952: 143; Yanovskii & Tegshzhargal 1985: 404; Yin, Huang, & Li 1984: 38. (tx) Blandford 1894d: 80; Butovitsch 1929: 58; Chapuis 1875: 199; Choo 1983: 39; Eggers 1942c: 33; Hagedorn 1910a: 123; Michalski 1968b: 196–197, 1973a: 113–116, pl. 38; Murayama 1930b: 6, 10–11, 1937b: 375, 1950b: 1290, 1954b: 155; Nakane et al. 1963: 381, pl. 191; Niisima 1905: 67, 72–73, 1909: 121; Nobuchi 1973a: 22, pl. 2; Schedl 1934f: 1632, 1948b: 19; Sokanovskii 1954: 15, 1958: 37, 1960: 676, 1966: 386, 390; Stark 1935: 24, 1950: 229, 1952: 143; Tsai, Yin, & Huang 1962: 2–5, 12, 14; Yin & Huang 1980: 48. (ms) Mastumura 1931.
- confusus** Eggers 1922c: 13 (*Eccoptogaster*). Lectotype ♀; Wladiwostok, USSR; USNM, Washington, designated by Anderson & Anderson 1971: 10. Synonymy: Krivolutskaya 1985: 6. References: (ay) Butovitsch 1929: 6. (cn) Kurenzov 1935c: 189. (cc) Krivolutskaya 1984: 4; Kurenzov 1934a: 57. (hb) Kurenzov 1935a: 19, 1948b: 117; Stark 1952: 141; Yin, Huang, & Li 1984: 41. (ds) Butovitsch 1929: 6; Kleine 1934a: 168; Krivolutskaya 1983, 1984: 4; Kurenzov 1935a: 19, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 58; Michalski 1973a: 102; Stark 1952: 141; Yin, Huang, & Li 1984: 41. (tx) Anderson, W. H. & Anderson 1971: 10; Butovitsch 1929: 6; Eggers 1922c: 13–14, 1941c: 123–124; Krivolutskaya 1985: 4–6; Kurenzov 1941a: 75, 101–103, 225–226, 1948b: 117; Michalski 1968b: 196, 1973a: 102–104, pl. 33; Schedl 1934f: 1632, 1948b: 21, 1979c: 62; Sokanovskii 1954: 15, 1966: 390; Stark 1952: 141–143; Tsai, Yin, & Huang 1962: 3; Yin, Huang, & Li 1984: 41.
- mandli** Eggers 1922c: 13 (*Eccoptogaster*). Holotype ♂; Werchne-Udinsk in Transbaikalien [= Ulhan-Ude, Zabaikalye, USSR]; USNM, Washington. Synonymy: Krivolutskaya 1985: 6. References: (ay) Butovitsch 1929: 8, 47. (hb) Kurenzov 1935a: 19, 24; Stark 1952: 125. (ds) Butovitsch 1929: 8, 47; Kurenzov 1935a: 19, 24, 1936a: 109, 1938a: 58; Mandl 1931: 25; Michalski 1973a: 122; Sokanovskii 1966: 390; Stark 1936: 142, 1952: 125. (tx) Anderson, W. H. & Anderson 1971: 19; Butovitsch 1929: 8, 47; Eggers 1922c: 13–14, 1942c: 28; Krivolutskaya 1985: 6; Kurenzov 1941a: 89–90; Michalski 1968b: 197, 1973a: 122–123, pl. 41; Schedl 1934f: 1633, 1948b: 20; Sokanovskii 1955: 37, 1960: 676, 1966: 390; Stark 1936: 142, 154, 1950: 229, 1952: 125–126.
- ussuriensis** Kurenzov 1941a: 102. Lectotype ♀; initio fluvii Suputinka, South-Ussuriiskii Territory (Michalski 1973a: 102); IZL, Leningrad, designated by Michalski 1968b: 196. Synonymy: Michalski 1968b: 196, 1973a: 102. References: (hb) Stark 1952: 144. (ds) Nobuchi 1973a: 23; Stark 1952: 144. (tx) Kurenzov 1941a: 102–103, 226; Michalski 1968a: 133, 1968b: 196, 1973a: 102; Nobuchi 1973a: 24, pl. 2; Schedl 1948b: 23; Stark 1952: 144.
- subconfusus** Eggers 1941c: 123. Syntypes 1 ♂, 2 ♀; Suchan (Primorye, USSR), Cicikar (north-east China); Eggers Collection, not mentioned by Anderson & Anderson 1971 or Schedl 1979c. Synonymy: Michalski 1973a: 102. References: (tx) Eggers 1941c: 123; Michalski 1973a: 103; Schedl 1948b: 24; Sokanovskii 1954: 15.
- starki** Kurenzov 1941a: 101–102, 225. Lectotype ♀; initio fluvii Suputinka, South-Ussuriiskii Territory, USSR; IZL, Leningrad, designated by Michalski 1973a: 102. Synonymy: Michalski 1973a: 102. References: (hb) Stark 1952: 142. (ds) Krivolutskaya & Kupyanskaya 1970; Stark 1952: 142. (tx) Kurenzov 1941a: 101–102, 225; Michalski 1968a: 113, 1968b: 196, 1973a: 102; Schedl 1948b: 22; Stark 1952: 142; Sokanovskii 1954: 15.
- jaroschewskii** Schevyrew 1893: 90. Neotype ♂; Tbilisi, Georgia, USSR; IZL, Leningrad, designated by Michalski 1968b: 187, automatic.

Figures: Michalski 1973a:pl. 5, Sinadsky 1961: 1022.

Distribution: Europe (W USSR).

Hosts: *Eleagnus* sp., *Ulmus carpinifolia*.

References: (ay) Butovitsch 1929: 7, 24. (hb) Kostin 1960: 130; Sinadsky 1961. (ds) Arnoldi et al. 1955: 653; Butovitsch 1929: 7, 24; Hagedorn 1910d: 84; Heyden, Reitter, & Weise 1906: 708; Kadyrov 1985: 43, 1989; Kleine 1913b: 151; Kilimich 1965: 140; Lozovoi 1960: 9; Michalski 1973a: 34; Mitiavaev 1960: 124; Schaufuss 1915: 1206; Semenov 1904: 38; Sokanovskii 1960, 1966: 383; Yagdyev 1984. (tx) Butovitsch 1929: 7, 24; Eggers 1914a: 38, 1914b: 185–186; Hagedorn 1910a: 123; Michalski 1968b: 186–188, 1973a: 34–36, pl. 5; Pfeffer 1965: 61; Reitter 1913a: 18–19; Schedl 1934f: 1632, 1948b: 57; Schevyrew 1890: 98–99, 1893: 90–91, 125, 1904: 38; Semenov 1904: 37–38; Sinadsky 1961: 1022; Sokanovskii 1954: 15, 1956: 44, 1958: 37, 1960: 674, 1961: 483–485; 1966: 383; Stark 1952: 86.

unispinosus Schevyrew 1890c: 98. Neotype ♂; Tbilisi, Georgia, USSR; IZL, Leningrad, preoccupied by LeConte 1876. Synonymy: Schedl 1948b: 57.

References: (cn) Kholodkovskii 1912: 288. (hb) Kholodkovskii 1912: 288. (ds) Butovitsch 1929: 10, 49; Kleine 1913b: 152; Schevyrew 1890c: 470; Semenov 1904: 37; Sokanovskii 1966: 383. (tx) Reitter 1913a: 23; Schedl 1934f: 1632, 1948b: 57; Schevyrew 1890c: 470; Semenov 1904: 37; Sokanovskii 1966: 383.

granulifer Reitter 1913a: 18–19. Syntypes, sex?; Transcaucasus: Elisabethpol [= Kirowabad], USSR; NHMB, Budapest. Synonymy: Arnoldi et al. 1955: 653.

References: (ay) Butovitsch 1929: 7, 24. (hb) Stark 1952: 146. (ds) Arnoldi et al. 1955: 653; Butovitsch 1929: 7, 24; Kleine 1913a: 168; Sokanovskii 1966: 383; Stark 1952: 146. (tx) Arnoldi et al. 1955: 653; Butovitsch 1929: 7, 24; Eggers 1914: 38; Reitter 1913a: 18–19; Schedl 1934f: 1632, 1948b: 57; Sokanovskii 1954: 13, 1960: 764, 1966: 383; Stark 1952: 146.

tauricus Eggers 1914: 185 (*Eccoptogaster*). Lectotype ♀; Krim (Sebastopol); USNM, Washington, designated by Anderson & Anderson 1971: 34. Synonymy: Michalski 1973: 34.

References: (ay) Butovitsch 1929: 10, 31, 33. (hb) Stark 1952: 109. (ds) Butovitsch 1929: 10, 31, 33; Kleine 1913a: 89, 1934a: 169; Pjatinitskii 1930a: 163; Schaufuss 1915: 1206; Stark 1927b: 86, 1952: 109. (tx) Anderson, W. H. & Anderson 1971: 34; Balachowsky 1949a: 81; Butovitsch 1929: 10, 31, 33; Eggers 1914: 185–186, 1922d: 114; Michalski 1973a: 34; Schedl 1934f: 1633, 1948b: 30; Sokanovskii 1954: 14; Stark 1952: 109.

kostini Sokanovskii 1954: 15. Holotype ♂; Russia:

Ili River in Kazakhstan; Sokanovskii Collection. Synonymy: Michalski 1973a: 34.

Notes: (3) Sokanovskii 1958: 37 (described var. *rufostriatus*, no status in nomenclature).

References: (tx) Michalski 1968a: 107, 1973a: 34; Sokanovskii 1954: 15, 1958: 37.

kashmirensis Schedl 1958g: 168. Lectotype ♂; Kashmir, Pahlgam, 7000 ft., Lidar Valley; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131.

Distribution: Asia (Kashmir in India).

Hosts: *Ulmus wallichiana*.

Notes: (3) Syntypes supposedly were deposited in the FRI, Dehra Dun, but all specimens sent to Schedl are accounted for and none were returned to the FRI.

References: (cn) Mathur & Singh 1961: 64. (ds) Beeson 1961: 296; Mathur & Singh 1961: 64. (tx) Schedl 1958g: 168, 1979c: 131.

kirschi Skalitzky 1876: 110. Syntypes, sex?; Prague, Czechoslovakia; not located.

Figures: Balachowsky 1949a: 58 (adult), Michalski 1973a:pl. 6.

Distribution: Asia (Iraq/ Turkey), Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Germany/ Italy/ Poland/ Sicily/ Spain/ Yugoslavia/ W USSR).

Hosts: *Ulmus* spp., *Prunus* spp., *Fraxinus excelsior*, *Populus alba*.

Notes: (3) Sokanovskii 1954: 14 (describes var. *ruguloides*).

References: (ay) Butovitsch 1929: 7, 28–29; Escherich 1923b: 477, 496. (bv) Andrianova & Makhmadziev 1972b; Grune 1979: 33; Makhmadziev 197b; Maksimovic 1979a: 285; Michalski 1959c: 167. (cn) Andrianova & Makhmadziev 1972a, 1972b; Baeta Neves 1952c: 4–8; Brasier 1983: 100; Chararas 1972; Chorbadzhievo 1929; Escherich 1923b: 477, 496; Coidanich & Coidanich 1934; Halperin 1986; Pajares & Arevalo 1987; Kailidis 1969a; Kholodkovskii 1912: 291; Lokaj 1906: 21; Lozovoi 1948c: 364, 1960: 13; Packard 1890: 860; Pfeffer 1979: 148; Rhumbler 1927: 285; Schwerdtfeger 1944a: 172, 1957a: 181; Stefan 1961; Tübenf 1936: 506; Vajda 1952: 114; Wachtl 1901: 381. (cc) Andrianova & Makhmadziev 1972b, 1980; Brasier 1983: 100; Cooreman 1963: 46; Escherich 1935; Fry 1989: 18; Halperin 1986; Halperin & Holzschuh 1984: 23; Kailidis 1969a; Kleine 1908c: 177; Kopyl 1983; Kostenko 1929; Lozovoi 1948c: 364; Maksimovic 1979a: 285; Nosek 1959a: 118, 1959b: 87; Novak 1952: 411; Pfeffer 1931b: 73, 1943b: 180, 1979: 148; Schwerdtfeger 1944a: 172, 1957a: 181; Sedlacek 1935a: 162; Semedo 1961: 119; Webber & Gibbs 1989. (hb) Andrianova & Makhmadziev 1972a, 1972b; Chittenden 1890; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eggers 1906; Eichhoff 1881a: 41, 159; Escherich 1923b: 477, 496; Gyorf 1957; Halperin & Holzschuh 1984:

- 23; Henschel 1895a: 156; Karpinski & Strawinski 1948: 153; Kholodkovskii 1912: 291; Kostin 1960: 130; Lenggerken 1939: 49, 1954: 65; Lindeman 1964: 78–82, 1978; Makhmadziev & Shnkronaev 1983; Makhnovskii 1966: 92–93; Maksimovic 1979a: 285; Marcu 1941: 401; Maslov 1963c: 847, 1964: 80–100; Michalski 1959c: 167; Nosok 1959a: 118, 1959b: 87; Packard 1890: 860; Postner 1974: 384; Rhumbler 1927: 285; Rudnev & Stepanova 1960: 773–777, 1961; Schedl 1981b: 44; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Sedlacek 1935a: 162; Semedo 1961: 119; Shatilov 1985; Smith, J. B. 1886: 127; Spessivtsev 1913a: 32; Stark 1926a: 331, 1952: 99; Tschorbadjiev 1929: 159; Wachtl 1901: 381. (**ds**) Baeta Neves 1952a; Balachowsky 1943a, 1944b; Buresh & Lazarov 1956; Butovitsch 1929: 7, 28–29; Calwer 1893; Chittenden 1890; Chorbadzhievo 1929; Covassi 1983; Eggers 1906; Endrodi 1958b; Escherich 1923b: 477, 496, 1932b; Grune 1979: 33; Hagedorn 1910d: 85; Halperin 1986; Halperin & Holzschuh 1984: 23; Henschel 1895a: 156; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Horion 1951; Jacentkovsky 1935: 22; Jazentkovsky 1912: 286; Kadyrov 1988: 42–43, 1989; Kalandra & Pfeffer 1935; Karaman 1967; Karpinski 1948a: 173; Karpinski & Strawinski 1948: 153; Kleine 1912a: 305, 1913a: 34, 89, 1913b: 151, 1934a: 168; Kostenko 1929; Langhoffer 1915c: 156; Lomnicki 1913b: 147; Lucht 1987: 275; Michalski 1973a: 36; Negru 1957: 129, 1968a: 453; Negru & Rosca 1967: 141; Novak, P. 1952: 411, 1964; Numberg 1928b: 87, 1954: 89; Pascovici 1962; Pfeffer 1930b: 119, 1931b: 73, 1936: 90, 1989a: 46; Pittioni 1943: 174; Postner 1974: 384; Reitter 1894a: 43, 1916: 272; Roubal 1935b: 72, 1941: 255; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1206; Schedl 1971d: 426, 1980a: 2, 1981b: 44; Scheyrew 1890c: 470; Schilsky 1909: 187; Schnaider 1936: 366; Schwerdtfeger 1981: 187; Seidlitz 1891a: 557; Semedo 1961: 119; Shiperovich 1926: 472–475; Smith, J. B. 1886: 127; Sokanovskii 1966: 387; Stark 1926a: 331, 1926g: 153, 1927b: 86, 1952: 99; Stein & Weise 1877: 164; Stierlin 1898: 436; Tredl 1907: 6; Tschorbadjiev 1929: 159; Wichmann 1927a: 51–52; Zviere-zomb & Zubosky 1918. (**tx**) Balachowsky 1943a, 1944b: 8–9, 1949a: 61–63; Butovitsch 1929: 7, 28–29; Desbrochers 1891; Dombrowsky 1887, 1892; Eggers 1912a: 148, 1914: 184–185, 1922d: 116–117, 1942c: 34; Eichhoff 1881a: 41, 189, 1883a: 105, 130; Endrodi 1957a: 307, 1957b: 420; Escherich 1923b: 477, 496; Formanek 1907: 10; Grune 1979: 32–33; Hagedorn 1910a: 123; Henschel 1895a: 156; Jacentkovsky 1935: 22; Karpinski & Strawinski 1948: 153; Kuhnt 1913: 1049; Lucht 1987: 275; Michalski 1959c: 160–173, 1962a: 54, 1962b: 199, 1967: 310, 1973a: 36–39, pl. 6; Numberg 1954: 89; Pfeffer 1932b: 11, 1955a: 76–77, 1965: 61, 1989a: pl. 5; Postner 1974: 384; Quaschik 1953: 35; Reitter 1894a: 43, 1913a: 26, 1916: 272; Rhumbler 1927: 285; Schedl 1934f: 1632, 1948b: 51, 1980a: 2, 1981b: 44; Scheyrew 1893a: 69–74, 1893b: 114–116; Schmidt, C. 1980: 26; Seidlitz 1891a: 557, 1891b: 603; Semedo 1961: 119; Skalitzky 1876: 110; Sokanovskii 1954: 14, 1966: 384, 387–388; Spessivtsev 1913a: 32–33, 1931: 9–10; Stark 1926a: 331, 1952: 99–100, 107–108; Stierlin 1898: 436; Tsai & Li 1959: 75. (**ms**) Escherich 1932b; Schimitschek 1930b: 407. *fasciatus* Reitter 1890c: 395. Holotype, sex[?]; Arexthal bei Ordubad [= Ordubad (Araks) Nakhichevan, USSR]; NHMB, Budapest. Synonymy: Schedl 1948b: 51. Notes: (3) Michalski 1973a: 36 (treated as a variety of *kirschi*, not as a geographical race). References: (**ay**) Butovitsch 1929: 22–30. (**cn**) Gentry, J. W. 1965: 90; Greckin 1956: 1486; Plotnikov 1914; Yagdyev 1979. (**hb**) Greckin 1956: 1486; Janjua 1950; Kostin 1960: 130; Stark 1952: 107. (**ds**) Butovitsch 1929: 22–30; Gentry, J. W. 1965: 90; Hagedorn 1910d: 84; Heyden, Reitter, & Weise 1891: 670, 1906: 708; Kadyrov 1988: 43, 1989; Kleine 1934a: 168; Kobakhidze 1957: 178; Schaufuss 1915: 1206; Sokanovskii 1966: 387; Stark 1952: 107. (**tx**) Butovitsch 1929: 22–30; Desbrochers 1891; Eggers 1912a: 48, 1914: 185; Hagedorn 1910a: 123; Iablokoff-Khinzorian 1961: 70; Michalski 1973a: 36; Reitter 1890c: 395, 1913a: 25; Schedl 1934f: 1632, 1948b: 51; Sokanovskii 1954: 14, 1966: 387; Stark 1952: 107; Wichmann 1915b: 215. *demaisonii* Eggers 1912a: 47 (*Eccoptyogaster*). Syn-types ♂; Sicilia, Algeria, Hispania; Eggers (USNM, Washington or NHMW, Wien[?]), Demaison Collection and Leonard Collection. Synonymy: Schedl 1948b: 51, Balachowsky 1949a: 61. References: (**ay**) Butovitsch 1929: 7, 31, 33. (**ec**) Escherich 1935. (**ds**) Butovitsch 1929: 7, 31, 33; Kleine 1913b: 151, 1914a: 16; Luigioni 1929: 990; Normand 1949: 104; Pfeffer 1947d: 126; Ragusa 1922: 128, 1924: 114; Schaufuss 1915: 1206; Semedo 1961: 119; Sokanovskii 1966: 387. (**tx**) Butovitsch 1929: 7, 31, 33; Balachowsky 1949a: 61; Eggers 1912a: 47, 1914: 184–185; Endrodi 1957: 420; Luigioni 1929: 990; Kalandra & Pfeffer 1935; Reitter 1913a: 26; Schedl 1934f: 1633, 1948b: 51, 1979c: 77; Sokanovskii 1966: 387. *koenigi* Scheyrew 1890: 99. Syntypes, sex[?]; Kopet-Dagh, Turkmenia, USSR; not located. Figures: Balachowsky 1949a: 80 (adult), Michalski 1973a: pl. 39. Distribution: Africa (Algeria/ Morocco), Europe (Austria/ Bulgaria/ France/ Hungary/ Italy/ Romania/ Sicily/ W USSR/ Yugoslavia). Hosts: *Acer* spp.

Notes: (3) Originally named as a variety of *dauricus*.

References: (**ay**) Butovitsch 1929: 7–8, 35–36. (**bv**) Grune 1979: 39. (**cn**) Zakharov & Levkovich 1951: 299. (**ce**) Otten 1940: 197; Tudor 1969: 34. (**hb**) Budkov 1897; Dejoz 1960: 510; Pfeffer 1989a: 49; Postner 1974: 387; Schedl 1981b: 42; Schwerdtfeger 1981: 188; Stark 1952: 129. (**ds**) Budkov 1897; Butovitsch 1929: 7–8, 35–36; Dejoz 1960: 510; Grune 1979: 39; Hagedorn 1910d: 85; Heyden 1898: 76; Horion 1935, 1951; Kadyrov 1959; Kleine 1913b: 151, 1914b: 246, 1934a: 168; Knotek 1892: 235–236; Lozovoi 1960: 14; Lucht 1987: 275; Luigioni 1929: 990; Michalski 1973a: 116; Pfeffer 1936: 90, 1959a: 49; Pjatnitskii 1930a: 96, 163, 1980a: 2; Postner 1974: 387; Ragusa 1924: 114; Reitter 1894a: 42; Rudnev 1929: 517–519; Schaefer 1959: 235; Schedl 1964j: 96, 1980a: 2, 1981b: 42; Sokanovskii 1966: 389; Stark 1952: 129; Yanovskii & Tegshzhargal 1985: 415. (**tx**) Balachowsky 1948: 35, 1949a: 82; Butovitsch 1929: 7–8, 35–36; Eggers 1908e: 193, 1910e: 35, 1913a: 285–286, 1914: 298, 1922d: 116–118, 1927d: 122–123; Grune 1979: 38–39; Hagedorn 1910a: 123; Lucht 1987: 275; Luigioni 1929: 990; Michalski 1968a: 111, 122, 1968b: 191, 1969c: 659, 1973a: 116–117, pl. 39; Pfeffer 1955a: 82; Postner 1974: 387; Reitter 1894a: 42, 1913a: 21–24; Schedl 1934f: 1633, 1948b: 35, 1962q: 486, 1964a: 96, 1980a: 2, 1981b: 42; Schevrew 1890: 99; Semenov 1902: 266–267, 1903: 80; Sokanovskii 1929: 212, 1930: 803, 1954: 14, 1966: 386, 389; Spessivtsev 1931: 16–17; Stark 1941: 299–301, 1952: 129–130.

aceris Knotek 1892b: 235. Syntypes ♂ ♀; Bosnia, Herzegovina; Austria inferior; Sarajevo Museum. Synonymy: Eggers 1927d: 122.

References: (**ay**) Escherich 1923b: 476, 516. (**cn**) Chorbadzhievo 1929; Escherich 1923b: 478, 516; Pierce, W. D. 1917: 148; Schimitschek 1955a: 139; Schwerdtfeger 1944a: 175, 1957a: 182; Wachtl 1901: 381. (**ce**) Chararas 1957d; Kleine 1908c: 177, 1944: 78; Meyer 1934: 612; Schimitschek 1955a: 139; Schwerdtfeger 1944a: 175, 1957a: 182; Thompson, W. R. 1943: 105. (**hb**) Chorbadzhievo 1929; Escherich 1923b: 478, 516; Fuchs 1904a; Gyorf 1957; Keller 1913: 242; Knotek 1894a: 553, 1897: 141, 1898b: 318; Lengerken 1939: 50, 1954: 69; Lepiney & Mimeur 1932: 44; Peyerimhoff 1919: 247; Rudnev 1929: 517–519; Schimitschek 1955a: 139; Schwerdtfeger 1944a: 175, 1957a: 182; Spessivtsev 1913a: 42; Wachtl 1901: 381. (**ds**) Balachowsky 1944b; Buresh & Lazarov 1956; Butovitsch 1929: 6–7; Chorbadzhievo 1924d, 1929; Escherich 1923b: 478, 516; Fuchs 1904a; Hagedorn 1910d: 83; Heyden, Reitter, & Weise 1906: 708; Kleine 1913a: 34, 1913b: 151; Knotek 1892a: 35, 1894a: 553, 1898b: 818; Kurir 1947c: 28; Lepiney & Mimeur 1932: 44; Peyerimhoff 1919: 247; Pierce, W. D. 1917: 148; Reitter 1894a: 42, 1916:

272, 349; Schilsky 1909: 187; Sokanovskii 1966: 389; Tredl 1907: 6; Tschorbadzhiev 1929: 155. (**tx**) Balachowsky 1944b, 1949a: 82; Chorbadzhievo 1924d; Cieslar 1894; Csiki 1906; Eggers 1908e, 1927d: 122; Escherich 1923b: 478, 516; Hagedorn 1910a: 123; Knotek 1892a: 35, 1892b: 235, 1894b: 87; Reitter 1894a: 42, 1913a: 21, 1916: 272, 349; Schedl 1934f: 1633, 1948b: 35; Semenov 1902: 268; Sokanovskii 1966: 389; Spessivtsev 1913a: 42. (**ms**) Cieslar 1894; Knotek 1894b: 87.

siculus Eggers 1908: 193 (reprint p. 1). Holotype ♀; Siciliae insulae nontibus Maldoniensibus; Ragusa Collection, not located. Synonymy: Eggers 1922d: 117.

References: (**hb**) Cecconi 1924. (**ds**) Kleine 1913b: 152; Schaufuss 1915: 1206; Sokanovskii 1966: 389. (**tx**) Balachowsky 1949a: 32; Butovitsch 1929: 7; Eggers 1908: 193, 1911: 193, 1913a: 286, 1922d: 117–118, 1927: 122; Hagedorn 1910a: 124; Peyerimhoff 1919: 248; Schedl 1934f: 1633; Sokanovskii 1966: 389.

koltzei Reitter 1894d: 128. Holotype ♂; Chingan (Amur), USSR; NHMB, Budapest.

Figures: Michalski 1973a:pl. 7.

Distribution: Asia ("Manchuria" [Heilongjiang?]) in China/ Primorye in E USSR).

Hosts: *Tilia amurensis*, *T. mandshurica*.

References: (**ay**) Butovitsch 1929: 8, 47. (**hb**) Budkov 1897; Kurenzov 1948b: 125; Stark 1952: 123. (**ds**) Budkov 1897; Butovitsch 1929: 8, 47; Hagedorn 1910d: 85; Heyden 1898: 76; Kleine 1913b: 151, 1914b: 250; Krivolutskaya 1983; Kurenzov 1965; Michalski 1973a: 39; Reitter 1894a: 41; Sokanovskii 1966: 381; Stark 1952: 123. (**tx**) Butovitsch 1929: 8, 47; Eggers 1912a: 48, 1912c: 205, 1913a: 284–286; Hagedorn 1910a: 123; Kurenzov 1941a: 88–89, 105, 1948b: 125; Michalski 1969c: 660, 1973a: 39–41, pl. 7; Reitter 1894a: 4, 1894d: 128, 1913a: 19; Schedl 1934f: 1633, 1941a: 42, 1948b: 17; Sokanovskii 1954: 14, 1958: 37, 1966: 381–388; Stark 1936: 154, 1952: 123.

vexator Reitter 1913a: 23. Holotype ♀; East Siberia: Amur; NHMB, Budapest. Synonymy: Schedl 1948b: 17.

References: (**ay**) Butovitsch 1929: 10, 47. (**ce**) Kurenzov 1934a: 57. (**hb**) Kurenzov 1935a: 24. (**ds**) Butovitsch 1929: 10, 47; Kurenzov 1934a: 57, 1935a: 24. (**tx**) Butovitsch 1929: 47; Eggers 1913a: 285; Reitter 1913a: 23; Schedl 1934f: 1633, 1948b: 17.

kozikoewskii Michalski 1964: 663. Holotype ♂; prope Lugansk, Derkulscoe Forestry, Ukrain, USSR; IZL, Leningrad.

Figures: Michalski 1973a:pl. 7.

Distribution: Asia (Ukraine in W USSR).

Hosts: *Ulmus laevis*.

References: (**ds**) Michalski 1973a: 41; Sokanovskii 1966: 388. (**tx**) Michalski 1964: 663, 1968a: 109,

1968b: 188–189, 1973a: 41–43, pl. 8; Sokanovskii 1966: 358.

laetus Wood 1975a: 25. Holotype ♂; 48 km N Rosamorada, Nayarit, Mexico; Wood Collection. Distribution: North America (Nayarit in Mexico). Hosts: *Inga paterno*.

References: (hb) Kirkendall 1984: 235; Wood, S. L. 1982b: 450. (ds) Wood, S. L. 1982b: 450. (tx) Wood, S. L. 1975a: 25, 1982b: 450.

laevis Chapuis 1869: 54. Syntypes 4, sex²; Pyrenees, Bavaria, Steiermark (Austria); IRSNB, Brussels. Figures: Balachowsky 1949: 75 (adult), Michalski 1973a: pl. 20, Pfeffer 1989a: pl. 5, Sokanovskii 1966: 356.

Distribution: Asia (E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ France/ Germany/ Greece/ Hungary/ Norway/ Poland/ Spain/ Sweden/ W USSR/ Yugoslavia).

Hosts: *Ulmus* spp., *Acer* sp., *Alnus* sp., *Corylus* sp., *Fagus* sp., *Malus* sp., *Quercus* sp., *Tilia* sp.

Notes: (3) Butovitsch 1929: 44 (described var. *pomacearum*, no status in nomenclature, synonymy by Schedl 1948b: 36).

References: (ay) Anderbrant, O. & Schlyter 1987a; Butovitsch 1929: 5, 44–45; Escherich 1923b: 439, 478, 494; Negru 1968b: 802; Nusslin 1911a: 58, 129, 337; Scholz 1905: 144. (bv) Anderbrant, O. & Schlyter 1987b; Barr, B. A. 1969: 643; Grune 1979: 37; Kirby, S. G. & Fairhurst 1983; Maksimovic 1979a: 285; Michalski 1959c: 170; Prell 1926: 69; Wichmann 1967. (cn) Atkins, O'Callaghan, & Kirby 1981; Austara et al. 1983; Bejer-Petersen 1978; Bevan 1987: 121; Chorbadzhievo 1929; Eckstein 1926: 577; Edelman & Malysheva 1959a, 1959b; Ehnstrom 1985; Eidmann & Klingstrom 1976: 236; Escherich 1923b: 439, 478, 494; Esterberg 1959; Falek 1916: 164; Fransen 1933: 39; Fystro 1960; Gabler 1955; Harding & Ravn 1982: 478; Hess & Beck 1914: 239, 1927: 295; Kaiser 1931; Leach 1940b: 227; Lekander 1951a: 73, 1954b: 7; Lekander et al. 1951: 3; Lustner et al. 1935: 81; Mathiesen 1950: 74; Nosek 1951: 106, 1952b: 98; Pfeffer 1979: 148; Pierce, W. D. 1917: 96; Readio 1935: 344; Rhumbler 1927: 285; Roll-Hansen 1963: 69; Schimitschek 1927: 279, 1951a: 101, 1955a: 155, 1955c: 73; Schwerdtfeger 1944a: 172, 1957a: 181; Tubeuf 1936: 500; Vajda 1952: 114; Wachtl 1901: 350; Yde-Anderson 1982; Zakharov & Levkovich 1951: 300. (ce) Anderbrant, O. & Schlyter 1987b; Androic 1966: 46; Apel 1983; Atkins, O'Callaghan, & Kirby 1981; Balazy 1965a; Bejer-Petersen 1978; Cooreman 1963: 46; Crowson 1981a; Escherich 1925a, 1935; Fleischer 1911; Fransen 1933: 39, 1937b; Gabler 1947b; Harding & Ravn 1982: 478; Heqvist 1963; Hirschmann 1960; Hirschmann & Wisniewski 1952, 1953; Jannicky 1957b: 20, 1957c; Kirby, S. G. & Fairhurst 1983; Kleine 1908c: 177, 1909a: 42; Leach

1940b: 227; Lindeman 1964: 78–82, 112; Maksimovic 1979a: 285; Nosek 1951: 106, 1952b: 87, 98, 1959a: 118; Pettersen 1976b; Pfeffer 1931b: 7, 74, 1943b: 179, 1979: 145; Prell 1926: 69; Rummikainen 1954: 24; Schimitschek 1930a: 258, 1955a: 155, 1964e; Schlyter et al. 1987; Schwerdtfeger 1944a: 172, 1957a: 181; Sedlacek 1935a: 162; Sellnik 1931: 155; Vitzthum 1923: 110, 1926: 408; Webber & Gibbs 1989; Westerboer 1963: 254; Wichmann 1967; Yde-Anderson 1978, 1982, 1983a, 1983b. (hb) Apel 1983; Bevan 1987: 121; Bukowsky 1930; C. 1928; Chorbadzhievo 1929; Czech 1887; Dombrowsky 1887, 1892; Eckstein 1897, 1926: 577; Edelman & Malysheva 1959b; Eichhoff 1881a: 40, 152; Eidmann & Klingstrom 1976: 236; Escherich 1923b: 439, 478, 494; Falek 1916: 164; Fisher 1931; Fuchs 1904a; Gabler 1955; Gyorf 1957; Harding & Ryan 1982: 478; Henschel 1895a: 156; Hess & Beck 1914: 239, 1927: 295; Kalandra & Pfeffer 1935; Karpinski & Strawinski 1948: 153; Keller 1913: 242; Kemner 1919: 171–176; Kirby, S. G. & Fairhurst 1982, 1983; Knotek 1894a: 553, 1897: 137, 1898b: 315; Lekander 1954b: 7; Maksimovic 1979a: 285; Marcu 1941: 401; Michalski 1959c: 170; Nosek 1959a: 118, 1959b: 87; Numberg 1929c: 113; Palm 1958: 347; Parihar & Hayes 1987; Pfeffer 1942a: 10, 1989a: 47; Postner 1974: 383; Rhumbler 1927: 285; Rimski-Korsakov et al. 1949: 272; Samal 1928: 141; Schedl 1951b: 42; Schimitschek 1930a: 288, 1955a: 155; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Sedlacek 1935a: 162; Simmel 1919a: 34–36; Spessivtsev 1913a: 35; Stark 1926a: 331, 1952: 120; Tragardh 1939b: 165; Tschorbadzhiev 1929: 154; Wachtl 1901: 350; Wichmann 1909a: 147–149, 164–165. (ds) Allen, A. A. 1985; Androic 1966: 46; Atkins, O'Callaghan, & Kirby 1981; Audras & Schaefer 1957; Balachowsky 1944b; Bangsholt 1975: 95; Barthe 1896; Bejer-Petersen 1978; Bejer-Petersen & Jorrm 1977: 3; Brakman 1966b: 203; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1929: 8, 44–45; Calwer 1884, 1893; Chapuis 1869: 54, 1873: 262; Chorbadzhievo 1929; Csiki 1914; Dzambazivili 1961a: 751–757, 1961b: 1253–1254; Endrodi 1958b, 1986: 217; Escherich 1923b: 439, 478, 494, 1932b; Esterberg 1959; Fuchs 1904a, 1905a; Gabler 1949b; Gemminger & Harold 1872: 2695; Gozis 1875: 80; Grill 1895: 312; Grune 1979: 37; Hagedorn 1910d: 85; Hansen, V. 1939, 1956, 1964: 456; Hellen 1947; Henschel 1895a: 156; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Horion 1951; Jacentkovsky 1935: 22; Karpinski 1948b: 228; Karpinski & Strawinski 1948: 153; Kemner 1919: 171–176; Klefbeck & Sjoberg 1960; Kleine 1912a: 263, 267, 1913a: 34, 1913b: 151, 1934a: 169; Knotek 1892a: 35, 1894a: 553–555, 1898b: 315; Kozikowsky & Kuntze 1925: 18; Kurir 1947c: 24; Langhoffer 1915c: 156; Linder 1953: 71; Lucht 1987: 275; Luigioni 1929: 990; Lundgren

1988; Michalski 1973a: 70; Negrn 1966b, 1968a: 45-4; Numberg 1928b: 87, 91, 99-100, 1954: 89; Palm 1959: 28; Pascovici 1962; Pfeffer 1924b: 472, 1931b: 7, 74, 1935: 159, 1936: 89, 1989a: 47; Pierce, W. D. 1917: 96; Pittioni 1943: 176; Postner 1974: 383; Prossen 1913: 81; Reitter 1894a: 41, 1916: 270; Rimski-Korsakov et al. 1949: 272; Roubal 1908: 12-13, 1913: 146, 1941: 256; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1204; Schedl 1948b: 36, 1981b: 42; Schilsky 1909: 186; Schimitschek 1937: 43, 1951a: 101; Schwerdtfeger 1981: 187; Stark 1926a: 331, 1926j: 123, 1952: 120; Stein & Weise 1877: 164; Stroh-meyer 1912e: 250; Tragardh 1939b: 165; Tredl 1907: 6; Tschorbadjiev 1929: 154; Wichmann 1927a: 49; Winter, T. C. 1983: 46; Yde-Andersen 1978; Zinovjev 1955: 186, 191. (tx) Apel 1983; Balachowsky 1944b: 18-19, 1949a: 74-75; Butovitsch 1929: 8, 44-45; Chapuis 1869: 54, 1873: 262; Csiki 1906; Dombrowsky 1887, 1892; Eggers 1908: 12-13, 1912c: 202-203, 1913a: 286; Eichhoff 1881a: 40, 152, 1883a: 105, 129; Endrodi 1957a: 307, 1957b: 419; Escherich 1923b: 439, 478, 494; Formanek 1907: 9; Gabler 1949b, 1955; Grune 1979: 37; Hagedorn 1910a: 123; Hansen, V. 1956, 1964: 456; Henschel 1895a: 156; Iablokoff-Khuzorian 1961: 85; Jacentkovsky 1935: 22; Karpinski & Strawinski 1948: 153; Knotek 1892a: 35; Lovendal 1889b: 46, 1898: 58; Lucht 1987: 275; Luigioni 1929: 990; Lundgren 1988; Michalski 1959a: 171-174, 1962a: 53, 1962b: 202, 1967: 313, 1973a: 70-73, pl. 20; Negrn 1966b; Numberg 1929c: 113-116, 1954: 89, 99-100; Nusslin 1911a: 337, 58, 129; Pfeffer 1932b: 10, 1942a: 10, 1955: 87, 1989a: pl. 5; Portevin 1935: 309; Postner 1974: 383; Quaschik 1953: 35; Reitter 1894a: 40-41, 1913a: 17, 1916: 270; Rey 1892b: 30; Rhumbler 1927: 285; Schedl 1934f: 1633, 1948b: 36, 1980a: 2, 1981b: 42; Sehevrew 1893: 77; Schimitschek 1955c: 73; Sokanovskii 1966: 385-386; Spessivtsev 1913a: 35, 1921a: 316-326, 1922a: 456, 1925a: 152, 1931: 14-15; Stark 1952: 120-121. (ms) Escherich 1932b.

loevendali Eggers 1912c: 203 (*Eccoptyogaster*).

Syntypes ♂ ♀; Dyrehaven, Hadsund, Denmark; UZMC, Copenhagen. Synonymy: Balachowsky 1949a: 74.

References: (hb) Kemner 1919: 170-176; Numberg 1929c: 113. (ds) Kleine 1913b: 151, 1934a: 169; Pfeffer 1935: 159. (tx) Balachowsky 1949a: 74; Eggers 1912c: 203-204; Endrodi 1957: 410; Numberg 1929c: 113; Reitter 1913a: 17; Schedl 1934f: 1633, 1948b: 36.

laricis Blackman 1934: 24. Holotype ♂; Moscow, Idaho [USA]; USNM, Washington.

Figures: Edson 1967: 41 (adult), 56 (galleries).

Distribution: North America (British Columbia in Canada/ Idaho, E Montana, Oregon, Washington in USA).

Hosts: *Larix occidentalis*, *L. lyalli*.

References: (ay) Schmitz, R. F. & Furniss 1968. (cn) Doane et al. 1936; Keen 1938: 129, 1952c: 167; Tunnock 1966: 22. (cc) Keen 1938: 129; Marsh 1979: 150; Schedl 1958d: 187. (hb) Bright 1976d: 36; Chamberlin 1939: 232, 1958: 49; Doane et al. 1936; Edson 1967: 11; Keen 1938: 129, 1952c: 157. (ds) Blackwelder 1939; Bright 1976d: 36; Chamberlin 1939: 232, 1958: 49; Edson 1967: 11; Eshjerg & Bejer-Petersen 1979; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 403; Gast et al. 1989: 385; Keen 1938: 129, 1952c: 167; Patterson & Hatch 1945: 149; Schultz & Furniss 1968: 1626; Wood, S. L. 1972a: 397, 1982b: 433. (tx) Blackman 1934: 24-25; Bright 1976d: 36; Chamberlin 1939: 232, 1958: 49; Edson 1967: 11, 41; Wood, S. L. 1972a: 397, 1982b: 433.

major Stebbing 1903a: 203. Syntypes 2 ♂; syntypes labeled Konian, Chakrata, U. P., published as North-West Himalaya; FRI, Dehra Dun.

Distribution: Asia (Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India).

Hosts: *Cedrus deodara*, rare in *Pinus excelsa*.

References: (ay) Butovitsch 1929: 8; Gardner 1934b: 1-17. (cn) Beeson 1918: 114-124; Browne 1968: 644; Chatterjee 1917b: 1-4; Pierce, W. D. 1917: 52; Stebbing 1903a: 203, 1914: 568; Thapa & Pratap 1986. (ec) Beeson 1922c: 498; Khan 1975; Stebbing 1914: 568; Thapa & Pratap 1986; Thompson, W. R. 1943: 105. (hb) Beeson 1914: 1-5, 1918: 114-124, 1922c: 498; Browne 1968: 644; Stebbing 1903a: 203, 1909b: 21, 1911a: 5, 1914: 568; Thapa & Pratap 1986. (ds) Beeson 1922c: 498, 1961: 296; Browne 1968: 644; Butovitsch 1929: 8; Hagedorn 1910d: 85; Kleine 1913b: 151, 1914b: 270, 1934a: 169; Pierce, W. D. 1917: 52; Peyerimhoff 1933b: 392; Schedl 1974a: 85; Stebbing 1903a: 203. (tx) Butovitsch 1929: 8; Gardner 1934b; Hagedorn 1910a: 123; Schedl 1958g: 166; Stebbing 1903: 203, 1909a: 9, 1909b: 21, 1911a: 10, 1914: 568; Thapa & Pratap 1986.

minor Stebbing 1903a: 207, 1909b: 22. Holotype ♂; type labeled Kainthali, Chamba, published as North-West Himalaya, India; FRI, Dehra Dun. Synonymy: Beeson 1941 (1961: 296).

References: (ay) Butovitsch 1929: 8. (cn) Pierce, W. D. 1917: 52; Stebbing 1903a: 207, 1914: 577. (cc) Beeson 1922c: 498; Stebbing 1914: 577. (hb) Beeson 1922c: 498; Stebbing 1903a: 207, 1908a: 104, 1909b: 22, 1911a: 5, 1914: 577. (ds) Beeson 1922c: 498; Butovitsch 1929: 8; Hagedorn 1910d: 85; Kleine 1913b: 151, 1914b: 270; Peyerimhoff 1933b: 392; Pierce, W. D. 1917: 52; Stebbing 1903a: 207. (tx) Beeson 1941 (1961: 296); Butovitsch 1929: 8; Hagedorn 1910a: 123; Stebbing 1903a: 207, 1909b: 22, 1911a: 18, 1914: 577.

deodara Stebbing 1903a: 220. Syntypes, sex?;

India: N. W. Himalayas: Simla Hill States Divisions: Jamsar, Punjab: Chamba Division Simla: Cheog Forest; not at FRI, Dehra Dun, lost? Synonymy: Beeson 1941 (1961: 296).

References: (ay) Butovitsch 1929: 7. (cn) Beeson 1915: 1–5; Chatterjee 1917b: 1–4; Pierce, W. D. 1917: 52; Stebbing 1903a: 220. (cc) Beeson 1922c: 498. (hb) Beeson 1922c: 498; Stebbing 1903a: 220, 1908a: 108, 1909b: 23, 1911a: 5. (ds) Beeson 1922c: 498; Butovitsch 1929: 7; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 270, 277; Peyerimhoff 1933b: 392; Pierce, W. D. 1917: 52; Stebbing 1903a: 220. (tx) Beeson 1941 (1961: 296); Butovitsch 1929: 7; Hagedorn 1910a: 123; Stebbing 1903a: 220, 1909b: 23, 1909c, 1910: 37, 1914: 363–365.

mali (Bechstein) 1805: 882 (*Bostrichus*). Syntypes, sex?; Meiningen (?), Germany; not located.

Figures: Balachowsky 1963a: 1269, Michalski 1973a: pl. 40, Pfeffer 1989a: pl. 5, Sokanovskii 1966: 384. Distribution: Africa (Algeria/ Egypt/ Morocco), Asia (Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Ireland/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), North America (introduced into: Ontario, Quebec in E Canada/ Maryland, New Jersey, New York, Ohio in USA). Hosts: *Malus* spp., *Prunus* sp., *Pyrus* sp., *Cotoneaster* sp., *Crataegus* spp., *Sorbus* spp., *Ulmus* spp.

Notes: (3) Reitter 1913a: 19 (described aberration *strigilatus*, no status in nomenclature).

References: (ay) Butovitsch 1929: 8, 46; Escherich 1923b: 478, 511; Fisher 1954; Negru 1968b: 806; Numberg 1928a: 140; Nusslin 1911a: 377; Scherb 1971; Thomas, J. B. 1967. (bv) Barr, B. A. 1969: 643; Grune 1979: 37; Hellen 1921; Klimetzek & Kopp 1983; Michalski 1959c: 170; Prell 1930c: 631; Rudinsky, Vallo, & Ryker 1978; Wichmann 1967. (cn) Acatay 1943a: 58; Anonymous 1962j, 1963i; Baggiolini & Wildbolz 1965: 252; Brandt 1952, 1957; Chorbadzhievo 1929; Drooz 1985: 354; Escherich 1923b: 478, 511; Esterberg 1959; Fiori 1950; Fisher 1937c: 110–128; Garcia-Tejero 1955: 228; Gentry, J. W. 1965: 90; Ghillini 1948; Gradojevic 1938; Grigorovich 1960; Gyorfí 1946: 195, 1959; Hagedorn 1910c; Hahmann 1938: 116; Hellen 1921; Hill, D. S. 1983: 630; Kholodkovskii 1912: 290; Kleine 1932a: 304; Kotte 1941: 63–64, 1948: 69, 1958: 116; Lees 1926: 506–515; Lindquist, O. H. & Syme 1981: 99; Majernik 1957: 72; Marcu 1926c: 59; Martin 1959: 174; Masse 1934: 170, 1959: 118; Mokrzecki 1931a: 68; Muller 1912: 184; Nusslin 1913: 232; Pierce, W. D. 1917: 24; Reay 1969: 50; Rhumbler 1922: 274, 1927: 285; Richards 1935: 81–86; Roepke 1931: 162; Russ 1958: 113; Samal 1931: 98–103; Savary 1946: 93; Schimitschek 1935b:

146, 1955a: 144, 147, 1955c: 73; Schmidt 1949a: 54; Schneider-Orelli 1917a: 6; Schreier 1950: 393; Schwerdtfeger 1944a: 174, 1957a: 182; Sippell, Cross, & Rose 1969: 62; Soenen & Paternotte 1972; Syme & Nystrom 1988: 94; Vostrikov 1913: 40–41; Vukasovic 1932: 20–47; Wichmann 1927a: 358; Wilson, G. F. & Becker 1960: 86. (cc) Arambourg 1964: 115; Baggiolini & Wildbolz 1965: 252; Balazy & Michalski 1964b; Boucek 1957b: 80; Chararas 1957d; Devdariani 1971; Fisher 1954; Fuchs 1930; Gauss 1954a: 423; Heqvist 1963; Hirschmann 1971b: 40; Hirschmann & Zirnigle-Nicol 1961; Jammicky 1957b: 20, 1957c; Karg 1988; Kleine 1909a: 42, 1944: 73; Kostenko 1929; Lindeman 1964: 112; Michalski 1976; Michalski & Ratajczak 1989; Nikitsky 1978; Nosek 1956: 204, 1959a: 118, 1959b: 87; Novak, P. 1952: 411; Numberg 1930: 204; Numberg & Wiackowski 1958: 130; Nuorteva 1957b: 52; Nusslin 1927: 285; Pfeffer 1923a: 329, 1931b: 7, 1943b: 179; Poinar 1975: 168; Ruhm 1956b: 3, 1969; Schimitschek 1930a: 340, 1936a: 560, 1946: 9, 1955a: 144, 147, 1964c; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlaczek 1935a: 162; Szczepanski 1960a: 409; Tenkacova & Mituch 1987; Thompson, W. R. 1943: 105; Thompson, W. R. & Simmonds 1964: 36, 1965: 4; Tudor 1969: 34; Wichmann 1967. (hb) Acatay 1943a: 58; Adeli 1972: 14; Anonymous 1920: 63; Baker, W. L. 1972: 237; Balachowsky 1963a: 1263; Balachowsky & Mesnil 1935; Beffa 1949, 1961; Bonnemaion 1953; Bright 1976d: 31; Chorbadzhievo 1926: 175–241; 1929; Deyrup & Atkinson 1987a: 65; Drooz 1985: 354; Escherich 1923b: 478, 511; Fisher 1954; Gavalov 1927: 8–16; Gyorfí 1957; Hagedorn 1910c; Hemmings 1908c: 212; Hill, D. S. 1983: 679; Jammicky 1957d: 18; Kamp 1951a; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 153; Kholodkovskii 1912: 290; Kleine 1932a: 304; Korolkov 1929; Kotte 1941: 63–64; Kovacevic 1928: 33–41; Lengerken 1939: 50, 1954: 69; Loos 1913: 409; Luchnik 1925: 9–15; Madon 1930: 99; Majernik 1957: 72; Mercet 1929: 19–22; Michalski 1959c: 170; Mokrzecki 1931: 67–68; Nosek 1956: 204, 1959a: 118, 1959b: 87; Numberg 1929a: 92, 1929c: 113, 1947c: 100; Nusslin 1913: 232, 1927: 285; Obarski 1931: 14–23; Orelli 1917: 416–426; Palm 1954b: 28; Petri 1929: 1–66; Pfeffer 1942a: 16; Postner 1974: 357; Prell 1930c: 631; Rakushev 1916: 139–145; Rhumbler 1922: 274, 1927: 285; Robek 1930: 95–98; Roepke 1940: 168–174, 1947: 114–116; Saalas 1913a: 69; Sakharov 1925: 83–84; Schedl 1981b: 41; Schimitschek 1930a: 340, 1946: 7, 1955a: 144, 147; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlaczek 1935a: 162; Spessivtsev 1913a: 40; Stanek 1969: 255; Stark 1926a: 331, 1952: 123; Sureva 1929: 117; Tschorbadzhiev 1929: 154; Wahl 1926: 21–48; Wichmann 1927b: 358; Wilson, G. F. & Becker 1960: 86; Wood, S. L. 1982b: 426. (ds) Adeli 1972: 14; Ammann & Knabl 1913, 1923; Anonymous 1962j,

- 1963r; Audras & Schaefer 1957; Baggiolini & Wildbolz 1965: 252; Balachowsky 1944b, 1963a: 1263; Bangsholt 1975: 95; Beffa 1949; Bejer-Petersen & Jorum 1977: 3; Borchert 1951; Brakman 1966b: 203; Bright 1976d: 31; Brown, W. J. 1950: 203; Bucking 1932; Buresh & Lazarov 1956; Butovitsch 1929: 8, 46; Carpentier & Delaby 1908; Chorbadzhievo 1924d, 1929; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1985: 354; Dzhambazishvili 1961a: 751-757, 1961b: 1253-1254; Eder 1934; Endrodi 1958b; Escherich 1923b: 478, 511; Esterberg 1928, 1959; Everts 1925; Fagel & Guillaume 1935: 335; Gentry, J. W. 1965: 90; Grune 1979: 37; Hagedorn 1910d: 85; Hansen, V. 1939, 1956, 1964: 456; Hellen 1947; Heliessen 1916: 83; Heyden, Reitter, & Weise 1906: 708; Hill, D. S. 1983: 679, 1987: 337; Horion 1949, 1951; Jazentkovsky 1912: 286; Karpinski 1925: 215, 1926: 81, 1931: 21, 36, 1933b: 23, 1948b: 228; Karpinski & Strawinski 1948: 153; Keler 1925b: 270; Kersten 1933: 72; Kiefer et al. 1942: 528; Klefbeck & Sjoberg 1960; Kleine 1912a: 263, 267, 1913a: 34, 1913b: 151, 1914b: 248, 1932a: 304, 1934a: 169; Kobakhidze 1957: 178; Kostenko 1929; Kozikowsky 1921: 179; Krivolutsкая 1983; Krogerus 1942: 168; Langhoffer 1915c: 156; Leclercq 1971; Lindquist, O. H. & Syme 1981: 99; Lomnicki 1913b: 147; Loos 1913: 409; Lucht 1987: 275; Luigioni 1929: 990; Lundberg 1963b; Mahler 1987: 232; Marcu 1926c: 59; Michalski 1973a: 119; Munster 1922b: 134; Negru 1957: 129, 1966b, 1968a: 454; Novak, P. 1952: 411, 1964; Numberg 1928b: 88, 92, 1947a: 29, 1954: 92; Orest 1926c: 59; Palm 1954b: 28, 1959: 60, 212, 348; Pascovici 1962; Pfeffer 1931b: 7, 76, 1989a: 50; Pierce, W. D. 1917: 24; Pittioni 1943: 174; Pjatnitskii 1930a: 162; Postner 1974: 387; Prossen 1913: 82; Rapp 1934: 717; Redtenbacher 1874: 373; Reitter 1916: 271; Robek 1930: 96; Roubal 1913: 146, 1935b: 72, 1941: 256; Saalas 1913a: 69, 1931: 67; Sainte-Claire & Mequignon 1938: 443; Schaefer 1959: 235; Schamfuss 1915: 1204; Schedl 1961b: 186, 1980a: 2, 1981b: 41; Scheerpeltz & Winkler 1930: 255; Schilsky 1909: 186; Sifroshvili & Akhaladze 1966: 358; Sokanovskii 1966: 381; Stark 1926a: 531, 1926b: 101, 1926j: 123, 1927b: 85, 1952: 123; Syme & Nystrom 1988: 94; Tschorbadjev 1929: 154; Wichmann 1927a: 49-50; Winter, T. C. 1983: 44; Wood, S. L. 1977a: 72, 1982b: 415; Yanovskii & Tegshzhargal 1985: 415; Zoufal 1920: 20. (tx) Balachowsky 1944b: 19-21, 1949a: 76, 1963a: 1263; Balachowsky & Mesnil 1935: 21; Bechstein 1805: 822, 1818: 76, 217; Bechstein et al. 1805: 882; Beffa 1949, 1961; Bright 1976d: 28, 37; Butovitsch 1929: 8, 46; Carpentier & Delaby 1908; Ceballos 1945; Chapuis 1869: 59, 1873: 267; Chorbadzhievo 1924d; Duffy 1953; Eggers 1922c, 1929c: 42, 1933: 75-76, 1941c: 124, 1942d: 280-281; Eichhoff 1881: 154-155, 1883: 129-133; Endrodi 1957b: 420; Escherich 1923b: 478, 511; Formanek 1907: 9; Grigorovich 1960: 37; Hagedorn 1910a: 123; Hansen, V. 1956, 1965: 456; Iablokoff-Khnozorian 1961: 71; Kalina 1970: 129; Karpinski & Strawinski 1948: 153; Kuhnt 1913: 1048; Kurenzov 1941: 228; Lindquist, O. H. & Syme 1981: 99; Lucht 1987: 275; Luigioni 1929: 990; Michalski 1959c: 171-175, 1973a: 119-122, pl. 40; Negru 1966b; Numberg 1928a: 140, 1928b: 114-115, 1929c: 113, 1930: 200-208, 1954: 92; Nusslin 1911a: 377; Pfeffer 1932b: 10, 1942a: 16, 1955a: 87-89, 1989a: pl. 5; Portevin 1935: 310; Postner 1974: 387; Quaschik 1953: 35; Ratzeburg 1837: 186-187; Redtenbacher 1874: 373; Reitter 1894a: 41, 1913a: 19, 1916: 271; Rey 1892: 32; Rhumbler 1922: 274, 1927: 285; Saalas 1913a: 69; Schedl 1934f: 1633, 1947c: 62, 1948b: 27, 1952f: 86, 1980a: 2, 1981b: 41; Scherb 1971; Schevyrew 1893a: 121-122, 1893b: 85-88; Schimitschek 1937: 43, 1955c: 73; Schreier 1950: 393; Semenov 1904: 38; Sokanovskii 1954: 14, 1966: 381-389; Spessivtsev 1913a: 40, 1921a: 316, 1922a: 457, 1925a: 153, 1931: 14-16; Stark 1952: 123-125; Stresemann et al. 1989: 353; Syme & Nystrom 1988: 94; Thomas, J. B. 1967; Wood, S. L. 1982b: 426. (ms) Hellen 1921; Merino-Rodriguez 1966: 42.
- pruni* Ratzeburg 1837: 186 (*Eccoctogaster*). Syn-types, sex?; apparently Germany; ZIFH, Eberswalde. Synonymy: Bedel 1906: 93, Reitter 1913a: 19.
- References: (ay) Gahan 1900; Lekander 1959d: 92; Marcus 1930: 644; Nusslin 1911a: 51; Schneider-Orelli 1913: 17; Scholz 1905: 144; Sedlaczek 1902b: 244. (cn) Archer 1866; Barbey 1902: 164; Baudys 1920: 55-58; Berlese 1915; Fisher 1937c; Gehin 1857b: 63; Coureau 1861: 107, 1865: 19; Hess 1900: 54; Hess & Beck 1914: 243, 1927: 298; Hoffmann 1913: 218-220, 1916: 260; Judeich & Nitsche 1895: 444, 485; Kemner 1906; Kollar 1841: 266; Koppen 1882: 250; Krainsky 1914: 329-339; Letzner 1880: 355; Lokaj 1906: 22; Lustner 1913a: 4; Martelli 1914: 165-170, 677, 1915: 165; Packard 1890: 860; Picard 1921: 15; Pierce, W. D. 1917: 24; Roark & McIndoo 1941: 29; Schneider-Orelli 1907: 289, 1915a: 66, 1915b: 47; Tübeuf 1936: 500; Vajda 1952: 114; Wachtl 1901: 380; Weber 1926: 577; Wellhouse 1922: 1106; Zirngiebl 1901: 57; Zum 1902: 19. (cc) Barbey 1902: 164; Elliot & Morley 1907; Fintescu 1930a: 245; Francke-Grosman 1931; Gabler 1947b; Gillanders 1906; Girand & Laboulbene 1877: 427; Grossmann 1931a; Gyorfí 1941b, 1952b; Hinton 1945: 222; Hormuzaki 1893: 108; Hubenthal 1902: 291; Kleine 1908c: 177; Klimesch 1914c: 59; Perris 1856a: 243; Rondani 1873: 162; Schneider-Orelli 1912a: 324, 1913: 27, 1915: 65-67, 1916: 5-9, 17-21; Vietinghoff 1924: 337. (hb) Bach 1864; Barbey 1901: 10, 16, 40; Bargmann

1906; Bandys 1929; Berlese 1915; Budkov 1897; Chapman 1869c: 126–131; Chittenden 1890; Dallimore & Munro 1922; Dombrowsky 1887, 1892; Eckstein 1889, 1897; Eichhoff 1881a: 41, 154; Everts 1900, 1903: 741; Fisher 1931; Fuchs 1904a, 1905c: 340; Gahan 1900; Gillanders 1906, 1908; Girard 1873; Hagedorn 1903a; Henschel 1876a: 202, 242, 1895a: 156; Hess 1900: 54; Hess & Beck 1914: 243, 1927: 298; Hilter 1909; Judeich 1880: 160; Judeich & Nitsche 1895: 444, 485; Knoche 1905: 354; Knotek 1894a: 553, 1897: 140, 1898b: 318; Kollar 1840: 266; Letzner 1845: 37, 1846: 76; Lindemann 1881b: 171–173, 1887: 197; Lunardoni & Leonardi 1889: 452; Lustner 1913a: 4; Munro 1926: 46; Nordlinger 1856: 43, 1869: 335; Nusslin 1898: 276; Packard 1890: 860; Perris 1856a: 243; Procházka 1929: 36; Ratzeburg 1837: 186, 1839: 229; Robek 1930: 96; Rupertsberger 1880: 228; Schneider-Orelli 1913: 27; Smith, J. B. 1886: 127; Taschenberg 1880: 240, 245, 1901: 106; Wachtl 1901: 380; Weber, H. 1926: 577; Wichmann 1909a: 148, 165; Zimigiebl 1901: 57; Zum 1902: 19. (**ds**) Acoque 1896; Andersch 1851; Barthe 1896; Bau 1885; Bedel 1888b: 387, 405; Bielz 1851, 1857; Blanchere & Robert 1889; Brancsik 1871, 1906; Budkov 1897; Calver 1884, 1893; Chapman 1870b, 1900; Chapuis 1869: 59, 1873: 267; Chapuis & Candeze 1853; Chittenden 1890; Credler 1868; Crotch 1863; Dallimore & Munro 1922; Debatisse 1945; Eggers 1904; Ericson & Sandin 1893; Everts 1900, 1922: 637; Eyquem 1891; Favre 1890; Fleischer 1888; Forster 1849: 440; Fowler 1891; Fricken 1889: 283; Fuchs 1904a, 1905a, 1905c: 340; Gaubil 1849: 127; Gehin 1857a: 392; Gemming & Harold 1872: 2695; Gozis 1875: 80; Gredler 1866: 372, 1869: 373; Grill 1895: 312; Gyorfí 1911b; Hagedorn 1903a; Heinemann 1908a; Henschel 1895a: 156; Heyden 1876: 295, 1881: 177, 1893: 177; Heyden, Eppelsheim, & Reitter 1855: 300; Heyden, Reitter, & Weise 1883: 171, 1891: 670; Hickin 1963; Hormuzaki 1888: 156, 1891: 174; Judeich & Nitsche 1895: 444, 485; Kaltenbach 1874: 154, 178; Kestercanek 1881: 12; Knotek 1892a: 35, 1894a: 553, 1898b: 315; Koltze 1901: 152; Koppen 1852: 250; Kotula 1873b: 80; Kraatz 1869: 59; Lacordaire 1866: 387; Lentz 1857: 140; Lesne 1917: 222–224; Letzner 1880: 355–356; Lindemann 1884b: 264, 1887: 197; Lokaj 1868: 63; Lomnicki 1886a: 241; Lunardoni & Leonardi 1889: 452; Matthews & Fowler 1883: 42; Meinert 1857: 70; Moritz 1920; Nusslin 1898: 276; Pacher 1865: 152; Perris 1876a: 254, 1877a: 414; Pierce, W. D. 1917: 24; Ratzeburg 1837: 186, 1839: 229; Redtenbacher 1858: 838; Reitter 1869b: 153, 1888b: 280, 1894a: 41; Robek 1930: 96; Sacharov 1914, 1915;

Schaum 1859: 95, 1862: 100; Schevyrew 1890c: 469; Schilsky 1909: 186; Schiodte 1873: 105; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Semenov 1904: 38; Sharp & Fowler 1893: 34; Smith, J. B. 1886: 127; Sokanovskii 1966: 389; Stein 1868: 144; Stein & Weise 1877: 164; Stierlin 1898: 436; Stierlin & Gantard 1871: 294, 1906: 205; Sturm 1843: 229; Thomson 1865: 374, 1868: 224; Trell 1907: 6; Wahl 1914; Wahl et al. 1914; Westhoff 1882: 235; Wiepken 1883: 89; Wille 1925b: 422. (**tx**) Acoque 1896; Bach 1854, 1864; Balachowsky 1949a: 76; Barbey 1901: 10, 16, 37; Bedel 1888b: 387, 405, 1906: 93; Bertolini 1872; Brancsik 1871; Chapuis 1869: 59, 1873: 267; Chapuis & Candeze 1853; Csiki 1906; Desbrochers 1891; Dombrowsky 1887, 1892; Eggers 1942d: 280–281; Eichhoff 1864b: 32, 1881a: 41, 154, 1883a: 105, 129; Escherich & Escherich 1897; Everts 1903: 741, 1922: 637; Fauvel 1887; Ferrant 1911; Fleischer 1905; Fricken 1889: 283; Gillanders 1908; Girard 1873; Henschel 1876a: 202, 242, 1895a: 156; Heyden 1893: 177; Judeich & Nitsche 1895: 444, 485; Knotek 1892a: 35; Lacordaire 1866: 387; Letzner 1846: 76, 1891: 374; Leonis 1856: 183; Lindemann 1881b: 171; Lovendal 1859b: 48, 1898: 59; Lunardoni & Leonardi 1889: 452; Nordlinger 1848: 253, 1856: 43; Nusslin 1911a: 51; Perris 1877a: 414; Pfeil 1862: 436; Ratzeburg 1837: 186, 1839: 229; Redtenbacher 1849: 361, 1849b: 27, 1858: 838; Reitter 1894a: 41, 1894d: 128, 1908b: 23, 1913a: 19; Rey 1892b: 30; Rupertsberger 1880: 228; Schedl 1934f: 1633, 1948b: 27; Schlechtendal & Wunsche 1879: 125; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Semenov 1904: 38; Simmel 1918: 288; Sokanovskii 1966: 389; Spessivtsev 1921: 315–326; Stierlin 1898: 436; Taschenberg 1880: 240, 245, 1901: 106; Thomson 1865: 374, 1868: 224. (**ms**) Heinemann 1908a; Klimesch 1914c: 59.

pyri Ratzeburg 1837: 186 (*Eccoptogaster*). Syn-types, sex²; Wage- und Lothgängen, Germany; ŽIFH, Eberswalde. Synonymy: Ratzeburg 1839: 229; Michalski 1973a: 119.

References: (**cn**) Fiske 1830; Letzner 1880: 355; Schimitschek 1947g: 168, 1955a: 144, 148. (**cc**) Kleine 1905c: 177; Schimitschek 1946: 9, 1955a: 144, 148. (**hb**) Bach 1864; Buddenberg 1855; Budge 1949; Dombrowsky 1892; Eckstein 1897; Henschel 1876a: 200, 242; Letzner 1845: 37, 1846: 76; Nordlinger 1855: 186, 1856: 43, 1869: 335; Ratzeburg 1837: 186, 1839: 229; Schimitschek 1946: 9, 1955a: 144, 148; Taschenberg 1901: 107. (**ds**) Andersch 1851; Bach 1849c; Chorbadzhievo 1924d; Fleischer 1888; Forster 1849: 440; Gaubil 1849: 127; Heyden 1876: 296; Lentz 1857: 140; Lomnicki 1886a: 241; Negru 1966b: 398; Perris 1876a:

- 254, 1877a: 414; Prossen 1913: 82; Ratzeburg 1837: 186, 1839: 229; Redtenbacher 1874: 373; Reitter 1894a: 41; Roubal 1908: 13, 1941: 256; Schaum 1859: 95, 1862: 100; Schilsky 1909: 186; Seidlitz 1891a: 557; Semenov 1904: 39; Sokanovskii 1966: 389; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 436; Stierlin & Gautard 1906: 205; Sturm 1843: 229; Westhoff 1882: 238; Zoufal 1920: 20. (**tx**) Bach 1864; Chorbadzhievo 1924d; Dombrowsky 1892; Eggers 1942d: 280–282; Henschel 1876a: 200, 242; Letzner 1846: 76, 1891: 374; Michalski 1973a: 119; Nordlinger 1848: 253, 1856: 43; Perris 1877a: 414; Pfeil 1862: 436; Ratzeburg 1837: 186, 1839: 229; Redtenbacher 1874: 373; Reitter 1894a: 41; Schedl 1934f: 1633, 1947c: 63–64; 1948b: 27; Seidlitz 1891a: 557; Semenov 1904: 38; Sokanovskii 1966: 389; Stierlin 1898: 436; Taschenberg 1901: 107.
- castaneus* Ratzeburg 1837: 187 (*Eccoptyogaster*). Syntypes, sex?; Germany; ZIFH, Eberswalde. Synonymy: Eichhoff 1881a: 154, Schedl 1948b: 27. References: (**cn**) Berlese 1915. (**hb**) Berlese 1915; Dombrowsky 1892; Ratzeburg 1837: 186, 1839: 230. (**ds**) Blanchere & Robert 1889; Calwer 1884, 1893; Chapuis 1869: 59, 1873: 267; Eyquem 1891; Gaubil 1849: 127; Gemminger & Harold 1872: 2695; Gozis 1875: 80; Heyden 1876: 296; Kraatz 1869: 59; Lacordaire 1886a: 387; Leder 1871: 131; Lomnicki 1886a: 241; Ratzeburg 1837: 186, 1839: 230; Redtenbacher 1858: 838, 1874: 373; Reitter 1849a: 41; Roubal 1941: 257; Schaum 1859: 95, 1862: 101; Schilsky 1909: 156; Semenov 1904: 38; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 436; Stierlin & Gautard 1871: 294; Sturm 1826: 102, 1843: 229; Westhoff 1882: 258. (**tx**) Bach 1854; Balachowsky 1949a: 76; Bertolini 1872; Chapuis 1869: 59, 1873: 257; Dombrowsky 1892; Eggers 1942: 280–281; Eichhoff 1881a: 154; Lacordaire 1866: 387; Letzner 1891: 374; Ratzeburg 1837: 186–187, 1839: 230; Redtenbacher 1849: 792, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 41; Schedl 1934f: 1633, 1948b: 27; Semenov 1904: 38; Stierlin 1898: 436.
- sulcatus* LeConte 1868: 167. Holotype ♀; New York [USA]; MCZ, Cambridge. Synonymy: Brown 1950: 203. Notes: (3) Blackman 1934: 12 (re-described). References: (**ay**) Butovitsch 1929: 9. (**cn**) Blackman 1950; Britton 1933: 390; Collins 1940: 130–139, 1941: 370; Friend 1942a: 466; MacNay & Creelman 1958: 13; Martin 1936: 300; Pechuman 1943: 119; Pomerleau 1946: 13; Smucker 1942: 441–442; Wallace 1942: 540–541; Wallace & Beard 1942: 86–87. (**ec**) Buchanan 1940b: 250–251; Bushing 1965: 467; Smucker 1942: 441; Westerhoer 1963: 391. (**hb**) Blackman 1950; Buchanan 1940b: 250–251; Chamberlin 1939: 227; Pechuman 1938: 537. (**ds**) Anonymous 1926c: 515; Blackman 1950; Blackwelder 1939; Blatchley & Leng 1916: 590; Butovitsch 1929: 9; Chamberlin 1939: 227; Dietrich 1936b: 217; Gemminger & Harold 1872: 2696; Hagedorn 1910d: 89; Henshaw 1882: 269, 1885; Hoffmann 1942: 12; Kaston 1938: 240; Kleine 1913b: 152; Leng 1920: 337; Leonard 1928: 515; MacNay 1949: 72; MacNay & Creelman 1958: 13; Pechuman 1937: 13; Swaine 1909: 107, 1910a: 33. (**tx**) Blackman 1934: 12–13; Blatchley & Leng 1916: 590; Brown, W. J. 1950: 203; Butovitsch 1929: 9; Chamberlin 1939: 227; Hagedorn 1910a: 124; LeConte 1868: 167, 1976: 371, 373; Muesebeck 1950: 137; Pechuman 1938: 537–543; Swaine 1909: 107, 1910a: 33, 1918a: 52.
- nitidulus* Chapuis 1869: 59. Holotype ♀; France meridionale; IRSNB, Brussels. Synonymy: Hagedorn 1910d: 85, Schedl 1948b: 27. References: (**ds**) Calwers 1884, 1893; Gemminger & Harold 1872: 2695; Gozis 1875: 80; Heyden, Reitter, & Weise 1883: 181; Semenov 1904: 38. (**tx**) Balachowsky 1949a: 76; Chapuis 1869: 59, 1873: 267; Eggers 1942d: 280–281; Hagedorn 1910d: 85; Schedl 1934f: 1633, 1948b: 27; Semenov 1904: 38.
- bicallosus* Eggers 1933: 75. Holotype ♂; Sagvar, Ungarn; USNM, Washington. Synonymy: Eggers 1942d: 283. References: (**ec**) Schimitschek 1964. (**tx**) Anderson, W. H. & Anderson 1971: 6; Balachowsky 1949a: 77; Eggers 1933: 75, 1941: 124, 1942d: 280, 283; Endrodi 1957: 420; Schedl 1947c: 62, 1948b: 27; Sokanovskii 1954: 14.
- marginatus* Chapuis 1869: 56. Holotype ♀; Yucatan, Mexico; IRSNB, Brussels. Distribution: North America (Guatemala/ Yucatan in Mexico), South America (Venezuela). References: (**ds**) Blackwelder 1947: 788; Blandford 1896e: 121–122; Butovitsch 1929: 8; Ferrer 1942; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 85; Kleine 1913b: 151, 1914b: 353, 365; Wood, S. L. 1982b: 449. (**tx**) Blandford 1896e: 121–122; Butovitsch 1929: 8; Chapuis 1869: 56, 1873: 56; Eggers 1933b: 1; Hagedorn 1910a: 123; Schedl 1937h: 155, 163, 1940a: 329; Wood, S. L. 1982b: 449.
- productus* Hagedorn 1905: 547. Holotype ♂; San Esteban, Venezuela; MNHN, Paris. Synonymy: Eggers 1933b: 1. References: (**ay**) Butovitsch 1929: 9. (**ds**) Butovitsch 1929: 9; Hagedorn 1910d: 85; Kleine 1913b: 152, 1914b: 340. (**tx**) Butovitsch 1929: 9; Eggers 1933b: 1; Hagedorn 1905: 547, 1910a: 123.

monticolae (Swaine) 1917: 32 (*Eccoptyogaster*).

Lectotype ♀; Arrowhead, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 674.

Figures: Edson 1967: 46 (adult), 57 (galleries).

Distribution: North America (British Columbia in Canada/ W Montana, Washington in USA).

Hosts: *Pseudotsuga menziesii*, rare in *Pinus monticola*.

References: (ay) Butovitsch 1929: 8. (cn) Doane et al. 1936; Essig 1926: 512, 1958: 512; Hatch 1938: 193; Keen 1952c: 158; Swaine 1918a: 53. (ec) Bedard 1933a; Chamberlin 1918a: 28. (hb) Chamberlin 1939: 228, 1958: 44; Doane et al. 1936; Edson 1967: 18; Essig 1926: 512, 1958: 512; Keen 1952c: 158; McMullen & Atkins 1959b: 416; Swaine 1918a: 53; Wood, S. L. 1982b: 435. (ds) Bedard 1938a; Blackwelder 1939; Butovitsch 1929: 8; Chamberlin 1918a, 1939: 228, 1958: 44; Edson 1967: 18; Essig 1926: 512, 1958: 512; Gast et al. 1989: 385; Hopping 1922; Keen 1929a: 13, 1952c: 158; Kleine 1934a: 169; Leng 1920: 337; McComb et al. 1953: 4; McMullen & Atkins 1962a: 22; Patterson & Hatch 1945: 148; Schuder 1969: 81; Thatcher 1935: 261; Wood, S. L. 1948: 10, 1951a: 127, 1982b: 435. (tx) Blackman 1934: 6–7, 15–16; Bright 1967b: 674; Butovitsch 1929: 8; Chamberlin 1939: 228, 1958: 44; Edson 1967: 18, 46; Hoebeke 1978; Keen 1929a: 13; de Ruelle 1970: 101; Swaine 1917: 32, 1918a: 52–53; Wood, S. L. 1966b: 30, 1970: 101, 1982b: 435. (ms) Hatch 1938: 193.

morawitzi Semenov 1902: 267. Holotype ♀; Petrovsk-Zabaikalye, in syst. fluvii Baleaga, Zabaikalye, USSR; not located.

Figures: Michalski 1973a: pl. 42, Tsai & Li 1959: 78, Yin, Huang, & Li 1984: 37.

Distribution: Asia (Heilongjiang in China/ E USSR).

Hosts: *Larix gmelinii*, *L. sibirica*, *L. spp.*, *Pinus koraiensis*.

References: (ay) Butovitsch 1929: 8, 48–49. (bv) Grune 1970: 39; Rozhkov 1970: 133. (cn) Esterberg 1959; Kontanen 1932: 62; Kurenzov 1935c: 188; Plorov 1948: 55; Yanovskii & Korotkov 1984. (ec) Kurenzov 1934a: 57; Lindeman 1961: 99; Yanovskii & Korotkov 1984. (hb) Isaev 1966: 53–58; Kurenzov 1935a: 19, 24, 1948b: 102, 1950d: 195; Lindeman 1978; Postner 1974: 387; Rimski-Korsakov et al. 1949: 300; Rozhkov 1970: 133; Stark 1952: 137; Vitomskii 1928a: 178–184; Yin, Huang, & Li 1984: 36. (ds) Butovitsch 1929: 8, 48–49; Esterberg 1959; Grune 1979: 39; Hagedorn 1910d: 85; Hansen, V. 1939; Hellen 1947; Klefbeck & Sjoberg 1960a: 228; Kleine 1913b: 151, 1914b: 250, 1934a: 169; Kontanen 1932: 62; Krivolutskaia 1983; Kurenzov 1934a: 57, 1935a: 19, 24, 1935c: 188, 1936a: 114, 1936b: 351, 1938a: 65, 1965, 1967; Michalski 1973a: 124; Nuorteva

1971: 71; Postner 1974: 387; Rimski-Korsakov et al. 1949: 300; Rozhkov 1970: 133; Shirskaya 1961; Sokanovskii 1966: 390; Stark 1931a: 21, 1931d: 542, 1946: 595, 1952: 137; Strand 1946: 595; Yanovskii 1974, 1977a; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 405; Yin, Huang, & Li 1984: 36; Zinovjev 1955: 191. (tx) Butovitsch 1929: 8, 48–49; Eggers 1942c: 33–34; Grune 1979: 38–39; Hagedorn 1910a: 123; Kurenzov 1941a: 76–77, 1948b: 102; Michalski 1973a: 124–126, pl. 42; Postner 1974: 387; Reitter 1913a: 20; Schedl 1934f: 1632, 1945b: 16; Schmidt, G. 1980: 20; Semenov 1902: 267; Sokanovskii 1966: 390; Spessivtsev 1931: 18–19; Stark 1950: 224, 1952: 137–138; Tsai & Li 1959: 78; Tsai, Yin, & Huang 1962: 5, 9; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 36.

pini Eggers 1942c: 33. Holotype ♀; Ussuri (Samarga); Eggers Collection, in NHMW, Wien. Synonymy: Michalski 1973a: 124.

References: (cn) Archer 1866. (ec) Reid 1957c: 111. (hb) Stark 1952: 137. (ds) Sokanovskii 1966: 390; Stark 1952: 137. (tx) Eggers 1942c: 33–34; Michalski 1973a: 124; Pfeffer 1944a: 131; Schedl 1948b: 31, 1979c: 195; Sokanovskii 1966: 390; Stark 1952: 137. (ms) Pfeffer 1944a: 131.

multistriatus (Marshall) 1802: 54 (*Ips*). Syntypes, sex?, England; not located, possibly in BMNH, London.

Figures: Balachowsky 1949a: 23, Barbey 1925: 601, Bevan 1987: 115, Borror & DeLong 1954: 423, Michalski 1973a: pl. 9.

Distribution: Africa (Algeria/ Morocco), Asia (Iran/ Turkey/ E USSR), Australia (introduced), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Ireland/ Italy/ Luxemburg/ Netherlands/ S Norway/ Poland/ Portugal/ Romania/ Sardinia/ Spain/ S Sweden/ Switzerland/ W USSR/ Yugoslavia), New Guinea (intercepted, introduced?), North America (introduced into S Canada and all states of USA).

Hosts: *Ulmus* spp., rare in other hosts.

Notes: (3) Eichhoff 1880: 41, 160 (named an aberration or var. *triornatus*, no status in nomenclature). From 1920 to 1990, hundreds of articles that are not listed here appeared in popular and semi-scientific journals and treated this species and Dutch elm disease; most of these are listed in the Experiment Station Record and the Insect Pest Review.

References: (ay) Angst 1981; Baker & Estrin 1974; Beard et al. 1941; Blight, Henderson, & Wadhams 1983; Butovitsch 1929: 8, 24–25; Cernigliaro & Kocienski 1977; Chararas 1956a; Chararas, Chipoulet, & Courtois 1979; Chatterjee 1971b; Choudhury 1979; Doskotch, Mikhail, & Chatterjee 1973; Elliott, W. J. & Fried 1976; Esch-

- erich 1923b: 477, 494; Ferkovich & Norris 1971; Francke-Grosmann 1959; French, D. W. & Marinus 1970; Cahan 1900; Galford 1972; Grant, A. J. & Lanier 1982; Grove 1983; Henderson & Wadhams 1981; Jefferies & Fairhurst 1982; Jumper & Cannon 1975, 1976; Kaston 1936; Kndon & Berisford 1981; Meyer 1975; Norris 1987; Page, R. E. & Willis 1983; Pantyukhov 1958; Peacock & Kleiner 1968; Scholz 1905: 144; Sinanuvong, Knowles, & Kearby 1971; Thomas, J. B. 1967. (bv) Al-Azawi 1960; Angst et al. 1982; Baker, J. E. 1969, 1970; Baker, J. E. & Norris 1967, 1968a, 1968b; Baker, J. E. et al. 1968; Barger 1979; Barger & Cannon 1987; Barger, Cuthbert, & Robertson 1971; Barger, Cuthbert, & Seegrist 1973; Barr, B. A. 1969: 643; Bartels & Lanier 1974; Beck 1978; Bevan & Davies 1972: 102; Birch 1979; Birch et al. 1979; Blight 1981; Blight, Fielding et al. 1982, 1983; Blight, Henderson, & Wadhams 1983; Blight, Henderson et al. 1982; Blight, King et al. 1980; Blight, Ottridge et al. 1980; Blight, Wadhams et al. 1981; Borden 1984; Borg & Norris 1971a, 1971b; Bosman & Weyeraan 1969; Bouchard 1975; Boutz, Brewer, & Bishop 1985; Brasier 1983: 100; Brues 1946; Bucher 1963: 134; Burdekin 1978, 1979; Burks 1979: 798, 1019; Bushing 1965: 466; Byers, Svihra, & Koehler 1980; Cannon, Jr. 1985; Cemigliaro & Kocienski 1977; Chararas 1980b: 562; Chararas et al. 1982: 1094; Chatterji 1971b; Choudhury 1979; Choudhury & Kennedy 1980; Collins 1938; Cuthbert & Peacock 1975, 1977, 1978, 1979; Cuthbert, Peacock, & Wright 1983; Dahle 1965b; Daterman 1979; Davidson et al. 1964; Dethier 1947; Dixon, E. B. 1964; Duskotch, Chatterji, & Peacock 1970; Duskotch, Mikhail, & Chatterji 1973; Du 1987; Elliott, E. W., Lanier, & Simeone 1975; Elliott, W. J. et al. 1979; Elliott, W. J. & Fried 1976; Ferkovich & Norris 1971; Frater 1979; French, J. R. J., Robinson, et al. 1984; French, J. R. J., Rose, & Robinson 1977; Gardiner 1979; Gerken et al. 1978; Gilbert & Norris 1968; Gilbert, Baker, & Norris 1967; Goeden & Norris 1964a: 146; Gore 1975b; Gore & Armitage 1976; Gore, Pearce, & Silverstein 1975, 1976; Gore et al. 1977b; Grant, A. J. & Lanier 1982; Grove 1983; Grune 1979: 33; Hajek & Dahlsten 1985a; Hart, J. H. et al. 1967; Helbig 1984; Hoffmann & Helbig 1981; Hoffmann & Moses 1940; Hynn & Berryman 1980: 185; Inscoc 1982; Jacobson 1972; Jefferies & Fairhurst 1982; Kaston & Riggs 1938: 467; Kennedy, B. H. 1984; Kirby, S. G. & Fairhurst 1981b, 1983; Klassen, Ridgway, & Inscoc 1982; Klimetzek & Kopp 1983; Koehler, C. S. et al. 1979; Kozlowski 1969; Lagrange et al. 1982; Lanier 1978, 1981a, 1983b; Lanier & Burns 1978; Lanier & Jones 1985; Lanier, Silverstein, & Peacock 1976; Lanier et al. 1977; Loschiavo 1963; Loschiavo, Beck, & Norris 1963; Lyons & van Baren 1984; Maksimovic 1979a; Manojlovic 1986b; Marino & Abe 1981; McMullens & Atkins 1962a: 24; Meixner 1937: 1217; Meyer 1975; Meyer & Norris 1967a, 1967b, 1974; Michalski 1959c: 167; Millar et al. 1986; Minks & van Deventer 1978; Mori 1976b, 1977a; Mori & Iwasawa 1980a, 1980b; Norris 1964: 117-124; Norris & Baker 1967; O'Callaghan 1982a; O'Callaghan, Gallagher, & Lanier 1978, 1980; Paine, Birch, & Miller 1984; Payne & Wood 1981: 492; Peacock 1971, 1974, 1975, 1979; Peacock, Kennedy, & Fisk 1967, 1968; Peacock, Wright, & Ford 1984; Peacock et al. 1971, 1973, 1975; Pearce 1975b; Pearce, Gore, & Silverstein 1976; Pearce et al. 1975; Pignatello & Grant 1983; Pirone, Dodge, & Rickett 1980: 705; Plummer et al. 1976; Pougny & Sinay 1982; Rabaglia & Lanier 1983, 1984; Raffa & Berryman 1982a: 98; Riedl & Butcher 1975a; Roelofs 1978; Roling & Kearby 1975b, 1977; Silverstein & Young 1976: 21; Stewart, T. E. et al. 1977; Svihra 1981, 1983, 1987; Svihra & Clark 1980; Svihra & Koehler 1981, 1982; Svihra & Volney 1983; Turnbow & Franklin 1980; Vite et al. 1976; Wadley & Wolfenbarger 1944: 299; Walker, C. 1974; Walker, C. & Ross 1975; Weaver, N. 1978b; Weber, R. & Schurig 1984; Wester & Jylkka 1963; Wolfenbarger 1946: 59; Wollerman 1979a, 1979c; Wood, D. L. 1967b, 1978, 1979a. (cn) Abell 1935: 82; Acatay 1943a: 56; Acoloque 1914; Aerts 1921; Al-Azawi 1960; Al-Azawi & Casida 1958; Al-Azawi & Norris 1969; Al-Azawi, Norris, & Casida 1961; Alexander 1944: 41; Allington 1958, 1959; Anderson, R. F. 1960: 238; Andrew et al. 19..; Andrianova 1950; Androic 1966: 46; Anmand 1941, 1942, 1943, 1944: 39, 1945, 1946, 1947a, 1947b; Anonymous 1921j: 72, 1931d: 45, 1937b: 8, 1939: 644, 1940i: 580, 1941i: 811, 1954a: 1, 1955e: 32, 1955f: 3, 1955j: 12, 1958e: 154, 1960j: 22, 1960q, 1961h, 1961m, 1961p, 1961t, 1962h, 1962n, 1962z, 1963j, 1963y, 1964h, 1964u, 1965b, 1965f, 1965r, 1965t, 1966d, 1966f, 1966k, 1966m, 1966u, 1967f, 1967j, 1967k, 1967t, 1968g, 1968k, 1968p, 1969e, 1969m, 1970h, 1970t, 1971e, 1971g, 1971n, 1971v, 1972f, 1972t, 1973b, 1974d, 1974e, 1975d, 1975p, 1976e, 1976f, 1976h, 1976m, 1977i, 1977x, 1978e, 1979d, 1982c, 1985: 29; Appleby 1976: 47; Archer 1866; Arciero 1979; Arnoldi et al. 1955: 656; Anstara et al. 1983; Baader 1981; Baker, R. M. 1936: 4; Baker, W. C. 1941; Baker, W. L. 1972: 235; Balachowsky 1951; Banfield 1968; Barbey 1925: 601; Barger 1948, 1950, 1976, 1978a, 1978b, 1979, 1984; Barger & Cuthbert 1971; Barger, Cuthbert, & Cannon 1984; Barger & Hock 1971; Barker 1958: 269; Bates 1949; Beal 1958; Beattie 1931, 1934: 569-570; Becker, W. B. 1936: 50, 1937b: 56, 1944, 1945a, 1945b, 1946a, 1946b, 1947, 1948, 1949, 1950, 1953b, 1955b, 1960, 1964b, 1965, 1967a, 1967b, 1968; Becker, W. B. & Mankowsky 1965; Becker, W. B. & Toulinson 1938; Becker, W. B. et al. 1956; Beckmann 1959; Beckwith & Anderson

- 1956: 25; Beckwith & MacAloney 1954, 1955: 8; Bellevoye 1896; Benton 1951; Berisford et al. 1980; Bevan 1957: 121; Bevan & Davies 1972: 102; Birch 1979; Birch, Miller, & Paine 1982; Birch, Paine, & Miller 1981; Birch et al. 1977; Blackman 1950; Blagbrough 1952; Blatchford 1983: 29; Bliss 1981; Bloch 1937: 1, 4, 7, 1938: 169-177; Bongberg 1957; Boullard 1973, 1976; Boutz, Brewer, & Bishop 1985; Boyce 1938; Brasier 1983: 100; Bretz et al. 1945; Britton 1933: 388, 1934: 256; Britton et al. 1935: 296; Bromley 1944a, 1948, 1949, 1950, 1951b; Brown, R. C. 1954: 44; Browne 1968: 645; Buchanan 1964, 1965: 36; Bucholz 1943; Buisman 1928, 1931, 1933a, 1933b, 1934; Burdekin 1981; Burton 1937: 54; Bussmann 1949; Buth & Ellis 1981a; Butovitsch 1934; Byers, Svihra, & Koehler 1980; Cahill & Lister 1971; Campana 1953, 1954, 1955; Campana & Carter 1955; Campana & Stipes 1981; Cannon 1982; Cannon, Barger, & Groth 1985; Cannon & Worley 1976; Caroselli 1949; Carter 1951; Carter & Carter 1974; Ceballos & Cordoba 1945a; Chambers 1953; Chararas 1972; Chodjai 1963; Chorbadzhiev 1929; Claasen et al. 1935: 96; Clinton & McCormick 1935, 1936: 68; Collins 1935: 128-132, 1935: 193, 1938: 192-195, 1938b: 196-200, 1940, 1941; Collins et al. 1936: 169-176, 1942: 130; Comtois 1988: 173; Conklin 1951; Connors & Savile 1945; Connola et al. 1947b; Copley 1981; Coulson & Witter 1984: 539; Craighead 1941, 1942a, 1942b; Cuthbert & Peacock 1975; Cuthbert et al. 1970, 1973; Dance 1964; Daterman 1979; Davialt 1945a, 1945b; Davidson & Lyon 1979: 371, 1987: 401; Davidson et al. 1958, 1964; Dietrich 1949, 1956; Dimond 1954, 1955; Dimond et al. 1949; Doane 1958a, 1958b, 1962c; Doane et al. 1936; Dodd 1938, 1946; Dolph & Hadfield 1971; Dolph & Pettinger 1969: 10; Donley 1959a; Draghetti 1947; Drooz 1985: 352; Dvoreckaja 1952; Eckstein 1926: 576; Edelman & Malysheva 1959a, 1959b; Ehrenberg 1954; Eichhorn & Pschorn-Walcher 1971; Elliot & Mobley 1938; Elliott, K. R. & Hildahl 1963: 83; Engledow 1953; English 1954, 1958: 31; English & Decker 1954; Ermusch 1928; Escherich 1923b: 477, 494, 1959; Esterberg 1959; Euale et al. 1978; Fairhurst & Fairhurst 1981; Felt 1926: 47, 1933a, 1934b: 315-319, 1935: 231-236, 1937b: 458-461, 1937c: 1, 10, 1940, 1942, 1943; Felt & Bromley 1938: 124, 1941b, 1942, 1943, 1944; Felt & Rankin 1932: 219; Fettes 1964, 1967; Fiddick & van Sickle 1979: 16; Finnegan 1957; Finnegan & Sippell 1967; Fisher 1937c; Fox 1959; Fransen 1931b, 1933: 38, 1935a, 1935b, 1939a, 1939b; Fransen & Buisman 1935; Franz 1948e; French, D. W. & Marinos 1970; French, J. R. J., Robinson, & Minko 1982; French, J. R. J., Rosel, & Robinson 1977; Friend 1940, 1941: 322, 1942a: 466, 1943, 1944: 237, 1945; Fystro 1960; Gabler 1955; Gagnon 1964, 1967; Galford & Schreiber 1972; Garcia-Tejero 1955: 227; Gardiner 1976a, 1979; Gentry, G. R. et al. 1979: 778; Georgesen et al. 1957: 356, 444; Gibbs 1974; Gibbs, Brasier, & Burdekin 1973; Gibbs, Burdekin, & Brasier 1977; Goeden & Norris 1964b; Goidanich 1937; Goidanich & Goidanich 1934; Gold & Kiesling 1977; Gradojevic 1938; Grandi 1951; Gregg & Hadfield 1978: 21; Gyorfı 1946: 195, 1959; Hafstad 1955; Hafstad & Reynolds 1961a, 1961b; Halliday 1955; Hamel 1980: 759; Hamilton 1936: 159, 1937: 10, 1948; Hanson 1937; Hamula & Berisford 1982; Harris 1950; Hart, J. H. & Kennedy 1981; Hart, J. H. et al. 1967; Hasek 1961; Hastings, A. R. & Beroza 1961; Hastings, A. R. & O'Brien 1973: 62; Hedger 1979; Hellberg 1979; Henderson & Mickle 1948; Hermann 1931; Herr 1955; Herrick 1935: 71-74; Hess 1900: 51; Hess & Beck 1914: 239, 1927: 294; Himelick & Neely 1961a, 1961b; Hiratsuka et al. 1982: 7; Holland 1971; Hord & Quicke 1956; Hostetler & Brewer 1976b; Hoyt 1950: 63, 1951b, 1953: 23; Hurford 1950: 36, 1951a: 4, 1951b: 39, 1952a: 103, 1952b: 5; Inglis 1937: 193; Ives & Wong 1988: 227; Jacobs 1937: 36; Johnson, D. W. & Minnemeyer 1976, 1977: 32; Johnson, W. T. & Lyon 1976: 218; Jones, P. 1977; Jones, T. H. 1939, 1947; Judeich & Nitsche 1895: 444, 472; Kallidis 1969a; Kaiser 1931; Kalandra & Pfeffer 1935: 6; Karnosky 1979; Kauschinger 1893: 193; Keenan 1946: 10-18; Keenan et al. 1948: 54; Kennedy, B. H. 1979; Kholodkovskii 1912: 290; King, C. J. 1979; King, C. J. & Fielding 1983; Kohler & Dooling 1978; Kondo 1977; Kondo & Huntley 1973; Kondo & Moody 1987: 29; Kondo & Taylor 1985: 19; Koning 1939: 2014; Koppen 1882: 250; Kovacevic 1957: 67, 69; Kowal 1959b: 162; Kraemer & Thompson 1959: 811; Krawczyk et al. 1982; Krivosheina & Tokgaev 1985; Kudela 1946b: 347; Lamdin, Eikenbary, & Sturgeon 1969; Langford 1950: 139; Lanier 1978, 1981a, 1982, 1989; Lanier & Jones 1985; Lanier, Silverstein, & Peacock 1976; Lavallee & Benoit 1978: 40; Lavallee, Benoit, & Lachance 1951: 43; Laver 1935: 257; Leach 1940b: 227; Lecker 1957: 174; Lewis 1952: 134; Liese 1952: 59; Liese & Butovitsch 1931: 1111; Liming 1948: 18; Liming et al. 1949: 7; Lincoln 1967b: 4830; Lindgren et al. 1983: 311; Lindquist, O. H. & Syme 1981: 100; Lohrenz 1907: 48; Lokaj 1906: 21; Lustner et al. 1935: 81; MacAloney & Ewan 1964; MacLaine 1934: 41; Magasi 1977, 1980, 1981a: 26, 1982, 1983, 1984, 1987: 26, 1988, 1989: 31; Magasi, Sterner, & Forbes 1977: 19; Magasi, Sterner, & Newell 1978: 27; Mahien 1979; Maksimovic & Motal 1983; Maksimovic et al. 1971; Maloy & Inglis 1978; Marcu 1926c: 59, 1960; Marsden 1953; Marshall 1947: 6, 1950a: 62, 1950b: 62, 1951: 131; Martin 1936: 297-306, 1938a: 195; Martineau 1984: 220; Martineau & Lavallee 1971: 41, 1973: 44, 1974: 42, 1975: 47, 1977: 44; Martineau & Ouellette 1970: 41; Maslov 1971; Mathiesen

- 1950: 74; Matthyse 1959: 3; Matthyse et al. 1954: 739; May 1930: 142, 1934: 3, 1953: 60; May & Collins 1936: 51-54; Mazzone & Peacock 1985; Mazzone et al. 1981; McCallum et al. 1951: 4; McDaniel 1935: 142; McGuyon et al. 1952: 52, 1953: 56; McKenzie 1937: 11, 1945: 656; McKenzie & Becker 1937: 11-14; McNabb 1956: 355; Meserve 1947: 160; Metcalf & Flint 1939: 720, 1951: 798; Middleton 1934: 264, 1935: 82; Middleton et al. 1935: 138; Minks & van Deventer 1978; Mokrzecki 1926b: 4; Moody, B. H. 1988: 28; Moody, B. H. & Cerezke 1983: 10, 1984, 1985; Morling 1952: 339; Morris 1951: 52; Mumford 1960: 37; Munro 1936: 64; Myczkowski 1954: 635; Najda 1952: 114; Nash 1952: 123 in ed. 2; Neal 1979: 778; Neely 1978, 1984; Nickle 1967a; Nielson 1959, 1963; Nordin 1964; Norris 1959: 60, 1960: 1034, 1964, 1987; Nosek 1951: 110; Novak, V., Hrozinka, & Stary 1976: 109; Nusslin 1913: 232; O'Callaghan, Atkins, & Fairhurst 1984; O'Callaghan & Fairhurst 1981, 1983; O'Callaghan, Gallagher, & Lanier 1978, 1980; Ollieu & Mason 1968: 14; Osman 1937: 6; Ouellette 1984; Packard 1890: 860; Pady 1958: 402; Page, M. & Greene 1978; Paine, Birch, & Miller 1984; Pajares & Arevalo 1987; Pajares & Lanier 1989; Parker & Wilford 1948; Parker et al. 1941: 657, 1947: 5, 1948: 175; Patmore 1961; Paulian 1943: 316; Payne & Wood 1981: 492; Peace 1954: 155; Peacock 1974, 1975, 1981; Peacock & Cuthbert 1974, 1975; Peattie 1948: 23; Pechman 1937: 12; Peterson, G. W. & Wysong 1965; Pfeffer 1979: 148; Pierce, W. D. 1917: 96; Pirone, Dodge, & Rickett 1960: 705; Plumb 1950a: 110, 1950b: 8; Poinar 1971; Pomerleau 1945: 116, 1947a: 102, 1961: 361; Potts 1949: 6; Quackenbush 1949: 354; Quattlebaum 1981; Randall et al. 1968: 349; Rankin 1949: 11; Rankin et al. 1941a: 548; Ratzeburg 1871a: 403, 1871c: 84; Radio 1935: 342; Reay 1969: 50; Reed 1947: 8, 1951: 103; Renlund 1971: 5, 1975: 5, 1976: 5; Rex 1943: 1, 1948: 1, 1952a: 110, 1952b: 1; Rex & May 1943: 89; Rexrode 1974; Rhumbler 1922: 274, 1927: 285; Richter 1934: 105; Riley 1952: 11; Robert 1947b: 1, 1958: 433; Robinson, L. A. & Dooling 1978: 12; Roelofs 1978; Roepke 1931: 162; Rose, Mrs. 1953: 58; Rose, A. H. 1967; Rose, A. H. & Lindquist 1982a, 1982b: 187; Rosel & French 1974; Roy 1948: 235; Roy et al. 1988; Rudinsky 1960a; Scanlon 1948: 13; Schimitschek 1927: 279, 1935b: 145-146, 1951a: 101, 1955a: 153, 1955c: 72; Schindler 1861: 18; Schlyter et al. 1987; Schmiede & Anderson 1958: 21, 1960: 16; Schread 1953: 29; Schroeder 1974; Schuder 1953: 69; Schwartz 1975b: 14, 1979: 204, 1980: 201, 1982: 206; Schwerdtfeger 1944a: 172, 1957a: 181; Scott, King, & Walker 1974; Scott & Walker 1975; Scudder 1959: 62; Severin 1906: 401; Shaw 1958: 21; Shepard & Hurford 1952: 26; Sinclair, W. A. 1978; Sippel 1966; Sippel, Dauce, & Rose 1966: 54, 1967: 63; Sippel, Gross, & Rose 1969: 62, 1971: 54; Sippel & MacDonald 1954b: 61, 1957: 49, 1958: 45; Sippel, MacDonald, & Rose 1960: 58, 1962: 70, 1963: 56, 1964: 56, 1965: 62; Sippel, Rose, & Gross 1970: 63, 1972: 61, 1974: 57, 1975: 66; Sippel, Rose, & Larsen 1968: 60; Sippel et al. 1954a: 66; Slander 1947b: 215; Smith, A. H. & Johnson 1985; Smith, C. C. & Forbes 1968; Smith, P. J. 1976; Smith, P. W. 1957: 9; Smucker 1942: 441; Spaic 1956: 88; St. George 1949: 98; Stefan 1961; Stefanov 1947: 8, 1951: 52; Stein, J. D. & Kennedy 1972: 119; Sterner & Davidson 1981: 34, 1983: 20; Stevens 1981; Strobel & Lanier 1981: 63; Strojny 1970; Strong 1935: 23, 1936: 28, 1937: 21, 1938: 19, 1939: 24, 1940: 25; Strong, Janes, & Morofsky 1955; Sueur 1954: 118; Sundaram 1976; Svihra 1980; Swaine 1918a: 51; Swingle 1950: 113, 1951: 56; Swingle & Whitten 1967; Swingle, Whitten, & Brewer 1949: 451; Swingle, Whitten, & Young 1949: 1-11; Syme & Nystrom 1988: 94; Takai, Kondo, & Thomas 1979; Thatcher, T. O. 1961; Thompson, H. E. 1965; Thompson, H. E., Pady, & Keen 1961; Thompson, H. E., Willis, & Keen 1978; Tilford 1958: 29; Torjan & Howard 1953: 486; Touhey & Bray 1961; True & Slowata 1939: 529; Trullinger 1949: 83; Tubeuf 1935: 72; Van Yahres 1948: 24; Vorontsov et al. 1987; Wachtl 1901: 381; Wade 1961; Walker, C. 1973a, 1974; Wallace 1941: 374, 1942: 537, 1943a: 288; Wallace & Beard 1943: 291; Wallace & Zentmyer 1944: 299; Wallner 1975; Wallner & Leeling 1968; Wallner, Leeling, & Zabik 1969; Walter et al. 1943: 5; Warner 1952: 55; Watson & Raizenne 1948: 45, 1949: 50; Webb 1948: 277; Webber 1981, 1982; Weber, H. 1926: 576; Weber, R. 1969; Weidhaas 1965, 1967; Weir & Applejohn 1972: 9; Weir & Lawrence 1975: 12; Weiser 1963b; Welch 1953: 641; Welch & Collins 1940: 10; Welch & Matthyse 1955: 3; Welch et al. 1934: 9, 1945: 7; Wells 1955: 15; Wester & Jylka 1963; White 1933: 106, 1936: 323, 334; Whitten 1941: 2, 1942: 1, 1949: 6, 1953: 2, 1954: 36, 1956a: 1, 1956b: 3, 1956c: 9, 1960, 1964, 1967; Whitten & Baker 1939: 630, 1948: 43; Whitten & Parker 1946: 16; Whitten & Swingle 1939: 630, 1946: 16, 1948: 114, 1958: 3; Wichmann 1927b: 355; Wilcoxon & Hartzel 1935: 153; Williams, L. H. & Brown 1969; Willis, W. C., Kramer, & Thompson 1963, 1964, 1965; Wilson, C. L. 1961, 1962, 1963; Wilson, C. L., McDaniel, & Seymour 1961; Wilson, C. L. & Tucker 1966; Wilson, C. L., Tucker, & McDaniel 1967; Wilson, M. C., Schuder, & Provonsa 1982: 91; Wolfenbarger 1946: 59; Wolfenbarger & Buchanan 1939: 377; Wolfenbarger & Jones 1943: 399; Wolff & Krausse 1922: 70; Wollerman 1979c; Wood, D. L. 1979a; Wood, L. S. 1966; Wood, L. S., Kantack, & Helwig 1967; Wootten 1962; Worthley 1935a: 175, 1935b: 2, 1936: 177; Worthley & Liming 1935: 526; Wykoff et al. 1947: 33; Wyman 1948: 17; Wysong 1951: 34; Wysong,

- D. S. 1967; Wysong, D. S. & Peterson 1966; Wysong, D. S. & Willis 1968; Yagdyev 1979, 1987; Yasiniski & Pierce 1957: 15; Yde-Andersen 1982; Zakharov & Levkovich 1951: 300; Zentmyer et al. 1944: 1025; Zieger 1950b: 38; Zimmermann, G. & Bathon 1983; Zivoinovic 1963. (cc) Al-Azawi 1960; Andrew et al. 19...; Anonymous 1967w, 1968b, 1970f, 1971g, 1971s, 1974d; Apel 1983; Ashe 1934; Ashraf & Berryman 1969: 12; Baker, R.M. 1936; Baker, W. C. 1941; Baker, W. L. 1972: 235; Balazy 1965a; Balazy & Michalski 1960; Balazy et al. 1977; Beattie 1934b; Beaver 1967a, 1967c, 1974b; Becker, W. B. 1940a, 1943, 1945b, 1946b; Benson 1974; Benson & Walker 1974; Berisford et al. 1950; Boucek 1955; Bromley 1944b; Buchanan 1940b; Buchanan & Smucker 1942; Burks 1959; Buth & Ellis 1981a, 1981b; Callahan & Shifrine 1960: 146; Cannon, Jr. 1985; Carter 1952; Chararas 1956b, 1957d; Chodjai 1963; Claflin & Dooling 1973; Clausen 1978: 292; Collins 1935; Comtois 1958: 173; Cooreman 1963: 46; Crowson 1976, 1981a; Cuthbert & Peacock 1977, 1978; DeWitt 1958; Doane 1960; Doberski 1961; Donisthorpe 1933a; Drooz 1955: 352; Dvoreckaja 1952; Eichhorn & Pschorn-Walcher 1971; Elliot & Morley 1907; Elton 1970; Escherich 1935; Espanol 1967a; Euale et al. 1977, 1978, 1980; Fairhurst & King 1983; Finnegan & Sippel 1964; Francke-Grosmann 1931, 1959; Fransen 1933: 38, 1935b, 1937b, 1939a; Fry 1989: 18; Furniss, R. L. & Carolin 1977: 403; Gagnon 1964, 1967; Galford 1967a, 1967b, 1971; Galford & Schreiber 1972; Galoux 1947b; Gaumann 1946: 157; Gemma, Wasti, & Hartmann 1985; Gibbs 1974; Gibbs, Brasier, & Burdekin 1973; Gibbs, Burdekin, & Brasier 1977; Gillanders 1906; Giraud & Laboulbene 1877: 411, 427; Goeden & Norris 1964b; Gold & Kiesling 1977; Gouger, R. J. & Bray 1968; Graham 1956, 1967: 115, 1969: 877; Grootaert, Haghebaert, & Pollet 1987; Grove 1983; Gyorf 1943: 83; Haeselbarth 1967; Hafstad 1958; Hajek & Dahlsten 1981, 1985a, 1985b; Hanover 1975; Heqvist 1963, 1967: 68; Hirschmann 1971b: 40; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zirngiebl-Nicol 1961; Hofard & Coster 1976: 130; Holmes 1980; Hostetler & Brewer 1976a, 1976b; Houle, Hartmann, & Wasti 1987; Hubenthal 1902: 291; Hunt, D. J. 1972; Hunt, D. J. & Hague 1974a, 1974b; Hurlbutt 1967; Jacot 1934, 1936; Jammicky 1957b: 18, 20, 1957c; Jones & Strong 1961; Jones, Strong, & Hart 1963; Jones, P. 1977; Jones, T. H. & Moses 1943; Jones, W. W. & Lanier 1977; Kailidis 1969a; Karnosky 1979; Kaston 1939: 3; Kaya 1984; Kennedy, B. H. 1970, 1974, 1979, 1981, 1984; Kennedy, B. H. & Galford 1972; Kennedy, B. H. & Roberto 1974; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1983; Kirby, S. G. & Fairhurst 1981a, 1981b, 1982, 1983; Kleine 1908c: 177, 1909a: 43, 78, 1944: 73; Koehler, C. S. et al. 1979; Kokuveva 1900: 569; Kolubajiv & Kalandra 1954: 30; Kondo & Huntley 1973; Kopyl 1983; Kostenko 1929; Kreig 1961: 200; Krezal 1959: 574; Kudon & Berisford 1981; Laidlaw 1932: 117; Lanier 1983b, 1989; Lanier, Schubert, & Manion 1988; Laumond & Ritter 1971; Lea & Brasier 1983; Leach 1940a: 15, 1940b: 227; Liming et al. 1951: 146; Lipa 1968; Lipa & Chmielewski 1977; Loschiavo 1963; Lozinskij 1966; MacVean & Brewer 1981; Madelin 1963: 244; Mahieu 1979; Maksimovic 1979a, 1979b, 1986a; Maksimovic & Motal 1981, 1983; Maksimovic et al. 1971; Maloy & Inglis 1978; Manojlovic 1986c; Marsh 1979: 148; Marshall 1978; Martin 1946a: 481; Massey 1960a, 1960c, 1969b, 1970; May 1934: 3; Mazzone et al. 1981; Mendel 1985; Merlin 1984; Metcalf & Flint 1939: 720, 1951: 798; Meyer 1934: 612; Meyer & Norris 1973; Michalski & Ratajczak 1989; Middleton 1935: 82; Moody, B. H. 1982; Mook et al. 1943: 76; Morton 1984; Moses et al. 1940: 201; Mozolevskaya et al. 1987; Norris 1977; Nosek 1951: 110, 1959a: 118, 1959b: 86; Novak, P. 1952: 411; Nunberg 1930: 204; Nuorteva 1957b: 66; Nusslin 1927: 285; O'Callaghan 1982a; O'Callaghan, Atkins, & Fairhurst 1984; O'Callaghan, Gallagher, & Lanier 1980; Oldham 1930: 241; Otten 1940: 197; Ouellette 1962; Ouellette et al. 1984; Pantyukhov 1958; Parker et al. 1941: 657, 1948: 175; Peace 1960: 5; Peacock 1975; Perris 1852: 497, 1856a: 243; Pesson et al. 1955: 316; Pfeffer 1928b: 2, 1943b: 179, 1979: 148; Phillipson, Ascerno, & Landwehr 1986; Pirone, Dodge, & Rickett 1960: 705; Poinar 1971, 1975: 168; Poinar & Deschamps 1981; Pomerleau 1947a: 102, 1961: 361; Purrini 1977a; Rafes 1962; Rainey 1968; Rankin et al. 1941a: 548; Riedl & Butcher 1975b; Robert 1947b: 1; Roden 1981; Roepke 1946: 545; Rondani 1873: 162; Rossem 1979; Ruhm 1955c: 176, 1956b: 3; Rummukainen 1954: 27; Saunders & Norris 1961; Schaarschmidt 1959: 803; Schauff 1988; Scheidter 1936: 234; Schimitschek 1955a: 153, 1964e; Schlyter et al. 1987; Schreiber, Conway, & Peacock 1986; Schreiber & Peacock 1985; Schroder 1974; Schwerdtfeger 1944a: 172, 1957a: 181; Scott & Walker 1975; Sedlacek 1935a: 156; Sennedo 1961: 120; Sengonca & Leisse 1984; Severin 1899: 383; Shafer & Liming 1950: 1035; Silvestri 1911: 389; Sinclair, W. A. 1978; Singh 1977: 102; Sitowski 1930: 2; Smiley & Moser 1985; Smucker 1937: 140, 1940: 1052, 1942: 441; Stackman 1957: 245; Stark, R. W. 1982; Stefanov 1949a: 107; Steinhaus 1963: 354, 1967: 108; Stepanov 1951: 52; Strobel & Lanier 1981: 63; Svihra & Koehler 1981, 1982; Sweetman 1936: 108; Swingle & Whitten 1967; Szczepanski 1960a: 414; Tanada 1963: 440; Tehon 1940: 24; Teocchi 1964: 4; Thomas, J. B. 1972; Thomas, J. B. & Sullivan 1971; Thompson, H. E., Pady, & Keen 1961; Thompson, H. E., Willis, &

- Keen 1978; Thompson, W. R. 1943: 106; Truchan 1970b; Truchan & Butcher 1970; Tudor 1969: 33; Turnau 1984; Vitzhum 1921b: 76, 1926: 463; Wadley & Wolfenbarger 1944: 299; Walker, C. 1973a, 1974; Walker, C. & Ross 1975; Walker, J. C. 1957: 318; Wallace & Beard 1943: 291; Walter 1935: 37; Watson & Sippel 1961; Webber 1969, 1981, 1982; Webber & Gibbs 1989; Welch, H. E. 1963; Wester & Jylkka 1963; Westerboer 1963: 391; Whitten 1948: 45, 1960, 1964, 1967; Wiackowski 1957a: 85; Wichmann 1916: 14, 1955a: 92; Wisniewski 1979b; Witcher & Zehr 1971; Wolfenbarger & Buchanan 1939: 377–381; Woodring 1966c: 133; Yde-Andersen 1982, 1983; Zimmermann, G. & Bathon 1983. (hb) Acatay 1943a: 56; Adeli 1972: 14; Aerts 1921; Allington 1958; Altum 1881c: 247, 1889c; Anderson, R. F. 1960: 238; Anonymous 1920: 125, 1971g, 1985: 29; Apel 1983; Ashe 1923; Baker, J. E. & Norris 1968b; Baker, R. M. 1936; Baker, W. L. 1972: 235; Balachowsky & Mesnil 1935; Barbey 1901: 16, 40, 1925: 601, 1942; Bargmann 1906; Bartels & Lanier 1974; Beard et al. 1941; Beaver 1967b: 159; Becker, W. B. 1935b, 1936, 1937b; Beffa 1949, 1961; Bevan 1987: 121; Birch et al. 1977; Blackman 1950; Bonnemaïson 1953; Bosman & Weyeraan 1969; Brandt 1948; Bright 1976d: 38; Bright & Stark 1973: 14; Brown, L. R. 1965b; Browne 1968: 645; Brues 1947; Buchanan 1940b; Budge 1949; Budkov 1897; Buth & Ellis 1981a; C. 1928; Camurano 1884; Cannon, Jr. 1985; Ceconi 1906, 1924; Chamberlin 1939: 234, 1958; Chapman 1869c, 1911; Chararas 1972; Chittenden 1890; Chodjai 1963; Chorbadzhievo 1929; Choudhury & Kennedy 1980; Clausen 1978: 292; Clinton & McCormick 1935, 1936; Collins 1935, 1938a, 1938b; Collins et al. 1936; Comtois 1988: 173; Coulson & Witter 1984: 539; Cuthbert & Peacock 1979; Dallimore & Munro 1922; Davidson & Lyon 1979: 371, 1987: 401; Davidson et al. 1964; Decaux 1890d, 1890e, 1890f; Deyrup & Atkinson 1987a: 65; Dixon, E. B. 1964; Doane et al. 1936; Dombrowsky 1887, 1892; Drooz 1985: 352; Eckstein 1889, 1897, 1926: 576; Edelman & Malysheva 1959b; Eichhoff 1881a: 41, 159, 1882b: 707, 1882e: 322; Escherich 1923b: 477, 494; Everts 1900, 1903: 739; Fairhurst & King 1983; Felt 1926: 47; Felt & Rankin 1932: 219; Fisher 1931; Fox 1958; Fransen 1932, 1948; Fuchs 1904a; Furniss, R. L. & Carolin 1977: 403; Furst 1888: 626; Gabler 1955; Gahan 1900; Galford 1969a, 1971, 1976a; Gardiner 1981; Gibbs 1974; Gibbs, Burdekin, & Brasier 1977; Gillanders 1906, 1908; Girard 1873; Goeden & Norris 1964b; Goidanich 1946; Gouger, R. J. & Bray 1968; Grandi 1951; Grove 1983; Curan 1933; Gyorfı 1957; Hanula & Berisford 1984p; Hart, J. H. & Kennedy 1981; Henderson & Mickle 1948; Hennings 1908c: 211; Henschel 1876a: 205, 242, 1895a: 156; Herrick 1935: 71; Hess 1900: 51; Hess & Beck 1914: 239, 1927: 294; Hoffmann & Moses 1940; Hufnagl & Puzyr 1951: 103; Ives & Wong 1988: 227; Janes & Strong 1961; Janes, Strong, & Hart 1963; Joly 1950; Jones, T. H. 1939; Jones, W. W. & Lanier 1977; Judeich & Nitsche 1895: 444, 472; Kapler 1967; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 153; Kaston 1939: 3; Kaston & Riggs 1938: 467–469; Kauschinger 1893: 193; Keller 1913: 242; Kholodkovskii 1912: 290; Kirby, S. G. & Fairhurst 1981a, 1981b, 1982, 1983; Kirkendall 1984: 237; Kleiner & Peacock 1971; Knotek 1894a: 557; Kondo & Huntley 1973; Kostin 1960: 129, 130; Kozlowski 1969; Krause 1915: 156; Laidlaw 1932: 117; Lamdin, Eikenbary, & Sturgeon 1969; Lanier 1983b; Lengerken 1939: 50, 1954: 65; Lichtenstein 1918: 93; Lindemann 1881b: 171–173; Lohreng 1907: 48; Lozinskij 1966; Lunardonı & Leonardi 1889: 455; MacAloney & Ewan 1964; MacDougall 1900a: 359–364, 1917: 131; Madon 1930: 99; Makhmadziev & Shukronaev 1983; Maksimovic 1979a, 1979b; Maksimovic & Motal 1981; Manojlovic 1986b, 1986c; Marcu 1941: 401; Martineau 1984, 1985: 220; Maslov 1963c; Masutti 1964; McDaniel 1935: 142; Merlin 1984; Metcalf & Flint 1939: 720, 1951: 798; Meyer & Norris 1973; Michalski 1959b: 162, 1959c: 167; Mozolevskaya et al. 1987; Munro 1926: 45; Nash 1952: 123 in ed. 2; Neumann & Minko 1985; Nordlinger 1856: 42; Norris 1961b, 1977; Nosek 1959a: 118, 1959b: 86; Novak, V., Hrozinka, & Stary 1976: 109; Nunberg 1929: 94; Nusslin 1898: 276, 1913: 232, 1927: 285; Orest 1926b: 81; Packard 1890: 860; Paine, Birch, & Miller 1984; Paulian 1943: 316; Pechuman 1938: 539; Perris 1852: 497, 1856a: 243; Peyerimhoff 1919: 249; Pfeffer 1942: 10, 1989a: 45; Pirone, Dodge, & Rickett 1960: 705; Postner 1974: 383; Rafes 1962; Ratzeburg 1837: 186, 1839: 228, 1871a: 403, 1871c: 84; Rhumbler 1922: 274, 1927: 285; Rimski-Korsakov et al. 1949: 301; Rose, A. H. & Lindquist 1982a, 1982b: 187; Rosel & French 1974; Rupertsberger 1880: 228; Schedl 1981b: 45; Scheidter 1936: 234; Schimitschek 1939c: 274, 1955a: 153; Schindler 1861: 18; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Sedlaczek 1935a: 156; Semedo 1961: 120; Silvestri 1911: 389; Smith, J. B. 1886: 127; Spessivtsev 1913a: 30; Stark 1926a: 331, 1952: 97; Stark, R. W. 1982; Stefanov 1949a: 107; Stein, J. D. & Kennedy 1972: 119; Stellwaag 1931: 94; Strojny 1970; Strong, Janes, & Morofsky 1955; Svihra 1981, 1987; Svihra & Koehler 1982; Svihra & Volney 1983; Swain 1948: 155; Swaine 1918a: 51; Taschenberg 1880: 243; Thatcher, T. O. 1961; Thomas, J. B. & Sullivan 1971; Thompson, H. E., Pady, & Keen 1961; Thompson, H. E., Willis, & Keen 1978; Tschorbadjiev 1929: 158; Wachtl 1901: 381; Wallace 1940: 293, 1943b: 290; Wallace & Beard 1942: 86; Weber, H. 1926: 576; Weber, R. 1969; White, R. E. 1983; Whitten 1953: 2, 1960, 1964, 1967; Wichmann 1916: 14, 1927b: 355; Williams, L. H. & Brown

- 1969; Wolff & Krausse 1922: 70; Wollerman 1974; Wood, S. L. 1952b: 430. (ds) Acciavatti & Walters 1977; Acloque 1896, 1914; Adeli 1972: 14; Andersch 1851; Anderson & Schmiede 1959; Anderson, R. F. 1960: 235; Androic 1966: 46; Annand 1944: 39; Anonymous 1961m, 1961p, 1961t, 1962n, 1962z, 1963j, 1963y, 1964h, 1964u, 1965b, 1965f, 1965r, 1966d, 1966f, 1966k, 1966m, 1966u, 1967f, 1967j, 1967k, 1967t, 1968g, 1968p, 1969e, 1969m, 1970h, 1972t, 1973b, 1974e, 1975d, 1975p, 1976e, 1976h, 1976m, 1977i, 1977x, 1979e, 1979d, 1982c; Armitage 1951: 115, 1952: 183, 1953: 171, 1954: 136; Audras & Schaefer 1957; Balachowsky 1944b, 1951; Balachowsky & Mesnil 1935: 22; Balazy & Michalski 1960; Barger & Hock 1971; Barthe 1896; Bau 1888; Beattie 1934a, 1934b, 1935; Becker, W. B. 1935a: 833, 1936, 1938, 1939a, 1940a, 1941, 1943, 1944; Becker & Tomlinson 1938: 323; Beckwith 1953: 973; Bedel 1888a, 1888b: 388, 406; Beffa 1949; Benavides 1961: 17; Bielz 1851, 1887; Blackman 1950; Blackwelder 1939; Blanchere & Robert 1889; Blandford 1895b; Blatchley & Leng 1916: 585; Bongberg 1957; Borchert 1951; Borg 1970b; Borg & Norris 1971a, 1971b; Brakman 1966b: 203; Brancsik 1871, 1906; Bretz et al. 1945; Bright 1976d: 38; Bright & Stark 1973: 14; Brown, R. C. 1954; Browne 1968: 645; Buck 1949, 1955b: 191; Bucking 1932; Budkov 1897; Buisman 1931, 1932a, 1932b; Buresh & Lazarov 1956; Burgess 1912; Butth & Ellis 1981b; Butovitsch 1929; Calver 1884, 1893; Campana 1953, 1954, 1955; Campana & Carter 1955; Carpentier & Delaby 1905; Carter 1951, 1952; Ceconi 1906; Chamberlin 1939: 234, 1958; Chapman 1870b, 1910: 63–68; Chapuis 1869: 55, 1873: 263; Chapuis & Candeze 1853; Chittenden 1890; Chodjai 1963; Chorbadzhievo 1929; Chrystal 1937; Claflin & Dooling 1973; Clinton & McCormick 1936; Cola 1973; Cooper 1935; Correa de Barros 1907; Crotch 1863; Crowson & Hunter 1964: 200; Cuthbert & Peacock 1975; Dallimore & Munro 1922; Davidson et al. 1958; DeWitt 1958; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Dietrich 1936a: 217; Drooz 1985: 352; Easton 1936: 611–615; Eder 1934; Eggers 1904, 1912f; Endroli 1958a, 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 477, 494, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 636, 1925; Eyquem 1891; Felt 1926: 47, 1937a; Felt & Rankin 1932: 219; Forster 1849: 440; Fowler 1891; Fuchs 1904a, 1905a; Furniss, R. L. & Carolin 1977: 403; Gabler 1949b; Gast et al. 1989: 385; Gaubil 1849: 127; Gemminger & Harold 1872: 2695; Gentry 1955; Gerhardt 1911b; Goeden & Norris 1964b; Gozis 1875: 80; Gredler 1866: 372; Grill 1895: 313; Grune 1979: 33; Gurán 1933; Hagedorn 1910d: 85; Hamilton 1936: 159; Hansen, V. 1939, 1956; Hellen 1947; Henschel 1895a: 156; Heyden 1898: 76; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Hickin 1963; Hill, D. S. 1987: 337; Hoffmann 1940: 54, 1942: 12; Hoffmann & Moses 1940: 818–819; Hollister 1920: 145; Holmes 1956, 1958; Hord & Quike 1956; Horion 1935, 1951; Hornuzaki 1891: 174; Hostetler & Brewer 1976; Jacentkovsky 1912: 286, 1933: 18; Johnson, W. T. & Lyon 1976: 218; Jones, P. 1977; Judeich & Nitsche 1895: 444, 472; Kaltenbach 1874: 535; Karpinski 1925: 215, 1931: 18, 21, 1932b: 52, 1933b: 23; Karpinski & Strawinski 1948: 153; Kaston 1938: 240; Kestercanek 1881a: 11–12; Kirk 1969, 1970; Klefbeck & Sjoberg 1960; Kleine 1912a: 262, 267, 1913a: 34, 1913b: 151, 1914a: 16, 19, 1914b: 249, 399, 1934a: 169; Knotek 1892a: 36, 1894a: 557; Knoll 1934a: 865–866; Koca 1905: 192; Kolubajiv 1934: 65; Koppen 1882: 250; Kostenko 1929; Kovacevic 1957: 67, 69; Kraatz 1869: 59; Kraemer & Thompson 1959: 511; Kudson & Berisford 1981; Kurir 1947c: 24; Lacordaire 1866: 387; Langhoffer 1915c: 156; Leclercq 1971; Lehker 1957: 174; Leng 1920: 337; Lentz 1857: 140; Liegel 1886: 43; Liming 1932: 17; Lindemann 1854b: 264; Lindquist, O. H. & Syme 1981: 100; Lomnicki 1913b: 147; Lucht 1987: 275; Lunardon & Leonardi 1889: 455; Marcu 1926c: 59; Marlatt 1912: 76; Mast 1962; Matthews & Fowler 1883: 42; Meinert 1887: 70; Michalski 1957a: 73, 1959c: 162, 1973a: 43; Morris 1951: 52; Mumford 1960: 40; Negru 1957: 129, 1966b: 398, 1968a: 453; Negru & Rosca 1967: 141, 147; Norris 1970; Norris et al. 1970; Nosek 1958b: 93; Novak, P. 1952: 411, 1964; Numberg 1928b: 87, 93, 1954: 89; Nusslin 1898: 276; O'Callaghan 1982b; O'Callaghan, Gallagher, & Lanier 1980; Orest 1926c: 59; Palm 1959: 28–29; Pascovici 1962; Pechuman 1937: 13; Perris 1876a: 254, 1877a: 414; Peyerimhoff 1919: 249; Pfeffer 1928b: 2, 1931b: 73, 1947d: 126, 1989a: 45; Pierce, W. D. 1917: 96; Pittioni 1943: 174; Pomerleau 1961: 361; Postner 1974: 383; Powell, J. A. & Hogue 1979: 313; Ragusa 1924: 114; Randall et al. 1968: 349; Rapp 1934: 718; Ratzeburg 1837: 186, 1839: 228; Radio 1935: 341–352; Redtenbacher 1858: 838, 1874: 372; Reed 1951: 103, 1955: 882; Reed & Bruer 1956: 756; Reitter 1869b: 153, 1894a: 44, 1916: 272; Revy & Siroki 1942: 82; Rimski-Korsakov et al. 1949: 301; Rohrig 1955: 37; Rosel & French 1974, 1975; Roubal 1935b: 72, 1941: 254; Ruskov 1928c: 60; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1205; Schaum 1859: 95, 1862: 100; Schedl 1964j, 1967c: 68, 1971b: 529, 1971d: 427, 1977d: 281, 1979a: 161, 1980a: 3, 1981b: 45; Scheyvrew 1890c: 470; Schilsky 1891: 157, 1909: 187; Schimitschek 1937: 43, 1951a: 101; Schiodte 1873: 105; Schmiede & Anderson 1960: 16; Schneider & Farrier 1969: 412; Schroeder & French 1961; Schwerdtfeger 1951: 187; Seidlitz 1872: 390, 1891a: 557, 1891b: 603; Semedo 1961: 120; Sharp & Fowler 1893: 34; Smith, J. B. 1886: 127; Soka-

- novskii 1966: 381, 387; Stark 1926a: 331, 1926b: 101, 1926j: 123, 1927b: 86, 1952: 97; Stein 1868: 113; Stein & Weise 1877: 164; Stellwaag 1931: 94; Stephens 1829a: 146; Sterner, Newell, & Tibus 1976; Stierlin 1898: 436; Svihra 1980; Svihra & Volney 1983; Syme & Nystrom 1988: 94; Teocchi 1965b; Thatcher, T. O. 1961; Thomas, J. B. 1971a; Thomas, J. E. & Bower 1962; Thomas W. D. et al. 1948: 317; Thomsson 1865: 375, 1868: 224; Tredl 1907: 6; Tschorbadjiev 1929: 158; Turnbow & Franklin 1980; Wallace 1940: 293; Watson & Sippel 1961; Westhoff 1882: 238; Wichmann 1927a: 51–52, 1955a: 92; Willis, W. C., Kramer, & Thompson 1963, 1964, 1965; Wilson, C. L., Tucker, & McDaniel 1967; Winter, T. G. 1983: 44; Wood, S. L. 1972a: 396, 1977a: 72, 1982b: 430; Wysong, D. S. & Peterson 1966; Wysong, D. S. & Willis 1968; Zinovjev 1955: 191. (tx) Acloque 1898; Anderson, R. F. 1960: 238; Anderson, W. H. & Anderson 1971: 23; Anonymous 1974d; Apel 1983; Bach 1854; Baker, W. L. 1972: 236; Balachowsky 1944a: 167, 1944b: 8–10, 1949a: 63; Barbey 1901: 16, 40; Beaver 1970b; Bedel 1888b: 358, 406; Beffa 1949, 1961; Benoit 1986: 238; Bertolini 1872; Blackman 1934: 10; Blandford 1895b; Blatchley & Leng 1916: 588; Borron & DeLong 1954; Brancsik 1871; Bright 1976d: 28–29, 38; Burton et al. 1968: 191; Butovitsch 1929: 5, 24–27; Calwer 1858; Carne et al. 1980; Carpentier & Delaby 1908; Ceballos 1945; Chamberlin 1939: 234, 1958; Chapman 1910; Chapuis 1869: 55, 1873: 263; Chapuis & Candeze 1853; Chevrolat 1838; Copley 1981: 62; Csiki 1906; Davidson & Lyon 1979: 372; Davidson et al. 1964: 4; Desbrochers 1891; Dombrowsky 1887, 1892; Duffy 1953; Edwards 1959; Eggers 1910f: 557–558, 1912f: 29, 1913a: 285–286, 1914: 39, 108–109, 184–185, 1922d: 116–117; Eichhoff 1864b: 32, 1881a: 41, 159–160, 1883a: 105, 130; Endrodi 1957b; Erichson 1836: 59; Escherich 1923b: 477, 494; Escherich & Escherich 1892; Everts 1903: 739, 1922: 636; Fauvel 1889; Ferrant 1911; Finnegan & Sippel 1964: 4; Fleischer 1905; Formanek 1907; Fransen 1948; Furniss, R. L. & Carolin 1977: 405; Gabler 1949b, 1955; Gentry 1954: 136; Gibbs 1974: 5; Gibbs, Burdekin, & Brasier 1977: 7; Gillanders 1908; Girard 1873; Grune 1979: 32–33; Hagedorn 1910a: 123; Hansen, V. 1956; Hart & Kennedy 1981: 3; Hasek 1961: 5; Henry 1892: 13; Henschel 1876a: 205, 242, 1895a: 156; Hoffmann 1939: 36–37; Iablkoff-Khnozorian 1961: 70; Ives & Wong 1988: 226; Jacentkovsky 1935: 18; Johnson, W. T. & Lyon 1976: 219; Judeich & Nitsche 1895: 444, 472; Karpinski & Strawinski 1948: 153; Knotek 1892a: 36; Kulnt 1913: 1049; Lacordaire 1866: 387; Letzner 1844: 64, 1891: 374; Leunis 1886: 183; Lindemann 1881b: 171; Lindquist, O. H. & Syme 1981: 100; Lovendal 1898: 66; Lucht 1987: 275; Lumardoni & Leonardi 1889: 455; Marsham 1802: 54; Martineau 1984: 205; Meixner 1937: 1217; Metcalf 1942: 797; Michalski 1958: 162, 1962b: 201, 1967: 308–310, 1973a: 43–46, pl. 9; Muesebeck 1942: 100, 1950: 137; Murayama 1930: 9–10; Negru 1966b: 398; Nordlinger 1848: 252, 1856: 42; Novak, V., Hrozinka, & Sary 1976: 109; Numberg 1954: 89; Pfeffer 1932b: 11, 1942a: 10, 1955a: 74–76, 1965: 61–62, 1989a: pl. 5; Porter 1932: 106; Portevin 1935: 311; Postner 1974: 383; Powell, J. A. & Hogue 1979: 313; Quaschik 1953: 35; Ratzeburg 1837: 186, 1839: 228; Redtenbacher 1849a: 361, 1849b: 27, 1858: 838, 1874: 372; Reitter 1894a: 44, 1913a: 24, 1916: 272; Rey 1892b: 30; Rhumbler 1922: 274, 1927: 285; Rose, A. H. & Lindquist 1982b: 188; Rupertsberger 1880: 228; Schedl 1934f: 1632, 1936: 8–9, 1948b: 61, 1952f: 86, 1962p: 201, 1964: 221–222, 1967: 68, 1980a: 3, 1981b: 45; Scheyrev 1893a: 109–111, 1883b: 51–64; Schimitschek 1955c: 72; Seidlitz 1872: 390, 1891a: 557, 1891b: 603; Semedo 1961: 120; Skalitzky 1876: 110; Sokanovskii 1954: 13, 1958: 37, 1966: 381–382, 387; Spessivtsev 1913a: 30–31, 1922a: 455, 491, 1931: 8; Stark 1952: 97–98; Stein, J. D. & Kennedy 1972: 121; Stephens 1829a: 146; Stierlin 1898: 436; Strong, Janes, & Morofsky 1955: 5; Svihra & Clark 1980; Swaine 1918a: 51; Syme & Nystrom 1988: 94; Taschenberg 1880: 243; Thomas, J. B. 1967; Thompson, H. E., Willis, & Keen 1978: 5; Thomson 1865: 375, 1868: 224; Titus, Meikle, & Harrison 1985: 116; Whitten 1960: 2; Wichmann 1913b: 210–211, 1916: 14; Wood, S. L. 1972a: 396, 1982b: 430. (ms) Anonymous 1965, 1985: 29; Ashby 1967; Bartlet 1948; Beal 1958; Beattie 1931; Bireh 1979; Blight, Henderson, & Wadhams 1983; Block 1938a, 1938b; Borgreve 1882; Bromley 1951a; Bruggeman 1952; Buchanan & May 1941; Burdekin 1983; Burton 1937; Burton et al. 1968: 190; Cannon & Worley 1976; Chamberlin 1939: 234–235, 1958: 50; Chambers 1953; Craighead 1942b; Cuthbert, Peacock, & Wright 1983; Ehrenberg 1954; Escherich 1932b; Galford 1969a, 1971, 1976a; Gore & Armitage 1976; Gore, Pearce, & Silverstein 1975; Halliday 1955; Hamilton 1948; Helbig 1979, 1984; Herr 1955; Hoffmann & Helbig 1981; Holland 1971; King, C. J. & Fielding 1983; Lagrange et al. 1982; Liming 1948: 18; Liming et al. 1949: 7; Marino & Abe 1981; Matteson, Sadhu, & Peterson 1986; Merino-Rodriguez 1966: 42; Millers 1961; Mix 1952: 364; Moody, B. H. 1982; Mori 1976b, 1977a; Mori & Iwasawa 1980a, 1980b; Mori & Sen 1988; Morling 1952: 339; Nakagawa & Mori 1984; Patmore 1961; Peacock 1971; Peacock, Kennedy, & Fisk 1967, 1968; Pearce 1975b; Pearce, Gore, & Silverstein 1976; Pearce et al. 1975; Peattie 1948: 23; Plumb 1950b: 8; Pougny & Sinay 1982; Quackenbush 1949: 354; Quisumbing & Kydonieus 1982: 228; Redfern 1977: 108; Rex 1943: 1; Rose 1953: 58; Roy 1948: 235; Roy et al. 1988; Shaw 1958: 21; Stewart, T. E. et al. 1977;

Touhey & Bray 1961; Walther 1975; Walter 1935: 37; Weber, R. & Schurig 1984; Wurster, Wurster, & Strickland 1965.

flavicornis Chevrolat 1829: 181. Syntypes, sex?; Pavis (Lombardy), Italy; presumably at Liege, not located. Synonymy: Hagedorn 1910d: 86; Schedl 1948b: 9.

References: **(hb)** Dombrowsky 1892. **(ds)** Dejean 1837; Schedl 1966f: 80, 1967d: 1, 1970e: 80, 1973a: 366, 1973d: 151, 1979e: 57; Stein & Weise 1877: 164. **(tx)** Butovitsch 1929: 9; Chevrolat 1829: 181; Dombrowsky 1892; Hagedorn 1910d: 86; Schedl 1948b: 9, 61.

ulmi Redtenbacher 1849a: 361. Syntypes, sex?; Austria; not located. Synonymy: Schedl 1948b: 9. Notes: (3) Balachowsky 1949a: 64 (treated as a good species).

References: **(cn)** Marcu 1926c: 60. **(cc)** Fleischer 1911; Kleine 1908c: 177; Perris 1856a: 243; Pfeffer 1928b: 2. **(hb)** Dombrowsky 1892; Perris 1856a: 243; Rupertsberger 1880: 228; Stark 1952: 99. **(ds)** Calver 1884, 1893; Eggers 1904; Gaubil 1849: 127; Gemminger & Harold 1872: 2696; Hagedorn 1910d: 89; Kestercanek 1881a: 12; Kleine 1913a: 34, 1913b: 152; Kraatz 1869: 59; Lacordaire 1866: 387; Marcu 1926c: 60; Orest 1926b: 81–87, 1926c: 60; Pascovici et al. 1963: 153–175; Perris 1872a: 254, 1877a: 414; Pfeffer 1928b: 2, 1931b: 73; Redtenbacher 1858: 838, 1874: 373; Reitter 1894a: 44; Roubal 1941: 254; Schaum 1859: 95, 1862: 100; Schilsky 1890: 196, 1909: 187; Stark 1952: 99; Stein 1868: 113; Stein & Weise 1877: 164; Tredl 1907: 7. **(tx)** Balachowsky 1949a: 64; Butovitsch 1929: 7, 25; Dombrowsky 1892; Hagedorn 1910a: 124; Lacordaire 1866: 386; Redtenbacher 1849a: 361, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 44; Rey 1892b: 30; Rupertsberger 1880: 228; Schedl 1934f: 1632, 1948b: 9, 61, 1952f: 99; Spessivtsev 1913: 32.

javanus Chapuis 1869: 56. Holotype, sex?; Java; IRSNB, Brussels. Synonymy: Schedl 1954a: 137. References: **(ay)** Butovitsch 1929: 7. **(cn)** Kalshoven 1932: 242. **(ds)** Butovitsch 1929: 7; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Kalshoven 1932: 242; Kleine 1913b: 151. **(tx)** Butovitsch 1929: 7; Chapuis 1869: 56, 1873: 264; Hagedorn 1910a: 123; Schedl 1954a: 137.

orientalis Eggers 1910f: 557 (*Eccoctogaster*). Lectotype ♂; Elisabethpol, Caucasiae rossicae; USNM, Washington, designated by Anderson & Anderson 1971: 23. Synonymy: Schedl 1948b: 61.

References: **(ay)** Butovitsch 1929: 9. **(cn)** Arnoldi et al. 1955: 657; Chorbadzhievo 1929; Lozovoi 1945c: 364; Pfeffer 1979: 148; Yagdyev 1987. **(cc)** Lozovoi 1945c: 364; Mendel 1985; Pfeffer 1979: 148. **(hb)** Chorbadzhievo

1929; Kurenzov 1948c: 364; Tschorbadjiev 1929: 158. **(ds)** Buresh & Lazarov 1956; Butovitsch 1929: 9; Chorbadzhievo 1929; Iukhosvich 1955: 105; Kadyrov 1989; Kleine 1934a: 169; Pfeffer 1936: 90; Pjatsnitskii 1930a: 163; Schaufuss 1915: 1206; Sokanovskii 1966: 387; Tschorbadjiev 1929: 158. **(tx)** Anderson, W. H. & Anderson 1971: 23; Butovitsch 1929: 9; Eggers 1910f: 557–558, 1913a: 285, 1914: 108, 184–185; Reitter 1913a: 25; Schedl 1934f: 1632, 1948b: 61, Schedl 1979c: 180–181; Sokanovskii 1954: 13, 1966: 387; Wichmann 1913b: 211.

nodifer Reitter 1913a: 24. Holotype ♂; Walachei, Romania; NHMB, Budapest. Synonymy: Schedl 1948b: 61.

References: **(ay)** Butovitsch 1929: 9. **(ds)** Butovitsch 1929; Schaufuss 1915: 1206; Sokanovskii 1966: 387. **(tx)** Butovitsch 1929: 9; Eggers 1913a: 285–286, 1914: 109; Reitter 1913a: 24; Schedl 1934f: 1632, 1948b: 61; Sokanovskii 1966: 387; Wood, S. L. 1982b: 430.

abhorrens Wichmann 1913b: 210 (*Eccoctogaster*). Holotype, sex?; Umgebung von Zara, Yugoslavia; (?) Muller Collection, Trieste. Synonymy: Schedl 1948b: 61.

References: **(ay)** Butovitsch 1929: 9, 27. **(cc)** Novak 1952: 411. **(ds)** Butovitsch 1929; Kleine 1913b: 151; Langhoffer 1915c: 156; Novak 1952: 411; Sokanovskii 1966: 387. **(tx)** Butovitsch 1929: 9, 27; Eggers 1914: 185; Schedl 1934f: 1632, 1948b: 61; Sokanovskii 1954: 13, 1966: 387; Wichmann 1913b: 210.

affinis Eggers 1914: 108 (*Eccoctogaster*). Holotype ♂; Mazedonien; USNM, Washington. Synonymy: Schedl 1948b: 61.

References: **(ay)** Butovitsch 1929: 6–7, 27, 43. **(cn)** Clinton & McCormick 1936; Leach 1940b: 227; Vajda 1952: 114. **(cc)** Escherich 1935; Leach 1940b: 227. **(hb)** Clinton & McCormick 1936. **(ds)** Buresh & Lazarov 1956; Butovitsch 1929: 6–7, 27, 43; Clinton & McCormick 1936; Kalandra & Pfeffer 1935: 1–17, 1936: 89; Schaufuss 1915: 1206; Sokanovskii 1966: 387; Sturm 1826: 194. **(tx)** Anderson, W. H. & Anderson 1971: 3; Butovitsch 1929: 6–7, 27, 43; Eggers 1914: 108–109, 184–185; Schedl 1934f: 1632, 1948b: 61; Sokanovskii 1954: 13, 1966: 387; Wichmann 1915b: 215.

therondi Hoffmann 1939: 36. Holotype, sex?; Nimes (Gard), France; MNHN, Paris. Synonymy: Schedl 1948b: 61.

Notes: (3) Balachowsky 1949a: 64 (treated as a good species).

References: **(ds)** Nosek 1958: 93; Sokanovskii 1966: 387. **(tx)** Balachowsky 1949a: 64; Hoffmann 1939: 36; Schedl 1948b: 61, 1954: 137; Sokanovskii 1954: 13, 1966: 387.

papuanus Schedl 1936d: 8. Syntypes, sex?; Kap Koenig Wilhelm, New Guinea; MNB, Berlin. Synonymy: Schedl 1962p: 201.

References: (tx) Schedl 1936d: 8–9, 1962p: 201, 1979c: 184.

mundus Wood 1968b: 13. Holotype ♂; 18 km N Tlaxco (Tlaxcala), Puebla, Mexico; Wood Collection.

Figures: Wood 1968b: 12.

Distribution: North America (Mexico, Puebla in Mexico).

Hosts: *Abies religiosa*.

References: (hb) Atkinson et al. 1986: 26. (ds) Atkinson & Equihua 1985a: 80, 1985b: 232; Atkinson et al. 1986: 26. (tx) Wood, S. L. 1968b: 12–13.

muticus Say 1824: 323. Syntypes, sex?; Missouri; Say Collection, lost.

Figures: Blackman 1922b: pl. 3, figs. 18, 23–24, Bright 1976d: 28, Wilson, Scuder, & Provonsha 1982: 67, 157.

Distribution: North America (District of Columbia, Florida, Illinois, Kansas, Kentucky, Maryland, Michigan, Mississippi, Missouri, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA).

Hosts: *Celtis occidentalis*, accidental in *Quercus* sp.

References: (ay) Boving & Craighead 1931; Butovitsch 1929: 8; Hopkins 1894g, 1906b: 145, 148. (cn) Anonymous 1960x; Beal & Massey 1945: 70–71; Blackman 1950; Chamberlin 1924; Doane et al. 1936; Herrick 1935: 107; Hopkins 1899b: 15; Johnson, D. W. & Creasap 1978a; LeBaron 1872(August): 10; Packard 1890: 612, 860; Riley 1873: 105, 108; Swaine 1918a: 51; Walsh 1867b: 58; Wilson, M. C., Schuder, & Provonsha 1982: 67. (ce) Burks 1979: 856; Bushing 1965: 466; Felt 1906: 725; Hopkins 1891b: 259; Galford 1969b; Marsh 1979: 158; Matthews 1970; Pierce 1908: 386; Post 1947: 129; Richerson, J. V. & Borden 1972a. (hb) Baker, W. L. 1972: 239; Beal & Massey 1945: 70–71; Blackman 1922b: 42–43, 1950; Bright 1976d: 32; Chamberlin 1939: 226; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 356; Galford 1969b; Fox 1897; Herrick 1935: 107; Hopkins 1894g, 1899b: 15, 1904b: 320; Klages 1896: 12, 282, 1897: 90; Packard 1890: 612, 860; Pierce 1907: 293; Post 1947: 129; Smith, J. B. 1886: 127; Swaine 1918a: 51; Wood, S. L. 1982b: 426. (ds) Anonymous 1960x; Atkinson et al. 1991: 157; Beal & Massey 1945: 70–71; Blackman 1922b, 1950; Blackwelder 1939; Blatchley & Leng 1916: 590; Bright 1976d: 32; Butovitsch 1929: 8; Chamberlin 1939: 226; Chapuis 1869: 58, 1873: 266; Chittenden 1890; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Dodge 1938; Drooz 1986: 356; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 85–86; Hamilton 1895a: 378; Henshaw 1885: 149; Hoffmann 1942: 12; Hopkins 1892: 257, 259, 1893a: 140, 146, 1893b: 212, 1894: 280, 1903: 320, 1905: 145; Kirk 1969, 1970; Klages 1896: 11–12, 282, 1897: 90; Kleine 1913b: 152, 1914b:

396, 1934a: 169; Leng 1920: 337; Melsheimer 1853: 87; Smith, J. B. 1886: 127, 1910: 403; Swaine 1909: 104; Weber & McPherson 1991: 54; Wood, S. L. 1982b: 426. (tx) Beal & Massey 1945: 70–71; Benoit 1986: 238; Blackman 1922b: 42–43; Blatchley & Leng 1916: 590; Boving & Craighead 1931; Bright 1976d: 28, 32; Butovitsch 1929: 8; Chamberlin 1939: 226; Chapuis 1869: 58, 1873: 266; Dodge 1938: 21–22; Hagedorn 1910a: 123; LeConte 1868: 166, 1876: 372; Muesebeck 1942: 100, 1950: 137; Say 1824: 182, 323; Schedl 1971f: 148; Swaine 1909: 104–105, 1910a: 33, 1918a: 51; Wilson, M. C., Schuder, & Provonsha 1982: 67, 157; Wood, S. L. 1982b: 426.

nakanei Nobuchi 1967: 16. Holotype ♂?; Alisan, 2300 m, Nantou Hsien, Taiwan; Natural Science Museum, Tokyo.

Distribution: Asia (Taiwan).

References: (tx) Nobuchi 1967: 16, pl. 1.

neofacialis Schedl 1976a: 60. Holotype ♀; Varginha, M. Gerais; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 60.

nevermanni Schedl 1935f: 272. Lectotype ♂; Hamburgfarm on Rio Reventazon, Ebene Linon, Costa Rica; Schedl Collection in NHMW, Wien, designated by Wood 1982b: 449.

Distribution: North America (Costa Rica).

Notes: (1) Schedl 1979c: 165 (citation of holotype invalid [lectotype is a male, not a female as stated]).

References: (ds) Blackwelder 1947: 788; Wood, S. L. 1982b: 449. (tx) Schedl 1935f: 272, 1979c: 165; Wood, S. L. 1982b: 449.

nitidus Schedl 1936d: 8. Holotype ♀; Himalaya; Schedl Collection in NHMW, Wien.

Figures: Yin & Huang 1980: 48, 1981: 555.

Distribution: Asia (Himachal Pradesh, Kashmir, Uttar Pradesh in India/Xizang [Tibet] in China).

Hosts: *Juglans regia*, *Prunus armeniaca*, *Pyrus malus*, *Cotoneaster microphylla*.

Notes: (3) Beeson 1922c: 498, 1941 (1961: 296) (*juglandis*, nomen nudum), Schedl 1958g: 167 (described male).

References: (cn) Hill, D. S. 1983: 679; Kleine 1932a: 304; Mathur & Singh 1960b: 80. (hb) Beeson 1922c: 498; Hill, D. S. 1983b: 679; Kleine 1932a: 304. (ds) Hill, D. S. 1983: 679; Mathur & Singh 1960b: 80; Schedl 1971c: 361, 1974a: 85; Yin & Huang 1981: 555; Yin, Huang, & Li 1984: 23. (tx) Beeson 1922c: 498, 1941 (1961: 296); Kleine 1932a: 304; Schedl 1936d: 8, 1958g: 165–167, 1979c: 170–171; Yin & Huang 1980: 47–48, 1981: 555; Yin, Huang, & Li 1984: 23.

nodatus Wood 1969b: 12. Holotype ♂; Santa Ana, San Jose, Costa Rica; Wood Collection.

Figures: Wood 1969b: 12.

Distribution: North America (Costa Rica/Panama).

Hosts: Liana.

References: **(hb)** Wood, S. L. 1982b: 446. **(ds)** Wood, S. L. 1982b: 446. **(tx)** Wood, S. L. 1969b: 12, 1982b: 446.

nodulus (Wichmann) 1915a: 102 (*Eccoptogaster*).

Holotype ♀; Petropolis (nordlich von Rio de Janeiro), Brazil; not given.

Distribution: South America (Brazil).

References: **(ay)** Butovitsch 1929: 9. **(ds)** Butovitsch 1929: 9. **(tx)** Butovitsch 1929: 9; Schedl 1937h: 155, 157, 162; Wichmann 1915a: 102–104.

nodicornis Wichmann 1915b: 216 (*Eccoptogaster*). Syntypes, sex?; Brazil: Ypanema; Natterer Collection and NHMW, Wien. Synonymy: Schedl 1937h: 155, 157, 162.

References: **(ay)** Butovitsch 1929: 8. **(ds)** Blackwelder 1947: 788; Butovitsch 1929: 8. **(tx)** Butovitsch 1929: 8; Schedl 1937h: 155, 157, 162, 1952a: 444, 1958f: 36; Wichmann 1915b: 216–217.

novateutonicus Schedl 1937h: 162. Syntypes ♂ ♀; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, Plaumann Collection, and Strohmeyer Collection, Eberswald.

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 172 (citation of holotype invalid).

References: **(ds)** Blackwelder 1947: 788; Schedl 1966f: 81, 1970e: 79. **(tx)** de Ruetten 1970: 113; Schedl 1937h: 157, 162–163, 1948d: 36, 1951h: 288, 1979c: 172.

numidicus Brisout 1883: 147. Syntypes, sex?; Algeria (Foret de Batna); not given.

Figures: Balachowsky 1969: 651, Michalski 1973a: 10. Distribution: Africa (Algeria/Morocco).

Hosts: *Cedrus atlantica*.

References: **(ay)** Butovitsch 1929: 9. **(cn)** Chararas 1977c. **(ec)** Peyerimhoff 1934: 52; Pfeffer 1960. **(hb)** Balachowsky 1969: 650; Lepiney & Mimeur 1932: 44; Peyerimhoff 1919: 247. **(ds)** Balachowsky 1969: 650; Butovitsch 1929: 9; Hagedorn 1910d: 85; Kleine 1913b: 152, 1914a: 16, 1934a: 169; Lepiney & Mimeur 1932: 44; Michalski 1973a: 46; Normand 1937: 267–268; Peyerimhoff 1919: 247, 1933b: 303, 1934: 52; Pfeffer 1947d: 128, 1960; Reitter 1894a: 42; Schedl 1964a: 95, 1971d: 426. **(tx)** Balachowsky 1969: 650–651; Brisout de Barneville 1883: 147; Butovitsch 1929: 9; Eggers 1911a, 1913a: 286, 1914: 184–185; Hagedorn 1910a: 128; Michalski 1973a: 46–47, pl. 10; Reitter 1894a: 42, 1913a: 20; Schedl 1934f: 1634, 1948b: 14, 1964a: 95; Semenov 1902: 268; Sokanovskii 1954: 15.

numbergi Michalski 1964: 665. Holotype ♀; Solnechny Kluch, near Shkotovo, southern Primorye, USSR; IZL, Leningrad.

Figures: Michalski 1973a: pl. 21.

Distribution: Asia (Primorye in E USSR).

References: **(ds)** Krivolutskaia 1983; Michalski 1973a: 73; Sokanovskii 1966: 389. **(tx)** Michalski 1964: 665, 1965a: 113, 1968b: 194, 1973a: 73–74, pl. 21; Sokanovskii 1966: 389.

obelus Wood 1962: 81. Holotype ♂; Payson Canyon, Utah [USA]; Wood Collection.

Figures: Edson 1967: 55 (adult), 58 (galleries).

Distribution: North America (N Arizona, Colorado, E Nevada, New Mexico, Utah in USA).

Hosts: *Abies concolor*.

References: **(hb)** Edson 1967: 31; Wood, S. L. 1982b: 442. **(ds)** Edson 1967: 31, Furniss, R. L. & Carolin 1977: 404; Wood, S. L. 1982b: 442. **(tx)** Edson 1967: 31, 55, 58; Wood, S. L. 1962: 81, 1982b: 442.

opacus Blackman 1934: 20. Holotype ♂; Ouray, Colorado [USA]; USNM, Washington.

Figures: Edson 1967: 50–51 (adult), 57–58 (galleries).

Distribution: North America (Alberta in Canada/N Arizona, N California, Colorado, Idaho, Montana, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Abies concolor*, *A. grandis*, *A. lasiocarpa*, *Picea engelmannii*.

References: **(ec)** Schedl 1958d: 187. **(hb)** Bright 1976d: 34; Bright & Skidmore 1991: 368; Chamberlin 1939: 230; Edson 1967: 25; Wood, S. L. 1982b: 441. **(ds)** Bright 1976d: 34; Chamberlin 1939: 230; Edson 1967: 25; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 385; Wood, S. L. 1948: 11, 1951a: 127, 1982b: 441. **(tx)** Blackman 1934: 20; Bright 1976d: 34; Bright & Skidmore 1991: 368; Chamberlin 1939: 230; Edson 1967: 25, 50–51, 57–58; Wood, S. L. 1951a: 127, 1977c: 388, 1982b: 441.

abietis Blackman 1934: 21. Holotype ♂; Sandpoint, Idaho [USA]; USNM, Washington. Synonymy: Wood 1977c: 388.

References: **(ec)** Burks 1979: 856; Furniss, R. L. & Carolin 1977: 403; Hertert, Miller, & Partridge 1975: 901; Marsh 1979: 157; Matthews 1970. **(hb)** Bright 1976d: 34; Bright & Stark 1973: 14; Chamberlin 1939: 230, 1958: 46; Edson 1967: 24; Furniss, R. L. & Carolin 1977: 403; Hertert, Miller, & Partridge 1975: 901; Thatcher 1935: 261; Wood, S. L. 1972a: 397. **(tx)** Blackman 1934: 21–22; Bright 1976d: 34; Chamberlin 1939: 230, 1958: 46; Edson 1967: 24, 50; de Ruetten 1970: 113; Wood, S. L. 1972a: 397, 1977c: 388.

oregoni Blackman 1934: 18. Holotype ♂; Ashland, Oregon [USA]; USNM, Washington.

Figures: Edson 1967: 47 (adult), 57 (galleries).

Distribution: North America (California, Oregon, Washington in USA).

Hosts: *Pseudotsuga macrocarpa*, *P. menziesii*.

References: (cn) Doane et al. 1936. (hb) Bright 1976d: 33; Bright & Stark 1973: 14; Chamberlin 1939: 229, 1958: 45; Doane et al. 1936; Edson 1967: 20; Wood, S. L. 1982b: 438. (ds) Blackwelder 1939; Bright 1976d: 33; Bright & Stark 1973: 14; Chamberlin 1939: 229, 1958: 45; Edson 1967: 20; Furniss, R. L. & Carolin 1977: 404; Wood, S. L. 1972a: 397, 1982b: 438. (tx) Blackman 1934: 18–19; Bright 1976d: 33; Chamberlin 1939: 229, 1958: 45; Edson 1967: 20, 47; de Ruelle 1970: 113; Wood, S. L. 1972a: 397, 1982b: 438.

parviclaviger Yin & Huang 1980: 49, 52. Holotype

♂; Shansi: Jiangxian; IZAS, Beijing.

Figures: Yin & Huang 1980: 49.

Distribution: Asia (Shanxi in China).

Hosts: *Ulmus dividiana*, *U. pumila*.

References: (ds) Yin, Huang, & Li 1984: 21. (tx) Yin & Huang 1980: 49, 52; Yin, Huang, & Li 1984: 21.

peruensis Schedl 1937h: 157, 160. Lectotype ♂;

Peru, Rio Toro, La Merdet Chanchamayo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 192.

Distribution: South America (Peru).

References: (ds) Blackwelder 1947: 788. (tx) Schedl 1937h: 157, 160–161, 1952h: 67, 1979c: 192.

piceae (Swaine) 1910a: 34 (*Eccoptogaster*). Lectotype ♂; Ste Ann's [Ste. Anne de Bellevue, Quebec, Canada]; Cornell University, Ithaca, designated by Bright 1967b: 674.

Figures: Bright 1976d: 200, 205, Edson 1967: 40 (adult), 56 (galleries).

Distribution: North America (Alaska/ all provinces in Canada/ California, Colorado, Idaho, Maine, Massachusetts, Michigan, Montana, New Mexico, New York, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, Wyoming in USA).

Hosts: *Picea* spp., uncommon in *Larix laricina*.

References: (ay) Butovitsch 1929: 9, 49; Kirtibutr & Schenk 1977: 381; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966. (bv) Hosking & Knight 1975. (cn) Beckwith 1972b; Blackman 1950; Carroll & Parrott 1960; Chamberlin 1924; Chenier & Philogene 1989a; Felt 1926: 250, 271, 1930a: 247, 271; Hopkins 1904a: 26; Keen 1952c: 165; Kondo & Taylor 1985: 33; Lindgren 1950a: 70; Lindquist, O. H. & Syme 1981: 100; Massey & Wygant 1954: 21; Ruppel 1967: 87; Schuder 1969: 76; Smith, G. J. & Melvin 1974b; Swaine 1918a: 53; Swaine & Craighead 1924: 1–27; Woods 1969. (ce) Beckwith 1972b; Blackman & Stage 1918: 9–115; Bushing 1965: 466; Furniss, R. L. & Carolin 1977: 404; Marsh 1979: 158; Massey & Wygant 1954: 21; Matthews 1970; Reid 1957b: 7; Tomalak, Welch, & Galloway 1989: 3; Werner & Holsten 1984. (hb) Baker, W. L. 1972: 239; Beckwith 1972b; Blackman 1919a, 1950; Blackman & Stage 1918, 1919a; Bright 1976d: 39; Bright & Stark 1973: 14;

Chamberlin 1939: 233, 1958: 49–50; Drooz 1985: 356; Edson 1967: 10; Felt 1924: 271, 1926: 250, 271, 1930a: 247, 271; Furniss, R. L. & Carolin 1977: 404; Gara & Holsten 1975; Hopkins 1904a: 26; Keen 1952c: 165; Kirkendall 1984: 235; Lindgren 1980a: 70; Massey & Wygant 1954: 21; Swaine 1918a: 53; Vitomskii 1928a: 178; Wolcott & Montgomery 1933: 164; Wood, S. L. 1982b: 431; Woods 1969. (ds) Anonymous 1926e: 515; Ashworth 1980; Ashworth & Brophy 1972: 2984; Ashworth & Cvanara 1983; Ashworth et al. 1981; Beaulne 1956; Beckwith 1972a; Blackman 1919: 149, 1950; Blackwelder 1939; Blatchley & Leng 1916: 589; Bright 1964: 170, 1971a: 125, 1976d: 39; Bright & Stark 1973: 14; Butovitsch 1929: 9, 49; Chamberlin 1925, 1939: 233, 1958: 49–50; Deyrup 1981b: 5; Dodge 1938: 21–22; Edson 1967: 10; Elias 1982b, 1982d, 1983, 1985: 39; Elias, Short, & Clark 1986; Evans, D. 1983: 36; Evans, D., Lowe, & Hunt 1978; Felt 1926: 250, 271, 1930a: 247, 271; Furniss, R. L. & Carolin 1977: 404; Gara & Holsten 1975; Gast et al. 1984: 385; Hubbard & Schwarz 1878b: 626; Keen 1952c: 165; Kleine 1913b: 152, 1934a: 169; Knull 1932: 65; Kusch 1967; Leng 1920: 337; Leonard 1928: 515; Lindquist, O. H. & Syme 1981: 100; McGugan 1959; Miller, Fitzgerald, & Buhay 1987; Miller, R. F. & Morgan 1982; Morgan, A. J. & Morgan 1979, 1980: 1110; Morgan, Anne, Morgan, & Elias 1985; Ruppel 1967: 87; Schuder 1969: 76; Smith, G. J. & Melvin 1974b; Still, Tidsbury, & Melvin 1974a, 1974b; Werner & Holsten 1984; Wolcott & Montgomery 1933: 164; Wood, S. L. 1951a: 127, 1972a: 396, 1982b: 431; Woods 1969. (tx) Beckwith 1972a; Blackman 1934: 10, 26–27; Blatchley & Leng 1916: 589; Bright 1967b: 674, 1976d: 39, 200, 205; Butovitsch 1929: 9, 49; Chamberlin 1939: 233, 1958: 49–50; Dodge 1938: 21–22; Edson 1967: 10, 40; Evans, D. 1983: 36; Hoebeke 1978; Kusch 1967; Lindquist, O. H. & Syme 1981: 100; Pardy 1974, 1977, 1983; Schedl 1979c: 193; Swaine 1909: 34, 1910a: 33–35, 1918a: 53; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966; Titus, Meikle, & Harrison 1985: 116; Wood, S. L. 1972a: 396, 1982b: 431. (ms) Chenier & Philogene 1989a.

pilosus Yin & Huang 1980: 49, 52. Holotype ♂;

Szechwan: Kangding, 1700 m; IZAS, Beijing.

Figures: Yin & Huang 1980: 50.

Distribution: Asia (Sichuan in China).

References: (ds) Yin, Huang, & Li 1984: 27. (tx) Yin & Huang 1980: 49–50, 52; Yin, Huang, & Li 1984: 27.

pinnatus Eggers 1928c: 94. Holotype ♀; Brasil,

Blumenau; Eggers Collection, in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 788. (tx) Eggers 1928c: 94, 1931b: 36; Schedl 1937h: 155, 158, 1979c: 195.

pomi Yin & Huang 1980: 50, 53. Holotype ♂: Tibet: Pomi, 2750 m; IZAS, Beijing.

Distribution: Asia (Yunnan, Xizang [Tibet] in China).

Hosts: *Prunus persica*, *P. tomentosa*, *Malus baccata*, *M. yunnanensis*, *M.* spp.

References: (tx) Yin & Huang 1980: 50–53; Yin, Huang, & Li 1984: 39.

praeceps LeConte 1876: 373. Lectotype ♀; Calaveras, California [USA]; MCZ, Cambridge, designated by Wood 1982b: 439.

Figures: Edson 1967: 54 (adult), 58 (galleries).

Distribution: North America (British Columbia in Canada/California, N Idaho, Oregon, Washington in USA).

Hosts: *Abies concolor*.

Notes: (3) Blackman 1934: 6, 18, 20 (redescription).

References: (ay) Butovitsch 1929: 9. (cn) Doane et al. 1936; Essig 1926: 511, 1958: 511; Hatch 1938: 193; Hopkins 1899b: 16, 26–27, 1904a: 21; Keen 1952c: 158; Leach 1940b: 224; Struble 1937d: 10, 1957: 12–14; Swaine 1918a: 52. (cc) Ashraf & Berryman 1969: 12; Berryman 1968a: 66; Burks 1979: 778; Bushing 1965: 466; Furniss, R. L. & Carolin 1977: 404; Kinn 1971: Leach 1940b: 224; Marsh 1979: 148; Muesebeck 1938: 281–287; Struble 1957: 12; Tehon 1942: 235; Wright 1938: 759–773. (hb) Bright & Stark 1973: 14; Chamberlin 1939: 229, 1958: 45; Doane et al. 1936; Edson 1967: 30; Essig 1926: 511, 1958: 511; Furniss, R. L. & Carolin 1977: 404; Hopkins 1899b: 16, 26, 1904a: 21; Keen 1952c: 158; Pierce 1907: 293; Struble 1937d: 10, 1957: 12; Swaine 1918a: 52; Wood, S. L. 1982b: 439. (ds) Blackwelder 1939; Bright & Stark 1973: 14; Butovitsch 1929: 9; Chamberlin 1925, 1939: 229, 1958: 45; Cockerell et al. 1907; Currie 1905: 76; Edson 1967: 30; Essig 1926: 511, 1958: 511; Face 1906: 202; Fall & Cockerell 1907: 217; Furniss, R. L. & Carolin 1977: 404; Hagedorn 1910d: 55; Henshaw 1882: 269, 1885: 149; Hopping 1922; Keen 1929a: 12, 1952c: 158; Kleine 1913b: 152, 1914b: 391, 1934a: 169; Leng 1920: 337; Snow 1907: 188; Swaine 1909: 105; Wood, S. L. 1948: 11, 1951a: 127, 1972a: 397, 1982b: 439. (tx) Blackman 1934: 5–6, 18, 20; Butovitsch 1929: 9; Chamberlin 1939: 229, 1958: 45; Edson 1967: 30, 54; Hagedorn 1910a: 123; Keen 1929a: 12; LeConte 1876: 373; Swaine 1909: 105, 1910a: 33, 1918a: 52; Wood, S. L. 1972a: 397, 1982b: 439. (ms) Hatch 1938: 193.

propinquus Blandford 1896e: 121. Syntypes, sex?: Mexico, Veracruz and Teapa in Tabasco, and Guatemala, Chacoj; BMNH, London.

Figures: Atkinson et al. 1986: 57.

Distribution: Antilles Islands (Cuba), North America (Costa Rica/ Guatemala/ Chihuahua, Nayarit, Tabasco, Veracruz in Mexico).

Hosts: *Inga paterno*, *Lonchocarpus* sp.

References: (ay) Butovitsch 1929: 9. (bv) Kirken-

dall 1984. (cc) Equihua & Atkinson 1986: 627. (hb) Atkinson et al. 1986: 54; Equihua & Atkinson 1986: 627; Kirkendall 1984; Wood, S. L. 1982b: 447. (ds) Atkinson et al. 1986: 54; Blackwelder 1947: 788; Butovitsch 1929: 9; Equihua & Atkinson 1986: 627; Estrada & Atkinson 1988: 204; Ferrer 1942; Hagedorn 1910d: 55; Kleine 1913b: 152, 1914b: 353, 365; Schedl 1963c: 156, 1972g: 38; Wood, S. L. 1982b: 447. (tx) Atkinson et al. 1986: 57; Blandford 1896e: 121; Butovitsch 1929: 9; Hagedorn 1910a: 123; Muskus, A. 1984: 66; Schedl 1940a: 329; Wood, S. L. 1977b: 210, 1982b: 447.

penicillus Schedl 1973d: 165. Holotype ♂; Veracruz, Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977b: 210.

References: (ds) Escalera 1919. (tx) Schedl 1973d: 165; Wood, S. L. 1977b: 210.

proximus Chapuis 1869: 57. Holotype ♀; Nouvelle Granada; IRSNB, Brussels.

Distribution: South America (presumably Colombia/ Venezuela).

Notes: (3) Reports of this species from Argentina by Schedl (1951h: 286, 1952a: 445, 1958f: 35) require confirmation.

References: (ay) Butovitsch 1929: 9. (ds) Blackwelder 1947; Butovitsch 1929: 9; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 55; Kleine 1913b: 152, 1914b: 342; Schedl 1966f: 81, 1970e: 79. (tx) Butovitsch 1929: 9; Chapuis 1869: 57, 1873: 265; Hagedorn 1910a: 123; Schedl 1937h: 155, 164, 1951h: 286, 1952a: 445, 1958f: 35.

pseudocostellatus Schedl 1937h: 159. Holotype ♀; Sao Paulo, Brasilien; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 788; Schedl 1966f: 81, 1970e: 80, 1972g: 41, 1973d: 150. (tx) Schedl 1937h: 156, 159, 1979c: 201.

pubescens Stark 1936e: 153. Lectotype ♂; Suchan, Primorye, USSR; IZL, Leningrad, designated by Michalski 1968b: 188.

Figures: Michalski 1968a: 109, 1973a: pl. 11.

Distribution: Asia (E USSR).

Hosts: *Ulmus propinqua*, *U. japonica*, *Carpinus cordata*.

References: (cn) Kurenzov 1935c: 189 (cc) Kurenzov 1934a: 50, 57. (hb) Kurenzov 1935a: 20, 23, 1948b: 121. (ds) Krivolutskaya 1983; Kurenzov 1934a: 50, 57, 1935a: 20, 23, 1935c: 189, 1936b: 350; Michalski 1973a: 47; Sokanovskii 1966: 388; Stark 1936e: 153. (tx) Balachowsky 1949: 65; Eggers 1942: 34–35; Kurenzov 1935: 24, 1941a: 98, 1948b: 121; Michalski 1968a: 109, 1968b: 188, 1969c: 661, 1973a: 47–49, pl. 11; Pfeffer 1944a: 131; Schedl 1948b: 59, 1952k: 158, 1979c: 203, 1981b: 43; Sokanovskii 1966: 388; Stark 1936e: 153, 1951: 229, 1952: 106–107; Tsai, Yin, & Huang 1962: 6. (ms) Pfeffer 1944a: 131.

pubescens Eggers 1942c: 34. Holotype, sex²; Suchan, Primorye, USSR; Eggers Collection, preoccupied, type not mentioned by Anderson & Anderson 1971 or Schedl 1979c. Synonymy: Pfeffer 1944a: 131, Schedl 1948b: 59. References: (hb) Stark 1952: 106. (ds) Stark 1952: 106. (tx) Eggers 1942c: 34, 1951: 158; Pfeffer 1944a: 131; Schedl 1948b: 59, 1952k: 158; Stark 1951: 229, 1952: 106.

pygmaeus (Fabricius) 1787: 37 (*Bostrichus*). Syn-types 2, sex²; Halae Saxoniae, Germany; UZMC, Copenhagen.

Figures: Michalski 1973a:pl. 22, Pfeffer 1989a:pl. 5, Sokanovskii 1966: 382.

Distribution: Asia (Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Poland/ Portugal/ Romania/ Sweden/ W USSR).

Hosts: *Ulmus* spp., *Carpinus* sp., *Fagus* spp., *Olea europaea*, *Prunus* spp., *Quercus* spp.

Notes: (3) Butovitsch 1929: 9 (*minutus* Zieg., nomen nudum), 1929: 30 (described aberration *inaequipunctatus*, no status in nomenclature).

References: (av) van Deventer & Minks 1977; Escherich 1923b: 478, 497; Francke-Grosmann 1959; Scheyrew 1889a: 22. (bv) Barr, B. A. 1969: 643; Inscoc 1982; Klassen, Ridgway, & Inscoc 1982; Klimetzek & Kopp 1983; Maksimovic 1979a; Manojlovic 1982b; Michalski 1959c: 167; Minks & van Deventer 1978. (cn) Acatay 1943a: 56; Aeloque 1914; Archer 1866; Chararas 1972; Chorbadzhievo 1929; Clinton & McCormick 1936; van Deventer & Minks 1977; Escherich 1923b: 478, 497; Esterberg 1959; Feisthamel 1836, 1837; Fridrici 1860; Froggatt 1899; Garcia-Tejero 1955: 227; Gradojevic 1940; Gyofei 1959; Kalandra & Pfeffer 1935: 6, 1938: 24-33; Karnosky 1976; Kholodkovskii 1912: 290; Leach 1940b: 227; Liese & Butovitsch 1931: 1114; Lokaj 1906: 21; Maksimovic & Motal 1983; Marcu 1926c: 58; Maslov 1971; Mathiesen 1950: 74; Minks & van Deventer 1978; Mokrzycki 1926b: 4; Packard 1890: 860; Peck 1879: 37; Pfeffer 1979: 148; Pierce, W. D. 1917: 96; Rhumbler 1927: 285; Spassky 1916: 219-226; Schwerdtfeger 1944a: 172, 1957a: 181; Spassky 1916: 219-226; Stefan 1961; Stepanov 1951: 52; Tubenif 1936: 500; Vajda 1952: 114; Vasiliev 1916: 20-23; Vorontson et al. 1987; Wachtl 1901: 380; Walsh 1867b: 58; Zimmerman, G. & Bathon 1983. (ce) Androic 1966: 46; Apel 1983; Arambourg 1964: 115; Balazy 1965a; Balazy & Michalski 1960; Boucek 1958; Chararas 1959a; Cooreman 1963: 46; Elliot & Morley 1907; Escherich 1935; Francke-Grosmann 1959; Fry 1989: 18; Graham 1969: 879; Haeselbarth 1967; Heqvist 1963, 1967: 69; Hirschmann & Zirngiebl-Nicol 1961; Jannicky 1957b: 20, 1957c; Karnosky 1976; Kleine 1908c: 177, 1944: 78; Kohnbajiv 1954:

22; Kopyl 1983; Kostenko 1929; Leach 1940b: 227; Lipa 1968; Lipa & Chmielewski 1977; Maksimovic 1979a, 1979b, 1986a; Maksimovic & Motal 1981, 1983; Merlin 1984; Meyer 1934: 612; Michalski 1973b, 1976; Mozolevskaia et al. 1987; Nosek 1959a: 118, 1959b: 85; Novak, P. 1952: 411; Nuorteva 1957b: 52; Palm 1958: 346-347; Perris 1852: 513, 1856a: 243; Pfeffer 1928b: 2, 1943b: 180, 1979: 148; Rondani 1873: 162; Ruschka 1916: 27; Schaarschmidt 1959: 803; Schimitschek 1964e; Schwerdtfeger 1944a: 172, 1957a: 181; Sengonca & Leisse 1984; Sitovskii 1930: 3, 11; Stepanov 1951: 52; Strjcek 1988; Szczepanski 1960a: 409; Teocchi 1965: 4; Thompson, W. R. 1943: 106; Tudor 1969: 33; Vitzthum 1921a: 33, 1921b: 76, 1926: 462; Wichmann 1916: 13, 1916b: 432-433; Zimmermann, G. & Bathon 1983. (hb) Acatay 1943a: 56; Apel 1983; Audouin 1836; Barbey 1901: 16, 37; Budge 1949; Butovitsch 1929; Chararas 1972; Chittenden 1890; Chorbadzhievo 1929; Clinton & McCormick 1936; Decaux 1890c, 1890e; van Deventer & Minks 1977; Dombrowsky 1887, 1892; Eggers 1906; Eichhoff 1881a: 40, 152; Escherich 1923b: 478, 497; Everts 1903: 740; Fisher 1931; Froggatt 1899; Froriep 1836; Fuchs 1904a; Girard 1873; Gyofei 1957; Henschel 1895a: 157; Karpinski & Strawinski 1948: 153; Keller 1913: 242; Kholodkovskii 1912: 290; Kostin 1960: 130; Lengerken 1939: 49, 1954: 65; Lindeman 1964: 78-81; Madon 1930: 99; Maksimovic 1979a, 1979b; Maksimovic & Motal 1981; Manojlovic 1986b; Marcu 1941: 401; Maslov 1963a, 1963c: 846, 1964; Masutti 1964; Merlin 1984; Michalski 1959b: 161, 1959c: 167; Mozolevskaia et al. 1987; Nosek 1959a: 118, 1959b: 85; Packard 1890: 860; Perris 1852: 513, 1856a: 243; Postner 1974: 384; Ratzeburg 1837: 186, 1839: 228; Rhumbler 1927: 285; Rudnev & Stepanova 1960: 773-777, 1961; Rupertsberger 1880: 227; Schedl 1981b: 43; Schimitschek 1939c: 274; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Spessivtsev 1913a: 34, 39; Stark 1926a: 331, 1952: 105; Tschorbadijev 1929: 154; Wachtl 1901: 380; Wichmann 1909a: 165, 1916: 13. (ds) Aeloque 1896, 1914; Andersch 1851; Androic 1966: 46; Audouin 1836; Audras & Schaefer 1957; Balachowsky 1944b; Barthe 1896; Bau 1888; Bedel 1888b: 387, 406; Bielz 1851, 1887; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 203; Brancsik 1871; Buresh & Lazarov 1956; Butovitsch 1929: 7, 30; Calwer 1884, 1893; Chapuis 1869: 54, 1873: 262; Chapuis & Candeze 1853; Chittenden 1890; Chorbadzhievo 1924d, 1929; Clinton & McCormick 1936; Comolli 1837: 37; Debatisse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eder 1934; Eggers 1904, 1906; Endrodi 1958b; Escalera 1919; Escherich 1923b: 478, 497, 1932b; Esterberg 1928, 1959; Everts 1922: 637, 1925; Forster 1849: 440; Fuchs 1904a; Gaubil 1849: 127; Gemminger & Harold 1872: 2695; Cozis 1875: 80; Grune

1979: 37; Gyllenhal 1827: 620; Hagedorn 1910d: 85–86; Hansen, V. 1939: Hellen 1947; Henschel 1895a: 157; Heyden, Reitter, & Weise 1853: 181, 1891: 670, 1906: 708; Horion 1951; Illiger 1805: 130; Jacentkovsky 1935: 18; Jacentkovsky 1912: 256; Kaltenbach 1874: 535, 646; Kamp 1979; Karpinski 1925: 215, 1948a: 173, 1948b: 225; Karpinski & Strawinski 1948: 153; Keler 1925b: 270; Kersten 1933: 77; Kestercanek 1881a: 12; Klefbeck & Sjöberg 1960: 228; Kleine 1912a: 263, 267, 1913a: 34, 1913b: 152, 1934a: 169; Koca 1905: 192; Koeh 1977: 34; Koluhajiv 1934: 65; Kostenko 1929; Kraatz 1869: 59; Kugelann 1794: 526; Lacordaire 1866: 387; Langhoffer 1915c: 156; Leclercq 1971; Leder 1871: 131; Lentz 1857: 140; Lokaj 1865: 64; Lomnicki 1886a: 241, 1913b: 147; Lucht 1957: 275; Luigioni 1929: 990; Luria 1955: 299; Marcu 1926c: 58; Michalski 1959b: 161, 1973a: 75; Negru 1957: 129; Negru & Rosca 1967: 141; Novak, P. 1952: 411, 1964; Numberg 1925b: 57, 92, 1954: 89; Oliveira 1857: 327; Orest 1926c: 58; Palm 1959: 212; Pascovici 1962; Pascovici et al. 1963: 153–175; Perris 1876a: 254, 1877a: 414; Pfeffer 1925b: 2, 1931b: 73, 1959a: 47; Pierce, W. D. 1917: 96; Pittioni 1943: 174; Pjatnitskii 1932: 295–302; Postner 1974: 384; Rapp 1934: 716; Ratzeburg 1837: 186, 1839: 228; Redtenbacher 1855: 835, 1874: 372; Reitter 1894a: 41, 1916: 271; Revy & Siroki 1942: 82; Roubal 1908: 12, 1935b: 72, 1941: 255; Sainte-Claire & Mequignon 1938: 443; Schanfuss 1915: 1204; Schaum 1859: 95, 1862: 100; Schedl 1971f: 148, 1980a: 3, 1981b: 43; Scheyrew 1890c: 469; Schilsky 1909: 156; Schwerdtfeger 1981: 187; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Sokanovskii 1966: 351; Stark 1926a: 331, 1926b: 101, 1926g: 153, 1927b: 85, 1952: 105; Stein 1865: 113; Stein & Weise 1877: 164; Stephens 1829a: 146, 1830: 362; Stierlin 1895: 436; Stierlin & Gautard 1871: 294, 1906: 205; Sturm 1826: 194, 1843: 229; Teocchi 1965b; Thomson 1865: 375; Townson 1803: 192; Tredl 1907: 6; Tressens 1952: 89; Tschorbadjiev 1929: 154; Villa & Villa 1833: 26; Westhoff 1852: 238; Wichmann 1927a: 49. (tx) Acatay 1943a: 56–57; Aeloque 1896; Apel 1953; Bach 1854; Balachowsky 1944b: 13–15, 1949a: 69; Barley 1901: 16, 37; Bedel 1855l: 357, 406; Bertolini 1872; Brancsik 1871; Butovitsch 1929: 7, 30; Castelnu 1840; Chapuis 1869: 54, 1873: 262; Chapuis & Candeze 1853; Chevrolat 1838; Chorbadzhievo 1924d; Csiki 1906; Dejean 1821, 1825; Desbrochers 1891; Dombrowsky 1857, 1892; Duftschmidt 1825: 107; Eggers 1929e: 43; Eichhoff 1881a: 40, 152–153, 1883a: 105, 129; Endrodi 1957b; Erichson 1836: 58; Escherich 1923b: 475, 497; Everts 1903: 740, 1922: 637; Fabricius 1757: 37, 1792: 367, 1801: 395; Fauvel 1859; Formanek 1907: 9; Girard 1873; Gmelin 1790: 1602; Grme 1979: 36–37; Gyllenhal 1813: 348, 1827: 620; Hagedorn 1910a: 123; Henschel 1895a: 157; Herbst 1793:

127; Houlbert 1922a: 7; Jablonsky-Khuzorian 1961: 85; Illiger 1907: 321; Jablonsky 1785: 127; Jacentkovsky 1935: 18; Karpinski & Strawinski 1948: 153; Kugelann 1794: 526; Kulnt 1913: 1048; Lacordaire 1866: 387; Letzner 1844: 64, 1891: 374; Lucht 1957: 275; Luigioni 1929: 990; Michalski 1959b: 161, 1962a: 53–57, 1962b: 202, 273–276, 1967: 311–312, 1973a: 75–78, pl. 22; Numberg 1954: 89–92; Olivier 1795b: 6; Orest 1926b: 81–87; Panzer 1795a: 286; Paykull 1800: 152; Perris 1877a: 414; Pfeffer 1932b: 10, 1955a: 79–80, 86, 1959a: pl. 5; Portevin 1935: 309; Postner 1974: 384; Quaschik 1953: 35; Ratzeburg 1837: 186–187, 1839: 228; Redtenbacher 1849a: 361, 1849b: 27, 1858: 838, 1874: 372; Reitter 1894a: 41, 1913a: 17–18, 1916: 271; Rhumbler 1927: 285; Rupertsberger 1880: 227; Sahlberg 1836: 141; Schedl 1934f: 1632, 1948b: 37, 1952f: 86, 1980a: 3, 1981b: 43; Scheyrew 1889a: 22, 1893a: 111–113, 1893b: 64–69; Schmidt, C. 1980: 27; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Sokanovskii 1966: 351–353; Spessittsev 1913a: 34, 39, 1921a: 316; Stark 1952: 105–106; Stephens 1829a: 146, 1830: 362; Stierlin 1895: 436; Thomson 1865: 375; Wichmann 1916: 13–14. (ms) Escherich 1932b; Hartig 1834: 218.

noxius Ratzeburg 1837: 157 (*Eccoptyogaster*). Syn- types, sex?; not stated, presumably Germany; not given. Synonymy: Schedl 1945b: 37.

References: (hb) Dombrowsky 1892; Ratzeburg 1837: 187, 1839: 230. (ds) Calwer 1854, 1893; Ganbil 1849: 127; Gemminger & Harold 1872: 2695; Kraatz 1869: 59; Lacordaire 1866: 387; Ratzeburg 1837: 187, 1839: 230; Redtenbacher 1855: 838, 1874: 373; Reitter 1869b: 154; Schann 1859: 95, 1862: 14; Schilsky 1909: 186; Stein 1865: 114; Stein & Weise 1877: 164; Sturm 1843: 229. (tx) Bach 1854; Balachowsky 1949a: 69; Butovitsch 1929: 6; Dombrowsky 1892; Lacordaire 1866: 387; Letzner 1891: 374; Ratzeburg 1837: 187, 1839: 230; Redtenbacher 1849a: 792, 1849b: 27, 1855: 838, 1874: 373; Schedl 1948b: 37.

armatus Comolli 1837: 37. Syn types, sex?; Novocomi Prov., northern Italy; not given. Synonymy: Balachowsky 1949a: 69.

References: (hb) Dombrowsky 1892. (ds) Blanchere & Robert 1859; Calwer 1854, 1893; Ganbil 1849: 127; Gemminger & Harold 1872: 2695; Kraatz 1869: 59; Lacordaire 1866: 387; Redtenbacher 1874: 373; Schann 1859: 95, 1862: 101; Schilsky 1909: 186; Stein & Weise 1877: 164; Stierlin & Gautard 1871: 294. (tx) Balachowsky 1949a: 69; Bertolini 1872; Comolli 1837: 37; Dombrowsky 1892; Fauvel 1857; Lacordaire 1866: 387; Letzner 1891: 374; Redtenbacher 1874: 373; Schedl 1948b: 37.

quadriscopinosus Say 1824: 323. Holotype ♂; Mis- souri [USA]; Say Collection, lost.

Figures: Blackman 1922b: pl. 3, figs. 17, 20–22, Bright 1976d: 28, White 1983: 324.

Distribution: North America (Ontario, Quebec in Canada/ Alabama, Connecticut, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Carya* spp.

Notes: (3) Blackman 1934: 16 (re-described).

References: (ay) Butovitsch 1929: 36–37; Goeden & Norris 1964b, 1965b; Hopkins 1894g; Stickney 1921: 15. (bv) Gilbert & Norris 1968; Goeden & Norris 1963, 1964a: 141, 1964b: 743, 1965b; Kozłowski 1969: 121; Raffa & Berryman 1982b: 98; Roling & Kearby 1975b, 1977; Vite & Pitman 1967. (cn) Anderson, R. F. 1960: 238; Anonymous 1966f, 1967f, 1968g, 1985k: 26, 1987d: 19; Baker, W. L. 1972: 237; Beal et al. 1952: 51–52; Beeson 1918; Blackman 1950; Britton 1901: 267, 1902, 1911, 1912: 341, 1913: 3, 1914: 181, 1915: 198, 1920b, 1933: 117, 1934: 1, 162; Britton & Walden 1914: 237; Bromley 1939: 41–42, 1944a; Chamberlin 1924; Craighead & Middleton 1930; Davis 1930: 21–22, 1938: 17, 1940: 17–18, 1952: 18, 1954: 18; Doane et al. 1936; Drooz 1985: 355; Ebel, Merkel, & Kowal 1968; Elliot & Mobley 1938; English 1958: 36; Epstein 1959; Felt 1910: 103, 1912: 110, 1913: 63, 1914: 374, 1915: 33, 1916: 15–88, 336, 574, 1918: 67, 1923: 87, 1924: 49, 1926: 49, 247, 1929: 43–48, 1932: 44, 1934 (edition of 1930a): 195–200, 1934b, 1935: 233, 1942: 8; Felt & Bromley 1930: 15, 1931: 437, 1932: 298; Felt & Rankin 1932: 24, 219, 257; Flint & Farrar 1940: 26–28; Gardner 1941: 21; Goeden & Norris 1964b: 64–65, 1964c, 1965b: 249–252; Gossard 1905a: 309; Headlee 1914: 349, 1915, Herrick 1935: 112; Hetrick 1949b; Hofaker, Loomis, & Tucker 1987; Hopkins 1898a: 105, 1899b: 15, 1902d: 24, 1904a: 41, 1906c: 632, 1907: 163, 1908c: 163, 1909c: 60, 78, 1910f: 3, 1910g: 60, 78, 1911: 1, 1912c; Hough 1878: 162, 1882: 273; Houser 1918: 320, 1946: 36; Johnson 1897: 345–364; Kotinsky 1921: 72; Kowal 1959b: 162; Lebaron 1872: (10 Aug.), 1874: 146; Levison 1909: 363, 1915: 797, 1940: 217–219; Lindquist, O. H. & Syme 1981: 100; Loomis 1913: 446; Loomis, Hofacker, & Tucker 1986; Luggler 1899a: 304; Mattson & Haack 1987; McDaniel 1933: 22–25, 1940: 243–245; Merkel & Kowal 1956: 7; Metcalf & Flint 1928: 670, 1939: 718, 1951: 797; Middleton 1928a: 375, 1928b: 422, 1929: 23; Osborn 1896: 594, 1897: 291–293; Packard 1890: 294; Pettit 1930: 217, 1931: 15, 1933: 231; Pierson 1927: 71; Pirone 1941: 311–312; Pirone, Dodge, & Rickett 1960: 246; Porter 1932: 79–80; Riley 1867: 68–69, 1873: 105, 1875: 105, 1880a: 58, 1880b: 298; Roling & Kearby 1977; Saunders 1883: 51;

Schwarz 1932: 111; Smith, J. B. 1895b: 298, 1900: 363, 1912: 84; Solomon & Payne 1986; Swaine 1918a: 52; Thomas 1876: 145; Vajda 1952: 121; Walsh 1867b: 57–58. (ec) Ashmead 1893b; Ashraf & Berryman 1969: 13; Blackman 1924: 135–143; Blackman & Stage 1924: 11; Burks 1959; Bushing 1965: 466; DeLeon 1934b; Felix, Uhrenholdt, & Parneter 1971: 1697; Felt 1906: 275, 1915: 8, 33; Goeden 1966; Goeden & Norris 1964b, 1965b; Hetrick 1949b; Hopkins 1891b: 258; Houser 1931: 658; Marsh 1979: 150; Matthews 1970; Mattson & Haack 1987; Metcalf & Flint 1928: 670, 1939: 718, 1951: 797; Pierce 1908: 387; Powell, J. M., Wong, & Melvin 1972: 15; Richerson, J. V. & Borden 1972a; St. George 1929b: 573, 1930: 826; Thompson, W. R. 1965: 27; Thompson, W. R. & Simmonds 1964: 36; Vitzthum 1926: 451; Wilson, M. C., Schuder, & Provonsha 1982: 66. (hb) Anderson, R. F. 1960: 238; Anonymous 1985k: 26; Baker, W. L. 1972: 237; Beal & Massey 1945: 65–70; Bird 1913: 123–126; Blackman 1922b: 44–47, 1924: 460, 1950; Blackman & Ellis 1915, 1916: 26, 78; Bright 1976d: 33; Britton 1902, 1913, 1924: 166; Chamberlin 1939: 235; Chittenden 1890; Dillon & Dillon 1961: 805; Doane et al. 1936; Drooz 1985: 355; Deyrup & Atkinson 1987a: 65; Felt 1906: 275, 1915: 8, 33, 1926: 49, 247; Felt & Rankin 1932: 24, 219, 257; Gagne & Kearby 1979b; Goeden 1966; Goeden & Norris 1964b: 743, 1964c: 771, 1965a, 1965b; Herrick 1935: 112; Hopkins 1892: 258, 1893: 134, 280, 1894g, 1899a: 344, 1899b: 15, 1904a: 41, 1904b: 314, 1907a, 1912c; Houser 1918: 320; Klages 1896: 11–12; Kotinsky 1921: 72; Kozłowski 1969: 121; Luggler 1899a: 304; Lutz 1918: 405; McDaniel 1933: 22, 1940: 243; Metcalf & Flint 1928: 670, 1939: 718, 1951: 797; Osborn 1896: 594; Packard 1890: 294; Pierce 1907: 292; Pierson 1927: 71; Rhoades 1924: 135–143; Schwarz 1901b: 344; Smith, J. B. 1886: 127, 1895a: 294, 1895b: 465–474, 1912: 84; Solomon & Payne 1986; St. George 1929: 573–580; Swaine 1918a: 52; Vitzthum 1926: 407–503; White, R. E. 1983; Wood, S. L. 1982b: 429. (ds) Anderson, R. F. 1960: 238; Anonymous 1926c: 514, 1966f, 1967f, 1968g; Atkinson et al. 1991: 157; Beal & Massey 1945: 67–70; Beaulne 1941; Bird 1919; Blackman 1922b: 44–47, 1924: 460, 1950; Blackwelder 1939; Blatchley & Leng 1916: 588; Bright 1976d: 33; Britton 1920a; Butovitsch 1929: 9, 36–37; Chamberlin 1939: 235; Chittenden 1890; Clarke 1913: 264; Craighead & Middleton 1930; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65, 1987b: 68; Dodge 1938: 21–22; Drooz 1985: 355; Felt 1915: 8, 33, 1926: 49, 247, 1930a: 247; Felt & Rankin 1932: 24, 219, 257; Frost & Dietrich 1929; Gemminger & Harold 1872: 2696; Goeden & Norris 1964a, 1964b, 1965a, 1965b; Hagedorn 1910d: 87; Hamilton 1891: 130, 1895a: 378; Harrington 1884a; Henshaw 1885: 148; Hill, D. S. 1987: 337; Hoffman 1942: 12;

Hollister 1920: 145; Hopkins 1893a: 129, 145–146, 1907a; Kleine 1913b: 152, 1914b: 398, 1934a: 169; Leng 1920: 337; Leonard 1928: 514; Lindquist, O. H. & Syme 1981a: 100; Melsheimer 1953: 87; Merkel & Kowal 1956: 7; Smith, J. B. 1886: 127, 1900: 363, 1905: 632, 1910: 347, 403; Swaine 1909: 105; Ulke 1902: 56; Wood, S. L. 1982b: 429. **(tx)** Anderson, R. F. 1960: 238; Baker, W. L. 1972: 238; Beal & Massey 1945: 67–70; Benoit 1986: 238; Blackman 1922b: 44–47, 1934: 11–12, 16–17; Blatchley & Leng 1916: 588; Bright 1976d: 28, 33; Butovitsch 1929: 9, 36–37; Chamberlin 1939: 235; Dillon & Dillon 1961: 801, 805; Dodge 1938: 21–22; Edwards 1959; Hagedorn 1910a: 124; Hopkins 1915c: 189, 203; Leconte 1868: 165, 1876: 371; Lindquist, O. H. & Syme 1981: 100; Lutz 1918: 405; Muesbeck 1942: 100, 1950: 137; Say 1824: 323; Solomon & Payne 1986: 24; Spesivtsev 1921a: 320; Swaine 1909: 105, 1910a: 33, 1918a: 52–53; Titus, Meikle, & Harrison 1985: 116; White, R. E. 1983: 324; Wilson, M.C., Schuder, & Provonsha 1982: 66; Wood, S. L. 1982b: 429. **(ms)** Anonymous 1985k: 26; Bird 1913: 123–126, 1919.

carya Riley 1867: 68. Syntypes, sex?, Princeton, Illinois [USA]; not given. Synonymy: LeConte 1876: 371.

References: **(cn)** Riley 1867: 68–69, 1873: 103–108, 1881: 54; Walsh 1867b: 58. **(ds)** Leng 1920: 337. **(tx)** Blackman 1934: 4; Butovitsch 1929: 9; LeConte 1868: 166, 1876: 371; Riley 1867: 68; Swaine 1909: 105–106.

caryae Walsh 1867: 58. Syntypes 4 ♀; Princeton, Illinois [USA]; not given. Synonymy: LeConte 1876: 371, Wood 1982b: 429.

References: **(ds)** Gemminger & Harold 1872: 2695; Swaine 1909: 105. **(tx)** LeConte 1876: 371; Swaine 1909: 105; Walsh 1867: 58; Wood, S. L. 1982b: 429.

querci Yin & Huang 1980: 50, 53. Holotype ♂; Szechwan: Markang, 2600 m; IZAS, Beijing.

Figures: Yin & Huang 1980: 51.

Distribution: Asia (Sichuan, Yunnan in China).

Hosts: *Quercus gilliana*, *Q. semicarpifolia*.

References: **(ds)** Yin, Huang, & Li 1984: 35. **(tx)** Yin & Huang 1980: 50, 51, 53; Yin, Huang, & Li 1984: 35.

ratzeburgi Janson 1856: 87. Syntypes, sex?, Rannoch, Perthshire, England; IRSNB, Brussels.

Figures: Grune 1979: 34, Michalski 1973a: pl. 23a, 23b, Pfeffer 1989a: pl. 5, Yin, Huang, & Li 1984: 30.

Distribution: Asia (Heilongjiang in China/ Japan/ Korea/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Betula* spp.

References: **(ay)** Butovitsch 1929: 8, 45–46; Escherich 1923b: 440, 477, 489; Feytaud 1950a; Gahan 1900; Keler 1920: 129; Leisewitz 1906: 53; Numborg 1928a: 140; Ring 1977; Scherb 1971; Scheyvrew 1889a: 22; Scholz 1905: 142. **(bv)** Barr, B. A. 1969: 643; Grune 1979: 35; Kevdina 1897: 108; Michalski 1959c: 167; Nuorteva 1956c: 58; Prell 1931: 367. **(cn)** Aclouque 1914; Arnoldi et al. 1955: 658; Berdemnikova 1954: 87; Betrem 1930b: 274; Browne 1968: 645; Eckstein 1926: 573; Egerov 1958: 1492; Eidmann & Klingstrom 1976: 236; Elton & Blackwaardt 1953; Escherich 1923b: 440, 477, 489; Esterberg 1959; Feytaud 1950a; Fisher 1937c; Gabler 1955; Georgescu et al. 1957: 356, 416; Grandi 1951; Greckin 1956: 1455; Hasek 1961: 5; Hess 1900: 51; Hess & Beck 1914: 241, 1927: 295; Ishikura 1966; Judeich & Nitsche 1895: 444, 483; Kangas 1950b: 160, 1955d: 164; Kharnitonov 1924: 199–204; Kholodkovskii 1912: 279; König, E. 1957: 100; Koppin 1882: 249; Lekander 1954b: 7; Lekander, M. 1951: 21; Lokaj 1906: 22; MacDougall 1924, 1929; Marcu 1926c: 58; Melnikova 1962b: 113–114, 1962c: 91–102, 1964: 32; Nestertschuk 1930: 163; Novak, V., Hrozinka, & Stary 1976: 111; Nusslin 1913: 204; Ohnesorge 1955: 280; Packard 1890: 860; Palm 1951: 228; Pierce, W. D. 1917: 46; Ratzeburg 1871c: 85; Rhumbler 1922: 274, 1927: 284; Roepke 1931: 162; Saalas 1949: 340, 345; Scheyvrew 1905b: 1088; Schimitschek 1935b: 146, 1955a: 140, 1955c: 73; Schwappach et al. 1929: 185; Schwerdtfeger 1944a: 172, 1953c: 209, 1957a: 180; Tragardh 1921a: 119, 1927c: 63; Vrydagh 1952: 123; Wachtl 1901: 380; Walsh 1867b: 58; Weber, H. 1926: 573; Wolff & Krausse 1922: 68; Zakharov & Levkovich 1951: 299; Zhang et al. 1958: 27. **(ec)** Adeli 1964: Balazy 1962, 1963a: 69–80, 1965a; Balazy & Michalski 1964b; Betrem 1929, 1930b: 274; Boucek 1957b: 80, 1958; Brammann 1938, 1940: 257–340; Carpelan 1944; Elliot & Morley 1907; Fischer 1937: 110–128, 1962: 299; Galoux 1947c; Glowacki 1951; Graham 1969: 879; Gusev 1928: 144; Györfi 1941b, 1943: 83; Haeselbarth 1967; Heqvist 1963; Hirschmann 1960; Hirschmann & Wisniewski 1982m, 1983; Jammicky 1957b: 20, 1957c, 1958: 689; Kangas 1942b, 1950: 145–147, 1954a: 48, 1954b, 1984; Kapuscinski 1948: 74; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980, 1983; Kleine 1908b: 227, 1908c: 177, 1944: 72; Kostenko 1929; Kraemer 1950b: 380; Lundberg 1984; Melnikova 1962a, 1962b; Meyer 1934: 612; Michalski & Ratajczak 1989; Mostovsky 1923: 287–288; Nuorteva 1956a: 16, 1961a: 119, 1961c: 119, 1971: 68; Nusslin 1927: 284; Okolow 1963; Otten 1940: 197; Palmén 1944: 60, 1946: 194; Pettersen 1976b; Pfeffer 1923a: 329, 1931b: 7, 74, 1943b: 178; Poinar 1975: 169; Roepke 1931: 161–168; Ruhm 1956b: 3; Rummukainen 1950: 36, 1952: 3, 1954: 8; Saalas 1949: 340, 345; Scheidter 1936:

233; Schimitschek 1955a: 140, 1964e; Schindler 1962: 181–184; Schwerdtfeger 1944a: 172, 1953c: 209, 1957a: 180; Sedlaczek 1935a: 155; Sieber & Benz 1985; Sitowski 1930: 4; Smetana 1958: 63; Smirnov 1935: 123–128; Szczepanski 1960a: 410; Thompson, W. R. 1943: 106; Vietinghoff 1924: 335–336; Wiackowski 1957a: 85, 1958: 174; Yanovskii 1977b. (**hb**) Adeli 1964; Adelung 1905; Altum 1881c: 322; Bach 1864; Balachowsky 1963a: 1249; Barbey 1901: 16, 35, 1913; Bargmann 1906; Beffa 1949, 1961; Boas 1923: 340; Bonnemaison 1953; Brandt 1948; Browne 1968: 645; Budkov 1897; Ceconi 1906, 1924; Chittenden 1890; Decaux 1890e, 1890f; Dombrowsky 1887, 1892; Eckstein 1897, 1926: 573; Eichhoff 1881a: 40, 150; Eidmann & Klingstrom 1976: 236; Escherich 1923b: 440, 477, 489; Everts 1900, 1903: 739; Ferguson 1924; Feytaud 1950a; Fisher 1931; Fuchs 1904a, 1905c: 340; Gabler 1955; Gahan 1900; Gomostaev 1916: 308–315; Grandi 1951; Greckin 1956: 1485; Gyorf 1957; Hagedorn 1903a; Hennings 1908b, 1908c: 212; Henschel 1895a: 156; Hess 1900: 51; Hess & Beck 1914: 241, 1927: 295; Jacobi 1906: 145; Judeich 1880: 160; Judeich & Nitsche 1895: 444, 483; Kangas 1951: 225, 1954b; Karpinski 1933b: 22; Karpinski & Strawinski 1948: 153; Keller 1913: 242; Kemner 1919: 174; Kholodkovskii 1889: 277, 1912: 279; Kirsch 1871: 169; Knoche 1905: 406; Knotek 1894a: 553; Koch 1957b: 149; Konig, E. 1957: 100; Kostin 1960: 130; Kraemer 1950e: 380; Lekander 1954b: 7; Lengerken 1939: 35, 1954: 65; Lindemann 1881b: 171–173; Lonzil 1961: 17; Lunardoni & Leonardi 1889: 450; MacDougall 1924: 100; Madon 1930: 112; Marcu 1941: 400; Melnikova 1964; Michalski 1959c: 167; Morstatt 1924: 10; Munro 1926: 44; Novak, V., Hrozinka, & Sary 1976: 111; Numberg 1929a: 91, 1929c: 113; Nuorteva 1956c: 58; Nusslin 1898: 376, 1913: 204, 1927: 284; Ohnesorge 1955: 280; Packard 1890: 860; Palm 1951: 228, 1953b: 58; Pauly 1892a: 195; Pfeffer 1942a: 10, 1989a: 47; Postner 1974: 385; Prell 1931: 367; Ratzburg 1871c: 85; Rlimbler 1922: 274, 1927: 284; Rimski-Korsakov et al. 1949: 269; Ring 1977; Roepke 1940: 168; Rupertsberger 1880: 227; Saalas 1913a: 67, 75, 1949: 340, 345; Scheidter 1936: 233; Scheyvrew 1905b: 1088; Schimitschek 1955a: 140; Schindler 1962; Schreiber 1887: 220–223; Schwappach et al. 1929: 185; Schwerdtfeger 1944a: 172, 1957a: 180, 1981: 187; Sedlaczek 1935a: 155; Sieber & Benz 1985; Smith, J. B. 1886: 127; Spessivtsev 1913a: 37; Stanek 1969: 255; Stark 1926a: 331, 1952: 116; Taschenberg 1880: 240, 244; Tragardh 1914: 84, 1927: 63, 1930c: 470, 1939b: 151; Tredl 1908b: 138, 1915a: 99, 146; Wachtl 1901: 380; Weber, H. 1926: 573; Wolff 1927: 77; Wolff & Krausse 1922: 68. (**ds**) Aeloque 1896, 1914; Adeli 1964; Anonymous 1844: 9; Anstara et al. 1983; Balachowsky 1944b; Bangsholt 1975: 95; Barthe 1896; Ban

1888; Bedel 1888b: 397, 405; Beffa 1949; Bejer-Petersen & Jorum 1977: 3; Belousev 1916, 1917: 334–337; Boas 1923: 340; Borchert 1951; Brakman 1966b: 203; Browne 1968: 645; Budkov 1897; Buresh & Lazarov 1956; Butovitsch 1929: 9, 45–46; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Carlisle & Crooke 1951: 131; Carpelan 1944; Ceconi 1906; Chapuis 1869: 53, 1873: 261; Chittenden 1890; Chrystal 1937; Croteh 1863; Crowson 1971: 51; Eggers 1904; Elton & Blackwaardt 1953; Endrodi 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 440, 477, 489, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 636, 1925; Fowler 1891; Fricken 1889: 282; Fuchs 1904a, 1905a, 1905c: 340; Gabler 1949b; Gemminger & Harold 1872: 2696; Gerhardt 1898a; Gomostaev 1917; Gozis 1875: 80; Grill 1895: 312; Grune 1979: 35; Gyorf 1941b; Hagedorn 1903a, 1910d: 87; Hansen, V. 1939, 1956, 1964: 456; Hellen 1947; Hellisen 1916: 83; Henschel 1895a: 156; Heyden 1876: 295; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Hickin 1963; Hill, D. S. 1987: 337; Horion 1951; Hormuzaki 1891: 174; Ishikura 1966; Janson 1856: 86; Jazentkovsky 1912: 285; Judeich & Nitsche 1895: 444, 483; Kangas 1942b; Karpinski 1925: 215, 1926: 81, 1933b: 22, 1951: 21; Karpinski & Strawinski 1948: 153; Keler 1922b: 210; Kemner 1919: 174; Kersten 1933: 72; Kirsch 1871: 169; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 215, 262, 267, 1913a: 34, 1913b: 152, 1914b: 250, 1934a: 169; Knotek 1892a: 35, 1894a: 553; Koca 1900: 116, 1905: 191; Koltze 1901: 152; Koppen 1882: 249; Kostenko 1929; Kraatz 1869: 59; Krivolutskaya 1958: 113, 1983; Krogerus 1921b: 115; Kurir 1947c: 24; Langhoffer 1915c: 156; Leclercq 1971; Leder 1871: 131; Lindberg & Saris 1952: 58; Lindemann 1884b: 264; Linder 1953: 71; Linnaniemi 1935: 45; Lokaj 1868: 63; Lomnicki 1886a: 241, 1913b: 147; Lovendal 1890c: 210; Lucht 1987: 275; Luigioni 1929: 990; Lunardoni & Leonardi 1889: 450; Lundberg 1974: 92, 1979: 31; Lundblad 1950c: 114; MacDougall 1929: 7; Mahler 1987: 232; Marchant & Borden 1976; Marcu 1926c: 58; Matthews & Fowler 1883: 42; Meinert 1887: 70; Michalski 1957c: 161, 1973a: 78; Munro 1921: 87, 1926; Munster 1928: 288; Murayama 1939: 137, 1940a: 229, 1942a: 53, 1954b: 197; Negru 1966b: 398; Nobuchi 1973a: 23; Numberg 1928b: 86, 90, 1954: 91; Nuorteva 1971: 68; Nusslin 1898: 276; Orest 1926c: 58; Palm 1959: 24, 32, 214, 348; Palmén 1944: 60, 1946: 194; Pena 1928: 155; Peris 1876a: 25, 1877a: 44; Pfeffer 1924b: 472, 1931b: 7, 74, 1989a: 47; Pierce, W. D. 1917: 46; Pittioni 1943: 176; Pomerantzev 1907b: 491; Postner 1974: 385; Prossen 1913: 81; Rapp 1934: 716; Reitter 1894a: 40, 1916: 270; Rimski-Korsakov et al. 1949: 269; Rohrig 1955: 37; Roubal 1910: 203, 1941: 256; Saalas 1913a: 67, 75, 1931: 67; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915:

- 1203; Schaum 1859: 95, 1862: 100; Schedl 1980a: 3, 1981b: 44; Scheidt 1919: 165; Scheyvrew 1890c: 469; Schilsky 1909: 186; Schiodte 1873: 104; Schneider & Leder 1977: 54; Schwerdtfeger 1981: 187; Seidlitz 1872: 389, 1891a: 556, 1891b: 602; Sharp & Fowler 1893: 34; Smith, J. B. 1886: 127; Sokanovskii 1960, 1966: 381; Stark 1926a: 331, 1926b: 101, 1926j: 123, 1927b: 85, 1931a: 21, 1931d: 542, 1952: 116; Stein 1868: 113; Stein & Weise 1877: 164; Stierlin 1898: 435; Stierlin & Gautard 1906: 205; Strand 1946: 395; Strand & Hansen 1935: 70; Thomson 1865: 374, 1868: 224; Tragardh 1914: 84, 1921: 119–127, 1922: 361–384, 1939b: 151; Tredl 1907: 5, 1908b: 138, 1917: 97–102, 146–154; Wichmann 1927a: 48; Winter, T. G. 1983: 42; Wiren 1945: 43; Wolff 1927: 77; Yanovskii 1974, 1977a, 1989; Yanovskii & Dmitriuk 1983; Yanovskii & Tegshzhargal 1985: 405; Zinovjev 1955: 187. **(tx)** Acloque 1896; Bach 1864; Balachowsky 1944b: 11–12, 15–16, 1949a: 70–71; Barbey 1901: 16, 351; Bedel 1888b: 397, 405; Beffa 1949, 1961; Boas 1923: 340; Butovitsch 1929: S. 45–46; Chapuis 1869: 53, 1873: 261; Csiki 1906; Desbrochers 1891; Dombrowsky 1887, 1892; Duffy 1953: 11; Duftschmidt 1825: 107; Eggers 1908b: 144, 1912: 204–205, 1914: 298, 1922c: 14; Eichhoff 1881a: 40, 150–152, 1883a: 105, 129; Endrodi 1957b: 419; Escherich 1917: 97–115, 1923b: 440, 477, 489; Escherich & Escherich 1897; Everts 1903: 739, 1922: 636; Fauvel 1889; Ferrant 1911; Fricken 1889: 282; Gabler 1949b, 1955; Grime 1979: 34–35; Gyllenhal 1813: 346–348; Hagedorn 1910a: 124; Hansen, V. 1956, 1964: 456; Henry 1892: 10, 11; Henschel 1895a: 156; Jacobi 1906: 145; Jacquelin du Val & Fairmaire 1868: 103; Janson 1856: 87; Judeich & Nitsche 1895: 444, 483; Karpinski & Strawinski 1948: 153; Knotek 1892a: 35; Kuhnt 1913: 1047; Kurenzov 1941: 226–227; Letzner 1891: 374; Leunis 1886: 183; Lindemann 1881b: 171; Lovendal 1889b: 46, 1890c: 210, 1898: 55; Lucht 1987: 275; Luigioni 1929: 990; Lunardon & Leonardi 1889: 450; Michalski 1959c: 172–173, 1967: 313–315, 1968b: 191, 1973a: 78–83, pl. 23a, 23b; Murayama 1939: 137–138, 1940a: 229, 1954b: 197; Negrin 1966b: 398; Niisima 1928: 293, 1943: 142–143; Nobuchi 1973a: 23, pl. 2; Novak, V., Hrozinka, & Starý 1976: 111; Nunberg 1928a: 140, 1929c: 113, 1954: 91, 99–100; Nuorteva 1971: 71; Paykull 1800: 151; Pfeiffer 1932b: 9, 1942a: 10, 1955a: 82–84, 1959a: pl. 5; Portevin 1935: 309; Postner 1974: 385; Quaschik 1953: 35; Ratzeburg 1837: 186; Reitter 1894a: 40, 1913a: 16, 1916: 270; Rey 1892b: 30; Rhumbler 1922: 274, 1927: 284; Rupertsberger 1880: 227; Saalas 1913a: 67, 75, 1919, 1949: 340, 345; Sawamoto 1943: 144; Schedl 1934f: 1633, 1941a: 42, 1948b: 45, 49, 1952f: 86, 1980a: 3, 1981b: 44; Scherb 1971; Scheyvrew 1889a: 22, 1893a: 122–125, 1893b: 83–84; Schimitschek 1937: 43, 1955c: 73; Seidlitz 1872: 389, 1891a: 556, 1891b: 602; Sokanovskii 1954: 14, 1960: 676, 1966: 351, 384–385; Spessivtsev 1913a: 37–39, 1919: 246–247, 1922a: 457, 1925a: 153, 1925b: 5, 1931: 11–15; Stark 1952: 116–119; Stierlin 1898: 435; Stresmann et al. 1989: 353; Taschenberg 1880: 240, 244; Thomson 1865: 373–374, 1868: 224; Tsai & Li 1959: 76; Tsai, Yin, & Huang 1962: 7–8. **(ms)** Escherich 1932b; Kholodkovskii 1893: 390; Rohrl 1914a: 131.
- amurensis* Eggers 1908: 144 (*Eccoptogaster*).
Lectotype ♂; Sibiria orientalis (Amur sup.); USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Schedl 1948b: 49.
References: **(ay)** Butovitsch 1929: 6, 47. **(cn)** Arnoldi et al. 1955: 649; Kurenzov 1935c: 193, 1956a: 87. **(cc)** Halperin & Holzschuh 1984: 22; Kurenzov 1934a: 53. **(hb)** Halperin & Holzschuh 1984: 22; Kurenzov 1935a: 19, 21, 1948b: 1, 116; Stark 1952: 119; Yin, Huang, & Li 1984: 29. **(ds)** Butovitsch 1929: 6, 47; Hagedorn 1910d: 83; Halperin & Holzschuh 1984: 22; Kleine 1913b: 151, 1914b: 24, 1934a: 53, 1935a: 19, 21, 1935c: 193, 1936a: 110, 1938a: 60, 1957b: 15; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1938a: 60, 1951b: 15; Sokanovskii 1966: 383; Stark 1952: 119; Yin, Huang, & Li 1984: 29. **(tx)** Anderson, W. H. & Anderson 1971: 4; Balachowsky 1949a: 70; Butovitsch 1929: 6, 47; Eggers 1908: 144, 1914, 1922c: 14–15; Hagedorn 1910a: 123; Krivolutskaya 1958: 113–115; Kurenzov 1941a: 83–84, 1948b: 116; Reitter 1913a: 16–17; Schedl 1934f: 1633, 1948b: 49; Sokanovskii 1954: 14, 1960: 676, 1966: 383; Stark 1952: 119; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 29.
- sahlbergi* Eggers 1912c: 204 (*Eccoptogaster*). Lectotype ♂; Dauria (Sibiria orient.); USNM, Washington, designated by Anderson & Anderson 1971: 29. Synonymy: Kolosov 1931: 118.
References: **(ds)** Kleine 1913b: 152, 1914b: 250; Sokanovskii 1966: 383. **(tx)** Anderson, W. H. & Anderson 1971: 28; Balachowsky 1949a: 70; Butovitsch 1929: 8; Eggers 1912c: 204–205, 1914: 298; Endrodi 1957: 419; Kolosov 1931: 118; Reitter 1913a: 16–17; Schedl 1934f: 1633, 1948b: 49; Sokanovskii 1966: 383.
- sibiricus* Eggers 1922c: 14 (*Eccoptogaster*). Holotype ♂; Werchne-Udinsk, Transbaikalien (= Ulan-Ude, Zabaikalye, USSR); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1948b: 49.
References: **(ay)** Butovitsch 1929: 9, 47. **(hb)** Stark 1952: 119. **(ds)** Butovitsch 1929: 9, 47; Mandl 1931: 25; Stark 1952: 119. **(tx)** Balachowsky 1949a: 70; Butovitsch 1929: 9, 47; Eggers 1922c: 14; Niisima 1943: 143; Sawamoto 1943: 144; Schedl 1934f: 1633, 1948b: 49, 1979c: 228; Sokanovskii 1954: 14, 1960: 676; Stark 1952: 119.

- lineatus* Kurenzov 1941a: 104, 226. Lectotype ♀; Ussuri "Terney district"; IZL, Leningrad, designated by Michalski 1968b: 191. Synonymy: Michalski 1968b: 191.
References: (bv) Du 1987. (hb) Stark 1952: 145. (ds) Sokanovskii 1966: 390; Stark 1952: 145. (tx) Kurenzov 1941a: 104, 126; Michalski 1968a: 111, 1968b: 191; Schedl 1948b: 32; Sokanovskii 1966: 390; Stark 1952: 145.
- reflexus** Blackman 1934: 13. Holotype ♂; Santa Catalina Mts., Arizona [USA]; USNM, Washington. Figures: Edson 1967: 39 (adult), 56 (galleries). Distribution: North America (Chihuahua, Durango, Nuevo Leon in Mexico/ Arizona, Colorado, New Mexico, Wyoming in USA). Hosts: *Pseudotsuga menziesii*.
References: (cn) Doane et al. 1936; Keen 1952c: 160; Schuder 1969: 81. (hb) Doane et al. 1936; Edson 1967: 8; Keen 1952c: 160; Wood, S. L. 1982b: 434. (ds) Atkinson & Equihua 1988: 100; Blackwelder 1939; Edson 1967: 8; Furniss, R. L. & Carolin 1977: 404; Keen 1952c: 160; Schuder 1969: 81; Snow 1881: 70, 1883: 44; Wood, S. L. 1982b: 434. (tx) Blackman 1934: 13; Chamberlin 1939: 227; Edson 1967: 8, 39; de Ruetten 1970: 113; Wood, S. L. 1977c: 388, 1982b: 434.
- wickhami* Blackman 1934: 13. Holotype ♂; Buena Vista, Colorado [USA]; USNM, Washington. Synonymy: Wood 1977c: 388.
References: (hb) Chamberlin 1939: 227; Edson 1967: 15. (ds) Blackwelder 1939; Chamberlin 1939: 227; Edson 1967: 15; Furniss, R. L. & Carolin 1977: 404. (tx) Blackman 1934: 13; Chamberlin 1939: 227; Edson 1967: 15, 44; de Ruetten 1970: 113; Wood, S. L. 1977c: 388.
- robustus** Blackman 1934: 19. Holotype ♂; Prescott, Arizona [USA]; USNM, Washington. Figures: Edson 1967: 48 (adult), 57 (galleries). Distribution: North America (Arizona, Colorado, E Nevada, New Mexico, Utah in USA). Hosts: *Abies concolor*.
References: (cn) Doane et al. 1936. (cc) Kim 1971. (hb) Chamberlin 1939: 229; Doane et al. 1936; Edson 1967: 21; Wood, S. L. 1982b: 437. (ds) Blackwelder 1939; Chamberlin 1939: 229; Edson 1967: 21; Furniss, R. L. & Carolin 1977: 404; Wood, S. L. 1982b: 437. (tx) Blackman 1934: 8-19; Chamberlin 1939: 229; Edson 1967: 21, 48; de Ruetten 1970: 113; Wood, S. L. 1982b: 437.
- rugulosus** (Muller) 1818: 247 (*Bostrichus*). Synonymy, sex?, Odenbach, Germany; 1 at IRSNB, Brussels, many at ZIFH, Eherswalde. Figures: Balachowsky 1949a: 56, 58, Michalski 1973a: pl. 43, Pfeiffer 1989a: pl. 5, Yin, Humag, & Li 1984: 38.
Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Xinjiang in China/ India/ Iran/ Israel/ Pakistan/ Syria/ Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Cyprus/ Czechoslova-
- kia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Ireland/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), North America (introduced into: Durango in Mexico/ all provinces in Canada/ all states in United States), South America (introduced into: Argentina/ Peru/ Uruguay).
Hosts: *Malus* spp., *Pyrus* spp., *Prunus* spp., *Amelanchier* spp., *Crataegus* spp., *Sorbus* spp., *Cotoneaster* spp., *Cydonia oblonga*, *Mespilus* sp.
Notes: (3) Schedl 1948b: 12 (*pomorius* Bedel, nomen nudum, synonymy), Michalski 1973a: 96 (described var. *bucharicus*, no status in nomenclature).
References: (ay) Butovitsch 1929: 9, 51-57; Chararas, Katoulas, & Koutroumpas 1982; Escherich 1923b: 478, 513; Fisher 1954; Cahlan 1900: Hopkins 1894g; Payne et al. 1973; Scherb 1971; Schneider-Orelli 1913: 27; Scholz 1905: 144; Thomas, J. B. 1967; Ting 1936: 95. (bv) Chararas 1980b: 561; Grune 1979: 39; Hellen 1921; Kirkendall 1984: 241; Majernik 1960; Michalski 1959c: 167, 1961d; Nickle 1971; Nuorteva 1956c: 94. (cn) Acatay 1943a: 58; Aeloque 1914; Alden 1930: 31; Alderman, Gibbings, & Rumsey 1913: 30, 35; Ammand 1948: 11-12, 1950: 24; Anonymous 1920: 35, 1926b: 17, 1951: 30, 1960q, 1960s, 1961e, 1961j, 1961r, 1962j, 1962z, 1963j, 1963n, 1963y, 1964j, 1964u, 1965b, 1965d, 1965r, 1966b, 1966p, 1966u, 1967d, 1968d, 1968p, 1969d, 1969m, 1970d, 1970m, 1971c, 1972d, 1973a, 1974c, 1975c, 1977c, 1979a, 1979s; Anthon 1947: 193-195, 1949: 205-206, 854, 1957; Anthon et al. 1950: 23-24; Armitage 1947: 204; Armitage et al. 1947: 204; Armstrong 1949: 7-8; Armstrong & Boyce 1958: 1, 5-6; Atkinson et al. 1986: 74-75; Ayomtantis 1953: 13; Baker 1898: 25-37; Balachowsky 1951, 1963a: 1256; Balachowsky & Mesnil 1935: 18-21; Baldwin 1912: 97, 1914: 16, 1916: 131; Barbey 1902: 164, 1925: 549; Beach 1899: 381-445; Beal & Massey 1945: 66-67; Becker 1912: 29, 1913: 29; Bentley 1930: 92; Berlese 1915; Bethune 1907: 18, 1909: 32; Bissell & Firor 1947: 25; Blackman 1950; Blair 1937: 170; Bogue 1897: 22; Boreca 1930: 270; Borg 1933, 1935: 3, 43-46; Borodin 1915: 87; Boyd 1945: 131-132, 1953: 159-160; Brandt 1952, 1957; Brannon 1925: 6; Bricbet 1943: 54-55; Britton 1897: 234-245, 1931: 502, 1933: 138, 1934: 156; Britton & Zappe 1927: 133-134; Brooks 1916: 3; Brown et al. 1935: 5, 1938: 4, 1942: 4; Bruner 1899; Brunson 1929: 11, 18; Buckley 1911: 3, 5; van Buren & Husted 1911: 451; Burgess 1906: 658, 1907: 18; Burke 1932: 368-369; Butz 1897: 21-28; Caesar 1908: 110, 1909: 13, 1910: 18, 1914: 25-31, 51, 1921: 145, 1930; Campbell 1936: 10; Canela 1921: 253-256; Chabrolin 1929: 365-366; Chamberlin 1924; Chamberlin & Dustan 1954: 27-28, 1967: 29-30; Chandler 1909: 360, 1912: 251, 1913: 53, 1939: 33-36, 1950: 18-19; Chandler &

- Flint 1935a: 10, 1939a: 10–12; Chararas 1957c; Chase 1915: 26, 1920: 29, 1922: 43; Childs et al. 1946: 4; Chittenden 1898b: 8, 1899b: 96–99, 1902, 1905: 346–347, 1909; Chorbadzhievo 1926: 175–241, 1929; Close & Ballard 1911: 190; Cochran et al. 1951: 10; Conradi 1905: 6; Conradi & Thomas 1909: 7; Cory 1923: 160; Costa Lima 1956; Crosby 1918: 4, 8; Cummings 1950: 14; Currie 1905: 13, 19–20; Davidson & Lyon 1979: 373, 1987: 404; Davis 1921: 277–282, 1937: 230–239, 1947: 150; Davis & Gardner 1931: 11–12; Dean 1918: 197, 1922: 181; Dean & Peairs 1913: 2, 16; Dewey 1947: 59; Dixon 1913: 136; Doane et al. 1936; Dominguez Garcia-Tejero 1944, 1955: 211–279; Douglass 1908: 154, 1910: 100, 1912: 45, 127; Downes et al. 1947: 83; Drooz 1955: 356; Duporte 1919: 62; Dzhabazishvili 1961: 1253–1254; Earley 1949; Eastham 1915: 18–21; Ebeling 1950, 1959: 436; Eddy 1942: 350–352; Eddy & Dutsch 1943: 1, 1944: 71; Eddy & Hawthorn 1943: 32; Eddy et al. 1934: 226; Engel 1949; Escherich 1923b: 478, 513; Essig 1913: 658, 1915: 455, 1917: 43–64, 1926: 510, 1958: 510; Essig & Hoskins 1944: 16; Esterberg 1959; Every 1951: 23–24; Faville 1898: 2; Felt 1905: 403, 1906: 453, 1910: 89, 1913: 93, 1926: 324, 1930a: 324, 1933: 49, 1934b: 318; Felt & Rankin 1932: 369, 420; Ferguson et al. 1947: 17; Fernald 1921: 147, 1926: 148–149; Fernando 1935; Fintzescu 1936b; Fiori 1950; Fisher 1937c: 110–128; Fletcher 1899: 110; Flint 1926: 9, 21; Fluke 1920: 34; Fogle et al. 1973: 46; Forbes 1889: 23, 245, 1890b, 1891: 469–478; Frank 1925: 5, 112; Fulton, Wright, & Gregg 1911: 30; Funk 1907: 216; Garcia-Tejero 1935: 227; Gardner 1914: 60; Garman 1884, 1908; Garman et al. 1953: 35–37; Gavalov 1927: 8–16; Gehin 1857b: 63; Gentry, G. R. et al. 1979, 1980: 257, 1982; Gentry, J. W. 1965: 90; Ghillini 1952; Gillette 1920: 21, 1923: 15; Gillette & List 1915: 29; Gilliatt 1929: 12; Gintzenberg 1914: 108, 1915: 111; Goble 1956: 39–40; Goidanich 1941: 130–141; Golfari 1946: 129–170; Goncalves 1945: 17–25; Goodfellow & Colberg 1958; Gornostaev 1917: 308–315; Gossard 1905b: 19, 22, 1908: 51, 301, 1909: 81, 1911: 97, 114, 118, 123, 1913: 6, 1914: 1; Gossard & Walton 1922: 83–126; Goureaux 1861: 110, 1865: 22; Gradojevic 1935; Graf Marin & Cortes Pena 1940: 351–357; Grandi 1951; Green 1923: 43–44; Grigorovich 1960; Gyorf 1946: 193, 195, 1959; Hadley 1917: 125; Hagedorn 1910c; Hagen 1884; Harrar 1915: 2, 32; Harris 1932: 25–26; Haseman 1911: 223, 1917: 27, 1936: 12; Hatch 1938: 192; Hawthorne 1964; Hay & Wooten 1955: 11–12; Hayward 1941: 89, 1942: 28; Head et al. 1955: 7; Headlee 1915: 631–698; Hedrick 1936: 56; Hellen 1921; Henderson 1918: 21; Herrick 1912: 44, 1925: 740, 1935: 206; Hess 1900: 56; Hess & Beck 1914: 243, 1927: 298; Hewitt & Hayhurst 1911: 435; Hildebrand 1944: 16, 1947: 45–46; Hill, D. S. 1983: 512; Hines & Bennett 1955: 9; Hodson & Beaumont 1928: 29; Hoffmann 1913: 218–220, 1916: 260, 1952a: 104, 1952b: 402; Hopkins 1894c, 1894d, 1899b: 15, 1899c: 295; Home, Essig, & Hermes 1923: 10; Houser 1932: 70; Howard 1889: 129; Hungerford 1944: 53–54; Hunter 1922: 178–182, 184–194; Humphrey 1935: 19; Hutton 1931: 28, 1933: 30–32, 1937: 58, 1941: 60–61, 1952: 42; Isaac 1934: 161–166; Jacklin & Yonce 1968: 882–884; Jarvis 1909: 259; Johnson, C. W. 1897, 1899: 344, 1900: 393, 1901a: 343; Johnson, W. T. & Lyon 1976: 216; Jones, D. H. 1911, 1929: 19; Judeich & Nitsche 1895: 444, 486; Kamp 1959; Kangas 1940: 32–34; Kelley 1918: 11; Kemner 1916: 21; Kholodkovskii 1912: 290; Klages 1896: 12; Kleine 1932a: 303; Koppen 1882: 250; Korolkov 1929: 20; Kotte 1941: 64, 1948: 70, 1958: 117; Kovacevic 1928: 33–41; Kovach & Gorsuch 1985; Krainsky 1914: 329–339, 358–361, 379–385, 407–412, 423–430, 436–458; Ksenjopolsky 1914: 29; Lahille 1924: 28; Lamiman 1937: 33; Lanham & Hays 1916: 23; Lathrop 1919: 15–16, 1922: 147–245; Lehker et al. 1955: 18–19; Lesne 1917: 222–224; Letzner 1880: 355; Leuchs 1955: 550–551; Lewis, Chase, & Turner 1919: 15; Lichtenstein & Picard 1920: 54–55; Lincoln 1949: 7; Lindblom 1936: 26; Lindquist, O. H. & Syme 1981: 100; Lintner 1885b: 575, 1886: 85, 341, 1889: 103–107, 1896: 270; Lochhead 1900: 72, 1902: 104, 1914: 82; Lockwood 1929: 770; Lockwood & Gammon 1949: 195; Lokaj 1906: 22; Lovett 1923: 44; Lowe 1900: 122–128; Lozovoi 1948c: 364; Luggler 1899a: 85–331; Lustner 1913a: 4; Mabee 1922: 6; Mackie 1932: 745–761; Mackie et al. 1943: 255; MacNay & Creelman 1958: 12; Majernik 1957: 71, 1959: 196, 198–203; Malkov 1905: 51; Manis & Portman 1950: 49–50; Marchal & Foet 1921; Marcovitch & Stanley 1945: 21; Maren 1926c: 59; Martelli 1914: 165–170, 677–682, 1915: 165; Massee 1934: 170, 1935: 165–172, 1946: 90–95; McCampbell 1936: 2; McDaniel 1933: 25–27; McHatton & Harvey 1919: 170; Mead 1972: 1; Metcalf & Flint 1928: 530, 1939: 627, 1951: 700; Miatello 1913: 333–337; Mickle 1953: 32; Mickle & Newton 1951: 25–26; Milbrath 1950: 23; Mokrzecki 1913: 56; Molinari 1942: 452–456; Moritz 1920: 22; Morris, H. M. 1937: 22; Morschel 1972: 212; Mote 1944: 5–7; Moulton 1932: 747; Moultrie 1952: 17; Mourikis & Vassilaina-Alexopoulou 1975: 145; Muller 1912: 184; Muller-Thurgau, Osterwalder, & Schneider-Orelli 1917: 416–426; Murtfeldt 1894: 40; Neary 1943: 31, 1944: 29; Newcomer 1941: 36, 1945: 52–53, 1950: 23, 35, 51, 1966: 35; Newell 1904: 103, 1912: 1, 13; Niven 1913: 10, 1915: 49; Noll 1938: 43; O'Kane 1914: 241; Ormerod 1895: 76–79, 1896: 76, 1898: 197–201; Osservatorio 1914: 48; Osterwalder 1921: 6–9; Packard 1890: 860; Paillot 1926: 836–840; Parker 1943: 6; Parrott 1912: 209, 1931: 26–27, 1934: 6, 1935: 6; Parrott & Fulton 1915: 553; Patterson &

- Neary 1950: 85, 1951: 98; Peairs 1909: 63, 1941: 333-334; Peklo 1946: 340; Pelekassis 1962; Pelton 1948: 15; Penhallow 1882: 38; Pepper 1926: 1, 3; Perro 1963: 52; Pettit 1899: 363-365, 1904: 53-55, 59, 1929: 2, 1930: 8, 86; Pettit & Hutson 1931: 33-34, 55-56; Picard 1921: 15-20; Pierce, W. D. 1917: 46; Pierstroff & Parks 1930: 4; Pirone, Dodge, & Rickett 1960: 178; Pliginsky 1915: 20; Plotnikoff 1914: 140-642; Popenoe 1899: 40-46, 439-439, 1906: 987; Portman & Manis 1954: 51-52; Putnam 1947: 48; Quaintance 1899: 56-59, 1901: 103, 1905: 346, 1908: 122, 1909: 21, 122; Quaintance & Siegler 1918: 89, 1922: 66, 1931a: 78, 1931b: 75-76; Rabate 1911: 198; Ranojevic 1906: 211; Reay 1969: 50; Rhumbler 1922: 274, 1927: 285; Riley 1880b: 298, 1883: 182; Riley & Howard 1891: 298; Rings 1953: 70-71, 73, 76-78, 1956: 42, 44-48; Ritzema 1915: 301-331; Robek 1930: 95-98; Roepke 1931: 162, 1947: 114-116; Rosborough et al. 1947: 15; Rosenfield 1908: 112, 1910: 215; Ross & Caesar 1921: 42-50, 1922: 45; Ross & Putnam 1933: 39; Ruffinelli 1944: 27; Ruggles 1941: 31; Rumsey 1905: 25, 1906, 1907: 31, 1908: 234; Rumsey & Brooks 1909: 17; Russo 1926: 75-86; Ruskowski 1925: 35; Sacharov 1913: 1-25, 1914: 29; Sacharov & Shembel 1915: 162; Sachtleben & Pape 1922: 26-101; Samal 1931: 98-103; Sanborn 1912: 27; Sanders 1946: 17; Sander-son 1912: 544, 1921: 477, 1931: 300-302; Santoro 1960b; Sargent 1905: 30; Sarra 1930: 223-227; Savary 1946: 94; Schimitschek 1935b: 146, 1937: 43, 1944: 154, 1951a: 101, 1952c: 60, 1955a: 148, 1955c: 73; Schlyter et al. 1957; Schneider 1957: 616; Schneider-Orelli 1913: 25-110, 1915a: 66-67, 1915b: 47, 1916: 17-21, 1917a: 6; Scholl 1916: 11-15, 1922: 76; Schuh & Mote 1948: 119-120; Schvester 1951b: 3, 1956: 35, 1957: 1-162; Schwartz 1975a, 1975b: 25, 1979: 220, 1980: 225; Schwarz 1888: 30; Schwerdtfeger 1944a: 174, 1957a: 182; Scott 1912: 63; Scudder 1886: 195; Sherbakoff & Stanley 1943: 59; Sherman 1900: 98, 1903: 5-6, 10, 21; Shull 1944: 46-47; Shull & Fisher 1940: 52-53; Sifroshvili & Akhaladze 1966: 358; Sitovski 1930: 13; Slingerland 1897: 804; Slingerland & Crosby 1914: 277; Smith, J. B. 1894, 1900: 364, 1905: 87, 1906: 165, 1909: 416, 1910: 55, 1911: 36; Smith, L. M. 1932: 3-13, 1947: 1, 3, 1948: 62; Smith, R. I. 1905: 19; Smith, R. I. & Lewis 1906: 77; Snapp 1928: 27-28, 1936: 26, 1941: 17-19, 1954: 17-18; Soares 1945: 137; Soenen & Paternotte 1972; Somes 1915: 17; Sorachi 1934: 40-42, 1937: 48, 1941: 48-49; Souphieff & Scherbinovskaja 1937: 56; Starnes 1899: 225-229, 1904: 253-254; Stedmann 1898: 1-12, 1905: 57; Stewart 1917: 357; Strickland 1916: 1099, 1923: 208; Sturgis 1894: 142, 1895: 191; Surface 1907: 503, 1911: 4, 92, 167; Swaine 1910d: 42, 1918a: 32; Swanson & Michellbacheri 1945: 6-7; Svarap & Rajan 1985; Swenk 1909: 106; Symons 1904: 97, 1905: 129; Talbert & Mur-neek 1939: 157; Talhouk 1950: 134, 1954: 306; Theobald 1909: 111; Thompson, B. G., Jones, & Mote 1944: 7, 1948: 7-8; Thompson, W. L. 1945: 3, 21; Titus & Pratt 1904: 20; Treherne 1911: 20, 1912: 23; Troop 1894: 126-130; Trujillo 1942: 148-149; Tubeuf 1936: 500; Tucker 1905: 623; Tullgren 1916: 104; Twigg 1911: 319; Urbahns 1925: 161-164; Uvarov 1913: 32; Vostrikov 1913: 40-41; Vukasovic 1932: 20-47; Wachtl 1901: 381; Wahl 1924: 27-74, 1926: 21-48; Wahl & Muller 1914: 70; von Wahl 1914: 4; Walker 1898: 214-215, 1924: 52, 226; Wallace 1942: 540; Wallace et al. 1927: 32-62; Warburton 1917: 209-219; Washburn 1903: 57, 81, 91; Watson 1918: 241, 1942: 14; Weber, H. 1926: 577; Webster 1895: 23-25, 1897: 363, 1899: 143-149, 449; Weiss 1912: 433, 1915: 165-166; Weldon 1918: 383, 1939: 56; Wellhouse 1922: 1107; Whitten 1950: 5; Wichmann 1927b: 354; Wille 1941: 26, 1943: 257-259; Williams & Price 1911: 125; Willison 1937: 331; Wilson G. F. 1945: 148-150; Wilson, G. F. & Becker 1960: 86; Wilson, H. F. 1909: 4, 93; Wilson, M. C., Schuder, & Provonsha 1982: 67; Wolcott 1933: 201-202; Wood, C. D. 1897: 78; Worsham 1909: 77, 207; Wressell 1946: 58; Wright 1915: 1410; Young 1942: 9, 1943: 11; Zakhorov & Levkovich 1951: 302; Zanardi 1960; Zirngiebl 1901: 58; Zvierzomb & Zubovsky 1918: 36. (ec) Arambourg 1944: 119, 1964: 115; Ashmead 1901; Ashraf & Berryman 1969: 12, 1970: 206; Balazy & Michalski 1960, 1964b; Barbey 1902: 164; Boucek 1957a, 1957b: 80; Brittain 1927; Burks 1943, 1979: 774; Bushing 1965: 467; Chabrolin 1929; Chararas 1956b, 1957d; Chittenden 1893b; Deyrup & Gara 1978: 276; Elliot & Morley 1907; Escherich 1925a; Favard 1962; Felt 1906: 453; Fisher 1954; Fintzescu 1930; Furniss, R. L. & Carolin 1977: 404; Gahan 1946; Garcia 1970; Giraud & Laboulbene 1877: 434-435; Graf Marin & Cortes 1940; Graham 1969: 879; Grissell 1975: 765; Gyorfi 1941b, 1943: 84, 1962, 1962: 213; Heqvist 1963, 1967: 69; Houser 1931: 659, 1932: 70; Jamnicky 1957b: 18, 20, 77; Jones 1911; Kangas 1942b; Kaya 1984; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 177, 1909a: 42; Klimesch 1914c: 59; Kokuewa 1900: 556; Kolubajiv & Kalandra 1954: 30; Kopyl 1983; Kostenko 1929; Laumond & Ritter 1971; Leuch 1955: 550; Lima & DaCosta 1962; Lindeman 1964: 112; Lozovoi 1948c: 364; Majernik 1958: 93; Marsh 1979: 157; Matthews 1970; Mendel 1985; Mendel & Curevitz 1985; Metcalf & Flint 1928: 530, 1939: 627, 1951: 700; Michalski 1973b, 1976; Michalski & Ratajczak 1989; Moller & DeVay 1968: 1501; Mote 1944: 5; Newcomer 1955: 91; Nickle 1971; Nickle & Welch 1984: 637; Nosek 1956: 204, 1959a: 118, 1959b: 87; Novak, P. 1952: 410; Numberg 1930: 203-204; Nuorteva 1957b: 66; Nusslin 1927: 285; Peklo 1946: 340; Perris 1856a: 243; Pfeffer

- 1923a: 329, 1931b: 7, 1943b: 179; Pierce, W. D. 1908: 383; Poinar 1975: 167; Reid 1957b: 6; Rondani 1873: 163, 1876: 64; Ruhm 1956: 3; Rummukainen 1954: 27; Russo 1926b: 84; Saalas 1930: 118; Schedl 1932: 1; Schimitschek 1930a: 340, 1941a: 320, 1955a: 148, 1964c; Schlyter et al. 1957; Schneider-Orelli 1913: 27; Schwester 1952a: 98, 1957b: 11–161, 1959: 769; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlaczek 1935a: 162; Silvestri 1911: 389; Sitowski 1930: 2; Smith, J. B. 1889: 216; Sokanovskii 1936: 74; Stechmann 1898: 3; Swarup & Rajan 1985; Zeczeanski 1960a: 409, 1961: 10; Talhouk 1961: 208; Tanada 1963: 462; Tchou 1942: 239; Thompson, W. R. 1943: 106; Thompson, W. R. & Simmonds 1964: 36, 1965: 4; Tudor 1969: 33; Vietinghoff 1924: 337; Wagner 1928: 15; Wiackowski 1958: 174; Wichmann 1955a: 92; Wilson 1945: 149; Zanardi 1960. (**hb**) Acatay 1943a: 58; Adeli 1972: 14; Altum 1881c: 249; Baker, W. L. 1972: 238; Balachowsky 1963a: 1256; Balachowsky & Mesnil 1935; Balbi 1944; Barbey 1901: 16, 39, 1925: 549; Bargmann 1906; Bauer 1905; Beal & Massey 1945: 66–67; Beffa 1949, 1961; Berlese 1915; Blackman 1922b, 1950; Bright 1976d: 29; Bright & Stark 1973: 14; Britton 1897; Buddenberg 1885: 91–97; Budkov 1897; Burke 1932; Caesar 1908, 1916: 44, 1930: 59–61; Cecconi 1924; Chamberlin 1939: 225, 1958: 58; Chamberlin, G. C. & Dustan 1954: 27–28, 1967: 29–30; Chandler 1939; Chapman 1869c; Chararas 1957e; Chittenden 1890, 1898b, 1899b, 1909; Chorbadzhievo 1929; Costa Lima 1956; Dallimore & Munro 1922; Davidson & Lyon 1979: 373, 1987: 404; Dillon & Dillon 1961: 805; Doane et al. 1936; Dombrowsky 1887, 1892; Drooz 1985: 356; Ebeling 1950; Eckstein 1897; Eichhoff 1881a: 41, 157, 1882a: 250, 322; Escherich 1923b: 478, 513; Essig 1915a: 309, 1926: 510, 1958: 510; Evans 1952: 141; Everts 1900, 1903: 741; Favard 1962; Felt 1906: 453, 1926: 324, 1930a: 324; Felt & Rankin 1932: 369, 420; Fintzescu 1930b: 245; Fisher 1954; Fogle et al. 1973: 46; Forbes 1891; Forsius 1920: 220; Fuchs 1904a, 1905c: 340; Furniss, R. L. & Carolin 1977: 404; Furst 1888: 626; Gahan 1900; Garcia 1970; Garmen et al. 1953: 35; Girard 1873; Goble 1956: 39; GornostaeV 1916: 309; Gossard 1913; Grandi 1951; Gyorfi 1957; Hagedorn 1903a, 1910c; Hagen 1884: 161–163; Hemmings 1908c: 212; Henschel 1876a: 202, 242, 1895a: 156; Herrick 1935: 206; Hess 1900: 56; Hess & Beck 1914: 243, 1927: 298; Hill, D. S. 1983: 512b, 1987: 337; Hilter 1909; Hoffmann 1941; Hopkins 1894g: 280, 1899a: 343–344, 1899b: 15, 1899c: 295; Hornung 1840: 164; Jannicky 1957d; Janjua 1950; Judeich & Nitsche 1895: 444; Kamp 1959; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 153; Kholodkovskii 1912: 290; Klages 1896: 12; Kleine 1932a: 303; Knotek 1894a: 557, 1895b: 315; Kostin 1960: 130; Kotte 1941: 64; Krausse 1915: 156; Kunstler 1871: 62–63; Lenkerken 1939: 50, 1954: 69; Lepiney & Mimeur 1932: 44; Letzner 1846: 78, 1880: 335–336; Lincoln 1949: 7; Lindeman, G. V. 1978; Lindemann 1881b: 171, 1887: 197; Lozovoi 1960: 7, 1961: 91; Lugger 1899a: 313; Luardoni & Leonardi 1889: 453; Lustner 1913a: 4; Lutz 1918: 405; Madon 1930: 99; Majernik 1957: 71; Masutti 1964; McDaniel 1933: 25; Metcalf & Flint 1928: 530, 1939: 627, 1951: 700; Michalski 1959c: 167; Morschel 1972: 212; Morstatt 1924: 24, 46; Munro 1926: 46; Newcomer 1966: 35; Nordlinger 1855: 186, 1856: 44, 1869: 335; Nosck 1956: 204, 1959a: 118, 1959b: 87; Numberg 1929a: 93, 1929c: 114, 1947c: 100; Nuorteva 1956c: 94; Nusslin 1898: 276, 1927: 285; Osterwalder 1921: 7; Packard 1890: 860; Palm 1959: 346; Perris 1856a: 243; Peyerimhoff 1919: 249; Pfeffer 1942a: 16; Pierce, W. D. 1907: 293; Postner 1974: 387; Ratzeburg 1837: 186, 1839: 230; Rhumbler 1922: 274, 1927: 255; Robek 1930: 96; Roepke 1940: 168, 1947: 116; Rupertsberger 1880: 228; Schedl 1932: 1–2, 1981b: 40; Schimitschek 1930a: 340, 1944: 154, 1955a: 148; Schneider-Orelli 1913: 27; Schwester 1957b: 11–161; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlaczek 1935a: 162; Silvestri 1911: 389; Smith, J. B. 1886: 127; Smith, L. M. 1932: 3–13, 1947: 1; Stark 1926a: 331, 1952: 139; Stechmann 1898: 3; Swaine 1907: 191, 1910c: 58, 1912b: 141, 1918a: 52; Szymczakowski 1960: 182; Talbert & Murreek 1939: 157; Taschenberg 1880: 240, 246, 1901: 107; Theobald 1909: 111; Thompson, B. G. et al. 1944: 7; Titus & Pratt 1904: 29, 31, 37; Tschorbadjiev 1929: 156; Vasseur & Schwester 1948: 87; Viana 1964: 129; Wachtl 1901: 381; Weber, H. 1926: 577; Wichmann 1910b: 209, 1927b: 354; Wilson, C. F. & Becker 1960: 86; Wolff & Bromberg 1909: 101–102; Wood, S. L. 1982b: 424; Zirngiebl 1901: 58; Zocchi 1959: 103. (**ds**) Acloque 1896, 1914; Adeli 1972: 14; Ammann & Knabl 1913; Anonymous 1926c: 514, 1961r, 1962j, 1962z, 1963j, 1963y, 1964j, 1964n, 1965b, 1965d, 1965r, 1966b, 1966p, 1966u, 1967d, 1968d, 1968p, 1969d, 1969m, 1970d, 1973a, 1975c, 1977c, 1979a, 1979s; Andras & Schaefer 1957; Bach 1849c; Balachowsky 1944b, 1951, 1963a: 1256; Balazy & Michalski 1960; Balbi 1944; Barthe 1896; Bau 1888; Beal & Massey 1945: 66–67; Beanline 1956; Bedel 1888b: 388, 406; Beffa 1949; Bejer-Petersen & Jorum 1977: 6; Bielz 1851, 1857; Blackman 1922b: 43–44, 1950; Blackwelder 1939, 1947; Blanchere & Robert 1889; Blatchley & Leng 1916: 590; Borchert 1951; Brakman 1966b: 203; Brancsik 1871, 1906; Bright 1976d: 29, 1987a: 2; Bright & Stark 1973: 14; Britton 1920a; Bruch 1914a; Buck 1955b: 191; Budkov 1897; Buresh & Lazarov 1956; Butovitsch 1929: 9, 51–57; Calwer 1884, 1893; Carpentier & Delaby 1908; Chamberlin 1939: 225, 1958: 58; Champion 1894; Chandler & Flint 1935a; Chapman 1869: 121–131, 1870b, 1900: 77; Chapuis

- 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chittenden 1890, 1893: 250, 1895b, 1899b, 1902, 1903, 1909; Chorbadzhievo 1924d, 1929; Chrystal 1937; Conradi 1906; Costa Lima 1956; Crotch 1863; Currie 1905; Dallimore & Munro 1922: 189–193; Debatisse 1945; Deyrup 1981b: 5; Dodge 1938; Drooz 1985: 356; Dzhambazhshvili 1961b; Ebeling 1950, 1959; Eder 1934; Eggers 1904; Endrodi 1958a, 1958b, 1981: 184, 1986: 217; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 478, 513; Essig 1915a: 309, 1915b, 1926: 510, 1958: 510; Esterberg 1928, 1959; Evans 1952: 141; Everts 1900, 1922: 637, 1925; Eyquem 1891; Fairnaire 1880a; Farahbakhsh 1964; Favre 1890; Felt 1926: 324, 1930a: 324; Felt & Rankin 1932: 369, 420; Forster 1849: 440; Fowler 1891; Frost & Dietrich 1929; Fuchs 1904a, 1905a, 1905c: 340; Furniss, M. M. 1978; Furniss, R. L. & Carolin 1977: 404; Garman et al. 1953: 35; Gast et al. 1989: 385; Gaubil 1849: 127; Gehin 1857a: 392; Gemminger & Harold 1872: 2696; Gentry, J. W. 1965: 90; Georgiou 1977: 75; Gilliland & Farahbakhsh 1963; Gomostaev 1912; Gozis 1875: 80; Gredler 1866: 372; Grill 1895: 313; Groves 1858; Grune 1979: 39; Gyorf 1941b; Hagedorn 1903a, 1910d: 87; Hamilton 1885: 48, 1889: 159, 1894b: 407, 1895a: 378; Hansen, V. 1939, 1956, 1964: 457; Heinemann 1908a; Hellen 1947; Henschel 1895a: 156; Henshaw 1885: 149; Heyden 1876: 296; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Hickin 1963; Hill, D. S. 1983: 512, 631, 1987: 337; Hoffmann 1940: 60, 1942: 12, 1952a: 104, 1952b: 402; Holdhaus 1912: 454; Hopkins 1893a: 140, 144, 146; Horion 1949, 1951; Hornuzaki 1885: 156; Hubbard 1892: 30; Hubbard & Schwarz 1878b: 626; Jansson 1915: 93; Jazentkovsky 1912: 286; Johnson, C. W. 1901a: 343; Johnson, W. T. & Lyon 1976: 216; Judeich & Nitsche 1895: 444; Kaddou 1967: 13; Kadyrov 1988: 43–44, 1989; Kaltenbach 1874: 149, 154, 179; Kangas 1942b; Karpinski 1925: 215, 1926: 81, 1931: 21, 36, 1933b: 23, 1948b: 229; Karpinski & Strawinski 1948: 153; Keen 1929a: 13; Keler 1925b: 270; Kelleher 1986: 67; Kersten 1933: 72; Kesteranek 1881a: 12; Kiefer et al. 1942: 528; Kirk 1969, 1970; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 161, 262, 267, 1913a: 34, 1913b: 152, 1914a: 16, 19, 1914b: 245, 1932a: 303, 1934a: 169; Knotek 1892a: 36, 1894a: 557, 1898b: 318; Knowlton 1931: 10; Knoll 1934: 211; Kobakhidze 1957: 177; Koca 1905: 192; Koltze 1901: 152; Koppen 1882: 250; Kostenko 1929; Kotula 1873b: 80; Kraatz 1869: 59; Lacordaire 1866: 387; Langhoffer 1915c: 156; Leclercq 1971; Leng 1920: 337; Leonard 1928: 514; Lepiney & Mineur 1932: 44; Lindemann 1884b: 264, 1887: 197; Lindquist, O. H. & Syme 1981: 100; Lokaj 1868: 63; Lomnicki 1886a: 241; Lucht 1987: 275; Luigioni 1929: 990; Lumarconi & Leonardi 1889: 453; Lundblad 1950c: 114; Mackie et al. 1943: 255; MacNay & Creelman 1958: 12; Majernik 1960; Majzlan et al. 1987; Marcu 1926c: 59; Matthews & Fowler 1883: 42; Meimert 1887: 70; Michalski 1961d, 1973a: 126; Mirzoian 1950: 139; Moragues 1889: 32; Mourikis & Vassilaina-Alexopoulou 1975: 145; Negru 1957: 129, 1966b: 398, 1968a: 454, 1968c: 91; Newcomer 1958: 91; Newell 1904: 103; Novak, P. 1952: 410, 1964; Nunberg 1928b: 88, 93, 1947a: 29, 1954: 91; Nusslin 1898: 276; Oliveira 1887: 327; Orest 1926c: 59; Orten 1886: 279; Paganetti-Hummler 1901: 150; Palm 1959: 59, 212; Patterson & Hatch 1945: 148; Pelekassis 1962; Perris 1876a: 254, 1877a: 414; Peyerimhoff 1919: 249; Pfeffer 1931b: 7, 76, 1989a: 51; Pierce, W. D. 1917: 46; Pittioni 1943: 174; Pjatsitskii 1930a: 163; Postner 1974: 387; Powell, J. A. & Hogue 1979: 313; Proctor 1946: 206; Prossen 1913: 82; Quaintance 1908: 122; Ragusa 1924: 114; Rapp 1934: 718; Ratzeburg 1837: 186, 1839: 230; Redtenbacher 1858: 838, 1874: 373; Reitter 1869b: 154, 1894a: 43, 1916: 272; Revy & Siroki 1942: 82; Robek 1930: 96; Roubal 1935b: 72, 1941: 254; Ruffinelli Rey 1967; Saalas 1930: 118, 1931: 67; Sainte-Claire & Mequignon 1938: 442; Schlauffuss 1915: 1205; Schedl 1960a: 79, 1961b: 186, 1964j, 1965g: 26, 1966f: 81, 1967c: 74, 1969g: 288, 1971b: 529, 1971d: 426, 1971f: 148, 1972d: 130, 1974a: 85, 1978c: 293, 1978e: 36, 1979e: 57, 1979i: 288, 1980a: 3, 1981b: 40; Scheyrev 1890c: 470; Schilsky 1909: 187; Schimitschek 1951a: 101, 1952c: 60; Schiodte 1873: 105; Schuh & Mote 1948: 119; Scudder 1886b: 195; Seidlitz 1872: 390, 1891a: 557, 1891b: 603; Sharp & Fowler 1893: 34; Sick 1939: 110; Smith, J. B. 1886: 127, 1894: 565–572, 1898: 385, 1900: 364, 1910: 403, 1911: 36–37; Sokanovskii 1936: 74, 1960, 1966: 390; Souplieff & Scherbinovskaja 1937: 56; Stark 1926a: 331, 1926b: 101, 1926j: 124, 1927b: 86, 1952: 139; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 436; Stierlin & Gautard 1871: 294, 1906: 205; Strand 1970; Sturm 1843: 229; Swaine 1909: 106, 1910: 33, 1913: 41–43; Szymczkowski 1960: 182; Talhouk 1950: 134, 1954: 306, 1961: 208; Thomson 1865: 376, 1868: 224; Tredl 1907: 6; Tressens 1952: 89; Tschorbadzhiev 1929: 156; Viana 1964: 129; Welch, R. C. 1980: 272; West 1938: 184; Westhoff 1882: 238; Wichmann 1910b: 209, 1927a: 51, 1955a: 92; Wiepken 1883: 89; Winter, T. G. 1883: 44; Wood, S. L. 1948: 10, 1951a: 127, 1972a: 396, 1977a: 72, 1982b: 424; Yanovskii & Tegshzhargal 1985: 405; Yin, Huang, & Li 1984: 37; Zinovjiev 1955: 186, 191; Zochli 1959: 103. (tx) Acloune 1896; Bach 1854; Balachowsky 1944b: 4, 1949a: 56–57, 1963a: 1256, 1260; Barbey 1901: 16, 39; Bargagle 1884: 93; Beal & Massey 1945: 66–67; Bedel 1888b: 388, 406; Belfia 1949, 1961; Benoit 1986: 238; Bertolini 1872; Blackman 1922b: 43–44, 1934: 5–6, 10; Blatchley & Leng 1916: 590; Boheman 1859: 88–89; Brancsik 1871; Bright 1976d: 28, 29; Butovitch 1929: 9, 51–52; Carpentier & Delaby 1908; Chamberlin 1939: 225, 1958: 43; Chapuis 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chorbadzhievo 1924d; Comstock

- 1945; Costa Lima 1956; Csiki 1906; Davidson & Lyon 1979: 374; Desbrochers 1891; Dillon & Dillon 1961: 801; Dodge 1938: 20–21; Dombrowsky 1887, 1892; Duffy 1953; Edwards 1959; Eggers 1911a, 1922c: 13, 1922d: 121, 1923b: 134, 1931a: 16, 1931b: 184, 1932c: 24, 1933b: 13, 1941c: 123; Eichhoff 1864b: 32, 1881a: 41, 157, 1883a: 105, 130; Endrodi 1957b; Escherich 1923b: 478, 513; Escherich & Escherich 1897; Everts 1903: 741, 1922: 637; Fauvel 1889; Ferrant 1911; Formanek 1907: 10; Girard 1873; Goble 1956: 39; Grigorovich 1960: 37; Grune 1979: 38–39; Hagedorn 1910a: 124; Hansen, V. 1956, 1964: 457; Henschel 1876a: 202, 242, 1895a: 156; Hoffmann 1935: 84, 87, 1939; Hopkins 1915c: 188–189, 203; Houlbert 1922a: 5; Jablokoff-Khmzorian 1961: 71; Jacques 1951: 345; Johnson, W. T. & Lyon 1976: 217; Judeich & Nitsche 1895: 444; Kalina 1970: 128; Karpinski & Strawinski 1948: 153; Keen 1929a: 13; Keler 1928: 15; Knotek 1892a: 36; Kuhnt 1913: 1049; Kulnisch 1965: 135–138; Lacordaire 1866: 387; LeConte 1878b: 626; Letzner 1846: 78, 1891: 374; Lemis 1886: 183; Lezhava 1940: 71–72, 1943: 193–194; Lindemann 1881b: 171; Lindquist, O. H. & Syme 1981: 100; Lomnicki 1913b: 147; Lovendal 1889b: 49, 1898: 64; Lucht 1987: 275; Luigioni 1929: 990; Lunardon & Leonardi 1889: 453; Lutz 1918: 405; Maknovskii 1966: 91; Michalski 1959e: 169–172, 1961d: 57–59, 1968b: 194–195, 1973a: 126–130, pl. 43; Mnesebeck 1942: 100, 1950: 137; Muller 1818: 247; Negrú 1966b: 398; Nordlinger 1848: 254, 1856: 44; Nunberg 1929c: 114, 1930: 200, 1947: 29, 1954: 91; Panzer 1793: fig. 11; Perris 1877a: 414; Pfeffer 1932b: 11, 1942a: 16, 1955a: 78–79, 1989a: pl. 5; Porter 1932: 106; Portevin 1935: 311; Postner 1974: 387; Powell, J. A. & Hogue 1979: 313; Quaschik 1953: 35; Ratzeburg 1837: 186, 1839: 230; Redtenbacher 1849a: 361, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 43, 1913a: 22, 1916: 272; Rey 1892b: 30; Rumbler 1922: 274, 1927: 285; Rupertsberger 1880: 228; Schann 1859: 95, 1862: 100; Schedl 1934f: 1632, 1937b: 158, 1939d: 412, 1939j: 564, 1939m: 169–171, 1947c: 62, 1948b: 12, 1948d: 36, 1950d: 16, 1951d: 16, 1952a: 444–445, 1952f: 86, 1952h: 67, 1957: 616, 1959: 36, 1962p: 201, 1964: 97, 1967: 68–74, 1972d: 130, 1980a: 3, 1981b: 40; Scherb 1971; Scheyrew 1893a: 88, 90, 1893b: 120–121; Schimitschek 1955c: 73; Schmidberger 1837: 270–273; Schwartz 1975b: 25; Seidlitz 1872: 390, 1891a: 557, 1891b: 603; Semenov 1902: 268; Sokanovskii 1930: 803, 1936: 73, 1954: 15, 1958: 37, 1960: 675–676, 1966: 390; Spessivtsev 1913: 41, 1921: 315, 1922a: 458, 1925a: 153, 1931: 29–30; Stark 1952: 138–139; Stierlin 1898: 436; Swaine 1909: 106–107, 1910a: 33, 58, 1918a: 52; Taschenberg 1880: 240, 246, 1901: 107; Thomas, J. B. 1967; Thomson 1865: 376, 1868: 224; Titus, Meikle, & Harrison 1955: 116; Wood, S. L. 1951a: 127, 1972a: 396, 1977a: 72, 1982b: 424; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 37. (**ms**) Balachowsky 1963a: 1256; Essig 1931: 884; Gotz 1877; Hatch 1938: 192; Heimemann 1908a; Hellen 1921; Hopkins 1893c: 63; Klimesch 1914c: 59; Merino-Rodriguez 1966: 42; Parrott 1935: 6; Popenoe 1899, 1906: 987; Schvester 1960; Swaine 1907: 191, 1912b: 141.
- punctatus* Ratzeburg 1837: 187 (*Eccoptogaster*).
Syntypes, sex²; Germany; not given. Synonymy: Schedl 1948b: 12.
Notes: (1) Cited in synonymy, never validated, no status in nomenclature.
References: (**tx**) Hopkins 1915c: 220; Ratzeburg 1837: 187; Schedl 1948b: 12.
- haemorrhous* Schmidberger 1837: 270. Syntypes, sex²; Europe; not given. Synonymy: Ratzeburg 1837: 187, Schedl 1948b: 12.
References: (**cn**) Froggatt 1899; Kollar 1840: 263; Walsh 1867b: 58. (**hb**) Dombrowsky 1892; Froggatt 1899; Kollar 1840: 263. (**ds**) Chapuis & Candeze 1853; Perris 1876a, 1877a: 414; Schaum 1859: 95, 1862: 100; Stein 1868: 114; Stein & Weise 1877: 164; Sturm 1826: 194; Villa & Villa 1833: 26. (**tx**) Balachowsky 1949a: 56; Butovitsch 1929: 9; Chapuis & Candeze 1853; Dombrowsky 1892; Letzner 1891: 374; Perris 1877a: 414; Ratzeburg 1837: 187; Schedl 1948b: 12; Schmidberger 1837: 270; Villers 1789: 215.
- assimilis* Boheman 1858: 88. Syntypes, sex²; Buenos Aires, Argentina; NHR, Stockholm. Synonymy: Schedl 1962p: 201.
References: (**ay**) Butovitsch 1929: 6. (**cn**) Kleine 1932a: 304; Pierce, W. D. 1917: 175. (**ec**) Lima & DaCosta 1962: 249; Tudor 1969: 34. (**hb**) Kleine 1932a: 304; Viana 1964: 129. (**ds**) Blackwelder 1947; Bruch 1914a; Butovitsch 1929: 6; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 333, 1932a: 304; Lacordaire 1866; Pierce, W. D. 1917: 175; Viana 1964: 129. (**tx**) Boheman 1858: 88; Butovitsch 1929: 6; Eggers 1931a: 16; Hagedorn 1910a: 123; Lacordaire 1866; Schedl 1937h: 155–155, 1962p: 201.
- fauveli* Reitter 1894a: 43. Syntypes, sex²; Caucasus, Armenien, Persien; NHMB, Budapest. Synonymy: Michalski 1973a: 127.
Notes: (1) Originally listed as a variety, but treated incorrectly by some authors as a subspecies of *rigulosus*.
References: (**ds**) Negrú 1968c: 91; Reitter 1894a: 43, 1916: 349; Sokanovskii 1966: 390. (**tx**) Eggers 1922d: 121; Michalski 1973a: 127; Reitter 1894a: 43, 1916: 349; Schedl 1934f: 1632, 1948b: 12; Sokanovskii 1966: 390.
- mediterraneus* Eggers 1922d: 121 (*Eccoptogaster*).
Lectotype ♂; Adana, Asia Minor; USNM, Washington, designated by Anderson & Anderson 1971: 19. Synonymy: Schedl 1948b: 12.

Notes: (3) Balachowsky 1949a: 57 (treated as a good species).

References: (ay) Butovitsch 1929: 8, 57–58. (bv) Ascher & Gurevitz 1972; Chararas 1980b: 561; Chararas et al. 1982: 1094; Gurevitz & Ascher 1973; Gurevitz & Ishaaya 1972; Levy et al. 1974. (cn) Ascher et al. 1975; Balachowsky 1951, 1963a: 1259; Gentry, J. W. 1965: 90; Grandi 1951, Greckin 1956: 1483; Pelekassis 1962; Talhouk 1976. (cc) Fischer 1962: 299; Fry 1989: 18; Gurevitz 1976; Heqvist 1967: 69. (hb) Balachowsky 1963a: 1259; Chodjau 1963: 139; Grandi 1951; Greckin 1956: 1483; Gurevitz 1975, 1976; Stark 1952: 138; Talhouk 1976. (ds) Ayoutantis et al. 1953: 13; Balachowsky 1951, 1963a: 1259; Butovitsch 1929: 8, 57–58; Gentry, J. W. 1965: 90; Halperin 1969: 333; Kobakhidze 1957: 177; Kleine 1934a: 169; Luigioni 1929: 990; Mahnovskii 1958: 65; Normand 1949: 104; Pelekassis 1962; Pfeffer 1947d: 126; Sokanovskii 1966: 390; Stark 1952: 138. (tx) Anderson, W. H. & Anderson 1971: 19; Balachowsky 1949a: 55–57, 1963a: 1259–1260; Butovitsch 1929: 8, 57–58; Eggers 1922d: 121; Iablokoff-Khuzorian 1961: 71; Luigioni 1929: 990; Schedl 1934f: 1632, 1948b: 12; Schmidt, G. 1980: 22; Sokanovskii 1954: 15, 1966: 390; Stark 1952: 138. (ms) Ascher & Gurevitz 1972; Balachowsky 1963a: 1259.

rugulosus similis Butovitsch 1929: 52. Syntypes, sex?; Deutschland, Tschechoslowakien; NHR, Stockholm. Synonymy: Schedl 1948b: 12.

References: (ds) Reitter 1916: 349; Sokanovskii 1966: 390. (tx) Butovitsch 1929: 52; Reitter 1916: 349; Schedl 1934f: 1632, 1948b: 12; Sokanovskii 1966: 390.

caucasicus Butovitsch 1929: 54. Syntypes, sex?; Dzhubga (Krasnodar Territory), USSR; NHR, Stockholm. Synonymy: Schedl 1948b: 12.

References: (ds) Dzhambazishvili 1961, 1962; Sokanovskii 1966: 390. (tx) Butovitsch 1929: 54; Schedl 1934f: 1632, 1948b: 12; Sokanovskii 1966: 390.

rugulosus samarkandicus Butovitsch 1929: 56. Syntypes, sex?; Samarkand (Uzbekistan), USSR; NHR, Stockholm. Synonymy: Schedl 1948b: 12. References: (ds) Sokanovskii 1966: 390. (tx) Butovitsch 1929: 56; Schedl 1934f: 1632, 1948b: 12, 1958g: 165; Sokanovskii 1966: 390.

rugulosus sanctaluciae Hoffmann 1935: 84, 87. Syntypes, sex?; article not seen; not located. Synonymy: Michalski 1973a: 127.

References: (tx) Balachowsky 1949a: 57; Hoffmann 1935: 84, 87; Michalski 1973a: 127; Schedl 1948b: 12.

manglissiensis Lezhava 1940: 71. Syntypes, sex?; Manglisi, Georgia, USSR; Institute of Zoology, Academy of Science, Tbilisi. Synonymy: Sokanovskii 1954: 13.

References: (ds) Arnoldi et al. 1955: 655;

Sokanovskii 1966: 390. (tx) Lezhava 1940: 71; Sokanovskii 1954: 13, 1966: 390.

taxicola Lezhava 1941: 193. Lectotype, sex?; Tsagveri prope Borzhomi, Georgia, USSR; IZL, Leningrad, designated by Michalski 1968a (cited in Michalski 1973a: 127). Synonymy: Sokanovskii 1954: 13.

References: (ds) Sokanovskii 1966: 390. (tx) Lezhava 1940b: 193 (or 1943: 193–194); Michalski 1968a: 113, 1973a: 127; Sokanovskii 1954: 13, 1966: 390.

rugulosus baluchistani Schedl 1958g: 165. Syntypes, sex?; Baluchistan, Quetta; FRI, Dehra Dun and Schedl Collection in NHMW, Wien. Synonymy: Wood 1982b: 425.

Notes: (1) Schedl reported the return of syntypes to the FRI, Dehra Dun, but all specimens sent to him are accounted for and are in the Schedl Collection in NHMW, Wien.

References: (tx) Schedl 1958g: 165, 1979c: 217; Wood, S. L. 1982b: 425.

rugulosus intermedius Sokanovskii 1960: 675. Syntypes, sex?; Tezhkent, Uzbekistan, USSR; Sokanovskii Collection. Synonymy: Michalski 1973a: 127.

References: (ds) Sokanovskii 1966: 390. (tx) Michalski 1973a: 127; Sokanovskii 1960: 675, 1966: 390.

schevyrewi Semenov 1902: 265. Holotype ♂; Valley of the Great Julduss, eastern Tien Shan, China; not located.

Figures: Michalski 1973a: pl. 12, Yin, Huang, & Li 1984: 22.

Distribution: Asia (Hebei, Heilongjiang, Henan, Ningxia, Qinghai, Shanxi in China/ Korea/ Mongolia/ E USSR).

Hosts: *Ulmus* spp., *Prunus* spp., *Pyrus* sp., *Carragana* spp., *Eleagnus* sp., *Salix* sp.

Notes: (3) Eggers 1910e: 35 (named variation *sinensis*, no status), Michalski 1964: 668 (named aberration *laevifrons*, no status).

References: (ay) Butovitsch 1929: 31. (cn) Pfeffer 1979: 149; Yagdyev 1979. (cc) Kurenzov 1934a: 50; Lindeman 1961: 99–100; Pfeffer 1979: 149; Yang 1989. (hb) Kostin 1960: 130; Kurenzov 1935a: 20, 22; 1948b: 121; Makhmadziev & Shukronaev 1983; Stark 1952: 100. (ds) Butovitsch 1929: 31; Hagedorn 1910d: 88; Kadyrov 1988: 43–44, 1989; Kaszab 1977: 66; Kleine 1913b: 152, 1914b: 247, 251; Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934a: 50, 1935a: 20, 22; Michalski 1973a: 49; Sokanovskii 1960: 676, 1966: 381; Stark 1952: 100; Yanovskii & Tegshzhargal 1985: 406; Yin, Huang, & Li 1984: 22. (tx) Butovitsch 1929: 31; Eggers 1910d: 35–36, 1910e: 35, 1921: 43, 1922: 116–117, 1931: 43; Hagedorn 1910a: 124; Kurenzov 1935a: 79, 1941: 79, 1948b: 121, 1962: 31; Michalski 1964: 668, 1969c: 661, 1973a: 49–52, 1973a: pl. 12; Murayama 1930: 9;

- Reitter 1913a: 18; Schedl 1934f: 1633, 1941a: 42, 1945b: 53–54; Semenov 1902: 265–266; Sokanovskii 1954: 14, 1960: 676, 1966: 357; Stark 1952: 100–101; Tsai & Li 1959: 75; Tsai, Yin, & Huang 1962: 5–6; Wichmann 1915: 214–215; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 22.
- frankei* Wichmann 1915b: 214. Syntypes 2♂, 2♀; Vernyi (= Alma-Ata), Kazakhstan, USSR; Wichmann Collection. Synonymy: Eggers 1921: 43. References: (ds) Sokanovskii 1966: 357. (tx) Eggers 1921: 43; Schedl 1934f: 1633, 1945b: 53, 1952: Sokanovskii 1966: 357; Wichmann 1915b: 214–215.
- emarginatus* Wichmann 1915b: 246 (*Eccoptyogaster*). Holotype ♂; Ferghana, Alai, Turkestan; Wichmann Collection. Synonymy: Eggers 1921: 43. References: (ds) Sokanovskii 1966: 357. (tx) Butovitsch 1929: 9; Eggers 1921: 43; Schedl 1934f: 1633, 1945b: 53; Sokanovskii 1966: 357; Wichmann 1915b: 215–216, 246.
- transcaspicus* Eggers 1922d: 116 (*Eccoptyogaster*). Holotype, sex?; Transkaspien (Turkmenia, USSR); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1945b: 53. References: (ay) Butovitsch 1929: 10, 31. (ds) Butovitsch 1929: 10, 31; Sokanovskii 1966: 357. (tx) Butovitsch 1929: 10, 31; Eggers 1922d: 116–117; Michalski 1968a: 113; Schedl 1934f: 1633, 1945b: 53, 1979c: 254; Sokanovskii 1966: 357.
- seulensis* Murayama 1930b: 5. Holotype, sex?; Seoul, Korea; Murayama Collection in USNM, Washington. Synonymy: Schedl 1945b: 53. References: (cc) Yoon et al. 1982. (hb) Yin, Huang, & Li 1984: 22; Yoon et al. 1982. (ds) Arnoldi et al. 1955: 660; Cho 1957; Choo 1983: 41; Choo & Woo 1985: 163; Choo, Woo, & Nobuchi 1988a: 133; Kleine 1934a: 169; Ko 1962: 283; Murayama 1930b: 5, 1936b: 116, 1937b: 374, 1940a: 230, 1942a: 50; Sokanovskii 1966: 357; Yin, Huang, & Li 1984: 22. (tx) Choo 1983: 41; Murayama 1930b: 5, 1937b: 374, 1940a: 230; Schedl 1934f: 1634, 1945b: 53; Sokanovskii 1966: 357; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 22.
- scolytus* (Fabricius) 1775: 59 (*Bostricus*). Syntypes 3, sex?; Angliae Dom. Lee; 1 at Colon Museum, 2 at UZMC, Copenhagen. Figures: Bevan 1957: 116, Michalski 1973a: pl. 24, Postner 1974: 382. Distribution: Asia (N Iran/Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Ulmus* spp., rare in *Carpinus betulus*, *Fraxinus excelsior*, *Juglans regina*, *Populus nigra*, *Quercus* spp., *Salix* spp. Notes: (3) Rey 1592: 30 (named var. *ciliaris*, no status), Sokanovskii 1955: 37 (named var. *variabilis*, no status). References: (ay) Anderbrant, O. & Schlyter 1957a; Arnold & Barson 1977; Blight, Henderson, & Wadhams 1983; Blight et al. 1978; Chararas 1956a: 145; Chararas, Chipoulet, & Courtois 1979; Escherich 1914: 310, 1923b: 478, 492; Grove 1983; Henderson & Wadhams 1981; Jeffries & Fairhurst 1952; Lekander 1959b: 92; Mamaev & Semenova 1961; Marcus 1930: 644; Nusslin 1911a: 155; Robertson 1961; Schwerdtfeger 1929: 360; Wadhams 1982; Wadhams, Angst, & Blight 1982. (bv) Anderbrant, O. & Schlyter 1987b; Barr, B. A. 1969: 643; Blight 1981; Blight, Henderson, & Wadhams 1983; Blight, Wadhams, & Wenham 1978, 1979a, 1979b; Blight et al. 1977, 1978, 1979a, 1980, 1981, 1982, 1983; Borden & King 1977, 1978; Chararas 1950b: 561; Chararas et al. 1982: 1094; Gerken & Grune 1978; Grove 1983; Grune 1979: 35; Inscoc 1982; Jeffries & Fairhurst 1982; Keyserlingk 1982; Kirby, S. G. & Fairhurst 1981b, 1983; Klassen, Ridgway, & Inscoc 1982; Klimetzek & Kopp 1983; Maksimovic 1979a; Manojlovic 1986b; Michalski 1959c: 170; Minks & van Deventer 1978; O'Callaghan 1982a; O'Callaghan & Atkins 1981; O'Callaghan, Gallagher, & Lanier 1978; Peacock 1979; Prell 1926: 69, 1931: 368; Svihra & Volney 1983: 519; Vite et al. 1976; Wadhams 1982; Wadhams, Angst, & Blight 1982; Walker, C. 1974; Walker, C. & Ross 1975; Webber & Kirby 1983. (cn) Acatay 1943a: 54; Aerts 1921; Androic 1966: 46; Anonymous 1921j: 72, 1925c: 121, 1930j: 231, 1931d: 45, 1965l, 1975q, 1979p; Ass & Funtikov 1941; Anstara et al. 1983; Barson 1977; Beattie 1931, 1933: 488, 1934: 569–570, 1935: 159–190; Beaver 1969; Bechtold 1950; Bejer-Petersen 1978; Betrem 1930a: 273–288; Bevan 1987: 129; Bevan & Davies 1972: 102; Blatchford 1983: 29; Blight et al. 1979a, 1980; Boocock 1959b; Bosman & Meijermann 1969: 325–330; Boyce 1988; Brasier 1983: 100; Brill 1930, 1931; Britton 1936: 109–110; Browne 1968: 645; Buisman 1932: 17–36; Bussman 1949; Butovitsch 1927: 170, 1934; Chararas 1956: 113–213, 1972; Chorbadzhiev 1929; Claydon, Grove, & Pople 1977, 1985; Clinton & McCormick 1936; Danmerman 1950: 154–155; Daviault 1945b: 280; Draghetti 1947; Dudley 1928; Eckstein 1926: 596; Ehnstrom 1985; Ermisch 1928; Esbjerg & Bejer-Petersen 1979; Escherich 1914: 310, 1923b: 478, 492; Esterberg 1959; Fairhurst & Fairhurst 1981; Felt 1933a, 1934b: 317, 1943: 58–64; Finney & Mordue 1976; Finney & Walker 1977, 1979; Fisher 1928: 53–61, 1931: 120–131, 1937: 110–128; Fransen 1931a: 49–62, 1931b: 169–183, 1933: 38, 1935a, 1935b, 1937, 1939a, 1939b; Fransen & Buisman 1935; Franz 1947b, 1948e; Fystro 1960;

- Gabler 1955; Gante 1930; Garbers 1930; Garcia-Tejero 1955: 227; Cavalov 1926: 39-42; Georgescu et al. 1957: 356, 445; Gerbach 1949; Gibbs 1974, 1978a, 1978b; Gibbs, Brasier, & Burdekin 1973; Gibbs, Burdekin, & Brasier 1966, 1977; Gmelin 1878a; Goidanich & Goidanich 1934; Greig 1977; Grossmann 1932; Gyorfı 1946: 195, 1959; Hahmann 1937: 155, 163, 1938: 110; Harris 1826; Hasek 1961: 5; Hedger 1979; Hermann 1931; Hess & Beck 1927: 293; Hofinger 1922; Inglis 1937: 193; Joly 1949b: 254; Kaiser 1931; Kalandra & Pfeffer 1935: 6; Kamuishnui 1925: 14-16, 53-55; Karnosky 1976; Kholodkovskii 1912: 276, 289; King, C. J. 1977a, 1979; King, C. J. & Fielding 1983; Knop 1928: 68; Knull 1934: 865-866; Kobakhidze 1960: 1851; Kock 1932: 151; Koning 1939: 2014; Kovacevic 1957: 67, 69; Kraschina 1941: 45; Kurir 1937: 19; Lachmann 1859: 93; Laurie 1958: 298; Leach 1940b: 227; Lekander 1954b: 7; Liese 1952: 59; Liese & Butovitsch 1931: 1111; Liming 1948: 6; Linde & Zenneck 1927: 345; Linder 1931: 66-67; Lozovoi 1948b: 354; Lustner et al. 1935: 81; Mahien 1979; Maksimovic & Motal 1983; Mamaev & Semenova 1961: 351-358; Manka 1953: 355; Marcu 1926c: 58; Maslov 1963: 80-100, 1964, 1971; Mathiesen 1950: 74; May 1934: 3; May & Gravatt 1931: 6; Mazzone & Peacock 1985; McCallum 1946: 206; Metcalf & Flint 1951: 799; Middleton 1934: 264; Minks & van Deventer 1978; Mostanskis 1923: 219-240; Mostovsky 1923: 287-288; Mumenthaler 1944: 50-52; Mumford 1965: 32, 1966: 40; Nilsson, A. 1982; Novak, V., Hrozinka, & Stary 1976: 110; Nusslin 1913: 204; O'Callaghan & Atkins 1981; O'Callaghan, Atkins, & Fairhurst 1984; O'Callaghan & Fairhurst 1981; O'Callaghan, Callaghan, & Lamier 1978; Orest & Marcu 1926: 81-87; Ozolin 1959: 139; Padij 1955: 54; Pajares & Arevalo 1987; Pape 1924: 284; Parker et al. 1947: 6; Pascovici et al. 1963: 153-175; Paulian 1943: 316; Peace 1932: 171-172, 1936: 737, 1951b: 1951, 1954: 155-164; Pechuman 1938: 537-543; Pesson 1955: 315-326; Pfeffer 1979: 148; Pierce, W. D. 1917: 96; Poinar 1971; Qnievy 1906: 675; Ratzeburg 1871a: 403, 1871c: 83; Radio 1935: 343-344; Reay 1969: 50; Redfern 1977; Rey 1930: 262; Rhumbler 1922: 274, 1927: 284; Roepke 1931: 161, 1932: 70, 1934: 91-93; Rovskii 1950: 1478; Roy 1948: 235; Rudiger 1936: 13; Sakharov 1925: 83-84; Schimitschek 1927: 279, 1935b: 145, 1951a: 101, 1955a: 153, 1955c: 73; Schindler, K. 1860: 19, 1861: 16; Schlyter et al. 1957; Schmidt 1881: 90; Schroder 1974; Schwappach et al. 1929: 185; Schwerdtfeger 1944a: 172, 1956a: 19, 1957a: 181; Scott, King, & Walker 1974; Scott & Walker 1975; Semedo 1961: 118; Sheldon 1979; Siemaszko 1939; Sitowski 1930; Slander 1947b: 215; Smirnov 1935: 123-128; Smith, P. J. 1976; Spaic 1956: 88; Spassky 1916: 219-226; Spierenburg 1921: 53-60; Sprengel 1930: 72; Stefan 1961; Stefanov 1947: 8; Stepanov 1951: 52; Strojny 1970; Tomasevski 1956: 42; Tubuef 1935: 56, 1936: 484; Vajda 1952: 114; Valekenier-Suringar 1922: 145; Vorontsov et al. 1987; Wachtl 1901: 380; Walker, C. 1973a, 1974; Walsh 1867b: 58; Walter 1947: 109; Walter et al. 1943: 6; Webber 1981, 1982; Weber, H. 1926: 576; Welch et al. 1934: 9; Went 1938: 141-154, 1954: 109; Wichmann 1927b: 348; Wilson, C. F. & Becker 1960: 86; Wolff & Krausse 1922: 67-68; Wollenweber 1930: 3; Wollenweber & Stapp 1925: 283; Worthley 1935b: 2; Worthley & Liming 1935: 526; Wttewaall 1864: 187; Yde-Andersen 1982; Zakharov & Levkovich 1951: 300; Zieger 1950b: 38, 1952: 24; Zimmermann, G. & Bathon 1983; Zivojinovic 1963: 450. (ec) Anderbrant, O. & Schlyter 1987b; Anonymous 1930j: 231; Apel 1983; Arambourg 1964: 115; Arnold & Barson 1977; Ashraf & Berryman 1969: 15; Askew & Ruse 1970; Ass & Fumtkow 1941; Balazy 1965a; Balazy & Michalski 1960, 1964b; Balazy et al. 1977; Barson 1974, 1976a, 1976b, 1977; Beattie 1934b; Beaver 1965b: 238-240, 1966a, 1966b, 1967a, 1967c, 1967d, 1967e, 1968, 1969, 1970, 1974b; Bejer-Petersen 1978; Benson 1974; Benson & Walker 1974; Bevan & Davies 1972: 102; Blight, Wadhams, & Wenham 1979a; Blight et al. 1977, 1978; Borden 1983, 1984; Borden & King 1978; Bosman & Weyeraan 1969: 325-330; Brasier 1983: 100; Bucher 1963: 128; Burges, Grove, & Pople 1979; Callahan & Shifrine 1960: 146; Chararas 1956b, 1959a; Claydon, Grove, & Pople 1977, 1985; Cooreman 1963: 46; Crowson 1976; Doane 1960; Doberski 1980, 1981a, 1981b; Doberski & Tribe 1978, 1980; Elliot & Morley 1907; Elton 1970; Escherich 1935; Espanol 1967a; Fairhurst & King 1983; Francke-Grossmann 1931; Fransen 1931: 49-62, 169-183, 1932: 187-202, 1933: 38, 1937a, 1937b, 1939a, 1939b; Fry 1989: 18; Fuchs 1914b, 1933; Galoux 1947b; Gaumann 1946: 157; Gauss 1954a: 423; Gibbs 1974, 1978a, 1978b; Gibbs, Brasier, & Burdekin 1973; Gibbs, Burdekin, & Brasier 1977; Gibbs & Grieg 1977; Graham 1969: 879; Greig 1977, 1981; Grootaert, Haghebaert, & Pollet 1987; Grossmann 1931a; Grove 1983; Gyorfı 1941b, 1943: 83, 1962, 1964: 213; Haeselbarth 1967; Heqvist 1963; Hirschmann 1960, 1971a, 1971b: 40; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zirngiebl-Nicol 1961; Hoffard & Coster 1976: 130; Hunt, D. J. 1972; Hunt, D. J. & Hagne 1974a, 1974b, 1976; Jannicky 1957b: 13, 20, 1957c; Kakuliya & Devdariani 1967; Karnosky 1976; Kaya 1984; Kielezewski 1976; Kielezewski, Moser, & Wisniewski 1983; Kielezewski & Wisniewski 1978, 1980a, 1980b, 1983; Kirby, S. C. & Fairhurst 1981a, 1981b, 1982, 1983; Kleime 1908c: 177, 1909a: 78, 1944: 73; Kobakhidze 1960: 1851; Kokujeva 1900: 569; Kostenko 1929; Kraemer 1950b: 380; Kreig 1961: 200; Krezal 1959: 574; Krivosheina 1974; Kurir 1937: 19; Laidlaw 1932: 117-129; Lea

- & Brasier 1983; Leach 1940b: 227; Lindeman 1963: 1582–1584, 1964: 78–82, 113; Lipa 1965; Lipa & Chmielewski 1977; Lovendal 1890a: 146; Lozinskij 1966; Mahieu 1979; Maksimovic 1979a, 1979b, 1986a; Maksimovic & Motal 1981, 1983; Marshall 1978; May 1934: 3; Merlin 1984; Metcalf & Flint 1951: 799; Meyer 1934: 612; Mozolevskaya 1957; Nikitsky 1975; Nosek 1959a: 118, 1959b: 86; Numberg 1930: 204; Nuorteva 1957b: 52; Nusslin 1927: 284; O'Callaghan 1982a; O'Callaghan, Atkins, & Fairhurst 1984; Oldham 1930: 240; Otten 1940: 197; Pesson et al. 1955: 316; Pfeiffer 1928b: 2, 1943b: 179, 1979: 148; Poinar 1971, 1975: 169; Prell 1926: 69, 1930: 89–127; Purini 1975, 1977a; Rafes 1962; Ratzeburg 1869a: 176; Rennerfelt 1951: 122; Rodendorf 1950: 81; Roepke 1930: 153–154, 1930b: 232–237, 1932: 70, 1934: 91, 1935: 121–124, 1946: 543; Rossem 1979; Ruhm 1955c: 176, 1956b: 3, 1957: 351; Schaarschmidt 1959: 803; Scheidter 1936: 233; Schimitschek 1930a: 285, 1955a: 153, 1964e; Schlyter et al. 1987; Schroder 1974; Schwerdtfeger 1929: 360, 1944a: 172, 1957a: 181; Scott & Walker 1975; Sengonca & Leisse 1984; Sheldon 1979; Silvestri 1911: 387; Sitowski 1930: 2; Smetana 1958: 63; Stammer 1933: 152; Stefanov 1949a: 97, 107; Stepanov 1951: 52; Sweetman 1936: 108; Szczepanski 1960a: 412; Tenkacova & Mituch 1987; Thompson, W. R. 1943: 106; Thompson, W. R. & Simmonds 1964: 36, 1965: 6; Tudor 1969: 33; Walker, C. 1973a; Walker, C. & Ross 1975; Webber 1981, 1982; Webber & Gibbs 1989; Webber & Kirby 1983; Weiser 1968, 1969; Went 1954: 109; Westerboer & Bernard 1963: 498; Wiackowski 1958: 174; Wichmann 1916: 12, 1954d: 437; Wisniewski 1979b; Wollenweber 1930: 3; Wollenweber & Stapp 1928: 283; Wright 1935: 526; Yde-Andersen 1982, 1983a; Zimmermann, G. & Bathon 1983. (**hb**) Acatay 1943a: 54; Adeli 1972: 14; Aerts 1921; Altum 1880a, 1881c: 243, 1889c; Apel 1983; Balachowsky 1963a: 1253; Barson 1974; Beaver 1965a, 1966c, 1967b: 156, 1967d, 1969; Beffa 1961; Berg 1827; Bevan 1987: 121; Bonnemaïson 1953; Borden 1983; Bosman & Weyeraan 1969; Brandt 1948, 1960: 136; Browne 1968: 645; Bukowsky 1930; Butovitsch 1929; C. 1928; Camerano 1884; Cecconi 1906, 1924; Chamberlin 1939: 230; Chorbadzhievo 1929; Clinton & McCormick 1936; Eckstein 1889, 1926: 576; Eggers 1906; Escherich 1914: 310, 1923b: 478, 492; Fabre 1921; Fairhurst & King 1983; Fransen 1931a, 1932, 1948; Frauenfeld 1860; Fuchs 1904a, 1905c: 340, 1907: 44, 1911b; Furst 1888: 625; Gabler 1955; Gibbs 1974, 1978b; Gibbs, Burdekin, & Brasier 1977; Gnelin 1787a; Grove 1983; Guran 1933; Hagedorn 1903a; Hayes & Parihar 1987; Hennings 1905c: 211; Henschel 1876a: 204, 242; Hess & Beck 1927: 293; Heurtz 1934: 57; Hufnagl & Puzyr 1951: 102; Jaensch 1835: 82; Joly 1950; Karpinski 1933b: 22; Karpinski & Strawinski 1948: 153; Kemmer 1919: 174; Kholodkovskii 1912: 276, 289; Kirby, S. G. & Fairhurst 1981a, 1981b, 1982, 1983; Kirkendall 1984: 237; Kostin 1960: 130; Kraemer 1950b: 350; Lekander 1954b: 7; Lengerken 1939: 48, 1954: 65; Lonzil 1961: 18; Lovendal 1890a: 146; Lozinskij 1966; Madon 1930: 99; Makhmadziev & Shukronaev 1983; Maksimovic 1979a, 1979b; Maksimovic & Motal 1981; Manojlovic 1986b; Marcu 1941: 399; Maslov 1963c: 841; Merlin 1984; Metcalf & Flint 1951: 799; Michalski 1959c: 170; Mozolevskaya et al. 1987; Nilsson, A. 1982; Nordlinger 1856: 42; Nosek 1959a: 118, 1959b: 86; Novak, V., Hrozinka, & Sary 1976: 110; Nusslin 1904: 6, 1905a: 88, 1905b: 460, 1913: 204, 1927: 284; Oldham 1930: 239–248; Orest 1926b: 81; Ormerod 1877: 184; Paulian 1943: 316; Pfeiffer 1942a: 10; Postner 1974: 382; Prell 1926: 62–76, 1931: 368; Rafes 1962; Ratzeburg 1837: 185, 1839: 157, 226, 1871a: 403, 1871c: 83; Rhumbler 1922: 274, 1927: 284; Rimski-Korsakov et al. 1949: 301; Roepke 1940: 171; Samal 1928: 141; Schedl 1981b: 43; Scheidter 1936: 233; Schimitschek 1930a: 285, 1955a: 153; Schindler, K. 1860: 19, 1861: 16; Schmidt 1881: 90; Schneider-Orelli 1947b: 156; Schwappach et al. 1929: 185; Schwerdtfeger 1929: 360, 1944a: 172, 1957a: 181, 1981: 187; Silvestri 1911: 387; Spessivtsev 1913a: 36; Stark 1926a: 331, 1952: 109; Stefanov 1949a: 97, 107; Stellvaag 1931: 94; Strojny 1970; Tragardh 1939b: 165; Tschorbadjiev 1929: 153; Wachtl 1901: 380; Weber, H. 1926: 576; Wichmann 1909a: 147, 1916: 12, 1927b: 348; Wilson, G. F. & Becker 1960: 86; Wolff & Krausse 1922: 67, 68; Wittewaall 1864: 187. (**ds**) Adeli 1972: 14; Allen A. 1951a; Ammann & Knabl 1913; Andersch 1851; Androic 1966: 46; Anonymous 1965l, 1975q, 1979p; Audras & Schaefer 1957; Bain 1974: 15; Balachowsky 1943a, 1944b; Balazy & Michalski 1960; Barthe 1896; Bartindale & Bartindale 1948: 138; Beattie 1934a, 1934b; Beck 1817; Bedel 1888b: 357, 405; Bejer-Petersen 1978; Bejer-Petersen & Jorun 1977: 3; Berg 1827; Blackwelder 1939; Borchert 1951; Brakman 1966b: 203; Browne 1968: 645; Bruck 1949; Brugge 1979; Buck 1952, 1955: 191; Bucking 1932; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1929: 9, 38–39; Butovitsch & Heqvist 1947; Callaghan 1982b; Carpentier & Delaby 1908; Cecconi 1906; Chamberlin 1939: 232; Chorbadzhievo 1924d, 1929; Clinton & McCormick 1936; Debatisse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1825; Dzhambazishvili 1961a: 751–757, 1961b: 1253–1254; Eder 1934; Eggers 1904, 1906; Endrodi 1955a, 1958b, 1981: 184; Escalera 1919; Escherich 1923b: 478, 492, 1932b; Esterberg 1959; Everts 1925; Fuchs 1904a, 1905a, 1905c: 340, 1907: 44; Gabler 1949b; Girling & Greig 1985; Grune 1979: 35; Guran 1933: 225–236; Gyllenhal 1827: 619; Gyorfi 1941b; Hagedorn 1903a, 1910d: 88; Hahmann 1937: 155, 163;

- Hansen, V. 1939, 1956, 1964: 456; Hellen 1947; Heyden, Reitter, & Weise 1891: 670, 1906: 708; Hill, D. S. 1987: 337; Horion 1949, 1951; Illiger 1805: 130; Jacentkovsky 1935: 18; Jazentkovsky 1912: 285; Joly 1949b: 254; Kalandra & Pfeffer 1935, 1938: 24–33; Kaltenbach 1874: 428, 535, 593; Karpinski 1931: 18, 21, 38, 1933b: 22; Karpinski & Strawinski 1948: 153; Keler 1925b: 270; Kemner 1919: 174; Kersten 1933: 77; Klefbeck & Sjoberg 1960: 228; Kleine 1912a: 262, 267, 1913a: 34, 1913b: 151, 1934a: 169; Knull 1934a: 865; Koca 1905: 191; Koltze 1901: 152; Kostenko 1929; Kovacevic 1957: 67, 69; Kudela 1946b: 347; Kurir 1947c: 24; Langhoffer 1915e: 156; Leclercq 1971; Lentz 1857: 140; Lomnicki 1913b: 147; Lucht 1987: 275; Mahler 1987: 232; Makhaovskii 1959: 63; Marcu 1926c: 58; Michalski 1957: 161, 1962: 202, 1973a: 83; Muller 1776: 57; Mumford 1965: 32, 1966: 40; Munster 1928: 288; Negru 1965a: 454; Negru & Rosca 1967: 14; Numberg 1928b: 87, 90, 1954: 90; Orest 1926c: 58; Palm 1959: 28–29, 437; Pascovici 1962; Pfeffer 1924b: 471, 1928b: 2, 1931b: 73, 1989a: 48; Pierce, W. D. 1917: 96; Pittioni 1943: 174; Pjatnitskii 1930a: 163, 1932: 295–302; Postner 1974: 382; Rapp 1934: 716; Ratzeburg 1837: 185, 1839: 157, 226; Reitter 1894a: 40; Revy & Siroki 1942: 82; Rimski-Korsakov et al. 1949: 301; Roemer 1789: 40; Rohrig 1955: 37; Romanyk 1959: 425; Roubal 1935b: 72, 1941: 256; Ruskov 1928c: 60; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1203; Schaum 1862: 100; Schedl 1967c: 68, 1980a: 4, 1981b: 43; Scheerpeltz & Winkler 1930: 255; Schilsky 1909: 186; Schimitschek 1951a: 101; Schwerdtfeger 1981: 187; Shillito 1947: 291; Sokanovskii 1966: 381; Spierenburg 1921: 56; Stark 1926a: 331, 1926j: 123, 1927b: 85, 1952: 109; Stein 1868: 113; Stein & Weise 1877: 164; Stellwaag 1931: 94; Stierlin 1898: 435; Sturm 1843: 229; Tragardh 1939b: 165; Tredl 1907: 5; Tschorbadjiev 1929: 153; Verdcourt 1952: 80; Wichmann 1927a: 48; Winter, T. G. 1983: 44; Zinovjev 1955: 191; Zonfal 1920: 20. (tx) Acatay 1943: 54–56; Apel 1983; Bach 1854; Balachowsky 1943a, 1944b: 16–17, 1949a: 71–72; Beaver 1970b; Bechstein 1818: 75, 215; Bechstein et al. 1805: 101; Bedel 1888b: 387, 405; Boffa 1961; Blackman 1934: 5, 9, 22–23; Brandt 1960: pl. 28; Burton et al. 1968: 191; Butovitsch 1929: 8, 38–39; Carpentier & Delaby 1908; Ceballos 1945; Chamberlin 1939: 232; Chararas & Chipoulet 1979: 178; Chevrolat 1838; China 1962: 3–8; Chorbadzhievo 1924d; Csiki 1906; Dammernan 1950a: 13, 1950b: 154; Dejean 1821, 1825; Duffy 1953; Duftschmidt 1825; Eggers 1908e, 1910e: 36, 1911a: 74, 1912e: 205–206, 1913a: 284–285, 1914: 39, 1929e: 52, 1941c: 123; Eichhoff 1864b: 32, 1881a: 148–149, 1883: 128–129; Eudrodi 1957b; Erichson 1836: 58; Escherich 1923b: 478, 492; Fabricius 1775: 59, 1787: 37, 1792: 366, 1801: 390; Formanek 1907: 9; Frausen 1948; Cabler 1949b, 1955; Geoffroy 1762: fig. 5, 1785: 139; Gibbs 1974: 5; Gibbs, Burdekin, & Brasier 1977: 7; Gmelin 1790: 1602; Goetze 1777: 143; Grune 1979: 34–35; Gyllenhal 1813: 346, 1827: 619; Hagedorn 1910a: 124; Hansen, V. 1956, 1964: 456; Henschel 1876a: 204, 242; Herbst 1793: 125–127; Hopkins 1912d, 1914: 118, 121, 129, 1915c: 183, 220, pl. 9, fig. 16, pl. 12, fig. 16; Iablokoff-Khuzorian 1961: 85; Illiger 1907: 321; Jablonsky 1785: 125; Jacentkovsky 1935: 18; Kalina 1969; Karpinski & Strawinski 1948: 153; Kuhnt 1913: 1047; Latrille 1803: 204, 1804: 108; LeConte 1868: 166; Letzner 1844: 65, 1891: 374; Louzil 1961: 105; Lucas 1920: 254; Lucht 1987: 275; Marsham 1802: 53–54; Michalski 1959c: 170–173, 1962a: 53, 1962d: 273–276, 1967: 312–313, 1973a: 83–86, pl. 24; Muller 1776: 57; Murayama 1939: 137; Nilsson, A. V. 1982: 25; Nordlinger 1848: 252, 1856: 42; Novak, V., Hrozinka, & Stary 1976: 110; Nunberg 1954: 90, 99–100; Nusslin 1911a: 155; Olivier 1795: 5–6; Panzer 1795a: 286; Paykull 1800: 15; Pfeffer 1932b: 9, 1942a: 10, 1955a: 84–86, 1989a: pl. 5; Portevin 1935: 308; Postner 1974: 382; Quaschik 1953: 35; Ratzeburg 1837: 185, 1839: 157, 226; Redtenbacher 1849a: 852, 1849b: 27; Reitter 1894a: 40, 1913a: 14; Rey 1892: 30; Rhumbler 1922: 274, 1927: 284; Roemer 1789: 40; Sahlberg 1836: 140; Schaefer 1776: 112; Schedl 1934f: 1633, 1948b: 43, 1950j: 96, 1952f: 86, 1958g: 167, 1964k: 221–222, 1967c: 68, 1980a: 4, 1981b: 43; Scheyvrew 1893a: 107–109, 1893b: 45–51; Schimitschek 1937: 43, 1955c: 73; Sokanovskii 1958: 37, 1966: 381–383; Spesivtsev 1913a: 36, 1922: 455, 491, 1925a: 152, 1931: 13–14; Stark 1952: 109–113; Stierlin 1898: 435; Sulzer 1776: 21; Thomson 1865: 374; Wichmann 1916: 12. (ms) Beattie 1931; Begley & Grove 1985; Blight, Henderson, & Wadhams 1983; Boocock 1959b; Brandt 1960: 136; Burdekin 1983; Burton et al. 1968: 190; Eggers 1910b, 1940e: 63; Escherich 1932b; Fuchs 1911b; Hartig 1834: 218; Hopkins 1912d; Keler 1963: 580; Keyserlingk 1982; King, C. J. & Fielding 1983; Lining 1948: 6; Lovendal 1890a: 146; Lucas 1920: 254; Merino-Rodriguez 1966: 48; Roy 1948: 235; Schaeffer 1766: 112; Schwappach 1924: 57; Wadhams 1982. *punctatus* Muller 1776: 57. Syntypes, sex?; Denmark; not located. Synonymy: China 1963b: 416, ICZN 1963a: 416. References: (tx) China 1962b, 1963b; ICZN 1963a: 416; Muller 1776: 57. *scolythus* Sulzer 1776: 21, Taf. II, fig. 13k (*Dermestes*). Syntypes, sex?; article not seen; not located. Synonymy: Fabricius 1792: 366. References: (tx) Fabricius 1792: 366; Sulzer 1776: 21. *geoffroi* Goetze 1777: 143 (*Dermestes*). Syntypes, sex?; Angliae Dom. Lec; Colon Museum and UZMC, Copenhagen, automatic. Synonymy:

- Schedl 1948b: 43, China 1962b: 6, 1963b: 416, ICZN 1963a: 416.
- References: **(ay)** Scheyvrew 1889a: 22; Scholz 1905: 144. **(cn)** Barbey 1925: 597; Betrem 1930b: 274; Eckstein 1915; Hess 1900: 49, 1907: 277; Hess & Beck 1914: 239; Judeich & Nitsche 1895: 444; Keller 1903b: 39; Lohrenz 1907: 48; Packard 1890: 860; Schouteden 1927: 114; Severin 1906: 401. **(ce)** Betrem 1930b: 274; Severin 1899: 383. **(hb)** Barbey 1901: 16, 34, 1925: 597, 1942; Boas 1923: 340; Chittenden 1890; Dombrowsky 1887, 1892; Eckstein 1897, 1915; Eichhoff 1881a: 40, 148, 1892a: 95; Everts 1903: 740, 1922: 636; Curan 1933; Henschel 1895a: 155; Hess 1900: 49, 1907: 277; Hess & Beck 1914: 239; Joly 1950; Judeich & Nitsche 1895: 444; Knoche 1904: 32, 1905: 357, 1908a: 44; Knotek 1894a: 553; Lohrenz 1907: 48; Lunardoni & Leonardi 1889: 448; Nusslin 1898: 276, 1906b: 6; Packard 1890: 860; Smith, J. B. 1886: 127. **(ds)** Barthe 1896; Bau 1888; Bielz 1887; Boas 1923: 340; Butovitsch 1929: 9; Chapman 1910; Chittenden 1890; Fricken 1889: 282; Gemminger & Harold 1872: 2695; Curan 1933; Henschel 1895a: 155; Heyden, Reitter, & Weise 1883: 181; Judeich & Nitsche 1895: 444; Knotek 1892a: 35, 1894a: 553; Lunardoni & Leonardi 1889: 448; Nusslin 1898: 276; Oliveira 1887: 327; Scheyvrew 1890c: 469; Schilsky 1909: 186; Schulze 1913: 59; Semedo 1961: 118; Smith, J. B. 1886: 127; Sokanovskii 1966: 383; Stein & Weise 1877: 164. **(tx)** Balachowsky 1949a: 71; Barbey 1901: 16, 34; Boos 1923: 340; Butovitsch 1929: 9; Chapman 1910; China 1962b: 6; Dombrowsky 1887, 1892; Eichhoff 1881a: 40, 148, 1883a: 105, 129; Everts 1903: 740, 1922: 636; Fauvel 1887; Ferrant 1911; Fricken 1889: 282; Goeze 1777: 143; Henschel 1895a: 155; Judeich & Nitsche 1895: 444; Knotek 1892a: 35; Letzner 1891: 374; Lovendal 1889b: 44, 1898: 51; Lunardoni & Leonardi 1889: 448; Rey 1892b: 30; Schedl 1934f: 1633, 1948b: 43–45, 1950j: 96; Scheyvrew 1889a: 22; Sokanovskii 1966: 383. **(ms)** Kholodkovskii 1893: 390.
- niger* Geoffroy 1785: 139. Syntypes, sex²; Angliae Dom. Lee; Colon Museum and UZMC, Copenhagen, automatic. Synonymy: China 1962b: 6, 1963b: 416, ICZN 1963a: 41. References: **(ds)** Fourcroy 1785. **(tx)** China 1962b: 6, 1963b: 416; ICZN 1963a: 41; Geoffroy 1785: 139.
- destructor* Olivier 1795b: 5. Syntypes, sex²; Europe; presumably MNHN, Paris, not located. Synonymy: Gyllenhal 1813: 347, Balachowsky 1949a: 71. References: **(ay)** Aslam 1961: 439; Imhoff 1856: 228; Parkin 1940: 367. **(cn)** Acloque 1914; Anonymous 1902b: 21; Archer 1866; Betrem 1930b: 274; Collinge 1915: 789–791; Jemmett 1913: 1–44; Kauschinger 1893: 193; Koppen 1882: 236, 250; Leroy 1828: 29; Lohrenz 1907: 49; Lokaj 1906: 21; MacLeay 1824: 125; Newman 1858: 6118; Peck 1879: 35; Puls 1886: 53; Ratzeburg 1871c: 83; Reader 1828: 380; Rehberg 1903: 92; Riley 1867: 68; Semedo 1961: 118; Spence 1840: 10; Walsh 1867b: 58. **(ce)** Askew 1965: 142; Betrem 1930b: 274; Britton 1934; Elliot & Morley 1907; Greig 1981; Hinton 1945: 223; Laidlaw 1932: 117; Laumon & Ritter 1971; Peace 1960: 9; Poinar 1975: 167; Ratzeburg 1869a: 176; Rondani 1873: 161; Schaarschmidt 1959: 804; Semedo 1961: 118; Turner 1937: 144. **(hb)** Anonymous 1902b: 21; Bach 1864; Chapman 1869: 126–131; Dallimore & Munro 1922: 189–193; Everts 1900; Fisher 1928: 53–61, 1931: 120–131, 1937: 112–128; Hickin 1963; Holmgren 1867: 114, 138; Kauschinger 1893: 193; Laidlaw 1932: 117; Lindemann 1881b: 171; Lohrenz 1907: 49; MacDougall 1900a: 359, 1924: 102; MacLeay 1824: 125; Munro 1926: 65; Nordlinger 1856: 42; Pauly 1894; Ratzeburg 1837: 137, 186, 1839: 168, 228, 1871c: 83; Rehberg 1903: 92; Rey 1892a: 18; Rupertsberger 1879: 231, 1880: 227; Semedo 1961: 118; Spierenburg 1930: 21; Stebbing 1908a: 108, 1909b: 13; Taschenberg 1880: 240; Tredd 1915a: 97. **(ds)** Acloque 1896, 1914; Airy & Shaw 1944: 80–82; Aureliano de Silva 1892: 38; Croswon & Hunter 1964: 200; Duffy 1945: 175; Everts 1900; Fairmaire 1846; Favre 1890; Hirst 1923: 971–1000; Holmgren 1867: 114, 138; Kaltenbach 1874: 593; Kestercanek 1881a: 12; Koppen 1882: 236, 250; Kraatz 1869: 59; Lacordaire 1866: 387; Lentz 1857: 140; Lindemann 1884b: 264; Lokaj 1868: 63; Lomnicki 1886a: 241; Matthews & Fowler 1883: 42; Meinert 1887: 70; Munro 1921: 88; Murayama 1939: 137; Parkin 1940: 364–377; Perris 1876a: 254, 1877a: 414; Poppius 1900: 109; Quirke 1943: 198; Ratzeburg 1837: 137, 186, 1839: 168, 228; Redtenbacher 1858: 837, 1874: 372; Reitter 1869b: 153; Riley 1867: 68–69, 1873: 160–168; Rivers 1886: 66; Rye 1866a: 198, 1890: 269; Sahlberg 1900: 106; Schaum 1859: 95; Schilsky 1909: 186; Schiodte 1873: 105; Seidlitz 1872: 389, 1891a: 556; Semedo 1961: 118; Sharp & Fowler 1893: 34; Siebke 1875: 285; Sparre-Schneider 1889: 61; Spierenburg 1930: 21; Stein 1868: 113; Stein & Weise 1877: 164; Stephens 1829a: Stierlin & Gautard 1872: 294; Sturm 1826: 194, 1843: 229; Thomson 1859: 147, 1865: 373, 1868: 224; Villa & Villa 1833: 26; Wessel 1877: 391; Westhoff 1882: 238; Winter, T. C. 1983: 25. **(tx)** Acloque 1896; Aslam 1961: 440, 459, 470; Bach 1854, 1864; Balachowsky 1949a: 71; Butovitsch 1929: 8; China 1963b: 418; Fairmaire 1864: 156–157; Gyllenhal 1813: 347; Houlbert 1922a: pl. 1,

- 1922b: 251; Jacquelin du Val & Fairmaire 1868: 103; Lacordaire 1866: 387; Latrielle 1807: 278; Leunis 1886: 183; Lindemann 1875c: 155, 1881b: 171; Murayama 1939: 137; Nordlinger 1848: 252, 1856: 42; Olivier 1795b: 5; Perris 1877a: 414; Ratzeburg 1837: 137, 186, 1839: 168, 228; Redtenbacher 1849a: 361, 1849b: 27, 1858: 837, 1874: 372; Rey 1892b: 30; Riley 1867: 68; Rupertsberger 1879: 231, 1880: 227; Saalas 1914: 75; Schedl 1948b: 43–45; Schlechtendal & Wunsche 1879: 125; Seidlitz 1872: 389, 1891a: 556; Stebbing 1909b: 13; Stephens 1829a, 1829b: 12, 1830: 361, 1939: 208; Taschenberg 1880: 240; Thomson 1859: 147, 1865: 373, 1868: 224; Westwood 1840: 39.
- californicus* LeConte 1868: 166. Holotype ♂; California [USA]; MCZ, Cambridge. Synonymy: Blackman 1934: 5.
References: (ay) Butovitsch 1929: 6. (cn) Swaine 1918a: 52. (hb) Swaine 1918a: 52. (ds) Butovitsch 1929: 6; Cockerell et al. 1907; Fall 1906: 202; Fall & Cockerell 1907: 217; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 83; Henshaw 1882: 269, 1885: 149; Kleine 1913b: 151, 1914b: 391; Leng 1920: 337; Swaine 1909: 104. (tx) Balachowsky 1949a: 71; Blackman 1934: 5, 22; Butovitsch 1929: 6; Hagedorn 1910a: 123; LeConte 1868: 166, 1876: 371–372; Schedl 1948b: 43, 45; Smith, J. B. 1886: 127; Swaine 1909: 104, 1910a: 33, 1918a: 52.
- triarmatus* Eggers 1912c: 205 (*Eccoptogaster*). Holotype ♀; Patria dubiosa, verisimile Gallia mer; USNM, Washington. Synonymy: Schedl 1948b: 45.
Notes: (3) Balachowsky 1949a: 74 (treated as a good species).
References: (cn) Fystro 1960; Goidanich & Goidanich 1934; Lekander 1954b: 7; Mathiesen 1950: 74; Pfeffer 1979: 148. (ec) Escherich 1935; Fransen 1937b; Nosek 1959a: 118; Pfeffer 1979: 148. (hb) Butovitsch 1929: 39–41; Lekander 1954b: 7; Nosek 1959a: 118; Stark 1952: 112. (ds) Butovitsch 1927: 170, 1929: 39–41; Eggers 1944: 143; Hansen 1939; Hellen 1947; Horion 1935; Kleine 1934a: 169; Knotek 1892a: 36; Munster 1928: 288; Palm 1959: 28–29; Pfeffer 1924a: 96, 1989a: 48; Pjaternitskii 1930a: 163; Reitter 1916: 348; Sokanovskii 1966: 383; Stark 1952: 112. (tx) Anderson, W. H. & Anderson 1971: 34; Balachowsky 1949a: 74; Beaver 1970: 697; Butovitsch 1929: 39–41; Eggers 1912c: 205–206, 1914: 39, 1944c: 143; Knotek 1892a: 36; Palm 1959: 347; Pfeffer 1955a: 85; Reitter 1913: 14, 1916: 348; Schedl 1934f: 1633, 1948b: 45, 1979c: 255; Sokanovskii 1966: 383; Stark 1952: 112.
- fuchsi* Reitter 1913a: 15. Syntypes 2 ♂; Russischarmenisches Gebirge, am Alagoes; NHMB, Budapest. Synonymy: Schedl 1948b: 45.
References: (ay) Butovitsch 1929: 7, 47. (cn) Greckin 1956: 1486. (hb) Greckin 1956: 1486; Stark 1952: 146. (ds) Butovitsch 1929: 7, 47; Kleine 1934a: 168; Schauffuss 1915: 1206; Sokanovskii 1966: 383; Stark 1952: 146. (tx) Butovitsch 1929: 7, 47; Reitter 1913a: 14–15; Schedl 1934f: 1633, 1948b: 45; Sokanovskii 1966: 1383; Stark 1952: 146.
- semenovi* (Spessivtsev) 1919: 245 (*Eccoptogaster*). Lectotype ♂; Vladivostok, Far East, USSR; IZL, Leningrad, designated by Michalski 1968b: 185. Figures: Michalski 1973a: pl. 13, Yin, Huang, & Li 1984: 26.
Distribution: Asia (Hebei, Shanxi in China/ Mongolia/ E USSR).
Hosts: *Ulmus japonica*, *U. laciniata*, *U. propinqua*, *U. pumila*, *Malus* sp.
References: (ay) Butovitsch 1929: 33. (cn) Kurenzov 1935c: 189; Pfeffer 1979: 149. (ec) Kurenzov 1934a: 57, 1964: 19; Pfeffer 1979: 149. (hb) Kurenzov 1935a: 19, 23, 1948b: 119; Stark 1952: 102. (ds) Butovitsch 1929: 33; Choo 1983: 40; Kleine 1934a: 169; Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934a: 57, 1935a: 19, 23, 1935c: 189, 1936a: 110, 1936b: 350, 1938: 60, 1964: 19, 1967; Michalski 1973a: 52; Sokanovskii 1966: 388; Stark 1952: 102; Yanovskii & Tegshzhargal 1985: 406; Yin, Huang, & Li 1984: 26. (tx) Butovitsch 1929: 33; Choo 1983: 40; Endrodi 1957: 420; Kurenzov 1941a: 95–97, 1948b: 119; Michalski 1968a: 107–108, 1968b: 184–185, 1973a: 52–54, pl. 13; Schedl 1934f: 1634, 1941a: 42, 1948b: 55–56; Sokanovskii 1954: 14, 1955: 388, 1966: 382, 388; Spessivtsev 1919: 245, 247–248; Stark 1952: 102–104; Tsai, Yin, & Huang 1962: 4, 6; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 26.
- kononovi* Kurenzov 1941a: 98, 228. Lectotype ♂; Ussuri, USSR; IZL, Leningrad, designated by Michalski 1968b: 184. Synonymy: Schedl 1948b: 56.
References: (hb) Stark 1952: 103. (ds) Sokanovskii 1966: 388; Stark 1952: 103. (tx) Kurenzov 1941a: 98, 228; Michalski 1968a: 107, 1968b: 184; Schedl 1948b: 56; Sokanovskii 1966: 384, 388; Stark 1952: 103.
- shanhaiensis* Yin & Huang 1980: 50, 53. Holotype ♂; Liaoning; Gaoling; IZAS, Beijing.
Figures: Yin & Huang 1980: 50.
Distribution: Asia (Liaoning in China).
References: (ds) Yin, Huang, & Li 1984: 34. (tx) Yin & Huang 1980: 50, 53; Yin, Huang, & Li 1984: 34.
- sinopiceus* Tsai 1962: 9. Holotype ♂; Miyalo, Aba-Tebetan, China; IZAS, Beijing.
Figures: Michalski 1973a: pl. 44.
Distribution: Asia (Gansu, Inner Mongolia, Ningxia, Qinghai, Sichuan, Xizang [Tibet], Yunnan in China).
Hosts: *Picea asperata*, *P. likiangensis*.
References: (ds) Michalski 1973a: 130; Yin &

- Huang 1981: 556; Yin, Huang, & Li 1984: 34. **(tx)** Michalski 1973a: 130–132, pl. 44; Tsai 1962: 9, 14; Yin & Huang 1980: 48, 1981: 556; Yin, Huang, & Li 1984: 34.
- spinidens** Schedl 1966f: 96. Holotype ♀; Niederl. Guayana; Schedl Collection in NHMW, Wien.
Distribution: South America (Suriname).
References: **(ds)** Schedl 1966f: 79. **(tx)** Schedl 1966f: 96, 1979c: 234.
- squamosus** Yin & Huang 1980: 49, 52. Holotype ♂; Yunnan: Shishong-Baanna; IZAS, Beijing.
Distribution: Asia (Yunnan in China).
Hosts: *Ulmus lanceaeifolia*.
References: **(ds)** Yin, Huang, & Li 1984: 24. **(tx)** Yin & Huang 1980: 49, 52; Yin, Huang, & Li 1984: 24.
- strigipennis** Schedl 1976a: 60. Holotype ♂; Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1976a: 60.
- submarginatus** Schedl 1937h: 163. Syntypes, sex?; Nova Teutonia, Brasilien; Schedl Collection in NHMW, Wien, Plaumann Collection, Stroh-meyer Collection, Eberswald.
Distribution: South America (Brazil/ Paraguay).
Notes: (1) Schedl 1979c: 242 (citation of holotype invalid). (3) Schedl 1937h: 162 (*longipilosus*, nomen nudum, no status), 1937h: 163 (named var. *artestriatus*, no status in nomenclature).
References: **(ds)** Berti-Filho 1979: 41; Blackwelder 1947: 788; Schedl 1966f: 81, 1970e: 80, 1976a: 49. **(tx)** Schedl 1937h: 158, 162–163, 1951 (footnote in Eggers 1951: 144), 1952a: 445, 1958f: 33, 1979c: 443.
- subscaber** LeConte 1876: 373. Lectotype ♀; Vancouver, British Columbia [Canada]; MCZ, Cambridge, designated by Wood 1982b: 443.
Figures: Bright 1976d: 28, Edson 1967: 53 (adult), 58 (galleries).
Distribution: North America (British Columbia in Canada/ California, N Idaho, Montana, Oregon, Washington in USA).
Hosts: *Abies concolor*, *A. grandis*, *A. magnifica*.
Notes: (3) Blackman 1934: 17 (re-described).
References: **(ay)** Butovitsch 1929: 9. **(cn)** Burke 1908; Chamberlin 1924; Doane et al. 1936; Essig 1926: 512, 1958: 512; Hopkins 1901a: 251, 1904a: 21; Keen 1938: 119, 1952c: 158; Leach 1940b: 224; Miller 1929: 994; Struble 1937d: 10, 1957: 12–14; Woods 1969. **(cc)** Ashraf & Berryman 1969: 14; Furniss, R. L. & Carolin 1977: 404; Keen 1938: 119; Leach 1940b: 224; Marsh 1979: 150; Miller 1929: 994; Struble 1957: 12; Tehon 1942: 238; Wright 1938: 560. **(hb)** Bright 1976d: 34; Bright & Stark 1973: 14; Burke 1908: 115; Chamberlin 1939: 228, 1958: 44; Doane et al. 1936; Edson 1967: 29; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 383; Hopkins 1901e: 67, 1904a: 21; Keen 1938: 119, 1952c: 158; Pierce 1907: 293; Struble 1937d: 10, 1957: 12; Wood, S. L. 1982b: 443; Woods 1969. **(ds)** Blackwelder 1939; Bright 1976d: 34; Bright & Stark 1973: 14; Butovitsch 1929: 9; Chamberlin 1917: 325, 1925, 1939: 228, 1958: 44; Currie 1905: 76; Edson 1967: 29; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 383; Hagedorn 1910d: 89; Henshaw 1882: 269, 1885: 44; Keen 1929a: 12, 1938: 119, 1952c: 158; Kleine 1913b: 152, 1914b: 391, 398, 1934a: 169; Laursen 1979; Leng 1920: 337; Patterson & Hatch 1945: 148; Swaine 1909: 107; Wood, S. L. 1972a: 397, 1982b: 443; Woods 1969. **(tx)** Blackman 1934: 17–18; Bright 1964: 167, 1976d: 28–29; Butovitsch 1929: 9; Chamberlin 1939: 228, 1958: 44; Edson 1967: 29, 53; Hagedorn 1910a: 124; Keen 1929a: 12; LeConte 1876: 373; Swaine 1909: 107, 1910a: 33, 1917: 32, 1918a: 64; Wood, S. L. 1962: 81, 1972a: 397, 1982b: 443; Woods 1969. **(ms)** Essig 1931: 655.
- sulcifrons** Rey 1892: 30. Syntypes, sex?; Lyons, France; Rey Collection in Lyons Museum.
Figures: Michalski 1973a: pl. 25.
Distribution: Europe (Bulgaria/ France/ Greece/ Hungary/ Italy/ W USSR/ Yugoslavia).
Hosts: *Ulmus* spp., *Quercus* sp.
References: **(ay)** Butovitsch 1929: 10, 41–42. **(bv)** Maksimovic 1979a: 285. **(cn)** Anonymous 1978w; Clinton & McCormick 1936; Goidanich 1937: 417–425; Goidanich & Goidanich 1934, 1937; Grandi 1957; Kalandra & Pfeffer 1935: 6; Karaman 1967: 186; Leach 1940b: 227; Lindeman 1963: 1582–1584, 1964: 78–80, 113; Mumford 1965: 33; Pfeffer 1979: 148; Tubeuf 1935: 76; Vajda 1952: 114. **(ec)** Escherich 1935; Krivosheina 1974; Leach 1940b: 227; Maksimovic 1979a: 285; Novak, P. 1952: 411; Pfeffer 1979: 148; Ruschka 1916: 27; Szczepanski 1960a: 409; Thompson, W. R. & Simmonds 1964: 36, 1965: 68; Wichmann 1916: 11. **(hb)** Boffa 1949; Cecconi 1924; Clinton & McCormick 1936; Goidanich 1934: 145–163, 1946; Grandi 1957; Kostin 1960: 130; Maksimovic 1979a: 285; Stark 1952: 111; Wichmann 1916: 11. **(ds)** Anonymous 1978w; Audras & Schaefer 1957; Balachowsky 1944b; Boffa 1949; Buresh & Lazarov 1956; Butovitsch 1929: 10, 41–42; Clinton & McCormick 1936; Kleine 1913a: 307; Luigioni 1929: 989; Michalski 1973a: 86; Mumford 1965: 33; Novak, P. 1952: 411, 1964; Pfeffer 1935: 159, 1936: 90, 1947d: 126, 1955a: 80; Pittioni 1943: 176; Readio 1935: 344; Sainte-Claire 1914: 467; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1206; Schilsky 1909: 186; Stark 1952: 111. **(tx)** Balachowsky 1943: 168, 1944b: 17–18, 1949a: 73; Boffa 1949; Butovitsch 1929: 10, 41–42, 1964: 221; Eggers 1908: 194, 1910: 36, 1911a: 73–74, 1912a: 48, 1912c: 205, 1913a: 284–285, 1941c: 123; Luigioni 1929: 989; Michalski 1973a: 86–88, pl. 25; Reitter 1913a: 15; Rey 1892: 30; Schedl 1934f: 1633, 1948b: 43, 45, 1964k: 221–222, 1967c:

- 68; Sokanovskii 1954: 14, 1966: 383; Stark 1952: 111; Wichmann 1913d: 144, 1916: 11–13.
- leonii* Eggers 1908: 194 (*Eccoptogaster*). Lectotype ♂; Cerchio, Aquilensi, Italy; USNM, Washington, designated by Anderson & Anderson 1971: 17. Synonymy: Balachowsky 1949a: 73. References: (ds) Sokanovskii 1966: 383. (tx) Anderson, W. H. & Anderson 1971: 17; Balachowsky 1949a: 73; Eggers 1908: 194, 1910e: 36, 1911a: 73–74, 1912a: 48, 1913; Hagedorn 1910a: 123; Reitter 1913a: 15; Schedl 1934f: 1633, 1948b: 43; Sokanovskii 1966: 383; Wichmann 1913d: 144. (ms) Eggers 1910b.
- tadzjikistanicus* Stark 1941: 302. Lectotype ♂; prope Stalinabad, Tajikistan, USSR; IZL, Leningrad, designated by Michalski 1968b: 192. Figures: Greckin 1956: 1481, Michalski 1968a: 112, 1973a: pl. 45. Distribution: Asia (Tajikistan in W USSR). Hosts: *Acer turkestanicum*, *Malus* spp. References: (cn) Greckin 1956: 1481; Kulnich 1965: 134. (hb) Greckin 1956: 1481; Stark 1952: 130. (ds) Kadyrov 1988: 43, 1989; Michalski 1973a: 132; Sokanovskii 1966: 389; Stark 1952: 130. (tx) Grechkin 1956: 1481; Michalski 1968a: 111–112, 1968b: 192, 1973a: 132–134, pl. 45; Sokanovskii 1954: 14, 1966: 389; Stark 1941: 299–302, 1952: 130–131.
- thoracicus* Chapuis 1869: 55. Syntypes 2 ♂; Bresil; IRSNB, Brussels. Distribution: South America (Brazil). Notes: (3) Schedl 1959m: 546 (named var. *labiatus*, no status). References: (ay) Butovitsch 1929: 10. (hb) Viana 1964: 130. (ds) Blackvelder 1947: 788; Butovitsch 1929: 10; Gemminger & Harold 1872: 2696; Hagedorn 1910d: 89; Kleine 1913b: 152, 1914b: 336; Numberg 1962: 223; Schedl 1966f: 81, 1973d: 150, 1976a: 49; Viana 1964: 130. (tx) Butovitsch 1929: 10; Chapuis 1869: 55, 1873: 263; Hagedorn 1910a: 124; Schedl 1937h: 155, 161, 1948d: 36, 1952a: 444–445, 1958f: 33, 1959m: 546. *brevicauda* Wichmann 1915a: 104 (*Eccoptogaster*). Holotype, sex?, Boa Sorta (Minas Geraes), Brasilien; not given. Synonymy: Schedl 1937h: 161. References: (ay) Butovitsch 1929: 6. (ds) Butovitsch 1929: 6. (tx) Butovitsch 1929: 6; Schedl 1937h: 155–161; Wichmann 1915a: 104–105.
- torulus* Wood 1975a: 25. Holotype ♂; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: Leguminous tree. References: (ds) Wood, S. L. 1982b: 449. (tx) Wood, S. L. 1975a: 25, 1982b: 449.
- transversalis* Eggers 1943a: 375. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris. Distribution: South America (Bolivia). Notes: (1) Schedl 1979c: 254 (Type in Schedl Collection; were there two types or did Schedl take the type before Eggers could return it to MNHM, Paris?). References: (tx) Eggers 1943a: 375; Schedl 1979c: 254.
- trispinosus* Strohmeier 1908b: 69. Holotype ♂; Kushiro, Japan; Strohmeier Collection, in IPKE, Eberswalde. Figures: Michalski 1973a: pl. 26. Distribution: Asia (NE China/ Japan/ E USSR). Hosts: *Ulmus* spp., *Fraxinus mandshurica*. Notes: (3) Schedl 1948b: 43 (treated this as a synonym of *esuriens*). References: (ay) Butovitsch 1929: 10, 47. (cn) Kurenzov 1935c: 189. (hb) Krivolutskaya 1965a: 226, 1973: 130; Kurenzov 1935a: 19, 24, 1948b: 117; Stark 1952: 122. (ds) Butovitsch 1929: 10, 47; Hagedorn 1910d: 89; Kleine 1913b: 152, 1914b: 259, 1934a: 169; Krivolutskaya 1965a: 226, 1973: 130; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1935a: 19, 24, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 58; Michalski 1973a: 88; Murayama 1936a: 122; Sokanovskii 1966: 383; Stark 1952: 122. (tx) Butovitsch 1929: 10, 47; Hagedorn 1910a; Krivolutskaya 1958: 111–112, 1965: 226–227; Kurenzov 1941a: 90–91, 104–105, 1948b: 117; Michalski 1964: 668, 1968b: 191, 1969c: 661–662, 1973a: 88–91, pl. 26; Murayama 1936a: 122; Niisima 1909: 118; Schedl 1934f: 1633, 1941a: 42, 1948b: 43, 1964k: 221–222; Sokanovskii 1954: 14, 1966: 383; Stark 1952: 122; Strohmeier 1908b: 69; Tsai, Yin, & Huang 1962: 7. (ms) Eggers 1910b. *grandis* Kurenzov 1941a: 104, 227. Holotype ♀; Iman, ad fluviam Arm, Primorye, USSR; IZL, Leningrad. Synonymy: Michalski 1973a: 88. Notes: (3) Schedl 1948b: 43 (= *esuriens* Blandford). References: (hb) Kurenzov 1948b: 119; Stark 1952: 128. (ds) Blackvelder 1939; Michalski 1968b: 191; Sokanovskii 1954: 14, 1966: 383; Stark 1952: 128. (tx) Kurenzov 1941a: 104, 227, 1948b: 119; Michalski 1968a: 111, 1973a: 88; Schedl 1948b: 43; Sokanovskii 1966: 383; Stark 1952: 128.
- tsugae* (Swaine) 1917: 32 (*Eccoptogaster*). Lectotype ♀; Glacier, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 674. Figures: Bright 1976d: 28, 194, Edson 1967: 45 (adult), 57 (galleries). Distribution: North America (British Columbia in Canada/ California, N Idaho, W Montana, Oregon, Washington in USA). Hosts: *Tsuga* spp. Notes: (3) Blackman 1934: 15 (re-described). References: (ay) Butovitsch 1929: 10; Thomas, J. B. 1967. (bv) Daterman, Rudinsky, & Nagel 1965; Schenk, Berryman, & Dale 1976. (cn) Anonymous 1983d; Browne 1968: 646; Chamberlin 1924; Doane et al. 1936; Essig 1926: 512, 1958: 512; Hatch 1938: 193; Keen 1938: 122, 129, 1952c:

166; McMullen & Atkins 1962a; Ostmark 1956: 9; Ruppel 1967: 87; Ryker & Rudinsky 1979: 207; Schenk, Berryman, & Dale 1976; Schuder 1969: 81; Swaine 1918a: 53; Woods 1969. (**cc**) Bushing 1965: 467; Chamberlin 1918a; Furniss, R. L. & Carolin 1977: 404; Keen 1938: 129; Marsh 1979: 158; Matthews 1970; McMullen & Atkins 1962a; Phaff & Lidia do-Carmo-Sousa 1962; Richerson, J. V. & Borden 1972a; Schenk, Berryman, & Dale 1976. (**hb**) Ashraf & Berryman 1969: 7; Bright 1968: 646, 1976d: 32; Bright & Stark 1973: 14; Chamberlin 1939: 228, 1958: 43; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Edson 1967: 17; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Goedens & Norris 1964b: 745; Keen 1938: 129, 1952c: 166; Kirkendall 1984: 237; McMullen & Atkins 1959b: 416, 1962a; Ryker & Rudinsky 1979: 207; Swaine 1918a: 53; Wood, S. L. 1982b: 435; Woods 1969. (**ds**) Anonymous 1953d; Bedard 1938a; Bright 1968: 646, 1976d: 32; Bright & Stark 1973: 14; Buth & Ellis 1981; Butovitsch 1929: 10; Chamberlin 1918a: 27, 1925, 1939: 228, 1958: 43; Edson 1967: 17; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Hopping 1922; Keen 1929a: 12, 1938: 129, 1952c: 166; Kleine 1934a: 169; Kusch 1967; Leng 1920: 337; Patterson & Hatch 1945: 148; Ruppel 1967: 87; Schenk, Berryman, & Dale 1976; Schuder 1969: 81; Still, Tidsbury, & Melvin 1974a: 14; Wood, S. L. 1972a: 396, 1982b: 435; Woods 1969. (**tx**) Benoit 1985: 39; Blackman 1934: 6–7, 15; Bright 1967b: 674, 1976d: 28, 32, 194; Butovitsch 1929: 10; Chamberlin 1939: 228, 1958: 43; Edson 1967: 17, 45; Hoebeke 1978; Keen 1929a: 12; Kusch 1967: 9; McMullen & Atkins 1962a; de Ruelle 1970: 101; Ryker & Rudinsky 1979: 207; Swaine 1917: 32, 1918a: 52–53; Thomas, J. B. 1967; Wood, S. L. 1966b: 30, 1972a: 396, 1977c: 388; 1982b: 435; Woods 1969. (**ms**) Hatch 1938: 193.

unispinosus LeConte 1876: 372. Lectotype ♂; Oregon [USA]; MCZ, Cambridge, designated by Wood 1982b: 432.

Figures: Edson 1967: 42, 43 (adult), 56 (galleries). Distribution: North America (W Alberta, British Columbia in Canada/ Arizona, California, Colorado, Idaho, W Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming in USA). Hosts: *Pseudotsuga menziesii*, rare in other conifers. Notes: (3) Blackman 1934: 26 (redescribed).

References: (**ay**) Atkins & McMullen 1957: 8; Butovitsch 1929: 10; Essig 1926: 512; McMullen & Atkins 1962a. (**bv**) Daterman, Rudinsky, & Nagel 1965; McMullen & Atkins 1962a; Vite & Pitman 1967: 638–701; Wright, L. C. & Berryman 1978. (**cn**) Anderson, R. F. 1960: 237; Anonymous 1960i, 1960j: 6, 1960q, 1961i, 1962h, 1962i, 1963j, 1963y, 1966f, 1970h, 1971i, 1972h, 1973c, 1976i,

1978g, 1978h: 4, 1979e: 8, 1979g, 1980a, 1980m: 33, 1981j, 1983d, 1984f; Bongberg 1962; Bright 1968: 646; Brunner 1915: 1–23, 1918: 27; Buckhorn & Orr 1962: 18; Chamberlin 1924; Craighead 1927: 1–12; Curtis & Hadfield 1977b; Doane et al. 1936; Dolph & Pettinger 1968: 49; Essig 1926: 512, 1958: 512; Fiddick & van Sickle 1980: 20; Gregg, Coheen, & Bridgewater 1978: 48; Hatch 1938: 192; Hofacker & Loomis 1982: 22; Hopkins 1899b: 16, 21–22, 1904a: 20; Keen 1938: 119–122, 1952c: 155; McMullen & Atkins 1962a; Molnar, Harris, & Ross 1965: 103; Orr, P. W. 1963b; Orr, P. W. & Pettinger 1964; Packard 1890: 859; Pettinger 1979; Pierce, J. R. 1971: 12; Rudinsky & Terrier 1959: 485–488; Ruppel 1967: 87; Ryker & Rudinsky 1979: 205; Schabel 1971; Schuder 1969: 81; Silver & Ross 1965a: 123; Smith, C. J. & Melvin 1974a; Sterner & Davidson 1981: 17; Stevens 1959b: 1; Swaine 1918a: 53; Tunnock 1963: 10; Woods 1969; Wright, L. C. & Berryman 1978. (**cc**) Ashraf & Berryman 1969: 12; Bedard 1933a; Brunner 1915; Burks 1979: 774; Bushing & Bright 1965: 204; Chamberlin 1918a; Craighead et al. 1927; Deyrup & Gara 1978: 276; Furniss, R. L. & Carolin 1977: 404; Keen 1938: 119; Kim 1971; Marsh 1979: 150; McMullen & Atkins 1962a; Phaff & Yoneyama 1961; Rice 1968, 1969: 382–386; Wright, L. C. & Berryman 1978. (**hb**) Anderson, R. F. 1960: 237; Ashraf & Berryman 1969: 7; Atkins & McMullen 1962: 17; Bongberg 1959a; Bright 1968: 646, 1976d: 36; Bright & Stark 1973: 14; Chamberlin 1939: 233, 1958: 47; Chittenden 1890; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Edson 1967: 12; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Goeden & Norris 1964b: 745; Hopkins 1899b: 16, 21–22, 1904a: 20; Keen 1938: 119, 1952c: 155; Kirkendall 1984: 237; McMullen & Atkins 1959b: 416, 1962a; Packard 1890: 859; Pierce, W. D. 1907: 292; Ryker & Rudinsky 1979: 205; Schmitz & Rudinsky 1968: 1–42; Schwarz 1894b: 255; Smith, J. B. 1886: 125; Swaine 1918a: 53; Vitomskii 1928a: 178; Walters & McMullen 1956: 198; Wood, S. L. 1982b: 432; Woods 1969. (**ds**) Anderson, R. F. 1960: 237; Anonymous 1962i, 1963j, 1963y, 1966f, 1970h, 1973c, 1976h, 1978g, 1978h: 4, 1979e: 8, 1979g, 1980a, 1980m: 33, 1981j, 1983d, 1984f; Bedard 1938a; Blackwelder 1939; Bongberg & Bennett 1960: 1; Bright 1968: 646, 1976d: 36; Bright & Stark 1973: 14; Butovitsch 1929: 10; Chamberlin 1917: 321–328, 1918a: 25, 1925, 1939: 233, 1958: 47; Chittenden 1890; Cockerell et al. 1907; Currie 1905: 76; Edson 1967: 12; Essig 1926: 512, 1958: 512; Evans, D. 1983: 36; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 385; Hagedorn 1910d: 89; Hall & Eaton 1960; Henshaw 1882: 269, 1885: 140; Hopping 1922; Keen 1929a: 12, 1938: 119, 1952c: 155; Kleine 1913b: 152, 1914b: 407, 1934a: 169; Kusch 1967;

Leng 1920: 337; Mank 1934: 81; McComb et al. 1953: 3; McMullen & Atkins 1962a; Patterson & Hatch 1945: 149; Ruppel 1967: 87; Schuder 1969: 81; Smith, G. J. & Melvin 1974a; Smith, G. S. 1930; Smith, J. B. 1886: 125–127; Snow 1906: 175; Still, Tidsbury, & Melvin 1974a: 14; Swaine 1909: 108; Thatcher 1935: 261; Wickham 1896a: 309; Wood, S. L. 1948: 11, 1951a: 127, 1972a: 396, 1982b: 432; Woods 1969. (tx) Anderson, R. F. 1960: 237; Benoit 1986: 238; Blackman 1934: 10, 26; Bright 1976d: 29, 36; Bruck 1936a; Butovitsch 1929: 10; Chamberlin 1917: 325, 1939: 233, 1958: 47; Edson 1967: 12, 42; Eggers 1914: 38; Evans, D. 1983: 36; Hagedorn 1910a: 124; Keen 1929a: 12; Kusch 1967: 9; LeConte 1876: 372, 1878b: 626, 1879: 519; McMullen & Atkins 1962a; Muesebeck 1942: 100, 1950: 137; Ryker & Rudinsky 1979: 205; Swaine 1909: 108, 1910a: 33, 1918a: 53; Wood, S. L. 1956: 40, 1966b: 30, 1972a: 396, 1977c: 388, 1982b: 432; Woods 1969: fig. 5, 6. (ms) Bongberg 1859a; Essig 1931: 685; Hatch 1938: 192; Pettinger 1979; Schabel 1971.

sobrinus Blackman 1934: 23. Holotype ♂; Kent, Washington [USA]; USNM, Washington. Synonymy: Wood 1966b: 30.

References: (cn) Ruppel 1967: 87; Woods 1969. (hb) Chamberlin 1939: 232, 1958: 48; Woods 1969. (ds) Blackwelder 1939; Chamberlin 1939: 232, 1958: 48; Gautreau & Melvin 1974: 14; Kusch 1967; Patterson & Hatch 1945: 149; Ruppel 1967: 87; Woods 1969. (tx) Blackman 1934: 23–24; Chamberlin 1939: 232, 1958: 48; Kusch 1967: 9; Wood, S. L. 1966b: 30; Woods 1969.

fiskei Blackman 1934: 25. Holotype ♂; Capitan Mountains, N. Mex.; USNM, Washington. Synonymy: Wood 1977c: 388.

References: (cn) Doane et al. 1936; Schuder 1969: 81. (hb) Bright 1976d: 37; Chamberlin 1939: 232; Doane et al. 1936; Edson 1967: 13. (ds) Blackwelder 1939; Bright 1976d: 37; Chamberlin 1939: 232; Edson 1967: 13; Furniss, R. L. & Carolin 1977: 403; Schuder 1969: 81. (tx) Blackman 1934: 9, 25; Bright 1976d: 37; Chamberlin 1939: 232; Edson 1967: 13, 43; Wood, S. L. 1977c: 388.

varshalovitchi Michalski 1973a: 55. Holotype ♀; Lenkoran, Azerbaijan, USSR; IZL, Leningrad.

Figures: Michalski 1973a: pl. 14.

Distribution: Asia (Azerbaijan in USSR).

Hosts: *Carpinus betulus*.

References: (ds) Michalski 1973a: 55. (tx) Michalski 1973a: 55–57, pl. 14.

ventralis LeConte 1868: 167. Lectotype ♂; Washington Territory [USA]; MCZ, Cambridge, designated by Wood 1982b: 441.

Figures: Ashraf & Berryman 1969: 3; Bright 1976d: 28, 195, 215; Edson 1967: 38, 52 (adults), 58 (galleries).

Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Abies concolor*, *A. grandis*, *A. magnifica*, accidental in other conifers.

Notes: (3) Blackman 1934: 22 (redescribed).

References: (ay) Ashraf & Berryman 1970b: 923–930; Ashraf, Mayr, & Sybers 1971; Bruhn 1947: 21; Butovitsch 1929: 10; Francke-Grosmann 1956b; Kirtibutr & Schenk 1977; Livingston & Berryman 1972; Payne et al. 1973; Sanders 1950: 4. (bv) Ashraf & Berryman 1969; Berryman 1965a, 1968c: 57–68, 1968d: 227–228, 1988; Berryman & Ashraf 1970; Berryman & Ferrell 1988; Bordasch & Berryman 1977; Christiansen & Huse 1980: 473; DeMars, Ferrell, & Ostrosina 1988; Dethier 1947; Felix, Uhrenholdt, & Parmeter 1971; Ferrell 1969b: 2238, 1971, 1974, 1986b; Ferrell et al. 1988; Hertert, Miller, & Partridge 1975; Klein, Parker, & Jensen 1978: 735; Lane & Goheen 1979; Raffa & Berryman 1987; Stevens 1971; Svihra & Volney 1983: 521; Thomas, T. L. & Agee 1986; Vite & Pitman 1967: 683–701; Wollerman 1979; Wood, D. L. 1980b; Wright, L. C., Berryman, & Wickman 1984. (cn) Anderson, R. F. 1960: 236; Anonymous 1955j: 10, 1956p: 110, 1958a: 7, 1960g: 10, 1960i, 1960j: 11, 1960q, 1960r, 1961e, 1961h, 1961i, 1961s, 1962h, 1962i, 1963e, 1963j, 1963k, 1963y; 1964i, 1964u, 1965c, 1966f, 1966i, 1967f, 1967h, 1968g, 1968h, 1969e, 1969f, 1969i, 1969m, 1970t, 1971i, 1972h, 1972t, 1972v, 1973c, 1974f, 1975d, 1975g, 1976f, 1976g, 1976h, 1976n, 1977h, 1977i, 1978a, 1978b: 34, 1978f, 1978g, 1978h: 4, 1979e, 1979f, 1979g: 4, 1980a: 30, 1980m: 30, 1981g, 1981j, 1982c, 1983d, 1983f, 1984f, 1986b: 6, 1987b: 3; Bailey 1957: 35; Basham 1959: 295; Beatty 1983; Bennett 1983; Berryman 1969b, 1973, 1988; Berryman & Ashraf 1970; Bongberg 1956a; Bordasch & Berryman 1977; Bousfield & Carlson 1978; Browne 1968: 646; Buckhorn 1957; Buckhorn & Orr 1961: 18, 1962: 17; Ciesla, Dewey, & Tunnock 1971: 19; Coulson & Witter 1984: 541; Craighead & Middleton 1930; Curry & Hadfield 1977a, 1977b; Curtis & Johnson 1975; DeNitto & Dale 1982b; DeNitto & Pierce 1983; Doane et al. 1936; Dolph & Hadfield 1971; Dolph & Pettinger 1968: 36, 1969: 7; 1971: 4; Ferrell 1973a, 1973b, 1974, 1983, 1986a, 1988; Ferrell & Hall 1975; Ferrell & Smith 1976; Ferrell et al. 1988; Fiddick 1980: 8; Fuller & Hostetler 1980; Gentry, G. R. et al. 1979: 817; Gibson et al. 1984; Graham 1952; Gregg, Filip, & Hadfield 1978: 21; Gregg, Goheen, & Bridgwater 1978: 44; Hagle et al. 1987: 44; Hain et al. 1978: 162; Hall R. C. 1958b, 1961; Hall, R. C. & Eaton 1960; Hamel 1980: 790; Hatch 1938: 193; Hawthorne 1963, 1964, 1965; Hayes 1959: 1–54; Hofacker & Loomis 1982: 18, 1983: 21; Hofacker, Loomis, & Gilstrap 1988: 15; Hof-

- acker, Loomis, & Tucker 1984: 4; Hofacker et al. 1989; Honing 1970: 21; Hopkins 1899b: 10; James & Goheen 1981; James et al. 1985; Jemison et al. 1956: 44–45, 50; Johnsey 1984; Johnson, D. W. & Creasip 1978a; Johnson, N. E. & Shea 1963: 1–8; Keen 1938: 119–122, 1952c: 158; Kirtibutr & Schenk 1977; Klein, W. H. 1966: 17, 1967, 1968; Klein, W. H. & McGregor 1966; Klein, W. H. & Parker 1970: 17; Knapp et al. 1989: 9; Landgraf & Ostmark 1958: 10; Lane & Goheen 1979; Leach 1940b: 224; Linnane 1984; Livingston et al. 1988: 5; Loomis, Hofacker, & Tucker 1985: 12, 1986; Lucht 1966: 31; Lucht & Moore 1963: 18; Lyon 1959b: 323–327; Lyons 1956: 602; Mahoney, Moore, & Schenk 1979; Marlett 1931: 47, 1933: 23; Massey 1956b: 110; Mathiesen 1952: 304; McGregor 1977b; McGregor et al. 1977: 25; Molnar et al. 1969: 118; Moore, J. A., Mahoney, & Schenk 1981; Moore, J. A., Schenk, & Hatch 1978; Nagel 1956: 1; Neal 1979: 817; Orr, P. W. 1963a, 1963b, 1966; Orr, P. W. & Pettinger 1964; Orr, P. W., Pettinger, & Dolph 1965, 1966; Ostmark 1956: 7; Ostmark & Wilford 1956: 6, 13; Overhulser 1986; Owen 1986: 8; Pettinger 1979; Pettinger & Dolph 1967: 29, 1969, 1970: 9, 1971: 7; Pettinger & Johnson 1973a, 1973b: 1, 1974; Pierce, J. R. 1966: 14, 1970: 11, 1971: 12; Pierce, J. R. & Srago 1973: 17; Pierce, J. R., Wood, & Fujii 1977: 15; Poinar 1971; Price 1957: 81–100; Raffa et al. 1985; Ragenovich 1979, 1980b: 21; Robinson, L. A. & Dooling 1978: 11; Rogers & Hessburg 1985; Rogers, T. J. 1981; Rudinsky & Terriere 1959: 485–488; Ruppel 1967: 87; Ruppel & Pass 1970: 23; Ryker & Rudinsky 1979: 207; Salman 1933a: 133; Schabel 1971; Schenk et al. 1976, 1977; Schuder 1969: 74; Schultz & Allison 1982; Schwandt et al. 1986; Seal 1964; Silver & Ross 1961: 102, 1962b: 112, 1963a: 111; Smith, R. F. & Huffaker 1974; Smith, R. H. & Roettgering 1982; Smith, R. H., Jr. & Dale 1981; Smith, R. H., Jr. et al. 1984; Stevens 1956: 1, 1971: 7; Stipe et al. 1987; Struble 1931: 775, 1937d: 1–15, 1957: 1–18; Swaine 1918a: 53; Teillon et al. 1973; Tunnock 1966: 22; Tunnock & Dooling 1977: 28; Vogler & Dale 1982; Vogler & Schultz 1985; Wear & Buckhorn 1955: 13; Wood, D. L. 1980b; Woods 1969; Wright, L. C., Berryman, & Gurusiddaiah 1979; Yasinski 1956: 1–3; Yasinski & Pierce 1957: 9, 12–13. **(cc)** Amman 1972c: 528; Anonymous 1963z, 1970k; Ashraf 1968b, 1969: 3155–3156; Ashraf & Berryman 1969, 1970a, 1970b; Basham 1959: 295; Bedard 1933a; Berryman 1966a: 519, 1968a, 1968c: 1138–1147, 1969b: 1033–1041, 1970b, 1973, 1974: 552, 1987, 1988; Berryman & Ferrell 1988; Berryman & Pienaar 1973; Bongberg 1962; Bordasch & Berryman 1977; Burks 1979: 744; Bushing 1965: 467; Bushing & Bright 1965: 204; Chapman 1969a; DeLeon 1934b; DeMars, Ferrell, & Ostrosina 1988; Dewey, Ciesla, & Meyer 1974; Eaton 1941; Felix, Uhrenholdt, & Parmeter 1971; Ferrell 1971, 1973a, 1973b, 1978, 1983, 1986a; Ferrell, Ostrosina, & DeMars 1988; Ferrell & Smith 1976; Filip, Christiansen, & Park 1989; Francke-Grosmann 1952a, 1956b; Frye 1971b: 26; Furniss, R. L. & Carolin 1977: 404; Gerber, Tonks, & Ross 1983; Graham 1952; Hanover 1975; Hertert, Miller, & Partridge 1975; James & Goheen 1981; James, Stewart, & Williams 1984; Kaya 1984; Keen 1938: 119; Kinn 1971; Kirtibutr & Schenk 1977; Laumond & Ritter 1973; Leach 1940b: 224; Lientier & Berryman 1988; Livingston 1971b, 1980; Livingston & Berryman 1972; Marsh 1979: 150; Mason, W. R. M. 1978; Massey 1958: 26–27, 1963, 1964a: 133–155, 1964b, 1966a: 384–386; Mathiesen 1952: 304; Matthews 1960; Mattson & Haack 1987; McGregor, Williams, & Carlson 1977; Muesebeck 1942: 100, 1950: 137; Ostrosina 1989; Otvos & Stark 1985; Phaff & Yoneyama 1961; Poinar 1971, 1975: 169; Raffa & Berryman 1987; Raffa et al. 1985; Reid 1957c: 111; Richerson, J. V. & Borden 1972a; Russell & Berryman 1976; Ryan & Rudinsky 1962: 758; Singh 1977: 104; Stark, R. W. & Borden 1965b; Stevens 1971; Struble 1957: 1–18; Tehon 1942: 238; Thomas, G. M. & Poinar 1973: 276; Thompson, W. R. 1943: 107; Thompson, W. R. & Simmonds 1964: 36, 1965: 6; Wickman 1977; Wong, B. L. & Berryman 1977; Woodring & Moser 1970; Wright, E. 1935: 525–538, 1938: 759; Wright, L. C., Berryman, & Gurusiddaiah 1979; Wright, L. C., Berryman, & Wickman 1984. **(hb)** Anderson, R. F. 1960: 236; Anonymous 1963z; Ashraf & Berryman 1969: 1–23; Beatty 1983; Berryman 1968b, 1968c, 1969a, 1970b, 1973, 1974: 580, 1988; Berryman & Ashraf 1970: 1229–1236; Berryman & Ferrell 1988; Berryman & Pienaar 1973; Bongberg 1959a; Bright 1976d: 35; Bright & Stark 1973: 14; Browne 1968: 646; Chamberlin 1939: 230, 1958: 46; Coulson & Witter 1984: 541; Doane et al. 1936; Edson 1967: 27; Ferrell 1969b, 1971, 1986a; Furniss, R. L. & Carolin 1977: 404; Gerber, Tonks, & Ross 1983; Graham 1952; Hagle et al. 1987: 44; Hopkins 1899b: 10; Johnsey 1984; Keen 1938: 119, 1952c: 158; Kirkendall 1984: 237; Lyons 1956: 602; Ryker & Rudinsky 1979: 207; Scott & Berryman 1971, 1972; Stark, R. W. & Borden 1965b; Stevens 1956a: 1, 1971; Struble 1937d: 1–15, 1957: 1–18; Swaine 1918a: 53; Wollerman 1979; Wood, S. L. 1982b: 441; Woods 1969; Wright 1938: 759–773. **(ds)** Allen 1969: 14; Amman 1972c: 528; Anderson, R. F. 1960: 236; Anonymous 1958a: 7, 1960: 10, 1962i, 1963j, 1963k, 1963y, 1964u, 1966f, 1967f, 1968g, 1969e, 1969f, 1969i, 1969m, 1972t, 1973c, 1974f, 1975d, 1975g, 1976f, 1976g, 1976h, 1976n, 1977h, 1977i, 1978a, 1978b: 34, 1978f, 1978g, 1978h: 4, 1979e: 4, 1979f, 1980a: 30, 1980m: 30, 1981g, 1981j, 1982c, 1983d, 1983f, 1984f; Bedard 1938a; Berryman 1968a, 1968b: 1138, 1969, 1973, 1988; Berryman & Ashraf 1970: 1194–1196; Ber-

- ryman & Ferrell 1958; Berryman & Pienaar 1973; Blackwelder 1939; Bongberg 1956a; Bongberg & Bennett 1960: 1; Bordsch & Berryman 1977; Bright 1976d: 35; Bright & Stark 1973: 14; Browne 1968: 646; Butovitsch 1929: 10; Chamberlin 1917, 1918a, 1925; Chittenden 1890; Cockerell et al. 1907; Craighead & Middleton 1930; Currie 1905; Curtis & Johnson 1975; Downing 1963: 7; Edson 1967: 27; Essig 1926: 512, 1958: 512; Felix, Uhrenholdt, & Parmeter 1971; Ferrell 1971, 1974, 1983, 1986a; Frye 1971b: 26; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 385; Gemminger & Harold 1872: 2696; Hagedorn 1910d: 89; Hall & Easton 1960; Henshaw 1882: 269, 1885: 149; Hertert, Miller, & Partridge 1975; Holroyd & Barrett 1966: 12; Hopping 1922; Keen 1929a: 12, 1938: 119, 1949a: 93, 1952c: 155; Kirtibutr & Schenk 1977: 381; Kleine 1913b: 152, 1914b: 407, 1934a: 169; Laursen 1979; Leng 1920: 337; Livingston & Berryman 1972; Mank 1934: 81; Marchant & Borden 1976; McComb et al. 1953: 3; Patterson & Hatch 1945: 149; Rice 1933: 1079-1083; Ruppel 1967: 87; Salman 1933a: 133; Schuder 1969: 74; Snow 1906: 175, 1907: 188; Stark, R. W. & Borden 1965: 1162; Stevens 1971; Swaine 1909: 108; Wood, S. L. 1972a: 397, 1982b: 441; Woods 1969; Wright, L. C., Berryman, & Gurusiddaiah 1979. **(tx)** Anderson, R. F. 1960: 236; Anonymous 1963e: 16; Benoit 1986: 238; Blackman 1934: 5, 9, 22; Bright 1976d: 28, 35, 195, 215; Bright & Stark 1973: 147; Butovitsch 1929: 10; Chamberlin 1939: 230, 1958: 46; Edson 1967: 27, 52; Hagedorn 1910a: 124; Keen 1929a: 12; Kirtibutr & Schenk 1977: 382; LeConte 1868: 167, 1876: 373; Livingston & Berryman 1972: 1795; Muesebeck 1942: 100, 1950: 137; Ryker & Rudinsky 1979: 204, 207; Swaine 1909: 108, 1910a: 33, 1918a: 53-54; Wood, S. L. 1962: 81, 1967: 120, 1972a: 397, 1982b: 441; Woods 1969: fig. 4. **(ms)** Bongberg 1959a; Hatch 1938: 193; Pettinger 1979; Ruppel & Pass 1970: 23; Schabel 1971; Scott & Berryman 1971; Smith, R. F. & Huffaker 1973: 37.
- ventrosus** **Schevyrew** 1890c: 98, 470. Holotype ♂; Vladivostok, USSR; not located.
 Figures: Michalski 1973a: pl. 46.
 Distribution: Asia (Sakhalin Island and E USSR).
 Hosts: *Ulmus carpinifolia*, *U. propinqua*.
 References: **(ay)** Butovitsch 1929: 10, 47. **(cn)** Goidanich & Goidanich 1934. **(hb)** Budkov 1897; Krivolutskaya 1973: 130; Stark 1952: 121. **(ds)** Budkov 1897; Butovitsch 1929: 10, 47; Heyden 1881: 177, 1893: 177, 1898: 76; Hagedorn 1910d: 89; Kleine 1913b: 152, 1914b: 249, 1934a: 169; Krivolutskaya 1956: 109-110, 1965a: 226, 1973: 130; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1936a: 109, 111, 1938a: 58; Michalski 1973a: 134; Reitter 1894a: 41; Schevyrew 1890c: 98, 470; Semenov 1904: 38; Sokanovskii 1966: 381, 389; Stark 1952: 121. **(tx)** Butovitsch 1929: 10, 47; Heyden 1893: 177, 1910a: 124; Krivolutskaya 1958: 110; Kurenzov 1941a: 84-85; Michalski 1973a: 134-137; Reitter 1894a: 41, 1913a: 19; Schedl 1934f: 1633, 1948b: 41; Schevyrew 1890c: 98, 470, 1893: 125; Semenov 1904: 38; Sokanovskii 1966: 381, 189; Stark 1952: 121.
- virgatus** **Bright** 1972: 1490. Holotype ♂; Cerro Potosi, Nuevo Leon, Mexico; CNCI, Ottawa.
 Distribution: North America (Nuevo Leon in Mexico).
 Hosts: *Pseudotsuga menziesii*.
 References: **(ds)** Wood, S. L. 1982b: 434. **(tx)** Bright 1972: 1490; McNamara 1977: 199; Wood, S. L. 1982b: 434.
- yablonianus** **Murayama** 1943b: 96. Holotype ♂; Yablonia (Manchoukuo); Murayama Collection in USNM, Washington.
 Distribution: Asia ("Manchukuo" in China).
 References: **(ds)** Murayama 1943b: 96. **(tx)** Murayama 1943b: 96.
- zaitzevi** **Butovitsch** 1929: 31. Holotype ♂; Borjomi, Georgia, USSR; NHR, Stockholm.
 Figures: Michalski 1973a: pl. 15, Rudnev & Stepanova 1960: 774.
 Distribution: Europe (Georgia and Ukraine in W USSR).
 Hosts: *Ulmus carpinifolia*.
 References: **(ay)** Butovitsch 1929: 31. **(cn)** Pfeffer 1979: 149. **(cc)** Pfeffer 1979: 149. **(hb)** Lindeman, G. V. 1978; Postner 1974: 385; Rudnev & Stepanova 1960: 773, 1961; Stark 1952: 101. **(ds)** Butovitsch 1929: 31; Kleine 1934a: 169; Michalski 1973a: 57; Postner 1974: 385; Sokanovskii 1960, 1966: 387; Stark 1952: 101. **(tx)** Butovitsch 1929: 31; Michalski 1973a: 57-59, pl. 15; Postner 1974: 385; Rudnev & Stepanova 1960: 774; Schedl 1934f: 1633, 1948b: 54; Sokanovskii 1960: 674, 1966: 382, 387; Stark 1952: 101-102.

Tribe Ctenophorini Chapuis

Ctenophoridae (used as a tribe)

References: Chapuis 1869: 49, 1873: 257.

Ctenophorini

References: Wood, S. L. 1978a: 112, 1982b: 64, 1986a: 59.

Problechilidae (used as a tribe)

References: Eichhoff 1878b: 34, 46, 167, 298.

Hexacolidae (used as a tribe)

References: Eichhoff 1878b: 35, 57, 306.

Hexacolides

References: Blandford 1898b: 173.

Hexacolinae

References: Hopkins 1915c: 225.

Hexacolini

References: Leng 1920: 337.

Genus *Microborus* Blandford

MICROBORUS BLANDFORD 1897a: 175. Type-species: *Microborus boops* Blandford, monobasic. *Pseudocrypturgus* Eggers 1919: 236. Type-species: *Pseudocrypturgus camerunus* Eggers = *Microborus boops* Blandford, monobasic. Synonymy: Wood 1961d: 101.

References: (tx) Eggers 1919: 236; Schedl 1962r: 86; Wood, S. L. 1961d: 101.

Keys: Wood 1982b: 452.

Notes: (3) All species of this genus breed exclusively in the phellogen (cork cambium) area of very thick-barked hosts.

References: (hb) Wood, S. L. 1986a: 60. (ds) Blackwelder 1947: 786; Hagedorn 1910d: 76; Townsend 1928; Wood, S. L. 1986a: 60. (tx) Blandford 1897a: 175; Bright 1972d: 25, 41; Eggers 1933b: 18, 1935a: 75, 1940a; Hagedorn 1910a: 119–120; Hopkins 1914: 125, 132, 1915c: 227; Numberg 1961b: 613; Schedl 1952d: 345, 1957d: 14, 1961k: 736, 1962r: 86, 1977a: 104; Wichmann 1914b: 143; Wood, S. L. 1961d: 101, 1982b: 451–455, 1986a: 60.

aberrans Wichmann 1914b: 143. Syntypes, sex? Nouveau Chantier, Guyane Francaise; Wichmann Collection.

Distribution: Antilles Islands (Guadeloupe), South America (Brazil/ Cayenne/ Venezuela).

Hosts: *Clusia* sp.

References: (ds) Blackwelder 1947: 786; Kleine 1914b: 339. (tx) Eggers 1933b: 19, 1940a: 131; Schedl 1962r: 86; Wichmann 1914b: 143; Wood, S. L. 1972e: 196.

setulosus Eggers 1933b: 19. Holotype, sex? Franz. Guayana; MNHN, Paris. Synonymy: Schedl 1962r: 87.

References: (ds) Blackwelder 1947: 786. (tx) Eggers 1933b: 19, 1940a: 131; Schedl 1962r: 86–87.

imitans Eggers 1940a: 131. Holotype ♂; Insel

Guadeloupe; USNM, Washington. Synonymy: Schedl 1962r: 86.

References: (ds) Bright 1985c: 172. (tx) Anderson, W. H. & Anderson 1971: 15; Bright 1985c: 172; Eggers 1940a: 131; Schedl 1962r: 86.

ambitus Wood 1969b: 13. Holotype ♀; 25 km E Coatzacoalcas, Veracruz, Mexico; Wood Collection.

Distribution: North America (Tabasco, Veracruz in Mexico).

Hosts: Tree limbs and bole, not identified.

References: (hb) Wood, S. L. 1982b: 454. (ds) Wood, S. L. 1982b: 454. (tx) Wood, S. L. 1969b: 13, 1982b: 454.

bicolor Eggers 1933b: 19. Holotype ♀; Franz. Guayana (Nouveau Chantier); MNHN, Paris.

Distribution: South America (Cayenne).

References: (ds) Blackwelder 1947: 786. (tx) Eggers 1933b: 19; Schedl 1962r: 86; Wood, S. L. 1972e: 196.

boops Blandford 1897a: 175. Holotype ♀; Tamahu, Alta Verapaz, Guatemala; BMNH, London.

Figures: Numberg 1965b:pl. 1, Schedl 1961k: 736.

Distribution: Africa (introduced into: Cameroon/ Ghana), Antilles Islands (Jamaica), North America (Costa Rica/ Guatemala/ Honduras/ Panama), South America (Cayenne).

Hosts: *Rhedia edulis*.

References: (ay) Van Ryn-Tournel 1975. (hb) Wood, S. L. 1982b: 454. (ds) Blackwelder 1947: 786; Bright 1985c: 172; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 339, 370; Wood, S. L. 1977a: 72, 1982b: 454. (tx) Blandford 1897a: 175; Bright 1985c: 172; Eggers 1933b: 19; Hagedorn 1910a: 120; Hopkins 1914: 125; Lucas 1920: 412; Wichmann 1914b: 143; Wood, S. L. 1961d: 101, 1982b: 454.

camerunus Eggers 1919: 236 (*Pseudocrypturgus*). Syntypes, sex? Kamerun; Schreiner Collection in Hamburg Museum, lost, 1 syntype in Schedl Collection in NHMW, Wien. Synonymy: Wood 1982b: 454.

Notes: (1) Schedl 1979c: 51 (citation of holotype invalid).

References: (ds) Bright 1972d: 42; Numberg 1952: 18, 1965b: 18; Schedl 1959q: 705, 1961k: 736, 1962h: 58, 1962r: 1078, 1966c: 224, 1972e: 281, 1977a: 106. (tx) Anderson, W. H. & Anderson 1971: 8; Bright 1972d: 42; Browne 1965a: 188; Eggers 1919: 236; Numberg 1952: 18, 1964: 18, 1965b:pl. 1; Schedl 1957d: 14, 1959q: 705, 1961k: 736–737, 1962h: 58, 1962r: 87, 1963j: 479, 1966c: 224, 1977a: 106, 1979c: 51; Wood, S. L. 1961d: 101, 1982b: 454.

lautus Wood 1961d: 101. Holotype ♀; Leper Island, San Juan, Puerto Rico; USNM, Washington.

Distribution: Antilles Islands (Puerto Rico).

Hosts: *Nerium* twigs.

References: **(ds)** Bright 1985c: 172. **(tx)** Bright 1985c: 172; Wood, S. L. 1961d: 101.

lectus Wood 1971: 17. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.

Distribution: Antilles Islands (Dominica), South America (Venezuela).

Hosts: *Chusia* limbs and bole.

References: **(hb)** Wood, S. L. 1971: 17. **(ds)** Bright 1981c: 155, 1985c: 172. **(tx)** Bright 1985c: 172; Wood, S. L. 1971: 17.

limatus Wood 1969b: 13. Holotype ♂; Finca Gromaco on Rio Coto Brus, Puntarenas, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: (?) *Protium* sp.

References: **(hb)** Wood, S. L. 1982b: 453. **(ds)** Wood, S. L. 1982b: 453. **(tx)** Wood, S. L. 1969b: 13, 1982b: 453.

mexicanus Wood 1981: 123. Holotype ♂; Las Piedras, Moyotepec, Morelia, Mexico; Wood Collection.

Figures: Atkinson et al. 1986: 59.

Distribution: North America (Morelos in Mexico).

Hosts: *Bursera* sp.

References: **(hb)** Atkinson et al. 1986: 54. **(ds)** Atkinson et al. 1986: 54; Wood, S. L. 1982b: 453. **(tx)** Atkinson et al. 1986: 59; Wood, S. L. 1981: 123, 1982b: 453.

Genus *Pycnarthrum* Eichhoff

PYCNARTHURUM EICHHOFF 1878b: 41, 104. Type-species: *Pycnarthrum gracile* Eichhoff = *Hypoborus hispidum* Ferrari, subsequent designation by Hopkins 1914: 128.

Nemobius Chapuis 1869: 41. Type-species: *Nemobius lambottei* Chapuis = *Hypoborus hispidum* Ferrari, subsequent designation by Hopkins 1914: 128, preoccupied by Serville 1839.

References: **(tx)** Blandford 1897a: 116; Chapuis 1869: 41, 1873: 249; Gemminger & Harold 1872: 2673; Hopkins 1914: 128; Vickery 1963: 17.

Mouebius Hopkins 1914: 125. Type-species: *Nemobius lambottei* Chapuis = *Hypoborus hispidum* Ferrari, automatic, an isotypical junior synonym.

References: **(tx)** Hopkins 1914: 125.

Nonobius Navas 1915: 34. Type-species: *Nemobius lambottei* Chapuis = *Hypoborus hispidum* Ferrari, automatic, an isotypical junior synonym.

References: **(tx)** Navas 1915: 34.

Keys: Wood 1982b: 455.

References: **(hb)** Wood, S. L. 1986a: 60. **(ds)** Wood, S. L. 1986a: 60. **(tx)** Blandford 1897a: 174-177; Bright 1972d: 43; Eichhoff 1878b: 41, 104; Hagedorn 1910a: 115-116, 1910d: 76; Hop-

kins 1914: 128; Wood, S. L. 1982b: 455-461, 1986a: 60.

amersum Wood 1983: 658. Holotype ♂; Tenacatita, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: *Brosimum alicastrum*.

References: **(ec)** Equihua & Atkinson 1986: 627.

(hb) Equihua & Atkinson 1986: 627. **(ds)** Atkinson & Equihua 1986: 627; Estrada & Atkinson 1988: 204. **(tx)** Wood, S. L. 1983: 658.

brosimi Wood 1971: 14. Holotype ♂; 9 km S Barrancas, Barinas, Venezuela; Wood Collection.

Distribution: North America (Costa Rica), South America (Colombia/Venezuela).

Hosts: *Brosimum* sp. (Charo amarillo).

Notes: (1) Wood 1982b: 461 (correction of *lapsus calami*).

References: **(ds)** Atkinson & Equihua 1988: 100. **(tx)** Wood, S. L. 1971: 14, 1982b: 461.

carinatum Wood 1971: 13. Holotype ♂; near Leonpampa, Dept. Huanuco, Peru, 800 m; Wood Collection.

Distribution: South America (Peru).

References: **(tx)** Wood, S. L. 1971: 13.

fulgidum Wood 1977b: 217. Holotype ♂; 8 km S Colombia, Valle de Cauca, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Guarea trichiloides*.

References: **(tx)** Wood, S. L. 1977b: 217.

funerium Wood 1971: 11. Holotype ♀; La Ceiba, Atlantida, Honduras; Wood Collection.

Distribution: North America (Honduras).

References: **(ec)** Equihua & Atkinson 1986: 627.

(hb) Equihua & Atkinson 1986: 627. **(ds)** Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 458. **(tx)** Wood, S. L. 1971: 11, 1982b: 458.

hispidum (Ferrari) 1867: 19 (*Hypoborus*). Holotype, sex?; Cuba; NHMW, Wien, lost from pin.

Figures: Atkinson et al. 1986: 61.

Distribution: Antilles Islands (Cuba/ Guadeloupe/ Jamaica/ Puerto Rico/ Virgin Islands), North America (Costa Rica/ El Salvador/ Guatemala/ Honduras/ almost all states of Mexico/ Nicaragua/ Panama/ Florida, Texas in USA), South America (Guyana/ Venezuela).

Hosts: *Ficus* spp.

References: **(cn)** Anonymous 1963r. **(ec)** Equihua & Atkinson 1986: 627. **(hb)** Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 54; Burgos & Saucedo 1983: 75; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 458. **(ds)** Anonymous 1963r; Atkinson & Equihua 1985b: 232, 1986a: 420; Atkinson et al. 1986: 54; Blackwelder 1947: 786; Bright 1972d: 44, 1985c: 172; Burgos & Saucedo 1983: 75; Equihua & Atkinson 1986: 627; Estrada & Atkinson 1988: 204; Gemminger & Harold 1872: 2684; Schedl 1972g: 39, 1976a: 50, 1977e: 42; Wood, S. L. 1957c: 402, 1982b:

458. **(tx)** Atkinson et al. 1986: 59; Bright 1972b: 44, 1985c: 172; Eggers 1940a: 108; Eichhoff 1878b: 106; Ferrari 1867: 19; Schedl 1955d: 273; Wood, S. L. 1957c: 402, 1973c: 183, 1982b: 458.
lambottei Chapuis 1869: 42. Lectotype ♀; Mexique, Teapa; IRSNB, Brussels, designated by Wood 1973c: 183. Synonymy: Wood 1973c: 183.
References: **(ds)** Blackwelder 1947: 786; Blandford 1897a; Ferrer 1942; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 352, 370; Schedl 1963c: 157. **(tx)** Blair 1933: 487; Blandford 1897a; Chapuis 1869: 42, 1873: 250; Eggers 1951: 151; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 116; Hopkins 1914: 125; Lucas 1920: 560; Schedl 1940a: 334-335; Wood, S. L. 1973c: 183. **(ms)** Lucas 1920: 560.
- gracilis* Eichhoff 1878b: 104. Lectotype ♂; Cuba insula Americana; USNM, Washington, designated by Wood 1973c: 183. Synonymy: Wood 1973c: 183.
References: **(ds)** Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 378. **(tx)** Eichhoff 1878a: 383, 1878b: 104-106; Hagedorn 1910a: 116; Hopkins 1914: 128; Wood, S. L. 1973c: 183.
- quadraticolle* Eichhoff 1878b: 106. Lectotype ♂; Mexico; USNM, Washington, designated by Wood 1973c: 183. Synonymy: Wood 1973c: 183.
References: **(tx)** Eggers 1951: 151; Eichhoff 1878a: 383, 1878b: 106; Schedl 1940a: 335; Wood, S. L. 1973c: 183.
- transversum* Blandford 1897a: 177. Lectotype ♀; Mirandilla, Guatemala; BMNH, London, designated by Wood 1973c: 183. Synonymy: Wood 1973c: 183.
References: **(ds)** Blackwelder 1947: 786; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 370. **(tx)** Blandford 1897a: 177; Hagedorn 1910a: 116; Schedl 1952h: 68; Wood, S. L. 1973c: 183.
- reimoseri* Schedl 1934e: 208. Syntypes ♀; Jimenez on Osa Peninsula, and Volcan Irazu, Costa Rica; Schedl Collection in NHMW, Wien. Synonymy: Wood 1973c: 183.
References: **(ds)** Blackwelder 1947: 786; Ferrer 1942; Schedl 1963c: 157. **(tx)** Schedl 1934e: 208, 1940a: 334, 1940c: 206, 1979c: 210; Wood, S. L. 1973c: 183.
- inornatum** Wood 1971: 11. Holotype ♀; Olanchito, Yoro, Honduras; Wood Collection.
Distribution: North America (Honduras).
References: **(ds)** Wood, S. L. 1982b: 457. **(tx)** Wood, S. L. 1971: 11, 1982b: 457.
- insulare** Blair 1933: 487. Syntypes, sex?; Albermarle Id., Tagus Cove 200 ft., and Charles Id. sea level, Tower Id. and Hood Id, Galapagos; CAS, San Francisco.
Distribution: North America (Isla del Coco in Costa Rica), South America (Galapagos Islands).
References: **(ds)** Blackwelder 1947: 786; Bright 1982a: 127; Mutchler 1938: 19; Schedl 1974e: 50, 1978c: 293. **(tx)** Blair 1933: 487; Schedl 1974e: 50.
- kleinei** Eggers 1951: 151. Lectotype ♂; Brasil (Corumba, in Staate Matto Grosso); USNM, Washington, designated by Anderson & Anderson 1971: 17.
Distribution: South America (Brazil).
Notes: (3) Schedl 1979c: 127 (cites *simile* Eggers, nomen nudum).
References: **(ds)** Schedl 1973d: 154. **(tx)** Anderson, W. H. & Anderson 1971: 17; Eggers 1951: 151; Schedl 1979c: 127.
- lucidum** Wood 1971: 12. Holotype ♂; Finca Gromaco on Rio Coto Brus, Puntarenas, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Cedrela mexicana*.
References: **(hb)** Wood, S. L. 1982b: 460. **(ds)** Wood, S. L. 1982b: 460. **(tx)** Wood, S. L. 1971: 12-13, 1982b: 460.
- pallidum** (Chapuis) 1869: 41 (*Nemobius*). Syntypes, sex?; Guadeloupe; IRSNB, Brussels.
Distribution: Antilles Islands (Guadeloupe).
References: **(cn)** Mumford 1960: 37. **(ds)** Blackwelder 1947: 786; Dash 1917: 56-60; Fleutiaux & Salle 1890: 456; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 379; Mumford 1960: 37; Schedl 1972g: 42, 1976a: 50; Tucker 1952: 347. **(tx)** Blair 1933: 487; Chapuis 1869: 41, 1873: 249; Eggers 1940a: 108, 1951: 151; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 116.
- perditum** Wood 1971: 12. Holotype ♂; La Ceiba, Atlantida, Honduras; Wood Collection.
Distribution: North America (Honduras).
References: **(ds)** Wood, S. L. 1982b: 460. **(tx)** Wood, S. L. 1971: 12, 1982b: 460.
- reticulatum** Schedl 1940a: 335. Lectotype ♀; Tonala, Chiapas, Mexico; Schedl Collection in NHMW, Wien, designated by Wood 1974d: 287.
Distribution: Antilles Islands (Jamaica), North America (Guatemala/ Honduras/ Chiapas in Mexico), South America (Venezuela).
Hosts: *Ficus* spp.
References: **(cc)** Equihua & Atkinson 1986: 627. **(hb)** Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 457. **(ds)** Atkinson & Equihua 1988: 100; Blackwelder 1947: 786; Bright 1972d: 43, 1982b: 164, 1985c: 172; Equihua & Atkinson 1986: 627; Estrada & Atkinson 1988: 205; Ferrer 1942; Wood, S. L. 1982b: 457. **(tx)** Bright 1972d: 43, 1985c: 172; Schedl 1940a: 335, 1979c: 210; Wood, S. L. 1973c: 183, 1974d: 287, 1982b: 457.
- fici* Wood 1971: 11. Holotype ♂; Olanchito, Honduras; Wood Collection. Synonymy: Wood 1974d: 287.
References: **(tx)** McNamara 1977: 199; Wood, S. L. 1971: 11-12, 1974d: 287.

setulosum Waterhouse 1890: 553. Syntypes 2, sex?; Fernando Noronha; BMNH, London.

Distribution: South America (Brazil).

Hosts: *Ficus* sp.

References: (ds) Alvarenga 1962: 24; Blackwelder 1947: 786; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 332. (tx) Hagedorn 1910a: 116; Waterhouse 1890: 553.

subcarinatum Wood 1971: 13. Holotype ♂; 8 km SW Bumbum, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Brosimum* sp.

References: (tx) Wood, S. L. 1971: 13.

uniseriatum Schedl 1973a: 370. Holotype ♀?; Brasiliën, Faz. Taparinha, prox. Santarem, Parana; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1973a: 370, 1979c: 261.

Genus *Gymnochilus* Eichhoff

GYMNOCHILUS EICHHOFF 1868a: 399. Type-species: *Gymnochilus zonatus* Eichhoff, monobasic.

Problechilus Eichhoff 1878b: 46, 167. Type-species: *Gymnochilus zonatus* Eichhoff, automatic, an isotypical junior synonym.

References: (tx) Blandford 1897a: 171–173; Eggers 1932a: 226, 1933g: 19; Eichhoff 1878b: 46, 167; Hagedorn 1910a: 53; Wood, S. L. 1972c: 140.

Meringopalpus Hagedorn 1905: 547. Type-species: *Meringopalpus fallax* Hagedorn = *Gymnochilus zonatus* Eichhoff. Synonymy: Eggers 1932: 226.

References: (tx) Eggers 1932a: 226, 1933g: 19; Hagedorn 1905: 547, 1910a: 52–53.

Keys: Wood 1982b: 462.

Notes: (3) *Gymnochila* Dejean 1835 was incorrectly regarded as a homonym by Eichhoff 1878b: 167.

References: (hb) Wood, S. L. 1986a: 60. (ds) Blackwelder 1947: 786; Wood, S. L. 1986a: 60. (tx) Eichhoff 1868a: 399, 1878b: 46, 167; Wood, S. L. 1972c: 140, 1982b: 461–466, 1986a: 60.

alni Wood 1971: 14. Holotype ♂; 10 km NE Teziutlan, Puebla, Mexico; Wood Collection.

Figures: Atkinson et al. 1986: 24.

Distribution: North America (Mexico, Puebla in Mexico).

Hosts: *Alnus* sp.

References: (hb) Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 26; Burgos & Saucedo 1983: 77; Wood, S. L. 1982b: 464. (ds) Atkinson & Equihua 1985a: 80, 1985b: 232; Atkinson et al. 1986: 26; Burgos & Saucedo 1983: 77; Wood, S. L. 1982b: 464. (tx) Atkinson et al. 1986: 24; Muskus, A. 1984: 76; Wood, S. L. 1971: 14, 1982b: 464.

alternatus (Eggers) 1943a: 345 (*Problechilus*). Holotype ♂; Bolivia (Cochabamba); MNHN, Paris.

Distribution: South America (Bolivia).

References: (tx) Eggers 1943a: 345.

brevis (Eggers) 1932a: 231 (*Problechilus*). Holotype, sex?; Bolivien (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 786. (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1932a: 231–232; Schedl 1979c: 47.

consocius (Blandford) 1897a: 171 (*Problechilus*). Holotype ♂; Cerro Zunil, Guatemala; BMNH, London.

Distribution: North America (Guatemala), South America (Brazil/Venezuela).

Hosts: *Ficus* spp.

References: (hb) Wood, S. L. 1982b: 465. (ds) Blackwelder 1947: 786; Hagedorn 1910d: 34; Kleine 1912b: 190, 1914b: 358; Wood, S. L. 1982b: 465. (tx) Blandford 1897a: 171; Eggers 1932a: 227–232; Hagedorn 1910a: 53; Schedl 1951m: 87; Wood, S. L. 1974d: 281, 1982b: 465. *trimaculatus* Schedl 1935d: 91 (*Problechilus*).

Holotype ♀; Venezuela [probably Colonia Tovar]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 281.

References: (ds) Blackwelder 1947: 786. (tx) Schedl 1935d: 91; Wood, S. L. 1974d: 281.

novateutonicus Schedl 1936i: 105 (*Problechilus*). Holotype, sex?; Brasiliën, Nova Teutonia; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

References: (ds) Blackwelder 1947: 786; Schedl 1966f: 84, 1967d: 2, 1972g: 42, 1973d: 154. (tx) Schedl 1936i: 105; Wood, S. L. 1989: 173.

glaber (Schedl) 1951m: 87 (*Problechilus*). Holotype, sex?; Peru, Marcapata; Eggers Collection, in NHMW, Wien.

Distribution: South America (Peru).

References: (tx) Schedl 1951m: 87, 1979c: 104.

insularis (Eggers) 1932a: 232 (*Problechilus*). Holotype, sex?; Guadeloupe (Trois Rivières); MNHN, Paris.

Distribution: Antilles Islands (Dominica, Guadeloupe).

References: (ds) Blackwelder 1947: 786; Bright 1981c: 154, 1985c: 172. (tx) Bright 1985c: 172; Eggers 1932a: 232, 1940a: 108; Schedl 1979c: 126.

laevicollis (Eggers) 1932a: 230 (*Problechilus*). Holotype, sex?; Bolivien (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 786. (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1932a: 230.

minor (Blandford) 1897a: 172 (*Problechilus*). Lectotype ♂; Guatemala City, Guatemala; BMNH, Washington, designated by Wood 1982b: 462.

Distribution: North America (Costa Rica/ Guatemala/ Honduras/ "Mexico").

Hosts: *Ficus* spp.

References: (**hb**) Burgos & Saucedo 1983: 78; Wood, S. L. 1982b: 464. (**ds**) Atkinson et al. 1986: 54; Blackwelder 1947: 786; Burgos & Saucedo 1983: 78; Hagedorn 1910d: 34; Kleine 1912b: 190, 1914b: 348; Schedl 1970e: 90; Wood, S. L. 1982b: 464. (**tx**) Blandford 1897a: 172; Eggers 1932a: 227; Hagedorn 1910a: 53; Schedl 1951m: 86; Wood, S. L. 1974d: 281, 1982b: 464.

varius Schedl 1951m: 86 (*Problechilus*). Holotype ♀; "Mexico"; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 281.

References: (**tx**) Schedl 1951m: 86; Wood, S. L. 1974d: 281.

pilifer (Eggers) 1932a: 229 (*Problechilus*). Holotype, sex?; Bolivien (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

References: (**ds**) Blackwelder 1947: 786. (**tx**) Anderson, W. H. & Anderson 1971: 25; Eggers 1932a: 229; Schedl 1979c: 194.

pilosulus (Eggers) 1932a: 234 (*Problechilus*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

References: (**ds**) Blackwelder 1947: 786. (**tx**) Anderson, W. H. & Anderson 1971: 25; Eggers 1932a: 234.

reitteri Eichhoff 1878b: 169. Lectotype ♂; America borealis (Mexico); USNM, Washington, designated by Wood 1979b: 135.

Distribution: North America (Costa Rica/ Guatemala/ Durango, Michoacan in Mexico/ Nicaragua/ Panama).

Hosts: *Ficus* spp.

References: (**cc**) Equihua & Atkinson 1986: 627. (**hb**) Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 54; Burgos & Saucedo 1983: 77; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 463. (**ds**) Atkinson & Equihua 1985b: 232, 1986a: 420, 1988: 90; Atkinson et al. 1986: 54; Blackwelder 1947: 786; Blandford 1897a; Burgos & Saucedo 1983: 77; Equihua & Atkinson 1986: 627; Ferrer 1942; Hagedorn 1910d: 34; Kleine 1912b: 190, 1914b: 349, 358. (**tx**) Blandford 1897a; Eggers 1932a: 227; Eichhoff 1878b: 169, 1898a: 388; Hagedorn 1910d: 53; Schedl 1940a: 336, 1979c: 210; Wood, S. L. 1979b: 135, 1982b: 463.

striatus Eggers 1932a: 227 (*Problechilus*). Holotype ♂; Mexico (Canelas) [probably Durango]; USNM, Washington. Synonymy: Wood 1979b: 135.

References: (**ds**) Blackwelder 1947: 786; Ferrer. (**tx**) Anderson, W. H. & Anderson

1971: 6; Eggers 1932a: 227; Schedl 1940a: 336, 1956b: 30; Wood, S. L. 1979b: 135.

bicolor Eggers 1932a: 228 (*Problechilus*). Holotype ♂; Nicaragua; USNM, Washington. Synonymy: Wood 1979b: 135.

References: (**ds**) Blackwelder 1947: 786. (**tx**) Eggers 1932a: 228; Wood, S. L. 1979b: 135.

zonatus Eichhoff 1868a: 399. Holotype, sex?; Colombia; Hamburg Museum, lost.

Distribution: South America (Colombia/ Venezuela).

Hosts: *Ficus* spp.

References: (**ds**) Blackwelder 1947: 786; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 34; Kleine 1912b: 190, 1914b: 341. (**tx**) Eggers 1931c: 19, 1932a: 226, 232, 1933b: 2, 1933g: 19; Eichhoff 1868a: 399, 1878b: 167, 169; Hagedorn 1910a: 53; Hopkins 1914: 122, 128; Lucas 1920: 537; Wood, S. L. 1974d: 281.

fallax Hagedorn 1905: 548 (*Meringopalpus*).

Holotype, sex?; Colonia Tovar, Venezuela; not located. Synonymy: Wood 1974d: 281.

References: (**ds**) Hagedorn 1910d: 19; Kleine 1912b: 175, 1914b: 339. (**tx**) Eggers 1931c: 19, 1932a: 226, 1933b: 2, 1933g: 19; Hagedorn 1905: 547–548, 1910a: 53; Hopkins 1914: 124; Lucas 1920: 404; Wood, S. L. 1974d: 281. (**ms**) Lucas 1920: 404.

freyi Schedl 1966f: 103 (*Problechilus*). Holotype, sex?; Venezuela, Rancho Grande, Maracay, I; Frey Museum, Tutzing (now in NHMBS, Basel). Synonymy: Wood 1974d: 282.

References: (**ds**) Schedl 1966f: 79. (**tx**) Schedl 1966f: 103, 1979c: 100; Wood, S. L. 1974d: 282.

Genus *Scolytodes* Ferrari

SCOLYTODES FERRARI 1867a: 77. Type-species: *Scolytodes laevigatus* Ferrari, monobasic.

Hexacobus Eichhoff 1868a: 399. Type-species: *Hexacobus glaber* Eichhoff, monobasic. Synonymy: Wood 1972c: 141.

References: (**tx**) Blandford 1897a: 174, 180–183; Eggers 1940a: 123–141; Eichhoff 1868a: 399, 1878b: 306; Gemminger & Harold 1872: 2694; Hagedorn 1910a: 113–114, 1910d: 76; Schedl 1940c: 203–208, 1952d: 346, 1956a: 30; Wood, S. L. 1957c: 396, 1972c: 141.

Ctenophorus Chapuis 1869: 49. Type-species:

Ctenophorus laevigatus Chapuis = *Scolytodes chapuisi* Wood, monobasic. Synonymy: Wood 1977b: 207.

References: (**tx**) Chapuis 1869: 49, 1873: 257; Eggers 1931c: 185; Hagedorn 1910a: 112–113, 1910d: 77; Hopkins 1914: 128; Schedl 1952d: 345; Wood, S. L. 1977b: 207.

Prionosceles Blandford 1897a: 177. Type-species: *Prionosceles atratus* Blandford, subsequent designation by Hopkins 1914: 128. Synonymy: Wood 1972a: 141.

References: (**tx**) Blandford 1897a: 177; Eggers

- 1940a: 123–141; Hopkins 1914: 125; Schedl 1952d: 345. 1962r: 85–107; Wood, S. L. 1972c: 141.
- Epomadius* Blandford 1897a: 179. Type-species: *Epomadius culcitatus* Blandford, monobasic. Synonymy: Wood 1977c: 354. References: (tx) Blandford 1897a: 174, 179–180; Hagedorn 1910a: 115, 1910d: 76; Wood, S. L. 1977c: 354.
- Erineophilus* Hopkins 1902a: 34. Type-species: *Erineophilus schwarzi* Hopkins, original designation. Synonymy: Schedl 1952d: 346. References: (tx) Chamberlin 1939: 238–239; Hagedorn 1910a: 133–135, 1910d: 82; Hopkins 1902a: 34; Schedl 1952d: 346; Swaine 1909: 108, 1918a: 39; Wood, S. L. 1957c: 396.
- Hylocurosoma* Eggers 1940a: 138. Type-species: *Hylocurosoma striatum* Eggers, monobasic. Synonymy: Schedl 1952d: 346. References: (tx) Eggers 1940a: 138; Schedl 1952d: 346.
- Hexacolinus* Schedl 1963d: 217. Type-species: *Hexacolinus minutissimus* Schedl, 1963 = *Scolytodes minutissimus* Schedl, 1952, original designation. Synonymy: Wood 1984b: 228. References: (tx) Schedl 1963d: 217; Wood, S. L. 1984b: 228.
- Keys: Wood 1982b: 467.
References: (hb) Wood, S. L. 1986a: 60. (ds) Wood, S. L. 1986a: 60. (tx) Eggers 1931c: 185; Ferrari 1867a: 77; Schedl 1952d: 343, 1969a: 202–219; Wood, S. L. 1972c: 141, 1977b: 207, 1977c: 354, 1982b: 467, 1986a: 60.
- acares** Wood 1969b: 15. Holotype ♀; Rio Damitas, Dota Mts., San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica/ Guatemala/ Panama). Hosts: *Cecropis* sp. leaf petioles. References: (hb) Wood, S. L. 1982b: 493. (ds) Wood, S. L. 1982b: 493. (tx) Wood, S. L. 1969b: 15, 1982b: 493.
- adustus** (Eggers) 1943a: 368 (*Hylocurosoma*). Holotype ♂?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1943a: 368; Schedl 1952d: 346.
- aequipunctatus** Eggers 1943a: 361. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris. Distribution: South America (Bolivia). References: (tx) Eggers 1943a: 361.
- alni** Wood 1969b: 20. Holotype ♀; Volcan Irazu, Cartago, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Alnus acuminatus*. References: (hb) Wood, S. L. 1982b: 499. (ds) Wood, S. L. 1982b: 499. (tx) Wood, S. L. 1969b: 20, 1982b: 499.
- amabilis** Wood 1975a: 26. Holotype ♀; Mt. Tzontelnitz, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas in Mexico). Hosts: *Quercus* sp. References: (ds) Wood, S. L. 1982b: 490. (tx) McNamara 1984: 759; Wood, S. L. 1975a: 26, 1982b: 490.
- amoenus** Wood 1967c: 128. Holotype ♀; 35 km N Juchitlan, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco, Tamaulipas in Mexico). Hosts: *Ficus* sp. References: (ec) Equihua & Atkinson 1986: 627. (hb) Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 479. (ds) Atkinson et al. 1986: 56; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 479. (tx) Wood, S. L. 1967c: 128, 1982b: 479.
- anceps** Wood 1981: 126. Holotype ♀; Piedras Blancas, 11 km W Medellin, Antioquia, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Cecropia* sp. leaf petioles. References: (tx) Wood, S. L. 1981: 126.
- argentinensis** (Eggers) 1928c: 87 (*Prionosceles*). Lectotype, sex?; Argentina; USNM, Washington, designated by Anderson & Anderson 1971. Distribution: South America (Argentina). References: (ds) Blackwelder 1947: 786. (tx) Anderson, W. H. & Anderson 1971: 4; Eggers 1928c: 87.
- ater** (Eggers) 1943a: 365 (*Prionosceles*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). Notes: (1) Originally spelled *atrum*, gender change required the spelling correction. References: (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1943a: 365–366; Schedl 1952d: 346.
- aterrimus** Wood 1988a: 32. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, automatic. Distribution: South America (Bolivia). References: (tx) Wood, S. L. 1988a: 32.
- ater** Eggers 1943a: 371 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1943. Notes: (1) This name was originally spelled *atrum* before the gender change. References: (tx) Eggers 1943a: 371; Schedl 1952d: 346.
- atratus** (Blandford) 1897a: 178 (*Prionosceles*). Lectotype ♂; Senahu, Vera Paz, Guatemala; BMNH, London, designated by Wood 1982b: 475. Notes: (1) Wood 1982b: 475 (subspecies recognized; however, additional studies in Nicaragua and El Salvador might indicate gradual clinal intergradation, not subspecies). References: (hb) Atkinson & Equihua 1985b: 232, 1986a: 420; Wood, S. L. 1982b: 475. (ds) Atkinson & Equihua 1985b: 232, 1986a: 420; Blackwelder

1947: 786; Bright 1972b: 1497; Hagedorn 1910d: 76; Kleine 1914b: 370; Wood, S. L. 1982b: 475. (tx) Blandford 1897a: 178; Hagedorn 1910a: 117; Hopkins 1914: 128; Wood, S. L. 1982b: 475.

Distribution: North America (Guatemala/ Honduras/ Chiapas, Oaxaca, Veracruz in Mexico).

Hosts: *Cecropia* sp. leaf petioles.

Notes: (1) Wood 1982b: 475 (subspecies recognized).

References: (tx) Blandford 1897a: 178; Wood, S. L. 1982b: 475.

atratus panamensis (Wood) 1961d: 103 (*Prionosceles*). Holotype ♂; Summit, Canal Zone, Panama; USNM, Washington.

Notes: Wood 1982b: 476 (reduced to subspecific rank).

Distribution: North America (Costa Rica/ Panama).

Hosts: *Cecropia* sp. leaf petioles.

References: (ec) Wood, S. L. 1983b: 768. (hb) Wood, S. L. 1983b: 768. (ds) Kleine 1914b: 370; Wood, S. L. 1982b: 476. (tx) Wood, S. L. 1961d: 103, 1982b: 476.

atrotibialis (Eggers) 1943a: 365 (*Prionosceles*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris.

Distribution: South America (Bolivia).

References: (tx) Eggers 1943a: 365; Schedl 1979c: 31.

banosus (Hagedorn) 1909a: 743 (*Hexacolus*). Syn-types 2, sex?; Banos, Ecuador; MNHN, Paris.

Distribution: South America (Ecuador).

References: (ds) Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 343. (tx) Hagedorn 1909a: 743, 1910a: 114; Schedl 1979c: 33.

bicolor (Eggers) 1931b: 33 (*Hexacolus*). Holotype ♂; Sao Paulo, Brazil; Prague Museum.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 786. (tx) Eggers 1931b: 33, 1940a: 132; Schedl 1954b: 22.

blandfordi (Schedl) 1936i: 104 (*Hexacolus*). Holotype ♂; Costa Rica, Hamburgfarm, Rio Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica).

Hosts: *Cecropia* sp. leaf petioles.

References: (hb) Wood, S. L. 1982b: 484. (ds) Blackwelder 1947: 786; Wood, S. L. 1982b: 484. (tx) Blackman 1943a: 381; Schedl 1936i: 104, 1937g: 66, 1952d: 346, 355, 1979c: 42.

boliviae (Schedl) 1951m: 80 (*Hexacolus*). Holotype ♂; Bolivien, Cochabamba; Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia).

Notes: (3) Schedl 1951m: 80 (*Pityophthorus glaber* Eggers, nomen nudum, synonymy).

References: (tx) Schedl 1951m: 80, 1979c: 42.

bolivianus Eggers 1928a: 86. Lectotype, sex?; Cochabamba, Bolivia; USNM, Washington, designated by Anderson & Anderson 1971: 7.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 784. (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1928a: 86, 1934a: 80–81; Schedl 1935m: 51, 1979c: 43.

boliviensis Wood 1988a: 32. Lectotype, sex?; Boliviens (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 7, automatic.

Distribution: South America (Bolivia).

References: (tx) Anderson W. H. & Anderson 1971: 7; Wood, S. L. 1988a: 32.

bolivianus Eggers 1928a: 85 (*Prionosceles*). Lectotype, sex?; Boliviens (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 7, preoccupied by Eggers 1928a: 86.

References: (ds) Blackwelder 1947: 786. (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1928a: 88, 1934a: 80f; Schedl 1979c: 43.

brasilianus Wood 1988a: 32. Holotype ♂?; Brazil; Schedl Collection in NHMW, Wien, automatic.

Distribution: South America (Brazil).

References: (tx) Wood, S. L. 1988a: 32.

brasiliensis Schedl 1935f: 274 (*Hexacolus*). Holotype ♂?; Brazil; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1928a: 89.

References: (tx) Schedl 1935f: 274, 1979c: 45; Wood, S. L. 1988a: 32.

brasiliensis (Eggers) 1928a: 89 (*Prionosceles*). Holotype, sex?; Blumenau, Brazil; USNM, Washington.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 786. (tx) Eggers 1928a: 89–90; Schedl 1935f: 274.

bruchii (Hagedorn) 1909: 743 (*Hexacolus*). Syn-types (several), sex?; Argentinien; Hamburg Museum, lost.

Distribution: South America (Argentina/ Brazil).

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 784; Bruch 1914a; Costa Lima 1956; Hagedorn 1910d: 77; Kleine 1914b: 333. (tx) Bruch 1938; Costa Lima 1956; Eggers 1931c: 185; Hagedorn 1909a: 743, 1910a: 114; Schedl 1951h: 284, 1958f: 34.

canaliculus Wood 1977d: 517. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Clusia* sp.

References: (tx) Wood, S. L. 1977d: 517.

canalis Wood 1974a: 13. Holotype ♀; Mt. Tzontehuitz, Chiapas, Mexico; CNCI, Ottawa.

Distribution: North America (Chiapas in Mexico).

References: (ds) Wood, S. L. 1982b: 490. (tx) McNamara 1984: 759; Wood, S. L. 1974a: 13, 1982b: 490.

- cecropiavorus** Wood 1969b: 17. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection.
Notes: (1) Wood 1982b: 482 (Subspecies are recognized in the upland area and on opposite sides of Costa Rica).
References: (hb) Wood, S. L. 1982b: 482. (ds) Wood, S. L. 1982b: 482. (tx) Wood, S. L. 1969b: 17, 1982b: 482.
- cecropiavorus cecropiavorus:**
Distribution: North America (central plateau and northern Costa Rica).
Hosts: *Cecropia peltata* leaf petioles.
References: (tx) Wood, S. L. 1969b: 17, 1982b: 483.
- cecropiavorus acuminatus** Wood 1969b: 17. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
Distribution: North America (eastern Costa Rica).
Hosts: *Cecropia peltata* leaf petioles.
References: (tx) Wood, S. L. 1969b: 17–18, 1982b: 483.
- cecropiavorus punctifer** Wood 1969b: 18. Holotype ♂; Gatun Dam, Canal Zone, Panama; Wood Collection.
Distribution: North America (Pacific slope of Costa Rica and Panama).
Hosts: *Cecropia peltata* leaf petioles.
References: (hb) Wood, S. L. 1982b: 483. (ds) Wood, S. L. 1982b: 483. (tx) Wood, S. L. 1969b: 18, 1982b: 483.
- cecropicolens** Wood 1969b: 16. Holotype ♀; Peralta, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Cecropia* sp. branch terminal.
References: (hb) Wood, S. L. 1982b: 481. (ds) Wood, S. L. 1982b: 481. (tx) Wood, S. L. 1967c: 123, 1969b: 16, 1982b: 481.
- cecropii** (Schedl) 1937g: 66 (*Hexacolus*). Holotype ♀; La Hondura, Costa Rica; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: *Cecropia peltata* leaf petioles.
References: (hb) Wood, S. L. 1982b: 484. (ds) Blackwelder 1947: 786; Wood, S. L. 1982b: 484. (tx) Blackman 1943a; Schedl 1937g: 66, 1952d: 346, 1955d: 274, 1979c: 55; Wood, S. L. 1969b: 17, 1982b: 484.
- cedrelae** Wood 1969b: 19. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Cedrela mexicana*, *Vismia guianensis*.
References: (hb) Wood, S. L. 1982b: 495. (ds) Wood, S. L. 1982b: 495. (tx) Wood, S. L. 1969b: 19, 1982b: 495.
- chapuisi** Wood 1977b: 210. Syntypes 2 ♂; Colombie; IRSNB, Brussels, automatic.
Distribution: North America (Panama), South America (Colombia/ Venezuela).
Hosts: *Cecropia* spp. leaf petioles.
References: (tx) Wood, S. L. 1977b: 210, 1977d: 517.
- laevigatus** Chapuis 1869: 49 (*Ctenophorus*). Syn-types ♂; Colombie; IRSNB, Brussels, preoccupied by Ferrari 1867a: 77.
References: (tx) Chapuis 1869: 49, 1873: 257; Schedl 1935f: 273; Wood, S. L. 1977b: 210, 1977d: 517.
- levis** Blackman 1943a: 382 (*Hexacolus*). Holotype ♀; Paraiso, Canal Zone, Panama; USNM, Washington, preoccupied by *laevis* Eggers 1928 [Code, Article 58(2)]. Synonymy: Wood 1977d: 517.
References: (hb) Wood, S. L. 1982b: 478. (ds) Wood, S. L. 1982b: 478. (tx) Blackman 1943a: 382; Wood, S. L. 1977b: 210, 1977d: 517, 1982b: 478.
- clusiacolens** Wood 1967c: 121. Holotype ♀; 10 km E Volcan Paricutin, Michoacan, Mexico; Wood Collection.
Distribution: North America (Guatemala/ Honduras/ Chiapas, Michoacan in Mexico).
Hosts: *Clusia* sp.
References: (hb) Wood, S. L. 1982b: 489. (ds) Atkinson & Equihua 1985b: 233; Wood, S. L. 1982b: 489. (tx) Wood, S. L. 1967c: 121, 1982b: 489.
- clusiae** Wood 1969b: 14. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Clusia* sp.
References: (hb) Wood, S. L. 1982b: 488. (ds) Wood, S. L. 1982b: 488. (tx) Wood, S. L. 1967c: 122, 1969b: 14, 1982b: 488.
- clusiavorus** Wood 1967c: 122. Holotype ♀; Volcan de Agua, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala/ Veracruz in Mexico).
Hosts: *Clusia* sp.
References: (hb) Wood, S. L. 1982b: 489. (ds) Wood, S. L. 1982b: 489. (tx) Wood, S. L. 1967c: 122, 1982b: 489.
- columbianus** (Schedl) 1967f: 160 (*Hexacolus*). Holotype ♂; Colombia; Sierra S. Lorenzo; NHMB, Budapest.
Distribution: South America (Colombia).
References: (tx) Schedl 1967f: 160–161.
- comitabilis** Wood 1978b: 401. Holotype ♀; Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Clusia* sp.
References: (tx) Wood, S. L. 1978b: 401.
- confusus** (Eggers) 1943a: 370 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).

- Notes: (1) Name originally spelled *confusum*.
References: (tx) Anderson, W. H. & Anderson 1971: 10; Eggers 1943a: 370; Schedl 1952d: 346.
- constrictus** Wood 1977d: 518. Holotype ♀; Piedras Blancas, 11 km W Medellín, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: (?) *Baccharis* sp.
References: (tx) Wood, S. L. 1977d: 518.
- contractus** Wood 1977d: 518. Holotype ♀; 13 km SE El Vigía, Mérida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Liana.
References: (tx) Wood, S. L. 1977d: 518.
- costabilis** Wood 1974a: 13. Holotype ♀; Lago Catemaco, Veracruz, Mexico; CNCI, Ottawa.
Distribution: North America (Veracruz in Mexico).
References: (ds) Wood, S. L. 1982b: 481. (tx) McNamara 1984: 759; Wood, S. L. 1974a: 13, 1982b: 481.
- crassus** Wood 1971: 16. Holotype ♂; Barro Colorado Island, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
References: (ds) Wood, S. L. 1982b: 487. (tx) Wood, S. L. 1971: 16, 1982b: 487.
- crinalis** Wood 1978b: 402. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Mérida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Clusia* sp.
References: (tx) Wood, S. L. 1978b: 402.
- crinitus** Wood 1978b: 402. Holotype ♀; El Laurel Experimental Farm, 12 km SE Caracas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Leguminous liana.
References: (tx) Wood, S. L. 1978b: 402.
- cubensis** (Schedl) 1972g: 56 (*Hexacolus*). Holotype ♂; Cuba, Prov. Pinar del Río, Malas; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Cuba).
Hosts: *Ficus* sp.
Notes: (3) Schedl labeled the male holotype as a female.
References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Schedl 1972g: 56, 1979c: 71.
- culcitatus** (Blandford) 1897a: 179 (*Epomadius*). Lectotype ♀?; Pena Blanca, 3000–4000 ft., Chiriquí, Panama; BMNH, London, designated by Wood 1982b: 494.
Distribution: North America (Panama).
References: (ds) Blackwelder 1947: 786; Hagedorn 1910d: 76; Kleine 1914b: 370; Wood, S. L. 1982b: 494. (tx) Blandford 1897a: 179; Hagedorn 1910a: 118; Hopkins 1914: 121; Lucas 1920: 271; Wood, S. L. 1977c: 384, 1982b: 494. (ms) Lucas 1920: 271.
- cylindricus** Schedl 1978c: 297. Holotype ♀; Peru, Machu-Picchu, 2000 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Peru).
References: (tx) Schedl 1978c: 297–298.
- declivistriatus** Schedl 1967a: 126. Holotype ♂?; Buenaventura, Columbian to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: South America (Colombia).
Notes: *Virola* sp.
References: (tx) Schedl 1967a: 126, 1979c: 76.
- decorus** Wood 1978b: 402. Holotype ♂; 40 km E Canton, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Nectandra* sp.
References: (tx) Wood, S. L. 1978b: 402.
- discedens** (Eggers) 1940a: 133 (*Hexacolus*). Holotype ♀; Guadeloupe (Trois Rivières); Eggers Collection, in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 133; Schedl 1979c: 82.
- discriminatus** Wood 1988a: 32. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, automatic.
Distribution: South America (Bolivia).
References: (tx) Wood, S. L. 1988a: 32.
- discedens** Eggers 1943a: 360. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1940.
References: (tx) Eggers 1943a: 360; Schedl 1979c: 82.
- dissimilis** Schedl 1967d: 5. Holotype ♂; Brasilien, Ibicaré, 27 degrees 09'–51 degrees 18', 600 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1967d: 5–6, 1979c: 82–83.
- dubiosus** (Schedl) 1972g: 55 (*Prionoscyles*). Holotype ♂; Brasilien, S. Bocaina, S. J. Berreira, 1650 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 55, 1979c: 84.
- eggersi** (Schedl) 1952d: 346 (*Hexacolus*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, automatic.
Distribution: South America (Bolivia).
References: (tx) Schedl 1952d: 346.
- bicolor** Eggers 1943a: 363. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1931.
References: (tx) Eggers 1943a: 363; Schedl 1952d: 346, 1954b: 22.
- elongatissimus** Wood 1988a: 32. Lectotype, sex?; Bolivia (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 12, automatic.
Distribution: South America (Bolivia).

References: (tx) Wood, S. L. 1988a: 32.
elongatus Eggers 1943a: 369 (*Hylocyrosoma*).
 Lectotype, sex?; Bolivia (Cochabamba); USNM,
 Washington, designated by Anderson & Ander-
 son 1971: 12, preoccupied by Schedl 1935.
 Notes: (1) The name *elongatus* Schedl is
 treated below as a synonym of *trispinosus*
 Eggers, but it is an available name.
 References: (ds) Schedl 1970e: 91, 1973a: 366,
 1973d: 154. (tx) Anderson, W. H. & Anderson
 1971: 12; Eggers 1943a: 369; Schedl 1952d:
 346, 1979c: 89.

erineophilus Wood 1969b: 20. Holotype ♀;
 Tapanti, Cartago, Costa Rica; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: *Ficus* sp.
 References: (hb) Wood, S. L. 1982b: 499. (ds)
 Wood, S. L. 1982b: 499. (tx) Wood, S. L. 1969b:
 20–21, 1982b: 499.

exiguus Wood 1969b: 22. Holotype ♂; San Isidro del
 General, San Jose, Costa Rica; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: *Ficus* sp.
 References: (hb) Wood, S. L. 1982b: 506. (ds)
 Wood, S. L. 1982b: 506. (tx) Wood, S. L. 1969b:
 22–23, 1982b: 506.

eximius Wood 1981: 122. Holotype ♀; Peru,
 Machu-Pichu, 2000 m; Schedl Collection in
 NHMW, Wien, automatic.
 Distribution: South America (Peru).
 References: (tx) Wood, S. L. 1981: 122.
grandis Schedl 1978c: 298. Holotype ♀; Peru,
 Machu-Pichu, 2000 m; Schedl Collection in
 NHMW, Wien, preoccupied by Schedl 1962.
 References: (tx) Schedl 1978c: 298, 1979c: 109.

facetus Wood 1967c: 126. Holotype ♀; Palin,
 Esquinla, Guatemala; Wood Collection.
 Distribution: North America (Guatemala).
 Hosts: *Ficus* sp.
 References: (hb) Wood, S. L. 1982b: 497. (ds)
 Wood, S. L. 1982b: 497. (tx) Wood, S. L. 1967c:
 126, 1982b: 497.

festus Wood 1977d: 519. Holotype ♀; Piedras Blan-
 cas, 11 km W Medellin, Antioquia, Colombia;
 Wood Collection.
 Distribution: South America (Colombia).
 Hosts: *Cecropia* sp. leaf petioles.
 References: (tx) Wood, S. L. 1977d: 519.

ficicolens Wood 1981: 126. Holotype ♀; Merida,
 Merida, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Ficus* sp.
 References: (tx) Wood, S. L. 1981: 126.

ficivorus Wood 1967c: 125. Holotype ♀; Paulin,
 Guatemala; Wood Collection.
 Distribution: North America (Guatemala).
 Hosts: *Ficus* sp.
 References: (hb) Wood, S. L. 1982b: 500. (ds)

Wood, S. L. 1982b: 500. (tx) Wood, S. L. 1967c:
 125, 1982b: 500.

frontoglabratus (Schedl) 1935f: 274 (*Hexacolus*).
 Holotype ♀; Argentine; San Ignacio; Schedl Col-
 lection in NHMW, Wien.
 Distribution: South America (Argentina).
 References: (ds) Blackwelder 1947: 786. (tx)
 Schedl 1935f: 274, 1979c: 101.

fulmineus Wood 1977b: 217. Holotype ♀; La Car-
 bonera Experimental Forest, 50 km NW Merida,
 Merida, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Clusia* sp.
 References: (tx) Wood, S. L. 1977b: 217.

genialis Wood 1975a: 27. Holotype ♀; Laguna
 Santa Maria, Nayarit, Mexico; Wood Collection.
 Distribution: North America (Jalisco, Nayarit in
 Mexico).
 Hosts: *Ficus* sp.
 References: (tx) Wood, S. L. 1975a: 27.

gennaesus Wood 1988a: 33. Holotype ♀; 30 km N
 Merida, Merida, Venezuela; Wood Collection,
 automatic.
 Distribution: South America (Venezuela).
 Hosts: *Podocarpus* sp.
 References: (tx) Wood, S. L. 1988a: 33.

genialis Wood 1978b: 403. Holotype ♀; 30 km N
 Merida, Merida, Venezuela; Wood Collection,
 preoccupied by Wood 1975.
 References: (hb) Wood, S. L. 1982b: 480. (ds)
 Wood, S. L. 1982b: 480. (tx) Wood, S. L.
 1978b: 403, 1982b: 480.

glaber (Eichhoff) 1868a: 400 (*Hexacolus*). Holo-
 type, sex?; Cuba; IRSNB, Brussels.
 Distribution: Antilles Islands (Cuba).
 References: (ds) Blackwelder 1947: 786; Bright
 1985c: 172; Gemminger & Harold 1872: 2694;
 Hagedorn 1903b: 546, 1910d: 77; Kleine 1914b:
 378. (tx) Bright 1985c: 172; Eggers 1933b: 2, 17;
 Eichhoff 1868a: 400, 1878b: 307; Hagedorn 1903b:
 546, 1910a: 114; Hopkins 1914: 122; Lucas 1920:
 328. (ms) Lucas 1920: 328.

glabrescens Wood 1972c: 152. Holotype ♂;
 Summit, Canal Zone, Panama; USNM, Washing-
 ton, automatic.
 Distribution: North America (Costa Rica/
 Panama), South America (Colombia/ Venezuela).
 Hosts: *Cecropia* sp. leaf petioles.
 References: (hb) Wood, S. L. 1982b: 474. (ds)
 Atkinson & Equihua 1985b: 232; Wood, S. L. 1982b:
 474. (tx) Wood, S. L. 1972c: 152, 1982b: 474.
glaber Wood 1961a: 102 (*Prionosceles*). Holotype
 ♂; Summit, Canal Zone, Panama; USNM,
 Washington, preoccupied by Eichhoff 1868.
 References: (tx) Wood, S. L. 1961a: 102,
 1972c: 152.

glaberrimus Wood 1972c: 152. Syntypes ♂ ♀;
 Bolivia (Cochabamba); MNHN, Paris, automatic.

- Distribution: South America (Bolivia).
References: (tx) Schedl 1979c: 105; Wood, S. L. 1972c: 152.
- glaber* Eggers 1943a: 360. Syntypes 1 ♂, 1 ♀; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eichhoff 1868.
References: (tx) Eggers 1943a: 360; Schedl 1979c: 104-105; Wood, S. L. 1972c: 152.
- glabratus* (Schedl) 1954b: 23 (*Hexacolus*). Syntypes ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 105 (citation of holotype invalid).
References: (tx) de Ruelle 1970: 101; Schedl 1954b: 23, 1979c: 105.
- glabrellus* (Schedl) 1954b: 21 (*Hexacolus*). Syntypes ♀; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 106 (citation of holotype invalid).
References: (ds) Schedl 1967d: 2. (tx) Schedl 1954b: 21, 1962r: 98, 1979c: 106; Wood, S. L. 1961d: 98.
- gracilis* Schedl 1976a: 61. Holotype ♀; Corcovado, Guanabara; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 61.
- grandis* (Schedl) 1962r: 100 (*Hexacolus*). Holotype ♂; Bolivien: Cochabamba; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Schedl 1962r: 100, 1979c: 109.
- guyanaensis* (Schedl) 1937c: 13 (*Erineophilus*). Syntypes ♂ ♀; British Guiana: N. W. District; BMNH, London, and Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe), South America (Guyana).
Hosts: *Swietenia* sp.
Notes: (3) Schedl 1962r: 96 (*mohogani* Sampson, nomen nudum, synonymy).
References: (en) Gruner 1974. (ec) Cornic 1978; Gruner 1974; Laumon & Mauleon 1982. (hb) Cornic 1978; Gruner 1974. (ds) Blackwelder 1947: 786; Bright 1985c: 172; Schedl 1960a: 78, 1970e: 91. (tx) Bright 1985c: 172; Schedl 1937c: 13, 1960g: 5, 1962r: 96, 1979c: 115.
- habilis* Wood 1978b: 403. Holotype ♀; 30 km E Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Croton* sp.
References: (tx) Wood, S. L. 1978b: 403.
- hagedorni* (Schedl) 1962r: 101 (*Prionosceles*). Holotype, sex?; Equateur: Mirador, 3800 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Ecuador).
References: (tx) Schedl 1962r: 101, 1979c: 115.
- hirsutus* Wood 1971: 16. Holotype ♂; Tapanti, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Liana.
References: (hb) Wood, S. L. 1982b: 457. (ds) Wood, S. L. 1982b: 457. (tx) Wood, S. L. 1971: 16, 1982b: 457.
- imitans* (Eggers) 1940a: 136 (*Prionosceles*). Holotype, sex?; Guadeloupe (Trois-Rivieres); Eggers Collection, in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 136; Schedl 1979c: 121.
- immanis* Wood 1969b: 19. Holotype ♀; Villa Mills near Cerro de la Muerte, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Miconia* sp.
References: (hb) Wood, S. L. 1982b: 498. (ds) Wood, S. L. 1982b: 498. (tx) Wood, S. L. 1969b: 19-20, 1982b: 498.
- impressus* Wood 1969b: 22. Holotype ♂; Turrialba, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
References: (hb) Wood, S. L. 1982b: 501. (ds) Wood, S. L. 1982b: 501. (tx) Wood, S. L. 1969b: 22, 1982b: 501.
- ingae* (Blackman) 1943c: 383 (*Prionosceles*). Holotype ♀; La Esperanza, Colombia; USNM, Washington.
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 787. (tx) Blackman 1943c: 383.
- ingavorus* Wood 1967c: 126. Holotype ♀; Los Corchos, Nayarit, Mexico; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: *Inga* sp.
References: (hb) Wood, S. L. 1982b: 504. (ds) Wood, S. L. 1982b: 504. (tx) Wood, S. L. 1967c: 126, 1982b: 504.
- insularis* (Schedl) 1952d: 357 (*Hexacolus*). Holotype ♀; Guadeloupe, Trois Rivieres; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Schedl 1952d: 357, 1979c: 125.
- interpunctatus* (Eggers) 1943a: 366 (*Prionosceles*). Holotype, sex?; Bolivien (Cochabamba); MNHN, Paris.
Distribution: South America (Bolivia).
References: (tx) Eggers 1943a: 366; Schedl 1979c: 127.
- irazuensis* Wood 1969b: 15. Holotype ♀; Volcan Irazu, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Oreopanax mubigenus*, *O. xalapense*.
References: (hb) Wood, S. L. 1982b: 491. (ds)

- Wood, S. L. 1982b: 491. (tx) Wood, S. L. 1969b: 15–16, 1982b: 491.
- jucundus** Wood 1977d: 519. Holotype ♀; Rancho Grande, Aragua, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: *Cecropia* sp. leaf petiole. References: (tx) Wood, S. L. 1977d: 519.
- laevicorpus** Wood 1988a: 33. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, automatic. Distribution: South America (Bolivia). References: (tx) Wood, S. L. 1988a: 33.
- laevis** Eggers 1943a: 367 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1928. Notes: (1) Original spelling was *laeve*; when transferred to *Scolytodes*, due to a change in gender, it became a junior homonym. References: (tx) Eggers 1943a: 367; Schedl 1952d: 346.
- laevigatulus** Wood 1988a: 33. Holotype ♂; Argentina, Misiones, Dept. Concept., Sta. Maria; Schedl Collection in NHMW, Wien, automatic. Distribution: South America (Argentina). References: (tx) Wood, S. L. 1988a: 33.
- laevigatus** Schedl 1962r: 98 (*Hexacolus*). Holotype ♀; Argentina, Misiones, Dept. Cocept., Sta. Maria; Schedl Collection in NHMW, Wien, preoccupied by Ferrari 1867. References: (ds) Gemminger & Harold 1872: 2696; Hagedorn 1910d: 77; Kleine 1914b: 342; Schedl 1972g: 42. (tx) Gemminger & Harold 1872: 2677; Hagedorn 1910a: 113; Hopkins 1914: 119, 129; Schedl 1962r: 98, 1979c: 135; Wood, S. L. 1988a: 33.
- laevigatus** Ferrari 1867a: 77. Syntypes 2 ♂; Colombia; NHMW, Wien. Distribution: South America (Colombia). References: (ds) Blackwelder 1947: 784. (tx) Eggers 1934a: 81; Ferrari 1867a: 77.
- laevis** (Eggers) 1928c: 88 (*Prionosceles*). Holotype, sex?; Ostbolivien; Eggers Collection, in NHMW, Wien. Distribution: South America (Bolivia). References: (hb) Wood, S. L. 1982b: 478. (ds) Blackwelder 1947: 787; Wood, S. L. 1982b: 478. (tx) Eggers 1928c: 88, 1943a: 362; Schedl 1952d: 346, 1979c: 135; Wood, S. L. 1982b: 478.
- lepidus** Wood 1975a: 27. Holotype ♀; 33 km N Juchitlan, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: *Ficus* sp. References: (hb) Wood, S. L. 1982b: 479. (ds) Wood, S. L. 1982b: 479. (tx) Wood, S. L. 1975a: 27, 1982b: 479.
- libidus** Wood 1978b: 404. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: Cucurbitaceae vine. References: (tx) Wood, S. L. 1978b: 404.
- limbatus** (Eggers) 1943a: 370 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1943a: 370–371; Schedl 1952d: 346.
- longicollis** (Eggers) 1951: 152 (*Hexacolus*). Holotype ♂; Guadeloupe; Eggers Collection, in NHMW, Wien. Distribution: Antilles Islands (Guadeloupe). References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1951: 152; Schedl 1979c: 140.
- longipennis** Eggers 1943a: 363. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris. Distribution: South America (Bolivia). References: (tx) Eggers 1943a: 363; Schedl 1979c: 141.
- major** (Eggers) 1928c: 86 (*Prionosceles*). Holotype, sex?; Bolivia; USNM, Washington. Distribution: South America (Bolivia). References: (ds) Blackwelder 1947: 787. (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1928c: 86–87.
- majus** Wood 1988a: 33. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington, automatic. Distribution: South America (Bolivia). References: (tx) Wood, S. L. 1988a: 33.
- major** Eggers 1943a: 361. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington, preoccupied by Eggers 1928. References: (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1943a: 361; Wood, S. L. 1988a: 33.
- marginatus** Wood 1969b: 21. Holotype ♀; Dominical Puntarenas, Costa Rica; Wood Collection. Distribution: North America (Costa Rica/Chiapas in Mexico). References: (hb) Wood, S. L. 1982b: 501. (ds) Wood, S. L. 1982b: 501. (tx) Wood, S. L. 1969b: 21, 1982b: 501.
- maurus** (Blandford) 1897a: 178 (*Prionosceles*). Lectotype ♂; Pantaleon, Guatemala; BMNH, London, designated by Wood 1982b: 474. Distribution: Antilles Islands (Dominica), North America (Costa Rica/ Guatemala/ Honduras/ Chiapas, Oaxaca, Veracruz in Mexico/ Panama), South America (Venezuela). Hosts: *Cecropia* spp. leaf petioles. References: (hb) Atkinson & Equihua 1985b: 232; Wood, S. L. 1982b: 474. (ds) Atkinson & Equihua 1985b: 232, 1986a: 420; Blackwelder 1947: 787; Bright 1972b: 1497, 1985c: 172; Estrada & Atkinson 1988: 205; Hagedorn 1910d: 76; Kleine 1914b: 370; Wood, S. L. 1982b: 474. (tx) Blandford 1897a: 178; Bright 1985c: 172; Hagedorn

- 1910a: 117; Muskus 1984: 73; Wood, S. L. 1975a: 22; 1982b: 474.
- ellipticus* Eggers 1934a: 80 (*Hexacolus*). Holotype ♂; Turrialba, Costa Rica; Strohmeier Collection. Synonymy: Wood 1975a: 22.
References: (ds) Blackwelder 1947: 786. (tx) Eggers 1934a: 80; Wood, S. L. 1975a: 22.
- medialis* Wood 1988a: 33. Holotype ♂; Bolivia (Cochabamba); MNHN, Paris, automatic.
Distribution: South America (Bolivia).
References: (tx) Wood, S. L. 1988a: 33.
- medius* Eggers 1943a: 359. Holotype ♂; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1928.
References: (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1943a: 359–360; Wood, S. L. 1988a: 33.
- medius* (Eggers) 1928c: 89 (*Prionosceles*). Lectotype, sex?; Ostbolivien; USNM, Washington, designated by Anderson & Anderson 1971: 19.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 787; Schedl 1970f: 581. (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1928c: 89; Schedl 1979c: 150–151.
- melanocephalus* (Blandford) 1897a: 181 (*Hexacolus*). Lectotype ♀; Cerro Zunil, Guatemala; BMNH, London, designated by Wood 1982b: 482.
Distribution: North America (Guatemala).
References: (ec) Wichmann 1955a: 107. (ds) Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 370; Wichmann 1955a: 107. (tx) Blandford 1897a: 181; Eggers 1931b: 33, 1940a: 132; Hagedorn 1910a: 114; Schedl 1952d: 359, 1979c: 15; Wood, S. L. 1982b: 482.
- micidus* Wood 1971: 17. Holotype ♀; 7 km N Totolapan, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Guatemala/Oaxaca in Mexico).
Hosts: *Ficus* sp.
References: (hb) Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 81; Wood, S. L. 1982b: 506. (ds) Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 81; Wood, S. L. 1982b: 506. (tx) Wood, S. L. 1971: 17, 1982b: 506.
- minor* (Eggers) 1928c: 89 (*Prionosceles*). Lectotype, sex?; Ostbolivien; USNM, Washington, designated by Anderson & Anderson 1971: 20.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 787. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1928c: 89; Schedl 1979c: 155.
- minutissimus* Schedl 1952d: 355. Holotype ♀; Hamburgfarm on Rio Reventazon, Limon, Costa Rica; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica), South America (Brazil).
References: (ds) Schedl 1967d: 2; Wood, S. L. 1982b: 478. (tx) Schedl 1952d: 355, 1979c: 156–157; Wood, S. L. 1982b: 478.
- minutissimus* Schedl 1963d: 217 (*Hexacolinus*). Holotype ♂?; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1952. Synonymy: Wood 1984b: 228.
References: (tx) Schedl 1963d: 217, 1979c: 156; Wood, S. L. 1984b: 228.
- minutus* Wood 1981: 122. Holotype ♂?; Brasilien, Nova Teutonia, 300–500 m, 27 degrees 11' Br., 52 degrees 23' L.; Schedl Collection in NHMW, Wien, automatic.
Distribution: South America (Brazil).
References: (tx) Wood, S. L. 1981: 122.
- minutissimus* Schedl 1978c: 297 (*Hexacolus*). Holotype ♂?; Brasilien, Nova Teutonia, 300–500 m, 27 degrees 11' Br., 52 degrees 23' L.; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1952.
References: (tx) Schedl 1978c: 297.
- morulus* (Schedl) 1952d: 356 (*Hexacolus*). Holotype ♂; Brasilien, Santa Catarina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1952d: 356, 1979c: 160.
- multistriatus* (Wood) 1961d: 97 (*Hexacolus*). Holotype ♀; 8 km W Villa Juarez, Puebla, Mexico; Wood Collection.
Distribution: North America (Puebla in Mexico).
References: (hb) Wood, S. L. 1982b: 503. (ds) Atkinson & Equihua 1986a: 420; Wood, S. L. 1982b: 503. (tx) Wood, S. L. 1961d: 97, 1967c: 128, 1982b: 503.
- naevius* Wood 1981: 127. Holotype ♀; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Clusia* sp.
References: (tx) Wood, S. L. 1981: 127.
- nanellus* Wood 1967c: 124. Holotype ♀; Barro Colorado Island, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
References: (hb) Wood, S. L. 1982b: 508. (ds) Wood, S. L. 1982b: 508. (tx) Wood, S. L. 1967c: 124, 1982b: 508.
- nardus* (Schedl) 1976a: 62 (*Hexacolus*). Holotype ♂?; Brazil [probably Cayenne]; Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne?).
References: (tx) Schedl 1976a: 62.
- nitellus* (Schedl) 1954b: 22 (*Hexacolus*). Syntypes ♀; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 168 (citation of holotype invalid).

- References: (tx) Schedl 1954b: 22, 1979c: 168.
- nitens** (Schedl) 1954b: 23 (*Hexacolus*). Syntypes ♀; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, and Plaumamm Collection. Distribution: South America (Brazil). Notes: (1) Schedl 1979c: 168 (citation of holotype invalid). References: (tx) Schedl 1954b: 23, 1979c: 162.
- nitidissimus** (Eggers) 1940a: 135 (*Hexacolus*). Holotype ♀; Guadeloupe (Trois Rivières); Eggers Collection, in NHMW, Wien. Distribution: Antilles Islands (Guadeloupe). References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 135; Schedl 1979c: 169.
- nitidus** (Eggers) 1928c: 88 (*Prionosceles*). Holotype sex?; Ostbolivien; Eggers Collection, in NHMW, Wien. Distribution: South America (Bolivia). References: (ds) Blackvelder 1947: 787; Schedl 1973d: 154. (tx) Eggers 1928c: 88; Schedl 1979c: 170.
- notatus** (Eggers) 1940a: 133 (*Hexacolus*). Holotype, sex?; Guadeloupe (Trois Rivières); Eggers Collection, not mentioned by Anderson & Anderson 1971 or Schedl 1979c, a female Eggers cotype in NHMW, Wien. Distribution: Antilles Islands (Cuba/ Dominica/ Guadeloupe/ Puerto Rico), North America (Mexico?). References: (ds) Bright 1981c: 156, 1985c: 172; Schedl 1976a: 50. (tx) Bright 1985c: 172; Eggers 1940a: 133; Schedl 1951m: 80, 1954b: 23, 1979c: 171.
- pseudobicolor** Eggers 1940a: 132 (*Hexacolus*). Holotype ♂; Guadeloupe (Trois Rivières); USNM, Washington. Synonymy: Wood 1985: 269. References: (ds) Bright 1981c: 156, 1985c: 172; Schedl 1972g: 39, 1976a: 50. (tx) Anderson, W. H. & Anderson 1971: 26; Bright 1985c: 172; Eggers 1940a: 132–133; Schedl 1952d: 357, 1954b: 23, 1979c: 200; Wood, S. L. 1985: 269.
- subparallelus** Eggers 1940a: 134 (*Hexacolus*). Holotype ♂; Guadeloupe (Trois Rivières); Fleutiaux Collection. Synonymy: Wood 1985: 269. References: (ds) Bright 1985c: 172; Schedl 1976a: 50. (tx) Bright 1985c: 172; Eggers 1940a: 134; Schedl 1979c: 243; Wood, S. L. 1985: 269.
- pelicerinus** Schedl 1952d: 358 (*Hexacolus*). Holotype, sex?; vermutlich Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1985: 269. Notes: (3) It is doubtful that the holotype came from Mexico; a Caribbean island is a more likely site. References: (ds) Wood, S. L. 1982b: 503. (tx) Schedl 1952d: 357–358, 1979c: 187; Wood, S. L. 1982b: 503, 1985: 269.
- obesus** Wood 1975a: 26. Holotype ♀; Barro Colorado Island, Canal Zone, Panama; Wood Collection. Distribution: North America (Panama). References: (ds) Wood, S. L. 1982b: 498. (tx) Wood, S. L. 1975a: 26, 1982b: 498.
- oblongus** (Eggers) 1940a: 134 (*Hexacolus*). Holotype ♂; Guadeloupe (Env. de Trois Rivières); MNHN, Paris. Distribution: Antilles Islands (Guadeloupe). References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 134; Schedl 1979c: 174.
- obscurus** (Wood) 1961d: 100 (*Hexacolus*). Holotype ♀; 5 km SW Martinez de la Torre, Veracruz, Mexico; Wood Collection. Distribution: North America (Veracruz in Mexico). References: (hb) Wood, S. L. 1982b: 508. (ds) Wood, S. L. 1982b: 508. (tx) Wood, S. L. 1961d: 100, 1982b: 508.
- ochromae** Wood 1969b: 19. Holotype ♀; Playon, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Ochroma velutina*. References: (hb) Wood, S. L. 1982b: 493. (ds) Wood, S. L. 1982b: 493. (tx) Wood, S. L. 1969b: 19, 1982b: 493.
- ommateus** Wood 1971: 15. Holotype ♀; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Clusia* sp. References: (tx) McNamara 1977: 199; Wood, S. L. 1971: 15.
- opacicolis** (Eggers) 1928c: 90 (*Prionosceles*). Holotype, sex?; Ostbolivien; Eggers Collection, in NHMW, Wien. Distribution: South America (Bolivia). References: (ds) Blackvelder 1947: 787. (tx) Eggers 1928c: 90; Schedl 1979c: 179.
- opacus** Wood 1977d: 520. Holotype ♀; Merida, Merida, Venezuela; Wood Collection. Distribution: South America (Venezuela). References: (tx) Wood, S. L. 1977d: 520.
- opimus** Wood 1977d: 520. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: Liana. References: (tx) Wood, S. L. 1977d: 520.
- ovalis** (Eggers) 1940a: 132 (*Hexacolus*). Holotype, sex?; Guadeloupe; Fleutiaux Collection. Distribution: Antilles Islands (Guadeloupe). References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 132.
- pamuceus** Wood 1971: 16. Holotype ♀; La Ceiba, Atlantida, Honduras; Wood Collection. Distribution: North America (Honduras).

- References: **(ds)** Wood, S. L. 1982b: 503. **(tx)** Wood, S. L. 1971: 16–17, 1982b: 503.
- parallelus (Schedl)** 1962r: 99 (*Hexacolus*). Holotype ♂?; Venezuela; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
Notes: (3) Schedl labeled the holotype as a female; it appears to be a male.
References: **(tx)** Schedl 1962r: 99, 1979c: 185.
- parvulus Wood** 1969b: 14. Holotype ♀; Pandora, Limon, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Chiapas, Veracruz in Mexico).
Hosts: *Cecropia* sp. leaf petiole.
References: **(hb)** Atkinson & Equihua 1985b: 233; Wood, S. L. 1982b: 492. **(ds)** Atkinson & Equihua 1985b: 233, 1986a: 420; Wood, S. L. 1982b: 492. **(tx)** Wood, S. L. 1969b: 14–15; 1982b: 492.
- parvus (Eggers)** 1943a: 371 (*Hylcurosoma*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: **(ds)** Schedl 1979c: 186. **(tx)** Anderson, W. H. & Anderson 1971: 24; Eggers 1943a: 371; Schedl 1952d: 346, 1979c: 186.
- pelicipennis (Schedl)** 1952d: 356 (*Hexacolus*). Holotype ♂; Costa Rica, Jimenez, Halbinsel Osa; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
References: **(ds)** Wood, S. L. 1982b: 502. **(tx)** Schedl 1952d: 356, 1979c: 187; Wood, S. L. 1982b: 502.
- perditus Wood** 1967c: 123. Holotype ♀; Fort Clayton, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: *Cecropia* sp. branch terminal.
References: **(hb)** Wood, S. L. 1982b: 480. **(ds)** Wood, S. L. 1982b: 480. **(tx)** Wood, S. L. 1967c: 123, 1982b: 480.
- permagnus (Eggers)** 1943c: 364 (*Prionosceles*). Holotype, sex?; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: **(tx)** Eggers 1943c: 364; Schedl 1979c: 189.
- perplexus Schedl** 1972g: 56. Holotype ♀; Brasiliën, Corcovado, Guanabara; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1972g: 56, 1979c: 190.
- perpusillus Wood** 1978b: 404. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
References: **(tx)** Wood, S. L. 1978b: 404.
- phoebeae Wood** 1969b: 16. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Phoebea mexicana*.
References: **(hb)** Bright 1964b: 16; Wood, S. L. 1982b: 477. **(ds)** Wood, S. L. 1982b: 477. **(tx)** Wood, S. L. 1969b: 16, 1982b: 477.
- piceus (Blandford)** 1897a: 183 (*Hexacolus*). Lectotype ♂; Volcan de Chiriqui, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 497.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Cecropia peltata*, *Phoebea mexicana*.
References: **(hb)** Wood, S. L. 1982b: 497. **(ds)** Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 370; Wood, S. L. 1982b: 497. **(tx)** Blandford 1897a: 183; Hagedorn 1910a: 114; Schedl 1936i: 104, 1937g: 66, 1954b: 21; Wood, S. L. 1982b: 497.
- pilifer Wood** 1982a: 230. Holotype ♀; Uxpanapa, Veracruz, Mexico; Wood Collection.
Distribution: North America (Veracruz in Mexico).
References: **(ds)** Atkinson & Equihua 1986a: 420. **(tx)** Wood, S. L. 1982a: 230.
- pilifrons (Schedl)** 1962r: 100 (*Hexacolus*). Holotype ♂; Venezuela, Maracay, Rancho Grande; Frey Museum, Tutzing (now in NHMBS, Basel).
Distribution: South America (Venezuela).
References: **(tx)** Schedl 1962r: 100, 1979c: 194.
- plumeriae Wood** 1969b: 17. Holotype ♀; Playa del Coco, Guanacaste, Costa Rica; Wood Collection.
Figures: Atkinson et al. 1986: 63.
Distribution: North America (Costa Rica/ Guatemala).
Hosts: *Plumeria rubra*.
References: **(cc)** Equihua & Atkinson 1986: 627. **(hb)** Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 56; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 476. **(ds)** Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 56; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 476. **(tx)** Atkinson et al. 1986: 63; Wood, S. L. 1969b: 17, 1982b: 476.
- plumericolens Wood** 1983a: 658. Holotype ♀; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Plumeria rubra*.
References: **(cc)** Equihua & Atkinson 1986: 627. **(hb)** Equihua & Atkinson 1986: 627. **(ds)** Equihua & Atkinson 1986: 627. **(tx)** Wood, S. L. 1983a: 658.
- praeceps Wood** 1977d: 521. Holotype ♀; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Clusia* sp.
References: **(tx)** Wood, S. L. 1977d: 521.

- proximus** Wood 1967c: 127. Holotype ♀; El Hato del Volcan, Chiriqui, Panama; Wood Collection. Distribution: North America (Panama). Hosts: *Clusia* sp. References: (hb) Wood, S. L. 1982b: 505. (ds) Wood, S. L. 1982b: 505. (tx) Wood, S. L. 1967c: 127, 1982b: 505.
- pseudoacuminatus** (Schedl) 1935m: 51 (*Hexacolus*). Syntypes, sex?; Saude bei Sao Paulo, Brasilien; Strohmeier Collection, Eberswald, and Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 784. (tx) Schedl 1935f: 274, 1935m: 51, 1952d: 346, 1962r: 100, 1979c: 200.
- pseudopiceus** Wood 1969b: 18. Holotype ♀; San Isidro del General, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Ficus* sp. References: (hb) Wood, S. L. 1982b: 485. (ds) Wood, S. L. 1982b: 485. (tx) Wood, S. L. 1969b: 18–19, 1982b: 485.
- pubescens** Wood 1969b: 21. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). References: (hb) Wood, S. L. 1982b: 504. (ds) Wood, S. L. 1982b: 504. (tx) Wood, S. L. 1967b: 21, 1969b: 21–22, 1982b: 504.
- puer** (Schedl) 1952d: 359 (*Hexacolus*). Holotype ♂?; Paraguay; Schedl Collection in NHMW, Wien. Distribution: South America (Paraguay). References: (tx) Schedl 1952d: 359, 1979c: 203.
- pumilus** Wood 1969b: 23. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Drimys granadensis*, *Miconia globuliflora*, *Sapium thelocarpum*. References: (hb) Wood, S. L. 1982b: 507. (ds) Wood, S. L. 1982b: 507. (tx) Wood, S. L. 1967c: 124, 1969b: 23, 1982b: 507.
- punctatus** (Eggers) 1943a: 368 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris. Distribution: South America (Bolivia). References: (tx) Eggers 1934a: 79, 1943a: 368; Schedl 1952d: 346, 1979c: 204.
- punctiferus** Wood 1976a: 348. Holotype ♂; Volcan Irazu, Cartago, Costa Rica; Wood Collection, automatic. Distribution: North America (Costa Rica). Hosts: *Oreopanax nubigenus*. References: (hb) Wood, S. L. 1982b: 486. (ds) Wood, S. L. 1982b: 486. (tx) Wood, S. L. 1976a: 348, 1982b: 486.
- punctifer** Wood 1971: 15. Holotype ♂; Volcan Irazu, Cartago, Costa Rica; Wood Collection, preoccupied by Wood 1969. References: (tx) Wood, S. L. 1971: 15–16, 1976a: 348.
- pusillimus** Wood 1981: 127. Holotype ♀; 27 km NE Montoya, Santander, Colombia; Wood Collection. Distribution: South America (Colombia). References: (tx) Wood, S. L. 1981: 127.
- pusillus** (Eggers) 1943a: 367 (*Hylocurosoma*). Holotype ♂?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1943a: 367; Schedl 1952d: 346.
- radiatus** Wood 1977b: 218. Holotype ♀; La Georgiana, 79 km SE San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Quercus* sp. References: (ds) Wood, S. L. 1982b: 489. (tx) Wood, S. L. 1977b: 218, 1982b: 489.
- reticulatus** (Wood) 1961d: 98 (*Hexacolus*). Holotype ♀; 19 km SE Matamoros, Puebla, Mexico; SMUK, Lawrence. Distribution: North America (Michoacan, Morelos, Puebla in Mexico). Hosts: *Ficus* spp. References: (hb) Atkinson & Equihua 1985b: 233; Burgos & Saucedo 1983: 80; Wood, S. L. 1982b: 500. (ds) Atkinson & Equihua 1985b: 233; Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 80; Wood, S. L. 1982b: 500. (tx) Wood, S. L. 1961d: 98, 1982b: 500.
- retifer** Wood 1983a: 658. Holotype ♀; Texeal, Mpio. Tepoztlán, Morelos, Mexico; Wood Collection. Distribution: North America (Morelos in Mexico). Hosts: *Ceiba* sp. References: (ds) Atkinson et al. 1986: 56. (tx) Wood, S. L. 1983a: 658.
- rugicollis** (Schedl) 1940c: 205 (*Hexacolus*). Lectotype ♀; Hamburgfarm on Rio Reventazon, Limon, Costa Rica; Schedl Collection in NHMW, Wien, designated by Wood 1974d: 287. Distribution: North America (Costa Rica). Hosts: *Ficus* sp. Notes: (1) Schedl 1979c: 216 (citation of holotype invalid). References: (hb) Wood, S. L. 1982b: 502. (ds) Wood, S. L. 1982b: 502. (tx) Schedl 1940c: 205, 1979c: 215–216; Wood, S. L. 1974d: 287, 1982b: 502.
- plicatus** Wood 1969b: 21. Holotype ♀; 25 km SE Gnapiles, Limon, Costa Rica; Wood Collection. Synonymy: Wood 1974d: 287. References: (tx) Wood, S. L. 1969b: 21, 1974d: 287.

- rugulosus** Eggers 1943a: 362. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1943a: 362–363.
- schwarzi** (Hopkins) 1902a: 36 (*E rincophilus*). Holotype ♂; Coconut Grove, Dade Co., Florida [USA]; USNM, Washington. Distribution: Antilles Islands (Andros in Bahamas Islands), North America (Jalisco, Veracruz in Mexico/S Florida in USA). Hosts: *Ficus* spp. References: (cn) Doane et al. 1936. (lb) Atkinson & Equihua 1985b: 233; Chamberlin 1939: 239; Doane et al. 1936; Wood, S. L. 1982b: 496. (ds) Atkinson & Equihua 1985b: 233, 1986a: 420; Atkinson et al. 1991: 157; Blatchley & Leng 1916: 585; Chamberlin 1939: 239; Hagedorn 1910d: 82; Hamilton 1895b: 318; Kleine 1913b: 149, 1914b: 384, 1934a: 168; Swaine 1909: 108; Wood, S. L. 1957c: 396, 1982b: 496. (tx) Blatchley & Leng 1916: 585; Chamberlin 1939: 239; Hagedorn 1910a: 135; Hopkins 1902a: 36, 1903a, 1914: 121; Leng 1920: 337; Lucas 1920: 273; Swaine 1909: 108; Wood, S. L. 1957c: 396, 1961d: 97, 1967c: 125, 1982b: 496. (ms) Lucas 1920: 273.
- semipunctatus** Wood 1978b: 405. Holotype ♀; Merida, Merida, Venezuela; Wood Collection. Distribution: South America (Venezuela). References: (tx) Wood, S. L. 1978b: 405.
- serenus** Wood 1977d: 521. Holotype ♀; La Mucuy, 20 km W Merida, Merida, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: Martino (? *Meriana* sp.). References: (tx) Wood, S. L. 1977d: 521.
- setosus** (Blandford) 1897e: 181 (*Hexacolus*). Holotype ♀?; Cerro Zunil, Guatemala; BMNH, London. Distribution: North America (Guatemala). References: (ds) Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 370; Wood, S. L. 1982b: 486. (tx) Blandford 1897e: 181; Eggers 1933b: 18; Hagedorn 1910a: 114; Wood, S. L. 1982b: 486.
- similis** (Eggers) 1928c: 87 (*Prionosceles*). Lectotype, sex?; Argentinien; USNM, Washington, designated by Anderson & Anderson 1971: 30. Distribution: South America (Argentina/Bolivia). References: (ds) Blackwelder 1947: 787. (tx) Anderson, W. H. & Anderson 1971: 30; Eggers 1928c: 87; Schedl 1979c: 230.
- spadix** (Blackman) 1943c: 384 (*Prionosceles*). Holotype ♂; intercepted at New York in log from Guatemala; USNM, Washington. Distribution: North America (Guatemala). Hosts: *Swietenia* sp. (hybrid). References: (ds) Blackwelder 1947: 787; Wood, S. L. 1982b: 494. (tx) Blackman 1943c: 384; Wood, S. L. 1982b: 494.
- striatulus** Wood 1979b: 136. Holotype, sex?; Guadeloupe (Trois Rivières); MNHN, Paris, automatic. Distribution: Antilles Islands (Guadeloupe). References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Wood, S. L. 1979b: 136.
- striatus** Eggers 1940a: 139 (*Hylocurosoma*). Holotype, sex?; Guadeloupe (Trois Rivières); MNHN, Paris, preoccupied by Eggers 1934. References: (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1940a: 139; Schedl 1952d: 346, 1979c: 235; Wood, S. L. 1979b: 136.
- striatus** (Eggers) 1934a: 79 (*Hexacolus*). Holotype ♂; Turrialba, Costa Rica; USNM, Washington. Distribution: North America (Costa Rica). References: (ds) Blackwelder 1947: 786; Wood, S. L. 1982b: 485. (tx) Anderson, W. H. & Anderson 1971: 31; Eggers 1934a: 78–80; Schedl 1935f: 274, 1952d: 346, 358; Wood, S. L. 1979b: 136, 1982b: 485.
- subcribrosus** (Eggers) 1933b: 17 (*Hexacolus*). Holotype, sex?; Venezuela (Colonia Tovar); MNHN, Paris. Distribution: South America (Venezuela). References: (ds) Blackwelder 1947: 786. (tx) Eggers 1933b: 17.
- suturalis** Wood 1977d: 521. Holotype ♂; El Laurel Experimental Farm, 12 km SW Caracas, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: *Cecropia* sp. leaf petiole. References: (tx) Wood, S. L. 1977d: 521.
- swieteniae** (Blackman) 1943c: 381 (*Hexacolus*). Holotype ♀; intercepted at New York in logs from Costa Rica; USNM, Washington. Distribution: North America (Costa Rica). Hosts: *Swietenia* sp., *Cedrela* sp. References: (ds) Blackwelder 1947: 786; Wood, S. L. 1982b: 494. (tx) Blackman 1943c: 381–382; Wood, S. L. 1969b: 19, 1982b: 494.
- tardus** Wood 1981: 127. Holotype ♀; Piedras Blancas, 10 km E Medellín, Antioquia, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Clusia* sp. References: (tx) Wood, S. L. 1981: 127.
- tennis** (Wood) 1961d: 99 (*Hexacolus*). Holotype ♀; 19 km SE Matamoros, Puebla, Mexico; SMUK, Lawrence. Distribution: North America (Guatemala/ Honduras/ Jalisco, Morelos, Puebla in Mexico). Hosts: *Ficus* spp. References: (ce) Equihua & Atkinson 1986: 627. (lb) Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 80; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 505. (ds) Atkinson & Equihua 1985b:

- 233; Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 80; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 505. **(tx)** Wood, S. L. 1961d: 99, 1967c: 127, 1982b: 505.
- tolimanus (Schedl)** 1962r: 102 (*Prionosceles*). Holotype, sex?; Tolima; Schedl Collection in NHMW, Wien.
Distribution: South America (Colombia).
References: **(tx)** Schedl 1962r: 102, 1979c: 253.
- trispinosus Eggers** 1934a: 80. Holotype ♀; Amatan: USNM, Washington.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 784; Ferrer 1942; Wood, S. L. 1982b: 509. **(tx)** Anderson, W. H. & Anderson 1971: 34; Eggers 1934a: 80–81; Schedl 1935m: 51, 1940a: 336; Wood, S. L. 1982b: 509.
- elongatus** Schedl 1935f: 273. Holotype ♀?; Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1979b: 136.
References: **(ds)** Blackwelder 1947: 784. **(tx)** Schedl 1935f: 273; 1967a: 126, 1979c: 90; Wood, S. L. 1979b: 136.
- unipunctatus (Blandford)** 1897a: 182 (*Hexacolus*). Lectotype ♀; Cubilguitz, Alta Verapaz, Guatemala; BMNH, London, designated by Wood 1982b: 483.
Distribution: North America (Guatemala).
References: **(ds)** Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 370; Nunberg 1964a: 234; Wood, S. L. 1982b: 483. **(tx)** Blandford 1897a: 182; Eggers 1934a: 79; Hagedorn 1910a: 114; Nunberg 1964: 234; Schedl 1962r: 100, 1979c: 260; Wood, S. L. 1982b: 483.
- varius Wood** 1977d: 522. Holotype ♀; La Mucuy, 20 km W Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
References: **(tx)** Wood, S. L. 1977d: 522.
- venustus Wood** 1967c: 124. Holotype ♂; Cerro Punta, Chiriqui, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: *Oreopanax* cf. *xalapense*.
References: **(hb)** Wood, S. L. 1982b: 487. **(ds)** Wood, S. L. 1982b: 487. **(tx)** Wood, S. L. 1967c: 124–125, 1982b: 487.
- venustus Wood** 1969b: 18. Holotype ♀; Rodeo, Esquinzila, Guatemala; Wood Collection.
Distribution: North America (Costa Rica/ Guatemala).
Hosts: *Ficus* sp., *Plumeria rubra*.
References: **(hb)** Wood, S. L. 1982b: 484. **(ds)** Wood, S. L. 1982b: 484. **(tx)** Wood, S. L. 1967c: 124, 1969b: 18, 1982b: 484.
- vesculus Wood** 1981: 128. Holotype ♂; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Croton guianensis*.
References: **(tx)** Wood, S. L. 1981: 128.
- vestitus (Eggers)** 1932a: 233 (*Problechilus*). Holotype, sex?; Bolivien (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: **(ds)** Blackwelder 1947: 786. **(tx)** Anderson, W. H. & Anderson 1971: 35; Eggers 1932a: 233; Schedl 1979c: 266.
- vicinus (Eggers)** 1928c: 87 (*Prionosceles*). Holotype, sex?; Brasil (Petropolis, Staat Rio de Janeiro); SMTD, Dresden.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 787. **(tx)** Eggers 1928c: 87.
- volcanus Wood** 1969b: 14. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Liana.
References: **(hb)** Wood, S. L. 1982b: 491. **(ds)** Wood, S. L. 1982b: 491. **(tx)** Wood, S. L. 1969b: 14, 1982b: 491.

Tribe Scolytoplatypodini Blandford

Scolytoplatypini

References: Blandford 1893d: 425; Hagedorn 1908: 382.

Scolytoplatypodidae

References: Brues & Melander 1932: 446.

Scolytoplatypodinae

References: Hopkins 1915c: 225; Lucas 1920: 57; Reitter 1913a: 13.

Scolytoplatypodini

References: Handlirsch 1925: 692; Wood, S. L. 1978a: 113, 1982b: 63, 1986a: 61.

Scolytoplatypini

References: Lucas 1920: 57.

Scolytoplatypidae

References: Blackman 1943d: 121; Hagedorn 1908: 382.

Taeniocerini

References: Blandford 1893d: 428.

Spongocerinae

References: Hagedorn 1909: 162, 1910a: 24, 159, 1910d: 117.

Genus *Scolytoplatypus* Schaufuss

SCOLYTOPLATYPUS SCHAUFUSS 1890: 31. Type-species: *Scolytoplatypus permirus* Schaufuss, monobasic.

Spongocerus Blandford 1893d: 431. Type-species: *Scolytoplatypus tycon* Blandford, subsequent designation by Hopkins 1914: 129. Synonymy: Wood 1983a: 649.

References: (tx) Blandford 1893d: 431; Hagedorn 1904d: 124, 1905b: 11, 1910a: 159, 161, 1910d: 117, 1913: 257; Hopkins 1914: 130, 134; Schedl 1962k: 578; Wood, S. L. 1983a: 649.

Taeniocerus Blandford 1893d: 431, 437. Type-species: *Scolytoplatypus mikado* Blandford, subsequent designation by Hopkins 1914: 130, preoccupied by Kaup 1871. Synonymy: Wood 1983a: 649.

References: (tx) Blandford 1893d: 437; Hagedorn 1904c: 412, 1904d: 126, 1905: 63–64, 1910a: 161, 1910d: 117, 1913b: 257; Hopkins 1914: 130, 134; Sampson 1921: 36; Schaufuss 1905: 11; Schedl 1962k: 578; Wood, S. L. 1983a: 649.

Strophionocerus Sampson 1921: 36. Type-species: *Scolytoplatypus mikado* Blandford, automatic. Synonymy: Wood 1983a: 649.

References: (tx) Sampson 1921: 36; Wood, S. L. 1983a: 649.

Keys: Browne 1971b: 113, Schedl 1975b: 219, Nobuchi 1980b: 46.

References: (ay) Berger & Kholodkovskii 1916: 1–7. (cn) Hargreaves 1925: 21–25. (hb) Beeson 1941: 364–365, 372, 383; Browne 1936: 1, 1961c: 189–190; Gardner 1934: 4–5; Roepke 1911: 10–

11; Schedl 1958d: 195; Wood, S. L. 1986a: 61. (ds) Browne 1958: 164–182; Hagedorn 1910d: 117; Schedl 1934f: 1647, 1966b: 81; Wood, S. L. 1986a: 61. (tx) Blackman 1943d: 121; Blandford 1893d: 425–442, 1894d: 126, 141, 1895a: 84; Browne 1971b: 111–129; Choo 1953: 35–37; Hagedorn 1904c: 404–413, 1904d: 124, 126, 1905b: 63, 1907b: 112, 1909b: 163, 1910a: 159–161, 1913: 253, 257; Hopkins 1914: 129–130, 134, 1915c: 198–199, 227; Kurenzov 1941: 13, 70, 73; Menzel 1923b: 3–4; Murayama 1936: 137, 1953: 24, 1954: 205; Niisima 1905: 313–317, 1909: 167; Nobuchi 1980b: 46; Nunberg 1951: 261–265, 1960: 287–308; Sampson 1921: 36; Schaufuss 1891: 31, 1905: 11–12; Schedl 1931d: 118–122, 1957e: 865–883, 1962k: 577, 1975b: 199–267, 1977b: 225; Spessivtsev 1931: 83; Stark 1952: 441–442; Stebbing 1914: 604; Van Hall 1922: 1–42; Wichmann 1954: 539; Wood, S. L. 1957a: 342–343, 1986a: 61; Zazawa 1957: 287–308.

africanus Eggers 1920: 122. Holotype ♀; Sesse am Victoria Nyanza, Africa; MCG, Genova.

Figures: Schedl 1975b: 234 (male).

Distribution: Africa (Ivory Coast/ Tanzania/ Uganda/ Zaire).

Hosts: *Albizia zygia*, *Macopsis eminii*, *Pseudospondias microcarpa*.

Notes: (3) Eggers 1932d: 294 (described male). Schedl 1975b: 233–234 (re-described).

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Browne 1971b: 116; Schedl 1962j: 580, 1964f: 618, 1967e: 220, 1971e: 4, 1975b: 233. (tx) Browne 1971b: 116; Eggers 1920: 122, 1927a: 199, 1932d: 294, 1936c: 37, 39; Schedl 1939g: 170, 1948c: 615–665, 1962h: 72, 1962j: 580–581, 1964f: 618, 1967e: 220, 1975b: 233–234.

armatus Eggers 1924: 109. Holotype ♂; Zwischen Dibatwa und Kilungwe (Congostaat); Eggers Collection, in NHMW, Wien.

Figures: Schedl 1962j: 581, 1975b: 232 (male).

Distribution: Africa (Kenya/ Tanzania/ Zaire).

Hosts: *Albizia* spp., *Allophylus kivuensis*, *Combretum paniculatum*.

Notes: (3) Schedl 1952i: 19 (described female), 1975b: 231–233 (re-described).

References: (ds) Browne 1971b: 127; Mayne & Donis 1962: 310; Nunberg 1961: 332; Schedl 1962j: 581, 1962k: 1105, 1975b: 231. (tx) Browne 1971b: 113, 127; Eggers 1924: 109; Nunberg 1961: 332; Schedl 1952i: 19, 1962j: 581, 1975b: 231–232, 1979c: 26.

congonus Schedl 1952i: 21. Holotype ♀; Congo Belge: Ituri, Mulungu; MRCB, Tervuren.

Figures: Schedl 1962j: 583, 1975b: 228 (female).

Distribution: Africa (Cameroon/ Kenya/ Nigeria/ Ruanda/ Tanzania/ Uganda/ Zaire).

Hosts: More than 18 host genera (Schedl 1962j: 582, 1975b: 227).

Notes: (3) Schedl 1957d: 116 (described male), 1975b: 227 (redescribed).

References: (hb) Schedl 1962j: 582. (ds) Browne 1971b: 114; Gardner 1957a: 32; Mayne & Donis 1962: 310; Schedl 1962j: 582, 1975b: 227. (tx) Browne 1971b: 114–116; Roberts 1969: 128; Schedl 1952i: 21, 1957d: 116, 1962j: 582–584, 1975b: 227–228, 1979c: 63.

daimio Blandford 1893d: 433. Syntypes ♂ ♀; Japan, Nikko; BMNH, London.

Figures: Nakane et al. 1963: 384, Nobuchi 1980b: 45, Schedl 1975b: 252 (male), Tsai & Li 1959: 104. Distribution: Asia (Japan/ E USSR).

Hosts: *Acer* sp., *Ahuss* spp., *Cornus* sp., *Fagus* sp., *Fraxinus* sp., *Pyrus* sp., *Quercus* sp., *Abies* sp.

Notes: (3) Schedl 1975b: 251 (redescribed).

References: (cn) Anonymous 1980g; Inoue & Yamaguchi 1955a: 235; Katsumata 1940: 194–198. (ce) Inoue & Yamaguchi 1955a: 235. (hb) Krivolutskaya 1973: 143; Niisima 1907: 315–316; Stark 1952: 442. (ds) Anonymous 1980g; Blandford 1894c; Gebien 1907: 223; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 262, 1934a: 179; Krivolutskaya 1965a: 242, 1973: 143; Murayama 1953c: 145, 162, 1954b: 185; Nakane et al. 1963: 384; Nobuchi 1980b: 51; Schedl 1971f: 148, 1975b: 251; Stark 1952: 442. (tx) Blandford 1893d: 433, 1894d: 580; Hagedorn 1904c: 410, 413, 1904d: 126–127, 1905b: 64, 1910a: 161; Murayama 1936: 149, 1953: 163, 1954b: 185–186, 1961: 26, 28; Nakane et al. 1963: 384, pl. 192; Niisima 1909: 167–168, 1910a: 5; Nobuchi 1980b: 45, 51; Schaufuss 1905: 11; Schedl 1934f: 1646, 1952c: 61, 1954a: 138, 1975b: 251–252; Stark 1952: 442–443; Strohmeier 1908: 1; Tsai & Li 1959: 104; Wichmann 1954: 539.

nuticus Hagedorn 1904c: 124. Syntypes 1 ♂, 2 ♀; Nippon (Japan); ♂ MNHN, Paris, 2 ♀ lost with Hamburg Museum. Synonymy: Schedl 1952c: 61.

References: (ds) Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 262. (tx) Hagedorn 1904c: 124, 1910a: 161; Schaufuss 1905: 5; Schedl 1934f: 1647, 1952c: 61.

darjeelingi Stebbing 1914: 607. Syntypes ♂ ♀; Darjeeling, East Himalaya; FRI, Dehra Dun.

Distribution: Asia (Assam, Bengal, Uttar Pradesh in India).

Hosts: *Acer caesium*, *Ahuss nepalensis*, *A. theae-folia*, *Eucalyptus globulus*, *Litsaea* spp., *Prunus nepalensis*, *Quercus lamellosa*, *Symplocos theae-folia*.

References: (cn) Mathur & Singh 1961a: 83; Roonwal 1954: 59; Stebbing 1914: 607. (ce) Beeson 1922c; Stebbing 1914: 607. (hb) Beeson 1922c; Stebbing 1914: 607. (ds) Beeson 1922c, 1961: 295; Kleine 1934a: 179; Mathur & Singh 1961a: 83; Nobuchi 1967: 24; Roonwal 1954: 59.

(tx) Eggers 1939c: 114; Schedl 1975b: 200, 217; Stebbing 1914: 607.

eichelbaumi Hagedorn 1905b: 64. Syntypes 2 ♂; Amani, Deutsch-Ost-Afrika; Hamburg Museum, lost.

Figures: Browne 1971b: 124, Schedl 1962j: 585, 1975b: 230 (male).

Distribution: Africa (Ghana/ Kenya/ Nigeria/ Tanzania/ Zaire).

Hosts: *Acacia mollissima*, *Albizia* spp., *Ekebergia* sp., *Trichilia lanata*.

Notes: (3) Schedl 1979c: 87 (invalid designation of neotype), 1957e: 878 (described var. *grandidentatus*, no status), 1957e: 879 (described var. *aervidentatus*, no status), 1975b: 230–231 (redescribed).

References: (ds) Browne 1961e: 13, 1963a: 233, 1971b: 124; Gardner 1957a: 32; Gebien 1907: 222; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 323; Schedl 1962h: 64, 1962j: 585, 1965e: 356, 1975b: 230. (tx) Browne 1971b: 124; Eggers 1923a: 179; Hagedorn 1905b: 64, 1908: 382, 1910a: 160, 1913b: 382; Powell, W. 1980: 29; Roberts 1969: 128; Schedl 1957d: 116, 1957e: 878–879, 1957h: 72, 1962j: 578–585, 1962k: 1105, 1973g: 210, 1975b: 230–231, 1979c: 87.

acuminatus Schedl 1957d: 116. Holotype ♀; Congo Belge, Kivu, route Tshibinda-Bunyakiri, Km 66, 1120 m; MRCB, Tervuren. Synonymy: Browne 1971b: 124.

References: (tx) Browne 1961e: 13, 1971b: 124; Roberts 1969: 128; Schedl 1957d: 116; 1962h: 72, 1962j: 578, 1979c: 11.

octospinosus Numberg 1960: 295. Holotype ♂; Tanganyika Terr.: Ngorogoro, region bogagere, 2300 m; MRCB, Tervuren. Synonymy: Schedl 1962k: 1105.

References: (tx) Numberg 1960a: 295–296; Schedl 1962h: 62, 1962k: 1105.

eutomoides Blandford 1896b: 196. Holotype ♂; Celebes; IRSNB, Brussels, cotype deposited in Eggers Collection, in NHMW, Wien.

Figures: Schedl 1975b: 245 (male).

Distribution: Asia (Bangladesh/ Burma/ Assam, Bengal in India), Indonesia (Celebes, Java).

Hosts: *Cryptocarya wrightiana*, *Ilex diplyrena*, *Swietenia mahagoni*.

Notes: (3) Schedl 1975b: 244 [treatment of this name includes a mixture of at least two biological species (SLW)].

References: (hb) Kalshoven 1959a: 225, 1959c: 169. (ds) Gebien 1907: 223; Hagedorn 1910d: 117; Kalshoven 1924: 8, 1959c: 169; Kleine 1913b: 171, 1914b: 295, 1928: 309; Menzel 1923b: 3–4; Nobuchi 1979a: 407; Sampson 1921: 37; Schedl 1965g: 24, 1974c: 262, 1975b: 244. (tx) Blandford 1896b: 195–196, 1898a: 426; Browne 1955: 361, 1968b: 644; Eggers 1920: 122, 1923: 164; Hagedorn 1904a, 1904c: 407, 413, 1910a:

- 161; Kalshoven 1959a: 225; Sampson 1921: 36–37; Schaufuss 1905: 11; Schedl 1950f: 46–49, 1954c: 155, 1975b: 244–245.
- brahma* Blandford 1898: 425. Holotype ♀; India, Chittagong Hills; BMNH, London. Synonymy: Browne 1955: 361.
References: (cn) Hagedorn 1913a; Mathur & Singh 1960b: 63, 1961a: 80; Stebbing 1914: 607. (ec) Stebbing 1914: 607. (hb) Hagedorn 1913a; Stebbing 1914: 607. (ds) Beeson 1961: 295; Hagedorn 1910d: 117, 1913a; Kleine 1913b: 171, 1934a: 179; Mathur & Singh 1960b: 63, 1961a: 80. (tx) Blandford 1898: 425; Browne 1955: 361; Eggers 1920; Hagedorn 1904e, 1904d, 1910a: 161; Schedl 1952k: 159, 1954a: 144; Stebbing 1914: 607.
- hamatus* Hagedorn 1904b: 260. Syntypes 4 ♂ ♀; Ost-Java (Montes Tengger); Hamburg Museum, lost. Synonymy: Schedl 1952k: 159. References: (cn) Kleine 1932a: 309; Menzel 1923b: 3–4. (hb) Kleine 1932a: 309. (ds) Hagedorn 1910d: 117; Kalshoven 1924b: 357; Kleine 1913b: 171, 1914b: 288, 1932a: 309, 1934a: 179. (tx) Browne 1955: 361; Eggers 1920: 122, 1923a: 164–165, 1935b: 242; Hagedorn 1904b: 260, 1904c, 1910a: 161; Schaufuss 1905: 5; Schedl 1931d: 118, 1942d: 1, 1951i: 46, 1952k: 159, 1954a: 144.
- bombycinus* Browne 1955: 361. Holotype ♂; Malay Peninsula: Kelantan, Jeram; BMNH, London. Synonymy: Schedl 1975b: 217. References: (hb) Browne 1961c: 190. (ds) Beaver & Browne 1975: 295; Browne 1955: 361, 1961c: 190–191, 1962c: 201, 1968b: 644. (tx) Browne 1955: 361; Schedl 1975b: 217.
- fasciatus* Hagedorn 1904c: 405. Holotype ♂; Caffraria; Hamburg Museum, lost. Distribution: Africa (Ethiopia/ Kenya/ Tanzania/ South Africa). Hosts: *Bersama* sp., *Buxus* sp., *Cedrus* sp., *Grevillea* sp., *Gymnosporia* sp., *Maba* sp., *Maytenus* sp., *Prunus domestica*. Notes: (3) Schedl 1957c: 325 (described female), 1975b: 224 (redescribed). References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Browne 1971b: 122, 1975b: 394; Gardner 1957: 32; Gebien 1907: 222; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 317; Numberg 1964a: 235; Schedl 1962b: 61, 1962j: 587, 1965g: 20, 1970h: 180, 1975b: 224, 1975k: 278, 1982: 279. (tx) Browne 1971b: 122; Hagedorn 1904c: 405, 1905b: 63, 1910a: 160, 1910d: 117, 1913b: 257; Numberg 1964: 235; Schaufuss 1905: 11; Schedl 1953d: 70–72, 1955d: 272, 1955i: 213, 1957b: 151, 1957c: 325, 1960b: 164, 1962h: 64, 1962j: 587, 1962k: 1106, 1965g: 21, 1970h: 180, 1975b: 202–219, 224.
- strohmeyeri* Eggers 1920: 123. Holotype ♂; Kikuyu, British-Ostafrika; MNB, Berlin. Synonymy: Browne 1971b: 122. References: (ds) Gardner 1957a: 32; Schedl 1962j: 593. (tx) Browne 1971b: 122, Eggers 1920: 123; Powell, W. 1980: 29; Schedl 1955i: 212, 1962j: 593.
- maculatus* Numberg 1960: 299. Holotype ♂; Tanganyika; MRCB, Tervuren. Synonymy: Schedl 1962h: 64. References: (tx) Numberg 1960a: 296, 298–299; Schedl 1962h: 64, 1962k: 1106.
- glaber* Eggers 1935b: 240. Lectotype ♀; Pahang, F. M. S. Cameron's Highland, 4800 ft.; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 105. Distribution: Asia (Malaya). Notes: (1) Schedl 1979c: 105 [designated the Eggers male as lectotype; however, it was not a syntype and was not eligible for such designation (SLW)]. (3) Schedl 1975b: 242–243 (redescribed). References: (ds) Browne 1961c: 192, 1965a: 188–189; Schedl 1965g: 24, 1975b: 242. (tx) Eggers 1935b: 240; Schedl 1975b: 242, 1979c: 105.
- hirsutus* Blackman 1943d: 124. Holotype ♀; Buitenzorg, Java; USNM, Washington. Distribution: Indonesia (Java). Hosts: *Erythrina lithosperma*. Notes: (3) Browne 1955: 361 (treated as = *cutomoides*), Schedl 1975b (this name not listed). References: (hb) Kalshoven 1959a: 225. (tx) Blackman 1943d: 124; Browne 1955: 361; Kalshoven 1959a: 225; Schedl 1952k: 159.
- hova* Schaufuss 1905: 12. Holotype ♀; Madagascar; Hamburg Museum, lost. Figures: Schedl 1975b: 240 (male, female). Distribution: Madagascar. Hosts: *Cinchona ledgeriana*, *C. succiribra*. Notes: (3) Schedl 1975b: 239–241 (redescribed). References: (hb) Paulian 1950: 8. (ds) Breniere & Dubois 1965: 20, 125; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 326; Schedl 1975b: 239, 1977b: 227. (tx) Eggers 1920: 122; Hagedorn 1905: 63, 1910a: 160, 1910d: 117, 1913b: 257; Schaufuss 1905: 7, 12; Schedl 1953d: 72, 1975b: 239, 1977b: 227–228.
- javanus* Eggers 1923a: 164. Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 16. Distribution: Asia (Malaya), Indonesia (Java, Sumatra), Philippine Islands (Luzon). Notes: (3) Schedl 1975b: 216 (treated as = *cutomoides*). References: (cn) Kalshoven 1959c: 170; Yunus & Hua 1980: 229. (ec) Browne 1955b. (hb) Browne 1958b, 1961c: 191; Kalshoven 1959c: 170. (ds) Beaver & Browne 1975: 295; Browne 1961c: 191–192; Schedl 1966b: 82, 1975a: 453; Yunus & Hua 1980: 229. (tx) Anderson, W. H. & Anderson 1971: 16; Browne 1955: 361; Eggers 1920, 1923a:

164–165, 1935b: 244; Schedl 1920: 122, 1931d: 118, 122, 1939e: 329, 1942a: 170, 1942c: 192, 1942d: 1, 1951i: 46, 1952k: 159, 1954a: 144, 1975b: 216, 1979c: 129.

piceus Blackman 1943d: 122. Holotype ♂; Mt. Banahao, Luzon, Philippine Islands; USNM, Washington. Synonymy: Schedl 1952k: 159.

References: (tx) Blackman 1943d: 122; Schedl 1952k: 159.

kivueusis Schedl 1957d: 117. Holotype ♂; Congo Belge: Hembe Bitale; MRCB, Tervuren.

Figures: Schedl 1975b: 228 (female).

Distribution: Africa (Kenya/ Uganda/ Zaire).

Hosts: *Acacia* spp., *Alchornea* sp., *Carapa* sp., *Cassipourea* sp., *Celtis* sp., *Ekelbergia* sp., *Ficus* sp., *Gymnosporia* sp., *Maesa* sp., *Maesobotrya* sp., *Panda* sp., *Podocarpus* sp., *Syzgium* sp.

References: (ec) Schedl 1958d: 192. (hb) Schedl 1962j: 588. (ds) Gardner 1957a: 32; Mayne & Donis 1962: 310; Schedl 1962h: 72, 1962j: 588, 1963a: 29, 32, 1971e: 4, 1975b: 228. (tx) Browne 1971b: 114; Roberts 1969: 128; Schedl 1955i: 213, 216, 1957d: 117, 1958d: 192, 1962h: 72, 1962k: 588–592, 1975b: 228, 1979c: 133.

mikado Blandford 1893d: 437. Syntypes ♂ ♀; Japan, Nikko, Oyama, Sapporo, and Nyayama; BMNH, London.

Figures: Blandford 1893d: figs. 4–5, Nakane et al. 1963: pl. 192, Nobuchi 1980b: 45, Schedl 1975b: 249 (male).

Distribution: Asia (Fujian, Sichuan in China/ India/ Japan/ Korea/ Malaysia/ Sakhalin Island in USSR/ Taiwan).

Hosts: *Acanthopanax*, *Acer* spp., *Alnus* sp., *Bambusa* sp., *Benzoin* sp., *Carapa* sp., *Cinnamomum camphora*, *Cornus* sp., *Fagus* sp., *Macaranga* sp., *Machilus* spp., *Phyllostachys* spp., *Prunus* sp., *Quercus* spp.

Notes: (3) Schedl 1975b: 248–249 (redescribed). References: (cn) Anonymous 1980g; Kenny et al. 1989; Shiraki 1952; Uchida et al. 1958: 181; Ueno 1960. (cc) Banno, Mikata, & Kodama 1963: 445; Inouye et al. 1955: 86, 87; Kenny et al. 1989. (hb) Inouye et al. 1955: 86–87; Niisima 1907: 314. (ds) Anonymous 1980g; Beeson 1922c: 499–500, 1941: 384; Blandford 1894c; Cho 1957, 1963; Choo 1983: 35; Choo & Woo 1985: 163; Choo, Woo, & Nobuchi 1988a: 133; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 262, 270, 1934a: 179; Ko 1969: 282; Ku 1964; Mengel 1923; Murayama 1929b: 2, 1930b: 23, 1931a: 48, 1934d: 511, 1936a: 137, 1936b: 117, 1937b: 375, 1949c: 104, 1950b: 1298, 1953c: 145, 162, 1954b: 186, 1955: 100; Nakane et al. 1963: 384; Nobuchi 1967: 24, 1980b: 47; Nohira & Ogawa 1986; Schedl 1971f: 148, 1975b: 248, 1975c: 384; Shiraki 1952. (tx) Blandford 1893d: 437, 1894c: 580, 1894d: 126–127, 1896b: 195–196, 1898a: 425–426; Choo 1983: 35; Eggers 1939c: 114; Hagedorn 1904b:

261, 1904c: 410–413, 1904d: 122, 126, 1905b: 64, 1910a: 161; Hopkins 1914: 130; Krivolutskaya 1958: 170; Murayama 1928a: 288, 1929b: 1–13, 1930b: 23, 27, 31, 1931a: 48–49, 1934c: 300, 1934d: 505–512, 1936a: 137, 1937b: 375, 1950b: 1298, 1954b: 186, 1955: 100–101; Nakane et al. 1963: 384, pl. 192; Niisima 1907: 313–316, 1909: 167–169, 1910a: 15, 1913a: 5; Nobuchi 1967: 24–25, 1980b: 45, 47; Schaufuss 1905: 11; Schedl 1931d: 122, 1934f: 1647, 1975b: 248–249; Strohmeier 1908: 2–4, 1909: 249, 1914: 32; Takahashi 1989: 403; Wylie & Yule 1977.

sinensis Tsai & Huang 1965: 123. Holotype ♂; Fukien: Nanzing; IZAS, Beijing. Synonymy: Wood 1989: 175.

References: (tx) Tsai & Huang 1965: 123; Wood, S. L. 1989: 175.

minus Hagedorn 1904d: 125. Holotype ♀; Darjiling; MNHN, Paris.

Distribution: Asia (Assam, Bengal, Uttar Pradesh in India).

Hosts: *Alnus nitida*, *Cornus macrophylla*, *Machilus odorissima*, *Prunus armeniaca*, *Salix tetrasperma*, *Wendlandia tinctoria*.

Notes: (3) Schedl 1975b: 246 (described male), 1975b: 247 (redescribed).

References: (cn) Kleine 1932a: 309; Mathur & Singh 1960a: 25, 1961b: 90; Roonwal 1954: 60. (cc) Beeson 1922c: 499. (hb) Beaver & Browne 1975: 295; Beeson 1922c: 499; Kleine 1932a: 309. (ds) Beaver & Browne 1975: 295; Beeson 1922c: 499, 1941: 384, 1961: 295; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 277, 1928: 309, 1932a: 309, 1934a: 179; Mathur & Singh 1960a: 25, 1961b: 90; Roonwal 1954: 60. (tx) Beeson 1922c: 499; Eggers 1935b: 243–244; Hagedorn 1904c: 413, 1904d: 125, 1910a: 161; Schaufuss 1905: 11, 15; Schedl 1975b: 247.

mutabilis Schedl 1965c: 78. Holotype ♂; Madagascar, Perinet; Schedl Collection in NHMW, Wien.

Figures: Schedl 1975b: 238 (male).

Distribution: Madagascar.

Notes: (3) Schedl 1975b: 239 (redescribed).

References: (ds) Schedl 1975b: 239. (tx) Schedl 1965c: 78, 1975b: 238–239, 1977b: 230, 1979c: 162.

namus Schedl 1931d: 118. Holotype ♀; Java, Mount Salak, 800 m; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Java).

Notes: (3) Schedl 1975b: 255 (redescribed).

References: (hb) Kalshoven 1959e: 171. (ds) Kalshoven 1959e: 171; Schedl 1975b: 255. (tx) Eggers 1935b: 243; Schedl 1931d: 118, 1975b: 255, 1979c: 163.

neglectus Schedl 1975b: 235. Holotype ♂; Belgisch Congo, Route Tshibinda-Bunyakiri, Km 77, 1000 m; Schedl Collection in NHMW, Wien.

Figures: Schedl 1975b: 235 (female).

Distribution: Africa (Zaire).

Hosts: *Panda oleosa*.

- References: (tx) Schedl 1975b: 235, 1979c: 164.
- nitidicollis** Eggers 1935b: 241. Holotype ♀; Java, Batoerraden; Eggers Collection, in NHMW, Wien.
Distribution: Indonesia (Java).
Notes: (3) Schedl 1975b: 251 (re-described).
References: (ds) Schedl 1975b: 251. (tx) Eggers 1935b: 240–241, 1939b: 10; Schedl 1975b: 251, 1979c: 168.
- nitidus** Eggers 1923a: 166. Syntypes 2 ♀; Mt. Singalang auf Sumatra; MCG, Genova and MNB, Berlin.
Figures: Schedl 1975b: 265 (male).
Distribution: Indonesia (Java, Sumatra).
Hosts: *Acacia decurrens*, *Cinchona* sp., *Eupatorium* sp., *Ficus fistulosa*, *Podocarpus imbricata*.
Notes: (3) Eggers 1927b: 405 (described male). Schedl 1975b: 264 (re-described).
References: (hb) Kalshoven 1959c: 171; Wichmann & Sorauer 1954: 539. (ds) Kalshoven 1959c: 171; Kleine 1934a: 179; Schedl 1975b: 264. (tx) Eggers 1923a: 166, 1927b: 390, 405; Schedl 1942d: 1, 1951i: 46, 48, 1954a: 144, 1975b: 264–265, 1979c: 170.
- obtectus** Schedl 1975b: 226. Holotype ♂; Sudafrica, Willowvale, Cape Province, Alexandria; NICP, Pretoria.
Distribution: Africa (South Africa).
Hosts: *Buxus macrowanii*.
References: (tx) Schedl 1975b: 226–227, 1979c: 175.
- occidentalis** Browne 1971b: 118. Holotype ♂; Ghana: Bobiri, Kumasi; MRCB, Tervuren.
Distribution: Africa (Ghana/ Nigeria/ Sierra Leone).
Hosts: *Bussea* sp., *Macaranga* sp., *Parkia* sp., *Sterculia* sp., *Trichilia* sp.
Notes: (3) Schedl 1975b: 236–237 (re-described).
References: (ds) Schedl 1975b: 236. (tx) Browne 1971b: 118–119; Schedl 1972q: 260, 1975b: 236.
- opacicollis** Eggers 1936c: 38. Holotype ♂; S. Rhodesia; Salisbury; BMNH, London.
Figures: Schedl 1975b: 226 (male).
Distribution: Africa (Zambia).
Notes: (3) Schedl 1975b: 225 (re-described male).
References: (ds) Browne 1971b: 123; Schedl 1975b: 225. (tx) Browne 1971b: 113, 123; Eggers 1936c: 38; Schedl 1962j: 592–593, 1975b: 225–226.
- papuanus** Eggers 1923a: 165. Holotype ♂; Deutsch Neu Guinea, Etappenberg am Kaiserin Augustafloss; MNB, Berlin.
Distribution: New Guinea, Philippine Islands.
Notes: (3) Schedl 1975b: 216 (treated as = *eutomoides*).
References: (ds) Schedl 1966b: 82. (tx) Eggers 1923a: 165; Schedl 1931d: 118, 1942c: 192, 1951i: 52, 1952k: 159, 1954a: 138, 1979c: 184.
luzonicus Eggers 1935b: 244. Holotype ♀; Philippinen (Luzon, Benguet, Baguio); USNM, Washington. Synonymy: Wood 1989: 175.
Notes: (3) Schedl 1975b: 217 (treated as = *eutomoides*).
References: (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1935b: 244; Schedl 1952b: 365, 1979c: 143; Wood, S. L. 1989: 175.
- macgregori** Blackman 1943d: 121. Holotype ♂; Port Galera, Mindoro, Philippine Islands; USNM, Washington. Synonymy: Schedl 1952k: 159.
References: (tx) Blackman 1943d: 121; Schedl 1952k: 159.
- benguetus** Blackman 1943d: 123. Holotype ♀; Benguet, Luzon, Philippine Islands; USNM, Washington. Synonymy: Schedl 1975b: 217.
References: (ds) Schedl 1966b: 81. (tx) Blackman 1943d: 123; Schedl 1975b: 217.
- setosus** Schedl 1942c: 192. Holotype ♂; Neu Guinea; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1975b: 217.
References: (tx) Schedl 1942c: 192, 1975b: 217, 1979c: 226.
- parvus** Sampson 1921: 36. Holotype ♂; Mt. Matang, Sarawak; BMNH, London.
Distribution: Asia (Burma/ Bengal in India/ Malaysia), Indonesia (Sarawak in Borneo).
Hosts: *Dipterocarpus* sp., *Dryobalanops* sp., *Engelhardtia spicata*, *Eugenia* sp., *Grewia* sp., *Heritiera* sp., *Mandani* sp., *Shorea* sp.
Notes: (3) Browne 1949b: 909 (described male). Schedl 1975b: 259 (original description quoted).
References: (cn) Yunus & Hua 1980: 229. (ec) Browne 1958b: 176. (hb) Browne 1958b: 176, 1961c: 191–193. (ds) Browne 1961c: 193; Sampson 1921: 36; Schedl 1975b: 259; Yunus & Hua 1980: 229. (tx) Browne 1949b: 909; Eggers 1935b: 243; Sampson 1921: 36; Schedl 1975b: 259.
- ruficauda** Eggers 1939b: 9. Holotype ♀; Kambaiti, Nordost-Birma, 7000 ft.; NHR, Stockholm. Synonymy: Wood 1992b: 84.
Notes: (3) Schedl 1975b: 265 (re-described).
References: (ds) Schedl 1975b: 265. (tx) Eggers 1939b: 9; Schedl 1975b: 265; Wood, S. L. 1992b: 84.
- paucegranulatus** Eggers 1935b: 242. Lectotype ♀; Java (Batoerraden); USNM, Washington, designated by Anderson & Anderson 1971: 24.
Figures: Schedl 1975b: 244 (male).
Distribution: Indonesia (Java).
Notes: (3) Schedl 1975b: 243–244 (re-described).
References: (ds) Schedl 1975b: 243. (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1935b: 243; Schedl 1975b: 243–244, 1979c: 186.
- permirus** Schaufuss 1891: 31. Holotype ♂; Madagascar; Hamburg Museum, lost.
Figures: Schedl 1975b: 242 (male, female).
Distribution: Madagascar.

Hosts: *Cinchona* sp.

Notes: (3) Blandford 1893d: 435 (redescribed). Schedl 1975b: 241 (redescribed), 1979c: 190 (invalid designation of neotype).

References: (cc) Schedl 1977b: 231. (hb) Schedl 1977b: 231. (ds) Alluaud 1900: 441; Anonymous 1892: 165–166; Fairmaire 1892b; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 326; Schedl 1975b: 241, 1977b: 231. (tx) Blandford 1893d: 435–437; Eggers 1920: 122; Fairmaire 1892b; Hagedorn 1904c: 406, 413, 1904d, 1905b: 63, 1910a: 160, 1913b: 257; Hopkins 1914: 129, 134; Lucas 1920: 572; Schaufuss 1891: 31; Schedl 1953d: 67, 71–72, 1965c: 78, 1975b: 241–242, 1977b: 231, 1979c: 190. (ms) Lucas 1920: 572.

madagascariensis Schedl 1953d: 71. Holotype ♂; Madagascar, Mt. d'Ambre; IRSM, Madagascar. Synonymy: Schedl 1975b: 216.

References: (tx) Schedl 1953d: 71, 1965c: 78, 1975b: 216, 1977b: 229–230, 1979c: 145.

pubescens Hagedorn 1904d: 123. Syntypes, sex?; Dardjiling; Hamburg Museum, lost.

Figures: Nobuchi 1967: pl. 2, Schedl 1975b: 261 (male, male frons).

Distribution: Asia (Assam, Bengal, Uttar Pradesh in India).

Hosts: *Acer campbelli*, *Alnus nepalensis*, *Amoora wallichii*, *Engelhardtia spicata*, *Evodia fraxinifolia*, *Litsaea elongata*, *Prunus nepalensis*, *Quercus incana*.

Notes: (3) Schedl 1975b: 260 (redescribed).

References: (ay) Gardner 1934b. (cn) Anonymous 1979p; Mathur & Singh 1961a: 84; Roonwal 1954: 29. (cc) Beeson 1922c: 499. (hb) Beeson 1922c: 499. (ds) Anonymous 1979p; Beaver & Browne 1975: 295; Beeson 1922c: 499, 1961: 295; Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 277, 1934a: 179; Mathur & Singh 1961a: 84; Murayama 1934d: 512; Nobuchi 1967: 24; Roonwal 1954: 29; Schedl 1975b: 260. (tx) Eggers 1925: 160, 1939c: 114; Gardner 1934b; Hagedorn 1904c, 1904d: 123, 1905b: 64, 1910a: 161; Nobuchi 1967: pl. 2; Schaufuss 1905: 5; Schedl 1975b: 260–261.

pusillus Eggers 1935b: 243. Holotype ♂; Philippinen (Luzon: Baguio); USNM, Washington.

Figures: Schedl 1975b: 254 (male).

Distribution: Philippine Islands.

Hosts: *Dryobalanops oblongifolia*, *Ficus* sp., *Mallotus ricinoides*, *Pinus insularis*.

Notes: (3) Schedl 1975b: 253–255 (redescribed). References: (ds) Browne 1961c: 192; Nobuchi 1979a: 407; Schedl 1966b: 82, 1971c: 362, 1975b: 253. (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1935b: 243; Schedl 1952b: 365, 1975b: 253–254, 1979c: 206.

raja Blandford 1893d: 440. Syntypes 1 ♂, 1 ♀; India (Himalaya); ♂ in BMNH, London, ♀ in IRSNB, Brussels.

Figures: Nobuchi 1967: pl. 2.

Distribution: Asia ("China"/ Assam, Bengal, Himachal Pradesh, Kashmir, Uttar Pradesh in India/ Nepal).

Hosts: *Abies webbiana*, *Acacia decurrens*, *Cedrus deodara*, *Cornus macrophylla*, *Engelhardtia spicata*, *Litsaea elongata*, *Macaranga denticulata*, *Machilus odoratissima*, *Picea morinda*, *Prunus nepalensis*, *Quercus* spp., *Symplocos thecaefolia*.

References: (cn) Mathur & Singh 1960a: 25, 1961a: 84; Roonwal 1954: 29; Yunus & Hua 1980: 229. (cc) Beeson 1922c: 499–500. (hb) Beeson 1922c: 499–500; Bhalla & Sharma 1963: 86. (ds) Beaver & Browne 1975: 295; Beeson 1922c: 499–500, 1961: 296; Bhalla & Sharma 1963: 86; Blandford 1896b; Browne 1961c: 192; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 277, 1934a: 179; Mathur & Singh 1960a: 25, 1961a: 84; Nobuchi 1967: 24; Roonwal 1954: 29; Schedl 1936d: 5, 329, 1962b: 185, 1965a: 340, 1969c: 55, 1973b: 211, 1974c: 262; Yin & Huang 1981: 565; Yunus & Hua 1980: 229. (tx) Blandford 1893d: 440; Eggers 1939c: 114; Hagedorn 1904c, 1904d, 1910a: 161; Nobuchi 1967: pl. 2; Schedl 1939c: 329; Strohmeyer 1908a: 161; Yin & Huang 1981: 565.

himalayensis Stebbing 1914: 604. Holotype ♂; labeled Chamba St., Punjab, published as North-West Himalaya; FRI, Dehra Dun. Synonymy: Beeson 1922c: 500.

References: (cn) Stebbing 1914: 604. (cc) Stebbing 1914: 604. (hb) Stebbing 1914: 604. (tx) Beeson 1922c: 500; Stebbing 1914: 604.

shogun Blandford 1894d: 126. Syntypes ♂ ♀; Higo, Japan; IRSNB, Brussels.

Figures: Nobuchi 1980b: 45, 1975b: 257.

Distribution: Asia (Japan).

Hosts: *Acer* spp., *Fagus* sp., *Magnolia* sp., *Abies* sp. References: (cn) Anonymous 1980g; Nakashima 1983; Wichmann 1954: 539. (cc) Banno, Mikata, & Kodama 1983: 445; Nakashima 1983, 1989; Nakashima, Goto, & Iizuka 1987. (ds) Anonymous 1980g; Blandford 1894c: 580; Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 262, 1934a: 179; Murayama 1934c: 300, 1936a: 137–138, 1954b: 186; Nobuchi 1967: 13, 25, 1980b: 50; Schedl 1975b: 257. (tx) Blandford 1894d: 126; Hagedorn 1904c: 409–410, 413, 1904d: 122, 1910a: 161; Murayama 1934c: 300, 1936a: 137, 1954b: 186–187, 205, 1961: 104; Niisima 1907: 313, 1909: 167, 169; Nobuchi 1980b: 45, 50; Schaufuss 1905: 11; Schedl 1934f: 1647, 1975b: 257; Schedl, W. 1962: 376–378.

sionio Blandford 1893d: 436. Syntypes ♂ ♀; Japan, Nikko, Sendai; BMNH, London.

Figures: Schedl 1975b: 258 (male).

Distribution: Asia (Bhutan/ Bengal, Kashmir,

Himachal Pradesh, Punjab, Uttar Pradesh in India/ Japan/ Nepal).

Hosts: *Abies pindrow*, *Acer caesium*, *Cedrus deodara*, *Hedera helix*, *Parrottia jacquemontiana*, *Picea morinda*, *Prunus padus*, *Pyrus lanata*, *Quercus* spp., *Taxus baccata*.

Notes: (3) Schedl 1975b: 216 (treated as =*daunio*).
References: (ds) Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 262; Murayama 1949c: 104, 1954b: 187. (tx) Blandford 1893d: 436, 1894d; Hagedorn 1904c, 1904d, 1910a: 161; Murayama 1954b: 187; Schedl 1934f: 1647.

kunala Strohmeyer 1908a: 161 (reprint p. 1).

Holotype ♀; Kashmir; IPKE, Eberswalde.
Synonymy: Wood 1989: 175.

Notes: (3) Schedl 1975b: 262 (redescribed).

References: (cn) Bhasin, Roonwal, & Singh 1955: 102; Mathur & Singh 1960b: 36, 1961b: 8; Roonwal 1954: 17. (ce) Beeson 1922c: 499. (hb) Beeson 1922c: 499. (ds) Beeson 1922c: 499, 1941: 353–354, 1961: 295; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 271, 1934a: 179; Mathur & Singh 1960b: 36, 1961b: 8; Nobuchi 1967: 13, 24; Roonwal 1954: 9, 17, 29; Schedl 1973b: 211, 1975b: 262, 1975c: 384, 1975e: 452. (tx) Eggers 1939: 114; Hagedorn 1910a: 161; Schedl 1934f: 1647, 1975b: 262–263; Strohmeyer 1908a: 161 (reprint p. 1); Wood, S. L. 1989: 175.

supercilliosus Tsai & Huang 1965: 124. Holotype ♂; Szechuan: Leibo; IZAS, Beijing.
Distribution: Asia (Sichuan in China).

Hosts: *Castanopsis fargesii*.

References: (ds) Yin & Huang 1981: 566. (tx) Tsai & Huang 1965: 124; Yin & Huang 1981: 566.

truncatus Browne 1971b: 120. Holotype ♂; Nigeria, Kamatan Forest Reserve; MRCB, Tervuren.
Distribution: Africa (Nigeria).

Hosts: *Macaranga* sp.

Notes: (3) Schedl 1975b: 237–238 (redescribed).
References: (ds) Schedl 1975b: 237. (tx) Browne 1971b: 120, Schedl 1975b: 237.

tycon Blandford 1893d: 432. Syntypes ♂ ♀; Japan, Nikko and Kiga; BMNH, London.

Figures: Blandford 1893d: figs. 1–2, Nakane et al. 1963: pl. 192, Nobuchi 1980b: 45.

Distribution: Asia (Japan/ Korea/ Manchuria [Heilongjiang?] in China/ E USSR).

Hosts: *Abies* sp., *Aesculus* sp., *Acer* spp., *Alnus* sp., *Bengoin* sp., *Carpinus* sp., *Fagus* spp., *Fraxinus* sp., *Juglans* sp., *Lindera* sp., *Machilus* sp.,

Parabenzoin sp., *Phellodendron* sp., *Picea* sp., *Pinus* sp., *Populus* sp., *Quercus* sp., *Zelkova* sp.

Notes: (3) Schedl 1975b: 255–256 (redescribed).

References: (cn) Anonyms 1980g; Jehoko 1969: 282; Kurenzov 1935c: 187, 1957c: 78; Shiraki 1952; Uchida et al. 1955: 181. (ce) Banno, Mikata, & Kodama 1983: 445. (hb) Berger & Kholodkovskii 1916: 1–7; Krivolutskaya 1973: 142; Kurenzov 1934a: 57, 1935a: 37, 1948b: 113, 1957c: 24; Niisima 1907: 316; Stark 1952: 443. (ds) Anonymous 1980g; Blandford 1894c; Cho 1957, 1963; Choo 1983: 36; Choo & Woo 1985: 163; Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 262, 1934a: 179; Ko 1969: 282; Krivolutskaya 1965a: 243, 1973: 142, 1983; Kurenzov 1934a: 51, 1935a: 37, 1935c: 187, 1936b: 350, 1951: 24, 78–80, 1965; Murayama 1928: 290, 1929b: 2, 1930b: 23, 1931a: 50, 1936a: 138, 1937b: 375, 1948: 6, 1950b: 1298, 1953c: 145, 163, 1954b: 187, 205, 1955: 100, 103, 1961a: 104, 1961b: 26, 28; Nakane et al. 1963: 384; Nobuchi 1967: 25, 1980b: 49; Schedl 1975b: 255; Shiraki 1952; Stark 1952: 443. (tx) Berger & Kholodkovskii 1916: 1–7; Blandford 1893d: 432, 1894c: 580, 1894d: 126–127; Choo 1983: 36; Hagedorn 1904c: 409, 413, 1904d: 122, 1910a: 161; Hopkins 1914: 129, 136; Kurenzov 1941a: 193–195, 1948b: 113; Murayama 1930b: 23, 27, 31, 1931a: 50, 1934c: 300, 1936a: 138, 1937b: 375, 1950b: 1298, 1954b: 187, 1955: 100–101, 103; Nakane et al. 1963: 384, pl. 192; Niisima 1907: 313–316, 1909: 167, 170, 1910a: 5; Nobuchi 1967: 12, 25, 1980b: 45, 49; Schaufuss 1905: 11, Schedl 1934f: 1647, 1941a: 42, 1975b: 255; Schedl, W. 1962: 376; Stark 1952: 442–443; Wichmann 1954: 539.

ussuriensis Berger & Kholodkovskii 1916: 4. Syntypes ♂ ♀; Vladivostok; not given. Synonymy: Schedl, W. 1962: 376.

References: (ay) Farris & Funk 1965: 531. (ce) Farris & Funk 1965: 531. (hb) Berger & Kholodkovskii 1916: 4. (tx) Berger & Kholodkovskii 1916: 4; Schedl 1934f: 1647; Schedl, W. 1962: 376.

uter Schedl 1938d: 457. Syntypes ♂; Kenia Colony, Maktaw; BMNH, London, and Schedl Collection in NHMW, Wien.

Distribution: Africa (Kenya).

Notes: (3) Schedl 1975b: 223 (redescribed male).
References: (ds) Browne 1971b: 121; Schedl 1938d: 457, 1975b: 223. (tx) Browne 1971b: 121; Eggers 1923a: 219; Schedl 1938d: 457, 1962j: 593, 1975b: 223, 1979c: 263.

Tribe Micracini LeConte

Micracidés

References: LeConte 1876: 346, 367; LeConte & Horn 1883: 516.

Micracidae

References: Eichhoff 1878b: 302.

Micracinae

References: Beal & Massey 1945: 96; Blackman 1919b; Hopkins 1915c: 224; Leng 1920: 339.

Micracini

References: Handlirsch 1925: 692; Wood, S. L. 1978a: 113, 1982b: 65, 1986a: 61.

Hylocuridae

References: Eichhoff 1878b: 298, 306.

Hylocurinae

References: Hagedorn 1909: 162, 1910a: 24, 110, 1910d: 76; Lucas 1920: 32.

Hylocuri

References: Blandford 1898b: 219; Lucas 1920: 32.

Genus *Lanurgus* Eggers

LANURGUS EGGERS 1920: 36. Type-species: *Lanurgus barbatus* Eggers, monobasic.

Landolphianus Schedl 1950h: 106. Type-species: *Landolphianus elongatus* Schedl, subsequent designation by Schedl 1962j: 38. Synonymy: Schedl 1962j: 38.

References: (tx) Schedl 1950h: 106, 1962j: 38.

Micraciops Schedl 1953d: 86. Type-species: *Micraciops catenatus* Schedl, subsequent designation by Schedl 1962j: 38. Synonymy: Schedl 1962j: 38.

References: (tx) Nunberg 1961: 613; Schedl 1953d: 86, 1962j: 38, 1977b: 122.

Pseudohylocirus Nunberg 1961: 613. Type-species: *Pseudohylocirus caplandicus* Nunberg = *Lanurgus podocarpus* Schedl, original designation. Synonymy: Schedl 1962j: 38.

References: (tx) Nunberg 1961: 613; Schedl 1962j: 38.

References: (hb) Schedl 1958d: 184, 1962h: 65; Wood, S. L. 1986a: 63. (ds) Wood, S. L. 1986a: 63. (tx) Eggers 1920: 36; Nunberg 1961: 613; Schedl 1948c: 665, 1957d: 1-162, 1958a: 557-560, 1959q: 709, 1962j: 38, 1962k: 1083, 1962n: 697, 1977b: 114; Wood, S. L. 1986a: 63.

barbatus Eggers 1920: 37. Lectotype ♀; Serue (Ost-Botschuanaland), Sudafrica; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 34.

Distribution: Africa (South Africa).

Hosts: *Ligustrum* sp.

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1962j: 38. (tx) Eggers 1920: 37; Schedl 1948c: 665-666, 1957b: 151, 1962k: 38, 1979c: 34.

bicolor Schedl 1961j: 350. Holotype, sex?; Cape Prov., Tonti, S. Africa; NICP, Pretoria.

Distribution: Africa (Natal in South Africa).

Hosts: *Hymenocardia capensis*.

References: (tx) Schedl 1961j: 350, 1962j: 39, 1962k: 1084.

capensis Schedl 1965h: 115. Holotype, sex?; Cape Province, Alexandria; TMP, Pretoria.

Distribution: Africa (South Africa).

Hosts: *Ochna arborca*.

References: (tx) Browne 1970: 559; Schedl 1965h: 115.

catenatus (Schedl) 1953d: 86 (*Macraciops*). Lectotype ♀; Madagascar, Pays Androy; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 54.

Distribution: Madagascar.

References: (ds) Schedl 1977b: 122. (tx) Schedl 1953d: 86, 1962h: 69, 1977b: 121-122, 1979c: 54.

cribrellus Schedl 1965c: 67. Holotype ♂?; Madagascar, Sagewerk in Perinet; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

Hosts: *Eugenia* sp.

References: (tx) Schedl 1965c: 67, 1977b: 115.

elongatus (Schedl) 1950h: 107 (*Landolphianus*). Lectotype ♂; Madagascar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 89.

Distribution: Madagascar.

Hosts: Liana.

Notes: (3) Schedl 1965c: 65 (described female). References: (tx) Schedl 1950h: 105-108, 1965c: 65, 1977b: 115, 1979c: 89.

euphorbiae Schedl 1961e: 137. Holotype, sex?; Madagascar, Faux-Cap; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Euphorbia stenoclada*.

References: (tx) Schedl 1961e: 137, 1977b: 116.

frontalis Schedl 1953d: 85. Lectotype ♀; Madagascar (S.-O.), plaines du Filherena; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 100.

Distribution: Madagascar.

References: (tx) Schedl 1953d: 85, 1977b: 116, 1979c: 100.

gracilis Schedl 1958h: 559. Holotype, sex?; S. Africa: Zululand, Eshowe; BMNH, London.

Distribution: Africa (South Africa).

Hosts: *Maytenus acuminatus*.

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1962h: 58, 1962j: 39, 1962k: 1084, 1965h: 112. (tx) Schedl 1958h: 559, 1962j: 39.

minor (Schedl) 1950h: 108 (*Landolphianus*). Syntypes 2 ♀; Madagascar; Schedl Collection in NHMW, Wien, and Fleutiaux Collection.

Distribution: Madagascar.

Notes: (3) Schedl 1961e: 138 (described male).

- References: **(hb)** Schedl 1977b: 116; Wichmann 1954: 525. **(ds)** Schedl 1977b: 116. **(tx)** Schedl 1950h: 108, 1961e: 138, 1977b: 116.
- minutissimus** Schedl 1961h: 139. Holotype ♂; Madagascar, scierie a Perinet; IRSM, Madagascar. Distribution: Madagascar. References: **(hb)** Schedl 1977b: 117. **(ds)** Schedl 1977b: 117. **(tx)** Schedl 1961h: 139, 1977b: 117.
- obesus** (Schedl) 1953d: 87 (*Micraciops*). Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 174. Distribution: Madagascar. References: **(hb)** Schedl 1977b: 117. **(ds)** Schedl 1977b: 117. **(tx)** Schedl 1953d: 87, 1977b: 117, 1979c: 174.
- oleae** Schedl 1955i: 216. Lectotype ♀; Kenya: Londiani; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 177. Distribution: Africa (Kenya). Hosts: *Olea africana*, *O. hochstetteri*. References: **(ds)** Gardner 1957a: 31; Schedl 1962j: 40. **(tx)** Schedl 1955i: 211, 216, 1957b: 156, 1962j: 40, 1979c: 177.
- oleaeformis** Schedl 1970h: 178. Holotype ♀; Cape Prov.: Grootvadersbos; TMP, Pretoria. Distribution: Africa (South Africa). Hosts: *Olea capensis*, *O. laurifolia*, *Podocarpus latifolius*, *Xymalos monospora*. References: **(cn)** Anonymous 1970c: 13 **(ds)** Anonymous 1970c: 13. **(tx)** Schedl 1970h: 178.
- podocarpi** Schedl 1955i: 216. Syntypes ♂ ♀; Kenya: Londiani; BMNH, London, and Schedl Collection in NHMW, Wien. Figures: Numberg 1961b: 626, Schedl 1962j: 41 (antenna). Distribution: Africa (Kenya/South Africa/Tanzania). Hosts: *Cordia caffra*, *Euclea natalensis*, *Podocarpus* sp., *Sussonia* sp., Notes: (1) Schedl 1979c: 196 (Type restricted to BMNH syntypes). References: **(ds)** Gardner 1957a: 31. **(tx)** Powell, W. 1980: 29; Schedl 1955i: 211, 216, 1961a: 350, 1962h: 65, 1962j: 40–41, 1962k: 1084, 1962n: 697, 1979c: 196.
- podocarpi** Schedl 1957b: 156. Syntypes ♂ ♀; Kenya, Eldoret; BMNH, London. Synonymy: Schedl 1979c: 196. References: **(cn)** Anonymous 1970c: 13. **(ds)** Anonymous 1970c: 13; Schedl 1957b: 156, 1962h: 58, 1962j: 40, 1962k: 1084, 1970h: 180, 1975k: 277. **(tx)** Schedl 1957b: 156, 1962b: 65, 1962j: 40, 1962k: 1084, 1962n: 697, 1979c: 196.
- caplandicus** Numberg 1961: 613 (*Pseudohylocurus*). Holotype, sex?; Deepwells, Cape Prov.; BMNH, London. Synonymy: Schedl 1962k: 1093–1094, 1962n: 697. References: **(tx)** Numberg 1961b: 613, 626–627; Schedl 1962h: 65, 1962k: 1093–1094, 1962n: 697.
- pygmaeus** Schedl 1965c: 66. Holotype ♂; Madagascar, Ambila; Schedl Collection in NHMW, Wien. Distribution: Madagascar. References: **(hb)** Schedl 1977b: 118. **(tx)** Schedl 1965c: 66, 1977b: 118, 1979c: 207.
- rhusi** Schedl 1962j: 42. Holotype ♀; Transvaal: Bronkhorstfontein; NICP, Pretoria. Distribution: Africa (South Africa). Hosts: *Rhus lancea*. References: **(cn)** Anonymous 1970c: 13. **(ds)** Anonymous 1970c: 13; Schedl 1962j: 42, 1975k: 277. **(tx)** Schedl 1962j: 42, 1979c: 211.
- rugosipes** Schedl 1961e: 138. Holotype, sex?; Madagascar, Faux-Cap; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Euphorbia stenoclada*. References: **(tx)** Schedl 1961e: 138, 1977b: 119, 1979c: 216.
- spathulatus** Schedl 1948c: 666. Lectotype ♀; Grahamstown, C. P. S. Africa; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 233. Distribution: Africa (South Africa). Hosts: *Cassinae* sp., *Maytenus acuminatus*, *Olea capensis*, *Podocarpus falcatus*. References: **(cn)** Anonymous 1970c: 13. **(ds)** Anonymous 1970c: 13; Schedl 1948c: 666, 1962h: 59, 1962j: 43, 1962k: 1085, 1965h: 112, 1970h: 180, 1975k: 277, 1982: 278. **(tx)** Schedl 1948c: 666, 1979c: 233.
- subdepressus** Schedl 1965c: 66. Holotype ♀; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien. Distribution: Madagascar. References: **(tx)** Schedl 1965c: 66, 1977b: 119, 1979c: 241.
- subsulcatus** Browne 1970: 559. Holotype, sex?; Cape Prov., Swellendam; BMNH, London. Distribution: Africa (South Africa). References: **(tx)** Browne 1970: 559.
- widderingtoniae** Schedl 1962h: 69. Holotype, sex?; Cape Prov., Sederberg, S. Africa; NICP, Pretoria. Distribution: Africa (South Africa). Hosts: *Widderingtonia juniperoides*. References: **(ds)** Schedl 1962j: 48. **(tx)** Schedl 1962h: 69, 1962j: 48, 1962k: 1085, 1979c: 269.
- xanthophloeae** Schedl 1957d: 70. Holotype ♀; Kenya: Rift Valley; Schedl Collection in NHMW, Wien. Distribution: Africa (Kenya). Hosts: *Acacia xanthophloeae*. References: **(cc)** Schedl 1962j: 44. **(hb)** Schedl 1962j: 44. **(ds)** Schedl 1962j: 44. **(tx)** Schedl 1957d: 70, 1958h: 559, 1962j: 44, 1979c: 269.
- xylographus** Schedl 1962j: 46. Holotype ♀; Cape Prov.: Alexandria, S. Africa; NICP, Pretoria. Distribution: Africa (Namibia/ South Africa).

Hosts: *Cassiniae* sp., *Olea africana*, *O. capensis*.

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1962h: 59, 1962j: 46, 1962k: 1055, 1977c: 394. (tx) Schedl 1960a: 349, 1962j: 46, 1979c: 270.

Genus *Traglostus* Schedl

TRAGLOSTUS SCHEDL 1938d: 454. Type-species: *Traglostus exornatus* Schedl, monobasic.

References: (hb) Wood, S. L. 1956a: 63. (ds) Wood, S. L. 1956a: 63. (tx) Schedl 1935d: 450, 454, 1958a: 557-560, 1962j: 49; Wood, S. L. 1956a: 63.

brevisetosus Schedl 1957b: 153. Lectotype ♀; Kokstad, Griqualand E.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 47. Distribution: Africa (South Africa).

Hosts: *Podocarpus falcatus*.

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1962j: 49. (tx) Schedl 1957b: 150, 153-154, 1962j: 49, 1979c: 47.

exornatus Schedl 1935d: 454. Lectotype ♂; Kenya, Colony, Londiani; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 94.

Figures: Schedl 1962j: 50 (adult, antenna).

Distribution: Africa (Kenya).

Hosts: *Gymnosporia luteola*.

Notes: (3) Schedl 1941d: 394 (described female). References: (ds) Browne 1970: 540; Gardner 1957a: 31; Schedl 1935d: 454, 1962j: 49. (tx) Schedl 1935d: 454-455, 1941d: 394, 1962j: 49-50, 1979c: 94.

longipilis Schedl 1955h: 555. Holotype, sex?: S. Africa: Aus: BMNH, London.

Distribution: Africa (South Africa).

References: (tx) Schedl 1955h: 555, 1962j: 51, 1979c: 141.

pubescens Schedl 1941d: 395. Holotype ♀; Sud-Afrika, O. Betschuanaland; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (tx) Schedl 1941d: 395, 1962j: 51, 1979c: 203.

spatulatus Schedl 1952: 252. Holotype, sex?: Transvaal, Pretoria distr., Roodephaat; not seen, repository?

Distribution: Africa (South Africa).

Notes: (3) Allotype and 3 paratypes are in NHMW, Wien.

References: (tx) Schedl 1979c: 233, 1952: 252.

Genus *Miocryphalus* Schedl

MIOCRYPHALUS SCHEDL 1939i: 351. Type-species: *Stephanoderes natalensis* Eggers, monobasic.

Afromicracis Schedl 1959q: 709. Type-species: *Afromicracis kenyaensis* Schedl, monobasic. Synonymy: Wood 1956a: 63.

References: (tx) Schedl 1959q: 709, 1962j: 37; Wood, S. L. 1956a: 63.

Notes: (3) A careful study of this genus is needed. A mixture of unrelated genera may be included in the species listed here.

References: (hb) Wood, S. L. 1956a: 63. (ds) Wood, S. L. 1956: 63. (tx) Eggers 1940: 102; Schedl 1939i: 351-352, 1957d: 52-54, 1961j: 349, 1961k: 534, 1962j: 349-379, 1977b: 57; Wood, S. L. 1956a: 63.

agnatus Schedl 1942c: 165. Holotype, sex?: Melville-Insel; Schedl Collection in NHMW, Wien.

Distribution: Australia (Melville Island).

References: (tx) Schedl 1939i: 351, 1942c: 165, 1979c: 15.

angolensis (Schedl) 1962k: 1051 (*Afromicracis*). Holotype, sex?: Angola; Lunda, Nova Chaves; Schedl Collection in NHMW, Wien.

Distribution: Africa (Angola).

References: (tx) Schedl 1962k: 1051-1052, 1979c: 20.

attenuatus (Eggers) 1935c: 306 (*Stephanoderes*). Holotype ♀; Congostaat (Stanleyville); USNM, Washington [2 cotypes in NHMW, Wien].

Distribution: Africa (Sierra Leone/ Uganda/ Zaire).

Hosts: *Bauhinia tomentosa*, *Cola acuminata*, *C. nitida*, *Spathodea campanulata*, *Theobroma cacao*.

References: (cn) Schmitz & Crisinel 1957: 12. (hb) Hargreaves 1937: 509; Pujol 1957: 245; Schedl 1961k: 535; Schmitz & Crisinel 1957: 12. (ds) Schedl 1961k: 535. (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1935c: 306-307; Schedl 1950d: 3, 17-18, 1952: 535, 1961k: 535, 1979c: 31.

ciliatipennis Schedl 1979f: 105. Holotype, sex?: Fiji; published as Schedl Collection in NHMW, Wien, actually in BPBM, Honolulu.

Distribution: Fiji Islands.

References: (tx) Schedl 1979f: 105.

congonus Eggers 1940b: 102. Holotype, sex?: Congostaat (Kivu; Lac Mokoto); MRCB, Tervuren. Figures: Schedl 1961k: 536.

Distribution: Africa (Cameroon/Tanzania/Zaire).

Hosts: *Guaria laurentii*.

References: (hb) Schedl 1961k: 536. (ds) Gardner 1957a: 31; Schedl 1961k: 536, 1965g: 19. (tx) Eggers 1940b: 102-103; Schedl 1939i: 351, 1950d: 6-7, 1961k: 536, 1979c: 63.

convexus (Schedl) 1962k: 1052 (*Afromicracis*). Holotype, sex?: Natal; Schedl Collection in NHMW, Wien.

Distribution: Africa (Natal).

References: (tx) Schedl 1962k: 1052, 1979c: 65.

dubius Schedl 1950l: 21. Holotype, sex?: D. E. Afrika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: (tx) Schedl 1950d: 21, 1951m: 96, 1961k: 535, 1979c: 55.

elongatus Schedl 1965e: 366. Holotype, sex?; Sudafrika, Pt. St. John; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (tx) Schedl 1965e: 366, 1979c: 89.

grobleri Schedl 1961j: 349. Holotype, sex?; Cape Province, Grootvadersbosch; NICP, Pretoria.

Distribution: Africa (South Africa).

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1961j: 349, 1969d: 5. (tx) Schedl 1961j: 349, 1979c: 113.

kenyaensis (Schedl) 1959q: 709 (*Afromieracis*). Holotype, sex?; Kenya, Kampi ya Moto; BMNH, London.

Distribution: Africa (Kenya).

References: (ds) Schedl 1959q: 705, 709. (tx) Schedl 1959q: 709, 1962j: 37, 1979c: 132.

klainedoxae Schedl 1957d: 52. Holotype, sex?; Congo Belge; Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Klainedoxa gabonensis* var. *oblongifolia*.

References: (hb) Schedl 1961k: 540. (ds) Schedl 1961k: 540. (tx) Schedl 1957d: 52, 1961k: 540, 1979c: 133.

longus Nunberg 1964b: 434. Holotype, sex?; Abyssinien, Maraquo; NHMB, Budapest.

Distribution: Africa (Ethiopia).

References: (tx) Nunberg 1964b: 434.

natalensis (Eggers) 1936b: 36 (*Stephanoderes*). Holotype, sex?; Natal, Estcourt, 4000 ft.; BMNH, London.

Distribution: Africa (Natal in South Africa).

References: (tx) Eggers 1936b: 36, 1940b: 102; Schedl 1939i: 381–382, 1961k: 540, 1979c: 163.

nigrinus Schedl 1957d: 53. Holotype, sex?; Congo Belge; Kabali-Ituri, Irumu; MRCB, Tervuren.

Figures: Schedl 1961k: 541.

Distribution: Africa (Zaire).

Hosts: Liana.

References: (hb) Schedl 1961k: 541. (tx) Schedl 1957d: 53, 1961k: 540–541, 1979c: 167.

nitidus (Schedl) 1965g: 26 (*Eidophelus*). Holotype, sex?; Congo (Yangambi); Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Hosts: *Randia congolana*.

References: (tx) Schedl 1965g: 26, 1979c: 170.

penmatus Schedl 1953d: 79. Lectotype ♂; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 187.

Distribution: Madagascar.

References: (tx) Schedl 1953d: 79, 1977b: 57, 1979c: 187.

punctipennis Schedl 1965e: 367. Holotype, sex?; Ost-Afrika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: (tx) Schedl 1965e: 367, 1979c: 205.

Genus *Pseudothysanoes* Blackman

PSEUDOTHYSANOES BLACKMAN 1920a: 46. Type-species: *Pseudothysanoes drakei* Blackman = *Cryphalus rigidus* LeConte, original designation.

Cryptocleptes Blackman 1920a: 51. Type-species: *Cryptocleptes dislocatus* Blackman, original designation, preoccupied by Simon 1884. Synonymy: Wood 1972c: 141.

References: (tx) Beal & Massey 1945: 59; Blackman 1920a: 51, 1922b: 73–74, 1928a: 186, 1943a: 359; Chamberlin 1939: 271; Schedl 1959m: 545–557; Wood, S. L. 1967d: 76, 1972c: 141.

Chalcohyus Blackman 1943a: 363. Type-species: *Chalcohyus securigerus* Blackman, original designation. Synonymy: Wood 1972c: 141.

References: (tx) Blackman 1943a: 363; Wood, S. L. 1972c: 141.

Bostrichips Schedl 1951d: 21. Type-species: *Bostrichips spinatus* Schedl, monobasic. Synonymy: Wood 1984b: 227.

References: (tx) Schedl 1951d: 21, 1958f: 33–46; Wood, S. L. 1984b: 227.

Gretschkinia Sokanovskii 1959: 276. Type-species: *Gretschkinia mongolica* Sokanovskii, monobasic. Synonymy: Wood 1984b: 227.

References: (tx) Schedl 1962p: 204; Sokanovskii 1959: 276; Wood, S. L. 1984b: 227.

Aphanocleptus Wood 1960b: 63. Type-species: *Aphanocleptus coniferae* Wood, original designation. Synonymy: Wood 1982b: 510.

References: (tx) Wood, S. L. 1960b: 63, 1982b: 510.

Cryptulocleptus Wood 1967d: 76. Type-species: *Cryptocleptes dislocatus* Blackman, automatic. Synonymy: Wood 1972c: 141.

References: (tx) Wood, S. L. 1967d: 76, 1972c: 141.

Neoglostatus Schedl 1978e: 300. Type-species: *Neoglostatus squamosus* Schedl, monobasic. Synonymy: Wood 1984b: 227.

References: (tx) Schedl 1978e: 300; Wood, S. L. 1984b: 227.

Keys: Wood 1982b: 511–519.

References: (hb) Wood, S. L. 1986a: 63. (ds) Wood, S. L. 1986a: 63. (tx) Beal & Massey 1945: 59, 100; Blackman 1920a: 1–62, 1921: 6–7, 47, 1922b: 65, 73, 1928a: 186, 199–200, 1943a: 355; Bright & Stark 1973: 63; Bruck 1936b: 30; Chamberlin 1939: 266–271; Wood, S. L. 1956b: 239, 1967d: 37–57, 1972c: 141, 1982b: 510–555, 1986a: 63.

abbreviatus (Schedl) 1954b: 26 (*Cryptocleptes*). Lectotype ♂; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 8.

Distribution: South America (Brazil).

References: (ds) Schedl 1966f: 86, 1970e: 82. (tx) de Ruelle 1970: 100; Schedl 1954b: 26, 1979c: 8.

- acaciae (Blackman)** 1943a: 362 (*Cryptocleptes*). Holotype ♀; Brownsville, Texas [USA]; USNM, Washington. Distribution: North America (Tamaulipas in Mexico/ S Texas in USA). Hosts: *Mimosa* sp. References: (hb) Wood, S. L. 1982b: 550. (ds) Blackwelder & Blackwelder 1948; Wood, S. L. 1982b: 550. (tx) Blackman 1943a: 362; Wood, S. L. 1956b: 238, 1982b: 550.
- acacicolens Wood** 1969b: 23. Holotype ♂; Playa del Coco, Guanacaste, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Acacia* sp. References: (hb) Wood, S. L. 1982b: 545. (ds) Wood, S. L. 1982b: 545. (tx) Wood, S. L. 1969b: 23, 1982b: 545.
- acares (Wood)** 1969b: 32 (*Cryptulocleptes*). Holotype ♂; 30 km SE El Cameron, Oaxaca, Mexico; Wood Collection. Distribution: North America (Jalisco, Oaxaca in Mexico). Hosts: Leguminous tree branches. References: (ec) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 551. (ds) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 551. (tx) Wood, S. L. 1969b: 32, 1982b: 551.
- amassius Wood** 1969b: 25. Holotype ♂; 20 km S Matias Romero, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico). Hosts: *Phoradendron* sp. References: (ds) Wood, S. L. 1982b: 532. (tx) Wood, S. L. 1969b: 25, 1982b: 532.
- aquilus (Wood)** 1969b: 32 (*Cryptulocleptes*). Holotype ♂; 26 km E Morelia, Michoacan, Mexico; Wood Collection. Distribution: North America (Michoacan in Mexico). Hosts: *Acacia* sp. References: (hb) Atkinson et al. 1986: 29; Wood, S. L. 1982b: 552. (ds) Atkinson & Equihua 1985a: 82; Atkinson et al. 1986: 29; Wood, S. L. 1969b: 32, 1982b: 552. (tx) Wood, S. L. 1969b: 32, 1982b: 552.
- arbuti (Wood)** 1969b: 30 (*Cryptulocleptes*). Holotype ♂; 13 km W Texmelucan, Puebla, Mexico; Wood Collection. Distribution: North America (Puebla in Mexico). Hosts: *Arbutus* sp. References: (hb) Atkinson & Equihua 1985a: 82; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 84; Wood, S. L. 1982b: 541. (ds) Atkinson & Equihua 1985a: 82; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 84; Wood, S. L. 1982b: 541. (tx) Wood, S. L. 1969b: 30, 1982b: 541.
- argentiniae (Schedl)** 1958f: 43 (*Bostrichips*). Lectotype, sex?; Argentinien: Cordoba, Dep. Punilla; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 25. Distribution: South America (Argentina). References: (ds) Schedl 1979e: 58. (tx) Schedl 1958f: 43, 1979c: 25; Wood, S. L. 1969d: 23–24.
- atomus Wood** 1980b: 355. Holotype ♂; Finca Monasterios, Cacuagua, Miranda, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: *Theobroma cacao*. References: (tx) Wood, S. L. 1980b: 355.
- bartoni Bruck** 1936b: 32. Holotype ♂; Saddle Peak, Santa Monica Mts., California [USA]; OSUC, Columbus. Distribution: North America (S California in USA). Hosts: *Sphaeracula fasciculata*. References: (ec) Bright 1976a. (hb) Bright & Stark 1973: 63; Chamberlin 1939: 270. (ds) Blackwelder 1939; Bright & Stark 1973: 63; Chamberlin 1939: 270; Wood, S. L. 1982b: 554. (tx) Bruck 1936b: 32; Chamberlin 1939: 270; Wood, S. L. 1957d: 109, 1982b: 544.
- bellus (Schedl)** 1954b: 28 (*Cryptocleptes*). Lectotype ♂; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 36. Distribution: South America (Brazil). References: (ds) Schedl 1966f: 86, 1970e: 82. (tx) Schedl 1954b: 28, 1979c: 36.
- brunneus Wood** 1971: 72. Holotype ♂; Miller Canyon, Huachuca Mts., Arizona [USA]; Wood Collection. Distribution: North America (Chihuahua in Mexico/ Arizona in USA). Hosts: *Quercus* sp. References: (hb) Wood, S. L. 1982b: 524. (ds) Wood, S. L. 1982b: 524. (tx) Wood, S. L. 1971: 72, 1982b: 524.
- bullatus Wood** 1969b: 28. Holotype ♂; 42 km SE Nochixtlan, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico). Hosts: *Phoradendron* sp. References: (hb) Wood, S. L. 1982b: 531. (ds) Wood, S. L. 1982b: 531. (tx) Wood, S. L. 1969b: 28–29, 1982b: 531.
- caritus (Wood)** 1969b: 30 (*Cryptulocleptes*). Holotype ♂; Cerro Punta, Chiriqui, Panama; Wood Collection. Distribution: North America (Panama). Hosts: Tree branches. References: (hb) Wood, S. L. 1982b: 542. (ds) Wood, S. L. 1982b: 542. (tx) Wood, S. L. 1969b: 30–31, 1982b: 542.
- colombianus (Blackman)** 1943a: 361 (*Cryptocleptes*). Holotype ♂; San Vicente, Santander, Colombia; USNM, Washington.

- Distribution: South America (Colombia).
References: (tx) Blackman 1943a: 361; Wood, S. L. 1969b: 33.
- concentralis** Wood 1975a: 27. Holotype ♀; 10 km SE Totolapan, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico). Hosts: (?) *Cassia* sp.
References: (ds) Wood, S. L. 1982b: 523. (tx) Wood, S. L. 1975a: 27, 1982b: 523.
- coniferae** (Wood) 1960b: 64 (*Aphanocleptes*). Holotype ♀; 30 km W La Laja, Chihuahua, Mexico; Wood Collection. Distribution: North America (Chihuahua, Nuevo Leon in Mexico). Hosts: *Picea chihuahuana*, *Pseudotsuga taxifolia*.
References: (hb) Wood, S. L. 1960b: 64, 1982b: 521. (ds) Atkinson & Equihua 1988: 100; Wood, S. L. 1982b: 521. (tx) Wood, S. L. 1960b: 64, 1982b: 521.
- contrarius** Wood 1974a: 14. Holotype ♂; Lagos de Colores, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas in Mexico). Hosts: *Acacia pennatula*.
References: (ds) Wood, S. L. 1982b: 544. (tx) McNamara 1984: 758; Wood, S. L. 1974a: 14, 1982b: 544.
- coracinus** Wood 1969b: 29. Holotype ♂; 34 km N Juchitlan, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico).
References: (hb) Wood, S. L. 1982b: 539. (ds) Wood, S. L. 1982b: 539. (tx) Wood, S. L. 1969b: 29, 1982b: 539.
- costatus** Wood 1956b: 236. Holotype ♂; Madera Canyon, Santa Rita Mts., Arizona [USA]; SMUK, Lawrence. Distribution: North America (Arizona in USA). Hosts: *Quercus* sp.
References: (hb) Wood, S. L. 1982b: 547. (ds) Wood, S. L. 1982b: 547. (tx) Wood, S. L. 1956b: 236, 1982b: 547.
- crassinus** Wood 1969b: 29. Holotype ♂; 24 km W Tehuantepec, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico). Hosts: Leguminous tree.
References: (hb) Wood, S. L. 1982b: 542. (ds) Wood, S. L. 1982b: 542. (tx) Wood, S. L. 1969b: 29, 1982b: 542.
- cuspidis** Wood 1971: 22. Holotype ♀; 10 km NE Teziutlan, Puebla, Mexico, 1600 m; Wood Collection. Distribution: North America (Puebla in Mexico). Hosts: Tree branch.
References: (tx) Wood, S. L. 1971: 22, 1982b: 536.
- dimorphus** (Schedl) 1954b: 25 (*Cryptocleptes*). Lectotype ♂; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 81. Distribution: South America (Brazil).
References: (ds) Schedl 1966g: 86, 1970e: 82. (tx) Schedl 1951h: 254, 1954b: 25, 1957d: 70, 1979c: 81.
- dislocatus** (Blackman) 1920a: 51 (*Cryptocleptes*). Lectotype ♀; Agricultural College [Starkville], Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 553. Distribution: Antilles Islands (Virgin Islands), North America (Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, West Virginia in USA). Hosts: *Carya* spp.
References: (cn) Blackman 1950. (hb) Baker, W. L. 1972: 253; Beal & Massey 1945: 100; Blackman 1922b: 74–75, 1950; Chamberlin 1939: 271; Drooz 1985: 357; Wood, S. L. 1982b: 553. (ds) Atkinson et al. 1991: 158; Beal & Massey 1945: 100; Blackman 1922b: 74–75, 1950; Bright 1985c: 172; Chamberlin 1939: 271; Deyrup 1981b: 5; Drooz 1985: 357; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 553. (tx) Beal & Massey 1945: 100; Blackman 1920a: 51, 1922b: 74–75, 1928a: 207, 1943a: 359; Bright 1985c: 172; Chamberlin 1939: 271; de Ruelle 1970: 100; Schedl 1979c: 82; Wood, S. L. 1956b: 238, 1962: 76, 1982b: 553.
- excavatus** (Wood) 1969b: 33 (*Cryptulocleptes*). Holotype ♂; 30 km SE El Cameron, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico). Hosts: *Gossypium* sp.
References: (hb) Wood, S. L. 1982b: 520. (ds) Wood, S. L. 1982b: 520. (tx) Wood, S. L. 1969b: 33, 1982b: 520.
- fimbriatus** Wood 1982a: 229. Holotype ♀; Zacapoaxtla, Puebla, Mexico, 2150 m; Wood Collection. Distribution: North America (Puebla in Mexico). Hosts: *Phoradendron* sp.
References: (hb) Atkinson & Equihua 1985b: 233. (ds) Atkinson & Equihua 1985b: 233. (tx) Wood, S. L. 1982a: 229, 1982b: 543.
- frondicolens** Wood 1971: 73. Holotype ♂; Herb Martyr Campground, Chiricahua Mts., Arizona [USA]; Wood Collection. Distribution: North America (S Arizona in USA). Hosts: *Yucca* sp. leaves.
References: (hb) Wood, S. L. 1982b: 543. (ds) Wood, S. L. 1982b: 543. (tx) McNamara 1977: 199; Wood, S. L. 1971: 73, 1982b: 543.
- funbris** Wood 1969b: 27. Holotype ♂; 27 km W Durango, Durango, Mexico; Wood Collection. Distribution: North America (Coahuila, Durango in Mexico). Hosts: *Phoradendron boleanum*.
References: (hb) Wood, S. L. 1982b: 530. (ds) Atkinson & Equihua 1988: 100; Wood, S. L. 1982b: 530. (tx) Wood, S. L. 1969b: 27–28, 1982b: 530.

- funereus** Wood 1971: 21. Holotype ♂; Volcan Colima, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Phoradendron longifolium*.
References: (hb) Wood, S. L. 1982b: 530. (ds) Wood, S. L. 1982b: 530. (tx) Wood, S. L. 1971: 21, 1982b: 530.
- furcatus** Wood 1969b: 26. Holotype ♂; 35 km N Juchitlan, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Phoradendron* sp.
References: (hb) Atkinson & Equihua 1985b: 233. (ds) Atkinson & Equihua 1985b: 233; Wood, S. L. 1982b: 528. (tx) Wood, S. L. 1969b: 26–27, 1982b: 528.
- fulvescens** Wood 1971: 21. Holotype ♂; 18 km N Huajuapán, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Phoradendron* sp.
References: (hb) Wood, S. L. 1982b: 527. (ds) Atkinson et al. 1986: 60; Wood, S. L. 1982b: 527. (tx) Wood, S. L. 1971: 21, 1982b: 527.
- furvus** Wood 1969b: 26. Holotype ♂; Canas, Guanacaste, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/Honduras).
Hosts: *Phoradendron robustissimum*.
References: (hb) Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 85; Wood, S. L. 1982b: 528. (ds) Atkinson & Equihua 1988: 100; Atkinson et al. 1986: 30, 60; Burgos & Saucedo 1983: 85; Wood, S. L. 1982b: 528. (tx) Wood, S. L. 1969b: 26, 1982b: 528.
- graniticus** Wood 1971: 21. Holotype ♀; 43 km SE Nochixtlan, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Phoradendron* sp.
References: (hb) Wood, S. L. 1982b: 534. (ds) Wood, S. L. 1982b: 534. (tx) Wood, S. L. 1971: 21–22, 1982b: 534.
- guevinae** (Schedl) 1966e: 45 (*Bostrichips*). Holotype ♀; Sudehile, Termas Manzanar; Schedl Collection in NHMW, Wien.
Distribution: South America (Chile).
Hosts: *Guevina avellana*.
References: (tx) Schedl 1966e: 45, 1979c: 114.
- heliura** Wood 1956b: 237. Holotype ♂; Luling, Texas [USA]; SMUK, Lawrence.
Distribution: North America (S Texas in USA).
Hosts: *Condalia obtusifolia*.
References: (hb) Wood, S. L. 1982b: 548. (ds) Wood, S. L. 1982b: 548, 1956b: 237. (tx) Wood, S. L. 1956b: 237, 1959a: 58, 1969b: 24, 1982b: 548.
- hopkinsi** Blackman 1928a: 200. Holotype ♂; Piru Ck., Ventura Co., California [USA]; USNM, Washington.
Distribution: North America (S California in USA).
Hosts: *Fremontia californica*.
References: (cn) Doane et al. 1936. (cc) Bushing & Bright 1965: 203. (hb) Bright & Stark 1973: 63; Chamberlin 1939: 269; Doane et al. 1936. (ds) Blackwelder 1939; Bright & Stark 1973: 63; Chamberlin 1939: 269; Furniss, R. L. & Carolin 1977: 383; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 540. (tx) Blackman 1928a: 200–201; Bruck 1936b: 31; Chamberlin 1939: 269; Wood, S. L. 1969b: 29.
- huachucae** Blackman 1943a: 355. Holotype ♂; Huachuca Mts., Arizona [USA]; USNM, Washington, lost.
Figures: Blackman 1943a: fig. 15.
Distribution: North America (Chihuahua in Mexico/Arizona in USA).
References: (ds) Blackwelder & Blackwelder 1948; Wood, S. L. 1960: 65, 1982b: 554. (tx) Blackman 1943a: 355; McNamara 1984: 758; Wood, S. L. 1960b: 65, 1982b: 554.
- insularis** (Blackman) 1943a: 359 (*Cryptocleptes*). Holotype ♀; Cayamas, Cuba; USNM, Washington.
Figures: Blackman 1943a: figs. 16–17.
Distribution: Antilles Islands (Cuba).
References: (ds) Bright 1985c: 172. (tx) Blackman 1943a: 359; Bright 1985c: 172.
- lecontei** Blackman 1920a: 49. Holotype ♂; Washington, D. C. [USA]; MCZ, Cambridge.
Distribution: North America (District of Columbia, Georgia, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Virginia, West Virginia in USA).
Hosts: *Castanea dentata*, *Celtis* sp., *Juglans nigra*, *Ostrya virginica*, *Quercus* spp.
References: (cn) Blackman 1950; Doane et al. 1936. (hb) Baker, W. L. 1972: 253; Beal & Massey 1945: 101; Blackman 1950; Chamberlin 1939: 269; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Wood, S. L. 1982b: 527. (ds) Atkinson et al. 1991: 158; Beal & Massey 1945: 101; Blackman 1950; Blackwelder 1939; Chamberlin 1939: 269; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1985: 356; Kirk 1970; Kleine 1934a: 166; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 527. (tx) Beal & Massey 1945: 101; Blackman 1920a: 46–50, 1928a: 200–203; Bruck 1936b: 31; Chamberlin 1939: 269; Wood, S. L. 1969d: 24, 1982b: 527.
- leechi** Wood 1980b: 356. Holotype ♂; 3 km NNE Angwin, Napa Co., California [USA]; CAS, San Francisco.
Distribution: North America (California in USA).
Hosts: *Phoradendron flavescens* var. *villosum*.
References: (ds) Wood, S. L. 1982b: 529. (tx) Wood, S. L. 1980b: 356, 1982b: 529.
- mancus** Wood 1969b: 24. Holotype ♂; 3 km E Armeria, Colima, Mexico; Wood Collection.
Distribution: North America (Colima in Mexico).
References: (hb) Wood, S. L. 1982b: 549. (ds)

- Atkinson & Equihua 1988: 100; Wood, S. L. 1982b: 549. (tx) Wood, S. L. 1969b: 24–25, 1982b: 549.
- mandibularis** Wood 1984: 118. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
References: (ec) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984: 118.
- mendicus** (Wood) 1969b: 31 (*Cryptuloceptes*). Holotype ♂; 11 km S Colima, Colima, Mexico; Wood Collection.
Distribution: North America (Colima in Mexico).
Hosts: Leguminous tree.
References: (ec) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 554. (ds) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 554. (tx) Wood, S. L. 1969b: 31–32, 1982b: 554.
- minor** (Blackman) 1928a: 207 (*Cryptuloceptes*). Holotype ♀; Cayamas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba).
References: (ds) Blackwelder 1947: 784; Bright 1985c: 172. (tx) Blackman 1928a: 207–208, 1943a: 359; Bright 1985c: 172.
- minulus** (Wood) 1956b: 238 (*Cryptuloceptes*). Holotype ♀; 10 km W Zanatepec, Oaxaca, Mexico; SMUK, Lawrence.
Distribution: North America (Oaxaca in Mexico).
Hosts: Malvaceae tree.
References: (hb) Wood, S. L. 1982b: 550. (ds) Wood, S. L. 1982b: 550. (tx) de Ruelle 1970: 100; Wood, S. L. 1956b: 238, 1982b: 550.
- mirus** (Wood) 1969b: 32 (*Cryptuloceptes*). Holotype ♂; 38 km S Matias Romero, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in USA).
Hosts: Shrub.
References: (hb) Wood, S. L. 1982b: 552. (ds) Wood, S. L. 1982b: 552. (tx) Wood, S. L. 1969b: 32, 1982b: 552.
- mongolica** (Sokanovskii) 1959a: 277 (*Gretschkinia*). Syntypes, sex²; Mongolia, pres de la frontiere de l'USSR; Sokanovskii Collection, not located.
Distribution: Asia (Gansu, Hebei, Liaoning, Shanxi in China/Mongolia).
Hosts: *Ulmus pumila*.
References: (ds) Yanovskii & Tegshzhargal 1985: 409. (tx) Michalski 1969b: 568; Schedl 1962p: 204, 1979c: 158; Sokanovskii 1959a: 277.
- mucronatus** (Wood) 1969b: 34 (*Cryptuloceptes*). Holotype ♂; La Lima, Cortez, Honduras; Wood Collection.
Distribution: North America (Honduras).
Hosts: Liana.
References: (hb) Wood, S. L. 1982b: 536. (ds) Wood, S. L. 1982b: 536. (tx) Wood, S. L. 1969b: 34–35, 1982b: 536.
- multispinatus** Wood 1957b: 109. Holotype ♂; Gainesville, Florida [USA]; USNM, Washington.
Distribution: North America (Florida in USA).
Hosts: *Tilia cienserrata*.
References: (ds) Wood, S. L. 1982b: 545. (tx) Wood, S. L. 1957d: 109, 1982b: 545.
- murilloi** (Blackman) 1943a: 360 (*Cryptuloceptes*). Holotype ♀; San Vicente, Sant., Colombia, 692 m; USNM, Washington.
Figures: Blackman 1943a: fig. 21.
Distribution: South America (Colombia).
Hosts: *Albizia macrocarpa*.
References: (tx) Blackman 1943a: 360; Schedl 1979c: 162.
- obesus** (Wood) 1969b: 33 (*Cryptuloceptes*). Holotype ♂; 30 km SE El Cameron, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Gossypium* sp.
References: (hb) Wood, S. L. 1982b: 522. (ds) Wood, S. L. 1982b: 522. (tx) Wood, S. L. 1969b: 33, 1982b: 522.
- peniculus** Wood 1969b: 28. Holotype ♂; 13 km W Texmelucan, Puebla, Mexico; Wood Collection.
Figures: Atkinson et al. 1986: 28.
Distribution: North America (Puebla in Mexico).
Hosts: *Phoradendron* sp.
References: (hb) Atkinson & Equihua 1985a: 81; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 82; Wood, S. L. 1982b: 532. (ds) Atkinson & Equihua 1985: 81; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 82; Wood, S. L. 1982b: 532. (tx) Atkinson et al. 1986: 28; Muskus 1984: 82; Wood, S. L. 1969b: 28, 1982b: 532.
- perseae** Wood 1981: 125. Holotype ♂; Cerro Chipinque, Monterrey, Nuevo Leon, Mexico; Wood Collection.
Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Persea* sp.
References: (hb) Atkinson & Equihua 1985b: 233. (ds) Atkinson & Equihua 1985b: 233; Wood, S. L. 1982b: 553. (tx) Wood, S. L. 1981: 125, 1982b: 553.
- phoradendri** Blackman 1928a: 202. Holotype ♂; Victoria, Texas [USA]; USNM, Washington.
Distribution: North America (Chihuahua in Mexico/ S Arizona, S California, SW Texas in USA).
Hosts: *Phoradendron flavescens*.
References: (hb) Bright & Stark 1973: 64; Chamberlin 1939: 269; Wood, S. L. 1982b: 529. (ds) Atkinson 1989b: 336; Blackwelder 1939; Bright & Stark 1973: 64; Chamberlin 1939: 269; Furniss, R. L. & Carolin 1977: 383; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutehler 1933: 53;

- Wood, S. L. 1960b: 65, 1982b: 529. **(tx)** Atkinson 1989b: 336; Blackman 1928a: 202–203; Bright 1966b: 306; Bruck 1936b: 31; Chamberlin 1939: 269; Keen 1929a: 26; de Ruelle 1970: 113; Wood, S. L. 1960b: 65, 1969b: 25–26, 1982b: 529.
- pini Wood** 1982a: 229. Holotype ♀; Km 43 on Texcoco-Calpualpan highway, Mexico, Mexico; Wood Collection.
Distribution: North America (Mexico in Mexico).
Hosts: *Pinus hartwegii* x *P. montezumae*.
References: **(hb)** Atkinson & Equihua 1985a: 82. **(ds)** Atkinson & Equihua 1985a: 82. **(tx)** Wood, S. L. 1982a: 229.
- plaumanni (Schedl)** 1951m: 106 (*Cryptocleptes*). Syntypes, sex[?]; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 196 (citation of holotype invalid).
References: **(tx)** Schedl 1951m: 106, 1954b: 25, 1959m: 549, 1979c: 196.
- plumalis Wood** 1969b: 29. Holotype ♂; 18 km N Huajuapán, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Psittacanthus* sp.
References: **(hb)** Wood, S. L. 1982b: 538. **(ds)** Wood, S. L. 1982b: 538. **(tx)** Wood, S. L. 1969b: 29, 1982b: 538.
- pumilus (Wood)** 1969b: 31 (*Cryptocleptes*). Holotype ♂; 53 km S Colima, Mexico; Wood Collection.
Distribution: North America (Colima in Mexico).
Hosts: Shrub.
References: **(ce)** Equihua & Atkinson 1986: 628. **(hb)** Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 555. **(ds)** Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 555. **(tx)** Wood, S. L. 1969b: 31, 1982b: 555.
- quercicolens Wood** 1956b: 235. Holotype ♂; 50 km SE El Salto, Durango, Mexico; SMUK, Lawrence.
Distribution: North America (Durango, Michoacán, Sinaloa in Mexico).
Hosts: *Quercus* sp.
References: **(hb)** Wood, S. L. 1982b: 526. **(ds)** Wood, S. L. 1982b: 526. **(tx)** Wood, S. L. 1956b: 235, 1982b: 526.
- quercinus (Wood)** 1969b: 30 (*Cryptocleptes*). Holotype ♂; 37 km W Durango, Durango, Mexico; Wood Collection.
Distribution: North America (Durango, Oaxaca in Mexico).
Hosts: *Quercus* sp.
References: **(hb)** Wood, S. L. 1982b: 522. **(ds)** Wood, S. L. 1982b: 522. **(tx)** Wood, S. L. 1969b: 30, 1982b: 522.
- querneus Wood** 1971: 20. Holotype ♂; 17 km E Pachuca, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo, Nuevo Leon, Queretaro, Vera Cruz in Mexico).
Hosts: *Quercus* spp.
References: **(hb)** Atkinson & Equihua 1985a: 81; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 82; Wood, S. L. 1982b: 521. **(ds)** Atkinson & Equihua 1985a: 81; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 82; Wood, S. L. 1971: 20–21, 1982b: 521. **(tx)** Wood, S. L. 1971: 20, 1982b: 521.
- recavus Wood** 1974a: 14. Holotype ♀; 8 km S Simojovel, Chiapas, Mexico; CNCI, Ottawa.
Distribution: North America (Chiapas in Mexico).
References: **(ds)** Wood, S. L. 1982b: 519. **(tx)** McNamara 1984: 758; Wood, S. L. 1974a: 14, 1982b: 519.
- rigidus (LeConte)** 1876: 362 (*Cryphalus*). Lectotype ♂; Canada; MCZ, Cambridge, designated by Wood 1982b: 541.
Figures: Blackman 1920a: figs. 35–36.
Distribution: North America (apparently Ontario in Canada/ E Kansas, Michigan, New York, Ohio, Pennsylvania in USA).
Hosts: *Tilia americana*.
Notes: (3) Blackman 1920a: 47 (redescribed), 1928a: 202 (redescribed).
References: **(cn)** Blackman 1950; Doane et al. 1936; Swaine 1918a: 82. **(hb)** Baker, W. L. 1972: 253; Blackman 1950; Bright 1976d: 103; Chamberlin 1939: 268; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Kirkendall 1984: 238; Swaine 1918a: 82; Wood, S. L. 1982b: 541. **(ds)** Blackman 1950; Blackwelder 1939; Blatchley & Leng 1916: 650; Bright 1976d: 103; Chamberlin 1939: 268; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1985: 356; Hagedorn 1910d: 45; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666; Kleine 1913b: 119, 1914b: 409, 1934a: 166; Leng 1920: 339; Schwarz 1886: 42; Swaine 1909: 93; Ulke 1902: 56; Wood, S. L. 1982b: 541. **(tx)** Blackman 1920a: 36–37, 48–49, 1922b: 73, 1928a: 200–201, 1943a: 355, 1982a; Blatchley & Leng 1916: 650; Bright 1976d: 103; Bruck 1936b: 31; Chamberlin 1939: 268; Hagedorn 1910a: 87; LeConte 1876: 362; Schwarz 1886: 42; Sokanovskii 1959a: 277; Swaine 1909: 93, 1918a: 62–63, 82; Wood, S. L. 1967d: 402, 1982b: 541.
- drakei** Blackman 1920a: 48. Lectotype ♂; Syracuse, New York [USA]; USNM, Washington, designated by Wood 1982b: 541. Synonymy: Wood 1957c: 402.
References: **(cn)** Blackman 1950; Doane et al. 1936. **(hb)** Blackman 1950; Chamberlin 1939: 268; Doane et al. 1936. **(ds)** Anonymous 1926c: 517; Blackman 1950; Blackwelder 1939; Chamberlin 1939: 268; Leng & Mutchler 1927: 52; Leonard 1928: 517. **(tx)** Blackman 1920a: 48–49, 1928a: 200, 202; Bruck 1936b: 31; Chamberlin 1939: 268; Wood, S. L. 1957c: 402, 1982b: 541.

- securigerus** (Blackman) 1943a: 364 (*Chalcohyus*).
Holotype ♀; Yauco, Puerto Rico; USNM, Washington.
Distribution: Antilles Islands (Haiti/Puerto Rico), North America (Florida in USA).
Hosts: *Amyris balsamifera*.
References: (ds) Atkinson et al. 1991: 158; Bright 1955c: 172; Wolcott 1948: 354. (tx) Blackman 1943a: 364; Bright 1955c: 172; Schedl 1979c: 223; Wood, S. L. 1972b: 141.
- securus** Wood 1977b: 216. Holotype ♀; 8 km W Tulancingo, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Quercus* sp.
References: (ds) Wood, S. L. 1982b: 526. (tx) Wood, S. L. 1977b: 216, 1982b: 526.
- sedulus** Blackman 1928a: 204. Holotype ♂; Bear Canyon, Catalina Mts., Arizona [USA]; USNM, Washington.
Distribution: North America (Arizona, New Mexico, W Texas in USA).
Hosts: *Quercus emoryi*, *Q. gambelii*, *Q.* spp.
References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 269; Doane et al. 1936; Wood, S. L. 1982b: 525. (ds) Atkinson et al. 1991: 158; Blackwelder 1939; Chamberlin 1939: 269; Furniss, R. L. & Carolin 1977: 383; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 525. (tx) Blackman 1928a: 204; Bruck 1936b: 31; Chamberlin 1939: 269; Keen 1929a: 26; Wood, S. L. 1956b: 235, 1971: 151, 1982b: 525.
- gambelii** Blackman 1928a: 205. Holotype ♂; Peloncillo Reserve, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1972c: 151.
References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 270; Doane et al. 1936. (ds) Blackwelder 1939; Chamberlin 1939: 270; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53. (tx) Blackman 1928a: 205–208; Bruck 1936b: 32; Chamberlin 1939: 270; Keen 1929a: 26; McNamara 1984: 758; Wood, S. L. 1956b: 235, 1972c: 151.
- barberi** Blackman 1928a: 206. Holotype ♂; Williams, Arizona [USA]; USNM, Washington. Synonymy: Wood 1972c: 151.
References: (hb) Chamberlin 1939: 270. (ds) Blackwelder 1939; Chamberlin 1939: 270; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53. (tx) Blackman 1928a: 200, 206–207; Bruck 1936b: 32; Chamberlin 1939: 270; Keen 1929a: 26; de Ruette 1970: 113; Wood, S. L. 1956b: 235, 1972c: 151.
- simplex** Wood 1984e: 118. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
References: (cc) Equihua & Atkinson 1987: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 118.
- Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 118.
- spicatus** (Wood) 1969b: 33 (*Cryptulocleptus*).
Holotype ♂; Cerro Punta, Chiriqui, Panama, 1800 m; Wood Collection.
Distribution: North America (Panama).
Hosts: Large log.
References: (hb) Wood, S. L. 1982b: 538. (ds) Wood, S. L. 1982b: 538. (tx) Wood, S. L. 1969b: 33–34, 1982b: 538.
- spinatifer** Wood 1988a: 32. Holotype ♂; 27 km W Tehuantepec, Oaxaca, Mexico; SMUK, Lawrence, automatic.
Distribution: North America (Oaxaca in Mexico).
Hosts: Leguminous tree limb.
References: (tx) Wood, S. L. 1988a: 32.
- spinatus** Wood 1956b: 154. Holotype ♂; 27 km W Tehuantepec, Oaxaca, Mexico; SMUK, Lawrence, preoccupied by Schedl 1951.
References: (cc) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 546. (ds) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 546. (tx) Wood, S. L. 1956b: 154, 1957d: 109. 1969b: 23, 1982b: 546.
- spinatus** (Schedl) 1951d: 21 (*Bostrichips*).
Syn-types, sex?; Chile; Schedl Collection in NHMW, Wien, and Museo Nacional de Historia Natural, Santiago.
Distribution: South America (Chile).
References: (ds) Schedl 1972d: 143. (tx) Schedl 1951d: 21, 1972d: 143, 1979c: 234.
- spinura** Wood 1959a: 58. Holotype ♂; Oak Creek Canyon, Arizona [USA]; Wood Collection.
Distribution: North America (Chihuahua in Mexico/ Arizona in USA).
Hosts: *Ceanothus integrerrimus*.
References: (cc) Bright 1976a. (hb) Wood, S. L. 1982b: 548. (ds) Wood, S. L. 1959a: 58, 1960b: 65, 1982b: 548. (tx) Wood, S. L. 1959a: 58, 1960b: 65, 1969b: 24, 1982b: 548.
- squameus** Wood 1984e: 118. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Louhocaropus* sp.
References: (cc) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 118.
- squamosus** (Schedl) 1978c: 300 (*Neoglostatus*).
Holotype, sex?; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1978c: 300.
- subpilosus** (Wood) 1956b: 238 (*Cryptocleptes*).
Holotype ♀; 32 km E Tehuantepec, Oaxaca, Mexico; SMUK, Lawrence.

- Distribution: North America (Oaxaca in Mexico).
Hosts: *Celtis iguanae*.
References: (hb) Wood, S. L. 1982b: 551. (ds) Wood, S. L. 1982b: 551. (tx) de Ruelle 1970: 100; Wood, S. L. 1956b: 238, 1969b: 31, 1982b: 551.
- subulatus (Wood)** 1969b: 34 (*Cryptocleptes*).
Holotype ♂; Volcan Pacaya, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: *Eschweilera* sp.
References: (hb) Wood, S. L. 1982b: 537. (ds) Wood, S. L. 1982b: 537. (tx) Wood, S. L. 1969b: 34, 1982b: 537.
- tenellus Wood** 1971: 23. Holotype ♂; 33 km W Morelia, Michoacan, Mexico; Wood Collection.
Distribution: North America (Michoacan in Mexico).
Hosts: *Phoradendron* sp., *Psittacanthus* sp.
References: (hb) Atkinson et al. 1986: 31; Burgos & Saucedo 1983: 84; Wood, S. L. 1982b: 539. (ds) Atkinson & Equihua 1985b: 233; Atkinson et al. 1986: 31; Burgos & Saucedo 1983: 84; Wood, S. L. 1982b: 539. (tx) Wood, S. L. 1971: 23, 1982b: 539.
- thomasi Wood** 1967d: 38. Holotype ♂; Mazatlan, Sinaloa, Mexico; CNCI, Ottawa.
Distribution: North America (Jalisco, Sinaloa in Mexico).
Hosts: A small tree.
References: (ce) Equihua & Atkinson 1986: 629. (hb) Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 523. (ds) Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 523. (tx) de Ruelle 1970: 113; Wood, S. L. 1967d: 38, 1982b: 523.
- truncatus Wood** 1984e: 119. Holotype ♂; Playa Perula, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Randia* sp.
References: (ce) Equihua & Atkinson 1986: 629. (hb) Equihua & Atkinson 1986: 629. (ds) Equihua & Atkinson 1986: 629. (tx) Wood, S. L. 1984e: 119.
- tumidulus Wood** 1975a: 28. Holotype ♂; 129 km NE San Juan del Rio on Highway 120, Queretaro, Mexico; CNCI, Ottawa.
Distribution: North America (Queretaro in Mexico).
Hosts: Mistletoe on oak.
References: (ds) Wood, S. L. 1982b: 533. (tx) McNamara 1984: 758; Wood, S. L. 1975a: 28, 1982b: 533.
- turnboui Wood** 1977b: 217. Holotype ♀; Bentsen-Rio Grande State Park, Hidalgo Co., Texas [USA]; Wood Collection.
Distribution: North America (W Texas in USA).
Hosts: *Prosopis glandulosa*.
References: (ds) Wood, S. L. 1982b: 520. (tx) Wood, S. L. 1977b: 217, 1982b: 520.
- unimodus (Schedl)** 1959m: 549 (*Cryptocleptes*).
Holotype ♂; Matto Grosso: Rio Caraguata; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1966f: 86. (tx) Schedl 1959m: 549, 1979c: 260.
- vallatus Wood** 1969b: 24. Holotype ♂; Volcan Colima, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Struthanthus venetus*.
References: (hb) Wood, S. L. 1982b: 525. (ds) Wood, S. L. 1982b: 525. (tx) Wood, S. L. 1969b: 24, 1982b: 525.
- verdicus Wood** 1969b: 27. Holotype ♂; 7 km N Tlaxco, Tlaxcala, Mexico; Wood Collection.
Distribution: North America (Oaxaca, Tlaxcala in Mexico).
Hosts: *Phoradendron* spp.
References: (hb) Wood, S. L. 1982b: 535. (ds) Wood, S. L. 1982b: 535. (tx) Wood, S. L. 1969b: 27, 1982b: 535.
- verticillus Wood** 1971: 22. Holotype ♂; 27 km N Ixmiquilpan, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Phoradendron* sp.
References: (ds) Wood, S. L. 1982b: 534. (tx) Wood, S. L. 1971: 22, 1982b: 534.
- vesculus Wood** 1969b: 24. Holotype ♂; 3 km W Armeria, Colima, Mexico; Wood Collection.
Distribution: North America (Colima, Jalisco in Mexico).
Hosts: *Randia* sp.
References: (ce) Equihua & Atkinson 1986: 629. (hb) Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 547. (ds) Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 547. (tx) Wood, S. L. 1969b: 24, 1982b: 547.
- viscicolens Wood** 1969b: 25. Holotype ♂; Zamorano, Morazan, Honduras; Wood Collection.
Distribution: North America (Honduras).
Hosts: *Phoradendron robustissimum*.
References: (hb) Wood, S. L. 1982b: 535. (ds) Wood, S. L. 1982b: 535. (tx) Wood, S. L. 1969b: 25–26, 1982b: 535.
- viscivorus Wood** 1969b: 25. Holotype ♂; Volcan Ceboruco, Nayarit, Mexico; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: *Phoradendron* cf. *robinsonii*.
References: (hb) Wood, S. L. 1982b: 531. (ds) Wood, S. L. 1982b: 531. (tx) Wood, S. L. 1969b: 25, 1982b: 531.
- yuccae (Wood)** 1956b: 239 (*Cryptocleptes*). Holotype ♀; Tecamachalco, Puebla, Mexico; SMUK, Lawrence.
Distribution: North America (Puebla in Mexico).
Hosts: *Yucca* sp. leaves.
References: (hb) Wood, S. L. 1982b: 549. (ds)

Wood, S. L. 1982b: 549. (tx) Wood, S. L. 1956b: 239, 1982b: 549.

guccavorus Wood 1971: 23. Holotype ♂; 15 km W Durango, Durango, Mexico; Wood Collection. Distribution: North America (Durango in Mexico).

Hosts: *Yucca* sp. leaves.

References: (hb) Atkinson & Equihua 1985a: 81; Wood, S. L. 1982b: 540. (ds) Atkinson & Equihua 1985a: 81, 1985b: 233; Wood, S. L. 1982b: 540. (tx) Wood, S. L. 1971: 23–24, 1982b: 540.

Genus *Stenoclyptus* Blackman

STENOCLYPTUS BLACKMAN 1943a: 356. Type-species: *Stenoclyptus rhois* Blackman = *Pseudothysanoes sulcatus* Bruck, original designation.

Keys: Wood 1982b: 556.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Blackman 1943a: 356; Bright & Stark 1973: 62; Schedl 1953d: 86; Wood, S. L. 1956a: 147, 1956b: 239, 1982b: 556, 1986a: 65.

ruficollis Wood 1956b: 239. Holotype ♀; 20 km SE Matamoros, Puebla, Mexico; SMUK, Lawrence. Distribution: North America (Puebla in Mexico). Hosts: Twigs of a large tree.

References: (hb) Wood, S. L. 1982b: 556. (ds) Wood, S. L. 1982b: 556. (tx) de Ruelle 1970: 113; Wood, S. L. 1956b: 239, 1982b: 556.

sulcatus (Bruck) 1936b: 33 (*Pseudothysanoes*). Holotype ♂; Mt. Wilson, Los Angeles Co., California [USA]; OSUC, Columbus.

Figures: Blackman 1943a: figs. 9–10.

Distribution: North America (S California in USA).

Hosts: *Ceanothus integririnus*, *Rhus laurina*.

Notes: (1) Wood 1956b: 240 (to *Stenoclyptus*).

References: (hb) Bright & Stark 1973: 63; Chamberlin 1939: 270; Wood, S. L. 1982b: 556. (ds) Blackwelder 1939; Bright & Stark 1973: 63; Wood, S. L. 1982b: 556. (tx) Bright 1966b: 305; Bruck 1936b: 33; Chamberlin 1939: 270; Wood, S. L. 1956b: 240, 1973c: 186, 1982b: 556.

rhois Blackman 1943a: 357. Holotype ♀; Orange, Orange Co., California [USA]; USNM, Washington. Synonymy: Wood 1973c: 186.

References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1943a: 357–358; Wood, S. L. 1973c: 186.

ceanothi Blackman 1943a: 358. Holotype ♀; Yosemite National Park, California [USA]; USNM, Washington. Synonymy: Bright 1966b: 305.

References: (ds) Blackwelder & Blackwelder 1948; Bright 1966b: 305. (tx) Blackman 1943a: 358; Bright 1966b: 305; Wood, S. L. 1973c: 186.

Genus *Saurotocis* Wood

SAUROTOCIS WOOD 1984b: 229. Type-species: *Micracidendron tomicoides* Schedl, original designation.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Wood, S. L. 1984b: 229, 1986a: 63, 65.

dispar (Schedl) 1961e: 142 (*Micracidendron*). Holotype ♂; Madagascar, Perinet and Betsatsaky; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1961e: 142, 1977b: 120, 1979c: 82.

tomicoides (Schedl) 1961e: 141 (*Micracidendron*). Holotype ♂; Madagascar, Perinet and Betsatsaky; IRSM, Madagascar.

Distribution: Madagascar.

References: (hb) Schedl 1977b: 120–121. (ds) Schedl 1977b: 120–121. (tx) Schedl 1961e: 141, 1977b: 121, 1979c: 253–254.

Genus *Thysanoes* LeConte

THYSANOES LECONTE 1876: 369. Type-species: *Thysanoes fimbriicornis* LeConte, monobasic.

Keys: Wood 1982b: 557.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Beal & Massey 1945: 59, 101; Blackman 1920a: 27, 1922b: 65, 71, 1925a: 136, 197, 1943a: 342, 351, 363; Chamberlin 1939: 262–265; LeConte 1876: 369; LeConte & Horn 1883: 519–520; Swaine 1909: 147, 1913: 44, 82; Wood, S. L. 1956a: 147, 1956b: 233, 239, 351–353, 1982b: 557–570, 1986a: 65.

adonis Wood 1969b: 36. Holotype ♀; 47 km W Quiroga, Michoacan, Mexico; Wood Collection. Distribution: North America (Michoacan).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 556. (tx) Wood, S. L. 1969b: 36, 1982b: 556.

berbericolens Wood 1971: 73. Holotype ♀; Nogal Lake, Lincoln Co., New Mexico [USA]; Wood Collection.

Distribution: North America (New Mexico in USA). Hosts: *Berberus fremontii*.

References: (ds) Wood, S. L. 1982b: 561. (tx) Wood, S. L. 1971: 73, 1982b: 561.

berchemiae Blackman 1920a: 44. Lectotype ♀; Vicksburg, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 561.

Figures: Blackman 1920a: figs. 26, 29.

Distribution: North America (Florida, Louisiana, Mississippi, Texas, Virginia in USA).

Hosts: *Berchemia scandens*, *Quercus* sp., *Ulmus* sp. Notes: (1) Blackman 1922b: 73 (lapsus calami corrected in original spelling from *berschemiae*).

References: (cn) Blackman 1950; Doane et al. 1936. (hb) Baker, W. L. 1972: 253; Blackman 1950; Chamberlin 1939: 265; Doane et al. 1936; Kirken-

- dall 1984: 238. **(ds)** Blackman 1950; Chamberlin 1939: 265; Hoffmann 1942: 12; Kleine 1934a: 166; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 561. **(tx)** Blackman 1920a: 44, 1922b: 71, 73, 1928a: 197, 199, 1943a: 352; Chamberlin 1939: 265; de Ruelle 1970: 114; Wood, S. L. 1956b: 234, 1982b: 561.
- epicaris Wood** 1969b: 35. Holotype ♀; 39 km S Mazamitla, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: Leguminous tree. References: **(cc)** Equihua & Atkinson 1986: 629. **(hb)** Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 563. **(ds)** Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 563. **(tx)** Wood, S. L. 1969b: 35, 1982b: 563.
- fimbricornis LeConte** 1876: 370. Lectotype ♀; Lancaster Co., Pennsylvania [USA]; MCZ, Cambridge, designated by Wood 1982b: 564. Figures: Blackman 1920a: figs. 23–24, 27. Distribution: North America (Durango, Hidalgo, Tamaulipas, Veracruz in Mexico/ District of Columbia, Florida, Illinois, Maryland, Mississippi, New Jersey, North Carolina, Pennsylvania, Texas, Virginia, West Virginia in USA). Hosts: *Acacia* sp., *Acer rubrum*, *Carya* sp., *Celtis* sp., *Gleditsia triacanthos*, *Morus alba*, *Quercus* sp. Notes: (3) Blackman 1920a: 42 (redescribed). References: **(bv)** Turnbull & Franklin 1980. **(cn)** Blackman 1950; Doane et al. 1936; Packard 1890: 293; Swaine 1918a: 83. **(ec)** Burks 1979: 781; Bushing 1965: 468. **(hb)** Baker, W. L. 1972: 253; Beal & Massey 1945: 101–102; Blackman 1922b, 1950; Bright 1976d: 104; Chamberlin 1939: 264; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Felt 1906: 716; Kirkendall 1984: 238; Packard 1890: 293; Riley 1891a: 130; Swaine 1918a: 83. **(ds)** Anonymous 1926c: 517; Atkinson & Equihua 1988: 100; Beal & Massey 1942, 1945: 101–102; Blackman 1922b: 71–72, 1950; Blatchley & Leng 1916: 649; Bright 1976d: 104, 1985c: 172; Chamberlin 1939: 264; Chittenden 1890; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1986: 367; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 145, 1914b: 399; Leng 1920: 339; Leonard 1928: 517; Riley 1891a: 130; Smith, J. B. 1910: 403; Turnbull & Franklin 1980; Ulke 1902: 56; Wood, S. L. 1982b: 564. **(tx)** Beal & Massey 1945: 101–102; Blackman 1920a: 36–37, 1922b: 71–72, 1928a: 197–198, 1943a: 351; Blatchley & Leng 1916: 649; Bright 1976d: 104, 1985c: 172; Chamberlin 1939: 264; Hagedorn 1910a: 120; Hamilton 1891: 130; Hopkins 1914: 130; LeConte 1876: 370; LeConte & Horn 1883: 519; Schwarz 1889: 165, 1894: 45, 1896: 45; Swaine 1909: 147, 1918a: 83; Wood, S. L. 1956b: 233, 1969b: 35, 1982b: 564.
- granulifer Wood** 1974a: 15. Holotype ♂; San Cristobal de las Casas, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas in Mexico). References: **(ds)** Wood, S. L. 1982b: 562. **(tx)** McNamara 1984: 759; Wood, S. L. 1974a: 15, 1982b: 562.
- inornatus Wood** 1971: 24. Holotype ♀; Volcan Colima, Jalisco, Mexico; Wood Collection. Distribution: North America (Aguascalientes, Jalisco in Mexico). Hosts: *Mimosa* sp., *Rhus* sp. References: **(hb)** Atkinson et al. 1986: 31. **(ds)** Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 31, 60; Wood, S. L. 1982b: 560. **(tx)** Wood, S. L. 1971: 24, 1982b: 560.
- lobdelli Blackman** 1920a: 43. Lectotype ♀; Trincane Swamp, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 567. Figures: Blackman 1920a: pls. 3, 5, figs. 28, 44, 1922b: pl. 8, fig. 41. Distribution: North America (Oaxaca in Mexico/ Florida, Louisiana, Mississippi in USA). Hosts: *Carya* sp., *Castanea pumila*, *Quercus* sp. References: **(cn)** Blackman 1950; Doane et al. 1936. **(hb)** Baker, W. L. 1972: 253; Blackman 1922b: 71–72, 1950; Chamberlin 1939: 264; Doane et al. 1936. **(ds)** Blackman 1922b: 71–72, 1950; Chamberlin 1939: 264; Drooz 1985: 367; Kleine 1934a: 166; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 567. **(tx)** Blackman 1920a: 43, 1922b: 71–72, 1928a: 197, 199, 1943a: 351–352; Chamberlin 1939: 264; de Ruelle 1970: 114; Wood, S. L. 1956b: 234, 1982b: 567.
- mexicanus Wood** 1956b: 234. Holotype ♀; 40 km SE Oaxaca, Oaxaca, Mexico; SMUK, Lawrence. Distribution: North America (Hidalgo, Oaxaca in Mexico). Hosts: *Acacia* sp., etc. References: **(ds)** Estrada & Atkinson 1988: 205; Wood, S. L. 1982b: 561. **(tx)** de Ruelle 1970: 114; Wood, S. L. 1956b: 234, 1969b: 35, 1982b: 561.
- neotropicalis Wood** 1969b: 35. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Calliandra confusa*. References: **(ds)** Wood, S. L. 1982b: 564. **(tx)** Wood, S. L. 1969b: 35, 1982b: 564.
- pallens Wood** 1956b: 234. Holotype ♀; Sanford, Florida [USA]; SMUK, Lawrence. Distribution: North America (San Luis Potosi, Veracruz in Mexico/ Florida, Louisiana in USA). Hosts: *Carya* spp., *Quercus* spp., *Rhizophora mangle*. References: **(ds)** Atkinson & Equihua 1988: 102; Wood, S. L. 1982b: 559. **(tx)** de Ruelle 1970: 114; Wood, S. L. 1956b: 234, 1982b: 559.

- subsulcatus** Wood 1969b: 35. Holotype ♀; 8 km W Tlalancingo, Hidalgo, Mexico; Wood Collection. Distribution: North America (Hidalgo in Mexico). Hosts: *Quercus* sp.
References: (hb) Atkinson et al. 1986: 31. (ds) Atkinson & Equihua 1985a: 83; Atkinson et al. 1986: 31; Wood, S. L. 1982b: 566. (tx) Wood, S. L. 1969b: 35, 1982b: 566.
- texasus** Blackman 1943a: 353. Holotype ♀; Brownsville, Texas [USA]; USNM, Washington. Distribution: North America (Colima, Jalisco, Nayarit, Sinaloa, Tamaulipas, Veracruz in Mexico/Texas in USA). Hosts: *Acacia* sp., *Mimosa* sp., *Prosopis juliflora*. References: (cc) Equihua & Atkinson 1986: 629. (hb) Equihua & Atkinson 1986: 629; Kirkendall 1984. (ds) Blackwelder & Blackwelder 1948; Equihua & Atkinson 1986: 629; Estrada & Atkinson 1988: 205; Wood, S. L. 1982b: 567. (tx) Blackman 1943a: 352–353; Wood, S. L. 1956b: 234, 1973c: 186, 1982b: 567.
- vachelliae** Blackman 1943a: 353. Holotype ♀; Brownsville, Texas [USA]; USNM, Washington. Synonymy: Wood 1973c: 186. References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1943a: 353; McNamara 1984: 759; Wood, S. L. 1973c: 186.
- ratanae** Blackman 1943a: 354. Holotype ♀; Mexico; USNM, Washington. Synonymy: Wood 1973c: 186. References: (tx) Blackman 1943a: 354; Wood, S. L. 1973c: 186.
- tuberculatus** Wood 1975a: 29. Holotype ♂; 85 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa. Distribution: North America (Oaxaca in Mexico). References: (ds) Atkinson & Equihua 1988: 102; Wood, S. L. 1982b: 563. (tx) McNamara 1984: 759; Wood, S. L. 1975a: 29, 1982b: 563.
- xylophagus** Blackman 1928a: 198. Holotype ♀; Williams, Arizona [USA]; USNM, Washington. Distribution: North America (Durango in Mexico/Arizona, New Mexico in USA). Hosts: *Quercus* spp.
References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 265; Doane et al. 1936; Wood, S. L. 1982b: 569. (ds) Chamberlin 1939: 265; Furniss, M. M. 1978; Furniss, R. L. & Carolin 1977: 383; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 569. (tx) Blackman 1928a: 198, 1943a: 351–352; Chamberlin 1939: 265; Keen 1929a: 26; Wood, S. L. 1982b: 569.
- Genus *Phloeocleptus* Wood
- PHLOEOCLEPTUS WOOD 1956a: 147. Type-species: *Phloeocleptus caudatus* Wood, original description. Keys: Wood 1982b: 570.
Notes: (3) Species of this genus are exclusively phloeophagous; the superficially similar *Hylocurus* species are xylophagous.
References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Schedl 1959r: 42; Wood, S. L. 1956a: 147, 1961c: 4, 1982b: 570–578, 1986a: 65.
- ardis** Wood 1981: 124. Holotype ♂; Cerro Chipinque, Monterrey, Nuevo Leon, Mexico, 1300 m; Wood Collection. Distribution: North America (Nuevo Leon in Mexico). Hosts: *Persea* sp.
References: (hb) Atkinson & Equihua 1985b: 234. (ds) Atkinson & Equihua 1985b: 234; Wood, S. L. 1982b: 578. (tx) Wood, S. L. 1981: 124, 1982b: 578.
- atkinsoni** Wood 1981: 124. Holotype ♂; Uruapan, Michoacan, Mexico; Wood Collection. Distribution: North America (Michoacan in Mexico). Hosts: *Persea* sp.
References: (hb) Atkinson & Equihua 1985b: 234. (ds) Atkinson & Equihua 1985b: 234; Wood, S. L. 1982b: 575. (tx) Wood, S. L. 1981: 124, 1982b: 575.
- caudatus** Wood 1956a: 147. Holotype ♂; 9 km NE Teziutlan, Puebla, Mexico; SMUK, Lawrence. Distribution: North America (Puebla in Mexico). Hosts: Tree branches.
References: (hb) Atkinson & Equihua 1985b: 576; Wood, S. L. 1982b: 576. (ds) Atkinson & Equihua 1985b: 234; Wood, S. L. 1982b: 576. (tx) de Ruelle 1970: 105; Schedl 1959r: 42; Wood, S. L. 1956a: 147, 1982b: 576.
- cristatus** Wood 1981: 125. Holotype ♂; Tepoztlan, Morelos, Mexico; Wood Collection. Distribution: North America (Morelos in Mexico). Hosts: *Persea* sp.
References: (hb) Atkinson et al. 1986: 29; Burgos & Saucedo 1983: 85. (ds) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 29; Burgos & Saucedo 1983: 85. (tx) Wood, S. L. 1981: 125, 1982b: 575.
- nanulus** Wood 1969b: 45. Holotype ♂; 7 km W Tepic, Nayarit, Mexico, 1000 m; Wood Collection. Distribution: North America (Nayarit in Mexico). Hosts: Tree branches.
References: (hb) Wood, S. L. 1982b: 575. (ds) Wood, S. L. 1982b: 575. (tx) Wood, S. L. 1969b: 45–46, 1982b: 575.
- obscurus** Wood 1956a: 148. Holotype ♂; El Salto, San Luis Potosi, Mexico; SMUK, Lawrence. Distribution: North America (San Luis Potosi in Mexico). Hosts: *Persea americana*.
References: (hb) Wood, S. L. 1982b: 574. (ds) Wood, S. L. 1982b: 574. (tx) de Ruelle 1970: 105; Wood, S. L. 1956a: 148, 1969b: 45, 1982b: 574.

parvus Wood 1969b: 46. Holotype ♂; Los Corchos, Nayarit, Mexico; Wood Collection.

Distribution: North America (Nayarit in Mexico).
Hosts: Tree branches.

References: (hb) Wood, S. L. 1982b: 574. (ds) Wood, S. L. 1982b: 574. (tx) Wood, S. L. 1969b: 46, 1982b: 574.

plagiatus Wood 1969b: 45. Holotype ♂; 7 km W Tepic, Nayarit, Mexico; Wood Collection.

Distribution: North America (Nayarit in Mexico).
Hosts: Tree branches.

References: (hb) Atkinson & Equilma 1985b: 234; Wood, S. L. 1982b: 573. (ds) Atkinson & Equilma 1985b: 234; Wood, S. L. 1982b: 573. (tx) Muskus, A. 1984: 79; Wood, S. L. 1969b: 45, 1982b: 573.

punctatus Wood 1980b: 355. Holotype ♀; Santa Rosa National Park, Guanacaste Province, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).
Hosts: Tree branches.

References: (ds) Wood, S. L. 1982b: 572. (tx) Wood, S. L. 1980b: 355, 1982b: 572.

spicatus Wood 1981: 125. Holotype ♂; Cerro Chipinque, Monterrey, Nuevo Leon, Mexico, 1300 m; Wood Collection.

Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Pearsa* sp.

References: (ds) Atkinson & Equilma 1985b: 234; Wood, S. L. 1982b: 576. (tx) Wood, S. L. 1981: 125, 1982b: 576.

tresmariae (Schedl) 1956b: 32 (*Hylocurus*). Holotype ♀?; village on Maria Madre, Tres Marias Islands, Gulf of California; CAS, San Francisco.

Distribution: North America (Tres Marias Islands in Mexico).

Notes: (1) Wood 1982b: 572 (to *Phloeocleptus*).

References: (ds) Schedl 1976a: 53; Wood, S. L. 1982b: 572. (tx) Schedl 1956b: 32, 1979c: 255; Wood, S. L. 1966b: 29, 1982b: 572.

Genus *Hylocurus* Eichhoff

HYLOCURUS EICHHOFF 1872a: 133. Type-species: *Hylocurus elegans* Eichhoff, monobasic.

Micracisoides Blackman 1920a: 19. Type-species:

Micracis rudis LeConte, subsequent designation by Wood 1982b: 608. Synonymy: Blackman 1922a: 144.

References: (tx) Blackman 1920a: 19, 22, 1922a: 55–66, 1922b: 144–145; Wood, S. L. 1982b: 608.

Keys: Wood 1982b: 609.

Notes: (3) *Hylocurus* species are xylophagous both as larvae and as adults.

References: (en) Blackman 1950. (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Beal & Massey 1945: 59, 96; Blackman 1922a: 143–145, 1928a: 186, 1943a: 242, 244; Blandford

1895b: 81–82, 1896e: 119, 1898b: 219–221; Bright 1978: 105; Bright & Stark 1973: 64; Chamberlin 1939: 247–248, 256–258; Eggers 1940a: 138; Eichhoff 1872a: 133, 1878b: 35, 56, 298; Hagedorn 1904c: 412, 1910a: 118–119, 1910d: 77; Hopkins 1914: 123, 133, 1915c: 176, 226; Lindemann 1876: 169; Schedl 1955g: 4, 1957d: 69, 71, 1957e: 865–883, 1959m: 545–557, 1959r: 42, 1962j: 33; Schreiner 1882: 246; Wood, S. L. 1956a: 147, 1982b: 608–636, 1986a: 65.

aberrans Wood 1969b: 44. Holotype ♂; Dominical, Puntarenas, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

References: (ds) Schedl 1976a: 51, 1977d: 277, 1979b: 415; Wood, S. L. 1982b: 634. (tx) Wood, S. L. 1969b: 44, 1982b: 634.

acutedentatus Schedl 1978c: 300. Holotype ♂; Brasilien, Encruzilhada, 900 m, Babia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1978c: 300.

alienus Eichhoff 1878b: 301. Holotype, sex?; Cuba insula Americana; Schedl Collection in NHMW, Wien.

Distribution: Antilles Islands (Cuba).

Notes: (1) Holotype pin is empty except for abdominal sterna.

References: (ec) Wichmann 1955a: 107. (ds) Blackvelder 1947: 784; Blandford 1898b; Bright 1985c: 172; Ferrer 1942; Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 352; Wichmann 1955a: 107. (tx) Blackman 1922a: 143, 145; Blandford 1898b; Bright 1985c: 172; Eggers 1951: 153; Eichhoff 1878b: 301; Hagedorn 1910a: 119; Schedl 1940a: 339, 1950i: 148–149, 1979c: 16.

alternus Eggers 1951: 153. Holotype, sex?; Venezuela; Eggers Collection, in NHMW, Wien.

Distribution: South America (Venezuela).

Notes: (1) DEB examined 2 male “cotypes” in NHMW, Wien; obviously 1 of them is the holotype.

References: (tx) Eggers 1951: 153; Schedl 1979c: 17.

alternus Wood 1969b: 43. Holotype ♂; 21 km SE Liberia, Guanacaste, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

References: (ds) Wood, S. L. 1982b: 631. (tx) Wood, S. L. 1969b: 43–44, 1982b: 631.

atkinsoni Wood 1987: 547. Holotype ♂; El Casillo, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Acacia pennatula*, *Leucaena pulverulenta*.
References: (tx) Wood, S. L. 1987: 547–548.

beckeri Heqvist 1954: 8. Holotype ♀; Chimaltenango, Guatemala; NHR, Stockholm.

Distribution: North America (Guatemala).

Hosts: *Pinus* sp.

References: (ec) Becker 1953: 363, 1955. (hb)

- Becker 1953: 363, 1955. (**ds**) Becker 1953: 363; Wood, S. L. 1982b: 635. (**tx**) Heqvist 1954: 8; Schedl 1955g: 16; Wood, S. L. 1982b: 635.
- biconcavus** Blackman 1943a: 344. Holotype ♀; Kentucky [USA]; USNM, Washington.
Distribution: North America (Kentucky in USA).
References: (**ds**) Blackwelder & Blackwelder 1948; Wood, S. L. 1982b: 616. (**tx**) Blackman 1943a: 344; Wood, S. L. 1982b: 616.
- bicornis** (Blackman) 1920a: 23 (*Micracis*). Lectotype ♀; Mendenhall, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 616.
Distribution: North America (Mississippi in USA).
Hosts: *Carya* sp.
References: (**cn**) Blackman 1950; Doane et al. 1936. (**hb**) Blackman 1922b: 66–67, 1950; Chamberlin 1939: 259; Doane et al. 1936. (**ds**) Blackman 1922b: 66–67, 1950; Chamberlin 1939: 259; Deyrup 1981b: 5; Deyrup & Atkinson 1987b: 67; Droy 1985: 367; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 616. (**tx**) Atkinson 1989b: 328; Blackman 1920a: 23, 1922a: 145, 1922b: 66–67, 1928a: 186, 188; Chamberlin 1939: 259; McNamara 1984: 753; Wood, S. L. 1982b: 616.
- bidentatus** Schedl 1950i: 149. Syntypes ♂ ♀; Brazil, Santa Catharina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (3) Wood 1972e: 196 (a probable synonym of *retusipennis* Blandford).
References: (**ds**) Schedl 1966f: 86, 1973d: 156, 1976a: 53, 1979e: 58. (**tx**) Schedl 1950i: 149, 1955f: 34, 1959m: 547, 1979c: 39; Wood, S. L. 1972e: 196, 1982b: 635.
- binodatus** Wood 1974a: 17. Holotype ♀; Nicholson, Mississippi [USA]; USNM, Washington.
Figures: Atkinson et al. 1991: 157 (adult).
Distribution: North America (Illinois, Indiana, Louisiana, Mississippi, Missouri in USA).
Hosts: *Carya* sp.
References: (**hb**) Deyrup & Atkinson 1987a: 65. (**ds**) Atkinson 1989b: 335, 337; Atkinson et al. 1991: 157; Deyrup & Atkinson 1987a: 65, 1987b: 67; Wood, S. L. 1982b: 614. (**tx**) Atkinson 1989b: 328, 335; Wood, S. L. 1974a: 17, 1982b: 614.
- brasilienis** Nunberg 1956: 208. Syntypes, sex?; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection, automatic.
Distribution: South America (Brazil).
References: (**ds**) Schedl 1976a: 53. (**tx**) Nunberg 1956: 208; Schedl 1960h: 106.
simplex Schedl 1954b: 33. Syntypes, sex?; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection, preoccupied by Blandford 1898.
References: (**tx**) Nunberg 1956: 208; Schedl 1954b: 33, 1958k: 144, 1960h: 106, 1979c: 230. *rectus* Schedl 1958k: 144. Syntypes, sex?; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection, an unneeded replacement name for *simplex* Schedl.
References: (**tx**) Schedl 1958k: 144, 1960h: 106.
- cancellatus** Blandford 1898b: 221. Lectotype ♂; Quiche Mts., Guatemala, 5–9700 ft.; BMNH, London, designated by Wood 1982b: 627.
Figures: Blandford 1898b: 221.
Distribution: North America (Guatemala).
References: (**ds**) Blackwelder 1947: 784; Hagedorn 1910d: 77; Heqvist 1954; Kleine 1913b: 145, 1914b: 370; Wood, S. L. 1982b: 627. (**tx**) Blandford 1898b: 221; Hagedorn 1910a: 119; Heqvist 1954: 9; Wood, S. L. 1956a: 147, 1969b: 45, 1982b: 627.
- carinifrons** Atkinson 1989: 331. Holotype ♀; Florida: Suwannee Co., Branford [USA]; USNM, Washington.
Distribution: North America (Florida in USA).
Hosts: *Planera aquatica*.
References: (**tx**) Atkinson 1989: 331.
- clarki** Wood 1979b: 141. Holotype ♂; between Sicabe and San Miguel Ixtahuacan, San Marcos, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: *Pinus tenuifolia*.
References: (**ds**) Wood, S. L. 1982b: 634. (**tx**) Wood, S. L. 1979b: 141, 1982b: 634.
- crotonis** Wood 1987: 548. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Croton pseudoniveus*.
References: (**tx**) Wood, S. L. 1987: 548.
- cuspidatus** Eggers 1951: 153. Holotype ♂; Cuba; Eggers Collection, in NHMW, Wien.
Distribution: Antilles Islands (Cuba).
References: (**ds**) Bright 1985c: 172. (**tx**) Bright 1985c: 172; Eggers 1951: 153; Schedl 1979c: 73.
- denticollis** Schedl 1976a: 71. Holotype ♂; Eneruzilhada, 980 m, Bahia, Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (**tx**) Schedl 1976a: 71.
- dilutus** Wood 1971: 29. Holotype ♂; Volcan Colima, Jalisco, Mexico, 2500 m; Wood Collection.
Distribution: North America (Jalisco, Michoacan in Mexico).
References: (**hb**) Wood, S. L. 1982b: 622. (**ds**) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 58; Wood, S. L. 1982b: 622. (**tx**) Wood, S. L. 1971: 29, 1982b: 622.

- dimorphus** (Schedl) 1939k: 724 (*Micraxis*). Syntypes ♂ ♀; Nova Teutonia, Sta. Catharina, Brasilien; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 784; Schedl 1966f: 87. (tx) Schedl 1939k: 724, 1950i: 284, 1962p: 206; Wood, S. L. 1956a: 152.
- acuminatus** Schedl 1950i: 148. Holotype ♂; Santa Catarina, Brasil; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962p: 206.
References: (hb) Viana 1964: 126. (ds) Viana 1964: 126. (tx) Schedl 1950i: 148, 1951h: 284, 1962p: 206, 1979c: 11.
- discifer** Eichhoff 1878b: 300. Holotype, sex?; America meridionalis (Venezuela); Hamburg Museum, lost.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 784; Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 339. (tx) Blackman 1922a: 143–145; Eichhoff 1878b: 300; Hagedorn 1910a: 119; Schedl 1950i: 150.
- disparilis** Wood 1971: 29. Holotype ♂; Zamorano, Morazan, Honduras; Wood Collection.
Distribution: North America (Honduras).
Hosts: *Ficus glabrata*.
References: (hb) Wood, S. L. 1982b: 631. (ds) Wood, S. L. 1982b: 631. (tx) Wood, S. L. 1971: 29–30, 1982b: 631.
- dissidens** Wood 1971: 30. Holotype ♂; Laguna Santa Maria, Nayarit, Mexico; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: Liana.
References: (hb) Wood, S. L. 1982b: 633. (ds) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 58; Wood, S. L. 1982b: 633. (tx) Wood, S. L. 1971: 30, 1982b: 633.
- dissimilis** Wood 1984e: 115. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: Sapindaceae.
References: (ec) Equihua & Atkinson 1986: 627. (hb) Equihua & Atkinson 1986: 627. (ds) Equihua & Atkinson 1986: 627. (tx) Wood, S. L. 1984e: 115.
- dubius** Schedl 1959m: 547. Syntypes, sex?; Brasilien, Rondon; Schedl Collection in NHMW, Wien, Plaumann Collection, and Strohmeyer Collection, Eberswald.
Distribution: South America (Brazil).
References: (tx) Schedl 1959m: 547, 1979c: 85.
- effeminatus** Wood 1956a: 143. Holotype ♂; 8 km NW Totolapan, Oaxaca, Mexico; SMUK, Lawrence.
Distribution: North America (Oaxaca in Mexico).
Hosts: Leguminous tree.
References: (ds) Wood, S. L. 1959a: 59, 1982b: 625. (tx) de Ruelle 1970: 101; Schedl 1979c: 86; Wood, S. L. 1956a: 143, 1959a: 59, 1982b: 625.
- egenus** Blandford 1898b: 222. Holotype ♂; Motzorongo, Veracruz, Mexico; BMNH, London.
Distribution: North America (Veracruz in Mexico).
References: (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352; Wood, S. L. 1982b: 621. (tx) Blandford 1898b: 222; Hagedorn 1910a: 119; Schedl 1940a: 339; Wood, S. L. 1982b: 621.
- elegans** Eichhoff 1872a: 134. Holotype ♂; Teapa, Tabasco, Mexico; IRSNB, Brussels.
Distribution: Antilles Islands (Haiti in Hispanola/Jamaica), North America (Costa Rica/ Honduras/ Colima, Jalisco, Nayarit, Tabasco in Mexico), South America (Colombia).
Hosts: *Acacia* spp., *Inga* sp., *Coffea arabica*.
References: (ec) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Atkinson & Equihua 1985b: 234; Blackwelder 1947: 784; Blandford 1898b: 222–223; Bright 1985c: 172; Equihua & Atkinson 1986: 628; Ferrer 1947; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352; Wood, S. L. 1982b: 632. (tx) Blackman 1922a: 143, 145, 1943a: 334; Blandford 1898b: 222–223; Bright 1985c: 172; Eichhoff 1872a: 134, 1878b: 299; Hagedorn 1910a: 119; Hopkins 1914: 123; Lucas 1920: 342; Schedl 1940a: 339, 1950i: 150; Wood, S. L. 1972e: 195, 1982b: 632. (ms) Lucas 1920: 342.
- minor** Wood 1961c: 4. Holotype ♀; Finca Alto Bonito, Caicedonia, Valle de Cauca, Colombia; Wood Collection. Synonymy: Wood 1972e: 195.
References: (ds) Bright 1981c: 154. (tx) Wood, S. L. 1961c: 4, 1972e: 195.
- equidens** Wood 1956a: 144. Holotype ♂; Los Abrisos, 32 km NE Ciudad del Mais, San Luis Potosi, Mexico; SMUK, Lawrence.
Distribution: North America (San Luis Potosi in Mexico).
References: (ds) Atkinson & Equihua 1985b: 234; Wood, S. L. 1982b: 630. (tx) de Ruelle 1970: 101; Schedl 1979c: 91; Wood, S. L. 1956a: 144, 147, 1982b: 630.
- errans** Blandford 1898b: 224. Lectotype ♂; “Mexican” [actually Brazilian] tobacco refuse; BMNH, London, designated by Wood 1982b: 625.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352; Numberg 1958a: 489; Wood, S. L. 1982b: 625. (tx) Blandford 1898b: 224; Hagedorn 1910a: 119; Numberg 1958a: 489; Schedl 1940a: 340, 1950i: 149; Wood, S. L. 1982b: 625.
- femineus** Wood 1959a: 59. Holotype ♂; Miller Canyon, Huachuca Mts., Arizona [USA]; Wood Collection.
Distribution: North America (Michoacan in Mexico/ Arizona in USA).

Hosts: *Quercus* sp.

References: (**hb**) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 26. (**ds**) Atkinson & Equihua 1985b: 234, 1988: 90; Atkinson et al. 1986: 26; Kirkendall 1984: 241; Wood, S. L. 1959a: 59, 1969b: 44, 1982b: 624. (**tx**) Wood, S. L. 1959a: 59, 1982b: 624.

flagellatus Wood 1971: 32. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Nectandra* sp.

References: (**tx**) Wood, S. L. 1971: 32.

flaglerensis Blackman 1943a: 345. Holotype ♀; Flagler Co., Florida [USA]; USNM, Washington. Distribution: North America (Florida in USA).

References: (**ds**) Blackwelder & Blackwelder 1948; Wood, S. L. 1982b: 620. (**tx**) Blackman 1943a: 345; Wood, S. L. 1982b: 620.

floridensis Atkinson 1989: 333. Holotype ♀; Florida: Suwannee Co., Branford [USA]; USNM, Washington.

Distribution: North America (Florida in USA).

Hosts: *Planera aquatica*.

References: (**tx**) Atkinson 1989: 333.

giganteus (Schedl) 1950i: 152 (*Micracis*). Syntypes, sex?; Brazil: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 104 (citation of holotype invalid).

References: (**tx**) Schedl 1950i: 152, 1979c: 104.

harnedi (Blackman) 1920a: 24 (*Micracis*). Lectotype ♀; Mendenhall, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 616.

Figures: Blackman 1920a: pl. 1, fig. 4 (female antenna), pl. 5, figs. 47–48, 1922b: pl. 6, figs. 33–34. Distribution: North America (Mississippi in USA).

Hosts: *Carya* sp.

References: (**cn**) Blackman 1950. (**hb**) Blackman 1950; Chamberlin 1939: 259. (**ds**) Blackman 1950; Chamberlin 1939: 259; Drooz 1985: 367; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 616. (**tx**) Blackman 1920a: 24, 1922a: 145, 1922b: 66–67, 1928a: 145; Chamberlin 1939: 259; Wood, S. L. 1982b: 616.

hirtellus (LeConte) 1876: 369 (*Micracis*). Holotype ♀; southern California [USA]; MCZ, Cambridge. Figures: Bright & Stark 1973: 157 (adult).

Distribution: North America (British Columbia in Canada/ Baja California in Mexico/ California, Oregon, Washington in USA).

Hosts: *Alnus* sp., *Arbutus menzeisii*, *Ceanothus* sp., *Myrica* sp., *Populus* sp., *Quercus* sp., *Rhamnus* sp., *Rhus* sp., *Salix* sp., *Umbellularia* sp.

Notes: (3) Blackman 1920a: 27 (redescribed).

References: (**cn**) Armitage et al. 1953: 218; Doane

et al. 1936; Keen 1938: 132; Packard 1890: 671; Struble & Hall 1954: 933. (**ec**) Keen 1938: 132. (**hb**) Bright 1976d: 105; Bright & Stark 1973: 64; Chamberlin 1939: 252, 1958: 121; Doane et al. 1936; Keen 1938: 132. (**ds**) Blaisdell 1892: 36; Bright 1976d: 105; Bright & Skidmore 1991: 368; Bright & Stark 1973: 65; Chamberlin 1939: 252, 1958: 121; Fall 1906: 202; Furniss, R. L. & Carolin 1977: 382; Hagedorn 1882: 269; Henshaw 1882: 269, 1885: 148; Keen 1938: 132; Kleine 1913b: 145, 1914b: 391, 1934a: 165; Leng 1920: 339; Patterson & Hatch 1945: 162; Rivers 1886: 67; Swaine 1909: 127; Wood, S. L. 1972a: 413, 1982b: 623. (**tx**) Blackman 1920a: 27–28, 1922b: 145, 1925a: 192–193; Bright 1966b: 304, 1976d: 105; Bright & Stark 1973: 157; Chamberlin 1939: 252, 1958: 121; Hagedorn 1910a: 117; LeConte 1876: 369; LeConte & Horn 1883: 517; Swaine 1909: 127; Wood, S. L. 1966b: 24, 1972a: 413, 1982b: 623.

crinitus Blackman 1943a: 347. Holotype ♂; Orange, California [USA]; USNM, Washington. Synonymy: Bright 1966b: 304.

References: (**ds**) Blackwelder & Blackwelder 1948; Bright 1966b: 304; Nunberg 1958a: 489. (**tx**) Blackman 1943a: 347; Bright 1966b: 304; Nunberg 1958: 489.

impar Schedl 1939k: 723. Holotype ♂; Brazil, Sta. Catarina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) Schedl 1950i: 151 (described female).

References: (**ds**) Blackwelder 1947: 784; Nunberg 1958a: 489; Schedl 1966f: 87, 1973d: 156. (**tx**) Nunberg 1958a: 489; Schedl 1939k: 723, 1950i: 151, 1951h: 284, 1954b: 30, 1959m: 548, 1979c: 122; Wood, S. L. 1956a: 142.

inaequalis Wood 1956a: 146. Holotype ♂; 9 km S Tehuantepec, Oaxaca, Mexico; SMUK, Lawrence. Distribution: North America (Colima, Nayarit, Oaxaca in Mexico).

Hosts: *Acacia* sp., *Inga paterno*.

References: (**cn**) Estrada & Atkinson 1988: 205. (**ec**) Equihua & Atkinson 1986: 628. (**hb**) Equihua & Atkinson 1986: 628. (**ds**) Equihua & Atkinson 1986: 628; Estrada & Atkinson 1988: 205; Wood, S. L. 1982b: 631. (**tx**) de Ruelle 1970: 101; Schedl 1979c: 123; Wood, S. L. 1956a: 146, 1959a: 43, 1982b: 631.

incomptus Wood 1969b: 44. Holotype ♂; Volcan de Agua, Esquinla, Guatemala, 1000 m; Wood Collection.

Figures: Wood 1969b: 44.

Distribution: North America (Guatemala/ Chiapas in Mexico).

Hosts: *Quercus* sp.

References: (**hb**) Burgos & Saucedo 1983: 92; Wood, S. L. 1982b: 618. (**ds**) Atkinson & Equihua 1985a: 84; Burgos & Saucedo 1983: 92; Wood, S. L. 1982b: 618. (**tx**) Wood, S. L. 1969b: 44, 1982b: 618.

- intermedius** Schedl 1952a: 458. Syntypes, sex?; Argentina, Tigre and Pilar; Schedl Collection in NHMW, Wien, and Viana Collection. Distribution: South America (Argentina). References: (hb) Viana 1964: 126. (ds) Schedl 1976a: 53; Viana 1964: 126. (tx) Schedl 1951b: 284, 1952a: 458, 1958f: 34, 1979c: 126; Wood, S. L. 1969b: 44.
- interpositus** Schedl 1976a: 71. Holotype, sex?; Encruzilhada, 930 m, Bahia, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 71.
- interruptus** Schedl 1959m: 548. Holotype ♂; Nova Teutonia; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1959m: 548, 1979c: 127.
- langstoni** Blackman 1920a: 26. Lectotype ♀; Agricultural College [Starkville], Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 628. Figures: Blackman 1920a: pl. 1, fig. 5, (female antenna), pl. 2, fig. 17, pl. 3, fig. 42, pl. 5, figs. 45–46, 1922b: pl. 6, figs. 31–37. Distribution: North America (Florida, Maryland, Mississippi, South Carolina, Texas, Virginia in USA). Hosts: *Celtis pallida*, *C. sp.*, *Gleditsia triacanthos*, *Morus rubra.*, *Ulmus sp.* References: (bv) Baker, W. L. 1972: 253. (cn) Baker, W. L. 1972: 253; Blackman 1950; Doane et al. 1936. (hb) Baker, W. L. 1972: 253; Blackman 1950; Chamberlin 1939: 260; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Kirkendall 1984: 238. (ds) Blackman 1950; Chamberlin 1939: 260; Deyrup & Atkinson 1987a: 65; Drooz 1985: 367; Hoffmann 1940: 60, 1942: 12; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 628. (tx) Blackman 1920a: 26, 1922a: 145, 1928a: 186, 190, 1943a: 345–346; Chamberlin 1939: 260; Wood, S. L. 1982b: 628.
- longipennis** Wood 1979b: 141. Holotype ♂; 5 km W El Salto, Durango, Mexico; Wood Collection. Distribution: North America (Durango in Mexico). Hosts: *Quercus sp.* References: (ds) Wood, S. L. 1982b: 624. (tx) Wood, S. L. 1979b: 141, 1982b: 624.
- medius** Wood 1956a: 144. Holotype ♂; 8 km W Antiguo Morelos, Tamaulipas, Mexico; SMUK, Lawrence. Distribution: North America (San Luis Potosi, Tamaulipas in Mexico). References: (ds) Wood, S. L. 1982b: 628. (tx) de Ruetete 1970: 101; Schedl 1979c: 150; Wood, S. L. 1956a: 144, 1982b: 628.
- micaceus** Wood 1984e: 116. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). References: (ec) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 116.
- microcornis** Wood 1969b: 45. Holotype ♂; 26 km E Texmelucan, Puebla, Mexico; Wood Collection. Distribution: North America (Puebla in Mexico). Hosts: *Salix sp.* References: (hb) Atkinson et al. 1986: 27. (ds) Atkinson & Equihua 1985a: 84; Atkinson et al. 1986: 27; Wood, S. L. 1982b: 630. (tx) Wood, S. L. 1969b: 45, 1982b: 630.
- nodulus** Wood 1956a: 141. Holotype ♂; Pujal, San Luis Potosi, Mexico; SMUK, Lawrence. Distribution: North America (Costa Rica/ Honduras/ Jalisco, San Luis Potosi in Mexico). Hosts: *Bambusa vulgaris*, and native bamboo. References: (hb) Atkinson et al. 1986: 58. (ds) Atkinson et al. 1986: 58. Schedl 1977e: 42; Wood, S. L. 1982b: 620. (tx) de Ruetete 1970: 101; Schedl 1979c: 171; Wood, S. L. 1956a: 141, 1982b: 620.
- obtusipennis** Schedl 1976a: 72. Holotype ♀; Encruzilhada, 950 m, Bahia, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 72.
- parkinsoniae** Blackman 1922a: 142. Holotype ♂; Ray, Arizona [USA]; USNM, Washington. Figures: Blackman 1922a: figs. 1–4. Distribution: North America (Arizona, S California, W Texas in USA). Hosts: *Celtis laevigatus*, *Cercidium spp.*, *Condalia obtusifolia*, *Mimosa sp.*, *Quercus sp.* References: (cn) Doane et al. 1936. (hb) Bright & Stark 1973: 64; Chamberlin 1939: 261; Doane et al. 1936. (ds) Bright & Stark 1973: 64; Chamberlin 1939: 261; Furniss, R. L. & Carolin 1977: 382; Keen 1929a: 26; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 626. (tx) Blackman 1922a: 142, 1928a: 187, 190–191, 195–196; Chamberlin 1939: 261; Keen 1929a: 26; de Ruetete 1970: 102; Schedl 1979c: 185; Wood, S. L. 1956a: 144, 1982b: 626.
- pilosus** Schedl 1950i: 151. Lectotype ♀; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 194. Distribution: South America (Brazil). References: (hb) Viana 1964: 126. (ds) Numberg 1958a: 489; Viana 1964: 126. (tx) Numberg 1958a: 489–490; Schedl 1950i: 151, 1952a: 456, 1954b: 33, 1958f: 34, 1979c: 194.
- prolatus** Wood 1982a: 228. Holotype ♂; Zaca-poxia, Puebla, Mexico; Wood Collection. Distribution: North America (Puebla in Mexico). Hosts: *Carya sp.* References: (tx) Wood, S. L. 1982a: 228.

- pseudoimpar** Schedl 1954b: 30. Syntypes, sex?; Brasilien: Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection. Distribution: South America (Brasil). Notes: (1) Schedl 1979c: 201 (citation of holotype invalid). References: (ds) Numberg 1958a: 489. (tx) Numberg 1958a: 489–490; Schedl 1954b: 30, 1979c: 201.
- punctatorugosus** (Schedl) 1945h: 575 (*Micracis*). Holotype ♀; Mexico, Michoacan, Mexico; Schedl Collection in NHMW, Wien. Distribution: North America (Michoacan in Mexico). Notes: (1) Wood 1982b: 635 (to *Hylocurus*). References: (ds) Wood, S. L. 1982b: 635. (tx) Schedl 1945h: 575, 1979c: 204; Wood, S. L. 1982b: 635.
- quadriscoposus** Blackman 1928a: 191. Holotype ♂; Cayamas, Cuba; USNM, Washington. Distribution: Antilles Islands (Cuba). References: (ds) Blackwelder 1947: 784; Bright 1955c: 172. (tx) Blackman 1928a: 191; Bright 1955c: 172.
- retusipennis** Blandford 1898b: 223. Holotype ♂; "Mexican" [actually Brazilian] tobacco refuse intercepted at Paris, France; BMNH, London. Distribution: South America (Brazil). Notes: (3) Wood 1972e: 190 (*bidentatus* Schedl is an apparent synonym), 1982b: 635 (all Blandford 1898b species named from "Mexican" tobacco refuse are actually from Brazil). References: (ce) Wichmann 1955a: 107. (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352; Wichmann 1955a: 107. (tx) Blackman 1943a: 345–346; Blandford 1898b: 223; Hagedorn 1910a: 119; Schedl 1940a: 339; Wood, S. L. 1956a: 144, 1972e: 190, 1982b: 635.
- rivalis** Wood 1974a: 16. Holotype ♂; 5 km N Suchixtepec, Oaxaca, Mexico; CNCI, Ottawa. Distribution: North America (Oaxaca in Mexico). Hosts: *Pinus* sp. References: (ds) Wood, S. L. 1982b: 626. (tx) McNamara 1984: 753; Wood, S. L. 1974a: 16, 1982b: 626.
- robustus** Schedl 1952a: 456. Syntypes, sex?; Brazil: Nova Teutonia, Argentina: Misiones; Schedl Collection in NHMW, Wien, Viana, and Plaumann Collections. Distribution: South America (Argentina/ Brazil). Notes: (1) Schedl 1979c: 212 (citation of holotype invalid). References: (hb) Viana 1964: 126. (ds) Viana 1964: 126. (tx) Schedl 1952a: 456, 1960h: 106, 1979c: 212; Wood, S. L. 1956a: 141.
- stachi** Numberg 1958: 487. Holotype ♂; St. Catarina; IZW, Warsaw. Synonymy: Schedl 1960h: 106. References: (tx) Numberg 1958: 487; Schedl 1960h: 106.
- ruber** Wood 1956a: 142. Holotype ♂; 32 km NE Ciudad del Mais, San Luis Potosi, Mexico; SMUK, Lawrence. Distribution: North America (San Luis Potosi in Mexico). Hosts: *Robinia* sp. References: (ds) Wood, S. L. 1982b: 622. (tx) de Rnette 1970: 102; Wood, S. L. 1956a: 142, 1982b: 622.
- rudis** (LeConte) 1876: 369 (*Micracis*). Holotype ♀?; Detroit, Michigan [USA]; MCZ, Cambridge. Figures: Atkinson 1959b: 328, Blackman 1920a: pl. 1, figs. 1–2 (female antenna), pl. 2, figs. 12–13, pl. 4, figs. 37–39, 1922b: pl. 7, fig. 35. Distribution: North America (District of Columbia, Georgia, Kansas, Kentucky, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, E Texas, Virginia in USA). Hosts: *Carya* spp., *Castanea dentata*, *Fagus grandifolia*, *Quercus velutina*, *Ulmus americana*. Notes: (3) Blackman 1920a: 20 (redescribed). References: (cn) Blackman 1950; Doane et al. 1936; Packard 1890: 612. (ce) Felt 1906: 725. (hb) Baker, W. L. 1972: 252; Beal & Massey 1945: 95–97; Blackman 1950; Bright 1976d: 106; Chamberlin 1939: 258; Chittenden 1890; Doane et al. 1936; Deyrup & Atkinson 1987a: 65; Felt 1906: 725; Packard 1890: 612; Pierce, W. D. 1907: 292. (ds) Anonymous 1926c: 517; Atkinson 1959b: 327; Atkinson et al. 1991: 158; Beal & Massey 1945: 96–97; Blackman 1950; Blatchley & Leng 1916: 648; Bright 1976d: 106; Chamberlin 1939: 258; Chittenden 1890; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1985: 367; Hagedorn 1910d: 78; Hamilton 1895: 346, 378; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666; Kirk 1970; Kleine 1913b: 145, 1914b: 401, 1934a: 165; Leng 1920: 339; Leonard 1928: 517; Swaine 1909: 127. (tx) Atkinson 1959b: 327, 328; Beal & Massey 1945: 96–97; Blackman 1920a: 19–22, 1922a: 145, 1922b: 65–67, 1925a: 186–187, 1943a: 345; Blatchley & Leng 1916: 648; Bright 1976d: 106; Chamberlin 1939: 258; Hagedorn 1910a: 117; LeConte 1876: 369; Lucas 1920: 411; Schwarz 1891: 74; Swaine 1909: 127, 1918a: 83; Wood, S. L. 1972a: 196, 1982b: 614. (ms) Lucas 1920: 411.
- biorbis** Blackman 1920a: 22 (*Micracis*). Holotype ♂; Syracuse, New York [USA]; USNM, Washington. Synonymy: Wood 1972e: 196. References: (cn) Blackman 1950; Doane et al. 1936. (hb) Beal & Massey 1945: 97–98; Blackman 1950; Bright 1976d: 106; Chamberlin 1939: 258; Doane et al. 1936. (ds) Anonymous 1926c: 516; Beal & Massey 1945: 97–98; Blackman 1950; Bright 1976d: 106; Chamberlin 1939: 258; Hoffmann 1940: 60, 1942: 12; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Leonard 1928: 516; Rhodes 1924: 150. (tx)

- Beal & Massey 1945: 97–98; Blackman 1920a: 22–23, 1922a: 145, 1922b: 68, 1924: 150–151, 1928a: 145, 186–188; Bright 1976d: 106; Chamberlin 1939: 258; Wood, S. L. 1972e: 196.
- schwarzi** Blackman 1928a: 189. Holotype ♂; Victoria, Texas [USA]; USNM, Washington.
Distribution: North America (W Texas in USA).
References: (hb) Chamberlin 1939: 260. (ds) Chamberlin 1939: 260; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 625. (tx) Blackman 1928a: 189; Chamberlin 1939: 260; Wood, S. L. 1982b: 625.
- scitulus** Wood 1984e: 116. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Acacia* sp.
References: (cc) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Atkinson & Equihua 1986: 625; Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 116.
- secus** Wood 1984e: 116. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: Leguminosae.
References: (cc) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 116.
- simplex** Blandford 1898b: 222. Holotype ♂; El Tumbador, San Marcos, Guatemala; BMNH, London.
Distribution: North America (Guatemala/Panama).
Hosts: *Inga* sp.
References: (hb) Wood, S. L. 1982b: 621. (ds) Blackwelder 1947: 784; Hagedorn 1910d: 78; Heqvist 1954: 9; Kleine 1913b: 145, 1914b: 370; Schedl 1977e: 42; Wood, S. L. 1982b: 621. (tx) Blandford 1898b: 222; Hagedorn 1910a: 119; Schedl 1958k: 144, 1960h: 106, 1979c: 230; Wood, S. L. 1982b: 621.
- singularis** Wood 1971: 31. Holotype ♀; 8 km SW Bumbum, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
References: (tx) Wood, S. L. 1971: 31.
- spadix** Blackman 1928a: 188. Holotype ♀; Tryon, North Carolina [USA]; USNM, Washington.
Distribution: North America (North Carolina, Pennsylvania in USA).
Hosts: *Carya* sp.
References: (cn) Blackman 1950; Doane et al. 1936. (hb) Beal & Massey 1945: 97; Blackman 1950; Chamberlin 1939: 260; Doane et al. 1936. (ds) Beal & Massey 1945: 97; Blackman 1950; Chamberlin 1939: 260; Drooz 1985: 367; Kleine 1934a: 165; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 618. (tx) Beal & Massey 1945: 97; Blackman 1928a: 188; Chamberlin 1939: 260; Wood, S. L. 1982b: 618.
- spinifex** Blandford 1904: 225. Lectotype ♂; “Mexican” [actually Brazilian] tobacco refuse; BMNH, London, designated by Wood 1982b: 636.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352. (tx) Blandford 1904: 225; Hagedorn 1910a: 119; Schedl 1940a: 340; Wood, S. L. 1956a: 146, 1982b: 636.
- subgranulatus** Schedl 1954b: 31. Syntypes ♀; Brasilien, Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 241 (citation of holotype invalid).
References: (ds) Numberg 1958a: 489; Schedl 1966g: 86, 1970e: 83, 1976a: 53. (tx) Numberg 1958a: 489; Schedl 1954b: 31, 1979c: 241.
- torosus** Wood 1971: 28. Holotype ♀; Florence, South Carolina [USA]; Wood Collection.
Distribution: North America (Alabama, Illinois, Indiana, Maryland, North Carolina, South Carolina in USA).
Hosts: *Acer* sp., *Carya* sp., *Castanea dentata*, *Celtis* sp.
References: (bv) Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. (cn) Roling & Kearby 1977. (cc) Roling & Kearby 1977. (ds) Deyrup & Atkinson 1986: 628; Turnbow & Franklin 1980; Wood, S. L. 1982b: 615. (tx) Wood, S. L. 1971: 28, 1982b: 615.
- trispinatus** Schedl 1978c: 301. Holotype ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1978c: 301.
- vagabundus** Blandford 1898b: 224. Holotype ♀; Mexican [actually Brazilian] tobacco refuse; BMNH, London.
Distribution: South America (Brazil).
References: (cc) Wichmann 1955a: 107. (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910a: 78; Kleine 1913b: 145, 1914b: 336, 352; Wichmann 1955a: 107. (tx) Blandford 1898b: 224; Hagedorn 1910a: 119; Schedl 1940a: 340.
- verrucosus** Wood 1971: 28. Holotype ♂; 9 km S Barrancas, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Inga* sp.
References: (tx) Wood, S. L. 1971: 28.
- vianai** Schedl 1952a: 457. Syntypes, sex?; Argentina, Buenos Aires, Tigre; Schedl Collection in NHMW, Wien, and Viana Collection.
Distribution: South America (Argentina).

Notes: (1) Schedl 1979c: 267 (citation of holotype invalid).

References: (hb) Viana 1964: 126. (ds) Viana 1964: 126. (tx) Schedl 1952a: 457, 1958f: 34, 1979c: 267.

villifrons Wood 1971: 30. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Guttiferae sp.

References: (tx) Wood, S. L. 1971: 30–31.

Genus *Phloeocurus* Wood

PHLOEOCURUS WOOD 1984b: 230. Type-species: *Hylocurus africanus* Schedl, original designation.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Wood, S. L. 1984b: 230, 1986a: 65.

africanus (Schedl) 1957e: 875 (*Hylocurus*). Holotype ♀; Kenya, Kampi ya Moto; BMNH, London. Distribution: Africa (Kenya).

Hosts: *Acacia xanthophylla*.

References: (ds) Schedl 1962j: 34, 1975k: 277. (tx) Schedl 1957e: 875, 1962j: 34, 1979c: 14; Wood, S. L. 1984b: 230.

Genus *Pseudomicracis* Eggers

PSEUDOMICRACIS EGGERS 1920: 36. Type-species: *Pseudomicracis elsae* Eggers, monobasic.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Eggers 1920: 36; Schedl 1962j: 51; Wood, S. L. 1986a: 65.

bugekeae (Schedl) 1957d: 69 (*Hylocurus*). Holotype, sex?; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Carpodinus subrepanda*, *Hypericum lanceolatum*.

References: (hb) Schedl 1962j: 34. (ds) Schedl 1962j: 34. (tx) Schedl 1957d: 69, 1957e: 875, 1962j: 34–35, 69, 1979c: 49.

camerunus (Hagedorn) 1909a: 743 (*Araptus*). Holotype, sex?; Kamerun; Hamburg Museum, lost.

Distribution: Africa (Cameroon).

References: (ds) Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 310. (tx) Hagedorn 1909a: 743, 1910a: 111; Schedl 1962j: 28–29.

difficilis (Schedl) 1965c: 64 (*Micracis*). Holotype ♂; Madagascar, Perinet; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 64, 1977b: 124, 1979c: 80.

elsae Eggers 1920: 36. Holotype ♀?; Dares-Salaam, Ostafrika; Hamburg Museum, lost.

Distribution: Africa (Tanzania).

References: (tx) Eggers 1920: 36; Schedl 1962j: 52.

harunganae (Schedl) 1961e: 140 (*Micracis*). Holotype ♀; Madagascar, Perinet and Ambila; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Harungana madagascariensis*.

References: (hb) Schedl 1977b: 123. (ds) Schedl 1977b: 124. (tx) Schedl 1961e: 140, 1977b: 124, 1979c: 115.

ignotus (Schedl) 1965c: 62 (*Micracis*). Holotype, sex?; Madagascar, Montagne d'Ambre; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 62, 1977b: 125, 1979c: 120.

madagascariensis (Schedl) 1961e: 139 (*Micracis*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.

Distribution: Madagascar.

References: (hb) Schedl 1977b: 125. (ds) Schedl 1977b: 125. (tx) Schedl 1961e: 139, 1977b: 125, 1979c: 144.

pennatus (Schedl) 1965c: 63 (*Micracis*). Holotype ♂; Madagascar, Sandrangato; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 63, 1977b: 125, 1979c: 187.

Genus *Micracisella* Blackman

MICRACISELLA BLACKMAN 1928a: 192. Type-species: *Micracis opacicollis* LeConte, automatic.

Pseudomicracis Blackman 1920a: 20. Type-species: *Micracis opacicollis* LeConte, original designation, preoccupied by Eggers 1920.

References: (tx) Blackman 1920a: 20, 1922a: 66, 1928a: 192.

Keys: Wood 1982b: 594.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Beal & Massey 1945: 59, 99; Blackman 1920b, 1928a: 192, 1943a: 341–342, 350; Wood, S. L. 1956c: 231–232, 1982b: 594–608, 1986a: 65.

adnata Wood 1971: 24. Holotype ♀; 14 km E Huatusco, Veracruz, Mexico; Wood Collection. Distribution: North America (Veracruz in Mexico).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 597. (tx) Wood, S. L. 1971: 24–25, 1982b: 597.

divaricata Wood 1969b: 39. Holotype ♀; 2 km N Cerro Gordo, Veracruz, Mexico; Wood Collection. Distribution: North America (Morelos, Veracruz in Mexico).

Hosts: *Serjania* sp.

References: (hb) Atkinson et al. 1986: 58; Burgos & Saucedo 1983: 90. (ds) Atkinson et al. 1986: 58; Burgos & Saucedo 1983: 90; Wood, S. L. 1969b: 39, 1982b: 608. (tx) Wood, S. L. 1969b: 39, 1982b: 608.

- hondurensis** Wood 1956b: 233. Holotype ♀; Olanchito, Yoro, Honduras; Wood Collection. Distribution: North America (Chiapas in Mexico/ Honduras). Hosts: Shrub. References: (ds) Wood, S. L. 1982b: 602. (tx) Wood, S. L. 1956b: 233, 1969b: 36, 1982b: 602.
- knulli** (Blackman) 1943a: 348 (*Micracis*). Holotype ♀; Huachuca Mountains, Arizona [USA]; USNM, Washington. Figures: Blackman 1943a: figs. 5–6. Distribution: North America (Hidalgo, Michoacan in Mexico/ Arizona in USA). Hosts: *Quercus* spp., *Salix* sp. References: (ds) Blackwelder & Blackwelder 1948; Furniss, R. L. & Carolin 1977: 382; Wood, S. L. 1959a: 61, 1982b: 599. (tx) Blackman 1943a: 348; Wood, S. L. 1956b: 231, 1959a: 61, 1959b: 2, 1982b: 599.
- mimetica** Wood 1974a: 15. Holotype ♂; 5 km N Suchixtepec on Highway 175, Oaxaca, Mexico; CNCI, Ottawa. Distribution: North America (Oaxaca in Mexico). Hosts: Mistletoe on *Quercus* sp. References: (ds) Wood, S. L. 1982b: 599. (tx) McNamara 1984: 753; Wood, S. L. 1974a: 15, 1982b: 599.
- monadis** Wood 1969b: 36. Holotype ♀; Volcan Colima, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: *Struthanthus venetus*. References: (ds) Wood, S. L. 1982b: 604. (tx) Wood, S. L. 1969b: 36–37, 1982b: 604.
- nanula** (LeConte) 1876: 368 (*Micracis*). Holotype ♀; Haulover, Florida [USA]; MCZ, Cambridge. Distribution: Antilles Islands (Bahamas Islands), North America (Florida, Georgia, Louisiana, Mississippi, South Carolina, Texas in USA). Hosts: *Acras sapota*, *Conocarpus erecta*, *Dipholia salicifolia*, *Mimosa* sp., *Pithecellobium guadeloupense*, *Prosopis* sp., *Quercus* sp., *Rhizophora mangle*, *Vitis* sp. Notes: (3) Blackman 1920a: 34 (re-described). References: (bv) Atkinson, Foltz, & Connor 1988; Roling & Kearby 1975b, 1977. (cn) Blackman 1950; Doane et al. 1936; Roling & Kearby 1977. (ec) Roling & Kearby 1977. (hb) Atkinson, Foltz, & Connor 1988; Deyrup & Atkinson 1987a: 65. (ds) Blackman 1950; Blatchley & Leng 1916: 648; Bright 1985c: 172; Chamberlin 1939: 255; Deyrup & Atkinson 1987a: 65; Hagedorn 1910d: 78; Henshaw 1882: 269, 1885: 148; Kirk 1969, 1970; Kleine 1913b: 145, 1914b: 384, 1934a: 166; Leng 1920: 339; Schwarz 1878d: 469; Swaine 1909: 127; Wood, S. L. 1982b: 602. (tx) Blackman 1922a: 144–145, 1922b: 34–35, 1928a: 192, 197, 1943a: 350; Blatchley & Leng 1916: 648; Bright 1985c: 172; Chamberlin 1939: 255; Hagedorn 1910a: 117; LeConte 1876: 368, 1878a: 469; Schedl 1940a: 340; Schwarz 1878: 469; Swaine 1909: 127; Wood, S. L. 1982b: 602.
- nigra** Wood 1956b: 232. Holotype ♀; La Ceiba, Atlantida, Honduras; Wood Collection. Distribution: North America (Honduras), South America (Colombia). References: (ds) Estrada & Atkinson 1988: 205; Wood, S. L. 1961c: 1, 1982b: 607. (tx) Wood, S. L. 1956b: 232, 1961c: 1, 1969b: 37, 1982b: 607.
- nigrella** Wood 1969b: 37. Holotype ♀; Volcan de Agua, Esquintla, Guatemala; Wood Collection. Distribution: North America (Guatemala). Hosts: *Rhus* sp. References: (ds) Wood, S. L. 1982b: 607. (tx) Wood, S. L. 1969b: 37–38, 1982b: 607.
- nitidula** Wood 1969b: 37. Holotype ♀; 10 km NE Teziutlan, Puebla, Mexico; Wood Collection. Figures: Atkinson et al. 1986: 28 (adult). Distribution: North America (Chiapas, Michoacan, Oaxaca, Puebla in Mexico). Hosts: *Arbutus* sp., *Rubus* sp. References: (hb) Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 90. (ds) Atkinson & Equihua 1985a: 83, 1985b: 234; Atkinson et al. 1986: 29; Burgos & Saucedo 1983: 90; Wood, S. L. 1982b: 601. (tx) Atkinson et al. 1986: 28; Muskus, A. 1984: 85; Wood, S. L. 1969b: 37, 1982b: 601.
- ocellata** Wood 1974a: 16. Holotype ♂; 5 km N Suchixtepec on Highway 175, Oaxaca, Mexico; CNCI, Ottawa. Distribution: North America (Oaxaca in Mexico). Hosts: *Arbutus* sp. References: (ds) Wood, S. L. 1982b: 600. (tx) McNamara 1984: 753; Wood, S. L. 1974a: 16, 1982b: 600.
- opaeicollis** (LeConte) 1878b: 625 (*Micracis*). Holotype ♀; Detroit, Michigan [USA]; MCZ, Cambridge. Figures: Blackman 1920a: pl. 1, fig. 11 (female antenna), pl. 2, fig. 22. Distribution: North America (District of Columbia, Illinois, Kansas, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, West Virginia in USA). Hosts: *Carya* sp., *Castanea dentata*, *Hamamelis virginiana*, *Quercus alba*, *Q. falcata*. Notes: (3) Blackman 1920a: 33 (re-described). References: (bv) Turnbull & Franklin 1980. (cn) Blackman 1950; Doane et al. 1936; Felt 1906: 702; Smith, J. B. 1900: 363. (hb) Baker, W. L. 1972: 253; Beal & Massey 1945: 94–100; Blackman 1922b: 70–71, 1950; Bright 1976d: 108; Chamberlin 1939: 254; Doane et al. 1936. (ds) Anonymous 1926c: 517; Beal & Massey 1945: 94–100; Blackman 1922b: 70–71, 1950; Blatchley & Leng 1916: 648; Bright 1976d: 108; Chamberlin 1939: 254; Dodge 1938; Drooz 1985: 367; Hagedorn 1910d: 78; Henshaw 1882: 269, 1885: 148; Hoffmann

- 1942: 12; Hubbard & Schwarz 1875a: 666, 1875b: 625; Kleine 1913b: 145, 1914b: 398, 1934a: 166; Knull 1932: 66; Leng 1920: 339; Leonard 1928: 57; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 127; Turnbow & Franklin 1980; Ulke 1902: 56; Weber, B. C. & McPherson 1991: 54; Wood, S. L. 1982b: 603. (tx) Beal & Massey 1945: 94–100; Blackman 1920a: 33–34, 1922a: 144–145, 1922b: 70–71, 1928a: 3–6, 197, 1943a: 350; Blatchley & Leng 1916: 645; Bright 1976d: 108; Chamberlin 1939: 254; Dodge 1938: 32, 34; Hagedorn 1910a: 117; LeConte 1878b: 625; Nunberg 1956: 138; Schedl 1940a: 340; Swaine 1909: 127, 1918a: 83; Wood, S. L. 1982b: 603.
- asperulus* LeConte 1878b: 626 (*Micracis*). Lectotype ♀; Detroit [USA]; MCZ, Cambridge, designated by Wood 1982b: 603. Synonymy: Blackman 1928a: 196.
References: (cn) Smith, J. B. 1900: 363. (ds) Anonymous 1926c: 517; Blackman 1920a: 8–9, 34, 1922b: 70, 1928a: 196–197, 1943a: 350; Hagedorn 1910d: 78; Henshaw 1882: 269; LeConte 1878b: 626; Leng 1920: 339; Leonard 1928: 517; Notman 1920: 184; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 127. (tx) Blackman 1928a: 196; LeConte 1878b: 626; Wood, S. L. 1982b: 603.
- opacithorax* (Schedl) 1940a: 340 (*Micracis*). Lectotype ♀; Mexico: Temulipez; Metamores; Veracruz: Carde; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 179.
Distribution: North America (Tamaulipas, Veracruz in Mexico/W Texas in USA).
Hosts: *Mimosa* sp., *Prosopis* sp.
References: (ds) Blackwelder 1947: 784; Ferrer 1942; Schedl 1963c: 158; Wood, S. L. 1982b: 603. (tx) Blackman 1943a: 350; Schedl 1940a: 340, 1979c: 179; Wood, S. L. 1956b: 233, 1982b: 603.
- scitula* Wood 1969b: 37. Holotype ♂; 14 km E Huatusco, Veracruz, Mexico; Wood Collection.
Distribution: North America (Veracruz in Mexico).
Hosts: *Quercus* sp.
References: (ds) Wood, S. L. 1982b: 601. (tx) Wood, S. L. 1969b: 37, 1982b: 601.
- serjaniae* Wood 1971: 25. Holotype ♀; Zamorano, Morazan, Honduras; Wood Collection.
Distribution: North America (Honduras).
Hosts: *Serjania racemosa*.
References: (ds) Wood, S. L. 1982b: 604. (tx) Wood, S. L. 1971: 25, 1982b: 604.
- similis* Wood 1969b: 38. Holotype ♀; Volcan Ceboruco, Nayarit, Mexico; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: *Serjania* sp.
References: (ds) Wood, S. L. 1982b: 605. (tx) Wood, S. L. 1969b: 38, 1982b: 605.
- squamatula* Wood 1969b: 38. Holotype ♀; 10 km S Huajuapán, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca, Puebla in Mexico).
Hosts: *Serjania* sp.
References: (ds) Wood, S. L. 1982b: 606. (tx) Wood, S. L. 1969b: 38, 1982b: 606.
- striata* Wood 1956b: 231. Holotype ♀; Olanchito, Yoro, Honduras; Wood Collection.
Distribution: North America (Honduras/Oaxaca in Mexico).
Hosts: *Serjania* sp. and other lianas.
References: (ds) Wood, S. L. 1982b: 604. (tx) Wood, S. L. 1956b: 231, 1982b: 604.
- subnitida* Blackman 1943a: 350. Holotype ♂; Santa Rica Mts., Arizona [USA]; USNM, Washington. Figures: Blackman 1943a: figs. 7–8.
Distribution: North America (Arizona, New Mexico in USA).
References: (ds) Blackwelder & Blackwelder 1948; Furniss, R. L. & Carolin 1977: 353; Wood, S. L. 1982b: 597. (tx) Blackman 1943a: 350; Wood, S. L. 1982b: 597.
- rescula* Wood 1969b: 38. Holotype ♀; 2 km N Cerro Gordo, Veracruz, Mexico; Wood Collection.
Distribution: North America (Veracruz in Mexico).
Hosts: *Serjania* sp.
References: (ds) Wood, S. L. 1982b: 606. (tx) Wood, S. L. 1969b: 38, 1982b: 606.

Genus *Micracis* LeConte

MICRACIS LECONTE 1868: 164. Type-species: *Micracis laturalis* LeConte, subsequent designation by Hopkins 1914: 125.

Keys: Wood 1982b: 579.

References: (ay) Nobuchi 1969a: 54. (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Beal & Massey 1945: 48, 51, 59, 98–99; Blackman 1920a: 5–20, 1922a: 143–145, 1922b: 65–66, 1928a: 192, 1943a: 341–342, 346, 1950: 295, 299, 324–326; Blandford 1898b: 219–220; Blatchley & Leng 1916: 581, 584, 646; Blackwelder 1947: 784; Bright 1978: 107; Chamberlin 1939: 249–252, 1958: 120–121; Dodge 1938: 17, 33; Eichhoff 1878b: 35, 57, 302; Hagedorn 1910a: 116–117, 1910d: 78; Hopkins 1914: 125–136; 1915c: 184–195, 204–205; LeConte 1868: 164, 1876: 368; LeConte & Horn 1883: 519; Schedl 1940a: 340, 1961e: 139, 1962p: 206, 1977b: 122; Swaine 1918a: 44, 83; Wood, S. L. 1961a: 45, 1982b: 578–594, 1986a: 65.

acutipennis Eichhoff 1878b: 302. Holotype ♂; America meridionalis (Bahia); IRSNB, Brussels.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 784; Hagedorn 1910d: 78; Kleine 1913b: 145. (tx) Eichhoff 1878b: 302; Hagedorn 1910a: 117; Nunberg 1936: 139.

amplinis Wood 1971: 25. Holotype ♂; 5 km W El Salto, Durango, Mexico; Wood Collection.
Figures: Atkinson et al. 1986: 28 (adult).

- Distribution: North America (Durango, Hidalgo, Morelos in Mexico).
Hosts: *Quercus* sp.
References: (hb) Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 86. (ds) Atkinson & Equihua 1985a: 83, 1985b: 234; Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 86; Wood, S. L. 1982b: 583. (tx) Atkinson et al. 1986: 28; Wood, S. L. 1971: 25, 1982b: 583.
- burgosi Wood** 1982a: 228. Holotype ♂; Cuernavaca, Morelos, Mexico; Wood Collection.
Figures: Burgos & Saucedo 1983: 89.
Distribution: North America (Morelos in Mexico).
Hosts: *Delonix regia*.
References: (hb) Atkinson et al. 1986: 58; Burgos & Saucedo 1983: 87. (ds) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 58; Burgos & Saucedo 1983: 87. (tx) Burgos & Saucedo 1983: 28, 89; Wood, S. L. 1982a: 228.
- carinulatus Wood** 1960b: 62. Holotype ♀; Cave Creek Canyon, Chiricahua Mts., Arizona [USA]; Wood Collection.
Distribution: North America (Arizona in USA).
Hosts: *Salix* sp.
References: (ds) Furniss, R. L. & Carolin 1977: 382; Wood, S. L. 1982b: 593. (tx) Wood, S. L. 1960b: 62, 1969b: 39, 1982b: 593.
- carinulus Wood** 1969b: 40. Holotype ♀; Playon, Puntarenas Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/Panama).
Hosts: *Rheedia edulis*.
References: (hb) Wood, S. L. 1982b: 590. (ds) Wood, S. L. 1982b: 590. (tx) Wood, S. L. 1969b: 40, 1982b: 590.
- cubensis Blackman** 1928a: 193. Holotype ♀; Cayamas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba).
Hosts: *Juccaro amarillo*.
References: (ds) Blackwelder 1947; Bright 1985c: 172; Kleine 1934a: 165. (tx) Blackman 1928a: 193; Bright 1985c: 172; Wood, S. L. 1956a: 149.
- detentus Wood** 1969b: 42. Holotype ♀; 24 km S Mazamitla, Jalisco, Mexico; Wood Collection.
Distribution: North America (Chiapas, Chihuahua, Jalisco in Mexico).
Hosts: *Salix* sp., etc.
References: (hb) Atkinson et al. 1986: 27, 58. (ds) Atkinson et al. 1986: 27, 58; Wood, S. L. 1982b: 589. (tx) Wood, S. L. 1969b: 42, 1982b: 589.
- evanescens Wood** 1956a: 152. Holotype ♀; 48 km SW El Salto, Durango, Mexico; SMUK, Lawrence.
Distribution: North America (Durango, Michoacan, Oaxaca, Sinaloa in Mexico).
Hosts: *Quercus* spp.
References: (hb) Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 96. (ds) Atkinson et al. 1986: 27;
- Burgos & Saucedo 1983: 86; Thomas, J. B. 1966; Wood, S. L. 1982b: 586. (tx) de Ruelle 1970: 104; Wood, S. L. 1956a: 152, 1969b: 42, 1982b: 586.
- exilis Wood** 1971: 27. Holotype ♀; 9 km S Barrancas, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Acalypha* sp. and Espinito de Sabana.
References: (tx) Wood, S. L. 1971: 27.
- festivus Wood** 1969b: 43. Holotype ♀; Zamorano, Morazan, Honduras; Wood Collection.
Distribution: North America (Chiapas, Veracruz in Mexico/ Honduras).
Hosts: *Calliandra houstoniana*, *Celtis iguanae*.
References: (ds) Atkinson & Equihua 1988: 92; Wood, S. L. 1982b: 592. (tx) Wood, S. L. 1969b: 43, 1982b: 592.
- grandis Schedl** 1948h: 575. Holotype ♀; Mexico, Chiapas, San Jose de Itepec; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica/ Honduras/ Chiapas in Mexico).
Hosts: *Calliandra confusa*, *Salix guatemalensis*.
References: (ds) Wood, S. L. 1982b: 588. (tx) Schedl 1948h: 575, 1979c: 109; Wood, S. L. 1974d: 283, 1982b: 588.
- costaricensis Wood** 1969b: 39. Holotype ♀; Volcan Poas, Heredia Prov., Costa Rica; Wood Collection. Synonymy: Wood 1974d: 283.
References: (tx) Wood, S. L. 1969b: 39, 1974d: 283.
- incertus Wood** 1971: 26. Holotype ♀; 37 km W Durango, Durango, Mexico, 2000 m; Wood Collection.
Distribution: North America (Durango in Mexico).
Hosts: *Quercus* sp.
References: (ds) Wood, S. L. 1982b: 584. (tx) Wood, S. L. 1971: 26, 1982b: 584.
- inimicus Wood** 1969b: 42. Holotype ♀; Volcan de Agua, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Shrub.
References: (ds) Wood, S. L. 1982b: 591. (tx) Wood, S. L. 1969b: 42–43, 1982b: 591.
- lepidus Wood** 1969b: 41. Holotype ♀; Cerro Punta Chiriqui, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: *Iuga* sp.
References: (hb) Wood, S. L. 1982b: 584. (ds) Wood, S. L. 1982b: 584. (tx) Wood, S. L. 1969b: 41, 1982b: 584.
- lignator Blackman** 1928a: 195. Holotype ♀; Tucson, Arizona [USA]; USNM, Washington.
Distribution: North America (Durango, Hidalgo, Oaxaca, Queretaro, Tlaxcala in Mexico/ Arizona in USA).
Hosts: *Quercus* spp.
References: (cn) Doane et al. 1936. (hb) Atkinson

- et al. 1986: 27; Burgos & Saucedo 1983: 85; Chamberlin 1939: 254; Doane et al. 1936. (**ds**) Atkinson & Equilma 1985a: 83; Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 85; Chamberlin 1939: 254; Furniss, R. L. & Carolin 1977: 382; Kleine 1934a: 164; Leng & Mutchler 1933: 53; Wood, S. L. 1959a: 60, 1982b: 582. (**tx**) Blackman 1928a: 195–198, 1943a: 348; Chamberlin 1939: 254; Wood, S. L. 1959a: 60, 1969b: 41, 1973c: 178, 1982b: 582.
- truncatus* Wood 1956a: 152. Holotype ♀; 17 km NE Jacala, Hidalgo, Mexico; SMUK, Lawrence. Synonymy: Wood 1973c: 178. References: (**ds**) Wood, S. L. 1959a: 60. (**tx**) de Ruelle 1970: 104; Wood, S. L. 1956a: 152, 1959a: 60, 1973c: 178.
- lignicolus* Wood** 1969b: 41. Holotype ♂; Cerro Pena Blanca, Honduras; Wood Collection. Distribution: North America (Guatemala/ Honduras/ Chiapas in Mexico). Hosts: *Miconia schlectendalii*, *Quercus sapotaefolia*, *Q. williamsii*. References: (**ds**) Wood, S. L. 1982b: 582. (**tx**) Wood, S. L. 1969b: 41, 1982b: 582.
- longula* Nunberg** 1956a: 135. Holotype ♀?; Brazil, Badenfurt; IZW, Warsaw. Distribution: South America (Brazil). References: (**tx**) Nunberg 1956a: 135.
- ovatus* Wood** 1956a: 150. Holotype ♀; 8 km NE Teziutlan, Puebla, Mexico; SMUK, Lawrence. Distribution: North America (Puebla in Mexico). References: (**hb**) Wood, S. L. 1982b: 586. (**ds**) Wood, S. L. 1982b: 586. (**tx**) de Ruelle 1970: 104; Wood, S. L. 1956a: 150, 1982b: 586.
- sentus* Wood** 1971: 28. Holotype ♂; El Laurel Experimental Farm, 12 km SW Caracas, Venezuela; Wood Collection. Distribution: South America (Venezuela). References: (**tx**) Wood, S. L. 1971: 28.
- suturalis* LeConte** 1868: 165. Lectotype ♀; Illinois [USA]; MCZ, Cambridge, designated by Wood 1973c: 179. Figures: Blackman 1922b: pl. 7, figs. 37–38. Distribution: North America (Illinois, E Kansas, Louisiana, Maryland, Michigan, Mississippi, New York, Ohio, Pennsylvania, Virginia, West Virginia in USA). Hosts: *Cercis canadensis*. References: (**cn**) Blackman 1950; Doane et al. 1936; Finnegan 1954: 312; Packard 1890: 660; Smith, J. B. 1900: 363. (**hb**) Baker, W. L. 1972: 253; Blackman 1950; Bright 1976d: 107; Chamberlin 1939: 252; Chittenden 1893a; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Hamilton 1891: 65; Kirkendall 1984: 238; Pierce, W. D. 1907: 292; Riley 1891a: 131, 1892b: 268. (**ds**) Anonymous 1926c: 517; Blackman 1950; Blatchley & Leng 1916: 647; Bright 1976d: 107; Britton 1920a; Chamberlin 1939: 252; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Frost & Dietrich 1929; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 78; Hamilton 1891: 65, 1895a: 148; Henshaw 1882: 269, 1885: 148; Hoffmann 1942: 12; Hubbard & Schwarz 1878a: 666; Kleine 1913b: 145, 1934a: 165; Leng 1920: 339; Leonard 1928: 517; Packard 1890: 660; Riley 1891a: 131; Shimer 1869: 7–8; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 127; Ulke 1902: 56; Wood, S. L. 1982b: 591. (**tx**) Anonymous 1891: 94; Blackman 1920a: 28–29, 1922a: 144–145, 1922b: 69, 1928a: 192–195; Blatchley & Leng 1916: 647; Bright 1976d: 107; Chamberlin 1939: 252; Eichhoff 1878b: 303; Hagedorn 1910a: 117; Hamilton 1891: 131, 1892; Hopkins 1914: 125, 1915c: 186; LeConte 1868: 164–165, 1876: 368; Nunberg 1956: 138; Schedl 1948h: 575; Swaine 1909: 127, 1918a: 40, 1920a: 31; Wood, S. L. 1960b: 62, 1973c: 179, 1982b: 591. (**ms**) Essig 1931: 685.
- aculeatus* LeConte** 1868: 165. Lectotype ♂; southern States [USA]; MCZ, Cambridge, designated by Wood 1982b: 591. Synonymy: Chittenden 1893: 394; Blackman 1920a: 29. References: (**hb**) Chittenden 1893: 394; Felt 1906: 715; Hamilton 1891: 65, 1892: 268; Riley 1891a: 131, 1891b: 94, 1892b: 268. (**ds**) Gemminger & Harold 1872: 2692; Hagedorn 1910d: 78; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 145; Leng 1920: 339; Riley 1891a: 131; Swaine 1909: 127. (**tx**) Anonymous 1891: 94; Blackman 1920a: 29, 1928a: 194–195, 1943a: 348; Eichhoff 1878b: 304; Hagedorn 1910a: 117; LeConte 1868: 164, 1876: 368, 1881: 22; Lucas 1920: 411; Swaine 1909: 127–128. (**ms**) Lucas 1920: 411.
- meridianus* Blackman** 1920a: 29. Lectotype ♀; Agricultural College [Starkville], Mississippi [USA]; USNM, Washington, designated by Wood 1973c: 179. Synonymy: Wood 1973c: 179. References: (**cn**) Blackman 1950; Doane et al. 1936. (**hb**) Blackman 1922b, 1950; Chamberlin 1939: 253; Doane et al. 1936. (**ds**) Blackman 1922b, 1950; Chamberlin 1939: 253; Kleine 1934a: 165; Leng & Mutchler 1927: 52. (**tx**) Blackman 1920a: 29, 1922a: 145, 1922b: 69–70; Chamberlin 1939: 253; Wood, S. L. 1973c: 179.
- swainei* Blackman** 1920a: 32. Lectotype ♀; Iuka, Mississippi [USA]; USNM, Washington, designated by Wood 1973c: 178. Figures: Blackman 1920a: pl. 1, figs. 9–10, 1922b: pl. 7, fig. 36, Bright 1976d: 202, 209. Distribution: Antilles Islands (Cuba), North America (Ontario in Canada/ Honduras/ Chiapas, Jalisco, Nayarit, San Luis Potosi, Sinaloa, Vera Cruz in Mexico/ S California, District of Columbia, Florida, Georgia, E Kansas, Louisiana, Maryland, Mississippi, New York, Pennsylvania, Tennessee, Texas, West Virginia in USA).

Hosts: *Baccharus* sp., *Celtis iguanae*, *Cercis canadensis*, *Inga* sp., *Miconia* sp., *Populus* sp., *Salix* spp., *Trichilia arborea*, ect.

Notes: (3) Schedl 1948h: 576 (*mexicanus*, nomen nudum).

References: (cn) Blackman 1950; Doane et al. 1936. (ec) Bushing 1965: 462. (hb) Baker, W. L. 1972: 253; Beal & Massey 1945: 48; Blackman 1922b: 66, 1950; Bright 1976d: 107; Bright & Stark 1973: 65; Burgos & Saucedo 1983: 87; Chamberlin 1939: 255; Deyrup & Atkinson 1987a: 65; Doane et al. 1936. (ds) Beal & Massey 1945: 48; Blackman 1922b: 66, 1950; Bright 1976d: 107, 1981c: 155, 1985c: 172; Bright & Stark 1973: 65; Burgos & Saucedo 1983: 87; Chamberlin 1939: 255; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Dodge 1938; Drooz 1985: 366; Estrada & Atkinson 1988: 205; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1957c: 399, 1982b: 558. (tx) Beal & Massey 1945: 48; Blackman 1920a: 32, 1922a: 145, 1922b: 66, 1928a; Bright 1976d: 107, 202, 209, 1985c: 172; Chamberlin 1939: 255; Dodge 1938: 16, 33; Nunberg 1954: 138; de Ruelle 1970: 104; Wood, S. L. 1957c: 399, 1973c: 178, 1974d: 283, 1982b: 558.

populi Blackman 1920a: 31. Holotype ♀; Ithaca, New York [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 399.

References: (cn) Blackman 1950; Doane et al. 1936. (hb) Blackman 1950; Chamberlin 1939: 254; Doane et al. 1936. (ds) Anonymous 1926c: 517; Blackman 1950; Chamberlin 1939: 254; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Leonard 1927: 517. (tx) Blackman 1920a: 31, 1922a: 145, 1928a; Bright 1967b: 676; Chamberlin 1939: 254; Nunberg 1956: 158; de Ruelle 1970: 104; Swaine 1920a: 31; Wood, S. L. 1957c: 399.

robustus Schedl 1948h: 576. Holotype ♂; Mexico, Esmeralda, Chiapas; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 283.

References: (tx) Schedl 1948h: 576, 1979c: 212; Wood, S. L. 1974d: 283.

pygmaeus Schedl 1948h: 577. Holotype ♂; Mexico, Chiapas [Huehuetan]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 283.

References: (tx) Schedl 1948h: 577, 1979c: 209; Wood, S. L. 1974d: 283.

photophilus Wood 1956a: 149. Holotype ♀; El Salto, San Luis Potosi, Mexico; SMUK, Lawrence. Synonymy: Wood 1973c: 178.

References: (tx) Wood, S. L. 1956a: 149, 1973c: 178.

torus Wood 1971: 26. Holotype ♀; Volcan Colima, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: Leguminous tree.

References: (hb) Wood, S. L. 1982b: 585. (ds) Wood, S. L. 1982b: 585. (tx) Wood, S. L. 1971: 26–27, 1982b: 585.

tribulatus Wood 1969b: 40. Holotype ♀; 26 km W Texmelucan, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: *Salix* sp.

References: (ds) Wood, S. L. 1982b: 593. (tx) Wood, S. L. 1969b: 40, 1982b: 593.

unicornis Wood 1969b: 42. Holotype ♂; 6 km W Quiroga, Michoacan, Mexico; Wood Collection.

Distribution: North America (Michoacan in Mexico).

References: (hb) Atkinson et al. 1986: 29. (ds) Atkinson & Equihua 1985a: 83; Atkinson et al. 1986: 29; Wood, S. L. 1982b: 590. (tx) Wood, S. L. 1969b: 42, 1982b: 590.

vitulus Wood 1971: 27. Holotype ♀; Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Tree seedling.

References: (tx) Wood, S. L. 1971: 27.

Tribe Cactopinini Chamberlin

Cactopinae

References: Chamberlin 1939: 243.

Cactopinini

References: Wood, S. L. 1978a: 113, 1982b: 66, 1986a: 65–66.

Genus *Cactopinus* Schwarz

CACTOPINUS SCHWARZ 1899: 11. Type-species: *Cactopinus hubbardi* Schwarz, monobasic.

Cactopinorus Bright 1967a: 918. Type-species: *Cactopinus eactophthorus* Wood, original designation. *Синонимы*: Wood 1969a: 42.

References: (tx) Bright 1967a: 918; Wood, S. L. 1969a: 42.

Keys: Blackman 1938c: 151, Bright 1967a: 919, Wood 1969a: 43, 1982b: 638.

References: (hb) Wood, S. L. 1986a: 66. (ds) Wood, S. L. 1986a: 66. (tx) Arnett 1960: 1042, 1968: 1042; Blackman 1920a: 1–7, 1938c: 151–152; Bright 1967a: 918; Bright & Stark 1973: 60; Chamberlin 1939: 243–246; Hagedorn 1910a: 109, 1910d: 69; Schwarz 1899: 11; Swaine 1909: 87, 1918a: 44; Wood, S. L. 1957d: 105, 1967a: 37–57, 1969a: 42–51, 1982b: 637–648, 1986a: 66.

atkinsoni Wood 1983a: 651. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: *Pachycercus* sp.

References: (ec) Equihua & Atkinson 1986: 629. (hb) Equihua & Atkinson 1986: 629. (ds) Equihua & Atkinson 1986: 629. (tx) Wood, S. L. 1983a: 651.

burjosi Wood 1983a: 651. Holotype ♂; Tepenene, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: *Neobuxbaumia mezcalensis*.

References: (hb) Atkinson et al. 1986: 60. (ds) Atkinson et al. 1986: 60. (tx) Wood, S. L. 1983a: 651.

cactophthorus Wood 1957d: 105. Holotype ♂; 16 km SE Tehuiztingo, Puebla, Mexico; SMUK, Lawrence.

Figures: Bright 1967a: 920 (declivity).

Distribution: North America (Puebla in Mexico).

Hosts: Giant cactus (? *Cereus* sp.).

References: (hb) Wood, S. L. 1982b: 641. (ds) Bright 1967a: 919; Wood, S. L. 1982b: 641. (tx) Bright 1967a: 919–920; Wood, S. L. 1957d: 105, 1969a: 44, 49, 1982b: 641.

carinatus Wood 1969a: 50. Holotype ♂; 26 km N Ixmiquilpan, Hidalgo, Mexico; Wood Collection. Figures: Wood 1969a: 50 (male frons, elytral declivity).

Distribution: North America (Hidalgo in Mexico).

Hosts: Giant cactus (? *Cereus* sp.).

References: (ds) Wood, S. L. 1982b: 644. (tx) Wood, S. L. 1969a: 44, 50, 1982b: 644.

depressus Bright 1967a: 921. Holotype ♂; 73 km N San Luis Potosi, San Luis Potosi, Mexico; CNCI, Ottawa.

Figures: Bright 1967a: 920 (declivity).

Distribution: North America (Hidalgo, San Luis Potosi in Mexico).

Hosts: *Yucca* sp. leaves.

Notes: (3) Wood 1969a: 51 (described female).

References: (hb) Wood, S. L. 1969a: 51, 1982b: 644. (ds) Bright 1967a: 921; Wood, S. L. 1982b: 644. (tx) Bright 1967a: 920–921; de Ruelle 1970: 98; Wood, S. L. 1969a: 44, 51, 1982b: 644.

desertus Bright 1967a: 923. Holotype ♂; 11 km S Ocotillo Wells, Anza-Borrego Desert State Park, San Diego Co., California [USA]; CAS, San Francisco.

Figures: Bright 1967a: 920, Bright & Stark 1973: 155 (adult).

Distribution: North America (Baja California Sur in Mexico/ S California in USA).

Hosts: *Bursera microphylla*.

References: (ay) Lanier 1967a: 83, 1968a: 4168. (hb) Bright & Stark 1973: 60; Wood, S. L. 1982b: 648. (ds) Atkinson & Equihua 1988: 85; Bright & Stark 1973: 60; Furniss, R. L. & Carolin 1977: 375; Wood, S. L. 1982b: 648. (tx) Bright 1967a: 920–924; Bright & Stark 1973: 155; de Ruelle 1970: 98; Wood, S. L. 1969a: 45, 1982b: 648.

granulatus Wood 1983a: 651. Holotype ♂; Autlan, carr. Barra de Navidad Km 163, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: Cactaceae sp.

References: (hb) Atkinson & Equihua 1985b: 235. (ds) Atkinson & Equihua 1985b: 235, 1988: 86. (tx) Wood, S. L. 1983a: 651.

granulifer Wood 1969a: 48. Holotype ♂; 10 km S Huajuapán, Oaxaca, Mexico, 2000 m; Wood Collection.

Figures: Wood 1969a: 48 (male frons, declivity).

Distribution: North America (Oaxaca in Mexico).

Hosts: Giant cactus (? *Cereus* sp.).

References: (hb) Wood, S. L. 1982b: 642. (ds) Wood, S. L. 1982b: 642. (tx) Wood, S. L. 1969a: 44, 48, 1982b: 642.

hubbardi Schwarz 1899: 11. Lectotype ♂; Tucson, Arizona [USA]; USNM, Washington, designated by Wood 1982b: 647.

Figures: Bright 1967a: 920 (declivity).

Distribution: North America (S Arizona in USA).

Hosts: *Carnegiea gigantea*.

Notes: (3) Blackman 1938c: 152 (redescribed).

References: (hb) Chamberlin 1939: 243–245; Schwarz 1899: 5, 11, 1901a: 368; Wood, S. L. 1982b: 647. (ds) Blackwelder 1939; Bright 1967a: 922; Chamberlin 1939: 243–245; Furniss, R. L. & Carolin 1977: 375; Hagedorn 1910a: 69; Keen 1929a:

- 26; Kleine 1913b: 139, 1914b: 388, 1934a: 158; Leng 1920: 339; Swaine 1909: 87; Wood, S. L. 1982b: 647. **(tx)** Blackman 1920: 6, 1938c: 151–154; Bright 1967a: 920, 922; Chamberlin 1939: 243–245; Hagedorn 1910a: 109, 1910d: 69; Hopkins 1914: 117; Keen 1929a: 26; Schedl 1979c: 119; Schwarz 1899: 5, 11; Swaine 1909: 87; Wood, S. L. 1967a: 37, 1969a: 42, 45, 1982b: 647.
- koebeleri** Blackman 1938c: 156. Holotype ♂; Argus Mountains, Inyo County, California [USA]; USNM, Washington.
 Figures: Bright 1967a: 920 (declivity).
 Distribution: North America (Baja California Norte in Mexico/ S California, W Utah in USA).
 Hosts: *Pinus monophylla*, *P. lambertiana*.
 References: **(hb)** Bright & Stark 1973: 61; Chamberlin 1939: 246; Wood, S. L. 1982b: 645. **(ds)** Blackwelder 1939; Bright 1967a: 921; Bright & Stark 1973: 61; Chamberlin 1939: 246; Furniss, R. L. & Carolin 1977: 375; Wood, S. L. 1982b: 645. **(tx)** Blackman 1938c: 152, 156–157; Bright 1967a: 920–921; Chamberlin 1939: 246; Wood, S. L. 1969a: 44, 1982b: 645.
- mexicanus** Wood 1967a: 37. Holotype ♂; 21 km N Juchitlan, Jalisco, Mexico; Wood Collection.
 Figures: Bright 1967a: 920 (declivity), Wood 1969a: 46 (male frons, elytral declivity).
 Distribution: North America (Jalisco in Mexico).
 Hosts: Giant cactus (? *Pachycereus pectenaboriginum*).
 References: **(hb)** Wood, S. L. 1967a: 37, 1969a: 43, 45, 1982b: 640. **(ds)** Bright 1967a: 919; Wood, S. L. 1982b: 640. **(tx)** Bright 1967a: 919–920; Wood, S. L. 1967a: 37, 1969a: 43, 45–46, 1982b: 640.
- microcornis** Wood 1969a: 45. Holotype ♂; 10 km S Huajuapán, Oaxaca, Mexico; Wood Collection.
 Figures: Wood 1969a: 46 (male frons, elytral declivity).
 Distribution: North America (Oaxaca in Mexico).
 Hosts: Giant cactus (? *Cereus* sp.).
 References: **(hb)** Wood, S. L. 1982b: 640. **(ds)** Wood, S. L. 1982b: 640. **(tx)** Wood, S. L. 1969a: 43–46, 1982b: 640.
- nasutus** Wood 1969a: 49. Holotype ♂; 16 km S Matamoros, Puebla, Mexico; Wood Collection.
 Figures: Wood 1969a: 49 (male frons, declivity).
 Distribution: North America (Oaxaca, Puebla in Mexico).
 Hosts: Giant cactus (? *Cereus* sp.).
 References: **(ds)** Wood, S. L. 1982b: 643. **(tx)** Wood, S. L. 1969a: 44, 49, 1982b: 643.
- niger** Wood 1969a: 46. Holotype ♂; 32 km S Huajuapán, Oaxaca, Mexico; Wood Collection.
 Figures: Wood 1969a: 47 (male frons, elytral declivity).
 Distribution: North America (Oaxaca in Mexico).
 Hosts: Giant cactus (? *Cereus* sp.).
 References: **(ds)** Wood, S. L. 1982b: 641. **(tx)** Wood, S. L. 1969a: 44, 46–47, 1982b: 641.
- pini** Blackman 1938c: 153. Holotype ♂; Griffen, Kern County, California [USA]; USNM, Washington.
 Figures: Bright 1967a: 920 (declivity).
 Distribution: North America (S California, W Nevada in USA).
 Hosts: *Pinus jeffreyi*, *P. monophylla*.
 References: **(hb)** Bright & Stark 1973: 62; Chamberlin 1939: 245–246. **(ds)** Blackwelder 1939; Bright 1967a: 923; Bright & Stark 1973: 62; Chamberlin 1939: 245–246; Furniss, R. L. & Carolin 1977: 375; Wood, S. L. 1982b: 647. **(tx)** Blackman 1938c: 151; Bright 1967a: 920–923; Chamberlin 1939: 245–246; de Ruelle 1970: 98; Wood, S. L. 1969a: 45, 1982b: 647.
- rhois** Blackman 1938c: 154. Holotype ♂; Ventura County, California [USA]; USNM, Washington.
 Figures: Bright 1967a: 920 (declivity).
 Distribution: North America (S California in USA).
 Hosts: *Rhus diversilobata*, *R. trilobata*.
 References: **(hb)** Bright & Stark 1973: 61; Chamberlin 1939: 246. **(ds)** Blackwelder 1939; Bright 1967a: 922; Bright & Stark 1973: 61; Chamberlin 1939: 246; Wood, S. L. 1982b: 646. **(tx)** Blackman 1938c: 154; Bright 1967a: 920, 922; Chamberlin 1939: 246; de Ruelle 1970: 98; Wood, S. L. 1969a: 44, 1982b: 646.
- setosus** Wood 1983a: 652. Holotype ♂; Estacion de Biología, Chamela, Jalisco, Mexico; Wood Collection.
 Distribution: North America (Jalisco in Mexico).
 Hosts: Cactaceae sp.
 References: **(ec)** Equihua & Atkinson 1986: 629. **(hb)** Equihua & Atkinson 1986: 629. **(ds)** Equihua & Atkinson 1986: 629. **(tx)** Wood, S. L. 1983a: 652.
- spinatus** Wood 1957d: 106. Holotype ♂; 2 km SE Cameron, Oaxaca, Mexico; SMUK, Lawrence.
 Figures: Atkinson et al. 1986: 65 (adult), Bright 1967a: 920 (declivity).
 Distribution: North America (Jalisco, Oaxaca in Mexico).
 Hosts: *Bursera* spp.
 References: **(hb)** Atkinson et al. 1986: 60; Wood, S. L. 1982b: 644. **(ds)** Atkinson et al. 1986: 60; Bright 1967a: 924; Wood, S. L. 1982b: 644. **(tx)** Atkinson et al. 1986: 65; Bright 1967a: 920, 924; Wood, S. L. 1957d: 106, 1969a: 44, 1982b: 644.

Tribe Carphodicticini Wood

Carphodicticini

References: Wood, S. L. 1971: 19, 1978a: 113, 1982b: 65–66, 1986a: 66.

Genus *Craniodicticus* Blandford

CRANIODICTICUS BLANDFORD 1895a: 317. Type-species: *Craniodicticus mucronatus* Blandford, monobasic.

References: (hb) Wood, S. L. 1986a: 66. (ds) Wood, S. L. 1986a: 66. (tx) Blandford 1895a: 317; Schedl 1939b: 378–382; Wood, S. L. 1986a: 67.

minor Eggers 1936d: 635. Holotype, sex[?]; Indien, Coorg; Mercara; USNM, Washington.

Distribution: Asia (S India).

References: (ds) Schedl 1974c: 262. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1936d: 635–636.

mucronatus Blandford 1895a: 317. Syntypes ♂ ♀; Ceylon, Kikoya; BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: A creeper known as jungle rope.

References: (ds) Kleine 1912b: 162, 1914b: 272; Miwa 1931: 268; Schedl 1959a: 471. (tx) Blandford 1895a: 317; Eggers 1936d: 635–636; Hopkins 1914: 119; Lucas 1920: 206; Schedl 1939b:

382, 1959a: 471; Wood, S. L. 1986a: 67. (ms) Lucas 1920: 206.

Genus *Carphodicticus* Wood

CARPHODICTICUS WOOD 1971: 19. Type-species: *Carphodicticus cristatus* Wood, original designation.

References: (hb) Wood, S. L. 1986a: 67. (ds) Wood, S. L. 1986a: 67. (tx) Wood, S. L. 1971: 19, 1979b: 133–134, 1986a: 67.

cristatus Wood 1971: 19. Holotype ♂; 8 km W Bumbum, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Tree limb.

References: (hb) Wood, S. L. 1971: 19–20. (tx) Schedl 1979c: 69; Wood, S. L. 1986a: 67.

Genus *Dendrodecticus* Schedl

DENDRODICTICUS SCHEDL 1958f: 37. Type-species: *Dendrodecticus argentinae* Schedl, monobasic.

References: (hb) Wood, S. L. 1986a: 67. (ds) Wood, S. L. 1986a: 67. (tx) Schedl 1958f: 37; Wood, S. L. 1979b: 133–134, 1986a: 67

argentinae Schedl 1958f: 37. Holotype, sex[?]; Argentinien: Salta; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

References: (tx) Schedl 1958f: 37, 1979c: 25; Wood, S. L. 1979b: 133, 1986a: 67.

Tribe Ipini Bedel

- Ipini**
References: Bedel 1888b: 395–396, 400, 417; Handlirsch 1925: 692; Leng 1920: 339–340; Lucas 1920: 34; Nunberg 1954: 14; Reitter 1894: 39, 1906: 711; Spessivtsev 1913a: 28; Wood, S. L. 1978a: 113, 1982b: 66, 1986a: 67.
- Ipidae**
References: Brues & Melander 1932: 446; Csiki 1906: 77; Hopkins 1915c: 224; Lucas 1920: 34; Tredl 1907: 4.
- Ipina**
References: Balachowsky 1949a: 52.
- Ipinae**
References: Costa Lima 1956: 287; Hagedorn 1909: 162, 1910a: 24, 88, 1910d: 47; Hopkins 1915c: 224; Karaman 1963a: 53; Leng 1920: 339–340; Lucas 1920: 34; Nunberg 1954: 14; Nusslin 1911: 433; Reitter 1894: 39, 1913a: 26; Swaine 1909: 80.
- Pityogenina**
References: Balachowsky 1947: 44, 1949a: 244; Nunberg 1954: 17; Schedl 1958j: 145.
- Tomicidae** (based on erroneous identification)
References: Bau 1888: 85; Boas 1923; Eichhoff 1878b: 210; Lindemann 1876: 151; Thomson 1859: 145, 1865: 345; Wollaston 1854: 288, 1864: 254.
- Tomicides** (based on erroneous identification)
References: Ferrari 1867a: 3; Lacordaire 1866: 357, 372.
- Tomicinae** (based on erroneous identification)
References: Hagedorn 1908: 375.
- Tomici** (based on erroneous identification)
References: Blandford 1898b: 185; LeConte 1876: 345.
- Tomicini** (based on erroneous identification)
References: Barbey 1901: 21; Eichhoff 1878b: 7, 71, 1881a: 34, 42, 1883a: 106; Lovendal 1889b: 6.
- Genus *Dendrochilus* Schedl**
- DENDROCHILUS** SCHEDL 1957d: 79. Type-species: *Dendrochilus strombosiopsis* Schedl, subsequent designation by Schedl 1962j: 55.
References: **(hb)** Wood, S. L. 1986a: 68. **(ds)** Schedl 1962j: 55; Wood, S. L. 1986a: 68. **(tx)** Schedl 1957d: 79, 1962j: 55; Wood, S. L. 1986a: 68.
- arundinarius** Schedl 1957d: 80. Holotype, sex?; Congo Belge: Kivu, Mont Kahuzi, 2230 m; MRCB, Tervuren.
Figures: Nunberg 1961a: 333, Schedl 1962j: 57 (galleries).
Distribution: Africa (Zaire).
Hosts: *Arundinaria alpina*.
References: **(cc)** Schedl 1958d: 185. **(hb)** Schedl 1958d: 185–188. **(ds)** Nunberg 1961a: 331. **(tx)** Nunberg 1961a: 333; Schedl 1957d: 80, 1962j: 56, 1962k: 1056.
- elongatulus** Schedl 1977d: 282. Holotype, sex?; Ghana, Ashanti Region, Kwadaso, 259 m, N 6 degrees 42', W 1 degree 39'; NHMB, Budapest.
Distribution: Africa (Ghana).
References: **(tx)** Schedl 1977d: 282.
- filum** Schedl 1977d: 283. Holotype, sex?; Congo Belge, Kivu, Uvira; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: **(tx)** Schedl 1977d: 283.
- intermedius** Schedl 1977d: 283. Holotype, sex?; Nigeria, Sanaru; NHMB, Budapest.
Distribution: Africa (Nigeria).
References: **(tx)** Schedl 1977d: 283.
- jasminiae** Schedl 1957d: 81. Holotype, sex?; Congo Belge: Kivu, Mt. Kahuzi, 2240 m; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Jasminium abyssinicum*.
References: **(cc)** Schedl 1958d: 187. **(hb)** Schedl 1958d: 187, 1962j: 58. **(ds)** Schedl 1962j: 58. **(tx)** Schedl 1957d: 81, 1962j: 58, 1979c: 129.
- mikaniae** Schedl 1957d: 82. Holotype, sex?; Congo Belge: Kivu, Mt. Kahuzi, versant Ouest, 2230 m; MRCB, Tervuren.
Figures: Schedl 1962j: 56 (antenna), 58 (galleries).
Distribution: Africa (Zaire).
Hosts: *Mikania scandens*.
References: **(hb)** Schedl 1962j: 59. **(ds)** Schedl 1962j: 59. **(tx)** Schedl 1957d: 82, 1962j: 59, 1962k: 56, 1979c: 153.
- robustus** Schedl 1957d: 80. Holotype, sex?; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Brillantaisia* cf. *leonensis*.
References: **(cc)** Schedl 1962j: 60. **(hb)** Schedl 1962j: 60. **(ds)** Schedl 1962j: 60. **(tx)** Schedl 1957d: 80, 1962j: 60, 1979c: 212.
- strombosiopsis** Schedl 1957d: 79. Holotype, sex?; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Schedl 1962j: 62 (adult antenna, galleries).
Distribution: Africa (Zaire).
Hosts: *Strombosiopsis tetrandra*.
References: **(hb)** Schedl 1962j: 61. **(ds)** Schedl 1962j: 61. **(tx)** Schedl 1957d: 79, 1962j: 61–62, 1979c: 239.
- villiersi** (Lepesme) 1942: 270 (*Thammurgus*). Holotype, sex?; Mont Cameroun, versant Sud-Est, 1800–2000 m; MNHN, Paris.
Distribution: Africa (Cameroon).
Hosts: Liana
References: **(tx)** Lepesme 1942: 269–270; Schedl 1957d: 56, 64, 1960b: 164, 1962j: 63, 1964k: 309.
- Genus *Pityogenes* Bedel**
- PITYOGENES** BEDEL 1888b: 397. Type-species: *Dermestes chalcographus* Linnaeus, original designation.

Eggertia Lebedev 1926: 121. Type-species: *Bostrichus bidentatus* Herbst, subsequent designation by Wood 1986a: 68. Synonymy: Schedl 1962a: 132.

References: (tx) Lebedev 1926: 121; Schedl 1962a: 131–132; Wood, S. L. 1986a: 68.

Pityoceragenes Balachowsky 1947: 44. Type-species: *Bostrichus quadridens* Hartig, original designation. Synonymy: Schedl 1958k: 145.

References: (tx) Balachowsky 1947: 44, 1949a: 244; Schedl 1958k: 145.

Keys: Bright 1976d: 150, Swaine 1918a: 104, Wood 1982b: 650 for North America; Pfeffer 1946: 112, Reitter 1913a: 97, Schedl 1962a: 134, Stark 1952: 272 for Europe and Asia; Nobuchi 1974: 36 for Japan; Yin, Huang, & Li 1984: 121–122 for China.

References: (cn) Andreeva & Gorjaceva 1960; Aullo 1926: 56–60; Clemens 1916: 355–398; Felt 1906: 374; Nobuchi 1969a: 65; Spaic 1964a; Swaine 1913: 87–92; Walker 1912: 59. (ec) Balazy & Michalski 1964a; Nickle 1976b; Nickle & Welch 1984: 638; Ruhn 1960: 203; Voolma 1978: 91; Wisniewski 1979b. (hb) Bright 1976d: 139; Bright & Stark 1973: 78; Furniss, R. L. & Carolin 1977: 399; Wood, S. L. 1982b: 649, 1986a: 68. (ds) Bright & Stark 1973: 78; Furniss, R. L. & Carolin 1977: 399; Nobuchi 1974: 36; Plaza & Gil 1982; Schedl 1981b: 82; Scheerpeltz & Winkler 1930: 258; Swaine 1909: 132; Trappen 1935: 143; Wood, S. L. 1982b: 649, 1986a: 68; Yin, Huang, & Li 1984: 121. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1947: 44, 1949a: 244–247; Beal & Massey 1945: 138; Bedel 1888b: 398, 418; Blackman 1922b: 77, 110; Bright 1976d: 139, 1978: 139; Bright & Stark 1973: 78; Choo 1983: 27; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 19, 48; Duffy 1953: 15; Escherich 1923: 483; Fuchs 1911: 1; Hopkins 1914: 167; Kalina 1970: 127; Karaman 1972: 140; Kostin 1973: 262; Krivolutsкая 1958: 173–174; Kurenzov 1941: 201; Lanier 1968: 4167; Lebedev 1926: 121; Munro 1926: 64; Murayama 1929: 23, 28, 1930: 18, 1954: 172; Nickle 1963: 256–262; Nisima 1909: 145; Nobuchi 1974: 36, 41; Nunberg 1954: 71; Nusslin 1912: 101–107; Pfeffer 1946b: 112–119, 1955a: 223, 1959a: 68; Plaza & Gil 1982; Reitter 1913a: 92, 97; Saalas 1914: 86–88; Schedl 1954b: 37, 1958k: 145; 1962a: 132–139, 1981b: 82; Schimitschek 1937: 50–51; Spessivtsev 1922: 479, 1925: 182, 1931; Stark 1952: 372; Stresemann et al. 1989: 351; Swaine 1918a: 47, 104; Tragardh 1930: 468–480; Vite 1965: 267; Wood, S. L. 1951b: 32, 1982b: 649–656, 1986a: 68; Yin & Huang 1981: 562; Yin, Huang, & Li 1984: 121; Zivojinovic 1948: 65–73; Zolk 1935: 258–294.

bidentatus (Herbst) 1784: 24 (*Bostrichus*). Syn-types, sex?; Deutschland; not located.

Figures: Bevan 1987: 115 (adult), Grune 1979:

130, Krivolutsкая 1965: 240, Pfeffer 1989a: pl. 9, Plaza & Gil 1982: 260.

Distribution: Asia (Israel/Turkey/Sakhalin Island, E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), introduced into Madagascar and into North America (Livingston Co., New York in USA).

Hosts: *Pinus* spp., rare in *Abies* spp., *Picea* spp.

References: (ay) Dobers 1915; Escherich 1923b: 465, 484, 549; Feytaud 1950a; Fuchs 1911a; Munro 1917b: 147; Nusslin 1911a: 109; Scherb 1971; Sedlaczek 1902l: 244. (bv) Annala & Petaisto 1978; Baader 1989; Bakke 1956: 40–42; Byers, Anderbrandt, & Lofqvist 1989; Chararas 1982; Fuhrer & Kerck 1978a; Grune 1979: 131; King, C. J. 1977b; Luitjes 1976; Naumann-Etienne 1978a; Nuorteva 1956c: 93; Nuorteva & Nuorteva 1968; Prell 1931: 369; Rozhkov 1970: 147; Tragardh 1930b: 107. (cn) Anonymous 1979p; Ass & Funtikov 1941; Baader 1989; Bakke 1960: 313; Barbey 1906a, 1925: 278; Bevan 1964b; Blandford 1892a; Byers, Anderbrandt, & Lofqvist 1989; Cameron 1940: 40–42; Chararas 1961b: 69, 1978; Chorbadzhievo 1929; Chrystal 1949: 3–11; Croke 1955b, 1956; Day & Chrystal 1928: 19–30; Eckstein 1915, 1926: 572, 1930b; Egorov 1958: 1492; Ehnstrom et al. 1974; Elton 1949a; Escherich 1917: 97–115, 1923b: 465, 484, 549, 1932a; Feytaud 1946, 1950a, 1950b; Forbes 1910; Gabler 1955; Galoux 1947c, 1948d; Georgescu et al. 1957: 357, 449; Geschwind 1919: 111, 199; Cornostaev 1917: 308–315; Grandi 1951; Györfi 1946: 193, 195, 1959; Hanson, H. S. 1937; Henry 1904; Hess 1907: 253; Hess & Beck 1914: 334, 1927: 277; Hrubik 1973; Hubault 1945; Joly 1976; Judeich & Nitsche 1895: 501; Kamp 1950, 1956b: 471; Kangas 1937, 1938: 1–20, 73–98; Koch 1913: 118; Krausse 1919: 134–136; Kruel 1950: 6; Laidlaw 1952: 21; Lekander 1955b: 17; Lekander, M. 1951: 53; Lesne 1913: 213; Lichtenstein & Picard 1918: 172–174; Lindgren 1980a: 66; Lohrenz 1907: 47; Lonshehakov & Lure 1960; Lozovoi 1950c: 305; Lozovoi & Tropin 1965, 1967; Lyle 1915: 212–213; MacDougall 1915, 1921; Marchal 1914: 9–13; Marcu 1926b: 65, 1930: 227–236; Marie 1924: 328–330; Mathiesen 1952: 282; Mayne 1926: 234–245; Mokrzecki 1933: 282; Munro 1917: 123–158, 1919: 1–35, 1922: 136; Nuorteva & Nuorteva 1968; Nusslin 1913: 205; Ozols 1960; Pfeffer 1948d: 235; Pierce, W. D. 1917: 69; Polozencev & Zolotov 1969: 3–6; Rhumbler 1922: 323, 1927: 338; Rossem, Burger, & Van de Bund 1960; Ryukin 1951: 80; Saalas 1949: 344, 383; Sargos 1947: 8; Schimitschek 1937c: 56, 1944: 186, 1955a: 71, 73, 1955c: 88; Schwerdtfeger 1944a: 177, 1950b: 50, 1968a; Sedlaczek 1921: 335, 1936: 200; Sierpinski

- 1966: 57; Stefanov 1946: 1; Tragardh 1917: 28, 1921: 281–314, 1927c: 88; Tullgren 1916: 104; Vappula 1965: 153; Voute 1942: 617; Vuiliet 1913: 111–112; Wachtl 1883b: 319, 1901: 381; Wardle 1929: 323; Weber, H. 1926: 574; Wichmann 1927b: 352; Wolff & Krausse 1922: 95. (**ec**) Acatay 1943b; Annala & Petaisto 1978; Ass & Funtikow 1941; Bakke 1956a; Balazy & Michalski 1960, 1964b; Barbey 1906a, 1927; Belanowski 1930; Brammann 1940; Bychawska 1985; Cameron 1940; Carle 1971; Chararas 1959a, 1964b; Day & Chrystal 1928; Elliot & Morley 1907; Espanol 1967a; Fuchs 1930, 1938; Fuhrer & Kerck 1978a; Gadek 1976; Galoux 1947d; Graham 1969: 874; Gyorfí 1941b, 1952b; Halperin & Holzschuh 1984: 30; Heqvist 1957a, 1963: 154, 1967: 69; Hirschmann & Wisniewski 1982, 1983; Jamnicky 1957b: 18; Kangas 1937, 1971; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 214, 1909a: 47, 77, 1944: 72; Kokueva 1900: 569; Kolubajiv 1954: 22; Kolubajiv & Kalandra 1954: 30; Kostin 1964: 118; Krol 1984; Laumont & Ritter 1971; Lichtenstein & Picard 1918: 173; Lindquist, E. E. 1970b; Lovasz 1941: 195; Lozovoi 1961: 91–113, 1962: 171–284; Lozovoi & Tropin 1965, 1967; Luitjes 1976; Lundberg 1984; Majeski, T. & Wisniewski 1978a: 8; Mathiesen 1952: 282; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Nunberg 1930: 201; Nuorteva 1956a: 17, 1957b: 53, 1968a, 1970, 1971: 69; Nuorteva & Nuorteva 1968; Nusslin 1927: 338; Palmen 1944: 60, 1946: 194; Petterson 1976b; Pfeffer 1923a: 332, 1928b: 6, 1943b: 182; Pierce, W. D. 1917: 69; Poinar 1975: 165; Roubal 1934a: 86; Ruhm 1954c: 222, 1956b: 4; Rumbold 1931c: 848; Ruschka 1921: 241; Ryvkin 1951: 80–81; Saalas 1917a: 18, 1949: 344, 383; Schaarschmidt 1959: 786; Schedl 1962a: 155; Schimitschek 1930a: 326, 1955a: 71, 73; Schwerdtfeger 1944a: 177, 1950b: 50; Sedlaczek 1921: 334–339, 1935a: 163; Seiff 1925: 334–337; Shaw, M. R. 1989; Sitowski 1930: 2; Stewart 1923: 138; Szczepanski 1960a: 411; Thompson, W. R. & Simmonds 1964: 23, 1965: 92; Tudor 1969: 33; Vietinghoff 1924: 329; Wagner 1928: 15; Wiackowski 1957a: 85, 1957b: 312; Wichmann 1954d: 438; Wisniewski 1979b; Wulker 1924: 11. (**hb**) Annala & Petaisto 1978; Anonymous 1920: 65; Arndt 1920; Bakke 1968b: 640; Barbey 1901: 26, 97, 1925: 278; Beffa 1949, 1961; Bejer-Petersen 1957; Carle 1971; Cecconi 1906, 1924; Chararas 1961b: 69, 1962c: 354; Charvat 1950; Chorbadzhiyev 1929; Dallimore & Munro 1922: 189–193; Dombrowsky 1887, 1892; Eckstein 1897, 1915, 1926: 572; Eichhoff 1881a: 51, 253; Elton et al. 1964; Escherich 1923b: 465, 484, 549, 1930b; Everts 1900; Ferreira & Ferreira 1989; Feytaud 1946, 1950a; Frohlich 1927: 101; Fuchs 1904a, 1911b; Gabler 1955; Gillanders 1908; Gornostaev 1916: 312; Grandi 1951; Gyorfí 1957; Hagedorn 1903a; Halperin & Holzschuh 1984: 30; Hamilton, W. D. 1979: 202; Hennings 1908c: 220, 1908d; Henschel 1895a: 180; Hess 1907: 253; Hess & Beck 1914: 334, 1927: 277; Joly 1976; Judeich & Nitsche 1895: 501; Karpinski 1933b: 35; Karpinski & Strawinski 1948: 157; Kauschinger 1883: 104; King, C. J. 1977b; Knotek 1894a: 538; Kostin 1960: 134; Krivolutskaya 1960: 81, 1973: 141; Lengerken 1939: 48, 66, 1954: 86; Lindgren 1980a: 66; Loos 1913: 411; Louzil 1961: 43; Lozovoi & Tropin 1965, 1967; Luitjes 1967; Lunardon & Leonardi 1889: 476; MacDougall 1921: 112; Masutti 1964; Michalski 1959a: 291; Munro 1916b: 115, 1917b: 147, 1926: 65; Naumann-Etienne 1978a; Nilssen 1984; Nunberg 1929: 112; Nuorteva 1956c: 93, 1968a, 1970; Nusslin 1898: 283, 1906b: 14, 1913: 205, 1927: 338; Orest 1926b: 81; Petrenko 1966; Pfeffer 1941b: 3, 1989a: 69; Postner 1974: 443; Prell 1931: 369; Rhumbler 1922: 323, 1927: 338; Rimski-Korsakov et al. 1949: 288; Rozhkov 1970: 147; Rudnev 1926: 32–69; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 68, 88, 1949: 344, 383; Schedl 1962a: 155; Schimitschek 1930a: 326, 1944: 186, 1955a: 71, 73; Schwerdtfeger 1944a: 177, 1981: 189; Sedlaczek 1921: 335, 1935a: 163; Stark 1952: 390; Tragardh 1914: 93, 1927c: 88, 1929a: 314, 1930b: 107, 1939b: 159, 225; Tschorbadjiev 1929: 172; Voute 1942: 617; Wachtl 1876a: 453, 1901: 381; Weber, H. 1926: 574; Wichmann 1927b: 352; Wolff & Krausse 1922: 95. (**ds**) Acatay 1943: 3; Acloque 1896; Allen, A. 1951b: 116; Alluaud 1900: 441; Armann & Knabl 1913; Angus 1964: 179; Anonymous 1979p; Audras & Schaefer 1957; Bakke 1960: 313, 1968a: 640; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Bedel 1888b: 402, 418; Beffa 1949; Bejer-Petersen & Jorum 1977: 27; Bielz 1887; Bistrom & Vaisanen 1988: 42; Borchert 1951; Borodajewsky 1930: 249–251; Brakman 1966b: 207; Brundin 1934; Buresh & Lazarov 1956; Butovitsch 1930: 51–54; Carpentier & Delaby 1908; Cecconi 1897, 1906; Chararas 1961c: 92; Charvat 1950; Chorbadzhiyev 1924d, 1929; Chrystal 1922, 1928: 28–29, 1937; Dallimore & Munro 1922; Debatisse 1945; Eder 1934; Eggers 1904, 1912d; Elton 1949a; Endrodi 1958b; Ermisch 1953; Escalera 1919; Escherich 1923b: 465, 484, 549, 1932b; Esterberg 1928; Everts 1900, 1922: 644, 1925; Fauvel 1885; Fjellberg 1966: 154; Fowler 1891; Fricken 1889: 347; Fuchs 1904a, 1905a; Gabler 1949b; Gaidiene 1976; Gaunitz 1928: 92; Gemminger & Harold 1872: 2689; Gillerfors 1966; Gobbi 1989: 61; Gornostaev 1917; Grill 1895: 311; Crouzelle 1905; Grune 1979: 131; Gyorfí 1941b; Hagedorn 1903a, 1910a: 49; Hallett 1923a; Halperin & Holzschuh 1984: 30; Hansen, V. 1939, 1956, 1964: 464; Hellen 1928: 99, 1947; Helliesen 1916: 84; Hennig 1954: 257, 261, 263; Henschel 1895a: 180; Heyden 1877: 140; Heyden, Reitter, & Weise

1883: 182, 1891: 672, 1906: 712; Hoebeke 1989; Horion 1951; Hubault 1923b; Illiger 1805: 129; Jansson 1935: 77; Jazentkovsky 1912: 289; Johnson & Halbert 1902: 819; Joly 1976; Judeich & Nitsche 1895: 501; Kaisila 1952: 18; Kamp 1956: 471; Kangas 1971; Karpinski 1925: 216, 1926: 82, 1931: 26, 34, 1933b: 35, 1948b: 231; Karpinski & Strawinski 1948: 57; Keler 1922b: 211, 1925b: 272; Kersten 1933: 76; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 262, 267, 1913a: 35, 1913b: 131, 1934a: 151; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 558; Koltze 1901: 153; Kolubajiv 1934: 64; Koschitsky 1900: 83; Krivolutskaya 1960: 81, 1965: 239, 1973: 141, 1983; Kurir 1947c: 6; Langhoffer 1915c: 158; Larroche & Torossian 1971; Leclercq 1971; Lekan-der 1955b: 17; Lentz 1857: 139; Lesne 1913: 213; Lomnicki 1913b: 148; Loos 1913: 411; Lovaszky 1941: 194–204; Lovendal 1890c: 209; Lucht 1987: 279; Lunardoni & Leonardi 1889: 476; Lundberg 1974: 92, 1979: 31; Lundblad 1950c: 116; Mandl 1931: 25; Marcu 1926c: 65, 1957b: 213; Mequignon 1936: 15, 31; Michalski 1957: 166; Munro 1922: 136; Munster 1928: 290; Negru 1968a: 457; Nestertschuk 1930: 159–182; Nun-berg 1928b: 88, 113, 1954: 74; Nuorteva 1971: 67; Nusslin 1898: 283; Orest 1926c: 66; Palmen 1944: 60, 1946: 194; Pfeffer 1924b: 472, 1928b: 6, 1931b: 74, 1935: 159, 1947e: 16, 1950b: 76, 1960: 346, 1984: 277, 1989a: 69; Pierce, W. D. 1917: 69; Platonoff 1943: 141; Plaza & Gil 1982: 260; Pomerantzev 1907b: 492; Poppius 1900: 108; Postner 1974: 443; Prossen 1913: 83; Rapp 1934: 730; Reitter 1894a: 78, 1916: 300; Rimski-Korsakov et al. 1949: 288; Roubal 1935b: 73, 1941: 271; Rozhkov 1970: 147; Saalas 1913a: 68, 88, 1917a: 18, 1931: 69; Sainte-Claire & Mequi-gnon 1938: 448; Sawamoto 1940a: 96, 105; Schaufuss 1915: 1245; Schedl 1959h: 100, 1969g: 291, 1971d: 429, 1971i: 291, 1980a: 24, 1981b: 84; Schilsky 1909: 188; Schwerdtfeger 1981: 189; Seidlitz 1891a: 565, 1891b: 610; Seitschek 1929: 242–244; Sharp & Fowler 1893: 35; Shaw, M. R. 1989; Sierpinski 1966; Stark 1925: 78–81, 1952: 390; Stein & Weise 1877: 165; Stewart 1923: 138; Stierlin 1898: 442; Stierlin & Gautard 1906: 205; Strand 1946: 602; Strand & Hanssen 1935: 70; Thornley 1897: 257; Tragardh 1914: 93, 1939b: 159, 225; Tredd 1907: 14; Troshanian 1932: 552–556; Tschorbadjiev 1929: 172; Van Rossem, Bur-ger, & Van de Bund 1960: 125; Vappula 1965: 153; Wachtl 1876a: 453; Wegelius 1960: 106; Welch, R. C. 1968b: 121; Westhoff 1882: 239; Wichmann 1927a: 74; Wiepken 1883: 89; Winter, T. G. 1983: 22; Wiren 1945: 43; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 411; Zinovjev 1955: 187; Zolk 1937: 147–172. (tx) Acloque 1896; Balachowsky 1947, 1949a: 252; Barbey 1901: 26, 97; Bedel 1888b: 402, 418; Beffa 1949, 1961; Bejer-Petersen 1957; Bevan 1987: 115; Carpentier &

Delaby 1908; Ceballos 1945; Charvat 1950; Chor-badzhievo 1924d; Dobers 1915: 36–40; Dom-browsky 1887, 1892; Duffy 1953; Eggers 1914: 107–108, 1920, 1922d, 1929e: 42; Eichhoff 1878b: 279, 1881a: 51, 253, 1883a: 114, 139, 1896: 609; Endrodi 1957b; Escherich 1923b: 465, 484, 549; Everts 1922: 644; Fabricius 1787: 37; Fauvel 1885, 1889; Ferrant 1911; Fleischer 1927; Formanek 1907: 40; Fraser 1920; Fricken 1889: 347; Fuchs 1911a; Gabler 1949b, 1955; Gebien 1907: 197; Gillanders 1908; Gmelin 1790: 1602; Grune 1979: 130, 131; Hagedorn 1910a: 104; Hansen, V. 1956, 1964: 464; Henschel 1885a, 1895a: 180; Herbst 1784: 24, 1793: 109; Houlbert 1922a: pl. 1; Joly 1976, 1976b: 171; Judeich & Nitsche 1895: 501; Kalina 1970: 127; Karpinski & Strawinski 1948: 157; Knotek 1892a: 38; Koch 1913: 118, 1928: 83, 1932: 123; Krivolutskaya 1965: 240; Kuhnt 1913: 1057; Letzner 1891: 377; Louzil 1961: 108; Lovendal 1889b: 64, 1890c: 209, 1898: 167; Lucht 1987: 279; Lunardoni & Leonardi 1889: 476; Munro 1916b: 115, 1917b: 147; Murayama 1939: 140; Nunberg 1930: 200–208, 1954: 74; Nusslin 1911a: 109; Panzer 1795a: 287; Pfeffer 1932b: 24, 1941b: 3, 1946b: 115, 1947e: 16, 1955a: 230, 1989a: pl. 9; Plaza & Gil 1982: 260, 262; Portevin 1935: 335; Postner 1974: 443; Quaschik 1953: 35; Rei-ter 1894a: 78, 1913a: 99, 1916: 300; Rhumbler 1922: 323, 1927: 338; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 68, 88, 1919, 1949: 344, 383; Sawamoto 1940a: 96, 105; Schedl 1934f: 1644, 1952f: 87, 1952k: 162, 1962a: 155, 1965c: 51, 1980a: 24, 1981b: 84; Scherb 1971; Schimit-schek 1937c: 56, 1955c: 88; Schlechtendal & Wunsche 1879: 126; Seidlitz 1891a: 565, 1891b: 610; Sokanovskii 1960: 677; Spessivtsev 1922a: 479, 1923: 200, 214, 1925a: 186, 1925b: 22; Stark 1928: 377–378, 1952: 390; Stierlin 1898: 442; Wachtl 1895: 8; Weber, L. 1912: 30. (ms) Bevan 1964b; Escherich 1932b; Fuchs 1911b; Michalski 1959a: 291; Schwappach 1924: 56; Sedlaczek 1913: 455, 1936: 200; Weber 1912: 30.

ater Fabricius 1792: 368 (*Bostrichus*). Holotype, sex?; Sueciae; UZMC, Copenhagen. Synon-ymy: Zimsen 1964: 190.

Notes: (1) Although there were 2 syntypes, the second one is not a Scolytidae; therefore, the first becomes the holotype by elimination.

References: (tx) Fabricius 1792: 368; Zimsen 1964: 190.

bidens Fabricius 1801: 389 (*Bostrichus*). Syntypes 5, sex?; Kiliae; UZMC, Copenhagen. Synon-ymy: Balachowsky 1949a: 252.

References: (ay) Scheyvrew 1889a: 22. (cn) Dolles 1885; Esterberg 1959; Feytaud 1950b; Grossbauer 1875; Hartig 1861: 324, 1877: 190; Hess 1898: 354; Jaensch 1938: 49; Kauschinger 1893: 142; Keller 1903b: 52; Kholodkovskii 1912: 278, 309; Kirchner 1860: 91; Kollar 1851: 230; Kontkanen 1932: 59; Koppén 1882:

- 236; Letzner 1855: 142; Lohrenz 1907: 47; Nestertschuk 1930: 172, 176; Nusslin 1883: 152; Pomocnicze 1876: 153; Reisseneger 1889: 335; Schuster 1918: 102. **(ec)** Gaulle 1906: 237; Giraud & Laboulbene 1877: 427; Gyorf 1952b; Haarlov & Bejer-Petersen 1952; Hubault 1923a; Meyer 1934: 616; Perris 1852: 497, 1854b: 596, 1856a: 187, 1857: 360, 1862: 189; Ratzeburg 1869a: 59; Rondani 1871: 219, 1873: 139; Schuster 1918: 102; Seiff 1925: 335; Stark 1925b: 80; Stefanov 1949a: 105; Thompson, W. R. 1943: 57. **(hb)** Altum 1875, 1879c, 1881c: 305, 1883c, 1884, 1889c, 1890b; Bach 1864; Boas 1923: 357; Borodajewsky 1930b; Budge 1949; Chittenden 1890; Dombrowsky 1892; Eekstein 1889, 1939b; Eichhoff 1882d: 336; Furst 1888: 109, 1131; Girard 1873; Hartig 1861: 324, 1870, 1877: 190; Henschel 1876a: 97, 238, 1880b: 257; Hess 1898: 354; Holmgren 1867: 113, 136; Jaensch 1938: 49; Karsch 1883: 141; Kauschinger 1893: 142; Kholodkovskii 1912: 278, 309; Kurenzov 1948b: 108; Lindemann 1875a: 133; Lohrenz 1907: 47; Nordlinger 1856: 21; Perris 1852: 497, 1856a: 187; Ratzeburg 1837: 132, 159, 1839: 159, 193; Rodd 1897: 34; Spessivtsev 1913a: 70, 1923: 213; Stark 1926a: 337; Stefanov 1949a: 105; Taschenberg 1880: 231. **(ds)** Ammann & Knabl 1923; Barthe 1896; Bielz 1851; Blanchere & Robert 1889; Boas 1923: 357; Brancsik 1871; Calwer 1884, 1893; Chapuis & Candeze 1853; Chittenden 1890; Crotch 1863; Dejean 1821, 1825, 1837; Duftschmidt 1825; Erierson & Sandin 1893; Esterberg 1959; Eyquem 1891; Favre 1890; Forster 1849: 439; Gaubil 1849: 126; Gozis 1875: 80; Gredler 1866: 374; Guyon 1855; Heinemann 1908a; Heller 1881: 173; Heyden 1876: 299; Holmgren 1867: 113, 136; Hubault 1923b; Illiger 1805: 129; Kestercanek 1881a: 12; Kontkanen 1932: 59; Koppen 1882: 236; Kraatz 1869: 59; Lacordaire 1866: 383; Letzner 1855: 142; Lindberg & Saris 1952: 59; Lokaj 1868: 64; Matthews & Fowler 1883: 42; Murray 1853: 60; Olivier 1795b: 10; Perris 1876a: 254, 1877a: 414; Pfeiffer 1950b: 73; Ratzeburg 1837: 132, 159, 1839: 159, 193; Redtenbacher 1858: 835, 1874: 379; Reitter 1869b: 154; Rye 1866b: 64; Sahlberg 1900: 106; Schaum 1859: 96, 1862: 101; Schilsky 1909: 188; Schiodte 1873: 102; Schreiner 1897: 369; Schwarz 1886: 41; Seidlitz 1872: 394; Sharp & Fowler 1893: 35; Siebke 1875: 284; Stark 1926a: 337, 1926b: 105, 1926j: 127, 1927b: 90, 1931a: 21, 27, 1931d: 549, 1936e: 147; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 145, 1830: 357, 1839: 207; Stierlin & Gantard 1871: 294; Strach 1861: 122; Sturm 1843: 230; Thomson 1865: 368, 1868: 222; Zetterstedt 1840: 193. **(tx)** Altman 1844; Bach 1854, 1864; Balachowsky 1949a: 252; Bechstein 1818: 75, 213; Bechstein et al. 1805: 97; Bertolini 1872; Boas 1923: 357; Brancsik 1871; Calwer 1858; Castlenau 1840; Chapuis & Candeze 1853; Dejean 1821, 1825; Dombrodeev 1924: 70–76; Dombrowsky 1892; Duftschmidt 1825; Eggers 1929e; Eichhoff 1864b: 42, 1868d: 424, 1872c: 137, 1877c: 389–392, 1883b: 219; Escherich & Escherich 1897; Fabricius 1792: 368, 1801: 389; Ferrari 1867a: 33–34, 1867b: 114, 1868: 256; Fleischer 1905; Florov 1949: 101; Girard 1873; Gyllenhal 1813: 357; Henschel 1876a: 97, 238; Krivolutskaia 1958: 174; Kurenzov 1941a: 195, 1948b: 108; Lacordaire 1866: 383; Letzner 1891: 377; Leunis 1886: 181; Lindemann 1875a: 133; Nordlinger 1848: 238, 1856: 21; Panzer 1795a: 290; Paykull 1800: 148; Perris 1877a: 414; Petkov 1963: 218; Ratzeburg 1837: 132, 159, 1839: 159, 193, 1856b: 60; Redtenbacher 1849a: 358, 1849b: 26, 1858: 835, 1874: 379; Saalas 1914: 88; Sahlberg 1836: 147; Schedl 1934f: 1644; Scheyrew 1889a: 22; Schwarz 1886: 41; Seidlitz 1872: 394; Spessivtsev 1913a: 69–70, 1931a: 68–69; Stark 1938: 147–148; Stephens 1829a: 145, 1829b: 12, 1830: 357, 1839: 207; Taschenberg 1880: 231; Thomson 1865: 368, 1868: 222; Zetterstedt 1840: 193. **(ms)** Eichhoff 1868d: 424; Hartig 1834: 109; Heinemann 1908a; Henschel 1880b: 257; Kholodkovskii 1893: 390.
- bispinus* Guyon 1855: 4815 (*Bostrichus*). Syn- types, sex?, Richmond, Surrey, England; not located. Synonymy: Schedl 1962a: 155. References: **(hb)** Budge 1949; Girard 1873. **(ds)** Bielz 1851; Gaubil 1849: 126. **(tx)** Girard 1873; Guyon 1855: 4815; Schedl 1962a: 155.
- bidentatus carniolica* Fuchs 1911: 35. Syntypes, sex?, Karnten; Fuchs Collection. Synonymy: Schedl 1962a: 155. References: **(tx)** Fuchs 1911: 14, 35; Reitter 1913a: 99; Schedl 1934f: 1644, 1962a: 155; Weber, L. 1912: 30. **(ms)** Sedlaczek 1913: 455; Weber, L. 1912: 30.
- obtusus* Eggers 1932e: 81. Holotype ♂; Jutland (Skagen) [Denmark]; August West Collection. Synonymy: Schedl 1962a: 159. References: **(ds)** Hansen 1939; Horion 1951; Kleine 1934a: 152. **(tx)** Eggers 1932e: 81; Schedl 1962a: 159.
- bistridentatus* (Eichhoff) 1878b: 282 (*Tomicus*). Syntypes, sex?, Europe [apparently Nice, France]; Hamburg Museum, lost. Figures: Grune 1979: 134, Joly 1976b: pl. 10, Nohmichi 1974: pl. 1–2, Pfeiffer 1989a: pl. 10. Distribution: Asia (NE China/ Japan/ Turkey), Europe (Albania/ Austria/ Bulgaria/ Corsica/ Cyprus/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Spain/ Switzerland/ Yugoslavia).

Hosts: *Pinus nigra*, *P. brutia*, *P. heldreichii*, *P. leucodermis*, *P. pentaphylla*, rare in *Cedrus libanotica*.

References: (ay) Escherich 1923b: 484, 552; Feytaud 1950a; Fuchs 1911a; Nusslin 1911a: 255. (bv) Crune 1979: 135; Hellrigl 1985. (cn) Acatay 1943a: 68; Anonymous 1979c; Barbey 1924a, 1925: 341; Chararas 1978; Chorbadzhievo 1929; Eckstein 1926: 579; Escherich 1923b: 484, 552, 1929: 69–90; Feytaud 1950a; Gradojevic 1940; Grandi 1951; Gyorfı 1959; Joly 1976; Judeich & Nitsche 1895: 501; Kailidis & Markalas 1988; Keller 1903b: 42, 56, 1920: 197; Kholodkovskii 1912: 310; Koch 1913: 118; Nusslin 1913: 205, 280; Pierce, W. D. 1917: 69; Popovic 1931: 57; Rhumbler 1922: 323, 1927: 338; Schimitschek 1932a: 23, 1937c: 56, 1938b: 115, 1938c: 2118, 1939d: 2118, 1955c: 89; Schmidt 1881: 35; Schwerdtfeger 1944a: 177, 1957a: 183; Sierpinski 1966: 60; Weber, H. 1926: 579; Wichmann 1927b: 378; Zinojinovic 1963: 449. (ec) Capek 1957; Chararas 1964b; Gabler 1947b; Graham 1969: 874; Gyorfı 1941b; Hellrigl 1985; Hellrigl & Schwenke 1985: 48; Heqvist 1955a: 97; Jahn & Siureich 1960b; Jammicky 1957b: 26; Kleine 1908c: 214, 1944: 78; Knoche 1908b: 204; Krezal 1959: 574; Masutti 1959: 268, 301; Novak 1952: 416; Nunberg 1930: 203; Nuorteva 1957b: 52; Nusslin 1927: 338; Pfeffer 1932a: 19; Ruschka 1925: 201; Schaarschmidt 1959: 803; Schimitschek 1930a: 281; Schwerdtfeger 1944a: 177, 1957a: 183; Sedlacek 1904: 359, 1908: 52, 1935a: 163; Seitner 1913a: 27; Seitner & Notzl 1925: 188; Thompson, W. R. 1943: 57; Vitzthum 1923: 176, 1926: 408. (hb) Acatay 1943a: 68; Alkan 1946: 113; Barbey 1901: 26, 99, 1924a, 1925: 341; Bargmann 1906; Budkov 1897; Bukowsky 1930; Cecconi 1924; Chararas 1962c: 358; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Drugescu 1980; Dzhabazishvili 1961: 751–757, 1962; Eckstein 1926: 579; Eichhoff 1882e: 325; Escherich 1923b: 484, 552; Feytaud 1950a; Fuchs 1904a; Grandi 1951; Gyorfı 1957; Hagedorn 1903a; Henschel 1885b, 1895a: 181; Joly 1976; Judeich & Nitsche 1895: 501; Karpinski & Strawinski 1948: 157; Keller 1907a: 181; Kholodkovskii 1912: 310; Knotek 1894a: 558, 1897: 160, 1898b: 333; Lengerken 1939: 66, 1954: 86; Masutti 1959: 268, 301, 1964; Negru & Pirvescu 1966: 150; Nunberg 1929: 113, 1929c: 123, 1947c: 106; Nusslin 1898: 283, 1913: 205, 280, 1927: 338; Postner 1974: 444; Rhumbler 1922: 323, 1927: 338; Schedl 1962a: 151; Schevyrew 1905c: 192; Schimitschek 1930a: 281; Schmidt 1881: 35; Schwerdtfeger 1944a: 177, 1957a: 183; Sedlacek 1935a: 163; Seitner & Notzl 1925: 188; Spessivtsev 1913a: 70; Stark 1952: 389; Tschorbadjiev 1929: 173; Weber, H. 1926: 579; Wichmann 1927b: 378. (ds) Anonymous 1979p; Balachowsky 1943a; Barthe 1896; Belousov 1916, 1917: 335; Branesik 1906; Budkov 1897; Bukowsky 1930;

Buresh & Lazarov 1956; Cecconi 1897; Champion 1894; Charvat 1950; Chorbadzhievo 1924d, 1929; Eggers 1904; Endrodi 1955b; Escalera 1919; Escherich 1923b: 484, 552, 1929; Favre 1890; Fuchs 1904a, 1905a; Georghion 1977: 75; Geschwind 1919: 119, 199; Gobbi 1989: 61; Crune 1979: 135; Gyorfı 1940: 47, 1941b; Hagedorn 1903a, 1904e, 1910d: 49; Henschel 1895a: 181; Heyden, Reitter, & Weise 1891: 672; Holdhaus & Deubel 1910: 181; Holzel 1946: 81; Horion 1935, 1951; Joly 1976; Judeich & Nitsche 1895: 501; Kailidis 1985; Kailidis & Markalas 1988; Karaman 1964: 440–443; Karpinski & Strawinski 1948: 157; Keller 1920: 13; Kleine 1912a: 264, 268, 1913a: 35, 1913b: 131, 1934a: 151; Knotek 1892a: 38, 1894a: 558, 1898b: 333; Kolbe, W. 1916: 257; Kozikowsky 1921: 181, 1925: 18–23; Kozikowsky & Kuntze 1925a: 20; Kurir 1947c: 6; Lomnicki 1913b: 148; Lucht 1987: 279; Marcu 1957b: 213; Munster 1928: 290; Murayama 1939: 140, 1942a: 55; Negru 1966b: 403, 1968a: 457; Negru & Pirvescu 1966: 150; Nobuchi 1974: 37; Novak, P. 1952: 416; Nunberg 1927a: 214, 1928b: 88, 114; Nusslin 1898: 283; Pfeffer 1923b: 106, 1924a: 96, 1930b: 120, 1931b: 75, 1935: 159, 1936: 90, 1947d: 127, 1950b: 76, 1965: 63, 1984: 274, 277, 1989a: 70; Pierce, W. D. 1917: 69; Pjatnitskii 1930a: 165; Plaza & Gil 1982: 260; Postner 1974: 444; Prossen 1913: 83; Reitter 1894a: 79, 1916: 301, 352; Rodzianko 1915; Ruschka 1925: 197–202; Ruskov 1928c: 62; Sainte Claire & Mequignon 1938: 448; Schaufuss 1915: 1246; Schedl 1959h: 99, 1961b: 185, 1962a: 151, 1971d: 431, 1971f: 147, 1980a: 24, 1981b: 84; Schilsky 1909: 188; Schimitschek 1938b: 115; Schreiner 1897: 369; Sierpinski 1966b: 60; Stark 1927b: 90, 1952: 389; Stein & Weise 1877: 165; Tredd 1907: 15; Tschorbadjiev 1929: 173; Wichmann 1927a: 75; Zinojinovic 1960. (tx) Alkan 1946: 113; Balachowsky 1943a, 1947, 1949a: 249; Barbey 1901: 26, 99; Charvat 1950; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Eggers 1920: 125–126, 1922c: 119, 1926b, 1933f: 5, 50; Eichhoff 1878b: 282, 1883b: 219; Endrodi 1957a: 307, 1957b; Escherich 1923b: 484, 552; Fauvel 1889; Fleischer 1927; Fraser 1920; Fuchs 1911a; Crune 1979: 134–135; Hagedorn 1910a: 104; Hellrigl 1985; Henschel 1885a, 1895a: 181; Joly 1976, 1976b: pl. 10; Judeich & Nitsche 1895: 501; Karpinski & Strawinski 1948: 157; Knotek 1892a: 38; Koch 1913: 118, 1932: 124; Lucht 1987: 279; Murayama 1939: 140–141; Negru 1966b: 403; Nobuchi 1974: 37, pls. 1–2; Nunberg 1928: 211–215, 1929c: 123, 1947: 99–108; Nusslin 1911a: 255; Pfeffer 1932b: 24, 1946b: 117, 1984: 274, 1989a: pl. 10; Plaza & Gil 1982: 260, 262; Postner 1974: 444; Quaschik 1953: 35; Reitter 1887b: 197, 1894a: 79, 1913a: 100, 1916: 301, 352; Rhumbler 1922: 323, 1927: 338; Schedl 1934f: 1644, 1946a: 14, 1962a: 155, 1980a: 24, 1981b: 84; Schimitschek 1937c: 56,

1955c: 89; Seitner 1887: 45; Spessivtsev 1913a: 70; Stark 1936: 146, 1952: 389; Wachtl 1895: 8; Weber, L. 1912: 30. (**ms**) Schimitschek 1930b: 407; Sedlaczek 1904: 359; Seitner 1913a: 27; Weber, L. 1912: 30.

pilidens Reitter 1894a: 79. Syntypes, sex?; Corsica; NHMB, Budapest. Synonymy: Eggers 1922d: 119, Pfeffer 1984: 275.

References: (**ay**) Fuchs 1911a. (**cn**) Chorbadzhievo 1929; Pierce, W. D. 1917: 69; Rhumbler 1922: 323, 1927: 339; Rudnev 1965b; Schimitschek 1944: 186. (**ec**) Apfelbeck 1916b: 429–439; Chararas 1957d; Kleine 1908c: 214; Kolubajiv 1954: 221; Nuorteva 1957b: 53; Schimitschek 1930a: 281; Thompson, W. R. 1943: 59. (**hb**) Apfelbeck 1916b, 1917; Chorbadzhievo 1929; Fuchs 1906b; Knotek 1898b: 333, 1899b: 7, 1901: 567; Rhumbler 1922: 323, 1927: 339; Schimitschek 1930a: 281, 1944: 186; Tschorbadjiev 1929: 173. (**ds**) Ammann & Knabl 1923; Barthe 1896; Buresh & Lazarov 1956; Chorbadzhievo 1929; Fedorov 1930; Fuchs 1906b; Hagedorn 1910d: 57; Heyden, Reitter, & Weise 1906: 712; Kleine 1913a: 35, 1913b: 131; Knotek 1898b: 333, 1899b: 7, 1901: 567; Kolubajiv 1934: 65; Langhoffer 1915c: 158; Linder 1946: 203; Murayama 1939: 140; Pfeffer 1935: 158, 1936: 90; Pierce, W. D. 1917: 69; Pittioni 1943: 176; Reitter 1894a: 79, 1898a: 140, 1916: 301; Rudnev 1965b; Sainte-Claire 1914: 473; Schaufuss 1915: 1246; Schilsky 1909: 188; Stark 1936e: 146; Tredl 1907: 15; Tschorbadjiev 1929: 173. (**tx**) Balachowsky 1949a: 259; Eggers 1911: 122, 1922d: 119; Fuchs 1911a; Hagedorn 1910a: 105; Pfeffer 1984: 275; Portevin 1935: 335; Reitter 1894a: 79, 1913a: 101, 1916: 301; Rhumbler 1922: 323, 1927: 339; Schedl 1934f: 1644; Strohmeier 1929: 181; Weber 1912: 30.

pilidens albanicus Apfelbeck 1896:(?). Syntypes, sex?; Merdita (Albanien); not located. Synonymy: Schedl 1979c: 127.

Notes: (3) Eggers 1911a: 122 (cited as a var. of *pilidens*).

References: (**tx**) Apfelbeck 1896:(?); Eggers 1911a: 122; Endrodi 1957: 418; Murayama 1939: 140; Schedl 1934f: 1644, 1979c: 127.

herbellae Strohmeier 1929b: 181. Syntypes, sex?; Spain: Sierra de Guadaramma; not located. Synonymy: Pfeffer 1984: 275.

References: (**bv**) Grune 1979: 133. (**cn**) Pfeffer 1960: 345; Postner 1974: 445; Souphieff & Scherbinovskaja 1937: 47. (**ds**) Grune 1979: 133; Kleine 1934a: 152; Pfeffer 1960: 345; Postner 1974: 445; Souphieff & Scherbinovskaja 1937: 47. (**tx**) Grune 1979: 133; Pfeffer 1984: 275; Schedl 1934f: 1644, 1962a: 150; Strohmeier 1929b: 181.

calcaratus (Eichhoff) 1878b: 280 (*Tomiscus*). Syntypes, sex?; Nizzam; Hamburg Museum, lost. Figures: Grune 1979: 134, Plaza & Gil 1982: 260, 262.

Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Israel/ Syria/ Turkey), Europe (Corsica/ S France/ Greece/ Hungary/ Italy/ Sardinia/ Spain/ W USSR/ Yugoslavia).

Hosts: *Pinus brutia*, *P. halepensis*, *P. maritima*, *P. radiata*, *P. sylvestris*.

Notes: (3) Dejean 1837: 332 (*calcaratus*, nomen nudum).

References: (**bv**) Baader 1989; Chararas 1982; Grune 1979: 135; Mendel 1988a; Mendel, Madar, & Golan 1985. (**cn**) Baader 1989; Bodenheimer & Neumark 1955; Chararas 1976c, 1977c, 1978; Georgebits 1974; Grandi 1951; Halperin, Mendel, & Golan 1982; Joly 1976; Kailidis & Markalas 1988; Mendel 1987, 1988c, 1988d; Mendel et al. 1983. (**ec**) Arnoldi et al. 1955: 717; Bodenheimer & Neumark 1955: 1–122; Chararas 1964b; Fry 1989: 17; Halperin & Holzschuh 1984: 28; Kailidis 1966a; Mendel 1985, 1986a, 1986c: 115, 1986d: 130, 1988c, 1988d; Mendel & Halperin 1981; Mendel, Pooler, & Livne 1989; Normand 1937: 269; Novak, P. 1952: 417; Purrini & Halperin 1982, 1983; Thompson, W. R. 1943: 59; Wilkinson 1935: 72. (**hb**) Bodenheimer 1935; Chararas 1962c: 358; Georgebits 1974; Grandi 1951; Halperin & Holzschuh 1984: 28; Joly 1976; Masutti 1964; Mendel 1987; Mendel, Madar, & Golan 1985; Postner 1974: 444; Schedl 1962a: 149. (**ds**) Bodenheimer 1935; Dejean 1821, 1825, 1837; Georgebits 1974; Grune 1979: 135; Halperin 1966: 68, 1969: 329; Halperin & Holzschuh 1984: 28; Joly 1976; Kailidis 1985; Kailidis & Markalas 1988; Kleine 1913a: 245; Novak 1952: 417; Pfeffer 1947d: 126; Plaza & Gil 1982: 260; Postner 1974: 444; Sainte-Claire & Mequignon 1938: 448; Schedl 1961b: 185, 1962a: 149, 1964a, 1969g: 291, 1971d: 426, 1972n: 351, 1978e: 37, 1979i: 291; Spaic 1964: 226–236; Stein & Weise 1877: 165; Sturm 1843: 230; Supatashvili, Shalibashvili, & Supatashvili 1972. (**tx**) Balachowsky 1947, 1949a: 249, 253; Dejean 1821, 1825; Eggers 1922d: 119; Eichhoff 1878b: 280; Grune 1979: 134–135; Joly 1976; Pfeffer 1946b: 117, 1984: 274; Plaza & Gil 1982: 260, 262; Postner 1974: 444; Schedl 1934f: 1644, 1962a: 149; Wachtl 1895: 8. (**ms**) Chararas 1971a: 853; Mendel 1986a.

lipperti Henschel 1885a: 242 (*Tomiscus*). Syntypes ♂ ♀; Insel Meleba (Dalmatien); Henschel Collection. Synonymy: Eggers 1922d: 118.

Notes: (3) This is *bistridentatus* of Eichhoff 1881a: 260, a misidentification. Eggers 1922d: 119 proposed the new name *alpinus*, nomen nudum, for Eichhoff's misidentified series; consequently, the name *alpinus* Eggers has no status in nomenclature because *bistridentatus* Eichhoff 1881a was not an available name.

- References: (ay) Fuchs 1911a; Schwerdtfeger 1929: 403. (cn) Barbey 1925: 248; Pierce, W. D. 1917: 417; Rhumbler 1922: 323, 1927: 339; Schimitschek 1937c: 56, 1944: 187, 1955c: 89; Wachtl 1901: 381. (cc) Barbey 1924b; Kleine 1908c: 214, 1944: 78; Nusslin 1927: 339; Ruschka 1925: 202; Schwerdtfeger 1929: 403; Thompson, W. R. 1943: 59 (hb) Barbey 1906c, 1925: 248; Bargmann 1906; Dombrowsky 1887, 1892; Henschel 1895a: 184; Knotek 1899b: 4, 1901: 567; Nusslin 1927: 339; Peyerimhoff 1919: 255; Rhumbler 1922: 323, 1927: 339; Schimitschek 1944: 187; Schwerdtfeger 1929: 403; Stark 1952: 389; Wachtl 1901: 381. (ds) Arnoldi et al. 1955: 718; Barbey 1907: 440–443, 1924b; Csiki 1914; Eggers 1912f; Ganglbauer 1904; Hagedorn 1910d: 56; Harii 1971: 262; Henschel 1895a: 184; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Kleine 1913b: 131, 1914a: 16, 1934a: 152; Knotek 1899b: 4, 1901: 567; Langhoffer 1915c: 158; Novak, P. 1964; Peyerimhoff 1919: 255, 1933b: 367; Pierce, W. D. 1917: 74; Pittioni 1943: 176; Reitter 1894a: 79; Sahlberg 1903b: 63; Schaufuss 1915: 1246; Schilsky 1909: 188; Stark 1936e: 146, 1952: 389; Tredl 1907: 15. (tx) Balachowsky 1949a: 253; Barbey 1906c; Bargmann 1897b; Dombrowsky 1887, 1892; Eggers 1912f: 29, 1922d: 118; Fauvel 1887; Fuchs 1911a; Hagedorn 1910a: 105; Henschel 1885a: 242, 1895a: 184; Reitter 1889c: 374, 1894a: 79, 1913a: 101; Rhumbler 1922: 323, 1927: 339; Schedl 1934f: 1644; Schimitschek 1937c: 56, 1955c: 89; Sokanovskii 1958: 39; Stark 1936: 146, 148, 1952: 389; Strohmeier 1929: 181; Wachtl 1895: 8; Weber, L. 1912: 30. (ms) Sedlaczek 1913: 455; Weber, L. 1912: 30.
- opacifrons* Reitter 1913a: 99. Syntypes, sex?; Vernet, Sommieres [S France]; NHMB, Budapest. Synonymy: Schedl 1962a: 150. References: (ds) Schedl 1938d: 450. (tx) Balachowsky 1949a: 252; Eggers 1914: 107–108; Portevin 1935: 335; Reitter 1913a: 98–99; Schedl 1934f: 1644, 1962a: 150.
- carinulatus** (LeConte) 1874: 70 (*Cryphalus*). Lectotype ♀; California [USA]; MCZ, Cambridge, designated by Wood 1982b: 653. Figures: Bright 1976d: 146, Bright & Stark 1973: 159. Distribution: North America (British Columbia in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA). Hosts: *Pinus ponderosa*, *P. jeffreyi*, uncommon in other *P. spp.*, rare in other conifers. References: (bv) Baader 1989; Jacobson 1972; Miller & Keen 1960: 116; Vite 1965a: 267; Vite & Pitman 1967: 683–701. (cn) Arno & Hoff 1989; Baader 1989; Blackman 1931c: 34–35; Brown, G. S. 1954; Chamberlin 1924, 1939: 407, 1958: 177–178; Doane et al. 1936; Essig 1926: 520, 1958: 520; Hopkins 1904a: 17, 44; Keen 1929: 53, 1938: 118, 1952c: 152; Kinghorn 1955a: 502; Lindgren 1980a: 67; Loomis, Hofacker, & Tucker 1985: 26; Miller & Keen 1960: 116; Randall 1952: 4; Sharon & O'Neil 1985; Swaine 1918a: 105–106. (cc) Blackman 1931c; Craighead et al. 1927; Furniss, R. L. & Carolin 1977: 399; Keen 1938: 118; Miller & Keen 1960: 116. (hb) Blackman 1931c; Bright 1976d: 141; Bright & Stark 1973: 79; Chamberlin 1939: 407, 1958: 177–178; Doane et al. 1936; Essig 1926: 520, 1958: 520; Furniss, R. L. & Carolin 1977: 399; Hopkins 1904a: 17, 44; Keen 1929: 53, 1938: 118, 1952c: 152; Lindgren 1980a: 76; Miller & Keen 1960: 116; Pierce, W. D. 1907: 291; Schwarz 1894b: 255; Swaine 1918a: 105, 106; Wood, S. L. 1982b: 653. (ds) Atkinson & Equihua 1988: 94; Bright 1976d: 141; Bright & Stark 1973: 79; Chamberlin 1917, 1925, 1939: 407, 1958: 177–178; Cockerell et al. 1907; Currie 1905; Essig 1926: 520, 1958: 520; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 399; Gast et al. 1989: 385; Hagedorn 1910d: 51; Henshaw 1882: 268, 1885: 147; Hopping 1922, 1924: 125–128; Horning & Barr 1970: 41; Keen 1929: 35, 53, 1938: 118, 1952c: 152; Kleine 1914b: 397, 1915b: 131, 1934a: 151; Leng 1920: 341; Patterson & Hatch 1945: 153; Schuder 1969: 78; Schwarz 1886: 41; Swaine 1909: 132; Wickham 1896a: 309, 1896b: 170; Wood, S. L. 1972a: 417. (tx) Balachowsky 1947; Blackman 1921: 15–16; Bright 1976d: 141, 146; Bright & Stark 1973: 159; Chamberlin 1939: 407, 1958: 177–178; Eichhoff 1896: 609; Endrodi 1957: 418; Evans, D. 1983: 34; Fall 1926: 208; Hagedorn 1910a: 104; Keen 1929: 35; LeConte 1874: 70, 1876: 352, 1878: 624; Schwarz 1886: 41, 1891a: 168, 1894: 255; Swaine 1909: 132, 1918a: 105–106; Wood, S. L. 1972a: 417, 1982b: 653.
- hamatus* LeConte 1874: 72 (*Xyleborus*). Lectotype ♂; Mojave Desert, California [USA]; MCZ, Cambridge, designated by Wood 1982b: 653. Synonymy: LeConte 1878: 624. References: (ds) Fall & Cockerell 1907: 217; Henshaw 1882: 268; Leng 1920: 341; Swaine 1909: 132. (tx) LeConte 1874: 72, 1876: 360, 1878: 624; Swaine 1909: 132.
- chalcographus** (Linnaeus) 1761: 143 (*Dermestes*). Syntypes 2 ♂; Sweden; UZMC, Copenhagen. Figures: Balachowsky 1949a: 16, 246, 248, 250; Bevan 1987: 115; Chararas 1960a, 1961c, Postner 1974: 441; Yin, Huang, & Li 1984: 123. Distribution: Antilles Islands (introduced into Jamaica), Asia (Heilongjiang, Sichuan in China/ Japan/ Korea/ Kuril Islands/ Turkey/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Denmark/ England/ Finland/ France/ Germany/

Greece/ Hungary/ Norway/ Poland/ Sweden/
Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., *Picea* spp., *Abies* spp., *Larix* spp.

Notes: (3) Dejean 1837: 332 (named *Bostrichus bicolor*; nomen nudum, a synonym).

References: (ay) Chararas 1956a, 1956c, 1971b, 1977b; Doganlar 1984; Escherich 1923b: 458, 484, 595; Feytaud 1950a; Francke-Grosmann 1959; Fuchs 1911a; Fuhrer 1977, 1978, 1980a; Fuhrer & Klipstein 1980; Klipstein 1985, 1986: 285; Leisewitz 1906: 98; Lekander 1959b: 33; Nunberg 1928a: 141; Nusslin 1911a: 60; Ritzen-gruber & Fuhrer 1986; Robertson 1961; Scherb 1971; Schevyrew 1889a: 22; Schonherr 1970b; Schwerdtfeger 1926: 90, 1929: 334, 427; Vogel 1986; Vypel 1985; Zumn & Soldan 1981. (bv) Annila 1975: 8; Annila & Petaisto 1978; Baader 1989; Baeckstrom et al. 1988; Benz, Bovey, & Junod 1986; Butovitsch 1971; Byers 1983b; Byers, Anderbrandt, & Lofqvist 1989; Byers et al. 1988, 1989; Cerezke 1964: 498; Chararas 1956: 113–213, 1960b: 24–41, 1960c: 82–97, 1966b, 1971b, 1977b, 1982; Chararas & Deschamps 1962; Choo, Woo, & Park 1988; Duelli, Studer, & Naf 1986; Eidmann 1965b, 1987; Francke et al. 1977; Fuhrer & Muhlenbrock 1983; Gayialis & Jakaitis 1981; Gerkern 1978; Gries & Sanders 1981; Grune 1979: 129; Heuer & Vite 1984a; Hilker 1984; Hogberg et al. 1987; Jacobson 1972; Jahn 1981, 1982; Johnson 1960a: 17; Kevdina 1897: 108; Klassen, Ridgway, & Inscoc 1982; Kohnle & Klimetzek 1984; Lekander 1972b, 1972c; Luitjes 1976; Magema, Gasper, & Severin 1982; Mori et al. 1979; Mozolevskaya, Lebedeva, & Galaseva 1979; Naumann-Etienne 1978a; Novak, V. 1962b; Nuorteva 1956c: 17; Prell 1930c: 631, 1931: 369; Regnander 1975c; Reid 1958d: 505; Rozhkov 1970: 145; Rutledge, Chararas, & Ducauze 1988; Saarenmaa 1978; Schnaider 1955: 233; Schwerdtfeger 1981: 192; Simioescu 1978; Smith, L. R., Williams, & Silberstein 1978; Sturies & Fuhrer 1979; Vasechko 1971a, 1971b; Vite 1965: 438–439, 1980; Vite & Pitman 1967: 683–701; Weber, R. & Schurig 1984; Wegensteiner, Lorbeer, & Fuhrer 1989; Wichmann 1967; Zumn 1988; Zumn & Landa 1985. (cn) Acloque 1914; Androic 1966: 49; Anonymous 1960n, 1967r, 1970p, 1972i, 1975a, 1976d, 1977r, 1978i, 1978w, 1979p, 1980g, 1984b; Apfelbeck 1916: 429–430; Ass & Funtikow 1941; Austara 1975; Austara et al. 1983; Baader 1989; Baisch 1954: 319; Bakke 1960: 317; Barbey 1906a, 1922b, 1925: 67; Becker 1950; Bejer-Petersen 1959a, 1978, 1981; Berwig 1950; Berwig & Schuhly 1964: 17–20; Bjorkhen et al. 1977; Blanchere & Robert 1889; Blandford 1892a; Blondein 1876; Boas 1933: 268–280; Borcea 1924: 221–260; Borodajewsky 1930: 249–251, 805–811, 1931: 157–159; Brauner 1985; Browne 1968b: 562; Butovitsch & Spaack 1939: 1–120; Byers, Anderbrandt, & Lofqvist 1989; Chararas 1960a,

1961b: 79, 1972; Chorbadzhievo 1929; Chrystal 1935, 1949b: 3–11; Cogho 1876b; Dammes 1857; Demme 1948; Desfarges 1951; Dobrodejev 1924: 70–76; Duelli, Studer, & Naf 1986; Eckstein 1915, 1926: 574; Ehnstrom 1985; Ehnstrom et al. 1974; Eickstedt 1949; Eidmann 1965c, 1970a, 1973, 1975c, 1984, 1985a, 1985b, 1987; Eidmann & Klingstrom 1976: 240; Elfving 1904; Elton 1949b; Escherich 1917: 97–115, 1923b: 458, 484, 595, 1929, 1930a, 1932a, 1936; Esterberg 1959; Feytaud 1950a; Fice 1961: 173–204; Fleischer 1875c; Florov 1949: 98; Franz 1948a, 1948b, 1948e, 1948g, 1949b; Fuhrer 1976; Funke 1870; Fystro & Bakke 1962; Gabler 1947a; Galoux 1948b, 1948e; Georgescu et al. 1957: 357, 458; Gradojevic 1933: 789–790, 1938, 1940; Grandi 1951; Guiese et al. 1958; Hadom 1948a; Halla 1875; Hanson, H. S. 1940a; Hartig 1861: 330, 1877: 196; Hasek 1955, 1971: 5; Herlein 1878; Hess 1898: 346, 1907: 248; Hess & Beck 1914: 279, 1927: 335; Hochmut 1977; Hrubik 1973; Husson 1955: 535; Iatsentkovski 1922: 7–9; Inouye 1955; Inouye & Yamaguchi 1955a: 235; Isaev, Khlebopros, & Nedorezov 1980; Jaensch 1938: 49; Jager 1985; Jahn 1952a: 98, 1959: 220; Joly 1949b: 253, 1976; Jondelius et al. 1973; Judeich & Nitsche 1895: 504, 516; Juutinen 1960: 25; Kalandra 1944, 1948c: 33–38; Kangas 1937, 1939, 1958d: 164, 1966b; Karner & Kliefoth 1976; Kataev 1868: 125; Kauschinger 1893: 140; Keller 1903b: 48; Kholodkovskii 1912: 278, 308; Klausner 1954: 285; Klieber 1930: 183; Klimesch 1931: 40; Koberg 1969: 102–110; Koch 1913: 119; Kohnle 1984; Kolmodin 1915: 217; Konig, E. 1971; Koning 1939: 2015; Konopka 1871: 35; Koppen 1882: 236, 258; Kovacevic 1924: 21–22, 1952: 64, 1957: 67; Kozikowski 1925: 18–23; Krueel 1950: 7; Kudler et al. 1956: 100; Kuhn 1949b: 64; Kurenzov 1935c: 189, 1956b: 29; Lanz 1975; Lanz Baeskov 1986; Lauenstein 1966; Lekander 1935c: 189, 1952b: 5, 1954b: 12, 1955b: 17; Lekander & Rennerfelt 1955: 15, 1972b, 1972c; Lekander, M. 1951: 51; Lindelow & Iacobaeus 1985; Lindgren 1980a: 67; Lohrenz 1907: 46; Lonsbehakow & Lure 1960; Lozovoi 1950c: 308; Lozovoi & Tropin 1965, 1967; MacDongall 1921; Maksimovic 1962; Maksimovic & Barlov 1961: 37; Maksimovic & Boskovic 1962; Maksimovic & Milanovic 1964, 1966; Malenotti 1924; Marcu 1926c: 66, 1930: 327–336; Marker-Kohlfurt 1896: 84; Martinek 1953c: 372, 1964; Mathiesen 1951: 215, 1952: 285; Mathiesen-Kaarik 1953: 6, 23; Melnikova 1960: 19–45; Merker & Muller 1951: 16–20; Metahamm 1951: 17; Mokrzecki 1925c: 44; Mrkva 1960: 409–418; Muller 1912: 186; Mummford 1960: 37, 1962: 35, 1965: 30, 1966: 38; Nestertschuk 1930: 176; Niemeyer 1974: 290, 1975: 155, 1976: 138, 1982; Niemeyer & Thalenhorst 1974; Nilssen, A. C. 1978a; Nilsson, S. 1974a: 32; Nishiguchi 1957: 69–79, 1961: 142–145; Nordlinger 1870b: 261;

- Nosek 1951: 106; Novak, V. 1959b: 65, 1967, 1972a; Novak, V., Hrozinka, & Stary 1976: 35; Novak, V. & Srot 1977; Nuorteva 1955c: 1, 1968: 50; Nusslin 1912a: 293, 1913: 206; Ohnesorge 1955: 278; Opperman 1985; Otto 1979; Palm 1948b: 214; Pfeffer 1925a: 468, 1940c: 273, 1947c: 204, 1948a: 799, 1949b: 147, 1950c: 1; Pierce, W. D. 1917: 69; Pomocnicze 1876: 153; Popovic 1931: 57; Postner 1971; Postner & Wellenstein 1954: 459; Prosoroff 1933: 463–466; Quaschik 1953: 8; Ratzeburg 1871c: 81; Regnander 1975a, 1975c, 1977; Reisch 1960; Remrod 1977; Rhumbler 1922: 323, 1927: 338; Ringselle 1972; Ritzengmber & Fuhrer 1986; Roediger 1988; Rosenfeld 1919: 29–37, 1926: 38; Rossem 1949: 64, 72; Rudnev 1958: 310–313, 1965b, 1966; Ruhm 1958: 287; Saalas 1919, 1949: 343, 381; Sajejve 1928: 329; Schedl 1936a: 538, 1938b: 332; Scheidter 1936: 236; Schimitschek 1932c: 231, 1935a: 197, 1935b: 148, 1937c: 56, 1938b: 115, 1947g: 191, 1949b: 165, 1950: 14, 1952a: 194, 1955a: 36–37, 1955b: 102, 1955c: 88, 1956: 341, 1961a: 154; Schmidt 1881: 31; Schneiberg 1925: 495; Schneider-Orelli 1948a: 77, 1948b: 72; Schneider-Orelli & Kuhn 1948: 518; Schonherr 1958b: 89; Schuster 1918: 102; Schwappach et al. 1929: 186; Schwarz 1938b: 144, 1938c: 288; Schwerdtfeger 1926: 89–91, 1929: 335–347, 1944a: 180, 1946b: 62, 1948c: 57, 1950a: 64, 1950b: 62, 1957a: 186; Sedlacek 1921: 335, 1933: 307, 1936: 200; Severin 1902a: 81; Shiraki 1952; Shishov 1928: 673–675; Shkarednyi 1981; Sierpinski 1958: 69; Sinreich 1961: 165; Slander 1948: 10; Sokanovskii 1932a: 363; Spaic 1955: 454, 1956: 88; Sponeck 1817: 344; Springer 1936b: 178; Stark 1925: 78–81, 1927: 227–230; Strohmeier 1950: 21; Tamamki 1933: 1–54; Templin 1973: 105; Thalenhorst 1948: 293, 1950: 90, 1953: 16; Thomson, M. 1939: 199–208; Titova 1959: 110–126, 1960, 1966; Tragardh 1917: 28, 1927c: 86, 1938a: 12; Tragardh & Butovitsch 1936: 356, 1938: 200; Trofimov 1979; Troitskii 1968: 40–43; Tubeuf 1933: 193–242, 257; Vajda 1949: 271; Vappula 1965: 153; Vasechko 1964; Virkki 1960: 3–16; Vite 1955: 1333–1336, 1956: 59, 1965b; Wachtl 1901: 381; Wagner 1954c: 167; Wardle 1929: 322; Wanthoz 1954: 245; Weber, H. 1926: 574; Weber, T. 1965; Weiss 1922: 73; Wellenstein 1951a: 1, 1952a: 688, 1954: 54; Westerboer & Bernard 1963: 530; Wichmann 1927b: 352; Wilke 1931: 628; Wohlmann 1936: 41; Wolff & Krause 1922: 93; Wollfe 1948b: 259, 1949: 479, 1951: 169; Zhang et al. 1958: 29; Zhuravlev & Osmolovskii 1949: 52; Zurr 1988; Zurr & Landa 1985; Zwolfer 1949: 399, 1960, 1962, 1963. (ec) Andreev 1988; Annala 1975: 11, 1977; Annala & Petaisto 1978; Apfelbeck 1916b; Ass & Funtikow 1941; Bäusch 1954: 319; Bakke 1956a: 40–42; Balazy 1962, 1965a, 1968; Balazy & Michalski 1960, 1962b, 1964a; Barbey 1906a, 1927; Beran 1933, 1936; Boas 1901; Brammanis 1938, 1940: 257–340; Butovitsch 1971; Capek 1957; Carpelan 1944; Chiararas 1956b, 1957d, 1958b, 1959a, 1959c, 1959d, 1959e, 1959g, 1960b; Choo, Woo, & Park 1983: 176; Cooreman 1963: 46; Davidson 1967: 928–932; Eidmann 1965c; Elliot & Morley 1907; Fleischer 1875c, 1877b; Francke-Grosman 1931, 1959; Fuchs 1930, 1938; Fuhrer 1980b, 1981, 1985; Furniss 1968: 1384–1389; Gadek 1976; Galoux 1947a, 1947c, 1947d, 1948a: 2, 7; Gauss 1954a: 423; Gauss & Willenstein 1950; Geschwind 1918; Graham 1969: 875; Gries 1986; Grossmann 1931; Grunwald 1986; Gyorfi 1941b, 1943: 84, 1952b, 1962: 213; Hadorn 1948a; Harding, Lapis, & Bejer 1986; Heliovaara & Lilja 1989; Hellrigl & Schwenke 1985: 48; Heqvist 1963: 154; Hener & Vite 1984a, 1984b; Hirschmann 1971b: 39, 1978b; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zimigebal-Nicol 1961; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 76; Jahn & Sinreich 1960b; Jannicky 1957b: 18, 20, 1957c; Joly 1949a: 7; Kamijo 1981; Kangas 1937, 1939, 1946b: 21, 1971; Karpinski 1932a: 108; Kendrick 1962: 779; Kielczewski 1976; Kielczewski & Balazy 1966; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Klauser 1954: 285; Kleine 1908c: 214, 1909a: 47, 1944: 70; Knoche 1908b: 149; Kohnle 1984; Kolmodin 1915: 217; Kolnbajiv 1954: 22; Kolnbajiv & Kalandra 1954: 30; Kosarievskaya & Mamajev 1962: 450; Kostin 1964: 114; Kudela 1981; Kuhn 1949a: 316; Kurenzov 1934a: 50, 1964: 20; Lovaszy 1941: 195; Lozovoi & Tropin 1965, 1967; Luitjes 1976; Lundberg 1954; Majewski, T. & Wisniewski 1978a: 5; Mathiesen 1951: 215, 1952: 285; Mathiesen-Kaarik 1953: 6, 23; Melnikova 1958: 90–105, 1960; Meyer 1918: 178; Michalski & Ratajczak 1989; Moor & Neffeler 1984; Moritz & Fuhrer 1988; Morr & Neffeler 1983; Mozolevskaya, Lebedeva, & Galaseva 1979; Nammann-Etienne 1978a; Neves et al. 1978; Niemeyer & Thalenhorst 1974; Nikitink 1951: 60; Nishiguchi 1959: 271, 1960c; Nosek 1951: 106, 1959b: 87; Novak, V. 1962b; Numberg 1930: 201; Nunberg & Wiackowski 1958: 130; Nuorteva 1956a: 17, 1957b: 52, 1959b: 200, 1967a, 1968a, 1970, 1971: 69; Nusslin 1927: 338; Ogbin 1973b: 421; Okolow 1963; Otten 1940: 197; Palmen 1944: 60, 1946: 194; Peklo 1949: 336; Perris 1856a: 244; Pettersen 1976a, 1976b; Pfeffer 1923a: 332, 1928b: 6, 1932a: 6, 1943b: 179, 1947c: 204, 1949b: 147, 1950c: 1, 1952a: 159, 1959: 2; Pohl-Apel & Renner 1987; Poinar 1975: 166; Purrini 1977a; Purrini & Fuhrer 1979; Quaschik 1953: 8; Ratzeburg 1869a: 79; Rennerfelt 1951; Rodzianko 1915: 1–15; Rondani 1873: 140; Rosenfeld 1919: 30; Roubal 1934a: 86; Ruhm 1954c: 222, 1956b: 4, 1960: 203; Rumbold 1936: 419; Saalas 1917a: 18, 1928: 649, 1930: 118, 1937: 154, 1949: 343, 381, 1951: 13; Saarenmaa

- 1978; Scheidter 1936: 236; Schimitschek 1930a: 329, 1931b: 487, 1932c: 231, 1935a: 197, 1936a: 560, 1950: 14, 1952a: 194, 1953b: 45, 1955a: 36–37, 1964c: 140, 1964e; Schroeder & Eidmann 1986; Schuhly 1964; Schuster 1918: 102; Schvester 1950: 50; Schwerdtfeger 1929: 334, 427, 1944a: 180, 1950a: 64, 1950b: 62, 1957a: 186; Sedlaczek 1908: 52, 1933: 307, 1935a: 154, 1935b: 60; Seitner 1913a: 27; Slaby 1947: 379; Slander 1958: 151; Sokanovskii 1936: 74; Stark 1925b: 80; Stefanov 1949a: 106; Stora 1938: 20; Szczepanski 1960a: 409; Tenkacova & Mituch 1987; Thalendorst 1949b: 194, 1949d: 264, 1958: 7; Thompson, W. R. 1943: 58; Thompson, W. R. & Simmonds 1964: 23, 1965: 73; Titova 1966; Tragardh 1925a: 172, 1927a: 208, 1934: 276, 1943: 132; Tsankov & Rosnev 1978; Tudor 1969: 34; Tvermyr 1967: 496; Vasechko 1971b; Vietinghoff 1924: 330; Vite 1952a: 101; Vitzthum 1923: 151; Webb 1945: 70; Weiser 1955: 375, 1961a: 329, 1963a: 301, 1969; Weissen 1981; Wettstein 1951: 67; Wichmann 1953b: 59, 1954d: 438, 1957c: 67, 1967; Wilke 1931: 628; Wisniewski 1979b; Wulf 1983; Yasumatsu & Watanabe 1965: 69; Zinovjev 1957: 330, 1958: 382; Zolk 1935: 258–294, 1937: 147–172; Zurn 1982c, 1985b. (hb) Alkan 1946: 113; Altum 1881c: 304, 1883c; Annala 1971: 10, 1977; Annala & Petaisto 1978; Anonymous 1948k: 7, 1972b; Apfelbeck 1916b, 1917; Ass & Funtikow 1941: 157–179; Bach 1864; Bakke 1968b: 640; Balazy 1968; Barbey 1901: 95, 1913, 1922b, 1925: 67; Bargmann 1906; Becker 1950; Beffa 1949, 1961; Bejer-Petersen 1957, 1978; Beran 1936: 257–279; Berg 1827; Blanchere & Robert 1889; Boas 1923: 355; Bonnemaision 1953; Borcea 1924; Borodajewsky 1928, 1929b: 515–521, 1930a, 1930b, 1930c, 1958; Borodin 1976; Borowski 1958; Brandt 1948, 1960: 136; Browne 1968b: 562; Budge 1949; Budkov 1897; Butovitch 1941: 297–360; Ceconni 1924; Chararas 1956c, 1960b, 1960c, 1961b: 9, 1962c: 326, 1972, 1977b; Charvat 1950; Chorbadzhevo 1929; Cogho 1876b; Dallimore & Munro 1922; Dingler 1928: 357–360; Dombrowsky 1887, 1892; Dragescu 1980; Duelli, Studer, & Naf 1986; Eckstein 1897, 1915, 1926: 574; Eggers 1906; Eichhoff 1881a: 51, 249, 1882a: 241, 1889: 154; Eidmann 1965b, 1974b; Eidmann & Klingstrom 1976: 248; Elfving 1904; Escherich 1923b: 458, 484, 595; Everts 1900; Feytaud 1950a; Fleischer 1875c; Fuchs 1904a, 1906c: 209, 1907: 48, 1911b; Furst 1888: 113; Galoux 1947a, 1948a; Girard 1873; Gornostaev 1916: 312; Graber 1879: 130; Grandi 1951; Gries 1984a; Gries & Sanders 1981; Gyofii 1950: 384–400, 1957; Hagedorn 1903a; Hartig 1861: 330, 1877: 196; Helmbacher 1924; Hennings 1908c: 220, 1908d; Henschel 1876a: 35, 240, 1895a: 182; Hess 1898: 346, 1907: 248; Hess & Beck 1914: 279, 1927: 335; Holmgren 1867: 113, 134; Hufnagl & Puzyr 1951: 109, 118; Inouye et al. 1955: 76; Jaensch 1938: 49; Johnson & Pettinger 1961b: 2; Joly 1949a: 7, 1976a, 1976b; Judeich & Nitsche 1895: 504, 516; Karner & Kliefoth 1976; Karpinski 1933b: 34; Karpinski & Strawinski 1948: 157; Karsch 1883: 141; Kauschinger 1883: 103, 1893: 140; Kholodkovskii 1912: 278, 308; Klipstein 1986: 131; Knotek 1894a: 558, 1897: 160, 1898b: 333; Komarek et al. 1931; Konig, E. 1971; Kostin 1960: 134; Kraemer 1948: 133, 1953: 463; Krivolutskaia 1956: 834, 1960, 1973: 141; Kudela 1981; Kurenzov 1935a: 39, 1948b: 101, 1950d: 149; Lekander 1954b: 12, 1959a: 84, 1959b: 33, 1972b, 1972c; Lekander & Rennerfelt 1955: 1–36; Lengerken 1939: 65, 1954: 86; Liese 1950: 140; Lindemann 1875a: 131, 1881a: 233; Lindgren 1980a: 67; Lohrenz 1907: 46; Loos 1913: 411; Louzil 1961: 44; Lozovoi & Tropin 1965, 1967; Luitjes 1976; Lunardon & Leonardi 1889: 476; MacDougall 1921: 111; Madon 1930: 99; Magema, Casper, & Severin 1982; Maslov & Demakov 1982; Melnikova 1960; Michalski 1959a: 291; Morstatt 1924: 46; Mozolevskaya, Lebedeva, & Galaseva 1979; Naumann-Etienne 1978a; Niisima 1908b: 18; Nilssen 1984; Nordlinger 1856: 21, 1870b: 261; Nosek 1959b: 87; Novak, V., Hrozinka, & Stary 1976: 35; Nunberg 1929a: 111, 1929c: 123; Nuorteva 1956c: 17, 1967a, 1968a, 1970; Nusslin 1898: 283, 1904: 2, 1905a: 84, 1906b: 8, 14, 1913: 206, 1927: 338; Ogibin 1973b: 421; Ohnesorge 1955: 278; Orest 1927: 58; Pauly 1892a: 194; Perris 1856a: 244; Petrenko 1966; Pfeffer 1941b: 1, 1941c: 5, 1952a: 159, 1989a: 68; Postner 1974: 441; Prell 1930c: 631, 1931: 369; Quaschik 1953: 8; Rakhov 1961: 207–213, 1962; Ratzeburg 1837: 131, 1839: 158, 191, 1871c: 81; Regnander 1975a, 1975c, 1977; Reid 1958d: 505; Richter 1965: 339–344; Rhumbler 1922: 323, 1927: 338; Rimski-Korsakov et al. 1949: 291; Rodd 1897: 34; Roediger 1988; Rozhkov 1970: 145; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 67, 86, 1949: 343, 381, 1951: 13; Sanders 1983; Sanders & Horn 1982; Schedl 1962a: 136, 1981b: 83; Schevyrew 1905c: 192; Schimitschek 1930a: 329, 1955a: 36–37; Schishov 1928a: 673; Schmidt 1881: 31; Schnaider 1954: 174; Schnaider & Sierpinski 1955: 60; Schoch 1878: 387; Schwappach et al. 1929: 186; Schwerdtfeger 1929: 334, 427, 1944a: 180, 1948, 1957a: 186, 1981: 192; Sedlaczek 1921: 335, 1935a: 154; Severin 1902a: 81; Shkarednyi 1981; Simionescu 1978; Slander 1952: 1–9, 1958: 151; Sokanovskii 1932a: 363; Spessivtsev 1913a: 71, 1923: 206, 1934: 207; Springer 1936: 201–202; Stark 1926a: 337, 1952: 377; Stebbing 1909b: 29; Stefanov 1949a: 106; Sturies & Fuhrer 1979; Taschenberg 1880: 223; Thalendorst 1958: 7; Tragardh 1914: 82, 1927c: 86, 1930c: 474, 1935, 1939b: 151, 221; Treidl 1908b: 138; Tschorbadijev 1929: 172; Vasechko 1971a, 1971b; Vite 1952a: 101; Vogel 1925: 346–348; Wachtl 1876a: 454, 1901: 381; Wang 1982; Weber, H. 1926: 574;

- Wichmann 1927b: 352; Wolff & Krause 1922: 93; Zinovjev 1957: 330, 1958: 382; Zivojinovic 1950: 299–310, 1960: 25; Zivojinovic & Petrovic 1955: 248–257; Zumr 1982c, 1982d; Zumr & Soldan 1981. (ds) *Acloque* 1896, 1914; Allen, A. 1951b: 115; Ammann & Knabl 1913, 1923; Andersch 1851; Androic 1966: 49; Anonymous 1948k: 7, 1960u, 1967r, 1968j, 1970p, 1975a, 1976d, 1977r, 1978i, 1978w, 1979p, 1980g; Audras & Schaefer 1957; Bain 1974: 16; Bakke 1960: 317, 1968a: 640; Bakke & Kvamme 1977; Balazy & Michalski 1960; Barbey 1922b; Barthe 1896; Bau 1888; Beck 1817; Bedel 1888b: 401, 418; Beffa 1949; Bejer-Petersen & Jorum 1977: 26; Belousev 1916, 1917: 335; Benick 1921; Berg 1827; Bielz 1851, 1887; Bistrom & Vaisanen 1988: 42; Blanchere & Robert 1889; Boas 1923: 355; Bocher 1988; Borcea 1924: 221–260, 1930: 271; Borchert 1951; Brakman 1966b: 207; Brancsik 1871, 1906; Brongniart 1877; Browne 1968b: 562; Bucking 1932; Budkov 1897; Buresh & Lazarov 1956; Calwer 1884, 1893; Carpelan 1944; Cecconi 1897; Chapuis & Candeze 1853; Chararas 1961c: 92, 1983: 85; Charvat 1950; Cho 1957; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1988; Chorbadzhievo 1924d, 1929; Chrystal 1937; Csiki 1914; Dallimore & Munro 1922: 189–193; Debatisse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eder 1934; Eggers 1904, 1906, 1912d; Eidmann 1974b; Elton 1949b; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Ermisch 1953; Escherich 1923b: 458, 484, 595, 1929, 1930a, 1932b; Esterberg 1928, 1959; Everts 1900, 1925; Favre 1890; Ferguson 1920; Fleischer 1877b; Fleischer et al. 1921a; Forster 1849: 439; Fowler 1891; Fricken 1889: 347; Fuchs 1904b, 1905a, 1906c: 209, 1907: 48; Gabler 1949b; Gail 1906; Gaubil 1849: 126; Gauss & Wellenstein 1950; Gemminger & Harold 1872: 2690; Geschwind 1918; Goetze 1777: 130; Gomostaev 1917: 308–315; Gozis 1875: 80; Gradojevic 1933; Gredler 1866: 374, 1875: 115; Greyerz 1851; Grill 1895: 311; Grouzelle 1905; Grune 1979: 129; Gyllenhal 1827: 623; Cyorfi 1941b; Hagedorn 1903a, 1910d: 51; Hansen, V. 1939, 1956, 1964: 464; Heinemann 1908a; Hellen 1947; Heller 1881: 173; Hennig 1954: 257, 261; Henschel 1895a: 182; Heyden, Reitter, & Weise 1883: 182, 1891: 672, 1906: 712; Holdhaus & Deubel 1910: 145, 160, 199; Holmgren 1867: 113, 134; Holzel 1946: 81; Horion 1949, 1951; Hubault 1923b; Ihssen 1939: 336; Illiger 1805: 129; Jaentkovsky 1939: 76; Jannicky 1960a; Jazentkovsky 1912: 288; Joffri 1958: 25; Joly 1949b: 253, 1976; Judeich & Nitsche 1895: 504, 516; Kaltenbach 1874: 685; Kangas 1971; Karpinski 1925: 216, 1926: 82, 1931: 32, 1932a: 108, 1933b: 34, 1948b: 231; Karpinski & Strawinski 1948: 157; Keler 1922b: 211, 1925b: 272; Kersten 1933: 70, 76; Kestercanek 1881a: 12; Kiefer et al. 1942: 529; Klauser 1954: 286; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 128, 262, 264, 268, 1913a: 35, 1913b: 131, 1914b: 257, 1934a: 152; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 558, 1898b: 333; Ko 1969: 281; Koca 1905: 192; Kolbe, W. 1908: 21; Koltze 1901: 153; Kolu-bajiv 1934: 64; Kono 1938b: 65; Kono & Tamannuki 1939: 89, 94; Kontkanen 1882: 236, 258; Koschitsky 1900: 83; Kovacevic 1957: 67; Kozikowsky & Kuntze 1925: 20; Kraatz 1869: 59; Kraemer 1948: 133; Krivolutsкая 1956: 834, 1960, 1965: 239, 1973: 141, 1983; Krivolutsкая & Kupyanskaya 1970; Ku, K. 1964; Kurenzov 1934a: 50, 1935a: 39, 1935c: 189, 1936a: 111, 1936b: 350, 1938a: 59, 1951b: 18, 1964: 20, 1965, 1967; Kurir 1947c: 7; Lacordaire 1866: 383; Langhoffer 1915c: 158; Leclercq 1971; Lekander 1955b: 17; Lentz 1857: 139; Liegel 1886: 43; Liese 1950: 140; Lindberg & Saris 1952: 59; Lokaj 1868: 64; Lomnicki 1886a: 243, 1913b: 148; Loos 1913: 411; Lovendal 1889a: 271, 1890c: 209; Lucht 1987: 279; Lunardonì & Leonardi 1889: 476; Landbald 1950a: 175, 1950c: 116; Lundberg 1974: 92, 1979: 31; Mandl 1931: 25; Marcu 1926c: 66, 1957b: 213; Matthews & Fowler 1883: 42; Mequignon 1936: 15; Michalski 1957: 165; Miller 1868: 27; Mumford 1960: 37, 1962: 35, 1965: 30, 1966: 38; Munro 1920, 1921: 87, 1926: 1–27; Munster 1922a: 155, 1928: 290; Murayama 1929b: 2, 1929c: 23, 1929d: 5, 1930a: 4, 1930b: 15, 1936b: 116, 1937b: 375, 1939: 140, 1942a: 55, 1948: 2, 1949a: 13, 1950b: 1294, 1951c: 4, 1954b: 172; Negru 1966b: 403, 1968a: 457; Niisima 1908b: 18; Nobuchi 1966d: 33, 1974: 38; Nunberg 1927a: 213, 1928b: 88, 113, 1954: 74; Nuorteva 1956b: 168, 1971: 67; Nusslin 1898: 283; Orest 1926c: 66; Pacher 1865: 152; Palm 1946: 111, 122, 1948a: 91; Palmen 1944: 60, 1946: 194; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 471, 1928b: 6, 1931b: 74, 1935: 159, 1947e: 2, 1950b: 73, 1989a: 68; Pierce, W. D. 1917: 69; Pissioni 1943: 175; Platonoff 1943: 141; Plaza & Gil 1982: 260; Pomerantzev 1907b: 492; Poppius 1900: 108; Postner 1974: 441; Rapp 1934: 729; Ratzeburg 1837: 131, 1839: 158, 191; Redtenbacher 1858: 833, 1874: 379; Reitter 1869b: 154, 1894a: 77, 1916: 299; Rimski-Korsakov et al. 1949: 291; Roubal 1935b: 73, 1936b: 193, 1941: 271; Rozhkov 1970: 145; Rudnev 1965b; Ruskov 1928c: 62; Saalas 1913a: 67, 86, 1917a: 18, 1930: 118, 1931: 68; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 448; Sawamoto 1940a: 96, 104; Schaufuss 1915: 1244; Schaum 1859: 96, 1862: 101; Schedl 1950d: 17, 1952f: 87, 1962a: 136, 1971f: 147, 1978e: 38, 1980a: 25, 1981b: 83; Schilsky 1909: 188; Schimitschek 1938b: 115; Schreiner 1897: 369; Schubert 1988; Schwarz 1886: 41; Schwerdtfeger 1981: 192; Seidl 1876: 4; Seidlitz 1872: 394, 1891a: 565, 1891b: 610; Sharp & Fowler 1893: 35; Shiraki 1952; Sick 1939: 110; Siebke 1875: 284; Sokanovskii 1936: 74; Sparre-Schneider 1889: 61; Stark 1926a: 337, 1926b: 105,

- 1926j: 127, 1931a: 27, 1931d: 549, 1936e: 144, 1952: 377; Stein 1868: 114; Stein & Weise 1877: 165; Stejskal 1920: 21; Stephens 1939: 207; Stierlin 1898: 442; Stierlin & Gautard 1871: 294; Stoling 1969: 610–627; Strand 1946: 602; Sturm 1826: 102, 1843: 230; Thomson 1865: 367, 1868: 222; Tomic 1957: 207–210; Tragardh 1914: 82, 1917, 1918, 1939b: 151, 221; Tredl 1907: 14, 1908b: 139; Tschorbadjiev 1925: 57–61, 1929: 172; Tullgren 1916: 104; Vappula 1965: 153; Villa & Villa 1833: 26; Vogel 1985; Wachtl 1876a: 454; Wanka 1915: 213; Wegelius 1960: 106; Westhoff 1882: 239; Wichmann 1909b: 173, 1927a: 75; Wiepken 1883: 89; Wilke 1931: 628; Wilken 1864: 373; Winter, T. C. 1983: 22; Yanovskii 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 411; Yin, Huang, & Li 1984: 122; Zinovjiev 1955: 187; Zivojinovic 1960. (tx) Acloque 1896; Alkan 1946: 113; Altman 1844; Bach 1854, 1864; Balachowsky 1947, 1949a: 245; Barbey 1901: 95; Bechstein 1818: 75, 214; Bechstein et al. 1808: 98; Bedel 1888b: 397, 401, 418; Beffa 1949, 1961; Bejer-Petersen 1957; Bertolini 1872; Bevan 1987: 115; Blanchere & Robert 1889; Boas 1923: 355; Brancsik 1871; Calver 1858; Castlenau 1840; Ceballos 1945; Chapuis & Candeze 1853; Chararas 1956c, 1960a: fig. 5, 1961c: 108, 1962c: 332; Charvat 1950; Choo 1983: 85; Chorbadzhievo 1924d; Dejean 1821, 1825; Dombrowsky 1887, 1892; Duffy 1953; Duftschmidt 1825; Eggers 1914: 188, 1922d: 16–17, 1929e: 42, 1941c: 120–121; Eichhoff 1864b: 42, 1868d: 424, 1872c: 137, 1877c: 389, 1878b: 277, 1881a: 51, 249, 1883a: 114, 139, 1883b: 220, 1896: 609; Endrodi 1957b; Escherich 1923b: 458, 484, 595; Escherich & Escherich 1897; Fabricius 1775, 1787: 37, 1792: 365, 1801: 387; Fauvel 1889; Ferrant 1911; Ferrari 1867: 33–35, 1867b: 114, 1868: 256; Fleischer 1905, 1927; Fornanek 1907: 39; Fricken 1889: 347; Fuchs 1911a, 1912: 308–310; Gabler 1949b; Gebien 1907: 197; Girard 1873; Gmelin 1790: 1601; Goeze 1777: 130; Grune 1979: 128–129; Gyllenhal 1813: 358, 1827: 623; Hagedorn 1910a: 104; Hansen, V. 1956, 1964: 464; Henry 1892: 10–11; Henschel 1876a: 35, 240, 1878a, 1895a: 182; Herbst 1793: 103; Hopkins 1914: 127; Jablonsky 1785: 82; Jacquelin du Val & Fairmaire 1868: 112; Jansson 1936: 220; Joly 1976, 1976b: fig. 146, 172, 248; Judeich & Nitsche 1895: 504, 516; Kalina 1970: 127; Karpinski & Strawinski 1948: 157; Knotek 1892a: 38; Koch 1913: 119, 1928: 96, 1932: 126; Krivolitskaya 1956: 834, 1958: 174; Kuhnt 1913: 1056; Kurenzov 1941a: 195, 1948b: 101; Lacordaire 1866: 383; Lekander 1959b: 33; Letzner 1891: 377; Lemis 1886: 181; Lindemann 1875a: 131, 1881a: 233; Linnaeus 1761: 143; Louzil 1961: 108; Lovendal 1889b: 60, 1890c: 209, 1898: 163; Lucht 1987: 279; Lamarconi & Leonardi 1889: 476; Murayama 1929: 23, 26, 29, 1930b: 15, 1937b: 375, 1939: 140, 142, 1950b: 1294, 1954b: 172; Negru 1966b: 403; Niisima 1909: 145, 1929: 376–381; Nobuchi 1966d: 33, pl. 5, 1974: 38, pl. 1, 2; Nordlinger 1848: 238, 1856: 21; Novak, V., Hrozinka, & Stary 1976: 35; Nunberg 1928a: 141, 1929c: 123, 1930: 200–208, 1954: 74; Nusslin 1911a: 60; Olivier 1795b: 7; Paykull 1800: 147; Perris 1877a: 414; Pfeffer 1932b: 24, 1941b: 1, 1941c: 5, 1946b: 114, 1947c: 2, 1955a: 227; Plaza & Gil 1982: 260, 262; Portevin 1935: 334; Postner 1974: 441; Quaschik 1953: 35; Ratzeburg 1837: 131, 1839: 158, 191; Redtenbacher 1849a: 356, 1849b: 26, 1858: 833, 1874: 379; Reitter 1889d: 271, 1894a: 77, 1913a: 97, 1916: 299; Rhumbler 1922: 323; Rudnev 1966: 121; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 67, 86, 1916: 91–95, 1949: 343, 381; Sahlberg 1836: 149; Sawamoto 1940a: 96, 104; Schedl 1934f: 1644, 1936a: 521–557, 1946a: 6, 1950d: 17, 1952f: 87, 1962a: 136, 1980a: 25, 1981b: 83; Scherb 1971; Schevrev 1889a: 22; Schimitschek 1937c: 56, 1955c: 88; Schlechtendal & Wunsche 1879: 125; Schwarz 1886: 41; Seidlitz 1872: 394, 1891a: 565, 1891b: 610; Simmel 1918: 288; Sokanovskii 1928: 667–668, 1936: 73–74, 1959a: 277–278, 1960: 677; Spessivtsev 1913a: 69–71, 1922a: 480, 1923: 200–214, 1925a: 185, 1925b: 21, 1929: 678–682, 1931: 66–67; Stark 1931: 339–343, 1952: 377; Stebbing 1909b: 29; Stephens 1939: 207; Stierlin 1898: 442; Sturies & Fuhrer 1979; Taschenberg 1880: 223; Teplouchow 1890: 261; Thomson 1865: 367, 1868: 222; Villers 1789: 214; Wachtl 1895: 7; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 122. (ms) Anonymous 1972i; Baekstrom et al. 1988; Brandt 1960: 136; Byers 1982b; Chararas 1959d, 1971a: 853; Doganlar 1984; Eggers 1912e; Eichhoff 1868d: 424; Escherich 1932b; Fuchs 1911b; Gottz 1877; Gozis 1875: 483; Gries 1984a; Hartig 1834: 109; Heinemann 1908a; Hogberg et al. 1987; Kholodovskii 1893: 390; Lekander 1959a: 84; Maslov & Demakov 1982; Merino-Rodriguez 1966: 47; Michalski 1959a: 291; Mori et al. 1979; Regnander 1975b; Reitter 1889d: 271; Schedl 1938b: 332; Schimitschek 1955b: 102; Schwappach 1924: 56; Schwerdtfeger 1925: 184, 1946b: 62; Sedlaczek 1913: 453, 1935b: 60, 1936: 200; Seitner 1913a: 27; Smith, L. R., Williams, & Silverstein 1978; Thalenhorst 1962: 346; Weber, L. 1912: 30; Weber, R. & Schurig 1984; Wellenstein 1951a: 1.
- spinuosus* DeGeer 1775: 197 (*Ips*). Syntypes, sex?; Europe; not located. Synonymy: Balachowsky 1949a: 245, Schedl 1962a: 136.
References: (ds) Stein 1868: 114; Stein & Weise 1877: 165. (tx) Balachowsky 1949a: 245, DeGeer 1775: 197; Schedl 1962a: 136.
- sexdentatus* Olivier 1795b: 12 (*Scolytus*). Syntypes ♂; Provence, France; MNHN, Paris. Synonymy: Balachowsky 1949a: 245, Schedl 1962a: 136.
References: (ds) Schilsky 1909: 188; Stein

- 1868: 114; Stein & Weise 1877: 165. **(tx)** Balachowsky 1949a: 245; Letzner 1891: 377; Olivier 1795b: 12; Schedl 1934f: 1644, 1962a: 136. *xylographus* Sahlberg 1836: 148 (*Bostrichus*).
 Syntypes ♂; Finland; not located. Synonymy: Balachowsky 1949a: 245, Schedl 1962a: 136.
 References: **(ay)** Fuchs 1911a. **(hb)** Lindemann 1875a: 131, 1881a: 235; Wachtl 1876a: 460. **(ds)** Calwer 1884, 1893; Gemminger & Harold 1872: 2692; Heyden, Reitter, & Weise 1883: 812; Kraatz 1876a: 106; Lindemann 1884b: 264; Schaum 1862: 101; Schilsky 1909: 188; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 460. **(tx)** Balachowsky 1949a: 245; Ferrari 1867b: 47, 109, 114; Fuchs 1911a; Lindemann 1875a: 131, 1881a: 235; Sahlberg 1836: 148–149; Schedl 1934g: 1644, 1962a: 136. **(ms)** Kraatz 1876c: 106.
- conjunctus** Reitter 1887: 196. Syntypes, sex?; Tirol, circa 2000 m; NHMB, Budapest.
 Figures: Kalina 1970: 127, Pfeffer 1989a: pl. 10.
 Distribution: Asia (Hebei in China/ Japan/ Turkey/ E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Germany/ Hungary/ Romania/ W USSR).
 Hosts: *Pinus nigra*, *P. cembra*, *P. montana*, *P. sylvestris*.
 Notes: (1) Originally named as a variety of *bistridentatus*.
 References: **(bv)** Baader 1989; Benz, Bovey, & Jonud 1986; Grune 1979: 133. **(cn)** Baader 1989; Pfeffer 1948d: 235, 1949b: 150; Schimitschek 1931: 460–491, 1935a: 200, 1937c: 56, 1955c: 89; Seitner 1913a: 27. **(ec)** Jannicky 1957c; Pfeffer 1949b: 150, 1960: 346; Schimitschek 1935a: 200; Seitner 1913a: 27. **(hb)** Bargmann 1906; Dombrowsky 1892; Henschel 1895a: 182; Pfeffer 1941b: 19, 1941c: 7; Postner 1974: 445. **(ds)** Arnoldi et al. 1955: 716–717; Borchert 1951; Endrodi 1958b, 1986: 217; Fuchs 1905a, 1913; Grune 1979: 133; Henschel 1895a: 182; Horion 1951; Jannicky 1960a: 820–831; Numberg 1927a: 214, 1928a: 114, 1954: 75; Pfeffer 1923b: 106, 1947c: 4, 1960: 346, 1984: 274, 1989a: 70; Postner 1974: 445; Prossen 1913: 83; Reitter 1894a: 79, 1916: 352; Roubal 1941: 271; Schilsky 1909: 188; Wanka 1908: 231. **(tx)** Balachowsky 1949a: 249; Dombrowsky 1892; Eggers 1933f: 49; Endrodi 1957a: 307, 1957b: 418; Fauvel 1889; Fuchs 1913; Greckin 1962: 706–717; Grune 1979: 133; Henschel 1895a: 182; Kalina 1970: 126–127; Numberg 1954: 75; Pfeffer 1932b: 25, 1941b: 19, 1941c: 4, 7, 25, 1946b: 116, 1947c: 4, 1949: 145–159, 1955a: 232, 1984: 275, 1989: pl. 10; Postner 1974: 445; Reitter 1887b: 196, 1894a: 79, 1916: 352; Schedl 1934f: 1644, 1979c: 32; Schimitschek 1937c: 56, 58, 1955c: 89; Sokanovskii 1959: 39; Stark 1936: 146, 148; Wachtl 1895: 8; Weber, L. 1912: 30. **(ms)** Sedlacek 1913: 455; Weber, L. 1912: 30.
- baicalicus* Eggers 1933f: 49. Lectotype, sex?; Baicalgebiet; USNM, Washington, designated by Anderson & Anderson 1971: 5. Synonymy: Pfeffer 1984: 275.
 References: **(cn)** Greckin 1962b: 707. **(ec)** Kostin 1964: 116; Yanovskii 1977b. **(hb)** Kostin 1960: 134; Stark 1952: 386. **(ds)** Greckin 1962b: 707; Krivolitskaya 1983; Sokanovskii 1960; Stark 1936c: 146, 1952: 386; Yanovskii 1974, 1977a; Yanovsky & Tegshzhargal 1985: 410; Zinovjev 1955: 187. **(tx)** Anderson, W. H. & Anderson 1971: 5; Eggers 1933f: 49; Michalski 1969b: 570; Pfeffer 1946b: 116; Sokanovskii 1960: 675; Stark 1952: 386.
- fossifrons** (LeConte) 1876: 353 (*Pityophthorus*).
 Lectotype ♀; Vancouver Island, British Columbia [Canada]; MCZ, Cambridge, designated by Wood 1982b: 651.
 Distribution: North America (British Columbia in Canada/ California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming in USA).
 Hosts: *Pinus albicaulis*, *P. balfouriana*, *P. flexilis*, *P. monticola*, *P. strobiformis*, rarely in other conifers.
 References: **(cn)** Anonymous 1962h; Arno & Hoff 1989; Browne 1968b: 562; Chamberlin 1924, 1939: 404, 1958: 177; Doane et al. 1936; Hatch 1938: 194; Keen 1929: 53, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Ruppel 1967: 78; Swaine 1918a: 105. **(ec)** DeLeon 1934a; Furniss, R. L. & Carolin 1977: 400; Keen 1938: 118; Kulhavy, Patridge, & Stark 1984; Poinar 1975: 166. **(hb)** Bright & Stark 1973: 78; Browne 1968b: 562; Chamberlin 1939: 404, 1958: 177; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 400; Keen 1929: 53, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Swaine 1918a: 105; Wood, S. L. 1982b: 651. **(ds)** Bright 1976d: 140; Bright & Stark 1973: 78; Browne 1968b: 562; Chamberlin 1925, 1939: 404, 1958: 177; Evans, D. 1983: 34; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 400; Gast et al. 1989: 385; Hagedorn 1910a: 54; Henshaw 1882: 268, 1885: 147; Hopping 1922; Keen 1929: 35, 53, 1938: 118, 1952c: 153; Kleine 1913b: 131, 1934a: 152; Leng 1920: 341; McComb et al. 1953: 3; Patterson & Hatch 1945: 153; Ruppel 1967: 78; Schedl 1960a: 75; Swaine 1909: 132; Wickham 1896a: 309; Wood, S. L. 1948: 56, 1951a: 128, 1972a: 417, 1982b: 651. **(tx)** Balachowsky 1947; Bright 1976d: 140; Chamberlin 1939: 404, 1958: 177; Eichhoff 1896: 609; Evans, D. 1983: 34; Hagedorn 1910a: 104; Keen 1929: 35; LeConte 1876: 353; Schwarz 1896: 609; Swaine 1909: 132, 1918a: 105–106; Wood, S. L. 1951a: 128, 1972a: 417, 1982b: 651. **(ms)** Hatch 1938: 194.
- foveolatus** Eggers 1926a: 137. Lectotype ♀; Ontake (Prov. Shinano, Mitteljapan); USNM, Washington, Anderson & Anderson 1971: 13.

Figures: Nobuchi 1966d: 34, pl. 5, 1974: pl. 1–2.
 Distribution: Asia (Japan/ Kuril Islands/ Kamchatka, Sakhalin Island, Siberia in E USSR).
 Hosts: *Pinus pumila*, *P. koraiensis*, *Picea ajanensis*, *P. jezoensis*.
 References: (cn) Kurenzov 1935c: 188, 1950a: 15. (ec) Kurenzov 1931a: 56, 1964: 20. (hb) Krivolutskaia 1973: 141; Kurenzov 1935a: 20, 40, 1948b: 104, 110, 1950d: 150; Kurenzov & Kononov 1961: 601; Rudnev 1958: 310–313; Schedl 1962a: 145; Stark 1952: 385. (ds) Krivolutskaia 1965a: 239, 1973: 141; Kurenzov 1934a: 56, 1935a: 20, 40, 1935c: 188, 1936b: 351, 1938a: 64, 1963b: 114, 1964: 20, 1965, 1967; Kurenzov & Kononov 1961: 595; Murayama 1948: 2, 1949a: 13, 1954b: 172; Nobuchi 1966d: 34, 1974: 39; Schedl 1962a: 145; Stark 1936e: 145, 1952: 385. (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1926a: 137; Kurenzov 1941a: 197, 1948b: 104, 110; Michalski 1969b: 570; Murayama 1954b: 172; Nobuchi 1966d: 34, pl. 5, 1974: 39, pl. 1, 2; Pfeffer 1946b: 116; Schedl 1934f: 1644, 1962a: 145, 1979c: 99; Stark 1933: 145, 147, 1952: 385.

hopkinsi Swaine 1915a: 8. Lectotype ♀; Ste. Anne de Bellevue, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1967b: 677.

Figures: Blackman 1915: pls. 2–6.

Distribution: North America (New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec in Canada/ Connecticut, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Pinus strobus*, rare in *P. resinosa*, *P. sylvestris*.

References: (ay) Beal 1927b; Robertson 1961; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienczyk 1966. (bv) Hosking & Knight 1975. (cn) Anonymous 1966f, 1989; Baker W. L. 1972: 258; Beal 1927: 522–539; Becker, W. B. 1955d, 1959b, 1962, 1964a, 1964c; Bess 1944; Blackman 1950; Britton 1920a; Browne 1968b: 562; Carroll & Parrott 1960; Chamberlin 1924; Chenier & Philogene 1989a; Doane et al. 1936; Drake 1921: 201–205; Drooz 1985: 357; Graham 1922b, 1939b, 1952; Herrick 1935: 249; Hopkins 1904a: 25; Lindquist, O. H. & Syme 1981: 87; MacAloney & Schmiede 1962; Pierson 1927: 108; Swaine 1918a: 105–106; Swaine & Craighead 1924: 1–27; Syme & Nystrom 1988: 83; Thomas, J. B. 1965a. (ec) Bushing 1965: 464; Felt 1906: 374; Froggatt 1923; Girault 1916: 301; Graham 1922b, 1939b, 1952; Hines, J. W. & Heikkinen 1977; Kaston 1939: 17; Morley 1939: 244; Scherbak 1985; Thomas, J. B. 1955: 341; Thompson, W. R. 1943: 59. (hb) Baker, W. L. 1972: 258; Beal & Massey 1945: 138–140; Blackman 1915,

1919a: 134–142, 1950; Blatchley & Leng 1916: 635; Borden 1969: 876; Bright 1976d: 140; Browne 1968b: 562; Chamberlin 1939: 404–407; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 357; Felt 1906: 374; Froggatt 1923; Gobeil 1935; Graham 1939b, 1952; Herrick 1935: 249; Hopkins 1904a: 25; Kaston 1939: 17; Kaston & Riggs 1937: 98; MacAloney & Schmiede 1962; MacAloney & Secrest 1944: 12–13; Morley 1939: 244; Pierson 1927: 108; Prebble 1933: 145; Swaine 1918a: 105–106; Wolcott & Montgomery 1933: 166. (ds) Anonymous 1926c: 519, 1966f; Atkinson 1991: 158; Beal & Massey 1945: 138–140; Beaulne 1956; Blackman 1950; Bright 1971a: 126, 1976d: 140; Britton 1920a; Browne 1968b: 562; Chamberlin 1925, 1939: 404–407; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938; Drooz 1985: 357; Girault 1916: 291–308; Kleine 1934a: 152; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 87; Morgan, A. V. & Syme 1981: 87; Morgan, Anne, Morgan, & Elias 1985; Proctor 1946: 208; Schwert et al. 1985; Syme & Nystrom 1988: 83; Thomas, J. B. 1955: 341; Wolcott & Montgomery 1933: 166; Wood, S. L. 1982b: 652. (tx) Balachowsky 1947; Beal & Massey 1945: 138–140; Benoit 1985: 203; Blackman 1915: 11–66; Blatchley & Leng 1916: 635; Bright 1967b: 677, 1976d: 140; Chamberlin 1939: 404–407; Dodge 1938: 46–47; Hoebeke 1978; Lindquist, O. H. & Syme 1981: 87; Pardy 1974, 1977; Pardy, Stone, & White 1968; de Ruelle 1970: 107; Sokanovskii 1959: 287; Swaine 1915a: 8, 1916: 8, 1918a: 105–106; Syme & Nystrom 1988: 83; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienczyk 1966; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1982b: 652. (ms) Chenier & Philogene 1989a.

irkutensis Eggers 1910e: 38. Lectotype ♂; bei Irkutsk; USNM, Washington, designated by Anderson & Anderson 1971: 16.

Figures: Grune 1979: 130, Pfeffer 1989a: pl. 9.

Distribution: Asia (Mongolia/ Turkey/ E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Finland/ Germany/ Hungary/ Poland/ Romania/ Sweden/ Switzerland/ W USSR).

Hosts: *Pinus sylvestris*, *P. koraiensis*, *P. spp.*, less common in *Abies pectinata*, *Larix europea*, *Picea excelsa*.

References: (bv) Grune 1979: 131; Rozhkov 1970: 146. (cn) Berdennikova 1954: 86; Esterberg 1959; Lonshehakov & Lure 1960; Nusslin 1913: 282; Titova 1966. (ec) Bogdanova 1987; Heqvist 1963: 154; Kostin 1964: 115; Michalski & Ratajczak 1989; Pfeffer 1960: 345; Postner 1974: 443; Titova 1966. (hb) Kostin 1960: 134; Nusslin 1913: 282; Petrenko 1966; Pfeffer 1989a: 69; Rozhkov 1970: 146; Schedl 1962a: 140, 1980a: 25, 1981b: 83; Stark 1952: 382. (ds) Arnoldi et al. 1955: 718; Butovitsch & Heqvist 1947; Esterberg

1959; Florov 1949; Grune 1979: 131; Hansen 1939; Hellen 1947; Holzschuh 1977; Klefbeck & Sjöberg 1960: 232; Kleine 1913b: 131, 1914b: 247, 1934a: 152; Krivolitskaya 1983; Linnman 1965: 27; Lucht 1987: 279; Mandl 1931: 25; Nuorteva 1971: 71; Pfeffer 1960: 345, 1989a: 69; Postner 1974: 443; Rozhkov 1970p: 146; Schedl 1962a: 140, 1981b: 83; Sokanovskii 1960; Stark 1931d: 548, 1936e: 145, 1952: 382; Wichmann 1927a: 76; Yanovskii 1989: 64; Yanovskii & Tegsh-zhargal 1985: 411; Zinovjev 1955: 187. **(tx)** Anderson, W. H. & Anderson 1971: 16; Eggers 1910e: 38, 1912: 210, 1913: 128–129, 1922c: 16–17; Fuchs 1912b: 308–310; Grune 1979: 13, 130; Hagedorn 1910a: 105; Kurenzov 1941a: 194; Lucht 1987: 279; Pfeffer 1946b: 115, 1955a: 225, 1989a: pl. 9; Postner 1974: 443; Reitter 1913a: 98; Schedl 1934f: 1644, 1961a: 140, 1980a: 25, 1981b: 83; Sokanovskii 1960: 677; Stark 1938: 145–149, 1952: 382.

monacensis Fuchs 1911a: 3. Syntypes, sex?; Föhrenwaldern um Schleissheim gegen München; Fuchs Collection. Synonymy: Schedl 1962a: 140.

References: **(ay)** Escherich 1923b: 554; Fuchs 1911a. **(bv)** Hellen 1921. **(cn)** Hellen 1921; Koch 1913: 122; Kontkanen 1932: 63; Nestertschuk 1930: 176; Rhumbler 1927: 340; Schwerdtfeger 1944a: 177, 1957a: 183; Wichmann 1927b: 378. **(cc)** Fuchs 1937; Galoux 1947d; Graham 1969: 877; Gyorfi 1952b; Karpinski 1932a, 1933b: 35; Kleine 1944: 82; Kostenko 1929; Nunberg 1947b: 26; Nuorteva 1957b: 67; Pfeffer 1923a: 332, 1960: 345; Schwerdtfeger 1944a: 177, 1957a: 183; Sokanovskii 1936: 74; Thompson, W. R. 1943: 59; Tragardh 1927a: 210. **(hb)** Alkan 1946: 113; Charvat 1950; Escherich 1923b: 554; Karpinski 1931: 18–39, 1933b: 35; Karpinski & Strawinski 1948: 157; Lengerken 1939: 65, 1954: 86; Michalski 1959a: 291; Pfeffer 1941b: 6; Rhumbler 1927: 340; Schwerdtfeger 1944a: 177, 1957a: 183; Spessivtsev 1923: 213, 1928a: 232; Stark 1926a: 330, 1952: 381; Wichmann 1927b: 378. **(ds)** Arnoldi et al. 1955: 718; Charvat 1950; Delahon 1919; Escherich 1923b: 554, 1932b; Esterberg 1928; Heyrovsky 1927; Horion 1951; Karpinski 1931: 18, 26, 33, 1932a: 95; Karpinski & Strawinski 1948: 157; Kleine 1912a: 268, 1913b: 131, 1914b: 247, 1934a: 152; Kontkanen 1932: 63; Kostenko 1929; Lundberg 1981: 151, 1982; Nunberg 1954: 76, 1960b: 159; Pfeffer 1923b: 106, 1930b: 120, 1931b: 74, 1935: 158, 1947e: 13, 1960: 345; Reitter 1916: 300; Saalas 1931: 68; Schaufuss 1915: 1245; Sokanovskii 1936: 74; Stark 1926a: 330, 1926b: 105, 1926j: 127, 1931a: 27, 1936e: 145, 1952: 381. **(tx)** Alkan 1946: 113; Balachowsky 1947: 44; Charvat 1950; Eggers 1912c, 1913b: 128, 1914, 1922c: 16–17, 1923b; Escherich 1923b: 554; Fleischer

1927; Fuchs 1911a: 3, 1912b: 308; Karpinski & Strawinski 1948: 157; Koch 1913: 122; Nunberg 1954: 76; Pfeffer 1932b: 24, 1941b: 6, 1946b: 115, 1947e: 13, 1955a: 225; Reitter 1913a: 98, 1916: 300; Rhumbler 1927: 340; Schedl 1934f: 1644; Spessivtsev 1922a: 450, 490, 1923: 213–214, 1925a: 185; Stark 1938: 145–149, 1952: 381; Weber, L. 1912: 30. **(ms)** Escherich 1932b; Hellen 1921; Michalski 1959a: 291; Schimitschek 1930b: 407; Sedlaczek 1913: 455; Weber, L. 1912: 30.

monacensis bialowiezensis Karpinski 1931: 34, 39. Syntypes, sex?; Bialowieza Forest [W USSR]; Karpinski Collection. Synonymy: Schedl 1962a: 140.

References: **(ds)** Schnaider 1936: 366. **(tx)** Karpinski 1931: 34, 39; Schedl 1934f: 1644, 1962a: 140.

japonicus Nobuchi 1974: 39. Holotype ♀; Mt. Hakkoda, Aomori, Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1974: pls. 1–2 (adult).

Distribution: Asia (Shanxi in China/ Japan).

Hosts: *Pinus pumila*.

References: **(tx)** Bright 1976d: 203, 211; Nobuchi 1974: 39–40, pl. 1, 2.

knechteli Swaine 1918a: 106. Holotype ♀; Beau Vent Lake, Jasper Park, Alberta [Canada]; CNCI, Ottawa.

Figures: Bright 1976d: 146, Kusch 1967: 9.

Distribution: North America (Alberta, British Columbia, Saskatchewan in Canada/ California, Colorado, Idaho, Montana, Oregon, Utah, Wyoming in USA).

Hosts: *Pinus contorta*.

Notes: (3) Bright 1976d: 143 (treated as a subspecies). Wood 1982b: 656 (A Peace River, Alberta, series in a zone of host hybridization suggests hybridization and/or intergradation with *plagiatus*. Until a more extensive zone of intergradation is found, both names are retained as full species).

References: **(bv)** Schmitz 1988. **(cn)** Anonymous 1962h; Brown 1941: 12; Browne 1968b: 562; Chamberlin 1924; Craighead 1927: 1–12; Doane et al. 1936; Evenden 1940; Evendon & Gibson 1940: 274; Keen 1929: 53, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1918a: 105–106; Wong, H. R. & Melvin 1973. **(cc)** Bushing 1965: 464; Chatelain & Schenk 1983; Craighead et al. 1927; DeLeon 1934a; Furniss, R. L. & Carolin 1977: 400; Keen 1938: 118; Lanier 1967: 1134; Marsh 1979: 150; Powell, J. M., Wong, & Melvin 1972: 15; Reid 1955: 312; Schmitz 1988. **(hb)** Bright 1976d: 143; Bright & Stark 1973: 78; Browne 1968b: 562; Chamberlin 1939: 404, 1958: 178–179; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 400; Keen 1929: 52, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Reid 1955: 312, 316; Schmitz 1988; Swaine

1918a: 105–106; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 655. **(ds)** Bright 1976d: 143; Bright & Stark 1973: 79; Brown 1940a: 15, 1943: 8; Browne 1968b: 562; Chamberlin 1925, 1939: 404, 1958: 178–179; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 400; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Hoping 1922; Keen 1929: 35, 53, 1938: 118, 1952c: 153; Kleine 1934a: 152; Kusch 1967; Leng 1920: 341; McComb et al. 1953: 3; Patterson & Hatch 1945: 153; Smith, G. J. & Melvin 1974a, 1974b; Smith, G. S. 1930; Still, Tidsbury, & Melvin 1974a: 14; Susut & Melvin 1974; Wood, S. L. 1948: 58, 1952a: 128, 1972a: 417, 1982b: 655. **(tx)** Blackman 1921: 15–16; Bright 1967b: 677, 1976d: 143, 146; Chamberlin 1939: 404, 1958: 178–179; Evans, D. 1983: 34; Hoebeke 1978; Keen 1929: 35; Kusch 1967: 9; de Ruetete 1970: 107; Swaine 1918a: 105–108; Wood, S. L. 1951a: 128, 1972a: 417, 1982b: 655.

meridianus Blackman 1921: 15. Lectotype ♀; Meridian, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 652.

Figures: Blackman 1921: pl. 2, figs. 7–10 (adult), 1922b: pl. 2, figs. 7–10.

Distribution: North America (Mississippi, North Carolina in USA).

Hosts: *Pinus echinata*, *P. taeda*.

Notes: (3) This species infests shaded out branches of living trees.

References: **(bv)** Turnbow & Franklin 1980. **(en)** Baker, W. L. 1972: 258; Blackman 1950; Doane et al. 1936. **(hb)** Baker, W. L. 1972: 258; Beal & Massey 1945: 138–140; Blackman 1950; Chamberlin 1939: 408; Doane et al. 1936; Drooz 1985: 357; Wood, S. L. 1982b: 652. **(ds)** Beal & Massey 1945: 138–140; Blackman 1950; Chamberlin 1939: 408; Drooz 1985: 357; Kleine 1934a: 152; Leng & Mutchler 1927: 52; Turnbow & Franklin 1980; Wood, S. L. 1982b: 652. **(tx)** Balachowsky 1947; Beal & Massey 1945: 138–140; Blackman 1921: 15, 1922b: 110–111; Chamberlin 1939: 408; Wood, S. L. 1982b: 652.

mexicanus Wood 1980b: 356. Holotype ♀; Parque Nacional Zoquiapan, Mexico, Mexico; Wood Collection.

Figures: Atkinson et al. 1986: 33 (adult).

Distribution: North America (Estado de Mexico in Mexico).

Hosts: *Pinus hartwegii*.

Notes: (3) This species infests shaded out branches of living trees.

References: **(hb)** Atkinson & Equihua 1985a: 86; Atkinson et al. 1986: 34; Furniss, R. L. & Carolin 1977: 387. **(ds)** Atkinson & Equihua 1985a: 86; Atkinson et al. 1986: 34; Furniss, R. L. & Carolin 1977: 387; Wood, S. L. 1982b: 653. **(tx)** Atkinson et al. 1986: 33; Wood, S. L. 1980b: 356, 1982b: 653.

pemidens (Reitter) 1889c: 374 (*Tomicus*). Holotype ♂; Griechenland: Insel Tinos; NHMB, Budapest.

Figures: Grune 1979: 130.

Distribution: Asia (Syria/ Turkey), Europe (Greece/W USSR).

Hosts: *Pinus brutia*, *P. pinac*.

References: **(bv)** Grune 1979: 131. **(ce)** Kleine 1908c: 214. **(hb)** Postner 1974: 445; Stark 1952: 390. **(ds)** Grune 1979: 131; Hagedorn 1910d: 56; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Kleine 1913b: 131; Postner 1974: 445; Reitter 1894a: 80, 1894b: 117; Schedl 1961b: 185, 1962a: 148; Stark 1936e: 146, 1952: 390; Treddl 1907: 15. **(tx)** Fuchs 1911a; Grune 1979: 130–131; Hagedorn 1910a: 105; Pfeiffer 1946b; Postner 1974: 445; Reitter 1889c: 374, 1894a: 80, 1894b: 117, 1913a: 101; Schedl 1934f: 1644, 1962a: 148; Sokanovskii 1958: 39; Stark 1938: 146, 1952: 390; Wachtl 1895: 8; Weber, L. 1912: 30. **(ms)** Sedlaczek 1913: 455; Weber 1912: 30.

plagiatus (LeConte) 1868: 161 (*Xyleborus*). Lectotype ♂; Maryland [USA]; MCZ, Cambridge, designated by Wood 1982b: 645.

Distribution: North America (Alberta, Manitoba, Ontario, Quebec in Canada/ District of Columbia, Indiana, Maryland, Michigan, Minnesota, North Carolina, Pennsylvania, Virginia, West Virginia in USA).

Hosts: *Pinus banksiana*, *P. echinata*, *P. resinosa*, *P. virginiana*.

Notes: (3) Bright 1976d: 142 (treated as a subspecies). Wood 1982b: 655 (Apparent hybridization and/or intergradation with *kuechteli* occurs in a small area of host intergradation in Alberta. This is not considered extensive enough or of sufficient magnitude to warrant reduction to subspecific rank).

References: **(ay)** Hopkins 1894g; Thomas, J. B. 1957: 4, 1967. **(en)** Anonymous 1965i; Blackman 1950; Chamberlin 1924; Doane et al. 1936; Hopkins 1899c: 342, 447; Kondo & Moody 1987: 104; Kondo & Taylor 1985; Lindquist, O. H. & Syme 1981: 87; Martin, J. L. 1965; Swaine 1918a: 105, 107; Syme & Nystrom 1985: 83. **(ce)** Burks 1979: 859; Bushing 1965: 464; Felt 1906: 752; Hines, J. W. & Heikkinen 1977; Tomalak, Welch, & Galloway 1989: 3. **(hb)** Baker, W. L. 1972: 258; Blackman 1922b, 1950; Chamberlin 1939: 407; Doane et al. 1936; Felt 1906: 752; Hopkins 1894g, 1899c: 342, 447; Swaine 1918a: 105, 107. **(ds)** Anonymous 1926c: 519; Beaulne 1956; Blackman 1922b, 1950; Blatchley & Leng 1916: 637; Bright 1976d: 142; Chamberlin 1939: 407; Deyrup & Atkinson 1987b: 68; Dodge 1938; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 57; Henshaw 1882: 268, 1885: 147; Hopkins 1893a: 129, 146, 1893b: 208, 1894: 278, 1899: 427–429; Hubbard & Schwarz 1878b: 623; Kleine 1913b: 131,

1914b: 395; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 87; Schwarz 1886: 41; Swaine 1909: 133; Syme & Nystrom 1988: 83; Ulke 1902: 56; Wood, S. L. 1957c: 400, 1982b: 654. **(tx)** Balachowsky 1947; Blackman 1921: 15–16, 1922b: 110; Blatchley & Leng 1916: 637; Bright 1976d: 142; Chamberlin 1939: 407; Dodge 1938: 43, 47; Eichhoff 1878b: 280, 1896: 609; Hagedorn 1910a: 105; LeConte 1868: 161, 1876: 360–361, 1878b: 623–626; Lindquist, O. H. & Syme 1981: 87; Schwarz 1886: 41, 1891a: 168; Swaine 1909: 133, 1915a: 10, 1918a: 105, 107; Syme & Nystrom 1988: 83; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1957c: 400, 1982b: 654. **(ms)** Eckstein 1900c. *lecontei* Swaine 1915a: 10. Holotype ♂; Marquette, Michigan [USA]; MCZ, Cambridge. Synonymy: Wood 1957c: 400.

References: **(cn)** Blackman 1950; Swaine 1918a: 105–106. **(ec)** Furniss, R. L. & Carolin 1977: 394. **(hb)** Blackman 1950; Chamberlin 1939: 406; Furniss, R. L. & Carolin 1977: 394; Swaine 1918a: 105–106. **(ds)** Blackman 1950; Chamberlin 1939: 406; Furniss, R. L. & Carolin 1977: 394; Knull 1932: 66; Leng 1920: 341. **(tx)** Balachowsky 1947: 44; Bright 1967b: 677; Chamberlin 1939: 406; Swaine 1915a: 10, 1918a: 105–106; Wood, S. L. 1957c: 400.

porifrons Eggers 1933: 50. Syntypes ♂ ♀; Cyprus; Eggers Collection, in NHMW, Wien.

Distribution: Europe (Cyprus).

Hosts: *Pinus halepensis*, *P. maritima*.

References: **(cn)** Morris, H. M. 1937: 22; Schimitschek 1944: 187. **(hb)** Chararas 1962c: 358; Schedl 1962a: 147, 1981b: 84; Schimitschek 1944: 187. **(ds)** Georghiou 1977: 75; Kleine 1934a: 152; Pfeffer 1984: 277; Schedl 1962a: 147, 1967c: 75, 1981b: 84. **(tx)** Eggers 1933: 50; Schedl 1962a: 147, 1979c: 197, 1981b: 84.

quadridens (Hartig) 1834: 109 (*Bostrichus*). Syntypes, sex?; Pommern [Germany]; not located.

Figures: Grune 1979: 132, Joly 1976b: figs. 147, 170, Pfeffer 1989a: pl. 9, Plaza & Gil 1982: 260.

Distribution: Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Poland/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., *Abies* spp., *Picea* spp.

References: **(ay)** Escherich 1923b: 484, 551; Feytaud 1950a; Fuchs 1911a; Scherb 1971; Scheyvrev 1889a: 22. **(bv)** Annala & Petaisto 1978; Baader 1989; Byers, Anderbrandt, & Lofqvist 1989; Eidmann 1965b; Grune 1979: 133; Heuer & Vite 1984a; Nuorteva 1956c: 51; Nuorteva & Nuorteva 1968; Rozhkov 1970: 147. **(cn)** Andersson & Lekander 1966: 684; Anonymous 1979p; Baader 1989; Badoux 1921: 163–173; Bakke 1956: 40–42, 1960: 313, 1968: 441–602; Barbey 1925: 229;

Borodajewski 1930: 249–251; Browne 1968b: 563; Butovitsch & Spaack 1939: 1–120; Byers, Anderbrandt, & Lofqvist 1989; Chorbadzhievo 1929; Crooke 1956; Dehlen & Langstrom 1977; Eckstein 1926: 579; Ehnstrom et al. 1974; Eidmann 1965c, 1970a, 1973; Escherich 1917: 97–115, 1924: 484, 551; Eidmann & Klingstrom 1976: 239; Esterberg 1959; Feytaud 1950a; Florov 1949: 102; Fystro & Bakke 1962; Gabler 1955; Geschwind 1919: 111, 199; Gradojevic 1940; Grandi 1951; Hanson, H. S. 1940a; Hrubik 1973; Jablokoff 1953: 325; Jahn 1959: 220; Joly 1976; Judeich & Nitsche 1895: 501; Kamp 1950; Kangas 1932, 1934: 1–68; Kholodkovskii 1912: 310; Koch 1913: 118; Kozikowsky 1929: 254; Lekander 1952b: 5, 1955b: 17; Lekander & Remicfelt 1955: 10; Lekander, M. 1951: 54; Lichtenstein & Picard 1918: 172–174, 1919: 62–64; Lindgren 1980a: 67; Maksimovic & Milanovic 1964, 1966; Mathiesen 1951: 229, 1952: 285; Mathiesen-Kaarik 1953: 10; Mercet 1926: 40–47; Muller 1912: 186; Mumford 1960: 37; Munro 1922: 136; Nestertschuk 1930: 176; Nuorteva & Nuorteva 1968; Nusslin 1913: 205; Ozols, C. E. 1960; Pfeffer 1933: 43; Pierce, W. D. 1917: 69; Rhumbler 1922: 323, 1927: 338; Rodzianko 1915: 1–15; Rykin 1951: 80–81; Saalas 1949: 344, 354; Schimitschek 1932a: 23, 1935b: 148, 1937c: 56, 1955a: 71, 73, 1955c: 89; Schwerdtfeger 1944a: 177, 1957a: 183; Sierpinski 1969a; Titova 1966; Tragardh 1917: 28, 1921e: 64, 1927c: 88; Tullgren 1916: 104; Vuillet 1913: 111–112; Wachtl 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 352; Zaro 1946a: 251. **(cc)** Annala & Petaisto 1978; Apfelbeck 1916b: 429–439; Bakke 1956a; Balachowsky & Chararas 1964; Balazy 1962; Balazy & Michalski 1960, 1964a; Barbey 1927; Brammanis 1940; Capek 1957; Chararas 1957d; Eidmann 1965c, 1974b; Graham 1969: 879; Haeselbarth 1967; Heqvist 1955d: 97, 1957a, 1963: 154, 1967: 70; Heuer & Vite 1984a; Hirschmann & Wisniewski 1982, 1983; Kangas 1937, 1971; Karpinski 1932a: 99; Kielczewski 1976; Kielczewski, Moser & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 214, 1909a: 76, 1944: 69; Kolubajiv 1954: 22; Kostin 1964: 117; Lovasz 1941: 195; Lichtenstein & Picard 1918: 173; Lundberg 1984; Mathiesen 1951: 229, 1952: 285; Mathiesen-Kaarik 1953: 10; Meyer 1918: 616; Michalski & Ratajczak 1989; Nosek 1959a: 118, 1959b: 87; Numberg 1930: 203; Numberg & Wiackowski 1958: 130; Nuorteva 1956a: 17, 1957b: 52, 1959d: 201, 1968a, 1970, 1971: 69; Nuorteva & Nuorteva 1968; Nusslin 1927: 338; Palmen 1944: 60, 1946: 195; Pettersen 1976b; Pfeffer 1923a: 332, 1925b: 3, 1933: 43, 1943b: 182, 1960: 346; Poinar 1975: 166; Popovic 1931: 57; Roubal 1934a: 86; Ruhm 1954c: 222, 1956b: 4; Saalas 1959: 344, 384; Schedl 1936f: 172; Schimitschek 1934a: 86, 1936a: 560, 1955a: 71, 73; Schwerdtfeger

- 1944a: 177, 1957a: 183; Sedlaczek 1908: 52, 1935a: 163; Seitner 1913a: 27; Seitner & Notzl 1925: 187–196; Szczepanski 1960a: 411; Thompson, W. R. 1943: 59; Titova 1966; Toth 1979; Tragardh 1917: 28, 1921e: 64, 1927a: 195, 1927c: 88, 1928: 776; Vaartaja 1947: 44; Virkki 1960: 3–16; Wachtl 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 352, 1954d: 438; Zarco 1946: 251; Zivojinovic 1960: 21–29. (hb) Annila & Petaisto 1978; Anonymous 1920: 64; Apfelbeck 1916b, 1917; Bakke 1960: 313, 1968b: 640; Barbey 1901: 26, 99, 1906c, 1925: 229; Beffa 1949, 1961; Bejer-Petersen 1957; Borodajewsky 1930b; Browne 1968b: 563; Chararas 1962c: 358; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eckstein 1926: 579; Eichhoff 1881a: 52, 259; Eidmann 1965b, 1974b; Eidmann & Klingstrom 1976: 239; Escherich 1923b: 484, 551; Feytaud 1950a; Fuchs 1904a; Gabler 1955; Gornostaev 1916: 312; Grandi 1951; Gyorfi 1957; Heinemann 1908a; Henschel 1895a: 185; Joly 1976; Judeich & Nitsche 1895: 501; Karpinski 1933b: 35; Karpinski & Strawinski 1948: 157; Keller 1910: 25; Kemner 1919: 170; Kholodkovskii 1912: 310; Knotek 1894a: 558, 1897: 160, 1898b: 333; Kostin 1960: 134; Lengerken 1939: 66, 1954: 86; Lindgren 1980a: 67; Loos 1913: 412; Michalski 1959a: 291; Munro 1926: 66; Nordlinger 1856: 22; Nosek 1959a: 118, 1959b: 87; Nuorteva 1956c: 51, 1968a, 1970; Nusslin 1898: 283, 1913: 205, 1927: 338; Petkov 1963: 219; Pfeffer 1941b: 3, 1989a: 70; Postner 1974: 444; Ratzburg 1837: 159; Rumbler 1922: 323, 1927: 338; Rozhkov 1970: 147; Saalas 1913a: 68, 88, 1949: 344, 384; Schedl 1962a: 154, 1981b: 84; Schmitschek 1939c: 274, 1955a: 71, 73; Schwerdtfeger 1944a: 177, 1957a: 183, 1981: 190; Sedlaczek 1935a: 163; Spessivtsev 1913a: 70, 1923: 213; Stark 1926a: 337, 1952: 390; Tragardh 1914: 83, 1921e: 64, 1927c: 88, 1939b: 151, 226; Tschorbadjiev 1929: 172; Wachtl 1876a: 460, 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 352; Wilkinson 1935: 71–72. (ds) Acloque 1896; Ammann & Knabl 1913, 1923; Angus 1964: 179; Anonymous 1979p; Audras & Schaefer 1957; Badoux 1921; Bakke 1960: 313, 1968a: 640; Balachowsky 1947: 44, 1949a: 251; Balazy & Michalski 1960; Barthe 1896; Bedel 1888b: 402, 419; Beffa 1949; Bejer-Petersen & Jorun 1977: 28; Bistrom & Vaisanen 1988: 42; Borchert 1951; Brakman 1966b: 207; Browne 1968b: 563; Bruce 1944: 28; Brudin 1934; Buckingham 1932; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Charvat 1950; Chorbadzhievo 1924d, 1929; Csiki 1914; Eder 1934; Eggers 1904; Eidmann 1974b; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Escherich 1923b: 484, 551, 1932b; Esterberg 1928, 1951; Fjellberg 1966: 154; Fowler 1891; Fuchs 1904a, 1905a; Furniss 1968: 1384–1389; Georghion 1977: 75; Gillerfors 1966; Gornostaev 1917: 308–315; Grill 1895: 311; Grouzelle 1905; Grune 1979: 133; Hagedorn 1904e, 1910d: 58; Hansen, V. 1939, 1956, 1964: 464; Heinemann 1908a; Hellen 1947; Helliessen 1916: 84; Hennig 1954: 257, 261; Henschel 1895a: 185; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Horion 1951; Jablokov 1953: 325; Jannicky 1960a; Jazentkovsky 1912: 289; Joly 1976; Judeich & Nitsche 1895: 501; Kaltenbach 1874: 685; Kangas 1971; Karpinski 1925: 216, 1926: 82, 1931: 26, 34, 1932a: 99, 1933b: 35; Karpinski & Strawinski 1948: 157; Keler 1922b: 211; Keller 1910: 25; Kemner 1919: 170; Kersten 1933: 76; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 262, 267, 1913a: 35, 1913b: 131, 1934a: 152; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 558, 1898b: 333; Kolubajiv 1934: 64; Kozikowsky 1921: 181; Kozikowsky & Kuntze 1925: 20; Krivolutskaya 1983; Krogerus 1921b: 115; Kurir 1947c: 6; Langhoffer 1915c: 158; Leclercq 1971; Lekander 1955b: 17; Lindberg & Saris 1952: 59; Lomnicki 1913b: 146; Loos 1913: 412; Lovendal 1890c: 209; Lucht 1987: 279; Lundbald 1950c: 116; Lundberg 1974: 92, 1979: 31; Matthews & Fowler 1883: 42; Mequignon 1936: 15, 37; Mercet 1929: 19–22; Moragues 1889: 32; Mumford 1960: 37; Munro 1920, 1922: 136, 1926; Munster 1928: 290; Numborg 1928b: 88, 114, 1930: 200–208, 1954: 74; Nuorteva 1971: 67; Nusslin 1898: 283; Palm 1947a: 172; Palmen 1944: 60, 1946: 195; Perris 1876a: 254, 1877a: 414; Pettroni 1943: 175; Pfeffer 1924b: 472, 1928b: 3, 1933: 3–54, 1934b: 74, 1947c: 11, 1960: 346, 1984: 277, 1989a: 70; Pierce, W. D. 1917: 69; Platonoff 1943: 141; Plaza & Gil 1982: 260; Pomerantzev 1907b: 493; Postner 1974: 444; Prossen 1913: 83; Rapp 1934: 730; Ratzburg 1837: 159; Reitter 1894a: 78, 1916: 301; Roubal 1935b: 73, 1941: 271; Rozhkov 1970: 147; Rye 1867: 93; Saalas 1913a: 68, 88, 1931: 69; Sahlberg 1900: 106; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1246; Schann 1862: 101; Schedl 1962a: 154, 1967c: 72, 1980a: 25, 1981b: 84; Schilsky 1909: 188; Schreiner 1897: 369; Schwarz 1886: 41; Schwerdtfeger 1981: 190; Seidlitz 1872: 394, 1891a: 565, 1891b: 610; Sharp & Fowler 1893: 35; Sparr-Schneider 1889: 61; Stark 1926a: 337, 1926b: 105, 1926j: 127, 1931a: 27, 1936e: 147, 1952: 390; Stein & Weise 1877: 165; Stierlin 1898: 442; Stierlin & Gautard 1906: 205; Strand 1946: 603; Sturm 1826: 102; Thomson 1868: 226; Tragardh 1914: 83, 1917: 1–28, 1939b: 151, 226; Tredl 1907: 15; Tschorbadjiev 1929: 172; Wachtl 1876a: 460; Wegelin 1960: 107; West 1938: 184; Wichmann 1927a: 74; Winter, T. C. 1983: 22; Yanovskii & Tegshzhargal 1985: 415; Zinovjev 1955: 187; Zivojinovic 1960; Zolk 1937: 147–172. (tx) Acloque 1896; Balachowsky 1947, 1949a: 251; Barbey 1901: 26, 99, 1906c; Bedel 1888b: 402, 419; Beffa 1949, 1961; Bejer-Petersen 1957; Ceballos 1945; Charvat

1950; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Duffy 1953; Eggers 1910e: 38, 1922c; Eichhoff 1881a: 52, 259, 1883a: 114, 139, 1883b: 219; Endrodi 1957a: 307, 1957b; Escherich 1923b: 484, 551; Fauvel 1887, 1889; Ferrari 1867a: 33, 35, 1867b: 114; Fleischer 1927; Formanek 1907: 40; Fraser 1920; Fuchs 1911a, 1912: 308–310, 1914: 188–189, 1922: 17; Gabler 1955; Gebien 1907: 197; Grune 1979: 132–133; Hagedorn 1910a: 105; Hansen, V. 1956, 1964: 464; Hartig 1834: 109; Henschel 1885a, 1895a: 185; Iablokoff-Khnzorian 1961: 105; Joly 1976, 1976b: fig. 147, 170; Judeich & Nitsche 1895: 501; Kalina 1970: 127; Karpinski & Strawinski 1948: 157; Knotek 1892a: 35; Koch 1913: 118, 1932: 124; Kuhn 1913: 1057; Lovendal 1889b: 65, 1890c: 209, 1898: 172; Lucht 1987: 279; Nordlinger 1848: 239, 1856: 22; Numberg 1954: 74; Perris 1877a: 414; Pfeffer 1932b: 24, 1941b: 3, 1946b: 116, 1947e: 11, 1948: 116, 1955a: 231, 1989a: pl. 9; Plaza & Gil 1982: 260, 262; Portevin 1935: 335; Postner 1974: 444; Quaschik 1953: 35; Ratzeburg 1837: 159; Reitter 1894a: 78, 1913a: 100, 1916: 301; Rumbler 1922: 323, 1927: 338; Saalas 1913a: 68, 88, 1919, 1949: 344, 354; Schedl 1934f: 1644, 1952f: 87, 1962a: 154, 1980a: 25, 1981b: 84; Scherb 1971; Scheyrew 1889a: 22; Schimitschek 1937e: 56, 1955c: 89; Schwarz 1886: 41; Seidlitz 1872: 394, 1891a: 565, 1891b: 610; Spessivtsev 1913a: 69–70, 1922a: 480, 487, 490, 1925a: 186, 1925b: 23; Stark 1938: 147, 149, 1952: 390; Stierlin 1898: 442; Thomson 1868: 222; Wachtl 1895: 8; Weber, L. 1912: 30. (ms) Escherich 1932b; Kozikowsky 1929: 254; Michalski 1959a: 291; Seitner 1913a: 27; Weber 1912: 30.

rudnevi Sokanovskii 1959a: 278. Syntypes ♂ ♀; Sedanka, non loin de Vladivostok, USSR; Sokanovskii Collection.

Distribution: Asia (E USSR).

Hosts: *Picea obovata*.

References: (tx) Schedl 1962a: 157; Sokanovskii 1959a: 277–278.

saalasi Eggers 1914: 188. Lectotype ♂; Kirchspiel Kittila im finnischen Lappmarken; USNM, Washington, designated by Anderson & Anderson 1971: 28.

Figures: Grune 1979: 128, Yin, Huang, & Li 1984: 125.

Distribution: Asia (Liaoning, Gansu in China/ Mongolia/ E USSR), Europe (Finland/ Norway/ Poland/ Sweden/ W USSR).

Hosts: *Picea asperata*, *P. balfouriana*, *P. excelsa*, *P. obovata*, *P. schrenkiana*.

References: (bv) Grune 1979: 129; Hellen 1921. (cn) Hellen 1921; Juutinen 1960: 25; Palm 1946: 122. (ec) Kangas 1946b: 23; Kleine 1944: 74; Kostin 1964: 114; Nuorteva 1971; Pfeffer 1960: 345; Saalas 1917a: 18. (hb) Karpinski & Strawinski 1948: 157; Kostin 1960: 134; Postner 1974: 442;

Saalas 1913a: 69, 87; Schiedl 1962a: 144; Shatilov 1985; Stark 1952: 383. (ds) Grune 1979: 129; Hansen, V. 1939; Hellen 1947; Karpinski 1948a: 173; Karpinski & Strawinski 1948: 157; Klefbeck & Sjoberg 1960: 232; Kleine 1934a: 152; Krivolntskaya 1983; Lundberg 1961: 68; Numberg 1954: 74; Nuorteva 1971: 67; Pfeffer 1960: 345; Platinoff 1943: 141; Postner 1974: 442; Saalas 1913a: 69, 87, 1917a: 18, 1931: 70; Schedl 1962a: 144; Sokanovskii 1960; Stark 1931a: 27, 1936c: 145, 147, 1952: 383; Stenin 1936: 3, 18; Strand 1946: 603; Yanovskii & Tegshzhargal 1985: 411; Yin, Huang, & Li 1984: 124. (tx) Anderson, W. H. & Anderson 1971: 28; Balachowsky 1947; Eggers 1914: 188–189, 1922c: 16, 1933f: 51; Grune 1979: 128–129; Karpinski & Strawinski 1948: 157; Lebedev 1926: 121–123; Michalski 1969b: 570; Numberg 1954: 74; Pfeffer 1946b: 114, 1955a: 224; Postner 1974: 442; Saalas 1913a: 69, 87, 1914: 87, 1916: 91–85, 110–116; Schedl 1934f: 1644, 1962a: 144, 1979c: 217; Sokanovskii 1960: 676; Spessivtsev 1922a: 481, 1931: 68; Stark 1935: 145, 1952: 383; Yin, Huang, & Li 1984: 124. (ms) Hellen 1921.

saalasi niger Sokanovskii 1960: 676. Syntypes, sex?; Irkutsk, USSR; Sokanovskii Collection. Synonymy: Schedl 1962a: 114.

References: (ds) Yanovsky & Tegshzhargal 1985: 411. (tx) Schedl 1962a: 114; Sokanovskii 1960: 676.

scitius Blandford 1893: 63. Syntypes 2♂ 2♀; published as East India, labeled Sibsagar, Assam, India; FRI, Dehra Dun.

Figures: Yin & Huang 1981: 562.

Distribution: Asia (Yunnan in China/ Assam, Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India/ Nepal/ Pakistan).

Hosts: *Cedrus deodara*, *Pinus excelsa*, *P. gerardiana*, *P. roxburghii*.

References: (av) Gardner 1934b: 1–17. (cn) Browne 1968b: 563; Huque 1966; Stebbing 1914: 567. (cc) Beeson 1922c: 496; Chararas 1959c; Stebbing 1914: 567. (hb) Beeson 1922c: 496; Browne 1968b: 563; Cotes 1893a; Stebbing 1909b: 14, 30, 1911a: 3, 1914: 567. (ds) Beeson 1922c: 496; Bhasin, Roonwal, & Singh 1958; Browne 1968b: 563; Cotes 1893a; Hagedorn 1910d: 58; Kleine 1913b: 131, 1914b: 270, 1934a: 152; Miwa 1931: 269; Qadri 1951a: 368, 1951c: 238; Schedl 1973b: 210, 1974a: 87; Zethner 1973. (tx) Blandford 1893: 63; Gardner 1934b; Hagedorn 1910a: 105; Stebbing 1899: 64, 1908b: 1, 1909b: 14, 30, 1914: 567.

coniferae Stebbing 1909b: 30 (*Pityophthorus*). Holotype ♀; L. Chilzoga, Shingbai, Zhub (Baluchistan) [Pakistan]; FRI, Dehra Dun. Synonymy: Beeson 1922c: 496.

References: (cn) Huque 1966; Pierce, W. D. 1917: 52; Stebbing 1903a: 242, 1905: 8, 1914:

- 562; Troup 1916: 1–126. (**ce**) Stebbing 1914: 562. (**hb**) Stebbing 1903a: 242, 1908a: 111, 1909b: 14, 30, 1910, 1911a: 6, 1914: 562. (**ds**) Hagedorn 1910d: 52; Kleine 1913b: 131, 1914b: 270; Pierce, W. D. 1917: 52; Qadri 1951b: 67; Stebbing 1903a: 242; Yin & Huang 1981: 562. (**tx**) Beeson 1922c: 496; Hagedorn 1910a: 104; Stebbing 1909b: 14, 30, 1914: 562; Yin & Huang 1981: 562.
- seirindensis** Murayama 1929: 26. Holotype ♂; Cheongrim dong (Korea); Murayama Collection in USNM, Washington.
 Figures: Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 1–2, Yin, Huang, & Li 1984: 124 (female frons).
 Distribution: Asia (Heilongjiang, Sichuan in China/ Japan/ Korea/ Kuril Islands/ Sakhalin Island/ E USSR).
 Hosts: *Picea ajanensis*, *P. asperata*, *P. jezoensis*, *P. koraiensis*, *P. microsperma*, *P. obovata*, *Abies nephrolepis*, *Pinus koraiensis*.
 References: (**cn**) Anonymous 1980g; Inouye 1955; Inouye & Yamaguchi 1955a: 218, 235; Kurenzov 1935c: 188. (**ce**) Inouye & Yamaguchi 1955a: 218, 235; Inouye et al. 1955: 78; Nishiguchi 1960c. (**hb**) Inouye et al. 1955: 78; Krivolutskaya 1956: 834; Kurenzov 1935a: 20, 40, 1948b: 110; Qiu & Huo 1958: 267; Schedl 1962a: 138; Stark 1952: 380. (**ds**) Anonymous 1980g; Cho 1957; Choo 1983: 87; Choo & Woo 1985: 165; Kleine 1934a: 152; Ko 1969: 281; Krivolutskaya 1956: 834, 1983; Kurenzov 1935a: 20, 1935c: 188, 1936a: 113, 1938a: 59; Murayama 1929b: 2, 1929c: 23, 1930a: 2, 1930b: 15, 1936b: 116, 1937b: 375, 1942a: 55, 1954b: 201; Nakane et al. 1963: 383; Nishiguchi 1960: 64–73; Nobuchi 1974: 40; Schedl 1962a: 138; Stark 1936e: 145, 1952: 380; Yin, Huang, & Li 1984: 124. (**tx**) Choo 1983: 87; Kono 1938: 69; Krivolutskaya 1956: 834, 1958: 174–175; Kurenzov 1941a: 199–200, 1948b: 110; Murayama 1929: 26, 1930b: 15, 19, 31, 1937b: 375, 1954b: 201; Nakane et al. 1963: 383, pl. 192; Nobuchi 1974: 40, pl. 1, 2; Schedl 1934f: 1644, 1962a: 138, 1962q: 493; Stark 1938: 145, 148, 1952: 380; Yin, Huang, & Li 1984: 124.
- aizawai** Kono 1938: 69. Holotype ♂; Japan: Sachalin, Horo; apparently in Kono Collection. Synonymy: Krivolutskaya 1958: 175.
 References: (**ce**) Ishii 1939: 191. (**hb**) Krivolutskaya 1956: 834; Stark 1952: 381. (**ds**) Kono 1938b: 65, 69; Kono & Tamanuki 1939: 90, 94; Krivolutskaya 1956: 834; Schedl 1962a: 139; Stark 1952: 381. (**tx**) Kono 1938: 69; Krivolutskaya 1956: 834, 1958: 175; Schedl 1962a: 139; Stark 1952: 381.
- nitidus** Eggers 1941b: 121. Syntypes 1♂, 2♀; Ussurigebiet; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1962a: 493.
 Notes: (1) Schedl 1979c: 170 (citation of holotype invalid).
 References: (**tx**) Eggers 1941b: 121; Pfeffer 1946b: 114; Schedl 1962a: 493, 1979c: 170; Sokanovskii 1954: 19.
- spessijtsevi** Lebedev 1926: 120. Holotype ♂?; Talas-Aaltau, Syr-Darja-Gebiet, Turkestan; Lebedev Collection.
 Distribution: Asia (Xinjiang in China/ Kashmir, Uttar Pradesh in India/ E USSR).
 Hosts: *Picea schrenkiana*, *P. morinda*, *Pinus excelsa*, *P. Gerardiana*, *P. roxburghii*.
 Notes: (3) Beeson 1941 (1961: 291) (used *per-fossus*, nomen nudum, for this species, synonymy in Sokanovskii 1954: 19).
 References: (**hb**) Schedl 1962a: 146; Stark 1952: 387. (**ds**) Kadyrov 1989; Kleine 1934a: 152; Marikovskii 1956: 73; Parfentev 1951: 429–431; Schedl 1962a: 146, 1969c: 51; Stark 1936e: 146, 1952: 387; Yin, Huang, & Li 1984: 125. (**tx**) Beeson 1941 (1961: 291); Eggers 1933f: 50–51; Lebedev 1926: 120; Murayama 1929: 29–30; Pfeffer 1946b: 116; Schedl 1934f: 1644, 1962a: 146; Sokanovskii 1954: 19, 1960: 676; Stark 1936: 146, 1952: 387; Yin, Huang, & Li 1984: 125.
- trepanatus** (Nordlinger) 1848: 239 (*Bostrichus*). Syntypes, sex?; Stuttgart, Germany; NHMW, Wien, lost.
 Figures: Grune 1979: 130, Pfeffer 1989a: pl. 9, Plaza & Gil 1982: 260, 262.
 Distribution: Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Hungary/ Italy/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
 Hosts: *Pinus austriaca*, *P. heldreichii*, *P. peuce*, *P. sylvestris*.
 References: (**ay**) Chararas 1977b; Escherich 1923: 484, 553; Fuchs 1911a. (**bv**) Chararas 1977b; Grune 1979: 131. (**cn**) Androic 1951: 396–399, 1966: 49; Escherich 1923b: 484, 553; Hanson 1940a; Koch 1913: 122; Maar & Voore 1935: 641–651; Marcu 1926c: 66; Muller 1912: 186; Nusslin 1913: 282; Pierce, W. D. 1917: 74; Rhumbler 1927: 339; Schimitschek 1937c: 56, 1955c: 88; Schwerdtfeger 1944a: 177, 1957a: 183; Sierpinski 1966: 60; Wichmann 1927b: 352. (**ce**) Karpinski 1932a: 101; Kostenko 1929; Masutti 1959: 268, 301; Meyer 1934a: 616; Michalski & Ratajczak 1989; Nuorteva 1957b: 53; Nusslin 1927: 339; Pfeffer 1960: 346; Ruhm 1956b: 4; Schwerdtfeger 1944a: 177, 1957a: 183; Sedlacek 1935a: 163; Thompson, W. R. 1943: 59; Tragardh 1927a: 195, 1928: 776; Vaartaja 1947: 44. (**hb**) Androic 1951; Barbey 1901: 2, 26, 96; Chararas 1962c: 352, 1977b; Charvat 1950; Escherich 1923b: 484, 553; Fitze 1954a; Györfi 1957; Kangas 1949c; Karpinski 1933b: 35; Karpinski & Strawinski 1948: 157; Løngerken 1939: 65, 1954: 86; Masutti 1959: 268,

- 301; Munro 1926: 64; Nordlinger 1856: 23; Nunberg 1929: 112; Nusslin 1913: 282, 1927: 339; Pfeffer 1941b: 6; Postner 1974: 443; Rhumbler 1927: 339; Schedl 1962a: 142; Schwerdtfeger 1926: 91, 1944a: 177, 1957a: 183, 1981: 190; Sedlacek 1935a: 163; Spessivtsev 1923: 214; Stark 1952: 384; Wachtl 1876a: 460; Wichmann 1927b: 352. **(ds)** Allen, A. 1951b: 115, 1951c, 1954, 1975; Androic 1951, 1966: 49; Angus 1964: 179; Bakke 1963b: 124–125; Bangsholt 1975: 95; Bejer-Petersen & Jorim 1977: 27; Borchert 1951; Brakman 1966b: 206; Butovitsch 1963; Charvat 1950; Eder 1934; Eggers 1912d; Endrodi 1958b; Escherich 1923b: 484, 553, 1932b; Fowler & Donisthorpe 1913: 199; Fuchs 1905a; Gobbi 1989: 61; Grune 1979: 131; Györfi 1940: 47; Hansen, V. 1939, 1956, 1964: 464; Hellen 1947; Hennig 1954: 263; Heyden, Reitter, & Weise 1906: 712; Horion 1951; Jazentkovsky 1912: 289; Joy 1909: 269; Kangas 1948b: 128, 1949c; Karpinski 1926: 82, 1931: 19, 33, 1932a: 101, 1933b: 35; Karpinski & Strawinski 1948: 157; Keler 1922: 269–276, 1925b: 273; Kiefer et al. 1942: 529; Klefbeck & Sjöberg 1960: 232; Kleine 1913a: 245; Kloft & Hinks 1945: 218; Knozek 1983; Kostenko 1929; Kozikowsky & Kuntze 1925: 20; Kunnemann 1921: 58; Kurir 1947c: 6; Lahtinen 1946: 132, 1947: 63; Leclercq 1971; Linder 1953: 71; Lucht 1987: 279; Lundberg 1981: 151; Mahler 1987: 233; Marcu 1926c: 66; Mequignon 1936: 15, 39; Munro 1921: 87; Nunberg 1928b: 88, 113, 1954: 73, 1960b: 159; Orest 1926c: 66; Pfeffer 1924a: 96, 1947e: 13, 1960: 346, 1984: 277, 1989a: 69; Pierce, W. D. 1917: 74; Pittioni 1943: 176; Plaza & Gil 1982: 260; Postner 1974: 443; Prossen 1913: 83; Reitter 1894a: 77; Roubal 1941: 272; Sainte-Claire & Mequignon 1938: 448; Schaum 1862: 101; Schedl 1962a: 142, 1980a: 25, 1981b: 83; Schilsky 1909: 188; Schnaider 1936: 366; Schwerdtfeger 1981: 190; Sierpinski 1966: 60; Stark 1926b: 105, 1926j: 127, 1936e: 145, 1952: 384; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 460; Wichmann 1927a: 75; Winter, T. G. 1983: 22; Zivojinovic 1960: 24. **(tx)** Balachowsky 1947, 1949a: 246; Barbey 1901: 2, 26, 96; Charvat 1950; Duffy 1953; Eggers 1914: 40, 188, 1923b; Endrodi 1957a: 307, 1957b; Escherich 1923b: 484, 553; Ferrari 1867a: 33, 35, 1867b: 114; Fleischer 1927; Fuchs 1911a, 1912: 306–310; Grune 1979: 130–131; Hansen, V. 1956, 1964: 464; Kalina 1970: 127; Karpinski & Strawinski 1948: 157; Koch 1913: 122, 1932: 128; Kulnt 1913: 1056; Lebedev 1926: 120, 123; Letzner 1891: 377; Lindemann 1875: 181–186; Lucht 1987: 279; Nordlinger 1848: 239, 1856: 23; Nunberg 1954: 73; Pfeffer 1932b: 24, 1941b: 6, 1946b: 115, 1947e: 13, 1955a: 228, 1989a: pl. 9; Plaza & Gil 1982: 260, 262; Postner 1974: 443; Quaschik 1953: 35; Reitter 1894a: 77, 1913a: 97–98; Rhumbler 1927: 339; Schedl 1934f: 1644, 1962a: 142, 1980a: 25, 1981b: 93; Schimitschek 1937c: 56, 1955c: 88; Schmidt, G. 1980: 24; Spessivtsev 1922a: 481, 1923: 214, 1925a: 185; Stark 1936: 145, 147, 1952: 384; Weber, L. 1912: 30; White, R. E. 1983: 331–332. **(ms)** Eggers 1910b; Escherich 1932b; Sedlacek 1913: 453; Weber, L. 1912: 30.
- austriacus* Wachtl 1887: 320 (*Tomicus*). Syntypes, sex?; Denmark; not located. Synonymy: Balachowsky 1949a: 246.
References: **(cn)** Barbey 1925: 280; Maar & Voore 1935: 641–651; Rhumbler 1922: 323; Wachtl 1901: 381. **(cc)** Barbey 1927; Kleine 1908c: 214. **(hb)** Androic 1951; Barbey 1925: 280; Rhumbler 1922: 323; Wachtl 1901: 381. **(ds)** Androic 1951; Barthe 1896; Eggers 1912d; Hagedorn 1910d: 48; Kleine 1912a: 268, 1913a: 35, 1913b: 131, 1934a: 151; Lovendal 1889a: 271, 1890c: 208; Reitter 1894b: 15; Sainte-Claire 1914: 472; Schaufuss 1915: 1245; Schilsky 1909: 188; Tredl 1907: 14. **(tx)** Bergroth 1893; Eggers 1912c; Fauvel 1889; Hagedorn 1910a: 104; Lovendal 1890c: 208; Reitter 1889d: 271, 1894b: 15; Rhumbler 1922: 323; Schedl 1934f: 1644; Wachtl 1887: 320, 1895: 8. **(ms)** Eggers 1910b; Reitter 1889d: 271.
- elongatus* Lovendal 1889b: 61 (*Tomicus*). Syntypes, sex?; Denmark; not located. Synonymy: Balachowsky 1949a: 246.
References: **(ay)** Fuchs 1911a. **(hb)** Androic 1951. **(ds)** Androic 1951; Eggers 1912d; Felt 1906: 482; Fowler & Donisthorpe 1913: 199; Grill 1895: 311; Lovendal 1889a: 271, 1890c: 208; Reitter 1894b: 15; Sahlberg 1900: 105; Schilsky 1909: 188. **(tx)** Balachowsky 1949a: 246; Bergroth 1893; Eggers 1912c: 208–209, 1912d: 1–4; Fuchs 1911a; Lovendal 1889b: 23, 1889b: 61, 1890c: 208, 1898: 166; Reitter 1889d: 271, 1894b: 15, 1913a: 97; Schedl 1934f: 1644; Spessivtsev 1922: 481, 490. **(ms)** Reitter 1889d: 271.

Genus *Pityokteines* Fuchs

PITYOKEINES FUCHSI 1911: 33. Type-species: *Ips curvidens* Germar, subsequent designation by Hopkins 1914: 127.

Orthotomides Wood 1951b: 32. Type-species: *Orthotomicus lasiocarpi* Swaine, original designation. Synonymy: Wood 1975a: 35.

References: **(tx)** Hopping 1963b: 61; Wood, S. L. 1951: 32, 1975a: 21.

Keys: Bright 1976d: 145; Swaine 1918a, Wood 1982b: 656 for North America; Balachowsky 1949a: 255; Grune 1979: 137; Reitter 1913a: 102; Schedl 1981b: 85; Stark 1952: 421 for Europe.

References: **(ay)** Nobuchi 1969a: 65. **(hb)** Wood, S. L. 1986a: 68. **(ds)** Scheerpeltz & Winkler 1930: 258; Wood, S. L. 1986a: 68. **(tx)** Balachowsky 1949a: 259; Bright 1976d: 145; Bright & Stark 1973: 80; Chamberlin 1939: 432–435; Dodge 1938: 19; Fuchs 1911: 33; Hopping 1963b: 61; Karaman

- 1972: 147; Lanier 1968: 4167; Marcu 1928: 327–336; Michalski 1958: 35; Nobuchi 1974: 41; Pfeffer 1963: 203–207, 1989a: 72; Reitter 1913a: 102; Spessivtsev 1931: 90; Stresemann et al. 1989: 351; Swaine 1918a: 47, 123, Wood, S. L. 1975: 21, 1982b: 656–662, 1986a: 6S; Zivojinovic 1948: 65–73.
- curvidens (Germar)** 1824: 462 (*Tomicus*). Syn-types, sex?: Schandaviae in Saxonia; not located. Figures: Alkan 1946: 113, Balachowsky 1949a: 255–256, 259, Barbey 1925: 157, Grune 1979: 138, Joly 1976b: 144, 147, Postner 1974: 446. Distribution: Africa (introduced to South Africa), Asia (Japan/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Poland/ Romania/ Spain/ Switzerland/ Yugoslavia), South America (introduced to Argentina). Hosts: *Abies pectinata*, *A. spp.*, *Larix europea*, *Pinus spp.*, *Picea spp.* References: (ay) Chararas, Chipoulet, & Courtois 1979; Escherich 1923b: 449, 486, 604; Feytaud 1940a; Fuchs 1911a; Heeger 1866; Klimesch 1914: 216; Leisewitz 1906: 98; Lekander 1959b: 23; Marcus 1930: 644; Numberg 1928a: 141; Nusslin 1911a: 2; Sedlacek 1902b: 244; Wichmann 1912a: 10. (bv) Annila 1971a: 12; Berton & Chararas 1967: 1238–1243; Chararas 1966b, 1982; Chararas, Desveaux, & Kogane-Charles 1978b, 1978d; Chararas & Stephanopoulos 1975a; Chararas et al. 1982: 1094; Garring & Vite 1975; Grune 1979: 139; Haring 1976, 1978; Haring, Vite, & Hughes 1975; Hierholzer 1950, 1951b; Inscoc 1982; Krol & Zabecki 1976; McMullen & Atkins 1962b: 1321; Meixner 1937: 1214; Perttunen 1957: 107; Prell 1930c: 643, 1931: 369; Schneider-Orelli 1947c: 94; Schwerdtfeger 1981: 193; Vasechko 1971a, 1971b; Wichmann 1912a: 10. (cn) Androic 1966: 49; Anonymous 1978i; Aubert 1947: 80; Barbey 1906a, 1925: 156; Berton & Chararas 1967: 1238–1243; Blanchere & Robert 1889; Borcea 1924: 221–260, 1930: 271; Braun 1941b: 373–387; Bruneau 1950; Capek et al. 1957; Chararas 1978; Chorbazhniev 1929; Coulon 1949: 355–360; Chrystal 1949b; Desfarges 1951; Eckstein 1915, 1926: 574; Escherich 1923b: 449, 486, 604, 1937; F. B. 1885; Fankhauser 1896, 1949: 347–355; Feytaud 1946, 1950a; Ficc 1961: 173–204; Fleischer 1877a; Franz 1947b; Frohlich 1926: 101; Funke 1870; Gabler 1955; Gail 1905; Gayler 1951; Georgescu et al. 1957: 357, 447; Gradojevic 1938, 1940, 1966: 3–48; Grandi 1951; Grunert 1883; Guse 1894; Hartig 1861: 325; Hasek 1955; Herlein 1878; Hesko 1966; Hess 1898: 357; Hess & Beck 1914: 281, 1927: 337; Hierholzer 1949, 1951b: 228–234, 1954a: 329; Hopkins 1899c: 310; Hrubik 1973; Ilse 1898: 300; J. M. 1948: 460; Jacentkovsky 1933: 271; Jahn 1952a: 99; Joly 1949b: 253, 1976; Judeich & Nitsche 1895: 489; Kahl 1896; Kailidis 1964a: 41–54, 1966a: 81–85; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kamp 1950; Kauschinger 1893: 143; Keller 1903b: 58; Kholodkovskii 1912: 286, 316; Kirchner 1860: 91; Konopka 1871: 28; Kovacevic 1957: 67; Krol & Zabecki 1976; Kudela 1946b: 351; Kunstler 1864: 782; Kuteev 1965, 1967; Loeffler 1854: 172; Lysenko 1959: 15–22; Madelin 1948: 461; Maksimovic & Milanovic 1964, 1966; Maksymov 1950: 499; Marcu 1926c: 66; Marker-Kohlfurt 1896: 84; Martin & Cobos 1986; Merker 1954b: 209, 1967: 13–24; Micklitz 1875b: 29; Mokrzecki 1928: 273; Muller 1912: 186; Nordlinger 1870b: 261; Nosek 1951: 106, 1952b: 96; Novak, V., Hrozinka, & Stary 1976: 70; Nusslin 1913: 206; Ohnesorge 1953: 439; Ow 1948: 153; Packard 1890: 29; Pfeffer 1948d: 235; Pierce, W. D. 1917: 69; Pjatnitskii 1932: 295–302; Polozencev & Zolotov 1969: 70; Pomocnicze 1876: 163; Popovic 1931: 57; Ratzburg 1871c: 82; Regula 1955: 120; Reh 1900a: 94; Rhumbler 1922: 311, 1927: 325; Ruf 1948: 164; Scheidter 1919: 84, 1920: 209; Schmitschek 1932a: 23, 1936: 565–602, 1937b: 9, 1937c: 58, 1938c: 2112, 1939d: 2112, 1944: 219, 1947g: 191, 1949b: 180, 1949c: 15, 1950: 29, 1952a: 194, 1955a: 86, 89, 1955b: 102, 1955c: 91, 1956: 340, 1961a: 154; Schmidt 1881: 33; Schneeberg 1925: 495; Schneider-Orelli & Kuhn 1948: 530; Schneider-Orelli & Maksymov 1949: 171; Schneidter 1919: 69–90, 1920; Schwerdtfeger 1944a: 182, 1950b: 68, 1957a: 187; Sedlacek 1921: 335, 1933: 307, 1936: 200; Sekendiz 1987; Sinreich 1962; Souphieff & Scherbinovskaya 1937: 102; Spaic 1955: 454; Stockl 1941: 177; Swaine 1919c: 230; Thalenhorst 1950: 90; Trappen 1935: 144; Tubeuf 1903: 6; Vajda 1949: 273; Viebig 1948: 175; Vorontzov 1968; Wachtl 1901: 381; Wagner 1954c: 167; Wardle 1929: 325; Weber, H. 1926: 574; Weiser 1961a: 324–329; Westerboer & Bernard 1963: 530; Wichmann 1927b: 348, 356; Wilke 1931: 636; Wolff & Krause 1922: 96; Woffle 1948b: 259, 1949: 479, 1951: 169; Zieger 1950b: 38; Zwolfer 1949: 400, 1960. (ec) Annila & Perttunen 1964: 42; Apfelbeck 1916b; Balazy & Michalski 1964b; Barbey 1906a; Belanovskii 1930; Brauns 1950a; Bucher 1963: 134; Capek 1957; Chararas 1958b: 83–131, 1959a, 1959b, 1959c: 113–129, 1959d, 1959e; Chararas et al. 1982: 1094; Cooreman 1963: 46; DeLeon 1935a; Elliot & Morley 1907; Fleischer 1877a; Fuchs 1914a, 1929a, 1937; Fuhrer 1985; Galoux 1947d; Gauss 1954a: 423; Gillanders 1906; Gyorfi 1952b; Haenel 1914; Haeselbarth 1962: 283; Hesko 1966: 533–540; Hierholzer 1950, 1954a: 329, 1954b: 385; Hirschmann 1960, 1971a, 1971b: 40, 1978c; Hirschmann & Wisniewski 1983; Hirschmann & Zirngiebl-Nicol 1961; Hubault 1923a; Joly 1949a: 7; Kakuliya & Shalibashvili 1976b; Karpinski 1932a: 95, 1948: 231; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983;

- Kirshenblat 1948; Kleine 1908c: 214, 1909a: 48, 1944: 78; Knoche 1908b: 204; Kolubajiv 1954: 58; Kraemer 1948: 133, 1949: 59, 1950b: 349–430; Krieg 1961: 201; Krivosheina 1974; Krol & Zabecki 1976; Kuhn 1949a: 245; Lysenko 1959: 20; Merker 1954b: 209–217; Michalski & Ratajczak 1989; Moser 1952: 176; Nishiguchi 1970; Nosek 1951: 106, 1952b: 96; Nuorteva 1957b: 52, 1959d: 199; Nusslin 1927: 324; Perris 1856a: 244; Pfeffer 1928b: 7, 1943b: 179, 1955b: 84, 1960: 345; Poinar 1975: 161; Purrini 1977a; Ratzeburg 1869a: 94; Rondani 1873: 140; Ruhm 1956b: 4, 1957: 351; Schencher 1959: 263; Schimitschek 1930a: 326, 340, 1941a: 305, 1950: 29, 1952a: 194, 1953b: 50, 1955a: 86, 89, 1964e; Schwerdtfeger 1944a: 182, 1950b: 68, 1957a: 187; Sedlaczek 1908: 46, 1933: 307, 1935a: 55; Sekendiz 1987; Sitowski 1930: 6; Smetana 1958: 63; Stolina 1959: 217; Swaine 1919c: 230; Symusik 1923: 7; Tenkacoa & Mituch 1987; Thompson, W. R. 1943: 90; Thompson, W. R. & Simmonds 1964: 33, 1965: 74; Vasechko 1971b; Vietinghoff 1924: 336; Vitzthum 1926: 427; Weiser 1961a, 1969; Westerboer 1963: 349; Wiackowski 1957a: 85; Wilke 1931: 636; Wood, D. L. & Bushing 1963: 1072; Zivojinovic 1950: 209–217. (**hb**) Alkan 1946: 113; Altum 1881c: 302; Apfelbeck 1916b: 429–439, 1917; Bach 1864; Barbey 1901: 10, 26, 93, 1913, 1925: 156, 1942; Bargmann 1897, 1898b, 1899a, 1900, 1904, 1906; Baudisch 1885, 1893, 1905a, 1905b; Beffa 1949, 1961; Bezares 1929; Blanchere & Robert 1889; Bonnemaision 1953; Borcea 1924; Brandt 1948; Braun 1941c; Cecconi 1906, 1924; Chararas 1962c; Charvat 1950; Chittenden 1890; Chorbadzhievo 1929; Coudroy 1981a; Coulon 1949; Dombrowsky 1887, 1892; Dzhambazishvili 1961: 751–757, 1962; Eckstein 1889, 1897, 1915, 1926: 574; Eichhoff 1881a: 51, 245, 1882a: 241, 1882c: 705, 1892c: 99; Escherich 1923b: 449, 486, 604; Everts 1900; Feytaud 1946, 1950a; Fleischer 1877a; Fuchs 1904a; Furst 1888: 112; Gabler 1955; Gayler 1951; Gillanders 1906; Girard 1873; Gyorfj 1957; Hagedorn 1903a; Hartig 1861: 325; Heeger 1866; Helmbacher 1924; Hennings 1908a, 1908b, 1908c: 227, 1908d; Henschel 1876a: 113, 238, 1879b, 1895a: 182; Hess 1898: 357; Hess & Beck 1914: 281, 1927: 337; Hierholzer 1949; Hopkins 1899c: 310; Hufnagl 1887: 512; Hufnagl & Puzry 1951: 109, 121; Ilse 1898: 300; Joly 1949a: 7, 1976; Judeich 1875a: 263; Judeich & Nitsche 1895: 489; Kahllich 1865b; Kamp 1951c; Karpinski & Strawinski 1948: 157; Karsch 1883: 141; Kauschinger 1883: 105, 1893: 143; Kholodkovskii 1912: 286, 316; Knotek 1894a: 558, 1897: 153, 1898b: 327, 1899a: 19; Kollar 1857: 187; Kraemer 1950b: 349–430; Lekander 1959a: 83, 1959b: 23; Lengerken 1939: 36, 1954: 87; Loeffler 1854: 172; Lohrenz 1907: 44; Loos 1913: 411; Louzil 1961: 44; Madon 1930: 99; Maksymov 1950: 499; Masutti 1964; Moser 1952: 176; Nishiguchi 1970; Nordlinger 1856: 20, 1864a: 260, 1870b: 261; Novak, V., Hrozinka, & Stary 1976: 70; Nunberg 1929a: 113, 1929c: 123; Nusslin 1898: 282, 1906b: 14, 1913: 206, 1927: 324; Ohnesorge 1953: 439, 1955: 279; Orest 1926a: 70, 1927: 59; Ow 1948: 153; Packard 1890: 29; Perris 1856a: 244; Pfeffer 1941b: 16, 1989a: 73; Postner 1974: 446; Prell 1930c: 643, 1931: 369; Ratzeburg 1837: 156, 1839: 169, 190, 1871c: 82; Rey 1900a: 94; Rhumbler 1922: 311, 1927: 325; Rimski-Korsakov et al. 1949: 291; Rupertsberger 1879: 231, 1880: 231; Schimitschek 1929: 83, 1930a: 326, 340, 1944: 219, 1955a: 86, 89; Schmidt 1881: 33; Schneider-Orelli 1947b: 157, 1947c: 94; Schroder 1896: 357; Schwerdtfeger 1944a: 182, 1957a: 187, 1981: 193; Sedlaczek 1921: 335, 1935a: 155; Sekendiz 1987; Spessittsev 1913a: 77; Stark 1952: 421; Stebbing 1911a: 2; Szujecki 1955: 242; Taschenberg 1880: 220, 227; Tschorbadjiev 1929: 173; Vasechko 1971a, 1971b; Wachtl 1876a: 460, 1901: 381; Weber, H. 1926: 574; Weidenbach 1845: 116; Weiser 1961a; Wichmann 1927b: 348, 356; Wolff & Krause 1922: 96. (**ds**) Acloque 1896; Ammann & Knabl 1923; Andersch 1951; Androic 1966: 48; Anonymous 1978i; Arru, Covassi, & de Bellis 1966: 32; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Baudisch 1899; Beffa 1949; Bezares 1929: 83–107; Bielz 1851, 1887; Blackwelder 1947; Blanchere & Robert 1889; Borcea 1924; Brakman 1966b: 207; Brancsik 1871; Bruch 1914a; Buresh & Lazarov 1956; Calwer 1884, 1893; Capek et al. 1957; Cecconi 1895, 1897, 1906; Chapuis & Candeze 1853; Charvat 1950; Chittenden 1890; Chorbadzhievo 1924d, 1929; Eggers 1904; Endrodi 1958b; Escalera 1919; Escherich 1923b: 449, 486, 604, 1932b; Everts 1900, 1925; Favre 1890; Fricken 1889: 346; Fuchs 1904a, 1905a; Gabler 1949b; Gail 1906; Gaubil 1849: 126; Gemminger & Harold 1872: 2690; Gobang 1870: 133; Gozis 1875: 80; Grandi 1951; Gredler 1875: 115; Grune 1979: 139; Hagedorn 1903a, 1910d: 52; Hellen 1947; Hennig 1954: 257; Henschel 1895a: 182; Heyden 1876: 300; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Horion 1951; Hubault 1923b; Jacentkovsky 1933: 271, 1939: 76; Jazentkovsky 1912: 291; Joly 1949b: 254, 1976; Judeich & Nitsche 1895: 489; Kahllich 1865b; Kailidis 1964a, 1966a, 1966b: 55, 1985; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kaltenbach 1874: 685; Kamp 1951c; Karpinski 1925: 21, 1926: 83, 1931: 19, 1932a: 95, 1948b: 231; Karpinski & Strawinski 1948: 157; Keler 1925b: 275; Kestercanek 1881a: 12; Kleine 1912a: 262, 264, 268, 1913a: 35, 1913b: 127, 1914b: 257, 1934a: 151; Knotek 1892a: 37, 1894a: 558, 1898b: 327; Koltze 1901: 153, 318; Kolubajiv 1934: 64; Koschitsky 1900: 83; Kovacevic 1957: 67; Kraatz 1869: 59; Kraemer 1948: 133; Krivosheina & Mamaev 1986: 97; Krol 1877: 34; Kudela 1946a: 338;

Kulczynski 1873: 109; Kurir 1947c: 18; Lacordaire 1866: 383; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 139; Lohrenz 1907: 44; Lokaj 1868: 64; Lomnicki 1886a: 243, 1913b: 148; Loos 1913: 411; Lucht 1987: 279; Malazgirt 1966: 64; Marcu 1926c: 66, 1928: 327–336; Mequignon 1936: 15, 38; Michalski 1957: 166; Mokrzecki 1928: 273; Murayama 1936a: 128, 1936b: 113, 1942a: 56, 1954b: 170, 201; Negru 1966b: 403, 1968a: 457; Nobuchi 1974: 41; Nunberg 1928b: 88, 115, 1954: 79; Nusslin 1898: 282; Oliveira 1887: 328; Orest 1926c: 66; Ortzen 1886: 280; Pacher 1865: 152; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 472, 1928b: 7, 1935: 159, 1947d: 129, 1950b: 73, 1960: 345, 1989a: 73; Pierce, W. D. 1917: 73; Pittioni 1943: 175; Plaza & Gil 1982: 256; Postner 1974: 446; Prossen 1913: 83; Rapp 1934: 732; Ratzeburg 1837: 156, 1839: 169, 190; Redtenbacher 1858: 834, 1874: 378; Reitter 1869b: 154, 1894a: 85, 1897b: 244, 1916: 302; Rimski-Korsakov et al. 1949: 291; Roubal 1935b: 73, 1936b: 193, 1941: 274; Ruskov 1928c: 62; Sainte-Claire 1938: 449; Schaschl 1854: 133; Schaufuss 1915: 1246; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1961b: 184, 1967c: 72, 1980a: 26, 1981b: 86; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 188; Schwerdtfeger 1981: 193; Seidl 1876: 5; Seidlitz 1872: 396, 1891a: 566, 1891b: 612; Sekendiz 1987; Solla 1893: 217; Souphieff & Scherbinovskaja 1937: 102; Stark 1927b: 90, 1952: 421; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 444; Stierlin & Gautard 1871: 294, 1906: 206; Strohmeyer 1912e: 250; Sturm 1843: 230; Szujewski 1955: 242; Tredl 1907: 16; Tschorbadjiev 1929: 173; Wachtl 1876a: 460; Westhoff 1882: 239; Wichmann 1924: 16–18, 1927a: 76; Wiepken 1883: 89; Wilke 1931: 636; Zoufal 1920: 21. (tx) Acloque 1896; Alkan 1946: 113; Altman 1844; Bach 1854, 1864; Balachowsky 1949a: 258; Barbey 1901: 10, 26, 93; Bargmann 1897b, 1898b; Beffa 1949, 1961; Bertolini 1872; Blanchere & Robert 1889; Brancsik 1871; Calwer 1858; Chamberlin 1939: 432; Chapuis & Candeze 1853; Charvat 1950; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Eggers 1923b; Eichhoff 1864b: 42, 1877c: 388, 1878b: 275, 1881a: 51, 245, 1883a: 113, 139; Endrodi 1957b; Escherich 1923b: 449, 486, 604; Escherich & Escherich 1897; Fauvel 1889; Ferrant 1911; Ferrari 1867: 43; Fleischer 1905, 1927; Formanek 1907: 43; Fricken 1889: 346; Fuchs 1911a; Gabler 1949b, 1955; Gernar 1824; Girard 1873; Grune 1979: 138–139; Hagedorn 1910a: 104; Henry 1892: 10–11; Henschel 1876a: 113, 238, 1885a, 1895a: 182; Hopkins 1914: 127; Jacobson 1895: 521; Jacquelin du Val & Fairmaire 1868: 107; Joly 1976, 1976b: fig. 144, 147; Judeich & Nitsche 1895: 489; Kalina 1975; Karpinski & Stravinski 1948: 157; Knotek 1892a: 37; Koch 1928: 117, 1932: 93; Lacordaire 1866: 383; Lekander 1959b: 23; Letzner 1891: 376; Lemmis 1886:

780; Louzil 1961: 108; Lucht 1987: 279; Meixner 1937: 1214; Murayama 1936a: 128, 1954b: 170, 201; Negru 1966b: 403; Niisima 1909: 150; Nordlinger 1848: 237, 1856: 20; Novak, V., Hrozinka, & Stary 1976: 70; Nunberg 1928a: 141, 1929c: 123, 1930, 1948: 1–30, 1954: 79; Nusslin 1911a: 2; Ohnesorge 1955: 279; Pfeffer 1932b: 25, 1941b: 16, 1955a: 236, 1989a: pl. 10; Plaza & Gil 1982: 256; Portevin 1935: 336; Postner 1974: 446; Quaschik 1953: 35; Ratzeburg 1837: 156, 1839: 169, 190; Redtenbacher 1849a: 357, 1849b: 26, 1858: 834, 1874: 378; Reitter 1894a: 85, 1897b: 244, 1913a: 103, 1916: 302; Rey 1892b: 30; Rhumbler 1922: 311, 1927: 325; Rupertsberger 1879: 231, 1880: 231; Schedl 1934f: 1645, 1952f: 87, 1955e: 262, 1959h: 100, 1980a: 26, 1981b: 86; Schimitschek 1937c: 58, 1955c: 91; Schlechtendal & Wunsche 1879: 125; Sedlacek 1912: 308; Seidlitz 1872: 396, 1891a: 566, 1891b: 612; Spessivtsev 1913a: 77, 1931: 75–76; Stark 1952: 421; Stierlin 1898: 444; Stresemann et al. 1989: 353; Taschenberg 1880: 220, 227; Wachtl 1895: 8; Weber, L. 1912: 30. (ms) Chararas 1959d, 1971a: 853; Eggers 1912e; Escherich 1932b; Fankhauser 1885: 185; Gotz 1877; Lekander 1959a: 83; Merino-Rodriguez 1966: 47; Reh 1900a: 94; Ritter 1929: 555; Schimitschek 1955b: 102; Schwappach 1924: 57; Sedlacek 1902a: 126, 1913: 455, 1936: 200; Sinreich 1962; Vorontzov 1968; Weber, L. 1912: 30.

elegans Swaine 1916b: 182. Holotype ♀; Hood River, Oregon [USA]; CNCI, Ottawa.

Distribution: North America (British Columbia in Canada/California, Idaho, Oregon, Washington in USA).

Hosts: *Abies concolor*, *A. grandis*, *A. magnifica*, rare in other conifers, restricted to *Pseudotsuga menziesii* in N Idaho.

Notes: (1) Swaine (1916b: 182) clearly described the female and on p. 183 cites the type. For this reason, Bright's (1967b: 677) designation of a lectotype for this species was not necessary.

References: (ay) Kirtibutr & Schent 1977. (cn) Chamberlin 1924; Doane et al. 1936; Keen 1938: 32; Lindgren 1980a: 67; Ruppel 1967: 73; Swaine 1918a: 123–124. (cc) Ashraf 1969; Ashraf & Berryman 1969: 14; Berryman 1968a: 66, 1973: 1483; DeLeon 1934a; Hertert, Miller, & Partridge 1975; Keen 1938: 32; Kirtibutr 1974; Kirtibutr & Schenk 1977. (hb) Bright & Stark 1973: 81; Chamberlin 1939: 434, 1958: 180; Doane et al. 1936; Keen 1938: 32; Kirtibutr 1974; Lindgren 1980a: 67; Swaine 1918a: 123–124; Wood, S. L. 1982b: 661. (ds) Bedard 1938a: 32; Bright 1976d: 81; Bright & Stark 1973: 81; Chamberlin 1925, 1939: 434, 1958: 180; Evans, D. 1983: 34; Furniss, R. L. & Carolin 1977: 400; Hertert, Miller, & Partridge 1975; Hopping, R. 1922; Keen 1929: 40, 1938: 32; Kirtibutr 1977: 381; Kleime 1934a: 152; Laursen 1979; Leng 1920: 341; Patterson &

Hatch 1945: 153; Ruppel 1967: 73; Wood, S. L. 1972a: 418, 1982b: 661. **(tx)** Bright 1967b: 677, 1976d: 148; Chamberlin 1939: 434, 1958: 180; Evans, D. 1983: 34; Hoebeke 1978; Hopping 1963b: 65; Keen 1929: 40; Pardy 1977; de Ruelle 1970: 107; Swaine 1916b: 182–183, 1918a: 123–124; Wood, S. L. 1972a: 418, 1982b: 661.

lasiocarpa (Swaine) 1916b: 183 (*Orthotomicus*). Holotype ♀; Rogers' Pass, British Columbia [Canada]; CNCI, Ottawa.

Distribution: North America (Alberta, British Columbia in Canada/ Idaho, Montana, Oregon, Utah, Washington in USA).

Hosts: *Abies amabilis*, *A. lasiocarpa*, *Picea engelmannii*, *Pseudotsuga menziesii*.

Notes: (1) Swaine (1916b: 183) clearly described the female and on p. 184 cites the type; consequently, Bright's (1976b: 676) designation of a lectotype was not needed. (3) Wood 1951b: 32 (treated in *Orthotomicides*).

References: **(en)** Doane et al. 1936; Swaine 1918a: 121–122. **(hb)** Chamberlin 1939: 439, 1958: 184–185; Doane et al. 1936; Swaine 1918a: 121–122; Wood, S. L. 1982b: 660. **(ds)** Bright 1967b: 676, 1976d: 144; Chamberlin 1925, 1939: 439, 1958: 184–185; Furniss, R. L. & Carolin 1977: 400; Gast et al. 1989: 385; Hopping, R. 1922; Keen 1929: 39; Leng 1920: 341; Still, Tidsbury, & Melvin 1974: 14; Wood, S. L. 1948: 66, 1951a: 128, 1972a: 417, 1982b: 660. **(tx)** Bright 1967b: 676, 1976d: 144; Chamberlin 1939: 439, 1958: 184–185; Hoebeke 1978; Hopping, G. 1963b: 63; Keen 1929: 39; de Ruelle 1970: 105; Swaine 1916b: 183, 1918a: 121–123; Wood, S. L. 1951a: 128, 1951b: 32, 1972a: 417, 1975a: 21, 1982b: 660.

minutus (Swaine) 1912a: 352 (*Dryocoetes*). Holotype ♀; Colorado, Lot 302, sub. 94, 130 [USA]; Cornell University Collection, Ithaca, New York. Figures: Kusch 1967: 9.

Distribution: North America (Alberta, British Columbia in Canada/ Arizona, Colorado, Montana, New Mexico, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Abies lasiocarpa*.

Notes: (1) Although Swaine (1912: 353) clearly designated a type, Bright (1967: 674) cited this specimen as a lectotype.

References: **(en)** Chamberlin 1924; Ciesla, Dewey, & Tunnock 1971: 21; Doane et al. 1936; Smith, G. J. & Melvin 1974b; Swaine 1918a: 123–124; Tripp & Blauel 1969: 104; Tripp, Robins, & Blauel 1970: 90; Woodring & Moser 1970. **(ec)** Chamberlin 1918a: 33; Hirschmann & Wisniewski 1982, 1983; Hurlbutt 1967. **(hb)** Bright 1976d: 145; Bright & Stark 1973: 81; Chamberlin 1939: 434, 1958: 180–181; Doane et al. 1936; Swaine 1918a: 123–124. **(ds)** Bright 1976d: 145; Bright & Stark 1973: 81; Chamberlin 1918a: 33, 1925, 1939: 434, 1958: 180–181; Elias 1985: 39; Furniss, R. L.

& Carolin 1977: 400; Gast et al. 1989: 385; Hopping, R. 1922; Keen 1929: 40; Kleine 1913b: 136, 1934a: 153; Kusch 1967; Leng 1920: 341; Smith, G. J. & Melvin 1974b; Thatcher 1935: 261; Wood, S. L. 1948: 67, 1951a: 128, 1957c: 401, 1972a: 418, 1982b: 659. **(tx)** Bright 1967b: 674, 1976d: 145; Chamberlin 1939: 434, 1958; Hopping, G. 1963b: 63; Keen 1929: 40; Kusch 1967: 9; de Ruelle 1970: 100; Swaine 1912a: 352, 1918b: 123–124; Wood, S. L. 1951a: 128, 1957c: 400–401, 1972a: 418, 1982b: 659.

jasperi Swaine 1916b: 181. Holotype ♀; Jasper Park, Alberta, Canada; CNCI, Ottawa. Synonymy: Wood 1957c: 401.

Notes: (1) Swaine (1916b: 181) clearly described the female and on p. 182 cites the type; consequently, Bright's (1967b: 677) designation of a lectotype was unnecessary.

References: **(en)** Chamberlin 1924; Doane et al. 1936; Swaine 1918a: 123–124. **(hb)** Chamberlin 1939: 435; Doane et al. 1936; Swaine 1918a: 123–124. **(ds)** Chamberlin 1917, 1925, 1939: 435; Hopping, R. 1922; Keen 1929: 40; Kleine 1934a: 153; Leng 1920: 341. **(tx)** Bright 1967b: 677; Chamberlin 1939: 435; Hoebeke 1978; Keen 1929: 40; de Ruelle 1970: 107; Swaine 1916b: 181–182, 1918a: 123–124; Wood, S. L. 1957c: 400.

mystacinus Wood 1975a: 29. Holotype ♀; Mount Rainier National Park, Washington [USA]; CNCI, Ottawa.

Distribution: North America (Mount Rainier in Washington in USA).

Hosts: *Abies amabilis*.

References: **(ds)** Furniss, R. L. & Carolin 1977: 400; Wood, S. L. 1982b: 660. **(tx)** McNamara 1984: 753; Wood, S. L. 1975a: 29, 1982b: 660.

ornatus (Swaine) 1916b: 185 (*Orthotomicus*). Holotype ♀; Williams, Arizona [USA]; CNCI, Ottawa.

Figures: Bright 1976d: 146.

Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, South Dakota, Utah in USA).

Hosts: *Pinus ponderosa*, less common in *P. attenuata*, *P. contorta*, *P. edulis*, *P. jeffreyi*, *Picea pungens*.

Notes: (1) Wood 1966: 27 (to *Pityokteines*). Bright (1967b: 676) cites this type as a lectotype; however, Swaine (1916b: 186) clearly cites a type.

References: **(en)** Blackman 1931c; Doane et al. 1936; Keen 1929: 57, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Schuder 1969: 78; Swaine 1918a: 121–122. **(ec)** Blackman 1931c; Keen 1938: 118; Massey 1961: 358; Stephen & Dahlsten 1976b: 292. **(hb)** Blackman 1931c; Bright & Stark 1973: 81; Chamberlin 1939: 438, 1958: 183; Doane et al. 1936; Keen 1929: 57, 1938: 118, 1952c: 153;

Lindgren 1980a: 67; Swaine 1918a: 121, 133; Wood, S. L. 1982b: 657. **(ds)** Atkinson & Equihua 1988: 94; Bright 1967b: 676, 1976d: 145; Bright & Stark 1973: 81; Chamberlin 1917: 328, 1925, 1939: 438, 1958: 183; Evans, D. 1983: 145; Gast et al. 1989: 385; Hopping, R. 1922, 1924: 125–128; Keen 1929: 39, 57, 1938: 118, 1949a: 93, 1952c: 153; Lange 1937: 173; Leng 1920: 341; Miller, R. F., Morgan, & Hicock 1985: 501; Nunberg 1961b: 611; Patterson & Hatch 1945: 153; Schedl 1962k: 1097; Schuder 1969: 78; Wood, S. L. 1972a: 418; 1982b: 657. **(tx)** Bright 1967b: 676, 1976d: 145–146; Chamberlin 1939: 438, 1958: 183; Evans, D. 1983: 34; Hoebeke 1978; Keen 1929: 39; de Ruelle 1970: 105; Swaine 1916b: 185, 1918a: 121–122; Wood, S. L. 1966b: 27, 1972a: 418, 1982b: 657.

sparsus (LeConte) 1868: 160 (*Xyleborus*). Holotype ♀; Point Keweenaw, Lake Superior, Michigan [USA]; MCZ, Cambridge.

Figures: Kusch 1967: 9, Rose & Lindquist 1977: 118.

Distribution: North America (Alberta, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New York, Pennsylvania, West Virginia, Wisconsin in USA).

Hosts: *Abies balsamea*.

References: **(ay)** Kirtibutr & Schenk 1977: 381; Krywienzyk 1966; Thomas, J. B. 1957: 4, 1967. **(bv)** Hosking & Knight 1975, 1976. **(cn)** Baker, W. L. 1972: 263; Basham 1959: 295, 1986; Belyea 1948: 1, 1952a: 326, 1952b: 734–738; Blackman 1919: 148, 1950; Browne 1968b: 563; Carroll & Parrott 1963; Chamberlin 1924; Craighead 1924: 42; Currie 1905: 80; Doane et al. 1936; Drooz 1985: 357; Felt 1906: 752, 1924: 268, 1926: 248, 268, 1930a: 247, 249, 268, 1942: 6; Felt & Bromley 1943: 326–327; Felt & Rankin 1932: 235, 406; Graham 1922b; Harrington 1881: 31; Hewitt 1920: 1–23; Hopkins 1899c: 446; Howse, Gross, & Rose 1981: 55; Lindquist, O. H. & Syme 1981: 88; Magasi 1988: 89; Miller-Weeks 1985: 19; Moody 1988: 61; Packard 1890: 720; Pardy 1972: 7; Pettit 1927: 12, 1928: 348; Pierson 1923: 26, 1927: 67; Rose & Lindquist 1977: 118–119; Schedl 1928: 110; Sippell, Rose, & Gross 1978: 56; Swaine 1918a: 123, 1919: 46, 1922: 33, 1928: 1–20; Swaine et al. 1924: 18, pl. 11, 22; Syme & Nystrom 1988: 84; Wilson, L. F. 1977: 72. **(cc)** Basham 1959: 295, 1980; Belyea 1948, 1952a: 326, 1952b, 1960; Bushing 1965: 464; Felt 1906: 752; Graham 1920, 1921, 1922b, 1923: 22–40, 1924: 33; Hosking & Knight 1976; Lindquist, E. E. 1969c; Marsh 1979: 295; Morley 1939: 244; Swaine 1921: 345; Tomalak, Welch, & Calloway 1989b; Wall 1988; Warren 1987. **(hb)** Anderson, R. F. 1960: 241; Baker, W. L. 1972: 263; Belyea

1950: 2; Blackman 1950; Bright 1976d: 148; Browne 1968b: 563; Chamberlin 1939: 433; Chittenden 1890; Doane et al. 1936; Drooz 1985: 357; Eidmann 1962: 161; Felt 1906: 752, 1926: 248, 268, 1930a: 247, 249, 268; Felt & Rankin 1932: 235, 406; Gobeil 1935; Harrington 1902a: 116; Hopkins 1893a: 130, 1893b: 208, 1899c: 446; Hosking 1976b; Hosking & Knight 1976; Kaston & Riggs 1937: 98; Morley 1939: 244; Morstatt 1924: 8; Mott 1954: 1; Pierce 1907: 290; Pierson 1923: 26, 1927: 67; Prebble 1933: 145–146; Rose & Lindquist 1977: 118–119; Schwarz 1888a: 80; Swaine 1918a: 123; Swaine et al. 1924: pl. 11, 22; Wilson, L. F. 1977: 72. **(ds)** Anderson, R. F. 1960: 241; Anonymous 1926c: 519; Austara et al. 1983; Beaulne 1956; Blackman 1950; Bright 1971a: 126, 1976d: 148; Britton 1920a; Brown 1934; Browne 1968b: 563; Chamberlin 1925, 1939: 433; Chittenden 1890; Dodge 1938: 52–53; Drooz 1985: 357; Dunn 1936: 9; Eidmann 1935; Felt 1926: 247, 268, 1930a: 247, 249, 268; Felt & Rankin 1932: 235, 406; Gemminger & Harold 1872: 2686; Hagedorn 1910a: 59; Hamilton 1894: 406, 1895a: 346, 378; Hatch 1924; Henshaw 1882: 269, 1885: 147; Hopkins 1893a: 130; Houghton 1905; Hubbard & Schwarz 1878b: 624; Kleine 1913b: 131, 1914b: 410, 1934a: 153; Kusch 1967; Leng 1920: 341; Leonard 1928: 519; Linder 1953: 71; Lindquist, O. H. & Syme 1981: 88; Macfillvray, A. & Houghton 1902; Martineau & Beique 1955: 34; Morgan, A. V. & Morgan 1980: 1110; Schwarz 1886: 41, 1888a: 80; Schwert et al. 1985; Slosson 1906: 325; Smith, J. B. 1900: 362, 1910: 401; Still, Tidsbury, & Melvin 1974b; Swaine 1909: 133, 1918b: 860–861; Syme & Nystrom 1988: 84; Wood, S. L. 1982b: 661. **(tx)** Benoit 1985: 203; Bright 1976d: 148, 203, 212; Chamberlin 1939: 433; Dodge 1938: 52–53; Eichhoff 1896: 609; Hagedorn 1910a: 106; Hamilton 1891: 130, 132; Kusch 1967: 9; LeConte 1868: 160, 1876: 360, 1878b: 624; Lindquist, O. H. & Syme 1981: 88; Pardy 1974, 1977; Rose & Lindquist 1977: 118–119; Schwarz 1886: 41; Swaine 1909: 133, 1915a: 9, 1916b: 181–185, 1918a: 123–124; Syme & Nystrom 1988: 84; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienzyk 1966; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1982b: 661. **(ms)** Eckstein 1900c.

balsameus LeConte 1878b: 625 (*Tomicus*). Lectotype ♂; central New York [USA]; MCZ, Cambridge, designated by Wood 1982b: 662. Synonymy: Swaine 1918a: 123.

References: **(cn)** Currie 1905: 81; Hewitt 1914: 501–518, 1916: 851–876; Hopkins 1904a: 25; Swaine 1910d: 42, 1913: 41–43, 1919: 230; Walker 1912: 60. **(cc)** Felt 1906: 375–379. **(hb)** Felt 1901: 519–522, 1902: 65, 1906: 375–379; Hopkins 1904a: 25; Swaine 1911b: 81. **(ds)** Currie 1905; Hagedorn 1910d: 49; Henshaw 1882: 269; Hubbard & Schwarz 1878b: 625;

Kleine 1913b: 131, 1914b: 407, 1934a: 152; Leng 1920: 341; Swaine 1909: 119, 1911b: 81. (tx) Eichhoff 1896: 609–610; Hagedorn 1910a: 104; LeConte 1878b: 625; Swaine 1909: 119–120, 1915a: 10, 1918a: 123.

spindens (Reitter) 1894a: 85 (*Ips*). Holotype ♀?; Caucasus; NHMB, Budapest.

Figures: Balachowsky 1949a: 256, 259 (adult), Grune 1979: 136, Novak, Hrozinka, & Sary 1976: 71, Plaza & Gil 1982: 250, 256.

Distribution: Asia (Korea/ Turkey), Europe (Austria/ Bulgaria/ Corsica/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Abies alba*, *A. borisii-regis*, *A. cephalonica*, *A. pectinata*, rare in *Larix europaea*.

References: (ay) Chararas, Chipoulet, & Comtois 1979; Escherich 1923b: 486; Fuchs 1911a. (bv) Chararas 1966b, 1968b: 1552, 1982; Chararas & Stephanopoulos 1975a; Grune 1979: 137; Harring 1978; Hierholzer 1950, 1951b; Inscoc 1982; Jacobson 1972; Klassen, Ridgway, & Inscoc 1982; Krol & Zabecki 1976; Merker 1965a. (cn) Androic 1966: 49; Braum 1941b: 373–387; Capek et al. 1957; Eckstein 1926: 579; Egger 1949; Escherich 1923b: 486; Fice 1961: 173–204; Gradojevic 1940; Grandi 1951; Hasek 1955; Hierholzer 1949, 1951b, 1954a: 329; Kailidis 1964a: 41–54, 1966a: 81–85; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kholodkovskii 1912: 318; Kovacevic 1957: 67; Krol & Zabecki 1976; Maksynov 1950: 502, 506; Marcu 1926c: 66, 1930: 327–336; Martin & Cobos 1986; Merker 1954b: 210, 1955: 265, 1956b: 324, 1956d: 184, 1969; Muller 1912: 186; Mumford 1960: 37; Novak, V., Hrozinka, & Sary 1976: 71; Pelekassis 1962; Pierce, W. D. 1917: 79; Regula 1955: 131; Rhumbler 1922: 311, 1927: 325; Schimitschek 1932a: 23, 1935b: 149, 1937b: 9, 1937c: 58, 1938c: 2112, 1939d: 2112, 1944: 220, 1949b: 180, 1950: 29, 1952c: 59, 1955a: 86, 89, 1955c: 91, 1956: 340, 1961a: 154, 1964e; Schneider-Orelli & Kuhn 1948: 533; Schwerdtfeger 1944: 182; Spaic 1955: 454; Stockl 1941: 183; Thalenhorst 1950: 90; Vajda 1949: 273; Wachtl 1901: 381; Weber, H. 1926: 579; Zivoinovic 1950: 299–310; Zwolfer 1949: 400. (cc) Balazy 1962, 1965a; Balazy & Michalski 1962b, 1964b; Balazy et al. 1977; Capek 1957; Chararas 1958b, 1959d; Gauss 1954a: 423; Hierholzer 1950, 1954a: 329, 1954b: 355; Hirschmann & Wisniewski 1982, 1983; Karpinski 1932a: 95; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 214; Kraemer 1949: 60, 1950l: 354; Krol & Zabecki 1976; Merker 1954b: 210, 1956a: 179, 1965a; Michalski & Ratajczak 1989; Nusslin 1927: 324; Obertel 1957: 186; Pfeffer 1923a: 332, 1955b: 84, 1960: 345; Ruhl 1956b: 4; Schimitschek 1941a: 305, 1950: 29, 1955a: 86, 89; Schwerdtfeger 1944a: 82;

Stolina 1959: 217; Wisniewski 1979b. (hb) Bargmann 1898b, 1899a, 1899c, 1900, 1904, 1906; Braum 1941c; Chararas 1962c: 286, 1965b; Charvat 1950; Coudroy 1981a; Eckstein 1926: 579; Escherich 1923b: 486; Formanek 1899; Grandi 1951; Gyorf 1957; Hierholzer 1949; Kamp 1951c: 158; Karpinski & Strawinski 1948: 157; Kholodkovskii 1912: 318; Knotek 1899a: 19, 1899b: 1, 1901: 565; Kraemer 1949: 49–51, 1950l: 257, 354; Lengerken 1939: 68, 1954: 87; Maksynov 1950: 502; Merker 1960: 3, 1965: 1562–1570; Novak, V., Hrozinka, & Sary 1976: 71; Nusslin 1895: 282, 1927: 324; Orest 1926a: 68; Pfeffer 1941b: 16, 1989a: 73; Postner 1974: 448; Rhumbler 1922: 311, 1927: 325; Schimitschek 1936: 565–602, 1944: 220, 1955a: 86, 89; Schwerdtfeger 1944a: 182, 1981: 193; Stark 1952: 422; Wachtl 1901: 381; Weber, H., 1926: 579. (ds) Androic 1966: 45; Bargmann 1898a; Capek et al. 1957; Charvat 1950; Cho 1957; Choo 1983: 88; Choo & Woo 1985: 165; Endrodi 1958b; Escherich 1923b: 486, 1932b; Georgijevic 1966: 3–48; Grune 1979: 137; Heyden, Reitter, & Weise 1906: 712; Heyrovsky 1927; Horion 1951; Jazentkovsky 1912: 291; Kailidis 1964a, 1966a: 55, 1985; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kamp 1951c; Karpinski 1925: 216, 1926: 83, 1932a: 95, 1948b: 231; Karpinski & Strawinski 1948: 157; Keler 1925b: 275; Kleine 1912a: 268, 1913a: 35, 1913b: 128; Knotek 1899b: 1, 1901: 565; Ko 1969: 279; Kovacevic 1957: 67; Kozikowsky 1921: 181; Kozikowsky & Kuntze 1925: 21; Kudela 1946a: 339; Kurir 1947c: 18; Lucht 1987: 279; Malazgirt 1966: 64; Marcu 1926c: 66; Merker 1956b: 324, 1960; Michalski 1957: 166; Mumford 1960: 37; Murayama 1929b: 2, 1929d: 3, 1929e: 23, 1930b: 16, 1937b: 375; Negrn 1968a: 457; Nunberg 1928b: 88, 115, 1954: 79, 1964a: 236; Nusslin 1895: 282; Orest 1926c: 67–68; Pelekassis 1962; Pfeffer 1924b: 472, 1935: 158, 1960: 345, 1989a: 73; Pierce, W. D. 1917: 79; Pittioni 1943: 175; Pjatnitskii 1930a: 165; Plaza & Gil 1982: 250; Postner 1974: 448; Reitter 1894a: 85, 1897b: 245, 1916: 302; Roubal 1941: 274; Sainte-Claire 1906: 267, 1914: 473; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1246; Schedl 1967c: 72, 1980a: 26, 1981b: 88; Schilsky 1909: 189; Schwerdtfeger 1981: 193; Stark 1927b: 90, 1952: 422; Tredl 1907: 16; Wichmann 1927a: 76. (tx) Balachowsky 1949a: 258; Bargmann 1898b; Charvat 1950; Choo 1983: 88; Endrodi 1957a: 307, 1957b, 1966: 292; Escherich 1923b: 486; Fleischer 1927; Formanek 1907: 44; Fuchs 1911a; Grune 1979: 136–137; Karpinski & Strawinski 1948: 157; Lucht 1987: 279; Murayama 1929: 20–30, 1930b: 16, 1937b: 375; Novak, V., Hrozinka, & Sary 1976: 71; Nunberg 1948: 1–30, 1954: 79; Pfeffer 1932b: 25, 1941b: 16, 1955a: 238, 1989a: pl. 10; Plaza & Gil 1982: 250, 256; Postner 1974: 448; Quaschik 1953: 35; Reitter 1894a: 85, 1897b: 245, 1913a: 103, 1916: 302; Rhumbler 1922: 311,

1927: 325; Schedl 1934f: 1645, 1952f: 87, 1980a: 26, 1981b: 88; Schimitschek 1937c: 58, 1955c: 91; Stark 1952: 422; Weber, L. 1912: 30. (**ms**) Chararas 1959d, 1971a: 853; Eggers 1910a; Escherich 1932b; Sedlaczek 1913: 455; Weber, L. 1912: 30. *curvidens heterodon* Wachtl 1895: 15 (*Tomicus*).

Syntypes ♂ ♀; Niederosterreich; not located. Synonymy: Reitter 1913a: 103, Balachowsky 1949a: 258.

References: (**hb**) Barbey 1901: 2, 26, 94; Bargmann 1898b, 1904; Formanek 1899; Lauffer 1931: 229. (**ds**) Kleine 1913b: 128; Lauffer 1931: 229; Pfeffer 1924b: 472; Reitter 1897b: 243; Schilsky 1909: 189. (**tx**) Balachowsky 1949a: 258; Barbey 1901: 2; Bargmann 1898b; Pfeffer 1932b: 25; Reitter 1897b: 243; Schedl 1934f: 1645; Wachtl 1895: 15.

vorontzowi (Jacobson) 1895: 521 (*Tomicus*). Syn-types, sex?; Polonia Rossica; not located.

Figures: Grune 1979: 138, Pfeffer 1989a: pl. 10, Plaza & Gill 1982: 250, 256.

Distribution: Asia (Turkey), Europe (Austria/ Bulgaria/ Corsica/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Spain/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Abies bornmulleriana*, *A. cephalonica*, *A. pectinata*, *Pinus halepensis*.

References: (**ay**) Escherich 1923b: 486, 610; Fuchs 1911a; Nusslin 1911a: 2. (**bv**) Chararas 1966b; Chararas & Stephanopoulos 1975a; Grune 1979: 139; Harring 1978; Hierholzer 1950, 1951b; Inscoc 1982; Jacobson 1912; Klassen, Ridgway, & Inscoc 1982; Krol & Zabecki 1976; Prell 1931: 366. (**cn**) Capek et al. 1957: 277–284; Chararas 1978; Chorbadzhievo 1929; Eckstein 1926: 579; Escherich 1923b: 486, 610; Gabler 1955; Grandi 1951; Hierholzer 1949, 1951b, 1954a: 329; Kailidis 1964a: 41–54, 1966a: 81–85; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kamp 1950; Kovacevic 1957: 67; Krol & Zabecki 1976; Kuteev 1965, 1967; Maksimovic & Milanovic 1964, 1966; Maksymov 1950: 502; Martin & Cobos 1986; Merker 1954b: 209; Mokrzecki 1928: 273; Muller 1912: 186; Noser 1951: 106, 1952b: 96; Nusslin 1913: 206, 269; Pierce, W. D. 1917: 79; Pjatnitskii 1932: 295–302; Regula 1955: 133; Rhumbler 1922: 311, 1927: 325; Schimitschek 1932a: 23, 1937b: 9, 1937c: 59, 1938c: 2112, 1939d: 2112, 1944: 220, 1949c: 15, 1950: 58, 1952c: 60, 1955a: 84, 86, 1955c: 91, 1956: 342; Schwerdtfeger 1944a: 182, 1957a: 188; Sedlaczek 1921: 335, 1933: 307; Slander 1948: 10; Thadenhorst 1950: 90; Tomic 1957: 207–210; Vorontzov 1968; Wachtl 1901: 381; Wardle 1929: 325; Weber, H. 1926: 579; Wohlmann 1936: 41; Zwolfer 1949: 400. (**cc**) Apfelbeck 1916b: 429–439; Balazy 1962; Balazy & Michalski 1962b, 1964b; Bonceac 1958; Capek 1957; Chararas 1958b; Gaus 1954a: 423; Graham 1969: 880; Hierholzer 1950, 1954a: 329,

1954b: 385; Hirschmann & Wisniewski 1982, 1983; Karpinski 1932a: 95; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 214; Kraemer 1949: 60, 1950b: 355; Krol & Zabecki 1976; Majewski & Wisniewski 1978a: 9; Merker 1954b: 209; Michalski & Ratajczak 1989; Nosek 1951: 106, 1952b: 96; Nuorteva 1957b: 52, 1959d: 193; Nusslin 1927: 324; Obertel 1957: 186; Pfeiffer 1955b: 85, 1960: 345; Popovic 1931: 57; Ruhm 1956b: 4; Scheidter 1936: 236; Schimitschek 1950: 58, 1955: 84, 86; Schwerdtfeger 1944a: 182, 1957a: 188; Sedlaczek 1933: 307, 1935a: 163; Thompson, W. R. & Simmonds 1964: 25, 1965: 69; Tudor 1969: 32; Wisniewski 1979b, 1980. (**hb**) Apfelbeck 1916b, 1917; Bargmann 1898b, 1899a, 1899c, 1900, 1904, 1906; Braun 1941c; Chararas 1962c: 289; Charvat 1950; Chorbadzhievo 1929; Coudroy 1981a; Eckstein 1926: 579; Escherich 1923b: 486, 610; Formanek 1899; Gabler 1955; Grandi 1951; Gyorf 1957; Hierholzer 1949; Kamp 1951c; Karpinski & Strawinski 1948: 157; Knotek 1899a: 19, 1899b: 1, 1901: 565; Kraemer 1950b: 355; Lengerken 1939: 36, 1954: 87; Maksymov 1950: 502, 508; Masutti 1964; Nunberg 1929c: 123; Nusslin 1898: 282, 1913: 206, 269, 1927: 324; Pfeffer 1941b: 16, 1989a: 73; Postner 1974: 448; Prell 1931: 366; Reh 1900a: 94; Rhumbler 1922: 311, 1927: 325; Scheidter 1936: 236; Schimitschek 1944: 220, 1955a: 84, 86; Schwerdtfeger 1944a: 182, 1957a: 188, 1981: 193; Sedlaczek 1921: 335, 1935a: 163; Spessitvsev 1913a: 78; Stark 1952: 423; Szujeci 1955: 242; Tschorbadjiev 1929: 173; Wachtl 1901: 381; Weber, H. 1926: 579. (**ds**) Barthe 1896; Borchert 1951; Buresh & Lazarov 1956; Capek et al. 1957; Charvat 1950; Chorbadzhievo 1929; Csiki 1914; Dzhanbazishvili 1961: 751–757, 1962; Endrodi 1957a: 307, 1958b; Escherich 1923b: 486, 610, 1932b; Grune 1979: 139; Hennig 1954: 257; Heyden, Reitter, & Weise 1906: 712; Horion 1951; Jacentkovsky 1939: 77; Jacobson 1895: 521; Jazentkovsky 1912: 291; Kailidis 1964a, 1966a, 1966b: 55, 1985; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kamp 1951c; Karpinski 1925: 216, 1926: 83, 1931: 20, 1932a: 95, 1948b: 231; Karpinski & Strawinski 1948: 157; Keler 1925b: 275; Kleine 1912a: 263, 268, 1913a: 35, 1913b: 128; Knotek 1899b: 1, 1901: 565; Kono 1951: 159; Kovacevic 1957: 67; Kozikowsky 1921: 181; Kraemer 1948: 133, 1949: 49–51, 1950: 356; Kudela 1946a: 339; Kurir 1947c: 18; Langhoffer 1915c: 158; Lucht 1987: 279; Michalski 1957: 166; Miller 1958: 33–143, 145–229; Mokrzecki 1928: 273; Negru 1966b: 403; Novak, P. 1964; Nunberg 1928b: 88, 115, 1954: 79; Nusslin 1898: 282; Pfeiffer 1924b: 472, 1935: 158, 1947d: 129, 1950b: 75, 1960: 345, 1989a: 73; Pierce, W. D. 1917: 79; Pittioni 1943: 175; Plaza & Gil 1982: 250; Postner 1974: 448; Reitter 1897b: 244, 1916:

302; Roubal 1941: 274; Ruskov 1928c: 62; Sainte-Claire 1914: 474; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1246; Schedl 1961b: 184, 1967c: 72, 1980a: 26, 1981b: 88; Schilsky 1909: 188; Schimitschek 1927: 159, 1938c: 2112; Scherwdt-feger 1981: 193; Stark 1952: 433; Szujecki 1955: 242; Tredl 1907: 16; Tschorbadjev 1929: 173; Wanka 1920: 202–203; Wichmann 1927a: 76; Zivojinovic 1950: 299–310. **(tx)** Balachowsky 1949a: 259; Bargmann 1897, 1898b, 1899: 36; Charvat 1950; Eggers 1923: 218; Endrodi 1957a, 1957b; Escherich 1923b: 486, 610; Fleischer 1927; Formanek 1907: 44; Fuchs 1911a; Gabler 1955; Grune 1979: 138–139; Hopping 1963b: 63; Jacobson 1895: 521; Karpinski & Strawinski 1948: 157; Koch 1932: 100; Lucht 1987: 279; Michalski 1969b: 570; Negru 1966b: 403; Nunberg 1929c: 123, 1948: 1–30, 1954: 79; Nusslin 1911a: 2; Pfeffer 1932b: 251, 1941b: 16, 1955a: 236, 1989a: pl. 10; Plaza & Gil 1982: 250, 256; Portevin 1935: 336; Quaschik 1953: 35; Reitter 1897b: 244, 1913a: 103, 1916: 302; Rhumbler 1922: 311, 1927: 325; Schedl 1934f: 1645, 1952f: 87, 1980a: 26, 1981b: 88; Schimitschek 1937c: 59, 1955c: 91; Spessivtsev 1913a: 78, 1931: 76; Stark 1952: 423; Weber, L. 1912: 30. **(ms)** Chararas 1971a: 853; Eggers 1910a; Escherich 1932b; Reh 1900a: 94; Sedlaczek 1913: 455; Vorontsov 1968; Weber, L. 1912: 30.

Genus *Orthotomicus* Ferrari

ORTHOTOMICUS FERRARI 1867a: 44. Type-species: *Bostrichus laricis* Fabricius, subsequent designation by Hopkins 1914: 126.

Neotomicus Fuchs 1911: 33. Type-species: *Bostrichus laricis* Fabricius, subsequent designation by Hopkins 1914: 125. Synonymy: Swaine 1918a: 121.

References: **(tx)** Balachowsky 1949a: 268; Endrodi 1957: 419; Fuchs 1911: 33; Spessivtsev 1931: 50; Swaine 1918a: 121.

Keys: Balachowsky 1949a: 268, Reitter 1913a: 108, Stark 1952: 407 for Europe, Yin, Huang, & Li 1984: 138 for China, Nobuchi 1974: 42 for Japan.

Notes: (1) Ferrari 1867a: 44 (Original spelling of *Orthotomicus*, lapsus calami, corrected in Ferrari 1869: 256).

References: **(ay)** Lanier 1965: 175; Nobuchi 1969a: 65; Nunberg 1926: 51–59. **(hb)** Wood, S. L. 1986a: 68. **(ds)** Tragardh 1930: 468–480; Trappen 1935: 143; Wood, S. L. 1986a: 68; Yin, Huang, & Li 1984: 136. **(tx)** Balachowsky 1949a: 268; Browne 1961c: 81–82; Chamberlin 1939: 435–439; Dodge 1938: 19; Eggers 1931c: 186, 1932: 33; Endrodi 1957: 419; Ferrari 1867a: 44, 1869: 256; Hopping 1963b: 61; Karaman 1972: 156–158; Kostin 1973: 269; Krivolutskaya 1956: 183; Nobuchi 1974: 42; Pfeffer 1989a: 77; Prell 1929: 90–91; Schedl 1958k: 145; Wood, S. L. 1951b: 32, 1982b: 662–664, 1986a: 68; Yin, Huang, & Li 1984: 136.

angulatus (Eichhoff) 1875: 200 (*Tomicus*). Syn-types, sex²; Japan; IRSNB, Brussels.

Figures: Nobuchi 1966d: pl. 6, 1974: pls. 1–2.

Distribution: Asia (Cambodia/ Fujian, Yunnan in China/ Japan/ Korea/ Rynkyu Islands/ Taiwan).

Hosts: *Tsuga sieboldii*, *Pinus densiflora*, *P. luchuensis*, *P. parviflora*, *P. thunbergiana*, *Cryptomeria japonica*, *Chamaecyparis obtusa*.

References: **(ay)** Sasakawa & Yoshiyasu 1953. **(cn)** Anonymous 1980g; Godha et al. 1964; Murayama 1954a: 8. **(ce)** Choo, Kaya, & Shea 1989; Ho, Kaya, & Shea 1989. **(ds)** Anonymous 1980g; Bain 1974: 16; Blandford 1894c; Browne 1984a: 151; Choo 1983: 99; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1983: 175; Hagedorn 1910d: 48; Kleime 1913b: 127, 1934a: 150; Krivolutskaya 1983; Murayama 1934d: 505, 1948: 2, 1949a: 13, 1950b: 1294, 1951c: 4, 1954a: 8, 1954b: 170, 1955: 99, 102; Nobuchi 1966d: 37, 1967: 24, 1974: 43; Nohira & Ogawa 1986; Pfeffer 1935: 159. **(tx)** Choo 1983: 88; Eggers 1941b: 222, 1944: 143; Eichhoff 1875: 200; Hagedorn 1910a: 103; Murayama 1934: 505–512, 1950b: 1294, 1954b: 170, 1955: 99, 102; Nobuchi 1966d: 37, pl. 6, 1969b: 37, 1974: 43–44, pl. 1, 2; Schedl 1934f: 1644; Sokanovskii 1954: 19, 1959b: 93, 94.

caelatus (Eichhoff) 1868a: 402 (*Tomicus*). Syn-types, sex²; Pennsylvania, Carolina [USA]; IRSNB, Brussels.

Figures: Bright 1976d: 146, 149, Dillon & Dillon 1961: 501, 513, Evans 1983: 34, Kusch 1967: 9.

Distribution: Africa (introduced into South Africa), North America (Alaska/ all provinces in Canada/ Alabama, Arkansas, California, Colorado, Connecticut, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Pinus* spp., *Picea* spp., *Larix* spp.

References: **(ay)** Hopkins 1894g; Thomas, J. B. 1957: 4, 1967. **(bv)** Atkinson, Foltz, & Connor 1988; Baker, Hostetter, & Furniss 1977: 293; Clemens 1916; Furniss, M. M. & Livingston 1979: 371; Inscoc 1982; Phillips, Atkinson, & Foltz 1989: 385–398; Provancher 1877: 567; Roling & Kearby 1975b; Turnbow & Franklin 1980. **(cn)** Anonymous 1965i, 1968g, 1968k, 1969h; Becker 1959b, 1962, 1964a, 1964c; Becker, Abbott, & Rick 1956: 664; Beckwith 1972; Bess 1944: 14–16; Blackman 1950; Brown, R. M. & Winter 1981; Browne 1968b: 491; Chenier & Philogene 1989a; Clemens 1916; Craighead & Swaine 1924: 1–27; Doane et al. 1936; Felt 1901: 488–490, 1906: 354, 1926: 267, 248; Felt & Bromley 1942: 169–171; Furniss,

- M. M. 1981; Griffin 1966: 1047–1048; Hetrick 1942: 181–183; Hewitt 1914: 501–518; Hopkins 1899c: 341, 423, 446, 1902c: 12; Keen 1952c: 154; Kondo & Taylor 1985; Lindgren 1980a: 66; Lindquist, O. H. & Syme 1981: 78; Martin, J. L. 1964, 1965: 40–43; Morley 1939: 243–248; Packard 1890: 706; Pierson 1927: 80; Rodary 1959: 852; Ruppel 1967: 71; Schenk et al. 1957a: 840; Schooley & Pardy 1981; Smith, J. B. 1900: 363; Stein, J. D. & Kennedy 1972: 99; Swaine 1913: 89, 1918a: 121; Syme & Nystrom 1988: 75; Thomas, J. B. 1965a; Verrall 1941: 549–558; Wong, H. R. & Melvin 1973. (ce) Ashmead 1894; Ashraf & Berryman 1969: 13; Bedard 1933a; Blackman & Stage 1918; Burks 1979: 824; Bushing 1965: 462; DeLeon 1934a, 1934b; Deyrup & Gara 1978: 275; Felt 1906: 354; Frederick, Sloan, & Skowron 1976; Furniss, R. L. & Carolin 1977: 398; Galford 1969b; Griffin, H. D. 1966, 1968; Grissell 1979: 765; Grunwald 1986; Heqvist 1959: 181; Hopkins 1908a; Houser 1931: 657; Lindquist, E. E. 1969c; Lindquist, E. E. & Hunter 1965; Marsh 1979: 158; Matthews 1970; Morley 1939: 244; Powell, J. M., Wong, & Melvin 1972: 15; Reid 1957b: 6; Richerson, J. W. & Borden 1972a; Rodary 1959: 852; Schenk et al. 1957a: 840; Smerlis & Finnegan 1981; Thomas, J. B. 1955: 341; Thompson, W. R. 1943: 58; Thompson, W. R. & Simmonds 1964: 23, 1965: 113; Tomalak, Welch, & Galloway 1989b: 1; Werner & Holsten 1984; Woodring 1966c: 125. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 263; Beal & Massey 1945: 146–147; Blackman 1919a, 1922b: 115–118, 1950; Blackman & Stage 1918; Blandford 1894b; Bright 1976d: 149; Bright & Stark 1973: 82; Browne 1968b: 491; Chamberlin 1939: 437, 1958: 182–183; Chittenden 1890, 1897b, 1899a; Clemens 1916; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 814; Doane et al. 1936; Drake 1921; Drooz 1985: 358; Felt 1906: 354, 1926: 248, 267; Furniss, R. L. & Carolin 1977: 398; Galford 1969b; Hopkins 1894g, 1898b: 21, 1899c: 341, 423, 446; Keen 1952c: 154; Lindgren 1980a: 66; Morley 1939: 244; Ostmark 1968; Packard 1890: 706; Pierce 1907: 291; Pierson 1927: 80; Schwarz 1888a: 80, 1894a: 16; Stein, J. D. & Kennedy 1972: 99; Swaine 1911b: 81, 1912b: 142, 1918a: 121; Wolcott & Montgomery 1933: 167; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 663. (ds) Amman 1969a; Anonymous 1926c: 519, 1938g, 1969h; Ashworth & Brophy 1972: 2984; Ashworth et al. 1981; Bain 1974: 16; Baker, Hostetler, & Furniss 1977: 293; Beal & Massey 1945: 146–147; Beaulne 1956; Beckwith 1972a; Bedard 1938a; Blackman 1922b: 115–118, 1950; Blandford 1894b; Blatchley & Leng 1916: 640; Bright 1971a: 126, 1976d: 149; Bright & Stark 1973; Britton 1920a; Brown, A. W. A. 1934; Brown, R. M. & Winter 1981; Brown, W. J. 1930: 246; Browne 1968b: 491; Chamberlin 1917: 328, 1925, 1939: 437, 1958: 182–183; Chittenden 1890, 1897b, 1899a; DeLeon 1934: 297–317; Deyrup 1981b: 6; Deyrup & Atkinson 1987: 65; Dodge 1938: 15, 51; Drake 1921: 201–205; Drooz 1985: 358; Eidmann 1935; Elias 1982a, 1982b, 1983, 1985: 39; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Fall 1906: 202; Felt 1926: 248, 267, 1930a: 248; Fitch 1858: 716; Furniss & Livingston 1979: 371; Furniss, R. L. & Carolin 1977: 398; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 50; Hamilton 1895: 346, 378; Hatch 1924; Henshaw 1885: 148; Hoffmann 1956: 91, 1966: 91; Hopkins 1893a: 139, 1893b: 212, 1894g: 280, 1899c: 258, 342, 446, 1902c: 12; Hopping, C. 1950a: 3; Houghton 1905; Hubbard & Schwarz 1878a: 666; Keen 1929: 39, 1952c: 154; Kirk 1969, 1970; Kleine 1913b: 127, 1914b: 385, 409, 1934a: 150, 152; Kusch 1967; Lanier et al. 1972: 1919; Leng 1920: 341; Leonard 1928: 520; Lindquist, O. H. & Syme 1981: 78; Miller, R. F. & Morgan 1982; Miller, R. F., Morgan, & Hicock 1985: 500; Morgan, Anne, Morgan, & Elias 1985: 1821; Morgan, A. V. & Morgan 1980: 1110; Ostmark 1968; Patterson & Hatch 1945: 153; Proctor 1946: 208; Provancher 1877: 567; Ruppel 1967: 71; Schedl 1978c: 38; Schwarz 1878d: 468, 1886: 45, 1888a: 80; Schwert et al. 1985; Slosson 1906: 325; Smith, J. B. 1900: 363, 1910: 402; Still, Tidsbury, & Melvin 1974a, 1974b; Susut & Melvin 1974; Swaine 1909: 120, 1911b: 81, 1913: 89; Syme & Nystrom 1988: 75; Thomas, J. B. 1955: 341; Turubown & Franklin 1980; Walker 1912: 60; Werner & Holsten 1984; Wickham 1896a: 309, 1896c: 168; Winter, T. G. 1983: 16; Wolcott & Montgomery 1933: 167; Wood, S. L. 1972a: 418, 1982b: 663. (tx) Beal & Massey 1945: 146–147; Beckwith 1972, 1972a; Benoit 1985: 186; Blackman 1919: 90, 1922b: 115–118; Blandford 1894b: 261; Blatchley & Leng 1916: 640; Bright 1976d: 146, 149, 203, 212; Chamberlin 1939: 437, 1958: 182–183; Clemens 1916; Dillon & Dillon 1961: 801, 813–814; Dodge 1938: 15, 51; Eichhoff 1868a: 402, 1878b: 274, 370; Evans, D. 1983: 34; Hagedorn 1910a: 104; Hopping, C. 1963b: 67; Keen 1929: 39; Kusch 1967: 9; Lanier 1987a: 107; LeConte 1868: 160, 177, 1876: 359–360, 1878a: 468; Lindquist, O. H. & Syme 1981: 78; Pardy 1974, 1977, 1983; Schedl 1957b: 151; Schwarz 1878: 468, 666, 1886: 41, 45, 1888: 47, 80, 1894: 16, 27; Swaine 1909: 120, 1913: 87–92, 1916b: 185, 1918a: 121–122; Syme & Nystrom 1988: 75; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 97; Wood, S. L. 1972a: 418, 1973: 179, 1982b: 663; Zimmermann 1868: 146. (ms) Chenier & Philogene 1989a; Eckstein 1900c; Swaine 1912b: 142.
- decretus* Eichhoff 1868a: 402 (*Tomicus*). Lectotype ♀; New Orleans, Louisiana [USA];

IRSNB, Brussels, designated by Wood 1982b: 663. Synonymy: LeConte 1868: 177.

References: (cc) Hopkins 1908a: 18. (ds) Hagedorn 1910d: 53; Kleine 1913b: 127; Leng 1920: 341; Swaine 1909: 122. (tx) Eichhoff 1868a: 402, 1878b: 272; Hagedorn 1910a: 104; LeConte 1868: 177; Swaine 1909: 122, 1918a: 122.

vicinus LeConte 1874a: 72 (*Xyleborus*). Holotype ♀; British Columbia [Canada]; MCZ, Cambridge. Synonymy: Wood 1973c: 179.

References: (ay) Robertson 1961. (cn) Keen 1952c: 154; Schuder 1969: 76; Smith, C. J. & Melvin 1974b; Swaine 1918a: 121–122. (ce) Reid 1955: 312. (hb) Baker, W. L. 1972: 263; Chamberlin 1939: 438, 1958: 183; Keen 1952c: 154; Kinghorn 1960b: 50; Reid 1955: 312–319; Swaine 1918a: 121–122. (ds) Chamberlin 1925, 1939: 438, 1958: 183; Dodge 1938; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Gantreau & Melvin 1974: 14; Henshaw 1882: 269; Hopping 1922; Keen 1929: 39, 1952c: 154; Kleine 1934a; Leng 1920: 341; Patterson & Hatch 1945: 153; Schuder 1969: 76; Smith, C. J. & Melvin 1974b; Smith, C. S. 1930; Still, Tidsbury, & Melvin 1974a: 14; Susut & Melvin 1974; Swaine 1909: 120, 1919b: 9. (tx) Chamberlin 1939: 438, 1958: 183; Dodge 1938: 51–52; Evans, D. 1983: 34; Fall 1926: 208; Keen 1929: 39; LeConte 1874a: 72, 1876: 360; Swaine 1909: 120, 1918a: 121–122, 1919b: 9; Wood, S. L. 1973c: 179.

punctipennis LeConte 1878b: 624 (*Xyleborus*). Holotype ♀; Marquette, Michigan [USA]; MCZ, Cambridge. Synonymy: Wood 1973c: 179.

References: (cn) Easterling 1934: 129–146; Swaine 1918a: 121–122. (ce) Bushing 1965: 462. (hb) Chamberlin 1939: 438; Swaine 1918a: 121–122. (ds) Anonymous 1926c: 519; Blatchley & Leng 1916: 636; Chamberlin 1939: 438; Easterling 1934: 129–146; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666, 1878b: 624; Leng 1920: 341; Leonard 1928: 520; Schwarz 1886: 42; Swaine 1909: 133. (tx) Blatchley & Leng 1916: 636; Chamberlin 1939: 438; Eichhoff 1896: 609; LeConte 1878b: 624, 666; Schwarz 1886: 42; Swaine 1909: 133, 1918a: 121, 121; Wood, S. L. 1973c: 179.

golovjankoi Pjatnitskii 1930b: 179. Syntypes, sex?; Far East: Siberia; not located.

Figures: Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 1–3, Yin, Huang, & Li 1984: 143.

Distribution: Asia (Heilongjiang, Jilin in China/ Japan/ Sakhalin Island, Siberia in E USSR).

Hosts: *Picea excelsa*, *P. glehnii*, *P. jezoensis*, *P. koraiensis*, *P. microsperma*, *Pinus densiflora*, *P. koraiensis*, *P. thunbergiana*.

Notes: (3) Pjatnitskii 1930: 182 (named aberration *quadridens*, no status), Sokanovskii 1954: 19

(incorrectly treated this species as a synonym of *angulatus* Eichhoff).

References: (cn) Anonymous 1980g; Florov 1949: 124; Inouye 1949a: 18, 1949b, 1955; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 189. (cc) Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 74; Kamijo 1981; Kurenzov 1934a: 53; Nishiguchi 1959: 271. (hb) Inouye et al. 1955: 74; Kurenzov 1935a: 43, 1948b: 100, 1950d: 217; Stark 1952: 418; Wang 1982. (ds) Anonymous 1980g; Inouye 1949b; Kleine 1934a: 152; Kono 1938b: 65, 70; Kono & Tamamuki 1939: 95; Kurenzov 1934a: 53, 1935a: 43, 1935c: 189, 1936a: 111, 1936b: 350, 1938a: 59, 1950: 217; Nakane et al. 1963: 383; Nobuchi 1974: 44; Pfeffer 1935: 159; Sawamoto 1940b: 141, 146; Stark 1952: 418; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 142. (tx) Kurenzov 1941a: 211–212, 1948b: 100, 1950d: 217, 1959: 217; Nakane et al. 1963: 383, pl. 192; Nobuchi 1974: 44, pl. 1–3; Pjatnitskii 1930b: 179–182, 1932: 173–179; Sawamoto 1940b: 141–148; Schedl 1934f: 1645, 1941a: 42, 1953e: 22; Sokanovskii 1954: 19, 1959b: 93, 94; Stark 1952: 418.

kuniyoshii Nobuchi 1959c: 23 (*Ips*). Syntypes, sex?; Kitanakagushiku, Ryuku Islands, Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1974: pls. 1–2.

Distribution: Asia (Okinawa in Ryukyu Islands).

Hosts: *Pinus luchnensis*.

References: (ds) Nobuchi 1974: 45. (tx) Nobuchi 1959c: 23, 1974: 45, pl. 1, 2.

laricis (Fabricius) 1792: 365 (*Bostrichus*). Syntypes 8, sex?; Germaniae; UZMC, Copenhagen.

Figures: Balachowsky 1949a: 270, Barbey 1925: 239, Bevan 1987: 114, Grune 1979: 144, Joly 1976b: 177, 246, Nobuchi 1974: pls. 1–3, Pfeffer 1989: pl. 22, Plaza & Gil 1982: 241, 243.

Distribution: Africa (Algeria/ Morocco), Asia (Hebei, Shanxi in China/ Japan/ Korea/ Thailand/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Ireland/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), South America (introduced: Chile).

Hosts: *Pinus* spp., *Picea* spp., *Larix europea*.

Notes: (3) Sturm 1826: 102 (named *denticulatus*, nomen nudum, no status, synonymy in Sturm 1843: 230).

References: (ay) Bugnion 1887b; Chararas 1977b; Escherich 1923b: 487, 542; Feytaud 1950a; Fuchs 1911a; Leisewitz 1906: 91; Numburg 1926: 51; Scherb 1971; Sedlaczek 1902b: 244; Wichmann 1912a: 10. (bv) Bakke 1971b; Chararas 1973a, 1976b, 1977b; Grune 1979: 145; Kevdina 1897: 108; Luitjes 1976; Meixner 1937: 217; Naumann-

- Etienne 1978a; Nuorteva 1956c: 23; Prell 1930c: 635, 1931: 364; Rozhkov 1970: 155; Wichmann 1912a: 10. **(cn)** Anonymous 1979p; Barbey 1906a, 1925: 239; Bielousov 1917: 334–337; Blandford 1892a; Borodajewskii 1930: 805–811; Browne 1968b: 491; Chararas 1961b: 69, 1978; Chorbadzhievo 1929; Eckstein 1926: 574, 579; Egorov 1958: 1492; Eidmann & Klingstrom 1976: 240; Escherich 1917: 97–115, 1923b: 487, 542; Esterberg 1959; Feytaud 1946, 1950a, 1950b; Fisher 1937c; Fleischer 1877a; Funke 1870; Gabler 1955; Georgescu et al. 1957: 357, 449, 454; Gois 1944; Grandi 1951; Gusev 1928: 144; Gyorfı 1946: 193, 195, 1959; Hanson, H. S. 1937, 1940a; Hartig 1861: 324, 1877: 190; Hess 1898: 352, 1907: 251; Hess & Beck 1914: 280, 1927: 336; Jaensch 1938: 48; Joly 1976; Judeich 1886: 67; Kauschinger 1893: 144; Keller 1903b: 48; Kholodkovskii 1912: 314; Kirchner 1860: 91; Koch 1913: 93; Kollar 1840: 362; Komarek et al. 1931: 1–256; Koppen 1882: 236; Kovacevic 1924: 21–22; Kurenzov 1935c: 189; Laidlaw 1947: 53; Lekander, M. 1951: 108; Lichtenstein & Picard 1919: 62–64; Mamaev 1929: 134–142; Marcu 1926c: 67; Marie 1924: 328–330; Mokrzecki 1933: 284; Mostovsky 1923: 287–288; Muller 1912: 186; Nosek 1951: 107, 1952b: 96; Nusslin 1913: 269; Packard 1890: 714; Pfeffer 1949b: 150, 1950c: 1; Polozhentsev 1926: 1–5; Pomocnicze 1876: 157; Rhumbler 1922: 311, 1927: 325; Saalas 1949: 344, 395; Sajevc 1928: 330; Schimitschek 1937c: 59, 1938b: 116, 1947g: 191, 1955a: 66, 1955c: 92, 1961a: 154; Schmidt 1881: 34; Schuster 1918: 102; Schwerdtfeger 1944a: 176, 1957a: 183; Shiraki 1952; Titova 1966; Tragardh 1917: 11, 1921e: 64; Wachtl 1901: 379, 381; Weber, H. 1926: 574; Wichmann 1927b: 376; Wilke 1931: 641; Wolff 1920: 233; Wolff & Krause 1922: 104, 107; Zarco 1946a: 251; Zhang et al. 1958: 29. **(ec)** Apfelbeck 1916b; Balazy & Michalski 1960, 1964b; Barbey 1906a, 1927; Belanowskii 1930; Branmanis 1938, 1940; Chararas 1959a; Cooreman 1963: 46; Elliot & Morley 1907; Fleischer 1877a; Francke-Grosman 1931; Gaulle 1906: 237; Grossmann 1931a; Gyorfı 1941b, 1943: 84; Heqvist 1963: 155, 1967: 70; Hirschmann 1960, 1971a, 1971b: 39; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zirngiebl-Nicol 1961; Jahn & Sinreich 1960b; Jakaitis & Valenta 1976: 12; Jannicky 1957c; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 214, 1909a: 48, 76, 1944: 69; Korenchenko 1980a, 1987b; Kostenko 1929; Kostin 1964: 125; Krause 1917: 123; Lazarevskaya 1962; Lnitjes 1976; Lundberg 1984; Meyer 1918: 178; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Nosek 1951: 107, 1952b: 96; Nnberg 1930: 201; Nuorteva 1956a: 16, 1957b: 68, 1971: 70; Nusslin 1927: 324; Palmien 1944: 60, 1946: 195; Perris 1852: 497, 1856a: 184; Pfeffer 1923a: 332, 1932a: 11, 1949b: 147, 1950c: 1, 1957a: 196; Poinar 1972, 1975: 162; Purrini & Weiser 1985: 66; Ratzeburg 1869a: 59, 94; Rondani 1873: 140, 1876: 55; Roubal 1934a: 87; Rudnev 1926: 32–69; Ruhm 1956b: 4, 1960: 203; Saalas 1917a: 18, 1930: 118, 1949: 344, 395; Scheucher 1959: 263; Schimitschek 1930a: 329, 340, 1955a: 66; Schuster 1918: 102; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlacek 1935a: 157, 163; Sitowski 1930: 2; Stora 1938: 20; Tenkacova & Mituch 1987; Thompson, W. R. 1943: 59; Thompson, W. R. & Simmonds 1965: 27; Titova 1966; Vitzthum 1923: 165, 1926: 462; Westerboer 1963: 377; Wiackowski 1957a: 71; Wichmann 1958: 230; Wilke 1931: 641; Wisniewski 1979c: 5, 1980; Woodring 1966b: 106; Zmur 1985b. **(hb)** Altum 1881c: 300, 1883c, 1884; Apfelbeck 1916b; Bach 1864; Barbey 1901: 24, 91, 1925: 239; Bargmann 1906; Beaver & Browne 1975: 292; Boffa 1949, 1961; Binzer 1881a; Boas 1923: 354; Borodajewsky 1929b; Browne 1968b: 491; Budge 1949; Budkov 1897; Bugnion 1887b; Bukowsky 1930; Chararas 1961b: 69, 1962c: 365, 1977b; Charvat 1950; Chittenden 1890; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Drugescu 1980; Eckstein 1889, 1897, 1926: 574, 579; Eichhoff 1881a: 50, 239; Escherich 1923b: 487, 542; Everts 1900, 1903: 764; Feisthalm 1835; Feytaud 1946, 1950a; Fleischer 1877a; Fuchs 1904a, 1907: 48; Furst 1888: 112; Gabler 1955; Girard 1873; Gois 1944; Gomostaev 1916: 312; Grandi 1951; Gyorfı 1957; Hagedorn 1903a; Hartig 1861: 324, 1877: 190; Henschel 1876a: 44, 238, 1880b: 257, 1885b, 1894, 1895a: 184; Hess 1898: 352; Hess & Beck 1914: 280, 1927: 336; Holmgren 1867: 113, 134; Husson & Stauder 1954: 357; Jaensch 1938: 48; Joly 1976, 1976b; Judeich 1886: 67; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Karsch 1883: 141; Kauschinger 1883: 105, 1893: 144; Kholodkovskii 1889: 267, 1912: 314; Kleiber 1930: 183; Kleime 1908a: 98; Knotek 1894a: 558; Kollar 1840: 362, 1857: 188; Kostin 1960: 136; Krivolutskaya 1956: 837, 1960, 1973: 142; Kurenzov 1935a: 44, 1948b: 105, 1950d: 235; Kurenzov & Kononov 1961: 601; Lengerken 1939: 35, 1954: 93; Louzil 1961: 45; Luitjes 1976; Lmardoni & Leonardı 1889: 470; Michalski 1959a: 291; Milani 1894: 142; Munro 1926: 70; Naumann-Etienne 1978a; Nordlinger 1856: 18; Nuorteva 1956c: 23; Nusslin 1898: 282, 1906b: 18, 1913: 269, 1927: 324; Opanasenko & Kononcnko 1966; Packard 1890: 714; Perris 1852: 497, 1856a: 184; Petrenko 1966; Pfeffer 1941b: 6, 1941c: 5; Postner 1974: 450; Prell 1930c: 635, 1931: 364; Ratzeburg 1837: 131, 1839: 158, 188; Rhumbler 1922: 311, 1927: 325; Rimski-Korsakov et al. 1949: 288; Rozhkov 1970: 155; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 68, 90, 1949: 344, 395; Schedl 1981b: 87; Schimitschek 1930a: 329, 340, 1955a: 66; Schmidt 1881: 34; Schwerdtfeger 1944a: 176, 1957a: 183, 1981: 189; Sedlacek

- 1935a: 157, 163; Spessivtsev 1913a: 84; Stark 1952: 417; Taschenberg 1880: 220, 228; Tragardh 1914: 100, 1921c: 64; Tschorbadjiev 1929: 176; Wachtl 1876a: 455, 1901: 379, 351; Weber, H. 1926: 574; Weidenbach 1845: 117; Wichmann 1927b: 376; Wolff 1920: 233; Wolff & Krause 1922: 104, 107. (ds) Aeloque 1896; Allen, A. 1951b; Ammann & Knabl 1913; Andersch 1851; Anonymous 1979p; Atkinson 1921; Audras & Schaefer 1957; Balachowsky 1944b; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Beaver & Browne 1975: 292; Beck 1817; Bedel 1888b: 401, 417; Beffa 1949; Bejer-Petersen & Jorum 1977: 32; Belousov 1916, 1917: 335; Bielz 1887; Bielz & Hampe 1853; Blanchere & Robert 1889; Boas 1923: 354; Borchert 1951; Brakman 1966b: 207; Brancsik 1871, 1906; Browne 1968b: 491, 1980d: 493; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1963; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Ceconi 1897; Champion 1927: 173–174; Chapuis & Candeze 1853; Chararas 1961c: 95; Charvat 1950; Chittenden 1890; Cho 1957; Choo 1983: 89; Choo, Woo, & Park 1983: 176; Chorbadzhievo 1929; Chrystal 1937; Crotch 1863; Debatisse 1945; Dejean 1821, 1825, 1837; Donisthorpe 1931: 122, 1933b; Duftschmidt 1825; Eder 1934; Eggers 1904; Endrodi 1958b, 1986: 217; Ericson & Sandin 1893; Ermisch 1953; Escalera 1919; Escherich 1923b: 487, 542, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 645, 1925; Eyquem 1891; Fauvel 1885; Favre 1890; Fleischer et al. 1923; Forster 1849: 439; Fowler 1891; Frey 1937; Fricken 1889: 345; Friederichs 1919; Fuchs 1904a, 1905a, 1907: 48; Fuss 1853; Gaubil 1849: 126; Gobang 1855: 745; Gornostaev 1917: 308–315; Guillard 1962: 113; Gozis 1875: 80; Gredler 1866: 374; Greyzer 1851; Grill 1895: 310; Grune 1979: 145; Gyllenhal 1827: 620; Gyorfi 1941b; Hagedorn 1903a, 1910d: 55; Hallett 1923a, 1923c; Hansen, V. 1939, 1956, 1964: 465; Heinemann 1908a; Hellen 1947; Hennig 1954: 261; Henschel 1895a: 184; Hess 1907: 251; Heyden 1876: 300, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Hickin 1963; Hlawa 1870; Hoffmann 1936: 41; Holmgren 1867: 113, 134; Horion 1951; Ihssen 1939: 336; Jammicky 1960a; Jazentkovsky 1912: 291; Joly 1976; Kadyrov 1988: 43, 1989; Kalshoven 1958b: 173; Kaltenbach 1874: 685; Karpinski 1925: 217, 1926: 83, 1931: 36, 1933b: 38; Karpinski & Strawinski 1948: 157; Keler 1925b: 274; Keran 1949: 30; Kersten 1933: 76; Kestercanek 1881a: 12; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 262, 264, 268, 1913a: 35, 1913b: 128, 1914b: 248–249, 257, 1934a: 151; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558; Ko 1969: 279; Koltze 1901: 153; Kono 1938: 65; Koppen 1882: 236; Koschitsky 1900: 83; Kostenko 1929; Kotula 1873b: 80; Kraatz 1869: 59; Krivolutskaya 1956: 837, 1960, 1965: 241, 1973: 142, 1983; Kurenzov 1935a: 44, 1935c: 189, 1936b: 350, 1938a: 59, 1951b: 20; Kurenzov & Kononov 1961: 595, 601; Kurir 1947: 7; Lacordaire 1866: 383; Langhoffer 1915c: 158; Leclercq 1971; Lantz 1857: 139; Liegel 1886: 43; Lindberg & Saris 1952: 59; Lindemann 1884b: 264; Lokaj 1865: 64; Lomnicki 1886a: 243; Loos 1913: 411; Lucht 1987: 279; Lunardoni & Leonardi 1889: 470; Lundberg 1979: 31; Lundblad 1950c: 117; Mandl 1931: 25; Marcu 1926c: 67; Matthews & Fowler 1883: 42; Mequignon 1936: 15; Michalski 1957c: 168; Moragnes 1889: 32; Munro 1921: 88, 1926: 1–77; Munster 1928: 291; Murayama 1929b: 2, 1929c: 23, 1929d: 4, 1930b: 16, 1936b: 115, 1937b: 374, 1939: 142, 1940a: 232, 1942a: 56, 1949a: 13, 1954b: 201; Murray 1853: 60; Negru 1966b: 404, 1968a: 457; Nobuchi 1974: 45; Nohira & Ogawa 1986; Numborg 1927a: 215, 1928b: 88, 119, 1954: 83; Nuorteva 1971: 65; Nusslin 1898: 282; Orest 1926c: 67; Pacher 1865: 152; Palmen 1944: 60, 1946: 195; Penecke 1927: 235; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 472, 1931b: 74, 1935: 158, 1947e: 2, 1950b: 73, 1984: 277, 1989a: 80; Plaza & Gil 1982: 241; Pomerantzev 1907b: 494; Poppius 1900: 108; Postner 1974: 450; Rapp 1934: 732; Ratzeburg 1837: 131, 1839: 158, 188; Redtenbacher 1858: 834, 1874: 377; Reitter 1869b: 154, 1894a: 84, 1916: 305; Rimski-Korsakov et al. 1949: 288; Rosenhauer 1856: 302; Roubal 1910: 204, 1936b: 193, 1941: 273; Rozhkov 1970: 155; Rudnev 1958: 372; Saalas 1913a: 68, 90, 1917a: 18, 1930: 118, 1931: 68; Saint-Albin 1949: 2; Sainte-Claire 1914: 473; Sainte-Claire & Mequignon 1938: 449; Schaschl 1854: 133; Schaufuss 1915: 1250; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1967c: 72, 1971d: 429, 1971f: 147, 1980a: 26, 1981b: 87; Schilsky 1909: 188; Schimitschek 1938b: 116; Schiodte 1873: 102; Schwerdtfeger 1981: 189; Seidlitz 1872: 396, 1891b: 612; Sharp & Fowler 1893: 35; Shiraki 1952; Siebke 1875: 284; Sparre-Schneider 1889: 61; Stark 1926b: 105, 1926j: 127, 1931a: 28, 1931d: 552, 1952: 417; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 145, 1830: 357, 1839: 207; Stierlin 1898: 445; Stierlin & Gautard 1871: 293, 1906: 206; Strand 1946: 604; Strauch 1861: 122; Sturm 1826: 102, 1843: 230; Thomson 1865: 365, 1868: 222; Tragardh 1914: 100, 1917: 1–28, 1919: 237–248; Tredl 1907: 16; Tschorbadjiev 1929: 176; Villa & Villa 1833: 26; Wachtl 1876a: 455; Wessel 1877: 391; Westhoff 1882: 239; Wichmann 1927a: 79; Wiepken 1883: 89; Wilke 1931: 641; Winter, T. G. 1983: 16; Wiren 1945: 43; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 411; Yin, Huang, & Li 1984: 141; Zetterstedt 1828: 345, 1840: 192; Zinovjev 1955: 187; Zoufal 1920: 21. (tx) Aeloque 1896; Altman 1844; Bach 1854, 1864; Balachowsky 1944b, 1949a: 273; Barbey 1901: 24, 91; Bechstein 1818: 74, 186; Bedel 1888b: 401, 417; Beffa

- 1949, 1961; Bertolini 1872; Bevan 1987: 114; Boas 1923: 354; Brancsik 1871; Calwer 1858; Ceballos 1945; Chapuis & Candeze 1853; Charvat 1950; Choo 1983: 89; Dejean 1821, 1825; Dombrowsky 1887, 1892; Duffy 1953; Duftschmidt 1825; Eggers 1921: 39–43, 1927c, 1929e: 42; Eichhoff 1864b: 42, 1872d: 139, 1877a: 388, 1877b: 118, 1878b: 266, 1881a: 50, 239, 1883a: 113, 138; Endrodi 1957b; Escherich 1923b: 487, 542; Escherich & Escherich 1897; Everts 1903: 764, 1922: 645; Fabricius 1792: 365, 1801: 386; Fauvel 1885, 1889; Ferrant 1911; Ferrari 1867a: 43; Fleischer 1905, 1927; Florov 1949: 124; Formanek 1907: 43; Fricken 1889: 345; Fuchs 1911a; Gabler 1955; Gebien 1907: 197; Germar 1824; Girard 1873; Grune 1979: 144–145; Gyllenhal 1813: 354, 1827: 620; Hagedorn 1910a: 105; Hansen, V. 1956, 1964: 465; Henry 1892: 10–11; Henschel 1876a: 44, 238, 1895a: 184; Herbst 1793: 114; Heyden 1875: 391; Hoffmann 1936; Hopkins 1914: 125–126; Iablokoff-Khnzorian 1961: 105; Joly 1976, 1976b: 177, 246; Karpinski & Strawinski 1948: 157; Knotek 1892a: 37; Koch 1913: 93, 1925: 80, 104, 1932: 146; Krivolutskaya 1956: 837, 1958: 183; Kuhnt 1913: 1058; Kurenzov 1941a: 212, 1948b: 105; Lacordaire 1866: 383; Letzner 1891: 376; Leunis 1886: 180; Louzil 1961: 108; Lovendal 1889b: 59, 1898: 157; Lucht 1987: 279; Lunardoni & Leonardi 1889: 470; Meixner 1937: 1217; Murayama 1929: 29–30, 1930b: 16, 19–21, 1936: 113–120, 1937b: 372, 374, 1939: 142–143, 1940a: 232, 1954b: 201; Negru 1966b: 404; Niisima 1909: 150; Nobuchi 1974: 45, pl. 1–3; Nordlinger 1848: 235, 1856: 18; Numberg 1926: 51, 1954: 83; Panzer 1795a: 285; Paykull 1800: 147; Perris 1877a: 414; Pfeffer 1932b: 27, 1933: 3–54, 1941b: 6, 1941c: 5, 1947e: 2, 1955a: 258, 1989a:pl. 22; Pjatiutskii 1930b: 179; Plaza & Gil 1982: 241, 243; Portevin 1935: 338; Postner 1974: 450; Prell 1929: 90; Ratzburg 1837: 131, 1839: 158, 188; Redtenbacher 1849a: 357, 1849b: 26, 1858: 834, 1874: 377; Reitter 1894a: 84, 1913a: 110, 1916b: 305; Rey 1892b: 30; Rhumbler 1922: 311, 1927: 325; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 68, 90, 1914: 304–305, 1916: 91–95, 110–116, 1919, 1949: 344, 395; Sahlberg 1836: 145; Schedl 1934f: 1645, 1946a: 6, 1952f: 87, 1959b: 100, 1980a: 26, 1981b: 88; Scherb 1971; Schimitschek 1937c: 59, 1955e: 92; Schlechtendal & Wunsche 1879: 126; Seidlitz 1872: 396, 1891b: 612; Sharp & Muir 1912: 572; Spessivtsev 1913a: 84, 1922a: 486, 1925a: 191, 1931: 81–82; Stark 1925: 300–301, 1952: 417; Stephens 1829a: 145, 1829b: 12, 1830: 357, 1839: 207; Stierlin 1898: 445; Taschenberg 1880: 220, 228; Thompson 1865: 365, 1868: 222; Wachtl 1895: 8; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 141; Zetterstedt 1828: 345, 1840: 192. **(ms)** Escherich 1932b; Hartig 1834: 108; Heinemann 1908a; Henschel 1880b: 257, 1880c: 60; Michalski 1959a: 291; Schwappach 1924: 56; Sedlaczek 1902a: 126, 1913: 455; Weber, L. 1912: 30.
- longicollis (Gyllenhal)** 1827: 621 (*Bostrichus*). Syn-types, sex?, in Scania, in Vermelandia; not located. Figures: Balachowsky 1949: 272, Barbey 1925: 243, Grune 1979: 140, Joly 1976b:pls. 11–12, Pfeffer 1989a:pls. 11–12, Plaza & Gil 1982: 241, 243. Distribution: Asia (Syria/ Turkey), Europe (Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ Finland/ France/ Greece/ Germany/ Hungary/ Italy/ Norway/ Poland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Pinus* spp. References: **(ay)** Escherich 1923b: 546; Feytaud 1950; Fuchs 1911a; Numberg 1926: 51. **(bv)** Chararas 1973a, 1976b; Grune 1975: 141; Prell 1930c: 639, 1931: 367. **(cn)** Barbey 1925: 243; Chararas 1978; Chorbadzhievo 1929; Escherich 1917: 97–115, 1923b: 546; Esterberg 1959; Feytaud 1950a; Fice 1961: 173–204; Joly 1976; Kholodkovskii 1912: 279; Kobakhidze 1960: 1853; Nusslin 1913: 279; Rudnev 1965b; Scheyvrew 1905b: 1104; Schimitschek 1944: 226; Schwerdtfeger 1944a: 177, 1957a: 183; Wichmann 1927b: 353, 378. **(ce)** Acatay 1943b; Karpinski 1932a: 95, 1933: 52–56; Kleine 1905c: 214; Kobakhidze 1960: 1853; Nikitsky 1978; Nusslin 1927: 337; Pfeffer 1960: 346; Schwerdtfeger 1944a: 177, 1957a: 183; Tragardh 1927a: 193, 1928: 776. **(hb)** Adelung 1905; Barbey 1925: 243; Bukowsky 1930; Chararas 1962c: 370; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eichhoff 1881a: 50, 248; Escherich 1923b: 546; Feytaud 1950a; Györfi 1957; Henschel 1895a: 185; Joly 1976; Karpinski & Strawinski 1948: 157; Kholodkovskii 1912: 279; Lengerken 1939: 36, 1954: 93; Michalski 1959a: 291; Nusslin 1913: 279, 1927: 337; Pfeffer 1941b: 6, 1989a: 77; Postner 1974: 451; Prell 1930c: 639, 1931: 367; Schedl 1980a: 27, 1981b: 89; Scheyvrew 1905b: 1104; Schimitschek 1944: 226; Schwerdtfeger 1944a: 177, 1957a: 183, 1981: 189; Spessivtsev 1913a: 80; Stark 1952: 408; Tschorbadjiev 1929: 176; Wachtl 1876a: 460; Wichmann 1927b: 353, 378. **(ds)** Acatay 1943: 3; Acloque 1896; Barthe 1896; Bickhardt 1916; Bistrom & Vaisanen 1988: 42; Brakman 1966b: 206; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1963; Calwer 1884, 1893; Champion 1894; Charvat 1950; Chorbadzhievo 1929; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 546; Esterberg 1928, 1959; Fedorov 1930; Gaubil 1849: 126; Grill 1895: 310; Grune 1975: 141; Gyllehnal 1827: 621; Hagedorn 1910d: 55; Hansen, V. 1939, 1956; Hellen 1947; Hennig 1954: 261; Henschel 1895a: 185; Heyden, Reitter, & Weise 1833: 182, 1891: 673, 1906: 712; Horion 1951; Jazentkovsky 1912: 291; Joly 1976; Karpinski 1931: 20, 1932a: 95, 1932b: 55; Karpinski & Strawinski 1948: 157; Keler 1925b: 274; Klefbeck

- & Sjöberg 1960: 232; Kleine 1912a: 262, 268, 1913a: 35, 1913b: 129, 1934a: 151; Kozikowsky & Kuntze 1925: 24; Krogerus 1944: 32; Lomnicki 1913b: 148; Lovendal 1890c: 209; Lucht 1987: 279; Lundberg 1981: 151; Mequignon 1936: 54; Munster 1928: 290; Numberg 1928b: 88, 120, 1954: 81, 1960b: 160; Pfeffer 1935: 158, 1947d: 127, 1947e: 14, 1960: 346, 1984: 277, 1989a: 77; Pittioni 1943: 176; Pjatnitskii 1930a: 165; Plaza & Gil 1982: 241; Postner 1974: 451 Reitter 1894a: 85, 1916: 305; Richter 1982; Roubal 1941: 273; Rudnev 1926: 32–69, 1965b; Sainte-Claire 1914: 473; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1250; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1961b: 185, 1971d: 431, 1980a: 27, 1981b: 89; Schilsky 1909: 188; Schwerdtfeger 1981: 189; Seidlitz 1872: 395, 1891a: 566, 1891b: 612; Siebke 1875: 284; Stark 1926b: 105, 1926g: 154, 1926j: 127, 1952: 408; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 444; Thomson 1865: 364, 1868: 222; Tredl 1907: 16; Tschorbadjiev 1929: 176; Wachtl 1876a: 460. (tx) Aeloque 1896; Balachowsky 1949a: 271–273; Charvat 1950; Dombrowsky 1887, 1892; Eggers 1910: 38, 1921: 42; Eichhoff 1864: 46, 1868d: 419, 1876: 378, 1878b: 268, 1881a: 50, 248, 1883a: 114, 139; Endrodi 1957b; Escherich 1923b: 546; Ferrari 1867a: 45–46; Fleischer 1927; Fuchs 1911a; Gebien 1907: 197; Grune 1979: 140–141; Gyllenhal 1827: 621; Hagedorn 1910a: 105; Hansen, V. 1956; Henschel 1895a: 185; Iablokoff-Khnzorian 1961: 105; Joly 1976, 1976b: pl. 11–12; Karpinski & Strawinski 1948: 157; Kuhnt 1913: 1058; Letzner 1891: 377; Lovendal 1890c: 209; Lucht 1987: 279; Numberg 1926: 51, 1954: 81; Pfeffer 1933: 3–54, 1941b: 6, 1947e: 44, 1955a: 261, 1989a: pl. 11–12; Plaza & Gil 1982: 241, 243; Portevin 1935: 338; Postner 1974: 451; Quaschik 1953: 35; Reitter 1894a: 85, 1913a: 111, 1916: 305; Schedl 1934f: 1645, 1959h: 100, 1961b: 187, 1980a: 27 1981b: 89; Seidlitz 1872: 395, 1891a: 566, 1891b: 612; Sokanovskii 1928: 667–668; Spessivtsev 1913a: 79–80, 1922a: 483, 490, 1925a: 190, 1931: 76–77; Stark 1952: 408; Stierlin 1898: 444; Thomson 1865: 364, 1868: 222; Wachtl 1895: 8; Weber, L. 1912: 30. (ms) Eichhoff 1868d: 419; Michalski 1959a: 291; Rohrl 1914b: 157; Sedlaczek 1913: 455; Weber, L. 1912: 30.
- oblitus* Perris 1862: 218 (*Tomicus*). Syntypes ♂ ♀; Les montagnes du Guadarrama (Espagne); Perris Collection. Synonymy: Pfeffer 1955: 261. References: (cc) Perris 1862: 218. (hb) Dombrowsky 1892; Wachtl 1876a: 460. (ds) Blanchere & Roberts 1889; Gemminger & Harold 1872: 2691; Cozis 1875: 80; Lacordaire 1866: 383; Schilsky 1909: 188; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 460. (tx) Bertolini 1872; Dombrowsky 1892; Eichhoff 1868d: 419, 1876a: 378; Ferrari 1867: 45–46; Lacordaire 1866: 383; Letzner 1891: 377; Perris 1862: 218; Pfeffer 1955: 261. (ms) Eichhoff 1868d: 419.
- multidentatus* (Murayama) 1953: 34 (*Ips*). Holotype ♂; Shimosato, Hirose, Jakuchi; Murayama Collection in USNM, Washington. Distribution: Asia (Japan). Hosts: *Pinus densiflora*. References: (cn) Murayama 1953: 34, 1954a: 9. (ds) Murayama 1951c: 4, 1954a: 9, 1954b: 171; Nobuchi 1966d: 35, 1974: 52. (tx) Murayama 1953: 34, 1954b: 171; Nobuchi 1966d: 35, 1974: 52.
- naukinensis* Kurenzov & Kononov 1966: 32. Holotype ♂; China: near Nankin; ISBN, Novosibirsk, USSR. Figures: Kurenzov & Kononov 1966: 32 (male declivity). Distribution: Asia ("near Nanking" in China). Hosts: *Pinus thumbergiana*. References: (tx) Kurenzov & Kononov 1966: 32.
- pinivora* Schedl 1961b: 187. Holotype ♂; Türkei, Catak bei Orhaneli; Schedl Collection in NHMW, Wien. Distribution: Asia (Turkey). Hosts: *Pinus nigra*. References: (ds) Pfeffer 1984: 277. (tx) Schedl 1961b: 187, 1979c: 195.
- proximus* (Eichhoff) 1868b: 403 (*Tomicus*). Syn-types, sex?; Europ. mer.; Hamburg Museum, lost. Figures: Alkan 1946: 113, Balachowsky 1949a: 266, 270, Barbey 1925: 237, Grune 1979: 142, Nobuchi 1966d: pl. 6, 1974: pl. 1, 3, Pfeffer 1989a: pl. 11, Plaza & Gil 1982: 241, 245. Distribution: Asia ("Manchuria" in China/ Japan/ Korea/ Turkey/ Siberia in E USSR/ Vietnam), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Portugal/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), introduced into Madagascar. Hosts: *Pinus densiflora*, *P. halepensis*, *P. koraiensis*, *P. parviflora*, *P. thumbergiana*, *P. spp.*, rare in *Picea* spp. References: (ay) Escherich 1923b: 459, 487, 543; Fuchs 1911a; Numberg 1926: 5, 1928a: 141; Nusslin 1911a: 51; Schevyrew 1889a: 21; Wichmann 1912a: 10. (bv) Kevdina 1897: 108; Nuorteva 1956c: 67; Wichmann 1912a: 10. (cn) Andersson & Lekander 1966: 684; Bakke 1960: 313; Barbey 1925: 237; Chararas 1961b: 69; Chorbadzhiyev 1929; Dehlen & Langstrom 1977; Eckstein 1926: 574; Egorov 1958: 1492; Eidmann 1970a, 1973; Eidmann & Klingstrom 1976: 240; Escherich 1923b: 459, 487, 543; Esterberg 1959; Florov 1949: 126; Gabler 1955; Grandi 1951; Inouye 1949a: 13, 93, 1949b; Jahm 1960b; Judeich & Nitsche 1895: 500; Juutinen 1960: 30; Kamuishnui 1925: 14–16; Kholodkovskii 1912: 315; Koch 1913: 106; Koehler & Zdanowicz 1954: 19–51; Lekander

- 1955b: 19; Lekander & Remerfelt 1955: 10; Lekander, M. 1951: 105; Lindgren 1980a: 66; Lonshchakov & Lure 1960; Mamaev 1929: 134–142; Mathiesen 1952: 305; Mathiesen-Kaarik 1953: 6; Megalov & Bazhenov 1927: 1–29; Mokrzecki 1933: 287; Nusslin 1883: 152, 1913: 269; Oda, Kto, & Nobuchi 1964; Polozhentzev 1926: 1–5; Rhumbler 1922: 311, 1927: 325; Saalas 1949: 344, 395; Schimitschek 1937c: 60, 1944: 226, 1955a: 80, 83, 1955c: 92; Schwerdtfeger 1957a: 183, 1968a; Sedlaczek 1921: 339; Shiraki 1952; Titova 1966; Tragardh 1917: 11, 28, 1919a: 104, 1921e: 64, 1927c: 83; Tragardh & Butovitsch 1936: 577; Tullgren 1916: 104; Wachtl 1901: 379, 381; Weber, H. 1926: 574; Wichmann 1927b: 352; Zarco 1946a: 251. (ec) Acatay 1943b: 3; Annala & Petaisto 1978; Apfelbeck 1916b; Balazy & Michalski 1964b; Barbey 1927; Bogdanova 1987; Chararas 1959a, 1964b; Cooreman 1963: 46; Fuchs 1937; Golovyanko 1926: 1–87; Graham 1969: 879; Gyorfı 1962: 214; Heliovaara & Lilja 1989; Henningson & Lundstrom 1974; Heqvist 1963: 155; Hubenthal 1902: 291; Hughs & Jackson 1958: 73; Jammicky 1957c: 20; Kakuliya 1967; Kakuliya & Devdariani 1965; Kangas 1946b: 23; Kleine 1908c: 214; Kosarievskaya & Mamajev 1962: 451; Kostenko 1929; Kostin 1964: 125; Koyama 1963; Lazarevskaya 1962; Lindquist, E. E. 1969c; Lovaszy 1941: 195; Loytyniemi & Hiltunen 1976; Lundberg 1984; Mathiesen 1952: 305; Mathiesen-Kaarik 1953: 6, 1960c; Meyer 1934: 615; Michalski & Ratajczak 1989; Novak, P. 1952: 417; Nuorteva 1956a: 17, 1957b: 50, 1959d: 201, 1968a, 1970, 1971: 70; Nusslin 1927: 337; Okolow 1963; Palmen 1944: 60, 1946: 195; Pfeffer 1928b: 6; Poinar 1972, 1975: 163; Ruhm 1956b: 4, 1960: 203; Saalas 1917a: 18, 1928: 652, 1930: 118, 1949: 344, 395, 1951: 14; Schedl 1936f: 172; Schimitschek 1955: 80, 83; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlaczek 1908: 52, 1935a: 163; Thompson, W. R. 1943: 82; Titova 1966; Tudor 1969: 34; Vitzthum 1923: 165. (hb) Alkan 1946: 113; Annala & Petaisto 1978; Apfelbeck 1916b, 1917; Bakke 1960a: 313, 1968a: 441–602; Barbey 1901: 24, 90, 1925: 237; Bargmann 1906; Beffa 1961; Bejer-Petersen 1957; Borodajewsky 1930c, 1931: 157–159; Budkov 1897; Butovitsch & Spaak 1939: 1–120; Cecconi 1906, 1924; Chararas 1961b: 69, 1962c: 371; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Dzhambazhshvili 1961: 751–757, 1962; Eckstein 1897, 1926: 574; Eichhoff 1881a: 50, 235; Eidmann 1973; Eidmann & Klingstrom 1976: 240; Escherich 1923b: 459, 487, 543; Everts 1903: 763; Fuchs 1904a, 1907: 48, 1911b; Gabler 1955; Gornostaev 1916: 312, 1917: 308–315; Grandi 1951; Gyorfı 1957; Henschel 1894, 1895a: 185; Judeich & Nitsche 1895: 500; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Khartinov 1924: 199–204; Kholodkovskii 1889: 270, 1912: 315; Knotek 1894a: 558, 1897: 157, 1898b: 331; Kostin 1960: 136; Krivolutskaya 1960; Kurenzov 1950d: 235; Lekander 1959a: 84; Lengerken 1939: 39, 1954: 93; Lindgren 1980a: 66; Lumardoni & Leonardi 1889: 473; Nuorteva 1956c: 67, 1968a, 1970; Nusslin 1898: 274, 281, 1906b: 16, 1913: 269, 1927: 337; Petrenko 1966; Pfeffer 1941b: 6, 1941c: 7, 1989a: 79; Postner 1974: 450; Rhumbler 1922: 311, 1927: 325; Rimski-Korsakov et al. 1949: 291; Rozhkov 1970: 157; Rudnev 1926: 32–69; Saalas 1913a: 68, 90, 1949: 344, 395, 1951: 14; Schedl 1981b: 88; Schimitschek 1944: 226, 1955a: 80, 83; Schwerdtfeger 1944a: 176, 1957a: 183, 1981: 189; Sedlaczek 1921: 339, 1935a: 163; Spessivtsev 1913a: 86; Stark 1952: 411; Tragardh 1921e: 64, 1927c: 83, 1930c: 470, 1931: 56, 1939b: 159, 219; Tschorbadjiev 1929: 176; Virkki 1960: 3–16; Wachtl 1876a: 460, 1901: 379, 381; Weber, H. 1926: 574; Wichmann 1927b: 352. (ds) Alluud 1900: 441; Ammann & Knabl 1913; Andras & Schaefer 1957; Bakke 1960a: 313; Barthel 1896; Bay 1944: 320; Bejer-Petersen & Jorum 1977: 32; Bistrom & Vaisanen 1988: 42; Borchert 1951; Brakman 1966b: 207; Browne 1980c: 482; Budkov 1897; Buresh & Lazarov 1956; Butovitsch 1963; Butovitsch & Heqvist 1947; Cecconi 1906; Champion 1894; Chararas 1961c: 93; Charvat 1950; Cho 1957; Choo 1983: 90; Choo & Woo 1985: 165; Chorbadzhievo 1924d, 1929; Eder 1934; Endrodi 1958b; Escalera 1919; Escherich 1923b: 459, 487, 543, 1932b; Esterberg 1928, 1959; Everts 1922: 645, 1925; Fauvel 1885; Favre 1890; Fuchs 1904a, 1905a, 1907: 48; Gemminger & Harold 1872: 2691; Gillerfors 1966; Gornostaev 1917: 308–315; Grill 1895a: 310; Grune 1979: 143; Hagedorn 1910d: 58; Hansen, V. 1939, 1956, 1964: 465; Heimemann 1908a; Hellen 1947; Henschel 1894: 380, 1895a: 185; Heyden 1875: 39; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Horion 1951; Inouye 1949b; Jazentkovsky 1912: 291; Judeich & Nitsche 1895: 500; Karpinski 1925: 217, 1926: 83, 1931: 36, 1933b: 38; Karpinski & Strawinski 1948: 157; Keler 1922b: 211, 1925b: 274; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 217, 262, 268, 1913a: 35, 1913b: 128, 1914b: 287, 1934a: 151; Knotek 1892: 37, 1894a: 558, 1898b: 331; Ko 1969: 280; Koltze 1901: 153; Kostenko 1929; Kozikowsky & Kmitze 1925: 20; Krivolutskaya 1960, 1983; Kurenzov 1936b: 350; Kurir 1947c: 7; Laughoffer 1915e: 158; Leclercq 1971; Lekander 1955b: 19; Lengerken 1954: 93; Lindberg & Saris 1952: 59; Lonnicki 1913b: 348; Lucht 1987: 279; Lumardoni & Leonardi 1889: 473; Lundberg 1974: 92, 1979: 31, 1981: 151; Lundblad 1950c: 117; Mahler 1987: 233; Mandl 1931: 25; Munster 1922b: 134, 1928: 291; Murayama 1929b: 2, 1929c: 23, 1929e: 45, 1930a: 1, 1930b: 16, 1936a: 129, 1936b: 116, 1937b: 375, 1948: 2, 1949a: 11, 13, 1949c: 102, 1951c: 4, 1954b: 171, 1955: 99; Nobuchi 1966d:

- 37, 1974: 46; Novak, P. 1952: 417; Nunberg 1928b: 88, 117, 1954: 81; Nuorteva 1956b: 168, 1971: 68; Nusslin 1898: 274, 281; Palm 1955c: 45, 1962a: 183; Palmén 1944: 60, 1946: 195; Pfeffer 1924b: 471, 1928b: 6, 1931b: 74, 1935: 158, 1947d: 127, 1947e: 4, 1989a: 79; Pinheiro 1965: 352–364; Pittioni 1943: 176; Platonoff 1942: 64, 1943: 141; Plaza & Gil 1982: 241; Pomerantzev 1907b: 494; Poppius 1900: 108; Postner 1974: 450 Prossen 1913: 83; Rapp 1934: 731; Reitter 1894a: 84, 1916: 305; Rimski-Korsakov et al. 1949: 291; Ronbal 1941: 273; Rozhkov 1970: 157; Saalas 1913a: 68, 90, 1917a: 18, 1930: 118, 1931: 68; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1250; Schedl 1960e: 172, 1967c: 72, 1969a: 205, 1971d: 429, 1973c: 378, 1975a: 452, 1980a: 27, 1981b: 88; Schilsky 1909: 188; Schreiner 1897: 369; Schwerdtfeger 1981: 189; Seidlitz 1891a: 566, 1891b: 611; Shiraki 1952; Stark 1926b: 105, 1926j: 127, 1931a: 28, 1931d: 551, 1952: 411; Stein & Weise 1877: 164; Stierlin 1898: 444; Strand 1946: 604; Takahasi & Ito 1951: 159–161; Tragardh 1917: 1–28, 1919: 237–248, 1935: 1–268, 1939b: 159, 219; Tredl 1907: 16; Tschorbadijev 1929: 176; Wachtl 1876a: 460; Wanka 1908: 231; Wegelius 1960: 107; Wichmann 1927a: 78; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 411; Zinovjev 1955: 187; Zolk 1937: 147–172. **(tx)** Alkan 1946: 113; Balachowsky 1949a: 273; Barbey 1901: 24, 90; Beffa 1961; Bejer-Petersen 1957; Charvat 1950; Choo 1983: 90; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Eggers 1921: 39–43, 1924: 41, 1932c: 33; Eichhoff 1868b: 403, 1872d: 139, 1877c: 388, 1878b: 262, 1881a: 50, 235, 1883a: 113, 138; Endrodi 1957b; Escherich 1923b: 459, 487, 543; Everts 1903: 763, 1922: 645; Fauvel 1885; Ferrari 1967b: 112; Fleischer 1927; Formanek 1907: 43; Fuchs 1911a; Gabler 1955; Gebien 1907: 197; Grune 1979: 142–143; Hagedorn 1910a: 105; Hansen, V. 1956, 1964: 465; Henschel 1895a: 185; Iablukoff-Khnzorian 1961: 105; Judeich & Nitsche 1895: 500; Karpinski & Strawinski 1948: 157; Keler 1923a: 166–186; Knotek 1892a: 37; Koch 1913: 106, 1928: 83, 1932: 129; Kuhnt 1913: 1058; Kurenzov 1941a: 213; Letzner 1891: 376; Lovendal 1889b: 18, 1898: 154; Lucht 1987: 279; Lunardoni & Leonardi 1889: 473; Murayama 1929: 22–30, 1930b: 16, 19–20, 31, 1934c: 299, 1936a: 128–129, 1937c: 375, 1954b: 171, 1955: 99; Niisima 1909: 149, 1910a: 11; Nobuchi 1966d: 37, pl. 6, 1974: 46, pl. 1, 3; Nunberg 1926: 51–59, 1928a: 141, 1954: 81, 1956c: 163–164; Nusslin 1911a: 51; Pfeffer 1932b: 27, 1933: 3–54, 1941b: 6, 1941c: 7, 1947e: 4, 1955a: 259, 1989a: pl. 11; Plaza & Gil 1982: 241, 245, 248; Postner 1974: 450; Quaschik 1953: 35; Reitter 1894a: 84, 1913a: 109, 1916: 305; Rey 1892b: 30; Rhumbler 1922: 311, 1927: 325; Saalas 1913a: 68, 90, 1914: 304–306, 1919, 1949: 344, 395; Schedl 1934f: 1645, 1941a: 42, 1965c: 51, 1980a: 27, 1981b: 88; Schexyrew 1889a: 21; Schimitschek 1937c: 60, 1955c: 92; Seidlitz 1891a: 566, 1891b: 611; Spessivtsev 1913a: 81, 86, 1922a: 484, 490, 1925a: 191, 1925b: 21, 1931: 81; Stark 1925: 300–301, 1952: 411; Stierlin 1898: 444; Teplouchov 1890: 263; Wachtl 1895: 8; Weber, L. 1912: 30. **(ms)** Escherich 1932b; Fuchs 1911b; Heinemann 1908a; Keler 1925a: 166–186; Lekander 1959a: 84; Sedlacek 1913: 455; Weber 1912: 30.
- omissus* Eichhoff 1872d: 138 (*Tomiticus*). Syntypes, sex?, Nenstادت-Eberswalde; Hamburg Museum, lost. Synonymy: Eichhoff 1881a: 236. References: **(hb)** Dombrowsky 1892; Wachtl 1876a: 460. **(ds)** Gemminger & Harold 1872: 2691; Kraatz 1876: 39, 1896b: 39; Schilsky 1909: 188; Stein & Weise 1877: 164; Wachtl 1876a: 460. **(tx)** Balachowsky 1949a: 273; Dombrowsky 1892; Eichhoff 1872d: 138, 1877b: 118–119, 1877c: 388, 1878b: 264, 1881a: 236; Letzner 1891: 376.
- fejferi* Keler 1925a: 191 (*Ips*). Holotype, sex?, Zwierzyniec Lubelski in Polen; not located. Synonymy: Nunberg 1956: 164. References: **(tx)** Keler 1925a: 191–196, 1926: 169–170; Nunberg 1956c: 163–164, 168; Schedl 1934f: 1644. **(ms)** Keler 1925a: 194–196.
- starki Spessivtsev** 1926a: 217. Syntypes ♂ ♀; Gouv. Orlov (Mittel-Russland); Spessivtsev Collection. Figures: Yin, Huang, & Li 1984: 140 (adult). Distribution: Asia (Heilongjiang, Sichuan, Yunnan in China/ Sakhalin Island, E USSR) Europe (Finland/ Poland/ W USSR). Hosts: *Picea ajanensis*, *P. asperata*, *P. excelsa*, *P. koraiensis*, *P. likiangensis*, *P. obovata*, *Abies faxoniana*, *Pinus densata*. References: **(bv)** Grune 1979: 143. **(cn)** Esterberg 1959; Florov 1949: 130; Kontkanen 1932: 62; Kurenzov 1935c: 188; Nestertschuk 1930: 176; Sierpinski 1958: 69. **(cc)** Karpinski 1932a: 103. **(hb)** Borodajewsky 1928, 1929: 515–521, 670–672, 1930a: 249–251, 1931: 155–156; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Kurenzov 1935a: 20, 44, 1948b: 111; Postner 1974: 452; Stark 1952: 409. **(ds)** Esterberg 1959; Grune 1979: 143; Hansen, V. 1939; Hellen 1947; Jakaitis 1985; Karpinski 1931: 18, 36, 1932a: 103, 1933b: 38; Karpinski & Strawinski 1948: 157; Klefbeck & Sjöberg 1960: 232; Kleine 1934a: 152; Kontkanen 1932: 62; Krivolutskaia 1983; Kurenzov 1935a: 20, 44, 1935c: 188, 1941: 214–215, 1951b: 20; Nunberg 1954: 81; Nuorteva 1971: 71; Postner 1974: 452; Stark 1931a: 28, 1931d: 552, 1952: 409; Strand 1946: 604; Yakaitas 1985; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 139; Zinovjev 1955: 187. **(tx)** Grune 1979: 143; Karpinski & Strawinski 1948: 157; Krivolutskaia 1983; Kurenzov 1941a: 214, 1948b: 111; Kurenzov & Kononov 1966: 32; Nobuchi

1959c: 24; Nunberg 1954: 81; Pfeffer 1955a: 255; Schedl 1934f: 1645; Sokanovskii 1929: 521–526; Spessivtsev 1926a: 217, 1931: 150; Stark 1927: 227–230, 1952: 409.

suturalis (Gyllenhal) 1827: 622 (*Bostrichus*). Syn-types ♂ ♀; Europa; Gyllenhal Collection.

Figures: Barbey 1925: 236, Grune 1979: 144, Nobuchi 1966d: pl. 6, 1974: pls. 1, 3, Plaza & Gil 1982: 243, Yin, Huang, & Li 1984: 140.

Distribution: Asia (Jilin, Liaoning, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., *Picea* spp., *Larix* spp., *Abies delavayi*.

References: (ay) Chararas 1977b; Escherich 1923b: 487, 543; Feytaud 1950a; Fuchs 1911a; Nunberg 1926: 51; Scherb 1971. (bv) Balazy & Michalski 1964b; Chararas 1977b; Choo, Woo, & Park 1988; Grune 1979: 145; Luitjes 1976; Naumann-Etienne 1978a; Nuorteva 1956c: 22, 28; Rozhkov 1970: 156. (cn) Anonymous 1978w, 1979p, 1980g; Barbey 1925: 236; Bielussov 1917: 334–337; Chorbadzhevo 1929; Egorov 1958: 1492; Eidmann 1971; Escherich 1917: 97–115, 1923b: 487, 543; Esterberg 1959; Feytaud 1950a; Florov 1949: 127; Gabler 1955; Gusev 1928: 144; Hallett 1923: 13–14; Hanson, H. S. 1937, 1940a; Jahn 1960; Joly 1976; Judeich & Nitsche 1895: 500; Kangas 1937, 1938: 11–20, 73–98; Kholodkovskii 1912: 315; Kobakhidze 1960: 1853; Koch 1913: 108, 123; Kovacevic 1924: 21–22; Kozikovsky 1929: 254; Laidlav 1947: 53; Lekander 1952b: 5; Marcu 1926c: 67, 1930: 327–336; Mathiesen-Kaarik 1953: 11; Muller 1912: 186; Nusslin 1913: 269; Pfeffer 1948d: 235, 1950c: 3; Rhumbler 1922: 311, 1927: 325; Rozhkov 1957: 71; Saalas 1949: 344, 396; Schimitschek 1937c: 59, 1955a: 80, 83, 1955c: 92; Schwerdtfeger 1944a: 176, 1957a: 183; Shiraki 1952; Titova 1966; Wachtl 1901: 381; Wichmann 1927b: 352. (cc) Balazy & Michalski 1960; Barbey 1927; Brammanis 1938, 1940; Chararas 1957d; Donisthorpe 1933a; Francke-Grosman 1931a; Graham 1969: 880; Hopkins 1908a; Jakaitis & Valenta 1976: 12; Kangas 1937, 1946b: 23; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 214, 1909a: 48, 1944: 70; Knoche 1908b: 201; Kobakhidze 1960: 1853; Kostenko 1929; Kostin 1964: 125; Krivosheina 1974; Kurenzov 1934a: 58; Luitjes 1976; Lundberg 1984; Mathiesen-Kaarik 1953: 11; Meyer 1934: 614; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Nuorteva 1956a: 17, 1957b: 68, 1968a, 1970, 1971:

70; Nusslin 1927: 336; Palmén 1944: 60, 1946: 195; Perris 1856a: 244; Pfeffer 1923a: 332, 1925b: 6, 1950c: 3; Poinar 1975: 164; Rondani 1873: 140; Ruhm 1956b: 4, 1960: 203; Ruschka 1921: 241; Saalas 1917a: 18, 1928: 651, 1949: 344, 396, 1951: 14; Schimitschek 1955a: 80, 88; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlaczek 1935a: 163; Thompson, W. R. 1943: 59; Titova 1966; Wiackowski 1957a: 43; Yanovskii 1977b; Zinovjev 1958: 385. (hb) Barbey 1901: 24, 92, 1925: 236; Beffa 1961; Borodajewsky 1930c, 1931: 157–159; Budge 1949; Budkov 1897; Bukowsky 1930; Chararas 1962c: 369, 1977b; Charvat 1950; Chorbadzhevo 1929; Dombrowsky 1887, 1892; Eggers 1906; Eichhoff 1881a: 51, 242, 1882a: 241; Elton et al. 1964; Escherich 1923b: 487, 543; Everts 1903: 764; Feytaud 1950a; Fuchs 1904a; Gabler 1955; Gornostaev 1916: 312; Gyorfí 1957; Hagedorn 1903a; Henschel 1885b, 1895a: 186; Joly 1976; Judeich & Nitsche 1895: 500; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Kholodkovskii 1889: 270, 1912: 315; Knotek 1897: 136, 160, 1895b: 332; Kostin 1960: 135; Krivolutskaya 1956: 836, 1960, 1973: 142; Kurenzov 1935a: 44, 1948b: 104, 1950d: 235; Lengerken 1939: 39, 1954: 93; Luitjes 1976; Lunardini & Leonardi 1889: 473; Madon 1930: 99; Marikovskii 1956: 73; Munro 1926: 70; Naumann-Etienne 1978a; Nilssen 1984; Nordlinger 1856: 18; Nunberg 1929c: 123; Nuorteva 1956c: 22, 28, 1968a, 1970; Nusslin 1898: 282, 1906b: 14, 1913: 269, 1927: 336; Perris 1856a: 244; Petrenko 1966; Pfeffer 1941b: 1, 1941c: 7, 1989a: 78; Postner 1974: 449; Ratzeburg 1837: 155, 1839: 189; Rhumbler 1922: 311, 1927: 325; Rimski-Korsakov et al. 1949: 288; Rozhkov 1970: 156; Rudnev 1926: 32–69, 1955: 372; Saalas 1913a: 68, 91, 1949: 344, 396, 1951: 14; Schedl 1981b: 87; Schimitschek 1955a: 83, 89; Schwerdtfeger 1944a: 176, 1957a: 183, 1981: 189; Sedlaczek 1935a: 163; Spessivtsev 1913a: 83; Stark 1952: 414; Tschorbadjiev 1929: 176; Wachtl 1901: 381; Wichmann 1927b: 352; Zinovjev 1958: 385. (ds) Allan 1989; Allen, A. 1951b: 115; Ammann & Knabl 1923; Andersch 1851; Anonymous 1978w, 1979p, 1980g; Atkinson 1921; Andras & Schaefer 1957; Balazy & Michalski 1960; Barthe 1896; Bejer-Petersen & Jorrm 1977: 31; Belousov 1916; Bickhardt 1916; Bielz 1887; Borchert 1951; Brakman 1966b: 207; Brancsik 1906; Bucking 1932; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1963; Ceconi 1897; Champion 1894; Charvat 1950; Cho 1957; Choo 1983: 91; Choo & Woo 1985: 165; Choo, Woo, & Park 1988; Chorbadzhevo 1929; Debatisse 1945; Donisthorpe 1933b: 105; Duprez 1938a; Eder 1934; Eggers 1904, 1906; Endrozi 1958b; Escalera 1919; Escherich 1923b: 487, 543, 1932b; Esterberg 1928, 1959; Everts 1922: 646, 1925; Eyquem 1891; Fleischer et al. 1923; Fogel & Guilleanne 1945; Forster 1849: 439; Fuchs 1904a, 1905a;

- Gaubil 1849: 126; Gemminger & Harold 1872: 2691; Gornostaev 1917: 308–315; Gozis 1875: 80; Grill 1895: 311; Grouzelle 1905; Grune 1919: 145; Gyllenhal 1827: 620; Hagedorn 1903a, 1910d: 59; Hansen, V. 1939, 1956, 1964: 465; Heinemann 1908a; Hellen 1947; Hennig 1954: 263; Henschel 1895a: 186; Heyden 1879: 140, 1881: 177; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Hoffmann 1936: 41–42; Horion 1951; Jamnicky 1960a; Jazentkovsky 1912: 291; Joly 1976; Judeich & Nitsche 1895: 500; Kadyrov 1958: 43, 1989; Kaltenbach 1874: 685; Karpinski 1925: 217, 1926: 83, 1931: 36, 1933b: 38, 1948b: 231; Karpinski & Strawinski 1948: 157; Kaszab 1977: 67; Keler 1925b: 274; Kersten 1933: 76; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 262, 268, 1913a: 35, 1913b: 128, 1914b: 249, 1934a: 151; Kloft & Hinks 1945: 218; Knotek 1898b: 332; Ko 1969: 280; Koltze 1901: 153; Koschitzky 1900: 83; Kostenko 1929; Kozikovsky 1921: 181; Krivolutskaya 1956: 836, 1960, 1965: 241, 1973: 142, 1983; Kurenzov 1934a: 58, 1935a: 44, 1936a: 114, 1936b: 357, 1967; Kurir 1947c: 7; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 139; Lindberg & Saris 1952: 59; Lomnicki 1886a: 243, 1913b: 148; Lovendal 1890c: 211; Lucht 1987: 279; Lmardoni & Leonardi 1889: 473; Lundberg 1974: 92; Mandl 1931: 25; Marcu 1926c: 67; Matthews & Fowler 1883: 42; Mequignon 1936: 54; Michalski 1957: 169; Munster 1928: 291; Murayama 1937b: 572, 1948: 3, 1949a: 13, 1951c: 4, 1954b: 171; Negru 1966b: 404, 1968a: 457; Nobuchi 1966d: 38, 1974: 47; Nunberg 1928b: 88, 119, 1954: 81; Nuorteva 1971: 68; Nusslin 1898: 282; Orest 1926c: 67; Pacher 1965: 152; Palm 1946: 122, 1955c: 45; Palmen 1944: 60, 1946: 195; Parfentev 1951: 429, 433; Pfeffer 1925b: 6, 1931b: 74, 1935: 158, 1947e: 4, 1954: 277, 1989a: 78; Platinoff 1940: 11, 1942: 64, 1943: 141; Plaza & Gil 1982: 243; Pomerantzev 1907b: 494; Postner 1974: 449; Rapp 1934: 732; Ratzeburg 1837: 155, 1839: 189; Reitter 1916: 305; Rimski-Korsakov et al. 1949: 288; Rosenhauer 1856: 302; Rouhal 1941: 273; Rozhkov 1970: 156; Saalas 1913a: 68, 91, 1917a: 18, 1931: 70; Sainte-Claire & Mequignon 1938: 448; Schaschl 1854: 133; Schaufuss 1915: 1250; Schaum 1859: 96, 1862: 101; Schedl 1952f: 87, 1969a: 205, 1980a: 27, 1981b: 87; Schilsky 1909: 188; Schiodte 1873: 102; Schwerdtfeger 1981: 159; Shiraki 1952; Sokanovskii 1960; Stark 1926b: 105, 1926j: 127, 1927b: 90, 1928b: 630–636, 1931a: 28, 1931d: 552, 1952: 414; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 445; Strand 1946: 604; Sturm 1826: 102, 1843: 230; Tredl 1907: 16; Tschorbadjiev 1929: 176; Wanka 1915: 213; Wegelius 1960: 107; Westhoff 1882: 239; Wichmann 1927a: 79; Winter, T. G. 1983: 16; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 411; Yin, Huang, & Li 1984: 140; Zetterstedt 1840: 193; Zimovjev 1955: 187, (tx) Bach 1854; Balachowsky 1949a: 272; Barbey 1901: 24, 92; Beffa 1961; Charvat 1950; Choo 1983: 91; Dombrowsky 1887, 1892; Duffy 1953; Egger 1962; Eggers 1929c: 42, 1932c: 34–35; Eichhoff 1864b: 42, 1877b: 118, 1877c: 388, 1878b: 270, 1881a: 51, 242, 1883a: 113, 138; Endrodi 1957b; Escherich 1923b: 487, 543; Everts 1903: 764, 1922: 646; Fauvel 1889; Fleischer 1927; Formanek 1907: 43; Fuchs 1911a; Gabler 1955; Gebein 1907: 197; Grune 1979: 144, 145; Gyllenhal 1827: 620, 622; Hagedorn 1910a: 105; Hansen, V. 1956, 1964: 465; Henschel 1895a: 186; Hoffmann 1936; Iablokoff-Khnzorian 1961: 105; Joly 1976; Judeich & Nitsche 1895: 580; Karpinski & Strawinski 1948: 157; Koch 1913: 108, 123, 1928: 86, 1932: 128, 132; Krivolutskaya 1956: 836–839, 1958: 183; Kulmt 1913: 1058; Kurenzov 1941a: 214–216, 1948b: 104; Letzner 1891: 376; Lovendal 1889b: 59, 1890c: 211, 1898: 160; Lucht 1987: 279; Lmardoni & Leonardi 1889: 473; Murayama 1937b: 372, 1954b: 171, 1960: 53; Negru 1966b: 404; Nobuchi 1966d: 38, pl. 6, 1974: 47, pl. 1, 3; Nordlinger 1848: 235, 1856: 18; Nunberg 1926: 51, 1929c: 123, 1954: 81; Pfeffer 1932b: 27, 1941b: 1, 1941c: 7, 1947c: 4, 1955a: 260; Pjatnitskii 1930b: 179; Plaza & Gil 1982: 243; Portevin 1935: 338; Postner 1974: 449; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1849a: 363, 1849b: 27; Reitter 1913a: 108, 110, 1916: 350; Rey 1892b: 30; Rhumbler 1922: 311, 1927: 325; Saalas 1913a: 68, 91, 1914: 304–306, 1916: 110–116, 1919, 1949: 344, 396; Sahlberg 1836: 147; Schedl 1934f: 1645, 1946a: 6, 1952f: 87, 1980a: 27, 1981b: 87; Scherb 1971; Schimitschek 1937c: 59, 1955c: 92; Sokanovskii 1960: 677; Spessivtsev 1913a: 83–84, 1922a: 484, 1925a: 191, 1925b: 21, 1926a: 218, 1931: 80–81; Stark 1952: 414; Stierlin 1898: 445; Teplouchow 1890: 263; Wachtl 1894: 8; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 140; Zetterstedt 1840: 193. (ms) Escherich 1932b; Gotz 1877; Hartig 1834: 108; Heinemann 1908a; Kozikovsky 1929: 254; Sedlaczek 1913: 455; Weber, L. 1912: 30. *nigritus* Gyllenhal 1827: 623 (*Bostrichus*). Synonyms: Europa; Gyllenhal Collection. Synonymy: Hagedorn 1910d: 59, Balachowsky 1949a: 272.
- References: (cn) Elfving 1904. (hb) Dombrowsky 1892; Elfving 1904; Wachtl 1876a: 455. (ds) Andersch 1851; Atkinson 1921; Blanchere & Robert 1889; Brancsik 1871; Ericson & Sandin 1893; Fowler 1891; Fuss 1874; Gemminger & Harold 1872: 2691; Gredler 1866: 374; Hallett 1923b; Heyden 1876: 300; Kraatz 1869: 59; Leder 1871: 131; Lentz 1857: 139; Lindemann 1884b: 264; Miller 1868: 27; Poppius 1900: 108; Rye 1874: 205; Sahlberg 1900: 105; Schaum 1859: 96, 1862: 101; Schilsky 1909: 188; Schiodte 1873: 102; Seidlitz 1872: 396, 1891a: 566, 1891b: 612; Sharp 1870: 256;

- Sharp & Fowler 1893: 35; Siebke 1875: 284; Stein 1868: 114; Stein & Weise 1877: 165; Sturm 1843: 230; Thomson 1865: 364, 1868: 222; Wachtl 1876a: 455. **(tx)** Balachowsky 1949a: 272; Bertolini 1872; Brancsik 1871; Dombrowsky 1892; Ferrari 1867: 43; Gyllenhal 1827: 623; Letzner 1891: 376; Sahlberg 1836: 147; Seidlitz 1872: 396, 1891a: 566, 1891b: 612; Thomson 1865: 364, 1868: 222. **(ms)** Hartig 1834: 108.
- tosaensis (Murayama)** 1950a: 52 (*Ips*). Syntypes, sex?; Irinohama, Okata-mura, Hata-gun; Murayama Collection in USNM, Washington. Figures: Nobuchi 1966d: pl. 5, 1974: pl. 1, 3. Distribution: Asia (Japan/ Korea). Hosts: *Pinus densiflora*, *P. thunbergii*. References: **(cn)** Murayama 1954a: 9; Oda, Kato, & Nobuchi 1964. **(hb)** Nagawasa et al. 1968. **(ds)** Ko 1969: 279; Murayama 1949a: 13, 1951c: 4, 1952a: 20, 1953: 34, 1954a: 9, 1954b: 171, 1955: 102–103; Nobuchi 1966d: 36, 1974: 48. **(tx)** Murayama 1950a: 53, 1952a: 20, 1954b: 171, 1955: 102; Nobuchi 1959b: 14, 1966d: 36, pl. 5, 1974: 48, pl. 1, 3.
- Genus *Acanthotomicus* Blandford
- ACANTHOTOMICUS BLANDFORD 1894d: 89. Type-species: *Acanthotomicus spinosus* Blandford, monobasic.
- Mimips* Eggers 1932c: 33. Type-species: *Ips pilosus* Eggers, original designation. Synonymy: Wood 1972c: 191. References: **(tx)** Eggers 1932c: 33; Schedl 1952g: 51, 1954b: 37, 1957e: 865–883, 1962j: 71, 1962k: 595–1352, 1965e: 349–379; Wood, S. L. 1972c: 191.
- Isophthorus* Schedl 1938a: 173. Type-species: *Isophthorus quadrituberculatus* Schedl, subsequent designation by Wood 1980: 89. Synonymy: Wood 1980: 89. References: **(tx)** Schedl 1938a: 160–166, 173; Wood, S. L. 1980c: 89.
- Keys: Wood 1982b: 664 for Central America. References: **(ay)** Nobuchi 1969a: 66. **(hb)** Wood, S. L. 1986a: 70. **(ds)** Schedl 1966b: 42; Wood, S. L. 1986a: 70. **(tx)** Blandford 1894d: 89; Browne 1963: 54; Nobuchi 1974: 53; Wood, S. L. 1972c: 191, 1982b: 664–667, 1986: 70.
- acuminatus (Schedl)** 1962j: 71 (*Mimips*). Holotype, sex?; Ghana, Kumasi; BMNH, London. Distribution: Africa (Ghana). Hosts: *Albizzia gummifera*. References: **(ds)** Schedl 1962l: 59, 1962j: 71, 1966c: 225, 1972e: 282. **(tx)** Browne 1970: 559; Eggers 1932c: 33; Schedl 1962j: 71, 1962k: 1086, 1979c: 11.
- africanus (Browne)** 1970: 560 (*Orthotomicus*). Holotype ♀; Nigeria: Mambilla Plateau, Gyel Nyaki at 5000 ft.; BMNH, London. Figures: Browne 1970: 561. Distribution: Africa (Nigeria). References: **(tx)** Browne 1970: 560–561.
- alternans (Schedl)** 1974c: 262 (*Ips*). Holotype ♂?; Nord-Vietnam; Muzeul de Istorie Naturala, Bucharest. Distribution: Asia (Vietnam). References: **(tx)** Schedl 1974c: 262, 1979c: 17.
- amatus Schedl** 1954c: 156. Holotype, sex?; Borneo; Eggers Collection, in NHMW, Wien. Distribution: Indonesia (Borneo). References: **(tx)** Schedl 1954c: 156, 1979c: 26.
- analogus (Wood)** 1971: 40 (*Mimips*). Holotype ♂; 40 km E Canton, Barinas, Venezuela; Wood Collection. Figures: Wood, S. L. 1971: 40 (male declivity). Distribution: South America (Venezuela). Hosts: *Spondias mombin*. References: **(hb)** Wood, S. L. 1971: 40. **(tx)** Wood, S. L. 1971: 40, 1982b: 666.
- angolensis (Schedl)** 1962k: 1086 (*Mimips*). Holotype, sex?; Angola; Schedl Collection in NHMW, Wien. Distribution: Africa (Angola). References: **(tx)** Schedl 1962k: 1086, 1979c: 20.
- angulatus (Schedl)** 1962k: 1087 (*Mimips*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien. Distribution: Africa (Cameroon). References: **(tx)** Eggers 1941c: 143; Schedl 1962k: 1087, 1967e: 214, 1979c: 20.
- angylocalyx (Schedl)** 1957d: 75 (*Mimips*). Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. Figures: Schedl 1962j: 72. Distribution: Africa (Zaire). Hosts: *Angylocalyx pynaertii*. References: **(ce)** Schedl 1958d: 187, 190, 1962j: 72. **(hb)** Schedl 1962j: 72. **(ds)** Schedl 1962j: 72, 1967e: 214. **(tx)** Schedl 1957d: 75, 1957c: 877, 1962j: 72.
- apicalis (Schedl)** 1977f: 501 (*Ips*). Holotype ♀?; Sumatra: Bandar Baroe; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Sumatra). References: **(tx)** Schedl 1977f: 501.
- artocarpi (Browne)** 1955: 347 (*Ips*). Holotype ♂; Malay Peninsula: Kelantan, Jeram; BMNH, London. Distribution: Asia (Malaysia). Hosts: *Artocarpus elasticus*. Notes: (1) Browne 1963c: 54 (to *Acanthotomicus*). References: **(hb)** Browne 1961c: 82. **(ds)** Browne 1955: 347, 1961c: 82, 1963c: 54. **(tx)** Browne 1955: 347.
- ashantius (Schedl)** 1977d: 284 (*Mimips*). Holotype, sex?; Ghana: Ashanti Region, Kwadaso, 259 m, N 6 degrees 42', W 1 degree 39'; NHMB, Budapest.

- Distribution: Africa (Ghana).
References: (tx) Schedl 1977d: 254.
- australis** (Schedl) 1972a: 147 (*Ips*). Holotype ♂; Queensland, Imbil; Queensland Museum, Brisbane.
Distribution: Australia (Queensland).
Hosts: *Ficus macrophylla*.
References: (tx) Schedl 1972a: 147, 1979c: 31.
- bicaudatus** (Eggers) 1927c: 80 (*Ips*). Lectotype ♂; Philippinen: Basilan; USNM, Washington, designated by Anderson & Anderson 1971: 6.
Distribution: Philippine Islands.
Hosts: Apatong log.
References: (ds) Schedl 1938g: 425–426, 1966b: 42, 1966g: 30. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1927c: 80; Schedl 1962c: 192, 1979c: 37.
- biconicus** (Schedl) 1938h: 460 (*Myeloborus*). Holotype ♂; Kongo; Schedl Collection in NHMW, Wien.
Figures: Numberg 1961a: 341, 345.
Distribution: Africa (Angola/ Equatorial Guinea/ Ghana/ Ivory Coast/ Nigeria/ Uganda/ Zaire).
Hosts: *Albizia gummifera*, *Millettia* spp., *Motandra guineensis*.
Notes: (3) Schedl 1957d: 74 (described female), 1938a: 173 (treated in *Myeloborus*), 1959p: 18 (treated in *Isophthorus*).
References: (ec) Schedl 1962j: 74. (hb) Schedl 1962j: 74. (ds) Ferreira 1965: 1118; Roberts 1969: 125; Schedl 1959p: 18, 1962h: 59, 1962j: 74, 1964e: 68, 1966c: 225, 1967e: 214, 1972e: 280, 1975h: 351, 1977d: 278, 1982: 281. (tx) Schedl 1938a: 173, 1938h: 460, 1957d: 15, 74, 1959p: 18, 1961m: 86, 1962j: 74, 1962k: 1088, 1962r: 97, 1979c: 39.
- confusus** Eggers 1941d: 179 (*Mimips*). Holotype, sex?; Fernando Poo (Spanisch-Guinea); IPKE, Eberswalde. Synonymy: Schedl 1961m: 86.
References: (tx) Eggers 1941d: 179; Schedl 1961m: 86, 1962j: 74.
- cavifrons** Numberg 1961: 342 (*Mimips*). Holotype ♂; Tshuapa: Bamania; MRCB, Tervuren. Synonymy: Schedl 1962r: 97.
References: (hb) Roberts 1969: 125. (tx) Browne 1963b: 245; Numberg 1961a: 341–342, 345; Schedl 1962k: 1088, 1962r: 97.
- bidens** (Schedl) 1967g: 229 (*Mimips*). Holotype ♂; Sibiti IRHO rain forest; NHMB, Budapest.
Distribution: Africa (Zaire).
References: (tx) Schedl 1967g: 229, 1979c: 39.
- bidentatus** (Schedl) 1957e: 876 (*Mimips*). Holotype, sex?; Kenya: Mukutano; BMNH, London.
Distribution: Africa (Kenya).
Hosts: *Rhus* sp.
References: (ds) Schedl 1962j: 77. (tx) Schedl 1957e: 876, 1962j: 77, 1979c: 39.
- bidentis** Wood 1972e: 191. Holotype ♂; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection, automatic.
Figures: Wood 1971: 41 (male declivity).
Distribution: South America (Colombia).
Hosts: *Icica altissima*.
References: (tx) McNamara 1977: 196; Wood, S. L. 1972e: 191.
- bidens** Wood 1971: 41 (*Mimips*). Holotype ♂; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia, Wood Collection, preoccupied by Schedl 1967.
References: (tx) Wood, S. L. 1971: 41, 1972e: 191.
- bispinosus** (Eggers) 1927c: 78 (*Ips*). Lectotype ♂; Philippinen: Mindoro, Mangarin; USNM, Washington, designated by Anderson & Anderson 1971: 6.
Distribution: Philippine Islands (Mindoro).
References: (ds) Schedl 1966b: 42. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1927c: 78; Schedl 1955b: 295, 1979c: 41.
- bolivianus** (Eggers) 1943a: 357 (*Isophthorus*). Holotype, sex?; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Eggers 1943a: 357, 1979c: 43.
- borneensis** Schedl 1964g: 245. Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1964g: 245, 1979c: 43.
- brasiliensis** (Schedl) 1976a: 72 (*Mimips*). Holotype, sex?; Ter. Ampara, Rio Felicio; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 72.
- caelatus** (Schedl) 1964f: 620 (*Mimips*). Holotype, sex?; Cameroon: N'Kongsamba; MNHN, Paris.
Distribution: Africa (Cameroon).
Hosts: *Canarium sluiceifurthii*.
References: (ds) Menier 1973a; Schedl 1966c: 225, 1967e: 214. (tx) Schedl 1964f: 620, 1979c: 49.
- camerunus** (Eggers) 1944b: 95 (*Mimips*). Holotype ♂; Kamerun, Misselle am Kamerunberg; Hamburg Museum, lost.
Distribution: Africa (Cameroon).
References: (tx) Eggers 1944b: 95; Schedl 1962j: 77.
- caudatulus** (Schedl) 1962b: 192 (*Ips*). Holotype ♂; Indochina: Reg. de Hoa-Benh; MNHN, Paris.
Distribution: Asia (Vietnam).
References: (ds) Schedl 1962b: 192, 1974c: 262, 1979c: 54.
- caudatus** (Browne) 1970: 559 (*Mimips*). Holotype ♂; Rhodesia: Matopo Hills, Maleme Dam; BMNH, London.
Distribution: Africa (Zimbabwe).
References: (tx) Browne 1970: 559.

- celtis** (Schedl) 1955b: 295 (*Ips*). Holotype, sex?; Neu Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 280, 295, 1979c: 55.
- chiriquensis** (Blandford) 1898b: 189 (*Xylocleptes*). Lectotype ♂; Volcan de Chiriqui, Panama; BMNH, London, designated by Wood 1966b: 24.
Distribution: North America (Panama).
Notes: (1) Wood 1982b: 667 (to *Acanthotomicus*).
References: (ds) Hagedorn 1910d: 62; Kleine 1913b: 132, 362; Wood, S. L. 1982b: 667. (tx) Blandford 1898b: 189; Hagedorn 1910a: 107; Wood, S. L. 1966b: 24, 1982b: 667.
- ciliatus** (Hagedorn) 1909a: 743 (*Pocillips*). Holotype, sex?; Deutsch-Ostafrika, Amani; Hamburg Museum, lost.
Distribution: Africa (Tanzania).
Notes: (1) Eggers 1932c: 33 (to *Mimips*, = *Acanthotomicus*).
References: (ds) Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 322. (tx) Eggers 1932c: 33; Hagedorn 1909a: 743–744, 1910a: 112; Schedl 1962j: 78.
- congonus** (Eggers) 1932c: 33 (*Mimips*). Holotype ♀; Congostaat (Haut-Uele: Yebo-Tara); MRCB, Tervuren.
Distribution: Africa (Tanzania/ Zaire).
References: (ec) Vitzthum 1923: 181. (ds) Hagedorn 1910d: 77. (tx) Eggers 1932c: 33; Hagedorn 1910a: 112; Schedl 1948c: 664, 1962j: 78.
- congruens** (Schedl) 1962k: 1089 (*Mimips*). Holotype ♀; Congo: Rutshuru-Falls; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: Liana.
References: (tx) Schedl 1962k: 1089, 1979c: 63.
- conjunctus** (Schedl) 1962l: 70 (*Mimips*). Holotype, sex?; Ghana, Kumasi; BMNH, London.
Distribution: Africa (Ghana).
References: (ds) Schedl 1962h: 59. (tx) Schedl 1962h: 70, 1962j: 78–79, 1962k: 1090, 1979c: 63.
- craterigerus** (Nunberg) 1961: 621 (*Orthotomicus*). Holotype ♂; New Ireland, Namatanai; BMNH, London.
Figures: Nunberg 1961b: 631.
Distribution: New Ireland Island.
Notes: (1) Browne 1970: 560 (to *Acanthotomicus*).
References: (tx) Browne 1970: 560; Nunberg 1961b: 621, 631; Schedl 1962n: 699.
- curvidens** (Schedl) 1955f: 258, 262 (*Brachyden-drusus*). Holotype, sex?; Ruanda: Terr. Astrida, Rutovu, gite d'etape dans la foret du Rugege, Foret de montagne ombrophile; MRCB, Tervuren.
Distribution: Africa (Ruanda/ Zaire).
Hosts: *Hagenia* sp., *Podocarpus* sp.
References: (ds) Schedl 1962j: 79. (tx) Schedl 1955f: 258, 262, 1962j: 79, 1979c: 72.
- dentatus** Schedl 1954a: 149. Holotype ♀; apparently Java: Dapok; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (tx) Schedl 1954a: 144, 149, 1979c: 77.
- denticulus** (Eggers) 1923: 163 (*Ips*). Lectotype, sex?; Neu Guinea; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 78.
Distribution: New Guinea.
References: (tx) Eggers 1923: 163; Schedl 1979c: 78.
- duplicatus** (Schedl) 1973d: 170 (*Mimips*). Holotype ♂; Brasilien: Mato Grosso, Utiariti, 325 m, Rio Papagaio; MZUSP, Sao Paulo.
Distribution: South America (Brazil).
References: (tx) Schedl 1973d: 170, 1979c: 85.
- elongatus** (Schedl) 1961m: 86 (*Mimips*). Holotype, sex?; Cote d'Ivoire, foret du Banco; MNHN, Paris.
Distribution: Africa (Ghana/ Ivory Coast).
Hosts: *Canarium schweinfurthii*.
References: (ds) Schedl 1964e: 68, 1972e: 282. (tx) Schedl 1961m: 86, 1962j: 79, 1979c: 89.
- emarginatus** Browne 1985a: 191. Holotype ♂; Bonyosmiaf (Halmahera), Moluccas to Nagoya (Japan), imported; Schedl Collection in NHMW, Wien.
Distribution: Moluccas Islands.
Hosts: *Anisoptera* sp.
References: (ds) Ohno, Yoneyama, & Narazawa 1987: 93. (tx) Browne 1985a: 191.
- euphorbiae** (Schedl) 1957d: 76 (*Mimips*). Holotype, sex?; Ruanda: Kisenyi; MRCB, Tervuren.
Distribution: Africa (Ruanda/ Uganda/ Zaire).
Hosts: *Cassia* sp., *Euphorbia tirucalli*.
References: (ds) Gardner 1957a; Schedl 1962h: 59, 1962j: 80, 1962k: 1090, 1967e: 215. (tx) Schedl 1955i: 212, 1957d: 76, 1962j: 80, 1970i: 223, 1979c: 92.
- atratus** Browne 1965: 197 (*Mimips*). Holotype ♂; Uganda: Zika; BMNH, London. Synonymy: Schedl 1970i: 223.
References: (tx) Browne 1965: 197; Schedl 1970i: 223.
- excavatus** (Schedl) 1962k: 1090 (*Mimips*). Holotype ♂; Congo: Kivu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1962k: 1090, 1979c: 93.
- eximius** (Schedl) 1955b: 296 (*Ips*). Holotype, sex?; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 280, 296, 1979c: 94.
- fallaciosus** (Schedl) 1962k: 1091 (*Mimips*). Holotype ♀; Cote d'Ivoire: Foret du Banco; MNHN, Paris.

Distribution: Africa (Ivory Coast).

References: (ds) Schedl 1962k: 1091, 1964e: 68. (tx) Schedl 1962k: 1091, 1979c: 95.

fici **Browne** 1984: 154. Holotype, sex[?]; Amazon (Papua New Guinea) to Nagoya [Japan], imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Ficus* sp.

References: (ds) Ohno et al. 1989: 60. (tx) Browne 1984: 154.

fortis (**Wood**) 1971: 40 (*Mimips*). Holotype ♂; Finca Taboga, 15 km SW Canas, Guanacaste, Costa Rica; Wood Collection.

Figures: Wood 1971: 40.

Distribution: North America (Costa Rica/Panama).

Hosts: *Spondias mombin*.

References: (hb) Wood, S. L. 1982b: 666. (ds) Wood, S. L. 1982b: 666. (tx) Wood, S. L. 1971: 40, 1982b: 666.

gracilis (**Schedl**) 1966c: 236 (*Mimips*). Holotype, sex[?]; Republique du Congo; MNHN, Paris.

Distribution: Africa (Zaire).

References: (tx) Schedl 1966c: 236, 1979c: 108.

grandis **Browne** 1986c: 664. Holotype ♂; New Guinea: Amazon to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Ficus* sp. log.

References: (tx) Browne 1986c: 664.

granulatus (**Ferrari**) 1867a: 40 (*Xylocleptes*). Lectotype ♂; Venezuela, Moritz [presumably Colonia Tovar]; NHMW, Wien, designated by Wood 1974d: 277.

Figures: Wood 1971: 42.

Distribution: South America (Venezuela).

Hosts: Liana.

References: (ds) Gemminger & Harold 1872: 2693; Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 339. (tx) Ferrari 1867a: 40; Hagedorn 1910a: 107; Wood, S. L. 1974d: 277.

uncinatus **Wood** 1971: 41 (*Mimips*). Holotype ♂; Colonia Tovar, Aragua, Venezuela; Wood Collection. Synonymy: Wood 1974d: 277.

References: (tx) Wood, S. L. 1971: 41–42, 1974d: 277.

harongae (**Schedl**) 1954d: 882 (*Ips*). Syntypes ♂ ♀; Cote d'Ivoire, Adiopodoume; MNHN, Paris and Schedl Collection in NHMW, Wien.

Distribution: Africa (Ghana/Ivory Coast).

Hosts: *Haronga paniculata*.

Notes: (1) Schedl 1962j: 80 (to *Mimips*, =*Acanthotomicus*).

References: (ds) Schedl 1962j: 80, 1966c: 226, 1967e: 215, 1972e: 282. (tx) Schedl 1954d: 871, 882, 1957b: 157, 1962j: 80, 1979c: 115.

immunitis (**Browne**) 1965: 200 (*Mimips*). Holotype, sex[?]; Ivory Coast: Adiopodoume; BMNH, London.

Distribution: Africa (Ivory Coast).

References: (tx) Browne 1965: 200.

inclinans (**Schedl**) 1972h: 51 (*Ips*). Holotype ♂; New Guinea (NW), Bodem, 100 m, 11 km SE Oerberfaren; BPBM, Honolulu.

Distribution: New Guinea.

References: (tx) Schedl 1972h: 51, 1979c: 123.

insularis (**Eggers**) 1923: 164 (*Ips*). Lectotype ♂; Key Inseln; USNM, Washington, designated by Anderson & Anderson 1971: 15.

Distribution: Indonesia (Key Island).

References: (tx) Anderson, W. H. & Anderson 1971: 15; Eggers 1923: 164, 1927c: 78; Schedl 1979c: 125.

ipsiformus **Wood** 1985: 270. Holotype ♂; Santa Rosa National Park, Guanacaste, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Spondias mombin*.

References: (tx) Wood, S. L. 1985: 270.

katangensis (**Eggers**) 1932c: 34 (*Mimips*). Holotype ♀; Congostaat (Katanga: Lubombo); MRCB, Tervuren.

Distribution: Africa (Tanzania/Uganda/Zaire).

Hosts: Liana.

References: (hb) Schedl 1962j: 81. (ds) Numberg 1961a: 332; Schedl 1962h: 59, 1962j: 81, 1962k: 1092. (tx) Eggers 1932c: 34; Schedl 1962j: 81, 1962k: 1092, 1979c: 131.

kelantanensis (**Browne**) 1955: 345 (*Ips*). Holotype ♂; Malay Peninsula: Kelantan, Pulau Chondong; BMNH, London.

Distribution: Asia (Malaya).

References: (ds) Browne 1955: 345, 1961c: 82.

kepongi (**Schedl**) 1942a: 181 (*Ips*). Holotype, sex[?]; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya/Vietnam).

Hosts: *Artocarpus kunstleri*, *Ficus* sp.

References: (ds) Browne 1961c: 82; Schedl 1969a: 206. (tx) Schedl 1942a: 181, 1979c: 132.

kivuensis (**Schedl**) 1957d: 74 (*Mimips*). Holotype ♂; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Haronga paniculata*.

References: (cc) Schedl 1962j: 82. (hb) Schedl 1962j: 82. (ds) Schedl 1962j: 82. (tx) Schedl 1957d: 74, 1962j: 82.

leferrei (**Browne**) 1973: 292 (*Mimips*). Holotype ♂; Zaire: Mweka; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Browne 1973: 292.

- lepidus (Wichmann)** 1914c: 138 (*Pityogenes*). Holotype ♂; Dinbroko, Cote d'Ivoire; NHMW, Wien.
Distribution: Africa (Ivory Coast).
Notes: (1) Schedl 1954: 871 (to *Mimips*, =*Acanthotomicus*).
References: (ds) Kleine 1914b: 309. (tx) Schedl 1954d: 871, 1957d: 15, 1962j: 84; Wichmann 1914c: 138.
- major (Schedl)** 1964f: 621 (*Mimips*). Holotype ♀; Cameroun, N'Kongsamba; MNHN, Paris.
Distribution: Africa (Cameroun).
References: (tx) Schedl 1964f: 621, 1979e: 146.
- medius (Eggers)** 1943e: 75 (*Mimips*). Holotype ♂; Mozambique (Cauxixe); MNHN, Paris.
Distribution: Africa (Kenya/ Mozambique/ South Africa/ Tanzania/ Zaïre).
References: (ds) Browne 1975a: 758; Nunberg 1961a: 332; Schedl 1962j: 85, 1962k: 1092, 1965e: 353, 1977c: 394. (tx) Eggers 1943e: 75, 1944b: 93; Schedl 1948c: 664, 1950d: 8, 1962j: 85, 1962k: 1092, 1964j: 47, 1979c: 150.
- mimicus (Schedl)** 1961i: 227 (*Mimips*). Holotype ♂; Costa Rica: Turrialba; Schedl Collection in NHMW, Wien.
Figures: Bright 1972d: 59, Wood 1971: 39.
Distribution: Antilles Islands (Dominican Republic in Hispanola/ Jamaica), North America (Costa Rica/ Veracruz in Mexico/ Panama), South America (Brazil/ Venezuela).
Hosts: *Spondias mombin*.
References: (hb) Wood, S. L. 1982b: 665. (ds) Bright 1972d: 69, 1981c: 152, 1985c: 173; Browne 1970: 541; Estrada & Atkinson 1988: 206; Schedl 1960d: 75; Wood, S. L. 1982b: 665. (tx) Bright 1972d: 59, 69, 1985c: 173; Browne 1970: 541; Schedl 1961i: 227; Wood, S. L. 1971: 39, 1979c: 153, 1982b: 665.
- octodentatus Browne** 1984: 153. Holotype ♂; Niah (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: Medang log.
References: (tx) Browne 1984: 153.
- octospinosus (Schedl)** 1957c: 877 (*Mimips*). Holotype ♂; Tanganyika: Gologolo; BMNH, London.
Distribution: Africa (Tanzania).
Hosts: *Cussonia* sp.
References: (ds) Schedl 1962j: 85. (tx) Schedl 1957c: 877, 1962j: 85, 1979c: 177.
- ocularis (Wood)** 1971: 42 (*Mimips*). Holotype ♂; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.
Figures: Wood 1971: 42.
Distribution: South America (Colombia).
Hosts: *Icica altissima*.
References: (tx) Wood, S. L. 1971: 42.
- ouerosus (Schedl)** 1942a: 180 (*Ips*). Lectotype ♀; Malaya, Selangor; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 178.
Distribution: Asia (Malaya).
Hosts: *Alatonia spathulata*.
References: (hb) Browne 1938a. (ds) Browne 1938a, 1949b. (tx) Browne 1949b; Schedl 1942a: 180, 1979c: 178.
- pachylobius (Schedl)** 1965e: 371 (*Mimips*). Holotype, sex?; Congo ex belge; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaïre).
Hosts: *Pachylobius pubescens* (= *Dacryodes buetneri*).
References: (tx) Schedl 1965e: 371, 1979c: 182.
- parcius (Schedl)** 1977f: 502 (*Ips*). Holotype sex?; Malaya: Kepong; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: (tx) Schedl 1977f: 502.
- peregrinus (Schedl)** 1939e: 350 (*Ips*). Lectotype ♂; Malaya, Selangor: Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189.
Distribution: Asia (Malaya/ Thailand).
Hosts: Burseraceae sp.
Notes: (3) Browne 1955: 346 (described male).
References: (hb) Browne 1938a. (ds) Browne 1938a, 1950g: 895, 1955: 345–346, 1961c: 82, 1986a: 89. (tx) Browne 1955: 345–346, 1961: 82–83, 1963: 54; Schedl 1939e: 350, 1979c: 189.
- perexiguus (Blandford)** 1896b: 201 (*Tomicus*). Syn-types 2, ♂ ♀; Damma I.; BMNH, London.
Distribution: Asia (Malaya/ Thailand/ Vietnam), Indonesia (Damma Island, Java, Sumatra), New Guinea, Philippine Islands.
Hosts: *Ficus religiosa*, *F. spp.*, *Ceiba pentandra*.
References: (hb) Kalshoven 1958b: 173. (ds) Beaver 1990a: 279; Beaver & Browne 1975: 287; Browne 1966: 245, 1980d: 491, 1984a: 151, 1984b: 286; Hagedorn 1910d: 56; Kalshoven 1968: 173; Kleine 1913b: 128, 1914b: 280; Ohno et al. 1989: 60; Schedl 1937f: 15, 1961c: 70, 1965a: 340, 1965g: 22, 1966b: 43, 1969a: 205. (tx) Blandford 1896b: 201; Eggers 1927c: 78; Hagedorn 1910a: 105; Schedl 1939e: 350, 1942a: 170, 1942d: 4, 1953b: 24, 1965g: 22.
- philippinensis** Eggers 1927c: 78 (*Ips*). Lectotype, sex?; Philippines: Mindanao, Provinz Lanao, Momungan; USNM, Washington, designated by Anderson & Anderson 1971: 25. Synonymy: Schedl 1942d: 4.
References: (tx) Anderson, W. H. & Anderson 1971: 25; Eggers 1927c: 78; Schedl 1939e: 350, 1942d: 4, 1979c: 192.
- pilosellus (Browne)** 1965: 197 (*Mimips*). Holotype ♂; Ivory Coast: Adiopodoume; RNH, Leiden.
Figures: Nunberg 1967b: 337–338.

- Distribution: Africa (Ghana/ Ivory Coast/ Uganda).
References: **(ds)** Numberg 1967b: 324. **(tx)** Browne 1965: 197; Numberg 1967b: 337, 338.
- pilosus (Eggers)** 1924: 106 (*Ips*). Syntypes 5, sex?; Elisabethville; 3 in MRCB, Tervuren, 2 in USNM, Washington, 1 in Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Mozambique/ South Africa/ Tanzania/ Zaire/ Zambia), Madagascar.
Notes: (1) Eggers 1932c: 33 (to *Mimips*, =*Acanthotomicus*).
References: **(ds)** Beaver & Loytyniemi 1985a: 67; Ferreira 1965: 1118; Numberg 1961a: 332; Schedl 1959p: 18, 1962j: 86, 1962k: 1093. **(tx)** Eggers 1924: 106, 1927a: 198, 1932c: 33, 1943e: 75; Schedl 1948c: 664, 1950c: 204, 1950d: 8, 1952g: 51, 1959p: 18, 1962j: 86, 1962k: 1093, 1964j: 47, 1979c: 194.
- quadridens (Schedl)** 1962k: 1093 (*Mimips*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.
Figures: Schedl 1961k: 678.
Distribution: Africa (Cameroon).
References: **(tx)** Schedl 1961k: 678, 1962k: 1093, 1979c: 208.
- quadrispinosus (Eggers)** 1919: 243 (*Xylocleptes*). Syntypes 2 ♀; Kamerun, Soppo 800 m und Buea 1000 m; MNB, Berlin.
Figures: Schedl 1961k: 678 (antenna).
Distribution: Africa (Cameroon).
Notes: (1) Eggers 1944b: 96 (to *Acanthotomicus*).
References: **(tx)** Eggers 1919: 243, 1944b: 96; Schedl 1961k: 678, 1962j: 86, 1962r: 95, 1964f: 620, 1979c: 208–209.
- quadrituberculatus (Schedl)** 1938a: 173 (*Isophthorus*). Holotype, sex?; Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Ghana/ Ivory Coast/ Mozambique/ Uganda/ Zaire).
References: **(ds)** Ferreira 1965: 1118; Schedl 1959p: 18, 1961m: 84, 1962h: 59, 1962j: 87, 1962k: 1094, 1972e: 282. **(tx)** Schedl 1938a: 173–174, 1962j: 87, 1962k: 1094, 1979c: 209.
- fallax** Eggers 1943e: 76 (*Mimips*). Holotype ♀; Mozambique (Canxixe); MNHN, Paris. Synonymy: Wood 1989: 169.
References: **(tx)** Browne 1963: 246; Eggers 1943e: 76; Schedl 1962j: 87; Wood, S. L. 1989: 169.
- robertsi (Browne)** 1965: 198 (*Mimips*). Holotype, sex?; Nigeria: Oban; BMNH, London.
Distribution: Africa (Nigeria).
References: **(hb)** Roberts 1969: 126. **(tx)** Browne 1965: 198
- sexdentatus (Eggers)** 1944b: 96 (*Mimips*). Holotype ♂; Belgisch-Congo; USNM, Washington.
- Distribution: Africa (Angola/ Cameroon/ Equatorial Guinea/ Kenya/ Nigeria/ Zaire).
Hosts: *Albizzia coriaria*, *Amphimas ferrugineus*, *Cleistopholis patens*, *Klainedoxa gabonensis*.
References: **(cn)** Mayne & Donis 1951: 332. **(ce)** Mayne & Donis 1951: 332. **(ds)** Browne 1973a: 280; Ferreira 1965: 1119; Mayne & Donis 1959: 332, 1962: 309; Menier 1973a; Schedl 1959p: 8, 18, 1962j: 87, 1964f: 618, 1965e: 35, 1967e: 215. **(tx)** Anderson, W. H. & Anderson 1971: 29; Eggers 1944b: 96; Schedl 1950d: 12, 27, 1962j: 87–88, 1979c: 227.
- sexspinus (Schedl)** 1942a: 181 (*Ips*). Lectotype ♂; Malaya, Selangor, Buloh F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 227.
Distribution: Asia (Malaya).
Hosts: Burceraceae sp.
References: **(ds)** Browne 1961c: 83. **(tx)** Schedl 1942a: 181, 1979c: 227.
- seydeli (Schedl)** 1965e: 372 (*Mimips*). Holotype, sex?; Congo ex belge, Elisabethville; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: **(tx)** Schedl 1965e: 372, 1979c: 227.
- simplex (Schedl)** 1962k: 1094 (*Mimips*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: **(tx)** Schedl 1962k: 1094, 1979c: 230.
- sindorae Browne** 1981c: 600. Holotype ♂; Bangkumiang (Borneo) to Yokohama (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: Sepetir log.
References: **(tx)** Browne 1981c: 600.
- spinidens (Schedl)** 1962k: 1095 (*Mimips*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: **(tx)** Schedl 1934f: 1645, 1962k: 1095, 1979c: 234.
- spinus Blandford** 1894d: 90. Syntypes 2 ♂; Japan: Oyayama and Nikko; BMNH, London.
Figures: Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 2–3.
Distribution: Asia (Japan).
Hosts: *Quercus myrsinsefolia*.
References: **(cn)** Anonymous 1980g. **(ds)** Anonymous 1980g; Blandford 1894c: 579; Browne 1981a: 125; Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 258; Murayama 1936a: 129, 1954b: 201, 1955: 99; Nakane et al. 1963: 383; Nobuchi 1974: 54. **(tx)** Blandford 1894d: 90–91; Hagedorn 1910a: 107; Hopkins 1914: 116; Lucas 1920: 69; Murayama 1934c: 299, 1936a: 129, 1939: 140, 1954b: 201, 1955: 99; Nakane et al. 1963: 383, pl. 192; Nobuchi 1959b: 14, 1974: 54, pl. 2–3; Strohmeyer 1908b: 70. **(ms)** Lucas 1920: 69.

- subimmunitus** (Schedl) 1964j: 47 (*Mimips*). Holotype, sex?; Ghana: Kumasi; BMNH, London.
Distribution: Africa (Ghana).
Hosts: *Terminalia ivorensis*.
References: (ds) Schedl 1962j: 88. (tx) Schedl 1962j: 88, 1964j: 47, 1979c: 242.
- sumatranus** Strohmeier 1908b: 69. Holotype ♂; Sumatra insula (Palembang); IPKE, Eberswalde.
Distribution: Indonesia (Java, Sumatra).
References: (hb) Kalshoven 1958b: 173. (ds) Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 285. (tx) Hagedorn 1910a: 107; Kalshoven 1959b: 94, 1960d; Schedl 1942d: 25; Strohmeier 1908b: 69–70.
- latedeclivis** Schedl 1942d: 25 (*Ips*). Syntypes, sex?; Java, Djember; Kalshoven Collection and Schedl Collection in NHMW, Wien. Synonymy: Kalshoven 1958: 173.
Notes: (1) Schedl 1979c: 136 (citation of holotype invalid).
References: (tx) Kalshoven 1958: 173; Schedl 1942d: 25, 1979c: 136.
- suspectus** (Schedl) 1965e: 373 (*Mimips*). Holotype, sex?; Congo ex belge—Mulungu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1965e: 373, 1979c: 247.
- sutirifer** (Schedl) 1965f: 11 (*Mimips*). Holotype, sex?; Uganda, Mpanga; BMNH, London.
Distribution: Africa (Uganda).
References: (hb) Roberts 1969: 126. (tx) Schedl 1962j: 88, 1965f: 11.
- tanganyikaensis** (Schedl) 1957b: 157 (*Ips*). Syntypes, sex?; Tanganyika, Ngorongoro; BMNH, London, and Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Kenya/ Tanzania/ Zaire).
Hosts: *Bersama abyssinica*, *Ricinus communis*.
Notes: (3) Browne 1965a: 196 (described female).
References: (ds) Schedl 1959p: 18, 1962j: 89, 1962k: 1096. (tx) Browne 1965a: 196; Schedl 1957b: 152, 157–158, 1959p: 18, 1959q: 705, 1962j: 89, 1962k: 1096, 1979c: 249.
- tenis** (Schedl) 1966c: 237 (*Mimips*). Holotype ♂; Republique du Congo, Dimonika; MNHN, Paris.
Distribution: Africa (Congo).
References: (tx) Schedl 1966c: 237, 1979c: 251.
- tridens** (Schedl) 1967e: 230 (*Mimips*). Holotype ♂; Bouenza cataract; NHMB, Budapest.
Distribution: Africa (Zaire).
References: (tx) Schedl 1967e: 230, 1979c: 255.
- tridentatus** (Schedl) 1977d: 284 (*Mimips*). Holotype ♂; Brazzaville, Orstom Park; NHMB, Budapest.
Distribution: Africa (Congo).
References: (tx) Schedl 1977d: 284.
- tropicus** (Schedl) 1936j: 25 (*Orthotomicus*). Lectotype ♂; Malay Peninsula, Pahang: Rotan Tunggal Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 256.
Distribution: Asia (Malaya).
Hosts: *Shorea* spp.
Notes: (1) Browne 1963c: 54 (to *Acanthotomicus*).
References: (ds) Browne 1961c: 83, 1980a: 371; Schedl 1936j: 25. (tx) Browne 1963c: 54; Schedl 1936j: 25–26, 1939e: 350, 1979c: 256.
- tuberculatus** (Eggers) 1927c: 79 (*Ips*). Lectotype ♂; Philippinen: Mindoro, Mangarin; USNM, Washington, designated by Anderson & Anderson 1971: 35.
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 42. (tx) Anderson, W. H. & Anderson 1971: 35; Eggers 1927c: 79, 1933g: 18; Schedl 1942d: 25, 1951i: 50, 1954e: 165, 1979c: 257.
- tuberculifer** Wood 1988a: 31. Holotype ♂; Bouenza cataract; NHMB, Budapest, automatic.
Distribution: Africa (Zaire).
References: (tx) Wood, S. L. 1988a: 31.
- tuberculatus** Schedl 1967e: 230 (*Mimips*). Holotype ♂; Bouenza cataract; NHMB, Budapest, preoccupied by Eggers 1927.
References: (tx) Schedl 1942d: 25, 1951i: 50, 1967e: 230–231, 1979c: 257; Wood, S. L. 1988a: 31.
- uncus** (Schedl) 1942a: 180 (*Ips*). Lectotype ♂; Malaya, Selangor; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 260.
Distribution: Asia (Malaya).
Hosts: *Dialium* sp.
References: (ds) Browne 1961c: 83. (tx) Schedl 1942a: 180, 1979c: 260.
- uniformis** (Schedl) 1962k: 1096 (*Mimips*). Holotype ♀; Congo: Kivu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1962k: 1096, 1979c: 260.
- variabilis** (Browne) 1963: 246 (*Mimips*). Holotype ♂; Nigeria: Iddah; BMNH, London.
Distribution: Africa (Nigeria).
References: (hb) Roberts 1969: 126. (tx) Browne 1963: 246.

Genus *Ips* DeGeer

- Ips* DEGEER 1775: 190. Type-species: *Dermestes typographus* Linnaeus, subsequent designation by Bergroth 1884: 230.
- Cumtomicus* Ferrari 1867: 44. Type-species: *Bostrichus stenographus* Duftschmidt = *Dermestes sexdentatus* Boerner. Synonymy: Hagedorn 1910d: 47.
References: (tx) Ferrari 1867a: 44; Hagedorn 1910d: 47; Murayama 1937: 373; Reitter 1913a: 104.
- Cyrtomicus* Ferrari 1867: 44. Type-species:

Bostrichus acuminatus Gyllenhal, subsequent designation by Hopkins 1914: 120. Synonymy: Eichhoff 1878b: 254.

References: (tx) Eichhoff 1878b: 254; Ferrari 1867a: 44; Hopkins 1914: 120; Reitter 1913a: 104.

Keys: Hopping 1963–1965, Wood 1982b: 669 for North America, Schedl 1950a: 69 for Europe and part of Asia, Yin, Huang, & Li 1984: 127 for China, Nobuchi 1974: 49 for Japan.

References: (ay) Nobuchi 1969a: 65. (bv) Anonymous 1972w. (cn) Anderson 1968: 2676; Andreeva & Gorjaceva 1960: 102–107; Annand 1948: 27, 1949: 8–9; Anonymous 1983j; Aulo 1926: 56–60; Balch 1941: 1–4; Beal 1939: 1–20; Bennett et al. 1958: 1–35; Berisford, Kulman, & Pienkowski 1970: 484–490; Briegleb 1958: 15–16; Brown 1943: 1–12; Buffam & Lucht 1968: 1465–1466; Collinge 1915: 789–791; Hagle et al. 1987: 41; Hetrick 1949: 149–151; Hetrick & Moses 1953: 160–161; Hornibrook 1936: 620–622; Hunter & Davis 1963: 287–293; Keen 1949: 427–432; Kowal 1949: 476–477, 1958: 159–171; Krantz 1965: 145–153; Lexen 1939: 259–262; Mason 1969: 390–398; Massey 1969: 1–4; Matson & Hain 1985; McCambridge et al. 1958: 5–8; McGraw & Farrier 1969: 162; Nagel 1959: 1–10; Nagel, McComb, & Knight 1957: 894–898; Neel 1959: 1–2, 8; Nelson 1934: 327–353; Nieland 1943: 8–9; Nisikado & Yamauti 1933: 501–538; Pechanec 1958: 45–47; Rumbold 1931: 847–873, 1936: 418–437; Schenk 1961: 3578; Schmutzenhofer 1988a, 1988b; Skelly et al. 1988; Smith 1962: 113–116; Stephenson 1958: 210; Stolina 1969: 610–627; Udine 1958: 11–12; Weidman & Robbins 1947: 428–433; Wickman 1965: 1–14; Wilkinson et al. 1967: 185–195; Yearian & Wilkinson 1965: 25–27; Zivojinovic 1948: 65–73; Zolk 1935: 258–294, 1937: 147–172. (ec) Johnson, M.A., & Croteau 1987; Kielczewski & Balazy 1966: 161–163; Lindquist & Bedard 1961: 982–999; Muesebeck 1938: 281–287; Nelson 1934: 327–353. (hb) Chapman 1957: 3–4; Chararas & Berton 1961: 235–243; Keen 1933: 297–298; Rice 1968: 53–56; Skelly et al. 1988; Vite & Renwick 1968: 61–64; Wood, S. L. 1986a: 70. (ds) Parkenson 1967: 9; Schedl 1966b: 42; Scheerpeltz & Winkler 1930: 258; Tragardh 1930: 468–480; Wood, S. L. 1986a: 70; Yin, Huang, & Li 1984: 126. (tx) Balachowsky 1949a: 262; Barr 1969: 636–672; Beal & Massey 1945: 61, 150; Bedel 1888b: 400–401; Bergoth 1884: 230; Blackman 1922b: 77, 111–112; Blandford 1895b: 185, 188; Bright 1978: 150; Bright & Stark 1973: 83; DeGeer 1775: 190; Dodge 1938: 19, 47–48; Ganglbauer 1902: 311; Giric 1969: 44–45; Goz 1886: 31; Hetrick 1942: 181–183, 1943: 30; Hicock 1942: 622–623; Hopping, G. 1961b: 1050–1053, 1963c: 508–516, 1963d: 1091–1096, 1963e: 1202–1210, 1964b: 970–978, 1965b: 533–541, 1965c: 193–198, 1965d: 159–172, 1965e:

422–434, 1965f: 803–809; Hopping, R. 1922: 128–134, 1924: 125–128; Karaman 1972: 151; King 1967: 4606; Kostin 1973: 266; Lanier 1968: 4167, 1970a: 1404–1423, 1970b: 1139–1163, 1977: 361–388; Lanier & Cameron 1969: 862–870; Little 143: 245–246; Marshall 1802: 51; Murayama 1929: 23, 1930: 18; Nobuchi 1974: 49; Nusslin 1912: 101–107; Pfeffer 1989a: 73; Reitter 1894: 80, 1913a: 102–111; Saalas 1914: 304–305; Schedl 1950a: 67–88, 1955g: 1–48, 1955k: 145; Schmutzenhofer 1988a, 1988b; Sokanovskii 1937: 50–51, 57; Spesivtsev 1922: 479, 1931: 90; Stresemann et al. 1989: 351; Swaine 1909: 119, 1913: 87–92, 1918a: 107–120; Thatcher, T. O. 1948: 1–150, 1957: 28; Trappen 1935: 143; Tredl 1907: 15; Weaver 1943: 8; Wood, S. L. 1986a: 70; Yin, Huang, & Li 1984: 126. (ms) Hopping, G. 1961b; Kubo et al. 1986; Skelly et al. 1988. [As *Tomicus*]: Barbey 1901: 81; Bargmann 1900: 169; Bedel 1888b: 400–401; Beeson 1930: 83; Bergoth 1884: 230; Bruck 1936a: 41; Eichhoff 1878b: 220, 1881a: 48, 211; Judeich & Nitsche 1895: 448–451; Lacordaire 1869: 382; Latreille 1807: 276; LeConte 1868: 162–164, 1987: 346, 362; LeConte & Horn 1883: 518–519; Provancher 1877: 569; Stebbing 1903: 225, 1907: 39, 1909: 25, 29, 1914: 561; Swaine 1909: 119.

acuminatus (Gyllenhal) 1827: 620 (*Bostrichus*). Syntypes, sex²; apparently Sweden; not located. Figures: Bakke 1960: 303, Balachowsky 1949: 266, Barbey 1925: 234, Bevan 1987: 114, Grune 1979: 150, Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 1, 3, Tsai & Li 1959: 97.

Distribution: Asia (Heilongjiang, Hunan, Jilin, Neimeng, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea/ Mongolia/ Syria/ Thailand/ Turkey/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., rare in *Picea*, *Abies*, *Larix*.

Notes: (3) Sturm 1826: 102 (named *Bostrichus quadridentatus*, nomen nudum, no status), Dejean 1837: 332 (named *Bostrichus iconographus* and *B. porographus*, nomen nudum, no status), Ferrari 1868: 44 (cited this species in *Cyrtotomicus*). References: (ay) Beal 1927b; Courtois, Chararas, & Debris 1964a, 1964b; Courtois et al. 1964a: 397, 1964b, 1964c, 1965; Escherich 1923b: 486, 539; Farris 1969: 529; Feytaud 1950a; Francke-Crosman 1956b, 1966b; Fuchs 1911a; Gehrken 1985, 1989; Gehrken & Zachariassen 1977; Lanier & Kirkendall 1986: 87–96; Nunberg 1925a: 141, 1950a: 138; Nusslin 1911a: 150, 155; Saalas 1938a: 119; Scherb 1971; Ternier 1970b; Wichmann 1912a. (bv) Annala 1971a: 12, 1971b: 10; Bakke 1967b: 49–53, 1973, 1978a; Butovitsch & Ringselle 1968:

- 24; Chararas 1976b, 1980a; Chararas, Desveaux, & Kogane-Charles 1960: 921; Francke et al. 1986; Gavelis & Jakaitis 1981; Grune 1979: 151; Inscoc 1982; Jacobson 1972; Kevdina 1987: 108; Klassen, Ridgway, & Inscoc 1982; Kohnle, Kopp, & Francke 1986: 316-319; Kohnle et al. 1988; Numborg 1950a: 138; Nuorteva 1956c: 93; Perrot 1977; Prell 1930c: 643; Rozhkov 1970: 148; Rutledge, Chararas, & Ducauz 1988; Silverstein & Young 1976: 21; Tragardh 1930b: 103; Teurlay et al. 1977; Vite, Bakke, & Renwick 1972: 1971; Wichmann 1912a. (cn) Acatay 1943a: 67; Agafonov & Kaklin 1979; Andersson & Lekander 1966: 684; Anonymous 1948k: 3, 1978i, 1978w, 1980g; Ass & Funtikov 1941; Bakke 1956: 40-42, 1960: 303; Barbey 1925: 234; Belanovskii 1930: 797-799; Berdennikova 1954: 85; Bertolini 1929: 103-131; Blandford 1892a; Browne 1968: 363; Butovitsch & Ringselle 1968: 24; Butovitsch & Spaack 1941: 200-223; Carle, Vincq, & Bizet 1979; Chararas 1978; Chorbadzhievo 1929; Crooke 1955b, 1956; Dobrodeev 1924: 70-76; Donaubauer 1960; Dzhambazishvili 1961: 751-757, 1962; Eckstein 1926: 578, 1939: 33-42, 81-92; Egorov 1958: 1492; Eidmann 1965c, 1970a, 1973; Eidmann & Klingstrom 1976: 254; Escherich 1923b: 486, 539, 1932a; Esterberg 1959; Fang, Wang, & Chi 1985; Feytaud 1950a; Fice 1961: 173-204; Fisher 1937c; Francke-Grosmann 1952: 12; Franz 1947b; Frolich 1926: 115; Fystro & Bakke 1962; Gabler 1955; Georgescu et al. 1957: 357, 473; Geschwind 1919: 111-119; Gradojevic 1940; Gusev 1928: 144; Hanson, H. S. 1937; Heqvist 1965; Hess 1898: 354, 1907: 255; Hess & Beck 1914: 277, 1927: 333; Horegott 1960; Inouye 1949a: 13, 96, 1949b, 1949c; Ishikura 1966; Jablokoff 1953: 325; Jahn 1960b; Joly 1976; Judeich & Nitsche 1895: 496; Kailidis & Markalas 1988; Kamyshnyi 1925: 14-16; Kangas 1934: 1-68, 1937, 1958d: 164, 1966b; Kholodkovskii 1912: 314; Koch 1913: 103; Kontkanen 1932: 59; Koppen 1880: 257; Kozikovsky 1929: 254; Krol 1980b; Kurenzov 1935c: 189; Kurir 1948b: 143; Laidlaw 1947: 53; Lekander 1954b: 16, 1955a: 136; Lekander & Rennerfelt 1955: 10; Lekander, M. 1951: 107; Lientier, Faures, & Garcia 1988; Lonshehakov & Lure 1960; Lozovoi 1949a: 246, 1950c: 305; MacDougall 1920: 1-42; Maksimovic & Milanovic 1964, 1966; Mamaev 1929: 134-142; Marcu 1926c: 67, 1928: 327-337; Mateeva 1955: 74; Matheisen 1951: 205, 1952: 274; Mathiesen-Kaarik 1953: 6; Megalov & Bazhenov 1927: 1-29; Mokrzecki 1933: 286; Muller 1912: 186; Mumford 1960: 29; Munro 1922: 136; Murayama 1954a: 7; Nechleba 1927: 117; Nestertschnik 1930: 163; Niemeyer & Thalenhorst 1974; Novak, V., Hrozinka, & Stary 1976: 58; Nuorteva 1955c: I; Nusslin 1883: 152, 1913: 206; Oda, Kato, & Nobuchi 1964; Okstad 1979d; Pfeffer 1933: 43; Pierce, W. D. 1917: 74; Polozencev 1926: 1-5; Polozencev & Zolotov 1969: 3-6; Polubojarinoff 1929: 45-52; Popovic 1931: 57; Prozorov 1929: 17; Redfern, Gregory, & Low 1977; Rhumbler 1927: 324; Rodary 1959: 849; Romanyk 1977; Rousseau, G. 1975; Rudnev 1965b, 1966; Saalas 1949: 344, 395; Sauvard, Lientier, & Levieux 1988; Schevyrew 1905b: 1104; Schimitschek 1932a: 23, 1935b: 149, 1937c: 58, 1938c: 2112, 1949c: 14, 1952c: 59, 1955a: 78-79, 1955b: 102, 1955c: 89; Schmidt 1881: 35; Schuster 1918: 102; Schwerdtfeger 1944a: 176, 1957a: 183; Shiraki 1952; Sierpinski 1966: 60, 1969a; Slander 1948: 10; Sokanovskii 1932a: 363; Stefanov 1946: 1; Titova 1966; Tragardh 1917: 11, 28, 1927c: 84; Tragardh & Butovitsch 1933a: 235, 1936: 358; Troshanin 1932: 552-556; Trovinen 1957: 1-4; Tullgren 1916: 104; Vorontzov 1968; Wachtl 1901: 381; Weber, H. 1926: 578; Wichmann 1927b: 353; Wohlmann 1936: 41; Wolff & Krausse 1922: 103; Yanovskii & Korotkov 1984; Zankow 1961b; Zasev 1952a: 109; Zhang et al. 1958: 28; Zwolfer 1960. (ce) Adlers & Butovitsch 1961: 1-27; Agafonov & Kiklin 1979; Apfelbeck 1916b; Ass & Funtikov 1941; Austara, Petersen, & Bakke 1977: 278; Bakke 1956a, 1957, 1960: 304, 1968b; Balachowsky & Chararas 1964; Balazy & Michalski 1960; Balazy, Michalski, & Ratajczak 1987; Barbey 1927; Batra 1959: 329-355; Batra & Michie 1963: 474; Belanowski 1930; Bogdanova 1987; Boucek 1957b, 1958; Brammanis 1935; Butovitsch & Ringselle 1968: 24; Bychaniska 1985; Chararas 1964b; Chararas, Koutroumpas, & Courtois 1977; Choo, Woo, & Park 1983: 175; Christiansen 1970; Cooreman 1963: 45; Ditu 1974; Eidmann 1965c; Francke-Grosmann 1952a, 1956b, 1963a: 355-361, 1966c; Fuchs 1930; Gadek 1976; Caloux 1947b; Gauss 1954a: 423; Gehrken 1985; Gillanders 1906; Golovyanko 1926: 1-87; Graham 1969: 87; Gyorfii 1941b, 1952b; Heliovaara & Lilja 1989; Hemmingsson & Lundstrom 1974; Heqvist 1957a, 1957b: 42, 1959: 180, 1963: 154, 1965: 23; Herald & Mercadier 1984; Hirschmann & Zirngiell-Nicol 1961; Hubault 1923a; Jamnický 1957b: 13, 18, 20, 1957c; Kaarik 1973; Kakulita & Gurehiani 1968; Kangas 1937; Kaya 1984: 746; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1983; Kirkendall 1989; Kleine 1908c: 214, 1944: 69; Knoche 1908b: 203; Kolubajiv & Kalandra 1954: 30; Kostenko 1929; Kostin 1964: 118; Krezal 1959: 611; Krivosheina 1974; Krol 1980b; Kurenzov 1934a: 50; Lekander 1966; Li & Zhon 1980: 69; Lientier, Faures, & Garcia 1988; Lientier & Vallet 1982; Lindquist 1969c; Livingston & Berryman 1972: 1793; Lozovoi 1948a: 69, 1949a: 246, 1961: 91-113, 1962; Lundberg 1984; Mathiesen 1951: 205, 1952: 274; Mathiesen-Kaarik 1953: 6, 1960c; Meyer 1934: 614; Michalski & Ratajczak 1989; Niemeyer & Thalenhorst 1974; Nikitiuk 1951: 59, 1952: 41; Nikitsky 1978; Nosek 1959b: 87; Nuorteva 1956a: 18, 1957b: 52,

- 1967a, 1971; Nusslin 1927: 324; Okolow 1963; Palmén 1944: 60, 1946: 195; Perris 1856a: 243; Pettersen 1976b; Pfeffer 1923a: 332, 1928b: 3, 1931b: 74, 1933: 43, 1943b: 179, 1960: 346; Poinar 1975: 160; Pomotskaya 1979; Remerfelt 1951: 120–137; Rodary 1959: 849; Roubal 1934a: 87; Rousseau, C. 1975; Ruhm 1956b: 4, 1957: 351; Rummukainen 1954: 12; Rybinski 1897: 61; Saalas 1917a: 18, 1930: 119, 1949: 344, 395; Schimitschek 1930a: 281, 1941a: 305, 1955a: 78–79, 1967; Schuster 1918: 102; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlaczek 1935a: 163; Sellnik 1931: 185; Slander 1958: 151; Sokanovskii 1936: 74; Stefanov 1949a: 105; Stora 1938: 20; Szczepanski 1960a: 409; Thompson, W. R. 1943: 57; Thompson, W. R. & Simmonds 1964: 29, 1965: 22; Titova 1966; Tolskii 1927: 581; Tsankov 1961; Tvermyr 1967: 496; Wichmann 1927b: 353, 1955a: 102; Yanovskii 1977b; Yanovskii & Korotkov 1984; Yasumatsu & Watanabe 1965: 68. (**hb**) Acatay 1943a: 67; Adelung 1905; Agafonov & Kuklin 1979; Alkan 1946: 113; Andersen & Nilssen 1953: 1459; Annila 1971: 12; Annila et al. 1972: 22; Anonymous 1948k: 3; Apfelbeck 1916b, 1917; Austara, Pettersen, & Bakke 1977: 278; Awerkiev 1941; Bakke 1968a: 443–602, 1968b: 640–648; Barbey 1901: 24, 88, 1925: 234; Bargmann 1906; Beaver & Browne 1975: 291; Binzer 1881a; Brandt 1948; Browne 1968: 363; Budge 1949; Budkov 1897; Bukowsky 1930; Byers 1984a; Cankov 1961: 75; Carle, Vincq, & Bizet 1979; Chararas 1962c: 214, 1980a; Charvat 1950; Chorbadzhievo 1929d; Dombrowsky 1887, 1892; Eckstein 1889, 1897, 1926: 578, 1939c; Eckstein, F. 1939; Eichhoff 1881a: 50, 231; Eidmann & Klingstrom 1976: 254; Escherich 1923b: 486, 539; Feytaud 1950a; Fuchs 1904a, 1905c: 340, 1911b; Gabler 1955; Gehrken 1984, 1985, 1989; Gehrken & Zachariassen 1977; Gillanders 1906, 1908; Gornostaev 1916: 312; Györfi 1957; Hennings 1908b, 1908c: 226, 1908d; Henschel 1876a: 105, 238, 1880b: 257, 1894, 1895a: 179; Hess 1878: 105, 1898: 354, 1907: 255; Hess & Beck 1914: 277, 1927: 333; Hlawa 1870: 344; Joly 1976; Judeich & Nitsche 1895: 496; Juntinen 1978; Kangas 1951: 225; Karpinski & Strawinski 1948: 157; Kholodkovskii 1889: 277, 1912: 314; Kirkendall 1984a; Knotek 1894a: 558, 1897: 153, 1898b: 327, 333, 1899b: 11, 1901: 571; Kostin 1960: 134; Kurenzov 1935a: 40, 1948b: 107, 1950d: 211; Lekander 1954b: 16; Lengerken 1954: 93; Li, Dang, & Shi 1977: 189; Li & Zhou 1980: 69; Liéutier et al. 1984; Louzil 1961: 46; Lozovoi 1947: 185; Madon 1930: 99; Michalski 1959a: 291; Morstatt 1924: 46; Mumro 1916b: 115, 1926: 69; Murayama 1949a: 13, 1949c: 102; Nordlinger 1856: 19; Nosek 1959b: 87; Novak, V., Hrozinka, & Stary 1976: 58; Nuorteva 1956c: 93, 1967a, 1971: 70; Nusslin 1898: 274, 281, 1906b: 16, 1913: 206, 1927: 324; Okstad 1979d; Perris 1856a: 243; Petrenko 1966; Pfeffer 1941b: 3, 1941c: 7, 1989a: 74; Postner 1974: 454; Prell 1930c: 643; Radovanovic 1959: 581; Ratzeburg 1837: 155, 1839: 189; Rhumbler 1927: 324; Riegel 1852: 29; Rimski-Korsakov et al. 1949: 288; Rodd 1897: 34; Romanyk 1977; Rozhkov 1970: 148; Rudnev 1926: 32–69; Saalas 1913a: 68, 90, 1949: 344, 395; Schedl 1981b: 90; Schevyrew 1905b: 1104; Schimitschek 1930a: 281, 1955a: 78–79; Schmidt 1881: 35; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlaczek 1935a: 163; Slander 1958: 151; Sokanovskii 1932a: 363; Spessivtsev 1913a: 74, 1928a: 232; Stark 1926a: 337, 1952: 395; Stefanov 1949a: 105; Taschenberg 1874: 160, 1880: 220, 229; Ternier 1970b; Tragardh 1914: 100, 1927c: 84, 1929a: 310, 1930b: 103, 1930c: 469, 1931: 55, 1939b: 143, 214; Tsankov 1961; Tschorbadjiev 1929: 175; Wachtl 1876a: 455, 1895: 27, 1901: 381; Wang 1982; Weber, H. 1926: 578; Wichmann 1927b: 353; Winogradoff 1911: 147; Wolff & Krausse 1922: 103; Yang 1989c. (**ds**) Aeloque 1896; Ammann & Knabl 1923; Andersch 1851; Andersen & Nilssen 1953: 1459; Angus 1965b: 12; Anonymous 1978i, 1978w, 1980g; Atkinson 1921; Audras & Schaefer 1957; Bakke 1960: 303; Balachowsky 1952: 134; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Beaver & Browne 1975: 291; Bejer-Petersen & Jorum 1977: 31; Benick 1921; Bistrom & Väisanen 1988: 42; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 207; Brancsik 1871, 1906; Browne 1968: 363, 1972b: 19, 1980c: 482; Brundin 1934; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Chapuis & Candeze 1853; Charvat 1950; Cho 1957; Choo 1983: 92; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1988a: 134; Chorbadzhievo 1924d, 1929; Chrystal 1937; Croteh 1863; Dejean 1837; Eggers 1904; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 486, 539, 1932b; Esterberg 1928, 1959; Everts 1925; Fauvel 1885; Favre 1890; Fedorov 1930; Forster 1849: 439; Fowler 1891; Fry 1937; Fuchs 1904a, 1905a, 1905c: 340, 1907: 33, 48; Gaubil 1849: 126; Gannitz 1928: 92; Gemminger & Harold 1872: 2689; Gobbi 1989: 61; Gornostaev 1917: 308–315; Gozis 1875: 80; Grill 1895: 310; Grouzelle 1905; Grune 1979: 151; Cyllenhal 1827: 620; Györfi 1941b; Hagedorn 1910d: 47; Hansen, V. 1939, 1956, 1964: 464; Heidenreich 1934: 90; Heliövaara & Puumko 1986; Hellen 1947; Helliesen 1916: 84; Hennig 1954: 261, 263; Henschel 1895: 179; Heyden 1898: 77; Heyden, Reitter, & Weise 1883: 182, 1891: 672, 1906: 712; Heyrovsky 1927; Horegott 1960; Horion 1951; Hubault 1923b; Inouye 1949b; Ishikura 1966; Jablorkoff 1953: 325; Jäcentkovsky 1912: 291; Jammicky 1960a; Joly 1976; Judeich & Nitsche 1895: 496; Kailidis 1985; Kailidis & Markalas 1988; Kaisila 1952: 18; Kaltenbach 1874: 685; Karpinski 1926: 83, 1948a: 173; Karpinski & Strawinski 1948: 157; Keler 1925b: 274; Kestercanek

- 1881a: 12; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 217, 262, 268, 1913a: 35, 1913b: 127, 1914b: 248, 257, 1934a: 149; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558, 1898b: 327, 333, 1899b: 11, 1901: 571; Ko 1969: 278; Kontay 1943: 67–68; Kontkanen 1932: 59; Koppen 1882: 236, 257; Koschitsky 1900: 83; Kostenko 1929; Kozikowsky & Kuntze 1925: 20; Kraatz 1869: 59; Krivolitskaya 1983; Krivolitskaya & Kupyanskaya 1970; Kurenzov 1934a: 50, 1935a: 40, 1935c: 189, 1936a: 111, 1936b: 350, 1938a: 59, 1965; Kurir 1947c: 7; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 139; Lindberg & Saris 1952: 59; Lindemann 1884b: 264; Lomnicki 1913b: 148; Lucht 1987: 279; Lundberg 1974: 92, 1979: 31; Lundblad 1950c: 116; Malazgirt 1966: 64; Mandl 1931: 25; Marcu 1926c: 67; Matthews & Fowler 1883: 42; Mirzoian 1950: 141; Munford 1960: 29; Munro 1919: 1–35, 1921: 88, 1922: 136; Munster 1928: 290; Murayama 1929b: 2, 1929c: 23, 1930a: 5, 1930b: 16, 1936b: 116, 1937b: 374, 1939: 141, 1940a: 232, 1942a: 52, 1948: 2, 1950b: 1293, 1951c: 4, 1954a: 7, 1954b: 169, 1955: 104; Nakane et al. 1963: 383; Nobuchi 1966d: 34, 1974: 49; Nunberg 1928b: 88, 116, 1954: 85; Nuorteva 1955a: 31, 1955b: 195, 1971: 65; Nusslin 1898: 274, 281; Orest 1926c: 67; Palmen 1944: 60, 1946: 195; Perris 1876a: 254, 1877a: 414; Pfeffer 1928b: 3, 1931b: 74, 1947c: 4, 1950b: 73, 1960: 346, 1984: 277, 1989a: 74; Pfeil 1865: 230; Pierce, W. D. 1917: 74; Pittioni 1943: 176; Pjatnitskii 1930a: 165; Platonoff 1940: 11, 1943: 141; Plaza & Gil 1982: 248; Pomerantzev 1907b: 423, 493; Poppins 1900: 108; Postner 1974: 454; Prossen 1913: 83; Puukko 1981; Rapp 1934: 731; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1858: 836, 1874: 377; Reitter 1894a: 82, 1916: 304; Rimski-Korsakov et al. 1949: 288; Rodary 1959: 849; Roubal 1935b: 73, 1941: 272; Rozhkov 1970: 148; Rudnev 1965b; Ruskov 1928c: 62; Rye 1866b: 64; Saalas 1913a: 68, 90, 1917a: 18, 1919: 1–415, 1930: 119, 1931: 70, 1938: 119–120; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1248; Schamm 1859: 96, 1862: 101; Schedl 1959h: 100, 1971d: 429, 1977d: 281, 1980a: 27, 1981b: 90; Schilsky 1909: 188; Schneider & Leder 1977: 55; Schwerdtfeger 1981: 189; Seidlitz 1872: 395, 1891a: 565, 1891b: 611; Sharp & Fowler 1893: 34; Shiraki 1952; Siebke 1875: 284; Sierpinski 1966: 60; Sokanovskii 1936: 74, 1960; Sparre-Schneider 1889: 61; Stark 1926a: 337, 1926g: 154, 1926j: 127, 1927b: 90, 1928: 377–378, 1931a: 27, 1931d: 549, 1952: 395; Stein 1868: 114; Stein & Weise 1877: 164; Stenius 1936: 318; Stierlin 1898: 443; Stierlin & Cantard 1871: 294, 1906: 205; Strand 1946: 603; Strand & Hansen 1935: 70; Sturm 1843: 230; Thomson 1865: 363, 1868: 222; Tragardh 1914: 100, 1917: 1–28, 1919: 67–114, 1936: 47–49, 1939b: 143, 214; Tredl 1907: 15; Tschorbadjiev 1929: 175; Wachtl 1876a: 455; Wegelius 1960: 107; Welch, R. C. 1968: 64, 1968b: 121; Westhoff 1882: 239; Wichmann 1927a: 78, 1955a: 102; Winter, T. G. 1983: 51; Wiren 1945: 43; Yanovskii 1977a, 1984, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 412; Yin, Huang, & Li 1984: 128; Zinovjev 1955: 187. (tx) Acloque 1896; Alkan 1946: 113; Bach 1854; Bakke 1960: 303; Balachowsky 1949a: 262; Barbey 1901: 24, 88; Bertolini 1872; Bevan 1987: 114; Brancsik 1871; Browne 1972: 19; Chapuis & Candeze 1853; Charvat 1950; Choo 1983: 92; Chorbadzhievo 1924d; Doebner 1862: 175; Dombrowsky 1887, 1892; Duffy 1953; Eggers 1910e, 1921: 39–43, 1923: 138; Eichhoff 1864b: 42, 1878b: 253–254, 1881a: 50, 231, 1883a: 112, 137, 1884: 299; Endrodi 1957b; Escherich 1923b: 486, 539; Escherich & Escherich 1897; Fauvel 1885: 326–329; Ferrant 1911; Ferrari 1867: 43, 83; Fleischer 1927; Fornanek 1907: 42; Fuchs 1911a; Gabler 1955; Gillanders 1908; Grune 1979: 150–151; Gyllenhal 1827: 620; Hagedorn 1910a: 103; Hansen, V. 1956, 1964: 464; Henschel 1876a: 105, 238, 1895a: 179; Hopkins 1914: 120; Jablokov-Klmzorian 1961: 105; Joly 1976; Judeich & Nitsche 1895: 496; Kalina 1970: 130; Karpinski & Strawinski 1948: 157; Knotek 1892a: 37; Koch 1913: 103, 1932: 137; Kuhnt 1913: 1057; Kurenzov 1941a: 201, 1948b: 107; Kurenzov & Kononov 1966: 31; Leunis 1886: 180; Li & Zhou 1980: 189; Lieutier et al. 1984: 31; Lovendal 1898: 150; Lucht 1987: 279; Munro 1916b: 115, 1926: 1–77; Murayama 1929: 29–30, 1930: 20, 31, 1937b: 374, 1939: 141, 1940a: 232, 1950b: 1293, 1955: 104; Nakane et al. 1963: 383, pl. 192; Niisima 1909: 149, 1910a: 11; Nobuchi 1966b: 34, 1974: 49, pl. 1, 3; Nordlinger 1848: 236, 1956: 19; Novak, V., Hrozinka, & Stary 1976: 58; Nunberg 1928a: 141, 1954: 85; Nusslin 1911a: 150, 155; Perris 1877a: 414; Pfeffer 1932b: 26, 1933: 3–54, 1941b: 3, 1941c: 7, 1947e: 4, 1955a: 252, 1989a: pl. 10; Plaza & Gil 1982: 248; Portevin 1935: 337; Postner 1974: 454; Prell 1929: 90; Quaschik 1953: 35; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1849a: 790, 1849b: 26, 1858: 836, 1874: 377; Reitter 1894a: 82, 1913a: 108, 1916: 304; Rhumbler 1927: 324; Saalas 1913a: 68, 90, 1914: 304–305, 1949: 344, 395; Sahlberg 1836: 145; Schedl 1934f: 1644, 1941a: 42, 1950a: 73, 1952b: 87, 1953e: 22, 1980a: 27, 1981b: 90; Scherb 1971; Schimitschek 1937c: 8, 58, 1955c: 89; Seidlitz 1872: 395, 1891a: 565, 1891b: 611; Sokanovskii 1929: 521–526, 1936: 73–74, 1960: 677; Spessivtsev 1913a: 74, 1922a: 481, 490, 1925a: 188, 1925b: 19, 1931: 70–71; Stark 1952: 395; Stierlin 1898: 443; Taschenberg 1880: 220, 229; Thomson 1865: 363, 1868: 222; Tsai & Li 1959: 97; Wachtl 1883a: 10, 1895: 8; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 126. (ms) Byers 1984a; Chararas 1971a: 853; DeGryse 1934: 481; Escherich 1932b; Fuchs 1911b; Hartig 1834: 108; Henschel 1880b: 257, 1880c: 60; Kozi-

kowsky 1929: 254; Lieurier 1984a; Michalski 1959a: 291; Schimitschek 1955b: 102; Schwappach 1924: 58; Sedlacek 1913: 455; Vorontoz 1968; Weber 1912: 30; Winogradoff 1911: 147.

geminatus Zetterstedt 1828: 345 (*Bostrichus*).
Syntypes, sex?, Laponia; not located. Synonymy: Hagedorn 1910d: 48.

References: (**hb**) Henschel 1877b. (**ds**) Calver 1893; Hagedorn 1910d: 48; Schann 1859: 96, 1862: 101; Schilsky 1909: 188; Stein & Weise 1877: 164; Sturm 1843: 230; Zetterstedt 1828: 345, 1840: 193. (**tx**) Balachowsky 1949a: 262; Ferrari 1867a: 46; Sahlberg 1836: 146; Schedl 1950a: 73; Zetterstedt 1828: 345, 1840: 193.

heydeni Eichhoff 1884: 298 (*Tomicus*). Syntypes, sex?; Chabarofka (Amur); Hamburg Museum, lost. Synonymy: Hagedorn 1910d: 48.

References: (**hb**) Budkov 1897. (**ds**) Budkov 1897; Heyden 1881: 177, 1893: 177, 1898: 77; Reitter 1894a: 82. (**tx**) Eggert 1910e: 38–39, 1923b: 138, 1929: 138; Eichhoff 1884: 298; Heyden 1893: 177; Reitter 1894a: 82; Schedl 1934f: 1644, 1950a: 73.

amitinus (Eichhoff) 1872d: 138 (*Tomicus*). Syntypes, sex?, Deutschland; Hamburg Museum, lost. Figures: Balachowsky 1949a: 264, 274.

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Poland/ Romania/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Abies pectinata*, *Picea excelsa*, *Pinus* spp.

References: (**ay**) Biermann & Thalenhorst 1977; Escherich 1923b: 449, 485, 538, 593; Feytaud 1950a; Fuchs 1911a; Negru 1968b: 802; Nunberg 1950a: 138; Nusslin 1911a: 82; Schimitschek 1926: 65; Schonherr 1970b; Zurr & Soldan 1981. (**bv**) Annala & Petaisto 1978; Balazy 1968; Birgersson et al. 1984: 1049; Chararas 1976b, 1977b; Francke et al. 1980; Grune 1979: 149; Hellrigl 1985; Jahn 1981, 1982; Klassen, Ridgway, & Insoe 1982; Klimetzek & Francke 1980; Martinek 1957b: 282; Nunberg 1950a: 138; Nuorteva 1956c: 93; Prell 1925b: 166, 1931: 366; Schneider-Orelli 1947c: 91; Schonherr 1970b; Simionescu 1967a, 1967b, 1968, 1978; Vasechko 1971a, 1971b; Vite 1980; Zurr & Landa 1985. (**cn**) Alexandrov 1958; Anonymous 1948k: 3, 1975m; Balazy 1968; Barbey 1924a, 1925: 67, 340; Bernhard 1928: 413, 1929; Borcea 1924: 221–260; Chararas 1957e, 1961b: 81; Charvat 1951; Chorbadzhievo 1929; Demme 1948; Eckstein 1915, 1926: 578; Escherich 1917: 97–115, 1923b: 449, 485, 538, 593, 1932a; Feytaud 1950; Franz 1949b; Gabler 1955; Caloux 1948c, 1948e; Georgescu et al. 1957: 357, 459; Geschwind 1918: 387–395; Guiese et al. 1958; Hanson, H. S. 1940a; Hess 1898: 344, 1907: 246; Hess & Beck 1914: 274, 1927: 331; Jahn 1952a: 98, 1952b: 149; Joly 1976; Judeich 1886: 68;

Judeich & Nitsche 1895: 506; Juntinen 1960: 27; Kalandra 1944, 1948a, 1948c: 33–38, 1953a; Keller 1903b: 48, 55; Kellner 1880: 422, 1881: 368; Kholodkovskii 1912: 312; Klausner 1954: 295; Kleiber 1930: 183; Klopfer 1897: 31; Koch 1913: 103; Komarek et al. 1931: 1–256; Koning 1939: 2015; Kovacevic 1957: 67; Kozikowsky 1929: 253; Marcu 1926c: 67, 1930: 321–336; Martinek 1953a: 372, 1964; Mathiesen 1952: 282; Mokrzecki 1925c: 43, 1928: 273; Mrkva 1960; Muller 1912: 186; Nosek 1951: 106, 1952b: 96; Novak, V. 1959b: 64, 1967; Novak, V., Hrozinka, & Stary 1976: 36; Nusslin 1913: 268; Ohnesorge 1955: 279; Oppermann 1985; Pfeffer 1940c: 273, 1948a: 799, 1949b: 147, 1950c: 1; Quaschik 1953: 10; Pierce, W. D. 1917: 69; Rhumbler 1922: 310, 1927: 324; Ronfeld 1922: 249; Rosenfeld 1919: 29–37, 1926: 38; Rudnev 1965b; Schimitschek 1933b: 93, 1935a: 196, 1937c: 57, 1938a: 301, 1938b: 115, 120, 1939b: 573, 1947g: 191, 1949b: 165, 1950: 14, 1952a: 208, 1955a: 62, 64, 85, 1955b: 102, 1955c: 89, 1956: 340, 1961a: 154; Schindler 1948a: 247; Schmidt 1881: 36; Schuster 1918: 102; Schwedtfeger 1944a: 180, 1948c: 57, 1950b: 61, 1957a: 185; Sedlacek 1921: 338, 1933: 307, 1936: 200; Severin 1902a: 81; Simionescu 1967a, 1970; Sitowski 1933: 383–388; Slander 1948: 10; Thalenhorst 1948: 293; Vasechko 1964; Vite 1955: 1333–1336, 1956: 59; Wachtl 1901: 379, 381; Weber, H. 1926: 574; Wilke 1931: 623; Wolff & Krause 1922: 103; Zieger 1948a: 378; Zolk 1935: 258–294, 614–640, 1937: 147–172; Zurr & Landa 1985. (**ce**) Alexandrov 1958; Annala & Petaisto 1978; Balazy 1962, 1965b: 301–331, 1968; Balazy & Michalski 1960, 1964a, 1964b; Barbey 1927; Brammanis 1938; Chararas 1957d, 1959a; Escherich 1942: 650, 656; Francke-Grosman 1931; Frickbinger 1921; Gabler 1947c, 1953a; Gadek 1976; Caloux 1947c, 1947d, 1948a; Gauss 1954a: 423; Geschwind 1918; Graham 1969: 874; Grosman 1931a; Gyorf 1941b, 1952b; Hellrigl 1985; Jahn & Simreich 1960b; Jannicky 1957c, 1960: 820–831; Karpinski 1932a: 109; Kholodkovskii 1897: 118; Kielczewski 1966, 1976; Kielczewski & Balazy 1967: 161–163; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Klausner 1954: 295; Kleine 1908c: 214, 1944: 70; Kolubajiv & Kalandra 1954: 30; Kuhn 1949a: 265; Lindquist 1969c; Lindquist & Bedard 1961; Mathiesen 1952: 282; Meyer 1918: 178; Nosek 1951: 106, 1952b: 96; Nunberg 1930: 201; Nuorteva 1956a: 18, 1957b: 52, 1959d: 201, 1967a, 1968a, 1970; Nusslin 1927: 324; Okolow 1963; Peklo 1949: 336; Pfeffer 1923a: 332, 1932a: 16, 1943b: 179, 1949b: 147, 1950c: 1, 1952a: 159, 1957a: 199, 1959: 2; Poinar 1975: 160; Prell 1925a: 138–141, 1925b: 166; Quaschik 1953: 10; Pfeffer 1960: 346; Rosenfeld 1919: 30; Roubal 1934a: 87; Ruhm 1956b: 4; Rybinski 1903: 28; Schaarschmidt 1959: 813; Schimitschek 1930a: 256, 1931b: 462, 1935a: 196, 1936a: 559, 1950: 14, 1952a: 208,

- 1953b: 43, 534, 1955a: 62, 64, 85; Schuster 1918: 102; Schwerdtfeger 1944a: 180, 1948: 57–61, 1950b: 61, 1957a: 185; Sedlacek 1904: 359, 1908: 57, 1933: 307, 1935a: 154; Seitner 1913a: 27, 1924: 22; Simionescu 1967a; Sitowski 1930: 2; Stolina 1959: 216; Tenkacova & Mituch 1987; Thalenhorst 1958: 34; Thompson, W. R. 1943: 57; Thompson, W. R. & Simmonds 1964: 29, 1965: 22; Tsankov & Rosnev 1978; Vasechko 1971b; Vietinghoff 1924: 330; Wiackowski 1957a: 85; Wilke 1931: 623; Wisniewski 1979b; Zinovjev 1957: 343; Zumr 1982c, 1985b. **(hb)** Altum 1881c: 297; Annila & Nuorteva 1977; Annila & Petaisto 1978; Anonymous 1948k: 3; Balazy 1968; Barbey 1901: 24, 84, 1924a, 1925: 67, 340, 1942; Beffa 1961; Biermann & Thalenhorst 1977; Borcea 1924; Braun 1941c; Butovitsch 1930b; Chararas 1957e, 1961b: 81, 1962c: 202, 1977b; Charvat 1950, 1951; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eckstein 1889, 1897, 1915, 1926: 578; Eichhoff 1881a: 49, 217, 1882a: 241, 1883e: 50; Escherich 1923b: 449, 485, 538, 593; Feytdan 1950a; Flohrer 1948; Fuchs 1904a, 1905c: 340, 1906b; Furst 1888: 112; Gabler 1948b, 1955; Galoux 1948a; Gyorf 1957; Henschel 1876a: 119, 238, 1877b, 1878b, 1885b, 1895a: 180; Hess 1898: 344, 1907: 246; Hess & Beck 1914: 274, 1927: 331; Joly 1976; Judeich 1886: 68; Judeich & Nitsche 1895: 506, 509; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Keller 1910: 5; Kellner 1875a: 641, 1876a: 40, 1876b: 191, 1880: 422, 1881: 368; Kholodkovskii 1889: 263, 1912: 312; Knotek 1894a: 558, 1897: 152, 1898b: 327, 333; Kraemer 1953: 483; Lengerken 1939: 36, 1954: 92; Loos 1913: 409; Louzil 1961: 45; Lunardon & Leonardi 1889: 469; Martinek 1957b: 282; Novak, V., Hrozinka, & Sary 1976: 36; Numberg 1946b: 3; Nuorteva 1956c: 93, 1967a, 1968a, 1970; Nusslin 1898: 281, 1913: 268, 1927: 324; Ohnesorge 1955: 279; Orest 1927: 59; Pauly 1894: 376; Pfeffer 1941c: 5, 1952a: 159, 1989a: 76; Postner 1974: 458; Prell 1931: 366; Quaschik 1953: 10; Rhumbler 1922: 310, 1927: 324; Schedl 1981b: 91; Schimitschek 1930a: 256, 1938a: 301, 1955a: 62, 64, 85; Schmidt 1881: 36; Schnaider & Sierpinski 1955: 60; Schneider-Orelli 1947b: 157, 1947c: 91; Schwerdtfeger 1944a: 180, 1957a: 185, 1981: 192; Sedlacek 1921: 338, 1935a: 154; Severin 1902a: 81; Simionescu 1967b, 1968, 1978; Spessivtsev 1913a: 75, 1921b: 222, 1923: 209; Stark 1952: 402; Taschenberg 1880: 220; Thalenhorst 1958: 34; Tschorbadzhiev 1929: 174; Vasechko 1971a, 1971b; Wachtl 1876a: 355, 1901: 379, 381; Weber, H. 1926: 574; Wolff & Krause 1922: 103; Xambeu 1901: 54; Zinovjev 1957: 343; Zumr 1982c, 1982d; Zumr & Soldan 1981. **(ds)** Ammann & Kuabl 1913, 1923; Anonymous 1928c: 202, 1975m; Austara et al. 1983; Balazy & Michalski 1960; Balogun 1970: 226; Barthe 1896; Ban 1888; Bielz 1887; Borcea 1924; Brakman 1966b: 207; Branesik 1906; Bucking 1932; Buresh & Lazarov 1956; Cecconi 1897; Chararas 1961c: 95, 1977b, 1981; Chararas & Koutronmpas 1977; Charvat 1950; Chorbadzhievo 1924d, 1929; Crooke & Bevan 1957; Debatisse 1945; Eder 1934; Endrodi 1958b; Ermisch 1953; Escherich 1923b: 449, 485, 538, 593, 1932b; Favre 1890; Fricken 1889: 344; Fuchs 1904a, 1905a, 1905c: 340, 1906b, 1913; Gabler 1949b; Gemminger & Harold 1872: 2689; Geschwind 1918; Grouzelle 1905; Grune 1979: 149; Gyorf 1941b; Hagedorn 1910d: 48; Harde & Kostlin 1965: 267; Heinemann 1908a; Hellen 1947; Hendel 1928: 37–39; Hennig 1954: 263; Henschel 1895a: 180; Heyden, Reitter, & Weise 1883: 182, 1891: 672, 1906: 712; Horion 1951; Jacentkovsky 1912: 291; Jannicky 1960a; Joly 1976; Judeich & Nitsche 1895: 506; Karpinski 1926: 83, 1931: 35, 1932a: 109, 1933b: 38, 1948b: 231; Karpinski & Strawinski 1948: 157; Keller 1910: 5; Kellner 1876b: 191; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 128, 262, 264, 268, 1913a: 35, 1913b: 127, 1934a: 150; Knotek 1892a: 37, 1894a: 558, 1898b: 327, 333; Koponen 1975, 1980; Kovacevic 1957: 67; Kurir 1947c: 7; Langhoffer 1915c: 158; Leclercq 1971; Liegel 1886: 43; Lomnicki 1913b: 148; Loos 1913: 409, 1919: 283–288; Lucht 1987: 279; Lunardon & Leonardi 1889: 469; Marchant & Borden 1976; Marcu 1926c: 67; Michalski 1957: 167; Mokrzecki 1928: 273; Negru 1966b: 404; Numberg 1927a: 213, 1928b: 88, 117, 1930: 200–208, 1947: 99–108, 1954: 86; Nuorteva 1955a: 30, 1956b: 168; Nusslin 1898: 281; Orest 1926c: 67; Pfeffer 1924b: 472, 1930b: 120, 1931b: 75, 1936: 90, 1942c: 448, 1947e: 2, 1949: 145–159, 1950b: 75, 1960: 346, 1989a: 76; Pierce, W. D. 1917: 69; Postner 1974: 458; Prossen 1913: 83; Rapp 1934: 730; Reitter 1894a: 81, 1916: 303; Roubal 1936b: 193, 1941: 272; Rudnev 1965b; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1249; Schedl 1980a: 27, 1981b: 91; Schilsky 1909: 188; Schimitschek 1938a: 301, 1938b: 115, 120; Schreiner 1897: 369; Schwerdtfeger 1981: 192; Seidlitz 1891a: 565, 1891b: 611; Simionescu 1967a: 466, 1967b: 255–259, 1968: 22, 1970: 126–133; Stark 1952: 402; Stein & Weise 1877: 164; Stierlin 1898: 444; Tahvanainen 1967; Tredl 1907: 15; Tschorbadzhiev 1929: 174; Wachtl 1876a: 355; Wichmann 1924: 16–18, 1927a: 77; Wilke 1931: 623; Winter, T. C. 1983: 50; Zivojinovic 1960: 25. **(tx)** Balachowsky 1949a: 267; Balogun 1970: 230; Barbey 1901: 24, 84; Beffa 1961; Charvat 1950; Chorbadzhievo 1924d; Doebner 1876; Dombrowsky 1887, 1892; Eggert 1929e, 1844c: 141; Eichhoff 1872d: 138, 1877b: 118–119, 1877c: 387, 1878b: 236, 1881a: 49, 217, 1883a: 111, 137; Endrodi 1957b; Escherich 1923b: 449, 485, 538, 593; Escherich & Escherich 1897; Fauvel 1889; Ferrari 1878; Fleischer 1927; Flohrer 1948; Fornanek 1907: 42; Fricken 1889: 344; Fuchs 1911a, 1913; Gabler 1949b, 1955; Gebien 1907:

197; Grune 1979: 148–149; Hagedorn 1910a: 103; Hellrigl 1985; Henschel 1876a: 119, 238, 1878a, 1882a: 97–98, 1895a: 180; Hess 1875; Heyden 1875: 391; Joly 1976; Judeich & Nitsche 1895: 506; Kalina 1970: 130; Karpinski & Strawinski 1948: 157; Kellner 1875: 641, 1876: 192; Knotek 1892a: 37; Koch 1913: 103, 1928: 88, 1932: 137; Kraatz 1876d: 24; Kuhnt 1913: 1057; Letzner 1891: 376; Leunis 1886: 180; Louzil 1961: 108; Lovendal 1898: 150; Lneht 1987: 279; Lunardoni & Leonardi 1889: 469; Negrı 1966b: 404; Novak, V., Hrozinka, & Stary 1976: 36; Nunberg 1954: 86; Nusslin 1911a: 82; Pfeffer 1932b: 26, 1941c: 5, 1947e: 2, 1955a: 250; Portevin 1935: 337; Postner 1974: 458; Quaschik 1953: 35; Redtenbacher 1874: 378; Reitter 1894a: 81, 1913a: 105–106, 1916: 303; Rhumbler 1922: 310, 1927: 324; Schedl 1934f: 1644, 1950a: 82, 1950a: 27, 1981b: 91; Schimitschek 1927: 65–75, 1930: 243–244, 1931: 460–491, 1937c: 57, 1955e: 89; Sedlaczek 1912: 306; Seidlitz 1891a: 565, 1891b: 611; Spessivtsev 1913a: 75, 1921: 219–223, 1923: 200–214, 1931: 73; Stark 1952: 402; Stierlin 1898: 44; Taschenberg 1880: 220; Wachtl 1882: 34–35, 1883a: 12, 1895: 8; Weber, L. 1912: 31. (ms) Eggers 1911b; Escherich 1932b; Heinemann 1908a; Kozikowsky 1929: 253; Schimitschek 1930b: 407, 1933b: 93, 1955b: 102; Schwappach 1924: 57; Sedlaczek 1904: 359, 1913: 455, 1936: 200; Seitner 1913a: 27; Weber, L. 1912: 31.

amitinus montanus Fuchs 1913: 80. Syntypes not indicated; Engadin, Deutschland; not located, preoccupied by Eichhoff 1881a: 219. Synonymy: Reitter 1913a: 105 (validity questioned), Schedl 1950a: 82.

References: (cc) Schimitschek 1930a: 256. (hb) Schimitschek 1930a: 256. (ds) Zivojinovic 1960. (tx) Eggers 1929e: 50; Fuchs 1913: 80; Reitter 1913a: 105; Schedl 1934f: 1644, 1950a: 52.

apache Lanier 1991: 1118. Holotype, sex?, 7 miles west of Portal, Cochise Co., Arizona [USA]; USNM, Washington.

Figures: Lanier, Teale, & Pajares 1991 (adult parts). Distribution: North America (Guatemala/ Honduras/ Chiapas, Hidalgo, Mexico, Michoacan, Nuevo Leon, Sinaloa in Mexico/ Arizona in USA). Hosts: *Pinus ponderosa*, *P. engelmannii*, *P. leiophylla*, *P. teocote*, *P. oocarpa*?, *P. caribaea*?, *P. tecumanii*?

Notes: This species was not seen or reviewed by us. References: (ay) Lanier, Teale, & Pajares 1991. (ds) Lanier, Teale, & Pajares 1991. (tx) Lanier, Teale, & Pajares 1991.

avulsus (Eichhoff) 1868a: 402 (*Tomiscus*). Syntypes, sex?, Amerique borealis [USA]; Hamburg Museum, lost.

Figures: Blackman 1922b: pl. 11, fig. 57, Goyer et al. 1980: 20, Hopping 1964b: 973.

Distribution: Antilles Islands (Bahama Islands),

North America (Alabama, Arkansas, District of Columbia, Florida, Georgia, Louisiana, Mississippi, New Jersey, North Carolina, Pennsylvania, South Carolina, Texas, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Pinus* spp.

References: (ay) Hughes 1974; Kukon & Berisford 1981; Miller, M. C. 1979a, 1979b, 1981; Payne et al. 1973; Smith, M. T. et al. 1988; Thomas, J. B. 1967; Wilkinson 1962: 43–44, 1963.

(bv) Anderson, N. H. & Anderson 1968: 23; Anonymous 1972v, 1979a; Atkinson, Foltz, & Connor 1988; Barr, B. A. 1969: 641; Bennett & Ostmark 1972; Berisford & Franklin 1971; Billings 1984b; Birch 1978b; Birch & Svihra 1979b; Birch et al. 1980; Borden et al. 1981: 561; Cameron, R. S. 1987; Dixon 1983; Dixon & Payne 1979b; Gara & Coster 1968: 77–86; Gouger, Yearian, & Wilkinson 1975; Hedden, Vite, & Mori 1976; Hetrick 1960; Hughes 1974; Inscoc 1982; Jacobson 1965, 1972; Klassen, Ridgway, & Inscoc 1982; Lanier & Burkholder 1974; Mason, R. R. 1965a, 1967, 1970: 1036–1041; Payne & Wood 1981: 492; Rudinsky 1974a: 409; Silverstein & Young 1976: 21; Smith, M. T. et al. 1988; Speers 1971; Svihra 1982; Svihra, Paine, & Birch 1980; Thatcher & Connor 1985; Turnbow & Franklin 1980; Vite, Bakke, & Renwick 1972: 1971; Vite, Gara, & von Scheller 1964: 461–470; Vite, Ohloff, & Billings 1978; Vite & Pitman 1967: 683–701; Wagner, Flamm, & Coulson 1985; Wilkinson 1962, 1963: 19–22, 1964; Yearian 1967b. (cn) Anderson, R. F. 1966; Anonymous 1952h: 7, 1960i, 1960j: 23, 1960q, 1961f, 1961h, 1961s, 1962h, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1970j: 6, 1971h: 6, 1979a, 1981u, 1985k: 46; Baker, W. L. 1972: 260; Beal & Massey 1945: 140–142; Bennett, W. H. 1954, 1955, 1956a: 2, 7–9, 1956b, 1957; Bennett & Ostmark 1972; Berisford 1969a, 1969b: 691–692; Birch & Svihra 1979b; Blackman 1950; Bongberg 1957, 1962; Cameron, R. S. 1987; Chamberlin 1939: 425; Cibulsky & Hyeche 1974, 1977; Coulson & Witter 1984: 536; Craighead 1927: 1–12, 1935: 136; Currie 1905: 100; Doane et al. 1936; Downing, Ward, & Ciesla 1970: 29; Drooz 1985: 359; Ebel, Merkel, & Kowal 1964, 1968, 1971, 1975, 1977; Eikenbary, Arnold, & Pinkston 1974; Elliot & Mobley 1938; Fatzinger 1985b; Felt 1906: 752; Gentry, G. R. et al. 1979: 779; Hamel 1980: 774; Hammerle 1952: 8; Harrison 1956; Herrick 1935: 374; Hetrick 1942, 1943, 1960; Hetrick & Moses 1953; Hodges & Pickard 1971: 49; Hofacker et al. 1989; Hopkins 1899c: 422, 445, 1904a: 41, 44; Johnston & Coyne 1954; Jones & Ford 1954: 1–6; Koch, P. 1972; Kowal 1953: 106, 1955b: 1, 1955d: 4, 1956a: 4, 1957b: 20, 1957d: 175, 1957e: 12, 1958a: 402, 1959a: 39, 1959b: 161; Kowal & Ebel 1971, 1977; Lee 1954a: 5; Lewis 1973; Lexon 1939: 259, 269; Mason, G. N. 1969: 5; Mason, R. R. 1965a; Merkel & Kowal

- 1956: 3; Merkel & Kulman 1955: 5; Middleton 1928b: 423; Miller, M. L. 1979a, 1979b; Nagel 1959: 4; Neal 1979: 799; O'Byrne 1946: 3-6; Ollieu & Mason 1967: 7, 1968: 8; Orr & Kowal 1956: 654; Payne & Wood 1981: 492; Plumb 1958: 10; Price 1957: 99, 1987; Robinson & Whitfield 1968: 1-8; Robinson, J. V. 1981; Ross & Mattoon 1939: 48; Rudinsky 1979: 409; Snyder 1935: 115, 1936: 19; Speers 1971; St. George 1924: 38, 1925: 48-50, 1928: 15, 1929b: 14, 1932b: 2; St. George & Beal 1925: 433, 1929: 8-13; Swaine 1918a: 109, 115; Thatcher, R. C. 1960; Ward, J. G. D., Kucera, & Downing 1971: 30; Wilkinson 1964; Wilkinson & Foltz 1982; Williams, I. L. 1980; Wootten 1963: 23; Wyman 1932: 46; Youman 1979. (**cc**) Anderson, R. F. 1966; Anonymous 1960i, 1960j: 23, 1960q, 1961f, 1961h, 1961s, 1962h, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1970j: 6, 1971h: 6, 1979a, 1981u, 1985k: 46; Baker, W. L. 1972: 260; Bennett, W. H. 1955; Bennett, W. H. & Ostmark 1972; Berisford 1969a, 1969b; Birch & Svihra 1979b; Bongberg 1962; Caird 1935: 709-733; Cameron, R. S. 1987; Chamberlin 1939: 425; Cibulsky & Ilyche 1974, 1977; Coulson & Witter 1984: 536; Craighead et al. 1927; Downing, Ward, & Ciesla 1970: 29; Ebel, Merkel, & Kowal 1964, 1968, 1971, 1975, 1977; Eikenbary, Arnold, & Pinkston 1974; Fatzinger 1985b; Felt 1906: 752; Gentry, G. R. et al. 1979: 779; Haliburton 1943; Hanel 1980: 774; Hammerle 1952: 8; Hetrick 1949c; Hodges & Pickard 1971: 49; Hofacker et al. 1989; Holst 1936; Jones 1954; King 1967b: 4606; Koch, P. 1972; Kowal & Ebel 1971, 1977; Kulhavy et al. 1989; Lewis 1973; Lindquist, E. E. 1969c; Lindquist, E. E. & Hunter 1965; Mason, C. N. 1969: 5; Mason, R. R. 1965a, 1967: 2215; Massey 1958: 28-30; Miller, M. L. 1979a, 1979b; Muesebeck 1938: 285; Neal 1979: 799; Nelson 1934: 329; Ollieu & Mason 1967: 7, 1968: 8; Payne & Wood 1981: 492; Price 1987; Robinson, J. V. 1981; Rudinsky 1979: 409; Rumbold 1931c: 864, 1936: 419; Speers 1971; St. George 1928: 15; Thatcher, R. C. 1960; Wagner, Flamm, & Coulson 1985; Ward, J. G. D., Kucera, & Downing 1971: 30; Wilkinson 1964; Wilkinson & Foltz 1982; Williams, I. L. 1980; Wootten 1963: 23; Youman 1979. (**hb**) Anderson, N. H. & Anderson 1968; Anonymous 1970j, 1979a, 1985k: 46; Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 260; Beal & Massey 1945: 140-142; Bennett, W. H. 1955; Bennett, W. H. & Ostmark 1972; Berisford & Franklin 1971; Blackman 1922b, 1950; Bongberg 1959a; Chamberlin 1939: 425; Chittenden 1899a; Cook, S. P. et al. 1983; Coulson & Witter 1984: 536; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 359; Eikenbary, Arnold, & Pinkston 1974; Felt 1906: 752; Flamm & Coulson 1988; Flamm et al. 1987; Goldman & Parker 1978b; Gouger 1972; Gouger, Yearian, & Wilkinson 1975; Herrick 1935: 374; Hoffard & Coster 1976; Hoffmann & St. George 1949: 73; Hopkins 1899c: 422, 445, 1904a: 41, 44; Hopping, G. 1964: 971; Koch, P. 1972; Kowal & Ebel 1971; Lewis 1973; Mason, R. R. 1967, 1970; Mohr 1955: 7; Ostmark 1968; Pierce, W. D. 1907: 292; Plumb 1958: 10; Richerson & Payne 1979: 362; Speers 1971; St. George 1929b: 14; Stock & Borden 1983: 546; Swaine 1918a: 109, 115; Thatcher, R. C. 1960: 1-25; Thatcher, R. C. & Connor 1985; Thatcher, R. C., Coster, & Payne 1978; Wagner, Flamm, & Coulson 1985; Wilkinson 1963; Wilkinson & Foltz 1982; Williams, I. F. 1980; Wood, S. L. 1982b: 689; Yearian 1967b: 3356; Yearian, Gouger, & Wilkinson 1972; Yearian & Wilkinson 1965, 1967: 43-45; Youman 1979. (**ds**) Anonymous 1960af: 3, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g; Beal & Massey 1945: 140-142; Bennett 1954; Berisford et al. 1971: 236; Berisford, Kulman, & Pienkowski 1970: 484; Blackman 1922b: 112, 1950; Blatchley & Leng 1916: 640; Bongberg 1957; Bongberg & Bennett 1960: 1; Bright 1982b: 164, 1985c: 173; Chamberlin 1925, 1939: 425; Chittenden 1899a; Currie 1905: 100; Deyrup & Atkinson 1987a: 65; Drooz 1985: 359; Frost & Dietrich 1929; Gemminger & Harold 1872: 2689; Glick 1939: 37; Hagedorn 1910d: 48; Henshaw 1885: 148; Hoffmann & St. George 1949: 73; Hopkins 1893a: 139, 1893b: 212; Hopping 1964b: 970-971; Howden & Vogt 1951; Kirk 1969, 1970; Kleine 1913b: 127, 1914b: 393; Kudon & Berisford 1981; Leng 1920: 341; Mason, R. R. 1970; Merkel & Kowal 1956: 3; Nagel 1959: 3; Ostmark 1968; Schwarz 1878d: 469; Swaine 1909: 119; Turnbow & Franklin 1980; Upton 1945: 101; Wilkinson 1962; Wood, S. L. 1982b: 689. (**tx**) Anonymous 1970j: 7; Beal & Massey 1945: 140-142; Blackman 1922b: 112; Blatchley & Leng 1916: 640; Bright 1985c: 173; Chamberlin 1939: 425; Eichhoff 1868a: 402, 1878b: 255; Eikenbary, Arnold, & Pinkston 1974; Goyer et al. 1980: 20; Hagedorn 1910a: 104; Hopping, G. 1963c: 512, 1964b: 971, 973; LeConte 1868: 163-164, 1876: 363, 366, 1878a: 455, 469; Swaine 1909: 119, 1918a: 109, 115; Thomas, J. B. 1967; Zimmermann 1868: 147. (**ms**) Anderson, R. F. 1966; Anderson, R. F. et al. 1980; Anonymous 1985k: 46; Bongberg 1959a; Chararas 1971a: 853; Eckstein 1900c; Foltz, Merkel, & Wilkinson 1984; Jones, C. D. & Ford 1954; Kowal 1957b: 20; Lee 1954a: 5; Lewis 1973; Plumb 1958: 10; Robinson, J. V. 1981; Wilkinson & Foltz 1980; Yearian & Wilkinson 1965, 1967.
- bonanseai* (Hopkins) 1905b: 76 (*Tomicus*). Lectotype ♂; Tacubaya, Mexico; USNM, Washington, designated by Wood 1982b: 691.
 Figures: Hopping 1964b: 973 (adult).
 Distribution: North America (El Salvador/ Chiapas, Distrito Federal, Durango, Hidalgo, Jalisco, Mexico, Michoacan, Puebla, Temascaltepec,

Veracruz in Mexico/ Guatemala/ Honduras/ S Arizona in USA).

Hosts: *Pinus montezumae*, *P. ponderosa*, *P. pseudostrobus*, *P.* spp.

References: (ay) Mankins, J. V. 1980; Thomas, J. B. 1967. (bv) Barr, B. A. 1969: 641; Silverstein & Young 1976: 21; Vite, Bakke, & Renwick 1972: 1971; Vite & Pitman 1967: 683–701. (cn) Mankins, J. V. 1980; Perry 1951: 159; Rodriguez 1968, 1970; Rose-Chaffin 1967b: 4181–4182; Schwerdtfeger 1956b: 51; Villarreal Martinez 1957: 11. (ce) Becker 1955; Furniss, R. L. & Carolin 1977: 390; Gispert Galvan 1983; Lindquist, E. E. 1969c, 1971; Rose-Chaffin 1967b: 4181–4182. (hb) Atkinson et al. 1986: 31; Becker 1955; Burgos & Saucedo 1983: 93; Furniss, R. L. & Carolin 1977: 390; Hopping, G. 1964b: 973; Mankins, J. V. 1980; Rodriguez 1970; Schwerdtfeger 1956b: 51, 54; Wood, S. L. 1982b: 691. (ds) Atkinson & Equihua 1985a: 85, 1985b: 235, 1988: 92; Atkinson et al. 1986: 31; Blackwelder 1947: 782; Burgos & Saucedo 1983: 93; DeLeon 1938; Ferrer 1942; Furniss, R. L. & Carolin 1977: 390; Hagedorn 1910d: 50; Hopping, G. 1964b: 973; Kleine 1913b: 121, 1914b: 350; Perry 1951: 159; Schedl 1963c: 158, 1977e: 43; Thomas, J. B. 1966a; Wood, S. L. 1957c: 397, 1982b: 691. (tx) DeLeon 1938; Hagedorn 1910a: 104; Hopkins 1905b: 76; Hopping 1963c: 512, 1964b: 970–973; Mankins, J. V. 1980; Schedl 1940a: 349, 1955g: 45; Thomas, J. B. 1967; Wood, S. L. 1957c: 394–397, 1982b: 691.

borealis Swaine 1911a: 213. Lectotype ♀; St. Anthony, Newfoundland [Canada]; CNCI, Ottawa, designated by Bright 1967b: 675.

Notes: Wood 1982b: 681 (subspecies established).
References: (ay) Lanier & Kirkendall 1986: 87; Thomas, J. B. 1957: 4, 1967. (bv) Furniss, Baker, & Hostetler 1976: 1300. (cn) Baranyay & Stevenson 1966: 85; Beckwith 1972; Chamberlin 1924; Craighead 1924: 28–91; Doane et al. 1936; Hoffmann 1952b: 400, 1955: 90; Holsten, Werner, & Laurent 1980; Lindquist, O. H. & Syme 1981: 61; Massey 1956a: 20; Massey & Wygant 1954: 21; Mumford 1960: 29; Rodary 1959: 852; Ruppel 1967: 54; Sippell, Dance, & Rose 1966: 57; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1924d: 9, 11, 1929: 145–146; Swaine et al. 1924: 18, pl. 21; Syme & Nystrom 1988: 58; Tripp & Blauel 1969: 104. (ce) Craighead et al. 1927: 1–12; Furniss, R. L. & Carolin 1977: 390; Gobeil 1936b; Kaya 1984; Lindquist, E. E. 1969c; Massey & Wygant 1954: 21; Poinar 1975: 160; Rodary 1959: 852; Swaine 1924d: 9; Thomas 1958: 394; Wichmann 1955a: 102. (hb) Baker, W. L. 1972: 262; Chamberlin 1939: 428, 1958: 173–174; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 390; Gara & Holsten 1975; Gobeil 1936c; Holsten, Werner, & Laurent 1980; Hopping, G. 1961b, 1965c: 194; Ives & Wong 1988: 81; Massey & Wygant 1954:

21; Sampson 1929b: 146; Swaine 1918a: 110, 117, 1924d: 9, 1929: 145; Swaine et al. 1924: pl. 21. (ds) Anonymous 1926c: 519; Austara et al. 1983; Baranyay & Stevenson 1966: 85; Beaulne 1956; Beckwith 1972a; Bright 1971a: 126, 1976d: 162; Chamberlin 1925, 1939: 428, 1958: 173–174; Dodge 1938: 48–51; Drooz 1955: 361; Furniss, R. L. & Carolin 1977: 390; Gara & Holsten 1975; Gautreau 1974: 5; Hatch 1939: 50; Hoffmann 1952b: 400, 1956: 90; Hopping, G. 1965c: 194; Hopping, R. 1922; Keen 1929a: 39; Kleine 1913b: 127, 1934a: 150; Kusch 1967; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 61; Morgan, A. V. & Morgan 1980: 1110; Mumford 1960: 29; Ruppel 1967: 54; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a, 1974b; Syme & Nystrom 1988: 58; Werner & Holsten 1984; Wichmann 1955a: 102; Wood, S. L. 1972a: 420, 1982b: 681. (tx) Beckwith 1972a, 1972b; Benoit 1985: 137; Bright 1967b: 673, 675, 1976d: 154, 162; Chamberlin 1939: 428, 1958: 173–174; Dodge 1938: 48, 51; Hoebeke 1978; Hopping, G. 1963c: 512, 1965c: 193–195; Ives & Wong 1988: 80; Keen 1929a: 39; Kusch 1967: 9; Lindquist, O. H. & Syme 1981: 61; Pardy 1974, 1977, 1983; de Ruelle 1970: 102; Swaine 1911a: 213, 1915: 359, 1918a: 110, 117–118; Syme & Nystrom 1988: 58; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 77; Wood, S. L. 1972a: 420, 1982b: 681. (ms) Hopping, G. 1961b.

borealis borealis:

Figures: Hopping 1964b: 973, 1965c: 193, Ives & Wong 1988: 80, Kusch 1967: 9.

Distribution: North America (Alaska/ Alberta, N British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Ontario, Quebec, Saskatchewan in Canada/ Maine, Minnesota, Montana in USA).

Hosts: *Picea glauca*.

References: (ds) Gast et al. 1989: 385. (tx) Wood, S. L. 1982b: 683.

borealis swainei Hopping, R. 1939: 169. Holotype ♀; Creighton Valley, Lumby, British Columbia [Canada]; CNCI, Ottawa.

Figures: Hopping 1965c: 195.

Distribution: North America (S British Columbia in Canada).

Hosts: *Picea engelmannii*.

Notes: (1) Wood 1982b: 683 (reduced to subspecies).

References: (ce) Lindquist, E. E. 1969c. (hb) Chamberlin 1958: 175. (ds) Blackwelder & Blackwelder 1948; Chamberlin 1955: 175; Hopping, G. 1963b: 198; Wood, S. L. 1982b: 683. (tx) Chamberlin 1958: 175; Hopping, G. 1963c: 510, 1965c: 193, 198; Hopping, R. 1939: 169; de Ruelle 1970: 103; Wood, S. L. 1982b: 683.

borealis thomasi Hopping, G. 1965c: 193. Holotype ♀; Ingonish, Nova Scotia [Canada]; CNCI, Ottawa.

Figures: Hopping 1965c: 195.

Distribution: North America (Nova Scotia in Canada).

Hosts: *Picea glauca*.

Notes: (1) Wood 1982b: 683 (reduced to subspecies).

References: (cn) Lindgren 1980a: 66. (hb) Lindgren 1980a: 66. (ds) Wood, S. L. 1982b: 683. (tx) Hopping, C. 1965c: 193, 195; de Ruelle 1970: 103; Wood, S. L. 1982b: 683.

borealis lanieri Wood 1974: 27. Holotype ♀; 2 km S Brownsville, Lawrence Co., South Dakota [USA]; Wood Collection.

Distribution: North America (Colorado, South Dakota, E Wyoming in USA).

Hosts: *Picea engelmannii*, *P. glauca*.

References: (ds) Wood, S. L. 1982b: 683. (tx) McNamara 1984: 753; Wood, S. L. 1974: 27, 1982b: 683.

calligraphus (Germar) 1824: 461 (*Tomicus*). Syn-types, sex?; Kentucky [USA]; MNB, Berlin.

Figures: Baker 1972: 261, Blackman 1922b: pl. 11, fig. 56, Bright 1972d: 59, 1976d: 154, Hopping 1965f: 804.

Distribution: Antilles Islands (Bahama Islands/ Cuba/ Dominican Republic in Hispanola/ Jamaica), Australia (introduced), North America (Belize/ Ontario, Quebec in Canada/ El Salvador/ Guatemala/ Honduras/ all states in Mexico/ Nicaragua/ Alabama, Arizona, Arkansas, California, Colorado, Delaware, District of Columbia, Florida, Georgia, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Pinus* spp.

Notes: (3) Dejean 1837: 332 (*chloroticus*, nomen nudum, *confornis*, nomen nudum, no status, synonymy in Eichhoff 1878b: 224). Lanier, Teale, & Pajares 1991 (recognize subspecies *calligraphus ponderosae*, and *interstitialis* [but the characters they cite are unusable and inconsistent and do not distinguish geographical races, SLW]).

References: (ay) Anderson, N. H. & Anderson 1968: 23; Hopkins 1894g; Hopping, G. R. 1965d: 805; Hughes 1974; Kudon & Berisford 1981; Lanier, Teale, & Pajares 1991; Mankins, J. V. 1980; Miller, M. C. 1979a, 1979b; Nijholt & Sahota 1974: 931; Nunberg 1950a: 138; Payne et al. 1973; Richeson 1969; Richeson, Nation, & Wilkinson 1971; Richeson, Wilkinson, & Nation 1970; Schonherr 1970b; Slansky & Haack 1986; Smith, M. T. et al. 1988; Thomas, J. B. 1957: 4, 1967; Wilkinson 1962, 1963; Wilkinson et al. 1967; Wood, D. L. & Stark 1968. (bv) Anderson, N. H. & Anderson 1968: 23; Annala 1971a: 13; Anony-

mous 1972u, 1972v, 1979a; Bakke 1973; Barr, B. A. 1969: 641; Bennett, W. H. & Ostmark 1972; Billings 1984b; Birch 1978b; Birch & Svihra 1979b; Birch et al. 1980; Borden et al. 1981: 561; Cameron, R. S. 1987; Clemens 1916: 297; Dewey, Ciesla, & Meyer 1974; Dixon 1983; Dixon & Payne 1979b, 1980; Haack et al. 1984, 1987, 1989; Hackstein & Vite 1978; Hertel, Hain, & Anderson 1969: 1086; Hetrick 1960; Hughes 1974; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1965, 1972; Kim 1986b; Klassen, Ridgway, & Inscoc 1982; Krawielitzki et al. 1983; Lanier & Burkholder 1974; Lapis 1986; Lapis & San Valentin 1979; Nunberg 1950a: 138; Payne & Wood 1981: 492; Phillips 1988: 430; Pitman 1966b; Renwick & Vite 1972; Schmitz 1972: 1727; Schonherr 1970b; Silverstein & Young 1976: 21; Slansky & Haack 1986; Smith, M. T. et al. 1988; Svihra 1982; Svihra, Paine, & Birch 1980; Thatcher, R. C. & Connor 1985; Vite, Bakke, & Renwick 1972: 1971; Vite, Gara, & von Scheller 1964: 461–470; Vite, Ohloff, & Billings 1978; Vite et al. 1976; Wagner, Flamm, & Coulson 1985; Wilkinson 1962: 43–44; Wilkinson et al. 1967: 188; Wood, D. L. & Stark 1968: 145–151; Yearian 1967b: 25–27. (cn) Anderson, R. F. 1966: 230; Anonymous 1940b: 209, 1952h: 7, 1960i, 1960j: 23, 1960q, 1961h, 1962h, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1970j: 6, 1971h: 6, 1972f, 1973b, 1974e, 1978e, 1979a, 1981u, 1985k: 46; Ascencio 1979; Baker, W. L. 1972: 260; Basilis 1977; Beal & Massey 1945: 144–145; Becker, W. B. 1959b, 1962, 1964a, 1964c; Becker, W. B., Abbott, & Rick 1956: 664; Becker, W. 1962, 1964c; Bennett, W. H. 1954, 1955, 1956a: 2, 1956b, 1957; Bennett, W. H. & Ostmark 1972; Berisford 1969a, 1969b: 691–692; Best 1944: 14–16; Birch & Svihra 1979b; Blackman 1950; Bongberg 1957; Britton & Zappe 1922: 194–202; Browne 1968: 363; Cameron, R. S. 1987; Chamberlin 1924, 1939: 416; Ciesla 1973; Ciesla, Dewey, & Tunnock 1971: 19; Clemens 1916: 297; Cook & Hain 1988; Coulson & Witter 1984: 536; Craighead 1927: 1–12, 1935: 136; Dewey, Ciesla, & Meyer 1974; Doane et al. 1936; Downing, Ward, & Ciesla 1970: 29; Drooz 1985: 358; Ebel, Merkel, & Kowal 1964, 1968, 1971, 1975, 1977; Eikenbary, Arnold, & Pinkston 1974; Elliot & Mobley 1938; Etheridge 1968, 1971; Fatzinger 1985b; Felt 1901: 482, 485, 1902b: 64, 1906: 334–358, 1924: 264, 1926: 264, 1930a: 249, 264, 1935: 233; Felt & Bromley 1942: 170, 1943: 326–327; Felt & Rankin 1932: 406; Fitch 1858: 721; Friend 1940: 222; Gara & Coster 1968: 77–86; Garman 1893: 50–52, 1894: 127; Centry, C. R. et al. 1979: 779; Gillette 1903: 116–117; Graham 1939b; Halperin 1976a; Hamel 1980: 774; Harrington 1881: 32; Harrison 1956; Herrick 1935: 249; Hetrick 1940a: 209, 1941, 1942: 181–183, 1943, 1960; Hetrick & Moses 1953; Hodges & Pickard 1971: 49; Hofacker et al. 1989; Hoffard & Oak 1980; Hopkin-

- 1892b, 1894c, 1894d, 1894g: 279, 1899c: 340, 422, 445, 1902: 11; James & Linnane 1980: 14; Johnson 1897: 109–110; Johnston & Coyne 1954; Jones & Ford 1954: 1–6; Koch, P. 1972; Kowal 1953: 106, 1955b: 1, 1955d: 4, 1956a: 4, 1957b: 20, 1957d: 175, 1957e: 12, 1958a: 402, 1959a: 39, 1959b: 161; Kowal & Ebel 1971, 1977; Lee 1954a: 5; Lewis 1973; Lexon 1939: 269; Lindquist, O. H. & Syme 1981: 61; Mankins, J. V. 1980; Mask 1982; Mason, G. N. & Jones 1969: 5; Mattson & Haack 1987; McCowan 1961; Merkel & Kowal 1956: 3; Merkel & Kulman 1955: 5; Middleton 1928b: 423; Miller, M. C. 1979a, 1979b; Moore, G. E. 1977a, 1978b, 1982; Mumford 1960: 29, 1964: 30; Nagel 1959: 4; Neal 1979: 799; Neel 1959: 1; O'Byrne 1946: 3–6; Ollien & Mason 1967: 7, 1968: 8; Örr & Kowal 1956: 654; Packard 1881: 166–170, 1890: 711–712; Parr 1943: 419; Payne & Wood 1981: 492; Plumb 1958: 10; Polivka 1938: 130, 1940: 229; Price 1987; Ragenovich & Coster 1974; Raimo & Sharon 1981; Rice 1969: 382–386; Richeson et al. 1970: 1797–1799; Robertson & Whitfield 1968: 1–8; Robinson, J. V. 1981; Rose, W. F., Billings, & Vite 1981; Ross & Mattoon 1939: 48; Rumbold 1931: 847–873; Smith, A. 1981; Smith, J. B. 1900: 363, 1901b: 92; Snyder 1935: 15, 1936: 19; St. George 1924: 38, 1925: 50, 1928: 15, 1929b: 12, 1930: 825–828; Stevens, Brewer, & Leatherman 1980: 25; Stubbs, J. 1978; Swaine 1913: 90, 1918a: 107, 112, 1933: 30; Syme & Nystrom 1988: 58; Thatcher, R. C. 1960; Tsankov 1977; Walsh 1867a: 103; Ward, J. C. D., Kucera, & Downing 1971: 30; Wilkinson 1963: 19–22, 1964: 62; Wilkinson & Foltz 1982; Williams, I. F. 1980; Wood, D. L. & Stark 1968; Wootten 1963: 23; Wyman 1932: 46; Yamaguchi 1979; Yates, H. O. 1972a; Younan 1979. (cc) Berisford 1969a, 1969b, 1974b; Berisford, Kulman, & Pienkowski 1970: 484; Berisford et al. 1971: 236; Birch 1978b; Birch & Svihra 1979b; Borden et al. 1981: 561; Bridges 1978; Brower 1974, 1977; Burks 1979: 824; Bushing 1965: 460; Callahan & Shifrine 1960: 146; Chamberlin 1939: 416; Cibulsky & Hyeche 1974, 1977; Clark 1965: 1–3; Clark & Osgood 1964b: 3, 1964c: 4; Craighead et al. 1927; Cross & Moser 1971; Dale 1967; Dixon & Payne 1979a: 180, 1979b, 1980; Dozier 1920; Felt 1906: 345; Flamm et al. 1987; Furniss, R. L. & Carolin 1977: 397; Coyer 1986; Graham 1939b; Grissell 1979: 764; Haack 1985; Haack, Foltz, & Wilkinson 1985; Haack et al. 1989; Haliburton 1943; Hammerle 1952: 8; Heqvist 1959: 181; Hetrick 1949c, 1960; Hirschmann & Wisniewski 1982, 1983; Hodges & Pickard 1971: 47; Hoffard & Coster 1976; Holst 1936, 1937: 676; Houser 1931: 657; Hunter 1964; Hunter & Davies 1963; Hunter, Rosario, & Moser 1989; Hurlbutt 1967; Jones 1954; Jouvenaz & Wilkinson 1970: 295–296; Kinn 1971, 1984a; Kobayashi, de Guzman, & Quintos 1977; Kudon & Berisford 1980, 1981; Kulhavy et al. 1989; Liebhold 1983; Lindquist 1969c, 1971, 1975a: 25; Lindquist & Hunter 1965; Lorio 1973; Marsh 1979: 169; Massey 1962: 67–75; Mattson & Haack 1987; Mignot & Anderson 1969; Miller, M. C. 1983, 1984a, 1984b, 1985, 1986a, 1986b; Mizell, Frazier, & Nebeker 1984; Nelson 1934: 329; Nelson & Beal 1929: 1102; Overgaard & Nachod 1971; Paine, Birch, & Svihra 1981; Poinar 1975: 161; Reid 1957b: 7; Rice 1968, 1969: 386; Richerson, J. V. & Borden 1972a; Riley & Coyer 1988; Rohlf's & Hyeche 1981, 1984; Rose, W. F., Billing, & Vite 1981; Rumbold 1931c: 847, 1936: 419; Savely 1939: 334; Singh 1977: 98; Slaby 1947: 379; St. George 1928: 15; Thatcher 1960: 1–25; Thomas, G. M. & Poinar 1973: 275; Thompson, W. R. & Simmonds 1964, 1965: 73; Vite, Gara, & Von Scheller 1964; Wagner, Flamm, & Coulson 1985, 1986; Wagner et al. 1987; Webb 1945: 70; Wilkinson 1964; Wilkinson et al. 1978; Wood, D. L. & Stark 1968; Woodring 1966c; Woodring & Moser 1970, 1975; Yearian 1967b; Yearian, Gouger, & Wilkinson 1972; Yearian & Wilkinson 1963, 1965, 1967; Younan 1979. (hb) Anderson, N. H. & Anderson 1968: 23; Anonymous 1970j: 6, 1979a, 1985k: 46; Ascencio 1979; Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 260; Beal & Massey 1945: 144–145; Bennett, W. H. 1955, 1956: 7–9; Bennett, W. H. & Ostmark 1972; Blackman 1922b, 1950; Bongberg 1959a; Bright 1976d: 165; Brower 1974; Browne 1968: 363; Burgos & Saucedo 1983: 94; Chamberlin 1939: 416; Chittenden 1890, 1899a; Ciesla 1973; Clark & Osgood 1964c; Clemens 1916; Cook, S. P. et al. 1983; Coulson & Witter 1984: 536; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 812; Doane et al. 1936; Drooz 1985: 358; Eikenbary, Arnold, & Pinkston 1974; Felt 1906: 345, 1926: 264, 1930a: 249, 264; Felt & Rankin 1932: 406; Fitch 1858; Flamm & Coulson 1988; Flamm et al. 1987; Furniss, R. L. & Carolin 1977: 397; Garraway 1986; Goldman & Parker 1978b; Graham 1939b; Haack 1985; Haack, Foltz, & Wilkinson 1984; Haack, Wilson, & Foltz 1987; Haack et al. 1987, 1989; Herrick 1935: 249; Hoffard & Coster 1976; Hoffmann & St. George 1949: 73; Hopkins 1893a: 138, 1893b: 212, 1894g, 1899c: 340, 422, 445; Hopping, G. 1965f: 803; Kinn 1986b; Kinn & Roton 1989; Koch, P. 1972; Kowal & Ebel 1971; Lapis 1985, 1986; Lewis 1973; Mankins, J. V. 1980; Miller, M. C. 1984a, 1984b; Mohr 1955: 7; Moore, G. E. 1982; Ostmark 1968; Packard 1890: 711; Pierce, W. D. 1907: 292; Plumb 1958: 10; Popp et al. 1989; Schwarz 1888a: 80; St. George 1929b: 12; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1918a: 107, 112; Thatcher, R. C. 1960; Thatcher, R. C. & Connor 1985; Thatcher, R. C., Coster, & Payne 1978; Wagner, Flamm, & Coulson 1985; Wagner et al. 1987; Wallace 1940: 305; Wilkinson 1963, 1979; Wilkinson & Foltz 1982; Williams, I. L. 1980; Wolcott & Montgomery

- 1933: 166; Wood, D. L. & Stark 1968: 548; Wood, S. L. 1982b: 697; Yamaguchi 1979; Yates, H. O. 1972b; Yearian 1967b: 3356; Yearian, Gouger, & Wilkinson 1972; Yearian & Wilkinson 1963: 518, 1965, 1967: 43-45; Younan 1979. (**ds**) Anderson, W. W. et al. 1983; Anonymous 1926c: 519, 1960: 3, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1973b, 1974e, 1978e; Atkinson & Equilua 1985b: 235, 1988: 92; Beal & Massey 1945: 144-145; Beaulne 1956; Bennett 1954; Berisford, Kulman, & Pienkowski 1970: 484; Berisford et al. 1971: 236; Blackman 1922b: 112-114, 1950; Blatchley & Leng 1916: 638; Bongberg 1957; Bongberg & Bennett 1960: 1; Bright 1972d: 70, 1976d: 165, 1985c: 173; Browne 1968: 363; Burgos & Saucedo 1983: 94; Chadwick & Nikitin 1968; Chamberlin 1925, 1939: 416; Chittenden 1890, 1899a; Ciesla 1973; Cockerell et al. 1907; Dejean 1837: 232; Dewey, Ciesla, & Meyer 1974; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938: 47-48; Dozier 1918: 374; Drooz 1985: 358; Duftschmidt 1825; Etheridge 1971; Felt 1926: 264, 1930a: 249, 264; Felt & Rankin 1932: 406; Furniss, R. L. & Carolin 1977: 397; Garraway 1986; Gast et al. 1989: 385; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 50; Halperin 1976a; Henshaw 1885: 148; Hoffmann & St. George 1949: 73; Hopkins 1893a: 138, 1893b: 212; Hopping, G. 1965f: 803; Howden & Vogt 1951; Kirk 1969, 1970; Kleine 1913b: 127, 387, 1934a: 150; Lanier & Berisford 1981; Lanier, Teale, & Pajares 1991; Leng 1920: 341; Leonard 1928: 519; Lindquist, E. E. 1970: 981; Lindquist, O. H. & Syme 1981: 61; Melsheimer 1853: 87; Merkel & Kowal 1956: 3; Mumford 1960: 29, 1964: 30; Nagel 1959: 4; Ohno et al. 1987: 87; Ostmark 1968; Provaucher 1877: 570; Schedl 1971f: 147, 1977e: 43, 1978e: 38; Schwarz 1878d: 469, 643, 1888a: 80; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 120, 1913: 90; Syme & Nystrom 1988: 58; Townsend 1889: 235; Wallace 1940: 305; Wilkinson 1962; Wolcott & Montgomery 1933: 166; Wood, D. L. & Stark 1968; Wood, S. L. 1982b: 697. (**tx**) Anonymous 1970j: 7; Baker, W. L. 1972: 261; Beal & Massey 1945: 144-145; Benoit 1985: 137; Blackman 1922b: 112, 114, 1919: 85-96; Blatchley & Leng 1916: 638; Bright 1972d: 59, 70, 1976d: 154, 165, 1985c: 173; Chamberlin 1939: 416; Clemens 1916; Dillon & Dillon 1961: 801, 812-813; Dodge 1938: 47-48; Duftschmidt 1825; Eichhoff 1876a: 378, 1878b: 224; Eikenbary, Arnold, & Pinkston 1974; Fitch 1858: 721; Germar 1824: 461; Coyer et al. 1980: 20; Hagedorn 1910a: 104; Hopping, G. 1963c: 509, 1965f: 803-804, Jacques 1951: 353; Lanier, Teale, & Pajares 1991; LeConte 1868: 162, 1876: 363, 1878a: 469; Lindquist, O. H. & Syme 1981: 61; Makins, J. V. 1980; Provaucher 1877: 570; Schedl 1955g: 36, 38; Swaine 1909: 120-121, 1918a: 107, 112-113, 1925: 197; Syme & Nystrom 1988: 58; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 77; Wood, D. L. & Stark 1968; Wood, S. L. 1982b: 697; Yates, H. O. 1972b, 1977: 103. (**ms**) Anderson, R. F. 1966; Anderson, R. F. & Doggett 1980; Anonymous 1985k: 46; Bongberg 1959a; Chararas 1971a: 853; Clark & Osgood 1964a, 1964c; Eckstein 1900c; Foltz, Merkel, & Wilkinson 1984; Holst 1937; Jones 1954; Kinn & Roton 1989; Kowal 1957b: 20; Lee 1954a: 5; Lewis 1973; Mask 1982; Miller, M. C. 1983; Plumb 1958: 10; Robinson, J. V. 1981; Rose, W. F., Billings, & Vite 1981; Wilkinson 1967; Wilkinson & Foltz 1980; Yearian & Wilkinson 1963, 1965.
- exesus* Say 1826: 255 (*Bostrichus*). Syntypes, sex?; presumably Pennsylvania [USA]; Say Collection, lost. Synonymy: LeConte 1876: 363. References: (**en**) Harris 1841: 74, 1842: 74, 1852a: 77, 1862: 87, 1890: 87. (**hb**) Harris 1841: 74, 1862: 87. (**ds**) Chapuis & Candeze 1852; Leng 1920: 341; Melsheimer 1806: 8; Perris 1876a: 254, 1877a: 414; Swaine 1909: 121. (**tx**) Chapuis & Candeze 1853; Eichhoff 1878b: 224; Ferrari 1867a: 47; LeConte 1868: 162, 1876: 363; Perris 1877a: 414; Say 1826: 255, 317; Swaine 1909: 121; Zimmermann 1868: 147.
- praemorsus* Eichhoff 1868a: 401 (*Tomiscus*). Syntypes, sex?; Amerique boreali [USA]; Hamburg Museum, lost. Synonymy: LeConte 1868: 162, Eichhoff 1876a: 378. References: (**ds**) Gemminger & Harold 1872: 2691; Leng 1920: 341; Swaine 1909: 121. (**tx**) Eichhoff 1868a: 401, 1876a: 378, 1878b: 224; LeConte 1868: 162, 1876: 363; Swaine 1909: 121, 1918a: 112.
- interstitialis* Eichhoff 1869a: 273 (*Tomiscus*). Holotype ♂; Jamaica; IRSNB, Brussels. Synonymy: Hopping 1965f: 803. Notes: (3) Lanier, Teale, & Pajares 1991 (cited as a subspecies [confirmation needed]). References: (**en**) Berrios, Menendez, & Rodriguez 1987; Browne 1968b: 365; Caleda & Veracion 1959, 1960; Perez 1975: 29; Schwerdtfeger 1956b: 38, 1960b: 258; Tzankov et al. 1974: 12. (**ec**) Furniss, R. L. & Carolin 1977: 398; Lindquist, E. E. 1969c. (**hb**) Browne 1968b: 365; Furniss, R. L. & Carolin 1977: 398; Perez 1975: 29; Schwerdtfeger 1956b: 38. (**ds**) Berrios, Menendez, & Rodriguez 1987; Blackwelder 1947; Blandford 1898b: 187; Browne 1962c: 201, 1968b: 365, 1979: 86; Caleda & Veracion 1950: 1-2, 1959: 1-3, 1960: 1-6, 1963: 18; DeLeon 1938, 1942a; Ferrer 1942; Furniss, R. L. & Carolin 1977: 398; Gemminger & Harold 1872: 2691; Gowley 1926: 27; Hagedorn 1910d: 55; Kleine 1913b: 128, 1914b: 362, 379; Schedl 1963c: 159, 1966b: 42, 1966f: 78, 1969a: 204, 1972g: 40; Schwerdtfeger 1960b: 258. (**tx**) Blandford 1898b: 187; DeLeon 1938; Eichhoff 1869a: 273, 1878b: 228; Hagedorn 1910a: 105; Hopping, G. 1963c: 514, 1965f:

803; Lanier 1987a: 108; Lanier, Teale, & Pajares 1991; Perez 1975: 33–34; Schedl 1940a: 349, 1955g: 36.

ponderosae Swaine 1925b: 197. Holotype ♂: Coconino N. F., Arizona [USA]; CNCI, Ottawa. Synonymy; Hopping 1965f: 803.

Notes: (3) Lanier, Teale, & Pajares 1991 (cited as a subspecies [confirmation needed]).

References: (ay) Schonherr 1970b. (bv) Jacobson 1965, 1972; Kliefoth, Vite, & Pitman 1964: 283–290; McMullen & Atkins 1962b: 1321; Schonherr 1970b; Vite & Gara 1962: 251–273; Wood, D. L. 1961b: 187–188. (cn) Anonymous 1939: 644, 1958a: 6, 1960i, 1960j: 18, 1963j; Bongberg 1962; Doane et al. 1936; Hopkins 1902c: 11; Hornilbrook 1936: 620–622; Keen 1938: 112, 1952c: 146; Ostmark 1956: 8; Patterson 1930: 3; Price 1958: 61; Schuder 1969: 80; Tunnock 1963: 10. (cc) Hirschmann & Wisniewski 1982, 1983; Hunter & Davis 1963; Hurlbutt 1967; Keen 1938: 112; Lindquist, E. E. 1969c; Massey 1961: 357, 1962: 67–75, 1966a, 1966c: 424; Mathre 1964: 342–362, 1966; Patterson 1930: 3; Poinar 1975: 163. (hb) Bongberg 1959a; Chamberlin 1939: 417; Doane et al. 1936; Hopkins 1902c: 11; Keen 1938: 112, 1952c: 146. (ds) Anonymous 1958a: 6, 1963j; Bongberg & Bennett 1960: 1; Chamberlin 1939: 417; Keen 1929a: 37, 1938: 112, 1952c: 146; Kleine 1934a: 151; Leng & Mutchler 1933: 53; Schuder 1969: 80. (tx) Bright 1967b: 676; Chamberlin 1939: 417; Hopping, G. 1963c: 514, 1965f: 803; Keen 1929a: 37; Lanier 1972: 379, 1977: 379; Lanier, Teale, & Pajares 1991; de Ruelle 1970: 103; Schedl 1955g: 36; Swaine 1925b: 197; Wood, D. L. 1961b: 188. (ms) Bongberg 1959a; Kliefoth, Vite, & Pitman 1964.

cebrae (Hcer) 1836: 28 (*Bostrichus*). Syntypes, sex?; presumably Europe; not located.

Figures: Balachowsky 1949b: 264, 274, Barbey 1925: pl. 5, fig. 1, Bevan 1987: 114, Hasek 1961: 5, Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 2–3, Pfeffer 1989a: pl. 12, Stanek 1969: 258, Yin, Huang, & Li 1984: 134.

Distribution: Asia (Heilongjiang, Jilin in China/ Japan/ Korea/ Kuril Islands/ Taiwan/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Scotland/ Sweden/ Switzerland/ W USSR).

Hosts: *Larix* spp., rare in *Abies*, *Pinus*.

Notes: Fuchs 1913: 82 (described form *engadinensis*, no status; synonymy in Schedl 1950a: 83).

References: (ay) Balogun 1969b: 1267–1270, 1969d: 158–161; Escherich 1923b; Feytaud 1950a; Fuchs 1911a; Nunberg 1950a: 135; Schimitschek 1926: 65; Schonherr 1970b; Wichmann 1912a: 10.

(bv) Birgersson et al. 1984: 1049; Grime 1979: 149; Inscoc 1982; Klassen, Ridgway, & Inscoc 1982; Kohle et al. 1985; Koizumi, Yamaguchi, & Akita 1971; Luitjes 1976; Numberg 1950a: 138; Nuorteva 1956c: 88; Prell 1926: 62, 1930c: 626; Rebenstorff & Franke 1982; Renwick & Dickens 1979; Schonherr 1970b; Schwerdtfeger 1981: 194; Stokley et al. 1978; Wichmann 1912a: 10. (cn) Anonymous 1948k: 3, 1977r, 1978i, 1979p, 1980g; Balogun 1970: 226–239; Barbey 1825: 355; Bevan 1964b, 1966, 1987: 123; Blatchford 1983: 30; Boocock 1959b; Browne 1968: 363; Butovitsch 1930: 15–17; Crooke 1955: 30; Crooke & Bevan 1956: 70, 1957: 21; Crooke, Bevan, & Davies 1961; Crooke & Kirkland 1956, 1960; Eckstein 1926: 378, 1930b; Escherich 1923b: 485, 614, 1932a; Feytaud 1950a; Gabler 1955; Grandi 1951; Gyorfi 1946: 195; Hasek 1955, 1961: 5; Hess & Beck 1914: 276, 1927: 332; Hopkins 1894c, 1894d, 1899c: 316; Inouye 1949a: 13, 100, 1949b, 1955; Jacentkovsky 1933: 271; Jahn 1952a: 98, 1959: 220; Joly 1976; Judeich & Nitsche 1895: 507; Kamp 1950; Keller 1903b: 41; Kholodkovskii 1912: 313; Koch 1913: 111; Koizumi, Yamaguchi, & Akita 1971; Komarek et al. 1931: 1–256; Konopka 1871: 35; Koppen 1882: 234; Luitjes 1974; Marie 1924: 328–330; Morschel 1972: 129; Nechleba 1923: 365; Nishiguchi 1957: 69–73; Nosek 1951: 106, 1952b: 96; Novak, V., Hrozinka, & Stary 1976: 77; Nusslin 1913: 268; Ohnesorge 1955: 279; Okida & Suzuki 1955; Pfeffer 1948a: 799; Phillips, D. H. & Bevan 1967: 6; Pierce, W. D. 1917: 69; Rebenstorff & Franke 1982; Rhumbler 1922: 310, 1927: 324; Schimitschek 1930d: 136, 1935b: 149, 1936b: 76, 1937c: 58, 1939b: 573, 1947g: 191, 1949c: 16, 1955a: 33, 91, 1955c: 89, 1956: 340, 1961a: 154; Schindler 1948a: 247–248; Schneeberg 1925: 498; Schwerdtfeger 1944a: 183, 1957a: 188; Shiraki 1952; Sinreich 1962; Skrzypczynska & Krol 1974; Stokley 1973, 1974, 1975a, 1975b, 1975c, 1976a, 1976b, 1977; Terasaki et al. 1987; Thalenhorst 1950: 90; Torka 1933: 120–121; Wachtl 1901: 379, 381; Wardle 1929: 323; Weber, H. 1926: 578; Weber, T. 1965; Wilke 1931: 665; Yamane 1981: 471; Zwolfer 1949: 400. (ec) Balogun 1969a, 1969c, 1970; Brauns 1950a; Chararas 1957d, 1959a, 1959c; Cooreman 1963: 45; Crooke & Kirkland 1956; DeLeon 1935a, 1935c; Fuchs 1937; Galoux 1947b; Gauss 1954a: 423; Gyorfi 1941b, 1943: 84, 1952b; Haeselbarth 1967; Hirschmann & Wisniewski 1982, 1983; Inouye 1950: 112; Inouye et al. 1955: 66; Kamijo 1981; Karpinski 1932a: 95; Kholodkovskii 1897: 118; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 214, 1944: 77; Kolubajiv 1954: 22; Komarek 1925b: 863; Koyama 1963; Krivosheina 1974; Kudon 1979b; Kuhn 1949a: 265; Lindquist, E. E. 1969c; Luitjes 1976; Mahunka 1968; Merker &

- Adlung 1958: 325; Nechleba 1923: 365, 1929a: 26; Nishiguchi 1959: 271, 1960c; Nosek 1951: 106, 1952b: 96; Nuorteva 1957b: 52, 1959d: 193; Nusslin 1927: 324; Perris 1856a: 243; Pfeffer 1923a: 332, 1943b: 179, 1952a: 159; Poinar 1975: 161; Redfern 1989; Redfern et al. 1987; Reisch 1972; Ruhm 1956b: 4; Scheucher 1959: 263; Schimitschek 1930a: 253–344, 1930e: 119, 1936a: 559, 1948c: 129, 1955a: 33, 91, 1964e; Schremmer 1956: 217; Schvester 1957b: 138; Schwerdtfeger 1944a: 183, 1957a: 188; Sedlaczek 1904: 359, 1935a: 163; Seitner 1913a: 27, 1924: 22; Singh 1977: 100; Thompson, W. R. 1943: 58; Thompson, W. R. & Simmonds 1964: 23, 1965: 29; Wichmann 1955a: 94; Wilke 1931: 665; Wisniewski 1979b; Woodring & Moser 1970; Yanovskii 1986; Yasumatsu & Watanabe 1965: 69. **(hb)** Altum 1881c: 322; Anonymous 1948k: 3; Balogun 1969c: 141–148, 1970: 226–239; Barbey 1901: 10, 24, 82, 1925: 355, 1942; Beffa 1949; Bevan 1987: 123; Bischoff-Ehinger 1873: 160–162, 1874; Brandt 1948; Browne 1968: 363; Budkov 1897; Butovitch 1930b; Ceccoli 1924; Chararas 1962c: 206; Charvat 1950; Dombrowsky 1887, 1892; Eckstein 1897, 1926: 578; Eichhoff 1881a: 49, 214–215, 1881d: 434, 1882e: 325; Escherich 1923b: 485, 614; Fankhauser 1884: 5; Feytaud 1950a; Fuchs 1904a, 1905c: 340, 1906c, 1907: 48; Gabler 1955; Grandi 1951; Gyorfı 1957; Henschel 1882b, 1885b, 1889: 485, 1895a: 181; Hess & Beck 1914a: 276, 1927: 332; Hopkins 1899c: 316; Hufnagl & Puzyr 1951: 108, 119; Inouye et al. 1955: 66; Joly 1976; Judeich & Nitsche 1895: 507; Karpinski & Strawinski 1948: 157; Keller 1885: 289, 1890: 267, 1903a: 337, 1907a: 180, 1910: 5; Kholodkovskii 1912: 313; Koizumi, Yanaguchi, & Akita 1971; Komarek 1925a: 102; Koppen 1880: 254; Lengerken 1939: 72, 1954: 93; Louzil 1961: 45; Luitjes 1974, 1976; Lunardoni & Leonardi 1889: 468; Merker & Adlung 1958: 325; Morschel 1972: 129; Niisima 1908b: 18; Nordlinger 1870a: 186; Novak, V., Hrozinka, & Stary 1976: 77; Numberg 1929: 115; Nuorteva 1956c: 88; Nusslin 1913: 268, 1927: 324; Ohnesorge 1955: 279; Perris 1856a: 243; Pfeffer 1941b: 18, 1941c: 5, 1952a: 159, 1989a: 76; Postner 1974: 458; Prell 1926: 62, 1930c: 626; Rhumbler 1922: 310, 1927: 324; Rupertsberger 1879: 231, 1880: 230; Schedl 1981b: 92; Schimitschek 1930a: 253–344, 1948c: 129, 1955a: 33, 91; Schneider-Orelli 1947b: 157; Schvester 1957b: 138; Schwerdtfeger 1944a: 183, 1957a: 188, 1981: 194; Sedlaczek 1935a: 163; Seiff 1927: 34; Spesivtsev 1913a: 76, 1923: 209; Stanek 1969: 258; Stark 1952: 405; Stebbing 1909b: 24; Stoakley 1975c, 1976b, 1977; Wachtl 1876a: 453, 1901: 379, 381; Weber, H. 1926: 578. **(ds)** Acloque 1896; Ammann & Knabl 1913; Angus 1964: 179; Anonymous 1977r, 1978i, 1979p, 1980g; Arm, Covassi, & de Bellis 1966: 32; Balogun 1969d; Barthe 1896; Bau 1888; Beffa 1949, 1961; Blanchiere & Robert 1889; Blandford 1894c; Brakman 1966b: 206; Browne 1968: 363; Budkov 1897; Calwer 1884, 1893; Chapuis & Candeze 1853; Charvat 1950; Cho 1957; Choo 1983: 94; Choo & Woo 1985: 165; Crooke 1955c, 1962; Crooke & Bevan 1957; Crooke & Kirkland 1960; Dietrich 1877; Endrodi 1958b; Escherich 1923b: 485, 614; Fauvel 1885; Favre 1890; Fleischer 1921b; Fuchs 1904a, 1905a, 1905c: 340, 1906c, 1907: 48, 1913; Gaubil 1849: 126; Gemminger & Harold 1872: 2690; Gozis 1875: 80; Gredler 1866: 374, 1868, 1869: 73; Grouzelle 1905; Grune 1979: 149; Gyorfı 1941b; Hagedorn 1910d: 51; Heller 1881: 173; Hennig 1954: 257; Henschel 1895a: 181; Heyden 1881: 177, 1893: 177; Heyden, Reitter, & Weise 1883: 182, 1885: 300, 1891: 672, 1906: 712; Hirsch 1930; Horion 1951; Inouye 1949b; Jacentkovsky 1933: 271, 1939: 77; Jannicky 1960a; Joly 1976; Judeich & Nitsche 1895: 507; Karpinski 1932a: 95; Karpinski & Strawinski 1948: 157; Kaszab 1977: 67; Keller 1910: 5, 1920: 13; Kiefer & Moosbrugger 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 128, 264, 268, 1913a: 35, 1913b: 127, 1914b: 250, 257, 1934a: 150; Ko 1969: 279; Kolubajiv 1934: 64; Komarek 1925b: 863; Koppen 1882: 234; Kraatz 1869: 59; Ku, K. 1964; Kurir 1947c: 10; Lindberg 1959: 31; Lomnicki 1913b: 148; Lucht 1987: 279; Lunardoni & Leonardi 1889: 468; Lundberg 1988; Masse & Gardener 1962; Murayama 1929b: 2, 1929c: 23–24, 1930a: 1, 5, 1930b: 16, 1936a: 129, 1936b: 115, 1937b: 374, 1939: 141–142, 1940a: 232, 1942a: 56, 1948: 2, 1949a: 13, 1951c: 4, 1954b: 170, 1955: 104; Nakane et al. 1966: 383; Negru 1966b: 404, 1968a: 457; Niisima 1908b: 18; Nobuchi 1966d: 35, 1967: 24, 1974: 50; Numberg 1928b: 88, 116, 1954: 86; Penecke 1927: 235; Perris 1876a: 254, 1877a: 414; Pfeffer 1930b: 120, 1931b: 76, 1932a: 19, 1942c: 448, 1947c: 2, 1950b: 75, 1989a: 76; Pierce, W. D. 1917: 69; Pittioni 1943: 175; Postner 1974: 458; Reitter 1894a: 80, 1916: 304; Rossem, Burger, & Van de Bund 1975; Roubal 1941: 272; Sainte-Claire & Mequignon 1938: 448; Sawamoto 1940a: 95, 105; Schaufuss 1915: 1248; Schaum 1859: 96, 1862: 101; Schedl 1971f: 147, 1980a: 28, 1981b: 92; Schilsky 1909: 188; Schremmer 1955: 217; Schwerdtfeger 1981: 194; Shiraki 1952; Skrzypczynska & Krol 1974; Stark 1936e: 142, 1952: 405; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 444; Stierlin & Gautard 1871: 293; Tahvanainen 1967; Torka 1933: 120; Tredl 1907: 15; Wachtl 1876a: 453; Wichmann 1927a: 77–78, 1955a: 94; Wilke 1931: 665; Winter, T. C. 1983: 41. **(tx)** Acloque 1896; Balachowsky 1949a: 267; Balogun 1970: 231, 235; Barbey 1901: 10, 24, 82; Beffa 1949, 1961; Bertolini 1872; Bevan 1987: 114; Blandford 1894d; Chapuis & Candeze 1853; Charvat 1950; Choo 1983: 94; Doebner 1862: 174, 1876; Dombrowsky 1887, 1892; Eggers 1915: 96–97, 1922: 205,

1944c: 140–141; Eichhoff 1864: 42, 1868d: 419, 1872d: 138, 1877b: 118, 1878b: 234, 1881a: 49, 214, 1883a: 112, 137; Endrodi 1957a: 304, 1957b; Escherich 1923b: 485, 614; Fanvel 1885, 1889; Ferrari 1867a: 42, 46, 1867b: 114; Fleischer 1927; Formanek 1907: 41; Fuchs 1911a, 1913; Gabler 1955; Gebien 1907: 197; Grune 1979: 149; Hagedorn 1904d, 1910a: 104; Hasek 1961: 5; Heer 1836: 28; Henschel 1882a: 97–98, 1895a: 181; Heyden 1893: 177; Hopping, G. 1963b: 63; Houlbert 1922a: 12; Joly 1976; Judeich & Nitsche 1895: 507; Kalina 1969; Karpinski & Strawinski 1948: 157; Koch 1913: 11, 1928: 89, 1932: 139; Kuhnt 1913: 1057; Lucht 1987: 279; Lmardoni & Leonardi 1889: 468; Motschulsky 1860a: 155; Murayama 1929: 23–24, 29, 1936a: 129, 1937b: 374, 1939: 141, 1940a: 232, 1954b: 170, 1955: 104; Nakane et al. 1963: 383, pl. 192; Negru 1966b: 404; Niisima 1910a: 11; Nobuchi 1966d: 35, pl. 5, 1974: 50, pl. 2–3; Nordlinger 1870a: 186; Novak, V., Hrozinka, & Stary 1976: 77; Numberg 1930, 1947: 99–108, 1954: 86; Perris 1877a: 414; Pfeffer 1932b: 26, 1941b: 18, 1941c: 5, 1942: 447–462, 1947e: 2, 1955a: 248, 1989a: pl. 12; Portevin 1935: 337; Postner 1974: 458; Quaschik 1953: 35; Ratzeburg 1837: 188; Redtenbacher 1874: 378; Reitter 1894a: 80, 1913a: 104, 106, 1916: 304; Rhumbler 1922: 310, 1927: 324; Rupertsberger 1879: 231, 1880: 230; Sawamoto 1940a: 95, 105; Schedl 1934f: 1644–1645, 1941a: 42, 1950a: 83–85, 1953e: 22, 1980a: 28, 1981b: 92; Schimitschek 1926: 65–75, 1930: 253–344, 1937c: 58, 1955c: 89; Spessivtsev 1913a: 76; Stanek 1969: 258; Stark 1952: 405; Stebbing 1909b: 24; Stierlin 1898: 444; Teplouchow 1890: 254; Wachtl 1882: 34–35, 1895: 8; Weber, L. 1912: 31. (**ms**) Balogun 1969a; Bevan 1964b; Boocock 1959b; Crooke & Bevan 1960; Crooke, Bevan, & Davies 1961; Eggers 1911b; Eichhoff 1868d: 419; Kalandra 1971: 106; Schimitschek 1930f: 406; Sedlacek 1904: 359, 1913: 455; Seitner 1913a: 27; Sinreich 1962; Weber, L. 1912: 31; Yamane 1981: 471.

subelongatus Motschulsky 1860a: 155 (*Tomicus*).

Syntypes, sex²; Daourie meridionale to Sea of Japan; not located. Synonymy: Schedl 1950a: 83. References: (**ay**) Gusteleva 1979; He, Li, & Fu 1988. (**bv**) Fu et al. 1988; Greckin 1960, 1962a; Manaev 1986; Qiu et al. 1988; Rozhkov 1970: 152; Vitzthum 1926: 407–503; Yanovskii & Kiselev 1981; Yu & Zhang 1988. (**cn**) Esterberg 1959; Greckin 1962a; Gusteleva 1960b, 1982; Isaev & Khlebopros 1973; Kontkanen 1932: 62; Koppen 1882: 237; Kurenzov 1935c: 188, 1956a: 87; Liu et al. 1989; McFadden et al. 1982; Nestertschuk 1930: 173; Vitzthum 1926: 407–503; Yanovskii 1981; Yanovskii & Kiselev 1981; Yanovskii & Korotkov 1984; Yu, Guo, & Cheng 1984; Zhang et al. 1958: 28. (**cc**) Cooreman 1963: 46; Greckin 1960, 1962a; Gusteleva 1976, 1979a, 1979b, 1980a: 78–80,

1980b, 1982, 1984a, 1984b; Hughs & Jackson 1958: 70; Korenchenko 1980a, 1980b, 1987a; Kostin 1964: 124; Pleshanov 1966: 124–126; Poinar 1975: 164; Shirskaya 1961; Wisniewski 1984; Woodring 1966c: 133; Woodring & Moser 1970; Yanovskii 1966, 1977b; Yanovskii & Korotkov 1984. (**hb**) Budkov 1897; Greckin 1962a: 552; Gusteleva 1976, 1979a, 1979b; Isaev & Khlebopros 1973; Kostin 1960: 135; Kozlov 1966; Krivolitskaya 1956: 835, 1960, 1973: 142; Kurenzov 1935a: 19, 43, 1948b: 103, 1950d: 216; Petrenko 1966; Rozhkov 1970: 152; Rudnev 1958: 370; Spessivtsev 1923: 209; Stark 1952: 405; Yanovskii & Kiselev 1981; Yu, Guo, & Cheng 1984. (**ds**) Arnoldi et al. 1955: 722; Belonsov 1916, 1917: 335; Budkov 1897; Esterberg 1959; Florov 1949: 110; Gemminger & Harold 1872: 2691; Greckin 1962a; Hagedorn 1910d: 59; Hansen 1939; Hellen 1947; Heyden 1898: 77; Isaev 1961: 33–47, 1962, 1967: 64–68; Keler 1922: 269–276, 1925b: 274; Klefbeck & Sjoberg 1960: 232; Kleine 1913b: 128, 1914b: 248, 1934a: 151; Kontkanen 1932: 62; Koppen 1882: 237; Krivolitskaya 1956: 835, 1960, 1965a: 240, 1973: 142, 1983; Kurenzov 1935a: 19, 43, 1935c: 188, 1936a: 113, 1938a: 65, 1950: 215, 1957b: 19, 1965, 1967; Lacordaire 1866: 383; Mandl 1931: 25; Nestertschuk 1930: 159–182; Nuorteva 1955a: 32, 1971: 71; Pittioni 1943: 176; Reitter 1894a: 81; Rozhkov 1970: 152; Sokanovskii 1960; Stark 1926b: 105, 1926g: 154, 1931d: 550, 1952: 405; Strand 1946: 604; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 412; Yin, Huang, & Li 1984: 133; Zinovjev 1955: 191. (**tx**) Eggers 1915a: 96–97; Ferrari 1867a: 47; Hagedorn 1910a: 106; Krivolitskaya 1956: 835, 1958: 178; Kurenzov 1941a: 204, 1948b: 103; Lacordaire 1866: 383; Motschulsky 1860a: 155; Reitter 1894a: 81, 1913a: 106; Schedl 1950a: 83; Sokanovskii 1960: 677; Spessivtsev 1931: 74; Stark 1952: 405; Yin, Huang, & Li 1984: 133. (**ms**) Gusteleva 1971, 1979a, 1979b; McFadden et al. 1982; Stark 1958: 234.

fallax Eggers 1915: 96. Lectotype ♂; Convergence Irkutsk; USNM, Washington, designated by Anderson & Anderson 1971: 13. Synonymy: Schedl 1950a: 83.

References: (**cn**) Kurenzov 1956a: 91. (**cc**) Kurenzov 1934a: 50. (**ds**) Florov 1949: 113; Kurenzov 1934a: 50, 1936a: 113, 1936b: 351, 1938a: 65, 1951b: 19; Mandl 1931: 25; Stark 1931d: 551. (**tx**) Anderson, W. H. & Anderson 1971: 13; Eggers 1915: 96, 1922c, 1931: 41; Schedl 1934f: 1645, 1950a: 83; Spessivtsev 1931: 74; Stark 1952: 394.

shinanocensis Yono 1924: 2. Syntypes, sex²; Japan; not located. Synonymy: Sawamoto 1940: 105.

References: (ds) Sawamoto 1940a: 95, 105.
(tx) Sawamoto 1940a: 95; Yono 1924: 2.

chinensis Kurenzov & Kononov 1966: 31. Holotype ♂; Yunnan Province; ISBN, Novosibirsk, USSR.

Distribution: Asia (Yunnan in China).

Hosts: *Pinus yunnanensis*.

References: (tx) Kurenzov & Kononov 1966: 31.

concinus (Mannerheim) 1852: 358 (*Bostrichus*). Lectotype, sex?; Sitka Island [Alaska]; MZU, Helsinki.

Figures: Hopping 1963d: 1093.

Distribution: North America (Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA).

Hosts: *Picea sitchensis*.

References: (ay) Oester & Rudinsky 1975, 1979; Payne et al. 1973; Thomas, J. B. 1967; Ting 1936: 96. (bv) Barr, B. A. 1969: 641; Daterman, Rudinsky, & Nagel 1965; Oester & Rudinsky 1975, 1979.

(cn) Browne 1968b: 363; Chamberlin 1924; Compere 1915: 574; Currie 1905: 73; Doane et al. 1936; Essig 1926: 520, 1958: 513; Hatch 1938: 194; Hopkins 1904a: 17, 1915: 54; Keen 1929: 44, 1938: 128, 1952c: 165; Ruppel 1967: 54; Schuder 1969: 78; Schwerdtfeger 1956b: 34; Swaine 1918a: 107, 111. (ec) Chamberlin 1918a; Deyrup & Gara 1978: 275; Furniss, R. L. & Carolin 1977: 387; Keen 1938: 128; Kimm 1971; Lindquist 1969c; Schedl 1958d: 187. (hb) Bright 1976d: 155; Bright & Stark 1973: 85; Browne 1968b: 363; Chamberlin 1939: 415, 1958: 165; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Essig 1926: 520, 1958: 513; Furniss, R. L. & Carolin 1977: 387; Holsten, Werner, & Laurent 1980; Hopkins 1904a: 17; Keen 1929c: 44, 1938: 128, 1952c: 165; Pierce, W. D. 1907: 292; Richmond & Kinghorn 1951: 31; Schwerdtfeger 1956: 34; Swaine 1918a: 107, 111; Trimble 1924: 358; Wood, S. L. 1982b: 673. (ds) Blackwelder 1947:782; Blandford 1898b: 186, 188; Bright 1976d: 155; Bright & Stark 1973: 85; Browne 1968b: 363; Chamberlin 1917, 1918a: 15, 1925, 1939: 415, 1958: 165; Choo & Woo 1983; Currie 1905; Essig 1926: 520, 1958: 513; Evans, D. 1983: 33; Ferrer 1942; Furniss, R. L. & Carolin 1977: 387; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 52; Hamilton 1894a: 35; Henshaw 1885: 148; Hopping, G. 1963d: 1094; Hopping, R. 1922; Keen 1929: 44, 1929a: 37, 1938: 128, 1952c: 165; Kleine 1912a: 218, 1913b: 127, 1914b: 390, 1934a: 150; Leng 1920: 341; Murayama 1957a: 37; Patterson & Hatch 1945: 153; Ruppel 1967: 54; Schedl 1963c: 159, 1969a: 203, 1977c: 43; Schuder 1969: 78; Schwarz 1886: 92; Swaine 1909: 121; Wood, S. L. 1957c: 397, 1972a: 419, 1982b: 673. (tx) Blandford 1898b: 186, 188, 189Sc: 6; Bright 1976d: 155; Chamberlin 1939: 415, 1958: 165; Eichhoff 1878b: 232; Evans, D. 1983: 33; Hagedorn 1910a: 104; Hatch 1927: 302;

Hopkins 1905b: 75, 1915e: 54; Hopping, G. 1963b: 62, 1963c: 510, 1963d: 1092–1096; Keen 1929a: 37; LeConte 1857: 22, 1868: 164, 1876: 363, 367, 1878: 625; Mannerheim 1852: 358, 1853: 234; Schedl 1940a: 349, 1955g: 33, 1960g: 6–7; Schwarz 1886: 42; Swaine 1909: 121, 1918a: 107, 111, 1925: 196–197; Thomas, J. B. 1967; Wood, S. L. 1957c: 397, 1972a: 419, 1982b: 673. (ms) Essig 1931: 699; Hatch 1938: 194.

hirsutus Eichhoff 1868a: 402 (*Tomicus*). Syn-types, sex?; Sitka [Alaska]; Hamburg Museum, lost. Synonymy: Eichhoff 1878b: 233.

References: (ds) Gemminger & Harold 1872: 2690; Henshaw 1885: 148; Leng 1920: 341; Swaine 1909: 122. (tx) Blandford 1898b: 188; Eichhoff 1868a: 402, 1878b: 233; Schedl 1955g: 34; Swaine 1909: 122, 1918a: 111.

chamberlini Swaine 1925: 196. Holotype ♀?; Astoria, Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 397.

References: (cn) Doane et al. 1936; Hatch 1938: 194. (hb) Chamberlin 1939: 415; Doane et al. 1936. (ds) Chamberlin 1925, 1939: 415; Keen 1929a: 37; Kleine 1934a: 150; Leng & Mutchler 1933: 53. (tx) Bright 1967b: 675; Chamberlin 1939: 415; Keen 1929a: 37; de Ruelle 1970: 102; Schedl 1955g: 34; Swaine 1925b: 196–197; Wood, S. L. 1957c: 297. (ms) Hatch 1938: 194.

confusus (LeConte) 1876: 364 (*Tomicus*). Lectotype ♀; southern California [USA]; MCZ, Cambridge, lectotype designated by Wood 1982b: 703. Figures: Borden & Wood 1966: 257, 259, White 1983: 331–332.

Distribution: North America (Baja California Norte, Chihuahua in Mexico/ Arizona, S California, Colorado, Nevada, New Mexico, W Texas, Utah, Wyoming in USA).

Hosts: *Pinus edulis*, *P. monophylla*, rarely other *P.* spp.

Notes: (3) Most California citations of this name prior to 1970 actually refer to *paraconfusus*; records published as *paraconfusus* that actually pertain to *confusus* are listed here under *confusus*.

References: (ay) Atkins 1966b: 983; Barr, B. A. 1969: 641; Bhakthan, Borden, & Nair 1970; Bhakthan, Nair, & Borden 1969, 1971; Borden 1966b: 219, 1967: 1165, 1968; Borden & Slater 1968: 366–368, 1969a: 29–32; Borden & Wood 1966; Lyon 1955: 482; Payne et al. 1973; Pitman & Vite 1963; Renwick, Pitman, & Vite 1966; Schouherr 1970b; Thomas, J. B. 1967; Vite & Pitman 1968: 169–170; Wood, D. L. 1961: 187; Wood, D. L. & Stark 1966. (bv) Annala 1971a: 13; Ashraf & Berryman 1969: 6; Barlow 1966; Barr, B. A. 1969: 641; Bedard, W. L., Jr. 1964b, 1965: 77–81; Bhakthan, Borden, & Nair 1970; Birch 1978b; Birch et al. 1977; Birgersson et al. 1984: 1049; Borden 1966b, 1967, 1968: 10–13; Borden,

- Brownlee, & Silverstein 1968: 635; Borden, Nair, & Slater 1969: 1626–1627; Borden, Silverstein, & Brownlee 1968: 600; Borden & Wood 1966: 253–261; Cameron & Borden 1967: 236–244; Chararas 1980a; Dyer & Taylor 1968: 775; Franklin 1968; Gara 1963: 51, 1965b: 4891–4892; Gara & Vite 1962: 275–287; Goeden & Norris 1965b: 774; Hertel, Hain, & Anderson 1969: 1086; Inscocoe 1982; Inscocoe & Beroza 1976: 147; Jacobson 1965, 1972; Katzenellenbogen & Lenox 1973: 331; Kikuchi & Ogura 1976; Klassen, Ridgway, & Inscocoe 1982; Kliefoth, Vite, & Pitman 1964: 283–290; Kozłowski 1969: 121; McMullen & Atkins 1962b: 1321; McNew 1970; Miller & Keen 1960: 105; Payne & Wood 1981: 492; Pitman 1965c: 598, 1966a: 147–157; Pitman, Kliefoth, & Vite 1966: 13–17; Pitman, Renwick, & Vite 1966: 243–250; Pitman & Vite 1963: 221–226; Pitman, Vite, & Renwick 1966: 46–47; Reece et al. 1968: 4249–4256; Renwick, Pitman, & Vite 1966: 83–84; Rice 1969a: 382–386, 1969b: 189–194; Schmitz 1972: 1725; Schneider & Rudinsky 1969: 1182; Schonherr 1970b; Shorey & Gaston 1967; Silverstein 1969, 1970a, 1970b; Silverstein & Rodin 1965; Silverstein, Rodin, & Wood 1966, 1967: 944–949; Silverstein & Young 1976: 21; Silverstein et al. 1966: 509–510, 1929–1936; Stark, R. W. 1968b: 689–697; Struble 1966; Thomas, H. A. et al. 1972; Vite 1962, 1967, 1969; Vite & Crozier 1968: 87–94; Vite & Gara 1961: 175–182, 1962: 252–273; Vite, Gara, & Kliefoth 1963: 39; Vite & Pitman 1967: 683–701; Wilson, S. R. & Phillips 1975; Wood, D. L. 1961b: 330–331, 1962a: 473–477, 1962b: 141–145, 1963: 241–282, 1965, 1966, 1967a, 1967b, 1968; Wood, D. L. & Bushing 1963: 1066; Wood, D. L., Silverstein, & Rodin 1967a, 1967b; Wood, D. L. & Stark 1966: 1–10; Wood, D. L. & Vite 1961: 79–95; Wood, D. L. et al. 1966: 523–536, 1967: 206, 1968: 1373–1374, 1970b; Young, J. C., Silverstein, & Birch 1973. **(cn)** Amman & Rasmussen 1969: 631; Annand 1947: a21–22, 31, 1948, 1949; Anonymous 1955g: 30, 1958a: 8, 1959j: 2, 1960i, 1960j: 10, 1960k, 1960q, 1961e, 1961h, 1963j, 1963y, 1965b, 1966f, 1967f, 1967k, 1968g, 1972f, 1973b, 1983d; Barlow 1966; Bedard & Browne 1969: 1202–1203; Bongberg 1962; Browne 1968b: 364; Burke 1932: 366, 1933: 49–59, 1937: 28; Bushing & Wood 1964: 510; Calnaido 1965: 249–262; Celaya 1981; Chamberlin 1924; Currie 1905: 73; Doane 1927: 284–286; Doane et al. 1936; Essig 1913: 705, 1926: 520, 1958: 520; Flake & Germain 1970: 25; Frye 1971: 25; Hall 1946: 54, 62, 1958a: 341–347; Hawthorne 1964, 1965b; Hopkins 1904a: 18, 1905: 77; Hopping, R. 1915: 183; Hoyt 1950: 15; Hutson et al. 1933: 291–304; Keen 1929: 45, 1938: 112–113, 1952c: 146–147; Lucht 1966: 31; Lucht & Moore 1963: 19; Lyon 1959a: 1, 1959b: 323, 1965: 1–59, 1969, 1971; Lyon & Shea 1967: 1–5; Lyon & Swain 1968: 1–4; Lyon & Wickman 1960: 1–7; Massey 1959: 132; McArdle 1957: 16; Miller 1929: 994; Miller & Keen 1960: 105; Moore 1955: 478, 1957: 448–450; Osborne 1962: 1–6; Packard 1890: 713; Patterson 1923, 1927c: 1–9; Payne & Wood 1981: 492; Pearson 1950: 154–155; Ragenovich 1979, 1980b: 22; Rice 1969b; Rosecrans 1947: 8; Rudinsky & Terriere 1959: 485; Ruhm 1964; Salman 1933a: 131–137, 1938a: 613, 1938b: 119–123; Schuder 1969: 78; Schwerdtfeger 1956b: 42; Smith, A. 1981; Stark, R. W. & Borden 1965a; Struble 1955: 104, 1966; Struble & Hall 1955: 1–21; Swaine 1918a: 108, 113; Thatcher, T. O. 1961; Thomas, J. B. 1970a: 5; Villarreal Martinez 1857: 11; Vite 1961, 1962, 1969; Vite & Rudinsky 1962; Vite & Wood 1961: 72; Wickman & Lyon 1962: 395. **(cc)** Anonymous 1964x; Ashraf & Berryman 1969: 13, 1970: 206; Ball 1971; Bedard, W. L., Jr. 1965, 1966a: 931–938; Berryman & Stark 1962a: 456–466, 1962b: 722–726; Birch 1978b; Borden 1967; Bovey 1970; Burks 1979: 824; Bushing 1965: 460; Bushing & Bright 1965: 203; Cameron & Borden 1967; Chansler 1964, 1966: 622–624; Cobb et al. 1965; Coster & Gara 1968: 69–76; Craighead et al. 1927; Doane 1927; Furniss, M. M. 1966; Furniss, R. L. & Carolin 1977: 355; Cahlan 1938; Gerhold et al. 1966; Hanover 1975; Heqvist 1959: 181; Hirschmann & Wisniewski 1982, 1983; Hopping, R. 1915: 183; Hunter, Rosario, & Moser 1989; Hurlbutt 1967; Kaya 1984; Keen 1938: 112–113; Kimmins 1970: 919–923; Kinn 1967a, 1967b: 862–865, 1970b, 1970c, 1971, 1983a; Kinn & Witcosky 1978: 249; Lanier 1967b: 1134, 1970: 1139–1163; Laumond & Ritter 1971; Lindquist 1964, 1969c, 1970b; Lindquist & Bedard 1961; Marsh 1979: 148; Mason, W. R. M. 1978; Massey 1960b, 1960c: 14–22, 1962a: 95–103, 1965b, 1966a; Mathre 1964: 353–362, 1966; Miller 1929: 994; Miller & Keen 1960: 105; Moore 1955: 478; Nickle 1963: 386–389; Nishiguchi 1970; Otvos 1965: 1192; Otvos & Stark 1985; Patterson 1927c: 3; Pitman 1965a, 1965b; Poinar 1972, 1975: 161; Rice 1965, 1969a, 1969b, 1971; Rudinsky 1962b, 1962c: 7; Ruhm 1964; Salman 1938a: 613; Shifrine & Phaff 1956: 41–55; Singh 1977: 101; Smiley & Knutson 1983; Stark & Borden 1965: 994–996; Stevens & Hawksworth 1970; Struble 1942d: 843; Vite 1961: 37; Welch, H. E. 1963; Wood, D. L. 1961a; Wood, D. L. & Bushing 1963; Wood, D. L. & Stark 1968: 148; Wood, D. L. & Vite 1961: 49; Zethner-Moller 1967: 575–582. **(hb)** Annala 1969: 204, 1971: 9; Anonymous 1960k; Bhakthan, Borden, & Nair 1970; Bhakthan, Nair, & Borden 1971; Bongberg 1959a; Borden 1967; Borden, Brownlee, & Silverstein 1968: 633; Browne, F. C. 1968b: 364; Browne, L. E. 1972; Burke 1932; Cameron & Borden 1967; Chamberlin 1939: 419, 1958: 167; Chansler 1964, 1966; Chararas 1980a; Doane et al. 1936; Essig 1926: 520, 1958: 520; Fox, Wood, & Cane 1988: 429; Furniss, M. M. & Johnson

- 1987: 376; Furniss, R. L. & Carolin 1977: 394; Gara 1963, 1965b; Gara & Vite 1962; Hertel, Hain, & Anderson 1969: 1088; Hopkins 1904a: 18; Hopping, G. 1965e: 426; Keen 1929: 45, 1938: 112–113, 1933b: 297–298, 1952c: 146–147; Kozłowski 1969: 121; Miller & Keen 1960: 105; Nishiguchi 1970; Pierce, W. D. 1907: 292; Schwerdtfeger 1956b: 42; Stark, R. W. 1968a; Struble 1955: 1–4, 1966; Struble & Hall 1955: 1–21; Swaine 1918a: 108, 113; Thatcher, T. O. 1961; Trimble 1924: 383; Vite 1962; White, R. E. 1983; Wood, D. L. & Bushing 1963: 1072; Wood, D. L. & Stark 1966; Wood, S. L. 1982b: 703. **(ds)** Anonymous 1958a: 8, 1963j, 1963y, 1965b, 1966f, 1966k, 1967f, 1968g, 1973b, 1983d; Atkinson & Equihua 1985b: 236; Berryman & Stark 1962a; Bongberg & Bennett 1960: 1; Browne 1968: 364; Chamberlin 1917: 328, 1925, 1939: 419, 1958: 167; Chansler 1964: 1–4; Currie 1905: 73; Essig 1926: 520, 1958: 520; Fall 1906: 202; Furniss, M. M. & Johnson 1987: 376; Furniss, R. L. & Carolin 1977: 394; Hagedorn 1910d: 52; Hall & Eaton 1960; Henshaw 1882: 269, 1885: 148; Hopping, G. 1965c: 426; Hopping, R. 1922; Keen 1928: 45–49, 1929a: 37, 1929c: 45, 1938: 112–113, 1952c: 146–147; Kleine 1913b: 127, 1914b: 388, 1934a: 150; Leng 1920: 341; Little 1943: 245; Patterson & Hatch 1945: 153; Rosecrans 1947: 8; Salman 1933a: 134; Schuder 1969: 78; Schwarz 1886: 42; Struble 1955: 1–4, 1966: 4; Swaine 1909: 122; Thatcher, T. O. 1961; Thomas, J. B. 1966; Vite 1961; Wickham 1898: 312; Wood, D. L. 1961a; Wood, D. L. & Bushing 1963; Wood, D. L. & Vite 1961; Wood, S. L. 1957c: 397, 1972a: 421, 1982b: 703. **(tx)** Borden & Wood 1966: 257, 259; Chamberlin 1939: 419, 1958: 167; Chansler 1964; Hagedorn 1910a: 104; Hopkins 1905b: 77; Hopping, G. 1963c: 509, 1965e: 423, 425–427; Keen 1929a: 37; LeConte 1876: 362, 364; Reitter 1913a: 105; Schedl 1955g: 40, 1960g: 7; Schwarz 1886: 42; Swaine 1909: 122, 1916b: 188, 1918a: 107, 112–113, 1924c: 69, 71; Thomas, J. B. 1967; White, R. E. 1983: 331–332; Wood, D. L. & Stark 1968: 149; Wood, S. L. 1957c: 397, 1972a: 421, 1982b: 703. **(ms)** Amman & Rasmussen 1969; Anonymous 1959j: 2; Bedard, W. L., Jr. & Browne 1969; Berryman & Stark 1962a; Bongberg 1959a; Borden, Nair, & Slater 1969; Browne, L. E. 1972; Chararas 1971a: 853; Katzenellenbogen & Lenox 1973; Kliefoth, Vite, & Pitman 1974; McNew 1970; Reece et al. 1968; Silverstein 1970b; Silverstein & Rodin 1965, 1967; Silverstein, Rodin, & Wood 1967; Stark, R. W. 1968a; Vite & Gara 1961; Wilson, S. R. & Phillips 1975.
- duplicatus** (Sahlberg) 1836: 144 (*Bostrichus*). Syn-types, sex?; Finland; not located.
 Figures: Balachowsky 1949a: 266, Grime 1979: 146, Nobuchi 1974: pl. 2–3, Pfeffer 1989a: pl. 10, Tsai & Li 1959: 99.
- Distribution: Asia (Heilongjiang in China/ Japan/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Czechoslovakia/ Finland/ France/ Germany/ Hungary/ Norway/ Poland/ Sweden/ W USSR).
 Hosts: *Picea excelsa*, *P. jezoensis*, *P. koraiensis*, *P. obovata*, rare in *Pinus densiflora*, *P. sylvestris*.
 References: **(ay)** Escherich 1923b: 465; Fuchs 1911a; Negru 1968b: 802; Nunberg 1950a: 138; Schonherr 1970b. **(bv)** Annala & Petaisto 1978; Bakke 1975, 1979c; Balazy 1968; Ellefsen 1980e; Gayvalis & Kajaitis 1981; Grune 1979: 147; Inscoe 1982; Kinelki 1958: 74; Klassen, Ridgway, & Inscoe 1982; Mozolevskaya, Lebedeva, & Galaseva 1979; Nunberg 1950a: 168; Nuorteva 1956c: 23; Rozhkov 1970: 150; Schonherr 1970b; Selander & Nuorteva 1980; Silverstein & Young 1976: 21; Zotova 1987. **(cn)** Anonymous 1948k: 4; Ass & Funtikow 1941; Balazy 1968; Berdennikova 1954; Chrystal 1922, 1949b: 3–11; Ehnstrom et al. 1974; Elfving 1904; Escherich 1917: 97–115, 1923b: 465; Esterberg 1959; Fleischer 1875c, 1877a; Goryacheva & Andre-Eva 1961: 162–164; Grandi 1951; Hanson, H. S. 1940a; Herlein 1878; Ishikura 1966; Judeich & Nitsche 1895: 498, 1327; Juutinen 1960: 27; Kalandra 1953a; Kangas 1939, 1947: 1–192, 1958d: 164, 1966b; Kozikowsky 1929: 253; Kurenzov 1935c: 188; Lekander 1954b: 16; Lekander, M. 1951: 105; Lozovoi 1950c: 308; Mathiesen 1952: 299; Mathiesen-Kaarik 1953: 11; McFadden et al. 1982; Nestertschuk 1930: 176; Nuorteva 1955c: 1; Nusslin 1913: 273; Pfeffer 1949b: 147; Pierce, W. D. 1917: 69; Rhumbler 1927: 325; Rudnev 1966; Saalas 1949: 344, 392; Selander & Nuorteva 1980; Sierpinski 1958: 69; Titova 1966; Troitskii 1968: 40–43; Wichmann 1927b: 374. **(ce)** Annala & Petaisto 1978; Ass & Funtikow 1941; Balazy 1968; Balazy & Michalski 1960; Branmanis 1938, 1940; Chararas 1959a; Fleischer 1875c, 1877a; Galoux 1947b; Graham 1969: 867; Heqvist 1963: 155; Kangas 1939, 1946b: 21, 1954a: 48; Karpinski 1932a: 95, 99; Kleine 1908c: 214, 1944: 70; Kostin 1964: 120; Kurenzov 1964: 20; Lindquist, E. E. 1969c; Mathiesen 1952: 299; Mathiesen-Kaarik 1953: 11; Melnikova 1960: 19–45; Michalski & Ratajczak 1989; Mozolevskaya, Lebedev, & Galaseva 1979; Nuorteva 1956a: 17, 1957b: 52, 1959d: 201, 1967a, 1968a, 1970; Nusslin 1927: 630; Palmén 1944: 60, 1946: 195; Pettersen 1976b; Pfeffer 1949b: 147; Poinar 1975: 161; Redikortzev 1947: 249; Saalas 1917a: 18, 1928: 649, 1930: 118, 1949: 344, 392, 1951: 14; Slankis 1972; Szczepanski 1960a: 410; Teplouchow 1890: 263; Thompson, W. R. 1943: 59; Titova 1966; Wachtl 1879: 51, 1886: 53; Wiackowski 1957a: 80, 1957b: 312; Zimovjev 1957: 348, 1958: 391; Zolk 1935: 614–640, 1937: 147–172. **(hb)** Annala & Petaisto 1978; Anonymous 1948k: 4; Balazy 1968; Borodajewsky 1928, 1929b, 1930a: 157–159, 1930c: 805–811; Chararas 1962c: 217; Charvat 1950; Dombrowsky 1892; Elfving 1904; Escherich

1923b: 465; Fleischer 1875c, 1877a; Fuchs 1904a; Cornostaev 1916: 311; Grandi 1951; Gyorfi 1957; Henschel 1877b, 1878b, 1889: 485, 1895a: 183; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Kellner 1876b: 191; Kostin 1960: 135; Krivolutsкая 1956: 835, 1960; Kurenzov 1935a: 41, 1948b: 111, 1950d: 217; Lekander 1954b: 16; Lengerken 1939: 72, 1954: 93; Melnikova 1960; Michalski 1959a: 290; Mozolevskaya, Lebedeva, & Galaseva 1979; Numberg 1946b: 3; Nuorteva 1956c: 23, 1967a, 1968a, 1970; Nusslin 1913: 273, 1927: 630; Opamasenko & Kononenko 1966; Pfeffer 1941c: 7; Postner 1974: 445; Rhumbler 1927: 325; Rinski-Korsakov et al. 1949: 291; Rozhkov 1970: 150; Saalas 1913a: 69, 89, 1949: 344, 392, 1951: 14; Schedl 1981b: 90; Schnaider 1954: 173; Schnaider & Sierpinski 1955: 60; Shishov 1928a: 673; Spessivtsev 1913a: 75, 1921a, 1921b: 221–223, 1923: 204; Stark 1926a: 337, 1952: 399; Wachtl 1876a: 455; Wichmann 1927b: 378; Zinovjev 1957: 348, 1958: 391. **(ds)** Balazy & Michalski 1960; Calwer 1884, 1893; Charvat 1950; Endrodi 1955b; Escherich 1923b: 465; Esterberg 1928, 1959; Fauvel 1885; Florov 1949: 264; Fuchs 1904a; Gemminger & Harold 1872: 2690; Gornostaev 1917: 308–315; Grill 1895: 310; Grune 1979: 147; Hagedorn 1910d: 52; Hansen, V. 1939; Hellen 1947; Henschel 1895a: 183; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Hlawa 1870; Horion 1951; Ishikura 1966; Jacentkovsky 1912: 291; Jammicky 1960a; Karpinski 1925: 217, 1926: 83, 1931: 18, 36, 1932a: 95, 99, 1933b: 38, 1935: 1–86; Karpinski & Strawinski 1948: 157; Keler 1925b: 274; Kellner 1876b: 191; Kinelski 1958: 74; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 268, 1913b: 127, 1934a: 150; Krivolutsкая 1956: 835, 1960, 1983; Kurenzov 1934a: 50, 1935a: 41, 1935c: 188, 1936a: 111, 1938a: 59, 1950: 217, 1951b: 19, 1964: 20; Lazorko 1963; Lomnicki 1904: 370, 1913b: 148; Lucht 1987: 279; Mandl 1931: 25; Munster 1922b: 134; Nobuchi 1974: 52; Numberg 1928b: 88, 1954: 85; Nuorteva 1955a: 31, 1956b: 168, 1971: 71; Palm 1946: 122; Palmen 1944: 60, 1946: 195; Pfeffer 1931b: 76, 1947e: 4, 1950b: 73, 1959a: 75; Pierce, W. D. 1917: 69; Pittioni 1943: 176; Pomerantzev 1907b: 248, 493; Poppius 1900: 108; Postner 1974: 455; Rakhov 1961: 207–213, 1962; Redtenbacher 1874: 377; Reitter 1894a: 81, 1916: 304; Rinski-Korsakov et al. 1949: 291; Roubal 1941: 272; Rozhkov 1970: 150; Saalas 1913a: 69, 89, 1916: 91–95, 110–116, 1917a: 18, 1930: 118, 1931: 68; Sahlberg 1900: 105; Schaufuss 1915: 1249; Schaum 1862: 101; Schedl 1980a: 28, 1981b: 90; Schilsky 1909: 188; Seidlitz 1872: 395, 1891a: 566; Sokanovskii 1960; Stark 1926a: 337, 1926j: 127, 1931a: 27, 1931d: 350, 1952: 399; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 15; Wachtl 1876a: 455; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 412; Yin,

Huang, & Li 1984: 129; Zinovjev 1955: 187. **(tx)** Balachowsky 1949a: 264–265; Charvat 1950; Dombrowsky 1892; E. B. 1880; Eggers 1914, 1922c, 1923b: 138; Eichhoff 1864b: 42, 1877b: 118; Endrodi 1957a: 307, 1957b; Escherich 1923b: 465; Fauvel 1885; Ferrari 1867a: 47, 1867b: 108, 1868: 251, 1878a; Fleischer 1927; Fuchs 1911a; Grune 1979: 146–147; Hagedorn 1910a: 104; Henschel 1878a, 1895a: 183; Hopping, G. 1963c: 512; Karpinski & Strawinski 1948: 157; Koch 1928: 90; Kraatz 1876d: 24; Krivolutsкая 1956: 835, 1958: 178; Kuhnt 1913: 1058; Kurenzov 1941a: 203, 1948b: 111; Lazorko 1963; Lucht 1987: 279; Nobuchi 1974: 52, pl. 2–3; Numberg 1954: 85; Pfeffer 1932b: 26, 1941c: 7, 1947e: 4, 1955a: 251, 1989a: pl. 10; Postner 1974: 455; Quaschik 1953: 35; Redtenbacher 1874: 377; Reitter 1894a: 81, 1913a: 107, 1916: 304; Rhumbler 1927: 325; Saalas 1913a: 69, 89, 1949: 344, 392; Sahlberg 1836: 144; Schedl 1934f: 1644, 1950a: 76, 1980a: 28, 1981b: 90; Seidlitz 1872: 395, 1891a: 566; Sokanovskii 1928c: 667–668, 1960: 677; Spessivtsev 1913a: 74–75, 1922a: 483, 1925a: 188, 1925b: 19; Stark 1952: 399; Strohmeier 1908b: 69; Teplouchow 1890: 261; Tsai & Li 1959: 99; Wachtl 1883a: 5, 1895: 8; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 129. **(ms)** Kozikowsky 1929: 253; McFadden et al. 1982; Michalski 1959a: 290; Sedlacek 1913: 455; Weber, L. 1912: 30.

judeichi Kirsch 1870: 388 (*Bostrichus*). Syntypes, sex?; Ural (Ochansk, Teplouchoff); not located. Synonymy: Eggers 1923: 138.

References: **(cn)** Koppen 1882: 237. **(hb)** Dombrowsky 1892; Eichhoff 1881a: 50, 230. **(ds)** Fauvel 1885; Gemminger & Harold 1872: 2691; Heyden, Reitter, & Weise 1883: 182, 1891: 672; Koppen 1882: 237; Stein & Weise 1877: 164. **(tx)** Dombrowsky 1892; Eggers 1923: 138; Eichhoff 1878b: 245, 1881a: 50, 230, 1883a: 112, 138; Fauvel 1885; Kirsch 1870: 388, 1890: 252; Schedl 1934f: 1644, 1950a: 76; Teplouchow 1890: 252, 1925: 14–16; Wachtl 1883a: 11.

infucatus Eichhoff 1878b: 247 (*Tomiscus*). Holotype, sex?; Europa (Styria); Hamburg Museum, lost. Synonymy: Eggers 1923: 138.

References: **(hb)** Dombrowsky 1892; Eichhoff 1881a: 49, 230; Fuchs 1904a. **(ds)** Fauvel 1885; Fuchs 1904a; Heyden, Reitter, & Weise 1883: 182, 1891: 672; Schilsky 1909: 188; Stein & Weise 1877: 164. **(tx)** Dombrowsky 1892; Eggers 1923: 138; Eichhoff 1877c: 392, 1878b: 247, 1881a: 49, 230, 1883a: 112, 138; Fauvel 1885; Schedl 1934f: 1644; Teplouchow 1890: 261; Wachtl 1883a: 12, 1895: 8.

emarginatus (LeConte) 1876: 364 (*Tomiscus*). Lectotype ♀; Oregon [USA]; MCZ, Cambridge, designated by Wood 1982b: 694.

Figures: Bright 1976d: 153, Hopping 1963e: 1204.

Distribution: North America (S British Columbia in Canada/ Baja California Norte in Mexico/ California, Idaho, W Montana, Oregon, Washington in USA).

Hosts: *Pinus jeffreyi*, *P. monticola*, *P. ponderosa*, uncommon in *P. contorta* and other *P. spp.*

References: (ay) Schonherr 1970b; Thomas, J. B. 1967; Ting 1936: 96. (bv) Miller & Keen 1960: 110; Orr 1935: 1022; Schonherr 1970b; Wood, D. L. 1961b: 187–188. (cn) Anonymous 1960q, 1961h, 1961s, 1966f, 1968b; Browne 1968b: 364; Chamberlin 1924, 1939: 420; Doane et al. 1936; Eaton 1956: 6; Essig 1926: 520, 1958: 520; Felt 1926: 249, 1930a: 249, 267; Graham 1952; Hatch 1938: 194; Hutson 1933: 291–304; Johnson, P. C. 1940: 773–776, 1967: 1–7; Keen 1929c: 45, 1938: 114; Leach 1940b: 223; Lindgren 1980a: 64; Mathiesen 1952: 275; Miller & Keen 1960: 110; Patterson 1923: 38, 1927c: 3; Pronin 1952: 186; Ryker & Rudinsky 1979: 209; Schuder 1969: 78; Silver & Ross 1960: 99, 1961: 99; Swaine 1914: 23, 1918a: 108, 113; Wenz 1985. (cc) Bushing 1965: 460; Callaham & Shifrine 1960: 146; Chamberlin 1939: 420, 1958: 168–169; Craighead et al. 1927; DeLeon 1934b: 297–317; Furniss, R. L. & Carolin 1977: 388; Graham 1952; Holst 1936; Hunter & Davis 1963; Keen 1938: 114; Kinn 1971; Leach 1940b: 223; Lindquist 1970b, 1971; Marsh 1979: 169; Mathiesen 1952: 275; Mathre 1964: 353–362, 1966; Miller & Keen 1960: 110; Otvos & Stark 1985; Patterson 1927c: 3; Rice 1968; Richerson, J. V. & Borden 1972a; Rumbold 1936: 419; Shifrine & Phaff 1956: 45; Struble 1930b: 114; Thompson, W. R. 1943: 59; Thompson, W. R. & Simmonds 1964: 23, 1965: 74; Wichmann 1952b: 23. (hb) Bright 1976d: 157; Bright & Stark 1973: 86; Browne 1968b: 364; Chamberlin 1939: 420, 1958: 168–169; Doane et al. 1936; Eaton 1956; Essig 1926: 520, 1958: 520; Felt 1926: 249, 1930a: 249, 267; Furniss, R. L. & Carolin 1977: 388; Graham 1952; Hopping, G. 1963e: 1204; Johnson, P. C. 1967: 1–7; Keen 1929c: 45, 1933b: 297, 1938: 114; Lindgren 1980a: 64; Miller & Keen 1960: 110; Orr 1935: 1022; Rumbold 1936: 419–437; Ryker & Rudinsky 1979: 209; Swaine 1918a: 108, 113; Wood, S. L. 1982b: 694. (ds) Anonymous 1966f; Bright 1976d: 157; Bright & Stark 1973: 86; Browne 1968b: 364; Chamberlin 1917, 1925, 1939: 420, 1958: 168–169; Eaton 1956; Essig 1926: 520, 1958: 520; Evans, D. 1983: 33; Felt 1926: 249, 1930a: 249, 267; Furniss, R. L. & Carolin 1977: 388; Gast et al. 1989: 385; Hagedorn 1910d: 53; Henshaw 1882: 269, 1885: 148; Hopping, G. 1963e: 1205; Hopping, R. 1922; Keen 1929c: 45, 1929a: 38, 1938: 113–114, 1949a: 93; Kleine 1913b: 127, 1914b: 403, 1934a: 150; Lange 1937: 173; Leng 1920: 341; Nunberg 1958a: 492; Patterson & Hatch 1927: 1–9, 1945: 153; Salman 1933: 131–137; Schuder 1969: 78; Swaine 1909: 122, 1914: 23; Wood, S. L. 1972a:

419, 1982b: 694. (tx) Bright 1976d: 153, 157; Chamberlin 1939: 420, 1958: 168–169; Evans, D. 1983: 33; Hagedorn 1910a: 104; Hopkins 1915c: 183, 185; Hopping, G. 1963c: 509–510, 1963e: 1202–1205; Keen 1929a: 38; LeConte 1876: 364; Nunberg 1958a: 492; Ryker & Rudinsky 1979: 209; Swaine 1909: 122, 1915: 355, 1918a: 108, 113; Thomas, J. B. 1967; Wood, S. L. 1972a: 419, 1982b: 694. (ms) Hatch 1938: 194.

erosus (Wollaston) 1857: 95 (*Tomiscus*). Syntypes, sex[?]; Madera; BMNH, London.

Figures: Alkan 1946: 113, Balachowsky 1949a: 266, Grune 1979: 142, Joly 1976b: fig. 179, Tsai & Li 1959: 103, Wingfield & Marasas 1980: 66.

Distribution: Africa (Algeria/ Egypt/ Libya/ Madeira Island/ Morocco/ South Africa (introduced)/ Tunisia), Asia (Fujian, Henan, Hunan, Jiangsu, Jiangxi, Shanxi, Sichuan, Yunnan in China/ Iran/ Israel/ Jordan/ Syria/ Turkey), Europe (Bulgaria/ Corsica/ England/ France/ Greece/ Italy/ Poland/ Sardinia/ Spain/ Switzerland/ W USSR/ Yugoslavia), Fiji (introduced), South America (introduced: Chile).

Hosts: *Pinus halepensis*, *P. maritima*, *P. pinaster*, *P. spp.*, rare in *Abies pinsapo*, *Cedrus libani*, *Picea orientalis*.

References: (ay) Chararas 1977b; Escherich 1923b: 545; Feytaud 1950a; Fuchs 1911a; Nunberg 1926: 51; Scherb 1971; Thomas, J. B. 1967. (bv) Chararas 1971b, 1973a, 1973b, 1976b, 1976c, 1977b, 1982; Chararas, Desveaux, & Kogane-Charles 1978a; Chararas & Hamza 1972; Chararas & M'Sadda 1970: 1904–1907, 1971, 1973; Chararas et al. 1982: 1094; Giesen et al. 1984; Grune 1979: 134; Jacobson 1972; Kamavar 1984; Klimetzek & Vite 1986: 239; Kohnle et al. 1988; Mendel 1983b, 1988a; Mendel & Halperin 1982; Mendel, Madar, & Golan 1985; Paiva, Pessoa, & Vite 1988; Rutledge, Chararas, & Ducauze 1988; Silverstein & Young 1976: 21. (cn) Acatay 1943a: 68; Androic 1966: 48; Anonymous 1970p, 1977r, 1978w, 1979p, 1985j; Baeta Neves 1941, 1952a, 1955: 44–53, 1957, 1958; Baylis, de Ronde, & James 1986; Besceli 1963; Browne 1968b: 491; Carle 1974a; Chararas 1976c, 1977c, 1978; Chararas & Hamza 1972; Chorbadzhiev 1929; Ciesla 1988; Ekici 1971: 56; Escherich 1923b: 545; Ferreira & Ferreira 1986; Feytaud 1946: 7, 1950a, 1950b; Georgebits 1974; Gois 1944; Halperin, Mendel, & Golan 1982; Hanson, H. S. 1940a; Hubault 1945; Joly 1976; Kailidis 1966a; Kailidis & Markalas 1988; Kfir 1986; Laidlaw 1947: 53; Melis 1940: 73–175; Mendel 1987, 1988c, 1988d; Mendel, Madar, & Golan 1983; Morris, H. M. 1937: 22; Nusslin 1913: 273; Polozencev & Zolotov 1969; Questienne 1979: 117; Rhumbler 1922: 322; Romanyk 1963b: 159; Russo 1946a: 40, 1946b: 313; Sargos 1947: 8; Schimitschek 1944: 223, 1952c: 59, 60, 1955a: 80, 83; Schvester

- 1956; Schwerdtfeger 1944a: 176, 1957a: 183; Sreć 1987; Spaić 1964a: 226–236; Strohmeier 1930: 7. (**cc**) Anonymous 1955j; Berisford, Kulman, & Pienkowski 1970: 484; Carle 1971, 1974a, 1975a; Chararas 1959c, 1963a, 1964a, 1964b; Chararas, Desveaux, & Kogane-Charles 1978a; Chararas et al. 1982: 1094; Fry 1989: 17; Halperin & Holzschuh 1984: 27; Kailidis 1966a; Kfir 1986; Kleine 1908c: 214, 1909a: 48, 78, 1944: 73; Masutti 1959: 268, 303; Mendel 1983b, 1985, 1986a, 1986c: 115, 1986d: 130, 1988c, 1988d; Mendel & Halperin 1981; Mendel, Podoler, & Livne 1989; Novak, P. 1952: 417; Nusslin 1927: 337; Poinar 1975: 161; Purrini & Halperin 1983; Schimitschek 1955a: 80, 83; Schwerdtfeger 1944a: 176, 1957a: 183; Shaw, M. J. P. 1983; Wichmann 1955a: 102, 1958: 230; Wingfield & Knox-Davies 1980; Wingfield & Marasas 1980; Wingfield, Strauss, & Tribe 1985. (**hb**) Acatay 1943a: 68; Adeli 1972: 14; Alkan 1946: 113; Anonymous 1955j; Baeta Neves 1945, 1955: 44–55; Bargmann 1906; Besceli 1963: 50–57; Browne 1968b: 491; Cabral 1959; Carle 1971; Cecconi 1906, 1924; Chararas 1962c: 370, 1963a, 1964a, 1977b; Chararas & M'Sadda 1973; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1892; Dzhabazishvili 1961: 751–757, 1962; Ekici 1971; Escherich 1923b: 545; Ferreira & Ferreira 1986, 1989; Feytaud 1946, 1950a; Georgebits 1974; Gois 1944; Györfi 1957; Halperin & Holzschuh 1984: 27; Henschel 1877b, 1895: 185; Joly 1976; Keler 1926: 169–170; Knotek 1898b: 333, 1899b: 14, 1901: 573; Lengerken 1954: 93; Masutti 1959: 268, 303, 1964; Mendel 1983b, 1987; Mendel & Halperin 1982; Mendel, Madar, & Golan 1985; Munro 1926: 70; Nusslin 1913: 273, 1927: 337; Perris 1856: 184; Peyerimhoff 1919: 256; Postner 1974: 450; Questionne 1979: 117; Rhumbler 1922: 322; Schedl 1981b: 88; Schimitschek 1944: 223, 1955a: 80, 83; Schwerdtfeger 1944a: 176, 1957a: 183; Spessivtsev 1913a: 86; Stark 1952: 414; Strohmeier 1930: 7; Tschorbadjiev 1929: 175; Wingfield & Marasas 1980; Zocchi 1959: 103, 106. (**ds**) Acatay 1961: 3; Aclouque 1896; Adeli 1972: 14; Androic 1966: 48; Anonymous 1970p, 1977r, 1978w, 1979p; Atkinson 1921; Audras & Schaefer 1957; Baeta Neves 1945, 1952a, 1955; Barthe 1896; Beaver 1989a: 23; Bedel 1888b: 401, 418; Berisford, Kulman, & Pienkowski 1970: 484; Bigagli 1967; Brakman 1966b: 207; Browne 1968b: 491; Buresh & Lazarov 1956; Cabral 1959; Cecconi 1906; Chararas 1963: 4498, 1964a, 1971b; Charvat 1950; Chorbadzhievo 1929; Ciesla 1988; Donisthorpe 1931: 122; Eggers 1912f; Escalera 1919; Escherich 1923b: 545; Fauvel 1897; Friederichs 1919; Ganglbauer 1904; Gemming & Harold 1872: 2690; Georgebits 1974; Georghiou 1977: 74; Gillerfors 1988; Grune 1979: 143; Hagedorn 1910d: 53; Halperin 1966: 68; Halperin & Holzschuh 1984: 27; Hariri 1971: 262; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Hoffmann 1936; Holdhaus 1923: 115; Jansson 1940: 63; Joly 1976; Kadyrov 1988: 43, 45, 1989; Kailidis 1985; Kailidis & Markalas 1988; Kleine 1913a: 35, 1913b: 127, 1914a: 16, 22, 1934a: 150; Kloft & Hinks 1945: 217; Knotek 1898b: 333, 1899b: 14, 1901: 573; Langhoffer 1915c: 158; Larroche & Torossian 1971; Liebmann 1939: 153; Linder 1953: 71; Lomnicki 1913b: 148; Lucht 1987: 279; Luna de Carvalho 1947: 15; Lundblad 1958: 489; Malazgirt 1966: 64; Mequignon 1936: 15, 38; Mitter 1984: 6; Nash 1989; Normand 1937: 269; Novak, P. 1952: 417, 1964; Nunberg 1928b: 117, 1964a: 236; Peyerimhoff 1919: 256, 1933b: 362; Pfeffer 1935: 158, 1936: 90, 1947d: 128, 1984: 277, 1989a: 77; Pittioni 1943: 176; Pjatnitskii 1930a: 165; Plaza & Gil 1982: 241; Razzauti 1921: 119; Reitter 1894a: 83, 1916: 305; Romanyk 1963b: 159, 1966: 87; Ruskov 1928c: 62; Sahlberg 1903b: 63; Sainte-Claire 1914: 473; Sainte-Claire & Mequignon 1938: 449; Schedl 1961b: 185, 1963e: 155, 1964a, 1967c: 72, 1969g: 292, 1971d: 425, 1972n: 351, 1979i: 292, 1981b: 88; Schilsky 1909: 188; Schmitz 1898: 157; Seidlitz 1891a: 566, 1891b: 611; Shaw 1983; Stark 1926g: 154, 1927b: 90, 1952: 414; Stein & Weise 1877: 164; Teocchi 1965b; Thompson, G. H. 1959a: 95; Tredl 1907: 16; Tschorbadjiev 1929: 175; Wichmann 1955a: 102; Winter, T. G. 1983: 16; Yin, Huang, & Li 1984: 138; Zocchi 1959: 103, 106. (**tx**) Aclouque 1896; Alkan 1946: 113; Balachowsky 1949a: 269, 1952: 135; Bedel 1888b: 401, 418; Cabral 1959; Ceballos 1945; Charvat 1950; Dombrowsky 1892; Duffy 1953; Eggers 1912f: 29, 39–43; Escherich 1923b: 545; Fauvel 1887, 1889; Ferrari 1867a: 75; Fuchs 1911a; Gebien 1907: 197; Grune 1979: 142–143; Hagedorn 1910a: 104; Hoffmann 1936: 42; Hopping, G. 1963b: 61, 63; Joly 1976h: fig. 179; Keler 1925a: 186–194; Kuhnt 1913: 1058; Lucht 1987: 279; Nunberg 1926: 51, 59, 1956c: 164; Pfeffer 1955a: 255; Plaza & Gil 1982: 241, 243, 248; Postner 1974: 450; Quaschik 1953: 35; Questionne 1979: 114; Reitter 1894a: 83, 1913a: 109, 1916: 305; Rhumbler 1922: 322; Schedl 1934f: 1645, 1946a: 14, 1959h: 100, 1981b: 88; Scherb 1971; Seidlitz 1891a: 566, 1891b: 611; Spessivtsev 1913a: 86; Stark 1952: 414; Thomas, J. B. 1967; Tsai & Li 1959: 103; Wachtl 1895: 8; Weber, L. 1912: 30; Wingfield & Marasas 1980: 66; Wollaston 1857: 95, 1865: 236; Yin, Huang, Li 1984: 138. (**ms**) Chararas 1971a: 853; Eggers 1910b; Keler 1925a: 186–194; Mendel 1986a; Sedlaczek 1913: 455; Weber, L. 1912: 30.
- rectangulus* Ferrari 1867: 83 (*Tomicus*). Syntypes, sex?; Gall. merid. et Algeria; not located. Synonymy: Balachowsky 1949a: 269, Pfeffer 1955: 262.
- References: (**cn**) Barbey 1922a, 1925: 241; Bezares 1921; Feytaud 1946; Judeich & Nitsche 1895: 500; Rhumbler 1927: 337; Russo 1946a: 24, 43; Schimitschek 1937c: 60, 1938c: 2118,

1939d: 2110. (cc) Barbey 1924b, 1927; Russo 1946a: 24, 43; Schimitschek 1941a: 313; Wachtl 1879: 51. (hb) Barbey 1901: 24, 89, 1925: 240; Dombrowsky 1887, 1892; Eichhoff 1881a: 50, 233; Feytaud 1946; Henschel 1878b, 1887b, 1895a: 185; Judeich & Nitsche 1895: 500; Knotek 1894d: 558; Lunardoni & Leonardi 1889: 472; Rhumbler 1927: 337; Russo 1946b: 297, 313; Wachtl 1876a: 455. (ds) Barbey 1922a, 1924b; Buresh & Lazarov 1956; Fauvel 1885; Grouzelle 1905; Henschel 1895a: 185; Heyden, Reitter, & Weise 1883: 182; Hlawa 1870; Judeich & Nitsche 1895: 500; Knotek 1892a: 37, 1894a: 558; Kraatz 1869: 59; Lunardoni & Leonardi 1889: 472; Oliviera 1887: 328; Reitter 1894a: 82; Schilsky 1909: 188; Schneider & Leder 1977: 55; Stein 1868: 114; Stein & Weise 1877: 164; Tschorbadzhiev 1925: 57-61; Wachtl 1876a: 455. (tx) Balachowsky 1949a: 269; Barbey 1901: 24, 89; Dombrowsky 1887, 1892; Eichhoff 1868d: 419, 1869d: 139, 1877b: 118, 1877c: 387, 1878b: 257-260; 1881a: 50, 233, 1883a: 112, 138; Fauvel 1885; Ferrari 1867a: 83, 1867b: 108; Henschel 1878a, 1895a: 185; Heyden 1875: 392; Judeich & Nitsche 1895: 500; Knotek 1892a: 37; Kraatz 1876d: 25; Lunardoni & Leonardi 1889: 472; Pfeffer 1955: 262; Portevin 1935: 338; Reitter 1894a: 82; Rey 1892b: 30; Rhumbler 1927: 337; Schedl 1934f: 1645; Schimitschek 1937c: 60; Wachtl 1883a: 7. (ms) Eichhoff 1868d: 419.

grandicollis (Eichhoff) 1868a: 402 (*Tomicus*). Syn-types ♂♂; Amerique boreali; IRSNB, Brussels. Figures: Blandford 1898b: pl. 7, Bright 1976d: 154, Dillon & Dillon 1961: 813, Goyer et al. 1980: 20, Hopping 1965e: 425, Morgan 1967: 141. Distribution: Antilles Islands (Bahama Islands/ Cuba/ Dominican Republic in Hispanola/ Jamaica), Australia (introduced), North America (Manitoba, Ontario, Quebec in Canada/ El Salvador/ Guatemala/ Honduras/ Chiapas, Chihuahua, Durango, Hidalgo, Jalisco, Mexico, Michoacan, Morelos, Puebla, Sinaloa in Mexico/ Nicaragua/ Alabama, Arkansas, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, E Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, Wisconsin in USA). Hosts: *Pinus* spp. References: (ay) Hughes 1974; Kudon & Berisford 1981; Lanier 1987b; Miller, M. C. 1979a, 1979b, 1981; Payne et al. 1972; Schonherr 1970b; Smith, M. T. et al. 1988; Thomas, J. B. 1967; Wilkinson 1962, 1963: 19; Wilkinson et al. 1967. (bv) All & Anderson 1972; Anderson, N. H. &

Anderson 1968; Anderson, R. F. 1977; Annala 1971a: 13; Anonymous 1961h, 1971c, 1971v, 1979a; Atkinson, Foltz, & Connor 1988; Austara 1978: 147; Bakke 1973; Barr, B. A. 1969: 642; Bennett & Ostmark 1972; Berisford & Franklin 1969: 93-96, 1971; Billings 1984b; Birch 1978b; Birch & Svihra 1979b; Birch et al. 1980; Borden et al. 1981: 561; Cameron, R. S. 1987; Dethier 1947; Dixon 1983; Dixon & Payne 1979b, 1980; Du 1987; Elliott, E. W. 1970; Hain & Anderson 1976a, 1976b; Hertel, Hain, & Anderson 1969; Hetrick 1960; Hughes 1974; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1965, 1972; Klanssen, Ridgway, & Inscoc 1982; Lanier & Burkholder 1974; Mason, R. R. 1965a, 1967, 1970; Morgan, F. D. 1967; Mori 1976c; Orr 1935: 1021; Payne & Wood 1981: 492; Renwick & Vite 1972; Røling & Kearby 1975b; Schonherr 1970b; Silverstein & Young 1976: 21; Smith, M. T. et al. 1988; Svihra 1982; Svihra, Paine, & Birch 1980; Thatcher, R. C. & Connor 1985; Turnbow & Franklin 1980; Vite, Bakke, & Renwick 1972: 1971; Vite, Gara, & von Scheller 1964; Vite, Hedden, & Mori 1976; Vite, Ohloff, & Billings 1978; Vite & Pitman 1967: 683-701; Vite & Renwick 1971b; Wagner, Flamm, & Coulson 1985; Werner 1971, 1972a, 1972b, 1972c; Wilkinson 1962, 1964: 58; Wilkinson et al. 1967: 185-195; Witanachchi 1980, 1986; Witanachchi & Morgan 1981; Yearian 1967b: 3356. (cn) Allen 1973; Anderson, D. A. 1952: 2-6; Anderson, R. F. 1966, 1977; Anonymous 1952h: 7, 1960h: 6, 1960i, 1960j: 23, 1960q, 1962h, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1970j: 6, 1971e: 6, 1974e, 1979a, 1981u, 1985k: 46; Baker, W. L. 1972: 260; Beal et al. 1952; Bednall 1960: 12, 1961: 12, 1962: 12, 1964: 12; Bennett, W. H. 1954, 1955, 1956a: 2-3, 7-9, 1956a: 2, 1956b, 1957; Bennett, W. H. & Ostmark 1972; Berisford 1969a, 1969b: 961-962; Berisford & Dahlsten 1989; Berisford et al. 1986; Berrios, Menendez, & Rodriguez 1987; Bing 1985; Birch & Svihra 1979b; Blackman 1950; Bongberg 1957; Browne 1968b: 365; Cameron, R. S. 1987; Chamberlin 1939: 417; Chenier & Philogene 1989; Cibulsky & Hyche 1974, 1977; Cory 1914: 168-170; Conlson & Witter 1984: 536; Craighead 1927: 1-12, 1935: 136; Doane et al. 1936; Downing, Ward, & Ciesla 1970: 29; Drooz 1985: 359; Ebel, Merkel, & Kowal 1964, 1968, 1971, 1975, 1977; Eikenbary, Arnold, & Pinkston 1974; Elliot & Morley 1938; Fatzinger 1985b; Felt 1935; Felt & Bromley 1942: 170; Friend 1940: 222-223, 293-331; Gentry, G. R. et al. 1979: 779; Hamel 1980: 774; Harrison 1956; Hetrick 1942, 1943, 1960; Hetrick & Moses 1932; Hochmut & Milan Manso 1975; Hodges & Pickard 1971: 49; Hofacker et al. 1989; Hoffard & Oak 1980; Houser 1932: 70; Johnston & Coyne 1954; Jones & Ford 1954: 1-6; Knight 1971: 43; Koch, P. 1972; Kowal 1953: 106, 1955b: 1, 1955d: 4, 1956a: 4, 1957b:

- 20, 1957d: 175, 1957e: 12, 1958a: 402, 1959a: 39, 1959b: 161; Kowal & Ebel 1971, 1977; Kulman 1964h: 322–325; Leach 1938: 24, 1940b: 219; Leach et al. 1934: 315–341, 1937: 317; Lee 1954a: 5; Lewis 1973; Lexon 1939: 269; Lindquist, O. H. & Syme 1981: 61; Mason, C. N. & Jones 1969: 5; Mason, R. R. 1965a; Mattson & Haack 1987; McCowan 1961; Merkel & Kowal 1956: 3; Merkel & Kulman 1955: 5; Middleton 1928b: 423; Miller, M. C. 1979a, 1979b; Morgan, F. D. 1967: 137, 1974, 1989; Nagel 1959: 4; Neal 1979: 799; Neumann 1987; Neumann & Marks 1976; Neumann & Morey 1984; O'Byrne 1946: 3–6; Ollieu & Mason 1967: 7, 1968: 8; Orr 1934: 58–59, 1937: 29; Orr & Kowal 1956: 654; Payne & Wood 1981: 492; Phumb 1958: 10; Polivka 1938: 130, 1940: 230; Price 1957: 99, 1987; Ragenovich & Coster 1974; Robertson & Whitfield 1968: 1–8; Robinson, J. V. 1981; Rose, W. F., Billings, & Vite 1981; Ross & Mattoon 1939: 48; Schenk & Benjamin 1964: 570–574; Schenk et al. 1957a: 840; Seymour 1971: 9; Sippell, Dance, & Rose 1966: 57; Snyder 1935: 15, 1936: 19; South 1988; St. George 1924: 38, 1925: 50, 1928: 15, 1929b: 11, 1930: 825–828; Swaine 1918a: 108, 113; Syme & Nystrom 1988: 58; Thatcher, R. C. 1960: 1–25; Thomas, J. B. 1970a; Torrent & Romanyk 1967: 81, 1968; Tsankov 1977; Tsankov et al. 1974: 12; Tucker 1906: 588; Ward, J. G. D., Kucera, & Downing 1971: 30; Wilkinson 1962: 43–44, 1964; Wilkinson & Foltz 1982; William, L. H. 1988: 73; Williams, I. F. 1980; Wyman 1932: 46; Younan 1979. **(ec)** Allen 1973; Anderson, R. F. 1977; Bednall 1963: 11; Berisford & Dahlsten 1989; Berisford & Franklin 1969, 1969a, 1969b, 1971, 1972, 1974b; Berisford, Kulman, & Pienkowski 1970; Berisford et al. 1971: 236; Bing 1985; Birch 1978b; Birch & Svihra 1979b; Blakeslee & Oak 1979; Borden et al. 1981: 561; Brand et al. 1975; Brower 1974, 1977; Buchanan 1964, 1965: 35; Burks 1979: 799; Bushing 1965: 460; Butcher & Havel 1976; Callahan & Shifrine 1960: 146; Chamberlin 1939: 417; Chevis & Stukely 1982; Clark & Osgood 1964b; Craighead et al. 1927; Cross & Moser 1971; Dale 1967; Dixon & Payne 1979b, 1980; Doggett 1973; Elliott, E. W. 1970; Fry 1989: 17; Gara & Coster 1968: 77–86; Gibb, K. S. & Fisher 1987; Grissell 1979: 764; Haliburton 1943; Hammerle 1926: 8; Hanover 1975; Heqvist 1959: 181; Hertel, Hain, & Anderson 1969: 1084–1091; Hetrick 1949c, 1960; Himelick 1982; Hines, J. W. & Heikkinen 1977; Hirschmann & Wisniewski 1982, 1983; Hodges & Pickard 1971: 47; Hoffard & Coster 1976; Holst 1936, 1937: 676; Houser 1931: 657, 1932: 70; Hunter & Davis 1963; Jones 1954; Kabir & Giese 1966b: 897; King, W. E. 1967b: 4606; King, W. E. & Fox 1969: 924–925; Kinn 1984a; Kudon 1979b; Kudon & Berisford 1980, 1981; Kulhavy et al. 1989; Leach 1940b: 219; Leach et al. 1934: 129, 1937: 317; Lindquist 1964, 1969c; Loris 1973; Marsh 1979: 148; Mason, R. R. 1967; Mason, W. R. M. 1978; Massey 1957: 34, 1958: 30; Matthews 1970; Mattson & Haack 1987; Mizell, Frazier, & Nebeker 1984; Morgan, F. D. 1967, 1974; Nelson 1934: 329; Overgaard & Nachod 1971; Paine, Birch, & Svihra 1981; Poinar 1975: 162; Reid 1957b: 7; Rennerfelt 1951: 121; Richerson, J. V. & Borden 1972a; Riley & Goyer 1986; Robillard 1971: 1773; Rohlf & Hyche 1981, 1984; Rose, W. F., Billings, & Vite 1981; Rumbold 1931c: 847, 1936: 419; Sampson 1984; Samson & Smibert 1986; Savelly 1939: 334; Schenk & Benjamin 1964; Schenk et al. 1957a: 840; Schmitt 1950; Schmitt & Goyer 1983a; Slaby 1947: 379; Smiley & Moser 1974; St. George 1928: 15; Stockman 1957: 245; Stone & Simpson 1987; Tehon 1942: 238; Tomalak, Welch, & Carroway 1989b; Vaartaja 1966: 40–43; Vite, Gara, & von Scheller 1964: 461–470; Wagner, Flamm, & Coulson 1985; Webb 1945: 70; Whitney 1971: 1502; Wilkinson 1964; Woodring 1966c; Woodring & Moser 1970; Yearian 1967b; Yearian, Couger, & Wilkinson 1972; Yearian & Wilkinson 1965, 1967, 1968: 43–45; Younan 1979. **(hb)** All & Anderson 1972; Anderson, N. H. & Anderson 1968: 23; Anonymous 1970j: 6, 1979a, 1985: 46; Atkinson, Foltz, & Connor 1988; Atkinson et al. 1986: 32; Baker, W. L. 1972: 260; Beal & Massey 1945: 142–144; Bennett, W. H. 1955; Bennett, W. H. & Ostmark 1972; Berisford & Franklin 1971; Blackman 1922b, 1950; Bongberg 1959a; Bright 1976d: 166; Brower 1974; Browne 1968b: 365; Burgos & Saucedo 1983: 95; Chamberlin 1939: 417; Coulson & Witter 1984: 536; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 12; Doane et al. 1936; Drooz 1985: 359; Eikenbary, Arnold, & Pinkston 1974; Flamm & Coulson 1988; Gast et al. 1989: 383; Gibb, K. S. & Fisher 1987; Hain & Anderson 1976a; Hertel, Hain, & Anderson 1969; Hochmut & Milan Manso 1975; Hoffard & Coster 1976; Hoffmann & St. George 1949: 71; Koch, P. 1972; Kowal & Ebel 1971; Lewis 1973; Mason, R. R. 1965a, 1965b, 1967: 2215, 1970; Mohr 1955: 7; Morgan, F. D. 1967; Neumann 1987; Neumann & Morey 1984; Orr 1925: 1021–1022; Ostmark 1968; Phumb 1958: 10; Rimes 1959: 4, 353; St. George 1929b: 11; Swaine 1918a: 108, 113; Thatcher, R. C. 1960; Thatcher, R. C. & Connor 1985; Thatcher, R. C., Coster, & Payne 1978; Wagner, Flamm, & Coulson 1985; Wilkinson 1963; Wilkinson & Foltz 1982; Williams, I. L. 1980; Witanachchi 1980; Wolcott & Montgomery 1933: 166; Wood, S. L. 1982b: 699; Yearian 1967b; Yearian, Couger, & Wilkinson 1972; Yearian & Wilkinson 1965, 1967: 25–27; Younan 1979. **(ds)** Anderson, R. F. 1977; Anonymous 1926c: 519, 1960: 3, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1974e, 1985k, 1985n; Atkinson & Equihua 1985a: 86, 1985b: 235; Bain 1974: 17; Beal &

Massey 1945: 142–144; Bednell 1960: 12; Bennett, W. H. 1954; Berisford et al. 1971: 236; Berrios, Menendez, & Rodriguez 1987; Blackman 1922b, 1950; Blatchley & Leng 1916: 638; Bongberg 1957; Bongberg & Bennett 1960: 1; Bright 1976d: 166, 1982b: 164, 1985c: 173; Brimblecombe 1953: 21; Britton 1920a; Brown 1968b: 365; Burgos & Saucedo 1983: 95; Chamberlin 1925, 1939: 417; DeLeon 1942a; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938; Drooz 1985: 359; Frost 1964: 144; Garraway 1986; Gast et al. 1989: 383; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 54; Hoffmann & St. George 1949: 71; Hopping, G. 1965e: 423; Howden & Vogt 1951; Kirk 1969, 1970; Kleine 1913b: 128, 1934a: 150; Kudon & Berisford 1981; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 61; Mason, R. R. 1970: 1036–1041; Merkel & Kowal 1956: 3; Morgan, F. D. 1967; Nagel 1959: 4; Notman 1920: 184; Nunberg 1974; Ostmark 1968; Schedl 1971f: 147, 1972g: 39; Schuder 1958: 150; Swaine 1909: 122; Syme & Nystrom 1988: 58; Turnbow & Franklin 1980; Wilkinson 1962; Wolcott & Montgomery 1933: 166; Wood, S. L. 1977a: 72, 1982b: 699. **(tx)** Anonymous 1970f: 7; Baker, W. L. 1972: 261; Beal & Massey 1945: 142–144; Benoit 1985: 137; Blackman 1922b: 112–114; Blandford 1898c: 6; Blatchley & Leng 1916: 638; Bright 1976d: 154, 166, 1985c: 173; Carne et al. 1980; Chamberlin 1939: 417; Dillon & Dillon 1961: 812–813; Dodge 1938: 48–49; Eichhoff 1868a: 402, 1878b: 231; Eikenbary, Arnold, & Pinkston 1974; Goyer et al. 1980: 20; Hagedorn 1910a: 104; Hopkins 1905b: 77; Hopping, G. 1963b: 67, 1963c: 514, 1965e: 423, 425; Lanier 1987a: 107, 1987b; LeConte 1868: 177, 1878a: 469; Lindquist, O. H. & Syme 1981: 61; Morgan, F. D. 1967: 141; Schedl 1955b: 276, 278, 1955g: 41; Swaine 1909: 122, 1916b: 186–188, 1918a: 108, 113, 1924: 71; Syme & Nystrom 1988: 58; Thomas, J. B. 1967; Titus, Meikle, & Harrison 1985: 77; Wood, S. L. 1977c: 385, 1982b: 699. **(ms)** Anderson, R. F. 1966; Anderson, R. F. et al. 1980; Anonymous 1985: 46; Bongberg 1959a; Chararas 1971a: 853; Chenier & Philogene 1989; Clark & Osgood 1964a, 1964b; Foltz, Merkel, & Wilkinson 1984; Holst 1937; Jones 1954; Kowal 1957b: 20; Lee 1954: 5; Lewis 1973; Mori 1976c; Plumb 1958: 10; Robinson, J. V. 1981; Rose, W. F., Billings, & Vite 1981; South 1988; Wilkinson & Foltz 1980; Yearian & Wilkinson 1965, 1967.

cacographus LeConte 1868(Sept.): 162 (*Tomicus*). Lectotype, sex?, Illinois [USA]; MCZ, Cambridge, designated by Wood 1982b: 699. Synonymy: Blandford 1898c: 6.

References: **(ay)** Hopkins 1894g; **(bv)** Clemens 1916. **(cn)** Bruner 1893: 199, 1894: 187; Clemens 1916; Felt 1901: 485, 1902b, 1906: 338–374, 1924: 266, 1926: 248, 266, 1930a:

248, 266; Hopkins 1894c, 1894d, 1894g: 279, 1899c: 253, 422; Johnson 1897: 79–80, 110, 345–364; Packard 1881: 166–170, 1890: 713; Smith, J. B. 1900: 363. **(ec)** Ashmead 1883b, 1894; Felt 1906: 356. **(hb)** Chittenden 1890, 1897b, 1899a: 55–61; Clemens 1916; Felt 1906: 356, 1926: 248, 266, 1930a: 248, 266; Hopkins 1893c: 189, 1894g, 1899c: 253, 422; Pierce, W. D. 1907: 292; Schwarz 1888a: 80, 1894a: 16, 27; Wolcott & Montgomery 1933: 166. **(ds)** Chittenden 1890, 1897b, 1899a; Felt 1926: 248, 266, 1930a: 248, 266; Hamilton 1859b: 318; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 138, 145, 148, 1893b: 212, 1899: 422; Leng 1920: 341; Packard 1890: 713; Schwarz 1878d: 469, 1888a: 80; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 123; Wolcott & Montgomery 1933: 166. **(tx)** Blandford 1898c: 6; Clemens 1916; Eichhoff 1878b: 231; LeConte 1868: 162, 1876: 362–364; Swaine 1909: 123, 1918a: 113; Wood, S. L. 1982b: 699. **(ms)** Eckstein 1900c.

cribricollis Eichhoff 1869a: 273 (*Tomicus*). Holotype ♂; Mexico; IRSNB, Brussels. Synonymy: Wood 1957c: 397, 1977c: 385.

References: **(ay)** Lanier 1987b; Mankins, J. V. 1980; Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 642; Perez Chavez 1981; Silverstein & Young 1976: 2; Vite, Bakke, & Renwick 1972: 1971. **(cn)** Johnston 1939; Mankins, J. V. 1980; Rose-Chaffin 1967b: 4181–4182; Schwerdtfeger 1954: 278, 1956b: 41, 43, 1960b: 258; Vite & Pitman 1967: 683–701; Yates, H. O. 1972a. **(cc)** Becker 1955; Furniss, R. L. & Carolin 1977: 385; Hirschmann 1972b, 1978b; Lindquist 1969c, 1970b, 1971; Rose-Chaffin 1967b; Schwerdtfeger 1956: 43, 1960b: 258; Woodring & Moser 1970, 1975. **(hb)** Becker 1955; Furniss, R. L. & Carolin 1977: 385; Mankins, J. V. 1980; Schwerdtfeger 1956b: 41, 43; Yates, H. O. 1972b. **(ds)** Bates 1832; Blackwelder 1947: 782; Blandford 1898b; DeLeon 1938, 1942a; Ferrer 1942; Furniss, R. L. & Carolin 1977: 394; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 52; Hopping, G. 1965e: 432; Kleine 1913b: 127, 1914b: 350, 362; Schedl 1960a: 75, 1962f: 74, 1963c: 159, 1977e: 43; Schwerdtfeger 1960b: 258; Thomas, J. B. 1966; Wood, S. L. 1957c: 397. **(tx)** Blandford 1898b; DeLeon 1938; Eichhoff 1869a: 273, 1878b: 229; Hagedorn 1910a: 104; Hopkins 1905b: 77; Hopping, G. 1963c: 514, 1965e: 423, 425; Lanier 1987a: 108, 1987b; Mankins, J. V. 1980; Schedl 1940a: 349, 1955g: 41, 1960g: 8; Thomas, J. B. 1967; Wood, S. L. 1957c: 397, 1977c: 385; Yates, H. O. 1972b, 1977: 103.

chagnoni Swaine 1916b: 186. Holotype ♂; Montreal Island, Quebec [Canada]; CNCI, Ottawa. Synonymy: Hopping 1965e: 423.

- References: (**cn**) Blackman 1950; Craighead 1924: 28–91, 1927: 1–12; Doane et al. 1936; Schenk et al. 1957a: 840; Schuder 1969: 79; Swaine 1918a: 108, 113; Swaine et al. 1924: 1–27, pl. 22. (**cc**) Hunter & Davies 1963; Lindquist, E. E. 1964; Schenk et al. 1957a: 840. (**hb**) Blackman 1950; Chamberlin 1939: 418; Doane et al. 1936; Swaine 1918a: 108, 113; Swaine et al. 1924: pl. 22. (**ds**) Anonymous 1926c: 519; Beaulne 1956; Blackman 1950; Broun 1934; Chamberlin 1925, 1939: 418; Dodge 1935: 47, 49; Kleine 1934a: 150; Leng 1920: 341; Leonard 1928: 519; Schuder 1969: 79; Thomas, J. B. 1957: 4. (**tx**) Bright 1967b: 675; Chamberlin 1939: 418; Dodge 1935: 47, 49; Hoebeker 1978; Hopping, G. 1963c: 514, 1965c: 423; de Ruelle 1970: 102; Schedl 1955g: 39; Schuder 1969: 79; Swaine 1916b: 186–188, 1918a: 108, 113; Thomas, J. B. 1957: 4.
- cloudcrofti* Swaine 1924c: 70. Holotype ♀; Cloudcroft, New Mexico [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 397. References: (**cn**) Doane et al. 1936; Keen 1938: 113, 1952c: 148; Schwerdtfeger 1956b: 42. (**cc**) Keen 1938: 113. (**hb**) Chamberlin 1939: 420; Doane et al. 1936; Keen 1938: 113, 1952c: 148; Schwerdtfeger 1956b: 42. (**ds**) Blackwelder 1947; Chamberlin 1939: 420; Ferrer 1942; Keen 1929a: 37, 1938: 113, 1952c: 148; Leng & Mutchler 1927: 52. (**tx**) Bright 1967b: 675; Chamberlin 1939: 420; Keen 1929a: 37; de Ruelle 1970: 102; Schedl 1940a: 349, 1955g: 40; Swaine 1924c: 70–72; Wood, S. L. 1957c: 397.
- hauseri* Reitter 1894a: 81. Syntypes, sex?; Thian-Schan im sudl. Turkestan; NHMB, Budapest. Figures: Tsai & Li 1959: 99, Yin, Huang, & Li 1984: 130–131. Distribution: Asia (Xinjiang in China/Turkey). Hosts: *Picea schrenkiana*. References: (**cn**) Trofimov 1979. (**cc**) Kostin 1964: 120; Marikovskii 1956: 73; Zinovjev 1957: 323. (**hb**) Budkov 1897; Kostin 1960: 135; Stark 1952: 400; Zinovjev 1957: 323. (**ds**) Budkov 1897; Hagedorn 1910d: 54; Heyden 1898: 77; Kadyrov 1989; Kleine 1913b: 128, 1914b: 245, 247, 1934a: 150; Parfentev 1951: 429, 432; Pittioni 1943: 176; Reitter 1894a: 81; Semenov 1904: 38; Stark 1952: 400; Yin, Huang, & Li 1984: 130. (**tx**) Hagedorn 1910a: 104; Reitter 1894a: 81, 1913a: 107; Schedl 1934f: 1645, 1950a: 75–76; Semenov 1904: 38; Stark 1952: 400; Tsai & Li 1959: 99; Yin, Huang, & Li 1984: 130–131.
- hoppingi* Lanier 1970: 1145. Holotype ♀; 32 km S Chiricahua Nat. Mon., Arizona [USA]; CNCI, Ottawa. Distribution: North Arizona (Chihuahuah, Hidalgo, Mexico in Mexico/S Arizona, W Texas in USA). Hosts: *Pinus cembroides*. Notes: (1) A sibling species of *confusus* LeConte; Cane et al. 1990 found isozyme characters that distinguish it. References: (**cn**) Hofacker et al. 1989; Ragenovich 1980: 21. (**cc**) Furniss, R. L. & Carolin 1977: 394. (**hb**) Furniss, R. L. & Carolin 1977: 394. (**ds**) Furniss, R. L. & Carolin 1977: 394; Wood, S. L. 1982b: 705. (**tx**) Cane et al. 1990; Lanier 1970: 1145; McNamara 1977: 196; Wood, S. L. 1982b: 705.
- hunteri* Swaine 1917: 31. Holotype ♀; Creede, Colorado [USA]; SMUK, Lawrence. Figures: Hopping 1965b: 536. Distribution: North America (Arizona, Colorado, Utah in USA). Hosts: *Picea pungens*, accidental in *P. engelmannii*. References: (**cn**) Swaine 1918a: 110, 118. (**cc**) Davidson 1958; Furniss, R. L. & Carolin 1977: 384; Lindquist, E. E. 1969c. (**hb**) Chamberlin 1939: 430; Furniss, R. L. & Carolin 1977: 384; Swaine 1918a: 110, 118; Wood, S. L. 1960b: 67, 1982b: 681. (**ds**) Chamberlin 1939: 430; Furniss, R. L. & Carolin 1977: 393; Hopping, G. 1965b: 535; Leng 1920: 341; Wood, S. L. 1982b: 681. (**tx**) Bright 1967b: 675; Chamberlin 1939: 430; Hoebeker 1978; Hopping, G. 1963c: 514, 1965b: 535; de Ruelle 1970: 103; Swaine 1917: 31, 1918a: 110, 118; Wood, S. L. 1960b: 67, 1982b: 681.
- integer* (Eichhoff) 1869a: 273 (*Tomiscus*). Syntypes, sex?; Mexico; IRSNB, Brussels. Figures: Atkinson et al. 1986: 33. Distribution: North America (British Columbia in Canada/ Guatemala/ Chihuahua, Durango, Hidalgo, Jalisco, Mexico, Michoacan, Puebla, Tlaxcala, Veracruz, Zacatecas in Mexico/ Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA). Hosts: *Pinus* sp. References: (**bv**) Silverstein & Young 1976: 21; Vite, Bakke, & Renwick 1972: 1971. (**cn**) Anonymous 1963j; Blackman 1931c; Chamberlin 1924, 1939: 424; Currie 1905: 73; Doane et al. 1936; Essig 1926: 520; Felt 1926: 248, 266, 1930a: 248, 267; Hopkins 1904a: 18, 1905: 75–77; Homibrook 1936; Keen 1938: 115, 1952c: 149; Leach 1940b: 223; Lindgren 1980a: 64; Mathiesen 1952: 274; Patterson 1930: 3; Schwerdtfeger 1956b: 50; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1914: 23, 1918a: 109, 114. (**cc**) Blackman 1931c; Chamberlin 1939: 424; Furniss, R. L. & Carolin 1977: 384; Hirschmann 1978b; Keen 1938: 115; Leach 1940b: 223; Lindquist 1969c, 1971; Mathiesen 1952: 274; Patterson 1930: 5; Poinar 1975: 162; Rumbold 1936: 436; Thompson, W. R. & Simmonds 1964: 23, 1965: 27. (**hb**) Atkinson et al. 1986: 32; Blackman 1931c; Bright 1976d: 159; Bright & Stark 1973: 88; Burgos &

Saucedo 1983: 94; Chamberlin 1939: 424; Doane et al. 1936; Essig 1926: 520; Felt 1926: 248, 267, 1930a: 248, 267; Furniss, R. L. & Carolin 1977: 384; Gillette 1903: 117; Hopkins 1904a: 18, 1905: 75-77; Keen 1938: 115, 1952c: 149; Lindgren 1980a: 64; Pierce, W. D. 1907: 292; Schwerdtfeger 1956b: 50; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1918a: 109, 114; Trimble 1924: 383; Wood, S. L. 1982b: 693. **(ds)** Anonymous 1963j; Atkinson & Equihua 1985a: 85, 1985b: 235; Atkinson et al. 1986: 32; Blackwelder 1947: 782; Blandford 1898b: 186-187; Bright 1976d: 159; Bright & Stark 1973: 88; Chamberlin 1939: 424; Cockerell et al. 1907; Currie 1905; DeLeon 1938; Essig 1926: 520; Evans, D. 1983: 33; Felt 1926: 248, 267, 1930a: 248, 267; Ferrer 1942; Furniss, R. L. & Carolin 1977: 384; Gast et al. 1989: 385; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 54; Hopping, R. 1922; Keen 1929a: 39, 1938: 115, 1952c: 149; Kleine 1913b: 128, 1914b: 350, 1934a: 150; Lanier 1970: 1420; Leng 1920: 341; Patterson & Hatch 1945: 153; Smith, G. S. 1929; Snow 1883: 44, 1907: 188; Swaine 1909: 123, 1914: 23; Wickham 1896a: 309, 1896b: 170; Wood, S. L. 1957c: 398, 1982b: 693. **(tx)** Atkinson et al. 1986: 33; Benoit 1985: 137; Blandford 1898c; Bright 1976d: 159; Bruck 1936a; Chamberlin 1939: 424; DeLeon 1938; Eggers 1929e: 50; Eichhoff 1869a: 273, 1878b: 226; Evans, D. 1983: 33; Hagedorn 1910a: 104; Hopkins 1905b: 75, 77; Keen 1929a: 39; Lanier 1987a: 108; Schedl 1940a: 349, 1955g: 43; Swaine 1909: 123, 1918a: 109, 114; Wood, S. L. 1957c: 398, 1982b: 693.

knausi Swaine 1915b: 355. Holotype ♂; Clouderoft, New Mexico [USA]; CNCI, Ottawa.

Figures: Hopping 1963e: 1204.

Distribution: North America (Arizona, Colorado, Nevada, New Mexico, South Dakota, S Utah in USA).

Hosts: *Pinus ponderosa*.

References: **(bv)** Silverstein & Young 1976: 21; Vite, Bakke, & Renwick 1972: 1971. **(cn)** Blackman 1931c; Doane et al. 1936; Gillman & Bailey 1978: 7; Johnson, D. W. & Minnemeyer 1976, 1977: 32; Keen 1938: 114, 1952c: 148; Lindgren 1980a: 64; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1918a: 108, 1925: 261-266. **(cc)** Blackman 1931c; Furniss, R. L. & Carolin 1977: 388; Keen 1938: 114; Lindquist, E. E. 1970b; Livingston, W. H. et al. 1983; Massey 1966c: 424; Thompson, W. R. & Simmonds 1964: 23, 1965: 27. **(hb)** Blackman 1931c; Chamberlin 1939: 421; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 388; Hopping, G. 1963e: 1205; Keen 1938: 114, 1952c: 148; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1918a: 108. **(ds)** Chamberlin 1925, 1939: 421; Furniss, R. L. & Carolin 1977: 388; Hopping, G. 1963e:

1206; Keen 1938: 114, 1952c: 148; Leng 1920: 341; Wood, S. L. 1982b: 697. **(tx)** Bright 1967b: 675; Chamberlin 1939: 421; Hopping, G. 1963c: 510, 1963e: 1202-1205; de Ruelle 1970: 103; Swaine 1915b: 355, 1918a: 108, 1925: 261-266; Wood, S. L. 1982b: 697.

latidens (LeConte) 1874a: 72 (*Tomicus*). Holotype ♀; California [USA]; MCZ, Cambridge.

Figures: Blackman 1922d: 137, Bright 1976d: 153, Kusch 1967: 10.

Distribution: North America (Alberta, British Columbia, Ontario, Quebec, Saskatchewan in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Idaho, Massachusetts, Montana, New Hampshire, New Mexico, New York, Oregon, Pennsylvania, Utah, Washington, West Virginia, Wyoming in USA).

Hosts: *Pinus albicaulis*, *P. contorta*, *P. coulteri*, *P. edulis*, *P. flexilis*, *P. jeffreyi*, *P. lambertiana*, *P. monticola*, *P. ponderosa*, *P. strobus*.

References: **(ay)** Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 642; Chapman 1963: 676; Franklin 1968; Furniss, M. M. & Livingston 1979: 371; Insoe 1982; Jacobson 1972; Klassen, Ridgway, & Insoe 1982; Miller, Madden, & Borden 1986: 85; Moeck, Wood, & Lindahl 1981; Schmitz 1988; Seybold et al. 1988: 429; Silverstein & Young 1976: 21; Wood, D. L. et al. 1967. **(cn)** Anonymous 1965b; Browne 1968b: 491; Chamberlin 1924; Currie 1905: 72; Doane et al. 1936; Essig 1926: 520, 1958: 520; Hopkins 1904a: 17; Keen 1929: 48, 1938: 114, 1952c: 148; Lindgren 1980a: 64; Miller & Borden 1985; Ruppel 1967: 54; Schuder 1969: 78; Silver & Ross 1963a: 110; Smith, A. 1981; Smith, G. J. & Melvin 1974b; Swaine 1918a: 109, 114. **(cc)** Bushing 1965: 462; Chatelain & Schenk 1983; Dahlsten & Stephen 1974: 1213; DeLeon 1934a; Furniss, R. L. & Carolin 1977: 384; Hirschmann & Wisniewski 1982, 1983; Hurlbutt 1967; Keen 1938: 114; Kinn 1971; Kullavy, Partridge, & Stark 1984; Lindquist 1969e, 1971; Marsh 1979: 157; Matthews 1970; Miller & Borden 1985; Otvos & Stark 1985; Powell, J. M., Wong, & Melvin 1972: 15; Rice 1968, 1969: 386; Schmitz 1988; Stephen & Dahlsten 1976c: 292; Wood, D. L. & Stark 1968: 148. **(hb)** Annala 1971: 12; Baker, W. L. 1972: 262; Bakke 1968b: 647; Bright 1976b: 152; Bright & Stark 1973: 84; Browne 1968b: 491; Chamberlin 1939: 421, 1958: 169; DeLeon 1952: 78; Doane et al. 1936; Essig 1926: 520, 1958: 520; Furniss, R. L. & Carolin 1977: 384; Hopkins 1904a: 17; Keen 1929: 48, 1938: 114, 1952c: 148; Lindgren 1980a: 64; Miller & Borden 1985; Pierce, W. D. 1907: 292; Schmitz 1988; Swaine 1918a: 109, 114; Wood, S. L. 1982b: 676. **(ds)** Anonymous 1965b; Bright 1976d: 152; Bright & Stark 1973: 84; Brown 1943: 1-12; Browne 1968b: 491; Chamberlin 1917: 327, 1925, 1939: 421, 1958: 169; Chapman 1963: 676; Currie

1905; DeLeon 1952; Drooz 1985: 361; Essig 1926: 520, 1958: 520; Evans, D. 1983: 33; Evans, D., Lowe, & Hunt 1975; Fall 1906: 202; Furniss, M. M. & Livingston 1979: 371; Furniss, R. L. & Carolin 1977: 387; Gast et al. 1989: 385; Hagedorn 1910d: 55; Henshaw 1882: 269, 1885: 148; Hopping, G. 1963a: 64; Hopping, R. 1922; Horning & Barr 1970: 41; Keen 1929: 48, 1929a: 38, 1938: 114, 1952c: 148; Kleine 1913b: 128, 1914b: 390, 1934a: 150; Lange 1937: 173; Leng 1920: 341; Leonard 1928: 519; McComb et al. 1953: 3; Patterson & Hatch 1945: 153; Rice 1969: 382–386; Ruppel 1967: 54; Schuder 1969: 78; Smith, G. J. & Melvin 1974b; Swaine 1909: 124; Thatcher, T. O. 1935: 261; Wickham 1896a: 309; Wood, S. L. 1948: 61, 1951a: 128, 1972a: 419, 1982b: 676. **(tx)** Blackman 1922d: 137–138; Bright 1976d: 152–153; Chamberlin 1939: 421, 1958: 169; Evans, D. 1983: 33; Hagedorn 1910a: 105; Hopping, G. 1963a: 64, 1963b: 63–64; Keen 1929a: 38; LeConte 1874a: 72, 1876: 367; Pardy 1974, 1977; Swaine 1909: 124, 1911a: 214–216, 1918a: 109, 114; Thomas, J. B. 1967; Wood, S. L. 1966b: 24, 1972a: 419, 1982b: 676.

longideus Swaine 1911a: 214. Lectotype ♂; Ithaca, New York [USA]; CNCI, Ottawa, designated by Bright 1967b: 676. Synonymy: Hopping 1963a: 64.

References: **(cn)** Blackman 1950; Clemens 1916: 297; Doane et al. 1936; Swaine 1918a: 108, 114; Swaine et al. 1924: pl. 22. **(ec)** Thompson, W. R. 1943: 59; Thompson, W. R. & Simmonds 1964: 23, 1965: 28. **(hb)** Blackman 1919a: 85–90, 1950; Chamberlin 1939: 422; Doane et al. 1936; Gobeil 1936b; Swaine 1918a: 108, 114; Swaine et al. 1924: 28–91, pl. 22. **(ds)** Anonymous 1926c: 519; Beaulne 1956; Blackman 1950; Chamberlin 1925, 1939: 422; Kleine 1913b: 128, 1934a: 151; Leng 1920: 341. **(tx)** Blackman 1922d: 137–138; Bright 1967b: 676; Chamberlin 1939: 422; Hoebeke 1978; Hopping, G. 1963b: 64; de Ruelle 1970: 103; Swaine 1911a: 214, 1918a: 108, 114.

guildi Blackman 1922d: 137. Holotype ♀; Grand Lake, Colorado [USA]; USNM, Washington. Synonymy: Hopping 1963b: 64.

References: **(cn)** Doane et al. 1936; Keen 1938: 115, 1952c: 149; Smith, G. J. & Melvin 1974a, 1974b. **(ec)** Keen 1938: 115; Nordin 1956; Reid 1955: 312; Woodring 1966c: 123. **(hb)** Chamberlin 1939: 422, 1958: 170; Doane et al. 1936; Keen 1938: 115, 1952c: 149; Reid 1955: 312, 316. **(ds)** Chamberlin 1925, 1939: 422, 1958: 170; Gautreau 1974: 5; Gautreau & Melvin 1974: 13; Keen 1929a: 38, 1938: 115, 1952c: 149; Kusch 1967; Leng & Mutchler 1927: 52; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a: 13; Susut & Melvin 1974; Wood, S. L. 1951a: 128. **(tx)** Blackman 1922d: 137; Chamberlin 1939: 422,

1958: 170; Hopping, G. 1963b: 64; Keen 1929a: 38; Kusch 1967: 10; Wood, S. L. 1951a: 128.

lecontei Swaine 1924c: 70. Holotype ♂; Arizona [USA]; MCZ, Cambridge.

Figures: Massey & Rodriguez 1967c: 218.

Distribution: North America (Guatemala/ Honduras/ Chihuahua, Colima, Durango, Jalisco in Mexico/ Arizona, New Mexico in USA).

Hosts: *Pinus durangensis*, *P. montezumae*, *P. oocarpa*, *P. ponderosa*, *P. pseudostrobus*.

References: **(ay)** Mankins, J. V. 1980; Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 642; Francke et al. 1986; Massey & Rodriguez 1967c; Seybold et al. 1988: 441; Thomas & Birch 1970: 452. **(cn)** Anonymous 1958a: 6, 1960g, 1960i, 1960j: 18, 1960q, 1961h, 1961s, 1967t, 1968p, 1975e; Beatty 1980: 4; Bongberg 1962; Doane et al. 1936; Flake & Germain 1970: 24; Frye 1971b: 25; Hornibrook 1936: 620–622; Keen 1938: 115, 1952c: 147; Lucht 1966: 28; Lucht & Moore 1963: 18; Mankins, J. V. 1980; Massey 1969a; Massey & Parker 1981; Massey & Rodriguez 1967c; Ostmark 1956: 8, 1966: 4180, 1969: 1–4; Parker, D. L. 1979; Parker, D. L. et al. 1977: 34; Patterson 1930: 3; Pitman 1969b; Price 1958: 61; Ragenovich 1980b: 21; Schwerdtfeger 1956b: 42; Smith, A. 1981; Stelzer 1970: 956–959; Stevens, Brewer, & Leatherman 1982: 25; Telfer 1982. **(ec)** Anonymous 1964x; Chansler 1966; Ellis 1939: 556–557; Furniss, R. L. & Carolin 1977: 385; Keen 1938: 115; Lindquist 1969c, 1971; Massey 1965b: 67–75; Massey & Parker 1981; Patterson 1930: 3; Poinar 1975: 162. **(hb)** Bongberg 1959a; Chamberlin 1939: 419; Chansler 1964: 1–4, 1966: 622–624; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 385; Keen 1952c: 147; Mankins, J. V. 1980; Massey 1969a; Massey & Parker 1981; Massey & Rodriguez 1967c; Ostmark 1966; Parker, D. L. 1979; Schwerdtfeger 1956b: 42; Stevens, Brewer, & Leatherman 1982: 25. **(ds)** Acciavatti & Weiss 1974; Anonymous 1958a: 6, 1960: 12, 1967t, 1968p, 1975e; Atkinson & Equihua 1985b: 236; Blackwelder 1947: 782; Chamberlin 1939: 419; Chansler 1964; Ferrer 1942: 11; Furniss, R. L. & Carolin 1977: 385; Hopping, G. 1965e: 433; Keen 1929a: 37, 1952c: 147; Leng & Mutchler 1927: 52; Little 1943: 245; Massey & Parker 1981; Massey & Rodriguez 1967c; Thomas, J. B. 1966; Wood, S. L. 1957c: 397, 1982b: 701. **(tx)** Bright 1967b: 675; Chamberlin 1939: 419; Chansler 1964; Hopping, G. 1963c: 510, 1965e: 423, 425, 433; Keen 1929a: 37; Mankins, J. V. 1980; Massey & Rodriguez 1967c: 218; de Ruelle 1970: 103; Schedl 1940a: 349, 1955g: 40, 1960g: 8; Swaine 1924c: 70; Wood, S. L. 1957c: 397–398. **(ms)** Bongberg 1959a.

longifolia (Stebbing) 1909b: 26 (*Tomiscus*). Syn-types 3 ♂; Kumau, North-West Himalaya, India; FRI, Dehra Dun.

Distribution: Asia (Himachal Pradesh, Punjab, Uttar Pradesh in India).

Hosts: *Pinus roxburghii*.

References: (ay) Gardner 1934b: 1–17. (cn) Beeson 1915a: 318–325, 1915b: 8–11, 1918, 1922a: 496; Browne 1968b: 365; Chandry 1966; Hnque 1966; Pierce, W. D. 1917: 74; Roonwal 1954: 17; Stebbing 1903a: 282, 1914: 557; Troup 1916: 1–126. (ce) Beeson 1922c: 342–343; Lindquist 1969c; Stebbing 1914: 557; Thompson, W. R. 1943: 59. (hb) Beeson 1915a, 1922c: 342–343; Browne 1968b: 365; Stebbing 1903a: 282, 1908a: 111, 1909b: 16, 24, 26, 1911a: 6, 1914: 557. (ds) Beeson 1919c: 114–124, 1922a: 496, 1922c: 342–343, 1961: 288; Bhasin, Roonwal, & Singh 1958; Browne 1968b: 365; Champion 1922: 168–174, 232–246; Hagedorn 1910d: 56; Kleine 1914b: 277, 1934a: 151; Pierce, W. D. 1917: 74; Qadri 1951a: 368, 1951b: 68; Roonwal 1954: 17; Schedl 1974a: 88; Stebbing 1903a: 282; Waterston 1922: 51–94; Zethner 1973. (tx) Gardner 1934b: 1–17; Hagedorn 1910a: 105; Schedl 1974a: 88; Schmutzenhofer 1988; Stebbing 1909b: 16, 24, 26, 1914: 557.

mamsfeldi (Wachtl) 1879: 51 (*Tomicus*). Syntypes, sex?; Austria inferior; not located.

Figures: Grune 1979: 150, Plaza & Gill 1982: 250, Tsai & Li 1959: 100, Yin, Huang, & Li 1989: 129. Distribution: Asia (Qinghai, Sichuan, Yunnan in China/ Turkey), Europe (Austria/ Bulgaria/ Corsica/ France/ Hungary/ Poland/ Yugoslavia).

Hosts: *Pinus densata*, *P. nigricans*, *P. yunnanensis*, rare in *P. sylvestris*, *Picea asperata*, *P. balfouriana*.

References: (ay) Escherich 1923b: 486, 541; Feytaud 1950a; Fuchs 1911a. (bv) Grune 1979: 151; Fu, Wu, & Ning 1984. (cn) Escherich 1923b: 486, 541; Feytaud 1950a; Jahn 1960b; Koch 1913: 113; Nusslin 1913: 273; Pierce, W. D. 1917: 74; Rhumbler 1922: 316, 1927: 333; Schimitschek 1937c: 58, 1944: 219, 1952c: 60, 1955a: 76, 1955c: 89; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlaczek 1935a: 163, 1936: 200; Sierpinski 1966: 60; Wachtl 1901: 381. (ce) Acatay 1943b; Apfelbeck 1916b; Kleine 1908c: 214, 1909a: 48, 77, 1944: 72; Knoche 1908b: 204; Novak, P. 1952: 417; Schimitschek 1930a: 281, 1941a: 314, 1955a: 76; Schwerdtfeger 1944a: 176, 1957a: 183; Wachtl 1879: 51. (hb) Alkan 1946: 113; Apfelbeck 1916b: 429–439, 1917; Chararas 1962c: 217; Charvat 1950; Escherich 1923b: 486, 541; Feytaud 1950a; Knotek 1897: 156, 1899b: 12, 1901: 572; Lengercen 1939: 72, 1954: 93; Nusslin 1913: 273; Postner 1974: 454; Rhumbler 1922: 316, 1927: 333; Schedl 1981b: 89; Schimitschek 1930a: 281, 1944: 219, 1955a: 76; Schwerdtfeger 1944a: 176, 1957a: 183, 1981: 189; Sedlaczek 1935a: 163; Wachtl 1901: 381; Yang 1989c. (ds) Acatay 1943: 3; Bain 1974: 17; Buresh & Lazarov 1956; Charvat 1950; Chorbadzhiev 1924d; Endrodi 1958b; Escherich

1923b: 486, 541; Fauvel 1885; Fice 1961: 173–204; Fuchs 1905a, 1907: 33; Ganglbauer 1882; Grune 1979: 151; Hagedorn 1910d: 56; Hennig 1954: 263; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Horion 1951; Kleine 1913a: 35, 1913b: 128, 1934a: 151; Knotek 1899b: 12, 1901: 572; Kurir 1947e: 7; Li, Shi, & Ao 1984: 49; Lucht 1987: 279; Novak, P. 1952: 417; Nunberg 1964a: 236; Pfeffer 1947d: 127, 1984: 277, 1989a: 75; Pierce, W. D. 1917: 74; Pittioni 1943: 175; Plaza & Gil 1982: 250; Postner 1974: 454; Prossen 1913: 83; Reitter 1887a: 105, 1894a: 82; Sainte-Claire 1914: 473; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1249; Schedl 1961b: 185, 1980a: 28, 1981b: 89; Schilsky 1909: 188; Schwerdtfeger 1981: 189; Sierpinski 1966: 60; Tredl 1907: 16; Wichmann 1927a: 78; Yin & Huang 1981: 563; Yin, Huang, & Li 1984: 129. (tx) Alkan 1946: 113; Balachowsky 1949a: 263; Charvat 1950; Chorbadzhiev 1924d; E. B. 1880; Eggers 1914, 1924; Endrodi 1957a: 307, 1957b; Escherich 1923b: 486, 541; Fauvel 1885; Formanek 1907: 42; Fuchs 1911a; Grune 1979: 150–151; Hagedorn 1910a: 105; Koch 1913: 113, 1932: 135; Lucht 1987: 279; Pfeffer 1932b: 3, 1955a: 240; Plaza & Gil 1982: 250; Postner 1974: 454; Quaschik 1953: 35; Reitter 1894a: 82, 1913a: 107; Rhumbler 1922: 316, 1927: 333; Schedl 1934f: 1645, 1950a: 71, 1980a: 28, 1981b: 89; Schimitschek 1937c: 58, 1955c: 89; Tsai & Li 1959: 100; Wachtl 1879: 51, 1883a: 8, 1895: 8, 1896: 257; Weber, L. 1912: 30; Yin & Huang 1981: 563; Yin, Huang, & Li 1984: 129. (ms) Sedlaczek 1913: 455, 1936: 200; Weber, L. 1912: 30.

mexicanus (Hopkins) 1905b: 75 (*Tomicus*). Lectotype ♀; Mexico City, Mexico; USNM, Washington, designated by Wood 1982b: 674.

Figures: Bright 1976d: 153, Hopping 1963d: 1093, Hopkins 1905b: 75, Kusch 1967: 10, Struble 1961: 4. Distribution: North America (Alaska/ Alberta, British Columbia in Canada/ Guatemala/ Baja California Norte, Chiapas, Distrito Federal, Durango, Hidalgo, Mexico, Michoacan, Puebla, Veracruz in Mexico/ Arizona, California, Colorado, Idaho, Montana, Oregon, Utah, Wyoming in USA).

Hosts: *Pimis albicanlis*, *P. attenuata*, *P. ayacahuite*, *P. contorta*, *P. cooperi*, *P. durangensis*, *P. flexilis*, *P. hartwegii*, *P. jeffreyi*, *P. lambertiana*, *P. leiophylla*, *P. montezumae*, *P. muricata*, *P. oocarpa*, *P. patula*, *P. ponderosa*, *P. pseudostrobus*, *P. radiata*.

Notes: (3) Chamberlin 1917: 327 (cited *wieslanderii* Swaine, nomen nudum, no status).

References: (ay) Mankins, J. V. 1980; Payne et al. 1973; Thomas, J. B. 1967. (bv) Barr, B. A. 1969: 642; Ohmart & Voight 1982: 340. (cn) Anonymous 1965b, 1966f, 1966h; Arno & Hoff 1989; Browne 1968b: 366; Gentry, C. R. et al. 1979: 807; Hamel 1980: 781; Kondo & Moody 1987: 108;

Lindgren 1980a: 65; Lindquist, E. E. 1969c; Mankins, J. V. 1980; Neal 1979: 807; Ruppel 1967: 54; Schwerdtfeger 1956b: 34; Smith, G. J. & Melvin 1974a, 1974b; Wood, R. O. 1969: 90. **(ec)** Becker, G. 1955; Bedard 1966a: 936; Chatelain & Schenk 1983; Deyrup & Gara 1978: 275; Furniss, R. L. & Carolin 1977: 384; Kinn 1971; Lindquist, E. E. 1971; Ohmart & Voight 1982: 340; Woodring 1966c: 123. **(hb)** Atkinson et al. 1986: 32; Becker, G. 1955; Bright & Stark 1973: 85; Browne 1968b: 366; Burgos & Saucedo 1983: 92; Furniss, R. L. & Carolin 1977: 394; Lindgren 1980a: 65; Mankins, J. V. 1980; Schwerdtfeger 1956b: 34; Wood, S. L. 1982b: 674. **(ds)** Anonymous 1965b, 1966f, 1966h; Atkinson & Equihua 1985a: 84, 1985b: 235; Atkinson et al. 1986: 32; Blackwelder 1947: 782; Bright 1976d: 156; Bright & Stark 1973: 85; Browne 1968b: 366; Burgos & Saucedo 1983: 92; DeLeon 1938; Evans, D. 1983: 33; Ferrer 1942; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 384; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Hagedorn 1910d: 56; Hopping, G. 1963d: 1094; Kleine 1913b: 128, 1914b: 350, 362; Kusch 1967; Ohmart & Voight 1982: 340; Ramirez 1921: 662–663; Ruppel 1967: 54; Smith, G. J. & Melvin 1974a, 1974b; Thatcher 1935: 261; Thomas, J. B. 1966; Wood, S. L. 1957c: 398, 1972a: 419, 1982b: 674. **(tx)** Bright 1976d: 153, 156, pl. 42; DeLeon 1938; Evans, D. 1983: 33; Hagedorn 1910a: 105; Hopkins 1905b: 75, 1915e: 54; Hopping, G. 1963b: 62, 1963c: 510, 1963d: 1092–1094; Kusch 1967: 10; Mankins, J. V. 1980; Schedl 1940a: 349, 1955g: 33; Thomas, J. B. 1967; Wood, S. L. 1957c: 398–399, 1972a: 419, 1982b: 674.

radiatae Hopkins 1915e: 54 (*Tomiscus*). Holotype ♀?; Berkeley, California [USA]; USNM, Washington. Synonymy: Hopping 1963d: 1094. References: **(ay)** Eaton 1942; Schonherr 1970b. **(bv)** Schonherr 1970b; Struble 1961; Wood, D. L. 1961b: 187–188. **(cn)** Anonymous 1961b; Brown 1954; Burke 1937: 28; Chamberlin 1924; Doane 1927: 284–286; Doane et al. 1936; Eaton 1942: 41–49; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267, 1930a: 249, 267; Hatch 1938: 194; Herbert 1919: 337; Hutson et al. 19...: 291–304; Keen 1929: 42, 1933: 298, 1938: 117, 1952c: 151; Ruhn 1964; Struble 1961; Swaine 1918a: 107, 112; Van Dyke 1922: 180; Villarreal Martinez 1957: 11. **(ce)** Bushing 1965: 461; DeLeon 1934a; Doane 1927; Keen 1938: 117; Lindquist & Bedard 1961; Person 1940: 391; Powell, Wong, & Melvin 1972: 7; Richerson & Borden 1972a; Ruhn 1964; Thompson, W. R. & Simmonds 1964: 24, 1965: 27; Woodring 1966c. **(hb)** Chamberlin 1939: 415, 1958: 165–166; Doane et al. 1936; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267, 1930a: 249, 267; Keen 1929c: 42, 1933b: 297–298, 1938: 117, 1952c: 151; Stru-

ble 1961: 1–7; Swaine 1918a: 107, 112; Trimble 1924: 382–390. **(ds)** Blackwelder 1947: 782; Chamberlin 1917: 327, 1925: 196–197, 1939: 415, 1958: 165–166; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267, 1930a: 249, 267; Ferrer 1942; Hopping, R. 1922, 1950a; Keen 1929: 42, 1929a: 37, 1938: 117, 1952c: 151; Kleine 1934a: 151; Leng 1920: 341; McComb 1953: 3; Patterson & Hatch 1945: 153; Struble 1961; Wood, S. L. 1948: 60, 1951a: 128, 1957c: 399. **(tx)** Chamberlin 1939: 415, 1958: 165–166; Hopkins 1915e: 54; Hopping, G. 1963b: 62, 1963c: 510, 1963d: 1094; Keen 1929a: 37; Schedl 1940a: 349, 1955g: 34; Struble 1961: 4; Swaine 1917b: 356, 1918a: 107, 112; Wood, S. L. 1951a: 128, 1957c: 399.

montanus (Eichhoff) 1881a: 219 (*Tomiscus*). Lectotype ♀; California [USA]; USNM, Washington, designated by Wood 1982b: 702.

Figures: Hopping 1965e: 425.

Distribution: North America (S British Columbia in Canada/ California, Idaho, W Montana, Oregon, Washington in USA).

Hosts: *Pinus monticola*, uncommon in *P. albicaulis*, *P. balfouriana*.

References: **(bv)** Barr, B. A. 1969: 642; Pitman 1966b; Vite & Pitman 1967: 683–701. **(cn)** Anonymous 1963j; Hopkins 1899b: 20, 1904a: 18; Lindgren 1980a: 65; Ruppel 1967: 54. **(ce)** Bushing 1965: 461; Furniss, R. L. & Carolin 1977: 396; Kinn 1971, 1983a; Kulhavy, Partridge, & Stark 1984; Lindquist 1964, 1969c; Otvos & Stark 1985; Pitman & Vite 1969: 145; Rice 1968; Richerson & Borden 1972a; Schonherr 1971; Smiley & Knutson 1983. **(hb)** Bright & Stark 1973: 91; Chamberlin 1939: 431, 1958: 167–168; Furniss, R. L. & Carolin 1977: 396; Hopkins 1899b: 20, 1904a: 18; Hopping, G. 1965e: 430; Lindgren 1980a: 65. **(ds)** Anonymous 1963j; Blackwelder 1939; Bright 1976d: 167; Bright & Stark 1973: 91; Chamberlin 1939: 431, 1958: 167–168; Evans, D. 1983: 33; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 396; Gast et al. 1989: 385; Hopping, G. 1965e: 430; Leng 1920: 341; Ruppel 1967: 54; Schwarz 1886: 42; Swaine 1909: 122; Wood, S. L. 1957c: 397–398, 1982b: 702. **(tx)** Bright 1976d: 167; Chamberlin 1939: 431, 1958: 167–168; Eggers 1929e: 50, 1931c: 20, 1933g: 20; Eichhoff 1881a: 219; Evans, D. 1983: 33; Hopping, G. 1963c: 514, 1965e: 425, 430; Reitter 1913a: 105; Schedl 1950a: 82, 1951m: 73, 1960g: 6–7; Schwarz 1886: 42; Swaine 1909: 122, 1918a: 113, 1924c: 70, 72; Wood, S. L. 1955g: 39, 1957c: 397–398, 1982b: 702. **(ms)** Hatch 1938: 194.

vancouveri Swaine 1916b: 188. Holotype ♂; Quathiaski Cove, Vancouver Island, British Columbia [Canada]. Synonymy: Wood 1957c: 398.

References: **(cn)** Doane et al. 1936; Hatch

1938: 194; Keen 1929: 45, 1938: 113, 1952c: 148; Swaine 1918a: 108, 113. **(ec)** DeLeon 1934a, 1934b: 297–317; Hutson 1933: 291–304; Keen 1938: 113; Thompson, W. R. 1943: 61. **(hb)** Chamberlin 1939: 419; Chapman & Kinghorn 1958: 368; Doane et al. 1936; Keen 1929: 45, 1933b: 297–298, 1938: 113, 1952c: 148; Swaine 1918a: 108, 113. **(ds)** Chamberlin 1925, 1939: 419; Hopping, R. 1922; Keen 1929: 45, 1938: 113, 1952c: 148; Kleine 1934a: 151; Leng 1920: 341; Patterson & Hatch 1945: 153; Schuder 1969: 78; Smith, G. S. 1930. **(tx)** Bright 1967b: 676; Chamberlin 1939: 419; Eggers 1929e: 50; Hoebeke 1978; Hopping, G. 1965e: 430; de Ruelle 1970: 104; Schedl 1955g: 40, 1960g: 6–7; Swaine 1916b: 188, 1918a: 108, 113, 1924c: 70–72; Wood, S. L. 1957c: 398. **(ms)** Hatch 1938: 194.

nitidus Eggers 1933a: 101. Holotype, sex?; China: Szechuan, Nitou Tatsienlu und Mukue Tatsienlu; USNM, Washington.

Figures: Yin, Huang, & Li 1984: 133 (declivity).

Distribution: Asia (Gansu, Qinghai, Sichuan, Xingjiang, Yunnan in China).

Hosts: *Picea asperata*, *P. balfouriana*, *P. crassifolia*, *P. schrenkiana*, *P. tianshanica*, *Pinus densata*, *P. yunnanensis*, *Abies faxoniana*.

References: **(bv)** Fu, Wu, & Ning 1984. **(ds)** Yin & Huang 1981: 564; Yin, Huang, & Li 1984: 133. **(tx)** Anderson, W. H. & Anderson 1971: 22; Eggers 1933a: 101; Michalski 1969b: 570; Schedl 1950a: 81; Sokanovskii 1959b: 93–94; Yin & Huang 1981: 564; Yin, Huang, & Li 1984: 133.

nobilis (Wollaston) 1862a: 441 (*Tomicus*). Syntypes, sex?; Canary Islands; BMNH, London.

Distribution: Africa (Canary Islands).

Hosts: *Pinus canariensis*.

References: **(cn)** Espinol 1964: 52–54; Souphieff & Scherbinovskaja 1937: 102. **(ds)** Hagedorn 1910d: 56; Kleine 1913b: 128, 1914a: 20; Lacordaire 1866: 383; Palm 1967: 45; Schedl 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 24; Souphieff & Scherbinovskaja 1937: 102; Uyttenboogaart 1937: 118. **(tx)** Eichhoff 1878b: 257; Ferrari 1867a: 47, 1868: 251, 254; Hagedorn 1910a: 105; Lacordaire 1866: 383; Schedl 1934f: 1645; Schedl, Lindberg, & Lindberg 1959: 24; Wollaston 1862a: 441, 1864: 254, 1865: 236, 1871: 262.

orientalis Wood & Yin 1986: 461. Holotype ♂; Baxoi, Xizang (Tibet), China; IZAS, Beijing.

Distribution: Asia (Sichuan, Xizang [Tibet] in China).

Hosts: *Picea* sp.

References: **(tx)** Wood, S. L. & Yin 1986: 461.

paraconfusus Lanier 1970: 1146. Holotype ♀; Avery, Calaveras Co., California [USA]; CNCI, Ottawa.

Figures: Bright & Stark 1973: 161, Powell & Hogue 1979: 313.

Distribution: North America (California, W Nevada, W Oregon in USA).

Hosts: *Pinus attenuata*, *P. coulteri*, *P. jeffreyi*, *P. lambertiana*, *P. ponderosa*.

Notes: (3) Most citations of this name prior to 1970 were published as *confusus* and are listed under that name.

References: **(ay)** Furniss, M. M. & Livingston 1979: 370; Groberman & Borden 1982; Hagen & Atkins 1975; Hughes & Renwick 1977b; Light 1983a, 1983b; Lyon 1955: 482; Nijhlot & Sahota 1974: 931; Oester & Rudinsky 1979; Payne et al. 1973; Penner 1971; Penner & Barlow 1972; Ummithan & Nair 1977. **(bv)** Akers 1989; Akers & Wood 1989a, 1989b; Bakke 1973; Bertrand & Viala 1978; Birch & Light 1977; Birch & Svihra 1979b; Birch & Wood 1975; Birgersson et al. 1984: 1047; Borden 1971b; Borden et al. 1981: 561; Byers 1978b, 1981a, 1981b, 1983c, 1983d, 1989a, 1989b; Byers & Wood 1980, 1981b; Byers et al. 1979; Chen, Borden, & Pierce 1988; Du 1987; Elkinton 1979b; Elkinton & Wood 1980; Elkinton, Wood, & Browne 1981; Fish, Browne, & Bergot 1984; Fish et al. 1979; Furniss, M. M. & Livingston 1979: 370; Gargers & Scott 1976; Gargiullo & Berisford 1981: 392; Gerken & Hughes 1976; Goheen et al. 1985; Groberman & Borden 1982; Hagen & Atkins 1975; Hendry et al. 1980; Hosomi, Araki, & Sakurai 1983; Hosomi, Saito, & Sakurai 1979; Hughes 1974; Hughes & Renwick 1977b; Inscocoe 1982; Inscocoe & Beroza 1976: 147; Klassen, Ridgway, & Inscocoe 1982; Lanier et al. 1972: 1922; Light 1981b, 1983a, 1983b; Light & Birch 1979, 1982; Look 1980; Mori 1975a, 1976a; Mori, Takigawa, & Matsuo 1979; Mustaparta 1979; Mustaparta, Angst, & Lanier 1979; Oester & Rudinsky 1979; Ohmart & Voight 1982: 340; Payne & Wood 1981: 492; Renwick, Hughes, & Krull 1976; Renwick, Pitman, & Vite 1976; Riley, R. C. et al. 1974; Rudinsky 1979a: 409; Schmitz 1972: 1725; Schultz & Bedard 1987; Silverstein 1971b, 1974, 1977; Silverstein & Young 1976: 21; Thomas, T. L. & Agee 1986; Tumlinson, Mitchell, & Chambers 1970: 56; Vite, Bakke, & Renwick 1972: 1971; Vite, Ohloff, & Billings 1978; Weaver, N. 1978a; Weber, R. & Schurig 1984; Whittaker & Feeny 1971; Wood, D. L. 1980b; Young, J. C. et al. 1973. **(cn)** Anonymous 1972h, 1973c, 1974f, 1978u; Birch & Svihra 1979b; Coulson & Witter 1984: 535; Gentry, G. R. et al. 1979: 804; Hamel 1980: 778; Hamilton, W. D., Svihra, & Koehler 1988; Lindgren 1980a: 65; Mattson & Haack 1987; Neal 1979: 804; Oliver 1979; Payne & Wood 1981: 492; Pierce, J. R. & Srago 1973: 17; Rudinsky 1979a: 409; Ryker & Rudinsky 1979: 211; Schultz & Bedard 1987; Wood, D. L. 1980b. **(ec)** Ball & Dahlsten 1972; Birch & Svihra 1979b; Borden 1983; Borden et al. 1981: 561; Brand et al. 1975; Brower 1974: 236; Byers 1989a, 1989b; Byers & Wood 1980; Chen & Borden 1989; Choo et al.

- 1987; Dahlsten & Stephen 1974: 1211; Elkinton & Wood 1980; Elkinton, Wood, & Hendry 1980; Felix, Uhrenholdt, & Parmeter 1971: 1697; Fox & Wood 1988: 439; Furniss, R. L. & Carolin 1977: 396; Gargiullo & Berisford 1981: 392; Goheen & Cobb 1980; Goheen et al. 1985; Gover & Finger 1978: 98; Hackwell 1973; Hoffard & Coster 1976: 130; Lanier et al. 1972: 1918; Light 1981b; Light, Birch, & Paine 1983; Mattson & Haack 1987; Nickle & Welch 1984: 638; Ohmart 1979; Ohmart & Voight 1982: 340; Piston & Lanier 1974: 250; Reid 1957b: 6; Richerson, J. V. & Borden 1972a; Stephen & Dahlsten 1976b: 292. **(hb)** Borden 1983; Bright & Stark 1973: 92; Byers 1983d; Chen & Borden 1989; Coulson & Witter 1984: 553; Elkinton, Wood, & Browne 1981; Fox & Wood 1988: 439; Fox, Wood, & Cane 1988: 429; Furniss, R. L. & Carolin 1977: 396; Lanier et al. 1972: 1919; Lindgren 1980a: 65; Ohmart 1979; Ryker & Rudinsky 1979: 211; Schultz & Bedard 1987; Wood, S. L. 1982b: 703. **(ds)** Anonymous 1973c, 1974f, 1978u; Ball & Dahlsten 1973; Bright & Stark 1973: 92; Elkinton & Wood 1980; Furniss, R. L. & Carolin 1977: 396; Hughes 1974; Lanier et al. 1972: 1918; Ohmart & Voight 1982: 337; Powell, J. A. & Hogue 1979: 315; Schultz & Bedard 1987; Wood, S. L. 1982b: 703. **(tx)** Bright & Stark 1973: 161; Lanier 1970: 1146; McNamara 1977: 196; Powell, J. A. & Hogue 1979: 313; Ryker & Rudinsky 1979: 211; Wood, S. L. 1982b: 703. **(ms)** Bertrand & Viala 1978; Brand & Scott 1985; Fish, Browne, & Bergot 1984; Garbers & Scott 1976; Hosomi, Araki, & Sakurai 1983; Karlson, Froyan, & Skattebol 1976: 664; Look 1970; Mori 1975a, 1976a; Mori, Takigawa, & Matsuo 1979; Riley, R. G. et al. 1974; Weber, R. & Schurig 1984.
- perroti** Swaine 1915b: 357. Holotype ♂; Isle Perrot, Quebec [Canada]; CNCL, Ottawa. Figures: Bright 1976d: 153, Hopping 1964b: 973, Kusch 1967: 10. Distribution: North America (Alberta, Manitoba, New Brunswick, Ontario, Quebec in Canada/ Michigan, Minnesota in USA). Hosts: *Pinus banksiana*, *P. resinosa*. References: **(ay)** Thomas, J. B. 1967. **(cn)** Doane et al. 1936; Graham 1939b, 1952; Swaine 1918a: 110, 117; Syme & Nystrom 1988: 58. **(ce)** Bushing 1965: 461; Cross & Moser 1971; Furniss, R. L. & Carolin 1977: 392; Graham 1939b, 1952; Lindgren 1980a: 65; Lindquist, E. E. 1969c; Lindquist, O. H. & Syme 1981: 61; Reid 1955: 311, 1957b: 5, 1957c: 111; Schedl 1932: 1–2; Thomas, J. B. 1970a; Tomalak, Welch, & Galloway 1989a, 1989b. **(hb)** Baker, W. L. 1972: 262; Balogun 1970: 233; Bright 1976d: 160; Chamberlin 1939: 428; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 392; Graham 1939b, 1952; Hopping, G. 1964b: 976; Lindgren 1980a: 65; Reid 1955: 311–312; Swaine 1918a: 110, 117; Wood, S. L. 1982b: 680. **(ds)** Beaulne 1956; Blatchley & Leng 1916: 639; Bright 1976d: 160; Chamberlin 1925, 1939: 428; Dodge 1938; Droz 1985: 361; Evans, D. 1983: 33; Furniss, R. L. & Carolin 1977: 392; Hopping, G. 1964b: 976; Kleine 1934a: 151; Kusch 1967; Leng 1920: 341; Lindquist, O. H. & Syme 1981: 61; Syme & Nystrom 1988: 58; Wood, S. L. 1982b: 680. **(tx)** Blatchley & Leng 1916: 639; Bright 1967b: 676, 1976d: 153, 160; Chamberlin 1939: 428; Dodge 1938: 49–50; Evans, D. 1983: 33; Hoebeke 1978; Hopping, G. 1963c: 510, 1964b: 970, 973, 976; Kusch 1967: 10; Lindquist, O. H. & Syme 1981: 61; de Ruelle 1970: 103; Swaine 1915b: 357–359, 1918a: 110, 117; Syme & Nystrom 1988: 58; Thomas, J. B. 1967; Titus, Meikle, & Harrison 1985: 77; Wood, S. L. 1982b: 680.
- perturbatus** (Eichhoff) 1869a: 274 (*Tomicus*). Lectotype, sex?, "Illinois" [USA]; IRSNB, Brussels, designated by Lanier 1987a: 109. Figures: Hopping 1965b: 536, Kusch 1967: 9. Distribution: North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Ontario, Quebec, Saskatchewan, Yukon in Canada/ Maine, Michigan, Minnesota, Montana in USA). Hosts: *Picea glauca*, rare in *P. engelmannii*. Notes: (1) The lectotype locality label is illegible. References: **(ay)** Robertson 1961; Thomas, J. B. 1967. **(bv)** Baker, Hostetler, & Furniss 1977: 293; Furniss, M. M., Baker, & Hostetler 1976: 1300. **(cn)** Anonymous 1983c; Baker, Hostetler, & Laurent 1977; Baranyay & Stevenson 1966: 85; Beckwith 1972; Belyea & Prebble 1951; Brown, C. E. & Stevenson 1963: 97; Browne 1968b: 366; Chamberlin 1924; Craighead 1924: 28–91, 1927: 1–12; Downing 1957: 113; Graham 1952; Grant, J. 1969a: 177, 1969b: 183; Hofacker & Loomis 1982: 36, 1983: 38; Hofacker, Loomis, & Tucker 1984: 56; Holsten, Laurent, & Averill 1980: 65; Holsten, Werner, & Laurent 1980; Hopping, G. 1952; Keen 1938: 128, 1952c: 165; Kondo & Moody 1987: 108–109; Lindgren 1980a: 65; Lindquist, O. H. & Syme 1981: 61; McCuffin 1953: 117; McCuffin & Barker 1947: 57; Molnar et al. 1969: 117; Molnar, Harris, & Ross 1965: 102; Pierson 1927: 121; Reeks et al. 1945: 46; Ruppel 1967: 54; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1913: 89, 1918a: 109, 115, 1924d: 9–10; Swaine et al. 1924: 21; Thomas, J. B. 1958: 393–404; Tripp & Blanel 1969: 104; Tripp, Robins, & Blanel 1970: 89; Werner 1988a, 1988b; Wood, C. S., Van Sickle, & Humble 1987: 21. **(ce)** Bushing 1965: 461; Craighead et al. 1927; Deyrup & Gara 1978: 275; Furniss, R. L. & Carolin 1977: 393; Gobeil 1936b; Graham 1952; Hunter & Davis 1963; Keen 1938: 128; Lindquist 1969c; Marsh 1979: 169; Mason, W. R. M. 1978; McAlpine

- 1964; Richerson & Borden 1972a; Swaine 1924d: 9; Thomas, J. B. 1958: 393; Thompson, W. R. 1943: 59; Tomalak, Welch, & Garroway 1989b, 1989d; Wichmann 1952b: 23; Werner & Holsten 1984. **(hb)** Baker, W. L. 1972: 262; Bright 1976d: 161; Browne 1968b: 366; Chamberlin 1939: 424, 1958: 171; DeLeon et al. 1934; Evans, J. 1952: 141; Furniss, R. L. & Carolin 1977: 393; Gara & Holsten 1975; Gobeil 1936a: 97–103, 1936b: 11–14, 1936c: 181–204; Graham 1952; Holsten, Werner, & Laurent 1980; Hopping, G. 1961b, 1965b: 533–535; Keen 1933b: 297, 1938: 128, 1952c: 165; Lindgren 1980a: 65; Pierson 1927: 121; Schmitz & Rudinsky 1968: 1–42; Simpson 1929b: 146; Swaine 1918a: 109, 115, 1924d: 9, 1929: 145–146; Swaine et al. 1924: 21; Watson 1927: 120, 1928: 613; Wolcott & Montgomery 1933: 167; Wood, S. L. 1982b: 677. **(ds)** Ashworth 1980; Ashworth & Brophy 1972: 2984; Baker, Hostetler, & Furniss 1977: 293; Baker, Hostetler, & Laurent 1977; Baranyay & Stevenson 1966: 85; Beaulne 1956; Beckwith 1972a; Bright 1976d: 161; Brown, C. E. & Stevenson 1963: 97; Browne 1968b: 366; Chamberlin 1939: 424, 1958: 171; Drooz 1985: 361; Evans, D. 1983: 33; Evans, D., Lowe, & Hunt 1978; Evans, J. 1952: 141; Furniss, R. L. & Carolin 1977: 392; Gara & Holsten 1975; Gast et al. 1989: 385; Gautreau 1974: 6; Gautreau & Melvin 1974; Gemminger & Harold 1872: 2691; Hagedorn 1910d: 56; Hatch 1930: 50; Henshaw 1885: 148; Hewitt 1914: 501–518; Hopping, G. 1965b: 533–535; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1913b: 128, 1934a: 151; Kusch 1967; Leng 1920: 341; Lindquist, O. H. & Syme 1981: 61; Morgan, A. V. & Morgan 1980; Orchard 1952: 85; Ruppel 1967: 54; Smith, G. J. & Melvin 1974a, 1974b; Smith, G. S. 1930; Still, Tidsbury, & Melvin 1974a, 1974b; Susut & Melvin 1974; Swaine 1909: 124, 1913: 89, 1919b: 9; Thomas, J. B. 1957: 4; Werner & Holsten 1984; Whitehouse 1920: 127–129; Wolcott & Montgomery 1933: 167; Wood, S. L. 1972a: 421, 1982b: 677. **(tx)** Beckwith 1972a; Benoit 1985: 137; Bright 1976d: 161; Chamberlin 1939: 424, 1958: 171; Dodge 1938: 48–49; Eichhoff 1869a: 274, 1878b: 248; Evans, D. 1983: 33; Fall 1926: 208; Hagedorn 1910a: 105; Hopping, G. 1963c: 512, 1965h: 533–535; Keen 1929a: 39; Kusch 1967: 9; Lanier 1987a: 109; LeConte 1876: 435; Lindquist, O. H. & Syme 1981: 61; Pardy 1974, 1977, 1983; Swaine 1909: 124, 1918a: 109, 115, 1919b; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 78; Wood, S. L. 1960b: 66, 1972a: 421, 1977c: 386, 1979b: 135, 1982b: 677. **(ms)** Hopping, G. 1961b.
- hudsonicus* LeConte 1876: 366. Lectotype ♀; Hudson Bay Territory [Canada]; MCZ, Cambridge, designated by Wood 1982b: 677. Synonymy: Swaine 1918: 15, 109.
- References: **(cn)** Hopkins 1904a: 25. **(hb)** Hopkins 1904a: 25; Schwarz 1894b: 255. **(ds)** Blatchley & Leng 1916: 639; Hagedorn 1910d: 54; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878: 643; Kleine 1913b: 128, 1914b: 397, 1934a: 150; Leng 1920: 341; Swaine 1909: 123; Whitehouse 1920: 127–129; Wickham 1896a: 309. **(tx)** Blatchley & Leng 1916: 639; Hagedorn 1910a: 104; LeConte 1876: 363, 366; Swaine 1909: 123, 1918a: 15; Wood, S. L. 1982b: 677.
- interpunctus* Eichhoff 1878b: 241 (*Tomicus*). Syn-types, sex?; Sitka [Alaska]; Hamburg Museum, lost. Synonymy: Wood, S. L. 1977c: 386.
- References: **(cn)** Anonymous 1960i, 1960j: 4; Bongberg 1957, 1962; Broun 1940b; Brown 1954; Browne 1968b: 365; Doane et al. 1936; Downing 1957: 117; Felt 1926: 249, 267, 1930a: 249, 267; Hatch 1938: 194; Keen 1938: 128, 1952c: 165; Kinghorn 1955a: 501–502; Prebble 1954; Randall 1952: 4; Rodary 1959: 852; Ruppel 1967: 54; Schuder 1969: 76; Swaine 1914: 23, 1918a: 110, 116. **(ec)** Keen 1938: 128; Rodary 1959: 852. **(hb)** Browne 1968b: 365; Chamberlin 1939: 430, 1958: 172–173; Doane et al. 1936; Felt 1926: 250, 267, 1930a: 249, 267; Keen 1938: 128, 1952c: 165; Swaine 1918a: 110, 116. **(ds)** Bongberg 1957; Bongberg & Bennett 1960: 1; Brown 1943: 8; Browne 1968b: 365; Chamberlin 1917: 325, 1925, 1939: 430, 1958: 172–173; Evans 1950: 107; Evans, D., Lowe, & Hunt 1978; Felt 1926: 250, 267, 1930a: 249, 267; Gautreau 1974: 5; Hagedorn 1910d: 55; Hopping, R. 1922, 1924b: 125–128; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1912a: 218, 1913b: 128, 1934a: 150; Leng 1920: 341; Patterson & Hatch 1945: 153; Ruppel 1967: 54; Schuder 1969: 76; Smith, G. S. 1929; Swaine 1909: 124. **(tx)** Chamberlin 1939: 430, 1958: 172–173; Eichhoff 1878a: 390, 1878b: 241, 246; Hagedorn 1910a: 105; Keen 1929a: 39; Swaine 1909: 124, 1918a: 110, 116–117; Wood, S. L. 1977c: 386, 1979b: 135.
- pilifrons* Swaine 1912a: 353. Holotype ♀; Colorado [USA]; CNCI, Ottawa.
- Notes: (1) Wood 1982b: 686 (subspecies established).
- References: **(ay)** Hopping, G. 1964a: 117; Lanier & Kirkendall 1986: 87. **(cn)** Doane et al. 1936; Keen 1952c: 165; Massey 1956a: 20; Massey & Wygant 1954: 21; Price 1957: 94–95; Schuder 1969: 76; Swaine 1918a: 111, 119. **(ec)** Bushing 1965: 461; Davidson 1958, 1965: 461; Furniss, R. L. & Carolin 1977: 393; Kaya 1984; Knight 1961: 212; Lindquist 1969c; Marsh 1979: 212; Mason, W. R. M. 1978; Massey 1958: 28; Massey & Wygant 1954: 21; Poinar 1975: 162; Richerson, J. V. & Borden 1972a; Shook & Baldwin 1970. **(hb)** Chamberlin 1939: 430; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 393; Hopping, G.

1964a: 117; Keen 1952c: 165; Massey & Wygant 1954: 21; Swaine 1918a: 111, 119. **(ds)** Chamberlin 1939: 430; Furniss, R. L. & Carolin 1977: 393; Hopping G. 1965d: 166; Keen 1952c: 165; Kleine 1913b: 128; Leng 1920: 341; Schuder 1969: 76; Shook & Baldwin 1970: 1345–1354; Wood, S. L. 1982b: 686. **(tx)** Bright 1967b: 676; Chamberlin 1939: 430; Hoebeke 1978; Hopping, G. 1963c: 510, 1965d: 161; Hopping, R. 1939: 168; de Ruelle 1970: 103; Swaine 1912a: 353, 1917: 31, 1918a: 111, 119; Wood, S. L. 1957c: 397, 1960b: 67.

***pilifrons pilifrons*:**

Figures: Hopping 1965d: 161, 163, 165.

Distribution: North America (W Colorado, Snowy Range in S Wyoming in USA).

Hosts: *Picea engelmannii*.

References: **(tx)** Wood, S. L. 1982b: 686.

***pilifrons utahensis* Wood** 1960b: 66. Holotype ♀; Logan Canyon, Utah [USA]; Wood Collection

Figures: Hopping 1965b: 536.

Distribution: North America (N Arizona, Colorado, S Idaho, Montana, Utah, W Wyoming in USA).

Hosts: *Picea engelmannii*.

Notes: (1) Wood 1982b: 688 (reduced to subspecies).

References: **(cn)** Flake & Germain 1970: 25; Frye 1971b: 25. **(ec)** Lindquist 1969c. **(hb)** Chamberlin 1958: 176; Wood, S. L. 1960b: 66. **(ds)** Chamberlin 1958: 176; Gast et al. 1989: 385; Hopping, G. 1965b: 534–539; Wood, S. L. 1948: 65, 1982b: 688. **(tx)** Chamberlin 1958: 176; Hopping, G. 1963c: 510, 1965b: 534–539; de Ruelle 1970: 104; Wood, S. L. 1960b: 66, 1982b: 688.

***pilifrons sulcifrons* Wood** 1960b: 67. Holotype ♀; Santa Fe Ski Basin, New Mexico [USA]; CAS, San Francisco.

Figures: Hopping 1965d: 161, 163.

Distribution: North America (SW Colorado, New Mexico in USA).

Hosts: *Picea engelmannii*, *P. pungens*.

References: **(ay)** Hopping, G. 1964a: 117. **(cn)** Anonymous 1974e; Ostmark 1956: 8. **(hb)** Hopping, G. 1964a: 117. **(ds)** Anonymous 1974e; Hopping G. 1965d: 166; Wood, S. L. 1982b: 688. **(tx)** Hopping, G. 1963c: 510, 1963f: 213, 1965d: 161, 166; de Ruelle 1970: 103; Wood, S. L. 1960b: 67, 1982b: 688.

***pilifrons thatcheri* Wood** 1975a: 29. Holotype ♀; Mt. Wheeler, Nevada [USA]; Wood Collection.

Distribution: North America (Mt. Wheeler in Nevada in USA).

Hosts: *Picea engelmannii*.

References: **(ds)** Wood, S. L. 1982b: 689. **(tx)** Wood, S. L. 1975a: 29, 1982b: 689.

***pini* (Say)** 1826: 257 (*Bostrichus*). Syntypes, sex?; probably Pennsylvania [USA]; Say Collection, lost. Figures: Bright 1976d: 153, 203, 212, Dillon & Dillon 1961: 801, 813, Hopping 1964b: 973, Ives & Wong 1958: 80, Ryker & Rudinsky 1979: 204, Wygant & Lara 1967: 118.

Distribution: North America (SE Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Connecticut, District of Columbia, Georgia, Idaho, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Pinus banksiana*, *P. contorta*, *P. jeffreyi*, *P. ponderosa*, *P. resinosa*, *P. strobus*, rare in other conifers.

Notes: (3) Sturm 1826: 76 (*dentatus*, nomen nudum, *pallipes*, nomen nudum, synonymy in LeConte 1876: 426, Eggers 1931c: 185).

References: **(ay)** Angst & Lanier 1979; Birch 1974b; Hopkins 1894g: 280; Mustaparta, Angst, & Lanier 1977, 1979; Mustaparta, Tommeras, & Lanier 1985; Mustaparta et al. 1984; Oester & Rudinsky 1975; Thomas, J. B. 1957; Thomas, J. B. & Krywienczyk 1966. **(bv)** Anderson, R. F. 1977: 17; Angst & Lanier 1979; Annala 1979: 12; Anonymous 1979a; Atkins 1966b: 954, 1967: 181; Bakke 1973; Baranchikov 1980, 1983: 12; Barr, B. A. 1969: 642; Billings, Gara, & Hrutfiord 1976: 177; Birch 1974b, 1978b; Birch & Light 1977; Birch, Light, & Mori 1977; Birch & Svihra 1979b; Birch & Wood 1975; Birch et al. 1980; Birgersson et al. 1984: 1049; Bletchly 1961: 16; Borden et al. 1981: 561; Callahan & Shifrine 1960: 146; Clemens 1916; Dethier 1947; Dewey, Ciesla, & Meyer 1974; Franklin 1968; Furniss, M. M. & Livingston 1979; Gardner 1957a; Gast, Stock, & Furniss 1988: 429; Geiszler, Gara, & Littke 1984; Goeden & Norris 1965b: 775; Gries et al. 1988: 429; Hertel, Haïn, & Anderson 1969: 1084; Hosking & Knight 1975; Hunt & Borden 1988; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1972; Kennedy, P. C. 1969; Klassen, Ridgway, & Inscoc 1982; Lanier & Burns 1978; Lanier et al. 1972; Light & Birch 1982; McMullen & Atkins 1962b: 1321; Miller, Borden, & Slessor 1989; Mustaparta 1979; Mustaparta, Angst, & Lanier 1977, 1979; Mustaparta, Tommeras, & Lanier 1985; Mustaparta et al. 1982, 1984; Oester & Rudinsky 1975; Orr 1935: 1021; Payne & Wood 1981: 492; Piston & Lanier 1974; Pitman 1966b; Plummer et al. 1976; Raffa & Klepzig 1989; Roelofs 1978; Rudinsky 1979a: 408; Sartwell, F. 1970; Schmitz, R. F. 1972, 1980, 1988; Schmitz, R. F. & Taylor 1969: 1–8; Seybert & Gara 1970: 947–950; Silverstein & Young 1976:

- 21; Swaby & Rudinsky 1976; Teale & Lanier 1988: 429; Thomas, J. B. 1970a: 47–48; Tumlinson, Mitchell, & Chambers 1976: 56; Vite, Bakke, & Renwick 1972: 1971; Vite & Pitman 1967: 683–701; Weber, R. & Schurig 1984; Wood, D. L. 1980b; Wood, D. L. & Vite 1961: 80; Wygant & Lara 1967; Young, J. C. et al. 1973. (cn) Anderson, R. F. 1948: 596–602; Anonymous 1960j: 28, 1960q, 1962h, 1963j, 1963y, 1964h, 1965b, 1965f, 1965i, 1966f, 1967f, 1968g, 1968p, 1969m, 1970t, 1971e, 1972h, 1973c, 1974f, 1975e, 1975f, 1977i, 1979a, 1979f, 1980m: 30, 1981j, 1982b, 1983f, 1989b; Applejohn & Howse 1982a; Baker, W. L. 1972: 262; Balch 1945; Barnhill 1947: 222; Becker 1955d, 1959b, 1962, 1964a, 1964c; Becker, Abbott, & Rick 1956: 644; Berisford 1969a, 1969b: 691–692; Bess 1944: 14–16; Birch & Svihra 1979b; Blackman 1919: 89, 1950; Bousfield & Coulson 1978; Bousfield, Hagle, & Kohler 1988; Britton 1930; Brown, A. W. A. 1941: 23; Brown, C. E., Hopkins, & Robins 1966: 86; Brown, R. M. & Winter 1981; Browne 1968b: 367; Buffam 1968: 1465–1466; Byler et al. 1986; Chamberlin 1924, 1939: 425; Chambers 1946: 78; Chenier & Philogene 1989a; Chittenden 1899; Clark 1953: 1; Clemens 1916: 287–298; Collins & Connola 1958: 335–338; Comtois 1988: 182; Cottrell 1967: 99; Cottrell & Erickson 1978: 5; Coulson & Witter 1984: 534; Craighead 1927: 1–12; Curtis & Hadfield 1977a, 1977b; Curtis & Johnson 1975, 1978; Dewey & Clinton 1980; Dewey, Ciesla, & Meyer 1974; Doane et al. 1936; Dolph & Hadfield 1971; Dolph & Pettinger 1968: 30, 1969: 7, 1971: 5; Dooling, Dewey, & Ciesla 1973: 29; Drooz 1985: 359; Erickson & Wood 1979: 5; Felt 1901: 487, 1906: 334–376, 1913: 101, 1924: 265, 1926: 247, 265, 1930a: 245, 249, 267, 1935; Felt & Bromley 1942: 170, 1943: 326–327; Felt & Rankin 1932: 406; Fitch 1858; Foster & Hook 1972: 7; Friend 1940: 222–322; Frye 1971b: 25; Furniss, M. M. 1981; Furniss, M. M. & Livingston 1979; Gardiner 1957b; Gentry, C. R. et al. 1979: 779; Gibson et al. 1984, 1987; Gillette 1903: 117; Gillman & Bailey 1977: 7; Girault 1916: 291–308; Graham 1922a, 1924, 1939b, 1952; Gregg & Hadfield 1978; Hamel 1980: 774; Hanson, J. B. 1978: 31; Hanson, J. B., Hoffer, & Orr 1977: 51; Harrington 1881: 32; Harris 1841: 74, 1842: 74, 1852a: 78, 1862: 88, 1890: 87; Hawthorne 1965b; Helzner & Moyer 1979; Herrick 1935: 138, 248; Hofacker & Loomis 1982: 3, 1983: 3; Hofacker, Loomis, & Gilstrap 1988: 18; Hofacker, Loomis, & Tucker 1984: 5, 1987; Hofacker et al. 1989; Hoffman et al. 1988: 7; Holland & Tkacz 1984; Holsten, Werner, & Laurent 1980; Honing 1970: 21; Hopkins 1899b: 16, 1899c: 253, 341–422, 445; Hopping, G. 1951: 26, 1952; Howse et al. 1981: 45, 1982, 1983; Ives & Wong 1988: 81; James et al. 1985; Johnson, D. W. & Minnemeyer 1976, 1977: 32; Johnson, P. C. 1967: 1–7; Kennedy, P. C. 1969; Klein, W. H. & Tegethoff 1970; Knapp 1985; Knapp et al. 1989: 10; Knopf, J. 1978, 1981; Knopf, J. et al. 1978: 31; Kohler, Dooling, & Bousefield 1985; Kondo & Moody 1987: 109; Kondo & Taylor 1985: 60; Lafrance 1921: 73; Landgraf 1966a: 27; Leach 1938: 24, 1940b: 219; Leach et al. 1937: 317; Lindgren 1980a: 65; Lindquist, O. H. & Syme 1981: 61; Livingston et al. 1988: 4; Loomis, Hofacker, & Tucker 1985: 14, 1986; Lotan & Perry 1983; Lowe & Moyer 1980; Lucht 1966: 31; Lyle & Leveck 1956: 27; Lyon 1959: 1–2; MacAloney & Schmiede 1962; MacAloney & Secrest 1944: 12–13; MacDonald 1930: 188; Martin, J. L. 1965; Martineau 1985: 76; McGregor 1977b; McGuffin 1953: 117; Mitchell, R. C. & Sartwell 1974; Molnar, Harris, & Ross 1965: 102, 1967: 116; Moody 1988: 84; Mortenson, Emond, & Melvin 1974; Moyer 1977; Neal 1979: 799; Newton, M. & Holt 1971; Ollieu, Stipes, & Hoffman 1980: 26; Orr, L. W. 1925: 1021, 1934: 58–59, 1937: 29; Orr, P. W. 1966, 1980: 26; Orr, P. W., Pettinger, & Dolph 1965, 1966; Overhulser 1986; Packard 1877: 589–810, 1881: 166–170, 1890: 713–714; Parker, D. L. et al. 1977: 34; Parr 1943: 419; Payne & Wood 1981: 492; Pettinger & Dolph 1967: 32, 1969, 1970: 10, 1971: 7; Pettinger & Johnson 1973a: 1, 1973b: 13, 1974; Petty, J. et al. 1972: 5; Pierce, J. R. & Srago 1973: 17; Pierson 1923: 42, 1927: 108, 1953: 119, 121; Plumb 1958: 10; Raffa & Smalley 1988b, 1988c; Raimo & Sharon 1981; Reeks et al. 1945: 31; Renlund 1972: 2, 1975: 4, 1976: 5, 1979: 2; Richmond & McGuffin 1945: 42; Roelofs 1978; Rose, A. H. & Lindquist 1973: 92; Ross, D. A., Van Sickle, & Wood 1981: 89; Rudinsky 1959: 284–286, 1979a: 408; Ruppel 1967: 54; Ryker & Rudinsky 1979: 208; Salman 1938a: 615; Sartwell, C. 1971a; Sartwell, C., Schmitz, & Buckhorn 1971; Schedl 1928: 110; Schenefelt & Benjamin 1955: 60–61; Schenk & Benjamin 1964: 570–574; Schenk et al. 1957a: 840; Schmitz, R. F. 1972b; Schmitz, R. F. & Taylor 1969: 1–8; Schwandt et al. 1986; Sippell, Dance, & Rose 1967: 65; Sippell, Rose, & Larsen 1968: 60; Sippell et al. 1957: 50; Smith, A. 1981; Smith, C. J. & Melvin 1974a, 1974b; Smith, J. B. 1900: 363; Snowdon & O'Brien 1980: 59; Sterner & Davidson 1981: 17, 1983: 47; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Stipe et al. 1987; Swaine 1918a: 110, 115, 1933: 30; Swaine & Craighead 1924: 1–27; Syme & Nystrom 1988: 58; Thier & Hoffman 1983; Thomas, J. B. 1958: 394, 1965a, 1970a, 1970b; Tunnock 1966: 22; Tunnock et al. 1984; Udine 1958: 11–12; Walsh 1867a: 103; Waters & Waterman 1957: 7; Weber 1943: 78; Weir, H. J. et al. 1984a: 116; Wenz 1985; Wilson, L. F. 1977: 70; Wilson, M. C., Schuder, & Provonsha 1982: 119; Wong, H. R. & Melvin 1973; Wood, C. S., Van Sickle, & Humble 1987: 13; Wood, C. S., Van Sickle, & Shore 1985: 13; Wood, D. L. 1980b; Wood, R. O. 1969: 90; Wood,

- R. O. & Doidge 1972: 21; Wygant & Lara 1967. (c) Ashraf & Berryman 1969: 15; Batra 1959: 329–355; Bedard, W. D., Jr. 1966a: 936; Berisford 1969a, 1969b; Berisford, Kulman, & Pienkowski 1970: 484; Berisford et al. 1971: 237; Birch 1978b; Birch & Svihra 1979b; Borden et al. 1981: 561; Burks 1979: 799; Bushing 1965: 461; Callahan & Shifrine 1960: 146; Chamberlin 1939: 425; Chatelain & Schenk 1985; Ciesla, Dewey, & Tunnoek 1971: 19; Cobb et al. 1968; Craighead et al. 1927; Davidson & Robinson-Jeffrey 1965; Felt 1906: 35; Furniss, M. M. & Livingston 1979; Furniss, R. L. & Carolin 1977: 390; Galoux 1947b, 1947d; Gardiner 1957a: 243–244, 256; Graham 1921, 1922: 99, 1924: 377–383, 1939a: 301–310, 1939b, 1952; Griffin, H. D. 1966: 1047–1048, 1968; Grissell 1979: 764; Heqvist 1959: 181; Hines, J. W. & Heikenen 1977; Hirschmann 1978b; Hirschmann & Wisniewski 1982, 1983; Hunter & Davis 1963; Kabir & Giese 1966b: 897; Kinn 1971; Kudon 1979b; Kudon & Berisford 1980; Lanier 1967: 1134; Lanier et al. 1972; Leach 1940b: 219; Leach et al. 1934: 129, 1937: 317; Light, Birch, & Paine 1983; Lindquist 1969c, 1971; Livingston, W. H. et al. 1983; Marsh 1979: 158; Mason, W. R. M. 1978; Matthews 1970; McAlpine 1964; Mitchell, R. G. & Sartwell 1974; Morley 1939: 244; Pettey & Shaw 1986; Pierce, W. D. 1908: 387; Piston & Lanier 1974; Poinar 1975: 162; Powell, Wong, & Melvin 1972: 15; Price 1966: 241; Raffa & Smalley 1988, 1988b, 1988c; Reid 1955: 312, 1957b: 5, 1957c: 111–120, 1957d: 437; Rennerfelt 1951: 121; Rice 1968; Richerson & Borden 1972a; Rumbold 1931c: 864, 1936: 419; Salman 1938a: 615; Schedl 1932: 1–2; Schenk 1961: 3578; Schenk & Benjamin 1964: 570–574, 1969; Schenk et al. 1957a: 840; Schmitz, R. F. 1980, 1988a, 1988b; Schmitz, R. F. & Taylor 1969; Shcherbak 1985; Shenfeldt 1960: 542–546; Smetana 1971: 152; Stakman 1957: 245; Teale & Lanier 1988: 429; Tehon 1942: 238; Thomas, J. B. 1955: 341, 1958: 394, 1970a; Thompson, W. R. 1943: 59; Thompson, W. R. & Simmonds 1964: 23, 1965: 27; Tomalak, Welch, & Galloway 1989b: 2; Whitney 1971: 1502; Woodring 1966c: 123; Woodring & Moser 1970. (hb) Anderson, R. F. 1948; Angst & Lanier 1979; Annala 1971: 10; Anonymous 1979a; Baker, W. L. 1972: 262; Balogun 1970: 233; Birch 1974b; Blackman 1915, 1950; Borden 1967: 1164; Bright 1976d: 158; Bright & Stark 1973: 87; Browne 1968b: 367; Chamberlin 1939: 425; Chittenden 1890, 1899a; Ciesla & Bell 1968; Clemens 1916; Coulson & Witter 1984: 534; Dillon & Dillon 1961: 813; Doane et al. 1936; Drooz 1985: 359; Eidmann 1962: 161; Felt 1906: 35, 1926: 247, 267, 1930a: 245, 249, 267; Felt & Rankin 1932: 406; Fitch 1858: 722, 751; Furniss, R. L. & Carolin 1977: 390; Gobeil 1935; Graham 1939b, 1952; Harrington 1902a: 116; Harris 1841: 74, 1852: 78, 1862: 88; Herrick 1935: 138, 248; Holsten, Werner, & Laurent 1980; Hopkins 1894g, 1899b: 16, 1899c: 245, 253, 341, 422, 445; Hopping, G. 1961b, 1964b: 974; Ives & Wong 1988: 81; Johnson, P. C. 1967; Lafrance 1921: 73–74; Lanier et al. 1972; Lindgren 1980a: 65; MacAloney & Schmiede 1962; Martineau 1985: 76; Merkel & Kowal 1956: 4–5; Morley 1939: 244; Orr 1925: 1021–1022; Packard 1890: 713; Pierce, W. D. 1907: 292; Pierson 1927: 108; Plumb 1958: 10; Prebble 1933: 145–148; Reid 1955: 312–314, 1957d: 437; Ryker & Rudinsky 1979: 208; Sartwell, C. 1971a; Sartwell, C., Schmitz, & Buckhorn 1971; Sartwell, F. 1970; Schenk & Benjamin 1969: 480; Schmitz, R. F. 1972a, 1972b, 1985a, 1988b; Schwarz 1888a: 80, 1889d: 175; Seybert & Gara 1970; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1911b: 88, 1918a: 110, 115; Thomas, J. B. 1961: 384, 1970a; Wallace 1940: 305; Watson 1927: 121; Wilson, L. F. 1977: 70; Wolcott & Montgomery 1933: 167; Wong & Melvin 1973; Wygant & Lara 1967. (ds) Acciavatti & Weiss 1974; Adams & Moore 1963; Anonymous 1926c: 519, 1963j, 1963y, 1964h, 1965b, 1966f, 1967f, 1968g, 1968p, 1969m, 1973c, 1974f, 1975e, 1975f, 1977i, 1979f, 1979h; 3, 1980m: 30, 1981j, 1982b, 1983f; Atkinson et al. 1991: 158; Atwood 1945: 31; Beaulne 1956; Berisford, Kulman, & Pienkowski 1970: 484; Berisford et al. 1971: 237; Blackman 1950; Blatchley & Leng 1916: 639; Bongberg & Bennett 1960: 1; Bright 1971a: 126, 1976d: 158; Bright & Stark 1973: 87; Britton 1920a; Brown, C. E., Hopkins, & Robins 1960: 86; Brown, R. M. & Winter 1981; Browne 1968b: 367; Chamberlin 1917, 1925, 1939: 425; Chapuis & Candeze 1853; Chittenden 1890, 1899a; Choo, Woo, & Kim 1981: 201; Ciesla & Bell 1968: 235; Curtis & Johnson 1975; Dewey, Ciesla, & Meyer 1974; Deyrup 1981b: 6; Dodge 1938; Drake 1921: 201–205; Drooz 1985: 359; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Felt 1926: 247, 265, 1930a: 245, 249, 265; Felt & Bromley 1932: 406; Frost & Dietrich 1929; Furniss, M. M. & Furniss 1972; Furniss, M. M. & Livingston 1979; Furniss, R. L. & Carolin 1977: 390; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Gemminger & Harold 1872: 2691; Hagedorn 1910d: 57; Henshaw 1885: 148; Hopkins 1893a: 139, 1893b: 212; Hopping, G. 1950a, 1964b: 974; Hubbard & Schwarz 1878a: 666; Kleine 1913b: 128; Knill 1931: 16; Kusch 1967; Lanier et al. 1972; Leach, Orr, & Christensen 1934: 315–341; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 61; Marchant & Borden 1976; Martin 1965: 40–43; Melsheimer 1806: 5, 1853: 87; Morgan, A. V. & Morgan 1980: 1110; Perris 1876: 254, 1877a: 414; Piston & Lanier 1974; Proctor 1946: 208; Provancher 1877: 570; Richmond & McGuffin 1945: 42; Ruppel 1967: 54; Schedl 1971f: 147; Schwarz 1888a: 80; Schwert et al. 1985; Smith, G. J. 1974a, 1974b; Smith, J. B. 1900: 363, 1910: 403; Snow 1883: 44;

Still, Tidsbury, & Melvin 1974a, 1974b; Susut & Melvin 1974; Swaine 1909: 123, 125, 1911b: 88; Syme & Nystrom 1988: 58; Thomas, J. B. 1955: 341; Walker 1912: 59; Wallace 1940: 305; Watson 1927: 120–121; Wickham 1896a: 309, 1896c: 168; Winter, T. C. 1983: 50; Wolcott & Montgomery 1933: 167; Wood, S. L. 1957c: 398, 1972a: 421, 1982b: 691; Wygant & Lara 1967. (**tx**) Benoit 1985: 137; Blatchley & Leng 1916: 639; Bright 1976d: 153, 158, 203, 212; Chamberlin 1939: 425; Chapuis & Candeze 1853; Clemens 1916; Dillon & Dillon 1961: 801, 813; Dodge 1938: 48, 50; Eggers 1931c: 185; Eichhoff 1878b: 252; Evans, D. 1983: 34; Ferrari 1867a: 47; Hagedorn 1910a: 105; Hopping, C. 1963b: 63, 1963c: 509, 1964b: 970, 973–974; Ives & Wong 1988: 80; Kirby 1837: 191; Kusch 1976; LeConte 1868: 163, 1876: 364, 426; Lindquist, O. H. & Syme 1981: 61; Muesebeck 1950: 133; Parly 1974, 1977, 1983; Parly, Stone, & White 1968; Perris 1877a: 414; Provancher 1877: 570; Ryker & Rudinsky 1979: 204, 208; Sartwell, C., Schmitz, & Buckhorn 1971: 3; Say 1826: 257, 319; Schedl 1932: 1; Schwarz 1889b: 149, 1889d: 175; Sturm 1826: 76; Swaine 1909: 123, 125, 1911a: 213–214, 1912: 353, 1918a: 110, 115–116; Syme & Nystrom 1988: 58; Thatcher 1957: 28; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienczyk 1966; Titus, Meikle, & Harrison 1985: 78; Wood, S. L. 1957c: 398, 1972a: 421, 1982b: 691; Wygant & Lara 1967: 118; Zimmerman 1868: 147. (**ms**) Chararas 1971a: 853; Chenier & Philogene 1989a; Eckstein 1900c; Eiber 1989; Gries et al. 1988; Plumb 1958: 10; Rose, A. H. & Lindquist 1973: 92; Schmitz, R. F. 1972a; Slessor et al. 1985; Weber, R. & Schurig 1984.

praefrictus Eichhoff 1868a: 401 (*Tomiscus*). Holotype ♂; Amerique boreali; IRSNB, Brussels. Synonymy: LeConte 1868: 163, 1876: 365; Eichhoff 1878b: 252.

References: (**ds**) Leng 1920: 341; Swaine 1909: 125. (**tx**) Eichhoff 1868a: 401; Lanier 1987a: 107; LeConte 1868: 163, 1876: 365; Swaine 1909: 125.

oregonis Eichhoff 1869a: 274 (*Tomiscus*). Holotype ♂; Oregon [USA]; IRSNB, Brussels. Synonymy: Hopping 1964b: 974.

References: (**ay**) Schonherr 1970b; Wood, D. L. 1961a: 187. (**bv**) Miller & Keen 1960: 91, 104; Orr 1925: 1022; Schonherr 1970b; Sugden & Ross 1960a; Wood, D. L. 1961b. (**cn**) Anonymous 1939: 644, 1940i: 850, 1958a: 8, 1960g, 1960i, 1960j: 6, 1960q, 1961e, 1961h, 1961s, 1962h, 1963c: 17, 1963j, 1963n; Blackman 1931c; Bongberg 1956a, 1962; Buckhorn 1957; Buckhorn & Orr 1961: 18, 1962: 17; Chamberlin 1924, 1939: 427; Currie 1905: 73, 100; Doane et al. 1936; Eaton 1956: 6; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267; Gillette 1903: 117; Graham 1939b, 1952; Hall 1946: 54; Hatch 1938: 194; Hawthorne 1962,

1963, 1964; Hopkins 1902c: 10, 1904a: 17, 41, 1905: 77, 1906d: 254; Hornbrook 1936: 620–622; Hutson 1933: 291–304; Johnson 1940; Keen 1929: 49, 1933: 297, 1938: 115, 1952c: 146, 150; Keen & Salman 1942: 855; Leach 1940b: 223; Mathiesen 1952: 274; McComb 1955: 3; McGugan et al. 1959; Miller, J. M. 1929: 994; Miller, J. M. & Keen 1960: 91, 104; Orr, P. W. 1963a, 1963b; Orr, P. W., Silver, & Ross 1960: 97; Ostmark 1956: 8; Patterson 1923: 38; Price 1957: 97; Rosecrans 1947: 8; Rudinsky & Terriere 1959: 485–488; Schuder 1969: 78; Silver & Ross 1959: 88, 1960: 99, 1961: 99, 1962b: 119; Smith, G. J. & Melvin 1974b; Struble & Hall 1955: 13; Sugden & Ross 1960a, 1960b: 3; Swaine 1914: 23, 1918a: 110, 117; Tunnock 1963: 10; Wear & Buckhorn 1955: 13; Weaver 1934: 101; Whiteside 1957: 2–3, 18, 31–43; Wood, R. O. & Doidge 1972: 21. (**ec**) Blackman 1931c; Burks 1979: 824; Bushing 1965: 461; Callahan & Shifrine 1960; Chamberlin 1939: 427; Craighead et al. 1927; Davidson 1966; DeLeon 1934a, 1934b: 297–317; Edmunds 1973: 776; Gahan 1938; Graham 1939b, 1952; Haliburton 1943; Heqvist 1959: 181; Holst 1936; Keen 1938: 115; Keen & Salmon 1942: 855; Knight 1961: 357; Leach 1940b: 223; Lindquist 1969c; Lindquist & Bedard 1961; Lu et al. 1957: 336; Marsh 1979: 148; Massey 1957: 32; Mathiesen 1952: 274; Mathre 1964: 353–362, 1966; McAlpine 1964; Miller, J. M. 1929: 994; Miller, J. M. & Keen 1960: 11, 91, 104; Poinar 1975: 162; Rumbold 1936: 419; Rust 1933: 733–734; Shifrine & Phaff 1956: 52; Sugden & Ross 1960a, 1960b: 3; Thompson, W. R. 1943: 59. (**hb**) Blackman 1931c; Bongberg 1959a; Chamberlin 1939: 427, 1958: 171–172; DeLeon et al. 1934; Doane et al. 1936; Eaton 1956; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267; Graham 1939b, 1952; Hopkins 1904a: 17, 41; Keen 1929: 49, 1933b: 297, 1938: 115, 1952c: 146, 150; McComb 1955: 3; Miller, J. M. & Keen 1960: 91, 104; Orr 1925: 1022; Pierce, W. D. 1907: 292; Reid 1956: 3; Struble & Hall 1955: 13; Swaine 1918a: 110, 117. (**ds**) Anonymous 1958a: 8, 1960: 10, 1963j, 1963y; Blackwelder 1947; Bongberg 1956a; Chamberlin 1917: 327–328, 1939: 427, 1958: 171–172; Cockerell et al. 1907; Currie 1905; Eaton 1956; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267, 1930a: 249; Ferrer 1942; Gautreau 1974: 5; Gemminger & Harold 1872: 2691; Hagedorn 1910d: 56; Henshaw 1885: 148; Hopkins 1902c: 10; Hopping, C. 1950a; Hopping, R. 1922, 1924b; Keen 1929a: 39, 1929c: 49, 1938: 115, 1952c: 146, 150; Kleine 1912a: 217, 262, 268, 1913b: 128, 1914b: 403, 1934a: 151; Lange 1937: 173; Leng 1920: 341; McComb et al. 1953: 3; Patterson & Hatch 1945: 153;

- Rosecrans 1947: 8; Ruppel 1967: 54; Schuder 1969: 78; Smith, G. J. & Melvin 1974b; Smith, G. S. 1929; Sngden & Ross 1960a, 1960b; Swaine 1909: 124, 1914: 23; Thatcher 1935: 261; Wickham 1896a: 309; Wood, S. L. 1948: 64, 1951a: 128. **(tx)** Benoit 1985: 137; Chamberlin 1939: 427, 1958: 171–172; Cushman 1931: 301–304; Eichhoff 1869a: 274, 1878b: 250; Hagedorn 1910a: 105; Hopkins 1905b: 77; Hopping, G. 1963c: 512, 1964b: 974; Keen 1929a: 39; Lanier 1987a: 109; LeConte 1876: 435; Swaine 1909: 124, 1918a: 110, 117; Thatcher 1957: 28; Wood, S. L. 1951a: 128. **(ms)** Bongberg 1959a; Hatch 1938: 194.
- rectus* LeConte 1876: 365 (*Tomicus*). Lectotype ♀; Oregon [USA]; MCZ, Cambridge, designated by Wood 1982b: 691. Synonymy: Swaine 1918a: 117.
References: **(ds)** Chamberlin 1917; Cockerell et al. 1907; Hagedorn 1910d: 58; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 128; Leng 1920: 341; Snow 1907: 188; Swaine 1909: 126; Wickham 1896a: 309. **(tx)** Hagedorn 1910a: 105; LeConte 1876: 365–367; Schedl 1940a: 349; Swaine 1909: 126, 1918a: 117; Wood, S. L. 1982b: 691.
- laticollis* Swaine 1918a: 116. Lectotype ♂; Ottawa, Ontario, Canada; CNCI, Ottawa, designated by Bright 1967b: 675. Synonymy: Wood 1957c: 398.
References: **(cn)** Swaine 1918a: 110, 116. **(hb)** Chamberlin 1939: 427; Swaine 1918a: 110, 116. **(ds)** Beaulne 1956; Chamberlin 1939: 427; Leng 1920: 341. **(tx)** Bright 1967b: 675; Chamberlin 1939: 427; Hoebeke 1978; de Ruelle 1970: 103; Swaine 1918a: 110, 116; Wood, S. L. 1957c: 398.
- plastographus* (LeConte) 1868: 163 (*Tomicus*). Holotype ♂; California [USA]; MCZ, Cambridge. Notes: (1) Lanier 1970: 415 (subspecies established).
References: **(ay)** Anonymous 1970q; Mankins, J. V. 1980; Oester & Rudinsky 1979; Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 642; Eaton & Rodriguez 1967a: 25–26; Oester & Rudinsky 1979; Pitman 1966b. **(cn)** Anonymous 1960q, 1962h; Bongberg 1962; Browne 1968b: 367; Burke 1937: 28; Cottrell 1967: 99; Eaton & Rodriguez 1967a; Essig 1926: 520, 1958: 520; Herbert 1919: 337; Hopkins 1905: 75–76; Keen 1929: 49, 1938: 115, 1952c: 150; Lindgren 1980a: 66; Mankins, J. V. 1980; Molnar, Harris, & Ross 1967: 116; Powell 1905: 237–243; Ruhm 1964; Schwerdtfeger 1956b: 60, 1960b: 258; Swaine 1918a: 109; Van Dyke 1922: 180; Wood, R. O. & Doidge 1972: 21. **(cc)** Bedard 1966a: 936; Doane 1927; Furniss, R. L. & Carolin 1977: 390; Hirschmann & Wisniewski 1982, 1983; Keen 1938: 115; Kinn 1971; Lanier 1967: 1334–1335; Lindquist & Bedard 1961; Person 1940: 391; Rice 1965; Ruhm 1964; Schwerdtfeger 1960b: 258; Thompson, W. R. 1965: 27; Thompson, W. R. & Simmonds 1964: 24; Woodring 1966c. **(hb)** Anonymous 1970q; Bright 1976d: 160; Bright & Stark 1973: 89; Browne 1968b: 367; Chamberlin 1939: 423, 1958: 170–171; Eaton & Rodriguez 1967a; Essig 1926: 520, 1958: 520; Furniss, R. L. & Carolin 1977: 390; Johnson 1954a: 431; Keen 1929: 49, 1938: 115, 1952c: 150; Lanier 1967, 1970: 1406–1420; Lindgren 1980a: 66; Mankins, J. V. 1980; Powell 1905: 237–238; Schwerdtfeger 1956b: 50; Swaine 1918a: 109; Trimble 1922, 1924: 382–390; Wood, S. L. 1982b: 694. **(ds)** Blackwelder 1947; Bright 1976d: 160; Bright & Stark 1973: 89; Browne 1968b: 367; Chamberlin 1925, 1939: 423, 1958: 170–171; Choo, Woo, & Kim 1981: 201; DeLeon 1938; Eaton & Rodriguez 1967a; Essig 1926: 520, 1958: 520; Evans, D. 1983: 34; Fall 1906: 202; Fall & Cockerell 1907: 217; Furniss, R. L. & Carolin 1977: 390; Gautreau & Melvin 1974: 14; Gemminger & Harold 1872: 2691; Gillette 1903: 117; Hagedorn 1910d: 57; Henshaw 1882: 269, 1885: 148; Hopping, G. 1963e: 1206; Hopping, R. 1922; Johnson 1954a: 431; Keen 1925c: 150, 1929a: 38, 1929c: 49, 1938: 115, 1952c: 150; Kleine 1913b: 128, 1914b: 387, 1934a: 151; Lanier 1967; Leng 1920: 341; McCugan et al. 1959; Schedl 1963c: 159, 1971f: 147; Schwerdtfeger 1960b: 258; Swaine 1909: 125; Thomas, J. B. 1966; Wickham 1896a: 309; Wood, S. L. 1957c: 398, 1972a: 421, 1982b: 694. **(tx)** Blandford 1895b: 186–187, 1898c: 6; Bright 1976d: 153, 160; Chamberlin 1939: 423, 1958: 170–171; DeLeon 1938; Eggers 1929e: 50; Evans, D. 1983: 34; Hagedorn 1910a: 105; Hopkins 1905b: 75; Hopping, G. 1963b: 64, 1963c: 512, 1963e: 1206; Keen 1929a: 38; LeConte 1868: 163, 1876: 364; Mankins, J. V. 1980; Schedl 1955g: 43; Swaine 1909: 125, 1918a: 109–114; Thomas, J. B. 1967; Wood, S. L. 1957c: 398, 1972a: 421, 1982b: 694.
- plastographus plastographus*:
Figures: Bright 1976d: 153, Hopping 1963e: 1204.
Distribution: North America (British Columbia in Canada/ W California, Idaho, Oregon, Montana, Wyoming in USA).
Hosts: *Pinus contorta*, rarely in *P. ponderosa*.
References: **(ds)** Gast et al. 1989: 385. **(tx)** Bright 1976d: 153, 160; LeConte 1868: 163; Wood, S. L. 1982b: 694.
- plastographus maritimus* Lanier 1970a: 1417. Holotype ♀; Rio del Mar, Santa Cruz Co., California [USA]; CNCI, Ottawa.
Distribution: North America (coastal California, Oregon in USA).
Hosts: *Pinus contorta*, *P. muricata*, *P. radiata*, *Picea sitchensis*.
Notes: (3) The status of this subspecies is

doubtful because extensive intergradation occurs in Oregon.

References: **(bv)** Ohmart & Voight 1982. **(cn)** Lindgren 1980a: 65. **(ec)** Ohmart & Voight 1982. **(hb)** Bright & Stark 1973: 90; Furniss, R. L. & Carolin 1977: 390; Lindgren 1980a: 65. **(ds)** Bright & Stark 1973: 90; Furniss, R. L. & Carolin 1977: 390; Lanier 1970: 1417; Ohmart & Voight 1982; Wood, S. L. 1982b: 694. **(tx)** Lanier 1970a: 1417; McNamara 1977: 196; Wood, S. L. 1982b: 694.

robustus (Knotek) 1899: 15 (*Tomicus*). Syntypes, sex?; Dalmatia; not located.

Distribution: Africa (Algeria), Asia (Syria/Turkey), Europe (Bulgaria/ Czechoslovakia/ Yugoslavia).

Hosts: *Pinus leucodermis*, *P. sylvestris*, uncommon in *Cedrus libanotica*.

Notes: (1) Eggers 1914: 40 (a variety of *erosus* Wollaston), Pfeffer 1955: 263 (a good species).

References: **(cn)** Chorbadzhievo 1929. **(ec)** Kleine 1908c: 214. **(hb)** Chorbadzhievo 1929: 147-186. **(ds)** Buresh & Lazarov 1956; Chorbadzhievo 1929: 147-186; Pfeffer 1936: 90, 1989a: 78. **(tx)** Eggers 1914: 40, 1921: 42; Knotek 1899: 15; Nunberg 1956c: 164; Pfeffer 1955a: 255; Schedl 1934f: 1645. **(ms)** Eggers 1910b.

erosus melanurus Reitter 1913a: 109. Syntypes, sex?; Mazedonien; NHMB, Budapest. Synonymy: Pfeffer 1955: 263.

References: **(tx)** Pfeffer 1955: 263; Reitter 1913a: 109; Schedl 1934f: 1645.

tridentatus Eggers 1921: 41. Lectotype ♂; Makri im Lycischen Taurus, Kleinasien; USNM, Washington, designated by Anderson & Anderson 1971: 34. Synonymy: Pfeffer 1955: 263.

References: **(cn)** Schimitschek 1944: 226. **(hb)** Schimitschek 1944: 226. **(ds)** Can 1964: 113; Schedl 1961b: 185. **(tx)** Anderson, W. H. & Anderson 1971: 34; Eggers 1921: 41-42; Nunberg 1956c: 164; Pfeffer 1955: 263; Schedl 1934f: 1645.

sexdentatus (Boerner) 1767: 78 (*Dermestes*). Syntypes, sex?; Europe; not located.

Figures: Chararas 1962c: 190, Grime 1979: 146, Joly 1976b: figs. 145, 244-245, Li & Zhou 1980: 190, Lieutier et al. 1984: 28-29, Pfeffer 1989a: pl. 10, Yin, Huang, & Li 1984: 136.

Distribution: Asia (N Burma/ Heilongjiang, Jilin, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea/ Thailand/ Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., rare in *Picea* spp.

References: **(ay)** Al-Rabiai 1972; Buning 1979; Chararas 1977b, 1981, 1983; Chararas, Berton, & Stephanopoulos 1974; Chararas, Chipoulet, & Courtois 1979; Chararas & Koutroumpas 1977; Chararas et al. 1972; Dudich 1921: 136-140; Dufrenoy 1920; Escherich 1923b: 449, 484, 536; Feytaud 1950a; Francke-Grosmann 1950; Fuchs 1911a; Lauge & Termier 1974; LeFay 1969; Lekander 1959b: 31; Lieutier 1982b, 1983, 1984b, 1984c, 1985; Lieutier, Jastrabsky, & Bonnafe 1984, 1985a, 1985b; Lieutier & Seureau 1981; Michalski 1962: 29-32; Nunberg 1950a: 135-136; Nusslin 1911a: 51, 156; Pignal, Chararas, & Bourgeay-Causse 1987; Scherb 1971; Schevyrev 1889a: 21; Schonherr 1970b; Sedlaczek 1902b: 244; Termier 1970a: 721-732, 1975; Termier & Lauge 1974, 1976; Wichmann 1912a: 10. **(bv)** Adlung 1958; Arefin 1983; Bakke 1968: 443-602, 1973; Barr, B. A. 1969: 642; Besceli & Ekici 1969; Bouhot, Lieutier, & Debouzie 1988: 439; Chararas 1966c, 1967a: 668-680, 1967b: 777-785, 1967c: 226-231, 1976b, 1977b, 1980a, 1982; Chararas & Berton 1967: 1471-1474; Chararas & Crosasso 1972a, 1972b; Chararas & Deschamps 1962; Chararas, Desveaux, & Kogane-Charles 1960: 921; Chararas et al. 1982: 1094; Dassler & Henker 1959: 74-76; Francke et al. 1986; Gavalis & Jakaitis 1981; Grune 1979: 147; Haggstrom 1976; Hallgren, Lekander, & Lonner 1972; Inscoc 1982; Inscoc & Beroza 1976: 147; Jactel & Lieutier 1987; Jotland 1975a; Klassen, Ridgway, & Inscoc 1982; Kohnle, Kopp, & Francke 1986: 316; Kohnle et al. 1988; Leluan, Leluan, & Chararas 1987; Luitjes 1976; Meixner 1938: 1218; Nunberg 1950a: 136; Nuorteva 1956c: 22; Paiva, Pessoa, & Vite 1988; Perrot 1977; Rozhkov 1970: 150; Rutledge, Chararas, & Ducauze 1988; Schonherr 1970b; Schonherr, Vite, & Serez 1983; Schwerdtfeger 1981: 189; Serez & Schonherr 1985; Silverstein & Young 1976: 21; Vite, Bakke, & Renwick 1972: 1971; Wichmann 1912a: 101; Wood, D. L. 1961b. **(cn)** Agafonov & Kuklin 1979; Androic 1966: 48; Anonymous 1948k: 4, 1978e, 1978i, 1979p; Ass & Funtikow 1941; Baeta Neves 1943b, 1952a, 1957, 1958; Bakke 1960: 310; Berdennikova 1954: 85; Bernhard 1929: 413-414; Besceli 1963; Besceli & Ekici 1969; Blandford 1892a; Bogdanova 1986; Borodajewsky 1915: 1222-1247; Borodin 1915: 1-87; Boyer 1840; Browne 1968b: 367; Bruneau 1950; Carle, Vincq, & Bizet 1979; Chararas 1961b: 81, 1978; Chorbadzhievo 1929; Dagei 1949: 12, 281-282; Defne 1954: 80-91; Donaubaier 1960; Dufrenoy 1920: 65-70, 81-87; Dussel 1949; Eckstein 1926: 575; Egorov 1958: 1492; Escherich 1917: 97-115, 1923b: 449, 484, 536, 1937; Esterberg 1959; Fang, Wang, & Chi 1985; Fedorov 1930: 225-229; Ferreira & Ferreira 1986; Feytaud 1946: 7, 1950a, 1950b; Fice 1961: 173-204; Foltz, Corneil, & Reich 1985; Frohlich 1926:

- 101; Gabler 1955; Geisthardt 1939: 243–246; Gois 1944; Golovyanko 1926: 1–S7; Gradojevic 1940; Grandi 1951; Gusev 1928: 144; Haget 1949; Haggstrom 1976; Hallgren, Lekander, & Lonner 1972; Hanson, H. S. 1937, 1940a, 1950: 18–26; Heqvist 1965; Hess 1914: 276, 1927: 1332; Hierholzer 1954a: 34a; Hoffmann 1952a: 104; Hrubik 1973; Hubault 1945; Ialzentkovski 1922: 7–9; Ishikura 1966; J. M. 1948: 463; Jablokoff 1953: 325; Jahn 1952a: 9S, 1960b; Joly 1949b: 253, 1976; Judeich & Nitsche 1895: 494; Kailidis & Markalas 1988; Kamyshnyi 1925: 14–16; Kazanski 1928: 861–915; Kharitonov 1924: 199–204; Kholodkovskii 1912: 313; Kobakhidze 1960: 1851; Koch 1913: 103; Koehler 1954: 177; Koehler & Zdanowicz 1954: 19–59; Koning 1939: 2015; Kontkanen 1932: 59; Kozikowsky 1929: 254; Kruel 1950: 6; Kurenzov 1935c: 189, 1948b: 143; Laidlaw 1947: 52; Lekander 1954b: 16, 1955a: 136; Lekander, M. 1951: 106; Lesne 1913: 213; Liu et al. 1989; Lozovoi 1949a: 246, 1950c: 306, 1961: 91–113, 1966; Lozovoi & Tropin 1965, 1967; Maksymov 1950: 502; Malazgirt 1966: 63; Marie 1924: 328–330; Maslov et al. 1980; Masnina 1957: 15–17; Mathiesen-Kaarik 1953: 6; Mayne 1926: 234–245; Metrevelli 1955: 99; Mokrzecki 1928: 273, 1933: 286; Muller 1912: 186; Nestertschuk 1930: 172; Neves et al. 1986; Niemeyer 1974: 289, 1975: 154, 1976: 135, 1982; Niemeyer & Thalenhorst 1974; Nosek 1952b: 96; Nusslin 1883: 152, 1913: 202; Palm 1948b: 214; Pierce, W. D. 1917: 69; Polozencev 1926: 1–5; Polozencev & Zolotov 1969; Polubojarinoff 1929: 45–52; Popovic 1931: 57; Prosoroff 1929: 17; R. P. 1948: 193; Rhumbler 1922: 310, 1927: 324; Romanyk 1963b: 159; Rudinsky 1965b; Rudnev 1966; Ruhm 1958: 308; Ryle 1951: 179; Saalas 1949: 344, 384; Salonen 1966; Sargos 1947; Sauvard, Lieutier, & Levieux 1988; Schimitschek 1932a: 23, 1936b: 76, 1937c: 57, 1938c: 2112, 1939b: 545–588, 1939d: 2112, 1944: 187, 1949b: 179, 1949c: 15, 1950: 10, 1952c: 59, 1955a: 76, 78, 1955b: 102, 1955c: 89, 1961a: 154; Schmidt 1881: 30; Schonherr, Vite, & Serez 1983; Schwerdtfeger 1944a: 176, 1950b: 49, 1957a: 183, 1968a; Sedlaczek 1921: 335; Serez & Schonherr 1985; Siemazko 1939: 1–54; Sinreich 1961: 166; Sitowski 1930: 1–13; Templin 1973: 105; Titova 1966; Tolskii 1927; Toth 1976: 138, 1985; Tragardh 1917; Tullgren 1916: 104; Vasiliev 1913: 1–99; Vorontzov 1968; Voute 1942: 12, 617; Wachtl 1901: 381; Wardle 1929: 325; Weber, H. 1926: 503; Wichmann 1927b: 352; Wilke 1931: 625; Wolff & Krausse 1922: 97; Yanovskii & Korotkov 1984; Zareo 1946a: 252, 1946b: 463–468; Zhang et al. 1955: 29; Zivojinovic 1963: 449. (ec) Acatay 1943b; Agafonov & Kuklin 1979; Apfelbeck 1916b: 429–439; Arnoldi 1953; Ass & Funtikow 1941; Baeta Neves 1943b; Bakke 1957, 1968a; Balazy & Michalski 1964b; Barbey 1927; Bovey 1970; Bramannis 1940; Chararas 1958b, 1959a, 1959c, 1959g: 215–233, 1966a: 3–37, 1966c, 1967a: 668–680, 1967b: 777–785, 1967c: 226–231; Chararas, Berton, & Stephanopoulos 1974; Chararas & Crosasso 1972a, 1972b; Chararas et al. 1982: 1094; Cooreman 1963: 45; Ditu 1974; Dufrenoy 1920; Escherich 1942: 656; Espanol 1967a; Fuchs 1929a, 1930, 1937; Fuhrer 1985; Galonx 1947b; Gauss 1954a: 423; Guillaume 1950; Gyorfi 1941b, 1943: 84; Haget 1950; Heliovaara & Lilja 1989; Heqvist 1963: 155, 1965: 23; Herald & Mercadier 1984; Hierholzer 1954a: 341; Hirschmann 1960; Hirschmann & Wisniewski 1982, 1983; Jannicky 1957b: 13, 20; Joly 1949a: 7; Kaarik 1973; Kaya 1984; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kirshenblat 1948; Kleine 1908c: 214, 1909a: 48, 76, 1944: 69; Kobakhidze 1960: 1851; Kobzar 1968b; Kostenko 1929; Kostin 1964: 119; Kraemer 1950b: 380; Krivosheina 1974; Kurenzov 1934a: 50; LeFay 1969; LeFay et al. 1969: 2968–2970, 3130–3132, 1970; Levieux et al. 1989; Li & Zhou 1980: 71; Lieutier 1975, 1978, 1979a, 1979b, 1979c, 1980, 1981, 1982a, 1982b, 1984b, 1984c, 1984d, 1984e, 1985; Lieutier, Cheniclet, & Garcia 1989; Lieutier & Ferrell 1985a: 430, 1985b: 163; Lieutier, Jastrabsky, & Bonnate 1985a, 1985b; Lieutier & Laumond 1978; Lieutier & Seureau 1981; Lieutier & Vallet 1982; Lieutier & Yart 1989; Lieutier et al. 1988, 1989; Lindquist, E. E. 1969c; Lozovoi 1948a: 70, 1948b: 313, 1949a: 246; Lozovoi & Tropin 1965, 1967; Luitjes 1976; Lukasheva 1986; Lundberg 1984; Mahunka 1968; Malakhova 1963; Maslov et al. 1950; Mathiesen-Kaarik 1953: 6, 1960c; Megalov & Bazhenov 1927: 1–29; Meyer 1934: 614; Michalski & Ratajczak 1989; Nelmes & Hussain 1972; Niemeyer & Thalenhorst 1974; Nikitiuk 1951: 59, 1952: 41; Nikitsky 1978; Nosek 1952b: 96; Novak 1952: 417; Nunnberg 1930: 201; Nuorteva 1957b: 50, 1971; Nusslin 1927: 324; Palmén 1944: 195; Pfeffer 1923a: 332, 1928b: 6, 1943b: 179, 1960: 346; Pignal, Chararas, & Bonrgeay-Causse 1988; Poinar 1975: 163; Polozencev & Zolotov 1969: 3–6; Polozencev, Zolotov, & Latys 1970; Pomotskaya 1979; Rafes 1962; Rudnev 1926: 32–69; Ruhm 1956b: 4, 1960: 203; Saalas 1917a: 18, 1949: 344, 384; Salonen 1966; Scheucher 1959: 263; Schimitschek 1941a: 305, 1941b: 59, 1948c: 129, 1950: 10, 1953b: 533, 1955a: 76, 78; Schwester 1957b: 138; Schwerdtfeger 1946a: 176, 1950b: 49, 1951a: 183; Sedlaczek 1935a: 161; Sitowski 1930: 5; Slankis 1969; Stiller 1938; Sukovatova, Milovidova, & Trubacheva 1987; Thompson, W. R. 1943: 59; Titova 1966; Toth 1979; Vosylyte 1978; Vosylyte & Blinova 1978; Wiackowski 1957a: 80; Wichmann 1955a: 105; Wilke 1931: 625; Woodring & Moser 1970; Yanovskii 1977b; Yanovskii & Korotkov 1984; Zinovjev 1957: 333. (hb) Acatay 1943b, 1963; Agafonov &

- Kuklin 1979; Alkan 1946: 113, 1964: 345–401; Anonymous 1920: 127, 1942: 68–71, 1948k: 4; Apfelbeck 1916b, 1917; Arefin 1983; Awerkwog 1941; Baeta Neves 1943b, 1945; Bakke 1960: 310, 1968a; Barbey 1901: 10, 24, 81, 1913, 1942; Bargmann 1906; Beaver & Browne 1975: 291; Beffa 1949, 1961; Behlen 1826; Besceli 1963; Besceli & Ekici 1969; Bonnemaïson 1953; Borodajevsky 1916: 1244–1247; Borowski 1958; Brandt 1948; Braun 1941c; Browne 1968b: 367; Bukowsky 1930; Byers 1984a; Cabral 1959; Ceccoli 1924; Chararas 1961b: 81, 1961c: 91, 1962c: 189, 1966a, 1966c, 1967b, 1967c, 1977b, 1980a; Chararas & Berton 1967; Charvat 1950; Chorbazhiev 1929; Dagci 1949; Dombrowsky 1887, 1892; Dufrenoy 1920; Eckstein 1897, 1926: 575; Eichhoff 1881a: 49, 212; Escherich 1923b: 449, 484, 536; Everts 1900, 1903: 762; Ferreira & Ferreira 1986, 1989; Feytaud 1946, 1950a; Fuchs 1904a, 1905c: 340, 1911b; Gabler 1955; Gillanders 1908; Gois 1944; Gornostaev 1916: 311; Grandi 1951; Gyorfı 1957; Hagedorn 1903a; Haget 1948; Hallgren, Leksander, & Lonner 1972; Hennings 1907c: 605, 1908a, 1908b, 1908d; Henschel 1895a: 186; Hess 1914: 276, 1927: 332; Hufnagl & Puzyr 1951: 109, 119; Joly 1949: 7, 1976a, 1976b; Jotland 1975a; Judeich & Nitsche 1895: 494; Juutiinen 1978; Karpinski 1933b: 36; Karpinski & Strawinski 1948: 157; Keller 1907a: 180, 1913: 241; Kholodkovskii 1912: 313; Kleine 1908a: 98; Knotek 1894a: 558, 1897: 160, 1898b: 333; Kobzar 1968a; Kostin 1960: 135; Kraemer 1950b: 380; Krivolutskaia 1960; Kurenzov 1935a: 41, 1948b: 107, 1950d: 213; Lekander 1954b: 16, 1959b: 31; Lengerken 1939: 68, 1954: 89; Li & Zhou 1980: 71; Lieutier 1981; Lieutier & Ferrell 1958a: 430, 1988b: 163; Lieutier et al. 1984; Louzil 1961: 43; Lozovoi 1966; Lozovoi & Tropin 1965, 1967; Luitjes 1976; Lunardonı & Leonardi 1889: 460; Madon 1930: 112; Maksymov 1950: 502; Malakhova 1963: 89–94; Maloletenkov 1908: 99–113; Michalski 1959a: 290–291; Munro 1926: 69; Nikitiuk 1957: 51–55; Nuorteva 1956c: 22; Nusslin 1898: 281, 1906b: 14, 16, 1907: 613, 1913: 202, 1927: 324; Petrenko 1966; Pfeffer 1941b: 3, 1941c: 7; Platonoff 1942: 64; Postner 1974: 459; Rafes 1962; Rhumbler 1922: 310, 1927: 324; Rimski-Korsakov et al. 1949: 288; Rozhkov 1970: 150; Rupertsberger 1879: 231, 1880: 230; Saalas 1913a: 69, 89, 1949: 344, 384; Schedl 1981b: 92; Schevyrew 1905c: 192; Schimitschek 1944: 187, 1948c: 129, 1955a: 76, 78, 1955b; Schmidt 1881: 30; Schneider-Orelli 1947b: 102, 157; Schvester 1957b: 139; Schwerdtfeger 1944a: 176, 1957a: 183, 1968: 50–52, 1981: 189; Sedlaczek 1921: 335, 1935a: 161; Spessivtsev 1913a: 74; Stark 1926a: 337, 1952: 397; Ternier 1970b; Toth 1985; Tragardh 1914: 93, 1930c: 471, 1931: 56, 1939b: 151, 201; Tschorbadijev 1929: 174; Voute 1942: 617; Wachtl 1876a: 455, 1901: 381; Wang 1982; Weber, H. 1926: 513; Wichmann 1927b: 352; Winogradoff 1911: 147; Wolff & Krause 1922: 97; Yang 1989c; Zinovjev 1957: 33. (ds) Acatay 1943: 2, 1963; Acloque 1896; Ammann & Knabl 1913, 1923; Androic 1966: 48; Anonymous 1978i, 1978w, 1979p: 147; Atkinson 1921; Audras & Schaefer 1957; Aullo 1919: 19–28, 46–47; Baeta Neves 1941: 1–15, 1943: 235–261, 1945, 1952a; Bakke 1960: 310; Barthe 1896; Bau 1888; Beaver & Browne 1975: 291; Bedel 1888b: 401, 417; Beffa 1949; Behlen 1826; Belousov 1916, 1917: 335; Besceli 1963: 50–57; Besceli & Ekici 1969: 32; Bistrom & Vaisanen 1988: 42; Borchert 1951; Brakman 1966b: 207; Brancsik 1906; Browne 1968b: 367, 1972b: 19, 1981b: 598; Bruggemann 1878; Brundin 1934; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1963; Cabral 1959; Ceccoli 1897; Champion 1894; Chararas 1961c: 95, 1966a; Charvat 1950; Cho 1957; Choo 1983: 95; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1988a: 134; Chorbazhiev 1924d, 1929; Chrystal 1937; Debatisse 1945; Defne 1954: 80–91; Donisthorpe 1933b; Dzhambazishvili 1961a: 751–757, 1253–1254, 1961b; Eder 1934; Eggers 1904, 1912f; Endrodi 1958a, 1958b, 1986: 217; Ericson & Sandin 1893; Ermisch 1953; Escalera 1919; Escherich 1923b: 449, 484, 536, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 654, 1925; Fauvel 1885; Fedorov 1930; Florov 1949: 117; Foster 1949; Fowler 1891; Fricken 1889: 345; Fuchs 1904a, 1905a, 1905c: 340; Gabler 1949b; Gammitz 1928: 92; Gemminger & Harold 1872: 2691; Gobbi 1989: 61; Gornostaev 1917; Gouillard 1962; Grill 1895: 310; Crouzelle 1905; Gussmann 1919: 75; Gyorfı 1941b; Hagedorn 1903a, 1910d: 58; Hallett 1923a: 13–14, 1923b, 1923c; Hansen, V. 1939, 1956; Hellen 1947; Hennig 1954: 261, 263; Henschel 1895a: 186; Heyden 1881: 177, 1893: 177; Heyden, Reitter, & Weise 1883: 182, 1891: 672, 1906: 712; Hickin 1963; Hilden 1925; Hoffmann 1952a: 104; Horion 1951; Ishikura 1966; Jazentkovsky 1912: 289; Joblokkoff 1953: 325; Joly 1949b: 253, 1976; Judeich & Nitsche 1895: 494; Kailidis 1985; Kailidis & Markalas 1988; Karpinski 1925: 217, 1926: 83, 1931: 35, 1933b: 36; Karpinski & Strawinski 1948: 157; Keler 1922b: 211, 1923: 41–45, 1925b: 273; Kempers 1902: 67; Kersten 1933: 76; Kevan 1949: 30; Klefbeck & Sjoberg 1960: 232; Kleine 1913a: 35, 1913b: 128, 1914b: 247, 250, 1934a: 151; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558, 1898b: 333; Ko 1969: 279; Kobzar 1968: 29–36; Koltze 1901: 153; Kontkanen 1932: 59; Koschitsky 1900: 83; Kostenko 1929; Krivolutskaia 1960; Kurenzov 1934a: 50, 1935a: 41, 1935c: 189, 1936a: 111, 1936b: 350, 1938a: 59, 1940: 77, 1947c: 7, 1950: 213, 1965, 1967; Langhoffer 1915c: 158; Larroche & Torossian 1971; Leclercq 1971; LeFay et al. 1969, 1970; Lesne 1913: 213; Li, Dang, & Shi 1977: 71; Lindberg & Saris 1952: 59; Lloyd 1948: 47; Lonnicki

1886a: 243, 1913b: 148; Loyttyneemi 1975: Lucht 1987: 279; Luna de Carvalho 1947: 15; Lunardoni & Leonardi 1889: 460; Lundberg 1978a; Majzlan et al. 1987; Malazgirt 1966: 63; Mandl 1931: 25; Mequignon 1936: 15; Mokrzecki 1928: 273; Munster 1928: 290; Murayama 1937b: 373, 1939: 142, 1940a: 232, 1942a: 52; Negru 1966b: 403, 1968a: 457; Novak, P. 1952: 417; Numberg 1928b: 88, 116, 1930: 200–208, 1954: 85; Nuorteva 1955b: 195, 1971: 65; Nusslin 1898: 281; Oliveira 1887: 328; Ortzen 1886: 280; Palmén 1946: 159; Pfeffer 1928b: 6, 1931b: 74, 1933: 3–54, 1935: 195, 1947e: 4, 1960: 346, 1984: 277, 1989a: 74; Pierce, W. D. 1917: 69; Pittioni 1943: 175; Plaza & Gil 1982: 250; Pomerantzev 1907b: 493; Postner 1974: 459; Rapp 1934: 730; Redtenbacher 1874: 377; Reitter 1894a: 80, 1916: 303; Revy & Siroki 1942: 82; Rinski-Korsakov et al. 1949: 288; Romanyk 1963b: 159, 1966: 87; Roubal 1941: 273; Rozhkov 1970: 150; Rudnev 1965b; Ruskov 1928c: 61; Ryle 1951: 179; Saalas 1913a: 69, 89, 1917a: 18, 1919: 1–415, 1931: 70; Saint-Albin 1949: 2; Sainte-Claire 1914: 473; Sainte-Claire & Mequignon 1938: 448; Sanonen 1966; Schedl 1950d: 17, 1952f: 87, 1953e: 22, 1959h: 100, 1960f: 172, 1967c: 72, 1971d: 43, 1971f: 147, 1980a: 28, 1981b: 92; Schewgultz & Tinelus 1930: 258; Schilsky 1909: 188; Schwarz 1886: 42; Schwerdtfeger 1981: 189; Seidlitz 1891a: 565, 1891b: 611; Sharp & Fowler 1893: 34; Shirskaia 1961; Sierpinski 1969a; Sokanovskii 1960; Sparre-Schneider 1889: 60; Stark 1926a: 337, 1926b: 105, 1926j: 127, 1931a: 27, 1931d: 549, 1952: 397; Stein & Weise 1877: 164; Stierlin 1898: 443; Stierlin & Gautard 1906: 205; Strand 1946: 603; Strand & Hanssen 1935: 70; Tragardh 1914: 93, 1917: 1–28, 1939b: 151, 201; Tredl 1907: 15; Tschorbadjiev 1929: 176; Ulanowski 1884: 6; Wachtl 1876a: 455; Wanka 1908: 231; Wegelius 1960: 107; Westhoff 1882: 239; Wichmann 1924: 16, 1927a: 76, 1955a: 105; Wiepken 1883: 89; Wilke 1931: 625; Winter, T. C. 1983: 50; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 412; Yin, Huang, & Li 1984: 135; Zinovjev 1955: 187; Zivojinovic 1960: 35; Zoufal 1920: 21. **(tx)** Acloque 1896; Alkan 1946: 113; Altman 1844; Balachowsky 1949a: 263; Barbey 1901: 10, 24, 81; Bedel 1888b: 401, 417; Boffa 1949, 1961; Behlen 1826; Blandford 1893d; Boerner 1767: 78; Cabral 1959; Ceballos 1945; Chararas 1962c: 190, 1966a: 14; Charvat 1950; Choo 1983: 95; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Duffy 1953; Eggers 1912f, 1915d: 96–97, 1921: 39–43, 1929e: 42; Eichhoff 1878b: 221, 1881a: 49, 212; Endrodi 1957b; Escherich 1923b: 449, 484, 536; Everts 1903: 762, 1922: 645; Fauvel 1885, 1889; Ferrant 1911; Fleischer 1927; Formanek 1907: 41; Fricken 1889: 345; Fuchs 1911a; Gabler 1949b, 1955; Gillanders 1908; Grune 1979: 146–147; Hagedorn 1910a: 105; Hansen, V. 1956; Henschel 1895a:

186; Heyden 1893: 177; Hopping, G. 1963c: 516; Iablokoff-Khuzorian 1961: 105; Joly 1976b: fig. 145, 244–245; Judeich & Nitsche 1895: 494; Karpinski & Strawinski 1948: 157; Knotek 1892a: 37; Koch 1913: 103, 1928: 80, 1932: 118; Kubnt 1913: 1057; Kurenzov 1941a: 205, 1948b: 107; Lekander 1959b: 31; Letzner 1858: 1, 1891: 376; Lieutier et al. 1984: 28–29; Louzil 1961: 108; Lovendal 1889b: 55, 1898: 138; Lucht 1987: 279; Lunardoni & Leonardi 1889: 460; Meixner 1937: 1218; Murayama 1937b: 373–374, 1939: 142, 1940a: 232; Negru 1966b: 403; Numberg 1954: 85; Nusslin 1911a: 51, 156; Olivier 1795b: 11; Pesson & Chararas 1969: 684; Pfeffer 1932b: 25, 1941b: 3, 1941c: 7, 1947c: 4, 1989a: pl. 10; Plaza & Gil 1982: 250; Portevin 1935: 336; Postner 1974: 459; Prell 1929: 90; Quaschik 1953: 35; Rabiai 1972: 1030–1031; Redtenbacher 1874: 377; Reitter 1894a: 80, 1913a: 104, 1916: 303; Rey 1892b: 30; Rhumbler 1922: 310, 1927: 324; Rupertsberger 1879: 231, 1880: 230; Saalas 1913a: 69, 89, 1914: 89, 1919: 1–415, 1949: 344, 384; Schedl 1934f: 1645, 1941a: 42, 1950a: 86–87, 1950d: 17, 1952f: 87, 1953e: 22, 1955g: 36, 1980a: 28, 1981b: 92; Scherb 1971; Scheyrew 1889a: 21; Schilsky 1888: 354; Schimitschek 1937c: 57, 1940: 84–113, 1955c: 89; Schlechtendal & Wunsche 1879: 125; Schwarz 1886: 42; Seidlitz 1891a: 565, 1891b: 611; Sokanovskii 1925: 667–668, 1960: 677; Spessivtsev 1913a: 72–74, 1922a: 482, 490, 1925a: 188, 1925b: 40, 1931: 70–71; Stark 1928: 377–378, 1952: 397; Stierlin 1898: 443; Tsai & Li 1959: 98; Wachtl 1895: 7; Weber, L. 1912: 31; Yin, Huang, & Li 1984: 135. **(ms)** Byers 1984a; Chararas 1971a: 853; Escherich 1932b; Foltz, Corneil, & Reich 1985; Fuchs 1911b; Kobzar 1968b; Kozikowsky 1929: 254; Lieutier 1984a; Lieutier et al. 1986; Merino-Rodriguez 1966: 44; Michalski 1959a: 290–291; Mori-Igarashi 1988; Schimitschek 1955b: 102; Schwappach 1924: 58; Sedlaczek 1902: 126, 1913: 455; Stark 1955: 228; Vorontzov 1968; Weber, L. 1912: 31; Winogradoff 1911: 147. *pinastris* Bechstein 1818: 93 (*Bostrichus*). Syntypes, sex?; Deutschland; not located. Synonymy: Eichhoff 1878b: 222.

References: **(cn)** Kollar 1840: 361. **(hb)** Feisthamel 1835; Kollar 1840: 361. **(ds)** Beck 1817; Chapuis & Candèze 1853; Sturm 1826: 102; Villa & Villa 1833: 26. **(tx)** Balachowsky 1949a: 263; Bechstein 1818: 74, 93, 184; Bechstein et al. 1805: 93; Chapuis & Candèze 1853; Eichhoff 1878b: 222; Schedl 1950a: 86. **(ms)** Hartig 1834: 108.

stenographus Duftschmidt 1825: 88 (*Bostrichus*). Syntypes, sex?; Austria; not located. Synonymy: Eichhoff 1878b: 221.

References: **(ay)** Leisewitz 1906: 95; Schwerdtfeger 1929: 404. **(cn)** Blanchère & Robert 1889; Grunert 1883; Guse 1885; Hartig 1861: 324, 1877: 190; Hess 1898: 350, 1907: 250; Kainschinger 1893: 141; Keller 1903b: 52; Kholodkovskii

1912: 278; Koppen 1882: 234; Malakhova 1963: 89–94; Muller 1891: 52; Nordlinger 1870b: 262; Pomoenicze 1876: 155; Ratzeburg 1871c: 81; Schacht 1853: 311; Schuster 1918: 102. (ec) Kholodkovskii 1897: 118; Knoche 1907b: 476, 1908b: 204; Perris 1852: 497, 1854a: 89, 1854b: 606, 1856a: 173, 1857: 357, 1862: 177; Ratzeburg 1869a: 88; Schuster 1918: 102; Schwerdtfeger 1929: 404; Tragardh 1927a: 216. (hb) Altum 1881c: 298; Bach 1864; Blanchere & Robert 1889; Budge 1949; Budkov 1897; Dombrowsky 1892; Eckstein 1889; Furst 1888: 112; Giggelberger 1868; Girard 1873; Hartig 1861: 324, 1877: 190; Henschel 1876a: 104, 238; Hess 1898: 350, 1907: 250; Holmgren 1867: 113, 133; Karsch 1883: 141; Kauschinger 1883: 103, 1893: 141; Kholodkovskii 1889: 270, 1912: 278; Knoche 1905: 357, 1907b: 476, 1907e: 52, 1908a: 44; Nordlinger 1856: 18, 1870b: 262; Pauly 1894: 379; Perris 1852: 497, 1856a: 173; Ratzeburg 1837: 133, 153, 1839: 159, 186, 1871c: 81; Rodd 1897: 34; Schwerdtfeger 1929: 404; Taschenberg 1880: 220. (ds) Andersch 1851; Blanchere & Robert 1889; Brancsik 1871; Budkov 1897; Calwer 1884, 1893; Chapuis & Candeze 1853; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eyquem 1891; Favre 1890; Forster 1849: 439; Gaubil 1849: 126; Gobang 1855: 745; Gozis 1875: 80; Gredler 1866: 374; Greyerz 1851; Heyden 1876: 300; Holmgren 1867: 113, 132; Kaltenbach 1874: 685; Kestercanek 1881a: 12; Koppen 1882: 234; Kotula 1873b: 80; Kraatz 1869: 59; Krol 1877: 34; Lacordaire 1866: 383; Lentz 1857: 139; Liegel 1886: 43; Lindemann 1884b: 264; Lokaj 1868: 64; Matthews & Fowler 1883: 42; Pacher 1865: 152; Perris 1876a: 254, 1877a: 414; Pfeffer 1950b: 73; Poppius 1900: 108; Ratzeburg 1837: 133, 153, 1839: 159, 186; Redtenbacher 1858: 834; Reitter 1869b: 154; Rye 1874: 205; Sahlberg 1900: 105; Schaschl 1854: 133; Schaum 1859: 96, 1862: 101; Schilsky 1909: 188; Schiodte 1873: 102; Schreiner 1897: 369; Seidlitz 1872: 395; Sharp & Fowler 1893: 34; Siebke 1875: 284; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin & Gautard 1871: 293; Strach 1861: 122; Sturm 1843: 230; Thomson 1865: 262, 1868: 222; Wachtl 1870: 259. (tx) Bach 1854, 1864; Balachowsky 1949: 263; Bertolini 1872; Blanchere & Robert 1889; Brancsik 1871; Calwer 1858; Chapuis & Candeze 1853; Dejean 1821, 1825; Dombrowsky 1892; Duftschmidt 1825: 88; Eichhoff 1864b: 42, 1877a: 386; Escherich & Escherich 1897; Ferrari 1867a: 42, 1867b: 114; Girard 1873; Henry 1892: 10–11; Henschel 1876a: 104, 238; Hopkins 1914: 119; Jacquelin du Val & Fairmaire 1868: 107; Lacordaire 1866: 383; Letzner 1858: 1, 1891: 376; Lemis 1886: 180; Motschulsky 1860a:

1855; Nordlinger 1848: 235, 1856: 18; Perris 1877a: 414; Prell 1929: 90; Ratzeburg 1837: 133, 153, 1839: 159, 186; Redtenbacher 1849a: 357, 1849b: 26, 1858: 834; Saalas 1914: 89; Schedl 1934f: 1645, 1950a: 86; Seidlitz 1872: 395; Spessivtsev 1913: 72–74, 1922: 482; Taschenberg 1880: 220; Thomson 1865: 262, 1868: 222. (ms) Gotz 1877; Hartig 1834: 108.

sexdentatus junnanicus Sokanovskii 1959b: 94–95. Syntypes, sex?; Yunnan, China; Sokanovskii Collection.

References: (tx) Sokanovskii 1959b: 94–95.

spinifer (Eichhoff) 1878b: 499 (*Tomicus*). Holotype, sex?; California [USA]; Hamburg Museum, lost.

Figures: Hopping 1963b: 65, 67.

Distribution: North America (California in USA).

Hosts: *Pinus sabiniana*.

References: (cn) Hrubik 1973. (ec) Furniss, R. L. & Carolin 1977: 387. (hb) Furniss, R. L. & Carolin 1977: 387; Wood, S. L. 1982b: 677. (ds) Furniss, R. L. & Carolin 1977: 387; Hagedorn 1910d: 59; Kleine 1913b: 128, 1914b: 390; Leng 1920: 341; Swaine 1909: 126; Wood, S. L. 1982b: 677. (tx) Eichhoff 1878a: 390, 1878b: 499; Hagedorn 1910a: 106; Swaine 1909: 126, 1918: 114; Wood, S. L. 1973c: 177, 1982b: 677.

sabiniana Hopping 1963b: 64 (*Orthotomicus*).

Holotype ♂; Middletown, Lake Co., California [USA]; CAS, San Francisco. Synonymy: Wood 1973c: 177.

References: (bv) Barr, B. A. 1969: 642; Jacobson 1972. (ec) Berryman 1966a: 519; Hirschmann & Wisniewski 1982, 1983; Kinn 1971; Lindquist 1969c. (hb) Bright & Stark 1973: 83. (ds) Bright & Stark 1973: 83. (tx) Hopping, G. 1963b: 64–68; de Ruelle 1970: 105; Wood, S. L. 1966b: 24, 1973c: 177.

stebbingi Strohmeier 1908: 69. Syntypes ♂; Himalaya occidentalis (Kulu); IPKE, Eberswalde.

Figures: Yin & Huang 1981: 563.

Distribution: Asia (Bhutan/ Xizang [Tibet] in China/ Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India/ Nepal/ Pakistan).

Hosts: *Pinus excelsa*, *P. gerardiana*, *P. griffithii*, rare in *Abies webbiana*, *Cedrus deodara*, *Picea morinda*. References: (ay) Schmutzenhofer 1988. (cn) Schmutzenhofer 1988; Stebbing 1903a: 225, 1914: 562. (ec) Stebbing 1914: 562; Vitzthum 1921a: 58; Woodring & Moser 1970. (hb) Beeson 1922c: 496; Stebbing 1903a: 225, 1914: 562. (ds) Hagedorn 1910d: 59; Kleine 1913b: 128, 1914b: 271, 277; Pierce, W. D. 1917: 52; Schedl 1973d: 210; Schmutzenhofer 1988; Stebbing 1903a: 225. (tx) Eggers 1922d: 120; Hagedorn 1910a: 106; Holzschuh 1988: 481–485; Schmutzenhofer 1988; Stebbing 1914: 562; Strohmeier 1908b: 69.

ribbentropi Stebbing 1909b: 25 (*Tomicus*). Syntypes, sex?; Jaunsar, Tehri Garhwal, Simla,

Bashahr, and Chamba States in North-West Himalaya Forests, India; FRI, Dehra Dun. Synonymy: Beeson 1922c: 496.

References: **(cn)** Beeson 1922c: 496; Chatterjee 1917b: 1-4; Pierce, W. D. 1917: 69; Stebbing 1914: 552; Troup 1916: 1-126. **(ec)** Stebbing 1914: 552. **(hb)** Stebbing 1909b: 25, 1911a: 6, 1914: 552. **(ds)** Pierce, W. D. 1917: 69; Yin & Huang 1981: 563. **(tx)** Beeson 1922c: 496; Stebbing 1908b: 8, 1909b: 13, 25, 1914: 552; Yin & Huang 1981: 563.

blandfordi Stebbing 1909b: 27 (*Tomicus*). Syn-types 3 ♀; Shinghar, Chilgoza forests, North Zhob, Baluchistan, Pakistan; FRI, Dehra Dun. Synonymy: Wood 1988b: 189.

References: **(cn)** Pierce, W. D. 1917: 74; Stebbing 1914: 561. **(ec)** Stebbing 1914: 561. **(hb)** Beeson 1922c: 496; Stebbing 1909b: 15, 27, 1914: 561. **(ds)** Pierce, W. D. 1917: 74. **(tx)** Stebbing 1909b: 27, 1914: 561; Wood, S. L. 1988b: 189.

schmutzenhoferi Holzschuh 1988: 481. Holotype ♂; West-Bhutan, Changang, 3000 m; NHMW, Wien. Synonymy: Wood 1992a: 83.

References: **(cn)** Schmutzenhofer 1988. **(tx)** Holzschuh 1988: 481-485; Schmutzenhofer 1988; Wood, S. L. 1992a: 83.

tridens (Mannerheim) 1852: 357 (*Bostrichus*). Lectotype ♀; Sitka Island, Alaska; MZU, Helsinki, designated by Wood 1982b: 684.

Notes: (1) Wood 1982b: 684 (subspecies established).

References: **(ay)** Hopping, G. 1964a: 117; Oester & Rudinsky 1975, 1979. **(bv)** Hopping, G. 1962b; Moeck et al. 1985; Oester & Rudinsky 1975, 1979. **(cn)** Chamberlin 1924; Doane et al. 1936; Holsten, Werner, & Laurent 1980; Keen 1952c: 165; Kondo & Moody 1987: 107; Lindgren 1980a: 66; Moody 1988: 82; Ruppel 1967: 54; Schuder 1969: 76; Smith, G. J. & Melvin 1974a; Swaine 1918a: 111, 119. **(ec)** Furniss, R. L. & Carolin 1977: 393; Werner & Holsten 1984. **(hb)** Annala 1971: 11; Annala et al. 1972: 22; Bakke 1968b: 647; Bright 1976d: 163; Bright & Stark 1973: 94; Chamberlin 1939: 431, 1958: 174; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 393; Holsten, Werner, & Laurent 1980; Hopping, G. 1962a, 1964a: 117, 1965d: 168; Keen 1952c: 165; Lindgren 1980a: 66; Moeck et al. 1985; Swaine 1918a: 111, 119; Wood, S. L. 1982b: 684. **(ds)** Bright 1976d: 163; Bright & Stark 1973: 94; Chamberlin 1939: 431, 1958: 174; Choo, Woo, & Kim 1981: 201; Evans, D. 1983: 34; Furniss, R. L. & Carolin 1977: 393; Gautreau 1974: 6; Gemminger & Harold 1872: 2691; Hagedorn 1910d: 60; Hamilton 1894a: 35-36; Henshaw 1885: 148; Hopping, G. 1965d: 168; Hopping, R. 1922; Keen 1929a: 39, 1952c: 165; Kleine 1912a: 218, 1913b: 128, 1934a: 150; Kusch 1967; Leng 1920: 341;

Patterson & Hatch 1945: 153; Ruppel 1967: 54; Schedl 1969a: 203; Schuder 1969: 76; Smith, G. J. & Melvin 1974a; Smith, G. S. 1930; Still, Tidsbury, & Melvin 1974a: 13; Swaine 1909: 124, 126; Werner & Holsten 1984; Wickham 1896a: 309; Wood, S. L. 1972a: 420, 1982b: 684. **(tx)** Bright 1976d: 154, 163; Chamberlin 1939: 431, 1958: 174; Eichhoff 1869a: 274, 1878b: 240-241; Evans, D. 1983: 34; Hagedorn 1910a: 106; Hopping, G. 1962b: 506, 1963a: 116, 1963c: 512, 1963f: 213, 1965d: 160, 163, 168; Hopping, R. 1939: 169; Keen 1929a: 39; Kusch 1967: 9; LeConte 1857: 22, 1868: 164, 1876: 363, 366, 1878: 240; Mannerheim 1852: 357, 1853: 273; Swaine 1909: 124, 126, 1915: 359, 1917: 30-31, 1918a: 111, 119; Wood, S. L. 1969c: 115, 1972a: 420, 1982b: 684. **(ms)** Hopping, G. 1961a: 1052.

tridens tridens:

Figures: Bright 1976d: 154, Hopping 1963f: 215, 1965d: 165, 167, Kusch 1967: 9.

Distribution: North America (Alaska/ British Columbia in Canada/ N California, Oregon, Washington in USA), only on the coastal margin.

Hosts: *Picea sitchensis*, uncommon in *P. glauca*.

References: **(tx)** Mannerheim 1852: 357; Wood, S. L. 1982b: 684.

interruptus Mannerheim 1852: 357 (*Bostrichus*). Lectotype ♀; Sitka Island, Alaska; MZU, Helsinki, designated by Wood 1982b: 684. Synonymy: Wood 1969c: 115.

References: **(ay)** Hopping, G. 1964a: 117. **(bv)** Hopping, G. 1962b. **(cn)** Chamberlin 1924; Doane et al. 1936; Hatch 1938: 194; Keen 1938: 128, 1952c: 165; Ruppel 1967: 54; Schuder 1969: 78; Swaine 1918a: 111, 118. **(ec)** Keen 1938: 128. **(hb)** Chamberlin 1939: 429, 1958: 174; Doane et al. 1936; Hopping, G. 1964a: 117; Keen 1938: 128, 1952c: 165; Swaine 1918a: 111, 118. **(ds)** Blatchley & Leng 1916: 639; Chamberlin 1917, 1925, 1939: 429, 1958: 174; Gautreau & Melvin 1974: 14; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 55; Hamilton 1894a: 35; Henshaw 1885: 148; Hopping, G. 1965d: 160; Hopping, R. 1922; Hubbard & Schwarz 1878b: 643; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1912a: 218, 1913b: 128, 1914b: 397, 1934a: 150; Leng 1920: 341; Murayama 1957a: 37; Ruppel 1967: 54; Schedl 1969a: 203; Schuder 1969: 78; Swaine 1909: 124; VanDyke 1924: 26; Wickham 1896a: 309. **(tx)** Blatchley & Leng 1916: 639; Chamberlin 1939: 429, 1958: 174; Eichhoff 1869a: 274, 1878b: 238; Fall 1926: 208; Hagedorn 1910a: 105; Hopping, G. 1963c: 514, 1965d: 160-161; Keen 1929a: 39; LeConte 1857: 22, 1868: 164, 1876: 366; Mannerheim 1852: 357, 1853: 234; Swaine 1909: 124, 1918a:

111, 118; Wood, S. L. 1969c: 115, 1982b: 684. (ms) Hatch 1938: 194.

tridens engelmanni Swaine 1917: 30. Lectotype ♀; Rogers Pass, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 675.

Figures: Hopping 1965d: 163, figs. 10–11, Kusch 1967: 9.

Distribution: North America (Alaska/ Alberta, British Columbia, Northwest Territories, Yukon in Canada/ N California, N Idaho, Montana, Oregon, Washington, NW Wyoming in USA), occurs inland away from the coast.

Hosts: *Picea engelmannii*, *P. glauca*, *P. sitchensis*. Notes: (1) Wood 1982b: 684 (reduced to subspecies).

References: (ay) Hopping, G. 1964a: 117. (cn) Keen 1938: 128, 1952c: 165; Swaine 1918a: 111, 120. (ec) Keen 1938: 128; Lindquist 1969c. (hb) Chamberlin 1939: 431; Furniss et al. 1979: 1357; Hopping, G. 1961b, 1964a: 117; Keen 1938: 128, 1952c: 165; Swaine 1918a: 111, 120; Wood, S. L. 1982b: 684. (ds) Chamberlin 1925, 1939: 431; Cast et al. 1989: 385; Hopping, G. 1965d: 162; Hopping, R. 1922; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1934a: 150; Leng 1920: 341; Patterson & Hatch 1945: 153; Wood, S. L. 1957c: 397, 1982b: 684. (tx) Bright 1967b: 675; Chamberlin 1939: 431, 1958: 174; Hopping, G. 1963f: 514, 1963f: 213, 1965d: 161, 162; Hopping, R. 1939; Keen 1929a: 39; Kusch 1967: 9; Swaine 1917: 30, 1918a: 111, 120; Wood, S. L. 1957c: 397, 1977c: 386, 1982b: 684. (ms) Hopping, G. 1961b.

yohoensis Swaine 1917: 31. Lectotype, ♀; Yoho Valley, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 676. Synonymy: Wood 1977c: 386.

References: (ay) Hopping, G. 1964a: 117. (cn) Keen 1938: 128; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1918a: 111, 120. (ec) Keen 1938: 128. (hb) Chamberlin 1939: 431, 1958: 175; Hopping, G. 1961b, 1964a: 117; Keen 1938: 128; Swaine 1918a: 111, 120. (ds) Chamberlin 1925, 1939: 431, 1958: 175; Hopping, G. 1965d: 168; Hopping, R. 1922; Keen 1929a: 39, 1938: 128; Kleine 1934a: 151; Kusch 1967; Leng 1920: 341; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a: 13; Susut & Melvin 1974. (tx) Bright 1967b: 676; Chamberlin 1939: 431, 1958: 175; Hoebeke 1978; Hopping, G. 1961b: 1052, 1963c: 514, 1963f: 213, 1965d: 161, 168; Hopping, R. 1939: 169; Keen 1929a: 39; Kusch 1967: 9; de Ruelle 1970: 104; Swaine 1917: 31, 1918a: 111, 120; Wood, S. L. 1977c: 386.

dubius Swaine 1918a: 119. Holotype ♂; Rogers Pass, British Columbia [Canada]; CNCI, Ottawa. Synonymy: Wood 1957c: 397.

References: (cn) Keen 1938: 128, 1952c: 165; Schuder 1969: 76; Swaine 1918a: 111, 119. (ec) Keen 1938: 128. (hb) Chamberlin 1939: 430; Keen 1938: 128, 1952c: 165; Swaine 1918a: 111, 119. (ds) Chamberlin 1925, 1939: 430; Hopping, R. 1922; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1934a: 150; Leng 1920: 341; Schuder 1969: 76. (tx) Bright 1967b: 675; Chamberlin 1939: 430; Hoebeke 1978; Keen 1929a: 39; de Ruelle 1970: 102; Swaine 1918a: 111, 119; Wood, S. L. 1957c: 397.

senirostris Hopping, G. 1963f: 213. Holotype ♀; Kenai Peninsula, Alaska; CNCI, Ottawa. Synonymy: Wood 1977c: 386.

References: (ay) Hopping, G. 1964a: 117. (cn) Beckwith 1972; Smith, G. J. & Melvin 1974b. (hb) Hopping, G. 1964a: 117. (ds) Beckwith 1972a; Hopping, G. 1965d: 170; Kusch 1967; Smith, G. J. & Melvin 1974b; Still, Tidsbury, & Melvin 1974a: 13. (tx) Beckwith 1972, 1976a; Hopping, G. 1963b: 65, 67, 1963f: 213, 215, 1965d: 170; Kusch 1967: 9; de Ruelle 1970: 103; Wood, S. L. 1977c: 386.

amiskwiensis Hopping, G. 1963f: 216. Holotype ♀; Amiskwi River, Yoho Nat. Pk., British Columbia [Canada]; CNCI, Ottawa. Synonymy: Wood 1977c: 386.

References: (ay) Hopping, G. 1964a: 117; Thomas, J. B. 1967. (cn) Beckwith 1972; Smith, G. J. & Melvin 1974a, 1974b. (hb) Hopping, G. 1964a: 117. (ds) Beckwith 1972a; Bright 1964a: 170; Evans, D., Lowe, & Hunt 1978; Gautreau 1974: 5; Kusch 1967; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a: 13. (tx) Beckwith 1972a; Hopping 1963b: 215, 1963f: 215–217, 1965d: 160–166; Kusch 1967: 9; de Ruelle 1970: 102; Thomas, J. B. 1967; Wood, S. L. 1977c: 386.

typographus (Linnaeus) 1758: 355 (*Dermestes*). Syntypes, sex[?]; Europa; not located.

Figures: Bakke 1960: 306, Balachowsky 1949a: 9, 16, 264, Barbey 1925: 61, Brandt 1960: pl. 28, Chararas 1961c: 95, Duffy 1953: 11, Grme 1979: 148, Nobuchi 1974: pls. 2–3, Pfeffer 1989a: pls. 1, 10, 14, Postner 1974: 453, Schwerdtfeger 1981: 191, Tsai & Li 1959: 101.

Distribution: Africa (Algeria), Asia (Heilongjiang, Jilin in China/ Japan/ Korea/ Kuril Islands/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Picea* spp., rare in *Pinus* spp., *Larix* sp. References: (ay) Anderbrandt 1988b; Beal 1927; Berlese 1909; Bombosch 1952; Chararas 1956a: 113–213, 1956c, 1977b; Chararas, Courtois, & Debris 1961; Chararas & Koutroumpas 1977;

- Chararas et al. 1963: 383–395; Courtois, Chararas, & Debris 1961b; Courtois et al. 1965; Crowson 1938; Dicken 1981; Doganlar 1984; Escherich 1914: 113, 170, 311, 1923b: 429, 485, 575; Feytaud 1950a; Francke-Grossmann 1959; Fuchs 1911a; Gries 1985; Hallberg 1982a, 1982b, 1984; Hansen, T. E., Viik, & Luik 1980a, 1980b; Hennequy 1804: 175; Imhoff 1856: 228; Koizumi & Yamaguchi 1967; Kulm 1949a: 245; Leisewitz 1906: 95; Lekander 1959b: 50, 1959d: 91; Leufven, Bergstrom, & Falsen 1984; Marcus 1930: 644; Merker & Wild 1954: 451; Moeler-Racke 1952: 247, 259; Mustaparta et al. 1984; Negru 1968b: 802; Novak, V. et al. 1976; Nunberg 1928a: 141, 1950a: 138; Nusslin 1911a: 61, 150, 155, 254, 338; Reichenbach-Klinke 1952: 462, 1953: 338; Robertson 1961; Rudinsky 1979b; Scherb 1971; Scheyvrew 1889a: 21; Schneider-Orelli 1913: 32, 1947: 3, 510–542; Schoenischen 1921: 47; Schoneherr 1958: 227–228, 1970b; Schroder 1901: 461, 1902: 85; Schwerdtfeger 1929: 336; Sedlacek 1902b: 244, 1907: 82; Skirkevicius et al. 1984; Tommeras 1985; Tommeras, Mustaparta, & Gregoire 1984; Vogel 1986, 1988; Wichmann 1912a: 10; Zoch 1965; Zumr, Nemeč, & Stary 1985; Zumr & Soldan 1981. (bv) Abgrall 1986; Adlung 1958, 1960: 430, 1979; Adlung, Schicke, & O'Svath 1986; Anderbrandt 1985; Anderbrandt & Schlyter 1989; Anderbrandt, Schlyter, & Birgersson 1985; Anderbrandt, Schlyter, & Lofqvist 1988a, 1988b; Annila 1971a: 11, 1975: 8; Annila & Petaisto 1978; Anonymous 1973d, 1974u, 1977s; Arefjev 1970, 1974; Austara 1978; Austara, Bakke, & Midtgaard 1984, 1986; Austara & Petersen 1977; Bakke 1969: 309–310, 1970b, 1971b, 1973, 1976, 1977, 1979c, 1981a, 1981c, 1981d, 1982, 1987; Bakke & Austara 1973, 1978; Bakke, Austara, & Pettersen 1977; Bakke & Riege 1982; Bakke & Saether 1978; Bakke, Saether, & Austara 1989; Bakke & Vite 1987; Balazy 1968; Becker, P. & O'Svath 1981; Bengtsson 1975a; Berryman 1988; Bicevskis & Ozols 1981; Birgersson 1989; Birgersson & Bergstrom 1989; Birgersson & Leufven 1988; Birgersson et al. 1984, 1988; Bombosch 1978, 1983, 1987, 1988; Bombosch & Johann 1985; Bombosch, Johann, & Ramisch 1982; Bombosch et al. 1985; Borden 1968; Borsodi, Gal, & Kiss 1985; Butovitsch 1971; Byers 1983b, 1984b, 1989a, 1989b; Byers, Anderbrandt, & Lofqvist 1989; Chararas 1962f, 1976b, 1977b, 1980a, 1982; Chararas & Deschamps 1962; Chararas, Desveaux, & Kogane-Charles 1960: 921; Chararas et al. 1982: 1094; Christiansen 1981, 1985; Christiansen & Bakke 1988, 1989; Christiansen & Huse 1980; Dickens 1978, 1981; Du 1987; Dubbel et al. 1985; Duelli, Studer, & Naf 1986; Egger, A. & Ferenczy 1980, 1981; Ehnstrom 1975; Eidmann 1965b, 1983, 1987; Eidmann et al. 1986, 1987; Ellefsen 1980e, 1981; Furniss, M. M. & Livingston 1979; Gal et al. 1985; Gavelis & Jakaitis 1981, 1987; Gries 1985; Gries et al. 1989; Grijpma & Schuring 1984; Grune 1979: 149; Haggstrom 1976; Hallgren, Lekander, & Lonner 1972; Hansen, K. 1983; Harding & Ravn 1985; Helland, Hoff, & Anderbrant 1984; Heuer & Vite 1984a; Hierholzer 1951b; Hilker 1984; Hornvedt & Christiansen 1979; Inscoc 1982; Ivanchenko et al. 1979; Jacobson 1972; Jaln 1981, 1982; Jakaitis & Gavelis 1984; Johann 1986, 1986b: 115; Johnson 1960a: 17; Jotland 1975a, 1975b; Karlsen, Froyen, & Skattebol 1976; Kevdina 1897: 108; Klassen, Ridgway, & Inscoc 1982; Klimetzek & Adlung 1977; Klimetzek & Franke 1980; Klimetzek & Kopp 1983; Klimetzek et al. 1979, 1986: 270; Kolinle et al. 1988; Konig, E., Vite, & Bogenschutz 1981; Krawielitzki et al. 1977; Krol & Bakke 1985, 1988; Kuchava 1976; Lanne et al. 1989; Lebedeva, Vasilyeva, & Scherbakova 1975; Leluan, Leluan, & Chararas 1984; Leufven & Birgersson 1987; Leufven et al. 1984; Lie & Bakke 1981; Lindmo 1973; Lindstrom et al. 1989; Lnitjes 1976; Madziara-Borusiewicz & Strzelecka 1977; Magement, Gaspar, & Severin 1982; Maksymov 1950; Maksymov, Jansen, & Jaggi 1982; Martinek 1957b: 281; McGregor & Miller 1989; Meixner 1937: 1214; Merker 1960, 1965a; Mihkelson & Ounap 1983; Miller, M. C. et al. 1989; Mozolevskaya, Lebedeva, & Galaseva 1979; Mulock & Christiansen 1986; Mustaparta et al. 1984; Naumann-Etienne 1978a; Nef 1989; Niemeyer 1985b; Niemeyer, Schroder, & Watzek 1983; Niemeyer & Watzek 1977; Novak, V. 1967, 1972a; Novak, V. & Svihra 1970; Nunberg 1950a: 138; Nuorteva 1956c: 23; Okstad 1979b; O'Sullivan 1979; Ozols, C. E. & Bicevskis 1971, 1976; Ozols, C. E., Bicevskis, & Galvans 1973; Prell 1925b: 166, 1926: 70, 1930c: 627, 1931: 364; Ravn 1985; Regnander 1975c, 1978; Regnander & Solbreck 1981; Richert & Kohnle 1984; Rozhkov 1970: 154; Rudinsky 1979a: 411, 1979b; Rudinsky, Novak, & Svihra 1970, 1971a, 1971b; Rudinsky & Vite 1956: 259; Sanders 1984; Sauerwein 1981; Schlyter 1984, 1988; Schlyter & Anderbrandt 1988: 409, 1989; Schlyter & Birgersson 1989; Schlyter, Birgersson, & Leufen 1989; Schlyter, Byers, & Lofqvist 1987; Schlyter & Lofqvist 1986; Schlyter et al. 1987, 1988; Schmutzenhofer 1985b; Schneider-Orelli 1947c: 89; Schopf 1985; Schwerdtfeger 1981: 191; Selander & Nuorteva 1980; Shepherd 1965: 213; Sherman et al. 1983; Silverstein & Young 1976: 21; Simionescu 1967a, 1967b, 1968, 1978; Skirkevicius et al. 1984; Smelyants & Vasechko 1973; Svihra 1972e, 1974b; Tischenko, Vasilyeva, & Lebedeva 1982; Tischenko et al. 1978; Tomescu et al. 1979, 1982; Tommeras 1989; Tommeras, Madsen, & Mustaparta 1989; Tommeras & Mustaparta 1984a, 1984b, 1987; Tommeras, Mustaparta, & Gregoire 1984; Uchida & Nakashima 1961; Valenta, Gavelis, & Jakaitis 1978, 1979; Vasechko 1971a, 1971b, 1978a, 1978b;

- Vasileva & Minor 1975; Vasileva et al. 1976; Vaupel & Dubbel 1985; Vaupel, Dimitri, & Vite 1981; Vite 1980; Vite, Bakke, & Renwick 1972: 1971; Vite & Gara 1961: 175; Weslien 1984; Weslien & Bylund 1988; Wichmann 1912a: 10, 1953a: 107, 1967; Winter, K. 1980; Worrell 1983b; Yoshida et al. 1986; Zolibus 1987; Zotova 1987; Zumr 1981, 1982e, 1983a; Zumr & Landa 1985. (cn) Aalde 1979; Abgrall 1986; Abgrall & Schvester 1987; Acloque 1914; Adam 1970; Adlung 1960: 430–435, 1979; Adlung, Schicke, & O'Svath 1986; Akselsen 1979; Alexandrov 1958; An 1979; Androic 1966: 49; Annala 1969: 161–208; Anonymous 1874a: 380, 1874d, 1874g: 116, 1901b: 97, 1947j: 65, 1948k: 1, 1950e: 99, 1952g: 212, 1971p, 1972i, 1974i, 1974u, 1976j, 1977r, 1977t, 1978i, 1978m, 1979j, 1979k, 1979p, 1979t, 1979u, 1980b, 1980i, 1984b, 1985d, 1985i; Antoine 1935: 264; Arefjev 1974; Arnberg, Lekander, & Wastenson 1973; Ass & Funtikow 1941: 157–159; Austara 1972, 1975, 1978a, 1978b; Austara et al. 1983; Badoux 1918; Baisch 1954: 324; Bakke 1960a: 306, 1960b: 357, 1966, 1978b, 1979a, 1981b, 1981c, 1981d, 1985a, 1985b, 1987, 1988a, 1988b, 1989; Bakke & Riege 1982; Bakke & Saether 1978; Bakke, Saether, & Kvamme 1983; Bakke & Strand 1981; Balazy 1968; Bambulovic 1930: 446; Barbey 1914: 41–81, 1922b, 1925: 61; Barlow 1966; Barth 1878; Becker 1950; Becker, P. & O'Svath 1981; Bedel 1888b: 401, 417; Bedus 1946; Beeson 1918: 114–124; Bejer-Petersen 1959a, 1978, 1981; Bengtsson 1975a, 1975b; Berdennikova 1949; Bernhard 1875; Bernhard 1928: 413, 1929; Berryman 1987, 1988; Berryman & Stenseth 1989; Berryman, Stenseth, & Isaev 1987; Berwig 1950; Bervig & Schuhly 1964: 17–20; Bevan 1964b, 1987: 113; Birgersson & Leufven 1988; Bjorkhem et al. 1977; Blanchere & Robert 1889; Blondein 1874a, 1874b, 1875, 1876; Bohm 1932, 1947; Bombosch 1952: 675–678, 1954: 239, 1972, 1978, 1987, 1988a, 1988b; Bombosch, Johann, & Ramisch 1982; Borcea 1924: 221–260, 1930: 271; Borodajewsky 1930: 249–251, 805–811, 1931: 157–159; Brahm 1950; Brummanis 1960: 326; Browne, F. C. 1968b: 368; Browne, J. M. B. & Bevan 1966; Brumman 1950; Brutovsky & Uleakova 1982; Buchholz 1948, 1949; Butovitsch 1938: 1–36, 1939: 192–1929, 1941a: 297–360, 1977; Butovitsch & Spaak 1939: 1–120; Buttiker 1948; Byers, Anderbrandt, & Lofqvist 1989; Caesar 1854; Capek 1966; Carron 1951; Chararas 1957e, 1958: 1653–1654, 1960a: 30, 1961b: 70, 1961c: 94, 1962f; Charvat 1951; Chorbadzhievo 1929; Christiansen 1970, 1981, 1985; Christiansen & Bakke 1988, 1989; Christiansen & Horntvedt 1983; Chrystal 1922, 1949b: 3–11; Cogho 1876a, 1876b; Cook & Hain 1988b; Corbond 1965; Courtois, Chararas, & Charitos 1960: 797; Croke 1962a; Damjanovic 1955; Dammes 1857; Dedek & Pape 1988; Dedek et al. 1988; Delfin 1977, 1980; Demme 1947a, 1947b, 1948, 1949; Desfarges 1951; Deslarzes, Nedic, & Cherix 1987; Dimitri 1981, 1985; Dimitri et al. 1986; Dobrodejev 1924: 70–76; Doebner 1940: 90–91; Donaubaer, Eggers, & Ferenczy 1979; Dotterl 1923; Drenski 1930; Dubbel, Vaupel, & Dimitri 1985; Dubbel et al. 1985; Dudich 1946; Duelli, Studer, & Naf 1986; DuMerle 1988; Dzhambazhshvili 1959: 709; Eckstein 1903, 1915, 1917, 1926: 572, 1935; Egger, A. 1987; Egger, A. & Ferenczy 1980, 1981; Ehnstrom 1985; Ehnstrom et al. 1974; Eickstedt 1949; Eidmann 1964, 1965c, 1970a, 1973, 1983, 1984, 1985a, 1987; Eidmann & Klingstrom 1976: 251; Ellefsen 1980a, 1980d; Elsner 1963: 97–103; Elton 1951; Elton & Voute 1950; Escherich 1914: 113, 170, 311, 1917: 97–115, 1923b: 429, 485, 575, 1932a, 1936; Esterberg 1959; Everaerts, Gregoire, & Merlin 1988; F. F. 1900: 15; Fang, Wang, & Chi 1985; Feytaud 1946, 1950a; Findlay 1959: 1–7; Finger 1829; Fischbach 1875; Flechtner 1948; Fleischer 1875c, 1877a; Florov 1949: 121; Foltany 1968: 153–155; Fomel & Quillenuse 1935: 335; Foslue 1980b; Fraenkel 1932: 145; Francke-Grosman 1954a; Franz 1947a, 1947b, 1948a, 1948b, 1948c, 1948d: 2–8, 1948e, 1948f, 1948g: 38–48, 1949b, 1954; Frie 1954; Froggatt 1899; Frohlich 1927: 101, 1947; Funke 1870, 1875a; Furuta et al. 1985; Fystro & Bakke 1962; Gabler 1947a, 1949a, 1949c, 1955; Gail 1905; Galoux 1947: 12, 1948b, 1948c, 1948d: 61–71, 1948e; Gaste 1976; Gavelis & Jakaitis 1987; Gavelis, Jakaitis, & Valenta 1984; Georgescu et al. 1957: 357, 456; Georgijevic 1962: 107–195; Giric 1969: 44–45, 53–56; Girits 1963; Gmelin 1787a; Goldenstern 1950; Gonet 1948; Goryacheva & Andreeva 1961: 162–164; Gradojevic 1933: 789–790, 1938, 1940; Grandi 1951; Granit 1945; Gregor 1948a, 1948b; Gries et al. 1989; Grijpma & Schuring 1984; Gronnow 1948; Grosman 1931b; Grossmann 1953; Grumert 1883; Grumnow 1948; Guiese et al. 1958; Guse 1878a, 1883, 1884, 1885, 1893; Gusev 1928: 144; Gyorf 1946: 195, 1950: 384–400, 1954: 169–182, 1959; Hadorn 1948a; Haggstrom 1976; Hallgren, Lekander, & Lomner 1972; Hammer 1828; Hanson, H. S. 1940a, 1950, 1951; Hartig 1811: 320, 327, 1820: 320, 327, 1832: 280, 285, 1861: 325, 330, 1877: 192; Hartl & Mills 1983; Hasek 1961: 5; Heidenreich 1951; Helland, Anderbrandt, & Hoff 1989; Helland, Hoff, & Anderbrandt 1984; Hensler 1947; Heqvist 1965; Herlein 1878; Hess 1898: 332, 1907: 238; Hess & Beck 1914: 269, 1927: 325; Hierholzer 1951a, 1951b, 1954a: 329; Hirits 1963: 83–86; Hirschmann & Ruhn 1954a; Hoffmann 1950: 193, 1952a: 104; Hohenlohe-Langenburg 1949b: 13–15; Hopkins 1894c, 1894d, 1908c: 155; Hrubik 1973; Hufnagl 1949, 1951, 1952; Husson 1955: 535; Illsen 1949, 1950; Inouye 1954: 167–180, 1955; Inouye & Nobuchi 1959: 35–42; Inouye & Yamaguchi 1955: 72–94, 1955a: 212, 235, 1959: 1,

- 27; Isaev, Khlebopros, & Nedorezov 1980: 194; Ishikura 1966; J. M. 1948: 460; Jablokov 1953: 325; Jaensch 1938: 47; Jager 1985; Jahn 1952a: 98, 1952b: 149, 1959: 220, 1961: 7-13; Jahn & Sinreich 1959: 1; Jährel 1829; Jakaitis & Gavelis 1985, 1987; Jammicky 1953: 128-130, 166-170, 203-220, 1954: 14-17, 1956d; Janacek 1922; Jansen 1979; Jaros 1949; Jemmett 1913: 1-44; Joly 1949b: 253, 1976; Jondelius et al. 1973; Jotland 1975b; Judeich 1875b: 74, 1886: 63; Judeich & Nitsche 1895: 506; Jutinen 1960: 8; Kaisch 1884; Kakuliya 1967: 439-443; Kalab 1955: 27-31; Kalandra 1944, 1948a, 1948c, 1953a; Kamp 1950; Kangas 1939, 1958a: 195, 1958d: 164, 1966b; Karner & Kliefoth 1976; Karsch 1884: 50; Kataev 1968: 125; Kauschinger 1893: 131, 137; Kautsch 1921: 197, 1927: 165-167; Kazanskii 1928: 861-915; Keller 1903b: 46; Kellner 1880: 421, 1881: 368; Kemner 1913: 191-210; Keskinalemdar, Alkan, & Aksu 1987; Kholodkovskii 1912: 277, 311; Kilsbergarn 1980; King, C. J. 1979; Kirchner 1860: 91; Klauser 1954: 286; Kleiber 1930: 183; Kleiser 1859: 98; Klimesch 1923a: 165, 1923b: 130, 1924: 131, 1931: 40; Klimetzek 1978a, 1978b; Klopfer 1897: 31; Koberg 1969: 102-110; Kobzar 1968: 29-31; Koch 1906: 159, 1913: 111; Koehler 1958: 29; Kohnle 1984; Kohnle & Klimetzek 1984; Koizumi 1968: 110-116; Kollar 1840: 257, 357; Kolmodin 1915: 1-28, 217; Kolubajiv & Kalandra 1954: 27-44; Konig, E. 1950: 60, 1957: 99; Konig, E., Vite, & Bogenschütz 1981; Koning 1939: 2015; Kono & Tamanuki 1939: 88-96; Konopka 1871: 35; Kontkanen 1932: 59; Kopp 1949: 16; Koppen 1882: 233; Kosugi 1954: 146; Kovacevic 1924: 21-22, 1952: 64, 1957: 67; Kozikowsky 1929: 253; Krol 1980a; Krol & Bakke 1986: 437, 1988; Kruegel 1950: 6; Kudela 1946b: 349; Kudler, Pivetz, & Jancarik 1956: 100-105; Kudler et al. 1956: 100; Kuhn 1949: 245-350, 1949b: 64; Kungle 1954: 473; Kurenzov 1935c: 187, 195; Kurir 1947a: 161, 1947b: 162, 1948a: 29; Laidlaw 1947: 52; Landmark 1981; Lantelme 1948: 242, 1950: 195; Lanz 1975; Lauenstein 1966; Laus 1947: 7; Leach et al. 1937: 337; Leiska 1973; Lekander 1951b: 9-22, 1952a: 679, 1952b: 5, 1954b: 12, 1955a: 135, 1955b: 18, 1966, 1974b; Lekander & Langstrom 1975; Lekander & Rennerfelt 1955: 15; Lekander, M. 1951: 54; Letzner 1855: 142; Leufven & Birgersson 1987; Lie & Bakke 1981; Lignitz 1875: 232; Lindelow 1984; Lindelow & Iacobaeus 1985; Lindelow & Weslien 1986; Lindgren 1980a: 66; Lindgren et al. 1983: 310; Lindmo 1973; Loeffler 1854: 172; Lohrenz 1907: 45; Lorber & Novak 1967: 60-64; Loytyniemi et al. 1979; Lozovoi 1966: 1-90; Lozovoi & Tropin 1965, 1967; Lucas 1929: 501; Lugger 1899a; Luitjes 1957: 138; Lunden 1980; Madelin 1948: 460; Maksimovic & Boskovic 1962; Maksimovic & Milanovic 1964, 1966; Maksymov 1950: 554, 1968: 128-131, 1980; Maksymov, Jansen, & Jaggi 1982; Malenotti 1924: 1-60; Marcu 1926c: 67; Marie 1924: 328-330; Martinek 1952: 17-26, 1953a: 368, 1953b: 316, 1955: 125, 1956: 411-426, 1961, 1964, 1974; Mathiesen 1951: 205, 1952: 275; Mathiesen-Kaarik 1953: 6, 22; Matusevich & Maslov 1982; McFadden et al. 1982; McLaughlin 1971; Melnikova 1960: 19-45; Merker 1949a: 54, 1949b: 21, 1949c: 10, 1949d: 1, 1950b, 1952: 213-233, 1953: 138-144, 1955: 245, 1956a: 1-6, 1956b: 321, 1956d: 173, 1957: 1-140, 1958: 314, 1965: 1562-1570, 1967: 13-24, 1969; Merker & Adlmig 1957: 122-123, 1958: 325-334; Merker & Muller 1951: 16-20; Merker & Sattler 1952: 135-143; Metelmann 1951: 17-19; Meves 1887: 31, 1896: 154; Micklitz 1875b: 29; Milan 1952: 171-175; Mills & Schlup 1989; Mills, Schlup, & Fischer 1984; Mokrzecki 1925c: 43, 1928: 273, 1933: 275-289; Mracek 1985; Mrkva 1960: 409-418; Muller 1891: 52, 1912: 186; Mulock & Christiansen 1986; Mumford 1960: 29, 1962: 27; Nagasawa et al. 1968: 46-54; Nakashima & Suzuki 1965: 527; Nauman-Etienne et al. 1977; Nechleba 1928: 125-126; Nef & Janssens 1986; Nestertschuk 1930: 172; Niemetz 1952: 263; Niemeyer 1974: 289, 1975: 151, 1976: 138, 1978, 1982, 1985a, 1985c; Niemeyer, Schroder, & Watzek 1983; Niemeyer & Thalenhorst 1974; Niemeyer & Watzek 1977, 1982; Nilssen 1978a; Nilsson, A. 1984; Nilsson, S. 1974a: 32; Nishiguchi 1956: 69-73, 1962b; Nordlinger 1870b: 261; Nosek 1951: 106, 1952b: 96; Novak, V. 1955: 355-374, 1959b: 64, 1967, 1971, 1972a; Novak, V. & Flek 1954: 288; Novak, V., Hrozinka, & Stary 1976: 37; Novak, V. & Srot 1977; Nuorteva 1955b: 195-196, 1955c: 1, 1957a: 352; Nusslin 1912a: 293, 1913: 204; Odening 1948: 363; Ohnesorge 1953: 437, 1955: 278; Okstad 1979a, 1979c, 1979d, 1979e; Olofsson 1980; Opperman 1985; O'Sullivan 1979; Otto 1979, 1985; Ow 1947: 178, 1948: 153, 1949: 50; Packard 1890: 23; Palm 1948b: 214; Pawlowitsch 1883: 10; Peklo 1946: 329; Persson 1980; Pfeffer 1932: 1-23, 1940c: 273, 1942: 447-462, 1946a: 55, 1947b: 148, 1948a: 799, 1949: 145-159, 1950c: 1, 1952a: 159, 1952b: 1, 1957: 196-207, 1959: 555-560; Pierce, W. D. 1917: 66; Platzer 1957: 16; Pomocnicze 1876: 159; Pompe 1877b: 383, 1883: 187; Popovic 1931: 57; Postner & Wellenstein 1954: 431; Prace 1967: 185-211; Pschorn-Walcher 1966; Quaschik 1953: 3; Ragnander & Solbreck 1981; Rakhov 1961: 207-213; Ratzeburg 1871c: 81; Ravn 1985; Reay 1969: 50; Reckmann 1949: 11, 256; Regnander 1957a, 1957c, 1976, 1977; Regula 1955: 120; Reichstadt 1936a: 196, 1936b: 92; Reisch 1960; Rhumbler 1927: 324; Richter 1965a: 339-344, 1965d: 49-54, 1967: 821-825, 1973; Richter & Kohnle 1984; Rieck 1949a: 90, 1949b: 104-112; Risberg 1985; Risberg & Regnander 1984; Rodary 1959: 849; Rode et al. 1984; Rodzianko 1915: 1-15; Roediger 1988; Ronfeld 1922: 249; Rosenfeld 1919: 29-37, 1926: 37; Roth 1948: 281; Rössinagg

- 1979; Rudinsky 1960a, 1979a: 411, 1979c; Rudnev 1966; Ruhm 1958: 286; Ryle 1951: 179; Ryvkin 1951: 80–81; Saalas 1949: 344, 385; Sadovnikova 1980; Sajejyc 1928: 328; Sauerwein 1981; Sauerwein & Vite 1978; Sauvard, Lientier, & Levieux 1988; Schacht 1853: 311; Schedl 1928: 110, 1936a: 522, 1938b: 317, 1951n: 1; Schennikov 1979; Scheyyrew 1905b: 1108; Schimitschek 1931: 460–491, 1932a: 22, 1932c: 231, 1935a: 196, 1935b: 149, 1937c: 57, 1938a: 301, 1938b: 115, 1939b: 546, 1947g: 171, 189, 1948a, 1948b: 2, 1948c: 129–139, 1948d, 1948g: 16–26, 1949b: 159, 1949c: 14, 1950: 10, 1951e: 27, 1952a: 194, 1955a: 58, 62, 63, 1955b: 102, 1955c: 89, 1956: 340, 1957: 250–254, 1961a: 154; Schimitschek & Wienke 1966a, 1966b; Schindler 1948a: 247, 1969b: 136, 1969c: 1077–1078; Schlyter 1988; Schmidl 1875: 98; Schmidt 1881: 39; Schmutzenhofer 1976, 1985b; Schneeberg 1925: 495; Schneider-Orelli 1938: 289, 1948a: 76, 1948b: 72; Schneider-Orelli & Kulm 1948: 511; Schneider-Orelli & Maksymov 1949: 171; Schollmayer-Lichtenberg 1923: 353; Schonwiese 1937: 53, 1949: 185; Schulz 1873: 170; Schulze-Henne 1958: 359; Schuster 1918: 102; Schwappach 1904: 79; Schwappach et al. 1929: 186; Schwarz 1938b: 144, 1938c: 288; Schwerdtfeger 1944a: 170, 179, 1946a: 37, 1946b: 62, 1948b: 134, 1948c: 57–61, 1948d, 1948f: 152, 1949c: 382, 1950a: 61, 1950b: 60, 1954: 278, 1955b: 1, 1956a: 36, 1957a: 185, 1966: 243–244; Sedlacek 1921: 335, 1933: 307, 1936: 200; Seitner 1923c: 270; Selander & Nuorteva 1980; Sember 1929: 666; Severin 1902a: 81; Shavliashvili & Zharkov 1985; Shestakov 1927: 536–538; Shiraki 1952; Shirkaya 1961; Shishov 1928b: 673–676; Shkar-ednyi 1981; Siemaszko 1939: 1–54; Sierpinski 1954: 85–90, 1958: 68; Simionescu 1967a: 466, 1968: 22–26, 1970: 126–133; Sinreich 1958: 197, 1961: 165, 1962; Sitowski 1930: 1–13; Slander 1947c: 19, 1948: 4, 1953: 51, 1958: 150–158; Smeljanez 1969: 33–37; Soyka 1936: 133; Spaic 1955: 454, 1956: 88; Spiecker 1948: 233; Sponeck 1817: 316; Springer 1936: 201–202, 1936b: 178; Stebbing 1903: 229; Strobl 1947: 160, 1948: 58, 1948a: 5; Strohmeier 1950: 21; Svihra 1968a: 104–107, 1968b: 363–374, 1970b, 1972a, 1972b, 1972c, 1972d, 1972f, 1973a, 1973b, 1974a, 1974b, 1974c, 1974d, 1976b; Svihra & Rudinsky 1970; Szmidi 1960: 83; Tamañuki 1940: 261–263; Templin 1973: 104; Thalenhorst 1947: 65–67, 1948c: 23–25, 288, 1949a: 68, 1949c: 40, 1949d: 262–267, 1953: 16, 1955: 576; Thaler 1902: 277; Thielmann 1949: 256; Thurner 1885: 389; Titova 1966; Tomic 1957: 207–210; Torrent & Romanyk 1967: 81, 1968; Tragardh 1917: 28, 1918c: 102, 1919: 154–174, 1920: 1–6, 1924: 311–338, 1927c: 79, 1936a: 145, 1938a: 12, 1941: 120; Tragardh & Butovitsch 1936: 555, 1937: 292, 1938: 192; Trauboth 1985; Trebra 1783: 78; Trofimov 1979; Troitskii 1968: 40–43; Tubeuf 1933: 193–242; Tullgren 1916: 104; Uchida & Nakashima 1961: 150–168; Ulrich 1951b: 234, 1954a: 179, 1954b: 491; Vajda 1949: 271; Vappula 1965: 153; Vasechko 1964; Vasiliev 1913: 1–99; Vaupel 1986; Vaupel, Dimitri, & Vite 1981; Vaupel & Dubbel 1985; Viebig 1948: 175; Villasenor 1966; Vite 1950: 121, 1956: 59, 1961, 1965b: 438–439, 1984a, 1989; Vorontzov 1968; Voute 1950b: 1, 1960: 946; Wachtl 1883b: 319, 1901: 379, 381; Wagner 1950: 274, 1954a: 95, 1954b: 227, 1954c: 167, 1954d: 191; Wahl & Muller 1931: 1–70; Walker, C. & King 1974; Wardle 1929: 322; Weber, H. 1926: 574; Weiser 1954: 217–224, 1963b; Weiss 1922: 71; Welander 1916: 521; Wellenstein 1942: 337–347, 1951a: 1, 1952a: 688, 1952b: 39, 1954: 11; Weslien 1966; Weslien & Byland 1989; Weslien & Lindelow 1989; Weslien et al. 1989; Westerboer & Bernard 1963: 530; Whistling 1949: 224; Wichmann 1927b: 350; Wilczok 1975; Wilke 1931: 583, 620–657; Witzall 1949: 6; Wolff & Krausse 1922: 99; Wolffe 1948a: 56, 1948b: 259, 1949: 479, 1951: 169; Worrell 1983b; Yanagisawa 1952: 103–116; Yogo 1958: 143–146; Yoshida et al. 1986; Zehnder 1948: 286; Zhuravlev & Osmolovskii 1949: 52; Zieger 1948a: 376, 1950a: 89, 91, 1950b: 35, 1953: 317; Zinovjev 1958: 379–393; Zolk 1935: 258–294; Zumr 1981, 1982e, 1987b; Zumr & Landa 1985; Zwolfer 1949: 399, 1960, 1962, 1963. (cc) Aichele 1949; Alexandrov 1958; Alfken 1924; An 1979; Anderbrandt 1986, 1988c; Anderbrandt & Schlyter 1989; Anderbrandt, Schlyter, & Birgersson 1985; Andreev 1988; Annila 1969, 1971: 12, 1975: 11, 1977; Annila & Perttunen 1964: 42; Annila & Petaisto 1978; Antoine 1935: 264; Apfelbeck 1916b: 429–439; Arambourg 1964: 115; Arefjev 1974; Arnold et al. 1955: 722; Ass & Funtikov 1941; Aubert 1947: 80; Austara, Pettersen, & Bakke 1977; Austara et al. 1983; Badoux 1918; Baisch 1954: 324; Bakke 1956a: 40–42, 1960: 307, 1979a, 1983b; Bakke & Austara 1973, 1978; Bakke, Austara, & Pettersen 1977; Bakke & Kvamme 1978, 1981; Bakke & Pettersen 1977; Balazy 1962, 1965a, 1965b: 303–331, 1968: 657–687; Balazy & Kielezewski 1965: 7–18; Balazy & Michalski 1960, 1962b, 1964a; Balazy et al. 1964: 17, 1967: 201–205, 1977; Baltensweiler 1985; Barbey 1927; Batra 1963a; Bedus 1946; Belanovskii 1930; Bender 1948; Beran 1933, 1936; Berryman 1987, 1988; Berwig & Schuhly 1964; Biermann 1977; Birgersson 1989; Boas 1901; Bombosch 1954: 239; Boucek 1958; Boucek et al. 1953: 145–158; Boverly 1970; Braummanis 1938, 1940: 257–340; Brauns 1940: 257–340, 1950a; Brehm 1829; Butovitsch 1939, 1941, 1971, 1977; Buttner 1956; Byers 1989; Callahan & Shifrine 1960: 146; Carpelan 1944; Chararas 1956b, 1957a, 1957d, 1958b, 1958c, 1959a, 1959b: 1407–1410, 1959c: 113–129, 1959d: 135–167, 1959e, 1959g: 214–233, 1960b: 30, 1960c: 82–96, 1961: 49–109, 1962f; Chararas et al. 1982: 1094; Christiansen 1985, 1988: 439; Christiansen

- & Bakke 1988, 1989; Christiansen & Hornvedt 1983; Christiansen & Inse 1980; Cooreman 1963: 46; Courtois, Chararas, & Debris 1961a: 2608–2609; Davidson 1958; Davidson, Franke-Grosman, & Kaarik 1967; de Jong & Grijpma 1986; de Jong & Sabelis 1988; DeLeon 1935a, 1935c; Eck 1978; Elnstrom 1963a; Eidmann 1965c, 1974b; Elliot & Morley 1907; Escherich 1942: 621, 651, 656; Felix, Uhrenholdt, & Parmeter 1971: 1697; Filipasen 1960; Finger 1829; Fleischer 1875c, 1877a; Forsse 1987; Forsslund 1941; Franke-Grosman 1931, 1959, 1967: 928–932; Frickhinger 1921; Fry 1989: 17; Fuchs 1914a, 1914b: 688–692, 1929a, 1937, 1938; Fuhrer 1985; Furniss, M. M. 1968: 1384–1389; Furniss, M. M. & Livingston 1979: 370; Furniss, M. M., Solheim, & Christiansen 1988: 430; Gabler 1947b: 113–115, 1953a: 55–62; Gahan 1938; Cal et al. 1985; Galoux 1947b, 1947c, 1947d, 1948a; Gauss 1954a: 423; Gauss & Wellenstein 1950; Gavelis, Jakaitis, & Valenta 1984; Gavelis & Valenta 1976; Georgijevic 1962; Geschwind 1918: 387–395; Giraud 1872; Giraud & Laboulene 1877: 414, 427–428; Girc 1963; Graham, M. W. R. 1969: 880; Graham, S. A. 1920, 1921; Gries & Sanders 1984b; Grossmann 1930: 56–102, 1931a; Grunwald 1986; Guillaume 1950; Guse 1883; Györfi 1941b, 1943: 84, 1952b, 1962; Haarlov & Bejer-Petersen 1952; Hadorn 1948a; Haeselbarth 1967; Hammer 1826; Hansen, K. 1983; Hansen, T. E., Viik, & Luik 1980a, 1980b; Harding & Ravn 1985; Hartig 1832: 280, 285; Hartl & Mills 1983; Hase 1948; Heliövaara & Lilja 1989; Henningsson & Lundstrom 1974; Henze 1943; Heqvist 1955b, 1957a, 1957b: 42, 1963: 155, 1965: 23; Heuer & Vite 1984a; Hierholzer 1954a: 329; Hirschmann 1960, 1971a, 1971b; Hirschmann & Ruhm 1953, 1954b, 1983; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zirmgiebl-Nicol 1961; Holst 1937; Hornvedt 1983, 1988; Hubault 1923a; Ighii 1939: 191; Ilmadze 1978; Inouye 1954: 168; Inouye & Nobuchi 1959b: 38, 41; Inouye & Yamaguchi 1955a: 212, 235, 1955b; Inouye et al. 1955: 68; Jahn & Sinreich 1960a: 119; Jakaitis 1979a: 145; Jakaitis & Valenta 1979; Jammicky 1953, 1954, 1957b: 13, 18, 1957c, 1961b: 271; Johnson, Wright, & Orr 1961: 3; Joly 1949a: 7; Jong & Grijpma 1986: 121; Kakuhiya 1971; Kalandra 1948: 33–38, 1960, 1962; Kangas 1939, 1946b: 21, 1954a: 48, 1954b, 1958a: 195, 1958c: 93; Kapuscinski 1948: 72, 1950: 150; Karpinski 1932a: 100; Karsch 1884: 50; Kaya 1984; Kendrick 1962: 779; Kholodkovskii 1897: 118; Kielczewski 1966, 1976; Kielczewski & Bakazy 1966, 1967: 161–163; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1977a, 1978, 1980a, 1980b, 1983; Klausner 1954: 286; Kleine 1908c: 214, 1909a: 48, 76, 1944: 69; Knoche 1907b: 476, 1908b: 245; Kohnle 1984; Kokueva 1900: 569; Kolmodin 1915: 217; Kolubajiv 1954: 12, 40, 1958: 81–89; Kolubajiv & Kalandra 1954: 30; Komarek 1925b: 858; Komarek et al. 1931: 1–256; Korenchenko 1980a; Kosarievskaya & Mamajev 1962: 450; Kostin 1964: 123; Koyama 1963; Kraemer 1950b: 376, 1953: 172–175; Krivosheina 1974; Krol 1980a; Kuhn 1949a: 245; Kuzenkov 1934a: 51, 1964: 20; Kvamme 1985: 50; Langewald 1989; Lavaszky 1941: 195; Leach et al. 1937: 357; Leufven, Bergstrom, & Falsen 1984, 1988; Leufven & Nehls 1986: 237; Leufven et al. 1984; Lie & Bakke 1981; Lieutier 1978, 1979a, 1979c; Lieutier et al. 1988; Lindmo 1973; Lindquist 1969c; Lindquist & Bedard 1961; Lindquist & Hunter 1965; Lovaszky 1941: 194–204; Lovendal 1890a: 145; Lozovoi & Tropin 1965, 1967; Lu et al. 1957: 336; Luik 1977, 1986; Luik, Khansen, & Viik 1980; Luitjes 1976; Lmdberg 1984; MacLeod 1954: 59; Madziara-Borusiewicz & Strzelecka 1977; Mahunka 1968; Mahunka & Moser 1980, 1982; Martinek 1977; Mathiesen 1951: 205, 1952: 275; Mathiesen-Kaarik 1953: 6, 22, 1960c; Matusevich & Maslov 1982; McAlpine & Morge 1970: 1564; McLaughlin 1971; Melnikova 1958: 240–244, 1960; Merker 1952: 1, 1956a: 168, 1960, 1965a; Merker & Adlung 1957: 122, 1958: 325; Merker & Wild 1954: 453; Meyer 1918: 178; Michalski & Ratajczak 1989; Mills 1985, 1986; Mills & Schlup 1989; Mills, Schlup, & Fischer 1984; Moore 1973: 54; Moser, Eidmann, & Regnander 1989; Moser & Bogenschutz 1984a, 1984b; Moser, Perry, & Solheim 1989; Mozolevskaia, Lebedeva, & Galaseva 1979; Muesebeck 1936: 11; Naumann-Etienne et al. 1977; Nechleba 1928b: 126, 1928c: 111, 1929a: 26; Nef & Janssens 1986; Niemeyer & Thalenhorst 1974; Nikitink 1951: 60, 1952: 41; Nishiguchi 1959: 271, 1962b, 1970; Nosek 1951: 106, 1952b: 96, 1959b: 67; Novak, P. 1952: 417; Novak, V. 1957: 423–436; Nunberg 1930: 201; Nunberg & Wiackowski 1958: 130; Nuorteva 1956a: 17, 1957a: 352, 1957b: 52, 1959d: 193, 1967a, 1968a, 1971: 69; Nusslin 1927: 324; O'Conner & Moser 1985; Ogibin 1973a, 1973b, 1973c, 1974; Okolow 1963; Okstad 1979b; Olofsson 1980; Otto 1985; Palmén 1946: 195; Peklo 1946: 329; Peklo & Satava 1949: 336; Peklo et al. 1950: 190; Perris 1956a: 178; Pettersen 1976a, 1976b; Pfeffer 1923a: 332, 1932a: 7, 1943b: 179, 1950c: 1, 1957a: 196, 1959: 2; Pfeffer & Pihoda 1950: 1; Pohl-Apel & Renner 1987; Poinar 1975: 164; Prell 1925b: 166, 1926: 70; Prossinagg 1979; Purrini 1977a, 1978a; Purrini & Weiser 1985; Quaschik 1953: 3; Ramade & Lieutier 1974; Ratzeburg 1869a: 59, 78; Ravn 1985; Redikortzev 1947: 247; Reid 1955: 316; Reich 1972; Rennerfelt 1951: 133; Richter, D. 1973; Rodary 1959: 849; Rondani 1873: 140; Rosenfeld 1919: 30; Ruhm 1956b: 4, 1957: 351; Rumbold 1936: 419; Rummukainen 1954: 16; Ruschka 1924: 6–16; Saalas 1917a: 18, 1928: 649, 1930: 118, 1949: 344, 385, 1951: 13; Sachtleben 1952: 137; Salt 1963; Samsinak 1960; Schaar-

- schmidt 1959: 782; Schedl 1936f: 149; Scheucher 1959: 263; Schimitschek 1930a: 258, 1931b: 462, 1932c: 231, 1935a: 196, 1936a: 559, 1948c: 129, 1948d: 12, 1948e: 97, 1950: 10, 1952a: 194, 1953b: 43, 526, 1955a: 58, 62–63, 1957: 252, 1964c: 140, 1964e, 1967; Schindler 1950: 503; Schlup 1987; Schneider-Orelli 1913: 32; Schopf 1989; Schoyen 1947: 293; Schroeder & Eidmann 1986; Schuster 1918: 102; Schwenki 1961: 132; Schwerdtfeger 1929: 336, 1944a: 170, 177, 1950a: 61, 1950b: 60, 1957a: 185, 1967: 343–344; Sedlacek 1908: 53, 1921: 334–339, 1933: 307, 1935a: 154; Seitner 1923a: 1, 1924: 2; Sellenschlo 1986; Shepherd 1966: 515; Shifrine & Phaff 1956: 41; Silvestri 1911: 395; Simionescu 1967a: 255–259; Simon 1981; Sitowski 1930: 2, 1933: 383–388; Sittig 1948: 233; Slander 1958: 151; Slobodianiuc 1973; Smelyanets 1969; Smetana 1958: 95; Sokanovskii 1936: 74; Solheim 1986; Stammer 1933: 152, 1934: 197; Stark 1925b: 80; Steiner 1920: 381; Stolina 1959: 216; Stora 1938: 20; Struble 1930b: 116; Sunfor 1979; Svihra 1967: 213–214, 1968b, 1974d; Szezepanski 1960a: 409; Tenkacova & Mituch 1987; Thalenhorst 1949b: 194, 1949d: 262, 1958: 1–126; Thompson, W. R. 1943i: 59; Thompson, W. R. & Simmonds 1964: 24, 1965: 25; Thomson, H. M. 1960: 353; Titova 1966; Tommeras & Mustaparta 1984b; Tragardh 1925a: 171, 1927a: 208, 1936a: 145, 1941: 120; Tsankov & Rosnev 1978; Tvermyr 1967: 485; Uchida & Nakashima 1961; Ulrich 1948: 244, 1954a: 179; Van Zwaluwenburg 1928: 14; Vasechko 1971b; Vietinghoff 1924: 328; Vite 1952a: 101, 1952b: 197, 1955: 1333–1336; Vitzthum 1923: 151; Voute 1957: 174; Wagner 1954a: 95, 1954b: 227, 1954d: 191; Webb 1945: 70; Weiser 1954: 217, 1955: 374, 1961a: 328, 1963a: 315, 1969; Westerboer 1963: 349; Wettstein 1951: 44, 55; Wiackowski 1957a: 80, 1958: 174; Wichmann 1952b: 23, 1953a: 107, 1953b: 57–63, 1954b: 60–66, 1954d: 433, 1955a: 94, 104, 1956: 58, 1957c: 64, 1958: 231–235, 1962b: 23, 1967; Wild 1953: 121–176; Wilke 1931: 583, 620–657; Wingfield, van Wyk, & van Wyk 1989; Winter, K. 1980; Wisniewski 1979b; Woodring & Moser 1970; Wulker 1923: 435; Yamaguchi & Koizumi 1967: 113–134; Yasumatsu & Watanabe 1965: 69; Zabek & Zareba 19...: 59; Zinecker 1957: 99; Zinovjev 1957: 330, 1958: 382; Zumr 1983a, 1985b, 1986b. (hb) Adeli 1964: 395; Altum 1879c, 1881c: 287, 1883b, 1883c, 1883d, 1888b, 1889c; An 1979; Anderbrandt 1985, 1986, 1988a, 1988b, 1989; Anderbrandt & Lofqvist 1988; Anderbrandt & Schlyter 1989; Anderbrandt, Schlyter, & Birgersson 1985; Anderbrandt, Schlyter, & Lofqvist 1988a, 1988b; Annila 1969, 1971, 1977; Annila & Nuorteva 1977; Annila & Petaisto 1978; Anonymous 1948k: 1, 1950a: 99, 1972b, 1973d; Apfelbeck 1916b, 1917; Arnberg, Lekander, & Wastensson 1973; Austara & Midtgaard 1986; Austara & Pettersen 1977; Austara, Pettersen, & Bakke 1977; Bach 1864; Bakke 1960, 1976; Bakke & Austara 1973; Bakke, Austara, & Pettersen 1977; Bakke & Pettersen 1977; Bakke & Riege 1982; Bakke & Strand 1981; Balachowsky 1963a: 1243; Balazy 1968; Barbey 1901: 24, 82, 1913, 1922b, 1925: 61, 1942; Bargmann 1897, 1899; Becker 1950; Beffa 1949, 1961; Behlen 1826; Bejer-Petersen 1957, 1976; Beran 1936; Berg 1827; Berryman 1988; Berryman, Stenseth, & Isaeu 1987; Bielz 1851; Biermann 1977; Blanchere & Robert 1889; Block 1776; Boas 1923: 344, 1933: 268–280; Bonnemaision 1953; Borcea 1924; Borgmann 1907: 513–518, 1908: 133–134; Borodajewsky 1928, 1929b, 1930a, 1930c; Botterweg 1982, 1983; Brandt 1948, 1960: 135; Braum 1941c; Brehm 1829; Browne, F. G. 1968b: 368; Browne, J. M. B. & Bevan 1966; Budge 1949; Budkov 1897; Butovitsch 1930b, 1939; Byers 1984a; Byers & Lofqvist 1989; Ceconi 1906, 1924; Cederholm 1981; Chararas 1956c, 1957e, 1958a, 1962c: 164, 1977b, 1980a; Charvat 1950, 1951; Chevandier 1851b; Chittenden 1890; Chorbadzhievo 1929; Christiansen & Bakke 1988; Cogho 1874a, 1875b, 1875c, 1875d, 1876a, 1876b; Dombrowsky 1887, 1892; Duelli, Studer, & Naf 1986; Eckstein 1889, 1897, 1915, 1917, 1926: 572, 1928, 1935, 1936, 1939b, 1939c; Eckstein, F. 1939; Eichhoff 1881a: 49, 219, 1882a: 241, 1882e: 321, 1883e: 50, 1889: 154; Eidmann 1965b, 1974b, 1983; Eidmann & Klingstrom 1976: 251; Escherich 1914: 113, 170, 311, 1923b: 429; Eulefeld 1905; Everts 1900; Feisthamel 1835; Feytaud 1946, 1950a; Fishbach 1875; Fisher 1931; Fleischer 1875c, 1877a; Floericke 1924; Flohrer 1948; Forsse 1987, 1989; Forsse & Solbreck 1985; Franz, J. 1948e: 426, 1950: 51, 1954; Franz, M. 1877; Froggatt 1889; Fuchs 1904a, 1905c: 339, 1907: 12, 48, 1911b; Funke 1875a, 1875b; Furst 1888: 109; Furuta et al. 1985; Gabler 1948a, 1948b, 1955; Galoux 1947a, 1948a; Girard 1873: 8; Gmelin 1787a; Gornostaev 1916: 311, 1917: 308–315; Grandi 1951; Gries 1984a, 1985; Guse 1883; Gyorfi 1957; Hagedorn 1903a; Hallgren, Lekander, & Lonner 1972; Hammer 1826; Hansen, T. E., Viik, & Luik 1980a, 1980b; Harding & Ravn 1985; Hartig 1811: 320, 327, 1820: 320, 327, 1832: 280, 285, 1861: 325, 330, 1877: 192; Helland, Anderbrandt, & Hoff 1989; Helland, Hoff, & Anderbrant 1984; Helmbacher 1924; Henneguy 1804: 175; Hennings 1907a: 327, 1907b: 221–222, 1907c: 603, 1908a, 1908b, 1908c: 220, 1908d; Henschel 1876a: 45, 238, 1895a: 187; Herlein 1878: 93–98; Hess 1898: 332, 1907: 238; Hess & Beck 1914: 269, 1927: 325; Hierholzer 1951a; Holmgren 1867: 113, 129; Hufnagel 1887: 512; Hufnagel & Puzyr 1951: 108, 110; Imonye 1954: 168; Imonye et al. 1955: 68; Itzerott & Wellenstein 1954: 467; Jaensch 1938: 47; Jannicky 1961b: 271; Jansen 1979; Jester 1817; Johnson & Pettinger 1961b: 2; Joly 1949a: 7, 1976; Jong & Sabelis 1989; Jotland 1975a; Judeich

- 1875b: 74, 1876b: 254, 1880: 156, 1886: 63; Judeich & Nitsche 1895: 506; Kalandra 1960: 345–364, 1962, 1966; Kangas 1940b, 1954b; Karner & Kliefoth 1976; Karpinski 1933b: 37; Karpinski & Strawinski 1948: 157; Karsch 1883: 141; Kanschinger 1883: 97, 101; Keller 1907a: 179; Kellner 1875a: 641, 1876a: 40, 1876b: 191, 1880: 421, 1881: 368; Keskinalemdar, Alkan, & Aksu 1987; Kholodkovskii 1889: 263, 1912: 277, 311; Kirkendall & Stenseth 1989; Knoche 1905: 354, 1907a: 219, 1907b: 476, 1907c: 75, 1907d: 285, 1907e: 50, 1908a: 44; Knotek 1894a: 558, 1897: 151, 1898b: 326; Kobzar 1968a; Koch 1909: 319; Kollar 1840: 257, 357; Komarek 1925a: 101, 1950: 110; König, E. 1957: 99; Kostin 1960: 135; Kraemer 1950b: 376, 1953: 463; Krivolutskaya 1956: 836, 1960; Kuhn 1949: 245; Kurenzov 1935a: 42, 1948b: 107, 1950d: 214; Landin 1952: 24, 99; Lekander 1959a: 84, 1959b: 50; Lengerken 1939: 68, 1954: 89; Lentz 1857: 139; Liese 1950: 140; Lindelow 1984; Lindelow & Weslien 1986; Lindemann 1881a: 233, 1882b: 189; Lindgren 1980a: 66; Loeffler 1854: 172; Lohrenz 1907: 45; Loos 1913: 411; Louzil 1961: 46; Lovendal 1890a: 145; Lozovoi 1966; Lozovoi & Tropin 1965, 1967; Luggler 1899a; Luik 1977, 1986; Luik, Khansen, & Viik 1980; Luitjes 1976; Lunardon & Leonardi 1889: 461; Lunden 1980; Lyyk 1977; MacDougall 1900b: 328, 1925: 1–37; Madon 1930: 99; Magema, Gaspar, & Severin 1982; Makashimi & Suzuki 1965; Maksymov 1950: 554; Mandel 1953: 172–175; Mareu 1926c: 67, 1930: 327–336; Marcus 1930: 609–677; Martinek 1955: 125, 1956: 615, 1957a: 696, 1957b: 281; Maslov & Demakov 1982; Masutti 1981; Melnikova 1960; Merker & Adlung 1957: 122, 1958: 325; Mills 1986; Mills & Hartel 1984; Morstatt 1924: 21; Mozolevskaya, Lebedeva, & Galaseva 1979; Munro 1926: 69; Nakashima & Buzuki 1965: 66; Naumann-Etienne 1978a; Nilssen 1984; Nishiguchi 1962a, 1970; Nordlinger 1856: 17, 1870a: 186, 1870b: 261; Nosek 1959b: 87; Novak, V., Hrozinka, & Stary 1976: 37; Numberg 1946b: 3; Nuorteva 1956c: 23, 1967a, 1968a, 1970; Nusslin 1898: 275, 1904: 2, 1905a: 84, 1905b: 451, 1906a: 50, 1906b: 4, 1906c: 344, 1907: 608, 1913: 204, 1927: 324; Ogibin 1973a, 1973b, 1973c, 1974; Ohnesorge 1953: 437, 1955: 278; Oken 1836: 1677; Okstad 1979d; Orest 1927: 59; Ow 1948: 153; Packard 1890: 23; Pauly 1894: 376, 1906: 160; Perris 1856a: 178; Pettersen & Austara 1975; Pfeffer 1932: 1–23, 1941c: 2, 5, 1952a: 159, 1989a: 76; Polster 1948a: 164, 1948b: 361; Postner 1974: 455; Prell 1930c: 627, 1931: 364, 1949: 1–49; Quaschik 1953: 3; Qui & Huo 1958: 264; Ratzeburg 1837: 131, 139, 1839: 158, 169, 1871c: 81; Ravn 1985; Regnander 1975a, 1975e, 1977; Reh 1900a: 94; Reid 1955: 316, 1956: 16; Rey 1892a: 18; Rhumbler 1927: 324; Rimski-Korsakov et al. 1949: 264; Roediger 1988; Rozhkov 1970: 154; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 67, 89, 1916: 91–95, 1919: 1–415, 1949: 344, 385, 1951: 13; Sanders 1984, 1987b; Sandhall 1975; Sanerwein 1981; Schedl 1935c: 40; Scheyvrew 1905b: 1108, 1905c: 192; Schimitschek 1930a: 258, 1938a: 301, 1948c: 129, 1955a: 58, 62–63; Schindler 1950: 503; Schlup 1987; Schlyter 1984; Schlyter & Cederholm 1981; Schlyter et al. 1984; Schmidt 1881: 30; Schnaider 1954: 171; Schnaider & Sierpinski 1955: 60; Schneider-Orelli 1913: 32, 1947b: 157, 1947e: 89; Schopf 1985, 1989; Schwappach et al. 1929: 186; Schwenke 1962: 137; Schwerdtfeger 1929: 336, 1944a: 170, 179, 1957a: 185, 1981: 191; Sedlaczek 1921: 335, 1935a: 154; Segolson 1975; Seitner 1923a: 1, 1923b: 149; Severin 1902a: 81; Shepherd 1966: 515; Shishov 1928a: 673; Shkarednyi 1981; Silvestri 1911: 395; Simionescu 1967b, 1968, 1978; Simon 1981; Slander 1958: 151; Solbreck 1985; Spessivtsev 1913a: 75, 1921b: 222, 1923: 206, 1934: 207, 1938: 160; Stanek 1969: 257; Stark 1927a: 15, 1952: 402; Stebbing 1903a: 229, 1909b: 13, 1911a: 2; Stenseth & Kirkendall 1989; Stolina 1970; Svihra 1970a, 1972e, 1974b, 1974d; Taschenberg 1880: 220; Thalenhorst 1958: 1–126; Tragardh 1914: 93, 1927c: 79, 1930c: 469, 1931: 56, 1939b: 135, 203; Tragardh & Butovitsch 1935: 1–268; Trauboth 1985; Trebra 1811: 11; Tredl 1908b: 137; Tschorbadjiev 1925: 57–61, 1929: 174; Uchida & Nakashima 1961; Vasechko 1971a, 1971b, 1978a, 1978b; Vite 1952a: 101; Vite & Pitman 1967: 683–701; Voute 1950b: 1; Wachtl 1876a: 452, 1901: 379, 381; Wang 1982; Weber 1926: 574; Weslien & Bylund 1988; Weslien & Lindelow 1989; Wichmann 1927b: 350; Winter, K. 1980; Wolff & Krausse 1922: 99; Zinecker 1957: 99; Zinovjev 1957: 330, 1958: 382; Zumr 1982a, 1982b, 1982c, 1982d, 1982e, 1983a; Zumr & Soldan 1981. (ds) Acloque 1896, 1914; Alfken 1924: 365; Ammann & Knabl 1913, 1923; Andersch 1851; Androie 1966: 48; Anonymous 1928c: 202, 1976j, 1977r, 1978i, 1979p; Arru, Covasse, & de Bellis 1966: 32; Audras & Schaefer 1957; Bain 1974: 17; Bakke 1960a: 306, 1960b: 357; Bakke & Kvamme 1977; Balachowsky 1943a, 1944b; Balazy & Michalski 1960; Balogun 1970: 226; Barbey 1922b; Barthe 1896; Bau 1888; Beck 1817; Bedel 1888b: 401, 417; Beffa 1949; Behlen 1826; Bejer-Petersen & Jorum 1977: 28; Belonsov 1916, 1917: 335; Benick 1921; Benz 1985; Berg 1827; Berryman 1988; Bielz 1887; Blanchere & Robert 1889; Boas 1923: 344; Borcea 1924; Borchert 1951; Brakman 1954, 1966b: 206; Branesik 1871, 1906; Brandis 1890: 185; Browne 1968: 368; Brundin 1934; Bucking 1932; Budkov 1897; Buresh & Lazarov 1956; Calver 1884, 1893; Carpelan 1944; Cecconi 1902, 1906; Chapuis & Candeze 1853; Chararas 1961b: 70, 1961e: 94; Charvat 1950; Chittenden 1890; Cho 1955, 1957; Choo 1983: 95; Choo & Woo 1985: 165; Chorbadzhievo 1924d, 1929; Christiansen & Bakke 1988;

- Christiansen & Huse 1980; Chrystal 1937; Credler 1868; Crooke 1955c, 1962; Crooke & Bevan 1957; Debatisse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1925; Dzhabbazhivili 1959, 1961b: 1253; Eder 1934; Eggers 1904, 1912f; Eidmann 1974b; Elton 1951; Elton & Voute 1950; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 429, 485, 575, 1932b; Esterberg 1928, 1959; Everts 1900, 1925; Favre 1890; Feige 1918; Ferguson 1920; Fleischer 1921b; Forster 1849: 439; Fowler 1891; Frey 1937; Fricken 1889: 343; Fuchs 1904a, 1905a, 1905c: 339, 1907: 12, 48, 1913, 1920: 109–222; Gabler 1949b; Gail 1906; Gaubil 1849: 126; Gaunitz 1928: 92; Gauss & Wellenstein 1900; Gemminger & Harold 1872: 2691; Geschwind 1918; Gobang 1855: 745; Goetze 1777: 130; Gomostaev 1917; Gozis 1875: 80; Gradojevic 1933; Gredler 1866: 373, 1869: 73; Greyerz 1851; Grill 1895: 310; Grouzelle 1905; Guse 1893; Gyllenhal 1827: 620; Gyorfı 1941b, 1962: 212; Hagedorn 1903a, 1910d: 60; Hansen, V. 1939, 1956, 1964: 465; Heikertinger 1954; Heinemann 1908a; Hellen 1947; Heller 1851: 173; Hennig 1954: 257; Henschel 1895a: 187; Heyden 1876: 300; Heyden, Reitter, & Weise 1903: 182, 1906: 712; Hickin 1963; Hirsch 1930; Hlawa 1870; Hoffmann 1952a: 104; Holdhaus & Deubel 1910: 181; Holmgren 1867: 129, 113; Holz 1946: 81; Horion 1949, 1951; Hubault 1923b; Ihssen 1939: 336; Ishikura 1966; Jablokoff 1953: 325; Jablonski 1869: 285; Jahn & Sinreich 1960: 119; Jammicky 1960a; Jazentkovsky 1912: 290, 1922: 7–9; Jenistea 1933: 123, 1934: 61; Joly 1949b: 253, 1976; Judeich & Nitsche 1895: 506; Kadyro 1988: 43, 1989; Kaltenbach 1874: 685; Karpinski 1925: 217, 1926: 83, 1931: 35, 1932a: 100, 1933b: 37, 1948b: 231; Karpinski & Strawinski 1948: 157; Keler 1922b: 211, 1923: 41–45, 1925b: 273; Kellner 1876b: 191; Kester-canek 1881a: 12; Kevan 1946: 241, 1949: 30; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 128, 212, 262, 264, 268, 1913a: 35, 1913b: 128, 1914b: 248, 257, 1934a: 151; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558, 1898b: 326; Ko 1969: 280; Koltze 1901: 153; Kolubajiv 1934: 64; Komarek 1925b: 858–865, 1950: 113; Kontkanen 1932: 59; Koppen 1882: 233; Kovacevic 1957: 67; Kraatz 1869: 59; Krausse 1910: 171, 1911: 67; Krivolutsкая 1956: 836, 1960, 1983; Kndela 1946a: 332; Knilm 1949a: 245; Kurenzov 1934a: 57, 1935a: 42, 187, 195, 1936a: 111, 1936b: 351, 1938a: 59, 1950: 214, 1951b: 19, 1964: 20, 1965, 1967; Kurir 1947c: 7; Lacordaire 1866: 383; Langhoffer 1915c: 158; Leclereq 1971; LeConte 1846: 162; Lekander 1955b: 18; Lennon & Douglas 1892; Letzner 1855: 142; Li, Shi, & Ao 1984: 48; Liegel 1886: 43; Liese 1950: 140; Lindberg & Saris 1952: 59; Lindemann 1883: 189–194, 1884b: 264; Limaniemi 1935: 46; Lokaj 1868: 64; Lonnicki 1886a: 243, 1913b: 148; Loos 1913: 411, 1919: 283–288; Lovendal 1890c: 211; Lucht 1987: 279; Luitjes 1957: 138; Lunardonı & Leonardi 1889: 461; Lundberg 1974: 92, 1979: 31; Lundblad 1950c: 117; Marchant & Borden 1976; Matthews & Fowler 1883: 42; Meinert 1887: 70; Mequignon 1936: 15, 25; Merker 1956b: 321; Meves 1888a: 12; Michalski 1957: 167; Miller 1868: 27; Mokrzecki 1923: 1–32, 1925: 1–7, 1928: 273; Muller 1776: 56; Mumford 1960: 29, 1962: 27; Munro 1921: 88; Munster 1928: 290; Murayama 1929b: 2, 1929c: 23, 1930a: 4, 1930b: 15, 1936b: 117, 1937b: 371–374, 1939: 142, 1942a: 56, 1948: 6, 1950b: 1294, 1954b: 171, 1957a: 37; Nakane et al. 1963: 383; Negru 1966b: 403, 1968a: 457; Neuzilova 1956: 273–275; Nobuchi 1966d: 36; Normand 1937: 269; Novak, P. 1952: 417; Nunberg 1927a: 213, 1928a: 88, 116, 1954: 85, 1955a: 30; Nuorteva 1955a: 30, 1955b: 195, 1956b: 168, 1971: 68; Nusslin 1898: 275; Orest 1926c: 67; Pacher 1853: 49, 1865: 152; Palm 1946: 122, 1948a: 76, 91; Palmen 1946: 195; Penecke 1927: 235; Perris 1876a: 254, 1877a: 414; Pfeiffer 1924b: 472, 1931b: 75, 1936: 90, 1942c: 447, 1947e: 2, 1950b: 73, 1989a: 76; Pierce, W. D. 1917: 66; Pittioni 1943: 175; Platonoff 1940: 11, 1943: 141; Plaza & Gil 1982: 250; Pomerantzev 1907b,x, 423, 493; Poppius 1900: 108; Postner 1974: 455; Prediger 1888: 272; Rapp 1934: 731, 1969: 345–348; Ratzburg 1837: 131, 139, 1839: 158, 169; Redtenbacher 1858: 834, 1874: 377; Reitter 1869b: 154, 1894a: 80, 1916: 303; Revy & Siroki 1942: 82; Rimski-Korsakov et al. 1949: 264; Roemer 1879: 40; Roubal 1941: 273; Rozhkov 1970: 154; Ruskov 1928c: 61; Ryle 1951: 179; Saalas 1913a: 67, 89, 1917a: 18, 1930: 118, 1931: 69; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 448; Schaschl 1854: 133; Schaufuss 1915: 1248; Schaum 1859: 96, 1862: 101; Schedl 1952f: 87, 1953e: 22, 1964a, 1980a: 28 1981b: 91; Scheerpeltz & Winkler 1930: 258; Schenfelt 1960: 542–546; Schilsky 1909: 188; Schimitschek 1938a: 301, 1938b: 115; Schiodte 1873: 102; Schreiner 1897: 369; Schwerdtfeger 1981: 191; Seidl 1876: 4; Seidlitz 1872: 395, 1891a: 565, 1891b: 611; Sharp & Fowler 1893: 34; Shiraki 1952; Siebke 1875: 284; Simionescu 1967a: 466; Sokanovskii 1936: 74, 1960; Spahr 1981; Sparre-Schneider 1889: 61; Stanionyte, Jakimavicius, & Jonaitis 1979: 110; Stark 1926b: 105, 1926j: 127, 1927b: 90, 1931a: 28, 1931d: 550, 1952: 402; Stebbing 1903a: 229; Stein 1868: 114; Stein & Weise 1877: 164; Stephens 1829a: 145, 1830: 358, 1839: 207; Stierlin 1898: 443; Stierlin & Gautard 1871: 293, 1906: 206; Straby 1969: 7; Strand 1946: 604; Sturm 1826: 102, 1843: 230; Szmidt 1960: 83; Thomson 1859: 147, 1865: 363, 1868: 222; Townson 1803: 192; Tragardh 1914: 93, 1939b: 135, 203; Tredl 1907: 15, 1908b: 137; Tschorbadjiev 1929: 174; Uchida & Nakashima 1961; Vappula 1965: 153; Villa & Villa 1833: 26; Villaseñor 1966; Virkki

- 1960: 3–16; Vite 1961; Wachtl 1870: 259, 1876a: 452; Walker, C. & King 1974; Wegelius 1960: 107; Westhoff 1882: 239; Wichmann 1924: 16–18, 1927a: 77, 1953: 202, 1955a: 94, 104, 1956: 58–62, 1957: 64–72, 433–440; Wiepken 1883: 89; Wilke 1931: 583, 620–657; Wilken 1864: 373; Winter, T. G. 1983: 50, 1985; Yanovskii 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 413; Yin, Huang, & Li 1984: 131; Zetterstedt 1828: 342, 344, 1840: 192; Zinovjev 1955: 187; Zivojinovic 1950: 299–310, 1960: 25; Zivojinovic & Petrovic 1955: 248–257; Zonfal 1920: 21, (tx) Acloque 1896; Altman 1844; Bach 1854, 1864; Bakke 1960: 306; Balachowsky 1943a: 169, 1944b, 1949a: 265; Balogun 1970: 230; Barbey 1901: 23, 84; Bevan 1987: 113; Bechstein 1818: 74; Bechstein et al. 1805: 85; Bedel 1888b: 401, 417; Beffa 1949, 1961; Behlen 1826; Bejer-Petersen 1957; Bergroth 1884; Bertolini 1872; Blanchere & Robert 1889; Boas 1923: 344; Brancsik 1871; Brandt 1960: pl. 28; Calver 1858; Castelnau 1840; Ceballo 1945; Chapuis & Candeze 1853; Chararas 1956c, 1961c: 95, 1962c: 164; Charvat 1950; Choo 1983: 95; Chorbadzhievo 1924d; DeGeer 1775; Dejean 1821, 1825; Doebner 1876; Dombrowsky 1887, 1892; Duffy 1953: 11; Duftschmidt 1825; Eggers 1912f: 29, 1929e: 42, 1933a: 101, 1944c: 141; Eichhoff 1864b: 42, 1872d: 138, 1877a: 387, 1877b: 118, 1878b: 243, 1881a: 49, 219, 1883a: 112, 137; Endrodi 1957b; Erichson 1836: 63; Escherich 1923b: 429, 485, 575; Escherich & Escherich 1897; Fabricius 1775, 1787: 36, 1792: 365, 1801: 385; Fankhouser 1912a; Fauvel 1889; Ferrant 1911; Ferrari 1867a: 42, 47, 1867b: 114; Fleischer 1927; Flohrer 1945; Formanek 1907: 41; Fricken 1889: 343; Fuchs 1911a, 1913; Gabler 1949b, 1955; Gebien 1907: 197; Germar 1824; Girard 1873; Gmelin 1790: 1601; Goetze 1777: 130; Grune 1979: 148–149; Gyllehnal 1813: 351, 1827: 620; Hagedorn 1910a: 106; Hansen, V. 1956, 1964: 465; Henry 1892: 10, 11; Henschel 1876a: 45, 238, 1882a: 97–98, 1895a: 187; Herbst 1793: 81; Hess 1875; Hopkins 1914: 124, 1915c: 220, pl. 9, fig. 2, pl. 10, fig. 2; Hopping, G. 1963c: 514; Houlbert 1922a: 12, pl. 1; Jablonsky 1785: 81; Jacquelin du Val & Fairmaire 1868: 107; Jansen 1979: 17; Joly 1976; Judeich & Nitsche 1895: 506; Kalina 1970: 130; Karpinski & Strawinski 1948: 157; Keler 1927a: 226; Kirby 1837: 191; Knotek 1892a: 37; Koch 1913: 111, 1928: 76, 87, 1932: 141; Krivolutskaya 1956: 836, 1958: 179; Kubnt 1913: 1057; Kurenzov 1941a: 208, 1948b: 107; Lacordaire 1866: 383; Latreille 1807: 276; Lekander 1959b: 50; Letzner 1891: 376; Leunis 1886: 180; Lindemann 1875c: 155, 1881a: 233; Linnaeus 1758: 355, 1767: 143; Louzil 1961: 108; Lovendal 1889b: 55, 1890c: 211, 1898: 141; Lucas 1920: 345; Lucht 1987: 279; Lunardon & Leonardi 1889: 461; Marsham 1802: 57; Meixner 1937: 1214; Motschulsky 1860a: 155; Muller 1776: 56; Murayama 1929c: 29–30, 1930b: 15, 19, 31, 1937b: 371, 374, 1950b: 1294, 1954b: 171; Nakane et al. 1963: 383, pl. 192; Negrn 1966b: 403; Niisima 1907: 609–613, 1909: 146; Nobuchi 1966d: 36, pl. 52, 1974: pls. 2–3; Nordlinger 1848: 234, 1856: 17, 1870a: 186; Novak, V., Hronzinka, Stary 1976: 37; Numberg 1928a: 141, 1930: 200–208, 1954: 85; Nusslin 1911a: 61, 150, 155, 254, 338; Olivier 1795b: 7; Panzer 1795a: 285; Paykull 1800: 145; Perris 1877a: 414; Pfeffer 1932b: 26, 1941c: 2, 5, 1947e: 2, 1955a: 243, 1989a: pl. 1, 10, 14; Plaza & Gil 1982: 250; Portevin 1935: 337; Postner 1974: 455; Prell 1929: 90; Quaschik 1953: 35; Ratzeburg 1837: 131, 139, 1839: 158, 169; Redtenbacher 1849a: 357, 1849b: 26, 1858: 834, 1874: 377; Reitter 1894a: 80, 1913a: 104, 1916: 303; Rey 1892b: 30; Rhumbler 1927: 324; Roemer 1789: 40; Rudnev 1966: 120; Rupertsberger 1879: 231, 1880: 231; Saakas 1913a: 67, 89, 1914: 304–306, 1949: 344, 385; Sahlberg 1836: 143; Sandall 1975: 84; Say 1826: 319; Schedl 1928: 109–111, 1934f: 1645, 1937: 521–557, 1946a: 6, 1950a: 79, 1952f: 87, 1953e: 22, 1950a: 28, 1951b: 91; Scherb 1971; Schevyrev 1889a: 21; Schilsky 1888: 354; Schimitschek 1937c: 57, 1955c: 89; Schlechtendal & Wumsche 1879: 125; Seidlitz 1872: 395, 1891a: 565, 1891b: 611; Sokanovskii 1929: 521–526, 1936: 73–74, 1954: 19, 1960: 677; Spesivtsev 1913a: 74–75, 1921: 219–223, 1922a: 483, 491, 1922b: 221–223, 1923: 200–214, 1925a: 188, 1925b: 17, 1929: 678–687, 1931: 72–73; Staneek 1969: 257; Stark 1925: 78–81, 1927: 101, 1931: 339–343, 1952: 402; Stebbing 1909b: 13; Stephens 1829a: 145, 1829b: 12, 1830: 358, 1838: 207; Stierlin 1898: 443; Sulzer 1776: 21; Taschenberg 1880: 220; Teplouchov 1890: 254; Thomson 1859: 147, 1865: 363, 1868: 222; Tsai & Li 1959: 101; Uchida & Nakashima 1961: pl. 2; Villers 1883a: 6; Wachtl 1882: 34, 1883a: 6, 1895: 7; Weber, L. 1912: 31; Westwood 1840: 39; Yin, Huang, & Li 1984: 131; Zetterstedt 1828: 342, 344, 1840: 192. (ms) Anonymous 1971p, 1972i, 1974i, 1977s, 1978m, 1979t; Bakke 1978b; Bakke & Strand 1981; Barth 1878; Berryman & Baltensweiler 1981; Bevan 1964b; Borgmann 1908; Brandt 1960: 135; Buddenberg 1882; Butovitsch 1941; Byers 1984a, 1984b; Chararas 1959d, 1971a: 853; Cheskis et al. 1979; Crooke & Bevan 1960; DeGryse 1934: 480; Denssing 1874; Doganler 1984; Eggers 1940e: 63; Elsner 1963; Escherich 1932b; Fuchs 1911b; Gabler 1949a; Gries 1984a; Gries & Sanders 1984b; Guse 1878a; Hartig 1834: 108, 112; Heimemann 1908a; Helland, Hoff, & Anderbrant 1984; Henschel 1880c: 60; Henze 1943; Holst 1937; Ivanchenko et al. 1979; Kalandra 1971: 105; Kangas 1958c: 93; Keler 1956: 283, 1963: 316; Kirkendall & Stenseth 1989; Knoche 1907d: 285; Kozikowsky 1929: 253; Landin 1953: 24, 99; Lanne et al. 1989; Lebedeva, Vasilyeva, & Scherbakova 1975; Lekander 1959a: 84; Lieutier 1984a; Lovendal

1890a: 145; Lucas 1920: 345; Lundholm 1989; Martinek 1974; Maslov & Demakov 1982; McFadden et al. 1982; Merino-Rodriguez 1966: 44; Moser, J. C. & Bogenschütz 1984a; Mracek 1985; Naumann-Etienne et al. 1977; Okstad 1979c; Quisumbing & Kydonieus 1982: 229; Regnander 1975b; Regnander & Solbreeck 1951; Reh 1900a: 94; Ritter 1929: 555; Rohrl 1914a: 131; Sadovnikova 1980; Sandhall 1975; Schedl 1938b: 317; Schennikov 1979; Schimitschek 1955b: 102; Schlyter, Lofqvist, & Byers 1987; Schwappach 1924: 57; Schwenke 1961: 132; Schwerdtfeger 1925: 184, 1946b: 62; Sedlacek 1902a: 126, 1907: 82, 1913: 455, 1936: 200; Sinreich 1962; Sunfor 1979; Thalenhorst 1960: 605; Tischenko et al. 1978; Ulrich 1948: 244; Vasilyeva & Minor 1975; Vasilyeva et al. 1976; Vite 1950: 121; Vorontzov 1968; Weber, L. 1912: 31; Wellenstein 1951a: 1; Wichmann 1961: 333; Winter & Burdekin 1987.

octodentatus Paykull 1800: 146 (*Bostrichus*). Syn- types, sex?; Sweden; not located. Synonymy; Thomson 1865: 363.

References: (tx) Gyllenhall 1827: 353; Hartig 1834: 108; Paykull 1800: 146;

Schedl 1950a: 79; Thomson 1865: 363; Zetterstedt 1840: 192.

typographus japonicus Niisima 1909: 147. Syn- types, sex?; Japan: Hokkaido, Iburi Prov. Tomakomai, Ishikari, Jozankei, Uriu, Hoppo- ro; Nobuchi Collection, Ibaraki. Synonymy: Sokanovskii 1954: 19.

Notes: (1) This form has been treated variously as a variety, form, or geographical race by most authors. Its status as a subspecies is doubtful.

References: (ay) Koizumi & Yamaguchi 1967. (bv) Furuta 1989; Kobayashi et al. 1984; Koizumi 1969, 1977; Koizumi & Yamaguchi 1967; Yamaguchi 1963; Yamaguchi & Chikara 1967; Yamaguchi et al. 1963. (cn) Anonymous 1980g; Furuta & Takahashi 1984; Inouye 1954: 167–180, 1963: 160–164; Inouye & Yamaguchi 1955: 72–94; Kobayashi et al. 1984; Koizumi 1969, 1977; Nishiguchi 1957: 69–78; Tamanuki 1933: 1–54, 1940a: 262; Yamane 1981: 471; Yanagisawa 1952: 105; Zhang et al. 1958: 28. (ce) Arnoldi et al. 1955: 721; Kabir & Giese

1966a: 891; Kamijo 1981; Nishiguchi 1959: 270–274, 1960b: 279–284, 1960c: 64–73; Yamaguchi 1959: 147–153, 1963; Yamaguchi & Chikara 1967; Yamaguchi & Koizumi 1969: 39–47; Yamaguchi et al. 1963. (hb) Furuta 1989; Koizumi & Yamaguchi 1967; Krivolutskaya 1965: 241, 1973: 141; Nishiguchi 1960b; Yamaguchi 1963; Yamaguchi & Chikara 1967; Yamaguchi et al. 1963: 53–135. (ds) Anonymous 1980g; Kleine 1913b: 128, 1934a: 150; Kono 1935b: 65; Kono & Tamanuki 1939: 88, 95; Krivolutskaya 1956: 826–839, 1965: 240, 1973: 141; Kurenzov 1957b: 19; Murayama 1936: 113–120, 1937: 373; Nobuchi 1974: 52. (tx) Hagedorn 1910a: 105; Niisima 1909: 147, 1910a: 2, 1929: 376–381; Nobuchi 1974: 52, pl. 2–3; Schedl 1934f: 1645, 1950a: 81; Sokanovskii 1954: 19. (ms) Yamane 1981: 471.

ussuriensis Reitter 1913a: 107. Syntypes, sex?; Ostsibirien; Ussuri; NHMB, Budapest.

Distribution: Asia (Ussuri in E USSR).

References: (hb) Spessivtsev 1921b: 222; Stark 1952: 400. (ds) Stark 1952: 400. (tx) Reitter 1913a: 107; Schedl 1934f: 1645, 1950a: 78; Stark 1952: 400.

woodi Thatcher 1965: 493. Holotype ♀; Beaver Creek, Logan Canyon, Utah [USA]; USNM, Washington.

Figures: Hopping 1965b: 536, Kusch 1967: 10, Thatcher 1965: 494–495.

Distribution: North America (Alberta in Canada/ N Arizona, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming in USA).

Hosts: *Pinus flexilis*, *P. strobiformis*.

References: (bv) Barr, B. A. 1969: 642. (cn) Anonymous 1968g, 1969h. (ec) Furniss, R. L. & Carolin 1977: 393; Lindquist 1969c. (hb) Furniss, R. L. & Carolin 1977: 393; Wood, S. L. 1982b: 680. (ds) Anonymous 1968g, 1969h; Bright 1976d: 162; Furniss, R. L. & Carolin 1977: 393; Gast et al. 1989: 385; Hopping, G. 1965b: 540; Kusch 1967; Wood, S. L. 1972a: 420, 1982b: 680. (tx) Bright 1976d: 162; Hopping, G. 1965b: 540; Kusch 1967: 10; Thatcher, T. O. 1965: 493–495; Wood, S. L. 1972a: 420, 1982b: 680.

Tribe Dryocoetini Lindemann

Dryocoetoideae

References: Lindemann 1876: 165.

Dryocoetinae

References: Nusslin 1911: 432.

Dryocoetini

References: Lucas 1920: 24; Murayama 1957a: 589; Reitter 1913a: 28; Wood, S. L. 1978a: 113, 1982b: 67, 1986a: 70.

Dryocoetina

References: Balachowsky 1949a: 175; Nunberg 1954: 16.

Thammurinae

References: Nusslin 1911: 377, 433.

Thammurgina

References: Balachowsky 1949a: 163; Nunberg 1954: 16; Reitter 1913a: 27.

Taphrorychini

References: Reitter 1913a: 29.

Taphrorychina

References: Nunberg 1954: 17.

Taphrorychinina

References: Balachowsky 1949a: 187.

Genus *Tiarophorus* Schreiner

TIAROPHORUS SCHREINER 1882: 246. Type-species: *Tiarophorus elongatus* Schreiner, monobasic.

Hypaspistes Hagedorn 1908: 374. Type-species: *Hypaspistes camerunus* Hagedorn, monobasic, preoccupied by Waterhouse 1886.

References: (tx) Hagedorn 1908: 374, 1909a: 377; Schedl 1961k: 738, 1962r: 94.

Orthaspistes Hagedorn 1909a: 733. Type-species: *Hypaspistes camerunus* Hagedorn. Synonymy: Eggers 1927: 196.

References: (tx) Eggers 1920: 124, 1927a: 196; Hagedorn 1909a: 733; Nunberg 1967a: 67; Schedl 1952i: 9, 1961k: 738, 1962r: 94.

Pseudothammurgus Eggers 1912b: 115. Type-species: *Thammurgus scrutator* Pandelle, subsequent designation by Schedl 1961k: 738. Synonymy: Schedl 1952i: 9.

References: (tx) Balachowsky 1949a: 172; Eggers 1912b: 115; Gardner 1934: 1-17; Peverimhoff 1949: 300; Reitter 1913a: 84; Schedl 1952i: 9, 1958k: 142, 1961k: 738, 1962r: 94; Wichmann 1913: 116-118.

Keys: Wichmann 1913: 116-118.

References: (hb) Wood, S. L. 1986a:&3. (ds) Hagedorn 1910d: 68; Wood, S. L. 1986a: 73. (tx) Eggers 1920: 124, 1927: 196; Gardner 1934: 2-3, 10; Hagedorn 1909a: 733, 1910a: 89, 109-110; Hopkins 1914: 130, 133, 1915c: 226; Nunberg 1961a: 343, 1967a: 63-70; Reitter 1913a: 84, 89-90; Schedl 1939i: 382-383, 1952i: 9, 1957e: 865-883, 1958k: 142-143, 1961k: 738, 1962r: 95,

1965e: 349-379; Schreiner 1882: 246; Wichmann 1913: 116-121; Wood, S. L. 1986a: 73.

camerunus (Hagedorn) 1908: 374 (*Hypaspistes*). Syntypes 2, ♂ ♀; Kamerun; MNB, Berlin.

Figures: Nunberg 1967a: 65.

Distribution: Africa (Cameroon).

Hosts: (1) Schedl 1962r: 94 (to *Tiarophorus*).

References: (ds) Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 312; Schedl 1965g: 20, 1972e: 281. (tx) Eggers 1920: 124; Hagedorn 1908: 374, 1909a: 733, 1910a: 115; Hopkins 1914: 123, 126, 132; Nunberg 1967a: 64, 68; Schedl 1961k: 738, 1962r: 94.

capucinus Schedl 1965e: 369. Holotype ♂; Ghana, Bobiri F. R.; Schedl Collection in NHMW, Wien. Distribution: Africa (Ghana).

Hosts: *Millettia* sp.

References: (ds) Schedl 1965e: 369, 1972e: 282, 1979c: 52.

decellei Browne 1973a: 285. Holotype ♂; Zaire: Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Strombosia* sp.

References: (tx) Browne 1973a: 285.

elongatus Schreiner 1882: 247. Syntypes, sex?; Guinea ora Afric; Schedl Collection in NHMW, Wien.

Figures: Schedl 1961k: 740.

Distribution: Africa (Ghana/ Guinea).

Hosts: *Albizia gummifera*.

References: (hb) Roberts 1969: 129. (ds) Hagedorn 1910d: 68; Kleine 1913b: 135, 1914b: 307; Schedl 1961k: 740, 1962h: 59, 1962k: 1079, 1964j: 41, 1965e: 352, 1967e: 214, 1971g: 192, 1972e: 282, 1979b: 415. (tx) Hagedorn 1910a: 110; Hopkins 1914: 130, 133; Schedl 1939i: 383, 1961k: 740, 1962k: 1079, 1965e: 369, 1979c: 90; Schreiner 1882: 247.

gardneri Schedl 1957e: 874. Holotype, sex?; Kenya, Londiani; BMNH, London.

Distribution: Africa (Kenya).

Hosts: *Olea* sp., *Polyscias kikuyuensis*.

References: (ds) Schedl 1961k: 741. (tx) Schedl 1957e: 874, 1959q: 705, 1961k: 741, 1979c: 103.

hyaspistis Schedl 1941d: 399. Holotype, sex?; Spanisch Guinea, Nkolengan; Schedl Collection in NHMW, Wien.

Distribution: Africa (Equatorial Guinea).

References: (ds) Schedl 1964j: 41. (tx) Schedl 1941d: 399, 1961k: 741.

intermedius Schedl 1954e: 77. Lectotype, sex?; Gold Coast, Mpraeso, Sanyani; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 127.

Distribution: Africa (Ghana).

Hosts: *Baphia pubescens*, *Cola caricifolia*, *Lonchocarpus sericeus*.

Notes: (3) Schedl 1961k: 660 (treated in *Dryocoetes*).

References: (ds) Schedl 1961k: 660; Thompson, G. M. 1963: 69. (tx) Numberg 1961a: 344; Schedl 1954c: 50, 77-78, 1961k: 660, 1979c: 127.

mediterraneus (Eggers) 1910f: 560 (*Dryocoetes*). Syntypes 1 ♂, 1 ♀; France; 1 ♂ Dodero Collection, 1 ♀ Eggers Collection, in NHMW, Wien.

Figures: Balachowsky 1949a: 168, 170, 174.

Distribution: Africa (Algeria), Europe (France).

Notes: (1) Wichmann 1913: 119 (to *Tiarophorus*). Schedl 1979c: 150 (citation of holotype invalid).

(3) Balachowsky 1949a: 175 (treated in *Pseudothammurgus*).

References: (bv) Grune 1979: 95. (cn) Grandi 1951. (hb) Grandi 1951; Postner 1974: 427. (ds) Grune 1979: 95; Kleine 1913b: 135; Postner 1974: 427; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240. (tx) Balachowsky 1949a: 175; Eggers 1910f: 560, 1912b: 116-117; Grune 1979: 95; Hopkins 1914: 128; Postner 1974: 427; Reitter 1913a: 89; Schedl 1934f: 1642, 1979c: 150; Teocchi 1971: 74; Wichmann 1913c: 117, 119.

nitidicollis (Reitter) 1887b: 197 (*Dryocoetes*).

Holotype ♀; Marokko (Casablanca vidi Wichmann 1913: 120); NHMB, Budapest.

Distribution: Africa (Morocco).

Notes: (3) Reitter 1890: 175 (treated in *Lymantor*).

References: (ds) Kleine 1913b: 135, 1914a: 18; Hagedorn 1910d: 64; Lovendal 1890c: 209; Reitter 1894a: 67. (tx) Hagedorn 1910a: 93; Lovendal 1890c: 209; Peyerimhoff 1949: 301; Reitter 1887b: 196, 1890: 175, 1894a: 67, 1913a: 89-90; Schedl 1934f: 1642, 1964m: 309; Wichmann 1913c: 120-121.

normandi (Eggers) 1910e: 37 (*Thammurgus*). Holotype ♀; Terni, provinciae algericae oraniensis loco; Normand Collection.

Distribution: Africa (Algeria/ Senegal).

Hosts: *Callotropis* sp.

References: (ds) Kleine 1913b: 135, 1914a: 16; Schedl 1962k: 1073. (tx) Balachowsky 1949a: 175; Eggers 1910e: 37, 1912b: 116-117, 1914: 40; Hagedorn 1910a: 93; Peyerimhoff 1949: 300; Reitter 1913a: 89; Schedl 1934f: 1642, 1964m: 309; Wichmann 1913c: 117-118.

elegans Wichmann 1913c: 118 (*Pseudothammurgus*). Syntypes 2 ♂; Otay, Alger; 1 in Pic Collection, 1 in Wichmann Collection. Synonymy: Balachowsky 1949a: 175.

References: (ds) Kleine 1913b: 135, 1914a: 16. (tx) Balachowsky 1949a: 175; Eggers 1936c: 37; Peyerimhoff 1949: 300; Schedl 1934f: 1642; Wichmann 1913c: 117-118.

praeruptus (Eggers) 1925: 158 (*Pseudothammurgus*). Lectotype ♀; Tenasserim (Birma); USNM, Washington, designated by Anderson & Anderson 1971: 26.

Distribution: Asia (Burma).

References: (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1925: 153, 158, 1936c: 37.

scrutator (Pandelle) 1883: 136 (*Thammurgus*). Holotype, sex?; Hautes-Pyrenees, Sos, Ande; not given.

Figures: Balachowsky 1949a: 168, 174 (adult), Grune 1979: 94, Teocchi 1971: 74.

Distribution: Europe (Belgium/ France/ Spain).

Hosts: *Corylus* sp., *Malus* sp., *Ostrya* sp., *Quercus* sp.

References: (bv) Grune 1979: 95. (cn) Grandi 1951. (ee) Kleine 1908c: 216. (hb) Grandi 1951. (ds) Arnoldi et al. 1955: 702; Grune 1979: 95; Hagedorn 1910d: 65; Heyden, Reitter, & Weise 1891: 673; Kleine 1913b: 135, 1934a: 154; Leclercq 1971; Reitter 1894a: 67; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240; Tredl 1907: 17. (tx) Balachowsky 1949a: 175; Eggers 1912b: 116-117; Eichhoff 1883a: 136; Grune 1979: 94-95; Hagedorn 1910a: 93; Hoffmann 1942: 73; Pandelle 1883: 136; Portevin 1935: 332; Postner 1974: 426; Reitter 1894a: 67, 1906a: 31, 1913a: 89; Schedl 1934f: 1642, 1961k: 738; Teocchi 1971: 74; Wichmann 1913c: 117-119.

Genus *Dolurgocleptes* Schedl

DOLURGOCLEPTES SCHEDL 1965c: 61. Type-species:

Dolurgocleptes malgassicus Schedl, monobasic.

References: (hb) Wood, S. L. 1986a: 73. (ds) Wood, S. L. 1986a: 73. (tx) Schedl 1965c: 61; Wood, S. L. 1986a: 73.

malgassicus Schedl 1965c: 62. Holotype, sex?; Madagascar-Est, det. Sambava, Marojejy, Andassy II, 1550 m; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 61-62, 1972d: 147, 1979c: 147.

Genus *Triotemnus* Wollaston

TRIOTEMNUS WOLLASTON 1864: 264. Type-species:

Triotemnus subretusus Wollaston, monobasic.

Cladoctoporus Schedl 1975e: 454. Type-species:

Cladoctoporus serofa Schedl, original designation. Synonymy: Wood 1984b: 229.

References: (tx) Schedl 1975e: 454; Wood, S. L. 1984b: 229.

References: (hb) Wood, S. L. 1986a: 73. (ds) Wood, S. L. 1986a: 73. (tx) Balachowsky 1949c: 101; Eggers 1912: 116; Eichhoff 1868d: 421, 1878b: 41, 102-103; Ferrari 1867: 4, 8; Hagedorn 1908: 371, 1909b: 138, 1910a: 71, 76, 1910d: 37; Hopkins 1914: 131, 135, 1915c: 226; Peyerimhoff 1949: 300; Schedl 1934f: 1638, 1958j: 240, 1961k: 648, 1964m: 306; Wollaston 1864: 264, 1865: 245; Wood, S. L. 1986a: 73.

aethiopicus Eggers 1936b: 31. Syntypes ♂ ♀; Abyssinia: Jem-Jem Foret, ca. 8000 feet; BMNH, London.

Distribution: Africa (Ethiopia).

Hosts: (2) *Euphorbia abyssinica*.

References: (ds) Schedl 1961k: 649. (tx) Eggers 1936b: 31; Schedl 1961k: 649, 1979c: 13.

antoinei Peyerimhoff 1949: 299. Syntypes 301, sex?; Morocco: Casablanca et Zenata; MNHN, Paris.

Distribution: Africa (Morocco).

References: (tx) Peyerimhoff 1949: 299, 301.

grangeri (Peyerimhoff) 1919: 253 (*Lymanator*). Syntypes 98, sex?; Doumia du Mazafran, North Africa; MNHN, Paris.

Figures: Balachowsky 1949c: 1–2, Peyerimhoff 1919: 253.

Distribution: Africa (Algeria).

Hosts: *Bupleurum fruticosum*, *B. spinosum*.

Notes: (1) Peyerimhoff 1949: 300 (to *Triotenus*).

References: (hb) Peyerimhoff 1919: 253. (ds) Kleine 1934a: 156; Peyerimhoff 1919: 253; Schedl 1964a. (tx) Balachowsky 1949a; Peyerimhoff 1919: 253, 1949: 300–301; Schedl 1934f: 1642.

lepinyi Balachowsky 1949c: 98. Syntypes, sex?; Tizi-N'Test (Haut Atlas), Maroc, vers 2200 m; MNHN, Paris.

Figures: Balachowsky 1949c: 98, pl. I.

Distribution: Africa (Morocco).

Hosts: *Bupleurum spinosum*.

References: (ds) Schedl 1971n: 350. (tx) Balachowsky 1949c: 98.

longicollis Peyerimhoff 1925: 11. Syntypes, sex?; Morocco: Oned el-Akhdar pres Demnat; MNHN, Paris.

Figures: Peyerimhoff 1925: 11, Schedl 1961k: 648 (antenna).

Distribution: Africa (Morocco).

Hosts: *Euphorbia beaumeriana*, *E. cuchinus*, *E. resinifera*.

References: (hb) Peyerimhoff 1926: 388. (ds) Kleine 1934a: 140; Peyerimhoff 1925: 11, 1926: 388; Schedl 1964a. (tx) Balachowsky 1949c: 102; Eggers 1936b: 31; Peyerimhoff 1925: 11, 1949: 300–302; Schedl 1934f: 1638, 1961k: 648.

pilicornis Wood 1992a: 87. Holotype ♂; Chikalda, Malghat, C.P., India; Wood Collection.

Distribution: Asia (Karnataka, Madhya Pradesh, Maharashtra in India).

Hosts: *Euphorbia* spp.

References: (tx) Wood, S. L. 1992a: 87.

scrofa (Schedl) 1975c: 454 (*Cladoctoporus*). Holotype ♂; Madras: Andippatti Hills, 9 km a l'est d'Andippatti; MHNC, Geneva.

Distribution: Asia (Karnataka, Maharashtra, Tamil Nadu, Uttar Pradesh in India/Sri Lanka).

Hosts: *Euphorbia antiquorum*, *E.* spp., rare in *Opuntia* sp.

Notes: (1) Wood 1986a: 73 (to *Triotenus*).

References: (tx) Schedl 1975c: 454, 1979c: 223; Wood, S. L. 1984b: 229, 1986a: 73.

striatus Eggers 1936c: 37. Holotype ♂; Natal: Malvern; BMNH, London.

Distribution: Africa (Natal in South Africa).

References: (tx) Eggers 1936c: 37–38; Schedl 1961k: 650.

subretusus Wollaston 1864: 265. Holotype, sex?; Comoran; BMNH, London.

Distribution: Africa (Canary Islands), Europe (Spain).

Hosts: *Euphorbia canariensis*.

References: (cn) Souphieff & Scherbinovskaja 1937: 28. (hb) Peyerimhoff 1926: 388. (ds) Gemminger & Harold 1872; Hagedorn 1910d: 37; Kleine 1913b: 116; Lacordaire 1866: 376; Peyerimhoff 1923a: 47, 1925: 11, 1926: 388; Schedl 1964a, 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 17; Souphieff & Scherbinovskaja 1937: 28; Uyttenboogaart 1937: 117. (tx) Balachowsky 1949c: 102; Eggers 1936b: 31; Eichhoff 1875b: 105; Hagedorn 1910a: 76; Hopkins 1914: 131; Lacordaire 1866: 376; Peyerimhoff 1923a: 47, 1949: 302; Schedl 1934f: 1638; Schedl, Lindberg, & Lindberg 1959: 17; Wollaston 1864: 265, 1865: 245.

villiersi Schedl 1958j: 240. Lectotype ♀; Nigeria: Schedl Collection in NIIMW, Wien, designated by Schedl 1979c: 268.

Distribution: Africa (Nigeria).

Hosts: *Euphorbia* sp.

References: (ds) Schedl 1961k: 650. (tx) Schedl 1952j: 9, 1954e: 72, 1958j: 240–241, 1961k: 650, 1979c: 268.

Genus *Thamnurgus* Eichhoff

THAMNURGUS EICHHOFF 1864: 40. Type-species: *Bostrichus euphorbiae* Kuster, subsequent designation by Hopkins 1914: 130.

Keys: Balachowsky 1949: 165, Reitter 1913: 85.

References: (ay) Eichhoff 1864b: 40–46; Fuchs 1912: 9–43; Lacordaire 1866: 373; Lékander 1959: 92; Nobuchi 1969a: 59; Nusslin 1911, 1912; Roepke 1919: 23–24. (hb) Bargmann 1906: 312; Luigioni 1929: 999; Nusslin 1906: 47–64; Wichmann 1927: 352; Wood, S. L. 1986a: 73. (ds) Chobaut 1897: 262; Formanek 1907: 31–32; Hagedorn 1910d: 64–65; Scheerpeltz & Winkler 1930: 258; Schimitschek 1937: 54; Wood, S. L. 1986a: 73. (tx) Balachowsky 1949a: 164, 1949c: 101–103; Beeson 1939: 279–308; Bertolini 1872: 201; Blandford 1893c: 11, 1894b: 261, 1896e: 143; Eggers 1933: 63; Eichhoff 1864b: 40, 1878b: 210–211, 1881a: 206; Escherich 1923: 471; Ferrari 1867a: 5, 35–36, 1867b: 114; Fuchs 1912; Hopkins 1909b: 138, 1910a: 88–93, 1914: 130, 133, 1915a: 9, 1915c: 195, 226; Karaman 1972: 103; Lepesme 1942: 268–271; Murayama 1957: 589–590, 1961: 29; Numberg 1945: 46–47; Nusslin 1898: 281, 1912a: 268–269, 1912b: 101–107; Peyerimhoff 1925: 12, 1949: 300; Pfeffer 1962: 244, 1989a: 55; Redtenbacher 1874: 379–380; Reitter 1894: 66–67, 1906: 711, 1913a: 84–85, 1916: 296; Schedl 1938c: 456–457, 1952i: 9, 1957d: 14, 1958d: 187–188, 1961k:

663, 1962n: 697–699, 1963a: 29–32, 1969h: 95–98, 1977b: 101; Schilsky 1888: 122; Scott 1935: 281–282; Seidlitz 1891: 612; Stark 1952: 308–310; Wachtl 1876: 460; Westhoff 1882: 239; Wood, S. L. 1986a: 73.

africanus Eggers 1924: 108. Lectotype, sex?; Manyema (Sibatwa Kilengwe), Congogebiet; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 15.

Distribution: Africa (Kenya/ Uganda/ Zaïre).

Hosts: *Lobelia bambuseti*, *L. gibberroa*, *L. sp.*, *Veronica auriculifera*.

References: (ce) Schedl 1961k: 665. (hb) Schedl 1961k: 665. (ds) Mayne & Donis 1962: 314; Schedl 1961k: 665, 1963a: 30, 1971e: 4. (tx) Eggers 1924: 108, 1933e: 23, 1943c: 63; Numberg 1961b: 615; Schedl 1961k: 665, 1979c: 15.

armeniacus Reitter 1897c: 244. Syntypes 2, ♂ ♀; Kaukasus: Araxesthal bei Ordubad; NHMB, Budapest.

Distribution: Europe (W USSR).

References: (hb) Stark 1952: 311. (ds) Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1906: 711; Kleine 1913b: 134; Stark 1952: 311. (tx) Hagedorn 1910a: 93; Pfeffer 1955a: 159; Reitter 1897c: 244, 1901b: 172, 1913a: 86; Schedl 1934f: 1641; Stark 1952: 311.

byrlinskyi Reitter 1889c: 40. Holotype, sex?; Araxesthal; NHMB, Budapest.

Figures: Balachowsky 1949a: 168, 174.

Distribution: Asia (Turkey), Europe (France/ W USSR).

Hosts: *Peganum parnala*, *Tamarix octandra*.

References: (hb) Lengerken 1939: 65, 1954: 85; Stark 1952: 313. (ds) Arnoldi et al. 1955: 702; Balachowsky 1943a; Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1891: 673, 1906: 711; Kadyrov 1989; Kleine 1913b: 134, 1914b: 245, 1934a: 154; Reitter 1894a: 67; Schaufuss 1915: 1240; Stark 1952: 313. (tx) Balachowsky 1943a; 1949a: 169–170; Hagedorn 1910a: 93; Hoffmann 1942: 73; Iablokoff-Khuzorian 1961: 30; Pfeffer 1955a: 158; Reitter 1889c: 40, 1894a: 67, 1913a: 88; Schedl 1934f: 1641; Stark 1952: 313; Strohmeier 1907d: 6.

capensis Schedl 1977c: 396. Holotype, sex?; Sudafrica: Cape Town, Milnerton; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (tx) Schedl 1977c: 396.

caucasicus Reitter 1887b: 195. Syntypes 2, sex?; Kaukasus: Kutais und Utsch-Dere; NHMB, Budapest.

Distribution: Europe (W USSR).

References: (hb) Stark 1952: 310. (ds) Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1891: 673, 1906: 711; Kleine 1913b: 134, 1934a: 154; Langhoffer 1915c: 158; Reitter 1894a: 66; Stark 1952: 310. (tx) Endrodi 1957: 308; Fawel 1887; Hage-

dorn 1910a: 93; Reitter 1887b: 195, 1894a: 66, 1913a: 86; Schedl 1934f: 1641; Stark 1952: 310.

characiae Rosenhauer 1878: 162. Syntypes, sex?; Barcelona, Spain; not located.

Figures: Balachowsky 1949a: 168, 170, 174.

Distribution: Africa (Algeria), Europe (France/ Greece/ Italy/ Spain).

Hosts: *Euphorbia characias*.

References: (cn) Grandi 1951. (ce) Kleine 1908c: 216; (hb) Dombrowsky 1887; Eichhoff 1881a: 48; Grandi 1951. (ds) Barthe 1896; Correa de Barros 1907; Escalera 1919; Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1883: 172, 1891: 673, 1906: 711; Kleine 1913b: 134, 1934a: 154; Krausse 1911: 67; Lokaj 1908: 11; Pfeffer 1947d: 127; Pittioni 1943: 176; Ragusa 1924: 116; Reitter 1894a: 66; Sainte-Claire & Mequignon 1938: 446; Schedl 1964a, 1971d: 429; Tredl 1907: 17. (tx) Balachowsky 1949a: 171; Dombrowsky 1887; Eggers 1912b: 114, 1912f: 29; Eichhoff 1878b: 513, 1881a: 48, 208, 1883a: 111, 136; Hagedorn 1910a: 93; Peyerimhoff 1949: 303; Pfeffer 1955a: 159; Portevin 1935: 331; Reitter 1889c: 40, 1894a: 66, 1897c: 244, 1901b: 182, 1913a: 86; Rosenhauer 1878: 162; Schaufuss 1915: 1240; Schedl 1934f: 1641; Strohmeier 1907d: 6.

concaivifrons (Schedl) 1950c: 207 (*Xylocleptes*). Holotype ♀; O. Afrika, Usambara; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

Notes: (1) Schedl 1952i: 9 (to *Thamnurgus*).

References: (tx) Schedl 1950c: 207, 1952i: 9, 1961k: 679, 1979c: 60.

csikii Endrodi 1957b: 307. Holotype, sex?; Budapest Umgebung; NHMB, Budapest.

Distribution: Europe (Hungary).

References: (ds) Endrodi 1957b: 307. (tx) Endrodi 1957b: 307.

cylindricus (Eggers) 1927a: 181 (*Xylocleptes*). Holotype ♀?; Ruanda: Karissimbi-Vulkan; MRCB, Tervuren.

Distribution: Africa (Ruanda/ Zaïre).

Notes: (1) Schedl 1952i: 9 (to *Thamnurgus*).

References: (tx) Eggers 1927a: 181; Schedl 1952i: 9, 1961k: 680.

delphini (Rosenhauer) 1856: 302 (*Bostrichus*). Syntypes, sex?; Malaga; not located.

Figures: Balachowsky 1949a: 170, 174.

Distribution: Africa (Algeria/ Morocco/ Tunisia), Europe (France/ Greece/ Italy/ Sicily/ Spain).

Hosts: *Delphinium consolida*, *D. sp.*, *Teucrium pseudoscorodonia*.

References: (cn) Grandi 1951. (ce) Kleine 1908c: 216. (hb) Dombrowsky 1887; Eichhoff 1881a: 48, 208; Grandi 1951; Lengerken 1941: 156; Peyerimhoff 1915: 60; Stark 1952: 312; Wachtl 1876a: 460. (ds) Bedel 1888a; Calwer 1884, 1893; Escalera 1919; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 64; Heyden, Reitter, & Weise

- 1883: 182, 1891: 673, 1906: 711; Kleine 1913b: 134, 1914a: 16, 1934a: 154; Lacordaire 1866: 383; Lengerken 1941: 156; Lokaj 1908:II; Lucht 1957: 277; Numberg 1964a: 235; Pfeffer 1947d: 128; Pittioni 1943: 176; Ragusa 1924: 116; Reitter 1894a: 67; Rosenhauer 1856: 302; Schaum 1859: 96, 1862: 101; Schedl 1964a, 1967c: 71, 1971d: 426, 1981b: 70; Scott 1935: 281; Stark 1927: 89, 1952: 312; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 17; Wachtl 1876a: 460. (**tx**) Balachowsky 1949a: 171; Dombrowsky 1887; Eggers 1905a: 122, 1910c: 37–38, 1914: 109–110; Eichhoff 1864b: 46, 1866: 278, 1868d: 419, 1878b: 213, 1881a: 48, 208, 1883a: 111, 136; Ferrari 1867a: 36–37, 1867b: 114; Hagedorn 1910a: 93; Lacordaire 1866: 383; Lucht 1957: 277; Peyerimhoff 1915: 60, 1949: 303; Pfeffer 1955a: 155; Reitter 1887b: 195, 1889c: 40, 1894a: 67, 1901b: 182, 1913a: 88; Rosenhauer 1856: 302, 1878: 162; Schedl 1934f: 1641, 1962p: 205, 1981b: 70; Scott 1935: 281; Sokanovskii 1954: 18; Stark 1952: 312; Strohmeyer 1907d: 6. (**ms**) Eichhoff 1868d: 419.
- holtzi* Strohmeyer 1907d: 6. Holotype ♀; Graecia; Strohmeyer Collection. Synonymy: Reitter 1913a: 85.
References: (**ec**) Kleine 1908c: 216. (**ds**) Hagedorn 1910d: 64; Kleine 1913b: 134; Schaufuss 1915: 1240; Tredl 1907: 17. (**tx**) Eggers 1905d, 1914: 109–110; Hagedorn 1910d: 93; Reitter 1913a: 85; Schedl 1934f: 1641; Strohmeyer 1907d: 6.
- elegans* Schedl 1957d: 64. Holotype ♀; Congo Belge: Kibali-Ituri, Irumu, galerie forestiere; MRCB, Tervuren.
Figures: Schedl 1961k: 663.
Distribution: Africa (Angola/ Tanzania/ Zaire).
Hosts: *Clematis simensis*.
References: (**ec**) Schedl 1961k: 668. (**hb**) Schedl 1961k: 668. (**ds**) Ferreira 1965: 116; Mayne & Donis 1962: 314; Schedl 1959p: 17, 1961k: 668, 1972k: 295. (**tx**) Schedl 1957d: 64, 1961k: 663, 668, 1979c: 88.
- elongatus* Schedl 1969d: 14. Holotype, sex?; Grande Comore: Boboni; MNHN, Paris.
Distribution: Africa (Comore Island).
References: (**ds**) Schedl 1969d: 9. (**tx**) Schedl 1969d: 14, 1977b: 102.
- euphorbiae* (Kuster) 1845: 39 (*Bostrichus*). Syn-types, sex?; Europe; not located.
Distribution: Africa (Algeria), Europe (France/ Germany/ Greece/ Italy/ Spain/ Yugoslavia).
Hosts: *Euphorbia dendroides*, *E. Gerardiana*.
References: (**cn**) Wachtl 1901: 381. (**ec**) Kleine 1908c: 216, 1944: 79; Novak 1952: 416. (**hb**) Bach 1864; Dombrowsky 1887; Eichhoff 1881a: 48, 207; Knotek 1894a: 558; Lengerken 1941: 156, 1954: 85; Nusslin 1898: 274; Rupertsberger 1880: 230; Schroder 1896: 357; Stark 1952: 311; Wachtl 1876a: 460, 1901: 381. (**ds**) Acloque 1896; Blanchere & Robert 1889; Calver 1884, 1893; Dieck 1870; Gemminger & Harold 1872: 2689; Gozis 1875: 80; Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1883: 152, 1891: 673, 1906: 711; Holdhaus 1912: 454; Kaltenbach 1874: 523; Kestercanek 1881a: 12; Kleine 1913a: 57, 307, 1913b: 134, 1914a: 16, 1934a: 154; Knotek 1894a: 558; Krausse 1910: 171, 1911: 67; Lacordaire 1866: 382; Langhoffer 1915c: 158; Lengerken 1941: 156; Lichtenstein & Picard 1919: 62–64; Lokaj 1908:II; Lucht 1957: 277; Negru 1966b: 401; Novak, P. 1952: 416, 1964; Nusslin 1898: 274; Orten 1856: 250; Paganetti-Hummel 1901: 150; Perris 1876a: 256, 1877a: 416; Pittioni 1943: 176; Ragusa 1924: 116; Reitter 1894a: 66; Schaufuss 1915: 1240; Schaum 1859: 96, 1862: 101; Schedl 1967c: 68, 1971d: 429, 1981b: 70; Stark 1952: 311; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 17; Wachtl 1876a: 460. (**tx**) Acloque 1896; Bach 1864; Balachowsky 1949a: 172; Bertolini 1872; Dombrowsky 1887; Eggers 1914: 109–110, 295; Eichhoff 1864b: 41, 1868d: 419, 1878b: 211, 1881a: 48, 207, 1883a: 111, 135; Fauvel 1889; Ferrari 1867a: 36, 1867b: 114; Hagedorn 1910a: 93; Hopkins 1914: 130; Jacquelin du Val & Fairmaire 1868: 107; Kuster 1845: 39; Lacordaire 1866: 382; Lucas 1920: 635; Lucht 1957: 277; Negru 1966b: 401; Perris 1877a: 416; Peyerimhoff 1949: 303; Pfeffer 1932b: 3, 1955a: 155; Reitter 1887b: 195, 1894a: 66, 1913a: 87; Rosenhauer 1878: 162; Rupertsberger 1880: 230; Schedl 1934f: 1641, 1981b: 70; Stark 1952: 311. (**ms**) Eichhoff 1868d: 419; Lucas 1920: 635.
- euryopsis* Schedl 1955i: 218. Lectotype, sex?; Cape Prov., Grey's Pass; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 92.
Distribution: Africa (South Africa).
Hosts: *Euryops athanasiae*.
References: (**ds**) Schedl 1961k: 670. (**tx**) Schedl 1955i: 212, 218, 1961k: 670, 1979c: 92.
- granulicollis* Schedl 1957d: 65. Holotype ♀; Congo Belge: Kivu, Mulungu; MRCB, Tervuren.
Distribution: Africa (Kenya/ Zaire).
Hosts: *Caesalpinia decapetala*, *Clematis simensis*, *Geniosporum paludosum*, *Kotschyia africana*, *Loranthus* sp., *Protea* sp., *Polygonum tomentosum*, *Sida rhombifolia*, *Strombosia scheffleri*, *Virecta multiflora*.
References: (**ds**) Mayne & Donis 1962: 314; Schedl 1961k: 670, 1965g: 20. (**tx**) Schedl 1957d: 65, 1961k: 670, 1965g: 20, 1979c: 111.
- grosse-punctatus* Schedl 1977c: 397. Holotype, sex?; Sudwestafrika: Windhoek; Mus. Alexander Koenig, Bonn.
Distribution: Africa (Namibia).
References: (**tx**) Schedl 1977c: 397.
- interpunctatus* Schedl 1950h: 105. Lectotype, sex?; Tananarive, Tsimbazaza; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 127.

Distribution: Madagascar.

Hosts: *Luffa tiges*, Chouchoute.

References: (cn) Paulian 1950b: 61. (hb) Paulian 1950b: 61. (tx) Schedl 1950h: 105–106, 1977b: 103, 1979c: 127.

jemeniae Schedl 1975h: 353. Holotype, sex?; Jemen, Wadi Zabid; NHMB, Budapest.

Distribution: Asia (Yemen).

References: (tx) Schedl 1975h: 353.

joliveti Nunberg 1973: 18. Holotype ♂; Massif Ruwenzori, Kalonge; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Nunberg 1973: 18.

kaltenbachi (Bach) 1850: 199 (*Bostrichus*). Syntypes, sex?; [Germany?]; not given.

Figures: Balachowsky 1949a: 165, 170, 174.

Distribution: Africa (Algeria), Europe (Austria/ Belgium/ Corsica/ Czechoslovakia/ France/ Germany/ Hungary/ Italy/ Poland/ Spain/ Switzerland/ W USSR).

Hosts: *Betonica officianalis*, *Laurium album*, *Origanum vulgare*, *Stachys sylvatica*, *Teucrium scorodonia*.

References: (ay) Imhoff 1856: 228; Nusslin 1911a: 60, 225, 338. (cn) Grandi 1951; Karpinski & Strawinski 1948: 156; Kholodkovskii 1912: 278; Muller 1912: 184; Nusslin 1913: 290; Wachtl 1901: 381; Wichmann 1927b: 352. (ec) Kleine 1908c: 216, 1909a: 49, 1944: 81; Nusslin 1927: 350; Sedlaczek 1935a: 162; Tavares 1905: 104. (hb) Bach 1850, 1864; Buddenburg 1881: 394–402, 1883: 133–140; Eichhoff 1881a: 48, 209; Fuchs 1907: 38; Giraud 1867; Grandi 1951; Karpinski & Strawinski 1948: 156; Kholodkovskii 1912: 278; Lengerken 1939: 65, 1941: 156, 1954: 85; Nusslin 1898: 281, 1913: 290, 1927: 350; Rupertsberger 1880: 230; Schroder 1896: 357; Sedlaczek 1935a: 162; Wachtl 1876a: 460, 1901: 381; Wichmann 1927b: 352. (ds) Acloque 1896; Audras & Schaefer 1957; Bach 1850; Bau 1888; Bedel 1888b; Brakman 1966b: 205; Calwer 1854, 1893; Chapuis & Candeze 1853; Dombrowsky 1887; Eggers 1904; Endrodi 1958b; Fricken 1889: 349; Fuchs 1907: 38; Gemminger & Harold 1872: 2689; Giraud 1867; Gozis 1875: 80; Gredler 1875: 115; Hagedorn 1910d: 64; Heyden 1876: 299, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 711; Horion 1951; Kaltenbach 1874: 477, 481, 485, 489; Kestercanek 1881a: 12; Kleine 1912a: 268, 1913a: 35, 1913b: 134, 1934a: 154; Kraatz 1869: 59; Lacordaire 1866: 382; Langhoffer 1915c: 158; Leclercq 1971; Lengerken 1941: 156; Lokaj 1908: 11; Lucht 1987: 277; Negri 1966b: 401, 1968a: 455; Nunberg 1954: 47; Nusslin 1898: 281; Perris 1876a: 255, 1877a: 415–416; Pfeffer 1989a: 56; Pittioni 1943: 176; Redtenbacher 1858: 837, 1874: 379; Reitter 1894a: 67, 1916: 297; Sainte-Claire 1914: 471; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240; Schaum 1859:

96, 1862: 101; Schedl 1971d: 426, 1980a: 21, 1981b: 70; Schilsky 1909: 188; Schmaus 1960: 32; Schroeder 1887: 138; Scott 1935: 281; Seidlitz 1891a: 566, 1891b: 612; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 445; Szulczewski 1930: 268; Tredl 1907: 17; Wachtl 1876a: 460; Westhoff 1882: 239; Wichmann 1927a: 79. (tx) Acloque 1896; Bach 1849b, 1850: 199, 1854, 1864; Balachowsky 1949a: 169; Bedel 1888b; Chapuis & Candeze 1853; Dombrowsky 1887; Eichhoff 1864b: 41, 1878b: 215, 1881a: 48, 209, 1883a: 111, 136; Endrodi 1957b; Fauvel 1889; Ferrari 1867a: 36–37, 1867b: 114; Fleischer 1927; Formanek 1907: 32; Fricken 1889: 349; Hagedorn 1910a: 93; Jacquelin du Val & Fairmaire 1868: 107, 112; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1054; Lacordaire 1866: 382; Lucht 1987: 277; Negru 1966b: 401; Nunberg 1954: 47; Nusslin 1911a: 255, 338, 60; Perris 1877a: 415–416; Peyerimhoff 1949: 303; Pfeffer 1932b: 22, 1955a: 158; Redtenbacher 1858: 837, 1874: 379; Reitter 1894a: 67, 1897c: 244, 1913a: 88, 1916: 297; Rosenhauer 1878: 162; Rupertsberger 1880: 230; Schedl 1934f: 1641, 1952f: 87, 1980a: 21, 1981b: 70; Scott 1935: 281; Seidlitz 1891a: 566, 1891b: 612; Stierlin 1898: 445. (ms) Koch 1977: 27.

declivis Reitter 1897c: 244. Syntypes 5, sex?; Teucrium; NHMB, Budapest. Synonymy: Reitter 1913a: 88.

References: (ds) Schilsky 1909: 188. (tx) Reitter 1897c: 244, 1913a: 88; Schedl 1934f: 1641.

lobeliae Eggers 1933e: 23. Holotype, sex?; Uganda: Ruwenzori Mt.; BMNH, London.

Distribution: Africa (Ethiopia/ Kenya/ South Africa/ Uganda).

Hosts: *Lobelia bequaertii*, *L. deckeni*, *L. stuhlmanii*, *L. telekii*, *L. wollastonii*.

References: (bv) Schedl 1960f: 39, 132. (hb) Lengerken 1939: 65, 1954: 85. (ds) Browne 1975b: 395; Kleine 1934a: 154, 631; Schedl 1960f: 39, 132, 1961k: 672, 1963a: 30, 1965g: 20; Scott 1935: 241, 282. (tx) Eggers 1933e: 23, 1943c: 63; Schedl 1957d: 14, 1961k: 671–672, 1965g: 20, 1979c: 140; Scott 1935: 241.

latus Lepesme 1942b: 268. Holotype, sex?; Mont Kenya, Kenya; MNHN, Paris. Synonymy: Schedl 1961k: 672.

References: (tx) Lepesme 1942b: 268; Schedl 1957d: 14, 1961k: 671–672.

longipilus Schedl 1938d: 456. Lectotype, sex?; Mt. Kilimandjaro; Schedl Collection in NIMW, Wien, designated by Schedl 1979c: 141.

Distribution: Africa (South Africa/ Tanzania).

References: (ds) Schedl 1938d: 456, 1965g: 20. (tx) Schedl 1938d: 456, 1961k: 672, 1965g: 20, 1979c: 141.

mairei Peyerimhoff 1949: 302. Syntypes, sex?; Atlantem Medium imperii maroccani Atlas marocain, 1600 m; not given.

Distribution: Africa (Algeria).

Hosts: *Euphorbia megalatlantica*.

References: (tx) Peyerimhoff 1949: 302–303.

mandibularis Schedl 1953d: 90. Lectotype ♀; Madagascar, Diego-Suarez; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 145. Distribution: Madagascar. References: (tx) Schedl 1953d: 90, 1977b: 103, 1979c: 145.

nitellus Schedl 1953d: 92. Lectotype ♀; Madagascar, Diego-Suarez; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 168. Distribution: Madagascar. References: (tx) Schedl 1953d: 91–92, 1977b: 103, 1979c: 168.

nitidulus Schedl 1953d: 91. Lectotype, sex?; Madagascar, Mt. d'Ambre, Foret Cote Est; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 169. Distribution: Madagascar. References: (tx) Schedl 1953d: 90–91, 1977b: 103, 1979c: 169.

nitidus Browne 1950e: 773. Holotype, sex?; Zaire: Yangambi; MRCB, Tervuren. Distribution: Africa (Zaire). References: (tx) Browne 1950e: 773.

orientalis Schedl 1978e: 38. Holotype, sex?; Israel: Ein Dor; Division of Entomology, Agriculture Research Organization, Ilanot, Israel. Distribution: Asia (Israel). Hosts: *Cotoneaster* sp.

References: (ec) Halperin & Holzschuh 1984: 28. (hb) Halperin & Holzschuh 1984: 28. (ds) Halperin & Holzschuh 1984: 28. (tx) Schedl 1978e: 38.

pegani Eggers 1933f: 6. Holotype, sex?; Turkmenien (Krasnowodsk); IZL, Leningrad. Distribution: Europe (W USSR). References: (hb) Stark 1952: 313. (ds) Kadyrov 1989; Kleine 1934a: 154; Stark 1952: 313. (tx) Eggers 1933f: 6; Peyerimhoff 1949: 303; Pfeffer 1955a: 158; Schedl 1979c: 157; Sokanovskii 1954: 18; Stark 1952: 313.

petzi Reitter 1901b: 182. Syntypes, sex?; Gross-Dirn in Ober-Osterreich; NHMB, Budapest. Figures: Balachowsky 1949a: 170, 174. Distribution: Europe (Austria/ Hungary). Hosts: *Aconitum stoerkianum*.

References: (ec) Kleine 1908c: 216. (hb) Petz 1907: 102. (ds) Endrodi 1958b; Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1906: 711; Horion 1935, 1951; Kleine 1913a: 35, 1913b: 134, 1934a: 154; Lokaj 1908: 11; Lucht 1987: 277; Pfeffer 1989a: 55; Pittioni 1943: 176; Reitter 1903: 31, 1916: 351; Schaufuss 1915: 1240; Schedl 1980a: 21, 1981b: 69; Schilsky 1909: 188; Scott 1935: 281; Tredl 1907: 17; Wichmann 1927a: 79. (tx) Balachowsky 1949a: 169; Eggers 1908a: 122, 1922c; Endrodi 1957b: 307; Formanek 1907: 32; Hage-

dorn 1910a: 93; Lucht 1987: 277; Pfeffer 1932b: 3, 1955a: 158; Reitter 1901b: 182, 1903: 31, 1913a: 86, 1916: 351; Schedl 1934f: 1641, 1980a: 21, 1981b: 69; Scott 1935: 281.

posticepunctatus Eggers 1937b: 334. Holotype ♂; Kankasus (Araxestal); NHMB, Budapest. Distribution: Europe (W USSR). References: (tx) Eggers 1937b: 334.

punctatissimus Eggers 1944b: 95. Holotype, sex?; Belgisch-Congo: Lubero; MRCB, Tervuren. Distribution: Africa (Ruanda/ Zaire). Hosts: *Lobelia* spp. References: (cn) Mayne & Donis 1951: 334. (ec) Mayne & Donis 1951: 334. (ds) Eggers 1944b: 95; Schedl 1961k: 673. (tx) Eggers 1944b: 95; Schedl 1950d: 7, 1952j: 2, 1955f: 258, 1961k: 673.

robustus Eggers 1908a: 122. Lectotype, sex?; Sicilia (Imera, Navurra); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 213. Distribution: Europe (Sicily). References: (ds) Ragusa 1924: 116. (tx) Balachowsky 1949a: 171; Eggers 1908a: 122; Hagedorn 1910a: 93; Schedl 1934f: 1641, 1962p: 205, 1979c: 213; Sokanovskii 1954: 18.

sardus Eggers 1912b: 114. Lectotype, sex?; Sadali, Sardinia; USNM, Washington, designated by Anderson & Anderson 1971: 29. Distribution: Africa (Algeria), Europe (Sardinia). Hosts: *Euphorbia wolfenii*. References: (ds) Kleine 1913b: 134, 1934a: 154; Ragusa 1924: 116; Schedl 1964a; (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1912b: 114–115, 1912f: 28; Pfeffer 1955a: 159; Reitter 1913a: 87; Schedl 1934f: 1641, 1979c: 219.

semirufus Reitter 1906b: 36. Holotype, sex?; Anatolien: Adalia; NHMB, Budapest. Distribution: Asia (Turkey). References: (hb) Stark 1952: 311. (ds) Hagedorn 1910d: 65; Kleine 1913b: 134; Stark 1952: 311. (tx) Hagedorn 1910a: 93; Pfeffer 1955a; Reitter 1906b: 36, 1913a: 88; Schedl 1934f: 1641; Stark 1952: 311.

senecionis Schedl 1938d: 456. Lectotype ♀; Kenya Colony, Aberdare Mts.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 224. Figures: Numberg 1961b: 627–628, Schedl 1961k: 674.

Distribution: Africa (Kenya/ South Africa/ Uganda).

Hosts: *Lobelia gibberon*, *Senecio aberdareicus*, *S. brassicaeformis*, *S. elgonensis*, *S.* spp.

References: (ds) Schedl 1938d: 456, 1961k: 674, 1963a: 30, 1965g: 20. (tx) Eggers 1943c: 64–65; Lepesme 1942: 270; Schedl 1938d: 456, 1952k: 160, 1957d: 15, 1961k: 674, 1962h: 65, 1962k: 1075, 1962n: 698, 1979c: 224.

jeanneli Lepesme 1942b: 268. Holotype, sex?;

- Mont Kenya; MNHN, Paris. Synonymy: Schedl 1961k: 674.
References: (tx) Lepesme 1942b: 268–269; Schedl 1952k: 160, 1961k: 674.
- kinangopensis* Lepesme 1942b: 270. Holotype, sex?; Monts Aberdare; Mont Kinangop; MNHN, Paris. Synonymy: Schedl 1961k: 674.
References: (tx) Lepesme 1942b: 270; Schedl 1957d: 15, 1961k: 674.
- ugandensis* Nunberg 1961: 614. Holotype ♂; Uganda (Elgon), 10–11,000 ft.; BMNH, London. Synonymy: Schedl 1961k: 674.
References: (tx) Nunberg 1961b: 614, 627–628; Schedl 1961k: 674, 1962h: 65.
- siculus** Eggers 1912b: 115. Lectotype, sex?; Sicilia, insula; USNM, Washington, designated by Anderson & Anderson 1971: 30.
Distribution: Europe (Sicily).
References: (ds) Kleine 1913b: 134; Ragusa 1922: 129. (tx) Anderson, W. H. & Anderson 1971: 30; Eggers 1912b: 115, 1914: 298; Hagedorn 1910a: 109; Reitter 1913a: 87; Schedl 1934f: 1641, 1979c: 228.
- varipes** Eichhoff 1878b: 212. Holotype, sex?; Europa (Gallia meridionalis); Hamburg Museum, lost.
Figures: Balachowsky 1949a: 170.
Distribution: Asia (Turkey), Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Greece/ Hungary/ Poland/ Romania/ Yugoslavia).
Hosts: *Euphorbia amygdaloides*, *E. chariaca*, *E. Gerardiana*.
References: (ay) Nunberg 1928a: 140. (cn) Grandi 1951; Marcu 1926c: 65; Schimitschek 1937c: 53, 1955c: 86; Wachtl 1901: 381. (ec) Kleine 1908c: 216; Nosek 1959b: 87; Pfeffer 1928b: 7; Pfeffer & Prihoda 1950: 1; Sedlaczek 1935a: 163. (hb) Dombrowsky 1887; Eichhoff 1881a: 48, 207; Grandi 1951; Karpinski & Strawinski 1948: 146; Knotek 1894a: 558; Lengerken 1939: 65, 1954: 85; Marcu 1941: 403; Nosek 1959b: 87; Pfeffer 1942a: 18; Sedlaczek 1935a: 162; Stark 1952: 310; Wachtl 1901: 381; Xamben 1895: 80. (ds) Aeloque 1896; Andras & Schaefer 1957; Barthe 1896; Bedel 1888b; Brakman 1966b: 205; Csiki 1914; Endrodi 1958b; Fauvel 1885; Hagedorn 1910d: 65; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 711; Horion 1935, 1951; Karpinski & Strawinski 1948: 156; Kleine 1913a: 35, 1913b: 134, 1934a: 154; Knotek 1892a: 37, 1894a: 558; Lokaj 1908: 11; Lonnicki 1913b: 148; Lucht 1987: 277; Marcu 1926c: 65; Negru 1968a: 455; Nunberg 1928b: 88, 110, 1954: 47, 1960b: 156; Orest 1926c: 65; Pfeffer 1924b: 471, 1928b: 7, 1930b: 119, 1931b: 75, 1935: 658, 1936: 90, 1989a: 55; Pittioni 1943: 175; Reitter 1890a: 13, 1894a: 66, 1916: 296, 351; Roubal 1941: 266; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240; Schedl 1980a: 21, 1981b: 70; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 188; Scott 1935: 281; Stark 1927b: 89, 1952: 310; Stein & Weise 1877: 164; Tredl 1907: 17; Wichmann 1927a: 70–71. (tx) Aeloque 1896; Balachowsky 1949a: 172; Bedel 1888b; Dombrowsky 1887; Eichhoff 1878a: 390, 1878b: 212, 1881a: 48, 207, 1883a: 111, 136; Endrodi 1957a: 305, 1957b; Fauvel 1885, 1887, 1889; Fleischer 1927; Formanek 1907: 32; Hagedorn 1910a: 93; Karpinski & Strawinski 1948: 156; Knotek 1892a: 37; Lucht 1987: 277; Nunberg 1928a: 140, 1954: 47; Pfeffer 1932b: 3, 21, 1942a: 18, 1955a: 159; Portevin 1935: 331; Reitter 1887b: 195, 1894a: 66, 1901b: 182, 1913a: 85, 1916: 296, 351; Rey 1892b: 30; Rosenhauer 1878: 162; Schedl 1934f: 1641, 1962p: 206, 1980a: 21, 1981b: 70; Schimitschek 1937c: 53–54, 1955c: 86; Scott 1935: 281; Stark 1952: 310.
- wittei** Eggers 1943c: 64. Syntypes, sex?; Congostaat (Park Natl. Albert: volcan Cahinga); sommet Visoke; Muhavura; Cahinga-Sabinvo; Kabara; de Witte and Eggers Collections, Eggers syntypes in NHMV, Wien.
Distribution: Africa (Kenya/ Ruanda/ Zaire).
Hosts: *Senecio* spp.
References: (ds) Schedl 1961k: 675. (tx) Eggers 1943c: 64; Schedl 1955f: 258, 1957d: 14, 1961k: 675.
- kenyae* Lepesme 1942b: 269. Holotype, sex?; Kenya: Mont Kenya; MNHN, Paris. Synonymy: Schedl 1961k: 676.
References: (tx) Lepesme 1942b: 268–269; Schedl 1952k: 160, 1957d: 14, 1960b: 164, 1961k: 675–676.
- zukwala** Scott 1935: 282. Syntypes, sex?; Abyssinia: Mt. Zukwala; BMNH, London.
Distribution: Africa (Ethiopia).
Hosts: *Lobelia gibberroa*.
References: (ds) Schedl 1961k: 676; Scott 1935: 241. (tx) Eggers 1936b: 32, 1943c: 63; Schedl 1961k: 676; Scott 1935: 241, 282–283.

Genus *Taphromurgus* Reitter

TAPHRONURGUS REITTER 1913a: 84, 90. Type-species:

Thammurgus exul Reitter, monobasic.

References: (hb) Wood, S. L. 1986a: 73. (ds) Wood, S. L. 1986a: 73. (tx) Peyerimhoff 1949: 3; Pfeffer 1991: 211–214; Reitter 1913a: 84, 90; Schedl 1962r: 94; Wood, S. L. 1986a: 73.

exul (Reitter) 1891b: 199 (*Thammurgus*). Holotype, sex?; Syr-Darja-Gebiete (Ost-Turkmenien); NHMB, Budapest.

Distribution: Europe (Afghanistan/ Kazakhstan in W USSR).

Hosts: *Clematis orientalis*.

References: (hb) Stark 1952: 314. (ds) Hagedorn 1910d: 62; Heyden 1881: 177, 1893: 178, 1898: 77; Kadyrov 1989; Kleine 1913b: 132, 1914b: 246; Reitter 1894a: 87; Schaufuss 1915: 1240; Sinadsky 1958: 143; Stark 1952: 314. (tx) Hagedorn 1910a:

107; Heyden 1893: 178; Pfeffer 1991: 211–214; Reitter 1891b: 199, 1894a: 87, 1913a: 90; Schedl 1934f: 1642; Semenov 1903: 80; Sokanovskii 1954: 18, 1958: 39; Stark 1952: 314.

Genus *Xylocleptes* Ferrari

XYLOCLEPTES FERRARI 1867a: 37. Type-species: *Bostrichus bispinus* Duftschmidt, monobasic.

Xestips Hagedorn 1912: 353. Type-species: *Xestips marginatus* Hagedorn, monobasic. Synonymy: Schedl 1950c: 204.

References: (tx) Hagedorn 1912: 353; Schedl 1950c: 204, 1952i: 9, 1961k: 677, 1962r: 94.

Hylonius Nunberg 1973: 16. Type-species: *Hylonius brunneus* Nunberg, original designation. Synonymy: Wood 1986c: 267.

References: (tx) Nunberg 1973: 16; Wood, S. L. 1986a: 74, 1986c: 267.

Keys: Reitter 1913a: 91 for Europe.

Notes: (3) American species cited in this genus actually belong to *Dendrocranulus*.

References: (ay) Fuchs 1912: 14–33; Nunberg 1928: 137–173. (hb) Felt 1906: 460; Judeich & Nitsche 1895: 449, 451; Wood, S. L. 1986a: 74. (ds) Hagedorn 1910d: 62; Scheerpeltz & Winkler 1930: 258; Wichmann 1964: 67; Wood, S. L. 1986a: 74. (tx) Balachowsky 1949a: 187–190, 1949b: 101; Barby 1901: 80; Bedel 1888b: 399, 415; Blandford 1898b: 84, 185, 188; Chamberlin 1939: 459–461; Eichhoff 1868d: 419, 1878b: 35, 51, 216, 1881a: 210; Ferrari 1867a: 37; Hagedorn 1910a: 89, 95, 106; Hopkins 1914: 131, 1915b: 9, 42–43, 1915c: 176, 188, 195, 226; Karaman 1972: 107; Knans 1909: 72–73; LeConte & Horn 1883: 518; Lovendal 1889: 19–20; Nunberg 1960a: 257–308; Nusslin 1911, 1912; Peyerimhoff 1949: 301; Pfeffer 1989a: 59; Reitter 1894a: 68, 86–87, 1894c: 45, 1913a: 85, 91; Schedl 1935a: 160, 1940a: 348, 1950c: 204, 1952d: 9, 1957e: 879, 1958d: 184, 1961k: 677, 681, 1962r: 94; Schimitschek 1937: 50–51, 54; Spessivtsev 1931: 88; Swaine 1909: 158–159, 1918a: 50, 129; Wood, S. L. 1961a: 41–48, 1986a: 74.

abruptus Nunberg 1973: 20. Holotype ♀?; Massif Ruwenzori, Kyandolire; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Nunberg 1973: 20.

abyssinicus (Schedl) 1965e: 364 (*Hoplitontus*). Holotype, sex?; Abyssinien; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ethiopia).

Notes: (3) Holotype covered by glue, generic placement uncertain.

References: (tx) Schedl 1965e: 364, 1979c: 9.

adeniae (Schedl) 1952d: 11 (*Dryocoetes*). Holotype ♀; Congo Belge; Mulungu; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Adenia cisaempeoides*, *Embelia schimperii*.

Notes: (1) Wood examined some paratypes in

1983 and assigned this species to *Xylocleptes* (Wood 1983 notes p. 16).

References: (ds) Mayne & Donis 1962: 305; Murayama 1957c: 608; Schedl 1961k: 657. (tx) Murayama 1957c: 608; Schedl 1952d: 11, 1961k: 657, 1979c: 11–12.

ater Schedl 1962k: 1075. Holotype, sex?; D.O.A.: Usambara; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: (tx) Schedl 1962k: 1075, 1979c: 30.

baikiae Schedl 1957e: 879. Holotype ♀; Tanganyika, Minziro; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Baikiaea eminii*.

References: (ds) Schedl 1961k: 679. (tx) Browne 1963b: 243; Schedl 1957e: 879–880, 1961k: 679, 1979c: 32.

bicuspis Reitter 1887b: 196. Syntypes ♀; Syrien; NHMW, Wien.

Distribution: Asia (Syria).

References: (ds) Hagedorn 1910d: 62; Hariri 1971: 262; Kleine 1913b: 132; Reitter 1894a: 87; Wichmann 1964: 1–67. (tx) Hagedorn 1910a: 107; Reitter 1887b: 196, 1894a: 87, 1894c: 45, 1913a: 91; Schedl 1934f: 1642.

bispinus (Duftschmidt) 1825: 92 (*Bostrichus*). Syntypes, sex?; Linz, Austria; not given.

Figures: Balachowsky 1949a: 184, 190, 192, Grune 1979: 92, Pfeffer 1989a: pl. 12; Postner 1974: 426 (adult).

Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Poland/ Romania/ Sardinia/ Spain/ W USSR/ Yugoslavia).

Hosts: *Clematis vitalba*, *Vitis sylvestris*.

References: (ay) Escherich 1923b: 487; Feytaud 1950a; Nunberg 1928a: 141; Nusslin 1911a: 60, 255, 338, 378. (bv) Grune 1979: 93; Klimetzek et al. 1989; Wichmann 1967. (cn) Chorbadzhiyev 1929; Escherich 1923b: 487; Feytaud 1950a; Grandi 1951; Marcu 1926c: 65; Muller 1912: 186; Nusslin 1913: 290; Schimitschek 1937c: 54, 1955c: 86; Wachtl 1901: 381; Wichmann 1927b: 361. (ec) Elliot & Morley 1907; Gillanders 1906; Graham 1969: 874; Kielczewski 1976; Kleine 1908c: 215, 1909a: 49, 78; Nosek 1959a: 118, 1959b: 87; Novak 1952: 416; Nusslin 1927: 350; Perris 1853: 620, 1856a: 243; Pfeffer 1928b: 7; Rondani 1873: 139; Rulm 1956b: 4; Sedlaczek 1935a: 157; Speyer 1937: 40; Wichmann 1967. (hb) Bach 1849a: 200, 1849c: 161, 1854: 129, 1864: 51; Barbey 1901: 24, 80; Buddenberg 1855: 95; Bukowsky 1930; Chorbadzhiyev 1929; Dombrowsky 1887; Eichhoff 1881a: 48, 210; Escherich 1923b: 487; Everts 1903: 765; Feytaud 1950a; Fuchs 1904a, 1907: 47; Gillanders 1906, 1908; Grandi 1951; Hagedorn

1903a; Karpinski & Strawinski 1948: 156; Karsch 1853: 141; Knotek 1894a: 558; Lengerken 1939: 65, 1954: 85; Masutti 1964; Munro 1926: 67; Nordlinger 1856: 20; Nosek 1959a: 118, 1959b: 87; Nusslin 1898: 281, 1906b: 14, 1913: 290, 1927: 350; Perris 1856a: 243; Pfeffer 1942a: 18; Postner 1974: 425; Ratzeburg 1837: 155, 1839: 189; Rupertsberger 1880: 230; Schedl 1981b: 68; Sedlacek 1935a: 157; Speyer 1937: 40; Stark 1952: 318; Tschorbadjiev 1929: 169; Wachtl 1876a: 460, 1901: 381; Wahnschaffe 1864: 396; Wichmann 1924: 15, 1927b: 361; Zocchi 1959: 103. (**ds**) Acloque 1896; Ammann & Knabl 1913; Bach 1849a, 1849c; Barthe 1896; Bau 1888; Bedel 1888b: 399, 415; Bejer-Petersen & Jorum 1977; Bielz 1887; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 205; Brancsik 1871, 1906; Bukowsky 1930; Calwer 1884, 1893; Carpentier & Delaby 1908; Cecconi 1897; Chapuis & Candeze 1853; Chorbadzhievo 1924d, 1929; Crotch 1863; Debatisse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1825: 92; Eggers 1904, 1912f; Endrodi 1958a, 1958b; Escherich 1923b: 554, 1932b; Everts 1922: 646; Favre 1890; Forster 1849: 439; Fowler 1882: 64, 1891; Fricken 1889: 348; Fuchs 1904a, 1905a, 1907: 47; Gemminger & Harold 1872: 2693; Gozis 1875: 80; Gredler 1866: 374, 1868; Grill 1895: 311; Grune 1979: 93; Guyon 1855; Hagedorn 1903a, 1910d: 162; Hansen 1939; Heinemann 1908a; Hellen 1947; Heyden 1876: 300, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1906: 712; Holdhaus 1912: 454, 1923: 115; Horion 1951; Kaltenbach 1874: 1; Karpinski & Strawinski 1948: 156; Kestercanek 1881a: 12; Kiefer et al. 1942: 529; Klefbeck & Sjøberg 1960: 230; Kleine 1912a: 262, 268, 1913a: 35, 307, 1913b: 132; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558; Koca 1900: 116, 1905: 192; Koch 1977: 36; Koltze 1901: 153; Kozikowsky & Kuntze 1925: 21; Kraatz 1869: 59; Lacordaire 1866: 385; Langhoffer 1915c: 158; Leclercq 1971; Leder 1871: 131; Leng 1918: 211; Lentz 1857: 139; Lomnicki 1913b: 148; Lucht 1987: 277; Marcu 1926c: 65; Matthews & Fowler 1883; Meinert 1887: 70; Munro 1921: 88, 1926: 1-27; Negrn 1957: 129, 1966b: 401, 1968a: 455, 1968c: 91; Negrn & Rosca 1967: 141; Novak, P. 1952: 416; Numberg 1928b: 88, 111, 1954: 66, 1960b: 157; Nusslin 1898: 281; Orest 1926c: 65; Paganetti-Hummmler 1901: 150; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 471, 1928b: 7, 1930b: 120, 1931b: 73, 1936: 90, 1947d: 129, 1989a: 60; Pittioni 1943: 175; Postner 1974: 425; Prossen 1913: 84; Ragusa 1924: 117; Rapp 1934: 733; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1858: 834, 1874: 378; Reitter 1888b: 280, 1894a: 87, 1916: 297; Revy & Siroki 1942: 82; Roubal 1941: 267; Sainte-Claire 1905: 157, 1914: 474; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1241; Schaum 1859: 96, 1862: 101; Schedl

1961b: 186, 1971d: 426, 1980a: 21, 1981b: 68; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 189; Seidlitz 1872: 395, 1891a: 565, 1891b: 610; Sharp & Fowler 1893: 34; Stark 1927b: 89, 1952: 318; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 442; Stierlin & Gautard 1906: 205; Sturm 1843: 230; Swaine 1909: 159; Trappen 1935: 142; Tredl 1907: 16; Tschorbadjiev 1929: 169; Villa & Villa 1833: 26; Wachtl 1876a: 460; Welch, R. C. 1968b: 19; Westhoff 1882: 239; Wichmann 1924: 15, 1927a: 72, 1964: 2; Zocchi 1959: 103. (**tx**) Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 191; Barbey 1901: 24, 80; Bedel 1888b: 399, 415; Bertolini 1872; Brancsik 1871; Carpentier & Delaby 1908; Chapuis & Candeze 1853; Chevrolat 1838; Chorbadzhievo 1924d; Dejean 1821, 1825; Doebner 1862: 178; Dombrowsky 1887; Duftschmidt 1825: 92; Duffy 1953: 15; Eggers 1912f: 29; Eichhoff 1831: 11, 21, 1868d: 419, 1878b: 216, 1881a: 48, 210, 1883a: 111, 137; Endrodi 1957b; Escherich 1923b: 487; Everts 1903: 765, 1922: 646; Fauvel 1889; Ferrari 1867a: 38, 40, 1867b: 114; Fleischer 1905, 1927; Formanek 1907: 49; Fricken 1889: 348; Gebien 1907: 197; Gilanders 1908; Grune 1979: 92-93; Hagedorn 1910a: 107; Hopkins 1914: 131, 1915b: 43; Houlbert 1922a: pl. 1; Jacquelin du Val & Fairmaire 1868: 107; Kaline 1975; Karpinski & Strawinski 1948: 156; Knotek 1892a: 37; Kuhnt 1913: 1059; Lacordaire 1866: 383; Letzner 1891: 376; Lovendal 1889b: 54, 1898: 135; Lucas 1920: 675; Lucht 1987: 277; Negrn 1966b: 401; Nordlinger 1848: 237, 1850: 77, 1856: 20; Numberg 1928a: 141, 1954: 66; Nusslin 1911a: 60, 255, 338, 378; Perris 1877a: 414; Pfeffer 1932b: 22, 1942a: 18, 1955a: 162, 1989a: pl. 12; Portevin 1935: 332; Postner 1974: 425; Qnaschik 1953: 35; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1849a: 357, 1849b: 26, 1858: 834, 1874: 378; Reitter 1894a: 87, 1894c: 45, 1913a: 91, 1916: 297; Rey 1892b: 30; Rupertsberger 1880: 230; Schedl 1934f: 1642, 1952f: 87-88, 1980a: 21, 1981b: 68; Schimitschek 1937c: 54, 1955c: 86; Schlechtendal 1879: 126; Schwarz 1886: 42; Seidlitz 1872: 395, 1891a: 565, 1891b: 610; Stark 1952: 318; Stierlin 1898: 442; Stresemann et al. 1986: 354; Swaine 1909: 159; Wachtl 1895: 9. (**ms**) Eichhoff 1868d: 419; Escherich 1932b; Heisemann 1908a; Lucas 1920: 675; Schimitschek 1930b: 407.

retusus Olivier 1795b: 10 (*Scolytus*). Syntypes, sex²; Paris, France; MNHN, Paris. Synonymy: Eichhoff 1878b: 217.

Notes: (3) This name has 30 years priority, but it is virtually unused in the literature and is ignored here in favor of the well-known junior name.

References: (**hb**) Ratzeburg 1837: 155. (**ds**) Ratzeburg 1837: 155; Schilsky 1909: 189; Stein & Weise 1877: 164; Swaine 1909: 159. (**tx**) Balachowsky 1949a: 192; Eichhoff 1878b: 217;

Eggers 1936b: 31; Letzner 1891: 376; Olivier 1795b: 10; Ratzeburg 1837: 155; Swaine 1909: 159.

bituberculatus Hagedorn 1910b: 1. Holotype, sex?; Kamerun; MNB, Berlin.

Distribution: Africa (Cameroon).

References: (ds) Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 311. (tx) Hagedorn 1910a: 107, 1910b: 1; Schedl 1961k: 679.

biuncus Reitter 1894c: 45. Holotype, sex?; Dalmatien; Zara; NHMB, Budapest.

Figures: Balachowsky 1949: 184, 192.

Distribution: Africa (Algeria/ Morocco), Europe (Italy/ Spain/ Yugoslavia).

Hosts: *Clematis cirrhosa*.

References: (bv) Grune 1979: 93. (en) Grandi 1951; Wachtl 1901: 381. (ee) Kleine 1908c: 214. (hb) Grandi 1951; Postner 1974: 425; Wachtl 1901: 381. (ds) Grune 1979: 93; Hagedorn 1910d: 62; Heyden, Reitter, & Weise 1906: 713; Kleine 1913a: 307, 1913b: 132, 1914a: 16; Kocher 1953: 133; Langhoffer 1915c: 158; Postner 1974: 425; Reitter 1894a: 87; Schaufuss 1915: 1241; Schedl 1971d: 432; Tredl 1907: 16; Wichmann 1964: 1-67. (tx) Balachowsky 1949a: 192; Grune 1979: 93; Hagedorn 1910a: 107; Postner 1974: 425; Reitter 1894a: 87, 1894c: 45, 1913a: 91; Schedl 1934f: 1642; Wachtl 1895: 9.

brownei Schedl 1964m: 309. Holotype, sex?; Nigeria; Abuja; BMNH, London, automatic.

Distribution: Africa (Nigeria).

References: (tx) Browne 1965a: 196, 1973a: 243; Roberts 1969b: 134; Schedl 1964m: 309, 1972q: 261.

punctatus Browne 1963b: 243. Holotype, sex?; Nigeria; Abuja; BMNH, London, preoccupied by Hopkins 1915.

References: (tx) Browne 1963b: 243, 1973a: 287; Nunberg 1969a: 382; Schedl 1964m: 309.

immutis Nunberg 1969a: 382. Holotype, sex?; Nigeria; Abuja; BMNH, London, automatic, no status.

References: (tx) Browne 1973a: 287; Nunberg 1969a: 382; Schedl 1972q: 261.

brunneus (Nunberg) 1973: 16 (*Hylonius*). Holotype, sex?; Massif Ruwenzori, Kalonge, Zaire; MRCB, Tervuren.

Distribution: Africa (Zaire).

Notes: (1) Wood 1986a: 74, 1986c: 267 (to *Xylocleptes*).

References: (tx) Nunberg 1973: 16; Wood 1986a: 74, 1986c: 267.

camerunus (Schedl) 1941d: 400 (*Dendrocranulus*). Holotype, sex?; Umgeb. Kamerunberg, Missellele; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon/ Zaire).

References: (tx) Schedl 1941d: 400, 1961k: 733, 1965g: 20, 1979c: 50.

castaneus Browne 1963b: 244. Holotype ♂; Ghana; Bobiri (near Kumasi); BMNH, London.

Distribution: Africa (Ghana).

References: (tx) Browne 1963b: 244.

congonus Hagedorn 1908: 375. Holotype, sex?; Kinchassa (Waelbroek), Congo; IRSNB, Brussels.

Distribution: Africa (Zaire).

References: (ds) Hagedorn 1910d: 62; Kleine 1913b: 132. (tx) Hagedorn 1905: 375, 1910a: 107; Schedl 1961k: 680.

cribratus Browne 1973a: 286. Holotype ♂; Zaire; Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Browne 1973a: 286.

densepunctatus Schedl 1962k: 1076. Holotype, sex?; Tanganyika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: (tx) Schedl 1962k: 1076, 1979c: 77.

granulipennis Schedl 1967e: 228. Holotype ♂; Bouenza cataract; NHMB, Budapest.

Distribution: Africa (Zaire).

References: (tx) Schedl 1967e: 228, 1979c: 112.

indicus Schedl 1971c: 374. Holotype ♀; [Bombay], India; Schedl Collection in NHMW, Wien.

Distribution: Asia (Maharashtra in India).

References: (tx) Schedl 1971c: 374, 1979c: 124.

irretitus Browne 1965a: 196. Holotype, sex?; Ivory Coast; Adiopodoume; RNH, Leiden.

Distribution: Africa (Ivory Coast).

References: (tx) Browne 1965a: 196.

linnavuorii Schedl 1968b: 145. Holotype, sex?; Ethiopia, Belleta Forest; MZU, Helsinki.

Distribution: Africa (Ethiopia).

References: (tx) Schedl 1968b: 145, 1979c: 139.

marginatus (Hagedorn) 1912: 353 (*Xestips*). Holotype ♀; Ost-Afrika; MNB, Berlin.

Figures: Nunberg 1960a: 292.

Distribution: Africa (Kenya/ Tanzania).

References: (ds) Kleine 1913b: 133, 1914b: 322.

(tx) Browne 1963b: 243; Hagedorn 1912: 353; Hopkins 1914: 131; Schedl 1950c: 204, 207, 1961k: 680, 1962h: 64, 1962k: 1076.

meruensis Nunberg 1960a: 291. Holotype ♂; Tanganyika Terr.: Mt. Meru, Olkokola; MRCB, Tervuren. Synonymy: Schedl 1962h: 64, 1962k: 1076.

References: (tx) Nunberg 1960a: 291-292; Schedl 1962h: 64, 1962k: 1076.

robustus (Schedl) 1971g: 198 (*Mimidendrus*). Holotype ♀; Fernando Po Island; Instituto Espanol de Entomologia, Madrid.

Distribution: Africa (Fernando Po Island).

Notes: (1) Wood examined a paratype at NHMW, Wien, and transferred this species to *Xylocleptes* (Wood 1983 notes, p. 16).

References: (tx) Schedl 1971g: 198.

rugulosus (Schedl) 1972e: 290 (*Mimidendrusus*).

Holotype, sex?; Ghana: Ashanti Region, Kwadaso, 390 m; NHMB, Budapest.

Distribution: Africa (Ghana).

Notes: (1) Wood examined a paratype at NHMW, Wien and transferred this species to *Xylocleptes* (Wood 1983 notes, p. 16).

References: (tx) Schedl 1972e: 290, 1979c: 217.

sidanus (Schedl) 1952i: 13 (*Dryocoetes*). Holotype ♀; Congo Belge: Mulungu; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Caesalpinia decapetala*, *Clematis sinensis*, *Geniosporium pahudosum*, *Loranthus* sp., *Melanthera brownii*, *Sida rhombifolia*, *Strombosia grandifolia*.

Notes: (1) Wood examined paratypes at NHMW, Wien, and transferred this species to *Xylocleptes* (Wood 1983 notes, p. 16).

References: (ds) Mayne & Donis 1962: 306; Murayama 1957c: 608; Schedl 1961k: 662. (tx) Murayama 1957c: 608; Schedl 1952i: 13, 1961k: 662, 1979c: 228.

sparsipunctatus (Eggers) 1935c: 308 (*Cyrtogenius*). Holotype ♂; Congostaat (Equateur: Flandria); MRCB, Tervuren.

Distribution: Africa (Zaire).

Notes: (1) Schedl 1964m: 309 (to *Xylocleptes*).

References: (ds) Schedl 1964j: 41, 1964m: 309, 1965e: 352, 1971g: 194. (tx) Browne 1963b: 243; Eggers 1935c: 308; Schedl 1964m: 309, 1979c: 233.

usambaricus Schedl 1950c: 208. Holotype, sex?; O. Afrika, Usambara; Schedl Collection in NHMW, Wien.

Figures: Schedl 1961k: 681.

Distribution: Africa (Kenya/ Tanzania/ Zaire).

Notes: (1) Schedl 1952i: 9 (treated this species in *Tiarophorus*).

References: (ds) Schedl 1962h: 59, 1962k: 1077. (tx) Nunberg 1960: 293; Schedl 1950c: 208, 1952i: 9, 1954e: 77, 1957d: 74, 1961k: 681, 1962k: 1077, 1979c: 262.

Genus *Dendrocranulus* Schedl

DENDROCRANULUS SCHEDL 1937h: 165. Type-species: *Dendrocranulus tardus* Schedl, subsequent designation by Schedl 1938a: 169.

Keys: Wood 1982b: 708.

Notes: (3) Schedl 1937h: 165 (*linearis* Eggers, nomen nudum, *volustus* Eggers, nomen nudum, synonymy?). All species in this genus breed in vines of the Cucurbitaceae.

References: (hb) Wood, S. L. 1986a: 74. (ds) Wood, S. L. 1986a: 74. (tx) Arnett 1960: 1043, 1968: 1043; Schedl 1937h: 165, 1938a: 169, 1939h: 45–48; Wood, S. L. 1961a: 11, 1982b: 708–723, 1986a: 74.

acutus Wood 1979b: 139. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Vine.

References: (tx) Wood, S. L. 1979b: 139.

barbatus Schedl 1939m: 172. Lectotype ♀; Argentina, Vicente Lopez; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34.

Distribution: South America (Argentina/ Brazil). Hosts: *Cayaponia ficifolia*.

References: (cn) Costa Lima 1956. (hb) Bruch 1939: 203; Costa Lima 1956; Viana 1964: 124. (ds) Blackwelder 1947: 781; Costa Lima 1956; Viana 1964: 124. (tx) Bruch 1939: 203; Costa Lima 1956; Schedl 1939m: 172, 1952a: 446, 1979c: 34.

brasiliensis (Schedl) 1963d: 224 (*Xylocleptes*). Holotype ♀; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Hosts: *Cedrela* sp., *Dalbergia* sp., *Morus nigra*, *Sapota gonocarpa*.

References: (tx) Schedl 1963d: 224, 1979c: 45.

carbonarius (Ferrari) 1867: 41 (*Xylocleptes*).

Holotype ♂; Cuba; NHMW, Wien.

Distribution: Antilles Islands (Cuba/ Jamaica), North America (Florida in USA).

References: (ds) Blackwelder 1947: 781; Bright 1981d: 154, 1985c: 173; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 66; Kleine 1913b: 136, 1914b: 378; Leng & Mutchler 1917: 220; Wood, S. L. 1982b: 721. (tx) Bright 1985c: 173; Eichhoff 1878b: 296; Ferrari 1867a: 41; Hagedorn 1910a: 96; Hopkins 1915b: 43; Schedl 1938a: 169, 172; Wood, S. L. 1973c: 176, 1974d: 280, 1982b: 721.

floridensis Hopkins 1915b: 43 (*Xylocleptes*).

Holotype ♀; Biscayne Bay, Florida [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.

References: (hb) Chamberlin 1939: 460. (ds) Blatchley & Leng 1916: 607; Chamberlin 1939: 460; Leng 1920: 342. (tx) Blatchley & Leng 1916: 607; Chamberlin 1939: 460; Hopkins 1915b: 43; Wood, S. L. 1973c: 176, 1974d: 280.

anonae Hopkins 1915b: 43 (*Xylocleptes*). Holotype ♀; Florida [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.

References: (hb) Chamberlin 1939: 460. (ds) Blatchley & Leng 1916: 607; Chamberlin 1939: 460; Kleine 1934a: 153; Leng 1920: 342. (tx) Blatchley & Leng 1916: 607; Chamberlin 1939: 460; Hopkins 1915b: 43; Wood, S. L. 1973c: 176, 1974d: 280.

columbianus Schedl 1937h: 167. Holotype, sex?; Columbian; Schedl Collection in NHMW, Wien. Distribution: South America (Colombia).

References: (ds) Blackwelder 1947: 781. (tx) Schedl 1937h: 167, 1938a: 169, 1979c: 60.

conditus Wood 1974a: 23. Holotype ♂; Bumbuni Forest Station, Barinas, Venezuela; Wood Collection. Distribution: South America (Venezuela).

Hosts: Vine.

References: (tx) Wood, S. L. 1974a: 23.

- confinis** Wood 1974a: 26. Holotype ♂; Volcan de Chiriquí, near Cerro Punta, Chiriquí, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Vine.
References: (ds) Wood, S. L. 1982b: 718. (tx) Wood, S. L. 1974a: 26, 1982b: 718.
- cousimilis** Wood 1974a: 23. Holotype ♂; Los Corchos, Nayarit, Mexico; Wood Collection.
Distribution: North America (Honduras/ Nayarit in Mexico).
Hosts: *Cayaponia microdonta*, *Sicydium tannifolium*.
References: (hb) Wood, S. L. 1982b: 711. (ds) Atkinson & Equihua 1985b: 236; Wood, S. L. 1982b: 711. (tx) Wood, S. L. 1974a: 23, 1982b: 711.
- costalimai** Schedl 1938a: 169. Lectotype, sex?; Santos, S. P. [Sao Paulo, Brazil]; USNM, Washington, designated by Anderson & Anderson 1971: 10.
Distribution: South America (Brazil).
References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 781; Costa Lima 1956; Schedl 1966f: 85, 1970e. (tx) Anderson, W. H. & Anderson 1971: 10; Costa Lima 1956; Schedl 1938a: 169–170, 1979e: 66.
- costaricensis** Schedl 1938a: 171. Holotype ♂; Turrialba, Costa Rica; Eggers Collection, in NHMW, Wien.
Distribution: North America (Costa Rica/Honduras).
Hosts: *Cayaponia microdonta*.
References: (ds) Blackwelder 1947: 781; Schedl 1981b: 715; Wood, S. L. 1982b: 715. (tx) Schedl 1938a: 171, 1979c: 67; Wood, S. L. 1982b: 715.
- cucurbitae** (LeConte) 1879: 519 (*Xylocleptes*). Holotype ♀; Utah [USA]; MCZ, Cambridge.
Figures: Atkinson et al. 1986: 28, 67.
Distribution: North America (Chihuahua, Mexico, Michoacan, Morelos in Mexico/ Arizona, California, S Nevada, New Mexico, S Utah in USA).
Hosts: *Cucurbita digitata*, *C. foetidissima*, *Echinocystis macrocarpa*, *Luffa acutangulata*.
References: (hb) Atkinson et al. 1986: 60; Burgos & Saucedo 1983: 97; Chamberlin 1939: 460; Lenggerken 1939: 65, 1954: 85. (ds) Anonymous 1926c: 520; Atkinson & Equihua 1985a: 87, 1985b: 236, 1988: 88; Atkinson et al. 1986: 60; Blackwelder 1947: 778; Burgos & Saucedo 1983: 97; Chamberlin 1939: 460; Cockerell 1897: 150; Cockerell et al. 1907; Fall 1906: 202; Fall & Cockerell 1907: 217; Ferrer 1942; Hagedorn 1910d: 62; Henshaw 1882: 269; Kleine 1913b: 132, 1914b: 351, 397, 1934a: 153; Knaus 1909: 73; Leng 1920: 342; Leonard 1928: 520; Schwarz 1886: 42; Swaine 1909: 159; Wood, S. L. 1982b: 718. (tx) Atkinson et al. 1986: 28, 67; Chamberlin 1939: 460; Hagedorn 1910a: 107; Hopkins 1915b: 43; LeConte 1879: 519; Muskus, A. 1984: 91; Schedl 1940a: 348; Schwarz 1886: 42; Swaine 1909: 159; Wood, S. L. 1973c: 176, 1982b: 718.
- californicus** Hopkins 1915b: 44 (*Xylocleptes*). Holotype ♀; Pomona, California [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.
References: (hb) Bright & Stark 1973: 73; Chamberlin 1939: 460. (ds) Bright & Stark 1973: 73; Chamberlin 1939: 460; Leng 1920: 342. (tx) Bright 1971a: 66–67; Chamberlin 1939: 460; Hopkins 1915b: 43–44; Wood, S. L. 1973c: 176.
- punctatus** Hopkins 1915b: 44 (*Xylocleptes*). Holotype ♀; Mesilla, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.
References: (hb) Chamberlin 1939: 461. (ds) Chamberlin 1939: 461; Kleine 1934a: 153; Leng 1920: 342. (tx) Chamberlin 1939: 461; Hopkins 1915b: 43–44; Wood, S. L. 1973c: 176.
- venturina** Hopkins 1915b: 44 (*Xylocleptes*). Holotype ♀; Ventura Co., California [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.
References: (hb) Chamberlin 1939: 461. (ds) Chamberlin 1939: 461; Kleine 1934a: 153; Leng 1920: 342. (tx) Bright 1971: 67; Chamberlin 1939: 461; Hopkins 1915b: 43–44; Wood, S. L. 1973c: 176.
- declivis** Schedl 1937b: 166. Holotype ♀; Costa Rica, Turrialba; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: *Potakowskia tacaco*, *Sechium edule*.
References: (ds) Atkinson & Equihua 1985b: 236; Blackwelder 1947: 781; Wood, S. L. 1982b: 719. (tx) Schedl 1937b: 166, 1938a: 169, 1979c: 76; Wood, S. L. 1982b: 719.
- diversus** Wood 1971: 37. Holotype ♂; Puerto Viejo, Limon Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/Honduras).
Hosts: *Cayaponia microdonta*, etc.
References: (ds) Wood, S. L. 1982b: 722. (tx) Wood, S. L. 1971: 37, 1982b: 722.
- fulgidus** Wood 1974a: 25. Holotype ♂; Volcan de Chiriquí, near Cerro Punta, Chiriquí, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Vine.
References: (ds) Wood, S. L. 1982b: 716. (tx) Wood, S. L. 1974a: 25, 1982b: 716.
- gracilis** Wood 1982a: 227. Holotype ♀; Km 58 on Xochimilco-Oaxtepec highway, Morelos, Mexico, 1970 m; Wood Collection.
Distribution: North America (Morelos in Mexico).
Hosts: *Sechium edulis*.
References: (hb) Atkinson et al. 1986: 34; Burgos & Saucedo 1983: 97. (ds) Atkinson & Equihua 1985b: 236; Atkinson et al. 1986: 34; Burgos & Saucedo 1983: 97. (tx) Wood, S. L. 1982a: 227.
- guatemalensis** (Hopkins) 1915b: 44 (*Xylocleptes*). Holotype ♀; Panzos, Guatemala; USNM, Washington.
Distribution: Antilles Islands (Guadeloupe), North America (Honduras/ Veracruz in Mexico).

- Hosts: *Cayaponia microdonta*.
References: (**hb**) Atkinson et al. 1986: 34. (**ds**) Atkinson & Equihua 1985a: 87; Atkinson et al. 1986: 34; Blackwelder 1947: 778; Bright 1985c: 173; Wood, S. L. 1982b: 720. (**tx**) Bright 1985c: 173; Hopkins 1915b: 43–44; Wood, S. L. 1976a: 348, 1982b: 720.
- parallelus* Schedl 1938a: 172. Holotype, sex?; Guadeloupe, Env. Trois Rivières; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1976a: 348.
References: (**ds**) Blackwelder 1947: 781; Schedl 1976a: 51. (**tx**) Anderson, W. H. & Anderson 1971: 24; Eggers 1940a: 108; Schedl 1938a: 172, 1939h: 45–46, 1979c: 185; Wood, S. L. 1976a: 348.
- knausi** (Hopkins) 1915b: 44 (*Xylocleptes*). Holotype ♀; Ashland, Kansas [USA]; USNM, Washington. Distribution: North America (Chihuahua in Mexico/ Kansas, Louisiana, New Mexico, Oklahoma, Texas in USA).
Hosts: *Cucurbita foetidissima*, *C. pepo*, *C. sp.*
References: (**hb**) Chamberlin 1939: 461. (**ds**) Atkinson & Equihua 1988: 80; Chamberlin 1939: 461; Leng 1920: 342; Wood, S. L. 1982b: 722. (**tx**) Chamberlin 1939: 461; Hopkins 1915b: 43–44; Schedl 1979c: 120; Wood, S. L. 1982b: 722.
- limatus** Wood 1974a: 22. Holotype ♂; Bumbum Forest Station, Barinas, Venezuela, 150 m; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Cucurbitaceae vine.
References: (**tx**) Wood, S. L. 1974a: 22.
- limbatus** (Blandford) 1898b: 190 (*Dryocoetes*). Lectotype ♂; Volcan de Agua, 8500–10,500 ft., Guatemala; BMNH, London, designated by Wood 1982b: 721.
Distribution: North America (Guatemala).
References: (**ds**) Blackwelder 1947: 778; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 362; Leng & Mutchler 1917: 220; Murayama 1957c: 606; Wood, S. L. 1982b: 721. (**tx**) Blandford 1898b: 190; Hagedorn 1910a: 76; Hopkins 1915b: 43; Murayama 1957c: 606; Wood, S. L. 1982b: 721.
- limbellus** Wood 1979b: 139. Holotype ♀; Merida, Merida, Venezuela, 5300 ft.; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Cucurbita sp.*
References: (**tx**) Wood, S. L. 1979b: 139.
- limitaris** Wood 1979b: 140. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Vine.
References: (**tx**) Wood, S. L. 1979b: 140
- limus** Wood 1971: 38. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Sechium edule*, etc.
References: (**hb**) Wood, S. L. 1982b: 712. (**ds**) Wood, S. L. 1982b: 712. (**tx**) Wood, S. L. 1971: 38, 1982b: 712.
- macilentus** (Blandford) 1898b: 190 (*Dryocoetes*). Lectotype ♀; Jalapa, Veracruz, Mexico; BMNH, London, designated by Wood 1973c: 176.
Distribution: North America (Costa Rica/ Veracruz in Mexico).
Hosts: Vine.
References: (**ds**) Blackwelder 1947: 778; Ferrer 1942; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 351; Murayama 1957c: 606; Wood, S. L. 1982b: 720. (**tx**) Blandford 1898b: 190; Hagedorn 1910a: 96; Murayama 1957c: 606; Schedl 1937h: 166, 1940a: 348; Wood, S. L. 1973c: 176, 1982b: 720.
- grossopunctatus** Schedl 1937h: 166. Holotype, sex?; Costa Rica, [San Isidro de] Coronado; Schedl Collection in NHMW, Wien. Synonymy: Wood 1973c: 176.
References: (**ds**) Blackwelder 1947: 781. (**tx**) Schedl 1937h: 166, 1938a: 169, 1979c: 113; Wood, S. L. 1973c: 176.
- major** Schedl 1938a: 170. Lectotype, sex?; Bolivien, Cochabamba; USNM, Washington, designated by Anderson & Anderson 1971: 19.
Distribution: South America (Bolivia).
Notes: (3) Schedl 1979c: 145 (designation of lectotype invalid).
References: (**ds**) Blackwelder 1947: 781; Schedl 1966f: 145. (**tx**) Anderson, W. H. & Anderson 1971: 19; Schedl 1938a: 170, 175, 1939m: 173, 1979c: 145.
- maurus** (Blandford) 1898b: 191 (*Dryocoetes*). Holotype ♀; El Tumbador, San Marcos, Guatemala; BMNH, London.
Distribution: North America (Guatemala/ Honduras/ Chiapas, Veracruz in Mexico).
Hosts: *Cayaponia microdonta*.
References: (**ds**) Atkinson & Equihua 1986a: 420; Blackwelder 1947: 778; Estrada & Atkinson 1988: 206; Hagedorn 1910d: 67; Kleine 1913b: 135, 1914b: 362; Murayama 1957c: 606; Wood, S. L. 1982b: 715. (**tx**) Blandford 1898b: 191; Hagedorn 1910a: 96; Murayama 1957c: 606; Wood, S. L. 1974d: 280, 1982b: 715.
- huehuetanus** Schedl 1940a: 344. Lectotype ♂; Huehuetan, Tonalá, Chiapas, Mexico; Schedl Collection in NHMW, Wien, designated by Wood 1974d: 280. Synonymy: Wood 1974d: 280.
References: (**ds**) Blackwelder 1947: 781; Ferrer 1942. (**tx**) Schedl 1940a: 344, 1979c: 120; Wood, S. L. 1974d: 280.
- mexicanus** Wood 1986: 272. Holotype ♀; Naolinco, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Sechium edulis*.

References: (tx) Wood, S. L. 1986c: 272.

modus Wood 1979b: 140. Holotype ♀; Merida, Merida, Venezuela, 1700 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Cucurbita* sp.

References: (tx) Wood, S. L. 1979b: 140.

pilosus Eggers 1943a: 357. Holotype, sex[?]; Bolivia (Cochabamba); MNHN, Paris.

Distribution: South America (Bolivia).

References: (tx) Eggers 1943a: 357.

pinguis Wood 1979b: 140. Holotype ♀; Bumbum Forest Station, Barinas, Venezuela, 150 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Vine.

References: (tx) Wood, S. L. 1979b: 140.

pumilus Wood 1971: 38. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 713. (tx) Wood, S. L. 1971: 38, 1982b: 713.

reditus Wood 1974a: 23. Holotype ♂; 9 km S Barancas, Barinas, Venezuela, 150 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Cucurbitaceae vine.

References: (tx) Wood, S. L. 1974a: 23.

rubripes (Eggers) 1943a: 358 (*Pityophthorus*). Holotype ♂; Bolivia (Cochabamba); MNHN, Paris.

Distribution: South America (Bolivia).

Notes: (1) Schedl 1951m: 73 (to *Dendrocranulus*).

References: (tx) Eggers 1943a: 358; Schedl 1943a: 358, 1951m: 73, 1964m: 309, 1979c: 214.

rudis Wood 1974a: 26. Holotype ♂; 19 km E Carapan, Michoacan, Mexico; Wood Collection.

Distribution: North America (Durango, Michoacan in Mexico).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 717. (tx) Wood, S. L. 1974a: 26, 1982b: 717.

schedli Wood 1966b: 23. Lectotype, sex[?]; Costa Rica, Hamburgfarm on Rio Raventazon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 71, automatic.

Distribution: North America (Costa Rica).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 716. (tx) Schedl 1979c: 71; Wood, S. L. 1966b: 23, 1982b: 176.

cucurbitae Schedl 1939h: 45. Lectotype, sex[?]; Costa Rica, Hamburgfarm on Rio Raventazon; Schedl Collection in NHMW, Wien, desig-

nated by Schedl 1979c: 71, preoccupied by LeConte 1879.

References: (ds) Blackwelder 1947: 781. (tx) Schedl 1939h: 45, 1979c: 71; Wood, S. L. 1965: 23.

sechii Nunberg 1972b: 193. Holotype ♂; Barueri, Sao Paulo, Brazil; MZUSP, Sao Paulo.

Figures: Nunberg 1972a, 1972b: 194.

Distribution: South America (Brazil).

Hosts: *Sechium edule*.

References: (tx) Nunberg 1972a, 1972b: 193–194.

securus Wood 1974a: 25. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 715. (tx) Wood, S. L. 1974a: 25, 1982b: 715.

sobrinus Wood 1984: 114. Holotype ♂; Veracruz, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Luffa acutangula*.

References: (ds) Atkinson & Equihua 1985b: 236. (tx) Wood, S. L. 1984: 114.

tardulus Wood 1971: 37. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Sechium edule*.

References: (ds) Atkinson et al. 1986: 62; Wood, S. L. 1982b: 712. (tx) Wood, S. L. 1971: 37, 1982b: 712.

tardus Schedl 1937h: 165. Holotype ♀[?]; Costa Rica, La Caja; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica/Honduras).

Hosts: *Cayaponia macrodonta*.

References: (ds) Blackwelder 1947: 781; Wood, S. L. 1982b: 713. (tx) Schedl 1937h: 165, 1935a: 169, 1979c: 250; Wood, S. L. 1982b: 713.

tayuyaensis Schedl 1939m: 173. Lectotype ♀; Argentina, Vicente Lopez; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 250. Distribution: South America (Argentina/Brazil).

Hosts: *Cayaponia ficifolia*.

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956; Viana 1964: 124. (ds) Blackwelder 1947: 781; Costa Lima 1956; Schedl 1973d: 154; Viana 1964: 124. (tx) Costa Lima 1956; Schedl 1939m: 173, 1952a: 446, 1979c: 250.

uncinatus (Eichhoff) 1872a: 134 (*Xylocleptes*). Holotype, sex[?]; Bogota; Hamburg Museum, lost. Distribution: South America (Colombia).

Notes: (3) This species might possibly belong to *Acanthotomicus*.

References: (ds) Blackwelder 1947: 778; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 342; Wood, S. L.

1982b: 714. (tx) Eichhoff 1872a: 134; Hagedorn 1910a: 107; Wood, S. L. 1982b: 714.

vicinalis Wood 1974a: 24. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 717. (tx) Wood, S. L. 1974a: 24, 1982b: 717.

vicinus Wood 1974a: 25. Holotype ♀; La Lima, Cortez, Honduras; Wood Collection.

Distribution: North America (Costa Rica/Honduras). Hosts: *Cayaponia microdonta*, *Potakowskia tacaco*, etc.

References: (ds) Wood, S. L. 1982b: 717. (tx) Wood, S. L. 1974a: 25, 1982b: 717.

vinealis Wood 1974a: 24. Holotype ♂; La Lima, Cortez, Honduras; Wood Collection.

Distribution: North America (Honduras).

Hosts: *Cayaponia microdonta*.

References: (ds) Atkinson & Equihua 1986a: 420; Estrada & Atkinson 1988: 206; Wood, S. L. 1982b: 714. (tx) Wood, S. L. 1974a: 24, 1982b: 714.

Genus *Dactylotrypes* Eggers

DACTYLOTRYPES EGGER 1927e: 37. Type-species: *Dactylotrypes uyttenboogaarti* Eggers = *Xyloterus longicollis* Wollaston, monobasic.

References: (hb) Wood, S. L. 1986a: 74. (ds) Wood, S. L. 1986a: 74. (tx) Balachowsky 1949a: 185; Eggers 1927e: 37; Enderlien 1929: 146–147; Schedl, Lindberg, & Lindberg 1959: 24; Wood, S. L. 1986a: 74.

longicollis (Wollaston) 1864: 256 (*Xyloterus*). Holotype, sex?; Rio Palmas of Fuerteventura; BMNH, London.

Figures: Balachowsky 1949a: 186, 1963a: 1289.

Distribution: Atlantic Islands (Fuerteventura, Gran Canaria, Tenerife in Canary Islands/ Madeira), Europe (introduced into France).

Hosts: *Butia eriospatha*, *Chamaerops humilis*, *Dracena drace*, *Phoenix canariensis*, *P. pumila*, *Trachycarpus excelsus*.

References: (cn) Anonymous 1979p. (ds) Anonymous 1979p; Brakman 1966b: 205; Gemminger & Harold 1872: 2682; Kleine 1913b: 169, 1914a: 20; Schedl, Lindberg, & Lindberg 1959: 23. (tx) Ferrari 1867a: 10; Schedl, Lindberg, & Lindberg 1959: 23–24; Wollaston 1864: 256, 1865: 238.

uyttenboogaarti Eggers 1927e: 38. Lectotype ♀; Gran Canaria; USNM, Washington, designated by Anderson & Anderson 1971: 35. Synonymy: Schedl et al. 1959: 23.

References: (cn) Anonymous 1960n: 1105; Enderlien 1929; Grandi 1951; Herfs 1950: 6; Mumford 1960: 23, 1962: 22; Sampo & Olmi 1975. (ce) Perrot 1955: 64; Wichmann 1955a: 103. (hb) Grandi 1951; Sampo & Olmi 1975; Uyttenboogaart 1927: 40–42. (ds) Anonymous

1960u: 1105; Balachowsky 1963a: 1288; Jansson 1940: 63; Kleine 1934a: 157; Lepesme et al. 1948: 642; Lundblad 1958: 489; Mumford 1960: 23, 1962: 22; Palacios 1973; Perrot 1955: 64; Uyttenboogaart 1937: 113–117, 1946: 80; Wichmann 1955a: 103. (tx) Anderson, W. H. & Anderson 1971: 35; Balachowsky 1949a: 185, 1963a: 1289; Eggers 1927e: 38; Enderlien 1929: 147; Schedl 1934f: 1643, 1960b: 162, 1979c: 263; Schedl, Lindberg, & Lindberg 1959: 24.

draconis Enderlein 1929: 148. Syntypes, sex?; Tenerife, Icod.; not located. Synonymy: Schedl, Lindberg, & Lindberg 1959: 24.

References: (cn) Grandi 1951; Souphieff & Scherbinovskaja 1937: 26. (hb) Enderlein 1929: 148; Grandi 1951. (ds) Kleine 1934a: 157; Souphieff & Scherbinovskaja 1937: 26. (tx) Enderlein 1929: 148; Schedl 1934f: 1643–1644; Schedl, Lindberg, & Lindberg 1959: 24.

Genus *Lymantor* Lovendal

LYMANTOR LOVENDAL 1889: 25, 68. Type-species: *Lymantor sepicola* Lovendal = *Tomicus coryli* Perris, monobasic.

Keys: Reitter 1913a: 91 for Europe, Wood 1982b: 707 for North America.

References: (hb) Wood, S. L. 1986a: 74. (ds) Wood, S. L. 1982b: 706, 1986a: 74. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1949a: 189; Blackman 1922b: 78, 121; Chamberlin 1939: 468–469; Dodge 1938: 19; Hopkins 1915b: 8; Karaman 1972: 109; Lovendal 1889: 25, 68; Nusslin 1912: 99–107; Peyerimhoff 1949: 301; Pfeffer 1989a: 58; Reitter 1890: 175, 1913a: 85; Schedl 1933a: 169, 1964m: 306; Scheerpeltz & Winkler 1930: 258; Spessivtsev 1922: 473; Vinogradov-Nikitin & Zaitzev 1926: 257–293; Wood, S. L. 1982b: 706, 1986a: 74.

aceris (Lindemann) 1875: 140 (*Dryocoetes*). Syntypes 2 ♂; Moskau; not given.

Distribution: Europe (Czechoslovakia/ France/ Germany/ Hungary/ Poland/ W USSR).

Hosts: *Acer campestre*, *A. platanoides*, *A. pseudo-platanus*, *A. tataricum*, *Corylus avellana*, *Prunus padus*.

Notes: (1) Reitter 1890: 175 (to *Lymantor*). (3) Stark 1936: 153 (aberration described as var. *schablioviskii*, no status).

References: (ay) Lekander 1959b: 36; Nunberg 1928a: 141; Nusslin 1911a: 60, 255, 1912b: 99. (bv) Grune 1979: 97. (cn) Koppen 1882: 260; Nusslin 1913: 290; Rhumbler 1922: 311, 1927: 350; Wachtl 1901: 351–382; Wichmann 1927b: 353. (ce) Kleine 1908c: 217; Nosek 1959b: 87; Nusslin 1927: 350; Pfeffer & Prihoda 1950: 6; Sedlacek 1935a: 162. (hb) Barbey 1901: 27, 103; Dombrowsky 1887, 1888; Eichhoff 1881a: 52, 266; Henschel 1895a: 188; Karpinski & Strawinski 1948: 156; Kurenzov 1935a: 36, 1948b: 121; Lekander 1959b: 36;

Lengerken 1954: 85; Lindemann 1875a: 140, 1881a: 238; Nosek 1959b: 87; Nunberg 1927b: 69; Nusslin 1913: 290, 1927: 350; Pfeffer 1942a: 18; Postner 1974: 427; Rhumbler 1922: 331, 1927: 350; Rupertsberger 1879: 231, 1880: 232; Sedlacek 1935a: 162; Spessivtsev 1913a: 94; Stark 1926a: 334, 1952: 316; Wachtl 1901: 381; Wichmann 1927b: 353. **(ds)** Endrodi 1958b; Escherich 1932b; Grune 1979: 97; Hagedorn 1910d: 65; Henschel 1895a: 188; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Horion 1951; Karpinski & Strawinski 1948: 156; Kleine 1912a: 305, 1913a: 36, 1913b: 135, 1934a: 155; Kolbe, W. 1916: 257; Koppen 1882: 260; Kraatz 1876c: 107; Krivolutskaya 1983; Kurenzov 1935a: 36, 1936a: 110, 1936b: 350, 1938a: 59; Lindemann 1884b: 264; Lomnicki 1913b: 148; Lovendal 1890c: 207; Lucht 1987: 277; Nunberg 1928b: 88, 111, 1954: 65; Pfeffer 1931b: 74, 1989a: 59; Pittioni 1943: 176; Postner 1974: 427; Reitter 1894a: 88, 1897a: 78, 1916: 297; Roubal 1941: 266; Schaufuss 1915: 1241; Schilsky 1909: 189; Seidlitz 1891b: 612; Sokanovskii 1960; Stark 1926a: 334, 1952: 316; Stein & Weise 1877: 165; Tredl 1907: 18; Wichmann 1927a: 79; Yanovskii & Tegshzhargal 1985: 409. **(tx)** Balachowsky 1949a: 189; Barbey 1901: 27, 103; Dombrowsky 1887, 1888; Eggert 1910f, 1942c: 28; Eichhoff 1878b: 294, 1881a: 52, 266, 1883a: 115, 140; Endrodi 1957a: 307, 1957b; Fleischer 1927; Formanek 1907: 50; Gebien 1907: 197; Grune 1979: 97; Hagedorn 1910a: 96; Henschel 1895a: 188; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1059; Kurenzov 1941a: 165, 1948b: 121; Lekander 1959b: 36; Lindemann 1875a: 140, 1881a: 238; Lovendal 1890e: 207; Lucht 1987: 277; Nunberg 1927b: 69-74, 1928a: 141, 1954: 65; Nusslin 1911a: 255, 60, 1912: 99; Peyerimhoff 1919: 254; Pfeffer 1932b: 22, 1942a: 18, 1944a: 131, 1955a: 161; Postner 1974: 427; Reitter 1890: 175, 1894a: 88, 1913a: 91, 1916: 297; Rhumbler 1922: 331, 1927: 350; Rupertsberger 1879: 231, 1880: 232; Schedl 1934f: 1642; Seidlitz 1891b: 612; Sokanovskii 1954: 18, 1960: 677; Spessivtsev 1913a: 92, 94, 1922a: 474, 1931: 54; Stark 1935: 153, 1936: 153, 1952: 316. **(ms)** Escherich 1932b; Kraatz 1876c: 107; Pfeffer 1944a: 131.

alaskanus Wood 1978b: 399. Holotype ♂; Bonanza Creek, 30 miles SW Fairbanks, Alaska; Wood Collection.

Distribution: North America (Alaska).

Hosts: Presumably *Salix* sp.

References: **(ds)** Wood, S. L. 1982b: 707. **(tx)** Wood, S. L. 1978b: 399, 1982b: 707.

coryli (Perris) 1855: 78 (*Tomicus*). Syntypes, sex?; Dept. Landes, France; MNHN, Paris.

Figures: Grune 1979: 96, Postner 1974: 426 (adult).

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/

Hungary/ Italy/ Norway/ Poland/ Spain/ Sweden/ W USSR/ Yugoslavia).

Hosts: *Acer campestre*, *A. platanoides*, *Carpinus betulus*, *Corylus avellana*, *Prunus padus*, *Pyrus malus*, *Quercus* sp., *Rhamnus cathartica*, *R. frangula*, *Syringa vulgaris*.

References: **(ay)** Nusslin 1911a: 338, 60, 89, 1912b: 99. **(bv)** Grune 1979: 97. **(en)** Alkan 1959b: 197; Berlese 1915; Grandi 1951; Kleine 1932a: 302; Kontkanen 1932: 63; Kurenzov 1935c: 189; Nusslin 1913: 290; Rhumbler 1922: 331; Schimitschek 1955a: 141; Wachtl 1901: 381; Wichmann 1927b: 353. **(ce)** Ehnstrom 1983; Fuller 1958: 99; Kleine 1908c: 217; Kurenzov 1934a: 50; Michalski & Ratajczak 1989; Nosek 1954: 214, 1959a: 118, 1959b: 87; Nusslin 1927: 350; Pfeffer & Prihoda 1950: 4; Rybinski 1897: 61; Saalas 1930: 118; Scheerpeltz & Hofler 1948: 281; Schimitschek 1955a: 146; Sedlacek 1935a: 162. **(hb)** Alkan 1959b; Altum 1881c: 322; Barbey 1901: 27, 103; Boffa 1961; Berlese 1915; Bukowsky 1930; Dombrowsky 1887, 1888; Ehnstrom 1983; Eichhoff 1881a: 52, 265; Grandi 1951; Hagedorn 1903a; Henschel 1895a: 188; Karpinski 1933b: 30; Karpinski & Strawinski 1948: 156; Kleine 1932a: 302; Knotek 1894a: 559; Lengerken 1939: 64, 1954: 85; Lindemann 1875a: 141, 1881a: 238; Munro 1926: 70; Nosek 1959a: 118, 1959b: 87; Nunberg 1927b: 29; Nusslin 1898: 275, 1913: 290, 1927: 350; Palm 1954a: 184, 1954b: 28; Pfeffer 1942a: 18, 1989a: 59; Postner 1974: 427; Rhumbler 1922: 331, 1927: 350; Rupertsberger 1880: 231; Schimitschek 1955a: 146; Sedlacek 1935a: 162; Simmel 1919b: 104; Spessivtsev 1913a: 94; Stark 1926a: 335, 1952: 315; Taschenberg 1901: 109; Wachtl 1876a: 460, 1901: 381; Wichmann 1927b: 353. **(ds)** Aclouque 1896; Bangsholt 1975: 95; Barthe 1896; Bedel 1885b; Bejer-Petersen & Jorum 1977: 22; Borchert 1951; Brakman 1966b: 205; Bukowsky 1930; Calwer 1884, 1893; Eder 1934; Endrodi 1958b; Escalera 1919; Escherich 1932b; Fowler 1891; Fuchs 1905a; Gemminger & Harold 1872: 2687; Gozis 1875: 180; Grill 1895: 312; Grune 1979: 97; Hagedorn 1903a, 1910d: 66; Hansen, V. 1939, 1956, 1964: 230; Hellen 1947; Henschel 1895a: 188; Heyden 1876: 301, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Horion 1951; Jazentkovsky 1912: 292; Karpinski 1933b: 30, 1948b: 231; Karpinski & Strawinski 1948: 156; Karpinen 1964: 461; Keler 1925b: 275; Kersten 1933: 70, 75; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 268, 1913a: 36, 1913b: 135, 1932a: 302, 1934a: 155; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 559; Koltze 1901: 154; Kontkanen 1932: 63; Kozikowsky 1921: 181; Kraatz 1869: 59; Kurenzov 1934a: 50, 1935c: 189; Lacordaire 1866: 382; Langhoffer 1915b: 158; Leclercq 1971; Lindemann 1884b: 264; Linder 1953: 71; Lomnicki 1913b: 148; Lovendal 1889a: 271, 1890c:

206; Lucht 1987: 277; Lundberg 1988; Marivea 1961: 141; Matthews & Fowler 1883: 42; Munster 1928: 291; Negru 1966b: 401; Nosek 1934: 226–230, 1954: 214; Nunberg 1928b: 88, 111, 1954: 65, 1960b: 157; Nusslin 1898: 275; Palm 1954b: 28, 1959: 32, 60; Perris 1876a: 256, 1877a: 416; Pfeffer 1924b: 471, 1930b: 119, 1931b: 74, 1936: 90, 1959a: 59; Pfeffer & Prihoda 1950: 115–126; Pittioni 1943: 176; Postner 1974: 427; Rapp 1934: 735; Redtenbacher 1874: 381; Reitter 1888b: 280, 1894a: 88, 1916: 297; Rinne 1961; Roubal 1941: 266; Saalas 1930: 118, 1931: 67; Sahlberg 1900: 106; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240; Schaum 1859: 96, 1862: 101; Schedl 1971d: 432, 1980a: 21; Scheerpeltz & Winkler 1930: 258; Schilsky 1891: 157, 1909: 189; Seidlitz 1891a: 567, 1891b: 612; Sharp & Fowler 1893: 34; Sokanovskii 1960; Stark 1926a: 335, 1926b: 103, 1926j: 126, 1927b: 89; 1931d: 547, 1952: 315; Stein 1868: 114; Stein & Weise 1877: 165; Strauch 1861: 122; Tredl 1907: 18; Wachtl 1876a: 460; West 1938: 184; Westhoff 1882: 240; Wichmann 1927a: 71–72; Zinovjev 1955: 187. (tx) Acloque 1896; Balachowsky 1949a: 189; Barbey 1901: 27, 103; Bedel 1888b; Beffa 1961; Dombrowsky 1887, 1888; Eggers 1910f, 1942c: 28; Eichhoff 1864a: 401, 1864b: 41, 1868d: 419, 1878b: 292, 1881a: 52, 265, 1883a: 115, 140; Endrodi 1957b; Fauvel 1889; Ferrari 1867a: 28, 1867b: 114; Fleischer 1927; Formanek 1907: 50; Gebien 1907: 197; Grune 1979: 96–97; Hagedorn 1910a: 96; Hansen, V. 1956, 1964: 461; Henschel 1895a: 188; Hopkins 1915b: 43; Karpinski & Strawinski 1948: 156; Knotek 1892a: 38; Kuhnt 1913: 1059; Lacordaire 1866: 382; Lindemann 1875a: 141, 1881a: 238; Lovendal 1890c: 206, 1898: 180; Lucht 1987: 277; Lundberg 1988; Negru 1966b: 401; Nunberg 1927b: 29, 1954: 65; Nusslin 1911a: 60, 89, 338, 1912b: 99; Perris 1855: 78; Peyerimhoff 1919: 253; Pfeffer 1932b: 22, 1942a: 18, 1955a: 160; Portevin 1935: 332; Postner 1974: 427; Redtenbacher 1874: 381; Reitter 1887b: 197, 1889d: 271, 1890: 175, 1894a: 88, 1913a: 91, 1916: 297; Rhumbler 1922: 331, 1927: 350; Rupertsberger 1880: 231; Saalas 1914: 304–306; Schedl 1934f: 1642, 1980a: 21; Seidlitz 1891a: 567, 1891b: 612; Sokanovskii 1960: 675; Spessivtsev 1913a: 94, 1922a: 474, 1931: 53; Stark 1952: 315; Stresemann et al. 1986: 352; Taschenberg 1901: 109. (ms) Eichhoff 1868d: 419; Escherich 1932b; Koch 1977: 27; Reitter 1889d: 271; Rhumbler 1927: 350; Schimitschek 1930b: 407.

sepicola Lovendal 1889b: 25, 69. Syntypes, sex?; Denmark; not located. Synonymy: Reitter 1890: 175.

References: (ds) Lovendal 1889a: 171, 1890c: 207. (tx) Hopkins 1914: 124; Lovendal 1889a: 171, 1889b: 25, 69, 1890c: 207; Nusslin 1912: 99; Reitter 1889d: 271, 1890: 175. (ms) Reitter 1889d: 271.

decipiens (LeConte) 1878: 624 (*Xylocleptes*). Holotype ♀; Detroit, Michigan; MCZ, Cambridge. Figures: Bright 1976d: 203, 211 (adult), Hopkins 1915c: pl. 2, fig. 25 (antenna).

Distribution: North America (Ontario, Quebec in Canada/ Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, Pennsylvania, Virginia, West Virginia in USA).

Hosts: *Acer rubrum*, *A. saccharinum*, *A. sp.*, *Hamamelis virginiana*, *Rhus typhina*, *Salix sp.*

References: (cn) Baker, W. L. 1972: 254; Blackman 1950; Doane et al. 1936; Lindquist, O. H. & Syme 1981: 66; Swaine 1918a: 133. (ec) Deyrup 1981a; Felt 1906: 460, 715. (hb) Baker, W. L. 1972: 254; Beal & Massey 1945: 161; Blackman 1922b: 120, 1950; Bright 1976d: 123; Chamberlin 1939: 469; Chittenden 1893a: 394; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 361; Felt 1906: 460; Swaine 1918a: 133; Wood, S. L. 1982b: 707. (ds) Anonymous 1926c: 520; Atkinson et al. 1991: 159; Beal & Massey 1945: 161; Beaulne 1941, 1956; Blackman 1922b: 120, 1950; Blatchley & Leng 1916: 608; Bright 1976d: 123; Chamberlin 1939: 469; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938: 16, 56; Drooz 1985: 361; Hagedorn 1910d: 63; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666, 1878b: 624; Kleine 1913b: 132, 1914b: 394, 1934a: 153; Knull 1932: 67; Leng 1920: 342; Leonard 1928: 520; Lindquist, O. H. & Syme 1981: 66; Lintner 1896: 270; Schwarz 1886: 42; Swaine 1909: 159; Ulke 1902: 56; Weber, B. C. & McPherson 1991: 46; Wood, S. L. 1982b: 707. (tx) Beal & Massey 1945: 161; Blackman 1922b: 120; Blatchley & Leng 1916: 608; Bright 1976d: 123, 203, 211; Chamberlin 1939: 469; Dodge 1938: 16, 56; Hagedorn 1910a: 107; Hopkins 1915b: 8, fig. 25; LeConte 1878: 624; Lindquist, O. H. & Syme 1981: 66; Schwarz 1886: 42; Swaine 1909: 159, 1918a: 133; Wood, S. L. 1982b: 707–708.

kabei Murayama 1955: 87, 91. Syntypes 5 ♂, 10 ♀; Shiraito, Kumamoto pref., Japan; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Rhus silvestris*.

References: (ds) Murayama 1955: 87, 91. (tx) Murayama 1955: 87, 91.

Genus *Taphrorhynchus* Eichhoff

TAPHRORHYNCHUS EICHHOFF 1878: 49, 204. Type-species: *Bostrichus bicolor* Herbst, subsequent designation by Hopkins 1914: 130.

Saliciphilus Sokanovskii 1954: 17, 20. Type-species: *Hypothenemus machnovskii* Sokanovskii, original designation. Synonymy: Wood 1984: 228.

References: (tx) Schedl 1964n: 308; Sokanovskii 1954: 17, 20.

Pseudopocilips Murayama 1957c: 614. Type-species: *Pseudopocilips uikuniyamensis* Murayama, original designation. Synonymy: Wood 1983a: 650.

References: (tx) Murayama 1957c: 614; Schedl 1962p: 205; Wood 1983a: 650.

Taphroterus Schedl 1965a: 341. Type-species: *Taphroterus primitus* Schedl, monobasic. Synonymy: Wood 1984b: 228.

References: (tx) Schedl 1965a: 341; Wood, S. L. 1984b: 228.

Taphrocoetss Pfeffer 1987: 22. Type-species: *Taphrorychus hirtellus* Eichhoff, original designation. Synonymy: Wood 1992:(in press).

References: (tx) Pfeffer 1987: 22; Wood, S. L. 1992:(in press).

Keys: Balachowsky 1949a: 193, Pfeffer 1962: 241, Reitter 1913a: 94.

References: (hb) Wood, S. L. 1986a: 74. (ds) Wood, S. L. 1986a: 74. (tx) Balachowsky 1949a: 193; Choo 1983: 79; Eichhoff 1878b: 49, 204; Hopkins 1914: 130–132, 1915b: 9; Karaman 1972: 133; Niisima 1917: 11; Pfeffer 1962: 254, 1985b; Reitter 1913a: 92, 94–97; Schedl 1938a: 158, 1947a: 43, 1964p: 308; Scheerpeltz & Winkler 1930: 258; Schimitschek 1937: 50–51; Sokanovskii 1954: 18, 21; Spessivtsev 1931: 39; Wood, S. L. 1986a: 74.

alni Pfeffer 1940a: 53. Syntypes ♂ ♀; France: Agay (Gallia merid.), Campo Doro ad urbem Ajaccio (Corsica); Pfeffer Collection.

Distribution: Europe (Corsica/ France).

Hosts: *Alnus glutinosa*.

References: (bv) Grune 1979: 127. (ds) Grune 1979: 127; Lucht 1987: 277; Pfeffer 1947d: 126–127, 1962: 245; Postner 1974: 440. (tx) Balachowsky 1949a: 196; Grune 1979: 127; Lucht 1987: 277; Pfeffer 1940a: 53–54, 1955a: 204, 1962: 242, 245; Postner 1974: 440.

betulae Schedl 1974a: 87. Holotype ♂; Pakistan, Jabba (Swat); Commonwealth Institute of Biological Control, Substation, Rawalpindi.

Distribution: Asia (Pakistan).

Hosts: *Betula* sp.

References: (tx) Schedl 1974a: 87, 1979c: 37.

bicolor (Herbst) 1793: 116 (*Bostrichus*). Syntypes, sex?; Wien, Austria; not located.

Figures: Grune 1979: 126, Pfeffer 1989a:pl. 13, Postner 1974: 439, Reisch 1966b: 175.

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Romania/ Sicily/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Fagus orientalis*, *F. sylvatica*.

Notes: (3) Ferrari 1867: 28 (aberration named as var. *Dryocoetes tristiculus*, no status).

References: (ay) Escherich 1923b: 483, 510; Feytaud 1950a; Nusslin 1911a: 60, 254, 338; Sedlaczek 1902b: 244. (bv) Grune 1979: 127; Kohnle et al. 1987; Tragardh 1930b: 103. (cn) Barbey 1925: 510; Chorbadzhievo 1929; Eckstein 1926: 579; Escherich 1923b: 483, 510; Feytaud 1950a; Grandi 1951; Herlein 1878; Kobakhidze 1960: 1853; Kovacevic 1957: 69; Marcu 1926c: 65; Nosek 1951: 107, 1952b: 96; Nusslin 1913: 283; Pierce, W. D. 1917: 40; Reisch 1966a, 1966b; Rhumbler 1922: 326, 1927: 342; Schimitschek 1937c: 55, 1944: 184, 1952c: 60, 1955a: 139, 1955c: 87; Schonherr & Kraurwurst 1979; Schwerdtfeger 1944a: 174, 1957a: 182; Tomic 1957: 207–210; Trappen 1935: 142; Wachtl 1901: 381; Weber 1926: 579; Wichmann 1927b: 361. (ce) Adeli 1964; Apel 1983; Baert & Maelfait 1977; Balazy & Michalski 1964b; Balazy et al. 1977; Belanovskii 1930; Devdariani 1973; Donisthorpe 1924; Elliot & Morley 1907; Fleischer 1911; Gyorf 1941b, 1952b; Heqvist 1963: 153; Jammicky 1957b: 20; Kangas 1946b: 41; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1980a, 1980b, 1983; Kielczewski & Wisniewski 1978; Kleine 1908c: 214, 1909a: 49, 77, 1944: 73; Kobakhidze 1960; Meyer 1918: 178; Michalski & Ratajczak 1989; Nosek 1951: 107, 1952b: 96; Novak, P. 1952: 416; Numberg 1930: 202; Nusslin 1927: 342; Perris 1862: 189; Pfeffer 1923a: 332, 1928b: 9; Ratzburg 1869a: 176; Reiche 1966; Rondani 1873: 139, 1876: 62; Roubal 1934b: 178; Ruhm 1956b: 4; Schimitschek 1930a: 326, 1955a: 139; Schonherr & Kraurwurst 1979; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlaczek 1935a: 162; Thompson, W. R. 1943: 114; Tudor 1969: 34; Wichmann 1957c: 66. (hb) Adeli 1964; Altum 1881c: 309; Apel 1983; Barbey 1901: 24, 79, 1925: 510; Budge 1949; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eckstein 1889, 1926: 579; Eichhoff 1881a: 47, 203; Escherich 1923b: 483, 510; Feytaud 1950a; Fuchs 1904a; Girard 1873; Grandi 1951; Gyorf 1957; Hagedorn 1903a; Henschel 1876a: 203, 238, 1895a: 173; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Knotek 1894a: 558; Lengerken 1939: 66, 1954: 87; Lmardoni & Leonardi 1889: 459; Masutti 1964; Munro 1926: 66; Nordlinger 1855: 185, 1856: 25, 1869: 233; Nusslin 1898: 281, 1906b: 14, 1913: 283, 1927: 342; Palm 1953a: 14, 1959: 351; Pfeffer 1942a: 6, 1989a: 61; Postner 1974: 440; Ratzburg 1837: 161, 1839: 165, 196; Rey 1892a: 18; Rhumbler 1922: 326, 1927: 342; Rupertsberger 1880: 230; Schimitschek 1930a: 326, 1944: 184, 1955a: 139; Schonherr & Kraurwurst 1979; Schwerdtfeger 1944a: 174, 1957a: 182, 1981: 188; Sedlaczek 1935a: 162; Stark 1952: 320; Taschenberg 1880: 232; Tragardh 1930b: 103, 1930c: 478, 1931: 60; Tschorbadjiev 1929: 171; Wachtl 1876a: 456, 1901: 381; Weber 1926: 579; Wichmann 1912b: 138, 1927b: 361. (ds) Acloque 1896; Adeli 1964; Allen, A. 1951d; Ammann & Knabl 1923; Audras

- & Schaefer 1957; Bau 1888; Bedel 1888b; Bejer-Petersen & Jorum 1977: 22; Bielz 1851, 1887; Bielz & Hampe 1853; Blanchere & Robert 1889; Borchert 1951; Brakman 1966a: 52, 1966b: 205; Brancsik 1871; Browne 1980d: 493; Buck 1955b: 191; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Champion 1870: 107, 1894; Chapuis & Candeze 1853; Choo 1983: 79; Choo & Woo 1985: 165; Chorbadzhievo 1924d, 1929; Cooter 1971; Debatisse 1945; Eggers 1904; Endrodi 1958a, 1958b, 1981: 184; Escherich 1923b: 483, 510, 1932b; Fauvel 1885; Fedorov 1930; Fleischer 1888; Fowler 1891; Fricken 1889: 351; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2687; Gozis 1875: 80; Gredler 1886: 375; Grill 1895: 311; Grune 1979: 127; Gussmann 1919; Gyorfi 1941b; Hagedorn 1903a, 1910a: 63; Hansen, V. 1939, 1956, 1964: 461; Hellen 1947; Henschel 1895a: 173; Heyden 1876: 301; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Horion 1951; Jazentkovsky 1912: 291; Joly 1960; Kangas 1946a: 35; Karpinski 1926: 82, 1948b: 231; Karpinski & Strawinski 1948: 156; Keler 1925b: 275; Kersten 1933: 76; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 263, 268, 1913a: 35, 1913b: 133, 1934a: 153; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558; Koca 1900: 116, 1905: 192; Kolenati 1846: 40; Koltze 1901: 153; Kolubajiv 1934: 65; Koschitsky 1900: 83; Kovacevic 1957: 69; Kraatz 1869: 59; Kurir 1947c: 30; Langhoffer 1915c: 158; Leclercq 1971; Lokaj 1868: 64; Lomnicki 1886a: 242, 1913b: 148; Lucht 1987: 277; Lunardoni & Leonardi 1889: 459; Mahler 1987: 232; Marcu 1926c: 65; Matthews & Fowler 1883: 42; Murayama 1937a: 2, 1937b: 371, 1948: 6; Negru 1966b: 403, 1968a: 456; Novak, P. 1952: 416, 1964; Numberg 1928b: 88, 112, 1954: 67; Nusslin 1898: 281; Orest 1926c: 65; Palm 1953a: 14, 1955a: 142, 1959: 26, 32; Perris 1876a: 255, 1877a: 415; Pfeffer 1924b: 472, 1928b: 9, 1931b: 74, 1936: 90, 1947d: 127, 1950b: 76, 1962: 245, 1989a: 61; Pierce, W. D. 1917: 40; Pittioni 1943: 175; Postner 1974: 440; Ragusa 1924: 117; Rapp 1934: 733; Ratzeburg 1837: 161, 1839: 165, 196; Redtenbacher 1858: 836, 1874: 381; Reitter 1869b: 155, 1894a: 86, 1916: 299; Roubal 1935b: 73, 1941: 267; Sainte-Claire 1914: 474; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1244; Schaum 1859: 96, 1862: 101; Schedl 1971d: 429, 1980a: 24; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 189; Schiodte 1873: 103; Schneider & Leder 1977: 55; Schulze 1913: 59; Schwerdtfeger 1981: 188; Seidlitz 1891a: 566, 1891b: 612; Sharp & Fowler 1893: 34; Stark 1927b: 89, 1952: 320; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 445; Strum 1843: 230; Tredl 1907: 17; Tschorbadjiev 1929: 171; Wachtl 1875a: 456; Wanka 1908: 231; Westhoff 1882: 238; Wichmann 1924: 15, 1927a: 72. (tx) Acloque 1896; Altman 1844; Apel 1983; Bach 1854; Balachowsky 1949a: 195; Barbey 1901: 24, 79; Bedel 1888b; Bertolini 1872; Brancsik 1871; Chapuis & Candeze 1853; Choo 1983: 79; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Donisthorpe 1931: 122; Duffy 1953; Eggers 1908a: 121; Eichhoff 1864b: 38, 1872a: 137, 1877c: 386–392, 1878b: 204, 1881a: 47, 203, 1883a: 111, 135; Endrodi 1957b; Escherich 1923b: 483, 510; Fauvel 1885; Ferrari 1867a: 28, 31, 1867b: 114; Fleischer 1905, 1927; Formanek 1907: 49; Fricken 1889: 351; Girard 1873; Grune 1979: 126–127; Hagedorn 1910a: 108; Hansen, V. 1956, 1964: 461; Henschel 1876a: 203, 238, 1895a: 173; Herbst 1793: 116; Hopkins 1914: 130, 132, 1915b: fig. 12; Karpinski & Strawinski 1948: 156; Knotek 1892a: 37; Kuhnt 1913: 1058; Letzner 1891: 376; Lemis 1886: 181; Lovendal 1889b: 54, 1898: 133; Lucas 1920: 627; Lucht 1987: 277; Lunardoni & Leonardi 1889: 459; Murayama 1937b: 371–372; Negru 1966b: 403; Nordlinger 1848: 241, 1856: 25; Numberg 1954: 67; Nusslin 1911a: 60, 254, 338; Panzer 1795a: 289; Pfeffer 1932b: 23, 1940a: 53–54, 1942a: 6, 1955a: 205, 1962: 241, 245, 1989a: pl. 13; Portevin 1935: 334; Postner 1974: 440; Quaschik 1953: 35; Ratzeburg 1837: 161, 1839: 165, 196, 1856b: 60; Redtenbacher 1849b: 26, 1858: 836, 1874: 381; Reisch 1966b: 175; Reitter 1894a: 86, 1913a: 95, 1916: 299; Rhumbler 1922: 326, 1927: 342; Rupertsberger 1880: 230; Schedl 1934f: 1642, 1950d: 17, 1952f: 87, 1980a: 24; Schimitschek 1937c: 55, 1955c: 87; Schlechtendal & Wunshe 1879: 127; Seidlitz 1891a: 566, 1891b: 612; Sokanovskii 1954: 21; Spessivtsev 1922a: 475–476, 491, 1925a: 178, 1931: 60; Stark 1952: 320; Stierlin 1898: 495; Stresemann et al. 1986: 351; Taschenberg 1880: 232. (ms) Escherich 1932b; Lucas 1920: 627. *fuscus* Marsham 1802: 53 (*Ips*). Syntypes, sex?; England; not located. Synonymy: Eichhoff 1878b: 205.
- References: (ds) Ericson & Sandin 1893; Gyllenhal 1813: 360; Pacher 1865: 152; Rye 1868: 187–189; Schaum 1859: 86, 1862: 101; Schilsky 1909: 189; Seidlitz 1872: 396; Stein 1868: 114; Stein & Weise 1877: 164; Stephens 1829a: 145, 1830: 356, 1839: 207; Thomson 1865: 366, 1868: 222. (tx) Balachowsky 1949a: 195; Eichhoff 1878b: 205; Ferrari 1867a: 28; Gyllenhal 1813: 360, 1827: 623; Letzner 1891: 376; Marsham 1802: 53; Redtenbacher 1849a: 359; Schaschl 1854: 133; Seidlitz 1872: 396; Stephens 1829a: 145, 1829b: 12, 1830: 356, 1839: 207; Thomson 1865: 366, 1868: 222.
- siculus* Eggers 1908a: 121. Lectotype ♂; Sicilia (Madonie); USNM, Washington, designated by Anderson & Anderson 1971: 30.
- Notes: (1) Pfeffer 1962: 244 (treated as a subspecies).
- References: (ds) Buresh & Lazarov 1956; Pfeffer 1947d: 127, 1962: 245; Ragusa 1924: 117.

(**tx**) Anderson, W. H. & Anderson 1971: 30; Eggers 1905a: 121; Pfeffer 1940: 53, 1955a: 205, 1962: 244–245; Reitter 1913a: 95–96; Schedl 1934f: 1642.

ceratoniae Peyerimhoff 1926: 388. Syntypes, sex?; Sidi-Madani (massif des Mouzaia) [Algeria]; MNHN, Paris.

Distribution: Africa (Algeria/ Morocco).

Hosts: *Ceratoniae siliquae*.

References: (**hb**) Peyerimhoff 1926: 388. (**ds**) Kleine 1934a: 153; Peyerimhoff 1926: 388; Pfeffer 1935: 158, 1962: 245. (**tx**) Balachowsky 1949a: 194; Eggers 1927d: 120–123; Peyerimhoff 1926: 388; Pfeffer 1962: 241, 245, 1987: 24; Schedl 1934f: 1642.

cribripennis Eggers 1944c: 142. Syntypes, sex?; Algier (Bou-Berak); Eggers Collection, in NHMW, Wien. Synonymy: Pfeffer 1962: 243. Notes: (1) Schedl 1979c: 69 (citation of holotype invalid).

References: (**tx**) Eggers 1944c: 142; Pfeffer 1955a: 205, 1962: 243; Schedl 1979c: 69.

coronatus Eggers 1944c: 141. Holotype ♀; Tunis (El Feidja); Eggers Collection, in NHMW, Wien. Distribution: Africa (Algeria/ Tunisia).

References: (**ds**) Pfeffer 1962: 245. (**tx**) Eggers 1944c: 141; Pfeffer 1962: 245; Schedl 1979c: 64.

dinoderoides (Blandford) 1894d: 97 (*Dryocoetes*). Holotype, sex?; Ichiuchi, Japan; BMNH, London. Distribution: Asia (Japan).

Notes: (1) Murayama 1957c: 623 (to *Taphrorychus*). References: (**ds**) Hagedorn 1910d: 66; Kleine 1913b: 136, 1914b: 258; Murayama 1954b: 202, 1957c: 588. (**tx**) Blandford 1894d: 97; Eggers 1923a: 161; Hagedorn 1910a: 96; Murayama 1954b: 202, 1957c: 588–623; Schedl 1934f: 1643.

hewetti (Stebbing) 1908b: 11 (*Dryocoetes*). Syntypes 2, sex?; Kumann, Naini Tal, U. P., India; FRI, Dehra Dun.

Distribution: Asia (Himachal Pradesh, Uttar Pradesh in India).

Hosts: *Quercus dentata*, *Q. lanuginosa*, *Q. semicarpifolia*.

References: (**ay**) Gardner 1934b: 1–17. (**cn**) Kleine 1932a: 302; Pierce, W. D. 1917: 154; Stebbing 1914: 545. (**ec**) Stebbing 1914: 545. (**hb**) Beeson 1922c: 495–496; Kleine 1932a: 302; Stebbing 1914: 545. (**ds**) Beeson 1922c: 495–496; Kleine 1914b: 270, 1932a: 302, 1934a: 157; Pierce, W. D. 1917: 154; Schedl 1975c: 383. (**tx**) Gardner 1934b: 1–17; Hagedorn 1910a: 96; Stebbing 1908b: 11, 1914: 545.

hirtellus Eichhoff 1878b: 208. Holotype, sex?; Anatolia [Turkey]; IRSNB, Brussels.

Figures: Grune 1979: 124, Pfeffer 1989a: pl. 13.

Distribution: Africa (Algeria), Asia (Turkey), Europe (Bulgaria/ Czechoslovakia/ Hungary/ Romania/ Yugoslavia).

Hosts: *Corylus avellana*, *Fagus orientalis*, *F. sylvatica*, *Quercus cerris*.

References: (**bv**) Grune 1979: 125. (**cn**) Acatay 1943a: 67; Chorbadzhievo 1929; Schimitschek 1944: 183. (**ec**) Nosek 1952: 416, 1959b: 87; Schimitschek 1941a: 305. (**hb**) Acatay 1943a: 67; Chorbadzhievo 1929; Nosek 1959b: 87; Peyerimhoff 1926: 588; Schimitschek 1944: 183; Tschorbadjiev 1929: 171; Wichmann 1912b: 138–139. (**ds**) Buresh & Lazarov 1956; Chorbadzhievo 1929; Endrodi 1958b; Escherich 1932b; Grune 1979: 125; Hagedorn 1910d: 63; Heyden, Reitter, & Weise 1906: 712; Horion 1951; Kleine 1913a: 307, 1913b: 133, 1934a: 114; Lucht 1987: 277; Novak, P. 1952: 416; Peyerimhoff 1926: 388; Pfeffer 1936: 90, 1962: 245, 1989a: 62; Postner 1974: 440; Reitter 1894a: 86; Roubal 1941: 267; Schaufuss 1915: 1244; Schedl 1961b: 185; Tschorbadjiev 1929: 171. (**tx**) Balachowsky 1949a: 194; Eggers 1911a: 122, 1914: 40, 1923b; Eichhoff 1878b: 208; Endrodi 1957a, 1957b; Grune 1979: 124–125; Hagedorn 1910a: 109; Lucht 1987: 277; Pfeffer 1932b: 23, 1955a: 208, 1962: 241, 1965: 63, 1987: 23, 1989a: pl. 13; Postner 1974: 440; Reitter 1894a: 86, 1913a: 95; Schedl 1934f: 1642; Pfeffer 1932b: 23, 1962: 245. (**ms**) Escherich 1932b.

mecelanus Reitter 1913a: 95. Holotype, sex?; Teplitz, Ungarn; NHMB, Budapest. Synonymy: Pfeffer 1965: 63.

References: (**ds**) Buresh & Lazarov 1956; Csiki 1914; Pfeffer 1936: 90; Roubal 1941: 267. (**tx**) Pfeffer 1955a: 208, 1962: 241, 1965: 63, 1987: 23; Reitter 1913a: 95; Schedl 1934f: 1642.

◦ **immaturus** Schedl 1947a: 43. Holotype, sex?; Baltic Bernstein; Geologisch-Palaeontologische Institut Albertus Universitat, Konigsberg. Distribution: Europe (fossil in Baltic amber). References: (**tx**) Schedl 1947a: 43.

leukoranus Reitter 1913a: 96. Syntypes, sex?; Talsch im Kaspischen Meergebiet bei Lyrik und Lenkoran; NHMB, Budapest.

Distribution: Europe (Caucasus in W USSR).

Hosts: *Acer* sp.

References: (**hb**) Stark 1952: 320. (**ds**) Kleine 1934a: 114; Pfeiffer 1935: 158, 1962: 245; Stark 1952: 320. (**tx**) Pfeffer 1955a: 204, 1962: 245; Reitter 1913a: 95–96; Schedl 1934f: 1642; Sokanovskii 1954: 21; Stark 1952: 326.

machnovskii (Sokanovskii) 1954: 17 (*Hypothenemus*). Syntypes, sex?; USSR [not seen]; Sokanovskii Collection.

Distribution: Asia (E USSR).

Hosts: *Salix* sp.

Notes: (3) Sokanovskii 1954: 17, 20 (treated in *Saliciphilus*).

References: (**ds**) Kadyrov 1988: 43, 45, 1989; Maknovskii 1958(?) : 68. (**tx**) Michalski 1969b: 569; Pfeffer 1985b: 141; Schedl 1964m: 308; Sokanovskii 1954: 17, 20, 1958: 39.

- mikuniyamensis** (Murayama) 1957c: 616 (*Pseudopocillips*). Syntypes 2 ♂, 2 ♀; Mt. Mikuni, Niigata pref., Japan; USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Acer argutum*.
References: (ds) Murayama 1957c: 588. (tx) Murayama 1957c: 588, 616, 619; Schedl 1962p: 205.
- minor** Eggers 1923b: 137. Syntypes ♂; Sardinia: Italy: Tuscany: Viareggio; Eggers Collection, in NHMW, Wien, and Marchi Collection.
Distribution: Africa (Algeria), Europe (Italy/ Sardinia).
Hosts: *Quercus ilex*.
Notes: (1) Schedl 1979c: 155 (citation of holotype invalid).
References: (bv) Grune 1979: 125. (ds) Grune 1979: 125; Pfeffer 1935: 158, 1947d: 128, 1962: 245; Postner 1974: 440; Schedl 1964a. (tx) Balachowsky 1949a: 194; Eggers 1923b: 137, 1927d: 123; Grune 1979: 125; Pfeffer 1962: 245, 1987: 23; Postner 1974: 440; Schedl 1934f: 1642, 1979c: 155; Sokanovskii 1954: 19.
- moestus** (Blandford) 1894d: 96 (*Dryocoetes*). Holotype, sex?; Nikko, Japan; BMNH, London.
Distribution: Asia (Japan).
Hosts: *Carpinus laxiflora*.
Notes: (1) Murayama 1957: 623 (to *Taphrorychus*).
References: (ds) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 258; Murayama 1954b: 173, 1957c: 588. (tx) Blandford 1894d: 96; Eggers 1923a: 161; Hagedorn 1910a: 96; Murayama 1954b: 173, 1957c: 588; Schedl 1934f: 1643.
- pilosus** (Murayama) 1957c: 619 (*Pseudopocillips*). Holotype, sex?; Nagatani, Gihu pref. (Houshu), Japan; USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Fagus crenata*.
Notes: (3) Murayama 1957c: 621 (aberration named as var. *brevipilosus*, no status).
References: (ds) Murayama 1957c: 588. (tx) Murayama 1957c: 588, 619, 621; Schedl 1962p: 205.
- primitus** (Schedl) 1965a: 341 (*Taphrotrus*). Holotype, sex?; Prov. Ha-Tinh, foretiere Huong-son, 150 m; NIIMB, Budapest.
Distribution: Asia (Vietnam).
References: (tx) Schedl 1965a: 341, 1979c: 199.
- schimitscheki** Eggers 1940g: 38. Lectotype, sex?; Kleinasien (Ayancyk); USNM, Washington, designated by Anderson & Anderson 1971: 29.
Distribution: Asia (W USSR).
References: (cn) Schimitschek 1944: 185, 1952c: 60. (cc) Schimitschek 1941a: 305. (hb) Schimitschek 1944: 185. (ds) Pfeffer 1962: 245. (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1940g: 38; Pfeffer 1962: 245; Schedl 1979c: 221.
- striatus** Nobuchi 1966e: 52. Holotype, sex?; Mt. Homan, Fukuoka pref., Japan; Nobuchi Collection, Ibaraki.
References: Nobuchi 1966e: pls. 1–2 (adult).
Distribution: Asia (Japan).
References: (tx) Nobuchi 1966e: 52, pl. 1–2.
- taradakensis** (Murayama) 1957c: 618 (*Pseudopocillips*). Holotype, sex?; Taradake, Nagasaki pref., Japan; USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Cinnamomum camphora*, *Machilus thunbergii*.
References: (ds) Murayama 1957c: 588. (tx) Murayama 1957c: 588, 618.
- villifrons** (Dufour) 1843: 91 (*Bostrichus*). Syntypes, sex?; France; not located.
References: Balachowsky 1949a: 184, Donisthorpe 1931: pl. H, Grune 1979: 126, Pfeffer 1989a: pl. 13.
Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Turkey/ Armenia in W USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ England/ France/ Hungary/ Italy/ Portugal/ Spain/ W USSR/ Yugoslavia).
Hosts: *Caprinus betulus*, *Castanea vesca*, *Fagus orientalis*, *Quercus afares*, *Q. cerris*, *Q. mirbeckii*, *Q. pedunculata*, *Q. pubescens*, *Q. robur*, *Ulmus* spp.
Notes: (3) Pfeffer 1940a: 53 (aberration named as var. *roubali*, no status), Sokanovskii 1958: 39 (aberration named as var. *splendens*, no status).
References: (ay) Schwerdtfeger 1929: 384. (bv) Grune 1979: 127. (cn) Anonymous 1979p; Hoffmann 1934: 93; Nusslin 1913: 283; Pierce, W. D. 1917: 40; Rhumbler 1922: 326, 1927: 342; Schwerdtfeger 1929: 384; Wachtl 1901: 381. (cc) Donisthorpe 1924: 118, 1940: 6; Espanol 1967a; Kleine 1908c: 214, 1944: 72; Krivolutskaya 1974; Nikitsky 1978; Nusslin 1927: 342; Schwerdtfeger 1929: 384. (hb) Bukowsky 1930; Koch 1909: 333; Lengerken 1939: 66, 1954: 87; Nusslin 1913: 283, 1927: 342; Paranonov 1934: 114; Peyerimhoff 1919: 256; Postner 1974: 440; Rhumbler 1922: 326, 1927: 342; Spessivtsev 1912: 271; Stark 1952: 320; Wachtl 1901: 381. (ds) Acloque 1896; Allen, A. 1954; Anonymous 1979p; Audras & Schaefer 1957; Bedel 1888b: 399, 415; Brakman 1966b: 205; Bukowsky 1930; Buresh & Lazarov 1956; Chorbadzhievo 1924d; Donisthorpe 1931: 122; Endrodi 1958b; Escalera 1919; Fedorov 1930; Grune 1979: 127; Hagedorn 1910d: 63; Heyden, Reitter, & Weise 1891: 673, 1906: 712; Hoffmann 1934: 93, 1936: 41; Holdhaus 1912: 454; Horion 1951; Kleine 1913a: 35, 1913b: 133, 1914a: 15–16, 1934a: 114; Langhoffer 1915c: 158; Leclercq 1971; Lucht 1987: 277; Negru 1968a: 456; Normand 1937: 263; Peyerimhoff 1919: 256; Pfeffer 1962: 245, 1989a: 61; Pierce, W. D. 1917: 40; Pittioni 1943: 176; Pjatnitskii 1930a: 165; Postner 1974: 440; Reitter 1894a: 86, 1916: 299; Roubal 1941: 267; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1244; Schedl 1959h: 100, 1961b: 185, 1964a, 1971d: 432, 1980a: 24; Schilsky 1909: 189; Stark

1927b: 89, 1952: 320; Tredl 1907: 17. **(tx)** Acloque 1896; Balachowsky 1949a: 194; Bedel 1888b; Chorbadzhievo 1924d; Duffy 1953; Dufour 1843: 91; Eggers 1908a: 121, 1911a: 123; Endrodi 1957b; Fleischer 1927; Grune 1979: 126–127; Hagedorn 1910a: 109; Lucht 1987: 277; Pfeffer 1940a: 53, 1955a: 207, 1962: 241, 245, 1989a: pl. 13; Pjatnitskii 1932: 295–302; Portevin 1935: 334; Postner 1974: 440; Reitter 1894a: 86, 1913a: 95–96, 1916: 299; Rey 1892b: 30; Rhumbler 1922: 326, 1927: 342; Schedl 1934f: 1642, 1959h: 100, 1980a: 24; Schmidt, G. 1980: 15; Sokanovskii 1955: 39; Spesivtsev 1912: 271–272, 1931: 60; Stark 1952: 320.

buhmerineqi Kolenati 1846: 39 (*Bostrichus*). Syn-types, sex?; Iberia et Caucaso; not located. Synonymy: Eichhoff 1878b: 207; Eggers 1911a: 123.

References: **(cn)** Acatay 1943a: 66; Chorbadzhievo 1929; Schimitschek 1944: 184, 1952c: 60. **(ce)** Schimitschek 1941a: 305. **(hb)** Acatay 1943a: 66; Barbey 1901: 24, 79; Bargmann 1906; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eichhoff 1881a: 47, 205; Henschel 1895a: 173; Schimitschek 1944: 184; Tschorbadjiev 1929: 171. **(ds)** Arnoldi et al. 1955: 703; Buresh & Lazarov 1956; Chorbadzhievo 1929; Fauvel 1885; Hagedorn 1910d: 63; Henschel 1895a: 173; Heyden 1898: 77; Heyden, Reitter, & Weise 1883: 182, 1906: 712; Kleine 1913b: 133, 1934a: 153; Kolenati 1846: 39; Lacordaire 1866: 383; Oliveira 1887: 328; Pfeffer 1936: 90; Pittioni 1943: 176; Reitter 1888b: 280, 1894a: 86; Rye 1874: 229; Schaufuss 1915: 1244; Schilsky 1891: 157, 1909: 189; Schneider & Leder 1977: 54; Sharp & Fowler 1893: 34; Stein 1868: 114; Stein & Weise 1877: 164; Tschorbadjiev 1929: 171. **(tx)** Balachowsky 1949a: 195; Barbey 1901: 24, 79; Dombrowsky 1887, 1892; Eggers 1908a: 121, 1911a: 123, 1940g: 38; Eichhoff 1878b: 204, 207, 1881a: 47, 205, 1883a: 111, 135; Fauvel 1885, 1887; Ferrari 1967b: 114; Hagedorn 1910a: 108; Harold 1875; Henschel 1895a: 173; Kolenati 1846: 39; Lacordaire 1866: 383; Pfeffer 1940a: 53; Reitter 1894a: 86, 1913a: 95–96; Schedl 1934f: 1642; Sokanovskii 1954: 21.

capronatus Perris 1866: 193 (*Dryocoetes*). Syn-types, sex?; south France; MNHN, Paris. Synonymy: Eichhoff 1878b: 207.

References: **(ec)** Grossmann 1931a. **(hb)** Perris 1876b: 195. **(ds)** Cozis 1875: 80; Perris 1876a: 253, 255, 1877a: 413, 415; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 164. **(tx)** Balachowsky 1949a: 195; Eichhoff 1868d: 419, 1876: 378–379, 1878b: 207; Ferrari 1867a: 28, 1867b: 114; Perris 1866: 193, 1877a: 413.

Genus *Dendrographus* Schedl

DENDROGRAPHIUS SCHEDEL 1964m: 310. Type-species: *Pelicerus pygmaeus* Eggers, original designation.

Protopytophthorus Schedl 1973f: 73. Type-species: *Protopytophthorus durus* Schedl = *Pelicerus pygmaeus* Eggers, original designation. Synonymy: Wood 1984b: 225.

References: **(tx)** Schedl 1973f: 73; Wood, S. L. 1984b: 225.

References: **(hb)** Wood, S. L. 1986a: 74. **(ds)** Wood, S. L. 1986a: 74. **(tx)** Schedl 1964m: 310; Wood, S. L. 1986a: 74.

pygmaeus (Eggers) 1923: 218 (*Pelicerus*). Syn-types, sex?; Kaiserin Augustafluss-Gebeit auf New Guinea; MNB, Berlin, and Eggers Collection, 2 Eggers syntypes in NHMW, Wien.

Figures: Schedl 1973f: 70 (adult).

Distribution: New Guinea.

References: **(tx)** Eggers 1923: 218; Schedl 1940b: 438; 1964m: 310, 1979c: 207.

durus Schedl 1973f: 73 (*Protopytophthorus*).

Holotype ♀; Biniguni, Gwariu River, M. Bay Distr., New Guinea; AMNH, New York. Synonymy: Wood 1984b: 225.

References: **(tx)** Schedl 1973f: 70, 73, 1979c: 86; Wood, S. L. 1984b: 225.

Genus *Peridryocoetes* Wood

PERIDRYOCOETES WOOD 1984b: 230. Type-species: *Ozodendron nitens* Schedl, original designation.

Notes: (1) The name *Peridryocoetes* was used as a nomen nudum by Schedl from 1964 to 1979.

References: **(hb)** Wood, S. L. 1986a: 74. **(ds)** Wood, S. L. 1986a: 74. **(tx)** Wood, S. L. 1984b: 230, 1986a: 74.

crassus (Eggers) 1927b: 397 (*Dryocoetes*). Holotype, sex?; Sumatra (Bandar Baroe); Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Sumatra).

Notes: (1) Wood examined the holotype and assigned this species to *Peridryocoetes* (Wood 1983 notes, p. 16).

References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1927b: 397; Murayama 1957c: 607; Schedl 1953b: 127, 1979c: 68.

minutissimus (Schedl) 1953b: 127 (*Dryocoetes*).

Lectotype, sex?; Saigon, Indo-China; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 156.

Distribution: Asia (Vietnam).

Notes: (1) Schedl 1979c: 156 (to *Peridryocoetes*). References: **(ds)** Murayama 1957c: 608; Schedl 1965a: 335. **(tx)** Murayama 1957c: 608; Schedl 1953b: 127, 1979c: 156; Wood, S. L. 1984b: 230.

nitens (Schedl) 1964g: 243 (*Ozodendron*). Holotype, sex?; Sarawak, Semeagoh; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: *Garcinia* sp.

- References: (ds) Browne 1972b: 20, 1980a: 371. (tx) Schedl 1964g: 243; Schedl 1979c: 168; Wood, S. L. 1984b: 230, 1986a: 74.
- peliciformis** (Schedl) 1936j: 29 (*Xyleborus*). Holotype ♀; south east Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
Notes: (1) Wood 1984b: 230 (to *Peridryocoetes*).
References: (ds) Murayama 1957c: 608; Schedl 1936j: 29. (tx) Murayama 1957c: 608; Schedl 1936j: 29, 1953c: 291, 1979c: 187; Wood, S. L. 1984b: 230.
- queenslandi** Schedl 1972a: 146. Holotype ♀; Queensland: Atherton; Queensland Museum, Brisbane.
Distribution: Australia (Queensland).
Hosts: *Flindersia pubescens* (feeding on gall on host).
Notes: (1) Wood 1984b: 230 (to *Peridryocoetes*).
References: (tx) Schedl 1972a: 146, 1979c: 209; Wood, S. L. 1984b: 230.
- squamipennis** Schedl 1979g: 101. Holotype, sex?; New Guinea: SE, Kiunga; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 101.
- Genus *Cyrtogenius* Strohmeyer
- CYRTOGENIUS STROHMEYER 1910e: 127. Type-species: *Cyrtogenius bicolor* Strohmeyer, monobasic.
- Carposinus** Hopkins 1915b: 9, 47. Type-species: *Carposinus pini* Hopkins = *Dryocoetes luteus* Blandford, original designation. Synonymy: Schedl 1952k: 161.
References: (tx) Browne 1961c: 85; Hopkins 1915b: 9, 47; Schedl 1952k: 161, 1957d: 12, 1961k: 650; Wood, S. L. 1960a: 14, 44.
- Orosiotes** Niisima 1917: 1. Type-species: *Orosiotes kumatoensis* Niisima, monobasic. Synonymy: Eggers 1939c: 121.
References: (tx) Eggers 1939c: 121; Niisima 1917: 1–4; Schedl 1952k: 161; Wood, S. L. 1960a: 44.
- Metahylastes** Eggers 1922b: 165. Type-species: *Metahylastes africanus* Eggers, monobasic. Synonymy: Eggers 1927a: 197.
References: (tx) Eggers 1922b: 165–166, 1927a: 197; Schedl 1961k: 650.
- Pelicerus** Eggers 1923: 216. Type-species: *Pelicerus nitidus* Hagedorn, original designation. Synonymy: Schedl 1962n: 698.
References: (tx) Beeson 1938: 289; Eggers 1923: 216, 1939c: 121; Schedl 1957d: 12, 1961k: 651, 1961n: 698.
- Eulepiops** Schedl 1939e: 344. Type-species: *Eulepiops glaber* Schedl, original designation. Synonymy: Wood 1984b: 224.
References: (tx) Browne 1961c: 37; Schedl 1939e: 344; Wood, S. L. 1984b: 244.
- Ozodendron** Schedl 1957d: 13. Type-species: *Pelicerus grandis* Beeson, monobasic. Synonymy: Wood 1984b: 224.
References: (tx) Schedl 1957d: 13, 1964g: 243; Wood, S. L. 1984b: 224.
- Mimidendruh** Schedl 1957d: 68. Type-species: *Mimidendruh movoliae* Schedl, monobasic. Synonymy: Wood 1984b: 225.
References: (tx) Schedl 1957d: 68, 1961k: 732
- Carpophloeus** Schedl 1958k: 143. Type-species: *Carpophloeus rugipennis* Schedl, monobasic. Synonymy: Wood 1986a: 74.
References: (tx) Schedl 1958k: 143; Wood, S. L. 1986a: 74.
- Taphroborus** Nunberg 1961b: 617. Type-species: *Taphroborus vaticae* Nunberg, original designation. Synonymy: Schedl 1961k: 651, Wood 1986a: 74.
References: (tx) Nunberg 1961b: 617; Schedl 1961k: 651; Wood, S. L. 1986a: 74.
- Ozodendron** Schedl 1964g: 243. Type-species: *Pelicerus grandis* Beeson, monobasic, preoccupied by Schedl 1957. Synonymy: Wood 1984b: 224.
References: (tx) Schedl 1964g: 243; Wood, S. L. 1984b: 224.
- Artepityophthorus** Schedl 1969e: 157. Type-species: *Artepityophthorus aries* Schedl, monobasic. Synonymy: Wood 1984b: 225.
References: (tx) Schedl 1969e: 157–158; Wood, S. L. 1984b: 225.
- Notes: (3) Schedl used the manuscript name in his collection of *Taphrostenoxis* Schedl for *T. tenuis* Schedl, no status.
References: (ay) Nobuchi 1969a: 61. (hb) Wood, S. L. 1986a: 74. (ds) Brimblecombe 1953: 14; Schedl 1966b: 30; Wood, S. L. 1986a: 74. (tx) Beeson 1938: 289; Browne 1959b: 297; Eggers 1922b: 165, 1927a: 197, 1939c: 121; Hopkins 1914: 120, 132, 1915b: 8, 1915c: 236; Murayama 1930: 22, 1954: 200; Nunberg 1961a: 340–342; Schedl 1934f: 1647, 1952d: 358, 1952k: 161, 1956a: 30, 1957d: 12, 1957e: 865–883, 1958k: 143, 1961k: 650, 1962k: 698–699, 1964m: 305, 1977b: 91; Strohmeyer 1910e: 127, 1911: 16; Wood, S. L. 1960a: 14, 44, 1986a: 74.
- acuminatus** (Schedl) 1975g: 221 (*Eidophelus*). Holotype, sex?; New Guinea, Hans Copper, Wan, Mt. Missim; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 221, 1979e: 11.
- aequalis** (Schedl) 1979g: 100 (*Ozodendron*). Holotype, sex?; New Guinea; Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 100.

- aethiopicus** (Eggers) 1927a: 178 (*Dryocoetes*).
Lectotype ♂; Abessinien; USNM, Washington, designated by Anderson & Anderson 1971: 3.
Distribution: Africa (Ethiopia).
References: (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1927a: 178–179; Schedl 1961k: 657, 1979c: 13.
- affinis** (Schedl) 1940b: 439 (*Pelicerus*). Holotype, sex?; Papua: Kokoda, 1200 ft.; BMNH, London.
Distribution: New Guinea.
References: (bv) Gray, B. 1974c. (hb) Gray, B. 1974c. (tx) Schedl 1940b: 439, 1979c: 14.
- africanus** (Schreiner) 1882: 246 (*Dryocoetes*). Syn-
types ♂ ♀; Guineae ora Africa; Schedl Collection
in NHMW, Wien.
Figures: Schedl 1961k: 658 (antenna).
Distribution: Africa (Ghana).
Notes: (3) Schedl 1979c: 14 (citation of holotype
invalid).
References: (ds) Hagedorn 1910d: 65. (tx) Eggers
1924: 105, 1928: 174; Hagedorn 1910a: 96;
Schedl 1939i: 383, 1948a: 666, 1954e: 47, 1957e:
875, 1961k: 658, 1979c: 14; Schreiner 1882: 246.
- africus** Wood 1988c: 196. Holotype, sex?;
Flussgebiet des oberen Mwena und Ramissi,
Britisch Ostafrika; Methner Collection, automatic.
Figures: Schedl 1961k: 652.
Distribution: Africa (Guinea/ Kenya/ Tanzania/
Uganda/ Zaïre).
Hosts: *Euphorbia* sp.
References: (tx) Wood, S. L. 1988c: 196.
- africanus** Eggers 1922a: 165 (*Metahylastes*).
Holotype, sex?; Flussgebiet des oberen
Mwena und Ramissi, Britisch Ostafrika; Meth-
ner Collection, preoccupied by Schreiner 1882.
References: (ds) Gardner 1957a: 30; Kleine
1913b: 135, 1914b: 307; Murayama 1957c:
608; Schedl 1938d: 450. (tx) Eggers 1922a:
165, 1927a: 197; Schedl 1938d: 450, 1954e:
47, 1961k: 652, 1962h: 58, 1962k: 1073, 1967a:
129; Wood, S. L. 1988c: 196.
- agathis** (Browne) 1980c: 486 (*Ozodendron*). Holo-
type, sex?; Tg. Loleo (Borneo) to Nagoya (Japan)
imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: *Agathis* sp.
References: (ds) Ohno, Yoneyama, & Nakazawa
1987: 93. (tx) Browne 1980c: 486.
- alternantes** Schedl 1975f: 353. Holotype, sex?;
Upper Manki logging area, Bulolo, Morobe Dis-
trict; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Notes: (3) Schedl 1979g: 100 (described female).
References: (tx) Schedl 1975f: 353, 1979c: 17,
1979g: 100.
- anisopterae** (Browne) 1985b: 291 (*Ozodendron*).
Holotype ♂; Tg. Usau (West Irian) to Nagoya
(Japan) imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Anisoptera* sp.
References: (tx) Browne 1985b: 291.
- aries** (Schedl) 1969e: 158 (*Artepityophthorus*).
Holotype, sex?; New Guinea, Haus Copper, Wan,
Mt. Mission; NHMB, Budapest.
Distribution: New Guinea.
References: (tx) Schedl 1969e: 157–158, 1979c: 25.
- bicolor** Strohmeier 1910e: 127. Syntypes, sex?;
Aethiopia, Tschertscher montes; Strohmeier Col-
lection.
Figures: Numberg 1961a: 345.
Distribution: Africa (Ethiopia/ Zaïre).
References: (ds) Kleine 1913b: 135, 1914b: 324.
(tx) Hopkins 1914: 124, 132; Lucas 1920: 357;
Schedl 1950h: 109, 1961k: 653, 1962k: 1073, 1962r:
97; Strohmeier 1910e: 127. (ms) Lucas 1920: 357.
kivuensis Numberg 1961a: 344 (*Tiarophorus*).
Holotype ♀; Kivi: Kavinvira (Uvira); MRCB,
Tervuren. Synonymy: Schedl 1962r: 97.
References: (tx) Numberg 1961a: 344–345;
Schedl 1962k: 1073, 1962r: 97.
- borneensis** Schedl 1967a: 129. Holotype ♀; Tar-
akan (Borneo) to Tokyo (Japan), imported; PPST,
Tokyo.
Distribution: Indonesia (Borneo).
Hosts: Melanti log.
References: (tx) Schedl 1967a: 129, 1979c: 44.
- brevior** (Eggers) 1927c: 86 (*Pelicerus*). Lectotype
♂; Philippinen: Luzon, Provinz Mountain,
Balbalan; USNM, Washington, designated by
Anderson & Anderson 1971: 8.
Distribution: Asia (Burma/ Andaman Islands,
Nicobar Islands in India/ Japan/ Korea/ Malaya/
Thailand), Bismarck Island, Fiji Islands, Indone-
sia (Java), Micronesia (Caroline Islands, Gilbert
Islands, Mariana Islands, Truk Island), Philippine
Islands, Samoan Islands.
Hosts: *Artocarpus incisa*, *A. kunstleri*, rare in
Canarium vulgare, *Lansium domesticum*.
Notes: (3) Schedl 1951b: 363 (*mindoroensis*,
nomen nudum).
References: (hb) Beaver 1976b: 538; Beeson 1929:
231; Kalshoven 1958a: 186, 1958b: 173. (ds)
Beaver 1976b: 538; Beaver & Browne 1975: 289;
Beeson 1929: 231, 1938b: 289, 1961: 290; Browne
1961c: 85, 1966: 245, 1970: 541, 1980a: 370, 1980c:
483, 1981b: 598, 1985a: 191; Choo 1983: 80;
Choo & Woo 1985: 165; Kalshoven 1958a: 186,
1958b: 173; Ohno, Yoneyama, & Nakazawa 1982a:
3, 1987: 93; Ohno et al. 1987: 87, 1988a: 92;
Schedl 1966b: 31, 1971f: 146; Wood, S. L. 1960a:
45. (tx) Anderson, W. H. & Anderson 1971: 8;
Beeson 1929: 231, 1938: 289; Choo 1983: 80; Eg-
gers 1927c: 86; Schedl 1942c: 180, 1951b: 363,
1951i: 50, 1951k: 136, 1952b: 363, 1952c: 63, 1966b:
31, 1979c: 46; Wood, S. L. 1960a: 45.

- chirindaensis** (Schedl) 1948c: 666 (*Dryocoetes*).
Lectotype, sex?; Chirinda, Mashonaland; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 56.
Distribution: Africa (Zimbabwe).
References: (ds) Murayama 1957c: 608. (tx) Murayama 1957c: 608; Schedl 1948c: 666, 1961k: 658, 1979c: 56.
- chlorophorae** (Schedl) 1957d: 66 (*Dryocoetes*).
Holotype, sex?; Cote d'Ivoire, Adiopodoume; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast).
Hosts: *Afromosia elata*, *Chlorophora excelsa*, *Macrobium heudelotianum*.
References: (ds) Schedl 1961k: 659, 1964e: 68. (tx) Schedl 1957d: 66, 1961k: 659, 1979c: 57.
- congonus** (Eggers) 1924: 105 (*Dryocoetes*). Holotype ♀; 300 km von Kindu im Congostaat; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (ds) Murayama 1957c: 608; Schedl 1961k: 659, 1972e: 281. (tx) Eggers 1924: 105; Murayama 1957c: 608; Schedl 1948c: 666, 1961k: 659.
- cribricollis** Schedl 1957e: 875. Lectotype ♀; Congo Belge, Kivu, Kavinvira (Uvira); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 69.
Figures: Numberg 1961a: 341 (adult).
Distribution: Africa (Ghana/ Ruanda/ Zaire).
Hosts: *Elaeophorbia drupifera*.
References: (hb) Browne 1963a: 236–237. (ds) Browne 1963a: 236; Schedl 1961k: 653. (tx) Schedl 1957e: 875, 1961k: 653, 1962k: 1074, 1962r: 96, 1979c: 69.
- dryocoetoides** Numberg 1961a: 338 (*Cyrtogenius*).
Holotype ♀; Kivu: Sanghe, pl. de la Ruzizi; MRCB, Tervuren. Synonymy: Schedl 1962k: 1074, 1962r: 96.
References: (tx) Numberg 1961a: 337–341; Schedl 1962k: 1074, 1962r: 96.
- cribripennis** Schedl 1962h: 68. Holotype, sex?; Ghana: Kumasi; BMNH, London.
Distribution: Africa (Ghana).
Hosts: *Triplochiton scleroxylon*.
Notes: (1) Schedl 1964j: 43 (an obvious duplicate description of this species).
References: (ds) Schedl 1961k: 653. (tx) Schedl 1961k: 653, 1962h: 68, 1962k: 1074, 1964j: 43, 1979c: 68–69.
- curtus** (Schedl) 1973f: 71 (*Ozodendron*). Holotype ♀; Waikainma, Normanby Island, M. Bay Distr., 0–50 m; AMNH, New York.
Distribution: New Guinea.
References: (tx) Schedl 1973f: 71, 1979c: 72.
- cyclopus** (Schedl) 1940b: 439 (*Pelicerus*). Holotype ♀?; Dutch New Guinea, Cyclops Mts., Sabron, Camp 2, 2000 ft.; BMNH, London.
Distribution: Fiji Islands, New Guinea.
References: (ds) Schedl 1979f: 103. (tx) Schedl 1940b: 435, 439, 1942a: 178, 1955b: 280, 1979c: 72.
- declivis** (Schedl) 1955b: 294 (*Carposinus*). Holotype, sex?; Neu-Guinea, Friedrich-Wilhelmshafen; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 280, 294, 1979c: 76.
- depressus** (Browne) 1963b: 243 (*Mimidendrus*). Holotype, sex?; Nigeria: Makurdi; BMNH, London.
Distribution: Africa (Nigeria).
References: (tx) Browne 1963b: 243; Roberts 1969: 125.
- detectus** Schedl 1972e: 289. Holotype, sex?; Ghana, Ashanti Region, Kwadaso, 320 m, N 6 degrees 42', W 1 degree 39'; NHMB, Budapest.
Distribution: Africa (Ghana).
References: (tx) Schedl 1972e: 289, 1979c: 79.
- dimorphus** (Schedl) 1936g: 527 (*Dryocoetes*). Lectotype, sex?; New South Wales: Burwood; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 81.
Distribution: Australia (New South Wales).
Hosts: *Pittosporum* sp.
Notes: (1) Schedl 1979: 81 (to *Cyrtogenius*).
References: (ds) Brimblecombe 1953: 18; Murayama 1957c: 608; Schedl 1936g: 527, 1964c: 305. (tx) Murayama 1957c: 608; Schedl 1936g: 527, 1964c: 305, 1979c: 81.
- dubius** (Eggers) 1924: 105 (*Dryocoetes*). Lectotype, sex?; Congostaat, Kunungu; USNM, Washington, designated by Anderson & Anderson 1971: 12.
Distribution: Africa (Zaire).
References: (hb) Browne 1961b: 15–30. (ds) Murayama 1957c: 608; Schedl 1961k: 659. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1924: 105; Murayama 1957c: 608; Schedl 1948c: 666, 1961k: 659, 1979c: 85.
- elongatissimus** Wood 1988c: 196. Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien, automatic.
Distribution: Indonesia (Borneo).
References: (tx) Wood, S. L. 1988c: 196.
- elongatus** Schedl 1964g: 244 (*Ozodendron*). Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1927.
References: (tx) Schedl 1964g: 244, 1979c: 89; Wood, S. L. 1988c: 196.
- elongatulus** Wood 1988c: 197. Holotype, sex?; Papua New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Wood, S. L. 1988c: 197.
- elongatus** Schedl 1979g: 101 (*Eidophelus*). Holotype

type, sex?; New Guinea: Bulolo, Morobe District, Upper Manki L. A., Schedl Collection in NHMW, Wien, preoccupied by Eggers 1927. References: (tx) Schedl 1979g: 101.

elongatus (Eggers) 1927c: 85 (*Pelicerus*). Lectotype ♂; Mindanao, Provinz Lanao, Kolambugan; USNM, Washington.

Distribution: Philippine Islands (Mindanao).

References: (ds) Browne 1981b: 597, 1984b: 286, 1985b: 290; Olmo et al. 1987: 87; Schedl 1966b: 31. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1927c: 85; Nobuchi 1983: 301; Schedl 1979c: 89–90.

festivus Schedl 1975g: 220. Holotype, sex?; New Guinea, Mt. Wilhelm; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975g: 220, 1979c: 96.

fijianus (Schedl) 1951k: 150 (*Ozopemon*). Lectotype, sex?; Fiji Islands, Viti Levu: Navai Mill, near Nandariavatu, alt. 2300 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 96.

Distribution: Fiji Islands.

Hosts: *Agatha vitiensis*, Kauri bark.

References: (ec) Roberts 1976: 384. (hb) Roberts 1976: 384. (ds) Roberts 1976: 384. (tx) Browne 1974a: 68; Schedl 1951k: 150, 1955b: 284, 287; 1979c: 96.

formosanus (Schedl) 1952c: 63 (*Orosiotes*). Holotype, sex?; Formosa, Rikiriki; Schedl Collection in NHMW, Wien.

Distribution: Asia (Taiwan).

References: (ds) Nobuchi 1967: 20; Schedl 1969a: 204. (tx) Schedl 1952c: 63, 1979c: 99.

frigidus (Schedl) 1942a: 178 (*Orosiotes*). Lectotype, sex?; Malaya, Cameron's Highlands; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 100.

Distribution: Asia (Malaya).

References: (ds) Browne 1961c: 85. (tx) Browne 1965a: 195; Schedl 1942a: 178, 1979c: 100.

glaber (Schedl) 1939e: 344 (*Eulepiops*). Lectotype, sex?; Malaya: Selangor, Sungai Buloh For. Res; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 104.

Distribution: Asia (Malaya).

Hosts: *Artocarpus lakoocha*, *Xanthophyllum* sp.

References: (ds) Beeson 1961: 287; Browne 1961c: 87. (tx) Schedl 1939e: 344, 1979c: 104.

gracilis (Schedl) 1974d: 462 (*Ozodendron*). Holotype, sex?; Taun logging area, Bulolo, Morobe District; CSIRO, Canberra.

Distribution: New Guinea.

References: (tx) Schedl 1974d: 462, 1979c: 108.

gracillimus Wood 1988c: 197. Holotype, sex?; New Guinea: Kaisenik; BMNH, London, automatic.

Distribution: New Guinea.

Hosts: *Castanopsis* sp.

References: (tx) Wood, S. L. 1988c: 197.

gracilis Browne 1984d: 95. Holotype, sex?; New Guinea: Kaisenik; BMNH, London, preoccupied by Schedl 1974.

References: (tx) Browne 1984d: 95; Wood, S. L. 1988c: 197.

grandis (Beeson) 1929: 232 (*Pelicerus*). Holotype ♀; Samoa: Upolu, Molololelei; BMNH, London.

Distribution: Samoa.

References: (ds) Beaver 1976b: 538; Beeson 1938b: 289. (tx) Beeson 1929: 232; Schedl 1950f: 39, 1951k: 36, 150, 1957d: 12–13, 1964g: 243.

granistriatus (Schedl) 1942c: 180 (*Orosiotes*). Holotype, sex?; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1942c: 180, 1979c: 110.

granulifer (Beeson) 1929: 231 (*Pelicerus*). Holotype ♀; Samoa: Tutuila, Pago Pago; BMNH, London.

Distribution: Fiji, Samoa.

References: (ec) Roberts 1976: 383. (hb) Roberts 1976: 383. (ds) Beaver 1976b: 538; Beeson 1938b: 289; Browne 1974a: 64, 1986c: 661; Olmo et al. 1987: 87; Roberts 1976: 383; Schedl 1971f: 148. (tx) Beeson 1929: 231; Schedl 1951k: 136.

grossepunctatus (Schedl) 1939e: 346 (*Pelicerus*). Lectotype, sex?; Malaya, Pahang, Tersang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 113.

Distribution: Asia (Andaman Islands, Madhya Pradesh in India/Malaya).

Hosts: *Canarium* sp.

References: (ds) Beeson 1961: 290; Browne 1961c: 85. (tx) Schedl 1939e: 346, 1942a: 171, 1979c: 113.

hirtellus Schedl 1953d: 89. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 118.

Distribution: Madagascar.

References: (tx) Nunberg 1961a: 342; Schedl 1953d: 89, 1964j: 43, 1977b: 93, 1979c: 118.

hirtus (Eggers) 1923: 162 (*Dryocoetes*). Lectotype, sex?; Deutsch Neu Guinea (Kaiserin Augustafluss); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 118.

Distribution: New Guinea.

References: (ds) Murayama 1957c: 608. (tx) Eggers 1923: 162, 1928d: 174; Murayama 1957c: 608; Schedl 1979c: 118.

hornus (Schedl) 1975f: 356 (*Eidophelus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Notes: (1) Holotype examined by Wood and placed in *Cyrtogenius* (Wood 1983 notes, p. 15).

References: (tx) Schedl 1975f: 356, 1979c: 119.

- impar** Schedl 1953d: 88. Lectotype, sex?; Madagascar Sud; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 122.
Distribution: Madagascar.
References: (tx) Numberg 1961a: 342; Schedl 1953d: 88, 1977b: 92–93, 1979c: 122.
- inermis** Browne 1983c: 72. Holotype ♀?; New Guinea: Morobe District, Wau, 1200 m; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1983c: 72.
- kumatoensis** (Niisima) 1917: 1 (*Orosiotes*). Syntypes, sex?; Kyushu Island, Kamamoto; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
References: (ds) Murayama 1954b: 200. (tx) Eggers 1939c: 121; Murayama 1954b: 200; Niisima 1917: 1–2; Schedl 1934f: 1647, 1961k: 650.
- laevis** (Browne) 1984b: 289 (*Ozodendron*). Holotype, sex?; Fakfak (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Terminalia* sp.
References: (tx) Browne 1984b: 289.
- lineatopunctatus** (Eggers) 1927b: 401 (*Xyleborus*). Holotype ♀; New Guinea; USNM, Washington.
Distribution: New Guinea.
Notes: (1) Wood 1989: 172 (to *Cyrtogenius*).
References: (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1927b: 401; Wood, S. L. 1989: 172.
- longipennis** Browne 1965a: 195. Holotype ♂; Sarawak: Foot of Mt. Murud; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (ds) Browne 1985b: 290; Choo 1983: 81; Choo & Woo 1985: 165. (tx) Browne 1965a: 195; Choo 1983: 81.
- luteus** (Blandford) 1894d: 94 (*Dryocoetes*). Syntypes 9, sex?; Japan; BMNH, London.
Figures: Yin, Huang, & Li 1984: 148 (adult, declivity).
Distribution: Asia (Burma/ Fujian, Guangdong, Guangxi, Henan, Hunan, Jiangsu, Jiangxi, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea), Philippine Islands.
Hosts: *Pinus densata*, *P. khasya*, *P. massoniana*, *P. tabulaeformis*, *P. yunnanensis*.
Notes: (1) Wood 1989: 172 (to *Cyrtogenius*).
References: (ds) Blandford 1894c; Choo 1983: 81; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 258; Murayama 1954b: 173, 1957c: 588, 601; Nobuchi 1967: 20; Yin, Huang, & Li 1984: 147. (tx) Blandford 1894d: 94; Choo 1983: 81; Hagedorn 1910a: 96; Murayama 1954b: 173, 1957c: 588, 601; Schedl 1934f: 1642; Wood, S. L. 1989: 172; Yin, Huang, & Li 1984: 147.
- pini** Hopkins 1915b: 47 (*Carpinus*). Holotype ♀; Baguio, Philippine Islands; USNM, Washington. Synonymy: Wood 1989: 172.
References: (hb) Kalshoven 1958b: 174. (ds) Beeson 1961: 290; Kleine 1934a: 158. (tx) Hopkins 1915b: 47; Schedl 1952b: 363, 1952k: 161, 1957d: 12, 1961k: 650; Wood, S. L. 1989: 172.
- madagascariensis** Schedl 1965c: 61. Holotype, sex?; Madagascar; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 61, 1977a: 93, 1979c: 144.
- major** Strohmeier 1911h: 16. Holotype, sex?; Aethiopia, Harar; Strohmeier Collection.
Figures: Schedl 1961k: 654.
Distribution: Africa (Ethiopia/ South Africa/ Sudan).
References: (ds) Kleine 1913b: 135, 1914b: 324; Schedl 1961k: 654, 1968b: 144, 1971e: 4, 1975k: 277. (tx) Hopkins 1914: 124, 134; Schedl 1957e: 875, 1961k: 654, 1979c: 145; Strohmeier 1911h: 16.
- malayensis** (Schedl) 1977f: 501 (*Dryocoetes*). Holotype, sex?; Malaya: Kepong; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: (tx) Schedl 1977f: 501.
- mayumbensis** (Schedl) 1965e: 369 (*Dryocoetes*). Holotype, sex?; Congo: Luki; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Carapa procera*.
References: (tx) Schedl 1965e: 369, 1979c: 150.
- milletiae** (Schedl) 1952j: 9 (*Dryocoetes*). Holotype, sex?; Congo Belge: Kivu, Mulungu; IRSNB, Brussels.
Distribution: Africa (Zaire).
Hosts: *Milletia ferruginea*, *Tephrosia vogelii*.
References: (ds) Murayama 1957c: 608; Schedl 1961k: 660. (tx) Murayama 1957c: 608; Schedl 1952j: 9, 1961k: 660, 1965e: 369, 1979c: 153.
- minor** (Eggers) 1923a: 218 (*Pelicerus*). Syntypes 3, sex?; Kaiserin Augustafloss in New Guinea; MNB, Berlin, and Eggers Collection, in NHMW, Wien.
Distribution: New Guinea, Philippine Islands.
References: (ds) Browne 1966: 245, 1981b: 599. (tx) Eggers 1923a: 218; Nobuchi 1983: 301; Schedl 1940b: 435.
- minor robustus** Schedl 1940b: 438 (*Pelicerus*). Holotype, sex?; Dutch New Guinea, Cyclops Mts., Sabron Camp 1, 1200 ft.; BMNH, London.
Notes: (3) It is probable that this variation is an aberration, not a geographical race; if so, it has no status in nomenclature.
References: (tx) Schedl 1940b: 438.
- movoliae** (Schedl) 1957d: 68 (*Mimidendrulus*). Holotype ♂; Congo Belge: Kivu, Mulungu; MRCB, Tervuren.

Figures: Schedl 1961k: 734.

Distribution: Africa (Ruanda/Zaire).

Hosts: *Lobelia giberroa*, *Microglossa volubilis*, "Movolia."

References: (hb) Schedl 1961k: 733. (ds) Mayne & Donis 1962: 303; Schedl 1961k: 733. (tx) Schedl 1957d: 68, 1961k: 733-734, 1979c: 160.

mulungensis (Schedl) 1952j: 10 (*Dryocoetes*). Lectotype ♀; Congo Belge: Kivu, Mulungu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 161.

Figures: Schedl 1961k: 661.

Distribution: Africa (Ruanda/Zaire).

Hosts: *Cajanus cajan*, *Cinchona ledgeriana*, *Helichrysum pandurctum*, *Millettia ferruginea*, *Rumex* sp., *Solanus aculeastrum*.

References: (ds) Mayne & Donis 1962: 305; Murayama 1957c: 608; Schedl 1961k: 661. (tx) Murayama 1957c: 608; Schedl 1952j: 10, 1961k: 661, 1979c: 161.

nitidus (Hagedorn) 1910b: 1 (*Lepicercus*). Holotype, sex?; Sumatra; Hamburg Museum, lost.

Distribution: Asia ("China"/ Vietnam), Australia (Queensland), Bismarck Islands, Indonesia (Sumatra), New Guinea, Solomon Islands.

Hosts: *Euroschinus falcatus*.

Notes: (3) View continental distribution with caution; these records may be based on misidentified *luteus* (SIW).

References: (ds) Beeson 1938b: 289; Hagedorn 1910d: 69; Kalshoven 1958b: 174; Kleine 1913b: 139, 1914b: 286; Schedl 1960e: 172, 1962b: 184, 1965a: 339, 1966b: 32, 1969a: 205, 1973c: 378. (tx) Browne 1970: 564; Eggers 1923a: 216-218; Hagedorn 1910a: 91, 1910b: 1; Nobuchi 1983: 301; Schedl 1940d: 585, 588, 1950g: 894, 1952b: 363, 1952d: 343, 345, 1955b: 294, 1957d: 12, 1960e: 172, 1961k: 651, 1964m: 306, 1965c: 61.

nitidus orientalis Eggers 1923a: 217 (*Pelicerus*). Lectotype ♀; Neu Guinea (Salvatti); USNM, Washington, designated by Anderson & Anderson 1971: 217.

References: (ds) Brimblecombe 1953: 14; Browne 1985b: 291; Ohno, Yoneyama, & Narazawa 1987b: 93; Ohno, Yoshioka, et al. 1985a: 92, 1989: 60; Schedl 1936g: 526, 1940b: 435, 1972a: 144. (tx) Anderson, W. H. & Anderson 1971: 23; Beeson 1929: 232; Eggers 1923a: 217; Schedl 1957d: 12.

noumeanus (Browne) 1970: 563 (*Dryocoetes*). Holotype ♂; in island Kauri log from Noumea, New Caledonia, intercepted at Auckland, New Zealand; BMNH, London.

Distribution: New Caledonia.

Hosts: Kauri.

References: (tx) Browne 1970: 563.

papuae Wood 1988c: 197. Lectotype ♂; Deutsch Neu Guinea (Kaiserin Augustafluss); USNM, Washington, designated by Anderson & Anderson 1971: 23, automatic.

Distribution: New Guinea.

References: (tx) Wood, S. L. 1988c: 197.

papuanus Eggers 1923a: 217 (*Pelicerus*). Lectotype ♂; Deutsch Neu Guinea (Kaiserin Augustafluss); USNM, Washington, designated by Anderson & Anderson 1971: 23, preoccupied by Eggers 1923.

References: (tx) Beeson 1929: 232; Eggers 1923a: 217.

papuanus (Eggers) 1923a: 162 (*Dryocoetes*). Syn-types 2, sex?; Ansum auf Neu Guinea; MCG, Genova and Eggers Collection, in NHMW, Wien, or USNM, Washington?

Distribution: New Guinea.

References: (ds) Browne 1980d: 491; Ohno, Yoneyama, Nakazawa 1987a: 87; Schedl 1969a: 204. (tx) Eggers 1923a: 162; Nobuchi 1983: 301.

papuensis Wood 1988c: 197. Holotype, sex?; Mt. Dayman, Maneau Range, N. Slope, M. Bay Distr., 700 m; AMNH, New York.

Distribution: New Guinea.

References: (tx) Wood, S. L. 1988c: 197.

papuanus Schedl 1973f: 71 (*Eidophelus*). Holotype, sex?; Mt. Dayman, Maneau Range, N. Slope, M. Bay Distr., 700 m; AMNH, New York, preoccupied by Eggers 1923.

Notes: (1) Wood examined the holotype and assigned it to *Cyrtogenius* (Wood 1983 notes, p. 15).

References: (ds) Murayama 1957c: 608. (tx) Murayama 1957c: 608; Schedl 1973f: 71, 1979c: 183.

parinarii (Browne) 1983a: 556 (*Ozodendron*). Holotype, sex?; Lever Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.

Distribution: Solomon Islands.

Hosts: *Parinarium* sp. log.

References: (ds) Ohno, Yoshioka, et al. 1985a: 92. (tx) Browne 1983a: 556.

parvus Browne 1980d: 495. Holotype, sex?; Atsy (New Guinea) to Nagoya (Japan) imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Artocarpus* sp.

References: (ds) Browne 1984b: 287. (tx) Browne 1980d: 495.

perakensis (Schedl) 1936d: 9 (*Dryocoetes*). Lectotype ♀; Malay Peninsula: Perak, Taiping; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 188.

Distribution: Asia (Hong Kong in China/ Malaya), Indonesia (Borneo).

Hosts: *Agathis alba*, *A. dammara*.

References: (hb) Browne 1961c: 85. (ds) Browne 1961c: 85, 1965a: 188, 1980a: 372, 1980c: 483,

- 1981b: 597; Murayama 1957c: 308; Schedl 1975a: 454. (tx) Browne 1944: 897, 1970: 563; Murayama 1957c: 308; Schedl 1936d: 9, 1939e: 348, 1957d: 13, 1979c: 188.
castaneus Browne 1949b: 896 (*Dryocoetes*).
 Holotype, sex?; Malaya: Kelantan. Kuala Krai; BMNH, London. Synonymy: Browne 1970: 563.
 References: (ds) Browne 1961c: 84; Murayama 1957c: 607. (tx) Browne 1949b: 896, 1970: 563; Murayama 1957c: 607.
- pergrinus** Schedl 1972i: 50. Holotype ♀; New Guinea (N.W.), Wisselmeren, Enarotadi, 1850 m; BPBM, Honolulu.
 Distribution: New Guinea.
 References: (tx) Schedl 1972i: 50, 1979c: 189.
- philippinensis** (Eggers) 1927c: 87 (*Pellicerus*).
 Lectotype ♂; Philippinen: Catanduanes, Prov. Albay, Virac; USNM, Washington, designated by Anderson & Anderson 1971: 25.
 Distribution: Asia (Ryuku Islands), Indonesia (Sumba), Philippine Islands.
 Hosts: *Pinus densiflora*, *P. thunbergii*.
 References: (ds) Nobuchi 1971a: 126; Schedl 1961c: 71. (tx) Anderson, W. H. & Anderson 1971: 25; Eggers 1927c: 87, 1941b: 222; Nobuchi 1959c: 21; Schedl 1940b: 435, 1951i: 50, 1961c: 71, 1966b: 31, 1979c: 192.
- polyphagus** (Schedl) 1952i: 12 (*Dryocoetes*). Holotype ♀; Congo Belge: Mulungu; MRCB, Tervuren.
 Figures: Schedl 1961k: 662.
 Distribution: Africa (Zaire).
 Hosts: *Caesalpinia decapetala*, *C. cf. sopiaria*, *Loranthus* sp., *Melanthera brownii*.
 References: (ds) Mayne & Donis 1962: 306; Murayama 1957c: 608; Schedl 1961k: 662. (tx) Murayama 1957c: 608; Schedl 1952i: 12, 1961i: 662, 1961k: 662, 1979c: 197.
- preparvus** Browne 1986c: 664. Holotype ♂; New Guinea: Tanjong Usau to Nagoya [Japan], imported; BMNH, London.
 Distribution: New Guinea.
 Hosts: *Terminalia* sp.
 References: (tx) Browne 1986c: 664.
- rugicollis** (Eggers) 1940d: 132 (*Orosiotes*). Holotype, sex?; Java (Buitenzorg); Kalshoven Collection.
 Distribution: Indonesia (Java).
 References: (hb) Kalshoven 1958: 173. (ds) Schedl 1966b: 32. (tx) Eggers 1940d: 132–133; Nobuchi 1983: 301; Schedl 1979c: 216.
- ruginosus** Wood 1988c: 197. Holotype ♂; Ivory Coast: Adiopodoume; RNH, Leiden, automatic.
 Distribution: Africa (Ivory Coast).
 References: (tx) Wood, S. L. 1988c: 197.
- rugicollis** Browne 1965a: 194 (*Mimidendrus*).
 Holotype ♂; Ivory Coast: Adiopodoume; RNH, Leiden, preoccupied by Eggers 1940.
 Notes: (1) Wood 1986a: 74 (to *Cyrtogenius*).
 References: (tx) Browne 1965a: 194; Wood, S. L. 1986a: 74, 1988c: 197.
- rugipennis** (Schedl) 1958k: 143 (*Carpophlocus*).
 Lectotype ♂; Sumatra's Westkust, Gunnug Singgalang, 1800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 216.
 Distribution: Indonesia (Sumatra).
 References: (tx) Schedl 1958k: 143, 1979c: 216.
- samoanus** (Eggers) 1928d: 174 (*Dryocoetes*).
 Lectotype, sex?; Apia; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 218.
 Distribution: Samoan Islands.
 References: (hb) Beeson 1929: 233. (ds) Beeson 1929: 233, 1938b: 287; Murayama 1957c: 608. (tx) Beeson 1929: 233; Eggers 1928d: 174; Murayama 1957c: 608; Schedl 1936g: 527, 1951k: 136, 1979c: 218.
- sarawakensis** (Schedl) 1954c: 155 (*Dryocoetes*).
 Lectotype, sex?; Borneo, Saravak, Mt. Penrissen, 4500 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 219.
 Distribution: Indonesia (Saravak in Borneo).
 References: (tx) Browne 1970: 563; Schedl 1954c: 155, 1979c: 219.
- scabricollis** Browne 1980b: 385. Holotype ♂; Bulma (New Britain) to Nagoya (Japan) imported log; BMNH, London.
 Distribution: New Britain Island.
 References: (tx) Browne 1980b: 385.
- scotti** Eggers 1936b: 31. Holotype ♂; Abyssinia: Jem Jem Forest, ca 8000 ft.; BMNH, London, type damaged.
 Distribution: Africa (Ethiopia).
 Hosts: *Euphorbia* sp.
 References: (ds) Schedl 1961k: 655. (tx) Eggers 1936b: 31; Schedl 1961k: 655.
- sedlaceki** (Schedl) 1975f: 353 (*Ozodendron*). Holotype ♀; New Guinea NW, Wisselmeren, Enarotadi, 1850–1900 m; BPBM, Honolulu.
 Distribution: New Guinea.
 References: (tx) Schedl 1975f: 353.
- silvaniae** Schedl 1982: 285. Holotype, sex?; Transvaal: Graskop Forest; Schedl Collection in NHMW, Wien.
 Distribution: Africa (South Africa).
 References: (tx) Schedl 1982: 285.
- siporanus** (Eggers) 1923: 163 (*Dryocoetes*). Holotype, sex?; Sipora auf der Insel Mentawai; MCG, Genoa.
 Distribution: Indonesia (Mentawai Island).
 References: (ds) Murayama 1957c: 608. (tx) Eggers 1923: 163; Murayama 1957c: 608.
- subacuminatus** (Schedl) 1939e: 347 (*Pellicerus*).
 Syntypes ♂; Malaya, Selangor: Kepong; BMNH, London.

Distribution: Asia (Malaya/ Thailand).

Hosts: *Elatospermium tapos*.

References: (ds) Beaver & Browne 1975: 289; Beeson 1961: 290; Browne 1961c: S6. (tx) Browne 1965a: 195; Schedl 1939e: 347–348, 1979c: 239.

subgranosus (Schedl) 1973f: 72 (*Eidophelus*).

Holotype ♀; Waikaiuna, Normanby Isl., M. Bay Distr., 0–50 m; AMNH, New York.

Distribution: New Guinea.

Notes: (1) Wood examined the holotype and referred it to *Cyrtogenius* (Wood 1983 notes, p. 15). References: (tx) Schedl 1973f: 72, 1979c: 241.

subgranosus affinis Schedl 1973f: 73. Holotype, sex?; Waikaiuna, Normanby Isl., M. Bay Distr.; AMNH, New York.

Notes: (3) Wood examined the holotype and referred it to *Cyrtogenius* (Wood 1983 notes, p. 15).

References: (tx) Schedl 1973f: 73, 1979c: 241.

subsulcatus (Schedl) 1979g: 102 (*Eidophelus*).

Holotype, sex?; Baipaa, Central District; New Guinea: Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 102.

sulcatus (Schedl) 1979g: 103 (*Eidophelus*). Holotype, sex?; New Guinea: Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Notes: (1) Wood examined the holotype and referred it to *Cyrtogenius* (Wood 1983 notes, p. 15). References: (tx) Schedl 1979g: 103.

suturalis Browne 1970: 564. Holotype, sex?; Singapore; BMNH, London.

Distribution: Asia (Malaya).

References: (tx) Browne 1970: 564.

tenuis (Schedl) 1958b: 102 (*Carposinus*). Syntypes, sex?; Malaya, Kelantan; BMNH, London and Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

Notes: (1) Schedl, in his collection, incorrectly placed this species in *Taphrostenoxis*, nomen nudum. References: (ds) Browne 1961c: S6, 1981a: 126, 1981b: 599. (tx) Schedl 1958b: 102, 1979c: 251, 1979c: 251.

tuberculatus (Schedl) 1973f: 72 (*Eidophelus*).

Holotype, sex?; Mt. Dayman, Maneau Range, N. Slope, M. Bay Distr., 700 m; AMNH, New York.

Distribution: New Guinea.

Notes: (1) Wood examined the holotype and referred it to *Cyrtogenius* (Wood 1983 notes, p. 15). References: (tx) Schedl 1973f: 72, 1979c: 257.

tuberculifer Schedl 1950h: 109. Holotype, sex?; Madagascar; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

Hosts: *Cauarium boivin*, *C. spp.*, *Clerodendron* sp., *Ficus* sp., *Maesa lanceolata*, *Pachytrrophe dimepate*.

Notes: (3) Schedl 1953d: 89 (described male).

References: (hb) Schedl 1977b: 93. (ds) Schedl 1970d: 233, 1977b: 93. (tx) Nunberg 1961a: 340; Schedl 1950h: 109, 1953d: 69, 89, 1977b: 93, 1979c: 258.

unicus (Schedl) 1975f: 355 (*Eidophelus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 355, 1979c: 260.

variipennis (Schedl) 1971c: 386 (*Xyleborus*). Holotype ♀; Malaya, Kepong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Elaeocarpus pectiolatus*.

References: (tx) Schedl 1971c: 386–387, 1979c: 264.

vaticae (Nunberg) 1961b: 617 (*Taphroborus*).

Holotype, sex?; Malay Peninsula, Kelantan (Mengkebang); BMNH, London.

Figures: Nunberg 1961b: 628–629.

Distribution: Asia (Malaya).

Hosts: *Vatica* sp.

References: (ds) Browne 1981a: 126, 1981b: 599, 1985a: 191; Ohno, Yoneyama, & Nakazawa 1987: 93. (tx) Browne 1965a: 195; Nunberg 1961b: 617, 628–629; Schedl 1961k: 651, 1962n: 699.

Genus *Dryocoetes* Eichhoff

DRYOCOETES EICHHOFF 1864: 38. Type-species:

Bostrichus autographus Ratzeburg, subsequent designation by Hopkins 1914: 121.

Anodius Motschulsky 1860: 155. Type-species:

Bostrichus autographus Ratzeburg, subsequent designation by Wood 1974e: 232. International Commission on Zoological Nomenclature (ICZN) 1979: 149 (name suppressed).

References: (tx) ICZN 1979: 149; Motschulsky 1860: 155; Wood, S. L. 1974e: 232.

Dryocoetinus Balachowsky 1949a: 180. Type-species: *Bostrichus villosus* Fabricius, original designation. Synonymy: Schedl 1958k: 143.

References: (tx) Balachowsky 1949a: 176, 180; Bright 1963: 107; Endrodi 1957: 417; Schedl 1958k: 143.

Keys: Bright 1963: 107 and Wood 1982b: 724 for North America; Reitter 1913a: 75 for Europe; Murayama 1957: 594 for Japan; Yin, Huang, & Li 1984: 144 for China.

References: (ay) Fuchs 1912; Nobuchi 1969a: 61; Nusslin 1911, 1912. (ec) Balazy & Michalski 1964a; Balch 1941: 1–4; Butovitsch & Spaak 1939: 1–120; Chapman 1957: 3–4; Davidson & Robinson 1965: 488–498; Hewitt 1914: 501, 1917: 1–70; Lindquist 1970a: 980; Nickle 1976b; Wisniewski 1979b. (hb) Blackman 1950: 326, 333, 336; Escherich 1923: 51, 476, 487; Felt 1906: 337; Gardner 1934: 4, 12–13; Judeich & Nitsche 1895: 449; Schedl 1958d: 188; Wood, S. L. 1986a: 74. (ds) Bright & Stark 1973: 74; Hagedorn 1910d: 65–68; Patterson & Hatch 1945: 154; Provancher

1877: 568; Schedl 1934f: 1642, 1966b: 41; Scheerpeltz & Winkler 1934: 257; Swaine 1909: 101; Tredl 1917: 17; Wood, S. L. 1986a: 74. **(tx)** Arnett 1960: 1043, 1968: 1043; Balachowsky 1949a: 177–182; Barbey 1901: 100; Beal & Massey 1945: 53, 61, 159; Bedel 1888b: 396, 400; Beeson 1938: 257, 1941: 372–373; Blackman 1922b: 78, 120, 1950; Blandford 1894d: 54, 91–92, 96, 98, 1895: 84, 1897: 183, 1898b: 186; Bright 1963: 103–115, 1975, 1978: 124; Browne 1961c: 83; Chamberlin 1939: 463–464, 1958: 187–191; Choo 1983: 82–84; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 54–55; Eggers 1937: 80, 1940: 123–141; Eichhoff 1864: 38, 1878a: 388, 1878b: 35, 55–56, 283, 1881a: 261; Endrodi 1957b: 417; Ferrari 1867a: 27–28; Gardner 1934: 12–13; Hagedorn 1908: 377, 1910a: 88–89, 93–96, 1910b: 2, 1912: 354; Hopkins 1914: 121, 132, 1915b: 9, 49–50, 1915c: 192–226; Karaman 1972: 111; Kostin 1973: 257; Krivolutskaya 1958: 153–155; Kurenzov 1941: 165–175; LeConte 1868: 167, 1876: 361; LeConte & Horn 1883: 518; Lovendal 1889: 23–24, 66; Murayama 1957; Niisima 1909: 151; Nishiguchi 1959: 270–274; Pfeiffer 1955: 168–173, 1989a: 57; Reitter 1894: 68–69, 87–89, 1906: 713, 1913a: 75–78; Saalas 1914: 84–85; Schedl 1936g, 1939i: 384, 1940c: 203–208, 1957d: 1–162, 1958k: 143, 1961k: 655, 1962n: 697–699, 1962p: 205, 1965e: 349–379, 1981b: 70; Schimitschek 1937: 50–53; Schreiner 1882: 246–247; Sokanovskii 1930: 801–802; Spessivtsev 1922: 473, 1931: 50; Stark 1952: 323–339; Stebbing 1907: 38, 1908: 11–12; Strohmeyer 1911: 17; Swaine 1913: 87–92, 1918a: 128–133, 1924: 1–26; Wachtl 1876: 460; Wichmann 1927: 348; Wood, S. L. 1974e, 1978a: 113, 1978e: 232–233, 1982b: 723–731, 1986a: 74–75; Yin & Huang 1981: 564; Yin, Huang, & Li 1984: 144.

aceris *Krivolutskaya* 1968: 58. Holotype, sex?; Kurile Islands [not seen; not located].

Figures: *Krivolutskaya* 1968: 59 (adult).

Distribution: Asia (E USSR).

Hosts: *Acer pictum*.

References: **(tx)** *Krivolutskaya* 1968: 58–59.

affaber (**Mannerheim**) 1852: 359 (reprint p. 77) (*Bostrichus*). Holotype ♀; Sitka Island, Alaska; MZU, Helsinki.

Figures: Bright 1963: 112, 1976d: 203, 211, Kusch 1967: 10.

Distribution: North America (Alaska/ all provinces of Canada/ N Arizona, Colorado, Idaho, Maine, Michigan, Minnesota, Montana, New Hampshire, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Washington, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Picea* spp., rare in *Abies* spp., *Pinus* spp., *Larix* sp., *Tsuga heterophylla*.

Notes: (1) LeConte 1876: 361 (to *Dryocoetes*).

References: **(ay)** Bright 1963: 105; Farris 1969:

531; Thomas, J. B. 1957: 4, 1967. **(bv)** Baker, W. L. 1972: 263; Furniss, M. M., Baker, & Hostetler 1976: 1300. **(cn)** Balch 1941, 1945; Beckwith 1972; Blackman 1950; Brown, R. L. & Winter 1981; Chenier & Philogene 1989; Doane et al. 1936; Hatch 1938: 194; Hoffmann 1942b: 400; Hopkins 1899b: 21, 27, 1901b: 8; Keen 1938: 128, 1952c: 165; Lindquist, O. H. & Syme 1981: 40; Lyons 1956: 600; Martin, J. L. 1965; Massey & Wygant 1954: 21; McGuffin & Barker 1947: 57; Packard 1890: 810, 857; Rodary 1959: 852; Schuder 1969: 76; Smith, G. W. & Melvin 1974a, 1974b; Swaine 1918a: 130, 132, 1924d: 9, 19; Swaine et al. 1924: pl. 21; Syme & Nystrom 1988: 40; Thomas, J. B. 1958: 94; Wong, H. R. & Melvin 1973. **(ec)** Beckwith 1972b; Bedard 1933a; Blackman & Stage 1918; Felt 1906: 752; Furniss, R. L. & Carolin 1977: 378; Gobeil 1936b; Hopkins 1901b: 8; Keen 1938: 128; Knight 1961: 212; Massey & Wygant 1954: 21; Matthews 1970; McAlpine 1964; Morley 1939: 244; Price 1966: 241; Rodary 1959: 852; Ross, D. A. 1968; Swaine 1924d: 9; Thomson, J. B. 1955: 94; Tomalak, Welch, & Galloway 1989b; Werner & Holsten 1984; Wichmann 1955a: 102. **(hb)** Baker, W. L. 1972: 263; Beckwith 1972b; Beckwith, Wolff, & Zasada 1977; Blackman 1919: 1–10, 1950; Blackman & Stage 1918; Bright 1963: 111, 1976d: 128; Chamberlin 1939: 467; Chittenden 1890; Doane et al. 1936; Felt 1906: 752; Furniss, R. L. & Carolin 1977: 378; Gara & Holsten 1975; Gobeil 1936b, 1936c; Godwin & Odell 1965: 213–219; Harrington 1891: 26, 1902b; Hopkins 1899b: 21, 1901b: 18; Keen 1938: 128, 1952c: 165; Knight 1961: 213; Lyons 1956: 600; Massey & Wygant 1954: 21; Morley 1939: 244; Packard 1890: 857; Pierce 1907: 292; Schwarz 1888a: 80, 1895a: 143; Swaine 1918a: 130, 132, 1924d: 9; Swaine et al. 1924: pl. 21; Watson 1928: 620; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 729. **(ds)** Anonymous 1926c: 520; Ashworth 1977, 1980; Ashworth & Cavanara 1983; Austara et al. 1983; Beckwith 1972a; Bedard 1938a; Blackman 1950; Blatchley & Leng 1916: 613; Bright 1963: 111, 1971b: 126, 1976d: 128; Broun 1934; Brown, R. L. & Winter 1981; Chamberlin 1925, 1939: 467, 1958: 189–190; Chittenden 1890; Dodge 1938; Drooz 1985: 39; Eidmann 1935; Elias 1982b, 1982c, 1982d, 1983, 1985: 39; Elias, Short, & Clark 1986; Evans, D. 1983: 32; Evans, D., Lowe, & Hunt 1978; Farris 1969: 531; Furniss, R. L. & Carolin 1977: 378; Gara & Holsten 1975; Gast et al. 1989: 385; Gautreau 1974: 5; Gemminger & Harold 1872: 2687; Hagedorn 1910d: 65; Hamilton 1893, 1894a: 35; Harrington 1891: 26; Henshaw 1885: 148; Hoffmann 1952b: 400, 1956: 90; Hopkins 1893a: 137–138, 1893b: 212; Hopping 1922; Horion 1951; Hubbard & Schwarz 1878a: 666; Keen 1929: 42, 1938: 128, 1952c: 165; Kleine 1913b: 135, 1934a: 155; Kusch 1967;

Leng 1920: 342; Leonard 1928: 520; Lindquist, O. H. & Syme 1981: 40; Morgan, A. V. & Morgan 1980: 1110; Murayama 1957c: 606; Patterson & Hatch 1945: 154; Pilny, Morgan, & Morgan 1987; Ross, D. A. 1968; Ruppel 1967: 37; Schuder 1969: 76; Schwarz 1885a: 80; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidbury, & Melvin 1974a, 1974b; Susut & Melvin 1974; Swaine 1909: 101, 1919b: 9; Syme & Nystrom 1988: 40; Van Dyke 1924: 26; Werner & Holsten 1984; Wichmann 1955a: 102; Wickham 1896a: 309; Winter, T. G. 1983: 9; Wood, S. L. 1972a: 416, 1982b: 729. **(tx)** Beckwith 1972a, 1972b; Benoit 1985: 95; Blatchley & Leng 1916: 613; Bright 1963: 107–108, 112, 1976d: 128, 203, 211; Chamberlin 1939: 467, 1958: 189–190; Dodge 1938: 55–56; Evans, D. 1983: 32; Fall 1926: 208; Hagedorn 1910a: 96; Hopkins 1915b: 50; Inouye & Nobuchi 1959a: 122–123; Keen 1929: 42; Kusch 1967: 10; LeConte 1857: 22, 1868: 162, 1876: 361; Lindquist, O. H. & Syme 1981: 40; Mannerheim 1852: 359, 1853: 235; Murayama 1957c: 606; Pardy 1977, 1983; Schwarz 1895a: 143; Swaine 1909: 101, 1912: 350–351, 1918a: 130, 132, 1919b: 9; Syme & Nystrom 1988: 40; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 59; Wood, S. L. 1969c: 114, 1972a: 416, 1982b: 729. **(ms)** Chenier & Philogene 1989; Hatch 1938: 194.

pubescens Swaine 1912a: 350. Holotype ♀; Colorado [USA]; Cornell University Collection, Ithaca, New York. Synonymy: Bright 1963: 111. References: **(cn)** Swaine 1918a: 130, 132. **(hb)** Chamberlin 1939: 468; Swaine 1918a: 130, 132. **(ds)** Chamberlin 1939: 468; Kleine 1913b: 136; Larroche & Torossian 1971; Leng 1920: 342; Murayama 1957c: 606; Wood, S. L. 1951a: 128. **(tx)** Bright 1963: 111, 1967b: 674; Chamberlin 1939: 468; Eichhoff 1878b: 286; Murayama 1957c: 606; de Ruelle 1970: 100; Swaine 1912a: 350, 1918a: 130, 132; Wood, S. L. 1951a: 128.

piccae Hopkins 1915b: 51. Holotype ♀; Cranestown, West Virginia [USA]; USNM, Washington. Synonymy: Bright 1963: 111.

References: **(cn)** Blackman 1919: 149, 1950; Connola et al. 1956; Swaine 1918a: 130. **(ec)** Thompson, W. R. & Simmonds 1964: 128, 1965: 16. **(hb)** Baker, W. L. 1972: 264; Beal & Massey 1945: 160; Blackman 1950; Chamberlin 1939: 468; Drake 1921; Swaine 1918a: 130. **(ds)** Beal & Massey 1945: 160; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 613; Chamberlin 1925, 1939: 468; Drake 1921: 201; Kleine 1934a: 155; Leng 1920: 342; Murayama 1957c: 606. **(tx)** Beal & Massey 1945: 160; Blatchley & Leng 1916: 613; Bright 1963: 111; Chamberlin 1939: 468; Hopkins 1915b: 50–52; Murayama 1957c: 606; Swaine 1918a: 130, 132.

affinis Blandford 1894c: 93. Holotype, sex?; Oyayama, Japan; BMNH, London.

Distribution: Asia (Japan).

References: **(ds)** Blandford 1894c: 93; Hagedorn 1910d: 65; Kleine 1913b: 135, 1914b: 258; Murayama 1954b: 172, 1957c: 588, 600. **(tx)** Blandford 1894c: 93; Hagedorn 1910a: 96; Murayama 1954b: 172, 1957c: 588, 600; Schedl 1934f: 1642.

alui (Georg) 1856: 59 (*Bostrichus*). Syntypes, sex?; Luneburg, Germany; not located.

Figures: Grune 1979: 90.

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Hungary/ Italy/ Norway/ Poland/ Romania/ Scotland/ Sweden/ W USSR).

Hosts: *Alnus incana*, *A. glutinosa*, *A. viridis*, *Corylus avellana*, *Fagus orientalis*.

References: **(ay)** Escherich 1923b: 487; Murayama 1933a: 7. **(bv)** Grune 1929: 91. **(cn)** Acatay 1943a: 66; Escherich 1923b: 487; Georgescu et al. 1957: 357, 405; Grandi 1951; Kholodkovskii 1912: 319; Palm 1948b: 214, 1951: 232; Nusslin 1913: 283; Pierce, W. D. 1917: 12; Rhumbler 1922: 326, 1927: 343; Saalas 1949: 342, 374; Schimitschek 1937c: 53, 1955a: 141, 1955c: 84; Schwerdtfeger 1944a: 175, 1957a: 182. **(cc)** Benick 1932a: 19; Heqvist 1963: 153, 1967: 69; Kangas 1942b; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 217, 1909a: 49, 77, 1944: 70; Kurenzov 1934a: 54; Michalski & Ratajczak 1989; Novak 1952: 416; Nuorteva 1956a: 17, 1957b: 53, 1968a, 1970; Palmén 1946: 194; Pfeffer 1932a: 19; Saalas 1930: 118, 1949: 342, 374; Schimitschek 1955a: 141; Schwerdtfeger 1944a: 175, 1957a: 182; Smetana 1958: 95. **(hb)** Acatay 1943a: 66; Barbey 1901: 27, 101; Bruce 1944: 28; Dombrowsky 1887, 1888; Eichhoff 1881a: 52, 262; Elfving 1902; Escherich 1923b: 487; Fuchs 1904a, 1906b; Gillanders 1908; Comostaeve 1916: 313; Grandi 1951; Györfi 1957; Henschel 1876a: 240, 1895a: 188; Kangas 1940b; Karpinski 1933b: 29; Kholodkovskii 1912: 319; Lengerken 1939: 64, 1954: 84; Lindemann 1881a: 237; Munro 1926: 70; Numberg 1929c: 121; Nuorteva 1968a, 1970; Nusslin 1898: 275, 1913: 283; Palm 1951: 232, 1954a: 185; Pfeffer 1942a: 16, 1989a: 58; Postner 1974: 424; Rhumbler 1922: 326, 1927: 343; Saalas 1913a: 68, 85, 1949: 342, 374; Schedl 1981b: 71; Schimitschek 1955a: 141; Schwerdtfeger 1944a: 175, 1957a: 182, 1981: 188; Shatilov 1985; Spesivtsev 1913a: 93; Stark 1926a: 335, 1952: 332; Wachtl 1876a: 460. **(ds)** Allen 1973; Ammann & Knabl 1923; Arnoldi et al. 1955: 704; Bejer-Petersen & Jorum 1977: 21; Benick 1921; Bergroth 1886; Borchert 1951; Brakman 1966: 205; Brancsik 1906; Buresh & Lazarov 1956; Butovitch & Heqvist 1947; Calwer 1884, 1893;

- Chorbadzhievo 1924d; Chrystal 1922; Crowson 1971: 51; Debatisse 1945; Endrodi 1957b: 417, 1958b: 307; Escherich 1923b: 487, 1932b; Fowler 1891; Fuchs 1904a, 1905a, 1906b; Gemminger & Harold 1872: 2687; Gerhardt 1903b; Gornostaev 1917; Gozis 1875: 80; Grill 1895: 312; Grune 1979: 91; Hagedorn 1910d: 65; Hansen, V. 1939, 1956, 1964: 460; Hellen 1947; Heliessen 1916: 84; Henschel 1895a: 188; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Kangas 1940: 41–50, 1942b; Karpinski 1932b: 54, 1933b: 29; Kersten 1933: 75; Kiefer et al. 1942: 529; Kinelski et al. 1959: 245; Klefbeck & Sjöberg 1960: 230; Kleine 1912a: 268, 1913a: 35, 1913b: 135, 1934a: 155; Kloft & Hinks 1945: 218; Koch 1977: 31; Kolbe, W. 1918: 211; Kraatz 1869: 59; Kurenzov 1934a: 54, 1938a: 66; Kurir 1947c: 37; Lacordaire 1866: 383; Langhoffer 1915c: 158; Leclercq 1971; Lindemann 1884b: 264; Lomnicki 1913b: 148; Lovendal 1890c: 211; Lucht 1987: 277; Lundberg 1977, 1981: 151; Matthews & Fowler 1883: 42; Meinert 1887: 70; Mirzoiian 1950: 140; Mosley 1893: 193; Munro 1926: 4–77; Munster 1928: 291; Murayama 1957c: 607; Negro 1968a: 456; Novak, P. 1952: 416, 1964; Numberg 1928b: 88, 109, 1954: 57; Nuorteva 1971: 71; Nusslin 1898: 275; Palm 1943: 85, 1947a: 173, 1959: 24, 32, 1960: 351; Palmén 1946: 194; Penecke 1898: 254; Pfeffer 1924b: 472, 1930b: 119, 1931b: 74, 1989a: 58; Pierce, W. D. 1917: 12; Pittioni 1943: 176; Poppius 1900: 109; Postner 1974: 424; Prossen 1913: 84; Rapp 1934: 734; Reitter 1894a: 88, 1916: 292; Roubal 1941: 267; Saalas 1913a: 68, 85, 1930: 118, 1931: 67; Sahlberg 1900: 106; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1236; Schaum 1859: 96, 1862: 101; Schedl 1980a: 18, 1981b: 71; Schilsky 1909: 189; Schiodte 1873: 103; Schmaus 1960: 32; Schwerdtfeger 1981: 188; Seidlitz 1891a: 567, 1891b: 612; Stark 1926a: 335, 1926b: 103, 1926j: 126, 1927b: 89, 1931a: 26, 1936e: 142, 1952: 332; Stein 1868: 114; Stierlin 1895: 446; Strand 1946: 600; Tredl 1907: 18; Wachtl 1876a: 460; Wichmann 1909b: 173, 1927a: 69; Winter, T. G. 1983: 9; Yanovskii & Tegshzhargal 1985: 415; Zinovjev 1955: 187, 191; Zúmr 1983b. **(tx)** Balachowsky 1949a: 181; Barbey 1901: 27, 101; Chorbadzhievo 1924d; Dombrowsky 1887, 1888; Duffy 1953; Eggers 1910f: 560–561, 1911a: 121–122, 1912: 49, 1923: 163, 1933f: 8–9, 1940f: 44; Eichhoff 1864: 38, 1868d: 419, 1876a: 378–379, 1878b: 288, 1881a: 52, 262, 1883a: 114, 140; Endrodi 1957a, 1957b; Escherich 1923b: 487; Ferrari 1867a: 27, 29, 1867b: 114; Fleischer 1927; Gebien 1907: 197; Georg 1856: 59; Gillanders 1908; Grune 1979: 90, 91; Hagedorn 1904e, 1910a: 96; Hansen, V. 1956, 1964: 460; Harold 1875; Henschel 1876a: 240, 1895a: 188; Hopkins 1915b: 49; Jacquelin du Val & Fairmaire 1868: 112; Kuhnt 1913: 1059; Lacordaire 1866: 383; Lindemann 1881a: 237; Lovendal 1889b: 67, 1890c: 211, 1898: 177; Lucht 1987: 277; Murayama 1933a: 7, 1957c: 607; Numberg 1929c: 121, 1954: 57; Perris 1866: 195–196; Pfeffer 1932b: 20, 1942a: 16, 1955a: 172; Portevin 1935: 327; Postner 1974: 424; Quaschik 1953: 35; Reitter 1894a: 88, 1913a: 78, 1916: 292; Rumbler 1922: 326, 1927: 343; Rye 1874: 299; Saalas 1913a: 68, 85, 1949: 342, 374; Schedl 1934f: 1642, 1980a: 18, 1981b: 71; Schimitschek 1937c: 53, 1955c: 84; Seidlitz 1891a: 567, 1891b: 612; Sharp 1870: 256; Sokanovskii 1930: 801; Spessivtsev 1913a: 93–94, 1921: 53, 1922a: 474, 492, 1925a: 175, 1925b: 31; Stark 1952: 332; Stierlin 1898: 446; Stresemann et al. 1986: 351. **(ms)** Eichhoff 1868d: 419; Escherich 1932b; Schimitschek 1930b: 407.
- marshami* Rye 1869: 188 (*Tomicus*). Syntypes, sex?; Prestwich, England; not located. Synonymy: Sharp 1870: 256.
References: **(ds)** Gemminger & Harold 1872: 2689; Rye 1869: 187–188; Sharp & Fowler 1893: 34. **(tx)** Eichhoff 1876a: 378; Sharp 1870: 256.
- similis* Eggers 1911a: 121. Holotype, sex?; Vizzavona, Corsica; Leonhard Collection. Synonymy: Balachowsky 1949a: 181.
References: **(ds)** Kleine 1913b: 136, 1934a: 155; Sainte-Claire 1914: 474; Schaufuss 1915: 1236. **(tx)** Balachowsky 1949a: 181; Eggers 1911a: 121–122, 1933f: 9; Endrodi 1957b: 417; Portevin 1935: 327; Reitter 1913a: 78; Schedl 1934f: 1643.
- leonhardi* Eggers 1912a: 49. Syntypes 2, sex?; Bulgaria; Eggers Collection, in NHMW, Wien. Synonymy: Sokanovskii 1930: 801.
References: **(cn)** Chorbadzhievo 1929. **(hb)** Chorbadzhievo 1929; Tschorbadjiev 1929: 167. **(ds)** Buresh & Lazarov 1956; Chorbadzhievo 1929; Kleine 1913b: 136; Murayama 1957c: 607; Pfeffer 1936: 90; Schaufuss 1915: 1236; Tschorbadjiev 1929: 167; **(tx)** Eggers 1912a: 49, 1933: 9; Murayama 1957c: 607; Reitter 1913a: 78; Schedl 1934f: 1642, 1979c: 183; Sokanovskii 1930: 801.
- ater* Eggers 1925: 157. Holotype, sex?; Tenasserim; Prague Museum.
Distribution: Asia (Burma).
References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1925: 157; Murayama 1957c: 607.
- autographus* (Ratzeburg) 1837: 160 (*Bostrichus*). Syntypes, sex?; Südliehen Deutschland (Hr. Warmkonig) bis Russland und Schweden; not located.
Figures: Balachowsky 1949a: 178–179, Bevan 1987: 113, Bright 1963: 112, Chararas 1962c: 412, Grune 1979: 90, Joly 1976b: fig. 141, Kusch 1967: 10, Li, Shi, & Ao 1984: 265, Nobuchi 1966d: pl. 2, Pfeffer 1989a: pl. 7.
Distribution: Africa (Algeria/ Madeira Island),

Asia ("Manchuria", Shanxi in China/Japan/Korea/Taiwan/Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR), North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Ontario, Quebec, Saskatchewan, Yukon in Canada/ California, Colorado, Maine, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming in USA), South America (introduced into Brazil).

Hosts: *Picea* spp., *Pinus* spp., *Abies* spp., *Larix* spp., *Pseudotsuga menziesii*, *Tsuga heterophylla*. Notes: (1) The North American population is statistically distinguishable from that of Europe and Asia (SLV). (3) Karpinski 1948: 148 (used *polonicus*, apparently as a nomen nudum, synonymy by Nunberg 1956: 161).

References: (ay) Bright 1963: 108; Bugnion 1887b; Chapman 1969b, 1972; Escherich 1923b: 429, 487, 598; Hadorn 1933; Hopkins 1894g; Kempers 1932: 69; Leisewitz 1906: 91; Lekander 1959b: 33; Munro 1917b: 147; Nunberg 1928a: 140; Nusslin 1911a: 60, 378, 1912b: 102; Sasaki & Yoshiyasu 1983; Scherb 1971; Sedlaczek 1902b: 244; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966. (bv) Annala 1975: 8; Baker, W. L. 1972: 263; Butovitsch 1971; Chapman 1966: 55; Chararas 1982; Chararas & Deschamps 1962; Chenier & Philogene 1989b; Daterman, Rudinsky, & Nagel 1965; Dyer & Chapman 1965: 48; Eidmann 1987; Furniss, M. M., Baker, & Hostetler 1976: 1300; Grune 1979: 91; Hosking & Knight 1975; Kohnle 1985; Kohnle & Klimetzek 1984; Kohnle & Vite 1984b; Leclercq, Simon, & Verstraeten 1976; Luitjes 1976; Magema, Gaspar, & Severin 1982; Mozolevskaya, Lebedeva, & Galaseva 1979; Naumann-Etienne 1978a; Nuorteva 1956c: 28; Nuorteva & Nuorteva 1968; Prell 1930c: 639, 1931: 364; Rozhkov 1970: 140; Rudinsky 1966b: 356–361, 1966c: 218–219; Rudinsky & Daterman 1964a; Saarenmaa 1978; Turnbull & Franklin 1980; Winter, K. 1980; Zhong & Schowalter 1989. (cn) Anonymos 1929c: 644, 1980g; Ass & Funtikow 1941; Barbey 1901: 101, 1906a, 1925: 73; Beckwith 1972; Brown, R. L. & Winter 1981; Chararas 1961b: 70, 1961c: 93; Chenier & Philogene 1989; Chorbadzhievo 1929; Eckstein 1926: 579; Eidmann 1965c, 1987; Escherich 1917: 97–115, 1923b: 429, 487, 598; Esterberg 1959; Felt 1906: 672, 1926: 247, 271, 1930a: 271; Fleischer 1877a; Francke-Grosmann 1954a; Grandi 1951; Hanson, H. S. 1940a; Hartig 1861: 325, 1877: 194; Hendrickson 1965: 595; Herlein

1878; Herrick 1935: 138; Hess 1898: 349, 1907: 245; Hess & Beck 1914: 269, 1927: 324; Hopkins 1892: 258, 1894: 270, 1899c: 252, 316, 445, 1904a: 25; Inouye 1955; Inouye & Yamaguchi 1955a: 235; Ishikura 1966; Jaensch 1938: 49; Jahn & Sinreich 1959: 1; Joly 1976; Judeich & Nitsche 1895: 454; Juutinen 1960: 24; Koch 1910: 17; Kovacevic 1952: 69; Kozikowsky 1929: 253; Lindgren 1980a: 62; Lindquist, O. H. & Syme 1981: 40; Marcu 1926c: 64; Marie 1924: 328–330; Martin, J. L. 1965; Mathiesen-Kaarik 1953: 6; Merker & Stattler 1952: 135–143; Mokrzeci 1925c: 44; Muller 1912: 186; Mumford 1960: 24, 1965: 18; Nilssen 1978a; Nosek 1951: 106, 1952b: 100; Novak, V. 1959b: 73, 1967; Nuorteva & Nuorteva 1968; Nusslin 1913: 231; Olmesorge 1955: 279; Pfeffer 1948a: 800, 1949b: 150, 1950c: 2; Pierce, W. D. 1917: 69; Rhumbler 1922: 326, 1927: 342; Saalas 1949: 342, 373; Sajevic 1928: 329; Schimitschek 1932c: 250, 1935a: 197, 1937c: 53, 1938b: 114, 1947g: 191, 1949b: 165, 1952a: 208, 1955a: 66, 1955c: 84, 1961a: 154; Schneeberg 1925: 498; Schwerdtfeger 1944a: 180, 1957a: 186; Sedlaczek 1921: 335, 1936: 200; Shiraki 1952; Sinreich 1961: 165; Smith, G. J. & Melvin 1974a, 1974b; Smith, J. B. 1900: 363; Spaic 1956: 88; Syme & Nystrom 1988: 40; Titova 1966; Tragardh & Butovitsch 1935: 1–268, 1936: 578; Vasechko 1964; Vite 1984b; Wachtl 1901: 381; Wardle 1929: 325; Weber, H. 1926: 579; Wichmann 1927b: 361; Wilke 1931: 641; Wolff & Krause 1922: 91; Wong, H. R. & Melvin 1973; Zethner-Moller & Rudinsky 1967: 903; Zieger 1948a: 378. (cc) Adeli 1964: 397; Annala 1975: 11, 1977; Apfelbeck 1916b; Ashmead 1893b; Ass & Funtikow 1941; Bakshi 1950, 1951; Balachowsky & Chararas 1964; Balazy 1964, 1965a, 1965b; Balazy & Michalski 1960, 1964a, 1964b; Barbey 1906a, 1927; Beran 1936; Bovey 1970; Bramannis 1940; Buhl 1989; Bushing 1965: 459; Butovitsch 1971; Chararas 1957a, 1957c: 145–155, 1957d, 1958b, 1958c: 1653, 1959c: 113–129, 1959d, 1959e, 1959g: 215–233; Cooreman 1963: 45; Deyrup & Gara 1978: 275; Eidmann 1965c; Elliot & Morley 1907; Fleischer 1877a, 1877b; Francke-Grosmann 1931; Fuchs 1930, 1937; Furniss, R. L. & Carolin 1977: 378; Gornostaev 1917: 308–315; Graham 1969: 874; Grossmann 1931a; Grunwald 1986; Hellrigl & Schwenke 1985: 48; Heqvist 1963: 153; Hirschmann 1960, 1971a, 1971b: 40; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zirn-giebl-Nicol 1961; Hopkins 1891b: 258; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 62; Jahn & Sinreich 1960b; Jakaitis & Valenta 1976: 20; Jannicky 1957b: 18, 1957c; Kangas 1946c: 23; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kirchhoff 1985; Kirchhoff & Fuhrer 1986: 373; Kleine 1908c: 217, 1909a: 49, 1944: 69; Kolubajiv & Kalandra 1954: 30; Kosarievskaya & Mamajev 1962: 450; Kostin 1964: 109;

- Krivosheina 1974; Krogerus 1927: 122; Kuhn 1949a: 279; Langor 1985; Leclercq, Simon, & Verstraeten 1967; Luitjes 1976; Mahunka 1968; Marsh 1979: 157; Mathiesen-Kaarik 1953: 6; Matthews 1970; Michalski & Ratajczak 1989; Mozolevskaya, Lebedeva, & Galaseva 1979; Naumann-Etienne 1978a; Nishiguchi 1959: 271; Nosek 1951: 106, 1952b: 100, 1959b: 87; Novak, P. 1952: 416; Nuorteva 1956a: 17, 1957b: 68, 1959d: 203, 1967a, 1968a, 1970, 1971: 69; Nuorteva & Nuorteva 1968; Nusslin 1927: 342; Okolow 1963; Palmén 1944: 60, 1946: 194; Pfeffer 1923a: 331, 1932a: 13, 1943b: 180, 1949b: 350, 1950c: 2, 1957a: 196, 1959: 5; Pierce, W. D. 1908: 387; Poinar 1975: 156; Purrini 1977b, 1978a, 1978b, 1980; Purrini & Ormieres 1981; Purrini & Zizka 1983; Rennerfelt 1951: 122; Rondani 1873: 139; Ruhm 1956b: 4; Saalas 1917a: 18, 1928: 649, 1949: 342, 373, 1951: 15; Saarenmaa 1978; Schedl 1936f: 172; Scheucher 1959: 263; Schimitschek 1931b: 487, 1932c: 250, 1935a: 197, 1936a: 558, 1948e: 97, 1952a: 208, 1953b: 49, 523, 1955a: 66, 1964c; Schmitz & Rudinsky 1968: 1-42; Schwerdtfeger 1944a: 180, 1957a: 186; Sklenkis 1974; Szczepanski 1960a: 410; Tenkacova & Mituch 1987; Thalenhorst 1949d: 264, 1958: 34; Thompson, W. R. 1943: 42; Titova 1966; Tomalak, Welch, & Galloway 1989b, 1989d; Vietinghoff 1924: 335; Vitzthum 1923: 143, 1926: 489; Werner & Holsten 1984; Westerboer 1963: 348; Wiackowski 1957a: 80; Wilke 1931: 641; Winter, K. 1980; Wisniewski 1979c: 7, 1980; Woodring & Moser 1970; Zethner-Moller & Rudinsky 1967: 909; Zmur 1985b. (**hb**) Altum 1881c: 308; Annala 1977; Anonymous 1929c: 644; Apfelbeck 1916b, 1917; Baker, W. L. 1972: 263; Balachowsky 1948; Barbey 1901: 27, 101, 1925: 73; Bargmann 1906; Beffa 1949, 1961; Beran 1936: 257-312; Bevan 1962c: 95; Bonnemaison 1953; Borodajewsky 1929b; Bright 1963: 108; Bright & Stark 1973: 74; Budkov 1897; Bugnion 1887; Chararas 1957c, 1961b: 70, 1961c: 93, 1962c: 412; Charvat 1950; Chorbadzhievo 1929; Daterman, Rudinsky, & Nagel 1965; Doebner 1862: 179; Dombrowsky 1887, 1888; Eckstein 1889, 1897, 1926: 579; Eichhoff 1881a: 52, 261; Escherich 1923b: 429, 487, 598; Everts 1903: 765; Felt 1926: 247, 271, 1930a: 271; Fleischer 1877a; Fuchs 1904a, 1907: 47, 1911b; Furniss, R. L. & Carolin 1977: 378; Furst 1888: 113; Gomostaev 1916: 313; Grandi 1951; Györfi 1957; Hadorn 1933; Hagedorn 1903a; Hartig 1861: 325, 1877: 194; Henschel 1876a: 240, 1877a, 1885b, 1895a: 188; Herrick 1935: 138; Hess 1898: 349, 1907: 245; Hess & Beck 1914: 269, 1927: 324; Holmgren 1867: 137; Hopkins 1894g, 1899e: 252, 316, 445, 1904a: 25; Inouye et al. 1955: 62; Jaensch 1938: 49; Joly 1976; Judeich 1876d: 255; Judeich & Nitsche 1895: 454; Karpinski 1933b: 29; Karpinski & Strawinski 1948: 155; Karsch 1883: 141; Kholodkovskii 1889: 267, 1912: 279, 318; Knotek 1894a: 559; Koch 1909: 333; Kohnle 1985; Komarek 1931: 1-256; Kostin 1960: 133; Krivolutskaya 1956: 832, 1960: 78, 1973: 140; Lekander 1959b: 33; Lengerken 1939: 41, 1954: 84; Li, Shi, & Ao 1984: 48; Lindemann 1881a: 236; Lindgren 1980a: 62; Loos 1913: 412; Luitjes 1976; Lunardoni & Leonardi 1889: 479; Magema, Gaspar, & Severin 1982; Malotenkow 1908: 110; Michalski 1959a: 291; Mozolevskaya, Lebedeva, & Galaseva 1979; Munro 1917b: 147, 1926: 70; Naumann-Etienne 1978a; Nütsima 1908b: 18; Nijholt 1980: 203; Nilssen 1979a, 1984, 1987; Nordlinger 1848: 240, 1856: 24; Nosek 1959b: 87; Numberg 1929c: 120, 1947c: 106; Nuorteva 1956c: 28, 1967a, 1968a, 1970; Nusslin 1898: 283, 1906b: 14, 1913: 231, 1927: 342; Ohnesorge 1955: 279; Orest 1926a: 73; Palm 1956: 63; Pfeffer 1941c: 5, 1989a: 57; Pierce, W. D. 1907: 291; Postner 1974: 424; Prell 1930c: 639, 1931: 364; Ratzeburg 1837: 160, 1839: 194; Rhumbler 1922: 326, 1927: 342; Rimski-Korsakov et al. 1949: 299; Rodzianko 1915: 1-15; Rozhkov 1970: 140; Rudinsky & Daterman 1964a; Rupertsberger 1880: 231; Saalas 1913a: 68, 85, 1916: 110-116, 1949: 342, 373, 1951: 15; Schedl 1981b: 71; Schimitschek 1955a: 66; Schnaider 1954: 174; Schwarz 1895a: 143; Schwerdtfeger 1944a: 180, 1957a: 186, 1981: 192; Sedlaczek 1921: 335, 1934: 275; Spessivtsev 1913a: 93, 1923: 210, 1928a: 222, 1934: 208; Stark 1926a: 335, 1952: 336; Swaine 1911b: 81, 1912b: 142; Thalenhorst 1958: 34; Tragardh 1939b: 158, 200; Tschorbadjiev 1929: 167; Wachtl 1876a: 453, 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 361; Winter, K. 1980; Wolff & Krause 1922: 91; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 725. (**ds**) Acloque 1896; Ammann & Knabl 1913, 1923; Andersch 1851; Anonymous 1980g; Audras & Schaefer 1957; Bain 1974: 16; Balachowsky 1943a, 1948; Balazy & Michalski 1960; Barthe 1896; Bartindale & Bartindale 1948: 138; Ban 1888; Beckwith 1972a; Bedel 1888b: 400, 416; Beeson 1938: 287; Beffa 1949; Bejer-Petersen & Jorum 1977: 21; Belousov 1916, 1917: 336; Bielz 1851, 1887; Bielussov 1917: 334-337; Bistrom & Vaisanen 1988: 42; Blanchere & Robert 1889; Blandford 1894c; Borchert 1951; Brakman 1966b: 205; Brancsik 1871, 1906; Bright 1963: 108, 1971b: 126, 1976d: 125; Bright & Stark 1973: 74; Brown, R. M. & Winter 1981; Brundin 1934; Budkov 1897; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Chamberlin 1917: 324; Chapuis & Candeze 1853; Charvat 1950; Cho 1957; Choo 1983: 82; Choo & Woo 1985: 165; Chorbadzhievo 1924d, 1929; Chrystal 1922, 1937; Credler 1868; Debatisse 1945; Dejean 1937; Dextrup 1981b: 6; Drooz 1985: 361; Eder 1934; Eggert 1904; Elias 1985: 39; Elias, Short, & Clark 1986; Endrodi 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 429, 487, 598, 1932b; Esterberg 1928,

- 1959; Evans, D. 1983: 32; Evans, D., Lowe, & Hunt 1978; Everts 1922: 646; Favre 1890; Felt 1926: 247, 271, 1930a: 271; Fleischer 1877b, 1921b; Florov 1949: 89; Fowler 1891; Frey 1937; Fricken 1889: 350; Fuchs 1904a, 1905a, 1907: 47; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 378; Cast et al. 1989: 385; Gaubil 1849: 126; Gemminger & Harold 1872: 2687; Gillerford 1966; Cornostaev 1917; Gozis 1875: 80; Gredler 1866: 374, 1869: 73; Grill 1895: 312; Grouzelle 1905; Grune 1979: 91; Hagedorn 1903a, 1910d: 66; Hamilton 1889: 159, 1890: 44, 1894a: 35, 1894b: 406; Hansen, V. 1939, 1956, 1964: 460; Heinemann 1908a; Hellen 1947; Heller 1881: 173; Hennig 1954: 261; Henschel 1895a: 188; Henshaw 1887: 8, 1895: 44; Heyden 1881: 177, 1890: 132, 1893: 177, 1898: 77; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Holdhaus & Denbel 1910: 145, 185, 199; Holmgren 1867: 137; Holzel 1946: 81; Hopkins 1893a: 137, 145, 1893b: 211, 1899: 197-461; Horion 1951; Hormuzaki 1891: 174; Hubault 1923b; Ihssen 1939: 336; Ishikura 1966; Jammicky 1960a; Jazentkovsky 1912: 291; Joly 1976; Judeich & Nitsche 1895: 454; Kaltenbach 1874: 647, 685; Karpinski 1925: 216, 1926: 82, 1931: 28, 1933a: 296, 1933b: 29, 1948a: 175, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1925b: 275; Kersten 1933: 75; Kestercanek 1881a: 12; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 128, 161, 262, 268, 1913a: 35, 1913b: 135, 1914b: 249, 258, 400, 1934a: 155; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 559; Ko 1969: 276; Koca 1905: 192; Koltze 1901: 154; Kono 1938b: 65, 68; Kono & Tamanuki 1939: 90, 93; Koschitsky 1900: 83; Kraatz 1869: 59; Krivolutskaia 1956: 832, 1960: 78, 1965: 238, 1973: 140, 1983; Kurenzov 1957b: 17; Kurir 1947c: 11; Kusch 1967; Lacordaire 1866: 381; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 139; Li, Shi, & Ao 1984: 48; Liegel 1886: 43; Lindberg & Saris 1952: 59; Lindbroth 1935: 59; Lindemann 1884b: 264; Lindquist, O. H. & Syme 1981: 40; Lokaj 1868: 64; Lomnicki 1886a: 243, 1913b: 148; Loos 1913: 412; Lucht 1957: 277; Lunardoni & Leonardi 1889: 479; Lundberg 1974: 92, 1979: 31; Lundblad 1950a: 175, 1950c: 115; Mandl 1931: 25; Marcu 1926c: 64; Matthews & Fowler 1883: 42; Michalski 1957c: 165; Miller 1868: 27; Mumford 1960: 24, 1965: 18; Mumro 1917: 123-158, 1921: 87; Munster 1922a: 155, 1928: 291; Murayama 1929b: 2, 1929d: 5, 1930a: 1, 1930b: 17, 21, 31, 1937a: 3, 1937b: 374, 1948: 6, 1950b: 1295, 1954b: 172, 1957c: 588, 597; Negru 1966b: 401, 1968a: 456; Niisima 1908b: 18; Nobuchi 1966b: 19, 1967: 20; Novak, P. 1952: 416; Numberg 1927a: 213, 1928b: 88, 108, 1954: 56; Nuorteva 1971: 67; Nusslin 1898: 283; Orest 1926c: 61, 64; Paecher 1865: 152; Palm 1946: 122, 1948a: 91, 1956: 63; Palmen 1944: 60, 1946: 194; Perris 1876a: 255, 1877a: 415; Pfeffer 1924b: 473, 1926b: 58, 1947c: 3, 1950b: 75, 1989a: 57; Pierce, W. D. 1917: 69; Pittioni 1943: 176; Platonoff 1940: 11, 1942: 64, 1943: 141; Pomerantzev 1907b: 426, 494; Poppins 1900: 108; Postner 1974: 424; Rapp 1934: 733; Ratzeburg 1837: 160, 1839: 194; Redtenbacher 1858: 836, 1874: 380; Reitter 1869a: 20, 1869b: 155, 1894a: 88, 1916: 292; Rimski-Korsakov et al. 1949: 299; Ronbal 1936b: 193, 1941: 268; Rozhkov 1970: 140; Rye 1869: 6; Saalas 1913a: 68, 85, 1917a: 18, 1931: 70; Sahllberg 1900: 106; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1235; Schaum 1859: 96, 1862: 101; Schedl 1980a: 18, 1981b: 71; Scheerpeltz & Winkler 1930: 257; Schilsky 1909: 189; Schimitschek 1938b: 114; Schiodte 1873: 103; Schreiner 1897: 369; Schwarz 1900: 537, 1904: 185, 1910: 185; Schwerdtfeger 1981: 192; Seidlitz 1872: 397, 1891a: 567, 1891b: 612; Sharp & Fowler 1893: 34; Shiraki 1952; Siebke 1875: 284; Slosson 1895: 6; Smith, C. J. & Melvin 1974; Smith, J. B. 1900: 363, 1910: 402; Sokanovskii 1960; Spahr 1981; Stark 1926a: 335, 1926b: 103, 1926j: 126, 1931a: 25, 1931d: 547, 1952: 336; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 446; Stierlin & Gautard 1871: 293, 1906: 206; Still, Tidsbury, & Melvin 1974a: 13; Strand 1946: 600; Sturm 1843: 230; Swaine 1909: 102, 1911b: 81; Syme & Nystrom 1988: 40; Thomson 1865: 371, 1868: 223; Tomie 1957: 207-210; Tragardh 1919: 237-248, 1939b: 158, 200; Tredl 1907: 17; Tschorbadjiev 1929: 167; Turnbow & Franklin 1980; Ulanowski 1884: 6; Ulrich 1848: 332; Wachtl 1870: 259, 1876a: 453; Wegelius 1960: 106; Werner & Holsten 1984; Westhoff 1882: 239; Wichmann 1909b: 173, 1927a: 65, 68; Wiepken 1883: 89; Wilke 1931: 641; Wilken 1864: 373; Winter, T. G. 1983: 9; Wiren 1945: 43; Wood, S. L. 1972a: 416, 1982b: 725; Yanovskii & Tegshzhargal 1985: 409; Yin, Huang, & Li 1984: 149; Zinovjev 1955: 187; Zonfal 1920: 21. (tx) Acloque 1896; Altman 1844; Bach 1854: 124, 130; Balachowsky 1943a: 168, 1948: 168, 1949a: 178; Barbey 1901: 27, 101; Beckwith 1972a; Bedel 1888b: 400, 416; Beffa 1949, 1961; Benoit 1985: 95; Bertolini 1872; Blandford 1894d; Branesik 1871; Bright 1963: 108, 112, 1976d: 125; Chapuis & Candeze 1853; Chararas 1962c: 412; Charvat 1950; Choo 1983: 82; Chorbadjiev 1924d; Dombrowsky 1887, 1888; Eggers 1923b, 1926b, 1928d, 1930b: 30, 1931b: 30-31, 1941c: 121, 1942c: 32; Eichhoff 1864b: 38-39, 1866: 277, 1868d: 424, 1876a: 378-379, 1878b: 284, 1881a: 52, 261-262, 1883a: 114, 140; Endrodi 1957b: 417; Escherich 1923b: 429, 487, 598; Escherich & Escherich 1897; Evans, D. 1983: 32; Everts 1903: 765, 1922: 646; Fauvel 1887, 1889; Ferrari 1867a: 27, 1867b: 107, 114; Fleischer 1905, 1927; Formanek 1907: 50; Fricken 1889: 350; Grune 1979: 90-91; Hagedorn 1910a: 96; Hansen, V. 1956, 1964: 460; Henschel 1876a:

240, 1890: 132, 1895a: 188; Heyden 1893: 177; Hopkins 1914: 121, 1915b: 50, 1915c: 211; Houlbert 1922a: pl. 1; Jacquelin du Val & Fairmaire 1868: 107, 112; Joly 1976, 1976b: fig. 141; Judeich & Nitsche 1895: 454; Karpinski & Strawinski 1948: 155; Knotek 1892a: 38; Koch 1910: 17, 1928: 76, 105, 1932: 111; Krivolutskaia 1956: 832, 1958: 158, 1960: 154; Kuhnt 1913: 1059; Kusch 1967: 10; Lacordaire 1866: 381; Lekander 1959b: 33; Letzner 1891: 377; Li, Shi, & Ao 1984: 265; Lindemann 1881a: 236; Lindquist, O. H. & Syme 1981: 40; Lovendal 1889b: 66, 1898: 175; Lucht 1987: 277; Lunardoni & Leonardi 1889: 479; Munro 1917b: 147, 1920: 1–35, 1926: 4–77; Murayama 1930b: 17, 1937b: 374, 1950b: 1295, 1954b: 172, 1957c: 588, 597; Negru 1966: 401; Niisima 1909: 151; Nilssen 1979a, 1979b; Nobuchi 1966b: 19, 1966d: pl. 2; Nordlinger 1848: 240, 1856: 24; Nunberg 1928a: 140, 1929c: 120, 1947: 99–108, 1954: 56, 1956: 161; Nusslin 1911a: 60, 378, 1912b: 102; Pardy 1974, 1977, 1983; Perris 1877a: 415; Pfeffer 1932b: 19, 1941c: 5, 1947c: 3, 1955a: 169, 1989a: pl. 7; Portevin 1935: 327; Quaschik 1953: 35; Ratzeburg 1837: 160, 1839: 194–195, 1856b: 60; Redtenbacher 1849a: 851, 1849b: 26, 1858: 836, 1874: 350; Reitter 1894a: 88, 1899: 286, 1913a: 75–76, 1916: 292; Rhumbler 1922: 326, 1927: 342; Rupertsberger 1880: 231; Saalas 1913a: 68, 85, 1949: 342, 373; Schedl 1934f: 1642, 1946a: 6, 1950d: 17, 1952f: 87, 1980a: 18, 1981b: 71; Scherb 1971; Schimitschek 1937c: 53, 1955c: 84; Schlechtendal & Wunsche 1879: 126; Schwarz 1895a: 143; Sedlacek 1912: 306; Seidlitz 1872: 397, 1891a: 567, 1891b: 612; Sokanovskii 1930: 801–802, 1954: 19, 1960: 675; Spessivtsev 1913a: 93, 1922a: 473, 1923: 209–210, 1925a: 174, 1925b: 29, 1928: 235–244, 1931: 51–52, 1934: 207–220; Stark 1931: 339–343, 1952: 336; Stierlin 1898: 446; Stresemann et al. 1986: 352; Swaine 1909: 102; Syme & Nystrom 1988: 40; Titus, Meikle, & Harrison 1985: 59; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966; Thomson 1865: 371, 1868: 223; Wood, S. L. 1972a: 416, 1982b: 725, 1986a; Yin, Huang, & Li 1984: 149. (ms) Chararas 1959d; Chenier & Philogene 1989; Eichhoff 1868d: 424; Escherich 1932b; Fuchs 1911b; Heinemann 1908a; Kozikowsky 1929: 253; Michalski 1959a: 291; Sedlacek 1934: 275, 1936: 200; Swaine 1912b: 142.

villosus Herbst 1793: 121. Syntypes, sex?; Dentscher; not located, preoccupied by Fabricius 1792.

Notes: (1) This name was based on a misidentification of the species named by Fabricius 1792. It is probable that many of the following citations refer to the species of Fabricius.

References: (ay) Escherich 1923b: 487. (cn) Barbey 1925: 422; Eckstein 1926: 579; Escherich 1923b: 487; Gabler 1955; Grandi 1951; Hartig 1811: 320, 330, 1820: 320, 330, 1832:

280, 287, 1861: 325, 1877: 194; Houba 1913: 252; Jaensch 1938: 50; Kleine 1932a: 302; Kollar 1840: 255; Koppen 1882: 237, 260; Rhumbler 1927: 342; Schimitschek 1937c: 53, 1944a: 174; Schwerdtfeger 1957a: 182; Souphieff & Scherbinovskaja 1937: 14; Wachtl 1901: 381; Weber, H. 1926: 579. (cc) Belanovskii 1930; Elliot & Morley 1907; Galoux 1947d; Gyorfi 1952b; Hartig 1832: 280, 287; Hinton 1945: 222; Hubault 1923a; Jannicky 1957b: 20; Kleine 1908c: 217, 1909a: 49, 77, 1944: 75; Nosek 1959b: 87; Nunberg 1930: 204; Pfeffer 1923a: 331; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlacek 1935a: 162; Sitowski 1930: 3; Stammer 1934: 198; Wichmann 1955a: 102. (hb) Altum 1881c: 308, 1894; Bach 1864; Barbey 1901: 27, 101, 1925: 422; Dallimore & Munro 1922; Dombrowsky 1887, 1888; Eckstein 1889, 1926: 579; Eichhoff 1881a: 52, 264; Escherich 1923b: 487; Everts 1903: 766; Fisher 1936a; Fuchs 1904a; Gabler 1955; Gillanders 1908; Girard 1873; Grandi 1951; Gyorfi 1957; Hagedorn 1903d; Hartig 1811: 320, 330, 1820: 320, 330, 1832: 280, 287, 1861: 325, 1877: 194; Henschel 1876a: 207, 240, 1895a: 188; Jaensch 1938: 50; Janson 1867; Karpinski 1933b: 29; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Kleine 1932a: 302; Kollar 1840: 255; Lengerken 1939: 64, 1954: 84; Marcu 1927b: 425; Munro 1926: 70; Nordlinger 1855: 184, 1856: 24, 1869: 233; Nosek 1959b: 87; Nusslin 1898: 283; Palm 1953a: 15; Rhumbler 1927: 342; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlacek 1935a: 162; Stark 1952: 330; Taschenberg 1880: 232; Wachtl 1876a: 460, 1901: 381; Weber, H. 1926: 579; Zocchi 1959: 103. (ds) Acloque 1896; Andersch 1851; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Bielz 1851, 1887; Blanchere & Robert 1889; Brancsik 1906; Buck 1955; Calver 1884, 1893; Carpentier & Delaby 1908; Crotch 1863; Dallimore & Munro 1922; Debatisse 1945; Duftschmidt 1825; Eggers 1904, 1912f; Endrodi 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 487, 1932b; Eyquem 1891; Fauvel 1897; Favre 1890; Fisher 1936a; Forster 1849: 439; Fowler 1891; Fricken 1889: 351; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2687; Gozis 1875: 80; Grill 1895: 312; Gyllenhal 1827: 624; Hagedorn 1903a, 1910d: 67; Hansen, V. 1939, 1956; Heinemann 1908a; Hellen 1947; Hennig 1954: 265; Henschel 1895a: 188; Heyden 1876: 301, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Horion 1951; Hubault 1923b; Janson 1940: 63; Jazentkovsky 1912: 292; Johnson & Halbert 1902: 819; Joly 1923: 278; Kaltenbach 1874: 623–624, 646; Karpinski 1932b: 54, 1933b: 29; Karpinski & Strawinski 1948:

- 156; Kestercanek 1881a: 12; Kleine 1912a: 262, 268, 1913a: 35, 1913b: 136, 1914a: 16, 22, 1932a: 302, 1934a: 155; Kloft & Hinks 1945: 218; Koltze 1901: 154; Koppen 1882: 237, 260; Koschitsky 1900: 83; Kraatz 1869: 59; Kurir 1957c: 22; Lacordaire 1866: 381; Langhoffer 1915c: 158; Lentz 1857: 137; Lomnicki 1913b: 148; Lundblad 1958: 489; Marcu 1927b: 425; Matthews & Fowler 1883: 42; Meinert 1887: 70; Mirzoian 1950: 140; Mjoberg 1903: 108; Morley 1868: 187; Murayama 1957c: 607; Numberg 1954: 57; Nusslin 1898: 283; Oliveira 1887: 329; Ortzen 1886: 280; Pacher 1853: 49, 1865: 152; Palm 1953a: 15, 1955a: 142, 1959: 28; Perris 1876a: 253, 255, 1877a: 415, 1877c: 415; Pfeffer 1928b: 7, 1931b: 73; Pittioni 1943: 176; Ragusa 1924: 117; Rapp 1934: 734; Ratzeburg 1837: 130, 1839: 157; Redtenbacher 1858: 836, 1874: 350; Reitter 1869b: 155, 1894a: 88, 1916: 292; Roubal 1941: 268; Sainte-Claire 1914: 474; Sainte-Claire & Mequignon 1938: 447; Schaschl 1854: 133; Schaufuss 1915: 1235; Schaum 1859: 96, 1862: 101; Schilsky 1909: 189; Schiodte 1873: 103; Schmitz 1898: 157; Schnaider 1936: 366; Schneider & Leder 1877: 55; Seidlitz 1891b: 613; Souphieff & Scherbinovskaja 1937: 14; Sparre-Schneider 1889: 61; Stark 1926b: 103, 1927b: 89, 1952: 330; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 144, 1830: 356, 1839: 206; Stierlin 1898: 446; Stierlin & Gautard 1871: 293, 1906: 206; Sturm 1826: 102, 1843: 230; Swaine 1909: 103; Thomson 1865: 371, 1868: 223; Tredl 1907: 18; Villa & Villa 1833: 26; Wachtl 1876a: 460; Westhoff 1882: 240; Wichmann 1927a: 69, 1955a: 102; Wollaston 1854: 290, 1857: 96; Zetterstedt 1840: 193; Zocchi 1959: 103. (tx) Aeloque 1896; Altman 1844; Bach 1854, 1864; Barbey 1901: 27, 102; Carpentier & Delaby 1908; Dombrowsky 1887, 1888; Duffy 1953; Duftschmidt 1825; Eggers 1911a, 1912f; Eichhoff 1864b: 39, 1866: 277, 1878b: 284, 289, 1878c: 165, 1881a: 52, 262, 264; Endrodi 1957b; Escherich 1923b: 487; Everts 1903: 766; Fabricius 1792: 367, 1801: 391; Fauvel 1887, 1889; Ferrari 1867: 27, 29, 1867b: 114; Fleischer 1905, 1927; Formaek 1907: 50; Fricken 1889: 351; Gabler 1955; Gebien 1907: 197; Gillanders 1908; Girard 1873; Gyllenhal 1813: 361, 1827: 624; Hagedorn 1910a: 96; Hansen, V. 1956; Henry 1892: 10; Henschel 1876a: 207, 240, 1895a: 188; Herbst 1793: 121; Hopkins 1915b: 49; Jablonsky 1785: 121; Jacquelin du Val & Fairmaire 1868: 107, 112; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1059; Lacordaire 1866: 381; Letzner 1891: 377; Leunis 1886: 181; Lovendal 1889b: 67, 1898: 178; Lucas 1920: 250; Marsham 1802: 53; Murayama 1957c: 607; Nordlinger 1848: 241, 1856: 24; Nunberg 1954: 57; Nusslin 1911a: 60; Panzer 1795a: 287; Paykull 1800: 154; Pfeffer 1932b: 20; Qnaschik 1953: 35; Ratzeburg 1837: 130, 1839: 157; Redtenbacher 1849a: 355, 790, 851, 1849b: 26, 1858: 836, 1874: 350; Reitter 1894a: 88, 1899: 286, 1913a: 77, 1916: 292; Rhumbler 1922: 326, 1927: 342; Rupertsberger 1880: 231; Schedl 1934f: 1643, 1952f: 87; Schimitschek 1937c: 53; Schlechtendal & Wunsche 1879: 126; Seidlitz 1891b: 613; Stark 1952: 330; Stephens 1829a: 144, 1829b: 12, 1830: 365, 1839: 206; Stierlin 1898: 446; Swaine 1909: 103; Taschenberg 1880: 232; Thomson 1865: 371, 1868: 223; Wollaston 1854: 290, 1857: 96, 1865: 237; Zetterstedt 1840: 193. (ms) Escherich 1932b; Hartig 1834: 109; Heinemann 1908a; Lucas 1920: 250.
- septentrionis* Mannerheim 1843: 298 (reprint p. 126) (*Bostrichus*). Syntypes, sex²; Sitka Island, Alaska; MZU, Helsinki, lost, not at Helsinki Museum. Synonymy: Bedel 1888b: 416, Bright 1963: 108.
- Notes: (3) The North American population of this species is statistically distinguishable from that of Europe and Asia, but it is not recognized here in nomenclature because of the confusion any change might cause. A change would impact the name *septentrionis*. Additional research is needed (SLW).
- References: (cn) Chamberlin 1924; Doane et al. 1936; Lyons 1956: 600; Swaine 1918a: 129, 131. (ce) Ross, D. A. 1967, 1968. (hb) Balachowsky 1948; Chamberlin 1939: 466, 1958: 190–191; Doane et al. 1936; Harrington 1891: 26; Lyons 1956: 600; Swaine 1918a: 129, 131. (ds) Balachowsky 1948; Beaulne 1956; Chamberlin 1925, 1939: 466, 1958: 190–191; Cockerell et al. 1907; Dejean 1837; Fall 1906: 202; Fall & Cockerell 1907: 217; Gemminger & Harold 1872: 2687; Hamilton 1889: 159; Harrington 1890: 189, 1891: 26, 1894: 16; Henshaw 1885: 148; Hopkins 1893a: 137, 1893b: 211; Hopping 1922; Hubbard & Schwarz 1878a: 643, 666; Keen 1929: 42; Kleine 1934a: 155; Leng 1920: 342; Mank 1934: 81; Melsheimer 1853: 87; Murayama 1957c: 607; Pfeffer 1935: 158; Provancher 1877: 568; Ross, D. A. 1967, 1968; Schwarz 1886: 42; Stein 1868: 114; Swaine 1909: 102; Van Dyke 1924: 26; Wickham 1896a: 309. (tx) Balachowsky 1948; Bedel 1888b: 416; Bright 1963: 108; Chamberlin 1939: 466, 1958: 190–191; Eichhoff 1876a: 378, 1878b: 284, 1881a: 262; Fall 1926: 208; Ferrari 1867a: 75; Hopkins 1915b: 50, 1915c: 211; Keen 1929: 42; LeConte 1857: 22, 1868: 161, 1876: 361; Mannerheim 1843: 298 (reprint p. 125), 1852: 359, 1853: 235; Murayama 1957c: 607; Provancher 1877: 568; Schwarz 1886: 42; Swaine 1909: 102, 1915: 361, 1918a: 129, 131; Wood, S. L. 1969c: 115.

semicastaneus Mannerheim 1852: 358 (reprint p. 76) (*Bostrichus*). Holotype, sex?; Sitka Island, Alaska; MZU, Helsinki. Synonymy: LeConte 1868: 161.

References: **(cn)** Packard 1890: 860. **(hb)** Chittenden 1890; Packard 1890: 860. **(ds)** Chittenden 1890; Leng 1920: 342; Stein 1868: 114; Swaine 1909: 103. **(tx)** Bedel 1888b: 416; Eichhoff 1878b: 284; Hamilton 1888: 159; LeConte 1857: 22, 1868: 161, 1876: 361; Mannerheim 1852: 358; Swaine 1909: 103; Wood, S. L. 1969c: 115.

victoris Mulsant & Rey 1853: 91 (*Bostrichus*). Syntypes, sex?; Faillefeu, Basses-Alpes, France; not located. Synonymy: Bedel 1888b: 416.

References: **(hb)** Wachtl 1876a: 458. **(ds)** Calwer 1884, 1893; Gemminger & Harold 1872: 2686; Schaum 1859: 96, 1862: 101; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 458. **(tx)** Balachowsky 1949a: 179; Bedel 1888b: 416; Eichhoff 1864b: 46, 1868d: 419; Ferrari 1867: 22; Mulsant & Rey 1852: 205, 1853: 91.

americanus Hopkins 1915b: 51. Holotype ♀; Cheat Bridge, Randolph County, West Virginia [USA]; USNM, Washington. Synonymy: Chamberlin 1958: 190, Bright 1963: 108.

References: **(ay)** Thomas, J. B. 1957: 4. **(cn)** Blackman 1950; Chamberlin 1924; Doane et al. 1936; Rodary 1959: 852; Swaine 1918a: 129, 131, 1924d: 9; Swaine et al. 1924: 19; Thomas, J. B. 1958: 394. **(ec)** Blackman 1919: 90; Blackman & Stage 1918: 59; Price 1966: 241; Thompson, W. R. & Simmonds 1964: 128, 1965: 16. **(hb)** Balachowsky 1948; Blackman 1950; Chamberlin 1939: 466, 1958: 190; Doane et al. 1936; Drake 1921; Felt 1924: 271; Swaine 1918a: 129, 131, 1924d: 9; Watson 1928: 620; Wolcott & Montgomery 1933: 167. **(ds)** Anonymous 1926c: 520; Balachowsky 1948; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 612; Chamberlin 1925, 1939: 466, 1958: 190; Dodge 1938; Drake 1921: 201–205; Hoffmann 1956: 91; Kleine 1934a: 155; Leng 1920: 342; Leonard 1928: 520; Murayama 1957c: 606; Notman 1920: 184; Proctor 1946: 208; Wolcott & Montgomery 1933: 167. **(tx)** Balachowsky 1948; Blatchley & Leng 1916: 612; Bright 1963: 108; Chamberlin 1939: 466, 1958: 190; Dodge 1938: 55; Hopkins 1915b: 50–51; Murayama 1957c: 606; Swaine 1918a: 129, 131; Thomas, J. B. 1957: 4.

pseudotsugae Swaine 1915b: 360 (reprint p. 5). Lectotype ♀; Stanley Park, Vancouver Island, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 674. Synonymy: Chamberlin 1958: 190, Bright 1963: 108.

References: **(cn)** Anonymous 1958a: 4; Doane et al. 1936; Doidge 1967: 196; Felt 1926: 247, 271; Hatch 1938: 194; Keen 1938: 125, 1952c:

163; Schuder 1969: 81; Swaine 1918a: 129–130. **(ec)** Bedard 1933a; Keen 1938: 125. **(hb)** Balachowsky 1948; Chamberlin 1939: 465, 1958: 190; Doane et al. 1936; Felt 1926: 247, 271; Keen 1938: 125, 1952c: 163; McCowan & Rudinsky 1958: 14; Swaine 1918a: 129, 130. **(ds)** Anonymous 1958a: 4; Balachowsky 1948; Bedard 1938a; Bright 1967b: 674; Chamberlin 1917, 1918: 14, 1939: 465; Felt 1926: 247, 271, 1930a: 247; Hoebeke 1978; Hopping 1922; Keen 1929: 42, 1938: 125, 1952c: 163; Kleine 1934a: 155; Leng 1920: 342; Murayama 1957c: 606; Patterson & Hatch 1945: 154; Schuder 1969: 81. **(tx)** Balachowsky 1948; Bright 1963: 108, 1967b: 674; Chamberlin 1939: 465, 1958: 190; Keen 1929: 42; Murayama 1957c: 606; de Ruelle 1970: 100; Schedl 1979c: 202; Swaine 1915b: 360, 1918a: 129–130.

alternans Eggers 1931b: 30. Holotype, sex?; Sao Paulo, Brazil; Prague Museum.

Notes: (3) The type was not seen, but the collection of *autographus* from Sao Paulo that was seen suggests an introduction and synonymy of Eggers name.

References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1931b: 30; Murayama 1957c: 607; Schedl 1940c: 204–208.

longicollis Eggers 1941c: 121. Holotype, sex?; Lensahn, Ostholstein; USNM, Washington. Synonymy: Pfeffer 1955: 169.

References: **(ds)** Horion 1951; Murayama 1957c: 607. **(tx)** Anderson, W. H. & Anderson 1971: 18; Eggers 1941c: 121, 1944c: 143; Murayama 1957c: 607.

artepunctatus Eggers 1941b: 122. Lectotype ♂; Weissruslund (Bialowjesh); USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Sokanovskii 1954: 19.

References: **(ds)** Endrodi 1958b. **(tx)** Anderson, W. H. & Anderson 1971: 4, 18; Eggers 1941b: 122; Endrodi 1957a, 1957b: 417; Numberg 1956c: 160–161, 168; Schedl 1979c: 27; Sokanovskii 1954: 19.

brasiliensis Schedl 1940c: 207. Syntypes, sex?; Brazil: Sao Paulo; Schedl Collection in NHMW, Wien. Synonymy: Wood examined the NHMW, Wien, syntypes to establish this synonymy (Wood 1983 notes, p. 16).

References: **(ds)** Murayama 1957c: 607. **(tx)** Murayama 1957c: 607; Schedl 1940c: 207, 1979c: 45.

autographus sachalinensis Sokanovskii 1960: 675. Syntypes, sex?; Sakhalin Island, USSR; Sokanovskii Collection.

Notes: (1) This variety appears to be no more than an aberration that has no status in nomenclature.

References: **(tx)** Sokanovskii 1960: 675.

baikalicus Reitter 1899: 286. Holotype, sex[?]; Quellgebiet des Irkut; NHMB, Budapest.

Figures: Grune 1979: 90, Tsai & Li 1959: 92.

Distribution: Asia (Heilongjiang, "Mongolia" in China/Japan/Sakhalin Island, Siberia in E USSR), Europe (Finland/W USSR).

Hosts: *Larix* spp., *Pinus koraiensis*.

Notes: (3) Sokanovskii 1960: 675 (*ursus*, nomen nudum).

References: (bv) Grune 1979: 91; Rozhkov 1970: 141. (cn) Anonymous 1980g; Esterberg 1959; Florov 1949: 86; Kontkanen 1932: 62; Kurenzov 1935c: 188, 1956a: 87; Nestertschuk 1930: 173. (cc) Kostin 1964: 109; Kurenzov 1934a: 50; Rudnev 1958: 372; Yanovskii 1977b. (hb) Kostin 1960: 133; Krivolutskaya 1973: 139; Kurenzov 1935a: 20, 35, 1948b: 102, 1950d: 206; Postner 1974: 425; Rimski-Korsakov et al. 1949: 300; Rozhkov 1970: 141; Stark 1952: 326; Vitomskii 1928a: 178. (ds) Anonymous 1980g; Esterberg 1959; Grune 1979: 91; Hagedorn 1910d: 66; Hansen, V. 1939; Hellen 1947; Klefbeck & Sjöberg 1960: 230; Kleine 1913a: 90, 1913b: 136, 1914b: 247, 250, 1934a: 155; Kontkanen 1932: 62; Krivolutskaya 1973: 139, 1983; Kurenzov 1934a: 50, 1935a: 20, 35, 1935c: 188, 1936a: 113, 1936b: 351, 1938a: 66, 1957b: 17, 1967; Murayama 1937b: 370, 1954b: 173, 1957c: 588, 601, 607; Nestertschuk 1930: 675; Nuorteva 1971: 71; Postner 1974: 425; Rimski-Korsakov et al. 1949: 300; Rozhkov 1970: 141; Sawamoto 1940a: 96, 101; Schedl 1969a: 202; Semenov 1904: 38; Sokanovskii 1960; Stark 1931a: 21, 25, 1931d: 547, 1952: 326; Strand 1946: 600; Yanovskii 1974, 1977a; Yanovskii & Dmitrienko 1983a; Yanovskii & Tegshzhargal 1955: 409; Yin, Huang, & Li 1984: 146; Zimovjev 1955: 191. (tx) Balachowsky 1948: 168; Eggers 1928d: 174; Grune 1979: 90–91; Hagedorn 1910a: 96; Krivolutskaya 1958: 159; Kurenzov 1941a: 165, 1948b: 102, 1950: 206; Murayama 1937b: 370–371, 1954b: 173, 1957c: 588, 601, 607; Postner 1974: 425; Reitter 1899: 286, 1913a: 76; Sawamoto 1940a: 96, 101; Schedl 1934f: 1642; Semenov 1904: 38; Sokanovskii 1960: 675; Spessivtsev 1931: 51; Stark 1952: 326; Tsai & Li 1959: 92; Yin, Huang, & Li 1984: 146.

betulae Hopkins 1915b: 50. Holotype ♀; Grant County, Virginia [USA]; USNM, Washington, automatic.

Figures: Bright 1963: 112 (male genitalia).

Distribution: North America (Alberta, British Columbia, Newfoundland, New Brunswick, Ontario, Quebec in Canada/District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maine, Maryland, Michigan, Mississippi, Montana, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Vermont, Virginia, Washington, West Virginia in USA).

Hosts: *Betula lenta*, *B. lutea*, *B. papyrifera*, rare in *Fagus grandifolia*, *Liquidambar styraciflua*.

References: (ay) Bright 1963: 106; Thomas, J. B. 1967. (bv) Baker, W. L. 1972: 263; Hosking & Knight 1975. (cn) Blackman 1950; Chamberlin 1924; Connola et al. 1956; Doane et al. 1936; Felt 1926: 247, 271; Hopkins 1904a: 25; Keen 1938: 132, 1952c: 169; Lindquist, O. H. & Syme 1981: 40; Swaine 1918a: 130–131; Syme & Nystrom 1988: 40. (cc) Felt 1906: 468; Hough 1963; Keen 1938: 132; Thompson, W. R. & Simmonds 1964: 128, 1965: 16. (hb) Baker, W. L. 1972: 263; Beal & Massey 1945: 159–160; Blackman 1922b: 120–121, 1950; Bright 1963: 109; Chamberlin 1939: 466; Doane et al. 1936; Felt 1906: 468, 1926: 247, 271; Hopkins 1904a: 25; Keen 1938: 132, 1952c: 169; Swaine 1918a: 130, 131; Wood, S. L. 1982b: 727. (ds) Anonymous 1926c: 520; Atkinson et al. 1991: 159; Beal & Massey 1945: 159–160; Beaulne 1956; Blackman 1922b: 120–121, 1950; Blatchley & Leng 1916: 611; Bright 1963: 109, 1971b: 126, 1976d: 127; Chamberlin 1939: 466; Dodge 1938: 15; Drake 1921: 204; Drooz 1985: 362; Felt 1926: 247, 271, 1930a: 247; Furniss, M. M. & Johnson 1987: 376; Furniss, R. L. & Carolin 1977: 380; Gast et al. 1989: 385; Hopkins 1893a: 137; Hopping 1922: 128–134; Hough 1963: 572–579; Keen 1929: 42, 1938: 132, 1952c: 169; Kirk 1970; Kleine 1934a: 155; Knoll 1932: 67; Leng 1920: 342; Leonard 1928: 520; Lindquist, O. H. & Syme 1981: 40; Martineau 1948: 379; Murayama 1957c: 606; Nash 1951: 46; Patterson & Hatch 1945: 154; Proctor 1946: 208; Syme & Nystrom 1988: 40; Wood, S. L. 1972a: 416, 1982b: 727. (tx) Beal & Massey 1945: 159–160; Benoit 1985: 95; Blackman 1922b: 120–121; Blatchley & Leng 1916: 611; Bright 1963: 108–109, 112, 1976d: 127; Chamberlin 1939: 466; Dodge 1938: 15; Hopkins 1915b: 50; Keen 1929: 42; Lindquist, O. H. & Syme 1981: 40; Murayama 1957c: 606; Pardy 1974, 1977, 1983; Swaine 1915: 361, 1918a: 130–131; Syme & Nystrom 1988: 40; Titus, Meikle, & Harrison 1985: 59; Thomas, J. B. 1967; Wood, S. L. 1972a: 416, 1982b: 727.

eichhoffi Hopkins 1894: 279 (reprint p. 5). Holotype ♀; Grant County, Virginia [USA]; USNM, Washington, preoccupied by Ferrari 1867.

References: (ay) Hopkins 1894g. (hb) Felt 1906: 336–337; Hewitt 1914: 501–518; Hopkins 1894g, 1904b: 320. (ds) Gemminger & Harold 1872: 2687; Hagedorn 1910d: 67; Henshaw 1895: 44; Kleine 1913b: 136; Leng 1920: 342; Swaine 1909: 103. (tx) Eichhoff 1868d: 419, 1878b: 297; Hagedorn 1910a: 96; Hopkins 1894: 279, 1915b: 50–51; Schedl 1939b: 394; Swaine 1909: 103, 1912: 351–353, 1918a: 131. (ms) Eichhoff 1868d: 419.

liquidambaris Hopkins 1915b: 51. Holotype ♂; Virginia Beach, Virginia [USA]; USNM, Washington. Synonymy: Blackman 1922b: 120.

References: (cn) Blackman 1950; Doane et al. 1936; Swaine 1918a: 131. (hb) Blackman 1950; Chamberlin 1939: 467; Doane et al. 1936; Swaine 1918a: 131. (ds) Blackman 1922b: 120–121, 1950; Blatchley & Leng 1916: 612; Chamberlin 1939: 467; Kleine 1934a: 155; Leng 1920: 342. (tx) Blackman 1922b: 120–121; Blatchley & Leng 1916: 612; Chamberlin 1939: 467; Hopkins 1915b: 50–51; Swaine 1918a: 131.

brevipilosus Murayama 1957c: 604. Holotype ♂; Mt. Manza, Gumma pref., Japan; USNM, Washington.

Figures: Nobuchi 1966d: pl. 2.

Distribution: Asia (Japan).

Hosts: *Tsuga diversifolia*.

References: (ds) Murayama 1957c: 588, 601, 604; Nobuchi 1966b: 19. (tx) Murayama 1957c: 588, 601, 604; Nobuchi 1966b: 19, 1966d: pl. 2.

° **carbonarius** Scudder 1890: 470. Holotype, sex?; Greenriver, Wyoming [USA], Oligocene; not located.

Figures: Scudder 1890: pl. 8, fig. 6.

Distribution: North America (fossil in Wyoming Oligocene in USA).

Notes: (1) The divided eye is not characteristic of *Dryocoetes*, but suggests affiliation with *Dolrogcleptes*; however, a change in generic placement is not suggested.

References: (ds) Handlirsch 1908; Hopkins 1900a: 65. (tx) Scudder 1890: 470.

carpini Eggers 1942c: 32. Holotype, sex?; Ussuri, von Lubarkyi; Eggers Collection and Strohmeier Collection, Eberswalde.

Distribution: Asia (E USSR).

Hosts: *Carpinus cordata*.

References: (cn) Kurenzov 1935c: 187. (cc) Kurenzov 1934a: 52. (hb) Kurenzov 1935a: 19, 34, 1948b: 114; Stark 1952: 329. (ds) Krivolutskaya 1983; Kurenzov 1934a: 52, 1935a: 19, 34, 1935c: 187, 1936b: 350, 1965; Stark 1952: 329. (tx) Eggers 1942c: 32; Kurenzov 1941a: 167, 1948b: 114; Michalski 1969b: 569; Pfeffer 1944a: 131; Schedl 1979c: 54; Stark 1951: 229, 1952: 329. (ms) Pfeffer 1944a: 131.

carpini Stark 1952: 329. Lectotype, sex?; USSR: Maritime Province; IZL, Leningrad, designated by Michalski 1969a: 894. Synonymy: Stark 1951: 229.

References: (tx) Michalski 1969a: 894; Stark 1951: 229, 1952: 329.

carpinivorus Choo & Woo 1989: 58. Holotype ♀; Korea: Mt. Hanla, Jeju province; Choo Collection?

Figures: Choo & Woo 1989: 60.

Distribution: Asia (Korea).

Hosts: *Carpinus laxiflora*.

References: (tx) Choo & Woo 1989: 58.

caryi Hopkins 1915b: 50. Holotype ♀; Camp Caribon, Maine [USA]; USNM, Washington.

Distribution: North America (Alaska/ Alberta, British Columbia, Quebec in Canada/ Maine, New York, North Carolina, Wyoming in USA).

Hosts: *Picea engelmannii*, *P. glauca*, *P. rubra*.

References: (bv) Baker, W. L. 1972: 264. (cn) Swaine 1918a: 133. (hb) Baker, W. L. 1972: 264; Chamberlin 1939: 468; Swaine 1918a: 133. (ds) Blatchley & Leng 1916: 611; Bright 1963: 108, 114, 1976d: 130; Chamberlin 1928, 1939: 468; Drooz 1985: 362; Furniss, R. L. & Carolin 1977: 380; Kleine 1934a: 155; Leng 1920: 342; Murayama 1957c: 606; Wood, S. L. 1972a: 417, 1982b: 730. (tx) Blatchley & Leng 1916: 611; Bright 1963: 114, 1976d: 130; Chamberlin 1939: 468; Hopkins 1915b: 49–50; Murayama 1957c: 606; Swaine 1918a: 133; Wood, S. L. 1972a: 417, 1982b: 730.

cerasi Eggers 1942c: 32. Holotype, sex?; Ussuri (Cyran), USSR; Eggers Collection (not listed by Anderson & Anderson 1971 or Schedl 1979c).

Distribution: Asia (E USSR).

Hosts: *Cerasus maximowiczii*.

References: (cn) Kurenzov 1935c: 188. (cc) Kurenzov 1934a: 52. (hb) Kurenzov 1935a: 20, 34. (ds) Kurenzov 1934a: 52, 1935a: 20, 34, 1935c: 188, 1936b: 351. (tx) Eggers 1942c: 32; Michalski 1969b: 569; Pfeffer 1944a: 131; Sokanovskii 1954: 19; Stark 1950: 229. (ms) Pfeffer 1944a: 131.

cerasi Stark 1950: 229. Holotype (?); Ussuri (?); nomen nudum (?).

Notes: (1) Stark 1950: 229 cites *cerasi* Eggers as a junior synonym, but we have found no evidence that Stark's name was ever published.

References: (ds) Murayama 1957c: 588, 599. (tx) Murayama 1957c: 588, 599; Stark 1950: 229.

confusus Swaine 1912a: 351. Holotype ♂; Colorado [USA]; Cornell University Collection, Ithaca, New York.

Figures: Bright 1963: 112, Doidge 1981: 2–3, Kusch 1967, Ryker & Rudinsky 1979: 204.

Distribution: North America (Alberta, British Columbia in Canada/ Arizona, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Abies lasiocarpa*, uncommon in *A. amabilis*, *A. concolor*, *Picea engelmannii*.

References: (ay) Bright 1963: 110; Farris 1969: 27–32; Thomas, J. B. 1967. (bv) Borden et al. 1987; Bright 1963: 110; Kolmle & Vite 1984b; Stock & Borden 1983. (cn) Andrews & Erickson 1973b: 14; Andrews & Monts 1977: 5, 1978: 3; Andrews & Vanderval 1971: 4; Anonymous 1955j: 10, 1960g: 12, 1960q, 1961h, 1961s, 1963e: 17, 1963y, 1982b; Bauman 1967: 174, 1968: 193, 1969: 158; Beddows 1968: 217, 1969: 192; Bennett 1983; Bongberg 1957, 1962; Bousfield & Carlson 1978; Bousfield, Hagle, & Kohler 1988; Brown, A. W. A. 1943: 7; Brown, C. E., Hopkins, & Robins 1960: 86; Brown, C. E., Robins, & Stevenson 1962: 98; Byler et al. 1986; Cahill & Lister

- 1971; Chamberlin 1924; Chrystal 1949b: 3–11; Cottrell 1967: 98, 1973: 8; Cottrell & Doidge 1972: 5; Cottrell & Erickson 1977: 4, 1978: 4; Cottrell & Fiddick 1962, 1968, 1971: 4, 1972; Cottrell, Unger, & Fiddick 1979: 26; Doane et al. 1936; Doidge 1967: 196, 1968: 119, 1969: 107, 1972: 5, 1973a: 7, 1975: 8, 1976: 6, 1981; Doidge & Koot 1978: 5, 1979: 6–7; Erickson & Wood 1979: 6; Evans, D. 1949: 108; Evenden 1924; Fiddick, Harvey, & Silver 1966; Fiddick & Van Sickle 1982: 17; Fuller & Hostetler 1980; Fuller & Johnson 1985; Geistlinger 1967: 127, 1968: 133, 1969: 126; Gibson et al. 1987; Gilman & Bailey 1978: 9; Grant, J. 1967b: 187, 1968b: 207, 1969b: 183; Grant, J., Lund, & Beddows 1970: 3; Hagle et al. 1987: 44; Hatch 1938: 194; Helzner & Moyer 1979; Hewitt 1920: 16; Hofacker & Loomis 1982: 3, 1983: 3; Hofacker, Loomis, & Gilstrap 1988: 18; Hofacker, Loomis, & Tucker 1984: 6, 1987; Hofacker et al. 1989; Hopping, G. R. 1937: 64, 1946: 3–8, 1951: 74; Hopping, R. 1934; James & Goheen 1981; James & Linnane 1979, 1980: 13; Johnson, D. W. & Averill 1983; Johnson, D. W. & Creasap 1978a, 1978b: 18; Johnson, D. W. & Curtis 1986; Johnson, D. W. & Minnemeyer 1976, 1977: 33; Keen 1938: 125, 1952c: 163, 168; Kendrick & Molnar 1965: 39–43; Klein, W. H. 1968; Klein, W. H. & McGregor 1966; Klein, W. H. & Parker 1970: 17; Knopf, J. 1981; Kohler, Dooling, & Bousefield 1985; Kondo & Moody 1987: 112; Kondo & Taylor 1985: 63; Leech 1946: 81, 1947: 59; Lindgren 1980a: 63; Linnane 1984; Lister & Cahill 1970: 23; Lister & Hildebrand 1984; Loomis, Hofacker, & Tucker 1985: 15, 1986; Lowe & Moyer 1980; Lucht 1966: 31; Lucht & Moore 1963: 19; Lund 1967, 1968; McGregor et al. 1985; McGugan et al. 1958; Molnar 1958: 83, 1965: 563–570; Molnar, Harris, & Ross 1965: 98, 1967: 114; Molnar, Ross, & Fiddick 1971: 79, 1972: 84; Molnar et al. 1968: 116, 1969: 116, 1970: 102; Monts 1967: 79, 1968: 75, 1969: 82; Moody 1988: 86; Morris, E. V. 1967: 162, 1969: 60; Morris, E. V., Brown, & Wegwitz 1970: 4; Morris, E. V. & Monts 1972: 7, 1973a: 9, 1976: 3; Morris, E. V. & Vanderwal 1968: 172; Morris, E. V. & Wood 1978: 4; Ollieu, Stipe, & Hoffman 1980: 27; Ostmark 1956: 7; Ostmark & Wilford 1956: 6, 13; Owen 1986: 8; Prebble 1944: 48; Price 1956: 81–84; Robinson, L. A. & Dooling 1978: 11; Rogers & Hessburg 1985; Ross, D. A., Baranyay, & Fiddick 1973: 85; Ross, D. A., Van Sickle, & Wood 1981: 83; Ruppel 1967: 37; Ryker & Rudinsky 1979: 207; Schuder 1969: 75; Sharon & O'Neil 1985; Silver & Ross 1959: 88, 1960: 98, 1962b: 112, 1963a: 111, 1964b: 113, 1965a: 115; Smith, G. J., & Melvin 1974b; Sterner & Davidson 1981: 36, 1983: 50; Stock & Borden 1983; Swaine 1918a: 130–131, 1933: 25; Thier & Hoffman 1983; Tkacz 1983; Tripp, Ross, & Baranyay 1974: 82; Tripp, Ross, & Hunt 1975: 88; Tripp, Ross, & Van Sickle 1977: 81; Timnock et al. 1984; Twinn 1934: 123; Wood, C. S. & Van Sickle 1983: 23, 1987: 24, 1989: 23; Wood, C. S., Van Sickle, & Humble 1987: 23; Wood, C. S., Van Sickle, & Shore 1984: 20, 1985: 22; Wood, R. O. 1967: 14, 1969: 90; Wood, R. O. & Doidge 1971: 5, 1972: 18; Wood, R. O., Geistlinger, & Doidge 1970: 3; Wood, R. O. & Koot 1973a: 20; Yasinski & Pierce 1957: 9. **(ec)** Beal 1937a; Davidson 1958; Doidge 1981; Farris 1969; Heliouvaara & Lilja 1989; Hopping, G. R. 1950c: 74; James & Goheen 1981; James, Stewart, & Williams 1984; Keen 1938: 125; Kendrick & Molnar 1965; Livingston & Berryman 1972: 1793; Massey 1964: 37–40; Molnar 1962a, 1963, 1964, 1965; Molnar & Cottrell 1960; Poinar 1975: 175; Whitney et al. 1984. **(hb)** Anderson, R. F. 1960: 241; Andrews & Monts 1977: 5; Bright 1963: 104, 1976d: 126; Chamberlin 1939: 467, 1958: 188–189; Doane et al. 1936; Doidge 1981; Evans, J. W. 1952: 140; Farris 1969; Keen 1938: 125, 1952c: 163, 165; Lindgren 1980a: 63; Mathers 1931: 247–248, 775; Molnar & Cottrell 1960: 16, 20; Ryker & Rudinsky 1979: 207; Stock & Borden 1983; Swaine 1918a: 130–131; Wood, S. L. 1982b: 727. **(ds)** Allen, S. J. 1967b: 63, 1977, 1978: 5, 1979: 5; Allen, S. J. & Wood 1973a: 5; Anderson, R. F. 1960: 241; Anonymous 1960: 12, 1963y, 1982b; Bongberg 1957; Bright 1963: 110, 1976d: 126; Brown, C. E., Hopkins, & Robins 1960: 86; Chamberlin 1925, 1939: 467, 1958: 188–189; Evans, J. W. 1952: 140; Evenden 1924; Farris 1969: 529; Furniss, R. L. & Carolin 1977: 380; Gast et al. 1989: 385; Gautreau & Melvin 1974; Hagle et al. 1987: 44; Hopping 1922; Keen 1929: 42, 1938: 125, 1952c: 163, 165; Kleine 1913b: 136, 1934a: 155; Kusch 1967; Leech 1947: 81; Leng 1920: 342; MacKay 1950: 115; Mank 1934: 81; Marchant & Borden 1976; McComb et al. 1953: 3; Murayama 1957c: 606; Ruppel 1967: 37; Schuder 1969: 75; Smith, G. J. & Melvin 1974b; Stock & Borden 1983; Susut & Melvin 1974; Thatcher 1935: 261; Wood, S. L. 1948: 70, 1951a: 128, 1972a: 416, 1982b: 727. **(tx)** Benoit 1985: 95; Bright 1963: 108, 110, 112, 1967b: 674, 1976d: 126; Chamberlin 1939: 467, 1958: 188–189; Doidge 1981: 2–3; Doidge & Koot 1978: fig. 5; Eggers 1926b: 136; Hoebeke 1978; Keen 1929: 42; Kusch 1967; Muesebeck 1942: 96, 1950: 132; Murayama 1957c: 606; de Ruelle 1970: 100; Ryker & Rudinsky 1979: 204, 207; Swaine 1912a: 351–352, 1915: 361, 1918a: 130–131; Thomas, J. B. 1967; Wood, S. L. 1951a: 128, 1972a: 416, 1982b: 727. **(ms)** Hatch 1938: 194; Prebble 1944: 48.
- abietis* Hopkins 1915b: 50, 52. Holotype ♀; Lake McDonald, Montana [USA]; USNM, Washington. Synonymy: Swaine 1918a: 131.
- References: **(ds)** Kleine 1934a: 155; Leng 1920: 342. **(tx)** Hopkins 1915b: 50, 52; Swaine 1918a: 131–132.

- cristatus Inouye & Nobuchi** 1959a: 122. Holotype, sex?; Nopporo Nat. Forest nr. Sapporo, Hokkaido, Japan; Nobuchi Collection, Ibaraka.
 Figures: Inouye & Nobuchi 1959a: 122.
 Distribution: Asia (Japan).
 Hosts: *Pseudotsuga taxifolia*.
 References: (tx) Inouye & Nobuchi 1959a: 122.
- ° **diluvialis (Wickham)** 1916: 18 (*Pityophthoridea*). Holotype, sex?; fossil in Miocene, Florissant, Colorado [USA]; not located.
 Figures: Wickham 1916: 18.
 Distribution: North America (fossil in Miocene in Colorado in USA).
 References: (tx) Wickham 1916: 18.
- eichhoffi Ferrari** 1867: 29. Syntypes 2, sex?; Graecia; NHMW, Wien.
 Distribution: Europe (Greece).
 Notes: (3) Reitter 1890: 175 (treated in *Lymnator*).
 References: (hb) Wachtl 1876a: 460. (ds) Hagedorn 1910d: 67; Kleine 1913b: 136; Murayama 1957c: 607; Schaufuss 1915: 1236; Schilsky 1909: 189; Wachtl 1876a: 460. (tx) Eichhoff 1883a: 140; Ferrari 1867a: 29; Hagedorn 1910a: 96; Murayama 1957c: 607; Reitter 1890: 175, 1913a: 75; Schedl 1934f: 1642.
- formosanus Nobuchi** 1967: 18. Holotype ♂; Formosa to Nogoya Port, Japan, imported; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1967: pl. 1 (adult).
 Distribution: Asia (Taiwan).
 Hosts: *Picea* sp.
 References: (tx) Nobuchi 1967: 11–30, pl. 1.
- granicolis (LeConte)** 1868: 162 (*Xyleborus*). Holotype, sex?; Sullivan Co., Pennsylvania [USA]; MCZ, Cambridge.
 Figures: Bright 1963: 112 (male genitalia).
 Distribution: North America (Quebec in Canada/Arkansas, District of Columbia, Georgia, Illinois, Kentucky, Louisiana, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, E Texas, Virginia in USA).
 Hosts: *Picea glauca*, rare in *Abies* sp., *Castanea* sp., *Juglans* sp..
 Notes: (1) LeConte 1876: 643 (to *Dryocoetes*).
 References: (ay) Bright 1963: 111; Hopkins 1894g. (bv) Baker, W. L. 1972: 264; Roling & Kearby 1975b, 1977. (cn) Chamberlin 1924; Chittenden 1897: 72; Hopkins 1899c: 251, 445; Roling & Kearby 1977; Smith, J. B. 1900: 363; Swaine 1918a: 129–130. (ce) Felt 1906: 720, 753; Roling & Kearby 1977. (hb) Baker, W. L. 1972: 264; Chamberlin 1939: 465; Deyrup & Atkinson 1987a: 65; Felt 1906: 720, 753; Hopkins 1894g, 1899c: 251, 445; Swaine 1918a: 129–130; Wood, S. L. 1982b: 728. (ds) Anonymous 1926c: 520; Blackwelder & Blackwelder 1948; Blatchley & Leng 1916: 611; Bright 1963: 111, 1976d: 128; Chamberlin 1925, 1939: 465; Chapuis 1869; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Drooz 1985: 362; Gemminger & Harold 1872: 2687; Hagedorn 1910d: 67; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 138, 1893b: 212; Hubbard & Schwarz 1878: 643; Kleine 1913b: 136, 1914b: 399, 1934a: 155; Leng 1920: 342; Leonard 1928: 520; Murayama 1957c: 606; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 103; Ulke 1902: 56; Weber & McPherson 1991: 54; Wood, S. L. 1982b: 728. (tx) Benoit 1985: 95; Blatchley 1916: 611; Bright 1963: 108, 111–112, 1976d: 128; Chamberlin 1939: 465; Eggers 1926b; Eichhoff 1878b: 291; Hagedorn 1910a: 70; Hopkins 1894: 279, 1915b: 50; LeConte 1868: 162, 1876: 361; Murayama 1957c: 606; Schwarz 1891: 79; Swaine 1909: 103, 1915a: 129–130; Wood, S. L. 1982b: 728.
- hectographus Reitter** 1913a: 76. Syntypes, sex?; Transbaikien, im Quellgebiet des Irkut, und Ostkarpathen; NHMB, Budapest.
 Figures: Balachowsky 1949a: 179 (adult), Li, Shi, & Ao 1984L265, Pfeffer 1989a: pl. 7, Yin, Huang, & Li 1984: 150.
 Distribution: Asia (“Manchuria”, Qinhai, Shanxi, Sichuan, Yunnan in China/ Japan/ Sakhalin Island, Siberia in E USSR), Europe (Bulgaria/ Czechoslovakia/ Finland/ France/ Hungary/ Norway/ Poland/ Sweden/ W USSR).
 Hosts: *Picea* spp., *Pinus* spp., *Abies* spp.
 References: (bv) Annila 1975: 8; Chararas & Deschamps 1962; Hellen 1921; Laumond & Ritter 1971; Novak, V. 1962b; Nuorteva 1956c: 23; Nuorteva & Nuorteva 1968; Rozhkov 1970: 141; Prell 1930c: 639, 1931: 369. (cn) Chorbadzhievo 1929; Eidmann 1965c; Esterberg 1959; Florov 1949: 90; Grandi 1951; Hellen 1921; Inouye 1955; Juutinen 1960: 30; Kurenzov 1935c: 189; Marcu 1926c: 64; Nilssen 1975a; Nosek 1951: 106, 1952b: 100; Novak, V. 1959b: 73; Nuorteva & Nuorteva 1968; Pfeffer 1948a: 800, 1949b: 150, 1950c: 2; Rodary 1959: 850; Saalas 1949: 342, 374; Titova 1966; Tragardh & Butovitsch 1936: 578; Wilke 1931: 669; Yanagisawa 1952: 105. (ce) Annila 1975: 11, 1977; Balazy 1964, 1968; Balazy & Michalski 1964b; Chararas 1957a, 1959c: 113–129, 1959d, 1959g: 214–233, 1960a: 31; Eidmann 1965c; Heqvist 1963: 153; Inouye et al. 1955: 63; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1983; Kirschenblat 1948; Kleine 1944: 71; Kosariyevskaya & Manajev 1962: 450; Kostin 1964: 109; Krivosheina 1974; Kurenzov 1934a: 54; Michalski & Ratajczak 1989; Nishiguchi 1959: 271; Nosek 1951: 106, 1952b: 100; Novak, V. 1962b; Nuorteva 1956a: 17, 1957b: 68, 1959d: 203, 1967a, 1968a, 1970, 1971; Nuorteva & Nuorteva 1968; Pahlen 1946: 194; Pfeffer 1932a: 13, 1943b: 180, 1949b: 150, 1950c: 2, 1959: 3; Poinar 1972, 1975: 157; Rodary 1959: 850; Ruhm 1957b: 254; Ruhm & Chararas 1957: 253–269; Saalas 1917a: 18, 1930: 119, 1949: 342, 374, 1951: 15;

- Titova 1966; Wilke 1931: 669; Zinovjev 1957: 340. (**hb**) Annala 1977; Balachowsky 1948; Chararas 1962c: 415; Chorbadzhievo 1929; Grandi 1951; Heyrovsky 1929: 37–38; Inouye et al. 1955: 63; Li, Shi, & Ao 1984: 47; Karpinski 1933b: 29; Kostin 1960: 133; Krivolutskaya 1956: 832, 1960: 78, 1973: 140; Kurenzov 1935a: 35, 1948b: 100, 1950d: 207; Nilssen 1979a, 1984; Nuorteva 1956c: 23, 1967a, 1968a, 1970; Opanasenko & Kononenko 1966; Orest 1926a: 68, 73; Palm 1956: 63; Pfeffer 1941c: 5; Prell 1930c: 639, 1931: 369; Qiu & Hus 1958: 267; Rozhkov 1970: 141; Saalas 1949: 342, 374, 1951: 15; Spessivtsev 1923: 210, 1928a: 222; Stark 1952: 338; Tragardh 1939b: 158, 200; Tschorbadjiev 1929: 167; Yang et al. 1989c; Zinovjev 1957: 340. (**ds**) Balachowsky 1948; Bistrom & Vaisanen 1988: 42; Buresh & Lazarov 1956; Chorbadzhievo 1929; Csiki 1914; Eder 1934; Endrodi 1958b; Escherich 1932b; Esterberg 1959; Hansen, V. 1939; Hellen 1923: 51, 1947; Holzschuh 1977; Horion 1935, 1951; Jacentkovsky 1939: 77; Jannicky 1960a; Kaisila 1952: 18; Karpinski 1931: 19, 28, 1933a: 290, 1933b: 29, 1948a: 175, 1948b: 230; Klefbeck & Sjoberg 1960: 230; Kleine 1934a: 155; Kono 1938b: 65, 68–69; Kono & Tamanuki 1939: 90, 93; Krausse 1925: 78; Krivolutskaya 1956: 832, 1960, 1965a: 238, 1973: 140, 1983; Kurenzov 1934a: 54, 1935a: 35, 1935c: 189, 1936a: 111, 1936b: 351, 1938a: 62, 1951b: 17; Larroche & Torossian 1971; Leclercq 1971; Li, Shi, & Ao 1984: 47; Lindberg & Saris 1952: 59; Lundberg 1974: 92; Lundblad 1950c: 115; Marcu 1926c: 64; Munster 1928: 291; Murayama 1954b: 202, 1957c: 588, 598; Nakane et al. 1963: 383; Negru 1966b: 402; Numberg 1928b: 88, 108, 1954: 56; Nuorteva 1956b: 168, 1971: 67; Orest 1926c: 64; Palm 1946: 122, 1948a: 91, 1956: 63; Palmén 1946: 194; Pfeffer 1926a: 11, 1926b: 58, 1930b: 120, 1931b: 75, 1935: 159, 1936: 90, 1950b: 75, 1989a: 57; Platonoff 1943: 141; Reitter 1916: 351; Roubal 1927: 48, 1935b: 72, 1941: 268; Rozhkov 1970: 141; Saalas 1916: 110–116, 1917a: 18, 1930: 119, 1931: 70; Schaufuss 1915: 1236; Schedl 1980a: 18; Stark 1931a: 25, 1931d: 547, 1952: 338; Strand 1944: 600–601; Tragardh 1939b: 158, 200; Tschorbadjiev 1929: 162; Wegelius 1960: 106; Wichmann 1927a: 68–69; Wilke 1931: 669; Yanovskii 1977a; Yanovskii & Dmitrienko 1983; Yin & Huang 1981: 564; Zinovjev 1955: 187. (**tx**) Balachowsky 1948: 168, 1949a: 179; Eggers 1914: 297–298, 1930b: 30, 1941c: 121; Endrodi 1957a: 307, 1957b; Fleischer 1927; Karpinski 1931: 19; Krivolutskaya 1956: 832, 1958: 157; Kurenzov 1941a: 168–169, 1948b: 100, 1950: 207; Li, Shi, & Ao 1984: 265; Murayama 1954b: 202, 1957c: 588, 598; Nakane et al. 1963: 383; Negru 1966b: 402; Nilssen 1979a, 1979b; Nunberg 1954: 56; Pfeffer 1932b: 20, 1941c: 5, 1947e: 6, 1955a: 179, 1989a: pl. 7; Reitter 1913a: 76, 1916: 351; Saalas 1949: 342, 374; Schedl 1934f: 1642, 1980a: 18; Sokanovskii 1930: 801–802; Spessivtsev 1922a: 473, 491, 1923: 209–210, 1925a: 175, 1925b: 31, 1928: 235, 1931: 52–53; Stark 1952: 338; Yin & Huang 1981: 564; Yin, Huang, & Li 1984: 150. (**ms**) Escherich 1932b; Heller 1921; Schimitschek 1930b: 407.
- himalayensis** **Strohmeyer** 1908a: 161 (reprint p. 1). Holotype ♂; Kaschmir; Strohmeyer Collection. Distribution: Asia (Kashmir, Uttar Pradesh in India). Hosts: *Juglans regia*, *Pyrus lanata*. References: (**ds**) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 271; Murayama 1957c: 607. (**tx**) Hagedorn 1910a: 96; Murayama 1957c: 607; Schedl 1934f: 1642; Strohmeyer 1908a: 161.
- indicus** **Stebbing** 1914: 549. Syntypes 5, sex?; N-W Himalaya; Jaunsar; FRI, Dehra Dun. Distribution: Asia (Himachal Pradesh, Kashmir, Uttar Pradesh in India/ Nepal). Hosts: *Abies webbiana*, *Picea morinda*, *Pinus excelsa*. References: (**ay**) Gardner 1934b: 1–17. (**cn**) Pierce, W. D. 1917: 81; Roonwal 1954: 12; Stebbing 1914: 549. (**cc**) Beeson 1922c: 495; Stebbing 1914: 549. (**hb**) Beeson 1922c: 495; Stebbing 1914: 549. (**ds**) Beeson 1922c: 495, 1961: 287; Kleine 1934a: 155; Murayama 1957c: 607; Pierce, W. D. 1917: 81; Roonwal 1954: 12; Schedl 1973b: 210. (**tx**) Eggers 1925: 157; Gardner 1934b; Murayama 1957c: 607; Stebbing 1914: 549.
- infuscatus** **Murayama** 1937b: 370. Syntypes, sex?; Horyuri, Japan; USNM, Washington. Distribution: Asia (Japan/ Korea/ E USSR). Hosts: *Larix dahurica koreana*, *Pinus koraiensis*. References: (**ds**) Cho 1957; Choo 1983: 165; Choo & Woo 1985: 165; Ko 1969: 276; Murayama 1937a: 3, 1937b: 370, 1939: 143, 1942a: 56, 1948: 6, 1957c: 588, 602. (**tx**) Choo 1983: 83; Murayama 1937b: 370–371, 1957c: 588, 602.
- orientalis** Kurenzov 1941a: 169, 233. Syntypes, sex?; southern parts Soviet Far East (upper course of Suputinka River); Mountainous-Taiga Station and Zoological Institute, Academy of Science, USSR. Synonymy: Murayama 1957: 602. Notes: (3) Kurenzov 1948a: 51 (named form *orientalis pilosiusculus*, no status). References: (**hb**) Krivolutskaya 1973: 139; Kurenzov 1948a: 51, 1948b: 108, 1950d: 147; Stark 1952: 329. (**ds**) Krivolutskaya 1965a: 236, 1973: 139, 1983; Stark 1952: 327; Yanovskii & Tegshzhargal 1985: 409. (**tx**) Krivolutskaya 1958: 159; Kurenzov 1941a: 169, 233, 1948a: 51, 1948b: 108, 1950: 161; Michalski 1969a: 895, 1969b: 569; Murayama 1957: 602; Stark 1952: 327.
- italus** **Eggers** 1940f: 44. Holotype, sex?; Italien (Cassano Spinola, Prov. Alessandria); Solari Collection. Distribution: Europe (Italy).

Notes: This is probably a synonym of *alni*, holotype not examined by us.

References: (ds) Murayama 1957c: 607. (tx) Eggers 1940f: 44; Murayama 1957c: 607.

karamatsu Sawamoto 1940a: 97, 102. Holotype, sex?; Honshu, Japan; Ent. Inst. der Kaiserlichen Hokkaido Univ.

Distribution: Asia (Japan).

Hosts: *Larix leptolepis*.

References: (ds) Murayama 1954b: 173, 1957c: 588, 603; Sawamoto 1940a: 96, 102. (tx) Murayama 1954b: 173, 1957c: 588, 603; Sawamoto 1940a: 97, 102–104.

melaenus Eichhoff 1872a: 136. Holotype, sex?; Brasilia; Hamburg Museum, lost.

Distribution: South America (Brazil).

Notes: (3) This species obviously does not belong to this genus; it may be an *Araptus*, or possibly *Dendrocranulus*.

References: (ds) Gemminger & Harold 1872: 2687; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 336; Murayama 1957c: 607. (tx) Eichhoff 1872a: 136, 1878b: 287; Hagedorn 1910a: 95–96; Murayama 1957c: 607.

nijimai Nobuchi 1959a: 11. Holotype, sex?; Misono near Kutchan, Hokkaido; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

Hosts: *Picea jezoensis*.

References: (tx) Nobuchi 1959a: 11.

padi Stark 1952: 335. Syntypes, sex?; Siberia (Usurie; Sutschan); IZL, Leningrad.

Distribution: Asia (Sakhalin Island, E USSR).

Hosts: *Acer* sp., *Alnus* sp., *Echinopanax* sp., *Micromelas* sp., *Padus maaki*, *Syringa robusta*.

References: (hb) Kurenzov 1948b: 121; Stark 1952: 335. (ds) Krivolutskaya 1983; Kurenzov 1940a: 77, 1941a: 170; Murayama 1957c: 588, 599; Stark 1952: 335. (tx) Krivolutskaya 1958: 144; Kurenzov 1941a: 170, 1948b: 121; Murayama 1957c: 588, 599; Stark 1952: 335.

picipennis Eggers 1926b: 138. Lectotype, sex?; Jozankei (Sapporo), Japan; USNM, Washington, designated by Anderson & Anderson 1971: 138. Figures: Yin, Huang, & Li 1984: 145 (head, declivity).

Distribution: Asia (Sichuan in China/ Japan).

Hosts: *Acer mayeri*, *Salix* sp.

References: (ds) Murayama 1954b: 202, 1955: 99, 1957c: 588; Yin, Huang, & Li 1984: 145. (tx) Anderson, W. H. & Anderson 1971: 25; Eggers 1926b: 138; Murayama 1954b: 202, 1955: 99, 1957c: 588; Schedl 1934f: 1642, 1979c: 193; Yin, Huang, & Li 1984: 145.

pilosus Blandford 1894d: 92. Holotype, sex?; Nikko, Japan; BMNH, London.

Distribution: Asia (Japan).

Notes: (3) This species might belong to *Taphrotychus*, holotype not examined.

References: (ds) Blandford 1894c; Choo 1983: 83; Choo & Woo 1985: 165; Kleine 1913b: 136, 1914b: 258; Krivolutskaya 1983; Kurenzov 1967; Murayama 1936a: 129, 1954b: 174, 1957c: 588, 599; Nakane et al. 1963: 383; Nobuchi 1966b: 19. (tx) Blandford 1894d: 92; Choo 1983: 83; Murayama 1934c: 299, 1936a: 129, 1954b: 202, 1957c: 588, 599; Nakane et al. 1963: 383; Nobuchi 1966b: 19; Schedl 1934f: 1642, 1962p: 205; Stebbing 1908b: 11.

pini Niisima 1909: 152. Syntypes 5, sex?; Makkarinupuri, Prov. Ishikari, Japan; Nobuchi Collection, Ibaraki.

Figures: Nakane et al. 1963: pl. 192, Nobuchi 1966d: pl. 2.

Distribution: Asia (Japan/ Korea/ Sakhalin Island in E USSR).

Hosts: *Picea* spp., *Pinus* spp., *Larix* spp., *Abies* sp.

References: (cc) Inouye et al. 1955: 63. (hb) Inouye et al. 1955: 63; Krivolutskaya 1956: 833. (ds) Choo, Woo, & Nobuchi 1988a: 134; Kleine 1913b: 136, 1914b: 258, 1934a: 155; Kono & Tamanuki 1939: 94; Krivolutskaya 1956: 833; Murayama 1948: 2, 1949a: 12, 1953c: 145, 1954b: 202, 1957c: 588, 602; Sawamoto 1940a: 96, 101. (tx) Hagedorn 1910a: 96; Inouye & Nobuchi 1959a: 122–123; Krivolutskaya 1956: 833, 1958: 160; Murayama 1954b: 202, 1957c: 588, 602; Nakane et al. 1963: pl. 192; Niisima 1909: 152; Nobuchi 1966d: pl. 2; Sawamoto 1940a: 96, 99, 101–102; Sokanovskii 1958: 39; Schedl 1934f: 1642.

pumilio Eichhoff 1878b: 295. Holotype, sex?; America meridionalis (Venezuela); Hamburg Museum, lost.

Distribution: South America (Venezuela).

Notes: (3) This species is obviously placed in the wrong genus; it may belong to *Araptus* or *Dendrocranulus*.

References: (ds) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 339; Murayama 1957c: 607. (tx) Eichhoff 1878b: 295; Hagedorn 1910a: 96; Murayama 1957c: 607.

pusillus Eggers 1933f: 7. Holotype, sex?; Amurgebiet; Eggers Collection, in NHMW, Wien. Distribution: Asia (E USSR).

References: (hb) Stark 1952: 331. (ds) Stark 1931e: 142, 1952: 331. (tx) Eggers 1933f: 7; Michalski 1969b: 569; Schedl 1979c: 206; Sokanovskii 1954: 18, 1960: 675; Stark 1952: 331.

quadrisulcatus Strohmeier 1908b: 72. Holotype, sex?; Kashmir; Strohmeier Collection.

Distribution: Asia (Kashmir, Uttar Pradesh in India).

Hosts: *Abies pindrow*, *A. webbiana*.

References: (cn) Roonwal 1954: 17. (ds) Beeson 1961: 287; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 271; Roonwal 1954: 17. (tx) Hage-

dorn 1910a: 67; Schedl 1934f: 1643; Stebbing 1908b: 11; Strohmeier 1908b: 72.

ramicola Reitter 1894a: 94. Syntypes 2, sex?; Akbes, in Syrien; NHMB, Budapest.

Distribution: Asia (Syria), Europe (Bulgaria).

Hosts: *Corylus avellana*, *Fagus orientalis*.

Notes: (3) Pfeffer 1955: 141 (treated in *Saliciphilus*). References: (bv) Grune 1979: 127. (cn) Chorbadzhiev 1929. (hb) Chorbadzhiev 1929; Tschorbadjiev 1929: 172. (ds) Buresh & Lazarov 1956; Chorbadzhiev 1929; Grune 1979: 127; Hagedorn 1910d: 67; Hariri 1971: 127; Kleine 1913b: 136; Murayama 1957c: 588; Pfeffer 1936: 90; Postner 1974: 440; Reitter 1894a: 94; Schaufuss 1915: 1244; Schedl 1961b: 185; Sokanovskii 1960; Tschorbadjiev 1929: 172. (tx) Grune 1979: 127; Hagedorn 1910a: 96; Murayama 1957c: 588; Pfeffer 1955b: 141; Postner 1974: 440; Reitter 1894a: 94, 1913a: 97; Schedl 1934f: 1642; Sokanovskii 1954: 18, 1960: 675.

rotundicollis Eggers 1928d: 174. Holotype, sex?; Sudastralien (Gawler); Prague Museum.

Distribution: Australia.

Notes: (3) This species almost certainly belongs to *Cyrtogenius*.

References: (tx) Eggers 1928d: 174; Schedl 1940b: 434.

rugicollis Eggers 1926b: 137. Lectotype, sex?; Sachalin (Osawa), Japan; USNM, Washington, designated by Anderson & Anderson 1971: 28.

Figures: Li, Shi, & Ao 1984: 265, Nakane et al. 1963: pl. 192, Nobuchi 1966d: pl. 2.

Distribution: Asia (Shanxi in China/ Japan/ Kurile Islands/ Sakhalin Island, Siberia in E USSR).

Hosts: *Picea* spp., *Larix* spp., *Abies* spp., *Pinus* spp.

References: (cn) Anonymous 1980g; Inouye 1949a: 18; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 187. (cc) Inouye & Nobuchi 1959b: 41; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 63; Kamijo 1981; Kurenzov 1934a: 54; Nishiguchi 1960c. (hb) Inouye et al. 1955: 63; Krivolutskaya 1956: 832, 1973: 139; Kurenzov 1935a: 36, 1948b, 1950d: 208; Li, Shi, & Ao 1984: 47; Qiu & Huo 1958: 265; Stark 1952: 333. (ds) Anonymous 1980g; Kono 1938b: 65, 68; Kono & Tamanuki 1939: 89, 93-94; Krivolutskaya 1956: 832, 1965a: 237, 1973: 139, 1983; Kurenzov 1934a: 54, 1935a: 36, 1935c: 187, 1936a: 113, 1936b: 351, 1938a: 62, 1951b: 18, 1963b: 115; Li, Shi, & Ao 1984: 47; Murayama 1953c: 145, 1954b: 174, 1957c: 588, 599; Nakane et al. 1963: 383; Nobuchi 1966b: 20; Sawamoto 1940b: 141, 146; Stark 1952: 333; Tamanuki 1933: 1-54. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1926b: 137, 1933a: 97; Krivolutskaya 1956: 832, 1958: 158; Kurenzov 1941a: 170-172, 1948b: 101, 1950: 208; Li, Shi, & Ao 1984: 265; Murayama 1954b: 174, 1957c: 588, 599; Nakane et al. 1963: 383, pl. 192; Nobuchi 1959a: 11, 1966b: 20, 1966d: pl. 2; Sawamoto

1940b: 141, 146-147; Schedl 1934f: 1643; Stark 1952: 333.

sechelti Swaine 1915b: 359. Lectotype ♀?; Sechelt, British Columbia; CNCI, Ottawa, designated by Bright 1967b: 674.

Distribution: North America (British Columbia in Canada/ Colorado, Idaho, Montana, Oregon, Utah in USA).

Hosts: *Abies lasiocarpa*.

References: (cn) Swaine 1918a: 129-130. (hb) Bright 1976d: 129; Chamberlin 1939: 465, 1958: 191; Swaine 1918a: 129-130; Wood, S. L. 1982b: 730. (ds) Bright 1976d: 129; Chamberlin 1939: 465, 1958: 191; Furniss, R. L. & Carolin 1977: 380; Gast et al. 1989: 385; Leng 1920: 342; Murayama 1957c: 606; Schedl 1969a: 202; Wood, S. L. 1948: 69, 1951a: 128, 1972a: 417, 1982b: 730. (tx) Bright 1963: 108, 1967b: 674, 1976d: 129; Chamberlin 1939: 465, 1958: 191; Hoebeke 1978; Murayama 1957c: 606; de Ruelle 1970: 100; Schedl 1979c: 223; Swaine 1915b: 359-360, 1918a: 129-130; Wood, S. L. 1951a: 128, 1972a: 417, 1982b: 730.

striatus Eggers 1933f: 8. Holotype, sex?; Wladiwostok; USNM, Washington.

Figures: Nakane et al. 1963: pl. 192.

Distribution: Asia (Heilongjiang in China/ Japan/ Sakhalin Island, Siberia in E USSR).

Hosts: *Abies holophylla*, *A. nephrolepis*, *A. sachalinensis*.

References: (cn) Anonymous 1980g; Kurenzov 1935c: 189. (hb) Krivolutskaya 1956: 837, 1973: 138; Kurenzov 1935a: 35, 1950d: 208; Kurenzov & Kononov 1961: 600; Stark 1952: 325. (ds) Anonymous 1980g; Kleine 1934a: 155; Krivolutskaya 1956: 837, 1973: 138; Kurenzov 1935a: 35, 1935c: 189; Kurenzov & Kononov 1961: 595; Murayama 1957c: 588, 600; Nakane et al. 1963: 383; Stark 1952: 325; Yin, Huang, & Li 1984: 147. (tx) Eggers 1933f: 8; Krivolutskaya 1956: 837, 1958: 162; Kurenzov 1941a: 170-175, 1950: 208; Kurenzov & Kononov 1961: 600; Murayama 1957c: 588, 600; Nakane et al. 1963: 383, pl. 192; Schedl 1941a: 42, 1979c: 238; Stark 1952: 325; Yin, Huang, & Li 1984: 147.

abietinus Kono & Tamanuki 1939: 90. Holotype, sex?; Sachalin (Naipuchi); not given. Synonymy: Murayama 1957c: 600.

References: (cn) Inouye 1955. (cc) Inouye et al. 1955: 63. (hb) Inouye et al. 1955: 63; Stark 1952: 326. (ds) Kono & Tamanuki 1939: 91; Murayama 1954b: 202; Stark 1952: 326. (tx) Kono & Tamanuki 1939: 90; Murayama 1954b: 192, 202; Stark 1952: 326.

suecicus Eggers 1923: 136. Holotype, sex?; Rorstrom in Schweden; Eggers Collection, in NHMW, Wien.

Distribution: Europe (Finland/ Sweden/ W USSR). References: (ds) Hansen, V. 1939; Murayama

1957c: 607. (tx) Eggers 1923: 136, 1930b: 30, 1941c: 121; Murayama 1957c: 607; Schedl 1934g: 1643, 1979c: 245; Sokanovskii 1954: 19.

uniseriatus Eggers 1926b: 145. Holotype, sex?; Sapporo; Nobuchi Collection, Ibaraki.

Distribution: Asia (Shanxi in China/ Japan).

Hosts: *Pinus armandii*, *P. deusiflora*.

References: (ds) Kono & Tamanuki 1939: 89–94; Murayama 1954b: 202; Nobuchi 1966: 20; Yin, Huang, & Li 1984: 148. (tx) Eggers 1926b: 145; Murayama 1954b: 202; Nobuchi 1966b: 20; Sawamoto 1940: 101; Schedl 1934f: 1643; Sokanovskii 1954: 19, 1958: 39; Yin, Huang, & Li 1984: 148.

ussuriensis Eggers 1933f: 8. Syntypes, sex?; Ussuri; Stark Collection, 2 syntypes in Eggers Collection, in NHMW, Wien.

Figures: Krivolutskaya 1968: 60 (head, proventriculus).

Distribution: Asia (Sakhalin Island and E USSR).

Hosts: *Acer* spp., *Alnus fruticosa*, *A. kamtschatica*.

References: (cn) Kurenzov 1935c: 188, 1956a: 90. (hb) Krivolutskaya 1973: 139; Kurenzov 1935a: 20, 34, 1957b: 18; Kurenzov & Kononov 1961: 595. (ds) Arnoldi et al. 1955: 704; Kleine 1934a: 155; Krivolutskaya 1965: 236, 1973: 139; Kurenzov 1935a: 20, 34, 1935c: 188, 1936b: 351, 1938a: 64, 1967; Kurenzov & Kononov 1961: 595; Murayama 1957c: 588, 603; Rudnev 1958: 310–313. (tx) Eggers 1933f: 8–9; Krivolutskaya 1956: 154, 1958: 162, 1968: 60; Kurenzov 1941a: 170–174; Murayama 1957c: 588, 603; Schedl 1979c: 262.

ussuriensis rugulosus Eggers 1933f: 9. Syntypes, sex?; Ussuri, USSR; not given.

Notes: (1) An apparent aberration that was named as a variety.

References: (tx) Eggers 1933f: 9; Schedl 1979c: 262.

villosus (Fabricius) 1792: 367 (*Bostrichus*). Syntypes 2, sex?; Germania; UZMC, Copenhagen.

Figures: Grune 1979: 90.

Distribution: Africa (Algeria/ Canary Islands/ Madeira Island/ Tunisia), Europe (Austria/ Belgium/ Bulgaria/ Denmark/ England/ France/ Germany/ Greece/ Sardinia/ Scotland/ Sicily/ Sweden/ Switzerland/ W USSR).

Hosts: *Alnus glutinosus*.

References: (ay) Nusslin 1911a: 60. (bv) Grune 1979: 91. (cn) Anonymous 1979p; Nusslin 1913: 283; Rhumbler 1922: 326; Schimitschek 1955a: 135, 1955c: 84; Sponeck 18171: 316. (cc) Adeli 1964; Heqvist 1963: 153; Mahunka 1968; Nusslin 1927: 342; Pfeffer 1928b: 7; Pierce, W. D. 1917: 54; Poinar 1975: 157; Rondani 1873: 140; Ruhn 1956b: 4; Rypinski 1897: 61; Schimitschek 1930a: 326, 1955a: 135; Tudor 1969: 34; Woodring & Moser 1970. (hb) Adeli 1964; Budkov 1897; Budge 1949; Bukowsky 1930; Janson 1867: 91; Karpinski 1933: 52–56; Marcu 1927: 425–427;

Nusslin 1913: 282, 1927: 342; Postner 1974: 424; Ratzeburg 1837: 130, 1839: 157; Rhumbler 1922: 326; Rupertsberger 1880: 231; Schedl 1981b: 71; Schimitschek 1930a: 326, 1955a: 135; Schwerdtfeger 1981: 188; Spessivtsev 1913a: 93. (ds) Adeli 1964; Angus 1965c: 13; Anonymous 1979p; Bartindale & Bartindale 1948: 138; Bejer-Petersen & Jorum 1977: 21; Borchert 1951; Braknan 1966b: 205; Brancsik 1871; Buck 1952, 1955: 142, 1955b: 191; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Chapuis & Candeze 1853; Chorbadzhevo 1924d; Chrystal 1937; Crowson 1971: 51; Crowson & Hunter 1964: 200; Dallimore & Munro 1922: 189–193; Davidson 1961: 20; Dejean 1821, 1825, 1837; Endrodi 1981: 185; Grune 1979: 91; Hagedorn 1910d: 67; Hansen, V. 1964: 460; Holzschuh 1977; Klefbeck & Sjoberg 1960: 230; Koca 1900: 116; Leclercq 1971; Lucht 1987: 277; Morley 1868: 287; Munro 1926: 4–77; Negru 1966b: 402, 1968a: 456; Normand 1937: 268; Nurnberg 1928b: 88, 109; Pfeffer 1989a: 58; Pierce, W. D. 1917: 54; Postner 1974: 424; Schedl 1963e: 155, 1967c: 71, 1971d: 426, 1971f: 146, 1980a: 18, 1981b: 71; Schedl, Lindbert, & Lindberg 1959: 24; Schilsky 1909: 189; Schwerdtfeger 1981: 188; Seidlitz 1872: 397, 1891a: 567; Sharp & Fowler 1893: 34; Verdcourt 1952: 80; Welch, R. C. 1970: 140; Winter, T. G. 1983: 10. (tx) Balachowsky 1949a: 181; Bechstein 1818: 75, 216; Bechstein et al. 1805: 102; Bedel 1888b: 400, 416; Bertolini 1872; Brancsik 1871; Bright 1963: 111; Chapuis & Candeze 1853; Chorbadzhevo 1924d; Dejean 1821, 1825; Eggers 1908a: 122, 1911a: 123, 1912b: 117, 1912f: 29, 1921: 40–41, 1923a: 162, 1928d, 1929e: 43, 1933f: 8; Eichhoff 1864: 38, 1878b: 165, 1883a: 115, 140; Fabricius 1792: 367; Grune 1979: 90–91; Hansen, V. 1964: 460; Hopkins 1915b: 49; Iablokoff-Khnzorian 1961: 85; Letzner 1891: 377; Lucht 1987: 277; Negru 1966b: 402; Perris 1877a: 413, 415; Pfeffer 1955a: 171; Portevin 1935: 327; Postner 1974: 424; Reitter 1913a: 77; Sahlberg 1836: 149; Schedl 1952f: 87, 1980a: 18, 1981b: 71; Schedl, Lindberg, & Lindberg 1959: 24; Schimitschek 1937: 53, 1955c: 84; Seidlitz 1872: 397, 1891a: 567; Sokanovskii 1930: 801–802; Spessivtsev 1913a: 93, 1922a: 474, 491, 1925a: 175, 1931: 52; Stresemann et al. 1986: 352; Strohmeyer 1912b: 57.

villosus starhoni Reitter 1913a: 77. Syntypes, sex?; Mährisch-Osttau; NHMB, Budapest. Synonymy: Balachowsky 1949a: 181.

References: (ds) Reitter 1916: 292. (tx) Balachowsky 1949a: 181; Reitter 1913a: 77, 1916: 292; Schedl 1934f: 1643, 1979c: 219.

villosus minor Eggers 1908a: 122. Syntypes, sex?; Sicily: Ragusa; Ragusa Collection.

Notes: (1) Balachowsky 1949a: 182, Pfeffer 1955: 171 (treated as a subspecies).

References: (cn) Schimitschek 1944: 175, 1952c: 58. (cc) Novak, P. 1952: 416; Schimit-

schek 1941a: 316. (**hb**) Geisthardt 1939: 243–246; Schimitschek 1939c: 271–274, 1944: 175. (**ds**) Horion 1951; Kleine 1913b: 136, 1934a: 155; Novak, P. 1952: 416; Pfeffer 1989a: 58; Ragusa 1934a: 155; Sainte-Claire & Mequignon 1938: 447; Roubal 1941: 268; Schaufuss 1915: 1236. (**tx**) Balachowsky 1949a: 182; Eggers 1908a: 122, 1908e, 1911a, 1921: 40–41; Reitter 1913a: 77; Schedl 1934f: 1642; Sokanovskii 1960: 675, 1961: 483–485.

sardus Strohmeier 1912b: 57. Synatypes, sex?; Sardinien (Sorgono); Strohmeier.

Notes: (1) Balachowsky 1949a: 182. Pfeffer 1955: 171 (treated as a subspecies).

References: (**ds**) Csiki 1914; Holdhans 1923: 115; Kleine 1913a: 307, 1913b: 136; Langhoffer 1915c: 158; Pfeffer 1935: 158, 1947d: 127; Sainte-Claire 1914: 474; Schaufuss 1915: 1236. (**tx**) Balachowsky 1949a: 132; Eggers 1912b: 117, 1914: 40, 1921: 40–41; Pfeffer 1932b: 20; Portevin 1935: 327; Reitter 1913a: 77; Schedl 1934f: 1642, 1979c: 219; Sokanovskii 1960: 675; Strohmeier 1912b: 57.

Genus *Chiloxylon* Schedl

CHILOXYLON SCHEDL 1959m: 550. Type-species:

Chiloxylon rufulus Schedl, monobasic.

References: (**hb**) Wood, S. L. 1986a: 75. (**ds**) Wood, S. L. 1986a: 75. (**tx**) Schedl 1959m: 550; Wood, S. L. 1986a: 73, 75.

rufulus Schedl 1959m: 550. Holotype ♀; Matto Grosso: Rio Caraguata; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (**tx**) Schedl 1959m: 550, 1979c: 215; Wood, S. L. 1986a: 75.

Genus *Dryocoetiops* Schedl

DRYOCOETIOPS SCHEDL 1957d: 13. Type-species: *Ozopemon laevis* Strohmeier, original designation.

References: (**hb**) Wood, S. L. 1986a: 75. (**ds**) Schedl 1966b: 33; Wood, S. L. 1986a: 75. (**tx**) Schedl 1957d: 13; Wood, S. L. 1986a: 73, 75.

australis (Schedl) 1942c: 181 (*Dryocoetes*). Holotype, sex?; Queensland, Australien; Schedl Collection in NHMW, Wien.

Distribution: Australia (Queensland).

Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*).

References: (**ds**) Murayama 1957c: 608. (**tx**) Murayama 1957c: 608; Schedl 1942a: 179, 1942c: 181, 1964m: 308, 1979c: 31.

bicolor Schedl 1970b: 360. Holotype ♀; Malaya, Malacca to Nagoya (Japan), imported; PPST, Tokyo.

Distribution: Asia (Malaya).

Hosts: Mersawa.

References: (**tx**) Schedl 1970b: 360, 1979c: 38.

coffae (Eggers) 1923: 161 (*Dryocoetes*). Holotype ♀; Java; Hamburg Museum, lost.

Figures: Nobuchi 1966c: pl. 2, 1967: pl. 1.

Distribution: Asia ("China"/ Assam, Bengal in India/ Japan/ Malaya/ Sri Lanka/ Taiwan), Indonesia (Borneo, Java), New Guinea, Philippine Islands. Hosts: *Balanocarpus heimii*, *Coffea arabica*, *C. canephora*, *C. hybrid*, *Dryobalanops oblongifolia*, *Intsia palembanica*, *Kaunia laurina*, *Machilus thunbergii*, *Palaquium gutta*, *Quercus* spp., *Shorea sumatrana*, *Svietenia macrophylla*.

Notes: (1) Schedl 1964k: 308 (to *Dryocoetiops*).

References: (**ay**) Gardner 1934b: 1–17. (**cn**) Low 1975; Mathur & Singh 1960a: 13, 1961a: 79. (**hb**) Browne 1961c: 83–84; Kalshoven 1955b: 174. (**ds**) Browne 1961c: 83, 1972a: 19; Kleine 1934a: 155; LePelley 1968: 146; Low 1975; Mathur & Singh 1960a, 1961a; Murayama 1957c: 607; Nobuchi 1966e: 52–54, 1967: 20; Schedl 1936d: 1, 1959a: 491, 1968e: 262; Thomas, R. T. S. 1960a, 1960b. (**tx**) Eggers 1923: 161; Gardner 1934b; Murayama 1957c: 607; Nobuchi 1966c: pl. 2, 1967: pl. 1; Schedl 1936d: 1, 1939e: 348, 1942d: 4, 1943b: 41, 1959a: 491, 1961f: 88, 1962n: 697, 1964k: 308, 1979c: 59.

javanus Eggers 1936e: 87 (*Dryocoetes*). Holotype ♀; Java (Tjibodas, 1400 m); RNH, Leiden.

Synonymy: Schedl 1962n: 697.

References: (**ds**) Murayama 1957c: 607; Nunberg 1961b: 609. (**tx**) Eggers 1936e: 57–58; Murayama 1957c: 607; Nunberg 1961b: 609; Schedl 1962n: 697.

eugeniae (Schedl) 1942a: 180 (*Dryocoetes*). Holotype, sex?; Malaya, Segamat; BMNH, London.

Distribution: Asia (Malaya/ Singapore).

Hosts: *Eugenia aqua*.

Notes: (1) Schedl 1964k: 308 (to *Dryocoetiops*).

References: (**ds**) Browne 1961c: 85; Murayama 1957c: 607. (**tx**) Murayama 1957c: 607; Schedl 1942a: 180, 1964k: 308, 1979c: 92.

flavicornis (Blandford) 1895a: 320 (*Dryocoetes*). Holotype ♀; Ceylon, Bogavantalawa; BMNH, London.

Distribution: Asia (Sri Lanka).

References: (**ds**) Kleine 1913b: 136, 1914b: 273; Murayama 1957c: 607; Schedl 1959a: 491. (**tx**) Blandford 1895a: 320; Hagedorn 1910a: 96; Murayama 1957c: 607; Schedl 1959a: 491.

hirsutus (Schedl) 1939e: 348 (*Dryocoetes*). Synatypes 3 ♀; Malaya, Selangor; Kauching For. Res.; BMNH, London.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Dryobalanops aromatica*.

References: (**ds**) Browne 1961c: 84; Murayama 1957c: 607. (**tx**) Murayama 1957c: 607; Schedl 1939e: 348, 1954c: 154, 1964m: 308, 1979c: 117.

inopinatus (Schedl) 1955b: 294 (*Dryocoetes*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (**ds**) Murayama 1957c: 608. (**tx**)

- Murayama 1957c: 608; Schedl 1955b: 280, 294, 1964m: 308, 1979c: 124.
- kepongi (Schedl)** 1953c: 296 (*Dryocoetes*). Syntypes 2 ♀; Malaya, Selangor, Kepong; BMNH, London and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
Hosts: *Artocarpus lanceifolius*, *A. rigidus*, *A. scortechini*, *Campnosperma auriculata*, *Dryobalanops oblongifolia*, *Gomphia serrata*.
Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*), 1979c: 132 (citation of holotype invalid).
References: (cc) Beaver 1979b: 298. (hb) Beaver 1979b: 298; Beaver & Browne 1978: 587. (ds) Beaver & Browne 1978: 587; Browne 1961c: 84, 1986c: 661; Murayama 1957c: 608. (tx) Murayama 1957c: 608; Schedl 1953c: 296, 1964m: 308, 1979c: 132.
- laevis (Strohmeyer)** 1911b: 22 (*Ozopemon*). Holotype ♀; Mindoro, Calapan, Philippine Islands; Philippine Bureau of Science Collection, Manila.
Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Borneo, Java, Sinabang, Sumatra), Philippine Islands (Luzon/ Mindoro).
Hosts: *Dipterocarpus grandiflorus*, *Hopea odorata*.
Notes: (1) Schedl 1957d: 13 (to *Dryocoetiops*).
References: (cn) Mathur & Singh 1960b: 57; Schultze 1923: 401. (ds) Kleine 1914b: 290; Mathur & Singh 1960b: 57; Ohno, Yoneyama, & Nakazawa 1982b: 8; Ohno et al. 1987: 87; Schedl 1966b: 32; Schultze 1923: 401. (tx) Eggers 1927b: 391; Nobuchi 1983: 301; Schedl 1951i: 50, 1957d: 13, 1964m: 307, 1970i: 224, 1971f: 155; Strohmeyer 1911b: 22–23.
- dipterocarpi** Hopkins 1915b: 49 (*Ozopemon*). Holotype ♀; Pagbilao, Philippine Islands; USNM, Washington. Synonymy: Schedl 1964m: 307.
References: (ds) Kleine 1934a: 157; Schedl 1966b: 40. (tx) Hopkins 1915b: 49; Nobuchi 1983: 301; Schedl 1964m: 307.
- diversicolor** Eggers 1923: 160 (*Ozopemon*). Syntypes 2, sex?; Sinabang auf Insel Simalur, sudlich von Sumatra; RNH, Leiden, and Eggers Collection, presumably in USNM, Washington. Synonymy: Eggers 1927b: 391.
References: (ds) Schedl 1938g: 426. (tx) Eggers 1923: 160, 1927b: 391; Schedl 1957d: 13.
- loebli** Schedl 1972j: 227 (*Pocillips*). Holotype, sex?; Ceylon, Central: Hatton, 1400 m, Montagne boisee a l'est de la ville; MHNC, Geneve. Synonymy: Wood examined NHMW, Wien, paratypes to establish synonymy (Wood 1983 notes).
References: (tx) Schedl 1972j: 227, 1979c: 140.
- orbis** Browne 1966: 249 (*Xyleborus*). Holotype ♀; Philippines: Tawi Tawi, Taravakan; UZMC, Copenhagen. Synonymy: Schedl 1970i: 224.
References: (tx) Browne 1966: 249; Nobuchi 1983: 303; Schedl 1970i: 224.
- malaccensis (Schedl)** 1942a: 180 (*Dryocoetes*). Holotype ♀; Singapur; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 85; Murayama 1957c: 608. (tx) Murayama 1957c: 608; Schedl 1942a: 180, 1964m: 308, 1979c: 146.
- nitidus (Schedl)** 1942a: 179 (*Dryocoetes*). Syntypes, sex?; Java, Anim Sand; Kalshoven Collection and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Java, Sumatra), New Guinea.
Hosts: *Coffea* sp., *Shorea acuminata*.
Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*), 1979: 170 (citation of holotype invalid).
References: (ds) Browne 1961c: 85; Murayama 1957c: 607; Schedl 1961c: 70. (tx) Murayama 1957c: 607; Schedl 1942a: 179, 1955b: 294, 1961c: 70, 1964m: 308, 1979c: 169.
- petioli Beaver** 1990a: 281. Holotype ♀; Doi Sutep, Chiang Mai, Thailand, 1300 m; BMNH, London.
Figures: Beaver 1990a: 282 (adult outline).
Distribution: Asia (Thailand).
Hosts: *Manglietia garelli* leafstalks.
References: (tx) Beaver 1990a: 281.
- schultzei (Schedl)** 1961f: 88 (*Dryocoetes*). Holotype ♀; Luzon, Isabela, San Mariano; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*).
References: (ds) Schedl 1966b: 41. (tx) Nobuchi 1983: 301; Schedl 1961f: 88, 1964m: 308, 1979c: 222.
- semigranulatus (Schedl)** 1936d: 10 (*Dryocoetes*). Syntypes, sex?; Java: West Preanger; Kalshoven Collection and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (ds) Murayama 1957c: 608. (tx) Murayama 1957c: 608; Schedl 1931c: 340, 1936d: 10, 1953c: 296, 1964m: 308, 1979c: 224.
- tonkinensis (Schedl)** 1942a: 179 (*Dryocoetes*). Holotype, sex?; Tonkin, Montes Mason, 2000 bis 3000 füss; Schedl Collection in NHMW, Wien.
Distribution: Asia (Tonkin Island in Vietnam).
Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*).
References: (ds) Murayama 1957c: 608. (tx) Murayama 1957c: 608; Schedl 1942a: 179, 1954c: 154, 1964m: 308, 1979c: 254.

Genus *Ozopemon* Hagedorn

- OZOPEMON HAGEDORN** 1908: 382. Type-species: *Ozopemon regius* Hagedorn, monobasic.
References: (ay) Nobuchi 1969a: 60. (hb) Wood, S. L. 1986a: 75. (ds) Schedl 1966b: 40; Wood, S. L. 1986a: 75. (tx) Browne 1961: 87; Hagedorn 1908: 382, 1910b: 1; Hopkins 1915b: 9, 48; Wood, S. L. 1986a: 75.

- aplanatus** Schedl 1942a: 177. Lectotype ♀; Malaya, Selangor, Bukit-Kutu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 23. Distribution: Asia (Malaya). References: (ds) Browne 1961c: 89; Schedl 1966b: 301. (tx) Nobuchi 1983: 301; Schedl 1942a: 177, 1979c: 23.
- ater** Eggers 1933a: 101. Holotype ♀; China: Szechuan, Mukue, Tatsienlu; USNM, Washington. Distribution: Asia (Sichuan in China). References: (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1933a: 101; Michalski 1969b: 570; Schedl 1979c: 29–30.
- augustae** Eggers 1923a: 159. Syntypes ♀; Deutsch Neu Guinea, Kaiserin Augusteflussgebiet; MNB, Berlin and Eggers Collection, 1 Eggers syntype in NHMW, Wien. Distribution: Indonesia (Borneo, Java), Bismarck Islands, Fiji, New Britain, New Guinea. References: (ds) Browne 1966: 246, 1980a: 371, 1983a: 555, 1989a: 2; Ohno, Yoshioka, et al. 1988a: 92, 1989: 371; Schedl 1962i: 72, 1964c: 305, 1965g: 23, 1969e: 156. (tx) Eggers 1923: 159; Schedl 1940b: 434, 1942d: 4, 1955b: 280, 1979c: 31.
- borneensis** Eggers 1923a: 154. Syntypes ♀; Sarawak (Borneo) and Siantar (Ostkuste Sumatra); MCG, Genova, and Eggers Collection, in NHMW, Wien. Distribution: Indonesia (Borneo, Sumatra). References: (tx) Eggers 1923a: 154; Schedl 1979c: 44.
- brevis** Eggers 1923a: 155. Lectotype ♀; Sipora auf der Insel Mentawai; USNM, Washington, designated by Anderson & Anderson 1971: 8. Distribution: Indonesia (Mentawai). References: (hb) Kalshoven 1958b: 175. (tx) Anderson, W. H., & Anderson 1971: 8; Eggers 1923a: 155; Schedl 1979c: 47.
- brownei** Schedl 1953c: 297. Lectotype ♀; Malaya, Selangor, Pahang, the Gap, 2800 ft; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 48. Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: *Artocarpus elasticus*, *Campnosperma* sp., *Parartocarpus* sp. References: (hb) Browne 1959b: 295, 1961c: 87–88; Hamilton 1979: 191. (ds) Browne 1961c: 87, 1980c: 483, 1985a: 190; Ohno et al. 1987: 483; Schedl 1969a: 204. (tx) Browne 1959b: 295; Nobuchi 1983: 301; Schedl 1953c: 297, 1979c: 48.
- fuscicollis** Hagedorn 1910b: 3. Syntypes 2 ♀; Java; Hamburg Museum, lost. Distribution: Indonesia (Java, Mentawai, Sumatra). Notes: (3) Eggers 1923a: 160 (re-described). References: (ds) Browne 1980c: 483; Hagedorn 1910d: 67; Kleine 1913b: 138, 1914b: 286, 288. (tx) Eggers 1923a: 160, 1927c: 57, 1939b: 5; Hagedorn 1910a: 98, 1910b: 3; Strohmeier 1911b: 24.
- giganteus** Schedl 1934c: 38. Holotype ♀; Deutsch-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1934c: 38, 1955b: 250, 1979c: 104.
- granulatus** Schedl 1936g: 526. Lectotype ♀; New Guinea: Finsch Haven; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 110. Distribution: New Guinea. References: (ds) Schedl 1936g: 526. (tx) Schedl 1936g: 526, 1942a: 177, 1979c: 110.
- gravidus** (Blandford) 1896b: 206 (*Dryocoetes*). Syntypes 2 ♀; Borneo, Sarawak; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). Notes: (1) Hagedorn 1910d: 69 (to *Ozopemon*). References: (ds) Hagedorn 1910d: 69; Kleine 1913b: 138, 1914b: 289. (tx) Blandford 1896b: 206; Hagedorn 1910a: 98, 1910b; Lucas 1920: 472; Strohmeier 1911b: 24. (ms) Lucas 1920: 472.
- grossepunctatus** Eggers 1923a: 155. Holotype ♀; Kina Bali, Borneo; USNM, Washington. Distribution: Asia (Malaya), Indonesia (Borneo), New Guinea. References: (ds) Browne 1961c: 89. (tx) Anderson, W. H. & Anderson 1971: 14; Browne 1961: 89; Eggers 1923a: 155; Schedl 1939e: 329, 1940b: 435.
- latus** Eggers 1923a: 156. Syntypes ♀; Suban Ajam und Afr. Njuruk Dempu (Sumatra), Solok, Java; 1 in RNH, Leiden, 1 in SMTD, Dresden, 2 in Eggers Collection, 1 of these Eggers syntypes in NHMW, Wien. Distribution: Indonesia (Borneo, Celebes, Java, Sumatra). References: (ds) Browne 1965a: 188; Schedl 1961c: 69, 1966b: 40, 1971f: 147. (tx) Eggers 1923a: 153, 156, 1927b: 390; Nobuchi 1983: 301; Schedl 1979c: 137.
- major** Strohmeier 1911b: 23. Holotype ♀; Luzon, Bataan, Limay, Philippine Islands; Philippine Bureau of Science Collection, Manila. Distribution: Philippine Islands (Luzon). References: (ds) Kleine 1913b: 138, 1914b: 290; Schedl 1966b: 40. (tx) Nobuchi 1983: 301; Strohmeier 1911b: 23–24.
- obanus** Hagedorn 1910b: 3. Syntypes (?) ♀; Mentawai, Si-Oban; Comliura specimina in MNB, Berlin. Distribution: Asia (Assam, Nicobar Islands in India/ Malaya), Indonesia (Batoe Island, Borneo, Java, Mentawai, Sumatra), New Guinea, Philippine Islands. Hosts: *Artocarpus elasticus*, *A. lakocha*, *Vatica* sp. Notes: (3) Eggers 1923a: 153 (re-described). References: (hb) Kalshoven 1958b: 175. (ds) Beaver & Browne 1978: 591; Browne 1961c: 89, 1966: 246, 1980c: 483, 1984b: 257; Hagedorn 1910d: 67; Kleine 1913b: 138, 1914b: 286; Ohno et al. 1988a: 92, 1989: 60; Schedl 1961c: 70, 1964g:

- 241, 1965g: 23, 1971c: 368, 1971f: 147. (tx) Eggers 1923a: 153–154; Hagedorn 1910a: 98, 1910b: 3; Nobuchi 1983: 301; Schedl 1958b: 100, 1958k: 154, 1979c: 174; Strohmeyer 1911b: 24.
- cylindricus* Eggers 1923a: 156. Lectotype ♀; Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 11. Synonymy: Schedl 1958k: 154.
References: (ds) Beeson 1961: 290; Kleine 1934a: 157; Schedl 1961c: 70, 1971f: 147. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1923: 156; Schedl 1937c: 543, 1940b: 435, 1942d: 4, 1951i: 41, 1958k: 154, 1961c: 70.
- papuanus* Eggers 1923a: 157. Lectotype ♀; Paunomfluss in Sudost-New Guinea; USNM, Washington, designated by Anderson & Anderson 1971: 23.
Distribution: New Guinea.
References: (ds) Eggers 1926a; Schedl 1936g: 526. (tx) Anderson, W. H. & Anderson 1971: 23; Eggers 1923a: 157, 1926a: 300, 1927b: 390; Schedl 1936g: 526, 1940b: 435, 1955b: 280, 1979c: 184.
- parinari* Hopkins 1915b: 48. Holotype ♀; Calapan, Philippine Islands; USNM, Washington.
Distribution: Philippine Islands.
Hosts: *Parinarium* sp.
References: (ds) Kleine 1934a: 157; Schedl 1966b: 41. (tx) Hopkins 1915b: 48; Nobuchi 1983: 301.
- perfacilis* Eggers 1939b: 8. Holotype ♀; Tenasserim (Malvedaung, 30 km sudlich Ye); NHR, Stockholm.
Distribution: Asia (Burma).
References: (tx) Eggers 1939b: 8.
- regius* Hagedorn 1908: 382. Syntypes 2 ♀; Sumatra; Hamburg Museum, lost.
Distribution: Asia (Malaya/ Thailand), Indonesia (Batoe, Borneo, Celebes, Mentawai, Sumatra).
Hosts: *Artocarpus elastica*, *Palaquium gutta*.
References: (ds) Beaver & Browne 1975: 292; Browne 1961c: 88–89, 1980d: 491; Hagedorn 1910d: 67; Kleine 1913b: 138, 1914b: 286; Schedl 1961c: 69, 1965g: 23. (tx) Eggers 1923a: 152–153, 1927b: 390; Hagedorn 1908: 382, 1910a: 98, 1910b; Hopkins 1914: 126; Schedl 1961c: 69, 1965g: 23; Strohmeyer 1911b: 24.
- rugatus* (Blandford) 1896b: 204 (*Dryocoetes*). Holotype ♀; Borneo, Sarawak; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Koompassia malaccensis*.
Notes: (1) Hagedorn 1910a: 69 (to *Ozopemon*).
References: (cn) Mathur & Singh 1960b: 84. (hb) Browne 1938a. (ds) Beeson 1961: 290; Browne 1938a; Hagedorn 1910d: 69; Kleine 1913b: 138, 1914b: 289; Mathur & Singh 1960b: 84. (tx) Blandford 1896b: 204; Hagedorn 1910a: 98, 1910b; Strohmeyer 1911b: 24.
- similis* Eggers 1927c: 87. Lectotype ♀; Borneo, Sandakan; USNM, Washington, designated by Anderson & Anderson 1971: 30.
Distribution: Indonesia (Borneo, Mentawai, Sabah).
Hosts: *Shorea* sp.
Notes: (1) Schedl 1979c: 229 (Designated an invalid lectotype).
References: (ds) Browne 1984b: 287; Ohno, Yoneyama, & Narazawa 1987: 93; Schedl 1961c: 70, 1964c: 304, 1964g: 241, 1969a: 206, 1971f: 147. (tx) Anderson, W. H. & Anderson 1971: 30; Eggers 1927c: 87; Schedl 1939e: 329, 1954c: 154, 1958h: 498, 1961c: 70, 1964g: 241, 1979c: 229.
- sumatranus* (Blandford) 1896b: 205 (*Dryocoetes*). Holotype ♀; Sumatra, Singalang Mts.; BMNH, London.
Distribution: Indonesia (Sumatra).
Notes: (1) Hagedorn 1910d: 69 (to *Ozopemon*).
References: (ds) Hagedorn 1910d: 69; Kleine 1913b: 138, 1914b: 286; Schedl 1961c: 70. (tx) Blandford 1896b: 205; Eggers 1923a: 153; Hagedorn 1910a: 98, 1910b; Schedl 1942d: 4, 1961c: 70; Strohmeyer 1911b: 24.
- theklae* Hagedorn 1910b: 2. Syntypes ♀; Sumatra, Mount Singalang; MNB, Berlin, 1 in Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
Notes: (1) Schedl 1979c: 252 (citation of holotype invalid). (3) Eggers 1923a: 158 (redescribed the species and named an aberration as a var. of *sirambeanus*, no status).
References: (ds) Hagedorn 1910d: 67; Kleine 1913b: 138, 1914b: 286; Schedl 1971f: 147. (tx) Eggers 1923a: 158–160; Hagedorn 1910a: 98, 1910b: 2; Schedl 1979c: 252; Strohmeyer 1911b: 24.
- singalanicus* Eggers 1923a: 153. Syntypes ♀; Sumatra, Mounts Singalang; MNB, Berlin, 1 in Schedl Collection in NHMW, Wien. Synonymy: Schedl 1979c: 252.
Notes: (3) Eggers 1923a: 153 (possible var. of *sumatranus*).
References: (ds) Kleine 1914b: 286. (tx) Eggers 1923a: 153; Schedl 1971f: 147, 1979c: 252.
- tuberculatus* Strohmeyer 1912d: 38. Syntypes 2 ♀; Formosa; Strohmeyer Collection.
Distribution: Asia (Malaya/ Taiwan).
References: (ds) Kleine 1913b: 138, 1914b: 281; Miwa 1931: 269; Nobuchi 1967: 20. (tx) Strohmeyer 1912d: 38.
- uniseriatus* Eggers 1923a: 158. Syntypes 3 ♀; Moroka, Sudost-New Guinea; 1 syntype in MCG, Genova, 1 in MNB, Berlin, 1 in Eggers Collection, in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Eggers 1923a: 158–159, 1927b: 390; Schedl 1979c: 261.

Genus *Coccotrypes* Eichhoff

COCCOTRYPES EICHHOFF 1878b: 308. Type-species: *Bostrichus dactyliperla* Fabricius, subsequent designation by Hopkins 1914: 118.

Poecilips Schaufuss 1897: 110. Type-species: *Poecilips saunio* Schaufuss, monobasic. Synonymy: Wood 1973c: 171.

References: (hb) Browne 1961: 91–92; Chesquiere 1933a: 26, 1933b: 775; Schedl 1958d: 114, 189. (ds) Blackwelder 1947: 778; Brimblecombe 1953: 23; Hagedorn 1910d: 77; Kalshoven 1960: 176, 1968: 176. (tx) Arnett 1960: 1044, 1968: 1044; Beeson 1938b: 290, 1939: 279–280, 285–300, 302–307, 1941: 364, 369, 389; Browne 1938a: 24, 1959b: 293–294, 1966: 233–257, 1973b: 679–696; Chamberlin 1939: 317–320; Eggers 1923: 129, 1927a: 185, 1927b: 390, 1940b: 99–108; Hagedorn 1908: 375, 1909: 744, 1910a: 110–112; Hopkins 1914: 135, 1915c: 226; Lepesme 1947: 643; Murayama 1954: 200, 1957: 589–592; Roepke 1919: 23–24; Schaufuss 1897: 110; Schedl 1934f: 1634, 1938d: 456, 1938e: 9–10, 1952k: 160, 1957d: 1–162, 1959a: 488, 1960b: 163, 1960f: 12, 24, 1961j: 349, 1961k: 715, 1962m: 63, 1962n: 697–699, 1962p: 205, 1968e: 261–270, 1977b: 95; Wood, S. L. 1960a: 14, 47, 1961a: 46, 1973c: 171.

Cryphaloides Formanek 1908: 91. Type-species: *Cryphaloides donisthorpei* Formanek = *Bostrichus carpophagus* Hornung, monobasic. Synonymy: Schedl 1962r: 95.

References: (tx) Balachowsky 1949a: 200; Formanek 1908: 91; Hopkins 1915b: 8; Nunberg 1956: 141; Reitter 1913a: 65; Schedl 1962r: 95.

Thamurgides Hopkins 1915b: 45. Type-species: *Thamurgides persicae* Hopkins = *Coccotrypes advena* Blandford, original designation. Synonymy: Schedl 1938e: 9.

References: (ay) Nobuchi 1969a: 62. (ds) Schedl 1966b: 33. (tx) Beeson 1938b: 290, 1939: 279–308; Eggers 1923a: 129–220, 1927b: 390; Hopkins 1915b: 45; Kalshoven 1935: 146–154; Schedl 1938e: 10, 1961k: 715; Wood, S. L. 1960a: 47.

Spermatoplex Hopkins 1915b: 48. Type-species: *Spermatoplex rhizophorae* Hopkins, original designation. Synonymy: Schedl 1952k: 160.

References: (tx) Barber 1919: 53–60; Hopkins 1915b: 9, 48; Schedl 1952k: 160, 1961k: 715.

Dendrugus Eggers 1923a: 144. Type-species: *Dendrugus rhizophorae* Eggers, subsequent designation by Wood 1982b: 731. Synonymy: Eggers 1927b: 390.

References: (tx) Eggers 1923a: 144, 1927b: 390; 1938e: 9; Schedl 1961k: 715; Wood, S. L. 1960a: 47.

Keys: Wood 1982b: 732 for North and Central America.

Notes: (3) Hagedorn 1913: 254 (*Hyphaene guineensis*, nomen nudum, no status, synonymy). Schedl 1953c: 290, Browne 1961c: 93 (*Poecilips granulicauda* Schedl, nomen nudum, from Malaya, Hunan in China, no status).

References: (cn) Green 1916: 608–636; Lever 1943: 14–18; Light 1928: 25–34; Swaine 1908: 82, 90. (hb) Browne 1938a: 24, 1961c: 89–91; Chesquiere 1933a: 29, 1933b: 775, 778; Schedl 1958d: 184; Wood, S. L. 1986a: 75. (ds) Brimblecombe 1953: 14; Hagedorn 1910d: 68; Lepesme 1947: 633–642; Reitter 1906: 713; Schedl 1934f: 1643; Scheerpeltz & Winkler 1930: 257; Schilsky 1888: 122; Seidlitz 1891a: 567, 1891b: 631; Westhoff 1881: 240; Wichmann 1954: 515; Wood, S. L. 1986a: 75. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1949a: 177; Beeson 1938b: 287, 1939: 279–285, 301–302, 1941: 363–364, 371, 894–895, 924; Blandford 1894b: 261, 1894d: 98, 1898b: 189, 192; Bright 1972: 66; Chamberlin 1939: 317–319, 1958: 12; Eggers 1927e: 40–41, 1940a: 123–141, 1940b: 99–108; Eichhoff 1878b: 36, 57–58, 308, 1881a: 52, 74, 267, 1883: 108, 115; Enderlein 1929: 147; Fonseca 1930: 87; Gardner 1934: 4, 14; Hagedorn 1910a: 88, 93–94, 1913a: 3, 1913b: 253; Hopkins 1914: 118, 133, 1915b: 9, 45–46, 1915c: 195, 226; LeConte & Horn 1883: 518; Lengerken 1939: 64; Lovendal 1889: 25–26, 72; Murayama 1957: 589–590, 609–614; Nusslin 1911: 111, 145; Pfeffer 1989a: 58; Reitter 1894: 68, 89, 1913a: 75, 78–79; Sampson 1914: 389; Schedl 1938e: 1, 9–10, 1943d: 68, 1948i: 113–120, 1959a: 469–534, 1960f: 10–12, 1961k: 681, 1962k: 595–1352, 1962p: 205, 1962r: 95, 1977b: 80; Stebbing 1914: 545; Strohmeyer 1911: 21; Wood, S. L. 1961a: 46, 1973c: 171, 1986a: 75; Yin, Huang, & Li 1984: 151.

abruptulus (Schedl) 1975i: 347 (*Poecilips*). Holotype ♀; New Guinea, N.E., Kiunga; NHMB, Budapest.

Distribution: New Guinea.

References: (tx) Schedl 1975i: 347.

abruptus (Schedl) 1979g: 99 (*Poecilips*). Holotype ♀; Papua New Guinea, S. E., Kiunga; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 99.

aciculatus Schedl 1952d: 360. Holotype ♀; Hamburgfarm on Rio Reventazon, Limon, Costa Rica; Schedl Collection in NHMW, Wien.

Distribution: New Guinea, North America (Costa Rica/Panama), South America (Brazil).

References: (ds) Murayama 1957c: 611; Nunberg 1972b: 190; Schedl 1960a: 76; Wood, S. L. 1977a: 69, 1982b: 736. (tx) Murayama 1957c: 611; Schedl 1950i: 148, 1952d: 360, 1955b: 280, 1960a: 76, 1979c: 10; Wood, S. L. 1982b: 736.

advena Blandford 1894d: 100. Holotype ♀; Nagasaki, Japan; BMNH, London.

Figures: Brown 1973b: 690.

Distribution: Antilles Islands (Cuba), Asia (Assam, Bengal, Karnataka, Uttar Pradesh in India/ Japan/ Malaya/ Sri Lanka/ Vietnam), Australia (Queensland), Fiji, Indonesia (Borneo, Java, Sumatra), Hawaii, Micronesia, New Guinea, Niue Island, North America (S Florida in USA), Philippine Islands, Samoan Islands, South America (Suriname). Hosts: *Albizzia* sp., *Artocarpus lanceifolius*, *A. rigidus*, *A. scortechini*, *Campnosperma auriculata*, *Dillenia retusa*, *Diospyros* sp., *Eugenia formosana*, *E. similis* seeds, *Ficus bracteata*, *F. xylophylla*, *Macaranga gigantea*, *Nephelium lichi*, *Pterocarpus indicus*, *Theobroma cacao*, *Vateria indica*.

Notes: (1) Schedl 1979c: 125 (*Pocillips nigricollis* Eggers, nomen nudum, *P. pernitus* Eggers, nomen nudum, no status, synonymy).

References: (cn) Souphieff & Scherbinovskaja 1937: 88. (cc) Beaver 1979b: 298. (hb) Beaver 1979b: 298; Beaver & Browne 1978: 593; Wood, S. L. 1982b: 733. (ds) Beaver 1976b: 537; Beaver & Browne 1978: 593; Blandford 1894c; Bright 1985c: 172; Browne 1973b: 689, 1974a: 64, 1980a: 372, 1980c: 485, 1980d: 492; Hagedorn 1910d: 68; Kleine 1913b: 137, 1914b: 258; Murayama 1954b: 202, 1957c: 588, 626; Nonveiller 1984: 41; Ohno, Yoneyama, & Nakazawa 1987: 93; Schedl 1959a: 490, 1971a: 276, 1972b: 266, 1972e: 281, 1973c: 377, 1975e: 447, 1975h: 352, 1975i: 346, 1975j: 293, 1978c: 293, 1979b: 415, 1979f: 103; Souphieff & Scherbinovskaja 1937: 88; Wood, S. L. 1977a: 69, 1982b: 733. (tx) Blandford 1894d: 100; Bright 1985c: 172; Browne 1970: 566, 1973b: 684, 690; Eggers 1929b: 112; Hagedorn 1910a: 94; Murayama 1954b: 202, 1957c: 588, 626; Nobuchi 1983: 301; Schedl 1934f: 1643, 1938e: 10, 1942d: 3, 1945i: 113, 1955b: 292, 1959a: 490, 1963h: 267; Wood, S. L. 1973c: 174, 1982b: 733.

persicae Hopkins 1915b: 45 (*Thamnurgides*).

Holotype ♀; Honolulu, Hawaii; USNM, Washington. Synonymy: Wood 1973c: 174.

References: (cn) Mumford 1961: 31. (hb) Kalshoven 1963; Roepke 1919b: 23. (ds) Beeson 1938b: 290; Kalshoven 1963; Kleine 1934a: 164; Mumford 1961: 31; Murayama 1957c: 630–631; Nobuchi & Ono 1973: 181; Swezey 1941: 120, 1954: 162. (tx) Beeson 1929: 228, 1938b: 290; Hopkins 1915b: 45; Murayama 1957c: 630–631; Roepke 1919b: 23; Schedl 1936g: 526, 1938e: 10, 1941f: 112, 1954a: 147, 1961k: 729, 1964m: 217; Wood, S. L. 1960a: 47, 49, 1973c: 174.

philippinensis Eggers 1923a: 145 (*Dendurgus*). Lectotype ♀; Mt. Makiling, Insel Luzon, Philippinen; USNM, Washington, designated by Anderson & Anderson 1971: 24. Synonymy: Wood 1989: 170.

References: (cn) Souphieff & Scherbinov-

skaya 1937: 89; Wylie & Shanahan 1975. (hb) Wylie & Shanahan 1975. (ds) Brimblecombe 1953: 26; Murayama 1957c: 630; Nunberg 1964a: 235; Schedl 1936g: 526, 1966b: 37; Souphieff & Scherbinovskaya 1937: 89. (tx) Anderson, W. H. & Anderson 1971: 24; Beeson 1929: 229; Eggers 1923a: 145, 148, 1927b: 390, 397–398, 1934a: 79; Murayama 1957c: 630; Nobuchi 1983: 301; Schedl 1933e: 104, 1938e: 10, 1940b: 434, 1962n: 698, 1979c: 192; Wood, S. L. 1966b: 28, 1989: 170.

ternatensis Eggers 1923a: 146 (*Dendurgus*). Synonymy ♀; Insel Ternate; MCG, Genova, and in Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 170.

Notes: (1) Schedl 1979c: 252 (citation of holotype invalid).

References: (cc) Beaver 1979b: 298. (hb) Beaver 1979b: 298. (ds) Beaver & Browne 1978: 593; Murayama 1957c: 630–631. (tx) Beeson 1929: 230, 1939: 237; Eggers 1923a: 145–146, 1927b: 406, 1927c: 80; Murayama 1957c: 630–631; Schedl 1979c: 252; Wood, S. L. 1989: 170.

minor Eggers 1923a: 150 (*Dendurgus*). Lectotype ♀; Buitenzorg auf Java, Botanischer Garten; USNM, Washington, designated by Anderson & Anderson 1971: 21. Synonymy: Wood 1989: 170.

References: (ds) Murayama 1957c: 630; Schedl 1967c: 73. (tx) Anderson, W. H. & Anderson 1971: 20; Beeson 1939: 228; Eggers 1923a: 150; Murayama 1957c: 630; Schedl 1938e: 10, 1955b: 292, 1979c: 154; Wood, S. L. 1989: 170.

setosus Beeson 1929: 228 (*Thamnurgides*). Holotype ♀; Samoa: Tutuila, Fagasa; BMNH, London. Synonymy: Schedl 1961k: 728.

References: (ds) Beeson 1938b: 291; Murayama 1957c: 630. (tx) Beeson 1929: 228, 1938b: 291, 1939: 285, 298; Murayama 1957c: 630; Schedl 1951k: 135, 1961k: 728, 1963h: 267.

tutuilensis Beeson 1929: 229 (*Thamnurgides*). Holotype ♀; Samoa: Tutuila, Fagasa; BMNH, London. Synonymy: Wood 1989: 170.

Notes:

References: (ds) Beaver 1987b: 9; Beaver & Maddison 1990: 371; Beeson 1938b: 291; Browne 1973: 684; Murayama 1957c: 631. (tx) Beeson 1929: 229–230, 1938b: 291; Murayama 1957c: 631; Schedl 1951k: 135; Wood, S. L. 1989: 170.

philippinensis Schedl 1933e: 104. Holotype ♀; Mount Maquiling, Laguna, Luzon; not given. Synonymy: Schedl 1966c: 37.

References: (tx) Nunberg 1964: 235; Schedl 1933e: 104–105, 1966c: 37.

cubanus Eggers 1934a: 79 (*Thamnurgides*). Holotype ♀; Cuyajabás, Sierra Rosario, Cuba; USNM, Washington. Synonymy: Wood 1960a: 48.

References: (ds) Blackwelder 1947: 778. (tx)

- Anderson, W. H. & Anderson 1971: 10; Eggers 1934a: 79; Schedl 1961k: 728, 1963f: 55, 1979c: 71; Wood, S. L. 1960a: 49.
- miciferus* Schedl 1935e: 10 (*Pocilips*). Lectotype ♀; Paramaribo, Surinam; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 172. Synonymy: Schedl 1961k: 738.
References: (cn) Dinther 1961. (ds) Blackwelder 1947: 778; Diakonoff 1938: 12–14. (tx) Schedl 1935e: 10–12, 1961k: 728, 1979c: 172.
- vicarius* Beeson 1939: 285 (*Thammurgides*). Holotype ♀; Samsing, Kalimpong, Bengal, India; FRI, Dehra Dun. Synonymy: Schedl 1961k: 728. References: (cn) Mathur, Singh, & Lal 1958: 45; Mathur et al. 1958: 104. (ds) Beeson 1961: 301; Mathur, Singh, & Lal 1958: 45; Mathur et al. 1958: 104; Murayama 1957c: 630. (tx) Beeson 1939: 285, 307; Murayama 1957c: 630; Schedl 1961k: 728, 1963l: 267.
- niger* Schedl 1939e: 345 (*Pocilips*). Syntypes ♀; Malaya, Selangor: Kuala Lumpur, Kepong, Sungei Buloh For. Res., Perak: Trolak For. Res.; BMNH, London and Schedl Collection in NHMW, Wien, preoccupied by Eggers 1927. Synonymy: Wood 1960a: 48.
References: (cn) Yunus & Hua 1980: 229. (ds) Yunus & Hua 1980: 229. (tx) Browne 1949b: 897, 1970: 566; Schedl 1939e: 345–346, 1942a: 170, 1953c: 289; Wood, S. L. 1960a: 48.
- subnitidus* Schedl 1954a: 147 (*Pocilips*). Holotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1961k: 728.
References: (tx) Schedl 1954a: 139, 147, 1961k: 730, 1963h: 267, 1979c: 243.
- alternatus* (Eggers) 1927b: 398 (*Thammurgides*). Holotype ♀; Sumatra; USNM, Washington.
Distribution: Indonesia (Sumatra).
References: (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1927b: 398.
- asper* (Schedl) 1961j: 351 (*Pocilips*). Holotype ♀; Ghana, nr. Kumasi, Bobiri Forest Reserve; BMNH, London.
Distribution: Africa (Sao Thome Island/ Ghana).
References: (ds) Browne 1970: 541, 1973b: 690. (tx) Browne 1973b: 690; Schedl 1961j: 351, 1961k: 717, 1979c: 28.
- aspericollis* (Beeson) 1939: 295 (*Thammurgides*). Holotype ♀; Assam: Naga Hills, 3000 feet; FRI, Dehra Dun.
Distribution: Asia (Tonkin Island in Vietnam/ Assam in India).
References: (tx) Beeson 1939: 295.
- babai* (Murayama) 1961: 29 (*Thammurgus*). Holotype ♀; Mt. Kinpoku, Sado Isl., Japan; USNM, Washington.
Distribution: Asia (Japan).
References: (tx) Murayama 1961: 29; Schedl 1963j: 480.
- barbatus* (Schedl) 1934d: 90 (*Thammurgides*). Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34.
Distribution: Asia (Burma/ Assam in India/ Malaya). Indonesia (Java, Sumatra).
Hosts: *Bambusa tulda*, *Carapa obovata*, *Dipterocarpus pilosus*, *Livistona cochinchinensis*, *Mitrostemon* sp., *Myristica* sp.
References: (cn) Box 1953a. (hb) Kalshoven 1958b: 175. (ds) Kalshoven 1935a: 14. (tx) Schedl 1934d: 90, 1935e: 10, 1979c: 34.
- ater* Eggers 1936e: 84 (*Thammurgides*). Holotype ♀; Sumatra (Brastagi); Strohmeier Collection, Eberswalde. Synonymy: Wood 1989: 170.
References: (cn) Mathur, Singh, & Lal 1958: 21; Yunus & Hua 1980: 229. (hb) Browne 1938a. (ds) Beaver & Browne 1978: 593; Beeson 1961: 299; Browne 1938a; Mathur, Singh, & Lal 1958: 21; Schedl 1936d: 2, 1936j: 19, 1975j: 293; Yunus & Hua 1980: 229. (tx) Beeson 1939: 289; Browne 1970: 568; Eggers 1936e: 84, 1939d: 224; Schedl 1934d: 90–91, 1936d: 1, 1936j: 19, 1938e: 10, 1942d: 4, 1953c: 298, 1953e: 26, 1979c: 30.
- dipteroearpi* Beeson 1939: 288 (*Thammurgides*). Syntypes ♀; Assam: Lakhimpur division, Diling reserve; FRI, Dehra Dun. Synonymy: Wood 1989: 170.
References: (cn) Mathur, Singh, & Lal 1958: 40; Mathur et al. 1958: 104. (ds) Beeson 1961: 300; Kleine 1934a: 157; Mathur, Singh, & Lal 1958: 40; Mathur et al. 1958: 104. (tx) Beeson 1939: 288; Eggers 1936e: 86–87; Wood, S. L. 1989: 170.
- bambusae* Beeson 1939: 289 (*Thammurgides*). Syntypes ♀; Burma: Pynmana division, Yanaungmyin reserve; FRI, Dehra Dun. Synonymy: Wood 1989: 170.
References: (ds) Beeson 1939: 289, 1961: 299; Bhasin, Roonwal, & Singh 1958. (tx) Beeson 1939: 289; Wood, S. L. 1989: 170.
- bicolor* Sampson 1914: 390. Syntypes 2 ♀; Seychelles Isl., Mahe: slopes of Morne Seychellois, 1500–2000 ft.; BMNH, London.
Distribution: Africa (Seychelles Islands).
References: (ds) Beaver 1987a: 13; Sampson 1914: 389; Schedl 1969d: 11. (tx) Beaver 1987a: 13; Browne 1970: 567; Sampson 1914: 389–390.
- birmanus* Eggers 1939b: 8. Holotype ♀; Birma (Washaung, 20 km ostlich Myitkyina); NHR, Stockholm.
Distribution: Asia (Burma).
References: (tx) Eggers 1939b: 8–9.
- borneensis* (Eggers) 1923a: 146 (*Dendurgus*). Holotype ♀; Sarawak (Borneo); MCG, Genova.
Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Eggers 1923a: 146.

- brunneus (Nunberg)** 1961b: 616 (*Poecilips*). Holotype ♀; Malay Peninsula, Kelantan Ulu Lebiri; BMNH, London.
 Figures: Nunberg 1961b: 628.
 Distribution: Asia (Malaya).
 Hosts: *Balanocarpus heimii*.
 References: (tx) Nunberg 1961b: 616, 628, 1973: 23; Schedl 1962n: 698.
- brunnipes Wood** 1989: 178. Holotype ♀; Congo Belge: P.N.A., Mont Hoyo, grotte Yolohafiri, 1030 m; MRCB, Tervuren, automatic.
 Distribution: Africa (Zaire).
 References: (tx) Wood, S. L. 1989: 178.
- brunneus Nunberg** 1973: 23. Holotype ♀; Congo Belge: P.N.A., Mont Hoyo, grotto Yolohafiri, 1030 m; MRCB, Tervuren, preoccupied by Nunberg 1961.
 References: (tx) Nunberg 1973: 23; Wood, S. L. 1989: 178.
- camptospermae (Browne)** in Beaver & Browne 1978: 593 (*Poecilips*). Holotype ♀; Malaysia: Penang, Muka Head; BMNH, London.
 Figures: Beaver & Browne 1978: 576.
 Distribution: Asia (Malaya).
 Hosts: *Camptosperma auriculata*.
 References: (ec) Beaver 1979b: 298. (hb) Beaver 1979b: 298. (tx) Beaver & Browne 1978: 576, 593; Browne 1979: 593.
- cardamomi Schaufuss** 1905: 1. Holotype ♀; Ceylon (de Warendorf); Hamburg Museum, lost.
 Distribution: Asia (Burma/ "China"/ Karnataka, Kerala in India/ Japan/ Malaya/ Nepal/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Borneo, Sumatra).
 Hosts: *Canarium strichum*, *Cullenia excelsa*, *Elaeocarpus tuberculatus*, *Ellettaria cardamomum*, *E. major*, *Hardwickia pinnata*, *Pteridium aquilinum*, *Vateria indica*.
 References: (ay) Gray, B. 1972b; Herfs 1949. (cn) Herfs 1949; Kleine 1932a: 302; Mathur & Singh 1960a: 39, 1960b: 36; Mathur, Singh, & Lal 1958: 20; Mathur et al. 1958: 104; Nobuchi 1981a; Souphieff & Scherbinovskaja 1937: 88. (hb) Beaver 1987a: 13; Gray, B. 1972b; Herfs 1949; Kleine 1932a: 302. (ds) Beaver 1987a: 13; Beaver & Browne 1978: 594; Beeson 1939: 291, 302, 1961: 299; Blasius, Roonwal, & Singh 1958; Browne 1961c: 92, 1983b: 76; Hagedorn 1910d: 68; Kalshoven 1935a: 14; Kleine 1913b: 137, 1914b: 273, 1932a: 302, 1934a: 156; Mathur & Singh 1960a: 39, 1960b: 36; Mathur, Singh, & Lal 1958: 20; Mathur et al. 1958: 104; Schedl 1959a: 485, 1960e: 171, 1972j: 233, 1973b: 210, 1973c: 377; Souphieff & Scherbinovskaja 1937: 88. (tx) Beeson 1939: 291, 302; Eggers 1923a: 146, 1927b: 406, 1936d: 626; Gray, B. 1972b; Hagedorn 1910a: 94, 1910e, 1913a: 46; Lepesme 1944: 238; Schaufuss 1905: 1; Schedl 1959a: 485, 488.
- carinensis (Eggers)** 1923a: 147 (*Dendrugus*). Holotype ♀; Carin Cheba (900–1100 m); MCG, Genova.
 Distribution: Asia (Burma?).
 References: (tx) Eggers 1923a: 147–148, 1925: 153.
- carpophagus (Hornung)** 1842: 116 (*Bostrichus*). Syntypes ♀; Ostindien in Furchten von Betelnüssen; MNB, Berlin.
 Distribution: Africa (Angola/ Azores Islands/ Cameroon/ Canary Islands/ Chad/ Ethiopia/ Guinea/ Ivory Coast/ Liberia/ Nigeria/ Senegal/ Seychelles Islands/ Sierra Leone/ South Africa/ Sudan/ Tanzania/ Uganda/ Zaire), Antilles Islands (Bermuda/ Cuba/ Grenada/ Guadeloupe/ Jamaica/ Monserrat/ Puerto Rico/ Santo Domingo/ Trinidad/ Virgin Islands), Asia (Burma/ Cambodia/ Bengal, Karnataka, Nicobar Islands, Tamil Nadu, Uttar Pradesh in India/ Japan/ Korea/ Sri Lanka/ Taiwan/ Thailand/ Vietnam), Australia (Queensland), Europe (England/ France), Hawaii, Indonesia (Borneo, Java, Sumatra), Madagascar, Micronesia (Guam), North America (El Salvador/ Guatemala/ Honduras/ Veracruz in Mexico/ District of Columbia, Florida, New Jersey in USA/ Philippine Islands, Reunion Island, Samoa, South America (Brazil/ Cayenne/ Colombia/ Guyana/ Peru/ Suriname). Commonly intercepted in seeds and nuts in temperate countries where it cannot breed.
 Hosts: *Anona squamosa*, *Archantophoenix alexandrae*, *Areca catechu*, *Borassus flabellifer*, *Cassia grandis*, *Chamaedorea elegans*, *Chrysalidocarpus* sp., *Coccothrinix argentea*, *Diospyros* spp., *Elaeis guineensis*, *Erythrina cyjiestagalli*, *Eugenia cumini*, *Euterpe globosa*, *Hyphaena guineensis*, *Livingstonia* spp., *Manikara kauki*, *Neowashingtonia robusta*, *Phoenix dactylifera*, *Polyalthia simiarum*, *Prichardia thurstoni*, *Rollinia octopetala*, *Sabal mauritiaeformis*, *S. palmetto*, *Shorea robusta*, *Theobroma cacao*, *Thrinax argentea*, *Washingtonia filifera*.
 Notes: (3) Schedl 1960b: 163 (*sublongus* Eggers, nomen nudum, synonymy), 1961: 684, 686 (*subseriatus* Eggers, nomen nudum, *brevis* Eggers, nomen nudum, no status, synonyms).
 References: (bv) Perfecto 1988; Schedl 1960f: 12. (cn) Anonymous 1966s; Daniel & Kumar 1978; Esser 1966: 4; Mathur & Singh 1960b: 59; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Mumford 1962: 21; Perfecto 1988; Souphieff & Scherbinovskaja 1937: 88. (ec) Janzen 1972. (hb) Beaver 1987a: 13; Beaver & Browne 1978: 583, 1975: 287; Beeson 1922: 494; Browne 1961c: 89–90; Ghesquiere 1933a: 27, 1933b: 776; Kalshoven 1958b: 179, 1963; Oommen & Nair 1969: 314–315; Peck, Kukulova-Peck, & Borden 1989; Wood, S. L. 1982b: 738. (ds) Alluaud 1900: 438–442; Anonymous 1966s; Atkinson & Equilua 1985b:

236; Beaver 1976b: 537, 1987a: 13; Beaver & Browne 1975: 287, 1978: 583; Beeson 1938: 287, 1941: 371, 1961: 286; Bhasin, Roonwal, & Singh 1958: 34; Blackwelder 1947: 778; Blatchley & Leng 1916: 608–609; Borges & Serrano 1989; Bright 1985c: 172, 1987a: 3; Brimblecombe 1953: 14; Browne 1961c: 89; Chamberlin 1939: 317–318; Chilson 1958: 335; Choo 1983: 84; Choo & Woo 1985: 165; Choo, Woo & Park 1983: 174; Costa Lima 1925: 159, 1936: 358, 1956: 290; Dinther 1960: 111; Ferreira 1965: 1116; Fonseca 1930: 87; Gemminger & Harold 1872: 2687; Golding 1947: 79; Hagedorn 1910d: 68; Hargreaves 1937: 509, 520; Hilburn & Gorden 1989: 689; Israelson 1984; Kalshoven 1958: 178, 1963: 234; Kleine 1928: 302, 1934a: 156–157; Lepesme et al. 1948: 635; Luigioni 1929: 998; Mathew 1987: 188; Mathur & Singh 1960b: 59; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Matthew 1982; Mumford 1962: 21; Nieuwenhuizen 1953: 346–347; Nonveiller 1984: 40; Nunberg 1972b: 190; Schedl 1959a: 485, 1959p: 17, 1960f: 12, 1961c: 71, 1961k: 655, 1962b: 186, 1964e: 68, 1965a: 339, 1966b: 33, 1966f: 78, 1969d: 7, 1970e: 82, 1972j: 224, 1973c: 378, 1973d: 154, 1975e: 447, 1975h: 350, 1975i: 346, 1975j: 294, 1976a: 51, 1977a: 80, 1977d: 278, 1977e: 42, 1978c: 294, 1982: 287; Souphieff & Scherbinovskaja 1937: 88; Sturm 1843: 230; Swezey 1928: 186–187, 1941: 120–121, 1954: 502, 516; Tucker 1952: 347; Van Zwaluwenburg 1956: 9; Wichmann, Heinrich E. 1927: 80; Wichmann, H. E. 1927b: 379, 1954: 502, 516, 1955a: 98; Wood, S. L. 1960a: 46, 1977a: 69, 1982b: 738; Zacher 1927: 162. **(tx)** Beeson 1939: 282; Blandford 1894d: 99, 1898a: 424, 1898b: 193; Bright 1985c: 172; Browne 1972b: 21; Choo 1983: 84; Eggers 1912b: 117, 1920: 33, 1922a: 87, 1924: 104, 1925: 159, 1927a: 180, 1927b: 399, 1929b: 112, 1929e: 52, 1933b: 2, 8, 1940b: 103; Eichhoff 1878b: 58, 310–311; Emden 1924: 187; Ferrari 1867a: 32; Hagedorn 1904g: 546, 1910a: 94, 1910e: 3, 1913a: 4, 26–27, 1913b: 254; Hopkins 1915b: 45–47; Hornung 1842: 116–117; Murayama 1957c: 611–613; Nobuchi 1967: 13, 20, 1983: 301; Nunberg 1958a: 480; Reitter 1913a: 79; Sampson 1914: 389, 1921: 28; Schaufuss 1905: 8; Schedl 1938e: 10, 1939e: 329, 1941d: 350, 1942b: 147–148, 1942c: 163, 1942d: 3, 1948i: 114, 1950i: 145–146, 1951b: 376, 1951k: 144, 1954a: 139, 1957c: 325, 1959a: 485–486, 1959p: 17, 1960b: 163, 1960f: 12, 22, 51, 1960h: 105–106, 1961c: 71, 1961k: 685–690, 1962b: 194, 1962h: 58, 1962r: 95, 1964e: 68, 1964k: 216, 1965a: 339, 1966f: 78, 84, 1967a: 124, 1969d: 5, 1970e: 81–82, 1977b: 79–80; Schmidt 1939: 84; Stebbing 1914: 543; Strohmeier 1911: 17; Wolcott 1948: 384; Wood, S. L. 1960a: 46–47, 1975b: 392, 1982b: 738.

pygmaeus Eichhoff 1878b: 310. Syntypes ♀; Madagascar; Schedl Collection (Schedl 1961:

686) in NHMW, Wien. Synonymy: Schedl 1959a: 486.

References: **(ay)** Herfs 1949: 27. **(cn)** Costa Lima 1956; Chesquiere 1933a; Grandi 1951; Gregory 1954; Hagedorn 1904g, 1913a; Hargreaves 1922: 64; Herfs 1949: 27, 1958: 421; Souphieff & Scherbinovskaja 1937: 89; Wichmann 1927b: 379. **(cc)** Rossem 1979; Wichmann, H. E. 1955a: 98. **(hb)** Chamberlin 1939: 318; Costa Lima 1956; Grandi 1951; Hagedorn 1913a; Herfs 1949: 27; Kalshoven 1958b: 179; Wichmann, H. E. 1927b: 379. **(ds)** Allnand 1900: 441; Beeson 1938b: 287; Blackwelder 1947: 778; Blatchley & Leng 1916: 609; Chamberlin 1939: 318; Costa Lima 1956; Fairmaire 1892b; Ghesquiere 1933a; Hagedorn 1903b: 546, 1910d: 68, 1913a; Hargreaves 1921: 57–64, 1927: 113–128, 1937: 509, 520; Horion 1951; Kalshoven 1958: 179; Kleine 1913b: 138, 1914b: 288, 290, 307, 310, 326, 338, 379, 1932: 28, 1934a: 157; Light 1928: 25–34; Mumford 1961: 19; Murayama 1957c: 611; Nobuchi 1967: 20; Nunberg 1958a: 480, 1960b: 161, 1965b: 17; Sampson 1914: 389, 1921: 28; Schedl 1962b: 184, 1980a: 19; Swezey 1928: 186, 1929: 271–273, 1936: 202, 1941: 120, 1951: 210, 1954: 173; Wichmann, Heinrich E. 1927: 80; Wichmann, H. E. 1955a: 98. **(tx)** Blatchley & Leng 1916: 609; Chamberlin 1939: 318; Costa Lima 1956; Eggers 1912b: 117, 1920, 1924: 104–105, 1927a: 180–181, 1927b, 1933b: 2, 8, 1940b: 103; Eichhoff 1878a: 391, 1878b: 310; Fairmaire 1892b; Hagedorn 1903b: 546, 1910a: 94, 1910e, 1913b: 254; Hopkins 1915b: 45; Murayama 1957c: 611; Nunberg 1958a: 480, 1960b: 161; Reitter 1913a: 79; Sampson 1914: 389, 1921: 28; Schaufuss 1905: 1; Schedl 1940b: 435, 1948i: 114, 1950i: 144–145, 1959a: 456, 1961k: 686, 1980a: 19; Strohmeier 1911b: 17.

integer Eichhoff 1878b: 331. Syntypes ♀; Siam; 1 in USNM, Washington, others lost with Hamburg Museum. Synonymy: Eggers 1929e: 52.

References: **(ay)** Herfs 1949: 36. **(cn)** Herfs 1949: 36; Kleine 1932a: 302; Mathur & Singh 1961a: 45; Mathur, Singh, & Lal 1958: 39; Mathur et al. 1958: 95; Stebbing 1914: 543. **(cc)** Beeson 1922c: 494; Stebbing 1914: 543. **(hb)** Beeson 1922c: 494; Herfs 1949: 36; Kleine 1932a: 302; Stebbing 1914: 543. **(ds)** Beeson 1922c: 494; Blandford 1898a; Hagedorn 1910d: 68; Kalshoven 1958: 178; Kleine 1913b: 137, 1914b: 273, 280, 1932a: 302; Mathur & Singh 1961a: 45; Mathur, Singh, & Lal 1958: 39; Mathur et al. 1958: 95. **(tx)** Eggers 1922a: 87, 1925: 159, 1929b: 112, 1929e: 52; Eichhoff 1878a: 391, 1878b: 311; Hagedorn 1910a, 1910e, 1913a: 46; Hopkins 1915b: 46; Schedl 1938e: 10, 1948i: 114, 1961k: 686; Stebbing 1914: 543; Wood, S. L. 1960a: 46.

donisthorpei Formanek 1908: 91 (*Cryphaloides*).

- Syntypes ♀; Kew Gardens, London, England; BMNH, London. Synonymy: Schedl 1962r: 95.
References: **(ds)** Hagedorn 1910d: 42. **(tx)** Fornanek 1908: 91; Hagedorn 1910a: 86; Hopkins 1914: 118; Reitter 1913a: 65–70; Schedl 1962r: 95.
- bakeri* Hopkins 1915b: 46. Holotype ♀; Havana, Cuba; USNM, Washington. Synonymy: Schedl 1964g: 216.
References: **(ds)** Blackwelder 1947: 778; Fonseca 1930: 87; Leng & Mutchler 1917: 220; Murayama 1957c: 611; Schedl 1961k: 684, 1962h: 58, 1962k: 1077, 1969d: 5; Wichmann 1954: 515. **(tx)** Hopkins 1915b: 45–46; Murayama 1957c: 611; Schedl 1950i: 145–146, 1957c: 325, 1961k: 684, 1962k: 1077, 1964g: 216.
- anona* Hopkins 1915b: 46. Holotype ♀; Cuba; USNM, Washington. Synonymy: Schedl 1950i: 145.
References: **(cn)** Souphieff & Scherbinovskaja 1937: 88. **(ds)** Blackwelder 1947: 778; Kleine 1934a: 156; Leng & Mutchler 1917: 220; Souphieff & Scherbinovskaja 1937: 88. **(tx)** Hopkins 1915b: 45–46; Schedl 1948i: 113, 1950i: 145, 1957c: 325, 1959a: 486, 1961k: 686.
- hubbardi* Hopkins 1915b: 46. Holotype ♀; Monserrat, West Indies; USNM, Washington. Synonymy: Schedl 1950i: 146.
References: **(ds)** Blackwelder 1947: 778; Leng & Mutchler 1917: 220. **(tx)** Hopkins 1915b: 45–46; Schedl 1950i: 145–146, 1961k: 684.
- thuracis* Hopkins 1915b: 46. Holotype ♀; Isle of Pines, Cuba; USNM, Washington. Synonymy: Schedl 1964k: 216.
References: **(cn)** Souphieff & Scherbinovskaja 1937: 89. **(ds)** Blackwelder 1947: 778; Kleine 1934a: 157; Leng & Mutchler 1917: 220; Lepesme et al. 1948: 638; Murayama 1957c: 611; Souphieff & Scherbinovskaja 1937: 89; Tucker 1952: 347. **(tx)** Hopkins 1915b: 45–46; Murayama 1957c: 611; Schedl 1938e: 10, 1948i: 114, 1960b: 163, 1964k: 216.
- liberiensis* Hopkins 1915b: 47. Holotype ♀; Mount Coffee, Liberia; USNM, Washington. Synonymy: Wood 1975b: 392.
References: **(ds)** Murayama 1957: 613; Schedl 1961k: 710, 1971g: 190. **(tx)** Hopkins 1915b: 46–47; Schedl 1953g: 241–242, 1961k: 710; Wood, S. L. 1975b: 392.
- rollinae* Hopkins 1915b: 47. Holotype ♀; Para, Brazil; USNM, Washington. Synonymy: Schedl 1950i: 145.
References: **(cn)** Costa Lima 1956; Souphieff & Scherbinovskaja 1937: 89. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947: 778; Costa Lima 1936, 1956; Kleine 1934a: 157; Souphieff & Scherbinovskaja 1937: 89. **(tx)** Costa Lima 1956; Hopkins 1915b: 46–47; Schedl 1950i: 145, 1959a: 486, 1961k: 686.
- nanus* Eggers 1920: 33. Lectotype ♀; Kamerun; USNM, Washington, designated by Anderson & Anderson 1971: 21. Synonymy: Schedl 1948i: 114.
References: **(tx)** Anderson, W. H. & Anderson 1971: 21; Eggers 1920: 33, 1940b: 103; Schedl 1938e: 10, 1941d: 380, 1948i: 114, 1959a: 486, 1961k: 686, 1979c: 163; Wood, S. L. 1960a: 46.
- canariensis* Eggers 1928a: 117. Lectotype ♀; Gran Canaria (Las Palmas) im Park Santa Catalina; USNM, Washington, designated by Anderson & Anderson 1971: 8. Synonymy: Bright 1987a: 5.
References: **(cn)** Herfs 1950: 5; Souphieff & Souphieff & Scherbinovskaja 1937: 45. **(ds)** Kleine 1934a: 156; Schedl, Lindberg, & Lindberg 1959: 23; Souphieff & Scherbinovskaja 1937: 45; Uyttenboogaart 1937: 117, 1947: 10. **(tx)** Anderson, W. H. & Anderson 1971: 8; Bright 1987a: 5; Eggers 1928a: 117–118; Schedl 1934f: 1643, 1938: 10, 1960b: 162, 1979c: 51; Schedl, Lindberg, & Lindberg 1959: 23.
- phoenicola* Beeson 1939: 281. Holotype ♀; India: United Provinces, Dehra Dun; FRI, Dehra Dun. Synonymy: Wood 1989: 170.
References: **(cn)** Mathur, Singh, & Lal 1958: 66; Mathur et al. 1958: 95. **(ds)** Beeson 1961: 286; Mathur, Singh, & Lal 1958: 66; Mathur et al. 1958: 95. **(tx)** Beeson 1939: 281; Schedl 1979c: 193.
- trevori* Beeson 1939: 282. Holotype ♀; Nicobars: Kondul; FRI, Dehra Dun. Synonymy: Wood 1989: 170.
References: **(cn)** Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Roonwal 1954: 82. **(ds)** Beeson 1961: 286; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Roonwal 1954: 82. **(tx)** Beeson 1939: 282, 302; Schedl 1979c: 255; Wood, S. L. 1989: 170.
- pilosulus* Schedl 1948i: 118. Holotype ♀; Kurando, Q [Queensland?]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170.
Notes: (1) The holotype consists of the head and prothorax of a *carpophagus* obviously glued to a *dactyliperda* body (Wood 1983 notes, p. 16).
References: **(tx)** Schedl 1948i: 118, 1979c: 194; Wood, S. L. 1989: 170.
- ceylonicus* Schedl 1948i: 119. Lectotype ♀; Ceylon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 55. Synonymy: Wood 1989: 170.
References: **(ds)** Schedl 1959a: 485, 1972j: 224. **(tx)** Browne 1970: 565; Schedl 1948i: 118–119, 1959a: 485–487, 1979c: 55; Wood, S. L. 1989: 170.
- punctulatus* Eggers 1951: 151. Holotype ♀; Insel St. Thomas, Virgin Islands; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1975b: 392.

- References: **(ds)** Murayama 1957c: 611. **(tx)** Eggers 1951: 151; Murayama 1957c: 611; Schedl 1948i: 117, 1979c: 205; Wood, S. L. 1975b: 392.
- grisscopuberulus* Schedl 1972g: 59. Holotype ♀; Pariquera, State of Sao Paulo; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170.
- References: **(tx)** Schedl 1972g: 59, 1979c: 112; Wood, S. L. 1989: 170.
- exasperatus* Schedl 1975d: 455. Holotype ♀; Madras: Anaimalai Hills, au dessus d'Aliyar Dam; MHNG, Geneve. Synonymy: Wood 1989: 170.
- References: **(tx)** Schedl 1975d: 455, 1979c: 93; Wood, S. L. 1989: 170.
- chimbui** (Schedl) 1975f: 354 (*Poccilips*). Holotype ♀; New Guinea, Sattelberg, Huon Golf, Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
- Distribution: New Guinea.
- References: **(tx)** Schedl 1975f: 354, 1979c: 56.
- cinnamomi** (Eggers) 1936d: 630 (*Thammurgides*). Holotype ♀; Ceylon (Peradeniya); BMNH, London.
- Distribution: Asia (Karnataka, Maharashtra in India/ Malaya/ Sri Lanka/ Thailand), Indonesia (Java).
- Hosts: *Artocarpus elasticus*, *A. lanceifolius*, *A. rigidus*, *A. scortechini*, *Calamus* sp., *Campnosperma auriculata*, *Cinnamomum zeylanicum*, *Dacmonorops* sp., *Elaeocarpus petiolatus*, *Ficus bracteata*, *F. xylophylla*, *Intsia palembanica*, *Macaranga gigantea*, *Machilus macrantha* (leaf-stalks), *Mangifera indica*, *Pinus* sp., *Podocarpus indicus*, *Semecarpus curtisii*, *Shorea leprosula*.
- References: **(cn)** Mathur, Singh, & Lal 1958: 26; Mathur et al. 1958: 104. **(ce)** Beaver 1979b: 298. **(hb)** Beaver 1979b: 298, 1987a: 14. **(ds)** Beaver 1987a: 14; Beaver & Browne 1975: 294, 1978: 594; Beeson 1939: 290, 303, 1961: 300; Bhasin, Roonwal, & Singh 1958; Browne 1961c: 92, 1981a: 126, 1986a: 91; Mathur, Singh, & Lal 1958: 26; Mathur et al. 1958: 104; Schedl 1953c: 290, 1959a: 488, 1971a: 281, 1971c: 366. **(tx)** Beeson 1939: 290, 303; Browne 1986a: 91; Eggers 1936d: 630–631, 1959a: 488.
- circumdatus** Fonseca 1930: 88. Holotype ♀; Sao Paulo: Ypiranga; Inst. Biol. [DZSA or MZUSP?], Sao Paulo, no. 476.
- Distribution: South America (Brazil).
- Hosts: *Cocos australis*.
- References: **(cn)** Costa Lima 1956; Souphieff & Scherbinovskaja 1937: 88. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947: 778; Costa Lima 1936, 1956; Kleine 1934a: 156; Lepesme et al. 1948: 642; Murayama 1957c: 611; Souphieff & Scherbinovskaja 1937: 88. **(tx)** Costa Lima 1956; Fonseca 1930: 88–91; Murayama 1957c: 611.
- collaris** (Schedl) 1965c: 59 (*Poccilips*). Holotype ♀; Madagascar, Ankofa (Inondation); Maroantsetra, Ambodivoangy; Nosy Be; IRSM, Madagascar.
- Distribution: Madagascar.
- Notes: (3) DEB note indicates that this holotype is in MNHN, Paris.
- References: **(tx)** Schedl 1965c: 59, 1977b: 96, 1979c: 59.
- confertus** (Schedl) 1942d: 24 (*Poccilips*). Lectotype ♀; Java, Gn. Megamendoeng; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 61.
- Distribution: Indonesia (Java).
- Notes: (3) Schedl 1959r: 42 (treated this species as a synonym of *miseriatus*).
- References: **(tx)** Schedl 1942d: 24, 1959r: 42, 1979c: 61.
- confusus** (Eggers) 1940b: 106 (*Poccilips*). Holotype ♀; Congostaat: Likete; MRCB, Tervuren.
- Figures: Browne 1973b: 690.
- Distribution: Africa (Cameroon/ Congo/ Ivory Coast/ Nigeria/ Sierra Leone/ Zaire), Madagascar.
- Hosts: *Chrysophyllum lacourtiaunum*, *Coffea liberica*, *Iringia grandifolia*, *Japaca guineensis*, *Mammea africana*, *Mangifera indica*, *M. odorata*, *Nephelium leachi*, *Pachylobius deliciosus*, *Poinciana regia*.
- References: **(bv)** Schedl 1960f: 24. **(cn)** Gregory 1954. **(ce)** Schedl 1961k: 717. **(hb)** Schedl 1961k: 717, 1977b: 96. **(ds)** Beeson 1941: 379; Bright 1972d: 65, 1985c: 172; Browne 1970: 541, 568, 1986c: 661; Chesquiere 1933a: 33; Hargreaves 1937: 509; Kleine 1934: 164; Murayama 1957c: 631; Nunberg 1969a: 382; Schedl 1960f: 24, 96–99, 1961k: 717, 1966c: 717, 1967c: 213, 1971e: 2, 1977b: 96, 1979b: 415; Wichmann 1954: 517. **(tx)** Bright 1972: 65, 1985c: 172; Browne 1973b: 693; Eggers 1940b: 106; Murayama 1957c: 631; Schedl 1938e: 10, 1942d: 4, 1954d: 870, 1957a: 193, 1961e: 127, 1961k: 717, 1966e: 224, 1977b: 961, 1979c: 62.
- sierraleonensis* Eggers 1932d: 292 (*Poccilips*). Holotype ♀; Sierra Leone (Njala); BMNH, London.
- References: **(cn)** Mathur & Singh 1960a: 14; Mathur, Singh, & Lal 1958: 31; Mathur et al. 1958: 101. **(ds)** Beeson 1961: 292; Browne 1973b: 693, 1983b: 77; Hargreaves 1937: 509; Kleine 1934a: 164; Mathur & Singh 1960a: 14; Mathur, Singh, & Lal 1958: 31; Mathur et al. 1958: 101; Murayama 1957c: 631; Roba 1935: 338. **(tx)** Browne 1973b: 690, 693; Eggers 1932d: 292, 1940b: 106; Murayama 1957c: 631; Schedl 1938e: 10, 1954d: 870, 1979c: 228.
- congonus** Eggers 1924: 104. Syntypes ♀; Kasai (Imamu), Congostaat; MRCB, Tervuren, 1 syntype in BMNH, London, Eggers Collection, 2 Eggers syntypes in NHMW, Wien.
- Figures: Schedl 1961k: 719.

Distribution: Africa (Angola/ Cameroon/ Congo/ Ethiopia/ French Guinea/ Ghana/ Ivory Coast/ Nigeria/ Sierra Leone/ South Africa/ Zaire/ Zambia/ Zimbabwe), Madagascar.

Hosts: *Azelia* sp., *Anopyxis calensis*, *Anthonotha macrophylla*, *Archontophoenix cunninghamiana*, *Canarium schweinfurthii*, *Cynometra hankei*, *Elaeis guineensis*, *Erythropheleum guineense*, *Eugenia condensata*, *E. jambolana*, *Gilbertiodendron dewevrei*, *Gossweilerodendron balsamiferum*, *Homalium* sp., *Oxystigma oxyphyllum*, *Pachyclasma tessamunii*, *Peterisia africana*, *Polyalthia suaveolens*, *Sclerosperma mannii*.

References: (cn) Alibert 1946; Ghesquiere 1933a: 33, 35; Mayne & Donis 1951: 331–332; Schouteden 1927: 114–116; Souphieff & Scherbinovskaja 1937: 88. (ec) Mayne & Donis 1951: 331–332. (hb) Alibert 1946; Paulian 1949b: 353, 1951: 27; Schedl 1961k: 719; Wichmann 1954: 517. (ds) Browne 1973b: 687; Cachan 1957: 15; Ghesquiere 1933a: 33–35, 1933b: 776, 783; Kemner 1924: 1–33; Kleine 1934a: 156, 164, 619–628; Lepesme et al. 1948: 636–637; Murayama 1957c: 631; Numberg 1952: 18, 22, 1965b: 18; Paulian 1951: 27, 30; Schedl 1959p: 17, 1962h: 58; Souphieff & Scherbinovskaja 1937: 88; Vanderyst 1923: 614–619, 1924: 149–156; Wichmann 1954: 515; Wood, S. L. 1957e: 1273. (tx) Browne 1973b: 687; Eggers 1924: 104, 1927a: 187, 198, 1932d: 291–293, 1940b: 104, 107; Murayama 1957c: 631; Numberg 1952: 18, 22, 1969a: 382; Powell, W. 1980: 29; Schedl 1938e: 10, 1941d: 380, 1948i: 114, 1950c: 204, 1950d: 7, 1951e: 38, 1951j: 19, 1953g: 242, 1954d: 870, 879, 1955d: 268, 1957c: 325, 1957d: 13, 1959p: 17, 1960f: 54–131, 1961k: 690–691, 719, 1961m: 84, 1962k: 1077, 1965c: 80, 1979e: 62; Wood, S. L. 1957e: 1273.

corpulentus Browne 1970: 565. Holotype ♀; Singapore; BMNH, London.

Distribution: Asia (Singapore), Indonesia (Sarawak in Borneo).

References: (tx) Browne 1970: 565.

crassiventris (Schedl) 1961j: 351 (*Pocilips*). Holotype ♀; Ghana, nr. Kumasi, Bobiri Forest Reserve; BMNH, London.

Figures: Browne 1973b: 690.

Distribution: Africa (Ghana).

References: (ds) Browne 1973b: 687; Schedl 1964j: 41. (tx) Browne 1973b: 687, 690; Schedl 1961j: 351, 1961k: 723, 1979c: 67–68.

creber (Schedl) 1955b: 290 (*Pocilips*). Holotype ♀; New-Guinea, Sattelberg; Schedl Collection in NIMW, Wien.

Distribution: Fiji, New Guinea.

References: (ds) Murayama 1957c: 630; Schedl 1979f: 103. (tx) Murayama 1957c: 630; Schedl 1955b: 280, 290.

cylindricus (Eggers) 1927a: 187 (*Pocilips*). Holotype ♀; Congo Belg.: Sankuru; MRCB, Tervuren.

Distribution: Africa (Angola/ Cameroon/ Fernando Po Island/ Ghana/ Ivory Coast/ Zaire).

Hosts: *Antranella congolensis*, *Combretodendron macrophyllum*, *Desplatzia dewevrei*, *Trichilia gilgiana*.

References: (bv) Schedl 1960f: 55. (cn) Ghesquiere 1933a: 33–36, 1933b: 783–786. (hb) Schedl 1961k: 723. (ds) Browne 1973b: 692; Ferreira 1965: 1117; Ghesquiere 1933a: 33–36; Kleine 1934a: 164, 619–628; Murayama 1957c: 631; Schedl 1959p: 17, 1960f: 55–111, 1966f: 78, 1967e: 68, 213, 1971g: 191, 1972e: 281, 1977b: 98, 1979b: 415. (tx) Browne 1973b: 692; Eggers 1927a: 187, 1932d: 292; Murayama 1957c: 631; Schedl 1953d: 69, 1961k: 723, 1964e: 68, 1972e: 289, 1977a: 98, 1979c: 74.

cyperi (Beeson) 1929: 230 (*Thamnurgides*). Holotype ♀; Upolu: Apia, Samoan Islands; BMNH, London.

Distribution: Antilles Islands (Guadeloupe/ Jamaica/ Martinique/ Puerto Rico/ Trinidad), Asia (Burma/ Xizang [Tibet] in China/ Assam, Bengal, Karnataka, Kerala, Maharashtra in India/ Malaya/ Sri Lanka/ Vietnam), Australia (Queensland), Cook Island, Fiji, Hawaii, Indonesia (Java), North America (Costa Rica/ Panama/ Florida, Louisiana in USA), Micronesia, Samoan Islands, South America (Brazil/ Suriname), Tahiti, Tongan Islands.

Hosts: *Aesculus punduana*, *Amoora wallichii*, *Artocarpus lakoocha*, *Borassus flabellifer*, *Canarium strictum*, *Carallia lucida*, *Careya arborea*, *Cossia arabica*, *Cynometra hemitobophylla*, *Dipterocarpus trinervis*, *Eleocarpus oblongus*, *Eugenia formosa*, *E. sp.*, *Ficus glomerata*, *Gluta travancoria*, *Macademia indica*, *Macaranga denticulata*, *Mammea americana*, *Mangifera indica*, *Orbignya oleifera*, *Persca americana*, *Phytelephas macrocarpa*, *Promia copaifer*, *Swietenia macrophylla*, *Swintonia floribunda*, *Terminalia myriocarpa*, *Theobroma cacao*, *Vateria indica*, *Xylia dolabriformis*.

References: (cn) Mathur & Singh 1961a: 81, 1961b: 34; Mathur, Singh, & Lal 1958: 45, 104; Roonwal 1954: 40. (ce) Roberts 1976: 385. (hb) Beaver 1987a: 14; Roberts 1976: 385; Wood, S. L. 1982b: 735. (ds) Atkinson & Equihua 1955b: 236; Beaver 1987a: 14; Beaver & Maddison 1990: 1371–1372; Beeson 1938b, 1939, 1961: 300; Bright 1985c: 172; Browne 1974a: 64; Kalshoven 1935a: 14; Kleine 1914b: 104; Mathur & Singh 1961a: 81, 1961b: 34; Mathur, Singh, & Lal 1958: 45, 104; Murayama 1957c: 630; Roberts 1976: 385; Roonwal 1954: 40; Wood, S. L. 1982b: 735. (tx) Beeson 1929: 230–231, 294, 303, 1938: 290, 1939; Bright 1985c: 172; Murayama 1957c: 630; Schedl 1942d: 23, 1951k: 135; Wood, S. L. 1978b: 397, 1982b: 735.

indicus Eggers 1936d: 631 (*Thamnurgides*).

- Holotype ♀; Indien, Mysore State: Sakalaspur; BMNH, London. Synonymy: Wood 1978c: 397. References: **(cn)** Mathur & Singh 1960a: 13, 1960b: 14, 1961a: 79, 1961b: 26; Mathur, Singh, & Lal 1958: 15; Mathur et al. 1958: 104. **(hb)** Kalshoven 1958b: 176. **(ds)** Beeson 1939: 294, 304, 1961: 300; Bhasin, Roonwal, & Singh 1958: 68, 72–73; Browne 1961c: 92–93; Le-Pelley 1968: 146; Mathur & Singh 1960a: 13, 1960b: 14, 1961a: 79, 1961b: 26; Mathur, Singh, & Lal 1958: 15, 104; Murayama 1957: 628; Roonwal 1954: 89; Schedl 1959a: 488, 1969d: 8, 1971a: 276, 1972j: 223, 1975e: 488, 1977a: 98; Wichmann 1954: 516; Wood, S. L. 1977a: 69. **(tx)** Beeson 1939: 294, 304, 1941: 390; Browne 1961c: 92–93; Eggers 1936d: 631; Nobuchi 1959a: 12–13; Schedl 1942d: 4, 1952d: 343, 1953c: 289, 1959a: 488, 1969d: 8, 11, 1972q: 257, 1977a: 98; Wood, S. L. 1973c: 179, 1978b: 397.
- conspiciens* Schedl 1936i: 110 (*Xyleborus*). Holotype ♀; Costa Rica, Hamburgfarm, Reventazon, Ebene Limon (Schedl 1979c: 64); Schedl Collection in NHMW, Wien. Synonymy: Wood 1973c: 179. References: **(ds)** Blackwelder 1947: 779; Murayama 1957c: 631; Schedl 1963f: 55, 1966f: 85, 1970e: 82, 1972g: 43, 1978c: 294. **(tx)** Murayama 1957c: 631; Schedl 1936i: 110, 1948i: 114, 1962m: 64, 1963f: 55, 1979c: 64; Wood, S. L. 1973c: 179.
- subdepressus* Eggers 1940a: 127 (*Dryocoetes*). Holotype ♀; Trois Rivieres, Guadeloupe; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1977c: 384. References: **(tx)** Eggers 1940a: 127; Schedl 1938e: 10, 1948i: 115; Wood, S. L. 1977c: 384.
- insularis* Eggers 1940a: 127 (*Dryocoetes*). Syntypes ♀; Guadeloupe and Martinique; MNB, Berlin and 4 cotypes in Eggers Collection, in NHMW, Wien, preoccupied by Eggers 1939. Synonymy: Schedl 1962m: 63. References: **(tx)** Browne 1970: 568; Eggers 1940a: 127; Schedl 1950f: 39, 1952d: 345, 1979c: 125.
- insularis* Eggers 1940a: 129. Lectotype ♀; Trois-Rivieres, Guadeloupe; USNM, Washington, designated by Anderson & Anderson 1971: 15, preoccupied by Eggers 1939d: 223. Synonymy: Schedl 1962m: 63. References: **(tx)** Eggers 1940a: 129; Schedl 1948i: 114, 1952d: 347, 1960b: 162, 1962m: 63, 1963f: 55, 1979c: 125; Wood, S. L. 1973c: 179.
- subimpressus* Eggers 1940a: 127 (*Dryocoetes*). Holotype ♀; Trois Rivieres, Guadeloupe; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1977c: 384. References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1940a: 127; Murayama 1957c: 607; Schedl 1958k: 143, 1979c: 242; Wood, S. L. 1977c: 384.
- subaplanatus* Schedl 1942d: 23 (*Poccilips*). Lectotype ♀; Java, O. Preanger, Tjampea; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 240. Synonymy: Wood 1989: 170. References: **(hb)** Kalshoven 1958b: 176. **(tx)** Numberg 1960: 616; Schedl 1942d: 23, 1979c: 240; Wood, S. L. 1989: 170.
- caraiibicus* Schedl 1952d: 345 (*Poccilips*). Syntypes ♀; Guadeloupe and Martinique; MNB, Berlin and Eggers Collection in USNM, Washington and/or in NHMW, Wien, automatic. Synonymy: Schedl 1962: 63. References: **(ds)** Murayama 1957c: 627. **(tx)** Murayama 1957c: 627; Schedl 1952d: 345, 1957a: 193, 1962m: 63–64.
- eggersi* Schedl 1952d: 347 (*Poccilips*). Lectotype ♀; Trois-Rivieres, Guadeloupe; USNM, Washington, designated by Anderson & Anderson 1971: 15. Synonymy: Schedl 1962m: 63. References: **(cn)** Costa Lima 1956. **(hb)** Costa Lima 1956. **(ds)** Costa Lima 1956. **(tx)** Costa Lima 1956; Lepesme 1944: 238; Schedl 1952d: 347, 1962m: 63–64; Wood, S. L. 1973c: 179.
- pilifrons* Browne 1970: 568 (*Poccilips*). Holotype ♀; India: Nilgiri Hills; BMNH, London. Synonymy: Schedl 1972q: 257. References: **(tx)** Browne 1970: 568–569; Schedl 1972q: 257.
- dactyliperda* (Fabricius) 1801: 387 (*Bostrichus*). Syntypes 2 ♀; date seeds; UZMC, Copenhagen. Figures: Balachowsky 1949a: 183, 186, Bright 1972d: 59, Schedl 1961k: 697, Yin, Huang, & Li 1984: 52. Distribution: Africa (Cameroon/ Canary Islands/ Egypt/ Equatorial Guinea/ Eritrea in Ethiopia/ Kenya/ Madeira Island/ Malawi/ Morocco/ Mozambique/ Senegal/ South Africa/ Sudan/ Tanzania/ Uganda), Antilles Islands (Bahama Islands/ Cuba/ Jamaica/ Puerto Rico), Asia (Arabia/ Bonin Islands/ Burma/ China/ Karnataka, Maharashtra, Uttar Pradesh in India/ Israel/ Japan/ Jordan/ Malaya/ Thailand), Australia (Queensland), Europe (Crete/ France/ Greece/ Italy/ Portugal/ Spain), Hawaii, Madagascar/ New Guinea, New Zealand, North America (Baja California in Mexico/ Panama/ Arizona, California, Florida, Texas in USA), Solomon Islands, South America (Argentina/ Brazil/ Chile/ Colombia/ Ecuador/ Guyana/ Peru/ Uruguay/ Venezuela). Intercepted in tropical seeds throughout the world. Hosts: *Arca catechu*, *Cargotus urenus*, *Chamaedorea* spp., *Chamerops* spp., *Cinnamomum zeylanicum*, *Coccus* spp., *Coccothrinax* sp., *Dictyospermum album*, *Elaeis guineensis*, *Elaeocarpus oblongus*, *Freycinetia arborca*, *Hyphaena* spp., *Hyphorbe* sp., *Livingstonia* spp., *Olea europaea*, *Oreodoxa* spp., *Persea gratissima*,

Phloeux spp., *Phytelephas macrocarpa*, *Pritchardia pacifica*, *Ptychosperma* sp., *Sabal bermudana*, *Seaforthia* sp., *Washingtonia filifera*. See also Schedl 1961k: 698–701 for host list.

Notes: (3) Rey 1892: 30 (named aberration *obscurus*, no status). Schedl 1950i: 145 (*arecae* Eggers, nomen nudum, synonymy).

References: (ay) Bright 1981b; Gardner 1934b; Imhoff 1856: 228; Meisner et al. 1985; Vassilaina-Alexopoulou, Mourikis, & Buchelos 1986. (bv) Schedl 1960f: 52. (cn) Aisagbonhi 1988; Anonymous 1939b: 319, 1964h, 1972f; Avidov 1869: 306; Bach 1874; Batra, R. C. 1972: 44; Beitsch 1934: 63–67; Buxton 1920; Campos 1924, 1929: 63–65; Carpenter & Elmer 1978; Decaux 1890b; Fagniez 1946; Fenner et al. 1950: 48; Frohlich & Rodewald 1969: 202; Garcia-Tejero 1955: 233; Gentry, J. W. 1965: 121; Ghesquiere 1933c; Grandi 1951; Hagedorn 1904g; Hargreaves 1921: 57–64; Herfs 1858: 421–422, 1950: 4–5, 1959; Kalshoven 1932: 248; Kehat, Blumberg, & Greenberg 1976; Kehat et al. 1966: 173; Keifer 1922: 286, 1945: 253; Kleine 1932a: 302; Lever 1943a: 14–18; Linsley 1943: 804–805; Lucas 1846: 100; Martin 1958: 122; Mathur & Singh 1960b: 63; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Morris, H. M. 1937: 21; Rao & Janaki 1953: 805; Roonwal 1954: 82, 1971a; Sanabria 1921: 1–6; Schedl 1960f: 52; Schouteden 1927: 114; Schwartzman & Kurtz 1956: 499–504; Sohi & Bata 1972; Souphieff & Scherbinovskaja 1937: 15; Speyer 1918: 10–13; Squire 1935: 121–124; Stickney et al. 1950: 48; Van der Merwe 1923: 1–4; Wachi 1966: 497; Waterston 1939; Wichmann 1927b: 379; Willcocks 1913: 37–48; Yunus & Hua 1980: 228. (ec) Buchner 1961: 1–8, 89–102, 136; Halperin & Holzschuh 1984: 24; Neger 1911a: 51; Novak, P. 1952: 416; Wichmann 1955a: 98. (hb) Atkinson et al. 1986: 60; Baeta Neves & Goes 1944: 194–195; Balachowsky 1963a: 1288; Beaver 1957a: 14; Beaver & Browne 1975: 287, 1978: 584; Bodenheimer 1935; Bright 1981b: 117; Bright & Stark 1973: 75; Browne 1939, 1961c: 90; Budge 1949; Burgos & Saucedo 1983: 98; Chamberlin 1939: 317–318; Dalla Torre 1880: 50; Decaux 1890: 1038–1043; Duffy 1953: 3, 7, 9; Eichhoff 1851a: 53, 267; Emden 1924: 187; Fuchs 1904a; Gardner 1934: 14, 1957: 30; Grandi 1951; Halperin & Holzschuh 1984: 24; Henschel 1895a: 189; Herfs 1949: 22–49, 1950: 3–30, 1959; Hill, D. S. 1987: 339; Kalshoven 1951: 856, 1958b: 179; Kleine 1932a: 302, 1934: 156–157, 608–609; Lengerken 1939: 64, 1954: 85; Lepiney & Mimeur 1932: 45; Morstatt 1924: 12; Nordlinger 1855: 184, 1869: 233; Nusslin 1906a: 50; Peyerimhoff 1926: 357; Rao & Janaki 1953: 805; Roonwal 1971a; Rupertsberger 1880: 232; Schedl 1961k: 692; Schouteden 1927: 116; Schroeder 1896: 357; Stark 1952: 339; Tucker 1952: 347; Uyttenboogaart 1927: 40–41; Viana 1964: 122; Wachtl 1876a:

456; Wichmann 1927a: 80, 1927b: 379; Willcocks 1913: 37; Wood, S. L. 1982b: 739; Zacher 1927: 161. (ds) Anonymous 1964h; Atkinson & Equihua 1985b: 236, 1988: 86; Atkinson et al. 1986: 60, 1991: 158; Bach 1854: 123, 130; Baeta Neves 1964: 6; Baeta Neves & Goes 1944: 194–195; Balachowsky 1963a: 1288; Barthe 1896; Beaver 1957a: 14, 1989a: 12; Beaver & Browne 1975: 287, 1978: 584; Bedel 1892: 155; Beeson 1938b: 287, 1939: 283–284, 1941: 371, 1961: 286; Bertolini 1872: 201, 1899: 106; Bhasin, Roonwal, & Singh 1958: 78, 113; Blackwelder 1947: 778; Blackwelder & Blackwelder 1948; Blanchere & Robert 1889; Blandford 1898a: 424, 1898b: 193; Blatchley & Leng 1916: 609; Bodenheimer 1930: 275, 356, 1935; Borchert 1951; Bright 1972d: 66, 1985c: 172; Bright & Stark 1973: 75; Brimblecombe 1954: 14; Browne 1961c: 90; Burgos & Saucedo 1983: 98; Buxton 1920; Bytinski-Salz 1966: 38; Calwer 1884, 1893; Chamberlin 1939: 317–318; Chapuis & Candeze 1853; Costa Lima 1936: 358, 1956: 290; Dejean 1821, 1825, 1837: 332; DeLotto 1947; Diek 1870: 155; Doebner 1862: 184; Donisthorpe 1931: 173; Duftschmidt 1825: 12, 95; Escalera 1919: 107; Fairmaire 1892a: 77, 81; Fauvel 1897: 66; Formanek 1907: 3; Forster 1849: 439; Fricken 1889: 351; Fuchs 1904a: 253; Gardner 1957a; Gaubil 1849: 126; Gebien 1907: 222; Gemminger & Harold 1872: 2687; Gentry, J. W. 1965: 121; Georghiou 1977: 73; Ghesquiere 1933a: 27, 1933b: 776; Gozis 1875: 80; Gredler 1868; Gridelli 1930: 394; Grill 1895: 312; Hagedorn 1910d: 68; Halperin & Holzschuh 1984: 24; Hamilton 1889: 159, 1894b: 406; Henschel 1895a: 189; Henshaw 1895: 44; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Horion 1951; Kalshoven 1932: 248, 1958: 170; Kaltenbach 1874: 149; Kersten 1933: 77; Kestercanek 1881a: 12; Klebeck & Sjoberg 1960: 230; Kleine 1913b: 137, 1914b: 258, 322, 1928: 302, 1932a: 302, 1934a: 156; Kocher 1961: 253; Kraatz 1869: 59; Lacordaire 1866: 381; Langhoffer 1915a: 65, 75, 1915c: 158; Lee 1971: 31; Lepesme 1944: 237, 1947: 64; Lepesme et al. 1948: 634; Leonardi 1923: 438; Lepiney & Mimeur 1932: 45; Lever 1943a: 14; Linsley 1943: 804–805; Lomnicki 1913b: 148; Lucas 1846: 100; Luigioni 1920: 1–4, 1929: 998; Luna de Carvalho 1950: 15; Lundblad 1958: 489; Martin, H. 1958: 122, 1959; Mathur & Singh 1960b: 63; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Morstatt 1913: 292; Murayama 1957c: 611; Negru 1968a: 456; Nobuchi & Ono 1973: 181; Nonveiller 1984: 40; Novak, P. 1952: 416; Nummer 1958a: 479, 1960b: 160, 1961b: 609; Pachter 1853: 49; Perrot 1955: 64; Peyerimhoff 1926: 387; Pfeiffer 1989a: 58; Pittioni 1943: 176; Pretzel 1941: 8; Ragusa 1924: 117; Rapp 1934: 735; Redtenbacher 1858: 836, 1874: 381; Reitter 1894a: 89, 1906: 713, 1916: 292; Roonwal 1954: 82, 1971a:

1–11; Ross 1919: 83; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1236; Schaum 1859: 96, 1862: 101; Schedl 1936g: 526, 1959a: 487, 1960f: 22, 52, 1961k: 692, 1962k: 1077, 1963e: 154–155, 1963h: 267, 1964a: 95–97, 1966f: 85–86, 1969g: 285–291, 1970c: 82, 1971d: 426, 1971g: 190, 1972d: 142, 1972n: 351, 1973d: 161, 1977b: 86, 1978d: 73, 1979i: 291, 1980a: 19; Scheerpeltz & Winkler 1930: 257; Schilsky 1888: 122, 1889: 356, 1909: 189; Schiodte 1873: 103; Schmitz 1898: 157; Schwarz 1885: 42; Seidlitz 1891a: 567, 1891b: 613; Solhi & Bata 1972; Souphieff & Scherbinovskaja 1937: 15; Stark 1952: 339; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 446; Stierlin & Gautard 1872: 293, 1906: 206; Sturm 1826: 102, 1843: 230; Swaine 1909: 90; Swezey 1928: 185, 1931: 332, 1932: 16, 28, 1936: 202, 1941: 120, 126, 1954: 173; Tordo 1951: 106; Ulke 1902: 56; Van Dyke 1927: 151, 1928; Vassilaina-Alexopoulou, Mourikos, & Buchelos 1986; Viana 1964: 122; Villa & Villa 1833: 26; Wachtl 1876a: 456–461; Westhoff 1882: 240; Wichmann 1927a: 80, 1954: 516, 1955a: 98, 100, 103; Wolcott 1936: 318; Wood, S. L. 1977a: 69, 1982b: 739; Yin, Huang, & Li 1984: 151; Yunus & Hua 1980: 228. **(tx)** Balachowsky 1949a: 182–183, 1963a: 1288; Balachowsky & Mesnil 1935: 602; Bedel 1892c: 155; Beeson 1939: 283–284; Bertolini 1872; Blatchley & Leng 1916: 609; Bright 1963: 104, 1972d: 59, 66, 1985c: 172; Carne et al. 1980; Chamberlin 1939: 317–318; Chapuis & Candeze 1853: 235; Dejean 1821, 1825; Duftschmidt 1825: 12, 95; Eggers 1908: 217, 1924: 104–105, 1927b: 399, 1927e: 38–39, 1928a: 117–118, 1928c: 86, 1929e: 42, 1932d: 291, 1935c: 307, 1939b: 8; Eichhoff 1864b: 38–39, 1866: 277, 1877: 120, 1878a: 391, 1878b: 308–315, 1881a: 52–53, 267, 1883a: 115, 141; Fabricius 1801: 387; Fauvel 1889; Ferrari 1867a: 24, 26, 1867b: 114; Fleischer 1927; Fonseca 1930: 87; Fricken 1889: 351; Gardner 1934b; Gebien 1907: 197; Hagedorn 1910a: 94, 1910c: 3–4, 1913a: 325–326; Henschel 1895a: 189; Hopkins 1914: 118, 133, 1915b: 46; Hornung 1842: 115–116; Illiger 1907: 321; Kuhnt 1913: 1059; Lacordaire 1866: 381, 391; Lepesme 1944: 237; Letzner 1839: 116–120, 1891: 377; Lovendal 1889b: 72, 1898: 183; Lucas 1920: 194, 1946: 101; Murayama 1957c: 611; Numberg 1958a: 479, 1961b: 609; Perris 1866: 193, 1977: 415; Portevin 1935: 328; Redtenbacher 1858: 836; Reitter 1894a: 89, 1913a: 78, 1916: 292; Rey 1892b: 30; Rupertsberger 1880: 232; Schedl 1933e: 106, 1934f: 1643, 1938e: 10, 1938i: 25, 1942c: 163, 1948i: 113, 1950d: 18, 1950e: 211, 1951d: 17, 1952e: 122–123, 1954a: 139, 1957b: 151, 1961k: 692, 1962k: 1077, 1972d: 142, 1977b: 86, 1980a: 19; Seidlitz 1891a: 567, 1891b: 613; Stark 1952: 339–340; Stierlin 1898: 446; Swaine 1909: 90; Wood, S. L. 1975b: 392, 1982b: 739; Yin, Huang, & Li 1984: 151. **(ms)** Lucas 1920: 194.

palmicola Hornung 1842: 116 (*Bostrichus*). Syn-types ♀; Ostindien, Früchten von Betelhusen; MNB, Berlin. Synonymy: Balachowsky 1949a: 182.

References: **(ds)** Gemminger & Harold 1872: 2687; Girard 1880; Swaine 1909: 90. **(tx)** Balachowsky 1949a: 182; Eichhoff 1881a: 265; Ferrari 1867a: 32; Hornung 1842: 116; Schedl 1961k: 692; Swaine 1909: 90.

tropicus Eichhoff 1878b: 312. Holotype ♀; America meridionalis (Peru); Hamburg Museum, lost. Synonymy: Wood 1992b: 82.

Notes: (1) Eichhoff (1878: 312) states that this taxon is near *dactyliperda* (probably a synonym). Since there is only one known endemic American species of this genus, because the description fits *dactyliperda*, and the type is lost, it is placed in synonymy under that species. References: **(ds)** Blackwelder 1947: 778; Kleine 1913b: 138, 1914b: 344. **(tx)** Eichhoff 1878a: 391, 1878b: 312; Hagedorn 1910a: 94; Schedl 1952h: 70.

laboulbenei Decaux 1890: ? (p. 1–16). Syntypes, sex?; Siam; not located. Synonymy: Bedel 1892b: 155.

References: **(ds)** Bedel 1892b. **(tx)** Decaux 1890: 1–16; Bedel 1892b: 115; Schedl 1961k: 692.

eggersi Hagedorn 1904g: 449. Syntypes ♀; Hamburg importiert in Steinnussen aus Ekuador; Hamburg Museum, lost, 1 syntype in USNM, Washington. Synonymy: Schedl 1948i: 113.

References: **(ay)** Herfs 1949: 26. **(cn)** Fonseca 1930: 87; Grandi 1951; Hagedorn 1913a; Herfs 1949: 26, 1950: 5, 1958: 421; Kleine 1932a: 302; Ruffinelli 1944: 27; Souphieff & Scherbinovskaja 1937: 88. **(cc)** Neger 1911a: 51. **(hb)** Grandi 1951; Hagedorn 1913a; Herfs 1949: 26; Kleine 1932a: 302; Viana 1964: 122. **(ds)** Blackwelder 1947: 778; Costa Lima 1936; Donisthorpe 1931: 174; Hagedorn 1910d: 68; Kleine 1913b: 137, 1914b: 343, 1932a: 302; Lepesme et al. 1948: 640; Ruffinelli Rey 1976; Souphieff & Scherbinovskaja 1937: 88; Viana 1964: 122. **(tx)** Anderson, W. H. & Anderson 1971: 12; Eggers 1928c: 86; Hagedorn 1904g: 449, 1910a: 94, 1910e; Schedl 1948i: 113, 1961k: 692, 1979c: 87.

bassivorus Hopkins 1915b: 47. Holotype ♀; Washington, D.C. [USA]; USNM, Washington. Synonymy: Wood 1975b: 392.

References: **(cn)** Souphieff & Scherbinovskaja 1937: 88. **(hb)** Chamberlin 1939: 319. **(ds)** Blackwelder 1947: 778; Blatchley & Leng 1916: 609; Chamberlin 1939: 319; Kleine 1934a: 156; Murayama 1957c: 611; Souphieff & Scherbinovskaja 1937: 88; Wolcott 1948: 383. **(tx)** Blatchley & Leng 1916: 609; Chamberlin 1939: 319; Hopkins 1915b: 46–47; Murayama 1957c: 611; Schedl 1950i: 145; Wood, S. L. 1975b: 392.

moreirai Eggers 1928c: 86. Lectotype ♀; Minas

- Caraes, Guaxupe, Brasil; USNM, Washington, designated by Anderson & Anderson 1971: 21. Synonymy: Schedl 1948i: 113.
References: (cn) Costa Lima 1956; Souphieff & Scherbinovskaja 1937: 89. (hb) Costa Lima 1956. (ds) Blackwelder 1947:778; Costa Lima 1936, 1956; Kleine 1934a: 157; Lepesme et al. 1948: 641; Souphieff & Scherbinovskaja 1937: 89. (tx) Anderson, W. H. & Anderson 1971: 21; Costa Lima 1956; Eggers 1928c: 86; Fonseca 1930: 87-92; Lepesme 1944: 238; Schedl 1948i: 113, 1959a: 487, 1961k: 692, 1979c: 159.
- tanganus* Eggers 1935c: 307. Holotype ♀; Ostafrika (Tanga); BMNH, London. Synonymy: Schedl 1948i: 113.
References: (ay) Herfs 1949: 22. (cn) Herfs 1949: 22, 1950:d, 1958: 422. (hb) Herfs 1949: 22; Linsenmaier 1972. (ds) Lee 1971: 31; Lepesme et al. 1948: 637. (tx) Eggers 1935c: 307; Lepesme 1944: 238; Schedl 1937g: 67-68, 1938e: 10, 1948i: 113, 1959a: 487, 1961k: 692, 1979c: 249.
- borassi* Beeson 1939: 283. Holotype ♀; Coorg; Bhagamandala; FRI, Dehra Dun. Synonymy: Wood 1989: 171.
References: (cn) Mathur, Singh, & Lal 1958: 14, 95; (ds) Beeson 1961: 286; Bhasin, Roonwal, & Singh 1958; Mathur, Singh, & Lal 1958: 14, 95; Schedl 1959a: 485, 1971a: 281, 1972j: 244. (tx) Beeson 1939: 283-284; Browne 1970: 564; Schedl 1948i: 118, 1950f: 39, 1959a: 485-486; Wood, S. L. 1989: 171.
- elaecarpi* Beeson 1939: 284. Syntypes ♀; India: Coorg; Bhagamandala, 3,500 feet; FRI, Dehra Dun. Synonymy: Wood 1989: 171.
References: (cn) Mathur, Singh, & Lal 1958: 42, 95. (ds) Beeson 1961: 286; Mathur, Singh, & Lal 1958: 42, 95; Schedl 1975e: 449. (tx) Beeson 1939: 284-285, 301; Wood, S. L. 1989: 171.
- declivis* Sampson 1914: 390. Syntypes 10 ♀; Seychelles Isl: Silhouette; Mare aux Cochons, Mahe; high forest of Morne Blanc and Pilot, country above Port Claud, near Morne Blanc, forest above Cascade Estate, Mare aux Cochons district; BMNH, London.
Distribution: Africa (Seychelles Islands), Madagascar.
References: (hb) Beaver 1987a: 15. (ds) Beaver 1987a: 15; Murayama 1957: 613; Sampson 1914: 389; Schedl 1969d: 11, 1977b: 89. (tx) Sampson 1914: 389-391; Schedl 1948i: 115, 1950d: 26, 1977b: 89.
- depressus* (Eggers) 1927c: 82 (*Thamnurgides*). Holotype ♀; Philippinen: Luzon, Provinz Laguna, Mount Maquiling; USNM, Washington.
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 35. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1927c: 82-83; Nobuchi 1983: 301.
- distinctus* (Motschulsky) 1866: 403 (*Anodius*). Holotype ♀; type labeled Ceylon, published as Des Montagnes de Nura-Ellia; IZM, Moscow.
Distribution: Antilles Islands (Jamaica/ Puerto Rico), Asia (Sri Lanka), Guam, Hawaii, Micronesia, New Guinea, North America (Honduras/ Florida, Louisiana, Texas in USA), South America (Suriname).
Hosts: *Coccothrinus* sp., *Phoenix* sp. seeds.
References: (hb) Deyrup & Atkinson 1987a: 65; Wood, S. L. 1982b: 737. (ds) Atkinson & Equihua 1988: 86; Atkinson et al. 1991: 159; Bright 1972d: 67, 1985c: 172; Deyrup & Atkinson 1987a: 65; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 103; Hilburn & Gordon 1989: 689; Kleine 1913b: 161, 1914b: 274; Motschulsky 1866: 403; Wood, S. L. 1977a: 69, 1982b: 737. (tx) Bright 1972d: 67, 1985c: 172; Hagedorn 1910a: 153; Motschulsky 1866: 403; Muskus, A. 1984: 87; Wood, S. L. 1969c: 117, 1982b: 737.
- floridensis* Schedl 1948i: 117. Lectotype ♀; Winter Park, Florida [USA]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1969c: 117.
References: (ds) Bright 1985c: 173; Murayama 1957c: 611; Schedl 1966f: 79. (tx) Bright 1985c: 173; Murayama 1957c: 611; Schedl 1948i: 116-117, 1979c: 98; Wood, S. L. 1969c: 117.
- duplopius* (Browne) 1970: 567 (*Thamnurgides*). Holotype ♀; Sarawak: Mt. Poi, 4350 ft.; BMNH, London.
Distribution: Indonesia (Borneo, Java).
References: (tx) Browne 1970: 567; Schedl 1972q: 256.
- uniseriatus* Eggers 1936e: 85 (*Thamnurgides*). Holotype ♀; Java, Preanger; USNM, Washington, preoccupied by Eggers 1927. Synonymy: Schedl 1972q: 256.
References: (ds) Schedl 1964c: 304. (tx) Anderson, W. H. & Anderson 1971: 35; Eggers 1936e: 85-86; Schedl 1972q: 256, 1979c: 261.
- elongatulus* (Schedl) 1975e: 455 (*Poecilips*). Holotype ♀; Kerala: Cardamon Hills, Valara Fall, a 46 km au sud-ouest de Munnar, 450-500 m; MHNC, Geneve.
Distribution: Asia (Kerala in India).
References: (tx) Schedl 1975c: 455. 1979c: 89.
- elongatus* (Eggers) 1923a: 150 (*Dendurgus*). Holotype ♀; Sipora auf der Insel Mentawai; Genueser Museum.
Distribution: Indonesia (Mentawai).
References: (tx) Eggers 1923a: 150.
- excavatus* Schedl 1948i: 114. Holotype ♀; Seychelles Islands, Perey sladen Trust; Schedl Collection in NHMW, Wien.
Distribution: Africa (Seychelles Islands).
References: (ds) Beaver 1987a: 17. (tx) Schedl 1948i: 114, 1979c: 93.

fagi (Nobuchi) 1959a: 12 (*Pocilips*). Syntypes 4♂, sex?; River Daido, Oku-chichibu, Saitama pref., Japan; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

Hosts: *Fagus crenata*.

References: (tx) Nobuchi 1959a: 12.

fallax (Eggers) 1927b: 399 (*Pocilips*). Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 13.

Distribution: Asia (Andaman Islands, Nicobar Islands in India/ Malaya/ Vietnam), Indonesia (Java), Micronesia (Marshall Islands), Philippine Islands.

Hosts: *Bruguiera gymnorhiza* (seeds), *Carapa obovata*, *Cerriops candolleana*, *Rhizophora* spp., *Xylocarpus gangeticus*.

References: (cn) Browne 1968: 577; Lapis & Valentin 1982; Mathur, Singh, & Lal 1958: 21, 101. (hb) Browne 1938a, 1961c: 93, 1965: 577; Kalshoven 1958b: 178. (ds) Beeson 1961: 292; Browne 1938a, 1961c: 93, 1979: 86, 1981b: 598, 1968: 577; Mathur, Singh, & Lal 1958: 21, 101; Schedl 1936d: 2. (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1927b: 399–400; Nobuchi 1983: 301; Schedl 1935e: 10, 1939e: 329, 1942a: 170, 1942d: 3; Wood, S. L. 1960a: 47, 50.

fijianus (Schedl) 1942c: 179 (*Pocilips*). Holotype ♀; Fiji; Schedl Collection in NHMW, Wien.

Distribution: Christmas Island, Fiji Islands, Philippine Islands.

References: (cc) Roberts 1976: 386. (hb) Roberts 1976: 386. (ds) Browne 1970: 541, 1974a: 64–65; Murayama 1957c: 630; Roberts 1976: 386; Schedl 1964i: 248, 1979f: 103. (tx) Murayama 1957c: 630; Schedl 1942c: 179, 1950f: 38, 1955b: 284, 1979c: 96.

fulgens (Schedl) 1979g: 99 (*Pocilips*). Holotype ♀; New Guinea: Bulolo, Morobe Distr., Upper Manki L. A.; Schedl Collection in NHMW, Wien. Distribution: New Guinea.

References: (tx) Schedl 1979g: 99.

furvus (Sampson) 1914: 389 (*Dryocoetes*). Holotype ♀; Seychelles: Silhouette; near Mont Pot-a-eau, ca. 1500 ft.; BMNH, London.

Distribution: Africa (Seychelles Islands).

Notes: (1) Browne 1970: 567 (to *Pocilips*, = *Coccotrypes*).

References: (hb) Beaver 1957a: 15. (ds) Beaver 1957a: 15; Sampson 1914: 389; Schedl 1969d: 11. (tx) Browne 1970: 567; Sampson 1914: 389.

gedeanus (Eggers) 1936e: 86 (*Thamnurgides*). Holotype ♀; Java: Mount Gede, 1200 m; Kalshoven Collection.

Distribution: Asia (Burma/ Malaya), Indonesia (Borneo, Java).

Hosts: *Artocarpus* spp., *Balanocarpus heimii* (fruit), *Campnosperma auriculata*, *Canarium* sp., *Dipterocarpus crinitus*, *Dryobalanops aromatica*, *Ficus* spp., *Garcinia merguensis*, *Shorea* spp.

Notes: (1) Schedl 1979c: 103 (Invalid lectotype

designation). (3) Paratypes of *Xyleborus despectus* in NHMW, Wien, are of *gedeanus*; possible synonymy should be checked.

References: (cn) Browne 1968: 577; Mathur & Singh 1960b: 3, 1961a: 40; Mathur, Singh, & Lal 1958: 20, 104. (cc) Beaver 1979b: 298. (hb) Beaver 1979b: 298; Beaver & Browne 1978: 594; Browne 1961c: 94–96, 1968: 577; Kalshoven 1958b: 178. (ds) Beaver & Browne 1978: 594; Beeson 1961: 300; Browne 1961a: 304, 1961c: 94, 1968b: 577; Mathur & Singh 1960b: 3, 1961a: 40; Mathur, Singh, & Lal 1958: 20, 104. (tx) Beeson 1939: 86; Eggers 1936e: 86; Schedl 1958k: 153, 1979c: 103.

grossopunctatus Schedl 1942d: 36 (*Xyleborus*).

Lectotype ♀; Borneo, Tengkuawang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 113. Synonymy: Schedl 1958k: 153.

References: (tx) Schedl 1942d: 36, 1954c: 154, 1958k: 153, 1979c: 113.

sulcipennis Schedl 1942a: 178 (*Ozopemon*).

Lectotype ♀; Malaya, Selangor, Semangkok, F. R., 2000 fuss; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 246. Synonymy: Schedl 1958k: 153, Browne 1961c: 94.

References: (ds) Numberg 1961b: 609. (tx) Browne 1961c: 94; Numberg 1961b: 609; Schedl 1942a: 178; 1958k: 153, 1979c: 246.

ghesquierei Eggers 1927a: 179. Syntypes ♀; Sanduru, Belgian Congo; MRCB, Tervuren, 1 in BMNH, London, 4 in Schedl Collection in NHMW, Wien.

Figures: Schedl 1960f: 57.

Distribution: Africa (Angola/ Cameroon/ Gabon/ Ghana/ Ivory Coast/ Sierra Leone/ Zaïre).

Hosts: *Anonidium mami*.

References: (bv) Schedl 1960f: 12. (cn) Ghesquiere 1933a; Mayne & Donis 1951: 331–332; Schouteden 1927: 114; Souphieff & Scherbinovskaja 1937: 88. (cc) Mayne & Donis 1951: 331; Schedl 1958d: 188. (hb) Lepesme 1947: 637; Pollet 1977; Schedl 1960f: 56; Schouteden 1927: 116. (ds) Ferreira 1965: 1117; Ghesquiere 1933a: 33–35, 1933b: 783; Ilargreaves 1937: 509; Kleine 1934a: 157, 616; Mayne & Donis 1960: 102–103, 1962: 303; Pollet 1977; Schedl 1938d: 451, 1957d: 13, 1958d: 188, 1959p: 17, 1960f: 12–114, 1961k: 709, 1964j: 41, 1965e: 352, 1967e: 212, 1979b: 415; Souphieff & Scherbinovskaja 1937: 88. (tx) Eggers 1927a: 179–180, 1932d: 292, 1933b: 8; Murayama 1957: 631; Schedl 1938e: 10, 1948c: 664, 1948i: 113–114, 1960f: 57, 1961k: 709, 1979c: 104.

imitans Eggers 1932d: 293 (*Pocilips*). Holotype ♀; type labeled Congo Belge: Lokolenge, published as Congostaat; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1961k: 709. References: (ds) Murayama 1957c: 631. (tx) Eggers 1932d: 293–294, 1936d: 632; Mura-

- yama 1957c: 631; Nunberg 1969a: 382; Schedl 1957d: 13, 1961k: 709, 1979c: 121.
- grandis (Eggers)** 1927a: 188 (*Poecilips*). Holotype ♀; Belg. Congo: Sankuru; MRCB, Tervuren, 4 cotypes Eggers Collection, in NHMW, Wien. Figures: Browne 1973b: 690. Distribution: Africa (Ghana/ Ivory Coast/ Zaïre). Hosts: *Cynometra hankei*, *Parinari* sp., *Gilbertiodendron dewevrei*. References: (**bv**) Schedl 1960f: 68. (**cn**) Ghesquiere 1933a: 33–36, 1933b: 784; Mayne & Donis 1951: 332. (**ec**) Mayne & Donis 1951: 332. (**ds**) Browne 1973b: 691; Ghesquiere 1933a: 33–36, 1933b: 784; Kleine 1934a: 164, 619; Murayama 1957c: 631; Schedl 1960f: 26, 68, 78, 81, 1961k: 724, 1967e: 214, 1979b: 415. (**tx**) Browne 1973b: 690–691; Eggers 1927a: 188; Murayama 1957c: 631; Schedl 1950f: 39, 1961k: 724, 1979c: 109.
- graniceps (Eichhoff)** 1877a: 120 (*Dryocoetes*). Holotype ♀; Japan; IRSNB, Brussels? Distribution: Asia (Japan). Notes: (1) Browne 1970: 566 (to *Coccotrypes*). References: (**ay**) Herfs 1949: 36. (**cn**) Anonymous 1980g; Hagedorn 1913a; Herfs 1949: 36; Kleine 1932a: 302; Souphieff & Scherbinovskaja 1937: 88. (**hb**) Hagedorn 1913a; Herfs 1949: 36; Kleine 1932a: 302. (**ds**) Anonymous 1980g; Blandford 1894c; Hagedorn 1910d: 68, 1913a; Kleine 1914b: 258, 1932a: 302, 1934a: 157; Murayama 1953a, 1954b: 202, 1957c: 588, 610; Schedl 1966b: 34; Souphieff & Scherbinovskaja 1937: 88. (**tx**) Blandford 1894d: 98; Browne 1939: 107–115, 1970: 566; Eggers 1927a: 179; Eichhoff 1877a: 120, 1878b: 314; Hagedorn 1910a: 94; Murayama 1953a, 1954b: 202, 1957c: 588, 610; Nobuchi 1983: 301; Schedl 1934f: 1642–1643, 1938e: 10; Strohmeier 1911b: 21.
- graniceps** Eichhoff 1878b: 314. Holotype ♀; Japonia Asiatica; IRSNB, Brussels (?), preoccupied by Eichhoff 1877. Synonymy: Browne 1970: 566. Notes: (3) The two descriptions by Eichhoff are identical except for the first sentence in the second paragraph; it is obvious that only one name was intended. References: (**hb**) Browne 1939: 107–115. (**ds**) Hagedorn 1910d: 67; Kleine 1913b: 136–137, 1914b: 290; Sampson 1914: 390. (**tx**) Eichhoff 1878b: 314; Hagedorn 1910a: 96; Sampson 1914: 390.
- impressus Eggers** 1936d: 632. Holotype ♀; Singapore; USNM, Washington. Distribution: Asia (Malaya/ Singapore), Indonesia (Borneo). References: (**ds**) Browne 1961c: 90. (**tx**) Anderson, W. H. & Anderson 1971: 15; Eggers 1936d: 632; Schedl 1938c: 10, 1939e: 328, 1979c: 122.
- incognitus (Schedl)** 1961f: 89 (*Poecilips*). Holotype ♀; Luzon, Tayabas Cabibihan; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Luzon). Hosts: *Dipterocarpus vernicifluus*. References: (**ds**) Schedl 1966b: 35. (**tx**) Nobuchi 1983: 301; Schedl 1961f: 89, 1979c: 123.
- jacobsoni (Eggers)** 1923a: 149 (*Dendrugus*). Lectotype ♀; Afr Njuruk Dempu auf Sumatra; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 129. Distribution: Asia (Malaya), Indonesia (Sumatra). References: (**tx**) Browne 1961c: 96, 1970: 567; Eggers 1923a: 149, 1925: 157, 1927b: 390, 1936e: 85–86; Schedl 1953c: 289–290, 1965g: 23, 1979c: 129.
- japonicus (Eggers)** 1926b: 145 (*Poecilips*). Holotype ♀; Takao-Berg b. Hachioji; Nobuchi Collection, Ibaraki. Figures: Nobuchi 1966d: pl. 3. Distribution: Asia (Japan). References: (**ds**) Browne 1961c: 96; Murayama 1948: 2, 1949a: 13, 1951c: 4, 1954b: 167, 1957c: 588; Nobuchi 1966d: 21. (**tx**) Eggers 1926b: 145; Murayama 1954b: 167, 1957c: 588; Nobuchi 1959: 12, 1966d: 21, pl. 3; Schedl 1934f: 1634, 1952k: 160.
- klapperichi (Schedl)** 1953e: 26 (*Poecilips*). Lectotype ♀; Fukien, Kuatun; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 133. Distribution: Asia (Fujian in China). References: (**tx**) Schedl 1953e: 26, 1979c: 133.
- kuscheli Schedl** 1979f: 104. Holotype ♀; Fiji; Schedl Collection in NHMW, Wien. Distribution: Fiji Islands. References: (**tx**) Schedl 1979f: 104.
- laevicollis (Schedl)** 1957d: 67 (*Poecilips*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren. Distribution: Africa (Ghana/ Zaïre). Hosts: *Afromosia elata*, *Allanblackia floribunda*, *Chrysophyllum africanum*, *C. lacourtianum*, *Entandrophragma cylindricum*, *Erythrophloeum guineense*, *Gilbertiodendron dewevrei*, *Klaine-doxa gabonensis*, *Mammea africana*, *Myrianthus arboreus*, *Parinari glabra*, *Pycnanthus angolensis*, *Symphonia globulifera*, *Tetrapleura tetraptera*, *Trichilia gilgiana*, *Uapaca guineensis*. References: (**bv**) Schedl 1960f: 42. (**ec**) Schedl 1961k: 727. (**ds**) Browne 1973b: 686, 1980c: 485, 1980d: 493, 1986c: 661; Mayne & Donis 1962: 310; Nunberg 1961a: 329; Schedl 1960f: 27, 1961k: 727, 1962k: 1078. (**tx**) Browne 1973b: 686; Schedl 1957d: 67, 1961k: 727, 1962k: 1078, 1979c: 135.
- laticollis (Browne)** 1980: 775 (*Poecilips*). Holotype ♀; Seychelles Islands: Mahe Centre: Morne Blanc, forêt endémique, 667 m; MRCB, Tervuren. Distribution: Africa (Seychelles Islands). References: (**hb**) Beaver 1987a: 16. (**ds**) Beaver 1987a: 16. (**tx**) Browne 1980: 775.

leverii Browne 1970: 564. Holotype ♀; Fiji: Navai; BMNH, London.

Distribution: Fiji Islands.

Hosts: *Podocarpus* sp. seeds.

References: (ds) Browne 1970: 564, 1974a: 63; Schedl 1979f: 103. (tx) Browne 1970: 564.

litoralis (Beeson) 1939: 291 (*Thamurgides*). Holotype ♀; Bengal: Sunderbans Division, Khulna; FRI, Dehra Dun.

Distribution: Asia (Andaman Islands, Bengal in India).

Hosts: *Heritiera fomes*, *H. minor*, *Rhizophora mucronata*.

References: (cn) Mathur, Singh, & Lal 1958: 49; Mathur et al. 1958: 104. (ds) Beeson 1939: 291, 305, 1961: 300; Mathur, Singh, & Lal 1958: 49; Mathur et al. 1958: 104; Schedl 1975a. (tx) Beeson 1939: 291.

longicollis (Eggers) 1927b: 397 (*Thamurgides*). Holotype ♀; Deutsch Neu Guinea; USNM, Washington.

Distribution: New Guinea.

References: (ds) Murayama 1957c: 630. (tx) Anderson, W. H. & Anderson 1971: 18; Eggers 1927b: 397–398; Murayama 1957c: 630.

longior (Eggers) 1927c: 83 (*Poccilips*). Holotype ♀; Philippinen: Luzon, Provinz Mountain, Balbalon; USNM, Washington.

Distribution: Asia (Fujian, Xizang [Tibet], Yunnan in China/ Assam, Bengal, Nicobar Islands, Tamil Nadu, Uttar Pradesh in India/ Malaya/ Sri Lanka/ Thailand/ Vietnam), Indonesia (Borneo, Java), Philippine Islands.

Hosts: *Acacia pennata*, *Amoora spectabilis*, *Artocarpus* spp., *Butea frondosa*, *Campnosperma auriculata*, *Canarium* sp., *Castinopsis* sp., *Dipterocarpus zeylanicus*, *Ficus roxburghii*, *Macaranga denticulata*, *Myristica dactiloides*, *Pterospermum heyneanum*, *Shorea gysbertsiana*, *S. leprosula*, *Spondias mangifera*, *Terminalia tomentosa*, *Tristania* sp.

Notes: (3) Schedl 1972p: 151 (*silvestris* Beeson, nomen nudum, *apicatus* Beeson, nomen nudum, are synonyms).

References: (ce) Beaver 1979b: 298. (ds) Beaver & Browne 1975: 294, 1978: 595; Browne 1961c: 97, 1962c: 201, 1965a: 188, 1980a: 372; Schedl 1959a: 489, 1966b: 35, 1971c: 362, 1971f: 148, 1973c: 377. (tx) Anderson, W. H. & Anderson 1971: 18; Eggers 1927c: 83, 1941b: 222; Nobuchi 1983: 301; Schedl 1942d: 3, 1950g: 895, 1958b: 100, 1959a: 489, 1972p: 151, 1979c: 141.

oblongus Eggers 1927c: 83 (*Poccilips*). Lectotype ♀; Philippinen: Luzon, Mount Polis; USNM, Washington, designated by Anderson & Anderson 1971: 22. Synonymy: Wood 1989: 171. References: (hb) Kalshoven 1958b: 177. (ds) Murayama 1957c: 588, 626; Schedl 1966b: 36. (tx) Anderson, W. H. & Anderson 1971: 22;

Eggers 1926b, 1927c: 83; Murayama 1957c: 588, 626; Nobuchi 1983: 301; Schedl 1942a: 178, 1942d: 3, 24, 1951i: 50, 1972p: 150, 1979c: 174; Wood, S. L. 1989: 171.

linearis Eggers 1941b: 222 (*Poccilips*). Syntypes ♀; Finkien (Kwangtseh); Alexander König Museum, Bonn. Synonymy: Schedl 1972p: 150.

References: (ds) Browne 1980c: 483; Schedl 1975a. (tx) Eggers 1941b: 222; Schedl 1951i: 41, 1972p: 150, 1979c: 139.

nitidipennis Schedl 1950c: 896 (*Poccilips*). Holotype ♀; Java, W. Tjampea, 600 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 171.

References: (hb) Browne 1961c: 97. (ds) Browne 1961c: 97, 1970: 541, 1980a: 372, 1985a: 190; Ohno, Yoshioka, et al. 1988a: 92, 1989: 60; Schedl 1971c: 369. (tx) Schedl 1950g: 896, 1979c: 169; Wood, S. L. 1989: 171.

apicatus Schedl 1971c: 372 (*Poccilips*). Holotype ♀; India: Bengal, Samsingh Kalimpong, 1800 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 171.

Notes: (3) Beeson 1941: 292 (*apicatus*, nomen nudum, is this species).

References: (cn) Roonwal 1954: 33. (ds) Beeson 1961: 292; Roonwal 1954: 33. (tx) Schedl 1971c: 372–373, 1979c: 23; Wood, S. L. 1989: 171.

luzonicus (Schedl) 1943b: 41 (*Dryocoetes*). Holotype ♀; Mt. Makiling, Laguna, Luzon, Philippinen; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Luzon).

Notes: (1) Wood examined the holotype and referred it to *Coccotrypes* (Wood 1981 notes).

References: (ds) Murayama 1957c: 608; Schedl 1966b: 41. (tx) Murayama 1957c: 608; Nobuchi 1983: 301; Schedl 1943b: 41, 1979c: 143.

magnus Beeson 1939: 283. Syntypes ♀; Burma: Myitkyina; FRI, Dehra Dun.

Distribution: Asia (Burma).

Hosts: *Arenga pinnata*, *A. saccharifera*.

Notes: (3) Syntypes of this taxon are virtually identical with *dactyliperda* except the size is significantly larger (Wood 1981 notes).

References: (cn) Mathur, Singh, & Lal 1958: 10, 95; Roonwal 1954: 83; Souphieff & Scherbinovskaja 1937: 88. (ds) Beeson 1961: 286; Kleine 1934a: 157; Mathur, Singh, & Lal 1958: 10, 95; Roonwal 1954: 83; Souphieff & Scherbinovskaja 1937: 88. (tx) Beeson 1939: 283, 302; Eggers 1936d: 626; Schedl 1938e: 10, 1948i: 118, 1979c: 145.

malgasicus (Schedl) 1961e: 136 (*Poccilips*). Holotype ♀; Madagascar; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Eugenia jambolana*.

References: (ds) Schedl 1977a: 100. (tx) Schedl 1961e: 136, 1977a: 99–100, 1979c: 147.

- marginatus** (Browne) 1979: 595 (*Pocilips*). Holotype ♀; Malaysia: Penang, Muka Head; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Artocarpus elastica*, *A. scortechini*, *Campnosperma auriculata*.
References: (tx) Browne 1979: 595.
- medius** (Eggers) 1927c: 84 (*Pocilips*). Syntypes ♀; Philippines: Luzon, Provinz Gamarines sur, Mount Isarog; Eggers Collection, 1 syntype in NHMW, Wien.
Distribution: Asia (Malaya/ Thailand), Fiji, Philippine Islands, Samoa.
Hosts: *Artocarpus* spp., *Campnosperma auriculata*, *Elaeocarpus petiolatus*, *Ficus* spp., *Gomystylus confusus*, *Intsia palembanica*, *Macaranga gigantea*, *Pinus* sp., *Podocarpus indicus*, *Theobroma cacao*.
References: (ec) Beaver 1979b: 298. (hb) Beaver 1979b: 298, 1987a: 16. (ds) Beaver 1976b: 537, 1987a: 16; Beaver & Browne 1978: 596; Browne 1949b, 1961c: 93, 1980d: 492; Schedl 1966b: 35. (tx) Browne 1949b; Eggers 1927c: 84; Nobuchi 1983: 301; Schedl 1938e: 10, 1942a: 170, 1953c: 289, 1979c: 150.
- minimus** (Schedl) 1955b: 291 (*Pocilips*). Holotype ♀; Neu-Guinea, Mt. Hanseman, Astrolobe Bay; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (ds) Murayama 1957c: 630; Schedl 1975i: 346. (tx) Murayama 1957c: 630; Schedl 1955b: 280, 291, 1979c: 154.
- minutissimus** (Schedl) 1955b: 292 (*Pocilips*). Holotype ♀; Neu-Guinea, Erima Astrolobe Bay; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (ds) Murayama 1957c: 630; Schedl 1962i: 72, 1975i: 346. (tx) Murayama 1957c: 630; Schedl 1955b: 280, 292, 1979c: 156.
- minutus** Schedl 1975i: 347. New Britain, Rabaul, Keravat; NHMB, Budapest.
Distribution: New Britain Island.
References: (tx) Schedl 1975i: 347.
- mjoebergi** (Schedl) 1971c: 373 (*Pocilips*). Holotype ♀; O. Borneo, Mt. Tibang, 1400 m; NIIR, Stockholm.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1971c: 373–374.
- monoceros** (Beeson) 1939: 291 (*Thammurgides*). Syntypes, ♀; Bengal, Lakhimpur division, Dihing reserve; FRI, Dehra Dun.
Distribution: Asia (Bengal in India).
Hosts: *Dipterocarpus pilosus*, *Mesua ferrea*.
References: (cn) Mathur, Singh, & Lal 1958: 40, 104. (ds) Beeson 1961: 300; Mathur, Singh, & Lal 1958: 40, 104. (tx) Beeson 1939: 291–292, 305.
- morokensis** (Eggers) 1923a: 151 (*Dendurgus*). Holotype ♀; Moroka, Sudost-Neu Guinea; MCG, Genova.
Distribution: New Guinea.
References: (ds) Murayama 1957c: 630. (tx) Eggers 1923a: 151; Murayama 1957c: 630.
- myristicae** (Roepke) 1919b: 23 (*Thammurgides*). Syntypes ♀; Java; not located.
Figures: Weidner 1963: 537.
Distribution: Asia (Karnataka in India/ Malaya/ Sri Lanka/ Thailand/ Vietnam), Australia, Fiji, Hawaii, Indonesia (Celebes, Java, Sumatra), New Guinea, Philippine Islands, Samoan Islands.
Hosts: *Litsea polyantha*, *Myristica argentea*, *M. fragrans*, *M. macrothyrsa*.
Notes: (3) Schedl 1954a: 147 (*insulindicus* Eggers, nomen nudum, synonymy), 1961f: 90 (described male).
References: (cn) Kalshoven 1932: 246, 1935b: 47, 1951: 855; Mathur, Singh, & Lal 1958: 63, 104; Weidner 1963: 536. (hb) Beaver & Browne 1978: 596; Beeson 1929: 228; Browne 1961c: 90; Kalshoven 1951: 855, 1958b: 179; Roepke 1919b: 23. (ds) Beaver & Browne 1978: 596; Beeson 1929: 228, 1938b, 1939, 1961: 300; Browne 1961c: 90, 1970: 541; Dale 1959: 13; Kalshoven 1932: 246, 1935a: 14, 1935b: 47; Kleine 1934a: 157; Mathur, Singh, & Lal 1958: 63, 104; Murayama 1936b: 115; Schedl 1959a: 489, 1966b: 35, 1971a: 281, 1975j: 293. (tx) Anderson, W. H. & Anderson 1971: 33; Beeson 1929: 228, 1938b: 220, 1939; Eggers 1927c: 81, 1936d: 630; Nobuchi 1983: 301; Roepke 1919b: 23–29; Schedl 1938e: 9–10, 1942e: 180, 1942d: 3, 1951k: 135, 1953b: 123, 1954a: 138–139, 147, 1958b: 100, 1959a: 489, 1961f: 90, 1961j: 351; Weidner 1963: 537.
- sundaensis** Eggers 1923a: 145 (*Dendurgus*). Lectotype ♀; Tambang Salida (Ost Sumatra); USNM, Washington, designated by Anderson & Anderson 1971: 33. Synonymy: Schedl 1938e: 10.
References: (ds) Beeson 1938b: 290; Kalshoven 1938: 179, Schedl 1937f: 15. (tx) Anderson, W. H. & Anderson 1971: 33; Beeson 1929: 228; Eggers 1923a: 145, 148, 1927c: 80, 1936d: 630; Schedl 1938e: 10, 1942d: 3, 1948i: 113, 1959a: 491, 1962k: 715.
- curtus** Eggers 1927c: 80 (*Thammurgides*). Lectotype ♀; Philippines: Mindanao, Agusan River; USNM, Washington, designated by Anderson & Anderson 1971: 11. Synonymy: Schedl 1966b: 36, Beaver & Browne 1978: 596.
Notes: (1) Schedl 1938e: 10 (to *Coccotrypes*).
References: (tx) Anderson, W. H. & Anderson 1971: 10; Beaver & Browne 1978: 596; Eggers 1927c: 80; Schedl 1938e: 10, 1950d: 26, 1966b: 36.
- calapanus** Eggers 1927c: 81 (*Thammurgides*). Holotype ♀; Philippines: Mindoro, Calapan;

- Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1966b: 36, Brown 1979c: 596. References: (tx) Beaver & Brown 1978: 596; Eggers 1927c: 51; Schedl 1966b: 36, 1979c: 49–50.
- masoni* Beeson 1939: 292 (*Thammurgides*). Syn-types ♀; Coorg: Bhagamandala, Mundrote; FRI, Dehra Dun. Synonymy: Wood 1989: 171. References: (cn) Mathur, Singh, & Lal 1958: 57, 104. (ds) Beeson 1961: 300; Mathur, Singh, & Lal 1958: 57, 104. (tx) Beeson 1939: 292; Wood, S. L. 1989: 171.
- naidaijinensis* (Murayama) 1957c: 605 (*Dryocoetes*). Holotype ♂; Mt. Naidaijin, Kumamoto pref., Japan; USNM, Washington. Distribution: Asia (Japan). Hosts: *Prunus jamasakura*, *P. sp.*, *Zelkova serrata*. References: (ds) Murayama 1957c: 588, 604. (tx) Murayama 1957c: 588, 604–605; Nobuchi 1985c: 22.
- niger* Eggers 1927a: 180. Lectotype ♀; Ostafrika (Daressalam); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 166. Distribution: Africa (Tanzania), Madagascar. References: (ds) Murayama 1957: 613; Schedl 1977b: 90. (tx) Eggers 1927a: 180–181, 1929b: 112, 1940b: 103; Numberg 1969a: 382; Schedl 1961k: 710–711, 1977b: 90, 1979c: 166.
- nigripes* Eggers 1924: 105. Holotype ♀; Kasai (Ipanu) im Congostaat; MRCB, Tervuren. Distribution: Africa (Zaire). Hosts: *Elaeis guineensis*, *Sclerosperma mannii*. References: (bv) Schedl 1960f: 12. (cn) Ghesquiere 1933a: 33, 35; Kemner 1924: 1–33; Mayne & Donis 1951: 331; Souphieff & Scherbinovskaja 1937: 89. (ec) Mayne & Donis 1951: 331. (ds) Ghesquiere 1933a: 33, 35, 1933b: 776, 783, 786; Lepesme et al. 1948: 636–637; Murayama 1957: 613; Schedl 1960f: 12, 1961k: 711; Schouteden 1927: 114–116; Souphieff & Scherbinovskaja 1937: 89. (tx) Eggers 1924: 105, 1927a: 181, 198; Schedl 1961k: 711, 1979c: 167.
- nigronitens* (Schedl) 1975a: 455 (*Pocillips*). Holotype ♀; India, Andaman Islands, Strait Island; Eggers Collection, in NHMW, Wien. Distribution: Asia (Andaman Islands in India). References: (tx) Schedl 1975a: 455, 1979c: 168.
- nitidus* (Eggers) 1923a: 147 (*Dendurgus*). Holotype ♀; Sumatra; Eggers Collection, in NHMW, Wien. Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra), Fiji, New Guinea. Hosts: *Dipterocarpus kerrii*, *Livistona conchinchinensis*. References: (ds) Brown 1961c: 99, 1983b: 77; Schedl 1971c: 369, 1975a. (tx) Beeson 1939: 239; Eggers 1923a: 147–148, 1936e: 86–87; Schedl 1940b: 434, 1942a: 170, 1962q: 493.
- insularis* Eggers 1939d: 223 (*Thammurgides*). Holotype ♀; Fiji Inseln (Lami); Eggers Collection, in NHMW, Wien. Synonymy: Beaver 1991: 88. References: (ds) Brown 1974a: 65; Murayama 1957c: 630. (tx) Anderson, W. H. & Anderson 1971: 15; Beaver 1991: 88; Eggers 1939d: 223; Murayama 1957c: 630; Schedl 1950f: 39, 1960b: 162, 1979c: 125.
- aterrimus* Schedl 1953c: 298 (*Pocillips*). Lectotype ♀; Malaya, Selangor, Pt. Sinham; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 30. Synonymy: Schedl 1962q: 493, Wood 1989: 171. References: (hb) Brown 1961c: 98; Kalshoven 1958b: 175. (ds) Brown 1961a: 304, 1961c: 98; Numberg 1961b: 609. (tx) Schedl 1953c: 298, 1962q: 493, 1979c: 30; Wood, S. L. 1989: 171.
- norimasanus* (Murayama) 1954b: 192 (*Dryocoetes*). Holotype, sex?; Norimasa, Gifu pref., Japan; USNM, Washington. Distribution: Asia (Honshu in Japan). Hosts: *Abies firma*. References: (ds) Murayama 1954b: 173, 192, 1957c: 588, 600. (tx) Murayama 1954b: 173, 192, 1957c: 588, 600; Nobuchi 1985c: 22.
- nubilus* (Blandford) 1894d: 95 (*Dryocoetes*). Syn-types 10 ♀; Kiga, Suyama, Japan; BMNH, London. Figures: Nobuchi 1966d: pl. 3. Distribution: Asia (Burma/ Sichuan, Xizang [Tibet] in China/ Bengal, Madhya Pradesh, Tamil Nadu, Uttar Pradesh in India/ Japan/ Korea/ Taiwan), Indonesia (Java), Mauritius. Hosts: *Abies sp.*, *Acacia pennata*, *Anogeissus acuminata*, *Bucklandia populnea*, *Castanopsis hystrix*, *Dalbergia sissoo*, *Eugenia jambolana*, *Grewia tiliacifolia*, *G. vestita*, *Juglans regia*, *Lannea grandis*, *Landera pulcherrima*, *Macaranga denticulata*, *Mallotus philippinensis*, *Odina wodiier*, *Pinus roxburghii*, *Shorea robusta*, *Symingtonia populnea*, *Terminalia tomentosa*, *Turpinia nepalensis*. References: (cn) Shiraki 1952. (ds) Cho 1957, 1963; Choo 1983: 78; Choo & Woo 1985: 165; Hagedorn 1910d: 67; Kleine 1914b: 258; Ko 1969: 281; Murayama 1929b: 2, 1930b: 17, 1931a: 40, 1937b: 375, 1949a: 12, 1949c: 101, 1951c: 4, 1953a: 15, 1953c: 154, 1954b: 173, 1955: 99, 104, 1957c: 588, 626; Nobuchi 1966d: 21, 1967: 20. (tx) Beeson 1939: 300; Blandford 1894d: 95; Choo 1983: 78; Hagedorn 1910a: 96; Murayama 1930b: 17, 21, 31, 1931a: 40, 1937b: 375, 1953a: 15, 1954b: 173, 1955: 99, 104, 1957c: 588, 626; Niisima 1909: 152; Nobuchi 1966d: 21, pl. 3; Schedl 1934f: 1642, 1952k: 160.
- parvus* Beeson 1939: 297 (*Thammurgides*). Holotype ♀; United Provinces: Dehra Dun Division, Lachiwala, 2000 feet; FRI, Dehra Dun,

preoccupied by Sampson. Synonymy: Wood 1989: 171.

References: **(cn)** Mathur & Singh 1960b: 29, 1961a: 45, 1961b: 41; Roonwal 1954: 25. **(ds)** Beeson 1961: 300; Mathur & Singh 1960b: 29, 1961a: 45, 1961b: 41; Roonwal 1954: 25; Schedl 1972a: 144. **(tx)** Beeson 1939: 297; Wood, S. L. 1989: 171.

himalayensis Beeson 1939: 299 (*Thamnurgides*). Holotype ♀; Bengal: Darjeeling division, Rangirum, India; FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: **(cn)** Mathur & Singh 1960b: 80, 1961a: 82, 1961b: 62. **(ds)** Beeson 1961: 300; Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1960b: 80, 1961a: 82, 1961b: 62. **(tx)** Beeson 1939: 299–300, 304; Wood, S. L. 1989: 171.

corticus Beeson 1939: 298 (*Thamnurgides*). Holotype ♀; United Provinces: Dehra Dun division, Jhahjira; FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: **(cn)** Mathur & Singh 1961a: 45, 1961b: 41. **(ds)** Beeson 1939: 298, 1961: 300; Mathur & Singh 1961a: 45, 1961b: 41. **(tx)** Beeson 1939: 298; Schedl 1972q: 257; Wood, S. L. 1989: 171.

brevipilosus Beeson 1939: 298 (*Thamnurgides*). Holotype ♀; Bengal: Darjeeling division, Rangirum; FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: **(cn)** Mathur & Singh 1960b: 80, 1961a: 82. **(ds)** Beeson 1961: 299–300; Mathur & Singh 1960b: 80, 1961a: 82; Murayama 1957c: 611; Schedl 1963f: 55, 1973d: 163, 1976a: 51. **(tx)** Beeson 1939: 298–299, 302; Murayama 1957c: 611; Schedl 1951k: 148–149, 1963f: 56, 1979c: 46; Wood, S. L. 1989: 171.

mauritanus Browne 1970: 569 (*Poecilips*). Holotype ♀; Mauritius: Crepepipe; BMNH, London. Synonymy: Schedl 1972q: 257, Wood 1989: 171.

References: **(tx)** Browne 1970: 569; Schedl 1972q: 257; Wood, S. L. 1989: 171.

obtusicollis (Schedl) 1975a: 455 (*Poecilips*). Holotype ♀; Malaya: Selangor; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

References: **(ds)** Schedl 1975a: 455, 1979c: 175.

omissus Schedl 1979g: 101. Holotype ♀; Papua New Guinea, Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien. Distribution: New Guinea.

References: **(tx)** Schedl 1979g: 101.

palmarum Eggers 1933b: 8. Holotype ♀; Franz. Guayana (Haut-Carvenne); MNHN, Paris. Figures: Pedrosa-Macedo & Schonherr 1985: 18. Distribution: South America (Brazil/ Cayenne/ Peru).

Hosts: Palm fruits.

References: **(cn)** Souphieff & Scherbinovskaja 1937: 89. **(ds)** Blackwelder 1947: 778; Lepesme et al. 1948: 639; Murayama 1957c: 611; Nunberg 1972b: 191; Pedrosa-Macedo & Schonherr 1985: 18; Schedl 1960a: 77, 1966f: 85, 1970e, 1972g: 43, 1976a: 51; Souphieff & Scherbinovskaja 1937: 89. **(tx)** Eggers 1933b: 2, 8; Murayama 1957c: 611; Pedrosa-Macedo & Schonherr 1985: 18; Schedl 1948i: 116, 1957a: 193, 1960b: 163, 1979c: 182.

papuanus (Eggers) 1923a: 148 (*Dendurgus*). Lectotype ♀; Andai auf Neu Guinea; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 183.

Distribution: Asia (Assam, Bengal, Punjab, Uttar Pradesh in India/ Malaya/ Vietnam), Indonesia (Borneo, Sumatra), New Guinea, Philippine Islands.

Hosts: *Dipterocarpus pilosus*, *Eugeissona insignis*, *Eugenia formosa*, *Mallotus* sp., *Melicope* sp., *Mesua ferrea*, *Myristalia* sp., *Nephilium lichi*, *Quercus spicata*, *Terminalia myriocarpa*.

Notes: (3) Schedl 1966b: 36 (*sumatranus* Eggers, nomen nudum, synonymy).

References: **(cn)** Browne 1968: 578. **(hb)** Beaver & Browne 1978: 596; Browne 1968: 578. **(ds)** Beaver & Browne 1978: 596; Browne 1961a: 304, 1961c: 99, 1966: 246, 1968b: 578, 1980a: 370, 1980c: 484, 1986c: 661; Murayama 1957c: 630; Ohno, Yoshioka, et al. 1988a: 92; Schedl 1961c: 70, 1966b: 36, 1966e: 262, 1975e: 449, 1975i: 346. **(tx)** Beeson 1939: 287; Eggers 1923a: 147–148; Murayama 1957c: 630; Nobuchi 1983: 301, Schedl 1942c: 179, 1958b: 100, 1958h: 498, 1960h: 105, 1966b: 36, 1979c: 183.

glandis Beeson 1939: 287 (*Thamnurgides*). Holotype ♀; Bengal: Kalimpong division, Samsing; FRI, Dehra Dun. Synonymy: Schedl 1960i: 105.

References: **(cn)** Mathur & Singh 1961b: 34; Mathur, Singh, & Lal 1958: 40, 104. **(ds)** Beeson 1961: 300; Mathur & Singh 1961b: 34; Mathur, Singh, & Lal 1958: 40, 104. **(tx)** Beeson 1939: 287, 304; Schedl 1960i: 105.

rubidus Beeson 1939: 290 (*Thamnurgides*). Holotype ♀; Bengal: Kalimpong division, Samsing 1,800 feet; FRI, Dehra Dun. Synonymy: Schedl 1974f: 334, Wood 1989: 171.

References: **(cn)** Mathur, Singh, & Lal 1958: 40, 45, 61, 104. **(ds)** Beaver & Browne 1978: 596; Beeson 1961: 300; Mathur, Singh, & Lal 1958: 40, 45, 61, 104. **(tx)** Beeson 1939: 290, 306; Schedl 1974f: 334; Wood, S. L. 1989: 171.

decipiens Browne 1972b: 21 (*Poecilips*). Holotype ♀; Malaya: Kepong Forest Research Institute insectary; BMNH, London. Synonymy: Schedl 1974f: 334.

References: **(tx)** Browne 1972b: 21; Schedl 1974f: 334.

- parvus** Sampson 1914: 391. Syntypes 2 ♀: Seychelles Isl, Mahe: high forest of Morne Blanc and Pilot, Praslin; Cotes d'Or Estate, Coco-de-mer forest; BMNH, London.
Distribution: Africa (Seychelles Islands).
References: (ds) Beaver 1987a: 17; Schedl 1969d: 11. (tx) Sampson 1914: 391.
- perditor** Blandford 1894d: 99. Syntypes 5 ♀; Nagasaki, Japan; BMNH, London.
Distribution: Asia ("China"/ Japan), Micronesia (Koror in Palau Islands).
References: (cn) Leefmans 1923: 1–94; Souphieff & Scherbinovskaja 1937: 89; Vaysiere 1923: 11. (ds) Blandford 1894c; Hagedorn 1910d: 68; Hargreaves 1927: 113–128, 1937: 509, 520; Kleine 1913b: 138, 1914b: 258, 1934a: 157; Lepesme et al. 1945: 635; Murayama 1954b: 202, 1957c: 588, 611; Souphieff & Scherbinovskaja 1937: 89; Vaysiere 1923: 111. (tx) Blandford 1894d: 99; Eggers 1929b: 112; Hagedorn 1910a: 94; Murayama 1954b: 202, 1957c: 588, 611; Schedl 1934f: 1643.
- petioli** (Browne) in Beaver & Browne 1978: 596 (*Pocilips*). Holotype ♀; Malaysia: Penang, Muka Head; BMNH, London.
Figures: Beaver & Browne 1978: 576.
Distribution: Asia (Malaya).
Hosts: *Artocarpus scortechini* (leafstalks), *Ficus bracteata*, *F. xylophylla*, *F. spp.*
References: (cc) Beaver 1979b: 298. (hb) Beaver 1979b: 298; Beaver & Browne 1978: 596. (tx) Beaver & Browne 1978: 576.
- politus** (Browne) 1970: 568 (*Pocilips*). Holotype ♀; Sarawak: Mount Penrissen, 4350 ft.; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (ds) Schedl 1971c: 368. (tx) Browne 1970: 568.
- priesneri** Schedl 1950d: 25. Lectotype ♀; Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 198.
Distribution: Africa (Ghana).
Hosts: *Myristica fragrans*.
References: (bv) Schedl 1960f: 23. (ds) Schedl 1960f: 23. (tx) Schedl 1950d: 16, 25, 1954e: 47, 1960f: 23, 63, 1961k: 711–712, 1979c: 198.
- pterydophytæ** (Schedl) 1968e: 266 (*Pocilips*). Holotype ♀; New Guinea, Bulolo, Rifle Range; CSIRO, Canberra.
Figures: Gray 1970: 581.
Distribution: New Guinea.
Hosts: *Pteridium aquilinum*.
References: (bv) Gray, B. 1974c. (cc) Gray, B. 1970: 578–585. (hb) Gray, B. 1970: 575–585, 1974c. (ds) Gray, B. 1970: 578–585. (tx) Gray, B. 1970: 575–585; Schedl 1968e: 266, 1979c: 202.
- pubescens** Schedl 1948i: 119. Holotype ♀; Cuba, Sierra Bonilla; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Cuba).
Notes: (3) A possible synonym of *carpophagus*.
References: (ds) Murayama 1957c: 611. (tx) Murayama 1957c: 611; Schedl 1948i: 119, 1979c: 202.
- punctatus** (Eggers) 1927c: 82 (*Thamnurgides*). Holotype ♀; Philippines: Mindoro, Subaan; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands (Mindoro).
References: (ds) Numberg 1961b: 609; Schedl 1966b: 37. (tx) Eggers 1927b: 399, 1927c: 82, 85; Schedl 1966b: 34, 1979c: 205.
- queenslandi** (Schedl) 1942c: 180 (*Pocilips*). Lectotype ♀; Australian. Queensland, Kuranda; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 209.
Distribution: Australia (Queensland), New Guinea.
References: (ds) Murayama 1957c: 630; Schedl 1964c: 305, 1975i: 346. (tx) Murayama 1957c: 630; Schedl 1942c: 180, 1979c: 209.
- reticollis** (Schedl) 1970d: 235 (*Pocilips*). Holotype ♀; Madagascar, Perinet; MNHN, Paris.
Distribution: Madagascar.
Hosts: *Pinus khasya*.
References: (tx) Schedl 1970d: 235–236, 1977b: 100, 1979c: 210.
- regularis** (Schedl) 1955b: 292 (*Pocilips*). Holotype ♀; Neu-Guinea, Sattelberg; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (ds) Murayama 1957c: 630. (tx) Murayama 1957c: 630; Schedl 1955b: 280, 292.
- rhizophoræ** (Hopkins) 1915b: 48 (*Spermatoplex*). Holotype ♀; Miami, Florida; USNM, Washington.
Figures: Woodruff 1970: 1–2 (adult).
Distribution: Asia (Burma), Galapagos Islands (Albermarle), Indonesia (Borneo, Java, Sumatra), North America (Veracruz in Mexico/ Florida in USA).
Hosts: *Rhizophora mangle*, *R. mucronata*, rare in *Acacia* sp., *Dipterocarpus* sp., *Lansium domesticum*, *Nephelium lappaceum*, *L. sp.*
References: (cn) Anonymous 1970h; Doane et al. 1936; Miller, J. W. 1979: 8; Woodruff 1970. (cc) Onuf, Teal, & Valiela 1977; Woodruff 1970. (hb) Atkinson & Equihua 1955b: 236; Chamberlin 1939: 319; Doane et al. 1936; Kalshoven 1955b: 175; Rabinowitz 1977; Wood, S. L. 1982b: 734; Woodruff 1970. (ds) Anonymous 1970h; Atkinson & Equihua 1955b: 236; Blatchley & Leng 1916: 610; Browne 1961c: 97; Chamberlin 1939: 319; Kleine 1934a: 156; Schedl 1959a: 489; Wood, S. L. 1977a: 69, 1982b: 734; Woodruff 1970. (tx) Beeson 1939: 297; Blatchley & Leng 1916: 610; Chamberlin 1939: 319; Eggers 1923a: 149–151, 1925: 157, 1927b: 390; Hopkins 1915b: 48; Schedl 1952k: 160, 1953c: 289, 1958b: 100, 1959a: 489, 1961k: 718, 1979c: 211; Wood, S. L. 1982b: 734; Woodruff 1970.
- rhizophoræ* Eggers 1923: 149 (*Dendrugus*).

- Lectotype ♀; Insel Saleyer und Moeara Antjol (Sumatra); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 211, preoccupied by Hopkins 1915. Synonymy: Schedl 1952k: 160.
References: (cn) Mathur, Singh, & Lal 1958: 5. (ds) Browne 1961c: 98; Mathur, Singh, & Lal 1958: 5; Schedl 1964g: 241, 1971c: 364, 1971f: 148, 1975e: 449. (tx) Eggers 1923: 149; Schedl 1938e: 10, 1952k: 160, 1979c: 211.
- nephelii* Eggers 1936e: 84 (*Thamnurgides*). Holotype ♀; Java (Buitenzorg); BMNH, London. Synonymy: Kalshoven 1958b: 176.
Notes: (3) Schedl 1979c: 125 (*Thamnurgides punctipennis* Eggers, nomen nudum, synonymy).
References: (cn) Mathur et al. 1958: 104; Roonwal 1954: 27. (hb) Browne 1961c: 98; Kalshoven 1958b: 176. (ds) Beeson 1961: 300; Kalshoven 1935a: 14, 1958: 176; Kleine 1934a: 164; Mathur et al. 1958: 104; Roonwal 1954: 27. (tx) Eggers 1936e: 84–85; Kalshoven 1958b: 176; Schedl 1938e: 10, 1939e: 329, 1953c: 289, 1958h: 498, 1964g: 241, 1979c: 125.
- shanorum* Beeson 1939: 296 (*Thamnurgides*). Holotype ♀; Burma: Northern Shan States, Maymyo; FRI, Dehra Dun. Synonymy: Wood 1989: 171.
References: (ds) Beeson 1961: 300. (tx) Beeson 1939: 296–297, 306; Wood, S. L. 1989: 171.
- robustus* Wood 1989: 178. Holotype ♀; Ceylon, Matale, 400 m; MHNG, Geneva, automatic.
Distribution: Asia (Malaya/ Sri Lanka), New Guinea.
References: (ds) Schedl 1973c: 377, 1975i: 346, 1975j: 293. (tx) Wood, S. L. 1989: 178.
- robustus* Schedl 1972j: 227 (*Poccilips*). Holotype ♀; Ceylon (Matale, 400 m; MHNG, Geneva, preoccupied by Eichhoff 1878).
References: (tx) Schedl 1972j: 227, 1979c: 213; Wood, S. L. 1989: 178.
- robustus* Eichhoff 1878b: 313. Syntypes ♀; Cuba; Hamburg Museum, lost.
Distribution: Antilles Islands (Cuba/ Puerto Rico), North America (Florida).
Hosts: *Eutrepe globosa* seeds.
References: (hb) Chamberlin 1939: 319; Wood, S. L. 1982b: 736. (ds) Atkinson et al. 1991: 159; Blackwelder 1947: 778; Chamberlin 1939: 319; Kleine 1914b: 378; Leng & Mutchler 1917: 220; Schedl 1975a; Wood, S. L. 1982b: 736. (tx) Bright 1985c: 173; Chamberlin 1939: 319; Eichhoff 1878a: 391, 1878b: 313; Hagedorn 1910d: 45; Hopkins 1915b: 45; McNamara 1984: 758; Schedl 1948i: 119, 1972j: 227; Wood, S. L. 1975b: 392, 1982b: 736.
- cylindricus* Schedl 1948i: 116. Holotype ♀; Crucos, Cuba; Schedl Collection in NHMW, Wien. Synonymy: Wood 1975b: 393.
References: (ds) Murayama 1957c: 611. (tx) Murayama 1957c: 611; Schedl 1948i: 116, 1979c: 73; Wood, S. L. 1975b: 392.
- rotundicollis* (Eggers) 1927a: 186 (*Poccilips*). Holotype ♀; Belg. Congo: Sankuru; MRCB, Tervuren.
Distribution: Africa (Angola/ Cameroon/ Equatorial Guinea/ Ivory Coast/ Zaire), Madagascar.
Hosts: *Chrysophyllum africanum*, *Homalium* sp., *Klainedoxa gabonensis*, *Oxystigma oxyphyllum*, *Pachyclasna* sp., *Pentadesma butyracca*, *Riciodendron heudelotii*, *Staudia gabonensis*.
References: (cn) Chesquiere 1933a; Mayne & Donis 1951: 332. (ec) Mayne & Donis 1951: 332. (ds) Chesquiere 1933a; Kleine 1934a: 164; Murayama 1957c: 631; Schedl 1939e: 329, 1959a: 490, 1960e: 172, 1971g: 191. (tx) Eggers 1927a: 186; Murayama 1957c: 631; Schedl 1938e: 10, 1955f: 258, 1957d: 13, 1979c: 213.
- congoms* Eggers 1927a: 187 (*Poccilips*). Holotype ♀; Belg.-Congo, Sankuru; MRCB, Tervuren, preoccupied by Eggers 1924. Synonymy: Schedl 1957d: 13, 1961: 719.
References: (bv) Schedl 1960f: 12. (cn) Rees 1963b. (ec) Rees 1963b; Schedl 1961k: 719. (hb) Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1960f: 49. (ds) Beaver & Loytyniemi 1985a: 67; Browne 1973b: 687, 1975b: 394; Ferreira 1965: 1116; Mayne & Donis 1962: 309; Schedl 1959p: 17, 1960h: 12, 1961k: 691, 1962k: 1077, 1964e: 68, 1964j: 41, 1965e: 352, 1967e: 212, 1972: 281, 1977d: 278. (tx) Browne 1973b: 687; Eggers 1927a: 187; Nummer 1965b: 22; Schedl 1957d: 13, 1961k: 719, 1979c: 62.
- rugulosus* Eggers 1932d: 294 (*Poccilips*). Holotype ♀; Congostaat (Sankuru); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1961k: 719.
References: (ds) Murayama 1957c: 631. (tx) Eggers 1932d: 294; Murayama 1957c: 631; Schedl 1957d: 13–14, 1961k: 719, 1979c: 217.
- latior* Eggers 1940b: 104 (*Poccilips*). Syntypes ♀; Congostaat, Yangambi; MRCB, Tervuren, 4 Eggers cotypes in NHMW, Wien. Synonymy: Schedl 1957d: 13.
References: (ds) Nummer 1952: 19, 1965b: 19; Murayama 1957c: 631. (tx) Eggers 1940b: 104–105; Murayama 1957c: 631; Nummer 1952: 19; Schedl 1953g: 242, 1957d: 13, 1979c: 137.
- subtuberculatus* Eggers 1940b: 105 (*Poccilips*). Holotype ♀; Congostaat: Eala; MRCB, Tervuren. Synonymy: Schedl 1957d: 14.
References: (ds) Mayne & Donis 1960: 104–105, 1962: 310; Murayama 1957c: 631. (tx) Eggers 1940b: 105, 107; Murayama 1957c: 631; Schedl 1951c: 38, 1954d: 870, 1957d: 14, 1961k: 720, 1979c: 245.
- intermedius* Eggers 1940b: 107 (*Poccilips*). Holo-

- type ♀; Congostaat; MRCB, Tervuren. Synonymy: Browne 1973b: 657.
References: (bv) Schedl 1960f: 42. (cn) Mayne & Donis 1951: 332. (ec) Mayne & Donis 1951: 332; Schedl 1961k: 725. (hb) Caehan 1957: 15, 42–43; Pollet 1977; Schedl 1961k: 725. (ds) Mayne & Donis 1962: 309; Murayama 1957c: 631; Pollet 1977; Schedl 1960f: 42, 1961k: 725, 1979b: 415. (tx) Browne 1973b: 657; Eggers 1940b: 107; Murayama 1957c: 631; Schedl 1950c: 204, 1957d: 67, 1961k: 725, 1979c: 127.
- rugicollis** (Eggers) 1925: 157 (*Thammurgides*). Syntypes ♀; Tenasserim; 2 in Prague Museum, 1 deposited in Eggers Collection, in NHMW, Wien. Distribution: Asia (Burma/ Fujian in China/ Malaya/ Sri Lanka/ Vietnam).
References: (ds) Browne 1961c: 97; Schedl 1959a: 490, 1960e: 172, 1971a: 276. (tx) Beeson 1939: 295–296; Eggers 1925: 153–158; Schedl 1939e: 329, 1959a: 490, 1979c: 216.
- rutschuruensis** Eggers 1940b: 103. Holotype ♀; Congostaat, Rutshuru; MRCB, Tervuren.
Distribution: Africa (Ghana/ Somalia/ Zaire), North America (introduced: California in USA).
Hosts: *Anona museusi*, *Phoenix reclinata*, *Triplochiton scleroxylon*.
Notes: (3) California series in Wood Collection.
References: (bv) Schedl 1960f: 58. (hb) Lepesme 1947: 637. (ds) Schedl 1960f: 23, 58, 108, 1961k: 712; Thompson, G. H. 1963: 35. (tx) Eggers 1940b: 103; Murayama 1957: 613; Schedl 1954e: 50, 1961k: 712, 1979c: 217.
- salakensis** (Schedl) 1939f: 38 (*Pocilips*). Lectotype ♀; Mount Salak, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 218.
Distribution: Asia ("China"/ Andaman Islands, Assam, Bengal in India/ Sri Lanka/ Vietnam), Indonesia (Java), Philippine Islands.
Hosts: *Amoora wallichii*, *Artocarpus chaplaska*, *Gmelina arborea*, *Heritiera fomes*, *Myristica dactyloides*, *Terminalia bialata*.
References: (ds) Kalthoven 1958: 177; Schedl 1959a: 490, 1965a: 339, 1971a: 281, 1972j: 224, 1973c: 377, 1975e: 449. (tx) Schedl 1939f: 38, 1959a: 490, 1979c: 218.
- punctatus** Eggers 1927f: 85 (*Pocilips*). Syntypes ♀; Philippines: Mindoro, Subaan; Eggers Collection, in NHMW, Wien, preoccupied by Eggers 1927.
Notes: (1) Schedl 1979c: 205 (citation of holotype invalid).
References: (tx) Eggers 1927b: 85; Schedl 1966b: 34, 1979c: 205.
- opacifrons** Beeson 1939: 294 (*Thammurgides*). Holotype ♀; Bengal: Buxa division; FRI, Dehra Dun. Synonymy: Wood 1989: 171.
References: (cn) Mathur & Singh 1960b: 17, 1961b: 26; Roonwal 1954: 33, 66. (ds) Beeson 1939: 294, 1961: 300; Mathur & Singh 1960b: 17, 1961b: 26; Roonwal 1954: 33, 66. (tx) Schedl 1942a: 178, 1942d: 24; Wood, S. L. 1989: 171.
- acuminatus** Schedl 1966b: 34 (*Pocilips*). Syntypes ♀; Philippines: Mindoro, Subaan; Eggers Collection, in NHMW, Wien, automatic. Synonymy: Wood 1989: 171.
References: (ds) Schedl 1966b: 34. (tx) Nobuchi 1983: 301; Schedl 1966b: 34; Wood, S. L. 1989: 171.
- sammio** (Schaufuss) 1897: 110 (*Pocilips*). Syntypes ♀; Cabuu; Hamburg Museum, lost, 1 syntype in USNM, Washington.
Figures: Schedl 1960f: 50.
Distribution: Africa (Angola/ Cameroon/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Sierra Leone/ Zaire).
Hosts: Schedl 1960f: 28–29 (40 host species reported).
Notes: (3) Schedl 1961k: 730 (*Pocilips dubius* Eggers, nomen nudum, synonymy in Schedl 1963h: 267). Schedl 1963h: 267 (*sublaevis* Eggers, nomen nudum, synonymy).
References: (bv) Schedl 1960f: 42. (cn) Ghesquiere 1933a: 34–36, 1933b: 776–777, 784; Mayne & Donis 1951: 332; Pujol 1957: 245. (ec) Mayne & Donis 1951: 332–333; Schedl 1961k: 728. (hb) Browne 1963a: 237; Jones, Roberts, & Baker 1959: 23; Lepesme 1947: 643; Roberts 1969: 126; Schedl 1961k: 728; Thompson, G. H. 1963: 60; Wichmann 1954: 517. (ds) Browne 1963a: 237, 1966: 247; Ferreira 1965: 1118; Ghesquiere 1933a: 34–36; Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 312, 1934a: 164; Mayne & Donis 1962: 310; Murayama 1957c: 631; Numberg 1952: 19, 1965b: 19; Schedl 1959p: 17, 1960f: 42, 1961j: 349, 1961k: 728, 1963f: 55, 1963h: 267, 1964e: 68, 1964j: 41, 1965e: 352, 1965g: 20, 25, 1966b: 37, 1967e: 214; Swezey 1941: 120; Thompson, C. H. 1963: 60. (tx) Beeson 1938: 290, 1939: 285, 298; Eggers 1927a: 185–186, 1927c: 83, 1940b: 106–107; Hagedorn 1910a: 112; Hopkins 1914: 127, 135; Murayama 1957c: 631; Numberg 1952: 19; Schaufuss 1897: 110; Schedl 1938c: 9, 1938e: 10–11, 1939e: 345, 1941f: 112, 1942d: 3, 1954d: 870, 1954e: 50, 1955b: 292, 1955f: 258, 1957d: 14, 1959p: 18, 1960f: 50, 1961j: 349, 1961k: 728, 1963h: 267, 1964k: 217, 1965g: 20; Wood, S. L. 1966b: 28, 1973c: 174.
- bambesanus** Eggers 1940b: 107 (*Pocilips*). Holotype ♀; Congostaat (Bambesa); MRCB, Tervuren. Synonymy: Schedl 1957d: 13.
References: (ds) Murayama 1957c: 631. (tx) Eggers 1940b: 107; Murayama 1957c: 631; Schedl 1957d: 13, 1961k: 730, 1963h: 267, 1979c: 33.
- sculptilis** (Schedl) 1965c: 60 (*Pocilips*). Holotype ♀; Madagascar-Est, det. Sambawa; Marojejy, Ambaloratra 1700 m; Ankazobe, foret Ambohitantely, Perinet; Sambirano. Nosy-Be, foret de Lokobe; IRSM, Madagascar.

- Distribution: Madagascar.
References: (tx) Schedl 1965c: 60, 1977b: 100, 1979c: 223.
- similis (Eggers)** 1923a: 148 (*Dendrugus*). Lectotype ♀; Deutsch Neu Guinea, Kaiserin Augustafluss; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 229.
Distribution: New Guinea.
References: (ds) Murayama 1957c: 630. (tx) Beeson 1939: 290; Eggers 1923a: 145, 148; Murayama 1957c: 630; Schedl 1954a: 138, 1955b: 290, 1979c: 229.
- solomonicus (Browne)** 1968c: 112 (*Pocilips*). Holotype ♀; Rennell Island, Niupani; UZMC, Copenhagen.
Distribution: Solomon Islands (Rennell Island).
References: (tx) Browne 1968c: 112.
- sparsepilosus (Eggers)** 1940b: 106 (*Pocilips*). Holotype ♀; Congostaat (Bambesa); MRCB, Teruren.
Distribution: Africa (Congo/ Zaire), Madagascar.
Hosts: *Annonidium uaninii*.
Notes: (3) Schedl 1967e: 228 (described male).
References: (hv) Schedl 1960f: 23. (cn) Mayne & Donis 1951: 333. (ec) Mayne & Donis 1951: 333. (ds) Murayama 1957c: 631; Schedl 1960f: 23, 59, 1961k: 713, 1967e: 213, 1977a: 90. (tx) Eggers 1940b: 106; Murayama 1957c: 631; Schedl 1950c: 204, 1955f: 258, 1961k: 713, 1967e: 226–228, 1977b: 90, 1979c: 232.
- sparserugosus (Schedl)** 1972h: 62 (*Pocilips*). Holotype ♀; New Guinea, Sattelberg, Huon Gulf; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1972h: 62, 1979c: 233.
- spinipennis (Schedl)** 1955b: 293 (*Pocilips*). Holotype ♀; Neu-Guinea, Mt. Hanseman, Astrolobe Bay; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (ds) Murayama 1957c: 630. (tx) Murayama 1957c: 630; Schedl 1955b: 280, 293.
- squamifer (Schedl)** 1975f: 355 (*Pocilips*). Holotype ♀; New Guinea, Mt. Pabinama, Normandy Isl., 820 m; AMNH, New York.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 355.
- striatus Eggers** 1920: 33. Holotype ♀; Bomole (Deutsch-Ostafrika); Hamburg Museum, lost.
Distribution: Africa (Tanzania).
References: (ds) Beaver 1987b: 9; Browne 1966: 247, 1986c: 661; Schedl 1966b: 39. (tx) Eggers 1920: 33–34; Murayama 1957: 613; Nobuchi 1983: 301; Schedl 1961k: 713.
- strigicollis Schedl** 1972j: 228. Holotype ♀; Ceylon: Kandy, 600 m foret pres du Chalet Guesthouse; MHNG, Geneva.
Distribution: Asia (Tamil Nadu in India/ Sri Lanka).
References: (ds) Schedl 1975e: 450. (tx) McNamara 1977: 195; Schedl 1972j: 228, 1979c: 238.
- suavi (Schedl)** 1973f: 70 (*Pocilips*). Holotype ♀; Dava Dawa, M. Bay Distr.; AMNH, New York.
Distribution: New Guinea.
References: (tx) Schedl 1973f: 70, 1979c: 239.
- subacuminatus (Eggers)** 1927b: 399 (*Pocilips*). Holotype ♀; Deutsch Neu Guinea; USNM, Washington.
Distribution: Asia (Malaya), New Guinea.
Hosts: *Shorea macroptera*.
References: (ds) Murayama 1957c: 630; Schedl 1971c: 364. (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1927b: 399; Murayama 1957c: 630.
- subcribrosus (Blandford)** 1896b: 224 (*Xyleborus*). Holotype ♀; Singapore; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo, Mentawai, Sumatra), Philippine Islands.
Hosts: *Balanocarpus heinii*, *Gonystylus bancanus*, *Hopea mengarawan*, *Parashorea lucida*, *Shorea acuminata*, *S. hypochra*, *S. lepidopta*, *S. leprosula*, *S. uliginosa*, Dipterocarpaceae bark.
Notes: (3) Schedl 1942d: 49 (described male).
References: (hb) Beaver & Browne 1978: 597; Browne 1959b: 295, 1961c: 96; Kalshoven 1959c: 138. (ds) Beaver & Browne 1978: 597; Browne 1961c: 96; Choo & Woo 1983; Ohno et al. 1987: 87; Hagedorn 1910d: 111; Kalshoven 1959c: 138; Ohno, Yoneyama, & Nakazawa 1982b: 8; Ohno et al. 1987: 87; Schedl 1966b: 39, 1966g: 30, 1971f: 148. (tx) Blandford 1896b: 224; Browne 1959b: 295; Hagedorn 1910a: 157; Schedl 1942d: 49.
- infans Hagedorn** 1910b: 7 (*Xyleborus*). Syntypes ♀; Mentawai; MNB, Berlin. Synonymy: Browne 1959b: 292.
References: (cn) Mathur & Singh 1961a: 40. (hb) Browne 1959b: 292. (ds) Beeson 1961: 305; Hagedorn 1910d: 106; Kalshoven 1959: 138; Kleine 1913b: 161, 1914b: 286; Mathur & Singh 1961a: 40; Nunberg 1960: 610; Schedl 1936d: 3, 1936j: 20, 1959c: 167. (tx) Browne 1959b: 292; Eggers 1927b: 405–407, 1930d: 196; Hagedorn 1910a: 154, 1910b: 7; Schedl 1939c: 332, 1942a: 171, 196; 1942d: 49, 1950g: 895.
- subcylindricus (Schedl)** 1942d: 24 (*Pocilips*). Lectotype ♀; Java, Bandjar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 241.
Distribution: Indonesia (Java).
References: (tx) Schedl 1942d: 24, 1979c: 241.
- subdepressus Schedl** 1948i: 115. Holotype ♀; Amboina; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1940.
Distribution: Indonesia (Amboina in Moluccas Islands).
References: (tx) Schedl 1938e: 10, 1948i: 115, 1950d: 26, 1979c: 241.

- subovalis** Eggers 1932d: 291. Holotype ♀; Congostaat (Lokolege); MRCB, Tervuren.
Distribution: Africa (Ivory Coast/ Zaire), Madagascar.
Hosts: *Anonidium manuii*, *Artobotrys* sp., *Cleistopholis glauca*, *Xylopiia vallotii*.
References: (bv) Schedl 1960f: 24. (cn) Ghesquiere 1933a; Souphieff & Scherbinovskaja 1937: 89. (hb) Pollet 1977. (ds) Ghesquiere 1933a: 33–34, 1933b: 783; Kleine 1934a: 157, 616; Mayne & Donis 1962: 303, 332; Pollet 1977; Schedl 1960f: 24, 1961k: 714, 1965e: 352, 1966c: 224, 1967e: 213, 1979b: 415; Souphieff & Scherbinovskaja 1937: 89. (tx) Eggers 1932d: 291–292; Murayama 1957: 613; Schedl 1952g: 5, 1961k: 714, 1979c: 243.
- subsulcatus** Schedl 1962k: 1077. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1962k: 1077, 1979c: 244.
- subvulgaris** (Browne) 1966: 246 (*Pocilips*). Holotype ♀; Bismarck Islands: Manus; UZMC, Copenhagen.
Distribution: Bismarck Islands.
References: (tx) Browne 1966: 246.
- surinamensis** Schedl 1948i: 116. Lectotype ♀; Suriname (= Dutch Guiana); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 247.
Distribution: South America (Bolivia/ Brazil/ Suriname).
Hosts: *Astrocarym* probably *murumuru* (Boegroe Makka nuts).
Notes: (1) This taxon may be a minor aberration of *carpophagus* Hornung; if so, it has no status in nomenclature.
References: (ds) Dinther 1960: 111; Nieuwenhuizen 1953: 346; Nunberg 1972b: 191; Schedl 1966f: 85, 1970e: 82, 1972g: 43, 1973a: 367, 1976a: 51. (tx) Schedl 1948i: 116, 1951b: 376, 1964k: 217, 1979c: 247; Wood, S. L. 1977c: 384.
- brevipilosus** Eggers 1951: 150. Holotype ♀; Brasil (Blumenau); Eggers Collection, in NHMW, Wien, preoccupied by Beeson 1939. Synonymy: Wood 1977c: 384.
References: (ds) Eggers 1951: 150; Schedl 1963f: 56, 1966f: 84, 1979c: 46; Wood, S. L. 1977c: 384.
- tahitensis** (Beeson) 1935: 117 (*Thammurgides*). Holotype ♀; Tahiti: Papenoo Valley, 150 m; not given, presumably BPBM, Honolulu.
Distribution: Philippine Islands, Tahiti.
References: (ds) Beeson 1935b: 291; Murayama 1957c: 630. (tx) Beeson 1935: 117–118, 1938b: 291; Murayama 1957c: 630.
- striatus** Eggers 1927c: 82 (*Thammurgides*). Holotype ♀; Philippinen: Luzon, Provinz Laguna, Mount Maquiling; USNM, Washington, preoccupied by Eggers 1920. Synonymy: Beaver 1991: 88.
References: (ds) Wood, S. L. 1960a: 47. (tx) Anderson, W. H. & Anderson 1971: 32; Beaver 1991: 88; Beeson 1939: 287; Eggers 1927c: 82; Schedl 1961k: 713; Wood, S. L. 1960a: 47.
- striatulus** Wood 1959: 178. Holotype ♀; Philippinen: Luzon, Provinz Laguna, Mount Maquiling; USNM, Washington, automatic.
Synonymy: Beaver 1991: 88.
References: (tx) Wood, S. L. 1959: 178.
- tapatapaanus** (Schedl) 1951k: 149 (*Pocilips*). Lectotype ♀; Upolu, Tapatapa: Lanutoo Trail, 1,600 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 250.
Distribution: Samoa.
Hosts: *Myristica* sp. fruits.
References: (ds) Murayama 1957c: 630. (tx) Murayama 1957c: 630; Schedl 1951k: 135, 149, 1979c: 250.
- taprobanus** (Blandford) 1896b: 203 (*Dryocoetes*). Holotype ♀; Ceylon (Thwaites); BMNH, London.
Distribution: Asia (Sri Lanka).
References: (ds) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 273; Murayama 1957c: 608; Schedl 1959a: 491. (tx) Blandford 1896b: 203; Hagedorn 1910a: 96; Murayama 1957c: 608; Schedl 1959a: 491.
- theae** Eggers 1929b: 112. Holotype ♀; Ceylon (Peradeniya); BMNH, London.
Distribution: Asia (Burma/ Sri Lanka).
Hosts: *Camellia sinensis*, *C. theifera* (seed).
References: (cn) Mathur, Singh, & Lal 1958: 19, 95; Souphieff & Scherbinovskaja 1937: 89. (ds) Beeson 1939: 302, 1961: 286; Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 157; Mathur, Singh, & Lal 1958: 19, 95; Schedl 1959a: 485, 1971a: 276, 1972j: 225, 1975a, 1977d: 280; Souphieff & Scherbinovskaja 1937: 89. (tx) Beeson 1939: 302; Eggers 1929b: 112; Schedl 1938e: 10, 1948i: 118–119, 1959a: 485, 487, 1979c: 252.
- tunggali** (Schedl) 1942a: 178 (*Pocilips*). Lectotype ♀; Malaya, Pahang, Rotan Tunggai F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 258.
Distribution: Asia (Malaya/ Vietnam).
Hosts: *Artocarpus scortechinii*, *Garcinia merquearius*, *Pometia pinnata*.
Notes:
References: (ds) Browne 1961c: 93; Murayama 1957c: 230; Schedl 1973c: 377. (tx) Browne 1972b: 21; Murayama 1957c: 230; Schedl 1942a: 178, 1979c: 258.
- uniserialus** Eggers 1927b: 398. Holotype ♀; Sumatra; Eggers Collection, in NHMW, Wien.
Distribution: Indonesia (Sarawak in Borneo, Sumatra).
Notes: (3) Schedl 1959c: 42 (*confertus* Schedl treated as a synonym).
References: (ds) Murayama 1957c: 630; Schedl 1964c: 304. (tx) Eggers 1927b: 398–399, 1940a:

129; Murayama 1957e: 630; Schedl 1933e: 105, 1938e: 10, 1942d: 24, 1959r: 42, 1972q: 256, 1979c: 261.

variabilis (Beeson) 1939: 286 (*Thamnurgides*). Holotype ♀; Coorg: Bhagamandala, Karike, 3,500 feet; FRI, Dehra Dun.

Distribution: Asia (Burma/ Karnataka in India/ Malaya/ Sri Lanka/ Vietnam), Fiji, Indonesia (Borneo, Java, Sumatra), Micronesia (Caroline Islands).

Hosts: *Agathis vitiensis*, *Borassus flabellifer*, *Colophyllum vitiense*, *Cullenia excelsa*, *Dillenia retusa*, *Elacocarpus oblongus*, *Ficus glomerata*, *Machilus macrantha*, *Myristica castaneifolia*, *M. cinnamomea*, *Styrax benzoin*, *Svietinia* sp., *Swintonia floribunda*, *Tectona grandis*, *Vateria indica*.

Notes: (3) Breeds in bark and fruit.

References: (cn) Mathur & Singh 1961a: 78, 1961b: 14; Mathur, Singh, & Lal 1958: 15, 104; Yunus & Hua 1980: 229. (hb) Beaver 1987a: 16; Beaver & Browne 1978: 598; Browne 1961c: 99. (ds) Beaver 1987a: 16; Beaver & Browne 1978: 598; Beeson 1961: 301; Bhasin, Roonwal, & Singh 1958; Browne 1949b, 1960a: 304, 1961c: 99, 1980b: 381, 1983b: 77, 1986b: 333, 1986c: 661; Mathur & Singh 1961a: 78, 1961b: 14; Mathur, Singh, & Lal 1958: 15, 104; Murayama 1957c: 630; Ohno et al. 1987: 87; Schedl 1964c: 304, 1971a: 276, 1973c: 378, 1975e: 449; Wood, S. L. 1960a: 47; Yunus & Hua 1980: 229. (tx) Beeson 1939: 286–287, 306; Browne 1949b: 897, 1970: 566; Murayama 1957c: 630; Schedl 1953c: 289, 1959a: 490, 1979c: 264; Wood, S. L. 1960a: 47–48.

vateriae (Beeson) 1939: 293 (*Thamnurgides*). Holotype ♀; Madras: Wynaad division, Chandanathode, 3,800 feet; FRI, Dehra Dun.

Distribution: Asia (Karnataka, Kerala in India).

Hosts: *Cullenia excelsa*, *Vateria indica*.

Notes: (3) Breeds in fruit.

References: (cn) Mathur, Singh, & Lal 1958: 36, 104. (ds) Beeson 1939: 293–294, 307, 1961: 301; Mathur, Singh, & Lal 1958: 36, 104; Murayama 1957c: 630. (tx) Beeson 1939: 293; Murayama 1957c: 630.

vulgaris (Eggers) 1923a: 151 (*Dendrurgus*). Syntypes ♀; Engano, Mentawai, Sumatra, Borneo, Neu Guinea; MCG, Genova, and Eggers Collection (2 syntypes), in NHMW, Wien.

Distribution: Asia (Burma/ Andaman Islands, Assam, Bengal, Nicobar Islands, Uttar Pradesh in India/ Malaya/ Sri Lanka), Bismarck Islands, Fiji, Indonesia (Borneo, Java, Mentawai, Sumatra), New Guinea, North America (introduced: Florida), Philippine Islands, Samoan Islands.

Hosts: *Aesculus punduana*, *Amoora rohituka*, *Artocarpus fraxinifolius*, *Canarium euphyllum*, *Ficus religiosa*, *Myristica dactyloides*, *Phoebe hainesiana*, *Swintonia floribunda*, *Terminalia myriocarpa*.

Notes: (3) Schedl 1959a: 488, 1966: 39 (*Poccilips montanus* Eggers, nomen nudum, *P. notatus* Eggers, nomen nudum, synonymy). Breeds in bark.

References: (bv) Gray, B. 1974c. (cn) Mathur & Singh 1961a: 81, 1961b: 34; Roonwal 1954: 33; Wylie & Shanahan 1975. (hb) Beaver 1976b: 537; Beeson 1929: 228; Gray, B. 1974c; Kalshoven 1958b: 177; Wylie & Shanahan 1975. (ds) Atkinson et al. 1991: 159; Beaver 1976b: 537; Beaver & Maddison 1990: 372; Beeson 1929: 228, 1938b: 291, 1961: 301; Bhasin, Roonwal, & Singh 1958; Browne 1961c: 93, 1966: 246, 1974a: 65, 1980c: 484, 1984b: 287; Mathur & Singh 1961a: 81, 1961b: 34; Murayama 1957c: 630–631; Ohno et al. 1988a: 92, 1989: 60; Roonwal 1954: 33; Schedl 1966b: 39, 1969a: 207, 1969c: 51, 1969e: 156, 1971a: 276, 1971c: 364, 1971f: 148, 1972b: 267, 1975i: 346, 1975j: 293. (tx) Beeson 1929: 229, 1938: 291, 1939: 229, 307; Eggers 1923a: 151, 1925: 153, 1927c: 82; Murayama 1957c: 630–631; Nobuchi 1983: 301; Schedl 1942d: 3–4, 1951k: 135, 1954a: 139, 1959a: 488, 1979c: 268; Wood, S. L. 1960a: 47.

brevior Eggers 1927c: 84 (*Poccilips*). Lectotype ♀; Philippinen: Luzon, Provinz Mountain, Balaban; USNM, Washington, designated by Anderson & Anderson 1971: 8. Synonymy: Schedl 1966b: 39.

References: (ds) Schedl 1959a: 485. (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1927c: 84; Schedl 1939e: 329, 1942d: 4, 1959a: 485, 488, 1966b: 39, 1979c: 46.

Tribe Crypturgini LeConte

Crypturgi

References: LeConte 1876: 374, 387; LeConte & Horn 1883: 521.

Crypturgidae

References: Eichhoff 1878b: 72; Hagedorn 1905: 371.

Crypturginae

References: Hagedorn 1910a: 24, 71, 1910d: 34; Hopkins 1915c: 225; Nusslin 1911: 428; Tredl 1907: 11.

Crypturgini

References: Bedel 1888b: 395, 412; Leng 1920: 337; Lucas 1920: 19; Nusslin 1911: 428; Reitter 1913: 27; Tredl 1907: 11; Wood, S. L. 1978a: 113, 1982b: 67, 1986a: 75–76; Yin, Huang, & Li 1984: 94.

Crypturgina

References: Balachowsky 1949a: 158; Numberg 1954: 16.

Genus *Dolurgus* Eichhoff

DOLURGUS EICHHOFF 1868c: 147. Type-species: *Hylastes pumilus* Mannerheim, monobasic.

References: (ay) Nobuchi 1969a: 59. (hb) Chapman 1957: 3–4; Wood, S. L. 1986a: 76. (ds) Wood, S. L. 1986a: 76. (tx) Arnett 1960: 1043, 1968: 1043; Bruck 1936a: 40; Chamberlin 1939: 120–121, 1958: 55; Chapuis 1869: 24, 1873: 232; Eichhoff 1868c: 147, 1878b: 83; LeConte 1876: 387; LeConte & Horn 1883: 524; Swaine 1909: 100–101, 1918a: 39; Wood, S. L. 1982b: 743–744, 1986a: 76.

pumilus (Mannerheim) 1843: 297 (*Hylastes*). Holotype, sex?, Sitka Island [Alaska]; MZU, Helsinki.

Figures: Bright 1976d: 202, 210 (adult).

Distribution: North America (Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA).

Hosts: *Abies nobilis*, *Picea engelmannii*, *P. sitchensis*, *Pinus contorta*, *P. monticola*, *P. muricata*, *P. radiata*, *P. tuberculata*.

Notes: (1) Eichhoff 1868c: 147 (to *Dolurgus*).

References: (ay) Chapman 1957. (bv) Chapman 1963a: 3–4, 1963b: 673–676; Ohmart & Voight 1982: 340. (cn) Currie 1905: 73; Doane et al. 1936; Essig 1926: 513, 1958: 513; Hopkins 1904a: 18; Keen 1929a: 57, 1952c: 166; Lindgren 1980a: 62; Ruppel 1967: 36; Schuder 1969: 76; Swaine 1918a: 55. (ec) Furniss, R. L. & Carolin 1977: 378; Ohmart & Voight 1982: 340. (hb) Bright 1976d: 116; Bright & Stark 1973: 70; Chamberlin 1939: 120–121, 1958: 55; Doane et al. 1936; Essig 1926: 513, 1958: 513; Furniss, R. L. & Carolin 1977: 378; Hopkins 1904a: 18; Keen 1929: 57, 1952c: 166; Kinghorn & Chapman 1959: 81–92; Lindgren 1980a: 62; Pierce, W. D. 1907: 294; Swaine 1918a: 55; Wood, S. L. 1982b: 743. (ds)

Bright 1976d: 116; Bright & Stark 1973: 70; Chamberlin 1917: 324, 1925, 1939: 120–121, 1958: 55; Chapman 1963: 676; Chapuis 1869: 24, 1873: 232; Essig 1926: 513, 1958: 517; Evans, D. 1983: 32; Furniss, R. L. & Carolin 1977: 378; Hagedorn 1910d: 37; Hamilton 1894: 35; Henshaw 1885: 149; Hopping 1922; Keen 1929a: 57, 1929a: 14, 1952c: 166; Kleine 1912a: 218, 1913b: 115, 1914b: 403, 1934a: 140; Leng 1920: 338; Melsheimer 1853: 88; Murayama 1957a: 36; Ohmart & Voight 1982: 340; Patterson & Hatch 1945: 149; Ruppel 1967: 36; Schedl 1969a: 203; Schuder 1969: 76; Swaine 1909: 101; Wood, S. L. 1972a: 415, 1982b: 743. (tx) Bright 1976d: 116, 202, 210; Bruck 1936a: 166; Chamberlin 1939: 120–121, 1958: 55; Chapuis 1869: 24, 1873: 232; Eichhoff 1868c: 147, 1878b: 83; Evans, D. 1983: 32; Hagedorn 1910a: 76; Hopkins 1914: 121; Keen 1929a: 14; LeConte 1857: 22, 1865: 152, 1876: 387, 437; Lucas 1920: 247; Mannerheim 1843: 297 (reprint p. 125), 1952: 356; Swaine 1909: 101, 1918a: 55; Wood, S. L. 1969c: 116, 1972a: 415, 1982b: 743. (ms) Essig 1931: 699; Lucas 1920: 247.

Genus *Coleobothrus* Enderlein

COLEOBOTHRUS ENDERLEIN 1929: 144. Type-species: *Coleobothrus jandiacus* Enderlein, original designation.

Keys: Menier 1973: 205.

References: (hb) Wood, S. L. 1986a: 76. (ds) Wood, S. L. 1986a: 76. (tx) Enderlein 1929: 144; Menier 1973: 205–208; Schedl 1959g: 54, 1961k: 644; Wood, S. L. 1986a: 76.

alluaudi (Peyerimhoff) 1923a: 52 (*Aphanarthrum*). Syntypes, sex?; Valle du Sous, Morocco; not located.

Distribution: Africa (Fuerteventura in Canary Islands/ Morocco),

Hosts: *Euphorbia beaumerana*, *E. echinus*, *E. handiensis*.

Notes: (1) Menier 1973: 205 (to *Coleobothrus*).

References: (hb) Peyerimhoff 1926: 386. (ds) Kleine 1934a: 139; Köcher 1953: 133; Peyerimhoff 1923a: 52, 60, 1925: 13, 1926: 386; Schedl 1959g: 60, 1964f, 1972n: 350. (tx) Menier 1973: 205; Peyerimhoff 1923a: 52, 60; Schedl 1934f: 1638, 1959g: 60, 1979c: 16.

jandiacus Enderlein 1929: 144. Syntypes ♂ ♀; Fuerteventura, Jandia-Gebirge, Gran Valle; Stettin Museum, lost, 1 in Madrid Museum. Synonymy: Israelson 1980: 202.

References: (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Kleine 1934a: 139; Schedl 1959g: 60; Schedl, Lindberg, & Lindberg 1959: 21; Souphieff & Scherbinovskaja 1937: 28. (tx) Enderlein 1929: 144; Israelson 1980: 202; Menier 1973: 205, 207; Schedl 1934f: 1638,

1959g: 60; Schedl, Lindberg, & Lindberg 1959: 21.

germeauxi Menier 1973: 207. Holotype ♂; Massif du Day, Parc national, Territoire français des Afars et des Issas; MNHN, Paris.

Figures: Menier 1973: figs. 2–3.

Distribution: Africa (Eritrea in Ethiopia).

Hosts: *Euphorbia* sp.

References: (tx) Menier 1973: 207.

luridus (Wollaston) 1860b: 163 (*Aphanarthrum*).

Lectotype, sex?; Sta Cruz in Teneriffe, San Sebastian in Gomera, Canary Islands; BMNH, London, designated by Israelson 1972: 250.

Distribution: Africa (Comera, Gran Canaria, Tenerife in Canary Islands).

Hosts: *Euphorbia canariensis*.

References: (ay) Israelson 1972: 250. (cn) Souphieff & Scherbinovskaja 1937: 27. (ds) Enderlein 1929; Kleine 1913b: 113, 1914a: 21, 1934a: 139; Lacordaire 1866: 376; Peyerimhoff 1923a: 47; Schedl 1959g: 58, 1964f, 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 22; Souphieff & Scherbinovskaja 1937: 27. (tx) Enderlein 1929: 145–146; Ferrari 1868: 251, 254; Israelson 1972: 250; Lacordaire 1866: 376; Menier 1973: 205; Peyerimhoff 1923a: 47; Schedl 1934f: 1638, 1959g: 58, 1979c: 142; Schedl, Lindberg, & Lindberg 1959: 22; Wollaston 1860b: 162–163, 1861b: 32, 1862b: 166, 1864: 262, 1865: 243.

luridus annulicollis Enderlein 1929: 146. Syn-types, sex?; Teneriffe, Santa Cruz; not located. References: (tx) Enderlein 1929: 146; Schedl 1934f: 1638, 1959g: 22.

luridus flavicollis Enderlein 1929: 146. Syntypes, sex?; Teneriffe, Anagagebirge, bei San Andres, Canary Islands; not located.

References: (tx) Enderlein 1929: 146; Schedl 1934f: 1638, 1959g: 22.

Genus *Aphanarthrum* Wollaston

APHANARTHURUM WOLLASTON 1854: 292. Type-species:

Aphanarthrum euphorbiae Wollaston, monobasic.

Keys: Schedl 1959g: 56.

References: (hb) Schedl 1958d: 184; Wood, S. L. 1986a: 76. (ds) Hagedorn 1910d: 34; Paulian & Villiers 1941: 103; Schedl 1934f: 1638; Wood, S. L. 1986a: 76. (tx) Blandford 1894b: 263, 1897a: 174, 1904: 249; Eichhoff 1878b: 39–40, 84–85; Enderlein 1929: 142–144; Ferrari 1867a: 4, 7–8, 1865: 254; Hagedorn 1908: 371, 1909: 138, 1910a: 71–72, 75; Hopkins 1914: 117, 1915c: 210, 226; Israelson 1972: 249–257; Kirsch 1866: 213; LeConte 1868: 151–152; Menier 1973: 205; Peyerimhoff 1923: 57; Ratzeburg 1868: 173–174; Reitter 1894: 59, 1913a: 61; Schedl 1946: 2, 1959g: 54, 1961k: 644; Uyttenboogaart 1932: 56; Wollaston 1854: 292, 1860: 162–163, 1862: 165, 1864: 257, 1865: 239, 1871: 263; Wood, S. L. 1986a: 76.

aeonii Lindberg 1953: 18. Holotype, sex?; Valle de Masca, Canary Islands; MZU, Helsinki.

Figures: Israelson 1972: fig. 3 (male genitalia).

Distribution: Africa (Comera, Hierro, Palma, Tenerife in Canary Islands).

Notes: (1) Lindberg 1959: 20, Israelson 1972: 251 (a good species).

References: (ay) Israelson 1972. (tx) Lindberg 1953: 18, 1959: 20; Schedl 1959g: 20.

affine Wollaston 1860b: 166. Lectotype ♂; Lanzarote, Fuerteventura et Canaria; BMNH, London.

Figures: Israelson 1972: fig. 19 (male genitalia).

Distribution: Africa (Fuerteventura, Gomera, Gran Canaria, Lanzarote, Tenerife in Canary Islands/Morocco).

Hosts: *Euphorbia balsamifera*, *E. regis-jubae*, *E. dendroides*.

References: (ay) Israelson 1972. (cn) Souphieff & Scherbinovskaja 1937: 27. (hb) Peyerimhoff 1926: 386. (ds) Gemminger & Harold 1872: 2680; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61, 1925: 13, 1926: 386; Schedl 1959g: 72, 1964f; Schedl, Lindberg, & Lindberg 1959: 18; Souphieff & Scherbinovskaja 1937: 27; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 92; Hagedorn 1910a: 72; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 72; Schedl, Lindberg, & Lindberg 1959: 18, 58; Wollaston 1860b: 166, 1861b: 36, 1862b: 170, 1864: 259, 1865: 242.

armatum Wollaston 1861b: 33. Lectotype ♀; Vicinity of Haria, Lanzarote, Canary Islands; BMNH, London, designated by Israelson 1972: 256.

Figures: Israelson 1972: fig. 22 (male genitalia, species identification tentative).

Distribution: Africa (Lanzarote in Canary Islands).

Hosts: *Euphorbia* sp.

References: (cn) Souphieff & Scherbinovskaja 1937: 100. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 21, 1934a: 139; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 66; Schedl, Lindberg, & Lindberg 1959: 18; Souphieff & Scherbinovskaja 1937: 100. (tx) Eichhoff 1878b: 97; Hagedorn 1910a: 73; Israelson 1972: 256; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 57, 66; Schedl, Lindberg, & Lindberg 1959: 18; Wollaston 1861b: 33, 1862b: 167, 1865: 240.

bicinctum Wollaston 1860b: 165. Lectotype ♂; Lanzarote, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Figures: Israelson 1972: figs. 9–11 (male genitalia).

Distribution: Africa (Gran Canaria, Lanzarote, Tenerife in Canary Islands).

Hosts: *Euphorbia balsamifera*, *E. cauariensis*, *E. obtusifoliae*, *E. regis-jubae*.

Notes: (3) Israelson 1972: 255 (established subspecies and designated lectotypes for the subspecies;

he did not treat the host or geographical distributions that make it possible to recognize the existence of subspecies).

References: (ay) Israelson 1972. (cn) Souphieff & Scherbinovskaja 1937: 27–28. (hb) Peyerimhoff 1926: 386. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Koehler 1953: 133; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61, 1925: 13, 1926: 386; Schedl 1959g: 70, 1964f, 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 19; Souphieff & Scherbinovskaja 1937: 27–28; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 100; Ferrari 1868: 254; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 70; Schedl, Lindberg, & Lindberg 1959: 19; Wollaston 1860b: 165, 1861b: 35, 1862b: 149, 1864: 260, 1865: 241, 243.

bicinctum vestitum Wollaston 1865: 43. Lectotype ♂; Teneriffe, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Notes: (1) Israelson 1972: 255 (subspecies established).

References: (ay) Israelson 1972: 255. (tx) Israelson 1972: 255; Schedl 1934f: 1638, 1959g: 70; Wollaston 1865: 43.

bicinctum obsitum Wollaston 1865: 43. Lectotype ♂; Grand Canary, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Notes: (1) Israelson 1972: 255 (subspecies established).

References: (ay) Israelson 1972: 255. (ds) Kleine 1914a: 21. (tx) Israelson 1972: 255; Schedl 1934f: 1638, 1959g: 70; Wollaston 1865: 43.

bicolor Wollaston 1860b: 165. Lectotype, sex?; Teneriffe, Canary Islands; BMNH, London, designated by Israelson 1972: 250.

Figures: Israelson 1972: fig. 1 (male genitalia).

Distribution: Africa (Comera, Hierro, Lanzarote, Palma, Tenerife in Canary Islands/ Madeira Island).

Hosts: *Euphorbia regis-jubae*, *E. piscatoria*.

References: (ay) Israelson 1972. (cn) Souphieff & Scherbinovskaja 1937: 27. (ds) Fauvel 1897; Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Jansson 1940: 63; Kleine 1913b: 113, 1914a: 20, 22, 1934a: 139; Lacordaire 1866: 376; Lundblad 1958: 489; Peyerimhoff 1923a: 48, 60; Schedl 1959g: 51, 1963e: 155, 1964f; Schedl, Lindberg, & Lindberg 1959: 19; Schmitz 1898: 157; Souphieff & Scherbinovskaja 1937: 27; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 89; Ferrari 1868: 254; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 60; Schedl 1934f: 1638, 1959g: 61, 1979c: 38; Schedl, Lindberg, & Lindberg 1959: 19; Wollaston 1860a: 362, 1860b: 165, 1861b: 35, 1862b: 169, 1864: 259, 1865: 243.

canariense Wollaston 1860b: 164. Lectotype ♂; Hierro, Canary Islands; BMNH, London, designated by Israelson 1972: 256.

Figures: Israelson 1972: fig. 18 (male genitalia).

Distribution: Africa (Comera, Hierro, Gran Canaria, Palma, Tenerife in Canary Islands/ Madeira Island).

Hosts: *Euphorbia canariensis*.

References: (ay) Israelson 1972. (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Kleine 1913b: 113, 1914a: 20, 22; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 68, 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 20; Souphieff & Scherbinovskaja 1937: 28; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 99; Ferrari 1868: 251–254; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 57, 68; Schedl, Lindberg, & Lindberg 1959: 20; Wollaston 1860b: 164, 1861b: 34, 1862b: 165, 1864: 261, 1865: 240.

canariense longipes Israelson 1972: 256. Holotype ♂; El Time, La Palma, Canary Islands; Israelson Collection.

Notes: Israelson 1972: 256 (subspecies established, but distributions are not discussed).

References: (ay) Israelson 1972: 256. (ds) Schedl 1964f. (tx) Israelson 1972: 256.

canescens Wollaston 1865: 241. Lectotype ♂; Comera, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Figures: Israelson 1972: figs. 14–16, 23 (male genitalia).

Distribution: Africa (Comera, Gran Canaria, Tenerife in Canary Islands).

Hosts: *Euphorbia balsanifera*, *E. regis-jubae*.

Notes: Israelson 1972: 255–256 (subspecies established without a discussion of either host or geographical distributions).

References: (ay) Israelson 1972: 255. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 63, 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 20; Uyttenboogaart 1937: 117. (tx) Eichhoff 1878b: 95; Hagedorn 1910a: 73; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 63; Schedl, Lindberg, & Lindberg 1959: 20; Wollaston 1865: 240–241.

canescens simplex Wollaston 1865: 42. Lectotype ♂; Grand Canary, Canary Islands; BMNH, London, designated by Israelson 1972: 256.

Notes: (1) Israelson 1972: 256 (subspecies established).

Distribution: Africa (Gran Canaria in Canary Islands).

References: (ay) Israelson 1972: 256. (ds) Kleine 1914a: 20. (tx) Israelson 1972: 256; Schedl 1934f: 1638, 1959g: 63; Wollaston 1965: 42.

caucensis polypiniger Israelson 1972: 256. Holo-

type ♂; Los Cristianos, Tenerife, Canary Islands; Israelson Collection.

Notes: (1) Israelson 1972: 256 (subspecies established).

Distribution: Africa (Tenerife in Canary Islands).

References: (ay) Israelson 1972: 256. (tx) Israelson 1972: 256.

duongi Villiers 1946: 140. Holotype, sex?; Koulouba (Bamako), French West Africa; Institute francais d'Afrique noire de Dakar.

Distribution: Africa (Mali).

Hosts: *Euphorbia sudanica*.

References: (ds) Schedl 1959g: 77, 1961k: 645. (tx) Schedl 1959g: 77, 1961k: 645; Villiers 1947: 140.

euphorbiae Wollaston 1854: 293. Lectotype ♂; Lagoa basin, Madeira; BMNH, London, designated by Israelson 1972: 256.

Figures: Israelson 1972: fig. 20 (lectotype male genitalia)

Distribution: Africa (Madeira Island).

Hosts: *Euphorbia mellifera*.

References: (ay) Israelson 1972: 256. (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Fauvel 1897; Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Jansson 1940: 63; Kleine 1913b: 113, 1914a: 22, 1934a: 139; Lacordaire 1866: 375; Lundblad 1958: 489; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 69, 1963e: 155; Schmitz 1898: 157; Souphieff & Scherbinovskaja 1937: 28; Wollaston 1854: 293, 1857: 97. (tx) Eichhoff 1878b: 87; Ferrari 1868: 251; Hagedorn 1910a: 73; Hopkins 1914: 117; Israelson 1972: 256; Lacordaire 1866: 375; Lucas 1920: 108; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 69, 1979c: 92; Wollaston 1854: 293, 1857: 97, 1860a: 362, 1861b: 31, 1862b: 165, 1864: 260, 1865: 242.

glabrum Wollaston 1860: 167. Lectotype, sex?; Hierro, Canary Islands; BMNH, London, designated by Israelson 1972: 251.

Figures: Israelson 1972: figs. 5–6 (male genitalia).

Distribution: Africa (Comera, Hierro, Palma, Tenerife in Canary Islands).

Hosts: *Euphorbia* sp.

Notes: (1) Israelson 1972: 251 (subspecies established).

References: (ay) Israelson 1972: 251. (cn) Souphieff & Scherbinovskaja 1937: 27. (hb) Uyttenboogaart 1937: 17. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 60; Schedl 1959g: 62; Schedl, Lindberg, & Lindberg 1959: 21; Souphieff & Scherbinovskaja 1937: 27. (tx) Eichhoff 1878b: 89; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 60; Schedl 1934f: 1638, 1959g: 56, 62; Schedl, Lindberg, & Lindberg 1959: 21; Wollaston 1860b: 167, 1861b: 37, 1862b: 171, 1864: 258, 1865: 242.

glabrum nudum Israelson 1972: 251. Holotype ♂; Santa Cruz, La Palma, Canary Islands; Israelson Collection.

Notes: (1) Israelson 1972: 251 (subspecies established).

Distribution: Africa (Palma in Canary Islands).

References: (ay) Israelson 1972: 251.

hesperidum Wollaston 1867: 117. Lectotype ♂; Cape Verde Islands, S. Vicent; BMNH, London, designated by Israelson 1972: 250.

Distribution: Africa (Cape Verde Islands).

Hosts: *Euphorbia emortuus*, *E. tuckeyana*.

References: (ay) Israelson 1972: 250. (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 23, 1934a: 139; Peyerimhoff 1923a: 61; Schedl 1959g: 73; Souphieff & Scherbinovskaja 1937: 28. (tx) Eichhoff 1878b: 94; Hagedorn 1910a: 73; Israelson 1972: 250; Peyerimhoff 1923a: 61; Schedl 1959g: 73, 1979c: 116; Wollaston 1867: 117.

indicum Wood 1988b: 190. Holotype ♂; Chikalda, Melghat, C.P., India; FRI, Dehra Dun.

Distribution: Asia (Madhya Pradesh, Maharashtra in India).

Hosts: *Euphorbia nerifolia*, *Opuntia* sp.

References: (tx) Wood, S. L. 1988b: 190.

jubae Wollaston 1860b: 164. Lectotype, sex?; Haria, Lanzarote, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Figures: Israelson 1972: figs. 12–13 (male genitalia).

Distribution: Africa (Comera, Gran Canaria, Hierro, Lanzarote, Tenerife in Canary Islands).

Hosts: *Euphorbia regis-jubae*.

Notes: (1) Israelson 1972: 255 (subspecies established, but did not discuss host or geographical distributions).

References: (ay) Israelson 1972: 255. (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Lacordaire 1866: 375; Peyerimhoff 1923a: 47, 61; Schedl 1959g: 64, 1964f; Schedl, Lindberg, & Lindberg 1959: 21; Souphieff & Scherbinovskaja 1937: 28. (tx) Eichhoff 1868d: 421, 1878b: 85; Ferrari 1868: 251, 254; Hagedorn 1910a: 73; Lacordaire 1866: 375; Peyerimhoff 1923a: 47, 61; Schedl 1934f: 1638, 1959g: 64, 1979c: 130; Schedl, Lindberg, & Lindberg 1959: 21; Wollaston 1860b: 164, 1861b: 33, 1862b: 167, 1864: 257, 1865: 239.

jubae tuberculatum Wollaston 1865: 40. Lectotype, sex?; Hierro, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Notes: (1) Israelson 1972: 255 (subspecies established).

Distribution: Africa (Hierro in Canary Islands).

References: (ay) Israelson 1972: 255. (cn) Souphieff & Scherbinovskaja 1937: 27. (ds) Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20;

Peyerimhoff 1923a: 47, 61; Schedl 1959g: 65; Schedl, Lindberg, & Lindberg 1959: 23; Souphieff & Scherbinovskaja 1937: 27. **(tx)** Eichhoff 1878b: 88; Hagedorn 1910a: 73; Israelson 1972: 255; Peyerimhoff 1923a: 47, 61; Schedl 1934f: 1638, 1959g: 65; Schedl, Lindberg, & Lindberg 1959: 23; Wollaston 1865: 40, 239–240.

mairi Peyerimhoff 1923a: 53. Syntypes, sex?; Valle du Sous, Morocco; not located.

Distribution: Africa (Fuerteventura in Canary Islands/ Morocco/ Sudan).

Hosts: *Euphorbia beaumierana*, *E. echinus*, *E. handiensis*.

Notes: (3) Schedl 1959: 31 (treated this species in *Cisurgus*).

References: **(hb)** Peyerimhoff 1926: 387. **(ds)** Kleine 1934a: 139; Peyerimhoff 1923a: 53, 60, 1925: 12, 1926: 387; Schedl 1959e: 31, 1959g: 75, 1964f, 1968b: 144, 1972n: 350. **(tx)** Peyerimhoff 1923a: 53, 60, 1934f: 1638, 1959e: 31, 1959g: 75; Pfeffer 1983: 295.

goniomma Enderlein 1929: 142. Syntypes, sex?; Fuerteventura, Jandia-Gebirge, Gran Valle; not located. Synonymy: Israelson 1980: 202.

References: **(cn)** Souphieff & Scherbinovskaja 1937: 28. **(ds)** Kleine 1934a: 139; Schedl 1959g: 74–75; Schedl, Lindberg, & Lindberg 1959: 21; Souphieff & Scherbinovskaja 1937: 28. **(tx)** Enderlein 1929: 142–143; Pfeffer 1983: 295; Schedl 1934f: 1638, 1959g: 74–75, 1962p: 204; Schedl, Lindberg, & Lindberg 1959: 21.

monodi Paulian & Villiers 1941: 102. Holotype, sex?; Dakar, Senegal; MNHN, Paris.

Distribution: Africa (Senegal).

Hosts: *Euphorbia balsamifera*.

References: **(ds)** Schedl 1959g: 76, 1961k: 646. **(tx)** Paulian & Villiers 1941: 102; Schedl 1959g: 76, 1960b: 163, 1961k: 646, 1979c: 158; Villiers 1946: 140.

neglectum Schedl 1964a: 99. Syntypes, sex?; Boca del Rio, Palma; MZU, Helsinki, and Schedl Collection in NHMW, Wien.

Distribution: Africa (Palma in Canary Islands).

References: **(tx)** Schedl 1964a: 99, 1979c: 164.

orientalis Schedl 1971e: 12. Holotype, sex?; Sudan, Erkowit, Rotmeer Gebiet, 1400 m; Bayerischen Staates Museum, Munchen.

Distribution: Africa (Sudan).

References: **(tx)** Schedl 1971e: 12, 1979c: 180.

piscatorium Wollaston 1860b: 166. Lectotype ♂; Teneriffe, Palma, and Hierro, Canary Islands; BMNH, London, designated by Israelson 1972: 250. Figures: Israelson 1972: fig. 5 (male genitalia).

Distribution: Africa (Gomera, Gran Canaria, Hierro, Tenerife in Canary Islands/ Madeira Island).

Hosts: *Euphorbia piscatoria*, *E. sp.*

References: **(ay)** Israelson 1972: 250. **(cn)** Souphieff & Scherbinovskaja 1937: 27. **(ds)** Fauvel

1897; Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Jansson 1940: 63; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Lacordaire 1866: 376; Lundblad 1958: 489; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 73, 1963e: 155, 1964f; Schedl, Lindberg, & Lindberg 1959: 22; Schmitz 1898: 157; Souphieff & Scherbinovskaja 1937: 27; Uyttenboogaart 1937: 117. **(tx)** Eichhoff 1878b: 98; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 73, 1964a: 99, 1979c: 195; Schedl, Lindberg, & Lindberg 1959: 22; Wollaston 1860a: 361, 1860b: 166, 1861b: 37, 1862b: 171, 1864: 260, 1865: 242.

pygmaeum Wollaston 1865: 42. Lectotype ♂; Gomera, Canary Islands; BMNH, London, designated by Israelson 1972: 256.

Figures: Israelson 1972: fig. 21 (male genitalia).

Distribution: Africa (Gomera, Palma, Tenerife in Canary Islands).

Hosts: *Euphorbia canariensis*.

References: **(ay)** Israelson 1972: 256. **(cn)** Souphieff & Scherbinovskaja 1937: 28. **(ds)** Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 67, 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 23; Souphieff & Scherbinovskaja 1937: 28. **(tx)** Eichhoff 1878b: 96; Hagedorn 1910a: 73; Israelson 1972: 254; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 67; Schedl, Lindberg, & Lindberg 1959: 23; Wollaston 1865: 42, 240, 242.

pygmaeum laticollis Wollaston 1865: 42. Syntypes, sex?; Palma, Canary Islands; BMNH, London. Synonymy: Israelson 1972: 256.

References: **(tx)** Schedl 1934f: 1638; Wollaston 1865: 42.

reticulatum Wood 1988b: 191. Holotype ♂; Humsur, Mysore, India; FRI, Dehra Dun.

Distribution: Asia (Karnataka, Uttar Pradesh in India).

Hosts: *Euphorbia royaleana*, *E. sp.*

References: **(tx)** Wood, S. L. 1988b: 191

royaleanum Wood 1988b: 191. Holotype ♂; Chikalda, Malghat, C.P., India; FRI, Dehra Dun. Distribution: Asia (Karnataka, Madhya Pradesh, Uttar Pradesh in India).

Hosts: *Euphorbia royaleana*, *E. sp.*

References: **(tx)** Beeson 1941; Schedl 1959g: 56; Wood, S. L. 1988b: 191.

saturatum Peyerimhoff 1925: 12. Syntypes, sex?; Oued el-Akhdar, pres Demnat; not located.

Distribution: Africa (Morocco).

Hosts: *Euphorbia resiniferac.*

References: **(ds)** Peyerimhoff 1925: 12; Schedl 1959e: 32, 1959g: 75. **(tx)** Peyerimhoff 1925: 12; Schedl 1934f: 1638, 1959e: 32, 1959g: 75, 1960b: 163, 1962p: 204.

subglabrum **Israelson** 1972: 251. Holotype ♂; Canary Islands, La Palma, Bco. de la Cueva Grande; Israelson Collection.

Figures: Israelson 1972:fig. 8 (male genitalia).

Distribution: Africa (Palma in Canary Islands).

Hosts: *Euphorbia* sp.

References: (ay) Israelson 1972: 251. (tx) Israelson 1972: 251, 254.

wollastoni **Israelson** 1972: 251. Holotype ♂; Canary Islands, Comera, San Sebastian; Israelson Collection.

Figures: Israelson 1972:fig. 4 (holotype male genitalia).

Distribution: Africa (Comera in Canary Islands).

Hosts: *Euphorbia* sp.

References: (ay) Israelson 1972: 251. (tx) Israelson 1972: 251–252.

Genus *Deropria* Enderlein

DEROPRIA **ENDERLEIN** 1929: 143. Type-species: *Aphanarthrum elongatum* Eggers, original designation.

References: (ds) Wood, S. L. 1986a: 76. (tx) Enderlein 1929: 143; Schedl 1959g: 54; Wood, S. L. 1986a: 76.

elongatum (**Eggers**) 1927: 39 (*Aphanarthrum*). Holotype, sex?; Gran Canaria, Canary Islands; Uyttenboogaart Collection.

Distribution: Africa (Gran Canaria in Canary Islands).

References: (cn) Enderlein 1929: 143. (ds) Schedl 1959g: 76; Schedl, Lindberg, & Lindberg 1959: 21; Uyttenboogaart 1937: 117. (tx) Eggers 1927: 39–40; Enderlein 1929: 143; Schedl 1934f: 1638, 1959g: 57, 76; Schedl, Lindberg, & Lindberg 1959: 21; Wood, S. L. 1986a: 76.

Genus *Crypturgus* Erichson

CRYPTURGUS **ERICHSON** 1836: 60. Type-species: *Bostriachus pusillus* Gyllenhal, subsequent designation by Thomson 1859: 147.

Keys: Bright 1976d: 114, Swaine 1918a: 54, Wood 1982b: 740 for North America, Reitter 1913a: 61, Schedl 1946a: 4 for Europe.

References: (ay) Nobuchii 1969a: 59. (cn) Aitken 1945: 273–364; Judeich & Nitsche 1895: 448–451. (cc) Balazy & Michalski 1960: 133–144. (hb) Wood, S. L. 1986a: 75–76. (ds) Hagedorn 1910d: 35–37; Scheerpeltz & Winkler 1930: 256; Wood, S. L. 1986a: 76. (tx) Apfelbeck 1916: 429–439; Balachowsky 1949a: 155; Barbey 1901: 68; Beal & Massey 1945: 72; Bedel 1888b: 389, 395; Bright 1976d: 114; Bruck 1936a: 40, 108; Chamberlin 1939: 117–120, 1958: 54; Dodge 1938: 14, 16, 23; Eichhoff 1864b: 33, 44, 46, 1878b: 72, 1881a: 64, 165; Erichson 1836: 60; Hagedorn 1910a: 73–74; Karaman 1972: 97; Kostin 1973: 251; Krivolutskaya 1958: 132; LeConte 1876: 387; LeConte & Horn 1883: 523–524; Niisima 1909: 138; Num-

berg 1955: 75–80; Pfeffer 1942: 207–222, 1989a: 52; Reitter 1913: 61–64; Saalas 1914: 81–82; Schedl 1946a: 1–15; Schimitschek 1937: 50–52; Spessivtsev 1922: 459, 1931: 87; Swaine 1918a: 39, 54; Trappen 1935: 142; Wood, S. L. 1986a: 76; Zimmermann 1868: 142–143.

alutaceus **Schwarz** 1894: 17. Lectotype ♂; Tampa, Florida [USA]; USNM, Washington, designated by Wood 1982b: 742.

Figures: Coyer et al. 1980: 21 (adult), MacGown & Nebeker 1977: 63–66 (adult).

Distribution: Antilles Islands (Cuba), North America (Florida, Indiana, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, South Carolina, Virginia, West Virginia in USA).

Hosts: *Picea mariana*, *Pinus echinata*, *P. plustrus*, *P. taeda*.

References: (ay) MacGown & Nebeker 1977. (bv) Atkinson, Foltz, & Connor 1988; Dixon & Payne 1979b; Turnbow & Franklin 1980. (cn) Blackman 1950; Doane et al. 1936; Hopkins 1899c: 448; Smith, J. B. 1901b: 92. (cc) Dixon & Payne 1979c; Felt 1906: 753. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 239; Beal & Massey 1945: 72; Blackman 1950; Chamberlin 1939: 120; Deyrup & Atkinson 1987a: 65, 1987b: 67; Doane et al. 1936; Felt 1906: 753; Hopkins 1899c: 448; Pierce, W. D. 1907: 294; Schwarz 1893: 288, 1894a: 17. (ds) Atkinson et al. 1991: 160; Beal & Massey 1945: 72; Blackman 1950; Blatchley & Leng 1916: 651; Bright 1985c: 173; Chamberlin 1939: 120; Deyrup & Atkinson 1987a: 65; Drooz 1985: 362; Hagedorn 1910d: 35; Henshaw 1895: 44; Howden & Vogt 1951; Kirk 1970; Kleine 1913b: 114, 1914b: 383, 1934a: 139; Leng 1920: 337; Smith, J. B. 1910: 404; Swaine 1909: 94; Turnbow & Franklin 1980; Ulke 1902: 56; Wood, S. L. 1982b: 742. (tx) Beal & Massey 1945: 72; Blatchley & Leng 1916: 651; Bright 1985c: 173; Chamberlin 1939: 120; Coyer et al. 1980: 21; Hagedorn 1910a: 74; MacGown & Nebeker 1977: 63–66; Schwarz 1893: 288, 1894: 17; Swaine 1909: 94; Wood, S. L. 1982b: 742.

beesoni **Eggers** 1936d: 627. Lectotype ♂; Kashmir; USNM, Washington, designated by Anderson & Anderson 1971: 6.

Distribution: Asia (Kashmir in India).

Hosts: *Abies webbiana*, *Cedrus deodara*.

References: (ds) Beeson 1961: 286; Bhasin, Roonwal, & Singh 1958. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1936d: 627; Schedl 1979c: 36.

borealis **Swaine** 1917: 7. Lectotype ♀; Winnipeg, Manitoba [Canada]; CNCI, Ottawa, designated by Bright 1967b: 673.

Figures: Bright 1976d: 197, 202, 210, Kusch 1967: 10.

Distribution: North America (Alaska/ Alberta, British Columbia, New Brunswick, Northwest

Territories, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/Mexico in Mexico/Arizona, Colorado, Idaho, Indiana, Maine, Michigan, Missouri, Montana, New Mexico, New York, Oregon, Pennsylvania, South Dakota, Utah in USA).

Hosts: *Abies balsamea*, *A. concolor*, *A. grandis*, *A. lasiocarpa*, *Picea engelmannii*, *P. glauca*, *P. rubens*, *P. sitchensis*, *Pinus contorta*, *P. echinata*, *P. ponderosa*.

References: (ay) Thomas, J. B. 1967. (cn) Beckwith 1972; Chamberlin 1924; Doane et al. 1936; Keen 1952c: 166; Lindquist, O. H. & Syme 1951: 34; Ruppel 1967: 29; Schuder 1969: 75; Syme & Nystrom 1958: 35. (ce) Ashraf & Berryman 1969: 14; Bedard 1933a; DeLeon 1934a; Furniss, R. L. & Carolin 1977: 378; Tomalak, Welch, & Garroway 1989b; Werner & Holsten 1984. (hb) Baker, W. L. 1972: 239; Bright 1976d: 115; Bright & Stark 1973: 70; Chamberlin 1939: 119, 1958: 54; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 378; Keen 1952c: 166; Swaine 1918a: 55. (ds) Bain 1974: 16; Beaulne 1956; Beckwith 1972a; Bright 1976d: 70; Bright & Stark 1973: 70; Chamberlin 1917: 323, 1925, 1939: 119, 1958: 54; Deyrup & Atkinson 1987b: 67; Dodge 1938; Drooz 1985: 362; Furniss, R. L. & Carolin 1977: 378; Gast et al. 1989: 385; Hopping 1922; Keen 1929a: 14, 1952c: 166; Kleine 1934a: 140; Kusch 1967; Leng 1920: 337; Leonard 1928: 515; Lindquist, O. H. & Syme 1951: 34; Patterson & Hatch 1945: 145; Ruppel 1967: 29; Schedl 1963c: 157, 1964f, 1978e: 37; Schuder 1969: 75; Still, Tidsbury, & Melvin 1974; Thatcher, T. O. 1935: 261; Syme & Nystrom 1958: 35; Werner & Holsten 1984; Wood, S. L. 1948: 14, 1951a: 127, 1957c: 396, 1972a: 415, 1982b: 742. (tx) Beckwith 1972a, 1972b; Bright 1967b: 673, 1976d: 115, 197, 202, 210; Bruck 1936a: 108; Chamberlin 1939: 119, 1958: 54; Dodge 1938: 23; Hoebeke 1978; Keen 1929a: 14; Kusch 1967: 10; Lindquist, O. H. & Syme 1951: 34; Pardy 1983; de Ruelle 1970: 100; Schedl 1979c: 43; Swaine 1917: 7, 1918a: 54-55; Syme & Nystrom 1958: 35; Thomas, J. B. 1967; Titus, Meikle, & Harrison 1985: 52; Wood, S. L. 1951a: 12, 1957c: 396, 1972a: 415, 1982b: 742.

corrugatus Swaine 1917: 8. Lectotype ♀; North Mountain, Pennsylvania [USA]; CNCI, Ottawa, designated by Bright 1967b: 673. Synonymy: Wood 1957c: 396.

References: (cn) Blackman 1950; Swaine 1918a: 54. (hb) Blackman 1950; Chamberlin 1939: 119; Swaine 1918a: 54. (ds) Anonymous 1926c: 515; Blackman 1950; Chamberlin 1939: 119; Knoll 1934: 211; Leng 1920: 338. (tx) Bright 1967b: 673; Chamberlin 1939: 119; Hoebeke 1978; de Ruelle 1970: 100; Swaine 1917: 8, 1918a: 54-55; Wood, S. L. 1957c: 396.

cinereus (Herbst) 1793: 118 (*Bostrichus*). Syntypes, sex?; Europe; not located.

Figures: Grune 1979: 88, Joly 1976: fig. 140, Pfeffer 1989a: pl. 6, Tsai & Li 1959: 87.

Distribution: Asia (Turkey/ Sakhalin Island, Siberia in E USSR/Vietnam), Europe (Austria/Belgium/Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Abies* spp., *Picea* spp., *Pinus* spp.

Notes: (3) Schedl 1979c: 125 (*japonicus* Eggers, nomen nudum, synonymy).

References: (ay) Escherich 1923b: 464, 481, 556; Feytaud 1950a; Francke-Grosmann 1959; Imhoff 1856: 228; Numberg 1955: 75; Nusslin 1911a: 89, 277, 338, 377. (bv) Nuorteva 1956c: 23, 93; Schmaider 1955: 233. (cn) Barbey 1925: 246; Borodajewsky 1915: 1222-1247; Chararas 1961b: 70; Chorbadzhievo 1929; Eckstein 1926: 578; Escherich 1923b: 464, 481, 556; Esterberg 1959; Feytaud 1946, 1950a; Fleischer 1877a; Gabler 1955; Gradojevic 1933: 789-790; Grandi 1951; Hanson, H. S. 1937; Henschel 1895a: 162; Herlein 1878; Joly 1976; Judeich & Nitsche 1895: 527; Kharltonov 1924: 199-204; Koch 1913: 126; Kontkanen 1932: 61; Kurenzov 1935c: 188; Marcu 1926c: 63; Nestertschnk 1930: 176; Nosek 1952b: 100; Nusslin 1913: 259; Pfeffer 1933: 43, 1949b: 150; Pierce, W. D. 1917: 74; Prozorov 1929; Reisch 1960; Rhumbler 1922: 301, 1927: 314; Saalas 1949: 342, 371; Sargos 1947: 8; Schmitschek 1937c: 52, 1955c: 82; Schneider-Orelli & Kuhn 1948: 518; Schuster 1918: 102; Schwerdtfeger 1944a: 177, 1957a: 184; Slander 1958: 150-158; Wachtl 1901: 381, 1926: 578; Wichmann 1927b: 353; Yakubuk 1928: 102-103, 1959: 40. (ce) Apfelbeck 1816b; Balazy & Michalski 1960, 1962b; Barbey 1927; Fleischer 1877a, 1877b; Francke-Grosmann 1931, 1959; Galoux 1947b, 1947c; Grosmann 1931a; Hirschmann & Wisniewski 1983; Kangas 1946b: 23; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 185; Kostenko 1929; Kostin 1964: 107; Kurenzov 1934a: 57; Lundberg 1984; Meyer 1918: 178; Michalski & Ratajczak 1989; Nikitsky 1978; Nosek 1952b: 100; Nuorteva 1971; Nusslin 1927: 300; Okolow 1963; Palmen 1946: 194; Pfeffer 1928b: 2, 1932a: 15, 1933: 43, 1949b: 150; Poinar 1975: 151; Ratzelburg 1869a: 79; Roubal 1934a: 86; Ruhm 1956b: 3; Saalas 1949: 342, 371, 1951: 13-14; Schuster 1918: 102; Schwerdtfeger 1944a: 177, 1957a: 184; Sklenkis 1974; Wettstein 1951: 65; Wisniewski 1979b; Zinovjev 1957: 331, 1958: 385. (hb) Altum 1881c: 322; Apfelbeck 1916b, 1917; Bach 1864; Barbey 1901: 22, 68, 1906b, 1925: 246; Beffa 1949, 1961; Budkov 1897; Cabral 1959; Cecconi 1924; Chararas 1961b: 70, 1962c: 419; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887; Drugesco 1980; Eckstein

- 1926: 578; Eichhoff 1881a: 44, 166, 1882a: 241; Eidmann 1962: 161; Ekici 1971; Escherich 1923b: 464, 481, 556; Feytaud 1946, 1950a; Fleischer 1877a; Fuchs 1904a; Gabler 1955; Gornostaev 1916: 310, 1917: 308–315; Grandi 1951; Gyorfi 1957; Hagedorn 1903a; Hanson, H. S. 1937: 185–236; Henschel 1876: 240, 1895a: 162; Holmgren 1867: 128; Jakobjuk 1927: 225, 1928: 102; Johnson & Pettinger 1961b: 2; Joly 1976; Judeich & Nitsche 1895: 527; Karpinski 1933b: 28, 1935: 1–86, 1952: 88; Karpinski & Strawinski 1948: 155; Kleine 1908c: 98, 1911: 158; Knotek 1894a: 557, 1897: 160, 1898b: 333; Kostin 1960: 132; Krivolutskaya 1956: 831, 1960: 77; Kurenzov 1948b: 108; Lekander 1959a: 84; Lengerken 1939: 62, 1954: 82; Lesne 1923: 480–481; Masutti 1964; Michalski 1959a: 291; Nordlinger 1856: 26; Numberg 1929: 102; Nuorteva 1956c: 23, 93; Nusslin 1898: 280, 1913: 259, 1927: 300; Pfeffer 1941b: 2; Qui & Huo 1958: 267; Ratzeburg 1837: 162, 1839: 197; Rhumbler 1922: 301, 1927: 314; Rimski-Korsakov et al. 1949: 288; Rupertsberger 1880: 229; Saalas 1913a: 68, 82, 1949: 342, 371, 1951: 13–14; Schedl 1981b: 66; Schnaider 1954: 171; Schwerdtfeger 1944a: 177, 1957a: 184, 1981: 190; Spessivtsev 1913a: 63, 1923: 204; Stark 1926a: 334, 1952: 247; Tragardh 1914: 94, 1939b: 197; Wachtl 1876a: 458, 1901: 381; Weber, H. 1926: 578; Wichmann 1927b: 353; Yakubyl 1959: 40; Zinovjev 1957: 331, 1958: 385. (ds) Acatay 1961: 3; Acloque 1896; Andersch 1851; Arnoldi et al. 1955: 684; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Beffa 1949; Benick 1921; Bielz 1887; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 205; Brancsik 1871; Budkov 1897; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Cabral 1959; Champion 1894; Chapuis & Candeze 1853; Charvat 1950; Chorbadzhievo 1924d, 1929; Dejean 1821, 1825, 1837; Derenne 1952; Donnisthorpe 1931: 173; Eder 1934; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 464, 481, 556, 1932b; Esterberg 1928, 1959; Fleischer 1877b; Fuchs 1904a, 1905a; Gaidiene 1976; Gaubil 1849: 126; Gemminger & Harold 1872: 2679; Gerhardt 1896; Gillerfors 1966; Gornostaev 1917; Gozis 1875: 80; Gradojevic 1933; Gredler 1866: 373; Grill 1895: 310; Grouzelle 1905; Grune 1979: 89; Gyllenhal 1827: 624; Hagedorn 1903a, 1910d: 35; Hallett 1923b: 13–14; Hansen, V. 1939, 1956; Heinemann 1908a; Hellen 1947; Henschel 1895a: 162; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 710; Holdhaus & Deubel 1910: 160; Holmgren 1867: 128; Horion 1951; Jazentkovsky 1912: 288; Joly 1976; Judeich & Nitsche 1895: 527; Kaltenbach 1874: 686; Kamp 1979; Kangas 1945; Karpinski 1925: 216, 1931: 26, 1933b: 28, 1948b: 230, 1952: 88, 1954: 141; Karpinski & Strawinski 1948: 155; Keler 1922b: 211, 1925b: 272; Kersten 1933: 74; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 230; Kleine 1908: 98–101, 1911: 158, 1912a: 263, 267, 1913a: 34, 1913b: 114, 1934a: 140; Knotek 1892a: 37, 1894a: 557, 1898b: 333; Koch 1961: 118; Kontkanen 1932: 61; Kostenko 1929; Kozikowsky 1921: 180; Kraatz 1869: 59; Krivolutskaya 1956: 831, 1960: 77, 1983; Kulczynski 1873: 109; Kurenzov 1934a: 57, 1935c: 188, 1936a: 111, 1936b: 357; Kurir 1947c: 6; Lacordaire 1866: 374; Langhoffer 1915c: 157; Larroche & Torossian 1971; Leclercq 1971; Lentz 1857: 138; Lindberg & Saris 1952: 59; Lindemann 1884b: 264; Lomnicki 1886a: 242, 1913b: 148; Lovendal 1890c: 210; Lucht 1987: 277; Lundblad 1950c: 115; Marcu 1926c: 63; Mequignon 1936; Michalski 1957: 164; Moragues 1889: 32; Munster 1928: 289; Negru 1966b: 400; Numberg 1928b: 88, 104, 1954: 45; Nuorteva 1971: 71; Nusslin 1898: 280; Orest 1926c: 63; Palm 1948a: 90, 1985; Palmen 1946: 194; Pfeffer 1924b: 471, 1928b: 2, 1931b: 74, 1935: 159, 1947c: 15, 1950b: 74, 1984: 277, 1989a: 53; Pierce, W. D. 1917: 74; Poppius 1900: 108; Prossen 1913: 83; Pruffer 1948: 23; Ratzeburg 1837: 162, 1839: 197; Redtenbacher 1858: 831, 1874: 374; Reitter 1869b: 154, 1894a: 65, 1916: 287; Rimski-Korsakov et al. 1949: 288; Rossenhauer 1856: 301; Roubal 1941: 262; Saalas 1913a: 68, 82, 1916: 110–116, 1919, 1931: 69; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1230; Schaum 1859: 95, 1862: 101; Schedl 1959h: 99, 1961b: 184, 1964f, 1967c: 70, 1971d: 429, 1975a: 452, 1980a: 13, 1981b: 66; Scheerpeltz & Winkler 1930: 256; Schilsky 1909: 188; Schiodte 1873: 101; Schneider & Leder 1977: 54; Schwerdtfeger 1981: 190; Seidlitz 1872: 393, 1891a: 561, 1891b: 607; Stark 1925: 78–81, 1926a: 334, 1926b: 103, 1926d: 164–167, 1926j: 125, 1931a: 25, 1931d: 546, 1952: 247; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 438; Stierlin & Gautard 1871: 292; Strand 1946: 599; Sturm 1826: 102, 1843: 230; Thomson 1865: 361, 1868: 220; Tragardh 1914: 94, 1939b: 197; Tredl 1907: 12; Wachtl 1876a: 458; Wahnschaffe 1863: 230; Wichmann 1927a: 66; Yanovskii 1974, 1977a, 1986: 64, 1989; Yanovskii & Tegshzhargal 1985: 408; Zinovjev 1955: 187. (tx) Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 160; Barbey 1901: 22, 68, 1906b; Beffa 1949, 1961; Bertolini 1872; Brancsik 1871; Cabral 1959; Castelnau 1840; Chapuis & Candeze 1853; Charvat 1950; Chorbadzhievo 1924d; Csiki 1909; Dejean 1821, 1825; Doebner 1860; Dombrowsky 1887; Duffy 1953; Eggers 1911a, 1923: 134–135, 1929e: 43, 1933f: 5, 1940g: 36; Eichhoff 1864b: 33, 1868b: 404, 1878b: 75, 1881a: 44, 166, 1883a: 108, 131; Endrodi 1957b; Ericson 1836b: 61; Escherich 1923b: 464, 481, 556; Fauvel 1889; Ferrant 1911; Ferrari 1867a: 6, 79, 1867b: 106, 113; Fleischer 1921, 1927; Formanek 1907: 31; Gabler 1955; Gebien 1907: 197; Grune 1979: 88–89; Gyllenhal 1813: 370, 1827: 624; Hagedorn 1910a: 74; Hansen, V. 1956; Henschel 1876a: 240,

1895a: 162; Herbst 1793: 116, 118; Joly 1976: fig. 140; Judeich & Nitsche 1895: 527; Kalina 1970: 123; Karpinski & Strawinski 1948: 155; Knutek 1892a: 37; Koch 1913: 126, 1928: 102, 1932: 105; Krivolutskaia 1956: 831, 1958: 133; Kuhnt 1913: 1054; Kurenzov 1941a: 138, 1948b: 108; Lacordaire 1866: 374; Letzner 1891: 375; Lovendal 1889b: 50, 1890c: 210, 1898: 122; Lucas 1920: 212; Lucht 1987: 277; Negru 1966b: 400; Niisima 1909: 139; Nordlinger 1848: 241, 1856: 26; Numberg 1954: 45, 1956: 75; Nusslin 1911a: 277, 338, 377, 89; Pfeffer 1932b: 17, 1933, 1941b: 2, 1942c: 208, 1947e: 15, 1955c: 155, 1959a: pl. 6; Portevin 1935: 323; Quaschik 1953: 35; Ratzeburg 1837: 162, 1839: 197; Redtenbacher 1849a: 792, 1849b: 26, 1858: 831, 1874: 374; Reitter 1894a: 65, 1913a: 62, 1916: 287; Rhumbler 1922: 301, 1927: 314; Rupertsberger 1880: 229; Saalas 1913a: 68, 82, 1919: 1–415, 1949: 342, 371; Sahlberg 1836: 154, 1839: 140; Schedl 1934f: 1637, 1946a: 8, 1952f: 87, 1959h: 99, 1980a: 13, 1981b: 66; Schimitschek 1937c: 52, 1955c: 82; Seidlitz 1872: 393, 1891a: 561, 1891b: 607; Sokanovskii 1954: 16, 1958: 38; Spessivtsev 1913a: 63, 1922a: 468, 1923: 468, 490, 1925a: 170, 1925b: 15, 1931: 45; Stark 1952: 247; Stierlin 1898: 438; Stresemann et al. 1989: 353; Thomson 1865: 361, 1868: 220; Tsai & Li 1959: 87. **(ms)** Escherich 1932b; Heinemann 1908a; Lckander 1959a: 84; Lucas 1920: 212; Michalski 1959a: 291.

tenerimus Sahlberg 1836: 140 (*Hylesinus*). Syntypes, sex[?]; Finland; not located. Synonymy: Schedl 1946a: 9.

References: **(hb)** Wachtl 1876a: 458. **(ds)** Bedel 1888b: 395, 413; Calver 1884, 1893; Hagedorn 1910d: 35; Schaum 1862: 101; Schilsky 1909: 188; Stein 1865: 113; Stein & Weise 1877: 164; Wachtl 1876a: 458. **(tx)** Bedel 1888b: 395, 413; Ferrari 1867a: 6; Gemminger & Harold 1872: 2675; Letzner 1891: 375; Sahlberg 1836: 140; Schedl 1946a: 8–9.

atticus Eggers 1911: 120. Syntypes, sex[?]; Attica; Landesmus (Sarajevo) and Eggers Collections, 1 Eggers syntype in NHMW, Wien. Synonymy: Schedl 1946a: 9.

Notes: (1) Schedl 1979c: 31 (citation of holotype invalid).

References: **(ds)** Kleine 1913b: 114; Normand 1949: 104; Pfeffer 1947d: 128; Schaufuss 1915: 1230. **(tx)** Balachowsky 1949a: 160; Eggers 1911: 120; Pfeffer 1942b: 208–209, 1955a: 152; Reitter 1913a: 63–64; Schedl 1934f: 1637, 1946a: 9, 1979c: 31.

corsicus Eggers 1923: 135. Lectotype ♀; Asco, Foret Carozzica, Corsica; USNM, Washington, designated by Anderson & Anderson 1971: 10. Synonymy: Schedl 1946a: 9.

References: **(ds)** Pfeffer 1947d: 127; Sainte-Claire & Mequignon 1938: 445. **(tx)** Anderson, W. H. & Anderson 1971: 10; Balachowsky

1949a: 160; Eggers 1923: 135; Pfeffer 1942b: 208–289; Schedl 1934f: 1637, 1946a: 9, 1979c: 66.

subcribrosus Eggers 1933f: 5. Holotype, sex[?]; Bruck a.d. Mur (Steiermark); USNM, Washington. Synonymy: Schedl 1946a: 9.

References: **(ay)** Numberg 1955: 75. **(bv)** Nuorteva 1956c: 28. **(cn)** Pfeffer 1948a: 800, 1950c: 2. **(ec)** Kangas 1946b: 23; Lundberg 1984; Nuorteva 1971: 70; Pfeffer 1950c: 2, 1955b: 84. **(hb)** Karpinski 1952: 88; Kurenzov 1948a: 51, 1950d: 204; Nuorteva 1956c: 28; Pfeffer 1941c: 5; Schnaider 1954: 174; Stark 1952: 246. **(ds)** Arnoldi et al. 1955: 686; Bejer-Petersen & Jorun 1977: 21; Bistrom & Vaisanen 1988: 42; Brakman 1966b: 205; Hansen, V. 1939, 1956, 1964: 460; Hellen 1947; Ilorion 1935; Kangas 1945; Karmizaki 1952: 85; Karpinski 1952: 88, 1954: 141–142; Klefbeck & Sjoberg 1960: 230; Krivolutskaia 1953; Linnman 1965: 27; Lundberg 1979: 31, 1980: 149; Nuorteva 1971: 67; Palm 1946: 122; Pfeffer 1930a: 16, 1931b: 74, 1947c: 3; Reitter 1916: 350; Roubal 1935b: 72, 1941: 262; Stark 1952: 246; Strand 1946: 599; Wegelius 1960: 106; Yanovskii & Tegshzhargal 1984: 415; Zinovjev 1955: 187. **(tx)** Anderson, W. H. & Anderson 1971: 32; Balachowsky 1949a: 160; Eggers 1933f: 5; Hansen, V. 1956, 1964: 460; Michalski 1969b: 567; Numberg 1956: 75; Pfeffer 1932b: 24, 1941c: 5, 1942b: 208, 1947e: 3, 1955a: 156; Reitter 1916: 350; Schedl 1946a: 9, 1979c: 243; Sokanovskii 1954: 16; Stark 1952: 246.

apfelbecki Eggers 1940g: 36. Lectotype, sex[?]; Bosnien (Borke bei Sarajevo); USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Schedl 1946a: 9.

References: **(cn)** Schimitschek 1944: 168, 1952c: 59. **(ec)** Galoux 1947b; Schimitschek 1941a: 305. **(hb)** Schimitschek 1944: 168. **(tx)** Anderson, W. H. & Anderson 1971: 4; Balachowsky 1949a: 160; Eggers 1940g: 36–40; Pfeffer 1942b: 208, 212, 1955a: 153; Schedl 1946a: 9, 1979c: 22.

concolor (Wollaston) 1864: 263 (*Aphanarthrum*).

Lectotype, sex[?]; Canary Islands: Palma; BMNH, London, designated by Israelson 1972: 257.

Figures: Israelson 1972: fig. 25 (male genitalia).

Distribution: Africa (Ferro, Hierro, Palma, Tenerife in Canary Islands).

Hosts: *Pinus canariensis*.

References: **(ay)** Israelson 1972: 257. **(cn)** Souphieff & Scherbinovskaja 1937: 47. **(ds)** Gemminger & Harold 1872: 2679; Hagedorn 1910d: 36; Kleine 1913b: 114, 1914a: 21; Peyerimhoff 1933b: 371; Schedl 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 17; Souphieff & Scherbinovskaja 1937: 47. **(tx)** Eggers 1923: 135; Eichhoff 1878b: 75; Ferrari 1867a: 6, 1868: 254; Hagedorn 1910a:

74; Israelson 1972: 254, 257; Pfeffer 1942b: 207, 213; Schedl 1934f: 1637, 1946a: 12, 1979c: 61; Schedl, Lindberg, & Lindberg 1959: 17; Wollaston 1864: 263, 1865: 244, 1871: 264.

hispidulus Thomson 1870: 338. Syntypes, sex?, Norra Skane, Sweden; not located.

Figures: Grune 1979: 86, Pfeffer 1989a: pl. 6, Tsai & Li 1959: 88.

Distribution: Asia (Sakhalin Island, Siberia in E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ Finland/ Germany/ Hungary/ Norway/ Poland/ Sweden/ W USSR).

Hosts: *Picea* spp., *Pinus* spp., rare in *Abies* spp., *Larix europaea*.

References: **(bv)** Grune 1979: 87; Nuorteva 1956c: 28; Rozhkov 1970: 140. **(cn)** Chorbadzhiyev 1929; Esterberg 1959; Kurenzov 1935c: 192; Nester-tschuk 1930: 176; Nosek 1951: 106; Pfeffer 1949b: 150, 1950c: 1; Saalas 1949: 342, 371. **(cc)** Apfelbeck 1816b; Balazy & Michalski 1960, 1964b; Kangas 1946b: 22; Kielczewski 1976; Kielszewski, Moser, & Wisniewski 1983; Kielszewski & Wisniewski 1978, 1983; Kurenzov 1934a: 54, 57; Lundberg 1984; Michalski & Ratajczak 1989; Mokrzecki 1923: 32; Nosek 1951: 106; Nuorteva 1956a: 18, 1971; Okolow 1963; Pfeffer 1932a: 11, 1949b: 150, 1950c: 1; Poinar 1975: 151; Saalas 1917a: 18, 1928: 649, 1949: 342, 371, 1951: 18; Sklenkis 1974. **(hb)** Apfelbeck 1916b, 1917; Chorbadzhiyev 1929; Karpinski 1933b: 28, 1935: 1–86; Karpinski & Strawinski 1948: 155; Krivolutskaya 1956: 831, 1960: 78, 1973: 134; Kurenzov 1935a: 30, 1948b: 108, 1950d: 234; Lengerken 1939: 62, 1954: 82; Numberg 1929: 102; Nuorteva 1956c: 28; Pfeffer 1941c: 5; Postner 1974: 422; Rozhkov 1970: 140; Saalas 1913a: 68, 82, 1949: 342, 371, 1951: 18; Schedl 1981b: 66; Spessivtsev 1923: 204; Stark 1952: 252; Tschorbadijev 1929: 165. **(ds)** Ammann & Knabl 1923; Balazy & Michalski 1960; Bangsholt 1975: 95; Bejer-Petersen & Jorum 1977: 20; Bistrom & Vaisanen 1988: 42; Brakman 1966b: 205; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Chorbadzhiyev 1929; Eder 1934; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1932b; Esterberg 1959; Grill 1895: 310; Grune 1979: 87; Hagedorn 1910d: 36; Hansen, V. 1929: 140–141, 1939, 1956, 1964: 460; Hellen 1947; Heyden, Reitter, & Weise 1891: 670, 1906: 710; Heyrovsky 1929: 37–38; Holzel 1951; Horion 1935, 1951; Janetschek 1957: 262; Kangas 1945; Karpinski 1931: 19, 26, 1933b: 28, 1948b: 229; Karpinski & Strawinski 1948: 155; Keler 1922b: 210; Klefbeck & Sjoberg 1960: 230; Kleine 1913b: 114, 1934a: 140; Krivolutskaya 1956: 831, 1960: 78, 1965a: 232, 1973: 134, 1983; Kurenzov 1934a: 54, 57, 1935a: 30, 1935c: 192, 1936b: 351, 1938a: 63; Lindberg & Saris 1952: 59; Lucht 1987: 277; Lundblad 1950c: 115; Mahler 1987: 232; Numberg 1927a: 213, 1928b: 85, 88, 104, 1954: 45;

Nuorteva 1971: 67; Palm 1946: 122; Pfeffer 1923b: 106, 1930b: 120, 1931b: 75, 1932; 1936b: 90, 1947e: 3, 1950b: 74, 1989a: 53; Postner 1974: 422; Reitter 1894a: 64, 1913: 61; 1916: 287, 350; Roubal 1941: 262; Rozhkov 1970: 140; Saalas 1913a: 68, 82, 1914: 304–306, 1916: 110–116, 1917a: 18, 1919, 1931: 68; Sahlberg 1900: 105; Sainte-Claire 1914: 471; Schaufuss 1915: 1230; Schedl 1980a: 13, 1981b: 66; Stark 1931a: 25, 1952: 252; Strand 1946: 599; Tschorbadijev 1929: 165; Wanka 1917: 282; Wegelius 1960: 106; Wichmann 1927a: 65–66; Wren 1945: 43; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 415; Zinovjev 1955: 187. **(tx)** Eggers 1914, 1932e: 81; Endrodi 1957a: 307, 1957b; Fleischer 1927; Grune 1979: 86; Hagedorn 1919d: 74; Hansen, V. 1956; Karpinski & Strawinski 1948; Krivolutskaya 1956: 831, 1958: 133; Kurenzov 1941a: 26, 36, 139–140, 1948b: 108, 1956: 826–839; Letzner 1891: 374; Lucht 1987: 277; Numberg 1954: 45; Pfeffer 1932b: 17, 1941c: 5, 1942b: 208–209, 213, 1947e: 3, 1989a: pl. 6; Postner 1974: 422; Reitter 1894a: 64, 1913a: 61, 1916: 287, 350; Saalas 1913a: 68, 82, 1949: 371, 432; Schedl 1934f: 1637, 1946a: 8, 1980a: 13; Sokanovskii 1929: 670–672; Spessivtsev 1922a: 468, 491, 1923: 200–214, 1925a: 170, 1925b: 15, 1931: 46; Stark 1952: 252; Thomson 1870: 338; Tsai & Li 1959: 88. **(ms)** Escherich 1932b; Schimitschek 1930b: 407.

mediterraneus Eichhoff in Puton 1869: 41). Syntypes, sex?, St. Tropez, Hyeres; 1 lost with Hamburg Museum, others not located.

Figures: Grune 1979: 88, Questionne 1979: 114. Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Israel/ Turkey), Europe (Corsica/ Cyprus/ France/ Greece/ Italy/ Portugal/ Spain).

Hosts: *Pinus pinaster*, *P. brutia*, *P. halepensis*, *P. nigra*, *P. pinea*.

Notes: (3) Eichhoff validated the name in Puton 1869: 41, then republished it in Eichhoff 1872d: 139.

References: **(bv)** Grune 1979: 117; Mendel, Madar, & Golan 1985. **(cn)** Barbey 1922a; Espanol 1964a; Grandi 1951; Joly 1976; Questionne 1979: 117. **(cc)** Barbey 1924b; Halperin & Holzschuh 1984: 24. **(hb)** Barbey 1906b: 217–220; Chararas 1962c: 423; Dombrowsky 1887; Eichhoff 1869: 41 (in Puton), 1881a: 44, 168; Grandi 1951; Halperin & Holzschuh 1984: 24; Henschel 1895a: 162; Joly 1976; Mendel, Madar, & Golan 1985; Postner 1974: 423; Puton 1869: 41–42; Questionne 1979: 117; Wachtl 1876a: 458; Zocchi 1959: 105. **(ds)** Barbey 1922a, 1924b; Binaghi 1967; Calver 1884, 1893; Fanvel 1885; Gemminger & Harold 1872: 2679; Georghion 1977: 73; Cozis 1875: 80; Grune 1979: 89; Halperin 1966: 69; Halperin & Holzschuh 1984: 24; Henschel 1895a: 162; Joly 1976; Moragnes 1889: 32; Pfeffer 1947d: 126; Pinheiro 1965: 359–364; Postner 1974: 423; Schedl 1961b:

184, 1964f, 1967c: 70, 1969g: 291, 1971d: 427, 1972n: 350, 1978e: 36, 1979i: 291; Schilsky 1909: 188; Stein & Weise 1877: 164; Wachtl 1876a: 458; Zocchi 1959: 105. (tx) Balachowsky 1949a: 161; Barbey 1906b; Dombrowsky 1887; Eggers 1923: 134; Eichhoff 1869: 41 (in Puton). 1872d: 139, 1878b: 81, 1881a: 44, 168, 1883a: 108, 131; Fauvel 1885; Grune 1979: 88, 89; Henschel 1895a: 162; Joly 1976; Pfeffer 1942b: 208, 212, 1955a: 152; Postner 1974: 423; Quesienne 1979: 114; Rey 1892b: 30; Schedl 1934f: 1637, 1946a: 10, 1960: 163.

dubius Eichhoff 1875a: 139. Holotype, sex?; Pyrenaei; Hamburg Museum, lost. Synonymy: Schedl 1960b: 163.

References: (hb) Dombrowsky 1887; Eichhoff 1881a: 44, 168; Henschel 1895a: 162; Wachtl 1876a: 458. (ds) Barthe 1896; Calwer 1884, 1893; Gemminger & Harold 1872: 2679; Gozis 1875: 80; Henschel 1895a: 162; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 710; Schedl 1964f; Schilsky 1909: 188; Stein & Weise 1877: 164; Wachtl 1876a: 458. (tx) Dombrowsky 1887; Eichhoff 1875a: 139, 1875b: 82, 1881a: 44, 168, 1883a: 108, 131; Fauvel 1887; Henschel 1895a: 162; Pfeffer 1942: 218; Reitter 1913a: 62–63; Schedl 1934f: 1637, 1946a: 11, 1960b: 163.

numidicus Ferrari 1867a: 6. Syntypes ♂; Algeria; NHMW, Wien?

Figures: Grune 1979: 88.

Distribution: Africa (Algeria/ Tunisia), Asia (Turkey), Europe (Bulgaria/ Corsica/ France/ Greece/ Hungary/ Italy/ Spain/ W USSR/ Yugoslavia).

Hosts: *Abies pinsapo*, *A. numidica*, *Cedrus libanotica*, *Pinus halepensis*, *P. pinaster*, *P. pithyusa*, *P. leucodermis*.

References: (bv) Grune 1979: 89. (cn) Bezares 1929: 38–42; Grandi 1951; Kailidis & Georgevits 1972; Koch 1913: 127; Schimitschek 1941: 171, 1952c: 69; Strohmeier 1930: 7; Wachtl 1901: 351. (ec) Halperin & Holzschuh 1984: 25; Kleine 1908c: 185; Novak, P. 1952: 414; Schimitschek 1941a: 320. (hb) Cecconi 1924; Dombrowsky 1887; Grandi 1951; Halperin & Holzschuh 1984: 25; Knotek 1898b: 333, 1899b: 14, 1901: 573; Masutti 1964; Peyerimhoff 1919: 253–254; Postner 1974: 423; Puton 1869: 41; Schimitschek 1944: 171; Stark 1952: 249; Strohmeier 1930: 7; Wachtl 1876a: 458, 1901: 351. (ds) Barthe 1896; Cecconi 1897; Eggers 1912f; Escalera 1919; Friederichs 1919; Ganglbauer 1904; Grune 1979: 89; Hagedorn 1910d: 36; Halperin & Holzschuh 1984: 25; Heyden, Reitter, & Weise 1883: 181, 1891: 670; Kailidis & Georgevits 1972; Kleine 1913a: 34, 1913b: 114, 1914a: 16, 1934a: 140; Knotek 1898b: 333, 1899b: 14, 1901: 573; Langhoffer 1915c: 157; Mequignon 1936: 54; Normand 1937: 268; Novak, P. 1952: 414, 1964: Paganetti-Hummeler 1901: 150; Peyerimhoff 1919: 253–254, 1933b:

367; Pfeffer 1942b: 208, 212, 1947d: 125, 1954: 277; Pittioni 1943: 176; Postner 1974: 423; Ragusa 1924: 116; Reitter 1894a: 65; Sahlberg 1903b: 63; Sainte-Claire & Mequignon 1938: 445; Schedl 1938d: 450, 1964f, 1967c: 70, 1971d: 427; Schilsky 1909: 188; Stark 1927b: 88, 1952: 249; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 12; Wachtl 1876a: 458. (tx) Balchowsky 1949a: 161; Ceballos 1945; Csiki 1909; Dombrowsky 1887; Eggers 1911a: 123, 1912f: 29, 1923: 133–139; Eichhoff 1868d: 419; Fauvel 1889; Ferrari 1867a: 6, 79, 1867b: 106; Gebien 1907: 197; Grune 1979: 88, 89; Hagedorn 1910a: 74; Koch 1913: 127; Peyerimhoff 1911: 314; Portevin 1935: 323; Postner 1974: 423; Reitter 1894a: 65, 1913a: 63; Rey 1892b: 30; Schedl 1934f: 1637, 1946a: 10, 13; Stark 1952: 249; Strohmeier 1929: 182. (ms) Eichhoff 1868d: 419.

numidicus abbreviatus Eggers 1911: 123. Lectotype, sex?; Mostar blato (Herzegowinan); USNM, Washington, designated by Anderson & Anderson 1971: 3. Synonymy: Schedl 1946a: 13.

References: (ds) Pfeffer 1947d: 128. (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1911: 123; Pfeffer 1942b: 208; Reitter 1913a: 63; Schedl 1934f: 1637, 1946a: 13, 1979c: 173.

brevipennis Reitter 1913a: 63. Syntypes, sex?; Attica, Greece; NHMB, Budapest. Synonymy: Pfeffer 1942: 217.

References: (ds) Arnoldi et al. 1955: 684; Schanfuss 1915: 1230. (tx) Pfeffer 1942: 217; Reitter 1913a: 63; Schedl 1934f: 1637.

barbeyi Strohmeier 1929b: 182. Holotype, sex?; Sierra de Ronda in Sudspanien; Strohmeier Collection. Synonymy: Schedl 1946a: 15.

References: (cn) Strohmeier 1930: 7. (hb) Strohmeier 1930: 7. (ds) Kleine 1934a: 139; Peyerimhoff 1933b: 362; Pfeffer 1942: 220. (tx) Balachowsky 1949a: 161; Schedl 1934f: 1637, 1946a: 15; Strohmeier 1929b: 182, 1930: 1–7.

pusillus (Gyllenhal) 1813: 371 (*Bostrichus*). Syntypes, sex?; presumably Sweden; presumably at ŪZI, Uppsala.

Figures: Balachowsky 1949a: 162 (adult), Grune 1979: 86, Kalina 1970: 122, Nobuchi 1966d: pl. 2, Postner 1974: 421.

Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Xizang [Tibet] in China/ Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India/ Japan/ Korea/ Kuril Islands/ Nepal/ Pakistan/ Taiwan/ Turkey/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Lithuania/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), introduced into North America (New Brunswick, Nova Scotia, Ontario, Quebec in Canada/ Connecticut,

Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island in USA).

Hosts: *Abies* spp., *Pinus* spp., *Picea* spp., *Cedrus deodara*, *C. libani*.

References: (ay) Chararas 1956c; Escherich 1923b: 481, 602; Feytaud 1950a; Imhoff 1856: 228; Klimesch 1914: 215; Lekander 1959b: 60; Nunberg 1928a: 140, 1955: 76; Scherb 1971. (bv) Chararas & Deschamps 1962; Grune 1979: 87; Naumann-Etienne 1978a; Nuorteva 1956c: 93; Rozhkov 1970: 140. (cn) Baisch 1954: 322; Barbey 1906a, 1922a; Borcea 1924; Bromley 1928: 89-110; Brown, R. M. & Winter 1981; Chamberlin 1924; Chararas 1960a: 29, 1961b: 70, 1961c: 94; Chorbadzhievo 1929; Eckstein 1926: 578; Escherich 1923b: 481, 602; Esterberg 1959; Feytaud 1946, 1950a; Fleischer 1877a; Gabler 1955; Grandi 1951; Gusev 1928: 144; Herlein 1878; Hess 1898: 350; Hess & Beck 1914: 266, 1927: 321; Hopkins 1899c: 365, 448; Inouye 1955; Inouye & Yamaguchi 1955a: 235; Johnson 1897: 78-79; Joly 1976; Judeich & Nitsche 1895: 527; Kailidis 1964a; Kailidis & Georgivits 1972; Kalandra 1944; Kamp 1950; Kholodkovskii 1912: 305; Koch 1913: 127; Koppen 1882: 236, 251; Kovacevic 1952: 69, 1957: 67; Lindquist, O. H. & Syme 1981: 34; Marcu 1926c: 62; Muller 1912: 184; Nestertschuk 1930: 176; Nosek 1951: 106, 1952b: 100; Nusslin 1913: 227; Pfeffer 1950c: 1; Pierce, W. D. 1917: 69; Rhumbler 1922: 301, 1927: 314; Russo 1946a: 24, 42, 1946b: 312; Saalas 1919: 1-415, 1949: 342, 371; Sargos 1947: 8; Schenk 1926: 37-69; Schimitschek 1937c: 52, 1938b: 114, 1955c: 82; Schneeberg 1925: 495; Schwerdtfeger 1944a: 181, 1957a: 187; Shiraki 1952; Smith, J. B. 1900: 365; Stebbing 1914: 499; Strommeyer 1950: 21; Syme & Nystrom 1988: 35; Thalenhorst 1950: 90; Thomson 1939: 200; Wachtl 1901: 381; Weber, H. 1926: 578; Wolff & Krausse 1922: 88. (cc) Apfelbeck 1916b; Baisch 1954: 322; Balazy 1965a; Balazy & Michalski 1960, 1964b; Barbey 1906a; Beeson 1922c; Beran 1936; Blackman & Stage 1918: 55; Chararas 1959c, 1960a: 29, 1964b; Felt 1906: 752; Fleischer 1877a, 1877b; Fuchs 1930, 1938; Galoux 1947b, 1947c; Grunwald 1986; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 60-61; Kangas 1946b: 22; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1983; Kleine 1908c: 185, 1909a: 46, 76, 1944: 70; Kostin 1964: 107; Krogerns 1927: 123; Kurenzov 1934a: 57; Langor 1985; Lmdberg 1984; Masutti 1959: 268, 298; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Nishiguchi 1960c; Nosek 1951: 106, 1952b: 100; Nuorteva 1956a: 18, 1971: 70; Nusslin 1927: 300; Okolow 1963; Palmén 1946: 194; Perris 1852: 497, 1853: 571, 1854a: 96, 1856a: 201, 1862: 212; Pfeffer 1923a: 331, 1932a: 11, 1950c: 1; Poinar 1975: 151; Ratzelburg 1869a:

79; Roubal 1934a: 86; Ruhm 1956b: 3; Russo 1946a: 24, 42; Saalas 1917a: 18, 1949: 342, 371, 1951: 13-14; Scheucher 1959: 151; Schimitschek 1930a: 339, 1931b: 487; Schwerdtfeger 1944a: 181, 1957a: 187; Sedlaczek 1908: 67, 1935a: 163; Seitner 1913a: 27; Stebbing 1914: 499; Woodring & Moser 1970. (hb) Altum 1881c: 286; Apfelbeck 1916b, 1917; Bach 1854: 137, 1864; Barbey 1901: 22, 68, 1913; Beeson 1922c: 495; Beran 1936; Blackman & Stage 1918; Borcea 1924; Bukowsky 1930; Cabral 1959; Cecconi 1906, 1924; Chamberlin 1939: 118; Chararas 1956c; Charvat 1950; Chittenden 1890, 1899a; Chorbadzhievo 1929; Deyrup & Atkinson 1987b: 67; Dombrowsky 1887; Eckstein 1897, 1926: 578; Eichhoff 1881a: 44, 165, 1882a: 241; Escherich 1923b: 481, 602; Essig 1942: 604; Everts 1903: 753; Felt 1906: 752; Feytaud 1946, 1950a; Fleischer 1877a; Fuchs 1904a, 1907; Gabler 1955; Cornostaev 1916: 310; Grandi 1951; Gyorf 1957; Hagedorn 1903a; Hartig 1834: 110-112; Henschel 1876a: 34, 240, 1885b, 1895a: 162; Hess 1898: 350; Hess & Beck 1914: 266, 1927: 321; Holmgren 1867: 128; Hopkins 1899c: 365, 448; Inouye et al. 1955: 60-61; Jakobjuk 1927: 225; Judeich & Nitsche 1895: 527; Karpinski 1933b: 28; Karpinski & Stravinski 1948: 155; Karsch 1883: 143; Keller 1910: 26; Kholodkovskii 1912: 305; Knotek 1894a: 557, 1897: 160, 1898b: 333; Krivolutskaya 1956: 832; Kurenzov 1935a: 30, 1948b: 108, 1950d: 234; Landin 1953: 24, 99; Lekander 1959b: 60; Lengerken 1939: 61, 1954: 82; Lunardonì & Leonardi 1889: 456; Marcu 1941: 403; Masutti 1959: 268, 298; Niisima 1908b: 18; Nordlinger 1856: 26; Nunberg 1929: 102, 1947c: 106; Nuorteva 1956c: 93; Nusslin 1898: 280, 1913: 227, 1927: 300; Perris 1852: 497, 1856a: 201-202; Peyerimhoff 1919: 169; Pfeffer 1941c: 5; Postner 1974: 422; Puton 1869: 41; Ratzelburg 1837: 139, 162, 1839: 165, 196; Rhumbler 1922: 301, 1927: 314; Rupertsberger 1879: 231, 1880: 228; Russo 1946b: 297, 312; Saalas 1949: 342, 371, 1951: 13-14; Schimitschek 1930a: 339; Schwarz 1894a: 17; Schwerdtfeger 1944a: 181, 1957a: 187, 1981: 193; Sedlaczek 1935a: 163; Spessivtsev 1913a: 63, 1923: 204; Stark 1926a: 334, 1952: 250; Stebbing 1914: 327, 499; Swaine 1907: 191, 1912b: 141; Tragardh 1914: 93, 1939b: 197; Tschorbadjiev 1929: 165; Wachtl 1876a: 458, 1901: 381; Weber, H. 1926: 578; Wolff & Krausse 1922: 88. (ds) Ammann & Knabl 1913, 1923; Andersch 1851; Audras & Schaefer 1957; Balazy & Michalski 1960; Barbey 1922a; Barthe 1896; Bau 1888; Bedel 1888b: 395, 413; Beeson 1922c; Bejer-Petersen & Jorum 1977: 20; Bickhardt 1916; Bielz 1851, 1887; Blanchere & Robert 1889; Blandford 1894c; Blatchley & Leng 1916: 651; Borcea 1924: 221-260; Borchert 1951; Borodajewsky 1915: 1222-1247; Brakman 1966b: 205; Brancsik 1871, 1906; Bright 1976d: 114; Brown, R. M. & Winter 1981; Bucking 1932; Bukowsky 1930; Butovitsch &

- Heqvist 1947; Cabral 1959; Calwer 1884, 1893; Carpentier & Delaby 1908; Cecconi 1906; Chamberlin 1939: 118; Chapuis & Candeze 1853; Charvat 1959; Chittenden 1890, 1899a; Cho 1957; Choo 1983; Choo, Woo, & Nobuchi 1988a: 134; Chorbadzhievo 1924d, 1929; Dejean 1821, 1825, 1837; Deyrup 1981b: 6; Deyrup & Atkinson 1987b: 67; Donisthorpe 1931: 173; Drooz 1985: 362; Eder 1934; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 481, 602, 1932b; Esterberg 1928, 1959; Everts 1922: 640; Fauvel 1885; Favre 1890; Fleischer 1877b; Fleischer et al. 1923; Fricken 1889: 342; Fuchs 1904a, 1905a, 1907; Gaubil 1849: 126; Gemminger & Harold 1872: 2679; Gobang 1855: 745; Gobbi 1989: 61; Gornostaev 1917; Gozis 1875: 80; Gredler 1866: 373; Grill 1895: 310; Grouzelle 1905; Grune 1979: 87; Gyllenhal 1827: 624; Hagedorn 1903a, 1910d: 36; Hamilton 1893: 143, 1894b: 407; Hansen, V. 1939, 1956, 1964: 460; Heinemann 1908a; Heller 1947; Hennig 1954: 257; Henschel 1895a: 162; Henshaw 1887: 8, 1895: 44; Heyden 1876: 299, 1890: 132; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 710; Holmgren 1867: 128; Holzel 1946: 81; Hopkins 1893a: 143, 1893b: 213; Horion 1951; Hormuzaki 1891: 174; Hubault 1923b; Jazentkovsky 1912: 288; Joly 1976; Judeich & Nitsche 1895: 527; Kailidis 1964a: 41–54; Kailidis & Georgevits 1972; Kaltenbach 1874: 685; Kangas 1945; Karpinski 1925: 216, 1926: 82, 1931: 26, 1933b: 28, 1935: 1–86, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1922b: 211, 1925b: 271; Keller 1910: 26; Kersten 1933: 77; Kestercanek 1881a: 12; Kiefer et al. 1942: 528; Kharitonov 1924: 199–204; Klefbeck & Sjoberg 1960: 230; Kleine 1908: 98–101, 1911: 158, 1912a: 262, 267, 1913a: 34, 1913b: 114, 1914a: 16, 1914b: 256, 1934a: 140; Kloft & Hinks 1945: 218; Knotek 1892a: 36, 1894a: 557, 1895b: 333; Ko 1969: 276; Koltze 1901: 153; Kono 1938b: 64; Kono & Tamamki 1939: 93; Koppen 1882: 236, 257; Kotula 1873b: 80; Kovacevic 1957: 67; Kozikowsky 1921: 180; Kraatz 1869: 59; Kraemer 1948: 133; Krivolutskaya 1956: 832, 1960: 78, 1965: 232, 1973: 134, 1983; Kurenzov 1934a: 57, 1935a: 30, 1936b: 350; Kurir 1947c: 14; Lacordaire 1866: 374; Langhoffer 1915c: 157; Leclercq 1971; Leiler & Prutz 1977; Leng 1918: 210; Lentz 1857: 138; Liegel 1886: 43; Lindemann 1884b: 264; Lindquist & Prutz 1977; Lindquist, O. H. & Syme 1981: 34; Lokaj 1868: 64; Lomnicki 1886a: 242, 1913b: 148; Lucht 1987: 277; Lumardoni & Leonardi 1889: 456; Lundberg 1977; Marcu 1926c: 62; Melsheimer 1806: 8; Mequignon 1936: 15; Michalski 1957: 164; Miller 1868: 27; Munster 1928: 289; Murayama 1929b: 2, 1929d: 2, 1930a: 1, 1930b: 12, 1936a: 127, 1937b: 374, 1948: 2, 1949a: 15, 1951c: 4, 1953a: 12, 1954a: 11, 1954b: 164; Negru 1966b: 400, 1968a: 455; Niisima 1908b: 18; Nobuchi 1966d: 18, 1967: 20; Nohira & Ogawa 1986; Numberg 1928b: 88, 104, 1954: 46; Nuorteva 1971: 67; Nusslin 1898: 250; Oliveira 1887: 328; Orest 1926c: 62; Ortzen 1886: 279; Pacher 1865: 152; Palm 1946: 122, 1948a: 90, 1985; Palmen 1946: 194; Peyerimhoff 1919: 169, 1933b: 367; Pfeffer 1924b: 471, 1931b: 74, 1947c: 3, 1950b: 73, 1989a: 52; Pierce, W. D. 1917: 69; Pittioni 1943: 175; Pjatnitskii 1930a: 164; Platonoff 1943: 141; Pomerantzev 1907b: 492; Poppius 1900: 108; Postner 1974: 422 Rapp 1934: 726; Ratzeburg 1837: 139, 162, 1839: 165, 196; Redtenbacher 1858: 831, 1874: 373; Reitter 1869b: 154, 1894a: 64, 1916: 287; Roubal 1910: 203, 1936b: 193, 1941: 263; Rozhkov 1970: 140; Saalas 1917a: 18, 1931: 68; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 445; Schaschl 1854: 133; Schaufuss 1915: 1230; Schaum 1859: 95, 1862: 101; Schedl 1959(?): 100, 1961b: 184, 1964f, 1967c: 71, 1969c: 50, 1971d: 426, 1971f: 146, 1973b: 210, 1974a: 86, 1980a: 14, 1981b: 67; Scherpeltz & Winkler 1930: 256; Schilsky 1909: 188; Schimitschek 1938b: 114; Schiodte 1873: 101; Schwerdtfeger 1981: 193; Seidlitz 1872: 393, 1891a: 561, 1891b: 607; Shiraki 1952; Siebke 1875: 283; Smith, J. B. 1900: 365, 1910: 404; Stark 1925: 78–81, 1926a: 334, 1926b: 103, 1926j: 125, 1931a: 25, 1931d: 546, 1952: 250; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 438; Stierlin & Gautard 1871: 292, 1906: 205; Strand 1946: 599; Strauch 1861: 122; Sturm 1826: 102, 1843: 230; Swaine 1909: 94; Syme & Nystrom 1988: 35; Thomson 1859: 147, 1865: 361, 1868: 220; Tragardh 1914: 93, 1939b: 197; Tredl 1907: 11; Tschorbadzhiev 1929: 165; Villa & Villa 1833: 26; Wachtl 1876a: 458; West 1938: 184; Westhoff 1882: 238; Wichmann 1924: 15, 1927a: 65–66; Wood, S. L. 1977a: 69, 1982b: 741; Yanovskii & Tegshzhargal 1985: 415; Yin & Huang 1981: 561; Zetterstedt 1840: 194; Zoufal 1920: 21. (tx) Altman 1844; Bach 1854, 1864; Balachowsky 1949a: 158, 162; Barbey 1901: 22, 68; Bedel 1888b: 395, 412; Bertolini 1872; Blandford 1894d: 82, 1898c: 6; Blatchley & Leng 1916: 651; Brancsik 1871; Bright 1976d: 114; Cabral 1959; Calwer 1858; Carpentier & Delaby 1908; Chamberlin 1939: 118; Chapuis & Candeze 1853; Chararas 1956c; Charvat 1950; Choo 1983; Chorbadzhievo 1924d; Csiki 1909; Dejean 1821, 1825; Doelner 1860, 1862: 167; Dombrowsky 1857; Duffy 1953; Eggers 1914: 296–297, 1922c, 1923b: 134–135, 1929e: 43, 1932e: 8, 1933f: 5; Eichhoff 1864b: 33, 1868b: 404, 1878b: 73, 1881a: 44, 165, 1883a: 108, 131; Endrodi 1957b; Ericson 1836: 61; Escherich 1923b: 481, 602; Escherich & Escherich 1897; Essig 1942: 604; Everts 1903: 753, 1922: 640; Fauvel 1885, 1889; Ferrant 1911; Ferrari 1867a: 6, 1867b: 113, 1868: 251; Fleischer 1905, 1927; Formanek 1907: 31; Fricken 1889: 342; Gabler 1955; Gebien 1907: 197; Grune 1979: 86–87; Gyllenhal 1813: 371, 1827: 624; Hagedorn 1910a:

74; Hansen, V. 1956, 1964: 460; Henschel 1876a: 34, 240, 1878a, 1895a: 162; Hopkins 1914: 119, 1915c: pl. 9, fig. 7, pl. 11, fig. 7; Houlbert 1922a: pl. 1; Joly 1976; Judeich & Nitsche 1895: 527; Kalina 1970: 121–122; Karpinski & Strawinski 1948: 155; Knotek 1892a: 36; Koch 1913: 127, 1928: 102, 1932: 105; Krivolutskaia 1956: 832, 1958: 133; Kulmt 1913: 1054; Kurenzov 1941a: 139, 1948b: 108; Lacordaire 1866: 374; Lekander 1959b: 60; Lindquist, O. H. & Syne 1981: 34; Lovendal 1889b: 50, 1898: 120; Lucht 1987: 2771; Lunardoni & Leonardi 1889: 456; Murayama 1930b: 12, 16, 30, 1936a: 127, 1937b: 574, 1953a: 12, 1954a: 11, 1954b: 164; Negru 1966b: 400; Niisima 1909: 139–140; Nobuchi 1966d: 18, pl. 2; Nordlinger 1848: 241, 1856: 26; Nunberg 1928a: 140, 1947: 99–108, 1954: 46; Olivier 1795b: 13; Pardy 1983; Peyerimhoff 1911: 314; Pfeffer 1932b: 16, 1941c: 5, 1942b: 208, 214, 1947e: 3, 1955a: 154; Portevin 1935: 323; Postner 1974: 422 Quaschik 1953: 35; Ratzeburg 1837: 139, 162, 1839: 165, 196; Redtenbacher 1849a: 359, 1849b: 26, 1858: 831, 1874: 373; Reitter 1885b: 389, 1894a: 64, 1913a: 61–62, 1916: 287; Rhumbler 1922: 301, 1927: 314; Rupertsberger 1879: 231, 1880: 228; Saalas 1914: 82, 304–306, 1916: 110–116, 1949: 342, 371; Sahlberg 1836: 154; Schedl 1934f: 1637, 1946a: 5, 8, 1952f: 87, 1959: 99, 1980a: 14, 1981b: 67; Scherb 1971; Schimitschek 1937c: 52, 1955c: 82; Scholz 1922: 139–140; Schwarz 1894: 17; Seidlitz 1872: 393, 1891a: 561, 1891b: 607; Spessivtsev 1913a: 43, 1922a: 469, 490–491, 1923: 200–214, 1925a: 170, 1925b: 15, 1931: 45; Stark 1952: 250; Stebbing 1914: 499; Stierlin 1898: 438; Swaine 1909: 94, 1918a: 84; Thomson 1859: 147, 1865: 361, 1868: 220, 1870: 338; Titus, Meikle, & Harrison 1985: 52; Wood, S. L. 1973c: 175, 1982b: 741; Yin & Huang 1981: 561; Zetterstedt 1840: 194. (ms) Eckstein 1900c; Escherich 1932b; Hartig 1834: 110; Heinemann 1908a; Landin 1953: 24, 99; Sedlacek 1902a: 126; Seitner 1913a: 27; Swaine 1907: 191, 1912b: 141.

aphodioides Villa 1833: 36 (*Bostrichus*). Syntypes, sex?; Europe; not located. Synonymy: Eichhoff 1878b: 73.

References: (ds) Gaubil 1849: 126; Villa & Villa 1833: 26. (tx) Comolli 1837; Villa 1833: 36.

cedris Eichhoff 1868b: 403. Syntypes, sex?; Corsica; Hamburg Museum, lost. Synonymy: Peyerimhoff 1919: 213.

References: (ce) Peyerimhoff 1934: 52; Pfeffer 1960. (hb) Peyerimhoff 1919: 252. (ds) Blanchere & Robert 1889; Calwer 1884, 1893; Gemminger & Harold 1872: 2679; Hagedorn 1910d: 35; Kleine 1913b: 114, 1914a: 16, 1934a: 140; Kocher 1953: 133; Peyerimhoff 1919: 252, 1933b: 362, 1934: 52; Pfeffer 1935: 158, 1947d: 128, 1960; Puton 1869. (tx) Bertolini 1872; Eichhoff 1868b: 403, 1878b: 80; Hagedorn 1910a: 74; Peyerimhoff 1919: 252; Pfeff-

er 1942b: 208–209, 1955a: 152; Schedl 1934f: 1637, 1946a: 15.

atomus LeConte 1868: 152. Holotype, sex?; New York [USA]; MCZ, Cambridge. Synonymy: Schwarz 1886: 56 (possible synonymy), Wood 1973c: 175.

References: (ay) Thomas, J. B. 1957: 4. (en) Becker 1959b; Becker, Abbott, & Rick 1956: 664; Blackman 1950; Chamberlin 1924; Connola et al. 1956; Currie 1905: 82; Doane et al. 1936; Felt 1924: 272, 1926: 247–248, 272, 1930a: 247–248, 272; Hopkins 1892b, 1904a: 26; Packard 1881: 231–232, 1890: 727; Smith, J. B. 1924d: 9; Swaine 1924d: 9; Swaine & Craighead 1924: 1–27; Thomas, J. B. 1958: 394. (ce) Felt 1906: 389; Matthews 1970; Swaine 1924d: 9; Thomas, J. B. 1958: 394. (hb) Baker, W. L. 1972: 239; Blackman 1919a: 89, 1950; Chamberlin 1939: 119; Chittenden 1890; Doane et al. 1936; Essig 1942: 604; Felt 1906: 359–360, 1926: 247–248, 272, 1930a: 247–248, 272; Hopkins 1904a: 26; Packard 1890: 727; Pierce, W. D. 1907: 294; Swaine 1918a: 54, 1924d: 9. (ds) Anonymous 1926c: 515; Beaulne 1956; Blackman 1950; Bright 1971a: 126; Chamberlin 1925, 1939: 119; Chittenden 1890; Currie 1905; Dodge 1938; Felt 1926: 247–248, 272, 1930a: 247–248, 272; Gemminger & Harold 1872: 2679; Hagedorn 1910d: 35; Hamilton 1889: 159, 1891: 132; Henshaw 1882: 269, 1885: 149; Johnson 1901b: 93; Kleine 1913b: 114, 1914b: 409, 1934a: 139; Leng 1920: 337; Leonard 1928: 515; Proctor 1946: 206; Provancher 1877: 565; Schwarz 1886: 56; Smith, J. B. 1900: 365; Swaine 1909: 94. (tx) Blandford 1898c: 6; Chamberlin 1939: 119; Dodge 1938: 23; Eichhoff 1878b: 75; Essig 1942: 604; Hagedorn 1910a: 74; Hamilton 1891: 132; LeConte 1868: 152, 1876: 387; Pardy 1974, 1977: 13; Provancher 1877: 565; Schwarz 1886: 56, 1894: 17; Swaine 1909: 94, 1918a: 7, 54; Thomas, J. B. 1957: 4; Wood, S. L. 1973c: 175.

parallelocollis Eichhoff 1878b: 73. Syntypes, sex?; Europe; Hamburg Museum, lost. Synonymy: Schedl 1946a: 7.

References: (hb) Dombrowsky 1887. (ds) Arnoldi et al. 1955: 685; Buresh & Lazarov 1956; Horion 1935; Pfeffer 1936: 90, 1947d: 128; Reitter 1916: 350; Schaufuss 1915: 1230; Schilsky 1909: 188; Stein & Weise 1877: 164. (tx) Dombrowsky 1887; Eggers 1914: 296–297, 1922d: 118, 1923b, 1940g: 37; Eichhoff 1878b: 73–74; Pfeffer 1942b: 208, 216; Reitter 1885: 389, 1894: 64, 1913a: 61, 1916: 350; Schedl 1934f: 1637, 1946a: 7.

gammersdorferi Reitter 1885b: 389. Syntypes, sex?; Euboea Island, Greece; NHMB, Budapest. Synonymy: Eggers 1922d: 118.

References: (ce) Kleine 1908c: 185. (ds)

- Arnoldi et al. 1955: 685; Hagedorn 1910d: 36; Heyden, Reitter, & Weise 1891: 670, 1906: 710; Kleine 1913b: 114, 1934a: 140; Orzzen 1886: 279; Tredl 1907: 12. **(tx)** Eggers 1914: 296–297, 1922d: 118, 1940g: 37; Fauvel 1889; Hagedorn 1910a: 74; Reitter 1885b: 389–390, 1894a: 64, 1913a: 61–62; Schedl 1934f: 1637, 1946a: 7.
- crebellus* Reitter 1894a: 64. Syntypes, sex?; Ragusa, Dalmatia; NIIMB, Budapest. Synonymy: Schedl 1946a: 5.
- Notes: (1) Balachowsky 1949a: 5 (treats it as a good species).
- References: **(cn)** Joly 1976; Wachtl 1901: 381. **(cc)** Halperin & Holzschuh 1984: 24; Kleine 1905c: 185; Novak, P. 1952: 414. **(hb)** Eggers 1906; Halperin & Holzschuh 1984: 24; Joly 1976; Peyerimhoff 1919: 253; Stark 1952: 251; Wachtl 1901: 381. **(ds)** Bickhardt 1916; Binaghi 1967; Eggers 1906; Ganglbauer 1904; Hagedorn 1910d: 36; Halperin & Holzschuh 1984: 24; Heyden, Reitter, & Weise 1906: 710; Joly 1976; Kleine 1913b: 114, 1934a: 140; Langhoffer 1915c: 157; Novak, P. 1952: 414, 1964; Peyerimhoff 1919: 253, 1933b: 367; Pfeffer 1947d: 127, 1984: 277; Pinheiro 1965: 359–364; Pittioni 1943: 176; Reitter 1894a: 64; Sahlberg 1903b: 63; Sainte-Claire 1909: 146, 1914: 471; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1230; Stark 1952: 251; Supatashvili, Shalibashvili, & Supatashvili 1972; Tredl 1907: 12. **(tx)** Balachowsky 1949a: 162; Hagedorn 1910a: 74; Joly 1976; Pfeffer 1942b: 208, 214, 1955a: 152; Reitter 1894a: 64, 1913a: 62; Schedl 1934f: 1637, 1946a: 5, 7, 1979c: 68; Stark 1952: 251.
- minimus* Stebbing 1903a: 252 (*Polygraphus*). Syntypes, sex?; India: N.W. Himalayas: Jamsar Forest, Tehri-Gerhwal Forest; not found at FRI, Dehra Dun. Synonymy: Wood 1989: 172. Notes: (1) The FRI, Dehra Dun, collection in 1981 contained numerous specimens under the name *minimus*, but no types; it is presumed that Beeson obtained the identification directly from Stebbing or from a series not yet found. References: **(cn)** Stebbing 1903a: 252. **(hb)** Stebbing 1903a: 252; Strohmeyer 1910a: 223. **(ds)** Beeson 1961: 286; Bhasin, Roonwal, & Singh 1958; Hagedorn 1910d: 38; Kleine 1913b: 116, 1914b: 268, 276, 1934a: 140; Stebbing 1903a: 252. **(tx)** Fabricius 1801: 395; Hagedorn 1910a: 77; Stebbing 1903a: 252.
- maulci* Roubal 1910: 203. Syntypes 6, sex?; Lithuania; 2 syntypes in Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1946a: 7. References: **(hb)** Karpinski & Strawinski 1948: 155; Stark 1952: 251. **(ds)** Borchert 1951; Hansen, V. 1939; Hellen 1947; Horion 1935; Kangas 1945; Karpinski 1945a: 173; Karpinski & Strawinski 1948: 155; Keler 1925b: 271; Kleine 1913b: 114, 1934a: 140; Lomnicki 1913b: 148; Nunnberg 1928b: 88, 104; Palm 1946: 122; Reitter 1916: 350; Roubal 1910: 203; Schaufuss 1915: 1230; Stark 1926b: 103, 1952: 251; Webber 1938: 338. **(tx)** Balachowsky 1949a: 162; Eggers 1922c: 15–16, 1932c: 81; Karpinski & Strawinski 1948: 158; Pfeffer 1942b: 208–209, 214, 1955a: 152; Reitter 1913a: 62, 1916: 350; Roubal 1910: 203; Schedl 1934f: 1637, 1946a: 7, 1979c: 150; Scholz 1922: 139–140; Sokanovskii 1958: 38; Spessivtsev 1922a: 469, 491, 1931: 46; Stark 1952: 251.
- danicus* Eggers 1932c: 80. Holotype ♂; Insel Seeland, Denmark; USNM, Washington. Synonymy: Schedl 1946a: 7. References: **(ds)** Hansen, V. 1939; Hellen 1947; Kleine 1934a: 140. **(tx)** Anderson, W. H. & Anderson 1971: 11; Eggers 1932c: 80; Pfeffer 1942b: 208, 215; Schedl 1946a: 5, 7, 1979c: 75.
- cylindricollis* Eggers 1940g: 37. Holotype ♀; Lastva, Dalmatia; Eggers Collection but not listed by Anderson & Anderson 1971 or Schedl 1979c, 2 cotypes in Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1946a: 7. References: **(cn)** Schimitschek 1944: 170. **(cc)** Galoux 1947b; Schimitschek 1941a: 305. **(hb)** Schimitschek 1944: 170. **(tx)** Balachowsky 1949a: 162; Eggers 1940g: 36–40; Pfeffer 1942b: 208, 1955a: 152; Schedl 1946a: 5, 7, 1979c: 73.
- tuberosus* Niisima 1909: 139. Syntypes, sex?; Prov. Tesnio Onupuuni, Tomakona; Berg Mackariunpuri, Prov. Iburi; Nobuchi Collection, Ibaraki. Figures: Nakane et al. 1963: pl. 191. Nobuchi 1966d: pl. 2. Distribution: Asia (Japan/Sakhalin Island, Siberia in E USSR). Hosts: *Picca ajanensis*, *P. jezoensis*, *P. koraiensis*, *P. glehnii*, *Pinus pumila*. References: **(cn)** Inouye 1955; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 188. **(cc)** Inouye 1954; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 61; Kurenzov 1934a: 57; Nishiguchi 1960c. **(hb)** Inouye 1954: 170; Inouye et al. 1955: 61; Kurenzov 1935a: 19, 30, 1945b: 110, 1950d: 205; Stark 1952: 246. **(ds)** Kleine 1913b: 114, 1914b: 256, 1934a: 140; Kono 1938b: 64–65; Kono & Tamanuki 1939: 88; Kurenzov 1934a: 57, 1935a: 19, 30, 1935c: 188, 1936a: 109, 1936b: 351, 1963b: 115, 1965; Murayama 1948: 2, 1949a: 12, 1951c: 4, 1953a: 12, 1954b: 199, 1955: 104; Nakane et al. 1963: 382; Nobuchi 1967: 20, 1966d: 18; Pfeffer 1935: 159; Stark 1952: 246. **(tx)** Hagedorn 1910a: 74; Krivolutskaya 1958: 133; Kurenzov 1941a: 139, 1948b: 110; Murayama 1953a: 12, 1954b: 199, 1955: 104; Nakane et al. 1963: 382, pl. 191; Niisima 1909: 139, 1910a: 1, 1929: 376–381; Nobuchi 1966d: 18, pl. 2; Pfeffer 1942b: 208, 212, 1955a: 153; Schedl 1934f: 1637, 1946a: 5, 14; Stark 1952: 246.

Genus *Cisurgus* Reitter

CISURGUS REITTER 1894a: 59, 65. Type-species: *Cisurgus filum* Reitter, monobasic.

Keys: Schedl 1959: 28.

References: **(hb)** Wood, S. L. 1986a: 76. **(ds)** Hagedorn 1910d: 37; Wood, S. L. 1986a: 76. **(tx)** Eggers 1910: 559; Fuchs 1912: 9; Hagedorn 1908: 371, 1909: 138, 1910a: 74–75; Hopkins 1914: 118, 133, 1915c: 226; Peyerimhoff 1923: 56–57; Pfeffer 1983; Reitter 1894a: 59, 65–66, 1906: 710, 1913a: 64–65, 1916: 286; Schedl 1934f: 1638, 1959e: 27, 1961m: 647; Schedl, Lindberg, & Lindberg 1959: 8; Sokanovskii 1954: 16; Spessivtsev 1931: 87; Wood, S. L. 1986a: 76.

ferulae Pfeffer 1983: 293. Syntypes, sex?; Uzbekistan; not located.

Distribution: Asia (W USSR).

Hosts: *Ferula kuhistanica*, *F.* sp.

References: **(ds)** Kadyrov 1989. **(tx)** Pfeffer 1983: 293, 295.

filum (Reitter) 1889b: 126 (*Crypturgus*). Syntypes, sex?; Utsch-adschi, zwischen Merv und dem Amu-darja; NHMB, Budapest.

Distribution: Asia (W USSR).

Notes: (1) Reitter 1894: 59 (to *Cisurgus*).

References: **(hb)** Budkov 1897; Stark 1952: 253. **(ds)** Budkov 1897; Hagedorn 1910d: 37; Heyden 1898: 77; Kadyrov 1989; Kleine 1913b: 115, 1914b: 246; Reitter 1894a: 66; Schaufuss 1915: 1230; Schedl 1959e: 29; Stark 1952: 253. **(tx)** Eggers 1910f: 559–560; Hagedorn 1910a: 75; Hopkins 1914: 118; Pfeffer 1983: 295; Reitter 1889b: 126, 1894a: 59, 65–66, 1906a: 31, 1913a: 65; Schedl 1934f: 1638, 1959e: 29; Semenov 1903: 80; Stark 1952: 253.

maurus Eggers 1910f: 559. Syntypes, sex?; Tunisia (Le Kef); Normand Collection, and Eggers Collection, 2 in NHMW, Wien.

Distribution: Africa (Algeria/ Tunisia), Asia (Israel), Europe (Yugoslavia).

Hosts: *Lantana camara*, *Tamarix aphylla*.

References: **(hb)** Normand 1937: 268. **(ds)** Kleine 1913b: 115, 1914a: 16; Schedl 1959e: 29, 1978e: 20. **(tx)** Eggers 1910f: 559–560; Hagedorn 1910a: 75; Michalski 1969b: 567; Pfeffer 1983: 295; Reitter 1913a: 64–65; Schedl 1934f: 1638, 1959e: 29–30, 1979c: 150.

karamani Reitter 1913a: 64. Syntypes, sex?; Dalmatien: Castella; NHMB, Budapest. Synonymy: Schedl 1959e: 30.

References: **(ce)** Novak, P. 1952: 414. **(ds)** Langhoffer 1915c: 157; Novak, P. 1952: 414; Schaufuss 1915: 1230. **(tx)** Pfeffer 1983: 295; Reitter 1913a: 64; Schedl 1934f: 1638, 1959e: 30–31.

occidentalis Peyerimhoff 1923a: 53. Syntypes, sex?; Maroc Meridional: Vallee du Sous; MNHN, Paris.

Distribution: Africa (Ghana/ Morocco).

Hosts: *Euphorbia cactiformes* (*E. beauvierana*), *E. drupifera*, *E. echinus*.

References: **(hb)** Peyerimhoff 1926: 386. **(ds)** Kleine 1934a: 140; Peyerimhoff 1923a, 1925: 13, 1926: 386; Schedl 1959e: 33, 1961k: 647, 1964f. **(tx)** Peyerimhoff 1923a: 53, 1925: 8, 13; Pfeffer 1983: 295; Schedl 1934f: 1638, 1951k: 647, 1959e: 33.

ragusae Reitter 1906a: 241. Syntypes, sex?; Messina, Italy; NHMB, Budapest.

Distribution: Africa (Tunisia), Europe (Italy/ Sardinia/ Sicily).

References: **(cn)** Grandi 1951: 913. **(ce)** Kleine 1908c: 185. **(hb)** Grandi 1951: 913. **(ds)** Hagedorn 1910d: 37; Heyden, Reitter, & Weise 1906: 710; Kleine 1913b: 115, 1914a: 15; Krausse 1910: 771, 1911: 67; Ragusa 1924: 116; Schaufuss 1915: 1230; Schedl 1959e: 29; Tredl 1907: 12. **(tx)** Eggers 1910e: 37, 1910f: 559–560, 1911a: 123, 1914; Hagedorn 1910a: 75; Reitter 1906a: 31, 241, 1913a: 64; Schedl 1934f: 1638, 1959e: 28–29.

resiniferae Peyerimhoff 1925: 13. Syntypes, sex?; Morocco; MNHN, Paris.

Distribution: Africa (Algeria/ Morocco/ Tunisia).

Notes: (1) Pfeffer 1983: 296 (elevated to full species from subspecies of *occidentalis*; Schedl 1959e: 33 considered it a synonym of that species).

References: **(hb)** Peyerimhoff 1926: 386. **(ds)** Peyerimhoff 1925: 13, 1926: 386. **(tx)** Peyerimhoff 1925: 13; Pfeffer 1983: 296; Schedl 1959e: 33.

wollastoni (Eichhoff) 1878b: 77 (*Crypturgus*).

Lectotype, sex?; Canary Islands: Teneriffe (Mts. above Sta. Cruz); BMNH, London, designated by Israelson 1972: 257, automatic.

Figures: Israelson 1972: fig. 24 (male genitalia).

Distribution: Africa (Algeria/ Gomera, Gran Canaria, Tenerife in Canary Islands).

Hosts: *Euphorbia canariensis*.

References: **(ay)** Israelson 1972: 257. **(ds)** Hagedorn 1910d: 37; Kleine 1913b: 114, 1914a: 21. **(tx)** Eichhoff 1878b: 77–78; Hagedorn 1910a: 74; Pfeffer 1942b: 207–209, 213; Schedl 1934f: 1638, 1946a: 15, 1964f; Schedl, Lindberg, & Lindberg 1959: 17.

pusillus Wollaston 1860: 167 (*Aphanarthrum*).

Lectotype, sex?; Canary Islands: Teneriffe (Mts. above Sta. Cruz); BMNH, London, pre-occupied while in *Crypturgus*.

Notes: (1) Eichhoff 1878b: 77 transferred this species to *Crypturgus* where the Wollaston name became a junior homonym and was replaced. Peyerimhoff 1923: 54 (to *Cisurgus*). References: **(cn)** Souphieff & Scherbinovskaja 1937: 28. **(ds)** Acloque 1896; Kleine 1934a: 140; Lacordaire 1866: 376; Peyerimhoff 1923a: 48; Schedl 1959e: 33, 1971d: 42; Schedl, Lindberg, & Lindberg 1959: 17; Souphieff &

Scherbinovskaja 1937: 28. (**tx**) Acloque 1896; Eichhoff 1878: 77; Kalina 1970: 121; Lacordaire 1866: 376; Peyerimhoff 1923a: 48; Schedl 1934f: 163S, 1959e: 33; Schedl, Lindberg, & Lindberg 1959: 17; Wollaston 1860b: 167, 1861b: 38, 1862b: 172, 1864: 263, 1865: 244.

hystrix Abeille de Perrin 1894: 94. Syntypes, sex?; Algeria, prope St. Charles; not located. Synonymy: Schedl 1946a: 15.

Notes: (3) The synonymy proposed by Schedl (1946a: 15) should be confirmed.

References: (**hb**) Normand 1937: 268. (**ds**) Abeille de Perrin 1894: 94; Hagedorn 1910d: 36; Kleine 1913b: 114, 1914a: 16; Reitter 1894a: 94. (**tx**) Abeille de Perrin 1894: 94; Eggers 1910f: 559-560; Hagedorn 1910a: 74; Reitter 1894a: 94, 1913a: 64; Schedl 1934f: 163S, 1946a: 15.

Tribe Xyloterini Lindemann

Xyloterioidea

References: Lindemann 1876: 165.

Xyloteri

References: LeConte 1876: 346; LeConte & Horn 1883: 516.

Xyloteridae

References: Eichhoff 1878b: 411.

Xyloterinae

References: Murayama 1930: 17, 1957b: 569–585; Nusslin 1911: 432.

Xyloterini

References: Reitter 1913a: 28; Schedl 1951b: 74; Wood, S. L. 1978a: 113, 1982b: 6S, 1986a: 76; Yin, Huang, & Li 1984: 182.

Xyloterina

References: Balachowsky 1949a: 196.

Trypodendrinae

References: Tredl 1907: 18.

Trypodendrina

References: Nunberg 1954: 16.

Genus *Trypodendron* Stephens

TRYPODENDRON STEPHENS 1830: 353. Type-species: *Dermestes domesticus* Linnaeus, subsequent designation by Westwood 1838: 39, Thomson 1859: 146.

Xyloterus Erichson 1836: 60. Type-species: *Bostrichus lineatus* Olivier, subsequent designation by Thomson 1859: 146. Synonymy: Ferrari 1868: 255, Eichhoff 1878b: 412.

References: (cn) Felt 1905: 293; Hofer 1920: 1–11; Hopping & Jenkins 1933: 1–14; Snyder 1927: 1–46. (hb) Knauer 1908: 498–501; Živojinovic 1948: 65–73. (ds) Scheerpeltz & Winkler 1930: 257. (tx) Bach 1854: 138; Balachowsky 1949a: 195; Doebner 1862: 165; Eichhoff 1864, 1878b: 412; Erichson 1836: 60; Ferrari 1868: 255; Ilagedorn 1910d: 114–116; Karaman 1972: 115; Kuster 1844: 64; LeConte 1876: 357; LeConte & Horn 1883: 17–18; Munro 1926: 1–27; Niisima 1909: 163–164; Pfeffer 1989a: 129–136; Puton 1867: 631; Redtenbacher 1872: 383; Reitter 1894: 92, 1913a: 74; Saalas 1914: 73, 83–84; Schedl 1951c: 74–100, 1964k: 211; Schimitschek 1937: 50–53; Spessivtsev 1922: 474–475, 1931: 88; Stark 1931: 339–433; Stebbing 1914: 602; Swaine 1909: 148, 1918: 84; Tamamki 1933: 1–54; Thomson 1857: 358, 1859: 146; Trappen 1935: 143; Tredl 1907: 19; Wood, S. L. 1957a: 344, 1966b: 20.

Keys: Wood 1957a: 345, 1982b: 747 for North America; Schedl 1951c: 86 for Europe and Asia; Murayama 1957b for Japan; Yin, Huang, & Li 1984: 182–185.

References: (ay) Atkins & Farris 1962: 30;

Browne 1961e: 49; Chapman 1955: 3; Francke-Grosmann 1958: 139; Nobuchi 1969a: 58; Thomas, J. B. 1960. (bv) Bletchly 1961: 14; Chapman 1955: 3, 1959b: 126; Dyer 1963: 3–4; Graham 1953: 3–4, 1961: 519–520; Kinghorn 1955: 3, 1956: 3–4; Nijholt & Chapman 1964: 3–4. (cn) Binion 1962: 52; Drake 1921: 201–205; Hagle et al. 1987: 39; Johnson 1958: 508–511, 1960: 1–8; Johnson & Zingg 1969: 816–819; Judeich & Nitsche 1895: 449–451; Keen 1938: 146; McGuffin & Barker 1947: 57; Richmond 1953: 86–89; Ross 1954: 143; Swaine 1913: 87–92. (cc) Balazy 1963b; Dyer 1962: 910; Furniss, R. L. & Carolin 1977: 410; Lindquist 1970: 981. (hb) Bright & Stark 1973: 71; Browne 1961d: 50; Furniss, R. L. & Carolin 1977: 410; Prebble & Graham 1957: 92, 95–106, 111–112; Wood, S. L. 1982b: 746, 1986a: 78. (ds) Allen & Koot 1970: 12; Barbey 1901: 110; Bright & Stark 1973: 71; Chamberlin 1917: 356; Furniss, R. L. & Carolin 1977: 410; Patterson & Hatch 1945: 152; Provancher 1877: 566; Wood, S. L. 1982b: 746, 1986a: 78; Yin, Huang, & Li 1984: 182. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1949a: 196; Beal & Massey 1945: 59, 107; Bedel 1888b: 396, 403; Blackman 1922b: 75, 79; Bright 1976d: 117; Bright & Stark 1973: 71; Browne 1961c: 81, 1965a: 188; Chamberlin 1939: 296–302, 1958: 124; Choo 1983: 61; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 13, 18, 35; Eggers 1939c: 114–123; Eichhoff 1864a: 36, 45–46, 1878b: 412, 1881a: 291; Ferrari 1868: 255; Johnson, N. E. 1958b: 236; Kostin 1973: 259; Krivolutskaia 1958: 107; Pfeffer 1989a: 53, 1989b; Schedl 1964k: 211; Stephens 1830: 353; Swaine 1909: 147, 1918a: 44, 84–86; Thomas, J. B. 1960: 410; Thomson 1859: 146; Trappen 1935: 143; Westwood 1838: 39; Wood, S. L. 1957a: 341, 345, 1961a: 46, 1966b: 20, 1982b: 746–754, 1986a: 78; Yin, Huang, & Li 1984: 182.

ashuensis (Murayama) 1950a: 51 (*Xyloterus*). Syn-types 2, ♂ ♀; Ashu, north of Kyoto City, Honshu, Japan; Murayama Collection in USNM, Washington. Distribution: Asia (Japan).

References: (ds) Murayama 1953a: 12, 1954b: 167, 1957b: 570. (tx) Murayama 1950a: 51, 1953a: 12, 1954b: 167, 1957b: 570.

betulae Swaine 1911a: 216. Lectotype ♂; Ste. Anne de Bellevue, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1967b: 679.

Figures: Bright 1976d: 210, Wood 1957a: 339–341. Distribution: North America (Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Ontario, Quebec in Canada/ Idaho, Maine, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New York, South Dakota, Wisconsin in USA).

Hosts: *Betula lenta*, *B. papyifera*.

References: (ay) Abrahamson, Chu, & Norris 1967: 1107–1110; Thomas, J. B. 1960, 1967. (bv)

Kirkendall 1984: 241. (**cn**) Blackman 1950; Chamberlin 1924; Doane et al. 1936; Drake 1921: 201, 205; Holsten, Werner, & Laurent 1980; Hopkins 1904a: 16; Leach 1940b: 63; Leach et al. 1940: 227–236; Lindquist, O. H. & Syme 1981: 110; Nash et al. 1951: 46; Swaine 1918a: 84; Wong, H. R. & Melvin 1973. (**cc**) Abrahamson, Chu, & Norris 1967; Leach 1940b: 63; Leach et al. 1940: 227; Roeper & French 1981; Slaby 1947: 377; Stienhaus 1946: 405; Thompson, W. R. & Simmonds 1964: 39, 1965: 125; Verrall 1943: 143; Webb 1945: 65. (**hb**) Baker, W. L. 1972: 268; Blackman 1950; Chamberlin 1939: 299; Doane et al. 1936; Drake 1921; Everts 1903: 770; Gast et al. 1989: 383; Holsten, Werner, & Laurent 1980; Hopkins 1904a: 16; Rose, A. H. & Lindquist 1982b: 101; Swaine 1918a: 84; Wong & Melvin 1973. (**ds**) Abrahamson, Chu, & Norris 1967; Anonymous 1926c: 518; Baker, W. L. 1972: 268; Beaulne 1956; Blackman 1950; Bright 1976d: 118; Chamberlin 1939: 299; Dodge 1938; Furniss, R. L. & Carolin 1977: 412; Gast et al. 1989: 383; Kleine 1913b: 169, 1934a: 178; Leng 1920: 339; Leonard 1928: 518; Lindquist, O. H. & Syme 1981: 106; Murayama 1957b: 584; Patterson & Hatch 1945: 152; Pfeffer 1989b: 132; Still, Tidsbury, & Melvin 1974b; Wood, S. L. 1982b: 750. (**tx**) Benoit 1985: 272; Bright 1967b: 679, 1976d: 118, 210; Chamberlin 1939: 299; Dodge 1938: 14, 35–36; Everts 1903: 770; Hoebeke 1978; Lindquist, O. H. & Syme 1981: 110; Murayama 1957b: 584; de Ruelle 1970: 411; Swaine 1911a: 216, 1918a: 84–85; Thomas, J. B. 1960: 410; Titus, Meikle, & Harrison 1985: 125; Wood, S. L. 1957a: 345, 347, 1982b: 750.

domesticum (Linnaeus) 1758: 356 (*Dermestes*).

Syntypes, sex?: Europa; not located.

Figures: Bevan 1987: 116, Grune 1979: 160, Speight 1981: 145.

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Romania/ Sardinia/ Scotland/ Sicily/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Acer* spp., *Alnus glutinosa*, *Betula* sp., *Carpinus betulus*, *Fagus* spp., *Fraxinus* spp., *Juglans regia*, *Morus alba*, *Prunus* sp., *Quercus* spp., *Robinia pseudoacacia*, *Sorbus* spp.

Notes: (3) Endrodi 1957a: 309 (named aberrations *apicalis*, *toracalis*, no status).

References: (**ay**) Escherich 1923b: 488, 627; Fisher 1954; Francke-Grosmann 1956b, 1957, 1959; Hadorn 1933; Inhoff 1856: 228; Kerck 1972a, 1977; Numberg 1951: 263; Schneider 1976. (**bv**) Francke 1973; Francke & Heemann 1974; Francke & Heyns 1974b; Grune 1979: 161; Inscoc 1982; Inscoc & Beroza 1976: 168; Kerck 1972a, 1972b, 1977, 1978; Klassen, Ridgway, &

Inscoc 1982; Klimetzek, Vite, & Mori 1980; Losekrug 1988; Magma, Gasper, & Severin 1982; McLean & Borden 1977: 684; Paiva 1982a, 1982b; Paiva, Kiesel, & Vite 1983; Payne et al. 1983; Schurig et al. 1982; Vite & Pitman 1967: 683–701; Weber, R. & Schurig 1984; Weber, T. 1966. (**cn**) Anonymous 1979; Bakshi 1950: 111–120; Barbey 1925: 554; Becker, G. 1950; Bejer-Petersen 1959a; Blandford 1890, 1893c; Chararas 1957e; Chorbadzhiyev 1939; Cotes 1893b; Eckstein 1926: 579, 1930b; Eichhorn & Graf 1974; Escherich 1923b: 488, 627, 1929; Esterberg 1959; Falck 1916: 167; Fisher 1952a; Gabler 1955; Georgescu et al. 1957: 357, 403, 426; Georgijevic 1959: 594; Coosen 1961; Grandi 1951; Hartig 1872a, 1872b, 1877: 195; Henschel 1895a: 194; Herlein 1878; Hess 1900: 42, 1907: 259; Hess & Beck 1914: 284, 1927: 343; Houbia 1913: 253; Jacquist 1951a: 1–4; Judeich & Nitsche 1895: 539; Kamp 1954: 3; Kerck 1972b; Kholodkovskii 1912: 322; Kleine 1932a: 309; Konig, E. 1957: 104; Kovacevic 1924: 21–22, 1957: 69; Losekrug 1988; MacDougall 1925: 1–37, 1929: 1–41; Muller 1912a: 187; Niemeyer 1982; Nosek 1951: 106, 1952b: 96; Nusslin 1913: 204; Paiva 1982b; Palm 1951: 229; Puecher Passavalli 1931b: 657; Reichling 1920: 15–17; Reissig 1949: 131; Rhumbler 1922: 304, 330, 1927: 318; Saalas 1949: 329, 343, 378; Schimitschek 1935b: 147, 1937: 53, 1955a: 136, 1955c: 83; Schindler 1969b: 136; Schmidt 1881: 89; Schonherr & Wellenstein 1967; Schuster 1918: 99; Schwarz 1938a: 95; Schwerdtfeger 1944a: 154, 1954: 280, 1957a: 190; Shaw, M. W. 1960: 112; Speight 1981; Stark 1952: 363; Taraschkewitsch 1934: 357; Tomic 1957: 207–210; Wachtl 1901: 382; Weber, T. 1966: 158–165; Wolff & Krause 1922: 89. (**cc**) Adeli 1964; Apel 1983; Baert & Maelfait 1977; Bakshi 1950; Balazy & Michalski 1964b; Batra 1963b: 216; Beauverie 1910b; Boucek 1957b: 79; Brummanis 1940; Butin & Zimmermann 1972; Eichhorn & Graf 1974; Fisher 1954; Francke-Grosmann 1956b, 1957, 1959; Fuhrer 1975; Graham 1969: 875; Gyorfi 1941b; Hagedorn 1907c; Heliovaara & Lilja 1989; Heqvist 1963: 154; Jammicky 1957c, 1958: 689; Janka 1908; Kangas 1942b; Kleine 1908c: 220, 1909a: 49, 77; Knauer 1908: 500; Krivosheina 1974; Lundberg 1984; Michalski & Ratajczak 1989; Neger 1908b: 281, 1908c: 277, 1908d: 322, 1909a: 374, 1911a: 50; Nikitsky 1978; Nosek 1951: 106, 1952b: 96; Novak, P. 1952: 416; Nuorteva 1956a: 16, 1961c: 119; Nusslin 1927: 318; Perris 1856a: 244; Pfeffer 1923a: 331, 1928b: 2, 1932a: 19, 1943b: 181; Purrini & Orimeres 1981; Ratzeburg 1869a: 175; Roubal 1934b: 178; Ruschka 1923: 198–201; Saalas 1930: 118, 1949: 329, 343, 378; Scheidter 1936: 236; Schimitschek 1935b: 534, 1955a: 136; Schneider 1976; Schuster 1918: 99; Schwerdtfeger 1944a: 154, 1957a: 190; Sedlaczek 1915a: 45, 1935a: 162; Shaw, M. W. 1960; Slaby

- 1947: 375; Speight 1981; Szczepanski 1960a: 407; Thompson, W. R. 1943: 117; Thomsen, Buchwald, & Hamberg 1949: 103, 232–323; Vite 1952a: 103; Zimmermann, G. 1973. (**hb**) Adeli 1964; Altum 1881c: 309; Apel 1983; Bach 1864; Baeta Neves 1943a; Barbey 1901: 28, 110, 1925: 554; Bargmann 1906; Baudys 1929; Becker, G. 1950; Beffa 1949, 1961; Beling 1873, 1887; Blandford 1890; Boas 1923: 363; Brandt 1948; Budge 1949; Bukowsky 1930; Cecconi 1903, 1924; Chararas 1957e; Chorbadzhievo 1929; Cotes 1893a, 1893b; Dallimore & Munro 1922; Dombrowsky 1887; Eckstein 1897, 1926: 579, 1928; Eggers 1917; Eichhoff 1881a: 54, 291; Eichhorn & Graf 1974; Escherich 1923b: 488, 627; Everts 1902; Fairmaire 1864: 164; Falck 1916: 167; Fischer 1952a; Fisher 1936a, 1954; Fuchs 1904a; Furst 1888: 13; Gabler 1955; Gillanders 1908; Girard 1873; Grandi 1951; Groschke 1953c; Gyorfı 1936: 527, 1957; Hadom 1933; Hagedorn 1903a; Hartig 1872a, 1872b, 1877: 195; Henschel 1876a: 216, 220, 240, 1895a: 194; Hergula 1939: 309; Hess 1900: 42, 1907: 259; Hess & Beck 1914: 284, 1927: 343; Holmgren 1867: 128; Jacquot 1951a: 1; Joly 1950; Karpinski 1933b: 29; Karpinski & Strawinski 1948: 155; Karsch 1883: 142; Kholodkovskii 1912: 322; Kleine 1932a: 309; Knotek 1894a: 559; Konig, E. 1957: 104; Lengerken 1954: 315; Liese 1950: 142; Loos 1913: 413; Lunardoni & Leonardi 1889: 489; Magema, Gasper, & Severin 1982; Matouschek 1917: 214; Munro 1926: 59; Nordlinger 1856: 31; Numberg 1929: 107; Nusslin 1898: 283, 1906b: 14, 1913: 204, 1927: 318; Paiva, Kiesel, & Vite 1983; Palm 1951: 229; Perris 1856a: 244; Pfeiffer 1942a: 6; Postner 1974: 471; Ratzeburg 1837: 164, 1839: 165, 201; Rhumbler 1922: 304, 330, 1927: 318; Rupertsberger 1880: 232; Saalas 1913a: 69, 84, 1949: 329, 343, 378; Scheidter 1936: 236; Schimitschek 1955a: 136; Schmidt 1881: 89; Schneider-Orelli 1947b: 157; Schwerdtfeger 1944a: 184, 1957a: 190, 1981: 196; Sedlaczek 1935a: 162; Shaw, M. W. 1960; Simmel 1919a: 34–36; Speight 1981; Spessivtsev 1913a: 95; Strohmeier 1907b: 173–174; Thomsen 1948 (1950): 804; Tragardh 1914: 105, 1939b: 158, 233; Tredl 1908b: 138, 1915a: 152, 1915b: 169; Tschorbadjiev 1929: 166; Vite 1952a: 103; Wachtl 1876a: 452, 1901: 382; Wichmann 1909a: 149, 1910b: 209; Wolff & Krausse 1922: 89. (**ds**) Aclouque 1896; Adeli 1964; Ammann & Knabl 1923; Andersch 1851; Angus 1965a: 7; Anonymous 1979; Barthe 1896; Bartindale & Bartindale 1948: 138; Ban 1888; Bedel 1888b: 404, 420; Beffa 1949; Bejer-Petersen & Jorum 1977: 22; Benick 1921; Bielz 1851, 1887; Blanchere & Robert 1889; Boas 1923: 363; Borchert 1951; Brakman 1966b: 205; Branesik 1871, 1906; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Cecconi 1903; Chapuis & Candeze 1853; Chorbadzhievo 1924d, 1929; Chrystal 1937; Cotes 1893a, 1893b; Crotch 1863; Dallimore & Munro 1922: 189–193; Davidson 1961: 20; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eckstein 1923; Eder 1934; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Ermisch 1953; Escherich 1923b: 488, 627, 1929, 1932b; Esterberg 1959; Favre 1890; Fisher 1936a; Fleischer 1888; Fleischer et al. 1921a; Forster 1849: 439; Fowler 1891; Fricken 1889: 357; Fuchs 1904a, 1905a; Gabler 1949b; Gaubil 1849: 127; Gemminger & Harold 1872: 2682; Georgjevic 1959: 594; Gobang 1855: 745; Goeze 1777: 130; Gozis 1875: 80; Gredler 1866: 372; Grill 1895: 309; Grune 1979: 161; Gyllenhal 1827: 624; Gyorfı 1936: 527, 1941b; Hagedorn 1903a, 1910d: 114; Hansen, V. 1939, 1956, 1964: 461; Heinemann 1908a; Heller 1947; Helliesen 1916: 84; Heyden 1876: 299, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hickin 1963; Holmgren 1867: 127; Holzel 1946: 81; Horion 1949, 1951, 1954a: 105; Houins 1939: 401–409; Ihssen 1939: 336; Jacenztkovsky 1912: 292; Janetschek 1957: 262; Johnson, W. F. & Halbert 1902: 819; Judeich & Nitsche 1895: 539; Kaltenbach 1874: 70, 593, 624; Kangas 1942b; Karpinski 1925: 216, 1931: 27, 1932b: 55, 1933b: 29, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1925b: 275; Kersten 1933: 74; Kestercanek 1881a: 12; Kiefer et al. 1942: 529; Kleine 1912a: 263, 268, 1913a: 36, 1913b: 169, 1932a: 309, 1934a: 178; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 559; Koltze 1901: 154; Koschitsky 1900: 84; Kovacevic 1957: 69; Kraatz 1869: 60; Kurir 1947c: 22; Lacordaire 1866: 377; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 138; Liese 1950: 142; Lindemann 1884b: 264; Lokaj 1868: 64; Lomnicki 1913b: 149; Loos 1913: 413; Lovendal 1890c: 211; Lucht 1987: 280; Lunardoni & Leonardi 1889: 489; Lundblad 1950c: 116; Mahler 1987: 232; Marcu 1931f: 115; Matthews & Fowler 1883: 42; McLean & Borden 1977: 684; Michalski 1957: 165; Mirzoian 1950: 139; Muller 1977: 56; Munster 1928: 291; Murayama 1957b: 585; Negru 1966b: 401, 1968a: 455; Novak, P. 1952: 416; Numberg 1928b: 88, 107, 1954: 44; Nusslin 1898: 283; Ortzen 1886: 280; Pacher 1865: 151; Palm 1948a: 91, 1955c: 44, 1959: 352; Pfeiffer 1924b: 472, 1928b: 2, 1931b: 74, 1950b: 76, 1989a: 54, 1989b: 131; Pittioni 1943: 176; Pjajnitiskii 1930a: 165; Postner 1974: 471; Ragusa 1924: 117; Rapp 1934: 737; Ratzeburg 1837: 164, 1839: 165, 201; Redtenbacher 1858: 830, 1874a: 383; Reissig 1949: 131; Reitter 1869b: 155, 1894a: 92, 1916: 291; Rohrig 1955: 37; Ronbal 1928: 454, 1935b: 73, 1941: 270; Rye 1867: 250; Saalas 1913a: 69, 84, 1930: 118, 1931: 67; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 448; Schaschl 1854: 133; Schaufuss 1915: 1234; Schaum 1859: 95, 1862: 101; Schedl 1961b: 185, 1980a: 17; Schilsky 1909: 189; Schilthuisen 1983; Schiodte 1873: 104; Schneider

- & Leder 1977: 55; Schwerdtfeger 1951: 196; Seidlitz 1872: 393, 1891a: 568, 1891b: 614; Sharp & Fowler 1893: 34; Shaw 1960; Sick 1939: 110; Siebke 1875: 283; Solla 1893: 217; Stark 1926j: 126, 1927b: 88, 1952: 363; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 144, 1830: 354, 1839: 206; Stierlin 1898: 448; Stierlin & Gautard 1871: 292, 1906: 206; Strand 1946: 601; Sturm 1843: 230; Thomson 1859: 146, 1865: 358, 1868: 219; Tragardh 1914: 105, 1939b: 158, 233; Tredl 1907: 19, 1908b: 138, 1915: 214; Tschorbadjiev 1929: 166; Ulanowski 1884: 7; Villa & Villa 1833: 26; Vite 1953: 41; Wachtl 1870: 259, 1876a: 452; Wanka 1908: 231; Westhoff 1882: 240; Wichmann 1910b: 209, 1927a: 68; Winter, T. G. 1983: 25; Zetterstedt 1840: 194; Zoufal 1920: 21. (tx) Aclouque 1896; Allen 1965a; Apel 1983; Bach 1854, 1864; Balachowsky 1949a: 198; Barbey 1901: 28, 110; Bedel 1885b: 404, 420; Beffa 1949, 1961; Bertolini 1872; Blandford 1890; Boas 1923: 363; Brancsik 1871; Castelnau 1840; Chapuis & Candezze 1853; Chorbadzhievo 1924d; Curtis 1840; Dejean 1821, 1825; Dombrowsky 1887; Duffy 1953; Duftschmidt 1825; Eggers 1926b, 1929e: 41; Eichhoff 1864a: 382, 1864b: 37, 1868d: 421, 1878b: 412, 1881a: 54, 291, 1883a: 116, 143; Endrodi 1957a: 309, 1957b; Erichson 1836: 60; Escherich 1923b: 488, 627; Fankhauser 1912a; Ferrant 1911; Ferrari 1867a: 9, 1867b: 113; Fleischer 1927; Formanek 1907: 54; Fricken 1889: 357; Gabler 1949b, 1955; Gillanders 1908; Girard 1873; Goeze 1777: 130; Grune 1979: 160–161; Gyllenhal 1813: 365, 1827: 624; Hagedorn 1910a: 158; Hansen, V. 1956, 1964: 461; Henry 1892: 14; Henschel 1876a: 216, 220, 240, 1895a: 194; Hopkins 1914: 131; Iablokoff-Khnzorian 1961: 89; Judeich & Nitsche 1895: 539; Kalina 1970: 130; Karpinski & Stravinski 1948: 155; Knotek 1892a: 38; Kuhnt 1913: 1061; Lacordaire 1866: 377; LeConte 1876: 356; Letzner 1891: 378; Leunis 1886: 182; Lindemann 1875c: 372; Linnaeus 1758: 355–356; Lovendal 1889b: 79, 1890c: 211, 1898: 200; Lucas 1920: 675; Lucht 1987: 280; Lunardoni & Leonardi 1889: 489; Muller 1776: 56; Murayama 1957b: 585; Negru 1966b: 40; Nordlinger 1848: 245, 1856: 31; Numburg 1951: 263, 1954: 44; Pfeffer 1932b: 19, 1942a: 6, 1955a: 165; Portevin 1935: 326; Postner 1974: 471; Puton 1867: 631; Quaschik 1953: 35; Ratzeburg 1837: 164, 1839: 165, 201; Redtenbacher 1849a: 359, 1849b: 26, 1858: 830, 1874: 383; Reitter 1894a: 92, 1913a: 74, 1916: 291; Rhumbler 1913, 1914, 1922: 304, 330, 1927: 318; Rupertsberger 1880: 232; Saalas 1913a: 69, 84, 1914: 84, 1949: 329, 343, 378; Sahlberg 1836: 151; Schedl 1934f: 1644, 1951c: 86–88, 1952f: 88, 1980a: 17; Schimitschek 1937c: 53, 1955c: 83; Seidlitz 1872: 393, 1891a: 568, 1891b: 614; Speight 1951: 145; Spessivtsev 1913a: 95, 1922a: 475, 1925a: 177, 1931: 54–55; Stark 1952: 363; Stephens 1829a: 144, 206, 1829b: 12, 1830: 353–354; Stierlin 1898: 448; Thomson 1859: 146, 1865: 358, 1868: 219; Westwood 1840: 39; Wood, S. L. 1957a: 337, 344; Zetterstedt 1840: 194. (ms) Eichhoff 1868d: 421; Escherich 1932b; Heineemann 1908a; Lucas 1920: 675; Matonschek 1917: 214; Schurig et al. 1982; Schwappach 1924: 59; Weber, R. & Schurig 1984.
- limbatus* Fabricius 1787: 33 (*Apate*). Holotype ♂; Germania; UZMC, Copenhagen. Synonymy: Fabricius 1792: 363.
- References: (hb) Boas 1923: 365. (ds) Beck 1817; Boas 1923: 365; Dejean 1821, 1825, 1837; Gyllenhal 1827: 419; Illiger 1820: 367, 1805: 129; Stephens 1829a: 144; Sturm 1826: 102; Villa & Villa 1833: 26. (tx) Balachowsky 1949a: 198; Dejean 1821, 1825; Eggers 1929e; Eichhoff 1876a: 378; Fabricius 1787: 33, 1792: 363, 1801: 382; Gmelin 1790: 1603; Gyllenhal 1827: 419; Herbst 1793: 105; Illiger 1907: 321; Panzer 1795a: 284; Stephens 1829a: 144. (ms) Roeschke 1912: 43.
- dorjitenzingi* Schmutzenhofer** 1988: 487. Holotype ♂; Bhutan-West, Chelaila, 3000 m; NHMW, Wien.
- Figures: Schmutzenhofer 1988: 487 (male genitalia).
- Distribution: Asia (Bhutan).
- Hosts: *Larix griffithiana*, *Picea spinulosa*, *Pinus wallichiana*.
- Notes: This species is allied to *betulae* and probably breeds in a non-coniferous host.
- References: (tx) Schmutzenhofer 1988: 487.
- gaimaensis* (Murayama)** 1937: 369 (*Xyloterus*). Holotype, sex?; Horyuri, Korea; Murayama Collection in USNM, Washington.
- Distribution: Asia (Japan/ Korea).
- Hosts: *Larix olgensis coreana*, *Alnus* sp.
- References: (ds) Cho 1957; Choo 1983: 61; Choo & Woo 1985: 164; Ko 1969: 288; Murayama 1937a: 2, 1937b: 369, 1945: 6; 1957b: 570. (tx) Choo 1983: 61; Murayama 1937b: 369–370, 1950: 52, 1957b: 570; Schedl 1951c: 94.
- ***impressum* Scudder** 1876: 83. Holotype, sex?; Green River Beds in western Wyoming [USA]; not located.
- Distribution: North America (fossil in Eocene deposits).
- Notes: (1) Hopkins 1900a: 66 (not Scolytidae, perhaps Anobiidae).
- References: (ds) Hagedorn 1910d: 114; Kleine 1913b: 169; Murayama 1957b: 585; Scudder 1876: 83, 1890: 470, 1891: 515, 1893: 157; Wickham 1920: 363. (tx) Hagedorn 1910a: 155; Keler 1928: 10; Murayama 1957b: 585; Scudder 1876: 83, 1890: 470.
- laeve* Eggers** 1939c: 122. Syntypes 5 ♂; Japan: Karafuto; Eggers Collection, 2 syntypes in NHMW, Wien.

Figures: Strand 1946: 169 (male genitalia).

Distribution: Asia (Japan/ E USSR), Europe (Norway/ Poland/ Sweden/ W USSR).

Hosts: *Picea excelsa*.

References: (tx) Eggers 1939c: 122; Schedl 1951c: 87. 1979c: 135.

piceum Strand 1946: 172. Syntypes, sex[?]; Norway: Roa, in the immediate vicinity of Oslo; not located. Synonymy: Wood 1983 (private notes based on two specimens in Schedl Collection in NHMW, Wien, compared to the Eggers syntypes of *laeve*).

References: (ds) Heller 1947; Klefbeck & Sjoberg 1960: 230; Lundberg 1958: 232, 1974: 92. (tx) Schedl 1962p: 206; Strand 1946: 172.

***lineatum* (Olivier)** 1795a: 18 (*Bostrichus*). Syntypes, sex[?]; Northern Europe; MNHN, Paris (?). Figures: Bevan 1987: 116, Bright 1976d: 202, Bright & Stark 1973: 159, Chararas 1961c: 109, Furniss & Carolin 1977: 411, Grune 1979: 160, Joly 1976: fig. 139, 241, Li, Dang, & Shi 1977: 189, Postner 1974: 471, Tsai & Li 1959: 95, Wood 1957a: 339–341.

Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia ("China"/ Japan/ Korea/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Arizona, California, Colorado, Connecticut, District of Columbia, Idaho, Maine, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Washington, West Virginia, Wyoming in USA).

Hosts: *Picea* spp., *Abies* spp., *Cedrus* sp., *Larix* sp., *Pseudotsuga* spp.

Notes: (3) Endrodi 1957a: 309 (named aberrations *lineellus*, *pauper*, no status), 1957b: 416 (named aberration *mercionale*, no status). The name *melanocephalus* Fabricius has erroneously been referred to this species (Eggers 1933g: 18).

References: (ay) Atkins 1966b: 983; Atkins & Farris 1962a; Balfour 1962; Batra 1963b: 227; Becker, C. 1962b; Bennett & Borden 1971; Borden & Slater 1969b; Cerezke 1964: 480; Chapman 1956: 1183, 1957, 1958c, 1969b, 1972; Escherich 1923b: 458, 488, 624; Farris 1963: 257; Farris & Funk 1965: 527; Feytaud 1950a; Fisher 1954; Francke-Grosmann 1956b, 1957: 140, 1959; Graham, K. 1959, 1961, 1968; Hadorn 1933; Hatch 1926; Leisewitz 1906: 102; Lekander 1959b: 31; Moeck 1968a: 521, 1970: 985–995; Murayama

1933a: 13; Nijholt 1965: 16–18, 1967, 1969; Nijholt & Chapman 1964; Nijholt & Sahota 1974: 931; Nosek 1958a: 87; Numberg 1928a: 140, 1951: 263; Nusslin 1911a: 59, 278, 378; Payne et al. 1973; Reid 1958a: 464; Roberts 1961c; Scherb 1971; Schneider 1976; Schneider & Rudinsky 1969a; Schneider-Orelli 1913: 61; Schonherr 1970b; Thomas, J. B. 1957: 4, 1960: 416, 1967; Uchastnova 1988: 38; Vogel 1988. (bv) Adlung 1960: 430; Annala 1971a: 11, 1975; Annala & Petaisto 1978; Annala et al. 1972; Anonymous 1961a; Bakke 1973, 1983a; Balfour & Kirkland 1963: 163–166; Balfour & Paramonov 1962: 66–67; Bauer & Vite 1975; Becker, P., Adlung, & Holtmann 1983; Bedard, W. L. Jr. 1969a; Bevan 1962a: 62–66, 1962c: 94–99; Binion 1962; Birch 1984; Bletchly 1961: 15, 1962: 7–12; Bletchly & White 1962: 139–163; Borden 1967: 1182, 1971b, 1974b, 1984; Borden & Bennett 1969: 782–785; Borden, Brownlee, & Silverstein 1968: 629–636; Borden & Fockler 1973; Borden & Groberman 1981; Borden & Slater 1969b: 454–455; Borden & Wood 1966: 253; Borden et al. 1980, 1981, 1982; Castek, Barbour, & Rudinsky 1967: 658–660; Chapman, J. A. 1955: 3–4, 1958b: 3–4, 1958c: 375–380, 1959, 1960: 3–4, 1961a: 3–4, 1962: 74–92, 1963b: 673–676, 1966: 50–59, 1967; Chapman, J. A. & Dyer 1959: 30–33, 1960: 30, 1969: 95–101; Chapman, J. A., Farris, & Kinghorn 1963; Chapman, J. A. & Kinghorn 1958: 362; Chararas 1961d: 602–604; Choo, Woo, & Park 1988; Daterman, Rudinsky, & Nagel 1965; Dyer 1960: 3–4, 1961: 519–520, 1963a: 624–631, 1963b: 3–4; Dyer & Chapman 1962: 3, 1965: 42–57; Dyer & Wright 1967; Ellefsen 1980b; Fockler & Borden 1972; Francia 1966; Francia & Graham 1967: 985–1002; Francke & Heeman 1974; Fu, Wu, & Ning 1984; Furniss, Baker, & Hostetler 1976: 1300; Gavelis & Jakaitis 1981; Gerken & Hughes 1976; Graham, K. 1959, 1961: 519–520, 1962, 1968: 905–908; Graham & Moeck 1968: 602–603; Graham & Werner 1956a, 1956b; Greckin 1960; Groberson & Borden 1982; Grune 1979: 161; Heeman & Francke 1976; Hertel, Hain, & Anderson 1969: 1090; Inscoc 1982; Inscoc & Beroza 1976: 168; Jacobson 1965, 1972; Johnson, N. E. 1960a: 12, 1960b: 4, 1961; Johnson, N. E., Wright, & Orr 1961: 89; Kevdina 1897: 108; King, C. J. 1981, 1982; King, C. J., Oehlschlager, & Borden 1983; Kinghorn 1960: 51; Kinghorn & Chapman 1954: 3, 1957: 46, 1959: 81–92; Kinghorn & Dyer 1960; Klassen, Ridgway, & Inscoc 1982; Klimetzek, Vite, & Mori 1980; Klimetzek et al. 1981; Konig, E. & Berwig 1971; Konig, E., Vite, & Bogenschultz 1981; Krol & Zabecki 1976; Leist 1902c: 25; Lindgren 1982, 1983, 1984; Lindgren et al. 1983; Loschiavo, Beck, & Norris 1963: 764; Loytyniemi & Hiltunen 1976; Luitjes 1976; MacConnell et al. 1977; Magema, Gasper, & Wathelet 1982; Magema, Gasper, & Severin 1982;

- Magema & Gibson 1977; Magema & Severin 1975; McKay et al. 1982; McLean & Borden 1977; McMullen & Atkins 1962b: 1322; Meisner 1937: 1215; Moeck 1971, 1981: 940; Mori & Sasaki 1979: 1329-1332; Mori et al. 1982, 1983; Mozolevskaya, Lebedeva, & Galaseva 1979; Niemeyer, Schroder, & Watzek 1983; Nijholt 1965: 16-18, 1967: 51-55, 1969: 29-31, 1970: 894-897, 1973, 1980; Nijholt & Chapman 1964: 3-4, 1968: 1151-1153; Nijholt & Schonherr 1976; Novak, V. 1962b: 266-269, 1963a: 23-43; Nuorteva 1956c: 15; Oda 1974: 7; Paiva 1982a, 1982b; Paiva, Kiescl, & Vite 1983; Payne & Wood 1981: 491; Payne et al. 1983; Pitman 1966b; Prebble 1960; Prebble & Graham 1957: 92; Prell 1930c: 636; Pullianinen 1965, 1966: 198, 1983; Reiche 1967b; Reid 1958a: 464; Richert & Kohnle 1984; Rozhkov 1970: 144; Rudinsky 1966b: 356-361, 1966c: 218-219; Rudinsky & Castek 1966; Rudinsky & Daterman 1964a: 1339, 1964b: 300-303; Rudinsky & Schneider 1968, 1969b; Saarenmaa 1978; Schnaider 1955: 233; Schneider & Rudinsky 1969: 955-1003, 1181-1186; Schneider-Orelli 1947c: 94; Schonherr 1970b; Schurig et al. 1982; Schwerdtfeger 1981: 195; Shore & McLean 1983; Schwerdtfeger 1981: 195; Silverstein 1974; Slessor et al. 1980; Starzyk & Fizia 1984; Vasechko 1971a, 1971b; Vite 1965: 438-439, 1980; Vite & Bakke 1979; Vite & Pitman 1967: 683-701; Weber, R. & Schurig 1984; White, J. D., Avery, & Carter 1982; Wiehmann, H. E. 1967; Winter, K. 1980; Wood, D. L. 1967b, 1968, 1980b; Wright, R. H. 1965, 1966; Zhong & Schowalter 1989. (cn) Acatay 1943a: 68; Akselsen 1979; Anonymous 1948k: 7, 1960e, 1961a, 1962c, 1966c, 1972c, 1982k, 1983c; Ass & Fmtikow 1941; Austara & Saether 1965: 121-122; Badoux 1921: 163-173; Baisch 1954: 322; Baker, W. L. 1972: 267; Bakke 1960: 290-294; Bakshi 1950: 111-120; Balfour & Kirkland 1963; Barbey 1901: 112, 1906a, 1922b, 1925: 94; Barlow 1966; Baudys 1920: 51-58; Beauverie 1912; Becker 1949, 1950; Becker, P., Adlung, & Holtmann 1984; Beckwith 1972; Bejer-Petersen 1959a, 1978; Berdennikova 1954: 86; Bevan 1962b, 1962c, 1963, 1964b, 1966, 1987: 125; Bielussov 1917: 334-337; Bilczynski 1962; Blanchere & Robert 1889; Blandford 1890; Blatchford 1983: 27; Bletchly 1962, 1964; Bletchly & Bevan 1963a, 1963b; Bletchly & White 1962; Boas 1933: 268-280; Boocock 1955, 1959d; Borcea 1924: 221-260; Borden, Brownlee, & Silverstein 1968; Bussman 1949; Butovitsch 1934; Capecki 1962a, 1963: 303-308, 1966: 23-34, 1967: 3-80; Capek 1966; Cermak 1938; Chamberlin 1939: 300, 1958: 126-127; Chapman 1974; Chapman & Nijholt 1965: 3-4, 1980b; Chararas 1961b: 69, 1961c: 92; Chorbadzhievo 1929; Christiansen 1967: 21, 45, 1970; Christiansen & Saether 1970: 28-30; Cogho 1877; Croke & Bevan 1960; Croke, Bevan, & Davies 1961; Damjanovic 1955; Dolph & Pettinger 1971: 12; Doom & Luitjes 1971a; Drooz 1985: 371; Dyer 1960, 1963; Dyer & Nijholt 1965: 3; Dyer & Wright 1967; Eckstein 1915, 1926: 572; Edwards 1958: 614-615; Eglitis 1984b; Eglitis & Laurent 1983; Egorov 1958: 1492; Ehnstrom et al. 1974; Eichhorn & Graf 1974; Eidmann 1965a, 1973; Eidmann & Klingstrom 1976: 256; Ekici 1971: 1-56; Enzinger 1949; Escherich 1917: 97-115, 1923b: 458, 488, 624, 1929, 1932a, 1936; Esterberg 1959; Falck 1916: 165; Fall & Cockerell 1907: 217; Fankhauser 1912b; Feytaud 1950a; Fiddick & Van Sickle 1980: 20; Fisher 1952a; Fisher, Thompson, & Webb 1953; Fleischer 1877a; Franz 1948e; Fystro & Bakke 1962; Galoux 1947: 12, 1948e; Georgescu et al. 1957: 357, 451; Georgijevic 1959: 594; Gradojevic 1933: 789-790, 1938; Graham 1953, 1963; Graham & Webb 1952; Graham & Werner 1956a; Grandi 1951; Gurchiani 1965a, 1968b; Guse 1893; Gyorf 1959; Hanson, H. S. 1940a; Hard 1974: 12; Hartig 1861: 329, 1872b, 1877: 194; Hasek 1955, 1961: 5; Hedlin & Woods 1970; Heqvist 1965; Herlein 1878; Hess 1898: 360, 1907: 255; Hess & Beck 1914: 284, 1927: 340; Hewitt 1914: 501-518; Hinds & Buffam 1971; Hofacker, Loomis, & Tucker 1984: 56; Holsten, Werner, & Laurent 1980; Holsten & Wolfe 1981; Hopkins 1894b: 295, 1899c: 256, 444; Houins 1939: 401-409; Hrubik 1973; Hubault 1945; Huss 1969, 1970: 116-122; Inonye 1955; Inonye & Yamaguchi 1955a: 235; Jacentkovsky 1933: 270; Jacquiot 1952: 1; Jahn 1952a: 99; Jahn & Sinreich 1959; Jardine 1969: 48; Johnson 1958a: 508-511, 1961: 3; Johnson, N. E. 1963a; Joly 1976; Judeich & Nitsche 1895: 539; Juntinen 1960: 25; Kailidis 1963: 433-443, 1966a, 1966b: 55; Kailidis & Georgievits 1972; Kailidis & Markalas 1988; Kalandra & Pfeffer 1935: 4; Kangas 1934d: 1-68; Karner & Kliefoth 1976; Kauschinger 1893: 145; Keen 1938: 145; Keller 1903b: 48; Kellner 1880: 423, 1881: 368; Kharitonov 1924: 199-204; Kholodkovskii 1912: 278, 282, 322; Kimmey & Furniss 1943: 1-61; Kinghorn 1955b: 3, 1957a: 3-4, 1957b: 213, 1960a, 1961, 1962, 1963; Kinghorn & Chapman 1957: 46-49; Kinghorn & Webb 1950: 3-4; Kirschner 1860: 91; Kleiber 1930: 183; Klopfer 1897: 31; Knuchel 1947: 87; Kohreng 1907: 47; Komarek et al. 1931: 1-256; Konig, E. 1957: 104; Konig, E. & Berwig 1971, 1978; Konig, E., Vite, & Bogenschutz 1981; Kontkanen 1932: 61; Koppen 1882: 237, 261; Kovacevic 1924: 21-22; Krol 1980a, 1980b; Krol & Zabecki 1976; Kudler et al. 1956: 100-105; Kufner, Roth, & Schmidt 1973; Kunstler 1864: 783; Kurenzov 1935c: 188, 1950a: 6; Lanz 1975; Lejeune 1958: 66-68; Lejeune & Richmond 1975; Lekander 1952b: 5, 1954b: 17, 1955b: 18, 1966; Lekander & Rennerfelt 1955: 10; Lekander, M. 1951: 109; Liese 1968; Lindgren 1980a: 70, 1983, 1984; Lindgren & Borden 1983; Lindgren et al. 1983; Lindquist, O. H. & Syme 1981: 110; Lorber &

- Novak 1967: 60–64; Loytyniemi 1967: 49; Lysenko 1959: 15–22; MacDougall 1925: 1–37, 1929: 1–41; Maksymov 1950: 554, 1965, 1968: 128–131; Maren 1926c: 64; Marker-Kohlfurt 1896: 84; Martinek 1953a: 368, 1974; Massey & Wygant 1954: 21; Materna & Novak 1955: 6–9; Mathiesen-Kaarik 1953: 6, 26; Mayr 1960: 452–453; McBride, C. F. & Kinghorn 1960: 40–52; McGuffin & Barker 1947: 57; McGugan et al. 1959: 1–114; McLean & Borden 1977; McMullen 1956: 34–43; Melenotti 1924: 1–60; Mokrzecki 1925c: 44, 1931: 67–68; Molnar, Ross, & Fiddick 1971: 81, 1972: 84; Molnar et al. 1968: 115, 1969: 117, 1970: 104; Morley 1939: 243–248; Morris, E. V. 1969: 61; Mostauskis 1923: 219–240; Mostovsky 1923: 287–288; Muller 1912: 187; Niemeyer 1974: 290, 1975: 156, 1976: 138, 1982; Niemeyer, Schroder, & Watzek 1983; Niemeyer & Thalenhorst 1974; Nigam 1969, 1970, 1973a, 1978a, 1978b, 1979b, 1980; Nishiguchi 1959: 270–274; Nosek 1951: 106, 1952b: 100; Novak, V. 1959b: 73, 1960a, 1962a, 1963b, 1967, 1972a; Novak, V., Hrozinka, & Stary 1976: 34; Novak, V. & Temmlova 1962; Nuorteva 1959e: 1026; Nusslin 1883: 152, 1913: 227; O. B. 1905: 465; Ostaff 1974; Overend 1978; Paiva 1982b; Pavlowitsch 1883: 10; Pax 1921: 43–56; Payne & Wood 1981: 491; Pfeffer 1933: 43, 1940c: 272, 1949b: 150, 1950c: 1; Polozencev 1926: 1–5; Polozencev, Rubcova, & Naumenko 1968; Polubojarinoff 1929: 45–52; Pomoeniche 1876: 161; Popescu 1960; Prebble 1960; Prosoroff 1933: 463–466; Pullianen 1983; Quairiere 1905: 627; Quaschik 1953: 3; Questienne 1979: 117; Reisch 1967a: 493–510, 1967b: 2221; Reisseneger 1889: 337; Rhumbler 1922: 305, 1927: 318; Richert & Kohnle 1984; Richmond, H. A. 1948a: 59, 1953b: 48; Richmond, H. A. & Nijholt 1972; Richmond, H. A. & Radcliffe 1961; Richter 1918: 241; Rodle et al. 1984; Roediger 1984; Rose, A. H. & Lindquist 1980: 61; Ross 1954: 143; Ross, D. A., Baranyay, & Fiddick 1973: 86; Ross, D. A., Van Sickle, & Wood 1981: 89; Rossem 1957: 58; Rudnev 1965b, 1966; Ruppel 1967: 97; Ruppel & Pass 1970: 23; Saalas 1919: 1–415, 1949: 329, 343, 375; Scheidter 1919: 88; Schimitschek 1935a: 197, 1937c: 53, 1938b: 114, 1938c: 2119, 1939d: 2119, 1947g: 191, 1952c: 60, 1955a: 39, 61, 1955b: 102, 1955c: 83; Schindler 1967: 16–23, 1968a, 1968b: 268–270, 1969b: 136, 1969c: 1077–1078, 1970: 505–506; Schmidt, H. 1973; Schmidt, H. & Roth 1975; Schneeberg 1925: 498; Schneider-Orelli 1938: 289–305, 1946: 318, 1948a: 77, 1948b: 72; Schonherr 1958: 227–228, 1967: 230–237; Schonherr & Wellenstein 1967; Schonwiese 1934: 111; Schooley & Party 1981; Schwappach 1904: 80; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 184, 1955b: 92, 1957a: 190, 1964b: 331–332, 1968a; Sedlaczek 1921: 335, 1933: 307, 1938: 58; Shea & Johnson 1962: 1; Shiraki 1952; Shore & McLean 1983, 1984; Sierpinski 1966: 58, 1969b: 109–127, 1971b: 10; Silver & Ross 1958: 79, 1959: 95, 1960: 98, 1961: 99, 1962b: 111, 1963a: 110, 1964b: 113, 1965a: 116; Sinreich 1958: 197, 1962; Skrzypczynska & Krol 1974; Smith, C. J. & Melvin 1974a, 1974b; Snyder 1927: 7; Splawa & Heyman 1970: 113–159; Starzyk & Fizia 1984; Storch 1968; Strohmeyer 1906b: 333; Swaine 1913: 89; Templin 1973: 105; Thomas, J. B. 1958: 394, 1965a; Titova 1966; Tragardh 1921e: 64, 1927c: 89; Tragardh & Butovitsch 1936: 575; Tripp & Blauel 1969: 104; Tripp, Ross, & Van Sickle 1978: 84; Tuovinen 1961; Uusvaara & Loytyniemi 1975; Vappula 1962: 125; Vasechoko 1964; Vite 1955: 1333–1336, 1956: 59, 1965b, 1984a, 1984b; Wachtl 1901: 379, 382; Wardle 1929: 325; Weber, H. 1926: 572; Weber, T. 1965; Werner & Graham 1957: 3; Wichmann 1927b: 350; Wolff & Krausse 1922: 90; Wong, H. R. & Melvin 1973; Wood, D. L. 1980b; Wood, R. O. & Doidge 1971: 8, 1972: 62; Wood, R. O., Geistlinger, & Doidge 1970: 12; Wood, R. O. & Unger 1977: 5; Yanagisawa 1952: 103–116; Zarco 1946a: 251; Zhang et al. 1958: 28; Zieger 1948a: 378, 1950b: 38; Zolk 1935: 614–640, 1937: 147–172; Zumer 1983d. (cc) Adlers & Butovitsch 1961: 1–27; Alfaro & Borden 1980: 1260; Annila 1975, 1977; Annila & Petaisto 1978; Apfelbeck 1916b; Ass & Funtikow 1941; Atkins 1966b: 972; Baisch 1954: 322; Bakke 1960: 308; Bakshi 1950, 1951, 1952; Balazy 1964; Balazy & Michalski 1964b; Balfour & Kirkland 1963; Barbey 1906a; Batra 1963b: 216; Batra & Michie 1963: 471; Beauverie 1910b; Beran 1936; Bletchly 1961: 14; Bletchly & White 1962; Borden et al. 1981; Brammanis 1949; Bueher 1963: 126; Buchner 1949; Bugabee 1956; Bushing 1965: 468; Capecki 1962b, 1963, 1966, 1967a, 1982; Carpelan 1944; Chamberlin 1918a, 1939: 300, 1958: 126–127; Chapman, J. A. 1955e, 1959, 1960: 3, 1962c, 1967; Chapman, J. A., Farris, & Kinghorn 1963: 430–439; Chapman, J. A. & Neitsch 1959: 3–4; Chapman, J. A. & Nijholt 1980b; Chararas 1961d; Christiansen & Saether 1968; Cobb et al. 1968; Coster & Gara 1968: 69–76; Cote & Allen 1980; Cross & Moser 1971; Deyrup & Gara 1978: 276; Dyer 1962b: 910–915, 1967: 11; Dyer & Chapman 1964: 3–4; Dyer & Kinghorn 1961; Dyer & Wright 1967; Ehnstrom 1963a; Eichhorn & Graf 1974; Eidmann 1965c, 1974b; Enlefeld 1906; F. L. M. 1869; Farris 1963: 257; Farris & Chapman 1957; Farris & Funk 1965: 528; Fisher 1954; Fleischer 1877a, 1877b; Francia 1966: 1010–1011; Francia & Graham 1967; Francke-Grosman 1956b, 1957, 1959; Fuhrer 1975; Funk 1965: 929–932; Furniss, M. M. 1966; Furniss, R. L. & Carolin 1977: 411; Gadeck 1976; Galoux 1947c, 1948a; Geschwind 1918: 287–295; Gomostaev 1917: 308–315; Graham 1959: 283–284; Greekin 1960; Grossmann 1931a; Gyorfli 1941b; Hadorn 1933: 1–120, 1934: 64–65; Hagedorn 1907c; Hartig 1844; Heliovaara & Lilja

- 1989; Hellrigl & Schwenke 1955: 48; Heqvist 1963: 154, 1965: 23; Hinds & Buffam 1971; Hubenthal 1902: 291; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 114; Jacquot 1954: 1-2; Jahn & Sinreich 1960b; Jakaitis 1979b; Janka 1908; Joly 1949a: 9; Kangas 1932: 12, 1946b: 22; Keen 1935: 145; Khomentovskii 1976; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1975, 1980a, 1980b, 1983; Kinghorn 1956: 3-4, 1957a: 3; Kleinc 1905c: 220, 1909a: 49, 77, 1944: 70; Knauer 1908: 500; Knight 1961: 212; Konig, E. & Bervig 1971; Kostin 1964: 112; Kraemer 1950b: 419; Krogerus 1927: 123; Krol 1980a, 1980b, 1984; Krol & Zabecki 1976; Kuhn 1949a: 271; Kurenzov 1934a: 50; Lekander 1966; Lekander & Rennerfelt 1955: 1-36; Li & Zhou 1980: 70; Lindquist 1971; Lindquist & Hunter 1965; Lovtyniemi & Hiltunen 1976; Luitjes 1976; Lundberg 1984; Lysenko 1959: 21; MacGillivray 1906: 27; Magema 1976; Magema, Verstraeten, & Gasper 1981; Mahunka & Moser 1980, 1982; Massey & Wygant 1954: 21; Mathiesen-Kaarik 1953: 6, 26, 1960c; Matthews 1970; Mayne 1926: 234-245; McAlpine & Morge 1970: 1564; McLean & Borden 1977; Meyer 1918: 175; Michalski & Ratajczak 1989; Mozelevskaya, Lebedeva, & Galaseva 1979; Munro 1926: 1-27; Neger 1908b: 281, 1908c: 276, 1908d: 322, 1909a: 374, 1911a: 50, 1911b: 223, 1915: 47; Niemeyer & Thalenhorst 1974; Nijholt 1980, 1981; Nikitsky 1978; Nishiguchi 1959: 271; Nosek 1951: 106, 1952b: 100, 1959a: 118, 1959b: 87; Novak, P. 1952: 416; Novak, V. 1960, 1962b, 1970; Nuorteva 1956a: 17, 1957b: 68, 1961c: 119, 1968a, 1971: 69; Nusslin 1927: 318; Okolow 1963; Ostaff 1974; Palmén 1944: 60; Perris 1856a: 244; Peyerinhoff 1928: 110-111; Pfeffer 1923a: 331, 1928b: 3, 1932a: 11, 1933: 43, 1943b: 179, 1949b: 150, 1950c: 1, 1955b: 84, 1957a: 196, 1959: 4; Pfeffer & Prihoda 1950: 3; Pfetien 1925: 45; Popo & Thalenhorst 1974a; Pullianinen 1965; Purrini 1977a; Quaschik 1953: 3; Rafes 1962, 1966: 80; Ratzburg 1869a: 95; Reisch 1967a; Richmond & Radcliffe 1961; Roeper & French 1981; Ruhm 1956b: 4; Saalas 1917a: 18, 1928: 649, 1949: 329, 343, 375, 1951: 13; Saarenmaa 1978; Samsinak 1960; Schedl 1936f: 172, 1958d: 188; Scheidter 1919: 69-90; Schimitschek 1931b: 487, 1935a: 197, 1953b: 534, 1955a: 39, 61; Schneider 1976; Schneider-Orelli 1913: 61; Schwerdtfeger 1944a: 184, 1957a: 190; Sedlacek 1908: 53, 1915a: 127, 1933: 307, 1935a: 153; Shepherd 1966: 511; Slaby 1947: 375; Sokanovskii 1936: 74; Splawa-Neyman 1970; Stark, R. W. 1982; Starzyk & Fizia 1984; Strube & Benner 1984; Sundfor 1979; Szczepanski 1960a: 406; Thomas, J. B. 1958: 394; Thompson, W. R. 1943: 118; Thompson, W. R. & Simmonds 1964: 40, 1965: 4; Thong & Webster 1983; Titova 1966; Tragardh 1927a: 198, 1928: 775; Turnau 1984; Tvermyr 1967: 496; Uchastnova 1988: 38; Vasechko 1971b; Vite 1952a: 102; Werner & Graham 1957: 3; Werner & Holsten 1984; Wiackowski 1957a: 43; Wichmann 1953b: 61, 1955a: 92, 1956: 60, 1967; Winter, K. 1980; Wisniewski 1979c: 7; Zimovjev 1957: 331, 1958: 385; Zimr 1955b. (hb) Acatay 1943a: 68-70; Adlung 1960: 430-435; Alkan 1946; Altum 1851c: 309, 1858b, 1897; Annila 1977; Annila & Petaisto 1978; Annila et al. 1972; Anonymous 1948k: 7, 1961a, 1966c, 1972c; Apfelbeck 1916b, 1917; Arndt 1920; Atkins 1966a: 286; Atkins & Farris 1962: 25; Anstara & Saether 1965; Bach 1864; Baeta Neves 1943a; Baker, W. L. 1972: 267; Balfour 1962: 52; Balfour & Paramonov 1962; Barbey 1901: 10, 28, 112, 1913, 1922b, 1925: 94, 1934, 1942; Baudisch 1905a; Becker, C. 1950; Beckwith, Wolff, & Zasada 1977; Beffa 1949; Bejer-Petersen 1957, 1978; Beling 1873, 1887; Bennett & Borden 1971; Beran 1936; Beran 1962, 1962c, 1987: 125; Bilczynski 1962; Blanchere & Robert 1889; Blandford 1890; Bletchly 1961: 14, 1962; Bletchly & Bevan 1963a, 1963b; Bletchly & White 1962; Borcea 1924; Borden, Brownlee, & Silverstein 1968; Borden & Fockler 1973; Borden et al. 1982; Brandt 1948, 1960: 136; Bright 1976d: 120; Bright & Stark 1973: 72; Budge 1949; Budkov 1897; Capecki 1966, 1967a; Cecconi 1903, 1924; Cermak 1938; Chamberlin 1939: 300, 1958: 126-127; Chapman, J. A. 1955b, 1955e, 1960a, 1960b: 3, 1962c, 1966b, 1974; Chapman, J. A. & Dyer 1960: 30; Chapman, J. A., Ferris, & Kinghorn 1963; Chapman, J. A. & Kinghorn 1955; Chapman, J. A. & Neitsch 1959; Chapman, J. A. & Nijholt 1965, 1980a; Chararas 1961b: 69, 1961c: 92, 1961d, 1962c: 308; Charvat 1950; Chorbadzhievo 1929; Christiansen 1967; Christiansen & Saether 1968; Daterman, Rudinsky, & Nagel 1965; Dombrowsky 1887; Dominik 1959: 1-9; Doom & Luitjes 1971a; Drooz 1985: 371; Dyer 1961, 1962a, 1963b, 1965, 1967; Dyer & Chapman 1963, 1965; Dyer & Kinghorn 1961: 746; Dyer & Nijholt 1965; Eckstein 1889, 1897, 1915, 1926: 572, 1928, 1939b; Eglitis 1984b; Eglitis & Laurent 1983; Eichhoff 1881a: 54, 298, 1881b: 639, 1882a: 241; Eichhorn & Graf 1974; Eidmann 1974b; Eidmann & Klingstrom 1976: 256; Escherich 1923b: 458, 488, 624; Everts 1900, 1903: 771; Falck 1916: 165; Feytaud 1950a; Fisher 1952a, 1954; Fleischer 1877a; Florou 1949: 92; Fockler & Borden 1972; Francia 1966; Franz 1950; Fuchs 1904a, 1911b; Furniss, R. L. & Carolin 1977: 411; Furst 1888: 109, 113; Galoux 1947a, 1948a; Gibson, Kinghorn, & Chapman 1959: 2; Gillanders 1908; Girard 1873; Gornostaev 1916: 314; Graber 1879: 130; Graham, K. 1961, 1963; Grandi 1951; Groschke 1953c; Gurchiani 1968a: 207-210, 1968b: 683-685; Gyorfi 1936: 527, 1957; Hadorn 1933, 1934; Hagedorn 1903a; Hartig 1861: 329, 1872b, 1877: 194; Helmbacker 1924; Henschel 1876a: 35, 240, 1885b, 1895a: 184; Hess 1898: 360, 1907: 255; Hess & Beck 1914: 284,

- 1927: 340; Holmgren 1867: 113, 127; Holsten, Werner, & Laurent 1980; Holsten & Wolfe 1981; Hopkins 1899c: 256, 444; Hufnagel & Puzyr 1951: 108–109; Husson 1955: 354; Inouye et al. 1955: 114; Jannicky 1960: 820–831; Johnson, N. E. 1958a: 508, 1958b: 237; Johnson, N. E. & Pettinger 1961b: 2; Joly 1949a: 9, 1976, 1976b; Judeich & Nitsche 1895: 539; Juutinen 1978; Kalshoven 1962: 13; Karner & Kliefoth 1976; Karpinski 1933b: 29; Karpinski & Strawinski 1948: 155; Karsch 1883: 142; Kauschinger 1883: 106, 1893: 145; Keen 1938: 145; Kellner 1880: 423, 1881: 368; Kholodkovskii 1912: 278, 282, 322; Kinghorn & Chapman 1959: 81–92; Kinghorn & Dyer 1960: 4; Kleine 1911: 159; Knotek 1894a: 559; Knuchel 1947: 87; Knutsson 1973; Koch 1909: 337; Konig, E. 1957: 104; Kostin 1960: 133; Kraemer 1950b: 419; Krivolutskaia 1956: 833, 1960, 1973: 140; Kurenzov 1935a: 36, 1948b: 101, 1950d: 210; Kurenzov & Kononov 1961: 600; Lejeune & Richmond 1975; Lekander 1954b: 17, 1959b: 31; Lengercken 1939: 35, 1954: 315; Li, Dang, & Shi 1977: 70; Li & Zhou 1980: 70; Liese 1950: 140; Lindgren 1980a: 70; Lohreng 1907: 47; Loos 1913: 406; Louzil 1961: 25; Luitjes 1976; Lunardoni & Leonardi 1889: 486; MacCillavry 1906: 27; Magma 1976; Magma, Gasper, & Severin 1982; Maksymov 1950: 554, 1965; Marcu 1941: 403; Marikovskii 1956: 73; Massey & Wygant 1954: 21; Masutti 1964; Michalski 1959a: 291; Mozolevskaya, Lebedeva, & Galaseva 1979; Mmro 1916b: 115, 1926: 60; Nijholt 1983; Nordlinger 1856: 30; Nosek 1959a: 118, 1959b: 87; Novak, V. 1960a: 1–131, 1960b: 309–322, 1962a, 1963a, 1963b, 1963c; Novak, V., Hrozinka, & Stary 1976: 34; Numberg 1929b: 108, 1929c: 120; Nuorteva 1956c: 15, 1968a, 1970; Nusslin 1898: 283, 1906b: 14, 1913: 227, 1927: 318; O. B. 1905: 465; Ostaff 1974; Paiva & Vite 1982; Paiva, Kiesel, & Vite 1983; Parfentev 1951: 429; Perris 1856a: 244; Peyerimhoff 1919: 257; Pfeffer 1932: 1–23, 1933: 3–54, 1941b: 2, 1941c: 4, 1957: 196–207, 1989a: 54; Popo & Thalenhorst 1974a, 1974b; Postner 1974: 473; Prebble 1960; Prebble & Graham 1957: 92; Prell 1930c: 636; Pulliaminen 1983; Quairiere 1905: 627; Quaschik 1953: 3; Questienne 1979: 117; Qui & Huo 1958: 267; Rafes 1962; Ratzburg 1837: 132, 164, 1839: 161, 199; Reid 1958a: 464; Rimmblor 1922: 305, 1927: 318; Richter 1918: 241; Rose, A. H. & Lindquist 1980: 61; Rozhkoff 1970: 144; Rudinsky & Daterman 1964a; Rupertsberger 1879: 231, 1880: 232; Saalas 1913a: 68, 84, 1949: 329, 343, 375, 1951: 13; Schedl 1981b: 99; Schimitschek 1955a: 39, 61; Schmidt 1881: 37; Schmaider 1954: 171; Schmaider & Sierpinski 1955: 60; Schneider-Orelli 1913: 61, 1947b: 157, 1947c: 94; Schwappach et al. 1929: 186; Schwedtfeger 1944a: 184, 1957a: 190, 1963c: 449–451, 1981: 195; Sedlaczek 1921: 335, 1935a: 153; Shepherd 1966: 511; Simmel 1919: 34–36; Spessivtsev 1913a: 96; Stark 1926a: 335, 1931: 339–343, 1952: 366; Stark, R. W. 1982; Strohmeier 1906b: 333, 1907b: 173; Taschenberg 1880: 233; Thomsen 1948: 804; Tomasevski 1953: 145; Tragardh 1914: 93, 1921e: 64, 1927c: 89, 1939b: 151, 231; Tragardh & Butovitsch 1935: 1–268; Tredl 1915b: 166; Tschorbadjiev 1929: 167; Tullgren 1916: 104; Vasechko 1971a, 1971b; Vite 1952a: 102; Wachtl 1876a: 455, 1901: 379, 382; Weber, H. 1926: 572; Weber, R. & Schurig 1981; Wichmann 1909a: 149, 1925: 129–132, 1926: 52, 1927b: 350; Winter, K. 1980; Wolff 1927: 76; Wolff & Krausse 1922: 90; Wong, H. R. & Melvin 1973; Wood, D. L. & Bushing 1963: 1072; Zinovjev 1957: 331, 1958: 385. (ds) Acatay 1943: 70; Aclouque 1896; Ammann 1969a; Ammann & Knabl 1923; Andersch 1851; Angus 1964: 181; Anonymous 1928c: 202, 1982k; Arru, Covassi, & de Bellis 1966: 32; Audras & Schaefer 1957; Badoux 1921; Bain 1974: 15; Bakke 1960: 290; Barbey 1922b; Barthe 1896; Bau 1888; Bandisch 1899; Beaulne 1956; Becker, G. 1962a; Beckwith 1972a; Bedel 1888b: 404, 421; Beffa 1949; Bejer-Petersen & Jorum 1977: 22; Belousov 1916, 1917: 336; Bielz 1851, 1887; Bistrom & Vaisanen 1988: 42; Blanchere & Robert 1889; Blatchley & Leng 1916: 646; Bletchly 1962; Bletchly & Bevan 1963; Bletchly & White 1962a, 1962b; Borcea 1924; Brakman 1966b: 205; Brancsik 1871, 1906; Brandis 1890: 185; Bright 1971a: 126, 1976d: 120; Bright & Stark 1973: 72; Brundin 1934; Buck 1955b: 191; Budkov 1897; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Carpelan 1944; Cecconi 1897, 1903; Chamberlin 1918a, 1925, 1939: 300, 1958: 126–127; Chapman 1961a, 1962c, 1963: 675; Chapuis & Camdeze 1853; Charvat 1950; Cho 1957; Choo 1983: 61; Choo & Woo 1985: 164; Choo, Woo, & Kim 1981: 201; Choo, Woo, & Park 1983: 176, 1988; Chorbadzhievo 1924d, 1929; Chrystal 1937; Cockerell et al. 1907; Cooter 1970; Crotch 1863; Debatiste 1945; Dejean 1821, 1825, 1837; Drooz 1985: 371; Dyer 1963; Dyer & Chapman 1965; Dyer & Kinghorn 1961; Dyer & Wright 1967; Eder 1934; Eggert 1904; Eidmann 1965a, 1974b; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 88, 458, 624, 1929, 1932b; Esterberg 1928, 1959; Evans, D. 1983: 36; Evans, D., Lowe, & Hunt 1978; Everts 1900; Fall 1906: 202; Fauvel 1885; Favre 1890; Fleischer 1877b; Fleischer et al. 1923; Fockler & Borden 1972; Forster 1849: 439; Fowler 1891; Fricken 1889: 356; Fuchs 1904a, 1905a; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 411; Gabler 1949b; Gail 1906; Gast et al. 1989: 385; Gaubil 1849: 127; Gamitz 1928: 92; Gautreau 1974: 6; Gemminger & Harold 1872: 2682; Georgijevic 1959: 594; Geschwind 1918; Gobang 1855: 745; Gomostaev 1917; Gozis 1875: 80; Gradojevic 1933; Gredler 1866: 372, 1868; Grill 1895: 309; Grouzelle 1905; Grune 1979: 161;

- Guse 1893; Gyllenhal 1827: 624; Györfi 1936: 527, 1941b; Hagedorn 1903a, 1910d: 114; Hamilton 1894b: 406; Hansen, V. 1939, 1956, 1964: 461; Heinemann 1905a; Heller 1881: 173; Henschel 1895a: 194; Henshaw 1895: 44; Herger 1985b: 93; Heyden 1876: 298, 1879: 140, 1881: 177, 1890: 132, 1893: 178, 1898: 77; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hickin 1963; Holdhans & Denbel 1910: 145, 199; Holmgren 1867: 113, 127; Holsten & Wolfe 1981; Horion 1949, 1951; Hubandt 1923b; Hussen 1939: 336; Jacentkovsky 1933: 270; Jannicky 1960a; Janovsky & Tegshzhargal 1985: 413; Jansson 1935: 77; Jazentkovsky 1912: 292; Johnson 1961; Joly 1976; Judeich & Nitsche 1895: 539; Kadyrov 1989; Kailidis 1963, 1966a, 1966b: 55, 1985; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kaltenbach 1874: 686; Kangas 1934a; Karpinski 1925: 16, 1926: 82, 1931: 28, 1933b: 29, 1948b: 230; Karpinski & Strawinski 1948: 155; Kaszab 1977: 66; Keen 1938: 145; Keler 1925b: 275; Kersten 1933: 74; Kestercanek 1881a: 12; Kiefer et al. 1942: 529; Kinghorn & Dyer 1960; Klefbeck & Sjøberg 1960: 232; Kleine 1912a: 128, 162, 262, 265, 268, 1913a: 36, 1913b: 169, 1914b: 248, 250, 261, 400, 1934a: 175; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 559; Ko 1969: 228; Koltze 1901: 154; Kono 1938b: 65; Kono & Tamanuki 1939: 94; Kontkanen 1932: 61; Koppen 1882: 237, 261; Koschitsky 1900: 84; Kraatz 1869: 60; Krivolutsкая 1956: 833, 1960, 1965: 239, 1973: 140, 1983; Krol 1877: 34; Kurenzov 1934a: 50, 1935a: 36, 1935c: 188, 1936a: 111, 1936b: 351, 1957b: 18, 1967; Kurenzov & Kononov 1961: 595, 600; Kurir 1947c: 7; Kusch 1967; Lacordaire 1866: 377; Langhoffer 1915c: 158; Larroche & Torossian 1971; Leclercq 1971; Leigel 1886: 43; Lekander 1955b: 18; Leng 1918: 211; Lentz 1857: 138; Li, Dang, & Shi 1977: 70; Liese 1950: 140; Lindberg & Saris 1952: 59; Lindemann 1884b: 264; Lindquist, O. H. & Syme 1981: 110; Lokaj 1868: 64; Lomnicki 1886a, 1913b: 148; Loos 1913: 406; Lozovoi 1961: 91-113, 1962; Lucht 1987: 280; Lumarconi & Leonardi 1889: 486; Lundberg 1958: 232, 1974: 92, 1979: 31; Lundblad 1950c: 115; MacKay 1948: 93; Mandl 1931: 25; Marchant & Borden 1976; Marcu 1926c: 64, 1928: 327-336; Matthews & Fowler 1883: 42; McBride & Kinghorn 1960; Michalski 1957: 164; Miller 1868: 27; Mirzoian 1950: 139; Morgan, A. V. & Morgan 1980: 1110; Munster 1922a: 155, 1928: 291; Murayama 1929b: 2, 1930a: 2, 1930b: 13, 1937a: 2, 1937b: 374, 1948: 6, 1954b: 201; Negru 1966b: 401, 1968a: 456; Nijholt 1973b, 1978a; Notman 1920: 184; Novak, P. 1952: 416; Numberg 1927a: 213, 1928b: 88, 107, 1954: 44; Nuorteva 1956b: 168, 1971: 67; Nusslin 1898: 283; Orest 1926c: 64; Ormerod 1899: 92; Ortzen 1886: 280; Pacher 1853: 49, 1865: 151; Palm 1946: 122, 1948a: 91, 1959: 60, 214; Palmén 1944: 60; Parfentev 1951: 429; Patterson & Hatch 1945: 152; Peyerimhoff 1919: 257, 1933b: 361, 1934: 52; Pfeffer 1928b: 3, 1931b: 74, 1935: 159, 1947d: 129, 1947e: 1, 1950b: 73, 1959a: 54, 1989b: 130; Pittioni 1943: 176; Pjatnitskii 1930a: 165; Platonoff 1940: 11, 1942: 63, 1943: 141; Pomerantzev 1907b: 494, X; Poppins 1900: 108; Postner 1974: 473; Pupavkin & Chernenko 1979; Rapp 1934: 737; Ratzburg 1837: 132, 164, 1839: 161, 199; Redtenbacher 1855: 830, 1874: 383; Reitter 1869a: 20, 1869b: 155, 1894a: 92, 1916: 291; Richmond & Radcliffe 1961; Roubal 1928: 454, 1941: 270; Rozhkov 1970: 144; Rudnev 1965b; Ruppel 1967: 97; Rye 1866a: 198, 1866b: 64, 1867: 250, 1890: 270; Saalas 1913a: 68, 84, 1917a: 18, 1931: 70; Sahlberg 1900: 105; Sainte-Claire 1932: 53; Sainte-Claire & Mequignon 1938: 448; Schaschl 1854: 133; Schaufuss 1915: 1234; Schaum 1859: 95, 1862: 101; Schedl 1959b: 100, 1964f, 1978e: 35, 1981a: 17, 1981b: 99; Schilsky 1909: 189; Schimitschek 1938b: 114; Seidl 1876: 4; Schwerdtfeger 1981: 195; Seidlitz 1872: 392, 1891a: 568, 1891b: 614; Sharp 1865: 52; Sharp & Fowler 1893: 34; Shiraki 1952; Siebke 1875: 283; Sierpinski 1954: 63-67, 1966: 58; Sinreich 1958: 196-198; Skrzypczynska & Krol 1974; Smith, G. J. & Melvin 1974a, 1974b; Smith, J. B. 1910: 402; Snow 1883: 44, 1907: 188; Sokanovskii 1936: 74, 1960; Sparre-Schneider 1889: 60; Spessivtsev 1922: 474-475; Stark 1926a: 335, 1926b: 103, 1926j: 126, 1931a: 26, 1931d: 547, 1952: 336; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 448; Stierlin & Gautard 1871: 292, 363, 1906: 206; Still, Tidsbury, & Melvin 1974a: 15; Strand 1946: 601; Strand & Hanssen 1935: 70; Sturm 1843: 230; Susut & Melvin 1974; Swaine 1909: 148, 1913: 89; Thomson 1859: 146, 1865: 358, 1868: 219; Tomasevski 1953: 145-147; Tragardh 1914: 93, 1939b: 151, 231; Tredl 1907: 19; Tschorbadjev 1929: 167; Tuovinen 1961: 1-17; Villa & Villa 1833: 26; Vite 1953: 41; Wachtl 1870: 259, 1876a: 455; Wanka 1915: 213; Wegelius 1960: 106; Welch, R. C. 1968b: 19; Werner & Holsten 1984; Westhoff 1882: 240; Wichmann 1924: 15, 1927a: 68, 1955a: 92; Wickham 1896a: 309; Wiepken 1883: 89; Wilke 1864: 373; Winter, T. G. 1983: 28; Wiren 1945: 43; Wolff 1927: 76; Wood, S. L. 1948: 38, 1972a: 423, 1982b: 751; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 413; Yin, Huang, & Li 1984: 183; Zetterstedt 1840: 194; Zinovjev 1955: 187; Zoufal 1920: 21. (tx) Acloque 1896; Alkan 1946; Altman 1844; Bach 1854, 1864; Bakke 1960: 295; Balachowsky 1949a: 199; Balfour 1962; Barbey 1901: 10, 28, 112; Beckwith 1972a, 1972b; Bedel 1888b: 404, 421; Belfa 1949; Bejer-Petersen 1957; Benoit 1985: 272; Bertolini 1872; Blanchere & Robert 1881; Blandford 1890; Blatchley & Leng 1916: 646; Bletchly & White 1962; Brancsik 1871; Bright 1976d: 120; Bright & Stark 1973: 159; Calwer 1858; Ceballos 1945;

- Chamberlin 1918: 38, 1939: 300, 1958: 126–127; Chapuis & Candeze 1853; Chararas 1961c: 109, 1962c: 308; Charvat 1950; Choo 1983: 61; Chorbadzhievo 1924d; Dejean 1821, 1825; Dombrowsky 1887; Duffy 1953; Dyer & Wright 1967: 28; Eggers 1910f: 560–561, 1933f: 2, 52, 1933g: 18, 1939c: 121–122, 1940g: 38–39; Eichhoff 1864b: 37, 1864c: 382, 1864d: 421, 1872c: 137, 1876a: 378–379, 1878b: 417, 1881a: 54, 298–305, 1883a: 116, 144; Endrodi 1957a: 309, 1957b: 416; Erichson 1836: 60; Escherich 1923b: 458, 488, 624; Escherich & Escherich 1897; Evans, D. 1983: 36; Everts 1903: 771; Fauvel 1885, 1889; Ferrant 1911; Ferrari 1867a: 9, 1867b: 113; Fleischer 1905, 1927; Fockler & Borden 1972: 1843; Formanek 1907: 55; Fricken 1889: 356; Furniss, R. L. & Carolin 1977: 411; Gabler 1949b; Gillanders 1908; Girard 1873; Grune 1979: 160–161; Gyllenhal 1813: 366–367, 1827: 624; Hagedorn 1910a: 158; Hansen, V. 1956, 1964: 461; Hartig 1834: 13, 110; Hasek 1961: 5; Henry 1892: 10, 13; Henschel 1876: 35, 240, 1895a: 194; Heyden 1890: 132, 1893: 178; Hopkins 1914: 132, 1915c: 211; Houlbert 1922a: pl. 1, 13; Iablokoff-Khnzorian 1961: 105; Jacquelin du Val & Fairmaire 1868: 106; Johnson 1958b: 237; Joly 1976: fig. 139, 241; Judeich & Nitsche 1895: 539; Kalina 1970: 130; Karpinski & Strawinski 1948: 155; Keler 1921: 100–104; Kestercanek 1881b: 254; Knotek 1892: 38; Krivolutskaya 1956: 833, 1958: 166; Kuhnt 1913: 1061; Kurenzov 1941a: 182–188, 1948b: 101; Kusch 1967: 10; Lacordaire 1866: 378; Lekander 1959b: 31; Letzner 1891: 378; Leunis 1886: 182; Lindquist, O. H. & Syme 1981: 110; Louzil 1961: 10; Lucht 1987: 280; Lunardon & Leonardi 1889: 486; Meixner 1937: 1215; Mori, Kuhara, & Suzuki 1989; Munro 1916b: 115, 1917: 123–158, 1920: 1–35, 1926: 1–27; Murayama 1930b: 13, 17–18, 1933a: 13, 1937b: 374, 1954b: 201; Negru 1966b: 401; Niisima 1909: 164, 166; Nordlinger 1848: 245, 1856: 30; Novak, V., Hrozinka, & Sťahy 1976: 34; Numberg 1928a: 140, 1929c: 120, 1948: 1–30, 1954: 44; Nusslin 1911a: 59, 278, 378; Olivier 1795a: 18; Pardy 1974, 1977, 1983; Pfeffer 1937b: 19, 1941b: 2, 1941c: 4, 1947e: 1, 1955a: 166, 1989b: 130; Portevin 1935: 326; Postner 1974: 473; Pnton 1867: 631; Quaschik 1953: 35; Questionne 1979: 114; Ratzeburg 1837: 132, 164, 1839: 161, 199–202; Redtenbacher 1849a: 359, 1849b: 27, 1858: 830, 1874: 383; Reitter 1894a: 92, 1913a: 74, 1916: 291; Rhumbler 1922: 305, 1927: 318; Richmond & Nijholt 1972; Rose, A. H. & Lindquist 1980: 61; Rudnev 1966: 122; Rupertsberger 1879: 231, 1880: 232; Saalas 1913a: 68, 84, 1949: 329, 343, 375; Sahlberg 1836: 152; Schedl 1934f: 1644, 1946a: 1, 1951c: 87, 1952f: 88, 1962p: 206, 1981a: 17, 1981b: 99; Scherb 1971; Schimitschek 1937c: 53, 1955c: 83; Schurig et al. 1982; Sedlaczek 1912: 307; Seidlitz 1872: 392, 1891a: 568, 1891b: 614; Shore 1985; Sokanovskii 1936: 73–74, 1954: 19, 1960: 677; Spessivtsev 1913a: 96, 1922a: 475, 1925a: 177, 1925b: 33, 1931: 54–55; Stark 1952: 366; Stierlin 1898: 448; Strand 1946: 172; Swaine 1909: 148, 1911a: 216–220, 1913: 89; Taschenberg 1880: 233; Thomas, J. B. 1957: 4, 1960, 1967; Thomson 1859: 146, 1865: 358, 1868: 219; Titus, Meikle, & Harrison 1955: 125; Tsai & Li 1959: 95; Wood, R. O. & Unger 1977: 5; Wood, S. L. 1957a: 337, 344, 346, 349, 1972a: 423, 1982b: 751; Wylie & Yule 1977; Yin, Huang, & Li 1984: 183; Zetterstedt 1840: 194. (ms) Bevan 1964b; Boocock 1959d; Borden & Bennett 1969; Borden, Brownlee, & Silverstein 1968; Borden et al. 1979; Brandt 1960: 136; Chapman & Kinghorn 1955; Chararas 1971a: 853; Crooke & Bevan 1960; Crooke, Bevan, & Davies 1961; Eichhoff 1864d: 421; Escherich 1932b; Fuchs 1911b; Gotz 1877; Hartig 1834: 110; Heinemann 1908a; Kalandra 1971: 105; Kestercanek 1881b: 254; Kinghorn 1957b: 213; Lindgren et al. 1982; McKay et al. 1982; Michalski 1959a: 291; Mori & Sasaki 1979; Mori et al. 1982, 1983; Nijholt 1979; Nijholt & Chapman 1968; Overend 1978; Redlich et al. 1983; Ruppel & Pass 1970: 23; Schurig et al. 1982; Schwappach 1924: 56; Sinreich 1962; Slessor et al. 1980; Sundfor 1979; Thalenhorst 1960: 606, 1972: 37; Weber, R. & Schurig 1981, 1984; White, J. D., Avery, & Carter 1982; Wright, R. H. 1966.
- bivittata* Kirby 1837: 192 (*Apate*). Lectotype ♀; Boreal America; BMNH, London, designated by Wood 1982b: 751. Synonymy: Eichhoff 1872c: 137, Wood 1957: 349.
- References: (ay) Hopkins 1894g; Numberg 1951: 263. (bv) Hosking & Knight 1975. (cn) Belyea 1948, 1952a: 333–334, 1952b; Blackman 1950; Chamberlin 1924, 1939: 300; Collins & Comola 1958; Comola et al. 1956: 1–36; Craighead 1924: 42; Currie 1905: 71; Doane et al. 1936; Drake 1921: 201; Dunn & Jago 1923: 88–94; Essig 1926: 519, 1958: 519; Felt 1901: 485, 1906: 369, 1924: 275, 1926: 249, 275, 1930a: 249, 275; Fisher, Thompson, & Webb 1954: 3–15; Hatch 1938: 194; Hopkins 1894b: 295, 1894g: 278, 1899b: 21, 1899c: 249, 1901b: 33, 1904a: 16; Hubbard 1897b: 28; Ishikura 1966; Keen 1938: 146; Mott 1954: 1; Packard 1890: 709, 720, 812, 823; Pierson 1927: 80, 120; Riley & Howard 1891: 435, 1895: 419; Schuder 1969: 76; Snyder 1923: 131, 1927: 8; Swaine 1918a: 85, 1924d: 9; Swaine & Craighead 1924: 1–27. (ce) Belyea 1948, 1952a, 1952b; Chamberlin 1939: 300; DeLeon 1934a; Felt 1906: 369; Hopkins 1901b: 33; Keen 1938: 146; Morley 1939: 244; Steinhaus 1946: 404; Swaine 1924d: 9; Thompson, W. R. & Simmonds 1964: 39, 1965: 128; Weiss & West 1920: 3. (hb) Baker, W. L. 1972: 268; Beal & Massey 1945: 107–108; Blackman 1950; Chittenden 1890; Doane et al. 1936; Drake 1921: 201; Essig 1926: 519, 1958: 519; Felt 1906:

- 369, 1926: 249, 275, 1930a: 249, 275; Cobeil 1936b, 1936c; Hopkins 1894g, 1899b: 21, 1899c: 249, 1901b: 33, 1904a: 16; Hubbard 1897b: 28; Keen 1938: 146; Kinney & Furniss 1943: 22–23, 1945: 22; Morley 1939: 244; Packard 1890: 709; Prebble & Graham 1957: 92; Pierson 1927: 80; Swaine 1918a: 85, 1924d: 9. (**ds**) Anonymous 1926c: 518; Baker, W. L. 1972: 268; Beal & Massey 1945: 107–108; Beaulne 1956; Bedard 1938a; Blackman 1950; Chamberlin 1925; Chittenden 1890; Currie 1905; Dodge 1938: 36–37; Eidmann 1935; Essig 1926: 519, 1958: 519; Felt 1926: 249, 275, 1930b: 249, 275; Frost 1912: 308; Gemminger & Harold 1872: 2682; Hamilton 1889: 158, 1894a: 35, 406; Harrington 1890: 189; Henshaw 1885: 148; Hopkins 1893a: 134, 1893b: 210; Hubbard & Schwarz 1878: 643; Ishikura 1966; Johnson 1958: 236; Keen 1929a: 27, 1938: 146; Kleine 1934a: 178; Lacordaire 1866: 378; LeConte 1883: 35c; Leng 1920: 339; Leonard 1928: 518; McComb et al. 1953: 4; Proctor 1946: 207; Provancher 1877: 567; Schwarz 1886: 41, 1888: 80, 1900: 537, 1905: 185, 1910: 185; Slosson 1895: 6; Snow 1907: 188; Swaine 1909: 148; Wood, S. L. 1951a: 128. (**tx**) Balachowsky 1949a: 199; Beal & Massey 1945: 107–108; Dodge 1938: 36–37; Eichhoff 1872c: 137, 1876a: 378–379, 1881a: 299; Ferrari 1867a: 10; Hopkins 1915c: 211; Hubbard 1897b: 28; Jacques 1951: 351; Keen 1929a: 27; Kirby 1837: 191–192; Lacordaire 1866: 378; LeConte 1857: 22, 1868: 158, 1876: 357; Mannerheim 1853: 236; Provancher 1877: 567; Schwarz 1886: 41; Swaine 1909: 148, 1911a: 220, 1917: 21, 1918a: 85; Wood, S. L. 1957a: 349. (**ms**) Hatch 1934: 194.
- cavifrons* Mannerheim 1843: 297 (*Bostrichus*). Syntypes ♂; Sitka Island, Alaska; MZU, Helsinki. Synonymy: Eichhoff 1881a: 299; Wood 1969: 114.
References: (**cn**) Boocock 1959d; Boyce 1929; Chamberlin 1924, 1939: 300; Doane et al. 1936; Fisher, Thompson, & Webb 1953, 1954b: 3–15; Graham & Richmond 1950: 2–4; Hatch 1938: 194; Hopping & Jenkins 1933: 1–14; Janssen 1958: 10–14; Johnson, N. E. 1958b: 236; Keen 1938: 146; Mathers 1935: 14; McBride 1950: 46; McMullan 1956: 34; Prebble 1944: 50, 1954: 220; Swaine 1918a: 84. (**cc**) Chamberlin 1939: 300; Keen 1938: 146; Wichmann 1955a: 93. (**hb**) Chamberlin 1939: 300; DeLeon 1952; Doane et al. 1936; Keen 1938: 146; Prebble & Graham 1957: 3; Swaine 1918a: 84. (**ds**) Chamberlin 1925, 1939: 300; DeLeon 1952: 78; Hopping 1922; Keen 1929a: 27, 1938: 146; Kleine 1934a: 178; Leng 1920: 339; Melsheimer 1853: 87; Murayama 1957a: 37, 1957b: 584; Patterson & Hatch 1945: 152; Swaine 1909: 149; Van Dyke 1924: 26; Wichmann 1955a: 93. (**tx**) Balachowsky 1949a: 199; Chamberlin 1939: 300; Eichhoff 1872c: 137, 1876a: 378–379, 1878b: 417, 1881a: 299; Keen 1929a: 27; Leconte 1857: 22, 1868: 158, 1876: 357; Mannerheim 1843: 297 (reprint p. 125), 1852: 359, 385, 1853: 236; Murayama 1957b: 584; Swaine 1909: 149, 1918a: 84–85; Wood, S. L. 1957a: 349, 1969c: 114. (**ms**) Boocock 1959d; Hatch 1938: 194; Prebble 1944: 50.
- vittiger* Eichhoff 1881a: 298. Syntypes, sex?; California [USA]; Hamburg Museum, lost. Synonymy: Schwarz 1886: 41.
References: (**ds**) Henshaw 1895: 44; Leng 1920: 339; Schwarz 1886: 41; Swaine 1909: 149. (**tx**) Chamberlin 1939: 302; Eichhoff 1881a: 298–299; Schwarz 1886: 41; Swaine 1909: 149; Wood, S. L. 1957a: 349.
- borealis* Swaine 1917: 21. Lectotype ♀; Athabasca Landing, Alberta [Canada]; CNCI, Ottawa, designated by Bright 1967b: 679. Synonymy: Wood 1957a: 349.
References: (**cn**) Chamberlin 1939: 301; Doane et al. 1936; Johnson, N. E. 1958b: 236; Keen 1938: 147; Schuder 1969: 76; Swaine 1918a: 85. (**cc**) Batra 1963b: 217; Batra & Michie 1963: 471; Chamberlin 1939: 301; Keen 1938: 147. (**hb**) Chamberlin 1939: 301; Doane et al. 1936; Keen 1938: 147; Prebble & Graham 1957: 92; Swaine 1918a: 85. (**ds**) Chamberlin 1939: 301; Keen 1938: 147; Kleine 1934a: 178; Leng 1920: 339; Murayama 1957b: 584. (**tx**) Bright 1967b: 679; Chamberlin 1939: 301; Hoebeke 1978; Murayama 1957b: 584; de Ruelle 1970: 114; Scuder 1969: 76; Swaine 1917: 21, 1918a: 85; Wood, S. L. 1957a: 349.
- granulatum* Eggers 1933f: 51. Holotype ♂; Siberien: Irkutsk; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1951c: 100, 1962: 206.
Notes: (3) Sokanovskii 1954: 19 (named an aberration as var. *nigrum*, no status).
References: (**hb**) Rudnev 1958: 310–313; Stark 1952: 370. (**ds**) Krivolutskaya 1983; Krogerus 1921a: 51; Pfeffer 1989b: 130; Stark 1952: 370; Yanovskii & Tegshzhargal 1984: 415. (**tx**) Eggers 1933a: 97, 1933f: 51; Michalski 1969b: 570; Pfeffer 1989b: 130; Schedl 1951c: 100, 1962p: 206, 1979c: 110; Sokanovskii 1954: 19; Stark 1952: 370.
- meridionale* Eggers 1940g: 38. Lectotype ♂; Kleinasien (Ayancik); USNM, Washington, designated by Anderson & Anderson 1971: 20. Synonymy: Schedl 1951c: 97.
References: (**cn**) Schimitschek 1938c: 2112, 1939d: 2112, 1944: 172, 1952c: 58. (**cc**) Schimitschek 1941a: 305. (**hb**) Schimitschek 1944: 172. (**tx**) Anderson, W. H. & Anderson 1971: 20; Eggers 1940g: 36, 38–39; Schedl 1951c: 87, 97.

niponicum Blandford 1894d: 125. Syntypes 13, sex?; Miyanoshta and Oyayma, Japan; BMNH, London.

Distribution: Asia (Japan/ Korea/ Taiwan/ Sakhalin Island, E USSR).

Hosts: *Ahies hirsuta*, *Quercus acutissima*, *Q. aliena*, *Q. dentata*, *Ulmus* sp.

Notes: (1) Originally named as a var. of *quercus* Eichhoff, Eggers 1939: 121 (a good species). Murayama 1954: 168 (a synonym of *signatus* Fabricius). References: (cn) Kurenzov 1935c: 187-188; Shiraki 1952. (ec) Kurenzov 1934a: 50, 1951e: 66. (hb) Krivolutskaya 1973: 140; Kurenzov 1935a: 36, 1948b: 124, 1951b: 18, 1951e: 66; Kurenzov & Kononov 1961: 600; Stark 1952: 365. (ds) Ko 1969: 288; Krivolutskaya 1965a: 238, 1973: 140; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934d: 50, 1935a: 36, 1935c: 187-188, 1936a: 111, 1936b: 350, 1938a: 60; Kurenzov & Kononov 1961: 595-600; Murayama 1936: 127; Shiraki 1952; Stark 1952: 365; Yanovskii 1974, 1977a; Yanovskii & Tegshzhargal 1985: 413. (tx) Blandford 1894d: 124-125; Eggers 1939c: 121-122; Krivolutskaya 1955: 166; Kurenzov 1941a: 183, 1948b: 124; Murayama 1954: 168; Niisima 1909: 164; Schedl 1934f: 1644, 1951c: 93; Stark 1952: 365.

proximum (Niisima) 1909: 165 (*Xyloterus*). Syntypes 6, sex?; Jozankei, Japan; Nobuchi Collection, Ibaraki.

Figures: Tsai & Li 1959: 96, Yin, Huang, & Li 1984: 184.

Distribution: Asia (Japan/ Korea/ Sakhalin Island, Siberia in E USSR).

Hosts: *Picea koraiensis*, *P. microsperma*.

References: (cn) Inouye 1955; Inouye & Yamaguchi 1955a: 235; Kurenzov 1950a: 6; Yanagisawa 1952: 109. (ec) Banno, Mikata, & Kodama 1983: 445; Inouye & Yamaguchi 1955a, 1955b; Kurenzov 1934a: 50. (hb) Krivolutskaya 1956: 834, 1973: 140; Kurenzov 1935a: 36, 1948b: 110, 1950d: 211; Nishiguchi 1960: 64-73; Qui & Huo 1958: 267; Stark 1952: 362; Yanagisawa 1952: 103-116. (ds) Choo & Woo 1985: 164; Kleine 1913b: 169, 1914b: 260; Kono 1935a: 45-46, 1938b: 65, 69; Kono & Tamanuki 1939: 90, 94; Krivolutskaya 1956: 834, 1965: 238, 1973: 140, 1983; Kurenzov 1934a: 50, 1935a: 36, 1936a: 111, 1936b: 351, 1951: 185-186, 1963b: 115; Murayama 1936a: 127-128, 1937b: 370, 1949c: 101, 1953c: 152, 1954b: 168, 1955: 102, 1957b: 570; Pfeffer 1989b: 130; Stark 1952: 362; Yin, Huang, & Li 1984: 184. (tx) Hagedorn 1910a: 158; Krivolutskaya 1956: 834, 1958: 167; Kurenzov 1941a: 185, 1948b: 110; Murayama 1936a: 127-128, 1937b: 370, 1954b: 168, 1955: 102, 1957b: 570; Niisima 1909: 164-165; Pfeffer 1989b: 130; Schedl 1934f: 1644, 1951c: 87, 95; Stark 1952: 362; Tsai & Li 1959: 96; Yin, Huang, & Li 1984: 184.

pulchellus (Murayama) 1957b: 585 (*Xyloterus*). Holotype ♂; Todorō, Aki County, Kochi pref., Japan; Murayama Collection in USNM, Washington. Distribution: Asia (Japan).

Hosts: *Styrax japonicus*.

Notes: (1) This species was not seen by us; Nobuchi 1985c: 18 placed it in *Indocryphalus*.

References: (tx) Murayama 1957b: 577, 582, 585-586; Nobuchi 1985c: 18.

retusum (LeConte) 1868a: 158 (*Xyloterus*). Holotype ♂; Canada; MCZ, Cambridge.

Figures: Kusch 1967: 10, Wood 1957a: 339-341.

Distribution: North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Ontario, Quebec, Saskatchewan, Yukon in Canada/ Arizona, California, Colorado, Connecticut, Idaho, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Mexico, New York, Oregon, Pennsylvania, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Populus deltoides*, *P. grandidentata*, *P. tremuloides*.

References: (ay) Abrahamson 1969b; Abrahamson, Chu, & Norris 1967; Hopkins 1894g; Thomas, J. B. 1967. (bv) Meixner 1937: 1218. (cn) Blackman 1950; Chamberlin 1939: 298; Doane et al. 1936; Hewitt 1914: 501-518; Hodson 1951: 9; Holsten & Wolfe 1981; Hopkins 1894: 278; Ishikura 1966; Keen 1938: 147; Leach 1940b: 63; Lindquist, O. H. & Syme 1981: 110; Swaine 1913: 89, 1918a: 84; Wong, H. R. & Melvin 1973. (ce) Abrahamson 1969b: 1733; Abrahamson, Chu, & Norris 1967, 1970: 1107-1110; Chamberlin 1939: 298, 1958: 125-126; Davidson 1958; Hagedorn 1907c; Hinds 1972; Hinds & Davidson 1972; Keen 1938: 147; Leach 1940b: 63; Leach et al. 1940: 227-236; Roeper & French 1981; Slaby 1947: 377; Steinhaus 1946: 404; Verrall 1943: 143; Webb 1945: 63; Werner & Holsten 1984. (hb) Baker, W. L. 1972: 268; Blackman 1950; Bright 1976d: 119; Bright & Stark 1973: 72; Chamberlin 1939: 298, 1958: 125-126; Doane et al. 1936; Drooz 1985: 371; Gast et al. 1989: 384; Harrison 1959: 129; Holsten & Wolfe 1981; Hopkins 1894g; Hubbard 1897a: 429; Keen 1938: 147; Lengerken 1954: 312; Rose, A. H. & Lindquist 1982b; Swaine 1918a: 84; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 750. (ds) Abrahamson, Chu, & Norris 1967, 1970: 1107-1110; Anonymous 1926c: 517; Baker, W. L. 1972: 268; Blackman 1950; Blatchley & Leng 1916: 645; Bright 1976d: 119; Bright & Stark 1973: 71; Chamberlin 1939: 298, 1958: 125-126; Dodge 1938: 14, 35-36; Drooz 1985: 371; Evans, D., Lowe, & Hunt 1978; Furniss, R. L. & Carolin 1977: 411; Gast et al. 1989: 384; Gemminger & Harold 1872: 2682; Hagedorn 1910d: 116; Henshaw 1882: 269, 1885: 148; Holsten & Wolfe 1981; Hopkins 1893a: 134,

1893b: 210; Hopping 1922: 128–134; Ishikura 1966; Keen 1929a: 27, 1938: 147; Kleine 1913b: 169, 1914b: 395, 1934a: 178; Kusch 1967; Leng 1920: 339; Leonard 1928: 517; Lindquist, O. H. & Syme 1981: 110; McComb et al. 1953: 4; Murayama 1957a: 36, 1957b: 585; Patterson & Hatch 1945: 152; Pfeffer 1989b: 132; Proctor 1946: 207; Scudder 1876: 83; Smith, C. S. 1930; Swaine 1909: 150, 1913: 89; Werner & Holsten 1984; Wood, S. L. 1948: 37, 1951a: 127, 1972a: 423, 1982b: 750. (**tx**) Benoit 1985: 272; Blatchley & Leng 1916: 645; Bright 1976d: 119; Chamberlin 1939: 298, 1958: 125–126; Dodge 1938: 14, 35–36; Eichhoff 1878b: 420; Hagedorn 1910a: 158; Keen 1929a: 27; Kusch 1967: 10; LeConte 1868a: 158, 1876: 357; Lindquist, O. H. & Syme 1981: 110; Meixner 1937: 1218; Murayama 1957b: 585; Scudder 1876: 83; Swaine 1909: 150, 1918a: 84–85; Thomas, J. B. 1960: 410, 1967; Titus, Meikle, & Harrison 1985: 125; Wood, S. L. 1957a: 345, 348, 1972a: 423, 1982b: 750.

rufitarsis (Kirby) 1837: 193 (*Apate*). Lectotype ♂; Boreal America; BMNH, London, designated by Wood 1982b: 753.

Figures: Wood 1957a: 339–341.

Distribution: North America (Alberta, British Columbia, Manitoba, New Brunswick, Ontario, Yukon in Canada/ Arizona, California, Colorado, Idaho, Minnesota, Montana, Oregon, Utah, Washington in USA).

Hosts: *Pinus banksiana*, *P. contorta*, rarely in *P. jeffreyi*, *P. monticola*, *P. ponderosa*, *Picea engelmannii*.

Notes: (1) Swaine 1917: 22 (to *Trypodendron*).

References: (**ay**) Thomas, J. B. 1967. (**bv**) Prebble & Graham 1957: 92. (**cn**) Chamberlin 1939: 302, 1958: 127; Doane et al. 1936; Hatch 1938: 194; Johnson, N. E. 1958b: 236; Keen 1938: 146; Lindgren 1980a: 70; Lindquist, O. H. & Syme 1981: 110; Smith, C. J. & Melvin 1974b; Swaine 1918a: 85. (**cc**) Chamberlin 1939: 302; DeLeon 1934a; French, J. R. J. & Roeper 1972c; Keen 1938: 146; Roeper & French 1981. (**hb**) Bright & Stark 1973: 73; Chamberlin 1939: 302, 1958: 127; Doane et al. 1936; French, J. R. J. & Roeper 1972c; Keen 1938: 146; Lindgren 1980a: 70; Prebble & Graham 1957: 92; Swaine 1918a: 85. (**ds**) Bright 1976d: 121; Bright & Stark 1973: 73; Chamberlin 1917: 356, 1939: 302, 1958: 127; Dodge 1938: 36–37; Drooz 1985: 371; Furniss, R. L. & Carolin 1977: 411; Gast et al. 1989: 385; Hamilton 1888: 158; Keen 1938: 146; Leng 1920: 339; Lindquist, O. H. & Syme 1981: 110; McComb et al. 1953: 4; Murayama 1957a: 36, 1957b: 585; Patterson & Hatch 1945: 152; Pfeffer 1989b: 132; Smith, C. J. & Melvin 1974b; Swaine 1909: 149; Wood, S. L. 1948: 40, 1951a: 128, 1972a: 423, 1982b: 753. (**tx**) Bright 1976d: 121; Chamberlin 1939: 302, 1958: 127; Dodge 1938: 36–37; Eichhoff 1878b: 417;

Kirby 1837: 193; LeConte 1868: 177, 1876: 426; Lindquist, O. H. & Syme 1981: 110; Murayama 1957b: 585; Pfeffer 1989: 132; Swaine 1909: 149, 1917: 22, 1918a: 85; Thomas, J. B. 1960: 410, 1967; Titus, Meikle, & Harrison 1985: 125; Wood, S. L. 1951a: 128, 1957a: 346, 351, 1972a: 423, 1982b: 753. (**ms**) Hatch 1938: 194.

ponderosae Swaine 1917: 22. Lectotype ♀; Peachland, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 679. Synonymy: Wood 1957a: 351.

References: (**bv**) Prebble & Graham 1957: 92. (**cn**) Chamberlin 1939: 301; Doane et al. 1936; Hatch 1938: 194; Keen 1938: 147; Schuder 1969: 75; Swaine 1918a: 85–86. (**cc**) Bedard 1933a; Chamberlin 1918a, 1939: 301; Johnson 1958: 236; Keen 1938: 147. (**hb**) Chamberlin 1939: 301; Doane et al. 1936; Keen 1938: 147; Prebble & Graham 1957: 92; Swaine 1918a: 85–86. (**ds**) Chamberlin 1918a: 39, 1925, 1939: 301; Hopping 1922; Keen 1929a: 27, 1938: 147; Kleine 1934a: 178; Leng 1920: 339; Murayama 1957a: 37, 1957b: 584; Patterson & Hatch 1945: 152; Schuder 1969: 75; Smith, C. S. 1929. (**tx**) Bright 1967b: 679; Chamberlin 1939: 301; Hoebeke 1978; Keen 1929a: 27; Murayama 1957b: 584; de Ruelle 1970: 114; Swaine 1917: 22, 1918a: 85–86; Wood, S. L. 1957a: 351. (**ms**) Hatch 1938: 194.

scabricollis (LeConte) 1868a: 158 (*Xyloterus*). Holotype ♂; Washington, D.C. [USA]; MCZ, Cambridge.

Figures: Blackman 1922b: pl. 8, figs. 39–40, Wood 1957a: 339–341.

Distribution: North America (Arkansas, Maine, Minnesota, Mississippi, New Jersey, North Carolina, Pennsylvania, South Carolina, Virginia, West Virginia in USA).

Hosts: *Pinus banksiana*, *P. echinata*, *P. resinosa*, *P. taeda*.

References: (**bv**) Turnbow & Franklin 1980. (**cn**) Baker, W. L. 1972: 268; Blackman 1950; Chamberlin 1939: 299; Doane et al. 1936; Felt & Cockerell 1907: 217; Hopkins 1899c: 444; Hubbard 1897b: 29; Skinner 1905: 248; Smith, J. B. 1900: 362; Swaine 1918a: 83. (**cc**) Chamberlin 1939: 299; Felt 1906: 752; Hirschmann & Wisniewski 1982, 1983; Hurlbutt 1967; Steinhaus 1946: 404; Woodring & Moser 1970. (**hb**) Baker, W. L. 1972: 268; Batra 1963b: 224; Beal & Massey 1945: 107–108; Blackman 1922b: 79, 1950; Chamberlin 1939: 299; Doane et al. 1936; Drooz 1985: 371; Felt 1906: 752; Hopkins 1899c: 444; Hubbard 1897b: 29; Skinner 1905: 248; Swaine 1918a: 83; Wood, S. L. 1982b: 748. (**ds**) Anonymous 1926c: 517; Atkinson et al. 1991: 160; Beal & Massey 1945; Blackman 1922b: 79, 1950; Blatchley & Leng 1916: 646; Chamberlin 1925, 1939: 299; Cockerell et al. 1907; Drooz 1985: 371; Gemming &

Harold 1872: 2682; Hagedorn 1910d: 116; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 134, 1893b: 210; Kirk 1969, 1970; Kleine 1913b: 169, 1934a: 178; Leng 1920: 339; Leonard 1928: 517; Murayama 1957b: 585; Pfeffer 1989b: 131; Provancher 1878: 13; Smith, J. B. 1900: 362, 1910: 402; Swaine 1909: 150; Turnbow & Franklin 1980; Wood, S. L. 1982b: 748. (tx) Beal & Massey 1945: 107–108; Blackman 1922b: 79; Blatchley & Leng 1916: 646; Chamberlin 1939: 299; Eichhoff 1878b: 49; Hagedorn 1918a: 158; Hubbard 1897b: 29; LeConte 1868a: 158, 1876: 357–358; Murayama 1957b: 585; Pfeffer 1989b: 131; Swaine 1909: 150, 1918a: 83–84; Wood, S. L. 1957a: 345–346, 1982b: 748.

signatum (Fabricius) 1792: 363 (*Apate*). Holotype ♂; Germany; UZMC, Copenhagen.

Figures: Grune 1979: 160, Hasek 1961: 5, Nakane et al. 1963: pl. 192, Nuorteva 1962a: 44, Pfeffer 1989a: pl. 14, Yin, Huang, & Li 1984: 184.

Distribution: Asia (Japan/ Kuril Islands/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Poland/ Scotland/ Spain/ Sweden/ W USSR/ Wales/ Yugoslavia). Hosts: *Acer mono*, *A. spp.*, *Alnus hirsuta*, *A. siberica*, *Betula spp.*, *Fagus spp.*, *Fraxinus spp.*, *Populus spp.*, *Tilia spp.*, *Ulmus japonica*, *U. propinqua*.

References: (ay) Escherich 1923b: 462, 488, 627; Fisher 1954; Francke-Grosmann 1956b, 1959; Nunberg 1951: 263; Nusslin 1911a: 112. (bv) Grune 1979: 161; Hellen 1921; Paiva 1982a, 1982b; Paiva, Kiesel, & Vite 1983; Payne et al. 1983; Schurig et al. 1982, 1983; Weber, R. & Schurig 1984. (cn) Acatay 1943a: 68–69; Barbey 1925: 436, 553; Baryshman 1955; Becker 1950; Belousov 1917: 334–337; Blandford 1890, 1893c; Cotes 1893b; Eckstein 1926: 579; Escherich 1917: 97–115, 1923b: 462, 488, 627, 1936; Esterberg 1959; Falck 1916: 167; Greschke 1953: 461; Hasek 1961: 5; Hellen 1921; Hess & Beck 1914: 167; Inouye & Yamaguchi 1955a: 235; Jacquiot 1951a: 1; Judeich & Nitsche 1895: 539; Kamp 1954: 3; Kangas 1958d: 164; Kholodkovskii 1912: 322; Konig, E. 1957: 104; Kovacevic 1957: 69; Nusslin 1913: 259; Paiva 1982b; Palm 1951: 234; Reissig 1949: 131; Rhumbler 1922: 305, 1927: 318; Saalas 1919: 1–415, 1949: 329, 343, 378; Schimitschek 1937c: 53, 1944: 172, 1952c: 60, 1955a: 137, 1955c: 83; Schonherr & Wellenstein 1967; Schwerdtfeger 1944a: 184; Strohmeier 1906b: 330; Taraschkewitsch 1934: 357; Wachtl 1901: 379, 382; Weber, T. 1965; Wolff & Krausse 1922: 90; Zwolfer 1949: 401. (cc) Apel 1983; Balazy & Michalski 1964b; Braummanis 1940; Carpelan 1944; Fisher 1954; Francke-Grosmann 1952a, 1956b, 1959; Inouye & Yamaguchi 1955a: 235; Inouye et al.

1955: 116; Kangas 1942b; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 220; Krivosheina 1974; Lundberg 1984; Michalski & Ratajczak 1989; Nikitsky 1978; Nosek 1959a: 118; Novak, P. 1952: 416; Nuorteva 1956a: 17, 1961c: 119, 1968a, 1970, 1971: 69; Nuorteva & Laine 1968; Nusslin 1927: 318; Okolow 1963; Pfeffer 1923a: 331, 1943b: 181; Pfeffer & Prihoda 1950: 3; Rummukainen 1954: 8; Saalas 1930: 118, 1949: 329, 343, 478; Schimitschek 1941a: 313, 1955a: 137; Schwerdtfeger 1944a: 184; Sedlaczek 1915a: 127, 1935a: 162; Szczepanski 1960a: 407; Thompson, W. R. 1943: 118; Vite 1952a: 103; Wichmann 1955a: 95; Wisniewski 1979b, 1979c: 4. (hb) Acatay 1943a: 68; Apel 1983; Baeta Neves 1943a; Barbey 1925: 436, 553; Becker 1950; Blandford 1890; Cotes 1893a, 1893b; Dihm 1920; Dombrowsky 1887; Eckstein 1897, 1926: 579, 1928; Eggers 1917; Escherich 1923b: 4, 62, 488, 627; Falck 1916: 167; Fisher 1954; Fuchs 1904a; Gillanders 1908; Gornostaev 1916: 314; Groschke 1953c; Gyorfi 1936: 527, 1957; Hagedorn 1903a; Hergula 1939: 309; Hess & Beck 1914: 288; Inouye et al. 1955: 116; Jacquiot 1951a: 1; Judeich & Nitsche 1895: 539; Kangas 1940b; Karpinski 1933b: 29; Karpinski & Strawinski 1948: 155; Kharitonov 1924: 199–204; Kholodkovskii 1912: 322; Konig, E. 1957: 104; Kostin 1960: 133; Lengerken 1954: 318; Liese 1950: 142; Matouschek 1917: 214; Nakashima 1975: 9; Nosek 1959a: 118; Nunberg 1929: 108; Nuorteva 1962a, 1968a, 1970; Nusslin 1898: 283, 1913: 259, 1927: 318; Paiva, Kiesel, & Vite 1983; Palm 1951: 234; Pfeffer 1942a: 3; Pierce 1907: 291; Postner 1974: 472; Räteburg 1837: 164, 1839: 199; Rhumbler 1922: 305, 1927: 318; Saalas 1913a: 69, 84, 1949: 329, 343, 378; Schedl 1981b: 99; Schimitschek 1944: 172, 1955a: 137; Schwerdtfeger 1944a: 184, 1981: 196; Sedlaczek 1935a: 162; Simmel 1919a: 34–36; Spessittsev 1913a: 97; Stark 1926a: 336, 1952: 364; Strohmeier 1906b: 330; Thomsen 1948: 807; Tragardh 1939b: 158; Tredl 1915b: 164, 1917: 214; Vite 1952a: 103; Wachtl 1901: 379, 382; Wolff & Krausse 1922: 90. (ds) Acloque 1896; Alexander 1988; Allen 1965a: 24; Angus 1965a: 7; Audras & Schaefer 1957; Barthe 1896; Bedel 1888b: 404, 420; Bejer-Petersen & Jorim 1977: 23; Belousov 1916, 1917: 336; Bielz 1887; Borchert 1951; Brakman 1966b: 206; Brancsik 1906; Bucking 1932; Buresh & Lazarov 1956; Carpelan 1944; Cecconi 1897; Choo, Woo, & Park 1988; Cooter 1970; Cotes 1893a, 1893b; Debatisse 1945; Dejean 1821, 1825, 1837; Eckstein 1923; Eder 1934; Eggers 1904, 1917: 52; Endrodi 1958b; Escalera 1919; Escherich 1923b: 462, 488, 627, 1932b; Esterberg 1928, 1959; Feige 1918; Fricken 1889: 356; Fuchs 1904a, 1905a; Gaubil 1849: 127; Gornostaev 1917: 308–315; Grill 1895: 309; Grune 1979: 161; Gyorfi 1936: 527; Hagedorn 1903a, 1910d: 116;

- Hansen, V. 1939, 1956, 1964: 462; Harde & Kostlin 1965: 267; Heller 1947; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Horion 1949, 1951; Jazentkovsky 1912: 292; Judeich & Nitsche 1895: 539; Kangas 1942b; Karpinski 1925: 216, 1926: 82, 1931: 28, 1933b: 29, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1921: 100–104, 1925b: 275; Kersten 1933: 74; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 263, 268, 1913a: 36, 1913b: 169, 1914b: 250, 1934a: 178; Kloft & Hinks 1945: 218; Koch 1961: 118; Kovacevic 1924: 21–22, 1957: 69; Kozikowsky 1921: 180; Krogerus 1921: 57; Kurir 1947c: 26; Langhoffer 1915b: 158; Leclercq 1971; Liese 1950: 142; Lonnicki 1913b: 149; Lovendal 1890c: 211; Lucht 1987: 280; Lundberg 1974: 92; Mayne 1953: 310; Murayama 1953a: 13, 1954b: 169, 1955: 102, 1957b: 570; Nakane et al. 1963: 382; Negru 1966b: 401; Nessler 1924: 28; Novak, P. 1952: 416; Nunberg 1928b: 88, 107, 1954: 44; Nuorteva 1962: 44, 1971: 67; Nusslin 1898: 283; Palm 1948a: 91, 1959: 60, 214; Pfeffer 1931b: 74, 1936: 90, 1989a: 54, 1989b: 132; Pjatitskii 1930a: 165; Pomerantzev 1907b: 494; Postner 1974: 472; Ragusa 1924: 117; Rapp 1934: 737; Ratzeburg 1837: 164, 1839: 199; Reissig 1949: 131; Reitter 1894a: 92, 1916: 291; Roubal 1941: 270; Rusehka 1923: 201; Saalas 1913a: 69, 84, 1930: 118, 1931: 67; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1234; Schedl 1980a: 17, 1981b: 99; Scheidt 1919: 165; Schilsky 1909: 189; Schiodte 1873: 104; Schneider & Leder 1977: 65; Schwerdtfeger 1981: 196; Seidlitz 1891a: 568, 1891b: 614; Stark 1926a: 336, 1926b: 103, 1926j: 126, 1927b: 89, 1931a: 26, 1931d: 547, 1952: 364; Stein & Weise 1877: 165; Stierlin 1898: 448; Stierlin & Gantard 1906: 206; Strand 1946: 602; Strand & Hanssen 1935: 70; Sturm 1826: 102; Tragardh 1939b: 158; Tredl 1907: 19, 1915: 164–169; Villa & Villa 1833: 26; Wanka 1908: 231; Westhoff 1882: 240; Wichmann 1955a: 95; Winter, T. G. 1983: 28; Yanovskii 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 184; Zinovjev 1955: 187; Zolk 1935: 614–640; Zoufal 1920: 21. **(tx)** Acloque 1896; Allen 1965a; Apel 1983; Balachowsky 1949a: 199; Bedel 1888b: 404, 420; Blandford 1890: 181–186; Dejean 1821, 1825; Dombrowsky 1887; Duffy 1953; Eggers 1929e: 41; Eichhoff 1876a: 378; Endrodi 1957b; Escherich 1923b: 462, 488, 627; Fabricius 1792: 363, 1801: 383; Fauvel 1889; Fleischer 1927; Formanek 1907: 56; Fricken 1889: 356; Gillanders 1908; Grune 1979: 160–161; Hagedorn 1904e, 1910a: 158; Hansen, V. 1956, 1964: 412; Hasek 1961: 5; Iablokoff-Khnzorian 1966: 89; Judeich & Nitsche 1895: 539; Karpinski & Strawinski 1948: 155; Keler 1921: 100–104; Kuhnt 1913: 1061; Letzner 1891: 378; Lovendal 1889b: 81, 1890c: 211, 1898: 194; Lucht 1987: 280; Murayama 1953a: 13, 1954b: 168–169, 1955: 102, 1957b: 570; Nakane 1963: 383; Nakane et al. 1963: pl. 192; Negru 1966b: 401; Nunberg 1954: 44; Nuorteva 1962a: 44; Nusslin 1911a: 112; Panzer 1795a: 283; Pfeffer 1932b: 19, 1942a: 3, 1955a: 166, 1989a: pl. 14; Portevin 1935: 326; Postner 1974: 472; Puton 1867: 631; Qnaschik 1953: 35; Ratzeburg 1837: 164, 1839: 199; Reitter 1894a: 92, 1913a: 74, 1916: 291; Rhumbler 1922: 305, 1927: 318; Saalas 1913a: 69, 84, 1949: 329, 343, 378; Schedl 1934f: 1644, 1951c: 87, 90, 1952f: 88, 1979c: 228, 1980a: 17, 1981b: 99; Selimitschek 1937c: 53, 1955c: 83; Seidlitz 1891a: 568, 1891b: 614; Semenov 1902: 271; Spessivtsev 1913a: 97, 1922a: 475, 492, 1923: 214, 1925a: 177, 1925b: 35, 1931: 34–56; Stark 1952: 364; Stierlin 1898: 448; Yin, Huang, & Li 1984: 184. **(ms)** Escherich 1932b; Hellen 1921; Matouschek 1917: 214; Schurig et al. 1982; Tredl 1917: 214; Weber, R. & Schurig 1984.
- quinquelineatum* Adams 1817: 312 (*Bostrichus*).
 Syntypes, sex[?]; Caucasicum circa oppidum Georgiovsk; not given. Synonymy: Balachowsky 1949a: 199; Pfeffer 1955: 167.
 References: **(ds)** Gemminger & Harold 1872: 2687; Lacordaire 1866: 378; Stein & Weise 1877: 165. **(tx)** Adams 1817: 312; Balachowsky 1949a: 199; Erichson 1836: 60; Ferrari 1867a: 10; Lacordaire 1866: 378; Pfeffer 1955: 167; Wood, S. L. 1957a: 337.
- waringi* Curtis 1840: 279 (*Bostrichus*). Holotype, sex[?]; Bristol, England; not located. Synonymy: Schedl 1951c: 90.
 References: **(ds)** Rye 1867: 250. **(tx)** Curtis 1840: 279; Schedl 1951c: 90.
- quercus* Eichhoff 1864a: 381 (*Xyloterus*).
 Syntypes, sex[?]; Germany; Hamburg Museum, lost. Synonymy: Balachowsky 1949a: 199; Pfeffer 1955: 167.
 References: **(cn)** Houba 1913: 253; Koppen 1882: 260. **(hb)** Altum 1851c: 309, 1859c; Barbey 1901: 28, 111; Bargmann 1906; Budkov 1897; Eckstein 1889; Eichhoff 1881a: 54, 296; Fisher 1936a; Furst 1888: 113; Fuss 1865: 412; Henschel 1895a: 194; Knotek 1894a: 559; Lunardoni & Leonardi 1889: 491; Munro 1926: 60; Niisima 1908b: 18; Wachtl 1876a: 456. **(ds)** Blanchere & Robert 1889; Blandford 1894c; Budkov 1897; Calwer 1884, 1893; Chrystal 1937; Fanvel 1885; Favre 1890; Fisher 1936a; Fowler 1891; Fuss 1865: 412; Gemminger & Harold 1872: 2682; Gozis 1875: 80; Henschel 1895a: 194; Hickin 1963; Kaltenbach 1874: 646; Knotek 1892a: 38, 1894a: 559; Koppen 1882: 260; Kraatz 1869: 60; Lacordaire 1866: 378; Lokaj 1868: 64; Lunardoni & Leonardi 1889: 491; Matthews & Fowler 1883: 42; Murayama 1936a: 127; Niisima 1908b: 18; Puton 1867: 631–634; Redtenbacher 1874: 383; Rye 1866: 93, 1867: 250; Schilsky 1909: 189; Seidlitz 1872: 393; Sharp & Fowler 1893: 39; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin &

Gautard 1871: 292, 364; Wachtl 1876a: 456; Wichmann 1927a: 68; Winter, T. G. 1983: 28. (tx) Balachowsky 1949: 199; Barbey 1901: 28, 111; Bertolini 1872; Eichhoff 1864a: 381, 1865: 412, 1868d: 421, 1876a: 378–391, 1878b: 414, 1881a: 54, 296, 1883a: 116, 144; Fauvel 1885; Ferrant 1911; Ferrari 1867a: 9, 1867b: 113; Fuss 1865; Henschel 1895a: 194; Knotek 1892a: 38; Lacordaire 1866: 378; Letzner 1891: 378; Lovendal 1889b: 80, 1898; Lunardoni & Leonard 1889: 491; Murayama 1936a: 127; Niisima 1909: 164; Redtenbacher 1874: 383; Seidlitz 1872: 393; Spessivtsev 1913: 97. (ms) Eichhoff 1868d: 421; Schwappach 1924: 59.

suturale Eggers 1933e: 52. Holotype ♂; Wladivostok (USSR); IZL, Leningrad. Synonymy: Schedl 1951c: 93.

References: (hb) Kurenzov 1948b: 116; Stark 1952: 371. (ds) Krivolutskaia 1983; Stark 1952: 371. (tx) Eggers 1933e: 52; Kurenzov 1941a: 184, 1948b: 116; Michalski 1969b: 570; Schedl 1951c: 93; Sokanovskii 1954: 19, 1958: 39, 1960: 677; Stark 1952: 371.

obtusum Eggers 1939c: 121. Lectotype ♂; Japan (Karafuto, Nopporo); USNM, Washington, designated by Anderson & Anderson 1971: 22. Synonymy: Schedl 1951c: 87.

References: (ds) Murayama 1957b: 570. (tx) Anderson, W. H. & Anderson 1971: 22; Eggers 1939c: 121–122; Murayama 1954: 168, 1957b: 570; Schedl 1951c: 87, 93, 1979c: 176.

Genus *Indocryphalus* Eggers

INDOCRYPHALUS EGGERS 1939b: 6. Type-species: *Indocryphalus malaisei* Eggers = *Xyloterus intermedius* Sampson, original designation.

Dendrotrypanum Schedl 1951c: 76. Type-species: *Xyloterus aceris* Niisima, subsequent designation by Browne 1970: 562. Synonymy: Browne 1970: 562.

References: (tx) Browne 1970: 562; Schedl 1951c: 76; Thomas 1960: 410; Wood, S. L. 1957a: 344.

Keys: Browne 1970: 562, Schedl 1951: 77.

References: (tx) Browne 1970: 562; Choo 1983: 64; Choo, Woo, & Nobuchi 1988b; Eggers 1939b: 6–7; Schedl 1963i: 62; Wood, S. L. 1986a: 78.

aceris (Niisima) 1910a: 4 (*Xyloterus*). Syntypes, sex?; Sapporo, Japan; Nobuchi Collection, Ibaraki.

Figures: Thomas 1960: 411, 413 (larva).

Distribution: Asia (Japan, E USSR).

Hosts: *Acer babonerve*, *A. manshuricum*, *A. mono*, *A. pictum*, *A. pseudosieboldianum*, *A. tegmentosum*, *A. ukuruducense*.

References: (ay) Nobuchi 1969a: 59; Thomas, J. B. 1960: 410, 1967. (cn) Anonymous 1980g; Kurenzov 1935c: 189. (cc) Inouye et al. 1955: 112; Kurenzov 1934a: 51. (hb) Inouye et al. 1955: 112; Kurenzov 1935a: 37, 1948b: 124; Leist 1902:

25–26; Stark 1952: 361. (ds) Anonymous 1980g; Kleine 1934a: 178; Krivolutskaia 1983; Kurenzov 1934a: 57, 178, 1935a: 37, 1935c: 189, 1965; Murayama 1953a: 12, 1954b: 167, 1957b: 570, 578; Stark 1952: 361. (tx) Browne 1970: 562; Eggers 1939c: 123, 1941b: 225; Kurenzov 1941a: 181–182, 1948b: 124; MacLean & Giese 1967: 285; Murayama 1953a: 12, 1954b: 167, 1957b: 570, 578; Niisima 1910a: 4; Schedl 1934f: 1644, 1951c: 76–78, 82; Stark 1952: 361; Thomas, J. B. 1960: 411, 413, 1967; Wood, S. L. 1957a: 352.

dainichiensis (Murayama) 1954: 191 (*Xyloterus*). Holotype ♀; Mt. Dainichi, Gifu pref.; Murayama Collection, USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Aesculus turbinata*.

References: (ds) Murayama 1954b: 167, 191, 1957b: 570, 579. (tx) Murayama 1954b: 167, 191, 1957b: 570, 579.

intermedius (Sampson) 1913: 445 (*Xyloterus*). Syntypes, sex?; Bashahr State, N.W. Himalayas, India; BMNH, London.

Distribution: Asia (Burma/ Bengal, Punjab in India/ Nepal).

Hosts: *Castinopsis hystrix*, *Quercus lamellosa*, *Symplocos theaeifolia*.

References: (cn) Mathur & Singh 1961a: 84; Stebbing 1914: 602. (cc) Stebbing 1914: 602. (hb) Beeson 1922c: 499; Stebbing 1914: 602. (ds) Beeson 1922c: 499; Kleine 1934a: 178; Mathur & Singh 1961a: 84; Murayama 1957b: 585; Schedl 1975c: 383. (tx) Browne 1970: 562; Murayama 1957b: 585; Sampson 1913: 415, 445–446; Stebbing 1914: 602.

malaisei Eggers 1939b: 7. Holotype, sex?; Nordost-Birma (Kambaiti, 7000 fuss hoch); NHR, Stockholm. Synonymy: Browne 1970: 562.

References: (tx) Browne 1970: 562; Eggers 1939b: 7.

machili Wood 1988c: 197. Holotype ♀; Ramgarh, Naini Tal, U.P., 7,000 ft; FRI, Dehra Dun.

Distribution: Asia (Bengal, Uttar Pradesh in India).

Hosts: *Machilus odoratissima*, uncommon in *Cinnamomum impressinervium*.

References: (tx) Wood, S. L. 1988c: 197.

majus (Eggers) 1926b: 148 (*Trypodendron*). Holotype, sex?; Tomakomai, Japan; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

Notes: (1) Browne 1970: 562 (to *Indocryphalus*).

References: (ds) Murayama 1954b: 167, 1955: 102, 1957b: 570, 577. (tx) Browne 1970: 562; Eggers 1926b: 148, 1939c: 123; Murayama 1954b: 167, 1955: 102, 1957b: 570, 577; Schedl 1934f: 1644, 1951c: 44, 76–78.

pubipennis (Blandford) 1894d: 125 (*Trypodendron*). Syntypes 4, sex?; Sapporo, Kiga, Miyano-shita, and Ichuichi, Japan; BMNH, London.

Distribution: Asia (Japan/ Korea/ Kuril Islands/ Taiwan/ Sakhalin Island and E USSR).

Hosts: *Benzoin thumbergii*, *Cinnamomum japonicum*, *Cleyera japonica*, *Fagus crenata*, *Ficus* spp., *Hamamelis japonica*, *Lindera erythrocarpa*, *Machilus thumbergii*, *Phyllanthus flexuosus*, *Rhus trichocarpa*, *Zelkova serrata*.

References: (cn) Anonymous 1980g; Murayama 1954a: 21; Shiraki 1952. (ec) Banno, Mikata, & Kodama 1983: 445; Kurenzov 1934a: 55. (hb) Krivolitskaya 1973: 140; Stark 1952: 371. (ds) Anonymous 1980g; Blandford 1894c; Cho 1957; Choo 1983: 64; Choo & Woo 1985: 164; Hagedorn 1910d: 116; Kleine 1913b: 169, 1914b: 261, 1934a: 178; Ko 1969: 288; Krivolitskaya 1973: 140; Kurenzov 1934a: 55; Murayama 1929b: 2, 1930b: 14, 1931a: 39, 1937b: 375, 1949c: 101, 1950b: 1293, 1953a: 12, 1954a: 21, 1954b: 168, 1955: 102, 1957b: 570, 578; Nobuchi 1967: 24; Shiraki 1952; Stark 1952: 371. (tx) Blandford 1894d: 125; Browne 1970: 562; Choo 1983: 64; Eggers 1939c: 123; Hagedorn 1910a: 158; Murayama 1930b: 14, 18, 30, 1931a: 39–40, 1934c: 298, 1937b: 375, 1950b: 1293, 1953a: 12, 1954b: 168, 1955: 102, 1957b: 570, 578; Niisima 1909: 164, 166; Sampson 1913: 446; Schedl 1934f: 1644, 1951c: 76–77; Sokanovskii 1954: 19; Stark 1952: 371; Strohmeier 1914: 32.

sinensis (Eggers) 1941b: 225 (*Trypodendron*). Holotype ♀; China: Fukien (Kuatun, 2300 m); not given. Distribution: Asia (Fujian in China).

Notes: (1) Schedl 1951c: 76 (to *Dendrotrypanum*, = *Indocryphalus*).

References: (tx) Browne 1970: 562; Eggers 1941b: 225; Schedl 1951c: 76–78.

sordidus (Blandford) 1894c: 577 (*Trypodendron*). Holotype ♀; Japan; BMNH, London.

Distribution: Asia (Japan).

References: (ds) Blandford 1894c; Hagedorn 1910d: 116; Kleine 1913b: 169; Murayama 1949c: 101, 1954b: 169, 1957b: 570, 577. (tx) Blandford 1894c: 577; Browne 1970: 562; Eggers 1939c: 123, 1941b: 225; Hagedorn 1910a: 158; Murayama 1950: 52, 1954b: 169, 1957b: 570, 577; Schedl 1934f: 1644, 1951e: 76–77, 80.

tropicus (Browne) 1950b: 648 (*Trypodendron*). Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Castanopsis sumatrana*.

Notes: (1) Browne 1970: 562 (to *Indocryphalus*).

References: (hb) Browne 1961c: 81. (ds) Browne 1961c: 81; Murayama 1957b: 585. (tx) Browne 1950b: 648, 1961c: 81, 1970: 562; Murayama 1957b: 585.

Genus *Xyloterinus* Swaine

XYLOTERINUS SWAINE 1918a: 44, 83. Type-species: *Bostrichus politus* Say, original designation.

References: (ay) Browne 1961d: 60; Thomas, J. B. 1960: 410. (hb) Wood, S. L. 1982b: 745, 1986a:

79. (ds) Wood, S. L. 1982b: 745, 1986a: 79. (tx) Arnett 1960: 1037, 1044, 1968: 1037, 1044; Beal & Massey 1945: 59, 106; Blackman 1922b: 75, 78; Chamberlin 1939: 285–286; Dodge 1938: 18; MacLean & Giese 1967; Swaine 1918a: 44, 83; Wood, S. L. 1957a: 344, 352, 1982b: 745–746, 1986a: 79.

politus (Say) 1826: 256 (*Bostrichus*). Syntypes, sex?; Eastern United States [USA]; Say Collection, lost. Figures: Blackman 1922b: pl. 5, fig. 42, Bright 1976d: 203, 211, Dillon & Dillon 1961: 196, 801, MacLean & Giese 1967: 288, 298, Wood 1957a: 339–341.

Distribution: North America (New Brunswick, Ontario, Quebec in Canada/ Connecticut, District of Columbia, Georgia, Illinois, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Acer* spp., *Alnus* spp., *Betula* spp., *Carya* spp., *Castanea* sp., *Fagus* sp., *Fraxinus* spp., *Quercus* spp., *Picea* sp., *Pinus* spp., *Tsuga* sp., *Ulmus* spp.

References: (ay) Abrahamson 1969b; Abrahamson & Norris 1966a: 877–880, 1966b; Hatch 1926; Hopkins 1894g; MacLean & Giese 1967; Thomas, J. B. 1960: 410, 1967. (bv) Haack, R. A., Benjamin, & Haack 1983; Hosking & Knight 1975. (cn) Anonymous 1950; Baker, W. L. 1972: 267; Blackman 1950; Browne 1965b: 721; Chamberlin 1939: 286; Connola et al. 1956: 1–36; Doane et al. 1936; Drake 1921: 201, 205; Felt 1901: 516–517, 1905: 292–293, 1906: 70, 1926: 247–248, 276, 1930a: 247–248, 276; Felt & Rankin 1932: 327; Fletcher 1886: 32; Friend 1943: 207–315; Hopkins 1894: 278, 1899c: 414; Hubbard 1897b: 28; MacLean & Giese 1967: 285, 1968: 185–189; Packard 1890: 287; Shigo 1966; Smith, J. B. 1900: 362; Swaine 1918a: 83; Wallace 1943a: 288. (cc) Abrahamson 1969b: 1733; Abrahamson & Norris 1966b, 1969; Baker, W. L. 1972: 267; Batra 1963b: 217; Chamberlin 1939: 286; Cote & Allen 1980; Currie 1955; Dorsey & Leach 1956: 222; Felt 1906: 292; Finnegan & Gagnon 1964: 2–3; Haack, R. A., Benjamin, & Haack 1983; Jewell 1956: 251; MacLean & Giese 1967, 1968; Matthews 1970; Nash 1951: 46; Peplinski & Merrill 1974; Skelly 1968: 1541; Stambanah et al. 1955: 867; Steinhilber 1946: 404; Thompson, W. R. & Simmonds 1964: 40, 1965; Wertz, Skelly, & Merrill 1971. (hb) Annala et al. 1972: 22; Baker, W. L. 1972: 267; Beal & Massey 1945: 105–107; Blackman 1922b: 78–79, 1950; Bright 1976d: 122; Browne 1965b: 721; Chamberlin 1939: 286; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 810; Doane et al. 1936; Drake 1921; Drooz 1985: 371; Felt 1906: 292, 1926: 247–248, 276, 1930a: 247–248, 276; Felt & Rankin 1932: 327;

Haack, R. A., Benjamin, & Haack 1983; Hopkins 1894g, 1899c: 444; Hubbard 1897b: 28; MacLean & Giese 1967; Packard 1890: 387; Pierce, W. D. 1907: 291; Schwarz 1891e: 77-78; Shigo 1966: 1; Swaine 1918a: 83. **(ds)** Anonymous 1926c: 517, 1964h, 1965g, 1976e; Beal & Massey 1945: 105-107; Beaulne 1941, 1956; Blackman 1922b: 78-79, 1950; Blatchley & Leng 1916: 645; Bright 1976d: 122; Browne 1968b: 721; Chamberlin 1925, 1939: 286; Chittenden 1890; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938: 34-34; Drooz 1985: 371; Felt 1926: 247-248, 276, 1930a: 247-248, 276; Felt & Rankin 1932: 327; Gemminger & Harold 1872: 2682; Hagedorn 1910d: 115; Hamilton 1895a: 346, 378; Henshaw 1885: 148; Hoffmann 1942: 13; Hopkins 1893a: 134, 1893b: 210; Hubbard & Schwarz 1878a: 666; Kaston 1938: 240; Kleine 1913b: 169, 1934a: 178; Leng 1920: 339; Leonard 1928: 517; Melsheimer 1853: 87; Pechuman 1937: 13; Proctor 1946: 207; Schwarz 1890: 87, 1891e: 78; Smith, J. B. 1900: 362; Swaine 1909: 149; Wood, S. L. 1982b: 745. **(tx)** Beal & Massey 1945: 105-107; Benoit 1985: 284; Blackman 1922b: 78-79; Blatchley & Leng

1916: 645; Bright 1976d: 122, 203, 211; Chamberlin 1939: 286; Dillon & Dillon 1961: 196, 801, 810; Dodge 1938: 14, 34-35; Eichhoff 1878b: 420; Hagedorn 1910a: 158; Hubbard 1897b: 28; Jacques 1951: 352; LeConte 1868: 159, 1876: 357-358; MacLean & Giese 1967: 288, 298; Say 1826: 256; Schwarz 1889b: 149; Swaine 1909: 149, 1915: 83, 1918a: 83; Thomas, J. B. 1960, 1967; Titus, Meikle, & Harrison 1985: 129; Wood, S. L. 1957a: 352, 1982b: 745-746.

unicolor Eichhoff 1872c: 136 (*Xyloterus*). Syn-types ♀; Wisconsin [USA]; Hamburg Museum, lost. Synonymy: Hopkins 1893: 210, Wood 1957a: 353.

References: **(cn)** Smith, J. B. 1900: 362. **(ds)** Gemminger & Harold 1872: 2682; Hagedorn 1910d: 116; Henshaw 1885: 148; Hopkins 1893a: 134, 1893b: 210; Kleine 1913b: 169, 1914b: 401; Leng 1920: 339; Murayama 1957b: 587; Smith, J. B. 1900: 362; Swaine 1909: 149. **(tx)** Eichhoff 1872c: 136, 1878b: 419; Hagedorn 1910a: 158; LeConte 1876: 358; Murayama 1957b: 585; Niisima 1909: 166; Sampson 1913: 446; Swaine 1909: 149; Wood, S. L. 1957a: 352.

Tribe Xyleborini LeConte

- Xylebori**
References: Blandford 1898b: 191; LeConte 1876: 346, 358.
- Xyleboridae**
References: Eichhoff 1878b: 308; Hagedorn 1908: 377, 1910a: 24, 149, 1910d: 97.
- Xyleborinae**
References: Lucas 1920: 65; Nusslin 1911: 432.
- Xyleborini**
References: LeConte & Horn 1883: 516; Lucas 1920: 65; Reitter 1913a: 28; Wood, S. L. 1978a: 114, 1982b: 68, 1986a: 79–84; Yin, Huang, & Li 1984: 152.
- Xyleborina**
References: Balachowsky 1949a: 218; Nunberg 1954: 17.
- Webbinae**
References: Hopkins 1915c: 224.
- Genus *Premnobius* Eichhoff
- PREMNOBIUS EICHHOFF** 1878b: 65, 404. Type-species: *Premnobius cavipennis* Eichhoff, monobasic.
- Premnophilus* Browne 1962g: 79. Type-species: *Xyleborus joveri* Schedl = *Premnobius quadrispinosus* Schedl, original designation. Synonymy: Schedl 1964j: 52.
References: (tx) Browne 1962g: 79; Schedl 1963j: 480, 1964j: 52.
- Keys: Wood 1982b: 756 for American species.
- Notes: (1) Although contrary to the letter of the Code, but consistent with the spirit of stability in nomenclature, the following departure from traditional taxonomic practice is followed here. In Schedl 1957d, the universally recognized genus *Premnobius* was made a junior synonym of *Xyleborus* thereby creating eight homonyms. Browne 1961d strenuously objected to that action and restored all of these junior homonyms to validity in *Premnobius*. At that time, 1957, the old code of nomenclature had been suspended, and the new code did not become effective until 1960. Because Schedl's action was not in the best interests of the science of nomenclature, and since it was strenuously objected to by Browne and was not supported or condoned by anyone except Schedl, the pre-1957 names are retained here, as was done by Browne 1961d, even though a strict interpretation of Code article 59d had a starting date of 1960.
References: (ay) Nobuchi 1968a: 63. (bv) Schedl 1960f: 10. (hb) Browne 1961d; Van Ryn-Tournel 1975; Wood, S. L. 1982b: 755, 1986a: 82. (ds) Browne 1961d: 50; Wood, S. L. 1982b: 755, 1986a: 82. (tx) Arnett 1960: 1044, 1968: 1044; Browne 1961d: 45–49, 1961e: 9; Eichhoff 1878b: 65, 404; Schedl 1934d: 85, 1957d: 15, 1964j: 50; Wood, S. L. 1982b: 755, 1986a: 82.
- ambitosus (Schaufuss)** 1897b: 109 (*Xylocleptes*). Holotype ♀; Gabon; Hamburg Museum, lost.
Distribution: Africa (Cameroon/ Canary Islands/ Congo/ Equatorial Guinea/ "French East Africa"/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Liberia/ Nigeria/ Sierra Leone/ Tanzania/ Zaïre), South America (Bolivia/ Brazil/ Colombia).
Hosts: *Albizia* spp., *Celtis mildbraedii*, *C. soyaurii*, *Gmelina arborea*, *Cossypium hirsutum* (fruit), *Mangifera indica*.
References: (cn) Chesquiere 1933a; Mayne & Donis 1951: 333. (ec) Mayne & Donis 1951: 333. (hb) Roberts 1969: 127; Thompson, G. H. 1960, 1963: 60. (ds) Browne 1970: 543, 1980c: 486; Chesquiere 1933a: 32–35, 1933b: 783–785; Hagedorn 1910d: 62; Hargreaves 1937: 509; Kleine 1913b: 132, 1914b: 312; Nunberg 1952: 19, 1961a: 329, 1965b: 19, 1972b: 197; Schedl 1938d: 451, 1964f: 618, 1965e: 353, 1965g: 20, 1966a: 276, 1966c: 226, 1967d: 2, 1967e: 215, 1971e: 2, 1971g: 192, 1972e: 283, 1972g: 44, 1973d: 157, 1975h: 350; Thompson, G. H. 1960, 1963: 60; Wood, S. L. 1977a: 72, 1982b: 758. (tx) Eggers 1922b: 173, 1927a: 198, 1941d: 179; Hagedorn 1909: 733, 1910a: 98, 107; Nunberg 1952: 19, 1961a: 329; Schaufuss 1897b: 109–110; Schedl 1938d: 451, 1950d: 8, 18, 1953g: 242, 1954e: 50, 61–64, 1955d: 269, 1957d: 85, 1960i: 107, 1962j: 534, 1962k: 1098, 1966g: 20; Wood, S. L. 1982b: 755.
- cavipennis spinosus** Hagedorn 1908: 376. Syntypes ♀; Kinchassa (Waelbroek) Congo; IRSNB, Brussels. Synonymy: Eggers 1922b: 173.
References: (tx) Eggers 1920: 124, 1922b: 173; Hagedorn 1908: 376.
- brasiliensis** Nunberg 1958a: 490. Holotype ♀; Sao Paulo, Brazil; Escola Nacional de Agronomia, Rio de Janeiro. Synonymy: Schedl 1960i: 107.
References: (tx) Nunberg 1958a: 490; Schedl 1960i: 107, 1962j: 534.
- amphicranoides** Schedl 1939g: 172. Holotype ♀; Lake Vict. Nyanza; Ukerewe Island; Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Guinea/ Tanzania/ Zaïre).
References: (ds) Nunberg 1952: 19, 1965b: 19. (tx) Nunberg 1952: 19; Schedl 1939g: 172–173, 1948c: 665, 1962j: 564.
- cavipennis** Eichhoff 1878b: 404. Syntypes ♀; Africa meridionalis (Cap bonae spei), America meridionalis (Colombia); most lost with Hamburg Museum, 1 in IRSNB, Brussels.
Figures: Atkinson et al. 1986: 69, Bright 1972d: 95, Browne 1961d: 46, Pedrosa-Macedo & Schonherr 1985: 19.
Distribution: Africa (Angola/ Burundi/ Cameroon/ Congo/ Equatorial Guinea/ Ethiopia/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Malawi/ Mauritania/ Mozambique/ Namibia/ Nigeria/ Ruanda/ Senegal/ Somalia/ South Africa/ Tanzania/ Uganda/

Urumdi/ Zaire/ Zambia/ Zimbabwe), Antilles Islands (Cuba/ Guadeloupe/ Jamaica/ Puerto Rico/ Trinidad), Madagascar, North America (Honduras/ Chiapas, Veracruz, Yucatan in Mexico/ Florida in USA), South America (Brazil/ Cayenne/ Colombia/ Guayana/ Suriname/ Venezuela).

Hosts: One or more species of *Acacia*, *Acronecarpus*, *Albizzia*, *Allanblackia*, *Anthocaryon*, *Antiaris*, *Baphia*, *Beilschmiedia*, *Blighia*, *Brachystegia*, *Canarium*, *Cassia*, *Celtis*, *Chrysophyllum*, *Cleistanthos*, *Coelocaryon*, *Combretodendron*, *Cylicodiscus*, *Distemonanthus*, *Drypetes*, *Dunoria*, *Enantia*, *Eucalyptus*, *Fagara*, *Garcinia*, *Guarea*, *Hevea*, *Hymenostegia*, *Isolona*, *Jacaranda*, *Khaya*, *Klainedoxa*, *Lecaniodiscus*, *Lophira*, *Macaranga*, *Macrolobium*, *Maesopsis*, *Mangifera*, *Morus*, *Myrianthus*, *Napoleona*, *Nauclea*, *Ocotea*, *Pachylobus*, *Pachyelasma*, *Panda*, *Piptadeniastrum*, *Plagioscyphus*, *Pterygota*, *Rhizophora*, *Sarcocephalus*, *Sterculia*, *Synsepalum*, *Terminalia*, *Tessmannia*, *Trichilia*, *Tridesmostemon*, *Triplochiton*, *Turraeanthus*, *Vitrus*, *Xylopia*.

References: (ay) Entwistle 1963b; Schedl, W. 1962: 369–370; Van Ryn-Tournel 1972. (bv) Entwistle 1963b; Schedl 1960f: 91. (cn) Costa Lima 1956; Equihua-Martinez 1988; Ghesquiere 1933a: 35–37, 1933b: 783–785; Mayne & Donis 1951: 333; Wood, S. L. 1977a: 72. (ec) Mayne & Donis 1951: 333; Schedl 1962j: 537. (hb) Beaver 1976a: 20; Browne 1961d: 50, 1961e: 9; Costa Lima 1956; Deyrup & Atkinson 1961d, 1961e: 9; Entwistle 1963b; Loytyniemi, Beaver, & Loytyniemi 1984; Pollet 1977; Roberts 1969: 127; Schedl 1962j: 537; Wood, S. L. 1982b: 755. (ds) Atkinson & Equihua 1985b: 236, 1988: 100; Atkinson et al. 1986: 62; Baker, W. L. 1972: 271; Beaver 1976a: 20; Blackwelder 1947: 784; Bright 1968b: 1300, 1972d: 73, 1985c: 173; Browne 1961d: 45–51, 1961e: 9, 1963a: 237, 1975a: 759, 1975b: 394, 1984b: 288; Cachian 1957: 43–53; Costa Lima 1956: 289; Deyrup & Atkinson 1987a: 65; Estrada & Atkinson 1988: 206; Ferreira 1965: 1121; Ferrer 1942; Gardner 1957a: 31; Ghesquiere 1933a: 35–37; Hagedorn 1907a: 261, 1907b: 110, 1910d: 64; Jones, Roberts, & Baker 1959: 44–55; Kleine 1912a: 212, 1913b: 133, 1914b: 314, 318, 338, 342; Lee 1971: 31; Mayne & Donis 1962: 317; Nunberg 1952: 19, 1958a: 480, 1960a: 294, 1961a: 329, 1965b: 19, 1971: 58, 1972b: 197; Pedrosa-Macedo & Schonherr 1985: 19; Pollet 1977; Roberts 1969: 127; Schedl 1959p: 19, 1960f: 39, 1961d: 178, 1962h: 60, 1962j: 537, 1963a: 31, 1963f: 58, 1964e: 69, 1964f: 618, 1965e: 353, 1965g: 20, 1965h: 112, 1966a: 275–276, 1966c: 227, 1966f: 87, 1967e: 215, 1969d: 4–11, 1970c: 83, 1971e: 5, 1971f: 148, 1971g: 192, 1972e: 283, 1972g: 44, 1972k: 295, 1973d: 157, 1975h: 350, 1975k: 277, 1976a: 54, 1977b: 203, 1977c: 394, 1979b: 416, 1982: 279; Spahr 1981; Terra 1987: 20; Wood, S. L. 1957c: 402, 1957e: 1273, 1977a: 72, 1982b:

756. (tx) Atkinson et al. 1986: 69; Blandford 1898b: 192; Bright 1968b: 1298, 1300, 1972d: 73, 95, 1985c: 173; Browne 1961d: 46, 50; Costa Lima 1956; Eggers 1920: 124, 1922: 174, 1927a: 183–184, 1932c: 35, 1933b: 9, 1943c: 64; Eichhoff 1878b: 404–405; Hagedorn 1905a: 412, 1907a: 261, 1907b: 110, 1908: 375–377, 1909a, 1910a: 99, 1910b: 1; Hopkins 1914: 128, 132; Keler 1928: 28; Nunberg 1952: 19, 1958a: 480; Pedrosa-Macedo & Schonherr 1985: 19; Powell, W. 1980: 29; Schedl 1940a: 359, 1941d: 380, 1948c: 665, 1950d: 8, 18, 1950i: 147, 1951f: 40, 1952g: 51–52, 1952j: 2, 1953d: 69, 1953g: 242, 1954d: 871, 1955c: 30, 1955d: 269, 272, 1955f: 258–259, 1957b: 151, 1957d: 84–85, 1960i: 107, 1961e: 127, 1962g: 60, 1962j: 537, 1962k: 1099, 1962m: 62, 1965j: 50–52, 1977b: 203; Terra 1987: 20; Wood, S. L. 1957c: 402, 1957e: 1273, 1977b: 210, 1982b: 756–758.

industrius Sampson 1912: 218 (*Xyleborus*). Holotype ♀; Uganda; BMNH, London. Synonymy: Schedl 1962j: 538.

References: (ds) Kleine 1913b: 161, 1914b: 324. (tx) Sampson 1912: 248.

xylocranellus Schedl 1931c: 344 (*Xyleborus*). Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien. Synonymy: Browne 1961d: 50. References: (hb) Thompson, G. H. 1963: 61. (ds) Thompson, G. H. 1963: 61. (tx) Browne 1961d: 50; Sampson 1912: 248–249; Schedl 1931c: 344, 1954e: 57, 78, 1955d: 269, 1957d: 85, 1962j: 536, 1979c: 270.

bituberculatus Eggers 1932c: 35. Holotype ♀; Congostaut, Region de Sassa; MRCB, Tervuren. Synonymy: Schedl 1962j: 538.

References: (ds) Gardner 1957a; Nunberg 1952: 19, 1965b: 19. (tx) Eggers 1932c: 35; Nunberg 1952: 19; Schedl 1948c: 665, 1955c: 30, 1962j: 538, 1979c: 41.

latior Eggers 1933b: 9. Holotype ♀; Franz. Guayana (St. Jean du Maroni); MNHN, Paris. Synonymy: Wood 1977b: 210.

References: (tx) Eggers 1933b: 9; Schedl 1957d: 85; Wood, S. L. 1977b: 210.

circumcinctus Schedl 1941d: 401. Holotype ♀; Uganda; Schedl Collection in NHMW, Wien. Distribution: Africa (Uganda).

References: (tx) Schedl 1941d: 401, 1962j: 296, 1979c: 58.

circumspinatus Eggers 1924: 107. Holotype ♀; Kindu, Congogegebiet; MRCB, Tervuren. Distribution: Africa (Cameroon/ Zaire).

Hosts: *Cossypium hirsutum*.

References: (bv) Schedl 1960f: 100. (cn) Ghesquiere 1933a: 33–35, 1933b: 783–785; Mayne & Donis 1951: 333. (ec) Mayne & Donis 1951: 333. (ds) Ghesquiere 1933a; Schedl 1960f: 40, 1962j: 523. (tx) Eggers 1924: 107; Schedl 1957d: 84, 1962j: 523, 1979c: 58.

circumdentatus Schedl 1938h: 461 (*Xyleborus*).

- Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962j: 523. References: (ds) Schedl 1966c: 227. (tx) Schedl 1935h: 461–462, 1957d: 108, 1962j: 523, 1979c: 58.
- corruptus** (Schedl) 1962j: 564 (*Xyleborus*). Lectotype ♀; Congo Belge: Kasai, Ngombe; Schedl Collection in NHMW, Wien. Distribution: Africa (Angola/ Zaire). Notes: (1) Originally named as a subspecies of *adjunctus*. References: (ds) Schedl 1959p: 19. (tx) Eggers 1927a: 198; Schedl 1962j: 564, 1979c: 12.
- corthyloides** Hagedorn 1910b: 1. Holotype ♀; Kamerun; MNB, Berlin. Distribution: Africa (Cameroon/ Ghana/ Ivory Coast). Hosts: *Albizia gummifera*, *Cassia siamea*, *Lophira alata*. Notes: (1) Originally named as a subspecies of *cavipennis*. Eggers 1920: 124 (elevated to species rank). References: (hb) Roberts 1969: 127. (ds) Hagedorn 1910d: 64; Kleine 1914b: 311; Schedl 1962j: 550; Thompson, G. H. 1963: 61. (tx) Eggers 1920: 124, 1932c: 36–37; Hagedorn 1910a: 99, 1910b: 1; Schedl 1954e: 50, 66, 1957d: 85, 1962j: 550, 1972q: 262.
- binodosus** Nunberg 1969a: 396. Holotype ♀; Bingerville; MRCB, Tervuren. Synonymy: Schedl 1972q: 262. References: (tx) Nunberg 1969a: 396, 398; Schedl 1972q: 262.
- ivorienis** Nunberg 1969a: 398. Holotype ♀; Bingerville; MRCB, Tervuren. Synonymy: Schedl 1972q: 262. References: (tx) Nunberg 1969a: 398; Schedl 1972q: 262.
- declivis** Eggers 1944b: 97. Holotype ♀; Africa, Capland; Staatl. Naturalien Coll. Distribution: Africa (South Africa). References: (tx) Browne 1961d: 50; Eggers 1944b: 97; Schedl 1957d: 85.
- perdeclivis** Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Africa, Capland; Staatl. Naturalien Coll., automatic. Notes: (3) Browne 1961d: 50 (an unneeded replacement name). References: (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962k: 555.
- familiaris** (Schedl) 1965c: 72 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; Schedl Collection in NHMW, Wien. Distribution: Madagascar. References: (tx) Schedl 1965c: 72, 1977b: 207, 1979c: 95.
- felix** (Schedl) 1971g: 198 (*Xyleborus*). Holotype ♀; Guinea espanola, Alto Benito (Miko messeng); Inst. Espanol Ent., Madrid. Distribution: Africa (Equatorial Guinea). References: (tx) Schedl 1971g: 198.
- hystrix** (Schedl) 1957d: 108 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 17, figs. 2–5, Schedl 1962j: 526. Distribution: Africa (Zaire). Hosts: *Garcinia polyantha*. References: (hb) Schedl 1962j: 523. (ds) Schedl 1962j: 523. (tx) Nunberg 1963b: 35, pl. 17, figs. 2–5; Schedl 1957d: 108, 1959p: 26, 1962j: 523, 526, 1979c: 120.
- longus** Eggers 1932c: 36. Holotype ♀; Congostaat (Haut-Uele: Yebo Moto); MRCB, Tervuren. Distribution: Africa (Ghana/ Tanzania/ Zaire). Hosts: *Anthrocaryon micraster*, *Anthonotha macrophylla*, *Cassia siamea*, *Pachyelasma tessmanii*, *Paropsia schiebeniana*, *Pterocarpus soyauxii*. References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (ds) Beaver & Loytyniemi 1955a: 71; Thompson, G. H. 1963: 61. (tx) Browne 1961d: 50; Eggers 1932c: 36; Schedl 1954e: 50, 56, 1957d: 85, 1960i: 112.
- artelongus** Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Congostaat (Haut-Uele: Yebo Moto); MRCB, Tervuren, automatic. Notes: (3) Browne 1961d: 50 (an unneeded replacement name). References: (hb) Schedl 1962j: 536. (ds) Schedl 1962j: 536, 1972e: 283, 1972k: 295. (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962j: 536.
- marginatus** Eggers 1932c: 37. Holotype ♀; Gabun (Lac Zonanghe); Eggers Collection, in NHMW, Wien. Distribution: Africa (Cameroon/ Equatorial Guinea/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Zaire). Hosts: *Canarium* sp., *Paropsia schiebeniana*. References: (tx) Browne 1961d: 50; Eggers 1932c: 36–37; Schedl 1957d: 85, 1979c: 148–149.
- marginatulus** Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Gabun (Lac Zonanghe); Eggers Collection, in NHMW, Wien, automatic. Notes: (3) Browne 1961d: 50 (an unneeded replacement name). References: (ds) Schedl 1962j: 550, 1964e: 69, 1964j: 42, 1967e: 216, 1971e: 2, 1971g: 193. (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962j: 550.
- minor** Eggers 1927a: 183. Holotype ♀; Belg.-Congo (Haut-Uele: Iri); MRCB, Tervuren. Distribution: Africa (Angola/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Togo/ Zaire). Hosts: *Ranvolfia caffra*. References: (ds) Browne 1973a: 280. (tx) Browne 1961d: 50; Eggers 1927a: 183; Schedl 1952g: 52, 1957d: 85.

- perminor* Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Belg.-Congo (Haut-Uele: Iri); MRCB, Tervuren, automatic.
Notes: (3) Browne 1961d: 50 (an unneeded replacement name).
References: (ds) Ferreira 1965: 1124; Schedl 1959p: 21, 1962j: 555, 1964j: 42, 1965e: 355, 1972e: 284. (tx) Browne 1961d: 50; Schedl 1957d: 85, 1959p: 21, 1962j: 555.
- mukunyae* (Schedl)** 1957d: 111 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.
Figures: Numberg 1963b:pl. 20, figs. 1–4, Schedl 1962j: 552.
Distribution: Africa (Ruanda/ Zaire).
Hosts: *Alchornea hirtella*, *Entandrophragma excelsum*, *Ficus* spp., *Garcinia punctata*, *Pachystela laurentii*, *Panda oleosa*, *Pentaclethra macrophylla*, *Turraeanthus africana*.
References: (hb) Schedl 1962j: 551. (ds) Schedl 1962j: 551. (tx) Browne 1961d: 50; Numberg 1963b: 40, pl. 20; Schedl 1957d: 85, 111, 1962j: 551–552, 1979c: 160.
- nodulosus* Hagedorn** 1908: 376. Holotype ♀; Kinchassa (Waelbroek), Congo; IRSNB, Brussels.
Distribution: Africa (Cameroon/ Equatorial Guinea/ South Africa/ Tanzania/ Uganda/ Zaire/ Zambia/ Zimbabwe).
Hosts: *Allophyllus africanus*, *Arthrosamanea altissima*, *Cynometra alexandri*, *Discoglypremia caloneura*, *Fagra macrophylla*, *Garcinia polyantha*, *Microcos pinnatifida*, *Panda oleosa*, *Pentaclethra macrophylla*, *Ricinodendron heudelotii*, *Strombosia* spp., *Turraeanthus africana*.
References: (hb) Schedl 1962j: 553. (ds) Browne 1973a: 280, 1980b: 380; Hagedorn 1910d: 64; Kleine 1914b: 314; Schedl 1962j: 553, 1964f: 618, 1966c: 228, 1967e: 218, 1971g: 193, 1972k: 296; Spahr 1981. (tx) Browne 1961d: 50; Eggers 1922: 174, 1943c: 64; Hagedorn 1908: 376, 1910a: 99; Schedl 1957d: 85, 1960i: 112, 1962j: 553.
- orientalis* Eggers** 1932c: 36. Holotype ♀; Ost-Afrika (Usaramo); Eggers Collection, in NHMW, Wien.
Distribution: Africa (Tanzania).
References: (tx) Anderson, W. H. & Anderson 1971: 23; Eggers 1932c: 36; Schedl 1957d: 85, 1962j: 555, 1979c: 181.
- perspidens* (Schedl)** 1957d: 107 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Numberg 1963b:pl. 22.
Distribution: Africa (Zaire).
Hosts: *Napoleana imperialis*.
Notes: (1) Browne 1961d: 50 (to *Premnobius*).
References: (ds) Schedl 1962j: 558. (tx) Browne 1961d: 50; Numberg 1963b: 44, pl. 22; Schedl 1957d: 85, 107, 1962j: 558, 1979c: 191.
- pseudohystrix* (Schedl)** 1959p: 26 (*Xyleborus*). Holotype ♀; Angola: Dundo; MRCB, Tervuren.
Distribution: Africa (Angola/ Cameroon).
References: (ds) Ferreira 1965: 1124; Schedl 1959p: 21, 26, 1964f: 6618, 1967e: 218. (tx) Schedl 1959p: 21, 26, 1962j: 528, 1979c: 201.
- quadridens* Eggers** 1927a: 183. Lectotype ♀; Ostafrika (S. Usagara); USNM, Washington, designated by Anderson & Anderson 1971: 27.
Distribution: Africa (Tanzania).
References: (tx) Anderson, W. H. & Anderson 1971: 27; Browne 1961d: 50; Eggers 1927a: 183–184; Schedl 1957d: 85, 1962j: 559, 1979c: 208.
- quadridentatus* Schedl** 1957d: 85 (*Xyleborus*).
Lectotype ♀; Ostafrika (S. Usagara); USNM, Washington, designated by Anderson & Anderson 1971: 27, automatic.
Notes: Browne 1961d: 50 (an unneeded replacement name).
References: (tx) Browne 1961d: 50; Schedl 1957d: 85.
- quadrispinosus* Schedl** 1938h: 461. Holotype ♀; Kongo; Schedl Collection in NHMW, Wien.
Figures: Schedl 1962j: 557.
Distribution: Africa (Ghana/ Ivory Coast/ Zaire).
Hosts: *Albizzia gummifera*, *Canthium dewevrei*, *Hevea brasiliensis*, *Hydrodendron gabunense*, *Macrobium* sp., *Microcos coriacea*, *Musanga cercropioides*, *Oxystegma oxyphyllum*, *Parinari* sp., *Terninalia superba*, *Trichilia lanata*, *Tridesmostemon claessensii*, *Turraeanthus africana*.
References: (tx) Browne 1961d: 50; Schedl 1938h: 461, 1957d: 85, 107, 1960p: 112, 1963j: 481, 1979c: 208.
- joveri* Schedl** 1951f: 41 (*Xyleborus*). Lectotype ♀; Cote d'Ivoire, Languedou; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 130. Synonymy: Schedl 1962j: 556.
References: (ds) Browne 1961c: 14; Schedl 1964e: 69. (tx) Browne 1961d: 50, 1962g: 79; Schedl 1951f: 41, 1954d: 872, 1962j: 556, 1963j: 480, 1979c: 130.
- perquadrispinosus* Schedl** 1957d: 85 (*Xyleborus*). Holotype ♀; Kongo; Schedl Collection in NHMW, Wien, automatic.
Notes: (3) Browne 1961d: 50 (an unneeded replacement name).
References: (hb) Schedl 1962j: 556. (ds) Schedl 1962j: 556. (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962j: 556–557.
- robustus* (Schedl)** 1957d: 112 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Antrocaryon micraster*, *Beilschmiedia corbisieri*, *Canthium dewevrei*, *Hevea brasiliensis*, *Parinari* sp., *Pterocarpus soyaurii*.
References: (hb) Schedl 1962j: 559. (ds) Schedl

1962j: 559, 1967e: 218. (tx) Browne 1961d: 50; Schedl 1957d: 112, 1962j: 559–560, 1979c: 212.

sexnotatus (Schedl) 1970e: 95 (*Xyleborus*). Holotype ♀; Nied. Guayana, Para Dist.; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil/ Suriname).

Notes: (3) An obvious introduction from Africa (near *hystrix*).

References: (ds) Schedl 1973d: 159. (tx) Schedl 1970e: 95–96, 1979c: 227.

sexspinus Eggers 1924: 107. Holotype ♀; Bukama and Tshikapa (Congostaat); MRCB, Terwuren.

Distribution: Africa (Congo/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Nigeria/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia).

Hosts: *Albizzia* spp., *Bussea occidentalis*, *Carapa procera*, *Casuarina* sp., *Celtis* spp., *Craterispermum* sp., *Entandrophragma angolense*, *Ficus* spp., *Macaranga* sp., *Macrobium* sp., *Pterocarpus soyaurii*, *Sarcocephalus* sp.

Notes: (3) Schedl 1962k: 1103 (described male).

References: (cn) Chesquiere 1933a: 33–36, 1933b: 777–783; Ishikura 1966; Mayne & Donis 1951: 333. (cc) Mayne & Donis 1951: 333. (hb) Beaver & Loyttyniemi 1955a: 72; Browne 1963a: 237; Loyttyniemi, Beaver, & Loyttyniemi 1984; Roberts 1969: 128; Schedl 1962j: 560. (ds) Beaver & Loyttyniemi 1955a: 72; Browne 1963a: 237; Chesquiere 1933a; Ishikura 1966; Schedl 1964e: 69, 1960f: 40, 1962h: 61, 1962j: 560, 1966a: 276, 1972g: 284. (tx) Eggers 1924: 107; Schedl 1957d: 85, 1962h: 61, 1962j: 560, 1962k: 1103, 1979c: 227.

spinifer Eggers 1927a: 182. Holotype ♀; Luebo, Congogebiet; USNM, Washington.

Distribution: Africa (Angola/ South Africa/ Zaire).

References: (ds) Schedl 1965e: 356, 1975k: 278, 1977c: 395, 1982: 279. (tx) Anderson, W. H. & Anderson 1971: 31; Browne 1961d: 50; Eggers 1927a: 182; Schedl 1957d: 85, 1979c: 235.

perspinifer Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Congogebiet; USNM, Washington, automatic.

Notes: (3) Browne 1961d: 50 (an unneeded replacement name).

References: (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962j: 559.

Genus *Sampsonius* Eggers

SAMPSONIUS EGGERS 1935a: 157. Type-species: *Sampsonius sexdentatus* Eggers, original designation.

Keys: Wood 1982b: 759 for Central America, Nunberg 1963c: 105, Bright 1991c: 14.

Notes: (3) Eggers 1933b: 23 (used generic name as a nomen nudum). Species of this genus are domicile parasites of other Xyleborini.

References: (hb) Wood, S. L. 1982b: 758, 1986a: 82. (ds) Wood, S. L. 1982b: 758, 1986a: 82. (tx)

Bright 1991c: 12; Eggers 1933b: 23, 1935a: 157–158; Nunberg 1963c: 105; Wood, S. L. 1982b: 758, 1986a: 82.

alvarengai Bright 1991c: 15. Holotype ♀; Vera, M. Grosso, Brazil; CNCI, Ottawa.

Figures: Bright 1991c: 13 (declivity).

Distribution: South America (Brazil).

References: (tx) Bright 1991c: 15.

buculus Schedl 1937d: 170. Holotype ♀; Nova Teutonia, Brasilien; Schedl Collection in NHMW, Wien.

Figures: Bright 1991c: 13 (declivity).

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 780; Schedl 1973d: 163. (tx) Bright 1991c: 22; Schedl 1937d: 170, 1979c: 49.

conifer (Hagedorn) 1905: 549 (*Xyleborus*). Holotype ♀; Riviere Lunier Guyanae; MNHN, Paris.

Figures: Bright 1991c: 13 (declivity).

Distribution: South America (Cayenne).

References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 339; Menier 1971: 20. (tx) Bright 1991c: 16; Eggers 1933b: 24, 1935a: 158; Hagedorn 1905 (1903b): 549, 1910a: 153.

dampfi Schedl 1940a: 359. Lectotype ♀; Chiapas, Mexico; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 75.

Figures: Bright 1991c: 13, Nunberg 1963c: 102, Terra 1987: 23, Wood 1982b: 760.

Distribution: Antilles Islands (Trinidad), North America (Costa Rica/ Honduras/ Chiapas, Veracruz in Mexico/ Panama), South America (Brazil/ Cayenne/ Colombia/ Venezuela).

Hosts: *Ochroma* sp., *Qualea wittrockii*, *Theobroma cacao*, *Vismia* sp.

Notes: (3) This is a domicile parasite of *Dryocoetoides capucinus*.

References: (hb) Beaver 1976a: 21; Wood, S. L. 1982b: 761. (ds) Beaver 1976a: 21; Blackwelder 1947: 780; Ferrer 1942; Pedrosa-Macedo & Schonherr 1955: 20; Schedl 1963f: 63, 1966f: 87, 1972g: 46, 1973d: 156, 1976a: 55; Terra 1987: 20; Wood, S. L. 1982b: 761. (tx) Bright 1991c: 24; Pedrosa-Macedo & Schonherr 1955: 20; Schedl 1940a: 359, 1951m: 71–73, 1969f: 554, 1979c: 75; Terra 1987: 20, 23; Wood, S. L. 1982b: 761.

costaricensis Nunberg 1963c: 104. Lectotype ♀; Finca La Lola, Limon, Costa Rica; University of Wisconsin Collection, Madison, designated by Wood 1982b: 761. Synonymy: Schedl 1969f: 554.

References: (tx) Nunberg 1963c: 102, 104; Schedl 1969f: 554; Wood, S. L. 1982b: 761.

detractus Wood 1974a: 31. Holotype ♀; Madden Forest, Canal Zone, Panama; Wood Collection.

Figures: Bright 1991c: 13, Wood 1982b: 760.

Distribution: North America (Panama), South America (Brazil).

- References: (ds) Bright 1991c: 18; Wood, S. L. 1982b: 759. (tx) Bright 1991c: 18; Wood, S. L. 1974a: 31, 1982b: 759.
- expulsus** Wood 1974a: 31. Holotype ♀; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Pouteria* sp.
References: (tx) Bright 1991c: 18; Wood, S. L. 1974a: 31.
- mexicanus** Bright 1991c: 21. Holotype ♀; 10 miles NW Sontecomapan, Veracruz, Mexico; CNCI, Ottawa.
Figures: Bright 1991c: 13 (declivity).
Distribution: North America (Veracruz in Mexico).
References: (tx) Bright 1991c: 21.
- obtusicornis** Schedl 1976a: 78. Holotype ♀; Brasilien, Filtro; Schedl Collection in NHMW, Wien.
Figures: Bright 1991c: 13 (declivity).
Distribution: South America (Brazil).
References: (tx) Bright 1991c: 25; Schedl 1976a: 78.
- pennatus** Schedl 1973d: 171. Holotype ♀; Brasilien, Guanabara, Represa Rio Grande; MZUSP, Sao Paulo.
Figures: Bright 1991c: 13 (declivity).
Distribution: South America (Brazil).
References: (tx) Bright 1991c: 20; Schedl 1973d: 171, 1979c: 187.
- quadrispinosus** Eggers 1935a: 158. Holotype ♀; Bolivien, Cochabamba; Eggers Collection, in NHMW, Wien.
Figures: Bright 1991c: 13 (declivity).
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 781. (tx) Bright 1991c: 21; Eggers 1935a: 158–159, 1979c: 208.
- reticulatus** Bright 1972a: 1369. Holotype ♀; Dos Amates, Veracruz, Mexico; CNCI, Ottawa.
Figures: Bright 1972a: 1370, 1991c: 13 (antenna, declivity).
Distribution: North America (Veracruz in Mexico).
References: (ds) Wood, S. L. 1982b: 760. (tx) Bright 1972a: 1369–1370, 1991c: 19; McNamara 1977: 199; Wood, S. L. 1982b: 760.
- sexdentatus** Eggers 1933b: 23. Holotype ♀; French Guiana (Gourdonville); MNHN, Paris.
Figures: Bright 1991c: 13 (declivity).
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 781. (tx) Bright 1991c: 17; Eggers 1933b: 23–24, 1935a: 158.
- sulcatus** Bright 1981c: 163. Holotype ♀; Trinidad; CNCI, Ottawa.
Figures: Bright 1991c: 13 (declivity).
Distribution: Antilles Islands (Trinidad). Apparently in Peru (?).
References: (tx) Bright 1981c: 163, 1991c: 26.
- usurpatus** Wood 1974a: 32. Holotype ♀; Turrialba, Cartago, Costa Rica; Wood Collection.
Figures: Bright 1991c: 13, Wood 1982b: 760.
Distribution: North America (Costa Rica/Panama).
References: (hb) Wood, S. L. 1982b: 761. (ds) Wood, S. L. 1982b: 761. (tx) Bright 1991c: 23; McNamara 1984: 759; Wood, S. L. 1974a: 32, 1982b: 761.

Genus *Dryocoetoides* Hopkins

DRYOCOETOIDES HOPKINS 1915b: 52. Type-species: *Dryocoetoides guatemalensis* Hopkins = *Xyleborus capucinus* Eichhoff, original designation.

Keys: Wood 1982b: 762 for Central American species.

References: (tx) Hopkins 1915b: 10, 52; Schedl 1952k: 161; Wood, S. L. 1974a: 28, 1982b: 762–764, 1986: 82.

alter (Eggers) 1931a: 22 (*Xyleborus*). Holotype ♀; Brasil; USNM, Washington.

Figures: Pedrosa-Macedo & Schonherr 1985: 24.
Distribution: South America (Brazil).

Notes: (3) Schedl 1950i: 179 (described male).

References: (ds) Blackwelder 1947; Wood, S. L. 1982b: 762. (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1931a: 22, 1933b: 29; Pedrosa-Macedo & Schonherr 1985: 24; Schedl 1950i: 147, 179, 1979c: 16; Wood, S. L. 1982b: 762.

asperulus (Eggers) 1931a: 21 (*Xyleborus*). Holotype ♀; Mexico; MNB, Berlin [Schedl 1979c: 28 gives NHMW, Wien].

Distribution: North America (Costa Rica/“Mexico”), South America (Brazil).

References: (ds) Blackwelder 1947: 779; Ferrer 1942. (tx) Eggers 1931a: 21–22, 1933d: 29; Schedl 1940a: 361, 1979c: 28.

imitator Schedl 1976a: 75 (*Xyleborus*). Holotype ♀; Barueri, Sao Paulo, Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1992: (in press).

References: (tx) Schedl 1976a: 75; Wood, S. L. 1992: (in press).

capucinus (Eichhoff) 1869b: 281 (*Xyleborus*). Holotype ♀; Guadeloupe Island; IRSNB, Brussels.

Figures: Atkinson & Equilma 1988: 93, Blandford 1898b: pl. 7, Numberg 1963b: pl. 8, figs. 1–4.

Distribution: Antilles Islands (Guadeloupe/Dominican Republic in Hispaniola/ Jamaica), North America (Costa Rica/ Guatemala/ Michoacan, Nayarit, Veracruz in Mexico/ Panama), South America (Brazil/ Colombia/ Guyana/ Peru/ Venezuela).

Hosts: *Inga* sp., *Miconia* sp., etc.

References: (hb) Atkinson & Equilma 1985b: 236. (ds) Atkinson & Equilma 1985b: 236, 1986a: 421, 1988: 90; Blackwelder 1947: 779; Blandford 1898b: 203; Bright 1981c: 154, 1985c: 173; Gemminger & Harold 1872: 2685; Hagedorn 1903b:

546, 1910d: 99; Kleine 1913b: 160, 1914b: 337, 339, 371, 379; Wood, S. L. 1952b: 763. (tx) Atkinson & Equihua 1988: 93; Blandford 1897b: 203; Bright 1955c: 173; Eggers 1931a: 22, 1932d: 298, 1933b: 2, 1940a: 108, 1941a: 104; Eichhoff 1869b: 281, 1878b: 332; Hagedorn 1903b: 546, 1908, 1910a: 152; Numberg 1963b: 21–22; Sampson 1912: 246; Wichmann 1914a: 413; Wood, S. L. 1966b: 31, 1972e: 196, 1973c: 187, 1974a: 28, 1982b: 763.

rufithorax Eichhoff 1869b: 281 (*Xyleborus*). Holotype ♀; Brazil; IRSNB, Brussels. Synonymy: Wood 1966b: 31.

References: (ds) Blackwelder 1947: 780; Gemminger & Harold 1872: 2686; Hagedorn 1903b: 546, 1910d: 110; Kleine 1913b: 162. (tx) Eggers 1923a: 181, 1931a: 22–23, 1932d: 298, 1933b: 2; Eichhoff 1869b: 280–281, 1875: 202, 1878b: 333; Hagedorn 1903b: 546, 1905a: 412, 1910a: 156; Numberg 1959a: 437; Schedl 1940a: 361; Wood, S. L. 1973c: 187.

guatemalensis Hopkins 1915b: 52. Holotype ♀; Livingston, Guatemala; USNM, Washington. Synonymy: Wood 1966b: 31.

References: (hb) Kalshoven 1963. (ds) Blackwelder 1947: 779; Kalshoven 1963. (tx) Hopkins 1915b: 52; Numberg 1963b: 21; Schedl 1952k: 161; Wood, S. L. 1966b: 31.

capucinoides Eggers 1941a: 104 (*Xyleborus*). Holotype ♀; Goubeyre, Guadeloupe Island; USNM, Washington. Synonymy: Wood 1966b: 31.

References: (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1941a: 104, 108; Schedl 1979c: 52; Wood, S. L. 1966b: 31, 1972e: 196.

caracicolai Hopkins 1915b: 53. Holotype ♀; Port of Spain, Trinidad; USNM, Washington. Distribution: Antilles Islands (Trinidad).

References: (ds) Blackwelder 1947: 778. (tx) Hopkins 1915b: 52–53.

cristatus (Fabricius) 1801: 389 (*Bostrichus*). Holotype ♀; type labeled Essiquibo [Guyana], published as America meridionali; UZMC, Copenhagen. Figures: Schedl 1962j: 290.

Distribution: Africa (introduced: Angola/ Cameroon/ Congo/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Nigeria/ Sao Tome Island/ Zaire), Antilles Islands (Trinidad), South America (Brazil/ Cayenne/ Guyana/ Venezuela).

Hosts: *Alexa imperatricis*, *Brownia* sp., *Cassia fistula*, *Hymenostegia afzelii*, *Sterculia* sp., *Theobroma cacao*. Schedl 1962j: 289 lists others.

References: (hb) Beaver 1976a: 16. (ds) Beaver 1976a: 16; Browne 1965: 188; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 52; Kleine 1913b: 127; Roberts 1969: 131; Schedl 1965e: 354, 1966c: 227, 1970f: 581, 1971g: 193, 1972e: 283, 1972g: 44, 1973d: 157, 1976a: 54, 1977d: 279, 1978c: 291. (tx) Fabricius 1801: 384, 389; Ferrari 1867a: 65; Hagedorn 1910a: 104; Schedl 1962j: 318, 1964k: 217; Wood, S. L. 1974a: 28.

solitarius Hagedorn 1905: 415 (*Xyleborus*). Holotype ♀; Camopi, Guyanae; MNHN, Paris (?). Synonymy: Wood 1974a: 28.

References: (hb) Browne 1963a: 244; Schedl 1961j: 289. (ds) Blackwelder 1947: 780; Browne 1963a: 244; Chesquiere 1933a: 31, 36, 1933b: 781, 786; Kleine 1928: 307; Mayne & Donis 1962: 322; Nonveiller 1984: 42; Pedrosa-Macedo & Schonherr 1985: 40; Schedl 1962j: 289, 1964f: 618, 1966f: 90; Thompson, G. H. 1963: 73; Wichmann 1954: 521. (tx) Eggers 1922b: 174, 1927a: 199, 1933b: 2, 29, 35; Hagedorn 1904: 546, 1905: 415; Pedrosa-Macedo & Schonherr 1985: 40; Sampson 1912: 245–246; Schedl 1939j: 565, 1942a: 189, 1945f: 268–269, 1950i: 178, 1952k: 52, 161, 1953g: 243, 1954d: 873, 1954e: 54, 1957d: 84, 1962j: 289–293, 1979c: 232; Wood, S. L. 1974a: 28.

urichii Sampson 1912: 245 (*Xyleborus*). Holotype ♀; Trinidad; BMNH, London. Synonymy: Wood 1974a: 28.

References: (ds) Cotterell 1927: 98–112; Kleine 1913b: 163, 1914b: 344. (tx) Eggers 1922b: 174, 1927a: 199, 1933b: 2, 29; Sampson 1912: 245; Schedl 1962j: 289; Wood, S. L. 1974a: 28.

crenatus Eggers 1920: 42 (*Xyleborus*). Lectotype ♀; Kangu; USNM, Washington, designated by Anderson & Anderson 1971: 10. Synonymy: Wood 1974a: 28.

References: (tx) Anderson, W. H. & Anderson 1971: 10; Eggers 1920: 42–43, 1922b: 174, 1927a: 199, 1933b: 2, 29; Schedl 1962j: 289, 1979c: 68; Wood, S. L. 1974a: 28.

flavus (Fabricius) 1801: 394 (*Hylesinus*). Syntypes 2♂, 2♀; types labeled Essiquibo [Guyana], published as America meridionali; UZMC, Copenhagen.

Distribution: South America (Brazil/ Guyana/ Venezuela).

Hosts: *Qualea ingens*, *Theobroma cacao*, *Xylopia sericca*.

Notes: (1) Wood 1974a: 28 (to *Dryocoetoides*).

References: (hb) Beaver 1976a: 17. (ds) Beaver 1976a: 17. (tx) Eggers 1929e: 43, 1934b: 27–29; Fabricius 1801: 394; Schedl 1950i: 147, 178, 1952k: 161, 1954b: 45; Wood, S. L. 1974a: 28.

granulicauda (Eggers) 1931a: 22 (*Xyleborus*). Holotype ♀; Franzos, Guyana (Comopi); Hamburg Museum, lost, cotype in Eggers Collection, in NIIMW, Wien.

Distribution: South America (Cayenne/ Suriname/ Venezuela).

References: (ds) Blackwelder 1947: 779; Schedl 1970f: 582. (tx) Eggers 1931a: 22, 1933b: 2–3, 1941a: 104; Schedl 1933: 3, 1979c: 111.

rufithorax nigricollis Hagedorn 1905b: 2 (*Xyleborus*). Holotype ♀; Camopi Guyanae; MNHN, Paris? Synonymy: Eggers 1933b: 3.

References: (tx) Eggers 1931b: 1–3, 1933b: 3; Hagedorn 1905b: 2.

inaffectatus (Schedl) 1972g: 71 (*Xyleborus*). Holotype ♀; Brasilien, Represa, Rio Grande, Guanabara; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 71, 1979c: 123.

indolatus Wood 1974a: 31. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Parinari excelsa*.

References: (tx) Wood, S. L. 1974a: 31.

insculptus Wood 1974a: 30. Holotype ♀; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Humistrum excelsum*.

References: (tx) Wood, S. L. 1974a: 30.

maronicus (Eggers) 1933b: 35 (*Xyleborus*). Holotype ♀; Franz, Guyana (Charvein); MNHN, Paris. Distribution: South America (Cayenne).

References: (ds) Blackwelder 1947: 780. (tx) Eggers 1933b: 35–36, 1934b: 27–29; Schedl 1950i: 178.

monachus (Blandford) 1898: 204 (*Xyleborus*). Lectotype ♂; Cerro Zunil, Guatemala; BMNH, London, designated by Wood 1982b: 764.

Distribution: North America (Guatemala/ Chiapas, Veracruz in Mexico), South America (Colombia/ Venezuela).

Hosts: *Inga* sp., *Tabebuia* sp.

Notes: (1) Wood 1974a: 28 (to *Dryocoetoides*).

References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 371; Wood, S. L. 1982b: 764. (tx) Blandford 1898: 204; Hagedorn 1910a: 155; Wood, S. L. 1974a: 28, 1982b: 764.

obtusitruncatus (Schedl) 1948f: 271 (*Xyleborus*). Lectotype ♀; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 176.

Distribution: South America (Brazil).

References: (ds) Pedrosa-Macedo & Schonherr 1985: 34. (tx) Pedrosa-Macedo & Schonherr 1985: 34; de Ruetie 1970: 115; Schedl 1948f: 271, 1979c: 176.

paradoxus (Schedl) 1972g: 71 (*Xyleborus*). Holotype ♀; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 71, 1979c: 184.

solitariipennis Schedl 1976a: 77 (*Xyleborus*).

Holotype ♀; Maturaca AM, alto Rio Cauaburi; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 172.

References: (tx) Schedl 1976a: 77; Wood, S. L. 1989: 172.

pileatus Wood 1974a: 29. Holotype ♀; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Inga* sp.

References: (tx) Wood, S. L. 1974a: 29.

pseudosolitarius (Eggers) 1933b: 28 (*Xyleborus*). Holotype ♀; Franz, Guyana (Cayenne); MNHN, Paris.

Distribution: Antilles Islands (Dominican Republic/ Puerto Rico), South America (Brazil/ Cayenne/ Venezuela).

Hosts: *Cassia fistula*, *Eucalyptus excelsum*, *Gleditsia* sp., *Hirtella glandulosa*, *Inga vera*.

Notes: (3) Schedl 1950i: 179 (described male).

References: (hb) Beaver 1976a: 17. (ds) Beaver 1976a: 17; Blackwelder 1947: 780; Schedl 1973d: 159, 1976a: 55. (tx) Eggers 1933b: 2, 28–29, 33, 35; Schedl 1950i: 179; Wood, S. L. 1974a: 28, 1989: 172.

pseudosolitarius schizolobius Schedl 1950: 179 (*Xyleborus*). Lectotype ♀; Brazil, Rio Claro; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 202. Synonymy: Wood 1989: 172.

References: (tx) Schedl 1950i: 179, 1979c: 202; Wood, S. L. 1989: 172.

rusticus Wood 1974a: 30. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Brazil/ Venezuela).

Hosts: *Hirtella* sp., *Pouteria* sp.

References: (hb) Beaver 1976a: 17. (ds) Beaver 1976a: 17. (tx) Wood, S. L. 1974a: 30.

semicostatus (Schedl) 1948f: 268 (*Xyleborus*). Holotype ♀; Brasil, Corumba, Alto Paraguay; Schedl Collection, in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1948f: 268–269, 1979c: 224.

severus Wood 1974a: 30. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Brazil/ Venezuela).

Hosts: *Eschweilera subglandulosa*, *Pouteria* sp., *Pseudothmedia laevigata*.

References: (tx) Wood, S. L. 1974a: 30.

solitariformis (Schedl) 1976g: 77 (*Xyleborus*). Holotype ♀; Xingu, Mato Grosso, Brazil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976g: 77.

solitarius (Schedl) 1950i: 178 (*Xyleborus*). Lectotype ♀; Brazil, Rio Claro; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 232. Distribution: South America (Brazil).

Hosts: *Eucalyptus* sp.

References: (ds) Schedl 1966f: 90, 1967d: 3, 1972g: 45, 1973d: 159, 1976a: 55. (tx) Schedl 1939j: 565, 1950i: 178, 1979c: 232.

truncatellus (Schedl) 1948f: 272 (*Xyleborus*). Syn-types ♀; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Figures: Pedrosa-Macedo & Schonherr 1985: 43.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 257 (citation of holotype invalid).

References: (ds) Pedrosa-Macedo & Schonherr 1985: 43; Schedl 1967d: 4. (tx) Pedrosa-Macedo & Schonherr 1985: 43; de Ruetten 1970: 115; Schedl 1948f: 272, 1950i: 147, 1979c: 256.

velutinus Wood 1974a: 29. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Pandanga.

References: (tx) Wood, S. L. 1974a: 29.

verrucosus Wood 1974a: 28. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Inga* sp., Rosada (Moraceae).

References: (tx) Wood, S. L. 1974a: 28.

vexans (Schedl) 1972g: 72 (*Xyleborus*). Holotype ♀; Brasilien, S. Caraca, S. Barbara, M. Gerais, 1450 m; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 72, 1979c: 266.

Genus *Leptoxyleborus* Wood

LEPTOXYLEBORUS WOOD 1980c: 94. Type-species: *Phloeotrogus sordicauda* Motschulsky, original designation.

References: (hb) Wood, S. L. 1986a: 82. (ds) Wood, S. L. 1986a: 82. (tx) Wood, S. L. 1980c: 94, 1986a: 82.

ceramensis (Schedl) 1937e: 549 (*Xyleborus*). Holotype ♀; Ceram [Moluccas Islands]; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Moluccas Islands).

References: (tx) Schedl 1937e: 549, 1979c: 55.

concisus (Blandford) 1894d: 107 (*Xyleborus*). Holotype ♀; Japan [type without locality data]; BMNH, London.

Figures: Nobuchi 1978a: pl. 2.

Distribution: Asia (Burma/ Andaman Islands, Assam, Bengal in India/ Japan/ Malaya/ Sri Lanka/ Taiwan), Indonesia (Borneo, Java, Sumatra), Philippine Islands.

Hosts: *Acrocarpus* spp., *Albizzia* sp., *Amoora wallichii*, *Anthocephalus* sp., *Artocarpus chaplasha*, *A. elastica*, *A.* spp., *Balanocarpus heimii*, *Calamus* sp., *Canarium* sp., *Chisocheton glomeratus*, *Cinchona* sp., *Daemonorops* sp., *Dipterocarpus baudii*, *D. kunstleri*, *D.* sp., *Endospermum malaccense*, *Fagara* sp., *Fagraea gigantea*, *Ficus* sp., *Homalanthus* sp., *Hopea ferrea*, *Nipa* sp., *Parinari* sp., *Pasania sundaica*, *P.* sp., *Phoenix paludosa*, *Pterocarpus* sp., *Quercus* sp., *Saraca* sp., *Scaphium* sp., *Shiia* sp., *Shorea leprosula*, *S. ovalis*, *Sloetia elongata*, *Tectona grandis*, *Terminalia bialata*, *T. procera*, *Toonia sinensis*, *Xanthophyllum* spp., *Xylia xylocarpa*.

References: (hb) Beaver & Browne 1978: 606;

Browne 1961c: 136; Kalshoven 1959e: 146. (ds) Beaver & Browne 1978: 606; Blandford 1894c: 579; Browne 1961a: 305, 1961c: 136–137; Hagedorn 1910d: 100; Kalshoven 1959c: 146; Kleime 1913b: 160, 1914b: 260; Murayama 1936a: 131, 1954b: 203; Nobuchi 1978a: 27; Ohno, Yoneyama, & Nakazawa 1982b: 5, 1987: 94; Ohno et al. 1987: 88, 1989: 61; Schedl 1961f: 93, 1965g: 22, 1966b: 49, 1969a: 204. (tx) Blandford 1894d: 107; Browne 1955: 354; Hagedorn 1910a: 153; Murayama 1934c: 299, 1936a: 131–132, 1954b: 203, 1955: 100; Nobuchi 1978a: pl. 2, 1983: 302; Schedl 1934f: 1646, 1961f: 93, 1965g: 22, 1979c: 61.

sordicaudulus Eggers 1927c: 91 (*Xyleborus*). Lectotype ♀; Philippinen: Palawan, Binaluan; USNM, Washington, designated by Anderson & Anderson 1971: 30. Synonymy: Browne 1955: 354.

References: (cn) Mathur & Singh 1961b: 97. (ds) Beeson 1930; Kleime 1934a: 175; Mathur & Singh 1961b: 97; Nunberg 1961b: 611; Schedl 1936j: 19. (tx) Anderson, W. H. & Anderson 1971: 30; Beeson 1930: 84, 260; Browne 1955: 354; Eggers 1927c: 91–92, 1930d: 198; Schedl 1939e: 331, 1942a: 171, 1942d: 5, 30, 1951i: 51, 1979c: 232.

marginatus Eggers 1927c: 91 (*Xyleborus*). Holotype ♀; Philippinen: Mindoro, Subaan; USNM, Washington. Synonymy: Browne 1955: 354.

Notes: (1) Schedl 1979c: 149 (invalid holotype designation, based on an Eggers colotype).

References: (cn) Yunus & Hua 1980: 230. (ds) Schedl 1936d: 4, 1936j: 20, 1971a: 281; Yunus & Hua 1980: 230. (tx) Anderson, W. H. & Anderson 1971: 19; Browne 1955: 354; Eggers 1927c: 91–92, 1930d: 197–198; Schedl 1939e: 331, 1942a: 171, 1951i: 41, 43, 51, 1954a: 142, 1955k: 145, 1979c: 149.

incurvus Eggers 1930d: 197 (*Xyleborus*). Holotype ♀; Bengal: Government Cinchona Plantation, Mungpoo; FRI, Dehra Dun. Synonymy: Wood 1989: 175.

References: (cn) Mathur & Singh 1961a: 75, 1961b: 14; Roonwal 1954: 33. (ds) Beeson 1930, 1961: 305; Kleime 1934a: 173; Lepesme et al. 1948: 648; Mathur & Singh 1961a: 75, 1961b: 14; Roonwal 1954: 33. (tx) Beeson 1930: 62–63; Eggers 1930d: 197–198; Wood, S. L. 1989: 175.

sordicaudulus peguensis Eggers 1930d: 198 (*Xyleborus*). Holotype ♀; Burma (North Pegu Division); FRI, Dehra Dun. Synonymy: Schedl 1951i: 51.

References: (cn) Mathur & Singh 1961b: 97. (hb) Browne 1936a, 1955: 354. (ds) Beeson 1930; Browne 1936a; Kleime 1934a: 175; Mathur & Singh 1961b: 97; Schedl 1936j: 20, 1951i: 51, 1960i: 112. (tx) Beeson 1930: 84, 260; Browne 1955: 354; Eggers 1927c: 91, 1930d: 198; Schedl 1951i: 51.

- depressus** (Eggers) 1923a: 190 (*Xyleborus*). Holotype ♀; Sumatra; Eggers Collection, in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra).
Hosts: *Castanopsis* sp., *Elaeocarpus ferrugineus*, *E. jackianus*, *Shorea uliginosa*.
References: (hb) Browne 1961c: 137. (ds) Browne 1961c: 137. (tx) Eggers 1923a: 189–190; Schedl 1979c: 78.
- sejugatus** Schedl 1942a: 188 (*Xyleborus*). Holotype ♀; Malaya, Perak, Trolak F. R.; BMNH, London. Synonymy: Wood 1989: 175.
References: (ds) Browne 1961c: 138, 1981b: 599; Ohno et al. 1988a: 94; Schedl 1971c: 370. (tx) Schedl 1942a: 188.
- novus** (Eggers) 1923a: 190 (*Xyleborus*). Lectotype ♀; Mentawai (Sipora); USNM, Washington, designated by Anderson & Anderson 1971: 22.
Distribution: Indonesia (Mentawai).
References: (tx) Anderson, W. H. & Anderson 1971: 22; Eggers 1923a: 190.
- puer** (Eggers) 1923a: 191 (*Xyleborus*). Syntypes ♀; Mentawai: MCG, Genova, Eggers Collection (USNM, Washington or NHMW, Wien?), MNB, Berlin.
Distribution: Asia (Malaya), Indonesia (Borneo, Mentawai), New Guinea.
Hosts: *Iutsia palembanica*, *Shorea* sp.
References: (hb) Browne 1961c: 135. (ds) Browne 1961a: 306, 1961c: 135, 1965a: 189; Schedl 1964c: 305, 1965g: 24. (tx) Eggers 1923a: 191; Schedl 1940b: 435, 1979c: 203.
- punctatissimus** (Eichhoff) 1880a: 189 (*Xyleborus*). Syntypes 2 ♀; Alahan pandjang, Sumatra; RNH, Leiden.
Figures: Nobuchi 1978a: pl. 2.
Distribution: Asia (India/ Malaya), Indonesia (Borneo, Java, Sumatra).
Hosts: *Symplocos* sp., *Xanthophyllum* sp.
References: (hb) Browne 1961c: 135; Kalshoven 1959c: 137. (ds) Beaver & Browne 1978: 612; Browne 1961c: 135; Hagedorn 1910d: 109; Kalshoven 1959c: 137; Kleine 1913b: 162, 1914b: 268, 289; Nobuchi 1978a: 23; Schedl 1965g: 22, 1969a: 208, 1971f: 149. (tx) Eggers 1923a: 190–191, 1927b: 407; Eichhoff 1880a: 189; Hagedorn 1910a: 156; Kalshoven 1959b: 95, 1960d; Nobuchi 1978a: pl. 2; Schedl 1939c: 330, 1951i: 42.
- spatulatus** Blandford 1896b: 218 (*Xyleborus*). Syntypes 2 ♀; Borneo, Sarawak; BMNH, London. Synonymy: Kalshoven 1959b: 95.
References: (hb) Browne 1935a. (ds) Beeson 1961: 309; Browne 1935a; Hagedorn 1910d: 111. (tx) Blandford 1896b: 218; Hagedorn 1910a: 156; Kalshoven 1959b: 95; Schedl 1937c: 549, 1979c: 234.
- scabrior** (Schedl) 1953c: 304 (*Xyleborus*). Lectotype ♀; Malaya, Kelantan, Kuala Gis.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 220.
Distribution: Asia (Malaya/ Nepal).
Hosts: *Castanopsis* sp., *Shorea* sp., *Triplochiton scleroxylon*, *Vatica* sp.
References: (hb) Browne 1961c: 136. (ds) Browne 1961c: 136, 1962c: 202; Thompson, G. H. 1963: 72. (tx) Schedl 1953c: 304, 1979c: 220.
- semigranulatus** (Schedl) 1931c: 340 (*Xyleborus*). Holotype ♀; Java, Mt. Gede, 1500 m; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo, Java).
Hosts: *Castanea javanica*, *Cinnamomum camphora*.
References: (hb) Kalshoven 1959c: 146. (ds) Kalshoven 1959c: 146. (tx) Eggers 1940d: 148; Schedl 1931c: 340–341, 1979c: 224.
- artemarginatus** Schedl 1975a: 456 (*Xyleborus*). Holotype ♀; Borneo; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 175.
References: (tx) Schedl 1975a: 456, 1979c: 27.
- sordicauda** (Motschulsky) 1863: 514 (*Phloeotrogus*). Syntypes 2 ♀; types labeled India Occidental, published as Continent indien; IZM, Moscow.
Distribution: Asia (Burma/ Assam, Bengal in India), New Guinea, Philippine Islands.
Hosts: *Acrocarpus fraxinifolius*, *Streospermum neuranthum*, *S.* sp., *Tectona grandis*, *Terminalia chebula*, *Xylocarpa*.
Notes: (1) Wood 1969c: 120 (identity established).
References: (cn) Kalshoven 1924c; Mathur & Singh 1961a: 74, 1961b: 31. (hb) Kalshoven 1924c: 1–27, 1959: 146. (ds) Beeson 1930; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 111; Kleine 1913b: 169, 1914b: 278; Mathur & Singh 1961a: 74; Schedl 1966b: 72. (tx) Beeson 1930: 83, 259; Eggers 1923a: 188, 201, 1925: 153, 1927c: 91, 1930d: 197; Hagedorn 1910a: 156; Mathur & Singh 1961b: 14; Motschulsky 1863: 514; Nobuchi 1983: 304; Schedl 1940b: 435; Wood, S. L. 1969c: 119–120.
- attematus** Motschulsky 1863: 514 (*Phloeotrogus*). Holotype ♀; type labeled India Occidental, printed as Continent indien; IZM, Moscow. Synonymy: Wood 1969c: 119.
References: (ds) Gemminger & Harold 1872: 2692; Kleine 1913b: 167, 1914b: 270. (tx) Hagedorn 1910a: 152; Motschulsky 1863: 514; Wood, S. L. 1969c: 119.

Genus *Theoborus* Hopkins

- THEOBORUS HOPKINS** 1915b: 57. Type-species: *Theoborus theobromae* Hopkins, original designation.
Keys: Wood 1982b: 770 for Central America.
References: (hb) Wood, S. L. 1986a: 82. (ds) Wood, S. L. 1982b: 770, 1986a: 82. (tx) Hopkins 1915b: 10, 57; Wood, S. L. 1982b: 770–776, 1986a: 82.

- coartatus** (Sampson) 1921: 32 (*Xyleborus*). Holotype ♀; Trinidad; BMNH, London.
Distribution: Antilles Islands (Jamaica/ Trinidad), North America (Costa Rica/ Chiapas in Mexico/ Panama), South America (Brazil/ Colombia).
Hosts: *Mimosa* sp., *Theobroma cacao*.
References: (hb) Wood, S. L. 1952b: 776. (ds) Blackwelder 1947: 779; Sampson 1921: 32–33; Terra 1987: 20; Wood, S. L. 1982b: 776. (tx) Eggers 1932d: 298; Sampson 1921: 32–33; Schedl 1950d: 3, 1979c: 59; Terra 1987: 20; Wood, S. L. 1966b: 31, 1982b: 776.
- artecuneolus** Schedl 1939n: 14 (*Xyleborus*). Holotype ♀; Trinidad; BMNH, London. Synonymy: Wood 1966b: 31.
References: (ds) Schedl 1973d: 157. (tx) Schedl 1939n: 14, 1979c: 26; Wood, S. L. 1966b: 31.
- incultus** (Wood) 1975b: 400 (*Xyleborus*). Holotype ♀; Fort Clayton, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: *Cecropia* sp. branch.
References: (ds) Estrada & Atkinson 1988: 206; Wood, S. L. 1982b: 773. (tx) Wood, S. L. 1975b: 400, 1982b: 773.
- micarius** (Wood) 1974a: 33 (*Xyleborus*). Holotype ♀; Guapiles, Limón, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Cordia* sp.
References: (hb) Wood, S. L. 1982b: 774. (ds) Wood, S. L. 1982b: 774. (tx) Wood, S. L. 1974a: 33, 1982b: 774.
- molestulus** (Wood) 1975b: 400 (*Xyleborus*). Holotype ♀; Barro Colorado Island, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
References: (ds) Wood, S. L. 1982b: 775. (tx) Wood, S. L. 1975b: 400, 1982b: 775.
- pristis** (Wood) 1974a: 32 (*Xyleborus*). Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Miconia caudata*, tree limbs.
References: (hb) Wood, S. L. 1982b: 773. (ds) Wood, S. L. 1982b: 773. (tx) Wood, S. L. 1974a: 32, 1982b: 773.
- ricini** (Eggers) 1932d: 298 (*Xyleborus*). Holotype ♀; Congostaat: Stanleyville; USNM, Washington. Figures: Numberg 1963b: pl. 24.
Distribution: Africa (introduced into: Cameroon/ Equatorial Guinea/ Ghana/ Ivory Coast/ Sao Tome Island/ Uganda/ Zaire), Antilles Islands (Dominican Republic in Hispanola), North America (Costa Rica/ Honduras/ Veracruz in Mexico/ Florida in USA), South America (Brazil/ Colombia/ Venezuela).
Hosts: *Albizia guuminifera*, *Aptandra zenkeri*, *Citrus aurantifolia*, *Dioclea megacarpa*, *Hevea brasiliensis*, *Maesa rufescens*, *Ricinus communis*, *Swietenia* sp., *Terminalia* sp., *Tetrapleura tetraptera*, *Theobroma cacao*. Schedl 1962j: 289 adds others.
References: (hb) Ghesquiere 1933a: 31–34, 1933b: 781; Roberts 1969: 133; Schedl 1962j: 288. (ds) Schedl 1962h: 60, 1962j: 288, 1962k: 1102, 1964j: 42, 1965e: 355, 1967e: 218, 1971g: 193, 1972e: 284, 1977d: 279, 1979b: 416. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1932d: 298; Numberg 1963b: 48, pl. 24; Schedl 1941d: 380, 1948f: 270, 1952g: 52, 1962j: 48, 288–289, 1962k: 1102, 1979c: 211.
- solitariceps** Schedl 1954b: 45 (*Xyleborus*). Lectotype ♀; Brasilien: Parana, Rondon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 232. Synonymy: Wood 1989: 176.
References: (hb) Atkinson & Equihua 1985b: 237, 1986a: 421; Wood, S. L. 1982b: 775. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421; Atkinson et al. 1991: 160; Bright 1982b: 165, 1985c: 173; Estrada & Atkinson 1988: 206; Schedl 1966f: 90; Wood, S. L. 1982b: 775. (tx) Bright 1982b: 165, 1985c: 173; Schedl 1954b: 45, 1979c: 232; Wood, S. L. 1982b: 775.
- theobromae** Hopkins 1915b: 57. Holotype ♀; West Indian: Dominica; USNM, Washington.
Distribution: Antilles Islands (Barbados/ Dominica/ Dominican Republic in Hispanola/ Guadeloupe/ Trinidad), North America (Costa Rica/ Chiapas, Veracruz in Mexico/ Panama), South America (Cayenne/ Colombia/ Venezuela).
Hosts: *Erythrina costaricensis*, *Ochroma* sp., *Theobroma cacao*.
References: (hb) Morales & Bhaktar 1984; Wood, S. L. 1982b: 772. (ds) Atkinson 1986a: 421; Blackwelder 1947: 779; Bright 1985c: 173; Kleine 1934a: 178; Leng & Mutchler 1917: 220; Wood, S. L. 1982b: 772. (tx) Bright 1985c: 173; Hopkins 1915b: 57; Schedl 1952k: 163; Wood, S. L. 1962: 79, 1985c: 173.
- pseudococcotrypes** Eggers 1941a: 105 (*Xyleborus*). Holotype ♀; Franz. Guyana (St. Jean du Maroni); MNHN, Paris. Synonymy: Wood 1962: 79.
References: (tx) Eggers 1941a: 105; Schedl 1979c: 201; Wood, S. L. 1962: 79.
- hirtellus** Schedl 1948f: 271 (*Xyleborus*). Lectotype ♀; West Indies, St. Vincent, Trinidad; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 118. Synonymy: Schedl 1952k: 163.
References: (tx) Schedl 1948f: 271, 1952k: 163, 1979c: 118.
- villosulus** (Blandford) 1898b: 204 (*Xyleborus*). Holotype ♀; Rio Naranjo, San Marcos, Guatemala; BMNH, London.
Figures: Numberg 1971: 63–64, Pedrosa-Macedo & Schonherr 1985: 21.

Distribution: North America (Guatemala), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Peru/ Venezuela).

Hosts: *Inga* sp., *Pinus elliottii*, *Theobroma cacao*.

References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 112; Kleine 1913b: 162, 1914b: 371; Pedrosa-Macedo & Schonherr 1985: 21; Terra 1987: 22; Wood, S. L. 1982b: 772. (tx) Blandford 1898b: 204; Hagedorn 1910a: 157; Pedrosa-Macedo & Schonherr 1985: 21; Schedl 1952k: 161; Terra 1987: 22; Wood, S. L. 1982b: 772.

coccotrypoides Eggers 1943a: 388 (*Xyleborus*).

Holotype ♀; Bolivia (Cochabamba); MNHN, Paris. Synonymy: Wood 1976a: 349.

References: (ds) Nunberg 1962: 224, 1971: 58; Schedl 1976a: 54, 1979e: 58; Schonherr & Pedrosa-Macedo 1981: 55. (tx) Eggers 1943a: 388; Nunberg 1971: 63–64; Schedl 1979c: 59; Wood, S. L. 1976a: 349.

villosus Schedl 1948f: 270 (*Xyleborus*). Syntypes ♀; Brasil, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Notes: (1) Schedl 1979c: 268 (citation of holotype invalid).

References: (cn) Cranham 1966c. (hb) Cranham 1966c. (ds) Navajas 1966: 48–50; Schedl 1966f: 80, 1967d: 4, 1970e: 85, 1973d: 160. (tx) Schedl 1948f: 270, 1958f: 35, 1979c: 268; Wood, S. L. 1976a: 349.

Genus *Coptoborus* Hopkins

COPTOBORUS HOPKINS 1915b: 53. Type-species: *Coptoborus emarginatus* Hopkins = *Xyleborus vespatorius* Schedl, original designation.

Streptocranus Schedl 1939f: 52. Type-species: *Streptocranus mirabilis* Schedl, monobasic. Synonymy: Wood 1980c: 96.

References: (tx) Browne 1949b: 898, 1960: 201–220, 1961c: 171; Schedl 1939f: 52, 1957d: 86; Wood, S. L. 1980c: 96, 1986a: 82–83.

Keys: Wood 1982b: 780 for Central America.

Notes: (1) New World and Old World representatives of this genus form distinct groups except that the type-species is intermediate and bridges the gap between them.

References: (hb) Wood, S. L. 1986a: 82–83. (ds) Wood, S. L. 1986a: 82–83. (tx) Hopkins 1915b: 10, 53; Schedl 1952k: 162–163; Wood, S. L. 1980c: 96, 1986a: 82–83.

adjunctus (Eggers) 1924: 108 (*Xyleborus*). Holotype ♀; Mont Kalombo (Manyema), Congostaat; USNM, Washington.

Distribution: Africa (Angola/ Congo/ Equatorial Guinea/ Gabon/ Ghana/ Guinea/ Tanzania/ Zaire/ Zimbabwe).

Hosts: *Albizzia gummifera*.

References: (hb) Loyttyniemi, Beaver, & Loyttyniemi 1984; Roberts 1969: 188. (ds) Ferreira 1965: 1120; Schedl 1959p: 19; 1962j: 563, 1966c: 226,

1971g: 192. (tx) Anderson, W. H. & Anderson 1971: 3; Browne 1965a: 188; Eggers 1922b: 172, 1924: 108, 1927a; Schedl 1962j: 563, 1979c: 12.

adjunctus corruptus Schedl 1962j: 564 (*Xyleborus*).

Lectotype ♀; Congo Belge: Kasai, Ngombe; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 12.

Notes: (3) An apparent aberration.

References: (ds) Ferreira 1966: 1112; Schedl 1967e: 215. (tx) Schedl 1962j: 564, 1979c: 12.

artenuis (Schedl) 1973c: 372 (*Xyleborus*). Holotype ♀; Bolivien, Guayaramerin (Beni); NHMB, Budapest.

Distribution: South America (Bolivia).

References: (tx) Schedl 1973c: 372.

assiduus (Schedl) 1961i: 228 (*Xyleborus*). Holotype ♀; Venezuela, Mt. Duida; CAS, San Francisco, lost (?).

Distribution: South America (Venezuela).

Notes: (1) The Schedl “paratype” at NHMW, Wien, apparently represents the only known specimen from the type series; the “holotype” was not returned to the California Academy of Science, as was stated in the description, and in all probability never existed except as the “paratype.”

References: (ds) Schedl 1960a: 78. (tx) Schedl 1961i: 228, 1979c: 29.

bicolor (Browne) 1949b: 900 (*Streptocranus*). Holotype ♀; Malaya: Kelantan, Nal.; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Eugenia* sp., *Palaquium stellatum*.

References: (hb) Browne 1961c: 172. (ds) Browne 1986c: 662. (tx) Browne 1949b: 900, 1961c: 172.

bicuspis (Eggers) 1940d: 153 (*Xyleborus*). Holotype ♀; Java; Drescher Collection, cotype in Eggers cotype in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Borneo/ Java).

Hosts: *Castanopsis* sp.

Notes: (1) Schedl 1979c: 39 (invalid lectotype designation from the Eggers cotype in NHMW, Wien; a holotype existed).

References: (ds) Browne 1961c: 172. (tx) Browne 1960: 206; Eggers 1940d: 153; Schedl 1934g: 178, 1950g: 893, 1979c: 39.

recurvus Browne 1949b: 898 (*Streptocranus*).

Holotype ♀; Malaya: Kelantan, Kampong Kroh; BMNH, London. Synonymy: Schedl 1950g: 893.

References: (tx) Browne 1949b: 898; Schedl 1950g: 893.

bispinus (Schedl) 1979g: 104 (*Xyleborus*). Holotype ♀; Papua New Guinea: Morobe Distr., Bulolo, Taun L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 104.

- capucinulus** (Schedl) 1942d: 27 (*Streptocranus*).
Lectotype ♀; Java, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 52.
Distribution: Asia (Malaya), Indonesia (Java).
Hosts: *Canarium* sp.
Notes: (3) Schedl 1951i: 95 (described male).
References: (hb) Browne 1961c: 172; Kalshoven 1959c: 164. (ds) Browne 1961c: 172; Kalshoven 1959c: 164. (tx) Beaver & Browne 1978: 600; Browne 1950b: 645, 1959a: 87; Kalshoven 1959b: 97; Schedl 1942d: 27, 1951i: 95, 1979c: 52.
- penangensis* Browne 1950b: 645 (*Streptocranus*).
Holotype ♀; Malaya: Penang; BMNH, London. Synonymy: Browne 1959a: 97, Kalshoven 1959b: 97.
References: (tx) Browne 1950b: 645, 1959a: 97; Kalshoven 1959b: 97.
- catulus** (Blandford) 1898b: 215 (*Xyleborus*). Holotype ♀; Volcan de Chiriqui, Chiriqui, Panama; BMNH, London.
Distribution: North America (Panama), South America (Brazil/ Suriname/ Venezuela).
Hosts: *Guazuma ulmifolia*.
References: (hb) Wood, S. L. 1982b: 801. (ds) Atkinson & Equihua 1986a: 421; Blackwelder 1947: 779; Hagedorn 1910d: 99; Kleine 1914b: 372; Wood, S. L. 1982b: 801. (tx) Blandford 1898b: 215; Eggers 1927a: 190; Hagedorn 1910a: 152; Wood, S. L. 1975a: 23, 1982b: 801.
- intricatus* Schedl 1948f: 274 (*Xyleborus*). Holotype ♀; Brazil, St. Catharina; Schedl Collection in NHMW, Wien. Synonymy: Wood 1975a: 23.
References: (ds) Schedl 1960a: 78, 1966f: 77, 1967d: 3, 1978c: 291. (tx) Schedl 1948f: 274, 1979c: 128; Wood, S. L. 1975a: 23.
- cuneatus** (Eichhoff) 1878b: 380 (*Xyleborus*). Holotype ♀; Varinas, Nova Grenada [presumably Barinas, Venezuela]; Schedl Collection in NHMW, Wien.
Distribution: North America (Panama), South America (Colombia/ Peru/ Venezuela).
References: (ds) Blackwelder 1947: 779; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 342; Wood, S. L. 1982b: 802. (tx) Eggers 1927c: 92, 1928c: 97, 1934b: 27–29; Eichhoff 1878b: 380; Hagedorn 1910a: 152; Sampson 1919: 110; Schedl 1948f: 269, 1979c: 71.
- exutus** (Wood) 1974a: 36 (*Xyleborus*). Holotype ♀; Turrialba, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Notes: (3) Schedl 1980d: 121 (erroneously treats this as a synonym).
References: (ds) Wood, S. L. 1982b: 803. (tx) Schedl 1980d: 121; Wood, S. L. 1974a: 36, 1982b: 803.
- forficatus** (Schedl) 1957d: 108 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, route Tshibinda-Bunyakiri; MRCB, Tervuren.
References: Numberg 1963b: pl. 15.
Distribution: Africa (Zaire).
Hosts: *Anthonothea macrophylla*, *Turraecanthus africana*.
References: (hb) Roberts 1969: 128; Schedl 1962j: 565. (ds) Schedl 1962j: 565. (tx) Numberg 1963b: 33, pl. 15; Schedl 1957d: 108, 1962j: 565, 1979c: 98.
- fragilis** (Browne) 1949b: 901 (*Streptocranus*). Holotype ♀; Malaya: Kelantan, Nal.; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Eugenia* sp., *Palaquium stellatum*.
References: (hb) Browne 1961c: 172. (ds) Browne 1961c: 172. (tx) Browne 1949b: 901.
- gentilis** (Schedl) 1972g: 70 (*Xyleborus*). Holotype ♀; Brasilien, Corcovado, Guanabara; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 70, 1979c: 103.
- longicauda** (Browne) 1960: 206 (*Streptocranus*). Holotype ♀; Malaya: Kepong; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Sumatra).
Hosts: *Castanopsis sumatrana*.
References: (hb) Browne 1961c: 171; Parsons 1963: 351. (ds) Browne 1960: 206, 1961c: 171, 1962b: 206.
- longispinis** Browne 1986a: 91 (*Streptocranus*). Holotype ♀; New Guinea: Fak fak to Nagoya, intercepted; BMNH, London.
Distribution: New Guinea.
Hosts: Penaraha log (Myristicaceae).
References: (tx) Browne 1986a: 91.
- melas** (Eggers) 1927c: 93 (*Xyleborus*). Lectotype ♀; Philippinen: Luzon, Provinz Mountain, Balaban; USNM, Washington, designated by Anderson & Anderson 1971: 20.
Distribution: Philippine Islands, Samoa.
References: (ds) Schedl 1966b: 61, 1972b: 267. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1927c: 93, 1932d: 300; Nobuchi 1983: 303; Schedl 1958b: 104, 1979c: 151.
- mirabilis** (Schedl) 1939f: 53 (*Streptocranus*). Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 157.
Distribution: Indonesia (Java).
References: (hb) Kalshoven 1959c: 164. (ds) Kalshoven 1959c: 164. (tx) Schedl 1934g: 178, 1939e: 355, 1939f: 53, 1951i: 44, 84, 1979c: 157.
- neoadjunctus** (Schedl) 1967d: 13 (*Xyleborus*). Holotype ♀; Brasilien, Nova Teutonia, Santa Catharina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1967d: 13–14, 1979c: 164.
- neosphenos** (Schedl) 1976a: 76 (*Xyleborus*). Holotype ♀; Vilhena, Rondonia [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 76.

palmeri Hopkins 1915b: 54. Holotype ♀; Mount Salak, Java; USNM, Washington.

Distribution: Indonesia (Java).

References: (tx) Hopkins 1915b: 53–54; Schedl 1952k: 163.

pseudotenuis (Schedl) 1936i: 109 (*Xyleborus*). Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica/ San Luis Potosi, Veracruz in Mexico/ Panama), South America (Brazil/ Venezuela).

Hosts: *Cordia* sp., *Hevea brasiliensis*, *Theobroma cacao*.

References: (hb) Wood, S. L. 1982b: 802. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421; Blackwelder 1947: 780; Estrada & Atkinson 1988: 207; Ferrer 1942; Schedl 1976a: 55; Wood, S. L. 1982b: 802. (tx) Schedl 1936i: 109–110, 1940a: 361, 1959a: 510, 1979c: 202; Wood, S. L. 1976a: 349, 1982b: 802.

tenuis Schedl 1948f: 269 (*Xyleborus*). Holotype ♀; Cordova [presumably Veracruz, Mexico]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1976a: 349.

References: (tx) Schedl 1934e: 209, 1936i: 108–109, 1948f: 269, 1979: 252; Wood, S. L. 1976a: 349.

exilis Schedl 1934e: 209 (*Xyleborus*). Holotype ♀; Halbinsel Osa, Costa Rica; Schedl Collection in NHMW, Wien. Wood 1982b: 802 (a probable synonym).

References: (ds) Blackwelder 1947: 779. (tx) Schedl 1934e: 209, 1979c: 93; Wood, S. L. 1982b: 802.

superbulus (Schedl) 1958k: 148 (*Xyleborus*). Holotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien, automatic.

Distribution: Indonesia (Java), New Guinea.

References: (tx) Schedl 1958k: 148.

superbus Schedl 1951i: 95 (*Xyleborus*). Holotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1942.

References: (tx) Schedl 1951i: 95, 1958k: 148.

superbus (Schedl) 1942c: 188 (*Xyleborus*). Holotype ♀; Neu Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1942c: 188, 1970a: 216, 1979c: 247.

terminaliae Hopkins 1915b: 54. Holotype ♀; Pagbilao, P. I.; USNM, Washington.

Distribution: Philippine Islands.

Hosts: *Terminalia* spp.

References: (tx) Hopkins 1915b: 53–54; Schedl 1952k: 163.

tolimanus (Eggers) 1928c: 97 (*Xyleborus*). Lectotype ♀; Columbia (Tolima); USNM, Washington, designated by Anderson & Anderson 1971: 34.

Figures: Numberg 1971: 63, Terra 1987: 26.

Distribution: North America (Costa Rica), South America (Brazil/ Colombia/ Venezuela).

Hosts: *Guatteria* sp., *Protium* sp., *Theobroma cacao*.

References: (hb) Beaver 1976a: 27; Wood, S. L. 1982b: 803. (ds) Atkinson & Equihua 1986a: 421, 1988: 102; Beaver 1976a: 27; Blackwelder 1947: 780; Kleine 1934a: 175; Numberg 1971: 58; Schedl 1966f: 90, 1970e: 85, 1972g: 45; Terra 1987: 25; Wood, S. L. 1982b: 803. (tx) Anderson, W. H. & Anderson 1971: 34; Eggers 1928c: 97–98; Numberg 1971: 62–63; Schedl 1948f: 274, 1979c: 253; Terra 1987: 25–26; Wood, S. L. 1982b: 803.

usagarius (Eggers) 1922b: 172 (*Xyleborus*). Holotype ♀; S.O. Usagara, Deutsch-Ostafrika; Methner Collection.

Figures: Numberg 1963b: pls. 13, 19, 1978: 112, 117, Schedl 1962j: 569.

Distribution: Africa (Angola/ Ghana/ Ivory Coast/ Tanzania/ Uganda/ Zaire/ Zambia/ Zimbabwe).

Hosts: *Anthonotha macrophylla*, *Antrocaryon micraster*, *Celtis* spp., *Cinchona* sp., *Drypetes leonensis*, *Macrobium* sp., *Macropsis eminii*, *Pentaclethra macrophylla*, *Pentadesma lebrunii*, *Solanum aculeastrum*.

References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (ds) Beaver & Loytyniemi 1985a: 70; Browne 1975b: 394; Ferreira 1965: 1126; Schedl 1959p: 22, 1962h: 61, 1962j: 566, 1962k: 1105, 1964e: 69; Wichmann 1954: 522. (tx) Beaver & Loytyniemi 1985a: 70; Eggers 1922b: 172, 1924: 108–109, 1943c: 66; Numberg 1978: 117; Schedl 1939g: 172, 1950d: 8, 1953g: 246, 1957d: 84, 1961i: 228, 1962j: 566–567.

usagarius subadjunctus Schedl 1950d: 28 (*Xyleborus*). Holotype ♀; S. Rhodesia; Salisbury; BMNH, London. Synonymy: Wood 1989: 171.

Notes: (1) Browne 1961h: 50 treated this name in *Prennobius* where it probably does not belong.

References: (tx) Schedl 1950d: 28, 1962j: 570; Wood, S. L. 1989: 171.

hendrickxi Schedl 1953g: 245 (*Streptocranus*). Lectotype ♀; Congo Belge, Kivu, Mulungu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 116. Synonymy: Wood 1989: 171.

References: (ds) Gardner 1957a: 33; Schedl 1962j: 568. (tx) Schedl 1953g: 245–246, 1957d: 113–114, 1962j: 568, 1979c: 116; Wood, S. L. 1989: 171.

monticolus Schedl 1957d: 113 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Synonymy: Wood 1989: 171.

References: (hb) Schedl 1962j: 569. (ds)

Schedl 1962j: 569. (tx) Nunberg 1963b: 39, pl. 19; Schedl 1957d: 113–114, 1962j: 569, 1979c: 159; Wood, S. L. 1989: 171.

fallaciosus Schedl 1957d: 114 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Ter-vuren. Synonymy: Wood 1989: 171.

References: (hb) Schedl 1962j: 567. (ds) Schedl 1962j: 567. (tx) Nunberg 1963b: 31, pl. 13, 1978: 112; Schedl 1957d: 113–115, 1962j: 567, 1979c: 95; Wood, S. L. 1989: 171.

usagaricus hembibitalei Schedl 1962j: 567 (*Xyleborus*). Holotype ♀; Congo Belge: Hembibitale; Schedl Collection in NHMW, Wien.

Notes: (1) Because most of Schedl's subspecies are no more than aberrations, the status of this name is doubtful.

References: (tx) Schedl 1962j: 567, 1979c: 262.

vespatorius (Schedl) 1931c: 342 (*Xyleborus*). Holotype ♀; San Ignacio, Argentina; Schedl Collection in NHMW, Wien.

Figures: Nunberg 1978: 117, Terra 1987: 24.

Distribution: Antilles Islands (Trinidad), North America (Costa Rica/ Guatemala/ Veracruz in Mexico), South America (Argentina/ Brazil/ Colombia/ Venezuela).

Hosts: *Hevea brasiliensis*, *Theobroma cacao*.

Notes: (3) Declivital denticles of the holotype were chewed off by siblings, thus making identification difficult.

References: (hb) Wood, S. L. 1982b: 800. (ds) Atkinson & Equihua 1986a: 421; Blackwelder 1947: 780; Nunberg 1971: 58; Terra 1987: 22; Wood, S. L. 1982b: 800. (tx) Nunberg 1978: 117–118; Schedl 1931c: 342–343, 1979c: 266; Terra 1987: 22, 24; Wood, S. L. 1972e: 200, 1982b: 800.

emarginatus Hopkins 1915b: 53. Holotype ♀; Livingston, Guatemala; USNM, Washington, preoccupied by Eichhoff 1878.

Notes: (1) Schedl 1952k: 163 transferred this species to *Xyleborus* and regarded it as a junior homonym; consequently, it must be rejected under Article 59C of the Code.

References: (ds) Blackwelder 1947: 779. (tx) Hopkins 1915b: 53; Schedl 1952k: 162–163; Wood, S. L. 1972e: 200.

corniculatus Schedl 1948f: 275 (*Xyleborus*). Holotype ♀; Sta. Catharina, Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 200.

Notes: (3) Schedl 1961i: 228 (described male). References: (ds) Steinhausen 1956: 48. (tx) Schedl 1948f: 275, 1952k: 162–163, 1961i: 228, 1979c: 65; Steinhausen 1956: 48; Wood, S. L. 1961c: 2, 1972e: 200.

corniculatus Schedl 1948f: 275 (*Xyleborus*). Holotype ♀; Trinidad; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 200.

References: (cn) Iton 1960: 461. (ec) Iton 1960: 461. (ds) Schedl 1960g: 76, 1966f: 78;

Wood, S. L. 1961c: 2. (tx) Schedl 1948f: 275, 1961a: 529, 1961i: 228, 1979c: 65; Wood, S. L. 1972e: 200.

Genus *Arixyleborus* Hopkins

ARIXYLEBORUS HOPKINS 1915b: 59. Type-species: *Arixyleborus rugosipes* Hopkins, original designation.

Xyleboricus Eggers 1923a: 212. Type-species: *Xyleboricus canaliculatus* Eggers, subsequent designation by Schedl 1936h: 64. Synonymy: Schedl 1952k: 162.

References: (tx) Eggers 1923a: 212; Schedl 1936h: 64, 1939c: 349, 1952k: 162.

References: (ay) Nobuchi 1969a: 64. (hb) Browne 1961c: 178–179; Wood, S. L. 1986a: 83. (ds) Schedl 1966b: 43; Wood, S. L. 1986a: 83. (tx) Browne 1962c: 201–220, 1963c: 53–59; Hopkins 1915b: 10, 59; Schedl 1952k: 161, 1962n: 697–699; Wood, S. L. 1986a: 83.

abruptus Schedl 1975f: 358. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 358, 1979c: 9.

camphorae (Eggers) 1936d: 634 (*Webbia*). Holotype ♀; Johore, Kluang; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Cinnamomum camphora*.

Notes: (3) Browne 1955: 351 (treated as a synonym of *rugosipes* Hopkins).

References: (ds) Beeson 1961: 301; Kalshoven 1959: 168; Schedl 1959a: 492. (tx) Browne 1955: 351; Eggers 1936d: 634–635; Schedl 1950g: 895, 1958k: 145, 1979c: 51.

canaliculatus (Eggers) 1923a: 216 (*Xyleboricus*). Lectotype ♀; Neu Guinea S.E., Paumotu riv.; USNM, Washington, designated by Anderson & Anderson 1971: 8.

Figures: Nobuchi 1978a: pl. 1.

Distribution: Asia (Bengal in India), New Britain Island, New Guinea.

Hosts: *Castanopsis* sp.

References: (bv) Gray, B. 1974c. (cn) Wylie & Shanahan 1975. (hb) Gray, B. 1974c; Wylie & Shanahan 1975. (ds) Beeson 1938b: 291; Nunberg 1961b: 610; Schedl 1936g: 534, 1958k: 145, 1962i: 72, 1968c: 263, 1969e: 156. (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1923a: 216, 1927c: 106; Schedl 1936g: 534, 1936h: 62–64, 1940b: 434, 1942c: 163, 1942d: 27, 1951i: 51, 1952k: 162, 1955b: 297, 1958k: 145; Wylie & Yule 1977.

subsiniilis Schedl 1970b: 362. Holotype ♀; Lolobau, New Britain to Tokyo (Japan), imported; PPST, Tokyo. Synonymy: Wood 1989: 170.

References: (ds) Browne 1984c: 449; Nobuchi 1978a: 8; Ohno, Yoneyama, & Nakazawa 1987: 95; Olmo, Yoskioka, Yoneyama, & Nakazawa

- 1988a: 92; Ohno, Yoskioka, Uchida, Yoneyama, & Tsukamoto 1989: 60. (tx) Nobuchi 1978a:pl. 1, 1983: 302; Schedl 1970b: 362, 1979c: 244; Wood, S. L. 1989: 170.
- cariniceps** Schedl 1975f: 358. Holotype ♀; Wewak, Timbers Sawmill, E. Sepik Dist. [New Guinea]; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Dracondomerum* sp.
References: (tx) Schedl 1975f: 358, 1979c: 53.
- castaneae** Schedl 1958k: 146. Syntypes ♀; Java, Stapelplaats Bandung; RNH, Leiden, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo, Java).
Hosts: *Castanea argentea*.
References: (hb) Kalshoven 1959c: 169. (ds) Kalshoven 1959c: 169; Schedl 1965g: 23. (tx) Schedl 1958k: 146, 1965g: 23, 1979c: 54.
- confinis** (Eggers) 1927c: 106 (*Webbia*). Holotype ♀; Philippinen: Mindanao, Lanao Prov., Kolambugan; USNM, Washington.
Distribution: Philippine Islands (Mindanao).
References: (ds) Schedl 1966b: 43. (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1927c: 106; Nobuchi 1983: 301; Schedl 1936h: 62, 64, 1958k: 145.
- deceptus** Schedl 1979g: 103. Holotype ♀; New Guinea: NE, Wau, Golden Ridge; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 103.
- dipteroearpi** Browne 1981a: 133. Holotype ♀; Bislig (Philippines) to Nagoya (Japan), imported; BMNH, London.
Distribution: Philippine Islands.
Hosts: *Dipteroearpus* sp.
References: (tx) Browne 1981a: 133; Eggers 1936e: 86; Nobuchi 1983: 301.
- dissimilis** (Eggers) 1923a: 214 (*Xyleboricus*). Holotype ♀; Sipora (Sereinu) auf der Insel Mentawai; MCG, Genova.
Distribution: Indonesia (Mentawai).
References: (tx) Eggers 1923a: 214; Schedl 1936h: 64, 1958k: 145.
- fuliginosus** (Eggers) 1923a: 205 (*Xyleborus*). Syntypes 2 ♀; G. Kenepai (Podok, Borneo), und Muara Sako (Sumatra); RNH, Leiden, and Eggers Collection (USNM, Washington or NHMW, Wien?).
Distribution: Indonesia (Borneo, Sumatra).
References: (tx) Browne 1955: 350; Eggers 1923a: 205–206; Schedl 1958k: 145.
- gedeanus** (Schedl) 1942d: 26 (*Xyleboricus*). Lectotype ♀; Java: Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 103.
Distribution: Indonesia (Java).
References: (hb) Kalshoven 1959c: 168. (ds) Kalshoven 1959c: 168. (tx) Schedl 1942d: 26–27, 1958k: 145, 1979c: 103.
- grandis** (Schedl) 1942d: 27 (*Xyleboricus*). Lectotype ♀; Buitenzorg, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 108.
Distribution: Indonesia (Borneo, Java).
Hosts: *Palaquium* sp.
Notes: (3) Schedl 1971c: 375 (described male).
References: (hb) Kalshoven 1958a: 186, 1959c: 167. (ds) Browne 1979c: 108; Kalshoven 1958a: 186, 1959c: 167; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1971c: 368. (tx) Browne 1960: 202; Schedl 1942d: 27, 1971c: 375, 1979c: 108.
- granifer** (Eichhoff) 1878b: 502 (*Xyleborus*). Syntypes ♀; Hindostan (Birma); Hamburg Museum, lost.
Distribution: Asia (Burma/ Bengal in India/ Malaya), Indonesia (Borneo).
Hosts: *Castinopsis* sp., *Dryobalanops* sp., *Eugenia* sp., *Koompassia* sp., *Pasania* sp., *Shorea ovalis*, *S.* sp.
Notes: (1) Browne 1955: 350 (to *Arixyleborus*).
References: (hb) Browne 1961c: 179. (ds) Browne 1961c: 179, 1962c: 202, 1985b: 290; Hagedorn 1910d: 105; Kleine 1913b: 160, 1914b: 278; Nobuchi 1978a: 9; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1936d: 3, 1964c: 304. (tx) Browne 1955: 350, 1960: 202; Eggers 1923a: 205–207, 1925: 159; Eichhoff 1878a: 391, 1878b: 502; Hagedorn 1910a: 154; Nobuchi 1978a:pl. 1; Schedl 1936d: 3, 1939e: 331, 1955b: 303, 1958k: 145.
- granifer borneensis** Schedl 1965g: 27. Holotype ♀; O. Borneo, Pajau River and Mt. Tibang, 1400 m; NIIR, Stockholm.
References: (ds) Schedl 1965g: 23. (tx) Schedl 1965g: 27, 1979c: 109.
- granulicauda** Schedl 1975f: 359. Holotype ♀; Upper Manki logging area, Bulolo, Morobe Distr., New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 359, 1979c: 111.
- granulifer** (Eggers) 1923a: 206 (*Xyleborus*). Lectotype ♀; Sinabang auf Simalur, einer Nebensinsel Sumatras; USNM, Washington, designated by Anderson & Anderson 1971: 14.
Figures: Nobuchi 1978a:pl. 1.
Distribution: Asia (Burma/ Bengal in India/ Malaya/ Sri Lanka), Indonesia (Borneo, Mentawai, Sumatra), Philippine Islands.
Hosts: *Castanopsis* sp., *Dipteroearpus zeylanicus*, *Koompassia excelsa*, *Myristica dactyloides*, *Shorea leprosula*, *S. ovalis*.
Notes: (3) Schedl 1969a: 211 (described male).
References: (cn) Mathur & Singh 1960b: 84. (hb) Browne 1936a, 1961c: 180. (ds) Browne 1936a, 1961c: 180, 1962c: 202, 1980b: 381; Choo, Woo, & Kim 1981: 200; Mathur & Singh 1960b: 84; Nobuchi 1978a: 10, 1980a; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 9, 1987a: 89; Schedl

- 1936d: 3, 1959a: 491, 1966g: 31, 1969a: 204, 1971a: 276, 1971f: 146. (tx) Anderson, W. H. & Anderson 1971: 14; Browne 1955: 350, 1960: 202; Eggers 1923a: 206–207, 1940d: 147; Nobuchi 1978a: pl. 1; Nunberg 1959a: 426, 1983: 301; Schedl 1936d: 3, 1953c: 290, 1958k: 145, 1959a: 491, 1969a: 211, 1979c: 111.
- guttifer (Schedl)** 1955b: 297 (*Xyleboricus*). Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 280, 297, 1958k: 145, 1979c: 114.
- hirsutulus Schedl** 1969a: 212. Holotype ♀; Philippine Islands, Linek to Tokyo (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: pl. 1.
Distribution: Philippine Islands.
Hosts: Lauan log.
References: (ds) Nobuchi 1978a: 10, 1980a; Ohno, Yoneyama, & Nakazawa 1987a: 89, 1987b: 95. (tx) Nobuchi 1978a: pl. 1, 1983: 302; Schedl 1969a: 212, 1979c: 117.
- hirtipennis (Eggers)** 1940d: 146 (*Xyleborus*). Holotype ♀; Java (Batoerraden); F. C. Drescher Collection.
Distribution: Indonesia (Borneo, Java).
Notes: (1) Browne 1955: 350 (to *Arixyleborus*).
References: (ds) Schedl 1965g: 24. (tx) Browne 1955: 350; Eggers 1940d: 146, Schedl 1951i: 44, 1958k: 145, 1965g: 24, 1979c: 118.
- imitator (Eggers)** 1927c: 105 (*Webbia*). Holotype ♀; Philippinen: Masbate, Aroroy; USNM, Washington.
Figures: Nobuchi 1978a: pl. 1.
Distribution: Philippine Islands.
Notes: (1) Schedl 1936h: 64 (to *Arixyleborus*).
References: (ds) Nobuchi 1978a: 8; Ohno, Yoneyama, & Nakazawa 1987a: 89, 1987b: 95; Schedl 1938g: 426, 1966b: 43, 1966g: 31. (tx) Anderson, W. H. & Anderson 1971: 15; Eggers 1927c: 105, 1936d: 634; Nobuchi 1978a: pl. 1, 1983: 302; Schedl 1936h: 62, 64, 1938g: 426, 1958k: 145, 1966g: 38, 1979c: 121.
- granistriatus** Eggers 1940d: 147 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 170.
References: (tx) Browne 1955: 350; Eggers 1940d: 147; Schedl 1958k: 145, 1979c: 110; Wood, S. L. 1989: 170.
- iriani Browne** 1983a: 560. Holotype ♀; Misool Island (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: Amugis log.
References: (ds) Browne 1986b: 333; Ohno, Yoneyama, & Nakazawa 1987b: 95. (tx) Browne 1983a: 560.
- leprosulus Schedl** 1953c: 300. Lectotype ♀; Selangor Kepong, Malaya; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 138. Figures: Nunberg 1961b: 629.
Distribution: Asia (Malaya).
Hosts: *Aralidium pinnatifolium*, *Castanopsis megacarpa*, *C. sumatrana*, *Dryobalanops oblongifolia*, *Shorea leprosula*.
References: (hb) Browne 1936a, 1961c: 182. (ds) Browne 1936a, 1961c: 182. (tx) Nunberg 1961b: 619; Schedl 1953c: 300, 1958k: 145, 1962n: 699, 1979c: 138.
aralidii Nunberg 1961b: 618. Holotype ♀; Malay Peninsula, Kelantan; BMNH, London. Synonymy: Schedl 1962n: 699, Wood 1989: 170.
References: (tx) Nunberg 1961b: 618, 629; Schedl 1962n: 699; Wood, S. L. 1989: 170.
- magnus Browne** 1985a: 192. Holotype ♀; Barton (Palawan, Philippines) to Nagoya (Japan), imported; BMNH, London.
Distribution: Philippine Islands (Palawan).
References: (ds) Ohno, Yoneyama, & Nakazawa 1987a: 89. (tx) Browne 1985a: 192.
- malayensis (Schedl)** 1954a: 150 (*Xyleboricus*). Lectotype ♂; Java, Batoerraden, Mount Slamet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 147.
Distribution: Asia (India/ Malaya/ Sri Lanka/ Vietnam), Indonesia (Java, Sumatra).
Hosts: *Albizia lebbek*, *Canarium commune*, *Dryobalanops oblongifolia*, *Eugenia* spp., *Myristica fragrans*, *Svietenia mahagoni*, *Vatica lanceaeifolia*.
Notes: (1) Schedl 1952k: 161 (to *Arixyleborus*). (3) Schedl 1936h: 64, 1979c: 149 (*marginatus* Eggers 1938, nomen nudum, no status).
References: (hb) Beaver & Browne 1978: 582; Kalshoven 1959c: 168. (ds) Beaver & Browne 1978: 582; Browne 1961c: 182; Kalshoven 1959c: 168; Schedl 1959a: 491, 1969a: 52, 1974c: 262. (tx) Schedl 1936h: 64, 1951i: 41, 1952k: 161, 1953c: 290, 300, 1954a: 144, 150, 1958k: 144–147, 1959a: 491, 1979c: 146.
- mediosectus (Eggers)** 1923a: 215 (*Xyleboricus*). Holotype ♀; Sinabang, Insel Simalur (sudlich Sumatra); RNH, Leiden.
Figures: Nobuchi 1978a: pl. 1.
Distribution: Asia (Burma/ Cambodia/ Andaman Islands, Assam in India/ Malaya/ Sri Lanka/ Vietnam), Indonesia (Sumatra).
Hosts: *Balanocarpus heimii*, *Canarium euphyllum*, *Dipterocarpus pilosus*, *D. turbinatus*, *D. zeylanicus*.
References: (ds) Beaver & Browne 1978: 582; Beeson 1961: 301; Browne 1961c: 182, 1968a: 132–133, 1980c: 483, 1980d: 490; Nobuchi 1978a: 8; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1959a: 492, 1959c: 167, 1969a: 205. (tx) Eggers 1923a: 215, 1925: 154, 1936a: 91, 1940d: 134; Nobuchi 1978a: pl. 1; Ohno, Yone-

- yama, & Nakazawa 1982b: 9; Schedl 1936h: 62, 64, 1942a: 183, 1958k: 145, 1959a: 492, 1959c: 167. *angulatus* Schedl 1942a: 183 (*Xyleboricus*).
Lectotype ♀; Malaya, Selangor, Buloh Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 20. Synonymy: Wood 1989: 170.
References: (ds) Browne 1961c: 182. (tx) Schedl 1942a: 183, 1958k: 145, 1979c: 20; Wood, S. L. 1989: 170.
- medius** (Eggers) 1927c: 104 (*Webbia*). Lectotype ♀; Philippinen: Mindanao, Provinz Lanao, Kolombugan; USNM, Washington, designated by Anderson & Anderson 1971: 20.
Distribution: Asia (Andaman Islands in India/Malaya/ Sri Lanka/ Vietnam), Indonesia (Borneo, Java, Sumatra), Philippine Islands (Mindoro, Negros).
Hosts: *Canarium euphyllum*, *Diospyros* sp., *Dipterocarpus* spp., *Doonia zeylanica*, *Hopea odorata*, *Shorea* spp., *Stereulia* spp., *Terminalia bralata*.
Notes: (1) Schedl 1936h: 64 (to *Xyleboricus*, =*Arixyleborus*). Specimens reported from mainland SE Asia as *rugosipes* are actually this species (SLW).
References: (cn) Browne 1949e; Mathur & Singh 1960b: 57, 1961a: 36; Yunus & Hua 1980: 230. (ds) Beeson 1961: 301; Kalshoven 1959: 168; Mathur & Singh 1960b: 57, 1961a: 36; Schedl 1936d: 2, 1936j: 19; Yunus & Hua 1980: 230. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1927c: 104–105; Schedl 1936g: 2, 1936h: 62, 64, 1939e: 333, 1942a: 170, 1942d: 26, 1950f: 43, 1950g: 895, 1952k: 162, 1958i: 215, 1958k: 145, 1959a: 492, 1979c: 151.
- minor** (Eggers) 1940d: 134 (*Xyleboricus*). Holotype ♀; Java (Kediri); Kalshoven Collection [ZMA, Amsterdam or Buitenzorg?], allotype (cotype) Eggers Collection, in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Java).
Hosts: *Castanea tumggurut*, *Dalbergia* sp., *Dryobalanops oblongifolia*, *Palaquium maingayi*, *Shorea balanocarpoides*, *S. leprosula*.
Notes: (3) Schedl 1942d: 26 (described male).
References: (hb) Browne 1961c: 183; Kalshoven 1959c: 169. (ds) Browne 1961c: 183, 1983a: 555; Kalshoven 1959c: 169. (tx) Eggers 1940d: 134; Schedl 1936h: 62, 64, 1942d: 26, 1953c: 290, 1958k: 145, 1979c: 155.
- moestus** (Eggers) 1930d: 189 (*Xyleborus*). Holotype ♀; Assam: Shilong (6,000'); FRI, Dehra Dun.
Distribution: Asia (Assam, Bengal in India).
Hosts: *Quercus lamellosa*.
References: (ds) Beeson 1930: 249. (tx) Beeson 1930: 73, 249; Browne 1955: 350; Eggers 1930d: 189–190; Schedl 1958k: 145, 1979c: 157.
- morio** (Eggers) 1923a: 207 (*Xyleborus*). Lectotype ♀; Neu Guinea: Kaiserin Augustafluss; USNM, Washington, designated by Anderson & Anderson 1971: 21.
Distribution: New Guinea.
Notes: (1) Browne 1955: 350 (to *Arixyleborus*).
References: (bv) Gray, B. 1974c. (hb) Browne 1958c: 350; Gray, B. 1974c. (ds) Schedl 1969e: 156. (tx) Anderson, W. H. & Anderson 1971: 21; Browne 1955: 350; Eggers 1923a: 207, 1930d: 189; Schedl 1940b: 434–435, 1951i: 51, 1958k: 145.
- okadai** Browne 1985b: 293. Holotype ♀; Taliabu Island (Moluccas) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Moluccas Islands).
Hosts: *Shorea* sp.
References: (ds) Ohno, Yoneyama, & Nakazawa 1987b: 95. (tx) Browne 1985b: 293.
- orbiculatus** (Eggers) 1923a: 213 (*Xyleboricus*). Syntypes 2 ♀; Sinabang, Insel Simalur (sudlich Sumatra); 1 in RNH, Leiden, 1 in MCG, Genova.
Distribution: Indonesia (Simalur Island near Sumatra).
References: (tx) Browne 1963c: 57; Eggers 1923a: 213–214; Schedl 1936h: 64, 1958k: 145.
- pilosus** (Eggers) 1923a: 207 (*Xyleborus*). Holotype ♀; Sumatra; MCG, Genova.
Distribution: Indonesia (Sumatra).
References: (tx) Browne 1955: 350; Eggers 1923a: 207, 1940d: 146; Schedl 1958k: 145.
- puberulus** (Blandford) 1896b: 215 (*Xyleborus*). Holotype ♀; Sarawak, Borneo; BMNH, London.
Distribution: Indonesia (Borneo).
Notes: (1) Browne 1955: 351 (to *Arixyleborus*).
References: (ds) Browne 1981b: 598; Hagedorn 1910d: 109; Kleine 1913b: 162. (tx) Blandford 1896b: 215; Browne 1955: 351; Hagedorn 1910a: 156; Schedl 1958k: 145.
- pusillus** (Eggers) 1927c: 108 (*Webbia*). Lectotype ♀; Philippinen: Luzon, Provinz Mountain, Balaban; USNM, Washington, designated by Anderson & Anderson 1971: 27.
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 44. (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1927c: 108; Nobuchi 1983: 302; Schedl 1936h: 62, 64, 1958k: 145.
- rugosipes** Hopkins 1915b: 59. Holotype ♀; Pagbilao, Philippine Islands; USNM, Washington.
Distribution: Philippine Islands.
Hosts: *Dipterocarpus grandiflorus*.
References: (cn) Ishikura 1966. (cc) Browne 1958b. (hb) Beaver & Browne 1978: 582; Browne 1958b: 350, 1961c: 181. (ds) Bain 1974: 16; Beaver & Browne 1978: 582; Browne 1961c: 181, 1962c: 202, 1968a: 133; Choo, Woo, & Kim 1981: 201; Ishikura 1966; Kleine 1934a: 178; Nobuchi 1978a: 9, 1980; Ohno, Yoneyama, & Nakazawa

- 1987a: 89, 1987b: 95; Schedl 1959a: 492, 1959c: 167, 1966b: 44, 1966g: 31, 1971a: 276, 1971c: 364, 1972a: 144. (tx) Browne 1955: 351, 1962c: 202, 207, 1968a: 132; Hopkins 1915b: 59; Kalshoven 1959c: 168; Nobuchi 1978apl.1, 1983: 301; Ohno, Yoneyama, & Nakazawa 1982b: 9; Schedl 1952k: 161–162, 1958k: 145, 1959a: 492, 1959c: 167, 1965g: 22, 1966g: 38; Wylie & Shanahan 1977.
- scabripennis (Blandford)** 1896b: 216 (*Xyleborus*). Holotype ♀; Sarawak, Borneo; BMNH, London. Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Borneo, Java, Sumatra). Hosts: *Eugenia* sp., *Eupatorium pallescens*, *Ficus* sp., *Hopea ferrea*, *Melanorrhoea* sp., *Palaquium gutta*, *Rhodamnia trinervis*, *Shorea* spp. References: (cn) Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 583; Browne 1961c: 180; Kalshoven 1959a: 169. (ds) Beaver & Browne 1978: 583; Browne 1961c: 180, 1965a: 178, 1980b: 381; Hagedorn 1910d: 110; Kalshoven 1959c: 169; Kleine 1913b: 162, 1914b: 289; Ohno, Yoneyama, & Nakazawa 1987b: 95; Sampson 1919: 111; Schedl 1936d: 4, 1936j: 20, 1959a: 492. (tx) Blandford 1986b: 216; Browne 1955: 351; Eggers 1923a: 205–207, 1930d: 189; Hagedorn 1910a: 156; Sampson 1919: 111; Schedl 1936d: 4, 1936j: 20, 1942a: 171, 1942d: 6, 1951i: 44, 77, 1954a: 142, 1958k: 145, 1959a: 492, 1979c: 221.
- semitens (Blandford)** 1895a: 322 (*Xyleborus*). Syntypes 2 ♀; Ceylon; 1 in BMNH, London. Distribution: Asia (Sri Lanka). Hosts: *Calophyllum lankeri*. References: (ds) Beeson 1961: 309; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 274; Schedl 1959a: 511. (tx) Blandford 1895a: 322; Hagedorn 1910a: 156; Schedl 1959a: 511.
- sublaevis (Eggers)** 1927c: 104 (*Webbia*). Holotype ♀; Philippines: Mindanao, Provinz Surigao, Surigao; USNM, Washington. Distribution: Philippine Islands (Mindanao). Notes: (1) Schedl 1936h: 64 (to *Xyleboricus*, = *Arixyleborus*). References: (ds) Schedl 1966b: 44. (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1927c: 104; Nobuchi 1983: 302; Schedl 1936h: 62, 64, 1958k: 145.
- sus (Schedl)** 1973e: 93 (*Xyleborus*). Holotype ♀; Sudost Neu Guinea, Moroka, Loria; Schedl Collection in NHMW, Wien. Distribution: New Guinea. Hosts: *Castanopsis accuminatissima*. References: (tx) Schedl 1973e: 93, 1979c: 247.
- varicus** Schedl 1975f: 360. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1979g: 96. References: (tx) Schedl 1975f: 360, 1979c: 264, 1979g: 96.
- suturalis (Eggers)** 1936c: 91 (*Xyleboricus*). Holotype ♀; Java (Kediri); Buitenzorg Collection, Java. Distribution: Asia (Malaya), Indonesia (Borneo, Java). Hosts: *Adenanthera pavonina*, *Castanopsis sumatrana*, *Dipterocarpus baudii*, *Dryobalanops oblongifolia*, *Elacocarpus petiolatus*, *Eugenia* sp., *Fragraea fragrans*, *Grewia* sp., *Nephelium* sp., *Palaquium maingayi*, *Shorea balanocarpoides*, *S. leprosula*, *S. macroptera*, *Sicetenia macrophylla*. References: (cc) Browne 1958b. (hb) Browne 1958b, 1961c: 182; Kalshoven 1959c: 169. (ds) Beaver & Browne 1978: 583; Browne 1961c: 182, 1962c: 202, 1980d: 492; Eggers 1936c: 91; Kalshoven 1959c: 169; Schedl 1971c: 364. (tx) Browne 1962c: 207, 1963c: 57, 1972b: 27, fig.3; Eggers 1936c: 91; Schedl 1942d: 5, 1953c: 290, 1979c: 248.
- talauricus (Eggers)** 1923a: 214 (*Xyleboricus*). Lectotype ♀; Talaar Inseln (zwischen Philippinen und Celebes); USNM, Washington, designated by Anderson & Anderson 1971: 33. Distribution: Talaud Island S of Philippine Islands. Notes: (1) Eggers 1927b: 391 (name originally spelled *talauticus*, lapsus calami, corrected; type locality in original publication given as Talaut, but corrected by Eggers in Beeson reprint to Talaar). References: (hb) Browne 1961c: 187–188. (ds) Schedl 1936d: 5. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1923a: 214, 1927b: 391; Schedl 1936d: 5, 1936h: 62–63, 1942a: 170, 1952k: 162, 1960i: 112, 1979c: 249.
- trux** Schedl 1975f: 359. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien. Notes: (3) This appears to be a synonym of *minor*, types compared (DEB). Distribution: New Guinea. References: (tx) Schedl 1975f: 359, 1979c: 257.
- tuberculatus (Eggers)** 1940d: 133 (*Xyleboricus*). Holotype ♀; Java (Kediri); Kalshoven Collection [ZMA, Amsterdam or Buitenzorg?; 2 cotypes in Eggers Collection, in NHMW, Wien]. Distribution: Indonesia (Java, Sumatra). Hosts: *Cinchona* sp., *Dalbergia* sp., *Parkia speciosa*. References: (hb) Kalshoven 1959c: 169. (ds) Kalshoven 1959c: 169. (tx) Eggers 1940d: 133–134; Schedl 1936h: 64, 1958k: 145.
- yakushimanus (Murayama)** 1955: 83 (*Xyleborus*). Holotype ♀; Japan: Miyanouura, Yakushima, Kagoshima pref., 0–50 m; Murayama Collection in USNM, Washington. Figures: Yin & Huang 1981b: 569, Yin, Huang, & Li 1984: 161. Distribution: Asia (Fujian, Sichuan, Xizang [Tibet] in China/ Japan). Notes: (1) Nobuchi 1985c: 28 (to *Arixyleborus*). References: (ds) Murayama 1955: 83; Nobuchi

1985c: 28; Yin & Huang 1981: 569. (tx) Murayama 1955: 83; Yin & Huang 1981b: 569; Yin, Huang, & Li 1984: 161.

Genus *Ambrosioidmus* Hopkins

AMBROSIODMUS HOPKINS 1915b: 55. Type-species: *Xyleborus tachygraphus* Zimmermann, original designation.

Phloeotrogus Motschulsky 1863: 512. Type-species: *Phloeotrogus obliquecaudata* Motschulsky, subsequent designation by Hopkins 1914: 127, name rejected by Plenary Powers in ICZN 1979: 151. Synonymy: Wood 1966: 83.

References: (hb) Wood, S. L. 1986a: 83. (ds) Wood, S. L. 1986a: 83. (tx) Arnett 1960: 1044; Motschulsky 1863: 512; Wood, S. L. 1986a: 83.

Brownia Nunberg 1963b: 37. Type-species: *Xyleborus illepidus* Schedl = *Pityophthorus obliquus* LeConte, original designation. Synonymy: Wood 1980c: 96.

References: (tx) Nunberg 1963b: 36–37; Wood, S. L. 1980c: 96.

Notes: (1) International Commission on Zoological Nomenclature [ICZN] 1979: 151 (the name *Phloeotrogus* rejected).

References: (tx) Beal & Massey 1945: 61, 147; Bright 1968b: 1288, 1296; Chamberlin 1939: 439–441; Hopkins 1915b: 10, 55–56; Wood, S. L. 1986a: 83.

addendus (Schedl) 1964e: 70 (*Xyleborus*). Holotype ♀; Cote d'Ivoire, Forêt du Banco; MNHN, Paris.

Figures: Nunberg 1963b: pl. 1.

Distribution: Africa (Ivory Coast).

References: (tx) Schedl 1964e: 70, 1979c: 11.

adustus (Eggers) 1932d: 295 (*Xyleborus*). Holotype ♀; Congostaat (Haut-Uele, Abimva); MRCB, Ter-vuren.

Distribution: Africa (Zaire).

References: (tx) Eggers 1932d: 295–296; Nunberg 1963b: 8, pl. 1; Schedl 1962j: 171.

aegir (Eggers) 1922b: 171 (*Xyleborus*). Syntypes ♀; Deutsch-Ostafrika; Hamburg Museum, lost, MNB, Berlin, and Eggers Collection (USNM, Washington or NHMW, Wien?).

Figures: Nunberg 1963b: pl. 2, Schedl 1962j: 171.

Distribution: Africa (Burundi/ Cameroon/ Kenya/ Equatorial Guinea/ Liberia/ Nigeria/ Ruanda/ Tanzania/ Uganda/ Zaire), Madagascar.

Hosts: *Acacia* sp., *Beilschmiedia louisii*, *Cassia laevigata*, *Cinchona ledgeriana*, *Coffea* sp., *Entandrophragma* sp., *Eucalyptus* spp., *Grevillea* spp., *Hagenia* sp., *Irvingia grandifolia*, *Lippia* sp., *Pachystela* sp., *Persea americana*, *Veronia lasiopus*.

References: (cn) Ritchie 1935: 95–103. (hb) Schedl 1962j: 171. (ds) Browne 1973a: 281; Gardner 1957a: 32; Mayne & Donis 1962: 315; Roberts 1969: 129; Schedl 1938d: 451, 1962j: 171–172,

1965g: 20, 1965h: 112, 1967e: 215, 1969d: 6, 1970h: 180, 1971e: 4, 1977a: 130, 1982: 279; Wichmann 1954: 522. (tx) Eggers 1922b: 171, 1923a: 130, 181, 1932d: 297, 1935c: 309; Nunberg 1963b: 9–10, pl. 2; Powell, W. 1980: 29; Schedl 1937b: 402, 1945c: 665, 1950d: 8, 1952i: 16–17, 1952j: 2, 1953d: 69, 1955f: 260 1957d: 84, 1957e: 881, 1962j: 171–172, 1969i: 137, 1977b: 130, 1979c: 13.

holtzi Eggers 1922: 171 (*Xyleborus*). Holotype ♀; Aruscha (Deutsch-Ostafrika); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1962j: 172.

References: (tx) Eggers 1922b: 171; Schedl 1950d: 8, 1952i: 16, 1962j: 172, 1979c: 119.

scabridus Schedl 1952i: 16 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Mulungu; MRCB, Ter-vuren. Synonymy: Schedl 1962j: 172.

References: (ds) Mayne & Donis 1962: 322; Schedl 1952i: 16, 1955f: 260, 1962j: 172, 1971g: 193. (tx) Schedl 1952i: 16, 1979c: 220.

albizzianus (Schedl) 1950d: 30 (*Xyleborus*). Lectotype ♀; Congo Belge: Mulungu, Kivu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 16.

Distribution: Africa (Chana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Uganda/ Zaire).

Hosts: *Acacia* sp., *Acalypha* sp., *Acridocarpus* sp., *Albizia gummifera*, *Baikiaea* sp., *Bosqueia* sp., *Celtis* sp., *Eucalyptus* sp., *Euphorbia teke*, *Hevea* sp., *Lasiodiscus* sp., *Teclea nobilis*.

References: (cn) Mayne & Donis 1951: 334; Thompson, G. H. 1960. (ec) Mayne & Donis 1951: 334. (hb) Loytyniemi, Beaver, & Loytyniemi 1984; Roberts 1969: 130. (ds) Beaver & Loytyniemi 1985a: 68; Browne 1973a: 281, 1980c: 486; Gardner 1957a: 32; Mayne & Donis 1962: 315; Schedl 1962j: 174; Thompson, G. H. 1960, 1963: 70. (tx) Beaver & Loytyniemi 1985a: 68; Schedl 1950d: 30, 1954e: 51, 1955i: 212, 1962j: 174, 1979c: 16.

alsapanicus (Schedl) 1951i: 59 (*Xyleborus*). Syntypes ♀; Philippinen, Luzon, Vixcaya, Mt. Alsapan; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands.

Notes: (1) Schedl 1979c: 16 (citation of holotype invalid).

References: (ds) Schedl 1966b: 46. (tx) Nobuchi 1983: 302; Schedl 1951i: 59, 1979c: 16.

anepotulus (Eggers) 1940d: 138 (*Xyleborus*). Holotype ♀; Java, Preanger (Tangkoeban Prahoe); Drescher Collection, cotype in Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: (hb) Kalshoven 1959c: 137. (ds) Kalshoven 1959c: 137. (tx) Eggers 1939c: 119, 1940d: 138; Schedl 1951i: 43, 1952c: 65, 1954a: 138, 1979c: 20.

apicalis (Blandford) 1894d: 105 (*Xyleborus*). Holotype ♀; Japan [without locality]; BMNH, London.

Figures: Nobuchi 1966d: pl. 4, Yin, Huang, & Li 1984: 71.

Distribution: Asia (Bhutan/ Burma/ Anhui, Guangxi, Sichuan, Xizang [Tibet] in China/ Bengal in India/ Japan/ Korea).

Hosts: *Alnus hirsuta*, *A. japonica*, *A. siberica*, *Castanea crenata*, *Castanopsis* sp., *Ilex* sp., *Juglans* sp., *Machilus* sp., *Malus pumila*, *Pinus* sp., *Populus* sp., *Prunus* sp., *Quercus lamellosa*, *Schima* sp., *Symplocos* sp., *Ulmus* spp. *Vitis vinifera*.

References: (cn) Anonymous 1980g; Shiraki 1952; Yuasa 1935: 204. (ds) Anonymous 1980g; Cho 1955; Choo 1983: 103; Choo & Woo 1985: 166; Hagedorn 1910d: 99; Hill, D. S. 1967: 341; Kleine 1913b: 160, 1914b: 261, 277, 1934a: 172; Ko 1969: 283; Krivolutskaya & Kupyanskaya 1970; Murayama 1929b: 2, 1930b: 19, 1936a: 130, 1937b: 374, 1955: 104; Nobuchi 1966d: 26; Shiraki 1952; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 171; Yuasa 1935: 204. (tx) Blandford 1894d: 105; Choo 1983: 103; Eggers 1923a: 179; Hagedorn 1910a: 152; Murayama 1930b: 19–31, 1934c: 299, 1936a: 130, 1937b: 374, 1955: 104; Niisima 1909: 155, 1913a: 4; Nobuchi 1966d: 26, pl. 4, 1985c: 23; Nunberg 1959a: 414; Schedl 1934f: 1645; Yin & Huang 1981: 568–569. (ms) Mastumura 1931. *cristatus* Hagedorn 1908: 377 (*Xyleborus*). Syntypes 3 ♀; Kurseong et Barway (Himalaya); IRSNB, Brussels, preoccupied by Fabricius 1801.

References: (cn) Mathur & Singh 1961a: 84; Roonwal 1954: 59. (ds) Beeson 1930: 55, 231, 1961: 303; Hagedorn 1910d: 101; Kleine 1913b: 160, 1934a: 173; Mathur & Singh 1961a: 84; Roonwal 1954: 59. (tx) Beeson 1930; Eggers 1923a: 179, 1930d: 180, 1939b: 12; Hagedorn 1908: 377, 1910a: 153; Schedl 1953c: 300, 1964: 217.

fabricii Schedl 1964k: 217 (*Xyleborus*). Syntypes 3 ♀; Kurseong et Barway (Himalaya); IRSNB, Brussels, automatic. Synonymy: Wood 1989: 169.

References: (ds) Schedl 1964k: 217, 1965g: 22, 1975c: 383; Wood, S.L. 1989: 169.

artegranulatus (Schedl) 1937b: 400 (*Xyleborus*). Lectotype ♀; Madagascar (Sikora); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27.

Distribution: Madagascar.

Hosts: *Leptolaena multiflora*, *Palisandre rouge*, *Trema orientalis*.

References: (ds) Schedl 1977b: 132. (tx) Schedl 1937b: 400–401, 1955d: 272, 1977b: 132, 1979c: 27.

asperatus (Blandford) 1895a: 321 (*Xyleborus*). Holotype ♀; Ceylon, Dikoya; BMNH, London.

Figures: Nunberg 1978: 108.

Distribution: Asia (Guizhou, Xizang [Tibet] in

China/ Bengal, Tamil Nadu in India/ Malaya/ Sri Lanka), Indonesia (Java, Sumatra).

Hosts: *Citrus aurantium*, *Elaeocarpus petiolatus*, *Litsea zeylonica*, *Symplocos loha*.

References: (cn) Green 1912a: 35; Roonwal 1954: 19. (hb) Browne 1961c: 126–127; Kalshoven 1959c: 137; Speyer 1923: 19. (ds) Beeson 1929: 236, 1930: 39, 51, 215; Green 1912a: 35; Hagedorn 1910d: 99; Kalshoven 1959c: 138; Kleine 1913b: 160, 1914b: 274, 1934a: 172; Roonwal 1954: 19; Schedl 1959a: 493. (tx) Blandford 1895a: 321; Green 1912a: 38; Hagedorn 1910a: 152; Nunberg 1978: 107–108; Sampson 1911: 382–383; Schedl 1958k: 151, 1959a: 493.

nepotulus Eggers 1923: 179 (*Xyleborus*). Holotype ♀; Brastagi an der Ostküste Sumatras; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1958k: 151.

References: (tx) Eggers 1923a: 179–180, 1930d: 178, 1936e: 86–88, 1939c: 119, 1940d: 138, 1941b: 222–223; Schedl 1939f: 47, 1952c: 65, 1958k: 151, 1979c: 165.

citri Beeson 1930: 215 (*Xyleborus*). Syntypes ♀; Tista Valley, Darjeeling, Bengal, India; FRI, Dehra Dun. Synonymy: Wood 1989: 169.

References: (ds) Beeson 1930: 215. (tx) Beeson 1930: 215; Schedl 1959a: 494, 1979c: 58.

nepotulomorphus Eggers 1936e: 88 (*Xyleborus*). Holotype ♀; Java (G. Slamet); ZMA, Amsterdam. Synonymy: Schedl 1958k: 151.

References: (cn) Yunus & Hua 1980: 230. (ds) Yunus & Hua 1980: 230. (tx) Eggers 1936e: 88–89, 1939c: 119, 1940d: 138; Kalshoven 1959: 137; Nunberg 1959a: 432; Schedl 1942d: 4–5, 1950g: 895, 1951i: 42, 1954a: 142, 1958k: 151–152, 1959a: 111, 1979c: 165.

cristatuloides Schedl 1971a: 284 (*Xyleborus*). Holotype ♀; Sabaragamuwa Prov., Sri Lanka, 2500 ft., 5 miles NNW Belangoda; University of Lund Collection. Synonymy: Wood 1989: 169. References: (tx) Schedl 1971a: 284, 1979c: 69; Wood, S. L. 1989: 169.

bispinosulus (Schedl) 1961c: 73 (*Xyleborus*). Holotype ♀; Java: G. Slamet; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Java).

References: (tx) Schedl 1961c: 73, 1979c: 41.

bostrichoides (Schedl) 1956a: 33 (*Xyleborus*). Holotype ♀; Angola: Malange; CAS, San Francisco. Distribution: Africa (Angola/ Ghana).

Hosts: *Albizia gummifera*, *Cassia siamea*.

References: (ds) Ferreira 1965: 1120; Schedl 1962j: 175. (tx) Schedl 1956a: 33, 1962j: 175, 1979c: 44.

brunneipes (Eggers) 1940d: 138 (*Xyleborus*). Holotype ♀; Java: Batoerraden (G. Slamet); Drescher Collection, cotypes in Eggers Collection, in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Java).

Hosts: *Calamus* sp., *Daemonorops* sp.

- References: **(hb)** Beaver & Browne 1978: 605; Kalshoven 1959c: 158. **(ds)** Beaver & Browne 1978: 605; Browne 1955a: 190; Kalshoven 1935a: 14, 1959c: 138. **(tx)** Eggers 1940d: 138–139; Schedl 1942d: 6, 1958k: 148, 1979c: 48.
- camphorae (Hagedorn)** 1908: 378 (*Xyleborus*). Syntypes ♀; Mauritius; Hamburg Museum, lost, H. E. Andrews Collection, 1 in Schedl Collection in NHMW, Wien.
Distribution: Africa (Chana/ Kenya/ Mauritania/ Mauritius Island), Madagascar.
Hosts: *Acacia* sp., *Alchornea* cf. *coriacea*, *Celtis zenkeri*, *Cinchona succerubra*, *Garcinia verucosa*, *Laurus comphora*, *Pinus insularis*.
References: **(cn)** Anonymous 1953j: 25; Kleine 1932a: 305. **(ec)** Anonymous 1953j: 25. **(hb)** Kleine 1928: 307, 1932a: 305–307; Schedl 1977b: 132. **(ds)** Gardner 1957a: 32; Hagedorn 1910d: 99; Jones, Roberts, & Baker 1959: 13–14; Kleine 1913b: 160, 1932a: 305, 1934a: 172; Schedl 1962j: 176, 1969d: 11, 1970d: 233, 1977b: 132; Webb & Jones 1957: 25–26, 39, 43; Wichmann 1954: 518. **(tx)** Eggers 1923a: 181, 1931a: 20; Hagedorn 1908: 378, 1910a: 152, 1913b: 16–17; Schedl 1941d: 380, 1951j: 23, 1955i: 212, 1962j: 176, 1969d: 11, 1977b: 132; Wylie & Yule 1977.
- catharinensis (Eggers)** 1928c: 98 (*Xyleborus*). Syntypes 5 ♀; Brasil (Joinville, Sta. Catharina); SMTD, Dresden, and Eggers Collection, 1 Eggers syntype in NHMW, Wien.
Figures: Pedrosa-Macedo & Schonherr 1985: 28.
Distribution: South America (Brazil).
Hosts: *Cedrela fissilis*, *Pinus elliottii*.
References: **(ds)** Blackwelder 1947; Pedrosa-Macedo & Schonherr 1985: 28; Schedl 1976a: 53; Schonherr & Pedrosa-Macedo 1981: 55. **(tx)** Eggers 1928c: 98, 1931a: 19; Pedrosa-Macedo & Schonherr 1985: 28; Schedl 1979c: 54.
- coffeiceus (Schedl)** 1951b: 376 (*Xyleborus*). Holotype ♀; Surinam, Pl. Jagtlust; Schedl Collection in NHMW, Wien.
Figures: Schedl 1951b: 377.
Distribution: South America (Suriname).
References: **(cn)** Dinther 1961; Kalshoven 1963: 235. **(tx)** Schedl 1951b: 376–377, 1979c: 59.
- colossus (Blandford)** 1896b: 207 (*Xyleborus*). Holotype ♀; New Guinea, Humboldt; BMNH, London.
Distribution: New Guinea.
References: **(ds)** Hagedorn 1910d: 100; Kleine 1914b: 296. **(tx)** Blandford 1896b: 207; Hagedorn 1910a: 152; Schedl 1942c: 182, 1942d: 28, 1979c: 60.
- scentivanji** Schedl 1968e: 267 (*Xyleborus*). Holotype ♀; Papuan Highlands Livestock and Rubber Experiment Station, Bisiamutu, Central District, 480 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 169.
References: **(tx)** Schedl 1968e: 267, 1979c: 248; Wood, S. L. 1989: 169.
- compressus (Lea)** 1893: 321 (*Xylopertha*). Syntypes ♀; Tamworth and Sidney; not located.
Figures: Bain 1976: 183.
Distribution: Australia (New South Wales, Queensland).
Hosts: *Araucaria* spp., *Argyrodendron* sp., *Castanospermum* sp., *Endiadra palmerstonii*, *Eucalyptus* spp., *Flindersia* sp.
References: **(cn)** Froggatt 1926a, 1927; Kershaw 1973; Moore 1959: 188. **(hb)** Froggatt 1926a, 1927. **(ds)** Bain 1973b, 1976; Brimblecombe 1953: 28; Martyn et al. 1975: 26; Moore 1959: 188, 1961: 92; Schedl 1936g: 532, 1959d: 67, 1965g: 25, 1979a: 158. **(tx)** Bain 1976: 183; Lea 1893: 321, 1904: 106, 1910: 138; Nunberg 1959a: 420; Schedl 1936g: 532–533, 1942c: 163, 1955b: 278, 1959d: 67, 1965g: 25.
- consimilis (Eggers)** 1923a: 180 (*Xyleborus*). Holotype ♀; Sarawak auf Borneo; MCG, Genova.
Distribution: Asia (Tamil Nadu in India), Indonesia (Borneo).
References: **(ds)** Schedl 1975a. **(tx)** Eggers 1923a: 179–180, 1939c: 119.
- conspicuous (Schedl)** 1964g: 247 (*Xyleborus*). Holotype ♀; Sarawak; Semengoh; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: Rattan.
References: **(ds)** Beaver & Browne 1978: 606. **(tx)** Schedl 1964g: 247, 1979c: 64.
- crustatus (Schedl)** 1953c: 300 (*Xyleborus*). Lectotype ♀; Malaya, Selangor Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 69.
Distribution: Asia (Fujian in China/ Malaya).
References: **(hb)** Browne 1961c: 150. **(ds)** Browne 1961c: 150; Schedl 1959a: 501. **(tx)** Browne 1962c: 204; Schedl 1953c: 300, 1959a: 501, 1979c: 69.
- declivispinatus (Schedl)** 1969b: 216 (*Xyleborus*). Holotype ♀; New Guinea, Karamui, Chimbu District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: Derebe log, *Ficus* sp.
References: **(tx)** Schedl 1969b: 216–217, 1979c: 76.
- tectus** Schedl 1972h: 63 (*Xyleborus*). Holotype ♀; Pinaga, S. II. Dist., New Guinea; CSIRO, Canberra. Synonymy: Wood 1989: 169.
References: **(tx)** Schedl 1972h: 63, 1979c: 250; Wood, S. L. 1989: 169.
- desectus (Eggers)** 1923a: 167 (*Xyleborus*). Lectotype ♀; Los Banos (Luzon); USNM, Washington, designated by Anderson & Anderson 1971: 11.
Distribution: Asia (Malaya/ Vietnam), Indonesia (Java), Philippine Islands.
Notes: (3) Eggers 1923a: 168 (*vaspatorius* Hagedorn, nomen nudum, synonymy).
References: **(cn)** Yunus & Hia 1980: 230. **(hb)** Browne 1961c: 107; Kalshoven 1959c: 159. **(ds)** Kalshoven 1959c: 159; Schedl 1962b: 186, 1966b: 50. **(tx)** Anderson, W. H. & Anderson 1971: 11;

Eggers 1923a: 167–168; Nobuchi 1983: 302; Nunberg 1959a: 423; Schedl 1933d: 201, 1939e: 350, 1942a: 188.

desectus arduus Schedl (*Xyleborus*) 1942a: 188.

Syntypes, sex²; Kuala Lumpur, Malaya; Schedl Collection in NHMW, Wien.

Notes: (1) Schedl 1979c: 78 (citation of holotype invalid).

References: (tx) Schedl 1942a: 188, 1979c: 78.

devexulus (Wood) 1978b: 398 (*Xyleborus*). Holotype ♀ Homestead, Florida [USA]; Wood Collection, automatic.

Distribution: Antilles Islands (Dominican Republic in Hispanola/ Puerto Rico), North America (S Florida).

Hosts: *Carya* sp., *Cedrela mexicana*.

References: (bv) Atkinson, Foltz, & Connor 1988.

(hb) Atkinson, Foltz, & Connor 1988; Deyrup &

Atkinson 1987a: 65. (ds) Bright 1985c: 173;

Deyrup & Atkinson 1987a: 65; Drooz 1985: 374;

Wood, S. L. 1982b: 805. (tx) Bright 1985c: 173;

Wood, S. L. 1978b: 398, 1982b: 805.

devexus Wood 1977b: 219 (*Xyleborus*). Holotype

♀; Homestead, Florida; Wood Collection, pre-occupied by Schedl 1977.

References: (tx) Wood, S. L. 1977b (December): 219, 1978b: 398.

woodi Schedl 1979j: 127 (*Xyleborus*). Holotype ♀; Homestead, Florida; Wood Collection, automatic.

Notes: (1) This unneeded replacement name has no status in nomenclature.

References: (tx) Schedl 1979j: 127.

devexus (Schedl) 1977e: 45 (*Xyleborus*). Holotype ♀; Metapan, El Salvador; Schedl Collection in NHMW, Wien.

Distribution: North America (El Salvador).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 805. (tx) Schedl 1977e (November): 45; Wood, S. L. 1982b: 805.

dihingensis (Eggers) 1930d: 189 (*Xyleborus*). Holotype ♀; Assam (Upper Dihing Reserve, Lakhimpur); FRI, Dehra Dun.

Distribution: Asia (Assam in India).

Hosts: *Artocarpus lakoocha*, *Pterocarpus marsupium*.

Notes: (1) Originally named as a geographical race of *rufobrunneus*.

References: (tx) Eggers 1930d: 189, 198; Schedl 1979c: 80.

diversipennis (Schedl) 1951j: 23 (*Xyleborus*).

Lectotype ♀; Madagascar, Tsimbazaza; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 83.

Distribution: Madagascar.

Hosts: *Mangifera indica*.

Notes: (3) Schedl 1953d: 96 (described male).

References: (hb) Paulian 1951: 29. (ds) Mayne & Donis 1962: 318; Paulian 1951: 29; Schedl 1977b:

134. (tx) Schedl 1951j: 23, 1953d: 69, 96–97, 1977b: 134.

eichhoffi (Schreiner) 1882: 245 (*Xyleborus*). Holotype ♀; Guineae ora Afric.; USNM, Washington. Figures: Nunberg 1963: pl. 13, figs. 1–4.

Distribution: Africa (Angola/ Botswana/ Burundi/ Cameroons/ Central African Republic/ Congo/ Equatorial Guinea/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Malawi/ Mozambique/ Nigeria/ Ruanda/ Somalia/ Spanish Guinea/ South Africa/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia/ Zimbabwe).

Hosts: *Acacia* sp., *Acridocarpus* sp., *Albizia* spp., *Beilschmiedia* sp., *Brachystegia* sp., *Celtis* spp., *Croton* sp., *Diospyros* sp., *Ficus* sp., *Gossweil-erodendron* sp., *Gossypium hirsutum*, *Khaya* sp., *Klaineana* sp., *Lecanodiscus* sp., *Mammea* sp., *Mitragyna* sp., *Musanga* sp., *Napoleana* sp., *Olea* sp., *Podocarpus latifolius*, *Pycnanthus* sp., *Sclerocarya* sp., *Turraecanthus* sp.

Notes: (3) Schedl 1957e: 881 (described male).

References: (en) Anonymous 1970c: 14. (hb)

Beaver & Loyttyniemi 1985a: 68; Browne 1963a:

241; Loyttyniemi, Beaver, & Loyttyniemi 1984;

Schedl 1962j: 177. (ds) Anonymous 1970c: 14;

Beaver & Loeytyniemi 1985a: 68; Browne 1963a:

241, 1973a: 281, 1980a: 373, 1980d: 493; Cachan

1957: 15, 43–53; Fairmaire 1892b; Ferreira 1965:

1122; Gardner 1957: 33; Hagedorn 1910d: 103;

Jones, Roberts, & Baker 1959: 13, 48–56; Kleine

1913b: 161, 1914b: 308; Lee 1971: 31; Nunberg

1961a: 330, 1963: 30; Roberts 1969: 132; Schedl

1939g: 170, 1952j: 4, 1959p: 20, 1962b: 60, 1962j:

177, 1962k: 1100, 1964e: 69, 1965e: 354, 1965h:

112, 1966a: 276, 1967e: 216, 1968b: 144, 1969d:

4, 1971e: 2, 1971f: 148, 1971g: 193, 1972e: 283,

1972k: 296, 1977d: 279, 1979b: 416, 1982: 279.

(tx) Beaver & Loyttyniemi 1985a: 68; Eggers

1920: 125, 1927a: 198; Fairmaire 1892b; Hage-

dorn 1910a: 153, 1913: 256; Powell, W. 1980: 29;

Schanfuss 1891: 25–27; Schedl 1937c: 13, 1950d:

8, 1957d: 16–17, 1957e: 881, 1962j: 177, 1962k:

1100, 1979c: 88; Schreiner 1882: 248.

congomus Hagedorn 1908: 379 (*Xyleborus*). Syn-

types 2 ♀; Kinchassa (Waelbroek) Congo;

IRSNB, Brussels. Synonymy: Schedl 1957d: 17.

References: (ds) Hagedorn 1910d: 100; Kleine

1913b: 160, 1914b: 314; Mayne & Donis 1962:

317. (tx) Hagedorn 1908: 379, 1910a: 153;

Schedl 1939g: 170, 1950d: 12, 1952j: 4, 1957d:

17, 1962j: 177.

facetus (Schedl) 1965f: 12 (*Xyleborus*). Holotype ♀;

Uganda, Nyabyeya; BMNH, London.

Distribution: Africa (Uganda).

Hosts: *Albizia* sp.

References: (ds) Schedl 1967e: 216. (tx) Schedl

1962j: 180, 1965f: 12, 1979c: 94.

ferus (Wood) 1986c: 269 (*Ambrosiosmus*). Holotype

♀; Jalapa, Veracruz, Mexico; Wood Collection.

- Distribution: North America (Veracruz in Mexico).
Hosts: *Quercus* sp.
References: (tx) Wood, S. L. 1986c: 269.
- fraterculus** (Schaufuss) 1905: 19 (reprint p. 10) (*Xyleborus*). Syntypes ♀; Madagascar; Hamburg Museum, lost, except 1 in Schedl Collection [obtained from Eggers Collection?] in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Mangifera indica*, *Pinus* sp.
References: (hb) Paulian 1951: 29. (ds) Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 326; Paulian 1951: 29; Schedl 1970d: 233. (tx) Anderson, W. H. & Anderson 1971: 13; Hagedorn 1910a: 154, 1913b: 256; Schaufuss 1905: 10, 19; Schedl 1937b: 400, 1939g: 173, 1951j: 20, 1953d: 69, 1961e: 144, 1970d: 233, 1977b: 134, 1979c: 100.
- funebri** (Schedl) 1976a: 73 (*Xyleborus*). Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Hosts: *Quercus* sp., *Pinus ochetereana*.
References: (ds) Schedl 1976a: 73, 1977e: 43.
- funereus** (Lea) 1910: 139 (*Xyleborus*). Syntypes ♀; Queensland: Cairns; SAM, Adelaide?
Figures: Nobuchi 1978a:pl. 3.
Distribution: Australia (Queensland), Indonesia (Celebes, Java, Sumatra), New Guinea.
Hosts: *Sterculia alata*.
References: (hb) Kalshoven 1959c: 139. (ds) Blackwelder 1947: 779; Brimblecombe 1953: 29; Ferrer 1942; Kalshoven 1959c: 139; Nobuchi 1978a: 30; Ohno, Yoneyama, & Narazawa 1987: 94; Ohno et al. 1988a: 94; Schedl 1933e: 108, 1961c: 71, 1966b: 94, 1969a: 207, 1971c: 368, 1971f: 148. (tx) Lea 1910: 139; Nobuchi 1978a:pl. 3, 1983: 302; Schedl 1939f: 45, 1940a: 365, 1951i: 50, 1954a: 141, 1955b: 281, 1958h: 498, 1961e: 71.
- nepos** Eggers 1923a: 198 (*Xyleborus*). Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 198. Synonymy: Schedl 1933e: 103.
References: (cn) Mathur & Singh 1961a: 69. (ds) Beeson 1930: 74, 250, 1961: 308; Kalshoven 1959: 139; Kleine 1934a: 174; Mathur & Singh 1961a: 69; Schedl 1938g: 426. (tx) Anderson, W. H. & Anderson 1971: 21; Beeson 1930; Eggers 1923a: 179, 198–200, 1927b: 407, 1930d: 192; Schedl 1933e: 103, 1939f: 45, 1940a: 365, 1951i: 50, 1979c: 165; Wood, S. L. 1975a: 23.
- nepos robustus** Schedl 1933e: 103 (*Xyleborus*). Syntypes ♀; Mt. Maquilang, Lagna, Luzon [Philippines]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 169–170.
Notes: (1) Schedl 1979c: 165 (citation of holotype invalid).
References: (ds) Schedl 1966b: 56. (tx) Schedl 1933e: 103, 1958h: 498, 1979c: 165; Wood, S. L. 1989: 169–170.
- signatus** Schedl 1948f: 278 (*Xyleborus*). Holotype ♀; Mexico; Schedl Collection, in NHMW, Wien. Synonymy: Wood 1975a: 23.
Notes: (3) The holotype of this species was either mislabeled or represents an interception that is not established in Mexico.
References: (tx) Schedl 1948f: 278, 1979c: 228; Wood, S. L. 1975a: 23.
- funestus** (Schedl) 1979g: 107 (*Xyleborus*). Holotype ♀; Papua New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 107.
- hagedorni** (Iglesias) 1914b: 128 (*Xyleborus*). Syntypes ♂ ♀; Butontan, S. Paulo; MZUSP, Sao Paulo. Figures: Pedrosa-Macedo & Schonherr 1985:31.
Distribution: North America (Costa Rica/ Guatemala/ Honduras/ Oaxaca, Veracruz in Mexico/ Panama), South America (Brazil/ Colombia/ Venezuela).
Hosts: *Acacia* sp., *Cedrela mexicana*, *Mangifera indica*, *Ochroma* sp., *Pinus elliottii*, *Terminalia* sp., *Theobroma cacao*.
References: (cn) Azavedo 1924b: 180–181; Costa Lima 1956; Mathur & Singh 1961a: 84, 1961b: 14. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 780; Costa Lima 1936, 1956; Kleine 1934a: 173; Mathur & Singh 1961a: 84, 1961b: 14; Schedl 1967d: 3, 1970e: 83, 1972g: 45, 1976a: 54; Schonherr & Pedrosa-Macedo 1981: 56. (tx) Costa Lima 1956; Iglesias 1914b: 128, 131; Pedrosa-Macedo & Schonherr 1985: 31; Schedl 1979c: 115.
- guatemalensis** Hopkins 1915b: 56 (*Ambrosiodmus*). Holotype ♀; Trece Aguas, Alta Verapaz, Guatemala; USNM, Washington. Synonymy: Wood 1989: 170.
References: (hb) Atkinson & Equihua 1986a: 421; Wood, S. L. 1982b: 808. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421; Blackwelder 1947: 779; Estrada & Atkinson 1988: 206; Schedl 1961c: 2; Wood, S. L. 1961c: 2, 1982b: 808. (tx) Hopkins 1915b: 55–56; Wood, S. L. 1961c: 3, 1972e: 198, 1982b: 808, 1989: 170.
- anisandrus** Schedl 1954b: 44 (*Xyleborus*). Syntypes ♀; Rio Claro, Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 198.
References: (tx) Schedl 1954b: 44; Wood, S. L. 1972c: 198.
- incertus** (Schedl) 1969b: 217 (*Xyleborus*). Holotype ♀; New Guinea, Jimi Valley Rain Forest; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Harpullia* sp.
References: (tx) Schedl 1969b: 217–218, 1979c: 123.

inferior (Schedl) 1976a: 74 (*Xyleborus*). Holotype ♀; Serra Lombart (Lima), Amapa [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 74.

inominatus (Schedl) 1970d: 236 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Alchornia* cf. *coriacea*, *Eucalyptus* sp., *Foetidia clusioides*, *Ocotea* sp., *Pinus insularis*.
References: (ds) Schedl 1977b: 135. (tx) Schedl 1970d: 236, 1977b: 135, 1979c: 124.

inoblitus (Schedl) 1939g: 173 (*Xyleborus*). Lectotype ♀; not stated, Schedl (1962j: 182) gives Insel Ukerewe; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 124.
Distribution: Africa (Cameroon/ South Africa/ Ukerewe Island in Tanzania).
References: (ds) Schedl 1964f: 618. (tx) Schedl 1939g: 173, 1941d: 402, 1950d: 3, 1954e: 79, 1957b: 150–151, 1962j: 182, 1965f: 12, 1979c: 124.

inopinatus (Schedl) 1970e: 94 (*Xyleborus*). Holotype ♀; Nied. Guayana, Para Dist. [Suriname]; Schedl Collection in NHMW, Wien.
Distribution: South America (Suriname).
References: (tx) Schedl 1970e: 94–95, 1979c: 125.

klapperichi Bright 1985c: 178. Holotype ♀; Dominican Republic; CNCI, Ottawa.
Distribution: Antilles Islands (Dominican Republic in Hispanola).
References: (tx) Bright 1985c: 178.

lantanae (Eggers) 1930d: 180 (*Xyleborus*). Holotype ♀; Sagar, Mysore, Karnataka; FRI, Dehra Dun.
Figures: Kumar & Chandra 1977:44.
Distribution: Asia (Burma/ Assam, Bengal in India).
Hosts: *Albizia lebbek*, *Anogeissus acuminata*, *Beischmiedia sikkimensis*, *Gmelina arborea*, *Lantana* sp., *Michelia champaca*, *Shorea scutulata*.
References: (cn) Mathur & Singh 1960b: 17, 1961a: 52; Roonwal 1954: 47. (ds) Beeson 1930; Kleine 1934a: 174; Mathur & Singh 1960b: 17, 1961a: 52; Roonwal 1954: 47. (tx) Beeson 1930: 68, 244; Eggers 1930d: 180–181; Kumar & Chandra 1977: 35, 44.

latecompressus (Schedl) 1936g: 532 (*Xyleborus*). Lectotype ♀; N. S. Wales: Upper Williams R., Australia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 136.
Distribution: Australia (New South Wales, Victoria).
References: (ds) Brimblecombe 1953: 29; Schedl 1936g: 532, 1975h: 352, 1979a: 158. (tx) Schedl 1936g: 532–533, 1979c: 136.

latisulcatus (Eggers) 1940d: 142 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); USNM, Washington.
Distribution: Indonesia (Java).

References: (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1940d: 142; Schedl 1951i: 43, 1979c: 137.

lecontei Hopkins 1915b: 56. Holotype ♀; Keene, Florida [USA]; USNM, Washington.

Figures: Bright 1972d:95.

Distribution: Antilles Islands (Bahama Islands/ Cuba/ Guadeloupe/ Dominican Republic in Hispanola/ Puerto Rico), North America (Florida, Louisiana in USA).

Hosts: *Bishofia javanica*, *Carya* sp., *Cedrela mexicana*, *Coffea* sp., *Dacryodes* sp., *Diphysia robinoides*, *Ichthyomethia communis*, *Persea borbonea*, *Pinus occidentalis*, *Pleiogynum* sp., *Terminalia* sp., *Zanthoxylum flavum*.

References: (bv) Atkinson, Foltz, & Connor 1988. (cn) Anonymous 1962j; Vasquez 1988. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 269; Beal & Massey 1945: 55–56; Chamberlin 1939: 340; Deyrup & Atkinson 1987a: 65; Wood, S. L. 1982b: 807. (ds) Anonymous 1962j; Baker, W. L. 1972: 269, 271; Beal & Massey 1945: 55–56; Blatchley & Leng 1916: 614; Bright 1968b: 1302–1303, 1972d: 76, 1985c: 173; Chamberlin 1939: 340; Chapin & Oliver 1986; DeLeon 1942a; Deyrup & Atkinson 1987a: 65; Drooz 1985: 374; Leng 1920: 341; Martorell 1945: 470; Vasquez 1988; Wolcott 1948: 384; Wood, S. L. 1982b: 807; Woodruff 1962. (tx) Beal & Massey 1945: 55–56, 147–148; Blatchley & Leng 1916: 614; Bright 1968b: 1302, 1972d: 76, 95, 1985c: 173; Chamberlin 1939: 340; Hopkins 1915b: 56; Wood, S. L. 1972e: 199, 1982b: 807.

gundlachi Eggers 1931a: 20 (*Xyleborus*). Holotype ♀; Cuba; MNB, Berlin. Synonymy: Wood 1972e: 199.

References: (ds) Blackwelder 1947: 780; Schedl 1966f: 87, 1970e: 84. (tx) Eggers 1931a: 20, 30–31, 1940a: 108; Schedl 1954b: 44; Wood, S. L. 1972e: 199.

lewisi (Blandford) 1894d: 104 (*Xyleborus*). Syn-types 9 ♀; Japan: Nikko, Hakono, Miyanoshta; BMNH, London.

Figures: Nakane et al. 1963: 384, Nobuchi 1967: pl. 1.

Distribution: Asia (Burma/ Guangdon, Sichuan, Xizang [Tibet], Yunnan in China/ Assam, Bengal, Tamil Nadu in India/ Japan/ Korea/ Malaya/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Borneo, Java, Sumatra), Philippine Islands.

Hosts: *Acer* spp., *Ailanthus altissima*, *Alnus* sp., *Amoora wallichii*, *Castanopsis cuspidata*, *C. indica*, *Cinnamomum camphora*, *C. obtusifolium*, *Evodia* sp., *Ficus carica*, *Hopea parviflora*, *Mesua myriocarpa*, *Phoebe lanceolata*, *Poinciana alata*, *Populus* sp., *Prunus* sp., *Pueraria thunbergiana*, *Quercus stenophylla*, *Rhus sylvestris*, *Salix* sp., *Terminalia myriocarpa*, *Vatica lanceaefolia*.

Notes: (3) Schedl Collection contained *pellitus*, nomen nudum, a synonym.

References: (ay) Murayama 1933a: 2. (cn) Murayama 1954a: 17; Shiraki 1957. (ec) Inouye et al. 1955: 98. (hb) Inouye et al. 1955: 98. (ds) Blandford 1895a; Browne 1966: 249, 1980c: 483; Cho 1957; Choo 1983: 106; Choo & Woo 1985: 166; Hagedorn 1910d: 106; Kleine 1913b: 101, 1914b: 261, 1934a: 174; Ko 1969: 285; Murayama 1929b: 2, 1930b: 19, 1933b: 7, 1934d: 509, 1936a: 134, 1937b: 372, 375, 1949c: 103, 1950b: 296, 1953a: 20, 1953c: 159, 1954a: 17, 1954b: 179, 1955: 100, 104; Nakane et al. 1963: 384; Nobuchi 1967: 22; Ohno, Yoneyama, & Nakazawa 1987a: 88; Schedl 1975a; Shiraki 1952; Yin & Huang 1981: 566. (tx) Blandford 1894d: 104, Browne 1961c: 109, 1966: 249; Eggers 1932d: 287, 1939c: 114; Hagedorn 1904d, 1910a: 155; Murayama 1930b: 19–31, 1933a: 2, 1934c: 299, 1934d: 509–512, 1936a: 134–135, 1937b: 372, 374–375, 1950b: 1296, 1953a: 20, 1955: 100, 104; Nakane et al. 1963: 384; Nüßima 1910a: 11; Nobuchi 1967: pl. 1, 1983: 303, 1985c: 25; Schedl 1934f: 1646, 1962p: 208, 1979c: 138; Yin & Huang 1981: 566.

tegalensis Eggers 1923a: 181 (*Xyleborus*). Syntypes 3 ♀; Simpar Tegal (Java) und Rimbe Pengadang (Sumatra); 1 syntype in RNH, Leiden, 1 in SMTD, Dresden, 1 in Eggers Collection, this Eggers syntype in NHMW, Wien. Synonymy: Schedl 1950g: 894.

Notes: (3) Schedl 1951i: 60 (described male).
References: (ay) Gardner 1934b: 1–17. (cn) Mathur & Singh 1961b: 34; Roonwal 1954: 66. (hb) Kalshoven 1959c: 136. (ds) Beeson 1930: 86, 262; Browne 1961c: 108–109; Kalshoven 1959c: 136; Mathur & Singh 1961b: 34; Roonwal 1954: 66; Schedl 1936d: 5, 1961c: 70, 1962b: 185, 1965g: 22, 1974c: 262, 1975a. (tx) Beeson 1930; Eggers 1923a: 181, 1927b: 390, 407; Gardner 1934b; Schedl 1936d: 5, 1937e: 544, 1942d: 4, 1950g: 894–895, 1951i: 42, 60, 1954a: 143, 1954c: 154, 1962p: 208, 1965g: 22, 1979c: 251.

lewckianus Eggers 1923a: 181 (*Xyleborus*). Holotype ♀; Nilgiri Hills (Indien); Hamburg Museum, lost. Synonymy: Wood 1989: 170.

References: (cn) Mathur & Singh 1960b: 58. (ds) Mathur & Singh 1960b: 58; Schedl 1973c: 379. (tx) Eggers 1923a: 181.

loebli (Schedl) 1979b: 413 (*Xyleborus*). Holotype ♀; Cote d'Ivoire, Man-Orstom; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ivory Coast).
References: (tx) Schedl 1979b: 413.

mahafali (Schedl) 1953d: 96 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 145.

Distribution: Madagascar.

Hosts: *Elaeocarpus sericensis*, *Harongana mada-gascarensis*, *Homalium planiflorum*, *Leptolaena multiflora*, *Neodypsis baroni*, *Terminalia mantaly*, *Trema orientalis*.

References: (hb) Schedl 1977b: 136. (ds) Schedl 1977b: 136. (tx) Schedl 1953d: 96, 1962j: 185, 1977b: 136, 1979c: 145.

mamibillae (Browne) 1970: 573 (*Xyleborus*). Holotype ♀; Nigeria: Mambilla Plateau, Gyel Nyaki at 5000 ft.; BMNH, London.

Distribution: Africa (Nigeria).

References: (tx) Browne 1970: 573–574; Roberts 1969: 132.

minor (Stebbing) 1909b: 20 (*Phloeosinus*). Syntypes 2 ♀; Assam: labeled Kochujan, printed as Goalpara Sal Forests; FRI, Dehra Dun.

Distribution: Asia (Bangladesh/ Bhutan/ Burma/ Assam, Bengal, Maharashtra, Uttar Pradesh in India/ Nepal/ Thailand/ Vietnam).

Hosts: *Bombax malabaricum*, *Dipterocarpus obtusifolius*, *Sahnalia malabarica*, *Shorea robusta*, *Tectona grandis*, *Terminalia myriocarpa*.

Notes: (3) Schedl 1964k: 314 (*himalayensis* Eggers, nomen nudum, synonymy).

References: (cn) Chandra 1981; Mathur & Singh 1961a: 13, 1961b: 14; Roonwal 1954: 51; Roonwal, Chatterjee, & Thapa 1961b: 7; Stebbing 1914: 549. (cc) Stebbing 1914: 549. (hb) Beaver & Browne 1975: 298; Chandra 1981; Stebbing 1909b: 20, 1914: 549; Zocchi 1956: 141. (ds) Beaver & Browne 1975a: 298; Beeson 1922: 495–496, 1930: 70–73, 246; Browne 1981a: 126; Kleine 1912b: 183, 1914b: 277; Mathur & Singh 1961a: 13, 1961b: 14; Roonwal 1954: 51; Roonwal, Chatterjee, & Thapa 1961b: 7; Schedl 1973b: 211, 1975c: 383. (tx) Beeson 1922: 496, 1930: 246; Schedl 1950g: 893, 1962p: 208, 1964k: 314; Sokanovskii 1960: 675; Stebbing 1907: 39, 1909b: 20, 1909b: 20, 1914: 549; Zocchi 1956: 141.

crassus Hagedorn 1910b: 8 (*Xyleborus*). Holotype ♀; Sumatra; Hamburg Museum, lost. Synonymy: Schedl 1962p: 208 (apparently either an error in labeling or in synonymy; since this species is not known to occur in Sumatra).

References: (ds) Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 286; Schedl 1964g: 242. (tx) Eggers 1925: 159; Hagedorn 1910a: 153, 1910b: 8; Schedl 1962p: 208, 1964g: 242.

natalensis (Schaufuss) 1891: 20 (*Xyleborus*). Holotype ♀; Natal; Hamburg Museum, lost.

Distribution: Africa (Angola/ Ghana/ Guinea/ South Africa/ Tanzania/ Zaire), Madagascar.

Hosts: *Eucalyptus* sp., *Polyporus* sp., *Prunus salasii*, *Pterocarpus* sp.

References: (ds) Beeson 1930: 246; Hagedorn 1910b: 107; Kleine 1913b: 162, 1914b: 319, 326. (tx) Eggers 1923a: 181, 1932d: 295–297; Hagedorn 1910a: 155, 1913b: 256; Schaufuss 1891: 20; Schedl 1957b: 150–151, 1962j: 182, 1962k: 1101.

neglectus (Schedl) 1957d: 16 (*Xyleborus*). Lectotype ♀; Bekwai, Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 220, automatic.

Distribution: Africa (Ghana/Zaire).

Hosts: *Eucalyptus citriodora*, *Triplochiton scleroxylon*.

References: (ds) Schedl 1962b: 60, 1962j: 183, 1962k: 1101, 1964j: 42, 1967e: 218. (tx) Schedl 1957d: 16, 1962j: 183, 1979c: 220.

scabrior Schedl 1954e: 79 (*Xyleborus*). Lectotype ♀; Bekwai, Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 220, preoccupied by Schedl 1953.

References: (tx) Schedl 1954e: 54, 70, 79, 1957d: 16, 1962j: 183, 1962k: 1101, 1979c: 220.

nepocranus (Schedl) 1939f: 45 (*Xyleborus*). Lectotype ♀; Java, Bandjar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 165. Distribution: Indonesia (Java).

Hosts: Rattan.

References: (hb) Kalshoven 1959c: 137. (ds) Kalshoven 1959c: 137; Schedl 1966b: 62. (tx) Nöblich 1983: 303; Schedl 1939f: 45–46, 1979c: 165.

nigripennis (Schedl) 1951i: 68 (*Xyleborus*). Holotype ♀; Celebes, Tominihoch; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Celebes).

References: (tx) Schedl 1951i: 68, 1979c: 167.

nodulosus (Eggers) 1941b: 223 (*Xyleborus*). Holotype ♀; Fukien (Kuatum, 2300 m), China; Alexander König Museum, Bonn.

Distribution: Asia (Fujian in China).

Notes: (3) Schedl 1957d: 86 proposed the replacement name *permodulus* Schedl for this species when in fact it was not a homonym.

References: (tx) Eggers 1941b: 223–224; Schedl 1957d: 85, 1965c: 72.

permodulus Schedl 1957d: 85. Holotype ♀; Fukien (Kuatum, 2300 m), China; Alexander König Museum, Bonn.

References: (tx) Browne 1962b: 50; Schedl 1957d: 85.

obliquecaudata Motschulsky 1863: 513. Syntypes 4 ♀; Des Montagnes de Nura-Ellia, syntypes labeled India Occidentale; IZM, Moscow.

Distribution: Asia (Sri Lanka).

Hosts: *Kududavula* sp.

Notes: (1) Wood 1969c: 119 (syntypes examined).

(3) A specimen of *Euwallacea validus* intercepted in Canada was erroneously reported by MacNay 1955 under this name.

References: (cn) Green 1916: 608–636; MacNay 1955: 109, 134; Mathur & Singh 1960b: 43. (ds) Gemminger & Harold 1872: 2692; Hagedorn 1910d: 107; Kleine 1913b: 167, 1914b: 274; Mathur & Singh 1960b: 43; Murayama 1936b: 114; Schedl 1959a: 500. (tx) Eichhoff 1876a: 378–379, 1878b: 351; Hagedorn 1910a: 513, 1910b; Hopkins 1914:

127; Motschulsky 1863: 513, 1866: 403; Schedl 1934g: 1646, 1959a: 500; Wood, S. L. 1969c: 119. *carinipennis* Eichhoff 1868c: 152 (*Xyleborus*).

Holotype ♀; Ceylon; Hamburg Museum, lost. Synonymy: Eichhoff 1876a: 378.

References: (ds) Gemminger & Harold 1872: 2685. (tx) Eichhoff 1868c: 152, 1876a: 378–379, 1878b: 61, 351, 489; Schedl 1959a: 500.

semirufus Schedl 1959a: 499 (*Xyleborus*). Holotype ♀; Ceylon; Ramboda; BMNH, London. Synonymy: Wood 1959: 170.

References: (ds) Schedl 1959a: 499. (tx) Schedl 1959a: 499, 1979c: 224.

obliquus (LeConte) 1878a: 432 (*Pityophthorus*). Holotype ♀; Enterprise, Florida; MCZ, Cambridge.

Figures: Bright 1968b: 1299.

Distribution: Africa (Cameroon/Kenya/ South Africa/Tanzania/Uganda/Zaire/Zambia), Antilles Islands (Dominican Republic in Hispaniola/ Guadeloupe/ Puerto Rico), North America (Guatemala/ Michoacan in Mexico/ District of Columbia, Florida, Georgia, Louisiana, Mississippi, North Carolina, Virginia in USA), South America (Brazil/ Colombia).

Hosts: *Acacia* sp., *Albizia* spp., *Betula* sp., *Carya* spp., *Castania dentata*, *Celtis* spp., *Cinchona* sp., *Citrus* sp., *Croton* sp., *Entandrophragma* sp., *Eucalyptus* sp., *Ficus* sp., *Gossweilerodendron* sp., *Grevillea* sp., *Hoslundia* sp., *Lindera* sp., *Persea* sp., *Strombosia* sp.

Notes: (1) Blackman 1928b: 148 (to *Ambrosiodmus*)

References: (cn) Swaine 1918a: 104. (hb) Atkinson & Equihua 1986a: 421; Chamberlin 1939: 440; Swaine 1918a: 104. (ds) Atkinson & Equihua 1986a: 421, 1988: 85; Atkinson et al 1991: 160; Baker, W. L. 1972: 271; Beaver & Loytyniemi 1985a: 68; Blatchley & Leng 1916: 633; Bright 1968b: 1301, 1981c: 157, 1985c: 173; Chamberlin 1939: 440; Chapin & Oliver 1986; Hagedorn 1910d: 73; Henshaw 1882: 268, 1885: 148; Kleine 1914b: 400; Leng 1920: 341; Schwarz 1878d: 468; Swaine 1909: 136; Weber, B. C. & McPherson 1991: 49; Wood, S. L. 1982b: 804. (tx) Blackman 1928b: 148; Blatchley & Leng 1916: 633; Bright 1968a: 636–639, 1968b: 1299, 1301, 1985c: 173, 177; Chamberlin 1939: 440; Hagedorn 1910a: 101; LeConte 1878a: 432, 468; Swaine 1909: 136, 1918a: 104; Wood, S. L. 1966b: 32, 1975b: 394, 1982b: 804.

gilvipes Blandford 1898b: 205 (*Xyleborus*). Holotype ♀; Zapote, Guatemala; BMNH, London. Synonymy: Wood 1975b: 394.

References: (ds) Blackwelder 1947: 779; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 371. (tx) Blandford 1898b: 205; Hagedorn 1910a: 154; Schedl 1936i: 110; Wood, S. L. 1972e: 198, 1975b: 394.

linderae Hopkins 1915b: 56 (*Ambrosiodmus*).

- Holotype ♀; Rosslyn, Virginia, USA; USNM, Washington. Synonymy: Bright 1968b: 1301. References: **(hb)** Baker, W. L. 1972: 269; Beal & Massey 1945: 148–159; Chamberlin 1939: 440. **(ds)** Baker, W. L. 1972: 269; Beal & Massey 1945: 148–149; Blatchley & Leng 1916: 613; Chamberlin 1939: 440; Kleine 1934a: 177; Leng 1920: 341. **(tx)** Beal & Massey 1945: 148–149; Blatchley & Leng 1916: 613; Bright 1968b: 1301; Chamberlin 1939: 440; Hopkins 1915b: 55–56.
- brasilienis* Eggers 1928c: 96 (*Xyleborus*). Lectotype ♀; Blumenau, Santa Catarina, Brazil; USNM, Washington, designated by Anderson & Anderson 1971: 7. Synonymy: Wood 1975b: 394. References: **(cn)** Costa Lima 1956. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947: 779; Costa Lima 1956; Pedrosa-Macedo & Schonherr 1985: 27; Roba 1935: 340; Schedl 1966f: 87, 1967d: 3, 1970e: 83, 1972g: 44, 1976a: 53; Wood, S. L. 1961c: 1. **(tx)** Anderson, W. H. & Anderson 1971: 7; Costa Lima 1956; Eggers 1928c: 96, 1941a: 101; Pedrosa-Macedo & Schonherr 1985: 27; Schedl 1979c: 45; Wood, S. L. 1961c: 1, 1975b: 394.
- mexicanus* Eggers 1931a: 19 (*Xyleborus*). Holotype ♀; Maravatio [presumably Michoacan, Mexico]; MNB, Berlin. Synonymy: Wood 1972e: 198. References: **(ds)** Blackwelder 1947: 780; Ferrer 1942. **(tx)** Eggers 1931a: 19–20; Schedl 1940a: 361; Wood, S. L. 1972e: 198.
- pseudobrasilienis* Eggers 1941a: 101 (*Xyleborus*). Holotype ♀; Guadeloupe (Courbeyre); Eggers Collection, in NHMW, Wien. Synonymy: Bright 1985c: 177. References: **(tx)** Bright 1985c: 77; Eggers 1941a: 101; Schedl 1979c: 200.
- illeepidus* Schedl 1941d: 402 (*Xyleborus*). Holotype ♀; Deutsch-Ostafrika; Schedl Collection in NHMW, Wien. Synonymy: Wood 1975b: 394. References: **(ds)** Brownie 1973a: 282; Gardner 1957a: 33; Mayne & Donis 1962: 319; Schedl 1962h: 60, 1962j: 181, 1962k: 1100; Wichmann 1954: 522. **(tx)** Numberg 1963b: 36, pl. 17–18; Powell, W. 1980: 29; Schedl 1941d: 402, 1950c: 209, 1950d: 3, 8, 1952j: 3, 1953d: 96, 1955i: 212, 1961e: 144, 1962j: 181, 1962k: 1100, 1979c: 120; Wood, S. L. 1975b: 394.
- melanarius* Schedl 1978c: 307 (*Xyleborus*). Holotype ♀; Brasilien, Nova Teutonia, 300–500 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170. References: **(tx)** Schedl 1978c: 307; Wood, S. L. 1989: 170.
- ocellatus* (Wood) 1974a: 37 (*Xyleborus*). Holotype ♀; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Clusia* sp. References: **(tx)** Wood, S. L. 1974a: 37.
- opacithorax* (Schedl) 1937b: 402 (*Xyleborus*). Holotype ♀; Urwald Beni (Ostafrika); Schedl Collection in NHMW, Wien. Distribution: Africa (South Africa/ Uganda/ Zaire). Hosts: *Celtis mildbraedii*, *Hannoa klainiana*. References: **(hb)** Schedl 1962j: 184. **(ds)** Schedl 1962j: 184, 1965a: 21, 1967e: 218. **(tx)** Schedl 1937b: 402–403, 1962j: 184–185, 1965g: 21, 1979c: 179.
- opimus* (Wood) 1974a: 37 (*Xyleborus*). Holotype ♀; Sebring, Florida [USA]; Wood Collection. Distribution: North America (Florida in USA). Notes: (3) This is probably an introduction from another continent. References: **(ds)** Drooz 1985: 374; Wood, S. L. 1982b: 807. **(tx)** Wood, S. L. 1974a: 37, 1982b: 807.
- optatus* (Schedl) 1973e: 92 (*Xyleborus*). Holotype ♀; Sydney, N. S. Wales, Australia; Schedl Collection in NHMW, Wien. Distribution: Australia (New South Wales). References: **(tx)** Schedl 1973e: 92, 1979c: 175.
- ovatus* (Eggers) 1932d: 298 (*Xyleborus*). Holotype ♀; Congostaat (Ganda-Buku); Eggers Collection, in NHMW, Wien. Figures: Schedl 1962j: 167. Distribution: Africa (Cameroon/ Ivory Coast/ Nigeria/ Zaire). Hosts: *Canarium* sp., *Dialium corbisieri*, *Drypetes gossweileri*, *Pterocarpus soyauxii*, *Ricinodendron heudelotii*, *Strombosia grandiflora*, *Triumfetta* sp. Notes: *X. tenebrosus* is a synonym (DEB). References: **(hb)** Schedl 1962j: 166. **(ds)** Schedl 1962j: 166, 1964e: 69, 1967e: 218. **(tx)** Eggers 1932d: 298–299; Schedl 1937b: 402, 1952j: 3, 1957d: 101, 1962j: 166–167, 1979c: 181.
- paucus* Wood 1986c: 269. Holotype ♀; Isla del Coco, Costa Rica; Wood Collection. Distribution: North America (Isla del Coco in Costa Rica). References: **(tx)** Wood, S. L. 1986c: 269.
- permarginatus* (Schedl) 1933d: 200 (*Xyleborus*). Holotype ♀; Mt. Maquiling, Laguna Prov., Luzon; Schedl Collection in NHMW, Wien. Distribution: Asia (Ryukyu Islands), Philippine Islands (Luzon). References: **(ds)** Nobuchi 1979a: 407; Schedl 1966b: 65. **(tx)** Nobuchi 1983: 303; Schedl 1933d: 200–201, 1979c: 189.
- pertortuosus* (Schedl) 1942a: 186 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Mt. Makiling; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Luzon).

References: (tx) Nobuchi 1983: 303; Schedl 1942a: 186, 1966b: 65, 1979c: 191.

***pithecolobius* (Schedl)** 1937c: 13 (*Xyleborus*). Lectotype ♀; Gold Coast: Eastern Province, Actinota; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 195.

Distribution: Africa (Ghana/ Sudan/ Zaire/ Zimbabwe).

Hosts: *Pithecolobium saman*.

References: (ds) Schedl 1962j: 185, 1967e: 218, 1968b: 145. (tx) Browne 1970: 569; Schedl 1937c: 13–14, 1954e: 47, 1962j: 185, 1979c: 195.

***pseudocitri* (Schedl)** 1959a: 494 (*Xyleborus*). Syn-types ♀; Ceylon: Sabargamuva, Millawitiya Estate; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

Notes: (1) Schedl 1979c: 201 (citation of holotype invalid).

References: (ds) Schedl 1959a: 495, 1971a: 281. (tx) Schedl 1959a: 494–495, 1979c: 201.

***pseudocolossus* (Schedl)** 1942d: 28 (*Xyleborus*). Holotype ♀; Ost-Java, Samberbajem, Res. Kediri; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Java).

References: (tx) Schedl 1942d: 28, 1979c: 201.

***raucus* (Schedl)** 1950c: 209 (*Xyleborus*). Holotype ♀; Mauritius, Les Mares; Schedl Collection in NHMW, Wien.

Distribution: Africa (Mauritius Island), Madagascar.

Hosts: *Coffea* sp.

References: (ds) Schedl 1969d: 11, 1977b: 136. (tx) Schedl 1950c: 209, 1977b: 137, 1979c: 210.

***restrictus* (Schedl)** 1939f: 46 (*Xyleborus*). Lectotype ♀; Mt. Gede, Tapos, G. Slamet, Java, Batoerraden; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 210.

Distribution: Asia (Malaya), Indonesia (Java).

Hosts: *Shorea* sp.

Notes: (3) This is a possible synonym of *consimilis*.

References: (hb) Kalshoven 1959c: 138. (ds) Kalshoven 1959c: 138; Schedl 1971c: 365. (tx) Schedl 1939f: 46–48, 1979c: 210.

***rhodesianus* (Eggers)** 1936c: 40 (*Xyleborus*). Holotype ♀; S. Rhodesia: Salisbury; BMNH, London. Figures: Numberg 1963b: pl. 23, figs. 6–7, pl. 24, figs. 1–2.

Distribution: Africa (South Africa/ Tanzania/ Zaire/ Zambia/ Zimbabwe).

References: (ds) Beaver & Loytyniemi 1989; Schedl 1962j: 169, 1965e: 355. (tx) Beaver & Loytyniemi 1989; Eggers 1936c: 40; Numberg 1963b: 48, pl. 23–24; Powell, W. 1980: 29; Schedl 1962j: 169, 1979c: 211.

***rubricollis* (Eichhoff)** 1875: 202 (*Xyleborus*). Holotype ♀; Japan; IRSNB, Brussels.

Figures: Bright 1968b: 1299, Nakane et al. 1963: 384, Nobuchi 1966d: pl. 4.

Distribution: Asia (Bonin Islands/ Anhui, Fujian,

Hebei, Hunan, Shangdong, Shanxi, Sichuan, Xizang [Tibet], Zhejiang in China/ Assam, "South India" in India/ Japan/ Korea/ Malaya/ Taiwan/ Thailand/ Vietnam), Australia (introduced), North America (introduced into: Alabama, Connecticut, Florida, Maryland, Pennsylvania, Tennessee, Virginia in USA).

Hosts: *Acacia* sp., *Carya* sp., *Castania* sp., *Cornus* sp., *Ilex* sp., *Hovea* sp., *Juglans nigra*, *Morus alba*, *Prunus* sp., *Quercus* sp., *Rhus* sp., *Terminalia myriocarpa*.

References: (ay) Kazid 1967; Murayama 1933a: 2; Takagi 1967. (bv) Choo, Woo, & Park 1988; Kovach 1986a. (cn) Anonymous 1974e, 1980g; Kovach 1986a; Kovach & Gorsuch 1986; Murayama 1954a: 22; Shiraki 1952; Williams, L. H. & La Fage 1979: 426; Wood, S. L. 1977a: 73. (cc) Banno, Nikita, & Kodama 1983: 445; Takagi 1967: 168–170; Yamashita 1966; Yoon et al. 1982. (hb) Beaver & Browne 1975: 612; Browne 1961c: 109; Kovach 1986a; Takahashi 1989: 403; Wood, S. L. 1982b: 506; Yamashita 1966; Yoon et al. 1982. (ds) Anonymous 1974e, 1980g; Baker, W. L. 1972: 271; Beaver & Browne 1978: 612; Bright 1968b: 1302; Browne 1980c: 482; Cho 1957; Choo 1983: 109; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1983: 172, 1985a: 134; Choo, Woo, & Park 1988; Deyrup 1981b: 7; Drooz 1985: 374; Hagedorn 1910d: 110; Kirk 1970; Kleine 1913b: 162, 1914b: 261, 1934a: 175; Ko 1969: 286; Murayama 1933b: 4, 1936a: 135, 1936b: 116, 1937b: 374, 1949c: 103, 1950b: 1297, 1951a: 6, 1952a: 23, 1952b: 169, 1953a: 21, 1953c: 160, 1954a: 22, 1954b: 181, 1955: 103; Nakane et al. 1963: 384; Nobuchi 1966d: 29, 1967: 22; Nobuchi & Ono 1973: 182; Nohira & Ogawa 1986; Shiraki 1952; Wood, S. L. 1977a: 73, 1982b: 806. (tx) Blandford 1894d; Bright 1968b: 1299, 1302; Choo 1983: 109; Eggers 1931a: 19–20; Eichhoff 1875: 202, 1878b: 330; Hagedorn 1910a: 156; Murayama 1933a: 2, 31, 1933b: 16–18, 1934a: 4, 1934c: 300, 1936a: 135, 1937b: 374, 1950b: 1297, 1952b: 169, 1953a: 21, 1954b: 181, 1955: 103; Nakane et al. 1963: 384; Niisima 1909: 155, 1910a: 12; Nobuchi 1966d: 29, pl. 4; Schedl 1934f: 1646; Wood, S. L. 1982b: 806.

***taboensis* Schedl** 1952c: 65 (*Xyleborus*). Holotype ♀; Formosa, Tacho (Rato); Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170. References: (ds) Nobuchi 1967: 23. (tx) Schedl 1952c: 65, 1979c: 249; Wood, S. L. 1989: 170.

***strohmeyeri* Schedl** 1975e: 457 (*Xyleborus*). Holotype ♀; S'ghai (South India); Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170.

References: (tx) Schedl 1975e: 457, 1979c: 238; Wood, S. L. 1989: 170.

- rugicollis** (Blandford) 1898b: 207 (*Xyleborus*). Holotype ♀; Cerro Zumil, Guatemala, 4000–5000 ft; BMNH, London.
Distribution: North America (Guatemala).
References: (ds) Atkinson & Equihua 1985b: 237; Blackwelder 1947: 780; Hagedorn 1910d: 110; Kleine 1914b: 371; Wood, S. L. 1982b: 809. (tx) Blandford 1898b: 207; Hagedorn 1910a: 156; Wood, S. L. 1982b: 809.
- rusticus** (Wood) 1974a: 36 (*Xyleborus*). Holotype ♀; 10 km NE Teziutlan, Puebla, Mexico; Wood Collection.
Distribution: North America (Chiapas, Puebla in Mexico).
Hosts: Logs & *Pinus* sp.
References: (hb) Atkinson et al. 1986: 35; Wood, S. L. 1982b: 806. (ds) Atkinson & Equihua 1988: 85; Atkinson et al. 1986: 35; Wood, S. L. 1982b: 806. (tx) Wood, S. L. 1974a: 36, 1982b: 806.
- sakoae** (Schedl) 1961e: 144 (*Xyleborus*). Holotype ♀; Madagascar, Mt. d'Ambre, Joffreville; IRSM, Madagascar.
Distribution: Madagascar.
References: (ds) Schedl 1977b: 137. (tx) Schedl 1961e: 144, 1977b: 137, 1979c: 218.
- sandragotoensis** (Schedl) 1961e: 148 (*Xyleborus*). Holotype ♀; Madagascar, Sandragato; IRSM, Madagascar.
Distribution: Madagascar.
References: (tx) Schedl 1961e: 148, 1977b: 165, 1979c: 219.
- saravakensis** (Eggers) 1923a: 176 (*Xyleborus*). Holotype ♀; Saravak auf Borneo; MCG, Genova.
Distribution: Indonesia (Borneo).
References: (hb) Brownne 1961c: 105. (ds) Brownne 1961c: 105. (tx) Eggers 1923a: 176; Numborg 1978: 116; Schedl 1939e: 330, 1942a: 187, 1953c: 290.
- scalaris** (Schedl) 1935d: 95 (*Xyleborus*). Holotype ♀; Costa Rica, Turrialba; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: Log
References: (hb) Wood, S. L. 1982b: 805. (ds) Blackwelder 1947: 780; Wood, S. L. 1982b: 805. (tx) Schedl 1935d: 95; Wood, S. L. 1982b: 805–806.
- semicarinatus** (Schedl) 1942c: 191 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1942c: 191, 1979c: 224.
- sexdentatus** (Eggers) 1940d: 148 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); USNM, Washington.
Distribution: Indonesia (Java).
References: (hb) Kalshoven 1959c: 157. (ds) Kalshoven 1959c: 157. (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1940d: 148–149; Schedl 1951i: 44, 1979c: 227.
- signiceps** (Schedl) 1962j: 185 (*Xyleborus*). Holotype ♀; Belgisch-Kongo: Mulungu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Moerua* sp.
References: (tx) Schedl 1962j: 185, 1979c: 228.
- signifer** (Schedl) 1968b: 146 (*Xyleborus*). Holotype ♀; Sudan, Equatoria, Yambio; ZMUII, Helsinki.
Distribution: Africa (Sudan).
References: (ds) Schedl 1971e: 3. (tx) Schedl 1968b: 146, 1979c: 228.
- subnepotulus** (Eggers) 1930d: 178 (*Xyleborus*). Holotype ♀; Burma (Pyonchaung Reserve, N. Toungoo); FRI, Dehra Dun.
Distribution: Asia (Burma).
Hosts: *Albizzia lebbeki*.
References: (ds) Beeson 1930: 85, 261, 1961: 309; Nobuchi 1967: 23. (tx) Beeson 1930: 85, 261; Eggers 1930d: 178, 361, 1939c: 114, 119, 1940a: 138; Schedl 1939f: 45–47.
- sulcatus** (Eggers) 1930d: 180 (*Xyleborus*). Holotype ♀; Assam (Upper Dihing Reserve, Lakhimpur); FRI, Dehra Dun.
Distribution: Asia (Fujian in China/ Assam in India).
Hosts: *Artocarpus lakoocha*.
References: (ds) Beeson 1930: 86, 262, 1961: 309; Kleine 1934a: 175; Schedl 1960f: 173. (tx) Beeson 1930: 86, 262; Eggers 1930d: 180, 1939b: 13, 1941b: 224; Schedl 1951i: 59, 1960e: 173, 1979c: 246.
- tachygraphus** (Zimmermann) 1868: 144 (*Xyleborus*). Holotype ♀; North Carolina [USA]; MCZ, Cambridge.
Distribution: North America (Alabama, District of Columbia, Georgia, Illinois, Maryland, Mississippi, New Jersey, North Carolina, Pennsylvania, South Carolina, Virginia, West Virginia in USA).
Hosts: *Acer* sp., *Betula* sp., *Carya* sp., *Castanea dentata*, *Cercis* sp., *Fagus* spp., *Juglans* sp., *Liriodendron* sp., *Rhus* sp.
References: (bv) Atkinson, Foltz, & Connor 1988; Kovach 1986a; Turnbow & Franklin 1980. (cn) Chittenden 1879: 79–80, 1897: 79; Doane et al. 1936; Howard 1897: 79; Hubbard 1897b: 22; Kovach 1986a; Kovach & Gorsuch 1985. (ce) Steinhilber 1946: 404. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 269; Beal & Massey 1945: 55–56; Chamberlin 1939: 441; Doane et al. 1936; Hubbard 1897b: 22; Kovach 1986a; Schwarz 1891b: 62–64. (ds) Anonymous 1926c: 520; Atkinson et al. 1991: 160; Baker, W. L. 1972: 269; Beal & Massey 1945: 55–56; Blatchley & Leng 1916: 614; Bright 1968b: 1303; Chamberlin 1939: 441; Chapin & Oliver 1986; Deyrup 1981b: 7; Deyrup & Atkinson 1987b: 68; Drooz 1985: 374; Genninger & Harold 1872: 2686; Hagedorn 1910d: 112; Henshaw 1885: 148; Kirk 1969, 1970; Kleine 1913b: 168, 1934a: 177; Leng 1920: 341;

Leonard 1928: 520; Schwarz 1890a: 41; Swaine 1909: 156; Tumbow & Franklin 1950; Wood, S. L. 1952b: 805. **(tx)** Beal & Massey 1945: 49; Blatchley & Leng 1916: 614; Bright 1965b: 1303; Chamberlin 1939: 441; Eichhoff 1878b: 323; Hagedorn 1910a: 157; Hopkins 1915b: 56–57, 1915c: 173; Hnbbard 1897b: 22; LeConte 1865: 159, 1876: 358, 360; Swaine 1909: 156, 1910b: 161–162, 165; Wood, S. L. 1952b: 805; Zimmermann 1868: 144.

tenebrosus (Schedl) 1937b: 402 (*Xyleborus*). Syn-types ♀; Africa, Congo?; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962j: 166.

Distribution: Africa (Zaire?).

Notes: (1) Schedl 1979c: 251 (citation of holotype invalid). (3) This is a synonym of *ovatus* Eggers (DEB).

References: **(tx)** Schedl 1937b: 402, 1952j: 3, 1957d: 101, 1966j: 166, 1979c: 251.

tomicoides (Eggers) 1923a: 205 (*Xyleborus*). Holotype ♀; Suban Ajan (Sumatra); RNH, Leiden.

Distribution: Indonesia (Sumatra).

References: **(tx)** Eggers 1923a: 205; Schedl 1950g: 895.

tortuosus (Schedl) 1942a: 186 (*Xyleborus*). Lectotype ♀; Malaya, Perak, Trolak F. R., and Larut Hills; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 254.

Distribution: Asia (Malaya).

References: **(hb)** Browne 1961c: 106. **(tx)** Schedl 1942a: 186, 1979c: 254.

triton (Schaufuss) 1905: 9 (*Xyleborus*). Holotype ♀; Madagascar; Hamburg Museum, lost.

Distribution: Madagascar.

References: **(ds)** Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 326; Schedl 1970d: 234, 1977b: 137. **(tx)** Anderson, W. H. & Anderson 1971: 34; Eggers 1922b: 171; Hagedorn 1910a: 157, 1913b: 257; Schaufuss 1905: 9; Schedl 1953d: 69, 1970d: 234, 1977b: 137, 1979c: 256.

trolaki (Schedl) 1939e: 350 (*Xyleborus*). Lectotype ♀; Malaya, Perak, Trolak For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 256.

Distribution: Asia (Malaya).

References: **(hb)** Browne 1961c: 107. **(ds)** Browne 1962c: 202. **(tx)** Schedl 1939e: 350–351, 1979c: 256.

tropicus (Hagedorn) 1910b: 12 (*Xyleborus*). Syn-types ♀; Kamerun; MNB, Berlin.

Distribution: Africa (Angola/ Cameroon/ Congo/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Rwanda/ South Africa/ Zaire/ Zambia).

Hosts: *Albizzia* sp., *Bussea occidentalis*, *Canarium* sp., *Carapa* sp., *Celtis mildbraedii*, *Combretodendron* sp., *Cynometra* sp., *Eucalyptus* spp., *Ficus serotii*, *Garcinia* sp., *Gossweilerodendron* sp., *Gossypium hirsutum*, *Macrobium* sp., *Myrianthus* sp., *Pentaclethra* sp., *Strombosiopsis*

sp., *Sterculia* sp., *Synsepalum* spp., *Terminalia* sp., *Veronia* sp.

References: **(bv)** Schedl 1960j: 53. **(cn)** Ghesquiere 1933a: 27–35, 1933b: 777–785. **(hb)** Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 186; Thompson, F. G. 1963a: 245. **(ds)** Beaver & Loytyniemi 1985a: 68; Ferreira 1965: 1126; Ghesquiere 1933a; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 312, 1934a: 176; Mayne & Donis 1962: 323; Roberts 1969: 134; Schedl 1959p: 22, 1960j: 40, 1961f: 84, 1962b: 61, 1962j: 186, 1962k: 1105, 1964e: 69, 1964j: 42, 1965c: 356, 1966c: 229, 1971g: 194, 1972e: 284; Thompson, F. G. 1963a: 245; Wichmann 1954: 522. **(tx)** Beaver & Loytyniemi 1985a: 68; Eggers 1920: 125, 1927a: 198; Hagedorn 1910a: 157, 1910b: 12; Schedl 1937c: 13, 1952j: 2, 1957d: 17, 1962j: 186, 1962k: 1105.

trux (Schedl) 1937b: 400 (*Xyleborus*). Lectotype ♀; Madagascar, Sikora; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 257.

Distribution: Madagascar.

References: **(ds)** Schedl 1977b: 139. **(tx)** Schedl 1937b: 400, 1951b: 376, 1977b: 139, 1979c: 257.

turgidus (Schedl) 1962j: 188 (*Xyleborus*). Holotype ♀; Deutsch-Ostafrika; Tanga; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: **(tx)** Schedl 1962j: 188, 1979c: 259.

upoluensis (Schedl) 1951k: 152 (*Xyleborus*). Lectotype ♀; Upolu, Afiamalu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 261.

Distribution: Samoan Islands.

Notes: This is apparently a synonym of *wilderi* (DEB).

References: **(tx)** Beaver 1976b: 542; Schedl 1951k: 138, 152, 1979c: 261.

wilderi (Beeson) 1929: 235 (*Xyleborus*). Holotype ♀; Tutuila; Fagasa; BMNH, London.

Distribution: Samoan Islands.

Hosts: *Albizzia falcata*, *Elaeocarpus* sp., *Leucaena* sp.

References: **(hb)** Beaver 1976b: 542. **(ds)** Beaver 1976b: 542; Beeson 1938b: 294. **(tx)** Beeson 1929: 235–236; Schedl 1951k: 137.

Genus *Amasa* Lea

AMASA LEA 1894: 322. Type-species: *Amasa thoracica* Lea = *Tomicus truncatus* Erichson, monobasic.

Pseudoxyleborus Eggers 1930d: 206. Type-species: *Pseudoxyleborus beesonii* Eggers, monobasic. Synonymy: Wood 1984b: 223.

References: **(tx)** Browne 1961c: 172; Eggers 1930d: 206–207; Murayama 1950: 49; Schedl 1936h: 60–62; Wood, S. L. 1984b: 223.

Anaxyleborus Wood 1980b: 90. Type-species: *Tomicus truncatus* Erichson, original designation. Synonymy: Wood 1983a: 647.

References: **(tx)** Wood, S. L. 1980b: 90, 1983a: 647.

- References: **(hb)** Wood, S. L. 1986a: 83. **(ds)** Wood, S. L. 1986a: 83. **(tx)** Lea 1894: 322; Wood, S. L. 1984b: 223, 1986a: 83.
- amputatus (Blandford)** 1894c: 575 (*Xyleborus*). Holotype ♀; Japan: Higo; BMNH, London. Figures: Nakane et al. 1963: pl. 192, Nunberg 1978: 106, Yin, Huang, & Li 1984: 178. Distribution: Asia (Japan/ Taiwan). Hosts: *Acer* sp., *Cinnamomum mairei*, *C.* sp., *Machilus* sp., *Pelargonium hortorum*, *Ziziphilus jujuba*. References: **(ds)** Choo & Woo 1989; Hagedorn 1910d: 98; Kleine 1913b: 160, 1914b: 261; Murayama 1952a: 18, 1953c: 155, 1954b: 174; Nakane et al. 1963: 383; Nobuchi 1967: 21; Sampson 1921: 29; Yin, Huang, & Li 1984: 178. **(tx)** Blandford 1894c: 575; Hagedorn 1910a: 152; Murayama 1934c: 299, 1934d: 505–512, 1952a: 18, 1954b: 174; Nakane et al. 1963: 383, pl. 192; Nobuchi 1985c: 23; Nunberg 1978: 105–106; Sampson 1921: 29; Schedl 1934f: 1645.
- anomalus (Schedl)** 1955b: 298 (*Xyleborus*). Holotype ♀; Deutsch-Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: **(tx)** Schedl 1955b: 281, 298, 1979c: 21.
- aspersus (Sampson)** 1921: 31 (*Xyleborus*). Holotype ♀; Penang; BMNH, London. Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo). Hosts: *Eugenia* sp. Notes: (3) Browne 1948: 904 (described male). References: **(cn)** Browne 1952. **(ec)** Browne 1958b. **(hb)** Beaver & Browne 1978: 603; Browne 1958b, 1961c: 172. **(ds)** Beaver & Browne 1975: 297, 1978: 603; Browne 1961c: 172; Sampson 1921: 31; Schedl 1936d: 2. **(tx)** Browne 1948: 904; Sampson 1921: 31; Schedl 1936d: 2, 1936h: 62.
- banksiae (Schedl)** 1964d: 213 (*Xyleborus*). Holotype ♀; Dwellingup, W. A. [West Australia]; BMNH, London. Distribution: Australia (West Australia). Hosts: *Banksia grandis*. References: **(ds)** Schedl 1964d: 213. **(tx)** Schedl 1964d: 213, 1979c: 33.
- batoerradensis (Schedl)** 1939f: 39 (*Pseudoxyleborus*). Lectotype ♀; Batoerraden, G. Slamet, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 36. Distribution: Asia (Malaya), Indonesia (Java). Hosts: *Eugenia aromatica*, *Myristica fragrans*. Notes: (1) A Schedl note in his collection lists this as a synonym of *laticaudatus*. References: **(ds)** Beaver & Browne 1978: 603; Browne 1961c: 173; Nunberg 1961b: 610. **(tx)** Schedl 1939f: 39–40, 1979c: 36.
- beesoni (Eggers)** 1930d: 207 (*Pseudoxyleborus*). Holotype ♀; Burma (Ataran Division, Moulmein); FRI, Dehra Dun. Distribution: Asia (Burma/ Malaya), Indonesia (Borneo). Hosts: *Nephelium longana*, *Xerospermum intermedium*. References: **(ec)** Browne 1958b: 169. **(hb)** Browne 1958b: 169, 1961c: 173. **(ds)** Beeson 1961: 295; Browne 1961c: 173. **(tx)** Eggers 1930d: 207; Schedl 1936h: 60, 1939f: 39, 1940d: 134, 1942a: 171, 1979c: 36.
- bicostatus (Sampson)** 1921: 28 (*Xyleborus*). Holotype ♀; Mt. Matang, Sarawak, Borneo; BMNH, London. Distribution: Indonesia (Borneo). References: **(ds)** Sampson 1921: 28. **(tx)** Sampson 1921: 28.
- calamoides (Murayama)** 1934c: 291 (*Xyleborus*). Syntypes ♀; Nagoa Forest, Miyazaki pref., Kiushu; Murayama Collection in USNM, Washington. Distribution: Asia (Japan). Hosts: *Quercus gilva*. References: **(ds)** Murayama 1954b: 202; Nobuchi 1985c: 24. **(tx)** Murayama 1934c: 291, 1954b: 202.
- circumcisulus (Schedl)** 1954a: 140, 151 (*Xyleborus*). Lectotype ♀; Batoerraden, G. Slamet, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 58. Distribution: Indonesia (Java). Hosts: *Eugenia lineata*. References: **(tx)** Schedl 1954a: 140, 151, 1979c: 58.
- concitatus (Schedl)** 1969a: 214 (*Xyleborus*). Holotype ♀; Formosa, Keelung to Tokyo (Japan), imported; PPST, Tokyo. Figures: Nobuchi 1978a: pl. 2. Distribution: Asia (Taiwan). References: **(ds)** Nobuchi 1978a: 23. **(tx)** Nobuchi 1978a: pl. 2; Schedl 1969a: 214, 1979c: 61.
- consularis (Schedl)** 1955b: 299 (*Xyleborus*). Holotype ♀; Samoa; Schedl Collection in NHMW, Wien. Figures: Schedl 1955b: 299 (female). Distribution: Samoan Islands. References: **(tx)** Schedl 1955b: 286, 299, 1979c: 64.
- cylindriciformis (Schedl)** 1942c: 190 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: Fiji Islands, New Guinea. Hosts: Myrtaceae. References: **(tx)** Schedl 1942c: 190, 1979c: 74.
- circulicauda** Browne 1974a: 68 (*Xyleborus*). Holotype ♀; Fiji: Viti Levu, Galoa; BMNH, London. Synonymy: Schedl 1980d: 120. References: **(ec)** Roberts 1977a: 253. **(hb)** Roberts 1977a: 253. **(ds)** Browne 1974a: 65,

68. (tx) Browne 1974a: 65, 68; Schedl 1980d: 120.

dasyurus (Browne) 1950a: 645 (*Xyleborus*). Holotype ♀; Malaya: Kelantan, Pulau Chondong; BMNH, London.

Distribution: Asia (Malaya).

References: (hb) Browne 1961c: 160. (ds) Browne 1950a: 645, 1961c: 160.

doliaris (Schedl) 1959a: 511 (*Xyleborus*). Holotype ♀; Ceylon: Denawake Group; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

References: (ds) Schedl 1959a: 511. (tx) Schedl 1959a: 511, 1979c: 83.

eugeniae (Eggers) 1930d: 183 (*Xyleborus*). Holotype ♀; India: Uttar Pradesh, Lachiwala, Dehra Dun; FRI, Dehra Dun.

Distribution: Asia (Bengal, Uttar Pradesh in India/Sri Lanka), Indonesia (Borneo).

Hosts: *Eugenia jambolana*.

References: (ay) Gardner 1934b. (ds) Beeson 1930; Kleine 1934a: 173; Schedl 1959a: 511, 1971a: 281. (tx) Beeson 1930: 57, 233; Eggers 1930d: 183–184; Gardner 1934b; Schedl 1959a: 511, 1979c: 92.

exactus (Schedl) 1964i: 246 (*Xyleborus*). Holotype ♀; Australia: Queensland, Cairns; Schedl Collection in NHMW, Wien.

Distribution: Australia (Queensland).

References: (ds) Kendrick & Molnar 1965: 39–43. (tx) Schedl 1964i: 246, 1979c: 93.

foveicollis (Browne) 1950b: 646 (*Xyleborus*). Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Palaquium stellatum*.

References: (ds) Browne 1961c: 160. (hb) Browne 1961c: 160. (tx) Browne 1950b: 646.

fulgens (Schedl) 1975f: 365 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 365, 1979c: 101.

fuscipilosus (Eggers) 1940d: 137 (*Xyleborus*). Holotype ♀; Java (Preanger, Tangkoeban Prahoë); Drescher Collection, cotype in Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

Notes: (1) Schedl 1979c: 102 (citation of lectotype invalid).

References: (tx) Eggers 1940d: 137–138; Schedl 1979c: 102.

geminatus (Hagedorn) 1904d: 126 (*Xyleborus*). Holotype ♀; Dardjiling [India]; Hamburg Museum, lost.

Distribution: Asia (Bengal in India).

References: (ds) Hagedorn 1910d: 105; Kleine

1913b: 161, 1914b: 277. (tx) Beeson 1930: 40; Hagedorn 1904d: 126, 1910a: 154.

glaucus (Sampson) 1921: 30 (*Xyleborus*). Holotype ♀; Penang; BMNH, London.

Distribution: Asia (Malaya).

References: (ds) Beaver & Browne 1978: 609; Browne 1961c: 173; Sampson 1921: 30. (tx) Eggers 1930d: 206; Sampson 1921: 30.

latetruncatus (Schedl) 1942a: 190 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Cameron's Highland, 5000 Fuss; Schedl Collection, designated by Schedl 1979c: 136.

Distribution: Asia (Malaya).

References: (tx) Schedl 1942a: 190, 1979c: 136.

laticaudatus (Eggers) 1923a: 168 (*Xyleborus*). Holotype ♀; M. Singalang auf Sumatra; MCG, Genova.

Distribution: Indonesia (Sumatra).

Notes: (1) A Schedl note in his collection lists *batoerradensis* Schedl as a synonym of this species.

References: (tx) Eggers 1923a: 168–169.

mixtus (Schedl) 1979g: 108 (*Xyleborus*). Holotype ♀; Papua [New Guinea], Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 108.

neotruncatus (Schedl) 1978c: 307 (*Xyleborus*). Holotype ♀; Brasilien, Nova Teutonia, 300–500 m, 27 degrees 11' Br., 52 degrees 23' L.; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) Either this species is placed in the wrong genus or it represents an unreported introduction; it may be allied to *Xyleborus exaratus*.

References: (tx) Schedl 1978c: 307.

nitidior (Eggers) 1940d: 136 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Drescher Collection.

Distribution: Indonesia (Java).

References: (tx) Eggers 1940d: 136–137; Schedl 1951i: 44, 1954a: 143.

nobilis (Eggers) 1940d: 134 (*Pseudoxyleborus*). Lectotype ♀; Java (Batoerraden, G. Slamet); Eggers Collection, type and 1 cotype in NHMW, Wien, designated by Schedl 1979c: 171.

Distribution: Indonesia (Java).

Hosts: *Turpinia pomifera*.

References: (hb) Kalshoven 1959c: 163. (ds) Kalshoven 1959c: 163; Schedl 1961c: 71. (tx) Eggers 1940d: 134–135; Schedl 1936h: 62, 1937e: 550, 1951i: 44, 1954a: 142, 1961c: 71, 1964g: 242, 1969a: 214, 1979c: 171.

opalescens (Schedl) 1937e: 550 (*Xyleborus*). Lectotype ♀; Borneo: Sarawak, Mt. Dulit, 4000 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 180.

- Distribution: Asia (Malaya/ Vietnam), Indonesia (Borneo).
 Hosts: *Eugenia* sp., *Tristania* sp.
 References: (ds) Browne 1961c: 173; Schedl 1964g: 242, 1974c: 262. (tx) Schedl 1936h: 62, 1937e: 550, 1942a: 190, 1964g: 242, 1969a: 214, 1979c: 180.
- orbicaudatus** (Eggers) 1940d: 135 (*Xyleborus*).
 Holotype ♀; Java (Preanger, Tangkoeban Prahoe); Drescher Collection, 1 Eggers cotype, in NHMW, Wien.
 Distribution: Indonesia (Java).
 References: (tx) Eggers 1940d: 135–136; Schedl 1951i: 51, 1955b: 298, 1979c: 180.
- resicans** (Eggers) 1930d: 184 (*Xyleborus*). Holotype ♀; India: Assam (Central Range, Sibsagar); FRI, Dehra Dun.
 Distribution: Asia (Andaman Islands, Assam, Bengal in India).
 Hosts: *Dipterocarpus pilosus*, *D. turbinatus*.
 References: (ds) Beeson 1930. (tx) Beeson 1930: 77, 253; Eggers 1930d: 184.
- resectus** (Eggers) 1927b: 391 (*Xyleborus*). Syntypes 2 ♀; Benkoelen and Soekaranda (Sumatra); RNH, Leiden, and Stettin Museum, lost, automatic.
 Distribution: Asia (Sri Lanka), Indonesia (Java, Sumatra).
 Notes: (3) This could be a synonym of *Xylosandrus mancus*.
 References: (hb) Kalshoven 1959c: 159. (ds) Kalshoven 1959c: 159; Kleine 1934a: 175; Schedl 1971a: 218. (tx) Eggers 1927b: 391; Kalshoven 1959b: 94–95, 1960d.
- abruptus** Eggers 1923a: 169 (*Xyleborus*). Syntypes 2 ♀; Benkoelen and Soekaranda (Sumatra); RNH, Leiden, and Stettin Museum, lost, preoccupied by Sampson 1914.
 References: (hb) Miller, N. C. E. 1941. (tx) Eggers 1923a: 169, 1927b: 391.
- opacicauda** Eggers 1940d: 136 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Drescher Collection [Eggers cotype in NHMW, Wien]. Synonymy: Kalshoven 1959b: 94.
 References: (ds) Kalshoven 1959c: 159. (tx) Eggers 1940d: 136; Kalshoven 1959b: 94–95; Schedl 1951i: 43, 81, 1954a: 142, 1979c: 178.
- schlichii** (Stebbing) 1914: 592 (*Xyleborus*). Syntypes ♀; India: Kachugaon, Coalpara, Assam; FRI, Dehra Dun.
 Distribution: Asia (Assam, Bengal in India/ Malaya), Indonesia (Java).
 Hosts: *Castanea* sp., *Castanopsis sumatrana*, *C.* sp., *Dryobalanops oblongifolia*, *Garcinia* sp., *Lithocarpus wallichianus*, *Pasania* sp., *Quercus* sp., *Shorea robusta*.
 References: (cn) Beeson 1916b: 1–5; Mathur & Singh 1961a: 40; Pierce, W. D. 1917: 193; Stebbing 1914: 592. (cc) Beeson 1923; Stebbing 1914: 592. (hb) Beaver & Browne 1978: 613; Beeson 1916a: 223, 1919: 1–23, 1923; Stebbing 1914: 592. (ds) Beaver & Browne 1978: 613; Beeson 1916a, 1923, 1930: 79, 255; Mathur & Singh 1961a: 40; Pierce, W. D. 1917: 193; Schedl 1975g: 294. (tx) Beeson 1930: 255; Eggers 1936e: 89; Schedl 1963h: 268, 1979c: 222; Stebbing 1914: 592.
truncatus Stebbing 1907: 40 (*Acanthotomicus*).
 Holotype ♀; Assam: Kachugaon Forests; FRI, Dehra Dun, preoccupied by Erichson 1842.
 References: (ds) Kleine 1913b: 132, 163, 1914b: 277. (tx) Numberg 1959a: 441; Stebbing 1907: 40.
- glaber** Eggers 1930d: 185 (*Xyleborus*). Holotype ♀; India: Assam (Haflong, Cachar); FRI, Dehra Dun. Synonymy: Wood 1989: 169.
 References: (hb) Kalshoven 1959c: 159. (ds) Kalshoven 1959a: 159; Schedl 1971c: 364. (tx) Eggers 1930d: 185; Schedl 1979c: 105; Wood, S. L. 1989: 169.
- uniseriatus** Eggers 1936e: 89 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); ZMA, Amsterdam. Synonymy: Schedl 1963h: 268.
 References: (hb) Browne 1961c: 160; Kalshoven 1959c: 159. (ds) Browne 1961c: 160; Kalshoven 1959c: 159; Schedl 1961c: 71, 1971c: 365. (tx) Eggers 1936e: 89; Kalshoven 1959b: 94–95, 1960d; Schedl 1942d: 6, 1951i: 80, 1953c: 290, 1963h: 268, 1979c: 261.
- verax** Schedl 1939f: 43 (*Xyleborus*). Lectotype ♀; Java, Mt. Gede, Tapos; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 265. Synonymy: Kalshoven 1959b: 95.
 References: (hb) Kalshoven 1959c: 159. (tx) Kalshoven 1959b: 95; Schedl 1939f: 43, 1979c: 265.
- brevipennis** Schedl 1971c: 378 (*Xyleborus*). Holotype ♀; Sarawak: Semengoh; BMNH, London. Synonymy: Wood 1989: 169.
 References: (tx) Schedl 1971c: 378–379; Wood, S. L. 1989: 169.
- sirambeanus** (Eggers) 1923a: 169 (*Xyleborus*). Holotype ♀; Sumatra (Si Rambe); MCG, Genova. Distribution: Indonesia (Sumatra).
 References: (tx) Eggers 1923a: 158, 169–170; Schedl 1954c: 154.
- striatotruncatus** (Schedl) 1936j: 29 (*Xyleborus*). Lectotype ♀; Malay Peninsula, Perak: Chenderoh, Batu Talam; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 237.
 Distribution: Asia (Malaya), Indonesia (Borneo, Java).
 Hosts: *Madhuca* sp., *Nephelium* sp., *Scaphium* sp., *Shorea leprosula*.
 References: (hb) Browne 1961c: 160. (ds) Browne 1961a: 306, 1961c: 160, 1980a: 373; Olmo et al. 1988a: 94, 1989: 64; Schedl 1936j: 29, 1971c: 365. (tx) Schedl 1936j: 29–30, 1936h: 61, 1951i: 44, 1954a: 143, 1955b: 309, 1979c: 237.

tereticollis (Schedl) 1951i: 82 (*Xyleborus*). Holotype ♀; Sumatra; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Sumatra), New Guinea. References: (bv) Gray, B. 1974c. (hb) Gray, B. 1974c. (tx) Schedl 1951i: 82, 1954a: 151, 1979c: 252.

truncatiferus (Schedl) 1955b: 309 (*Xyleborus*). Holotype ♀; Fiji; Schedl Collection in NHMW, Wien.

Distribution: Fiji Islands. References: (cn) Schedl 1979f: 103. (cc) Roberts 1977a: 265. (hb) Roberts 1977a: 265. (ds) Browne 1974a: 65; Roberts 1977a: 265. (tx) Schedl 1955b: 286, 298, 309, 1979c: 256.

truncatiformis (Eggers) 1923a: 170 (*Xyleborus*). Holotype ♀; Moroka in Sudost Neu Guinea (1300 m); MCG, Genova.

Distribution: New Guinea. References: (tx) Eggers 1923a: 170, 1940d: 138; Schedl 1964d: 213.

truncatus (Erichson) 1842: 212 (*Tomicus*). Holotype ♀; Vandiemensland [Tasmania]; MNB, Berlin. Figures: Bain 1976: 183, Zondag 1977.

Distribution: Australia (New South Wales/Queensland/Tasmania).

Hosts: *Alphitonia petriei*, *Eucalyptus* spp., *Leptospermum ericoides*, *Metrosideros excelsa*. Notes: (3) Schedl 1980: 187 (described male).

References: (cn) Anonymous 1963h, 1966g; Brimblecombe 1956; Browne 1968: 717; Froggatt 1927; Green 1912a: 39; Kershaw 1973; Milligan 1969b: 60; Moore 1959: 186; Newman 1924: 20–24; Zondag 1977. (cc) Anonymous 1966g; Milligan 1969b: 60; Moore 1959: 186–193, 1962a: 8. (hb) Brimblecombe 1956; Browne 1968: 717; Froggatt 1927; Milligan 1973a; Zondag 1977. (ds) Anonymous 1963h: 47, 1963h; Browne 1968: 717; Gemminger & Harold 1872: 2692; Green 1912a: 39; Ibero 1959: 162; Kleine 1913b: 163, 1914b: 299, 1934a: 176; Kuschel 1972; Moore 1959: 186–193, 1961: 92; Sampson 1921: 29; Schedl 1936g: 528, 1936j: 29, 1962i: 74. (tx) Bain 1976: 183; Beeson 1938: 294; Carne et al. 1980; Eggers 1923a: 170, 1940d: 135; Eichhoff 1878b: 317; Erichson 1842: 212; Green 1912a: 39; Hagedorn 1910a: 107, 152, Lea 1904: 106; Numberg 1959: 441; Sampson 1921: 29; Schedl 1936g: 528, 1936h: 60–61, 1942c: 163, 1951i: 82, 1957d: 35, 84, 1980b: 187; Stebbing 1907: 40; Zondag 1977. *thoracicus* Lea 1893: 322. Syntypes ♀; Tamworth and Armidale [New South Wales]; not located. Synonymy: Lea 1904: 106.

References: (tx) Lea 1893: 321–322, 1904: 106.

umbratulus (Schedl) 1975g: 221 (*Xyleborus*). Holotype ♀; New Guinea, Dagi River, West New Britain District; Schedl Collection in NHMW, Wien.

Distribution: New Guinea. References: (tx) Schedl 1975g: 221, 1979c: 259.

versicolor (Sampson) 1921: 29 (*Xyleborus*). Holotype ♀; Penang; BMNH, London.

Figures: Wood 1960a: 56.

Distribution: Asia (Burma/ Bengal in India/ Malaya/ Sri Lanka), Indonesia (Borneo, Java), Micronesia (Caroline Islands, Ponape Island).

Hosts: *Alstonia angustifolia*, *Elaeocarpus ferrugineus*, *E. sp.*, *Pternandra coerulea*, *Randia anisophylla*, *Rhodamnia trinervia*, *Shorea curtisii*, *Schoutenia accrescens*.

References: (cn) Mathur & Singh 1961a: 33; Yunus & Hna 1980: 231. (hb) Beaver & Browne 1978: 614; Browne 1961c: 159–160; Kalshoven 1959c: 159. (ds) Beaver & Browne 1978: 614; Browne 1961a: 305, 1961c: 159; Kalshoven 1959c: 159; Mathur & Singh 1961a: 33; Sampson 1921: 29; Wood, S. L. 1960a: 51. (tx) Browne 1949b: 904; Eggers 1940d: 136; Kalshoven 1959b: 94; Murayama 1934c: 292; Sampson 1921: 29; Wood, S. L. 1960a: 51, 55–56.

Genus *Euwallacea* Hopkins

EUWALLACEA HOPKINS 1915b: 54. Type-species: *Xyleborus wallacei* Blandford, original designation.

References: (hb) Wood, S. L. 1986a: 83. (ds) Wood, S. L. 1986a: 83. (tx) Hopkins 1915b: 54; Schedl 1952k: 162; Wood, S. L. 1986a: 83.

andamanensis (Blandford) 1896b: 222 (*Xyleborus*). Holotype ♀; Andaman Islands; BMNH, London.

Figures: Numberg 1959a: pl. 28, figs. 4–5, Wood 1960a: 58.

Distribution: Asia (Bangladesh/ Burma/ Andaman Islands, Assam, Bengal, Madhya Pradesh, Maharashtra, Tamil Nadu in India/ Malaya/ Thailand/ Vietnam), Indonesia (Borneo, Buru, Mantawei, Sumatra), New Guinea.

Hosts: *Acacia catchu*, *Alstonia* sp., *Artocarpus* spp., *Bauhinia variegata*, *Butea frondosa*, *Cordia grandis*, *Dalbergia* sp., *Dichipsis elliptica*, *Dillenia pentagyna*, *Garuga pinnata*, *Gmelina arborea*, *Holigarna arnettiana*, *Ixora parviflora*, *Parabacna sagittata*, *Pterocarpus marsupium*, *Randia uliginosa*, *Salmalia insignis*, *Sapinum eugeniaefolium*, *Saraca* sp., *Shorea assamica*, *Strychnos nux-vanica*, *Symingtonia populnea*, *Symplocos theaeifolia*, *Tectona grandis*, *Terminalia tomentosa*, *Tetrameles nudiflora*, *Thespesin populnea*, *Turpina* sp., *Vateria indica*, *Vitex peduncularis*, *Wrightia tinctoria*, *Xanthophyllum* sp., *Xylia xylocarpa*, *Zanthoxylum rhetsa*.

References: (cn) Mathur & Singh 1960b: 96, 1961a: 10; Roonwal 1954: 85. (cc) Batra 1963b: 217. (hb) Beaver & Browne 1978: 602; Browne 1961c: 127; Kalshoven 1959c: 138. (ds) Beaver & Browne 1978: 603; Beeson 1930: 210, 225; Browne 1961c: 127–128, 1981b: 598; Eggers 1926a: 300; Hagedorn 1910d: 99; Kalshoven 1959c: 138; Kleine 1913b: 160, 1914b, 1934a: 172; Mathur &

- Singh 1961a: 10, 1961b: 96; Roonwal 1954: 85; Schedl 1969c: 52, 1975e: 450. (**tx**) Beeson 1930: 210, 225; Blandford 1896b: 222; Eggers 1926a; Hagedorn 1910a: 152; Schedl 1939e: 330, 1942d: 5, 1951i: 70, 1954a: 140, 153, 1958k: 150, 1970i: 224, 1979c: 19.
- noxius* Sampson 1913: 445 (*Xyleborus*). Holotype ♀; S. Malabar, Madras, India; BMNH, London. Synonymy: Beeson 1930: 251. Notes: (3) Schedl 1951: 70 (described male). References: (**cn**) Ballard 1921; Chandra 1981; Mathur & Singh 1960a: 22, 1960b: 6, 1961a: 13, 1961b: 14; Stebbing 1914: 598. (**ec**) Chatterjee & Chatterjee 1951; Stebbing 1914: 598. (**hb**) Beaver & Browne 1975: 299; Chandra 1981; Chatterjee & Chatterjee 1951; Stebbing 1914: 598. (**ds**) Ballard 1921; Beaver & Browne 1975: 299; Beeson 1930: 212–213, 251, 1961: 308; Bhasin, Roonwal, & Singh 1958; Browne 1984b: 287; Chatterjee & Chatterjee 1951; Kalshoven 1959: 138; Kleine 1934a: 174; Mathur & Singh 1960a: 22, 1960b: 6, 1961a: 13, 1961b: 14; Nobuchi 1978a: 32; Schedl 1975a: 451, 1975e: 451. (**tx**) Beeson 1930: 212–213, 251; Eggers 1925: 159; Nobuchi 1978a: pl. 3; Numberg 1959a: 432, 438; Sampson 1913: 445; Schedl 1951i: 70, 1971f: 155; Stebbing 1914: 598; Wood, S. L. 1960a: 58.
- siobanus* Eggers 1923a: 186 (*Xyleborus*). Syn-types ♀; Insel Mentawai (Si Oban, Sipora); MCG, Genova, Eggers Collection (USNM, Washington or NHMW, Wien?), MNB, Berlin. Synonymy: Schedl 1958k: 150. References: (**tx**) Eggers 1923a: 184–186; Numberg 1959a: 438; Schedl 1942d: 6, 1951i: 42, 1954a: 143, 154, 1958k: 150, 1979c: 231.
- granulipemis* Eggers 1930d: 194 (*Xyleborus*). Lectotype ♀; Nadghani (1500 ft.), Nilambur, Madras; USNM, Washington, designated by Anderson & Anderson 1971: 14. Synonymy: Wood 1989: 172. References: (**cn**) Mathur & Singh 1960b: 73, 1961b: 70. (**ds**) Beeson 1930: 61, 237, 1961: 305; Kleine 1934a: 173; Mathur & Singh 1960b: 74, 1961b: 70; Schedl 1962b: 186, 1974c: 262. (**tx**) Anderson, W. H. & Anderson 1971: 14; Beeson 1930: 61, 237; Browne 1965: 248; Eggers 1930d: 194–195, 1940d: 138; Schedl 1939f: 48, 1979c: 112; Wood, S. L. 1989: 172.
- burmanicus* Beeson 1930: 210 (*Xyleborus*). Holotype ♀; Burma: Bilumyo Reserve, Katha; FRI, Dehra Dun. Synonymy: Schedl 1970i: 224. References: (**cn**) Mathur & Singh 1960a: 23, 1960b: 6, 1961b: 14; Roonwal 1954: 36. (**ds**) Beeson 1930: 210; Kleine 1934a: 172; Mathur & Singh 1960a: 23, 1960b: 6, 1961b: 14; Roonwal 1954: 36. (**tx**) Beeson 1930: 210; Eggers 1935c: 309; Schedl 1970i: 224, 1979c: 49.
- intextus* Beeson 1930: 211 (*Xyleborus*). Holotype ♀; Bilumyo Reserve, Katha, Burma; FRI, Dehra Dun. Synonymy: Wood 1989: 172. References: (**cn**) Mathur & Singh 1960b: 6, 1961a: 23, 1961b: 14; Roonwal 1954: 33. (**ds**) Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 173; Mathur & Singh 1960b: 6, 1961a: 23, 1961b: 14; Roonwal 1954: 33. (**tx**) Beeson 1930: 210–212; Schedl 1951i: 68, 1971f: 155, 1979c: 128; Wood, S. L. 1989: 172.
- senchalensis* Beeson 1930: 212 (*Xyleborus*). Syn-types ♀; Bengal: Rangirum, Senchal Range, Darjeeling; FRI, Dehra Dun. Synonymy: Wood 1989: 172. References: (**cn**) Mathur & Singh 1961a: 84. (**ds**) Beeson 1961: 309; Mathur & Singh 1961a: 84; Wood, S. L. 1960a: 51. (**tx**) Beeson 1930: 210–212, 257; Schedl 1979c: 224; Wood, S. L. 1960a: 51, 58.
- aplanatus* (Wichmann) 1914a: 412 (*Xyleborus*). Holotype ♀; ♀ Upper Rotung, ♂ Sadiya, Assam; not located. Distribution: Asia (Assam in India). Hosts: *Shorea robusta*. References: (**bv**) Beeson 1916a: 223. (**cn**) Mathur & Singh 1961a: 45. (**hb**) Beeson 1916a: 223. (**ds**) Mathur & Singh 1961a: 45. (**tx**) Wichmann 1914a: 412.
- artelaevis* (Schedl) 1942a: 196 (*Xyleborus*). Holotype ♀; Malaya, Perak, Trolak F. R.; BMNH, London. Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: Annonaceae, *Partocarpus* sp. References: (**hb**) Browne 1961c: 146. (**ds**) Browne 1961c: 146. (**tx**) Schedl 1942a: 196, 1958h: 498.
- barbatomorphus* (Schedl) 1951i: 72 (*Xyleborus*). Holotype ♀; Fornosa, Chekakunai, Daibu; Schedl Collection in NHMW, Wien. Distribution: Asia (Taiwan). References: (**ds**) Nobuchi 1967: 21. (**tx**) Schedl 1951i: 72, 1979c: 34.
- barbatulus* (Schedl) 1934d: 86 (*Xyleborus*). Lectotype ♀; Java Gn. Gedeh, 1480 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34. Distribution: Indonesia (Java). Hosts: *Eupatorium* sp. References: (**tx**) Schedl 1934d: 86, 1942a: 193, 1951i: 72, 1979c: 34.
- barbatus* (Hagedorn) 1910b: 11 (*Xyleborus*). Syn-types 3 ♀; Sumatra; 1 in Hamburg Museum, lost, 2 in MNB, Berlin. Distribution: Australia, Indonesia (Mentawai, Sumatra), New Guinea. Hosts: *Araucaria cunninghamii*, *Cinnamomum* sp., *Pterocymbium beccarii*. See also Gray & Wylie 1974. References: (**bv**) Gray, B. 1974c. (**cn**) Gray, B. & Wylie 1974; Roberts 1987. (**hb**) Gray, B. 1974c; Gray, B. & Wylie 1974; Roberts 1987. (**ds**) Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 286;

Schedl 1936j: 19, 1966b: 47, 1968c: 263, 1971f: 148, 1979a: 158. **(tx)** Eggers 1927b: 408; Hagedorn 1910a: 152, 1910b: 11; Nobuchi 1983: 302; Numberg 1959a: 415; Schedl 1934c: 39, 1934d: 86, 1936d: 19, 1937e: 543, 1942a: 193, 1954a: 140, 1955b: 281; Wylie & Yule 1977.

benguensis (Schedl) 1951i: 71 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Bagnio, Mt. St. Thomas; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

References: **(ds)** Schedl 1966b: 47. **(tx)** Nobuchi 1983: 302; Schedl 1951i: 71, 1979c: 36.

bicolor (Blandford) 1894d: 113 (*Xyleborus*). Syntypes 5 ♀; Nagasaki, Inasa [Japan]; BMNH, London.

Distribution: Asia (Bangladesh/ Burma/ Yunnan in China/ Andaman Islands, Assam, Bengal, Nicobar Islands, Uttar Pradesh in India/ Japan/ Malaya/ Sri Lanka), Fiji Islands, Indonesia (Borneo, Java), Philippine Islands (Luzon), Samoan Islands, Solomon Islands.

Hosts: *Albizia moluccana*, *Castanopsis tribuloides*, *Duabanga sonneratioides*, *Eugenia jambolana*, *Heritiera fomes*, *Isonandia polyantha*, *Lindera latifolia*, *Mallotus philippinensis*, *Myristica andamanica*, *Nyssa sessilifolia*, *Shorea robusta*, *Sideroxylon maranthum*, *Terminalia belerica*, *T. bialata*, *T. procera*.

References: **(cc)** Beaver 1988a: 65; Mathur & Singh 1960b: 73, 1961a: 45, 1961b: 26; Roonwal 1954: 54. **(cc)** Beeson 1923; Roberts 1977a: 252. **(hb)** Beaver 1988a: 65; Beeson 1923; Browne 1961c: 147–148; Kalshoven 1959c: 141; Roberts 1977a: 252; Speyer 1923: 19; Takahashi 1989: 403. **(ds)** Beaver 1988a: 65; Beeson 1923, 1930: 213, 1938b, 1961: 303; Bhasin, Roonwal, & Singh 1958; Blandford 1894c; Browne 1961a: 305, 1961c: 147, 1974a: 65, 1980a: 372; Hagedorn 1910d: 99; Kalshoven 1959c: 141; Kleine 1913b: 160, 1914b: 260; Mathur & Singh 1960b: 73, 1961a: 45, 1961b: 26; Murayama 1951a: 6, 1954b: 176, 1955: 102; Roonwal 1954: 54; Schedl 1966b: 47; Speyer 1923: 11–23. **(tx)** Beeson 1930: 213; Blandford 1894d: 113; Eggers 1923a, 1930d: 204; Hagedorn 1910a: 152; Murayama 1934c: 295, 299, 1954b: 176, 1955: 102; Nobuchi 1983: 302; Sampson 1923b: 289; Schedl 1934f: 1645, 1958k: 147.

bicolor unimodus Beeson 1929: 238 (*Xyleborus*).

Holotype ♀; Tutuila: Pago Pago; BMNH, London. Synonymy: Wood 1989: 172.

References: **(cc)** Roberts 1977a: 266. **(hb)** Roberts 1977a: 266. **(ds)** Roberts 1977a: 266. **(tx)** Beeson 1929: 238–239, 1938: 291; Browne 1974a: 71; Schedl 1951k: 137; Wood, S. L. 1989: 172.

rodgeri Beeson 1930: 213 (*Xyleborus*). Holotype ♀; Andamans: Middle Island; FRI, Dehra Dun. Synonymy: Wood 1989: 173.

References: **(cn)** Mathur & Singh 1961b: 38;

Roonwal 1954: 67. **(ds)** Beeson 1930: 213, 253–255, 1961: 308; Mathur & Singh 1961b: 38; Roonwal 1954: 67; Schedl 1959a: 504, 1971a: 279, 1971c: 370. **(tx)** Beeson 1930: 213; Schedl 1959a: 504, 1979c: 213; Wood, S. L. 1989: 173.

rodgeri privatus Beeson 1930: 213 (*Xyleborus*). Syntypes ♀; Andamans: Middle Island; FRI, Dehra Dun. Synonymy: Wood 1989: 173.

References: **(cn)** Mathur & Singh 1961b: 28. **(ds)** Beeson 1961: 308; Mathur & Singh 1961b: 28. **(tx)** Beeson 1930: 213, 255; Schedl 1959a: 504, 1979c: 213; Wood, S. L. 1989: 173.

ramcus Schedl 1940b: 441 (*Xyleborus*). Syntypes ♀; Mt. Makiling, Laguna, Luzon; Schedl Collection in NHMW, Wien. Synonymy: Kalshoven 1959: 141.

Notes: (1) Schedl 1979c: 209 (citation of holotype invalid).

References: **(ds)** Lever 1940: 38–42, 1942: 23–24. **(tx)** Kalshoven 1959: 141; Schedl 1940b: 441–442, 1942d: 47, 1951k: 138, 1958h: 498, 1958k: 147, 1979c: 209.

comptus (Sampson) 1919: 111 (*Xyleborus*). Holotype ♀; Ceylon; BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: *Hevea brasiliensis*.

References: **(cn)** Mathur & Singh 1960b: 43. **(hb)** Speyer 1923: 19. **(ds)** Beeson 1930: 231, 1961: 303; Kleine 1934a: 172; Mathur & Singh 1960b: 43; Sampson 1919: 171; Schedl 1959a: 498. **(tx)** Beeson 1930: 231; Sampson 1919: 11; Schedl 1959a: 498.

destruens (Blandford) 1896b: 221 (*Xyleborus*).

Syntypes ♂ ♀; Gilolo, Java; BMNH, London.

Figures: Nobuchi 1978a: pl. 3, Wood 1960a: 58.

Distribution: Asia (Yunnan in China/ Andaman Islands in India/ Malaya), Australia, Fiji Islands, Indonesia (Borneo, Java, Sumatra), Micronesia (Caroline Islands, Palau Island), New Guinea, New Hebrides Islands, Philippine Islands, Samoan Islands.

Hosts: *Artocarpus elasticus*, *Intsia palmбанica*, *Tectona grandis*, *Theobroma cacao*, *Turpinia latifolia*.

Note: (3) *E. tonkinensis* is a synonym (DEB).

References: **(bv)** Kabir & Giese 1960a: 889; Kalshoven 1962a. **(cn)** Alphen de Veer & E. J. Van 1956a: 387; Browne 1968b: 714; Ferguson 1949: 387–389; Hagedorn 1913a; Hall 1919: 1–50, 1921: 12, 1922: 45, 1925: 1–51, 1926: 12, 1932: 265; Kalshoven 1922: 788, 1928: 596, 1932: 243, 1933b: 57, 1936c, 1938: 78, 1939: 322, 1951: 851, 1953b: 157, 1961c, 1961cc, 1962a; Kleine 1932a: 307; Muller 1933: 105–107, 125, 187; Natawiria & Tarumingkeng 1971; Van der Goot 1928: 54; Yunus & Hua 1980: 230. **(cc)** Browne 1958b; Kabir 1966a: 893, 1966b: 899; Kalshoven 1961c: 5–21, 1962a; Norris 1979. **(hb)** Beeson 1929: 240; Browne

- 1958b, 1961c: 132, 1968b: 714; Hagedorn 1913a; Kalshoven 1951: 851, 1958b: 158, 1959a: 225, 1959c: 140, 1961c, 1962a; Kleine 1932a: 307; Natawiria & Tarumingkeng 1971; Roepke 1919c: 68. (**ds**) Alphen de Veer & E. J. Van 1956; Beeson 1929: 240, 1938b: 292; Browne 1961c: 132–133, 1965a: 189, 1966: 248, 1968b: 714, 1980c: 484, 1980d: 490; Hagedorn 1910d: 101, 1913a; Kalshoven 1920: 1–26, 1925b: 11, 1932: 243, 1933b: 57, 1959c: 140, 1962a: 7; Kleine 1913b: 160, 1932a: 307, 1934a: 173; Murayama 1936b: 115; Nobuchi 1975a: 33; Nunberg 1961b: 610; Ohno, Yoneyama, & Nakazawa 1957a: 88, 1957b: 94; Ohno, Yoshioka, Uchida, Yoneyama, & Nakazawa 1959: 61; Ohno, Yoshioka, Yoneyama, & Nakazawa 1958a: 93; Schedl 1936g: 528, 1964c: 305, 1969a: 204, 1971f: 148, 1980b: 184; Wood, S. L. 1960a: 51. (**tx**) Beeson 1929: 240; Blandford 1896b: 221, 1895c; Eggers 1923a: 200, 1927c: 98, 1930d: 193–194; Hagedorn 1910a: 153; Kalshoven 1959a: 225; Nobuchi 1975a: pl. 3; Nunberg 1959a: 423; Ohno, Yoneyama, & Nakazawa 1952a: 4; Roepke 1919c: 68–71; Schedl 1942d: 5–6, 1950f: 52, 1951i: 42, 72, 1951k: 137, 1955b: 283; Wood, S. L. 1960a: 53, 58; Wylie & Yule 1977.
- pseudobarbatus* Schedl 1942a: 193 (*Xyleborus*). Syntypes ♀; Malaya, Kuala Lumpur; BMNH, London, and Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.
References: (**ds**) Browne 1961c: 133. (**tx**) Schedl 1942a: 193, 1951i: 72, 1979c: 200; Wood, S. L. 1989: 173.
- nandarivatus* Schedl 1950f: 52 (*Xyleborus*). Syntypes 2 ♀; Viti Levu: Navai Mill, near Nandarivatu, Tholo North; BPHM, Honolulu and Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.
References: (**ec**) Roberts 1977a: 260. (**hb**) Roberts 1977a: 260. (**ds**) Browne 1974a: 65; Roberts 1977a: 260; Schedl 1972b: 266. (**tx**) Schedl 1950f: 52, 1979c: 163; Wood, S. L. 1989: 173.
- dilatatifomis* (Schedl) 1971a: 285 (*Xyleborus*). Holotype ♀; Sabaragamuwa Prov., Deerwood, Kuruvitia, 6 miles NNW Ratnapura; Ent. Mus., Univ. Lund Collection.
Figures: Schedl 1971a: 283.
Distribution: Asia (Sri Lanka).
References: (**tx**) Schedl 1971a: 283, 285, 1979c: 80.
- filiformis* (Schedl) 1975f: 364 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist., New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1975f: 364, 1979c: 96.
- fornicatus* (Eichhoff) 1868c: 151 (*Xyleborus*). Syntypes, sex?; Ceylon; Hamburg Museum, lost.
Figures: Frolich & Rodewald 1969, Nobuchi 1967: pl. 1, Samuelson 1981: 54, Wood 1960a: 56.
Distribution: Asia (Bangladesh/ Bonin Islands/ Burma/ Guangdong, Sichuan, Yunnan Xizang [Tibet] in China/ Assam, Bengal, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Malaya/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam). Australia, Fiji Islands, Grande Comoro Island, Hawaiian Islands, Indonesia (Java, Sumatra), Micronesia (Caroline Islands), New Britain Island, New Guinea, Niue Island, North America (introduced into: Panama), Philippine Islands, Reunion Island, Samoan Islands.
Hosts: *Albizia falcata*, *A. moluccana*, *A. odoratissima*, *A. sumatrana*, *Artocarpus* sp., *Bauhinia variegata*, *Camellia sinensis*, *Cassia siamea*, *Casuarina equisetifolia*, *Chlorophora excelsa*, *Cinnamomum* sp., *Clerodendron colebrookianum*, *C. infortunatum*, *Crotalaria striata*, *Crotalaria* sp., *Embelia* cf. *insumbens*, *Erythrina lithosperma*, *E. orientalis*, *Gliricidia sepium*, *Gmelina arborea*, *Grevillia robusta*, *Hevea brasiliensis*, *Ixora parviflora*, *Myristica fragrans*, *Ochroma lagopus*, *Odina wodier*, *Populus* sp., *Pterocymbium beccarii*, *Ricinus communis*, *Robinia pseudoacacia*, *Salmalia malabarica*, *Shorea robusta*, *Tectona grandis*, *Tephrosia candida*, *T. vogelli*, *Terminalia catappa*, *Theobroma cacao*, *Whitfordiodendron pubescens*, *Xylia xylocarpa*.
Notes: (3) Schedl Collection lists *nigricans* Eggers, nomen nudum, as a synonym.
References: (**ay**) Farris 1963: 257; Fernando 1959, 1960, 1963; Finnegan 1963: 137; Gardner 1934b: 1–17; Herfs 1949: 26; Sivapalan & Shivanandaraiah 1977b, 1997c. (**bv**) Aulman 1911; Bletchly 1961: 15; Calnaido 1965, 1966; Gray, B. 1974c; Judenko 1957: 29, 1958d: 104; Kalshoven 1961b: 102; Wickremasinghe & Thiruganasuntharam 1950. (**cn**) Ananda 1937: 1424, 1943: 10–15; Andrews 1913: 94–95; Anonymous 1916b: 41, 1956b: 83–143, 1960c, 1960t, 1961d, 1966j, 1967f, 1967i, 1967u, 1973p; Anstead 1920: 179; Austin 1954, 1955, 1956: 97–102, 1958; Baptist 1956: 28–35; Barlow 1896; Beeson 1925: 371–372; Bernard 1908a, 1914, 1921: 1–32; Bos 1923; Bontan 1907; Browne 1952, 1968: 715; Calnaido 1963: 249, 1966: 185–199, 1971, 1972; Calnaido & Kanapathipillai 1967: 275–281; Calnaido, Ranasinghe, & Thiruganasuntharan 1972a, 1972c; Calnaido & Thiruganasuntharan 1966: 28–45; Chevalier 1931; Cowling et al. 1956; Cranham 1960, 1961a: 62, 1966a: 56–58, 1966c: 481–504; Cranham, Danthanarayana, & Ranaweera 1962; Cranham, Kanapathipillai, & Kathiravetpillai 1968; Cranham & Kathiravetpillai 1964; Danthanarayana 1966: 100–113, 1967: 153–177, 1968; Danthanarayana, Fernando, & Shammugam 1968: 94–118; Devadas et al. 1989; Dias 1936: 60–66; Duport 1911; Ebeling 1959; Eden 1958, 1965; Fernando 1959: 50, 475–480; Fisher, Thompson, & Webb 1953; Frolich & Rodewald 1969: 99; Gadd 1941a, 1942a, 1942b, 1943a, 1943b, 1943c, 1944a, 1944b, 1944c,

- 1944d, 1944e, 1946a, 1946b, 1947a: 197, 1947b: 114, 1949: 61–76; Gadd & Jardine 1923: 299–304; Gadd & Jepson 1922: 1–30; Green 1903a, 1903b, 1906, 1909a, 1910, 1911: 2–5, 1912a: 35; Grunwald 1930: 1–55; Hagedorn 1913a; Hainsworth 1952: 18; Hall 1919: 1–50, 1924: 1–47, 1924: 1–53, 1925: 1–51, 1926: 12; Herfs 1949: 216, 1950: 5; Hill, D. S. 1983: 496; Hutson 1920: 8–10, 1924: 91–93, 1932: 111–121; Illankoon 1956; Jardine 1920: 31–34, 1923b: 72–75; Jepson 1920, 1921: 23–30, 1922a: 24–27, 1922b: 118–125, 1922c, 1923: 19–21, 1926a, 1933: 106–123; Jepson & Gadd 1922, 1925, 1926; Joachim 1958: 61, 1959: 29; Judenko 1956: 103, 1958b: 104, 115, 1958c: 47, 51, 1959: 81, 1960a: 19–25, 1960b, 1960c: 72–75, 1961a: 155, 1961b, 1961c, 1962; Judenko, Shanmugan, & Hasselo 1962; Kalshoven 1924c: 58–72, 1925b: 1, 1925c: 3, 1928: 617, 1932: 251, 1933: 5, 1951: 851, 1953a: 233, 1954: 10; King 1934: 26–30, 34–37, 1937: 31–37, 1939: 35, 1940a: 111–116, 1940b: 35–40, 1941: 43–49; Kleine 1913b: 161, 1914b: 274, 1932a: 306, 1934a: 173; Lester-Smith 1937: 36; Lewton-Brain 1914: 1–45; Light 1927: 16–20, 1928: 25–34, 1929: 37–48, 1947: 17; Lovett 1923: 5; Marchal 1909: 225; Mathur & Singh 1960a: 5, 1960b: 17, 1961a: 13, 1961b: 14; Maxwell-Lefroy 1909: 393; Mayne 1945: 356; Muraleedharan 1954, 1956: 86, 1957; Muraleedharan & Radhakrishnan 1959; Newton 1960; Petch 1921: 233; Pierce, W. D. 1917: 211; Portsmouth 1956: 92; Pyper 1956: 127; Ramachandra 1928: 1–30; Ranasinghe & Wickremasinghe 1958; Ranaweera 1959: 75, 1967; Ranaweera & Fernando 1967; Rao, G. N. 1973; Rau 1936: 35, 1939: 20–27, 1940: 15, 1941: 41–50; Reeve 1923: 1–22; Roark 1939: 308; Roepke 1909: 365; Roonwal 1954: 45; Rutgers & Dammerman 1914: 32; Rutherford 1914a: 307–309, 1914b: 220, 1914c: 131, 1915: 220–222; Samarakoon & Shanmugam 1967; Schedl 1936g: 528; Shanmugam 1967a, 1967b, 1967c; Shanmugam & Fernando 1967; Sonan 1939: 795–800; Sonan & Tadasa 1939: 83–110; Speyer 1916: 248–252, 1917a: 7–9, 1917b: 1, 1917c: 152–155, 1918a: 102, 1918b: 373, 1919a: 67, 1919c: 1, 1919d: 1, 1922: 1–16, 1923: 11–23; Stebbing 1914: 589; Stockdale 1920: 276; Stubbs 1914: 1049; Thirugnanasuntharan 1957; Tolhurst 1956: 120; Vuillaume et al. 1951; Walter 1956: 107; Webster & Visser 1956: 114; Wickremasinghe, Perera & Perera 1976; Wickremasinghe & Thirugnanasuntharan 1950; Wilson 1956: 129; Wurth 1910: 104; Wyniger 1962a: 37; Yunus & Hua 1980: 230. (cc) Anonymous 1956b: 83–143; Banerjee 1983; Baptist 1956; Barlow 1896; Browne 1958b; Calnaido 1964; Calnaido & Kanapathapillai 1967; Calnaido, Ranasinghe, & Thirugnanasuntharan 1972b; Calnaido & Thirugnanasuntharan 1966; Cowling 1956; Danthararavana 1973; Danthararavana & Kathiravetpillai 1970; Farris 1963: 257; Fernando 1960, 1963; Finnegan 1963: 137; Gadd 1942a; Gadd & Loos 1947; Green 1903b, 1909b, 1910, 1911; Grunwald 1930; Judenko 1958a: 112; Muralleedharan, Selvasundaram, & Radhakrishnan 1958; Neger 1911a: 53; Norris 1979; Ranasinghe & Wickremasinghe 1958; Sivapalan 1977; Stebbing 1914: 589; Thompson, W. R. & Simmonds 1964: 39, 1965: 110; Vuillaume et al. 1951. (hb) Andrews 1913; Anonymous 1956n: 83–143; Anstead 1920; Aulmann 1911; Beeson 1916a: 216–223; Browne 1935a, 1958b, 1961c: 128–132, 1968: 715; Calnaido 1965, 1966; Calnaido, Ranasinghe, & Thirugnanasuntharan 1972b; Cranham 1966c; Danthararavana 1973; Duport 1911; Eden 1958, 1965; Fernando 1960, 1963; Gadd 1941b, 1942a, 1946b, 1946c, 1947a, 1949; Gadd & Loos 1947: 13–18; Gray, B. 1974c; Green 1903b; Hagedorn 1912: 33, 1913a; Herfs 1949: 26; Hill, D. S. 1983: 496; Judenko 1957: 29, 1957a: 56, 1958a: 112, 1958d: 104; Kalshoven 1924c, 1951: 551, 1958a: 147, 185–187, 1959c: 140, 1961b; Kleine 1932a: 306; Koningsberger & Zimmerman 1901: 94; Morstatt 1924: 46; Muraleedharan 1954, 1956: 86; Sivapalan 1975, 1977; Sivapalan & Shivanandarajah 1977a, 1977b; Speyer 1917b: 1, 1917c: 152, 1923: 12; Stebbing 1914: 589; Wickremasinghe & Thirugnanasuntharan 1950. (ds) Anonymous 1960t, 1966j, 1967i, 1973p; Anstead 1920; Beaver 1990a: 250; Beaver & Browne 1978: 608; Beaver & Maddison 1990: 137; Beeson 1916a, 1925, 1930, 1938: 292, 1961: 304; Bhasin, Roonwal, & Singh 1958; Blandford 1895a, 1896b, 1898a; Bletchly 1961: 15; Browne 1935a, 1961c: 128, 1968: 715, 1974a: 65; Carpenter 1929; Chevalier 1931; Dumbleton 1954; Ebeling 1959; Gadd 1946b; Gemminger & Harold 1872: 2685; Green 1912a: 38; Hagedorn 1910d: 104, 1913a; Hill, D. S. 1983: 496, 1957: 341; Judenko 1960b, 1960c; Kalshoven 1924b: 356, 1925b: 1, 1925c: 3, 1932: 251, 1933: 5, 1958a: 147, 187, 1958c: 220–230, 1959c: 140, 1961b; Kleine 1932a: 306; Koningsberger 1905: 76; Lefroy & Howlett 1909: 393; Mathew 1982, 1986, 1987: 188; Mathur & Singh 1960a: 5, 1960b: 17, 1961a: 13, 1961b: 14; Miwa 1931: 269; Muraleedharan & Kandasamy 1981; Nobuchi 1967: 21; Nobuchi & Ono 1973: 182; Numberg 1961b: 610; Pierce, W. D. 1917: 211; Rai & Bhandary 1973; Roberts 1977a: 259; Roonwal 1954: 48; Rutherford 1914a: 307; Samuelson 1981: 73; Schedl 1936g: 528, 1959a: 498, 1961c: 70, 1962b: 186, 1966b: 54, 1969c: 52, 1969d: 10, 1971a: 282, 1975a, 1977b: 144, 1979a: 158; Speyer 1916: 248, 1918c: 1; Sprecher 1934: 150; Swezey 1941: 121; Thomas, R. T. S. 1960a, 1960b; Wood, S. L. 1960a: 51, 1980b: 353; Yin & Hwang 1981: 568; Yin, Huang, & Li 1984: 167; Yunus & Hua 1980: 230. (tx) Aulmann 1911; Beeson 1930: 234–236; Eggers 1920, 1922a: 85, 1922b: 174, 1923d: 185–186, 1927b: 407, 1930d: 192–196; Eichhoff 1868c: 151, 1878b: 327; Frolich & Rodewald 1969; Gardner 1934b; Green

1912a: 38; Hagedorn 1910a: 154, 1912b; Nobuchi 1967:pl. 1, 1963: 302; Nunberg 1959: 425, 1961b: 610; Sampson 1911: 383–384, 1913: 443–444, 1923a: 270; Samuelson 1981: 54, 73; Schedl 1934g: 177–178, 1939e: 330, 1941f: 112, 1942a: 170–171, 1951i: 42, 59, 1952c: 62, 1954a: 141, 1955b: 284–285, 1958b: 101, 1958k: 150–151, 1959a: 498, 1977b: 144; Stebbing 1914: 589; Weele 1910: 308; Wood, S. L. 1960a: 51, 56; Wylie & Yule 1977; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 167. (ms) Bernard 1914; Jardine 1920: 31.

fornicator Eggers 1923a: 184 (*Xyleborus*). Lectotype ♀; Ceylon (Peradeniya); USNM, Washington, designated by Anderson & Anderson 1971: 13. Synonymy: Beeson 1930: 235.

References: (cn) Gadd 1941, 1943, 1944, 1946; Kleine 1932a: 307; Thirugnanasuntharan & Jayachandran 1989. (hb) Kleine 1932a: 307. (ds) Beeson 1930: 235, 1961: 305; Kleine 1932a: 307. (tx) Anderson, W. H. & Anderson 1971: 13; Beeson 1930: 59–60; Eggers 1922a: 84–88, 1922b: 174, 1923a: 184–185, 1936d: 626; Nunberg 1959a: 425; Sampson 1923a: 270; Schedl 1931c: 346, 1934g: 177, 1959a: 498, 1979c: 99.

whitfordiodendrus Schedl 1942a: 189 (*Xyleborus*). Lectotype ♀; Malaya, Negri Sembilan, Pasoh F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 269. Synonymy: Wood 1989: 173.

References: (ds) Browne 1961c: 126. (tx) Schedl 1942a: 189, 1951i: 62, 1979c: 269; Wood, S. L. 1989: 173.

perbrevis Schedl 1951i: 59 (*Xyleborus*). Holotype ♀; Philippinen, Prov. Rizal, Mt. Puro; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

References: (ds) Schedl 1966b: 63, 1975h: 352. (tx) Nobuchi 1983: 303; Schedl 1951i: 59, 1979c: 188; Wood, S. L. 1989: 173.

schultzei Schedl 1951i: 68 (*Xyleborus*). Lectotype ♀; Philippinen, Luzon, Manila, Mt. Makiling; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 222. Synonymy: Wood 1989: 173, Beaver 1991: 90.

References: (ds) Browne 1974a: 65; Schedl 1966b: 68. (tx) Beaver 1991: 90; Nobuchi 1983: 303; Schedl 1950f: 40, 1951i: 59, 68, 1952b: 364, 1979c: 222; Wood, S. L. 1989: 173.

tapatapaensis Schedl 1951k: 152 (*Xyleborus*). Lectotype ♀; Upolu, Tapatapa, 800 ft.; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

References: (hb) Beaver 1976b: 541. (ds) Beaver 1976b: 541. (tx) Schedl 1951k: 138, 152, 1979c: 250; Wood, S. L. 1989: 173.

fulvus (Murayama) 1936a: 142 (*Xyleborus*). Holotype ♀; Hokidaisen, Japan; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

References: (ds) Murayama 1936a: 132, 142–143. (tx) Murayama 1936a: 132, 142–143; Nobuchi 1985c: 24.

galeatus (Blandford) 1894d: 123 (*Xyleborus*).

Holotype ♂; Nagasaki, Japan; BMNH, London.

Distribution: Asia (Japan).

References: (ds) Blandford 1894c: 579; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 260; Nobuchi 1985c: 24. (tx) Blandford 1894d: 123; Hagedorn 1910a: 154; Murayama 1934: 289; Schedl 1934f: 1646.

goloanus Browne 1974a: 69. Holotype ♀; Fiji: Viti Levu, Galoa; BMNH, London.

Distribution: Fiji Islands.

Notes: (3) Schedl 1980d: 121 (a synonym of *illustrius*). Beaver 1991: 90 (a good species).

References: (tx) Browne 1974a: 65; Roberts 1977a: 259. (tx) Beaver 1991: 90; Browne 1974a: 65, 69; Schedl 1980d: 121.

granosus (Schedl) 1957d: 101 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b:pl. 16.

Distribution: Africa (Zaire).

Hosts: *Afrostryax lepidophyllus*, *Allophyllus africanus*, *Dalium cobisieri*, *Guarea cedrata*, *Pycnanthus angolensis*.

References: (hb) Schedl 1962j: 109–110. (ds) Schedl 1962h: 60, 1962j: 109–110, 1962k: 1100. (tx) Anonymous 1962j: 109–110, 1979c: 110; Browne 1965a: 202; Nunberg 1963b: 34, pl. 16; Schedl 1957d: 101.

illustrius Schedl 1939f: 51. Lectotype ♀; Java, Mt. Gede, Tapos; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 120.

Distribution: Indonesia (Java), Fiji Islands.

Hosts: Rattan.

References: (tx) Schedl 1939f: 49–52, 1979c: 120.

interjectus (Blandford) 1894c: 576 (*Xyleborus*). Holotype ♀; Japan, China (Chusan Is.); BMNH, London.

Figures: Kumar & Chandra 1977: 43 (male), Nobuchi 1978a:pl. 3, Samuelson 1981: 56.

Distribution: Asia (Bangladesh/ Burma/ Fujian, Gansu, Guangdong, Hunan, Sichuan, Yunnan, Xizang [Tibet] in China/ Andaman Islands, Assam, Bengal, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Japan/ Nepal/ Sri Lanka/ Taiwan/ Vietnam), Hawaiian Islands, Indonesia (Borneo, Java, Mentawai, Sumatra), Philippine Islands.

Hosts: *Anthocephalus cadamba*, *Artocarpus integrifolia*, *Bombax malabaricum*, *Castanopsis indica*, *Cudrania javanensis*, *Erythrina* spp., *Euphorbia royleana*, *Ficus* spp., *Caruga pinnata*, *Cmelina arborea*, *Hevea brasiliensis*, *Hymenodictyon excelsum*, *Kydia calycina*, *Macaranga denticulata*, *Machilus* sp., *Mangifera indica*, *Odina wodier*, *Pinus massoniana*, *Poinciana clata*, *Pop-*

ulus sp., *Pterocarpus marsupitum*, *Salmalia insignis*, *S. malabarica*, *Sarcocephalus cordatus*, *Shorea assamica*, *S. robusta*, *Spondias magnifera*, *Sterculia alata*, *S. campanulata*, *S. ornata*, *S. villosa*, *Tectona grandis*, *Terminalia bellerica*, *T. myriocarpa*, *Tetrameles nudiflora*, *Theobroma cacao*, *Xylia xylocarpa*.

Notes: (3) In the FRI, Dehra Dun Collection, *lophuensis* Beeson, nomen nudum, is a synonym. Kumar & Chandra 1977: 34 (described male).

References: (cn) Chatterjee 1917b: 1-4; Green 1912a: 39; Mackenzie 1922: 1-14; Roonwal 1954: 30; Stebbing 1914: 588; Yunus & Hua 1980: 230. (ec) Browne 1958b; Mathew 1985; Stebbing 1914: 588. (hb) Beeson 1933: 7-12; Browne 1958b, 1961c: 124-126; Kalshoven 1959c: 138; Speyer 1923: 18; Stebbing 1914: 588. (ds) Beeson 1930: 239, 1933: 7-12, 1961: 306; Bhasin, Roonwal, & Singh 1958; Blandford 1894c, 1895a; Browne 1980a: 372; Chatterjee 1917b: 1-4; Green 1912a: 39, 1916: 608-636; Hagedorn 1910d: 106; Kalshoven 1959c: 138; Kleine 1913b: 161, 1914b: 260, 280, 1934a: 173; Mathew 1987: 189; Murayama 1934d: 508, 1936a: 133; Nobuchi 1967: 22, 1978a: 33; Ohno, Yoneyama, & Nakazawa 1982b: 8; Ohno et al. 1988a: 94; Roonwal 1954: 30; Schedl 1936d: 4, 1959a: 500, 1965a: 340, 1965g: 22, 1966b: 57, 1969a: 207, 1971a: 278, 1971c: 368, 1972j: 225, 1973b: 211, 1973c: 379, 1974c: 262, 1975a, 1975e: 451; Yin, Huang, & Li 1984: 166; Yunus & Hua 1980: 230. (tx) Beeson 1930: 239, 1933: 12; Blandford 1894c: 576; Eggers 1923a: 197-200, 1925: 159, 1927b: 408, 1930d: 192, 195, 1932d: 296; Green 1912a: 39; Hagedorn 1910a: 154; Kumar & Chandra 1977: 34, 43; Murayama 1934c: 299, 1936a: 133-134; Nobuchi 1978a: pl. 3, 1983: 303, 1985c: 25; Samuelson 1981: 56, 77; Schedl 1933e: 103, 1934f: 1646, 1936d: 4, 1939e: 331, 1942a: 189, 1942d: 5, 36, 1951i: 42, 68, 1958k: 155, 1959a: 500, 1961b: 71, 1961f: 93, 1965g: 22, 1972q: 258; Stebbing 1914: 588; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 166.

pseudovalidus Eggers 1925: 159 (*Xyleborus*). Syntypes, sex[?]; Tenasserim (Birma), Fuhosho (Formosa), OstJava; Prague Museum, and 1 in Eggers Collection, NHMW, Wien. Synonymy: Schedl 1958a: 155.

References: (hb) Kalshoven 1959: 139. (tx) Eggers 1925: 159, 1927b: 407, 1936d: 626, 1941b: 222; Schedl 1950g: 893, 1951i: 71, 1953e: 22, 1955b: 45, 1958k: 155, 1979c: 202.

khayae (Schedl) 1957e: 880 (*Xyleborus*). Holotype ♀; Tanganyika; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Khaya nyasica*.

References: (ds) Schedl 1965j: 259. (tx) Schedl 1957e: 880, 1962j: 259, 1979c: 132.

kororensis (Wood) 1960a: 63 (*Xyleborus*). Holotype ♀; Koror, Palau Islands, Micronesia; USNM, Washington.

Figures: Wood 1960a: 62.

Distribution: Micronesia (Koror in Palau Islands).

References: (ds) Ohno et al. 1988a: 94. (tx) de Ruette 1970: 115; Wood, S. L. 1960a: 62-63.

laevis (Eggers) 1923a: 201 (*Xyleborus*). Lectotype ♀; Kendal auf Java, Rahum (Neupommeru); USNM, Washington, designated by Anderson & Anderson 1971: 17.

Figures: Nobuchi 1978a: pl. 3, Wood 1960a: 62.

Distribution: Asia (Yunnan in China/Malaya), Bismarck Islands, Indonesia (Borneo, Java), Micronesia (Caroline Islands, Kusaie Island, Ponape Island), New Guinea, Philippine Islands.

Hosts: *Eugenia* sp., *Theobroma cacao*. Browne 1961c: 145 cites 11 plant families as hosts without naming the genera or species.

References: (ec) Wichmann 1955a: 97. (hb) Browne 1961c: 145-146; Kalshoven 1959a: 225, 1959c: 141. (ds) Beeson 1938b: 292; Browne 1966: 254, 1980a: 373, 1981a: 125, 1984a: 150; Kalshoven 1959c: 141; Kleine 1934a: 174; Nobuchi 1978a: 36; Ohno et al. 1987: 88, 1988a: 94, 1989a: 62; Schedl 1966b: 58; Wichmann 1955a: 97; Wood, S. L. 1960a: 51. (tx) Anderson, W. H. & Anderson 1971: 17; Beeson 1929: 238-239; Eggers 1923a: 201, 1927b: 408; Kalshoven 1959a: 225; Nobuchi 1978a: pl. 3; Schedl 1936h: 64-65, 1938f: 51, 1939e: 354, 1940b: 441-442, 1942a: 196, 1942c: 164, 1942d: 48, 1950e: 214, 1950g: 895, 1979c: 136; Wood, S. L. 1960a: 51, 62-63.

limatus (Schedl) 1936h: 65 (*Xyleborus*). Holotype ♀; Luzon, Laguna Prov., Mt. Maquilang; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya), Fiji Islands, Indonesia (Borneo, Java), New Guinea, Philippine Islands (Luzon).

Hosts: *Daemonorops* sp. (or *Calamus* sp.), *Hopea ferrea*, *Pterocarpus indicus*, *Whitfordiodendron pubescens*, *Xanthophyllum curtisii*.

References: (hb) Browne 1961c: 146-147. (ds) Beaver & Browne 1978: 609; Browne 1961c: 146-147, 1962c: 202, 1974a: 65; Schedl 1971c: 371. (tx) Schedl 1936h: 65, 1942a: 171, 1950f: 40, 1954a: 142, 1955b: 285, 1979c: 138.

loricatus (Schedl) 1933d: 200 (*Xyleborus*). Holotype ♀; Mt. Maquilang, Laguna Prov., Luzon; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

References: (ds) Schedl 1966b: 59. (tx) Nobuchi 1983: 303; Schedl 1933d: 200, 1979c: 142.

luctuosus (Eggers) 1939b: 13 (*Xyleborus*). Holotype ♀; Nordost-Birma (Kambaiti, 7000 Fuss); NHR, Stockholm.

Distribution: Asia (Burma).

References: (tx) Eggers 1939b: 13.

- lugubris** (Eggers) 1927c: 98 (*Xyleborus*). Holotype ♀; Philippinen; Hamburg Museum, lost.
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 59. (tx) Eggers 1927c: 98; Nobuchi 1983: 303.
- malloti** (Eggers) 1930d: 192 (*Xyleborus*). Holotype ♀; Dehra Dun, United Provinces; FRI, Dehra Dun.
Distribution: Asia (Bangladesh/ Tamil Nadu, Uttar Pradesh in India).
Hosts: *Ficus hispida*, *Gmelina arborea*, *Maesa* sp., *Mallotus philippinensis*.
References: (ds) Beeson 1930: 245, 1961: 307; Kleine 1934a: 174. (tx) Beeson 1930: 245; Eggers 1930d: 192; Schedl 1979c: 147.
- metanepotulus** (Eggers) 1939c: 119 (*Xyleborus*). Holotype ♀; Formosa (Hoorin Kwarenko); Chujo Collection.
Distribution: Asia (Taiwan).
References: (ds) Nobuchi 1967: 22. (tx) Eggers 1939c: 119.
- nigrosetosus** (Schedl) 1939f: 49 (*Xyleborus*). Lectotype ♀; Celebes, Gorontalo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 168.
Distribution: Indonesia (Celebes).
Hosts: Rattan.
References: (hb) Kalshoven 1959c: 145. (ds) Kalshoven 1959c: 145. (tx) Schedl 1939f: 48–49, 1951i: 68, 1979c: 168.
- oparunus** (Beeson) 1940: 201 (*Xyleborus*). Holotype ♀; Mangareva Islands, Rapa Island; Mangaoa Peak, NE ridge; BPBM, Honolulu.
Distribution: Mangareva Islands.
Hosts: *Cyathea* sp.
References: (tx) Beeson 1940: 201–203.
- pandae** (Schedl) 1957d: 86 (*Xyleborus*). Holotype ♀; Congo Belge; Yangambi; MRCB, Tervuren.
Figures: Numberg 1963b: pl. 21, figs. 1–4.
Distribution: Africa (Zaire).
Hosts: *Musanga cecropioides*, *Pachylobus deliciosus*, *Pancovia laurentii*, *Panda oleosa*, *Paropsia schiebeniana*, *Ricinodendron heudelotii*, *Vernonia conferta*.
References: (hb) Schedl 1962j: 210. (ds) Schedl 1962j: 210. (tx) Numberg 1963b: 42, pl. 21; Schedl 1957d: 86, 1962j: 210, 1979c: 183.
- piceus** (Motschulsky) 1863: 512 (*Anodius*). Holotype ♀; Ceylon: des Montagnes de Nura-Ellia; IZM, Moscow.
Figures: Numberg 1959a: pl. 23, figs. 1–2.
Distribution: Africa (Angola/ Cameroon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ South Africa/ Spanish Guinea/ Tanzania/ Uganda/ Zaire), Asia (Andaman Islands in India/ Malaya/ Sri Lanka/ Taiwan), Australia (Queensland), Fiji Islands, Indonesia (Borneo, Java, Mentawe), Madagascar, Micronesia, New Guinea, Philippine Islands, Samoan Islands.
Hosts: Many listed by Schedl 1962j: 477–483. *Artocarpus integrifolia*, *Diospyros pyrrocarpa*, *Endospermum malaccense*, *Gmelina arborea*, *Koompasia malaccensis*, *Sterculia alata*.
References: (cn) Banerjee 1983; Beaver 1988a: 66. (hb) Beaver 1988a: 66; Beaver & Browne 1978: 611. (ds) Beaver 1976b: 541, 1988a: 66; Beaver & Browne 1978: 611; Browne 1980d: 490, 1983a: 556; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 274; Ohno, Yoneyama, & Nakazawa 1982b: 9, 1987a: 88; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 94, 1989: 63; Schedl 1978d: 73; Wood, S. L. 1957e: 1273. (tx) Hagedorn 1910a: 155; Motschulsky 1863: 512; Wood, S. L. 1969c: 117.
- indicus** Eichhoff 1878b: 354. Holotype ♀; Java, insula Asiatica; IRSNB, Brussels. Synonymy: Wood 1969c: 117.
References: (ay) Entwistle 1963b. (bv) Entwistle 1963b; Gray, B. 1974c; Schedl 1960f: 50; Schedl, W. 1962: 368–369. (cn) Anonymous 1953j: 25; Cahlan 1957: 15, 43–53; Mathur & Singh 1960b: 17, 1961a: 69; Zehntner 1901. (cc) Anonymous 1953j: 25; Roberts 1977a: 259; Schedl 1962k: 472. (hb) Anonymous 1959i: 18; Browne 1936a, 1941: 67, 1961c: 115–117, 1963a: 241; Entwistle 1963b; Gray, B. 1974c; Jones 1957: 6; Jones, Roberts, & Baker 1959: 13–56; Kalshoven 1932: 245, 1959c: 142; Roberts 1977a: 259; Schedl 1962j: 472, 1977b: 158; Speyer 1923: 21; Webb & Jones 1957: 25–43. (ds) Beeson 1930: 239, 1941: 397, 1961: 305; Blandford 1895a; Brimblecombe 1953: 29; Browne 1936a: 122, 1963a: 241, 1966: 254, 1974a: 65, 1975a: 760; Ferreira 1965: 1123; Hagedorn 1910d: 106; Kalshoven 1959c: 142–143; Kleine 1913b: 161, 1914b: 288; Mathur & Singh 1960b: 17, 1961a: 69; Mayne & Donis 1960: 104, 1962: 319; Nobuchi 1978a: 35; Numberg 1952: 21, 1961a: 330, 1965b: 21; Roberts 1960b: 35, 38, 1960e, 1960f, 1969: 132, 1977a: 259; Sampson 1921: 28; Schedl 1936g: 529, 1936j: 21, 1938g: 426, 1959a: 504, 1960j: 40, 1961j: 349, 1961m: 84, 1962j: 472, 1964e: 69, 1964f: 618, 1965e: 354, 1966b: 56, 1967c: 216, 1969a: 207, 1971a: 278, 1972e: 283, 1974c: 262, 1977b: 158, 1979a: 158, 1979f: 103, 1983: 279; Speyer 1923: 21; Thompson, G. H. 1963: 71; Wood, S. L. 1957e: 1273, 1960a: 51. (tx) Beeson 1929: 237–238, 1930: 239; Eggers 1923a: 201, 1927a: 404–405, 1927b: 198, 1927c: 92, 1941d: 179, 1943c: 66; Eichhoff 1878a: 392, 1878b: 354–355, 479; Hagedorn 1910a: 154; Nobuchi 1978a: pl. 3, 1983: 302; Numberg 1952: 21, 1959a: 428; Sampson 1921: 28; Schedl 1933c: 103, 1936g: 529, 1936j: 21, 1938g: 426, 1941d: 380, 1942a: 171, 1942c: 163, 1950d: 9, 13, 1950e: 211, 214, 1950j: 898, 1951i: 45, 50, 1951j: 20, 1952j: 4.

1953g: 242, 1954a: 141, 1954d: 872, 1954e: 53, 1955b: 281, 284–285, 1955d: 269, 1955i: 212, 1957d: 84, 1959a: 504, 1961j: 349, 1961m: 84, 1962j: 472, 1962p: 207, 1964e: 69, 1964f: 618, 1966b: 254, 1969i: 140–141, 1971f: 149, 1977b: 158–159, 1979c: 123; Wood, S. L. 1960a: 51, 61–63, 1969c: 117; Wylie & Yule 1977.

indicus subcoriaceus Eggers 1927c: 92. Holotype ♀; Philippines: Mt. Santo Tomas; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1959a: 504.

References: (tx) Eggers 1927c: 92, 1959a: 504, 1962j: 474; Schedl 1979c: 124.

imitans Eggers 1927b: 404. Lectotype ♀; Insel Mentawai (Si Olan); USNM, Washington, designated by Anderson & Anderson 1971: 15. Synonymy: Wood 1969c: 117.

References: (tx) Anderson, W. H. & Anderson 1971: 15; Eggers 1927b: 404–405; Numberg 1964: 21; Schedl 1962p: 207, 1966b: 57, 1979c: 121; Wood, S. L. 1969c: 117.

samoensis Beeson 1929: 237. Holotype ♀; Samoa; BMNH, London. Synonymy: Wood 1960a: 63.

References: (ds) Beeson 1938b: 293. (tx) Beeson 1929: 237–238; Numberg 1964: 21; Schedl 1951k: 131, 137, 1955b: 285, 1979c: 218; Wood, S. L. 1960a: 61, 63.

procerrimus (Schedl) 1969a: 214 (*Xyleborus*). Holotype ♀; New Britain, Lolobau to Tokyo (Japan), imported; PPST, Tokyo.

Figures: Nobuchi 1978a: pl. 3.

Distribution: New Britain Island.

Hosts: Taun log.

References: (ds) Nobuchi 1978a: 34; Ohno et al. 1989: 63; Schedl 1965g: 22. (tx) Nobuchi 1978a: pl. 3; Schedl 1969a: 214–215, 1979c: 199.

procerrissimus (Schedl) 1942a: 194 (*Xyleborus*).

Lectotype ♀; Malaya, Pahang, Cameron's Hill; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 199.

Distribution: Asia (Malaya).

References: (ds) Browne 1961c: 134. (tx) Schedl 1942a: 194, 1942c: 189, 1979c: 199.

quadraticollis (Eggers) 1923a: 197 (*Xyleborus*).

Lectotype ♀; Mt. Makiling auf Luzon; USNM, Washington, designated by Anderson & Anderson 1971: 27.

Figures: Nobuchi 1978a: pl. 3.

Distribution: Philippine Islands (Luzon).

Hosts: *Diplodiscus paniculatus*, *Ficus* sp., *Svietenia mahogoni*.

References: (ds) Nobuchi 1978a: 31; Ohno, Yoneyama, & Nakazawa 1987a: 88; Schedl 1938g: 426, 1966b: 67, 1969a: 207. (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1923a: 197, 1927b: 406, 1927c: 94; Nobuchi 1978a: pl. 3, 1983: 303; Schedl 1979c: 207.

duplicatus Schedl 1933e: 102 (*Xyleborus*). Holotype ♀; Mount Maquiling, Laguna, Luzon;

Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

References: (cn) Mathur & Singh 1961a: 80. (ds) Mathur & Singh 1961a: 80; Mesa 1935: 96. (tx) Schedl 1933e: 102–103, 1979c: 86; Wood, S. L. 1989: 173.

rufoniger (Schedl) 1934d: 89 (*Xyleborus*). Lectotype ♀; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 214.

Distribution: Indonesia (Java).

References: (hb) Kalshoven 1959c: 143. (ds) Kalshoven 1935a: 14, 1959c: 143. (tx) Schedl 1934d: 89, 1979c: 214.

russulus (Schedl) 1942c: 187 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1942c: 187, 1979c: 217.

sibsagaricus (Eggers) 1930d: 196 (*Xyleborus*). Holotype ♀; Assam (Nambor Reserve, Sibsagar); FRI, Dehra Dum.

Distribution: Asia (Assam, Bengal in India).

Hosts: *Casearia glomerata*, *Dalbergia assamica*, *Ehretia acuminata*, *Sapium eugeniaefolium*, *Sterculia colorata*.

References: (cn) Mathur & Singh 1961a: 23. (ds) Beeson 1930: 259, 1961: 309; Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 175; Mathur & Singh 1961a: 23. (tx) Beeson 1930: 259; Eggers 1930d: 196.

dalbergiae Eggers 1930d: 196 (*Xyleborus*). Holotype ♀; Assam (Upper Dihing Reserve, Lakhimpur); FRI, Dehra Dum. Synonymy: Wood 1989: 173.

References: (ds) Beeson 1930: 232, 1961: 304; Browne 1981b: 598; Kleine 1934a: 173; Ohno, Yoneyama, & Nakazawa 1987a: 88, 1987b: 94. (tx) Beeson 1930: 232; Eggers 1930d: 196–197, 1939b: 13; Schedl 1934c: 39, 1979c: 75.

solomonicus (Schedl) 1970b: 363 (*Xyleborus*).

Holotype ♀; Solomons, Ringicove to Nagoya (Japan), imported; PPST, Tokyo.

Figures: Nobuchi 1978a: pl. 3.

Distribution: Solomon Islands.

References: (ds) Nobuchi 1978a: 34; Ohno et al. 1988a: 94, 1989: 64. (tx) Nobuchi 1978a: pl. 3; Schedl 1970b: 363–364, 1979c: 232.

streblicola Hopkins 1915b: 55. Holotype ♀; Pagbilao, Tayabas, P. I.; USNM, Washington.

Distribution: Philippine Islands.

Hosts: *Strebilus* sp.

References: (ds) Kleine 1934a: 177; Schedl 1966b: 72. (tx) Hopkins 1915b: 55; Nobuchi 1983: 304; Schedl 1970b: 363–364.

strombiformis (Schedl) 1971c: 384 (*Xyleborus*).

Holotype ♀?; Sumatra, Deli, Sibotangit; Schedl Collection in NHMW, Wien.

- Distribution: Indonesia (Sumatra).
References: (tx) Schedl 1971c: 384–385, 1979c: 239.
- subparallelus** (Eggers) 1940d: 151 (*Xyleborus*). Lectotype ♀; Java (Batoerraden); USNM, Washington, designated by Anderson & Anderson 1971: 33.
Distribution: Indonesia (Java).
Hosts: *Artocarpus kunstleri*.
References: (ds) Beeson 1961: 309; Kalshoven 1959c: 141. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1940d: 151–152; Schedl 1939e: 332, 1942d: 7, 1950g: 893, 1951i: 45, 1954a: 143, 1958k: 147, 1979c: 243.
- talumalai** (Browne) 1966: 248 (*Xyleborus*). Holotype ♀; Bismarck Islands: Mussau: Talumalau; UZMC, Copenhagen.
Distribution: Bismarck Islands.
References: (tx) Browne 1966: 248.
- tonkinensis** (Schedl) 1934c: 39 (*Xyleborus*). Holotype ♀; Tonkin; Schedl Collection in NHMW, Wien.
Distribution: Asia (Tonkin Island in Vietnam).
Note: (3) This is a synonym of *destruens* (DEB).
References: (ds) Ouchi 1935: 204; Schedl 1965a: 340. (tx) Schedl 1934c: 39, 1936g: 530, 1952c: 61, 1979c: 254. (ms) Ouchi 1935: 204.
- trapezicollis** (Schedl) 1971c: 385 (*Xyleborus*). Holotype ♀; Malaya, Kelantan; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Schedl 1971c: 385–386.
- tristis** (Eggers) 1930d: 194 (*Xyleborus*). Holotype ♀; Nakachori, Sibsagar, Assam; FRI, Dehra Dun.
Distribution: Asia (Assam, Bengal in India).
Hosts: *Sapium eugeniaefolium*, *Sterculia colorata*, *Vatica lanceaefolia*.
References: (cn) Mathur & Singh 1961b: 71. (ds) Beeson 1930: 262, 1961: 310; Kleine 1934a: 175; Mathur & Singh 1961b: 71. (tx) Beeson 1930: 262; Eggers 1930d: 194.
- tumidus** (Schedl) 1975f: 371 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist., New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 371, 1979c: 258.
- validus** (Eichhoff) 1875: 202 (*Xyleborus*). Syntypes ♀; Japan; IRSNB, Brussels.
Figures: Nakane et al. 1963: 384, Nobuchi 1966d: pl. 5, 1978a: pl. 3.
Distribution: Asia (Bonin Islands/ Burma/ Anhui, Fujian, Yunnan in China/ Japan/ Korea/ Malaya/ Ryukyu Islands/ Vietnam), North America (introduced into: Maryland, New York, Pennsylvania in USA), Philippine Islands.
Hosts: *Abies firma*, *Acer* spp., *Aphananthe aspera*, *Carpinus tshonoskii*, *Castanea crenata*, *Celtis sinensis*, *Chamaecyparis obtusa*, *Cleyera japonica*, *Cryptomeria japonica*, *Cunninghamia lanceolata*, *Dalbergia lupeana*, *Fagus multinervis*, *Juglans* spp., *Machilus* sp., *Magnolia obovata*, *Mallotus japonicus*, *Phellodendron amurense*, *Pinus densiflora*, *P. massoniana*, *parviflora*, *P. taiwanensis*, *P. thunbergii*, *Populus deltoidea*, *P. glandulosa*, *Prunus serrulata spontanea*, *Quercus grosseserrata*, *Tilia amurensis*, *Tsuga sieboldii*, *Ulmus pumila*, *Zelkova serrata*.
References: (cn) Anonymous 1976a, 1976e, 1977q, 1977r, 1979p, 1980g; Inouye 1949a: 14, 113, 1949c, 1955; MacNay 1945: 108; Murayama 1954a: 10; Nitto 1953: 302; Shiraki 1952; Uchida et al. 1958: 181; Wood, S. L. 1977a: 73; Yasunga 1962: 197–200. (ec) Banno, Mikata, & Kodama 1983: 445; Inouye et al. 1955: 110. (hb) Inouye et al. 1955: 110. (ds) Anonymous 1976a, 1976e, 1977q, 1977r, 1979p, 1980g; Atkinson et al. 1991: 160; Blandford 1894c: 579; Chapin & Oliver 1986; Cho 1957; Choo 1983: 111; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Drooz 1985: 374; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 260, 279, 281, 1934a: 175; Ko 1969: 287; Kono 1938b: 65, 72; MacNay 1956: 108; Miwa 1931: 269; Murayama 1936a: 136, 1937b: 372, 1948: 2, 1949a: 13, 1949c: 104, 1951a: 6, 1951c: 5, 1953a: 23, 1953c: 145, 1954a: 10, 1954b: 184, 1955: 100, 102, 1957a: 37; Nakane et al. 1963: 384; Nobuchi 1966d: 32, 1967: 24, 1978a: 32, 1985c: 28; Nobuchi & Ono 1973: 183; Nohira & Ogawa 1986; Schedl 1959a: 499, 1966g: 33, 1975a; Shiraki 1952; Straby 1972: 8; Wood, S. L. 1977a: 73, 1980b: 353. (tx) Blandford 1894d: 102, 108; Choo 1983: 111; Eggers 1923a: 197–199, 1925: 153, 1935c: 310; Eichhoff 1875: 202, 1877a: 124, 1878b: 358; Hagedorn 1910a: 157; Hopkins 1915b: 54; Murayama 1934c: 300, 1936a: 136–137, 1937b: 372, 1953a: 23, 1954b: 184, 1955: 100, 102–103; Nakane et al. 1963: 384; Niisima 1909: 158, 1910a: 13; Nobuchi 1966d: 32, pl. 5, 1978a: pl. 3, 1983: 304; Schedl 1934f: 1646, 1950g: 893, 1953e: 22, 1955d: 273, 1959a: 499; Strohmeyer 1912d: 38–39; Wylie & Yule 1977.
- velatus** (Sampson) 1913: 443 (*Xyleborus*). Holotype ♀; Tharrawaddy, L. Burma; BMNH, London.
Figures: Kumar & Chandra 1977: 39 (male), Nobuchi 1978a: pl. 3.
Distribution: Asia (Burma/ Xizang [Tibet] in China/ Andaman Islands, Assam, Bengal, Uttar Pradesh in India).
Hosts: *Acer campbellii*, *Casearia glomerata*, *Eurya japonica*, *Gmelina arborea*, *Leucosceptrum canum*, *Macaranga denticulata*, *Machilus odoratissima*, *Quercus glauca*, *Tectona grandis*, *Terminalia myriocarpus*, *Thunbergia grandiflora*, *Xylia dolabriformis*.
Notes: (3) Schedl 1970b: 364 (described male).
References: (cn) Mathur & Singh 1961b: 14;

Stebbing 1914: 597. (**ce**) Batra 1963b: 217; Norris 1979; Stebbing 1914: 597. (**hb**) Stebbing 1914: 597. (**ds**) Beeson 1915: 8–11, 1930: 262, 1961: 310; Kleine 1934a: 175; Mackenzie 1922: 1–14; Mathur & Singh 1961b: 14; Nobuchi 1978a: 31. (**tx**) Beeson 1930: 262; Eggers 1925: 159; Nobuchi 1978a: pl. 3; Numberg 1959a: 443; Sampson 1913: 443–444; Schedl 1951k: 152, 1970b: 364, 1979c: 265; Stebbing 1914: 597.

assamensis Eggers 1930d: 195 (*Xyleborus*). Holotype ♀; Assam: Shillong, Haflong (Cachar); FRI, Dehra Dun, preoccupied by Stebbing 1909. Synonymy: Wood 1989: 173.

References: (**cn**) Mathur & Singh 1960b: 17, 1961b: 34; Roonwal 1954: 30. (**ds**) Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 172; Mathur & Singh 1960b: 17, 1961b: 34; Roonwal 1954: 30. (**tx**) Beeson 1930: 51; Eggers 1930d: 195–196, 1934b: 27; Schedl 1979c: 29; Wood, S. L. 1989: 173.

asperipennis Eggers 1934b: 27 (*Xyleborus*). Holotype ♀; Assam: Shillong, Haflong (Cachar); FRI, Dehra Dun, automatic. Synonymy: Wood 1989: 173.

References: (**cn**) Mathur & Singh 1960b: 17, 1961b: 34. (**ds**) Beeson 1961: 302; Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1960b: 17, 1961b: 34; Schedl 1969c: 52. (**tx**) Eggers 1934b: 27; Kumar & Chandrar 1977: 32, 39; Schedl 1979c: 29; Wood, S. L. 1989: 173.

voarotrae (Schedl) 1961e: 146 (*Xyleborus*). Holotype ♀; Madagascar, Ambila; IRSM, Madagascar. Distribution: Madagascar.

References: (**tx**) Schedl 1961e: 146, 1977b: 145, 1979c: 268.

wallacei (Blandford) 1896b: 220 (*Xyleborus*). Holotype ♀; New Guinea, Dorey; BMNH, London.

Distribution: Asia (Assam, Bengal in India/ Malaya/ Vietnam), Australia (Queensland), Bismarck Islands, Indonesia (Borneo, Mentawai, Sumatra), New Guinea.

Hosts: *Amoora walichii*, *Artocarpus lakoocha*, *Beilschmiedia sikkimensis*, *Casuarina glomerata*, *Leucosceptrum canum*, *Macaranga denticulata*, *Pterocymbium beccarii*, *Sapinum eugeniaefolium*, *Sterculia colorata*, *Symplocos theaeifolia*.

Notes: (1) Hopkins 1915b: 55 (to *Euwallacea*).

References: (**ds**) Browne 1966: 248, 1980a: 372; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 296; Ohno et al. 1988a: 94, 1989: 64; Schedl 1936g: 528, 1971c: 369, 1971f: 150, 1974c: 262. (**tx**) Blandford 1896b: 220; Hagedorn 1910a: 157; Hopkins 1915b: 55; Numberg 1959a: 444; Schedl 1936g: 528, 1940b: 434–435, 1942a: 194, 1952k: 162, 1955b: 281.

siporanus Hagedorn 1910b: 11 (*Xyleborus*).

Lectotype ♀; Sipora in Mentawai; USNM,

Washington, designated by Anderson & Anderson 1971: 30. Synonymy: Wood 1989: 173.

References: (**ds**) Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 268. (**tx**) Anderson, W. H. & Anderson 1971: 30; Eggers 1923a: 200, 1925: 159; Hagedorn 1910a: 156, 1910b: 11; Schedl 1951i: 91; Wood, S. L. 1989: 173.

confinis Eggers 1923a: 200 (*Xyleborus*). Lectotype ♀; Moroka (Sudost-Neu Guinea); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 61–62. Synonymy: Wood 1989: 173.

References: (**tx**) Eggers 1923a: 200; Schedl 1950f: 52, 1979c: 61; Wood, S. L. 1989: 173.

ovalicollis Eggers 1930d: 193 (*Xyleborus*). Holotype ♀; Assam, Upper Dihing Reserve, Lakhimpur; FRI, Dehra Dun. Synonymy: Wood 1989: 173

References: (**cn**) Mathur & Singh 1961a: 84; Roonwal 1954: 89. (**ds**) Beeson 1930: 252, 1961: 308; Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 175; Mathur & Singh 1961a: 84; Roonwal 1954: 89. (**tx**) Beeson 1930: 252; Eggers 1930d: 193–194; Schedl 1979c: 181; Wood, S. L. 1989: 173.

perakensis Schedl 1942a: 194 (*Xyleborus*). Lectotype ♀; Malaya, Perak, Trolak F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 188. Synonymy: Wood 1989: 173.

References: (**ds**) Browne 1961c: 133; Schedl 1964c: 304, 1964g: 242, 1965g: 24. (**tx**) Schedl 1942a: 194, 1954c: 154, 1964g: 242, 1965f: 24, 1979c: 188; Wood, S. L. 1989: 173.

wallacei indocorus Schedl 1979a: 162 (*Xyleborus*). Holotype ♀; Queensland, Australia; CSIRO, Canberra [There may be another holotype in Schedl Collection in NHMW, Wien].

References: (**tx**) Schedl 1979a: 162.

xanthopus (Eichhoff) 1868c: 151 (*Xyleborus*). Holotype ♀; Africa (Cap bonae spei); Hamburg Museum, lost.

Figures: Numberg 1963b: pl. 31, figs. 4–7, Schedl 1962j: 212, 1977b: 145.

Distribution: Africa (Ivory Coast/ Kenya/ Natal/ Nigeria/ South Africa/ Tanzania/ Uganda/ Zaire), Asia (Burma/ Assam, Tamil Nadu in India/ Malaya/ Sri Lanka), Fiji Islands, Indonesia (Borneo, Java, Mentawai, Sumatra), Madagascar, Philippine Islands (Luzon, Mindanao).

Hosts: Schedl 1962j: 212–219 lists 73 host species for Africa. *Antidesma petiolare*, *Arthrophyllum diversifolium*, *Artocarpus integrifolia*, *A. scortechinii*, *Canarium* sp., *Cussonia chartacea*, *C. vantsilana*, *Delonix regia*, *Dombeya* sp., *Dyera costulata*, *Eugenia* sp., *Fanchera* sp., *Ficus soroceoides* var. *macrophlebia*, *F.* sp., *Gouania glandulosa*, *Hibiscus macrophyllus*, *Maesa lanceolata*, *Mangifera indica*, *Pachytrape dinep-*

ate, *Pittosporum* sp., *Rauwolfia caffra*, *Rauensara* sp., *Shorea leprosula*, *Sterculia macrophylla*, *Symphonia globulifera*, *Trema orientalis*, *Whitfordiodendron pubescens*.

Notes: (3) The *xanthopus* of Schedl is a shining example of *semirudis*; in general, African specimens are shining, whereas most Asian specimens have the elytral declivity partly or entirely dull. However, they probably represent the same species. Dejean 1837: 382 (used *xanthopus* as a nomen nudum in *Bostrichus*), Eggers 1920: 124, 1922: 174, Schedl 1962j: 212 (*siginis* Hagedorn, nomen nudum, synonymy). It is probable that *Xyleborus semipolitus* Schedl is a synonym (SLW). References: (ay) Van Ryn-Tournel 1972. (cn) Anonymous 1892: 165, 1970c: 14; Hall 1921: 11–12; Morstatt 1914: 312; Plenet 1965; Speyer 1923: 21; Vuillaume et al. 1981: 348. (cc) Roberts 1977a: 268; Schedl 1962j: 212; Vuillaume et al. 1981: 348. (hb) Kalshoven 1920: 32, 1955a: 147, 192, 1959c: 140; Paulian 1951: 28; Roberts 1977a: 268; Schedl 1962j: 212, 1977a: 146. (ds) Anonymous 1970c: 14; Beaver & Loytyniemi 1989; Browne 1973a: 282, 1974a: 65; Dejean 1837: 382; Fairmaire 1892b; Gardner 1957: 33; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 112; Kalshoven 1955a: 147, 192, 1959c: 140; Kleine 1913b: 163; Nunberg 1961a: 331; Paulian 1951: 28; Roberts 1977a: 268; Schedl 1959a: 497, 1962h: 61, 1962j: 212, 1962k: 1105, 1964e: 69, 1965h: 112, 1966b: 76, 1969c: 55, 1975k: 278, 1977a: 146, 1982: 279; Spahr 1981: 62; Wichmann 1954: 522. (tx) Beaver & Loytyniemi 1989; Blandford 1896: 213; Eggers 1920: 116–117, 124, 1922: 174, 1923a: 187, 1943c: 66; Eichhoff 1868c: 151, 1878b: 326–327, 477; Fairmaire 1892b; Hagedorn 1910a: 157, 1910b: 8, 1913b: 257; Nobuchi 1983: 304; Nunberg 1961: 331, 1963b: 62, pl. 31; Powell, W. 1980: 29; Schaufuss 1891: 24, 1897: 212; Schedl 1939a: 468, 1941d: 402, 1950c: 205, 1950d: 8, 1951j: 19, 1953d: 70, 1957b: 151, 1957d: 16, 84, 1958k: 150, 1959a: 497, 1961e: 128, 1962b: 61, 1962j: 212–213, 1962k: 1105, 1964e: 69, 1965h: 112, 1977b: 145, 146.

semirudis Blandford 1896b: 210 (*Xyleborus*).

Holotype ♀; Borneo; BMNH, London. Synonymy: Wood 1989: 173.

References: (hb) Browne 1961c: 127; Kalshoven 1959c: 138–139. (ds) Browne 1961c: 127; Hagedorn 1910d: 110; Kalshoven 1959c: 138–139; Kleine 1913b: 162, 1914b: 284. (tx) Blandford 1896b: 210; Eggers 1927c: 90; Hagedorn 1910a: 156; Schedl 1931c: 340, 1960h: 108; Wood, S. L. 1989: 173.

fraternus Blandford 1896b: 212 (*Xyleborus*).

Holotype ♀; Ceylon; BMNH, London. Synonymy: Schedl 1958k: 150.

References: (cn) Mathur & Singh 1960b: 48, 1961a: 70, 1961b: 91. (ds) Hagedorn 1910d: 104; Kleine 1913b: 161, 1934a: 173; Mathur &

Singh 1960b: 48, 1961a: 70, 1961b: 91. (tx) Beeson 1915: 212; Blandford 1896b: 212; Eggers 1923a: 186; Hagedorn 1910a: 15; Schedl 1958k: 150, 1962j: 212.

serveinus Eggers 1923a: 187 (*Xyleborus*). Lectotype ♀; Insel Mentawai (Sereinu, Si Oban); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 225. Synonymy: Kalshoven 1959c: 139, Schedl 1960i: 108.

References: (ds) Beeson 1961: 308; Kalshoven 1959c: 139; Kleine 1934a: 173; Schedl 1936d: 5. (tx) Eggers 1923a: 187; Kalshoven 1959c: 139; Nunberg 1959a: 437; Schedl 1936d: 5, 1951i: 42, 1954a: 142, 155, 1958k: 151, 1960i: 108, 1979c: 225.

dubius Eggers 1923a: 199 (*Xyleborus*). Lectotype ♀; Niederl. Indien. Tjitjalangka (Java); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 85. Synonymy: Kalshoven 1959c: 139, Schedl 1960i: 108.

References: (tx) Eggers 1923a: 199–200, 1927b: 390; Kalshoven 1959c: 139; Nunberg 1956d: 209, 1959a: 430; Schedl 1951i: 65, 1958k: 151, 1960i: 108–109, 1979c: 85.

hybridus Eggers 1927c: 90 (*Xyleborus*). Lectotype ♀; Philippinen: Mindanao, Prov. Lanao, Momungan; USNM, Washington, designated by Anderson & Anderson 1971: 14. Synonymy: Kalshoven 1959c: 139.

References: (ds) Schedl 1936j: 20, 1938s: 426, 1966b: 56, 1971f: 149. (tx) Anderson, W. H. & Anderson 1971: 14; Eggers 1927c: 90; Kalshoven 1959c: 139; Nobuchi 1983: 302; Nunberg 1959a: 428; Schedl 1931c: 340–341, 1933e: 103–105, 1936j: 20, 1938g: 426, 1942a: 188, 1951i: 66–67, 1954a: 141, 1958k: 151, 1960h: 108, 1979c: 120.

rudis Eggers 1930d: 192 (*Xyleborus*). Holotype ♀; Madras (Nilambur); FRI, Dehra Dun. Synonymy: Wood 1989: 173.

References: (cn) Roonwal 1954: 87. (ds) Beeson 1930: 255, 1961: 308; Browne 1961c: 127; Kleine 1934a: 175; Roonwal 1954: 87; Schedl 1936j: 20, 1959a: 494, 1972g: 225. (tx) Beeson 1930: 255; Eggers 1930d: 192–193; Schedl 1936d: 20, 1959a: 494, 1979c: 214; Wood, S. L. 1989: 173.

kivuensis Eggers 1935c: 309 (*Xyleborus*). Holotype ♀; Congostaat (Kivu Mulungu); MRCB, Tervuren. Synonymy: Schedl 1957d: 16.

Notes: (3) Schedl 1952j: 3, 11 (described male).

References: (ds) Gardner 1957a; Mayne & Donis 1962: 319. (tx) Eggers 1935c: 309–310, 1943c: 66; Schedl 1950c: 205, 1950d: 8, 1952j: 3, 10–11, 1953d: 69, 1957d: 16, 1958k: 150, 1959a: 497, 1962j: 212, 1979c: 133.

interruptus Eggers 1940d: 139 (*Xyleborus*). Holotype ♀; Java (Batoeraden, G. Slamet);

Drescher Collection. Synonymy: Kalshoven 1959c: 139.

References: **(ay)** Browne 1961d: 49. **(cn)** Anonymous 1977a, 1977j, 1978v; Chandra 1981; Mathur & Singh 1960b: 6, 1961a: 10, 1961b: 14; Williams, L. H. & La Fage 1979: 426. **(hb)** Browne 1961c: 124; Chandra 1981. **(ds)** Anonymous 1977a, 1977j, 1978v; Browne 1961c: 124; Mathew 1982; Mathur & Singh 1960b: 6, 1961a: 10, 1961b: 14; Samuelson 1981: 77; Schedl 1960e: 172, 1961e: 71, 1962b: 185; Yin & Huang 1981: 568. **(tx)** Eggers 1940d: 139–140; Kalshoven 1959c: 139; Schedl 1951i: 70, 1958k: 151, 1979c: 127.

neolybridus Schedl 1942a: 188 (*Xyleborus*). Syn-types ♀; Malaya, Selangor, Kepong; BMNH, London and Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

Notes: (1) Schedl 1979c: 164 (citation of holotype invalid).

References: **(ds)** Browne 1961c: 128. **(tx)** Schedl 1942a: 188, 1951i: 62, 1979c: 164; Wood, S. L. 1989: 173.

archybrida Schedl 1951i: 66 (*Xyleborus*). Syn-types ♂ ♀; Philippinen, Luzon, Laguna, Mt. Makiling; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

Notes: (1) Schedl 1979c: 27 (citation of holotype invalid).

References: **(ds)** Schedl 1966b: 47. **(tx)** Nobuchi 1983: 302; Schedl 1951i: 66, 1979c: 27; Wood, S. L. 1989: 173.

longehirtus Numberg 1956: 209 (*Xyleborus*). Syn-types 2 ♀; Niederl. Inden. Tjitjalangka (Java); MNB, Berlin, automatic. Synonymy: Kalshoven 1959c: 139, Schedl 1960h: 108.

References: **(tx)** Kalshoven 1959c: 139; Numberg 1956: 209, 1959a: 430; Schedl 1960h: 108–109.

zicsii (Schedl) 1967e: 231 (*Xyleborus*). Holotype ♀; Brazzaville, Orstom Park; NHMB, Budapest.

Distribution: Africa (Congo).

References: **(tx)** Schedl 1967e: 231–232, 1979c: 270.

Genus *Cyclorhipidion* Hagedorn

CYCLORHIPIDION HAGEDORN 1912c: 355. Type-species: *Cyclorhipidion pelliculosus*, Hagedorn, monobasie.

Terminalinus Hopkins 1915b: 10, 57. Type-species: *Terminalinus terminaliae* Hopkins, original designation. Synonymy: Wood 1992:(in press).

References: **(tx)** Hopkins 1915b: 10, 57; Schedl 1952k: 162; Wood, S. L. 1986a: 83, 1992:(in press).

Kelantaninus Numberg 1961b: 621. Type-species: *Xyleborus punctatopilosus* Schedl, original designation. Synonymy: Wood 1986a: 83.

References: **(tx)** Numberg 1961b: 621; Wood, S. L. 1986a: 83.

References: **(tx)** Hagedorn 1912c: 355; Schedl 1957d: 15.

agnaticeps (Schedl) 1957d: 100 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Hembe-Bitale, Mt. Kahuzi; Lubero, Ruanda; Sishwati, Ostafrika; Mt. Elgon; MRCB, Tervuren.

Figures: Numberg 1963b:pl. 3–4, figs. 7–10, Schedl 1962j: 294.

Distribution: Africa (Kenya/ Tanzania/ Zaïre).

Hosts: *Alchornea cordifolia*, *Bailonella toxisperma*, *Beilschmiedia louisii*, *Bridelia bridelifolia*, *Hagenia abyssinica*, *Hypericum lanceolatum*, *Olea hochstetteri*.

References: **(cc)** Schedl 1958d: 192. **(hb)** Schedl 1962j: 293. **(ds)** Schedl 1962j: 293. **(tx)** Numberg 1963b: 14, pl. 3–4; Schedl 1955f: 259, 1957d: 54, 100, 1962j: 293–294, 1979c: 15.

agnatum (Eggers) 1923a: 197 (*Xyleborus*). Syn-types ♀; Borneo (Sarawak) and Neu Guinea (Iatam); MCC, Genova, and Eggers Collection (USNM, Washington or NHMW, Wien?).

Figures: Nobuchi 1978a:pl. 4, Numberg 1978: 102, Wood 1960a: 58.

Distribution: Asia (Burma/ India/ Malaya), Australia, Bismarck Islands, Indonesia (Borneo, Java), Micronesia (Caroline Islands, Palau Island), New Guinea, Philippine Islands (Luzon), Solomon Islands.

Hosts: *Balanocarpus heimii*, *Castanopsis* sp., *Dipterocarpus kunstleri*, *Dryobalanips oblongifolia*, *Eugenia* sp., *Scaphium* sp., *Shorea bracteolata*, *S. leprosula*, *S. macroptera*, *S. uliginosa*.

References: **(cn)** Mathur & Singh 1961a: 38. **(cc)** Browne 1958b: 172. **(hb)** Beaver & Browne 1978: 602; Browne 1958b: 172, 1961c: 149; Kalshoven 1959c: 148. **(ds)** Beaver & Browne 1978: 602; Beeson 1961: 302; Browne 1966: 253, 1984a: 51; Choo & Woo 1983; Kalshoven 1959c: 148; Mathur & Singh 1961a: 38; Nobuchi 1978a: 38; Numberg 1961b: 610; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987a: 87, 1987b: 94; Ohno, Yoshioka, Uchida, Yoneyama, & Tsukamoto 1989: 61; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 93; Schedl 1936d: 2, 1936j: 32, 1966b: 45, 1969a: 208, 1975i: 346, 1979a: 158; Wood, S. L. 1960a: 51. **(tx)** Browne 1972b: 23; Eggers 1923a: 197, 1927b: 408, 1940d: 140; Nobuchi 1978a:pl. 4, 1983: 302; Numberg 1978: 102–103; Schedl 1936d: 2, 1942a: 170, 1942d: 6–7, 1950g: 895, 1954a: 140, 1958b: 498, 1959a: 508; Wood, S. L. 1960a: 51, 58.

amarantum (Schedl) 1942a: 198 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Fraser's Hill; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 17.

Distribution: Asia (Malaya).

- References: (ds) Browne 1961c: 150. (tx) Schedl 1942a: 198, 1979c: 17.
- andriani (Schedl)** 1965c: 73 (*Xyleborus*). Holotype ♀; Madagascar Sud-Ouest, Lambomakandro; IRSM, Madagascar.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 73, 1977b: 139, 1979c: 19.
- anoplum (Schedl)** 1975f: 362 (*Xyleborus*). Holotype ♀; New Guinea, Upper Manki logging area, Bulolo, Morobe Distr.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 362, 1979c: 21.
- apicipeme (Schedl)** 1974d: 462 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist., New Guinea; CSIRO, Canberra.
Distribution: New Guinea.
References: (tx) Schedl 1974d: 462, 1979c: 23.
- armaticeps (Schedl)** 1942a: 198 (*Xyleborus*). Lectotype ♀; Malaya, Pahang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 25.
Distribution: Asia (Malaya).
Hosts: *Shorea leprosula*.
References: (ds) Browne 1961c: 165. (tx) Schedl 1942a: 198, 1979c: 25.
- artifex (Schedl)** 1942d: 45 (*Xyleborus*). Lectotype ♀; Java: Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27.
Distribution: Indonesia (Java).
References: (tx) Schedl 1942d: 45, 1979c: 27.
- bicinctum (Schedl)** 1965c: 76 (*Xyleborus*). Holotype ♀; Madagascar, Montagne d'Ambre, 1150 m; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Macaranga* sp.
References: (tx) Schedl 1965c: 76, 1977b: 212, 1979c: 37–38.
- bituberculatum (Eggers)** 1923a: 183 (*Xyleborus*). Holotype ♀; Deutsch Neu-Guinea, Kaiserin Augustafluss; supposedly deposited in MNB, Berlin, but apparently it was in the Eggers Collection when Schedl borrowed it, now in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Eggers 1923a: 183–184; Schedl 1940b: 435, 1955b: 281, 1979c: 41.
- brevius (Eggers)** 1923a: 183 (*Xyleborus*). Holotype ♀; Deutsch New-Guinea, Kaiserin Augustafluss; MNB, Berlin, apparently still in the Eggers Collection when Schedl borrowed it, now in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Eggers 1923a: 183; Schedl 1953c: 302, 1979c: 46.
- cachani (Schedl)** 1958j: 241 (*Xyleborus*). Lectotype ♀; Cote d'Ivoire, Yapo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 49.
Distribution: Africa (Ivory Coast).
Hosts: *Canarium* sp., *Macrobium heudelotianum*, *Pachylobius deliciosa*.
References: (ds) Cachan 1957: 15; Schedl 1961m: 84, 1962j: 489, 1964e: 69. (tx) Schedl 1958j: 241, 1961m: 84, 1962j: 489, 1979c: 49.
- callosum (Schedl)** 1941d: 405. Holotype ♀; Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Dacryodes pubescens*.
References: (hb) Schedl 1962j: 272. (ds) Schedl 1962j: 272. (tx) Schedl 1941d: 405, 1957d: 15, 1962j: 272, 1979c: 50.
- capensis (Eggers)** 1944b: 98 (*Xyleborus*). Holotype ♀; Africa, Capland; Stuttgart Staatl. Naturaliensammlung.
Distribution: Africa (South Africa).
References: (tx) Eggers 1944b: 98; Schedl 1962j: 273.
- circumcisum (Sampson)** 1921: 30 (*Xyleborus*). Holotype ♀; Penang; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).
Hosts: *Castanopsis* sp., *Pasania* sp., *Quercus* sp.
References: (hb) Beaver & Browne 1978: 606; Browne 1961c: 161; Kalshoven 1959c: 158. (ds) Beaver & Browne 1978: 606; Browne 1961c: 161–162, 1962c: 202, 1986a: 89; Kalshoven 1959c: 158; Sampson 1921: 30–31; Schedl 1965g: 24. (tx) Browne 1959a: 97; Kalshoven 1959b: 97; Sampson 1921: 30–31.
- obtusum (Eggers)** 1923a: 172 (*Xyleborus*). Holotype ♀; Bandar Baroe auf Sumatre; USNM, Washington. Synonymy: Browne 1959b: 97 in Kalshoven 1959.
References: (ec) Browne 1958b. (hb) Browne 1958b; Kalshoven 1959: 158. (ds) Schedl 1936d: 4, 1971c: 368. (tx) Anderson, W. H. & Anderson 1971: 23; Browne 1959a, 1959b: 97; Eggers 1923a: 172, 1927c: 100; Schedl 1936d: 4, 1942a: 192, 1942c: 185–186, 1942d: 6, 1945f: 271, 1951i: 42, 86, 1954a: 142, 1971c: 368, 1979c: 176.
- corrugatum (Schedl)** 1951i: 93 (*Xyleborus*). Holotype ♂; Java: Tangkoeban Prahoe, 4000–5000 Fuss; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (tx) Schedl 1951i: 93, 1979c: 66.
- crucifer (Hagedorn)** 1908: 381 (*Xyleborus*). Holotype ♀; Kamerun; MNB, Berlin.
Figures: Numberg 1963b: pl. 11, figs. 3–6, Schedl 1962j: 274.
Distribution: Africa (Angola/ Benin/ Cameroon/ Equatorial Guinea/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ South Africa/ Tanzania/ Uganda/ Zaire/ Zambia).
Hosts: *Acrocarpus* sp., *Albizia* spp., *Baphia nitida*, *Cassia stamea*, *Celtis* sp., *Ficus* sp., *Turraeanthus africana*.

- References: **(cc)** Schedl 1962j: 273. **(hb)** Beaver & Loytyniemi 1985a: 70; Loytyniemi, Beaver, & Loytyniemi 1984; Roberts 1969: 131; Schedl 1962j: 273. **(ds)** Beaver & Loytyniemi 1985a: 70; Ferreira 1965: 1121; Gardner 1957a: 33; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 312; Mayne 1954: 296; Mayne & Donis 1962: 318; Schedl 1959p: 19, 1962j: 273, 1967e: 216. **(tx)** Beaver & Loytyniemi 1985a: 70; Eggers 1923a: 179, 188, 1927a: 199; Hagedorn 1908: 381, 1910a: 153; Nunberg 1963b: 26, pl. 11; Schedl 1939a: 470, 1939g: 170, 1942d: 34–35, 1950d: 8, 1952i: 18, 1955i: 219, 1957d: 15, 84, 98, 1962j: 273–274, 1979c: 70.
- crucifer cruciferinum* Schedl 1957d: 98 (*Xyleborus*). Holotype ♀; Cote d'Ivoire: Adiopodoume; Schedl Collection in NHMW, Wien. Notes: (1) A possible subspecies. References: **(ds)** Schedl 1962j: 275. **(tx)** Schedl 1957d: 98, 1962j: 275, 1962k: 1099, 1979c: 70.
- cruciforme* (Schedl) 1957d: 99 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Hembé-Bitale; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 11, figs. 7–8. Distribution: Africa (Zaire). Hosts: *Faurea saligna* and a liana. References: **(cc)** Schedl 1958d: 192. **(hb)** Schedl 1962j: 276. **(ds)** Schedl 1962j: 276. **(tx)** Nunberg 1963b: 27, pl. 11; Schedl 1957d: 98–99, 1962j: 276, 1979c: 70.
- crucipenne* (Schedl) 1962j: 277 (*Xyleborus*). Holotype ♀; Congo Belge: Luki; Schedl Collection in NHMW, Wien. Distribution: Africa (Kenya/ Uganda/ Zaire). Hosts: *Albizia* sp., *Alstonia boonei*, *Cynometra alexandri*, *Celtis mildbraedii*, *C. sp.*, *Chlorophora excelsa*, *Funtumia elastica*, *Khaya* sp., *Maesopsis eminii*, *Trema guineensis*. References: **(tx)** Schedl 1962j: 277, 1979c: 71.
- metacrucifer* Browne 1965a: 201 (*Xyleborus*). Holotype ♀; Kenya: Budongo; BMNH, London. Synonymy: Wood 1989: 175. References: **(ds)** Browne 1973a: 279, 297. **(tx)** Browne 1965a: 201, 1973a: 279, 297.
- curvipenne* (Schedl) 1951i: 82 (*Xyleborus*). Syn-types ♀; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Java). References: **(tx)** Schedl 1951i: 82, 1979c: 73.
- daosi* (Schedl) 1958j: 242 (*Xyleborus*). Lectotype ♀; Cote d'Ivoire, Banco; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 75. Distribution: Africa (Equatorial Guinea/ Ivory Coast). Hosts: *Trichoscypha arborea*. References: **(ds)** Cachan 1957: 15, 43–53; Schedl 1962j: 492, 1971g: 193. **(tx)** Schedl 1958j: 241–242, 1962j: 492, 1979c: 75.
- delicatum* (Schedl) 1955b: 300 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: **(tx)** Schedl 1955b: 281, 300, 1979c: 77.
- destrictum* (Schedl) 1939e: 352 (*Xyleborus*). Lectotype ♀; Malaya, Pahang: Fraser's Hill, 4200 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 79. Distribution: Asia (Malaya). References: **(ds)** Browne 1961c: 164. **(tx)** Schedl 1939e: 351–353, 1979c: 79.
- dihingicum* Wood 1992b: 79. Syntypes 2 ♀, 1 ♂; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien, automatic. Distribution: Indonesia (Java). References: **(tx)** Wood 1992b: 79.
- dihingensis* Schedl 1951i: 75 (*Xyleborus*). Syn-types 2 ♀, 1 ♂; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1930. References: **(ds)** Schedl 1966b: 51. **(tx)** Nobuchi 1983: 302; Schedl 1951i: 75, 1979c: 80; Wood, S. L. 1992b: 79.
- dipteroearpi* (Hopkins) 1915b: 58 (*Terminalus*). Holotype ♀; Paghilao, Philippine Islands; USNM, Washington. Distribution: Philippine Islands. Hosts: *Dipteroearpus grandiflorus*. References: **(ds)** Kleine 1934a: 176; Schedl 1966b: 51. **(tx)** Hopkins 1915b: 58; Nobuchi 1983: 302.
- foersteri* (Hagedorn) 1910b: 7 (*Xyleborus*). Syn-types 2 ♀; Sumatra; Hamburg Museum, lost. Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra). Hosts: *Canarium littorale*, *C. sp.*, *Canthium didymum*, *Pithecolobium bubalinum*, *Santiria griffithii*, *Shorea leprosula*. References: **(cc)** Browne 1958b. **(hb)** Browne 1935a, 1958b, 1961c: 163. **(ds)** Beeson 1961: 304; Browne 1935a, 1961c: 163; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 286; Schedl 1936d: 3. **(tx)** Browne 1955: 353; Eggers 1923a: 182, 1927c: 93; Hagedorn 1910a: 154, 1910b: 7; Schedl 1936d: 3, 1939e: 331, 351, 1942a: 170, 1942c: 186, 1950g: 894.
- fouqueti* (Schedl) 1937f: 15 (reprint p. 1) (*Xyleborus*). Lectotype ♀; Saigon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 99. Distribution: Asia (Vietnam). References: **(ds)** Schedl 1937f: 15. **(tx)** Schedl 1937f: 15, 1979c: 99.
- guineense* (Eggers) 1941d: 179 (*Xyleborus*). Syn-types ♂ ♀; Insel Fernando Poo; IPKE, Eberswalde, and 3 ♀ 1 ♂ in Eggers Collection, in NHMW, Wien. Figures: Schedl 1962j: 322.

- Distribution: Africa (Cameroon/ Equatorial Guinea/ Fernando Po Island).
Hosts: *Nuxia conferta*, *Sizygium staudtii*.
References: (ds) Browne 1973a: 282. (tx) Eggers 1941d: 179; Schedl 1962j: 322–323, 1979c: 114.
- hastatum (Schedl)** 1942d: 39 (*Xyleborus*). Lectotype ♀; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 115.
Distribution: Indonesia (Java), New Guinea.
References: (ds) Browne 1983a: 554; Schedl 1965g: 25. (tx) Schedl 1942d: 39, 1951i: 93, 1953c: 290, 1958k: 154, 1965g: 25, 1979c: 115.
- hirtum (Hagedorn)** 1904d: 126 (*Xyleborus*). Holotype ♀; Darjiling; MNHN, Paris.
Distribution: Asia (Burma/ Fujian in China/ Assam, Bengal in India).
Hosts: *Beilschmiedea sikkimensis*, *Evodia fraxinifolia*, *Michelia champaca*, *Symplocos theaeifolia*.
References: (ds) Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 277; Schedl 1969c: 53. (tx) Beeson 1930: 218; Hagedorn 1904d: 126, 1910a: 154.
hirtuosus Beeson 1930: 217 (*Xyleborus*). Syn-types 11 ♀; Bengal: Lopchu, Rangirum, Senchal Range, Darjeeling; FRI, Dehra Dun. Synonymy: Wood 1989: 175.
References: (cn) Mathur & Singh 1961a: 84. (ds) Mathur & Singh 1961a: 84; Nobuchi 1967: 21; Schedl 1960e: 172. (tx) Beeson 1930: 217–218; Eggers 1939c: 114; Schedl 1953e: 22, 1955h: 45, 1979c: 118; Wood, S. L. 1989: 175.
- indigens (Schedl)** 1955b: 303 (*Xyleborus*). Holotype ♀; Deutsch-Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 281, 303, 1979c: 124.
- kelantanum (Schedl)** 1953c: 302 (*Xyleborus*). Lectotype ♀; Malaya, Kelantan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131.
Distribution: Asia (Malaya).
Hosts: *Shorea rugosa*.
Notes: (1) Browne 1961c: 149 (correction of lapsus calami in original spelling).
References: (hb) Browne 1961c: 149. (ds) Browne 1961c: 149; Nunberg 1961b: 610. (tx) Schedl 1953c: 302, 1979c: 131.
- longius (Eggers)** 1923a: 171 (*Xyleborus*). Lectotype ♀; Deutsch Neu Guinea (Maifluss and Augustafloss); USNM, Washington, designated by Anderson & Anderson 1971: 18.
Distribution: New Guinea.
References: (tx) Anderson, W. H. & Anderson 1971: 18; Eggers 1923a: 171–172, 195; Schedl 1942c: 190, 1961f: 92, 1979c: 141.
- mangoense (Schedl)** 1942a: 189 (*Xyleborus*). Holotype ♀; Malaya, Malacca; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Mangifera indica*.
References: (ds) Browne 1961c: 137. (tx) Schedl 1939n: 14, 1942a: 189.
- multigranosum (Schedl)** 1964f: 622 (*Xyleborus*). Holotype ♀; Cameroon, N'Kongsamba; MNHN, Paris.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1964f: 622, 1979c: 161.
- neocavipenne (Schedl)** 1977f: 503 (*Xyleborus*). Holotype ♀; Vietnam: Prov. Ha-Tinh, forestiere Huong-son, 150 m; Schedl Collection in NHMW, Wien.
Distribution: Asia (Vietnam).
References: (tx) Schedl 1977f: 503.
- neocrucifer (Schedl)** 1955i: 219 (*Xyleborus*). Lectotype ♀; S. Rhodesia: Salisbury, Mashonaland, Victoria, N. W. Rhodesia: Shigariatombwes; Schedl Collection, designated by Schedl 1979c: 164.
Figures: Nunberg 1968a: pl. 2, figs. 1–4.
Distribution: Africa (South Africa/ Zambia/ Zimbabwe).
Notes: (3) Beaver & Loytyniemi 1985a: 71 (cited in *Kelantanus*).
References: (ds) Beaver & Loytyniemi 1985a: 71; Schedl 1962j: 279. (tx) Beaver & Loytyniemi 1985a: 71; Nunberg 1968a: 274, pl. 2; Schedl 1955d: 272, 1955i: 219, 1962j: 277–279, 1979c: 164.
- nsafukalae (Schedl)** 1957d: 105 (*Xyleborus*). Holotype ♀; Congo Belge: Bas-Congo, Luki; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Dacryodes pubescens*.
References: (ds) Schedl 1962j: 526. (tx) Schedl 1957d: 105, 1962j: 526, 1979c: 172.
- nutans (Schedl)** 1942a: 199 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Kemasul F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 173.
Distribution: Asia (Andaman Islands in India/ Malaya), Indonesia (Borneo).
Hosts: Burceraceae.
References: (ds) Browne 1961a: 305, 1961c: 149, 1981b: 599, 1983a: 554, 1984a: 151; Schedl 1969c: 53. (tx) Schedl 1942a: 199, 1959a: 507, 1979c: 173.
- obliquesectum (Eggers)** 1927c: 99 (*Xyleborus*). Holotype ♀; Philippinen: Mindanao, Prov. Lanao, Kolambungan; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands.
References: (ds) Nobuchi 1978a: 24; Ohno, Yoneyama, & Nakazawa 1987: 88; Schedl 1938g: 427, 1966b: 62, 1966g: 32. (tx) Eggers 1927c: 99; Nobuchi 1983: 303; Schedl 1938g: 427, 1950g: 894, 1979c: 174.
- opimatum (Schedl)** 1975a: 459 (*Xyleborus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).

- References: (tx) Schedl 1975a: 459, 1979c: 180.
- pelliculosum** Hagedorn 1912c: 356. Holotype ♀; Kamerun, Johann-Albrechtshöhe; MNB, Berlin. Distribution: Africa (Cameroon).
References: (ds) Hagedorn 1910d: 108; Kleine 1913b: 170, 1914b: 312. (tx) Hagedorn 1910a: 155, 1912c: 356; Hopkins 1914: 120; Schedl 1941d: 405, 1957d: 15, 1962j: 279.
- perlactus** Schedl 1960h: 107 (*Xyleborus*). Holotype ♀; Kamerun, Johann-Albrechtshöhe; MNB, Berlin, automatic. An unnecessary replacement name for *pelliculosum* Hagedorn, the original pre-1960 name is restored.
References: (tx) Schedl 1960h: 107, 1962j: 279.
- perpilosellum** (Schedl) 1935b: 402 (*Xyleborus*). Lectotype ♀; Mt. Maquiling, Laguna Province, Luzon, Philippine Islands; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 190. Distribution: Asia (Malaya), Philippine Islands (Luzon).
References: (ds) Nunberg 1961b: 611; Schedl 1966b: 65. (tx) Nobuchi 1983: 303; Schedl 1935b: 402, 1979c: 190.
- pilipenne** (Eggers) 1940d: 140 (*Xyleborus*). Holotype ♀; Java (Preanger, G. Tangkoeban Prahoë); Drescher Collection.
Distribution: Indonesia (Java).
Notes: (1) Schedl 1979c: 140 (lectotype designated invalid).
References: (tx) Eggers 1940d: 140; Schedl 1942d: 45, 1979c: 194.
- pilosulum** (Eggers) 1927c: 100 (*Xyleborus*). Holotype ♀; Philippinen: Luzon, Provinz Laguna, Mount Maquiling; USNM, Washington.
Distribution: Indonesia (Borneo), Philippine Islands (Luzon).
References: (ds) Schedl 1965g: 24, 1966b: 65, 1979c: 194. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1927c: 100–101; Nobuchi 1983: 303; Schedl 1948f: 271, 1965g: 24, 1979c: 194.
- pityogenes** (Schedl) 1936g: 534 (*Xyleborus*). Holotype ♀; Australia; Schedl Collection in NHMW, Wien.
Distribution: Australia.
References: (ds) Brimblecombe 1953: 33; Schedl 1936g: 534. (tx) Schedl 1936g: 534, 1979c: 195.
- planotruncatum** (Schedl) 1942a: 197 (*Xyleborus*). Holotype ♀; Malaya, Perak, Larut Hills, 4500 Fuss; BMNH, London.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 165. (tx) Schedl 1942a: 197.
- polyodon** (Eggers) 1923a: 196 (*Xyleborus*). Lectotype ♀; Mt. Makiling, Insel Luzon; USNM, Washington, designated by Anderson & Anderson 1971: 26.
Distribution: Asia (Malaya), Philippine Islands (Luzon).
Hosts: *Artocarpus elasticus*.
References: (ds) Schedl 1966b: 66, 1971c: 365. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1923a: 196–197, 1927b: 404; Nobuchi 1983: 303.
- popondettae** (Browne) 1970: 573 (*Xyleborus*). Holotype ♀; Papua New Guinea: N. Papua, Popondetta; BMNH, London.
Distribution: New Guinea.
Hosts: *Theobroma cacao*.
References: (tx) Browne 1970: 573.
- posticespinatum** (Eggers) 1940c: 238 (*Xyleborus*). Holotype ♀; Congostaat (Bambesa); MRCB, Teruvuren.
Figures: Nunberg 1963: pl. 22, figs. 1–2, 7–8.
Distribution: Africa (Angola/ Congo/ Nigeria/ Zaire).
References: (ds) Browne 1970: 542; Ferreira 1965: 1124; Roberts 1969: 133; Schedl 1959p: 21, 1962j: 527. (tx) Eggers 1940c: 238; Nunberg 1963b: 46, pl. 22–23; Schedl 1962j: 527.
- praecursor** (Schedl) 1962j: 527 (*Xyleborus*). Holotype ♀; Congo Belge: Luki; Schedl Collection in NHMW, Wien.
Distribution: Africa (Congo/ Zaire).
Hosts: *Dacryodes pubescens*.
References: (ds) Schedl 1966c: 225. (tx) Schedl 1962j: 527, 1979c: 198.
- pruinatum** (Blandford) 1896b: 214 (*Xyleborus*). Holotype ♀; Borneo, Sarawak; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo, Mentawai, Sumatra), Philippine Islands, Solomon Islands.
Hosts: *Balanocarpus heimii*, *Canarium littorale*, *C. patentinervum*, *Dacryodes* sp., *Dryobalanops aromatica*, *Pethecellobium* sp., *Santiria griffithii*.
References: (ec) Browne 1958b. (hb) Browne 1958b, 1961c: 162–163. (ds) Browne 1961a: 306, 1961c: 162, 1966: 256, 1981a: 126, 1985a: 191; Hagedorn 1910d: 109; Kleine 1914b: 289; Nunberg 1961b: 611; Schedl 1965g: 24. (tx) Blandford 1896b: 214; Browne 1955: 352, 1970: 573; Hagedorn 1910a: 156; Nobuchi 1983: 303.
- arcticollis** Blandford 1896b: 217 (*Xyleborus*). Holotype ♂; Sumatra; BMNH, London. Synonymy: Browne 1955: 352.
References: (ds) Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 286. (tx) Blandford 1896b: 217; Browne 1955: 352.
- decipiens** Eggers 1923a: 182 (*Xyleborus*). Syn-types ♀; not given. Synonymy: Browne 1955: 352.
Notes: (1) Originally named as a variety of *foersteri*, raised to species rank by Schedl 1936d: 3.
References: (cn) Browne 1952; Mathur & Singh 1961a: 22; Yunas & Hua 1980: 230. (hb) Browne 1936a. (ds) Beeson 1961: 304; Browne 1936a; Mathur & Singh 1961a: 22;

- Nunberg 1961b: 610. (tx) Browne 1955: 352; Eggers 1923a: 182–183, 1927c: 93; Schedl 1936d: 3, 1939e: 331, 1942a: 170, 1942c: 163.
- psaltes** (Schedl) 1954e: 81 (*Xyleborus*). Lectotype ♂; Mpraeso, Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 200. Figures: Nunberg 1968: pl. 2, figs. 5–8. Distribution: Africa (Ghana/ Guinea/ Ivory Coast). Hosts: *Albizzia zygia*. References: (ds) Browne 1965a: 188; Schedl 1962h: 60, 1962j: 280, 1962k: 1102; Thompson, G. H. 1963: 72. (tx) Nunberg 1968a: 275, pl. 2; Schedl 1954e: 54, 81, 1955d: 269, 275, 1962j: 280, 1962k: 1102, 1979c: 200.
- ° **pseudocrucifer** (Schedl) 1939a: 470 (*Xyleborus*). Holotype ♀; Copal (Ethiopian Region); Geological Department, BMNH, London. Distribution: Africa (fossil in Copal from Ethiopia). References: (ds) Schedl 1962j: 280; Spahr 1981. (tx) Schedl 1939a: 470–471, 1962j: 280.
- pseudofosteri** (Schedl) 1942a: 191 (*Xyleborus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Borneo). References: (tx) Schedl 1942a: 191, 1954c: 154, 1979c: 201.
- punctatopilosum** (Schedl) 1936g: 532 (*Xyleborus*). Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien. Figures: Nunberg 1961b: 630–631 (adult). Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo), New Guinea. Hosts: *Castanopsis sumatrana*, *Lithocarpus wallichianus*, *Pasania sundaica*, *Quercus wrayi*. References: (hv) Gray, B. 1974c. (cn) Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 612; Browne 1941, 1961c: 160; Gray, B. 1974c. (ds) Beaver 1990a: 280; Beaver & Browne 1978: 612; Browne 1949b, 1961c: 160–161; Nunberg 1961b: 611–621, 630–631; Schedl 1936g: 532; Yunus & Hua 1980: 230. (tx) Browne 1949b; Schedl 1936g: 532, 1940b: 434, 1942a: 171, 1942d: 38, 1958k: 154, 1979c: 204.
- punctatum** (Eggers) 1923a: 182 (*Xyleborus*). Lectotype ♀; Si Ranbe auf Sumatra; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 205. Distribution: Indonesia (Sumatra). References: (tx) Eggers 1923a: 182–183; Schedl 1979c: 205.
- punctilicolle** (Schedl) 1942a: 190 (*Xyleborus*). Holotype ♀; Malaya, Perak; BMNH, London. Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: *Vatica* sp. References: (ds) Browne 1961c: 161; Schedl 1964g: 242. (tx) Schedl 1942a: 190.
- quadricuspe** (Schedl) 1942d: 34 (*Xyleborus*). Holotype ♀; Ost Java; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Java). References: (tx) Schedl 1942d: 34, 1979c: 208.
- revocabile** (Schedl) 1942c: 186 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1942c: 186, 1979c: 211.
- rufonitidum** (Schedl) 1951i: 74 (*Xyleborus*). Holotype ♀; Java, Bandjar; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Java). References: (hb) Kalshoven 1959c: 137. (ds) Kalshoven 1959c: 137. (tx) Schedl 1951i: 74, 1958k: 148, 1979c: 215.
- sculptor** (Schedl) 1961e: 153 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Mespilodaphne* sp. References: (tx) Schedl 1961e: 153, 1965c: 75–76, 1977a: 212, 1979c: 221.
- scapulare** (Schedl) 1942a: 193 (*Xyleborus*). Holotype ♀; Malaya, Selangor, Buloh F. R.; BMNH, London. Distribution: Asia (Malaya). References: (hb) Browne 1961c: 107. (tx) Schedl 1942a: 193.
- scorpium** (Schedl) 1942a: 187 (*Xyleborus*). Holotype ♀; Malaya, Perak, Trolak F. R.; BMNH, London. Distribution: Asia (Malaya). References: (ds) Browne 1961c: 165. (tx) Schedl 1942a: 187.
- sexspinatum** (Schedl) 1935f: 271 (*Xyleborus*). Lectotype ♀; F.M.S.: Selangor-Bangi, Meserenti (Kepong); Rotan-Junggal F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 227. Figures: Nobuchi 1978a: pl. 3. Distribution: Asia (Malaya). Hosts: *Shorea parviflora*. References: (ds) Browne 1961c: 107; Nobuchi 1978a: 27; Ohno, Yoncyama, & Nakazawa 1982b: 9; Ohno et al. 1987: 88; Schedl 1966b: 70, 1969a: 205. (tx) Browne 1960: 204; Nobuchi 1978a: pl. 3, 1983: 304; Schedl 1935f: 271, 1942c: 188, 1955b: 303, 1979c: 227; Wylie & Yule 1977.
- sisyrnophorum** (Hagedorn) 1910b: 7 (*Xyleborus*). Holotype ♀; Tandjong Morawa; MNB, Berlin. Distribution: Asia (India/ Malaya), Indonesia (Borneo, Sumatra, Tandjong). Hosts: *Dryobalanops aromatica*, *Xerospermum* sp. References: (cn) Mathur & Singh 1961b: 95. (ds) Beeson 1961: 309; Browne 1961c: 163; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 268; Mathur & Singh 1961b: 95; Schedl 1936d: 5, 1965g:

24. (tx) Eggers 1923a: 183; Hagedorn 1910a: 156, 1910b: 7; Schedl 1939c: 330, 1965g: 24.
- spinibarbe** (Schedl) 1955i: 219 (*Xyleborus*). Holotype ♀; Tonkouti [Senegal?]; Schedl Collection in NHMW, Wien.
Distribution: Africa (Senegal).
References: (tx) Schedl 1955i: 212, 219, 1962j: 529, 1979c: 234.
- spinidens** (Eggers) 1920: 116 (*Xyleborus*). Syntypes 2 ♀; Johann Albrechtshöhe in Kamerun; MNB, Berlin.
Distribution: Africa (Cameroon).
References: (ds) Schedl 1962j: 529, 1964f: 618. (tx) Eggers 1920: 116; Schedl 1938h: 461, 1955i: 219, 1962j: 529.
- subagnatum** Wood 1992b: 85. Holotype ♀; Philippinen, Luzon, Mt. Irid.; NHMW, Wien.
Figures: Nobuchi 1978a: pl. 4.
Distribution: Australia, New Guinea, Philippine Islands (Luzon).
Hosts: Mangrove.
Notes: (1) This is *Xyleborus subagnatus*, nomen nudum of Eggers and Schedl. Schedl 1979c: 239 (invalid lectotype designation).
References: (cn) Wylie & Shanahan 1975. (hb) Wylie & Shanahan 1975. (ds) Browne 1984c: 450; Ohno et al. 1987: 88, 1988a: 94, 1989: 64; Schedl 1966g: 32, 1975i: 347, 1980b: 184. (tx) Nobuchi 1978a: pl. 4, 1983: 304; Schedl 1957d: 100, 1961f: 94, 1964m: 314, 1979c: 239; Wood, S. L. 1992b: 85–86.
- subobtusum** (Schedl) 1942a: 192 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Kemasil F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 243.
Distribution: Asia (Malaya).
Hosts: *Quercus* sp.
References: (hb) Browne 1961c: 162. (tx) Schedl 1942a: 192, 1979c: 243.
- sulcinoides** (Schedl) 1974d: 463 (*Xyleborus*). Holotype ♀; Gabensis, Morobe Dist., New Guinea, Block 10, New Guinea Industries logging area; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Anisoptera polyandra*.
References: (tx) Schedl 1974d: 463.
- sulcipenne** (Eggers) 1932d: 299 (*Xyleborus*). Holotype ♀; Congostaat, Likimi; Gundji; USNM, Washington.
Figures: Nunberg 1963b: pl. 29, figs. 1–2.
Distribution: Africa (Angola/ Cameroon/ Nigeria/ Uganda/ Zaire).
Hosts: *Albizia sekibalaruguma*, *Celtis zenkeri*.
References: (ds) Ferreira 1965: 1126; Schedl 1959p: 21, 25, 1962h: 61, 1962j: 281, 1962k: 1104, 1964j: 42. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1932d: 299, 1940d: 148; Nunberg 1963b: 59, pls. 29–30; Schedl 1957d: 98–99, 1962j: 281, 1962k: 1104, 1965f: 13.
- tanibe** (Schedl) 1965c: 77 (*Xyleborus*). Holotype ♀; Madagascar, Montagne d'Ambre, 1100 m; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 77, 1977b: 219, 1979c: 249.
- tecleae** (Schedl) 1957c: 883 (*Xyleborus*). Holotype ♀; Uganda, Mpanga; BMNH, London.
Distribution: Africa (Uganda).
Hosts: *Celtis zenkeri*, *Teclea nobilis*.
References: (ds) Schedl 1962h: 61, 1962j: 169. (tx) Schedl 1957c: 883, 1962j: 169, 1962k: 1104, 1979c: 250.
- tenuigraphum** (Schedl) 1953e: 29 (*Xyleborus*). Lectotype ♀; Fukien, Kuatun, China; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 251.
Distribution: Asia (Fujian in China/ Uttar Pradesh in India).
References: (ds) Schedl 1969c: 55. (tx) Schedl 1953e: 29, 1954a: 154, 1955h: 45–46, 1979c: 251.
- terminaliae** (Hopkins) 1915b: 58 (*Terminalinus*). Holotype ♀; Pagbilao, Philippine Islands; USNM, Washington.
Distribution: Indonesia (Molucas Islands), Philippine Islands.
Hosts: *Terminalia edulis*.
References: (ds) Kleine 1934a: 156; Schedl 1966b: 73. (tx) Hopkins 1915b: 58; Nobuchi 1983: 304; Schedl 1952k: 162, 1958k: 154.
- procerior** Schedl 1942c: 189 (*Xyleborus*). Holotype ♀; Aru-Inseln; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 134.
References: (ds) Schedl 1966b: 66. (tx) Nobuchi 1983: 303; Schedl 1942c: 189, 1958k: 154, 1979c: 199.
- tuberculifer** (Eggers) 1923a: 195 (*Xyleborus*). Holotype ♀; Neu Guinea mer. (Bujakori); MCG, Genova.
Distribution: New Guinea.
References: (tx) Eggers 1923a: 195–196; Schedl 1942c: 191.
- tuberculosissimum** (Eggers) 1940d: 152 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Drescher Collection [1 Eggers cotype in NHMW, Wien].
Distribution: Indonesia (Java).
Hosts: *Shorea scabrida*.
References: (ds) Schedl 1964g: 242, 1966b: 75. (tx) Eggers 1940d: 152; Nobuchi 1983: 304; Schedl 1951i: 82, 1964g: 242, 1979c: 258.
- umbratum** (Eggers) 1941b: 223 (*Xyleborus*). Holotype ♀; China, Prov. Fukien (Kuatun, 2300 m); Alexander Koenig Museum, Bonn.
Distribution: Asia (Fujian in China).

References: (tx) Eggers 1941b: 223; Schedl 1955h: 45–46.

vagans (Schedl) 1977f: 504 (*Xyleborus*). Holotype ♀; Indo-China: Yen-Bay; Schedl Collection in NHMW, Wien.

Distribution: Asia (Vietnam).

References: (tx) Schedl 1977f: 504.

vigilans (Schedl) 1939f: 43 (*Xyleborus*). Lectotype ♀; Java, Batoerraden, C. Slamet; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo, Java).

References: (ds) Browne 1960: 201, 1961c: 107, 1962c: 201. (tx) Schedl 1939f: 43–45, 1942a: 193, 1979c: 267.

Genus *Xyleborus* Eichhoff

XYLEBORUS EICHHOFF 1864: 37. Type-species: *Bostrichus monographus* Fabricius, subsequent designation by Lacordaire 1866: 381.

Anisandrus Ferrari 1867a: 24. Type-species: *Apate dispar* Fabricius, monobasic. Synonymy: Hagedorn 1910d: 98.

References: (ay) Francke-Grosman 1958: 139–144. (cn) Every 1951: 23–24. (ds) Scheerpeltz & Winkler 1930: 257. (tx) Balachowsky 1949a: 219; Beal & Massey 1945: 61, 149; Chamberlin 1939: 441–447; Dodge 1938: 53–54; Ferrari 1867a: 24; Hopkins 1915b: 10, 67–68; Reitter 1913a: 80, 83; Saalas 1914: 304–306; Schimitschek 1937: 50–53; Spessivtsev 1931: 89; Swaine 1918a: 50, 124–125; Thatcher, T. O. 1951: 79.

Anaeretus Duges 1887: 141. Type-species: *Anaeretus guanajuatensis* Duges = *Bostrichus volculus* Fabricius, monobasic. Synonymy: Hagedorn 1910d: 97.

References: (tx) Duges 1887: 141; Hagedorn 1910d: 97; Wood, S. L. 1983: 650.

Progenius Blandford 1896a: 20. Type-species: *Progenius fleutiauxi* Blandford = *Xyleborus subcostatus* Eichhoff, subsequent designation by Hopkins 1914: 128. Synonymy: Hagedorn 1910d: 98.

References: (tx) Beeson 1918: 114–124; Blandford 1896a: 20; Hagedorn 1910d: 98; Hopkins 1914: 128.

Heteroborips Reitter 1913a: 79, 82. Type-species: *Bostrichus cryptographus* Ratzeburg, monobasic. Synonymy: Schedl 1934f: 1645.

References: (tx) Balachowsky 1949a: 221; Reitter 1913a: 79, 82; Schedl 1934f: 1645; Scherpeltz & Winkler 1930: 258.

Xyleborips Reitter 1913a: 79, 111. Type-species: *Xyleborus meuseli* Reitter, monobasic. Synonymy: Schedl 1934f: 1645.

References: (tx) Reitter 1913a: 79, 111; Schedl 1934f: 1645.

Boroxyton Hopkins 1915b: 10, 58. Type-species: *Boroxyton stephegynus* Hopkins = *Phloco-*

trogus bidentatus Motschulsky, original designation. Synonymy: Schedl 1952j: 162.

References: (tx) Hopkins 1915b: 10, 58; Schedl 1952j: 162.

Notoxyloborus Schedl 1934: 84. Type-species: *Notoxyloborus kalshoveni* Schedl, monobasic. Synonymy: Wood 1986a: 83.

References: (tx) Schedl 1934d: 84–85, 1969i: 138–139, 1977b: 126; Wood, S. L. 1986a: 83.

Keys: Bright 1968b: 1296, 1976: 131 for North America; Wood 1982b: 778 for North and Central America; Reitter 1913a: 81 for Europe, Yin, Huang, & Li 1984: 154–156 for China.

References: (ay) Andersen & Nilssen 1983: 1455; Francke-Grosman 1958: 139–144; Gardner 1934: 4, 14–15; Nobuchi 1969a: 63; Nusslin 1911, 1912; Van Ryn-Toumel 1975. (bv) Schedl 1960f: 10. (cn) Bally 1921: 1–24; Barbey 1901: 104; Beeson 1918: 114–124, 1922: 1–2, 1935: 539–543; Bernard 1919: 31–33; Betrem 1931: 799, 1932: 1115 (reprint p. 1–18), 1934: 73–86, 1938: 476–486; Betrem & Gandrup 1932: 18–29; Bodkin 1913: 29–32; Cachan 1957: 5; Craighead 1930: 11; Dourojeanni 1965: 9–32; Fisher, Thompson, & Webb 1954: 1–21; Fullaway 1914: 1–20; Garthwaite 1939: 95–104, 1940: 94–106; Gomez 1962: 218–219; Goot 1935: 1–79; Gowdey 1920: 25–27; Greene & Ulrich 1931: 277–282; Hall 1914, 1916: 1–47, 1918: 1–49, 1919d: 1–49, 1920: 1–50, 1922: 1–46, 1924: 1–53; Henry 1916: 94–100; Hill 1938: 9–13; Hopping & Jenkins 1933: 1–14; Iton 1959: 55–64; Johnston 1918: 61–82; Kalshoven 1924: 58–72; Lavabre 1958: 121; Lewton-Brain 1913: 1–45; Luggler 1899: 227; Luigioni 1929: 999; Maskew 1919: 309–311; May 1914: 1–35; Menzel 1923: 5–6; Michlitz 1881: 155; Morstatt 1914: 133–141; Mozzette, Bissel, & Adair 1931: 47–48; Pasquier 1932: 223–253; Ramakrishna 1918: 74–77; Rau 1935: 10–25; Ritchie 1917: 92–97; Roepke 1911: 10–11; Roughley & Welch 1923: 1–27; Rutgers 1921: 1–25; Rutherford 1914: 41–44; Salt 1926: 9–62; Sasseer 1914: 240–244, 1920: 181–184; Scenen 1966: 149–150; Schultze 1923: 399–402; Smyth 1919: 109–129; Snyder 1927: 13, 40; Stambaugh 1955: 867–871; Sterrett 1916: 1–88; Swabey 1935: 1–39; Theobald 1914; Ultee 1927: 18–23; Ulrich 1913: 164–167; Van Dine 1913a: 25–46, 1913b: 251–257; Wearn 1923: 412–413; Wilson 1921: 20–35; Wolcott 1921: 1–46, 1948: 381; Yazawa, Higochi, & Machii 1957: 1–56. (cc) Balazy 1963b; Flechtman 1985; Lindquist, E. E. 1970a: 981. (hb) Bright & Stark 1973: 76; Browne 1961c: 100; Bnysson 1880: 72–75; Escherich 1923: 440–487; Froggatt 1926: 144–146, 1926b: 359–362; Chesquiere 1933a: 25, 1933b: 774–778; Hess & Beck 1927: 344–347; Jacobson 1927: 463–478; Judeich & Nitsche 1895: 449–451; Lengerken 1939: 248–253; Lundblad 1958: 512; Munro 1928: 1–29; Neger 1908: 279; Nusslin 1907: 613; Perris 1877: 413; Rudnev 1928: 165–

- 206; Schedl 1962j: 102, 1977b: 127; Speyer 1923: 11–12; Wichmann 1927: 348–376; Wood, S. L. 1982b: 776, 1986a: 83. (**ds**) Atkinson, Rabaglia, & Bright 1990; Bertolini 1872: 202; Blackwelder 1947: 778; Bright & Stark 1973: 76; Brimblecombe 1953: 23; Browne 1961c: 100; Costa Lima 1956: 284–293; Endrodi 1957b: 417; Fleutiaux 1950: 9; Formanek 1907: 34, 51–52; Horion 1935: 351; Karaman 1972: 125; Kolbe 1897: 283; Kostin 1973: 270; Munro 1946: 10–48; Palm 1959: 42, 45, 353; Patterson & Hatch 1945: 145–156; Perkins 1900: 173–174; Provancher 1877: 567; Reitter 1906: 713; Schedl 1962j: 102, 1966b: 45, 1977b: 127; Scheerpeltz & Winkler 1930: 258; Scherdlin 1920: 207; Schreiner 1882: 248; Wachtl 1876: 458; Wood, S. L. 1982b: 776, 1986a: 83; Womdle 1950: 381. (**tx**) Arnett 1960: 1044, 1968: 1044; Balachowsky 1936: 22, 1949a: 218–232; Beal & Massey 1945: 9, 48–49, 54, 61, 151–152; Bedel 1888b: 397, 402; Beeson 1916: 217–221, 1930: 220–272, 1938: 291, 1941: 391–404; Blackman 1922b: 77, 116–117, 1950: 218–341; Blandford 1893c: 11, 1893d: 441–442, 1894b: 260, 1894d: 100–121, 1895b: 81, 1897a: 183–184, 1898b: 189–197; Blatchley & Leng 1916: 578, 592–593, 615; Bright 1963: 104, 1966c: 132, 1968b: 1288–1296, 1972: 71–73, 1976d: 130–131; Bright & Stark 1973: 76; Browne 1941: 63, 1949b: 898, 1950b: 641, 1955: 164–182, 1959: 292–300, 1960: 201–220, 1961c: 100–165, 1961d: 46–51, 1963c: 53–58, 1966: 233–257; Chamberlin 1918: 13, 35–36, 1939: 432–456, 1955: 181–187; Choo 1983: 102; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 20, 54; Duffy 1953: 9, 14; Eggers 1923: 129–130, 1930: 177–208, 1933b: 24, 1939: 114–123, 1940: 99–108, 1943c: 64; Eichhoff 1864b: 37–46, 1868d: 419–422, 1869a: 275, 1878b: 58–65, 476–484, 1881a: 53, 268, 1883a: 108–142; Ferrari 1967a: 5, 19, 21–25, 1967b: 107, 110, 114, 1968: 258; Hagedorn 1904c: 412, 1906: 116, 1907b: 110, 1907c: 290–293, 1908: 376–377, 1909a: 744, 1909b: 138, 1910a: 89, 98–99, 1910b: 6–11, 1910d: 64, 1912b: 35, 1912c: 356, 1913b: 253–255; Hoffmann 1942: 72; Hopkins 1914: 116, 134, 1915b: 10, 60–62, 1915c: 171–227; Johnson, N. E. 1958: 236; Kalshoven 1922: 782–793, 1959: 135; Keen 1952: 186; Kirsch 1875: 283; Krivolitskaya 1958: 167; Kurenzov 1941: 193; Lacordaire 1866: 373, 380; LeConte 1868: 151–161, 1876: 358–360; LeConte & Horn 1883: 518; Lekander 1962: 421, 429; Lindemann 1876: 345; Lovendal 1889: 26–28, 72; Melville & China 1968; Motschulsky 1858: 65; Murayama 1928b: 29, 1930b: 22–23, 1931a: 41, 1933a: 21–30, 1953a: 16, 1954b: 202; Niisima 1909: 152; Numberg 1928: 137–173, 1954: 4–6, 57–58, 1959: 413–466, 1963: 1–127, 1968a: 272–299; Pfeffer 1989a: 85; Redtenbacher 1874: 381; Reitter 1894: 38, 69, 89–92, 1913a: 79–82, 1916: 293–295; Sampson 1911: 382, 1912: 247, 1914: 382, 1923: 286; Schedl 1931c: 339–347, 1933: 84, 1934d: 85, 1934f: 1645, 1937e: 550, 1937h: 170, 1938a: 173, 1940a: 361, 1940c: 203–208, 1942d: 39, 1944: 68, 1952k: 161–162, 1955g: 4, 1957d: 1–162, 1957e: 865–883, 1958d: 194, 1958f: 33–46, 1958k: 145, 148, 1959a: 493, 1959q: 705–710, 1960f: 110, 1962j: 102, 1962n: 698, 1962p: 203, 1963g: 52, 1963j: 481, 1964d: 213–214, 1964j: 52, 1965f: 3–15, 1968e: 261–270, 1977b: 126–127; Schimitschek 1937: 50–51; Sedlacek 1935: 157; Spessivtsev 1922: 477, 1931: 89; Stark 1952: 15–425; Stebbing 1914: 582; Strohmeier 1906d: 41, 1910e: 128, 1911b: 17, 24–25; Swaine 1918a: 50, 126–127; Thompson, R. T. 1965; Thomson 1965: 269; Trappen 1935: 144; Wood, S. L. 1957a: 342–343, 1960a: 51, 1961a: 47, 1967c: 119–141, 1974h: 230–231, 1982b: 776–841, 1986a: 83; Yin & Huang 1981: 566.
- aberrans Schedl** 1959a: 502. Holotype ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka), South America (introduced: Brazil).
References: (**ds**) Schedl 1959a: 502, 1971f: 148. (**tx**) Schedl 1959a: 502, 1979c: 8.
- abbreviatipennis Schedl** 1973e: 88. Holotype ♀; Bismarck Geb., New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1973e: 88, 1979c: 8.
- abscissus Browne** 1974b: 537. Holotype ♀; Sarawak: Kuching; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Shorea* sp.
References: (**ds**) Browne 1980b: 381; Ohno et al. 1987a: 87. (**tx**) Browne 1974b: 537.
- acanthurus (Lea)** 1910: 137 (*Tomicus*). Holotype ♀; Queensland: Cairns; NMV, Melbourne.
Distribution: Australia (Queensland).
References: (**ds**) Brimblecombe 1953: 27. (**tx**) Lea 1910: 137; Schedl 1938f: 50, 1962j: 313–314.
- adamsoni Beeson** 1935a: 120. Holotype ♀; Tahiti: Papenoo Valley; not given.
Distribution: Rarotonga in Cook Islands, Marquesas Islands, Tahiti Islands.
References: (**ds**) Beaver & Maddison 1990: 1372; Beeson 1935b: 291, 1940: 200. (**tx**) Beaver 1991: 94; Beeson 1935a: 120; Schedl 1955b: 287.
- nigroaffinis Beeson** 1940: 199. Holotype ♀; Society Islands: Tahiti, Taoriiri, Mt. Aorai Trail; BPBM, Honolulu. Synonymy: Beaver 1991: 94.
References: (**tx**) Beaver 1991: 94; Beeson 1940: 199; McNamara 1984: 759.
- rapanus Beeson** 1940: 200. Syntypes 2 ♀; Mangareva Islands, Rapa Island; Maitua, 700–800 ft.; BPBM, Honolulu. Synonymy: Beaver 1991: 94.
References: (**tx**) Beaver 1991: 94; Beeson 1940: 200.

adelographus Eichhoff 1868a: 400. Syntypes ♀; Brasilia; Hamburg Museum, lost.
 Figures: Nunberg 1959a: pl. 15, figs. 1–2, Pedrosa-Macedo & Schonherr 1985: 22.
 Distribution: South America (Argentina/ Brazil/ Cayenne/ Colombia/ Guyana/ Paraguay).
 Hosts: *Araucaria angustifolia*, *Couma macrocarpa*, *Pinus elliottii*.
 References: (ds) Blackwelder 1947: 779; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 98; Kleine 1913b: 158, 1914b: 337, 339; Nunberg 1962: 224; Pedrosa-Macedo & Schonherr 1985: 22; Schedl 1952a: 446, 1966f: 87, 1967d: 2, 1970e: 83, 1973d: 162, 1976a: 53, 1978c: 291; Schonherr & Pedrosa-Macedo 1981: 54. (tx) Eggers 1933b: 3, 31–32, 1941a: 103; Eichhoff 1868a: 400, 1875: 202, 1878b: 352; Hagedorn 1905a: 412, 1910a: 152, 1910b; Nunberg 1959a: 413; Pedrosa-Macedo & Schonherr 1985: 22; Schedl 1936i: 108–109, 1948f: 281, 1952a: 446; Wood, S. L. 1975a: 22.
vitiosus Schedl 1940a: 367. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1975a: 22, 1982b: 778.
 Notes: (1) This holotype is an intercepted or obviously mislabeled specimen from Brazil and should not be cited as occurring in Mexico without additional records.
 References: (ds) Blackwelder 1947: 780. (tx) Schedl 1940a: 367–368, 1979c: 268; Wood, S. L. 1975a: 22, 1982b: 778.
acomodatius Schedl 1966f: 112. Holotype ♀; Rio de Janeiro; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.
 References: (tx) Schedl 1966f: 112, 1979c: 10; Wood, S. L. 1989: 176.
adosuarius Schedl 1952b: 367. Syntypes ♀; Luzon; Baguio, Benguet-Irisan; Schedl Collection in NHMW, Wien.
 Distribution: Philippine Islands (Luzon).
 Notes: (1) Schedl 1979c: 12 (citation of holotype invalid).
 References: (ds) Schedl 1966b: 45. (tx) Nobuchi 1983: 302; Schedl 1952b: 367–368, 1979c: 12.
adusticollis (Motschulsky) 1863: 514 (*Toenicus*). Holotype ♀; Montagnes de Nura-Ellia; IZM, Moscow.
 Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Sarawak in Borneo, Java), Philippine Islands.
 Hosts: *Aegle marmelos*, *Cinnamomum* sp., *Eugenia* sp., *Kopsia flavida*, *Lansium domesticum*, *Palaequium gutta*, *Quercus* sp., *Veronica arborescens*, *Xanthophyllum*. Brown 1961c: 157 records seven additional families without citing species.
 References: (ds) Gemminger & Harold 1872: 2689; Hagedorn 1910d: 48; Kleine 1913b: 127, 1914b: 273. (tx) Hagedorn 1910a: 103; Motschulsky 1863: 514; Wood, S. L. 1969c: 120.
vestitus Schedl 1931c: 341. Holotype ♀; Java,

Buitenzorg, 250 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.
 Notes: (3) Browne 1983a: 554 incorrectly cited this species in *Streptocranus* (= *Coptoborus*). Schedl 1939e: 354 (described male).
 References: (hb) Beaver & Browne 1978: 614; Browne 1961c: 157; Kalshoven 1959c: 157. (ds) Beaver & Browne 1978: 614; Browne 1961c: 157, 1962c: 202, 1983a: 554, 1985b: 291; Kalshoven 1959c: 157; Nobuchi 1978a: 19; Schedl 1966g: 33. (tx) Browne 1983a: 554; Nobuchi 1978a: pl. 2, 1983: 304; Schedl 1931c: 341–342, 1939e: 354, 1950g: 895, 1954a: 144, 1979c: 266; Wood, S. L. 1989: 176.

aequalis (Reitter) 1913a: 81 (*Anisandrus*). Holotype ♀; Ostsibirien; Sotka-gora; NHMB, Budapest.

Distribution: Asia (E USSR).

Hosts: *Juglans mandschurica*, *Phellodendron amurense*.

References: (cn) Kurenzov 1935c: 189, 1956b: 29. (ec) Kurenzov 1934a: 50, 1951d: 36, 1951e: 66. (hb) Kurenzov 1935a: 37, 1948b: 112, 1951b: 18, 1951d: 36, 1951e: 66; Stark 1952: 429. (ds) Konovalova 1966: 106; Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934a: 50, 1935a: 37, 1935c: 189, 1936a: 110, 1936b: 351, 1938a: 60; Mandl 1931: 25; Stark 1952: 429; Yanovsky & Tegshzhargal 1985: 413. (tx) Kurenzov 1941a: 190–193, 1948b: 112; Reitter 1913a: 81; Schedl 1934f: 1645; Stark 1952: 429.

aequatorensis Eggers 1940b: 108. Holotype ♀; Congostaat, Equateur (Flandria); MRCB, Tervuren.
 Figures: Nunberg 1963b: pl. 2, figs. 5–8.
 Distribution: Africa (Zaire).

References: (tx) Eggers 1940b: 108; Nunberg 1963b: 11, pl. 2; Schedl 1962j: 235, 1979c: 13.

affinis Eichhoff 1868a: 401. Syntypes ♀; America bor., Cuba; syntypes in Hamburg Museum were lost, 1 in USNM, Washington.

Figures: Bright 1972d: 95, 1976d: 133, Guagliumi 1972: 405, Nunberg 1978: 102, Pedrosa-Macedo & Schonherr 1985: 23, Sammelson 1981: 54, Schedl 1977b: 167, Wood 1960a: 65.

Distribution: Africa (Angola/ Comore in Azores Islands/ Burundi/ Cameroon/ Congo/ Equatorial Guinea/ Ethiopia/ Fernando Poo/ "French West Africa"/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Liberia/ Malawi/ Mauritania/ Mauritius Island/ Mozambique/ Nigeria/ Ruanda/ Senegal/ Seychelles Islands/ Sierra Leone/ South Africa/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia), Antilles Islands (Barbados/ Cuba/ Dominica/ Guadeloupe/ Dominican Republic in Hispanola/ Jamaica/ Puerto Rico/ Tobago/ Trinidad), Asia (India/ Israel/ Malaya/ Sri Lanka), Australia, Cook Islands, Fiji Islands, Galapagos Islands, Hawaiian Islands, Indonesia (Celebes, Java, Sumatra), Madagascar, Micronesia (Truk in Mariana Islands,

Palau Islands), North America (Belize/ Costa Rica/ El Salvador/ Guatemala/ Honduras/ Isla del Coco/ all states in Mexico/ Nicaragua/ Panama/ Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Texas, Virginia, West Virginia in USA), Philippine Islands, Reunion Island, Samoan Islands, South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Chile/ Colombia/ Ecuador/ Guyana/ Paraguay/ Peru/ Suriname/ Uruguay/ Venezuela), Tahiti Islands.

Hosts: Several hundred hosts are listed by Wood 1982b: 831 and Schedl 1962j: 349–360.

References: (ay) Francke-Grosmann 1963a: 359, 1963b: 423; Schneider 1976. (bv) Atkinson, Foltz, & Connor 1988; Aulmann 1911: 438–441; Dethier 1947; Phillips et al. 1988; Turnbow & Franklin 1980. (cn) Alliot & Ivanov 1950: 163–168; Anonymous 1964h, 1965g, 1967i, 1968k, 1969h, 1976e; Aulmann 1913: 1–126; Bavendamm, Schneider, & Mielke 1962: 8–9; Beal & Massey 1945: 158–159; Beaver 1976a: 23; Blackman 1950: 307, 340; Blandford 1892b: 157; Bondar 1922; Box 1953a; Cachan 1957: 42–53; Carter 1949: 761–766; Chamberlin 1939: 452; Christian 1939; Cleare 1924: 65–68; Costa Lima 1956; Dinther 1957, 1960: 111–112; Doane et al. 1936; Downes & Williams 1950; Ebeling 1950: 537, 1959; Equihua-Martinez 1988; Estrada & Atkinson 1988: 207; Ferreira & Morin 1985; Ghesquiere 1933a; Cowdey 1914: 36–58, 1918: 42–51; Green 1916: 608–636; Guagliumi 1972: 407, 1973: 407; Hagedorn 1913a; Hamlen & Woodruff 1975; Hargreaves 1925: 21–28; Hart 1892b, 1893; Hopkins 1902b: 62, 1904a: 45, 1905a: 381–398; Hubbard 1897b: 21; Kleine 1932a: 305; Kowal 1949b: 470; Leiby 1925; Pawsey 1968; Riley 1892a: 402; Sallenave 1948: 434–440; Sefer 1961; Silva, Gayao, & Castro 1959: 11; Small 1921: 38; Titus & Pratt 1904: 7; Tsankov 1977; Tsankov et al. 1974: 25; Urich 1913: 247–249, 1915: 156–161, 200–203; Vuillaume et al. 1981: 348; Woodruff & Hamlen 1974; Wyniger 1962a: 118, 1962b: 397; Yunus & Hua 1980: 230; Zehntner 1900: 501. (ec) Baker 1963: 222–265; Batista 1947: 109; Batra 1963b: 213–236; Beaver 1988a: 65; Carter 1949; Chamberlin 1939: 452; Equihua & Atkinson 1986: 629; Norris 1979; Roeper et al. 1980; Schedl, W. 1962: 364–366; Schneider 1976, 1987; Slaby 1947: 378; Verrall 1941: 552, 1943: 125, 135–144; Vuillaume et al. 1981: 348; Woodruff & Hamlen 1974. (hb) Atkinson & Equihua 1985b: 237; Atkinson, Foltz, & Connor 1988; Aulmann 1911; Baker, W. L. 1972: 270; Beal & Massey 1945: 158–159; Beaver 1976a: 23, 1988a: 65, 1989a: 2, 4; Beaver & Browne 1978: 602; Beaver & Loeytyniemi 1985a: 73; Beeson 1929; Blackman 1922b: 116–118, 1950; Blandford 1892b; Bright 1976d: 137;

Browne 1961e: 10, 1963a: 239; Chamberlin 1939: 449–452; Costa Lima 1956; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 374; Ebeling 1950; Equihua & Atkinson 1986: 629; Ferreira & Morin 1985; Gardner 1957: 33; Guagliumi 1972: 73; Hagedorn 1913a; Hart 1892: 342; Hoffmann 1941; Hopkins 1904a: 45, 1905a: 383; Hubbard 1897b: 21; Jones, Roberts, & Baker 1959: 13–56; Kalshoven 1963; Kleine 1932a: 305; Loeytyniemi, Beaver, & Loeytyniemi 1984; Morstatt 1924: 36; Ostmark 1968; Pollet 1977; Roberts 1960: 35–38, 1961: 39–60, 1969: 130; Roeper et al. 1980; Schedl 1958d: 189, 1962j: 361, 1977b: 168; Schneider 1987; Speyer 1923: 19; Viana 1964: 123; Webb & Jones 1957: 25–43; Wood, S. L. 1982b: 830; Woodruff & Hamlen 1974; Zehntner 1900: 501. (ds) Alluaud 1900: 439; Anonymous 1964h, 1965g, 1967i, 1969h, 1976e; Atkinson & Equihua 1985b: 237, 1986a: 421; Atkinson et al. 1986: 62, 1991: 160; Baker, W. L. 1972: 270; Beal & Massey 1945: 158–159; Beaver 1976a: 23, 1988a: 65, 1989a: 2, 4; Beaver & Browne 1961c: 145, 1978: 602; Beaver & Loeytyniemi 1985a: 73; Beeson 1929, 1938: 199; Bhasin, Roonwal, & Singh 1958: 122; Blackman 1922b: 116–118, 1950: 307, 340; Blackwelder 1947: 779; Blandford 1898b; Blatchley & Leng 1916: 618; Brader 1964: 5; Bright 1968b: 1315, 1972d: 83, 1976d: 137, 1982a: 128, 1985c: 173; Brimblecombe 1953: 27; Brimley 1938: 248; Browne 1949e: 174–189, 1963a: 238–239, 1975a: 759, 1975b: 395; Burch 1914a: 429; Brunner et al. 1945; Carter 1949: 761–766; Chamberlin 1939: 449–452; Cola 1971: 65, 1973; Costa Lima 1936, 1956; Currie 1905: 7; DeLeon 1042a; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Drooz 1985: 374; Ebeling 1950, 1959; Eggers 1926; Equihua & Atkinson 1986: 629; Estrada & Atkinson 1988: 207; Ferreira & Morin 1985; Fleutiaux & Salle 1890: 457; Frost 1964: 144; Gemming & Harold 1872: 2685; Ghesquiere 1933a; Guagliumi 1966: 218, 1972, 1973: 404; Hagedorn 1907a: 261, 1907b: 111, 1910d: 98, 1913a; Hayward 1942: 29; Hoffmann 1940: 61, 1941: 42, 1942: 13; Kalshoven 1924: 9, 1963: 235–236; Kirk 1969, 1970; Kleine 1912a: 162, 212, 1913b: 158, 1914b: 303, 324, 337, 343–344, 354, 373, 378–379, 1928: 305, 1932a: 305, 1934a: 171; Kolbe 1910: 41; Lee 1971: 31; Leng 1920: 342; Leng & Mutchler 1917: 220; Lepesme et al. 1948: 647; Martorell 1945: 470; Mayne 1915: 577–596; Murayama 1936b: 115; Nunberg 1952: 20, 1958a: 481, 1961a: 329, 1962: 224, 1963c: 98, 1965b: 20, 1971: 58, 1972b: 197; Ohno, Yoneyama, & Nakazawa 1982a: 3, 1982b: 8, 1987: 94; Ohno et al. 1987: 87, 1988a: 92, 1989: 61; Ostmark 1968; Pedrosa-Macedo & Schonherr 1985: 23; Pollet 1977; Riley 1894: 227; Roonwal 1954: 23, 54; Samuelson 1981; Santoro 1957: 26; Schedl 1936j: 21, 1940: 365–366, 1943d: 69, 1948g: 25, 1950h: 105, 1951b: 376, 1951h: 285,

1952a: 444, 1953d: 70, 1957d: 15–16, 84, 102, 1958f: 35–36, 1959a: 470, 504, 1960a: 75–80, 1960f: 57–100, 1961d: 177, 1961j: 349, 1962h: 60, 1962j: 331–374, 1962m: 62, 1962p: 209, 494, 1962q: 482–494, 1962r: 96, 1963a: 31, 1963c: 160, 1963f: 52, 1963h: 268, 1964e: 69, 1964f: 618, 1964i: 248, 1964j: 42, 1964m: 315, 1965: 21–22, 1966a: 276, 1966c: 227–228, 1966g: 36–37, 1967d: 3, 1967e: 1217, 1967f: 156, 1969d: 7–11, 1969h: 105, 1970c: 70, 1970d: 234, 1970e: 84, 90, 1970f: 581, 1970g: 309–312, 1971e: 2, 1971f: 149, 1971g: 192, 1972b: 266, 1972e: 282, 1972g: 40, 1972k: 295, 1973a: 367, 1973d: 156, 1974e: 52, 1975h: 350, 1975k: 277, 1976a: 53, 1977b: 168, 1977d: 279, 1977e: 43, 1978c: 292, 1979b: 416, 1982: 279; Schneider 1959: 8–12, 1987; Schonherr & Pedrosa-Macedo 1981: 54; Schreiner 1882: 248; Schwarz 1895b: 171; Sefer 1961; Smith, J. B. 1910: 402; Spahr 1981; Stahel 1917: 3; Swaine 1909: 151; Terra 1987: 25; Tumbow & Franklin 1980; Viana 1964: 123; Webb 1945: 67; Wichmann 1954: 503, 517–521; Wolcott 1936: 318, 1948: 381–383; Wood, S. L. 1957e: 1273, 1960a: 51, 1961c: 1, 1977a: 73, 1982b: 830; Woodruff & Hamlen 1974; Yunus & Hua 1980: 230; Zehntner 1900: 1; Zimmermann 1908a: 269. (tx) Aulmann 1911; Beal & Massey 1945: 158–159; Beeson 1929: 245, 1935: 119–120; Blackman 1922b: 116–118; Blandford 1892b, 1893c: 1–46, 1894d: 116, 1895b: 195–196, 216, 1896: 20, 1898b: 216–217, 1898c: 3–5; Blatchley & Leng 1916: 618–619; Bright 1968b: 1315–1316, 1972d: 83, 95, 1976d: 133, 137, 1982a: 128, 1985c: 173; Chamberlin 1939: 449–452; Costa Lima 1936: 358, 1956: 291; Eggers 1926a: 301, 1927b: 193–194, 1930d, 1932d: 303, 1933b: 3, 36, 1940a: 108; Eichhoff 1868a: 401, 1877: 126–127, 1878b: 372, 1896: 609–610; Cnagliumi 1972: 405; Hagedorn 1905a: 412, 1907a: 261, 1907b: 111, 1910a: 152, 1912a: 340–343, 1913b: 255–256; Hopkins 1915b: 61, 64; Hubbard 1897b: 20–21; Keler 1928: 29; Kirsch 1875: 284; Numberg 1952: 20, 1958a: 481, 1968: 272, 1978: 101, 102; Pedrosa-Macedo & Schonherr 1985: 23; Powell, W. 1980: 29; Sampson 1914: 387–388; Samuelson 1981: 54; Schaufuss 1897a: 210, 1897b: 101–103; Schedl 1931c: 346, 1951k: 140, 1952k: 163, 1957a: 194, 1966f: 76, 1977b: 167–168; Schwarz 1895b: 171, 210; Strohmeyer 1911: 25; Swaine 1909: 151, 1917: 24, 1918a: 127; Terra 1987: 25; Wood, S. L. 1960a: 51, 65, 73, 1961: 1, 1982b: 830; Wylie & Yule 1977. (ms) Schedl 1972c: 282.

affinis parvus Eichhoff 1878b: 372. Syntypes ♀; not given; Hamburg Museum, lost. Synonymy: Wood 1960a: 71.

References: (tx) Eggers 1933b: 3, 1940a: 108; Eichhoff 1878b: 372; Wood, S. L. 1960a: 71.

affinis mascarensis Eichhoff 1878b: 372. Syntypes ♀; St. Mauritius insula Africana; Hamburg Museum, lost. Synonymy: Wood 1960a: 71.

References: (ay) Batra 1963b: 228; Entwistle

1963b; Francke-Grosman & Schedl 1960: 405; Lhoste & Roche 1960; Schneider 1976; Van Ryn-Tournel 1972. (bv) Entwistle 1963b; Schedl 1960f: 57. (cn) Anonymous 1953j: 25, 1970c: 14; Bondar 1940; Browne 1949e; Dinther 1961; Frappa 1933: 179; Chesquiere 1933a: 26–36, 1933b: 776–785; Roberts 1961a: 42; Roonwal 1954: 23; Schneider & Leder 1959: 8; Schwerdtfeger 1966b. (ec) Anonymous 1953j: 25; Browne 1961c: 10; Francke-Grosman & Schedl 1960; Schedl 1958d: 189; Schneider 1976; Walt, Scott, & Van Der Klift 1971b: 468. (hb) Anonymous 1959c: 18; Browne 1961c: 145; Entwistle 1963b; Roberts 1961a: 42; Schedl 1962j: 331; Swabey 1935: 6; Thompson, G. H. 1963: 72. (ds) Anonymous 1970c: 14; Beeson 1935b, 1938b, 1940, 1941: 399, 1961: 307; Browne 1961c: 10; Choo & Woo 1983; Cola 1971; Eggers 1926a; Ferreira 1965: 1124; Ferrer 1942; Chesquiere 1933a; Lee, R. F. 1971; Mayne & Donis 1960: 104, 1962: 320; Menier 1973a; Nobuchi 1979a: 406; Nonveiller 1984: 41; Nunberg 1972b: 197; Quayle 1941; Roberts 1960b: 35, 1960e, 1960f; Roonwal 1954: 23; Schedl 1936d: 4, 1936j: 21, 1938d: 451, 1959a: 504, 1959p: 20, 1960a: 76, 1960f: 40, 1961c: 70, 1961f: 177, 1961j: 349, 1962h: 60, 1962j: 331, 1962k: 1101, 1963a: 37, 1963c: 160, 1963f: 60, 1964e: 69, 1964f: 618, 1964i: 248, 1964j: 42, 1965e: 355, 1965g: 21, 1966a: 276, 1966c: 227, 1966f: 76, 1966g: 32, 1967d: 3, 1967e: 217, 1969d: 4, 1970d: 234, 1970e: 84, 1971a: 278, 1971f: 149; Schwerdtfeger 1960b; Spahr 1981; Swabey 1935: 6; Thompson, G. H. 1963: 72; Van Zwaluwenburg 1956: 9. (tx) Beeson 1929: 240–241, 1935b: 119, 1938: 293, 1940: 199; Eggers 1926a: 301, 1927a: 195, 1933b: 373, 1940a: 108, 1940c: 238, 1941a: 108, 1941d: 179, 1943c: 65–66; Mayne & Donis 1962: 320; Nobuchi 1978a: pl. 4; Schanfuss 1897a: 210; Schedl 1935j: 1, 1936d: 4, 21, 1938d: 451, 1939e: 333, 1939g: 170, 1940a: 365, 1941b: 114, 1941d: 380, 1942a: 171, 1942d: 7, 1948c: 665, 1948d: 36, 1948f: 261, 1950c: 205, 1950d: 9, 13, 15, 18, 31, 1950e: 212, 1950g: 893, 1950h: 105, 1951e: 39–40, 1951f: 40, 1951i: 46, 1951k: 140, 1951m: 73, 1952a: 444, 1952g: 53, 1952h: 66, 71, 1952j: 5, 1952k: 163, 1953d: 70, 1953g: 242, 1954a: 142, 1954d: 872, 1954e: 47, 53, 1955d: 269, 1955f: 260, 1955g: 45, 1957a: 194, 1957b: 151, 1957d: 15, 84, 1958c: 1, 1959a: 504, 1962j: 331, 1962r: 96, 1965g: 21; Wood, S. L. 1960a: 51, 73.

affinis fuscobrunneus Eichhoff 1878b: 372. Lectotype ♀; Brasilia; Schedl Collection in NIMW, Wien, syntypes in Hamburg Museum were lost, 1 in Schedl Collection in NHMW, Wien. Synonymy: Schedl 1959a: 504.

References: (hb) Viana 1964: 123. (ds) Nimi-

- berg 1958: 481; Santoro 1957b: 26; Viana 1964: 123. **(tx)** Eichhoff 1878b: 372; Schedl 1938i: 28, 1940a: 365–366, 1940c: 208, 1943d: 66, 1948d: 36, 1948g: 25, 1950i: 147, 1951h: 285–286, 1952a: 444, 446, 1952d: 343, 1952h: 71, 1955g: 46, 1958f: 35–36, 1959a: 504, 1979c: 14
- sacchari* Hopkins 1915b: 64. Holotype ♀; St. Vincent, West Indies; USNM, Washington. Synonymy: Schedl 1959a: 504, Wood 1982b: 830. References: **(cn)** Scaramuzza 1942: 147; Souphieff & Scherbinovskaja 1937: 103. **(hb)** Morstatt 1924: 50. **(ds)** Leng & Mutchler 1917: 220; Martorell 1945: 471; Souphieff & Scherbinovskaja 1937: 103; Wolcott 1933: 373, 1936: 319. **(tx)** Beeson 1929: 240–241; Hopkins 1915b: 64; Schedl 1959a: 504, 1962j: 331.
- subaffinis* Eggers 1933b: 36. Holotype ♀; Franz. Guayana (Nouveau Chantier, St-Laurent du Maroni); MNHN, Paris. Synonymy: Schedl 1959a: 504. References: **(ds)** Blackwelder 1947: 780; Floch 1947, 1950. **(tx)** Eggers 1933b: 36; Schedl 1939e: 330, 1939j: 565, 1940a: 365, 1940c: 208, 1943d: 56, 1951b: 376, 1952h: 71, 1955g: 46, 1959a: 504, 1962j: 331.
- societatis* Beeson 1935a: 120. Holotype ♀; Tahiti: Papenoo Valley; BPBM, Honolulu. Synonymy: Beaver 1991: 94. References: **(tx)** Beaver 1991: 94; Beeson 1935a: 120–121, 1938b: 294.
- proximus* Eggers 1943c: 66. Holotype ♀; Congo: Leopoldville, Lomami-Kamiema Bangwela; MRCB, Tervuren. Synonymy: Schedl 1962j: 331. References: **(tx)** Eggers 1943c: 66–67; Schedl 1950g: 893, 1959a: 504, 1962j: 331, 404.
- africanus* Eggers 1927a: 194. Holotype ♀; Belg.-Congo: Ituri, Medje; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 3, figs. 1–6. Distribution: Africa (Cameroon/ Equatorial Guinea/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Nigeria/ Seychelles Islands/ Uganda/ Zaire/ Zambia). Hosts: *Albizzia gunnifera*, *Beilschmiedia corbisieri*, *Chrysophyllum lacairtianum*, *Cistanthera papaverifera*, *Gossypium hirsutum*, *Maesobothrya* sp., *Theobroma cacao*, *Turraecanthus africana*. References: **(cn)** Beaver 1988a: 65. **(hb)** Beaver 1988a: 65; Loyttyniemi, Beaver, & Loyttyniemi 1984; Schedl 1962j: 328. **(ds)** Beaver 1988a: 65; Beaver & Loyttyniemi 1985a: 73; Browne 1965: 188, 1983a: 556; Ghesquiere 1933a: 31, 35, 1933b: 781, 785; Kleine 1934a: 172; Nunberg 1952: 20, 1965b: 20; Roberts 1969: 130; Schedl 1962h: 60, 1962j: 328, 1962k: 1098, 1964j: 42, 1967e: 215, 1969d: 9, 1971g: 192, 1977b: 175; Wichmann 1954: 522. **(tx)** Eggers 1927a: 194; Nunberg 1952: 20, 1963b: 12, pl. 3; Schedl 1954d: 871, 1955d: 270, 1957d: 96, 1962h: 60, 1962j: 328, 1970e: 96, 1977b: 175.
- africanus picinus* Schedl 1957d: 96. Holotype ♀; Congo Belge: Kivu, route Tshibinda-Bunyakiri; MRCB, Tervuren. References: **(hb)** Schedl 1962j: 329. **(ds)** Schedl 1962h: 60, 1962j: 329. **(tx)** Nunberg 1963b: pl. 3; Schedl 1957d: 96, 1962j: 329, 1963b: pl. 3, 1979c: 15.
- agamus* Perkins 1900: 178. Lectotype ♂; Lanai; BMNH, London, designated by Samuelson 1981: 69. Distribution: Hawaiian Islands (Hawaii, Lanai). Hosts: *Freyinetia* sp. References: **(ds)** Beeson 1938b: 291; Hagedorn 1910d: 98; Kleine 1913b: 158, 1914b: 302; Samuelson 1981: 69. **(tx)** Hagedorn 1910a: 152; Perkins 1900: 178; Samuelson 1981: 69.
- agathis* Browne 1984b: 291. Holotype ♀; Indonesia to Kawasaki (Japan), imported; BMNH, London. Distribution: Indonesia. Hosts: *Agathis* sp. References: **(tx)** Browne 1984b: 291.
- aglaiae* Browne 1984a: 156. Holotype ♀; Putput (New Britain) to Nagoya (Japan), imported; BMNH, London. Distribution: New Britain Island. Hosts: *Aglaiia* sp. References: **(ds)** Ohno et al. 1989: 61. **(tx)** Browne 1984a: 156.
- agraphus* Schedl 1977f: 503. Holotype ♀; Philippine Is.: La Provesdora Inc, Angeles, Pampanda; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands. References: **(tx)** Nobuchi 1983: 302; Schedl 1977f: 503.
- algidus* Schedl 1979b: 414. Holotype ♀; Cote d'Ivoire, Man-Orstom; Schedl Collection in NHMW, Wien. Distribution: Africa (Ivory Coast). References: **(tx)** Schedl 1979b: 414.
- alluaudi* Schaufuss 1897a: 210. Syntypes ♂ ♀; Madagascar, Diego Suarez; Menge and Schaufuss Collections. Figures: Nunberg 1978: 104, Schedl 1962j: 236, 1977b: 150. Distribution: Africa (Burundi/ Cameroon/ Equatorial Guinea/ Ethiopia/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Sierra Leone/ South Africa/ Sudan/ Tanzania/ Uganda/ Zaire/ Zambia), Madagascar. Hosts: Many listed by Schedl 1962: 239–248. Notes: (3) Eggers 1920: 24 (*ustulatus* Hagedorn, nomen nudum, synonymy). References: **(ay)** Schedl, W. 1962: 368. **(bv)** Aulmann 1911, 1912: 41–42; Schedl 1960f: 39. **(ec)** Schedl 1958d: 192, 1962j: 235. **(hb)** Aulmann 1911; Beaver & Loyttyniemi 1985a: 73; Browne

1963a: 239–240; Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1958d: 192, 1962j: 235, 1977b: 150; Webb & Jones 1957: 25–42. (**ds**) Alluaud 1900: 440; Beaver & Loytyniemi 1985a: 73; Browne 1963a: 239, 1975b: 395, 1980a: 373, 1980c: 485, 1981b: 597; Cachan 1957: 15, 42–43, 1958: 394; Cola 1971; Frappe 1933: 179; Gardner, J. C. M. 1957a: 32; Chesquiere 1933a: 31–36, 1933b: 781; Hagedorn 1907a, 1910d: 98; Jones, Roberts, & Baker 1959: 13–55; Kleine 1912a: 212, 1913b: 160, 1914b: 326, 1928: 307; Mayne & Donis 1960: 39, 119, 1962: 315; Menier 1973a; Nunberg 1952: 20, 1965b: 20; Roberts 1960: 35–38, 1969: 59, 130; Schedl 1960f: 39, 119, 1962h: 60, 1962j: 235, 1964e: 69, 1965e: 353, 1965g: 20, 1966c: 226, 1967e: 215, 1968b: 144, 1970d: 233, 1971g: 192, 1972k: 295, 1977b: 150, 1977e: 283; Spahr 1981; Wichmann 1954: 521; Wood, S. L. 1957: 1273. (**tx**) Anderson, W. H. & Anderson 1971: 3; Aulmann 1911; Eggers 1920: 41, 1922a: 174, 1927a: 190, 1929e: 49, 1930a: 41, 124; Hagedorn 1905a: 413, 1907a: 261, 1907b: 111, 1910a: 152, 1912a: 341–343, 1913a: 255, 1913b: 19–21; Keler 1928: 29; Nunberg 1952: 20, 1962j: 235, 1978: 104; Powell, W. 1980: 29; Schaufuss 1897a: 210; Schedl 1935d: 95, 1939a: 468, 1941d: 403, 1950d: 15, 1950e: 211, 1952i: 7, 1952j: 3, 1953d: 69, 1953f: 242, 1954d: 872, 1954e: 51–71, 1955f: 259, 1957d: 15, 84, 1961e: 127, 1962j: 235–236, 1962k: 1098, 1964e: 64, 1965g: 20, 1971f: 151, 1977b: 150.

camerunus Hagedorn 1910b: 9. Syntypes ♀; Kamerun; MNB, Berlin. Synonymy: Schedl 1957d: 15.

Notes: (3) Eggers 1920: 124 (*ustulatus* Hagedorn, nomen nudum, synonymy).

References: (**cn**) Anonymous 1953b: 31, 1953j: 25; Aulmann 1913: 1–126; Chevalier 1931; Chesquiere 1933a; Cowdrey 1914: 36–58, 1918: 42–51; Green 1916: 608–636; Gregory 1954; Hagedorn 1913a; Kleine 1932a: 307. (**ec**) Anonymous 1953j: 25. (**hb**) Anonymous 1959i: 18; Hagedorn 1913a; Kleine 1932a: 307; Thompson, G. H. 1963: 71. (**ds**) Chevalier 1931; Gardner 1957a; Chesquiere 1933a; Hagedorn 1910d: 99, 1913a; Kleine 1913b: 160, 1914b: 312, 1932a: 307; Mayne & Donis 1960: 104, 1962: 316; Roberts 1960b: 35, 1960e, 1960f; Thompson, G. H. 1960, 1963: 71; Wood, S. L. 1957e: 1273. (**tx**) Eggers 1920: 124, 1927a: 190, 1929e: 449; Hagedorn 1910a: 152, 1910b: 9, 1912a: 342–343, 1913b; Schedl 1950d: 15, 1950e: 211, 1952j: 3, 11–12, 1953g: 242, 1954d: 872, 1954e: 51, 1955f: 259, 1957d: 15, 1962j: 235.

camerunus rugosus Eggers 1920: 41. Holotype ♀; Soppo in Kamerun; MNB, Berlin.

References: (**tx**) Eggers 1920: 41.

atilis Schedl 1966f: 115. Holotype ♀; Bolivien, Campo Grande, Dept. Cainguas, Misiones; ZSSM, Munchen.

Distribution: South America (Bolivia).

References: (**tx**) Schedl 1966f: 115, 1979c: 17.

amanicus Hagedorn 1910b: 11. Holotype ♀; Amani, Deutsch-Ostafrika; Hamburg Museum, lost.

Figures: Nunberg 1963a: pl. 4, figs. 5–8, Schedl 1962j: 299.

Distribution: Africa (Burundi/ Cameroon/ Fernando Poo/ Ghana/ Kenya/ Tanzania/ Uganda/ Zaire).

Hosts: *Anthonota macrophyllum*, *Beilschmiedia louisii*, *Fagara* sp., *Ficus* sp., *Hypericum lanceolatum*, *Ibuga* sp., *Lovoa trichilioides*, *Radlkofera* sp.

Notes: (3) Schedl 1962j: 298 (*mkulumusius* Hagedorn, nomen nudum, synonymy).

References: (**hb**) Roberts 1969: 130; Schedl 1962j: 298. (**ds**) Hagedorn 1910d: 98; Kleine 1913b: 160, 1914b: 322; Schedl 1959p: 25, 1962j: 298, 1971e: 2, 1972e: 283; Spahr 1981. (**tx**) Browne 1970: 572; Eggers 1920: 124, 1923a: 179, 1927c: 101, 1932d: 299, 1940d: 142; Hagedorn 1910a: 152, 1910b: 11; Nunberg 1963a: 15, pl. 4, 1963b: 15; Schedl 1937b: 403, 1939a: 468, 1941d: 404, 1953g: 243, 1955b: 275–276, 1955f: 259, 1957d: 84, 1962j: 298–299, 1962k: 1098.

tanganjikaensis Schedl 1937b: 403. Lectotype ♀; N.W. Tanganjika-Sees; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 249. Synonymy: Schedl 1962j: 298.

References: (**ds**) Mayne & Donis 1962: 323; Schedl 1971g: 194. (**tx**) Schedl 1937b: 403, 1941d: 404, 1953g: 243, 1962j: 298, 1979c: 249.

amanicus ominusus Schedl 1962j: 301. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.

Notes: (3) Apparently an aberration of *amanicus*, status doubtful.

References: (**tx**) Schedl 1962j: 301, 1965g: 20.

ambasinotatus Schedl 1978c: 306. Holotype ♀; Ecuador, verst. O. des Andes, Santo Domingo, 600 m; Schedl Collection in NHMW, Wien.

Distribution: South America (Ecuador).

References: (**tx**) Schedl 1978c: 306.

ambasipennis Schedl 1957d: 89. Holotype ♀; Congo Belge; Kivu, Hambe-Bitale, Kivu route Tshibinda-Bunyakiri, 1000 m, Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 5, figs. 5–8, Schedl 1962j: 220.

Distribution: Africa (Zaire).

Hosts: *Brillantaisia* sp., *Carapa grandiflora*, *Entandrophragma excelsum*, *Ficus* sp., *Pachystela laurentii*, *Parinari holstii*, *Pentadesma lebrunii*, *Ritchiea apprevaliana*, *Turraecanthus africana*.

References: (**hb**) Schedl 1962j: 219. (**ds**) Mayne & Donis 1962: 315; Schedl 1962j: 219. (**tx**) Nunberg 1963b: 17, pl. 5; Schedl 1957d: 89, 1962j: 219–220, 1979c: 18.

ambasiusculus Eggers 1920: 41. Lectotype ♀; Joh. Albrechtshohe and Soppo, Kamerun; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 18.

Distribution: Africa (Cameroon/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Zaire).

Hosts: Many listed by Schedl 1962j: 224–226, Browne 1963a: 240. Also, *Macrolobium* sp.

References: (cn) Anonymous 1953j: 25; Cachan 1957: 15. (ce) Anonymous 1953j: 25; Schedl 1962j: 222. (hb) Browne 1963a: 240; Jones, Roberts, & Baker 1959: 13; Roberts 1969: 131; Schedl 1962j: 222; Webb & Jones 1957: 25–42. (ds) Browne 1963a: 240, 1980c: 486; Mayne & Donis 1960: 104, 1962: 315; Schedl 1961m: 84, 1962h: 60, 1964e: 69, 1971g: 192; Thompson, G. H. 1963: 70. (tx) Eggers 1920: 41–45; Schedl 1950e: 211, 1951f: 40, 1954d: 871, 1954e: 51, 1957d: 88, 1962j: 88, 222, 1979c: 18.

amphicauda Browne 1986c: 666. Holotype ♀; New Guinea: Fak fak to Nagoya, Japan, imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Hopea* sp. log.

References: (tx) Browne 1986c: 666.

amphicranoides Hagedorn 1908: 379. Syntypes ♀; Sumatra, Si-Rambe and Mentawai-si-Oban (Modigliani); MNB, Berlin.

Figures: Numberg 1978: 104.

Distribution: Asia (India/ Malaya), Indonesia (Borneo, Mentawai, Sumatra), Philippine Islands.

Hosts: *Artocarpus elasticus*, *A. kunstleri*, *A. scortechnii*, *Dipterocarpus* sp., *Parartocarpus* sp., *Shorea* sp.

References: (cn) Ishikura 1966. (hb) Browne 1936a, 1941, 1966. (ds) Beeson 1961: 302; Browne 1936a, 1961c: 154, 1980c: 484; Hagedorn 1910d: 98; Handlirsch 1925: 691; Ishikura 1966; Kleine 1913b: 160, 1914b: 286; Ohno et al. 1987: 87; Schedl 1936d: 2, 1961c: 70, 1971f: 148. (tx) Eggers 1922b, 1923a: 204, 1927c: 95–96; Hagedorn 1908: 379, 1910a: 152, 1910b; Nunberg 1959a: 414, 1978: 104; Schedl 1935b: 402–403, 1937e: 543, 1940: 440–441, 1942d: 42, 1951i: 44, 1954a: 140–141, 1954c: 159–160, 1979c: 19; Schroder 1925: 691.

amphicranoides var. *latecavatus* Eggers 1927c: 95. Syntypes ♀; Mount Banahao und Los Banos (Luzon), und Subaan (Mindoro); not given.

References: (ds) Schedl 1966b: 46. (tx) Eggers 1927c: 95.

amphicranoides *parvior* Browne 1981b: 601. Holotype ♀; Wasag (Philippines) to Nagoya (Japan), imported; BMNH, London.

References: (ds) Browne 1984c: 448, 1986a: 90. (tx) Browne 1981b: 601.

amplexicauda Hagedorn 1910b: 9. Syntypes 2 ♀; Sumatra et Java; Hamburg Museum, lost.

Figures: Nobuchi 1978a: pl. 2.

Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra), Philippine Islands.

Hosts: *Balanocarpus hemeii*, *Dryobalanops aromatica*, *Hopea* sp., *Shorea* spp.

Notes: (3) Browne 1974b: 538 (described male).

References: (hb) Browne 1941, 1961c: 154. (ds) Beaver & Browne 1978: 602; Browne 1961c: 154, 1981b: 599; Hagedorn 1910d: 98; Kleine 1913b: 160, 1914b: 286, 288; Nobuchi 1978a: 18; Schedl 1936d: 2, 1965g: 22, 1966b: 46, 1966g: 31, 1975a. (tx) Browne 1974b: 538; Hagedorn 1910b: 9; Nobuchi 1978a: pl. 2, 1983: 302; Schedl 1937e: 543, 1939e: 332, 1942a: 170, 1960i: 110, 1975a: 456, 1979c: 19.

borneensis Eggers 1927c: 97. Lectotype ♀; Borneo, je 1 Type on Sandakan un Sarawak; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 44. Synonymy: Schedl 1960h: 110.

References: (tx) Eggers 1927c: 97; Schedl 1960h: 110, 1979c: 44.

analis Schedl 1973e: 89. Holotype ♀; Sydney, New South Wales; Schedl Collection in NHMW, Wien.

Distribution: Australia (New South Wales).

References: (tx) Schedl 1973e: 89, 1979c: 19.

angolensis Schedl 1959p: 25. Holotype ♀; Angola: Dundo; MRCB, Tervuren.

Distribution: Africa (Angola).

References: (ds) Ferreira 1965: 1120; Schedl 1959p: 19, 25. (tx) Schedl 1959p: 25, 1962j: 301, 1979c: 20.

angustior Eggers 1925: 158. Holotype ♀; Birma (Tenasserim); USNM, Washington.

Distribution: Asia (Burma).

References: (tx) Anderson, W. H. & Anderson 1971: 4; Beeson 1929: 239–240; Eggers 1925: 158.

anisopterae Browne 1983a: 558. Holotype ♀; Tg. Usau (West Irian) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: Mersawa log.

References: (ds) Browne 1986a: 94, 1986b: 333. (tx) Browne 1983a: 558, 1986a: 94.

annectens Schedl 1957d: 88. Holotype ♂; Congo Belge: Kivu, route Tshibinda-Bunyakiri, Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 6, figs. 1–8, Schedl 1962j: 227.

Distribution: Africa (Tanzania/ Zaire).

Hosts: *Albizzia gummifera*, *Hymenocardia ulmoides*, *Oxytigma oxyphyllum*, *Synsepahum subcordatum*, *Xylopi aethiopia*.

References: (hb) Schedl 1962j: 226. (ds) Browne 1975a: 759; Schedl 1962j: 226. (tx) Nunberg 1963b: 18–19, pl. 6; Schedl 1957d: 88, 1962j: 226–227, 1979c: 21.

- annexus Schedl** 1973e: 89. Holotype ♀; Papuan Highlands, Central District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1973e: 89, 1979c: 21.
- antaisaka Schedl** 1953d: 100. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 22.
Figures: Schedl 1953d: 100 (female), 1977b: 156.
Distribution: Africa (South Africa), Madagascar.
Hosts: *Eucalyptus maculata*, *E. paniculata*, *E. robusta*, *Chrysophyllum boivianum*, *Dalbergia pterocarpifolia*, *Eleocarpus* sp., *Eugenia* sp., *Homalium planiflorum*, *Pinus khasia*, *Trema orientalis*.
References: (cn) Anonymous 1970c: 14. (cc) Schedl 1977b: 156. (hb) Schedl 1977b: 156. (ds) Anonymous 1970c: 14; Schedl 1962j: 271, 1969d: 6, 1970d: 233, 1977b: 156. (tx) Schedl 1953d: 100, 1965c: 71, 1977b: 156, 1979c: 22.
- antanala Schedl** 1953d: 98. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 22.
Figures: Schedl 1953d: 100 (female), 1977b: 126.
Distribution: Madagascar.
Hosts: *Eugenia* sp.
References: (hb) Schedl 1977b: 127. (ds) Schedl 1977b: 127. (tx) Schedl 1953d: 98, 1961e: 143, 1977b: 126–127, 1979c: 22.
- boeni Schedl** 1953d: 99. Lectotype ♀; Madagascar, Mt. Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 42. Synonymy: Schedl 1979c: 42.
References: (tx) Schedl 1953d: 99, 1961e: 143, 1979c: 42.
- apertus Schedl** 1939e: 355. Lectotype ♀; North Borneo: Koug, near Mt. Kinabalu, 1300 feet, and Malaya: Perak, Trolak For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 22.
Distribution: Asia (Malaya), Indonesia (Borneo), Fiji Islands, New Guinea.
Hosts: *Agathis dammara*, *Artocarpus elasticus*, *A.* sp., *Balanocarpus heimii*, *Dyera costulata*, *Eugenia* sp., *Koompassia malaccensis*, *Palaquium* sp., *Paratocarpus* sp., *Pentaspadon* sp., *Shorea leprosula*, *S. uliginosa*.
Notes: (3) Browne 1955: 355 (described male). This is apparently a synonym of *perforans* (DEB).
References: (cn) Mathur & Singh 1961a: 40; Yunis & Hua 1980: 230. (hb) Browne 1961c: 143. (ds) Beeson 1961: 302; Browne 1961c: 143; Mathur & Singh 1961a: 40; Schedl 1959c: 168; Yunis & Hua 1980: 230. (tx) Browne 1955: 355; Schedl 1939e: 355, 1955b: 281, 285, 1979c: 22.
- apiculatus Schedl** 1942a: 190. Holotype ♀; Malaya, Kepong; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Dipterocarpus baudii*.
References: (ds) Browne 1961c: 113. (tx) Schedl 1942a: 190.
- aplanatideclivis Schedl** 1942c: 191. Lectotype ♀; Fiji Is., Javerni; Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
Hosts: *Persea americana*.
References: (cn) Ebeling 1959; Lever 1940a: 38–42. (ds) Browne 1974a: 65; Ebeling 1959. (tx) Schedl 1942c: 191, 1950f: 40, 1955b: 308, 1979c: 23.
- approximatus Schedl** 1951i: 77. Syntypes 2 ♀; Java, Batoerraden, G. Slamet, and Malaya Peninsula, Selangor, Kepong; Schedl Collection in NHMW, Wien.
Figures: Nunberg 1978: 106.
Distribution: Asia (Malaya), Indonesia (Java), New Guinea.
Hosts: *Dryobalanops oblongifolia*, *Rhodamnia trinervia*, *Shorea leprosula*, *S. macroptera*, *Suicetonia macrophylla*, *Vitex pubescens*..
References: (bv) Gray, B. 1975c. (cc) Banerjee 1983. (hb) Browne 1961c: 113; Gray, B. 1974c. (ds) Browne 1961c: 113, 1984a: 150. (tx) Nunberg 1978: 106–107; Schedl 1939e: 351, 1951i: 77, 1953c: 290, 1964c: 298, 1979c: 23.
- potens Schedl** 1964c: 298. Holotype ♀; New Guinea: Star Range, 1260 m; RNH, Leiden.
Synonymy: Wood 1989: 176.
References: (tx) Schedl 1964c: 298; Wood, S. L. 1989: 176.
- aquilus Blandford** 1894d: 109. Syntypes 6 ♀; Japan: Oyayama and Hitoyosi in Kiushiu, and near Kashiwagi; BMNH, London.
Distribution: Asia (Fujian, Human in China/Japan/Korea/Taiwan).
Hosts: *Abies* sp., *Acer rufinerve*, *Cercidiphyllum japonicum*, *Chamaecyparis obtusa*, *Cleyera japonica*, *Cryptomeria japonica*, *Machilus* sp., *Mallotus japonicus*, *Pinus densiflora*, *P. massoniana*, *Quercus mongolica grosseserrata*, *Styrax japonicus*.
References: (cn) Murayama 1954a: 10; Shiraki 1952. (ds) Blandford 1894c; Cho 1957; Choo 1983: 104; Choo & Woo 1985: 166; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 260, 1934a: 172; Ko 1969: 284; Murayama 1930b: 20, 1936a: 130, 1937b: 375, 1948: 2, 143, 1949a: 13, 1949c: 102, 1950b: 1295, 1951c: 5, 1954a: 10, 1954b: 175, 1955: 99, 104; Nobuchi 1966d: 28, 1967: 21, 1985c: 23; Shiraki 1952; Yin, Huang, & Li 1984: 165. (tx) Blandford 1894d: 109; Choo 1983: 104; Hagedorn 1910a: 152; Murayama 1930b: 20–31, 1936a: 130, 1937b: 375, 1950b: 1295, 1954b: 175, 1955: 99, 104; Niisima 1910a: 13; Nobuchi 1966d: 28; Schedl 1934f: 1645; Yin, Huang, & Li 1984: 165.
- arcturus Samuelson** 1981: 69. Holotype ♀; Hawaii: S. Kona; BPBM, Honolulu.
Figures: Samuelson 1981: 60.
Distribution: Hawaiian Islands (Hawaii).

- References: (tx) Samuelson 1981: 60.
- aries** Schedl 1969b: 215. Holotype ♀; Awande, Eastern District Highlands, New Guinea; CSIRO, Canberra.
Distribution: New Guinea.
References: (tx) Schedl 1969b: 215–216, 1979c: 25.
- armiger** Schedl 1953e: 28. Lectotype ♀; Fukien, Kuatun; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 26.
Figures: Nümborg 1959a: pl. 16, figs. 1–2.
Distribution: Asia (Fujian, Yunnan in China).
Hosts: *Castanopsis* sp., *Lithocarpus* sp.
References: (ds) Yin, Huang, & Li 1984: 156. (tx) Nümborg 1959a: 414; Schedl 1953e: 28, 1955b: 306, 1955h: 45, 1979c: 26; Yin, Huang, & Li 1984: 156.
- armillatus** Schedl 1933d: 199. Holotype ♀; Pangil, Lagima Prov., Luzon; Schedl Collection (1979c: 26) in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
References: (ds) Schedl 1966b: 46. (tx) Nobuchi 1983: 302; Schedl 1933d: 199, 1979c: 26.
- armipennis** Schedl 1953e: 27. Lectotype ♀; Fukien, Kuatun; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 26.
Distribution: Asia (Fujian, Yunnan in China).
Hosts: *Castanopsis* spp., *Lithocarpus* sp., *Quercus* sp.
References: (ds) Yin, Huang, & Li 1984: 156. (tx) Schedl 1953e: 27, 1955b: 45, 1979c: 26; Yin, Huang, & Li 1984: 156.
- artecylindrus** Schedl 1942a: 197. Lectotype ♀; Malaya, Perak, Trolak F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27.
Distribution: Asia (Malaya).
Hosts: *Cinnamomum* sp.
Notes: (3) Schedl 1960h: 110 (cited this as a synonym of *pseudocylindricus*).
References: (tx) Schedl 1942a: 197, 1950g: 895, 1960h: 110, 1979c: 26–27.
- ashuensis** Murayama 1954b: 193. Holotype ♀; Ashu, Kyoto pref.; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Castanea crenata*.
References: (ds) Murayama 1954b: 193; Nobuchi 1985c: 23. (tx) Murayama 1954b: 193.
- asper** Eggers 1933b: 30. Holotype ♀; Franz. Guayana (Nouveau Chantier); MNHN, Paris.
Distribution: North America (Costa Rica/Panama), South America (Brazil/ Cayenne/ Colombia/ Venezuela).
Hosts: *Couma macroparpa*, *Pithacellobium pinnatum*, *Theobroma cacao*, *Toulicia pulvinata*, *Virola warburgii*.
References: (hb) Wood, S. L. 1982b: 812. (ds) Blackwelder 1947: 779; Schedl 1960a: 78; Wood, S. L. 1982b: 812. (tx) Eggers 1933b: 30; Wood, S. L. 1972e: 196, 1982b: 812.
- amoenus* Schedl 1948f: 282. Holotype ♀; Costa Rica, Hamburgfarm, Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien.
Synonymy: Wood 1972e: 196.
References: (ds) Schedl 1973d: 157. (tx) Schedl 1948f: 282, 1979c: 18; Wood, S. L. 1972e: 196.
- asperipunctatus** Eggers 1933b: 35. Holotype ♀; Franz. Guayana (Rivière Lammier, Tumuc Humac); MNHN, Paris.
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 779. (tx) Eggers 1933b: 35, 1934b: 27.
- asperrimus** Schedl 1975a: 457. Holotype ♀; Borneo: Sarawak; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1975a: 457, 1979c: 28.
- assimilis** Eggers 1927b: 405. Syntypes 3 ♀; Sumatra (Mt. Singalang und Si Rambe); MCG, Genova and Eggers Collection (USNM, Washington or NHMW, Wien?).
Distribution: Indonesia (Sumatra).
References: (tx) Eggers 1927b: 405; Schedl 1934d: 89–90, 1955b: 305.
- associatus** Schedl 1976a: 73. Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 73.
- astutus** Schedl 1954a: 154. Holotype ♀; Java; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (tx) Schedl 1954a: 154, 1979c: 29.
- atratus** Eichhoff 1875: 201. Holotype ♀; Japan; Hamburg Museum, lost.
Figures: Nakane et al. 1963: 384; Nobuchi 1966d: pl. 4, Nümborg 1979: 108.
Distribution: Asia (Burma/ Fujian in China/ Japan/ Korea/ Malaya/ Taiwan/ Vietnam), Indonesia (Borneo, Java, Sumatra), New Guinea, North America (introduced: Florida, Georgia, Maryland, Tennessee, Virginia, West Virginia), Philippine Islands.
Hosts: Many hosts listed in Choo 1983: 105. *Abus hirsuta*, *A. japonica*, *Betula schmidtii*, *Morus* spp., *Pinus* spp., *Ulmus japonica*.
References: (ay) Murayama 1933a: 2. (bv) Choo, Woo, & Park 1988. (cn) Anonymous 1980g; Clausen 1931; Murayama 1954a: 11; Shiraki 1952. (ce) Banno, Mikata, & Kodama 1983: 445; Yoon et al. 1982. (hb) Yoon et al. 1982. (ds) Anonymous 1980g; Atkinson, Rabaglia, & Bright 1990: 94; Atkinson et al. 1991: 160; Cho 1957; Choo 1983: 104; Choo & Woo 1985: 166; Choo, Woo, & Park 1983: 176, 1988; Clausen 1931; Hagedorn 1910d: 99; Hill, D. S. 1987: 341; Kleine 1913b: 160, 1914b: 260, 1934a; Ko 1969: 284; Ku, K. 1964; Murayama 1930b: 20, 1933b: 2, 1934d: 507, 1936a: 130, 1936b: 116, 1937b: 374, 1950d: 1295, 1951a: 6, 1954a: 11, 1954b: 175, 1955: 99; Nakane et al.

- 1963: 384; Nobuchi 1966d: 28, 1967: 21; Schedl 1960e: 172; Shiraki 1952; Yin, Huang, & Li 1984: 172. (**tx**) Atkinson, Rabaglia, & Bright 1990: 94; Blandford 1894d; Choo 1983: 104; Eggers 1930d: 178, 1941b: 222; Eichhoff 1875: 201–202, 1877a: 120, 1878b: 324; Hagedorn 1910a: 152; Murayama 1930b: 20–24, 31, 1933a: 31–34, 1933b: 14–16, 1934c: 299, 1934d: 505–512, 1936a: 130–131, 1937b: 374, 1950b: 1295, 1954b: 175 1955: 99; Nakane et al. 1963: 384; Nüsima 1909: 157; Nobuchi 1966d: 28, pl. 4; Nunberg 1978: 108–109; Schedl 1934f: 1645, 1955h: 45; Strohmeier 1911: 32; Yin, Huang, & Li 1984: 172. (**ms**) Matsumura 1931.
- aurilegulus Schaufuss** 1897b: 112. Holotype ♀; Amazonas: Bragance (Oberthur); Hamburg Museum, lost.
Distribution: South America (Brazil).
References: (**ds**) Blackwelder 1947: 779; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 337. (**tx**) Eggers 1931a: 21, 1933b: 29; Hagedorn 1910a: 152; Schaufuss 1897b: 112.
- australis Schedl** 1980b: 185. Holotype ♀; Queensland, Rocky Scrob [Australia]; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
References: (**tx**) Schedl 1980b: 185.
- baculum Beeson** 1929: 247. Holotype ♀; Upolu: Malololelei, 2000 ft.; BMNH, London.
Distribution: Samoan Islands.
References: (**ds**) Beeson 1938b: 291. (**tx**) Beeson 1929: 247; Schedl 1951k: 139.
- balbalanus Eggers** 1927c: 95. Holotype ♀; Philippinen: Luzon, Provinz Mountain, Balbalan; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
References: (**ds**) Schedl 1966b: 47. (**tx**) Eggers 1927c: 95; Nobuchi 1983: 302; Schedl 1979c: 32.
- bambesanus Eggers** 1940c: 238. Holotype ♀; Congostaat: Bambesa; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 7, figs. 6–7.
Distribution: Africa (Zaire).
References: (**ds**) Nunberg 1961a: 330; Schedl 1962k: 1099. (**tx**) Eggers 1940c: 238; Nunberg 1963b: 21, pl. 7; Schedl 1962j: 330, 1962k: 1099.
- barbatoides Schedl** 1971c: 377. Holotype ♀; Malaya, Kelantan, Pahi; BMNH, London.
Distribution: Asia (Malaya).
References: (**tx**) Schedl 1971c: 377–378.
- barumbuensis Eggers** 1924: 109. Lectotype ♀; Barumbu im Congogegebiet; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 35.
Distribution: Africa (Ghana/ Nigeria/ South Africa/ Zaire), Madagascar.
Hosts: *Cola nitida*, *Ficus* sp., *Leptonychia bantangensis*, *Piptadeniastrum africanum*, *Sterculia rhinopetala*, *Theobroma cacao*.
References: (**cn**) Chevalier 1931; Chesquiere 1933a: 31–36, 74, 1933b: 781–786; Kemner 1924: 1–33. (**hb**) Schedl 1962j: 286. (**ds**) Chevalier 1931; Chesquiere 1933a: 31–36, 74; Roberts 1969: 131; Schedl 1962j: 286; Wichmann 1954: 521. (**tx**) Eggers 1924: 109; Schedl 1950d: 31, 1953d: 70, 1957e: 882, 1962j: 286, 1964k: 313, 1965c: 74, 1977b: 195, 1979c: 35.
robertsi Browne 1963b: 247. Holotype ♀; Nigeria: Abuja, Doma For. Res.; BMNH, London.
Synonymy: Schedl 1964k: 313.
References: (**tx**) Browne 1963b: 247; Schedl 1964k: 313.
- barumbuensis mendosus Schedl** 1965c: 74. Holotype ♀; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien.
References: (**tx**) Schedl 1965c: 74, 1977b: 196, 1979c: 35.
- basalis Schedl** 1972e: 292. Holotype ♀; Ghana, Ashanti Region, Kumasi, Nhissu, 320 m, N 6 43, W 1 36; NHMB, Budapest.
Distribution: Africa (Ghana).
References: (**tx**) Schedl 1972e: 292.
- batoensis Eggers** 1923a: 178. Holotype ♀; Batoo Inseln (Tanah Masa); Coll. "Natura Artis Magistra" in Amsterdam.
Distribution: Indonesia (Batu Island).
References: (**tx**) Eggers 1923a: 178, 1927c: 101; Schedl 1935f: 270.
- beckeri Bright** 1972d: 84. Holotype ♀; Hardwar Gap, 4000 feet, St. Andrew Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 75, 95.
Distribution: Antilles Islands (Jamaica).
References: (**ds**) Bright 1985c: 173. (**tx**) Bright 1972d: 75, 84, 95, 1985c: 173; McNamara 1977: 200.
- betsileo Schedl** 1965c: 74. Holotype ♀; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (**tx**) Schedl 1965c: 74, 77, 1977b: 196, 1979c: 37.
- bezanozano Schedl** 1961e: 152. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Alchornea* sp., *Vernonia* sp.
References: (**hb**) Schedl 1977b: 165. (**ds**) Schedl 1977b: 165. (**tx**) Schedl 1961e: 152, 1977b: 165, 1979c: 37.
- biconicus Eggers** 1928c: 97. Holotype ♀; Brazil; USNM, Washington.
Figures: Pedrosa-Macedo & Schonherr 1985: 25.
Distribution: South America (Argentina/ Brazil/ Paraguay).
Hosts: *Guettarda* sp., *Mangifera indica*.
References: (**cn**) Mumford 1961: 38; Silva, Cayao, & Castro 1959: 1. (**hb**) Viana 1964: 123. (**ds**) Blackwelder 1947: 779; Mumford 1961: 38; Nun-

berg 1958a: 481, 1961: 224, 1964a: 236; Pedrosa-Macedo & Schonherr 1985: 25; Schedl 1960a: 79, 1966f: 87, 1967d: 2, 1970e: 88, 1973d: 157, 1976a: 53; Viana 1964: 123. **(tx)** Anderson, W. H. & Anderson 1971: 6; Eggers 1928c: 97; Nunberg 1958a: 481, 1959a: 415–416, 1964: 236; Pedrosa-Macedo & Schonherr 1985: 25; Schedl 1951h: 285–286, 1952a: 445–446, 1958f: 35.

bicinctus Schedl 1972g: 69. Holotype ♀; Brazil, Jacareacanga, Para; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1965. Synonymy: Wood 1989: 176.

References: **(ds)** Schedl 1976a: 53. **(tx)** Schedl 1972g: 69, 1974f: 338, 1977b: 212, 1979c: 37; Wood, S. L. 1989: 176.

bicinctulus Schedl 1974f: 338. Holotype ♀; Brazil, Jacareacanga, Para; Schedl Collection in NHMW, Wien, automatic. Synonymy: Wood 1989: 176.

References: **(tx)** Schedl 1974f: 338; Wood, S. L. 1989: 176.

bidentatus (Motschulsky) 1863: 514 (*Phloeotrogus*). Holotype ♀; published as Du continent indien, type labeled India Occidentale; IZM, Moscow.

Figures: Kumar & Chandra 1977: 40, Nobuchi 1978a:pl. 2, Nunberg 1959a:pl. 27, figs. 1–4, Wood 1960a: 53.

Distribution: Africa (Kenya/ Mozambique/ Tanzania), Asia (Burma/ Andaman Islands in India/ Malaya/ Thailand/ Vietnam), Australia, Bismarck Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, Micronesia (Palau Islands), New Guinea, Philippine Islands.

Hosts: *Azelia bijuga*, *Agathis* sp., *Anisoptera* sp., *Avicennia* sp., *Canarium euphyllum*, *Carapa* sp., *Dipterocarpus turbinatus*, *Excaecaria agallocha*, *Garcinia merguensis*, *Intsia bijuga*, *Mimusops littoralis*, *Pterocarpus dalbergioides*, *Rhizophora mucronata*, *Shorea acuminata*, *Sonnieatia apelata*, *Stephegyne diversifolia*, *Terminalia bialata*, *Xylocarpus gangeticus*, *X. granatum*.

Notes: (3) Kumar & Chandra 1977: 32 (described male).

References: **(cn)** Gray, B. & Wylie 1974. **(ec)** Beeson 1922c. **(hb)** Beeson 1922c; Gray, B. 1968: 311; Gray, B. & Wylie 1974; Schedl 1962j: 282. **(ds)** Beeson 1915: 8–11, 1922c: 497, 1930: 228, 1941: 392–393, 1961: 303; Bhasin, Roonwal, & Singh 1958: 68; Browne 1935a: 4, 1941: 60, 68, 1961a: 305, 1966: 251; Chadwick & Nikitin 1968; Corbett & Gater 1926: 22; Gemminger & Harold 1872: 2692; Gray, B. 1968: 311; Hagedorn 1910d: 99; Kalshoven 1959: 162; Kleine 1913b: 168, 1914b: 270, 1934a: 172; Nobuchi 1978a: 26; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: S, 1987a: 88, 1987b: 94; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 93; Ohno, Yoshioka, Uchida, Yoneyama, & Tsukamoto 1989: 61; Roonwal 1954: 40;

Schedl 1936d: 4, 1937f: 1, 1942d: 6, 1950g: 897, 1955b: 278, 1955i: 215, 1962i: 72, 1962k: 282, 1964c: 306, 1964i: 248, 1965e: 353, 1965g: 25, 1966b: 48, 1966g: 31, 1968e: 263, 1969d: 4, 1971f: 148, 1972a: 144, 1977a: 164; Wood, S. L. 1960a: 51–55. **(tx)** Beeson 1930: 228; Blandford 1896a: 21; Eggers 1922h: 174, 1923a: 130, 1925: 153, 1927a: 199, 1930d: 191; Eichhoff 1878b: 505–506; Hagedorn 1905: 414, 1910a: 152, 155, 1910b: 9–11; Kumar & Chandra 1977: 32, 40; Motschulsky 1863: 514; Nobuchi 1978a:pl. 2, 1983: 302; Schaufuss 1905: 72 (reprint p. 3); Schedl 1935j: 1, 1952k: 162, 1953d: 70, 1960h: 107, 1962j: 282–283, 1977b: 164; Wood, S. L. 1960a: 51, 53, 1969c: 119.

riehli Eichhoff 1878b: 346. Holotype ♀; Celebes Insula Asiatica; IRSNB, Brussels. Synonymy: Schedl 1962j: 282.

Notes: (3) Eggers 1930d: 190 (described male).

References: **(cn)** Beeson 1916: 1–5; Ishikura 1966; Mathur & Singh 1961a: 61; Roonwal 1954: 40. **(hb)** Browne 1935a, 1941, 1961c: 139; Kalshoven 1959c: 162. **(ds)** Beeson 1919: 1–23, 1930, 1961: 308; Browne 1935a, 1961c: 139–140; Hagedorn 1910d: 110; Ishikura 1966; Kalshoven 1959c: 162; Kleine 1913b: 162, 1914b: 295, 1934a: 175; Mathur & Singh 1961a: 61; Roonwal 1954: 40; Schedl 1936d: 4, 1937f: 15, 1962i: 72. **(tx)** Beeson 1930: 77, 253; Eggers 1927a: 199, 1927b: 399, 1930d: 190–191; Eichhoff 1878b: 346; Hagedorn 1910a: 156, 1910b; Nunberg 1959a: 436; Schedl 1942d: 6, 1950g: 897, 1955b: 278, 1960h: 107, 1962j: 282.

laeviusculus Blandford 1896a: 21. Holotype ♀; Indo-China: Mytho; BMNH, London. Synonymy: Schedl 1960i: 108.

References: **(cn)** Beeson 1915: 8–11; Stebbing 1914: 603. **(cc)** Beeson 1922c: 498; Stebbing 1914: 603. **(hb)** Beeson 1922c: 498; Stebbing 1914: 602–603. **(ds)** Beeson 1922c: 498; Hagedorn 1910d: 106; Kleine 1913b: 168, 1914b. **(tx)** Blandford 1896a: 21; Hagedorn 1910a: 155, 1910b; Schedl 1950g: 897, 1955i: 215, 1960i: 108, 1962j: 282; Stebbing 1914: 603.

stephegyinis Hopkins 1915b: 58 (*Boroxylon*). Holotype ♀; Calapan, Philippine Islands; USNM, Washington. Synonymy: Wood 1960a: 54.

References: **(ds)** Kleine 1934a: 178. **(tx)** Hopkins 1915b: 58–59; Schedl 1952k: 162, 1962j: 282; Wood, S. L. 1960a: 54.

brevidentatus Eggers 1930d: 190. Holotype ♀; Andamanen Inseln; FRI, Dehra Dun. Synonymy: Schedl 1960i: 107.

References: **(cn)** Mathur & Singh 1961b: 28. **(ds)** Beeson 1930, 1961: 303; Kleine 1934a: 172; Mathur & Singh 1961b: 28. **(tx)** Beeson 1930: 228; Eggers 1930d: 190; Schedl 1960i: 107, 1962j: 282, 1979c: 46.

quadridens Eggers 1930d: 191. Holotype ♀; Borneo; FRI, Dehra Dun. Synonymy: Wood 1989: 176.

- References: (tx) Eggers 1930d: 191; Schedl 1962j: 559; Wood, S. L. 1989: 176.
- birmanus** Eggers 1930d: 200. Holotype ♀; Burma (North Pegu Division); FRI, Dehra Dun.
Distribution: Asia (Burma/ Malaya/ Thailand).
Hosts: *Dolichandrone stipulata*, *Iutisia palembanica*, *Xylia dolabriformis*.
References: (cn) Mathur & Singh 1961b: 96. (hb) Beaver & Browne 1975: 298; Browne 1961c: 154. (ds) Beaver & Browne 1975: 298; Beeson 1930: 228 (reprint p. 52), 1961: 303; Browne 1961c: 154–155; Mathur & Singh 1961b: 96. (tx) Eggers 1930d: 200 (reprint p. 24); Schedl 1958b: 100, 1979c: 40.
- bispinus** Nobuchi 1981b: 147. Holotype ♀; Kumano, Takimoto, Wakayma; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1981b: 153.
Distribution: Asia (Honshu in Japan).
Hosts: *Castanopsis cuspidata*.
References: (cc) Kielczewski & Wisniewski 1983. (tx) Nobuchi 1981b: 147, 153.
- biuncus** Browne 1984d: 96. Holotype ♀; New Guinea: Stony L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Protium* sp.
References: (tx) Browne 1984d: 96.
- blandus** Schedl 1954c: 160. Lectotype ♀; Borneo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 42.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1954c: 160, 1979c: 42.
- bodoanus** Reitter 1913a: 82. Syntypes 3 ♀; Ost-sibirien: Sotka-gora; NHMB, Budapest.
Distribution: Asia (E USSR).
References: (hb) Stark 1952: 436. (ds) Stark 1952: 436. (tx) Eggers 1923a: 202; Reitter 1913a: 82; Schedl 1934f: 1645; Stark 1952: 436.
- bolivianus** Eggers 1943a: 385. Holotype ♀; Bolivia; USNM, Washington.
Distribution: South America (Bolivia).
References: (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1943a: 385.
- borneensis** Browne 1986a: 92. Holotype ♀; Borneo: Bintulu (Sarawak) to Nagoya, Japan, imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: *Dipterocarpus* sp. log.
References: (tx) Browne 1986a: 92.
- brevicollis** Browne 1984d: 97. Holotype ♀; New Guinea: Gumi; BMNH, London.
Distribution: New Guinea.
Hosts: *Castanopsis* sp.
References: (tx) Browne 1984d: 97.
- brunneus** Browne 1981b: 601. Holotype ♀; Tatau (Sarawak, Borneo) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Browne 1981b: 601.
- bryanti** Sampson 1919: 110. Holotype ♀; Borneo, Sarawak (Mt. Matang); BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (ds) Sampson 1919: 110. (tx) Sampson 1919: 110.
- buxtoni** Beeson 1929: 243. Holotype ♀; Samoa, Upolu: Malololelei, 2000 ft.; BMNH, London.
Figures: Wood 1960a: 65.
Distribution: Cook Islands, Micronesia (Caroline Islands, Palau Islands), Samoan Islands.
References: (ds) Beeson 1938b: 191; Schedl 1972b: 267; Wood, S. L. 1960a: 51. (tx) Beaver & Maddison 1990: 1373; Beeson 1929: 243; Schedl 1951k: 139; Wood, S. L. 1960a: 51, 65.
- cachoeirinhae** Schedl 1951m: 125. Syntypes ♂?; Brasilien, Bahia, Cachoeirinha-Una; Schedl Collection in NHMW, Wien (Schedl 1979c: 49).
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 49 (citation of holotype invalid). (3) Schedl 1951m: 125 (may be male of *majusculus*).
References: (tx) Schedl 1951m: 125, 1979c: 49.
- cacuminatus** Eggers 1928c: 98. Holotype ♀; Brasil (Amazonas-Gebiet); Hamburg Museum, lost? (see note 1).
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 49 (holotype in Schedl Collection in NHMW, Wien; if this is the holotype, it must have been on loan to Eggers when Schedl obtained it).
References: (ds) Blackwelder 1947: 779. (tx) Eggers 1928c: 98, 1933b: 33; Schedl 1979c: 49.
- californicus** Wood 1975b: 399. Holotype ♀; Stanford University, Palo Alto, California [USA]; CAS, San Francisco.
Distribution: North America (California, Oregon in USA).
Notes: (3) This is an obvious importation; its origin is unknown.
References: (ds) Wood, S. L. 1982b: 838. (tx) McNamara 1984: 759; Wood, S. L. 1975b: 399, 1982b: 838.
- calvus** Schedl 1942a: 187. Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1942a: 187, 1979c: 50.
- canarii** Browne 1984a: 155. Holotype ♀; Pomio (New Britain) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Canarium* sp.
References: (ds) Ohno et al. 1988a: 93, 1989: 61. (tx) Browne 1984a: 155.
- canarivorus** Browne 1986a: 96. Holotype ♀; New Guinea: Fak fak to Nagoya, Japan, imported; BMNH, London.
Distribution: New Guinea.

- Hosts: *Canarium* sp. log.
References: (tx) Browne 1986a: 96.
- cancellatus** Eggers 1936e: 89. Holotype ♀; Java (Batoerraden, C. Slamet); ZMA, Amsterdam.
Figures: Numberg 1959a: pl. 17, figs. 1–3.
Distribution: Indonesia (Java).
Hosts: *Castanea argentea*, *Neesia altissima*, *Plectronia* sp., *Symplocos* sp., *Turpinia pomifera*.
References: (ce) Kalshoven 1960b. (hb) Kalshoven 1959c: 147, 1960a: 120. (ds) Kalshoven 1959c: 147; Schedl 1965g: 24. (tx) Eggers 1936e: 89; Numberg 1959a: 417; Schedl 1942d: 6, 1951i: 43, 1954a: 140, 1954c: 155, 1958k: 145, 1965g: 24, 1979c: 51.
- cancellatus prounciatius** Eggers 1936e: 90. Holotype ♀; Java: "G. Tangkoebon Frahoë," 4000–5000 Fuss, Preanger; ZMA, Amsterdam.
Notes: (1) Schedl 1979c: 51 (lectotype designation invalid because a type had previously been designated).
References: (tx) Eggers 1936e: 90–91; Schedl 1958k: 145, 1979c: 51.
- canus** Niisima 1909: 161. Holotype ♀; Sapporo, Hokkaido, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
References: (cn) Anonymous 1980g; Murayama 1954a: 19. (ds) Anonymous 1980g; Kleine 1913b: 160, 1914b: 261; Murayama 1954a: 19; Nobuchi 1985c: 24. (tx) Hagedorn 1910a: 152; Murayama 1930: 25, 31; Niisima 1909: 161; Schedl 1934f: 1646.
- caraibicus** Eggers 1941a: 103. Holotype ♀; Guadeloupe; USNM, Washington.
Figures: Numberg 1959a: pl. 17, figs. 4–6.
Distribution: Antilles Islands (Dominica/ Guadeloupe/ Trinidad), North America (Costa Rica/ Panama), South America (Bolivia/ Brazil/ Colombia/ Venezuela).
Hosts: *Ochroma* sp., *Theobroma cacao*.
References: (hb) Wood, S. L. 1982b: 813. (ds) Bright 1981c: 156, 1982b: 165, 1985c: 173; Schedl 1976a: 53; Wood, S. L. 1982b: 813. (tx) Anderson, W. H. & Anderson 1971: 9; Bright 1985c: 173; Eggers 1941a: 103; Numberg 1959a: 417; Wood, S. L. 1972e: 197, 1982b: 813.
- variabilis** Schedl 1948f: 281. Syntypes ♀; Bolivia: Rio Aguacatal, Colomb. W. Coc.; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.
Notes: Schedl 1979c: 264 (citation of holotype invalid).
References: (tx) Schedl 1948f: 279, 281, 1979c: 264; Wood, S. L. 1989: 176.
- trinidadensis** Schedl 1961a: 530. Holotype ♀; Trinidad, River Estate; BMNH, London. Synonymy: Wood 1972e: 197.
Notes: (3) Schedl 1966f: 118 (described male).
References: (tx) Schedl 1961a: 530, 1966f: 118, 1979c: 256; Wood, S. L. 1972e: 197.
- carinensis** Eggers 1923a: 180. Holotype ♀; Carin Cheba (Birma?), 900–1100 m; MCG, Genova.
Distribution: Asia (Burma).
References: (tx) Eggers 1923a: 180.
- carinulatus** Eggers 1920: 41. Lectotype ♀; Mauritius; Schedl Collection in NHMW, Wien.
Distribution: Africa (Mauritius Island).
References: (ds) Schedl 1969d: 11. (tx) Eggers 1920: 41; Schedl 1962j: 330, 1979c: 53.
- caudatus** Schedl 1957d: 110. Holotype ♀; Congo Belge; Yangambi; MRCB, Tervuren.
Figures: Numberg 1963b: pl. 8, figs. 5–8, Schedl 1962j: 562.
Distribution: Africa (Zaire).
Hosts: *Antrocaryon micraster*, *Klainedoxa gabonensis*, *Musanga cecropioides*, *Pterocarpus soyauxii*.
References: (hb) Schedl 1962j: 562. (ds) Schedl 1962j: 562. (tx) Numberg 1963b: 22, pl. 8; Schedl 1957d: 84, 110, 1962j: 562, 1979c: 55.
- cavatus** Browne 1980c: 487. Holotype ♀; Donggala (Celebes) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Celebes).
Hosts: *Diospyros ebenueum*.
References: (ds) Browne 1980c: 487, 1983a: 555.
- cavuloides** Browne 1984c: 451. Holotype ♀; Tg. Mani (Sarawak) to Nagoya (Japan), imported, BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Dipterocarpus* sp.
References: (ds) Olmo, Yoneyama, & Nakazawa 1982b: 8. (tx) Browne 1984c: 451.
- cavulus** Browne 1974b: 538. Holotype ♀; Malaya: Kepong, Forest Research Institute Insectary; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Browne 1974b: 538.
- celsoides** Hagedorn 1908: 379. Holotype ♀; Australia; IRSNB, Brussels.
Distribution: Australia.
References: (ds) Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 298. (tx) Hagedorn 1908: 379, 1910a: 152.
- celsus** Eichhoff 1868a: 400. Syntypes ♀; America boreali [USA]; Hamburg Museum, lost.
Figures: Bright 1976d: 132, Gagne & Kearby; Numberg 1959a: pl. 17, figs. 7–8, pl. 18, figs. 1–2.
Distribution: North America (Arkansas, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Texas, Vermont, Virginia, West Virginia in USA).
Hosts: *Carya* spp.
References: (ay) Gagne & Kearby 1979. (bv) Gagne & Kearby 1974, 1978, 1979; Meixner 1937:

- 1218; Roling & Kearby 1975b: 1977; Tumbow & Franklin 1980. (**en**) Blackman 1950; Chamberlin 1924, 1939: 454; Doane et al. 1936; Felt 1906: 446, 1916: 76, 1923: 89, 1926: 247, 277, 1930a: 247, 277, 1942; Felt & Rankin 1932: 260; Herrick 1935: 221; Hopkins 1896d: 249, 1897b: 150, 1904a: 39; Hubbard 1897b: 24; Kowal 1949a: 12–13; Morris 1955: 139; Packard 1890: 92, 297; Pierson 1927: 72; Rhoads 1924: 151; Roling & Kearby 1977; Smith, J. B. 1900: 363; Swaine 1918a: 126, 128. (**ee**) Batra 1963b: 217; Chamberlin 1939: 454; Felt 1906: 446; Roling & Kearby 1977; Steinhaus 1946: 403. (**hb**) Baker, W. L. 1972: 270; Beal & Massey 1945: 154–155; Bellevoye 1898; Blackman 1922b: 117–120, 1950; Blackman & Stage 1924: 151–153; Bright 1976d: 136; Chamberlin 1939: 454; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 373; Dyakowski 1911; Felt 1906: 446, 1926: 247, 277, 1930a: 247, 277; Felt & Rankin 1932: 260; Gagne & Kearby 1974, 1978, 1979; Herrick 1935: 221; Hopkins 1904a: 39, 1905a: 384; Hubbard 1897a: 422, 1897b: 24; Lengerken 1954: 312; Packard 1890: 297; Pierce 1907: 291; Pierson 1927: 72; Skauife 1954: 253; Swaine 1918a: 126, 128; Wood, S. L. 1982b: 833. (**ds**) Anonymous 1926c: 520; Baker, W. L. 1972: 270; Beal & Massey 1945: 154–155; Beaulne 1941; Blackman 1922b: 117–120, 1950; Blatchley & Leng 1916: 623; Bright 1968b: 1310, 1976d: 136; Britton 1920a; Chamberlin 1939: 454; Chittenden 1890; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938: 13, 54; Drooz 1981b: 6; Felt 1926: 247, 277, 1930a: 247, 277; Felt & Rankin 1932: 260; Gagne & Kearby 1978, 1979; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 100; Hamilton 1895: 346, 378; Harrington 1884a; Henshaw 1885: 148; Hopkins 1893a: 135, 1893b: 211; Hubbard & Schwarz 1878a: 666; Kirk 1969, 1970; Kleine 1913b: 160, 1914b: 393; Leng 1920: 342; Leonard 1928: 520; MacGillvray, A. & Houghton 1902; Schedl 1971f: 148; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 151; Tumbow & Franklin 1980; Wenzer 1915: 188; Wheeler 1922: 521; Wood, S. L. 1982b: 833. (**tx**) Beal & Massey 1945: 154–155; Blackman 1922b: 117–120; Blatchley & Leng 1916: 623; Bright 1968b: 1310, 1976d: 132, 136; Chamberlin 1939: 454; Dodge 1938: 13, 54; Eggers 1928c: 96, 1931a: 21; Eichhoff 1868a: 400, 1875: 203, 1878b: 399; Gagne & Kearby 1979: 298; Hagedorn 1910a: 153; Hopkins 1915b: 62, 67; Hubbard 1897b: 22, 24; Jacques 1951: 353; LeConte 1868: 159, 1876: 359–360; Meixner 1937: 1218; Numberg 1959a: 418; Swaine 1909: 151, 1918a: 126, 128; Wood, S. L. 1982b: 833; Zimmermann 1868: 145.
- biographus* LeConte 1868: 160. Holotype ♂; Illinois [USA]; MCZ, Cambridge. Synonymy: Eichhoff 1878b: 399.
References: (**en**) Felt 1906: 447. (**ds**) Gemminger & Harold 1872: 2685; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666; Leng 1920: 342; Schwarz 1878d: 468, 666; Swaine 1909: 152. (**tx**) Eichhoff 1878b: 399–400; Hopkins 1896: 249; LeConte 1868: 159–160, 1876: 359–360, 1878a: 468; Swaine 1909: 152.
- chujoi* Schedl 1951i: 73. Syntypes ♀; Formosa; Schedl Collection in NHMW, Wien.
Distribution: Asia (Taiwan).
Notes: (1) Schedl 1979c: 57 (citation of holotype invalid).
References: (**ds**) Nobuchi 1967: 21. (**tx**) Schedl 1951i: 73–74, 1979c: 57.
- ciliatiformis* Schedl 1953f: 81. Lectotype ♀; Brisbane, Australia, in imported logs of Borneo cedar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 57.
Distribution: Asia (Malaya), Indonesia (Borneo), New Guinea.
Hosts: *Pasania sundaica*, *Shorca balanocarpoides*.
References: (**bv**) Gray, B. 1974c. (**hb**) Browne 1961c: 115; Gray, B. 1974c. (**ds**) Browne 1961c: 115, 1986c: 662. (**tx**) Schedl 1953c: 290, 1953f: 81, 1979c: 57.
- ciliatus* Eggers 1940: 141. Holotype ♀; Java (Tjibodas, G. Gedeh); Kalshoven Collection.
Distribution: Asia (Fujian in China), Australia, Indonesia (Java).
Hosts: *Eupatorium* sp.
References: (**ds**) Schedl 1979a: 158. (**tx**) Eggers 1940: 141–142; Schedl 1942d: 5, 1951i: 67, 1952c: 64, 1953f: 81, 1954a: 140, 1958k: 148, 1979c: 57.
- cinctipes* Schedl 1979g: 105. Holotype ♀; Papua, Bulolo, Morobe Dist., New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1979g: 105.
- circumspinosus* Schedl 1972i: 52. Holotype ♀; New Guinea (NE), Umboi I., 1 km N Awelkon, 600 m; BPBM, Honolulu.
Distribution: New Guinea.
Notes: (3) Schedl 1975f: 363 (described male).
References: (**tx**) Schedl 1972i: 52, 1975f: 363, 1979c: 58.
- clerodendronae* Schedl 1952i: 17. Holotype ♀; Congo Belge; Kivu, Mulungu; MRCB, Tervuren. Figures: Numberg 1963b: pl. 9, figs. 1–4, Schedl 1962j: 266.
Distribution: Africa (Ghana/ Tanzania/ Zaïre).
Hosts: *Acacia molissima*, *Albizia* sp., *Brillantaisia* sp., *Cinnamomum camphora*, *Clerodendron* sp., *Klainedoxa gabonensis*, *Myrianthus holstii*, *Trichilia* sp.
References: (**hb**) Beaver & Loytyniemi 1985a: 74; Browne 1963a: 240. (**ds**) Beaver & Loytyniemi 1985a: 74; Browne 1963a: 240; Mayne & Donis 1962: 317; Nonveiller 1984: 41; Schedl

- 1962j: 266. (tx) Nunberg 1963b: 23, pl. 9; Schedl 1952i: 17–18, 1957d: 84, 98, 1962j: 266, 1962k: 1099, 1979c: 58.
- clerodendronae alpinus* Schedl 1957d: 98. Syntypes ♀; Hembe-Bitale; not given in original description, apparently in MRCB, Tervuren and NHMW, Wien.
- Notes: (1) Schedl 1979c: 59 (citation of holotype invalid).
- References: (hb) Roberts 1969: 131; Schedl 1962j: 266. (ds) Schedl 1962h: 60, 1962k: 1099, 1965e: 354. (tx) Nunberg 1963b: 24; Schedl 1957d: 98, 1962j: 266, 1979c: 59.
- clerodendronae morosus* Schedl 1962j: 267. Holotype ♀: Congo Belge: Yangambi; Schedl Collection in NHMW, Wien.
- References: (tx) Schedl 1962j: 267, 1979c: 59.
- cognatus** Blandford 1896a: 19. Syntypes ♀; Indo-China: Mytho and Saigon; BMNH, London.
- Figures: Nobuchi 1978a:pl. 4.
- Distribution: Africa (Cameroon), Asia (Burma/Andaman Islands, Bengal, Nicobar Islands in India/Malaya/Thailand/Vietnam), Australia, Fiji Islands, Indonesia (Borneo, Java, Sumatra), New Guinea, Philippine Islands, Solomon Islands (Rennell Island).
- Hosts: *Bombax insigne*, *Bruguiera parviflora*, *Canarium euphyllum*, *Diospyros oocarpa*, *Dipterocarpus turbinatus*, *Excaecaria agallocha*, *Heritiera fomes*, *Lagerstroemia hypoleuca*, *Mimusops littoralis*, *Planchonia andamanica*, *Parishia insignis*, *Pterocarpus dalbergioides*, *Rhizophora apiculata*, *R. mucronata*, *Salmalia insignis*, *Stereulia alata*, *S. campanulata*, *Terminalia* spp.
- Notes: (3) Hagedorn 1912a: 343 (described male).
- References: (cn) Auhmann 1913: 1–126; Green 1916: 608–636; Hagedorn 1913a; Ishikura 1966; Kleine 1932a: 307; Mathur & Singh 1960c, 1961a: 10, 1961b: 28; Yunus & Hua 1980: 230. (ec) Neger 1911a: 52; Roberts 1977a: 254. (hb) Browne 1961c: 144–145; Hagedorn 1913a; Kalshoven 1959c: 141, 1963; Kleine 1932a: 307; Roberts 1977a: 254. (ds) Beeson 1930: 229, 1961: 303; Bhasin, Roonwal, & Singh 1958; Browne 1961a: 304, 1961c: 144, 1968c: 113, 1974a: 65; Choo & Woo 1983; Hagedorn 1910d: 100, 1913a; Ishikura 1966; Kalshoven 1959c: 141, 1963; Kleine 1913b: 160, 1914b: 274, 279, 1932a: 307, 1934a: 172; Mathur & Singh 1960c, 1961a: 10, 1961b: 28; Nobuchi 1978a: 40; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987: 94; Ohno et al. 1987: 88, 1988a: 93, 1989: 61; Roberts, H. 1977a: 254; Schedl 1936d: 3, 1937f: 15, 1959a: 502, 1961c: 70, 1962b: 184, 1962i: 74, 1962k: 1099, 1964i: 248, 1965g: 23, 1966b: 48, 1966g: 31, 1968e: 263, 1969c: 52, 1971c: 362, 1972a: 145, 1974c: 262; Yunus & Hua 1980: 230. (tx) Beeson 1930: 53, 229; Blandford 1896a: 19; Hagedorn 1910a: 153, 1912a: 343–344; Nobuchi 1978a:pl. 4, 1983: 302; Schedl 1931c: 346, 1937e: 543, 1939e: 333, 1942d: 7, 1953b: 124, 1954a: 141, 1955b: 281, 283, 285, 1955i: 215, 1959a: 502, 1965g: 23, 1962k: 1099.
- collis Niisima** 1910a: 12. Syntypes 3 ♀; Kumano-taira bei Karuisawa, Henskih, Japan; Nobuchi Collection, Ibaraki.
- Distribution: Asia (Japan).
- References: (ds) Murayama 1954b: 176; Nobuchi 1955c: 24. (tx) Murayama 1954b: 176; Niisima 1910a: 12; Schedl 1934f: 1645.
- commixtus** Blandford 1898b: 208. Lectotype ♀; Bugaba, Chiriqui, Panama; BMNH, London.
- Distribution: North America (Costa Rica/Panama), South America (Colombia).
- Hosts: *Pouteria* sp., *Theobroma cacao*.
- References: (hb) Wood, S. L. 1982b: 814. (ds) Blackwelder 1947: 779; Hagedorn 1910d: 100; Kleine 1913b: 100, 1914b: 371; Schedl 1960a: 77; Steinhausen 1956: 48; Wood, S. L. 1982b: 814. (tx) Blandford 1898b: 208; Hagedorn 1910a: 153; Schedl 1940a: 367, 1951m: 123, 1961i: 229, 1979c: 60; Steinhausen 1956: 48; Wood, S. L. 1982b: 814.
- comparabilis** Schedl 1957d: 91. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale, and Ruanda: Ihembe; MRCB, Tervuren.
- Figures: Nunberg 1963b:pl. 10, figs. 1–4.
- Distribution: Africa (Zaire).
- Hosts: *Alchornea hirtella*, *Ficus* sp., *Pachystela laurentii*, *Strombosia scheffleri*.
- References: (ec) Schedl 1958d: 192. (hb) Schedl 1962j: 256. (ds) Schedl 1962j: 256. (tx) Nunberg 1963b: 24, pl. 10; Schedl 1957d: 91, 1957e: 851, 1962j: 256, 1979c: 60.
- concentus** Wood 1974a: 39. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
- Distribution: North America (Costa Rica), South America (Venezuela).
- Hosts: *Alexa imperatricia*, *Phoebe mexicana*.
- References: (hb) Wood, S. L. 1982b: 817. (ds) Wood, S. L. 1982b: 817. (tx) Wood, S. L. 1974a: 39, 1982b: 817.
- conditus** Schedl 1971c: 379. Holotype ♀; India: Dehra Dun, Mussoorie; Schedl Collection in NHMW, Wien.
- Distribution: Asia (Uttar Pradesh in India/Nepal).
- References: (ds) Schedl 1973b: 211. (tx) Schedl 1971c: 379, 1979c: 61.
- confluens** Schedl 1966f: 113. Holotype ♀; Argentinien, Prov. Buenos Aires; Schedl Collection in NHMW, Wien.
- Distribution: South America (Argentina/Brazil/Uruguay).
- References: (ds) Schedl 1976a: 54, 1979e: 58. (tx) Schedl 1966f: 113, 1979c: 61.
- congruens** Schedl 1966f: 114. Holotype ♀; Bolivien; Schedl Collection in NHMW, Wien.
- Distribution: South America (Bolivia).

- References: (tx) Schedl 1966f: 114, 1979c: 63.
- conidens** Eggers 1936d: 632. Holotype ♀; Mysore: Wynaad; BMNH, London.
Distribution: Asia (Mysore in India).
Hosts: *Coffea* sp.
References: (tx) Eggers 1936d: 632–633.
- conradi** Hagedorn 1910b: 8. Syntypes ♀; Kamerun; MNB, Berlin.
Figures: Numberg 1963b:pl. 5, figs. 1–4, Schedl 1962j: 228.
Distribution: Africa (Cameroon/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Nigeria/ South Africa/ Zaïre).
Hosts: Many listed by Schedl 1962j: 230–231. *Canarium* sp., *Macrobium* sp., *Terminalia ivorensis*.
References: (ce) Schedl 1962j: 227. (hb) Chesquiere 1933a: 31–34, 1933b: 780; Jones, Roberts, & Baker 1959: 13; Roberts 1969: 131; Schedl 1962j: 227. (ds) Aulmann 1912: 40–41; Browne 1980b: 382; Cachan 1957: 15, 43–53; Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 312, 1928: 307; Schedl 1962j: 227, 1965g: 21, 1979b: 416; Webb & Jones 1957: 25–38; Wichmann 1954: 521. (tx) Browne 1970: 571; Eggers 1920: 42–43, 1932c: 23, 1933g: 18; Hagedorn 1910a: 153, 1910b: 8–9, 1913a: 19–20, 1913b: 255; Schedl 1950d: 15, 1950e: 211, 1952i: 7, 1954d: 871, 1954e: 51, 64, 67, 1957d: 84, 88, 1962j: 227–228, 1963i: 63, 1965g: 21.
- ambasius** Hagedorn 1912a: 342. Holotype ♀; Kamerun; Hamburg Museum, lost. Synonymy: Schedl 1963i: 63.
References: (cn) Anonymous 1953j: 25; Aulmann 1913: 1–126; Chesquiere 1933a; Hagedorn 1913a; Kleine 1932a: 307; Thompson, G. H. 1960. (ce) Anonymous 1953j: 25. (hb) Browne 1963a: 240; Green 1916: 608–636; Hagedorn 1913a; Kleine 1932a: 307. (ds) Browne 1963a: 240; Hagedorn 1913a; Kleine 1913b: 160, 1914b: 312, 1932a: 307; Roberts 1960b: 36, 1960e, 1960f; Schedl 1964e: 68, 1979b: 416. (tx) Eggers 1920: 41, 1931c: 18, 1932c: 23, 1933g: 18; Hagedorn 1912a: 342, 1913b; Numberg 1963b: 17–18, pl. 5; Schedl 1950d: 15, 1950e: 211, 1953d: 97, 1954d: 871, 1954e: 50–51, 1957d: 84, 1962j: 227, 1963i: 63.
- carbonarius** Eggers 1927a: 190. Holotype ♀; Belg.-Congo (Haut-Uele; Moto); MRCB, Tervuren. Synonymy: Schedl 1962j: 223.
References: (tx) Eggers 1927a: 190, 1931c: 18, 1932c: 23, 1933g: 18; Schedl 1962j: 227.
- consobrimus** Eggers 1932d: 296. Holotype ♀; Congostaat (Haut-Uele; Moto); MRCB, Tervuren.
Figures: Numberg 1963b:pl. 10, figs. 5–8.
Distribution: Africa (Uganda/ Zaïre).
Hosts: *Alstonia boonei*, *Beilschmiedia gilbertii*, *Celtis mildbraedii*, *C. zenkeri*, *Chlorophora excelsa*, *Kluya anthontinea*, *Millettia ferruginea*, *Oxystigma oxyphyllum*, *Scorodophloeus zenkeri*, *Trema guineensis*.
References: (ds) Browne 1973a: 281, 1980c: 486, 1984c: 450; Mayne & Donis 1962: 318; Schedl 1962j: 258. (tx) Eggers 1932d: 296–297; Numberg 1963b: 25, pl. 10; Schedl 1937b: 403, 1941d: 380, 1950c: 205, 1950d: 29, 1962j: 258.
- continentalis** Eggers 1920: 42. Holotype ♀; Natal (Durban); MNB, Berlin.
Distribution: Africa (Natal in South Africa).
References: (tx) Eggers 1920: 42; Schedl 1962j: 330.
- convexicauda** Eggers 1932d: 303. Holotype ♀; Westafrica (Goldkuste); USNM, Washington.
Distribution: Africa (Ghana).
References: (tx) Anderson, W. H. & Anderson 1971: 10; Beeson 1935: 121; Eggers 1932d: 303–304, 1933b: 37; Schedl 1954e: 47, 1957d: 84, 1962j: 320.
- cornivorus** Murayama 1950b: 63. Holotype ♀; Irazuyama, Shikoku, Japan; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Carpinus laxiflora*, *Cornus controversa*.
References: (ds) Murayama 1954b: 176; Nobuchi 1985c: 24. (tx) Murayama 1950b: 63, 1954b: 176.
- cornutus** Schaufuss 1891: 17. Holotype ♀; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluand 1900: 440; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 326; Schedl 1977b: 143. (tx) Anderson, W. H. & Anderson 1971: 10; Blandford 1898b: 207; Fairmaire 1892b; Hagedorn 1910a: 153, 1913b: 256; Schaufuss 1891: 17; Schedl 1953d: 69, 1977b: 143, 1979c: 65.
- corpulentus** Eggers 1930d: 198. Holotype ♀; Assam (Lakhimpur, Upper Dihing Reserve); FRI, Dehra Dun.
Distribution: Asia (Xizang [Tibet] in China/ Assam in India/ Nepal).
Hosts: *Acrocarpus fraxinifolius*, *Albizia lebbek*, *Artocarpus chaplasha*, *Canarium euphyllum*, *Sterculia villosa*, *Vatica lanceaeifolia*.
References: (cn) Mathur & Singh 1961a: 72, 1961b: 71; Roonwal 1954: 33. (ds) Beeson 1930: 55, 1961: 303; Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 172; Mathur & Singh 1961a: 72, 1961b: 71; Roonwal 1954: 33; Schedl 1973b: 211. (tx) Beeson 1930: 55; Eggers 1930d: 198–199.
- costaricensis** Blandford 1898b: 210. Holotype ♀; Volcan Irazu, Costa Rica; BMNH, London.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Phoebe mexicana*.
References: (hb) Wood, S. L. 1982b: 823. (ds) Blackwelder 1947: 779; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 271; Wood, S. L. 1982b:

823. (tx) Blandford 1895b: 210; Hagedorn 1910a: 153; Wood, S. L. 1979b: 136, 1952b: 823.
nevermanni Schedl 1935d: 93. Lectotype ♀; Costa Rica, Vara Blanca; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 165. Synonymy: Wood 1979b: 136.
References: (ds) Blackwelder 1947: 780; Schedl 1966f: 77. (tx) Schedl 1935d: 93, 1979c: 165; Wood, S. L. 1979b: 136.
- costatomorphus** Schedl 1950g: 897. Lectotype ♀; ex imported logs of "Borneo cedar" at Brisbane, Australia, Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 67.
Figures: Nobuchi 1978a: pl. 2.
Distribution: Asia (Singapore), Indonesia (Borneo), Philippine Islands.
Hosts: Borneo cedar, *Rhizophora* sp. seedlings.
References: (ds) Nobuchi 1978a: 26; Schedl 1966g: 31, 1975a. (tx) Nobuchi 1978a: pl. 2, 1983: 302; Schedl 1950g: 897, 1975a: 458, 1979c: 67.
- costulatus** Eggers 1940d: 147. Holotype ♀; Java (Preanger, G. Tangkoeban Prahoë); Drescher Collection [Eggers cotype in NHMW, Wien].
Distribution: Indonesia (Java).
Notes: (1) Schedl 1979c: 67 (cited holotype in Schedl Collection when one already existed in the Drescher Collection).
References: (tx) Eggers 1940d: 147-148; Schedl 1979c: 67.
- cremulatus** Eggers 1920: 117. Holotype ♀; Ostafrika; Hamburg Museum, lost.
Distribution: Africa (Tanzania).
References: (tx) Eggers 1920: 117, 1932d: 301; Schedl 1962j: 297.
- cribratus** Eggers 1940d: 145. Holotype ♀; West Java (Tjampea); Kalshoven Collection.
Distribution: Indonesia (Java).
References: (hb) Kalshoven 1959c: 150. (ds) Kalshoven 1959c: 150. (tx) Eggers 1940d: 145; Schedl 1979c: 68.
- cribripennis** Eggers 1927a: 191. Holotype ♀; Belg.-Congo (Sankuru); MRCB, Tervuren.
Figures: Numberg 1963b: pl. 11, figs. 1-2.
Distribution: Africa (Zaire).
Hosts: *Ouratea* sp.
References: (ds) Ghesquiere 1933a: 31-35, 1933b: 781; Roberts 1969: 131; Schedl 1962j: 233. (tx) Eggers 1927a: 191, 1933b: 33, 1935c: 310; Numberg 1963b: 26, pl. 11; Schedl 1962j: 233.
- crinitulus** Wood 1974a: 34. Holotype ♀; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.
Distribution: North America (Panama), South America (Venezuela).
Hosts: *Hirtella triandra*.
References: (tx) Wood, S. L. 1974a: 34.
- crinitus** Schedl 1962j: 301. Holotype ♀; Congo Belge; Hembe-Bitale; Schedl Collection in NHMW, Wien.
Distribution: Africa (Nigeria/Zaire).
Hosts: *Anthonotha* sp., *Garcinia* sp., *Lovoa trichilioides*.
References: (tx) Schedl 1962j: 301, 1979c: 69.
nigericus Browne 1970: 572. Holotype ♀; Nigeria: Boshi Extension Forest Reserve, 5000 ft.; BMNH, London. Synonymy: Schedl 1972p: 155, Wood 1989: 176.
References: (tx) Browne 1970: 572; Schedl 1972p: 155.
- cruciatus** Schedl 1973c: 90. Holotype ♀; Vanapa River, Central District [New Guinea]; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Dracontomelum* sp.
References: (tx) Schedl 1973c: 90, 1979c: 70.
- cryptographus** (Ratzeburg) 1837: 160 (*Bostrichus*).
Syntypes ♀; presumably sudlichen Deutschland; not located.
Figures: Balachowsky 1949a: 226, 231, Grune 1979: 157, Pfeffer 1989a: pl. 8.
Distribution: Asia (Siberia in E USSR), Europe (Austria/ Czechoslovakia/ Denmark/ Finland/ France/ Germany/ Greece/ Hungary/ Norway/ Poland/ Sweden/ W USSR).
Hosts: *Populus* spp.
References: (ay) Escherich 1923b: 488; Feytaud 1950a; Klimesch 1914: 215; Numberg 1928: 140. (bv) Grune 1979: 157; Meixner 1937: 1217; Nuorteva 1956c: 58. (cn) Escherich 1923b: 488; Esterberg 1959; Feytaud 1950a; Grandi 1951; Kontkanen 1932: 63; Kovacevic 1957: 69; Muller 1912: 186; Nusslin 1913: 286; Rhumbler 1922: 328, 1927: 345; Schimitschek 1937c: 53; Wachtl 1901: 381; Wichmann 1927b: 360. (ce) Balazy & Michalski 1960; Bukowski 1930; Heqvist 1963: 155; Hirschmann & Wisniewski 1982, 1983; Jammicky 1957b: 20; Kangas 1940a, 1941, 1942a; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 219, 1909a: 49, 77, 1944: 72; Lundberg 1984; Neger 1911a: 50; Nosek 1959a: 118, 1959b: 87; Nuorteva 1957b: 68; Nusslin 1927: 345; Palmén 1946: 195; Pfeffer 1928b: 2, 1943b: 181; Pfeffer & Prhoda 1950: 3; Ruhn 1956b: 4; Sedlacek 1935a: 162; Slaby 1947: 375; Tudor 1969: 34; Vite 1952a: 107. (hb) Altum 1881c: 322; Bach 1864; Barbey 1901: 27, 105; Eggers 1899c: 291, 1908d; Eichhoff 1881a: 53, 276; Escherich 1923b: 488; Feytaud 1950a; Cornostaev 1916: 314; Grandi 1951; Gyorfi 1957; Henschel 1895a: 191; Karpinski 1933b: 30; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Lekander 1963b; Lengerken 1954: 311; Mjoberg 1906: 137-142; Nosek 1959a: 118, 1959b: 87; Numberg 1929a: 110, 1929c: 121; Nuorteva 1956c: 58; Nusslin 1898: 275, 1913: 256, 1927: 345; Pfeffer 1942a: 3; Postner 1974: 465; Ratzeburg 1837: 130, 167, 1839: 157; Rhumbler 1922: 328, 1927:

- 345; Rupertsberger 1880: 232; Sedlacek 1935a: 162; Spessivtsev 1913a: 99; Stark 1926a: 336, 1952: 431; Vite 1952a: 107; Wachtl 1876a: 453, 1901: 381; Wichmann 1927b: 360. (**ds**) Aeloque 1896; Andersch 1851; Barthe 1896; Bau 1888; Bedel 1888b; Bejer-Petersen & Jorunn 1977: 24; Benick 1921; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 206; Brancsik 1871, 1906; Butovitsch & Heqvist 1947; Calver 1884, 1893; Carpentier & Delaby 1908; Chapuis & Candeze 1853; Dombrowsky 1887; Eggers 1904; Endrodi 1958b, 1981: 184; Escherich 1923b: 488, 1932b; Esterberg 1959; Eyquem 1891; Fjellberg 1966: 154; Gaubil 1849: 126; Gemminger & Harold 1872: 2687; Gomostaev 1917: 308-315; Gozis 1875: 80; Grune 1979: 156-157; Hagedorn 1910d: 101; Hansen, V. 1939, 1956, 1964: 463; Hellen 1947; Henschel 1895a: 191; Heyden 1876: 301; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Horion 1951, 1956: 123; Jansson 1935: 77; Jazentkovsky 1912: 292; Kangas 1940: 32-34, 1941: 359-365; Karpinski 1925: 216, 1931: 28, 1933b: 30; Karpinski & Strawinski 1948: 156; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 268, 1913a: 36, 1913b: 160, 1934a: 172; Kontkanen 1932: 68; Kovacevic 1957: 69; Kozikowsky 1921: 181; Kraatz 1869: 59; Krogerus 1925: 45; Kurenzov 1936b: 350; Lacordaire 1866: 381; Langhoffer 1915c: 158; Lekander 1963b: 96; Lentz 1857: 139; Lomnicki 1913b: 148; Lucht 1987: 279; Lundberg 1988; Lundblad 1950c: 117; Mahler 1987: 232; Mequignon 1938: 183-185; Negru 1966b: 402, 1968a: 456; Nunberg 1928b: 88, 110, 1954: 61, 1960b: 157; Nusslin 1898: 275; Palm 1959: 24, 353; Palmen 1946: 195; Pfeffer 1924a: 96, 1928b: 2, 1931b: 73, 1935: 159, 1989a: 87, pl. 8; Pittioni 1943: 176; Postner 1974: 465; Rapp 1934: 735; Ratzeburg 1837: 130, 167, 1839: 157; Redtenbacher 1858: 835, 1874: 380; Reitter 1869b: 155, 1894a: 91, 1916: 395; Roubal 1941: 274; Saalas 1931: 67; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1238; Schaum 1859: 96, 1862: 101; Schedl 1980a: 19, 1981b: 94; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 189; Seidlitz 1872: 397, 1891a: 567, 1891b: 613; Stark 1926a: 336, 1926b: 104, 1926j: 127, 1927b: 89, 1931a: 26, 1936e: 142, 1952: 411; Stein 1868: 114; Stein & Weise 1877: 165; Tredl 1907: 19; Tressens 1952: 90; Tvenmyr 1960: 121; Wachtl 1876a: 453; Wanka 1915: 213; Wichmann 1927a: 70. (**tx**) Aeloque 1896; Bach 1854, 1864; Balachowsky 1949a: 224-226; Barbey 1901: 27, 105; Bedel 1888b; Bertolini 1872; Brancsik 1871; Carpentier & Delaby 1908; Chapuis & Candeze 1853; Dombrowsky 1887; Eggers 1927a: 189, 1927b: 401, 1930d, 1933f: 54; Eichhoff 1864b: 39, 1878b: 337, 1881a: 53, 276, 1883a: 115, 141; Endrodi 1957b; Escherich 1923b: 488; Fauvel 1889; Ferrari 1867a: 28, 31, 1867b: 114; Fleischer 1905, 1927; Formanek 1907: 53; Grune 1979: 157; Hagedorn 1910a: 153; Hansen, V. 1956, 1964: 463; Henschel 1895a: 191; Jacquelin du Val & Fairmaire 1868: 109; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1060; Lacordaire 1866: 381; Letzner 1891: 377; Lucht 1987: 279; Lundberg 1988; Meixner 1937: 1217; Negru 1966b: 402; Nunberg 1928a: 140, 1929c: 121, 1954: 61; Pfeffer 1932b: 21, 1942a: 3, 1955a: 195, 1989a: 87, p. 8; Portevin 1935: 330; Postner 1974: 465; Quaschik 1953: 35; Ratzeburg 1837: 130, 167, 1839: 157; Redtenbacher 1849: 790, 1858: 835, 1874: 380; Reitter 1894a: 91, 1913a: 83, 1916: 295; Rhumbler 1922: 328, 1927: 345; Rupertsberger 1880: 232, 1927: 345; Schedl 1934f: 1646, 1958f: 35, 1980a: 19, 1981b: 94; Schimitschek 1937c: 53-57; Schlechtendal & Wunsche 1879: 126; Seidlitz 1872: 397, 1891a: 567, 1891b: 613; Spessivtsev 1913a: 98-99, 1922a: 477, 491; Stark 1952: 431; Tieffenback 1860: 321. (**ms**) Escherich 1932b.
- villosus* Ratzeburg 1837: 160 (*Bostrichus*). Syn-types ♂; presumably sudlichen Deutschland; not located. Synonymy: Balachowsky 1949a: 226.
- References: (**ds**) Schilsky 1909: 189. (**tx**) Balachowsky 1949a: 226; Letzner 1891: 377; Ratzeburg 1837: 160.
- cuneiformis** Schedl 1958b: 104. Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 71. Distribution: Asia (Malaya). Hosts: *Shorea* spp. References: (**hb**) Browne 1961c: 123. (**ds**) Schedl 1971c: 364. (**tx**) Schedl 1958b: 104, 1979c: 71.
- cuneipennis** Schedl 1950d: 31. Holotype ♀; Congo Belge, Elisabethville; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 12, figs. 1-4. Distribution: Africa (Angola/ Tanzania/ Zaire). References: (**hb**) Loyttyniemi, Beaver, & Loyttyniemi 1984. (**ds**) Beaver & Loyttyniemi 1985a: 74; Ferreira 1965: 1122; Schedl 1959p: 20, 1962j: 286. (**tx**) Nunberg 1963b: 28, pl. 12; Schedl 1950d: 31, 1957e: 882, 1962j: 286, 1979c: 71.
- cuneolus** Eggers 1927c: 92. Holotype ♀; Philippines: Luzon, Prov. Laguna, Mt. Maquiling; USNM, Washington. Distribution: Philippine Islands (Luzon). References: (**ds**) Schedl 1966b: 50. (**tx**) Anderson, W. H. & Anderson 1971: 10; Eggers 1927c: 92-93, 1930d: 203, 1940d: 150; Nobuchi 1983: 302.
- curtidentis** Schedl 1961e: 156. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Ocotea laevis*. References: (**tx**) Schedl 1961e: 156, 1977b: 207, 1979c: 72.
- curvatus** Browne 1986a: 98. Holotype ♀; New Guinea: Fak fak to Nagoya, Japan, imported; BMNH, London.

- Distribution: New Guinea.
Hosts: *Hopca* sp. log.
References: (tx) Browne 1986a: 98.
- cyclopus** Schedl 1940b: 440. Holotype ♀; Dutch New Guinea, Cyclops Mts., Mt. Lina, 3500–4000 ft.; BMNH, London.
Distribution: New Guinea.
Hosts: *Heritiera trifolia*.
References: (tx) Schedl 1940b: 435, 440–441, 1979c: 73.
- cylindromorphus** Eggers 1927: 96. Lectotype ♀; Philippines: Mindanao, Prov. Surigao, Surigao; USNM, Washington, designated by Anderson & Anderson 1971: 11.
Figures: Nobuchi 1978a: pl. 2.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Mindanao).
Hosts: *Balanocarpus heimii*, *Shorea maxwelliana*.
References: (ds) Beaver & Browne 1978: 607; Browne 1961c: 157, 1980c: 483; Nobuchi 1978a: 13, 20; Schedl 1965g: 24, 1966b: 50. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1927c: 96–97; Nobuchi 1978a: pl. 2, 1983: 302; Schedl 1933d: 192, 200, 1965g: 24, 1979c: 74.
- cylindrus** Schedl 1951i: 94. Lectotype ♀; Birma (?); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 74.
Distribution: Asia (Burma).
References: (tx) Eggers 1927b; Schedl 1951i: 94, 1979c: 74.
- darwinii** Schedl 1972a: 148. Holotype ♀; Northern Territory: Darwin [Australia]; Schedl Collection in NHMW, Wien.
Distribution: Australia (Northern Territory).
References: (tx) Schedl 1972a: 148, 1979c: 75.
- declivis** Eichhoff 1869a: 280. Holotype ♀; Teapa, Tabasco, Mexico; Hamburg Museum, lost.
Figures: Nunberg 1959a: pl. 19, figs. 1–2.
Distribution: North America (Costa Rica/ Guatemala/ Tabasco, Veracruz in Mexico), South America (Guyana).
Notes: (1) Schedl 1979c: 76 (neotype designation invalid).
References: (hb) Wood, S. L. 1982b: 840. (ds) Atkinson & Equihua 1986a: 421, 1988: 102; Blackwelder 1947: 779; Blandford 1898b; Ferrer 1942; Gemminger & Harold 1872: 2685; Hagedorn 1903b: 546, 1910d: 161; Kleine 1913b: 160, 1914b: 355, 372; Schedl 1966f: 77, 1972g: 38; Wood, S. L. 1982b: 840. (tx) Blandford 1898b; Eichhoff 1869a: 280, 1878b: 401; Hagedorn 1903b: 546, 1910a: 153; Nunberg 1959a: 422; Schedl 1940a: 361, 1950i: 147, 1951a: 461, 1962p: 207, 1979c: 76; Wood, S. L. 1972e: 197, 1982b: 840.
- pseudoprocer** Schedl 1948f: 279. Holotype ♀; Guatemala; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 197.
- References: (tx) Schedl 1948f: 279, 1979c: 201; Wood, S. L. 1972e: 197.
- decumans** Schedl 1953c: 301. Lectotype ♀; Malaya, Kelantan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 76.
Distribution: Asia (Malaya).
Hosts: *Dipterocarpus kunstleri*, *Shorea* spp.
References: (tx) Browne 1961c: 150. (ds) Browne 1961c: 150, 1986b: 333; Nunberg 1961b: 610. (tx) Schedl 1953c: 301, 1959a: 508, 1979c: 76.
- defensus** Blandford 1894d: 118. Holotype ♀; Japan, Sapporo; BMNH, London.
Figures: Nakane et al. 1963: pl. 192 (adult).
Distribution: Asia (Japan).
References: (bv) Choo, Woo, & Park 1988. (cn) Murayama 1954a: 25. (ds) Blandford 1894c; Choo, Woo, & Park 1988; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 260; Murayama 1936a: 132, 1954a: 24–25, 1954b: 177, 1955: 104; Nakane et al. 1963: 384; Nobuchi 1985c: 24. (tx) Blandford 1894d: 118; Eggers 1927c: 96; Hagedorn 1910a: 53; Murayama 1934c: 299, 1936a: 132, 1954b: 177, 1955: 104; Nakane et al. 1963: 384, pl. 192; Niisima 1909: 163; Schedl 1934f: 1646.
- deformatus** Browne 1974a: 70. Holotype ♀; Fiji: Viti Levu, Nandarivatu; BMNH, London.
Distribution: Fiji Islands.
References: (ee) Roberts 1977a: 255. (hb) Roberts 1977a: 255. (ds) Browne 1974a: 65, 70; Roberts 1977a: 255.
- demissus** Wood 1974a: 40. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Small log.
References: (ds) Wood, S. L. 1982b: 822. (tx) Wood, S. L. 1974a: 40, 1982b: 822.
- densatus** Schedl 1979g: 106. Holotype ♀; Papua [New Guinea]: Bulolo, Morobe Dist., Upper Manki L. A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 106.
- denserius** Eggers 1941b: 225. Holotype ♀; Fukien (Kuatun, 2300 m); Alexander König Museum, Bonn.
Distribution: Asia (Fujian in China).
References: (tx) Eggers 1941b: 225.
- densicornis** Schedl 1957d: 95. Holotype ♀; Congo Belge: Hembe-Bitale, MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 12, figs. 5–8.
Distribution: Africa (Zaire).
Hosts: *Lovoa trichilioides*.
References: (hb) Schedl 1962j: 302. (ds) Schedl 1962j: 302. (tx) Nunberg 1963b: 29, pl. 12; Schedl 1957d: 95, 1962j: 302.
- dentatulus** Browne 1981a: 131. Holotype ♀; Kamdaru (New Ireland) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.

- References: (ds) Ohno, Yoshioka, et al. 1988a: 93, 1989: 61. (tx) Browne 1981a: 131.
- dentatus Blandford** 1895a: 323. Syntypes ♀; Ceylon, Dikoya, Hadley tea Estate and Bogawantalawa, 4900–5200 ft.; BMNH, London. Distribution: Asia (India/ Malaya/ Sri Lanka). Hosts: *Gordonia zeylanica*. References: (cn) Kalshoven 1954: 13; Mathur & Singh 1960b: 20. (hb) Browne 1941. (ds) Beeson 1961: 304; Browne 1961c: 154; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 274; Mathur & Singh 1960b: 20; Schedl 1936j: 20, 1959a: 508. (tx) Blandford 1895a: 323; Hagedorn 1910a: 153; Schedl 1959a: 508, 1960b: 108.
- dentipennis Browne** 1983a: 558. Holotype ♀; Tatau (Sarawak) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). Hosts: Seraya log. References: (ds) Browne 1983a: 558, 1986a: 89; Ohno, Yoneyama, & Nakazawa 1982b: 8.
- deplanatulus Schedl** 1950f: 53. Holotype ♀; Fiji; Eggers Collection, in NHMW, Wien. Distribution: Fiji Islands. Hosts: *Schefflera* sp. References: (ds) Browne 1974a: 65. (tx) Schedl 1950f: 53, 1979c: 78.
- duplex Browne** 1974a: 68. Holotype ♀; Fiji: Viti Levu, Nandarivatu; BMNH, London. Synonymy: Schedl 1980: 121. References: (ce) Roberts 1977a: 256. (hb) Roberts 1977a: 256. (ds) Browne 1974a: 65; Roberts 1977a: 256. (tx) Browne 1974a: 65–68; Schedl 1980: 121.
- deplanatus Eggers** 1933b: 32. Holotype ♀; Franz. Guayana (Charvein, Nouveau Chantier, St. Laurent du Maroni, Les Hattes); MNHN, Paris. Distribution: South America (Cayenne). Hosts: *Talisia* sp. References: (ds) Blackwelder 1947: 779. (tx) Eggers 1933b: 33; Schedl 1948f: 273; Wood, S. L. 1972e: 197.
- longideclivis Wood** 1968b: 1. Holotype ♀; Bartica triangle, British Guiana; BMNH, London. Synonymy: Wood 1972c: 197. References: (tx) Wood, S. L. 1968b: 1, 1972c: 197.
- depressurus Browne** 1985a: 192. Holotype ♀; Pomio (New Britain) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Moluccas), New Britain Island. Hosts: *Agathis* sp., *Celtis* sp. References: (ds) Ohno, Yoneyama, & Nakazawa 1987: 94; Ohno et al. 1989: 61. (tx) Browne 1985a: 192.
- derelictus Hagedorn** 1910b: 12. Holotype ♂; Ostafrika; MNB, Berlin. Distribution: Africa (Tanzania). References: (ds) Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 323. (tx) Hagedorn 1910a: 153, 1910b: 12; Schedl 1962j: 576.
- desertus Schedl** 1971c: 379. Holotype ♀; Timor: Pimao, 1200 m; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Timor Island). Notes: (1) The holotype is damaged, only abdomen, hind wings, and legs remain (DEB). References: (tx) Schedl 1971c: 379–380, 1979c: 78.
- despectus Schedl** 1975j: 294. Holotype ♂; Malaisia, Selangor, Kuala Lumpur; MHNG, Geneva. Distribution: Asia (Malaya). Notes: (1) Possible synonymy notation; Schedl Collection paratypes marked male are actually female *Coccotrypes gedeanus*. References: (tx) Schedl 1975j: 294, 1979c: 79.
- detectus Schedl** 1975a: 458. Holotype ♀; Dong Dang [Vietnam]; Schedl Collection in NHMW, Wien. Distribution: Asia (Vietnam). Hosts: *Pinus massoniana*. References: (tx) Schedl 1975a: 458, 1979c: 79.
- detritus Eggers** 1927b: 402. Holotype ♀; Java; Eggers Collection, in NHMW, Wien. Distribution: Indonesia (Java). References: (tx) Eggers 1927b: 402–403; Schedl 1931c: 341–342, 1954c: 160, 1979c: 79.
- devius Schedl** 1979g: 106. Holotype ♀; Papua [New Guinea]; Bulolo, Morobe Dist., Upper Manki L. A.; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1979g: 106.
- dichrous Eichhoff** 1868c: 144. Holotype ♀; Brasilia; Hamburg Museum, lost. Distribution: South America (Brazil/ Guyana). References: (ds) Blackwelder 1947: 779; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 337; Sampson 1921: 33. (tx) Eggers 1933b: 35; Eichhoff 1868c: 144, 1875: 202; Hagedorn 1905a: 412, 1908, 1910a: 153; Sampson 1921: 32–33.
- diglyptus Schedl** 1956a: 33. Holotype ♀; British Cameroons, Mt. Cameroon, Buea Slope; CAS, San Francisco. Distribution: Africa (Cameroon). References: (tx) Schedl 1956a: 33, 1962j: 493, 1964f: 622, 1979c: 80.
- dimidiatus Eggers** 1927b: 404. Holotype ♀; Perak [Malaya]; USNM, Washington. Distribution: Asia (Malaya). References: (hb) Browne 1961c: 150. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1927b: 404.
- discrepans Schedl** 1950d: 29. Syntypes ♀; D. Ost. Afrika, Usimbara, Kwai; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ivory Coast/ Kenya/ Principe Island/ Sao Tome Island/ Tanzania).

References: (ds) Schedl 1962j: 259, 1979b: 416. (tx) Schedl 1950d: 29, 1962j: 259, 1979c: 82.

discretus Eggers 1933b: 29. Holotype ♀; Marcapata, Peru; USNM, Washington.

Distribution: North America (Costa Rica/ Chiapas in Mexico), South America (Cayenne/ Guyana/ Peru/ Venezuela).

Hosts: *Alexa imperatrix*.

References: (hb) Wood, S. L. 1982b: 818. (ds) Atkinson & Equihua 1986a: 421; Blackwelder 1947: 779; Wood, S. L. 1982b: 818. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1933b: 29–30; Schedl 1952h: 70; Wood, S. L. 1972c: 197, 1982b: 818.

usticus Wood 1968b: 3. Holotype ♀; Bartica Dist., British Guiana; BMNH, London. Synonymy: Wood 1972c: 198.

References: (tx) Wood, S. L. 1968b: 3, 1972c: 198.

dispar (Fabricius) 1792: 363 (*Apatc*). Syntypes 3 ♀; Germania; UZMC, Copenhagen.

Figures: Balachowsky 1949a: 222, 228, 1963a: 1283, Bevan 1987: 116, Burton et al. 1968: 191, Chararas 1962c: 317, Duffy 1953: 15, Grune 1979: 156, Pfeffer 1989a: pl. 7, Postner 1974: 462, Reisch 1966b: 172.

Distribution: Asia (Heilongjiang in China/ India/ Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), North America (introduced: British Columbia, Nova Scotia, Ontario in Canada/ District of Columbia, Idaho, Illinois, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, Utah, Virginia, Washington, West Virginia in USA).

Hosts: *Acer* spp., *Aesculus* spp., *Alnus* sp., *Betula* spp., *Carpinus turezaninowii*, *Castanea dentata*, *Celtis* sp., *Corylus* spp., *Crataegus* sp., *Fagus* sp., *Fraxinus mandschurica*, *F. sp.*, *Gleditsia* sp., *Ilex* sp., *Juglans* spp., *Liriodendron* sp., *Malus* spp., *Pinus* sp., *Plananus* sp., *Populus* spp., *Prunus* spp., *Punica* sp., *Pyrus communis*, *Quercus* spp., *Rosa* spp., *Salix* spp., *Sorbus alnifolia*, *Tsuga* sp., *Vitis* spp.

References: (ay) Batra 1963b: 227; Bugnion 1887b; Chapman 1904; Escherich 1923b: 466, 487, 633; Feytaud 1950a; Finnegan 1963: 137; Fisher 1954; Francke-Grosman 1956b, 1956c, 1957, 1958: 141; French, J. R. J. & Roeper 1973; Hadorn 1933; Happ, Happ, & French 1976; Hopkins 1943; Imhoff 1856: 228; Leisewitz 1906: 104; Lhoste & Roche 1960; Murayama 1933a: 3; Nosek 1958a: 87; Numberg 1928a: 140; Nusslin

1911a: 338, 89; Schneider 1976; Schneider-Orelli 1911: 186, 1912: 279, 1913: 25–110, 1915: 65–67, 1916: 5–21; Schwerdtfeger 1929: 360; Sedlaczek 1902b: 244; Uchastnova 1958: 39. (bv) Daterman, Rudinsky, & Nagel 1965; Grune 1979: 157; Klimetzek et al. 1986: 270; Kovach 1986a; Magena, Gasper, & Severin 1982; Meixner 1937: 1216; Schroeder & Lindelow 1989. (cn) Acatay 1943a: 71; Ahlberg 1942; Alkan 1959b: 196; Altum 1880a; Anonymous 1878b: 398, 1896c: 28, 1931b: 325, 1940b: 8, 1962h, 1978u; Balachowsky 1963a: 1282; Barbey 1901: 104, 1902: 167, 1906d, 1925: 617; Beauverie 1912, 1913; Becker 1950; Berlese 1915; Blandford 1892b; Boocock 1959d; Bovier & Thomsen 1950: 156–157; Brandt 1952, 1957, 1960: 136; Britton 1899, 1916, 1917: 140; Brooks 1917: 1–15; Browne 1968: 714; Bud 1972; Cermack 1938; Champion 1923; Chararas 1957e; Chittenden 1895: 385, 1902; Chorbadzhievo 1929; Collinge 1915: 789–791; Eckstein 1915, 1921, 1926: 572; Egger, A. 1973; Egorov 1958: 1492; Eichhorn & Graf 1974; Engel 1949; Escherich 1923b: 466, 487, 633; Essig 1926: 520, 1958: 520; Esterberg 1959; Falck 1916: 168; Felt 1906: 446; Felt & Bromley 1937a; Feytaud 1950a; Fisher 1937a, 1952a; Fletcher 1887: 14, 1898, 1905: 240; Froggatt 1899, 1900; Gabler 1955; Garcia-Tejero 1955: 235; Gentry, J. W. 1965: 134; Geschwind 1919; Gossard 1911: 97, 116, 1913: 65, 1914: 12; Gradojevic 1938; Grandi 1951; Grill 1899; Groschke 1952b: 297, 1953: 81; Guse 1885; H. S. 1907; Hagedorn 1910c; Hahmann 1937: 140, 1938: 116; Harris 1843a, 1843b; Hartig 1872b, 1877: 195; Harvey & Munson 1899: 107–114; Hatch 1938: 194; Hauptfleisch 1930: 56; Henoa 1958; Herfs 1950: 7; Hesjedal & Edland 1988; Hess 1900: 40, 1907: 240, 259; Hess & Beck 1914: 288, 1927: 344; Hill, D. S. 1987: 341; Hoffmann 1913: 218–220, 1916: 260; Hopkins 1894b: 295, 1894g: 278; Houba 1913: 252; Hubbard 1897b: 22–23; Ihssen 1907: 14–18; Jary & Austin 1937: 9–15; Joakimov 1925: 65; Johannsen 1910: 41, 1912: 363, 1913: 1–18; Johannsen & Patch 1910: 328, 1911: 235; Judeich & Nitsche 1895: 546; Kamp 1954: 4; Kanschinger 1893: 192; Kholodkovskii 1912: 279, 1912: 320; Kleine 1932a: 308; Kobakhidze 1960: 1851; Koch 1956; Kollar 1840: 254; Konig, E. 1957: 111; Koppa 1962; Koppen 1882: 252; Kotte 1941: 64, 1948: 70, 1958: 117; Kovacevic 1957: 69; Kovach 1986a; Kovach & Gorsuch 1985; Kristek 1966; Kurir 1953: 1–4, 1955: 1–4, 1957: 1–4; Lampa 1902: 112; Leach 1940b: 59; Lekander, M. 1951: 108; Lindblom 1938: 29; Lovett 1920: 55–57, 1921: 127, 1923: 5; Luggler 1899: 85–331; Luitjes et al. 1954: 118; Lundberg 1956b: 128; Lustner 1913a: 5, 1913c: 1; Majernik 1957: 72; Maksimovic 1959: 3–13; Marcu 1926c: 64; Miller & Thompson 1937: 12; Muller 1912: 186; Muller-Thurgau et al. 1917: 416–426; Noll 1938: 43; Novak, V., Hrozinka, & Stary 1976: 87;

- Nusslin 1913: 204; O'Kane 1914: 249; Ormerod 1889a: 145, 1889b: 92, 1898: 185; Osterwalder 1921: 8; Paillot 1926: 838; Palm 1951: 233; Patch & Johannsen 1916: 8; Pelekassis 1962; Philipp 1950: 225; Picard 1921: 15; Reisch 1966a: 120-122, 1966b: 171-180; Reisinger 1947a: 211; Reissig 1949: 131; Reuter 1902: 18; Rhumbler 1922: 328, 1927: 343; Riley & Howard 1895: 419; Ritzema 1915: 301-331; Rodary 1959: 852; Roediger 1956: 36; Rossem 1954: 247, 1957: 57; Rutherford 1914b: 221; Saalas 1949: 343, 378; Savary 1946: 94; Schaal 1922: 205; Schimitschek 1935b: 147, 1936c, 1937c: 53, 1938c: 2119, 1939a: 458, 1939d: 2119, 1944: 179, 1955a: 136, 1955c: 85; Schmidt 1881: 55; Schneider-Orelli 1907: 289, 1915a: 66, 1915b: 47, 1917a: 5, 1917b: 463, 1938: 293, 1946: 318; Schock 1879: 367; Schoyen 1916: 32; Schreier 1950: 393; Schruft 1963: 410-419; Schuster 1918: 101; Schvester 1951b: 3, 1952b: 1, 1952c: 3, 1953: 1, 1954a: 225-257, 1954b: 9, 1956: 35; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 185, 1957a: 190; Slingerland & Crosby 1914: 232; Smith, J. B. 1900: 362; Soenen 1966: 149; Soenen & Paternotte 1972; Solinal 1966; Spirchez 1965; Stehli 1911: 475; Stephan 1952: 10; Strohmeier 1906b: 330; Swaine 1910: 58; Taraschkewitsch 1934: 357; Theobald 1909: 367; Thompson 1946: 90-91; Tullgren 1916: 104; Vappula 1962: 123; Vasseur & Schvester 1948: 86, 1953: 167; Vaysiere 1920: 342; Vigiani 1943: 100; Vrydagh 1955a: 111; Wachtl 1901: 381; Wahl 1914: 1-4; Warburton 1917: 209-219; Weber, H. 1926: 572; Wichmann 1927b: 354, 360, 1957a: 95; Wilson 1913: 97-105, 1915: 6, 46-50; Wilson, C. F. & Becker 1960: 87; Wolff & Krause 1922: 91; Wood, C. D. 1897: 78; Wood, S. L. 1977a: 73; Zimigiebl 1901: 58; Zurn 1902: 19, 27; Zwolfer 1949: 401. (ec) Annila 1977; Apel 1983; Ashe 1934; Baert & Maelfait 1977; Balazy & Michalski 1960, 1964b; Barbey 1902: 167; Batra 1963a, 1963b: 216; Batra & Michie 1963: 476; Beanverie 1910a, 1910b; Brammanis 1940; Buchner 1928, 1949; Dereksen 1941; Eichhorn & Graf 1974; Felt 1906: 446; Finnegan 1963: 137; Fisher 1954; Francke-Crosmann 1956b, 1956c, 1957; French, J. R. J. 1972; French, J. R. J. & Roeper 1972a, 1972b, 1973, 1975; Fuchs 1914b; Fuller 1958: 98; Gyorfi 1941b; Hagedorn 1907c; Hartig 1844; Heliovaara & Lilja 1989; Heqvist 1963: 155; Hesjedal & Edland 1988; Janka 1908; Joly 1949a: 10; Kabir & Gilese 1966b: 894; Kharazishvili 1957: 693; Kleine 1908c: 219, 1909a: 49, 1944: 76; Klimesch 1914c: 59; Knauer 1908: 500; Kobakhidze 1960: 1851; Kostenko 1929; Leach 1940b: 59; Leach et al. 1940: 227; Michalski & Ratajczak 1989; Mote 1935: 1-6; Neger 1908b: 279, 1908c: 276, 1908d: 322, 1909a: 374, 1909b: 408, 1911a: 50, 1911b: 223, 1915: 45; Nikitsky 1978; Norris 1979; Nosek 1956: 204, 1959a: 118, 1959b: 85; Novak 1952: 417; Nusslin 1927: 345; Palmen 1946: 195; Peklo et al. 1950: 191; Perris 1856a: 244; Pfeffer 1923a: 331, 1928b: 2, 1943b: 179; Pfeffer & Prihoda 1950: 3; Poinar 1975: 170; Ratzeburg 1869a: 176; Reiche 1966; Rodary 1959: 852; Roeper & French 1981; Ruhm 1955d: 70, 1956b: 4; Ruschka 1923: 201; Russ 1966; Saalas 1949: 343, 378; Scheerpeltz & Hoffer 1948: 280; Scheidter 1936: 236; Schimitschek 1936a: 558, 1939: 449-461, 1941a: 315, 1955a: 136; Schneider 1976; Schneider-Orelli 1911: 186, 1912a: 324, 1912b: 279, 1913: 25-110; Schoyen 1914: 31-58, 1915: 37-92, 1916: 32, 1918; Schuster 1918: 101; Schvester 1950: 48, 1952: 1-9, 1954a: 225-257, 1954b: 9-12, 1955: 225-257; Schwerdtfeger 1927: 360, 1944a: 185, 1957a: 190; Sedlaczek 1915a: 45, 1935a: 162; Silvestri 1911: 396; Slaby 1947: 375; Speyer 1937: 30; Steinhaus 1946: 402, 1949: 92; Theobald 1914: 1-158, 1915; Thompson, W. R. 1943: 117; Turnau 1984; Uchastnova 1988: 39; Umnov 1958: 50-52; Vasseur & Schvester 1953: 167-172; Verrall 1943: 141; Vite 1952a: 103-104; Webb 1945: 64; Wichmann 1955a: 95; Yanovskii 1977b; Zimmermann 1908b: 717; Zimmermann, G. 1973. (hb) Acatay 1943a: 71-73; Ahlberg 1942; Alkan 1959b; Altum 1877, 1879c, 1879d, 1881c: 319; Anca 1961; Annila 1977; Anonymous 1878b: 398, 1934a: 747; Apel 1983; Ashe 1934: 94; Bach 1864; Baeta Neves 1943a; Balachowsky 1963a: 1255; Balachowsky & Mesnil 1935: 22; Barbey 1901: 27, 104, 1906d, 1913, 1925: 617, 1942; Bargmann 1899d: 8; Baudys 1929; Becker 1950; Beeson 1916a; Beffa 1961; Bellovoje 1894: 89-111, 1898, 1900: 89-111; Berlese 1915; Blandford 1892b; Boas 1923: 361; Bonnemaion 1953; Brandt 1960: 136; Bright 1976d: 134; Bright & Stark 1973: 76; Britton 1899; Browne 1968: 714; Budge 1949; Budkov 1897; Bugnion 1887b; Bukowsky 1930; Buysson 1910; Cairaschi & d'Agiler 1957; Ceconi 1903, 1924; Cermak 1938; Chamberlin 1958: 185; Chapman 1904: 100-102; Chararas 1957e, 1962c: 318; Chorbadzhievo 1929; Daterman, Rudinsky, & Nagel 1965; Deyrup & Atkinson 1987a: 65; Dombrowsky 1887; Drooz 1985: 373; Dyakowski 1911; Eckstein 1889, 1897, 1915, 1921, 1926: 572; Egger, A. 1973; Eichhoff 1881a: 53, 269, 1882a: 245, 1882c: 705; Eichhorn & Graf 1974; Escherich 1923b: 466, 487, 633; Essig 1926: 520, 1958: 520; Everts 1902, 1903: 769; Falek 1916: 168; Felt 1900: 446; Feytaud 1950a; Fisher 1936a, 1952a, 1954; Floericke 1924; French, J. R. J. & Roeper 1975; Froggatt 1899, 1900; Fuchs 1904a; Furniss, M. M. & Johnson 1987: 380; Furst 1888: 113; Gabler 1955; Gerhard 1908; Gillanders 1908; Comostaev 1916: 314; Graber 1879: 130; Grandi 1951; Granlund 1921; Groschke 1952a, 1952b, 1953a; Gyorfi 1936: 526, 529, 1957; Hadorn 1933; Hagedorn 1903a, 1910c; Hartig 1872b, 1877: 195; Henschel 1876a: 210, 240, 1895a: 191; Hesjedal & Edland 1988; Hess 1900: 40, 1907: 240, 259; Hess & Beck 1914: 288,

- 1927: 344; Hilter 1909; Holmgren 1867: 115, 136; Hopkins 1894g, 1898b: 26; Hubbard 1897b: 22; Husson 1955: 354; Iknoevich, Matesova, & Mitisev 1958: 353; Jacobi 1906: 148; Joly 1949a: 10, 1950; Judeich & Nitsche 1895: 5-6; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Kauschinger 1893: 192; Kholodkovskii 1912: 279; Kleine 1932a: 308; Kleinert 1980: 68; Knotek 1894a: 559, 1899b: 18, 1901: 575; Kollar 1840: 254; Konig, E. 1957: 111; Koppa 1962; Kostin 1960: 136; Kotte 1941: 64-65; Kovach 1986a; Kozikowsky & Nunberg 1925: 135; Krivolutskaya 1960: 78; Lengerken 1939: 35, 1954; Lepiney & Mimeur 1932: 45; Lesne 1917: 222-224; Liese 1950: 141; Lindemann 1875a: 138; Lovett 1923: 5; Lunardonì & Leonardi 1889: 481; Lustner 1913a: 5; Madon 1930: 98; Magena, Casper, & Severin 1982; Majernik 1957: 72; Marcu 1941: 403; Masutti 1964; Miestinger 1914: 183; Mjoberg 1906: 137; Morstatt 1924: 39; Munro 1926: 57; Nordlinger 1855: 180, 1856: 34, 1869: 229; Nosek 1956: 204, 1959a: 118, 1959b: 85; Novak, V., Hrozinka, & Stary 1976: 87; Nusslin 1898: 283, 1913: 204, 1927: 345; Ormerod 1889a: 145, 1889b: 92, 1890: 330-334, 1898: 185; Osterwalder 1921: 8; Palm 1951: 233, 1953a: 14; Perris 1856a: 244; Petrenko 1966; Pfeffer 1942a: 3; Postner 1974: 461; Ratzeburg 1837: 130, 169, 1839: 157, 204; Reichardt 1907: 830; Reisinger 1947a: 211; Rhumbler 1922: 328, 1927: 343; Riley 1889: 145, 1890a: 279, 1892: 17; Roediger 1956: 36; Rupertsberger 1880: 232; Saalas 1913a: 67, 85, 1949: 343, 378; Scheidter 1936a: 236; Schimitschek 1939a: 458, 1944: 179, 1955a: 136; Schmidt 1881: 55; Schneider-Orelli 1913: 25-110, 1947b: 157; Schoch 1878: 367, 387; Schwester 1954a: 225-257, 1954b: 9; Schwappach et al. 1929: 186; Schwarz 1890: 41, 1891d: 62; Schwerdtfeger 1929: 360, 1944a: 185, 1957a: 190, 1981: 196; Sedlaczek 1935a: 162; Silvestri 1911: 396; Simmel 1919a: 34-36; Soenen 1966: 149; Soenen & Paternotte 1972; Solinas 1966; Spessivtsev 1913a: 97; Speyer 1937: 30; Stark 1926a: 336, 1952: 427; Stehli 1911: 475; Stephan 1952: 10; Strohmeier 1906b: 330; Swaine 1907: 191, 1910c: 58, 1912b: 141; Taschenberg 1880: 238, 1901: 107; Theobald 1909: 367; Thomsen 1948: 807; Tragardh 1914: 93, 1939b: 229; Tschorbadjiev 1929: 168; Vasseur & Schwester 1948: 85; Vite 1952a: 103-104; Wachtl 1876a: 452, 1901: 381; Weber, H. 1926: 572; Wichmann 1909a: 149, 1927a: 70, 1927b: 354, 360; Wilson 1915: 6, 46-50; Wilson, G. F. & Becker 1960: 87; Wissman 1846: 25; Wolff & Krause 1922: 91; Wood, S. L. 1982b: 794; Zirnigle 1901: 58; Zum 1902: 19, 27. (ds) Acloque 1896; Altum 1880a; Ammann & Knabl 1923; Andersch 1851; Anonymous 1978u; Arru, Covassi, & de Bellis 1966: 34; Audras & Schaefer 1957; Bach 1854: 124, 131, 1864: 52; Baker, W. L. 1972: 271; Balachowsky 1944b, 1963a: 1282; Balazy & Michalski 1960; Barthe 1896; Bartindale & Bartindale 1948: 138; Bau 1888; Beck 1817; Bedel 1888b; Beeson 1916a: 218; Bejer-Petersen & Jorun 1977: 24; Benick 1921; Bielz 1851, 1887; Blanchere & Robert 1889; Boas 1923: 361; Borcher 1951; Brakman 1966b: 206; Brancsik 1871, 1906; Bright 1968b: 1307, 1976d: 134; Bright & Stark 1973: 76; Browne 1968: 714; Bruggemann 1878; Buck 1955b: 191; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Buysson 1910; Calwer 1884; Ceconni 1897, 1903; Chamberlin 1917: 356, 1958: 185; Chapuis & Candeze 1853; Chittenden 1895b, 1902; Chorbadzhievo 1924d, 1929; Chrystal 1937; Debatisse 1945; Dejean 1821, 1825, 1837; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 65; Doebner 1862: 183; Drooz 1985: 373; Duftschmidt 1825; Eckstein 1923; Eder 1934; Eggers 1904, 1912f; Endrodi 1958a, 1958b, 1981: 185, 1986: 217; Ericson & Sandin 1893; Ermisch 1953; Escalera 1919; Escherich 1923b: 466, 487, 633, 1932b; Essig 1926: 520, 1958: 520; Esterberg 1928, 1959; Everts 1922: 648; Eyquem 1891; Fairmaire 1863: 165-166; Favre 1890; Fedorov 1930: 225-229; Feige 1918; Felt & Bromley 1937a; Fisher 1936a; Forster 1849: 439; Fowler 1891; Fox-Wilson 1923: 200; Fricken 1889: 352; Fuchs 1904a; Furniss, M. M. & Johnson 1987: 380; Furniss, R. L. & Carolin 1977: 412; Ganglbauer 1904; Gaubil 1849: 126; Gemminger & Harold 1872: 2685; Gentry, J. W. 1965: 134; Gerhardt 1903a; Gobang 1870: 133; Gornostaev 1917; Gozis 1875: 80; Gredler 1866: 375; Grill 1895: 311; Grune 1979: 157; Gyllenhal 1827: 624; Gyorfi 1936: 526, 529, 1941b; Hagedorn 1903a, 1910d: 101; Hamilton 1894b: 346, 406, 1895a: 378; Hansen, V. 1936, 1939, 1956, 1964: 463; Heinemann 1908a; Hellen 1947; Hennig 1954: 264; Henschel 1895a: 191; Henshaw 1895: 44; Henger 1985a: 79; Heyden 1876: 301; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hickin 1963; Hill, D. S. 1987: 341; Hoffmann 1942: 13; Holmgren 1867: 115, 136; Hoping 1922: 128-134; Horion 1935, 1949, 1951; Ihssen 1907; Illiger 1805: 129; Janetschek 1957: 262; Jazentkovsky 1902: 292; Joly 1960; Judeich & Nitsche 1895: 5-6; Kaltenbach 1874: 87, 155, 178, 541, 624, 646, 679; Karpinski 1925: 216, 1932b: 54; Karpinski & Strawinski 1948: 156; Keen 1929: 40; Keler 1925b: 275; Kersten 1933: 75; Kestercanek 1881a: 11; Kharazishvili 1957: 693; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 162, 267-268, 1913a: 36, 1913b: 168, 1914b: 248, 250, 410, 1932a: 308, 1934a: 177; Kloft & Hinks 1945: 218; Knauer 1908: 498-501; Knotek 1892a: 38, 1894a: 559, 1899b: 18, 1901: 575; Kobakhidze 1957: 178; Koca 1905: 192; Kolnati 1846: 39; Koltze 1901: 154; Koppen 1882: 252; Koschitsky 1900: 84; Kostenko 1929; Kovacevic 1957: 69; Kozikowsky & Kuntze 1925: 21; Kraatz 1869: 60; Kristek 1966; Krivolutskaya 1960: 78, 1983; Krogerus 1921a: 57; Krol

- 1877: 34; Kurir 1947c: 22; Langhoffer 1915c: 158; Leclercq 1971; Leng 1918: 211; Lentz 1857: 139; Lepiney & Mimeur 1932: 45; Liegel 1886: 43; Liese 1950: 141; Lindemann 1884b: 264; Linnaniemi 1935: 45; Lokaj 1868: 64; Lomnicki 1886a: 243, 1913b: 148; Lucht 1987: 279; Luitjes et al. 1954: 118; Lunardonì & Leonardi 1889: 481; Lundberg 1980: 149; Majzlan et al. 1987; Marcu 1926c: 64; Masee 1935: 164–170, 1941: 61–65, 1946: 90–95; Matthews & Fowler 1883: 42; Mienert 1887: 70; Mokrzecki 1907, 1909: 179–180, 1910: 11; Muhl 1911: 66; Negru 1966b: 402, 1968a: 456; Novak, P. 1952: 417; Nunberg 1928b: 88, 109, 1954: 58; Nusslin 1898: 283; Orest 1926c: 64; Ortzen 1886: 280; Pacher 1865: 152; Paganetti-Hummner 1901: 150; Palm 1953a: 14, 1959: 60, 214; Palmén 1946: 195; Pelekassis 1962; Perris 1876a: 256, 1877a: 415; Pfeffer 1924a: 96, 1924b: 472, 1928b: 2, 1931b: 73, 1950b: 76, 1989a: 86; Pittioni 1943: 176; Pjatrnickii 1930a: 165; Poppius 1900: 108; Postner 1974: 461 Rapp 1934: 736; Ratzeburg 1837: 130, 169, 1839: 157, 204; Redtenbacher 1858: 836, 1874: 381; Reissig 1949: 131; Reitter 1869b: 155, 1888b: 280, 1894a: 92, 1916: 294, 351; Rohrig 1955: 37; Roubal 1941: 275; Rye 1876: 7–8; Saalas 1913a: 67, 85, 1931: 67; Sahlberg 1900: 106; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaschl 1854: 133; Schaufuss 1915: 1236; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1961b: 185, 1967c: 73, 1980a: 19, 1981b: 93; Scheerpeltz & Winkler 1930: 257; Schilsky 1909: 189; Schiodte 1873: 103; Schneider & Leder 1977: 55; Schwarz 1890a: 41, 1891: 62–64; Schwerdtfeger 1981: 196; Seidlitz 1872: 397, 1891a: 568, 1891b: 614; Sharp & Fowler 1893: 34; Sick 1939: 110; Siebke 1875: 284; Smith, J. B. 1900: 362, 1910: 402; Stark 1926a: 336, 1926b: 104, 1926j: 126, 1927b: 89, 1931d: 548, 1952: 427; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 144, 1830: 353, 1839: 206; Stierlin 1898: 448; Stierlin & Gautard 1871: 293, 1906: 206; Sturm 1826: 102, 1843: 230; Swaine 1909: 152; Thatcher 1951: 79; Thomson 1865: 369, 1868: 223; Tragardh 1914: 93, 1939b: 229; Trell 1907: 18; Tschorbadjiev 1929: 168; Vayssiere 1920: 342; Vite 1953: 42; Vrydagh 1955a: 111; Wachtl 1876a: 452; Wanka 1908: 231, 1915: 213; Weber & McPherson 1991: 54; Wessel 1877: 391; Westhoff 1882: 240; Wichmann 1927a: 70, 1955a: 95, 1957a: 95; Wiepken 1883: 89; Winter, T. C. 1983: 28; Wood, S. L. 1977a: 73, 1982b: 794; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Tegshzargal 1985: 413; Yin, Huang, & Li 1984: 172; Zinovjev 1955: 187; Zoufal 1920: 21. (tx) Acloque 1896; Altman 1844; Apel 1983; Bach 1854, 1864; Balachowsky 1944b, 1949a: 220, 1963a: 1282–1283; Balachowsky & Mesnil 1935: 22–24; Barbey 1901: 27, 104; Beaulien 1923; Bedel 1888b: 403, 420; Beffa 1949, 1961; Benoit 1985: 284; Bertolini 1972; Blandford 1892b; Boas 1923: 361; Brancsik 1871; Brandt 1960: pl. 28; Bright 1968b: 1307, 1976d: 134; Burton et al. 1968: 191; Buysson 1880; Calver 1858; Chamberlin 1958: 185; Chapuis & Candezze 1853; Chararas 1962c: 317; Chorbadzhevo 1924d; Dejean 1821, 1825; Dombrowsky 1887; Duffy 1953: 15; Duftschmidt 1825; Eggers 1912f: 29, 1920: 231, 1922c: 17, 1923a: 176, 180, 185, 1927a: 180, 1927b: 402, 1928c, 1929e: 41, 1930d: 179–199, 1931a: 19, 1933b: 27, 1935c: 209, 1937b: 335, 1940d: 139, 1941a: 101, 1942c: 36; Eichhoff 1864b: 37–38, 1866: 277, 1868d: 419, 1875: 201, 1876: 378–379, 1878b: 320, 1881a: 53, 269, 1883a: 115, 141; Endrodi 1957b; Erichson 1836: 63; Escherich 1923b: 466, 487, 623; Escherich & Escherich 1897; Everts 1903: 769, 1922: 648; Fabricius 1792: 363, 1801: 382; Fauvel 1887, 1889; Ferrari 1867a: 24, 26, 1867b: 114; Fleischer 1927; Fricken 1889: 352; Gabler 1955; Gillanders 1908; Groschke 1952a, 1953a; Grune 1979: 156–157; Gyllenhal 1813: 363, 1827: 624; Hagedorn 1908, 1910a: 153, 1910b, 1912a: 343; Hansen, V. 1956, 1964: 463; Hartig 1844: 73–74; Henry 1892: 12; Henschel 1876a: 210, 240, 1895a: 191; Hill, D. S. 1987: 341; Hopkins 1914: 117, 1915b: 68, 1915c: 211; Hubbard 1897b: 22; Iablokoff-Khnozorian 1961: 89; Illiger 1907: 321; Jacobi 1906: 148; Jacqueline du Val & Fairmaire 1868: 107, 109; Judeich & Nitsche 1895: 546; Kalina 1970: 129; Karpinski & Strawinski 1948: 156; Keen 1929: 40; Kestercanek 1881b: 254; Kinghorn 1960b: 50; Koppa 1962: 76; Knotek 1892a: 38; Kuhnt 1913: 1060; Letzner 1891: 377; Leunis 1886: 181; Lindemann 1875a: 138, 1875c: 372; Lovendal 1889b: 72, 1898: 184; Lucas 1920: 674; Lucht 1987: 279; Lunardonì & Leonardi 1889: 481; Meixner 1937: 1216; Murayama 1933a: 3, 27, 33; Negru 1966b: 402; Niisima 1910: 11; Nordlinger 1848: 249, 1856: 34; Nosek 1958: 87–90; Novak, V., Hronzinka, & Stary 1976: 87, 98; Nunberg 1928a: 140, 1954: 58; Nusslin 1911a: 89, 338; Ormerod 1889b: 92; Panzer 1795a: 287; Perris 1877a: 415; Pfeffer 1932b: 20, 1942a: 3, 1955a: 192, 1989a: pl. 7; Portevin 1935: 329; Postner 1974: 461; Quaschik 1953: 35; Ratzeburg 1837: 130, 169, 1839: 157, 204–208; Redtenbacher 1849a: 358, 1849b: 26, 1858: 836, 1874: 381–382; Reich 1966b: 172; Reitter 1894a: 92, 1913a: 80, 1916: 294, 351; Rey 1892b: 30; Rumbler 1922: 328, 1927: 343; Riley & Howard 1890: 279; Rupertsberger 1880: 232; Saalas 1913a: 67, 85, 1949: 343, 378; Schaufuss 1897: 108; Schedl 1934f: 1646, 1937b: 400, 1938h: 462, 1942d: 29, 1951b: 376, 1951i: 63, 1952f: 88, 1954a: 155, 1957d: 82, 84, 1957c: 881, 1959a: 155, 1959h: 100, 1960g: 11, 1964k: 220, 1980a: 19, 1981b: 93; Schimitschek 1937c: 53, 1955c: 85; Schlechtendal & Wumsche 1879: 126; Schreier 1950: 393; Seidlitz 1872: 397, 1891a: 568, 1891b: 614; Sokanovskii 1954: 20; Spessivtsev 1913a: 97–98, 1922a: 476–477, 492; Stark 1952: 427; Stephens 1829a:

144, 1829b: 12, 1830: 353, 1839: 206; Stierlin 1898: 448; Stresemann et al. 1899: 353; Swaine 1909: 152–153, 1910b: 162–164; Taschenberg 1880: 238, 1901: 107; Thomson 1865: 369, 1868: 223; Titus, Meikle, & Harrison 1985: 128; Vulinec & Davis 1984; Wissman 1846: 25; Wood, S. L. 1957a: 337, 1982b: 794; Yin, Huang, & Li 1984: 172. **(ms)** Boocock 1959d; Burton et al. 1968: 190; Eggers 1912e; Eichhoff 1868d: 419; Escherich 1932b; Hatch 1938: 194; Heinemann 1908a; Kestercanek 1881b: 254; Klimesch 1914c: 59; Lucas 1920: 674; Merino-Rodriguez 1966: 50; Ritter 1929: 555; Schwappach 1924: 57; Swaine 1907: 191, 1912b: 141.

brevis Panzer 1793: 34 (*Bostrichus*). Syntypes ♀; Germany (?); not located, presumed lost. Synonymy: Eichhoff 1878b: 321.

References: **(ds)** Illiger 1805: 129; Stephens 1829a: 144; Swaine 1909: 153. **(tx)** Bechstein 1818: 76, 216; Bechstein et al. 1805; Eichhoff 1878b: 321; Kestercanek 1881b: 254; Panzer 1793: 34, fig. 20, 1795a: 288; Redtenbacher 1849: 851; Stephens 1829a: 144; Swaine 1909: 153. **(ms)** Kestercanek 1881b: 254.

thoracicus Panzer 1793: 34 (*Bostrichus*). Syntypes ♀; Germany; not located, presumed lost. Synonymy: Hagedorn 1910d: 102.

References: **(ds)** Illiger 1805: 129; Stephens 1829a: 144; Swaine 1909: 153. **(tx)** Bechstein 1818: 75, 215; Bechstein et al. 1805: 104; Eichhoff 1878b: 221; Hagedorn 1910d: 102; Kestercanek 1881b: 254; Panzer 1793: 34, 1795a: 288, 1805: 118; Redtenbacher 1849a: 851; Stephens 1829a: 144; Swaine 1909: 153. **(ms)** Kestercanek 1881b: 254.

pyri Peck 1817: 207 (*Scolytus*). Syntypes ♀; Massachusetts [USA]; not found, presumed lost. Synonymy: Hubbard 1897: 22–23; Swaine 1918: 124.

References: **(bv)** Moeck 1971. **(cn)** Baker, W. L. 1972: 269; Blackman 1950; Britain 1927: 41–42; Brooks 1916: 14; Chamberlin 1939: 444–445; Childs et al. 1946: 3; Cook 1891: 130–131; Currie 1905: 13, 20; Doane et al. 1936; Downes 1936: 36; Drake 1921: 203–204; Eddy 1943: 48; Gossard 1913: 65, 1914: 12; Harris 1826, 1841: 75, 1842: 75, 1844, 1852a: 80, 1852b: 80, 1854: 214, 1855: 204, 1863: 91, 1890: 90; Hatch 1933; Hewitt 1915: 25, 1916: 1–40; Lintner 1887b: 84, 107, 110, 1890a: 195; Lochhead 1902: 109, 1919: 340; Lugger 1899a: 310; MacNay 1966; MacNay & Creelman 1958: 14; Mote 1935: 4, 1944: 5–7; Newcomer 1933: 32–34, 1941: 36, 1966: 35; Ormerod 1898: 185; Packard 1890: 92; Quaintance & Siegler 1922: 66, 1931b: 75; Riley & Howard 1890: 279; Roling & Kirby 1973; Ruppel 1967: 9; Saunders 1883: 143; Schuh & Mote 1948: 118–119; Swaine 1918a: 124, 125; Thompson, B. G. et al. 1944: 6, 1948: 607;

Titus & Pratt 1904: 20; Walsh 1860: 308–309, 1866: 7, 1867b: 55; Whitcomb & Bourne 1940: 20. **(cc)** Chamberlin 1939: 444–445; Kinghorn 1960b; Mathers 1940: 189–190; Mote 1944: 5. **(hb)** Baker, W. L. 1972: 269; Beal & Massey 1945: 150; Blackman 1950; Chamberlin 1939: 444–445; Doane et al. 1936; Harris 1841: 75; Kinghorn 1960b; Lintner 1887b: 84, 107, 110, 1896: 270; Lugger 1899a: 310; Mather 1940: 189; Morstatt 1924: 56; Newcomer 1933: 33, 1966: 35; Packard 1890: 92; Peck 1817: 207; Roling & Kearby 1973; Saunders 1883: 143; Schwarz 1889: 138; Swaine 1918a: 124–125; Thompson, B. G. et al. 1944: 6; Titus & Pratt 1904: 20, 31. **(ds)** Anonymous 1926c: 520; Baker, W. L. 1972: 269; Beal & Massey 1945: 150; Beanline 1956; Blackman 1950; Blatchley & Leng 1916: 626; Britton 1920a; Chamberlin 1925, 1939: 444–445; Chapuis & Candez 1853; Cook 1891; Currie 1905; Forbes 1890: 295; Frost & Dietrich 1929; Gemminger & Harold 1872: 2686; Hatch 1933; Henshaw 1885: 148; Hopkins 1893a: 135, 1893b: 210; Keen 1929: 40; Kinghorn 1940: 84, 1960: 50; Kleine 1934a: 177; Leng 1920: 342; Leonard 1928: 520; MacNay & Creelman 1958: 14; Melsheimer 1853: 87; Patterson & Hatch 1945: 153–154; Provancher 1877: 567; Ruppel 1967: 9; Schuh & Mote 1948: 118; Schwarz 1886: 41, 45; Smith, J. B. 1900: 362, 1910: 402; Swaine 1909: 153; Wood, S. L. 1948: 72, 1951a: 128, 1957c: 403. **(tx)** Beal & Massey 1945: 150; Blatchley & Leng 1916: 626; Chamberlin 1939: 444–445; Chapuis & Candez 1853; Comstock 1948; Eichhoff 1878b: 323; Hopkins 1915b: 68–69, 1915c: 211; Hubbard 1897: 22–23; Keen 1929: 40; LeConte 1868: 159, 1876: 358–360; Peck 1817: 205–207, 1819: 307–313; Provancher 1877: 567; Schedl 1960a: 11; Schwarz 1886: 41–45, 1887: 20; Swaine 1909: 153, 1910b: 161, 1918a: 124–125; Titus, Meikle, & Harrison 1985: 24; Wood, S. L. 1951a: 128, 1957c: 403; Zimmermann 1868: 144. **(ms)** Essig 1931: 699.

tachygraphus Sahlberg 1834: 52 (*Bostrichus*). Syntypes ♀; presumably Finland; not located. Synonymy: Eichhoff 1878b: 321.

References: **(hb)** Chittenden 1897c; Wachtl 1876a: 460. **(ds)** Calwer 1884, 1893; Gemminger & Harold 1872: 2692; Kleine 1914b: 393; Schann 1872: 2692; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 165; Swaine 1909: 153; Wachtl 1876a: 460. **(tx)** Eichhoff 1864b: 46, 1878b: 321–323; Ferrari 1967b: 110; Kestercanek 1881b: 254; Letzner 1891: 377; Sahlberg 1834: 52, 1836: 152; Swaine 1909: 153.

ratzeburgi Kolenati 1846: 39 (*Bostrichus*). Syntypes, sex?; Iberia et Caucaso; Mus. Acad. Sc.

- Petrop. et Dris. Kolenati. Synonymy: Ferrari 1867a: 27, Eichhoff 1878b: 321, 323.
References: **(ds)** Kolenati 1846: 39; Schilsky 1909: 189; Swaine 1909: 154. **(tx)** Eichhoff 1878b: 321–323; Ferrari 1867a: 27; Kolenati 1846: 39; Letzner 1891: 377; Swaine 1909: 154.
- swainei* Drake 1921: 203 (*Anisandrus*). Holotype ♀; Wanakena, New York; USNM, Washington. Synonymy: Wood 1957c: 403.
References: **(ec)** Thompson, W. R. & Simmonds 1964: 39, 1965: 83. **(hb)** Chamberlin 1939: 444; Drake 1921: 201–205. **(ds)** Anonymous 1926c: 520; Chamberlin 1939: 444; Leng & Mutchler 1927: 52; Leonard 1928: 520. **(tx)** Chamberlin 1939: 444; Drake 1921: 201–204; de Ruelle 1970: 97, Wood, S. L. 1957c: 403.
- dispar rugulosus* Eggers 1922c: 17. Lectotype ♂; Brout Vernet in Frankreich; USNM, Washington, designated by Anderson & Anderson 1971: 28.
References: **(tx)** Anderson, W. H. & Anderson 1971: 28; Eggers 1922c: 17; Schedl 1934f: 1646.
- cerasi* Eggers 1937b: 335. Holotype ♀; Italien (Montella, Prov. Avellino); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1964k: 220.
References: **(tx)** Eggers 1937b: 355; Schedl 1938h: 462, 1964k: 220, 1979c: 55.
- dissimulatus** Wood 1974a: 38. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Miconia caudata*, and a liana.
References: **(hb)** Wood, S. L. 1982b: 816. **(ds)** Wood, S. L. 1982b: 816. **(tx)** Schedl 1980d: 121; Wood, S. L. 1974a: 38, 1982b: 816.
- distinguendus** Eggers 1930d: 205. Holotype ♀; Almora, United Provinces (Kali Valley, 9000 feet); FRI, Dehra Dun. Distribution: India (Uttar Pradesh). Notes: (1) This species may belong to *Cyclo-rhipidion*; additional study needed.
References: **(tx)** Eggers 1930d: 204–206.
- dolosus** Blandford 1896b: 225. Holotype ♀; Borneo, Sarawak; BMNH, London. Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo), Philippine Islands. Hosts: *Balanocarpus heimii*, *Dipterocarpus crinitus*, *Shorea* spp.
Notes: (3) Schedl 1971c: 381 (described male).
References: **(hb)** Browne 1961c: 152; Kalshoven 1959c: 141, 152. **(ds)** Browne 1961c: 152, 1981a: 126; Hagedorn 1910d: 103; Kalshoven 1959c: 141, 152; Kleine 1913b: 161, 1914b: 289; Ohno et al. 1987: 88; Schedl 1959c: 167, 1971c: 364; Wood, S. L. 1982b: 793. **(tx)** Blandford 1896b: 225; Eggers 1927e: 97–98, 1940d: 150; Hagedorn 1910a: 153; Schedl 1942d: 44, 1959c: 167, 1971c: 381; Wood, S. L. 1982b: 793.
- dorsalis** Schedl 1965g: 27. Holotype ♀; Cote d'Ivoire, Abidjan; Schedl Collection in NHMW, Wien. Distribution: Africa (Ivory Coast).
References: **(tx)** Schedl 1965g: 27, 1979c: 84.
- dorsosulcatus** Beeson 1930: 219. Holotype ♀; Burma: Bilumyo Reserve, Myitkyina; FRI, Dehra Dun. Distribution: Asia (Burma). Hosts: *Pentacme suavis*.
References: **(tx)** Beeson 1930: 43–44, 57, 219, 1961: 304.
- dossuarius** Eggers 1923a: 187. Syntypes 2 ♀; Mt. Makiling auf Luzon; 1 in SMTD, Dresden, 1 in Hamburg Museum, lost. Distribution: Asia (Vietnam), Philippine Islands (Luzon).
References: **(ds)** Schedl 1936g: 531, 1966b: 51. **(tx)** Eggers 1923a: 187–188, 1927b: 406, 1930d: 198; Nobuchi 1983: 302; Schedl 1933e: 101–102, 106, 1936g: 531, 1952b: 367, 1961f: 90, 1979c: 84.
- dryographus** (Ratzeburg) 1837: 167 (*Bostrichus*). Syntypes ♀; apparently sudlichen Deutschland; not located.
Figures: Grune 1979: 154. Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Iran/ Japan/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Norway/ Poland/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Castanea vesca*, *Fagus* sp., *Phytophthora cambivora*, *Quercus* spp., *Ulmus* sp.
References: **(ay)** Bugnion 1887b; Crowson 1938; Escherich 1923b: 488, 632; Feytaud 1950a; Fisher 1954; Francke-Grosmann 1957; Hadorn 1933; Schwerdtfeger 1929: 360. **(bv)** Grune 1979: 155; Meixner 1937: 1216. **(en)** Androic 1966: 46; Barbey 1925: 435; Becker 1950; Chorbadzhievo 1929; Eckstein 1926: 572; Escherich 1923b: 488, 632; Feytaud 1950a; Gabler 1955; Goidanich & Goidanich 1934; Grandi 1951; Groschke 1953b; Hess 1900: 39; Hess & Beck 1914: 291, 1927: 347; Jacquiot 1951a: 2; Judeich & Nitsche 1895: 546; Kamp 1954: 4; Kleine 1932a: 308; Konig, E. 1957: 109; Koppen 1882: 260; Marcu 1926c: 64; Nusslin 1913: 205; Pierce, W. D. 1917: 40; Reissig 1949: 131; Rhlumbler 1922: 329, 1927: 346; Schimitschek 1937e: 53, 1944: 181, 1955a: 137, 1955c: 86; Schwerdtfeger 1944a: 185, 1957a: 190; Strohmeyer 1906b: 330; Wachtl 1901: 381; Weber, H. 1926: 580; Wichmann 1927b: 360, 1957a: 96; Wolff & Krausse 1922: 93; Zwoller 1949: 401. **(ec)** Fisher 1954; Francke-Grosmann 1957; Gyorfi 1941b; Kleine 1908c: 219, 1909a: 49, 78, 1944: 73; Kostenko 1929; Michalski & Ratajczak 1989; Neger 1909b: 408, 1911a: 50; Nosek 1959a: 118, 1959b: 87; Novak 1952: 417; Nusslin 1927: 182;

- Perris 1856a: 197; Pfeffer 1928b: 2, 7, 1943b: 182; Pfeffer & Prihoda 1950: 3; Poinar 1972, 1975: 170; Roubal 1934b: 178; Ruhm 1955d: 71, 1956b: 4; Schimitschek 1955a: 137; Schwerdtfeger 1929: 360, 1944a: 185, 1957a: 190; Sedlacek 1915a: 127, 1935a: 162; Slaby 1947: 375; Vite 1952a: 106; Wichmann 1955a: 95. **(hb)** Adeli 1972: 14; Altum 1881c: 317; Bach 1864; Baeta Neves 1943a; Baeta Neves & Goes 1944; Barbey 1901: 28, 108, 1925: 435; Bargmann 1906; Becker 1950; Bugnion 1887b; Bukowsky 1930; Ceconi 1903, 1924; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Duprez 1944; Dyakowski 1911; Eckstein 1897, 1926: 572, 1928; Eggers 1905d; Eichhoff 1881a: 54, 282, 1882a: 245; Escherich 1923b: 488, 632; Everts 1902; Feytaud 1950a; Fisher 1954; Fuchs 1904a; Furst 1888: 113; Gabler 1955; Girard 1873; Grandi 1951; Groschke 1953b; Gyorfı 1936: 525, 529, 1957; Hadorn 1933; Hagedorn 1903a; Henschel 1876a: 216, 240, 1895a: 192; Hergula 1939: 305; Hess 1900: 39; Hess & Beck 1914: 291, 1927: 347; Husson 1955: 352; Jacquot 1951a: 2; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Kleine 1932a: 308; Knotek 1894a: 559, 1896: 150; Konig, E. 1957: 109; Lengerken 1954: 318; Liese 1950: 141; Lunardoni & Leonardi 1889: 484; Marcu 1941: 403; Mjoberg 1906: 137; Munro 1926: 57; Nosek 1959a: 118, 1959b: 87; Nusslin 1898: 283, 1913: 205, 1927: 346; Perris 1856a: 197; Pfeffer 1942a: 3; Postner 1974: 467; Ratzeburg 1837: 130, 167, 1839: 157, 203; Rhumblı 1922: 329, 1927: 346; Rupertsberger 1880: 232; Schimitschek 1944: 181, 1955a: 137; Schwarz 1891e: 79; Schwerdtfeger 1929: 360, 1944a: 185, 1957a: 190, 1981: 196; Sedlacek 1935a: 162; Spessivtsev 1913a: 101; Stark 1952: 435; Strohmeier 1906: 330, 1910b: 89; Tschorbadjiev 1929: 169; Vite 1952a: 106; Wachtl 1876a: 456, 1901: 381; Weber, H. 1926: 580; Wichmann 1927b: 360; Wissman 1846: 25; Wolff & Krause 1922: 93. **(ds)** Acatay 1960: 12; Acloque 1896; Adeli 1972: 14; Andersch 1851; Androic 1966: 46; Andras & Schaefer 1957; Auhmann 1913: 1-126; Baeta Neves & Goes 1944; Barthe 1896; Bau 1888; Bedel 1888b: 402, 419; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 206; Brancsik 1871, 1906; Brandis 1890: 185; Buck 1955b: 191; Bukowsky 1930; Buresh & Lazarov 1956; Calwer 1893; Ceconi 1897, 1903; Charvat 1950; Chorbadzhievo 1924d, 1929; Chrystal 1937; Croteh 1863; Duprez 1938a; Eggers 1904, 1912f; Endrodi 1958a, 1958b, 1981: 185; Ericson & Sandin 1993; Escherich 1923b: 488, 632, 1932b; Fedorov 1930; Fowler 1891; Frennet 1947; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2685; Gerhardt 1901; Gozis 1875: 80; Credler 1866: 375; Grill 1895: 311; Grune 1979: 155; Gyorfı 1936: 525, 529, 1941b; Hagedorn 1903a, 1910d: 103; Henschel 1895a: 192; Heyden 1876: 300; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hickin 1963; Hoffmann 1936; Holdhaus 1912: 454; Horion 1951; Judeich & Nitsche 1895: 546; Kadyrov 1959; Kaltenbach 1874: 646; Karpinski & Strawinski 1948: 156; Kersten 1933: 75; Kestercanek 1881a: 12; Kleine 1912a: 262, 268, 1913a: 36, 1913b: 161, 1914a: 16, 1932a: 308, 1934a: 173; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 559; Koca 1905: 192; Kolbe, W. 1918: 211; Koltze 1901: 154; Koppen 1882: 260; Kostenko 1929; Kraatz 1869: 60; Lacordaire 1866: 351; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 140; Liese 1950: 141; Lomnicki 1913b: 148; Lucht 1987: 280; Luma de Carvalho 1950: 15; Lunardoni & Leonardi 1889: 484; Marcu 1926c: 64; Matthews & Fowler 1883: 42; Murayama 1954b: 177; Negru 1966b: 402, 1968a: 456, 1968c: 91; Novak, P. 1952: 417; Nunberg 1928b: 88, 110, 1954: 62, 1960b: 157; Nusslin 1898: 283; Orest 1926c: 64; Ortzen 1886: 280; Paganetti-Hummler 1901; Perris 1876a: 256, 1877a: 416; Pfeffer 1928b: 2, 7, 1931b: 73, 1989a: 88; Pierce, W. D. 1917: 40; Pittioni 1943: 176; Postner 1974: 467; Prossen 1913: 84; Ragusa 1924: 117; Rapp 1934: 736; Ratzeburg 1837: 130, 167, 1839: 157, 203; Redtenbacher 1858: 835, 1874: 381; Reissig 1949: 131; Reitter 1869b: 155, 1894a: 90, 1916: 294; Roubal 1935b: 73, 1941: 275; Rye 1868: 189; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1238; Schaum 1859: 96, 1862: 101; Schedl 1961b: 185, 1964a, 1967c: 73, 1971b: 529, 1971d: 427, 1972n: 351, 1980a: 19, 1981d: 94; Schilsky 1909: 189; Schwarz 1891e: 79; Schwerdtfeger 1981: 196; Seidlitz 1872: 396, 1891a: 565, 1891b: 613; Sharp & Fowler 1893: 34; Stark 1927b: 89, 1952: 435; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 447; Stierlin & Gautard 1871: 293, 1906: 206; Sturm 1843: 230; Thomson 1865: 369, 1868: 223; Treidl 1907: 18; Tschorbadjiev 1929: 169; Wachtl 1876a: 456; Westhoff 1882: 240; Wichmann 1927a: 70, 1955a: 95, 1957a: 96; Winter, T. C. 1983: 28. **(tx)** Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 227; Barbey 1901: 28, 108; Bedel 1888b: 402, 419; Bertolini 1872; Brancsik 1871; Charvat 1950; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Donisthorpe 1940: 157; Duffy 1953; Eggers 1912f: 29; Eichhoff 1864d: 37-38, 1868d: 423, 1878b: 362-363, 382, 1881a: 54, 282, 1883a: 116, 142; Endrodi 1957b; Escherich 1923b: 488, 632; Escherich & Escherich 1897; Fabricius 1801: 382; Fauvel 1889; Ferrant 1911; Ferrari 1867a: 20, 22, 24, 1867b: 114; Fleischer 1927; Formanek 1907: 53; Gabler 1955; Gebien 1907: 197; Girard 1873; Grune 1979: 154-155; Hagedorn 1910a: 153, 1912a, 1913b; Henry 1892: 12; Henschel 1876a: 216, 240, 1895a: 192; Hoffmann 1936: 44-45; Hopkins 1898: 28; Jacquelin du Val & Fairmaire 1868: 107; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 156; Knotek 1892a: 38;

- Kulmt 1912: 1060; Lacordaire 1866: 381; Letzner 1891: 378; Leunis 1886: 181; Lucht 1987: 280; Lunardoni & Leonardi 1889: 484; Meixner 1937: 1216; Murayama 1954b: 177; Negru 1966b: 402; Nunberg 1954: 62; Perris 1877a: 416; Pfeffer 1932b: 21, 1942a: 3, 1955a: 198; Portevin 1935: 330; Postner 1974: 467; Quaschik 1953: 35; Ratzeburg 1837: 130, 167, 1839: 157, 203; Redtenbacher 1849a: 358, 1849b: 26, 1858: 835, 1874: 381; Reitter 1894a: 90, 1913a: 82, 1916: 294, 1918: 83; Rhumbler 1922: 329, 1927: 346; Roubal 1937: 67–68; Rupertsberger 1880: 232; Schedl 1934f: 1646, 1952f: 88, 1957d: 82, 1980a: 19, 1981b: 94; Schimitschek 1937c: 53–54, 1955c: 86; Seidlitz 1872: 396, 1891a: 568, 1891b: 613; Spessivtsev 1913a: 101–103, 1922a: 478, 1931: 59; Stark 1952: 435; Stierlin 1898: 447; Strohmeyer 1910: 88–91, 1912b: 57; Swaine 1909: 158; Thomson 1865: 369, 1868: 223; Wissman 1846: 25; Wood, S. L. 1977b: 211. (**ms**) Eichhoff 1868d: 423; Escherich 1932b; Schwappach 1924: 59.
- flavus* Stephens 1830: 356 (*Tomicus*). Holotype, sex?; Norfolk or New-forest; Stephens Collection, not located, preoccupied by Fabricius 1801. Synonymy: Rye 1868: 189. References: (**tx**) Rye 1868: 189; Stephens 1830: 356.
- sampsoni* Donisthorpe 1940: 6. Holotype ♀; Richmond Park, London; BMNH, London, preoccupied by Eggers 1930. Synonymy: Blair 1940: 40. References: (**tx**) Blair 1940: 40; Donisthorpe 1940: 6; Schedl 1951i: 51.
- linearis* Schedl 1948f: 273. Lectotype ♀; America borealis; USNM, Washington, designated by Wood 1977b: 211. Synonymy: Wood 1977b: 211. Notes: (1) The type is an obviously mislabeled or intercepted specimen; the species is not established anywhere in America. References: (**tx**) Schedl 1948f: 273, 1948h: 578, 1979c: 139; Wood, S. L. 1977b: 211.
- donisthorpi* Schedl 1951i: 51. Holotype ♀; Richmond Park, London; BMNH, London, automatic. Synonymy: Blair 1940: 40. References: (**tx**) Blair 1940: 40; Schedl 1951i: 51.
- dubiosus* Perkins 1900: 177. Holotype ♀; Maui; Iao Val.; BMNH, London. Figures: Samuelson 1981: 56. Distribution: Hawaiian Islands (Maui, Oahu, Molokai). Hosts: *Bobea* sp., *Coprosma* sp., *Eugenia sandwicensis*, *Perrottetia sandwicensis*, *Physalis peruviana*, *Pipturus* sp., *Psychotria* sp. Notes: (3) Samuelson 1981: 70 (described male). References: (**ds**) Beeson 1938b: 292; Hagedorn 1910d: 103; Kleine 1913b: 161, 1914b: 302; Samuelson 1981: 70. (**tx**) Eggers 1927b; Hagedorn 1910a: 153; Perkins 1900: 177; Samuelson 1981: 56, 70;
- duodecimspinus* Schedl 1936g: 531. Lectotype ♀; North-East Papua: Mt. Lamington, 1300–1500 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 85. Distribution: New Guinea. Notes: (1) Most references cite this species as *12-spinatus*. References: (**ds**) Schedl 1936g: 531–532. (**tx**) Schedl 1979c: 85.
- duploarmatus* Browne 1962c: 204. Holotype ♀; Sarawak; Kuching; BMNH, London. Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo). References: (**ds**) Parsons 1963: 114. (**tx**) Browne 1962c: 204.
- eggersi* Beeson 1930: 215. Holotype ♀; Bengal: Lopchu, Dobrepani, Senchal Range, Darjeeling; FRI, Delra Dun. Distribution: Asia (Bengal in India). Hosts: *Litsaea umbrosa*, *Symplocos theaeifolia*, *Turpinia hepalesis*. References: (**cn**) Mathur & Singh 1961a: 64. (**ds**) Beeson 1961: 304; Mathur & Singh 1961a: 64. (**tx**) Beeson 1930: 215–216, 233; Schedl 1950g: 895.
- eichhoffianus* Schedl 1950h: 110. Syntypes ♀; Madagascar; USNM, Washington, automatic. Figures: Nunberg 1963b: pl. 13. Distribution: Africa (Chana/ Somalia/ South Africa/ Zaire), Madagascar. Hosts: *Albizzia zygia*, *Ficus exasperata*, *Gossweilerodendron balsamiferum*, *Terminalinus ivorensis*, *Triplochiton scleroxylon*. References: (**ds**) Alluaud 1900: 438–442; Frappa 1933: 179; Mayne & Donis 1960: 104, 1962: 318; Thompson, C. H. 1963: 71. (**tx**) Schedl 1950h: 110, 1954d: 872, 1954e: 52, 1955c: 30–31, 1955d: 269, 272, 1955f: 259, 1957d: 16, 1977b: 157.
- eichhoffi* Schaufuss 1891: 25. Syntypes ♀; Madagascar; USNM, Washington, preoccupied by Schreiner 1882. Notes: Schedl 1979c: 88 (citation of holotype invalid). References: (**ds**) Alluaud 1900: 440; Hagedorn 1910d: 103; Kleine 1913b: 161, 1914b: 327. (**tx**) Eggers 1920; Hagedorn 1910a: 153, 1913b: 256; Nunberg 1963b: 30, pl. 13; Schaufuss 1891: 25–27; Schedl 1957d: 16, 1979c: 88.
- elevatus* Eggers 1931a: 21. Holotype ♀; Venezuela (Caracas); MNB, Berlin. Distribution: Antilles Islands (Puerto Rico), South America (Venezuela). Notes: (1) Schedl 1979c: 89 (lectotype designation invalid). References: (**ds**) Blackwelder 1947: 779; Bright 1982b: 165, 1985c: 173. (**tx**) Bright 1985c: 173; Eggers 1931: 21; Schedl 1935d: 92, 1958f: 46, 1979c: 88.

elongatus Eggers 1920: 43. Holotype ♀; Mkulimusberg bei Sigi (D.-O.-Afrika); Hamburg Museum, lost.

Distribution: Africa (Kenya/ Tanzania/ Zaire).

Hosts: *Drypetes leonensis*, *Maba abyssinica*.

References: (hb) Roberts 1969: 132; Schedl 1962j: 287. (ds) Browne 1975a: 759; Schedl 1962j: 287. (tx) Eggers 1920: 43; Schedl 1957b: 150–151, 158, 1962j: 288.

emarginatus Eichhoff 1878b: 510. Holotype ♀; Hindostan (Birma); Hamburg Museum, lost.

Figures: Nobuchi 1978a: pl. 2, Nunberg 1959a: pl. 20, figs. 1–3, Yin & Huang 1981: 569, Yin, Huang, & Li 1984: 160.

Distribution: Asia (Burma/ Fujian, Shanxi, Sichuan, Xizang [Tibet] in China/ India/ Laos/ Malaya/ Sri Lanka/ Vietnam), Australia, Indonesia (Borneo, Java, Mentawai, Moluccas, Sumatra), New Guinea, Philippine Islands.

Hosts: *Abies fabri*, *Albizia falcata*, *Balanocarpus heimii*, *Castanea argentea*, *Castanopsis* sp., *Cinchona* sp., *Dipterocarpus baudii*, *Durlo zibethinus*, *Fagraea gigantea*, *Ficus* sp., *Intsia palembanica*, *Koompassia excelsa*, *Mangifera foetida*, *Palaquium* sp., *Pinus tabulaeformis*, *P. yunnanensis*, *Populus* sp., *Quercus* sp., *Sarcocephalus cordatus*, *Shorea leprosula*, *Symplocos* sp.

References: (bv) Gray, B. 1974c. (cn) Mathur & Singh 1960b: 84, 1961a: 26; Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 607; Browne 1935a, 1941, 1961c: 152–154; Kalshoven 1959c: 156. (ds) Beaver & Browne 1978: 608; Beeson 1961: 304; Browne 1935a, 1961a: 305, 1961c: 152, 1965a: 189, 1968a: 132–133; Choo & Woo 1983; Hagedorn 1907b, 1910d: 103; Kalshoven 1959c: 156; Kleine 1913b: 161, 1914b: 278; Mathur & Singh 1960b: 84, 1961a: 26; Nobuchi 1978a: 22; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987: 94, 1989: 94; Ohno et al. 1987: 88, 1988a: 93, 1989: 61; Schedl 1936d: 3, 1936g: 528, 1936j: 20, 1960e: 172, 1964c: 305, 1966b: 52, 1966g: 31, 1969a: 208, 1969e: 156, 1971c: 363, 1971f: 148, 1973c: 378, 1975i: 346, 1975j: 294, 1979a: 158, 1979h: 158; Yin & Huang 1981: 569; Yin, Huang, & Li 1984: 160; Yunus & Hua 1980: 230. (tx) Eggers 1925: 159, 1929e: 49; Eichhoff 1878a: 392, 1878b: 510; Hagedorn 1907b, 1908, 1910a: 153, 1910b; Kalshoven 1959b: 96; Keler 1928: 30; Nobuchi 1978a: pl. 2, 1983: 302; Nunberg 1959a: 424; Schedl 1939e: 331, 1940b: 435, 1941a: 43, 1942a: 170, 1942d: 6, 1954a: 141, 1954c: 160, 1955b: 45, 1960h: 108, 1965g: 22, 1973e: 93; Wylie & Yule 1977; Yin & Huang 1981: 569; Yin, Huang, & Li 1984: 160.

cinchonae Veen 1897: 135. Syntypes ♀; Java (Preanger?); Colonial Museum at Haarlem and RNH, Leiden. Synonymy: Kalshoven 1959: 96.

References: (cn) Kalshoven 1932: 244; Konings-

berger 1898: 35; Kleine 1932a: 307. (hb) Kleine 1932a: 307. (ds) Hagedorn 1910d: 52; Kalshoven 1932: 24, 1959: 96; Kleine 1913b: 127, 1914b: 288, 1932a: 307, 1934a: 176; Koningsberger 1905: 77. (tx) Eggers 1923a: 203–204, 1927b: 407, 1927c: 95; Hagedorn 1910a: 104; Kalshoven 1959: 96; Schedl 1942d: 6, 1951i: 44, 83, 1954a: 140; Veen 1897a: 135, 1897b: 18.

cordatus Hagedorn 1910b: 12. Syntypes ♀; Mentawai (Modigliani); MNB, Berlin. Synonymy: Schedl 1942d: 6.

References: (cn) Yunus & Hua 1980: 230. (ds) Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 286; Yunus & Hua 1980: 230. (tx) Eggers 1927b: 402, 407, 1929e: 49; Hagedorn 1910a: 153, 1910b: 12; Schedl 1936g: 528, 1942d: 6.

emarginatus semicircularis Schedl 1973c: 92. Holotype ♀; Porotop Lutheran Mission Station, Western Highlands Dist. [New Guinea]; CSIRO, Canberra. Synonymy: Wood 1989: 176. References: (tx) Schedl 1973c: 92, 1979c: 90; Wood, S. L. 1989: 176.

eurgraphus (Ratzeburg) 1837: 168 (*Bostrichus*).

Syntypes ♀; presumably Deutschland; not located. Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Turkey), Europe (Austria/ Corsica/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Poland/ Spain/ Switzerland/ Yugoslavia).

Hosts: *Pinus* spp., *Quercus* spp., *Ulmus* spp.

References: (ay) Bugnion 1857b; Escherich 1923b: 488; Feytaud 1950a; Murayama 1933a: 3; Nusslin 1911a: 60. (bv) Grune 1979: 153. (cn) Anonymous 1977r, 1986: 41; Barbey 1925: 261; Escherich 1923b: 488; Falck 1916: 170; Feytaud 1946, 1950a, 1950b; Grandi 1951; Hubault 1945; Judeich & Nitsche 1895: 546; Kholodkovskii 1912: 320; Munford 1964: 11; Nusslin 1913: 286; Pfeffer 1933: 43; Pierce, W. D. 1917: 75; Ratzeburg 1871c: 81; Rhumbler 1922: 329, 1927: 345; Rudnev 1965b; Sargos 1947: 8; Schimitschek 1944: 180, 1955c: 85; Strohmeier 1906b: 334; Wachtl 1901: 381; Wichmann 1927b: 352. (ee) Apfelbeck 1916b; Kleine 1908c: 219; Kostenko 1929; Novak, P. 1952: 417; Nusslin 1927: 345; Perris 1852: 503, 1856a: 194; Pfeffer 1928b: 6, 1933: 43, 1943b: 151; Pfeffer & Prihoda 1950: 3; Schedl 1958d: 188, 1966f: 90; Speyer 1937: 30; Vite 1952a: 107. (hb) Altum 1881c: 322; Apfelbeck 1916b, 1917; Baeta Neves 1943a; Baeta Neves & Goes 1944; Barbey 1901: 27, 105, 1925: 261; Bugnion 1857b; Bukowsky 1930; Chararas 1962c: 323; Dombrowsky 1887, 1892; Duprez 1944; Eichhoff 1881a: 53, 277; Escherich 1923b: 488; Falck 1916: 170; Feytaud 1946: 7, 1950a; Girard 1873; Grandi 1951; Györfi 1957; Henschel 1895a: 192; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 156; Kholodkovskii 1912: 320; Knotek

- 1894a: 559, 1896: 150; Mjoberg 1906: 142; Nusslin 1913: 286, 1927: 345; Perris 1852: 503, 1856a: 194; Peyerimhoff 1919: 257; Pfeffer 1941b: 37, 1942a: 3; Postner 1974: 464 Ratzeburg 1837: 168, 1839: 157, 1871c: 81; Rhumbler 1922: 329, 1927: 345; Rupertsberger 1879: 231, 1880: 232; Schimitschek 1944: 180; Spessivtsev 1913a: 100; Speyer 1937: 30; Stark 1926a: 330, 336, 1952: 433; Strohmeyer 1906b: 334; Vite 1952a: 107; Wachtl 1876a: 455, 1901: 381; Wichmann 1927b: 352. (**ds**) Acloque 1896; Baeta Neves & Goes 1944; Barthe 1896; Blanchere & Robert 1889; Bouwer 1960; Brakman 1966b: 402; Brancsik 1906; Bukowsky 1930; Calwer 1884, 1893; Choo, Woo, & Nobuchi 1988a: 134; Duprez 1938a; Endrodi 1958b; Escalera 1919; Escherich 1923b: 488, 1932b; Eyquem 1891; Friederichs 1919; Fuchs 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2685; Georghiou 1977: 75; Gozis 1875: 80; Grune 1979: 153; Hagedorn 1910d: 103; Hallett 1923b: 13–14; Henschel 1895a: 192; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hoffmann 1936; Horion 1951; Jazentkovsky 1912: 292; Judeich & Nitsche 1895: 546; Karpinski & Stravinski 1948: 156; Kestercanek 1881a: 12; Kleine 1913a: 36, 1913b: 161, 1934a: 173; Knotek 1892a: 38, 1894a: 559; Kostenko 1929; Kraatz 1869: 60; Lacordaire 1866: 381; Langhoffer 1915c: 158; Larroche & Torossian 1971; Leder 1871: 132; Lomnicki 1913b: 148; Lucht 1876: 279; Luna de Carvalho 1950: 15; Mequignon 1936: 15, 42; Mirzoian 1950: 139; Mumford 1964: 11; Negru 1966b: 402; Novak, P. 1952: 417, 1964; Numberg 1928b: 88, 109, 1954: 62; Perris 1876a: 255, 1877a: 415; Peyerimhoff 1919: 257, 1933b: 367; Pfeffer 1928b: 6, 1930b: 120, 1931b: 74, 1933: 3–54, 1947e: 14, 1989a: 87; Pierce, W. D. 1917: 75; Pittioni 1943: 176; Pjatsnitskii 1930a: 165; Postner 1974: 464; Prossen 1913: 84; Rapp 1934: 735; Ratzeburg 1837: 168, 1839: 157; Redtenbacher 1858: 835, 1874: 381; Reitter 1894a: 89, 1916: 294; Roubal 1941: 275; Rudnev 1965b; Saint-Albin 1949: 2; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1237; Schamm 1859: 96, 1862: 101; Schedl 1959h: 100, 1961b: 185, 1966f: 87, 1967c: 73, 1971d: 426, 1980a: 20, 1981b: 93; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 189; Schneider & Leder 1977: 55; Seidlitz 1872: 396, 1891a: 567, 1891b: 613; Stark 1926a: 330, 336, 1926b: 104, 1926g: 154, 1952: 433; Stein 1868: 114; Stein & Weise 1877: 165; Strach 1861: 122; Sturm 1843: 230; Tredl 1907: 18; Wachtl 1876a: 455; Wichmann 1927a: 69. (**tx**) Acloque 1896; Bach 1854; Balachowsky 1949a: 225; Barbey 1901: 27, 105; Bertolini 1872; Dombrowsky 1887, 1892; Eggers 1923a: 197–201, 1930d: 206; Eichhoff 1864b: 37–38, 1878b: 355, 1881a: 53, 277, 1883a: 116, 141; Endrodi 1957b; Escherich 1923b: 488; Fauvel 1889; Ferrari 1867a: 20, 1867b: 414; Fleischer 1927; Girard 1873; Grune 1979: 152; Hagedorn 1910a: 153; Henschel 1895a: 192; Hoffmann 1936: 43–45; Tablokoff-Khnzorian 1961: 105; Jacquelin du Val & Fairmaire 1868: 107, 109; Judeich & Nitsche 1895: 546; Karpinski & Stravinski 1948: 156; Knotek 1892a: 38; Lacordaire 1866: 381; Letzner 1891: 377; Lucht 1987: 279; Murayama 1933a: 3, 1933b: 19, 27; Negru 1966b: 402; Numberg 1954: 62; Nusslin 1911a: 60; Perris 1877a: 415; Pfeffer 1932b: 20, 1941b: 3, 7, 1942a: 3, 1947e: 14, 1955a: 196, 1989a: pl. 8; Portevin 1935: 329; Postner 1974: 464; Quaschik 1953: 35; Ratzeburg 1837: 168, 1839: 157; Redtenbacher 1849a: 791, 1849b: 26, 1858: 835, 1874: 381; Reitter 1894a: 89, 1913a: 81, 1916: 294; Rhumbler 1922: 329, 1927: 345; Rupertsberger 1879: 231, 1880: 232; Schedl 1934f: 1646, 1957d: 82, 1980a: 20, 1981b: 93; Schimitschek 1937: 54, 1955c: 85; Seidlitz 1872: 396, 1891a: 567, 1891b: 613; Spessivtsev 1913a: 99–100, 1922a: 477, 1931: 57–58; Stark 1952: 433. (**ms**) Escherich 1932b; Schimitschek 1930b: 407.
- exaratus Blandford** 1898b: 206. Holotype ♂; Bugaba, Chiriqui, Panama; BMNH, London. Distribution: North America (Panama). References: (**ds**) Blackwelder 1947: 779; Hagedorn 1910d: 104; Kleine 1914b: 371. (**tx**) Blandford 1898b: 206; Hagedorn 1910a: 153; Wood, S. L. 1982b: 841.
- excavus Schedl** 1964g: 249. Holotype ♀; Sarawak, Setapok; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). Hosts: *Shorea* sp. References: (**tx**) Schedl 1964g: 249, 1979c: 93.
- exesus Blandford** 1894d: 119. Syntypes 2 ♀; Miyanosita [Japan]; BMNH, London. Figures: Nakane et al. 1963: pl. 192, Numberg 1978: 112. Distribution: Asia (Fujian in China/ Japan/ Taiwan). Hosts: *Passenia cuspidata*, *Quercus* sp. Notes: (1) Schedl 1973e: 92 (a synonym of *emarginatus* Eichhoff [requires confirmation]). References: (**cn**) Anonymous 1980g. (**ds**) Anonymous 1980g; Blandford 1894c; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 260; Murayama 1936a: 132, 1949c: 103, 1954b: 177, 1955: 100; Nakane et al. 1963: 383; Nobuchi 1985c: 24. (**tx**) Blandford 1894d: 119; Eggers 1923a: 204, 1927c: 95; Hagedorn 1910a: 154; Murayama 1934c: 299, 1936a: 132, 1954b: 177, 1955: 99–100; Nakane et al. 1963: 383; Numberg 1978: 111–112; Schedl 1934f: 1646, 1953e: 22, 1954c: 160.
- eximius Schedl** 1970b: 362. Holotype ♀; Borneo (Kalimantan), Samarinda to Myako (Japan), imported; PPST, Tokyo. Figures: Nobuchi 1978a: pl. 4. Distribution: Indonesia (Borneo). Hosts: *Agathis borneensis*. References: (**ds**) Nobuchi 1978a: 37. (**tx**) Nobuchi

1978a:pl. 4, 1983: 302; Schedl 1970b: 362–363, 1979c: 94.

apiccnotatus Schedl 1971c: 377. Holotype ♀; Sarawak, Bintulu; BMNH, London. Synonymy: Wood 1989: 176.

References: (ds) Schedl 1971c: 377, 1972a: 144; Wood, S. L. 1989: 176.

exsectus Perkins 1900: 179. Lectotype ♂; Maui; Haleakala; BMNH, London, designated by Samuelson 1981: 71.

Figures: Samuelson 1981: 63.

Distribution: Hawaiian Islands (Maui).

References: (ds) Beeson 1938b: 292; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 302; Samuelson 1981: 72. (tx) Hagedorn 1910a: 154; Perkins 1900: 179; Samuelson 1981: 63, 72.

falcarius Schedl 1942c: 183. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1942a: 197, 1942c: 183, 1979c: 94.

fallax Eichhoff 1878b: 508. Holotype ♀; Hindostan (Birma); IRSNB, Brussels.

Figures: Nobuchi 1978a:pl. 2, Numberg 1959a:pl. 15, figs. 3–5.

Distribution: Asia (Burma/ Assam in India/ Malaya/ Nepal/ Vietnam), Indonesia (Borneo, Java, Mentawai, Sumatra), New Guinea, Philippine Islands (Luzon).

Hosts: *Achras sapota*, *Artocarpus elasticus*, *Butea monosperma*, *Castanea argentea*, *Castanopsis tribuloides*, *Dialium* sp., *Dipterocarpus* spp., *Fagraea gigantea*, *Intsia palembanica*, *Koompassia excelsa*, *K. malaccensis*, *Kydia calycina*, *Mesua ferrea*, *Shorea* spp., *Swintonia floribunda*, *Tectona grandis*, *Turpinia pomifera*, *Xanthophyllum* sp., *Xylia dolabriformis*, *X. xylocarpa*.

References: (cn) Browne 1949e; Kleine 1932a: 307; Mathur & Singh 1960b: 84, 1961a: 40, 1961b: 14; Pierce, W. D. 1917: 193; Stebbing 1914: 582; Yunus & Hua 1980: 230. (cc) Beeson 1923; Browne 1958b; Stebbing 1914: 582. (hb) Beeson 1916a: 221, 1923; Browne 1935a, 1941, 1958b, 1961c: 155–156; Kleine 1932a: 307; Stebbing 1914: 582. (ds) Beeson 1916a: 1–5, 1923, 1930: 58, 83, 234, 1961: 304; Bhasin, Roonwal, & Singh 1958; Browne 1935a, 1961a: 305, 1961c: 155, 1965a: 189, 1980d: 491, 1983a: 556, 1985a: 90; Garthwaite 1940: 94–106; Hagedorn 1910a: 104; Kleine 1913b: 161, 1914b: 278, 1932a: 307; Mathur & Singh 1960b: 81, 1961a: 40, 1961b: 14; Nobuchi 1978a: 22; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987: 94; Ohno et al. 1987: 88, 1988a: 93, 1989: 61; Pierce, W. D. 1917: 193; Schedl 1936d: 3, 1964c: 304, 1965g: 24, 1966b: 53, 1971c: 364, 1971f: 148, 1973b: 211, 1973c: 375, 1975i: 346, 1979a: 160; Yunus & Hua 1980: 230. (tx) Beeson 1930: 58, 83, 234; Eggers 1923a: 203, 208, 1925: 153, 1927b: 402, 407, 1927e, 1930d; Eich-

hoff 1878a: 392, 1878b: 508; Hagedorn 1910a: 154, 1910b; Nobuchi 1978a:pl. 2, 1983: 302; Numberg 1978: 112, 114; Schedl 1934g: 178, 1937e: 544, 1940b: 435, 1951i: 45, 1954a: 141, 1954c: 156, 1970i: 224; Stebbing 1914: 582.

amphicramulus Eggers 1923a: 204. Syntypes ♀; Sumatra (Si Rambe, Bandar Baroe), Engano, Mentawai; MCG, Genova, and Eggers Collection (USNM, Washington or NHMW, Wien?). Synonymy: Wood 1989: 176.

References: (hb) Browne 1941; Kalshoven 1958a: 187, 1959c: 156. (ds) Beeson 1961: 302; Kalshoven 1958a: 187, 1959c: 156; Nobuchi 1978a: 21; Schedl 1964c: 305, 1965g: 24, 1967e: 215, 1969a: 208. (tx) Eggers 1923a: 204, 1925: 153; Numberg 1959a: 414; Schedl 1939e: 331, 1942d: 6, 42, 1951i: 44, 1954a: 140, 1954c: 156, 1965g: 24, 1970i: 224, 1979c: 19.

fallaxoides Schedl 1955b: 302. Holotype ♀; Samoa; Schedl Collection in NHMW, Wien.

Distribution: Samoan Islands.

References: (ds) Schedl 1972b: 267. (tx) Schedl 1955b: 287, 302, 1979c: 95.

falsus Schedl 1966f: 116. Holotype ♀; Venezuela, by Moritz [presumably Colonia Tovar]; Schedl Collection in NHMW, Wien.

Distribution: South America (Venezuela).

References: (tx) Schedl 1966f: 116, 1979c: 95.

fastigatus Schedl 1935b: 402. Lectotype ♀; Acc. No. 195, Sch. of For., Univ. P.I.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 95. Figures: Nobuchi 1978a:pl. 2.

Distribution: Asia (Malaya), New Guinea, Philippine Islands.

Hosts: Lauan.

References: (ds) Beaver & Browne 1978: 608; Nobuchi 1978a: 20; Numberg 1961b: 610; Ohno et al. 1987: 88; Schedl 1966b: 54, 1966g: 32. (tx) Nobuchi 1978a:pl. 2, 1983: 302; Schedl 1935b: 402, 1940b: 435, 1979c: 95.

ferox Blandford 1898b: 201. Holotype ♀; Bugaba, Chiriqui, Panama; BMNH, London.

Figures: Blandford 1898b:pl. 7, fig. 14, Terra 1987: 24.

Distribution: North America (Costa Rica/ Panama), South America (Colombia).

Hosts: *Coffea arabica*, *Ochroma* sp., *Theobroma cacao*.

References: (hb) Wood, S. L. 1982b: 800. (ds) Blackwelder 1947: 779; Hagedorn 1910d: 104; Kleine 1913b: 161; Wood, S. L. 1982b: 800. (tx) Blandford 1898b: 201; Eggers 1940c: 238; Hagedorn 1910a: 154; Terra 1987: 22, 24; Wood, S. L. 1982b: 800.

ferrugineus (Fabricius) 1801: 388 (*Bostrichus*). Lectotype ♀; America meridionali; UZMC, Copenhagen, designated by Wood 1982b: 827.

Figures: Bright 1972d: 95, 1976d: 132; Nobuchi

1978a: pl. 4, Samuelson 1981: 56, Schedl 1962j: 425, 1977b: 185, Wood 1960a: 65.

Distribution: Africa (introduced: Angola/ Grande Comore in Azores Islands/ Botswana/ Burkina Faso/ Burundi/ Cameroon/ Cape Verde Islands/ Congo/ Ethiopia/ Equatorial Guinea/ Fernando Poo/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Liberia/ Malawi/ Mauritania/ Mozambique/ Namibia/ Nigeria/ Ruanda/ Senegal/ Seychelles Islands/ Sierra Leon/ Somalia/ South Africa/ Sudan/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia/ Zimbabwe), Antilles Islands (Bahama Islands/ Cuba/ Guadeloupe/ Dominican Republic, Haiti in Hispanola/ Jamaica/ Puerto Rico/ Trinidad), Australia, Cook Islands, Fiji Islands, Hawaiian Islands, Madagascar, Marquesas Islands, Micronesia (Guam), New Caledonia, New Guinea, Niue Island, North America (Belize/ Isla del Coco/ Costa Rica/ El Salvador/ Guatemala/ Honduras/ all states in Mexico/ Nicaragua/ Panama/ Alabama, Arizona, Arkansas, District of Columbia, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA), Reunion Island, Samoan Islands, South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Chile/ Colombia/ Ecuador/ Galapagos Islands/ Guyana/ Paraguay/ Peru/ Suriname/ Uruguay/ Venezuela), Tahiti Islands.

Hosts: Many reported by Schedl 1962j: 446–454, Wood 1982b: 829.

Notes: (3) Schedl 1962j: 426 (cites *conformis* Koll., *biuncus* Schedl, *obtusipennis* Eggers in synonymy, nomen nudum, no status).

References: (ay) Abrahamson 1969b; Abrahamson & Norris 1970: 177–180; Anonymous 1971i; Baker, J. M. & Norris 1968: 246–250; Beeman & Norris 1977a, 1977b; Bridges 1975b; Bridges & Norris 1977; Chu 1978b; Chu & Norris 1976, 1979; Chu, Norris, & Carlson 1975; Chu, Norris, & Kok 1970: 1379–1387; Chu, Norris, & Rao 1980, 1982; Entwistle 1963b; Kingsolver & Norris 1977a, 1977b, 1977d; Kok 1971b; Lhoste & Roche 1960; Norris 1972; Norris & Baker 1967: 1120–1122, 1968: 1473–1475, 1969: 592–594; Norris, Baker, & Chu 1969: 413–414; Norris & Chu 1970: 1142–1145, 1971; Norris, Chu, & Rac 1983; Norris & Moore 1980; Peleg & Norris 1972a, 1973a, 1973b; Rao, K. D. P., Norris, & Chu 1982; Saunders, J. L. & Knoke 1967a; Schneider 1976. (bv) Atkinson, Foltz, & Connor 1988; Dixon & Payne 1979b; Entwistle 1963b; Goldman, Cleveland, & Parker 1978; Kingsolver & Norris 1977c; MacGowan, J. B. 1973b; McLean & Borden 1977: 684; Moeck 1970b: 993; Roling & Kearby 1975b, 1977; Saunders, J. & Knoke 1968; Schedl 1960f: 53; Turnbow & Franklin 1980. (cn) Anonymous 1953j: 25, 1970c: 14, 1970h, 1977k; Beaver 1988a:

65; Blackman 1950: 307, 341, 349; Blandford 1892b; Browne 1968: 714; Cranham 1961b, 1961c: 26; Dinther 1950: 112, 1961; Equihua-Martinez 1988; Estrada & Atkinson 1988: 207; Ferreira & Morin 1985; Gagne & Kearby 1979: 300; Chesquiere 1933a: 27–36, 1933b: 777–786; Hamlen & Woodruff 1975; Hill, D. S. 1983: 496; Iton 1960: 461; Kudler 1978; Kumar & Youdeowei 1983: 189; Lepesme 1947: 647; MacGowan, J. B. 1973b; Maramorosch et al. 1972; Mead 1973b: 2; Roberts 1961a: 42; Roling & Kearby 1973, 1977; Santoro 1957: 25; Saunders, J., Knoke, & Norris 1967: 79–82; Williams, J. O. 1988; Wolcott 1933: 373, 1948: 383; Wood, S. L. 1977a: 73; Woodruff & Hamlen 1974; Yunus & Hua 1980: 230. (ec) Abrahamson 1969b; Abrahamson & Norris 1970; Anonymous 1953j: 25; Baker, J. M. & Norris 1968; Batra 1979; Dixon & Payne 1979b; Equihua & Atkinson 1986: 629; Iton 1960: 461; Kingsolver & Norris 1977c, 1977d; Kok 1971b; Kok & Norris 1972a, 1972c, 1973; Kok, Norris, & Chu 1970; Kumar & Youdeowei 1983: 109; Maramorosch et al. 1972; Naundorf 1956: 35; Naundorf et al. 1956: 30; Norris 1972, 1979; Norris & Baker 1967, 1968; Peleg & Norris 1972a, 1972b, 1973b; Roberts 1969: 132; Roling & Kearby 1977; Saunders, J. & Knoke 1967a: 462–463, 1967b: 1094–1096, 1968: 587–590; Schedl 1958d: 189, 1962j: 425; Schimitschek 1964c; Schneider 1976; Singh 1977: 105; Walt, Scott, & Van Der Klift 1971a: 456, 1971b: 463; Watson 1970: 1054; Wichmann 1955a: 97; Woodruff & Hamlen 1974. (hb) Anonymous 1959i: 18; Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 270; Beaver 1976a: 24, 1988a: 65; Beaver & Loytyniemi 1985a: 74; Beeman & Norris 1977a, 1977b; Blandford 1892b; Bright 1976d: 136; Browne 1963a: 241, 1968: 714; Burgos & Saucedo 1983: 98; Chamberlin 1925: 31; Deyrup & Atkinson 1987a: 65; Drooz 1985: 373; Entwistle 1963b; Equihua & Atkinson 1986: 629; Ferreira & Morin 1985; Frappa 1933: 179; Froggatt 1927: 58; Goldman, Cleveland, & Parker 1978; Hagedorn 1905a: 412, 1907a: 261, 1907b: 111, 1913: 15–22; Hill, D. S. 1983: 496; Jones, Roberts, & Baker 1959: 13–36; Kalshoven 1963; Kingsolver & Norris 1977b; Lesne 1907: 1235; Loytyniemi, Beaver, & Loytyniemi 1984; Norris et al. 1968: 852; Norris & Baker 1967; Ostmark 1968; Peleg & Norris 1972a, 1972b; Pollet 1977; Roberts 1961a; Roling & Kearby 1973; Saunders, J. & Knoke 1967a, 1968; Saunders, J., Norris, & Knoke 1967: 419; Schedl 1962j: 425; Schedl, W. 1962: 368; Steinhausen 1956: 48–57; Sukartana 1988; Thompson, G. H. 1963: 71; Webb & Jones 1957: 25–43; Wiebes 1962; Wood, S. L. 1982b: 827; Woodruff & Hamlen 1974. (ds) Alluaud 1900: 440; Anonymous 1970c: 14, 1970h, 1970v, 1977k; Atkinson & Equihua 1986a: 421; Atkinson et al. 1986: 62, 1991: 160; Aulmann 1911: 438–441, 1912: 34–37, 44–48; Baker, W. L. 1972: 270;

- Beaver 1976a: 24, 1987b: 65, 1988a: 65; Beaver & Loeyttyniemi 1985a: 74; Beaver & Maddison 1990: 1372-1373; Blackwelder 1947: 779; Bright 1968b: 1312, 1972d: 81, 1976d: 136, 1982a: 128, 1985c: 173; Brimblecombe 1953: 28; Browne 1962b: 47-55, 1963a: 241, 1966: 254, 1968: 714-715, 1972b: 20, 1973a: 281, 1974a: 65, 1975a: 759, 1975b: 395; Bruch 1914: 429; Burgos & Saucedo 1983: 98; Cachan 1957: 42-53; Candeze 1861; Cola 1971, 1973; Costa Lima 1956: 292; Cranham 1961a: 30; Dejean 1837: 332; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 65; Drooz 1985: 373; Equihua & Atkinson 1986: 629; Estrada & Atkinson 1988: 207; Fauvel 1897: 66; Ferreira 1965: 1122; Ferreira & Morin 1985; Fleutiaux & Salle 1889: 457; Frost 1964: 144; Gangliumi 1966: 59, 80, 199, 231; Gardner 1957a: 33; Gemminger & Harold 1872: 2685; Gibson & Carillo 1959: 141; Hagedorn 1910d: 104; Hargreaves 1937: 510; Hill, D. S. 1983: 496, 1987: 341; Hubbard & Schwarz 1878: 666; Kalshoven 1963: 236; Kirk 1969, 1970; Kleine 1913b: 161, 1914b: 378, 1928: 307, 1931: 192; Kok & Norris 1972a, 1972b, 1972c, 1973; Kok, Norris, & Chu 1970: 661-662; Kolbe 1897: 15, 283, 1910: 41; Lacordaire 1866: 383; Lara & Shenefeld 1965: 169-177; Lee 1971: 31; Leng & Mutchler 1917: 220; Mayne & Donis 1951: 335, 1960: 104, 1962: 318; Menier 1973a; Nobuchi 1978a: 38; Norris 1976; Numberg 1956: 144, 1958: 481, 1959a: 432, 437, 1960: 294, 1961: 330, 1963c: 98; Ohno, Yoneyama, & Nakazawa 1982b: 8, 1987: 94; Ohno et al. 1987: 88, 1988a: 93, 1989: 62; Okker 1962: 56; Ostmark 1968; Pedrosa-Macedo & Schonherr 1985: 29; Pollet 1977; Roberts 1960: 35-38, 1961: 39-43, 1977a: 256; Schedl 1938d: 451, 1938h: 463, 1938i: 28, 1939a: 363, 1940c: 208, 1941f: 116, 1942b: 148-149, 1943d: 68, 1948d: 37, 1948f: 280, 1950h: 105, 1950i: 146, 1951b: 376, 1951e: 39, 1951k: 139, 1951m: 72, 1952j: 5, 1953d: 71, 1955c: 31, 1955d: 269, 1957b: 150, 1958d: 189, 1958f: 35, 1958i: 215, 1959p: 20, 1960a: 75-76, 1960f: 40, 1960h: 8, 1961a: 530, 1961d: 178, 1961j: 349, 1962h: 60-65, 1962i: 72, 1962j: 425, 1962k: 1100, 1962m: 64, 1962p: 209, 1962r: 96, 1963a: 31, 1963c: 160, 1963f: 58, 1964f: 618, 1964j: 22, 1965e: 354, 1965g: 21, 25, 1966a: 276, 1966c: 427, 1966e: 43, 1966f: 76-95, 1966g: 29, 37, 1967d: 3, 1967e: 216, 1968b: 145, 1969a: 207, 1969d: 4, 6, 12, 1970d: 233, 1970e: 83, 1970f: 582, 1971b: 266, 1971c: 362, 1971e: 1, 1971f: 148, 1971g: 193, 1972d: 152, 1972e: 283, 1972g: 38, 1972k: 296, 1973a: 368, 1973d: 158, 1974e: 52, 1975h: 350, 1975k: 277, 1976a: 54, 1977c: 394, 1977d: 279, 1977e: 43, 1978d: 73, 1979b: 416, 1979e: 58, 1980b: 184, 1982: 279; Schimitschek 1964: 178; Schmitz 1898: 157; Schneider & Farrier 1969: 412; Schonherr & Pedrosa-Macedo 1981: 55; Schreiner 1882: 48; Spahr 1981; Swezey 1941: 123, 1954: 38-216; Szent-Ivany 1963: 42, 1964: 89; Terra 1987: 25; Thatcher 1960: 17; Thompson, G. H. 1963: 71; Tucker 1952: 347; Turnbow & Franklin 1980; Ulrich 1915: 200; Wichmann 1954: 503-521, 1955a: 97; Wolcott 1948: 383; Wood, S. L. 1957c: 403, 1957e: 1273, 1960a: 51, 1961c: 2, 1977a: 73, 1982b: 827; Woodruff & Hamlen 1974; Yunus & Hua 1950: 230; Yust & Cavallos 1955: 432-436. **(tx)** Beal & Massey 1945: 152-171; Beeson 1929: 245-247, 1935: 108, 1938: 291, 1940: 201; Blackman 1922b: 117-119; Blandford 1892b, 1893c: 7-12, 1894d: 118, 1896b: 226, 1898b: 197, 217-218; Blatchley & Leng 1916: 616-622; Bright 1968b: 1312, 1972d: 81, 95, 1976d: 132, 136, 1985c: 173; Browne 1955: 355, 1962b; Chamberlin 1939: 451-456; Eggers 1920: 125, 1923a: 179, 1929e: 42, 1933b: 3, 1934: 83-84, 1940a: 108, 1941a: 107, 1943a: 387; Eichhoff 1868c: 146, 1878b: 384-388; Erichson 1836: 63; Fabricius 1801: 388; Ferrari 1867a: 23-24, 1867b: 107, 1868: 253; Gerstaecker 1871: 76, 1873; Hagedorn 1910a: 152-154, 1910b: 8; Hopkins 1915b: 62, 67, 1915c: 218; Kirsch 1875: 284; Lacordaire 1866: 383; LeConte 1868: 160, 1876: 359-360; Nobuchi 1978a: pl. 4, 1983: 302; Numberg 1962: 223-237, 1963: 358, 1968: 272; Pedrosa-Macedo & Schonherr 1985: 29; Perkins 1900: 173, 177; Powell, W. 1980: 29; Sampson 1914: 387, 1923: 287, 1925: 3; Samuelson 1981: 56; Schaufuss 1897a: 210, 1897b: 103, 1905: 8; Schedl 1931: 345-346, 1939a: 468, 1939g: 170, 1939j: 565, 1941d: 381, 1950c: 205, 1950d: 9, 13, 15, 1950e: 212, 1951g: 1103, 1951h: 285-287, 1952a: 444, 1952g: 52-53, 1953g: 242, 1954d: 872, 1954e: 52, 1955c: 31, 1955d: 269, 271, 1955f: 259, 1955i: 212, 1957b: 151, 1957c: 325, 1957d: 15-16, 84, 1958c: 1, 1958i: 215, 1960h: 11, 1961c: 8, 1962j: 425-458, 1962k: 245, 1963j: 482, 1972d: 152, 1977b: 185; Schwarz 1878: 468, 1885: 40, 1892: 78-79, 1896: 16; Swaine 1909: 154; Terra 1987: 25; Wood, S. L. 1957c: 403, 1960a: 51, 65-66, 1982b: 827; Zimmermann 1868: 145.
- trypanacoides* Wollaston 1867: 114 (*Tomiscus*).
 Syntypes ♀; S. Iago, et Fogo, Cape Verde Islands; BMNH, London. Synonymy: Browne 1955: 355, Schedl 1960h: 9.
 References: **(ds)** Beeson 1938: 291; Blackwelder 1947: 780. **(tx)** Browne 1955: 355; Eggers 1929e: 48; Schedl 1960h: 9; Wollaston 1867: 114.
- fuscatus* Eichhoff 1868a: 400. Holotype ♀; Carolina, Columbia; Hamburg Museum, lost. Synonymy: Schedl 1960h: 8.
 References: **(ay)** Hopkins 1894g. **(cn)** Blackman 1950; Chamberlin 1924, 1939: 453-454; Cleare 1924: 65-68; Davis 1895; Doane et al. 1936; Felt 1906: 752; Hubbard 1897b: 21; Kleine 1932a: 307; Packard 1890: 93; Smith, J. B. 1900: 363; Swaine 1918a: 127-128. **(ec)** Chamberlin 1939: 453-454; Felt 1906: 752; Steinhaus 1946: 404. **(hb)** Beal & Massey 1945: 155-156; Blackman 1922b, 1950; Chamberlin 1939: 453-454; Clittenden 1890; Doane et al.

1936; Felt 1906: 752; Hopkins 1894g; Hubbard 1897b: 21–22; Kleine 1932a: 307; Packard 1890: 93; Pierce, W. D. 1907: 291; Schwarz 1891e: 78, 1894a: 16; Swabey 1935: 6; Swaine 1918a: 127–128. **(ds)** Anonymous 1926c: 520; Beal & Massey 1945: 155–156; Beeson 1935a, 1935b: 108, 1938b: 292; Bielz 1851; Blackman 1922b, 1950; Blackwelder 1947: 779; Blandford 1898b; Blatchley & Leng 1916: 622; Chamberlin 1939: 453–454; Chittenden 1890; Ferrer 1942; Fleutiaux & Salle 1890: 457; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 104; Henshaw 1885: 148; Hoffmann 1940: 61, 1942: 13; Hopkins 1893a: 135, 1893b: 210; Hubbard & Schwarz 1898a: 666; Kleine 1913b: 161, 1914b: 343, 372, 386, 1932a: 307, 1934a: 173; Leng 1920: 342; Leonard 1928: 520; Martorell 1945: 471–472; Numberg 1952: 20, 27, 1965b: 20, 1971: 58, 1972b: 198; Schwarz 1878d: 468, 1886: 40, 1890: 87, 1891e: 78, 1894: 16; Smith, J. B. 1900: 363, 1910: 402; Swabey 1935: 6; Swaine 1909: 154. **(tx)** Beal & Massey 1945: 155–156; Beeson 1929: 246–247, 1935a, 1935b: 108; Blackman 1922b: 116–119; Blandford 1898b: 197, 217; Blatchley & Leng 1916: 622; Chamberlin 1939: 453–454; Eggers 1932b: 303; Eichhoff 1868a: 400, 1878b: 386; Hagedorn 1910a: 154; Hopkins 1915b: 62, 67; Hubbard 1897b: 21; LeConte 1868: 160, 1876: 359–360, 1878a: 468; Numberg 1952: 20, 27, 1963: 353, 1964: 20, 1965b: 27, pl. 2, 1971: 64, 66; Schedl 1940a: 367–368, 1960h: 8; Schwarz 1886: 40; Swaine 1909: 154, 1918a: 127–128; Wood, S. L. 1957c: 403, 1960a: 51, 64; Zimmermann 1868: 145.

impressus Eichhoff 1868a: 400. Syntypes ♀; Amer. bor. (Massachusetts); Hamburg Museum, lost. Synonymy: Schedl 1960h: 8. References: **(cn)** Swaine 1918a: 127–128. **(hb)** Chamberlin 1939: 453; Ostmark 1968; Swaine 1918a: 127–128. **(ds)** Blatchley & Leng 1916: 622; Chamberlin 1925, 1939: 453; Gemminger & Harold 1875: 2686; Hagedorn 1910d: 105; Henshaw 1885: 148; Kleine 1913b: 161, 1914b: 392; Leng 1920: 342; Ostmark 1968; Packard 1890: 718; Swaine 1909: 154. **(tx)** Blatchley & Leng 1916: 622; Chamberlin 1939: 453; Eichhoff 1868a: 400, 1878b: 389; Hagedorn 1910a: 154; Hopkins 1915b: 62; LeConte 1868: 160, 1876: 359–360; Olivier 1795b: 12; Schedl 1950i: 146, 1960h: 8; Swaine 1909: 154, 1918a: 127–128.

confusus Eichhoff 1868a: 401. Lectotype ♀; Valli do Caracas, Venezuela; IRSNB, Brussels, designated by Wood 1982b: 16. Synonymy: Schedl 1957d: 16.

References: **(bv)** Aulmann 1911. **(cn)** Blackman 1950; Cleare 1924: 65–68; Costa Lima 1956; Dash 1917: 56–60; Doane et al. 1936; Froggatt 1926a; Chesquiere 1933a; Cowdley

1914: 36–58, 1918: 42–51; Green 1916: 608–636; Kleine 1932a: 307; Laboy 1913: 1–153; Lesne 1907: 1236; Mayne & Donis 1951: 325; Packard 1890: 713; Small 1921: 38; Urich 1915: 200–203. **(ec)** Kleine 1929: 150; Mayne & Donis 1951. **(hb)** Aulmann 1911; Beeson 1929; Blacknan 1922b: 117–119, 1950; Chamberlin 1939: 454; Costa Lima 1956; Doane et al. 1936; Froggatt 1926a; Kleine 1932a: 307; Packard 1890: 713; Viana 1964: 123. **(ds)** Beeson 1929, 1935a, 1935b, 1938b, 1940; Blackman 1922b, 1950; Blackwelder 1947: 779; Blandford 1898b: 197, 217; Bruch 1914a; Bruner et al. 1945; Callan 1954; Chamberlin 1925, 1939: 454; Costa Lima 1956; Ferrer 1942; Fleutiaux & Salle 1890: 457; Gemminger & Harold 1872: 2685; Chesquiere 1933a; Hagedorn 1907a, 1907b, 1910d: 100; Hargreaves 1925: 21–28, 1937: 510; Hayward 1942; Herms 1926: 243–274; Kleine 1912a: 162, 212, 1913b: 160, 1914b: 296, 302, 323, 326, 332, 337, 339–340, 344, 354, 372, 379, 1932a: 307, 1934a: 172; Kolbe 1897: 15, 283, 1910: 41; Lepesme et al. 1948: 647; Martorell 1945: 470–471; Murayama 1936b: 115; Numberg 1971: 58, 67, 1972b: 197; Roberts 1960e, 1960f; Sampson 1914: 387; Schedl 1938d: 451; Steinhausen 1956: 48; Swezey 1941: 123, 1954: 162; Tucker 1952: 347. **(tx)** Aulmann 1911, 1912; Beeson 1929: 245–246, 1935a: 106, 118, 1935b, 1938: 291, 1940: 201; Blackman 1922b: 117–119; Blandford 1898b: 197, 217; Chamberlin 1939: 454; Costa Lima 1956; Eggers 1920: 125, 1929e: 48, 1933b: 3, 33, 1940a: 108, 1941a: 107, 1941d: 179, 1943a: 387; Eichhoff 1868a: 401, 1878b: 384; Hagedorn 1905a: 412, 1907a, 1907b, 1910a: 153, 1910b, 1912a: 344–355, 1913b: 256; Hopkins 1915b: 62; Keler 1928: 29; Kirsch 1875: 284; Lara & Shenefelt 1965: 171–172, 176; Numberg 1971: 67; Perkins 1900: 177; Sampson 1914: 387; Schaufuss 1897a: 210, 1897b: 103; Schedl 1931c: 346, 1938d: 451, 1939a: 468, 1939g: 170, 1939j: 565, 1940a: 361–363, 1940c: 208, 1941d: 381, 1941f: 116, 1942b: 147–149, 1948d: 37, 1948f: 261–262, 1950c: 205, 1950d: 9, 13, 15, 18, 1950e: 212, 1950f: 40–41, 1950h: 105, 1951b: 376, 1951e: 39, 1951h: 286, 1951k: 139, 1951m: 72–74, 1952a: 444, 1952h: 70, 1952j: 4–5, 1953d: 71, 1953g: 242, 1954d: 872, 1954e: 47, 52, 1955b: 278, 285–286, 1955d: 268, 1955f: 259, 1957d: 16, 1960h: 8; Steinhausen 1956: 48; Wood, S. L. 1957c: 403, 1960a: 64.

retusicollis Zimmermann 1868: 146. Holotype ♀; Maryland; MCZ, Cambridge. Synonymy: Bright 1868b: 1312.

References: **(cn)** Hubbard 1897b: 20; Packard 1890: 93. **(hb)** Chittenden 1890; Hubbard 1897b: 20; Packard 1890: 93; Pierce 1907: 291. **(ds)** Chittenden 1890; Gemminger & Harold

- 1872: 2686; Hagedorn 1910d: 110; Henshaw 1885: 148; Kleine 1913b: 162, 1914b: 396; Leng 1920: 342; Schwarz 1886: 41, 1895b: 171; Swaine 1909: 156. (**tx**) Bright 1968b: 1312; Eichhoff 1878b: 372; Hagedorn 1910a: 156; Hubbard 1897b: 20; LeConte 1868: 160, 1876: 359–360; Schwarz 1886: 41–42, 1895b: 171; Swaine 1909: 156; Zimmermann 1868: 146.
- bispinatus* Eichhoff 1868c: 146. Syntypes 8 ♀; Brazil; IRSNB, Brussels. Synonymy: Schedl 1960h: 8.
References: (**hb**) Viana 1964: 123. (**ds**) Blackwelder 1947: 779; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 337, 340, 344; Nunberg 1958a: 481, 1960a: 294, 1961a: 330, 1962: 223; Viana 1964: 123; Wolcott 1936: 318. (**tx**) Eggers 1932d: 303, 1934a: 84; Eichhoff 1868c: 146, 1878b: 357; Hagedorn 1910a: 152; Hopkins 1915b: 62; Kirsch 1875: 283; Nunberg 1956a: 144, 1958a: 481; Schedl 1931c: 346, 1938h: 463, 1938i: 28, 1939m: 170, 1948d: 37, 1951h: 285, 287, 1952a: 446, 1958f: 35, 1960h: 8, 1966f: 76.
- ampliocollis* Eichhoff 1869a: 280. Syntypes ♂; Puerto Rico; those in Hamburg Museum, lost, 1 in IRSNB, Brussels. Synonymy: Schedl 1960h: 8.
References: (**ds**) Blackwelder 1947: 779; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 98; Kleine 1913b: 160; Wolcott 1936: 318, 1948: 353. (**tx**) Eichhoff 1869a: 280, 1878b: 388; Hagedorn 1910a: 152; Schedl 1960h: 8.
- insularis* Sharp 1885: 193. Syntypes ♀; Hawaii; BMNH, London. Synonymy: Schedl 1941f: 116.
References: (**ds**) Beeson 1938: 291; Sampson 1914: 387. (**tx**) Eggers 1929e: 48; Sampson 1914: 387; Schedl 1941f: 116, 1943d: 65, 1948: 383, 1960h: 8; Sharp 1885: 193, 1892: 193; Wood, S. L. 1960a: 64.
- tanganus* Hagedorn 1910b: 8. Syntypes ♀; Tanga, Deutsch-Ostafrika; Hamburg Museum, lost. Synonymy: Schedl 1960h: 9.
References: (**ds**) Beeson 1938: 291; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 323. (**tx**) Eggers 1920: 125, 1929e: 48; Hagedorn 1910a: 157, 1910b: 8; Schedl 1952c: 65, 1960h: 8–9, 1962j: 426.
- soltaii* Hopkins 1915b: 66. Holotype ♀; New Orleans, Louisiana; USNM, Washington. Synonymy: Bright 1968b: 1312.
References: (**ds**) Blatchley & Leng 1916: 621; Leng 1920: 342. (**tx**) Blatchley & Leng 1916: 621; Bright 1968b: 1312; Hopkins 1915b: 66.
- nyssae* Hopkins 1915b: 66. Holotype ♀; Nichols, South Carolina; USNM, Washington. Synonymy: Schedl 1960h: 9.
References: (**cn**) Doane et al. 1936. (**hb**) Chamberlin 1939: 455–456; Doane et al. 1936. (**ds**) Blatchley & Leng 1916: 622; Chamberlin 1939: 455–456; Kleine 1934a: 175; Leng 1920: 342. (**tx**) Blatchley & Leng 1916: 622; Chamberlin 1939: 455–456; Hopkins 1915b: 66–67; Schedl 1950i: 146, 1960h: 8–9, 1962j: 426.
- hopkinsi* Beeson 1929: 246. Holotype ♀; Upolu; Malololelei [Samoa]; BMNH, London. Synonymy: Schedl 1960h: 8.
References: (**ds**) Beeson 1938b: 292. (**tx**) Beeson 1929: 246–247; Schedl 1951k: 140, 1960h: 8, 1962j: 426.
- argentinensis* Schedl 1931c: 345. Holotype ♀; Argentina, San Ignacio; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1960h: 8.
References: (**ds**) Blackwelder 1947: 779; Santoro 1957b: 25. (**tx**) Eggers 1934a: 84; Schedl 1931c: 345, 1938h: 463, 1938i: 28, 1951h: 287, 1952a: 446, 1960h: 8, 1962j: 426, 1979c: 25.
- rufopiccus* Eggers 1932d: 303. Holotype ♀; Congostaat (Elisabethville); MRCB, Tervuren. Synonymy: Wood 1959: 176.
References: (**hb**) Loytyniemi, Beaver, & Loytyniemi 1984. (**ds**) Beaver & Loytyniemi 1985a: 76; Browne 1986b: 334; Ferreira 1965: 1125; Nunberg 1961: 331; Schedl 1959p: 21, 1962j: 458, 1962k: 1102, 1969d: 8, 1977b: 190. (**tx**) Eggers 1932d: 303; Nunberg 1963b: 50–51, pl. 25; Schedl 1960h: 11, 1961e: 147, 1962j: 458, 1977b: 190, 1979c: 215; Wood, S. L. 1989: 176.
- schedli* Eggers 1934a: 83. Holotype ♀; 12 km from Atlantic Ocean, Limon, Costa Rica; USNM, Washington. Synonymy: Schedl 1960h: 9.
References: (**tx**) Anderson, W. H. & Anderson 1971: 29; Eggers 1934a: 83; Nunberg 1959a: 437; Schedl 1940c: 208, 1948f: 261–262, 1960h: 8, 1962j: 426.
- nesianus* Beeson 1940: 200. Holotype ♀; Society Islands: Tahiti, Taohiri, Mt. Aorai Trail; BPBM, Honolulu. Synonymy: Beaver 1991: 95.
References: (**tx**) Beaver 1991: 95; Beeson 1940: 200–201.
- notatus* Eggers 1941a: 107. Holotype ♀; 3–Riv., Guadeloupe; USNM, Washington. Synonymy: Schedl 1960h: 8.
References: (**tx**) Anderson, W. H. & Anderson 1971: 22; Eggers 1941a: 107; Nunberg 1959a: 432; Schedl 1960h: 8, 1962j: 426, 1979c: 171.
- subitus* Schedl 1948f: 280. Holotype ♀; Mexico, Chiapas; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1960h: 9.
References: (**tx**) Santoro 1966a; Schedl 1948f: 280, 1960h: 8–9, 1962j: 426, 1979c: 242.
- festivus* Eichhoff 1875: 202. Syntypes ♀; Japan; IRSNB, Brussels.
Distribution: Asia (Japan/Ryukyu Islands).
Hosts: *Pinus densiflora*.
References: (**cn**) Murayama 1954a: 11. (**ds**) Blandford 1894c; Hagedorn 1910d: 104; Kleine 1913b:

- 161, 1914b: 260; Murayama 1954a: 11, 1954b: 177, 1955: 100; Nobuchi 1966d: 29, 1985c: 24. (tx) Blandford 1894d; Eichhoff 1875: 202, 1877a: 125, 1878b: 366; Hagedorn 1910a: 154; Murayama 1954b: 177, 1955: 100; Nobuchi 1966d: 29; Schedl 1934f: 1646, 1960b: 164.
- ficus** Eggers 1927a: 193. Syntypes ♀; Belg.-Congo, Barumbu; MRCB, Tervuren and Eggers Collection, in NHMW, Wien.
 Figures: Numberg 1963b: pl. 14, figs. 1–6.
 Distribution: Africa (Fernando Poo/ "French West Africa"/ Ghana/ Ivory Coast/ Zaire).
 Hosts: *Acacia pennata*, *Anthonata macrophyllum*, *Camoensia maxima*, *Chrysophyllum africanum*, *Dialium pachyphyllum*, *Ficus mucoso*, *Ficus seretii*, *Hevea brasiliensis*, *Panda oleosa*, *Pentaclethra macrophylla*, *Pterocarpus tinctorius*, *Thalia geniculata*, *Theobroma cacao*.
 References: (bv) Schedl 1960f: 53. (cn) Ghesquiere 1933a: 27–36. (cc) Schedl 1962j: 320. (hb) Schedl 1962j: 320. (ds) Ghesquiere 1933a: 27–36, 1933b: 777–786; Kleine 1934a: 173; Mayne & Donis 1962: 318; Schedl 1960f: 40, 1961m: 84, 1962j: 320, 1967e: 216, 1971g: 193, 1972e: 283. (tx) Beeson 1935: 114; Eggers 1927a: 193–194; Numberg 1963b: 31, pl. 14; Schedl 1954d: 872, 1957e: 880, 1961m: 84, 1962j: 320, 1979c: 96.
- figuratus** Schedl 1959a: 508. Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
 Distribution: Asia (Sri Lanka).
 References: (ds) Schedl 1959a: 508. (tx) Schedl 1959a: 508, 1979c: 96.
- fischeri** Hagedorn 1908: 380. Syntypes ♀; Sumatra-Palembang; Hamburg Museum, lost.
 Distribution: Indonesia (Borneo, Sumatra).
 Hosts: *Sarcocephalus cordatus*.
 Notes: (1) Schedl 1979c: 97 (neotype designation invalid).
 References: (cn) Mathur & Singh 1961a: 26. (ds) Beeson 1930, 1961: 304; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 286; Mathur & Singh 1961a: 26. (tx) Beeson 1930: 58; Eggers 1923a: 203–204, 1927b: 407; Hagedorn 1908: 380, 1910a: 154; Sampson 1912: 249; Schedl 1940b: 441, 1954c: 154, 1979c: 97.
- flavipennis** Schedl 1979g: 107. Holotype ♀; Papua [New Guinea]; Bulolo, Morobe Dist., Upper Manki L. A.; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1979g: 107.
- flavopilosus** Schedl 1936g: 533. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (ds) Schedl 1936g: 533. (tx) Schedl 1936g: 533–534, 1955b: 300, 1979c: 97.
- foederatus** Schedl 1963f: 58. Holotype ♀; Suriname, Dirkshoop und Maripahenevel; Schedl Collection in NHMW, Wien.
 Distribution: South America (Suriname).
 References: (tx) Schedl 1963f: 58, 1979c: 98.
- formosae** Wood 1992b: 80. Holotype ♀; Hualien (Formosa) to Yatsushiro (Japan), imported; BMNH, London, automatic.
 Distribution: Asia (Taiwan).
 References: (tx) Wood, S. L. 1992b: 80.
- formosanus** Browne 1981a: 131. Holotype ♀; Hualien (Formosa) to Yatsushiro (Japan), imported, preoccupied by Eggers 1930: 186.
 References: (tx) Browne 1981a: 131; Wood, S. L. 1992b: 80.
- fukiensis** Eggers 1941b: 225. Holotype ♀; Fukien (Kuatun, 2300 m); Alexander Konig Museum, Bonn.
 Distribution: Asia (Fujian in China/ Nepal).
 References: (ds) Eggers 1941b: 225; Schedl 1953e: 29, 1973b: 211.
- fulvulus** Schedl 1942d: 35. Lectotype ♀; Sumatra, Padang; Schedl Collection in NHMW, Wien, automatic, designated by Schedl 1979c: 102.
 Distribution: Indonesia (Sumatra).
 Notes: *Myristica fragrans*.
 References: (hb) Kalshoven 1959c: 143. (ds) Kalshoven 1959c: 143. (tx) Schedl 1942d: 35–37, 1979c: 101–102.
- fulvus** Schedl 1939f: 48. Lectotype ♀; Sumatra, Padang; Schedl Collection in NHMW, Wien, preoccupied by Murayama 1936, designated by Schedl 1979c: 102.
 References: (tx) Schedl 1939f: 48, 1942d: 35–37, 1979c: 101–102.
- fuyugei** Schedl 1973f: 74. Holotype ♀; Abaleti, Rossel Isl., M. Bay Dist. [New Guinea]; AMNH, New York.
 Distribution: New Guinea.
 References: (tx) Schedl 1973f: 74.
- ganshoensis** Murayama 1952a: 16. Holotype ♀; Gansho, Izu Peninsula, Shizuoka; Murayama Collection in USNM, Washington.
 Distribution: Asia (Japan).
 Hosts: *Castanea crenata*.
 References: (ds) Murayama 1952a: 16, 19, 1954b: 177; Nobuchi 1985c: 24. (tx) Murayama 1952a: 16, 19, 1954b: 177.
- geayi** Hagedorn 1905a: 413. Lectotype ♀; Camopi, French Guiana; MNHN, Paris, designated by Wood 1982b: 820.
 Distribution: North America (Costa Rica), South America (Brazil/ Cayenne/ Colombia/ Guyana/ Venezuela).
 Hosts: *Sloania multiflora*.
 References: (ds) Blackwelder 1947; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 339; Schedl

- 1972g: 45. (tx) Eggers 1933b: 26; Hagedorn 1905a: 413, 1910a: 154; Wood, S. L. 1982b: 820.
- gezei** **Lepesme** 1942c: 120. Holotype ♂; Cameroun: Mont Etinde, 1000–1100 m; MNHN, Paris.
Distribution: Africa (Cameroun).
References: (en) Grandi 1951. (hb) Grandi 1951; Paulian 1949a: 986. (tx) Jeannel 1949: 986; Lepesme 1942c: 120; Schedl 1962j: 576.
- gibber** **Schedl** 1961e: 145. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Dalbergia pterocarpifolia*.
References: (ds) Schedl 1977b: 196. (tx) Schedl 1961e: 145, 1965c: 74, 1977b: 196, 1979c: 104.
- glabratus** **Browne** 1983a: 560. Holotype ♀; Viru Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: *Terminalia* sp.
References: (ds) Ohno et al. 1989: 62. (tx) Browne 1983a: 560.
- glabratus** **Eichhoff** 1877a: 127. Syntypes ♀; Japan; IRSNB, Brussels.
Figures: Nobuchi 1978a: pl. 3.
Distribution: Asia (Bonin Islands/ Burma/ Assam, Bengal in India/ Japan/ Taiwan).
Hosts: *Lindera latifolia*, *Litsaea elongata*, *Shorea robusta*.
References: (en) Mathur & Singh 1961a: 46. (ec) Beeson 1923. (hb) Beeson 1923. (ds) Beeson 1923, 1930, 1961: 305; Blandford 1894c; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 260, 279; Mathur & Singh 1961a: 46; Murayama 1936a: 132, 1954b: 179; Nobuchi 1967: 22, 1978: 36; Nobuchi & Ono 1973: 182; Ohno et al. 1988a: 94; Schedl 1971c: 362, 1975a. (tx) Beeson 1930: 236; Blandford 1894d; Eichhoff 1877a: 127, 1878b: 381; Hagedorn 1910a: 154; Murayama 1936a: 132–133, 1954b: 179; Nobuchi 1978a: pl. 3; Schedl 1934f: 1646.
- gorggae** **Schedl** 1973e: 91. Holotype ♀; New Ireland District, Papontamon; CSIRO, Canberra.
Distribution: New Ireland Island.
Hosts: *Eucalyptus deglupta*, and *Gorgga* log.
References: (tx) Schedl 1973e: 91, 1979c: 106.
- granatus** **Schedl** 1979a: 161. Holotype ♀; Brisbane, Queensland, Australia; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
References: (tx) Schedl 1979a: 161.
- grandis** **Eichhoff** 1869a: 281. Holotype ♀; Colombia; IRSNB, Brussels.
Distribution: North America (Costa Rica), South America (Colombia).
Hosts: Large log.
References: (hb) Wood, S. L. 1982b: 821. (ds) Blackwelder 1947: 779; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 343; Wood, S. L. 1982b: 821. (tx) Eggers 1933b: 26; Eichhoff 1869a: 280–281, 1878b: 350; Hagedorn 1910a: 154; Schedl 1979c: 106; Wood, S. L. 1982b: 821.
- grauiger** **Schedl** 1955b: 303. Holotype ♀; New Guinea, Berlinhafen; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 281, 303, 1955k: 145.
- granulipes** **Schedl** 1973c: 91. Holotype ♀; Mogova, Goodenough Island, Milne Bay District [New Guinea]; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Pterocarpus indicus*.
References: (tx) Schedl 1973c: 91, 1979c: 112.
- granurus** **Browne** 1980a: 376. Holotype ♀; Buru Island (Moluccas) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Buru Island).
Hosts: *Shorea* sp.
References: (tx) Browne 1980a: 376.
- gratiosus** **Schedl** 1975f: 366. Holotype ♀; Minj Golf Course, Western Highlands District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (tx) Schedl 1975f: 366, 1979c: 112.
- gratus** **Schedl** 1964g: 248. Holotype ♀; Sarawak, Semengoh; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Schedl 1964g: 248, 1979c: 112.
- gravelyi** **Wichmann** 1914a: 411. Syntypes 2 ♀; Kobo, 400 ft.; not given.
Distribution: Asia (Bengal in India).
Hosts: *Symplocos theaeifolia*.
References: (ds) Beeson 1961: 305. (tx) Wichmann 1914a: 411–412.
- grossmanni** **Schedl** 1952d: 362. Holotype ♀; in Holzer aus Columbien nach Hamburg importiert; Schedl Collection in NHMW, Wien.
Distribution: South America (Colombia/ Suriname).
Hosts: *Dialyanthera otoba*, *Virola surinamensis*.
References: (tx) Schedl 1952d: 362, 1979c: 113.
- acuminatus** **Schedl** 1970e: 94. Nied. Guayana, Para Dist.; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177.
References: (tx) Schedl 1970e: 94, 1979c: 113; Wood, S. L. 1989: 177.
- haberkorni** **Eggers** 1920: 43. Lectotype ♀; Anani, Deutsch-Ostafrika; USNM, Washington, designated by Anderson & Anderson 1971: 14.
Distribution: Africa (Tanzania), Asia (Bangladesh/ Burma/ Hainan Island in China/ India/ Malaya/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Java).
Hosts: *Albizzia moluccana*, *Artocarpus dadah*, *Coffea liberica*, *Dalbergia latifolia*, *Eugenia jambolana*, *Mangifera indica*, *Melanorrhoea*

curtisii, *Parkia speciosa*, *Piper* sp., *Salix tetrasperma*, *Shorea maxwelliana*, *S. ovata*, *S. robusta*, *Swietenia mahogoni*, *Tectona grandis*, *Terminalia myriocarpa*, *Theobroma cacao*, *Toonia sinensis*, *Tristania whiteana*, *Turpinda pomifera*, *Vitex pubescens*.

References: (cn) Frolich & Rodewald 1969: 99; Kalshoven 1932: 252, 1951: 849; Mathur & Singh 1961a: 8, 1961b: 34; Miller et al. 1933: 105–107, 125; Murthy et al. 1965: 5; Speyer 1923: 21; Yunus & Hua 1980: 230. (ec) Browne 1958b: 164–182; Norris 1979. (hb) Beaver & Browne 1978: 609; Browne 1958b, 1961c: 113; Kalshoven 1951: 849, 1958a: 189, 1959c: 151; Roonwal 1954: 48. (ds) Beaver & Browne 1978: 609; Beeson 1930: 237, 271, 1941: 397, 1961: 305; Browne 1958b, 1968a: 132–133; Kalshoven 1932: 252, 1951: 849, 1958a: 189, 249, 1959c: 150–151; Kleine 1934a: 173; Mathur & Singh 1961a: 8, 1961b: 34; Nobuchi 1967: 21; Schedl 1959a: 500, 1962b: 186, 1962j: 268, 1971a: 277, 1974c: 262; Yunna & Hua 1980: 2130. (tx) Anderson, W. H. & Anderson 1971: 14; Beeson 1930: 237, 271; Eggers 1920: 43–44, 1923a: 191, 1936d: 626, 632, 1939c: 114; Kleine 1934a: 173; Schedl 1942a: 171, 1942d: 5, 1959a: 500, 1962j: 268.

haddenii Schedl 1933d: 101. Holotype ♀; Mount Maquilung, Laguna, Luzon; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
Hosts: *Toonia calantias*.
References: (ds) Schedl 1936g: 531, 1966b: 56. (tx) Nobuchi 1983: 302; Schedl 1933e: 101, 1979c: 115.

haesitus Schedl 1976a: 74. Holotype ♀; Ter. Amapa, Serra Navio [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 74.

hagedornianus Schedl 1952k: 164. Syntypes ♀; Kaden Bilin Forest, Tharrawaddy [Lower Burma]; FRI, Dehra Dun, automatic.
Distribution: Asia (Burma/ Bengal in India).
Hosts: *Evodia fraxinifolia*, *Symplocos theaeifolia*, *Tectona grandis*.
References: (cn) Mathur & Singh 1961a: 84, 1961b: 14. (ds) Mathur & Singh 1961a: 84, 1961b: 14; Pedrosa-Macedo & Schonherr 1985: 31. (tx) Pedrosa-Macedo & Schonherr 1985: 31; Schedl 1952k: 164, 1960i: 109.

hagedorni Stebbing 1914: 596. Syntypes ♀; Kaden Bilin Forest, Tharrawaddy [Lower Burma]; FRI, Dehra Dun, preoccupied by Iglesias 1914.
References: (cn) Stebbing 1914: 596. (cc) Stebbing 1914: 594. (hb) Stebbing 1914: 596. (ds) Beeson 1930: 237–238, 1961: 305; Kleine 1934a: 173. (tx) Beeson 1930: 61–62, 237; Eggers 1930d: 4, 180; Nunberg 1956: 209; Schedl 1952k: 164; Stebbing 1914: 396.

tectonae Nunberg 1956d: 209. Syntypes ♀; Kaden Bilin Forest, Tharrawaddy [Lower Burma]; FRI, Dehra Dun, automatic.
Notes: Kumar & Chandra 1977: 37 (described male).

References: (tx) Kumar & Chandra 1977: 37, 48; Nunberg 1956d: 209; Schedl 1960h: 109.

halli Schedl 1954c: 161. Holotype ♀; British North Borneo; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Schedl 1954c: 161.

hashimotoi Browne 1986a: 95. Holotype ♀; New Guinea: Fak fak to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1986a: 96.

hatanakai Browne 1983a: 559. Holotype ♀; Tatau (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: Meranti log.
References: (ds) Olmo et al. 1987: 89. (tx) Browne 1983a: 559.

hawaiiensis Perkins 1900: 175. Lectotype ♀; Hawaii, Hilo; BMNH, London, designated by Samuelson 1981: 74.
Figures: Nunberg 1959a: pl. 22, figs. 5–6, Samuelson 1981: 74.
Distribution: Hawaiian Islands (Hawaii, Oahu).
Hosts: *Cheirodendron* sp., *Dubautia laxa*, *Pipturus albidus*, *Tetraplasandra* spp.
References: (ds) Beeson 1938b: 292; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 303; Samuelson 1981: 74; Swezey 1941: 121, 1954: 14. (tx) Hagedorn 1910a: 154; Nunberg 1959a: 427; Perkins 1900: 175; Samuelson 1981: 63, 74; Schedl 1941f: 112.

hiika Samuelson 1981: 75. Holotype ♀; Hawaii: upper Hamakua Ditch Trail; BPBM, Honolulu.
Figures: Samuelson 1981: 63.
Distribution: Hawaiian Islands (Hawaii).
Hosts: *Cheirodendron* sp.
References: (tx) Samuelson 1981: 63, 75.

hirtipes Schedl 1969c: 53. Holotype ♀; N.E. Burma: Kambaiti, 2000 m; Schedl Collection in NHMW, Wien.
Distribution: Asia (Burma).
References: (tx) Schedl 1969c: 53, 1979c: 118.

hopeae Browne 1986a: 96. Holotype ♀; New Guinea: Fak fak to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Hopea* sp. log.
References: (tx) Browne 1986a: 96.

horridatus Wood 1967c: 135. Holotype ♀; San Isidro del General, San Jose Prov., Costa Rica; Wood Collection.

- Distribution: North America (Costa Rica/Panama), South America (Colombia).
Hosts: *Citrus sinensis*, *Theobroma cacao*.
References: (hb) Wood, S. L. 1982b: 797. (ds) Wood, S. L. 1982b: 797. (tx) Wood, S. L. 1967c: 135, 1982b: 797.
- horridicus** Wood 1967c: 136. Holotype ♀; Reyes, Bolivia; Wood Collection.
Distribution: South America (Bolivia).
References: (tx) Wood, S. L. 1967c: 136.
- horridulus** Browne 1961a: 307. Holotype ♀; Sarawak: Bako National Park; BMNH, London. Distribution: Indonesia (Sarawak in Borneo).
References: (ds) Browne 1965a: 189; Parsons 1963: 352. (tx) Browne 1961a: 307, 1965a: 189.
- horridus** Eichhoff 1869a: 282. Lectotype ♀; Teapa, Mexico; IRSNB, Brussels, designated by Wood 1982b: 796.
Figures: Numberg 1968a: pl. 1.
Distribution: North America (El Salvador/ Guatemala/Tabasco, Veracruz in Mexico/Texas in USA).
Hosts: *Cassia* sp., *Hevea brasiliensis*.
References: (ds) Atkinson & Equihua 1985b: 237, 1986, 1988: 102; Blackwelder 1947: 780; Blandford 1898b: 195, 203; Estrada & Atkinson 1988: 207; Ferrer 1942; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 354, 371; Schedl 1963c: 160, 1966f: 77, 1972g: 38, 1977e: 43; Wood, S. L. 1961c: 2, 1982b: 796. (tx) Blandford 1898b: 195, 203; Eichhoff 1869a: 282, 1878b: 343; Hagedorn 1908, 1910a: 154; Numberg 1968a: 274, pl. 1; Schedl 1940a: 361; Wood, S. L. 1967c: 135–136, 1977b: 211, 1982b: 796.
- flohri** Schedl 1972g: 69. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977b: 211.
References: (tx) Schedl 1972g: 69, 1979c: 98; Wood, S. L. 1977b: 211.
- hova** Schedl 1953d: 95. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 119.
Distribution: Madagascar.
References: (tx) Schedl 1953d: 95, 1977b: 135, 1979c: 119.
- howdenae** Bright 1973: 18. Holotype ♀; Hardwar Gap, St. Andrew Parish [Jamaica], 4000 feet; CNCI, Ottawa, automatic.
Figures: Bright 1972d: 95.
Distribution: Antilles Islands (Jamaica).
References: (ds) Bright 1985c: 174. (tx) Bright 1973: 18, 1981c: 158, 1985c: 174.
- novus** Bright 1972d: 78. Holotype ♀; Hardwar Gap, St. Andrew Parish [Jamaica], 4000 feet; CNCI, Ottawa, preoccupied by Eggers 1923.
References: (tx) Bright 1972d: 95, 1973: 18; McNamara 1977: 200; Schedl 1974f: 332.
- brighti** Schedl 1974f: 335. Holotype ♀; Hardwar Gap, St. Andrew Parish [Jamaica], 4000 feet; CNCI, Ottawa, automatic.
Notes: (1) This is an unneeded replacement name, no status.
References: (tx) Bright 1981c: 158; Schedl 1974f: 335.
- humanensis** Browne 1983d: 33. Holotype ♀; China: Human, Changsha; IZAS, Beijing.
Distribution: Asia (Human in China).
References: (tx) Browne 1983d: 33.
- hystericoides** Browne 1973a: 293. Holotype ♀; Zaire: Nioka; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Browne 1973a: 293.
- ignobilis** Perkins 1900: 180. Lectotype ♀; Hawaii: Hilo, 2000 ft.; BMNH, London, designated by Samuelson 1981: 76.
Distribution: Hawaiian Islands (Hawaii, Lanai).
Hosts: *Freyinetia arborca*.
References: (ds) Beeson 1938b: 292; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 302; Samuelson 1981: 76. (tx) Hagedorn 1910a: 154; Perkins 1900: 180; Samuelson 1981: 56, 76; Schedl 1934g: 177–178, 1959a: 498.
- iheringi** Iglesias 1914b: 129. Syntypes ♀; Butantan, S. Paulo; not given.
Distribution: South America (Brazil).
Hosts: *Eucalyptus robusta*.
References: (cn) Azavedo 1924b: 180–181. (ds) Blackwelder 1947; Kleine 1934a: 173. (tx) Iglesias 1914b: 128–129.
- imbellis** Blandford 1898b: 211. Holotype ♀; San Juan, Verapaz, Guatemala; BMNH, London.
Distribution: North America (El Salvador/ Guatemala/Veracruz in Mexico).
Hosts: *Hevea brasiliensis*.
References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 372. (tx) Blandford 1898b: 211; Hagedorn 1910a: 154.
- immersus** Schedl 1972i: 52. Holotype ♀; Lakunai, E. New Britain Dist.; CSIRO, Canberra.
Distribution: New Britain Island.
Hosts: *Melochia odorata*.
References: (tx) Schedl 1972i: 52, 1979c: 122.
- immitatrix** Schedl 1975f: 367. Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 367, 1979c: 121.
- impar** Eggers 1927c: 89. Syntypes ♂; Philippines: Mindanao, Prov. Lanao, Kolambangan; Eggers Collection (not mentioned by either Anderson & Anderson 1971 or Schedl 1979c).
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 56. (tx) Eggers 1927c: 89–90; Nobuchi 1983: 302.
- impexus** Schedl 1942c: 184. Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

- Distribution: New Guinea.
References: (tx) Schedl 1942c: 184, 1979c: 122.
- improbis Sampson** 1913: 444. Holotype ♀; Darjeeling; BMNH, London.
Distribution: Asia (Xizang [Tibet] in China/ Bengal in India).
Hosts: *Eucalyptus globulus*, *Machilus odoratissima*, *Quercus lamellosa*.
References: (cn) Pierce, W. D. 1917: 154; Stebbing 1914: 600. (ec) Stebbing 1914: 600. (hb) Stebbing 1914: 600. (ds) Beeson 1930: 238, 1961: 305; Kleine 1934a: 173; Pierce, W. D. 1917: 154. (tx) Beeson 1930: 216, 238; Eggers 1930d: 179; Sampson 1913: 444; Schedl 1979c: 122; Stebbing 1914: 600.
- improcerus Sampson** 1921: 33. Holotype ♀; Siam; BMNH, London.
Distribution: Asia (India/ Malaya/ Thailand), Indonesia (Borneo).
Hosts: *Dipterocarpus cornuti*.
References: (cn) Yunus & Hua 1980: 230. (hb) Browne 1961c: 112. (ds) Beaver & Browne 1975: 298; Beeson 1961: 305; Sampson 1921: 33; Yunus & Hua 1980: 230. (tx) Sampson 1921: 33.
- improvidus Schedl** 1935d: 92. Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien.
Distribution: North America (Panama), South America (Venezuela).
References: (hb) Wood, S. L. 1982b: 815. (ds) Blackwelder 1947: 780; Wood, S. L. 1982b: 815. (tx) Schedl 1935d: 92, 1979c: 122; Wood, S. L. 1979b: 136, 1982b: 815.
- acinis** Wood 1974a: 38. Holotype ♀; Cerro Punta near Volcan de Chiriqui (Baru), Chiriqui, Panama; Wood Collection. Synonymy: Wood 1979b: 136.
References: (tx) Wood, S. L. 1974a: 38, 1979b: 136.
- inaequalis Schedl** 1934d: 87. Lectotype ♀; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 123.
Distribution: Asia (Singapore in Malaya), Indonesia (Java).
Hosts: *Desmoncus* sp., *Plectocomia elongata*, Rattan.
References: (hb) Kalshoven 1959c: 139. (ds) Browne 1970: 542; Kalshoven 1935a: 14, 1959c: 138–139. (tx) Schedl 1934d: 87–88, 1939f: 51, 1959a: 502, 1961c: 71, 1979c: 123.
- inarmatus Eggers** 1923a: 209. Lectotype ♀; Tenasserim; USNM, Washington, designated by Anderson & Anderson 1971: 15.
Distribution: Asia (Burma/ India), Indonesia (Sumatra).
Hosts: *Quercus lamellosa*.
References: (ds) Beeson 1930: 238, 1961: 305. (tx) Anderson, W. H. & Anderson 1971: 15; Beeson 1930: 238; Eggers 1923a: 209–210, 1925: 159, 1927a: 189, 1930d: 205, 210; Schedl 1934d: 87.
- inconstans Schedl** 1962j: 271. Holotype ♀; Congostaat; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1962j: 271, 1979c: 123.
- indonesianus Browne** 1984b: 290. Holotype ♀; Lakea (Indonesia) to Kishiwada (Japan), imported; BMNH, London.
Distribution: Indonesia.
Hosts: Meranti log.
References: (ds) Ohno, Yoneyama, & Nakazawa 1987: 94. (tx) Browne 1984b: 290.
- insignis Browne** 1984c: 452. Holotype ♀; Wallace Bay (Sabah) to Nagoya (Japan), imported.
Distribution: Indonesia (Sabah or Sabak Island).
Hosts: *Albizia* sp.
References: (tx) Browne 1984c: 452.
- insitivus Schedl** 1959a: 509. Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (ds) Schedl 1959a: 509. (tx) Schedl 1959a: 509, 1979c: 125.
- insulindicus Eggers** 1923a: 177. Lectotype ♀; New Guinea (Sudost), Paumotufluss; USNM, Washington, designated by Anderson & Anderson 1971: 16.
Figures: Numberg 1959a: pl. 23, figs. 5–6.
Distribution: Australia (Queensland), Fiji Islands, New Guinea.
Hosts: *Cardwellia sublimus*, *Elacocarpus* sp., *Endiandra palmerstonii*, *Flindersia acuminata*.
Notes: (3) Schedl 1980b: 186 (described male).
References: (hb) Kalshoven 1959c: 137. (ds) Browne 1974a: 65, 1984b: 286; Kalshoven 1959c: 137; Ohno, Yoneyama, & Nakazawa 1982a: 4; Schedl 1961a: 74, 1980b: 184. (tx) Anderson, W. H. & Anderson 1971: 16; Beeson 1929: 234–235; Eggers 1923a: 177–178, 1927c: 101; Numberg 1959a: 429; Schedl 1942a: 187, 1942c: 163, 1950f: 40, 1951j: 73, 1969b: 218, 1979c: 126, 1980b: 184–186.
- integer Schedl** 1957d: 93. Holotype ♀; Congo Belge: Kivu, Mt. Kaluzi; MRCB, Tervuren.
Figures: Numberg 1963b: pl. 18, figs. 3–6.
Distribution: Africa (Kenya/ Zaire).
Hosts: *Eucalyptus botryoides*, *Hypericum lanceolatum*.
References: (cc) Schedl 1958d: 192–194. (hb) Schedl 1962j: 303. (ds) Schedl 1962j: 303. (tx) Numberg 1963b: 37, pl. 18; Schedl 1957d: 93, 241, 1962j: 303, 1979c: 126.
- interponens Schedl** 1954c: 160. Lectotype ♀; Borneo, Sarawak, Mt. Penrissen, 4500 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 127.
Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Schedl 1954c: 160, 1979c: 127.
- interpunctatus Blandford** 1898b: 206. Holotype ♀; Guatemala, Rio Naranjo; BMNH, London.

- Distribution: North America (Guatemala).
References: **(ds)** Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 371. **(tx)** Blandford 1898b: 206; Hagedorn 1910a: 154.
- intrusus Blandford** 1898b: 213. Lectotype ♀; San Geronimo, Guatemala; BMNH, London, designated by Wood 1982b: 839.
Figures: Schwerdtfeger 1960b: 254.
Distribution: Antilles Islands (Dominican Republic in Hispanola), North America (British Columbia in Canada/ Guatemala/ Honduras/ Chiapas, Distrito Federal, Durango, Jalisco, Mexico, Morelos, Oaxaca, Puebla in Mexico/ Arizona, California, Colorado, District of Columbia, Idaho, Maryland, Montana, New Mexico, North Carolina, Oregon, Pennsylvania, South Carolina, South Dakota, Utah in USA).
Hosts: *Pinus contorta*, *P. coulteri*, *P. jeffreyi*, *P. leiophylla*, *P. mexicana*, *P. ponderosa*, *P. rudis*, *Pseudotsuga menziesii*.
References: **(hb)** Atkinson & Equihua 1985b: 238; Atkinson et al. 1986: 35; Burgos & Saucedo 1983: 101; Furniss, M. M. & Johnson 1987: 381; Wood, S. L. 1982b: 839. **(ds)** Atkinson & Equihua 1985b: 238, 1988: 102; Atkinson et al. 1986: 35; Blackwelder 1947: 780; Bright 1985c: 174; Burgos & Saucedo 1983: 101; Drooz 1985: 374; Fall 1906: 202; Furniss, M. M. & Johnson 1987: 381; Furniss, R. L. & Carolin 1977: 413; Gast et al. 1989: 385; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 372; Snow 1907: 188; Wickham 1898: 312; Wood, S. L. 1982b: 839. **(tx)** Blandford 1898b: 213; Bright 1985c: 174; Hagedorn 1910a: 154; Wood, S. L. 1972e: 198, 1982b: 839.
- howardi** Hopkins 1915b: 62, 65. Holotype ♀; Washington, D.C. [USA]; USNM, Washington. Synonymy: Wood 1972e: 198.
References: **(hb)** Chamberlin 1939: 453. **(ds)** Baker, W. L. 1972: 271; Blatchley & Leng 1916: 620; Bright 1968b: 1318; Chamberlin 1939: 453; Leng 1920: 342. **(tx)** Blatchley & Leng 1916: 620; Bright 1968b: 1318; Chamberlin 1939: 453; Hopkins 1915b: 65–66; Wood, S. L. 1962: 79, 1972e: 198.
- fitchi** Hopkins 1915b: 62, 66. Holotype ♀; Hyslop, Long Island [USA]; USNM, Washington. Synonymy: Wood 1962: 79.
References: **(cn)** Blackman 1950; Doane et al. 1936. **(cc)** Savely 1939: 336. **(hb)** Beal & Massey 1945: 159; Blackman 1950; Chamberlin 1939: 453; Doane et al. 1936. **(ds)** Anonymous 1926c: 520; Beal & Massey 1945: 159; Blackman 1950; Blatchley & Leng 1916: 620; Chamberlin 1939: 453; Kleine 1934a: 173; Knoll 1934: 212; Leng 1920: 342; Leonard 1928: 520. **(tx)** Beal & Massey 1945: 159; Blatchley & Leng 1916: 620; Bright 1968b: 1318; Chamberlin 1939: 453; Hopkins 1915b: 62, 66; Wood, S. L. 1962: 79.
- scopulorum** Hopkins 1915b: 62, 66. Holotype ♀; Black Hills, South Dakota [USA]; USNM, Washington. Synonymy: Wood 1972e: 198.
References: **(cn)** Chamberlin 1939: 453; Doane et al. 1936; Keen 1929: 56, 1948: 147; Schuder 1969: 78; Schwerdtfeger 1960b. **(cc)** Becker 1953, 1955; Chamberlin 1939: 453; Keen 1948: 147; Massey 1961: 358; Stephen & Dahlsten 1976: 292. **(hb)** Becker 1953, 1955; Bright & Stark 1973: 77; Chamberlin 1939: 453; Doane et al. 1936; Keen 1929: 56, 1948: 147. **(ds)** Becker 1953: 362; Bright 1968b: 1320; Bright & Stark 1973: 77; Chamberlin 1925, 1939: 453; Keen 1929: 42, 56, 1948: 147; Kirk 1969; Kleine 1934a: 175; Lange 1937: 174; Leng 1920: 342; Schedl 1960a: 75, 1969: 78; Schwerdtfeger 1960b; Wood, S. L. 1948: 75, 1951a: 128, 1972a: 423. **(tx)** Bright 1968b: 1320; Chamberlin 1939: 453; Hopkins 1915b: 62, 66; Keen 1929: 42; Schedl 1952d: 123, 1955g: 46–47; Schwerdtfeger 1960b: 254–256; Wood, S. L. 1972a: 422, 1972e: 198.
- ipidia** Schedl 1972h: 63. Holotype ♀; 2 km N Ruwong Sawmill, New Ireland Dist., New Guinea. Distribution: Australia, Fiji Islands, New Ireland Island.
Hosts: *Beilschmiedia obtusifolia*, *Canarium* sp.
Notes: (3) Schedl 1975h: 368 (described male).
References: **(bv)** Gray, B. 1974e. **(hb)** Gray, B. 1974c. **(ds)** Schedl 1980b: 184. **(tx)** Schedl 1972h: 63, 1975f: 368, 1979c: 128.
- planodeclivis** Browne 1974a: 70. Holotype ♀; Fiji: Viti Levu, Galoa; BMNH, London. Synonymy: Schedl 1980d: 122.
References: **(hb)** Roberts 1977a: 264. **(ds)** Browne 1974a: 65, 70; Roberts 1977a: 264. **(tx)** Browne 1974a: 65, 70; Schedl 1980d: 122.
- irregularis** Eggers 1923a: 211. Holotype ♀; Batoe Insel (Poeloe Pini); Natura Artis Magistra, Amsterdam.
Distribution: Indonesia (Batu Island).
References: **(tx)** Eggers 1923a: 211–212, 1927c: 99; Schedl 1939f: 44.
- ishidai** Niisima 1909: 156. Holotype ♀; Jozankei, Sapporo, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
References: **(ds)** Kleine 1913b: 161, 1914b: 261; Murayama 1954b: 179; Nobuchi 1985c: 25. **(tx)** Hagedorn 1910a: 154; Murayama 1954b: 179; Niisima 1909: 153–157; Schedl 1934f: 1646.
- jambolanaensis** Schedl 1951j: 22. Lectotype ♀; Madagascar, Tsimbazaza; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 129. Distribution: Madagascar.
Hosts: *Eugenia jambolana*.
References: **(hb)** Panlian 1951: 29. **(ds)** Paulian 1951: 29; Schedl 1977b: 197. **(tx)** McNamara 1977: 200; Schedl 1951j: 22, 1977b: 197, 1979c: 129.

- japonicus Nobuchi** 1981b: 150. Holotype ♀; Ohshima, Wakayama, Japan; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1981b: 153.
 Distribution: Asia (Japan).
 Hosts: *Castanopsis cuspidata*, *Quercus myrsinaefolia*.
 References: (tx) Nobuchi 1981b: 150–153.
- javanus Eggers** 1923a: 188. Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 17.
 Figures: Nunberg 1959a: pl. 23, figs. 7–8.
 Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).
 Hosts: *Adina nubescens*, *Artocarpus* sp., *Dipterocarpus baudii*, *Dryobalanops oblongifolia*, *Eugenia* sp., *Grewia tomentosa*, *Shorea leprosula*, *S. parvifolia*, *S. sumatrana*, *Swietenia macrophylla*, *Xanthophyllum* sp.
 References: (ec) Kalshoven 1960b. (hb) Browne 1961c: 138–139; Kalshoven 1959c: 146, 1960a: 120. (ds) Browne 1961c: 138, 1981b: 599; Kalshoven 1959c: 146; Nobuchi 1979a: 406; Nunberg 1961b: 610; Schedl 1936d: 4, 1974c: 262. (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1923a: 188–189, 1930d: 198; Nunberg 1959a: 430; Schedl 1933e: 101, 1942d: 5, 1951i: 43, 1954a: 141, 1960h: 109.
- perdix Schedl** 1939e: 351. Lectotype ♀; Malaya, Selangor: Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189. Synonymy: Schedl 1960h: 109.
 References: (cn) Browne 1951. (hb) Browne 1941. (ds) Beeson 1961: 308; Yunus & Hua 1980: 230. (tx) Schedl 1939e: 351–352, 1942a: 171, 1960h: 109, 1979c: 189.
- jongaensis Schedl** 1941d: 404. Lectotype ♀; Mt. Cameroon, Jonga, 5000 ft., Onyanga, 5400 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 130.
 Distribution: Africa (Cameroon).
 References: (tx) Schedl 1941d: 404, 1962j: 305, 1979c: 130.
- justus Schedl** 1931c: 339. Holotype ♀; Java, Buitenzorg; Schedl (1979c: 130) Collection in NHMW, Wien.
 Distribution: Asia (Malaya), Indonesia (Java).
 Hosts: *Cinnamomum* sp.
 References: (ec) Kalshoven 1960b. (hb) Browne 1961c: 115; Kalshoven 1959c: 151, 1960a: 120. (ds) Browne 1955: 356, 1981b: 598; Kalshoven 1959c: 151; Schedl 1971c: 364. (tx) Schedl 1931c: 339, 1953c: 290, 1953f: 81, 1979c: 130.
- kadoyamaensis Murayama** 1934c: 290. Holotype ♀; Kadoyama, Kumamoto pref. and Tarumidzu and Nagao, Kagoshima pref., Kiushu, Japan; Murayama Collection in USNM, Washington.
 Distribution: Asia (Japan/Taiwan).
 Hosts: *Diospiros kaki*.
 References: (ec) Banno, Mikata, & Kodama 1983: 445. (ds) Choo & Woo 1985: 166; Murayama 1949c: 103, 1954b: 179, 1955: 100, 102; Nobuchi 1967: 22, 1985c: 25. (tx) Murayama 1934c: 290, 1936a: 144, 1954b: 179, 1955: 100, 102.
- kaimochii Nobuchi** 1981b: 143. Holotype ♀; Takimoto, Kumano, Wakayama, Honshu, Japan; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1981b: 153.
 Distribution: Asia (Japan).
 Hosts: *Castanopsis cuspidata*.
 References: (tx) Nobuchi 1981b: 143, 153.
- kajangensis Schedl** 1942a: 193. Lectotype ♀; Malaya, Pahang, Kajang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131.
 Distribution: Asia (Malaya).
 Hosts: *Canarium* sp., *Shorea leprosula*.
 Notes: (3) Browne 1949b: 893 (lapsus calami corrected).
 References: (hb) Browne 1961c: 107. (tx) Browne 1949b: 893; Schedl 1942a: 193, 1979c: 131.
- kalshoveni (Schedl)** 1934d: 85 (*Notoxyleborus*).
 Lectotype ♀; Java, Mount Gede, 1800 m; Schedl Collection in NHMW, Wien.
 Distribution: Indonesia (Java).
 Hosts: Rattan.
 References: (hb) Kalshoven 1959c: 164. (ds) Browne 1962c: 202; Kalshoven 1959c: 164. (tx) Schedl 1934d: 85.
- katangensis Eggers** 1932d: 297. Holotype ♀; Congostaat (Elisabethville und Katanga; Mulando); MRCB, Tervuren.
 Figures: Nunberg 1963b: pls. 18–19, figs. 1, 7.
 Distribution: Africa (Zaire).
 Hosts: *Garcinia punctata*, *Scorodophloeus zenkeri*.
 References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 110. (ds) Beaver & Loytyniemi 1985a: 74, 1989; Ferreira 1965: 1123; Schedl 1962j: 110, 1971c: 365, 1972e: 284. (tx) Beaver & Loytyniemi 1989; Eggers 1932d: 297; Nunberg 1963b: 38, pls. 18–19; Schedl 1953d: 98, 1959p: 20, 1962j: 110–111, 1979c: 131.
- katoi Browne** 1986c: 666. Holotype ♀; Borneo: Kudat (Sabah) to Nagoya (Japan), imported; BMNH, London.
 Distribution: Indonesia (Borneo).
 Hosts: *Dipterocarpus* sp. log.
 References: (tx) Browne 1986c: 666.
- kauaiensis Perkins** 1900: 174. Lectotype ♀; Kauai, Halemanu and above Waimea, 4000 ft.; BMNH, London, designated by Samuelson 1981: 77.
 Figures: Samuelson 1981: 63.
 Distribution: Hawaiian Islands (Kauai).
 Hosts: *Cheirodendron* sp.
 Notes: (3) Schedl 1934g: 177 and Samuelson 1981: 77 (described male).
 References: (ds) Beeson 1938b: 392; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 303; Swezey

- 1941: 122. (tx) Hagedorn 1910a: 154; Perkins 1900: 174; Samuelson 1981: 63, 77; Schedl 1934g: 177, 1941f: 116.
- kersianus** Browne 1981a: 132. Holotype ♀; Kuala Kersi (New Britain) to Gamagori (Japan), imported.
Distribution: Fiji Islands, New Britain Island.
References: (ds) Browne 1983b: 77. (tx) Browne 1981a: 132.
- khinganensis** Murayama 1943b: 100. Holotype ♀; Yakeshi, Ouest de Gr. Khingan [Manchuria]; Murayama Collection in USNM, Washington.
Distribution: Asia ("Manchuria" in China).
Hosts: *Pinus sylvestris*.
References: (tx) Murayama 1943b: 100.
- kojimai** Murayama 1936a: 143. Holotype ♀; d'Uchinoura, Kinshu; Murayama Collection in USNM, Washington.
Distribution: Asia (Kinshu in Japan).
Hosts: *Quercus stenophylla*.
References: (ds) Murayama 1936a: 134, 1949c: 103, 1954b: 203; Nobuchi 1985c: 25. (tx) Murayama 1936a: 134, 143–144, 1954b: 203.
- kraunhiaie** Niisima 1910a: 14. Holotype ♀; Kumanotaira, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Westalia floribunda*.
References: (ds) Kleine 1934a: 174; Nobuchi 1985c: 25. (tx) Murayama 1954: 179; Niisima 1910a: 14; Schedl 1934f: 1646.
- kumamotoensis** Murayama 1934c: 288. Holotype ♀; Jisso, Kagoshima Pref., Kinshu, Japan; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Cinnamomum camphora*, *Machilus* spp., *Quercus* sp., *Tricalysis viridiflora*.
References: (ds) Murayama 1949c: 103, 1954b: 179; Nobuchi 1985c: 25. (tx) Murayama 1934c: 288–289, 295, 1954b: 179.
- laciniatus** Hagedorn 1910b: 7. Holotype ♀; Sumatra; Hagedorn Collection in Hamburg Museum, lost?, now in NHMW, Wien.
Distribution: Indonesia (Sumatra).
Notes: (1) The holotype apparently was on loan to Eggers when it came into the possession of Schedl (see Introduction).
References: (ds) Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 286. (tx) Eggers 1923a: 208–209; Hagedorn 1910a: 155, 1910b: 7; Schedl 1979c: 135.
- lacunatus** Wood 1974a: 37. Holotype ♀; Turrialba, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Theobroma cacao*.
References: (ds) Wood, S. L. 1982b: 814. (tx) Wood, S. L. 1974a: 37, 1982b: 814.
- lactus** Niisima 1909: 159. Lectotype ♀; Sapporo (Yoshikawa); Nobuchi Collection, Ibaraki, designated by Nobuchi 1981d: 151.
Figures: Nobuchi 1981d: 151–153.
Distribution: Asia (Japan).
Hosts: *Castanea crenata*, *Prunus apetalata*, *Quercus mongolica*.
References: (ds) Kleine 1913b: 161, 1914b: 261; Nobuchi 1985c: 25. (tx) Eggers 1923a: 177; Hagedorn 1910a: 155; Niisima 1909: 158–159; Nobuchi 1981a: 151–153; Schedl 1934g: 1646.
- lanaiensis** Perkins 1900: 176. Lectotype ♀; Lanai, 2000 ft.; BMNH, London, designated by Samuelson 1981: 78.
Figures: Samuelson 1981: 63.
Distribution: Hawaiian Islands (Lanai).
Hosts: *Planchonella sandwicense*, *Sapindus oahuensis*.
References: (ds) Beeson 1935b: 293; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 303; Samuelson 1981: 78; Schedl 1975b: 353; Swezey 1941: 122, 1954: 173. (tx) Hagedorn 1910a: 155; Perkins 1900: 176; Samuelson 1981: 63, 78; Schedl 1941f: 115, 1979c: 136.
- latecarinatus** Schedl 1936d: 10. Syntypes ♀; Malay Peninsula, Selangor: Semangkok For. Res.; BMNH, London and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
Hosts: *Shorea scutulata*.
References: (hb) Browne 1941. (ds) Beeson 1961: 306; Browne 1961c: 137. (tx) Schedl 1936d: 10–11, 1942d: 31, 1958k: 145.
- latecornis** Schedl 1969a: 212. Holotype ♀; Philippine Is., Abulug to Tokyo (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: pl. 2.
Distribution: Philippine Islands.
Hosts: Luanan log.
References: (ds) Browne 1980d: 492; Nobuchi 1978a: 21; Ohno, Yoneyama, & Nakazawa 1987: 94. (tx) Nobuchi 1978a: pl. 2, 1983: 303; Schedl 1969a: 212–213, 1979c: 136.
- latipennis** Schedl 1976a: 75. Holotype ♀; V. Vera, M. Grosso, Lon. 55 degrees 35 minutes, Lat. 12 degrees 46 minutes [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 75.
- lativentris** Schedl 1942a: 191. Holotype ♀; Malaya, Pahang, Cameron's Hill; BMNH, London.
Distribution: Asia (Malaya).
References: (hb) Browne 1961c: 164. (tx) Schedl 1942a: 191, 1942c: 187.
- latus** Eggers 1923a: 177. Syntypes 2 ♀; Sarawak auf Borneo und Ajer Mantieior auf Sumatra; MCG, Genova and Eggers Collection (USNM, Washington, or NHMW, Wien?).

- Figures: Numberg 1978: 114.
 Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra).
 Hosts: *Castanopsis sumatrana*, *Intsia palembanica*, *Parinari griffithianum*, *Pasania sundaica*, *Shorea balanocarpoides*, *S. leprosula*, *S. sp.*
 References: (**hb**) Browne 1961c: 105. (**ds**) Browne 1961c: 105. (**tx**) Eggers 1923a: 177; Numberg 1978: 113, 114; Schedl 1950g: 895.
- lepidus** Bright 1972d: 74. Holotype ♀; Irish Town, St. Andrew Parish, Jamaica; CNCI, Ottawa.
 Figures: Bright 1972d: 95.
 Distribution: Antilles Islands (Jamaica).
 References: (**ds**) Bright 1985c: 174. (**tx**) Bright 1972d: 74, 95, 1985c: 174; McNamara 1977: 200.
- leverensis** Browne 1986c: 667. Holotype ♀; Solomon Islands: Lever Harbor to Nagoya (Japan), imported; BMNH, London.
 Distribution: Solomon Islands.
 Hosts: *Terminalia* sp. log.
 References: (**tx**) Browne 1986c: 667.
- lignographus** Schedl 1953e: 28. Lectotype ♀; Fukien, Kuatun, China; Schedl Collection in NIIMW, Wien, designated by Schedl 1979c: 138.
 Distribution: Asia (Fujian in China).
 References: (**tx**) Schedl 1953e: 28, 1958j: 241, 1979c: 138.
- lineatus** Eggers 1930d: 177. Holotype ♀; Bengal (Senchal Range, 6500 feet, Darjeeling); FRI, Dehra Dun.
 Distribution: Asia (Bengal, Uttar Pradesh in India).
 Hosts: *Ahnu hepaleensis*, *Madrilus edulis*, *Symplocos theaeifolia*.
 Notes: (3) This may belong to *Cyclorhipidion*.
 References: (**bv**) Naumann-Etienne 1978a. (**cn**) Halperin 1976a; Marcu 1930: 327–336; Mathur & Singh 1961a: 84; Roonwal 1954: 59; Zwolfer 1962, 1963. (**ec**) Krieg 1961: 185; Naumann-Etienne 1978a; Schimitschek 1967. (**hb**) Naumann-Etienne 1978a. (**ds**) Beeson 1930, 1961: 307; Halperin 1976a; Kleine 1934a: 174; Mathur & Singh 1961a: 84; Roonwal 1954: 59. (**tx**) Beeson 1930: 245; Eggers 1930d: 177–178; Schedl 1979c: 139.
- melancranis** Beeson 1930: 218. Holotype ♀; Bengal: Lopchu, 5000 feet, Senchal Range, Darjeeling; FRI, Dehra Dun. Synonymy: Wood 1992:(in press).
 References: (**ds**) Beeson 1930: 216, 218, 245, 1961: 307; Wood, S. L. 1992:(in press).
- littoralis** Perkins 1900: 179. Holotype ♀; Molokai, at sea level; BMNH, London.
 Distribution: Hawaiian Islands (Molokai).
 References: (**ds**) Beeson 1935b: 293; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 302; Samuelson 1981: 78. (**tx**) Hagedorn 1910a: 155; Perkins 1900: 179; Samuelson 1981: 78.
- longicollis** Browne 1977c: 61. Holotype ♀; Samoa: Upolu, 700 feet; BMNH, London.
 Distribution: Samoan Islands.
 Hosts: *Planchonella samoensis*.
 References: (**ds**) Beaver 1976b: 540. (**tx**) Browne 1977c: 61.
- longidens** Eggers 1930d: 181. Holotype ♀; Assam (Shillong); FRI, Dehra Dun.
 Distribution: Asia (Assam in India).
 References: (**tx**) Eggers 1930d: 181–182; Schedl 1979c: 140.
- longipennis** Eggers 1933b: 25. Holotype ♀; Franz. Guayana: Riviere Lumier (Tumuc Humac); MNHN, Paris.
 Distribution: South America (Cayenne).
 Notes: (3) Eggers 1933b: 24 (in key).
 References: (**tx**) Eggers 1933b: 2, 24–26; Schedl 1934f: 1646.
- longipilus** Eggers 1926b: 146. Lectotype ♀; Kumanotaira bei Karuisawa; USNM, Washington, designated by Anderson & Anderson 1971: 18.
 Distribution: Asia (Japan).
 References: (**ds**) Murayama 1952a: 17, 1954b: 180; Nobuchi 1985c: 25. (**tx**) Anderson, W. H. & Anderson 1971: 18; Eggers 1926b: 146–147; Murayama 1950: 64, 1952a: 17, 1954b: 180; Schedl 1934f: 1646, 1941d: 404.
- lubricus** Schedl 1941d: 404. Holotype ♀; Congo; Schedl Collection in NHMW, Wien.
 Distribution: Africa (Zaire).
 References: (**tx**) Schedl 1941d: 404, 1962j: 331, 1979c: 142.
- luteus** Schedl 1937b: 403. Lectotype ♀; Belgisch-Kongo, Faradje, Male, Likimi Bayange, Aba; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 143.
 Distribution: Africa (South Africa/ Zaire), Madagascar.
 References: (**ds**) Schedl 1962j: 305, 1977b: 166. (**tx**) Schedl 1937b: 403–404, 1942c: 187, 1962j: 305, 1977b: 166, 1979c: 143.
- macer** Blandford 1898b: 218. Lectotype ♀; El Tumbador, Guatemala; BMNH, London, designated by Wood 1982b: 841.
 Distribution: Antilles Islands (Puerto Rico), North America (Costa Rica/ El Salvador/ Guatemala/ Veracruz in Mexico/ Nicaragua/ Panama), South America (Colombia/ Venezuela).
 Hosts: *Theobroma cacao*, *Trochis racemosa*.
 References: (**hb**) Wood, S. L. 1982b: 841. (**ds**) Atkinson & Equihua 1988: 102; Blackwelder 1947: 780; Bright 1972a: 1385, 1981c: 157, 1985c: 157; Estrada & Atkinson 1988: 207; Ferrer 1942; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 372; Numberg 1963c: 98; Schedl 1960a: 76, 1977e: 43; Wood, S. L. 1982b: 841. (**tx**) Blandford 1898b: 218; Bright 1985c: 174; Hagedorn 1910a:

- 155; Schedl 1940a: 361, 1948d: 38, 1960a: 76; Wood, S. L. 1982b: 841.
- machili** Niisima 1910a: 14. Syntypes ♀; Tokio; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Machilus japonica*.
References: (ds) Kleine 1934a: 174; Murayama 1954b: 204; Nobuchi 1985c: 25–26. (tx) Murayama 1954b: 204; Niisima 1910a: 14; Schedl 1934f: 1646.
- macropterus** Schedl 1935f: 271. Lectotype ♀; Malay Peninsula: Sungar-Lyang; Schedl Collection in NIIMW, Wien, designated by Schedl 1979c: 143.
Figures: Nobuchi 1978a: pl. 3.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Luzon).
Hosts: *Balanocarpus heimii*, *Shorea aericea*, *S. macroptera*, *S. ovalis*, *Vatica* sp.
References: (ds) Browne 1961a: 305, 1961c: 105, 1962c: 201, 1980c: 483, 1981b: 598; Nobuchi 1978a: 29; Ohno, Yoneyama, & Nakazawa 1982b: 8; Schedl 1966b: 59, 1966g: 32, 1975a. (tx) Nobuchi 1978a: pl. 3; Schedl 1935f: 270–271, 1951i: 92–93, 1975a: 458, 1979c: 143.
- madagascariensis** Schaufuss 1891: 23. Holotype ♀; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar, Seychelles Islands.
Hosts: *Dalbergia* sp., *Elaeocarpus* sp., *Eucalyptus robusta*, *Gouania glandulosa*, *Pinus khasia*, *Racensara* sp.
References: (hb) Schedl 1977b: 160. (ds) Allnau 1900: 439; Anonymous 1892: 164; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 327; Sampson 1914: 384, 386; Schedl 1969d: 12, 1970d: 234, 1975k: 278, 1977b: 160. (tx) Eggers 1920: 42; Fairmaire 1892b; Hagedorn 1910a: 155, 1913b: 256; Sampson 1914: 384, 386; Schaufuss 1891: 23; Schedl 1950d: 32, 1953d: 71, 100, 1961e: 146, 1969d: 12, 1970d: 234, 1977b: 160, 1979c: 145.
- magnificus** Wood 1992b: 87. Holotype ♀; Junin [presumably Peru]; Wood Collection.
Distribution: South America (Peru).
References: (tx) Wood, S. L. 1992b: 87.
- magnispinus** Beaver in Beaver & Loyttyneimi 1985: 75. Holotype ♀; Zambia, Lusaka; BMNH, London.
Distribution: Africa (Zambia).
References: (tx) Beaver & Loyttyneimi 1985: 75.
- magnus** Niisima 1910a: 11. Syntypes ♀; Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Cinnamomum camphora*.
References: (ds) Murayama 1954b: 204, 1955: 102; Nobuchi 1985c: 26. (tx) Murayama 1954b: 204, 1955: 102; Niisima 1910a: 11; Schedl 1934f: 1646.
- maiche** (Stark) 1936: 142 (*Anisandrus*). Syntypes ♀; Ussuri, USSR; IZL, Leningrad.
Figures: Numberg 1959a: pl. 24, fig. 3–4.
Distribution: Asia (Heilongjiang in China/ E USSR).
Hosts: *Acer* spp., *Alnus* spp., *Betula* spp., *Corylus mandshurica*, *Fraxinus manshurica*, *Phellodendron anurense*, *Ulmus* sp.
References: (ds) Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970. (tx) Kurenzov 1941a: 192; Michalski 1969: 570; Numberg 1959a: 431; Pfeffer 1944a: 131; Schedl 1952k: 158, 1979c: 145; Stark 1936: 142, 1950: 229, 1952: 430. (ms) Pfeffer 1944a: 131.
- maiche** Eggers 1942c: 36. Holotype ♀; Ussuri, USSR; Eggers Collection, apparently in NHMW, Wien. Synonymy: Pfeffer 1944a: 131. References: (hb) Stark 1952: 430. (ds) Stark 1936e: 142, 1952: 430. (tx) Eggers 1942c: 36; Pfeffer 1944a: 131; Stark 1952: 430; Schedl 1952k: 158; Stark 1950: 229.
- major** (Stebbing) 1909: 19 (*Phloeosinus*). Syntypes 5 ♀; Kachugaon Forest, Coalpara Sal Forests, Assam, India; FRI, Dehra Dun.
Figures: Numberg 1959a: pl. 24, figs. 5–6.
Distribution: Asia (Burma/ Andaman Islands, Bengal in India/ Malaya).
Hosts: *Dipterocarpus turbinatus*, *Palaquium* sp., *Shorea leproslua*, *S. robusta*.
References: (bv) Beeson 1917: 1–5. (cn) Grandi 1951; Kalshoven 1924c; Mathur & Singh 1961a: 46; Pierce, W. D. 1917: 193; Stebbing 1914: 590. (ec) Beeson 1923; Bhatia 1950; Stebbing 1914: 590. (hb) Beeson 1916a: 221, 1917, 1923; Bhatia 1950; Browne 1961c: 105; Grandi 1951; Kalshoven 1924c; Paulian 1949a: 98S; Stebbing 1909b: 19, 1914: 590; Zocchi 1956: 144. (ds) Beeson 1916a, 1923, 1930: 245, 1961: 307; Bhatia 1950; Browne 1961c: 105; Kleine 1914b: 227, 1934a: 174; Mathur & Singh 1961a: 46; Pierce, W. D. 1917: 193. (tx) Beeson 1930: 245; Eggers 1923a: 211, 1927c: 99; Jeannel 1949: 98S; Numberg 1959a: 431; Sampson 1922b: 152; Schedl 1935f: 271, 1942a: 194; Stebbing 1907: 36–37, 1909b: 19, 1914: 590; Zocchi 1956: 141.
- majusculus** Schedl 1951m: 124. Syntypes 3 ♀; Brasilien, Bahia, Cachoerinha-Una; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 146 (citation of holotype invalid).
References: (tx) Schedl 1951m: 124, 1979c: 146.
- malayensis** Browne 1981a: 132. Holotype ♀; Johore Bahru (Malaya) to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Browne 1981a: 132.
- malgasicus** Schedl 1961e: 148. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.

- Distribution: Madagascar.
 Hosts: *Cinchona succubra*, *Piptadenia pervillei*.
 Notes: (1) Originally named as a subspecies of *subtuberculatus*, but rather than elevate this name to specific rank Schedl (1965c: 71) renamed it *similaris*.
 References: (tx) Schedl 1961e: 148, 1965c: 71, 1979c: 245.
similaris Schedl 1965c: 71. Holotype ♀; Madagascar, Antaniditra pres Perinet; IRSM, Madagascar, no status [see note 1].
 Notes: (1) This name was based on the holotype of *subtuberculatus* subsp. *malgasicus*, a valid species-group name, and as such it is an objective synonym.
 References: (tx) Schedl 1961e: 148, 1965c: 71, 1977b: 166.
- maniensis** Browne 1981a: 130. Holotype ♀; Tanjung Mani (Borneo) to Nagoya (Japan), imported; BMNH, London.
 Distribution: Indonesia (Borneo).
 References: (tx) Browne 1981a: 130.
- marginicollis** Schedl 1936h: 64. Holotype ♀; Luzon; Schedl Collection in NHMW, Wien.
 Distribution: Philippine Islands (Luzon).
 References: (ds) Schedl 1966b: 60. (tx) Nobuchi 1983: 303; Schedl 1936h: 64–65, 1979c: 149.
- mascareniiformis** Eggers 1927b: 400. Holotype ♀; Sumatra (Si Rambe); MCG, Genova.
 Distribution: Asia (Malaya), Indonesia (Sumatra).
 References: (ds) Browne 1961c: 104. (tx) Eggers 1927b: 400–401; Schedl 1958k: 154; Wood, S. L. 1989: 177.
onerosus Schedl 1942a: 185. Holotype ♀; Perak, Larut Hills, 3400 Fuss; BMNH, London. Synonymy: Wood 1989: 177.
 References: (tx) Schedl 1942a: 185, 1951i: 64, 1958k: 154; Wood, S. L. 1989: 177.
- mauiensis** Perkins 1900: 175. Lectotype ♀; Maui, Haleakala (5000 ft.); BMNH, London, designated by Samuelson 1981: 79.
 Figures: Samuelson 1981: 63.
 Distribution: Hawaiian Islands (Maui, Molokai).
 Hosts: *Cheirodendron trigyuum*.
 Notes: (3) Samuelson 1981: 79 (described male).
 References: (ds) Beeson 1938b: 293; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 303, 1934a: 174; Samuelson 1979: 79; Swezey 1941: 124. (tx) Hagedorn 1910a: 155; Perkins 1900: 175; Samuelson 1981: 63, 79; Schedl 1979c: 150.
- meritus** Wood 1974a: 40. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: *Conostegia oerstediana*, *Miconia* spp., *Myrica pubescens*, *Phoebe mexicana*.
 References: (hb) Wood, S. L. 1982b: 823. (ds) Wood, S. L. 1982b: 823. (tx) Wood, S. L. 1974a: 40, 1982b: 823.
- mesoleiulus** Schedl 1979g: 108. Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L. A. [New Guinea]; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1979g: 108.
- metacuneolus** Eggers 1940d: 150. Holotype ♀; Java (Buitenzorg); Kalshoven Collection.
 Distribution: Asia (Malaya/ Sri Lanka/ Taiwan), Indonesia (Java).
 Hosts: *Buchanania arborescens*, *Mangifera indica*, *M. odorata*, *Swietenia mahagoni*.
 References: (cn) Gope & Roy 1986. (hb) Browne 1961c: 123; Kalshoven 1959c: 153. (ds) Browne 1961c: 123; Gope & Roy 1986; Kalshoven 1959c: 153; Nobuchi 1967: 22; Schedl 1959a: 509, 1966b: 61. (tx) Eggers 1940d: 150; Nobuchi 1983: 303; Schedl 1939n: 14, 1951i: 85–86, 1952c: 62, 1959a: 509, 1979c: 152.
- meuseli** Reitter 1905: 249. Holotype ♀; Ussunsk (Sajan occid.), Ostsibirien; NHMB, Budapest.
 Distribution: Asia (E USSR).
 References: (hb) Stark 1952: 440. (ds) Hagedorn 1910d: 106; Kleine 1913b: 161; Stark 1952: 440. (tx) Hagedorn 1910a: 155; Niisima 1909: 161; Reitter 1905: 249–250, 1913a: 111; Schedl 1934f: 1646, 1952: 440.
- mindanaensis** Eggers 1927c: 93. Holotype ♀; Philippinen: Mindanao, Prov. Lanao, Iligan; Eggers Collection (not listed by Anderson & Anderson 1971 or Schedl 1979c).
 Distribution: Philippine Islands (Mindanao).
 References: (ds) Schedl 1966b: 61. (tx) Eggers 1927c: 93–94; Nobuchi 1983: 303.
- minimus** Schedl 1955b: 305. Holotype ♀; Philippinen, Luzon: Manila; Schedl Collection in NHMW, Wien.
 Distribution: Indonesia (Java), New Guinea, Philippine Islands (Luzon).
 References: (ds) Schedl 1966b: 62. (tx) Nobuchi 1983: 303; Schedl 1955b: 281, 305, 1979c: 154.
- minutus** Blandford 1894d: 116. Syntypes 3 ♀; Inasa, Japan; BMNH, London.
 Distribution: Asia (Japan/ Korea/ Malaya), Indonesia (Borneo, Java).
 Hosts: *Alstonia* sp., *Elaeocarpus* sp., *Hopea ferrea*, *Rhodamnia trinervia*, *Shorea curtisii*, S. sp.
 References: (bv) Choo, Woo, & Park 1988. (hb) Beaver & Browne 1978: 610; Browne 1961c: 119–120. (ds) Beaver & Browne 1978: 610; Blandford 1894c; Browne 1962c: 202, 1980a: 373, 1986a: 89, 1986c: 663; Choo 1983: 106; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1988; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 260; Murayama 1954b: 204, 1955: 100; Ohno et al. 1988a: 94. (tx) Blandford 1894d: 116; Browne 1955: 356; Choo 1983: 106; Hagedorn 1910a: 155; Murayama

- 1934: 290, 1954b: 204, 1955: 100; Schedl 1931c: 339–340, 1934g: 1646, 1958k: 147.
breviusculus Schedl 1942a: 196. Lectotype ♀; Malaya, Kuala Lumpur; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 47. Synonymy: Schedl 1958k: 147.
 References: (tx) Schedl 1942a: 195, 1954a: 152, 1958k: 147, 1979c: 47.
- pernitidus* Schedl 1954a: 152. Holotype ♀; Java, Batoerraden; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 147.
 References: (tx) Schedl 1954a: 142, 152, 1958k: 147, 1979c: 190.
- misatoensis Nobuchi* 1981b: 146. Holotype ♀; Misato, Wakayama [Japan]; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1981b: 153.
 Distribution: Asia (Japan).
 Hosts: *Castanopsis cuspidata*, *Quercus phillyracoides*.
 References: (tx) Nobuchi 1981b: 146, 153, 1985c: 204.
- miyazakiensis Murayama* 1936a: 144. Holotype ♀; Sarukawa, Japan; Murayama Collection in USNM, Washington.
 Distribution: Asia (Japan).
 Hosts: *Quercus acuta*.
 References: (ds) Murayama 1936a: 135, 144–145, 1951a: 4, 1954b: 204; Nobuchi 1985c: 26. (tx) Murayama 1936a: 135, 1954b: 204.
- molokaiensis Perkins* 1900: 174. Lectotype ♀; Molokai, above 4000 ft.; BMNH, London, designated by Samuelson 1981: 80.
 Figures: Samuelson 1981: 63.
 Distribution: Hawaiian Islands (Lanai, Maui, Molokai, Oahu).
 Hosts: *Cheirodendron trigynum*, *Ilex anomala*.
 Notes: (3) Samuelson 1981: 80 (described male).
 References: (ds) Beeson 1938b: 293; Hagedorn 1910d: 107; Kleine 1913b: 161, 1914b: 303, 1934a: 174; Samuelson 1981: 80; Swezey 1941: 124. (tx) Hagedorn 1910a: 155; Perkins 1900: 174; Samuelson 1981: 63, 80.
- moluccanus Browne* 1985b: 292. Holotype ♀; Tg. Bonyosmiaf (Halmahera, Moluccas) to Nagoya (Japan), imported; BMNH, London.
 Distribution: Indonesia (Moluccas).
 Hosts: *Anisoptera* sp.
 References: (ds) Ohno, Yoneyama, & Nakazawa 1987: 94. (tx) Browne 1985b: 292.
- monographus (Fabricius)* 1792: 365 (*Bostrichus*). Holotype ♀; Germania; UZMC, Copenhagen.
 Figures: Balachowsky 1949a: 222, Grune 1979: 154, Pfeffer 1989a: pl. 8, Postner 1974: 462.
 Distribution: Africa (Algeria/ Morocco), Asia (Turkey), Europe (Albania/ Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Sar-
 dinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
 Hosts: *Quercus* spp., uncommon in *Castanea vesca*, *Fagus orientalis*.
 Notes: (3) Roubal 1937: 67 (named an aberration as var. *nitidipennis*, no status).
 References: (ay) Bugnion 1887b; Escherich 1923b: 488; Feytaud 1950a; Fisher 1954; Francke-Gros-
 mann 1957; Lekander 1959d: 92; Marcus 1930: 644; Murayama 1933a: 1; Nunberg 1925a: 140; Schwerdtfeger 1929: 360. (bv) Grune 1979: 155; Meixner 1937: 1216. (cn) Acatay 1943a: 70; And-
 roic 1966: 46; Barbey 1925: 434; Becker 1950; Blandford 1892b; Chorbadzhievo 1929; Com-
 stock 1881: 274–275; Eckstein 1926: 575; Escher-
 ich 1916: 272–273, 1923b: 488; Falck 1911a: 166,
 169; Feytaud 1950a; Fleischer 1877a; Gabler
 1955; Garman 1905: 69; Georgescu et al. 1957:
 357, 427; Goosen 1961; Grandi 1951; Groschke
 1952b, 1953b; Herfs 1950: 7; Hess 1900: 37; Hess
 & Beck 1914: 290, 1927: 346; Houins 1939: 401–
 409; Jacquiot 1951a: 2, 1951b: 283–284; Judeich
 & Nitsche 1895: 546; Kamp 1954: 4; Kholod-
 kovskii 1912: 279, 319; Kleine 1932a: 308; Konig,
 E. 1957: 108; Koppen 1882: 260; Maksimovic
 1959: 3–13; Marcu 1926c: 64, 1962; Marcus 1930:
 609–677; Marie 1922: 306–311; Moote 1867: 75–
 76; Negrú 1966; Nusslin 1913: 205; Pierce, W. D.
 1917: 40; Reissig 1949: 131; Rhumbler 1922: 329,
 1927: 345; Schedl, W. 1964: 411–428; Schimit-
 schek 1937c: 53, 1938c: 2119, 1939d: 2119, 1944:
 180, 1955a: 137, 1955c: 86, 1961a: 154; Schuster
 1918: 101; Schwerdtfeger 1929: 360, 1944a: 155,
 1957a: 190; Strohmeier 1906b: 330; Wachtl 1901:
 381; Weber, H. 1926: 575; Wichmann 1927b: 350,
 360, 1957a: 95; Wolff & Krausse 1922: 92; Zehnt-
 ner 1900: 501; Zvierezomb-Zubovsky 1918: 1–36;
 Zvolfer 1949: 401. (ec) Apel 1983; Elliot &
 Morley 1907; Fisher 1954; Fleischer 1877a;
 Francke-Grosman 1957; Gyorfi 1941b, 1943: 84,
 1952b; Hartig 1844; Horn 1933: 173; Kleine
 1909a: 49, 78, 1944: 73; Kostenko 1929; Michalski
 & Ratajczak 1989; Neger 1909b: 408, 1911a: 50;
 Nikitsky 1978; Norris 1979; Nosek 1959a: 118,
 1959b: 85; Novak 1952: 417; Nusslin 1927: 345;
 Perris 1856a: 199; Pfeffer 1928b: 2, 1943b: 182;
 Rondani 1873: 140; Ruhm 1956b: 4; Schedl, W.
 1964; Schimitschek 1941: 317, 1955a: 137; Schus-
 ter 1918: 101; Schwerdtfeger 1929: 360, 1944a:
 185, 1957a: 190; Slaby 1947: 375; Speyer 1937:
 30; Uchastnova 1985; Vite 1952a: 105; Wichmann
 1955a: 45; Woodring 1966c: 133. (hb) Acatay
 1943a: 70; Altum 1881c: 316; Anonymous 1920:
 124; Apel 1983; Baeta Neves 1943a; Barbey 1901:
 10, 28, 108, 1913, 1925: 434; Bargmann 1906;
 Becker 1950; Blandford 1892b; Bugnion 1887b;
 Ceconi 1905, 1924; Chorbadzhievo 1929; Dom-
 browsky 1887; Duprez 1944; Dyakowski 1911;
 Eckstein 1889, 1926: 575, 1928; Eggers 1908d;
 Eichhoff 1881a: 54, 286; Escherich 1923b: 488;

- Everts 1902; Falck 1916: 166, 169; Feytaud 1950a; Fisher 1954; Fleischer 1877a; Fuchs 1904a; Furst 1888: 109, 113; Gabler 1955; Grandi 1951; Groschke 1952b, 1953b; Gyorfı 1936: 525, 528, 1957; Henschel 1876a: 216, 240, 1882b, 1895a: 192; Hergula 1939: 303; Hess 1900: 37; Hess & Beck 1914: 290, 1927: 346; Jacquot 1951a: 2; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Kholodkovskii 1912: 279, 319; Kleine 1932a: 308; Kleinert 1980: 75; Knotek 1894a: 559, 1896: 150; Konig, E. 1957: 108; Lengerken 1954: 318; Lepiney 1829: 313–321; Lepiney & Mimeur 1932: 45; Liese 1950: 142; Louzil 1961: 23; Lunardoni & Leonardi 1889: 485; Mjoberg 1906: 137; Nosek 1959a: 118, 1959b: 85; Nusslin 1898: 283, 1913: 205, 1927: 345; Palm 1953a: 23, 1954a: 185; Perris 1856a: 199; Peyerimhoff 1919: 257; Pfeffer 1942a: 3; Postner 1974: 466; Ratzeburg 1837: 130, 168, 1839: 157, 203; Rhumbler 1922: 329, 1927: 345; Rupertsberger 1880: 232; Schedl, W. 1964; Schimitschek 1944: 180, 1955a: 137; Schwerdtfeger 1944a: 185, 1957a: 190, 1981: 196; Spessivtsev 1913a: 101; Speyer 1937: 30; Stark 1926a: 330, 336, 1952: 434; Strohmeier 1906b: 330, 1907a: 65, 1910b: 89; Tschorbadjiev 1929: 169; Vite 1952a: 105; Wachtl 1876a: 456, 1901: 381; Weber, H. 1926: 575; Wichmann 1927b: 350, 360; Wissman 1846: 25; Wolff & Krausse 1922: 92; Zehntner 1900: 501. (ds) Acatay 1943: 70; Acloque 1896; Andersch 1851; Androic 1966: 46; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Bedel 1888b: 403, 419; Bejer-Petersen & Jorum 1977: 25; Bielz 1851, 1887; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 206; Brancsik 1871, 1906; Browne 1980d: 493; Bucking 1932; Buresh & Lazarov 1956; Calwer 1884; Cecconi 1897, 1905; Choo 1983: 107; Choo & Woo 1985: 166; Chorbadzhiievo 1924d, 1929; Csiki 1942c; Dejean 1821, 1825, 1837; Duprez 1938a; Eckstein 1923; Eggers 1904, 1912f; Endrodi 1958a, 1958b, 1981: 185, 1986: 217; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 488, 1932b; Eyquem 1891; Favre 1890; Fedorov 1930; Fricken 1889: 354; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2686; Gozis 1875: 80; Grill 1895: 312; Grune 1979: 155; Gyllenhal 1827: 623; Gyorfı 1936: 525, 529, 1941b; Hagedorn 1910d: 107; Hansen, V. 1939, 1956, 1964: 463; Heinemann 1908a; Hellen 1947; Hennig 1954: 265; Henschel 1895a: 192; Heyden 1876: 300; Heyden, Reitter, & Weisc 1883: 182, 1891: 674, 1901: 713; Hoffmann 1936; Holdhans 1912: 454; Horion 1951; Illiger 1805: 129; Jansson 1915: 93; Jazentkovsky 1912: 292; Judeich & Nitsche 1895: 546; Kaltenbach 1874: 646; Karpinski 1932b: 54; Karpinski & Strawinski 1948: 156; Keler 1925b: 275; Kersten 1933: 75; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 262, 268, 1913a: 36, 1913b: 162, 1914a: 16, 1932a: 308, 1934a: 174; Knotek 1892a: 38, 1894a: 559; Koca 1905: 192; Kocher 1953: 133; Koppen 1882: 260; Kostenko 1929; Kraatz 1869: 60; Kurir 1947c: 31; Lacordaire 1866: 381; Langhoffer 1915c: 158, 1929: 1196–1203; Leclercq 1971; Lentz 1857: 140; Lepiney & Mimeur 1932: 45; Liese 1950: 142; Lokaj 1868: 64; Lomnicki 1886a: 243, 1913b: 148; Lucht 1987: 279; Lunardoni & Leonardi 1889: 485; Marcu 1926c: 64; Mjoberg 1903: 110; Munro 1921: 87; Murayama 1937b: 375, 1954b: 204; Murray 1853: 60; Negru 1965: 155, 1966b, 1968a: 456, 1968c: 91; Normand 1937: 269; Novak, P. 1952: 417, 1964; Nunberg 1928b: 88, 110, 1954: 62, 1960b: 156; Nusslin 1898: 283; Oliveira 1887: 329; Orest 1926c: 64; Ortzen 1886: 280; Paganetti-Hummel 1901: 150; Palm 1953b: 60, 1959: 27, 354; Perris 1876a: 255, 1877a: 415; Peyerimhoff 1919: 257; Pfeffer 1928b: 2, 1931b: 73, 1989a: 87; Pierce, W. D. 1917: 40; Pittioni 1943: 176; Postner 1974: 466; Prossen 1913: 84; Ragusa 1924: 117; Rapp 1934: 736; Ratzeburg 1837: 130, 168, 1839: 157, 203; Redtenbacher 1858: 835, 1874: 381; Reissig 1949: 131; Reitter 1869b: 155, 1894a: 90, 1916: 294; Romanyk 1959: 425; Roubal 1941: 275; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1238; Schaum 1859: 96, 1862: 101; Schedl 1961b: 185, 1964a, 1967c: 73, 1971b: 530, 1971d: 427, 1971f: 149, 1972n: 352, 1980a: 20, 1981b: 94; Schilsky 1909: 189; Schiodte 1873: 104; Schwerdtfeger 1981: 196; Seidlitz 1872: 396, 1891a: 568, 1891b: 613; Stark 1926a: 330, 336, 1926g: 154, 1927b: 89, 1952: 434; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 145, 1830: 358, 1839: 207; Stierlin 1898: 447; Stierlin & Gautard 1871: 293, 1906: 206; Sturm 1826: 102, 1843: 230; Thomson 1865: 370, 1868: 223; Tredl 1907: 18; Tressens 1952: 90; Tschorbadjiev 1929: 169; Villa & Villa 1833: 26; Vite 1953: 42; Wachtl 1876a: 456; Westhoff 1882: 240; Wichmann 1927a: 70, 1955a: 95, 1957a: 95. (tx) Acloque 1896; Altman 1844; Apel 1983; Aube 1959; Bach 1854; Balachowsky 1949a: 222–225; Barbey 1901: 10, 28, 108; Bedel 1888b: 403, 419; Beeson 1929: 247–248, 1938: 295; Beffa 1949; Bertolini 1872; Blandford 1892b; Brancsik 1871; Buisson 1880; Calwer 1858; Ceballos 1945; Choo 1983: 107; Chorbadzhiievo 1924d; Dejean 1821, 1825; Dombrowsky 1887; Eggers 1912f: 29, 1920: 117, 1923a: 195, 1924, 1929e: 42, 1941a: 104, 1941b: 225; Eichhoff 1864b: 38, 1865a: 400, 1878b: 397, 1881a: 54, 286, 1883a: 116, 142; Endrodi 1957b; Escherich 1923b: 488; Escherich & Escherich 1897; Fabricius 1792: 365, 1801: 387; Fawel 1889; Ferrant 1911; Ferrari 1867a: 20, 24, 1867b: 114; Fleischer 1927; Formanek 1907: 53; Fricken 1889: 354; Gabler 1955; Grune 1979: 154–155; Gyllenhal 1813: 356, 1827: 623; Hagedorn 1910a: 155; Hansen, V. 1956, 1964: 463; Henry 1892: 12; Henschel 1876a: 216, 240, 1895a: 192; Herbst 1793: 118; Hoff-

- mann 1936: 44, 1942: 72–73; Hopkins 1914: 131, 1915b: 60; Houlbert 1922a: 13, pl. 1; Iablokoff-Khnzorian 1961: 89; ICZN 1968: 18; Jacquelin du Val & Fairmaire 1868: 107, 109; Judeich & Nitsche 1895: 546; Kalina 1975, 1977: 49; Karpinski & Strawinski 1948: 156; Knotek 1892a: 38; Kuhnt 1913: 1060; Lacordaire 1866: 381; Letzner 1891: 378; Lemnis 1886: 181; Lovendal 1889b: 75, 1898: 191; Lucht 1987: 279; Lunardoni & Leonardi 1889: 485; Meixner 1937: 1216; Murayama 1930: 38, 1933a: 1, 1937b: 375, 1954b: 204; Negru 1966b; Nunberg 1928a: 140, 1954: 62; Panzer 1795a: 285; Paykull 1800: 149; Perris 1877a: 415; Pfeffer 1932b: 21, 1942a: 3, 1955a: 197, 1989a: pl. 8; Portevin 1935: 330; Postner 1974: 466; Quaschik 1953: 35; Ratzelburg 1837: 130, 168, 1839: 157, 203; Redtenbacher 1849a: 358, 1849b: 26, 1858: 835, 1874: 381; Reitter 1894a: 90, 1913a: 82, 1916: 294; Rey 1892b: 30; Rhumblor 1922: 329, 1927: 345; Roubal 1937: 67–68; Rupertsberger 1880: 232; Schedl 1934f: 1646, 1942a: 198, 1952f: 88, 1952i: 16, 1957d: 82, 1980a: 20, 1981b: 94; Schimitschek 1937c: 53–54, 1955c: 86; Seidlitz 1872: 396, 1891a: 568, 1891b: 613; Spessivtsev 1913a: 101–102, 1922a: 478, 491, 1925a: 180, 1931: 57–59; Stark 1952: 434; Stephens 1829a: 145, 1829b: 12, 1830: 358, 1839: 207; Stierlin 1898: 447; Stresemann et al. 1989: 353; Strohmeier 1912b: 57; Thomson 1865: 370, 1868: 223; Wissmann 1846: 26; Zimmermann 1868: 145. (ms) Escherich 1932b; Heinemann 1908a; Schwappach 1924: 57.
- tuberculosis* Herbst 1793: 113 (*Bostrichus*). Syn-types, sex?; Deutschland; not located. Synonymy: Eichhoff 1878b: 397.
References: (ds) Illiger 1805: 129; Stein & Weise 1877: 165; Stephens 1829a: 145; Villa & Villa 1833: 28. (tx) Eichhoff 1878b: 397; Herbst 1793: 113; Stephens 1829a: 145.
- montanus* Niisima 1910a: 13. Holotype ♀; Kumanotaira bei Karuisawa, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Malus sieboldii*.
References: (ds) Kleine 1934a: 174; Murayama 1954b: 180; Nobuchi 1985c: 26. (tx) Murayama 1954b: 180; Niisima 1910a: 13; Schedl 1934f: 1646, 1960h: 106, 1979c: 159.
- morulus* Blandford 1898b: 212. Holotype ♀; Costa Rica; BMNH, London.
Distribution: North America (Costa Rica/ Guatemala/ Michoacan in Mexico).
Hosts: *Bursera* sp., *Erythrina costaricensis*, *Spondias mombin*.
Notes: (3) Schedl 1951m: 73 incorrectly treated this as a synonym of *volvulus*. A report of this species from Paraguay is probably based on a misidentification (SLAV).
References: (ds) Atkinson & Equihua 1985b: 238; Blackwelder 1947: 780; Hagedorn 1910d: 107; Kleine 1913b: 162, 1914b: 272; Schedl 1966f: 77, 1970e: 89; Wood, S. L. 1982b: 835. (tx) Blandford 1898b: 212; Hagedorn 1910a: 155; Schedl 1940a: 363, 1940c: 208, 1951m: 73; Nunberg 1959a: 443; Wood, S. L. 1982b: 835.
- mpangae* Browne 1965a: 202. Holotype ♀; Uganda: Mpanga; BMNH, London.
Distribution: Africa (Uganda).
References: (tx) Browne 1965a: 202–203.
- muasi* Browne 1961a: 306. Holotype ♀; Sarawak: Bako National Park; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Vatica* sp.
References: (tx) Browne 1961a: 306.
- mucronatoides* Schedl 1975f: 368. Holotype ♀; New Guinea SW, Vogelkop, Fak Fak, S. Coast of Bomberai; BPBM, Honolulu.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 368.
- mucronatulus* Eggers 1930d: 199. Holotype ♀; Phandowala, India; FRI, Dehra Dun.
Distribution: Asia (Bengal in India).
Hosts: *Mesua ferrea*, *Shorea robusta*.
References: (ds) Beeson 1930: 250, 1961: 308; Kleine 1934a: 174. (tx) Beeson 1930: 250; Eggers 1930d: 199.
- mucronatus* Eggers 1923a: 191. Holotype ♀; Java; Hamburg Museum, lost.
Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo, Java).
Hosts: *Altingia excelsa*, *Bixa orellana*, *Cinchona* sp., *Coffea* sp., *Dyera costulata*.
References: (hb) Beaver & Browne 1975: 299; Browne 1961c: 115; Kalshoven 1958a: 189, 1959c: 150. (ds) Beaver & Browne 1975: 299; Kalshoven 1958a: 189, 1959c: 150; Nobuchi 1978a: 406; Schedl 1964g: 242, 1966b: 62, 1971c: 370. (tx) Eggers 1923a: 191–192, 1930d: 199; Nobuchi 1983: 303; Schedl 1942d: 5, 1952c: 64, 1958b: 101.
- multipunctatus* Browne 1980b: 386. Holotype ♀; Tatau (Borneo) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
References: (tx) Browne 1980b: 386.
- multipunctulus* Browne 1984d: 98. Holotype ♀; New Guinea: Gumi; BMNH, London.
Distribution: New Guinea.
Hosts: *Agathis alba*.
References: (tx) Browne 1984d: 98.
- multispinatus* Eggers 1920: 125. Lectotype ♀; Africa: Kamerun; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 161.
Figures: Nunberg 1963b: pl. 1, figs. 1–6 (female), Schedl 1962j: 313–315.
Distribution: Africa (Angola/ Cameroon/ Ghana/ Ivory Coast/ Tanzania/ Uganda/ Zaire).
Hosts: *Acanthus pubescens*, *Albizia gummifera*,

Baikiaea eminii, *Canarium* sp., *Chrysophyllum pruniforme*, *Dialium pachyphyllum*, *Drypetes leonensis*, *D. yambataense*, *Ficus* sp., *Maba laurentii*, *Macrolobium* sp., *Milletia* sp., *Ochthocosmus africanus*, *Pentaclethra macrophylla*, *Synsepalum subcordatum*, *Theobroma cacao*, *Trema guineensis*.

References: (ds) Schedl 1959p: 18. (tx) Eggers 1920: 125–126, 1924: 108; Schedl 1962j: 317–318, 1979c: 161.

acanthus Schedl 1952i: 15. Holotype ♀; Congo Belge: Kivu, Mulungu; MRCB, Tervuren. Synonymy: Wood 1989: 177.

References: (ec) Schedl 1962j: 312. (hb) Beaver & Loytyniemi 1985a: 72; Browne 1963a: 238; Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 312. (ds) Beaver & Loytyniemi 1985a: 72; Browne 1963a: 238; Mayne & Donis 1960: 104, 1962: 314; Nunberg 1961a: 329; Schedl 1961j: 349, 1962h: 59, 1962j: 312, 1962k: 1097, 1964e: 68, 1964f: 618, 1967e: 215. (tx) Nunberg 1963b: 7, pl. 1; Schedl 1952i: 15, 1954e: 80, 1957d: 84, 97, 1962j: 312–314, 1962k: 1096, 1979c: 10; Wood, S. L. 1989: 177.

acanthus acanthodes Schedl 1954e: 80. Lectotype ♀; Bekwai; Schedl Collection in NHMW, Wien.

References: (ds) Schedl 1962j: 59, 1962j: 316, 1962k: 1097; Thompson, G. H. 1963: 70. (tx) Schedl 1954e: 80, 1962j: 316, 1962k: 1097, 1979c: 10.

acanthus acuticornis Schedl 1957d: 97. Holotype ♀; Congo Belge, Yangambi; Schedl Collection in NHMW, Wien.

References: (ay) Schedl 1962j: 316. (ec) Schedl 1962j: 316. (ds) Ferreira 1965: 1120; Schedl 1959p: 18–19, 1962h: 59, 1962j: 316, 1962k: 1097. (tx) Nunberg 1963b: 8; Schedl 1957d: 97, 1962j: 316, 1979c: 10.

acanthus mimus Schedl 1971e: 13. Holotype ♀; Congo, Yangambi; Schedl Collection in NHMW, Wien.

References: (tx) Schedl 1971e: 13.

mumfordi Beeson 1935b: 110. Syntypes ♀; Hivaoa: Mt. Temetiu, NE slope, 3620 ft; BPBM, Honolulu.

Distribution: Marquesas Islands.

Hosts: *Cyrtanda* sp., *Reynoldsia tahitensis*.

References: (ds) Beeson 1938b: 293. (tx) Beeson 1935b: 110; McNamara 1984: 759; Schedl 1950f: 53, 1979c: 161.

murudensis Browne 1965a: 203. Holotype ♀; Sarawak: Foot of Mt. Murud; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: (tx) Browne 1965a: 203.

mussooriensis Eggers 1930d: 179. Syntypes ♂ ♀; United Provinces, Mussoorie, 6000 feet; FRI, Dehra Dun.

Distribution: Asia (Uttar Pradesh in India).

Hosts: *Berberis nepalensis*.

References: (ds) Beeson 1930: 74, 250, 1961: 308; Kleine 1934a: 174. (tx) Beeson 1930: 250; Eggers 1930d: 179–180; Schedl 1979c: 162.

mustus Schedl 1972b: 269. Holotype ♀; Samoa, Upolu; Schedl Collection in NHMW, Wien.

Distribution: Samoan Islands.

References: (tx) Schedl 1972b: 269, 1979c: 162.

mutabilis Schedl 1935d: 92. Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil/ Venezuela).

References: (ds) Blackwelder 1947: 780. (tx) Schedl 1935d: 92, 1936j: 109, 1961a: 530, 1979c: 162; Wood, S. L. 1978b: 398.

itatiayaensis Schedl 1936j: 109. Lectotype ♀; Serra Itatiaya, Sudabhang, Waldregion; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 128. Synonymy: Wood 1989: 177.

References: (ds) Blackwelder 1947: 780. (tx) Schedl 1935d: 93, 1936j: 109, 1979c: 128.

meridensis Wood 1974a: 38. Holotype ♀; La Carbonera Experimental Forest, near Merida, Merida, Venezuela; Wood Collection. Synonymy: Wood 1978b: 398.

References: (tx) Wood, S. L. 1974a: 38, 1978b: 398.

muticus Blandford 1894d: 112. Syntypes ♀; Kashiwagi, Japan; BMNH, London.

Distribution: Asia (Japan).

Hosts: *Pinus maximowiczii*.

References: (ds) Blandford 1894c: 579; Hagedorn 1910d: 107; Kleine 1913b: 162, 1914b: 260; Murayama 1952a: 20, 23, 1954b: 180; Nobuchi 1985c: 26. (tx) Blandford 1894d: 112; Hagedorn 1910a: 155; Murayama 1952a: 20, 23, 1954b: 180; Niisima 1910: 14; Schedl 1934f: 1646.

myllus Browne 1986a: 92. Holotype ♀; Kuala Langsa (Sumatra) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Sumatra).

Hosts: *Dipterocarpus* sp. log.

References: (tx) Browne 1986a: 92.

nagaoensis Murayama 1934c: 294. Holotype ♂; Tarumidzu, Kagoshima pref., Kiushu, Japan; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Passania cuspidata*.

References: (ds) Murayama 1949c: 103, 1954b: 204; Nobuchi 1985c: 26. (tx) Murayama 1934c: 294–295, 1954b: 204.

nakazawai Browne 1984a: 156. Holotype ♀; Pomio (New Britain) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Britain Island.

Hosts: Watergum log.

References: (ds) Ohno et al. 1989: 63. (tx) Browne 1984a: 156.

- nameranus** Murayama 1954b: 194. Holotype ♀; Mt. Namera, Yamaguchi pref.; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Quercus acuta*, *Q. myrsinaefolia*.
References: (cn) Murayama 1954a: 25. (ds) Murayama 1954a: 25, 1954b: 194; Nobuchi 1985c: 26. (tx) Murayama 1954b: 194.
- neivai** Eggers 1928c: 96. Lectotype ♀; Brasil, Sao Paulo (Hauptstadt); USNM, Washington, designated by Anderson & Anderson 1971: 21.
Figures: Nunberg 1959a: pl. 24, figs. 7–8, Pedrosa-Macedo & Schonherr 1985: 33.
Distribution: South America (Brazil).
Hosts: *Citrus* sp.
Notes: (1) Schedl 1979c: 164 (designation of holotype invalid).
References: (cn) Costa Lima 1956. (hb) Costa Lima 1956; Viana 1964: 124. (ds) Blackwelder 1947: 780; Costa Lima 1936; Nunberg 1958a: 481; Pedrosa-Macedo & Schonherr 1985: 33; Schedl 1966f: 89, 1967d: 3, 1970e: 84; Viana 1964: 124. (tx) Anderson, W. H. & Anderson 1971: 21; Costa Lima 1956; Eggers 1928c: 96–97; Nunberg 1958a: 481, 1959a: 431; Pedrosa-Macedo & Schonherr 1985: 33; Schedl 1939j: 564–566, 1951h: 285, 1952a: 446, 1979c: 164.
- neocylindricus** Schedl 1942a: 196. Holotype ♀; Malaya, Selangor, Kepong; BMNH, London.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 157. (tx) Schedl 1942a: 196.
- neoscabridus** Schedl 1972b: 269. Holotype ♀; Solomon Islands, Bougainville; Schedl Collection in NHMW, Wien.
Distribution: Solomon Islands.
References: (tx) Schedl 1972b: 269, 1979c: 164.
- neptunus** Schaufuss 1891: 22. Syntypes ♂ ♀; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluaud 1900: 440; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 107; Kleine 1913b: 162. (tx) Blandford 1898b: 207; Eggers 1922b: 171; Fairmaire 1892b; Hagedorn 1910a: 155, 1913b: 256; Schaufuss 1891: 22, 1905: 19; Schedl 1977b: 144.
- niger** Sampson 1912: 247. Holotype ♀; Ruby Mines, Burmah; BMNH, London.
Distribution: Asia (Burma).
References: (ds) Kleine 1913b: 162, 1914b: 277. (tx) Eggers 1925: 159; Sampson 1912: 247.
- nigrescens** Browne 1980b: 387. Holotype ♀; Palembang (Sumatra) to Nagoya (Japan), imported.
Distribution: Indonesia (Sumatra).
Hosts: *Shorea* sp.
References: (tx) Browne 1980b: 387.
- nigropilosus** Eggers 1943c: 67. Syntypes ♀; Congostaat (Park Natl. Albert Gitebe, Nyamuragira volcan, 2324 m); de Witte Collection.
Figures: Nunberg 1963b: pl. 20, figs. 5–6.
Distribution: Africa (Zaire).
References: (tx) Eggers 1943c: 67–68; Nunberg 1963b: 41, pl. 20; Schedl 1962j: 323.
- nitellus** Browne 1984d: 99. Holotype ♀; New Guinea: Hump L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (tx) Browne 1984d: 99.
- nitens** Browne 1984d: 97. Holotype ♀; New Guinea: Popondetta; BMNH, London.
Distribution: New Guinea.
Hosts: *Gardenia* sp.
References: (tx) Browne 1984d: 97.
- nitidulus** Eggers 1927a: 192. Holotype ♀; Belg.-Congo, Sankuru, Bas Uele (Koteli); MRCB, Teruren, 1 cotype in Eggers Collection, in NHMW, Wien.
Figures: Nunberg 1963b: pl. 20, figs. 7–10.
Distribution: Africa (Zaire).
Hosts: *Klainedoxa gabonensis*, *Pycanthus angolensis*, *Sarcocephalus* sp., *Staudtia stipitata*.
References: (bv) Schedl 1960f: 64. (cn) Chesquiere 1933a: 31–35, 1933b: 781. (hb) Schedl 1962j: 323. (ds) Chesquiere 1933a; Kleine 1934a: 174; Schedl 1960f: 40, 1962j: 323. (tx) Eggers 1927a: 192–193; Nunberg 1963b: 42, pl. 20; Schedl 1962j: 323, 1979c: 169.
- norfolkensis** Schedl 1972b: 270. Holotype ♀; Norfolk Island, Mt. Pitt, 240 m; CSIRO, Canberra.
Distribution: Norfolk Island.
References: (tx) Schedl 1972b: 270.
- nossi** Schedl 1961e: 146. Holotype ♀; Madagascar, Montagne d'Ambre; IRSM, Madagascar.
Distribution: Madagascar
References: (tx) Schedl 1961e: 146, 1977b: 161, 1979c: 171.
- novagranadensis** Eggers 1941a: 103. Holotype ♀; Venezuela (Neu Granada); USNM, Washington.
Distribution: Antilles Islands (Guadeloupe), South America (Venezuela).
References: (ds) Bright 1985c: 174; Schedl 1980b: 184. (tx) Anderson, W. H. & Anderson 1971: 22; Bright 1985c: 174; Eggers 1941a: 103.
- nubilus** Samuelson 1981: 80. Holotype ♀; Hawaii: Hilo Forest Reserve, 1–2 km S Saddle Road, 1200 m; BPBM, Honolulu.
Figures: Samuelson 1981: 56.
Distribution: Hawaiian Islands (Hawaii).
Hosts: *Myrsine*.
References: (tx) Samuelson 1981: 56, 80.
- nuperus** Bright 1972d: 76. Holotype ♀; Hardwar Gap, 4000 feet, St. Andrew Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 95.

- Distribution: Antilles Islands (Jamaica).
Notes: (3) This species may belong to *Ambrosiodmusus*.
References: (ds) Bright 1985c: 174. (tx) Bright 1972d: 76, 95, 1985c: 174; McNamara 1977: 200.
- oahuensis** Perkins 1900: 177. Holotype ♀; Oahu, Koolau Range, 1000 ft.; BMNH, London.
Figures: Samuelson 1981: 60.
Distribution: Hawaiian Islands (Oahu).
Hosts: *Pelea* sp.
References: (ds) Beeson 1938b: 293; Hagedorn 1910d: 107, 1913b: 162, 1914b: 303; Samuelson 1981: 81. (tx) Hagedorn 1910a: 155; Perkins 1900: 177; Samuelson 1981: 60, 81.
- obesus** LeConte 1868: 159. Lectotype ♀; Virginia [USA]; MCZ, Cambridge, designated by Wood 1982b: 793.
Figures: Bright 1976d: 132.
Distribution: North America (Ontario, Quebec in Canada/ Connecticut, Massachusetts, Minnesota, Wisconsin in USA).
Hosts: *Acer* sp., *Betula* sp., *Fagus grandifolia*, *Liriodendron* sp., *Populus tremuloides*, *Quercus* sp.
References: (ay) Hopkins 1894g: 278. (bv) Hosking & Knight 1975; Kirkendall 1984: 241. (cn) Blackman 1950; Doane et al. 1936; Felt 1906: 722; Hubbard 1897b: 23; Lintner 1888: 52–59, 1896: 270; Packard 1890: 520; Peirson 1927: 89; Smith, J. B. 1900: 363; Swaine 1918a: 124, 126. (ec) Felt 1906: 722; Roeper & French 1981; Steinhaus 1946: 404; Thompson, W. R. & Simmonds 1964: 39, 1965: 68. (hb) Blackman 1950; Chamberlin 1939: 445; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drake 1921: 201, 204; Felt 1906: 722; Hopkins 1894b: 295, 1894g: 278, 1905a: 383; Hubbard 1897b: 23; Packard 1890: 520; Peirson 1927: 89; Pierce, W. D. 1907: 291; Swaine 1918a: 124, 126. (ds) Anonymous 1926c: 520; Baker, W. L. 1972: 271; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 625; Bright 1968b: 1304, 1976d: 133; Chamberlin 1925, 1939: 445; Chittenden 1890; Cook 1891; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 65; Dodge 1938: 13, 53; Drake 1921: 201–205; Drooz 1985: 374; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 107; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 135, 1893b: 211; Kleine 1913b: 168, 1914b: 395, 410, 1934a: 177; Knoll 1932: 67; Leng 1920: 342; Leonard 1928: 520; Schwarz 1886: 41, 45, 1887: 20; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 155; Wood, S. L. 1982b: 793. (tx) Benoit 1985: 284; Blatchley & Leng 1916: 625; Bright 1968b: 1304, 1976d: 132–133; Chamberlin 1939: 445; Dodge 1938; Eichhoff 1878b: 323–324; Hagedorn 1910a: 155; Hopkins 1915b: 68–69; Hubbard 1897b: 23; LeConte 1868: 159, 1876: 359–360; Schedl 1964k: 314; Schwarz 1886: 41, 45, 1888: 45; Swaine 1909: 155, 1910b: 162, 1917: 22–23, 1918a: 124–126; Wood, S. L. 1982b: 793.
- serratus* Swaine 1910b: 162. Lectotype ♀; Ste. Anne de Bellevue, Quebec; CNCI, Ottawa, designated by Bright 1967b: 680. Synonymy: Hopkins 1915b: 69.
References: (ds) Leng 1920: 342; Swaine 1911: 92. (tx) Bright 1967b: 680; Hagedorn 1910a: 157; Hopkins 1915b: 68–69; de Ruelle 1970: 115; Schedl 1979c: 225; Swaine 1910b: 162–165, 1918a: 125.
- populi* Swaine 1917: 22. Lectotype ♀; Ste. Anne de Bellevue, Quebec Canada; CNCI, Ottawa, designated by Bright 1967b: 673. Synonymy: Schedl 1964m: 314.
References: (bv) Hosking & Knight 1975. (cn) Blackman 1950; Doane et al. 1936; Swaine 1918a: 124–125. (hb) Blackman 1950; Chamberlin 1939: 446–447; Doane et al. 1936; Drake 1921: 203–204; Swaine 1918a: 124–125. (ds) Beaulne 1956; Blackman 1950; Chamberlin 1939: 446–447; Kleine 1934a: 177; Leng 1920: 342. (tx) Bright 1967b: 673, 1968: 1304; Chamberlin 1939: 446–447; Itoebecke 1978; de Ruelle 1970: 97; Schedl 1964m: 314; Swaine 1917: 22–23, 1918a: 124–126; Titus, Meikle, & Harrison 1985: 24.
- obiensis** Browne 1980a: 375. Holotype ♀; Obi Island (Moluccas) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Moluccas).
Hosts: *Shorea* sp.
References: (tx) Browne 1980a: 375.
- obliquus** Sharp 1885: 192. Holotype ♀; near Honolulu, Hawaiian Islands; BMNH, London.
Figures: Nobuchi 1978a: pl. 2, Samuelson 1981: 60.
Distribution: Hawaiian Islands (Oahu).
Hosts: *Byronia sandwicensis*, *Ilex anomala*.
Notes: (1) Bright (1968b: 1301) transferred *Pityophthorus obliquus* LeConte into *Xyleborus*, although it did not belong there; consequently, Samuelson (1981: 88) placed Sharp's name in homonymy unnecessarily; because this occurred after 1960, Sharp's name is restored.
References: (ds) Baker, W. L. 1972: 271; Beeson 1938b: 293; Bright 1968b: 1301, 1981c: 157; Drooz 1985: 374; Hagedorn 1910d; Kleine 1913b: 162, 1914b: 302; Wood, S. L. 1977a: 73. (tx) Bright 1968b: 1301; Hagedorn 1910a: 155; Nobuchi 1978a: pl. 2; Perkins 1900: 176; Samuelson 1981: 88; Schedl 1941f: 14; Sharp 1885: 192–193.
- tantalus* Schedl 1941f: 114. Lectotype ♀; Oahu: Tantalus; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 249 and by Samuelson 1981: 88. Synonymy: Wood 1966b: 32.
Notes: (3) Samuelson 1981: 88 (described male).
References: (ds) Samuelson 1981: 88; Swezey 1941: 122, 1954: 109. (tx) Samuelson 1981:

60, 88; Schedl 1941f: 114, 1979c: 249; Wood, S. L. 1966b: 32.

oblicatus Schedl 1980d: 122. Holotype ♀; near Honolulu, Hawaiian Islands; BMNH, London, automatic, an unneeded replacement name.

References: (tx) Schedl 1980d: 122.

oblongus Schedl 1950d: 32. Holotype ♀; Isles Seyshelles; Schedl Collection in NHMW, Wien.

Distribution: Africa (Seychelles Islands).

References: (cn) Beaver 1988a: 66. (hb) Beaver 1988a: 66. (ds) Beaver 1988a: 66; Schedl 1969d: 12. (tx) Schedl 1950d: 32, 1969d: 12, 1977b: 162, 1979c: 174.

obstipus Schedl 1935f: 270. Lectotype ♀; Malay Peninsula: Pahang, Fraser's Hill and Cameron's Highlands; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 175.

Distribution: Asia (Malaya).

References: (ds) Browne 1961c: 136. (tx) Schedl 1935f: 270, 1979c: 175.

obtusatus Schedl 1972m: 200. Holotype ♀; Borneo; BMNH, London.

Distribution: Indonesia (Borneo).

References: (tx) Schedl 1972m: 200.

octiesdentatus Murayama 1931a: 46. Holotype ♀; Kannanri, Korea; Murayama Collection in USNM, Washington.

Figures: Yin, Huang, & Li 1984: 159.

Distribution: Asia (Sichuan in China/ Japan/ Korea).

Hosts: *Carpinus laxiflora*, *Cleyera* spp., *Eurya japonica*, *Illicium religiosum*.

References: (ay) Murayama 1933a: 2. (cn) Shiraki 1952. (ds) Cho 1957, 1963; Choo 1983: 107; Choo & Woo 1985: 166; Kleine 1934a: 175; Ko 1969: 285; Murayama 1929b: 2, 1930b: 21, 1931a: 46, 1937b: 375, 1949c: 103, 1950b: 1297; Nobuchi 1985c: 26; Shiraki 1952. (tx) Choo 1983: 107; Murayama 1930b: 21, 25, 31, 1931a: 41, 46–48, 1933a: 2, 32–33, 1934c: 300, 1937b: 375, 1950b: 1297, 1954b: 204; Schedl 1934f: 1646; Yin, Huang, & Li 1984: 159.

ohnoi Browne 1980a: 375. Holotype ♀; Keelung (Formosa) to Nagoya (Japan), imported; BMNH, London.

Distribution: Asia (Taiwan).

Hosts: *Quercus* sp.

References: (tx) Browne 1980a: 375.

ohtoensis Nobuchi 1981d: 149. Holotype ♀; Mt. Ohto, Wakayama, Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1981d: 153.

Distribution: Asia (Japan).

Hosts: *Illicium religiosum*.

References: (ds) Nobuchi 1985c: 26. (tx) Nobuchi 1981b: 149, 153.

okinosenensis Murayama 1961b: 31. Holotype ♀; Japan: Tottori Pref Mt. Okinosen and Kamiishikawa, Niigata pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Quercus* sp.

References: (cn) Anonymous 1980g. (ds) Anonymous 1980g; Nobuchi 1985c: 26. (tx) Murayama 1961b: 31.

oneratus Schedl 1976a: 76. Holotype ♀; V. Vera, M. Grosso, Lon. 55 degrees 36', Lat. 12 degrees 48', Brazil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 76.

onoharaensis Murayama 1934c: 293. Holotype ♀?; Kiushu: Tarumidzu, Onohara, Kagoshima Pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Quercus* sp.

References: (ds) Murayama 1954b: 204; Nobuchi 1985c: 26. (tx) Murayama 1934c: 293, 1954c: 26.

operosus Schedl 1973e: 91. Holotype ♀; Wau, Morobe Dist. [New Guinea], 400 m; BPBM, Honolulu.

Distribution: New Guinea.

References: (tx) Schedl 1973e: 91.

opulentus Schedl 1975f: 369. Holotype ♀; Mt. Dayman, Manean Range, New Guinea, 700 m, N. slope; AMNH, New York.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 369.

orientalis Eggers 1933f: 54. Holotype ♀; Wladivostok, USSR; USNM, Washington.

Figures: Tsai & Li 1959: 103.

Distribution: Asia (Sibera, Ussuri in E USSR).

Hosts: *Acer* spp., *Kaloranax ricinifolia*.

References: (ec) Kurenzov 1934a: 58. (hb) Kurenzov 1948b: 121; Stark 1952: 432. (ds) Krivolutsкая 1983; Kurenzov 1934a: 58; Stark 1952: 432. (tx) Eggers 1933f: 54–55; Kurenzov 1941a: 186–188, 1948b: 121; Stark 1952: 432; Tsai & Li 1959: 103.

orientalis kalopanacis Kurenzov 1941a: 187. Holotype ♀; Far East, USSR; Kurenzov Collection at Vladivostok.

References: (tx) Kurenzov 1941: 187–189.

orientalis acris Kurenzov 1941a: 188. Holotype ♀; Far East, USSR; Kurenzov Collection at Vladivostok.

References: (tx) Kurenzov 1941a: 186–189.

perorientalis Schedl 1957d: 85. Holotype ♀; Wladivostok, USSR; USNM, Washington, unneeded replacement name. Synonymy: Browne 1962d: 50.

References: (tx) Browne 1962d: 50; Schedl 1957d: 85.

- osumiensis** Murayama 1934c: 292. Holotype ♀; Nagao Forest, Osumi Peninsula, Kagoshima pref.; Murayama Collection in USNM, Washington. Distribution: Asia (Japan). Hosts: *Illex oldhami*. References: (ds) Murayama 1954b: 204; Nobuchi 1985c: 27. (tx) Murayama 1934c: 290–293, 1954b: 204, 1955: 85.
- palatus** Wood 1974a: 35. Holotype ♀; 24 km W Armeria, Colima, Mexico; Wood Collection. Distribution: North America (Colima, Jalisco, Nayarit in Mexico). Hosts: Limbs of trees and shrubs. References: (ec) Equihua & Atkinson 1986: 630. (hb) Equihua & Atkinson 1986: 630; Wood, S. L. 1982b: 797. (ds) Atkinson & Equihua 1988: 102; Equihua & Atkinson 1986: 630; Wood, S. L. 1982b: 797. (tx) Wood, S. L. 1974a: 35, 1982b: 797.
- papatrae** Schedl 1972i: 53. Holotype ♀; Rapontamon, New Ireland District, New Guinea; CSIRO, Canberra. Distribution: New Ireland Island. Notes: (3) This is a possible synonym of *micronatooides*. References: (tx) Schedl 1972i: 53, 1979c: 183.
- papuanus** Blandford 1896b: 209. Holotype ♀; New Guinea; BMNH, London. Distribution: New Guinea. References: (ds) Hagedorn 1910d: 107; Kleine 1913b: 162, 1914b: 296. (tx) Blandford 1896b: 209; Hagedorn 1910a: 155.
- parallelocollis** Eggers 1933b: 33. Holotype ♀; Franz. Guayana (Nouveau Chantier); MNHN, Paris. Distribution: North America (Costa Rica, including Isla del Coco), South America (Cayenne/Colombia). Hosts: *Theobroma cacao*. References: (hb) Wood, S. L. 1982b: 818. (ds) Atkinson & Equihua 1988: 102; Blackwelder 1947: 780; Bright 1982a: 128; Schedl 1960a: 76; Wood, S. L. 1982b: 818. (tx) Eggers 1933b: 3, 33–34; Schedl 1979c: 183, 185; Wood, S. L. 1982b: 818.
- parallelus** Eggers 1936c: 39. Holotype ♀; S. Rhodesia; Salisbury; BMNH, London. Distribution: Africa (Zaire/Zimbabwe). Hosts: *Theobroma cacao*. References: (hb) Loyttyniemi, Beaver, & Loyttyniemi 1984. (ds) Beaver & Loyttyniemi 1985a: 75; Schedl 1962j: 374. (tx) Eggers 1936c: 39; Schedl 1939j: 565, 1962j: 374, 1979c: 185.
- parcellus** Wood 1968b: 2. Holotype ♀; Bartica triangle, British Guiana; BMNH, London. Distribution: South America (Brazil/Guyana). Hosts: *Chaetocarpus echinocarpus*, *Copaifera langsdorfi*, *Epervia falcata*, *Eschweilera sagotianum*, *Kairiballi* sp., *Marcgravia* sp., *Pouteria* sp., *Sloanea* sp., *Tococa formicaria*. References: (hb) Beaver 1976a: 25. (ds) Beaver 1976a: 25. (tx) Wood, S. L. 1968b: 2.
- pardous** Eggers 1943d: 247. Holotype ♀; Brasil (Staat Sao Paulo, Tal des Rio Pardo); Strohmeier Collection. Figures: Nunberg 1959a: pl. 25, figs. 6–7. Distribution: South America (Brazil). References: (tx) Eggers 1943d: 247; Nunberg 1959a: 433.
- parinarie** Schedl 1962j: 306. Holotype ♀; Congo Belge: Hembe-Bitale; Schedl Collection in NHMW, Wien. Distribution: Africa (Zaire). Hosts: *Parinari holstii*. References: (tx) Schedl 1962j: 306, 1979c: 185.
- partitus** Browne 1974a: 69. Holotype ♀; Fiji: Viti Levu, Nausori Highlands; BMNH, London. Distribution: Fiji Islands, New Guinea. Hosts: *Dacrydium* sp. References: (ec) Roberts 1977a: 261. (hb) Roberts 1977a: 261. (ds) Browne 1974a: 65; Roberts 1977a: 261. (tx) Browne 1974a: 65, 69.
- granulosus** Schedl 1975f: 366. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1980d: 121. Notes: (3) Beaver 1991: 95 (treated as a good species). References: (ds) Schedl 1979f: 103. (tx) Beaver 1991: 95; Schedl 1975f: 366, 1979c: 112, 1980d: 121.
- parvipunctatus** Eggers 1943a: 387. Holotype ♀; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1943a: 387–388; Schedl 1979c: 186.
- pele** Samuelson 1981: 82. Holotype ♀; Hawaii: Olaa, 48 km from Hilo, 3800 ft.; BPBM, Honolulu. Figures: Samuelson 1981: 63. Distribution: Hawaiian Islands (Hawaii). Hosts: *Cheirodendron* sp. References: (tx) Samuelson 1981: 63, 82.
- pelliculosus** Eichhoff 1878b: 336. Syntypes ♀; Nipon, insula Japonica Asiatica; Hamburg Museum, lost. Distribution: Asia (Sichuan in China/ Japan), North America (introduced: Maryland, Pennsylvania). Hosts: *Acer* sp., *Castanopsis* sp., *Quercus acuta*, *Q. stenophylla*, *Shiia sieboldii*. References: (cn) Murayama 1954a: 11. (ds) Atkinson, Rabaglia, & Bright 1990: 95; Blandford 1894c; Kleine 1913b: 162, 1914b: 260; Murayama 1936a: 135, 1954a: 11, 1954b: 181; Nobuchi 1985c: 27; Yin, Huang, & Li 1984: 158. (tx) Atkinson, Rabaglia, & Bright 1990: 95; Eggers 1923a: 209–210, 1930a: 204; Eichhoff 1878a: 392, 1878b: 336; Murayama 1934c: 297–300, 1936a: 135, 1954b:

181; Niisima 1909: 160; Schedl 1934d: 87, 1934f: 164-6, 1962j: 279; Yin, Huang, & Li 1984: 158.

pentaclethrae Schedl 1957d: 87. Holotype ♀; Congo Belge: Bas-Congo, Luki; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 21, figs. 5-8.

Distribution: Africa (Zaire).

Hosts: *Pentaclethra macrophylla*.

References: (hb) Schedl 1962j: 168. (ds) Schedl 1962j: 168. (tx) Nunberg 1963b: 43, pl. 21; Schedl 1957d: 87, 1962j: 168, 1979c: 188.

peramploides Schedl 1957d: 102. Holotype ♀; Kenya, Ngong; Schedl Collection in NHMW, Wien.

Distribution: Africa (Kenya/ Uganda).

References: (ds) Schedl 1962j: 324. (tx) Schedl 1957d: 102, 1962j: 324, 1979c: 188.

peramplus Schedl 1950d: 31. Holotype ♀; Deutsche Ost-Afrika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania/ Zaire).

References: (ds) Schedl 1962j: 374. (tx) Schedl 1950d: 31, 1954e: 82, 1962j: 374, 1979c: 188.

percristatus Eggers 1939a: 12. Holotype ♀; Nordost-Birma (Kambaiti, 7000 Fuss); NHR, Stockholm.

Distribution: Asia (Burma/ Sichuan in China).

References: (tx) Eggers 1939a: 12-13; Schedl 1942a: 186, 1955h: 46, 1979c: 188.

perdiligens Schedl 1937b: 399. Lectotype ♀; Urwald hinter dem Randgebirge, N.W. Tanganjikasees; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189.

Distribution: Africa (Kenya/ Tanzania/ Zaire).

References: (ds) Schedl 1962j: 496. (tx) Schedl 1937b: 399, 1954e: 54, 79, 1957d: 107, 1962j: 496, 1979c: 188.

perforans (Wollaston) 1857: 96 (*Tomicus*). Syn-types ♀; Madera; BMNH, London.

Figures: Chandra 1981: 288, Nobuchi 1967: pl. 2, 1978a: pl. 4, Samuelson 1981: 53, Wood 1960a: 65.

Distribution: Africa (Grande Comore in Azores Islands/ Cameroon/ Canary Islands/ Cape Verde Islands/ Gabon/ Ivory Coast/ Kenya [including Pleistocene fossils]/ Madeira/ Malawi/ Mauritius/ Nigeria/ Seychelles Islands/ Sierra Leone/ Somalia/ Tanzania/ Uganda/ Zaire), Asia (Burma/ Guangxi, Yunnan in China/ Malaya/ Andaman Islands in India/ Japan/ Okinawa Island/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam), Admiralty Islands, Australia, Cook Islands, Fiji Islands, Guam, Hawaiian Islands, Indonesia (Bali, Batu, Borneo, Celebes, Java, Nilas Island, Sumatra), Madagascar, Micronesia (Kiribati Islands, Mariana Islands, Palau Islands, Society Islands), New Caledonia, New Guinea, New Hebrides Islands, Niue Island, Philippine Islands (Bangui, Engano), Reunion Island, Samoan Islands, Solomon Islands, Tahiti, Tuamotu Island.

Hosts: Many listed by Brimblecombe 1953: 30-33, Browne 1961c: 141, Gray & Wylie 1974: 86-89, Schedl 1962j: 390-399. *Shorva robusta*.

Notes: (3) An apparent synonym is *apertus* (DEB). References: (ay) Herfs 1949: 26; Hill, D. S. 1983: 496; Hopkins 1894g, (bv) Beeson 1917; Gray, B. 1974c; Moeck 1970b: 993. (cn) Alibert 1951: 149; Alliot & Ivanes 1950; Anonymous 1964e, 1973q, 1979p; Ballard 1921; Beaver 1988a: 66; Beeson 1915: 8-11, 1916: 1-5, 1919: 10-15; Beille 1913; Bigger 1982: 255; Blandford 1892b, 1893c1-46; Bodkin 1913: 1-4; Box 1953a; Brimblecombe 1951, 1956; Browne 1952, 1968: 716; Bruner 1928: 27-32; Chevalier 1931; Cotes 1893b: 155; Dinther 1961; Ebeling 1950: 537; Edwards 1933: 16-18, 1938: 454-458; Faber 1909; Froggatt 1925, 1927: 58-59; Garman 1905; Ghesquiere 1933a; Gowdey 1918: 42-51; Gray, B. & Wylie 1974; Green 1912a: 39, 1916: 608-636; Hagedorn 1904g, 1913a: Hall 1932: 265; Hayward 1942: 29; Herfs 1949: 26; Hill, D. S. 1983: 496; Hollrung 1902: 134-135; Hubbard 1897b: 20; Ishikura 1966; Kalshoven 1924c, 1932: 243, 1954: 13, 1961c; Kleine 1932a: 305; Koningsberger 1898: 38, 1908: 76; Koningsberger & Zimmermann 1901: 97-98; Lever 1940a: 38; Mathur & Singh 1960b: 24, 1961b: 48; Maxwell-Lefroy 1909: 395; Mayne 1917: 27, 1919: 22; Mesa 1931: 17; Navel 1921: 77, 94; Ormerod 1892; Paine 1934: 39-41, 1935: 39; Petch 1921: 233; Pierce, W. D. 1917: 193; Roberts 1987; Rutgers 1920: 1-43; Rutherford 1914b: 222; Seshadri 1968; Small 1921: 38; Smith 1921: 1-23; Stebbing 1914: 583; Supriana et al. 1978; Swabey 1935: 6; Swezey 1945: 353; Toker 1952: 347; Van Dine 1926: 1-11; Wolcott 1933: 202, 373; Wurth 1908: 64; Wylie & Shanahan 1975; Wyniger 1962a: 57, 1962b: 179; Zehntner 1899: 586-587, 1900: 503. (ec) Beeson 1923; Browne 1958b; Hagedorn 1907c; Kalshoven 1961c; Muesebeck 1937: 24; Roberts 1977a: 263; Sharples 1936: 384; Stebbing 1914: 583. (hb) Ashby 1915: 299; Baltazar & Salazar 1979: 86; Batista 1947: 78; Beaver 1976b: 541, 1988: 66; Beaver & Browne 1978: 610; Beeson 1916a: 221, 1917, 1923; Beffa 1949; Blandford 1892b, 1894b; Brimblecombe 1951, 1956; Browne 1941: 62, 67, 1949e: 174-189, 1958b, 1961c: 141-143, 1961d: 49, 1963a: 242, 1965a: 253, 1968b: 716; Chobaut 1897: 262; Cotes 1893a, 1893b; Eggers 1905: 98; Froggatt 1925, 1927; Gray, B. 1968: 311, 1974c; Gray, B. & Wylie 1974; Hagedorn 1913a: 21-22; Herfs 1949a: 26; Hopkins 1894g, 1905c: 148; Hubbard 1897b: 20-21; Kalshoven 1924c: 8-10, 1958a: 186, 1959a: 224, 1959c: 140, 1961c, 1962a: 17, 19, 1964; Kleine 1932a: 305; Morstatt 1924: 49; Roberts 1977a: 263, 1987; Schedl 1962j: 374; Schedl, W. 1962: 369; Seshadri 1968; Sharples 1936: 384; Speyer 1923: 12; Stebbing 1908a: 111, 1914: 583; Take-mori & Daimon 1973; Thomas 1960: 77; Viana 1964: 123; Wylie & Shanahan 1975; Yoshida et al.

- 1977; Zehntner 1900: 1–21, 1900: 503. (ds) Albert 1951: 149; Alluaud 1900: 438–442; Aulmann 1911: 436–441; Bain 1974: 15; Ballard 1921; Beaver 1976: 541, 1957b: 65, 1958a: 66, 1990b: 150; Beaver & Browne 1978: 610; Beeson 1916a, 1919b, 1923: 165, 1930: 47–96, 1935: 108, 1938b: 295, 1940: 198–199, 1941: 403–404; Bhasin, Roonwal, & Singh 1958: 36, 98; Blackwelder 1947: 780; Blandford 1893c: 12, 1894b: 261, 1895a: 316, 322, 1896a: 20, 1896f: 243, 1897b, 1898: 475; Brader 1964: 4–5; Brimblecombe 1951: 1–37, 1953: 30–33; Browne 1935a: 4, 1938b: 83–84, 1954: 204, 1958: 164–182, 1961a: 304, 1961c: 141, 1963a: 242, 1965a: 188, 1966: 253, 1968b: 716–717, 1968c: 113, 1970: 542, 1974a: 65, 1975a: 760, 1980c: 486; Bruch 1914: 427–429; Chadwick & Nikitin 1968; Chevalier 1931; Cola 1971, 1973; Cotes 1893a, 1893b, 1896: 4–5, 101–102; Dinther 1960: 111; Dumbleton 1954: 28, 96; Dupont 1917: 20–22; Eggers 1904; Fauvel 1897: 66; Frappa 1933: 179; Froggatt 1936: 18; Gardner 1957: 33; Gemminger & Harold 1872: 2686; Chesquiere 1933a, 1933b; Cowdley 1923: 17, 45, 1924: 21, 1926: 27; Gray, B. 1967: 9–10, 1968: 311; Gray & Wylie 1974: 86; Green 1912a: 39; Guagliumi 1966: 173; Hagedorn 1904: 449, 1907a: 261, 1907b: 111–112, 1907c: 292, 1910d: 108, 1913a; Hargreaves 1925: 21–28, 1937: 510; Hart 1892: 342, 1893: 51–52; Hill, D. S. 1983: 496, 1987: 341; Horion 1951; Ishikura 1966; Jansson 1940: 63; Kalshoven 1924b: 357, 1932: 243, 1939: 334, 1951: 854, 1954: 13, 1958a: 186, 1959c: 140, 1964: 131; Kleine 1912a: 162, 212, 1913b: 162, 1914a: 22–23, 1914b: 270, 274, 279–280, 288, 290, 301, 312, 315, 323, 327, 1928: 305–306, 1932a: 305, 1934a: 175; Kolbe 1910: 40; Koningsberger 1908: 76; Kraus 1943: 88; Lacordaire 1866: 383; Lee 1971: 31; LePelley 1968: 145; Lepesme et al. 1948: 647–648; Lever 1940: 38, 1941: 79, 1945: 367; Lundblad 1958: 489; Mathur & Singh 1960a: 24; Maxwell-Lefroy & Howlett 1909: 395; Mesa 1935: 95; Murayama 1934d: 510; Nobuchi 1967: 14, 22, 1978a: 41, 1979a: 407; Nobuchi & Ono 1973: 182; Nonveiller 1984: 42; Numberg 1960b: 161, 1961a: 331, 1963c: 98, 1965b: 21, 1972b: 198; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987a: 88, 1987b: 94; Ohno, Yoshioka, Uchida, Yoneyama, & Tsukamoto 1989: 64; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 94; Pierce, W. D. 1917: 193; Pope 1924: 14–15; Roba 1935: 340; Roberts 1969: 131–133, 1977a: 263; Roonwal 1954: 19–86; Sampson 1914: 387; Samuelson 1981: 82; Schedl 1931c: 346, 1934f: 1646, 1935j: 1, 1936a: 529, 1936j: 5, 21, 1937c: 544, 1938g: 426–427, 1939a: 468, 1939e: 332, 1939f: 51, 1940a: 320–321, 1940b: 433–435, 1941d: 380, 1941f: 116, 1942a: 171, 1942b: 148, 1942c: 164, 380, 1942d: 7, 1943d: 69, 1948g: 26, 1950f: 40, 54, 1950g: 894–899, 1951i: 45–49, 1952b: 364, 1953b: 124, 1953c: 291, 1953d: 71, 1954a: 143–144, 1955b: 279–287, 1955c: 31, 1955i: 212, 1957a: 194, 1957d: 102, 1958d: 189, 1959a: 503, 1960a: 76, 1961c: 70–71, 1962b: 184–186, 1962h: 65, 1962i: 72–75, 1962j: 374, 1962k: 1101, 1963e: 155, 1963f: 60, 1964c: 304, 1964d: 212, 1964i: 248, 1965a: 340, 1965e: 355, 1965g: 22, 1966b: 63, 1966e: 44, 1966f: 77–78, 1966g: 30–37, 1967f: 151, 1968e: 263, 1969a: 208, 1969c: 54, 1969d: 7–12, 1969e: 156, 1969f: 1, 1969h: 105, 1969i: 137, 1970e: 90, 1970f: 581, 1971a: 278, 1971c: 362, 1971e: 5, 1971f: 149, 1972a: 144, 1972b: 266, 1973b: 211, 1973c: 379, 1974e: 53, 1975a: 451, 1975c: 383, 1975e: 451, 1975h: 352, 1975i: 346, 1975j: 294, 1977b: 176, 1977d: 279, 1977e: 43, 1978d: 73, 1979a: 158, 1979b: 416, 1980b: 184; Schwarz 1895b: 171; Schwerdtfeger 1960: 69–71; Smees 1964: 25; Smith, J. H. 1932: 3–12; Spahr 1981; Speyer 1923: 12, 19, 21; Stahel 1917: 3; Supriana et al. 1978; Swezey 1935: 7, 1941: 123–126, 1954: 14–78; Thomas, R. T. S. 1960a, 1960b; Viana 1964: 123; Wichmann 1914a: 413, 1954a: 521–522; Wollaston 1857: 96, 1865: 237; Wood, S. L. 1957e: 1273, 1960a: 51; Yin, Huang, & Li 1984: 164. (tx) Beeson 1929: 240–241; Beffa 1949; Blandford 1892b: 153–178, 1894b, 1898c; Browne 1955: 355; Carne et al. 1980; Eggers 1922a: 88, 1923a: 197, 1925: 154, 1926: 301, 1927a: 193–194, 1930d, 1939: 114; Eichhoff 1875: 203, 1878b: 374–377, 403; Ferrari 1867a: 24, 91–92, 1867b: 107; Green 1912a: 39; Hagedorn 1907a, 1907b, 1910a: 155, 1913b: 257; Hubbard 1897b: 20; Kalshoven 1959a: 224–225; Keler 1928: 30; Lacordaire 1866: 383; Lea 1910: 138; Lever 1941: 79; Nobuchi 1967: pl. 2, 1978a: pl. 4, 1983: 303; Sampson 1914: 387; Samuelson 1981: 53, 82; Schaufuss 1897a: 210; Schedl 1931e: 347, 1934f: 1646, 1952h: 66, 71, 1955b: 278, 1955g: 46, 1958b: 101, 1958i: 214, 1959a: 503, 1960a: 78, 1962j: 374, 1963j: 482, 1977b: 176; Schroder 1901: 91; Schwarz 1895b: 171; Stark 1952: 24; Stebbing 1906: 406–408, 1908b: 1, 1914: 583; Strohmeier 1911b: 24–25; Waterhouse 1882: 21–21; Wichmann 1914a: 413; Wollaston 1857: 96, 1865: 237–238, 1867: 113, 1869: 321; Wood, S. L. 1960a: 51, 65–70, 1969, 1979b: 136; Wylie & Yule 1977; Yin, Huang, & Li 1984: 164.
- testaceus* Walker 1959: 260 (*Bostrichus*). Holotype ♀; Ceylon; BMNH, London. Synonymy: Browne 1955: 355.
- Notes: (1) Schedl 1979c: 252 lists the holotype as being in the Schedl Collection.
- References: (cn) Browne 1938b, 1949c; Chandra 1981; Chatterjee et al. 1950: 38; Ebeling 1950, 1959; Kalshoven 1951: 851; Lever 1940a: 38–42, 99–101, 1941: 79, 1945: 370; Mathur, Chatterjee, & Thapa 1965: 17, 1970: 5; Mathur & Singh 1960a: 9, 1960b: 6, 1961a: 10, 1961b: 6; Mumford 1961: 38, 1963: 11; Roonwal 1954: 19; Roonwal, Chatterjee, & Thapa 1961b: 8; Yunus & Hua 1980: 230; Zehntner 1900: 501. (cc) Chatterjee & Chatterjee 1951. (hb) Chandra 1981; Chatterjee & Chatterjee 1951; Chat-

- terjee et al. 1950; Ebeling 1950; Kalshoven 1951: 851; Zehlntner 1900: 501. **(ds)** Beeson 1961: 309; Blackwelder 1947: 780; Chatterjee & Chatterjee 1951; Chatterjee et al. 1950; Dumbleton 1954; Ebeling 1950, 1959; Ferrer 1942; Froggatt 1936; Gardiner 1957a; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 60, 112; Kleine 1913b: 128, 163, 1914b: 273–274; Lacordaire 1866: 583; Lepesme et al. 1948: 647; Lever 1940b: 99, 1941: 79; Mathur & Singh 1960a: 9, 1960b: 6, 1961a: 10, 1961b: 14; Mumford 1961: 38, 1963: 11; Nobuchi 1967: 23; Nunberg 1960a: 295; Roonwal 1954: 19; Roonwal, Chatterjee, & Thapa 1961a: 4, 1961b: 7; Schedl 1936d: 5, 1936g: 529, 1937f: 15, 1938g: 426; Spahr 1981: 62; Swezey 1941: 123, 1954: 14; Yunus & Hua 1980: 230. **(tx)** Browne 1955: 355; Chandra 1981: 288; Eggers 1939c: 114; Ferrari 1867a: 74; Hagedorn 1910a: 106, 157; Lacordaire 1866: 383; Lever 1941: 79; Motschulsky 1863: 511; Schedl 1935j: 1, 1937e: 544, 1939a: 468, 1939e: 332, 1939f: 51, 1940a: 365, 1940b: 434–435, 1941d: 380, 1941f: 116, 1942a: 171, 1942b: 147–148, 1942c: 164, 1942d: 7, 1948g: 26, 1950f: 40, 1950g: 893–894, 899, 1951i: 45, 1951k: 141, 1952b: 364, 1953b: 124, 1953c: 291, 1953d: 71, 1954a: 143, 1955b: 281–282, 1955c: 31, 1955i: 212, 1955i: 214, 1979c: 252; Walker 1859: 260; Wood, S. L. 1960a: 70.
- duponti* Montrouzier 1861: 265. Syntypes ♀; (not seen). Synonymy: Hagedorn 1910d: 108. References: **(ds)** Gemminger & Harold 1872: 2690; Lacordaire 1866: 383. **(tx)** Ferrari 1867a: 74; Hagedorn 1910d: 108; Lacordaire 1866: 383; Montrouzier 1861: 265.
- tuberculatus* Motschulsky 1863: 511 (*Anodius*). Syntypes 2 ♀; Ile Ceylan; IZM, Moscow. Synonymy: Wood 1969c: 117. References: **(ds)** Gemminger & Harold 1872: 2686; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 274. **(tx)** Hagedorn 1910a: 157; Motschulsky 1863: 511; Schedl 1959a: 503; Wood, S. L. 1969c: 117.
- denticulus* Motschulsky 1863: 512 (*Anodius*). Lectotype ♀; Ceylon, type labeled Indie Occidentale; IZM, Moscow, designated by Wood 1969c: 117. Synonymy: Wood 1969c: 117. Notes: (1) Although the lectotype label and all subsequent references to this name have the spelling *denticulatus*, the only spelling used by Motschulsky is that cited above. References: **(ds)** Gemminger & Harold 1872: 2685; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 270. **(tx)** Eggers 1929e: 48; Hagedorn 1910a: 153; Motschulsky 1863: 512; Schedl 1959a: 505, 1962j: 459; Wood, S. L. 1969c: 117.
- kraatzii* Eichhoff 1868c: 152. Holotype ♀; Ceylon; Hamburg Museum, lost. Synonymy: Schedl 1959a: 503. References: **(cn)** Beeson 1935a; Box 1953a; Ebeling 1959; Holloway 1936: 183; Illingsworth 1938: 24; Kalshoven 1932: 243, 1936a: 188. **(hb)** Beeson 1929; Blandford 1893c: 1–46; Browne 1935a, 1941; Kalshoven 1959a: 224. **(ds)** Beeson 1929, 1930: 241–244, 1935a, 1935b: 108, 114, 1938a, 1938b: 293, 1940, 1961: 306; Browne 1935a; Ebeling 1959; Eggers 1926a; Gemminger & Harold 1872: 2686; Hagen 1890; Kalshoven 1932: 243; Kolbe 1910: 40; Krauss 1943: 88; Murayama 1936b: 115; Sampson 1914: 387; Schedl 1936j: 21. **(tx)** Beeson 1929: 240–243, 1930: 241–244, 1935a: 118, 1935b: 108, 114, 1938: 292, 1940: 198–199; Blandford 1893c: 1–46; Browne 1955: 355; Eggers 1922: 88, 1925: 154, 1926a: 301, 1927a: 194; Eichhoff 1868c: 152, 1875: 203, 1878b: 374; Kalshoven 1959a: 224; Sampson 1914: 387; Schaufuss 1897a: 210; Schedl 1931c: 346, 1934f: 1646, 1951k: 140, 1959a: 503, 1962j: 374; Wood, S. L. 1960a: 70.
- kraatzii philippinensis* Eichhoff 1878b: 374. Holotype ♀; Philippine Islands; Schedl (1979c: 134) Collection in NHMW, Wien. Synonymy: Schedl 1959a: 503. Notes: (3) Eggers 1925: 154 erroneously synonymized this species with *volvulus* Fabricius, a species not yet known from the Philippine Islands. References: **(ds)** Nobuchi 1967: 22; Nunberg 1961a: 611; Schedl 1936d: 4. **(tx)** Eggers 1925: 154, 1939c: 114; Eichhoff 1878b: 374; Murayama 1934: 505–512; Schedl 1959a: 503, 1962j: 404, 1979c: 134; Strohmeier 1911b: 17, 25.
- immaturus* Blackburn 1885: 193. Syntypes ♀; mountains of Oahu, about 2000 feet, and Hawaii; BMNH, London. Synonymy: Beeson 1929: 240. References: **(cn)** Ehrhorn 1915: 103–161; Pope 1924: 14, 1925: 5. **(ds)** Barber 1914: 59; Beeson 1938: 292; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 302, 1934a: 173. **(tx)** Beeson 1929: 240–241; Blackburn 1885: 193; Hagedorn 1910a: 154; Schedl 1941f: 116, 1962j: 374, 1979c: 121; Sharp 1892: 193.
- hirsutus* Lea 1893: 321 (*Xylopertha*). Syntypes ♀; Tamworth, Cootamundra, Tweed and Richmond Rivers, New South Wales, Australia; presumably SAM, Adelaide. Synonymy: Schedl 1936g: 529, 1959a: 503. Notes: (1) Lea 1904: 106 (to *Xyleborus*). References: **(cn)** Froggatt 1926a, 1927; Lever 1941: 79; Smith, J. H. 1932: 232. **(hb)** Froggatt 1926a, 1927. **(tx)** Lea 1893: 321, 1904: 106, 1910: 138; Schedl 1936g: 529, 1959a: 503.
- whitteni* Beeson 1935b: 113. Syntypes 4 ♀; Uapou; Hakahetau Valley, 1500 feet; not given [BPBM, Honolulu?]. Synonymy: Beaver 1991: 95.

- References: **(ds)** Beeson 1938b: 294. **(tx)** Beaver 1991: 95; Beeson 1935b: 113–114.
- criticus* Schedl 1950g: 899. Lectotype ♀; Port Blair, Andamans, or Manila, P.I.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 70. Synonymy: Wood 1989: 177. References: **(ds)** Schedl 1966b: 50. **(tx)** Nobuchi 1983: 302; Schedl 1950g: 899, 1979c: 70; Wood, S. L. 1989: 177.
- perlongus* Eggers 1943a: 386. Holotype ♀; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien. Distribution: South America (Argentina/ Bolivia/ Peru). References: **(tx)** Eggers 1943a: 386; Schedl 1979c: 189.
- pulcnerrimus* Schedl 1948d: 38. Holotype ♀; Peru; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177. References: **(tx)** Schedl 1948d: 38, 1950i: 146, 1979c: 203; Wood, S. L. 1989: 177.
- pulchripes* Schedl 1958f: 46. Holotype ♀; Argentinien: Misiones; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177. References: **(tx)** Schedl 1958f: 46, 1979c: 203; Wood, S. L. 1989: 177.
- pernotus* Schedl 1934d: 88. Lectotype ♀; Java, Mt. Gede, 900 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 190. Distribution: Indonesia (Java). References: **(hb)** Kalshoven 1959c: 143. **(ds)** Kalshoven 1935a: 14, 1959c: 143. **(tx)** Schedl 1934d: 88, 1951i: 63, 1979c: 190.
- perplexus* Schedl 1969b: 218. Holotype ♀; Kerevat, New Britain District, New Guinea; CSIRO, Canberra. Distribution: New Britain Island. Hosts: *Araucaria cunninghamii*, *Pometia pinnata*. References: **(tx)** Schedl 1969b: 218, 1979c: 190.
- perpunctatus* Schedl 1971c: 382. Holotype ♀; Sarawak, Semengoh; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). Hosts: Rattan. References: **(tx)** Schedl 1971c: 382, 1979c: 191.
- persimilis* Eggers 1927c: 97. Lectotype ♀; Philip-pinen: Mindanao, Prov. Surigao, Surigao; USNM, Washington, designated by Anderson & Anderson 1971: 24. Figures: Nobuchi 1978a: pl. 2. Distribution: Asia (India/ Malaya), Indonesia (Sarawak in Borneo), Philippine Islands (Mindanao). Hosts: *Balanocarpus heimii*, *Shorea parvifolia*, *S. rugosa*. References: **(cn)** Mathur & Singh 1961a: 41. **(hb)** Browne 1941. **(ds)** Beeson 1961: 308; Mathur & Singh 1961a: 41; Nobuchi 1978a: 19; Schedl 1936d: 4, 1936j: 20, 1964c: 304, 1966b: 65, 1966g: 32, 1971c: 365. **(tx)** Anderson, W. H. & Anderson 1971: 24; Eggers 1927c: 97–98; Nobuchi 1978a: pl. 2, 1983: 303; Schedl 1936d: 4, 1936j: 20, 1937e: 544, 1942a: 171, 1962n: 699, 1979c: 191. *balanocarpi* Nunberg 1961b: 619. Holotype ♀; Malay Peninsula, Kelantan Ulu Lebir; BMNH, London. References: **(tx)** Nunberg 1961a: 630.
- peruvianus* Schedl 1951m: 123. Holotype ♀; Peru-uvia, Chanchamajo; Schedl Collection in NHMW, Wien. Distribution: South America (Peru). References: **(tx)** Schedl 1951m: 123, 1979c: 192.
- pfeili* (Ratzeburg) 1837: 168 (*Bostrichus*). Syntypes ♀; Luneburgschen und in Bayern; not located. Figures: Balachowsky 1949a: 222, 230, Grune 1979: 154, Nobuchi 1978a: pl. 4, Nunberg 1978: 115, Pfeffer 1989a: pl. 8. Distribution: Africa (Algeria/ Morocco), Asia (Fujian, Sichuan in China/ Japan/ Korea/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslo-vakia/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Spain/ Switzerland/ W USSR), New Zealand (introduced). Hosts: *Abies fabri*, *Acer* sp., *Alnus* sp., *Castanea* sp., *Chamaecyparis obtusa*, *Cinnamomum* sp., *Diospyros kaki*, *Fagus sylvatica*, *Machilus* sp., *Populus tremula*, *P.* sp., *Pterocarpus dalbergoides*, *Quercus* sp., *Schima* sp., *Sterculia campanulata*, *Terminalia biolata*, *Ulmus* sp. Notes: (3) Reitter 1913a: S2 named an aberration as *covinus*, no status. References: **(ay)** Escherich 1923b: 488; Finnegan 1963: 137; Francke-Grosman 1956b; Murayama 1933a: 2. **(bv)** Grune 1979: 155. **(cn)** Anonymous 1980g; Barbey 1925: 648; Murayama 1954a: 25; Nosek 1951: 109; Paulian 1943: 324; Ueno 1960; Wachtl 1901: 381; Wichmann 1927b: 353. **(ec)** Finnegan 1963: 137; Francke-Grosman 1956b; Györfi 1941b; Inouye et al. 1955: 109; Kleine 1909a: 49, 77; Nosek 1951: 109, 1959a: 118, 1959b: 87; Pfeffer 1928b: 2, 1943b: 181; Pfeffer & Prihoda 1950: 3; Roubal 1934b: 177; Vite 1952a: 107; Vitzthum 1926: 479; Woodring 1966c: 133. **(hb)** Baeta Neves 1943a; Barbey 1901: 28, 108, 1925: 648; Bargmann 1906; Brysson 1910; Dombrowsky 1887; Eggers 1908d; Eichhoff 1881a: 54, 278; Escherich 1923b: 488; Györfi 1957; Henschel 1895a: 193; Inouye et al. 1955: 102; Karpinski & Strawinski 1948: 156; Nosek 1959a: 118, 1959b: 87; Paulian 1943: 324; Pfeffer 1942a: 3; Postner 1974: 467; Ratzeburg 1837: 168; Reitter 1908c: 21; Spessivtsev 1913a: 104; Stark 1926a: 336, 1952: 439; Vite 1952a: 107; Wachtl 1876a: 458, 1901: 381; Wichmann 1927b: 353. **(ds)** Acloque 1896; Anonymous 1980g; Audras & Schaefer 1957; Barthe 1896; Brakman 1966b: 206; Brancsik 1871; Buresh & Lazarov 1956; Buysson 1910; Calwer 1884, 1893; Cho 1957; Choo 1983: 108; Choo & Woo 1985: 166; Endrodi 1958b; Escher-

- ich 1923b: 488, 1932b; Gaubil 1849; Gemminger & Harold 1872: 2686; Grune 1979: 155; Gyorf 1940: 47, 1941b; Hagedorn 1910d: 108; Henschel 1895a: 193; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1901: 713; Hoffmann 1936; Horion 1951; Karpinski 1948b: 230; Karpinski & Strawinski 1948: 156; Kestercanek 1881a: 12; Kleine 1912a: 268, 1913a: 36, 1913b: 162, 1934a: 175; Ko 1969: 285; Kraatz 1869: 60; Lacordaire 1866: 381; Langhoffer 1915c: 158; Lomnicki 1913b: 148; Lucht 1987: 280; Majzlan et al. 1987; Murayama 1929b: 2, 1930b: 22, 1937b: 372, 374, 1954a: 25, 1954b: 181 1955: 100; Negru 1955: 45, 1968a: 456; Nobuchi 1978a: 40; Nunberg 1928b: 88, 109, 1954: 62; Pfeffer 1928b: 2, 1931b: 73, 1936: 90, 1989a: 88; Pittioni 1943: 176; Postner 1974: 467; Ratzeburg 1837: 168; Redtenbacher 1858: 837; Reitter 1869b: 155, 1894a: 90, 1916: 294; Revy & Siroki 1942: 82; Rohrig 1955: 37; Roubal 1941: 275; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1237; Schaum 1859: 96, 1862: 101; Schedl 1963j: 481–482, 1966g: 30, 1980a: 20, 1981b: 94; Scheidt 1919: 165; Schilsky 1890: 196, 1909: 189; Seidlitz 1872: 396, 1891a: 567, 1891b: 613; Stark 1926a: 336, 1926b: 104, 1927b: 89, 1952: 439; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 446; Tredl 1907: 18; Wachtl 1876a: 458; Wichmann 1927a: 69. (**tx**) Acloque 1896; Balachowsky 1949a: 230–231; Barbey 1901: 28, 108; Brancsik 1871; Choo 1983: 108; Dombrowsky 1887; Eggers 1908c: 4–7; Eichhoff 1864b: 37, 1876a: 378–379, 1878b: 360, 1881a: 54, 278, 1883a: 116, 142; Endrodi 1957b; Escherich 1923b: 488; Fauvel 1889; Ferrari 1867a: 20, 1867b: 114; Fleischer 1927; Formanek 1907: 53; Grune 1979: 154–155; Hagedorn 1910a: 155; Henschel 1895a: 193; Hoffmann 1936: 44–45; Jacquelin du Val & Fairmaire 1868: 109; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1060; Lacordaire 1866: 381; Letzner 1891: 377; Lucht 1987: 280; Murayama 1930b: 22, 1933a: 2, 1937b: 372, 374, 1954b: 181, 1955: 100; Nobuchi 1978a: pl. 4, 1985c: 23; Nunberg 1954: 62, 1978: 115; Pfeffer 1932b: 21, 1942a: 3, 1955a: 196, 1989a: pl. 8; Portevin 1935: 329; Postner 1974: 467; Quaschik 1953: 35; Ratzeburg 1837: 168; Redtenbacher 1849a: 791, 1849b: 26, 1858: 837; Reitter 1894a: 90, 1913a: 81, 1916: 294; Rey 1892b: 30; Schedl 1934f: 1646, 1952f: 88, 1980a: 20, 1981b: 94; Seidlitz 1872: 396, 1891a: 567, 1891b: 613; Spessivtsev 1913a: 104, 1922a: 479, 1931: 60; Stark 1952: 439; Stierlin 1898: 446; Wylie & Yule 1977. (**ms**) Eggers 1912e; Escherich 1932b.
- alni* Mulsant & Rey 1856: 111 (*Bostrichus*). Syntypes ♀; Environs de Lyon, France; not located. Synonymy: Hagedorn 1910d: 108. References: (**hb**) Wachtl 1876a: 458. (**ds**) Pfeffer 1989a: 88; Schaum 1862: 101; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 458. (**tx**) Buysson 1880; Ferrari 1867a: 21–22, 1867b: 114; Hagedorn 1910d: 108; Letzner 1891: 377; Mulsant & Rey 1856: 111; Perris 1866: 195–196.
- vicarius* Eichhoff 1875: 203. Holotype ♀; Japan; IRSNB, Brussels. Synonymy: Schedl 1963j: 481. References: (**cn**) Mathur & Singh 1961a: 69, 1961b: 28; Murayama 1954a: 11. (**ds**) Beeson 1930: 262–264, 1961: 310; Blandford 1894c: 579; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 261, 279; Mathur & Singh 1961a: 69, 1961b: 28; Murayama 1954a: 11, 1954b: 185. (**tx**) Beeson 1930: 262–264; Blandford 1894d: 103, 116; Eggers 1925: 154, 1927b: 408; Eichhoff 1875: 203, 1877a: 126, 1878b: 376; Hagedorn 1910a: 157; Murayama 1954b: 185; Schedl 1934f: 1646, 1938h: 462–463, 1962j: 405, 1963j: 481.
- adumbratus* Blandford 1894d: 115. Syntypes ♀; Nagasaki, Hitoyoshi, Oyama, and Subashiri, Japan; BMNH, London. Synonymy: Schedl 1963j: 482. References: (**bv**) Choo, Woo, & Park 1988. (**cn**) Anonymous 1980g; Beeson 1915: 8–11; Stebbing 1914: 601; Wichmann 1957a: 83. (**ce**) Stebbing 1914: 601. (**hb**) Niisima 1908b: 18; Stebbing 1914: 601. (**ds**) Anonymous 1980g; Blandford 1894c: 579; Choo 1983: 102; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1988; Cola 1973; Hagedorn 1910d: 98; Kleine 1913b: 158, 1914b: 260; Murayama 1936a: 129, 1949c: 102, 1951c: 4, 1954b: 175, 1955: 102; Niisima 1908b: 18; Nobuchi 1966d: 26; Nohira & Ogawa 1986; Wichmann 1957a: 83; Yin, Huang, & Li 1984: 163. (**tx**) Beeson 1929: 243; Blandford 1894d: 115; Choo 1983: 102; Hagedorn 1910a: 152; Murayama 1934c: 296, 299, 1936a: 129, 1954b: 175, 1955: 102; Nobuchi 1966d: 26, pl. 3, 4; Schedl 1938h: 462, 1963j: 481–482; Stebbing 1914: 601; Wichmann 1914c: 139; Yin, Huang, & Li 1984: 163.
- pileatulus* Schedl 1975f: 369. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District [New Guinea]; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (**tx**) Schedl 1975f: 369, 1979c: 193.
- pilifer* Eggers 1923a: 178. Syntypes 2 ♀; Deutsch Neu Guinea, Kaiserin Augustafluss: MNB, Berlin and Eggers Collection (USNM, Washington, or NHMW, Wien?). Distribution: New Guinea. References: (**tx**) Eggers 1923a: 178–179; Schedl 1936d: 11.
- pilipunctatus* Browne 1966: 251. Holotype ♀; Philippines, Palawan: Tagembung, Mantalingajan Range, 1150 m; UZMC, Copenhagen. Distribution: Philippine Islands (Palawan). References: (**tx**) Browne 1966: 251–252; Nobuchi 1983: 303.

- pinguis** Browne 1983a: 557. Holotype ♀; Lever Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: Watergum log.
References: (ds) Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 94. (tx) Browne 1983a: 557.
- pinicola** Eggers 1930d: 206. Holotype ♀; Burma (Monkung, Southern Shan States); FRI, Dehra Dun.
Distribution: Asia (Burma/ Thailand).
Hosts: *Pinus khasya*, *P. massoniana*, *P. merkusii*.
References: (ds) Beaver 1990a: 280; Beeson 1930: 252, 1961: 308; Browne 1972: 20; Kleine 1934a: 175. (tx) Beeson 1930: 252; Eggers 1930d: 206.
- pinivorus** Browne 1980a: 374. Holotype ♀; Phan Rang (Vietnam) to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (Vietnam).
Hosts: *Pinus* sp.
References: (tx) Browne 1980a: 374.
- planicollis** Zimmermann 1868: 145. Holotype ♀; Pennsylvania [USA]; MCZ, Cambridge.
Distribution: North America (Illinois, Indiana, Missouri, North Carolina, Pennsylvania in USA).
References: (cn) Hubbard 1897b: 20. (hb) Beal & Massey 1945: 156–157; Chamberlin 1939: 450–451; Deyrup & Atkinson 1987a: 65; Hubbard 1897b: 20. (ds) Beal & Massey 1945: 156–157; Blatchley & Leng 1916: 617; Chamberlin 1939: 450–451; Deyrup & Atkinson 1987a: 65, 1987b: 63; Drooz 1985: 374; Gemminger & Harold 1872: 2686; Henshaw 1885: 148; Leng 1920: 342; Schwarz 1891: 79; Swaine 1909: 154; Weber & McPherson 1991: 49, 54; Wood, S. L. 1982b: 835. (tx) Beal & Massey 1945: 156–157; Blandford 1898b: 217; Blatchley & Leng 1916: 617; Bright 1968b: 1313; Chamberlin 1939: 450–451; Eichhoff 1878b: 391; Hopkins 1915b: 61, 1915c: 217; Hubbard 1897b: 20–22; LeConte 1868: 160, 1876: 360–361; Swaine 1909: 154; Wood, S. L. 1982b: 835; Zimmermann 1868: 145.
- planipennis** Schedl 1955b: 305. Holotype ♀; Fiji Inseln; Eggers Collection, in NHMW, Wien.
Distribution: Fiji Islands.
References: (tx) Browne 1974a: 65; Schedl 1955b: 285, 305, 1979c: 196.
- platyurus** Browne 1984f: 74. Holotype ♀; New Guinea; Morobe District, Mount Kaindi, 2350 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Melicope* sp.
References: (tx) Browne 1984f: 74.
- pleiades** Samuelson 1981: 84. Holotype ♀; Hawaii: Maui, 1 (E); Kipahulu Val., Camp 2; BPBM, Honolulu.
Figures: Samuelson 1981: 63.
Distribution: Hawaiian Islands (Maui).
References: (tx) Samuelson 1981: 63, 84.
- politus** Hagedorn 1905a: 413. Lectotype ♀; Placers du Carsevenne, French Guiana; MNHN, Paris, designated by Wood 1982b: 815.
Distribution: North America (Costa Rica), South America (Cayenne/ Venezuela).
References: (cn) Felt 1930a: 247–248, 276. (hb) Felt 1930a: 247–248, 276. (ds) Blackwelder 1947: 780; Felt 1930a: 247–248, 276; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 339; Wood, S. L. 1982b: 815. (tx) Eggers 1941a: 103; Hagedorn 1905a: 413, 1910a: 155; Wood, S. L. 1982b: 815.
- posticegranulatus** Schedl 1938h: 462. Holotype ♀; Kongo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast/ Zaire).
Hosts: *Canarium* sp.
References: (ds) Schedl 1964e: 69. (tx) Schedl 1938h: 462, 1962j: 211, 1979c: 198.
- postecipilosus** Schedl 1951i: 92. Holotype ♀; Pangil, Laguna, Philippine Islands; Schedl Collection in NHMW, Wien.
Figures: Nobuchi 1978a: pl. 3.
Distribution: Philippine Islands.
References: (ds) Choo, Woo, & Kim 1981: 201; Nobuchi 1978a: 28; Ohno, Yoneyama, & Nakazawa 1987a: 88; Schedl 1966b: 66, 1966g: 32. (tx) Nobuchi 1978a: pl. 3, 1983: 303; Schedl 1951i: 92, 1979c: 198.
- posticoides** Schedl 1948f: 281. Holotype ♀; Bolivia, Cochabamba; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Schedl 1948f: 281, 1979c: 198.
- posticus** Eichhoff 1869b: 281. Holotype ♀; Caracas, Venezuela; Hamburg Museum, lost.
Figures: Numberg 1959a: pl. 26, figs. 3–4, Pedrosa-Macedo & Schonherr 1985: 35.
Distribution: Antilles Islands (Guadeloupe/ Puerto Rico/ Trinidad), North America (Costa Rica/ Guatemala/ Chiapas, Veracruz in Mexico/ Panama), South America (Bolivia/ Brazil/ Colombia/ Guyana/ Peru/ Venezuela).
Hosts: *Erythrina costaricensis*, *Ficus* spp., *Spodias purpurea*, *Theobroma cacao*.
References: (cn) Estrada & Atkinson 1988: 207. (cc) Lyon 1960: 461. (hb) Atkinson & Equihua 1985b: 237; Norris et al. 1968: 852; Wood, S. L. 1982b: 816. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421, 1988: 102; Blackwelder 1947: 780; Blandford 1898b: 196, 210; Bright 1985c: 174; Browne 1970: 542; Estrada & Atkinson 1988: 207; Ferrer 1942; Fleutiaux & Salle 1890: 457; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 337, 340, 354, 371–372; Nunberg 1971: 58; Pedrosa-Macedo & Schonherr 1985: 35; Sampson 1921: 28; Schedl 1966f: 77, 1967d: 3, 1972g: 45, 1973d: 159, 1978c: 292; Wood, S. L. 1961c: 2, 1982b: 816. (tx) Blandford 1898b: 196, 210; Bright 1985c: 174; Eichhoff

1869b: 281, 1878b: 353; Hagedorn 1905a: 412, 1910a: 155; Numberg 1959a: 434; Pedrosa-Macedo & Schonherr 1985: 35; Sampson 1921: 28; Schedl 1940a: 361, 1940c: 208, 1952b: 71, 1961a: 530, 1962p: 207; Wood, S. L. 1961c: 2, 1982b: 816.

novateutonicus Schedl 1954b: 47. Lectotype ♀; Brasilien: Parana, Rondon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 172. Synonymy: Schedl 1962p: 207.

References: (ds) Schedl 1960a: 77. (tx) de Ruelle 1970: 115; Schedl 1954b: 47, 1962p: 207, 1979c: 172.

pourriensis Schedl 1950h: 110. Lectotype ♀; Madagascar, Behara; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 198.

Distribution: Madagascar.

Hosts: *Alluaudia pourri*.

References: (tx) Schedl 1950h: 110, 1977b: 167, 1979c: 198.

praestans Wood 1980b: 358. Holotype ♂; Cerro Punta, Chiriqui, Panama, 6000–8000 ft.; Wood Collection.

Distribution: North America (Panama).

References: (ds) Wood, S. L. 1982b: 822. (tx) Wood, S. L. 1980b: 358, 1982b: 822.

praeivus Blandford 1894d: 110. Holotype ♀; Japan; BMNH.

Distribution: Asia (Japan/ Korea).

Hosts: *Acer palmatum*, *Daphniphyllum macropodum*, *Morus* spp., *Prunus* sp.

References: (ds) Blandford 1894c: 579; Cho 1957, 1963; Choo 1983: 108; Choo & Woo 1985: 166; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 260, 1934a: 175; Ko 1969: 285; Murayama 1929b: 2, 1930b: 20, 1931a: 46, 1954b: 181; Shiraki 1952. (tx) Blandford 1894d: 110; Choo 1983: 108; Hagedorn 1904d, 1910a: 155; Murayama 1930b: 20–24, 31, 1931a: 41, 46, 1954b: 181; Niisima 1910a: 14; Schedl 1934f: 1646, 1959a: 499.

princeps Blandford 1898b: 208. Lectotype ♀; Volcan Chiriqui, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 812.

Distribution: North America (Costa Rica/ Nicaragua/ Panama), South America (Colombia/ Ecuador).

References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 371; Wood, S. L. 1961c: 2, 1982b: 812. (tx) Blandford 1898b: 208; Eggers 1931c: 20, 1933g: 20; Hagedorn 1910a: 155; Wood, S. L. 1961c: 2, 1982b: 812.

spathipennis ohausi Hagedorn 1912a: 345. Syn-types ♀; Pucay, Ecuador; Hamburg Museum, lost. Synonymy: Eggers 1933g: 20.

References: (tx) Eggers 1928c: 95, 1929e: 52, 1931c: 20, 1933g: 20; Hagedorn 1912a: 345–346.

principalis Eichhoff 1878b: 357. Holotype ♀; Guineensi Africana; Stettin Museum, in Schedl Collection in NHMW, Wien.

Figures: Nunberg 1963b: pl. 23, figs. 3–5, 1967a: 338.

Distribution: Africa (Equatorial Guinea/ Guinea/ Tanzania/ Zaire), Madagascar.

Hosts: Many listed by Schedl 1962j: 260–263.

Notes: (3) Schedl 1957d: 15 (described male).

References: (cc) Schedl 1962j: 259. (hb) Schedl 1962j: 259. (ds) Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 308, 315, 1934a: 175; Mayne & Donis 1962: 322; Nunberg 1961a: 331, 1967b: 324; Schedl 1962j: 259, 1962k: 1102, 1971e: 4; Wichmann 1954c: 522. (tx) Eggers 1920: 40, 1929e: 49, 1941d: 179; Eichhoff 1878b: 357; Hagedorn 1905: 413, 1910a: 155; Nunberg 1963b: 47, pl. 23, 1967b: 324, 338; Schaufuss 1897a: 212; Schedl 1950c: 205, 1950d: 3, 8, 1952e: 211, 1952g: 52–53, 1952i: 7, 1952j: 3, 1953g: 243, 1955d: 269, 1957d: 15, 1962j: 259, 1962k: 1102, 1979c: 199.

◦ *priscus* Eggers 1920: 44. Holotype ♀; fossil in Sansibarcopal, Zanzibar; Hamburg Museum, lost.

Distribution: Africa (fossil in copal from Zanzibar in Tanzania).

Notes: (3) This is apparently also a living species.

References: (ds) Schedl 1962j: 233. (tx) Eggers 1920: 44–46; Schedl 1962j: 233.

procer Eichhoff 1878b: 402. Holotype ♀; America meridionalis (Columbia); Hamburg Museum, lost.

Figures: Nunberg 1959a: pl. 26, figs. 5–6.

Distribution: North America (Guatemala), South America (Bolivia/ Brazil/ Cayenne/ Colombia/ Peru/ Suriname).

References: (ds) Beaver 1976a: 25; Blackwelder 1947: 780; Browne 1970: 542; Hagedorn 1903b: 546, 1910d: 109; Kleine 1913b, 1914b: 343; Schedl 1960a: 76, 1966f: 80, 1970d: 582, 1973d: 162, 1976a: 54; Steinhausen 1956: 48. (tx) Eggers 1931a: 21; Eichhoff 1878b: 402; Hagedorn 1903b: 546, 1910a: 156, 1910b; Nunberg 1959a: 435; Schedl 1948f: 361, 1952a: 461, 1952l: 70, 1955c: 2; Steinhausen 1956: 48.

productus Hagedorn 1905a: 414. Lectotype ♀; Bas. Mahury, French Guiana; MNHN, Paris.

Distribution: North America (Costa Rica/ Panama), South America (Cayenne).

Hosts: *Rhizophora mangle*.

References: (hb) Wood, S. L. 1982b: 825. (ds) Blackwelder 1947: 780; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 339; Wood, S. L. 1982b: 825. (tx) Hagedorn 1905a: 414, 1910a: 156; Schedl 1950g: 897, 1952d: 362; Wood, S. L. 1982b: 825.

prolatus Wood 1974a: 41. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Phoebe mexicana*.

References: (hb) Wood, S. L. 1982b: 824. (ds)

- Wood, S. L. 1982b: 824. (tx) Wood, S. L. 1974a: 41, 1982b: 824.
- prolixus** Schedl 1962j: 307. Holotype ♀; Uganda; Schedl Collection in NHMW, Wien.
Distribution: Africa (Uganda).
References: (tx) Schedl 1962j: 307, 1979c: 199.
- protii** Browne 1984d: 101. Holotype ♀; New Guinea; Stony L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Protium* sp.
References: (tx) Browne 1984d: 101.
- pruinosulus** Browne in Beaver & Browne 1978: 611. Holotype ♀; Malaysia: Penang, Penang Hill, 500 m; BMNH, London.
Figures: Beaver & Browne 1978: 604
Distribution: Asia (Malaya).
References: (tx) Beaver & Browne 1978: 604; Browne in Beaver & Browne 1978: 611.
- pseudoambasius** Schedl 1954e: 82. Lectotype ♀; Bekwai, Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 200.
Distribution: Africa (Ghana/ Ivory Coast).
Hosts: *Antiaris africana*, *Celtis* spp., *Triplochiton scleroxylon*.
References: (ds) Schedl 1962h: 60, 1962j: 403, 1962k: 1102, 1964e: 69, 1971e: 3; Thompson, G. H. 1963: 72. (tx) Schedl 1954e: 54, 82, 1962h: 60, 1962j: 403, 1962k: 1102, 1964e: 69, 1964k: 220, 1971e: 3, 1979c: 200; Thompson, G. H. 1963: 72.
- bobiriae** Schedl 1957e: 881. Holotype ♀; Gold Coast, Bobiri Forest Reserve; BMNH, London. Synonymy: Schedl 1964k: 220.
References: (ds) Schedl 1962j: 255. (tx) Schedl 1957e: 881, 1962j: 255, 1964k: 220, 1979c: 42.
- pseudocylindricus** Eggers 1927b: 402. Holotype ♀; Sudsumatra; USNM, Washington.
Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra).
Hosts: *Artocarpus* spp., *Shorea* spp.
Notes: (3) Schedl 1960h: 110 (cited *artecylindricus* as a synonym).
References: (hb) Browne 1961: 156–157; Kalshoven 1959c: 158. (ds) Browne 1961c: 156, 1981a: 125; Kalshoven 1959c: 158; Schedl 1971c: 365. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1927b: 402; Nobuchi 1983: 303; Schedl 1958b: 101, 1960h: 110.
- pseudomajor** Schedl 1951i: 93. Holotype ♀; Kolambungan, Miudanao, Philippine Islands; Schedl Collection in NHMW, Wien.
Figures: Nobuchi 1978a:pl. 3.
Distribution: Philippine Islands (Mindanao).
References: (ds) Choo & Woo 1983; Nobuchi 1978a: 30; Ohno, Yoneyama, & Nakagawa 1987a: 88; Schedl 1966b: 66, 1969a: 205. (tx) Nobuchi 1978a:pl. 3; Schedl 1935f: 270–271, 1951i: 93, 1979c: 201.
- pseudopilifer** Schedl 1936d: 11. Lectotype ♀; Malay Peninsula, Selangor: Kepont, Kanching, Batu Arang, Gangi, Kuala Lumpur, Pahang, Mentakab, Temerloh, and N. Borneo: Bettotan, near Sandakan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 201.
Figures: Nobuchi 1978a:pl. 3.
Distribution: Asia (Malaya/ Vietnam), Indonesia (Borneo).
Hosts: *Dipterocarpus baudii*, *Dryobalanops aromatica*, *Gmelina arborea*, *Hopea ferrea*, *Shorea* spp., *Vatica* sp.
References: (cn) Browne 1950a, 1951; Mathur & Singh 1960b: 17, 1961a: 36; Yunus & Hua 1980: 230. (ec) Browne 1958b. (hb) Beaver & Browne 1978: 611; Browne 1935a, 1941a, 1958b, 1961c: 106; Kalshoven 1959c: 143. (ds) Beaver & Browne 1978: 611; Beeson 1961: 308; Browne 1935a, 1936a: 120–127, 1949b, 1950a: 167–168, 1961a: 305, 1968a: 133–134, 1986b: 333; Choo & Woo 1983; Kalshoven 1959c: 143; Mathur & Singh 1960b: 17, 1961: 36; Nobuchi 1978a: 28; Ohno, Yoneyama, & Nakazawa 1982b: 9, 1987a: 88; Schedl 1964c: 305, 1971c: 365; Yunus & Hua 1980: 230. (tx) Browne 1949b: 905; Nobuchi 1978a:pl. 3; Schedl 1936d: 11, 1939e: 330, 1942a: 171, 1951i: 92, 1953c: 301, 1979c: 201.
- pseudorudis** Schedl 1951i: 62. Holotype ♀; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (ds) Schedl 1961c: 70. (tx) Schedl 1951i: 62, 1979c: 202.
- pubescens** Zimmermann 1868: 145. Lectotype ♀; southern States [USA]; MCZ, Cambridge, designated by Wood 1973c: 187.
Figures: Bright 1976d: 13, Dillon & Dillon 1961: 813.
Distribution: Antilles Islands (Andros Island in Bahamas Islands), North America (Ontario in Canada/ Alabama, Arkansas, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Texas, Virginia, West Virginia in USA).
Hosts: *Pinus echinata*, *P. palustris*, *P.* spp.
Notes: (1) Eichhoff (1868a: 401) listed this species that was misidentified as "*Xylechorus pini* Say ??"; subsequent writers followed Eichhoff's example, but the name *pini* Eichhoff was never validated [Say's species is now *Ips pini*]. Schedl 1952k: 163–164 confirmed the synonymy but continued to use the Eichhoff nomen nudum; Schedl 1979c: 195 reported the [invalid] "holotype" as in his collection.
References: (ay) Hopkins 1894g: 279. (bv) Atkinson, Foltz, & Connor 1988; Meixner 1937: 1218; Phillips et al. 1988; Turnbow & Franklin 1980. (cn) Anonymous 1968i; Blandford 1898c: 4; Felt

1906: 396, 702, 720; Hart 1892a, 1893; Herrick 1935: 375; Hopkins 1894b: 296, 1895c: 148, 1897b: 133–135, 1899c: 445; Howard 1897: 85; Hubbard 1897b: 19; Kleine 1932a: 307; Packard 1890: 710–711; Riley 1892a: 402; Riley & Howard 1890: 167; Rutherford 1914b: 222; Smith, J. B. 1900: 363; Swaine 1918a: 126, 128; Titus & Pratt 1904: 57. (**ec**) Felt 1906: 396; Rumbold 1931c: 849; Steinhilber 1946: 404; Webb 1945: 64. (**hb**) Atkinson, Foltz, & Connor 1958; Beal & Massey 1945: 156–157; Chamberlin 1939: 452; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 814; Dyakowski 1911; Felt 1906: 396; Herrick 1935: 375; Hopkins 1894g, 1899c: 445, 1905c: 148; Hubbard 1897a: 427, 1897b: 19; Kleine 1932a: 307; Lengerken 1954: 312; Packard 1890: 710; Pierce, W. D. 1907: 291; Schwarz 1878: 468, 1885a: 80, 1890b: 87, 1891e: 78, 1894a: 16; Smith, E. F. 1896: 318; Swaine 1918a: 126, 128; Wenzel 1905: 124; Wood, S. L. 1982b: 838. (**ds**) Anonymous 1926c: 520, 1968i; Atkinson et al. 1991: 160; Beal & Massey 1945: 156–157; Bright 1976d: 135; Chamberlin 1939: 452; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Drooz 1985: 374; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 109; Hamilton 1895: 346, 378; Henshaw 1885: 148; Hopkins 1893a: 137, 1893b: 211; Kleine 1913b: 162, 1914b: 395, 1932a: 307, 1934a: 175; Leng 1920: 342; Leonard 1928: 520; Schwarz 1878d: 468, 1886: 41, 1888a: 80, 1890: 87, 1891e: 78; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 155; Tumbow & Franklin 1980; Wood, S. L. 1982b: 838. (**tx**) Beal & Massey 1945: 156–157; Blandford 1898e: 4; Bright 1976d: 133, 138; Chamberlin 1939: 452; Dillon & Dillon 1961: 801, 813–814; Eichhoff 1868a: 401, 1878b: 369–371, 1896: 609; Hagedorn 1910a: 156; Hubbard 1897b: 19–20; LeConte 1868: 160, 1876: 359–360, 1878a: 468; Meixner 1937: 1218; Schedl 1952k: 163–164; Schwarz 1886: 41–42, 1888a: 45; Swaine 1909: 155–156, 1918a: 126, 128; Wood, S. L. 1973c: 187, 1982b: 838; Zimmermann 1868: 145.

propinquus Eichhoff 1869b: 281. Lectotype ♀; Amerique boreali; IRSNB, Brussels, designated by Wood 1973c: 187. Synonymy: Wood 1973c: 187.

References: (**cn**) Hubbard 1897b: 20. (**hb**) Hubbard 1897b: 20. (**ds**) Blackwelder 1947: 780; Blandford 1898b: 196; Ferrer 1942; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 109; Henshaw 1885: 148; Kleine 1913b: 162, 1914b: 354, 374; Leng 1920: 342; Swaine 1909: 155. (**tx**) Blandford 1898b: 196, 213–214; Eichhoff 1869b: 281, 1878b: 367; Hagedorn 1910a: 156; Hubbard 1897b: 20; Schedl 1940a: 363, 1952k: 164, 1963j: 481; Swaine 1909: 155; Wood, S. L. 1973c: 187.

pumilus Eggers 1923a: 209. Lectotype ♀; Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 26.

Figures: Nobuchi 1978a: pl. 1.

Distribution: Asia (Burma/ Xizang [Tibet] in China/ Andaman Islands, Assam in India/ Malaya/ Sri Lanka/ Vietnam), Indonesia (Borneo, Java, Sumatra), New Guinea, Philippine Islands, Solomon Islands.

Hosts: *Artocarpus chaplasha*, *A. lakoocha*, *Ficus infectoria*, *Hymenodictyon excelsum*, *Shorea maxwelliana*, *Sterculia companulata*, *S. villosa*, *Terminalia* spp.

References: (**cn**) Mathur & Singh 1960b: 61, 1961a: 69, 1961b: 28; Roonwal 1954: 85. (**hb**) Beaver & Browne 1978: 612; Browne 1941, 1961c: 147. (**ds**) Beaver & Browne 1978: 612; Beeson 1941: 405–407, 1961: 308; Browne 1961c: 147, 1962c: 202, 1985b: 290; Kalshoven 1959: 152; Kleine 1934a: 175; Mathur & Singh 1960b: 61, 1961a: 69, 1961b: 28; Nobuchi 1978a: 18, 1980a; Ohno, Yoneyama, & Nakazawa 1987b: 94; Ohno, Yoshioka, et al. 1988a: 94, 1989: 63; Roonwal 1954: 85; Schedl 1959a: 509, 1962b: 186, 1966b: 67, 1969e: 156, 1971a: 281, 1971c: 365. (**tx**) Anderson, W. H. & Anderson 1971: 26; Beeson 1930: 252; Eggers 1923a: 207, 1925: 153, 1927b: 407, 1940d: 151; Nobuchi 1978a: pl. 1, 1983: 303; Numberg 1962: 620; Schedl 1931c: 342, 1934d: 89–90, 1939e: 332, 1951i: 45, 1959a: 509; Wood, S. L. 1969c: 120.

punctulatus Kurenzov 1948a: 52. Holotype ♀; Russian Far East, Ussuri Distr.; Kurenzov Collection in Vladivostok.

Distribution: Asia (E USSR).

Hosts: *Quercus mongolica*.

References: (**hb**) Kurenzov 1948a: 52; Stark 1952: 141. (**ds**) Krivolutskaia 1983; Stark 1952: 141. (**tx**) Kurenzov 1948a: 52; Schedl 1960h: 109; Stark 1952: 141.

pusio Eggers 1941a: 105. Holotype ♀; Guadeloupe (Trois Rivières); MNHN, Paris.

Distribution: Antilles Islands (Guadeloupe), South America (Suriname).

References: (**ds**) Bright 1985c: 174; Schedl 1963f: 60. (**tx**) Bright 1985c: 174; Eggers 1941a: 105; Schedl 1979c: 206.

putputensis Browne 1986a: 97. Holotype ♀; New Britain; Putput to Kishiwada (Japan), imported; BMNH, London.

Distribution: New Britain Island.

References: (**tx**) Browne 1986a: 97.

quadratus Blandford 1898b: 209. Lectotype ♀; Bugaba, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 817.

Distribution: North America (Panama).

References: (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 110; Kleine 1913b: 162; Wood, S. L. 1982b: 817. (**tx**) Blandford 1898b: 209; Hagedorn

- 1910a: 156; Schedl 1940a: 367; Wood, S. L. 1982b: 817.
- quadrigrignatus** Schedl 1972m: 200. Holotype ♀; Borneo; BMNH, London.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1972m: 200.
- quadriscopinosulus** Eggers 1923a: 189. Holotype ♀; Sumatra (Ajer Mantjior); MCG, Genova.
Distribution: Asia (Burma/ India), Indonesia (Java, Sumatra), New Guinea.
Hosts: *Eupatorium tapos*, *Swietenia macrophylla*, *Theobroma cacao*.
References: (cn) Mathur & Singh 1961a: 79. (ec) Kalshoven 1960b. (hb) Browne 1935a, 1941, 1961c: 114; Kalshoven 1959c: 151, 1960a: 120. (ds) Beeson 1961: 308; Browne 1935a; Kalshoven 1959c: 151; Mathur & Singh 1961a: 79; Schedl 1936d: 4; Thomas 1960a, 1960b. (tx) Eggers 1923a: 189, 1925: 153; Schedl 1933e: 101, 1936h: 64, 1939f: 43, 1942a: 171, 1942d: 5, 1958k: 147–148.
- parvispinosus palembangensis** Schedl 1939f: 43. Lectotype ♀; Palembang, Sumatra; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 186. Synonymy: Schedl 1958k: 147.
References: (tx) Schedl 1939f: 43, 1951i: 79, 1958k: 147–148, 1979c: 186.
- parvispinosus** Schedl 1951i: 78. Syntypes ♀; Java: Mt. Gede; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 147.
References: (tx) Schedl 1951i: 78, 1958k: 147, 1979c: 186.
- quasimodo** Browne 1980e: 776. Holotype ♀; Malawi: Chintechi; MRCB, Tervuren.
Distribution: Africa (Malawi).
References: (tx) Browne 1980e: 776.
- quercicola** Eggers 1926b: 146. Lectotype ♀; Tokyo, Japan; USNM, Washington, designated by Anderson & Anderson 1971: 28.
Distribution: Asia (Japan).
Hosts: *Quercus* sp.
References: (ds) Murayama 1954b: 181. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1926b: 146; Murayama 1954b: 181; Schedl 1934f: 1646.
- rapandus** Schedl 1942c: 186. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1942c: 186, 1979c: 210.
- repositus** Schedl 1942a: 197. Holotype ♀; Malaya, Kedah near Jitra, Catchment Area; BMNH, London.
Distribution: Asia (Malaya).
References: (ds) Browne 1961: 145. (tx) Schedl 1942a: 197.
- ° **resinosus** Schedl 1939a: 469. Syntypes ♀; Copal from Ethiopian Area; Geological Department, BMNH, London.
Distribution: Africa (copal fossil from Ethiopia).
Notes: (3) This is also a living species.
References: (ds) Schedl 1962j: 264; Spahr 1981. (tx) Schedl 1939a: 469–470, 1962j: 264.
- reunionis** Schedl 1961e: 147. Holotype ♀; La Reunion, Madagascar; IRSM, Madagascar.
Distribution: Madagascar
References: (tx) Schedl 1961e: 147, 1977b: 162, 1979c: 211.
- rimulosus** Schedl 1959a: 508. Holotype ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (tx) Schedl 1959a: 508, 1979c: 211.
- robustipennis** Schedl 1954c: 159. Lectotype ♀; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (ds) Browne 1965a: 189; Schedl 1965g: 24. (tx) Schedl 1954c: 156, 159, 1979c: 212.
- rothkirchi** Eggers 1920: 45. Lectotype ♀; Soppo, Kamerun, 800 m; USNM, Washington.
Distribution: Africa (Cameroon/ Ivory Coast/ Uganda/ Zaire/ Zambia).
Hosts: *Berlinia acuminata*, *Macrolobium macrophyllum*, *Ochthocosmus africanus*, *Pancovea laurentii*, *Pentaclethra macrophylla*, *Staudtia stipitata*, *Terminalia ivorensis*.
References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 234. (ds) Beaver & Loytyniemi 1985a: 75; Cachan 1957: 15; Schedl 1961d: 175–179, 1961m: 84, 1962h: 60, 1962j: 234, 1962k: 1102, 1964e: 69, 1979b: 416. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1920: 45; Schedl 1951e: 38, 1954d: 872, 1957d: 88.
- rotundicollis** Browne 1984f: 73. Holotype ♀; New Guinea: Morobe District, Mount Kaindi, 2350 m; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1984f: 73.
- ruandae** Schedl 1957d: 92. Holotype ♀; Congo Belge: Kivu, Mt. Kahuzi et Ruanda: Gishwati; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 24, figs. 7–9, pl. 25, figs. 1–4, Schedl 1962j: 299, 308.
Distribution: Africa (Ruanda/ Zaire).
Hosts: *Alchornea cordifolia*, *Bridelia brideliifolia*, *Hagenia abyssinica*, *Maesa* sp.
References: (hb) Schedl 1962j: 307. (ds) Schedl 1962j: 307. (tx) Nunberg 1963b: 49, pl. 24–25; Schedl 1957d: 92, 1962j: 299, 307–308, 1979c: 214.
- rufipes** Eggers 1933b: 31. Holotype ♀; Columbia; USNM, Washington.
Distribution: South America (Cayenne/ Colombia).
References: (ds) Blackwelder 1947: 780. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1933b: 3, 31–32, 1941a: 103.

- rufobrunneus** Eggers 1929e: 49. Syntypes 2 ♀; Philippines: San Teodoro, Mindoro and Mt. Maquiling, Luzon; Eggers Collection (USNM, Washington, or NHMW, Wien?) and Baker Collection, automatic.
Distribution: Asia (Assam in India), Philippine Islands (Luzon, Mindoro).
Hosts: *Artocarpus lakoocha*, *Phoebe lanceolata*.
References: (ds) Schedl 1966b: 68. (tx) Eggers 1929e: 49, 1930d: 189, 1933b: 3; Nobuchi 1983: 303.
- similis** Eggers 1927c: 101. Syntypes 2 ♀; Philippines: San Teodoro, Mindoro and Mt. Maquiling, Luzon; Eggers Collection (USNM, Washington, or NHMW, Wien?) and Baker Collection, preoccupied by Ferrari 1867.
References: (tx) Beeson 1929: 234–235; Eggers 1927c: 101, 1929e: 49.
- rufobrunneus dihingensis** Eggers 1930d: 189. Holotype ♀; India: Assam (Upper Dihing Reserve, Lakhimpur); FRI, Dehra Dun.
References: (ds) Beeson 1961: 304. (tx) Eggers 1930d: 189.
- rufus** Schedl 1951i: 74. Lectotype ♀; Philippines, Luzon, Benguet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 215.
Distribution: Philippine Islands (Luzon).
Hosts: *Quercus jordanae*.
References: (ds) Schedl 1966b: 68. (tx) Eggers 1930d: 180; Nobuchi 1983: 303; Schedl 1951i: 74, 1979e: 215.
- rugatus** Blackburn 1885: 192. Holotype ♀; Hawaii: Oahu; BMNH, London.
Figures: Samuelson 1981: 56.
Distribution: Hawaiian Islands (Kauai, Oahu).
Hosts: *Aleurites moluccana*, *Cordyline terminalis*, *Pleomele aurea*.
References: (ds) Beeson 1938b: 192; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 302; Samuelson 1981: 85. (tx) Blackburn 1885: 192; Hagedorn 1910a: 156; Perkins 1900: 178; Samuelson 1981: 56, 85; Sharp 1892: 192.
- nuuanus** Schedl 1941f: 114. Lectotype ♀; Oahu: Nuuanu; Schedl Collection in NHMW, Wien, designated by Schedl 1979e: 173. Synonymy: Samuelson 1981: 84.
References: (ds) Swezey 1941: 122. (tx) Samuelson 1981: 84; Schedl 1941f: 114, 1979e: 173.
- rugosipennis** Schedl 1963f: 61. Holotype ♀; Suriname, Maripahувел and Dirksloop; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/ Suriname).
Hosts: *Bauhinia* sp., *Liriosma singularis*, *Marcgravia* sp., *Plathymenia reticulata*.
References: (hb) Beaver 1976a: 25. (ds) Beaver 1976a: 25; Schedl 1978c: 291. (tx) Schedl 1963f: 61, 1979e: 216.
- rugosipennis incertus** Schedl 1963f: 63. Syntypes ♀; Suriname, Dirksloop, Maripahувел, and Poeroe Man Kemisa; Schedl Collection in NHMW, Wien.
Notes: (3) This is apparently an aberration, not a geographical race.
References: (ds) Schedl 1963f: 63, 1973d: 159.
- sakalava** Schedl 1953d: 97. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 218.
Distribution: Madagascar.
Hosts: *Dalbergia pterocarpifolia*, *Dombeya* sp., *Eucalyptus robusta*, *Ficus sorocoides* var. *macrophlebia*, *Neodypsis baroni*, *Ocotea* cf. *racemosa*, *Panax* sp., *Pinus khasia*, *Ravensara* sp., *Symphonia* sp.
References: (hb) Schedl 1977b: 162. (ds) Schedl 1970d: 234, 1977b: 162. (tx) Schedl 1953d: 97, 1961e: 146, 1970d: 234, 1977b: 162, 1979e: 218.
- sartor** Schedl 1961e: 156. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.
Distribution: Madagascar
Hosts: *Ocotea laevis*.
References: (tx) Schedl 1961e: 156, 1977b: 211, 1979e: 219.
- satoi** Schedl 1966g: 39. Holotype ♀; Keelung, Formosa to Tokyo (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: pl. 4.
Distribution: Asia (Bhutan/ Taiwan).
Hosts: Camphor log.
References: (ds) Nobuchi 1967: 22, 1978a: 37; Schedl 1975c: 383. (tx) Nobuchi 1978a: pl. 4; Schedl 1966g: 39, 1979e: 219.
- sayi** (Hopkins) 1915b: 68 (*Anisandrus*). Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington.
Figures: Bright 1976d: 132, 203, 212.
Distribution: North America (Ontario, Quebec in Canada/ Connecticut, District of Columbia, Illinois, Indiana, Kentucky, Maine, Maryland, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia in USA).
Hosts: *Acer* spp., *Betula* spp., *Carya* sp., *Castanea* sp., *Cornus* sp., *Fagus sylvatica*, *Fraxinus* spp., *Juglans* spp., *Kalmia latifolia*, *Lindera benzoin*, *Liriodendron tulipifera*, *Nyssa* sp., *Sassafras albidum*, *Tilia* sp.
References: (bv) Kirkendall 1984: 241; Roling & Kearby 1975b; Turnbow & Franklin 1980. (cn) Anderson, R. L. & Hoffard 1978; Blackman 1950; Friend 1943: 207–315; Wallace 1943a: 288. (ce) Anderson, R. L. & Hoffard 1978; Hazen & Roeper 1980; Roeper & French 1981. (hb) Beal & Massey 1945: 151–152; Blackman 1950; Chamberlin 1939: 446; Deyrup & Atkinson 1987a: 65; Hazen & Roeper 1980; Wood, S. L. 1982b: 795. (ds) Baker, W. L. 1972: 271; Beal & Massey 1945: 151–152; Blackman 1950; Blatchley & Leng 1916: 624; Bright 1968b: 1306, 1976d: 134; Chamberlin 1939: 446; Deyrup 1981b: 7; Deyrup & Atkinson

- 1987a: 65; Drooz 1985: 374; Kleine 1934a: 177; Knull 1932: 67; Leng 1920: 342; Turnbow & Franklin 1980; Weber, B. C., & McPherson 1991: 54; Wood, S. L. 1957c: 403, 1982b: 795. **(tx)** Beal & Massey 1945: 151–152; Benoit 1985: 284; Blatchley & Leng 1916: 624; Bright 1968b: 1306, 1976d: 132, 134, 203, 212; Chamberlin 1939: 446; Hopkins 1915b: 67–69; Wood, S. L. 1957c: 403, 1982b: 795.
- obesus minor* Swaine 1910b: 164. Lectotype ♀; Ste. Anne de Bellevue, Montreal Island, Quebec, Canada; CNCI, Ottawa, designated by Bright 1967b: 680, preoccupied by Stebbing 1909. Synonymy: Wood 1957c: 403.
- References: **(cn)** Doane et al. 1936; Friend 1943; Swaine 1918a: 125. **(hb)** Chamberlin 1939: 446; Doane et al. 1936; Drake 1921: 203–204; Swaine 1918a: 125. **(ds)** Anonymous 1926c: 520; Beaulne 1956; Beeson 1961: 307; Blatchley & Leng 1916: 624; Chamberlin 1939: 446; Kleine 1934a: 177; Leng 1920: 342; Leonard 1928: 520; Pechuman 1937: 14. **(tx)** Blatchley & Leng 1916: 624; Bright 1967b: 680; Chamberlin 1939: 446; Hopkins 1915b: 67–68; de Ruelle 1970: 115; Schedl 1931c: 346, 1950g: 893; Swaine 1910b: 161–165, 1918a: 125; Wood, S. L. 1957c: 403.
- nearcticus* Schedl 1950g: 893. Lectotype ♀; Ste. Anne de Bellevue, Montreal Island, Quebec, Canada; CNCI, Ottawa, designated by Bright 1967b: 680, automatic. Synonymy: Wood 1957c: 403.
- References: **(tx)** Bright 1967b: 680; Schedl 1950g: 893; Titus, Meikle, & Harrison 1985: 24; Wood, S. L. 1957c: 403.
- scaber* Schedl 1948f: 273. Lectotype ♀; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 220.
- Distribution: Antilles Islands (Jamaica), South America (Brazil).
- References: **(cn)** Santoro 1966a. **(ds)** Bright 1985c: 174; Santoro 1957b: 26; Schedl 1966f: 90. **(tx)** Bright 1985c: 174; Schedl 1948f: 273, 1963d: 227, 1979c: 220.
- jamaicensis* Bright 1972d: 79. Holotype ♀; Hardwar Gap, 4000 feet, St. Andrew Parish, Jamaica; CNCI, Ottawa. Synonymy: Bright 1985c: 174.
- References: **(tx)** Bright 1972d: 79, 95, 1985c: 174; McNamara 1977: 200.
- scabratus* Schedl 1941f: 113. Lectotype ♂; Oahu: Pupukea; BPBM, Honolulu, designated by Samuelson 1981: 85.
- Figures: Samuelson 1981: 60.
- Distribution: Hawaiian Islands (Oahu).
- Hosts: *Xylosoma hawaiiense*.
- Notes: (1) Samuelson 1981: 85 (elevated this taxon to species rank from var. *oahuensis*; a lectoallotype was also designated).
- References: **(ds)** Swezey 1941: 122. **(tx)** Samuelson 1981: 60; Schedl 1941f: 113, 1979c: 174.
- scabricollis* (Schedl) 1975g: 220 (*Ozopemon*). Holotype ♀; Neu Guinea: Brown River, Central Distr.; Schedl Collection in NHMW, Wien.
- Distribution: New Guinea.
- Hosts: *Calamus* sp.
- References: **(tx)** Schedl 1975g: 220, 1979c: 220.
- schildi* Schedl 1935d: 94. Holotype ♀; Costa Rica, Turrialba; Schedl Collection in NHMW, Wien.
- Distribution: North America (Costa Rica), South America (Colombia).
- Hosts: *Rheedia madruno*.
- References: **(ds)** Blackwelder 1947: 780; Schedl 1975h: 353; Wood, S. L. 1982b: 819. **(tx)** Schedl 1935d: 94, 1951m: 123, 1979c: 221; Wood, S. L. 1982b: 819.
- schoutedeni* Eggers 1927a: 189. Holotype ♀; Belge Congo (Haut-Uele: Moto); MRCB, Tervuren.
- Figures: Nunberg 1963b: pl. 27, figs. 1–2.
- Distribution: Africa (Zaire).
- References: **(tx)** Eggers 1927a: 189; Nunberg 1963b: 54, pl. 27; Schedl 1962j: 169.
- scobinatus* Hagedorn 1910b: 8. Holotype ♀; Kamerun; MNB, Berlin.
- Figures: Nunberg 1963b: pl. 26, figs. 4–7.
- Distribution: Africa (Burundi/ Cameroon/ Equatorial Guinea/ Ghana/ Nigeria/ Uganda/ Zaire).
- Hosts: *Acalypha neptunica*, *Bosquicia angolensis*, *Combretodendron africanum*, *Ficus exasperata*, *Garcinia polyantha*, *Khaya ivorensis*, *Lebrunia sushaie*, *Maba laurentii*, *Pentaclethra macrophylla*, *Polyalthia suavestens*, *Sapium ellipticum*, *Terminalia superba*. Schedl 1962j: 265 lists additional hosts.
- References: **(ds)** Browne 1983a: 556; Hagedorn 1910d: 110; Kleine 1913b: 162; Mayne & Donis 1960: 104, 1962: 322; Roberts 1960b: 36, 1960e, 1960f, 1969: 133; Schedl 1962j: 264, 1964j: 42, 1971g: 193. **(tx)** Eggers 1940b: 108; Hagedorn 1910a: 156, 1910b: 8; Nunberg 1963b: 52, pl. 26; Schedl 1952i: 7, 1955f: 260, 1959q: 706, 1962j: 264.
- seiryorensis* Murayama 1930b: 21. Holotype ♀; Seiryori (Korea); Murayama Collection in USNM, Washington.
- Figures: Murayama 1930b: pl. 1, fig. 3.
- Distribution: Asia (Japan/ Korea).
- Hosts: *Alnus japonica*, *Quercus* spp., *Castanopsis cuspidata* var. *sieboldii*.
- References: **(bv)** Choo, Woo, & Park 1988. **(cn)** Anonymous 1980g. **(cc)** Banno, Mikata, & Kodama 1983: 445; Tsuneda et al. 1986. **(hb)** Takahashi 1989: 403. **(ds)** Anonymous 1980g; Choo 1983: 110; Choo & Woo 1985: 166; Choo, Woo, & Park 1988; Kleine 1934a: 175; Ko 1969: 286; Murayama 1929b: 2, 1930b: 21, 1936a: 136, 1937b: 375, 1954b: 182; Nobuchi 1985c: 27. **(tx)** Choo 1983: 110; Murayama 1930b: 21–26, 1936a:

136, 1937b: 375, 1954b: 182, 1961b: 32; Schedl 1934f: 1646.

semiernis Schedl 1934f: 89. Lectotype ♀; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 224.

Distribution: Indonesia (Java).

References: (**hb**) Kalshoven 1959c: 152. (**ds**) Kalshoven 1959c: 152. (**tx**) Schedl 1934f: 89–90, 1979c: 224.

semipolitus Schedl 1951i: 70. Syntypes 4 ♀; Philippinen, Luzon, Prov. Isabella, Mount Moises, and Luzon, Benguet, Bagnio; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

Notes: (1) Schedl 1979c: 224 (citation of holotype invalid). [This is apparently a synonym of *Eucallacca xanthopus*, SLW.]

References: (**ds**) Schedl 1966b: 70. (**tx**) Nobuchi 1983: 303; Schedl 1951i: 70, 1979c: 224.

semipunctatus Eggers 1933b: 30. Holotype ♀; Franz. Guayana: St. Laurent du Maroni, Nouveau Chantier; MNHN, Paris.

Distribution: North America (Costa Rica), South America (Cayenne/ Colombia/ Venezuela).

Hosts: *Alexa imperatricia*, *Jacaranda copaia*.

References: (**hb**) Wood, S. L. 1982b: 819. (**ds**) Blackvelder 1947: 780; Wood, S. L. 1982b: 819. (**tx**) Eggers 1933b: 30–31; Wood, S. L. 1982b: 819.

semistriatus Schedl 1971c: 382. Holotype ♀; Selangor, Kepong, Malaya; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Shorea leprosula*.

References: (**tx**) Schedl 1971c: 382.

separandus Schedl 1971c: 383. Holotype ♀; Sarawak, Kuching; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: *Passing* sp.

References: (**tx**) Schedl 1971c: 383, 1979c: 225.

septentrionalis Nüßima 1909: 162. Syntypes 3 ♀; Tayoroma, Prov. Teshio, Mittlejapan: Yoshino, Prov. Yamato, Japan; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

Hosts: *Picea glehnii*, *P. jezoensis*, *Pinus densiflora*.

References: (**ds**) Kleine 1914b: 261, 1934a: 175; Kono 1938b: 65; Murayama 1948: 2, 1949a: 13, 1951c: 5, 1954b: 204; Nobuchi 1966d: 31. (**tx**) Hagedorn 1910a: 156; Murayama 1954b: 204; Nüßima 1909: 162, 1910a: 15; Nobuchi 1966d: 31; Schedl 1934f: 1646.

seriatus Blandford 1894d: 111. Syntypes 2 ♀; Nikko and Miyanoshta, Japan; BMNH, London.

Figures: Nobuchi 1966d: pl. 5.

Distribution: Asia (Shanxi, Sichuan in China/ Japan/ Korea/ Taiwan).

Hosts: *Acer rufinerve*, *Aesculus turbinata*, *Alnus* spp., *Betula* spp., *Carpinus tshonoskii*, *Castanopsis* sp., *Chamaecyparis* spp., *Cleyera japonica*, *Cryptomeria japonica*, *Fagus crenata*, *Kalopanax*

septenlobus, *Larix leptolepis*, *Mallotus japonicus*, *Pinus* spp., *Prunus* spp., *Quercus* spp., *Rhus ambigua*, *Schima* sp., *Thuja standishii*, *Tilia japonica*, *Tsuga* spp.

Notes: (3) A note in the Schedl Collection says that *daisetsuanus* Nobuchi is a synonym; this synonymy requires confirmation. Murayama 1955: 86 (described male).

References: (**ay**) Murayama & Kalshoven 1962.

(**en**) Inouye 1955; Inouye & Yamaguchi 1955a: 235; Murayama 1954a: 13; Nitto 1953: 302. (**ec**)

Inouye & Yamaguchi 1955a, 1955b; Inouye et al. 1955: 108; Nishiguchi 1959: 271. (**hb**) Inouye et al. 1955: 108; Murayama & Kalshoven 1962. (**ds**)

Blandford 1894c; Browne 1966: 251, 1981b: 597; Choo 1983: 110; Choo & Woo 1985: 166; Choo,

Woo, & Park 1983: 175; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 261, 1934a: 175; Murayama 1954a: 13, 1955: 86, 100, 103; Nobuchi 1966d: 31, 1967: 23; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

(**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

- Nobuchi 1985c: 28. (tx) Murayama 1951a: 13, 1954b: 204.
- shiva Maiti & Saha** 1986: 140. Holotype ♀; 16 km Timber Extraction Centre, Little Andaman Island; Zoological Survey of India, Calcutta.
Distribution: Asia (Andaman Islands in India).
Hosts: *Pterocymbium tinctorum*.
References: (tx) Maiti & Saha 1986: 140.
- shoreae (Stebbing)** 1909: 28 (*Tomicus*). Syntypes 3 ♀; India: Assam, Rajahmukhowa Sal area, Kachugaon Forests, Goalpara; FRI, Dehra Dun.
Figures: Kumar & Chandra 1977: 46 (male).
Distribution: Asia (Burma/ Assam, Bengal, Uttar Pradesh in India).
Hosts: *Amoora wallichii*, *Dipterocarpus pilosus*, *Echinocarpus dasycarpus*, *Ehretia acuminata*, *Lansea grandis*, *Phoebe lanceolata*, *Schima wallichii*, *Shorea* spp., *Syzygium cumini*, *Terminalia* spp., *Vatica lanceaeifolia*.
Notes: (3) Kumar & Chandra 1977: 36 (described male).
References: (cn) Mathur & Singh 1960b: 59, 1961a: 28, 1961b: 26; Roonwal 1954: 66; Roonwal, Chatterjee, & Thapa 1961b: 7. (hb) Stebbing 1909b: 28. (ds) Beeson 1930: 258–259, 1961: 309; Browne 1980: 373, 1981a: 126, 1983a: 555; Kleine 1913b: 128, 1914b: 277; Mathur & Singh 1960b: 59, 1961a: 28, 1961b: 26; Roonwal 1954: 66; Roonwal, Chatterjee, & Thapa 1961b: 7. (tx) Beeson 1930: 258–259; Eggers 1934b: 27; Hagedorn 1910a: 106; Kumar & Chandra 1977: 36, 46; Schedl 1954c: 156; Stebbing 1907: 39, 1909b: 28, 1914: 582.
- assamensis Stebbing** 1909b: 29 (*Tomicus*). Holotype ♀; Goalpara, Kachugaon Sal Forest tracts, Assam, India; FRI, Dehra Dun. Synonymy: Beeson 1930: 259.
References: (hb) Stebbing 1909b: 29. (ds) Beeson 1930: 259. (tx) Beeson 1930: 259; Eggers 1934b: 27; Stebbing 1909b: 29.
- siclus Schedl** 1936j: 26. Lectotype ♀; Malay Peninsula: Selangor, Sungai Buloh Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 228.
Distribution: Asia (Malaya).
Hosts: *Dipterocarpus baudii*, *Dryobalanops oblongifolia*, *Shorea* spp.
Notes: (3) Schedl 1949b: 907 (described male).
References: (cn) Ishikura 1966; Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 613; Browne 1936a, 1941, 1961c: 105. (ds) Beaver & Browne 1978b: 613; Beeson 1961: 309; Browne 1936a, 1961c: 105, 1980a: 371, 1983a: 555; Ishikura 1966; Ohno, Yoneyama, & Nakazawa 1982b: 9; Schedl 1936j: 26, 1949b: 907; Yunus & Hua 1980: 230. (tx) Schedl 1936j: 26, 1979c: 226.
- similis Ferrari** 1867: 23. Holotype ♀; Insula Keeling; NHMW, Wien, automatic.
Figures: Nobuchi 1978a: pl. 3, Nunberg 1959a: pl. 28, figs. 6–8, Samuelson 1981: 60, Schedl 1962j: 460, 1977b: 191, Wood 1960a: 66.
Distribution: Africa (Cameroon/ Kenya/ Mauritania/ Mauritius Island/ Seychelles Islands/ Tanzania), Asia (Bonin Islands/ Burma/ Guangdong in China/ Andaman Islands in India/ Jordan/ Malaya/ Nepal/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam, Vietnam), Admiralty Islands, Australia, Bismarck Islands, Christmas Island, Fiji Islands, Hawaiian Islands, Indonesia (Batoe, Borneo, Celebes, Java, Mentawai, Sumatra), Kiribati Islands, Madagascar, Micronesia (Caroline Islands, Guam, Kusaie, Marshall Islands, Palau Islands, Ponape, Truk), New Caledonia, New Guinea, Philippine Islands, Samoan Islands, Solomon Islands, Tahiti Islands.
Hosts: Many listed by Schedl 1962j: 467–471, 1979a: 159. *Alphitonia petrici*, *Elaenocarpus* sp., *Hevea brasiliensis*, *Shorea robusta*.
References: (bv) Gray, B. 1974c. (cn) Beaver 1988a: 66; Bigger 1982: 255; Browne 1938b, 1968: 717; Chatterjee et al. 1950; Kalshoven 1932: 246, 1939: 334, 1951: 851, 1954: 13; Gnanaharan, Sudheendrakumar, & Nair 1985; Hill, D. S. 1983: 545; Mahindapala & Subasinghe 1976; Mathur & Singh 1960a: 23, 1960b: 43, 1961a: 10, 1961b: 14; Miller, N. C. E. 1941: 10; Roonwal 1954: 36; Sivarami 1980: 58; Thomas, R. T. S. 1960a, 1960b; Wylie & Shanahan 1975; Yunus & Hua 1980: 230. (ce) Browne 1958b; Chatterjee & Chatterjee 1951; Halperin & Holzschuh 1984: 29; Mathew 1985. (hb) Beaver 1988a: 66, 1989a: 2, 4; Beaver & Browne 1978: 613; Beeson 1910: 221–223, 1923: 164; Browne 1936a: 124, 1941: 63, 1958b: 164–182, 1961c: 117–118, 1968: 717; Chatterjee & Chatterjee 1951; Chatterjee et al. 1950: 38; Fisher, Thompson, & Webb 1957: 7; Gray, B. 1974c; Halperin & Holzschuh 1984: 29; Hill, D. S. 1983: 545; Kalshoven 1932: 246–249, 1951: 851, 1954: 13, 1958a: 186–188, 1959a: 224, 1959c: 140, 1962a: 17, 19, 1964; Koningsberger & Zimmermann 1901: 1–125; Menzel 1923: 4; Miller, N. C. E. 1941; Schedl 1962j: 459; Speyer 1923: 19–21; Thomas 1960: 77; Wylie & Shanahan 1975. (ds) Alluaud 1900: 21; Beaver 1988a: 66, 1989a: 2, 4, 1990b: 150; Beaver & Browne 1978: 613; Beeson 1929: 235, 247, 1933: 12, 1938b: 294, 1941: 402; 1961: 399; Bernard 1907: 50; Bhasin, Roonwal, & Singh 1958: 36, 73; Boheman 1853: 88; Brimblecombe 1953: 35; Browne 1936a, 1938: 83–84, 1948: 892, 1949b, 1961a: 305, 1965a: 189, 1966: 253, 1968: 717; Chatterjee & Chatterjee 1951; Chatterjee et al. 1950; Choo, Woo, & Kim 1981: 201; Frappa 1933: 179; Gemminger & Harold 1892: 2686; Hagedorn 1910d: 100; Halperin & Holzschuh 1984: 29; Hill, D. S. 1983: 545; Kalshoven 1932: 246, 1958a: 186, 1959c: 140, 1964: 140; Kleine 1928: 307–313; Kolbe 1911: 41; Mathew 1982, 1987: 189; Mathur & Singh 1960a: 23, 1960b: 43, 1961a: 10, 1961b: 14; Nobuchi 1967: 23, 1978a:

35; Nobuchi & Ono 1973: 182; Nonveiller 1984: 42; Ohno, Yoneyama & Nakazawa 1982a: 4, 1982b: 8, 1987a: 88, 1987b: 94; Ohno, Yoshioka, et. al. 1988a: 94, 1989: 63; Roonwal 1954: 36, 38, 53, 72; Samuelson 1981: 86; Schedl 1936d: 5, 1936g: 528–530, 1936j: 21, 1937e: 543, 1938g: 427, 1942a: 171, 1942b: 149, 1951k: 139, 1959a: 505, 1961c: 70–71, 1962b: 185, 187, 1962i: 72, 75, 1962j: 459, 1964c: 306, 1964f: 618, 1965a: 340, 1965g: 22, 25, 1966b: 70, 1966g: 32, 1968e: 263, 1969c: 54, 1969d: 8, 1969e: 156, 1971a: 279, 1971c: 367, 1971d: 434, 1971f: 149, 1972a: 144, 1972j: 225, 1972k: 296, 1973b: 211, 1973c: 379, 1974c: 262, 1975a: 452, 1975e: 452, 1975j: 294, 1975k: 278, 1977c: 394, 1979a: 159, 1980b: 184; Thomas, R. T. S. 1960a, 1960b; Wichmann 1954: 503, 518, 521; Wood, S. L. 1960a: 51; Yin, Huang, & Li 1984: 164; Yunus & Hua 1980: 230. **(tx)** Beeson 1929: 235, 247; Blandford 1895a: 322; Browne 1949b; Eggers 1922a: 88, 1925: 154, 1926a: 300, 1927b: 407, 1929e: 48–49, 1930d: 189, 1933g; Eichhoff 1878b: 385–393, 484; Ferrari 1867a: 23–24, 74, 91; Hagedorn 1910a: 151; Kalshoven 1959a: 224–226; Lacordaire 1866: 383; Nobuchi 1978a: pl. 3, 1983: 304; Numberg 1959a: 438; Sampson 1914: 387–388, 1919: 110, 1921: 25; Samuelson 1981: 60; Schaufuss 1897a: 212–214; Schedl 1931c: 347, 1933e: 106, 1935j: 1, 1939e: 333, 1942a: 171, 1942b: 147, 1942c: 163, 1942d: 47, 1948g: 26, 1951i: 46, 50, 1952c: 62, 1953b: 124, 127, 1954a: 142–143, 1955b: 287, 1957d: 84, 1958b: 101, 1959a: 505, 1960h: 11, 1962j: 459–460, 1977b: 190–191, 1979e: 230; Strohmeier 1911b: 17; Wood, S. L. 1960a: 51–52, 66; Yin, Huang, & Li 1984: 164.

ferrugineus Boheman 1859: 88 (*Bostrichus*). Syntypes ♀; Insula Keelingo; NHMW, Wien, preoccupied by Fabricius 1801. Synonymy: Schedl 1960b: 11.

References: **(tx)** Boheman 1859: 88; Eggers 1933b; Schedl 1960h: 11.

parvulus Eichhoff 1868: 152. Holotype ♀; Ceylon; Hamburg Museum, lost. Synonymy: Schedl 1959a: 505.

References: **(bv)** Beeson 1915: 8–11, 1917. **(cn)** Beeson 1938a; Betrem 1930b: 279; Kleine 1932a: 307; Lewton-Brain 1914: 1–45; Mathur & Singh 1961a: 8, 1961b: 14; Petch 1921: 233; Sharples 1918: 156; Stebbing 1914: 594; Swart 1917: 50; Yunus & Hua 1980: 230. **(cc)** Beeson 1923; Betrem 1930b: 379; Sharples 1918: 156, 1936: 384; Stebbing 1914: 594; Sweetman 1936: 39. **(hb)** Beeson 1916a, 1917, 1923, 1938a; Browne 1941, 1961e: 116–117; Kalshoven 1959c: 140; Kleine 1932a: 307; Sharples 1936: 384; Stebbing 1914: 594. **(ds)** Beeson 1916a: 221, 1923, 1938a: 294; Blandford 1895a; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 108; Kalshoven 1959c: 140; Kleine 1913b: 162, 1914b: 274, 280, 1932a: 307; Mathur & Singh 1961a: 8, 1961b: 14; Numberg & Chujo

1961: 358; Schedl 1936d: 4. **(tx)** Eggers 1925: 154, 1927a: 194, 1927b: 407, 1929e: 48; Eichhoff 1868c: 152, 1878b: 382; Hagedorn 1910a: 155; Schedl 1937e: 544, 1939e: 333, 1951k: 138, 1954a: 142, 1959a: 505, 1979c: 186; Stebbing 1914: 594.

dilatatus Eichhoff 1878b: 393. Syntypes ♀; Africae Insula St. Mauritius; Hamburg Museum, lost. Synonymy: Schedl 1959a: 505. References: **(cn)** Mathur & Singh 1960b: 43, 1961a: 13. **(ds)** Alluaud 1900: 440; Hagedorn 1910d: 101; Kleine 1913b: 160; Kolbe 1910: 41; Sampson 1914: 387; Schedl 1936d: 3, 1979c: 80. **(tx)** Eggers 1927b: 407; Eichhoff 1878b: 393; Hagedorn 1910a: 153; Sampson 1914: 387; Schaufuss 1897a: 212; Schedl 1931c: 346, 1936d: 3, 1937e: 543, 1959a: 505, 1962j: 459, 1979c: 80.

submarginatus Blandford 1896b: 223. Syntypes ♀; India, Belgaum, Ceylon, Celebes, New Guinea, Dorey; BMNH, London. Synonymy: Eggers 1929e: 48.

References: **(bv)** Beeson 1917. **(cn)** Beeson 1915: 8–11, 1916: 1–5; Garthwaite 1940: 94–106; Green 1916: 608–636; MacKenzie 1922: 1–14. **(hb)** Beeson 1916a: 221, 1917, 1929. **(ds)** Beeson 1916a, 1929, 1930: 260–261, 1933: 12, 1938: 294, 1961: 309; Kleine 1913b: 163, 1934a: 175; Murayama 1934: 289, 1936b: 115; Sampson 1919: 109–110. **(tx)** Beeson 1929: 247, 1930: 260–261; Blandford 1896b: 223; Eggers 1922a: 88, 1925: 154, 1926a: 300, 1927b: 407, 1929e: 48; Sampson 1919: 109–110; Schedl 1931c: 347, 1939f: 49, 1951k: 138, 1958b: 103, 1959a: 505, 1962j: 459.

bucco Schaufuss 1897a: 212. Syntypes ♀; Sechellen, La Digue; Hamburg Museum, lost. Synonymy: Schedl 1959a: 505.

References: **(ds)** Alluaud 1900: 440; Hagedorn 1910d: 99; Kleine 1913b: 160; Kolbe 1910: 41; Sampson 1914: 388. **(tx)** Anderson, W. H. & Anderson 1971: 8; Beeson 1929: 247; Hagedorn 1910a: 152; Sampson 1914: 388; Schaufuss 1897a: 212; Schedl 1959a: 505, 1962j: 459.

capito Schaufuss 1897a: 215. Syntypes ♀; Philippinen; those in Hamburg Museum lost, 1 in USNM, Washington, 1 in Schedl Collection in NHMW, Wien. Synonymy: Schedl 1959a: 505.

References: **(ds)** Beeson 1938: 294; Hagedorn 1910c: 99; Kleine 1913b: 160, 1914b: 290. **(tx)** Anderson, W. H. & Anderson 1971: 9; Eggers 1929c: 46; Hagedorn 1910a: 152; Schaufuss 1897a: 215; Schedl 1959a: 505, 1962j: 459; Strohmeier 1911b: 17.

novaguineanus Schedl 1936g: 530. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177.

References: **(ds)** Schedl 1936g: 530, 1972b: 266.

- 1980b: 184. (tx) Schedl 1936g: 530, 1958i: 214, 1965g: 25, 1979c: 171.
- dilatatus* Schedl 1953b: 127. Lectotype ♀; Saigon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 80. Synonymy: Wood 1989: 177.
References: (ds) Gardner 1957a; Schedl 1962b: 185. (tx) Schedl 1953b: 127, 1955i: 212, 1979c: 80.
- simillimus** Perkins 1900: 176. Lectotype ♀; Hawaii, above Hilo, 1800 ft.; BMNH, London.
Figures: Samuelson 1981: 60.
Distribution: Hawaiian Islands (Hawaii).
Hosts: *Metrosideros collina polymorpha*.
References: (ds) Beeson 1938b: 294; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 303; Samuelson 1981: 86. (tx) Hagedorn 1910a: 156; Perkins 1900: 176; Samuelson 1981: 60, 86.
- simulatus** Bright 1972d: 80. Holotype ♀; Hardwar Gap, St. Andrew Parish, Jamaica, 4000'; CNCI, Ottawa.
Figures: Bright 1972d: 95.
Distribution: Antilles Islands (Jamaica/Puerto Rico).
References: (ds) Bright 1981c: 157, 1985c: 174. (tx) Bright 1972d: 80, 95, 1985c: 174; McNamara 1977: 200.
- sinensis** Eggers 1941b: 224. Holotype ♀; China: Fukien Prov. (Kuatun, 2300 m); Alexander König Museum, Bonn.
Distribution: Asia (Fujian in China).
References: (tx) Eggers 1941b: 224–225; Schedl 1955h: 45.
- solutus** Schedl 1962j: 516. Holotype ♀; Congo Belge; Yangambi; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Sorindeia lemairei*, *Vernonia conferta*.
References: (tx) Schedl 1962j: 516, 1979c: 232.
- sparsipilosus** Eggers 1933b: 34. Holotype ♀; Franz. Guayana (Nouveau Chantier); MNHN, Paris.
Distribution: North America (Costa Rica/Panama), South America (Cayenne/ Colombia).
Hosts: *Ficus* sp., *Virola warburgii*, etc.
References: (ds) Blackwelder 1947: 780; Wood, S. L. 1982b: 824. (tx) Eggers 1933b: 34; Schedl 1979c: 232; Wood, S. L. 1972e: 199, 1982b: 824.
- inconueniens* Schedl 1948h: 577. Holotype ♀; Costa Rica, Hamburgfarm, Ebene Limon, Reventazon; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 199.
References: (tx) Schedl 1948h: 577, 1979c: 123; Wood, S. L. 1972e: 199.
- spathipennis** Eichhoff 1868: 145. Syntypes ♀; Peru, Brazil; Hamburg Museum, lost.
Figures: Nunberg 1959a: pl. 18, fig. 7, pl. 20, figs. 4–6.
Distribution: North America (Costa Rica/ Guatemala/ Nicaragua/ Panama), South America (Bolivia/ Brazil/ Cayenne/ Colombia/ Ecuador/ Guyana/ Peru/ Suriname/ Venezuela).
Hosts: *Bursera simarubra*, *Copaifera* sp., *Cratylia floribunda*, palm log.
References: (cn) Hagedorn 1913a; Herfs 1950: 3; Kleine 1932a: 307. (ec) Neger 1911a: 52. (hb) Beaver 1976a: 26; Hagedorn 1913a; Kalshoven 1963: 237; Kleine 1932a: 307; Wood, S. L. 1982b: 810. (ds) Atkinson & Equihua 1988: 102; Beaver 1976a: 26; Blackwelder 1947: 780; Blandford 1898b; Gemminger & Harold 1872: 2686; Hagedorn 1903b: 546, 1910d: 111, 1912a: 342, 1913a; Kalshoven 1963; Kleine 1913b: 163, 1914b: 337, 343, 371, 1932a: 307, 1934a: 175; Wood, S. L. 1982b: 810. (tx) Blandford 1898b; Eggers 1928c: 94–95, 1929e: 52, 1933b: 2, 24–25, 1939e; Eichhoff 1868c: 144–145, 1878b: 347, 1880a: 189; Hagedorn 1903b: 546, 1910a: 156, 1910b, 1912a; Nunberg 1959a: 439; Schedl 1940c: 208, 1948f: 261; Wood, S. L. 1972e: 199, 1982b: 810.
- coronatus* Eichhoff 1878b: 348. Holotype ♂; Brasilia interior; IRSNB, Brussels. Synonymy: Wood 1972c: 199.
References: (tx) Eichhoff 1878b: 348; Hopkins 1915b: 69; Wood, S. L. 1972c: 199.
- burgdorfi* Hopkins 1915b: 59. Holotype ♀; Costa Rica; USNM, Washington. Synonymy: Wood 1972c: 199.
References: (ds) Browne 1970: 542; Hopkins 1915b: 59; Wood, S. L. 1972c: 199.
- curtus* Eggers 1928c: 94. Lectotype ♀; Ecuador (Cachabe); USNM, Washington, designated by Anderson & Anderson 1971: 11. Synonymy: Wood 1972c: 199.
References: (ds) Blackwelder 1947: 779; Schedl 1960a: 77, 1966f: 80, 1970e: 91, 1973d: 157, 1976a: 54. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1928c: 94–95, 1929e, 1933b: 24–25; Nunberg 1959a: 421; Schedl 1935d: 94, 1940c: 207, 1952h: 70, 1960a: 77, 1960b: 12, 1966f: 80, 1970e: 91, 1973d: 157, 1976a: 54, 1979c: 72; Wood, S. L. 1972c: 199.
- femoratus* Eggers 1928c: 95. Lectotype ♀; Brasil, Bahia; MNB, Berlin, designated by Wood 1982b: 810. Synonymy: Schedl 1960g: 12, Wood 1972c: 199.
References: (ds) Blackwelder 1947; Schedl 1966f: 79. (tx) Eggers 1928c: 95, 1929e, 1933b: 24–26; Nunberg 1959a: 425; Schedl 1948f: 278, 1960g: 12, 1979c: 95; Wood, S. L. 1972c: 199, 1982b: 810.
- sphenos** Sampson 1912: 247. Holotype ♀; Uganda; BMNH, London.
Distribution: Africa (Ghana/ Uganda/ Zaire).
Hosts: *Acrilodocarpus fraxinifolius*, *Albizia* spp., *Lovoa trichilioides*, *Pentadesma lebrunii*.
References: (hb) Schedl 1962j: 517. (ds) Kleine 1913b: 163, 1914b: 324; Schedl 1962j: 517. (tx)

Sampson 1912: 247–248; Schedl 1955i: 219, 1957a: 107, 1962j: 517, 1970a: 219.

perdilgens diligens Schedl 1954e: 79. Lectotype ♀; Gold Coast, Mpraeso; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189.

Notes: (1) Schedl 1954e: 79 treated this as a subspecies of *perdilgens* and in 1957d: 107 as a subspecies of *sphenos*.

References: (ds) Thompson, G. H. 1963: 72. (tx) Schedl 1954e: 54, 64, 79, 1957d: 107, 1979c: 189.

spicatus Browne 1986c: 667. Holotype ♀; Borneo: Marudu Bay (Sabah) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Borneo).

Hosts: *Dipterocarpus* sp. log.

References: (tx) Browne 1986c: 667.

spicatus Browne 1986a: 95. Holotype ♀; Port Barton (Palawan, Philippines) to Nagoya (Japan), imported; BMNH, London.

Distribution: Philippine Islands (Palawan).

Hosts: *Dipterocarpus* sp. log.

References: (tx) Browne 1986a: 95.

spinatus Eggers 1923a: 203. Holotype ♀; Pangherang-Pisang auf Sumatra; MCG, Genova.

Distribution: Asia (Malaya), Indonesia (Sumatra).

References: (hb) Browne 1961c: 157. (ds) Browne 1961c: 157, 1980a: 371; Eggers 1923a: 203; Schedl 1953c: 290.

spinicornis Schedl 1975f: 370. Holotype ♀; Biniguni, Gwariu River, 150 m, New Guinea; AMNH, New York.

Distribution: New Guinea.

References: (ds) Browne 1983a: 555. (tx) Schedl 1975f: 370.

spinulosus Blandford 1898b: 201. Lectotype ♀; San Geronimo, Guatemala; BMNH, London.

Figures: Bright 1972d: 95, Nunberg 1959a: pl. 21, figs. 3–4, Pedrosa-Macedo & Schonherr 1985: 41, Samuelson 1981: 53.

Distribution: Antilles Islands (Grenada/ Guadeloupe/ Dominican Republic, Haiti in Hispanola/ Jamaica/ Trinidad), North America (Costa Rica/ Guatemala/ Honduras/ Jalisco, Nayarit, Veracruz in Mexico/ Panama), South America (Argentina/ Brazil/ Colombia/ Galapagos Islands/ Venezuela), introduced in Hawaiian Islands.

Hosts: *Acacia koa*, *A. polyphylla*, *Albizia* sp., *Bursera simarubra*, *Cecropis* sp., *Citrus* sp., *Gleditsia* sp., *Mangifera indica*, *Nicotiana tabaccum*, *Ochroma* sp., *Pinus patula*, *Qualea ingens*, *Rudgea* cf. *amazonica*, *Samanga saman*, *Terminalis* sp.

References: (cn) Equihua & Martinez 1988. (ec) Wichmann 1955a: 107. (hb) Atkinson & Equihua 1985b: 237; Beaver 1979a: 26; Wood, S. L. 1982b: 799. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421, 1988: 102; Beaver 1976a: 26; Berti-Filho

1979: 42; Blackwelder 1947: 780; Bright 1972d: 78, 1982b: 165, 1985c: 174; Estrada & Atkinson 1988: 207; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 343, 371, 379; Nunberg 1963c: 98; Pedrosa-Macedo & Schonherr 1985: 41; Samuelson 1981: 88; Schedl 1966g: 90, 1967d: 3, 1971f: 149, 1972g: 45, 1973d: 159, 1976a: 55; Swezey 1941: 121; Wichmann 1955a: 107; Wood, S. L. 1977a: 73, 1982b: 799. (tx) Blandford 1895b: 201; Bright 1972d: 78, 95, 1985c: 174; Eggers 1931c: 20, 1933g: 20, 1934a: 82–83, 1940a: 108, 1940c: 238; Hagedorn 1910a: 156; Pedrosa-Macedo & Schonherr 1985: 41; Samuelson 1981: 53, 88; Schedl 1934g: 178, 1935d: 93–94, 1941f: 112, 1950f: 36, 1950i: 147, 1951h: 286, 1957a: 194; Wood, S. L. 1966b: 32, 1979b: 137, 1982b: 799.

fusciseriatus Eggers 1934a: 82. Holotype ♀; Costa Rica (La Caja: 8 km W San Jose); MNB, Berlin. Synonymy: Wood 1979b: 137.

References: (ds) Blackwelder 1947: 779. (tx) Eggers 1933g: 20, 1934a: 82, 1940c: 235; Nunberg 1959a: 425; Schedl 1935d: 93; Wood, S. L. 1979b: 137.

spinulosus Schedl 1934g: 178. Holotype ♀; Honolulu, Hawaiian Islands; F. C. Hadden Collection. Synonymy: Wood 1966b: 32.

References: (ds) Beeson 1938b: 294. (tx) Eggers 1933g: 20; Schedl 1934g: 178, 1941f: 112, 1950f: 36, 1950i: 147, 1979c: 235; Wood, S. L. 1966b: 32.

artepinulosus Schedl 1935d: 93. Lectotype ♀; Costa Rica, Hamburgfarm, Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27. Synonymy: Wood 1979b: 137.

References: (ds) Blackwelder 1947: 779; Schedl 1974e: 51. (tx) Schedl 1935d: 93, 1979c: 27; Wood, S. L. 1979b: 137.

squamulatus Eichhoff 1869b: 282. Holotype ♀; Brasil; IRSNB, Brussels.

Figures: Nunberg 1971: 63, Pedrosa-Macedo & Schonherr 1985: 42, Terra 1987: 24.

Distribution: North America (Costa Rica/ El Salvador/ Guatemala/ Chiapas in Mexico), South America (Brazil/ Colombia/ Guyana/ Venezuela). Hosts: *Conostegia oerstediana*, *Eucalyptus paniculata*, *Inga* sp., *Theobroma cacao*.

References: (hb) Wood, S. L. 1982b: 798. (ds) Blackwelder 1947: 780; Blandford 1898b: 195, 203; Gemminger & Harold 1872: 2656; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 337, 371; Pedrosa-Macedo & Schonherr 1985: 42; Schedl 1966f: 90, 1967d: 3, 1971f: 149, 1972g: 45, 1976a: 55, 1977e: 43; Wood, S. L. 1982b: 798. (tx) Blandford 1898b: 195, 203; Eichhoff 1869b: 282, 1878b: 339; Hagedorn 1910a: 157; Pedrosa-Macedo & Schonherr 1985: 42; Schedl 1935d: 93, 1963d: 227, 1963f: 60; Schonherr & Pedrosa-Macedo 1981:

- 57, 1985: 42; Terra 1987: 24; Wood, S. L. 1982b: 798.
- squamulatus niger* Nunberg 1971: 61. Holotype ♀; Ilheus, Bahia, Brasil; MZUSP, Sao Paulo, preoccupied by Sampson 1912.
Notes: (3) This is an apparent aberration, not a geographical race.
References: (ds) Terra 1987: 22. (tx) Nunberg 1971: 63; Sampson 1912: 247.
- starki** Nunberg 1956d: 209. Holotype ♀; Ussuri Distr., USSR; Kurenzov Collection in Wladivostok, automatic.
Distribution: Asia (Ussuri in USSR).
Hosts: *Quercus mongolica*.
References: (tx) Nunberg 1956d: 209.
- quercus* Kurenzov 1948a: 51. Holotype ♀; Ussuri Distr., USSR; Kurenzov Collection in Wladivostok, preoccupied by Hopkins 1915.
References: (hb) Kurenzov 1948a: 51; Stark 1952: 440. (ds) Stark 1952: 440. (tx) Kurenzov 1948a: 51; Nunberg 1956d: 209; Stark 1952: 440.
- striatulus** Browne 1950c: 487. Holotype ♀; Vanimo (New Guinea) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
References: (ds) Ohno, Yoshioka, et al. 1989: 64. (tx) Browne 1980c: 487; Ohno et al. 1980c: 487.
- strombosiopsis** Schedl 1957d: 91. Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Nunberg 1963b:pl. 29, figs. 1–2, Schedl 1962j: 297.
Distribution: Africa (Zaire).
Hosts: *Strombosiopsis tetrandra*.
References: (hb) Schedl 1962j: 297. (ds) Schedl 1962j: 297. (tx) Browne 1965a: 202; Nunberg 1963b: 57, pl. 29; Schedl 1957d: 84, 91, 1958k: 145, 1962j: 297, 1979c: 239.
- suau** Schedl 1973e: 75. Holotype ♀; Biniguni, Gwariu River, M. Bay Dist. [New Guinea], 150 m; AMNH, New York.
Distribution: New Guinea
References: (tx) Schedl 1973e: 75.
- subasperulus** Eggers 1935c: 310. Holotype ♀; Kamerun: Victoria; USNM, Washington.
Distribution: Africa (Angola/ Cameroon/ Sierra Leone/ Uganda).
Hosts: *Bauhinia tomentosa*, *Terminalia superba*, *Theobroma cacao*.
References: (cn) Amaro & Soares 1957: 100, 132, 141. (ds) Ferreira 1965: 1125; Nonveiller 1984: 42; Nunberg 1960a: 295; Schedl 1962j: 403, 1962k: 1104. (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1935c: 310–311, 1940c: 237–238, 1941a: 105.
- subcarimulatus** Eggers 1932d: 302. Holotype ♀; Congostaat (Sankum: Sangaie); MRCB, Tervuren.
Figures: Nunberg 1963b:pl. 28, figs. 6–7.
Distribution: Africa (Angola/ Zaire).
References: (ds) Ferreira 1965: 1125; Schedl 1959p: 21. (tx) Eggers 1932d: 302–303; Nunberg 1963b: 58, pl. 28; Schedl 1959p: 21, 1962j: 404, 1979c: 240.
- subcostatus** Eichhoff 1869a: 281. Holotype ♀; Siam; IRSNB, Brussels.
Figures: Nobuchi 1978a:pl. 2.
Distribution: Asia (Malaya/ Thailand), Australia, Indonesia (Borneo, Sumatra), Philippine Islands.
References: (hb) Browne 1941. (ds) Browne 1961c: 140; Choo, Woo, & Kim 1981: 201; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 111; Kleine 1913b: 168; Nobuchi 1978a: 25; Ohno et al. 1987: 88; Schedl 1966b: 52, 1966g: 35, 1969a: 205, 1972a: 145. (tx) Eggers 1930d; Eichhoff 1869a: 280–281, 1878b: 345; Hagedorn 1910a: 157, 1910b; Nobuchi 1978a:pl. 2, 1983: 304; Ohno, Yoneyama, & Nakazawa 1982b: 9; Schedl 1936d: 5, 1937e: 544, 1960h: 108.
- fleutiauxi** Blandford 1896a: 21. Syntypes 3 ♀; Indo-China: Mytho; BMNH, London. Synonymy: Schedl 1960h: 108.
References: (cn) Ishikura 1966. (hb) Kalshoven 1959c: 162. (ds) Hagedorn 1910d: 104; Ishikura 1966; Kalshoven 1959c: 162; Kleine 1913b: 168, 1914b; Murayama 1957a: 37. (tx) Blandford 1896a: 21; Hagedorn 1910a: 154, 1910b; Schedl 1952k: 162, 1953b: 124, 1958i: 215, 1960h: 108.
- webbi** Hopkins 1915b: 59. Holotype ♀; Calapan, Philippine Islands; USNM, Washington. Synonymy: Schedl 1952j: 162.
References: (tx) Hopkins 1915b: 59; Schedl 1952k: 162.
- subcostatus dearnatus** Eggers 1923a: 205. Holotype ♀; Mungei Mesh (?) auf Sumatra; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 177.
References: (tx) Eggers 1923a: 205; Schedl 1979c: 240; Wood, S. L. 1989: 177.
- subrenulatus** Eggers 1932d: 301. Holotype ♀; Congostaat (Madimba); USNM, Washington.
Distribution: Africa (Zaire).
References: (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1932d: 301–302; Schedl 1962j: 298.
- subdentatulus** Browne 1986a: 97. Holotype, sex²; New Guinea: Fak fak to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: Nyatoh log (Sapotaceae).
References: (tx) Browne 1986a: 97.
- subdentatus** Browne 1974b: 539. Holotype ♀; Malaya: Kepong, Forest Research Institute Insectary; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Browne 1974b: 539.

- subdolosus** Schedl 1942d: 44. Lectotype ♀; Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 241.
Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).
References: (hb) Browne 1961c: 152; Kalshoven 1959c: 152. (ds) Browne 1961c: 152, 1981a: 125; Kalshoven 1959c: 152; Ohno et al. 1987: 88. (tx) Nobuchi 1983: 304; Schedl 1942d: 44, 1958k: 148, 1979c: 241.
- subductus** Schedl 1976a: 78. Holotype ♀; V. Vera, Matto Grosso, Lon. 55 degrees 36', Lat. 12 degrees 46', Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 78.
- submarginatus** Eggers 1940d: 150. Lectotype ♀; Java (Batoerraden, G. Slamet); USNM, Washington, designated by Anderson & Anderson 1971: 32. Distribution: Asia (Malaya), Indonesia (Java), Philippine Islands.
Hosts: *Dyera costulata*, *Fagraea fragrans*.
Notes: (3) Schedl 1942d: 46 (described male).
References: (hb) Beeson 1933; Browne 1961c: 148; Kalshoven 1959c: 142. (ds) Beeson 1933; Browne 1961c: 148; Eggers 1926a; Hagedorn 1910d: 111; Kalshoven 1959c: 142; Kleine 1914b: 270; Schedl 1966b: 73. (tx) Anderson, W. H. & Anderson 1971: 32; Beeson 1933; Eggers 1922a, 1926a, 1927b, 1929e, 1940d: 150–151; Hagedorn 1910a: 157; Nobuchi 1983: 304; Schedl 1942d: 46, 1951i: 45, 50, 1958b: 102, 1979c: 241.
- subgranosus** Schedl 1962j: 309. Holotype ♀; Congo Belge; Route Tshibinda-Bunyakiri, 1000 m; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Pentaclethra macrophylla*.
References: (tx) Schedl 1962j: 309, 1979c: 241.
- sublinearis** Eggers 1940d: 148. Holotype ♀; Java (Preanger, G. Tangkoeban Praho); F.C. Drescher Collection.
Distribution: Indonesia (Java).
Notes: (1) Schedl 1979c: 242 lists the holotype as in his collection although Eggers clearly deposited it in the Drescher Collection.
References: (tx) Eggers 1940d: 148; Schedl 1951i: 45, 1979c: 242.
- sublongus** Eggers 1927c: 99. Holotype ♀; Philippinen: Luzon, Provinz Mt., Balaban and Prov. Bataan, Limay; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
References: (ds) Schedl 1966b: 73. (tx) Eggers 1927c: 99–100, 1943a: 386; Nobuchi 1983: 304; Schedl 1979c: 242.
- submolestus** Schedl 1941d: 403. Holotype ♀; Madagascar (Sikora); Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Alhauudia procera*, *Eucalyptus* sp., *Mesogordonia* sp., *Pinus khasia*.
References: (ds) Schedl 1970d: 234, 1977b: 164. (tx) Schedl 1941d: 403, 1977b: 164, 1970d: 234, 1979c: 242.
- subplanatus** Eggers 1943a: 386. Holotype ♀; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Eggers 1943a: 386; Schedl 1979c: 243.
- subpruinosis** Browne 1986a: 93. Holotype ♀; Philippine Islands: Maconacon (Luzon) to Nagoya (Japan), imported.
Distribution: Philippine Islands (Luzon).
Hosts: *Canarium* sp. log.
References: (tx) Browne 1986a: 93.
- subtilis** Schedl 1970e: 96. Holotype ♀; Brasilien, Nova-Teutonia, 3–500 m, 27 degrees 11 minutes B, 52 degrees 23 minutes L; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (3) This might be a synonym of *catulus*.
References: (ds) Schedl 1970e: 85. (tx) Schedl 1970e: 85, 96, 1979c: 244.
- subtruncatus** Schedl 1972m: 201. Holotype ♀; Fiji Is. ?; BMNH, London.
Distribution: Fiji Islands.
References: (tx) Schedl 1972m: 201.
- subtuberculatus** Eggers 1927a: 194. Holotype ♀; Belge Congo, Sankuru; MRCB, Tervuren.
Figures: Browne 1973a: 295, Nunberg 1963b: pl. 29, figs. 5–6.
Distribution: Africa (Angola/ Cameroon/ Congo/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Tanzania/ Uganda/ Zaire/ Zambia).
Hosts: Many listed by Schedl 1962j: 326–327. *Macrobium* sp., *Terminalia ivorensis*.
Notes: (3) Browne 1973a: 295 (described male).
References: (hb) Beaver & Loytyniemi 1955a: 76; Browne 1963a: 244; Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 324. (ds) Beaver & Loytyniemi 1955a: 76; Browne 1963: 244, 1985b: 76; Ferreira 1965: 1125; Kleine 1934a; Mayne & Donis 1962: 323; Nunberg 1960a: 296, 1961a: 331; Schedl 1938d: 451, 1954e: 54, 70, 1959p: 21, 1961m: 84, 1962h: 61, 1962j: 324, 1962k: 1104, 1963a: 32, 1964e: 69, 1964f: 618, 1966c: 229, 1967e: 219, 1971f: 149, 1971g: 194, 1972e: 284, 1979c: 416; Wichmann 1954: 522. (tx) Browne 1973a: 295; Eggers 1927a: 194–195; Nunberg 1963b: 59, pl. 29; Powell, W. 1980: 29; Schedl 1941d: 380, 404, 1950d: 8, 1952j: 4, 1961e: 148, 1962j: 324–325, 1962k: 1104, 1965c: 71.
- sulcaticeps** Schedl 1962j: 318. Holotype ♀; Congo Belge: Irumu; Schedl Collection in NHMW, Wien.

- Distribution: Africa (Zaire).
References: (tx) Schedl 1951k: 152, 1962j: 318, 1979c: 245.
- scalcatulus Eggers** 1939b: 13. Holotype ♀; Nordost-Birna (Kambaiti, 7000 Fuss); NHR, Stockholm.
Distribution: Asia (Burma).
References: (tx) Schedl 1939b: 13–14, 1979c: 245.
- scalcauda Schedl** 1972b: 271. Holotype ♀; Fiji, Viti Levu; Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
References: (ds) Browne 1974a: 65. (tx) Schedl 1972b: 271, 1979c: 246.
- tenuipennis** Browne 1974a: 71. Holotype ♀; Fiji: Viti Levu, Nausori Highlands; BMNH, London. Synonymy: Wood 1989: 177, Beaver 1991: 96.
References: (hb) Roberts 1977a: 264. (ds) Browne 1974a: 65; Roberts 1977a: 264. (tx) Beaver 1991: 96; Browne 1974a: 65, 71; Wood, S. L. 1989: 177.
- sundaensis Eggers** 1923a: 175. Lectotype ♀; Poerwakarta auf Java; USNM, Washington, designated by Anderson & Anderson 1971: 33.
Distribution: Indonesia (Java).
References: (hb) Browne 1961c: 107; Kalshoven 1959c: 136. (ds) Kalshoven 1959c: 136; Schedl 1964c: 305. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1923a: 175–176; Schedl 1942c: 191, 1953c: 290.
- swezeyi Beeson** 1929: 234. Holotype ♀; Samoa: Tutuila, Fagasa; BPBM, Honolulu.
Distribution: Samoan Islands.
Hosts: *Elaeocarpus* sp., *Leucaena* sp.
Notes: (3) Schedl 1955b: 287 (described male).
References: (hb) Beaver 1976b: 541. (ds) Beaver 1976b: 541; Beeson 1938b: 294. (tx) Beeson 1929: 234–235; Schedl 1951k: 137, 1955b: 287, 308; Schedl 1979c: 248.
- taichuensis Schedl** 1952c: 64. Syntypes ♀; Formosa, Taichu; Schedl Collection in NHMW, Wien and Chujo Collection.
Distribution: Asia (Taiwan).
Notes: (1) Schedl 1979c: 249 (citation of holotype invalid).
References: (ds) Nobuchi 1967: 23. (tx) Schedl 1952c: 64, 1979c: 249.
- taïwanensis Browne** 1980b: 386. Holotype ♀; Kaohsiung (Formosa) to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (Taiwan).
Hosts: *Zelkova formosana*.
References: (tx) Browne 1980b: 386.
- takeharai Browne** 1983a: 557. Holotype ♀; Teminaban (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1983a: 557.
- takinoyensis Murayama** 1953b: 109. Holotype ♀; Wakamatsu City, Fukushima pref. or Ohta vill., Kuromori, Japan; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
References: (ds) Murayama 1954b: 183; Nobuchi 1985c: 28. (tx) Murayama 1953b: 109, 1954b: 183.
- taticornis Schedl** 1971c: 385. Holotype ♀; Malaya, Kepong; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Schedl 1971c: 385, 1979c: 250.
- temetiucis Beeson** 1935b: 112. Syntypes 4 ♀; Hivaoa: Matauuna, 3700 feet, Temetiu Ridge, 3900 feet, Temetiu summit, 4160 feet; not given (BPBM, Honolulu?).
Distribution: Marquesas Islands.
Hosts: *Cheirodendron* sp., *Cyrtandra* sp.
References: (ds) Beeson 1938b: 294, 1939: 112, 114. (tx) Beeson 1935b: 112–113.
- tenellus Schedl** 1957d: 107. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 27, figs. 6–7, pl. 28, fig. 1, Schedl 1962j: 520.
Distribution: Africa (Zaire).
Hosts: *Alchornea hirtella*, *Ficus* sp., *Micrococos pinnatifida*, *Syzygium congolense*, *Turraeanthus africana*.
Notes: (1) Originally named as a subspecies of *montanus* Schedl (preoccupied), it automatically replaced *montanus* when the homonymy was found; the subsequent replacement names *syzygii* Nunberg and *submontanus* Schedl have no status.
References: (tx) Nunberg 1963b: 55; Schedl 1957d: 107, 1960i: 106, 1962j: 521, 1979c: 251.
montanus Schedl 1957d: 106. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren, preoccupied by Niisima 1910.
References: (hb) Schedl 1962j: 520. (ds) Schedl 1962j: 520. (tx) Nunberg 1959c: 167; Schedl 1957d: 106, 1960i: 106–107, 1962j: 520, 1979c: 159.
- syzygii* Nunberg 1959c: 167. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren, automatic.
Notes: (1) This is an unneeded replacement name.
References: (tx) Nunberg 1959c: 167, 1963b: 56, pl. 27–28; Schedl 1957d: 106.
- submontanus* Schedl 1960i: 106. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren, automatic.
Notes: (1) This is an unneeded replacement name.
References: (tx) Nunberg 1959c: 167, 1963b: 55; Schedl 1960i: 106–107, 1962j: 520.
- teninabani Browne** 1986c: 668. Holotype ♀; New Guinea: Teminaban to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.

References: (tx) Browne 1986c: 668.

timidus Schedl 1973f: 76. Holotype ♀; Peria Creek, Kwagira River, M. Bay Dist. [New Guinea], 50 m; AMNH, New York.

Distribution: New Guinea.

References: (tx) Schedl 1973f: 76, 1979c: 253.

tinnitus Schedl 1941d: 402. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon).

References: (tx) Schedl 1941d: 402, 1962j: 211, 1979c: 253.

titubanter Schedl 1948h: 578. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien.

Distribution: North America (Puebla in Mexico).

Hosts: *Alnus* sp.

References: (hb) Wood, S. L. 1982b: 826. (ds) Wood, S. L. 1982b: 826. (tx) Schedl 1948h: 578, 1979c: 253; Wood, S. L. 1975a: 23, 1982b: 826.

dissidens Wood 1974a: 41. Holotype ♀; 9 km NE Teziutlan, Puebla, Mexico; Wood Collection. Synonymy: Wood 1975a: 23.

References: (tx) Wood, S. L. 1974a: 41, 1975a: 23.

todo Kono 1938b: 71. Holotype ♀; Japan: Hokkaido, Nopporo; not given.

Distribution: Asia (Japan).

References: (ec) Yasumatsu & Watanabe 1965: 70. (tx) Kono 1938: 45–46, 1938b: 65, 71.

tonsus (Hagedorn) 1905: 412 (*Dryocoetes*). Holotype ♀; environs de Saint-Georges, Oyapock, Guyane française; MNHN, Paris.

Distribution: South America (Cayenne).

Notes: (3) Wood, S. L. 1977b: 211 (to *Xyleborus*). References: (ds) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 338; Murayama 1957c: 607. (tx) Eggers 1933b: 2–3; Hagedorn 1905: 412, 1910a: 96; Murayama 1957c: 607; Wood, S. L. 1977b: 211.

transitus Schedl 1962j: 170. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon).

References: (tx) Schedl 1962j: 170, 1979c: 254.

triangi Schedl 1958b: 103. Lectotype ♀; Malaya, Triang Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 255. Distribution: Asia (Malaya).

Hosts: *Balanocarpus heimii*, *Shorea laevis*.

References: (hb) Browne 1961c: 149. (ds) Schedl 1959c: 168. (tx) Schedl 1958b: 103, 1979c: 255.

tribulatus Wood 1974a: 39. Holotype ♀; Rio Damas, Dota Mts., San Jose, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Liana.

References: (ds) Wood, S. L. 1982b: 819. (tx) Wood, S. L. 1974a: 39, 1982b: 819.

trispinatus Browne 1981a: 130. Holotype ♀; Butuan (Philippines) to Tokyo (Japan), imported; BMNH, London.

Distribution: Philippines Islands.

Hosts: *Shorea* sp.

References: (tx) Browne 1981a: 130; Nobuchi 1983: 304.

tristiculus Wood 1975b: 401. Holotype ♀; Brazil, 12 degrees 49 minutes S, 51 degrees 46 minutes W; BMNH, London.

Distribution: South America (Brazil).

Notes: (1) This probably belongs to *Theoborus*.

References: (tx) Wood, S. L. 1975b: 401.

truncaticauda Browne 1984d: 100. Holotype ♀; New Guinea: Gumi; BMNH, London.

Distribution: New Guinea.

References: (tx) Browne 1984d: 100.

truncatulus Schedl 1957d: 94. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Figures: Numbert 1963b: pl. 30, Schedl 1962j: 311. Distribution: Africa (Nigeria/ Ruanda/ Zaire).

Hosts: *Alchornea hirtella*, *Brillantaisia* sp., *Dichapetalum* sp., *Ficus* sp., *Macaranga* sp., *Pentadesma lebrunii*.

References: (hb) Schedl 1962j: 310. (ds) Schedl 1962j: 310. (tx) Numberg 1963b: 60, pl. 30; Schedl 1957d: 94, 1962j: 310–311.

tsukubanus Murayama 1954b: 195. Holotype ♀; Mt. Tsukuba, Ibaragi pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Quercus acuta*.

References: (ds) Murayama 1954b: 184; Nobuchi 1985c: 28. (tx) Murayama 1954b: 195.

tuberculosis Brown 1981b: 602. Holotype ♀; Balingtang (Philippines) to Nagoya (Japan), imported; BMNH, London.

Distribution: Philippine Islands.

Hosts: *Shorea* sp.

References: (ds) Ohno et al. 1987: 88, 1989: 64. (tx) Browne 1981b: 602.

tumucensis Hagedorn 1905a: 414. Lectotype ♀; Guyane française, rivière Lumier, Tumuc-Humac; MNHN, Paris, designated by Wood 1982b: 820. Figures: Numberg 1959a: 22, figs. 3–4.

Distribution: North America (Costa Rica), South America (Brazil/ Cayenne).

Hosts: *Bursera simarubra*.

Notes: (3) Schedl 1960i: 107 (*obtrusus* Sampson, nomen nudum, synonymy).

References: (hb) Wood, S. L. 1982b: 810. (ds) Blackwelder 1947: 750; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 339; Schedl 1973d: 160; Wood, S. L. 1982b: 810. (tx) Eggers 1933b: 3; Hagedorn 1905a: 414, 1910a: 157; Numberg 1959a: 22; Schedl 1960i: 107; Wood, S. L. 1972e: 200, 1982b: 810.

guayanensis Eggers 1933b: 26. Syntypes ♂ ♀; Nouveau Chantier, French Guiana; MNHN, Paris. Synonymy: Wood 1972e: 200.

References: (ds) Blackwelder 1947: 779;

- Schedl 1973d: 158. (tx) Eggers 1933b: 3, 26–28; Nunberg 1959a: 426; Schedl 1979c: 114; Wood, S. L. 1972e: 200.
- tunggali Schedl** 1936j: 32. Lectotype ♀; Malay Peninsula, Pagang; Rotan Tunggali Forest Reserve, Bukit Kajang Forest Reserve, Selangor, Kanching Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 258.
Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Borneo).
Hosts: *Canarium* sp., *Castanopsis* sp., *Dryobalanops aromatica*, *Heritiera javanica*, *Shorea* spp.
References: (cn) Mathur & Singh 1961a: 39. (hb) Browne 1938a, 1961c: 150. (ds) Beeson 1961: 310; Browne 1938a, 1961c: 150, 1984b: 286; Mathur & Singh 1961a: 39; Ohno, Yoneyama, & Nakazawa 1987: 94. (tx) Schedl 1936j: 32, 1939e: 331, 1959a: 507, 1979c: 259.
- turraeanthus Schedl** 1957d: 103. Holotype ♀; Congo Belge: Kivu, route Tshibinda-Bunyakiri, km 77, 1000 m; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 30, fig. 7, pl. 31, fig. 1.
Distribution: Africa (Zaire).
Hosts: *Turraeanthus africana*.
References: (ds) Schedl 1962j: 327. (tx) Nunberg 1963b: 61, pl. 30–31; Schedl 1957d: 103, 1962j: 327, 1979c: 259.
- ugandaensis Schedl** 1957e: 882. Holotype ♀; Uganda, Toro; BMNH, London.
Figures: Browne 1970: 570 (male).
Distribution: Africa (Kenya/ Tanzania/ Uganda).
Hosts: *Combretum guinezi*, *Maba abyssinica*.
References: (ds) Schedl 1962j: 293, 1972k: 296, 1979c: 296. (tx) Browne 1963b: 247, 1970: 570; Schedl 1957e: 882, 1962j: 293, 1979c: 259.
- uncatus Schedl** 1970e: 96. Holotype ♀; Brasilien, Jacupiranga (S.P.), 40 m, 24 degrees 45 minutes, 47 degrees 56 minutes; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1970e: 85, 96–97. (tx) Schedl 1970e: 85, 96–97, 1979c: 260.
- ustus Schedl** 1957d: 96. Holotype ♀; Congo Belge: Yangambe; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 31, figs. 2–3.
Distribution: Africa (Zaire).
Hosts: *Azelia bella*, *Scorodophloeus zenkeri*.
References: (hb) Browne 1941; Schedl 1962k: 318. (ds) Schedl 1962j: 318. (tx) Nunberg 1963b: 61; Schedl 1957d: 96, 1962j: 318, 1979c: 263.
- vanrynae Browne** 1973a: 294. Holotype ♀; Zaire: Menkao, 60 km N. Kinshasa; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Browne 1973a: 294.
- venustus Schedl** 1969b: 219. Holotype ♀; New Guinea: Jimi Valley Rain Forest, Western Highlands; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Harpullia* sp.
References: (bv) Gray, B. 1974c. (hb) Gray, B. 1974c. (tx) Schedl 1969b: 219–220, 1979c: 265.
- vernaculus Schedl** 1975f: 372. Holotype ♀; Nuwok, Manus Island District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 372, 1979c: 266.
- viaticus Schedl** 1974d: 464. Holotype ♀; Bulolo, Road 35, Morobe Dist., New Guinea; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Rhus taitensis*.
References: (tx) Schedl 1974d: 464, 1979c: 267.
- vicinus Eichhoff** 1878b: 394. Holotype ♀; Venezuela; IRSNB, Brussels.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 340. (tx) Eichhoff 1878b: 394; Hagedorn 1910a: 157.
- viduus Eichhoff** 1878b: 391. Syntypes ♀; uncertain, either Brasilia or America septentrionali [USA]; Hamburg Museum, lost.
Distribution: North America (Alabama, Florida, Maryland, Missouri, Tennessee in USA).
References: (ds) Blackwelder 1947: 780; Blatchley & Leng 1916: 623; Drooz 1985: 374; Hagedorn 1910d: 112; Kleine 1913b: 163; Leng 1918: 211, 1920: 342; Wood, S. L. 1982b: 836. (tx) Blatchley & Leng 1916: 623; Eichhoff 1878b: 391; Hagedorn 1910a: 159; Hopkins 1915b: 62, 1915c: 217; Wood, S. L. 1982b: 836.
- viruensis Browne** 1984a: 157. Holotype ♀; Viru Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: Basswood log.
References: (ds) Ohno et al. 1988a: 94. (tx) Browne 1984a: 157.
- vismiae Wood** 1974a: 39. Holotype ♀; Rio Damitas, Dota Mts., San Jose, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica), South America (Venezuela).
Hosts: *Vismia guayanaensis*, Guttiferae sp.
References: (hb) Wood, S. L. 1982b: 821. (ds) Wood, S. L. 1982b: 821. (tx) Wood, S. L. 1974a: 39–40, 1982b: 821.
- volvulus (Fabricius)** 1775: 454 (*Bostrichus*). Lectotype ♀; America ligno Dom v. Rohr [presumably Cuba]; UZMC, Copenhagen, designated by Wood 1982b: 833.
Figures: Nobuchi 1978a: pl. 4, Nunberg 1963b: pl. 7, figs. 1–6, Pedrosa-Macedo & Schonherr 1985: 44, Wood 1960a: 65.
Distribution: Africa (Angola/ Burundi/ Cameroon/ Congo/ Equatorial Guinea/ Ethiopia/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Mauritius Island/ Mozambique/ Namibia/ Nigeria/ Ruanda/

Seychelles Islands/ Somalia/ South Africa/ Sudan/ Tanzania/ Uganda/ Zaire/ Zimbabwe), Antilles Islands (Cuba/ Jamaica/ Puerto Rico/ Santo Domingo/ Trinidad), Asia (Burma/ Japan/ Korea/ Malaya/ Ryukyu Islands/ Taiwan/ Thailand), Australia, Fiji Islands, Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, North America (Belize/ Costa Rica/ El Salvador/ Guatemala/ Honduras/ Isla del Coco/ Baja California Sur, Chiapas, Guerrero, Jalisco, Mexico, Morelos, Nayarit, Oaxaca, Puebla, Quintana Roo, San Luis Potosi, Tabasco, Yucatan in Mexico/ Nicaragua/ Panama/ Florida in USA), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Chile/ Colombia/ Ecuador/ Galapagos Islands/ Guyana/ Paraguay/ Peru/ Suriname/ Uruguay/ Venezuela). Hosts: Many listed by Browne 1961c: 144. Schedl 1962j: 417–422 and Wood 1982b: 834.

Notes: (1) Eggers 1929e: 47 (to *Xyleborus*). (3) This species is doubtfully distinct from *perforans* and may intergrade with that species; reports of it from SE Asia to the SW Pacific region probably refer to *perforans* as do many records from Africa (SLW).

References: (bv) Choo, Woo, & Park 1988; Morales 1984. (cn) Ashby 1915: 311; Ballou 1905; Barrett 1908; Beaver 1988a: 67; Equihua-Martinez 1988; Estrada & Atkinson 1988: 208; Wood, S. L. 1977a: 73. (ce) Equihua & Atkinson 1986: 630. (hb) Ballou 1905; Barrett 1908; Beaver 1988a: 67; Beaver & Loytyniemi 1985a: 76; Burgos & Saucedo 1983: 99; Deyrup & Atkinson 1987a: 65; Equihua & Atkinson 1986: 630; Loytyniemi, Beaver, & Loytyniemi 1984; Morales 1984; Wood, S. L. 1982b: 833. (ds) Atkinson & Equihua 1985a: 87, 1985b: 238, 1986a: 421; Atkinson et al. 1986: 62; Ballou 1905; Beaver 1988a: 67; Beaver & Loytyniemi 1985a: 76; Blackwelder 1947: 780; Bright 1968b: 1318, 1972d: 85, 1982a: 128, 1985c: 174; Bruch 1914a; Burgos & Saucedo 1983: 99; Choo 1983: 112; Choo & Woo 1985: 166; Choo, Woo, & Park 1988; Deyrup & Atkinson 1987a: 65; Drooz 1985: 374; Equihua & Atkinson 1986: 630; Estrada & Atkinson 1988: 208; Ferrer 1942; Kleine 1914b: 379; Nunberg 1952: 21, 1963e: 98, 1965b: 21; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 9, 1987a: 88, 1987b: 94; Ohno, Yoshioka, et al. 1985a: 94, 1989: 64; Pedrosa-Macedo & Schonherr 1985: 44; Tucker 1952: 347; Wood, S. L. 1957e: 1273, 1961c: 2, 1977a: 73, 1982b: 833. (tx) Bright 1968b: 1318, 1972d: 85, 1985c: 174; Choo 1983: 112; Eggers 1929e: 43, 47; Eichhoff 1878b: 378; Fabricius 1792: 363, 1801: 354, 383; Nunberg 1952: 21, 1959a: 443, 1964: 21; Pedrosa-Macedo & Schonherr 1985: 44; Schedl 1940a: 362–363, 1951: 73, 1952e: 123, 1952k: 164, 1956b: 30, 1957a: 194, 1958f: 35; Wood, S. L. 1960a: 65, 68, 1961c: 2, 1972e: 200, 1979b: 136, 1982b: 833.

torquatus Eichhoff 1868c: 146. Lectotype ♀:

Brasil; IRSNB, Brussels, designated by Wood 1982b: 833. Synonymy: Wood 1960a: 69.

Notes: (1) This variant was treated as a species by Schedl; it once might have formed a clearly defined geographical race, but the limits have been virtually obliterated by movement through commerce and consequent hybridization; while some populations are clearly distinguishable, many intergrade totally.

References: (bv) Schedl 1960f: 100; Schedl, W. 1962: 368. (cn) Anonymous 1892: 164–165, 1970c: 14; Bondar 1922: 1–113; Box 1953, 1953a; Cachan 1957: 5, 15, 42–53; Costa Lima 1956; Flutier 1960; Frappa 1933b: 179–181; Fröhlich & Rodewald 1969: 99; Mayne 1917: 7, 27; Miller, N. C. E. 1941: 10; Morstatt 1937: 26; Veitch 1923: 1–30; Webb & Jones 1957: 25–42; Yunus & Hua 1980: 231. (ce) Banerjee 1983; Schedl 1958d: 189, 1962j: 404; Schimitschek 1964c: 178; Scott & DuToit 1970; Scott & van der Walt 1970; van der Walt & Scott 1971a. (hb) Browne 1961c: 144, 1963c: 245; Costa Lima 1956; Kalshoven 1963; Miller, N. C. E. 1941; Pollet 1977; Roberts 1977a: 264; Schedl 1962j: 404. (ds) Alluaud 1900: 238–242; Alvarenga 1962: 24; Anonymous 1970c: 14; Baer 1886: 147; Beaver 1976b: 542; Beeson 1935a, 1935b: 114, 1938b: 295, 1940: 200, 1941: 393; Blackwelder 1947: 779–780; Blandford 1898b: 196, 210–217; Brader 1964: 4; Brenier & Dubois 1965: 20, 84; Brimblecombe 1953: 36; Browne 1948: 892, 1961a, 1961b, 1961c: 144, 1963a: 245, 1974a: 65, 1975a: 760, 1975b: 395; Cleare 1924: 65–68, 1938: 237–245; Cola 1971, 1973; Costa Lima 1936: 359, 1956: 292; Dumbleton 1954: 28, 157; Ferreira 1965: 1126; Ferrer 1942; Fisher, Thompson, & Webb 1954: 3; Frappa 1933b; Froggatt 1936: 18; Gemminger & Harold 1872: 2686; Ghesquiere 1933a: 31–35, 1933b: 781–785; Hagedorn 1910d: 99, 112, 1913: 256; Jones, Roberts, & Webb 1959: 13; Kalshoven 1963: 236; Kirsch 1875: 284; Kleine 1912a: 162, 1913b: 163, 1914b: 301, 327, 337, 344, 354, 371–372, 378–379, 1928: 306, 1934a: 175; Kolbe 1910: 40; LePelley 1968: 146; Lepesme et al. 1948: 647; Lever 1943a: 82; Mayne & Donis 1951: 334; Menier 1973a; Murayama 1929b: 1–13, 1930b: 23–37, 1936a: 148, 1937b: 375, 1950d: 101, 1950e: 15–21, 1951c: 4–6, 1952b: 167–171, 1953a: 17–32, 1953c: 156, 1954b: 203, 210, 1961a: 98, 109; Nobuchi 1967: 23–24, 1978a: 41, 1979a: 407; Nonveiller 1984: 42; Nunberg 1956: 144; Pollet 1977; Roba 1935: 340; Roberts 1969: 133–134, 1977a: 264; Roonwal 1954: 87; Sampson 1914: 357; Schedl 1934f: 1645, 1938d: 451, 1938g: 427, 1938h: 462–463, 1939e: 332, 1939g: 170, 1941d: 380, 1941f: 114, 1942a: 170, 1942d: 7, 1943d: 70, 1950d: 9–15, 1950e: 211, 1950g: 893–895,

- 1951e: 39, 1951g: 1103, 1952g: 53, 1952j: 5, 1953c: 291, 1953g: 242, 1954d: 871, 1954e: 47-73, 1955c: 31, 1955f: 259, 1957a: 194, 1957b: 151, 1957c: 325, 1957d: 15-16, 102, 1958d: 189, 196, 1959a: 504, 1959p: 21, 1960a: 75, 1960f: 39, 1961c: 71, 1961d: 177, 1961j: 349, 1962b: 184, 1962h: 61, 65, 1962j: 404, 1962k: 1104-1105, 1962m: 62, 1962p: 209, 1963a: 32, 1963c: 160, 1963f: 63, 1963h: 267, 1963i: 482, 1964e: 69, 1964f: 618, 1964i: 248-249, 1965e: 356, 1965g: 21, 1966a: 276, 1966b: 73, 1966c: 229, 1966f: 76, 79, 1966g: 29-37, 1967d: 4, 1967e: 219, 1969d: 4-12, 1969h: 105, 1970d: 234, 1970e: 85, 1970h: 180, 1971e: 5, 1971f: 149, 1971g: 194, 1972e: 284, 1972g: 38, 1972k: 296, 1973a: 368, 1973d: 159, 1974e: 52, 1975h: 350-351, 1975k: 278, 1976a: 55, 1977b: 181, 1977d: 279, 1977e: 43, 1978c: 293, 1979b: 416, 1982: 279; Schimitschek 1964: 178; Schonherr & Pedrosa-Macedo 1981: 57; Schreiner 1882: 248; Tymchak 1977: 10; Wichmann 1954: 517-521; Wolcott 1936: 318, 1948: 382-383; Yunus & Hua 1980: 231. **(tx)** Beaver 1976: 28; Beeson 1930: 47-96, 1935a: 114, 1935b, 1940; Blandford 1894d: 55, 103, 116, 1896a: 20, 1896f: 243, 1898b: 196, 210-217; Costa Lima 1956: 292; Eggers 1924: 111, 1925: 154, 1927a: 195-196, 1927b: 406, 1933b: 3, 34, 1939c: 114, 1940a: 108, 1940c: 238, 1943a: 385, 1943c: 66; Eichhoff 1868c: 146, 1878b: 374-380, 482-483; Hagedorn 1910a: 152, 157; Hopkins 1915b: 65; Kirsch 1875: 284; Nobuchi 1978a: pl. 4, 1983: 304; Numberg 1960: 294, 1962: 224, 1963b: 19-21, 1968: 272-273; Sampson 1914: 387; Schaufuss 1891: 27, 1897: 210; Schedl 1931c: 347, 1936d: 4, 1940a: 363-364, 1948d: 37, 1948f: 261, 1948g: 26, 1948h: 577-578, 1950c: 205, 1950f: 35, 40-41, 1950i: 147, 1951h: 285-286, 1951m: 74, 1952a: 444-445, 1952e: 123, 1952h: 71-72, 1953d: 70, 1955b: 278, 1958c: 1, 1962j: 404, 1977b: 181; Strohmeier 1911: 17, 25; Wood, S. L. 1960a: 68-69; Wylie & Yule 1977.
- alternans* Eichhoff 1869: 280. Syntypes ♀; Santo Domingo; those in Hamburg Museum were lost, 1 is in IRSNB, Brussels. Synonymy: Eggers 1929c: 43.
Notes: (1) This variant is *volvulus* (s. str.).
References: **(ds)** Gemminger & Harold 1872: 2685; Hagedorn 1910d: 98; Kleine 1913b: 160, 1914b: 379; Pedrosa-Macedo & Schonherr 1985: 24. **(tx)** Eggers 1929c: 43; Eichhoff 1869a: 280, 1878b: 368; Hagedorn 1910a: 152; Pedrosa-Macedo & Schonherr 1985: 24; Schedl 1931c: 346, 1940a: 363, 1951m: 73; Wood, S. L. 1960: 68.
- badius* Eichhoff 1869a: 280. Syntypes ♀; St. Mauritius; Hamburg Museum, lost. Synonymy: Wood 1960a: 69.
References: **(cn)** Anonymous 1953j: 25; Cleare 1938: 237-245, 1939: 85-88; Fisher, Thompson, & Webb 1953; Chesquiere 1933a; Mathur & Singh 1960a: 9; Mayne & Donis 1951: 334; Murayama 1954: 19; Roonwal 1954: 87; Shiraki 1952. **(cc)** Anonymous 1953j: 25; Mayne & Donis 1951: 334. **(hb)** Thompson, G. H. 1963:&0. **(ds)** Beeson 1940: 200, 1961: 303; Blackwelder 1947: 779; Blandford 1894c:579, 1896f: 243; Bright 1985c: 174; Browne 1949b; Cho 1957, 1963; Fairmaire 1892b; Froggatt 1936; Gemminger & Harold 1872: 2685; Chesquiere 1933a; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 260, 301, 315, 326, 378, 1934a: 172; Ko 1969: 284; Kolbe 1910: 40; Mathur & Singh 1960a: 9; Mayne & Donis 1960: 104, 1962: 315; Murayama 1929b: 2, 1930b: 22, 1931a: 48, 1936b: 114, 1937b: 375, 1949a: 102, 1951a: 4, 1952b: 167, 1954a: 19, 1955: 99; Numberg 1960a: 294, 1962: 224; Roonwal 1954: 87; Schedl 1938d: 451, 1938g: 427; Shiraki 1952; Thompson, G. H. 1963: 70. **(tx)** Blandford 1894d: 116; Bright 1985c: 174; Browne 1949b; Eggers 1927a: 195-196, 1940a: 108, 1940c: 238; Eichhoff 1869a: 280, 1878b: 379; Fairmaire 1892b; Hagedorn 1910a: 152, 1913b; Murayama 1930b: 22-26, 31, 1931a: 48-49, 1934c: 299, 1937b: 375, 1952b: 167, 1955: 99; Numberg 1956a: 144, 1963b: 19, pl. 7; Schaufuss 1897a: 210; Schedl 1931c: 346, 1938d: 451, 1938g: 427, 1939e: 332, 355, 1939g: 170, 1939j: 565, 1941d: 380, 1942a: 170, 1942d: 7, 1950c: 205, 1950d: 9, 13, 15, 1950e: 211, 1950g: 895, 1951e: 39, 1951g: 1103, 1952e: 123, 1952g: 52-53, 1952j: 4-5, 1953c: 291, 1953d: 70, 1953g: 242, 1954d: 871, 1954e: 47, 51, 1955b: 278, 1955c: 31, 1955d: 268-271, 1955f: 259, 1957b: 151, 1957c: 325, 1957d: 15, 1958c: 1, 1962j: 404, 1966f: 76, 1979c: 32; Wood, S. L. 1960a: 69.
- interstitialis* Eichhoff 1878b: 375. Syntypes ♀; Mexico; Hamburg Museum, lost. Synonymy: Wood 1982b: 833.
References: **(ds)** Blackwelder 1947: 780; Blandford 1898b; Ferrer 1942; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 354. **(tx)** Blandford 1898b; Eichhoff 1878b: 375; Hagedorn 1910a: 154; Schedl 1940a: 361; Wood, S. L. 1982b: 833.
- guanaguatensis* Duges 1887: 141. Holotype ♀, Mexico, lost, Neotype ♀, America ligno Dom v. Rohr [presumably Cuba], UZMC, Copenhagen, designated by Wood 1983a: 650. Synonymy: Objective synonym of *volvulus*, Wood 1983a: 650.
References: **(ds)** Blackwelder 1947: 778; Blandford 1898b; Ferrer 1942; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 354. **(tx)** Blandford 1898b; Duges 1887: 140-141; Hagedorn 1910a: 154; Hopkins 1914: 116; Schedl 1940a: 361; Wood, S. L. 1983a: 650.

- hubbardi* Hopkins 1915b: 62, 65. Holotype ♀; Biscayne Bay, Florida; USNM, Washington. Synonymy: Schedl 1952k: 164. Notes: (1) This variant is *volvulus* (s. str.). References: (ds) Blatchley & Leng 1916: 619; Leng 1920: 342. (tx) Blatchley & Leng 1916: 619; Hopkins 1915b: 62, 65; Schedl 1952k: 164.
- schwartzii* Hopkins 1915b: 62, 65. Holotype ♀; Key West, Florida; USNM, Washington. Synonymy: Bright 1968b: 1318. Notes: (1) This variant is *volvulus* (s. str.). References: (hb) Chamberlin 1939: 453. (ds) Blatchley & Leng 1916: 620; Chamberlin 1939: 453; Leng 1920: 342. (tx) Blatchley & Leng 1916: 620; Bright 1968b: 1318; Chamberlin 1939: 453; Hopkins 1915b: 62, 65; Schedl 1948f: 277, 1963j: 481.
- rileyi* Hopkins 1915b: 65. Holotype ♀; Capron, Florida; USNM, Washington. Synonymy: Bright 1968b: 1318. Notes: (1) This variant is *volvulus* (s. str.). References: (hb) Chamberlin 1939: 452. (ds) Bright 1955c: 174; Chamberlin 1939: 452; Leng 1920: 342. (tx) Bright 1968b: 1318, 1955e: 174; Chamberlin 1939: 452; Hopkins 1915b: 65.
- grenadensis* Hopkins 1915b: 61, 65. Holotype ♀; Grenada, West Indies; USNM, Washington. Synonymy: Wood 1972e: 200. Notes: (1) This variant is *volvulus* (s. str.). References: (cn) Dinther 1961; Fisher 1920: 1–134; Snyder 1927: 13; Strong 1921: 331–335. (ds) Blackwelder 1947: 779; Leng & Mutchler 1917: 220; Martorell 1945: 471–472; Wolcott 1936: 318, 1948: 383. (tx) Hopkins 1915b: 61, 65.
- silvestris* Beeson 1929: 241. Holotype ♀; Samoa; Upolu, Molololelei; BMNH, London. Synonymy: Wood 1989: 177. Notes: (1) This variant is *torquatus*. References: (cn) Mathur & Singh 1961a: 66. (ds) Beeson 1935b: 294; Mathur & Singh 1961a: 66; Pedrosa-Macedo & Schonherr 1955: 39. (tx) Beaver 1976b: 542; Beeson 1929: 241; Pedrosa-Macedo & Schonherr 1955: 39; Schedl 1951k: 139, 1955b: 285; Wood, S. L. 1989: 177.
- vagabundus* Schedl 1948f: 277. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 200. Notes: (1) This variant is *volvulus* (s. str.). References: (tx) Schedl 1948f: 277, 1952e: 123, 1979c: 263; Wood, S. L. 1972e: 200.
- granularis* Schedl 1950g: 89S. Lectotype ♀; Brisbane, Australia ex imported Borneo Cedar; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177. Notes: (1) This variant is *torquatus*. References: (tx) Browne 1965: 253; Nobuchi 1983: 302; Schedl 1950g: 89S, 1979c: 110; Wood, S. L. 1989: 177.
- vulcanus* Perkins 1900: 179. Holotype ♂; Hawaii: Kilauea; BMNH, London. Figures: Samuelson 1951: 60. Distribution: Hawaiian Islands (Hawaii, Kauai, Lanai, Maui, Oahu). Hosts: *Acacia koa*, *Elacocarpus bifidus*, *Pelea* sp. References: (cn) Seynour 1966a. (hb) Beaver 1976a: 28. (ds) Baker, W. L. 1972: 271; Beaver 1976a: 28; Beeson 1935b: 294; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 302; Samuelson 1951: 90; Schedl 1963c: 160; Wood, S. L. 1960a: 51. (tx) Hagedorn 1910a: 157; Perkins 1900: 179; Samuelson 1951: 60, 90; Wood, S. L. 1960: 51, 1966b: 32.
- truncatus* Sharp 1885: 192. Holotype ♀; Oahu; BMNH, London, preoccupied by Erichson 1842. Synonymy: Wood 1966b: 32. References: (ds) Beeson 1935b: 294; Hagedorn 1910d: 112; Kleine 1914b: 302; Swezey 1941: 122, 1954: 14. (tx) Hagedorn 1910a: 157; Nunberg 1959a: 432; Perkins 1900: 175; Schedl 1941f: 112, 1958k: 152; Sharp 1892: 192; Wood, S. L. 1966b: 32; Zondag 1977.
- adpersus* Schedl 1958k: 152. Holotype ♀; Oahu; BMNH, London, automatic. Synonymy: Wood 1966b: 32. Notes: (1) This is an unneeded replacement name. References: (tx) Schedl 1958k: 152, 1979c: 257; Wood, S. L. 1966b: 32.
- pacificus* Nunberg 1959a: 432. Holotype ♀; Oahu; BMNH, London, automatic. Synonymy: Wood 1966b: 32. Notes: (1) This is an unneeded replacement name. References: (tx) Nunberg 1959a: 432; Wood, S. L. 1966b: 32.
- wakayamensis* Nobuchi 1981d: 144. Holotype ♀; Shionomisaki, Wakayama; Nobuchi Collection, Ibaraki. Distribution: Asia (Japan). Hosts: *Castanopsis cuspidata*, *Quercus phillyraeoides*. References: (tx) Nobuchi 1981d: 144, 153.
- xanthophyllus* Schedl 1942a: 195. Lectotype ♀; Malaya; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 270. Distribution: Asia (Malaya). Hosts: *Iranium xanthophyllum*. References: (hb) Browne 1961c: 106. (tx) Schedl 1942a: 195, 1955b: 278–279, 1979c: 270.
- xylographus* (Say) 1826: 256 (*Bostrichus*). Holotype ♀, Pennsylvania [USA], lost, Neotype ♀, North Carolina [USA], CNCI, Ottawa, designated by Bright 1968b: 1313. Figures: Bright 1976d: 133, Nunberg 1959a: pl. 23, figs. 3–4. Distribution: Antilles Islands (Cuba/Guadeloupe/Puerto Rico), North America (British Columbia,

Ontario, Quebec in Canada/ Arkansas, California, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Quercus* spp., rare in other hosts.

Notes: (3) Many citations of this name published prior to Wood 1960b: 68 are to *Xyleborinus saxeseni*, a species that was thought by some workers to be the male of *xylographus* Say; some of these have the word "error" written after the citation below. Specimens from British Columbia to California were thought to be errors in labeling, but are now known to represent introductions to that area.

References: (ay) Hopkins 1894g. (bv) Kalshoven 1962a: 13; Meixner 1937: 1219; Roling & Kearby 1975b, 1977. (cn) Bremner 1907: 195; Brock 1915: 285 (error); Chamberlin 1917: 356, 1918: 377 (error), 1924; Doane et al. 1936; Ebeling 1950, 1959; Ebeling & Pence 1953: 31–32 (error); Fall & Cockerell 1907: 217; Felt 1926a: 247–248, 277, 1930a: 247–248, 278; Graham 1939b; Harrington 1881: 32; Herrick 1935: 179; Hopkins 1899: 358; Horn, Essig, & Herns 1923: 10 (error); Hubbard 1896: 318, 1897b: 24–26; Keen 1929: 56; Kowal 1949a: 13; Lintner 1896: 270; Lugger 1899: 311–314; Ormerod 1898: 270; Packard 1881: 163–166, 1890: 711; Roling & Kearby 1977; Saunders 1884: 55; Seaver 1921: 770; Skinner 1905: 248; Smith, J. B. 1900: 363; Snyder 1927: 9; Swaine 1918a: 126–127; Washburn 1903: 60, 82, 91; Weldon 1915: 285 (error), 1918: 377 (error); Wichmann 1927b: 374. (ce) Graham 1939b; Hubbard 1896: 318; Peplinski & Merrill 1974; Roling & Kearby 1977; Rumbold 1931c: 849; Skelly 1966: 902, 1968: 1541; Steinhaus 1946: 404, 1949: 92; Verrall 1943: 142; Webb 1945: 64; Wertz, Skelly, & Merrill 1971. (hb) Baker, W. L. 1972: 270; Beal & Massey 1945: 153–154; Bright 1976d: 137; Chamberlin 1939: 451–452; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Ebeling 1950; Felt 1926: 247–248, 277, 1930a: 247–248, 278; Graham 1939b; Herrick 1935: 179; Hopkins 1894g: 278; Hubbard 1897a: 426, 1897b: 24; Kalshoven 1962: 13; Keen 1929: 56; Lengerken 1954: 312; Negru & Pirvescu 1966: 149; Packard 1890: 711; Saunders 1883: 325, 1884: 55; Skinner 1905: 248; Swaine 1918a: 126–127; Wichmann 1927b: 374; Wood, S. L. 1982b: 836. (ds) Anonyms 1926c: 520; Baker, W. L. 1972: 270; Beal & Massey 1945: 153–154; Blatchley & Leng 1916: 621; Bright 1968b: 1313, 1976d: 137, 1985c: 174; Chamberlin 1925, 1939: 451–452; Chittenden 1890; Cockerell et al. 1907; Deyrup 1981: 7; Deyrup & Atkinson 1987a: 65; Dodge 1938; Dozier 1918: 374 (error); Drooz 1985: 374; Ebeling 1950, 1959; Escalera 1919; Everts 1922: 648; Felt 1926: 247–

248, 277, 1930a: 247–278; Frost 1964: 144; Gemminger & Harold 1872: 2686; Hagedorn 1910d; Hamilton 1889: 158, 1894b: 406, 1895a: 346–378; Henshaw 1885: 148; Hopkins 1893a: 136; Hoping 1922; Hubbard & Schwarz 1878a: 666; Keen 1929: 41, 56; Kirk 1969, 1970; Kleine 1913b: 163, 1934a: 176; Leng 1920: 342; Leonard 1928: 520; Melzheimer 1806: 8, 1853: 87; Negru 1966b: 403; Negru & Pirvescu 1966: 149; Negru & Rosca 1967: 141; Schedl 1959r: 43, 1961b: 184; Schwarz 1878d: 468, 666, 1886: 41, 45; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 157; Winter, T. G. 1983: 28; Wood, S. L. 1957c: 403, 1977a: 73, 1982b: 836. (tx) Balachowsky & Mesnil 1935: 28; Beal & Massey 1945: 153–154; Benoit 1985: 284; Blatchley & Leng 1916: 621; Bright 1968b: 1313, 1976d: 133, 137, 1985c: 174; Chamberlin 1939: 451–452; Dodge 1938: 13, 54; Eichhoff 1878b: 369, 1896: 608, 1910a: 157; Fitch 1857: 716–720; Everts 1922: 648; Hagedorn 1910a: 157; Hopkins 1915b: 62; Hubbard 1897b: 24–26; Jacques 1951: 353; Keen 1929: 41; LeConte 1868: 160, 1876: 359–360, 1878a: 468; Meixner 1937: 1219; Negru 1966b: 403; de Ruelle 1970: 98; Say 1826: 318; Schedl 1955: 256, 1957b: 150–151 (error), 1959r: 43 (error), 1960e: 173 (error), 1960g: 11 (error), 1963i: 63; Schedl, Lindberg, & Lindberg 1959: 25 (error); Schwarz 1886: 41–42, 45, 1889b: 149; Stresemann et al. 1989: 353; Swaine 1909: 157, 1917: 23–24, 1918a: 126–127; Wood, S. L. 1957c: 403, 1960b: 68, 1970: 98; Zimmermann 1868: 145. *inermis* Eichhoff 1868a: 401. Holotype ♀; Cuba; Hamburg Museum, lost. Synonymy: Eichhoff 1878b: 370.

References: (cn) Doane et al. 1936; Hubbard 1897b: 22. (hb) Chamberlin 1939: 451; Doane et al. 1936; Hopkins 1905a: 383; Hubbard 1897b: 20. (ds) Blackvelder 1947: 780; Blatchley & Leng 1916: 628; Chamberlin 1939: 451; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 378, 394, 1934a: 173; Leng 1920: 342; Leng & Mutchler 1917: 220; Martorell 1945: 471–472; Smith, J. B. 1910: 402; Swaine 1909: 154; Wolcott 1958: 383. (tx) Blandford 1898b: 217; Blatchley & Leng 1916: 618; Bright 1968b: 1313; Chamberlin 1939: 451; Eggers 1922c: 12–18; Eichhoff 1868a: 401, 1876: 609, 1878b: 370–372; Hagedorn 1910a: 154; Hopkins 1915b: 61, 64; Hubbard 1897b: 20–22; Nunnberg 1959a: 429; Schedl 1940a: 363, 1952d: 347, 1952k: 162–163, 1963i: 63; Swaine 1909: 154–155, 1917: 24, 1918a: 127.

canadensis Swaine 1917: 24. Lectotype ♀; Isle Perrot, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1976b: 680. Synonymy: Wood 1957c: 403.

References: (cn) Chamberlin 1924; Doane et al. 1931; Swaine 1918a: 126–127. (hb) Chamberlin 1939: 455; Doane et al. 1936; Swaine

1918a: 126–127. (**ds**) Beaulne 1956; Chamberlin 1939: 455; Kleine 1934a: 172; Leng 1920: 342. (**tx**) Bright 1967b: 680; Chamberlin 1939: 455; Hoebeke 1978; de Ruelle 1970: 114; Schedl 1951i: 51, 1955b: 297, 1962j: 498; Swaine 1917: 24, 1918a: 126–127; Wood, S. L. 1957c: 403.

xyloteroides Eggers 1939c: 120. Holotype ♀; Formosa (Kahodai); Chujo Collection.
Distribution: Asia (Taiwan).
References: (**ds**) Nobuchi 1967: 24. (**tx**) Eggers 1939c: 120–121.

xylotrupes Schedl 1962j: 311. Holotype ♀; Congo Belge; Yangambi; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Microcos pinnatifida*.
References: (**cn**) Schedl 1962j: 311. (**tx**) Schedl 1962j: 311, 1979c: 270.

Genus *Taurodemus* Wood

TAURODEMUS WOOD 1980c: 96. Type-species: *Xyleborus sharpi* Blandford, original designation.
Keys: Wood 1982b: 778 for North and Central America.
References: (**hb**) Wood, S. L. 1986a: 83. (**ds**) Wood, S. L. 1986a: 83. (**tx**) Wood, S. L. 1980c: 96, 1986a: 83.

bicornutus (Wood) 1974a: 33 (*Xyleborus*). Holotype ♀; 17 km SE Miri, Barinas, Venezuela; Wood Collection.
Distribution: South America (Colombia/Venezuela).
Hosts: *Brownia* sp., *Hirtella trianda*, *Inga* sp., *Nectandra* sp., *Protium* sp., *Rhcedia madruno*.
References: (**tx**) Wood, S. L. 1974a: 33.

ebenus (Wood) 1971: 39 (*Xyleborus*). Holotype ♀; Guapiles, Limon Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/Panama), South America (Colombia).
Hosts: *Pouteria* sp., *Protium nervosum*, *Theobroma cacao*.
References: (**tx**) Wood, S. L. 1971: 39, 1982b: 793.

flavipes (Fabricius) 1801: 388 (*Bostrichus*). Syn-types 3 ♀; America meridionali; UZMC, Copenhagen.
Distribution: South America (Venezuela).
Hosts: *Alex imperatrix*, *Parinari excelsa*, *Protium* sp.
References: (**ds**) Blackwelder 1947: 779; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 54; Kleine 1913b: 128. (**tx**) Eggers 1929e: 42, 44, 1931c: 19, 1933g: 19–20; Fabricius 1801: 388; Hagedorn 1910a: 104; Panzer 1799: 61, no. 9.

godmani (Blandford) 1898b: 197 (*Xyleborus*). Holotype ♀; Bugaba, Chiriqui, Panama; BMNH, London.

Figures: Numberg 1959a: pl. 21, figs. 7–8.
Distribution: North America (Costa Rica/Panama).
Hosts: *Vismia* sp., etc.
References: (**ds**) Blackwelder 1947: 779; Hagedorn 1910d: 105; Kleine 1914b: 371. (**tx**) Blandford 1898b: 195–197; Hagedorn 1910a: 152; Numberg 1959a: 426; Wood, S. L. 1972c: 198.

caelebs Blandford 1898b: 198. Holotype ♂; Volcan de Chiriqui, Panama; BMNH, London.
Synonymy: Wood 1972c: 198.
References: (**ds**) Blackwelder 1947: 779; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 371. (**tx**) Blandford 1898b: 195, 198; Hagedorn 1910a: 152; Wood, S. L. 1972c: 198.

pandulus (Wood) 1974a: 34 (*Xyleborus*). Holotype ♀; Fort Clayton, Canal Zone, Panama; Wood Collection.
Distribution: North America (Costa Rica/Panama).
Hosts: *Theobroma cacao*.
References: (**tx**) Wood, S. L. 1974a: 34, 1982b: 791.

perebeae (Ferrari) 1868: 252 (*Amphicranus*). Holotype ♀; Colombia; NHMW, Wien, lost?
Figures: Terra 1987: 24.
Distribution: North America (Costa Rica/Guatemala/Panama), South America (Brazil/Colombia/Venezuela).
Hosts: *Coffea robusta*, *Crotalaria* sp., *Liriosma singularis*, *Miconia* sp., *Ochroma* sp., *Perebea integrifolia*, *Psidium guava*, *Qualca ingens*, *Theobroma cacao*.
Notes: (3) Blandford 1898b: 200 (cited in *Xyleborus*).

References: (**cc**) Wichmann 1955a: 97. (**hb**) Beaver 1976a: 25. (**ds**) Atkinson & Equihua 1986a: 421; Beaver 1976a: 25; Blackwelder 1947: 780; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 108; Kleine 1913b: 162, 1914b: 343; Schedl 1960a: 78, 1966f: 89, 1972g: 45, 1973d: 158; Terra 1987: 22; Wichmann 1955a: 97. (**tx**) Blandford 1898b: 200; Eggers 1929c: 44, 1933g: 20; Eichhoff 1878b: 470; Ferrari 1868: 252–253; Hagedorn 1910a: 155; Nordlinger 1868: 276; Terra 1987: 24; Wood, S. L. 1982b: 789–790.

ruber (Eichhoff) 1868c: 145 (*Xyleborus*). Holotype ♀; Brasil int. [America meridionalis (Brasilia interior) in Eichhoff 1878b: 344]; Hamburg Museum, lost.
Distribution: South America (Brazil).
Notes: (3) This could be a senior synonym of *splendidus* Schauffuss.

References: (**ds**) Blackwelder 1947: 780; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 110; Kleine 1914b: 337. (**tx**) Eichhoff 1868c: 145, 1878b: 344; Hagedorn 1910a: 156.

salvini (Blandford) 1898b: 200 (*Xyleborus*). Lectotype ♀; Volcan de Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 790.
Figures: Lara & Schenfelt 1965: 172, 176.

- Distribution: North America (Costa Rica/ Panama).
Hosts: *Conostegia oerstediana*, etc.
References: (**hb**) Lara & Shenefelt 1965: 171, 173. (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 110; Kleine 1914b: 371. (**tx**) Blandford 1898b: 200; Hagedorn 1905a: 415, 1910a: 156; Lara & Shenefelt 1965: 172–173, 176; Wood, S. L. 1982b: 790.
- sanguinicollis** (**Blandford**) 1898b: 198 (*Xyleborus*). Holotype ♀; Bugaba, Chiriqui, Panama; BMNH, London.
Distribution: North America (Pacific slope of Costa Rica/ Panama).
Hosts: *Vismia* sp., etc.
References: (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 110; Kleine 1914b: 371. (**tx**) Blandford 1898b: 195, 198–199; Hagedorn 1910a: 156; Wood, S. L. 1982b: 793.
- sharpi** (**Blandford**) 1898b: 199 (*Xyleborus*). Lectotype ♀; Paraiso [Canal Zone, Panama]; BMNH, London, designated by Wood 1982b: 792.
Figures: Atkinson & Aquihua 1988: 103, Blandford 1898b: pl. 7, Lara & Shenefelt 1965: 172, 176. Notes: (1) Blandford 1898b: 199 recorded this type from Paraiso, Guatemala; this error should be corrected to Paraiso, Panama. Wood 1982b: 792 (subspecies established).
References: (**ds**) Atkinson & Equihua 1986a: 421, 1988: 102; Blackwelder 1947: 780; Ferrer 1942; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 354, 371; Lara & Shenefelt 1965: 171, 173. (**tx**) Atkinson & Equihua 1988: 103; Blandford 1898b: 199–200; Hagedorn 1910a: 156; Lara & Shenefelt 1965: 172, 176; Schedl 1940a: 361; Wood, S. L. 1982b: 792.
- sharpi sharpi**:
Distribution: North America (Atlantic slope in Costa Rica/ Panama).
Hosts: *Terminalia* sp., *Theobroma cacao*.
Notes: Wood 1982b: 792 (subspecies established).
References: (**tx**) Blandford 1898b: 199; Wood, S. L. 1982b: 792.
- sharpi lenis** Wood 1974a: 35. Holotype ♀; 29 km E Coatzacoalcos, Veracruz, Mexico; Wood Collection.
Distribution: North America (Chiapas, Oaxaca, Veracruz in Mexico).
Hosts: Tree limbs.
References: (**tx**) Wood, S. L. 1974a: 35, 1982b: 792.
- splendidus** (**Schaufuss**) 1897: 111 (*Xyleborus*). Holotype ♀; Amazonas; Hamburg Museum, lost. Distribution: Antilles Islands (Trinidad), South America (Brazil/ Cayenne/ Venezuela).
Hosts: *Brownia* sp., *Gutteria* sp., *Ocotea guianensis*, *Parinari excelsa*, *Pouteria* sp., *Pseudoolmedia laevigata*, *Theobroma cacao*.
Notes: (3) This could be a junior synonym of *ruber*; more research is needed.
- References: (**hb**) Beaver 1976a: 27. (**ds**) Beaver 1976a: 27; Blackwelder 1947: 780; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 337; Nunberg 1976a: 27. (**tx**) Anderson, W. H. & Anderson 1971: 31; Eggers 1929e: 49, 1933b: 2; Hagedorn 1910a: 156; Nunberg 1959a: 440; Schaufuss 1897b: 111.
- camopinus** Hagedorn 1903b: 549 (*Xyleborus*). Syntypes ♀; Camopi Guyanae; Hamburg Museum, lost. Synonymy: Eggers 1929e: 49.
References: (**ds**) Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 339. (**tx**) Eggers 1929e: 49, 1933b: 2; Hagedorn 1903b: 549, 1910a: 152.
- varians** (**Fabricius**) 1801: 386 (*Bostrichus*). Syntypes 5 ♀; published as *America meridionali*, types labeled Essequibo [Guyana]; UZMC, Copenhagen.
Figures: Nunberg 1959a: pl. 30, figs. 3–4.
Distribution: Antilles Islands (Trinidad), South America (Brazil/ Cayenne/ Guyana/ Suriname/ Venezuela).
Hosts: *Paritricia excelsa*, *Pseudoolmedia laevigata*, *Theobroma cacao*.
References: (**hb**) Beaver 1976a: 27. (**ds**) Beaver 1976a: 27; Blackwelder 1947: 780; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 62; Kleine 1913b: 128; Schedl 1967d: 4, 1971f: 150. (**tx**) Eggers 1929e: 42, 44, 1933b: 2; Fabricius 1801: 386; Ferrari 1867a: 47; Hagedorn 1910a: 106; Nunberg 1959a: 443.
- serratus** Fabricius 1801: 388 (*Bostrichus*). Syntypes 2 ♂; *America meridionali*, types labeled Essequibo [Guyana]; UZMC, Copenhagen. Synonymy: Eggers 1929e: 42.
References: (**ds**) Gemminger & Harold 1872: 2691; Hagedorn 1910d: 58; Kleine 1913b: 128. (**tx**) Eggers 1929e: 42; Fabricius 1801: 388; Hagedorn 1910a: 105.
- mididentatus** Fabricius 1801: 386 (*Bostrichus*). Syntypes 3 ♀; published as *America meridionali*, types labeled Essequibo [Guyana]; UZMC, Copenhagen. Synonymy: Eggers 1929e: 42.
References: (**tx**) Eggers 1929e: 42; Fabricius 1801: 386.
- insignis** Eichhoff 1869a: 282 (*Xyleborus*). Holotype ♀; Cayenne; IRSNB, Brussels. Synonymy: Eggers 1933b: 2.
References: (**ds**) Gemminger & Harold 1872: 2686; Hagedorn 1903b: 546, 1910d: 106; Kleine 1913b: 161, 1914b: 339. (**tx**) Eggers 1929e: 44, 1933b: 2; Eichhoff 1869a: 282, 1878b: 341; Hagedorn 1903b: 546, 1910a: 152; Nunberg 1959a: 443; Schaufuss 1897b: 112.
- perversus** Hagedorn 1905a: 414 (*Xyleborus*). Holotype ♂; Guiana; MNHN, Paris. Synonymy: Beeson note written in his reprint while at MNHN, Paris, prior to 1950.
Notes: Beeson saw the type and wrote a note

of synonymy in his reprint in Wood Reprint Collection.

References: (ds) Hagedorn 1910d: 108; Kleine 1913b: 162, 1914b: 339. (tx) Eggers 1929e: 44, 1933b: 3; Hagedorn 1905a: 414, 1910a: 152.

varulus (Wood) 1974a: 35 (*Xyleborus*). Holotype ♀; 13 km SW El Vigía, Mérida, Venezuela; Wood Collection.

Distribution: South America (Colombia/Venezuela). Hosts: *Inga* sp., *Protium nervosum*.

References: (tx) Wood, S. L. 1974a: 35.

Genus *Xylosandrus* Reitter

XYLOSANDRUS REITTER 1913a: 80, 83. Type-species: *Xyleborus morigerus* Blandford, monobasic.

Apoxyborus Wood 1980c: 90. Type-species: *Xyleborus mancus* Blandford, original designation. Synonymy: Wood 1984b: 229.

References: (tx) Wood, S. L. 1980c: 90, 1984b: 229.

Keys: Wood 1982b: 765 for North and Central America.

References: (ay) Francke-Grosmann 1957: 139–144; Nobuchi 1969a: 63. (hb) Browne 1961c: 165; Wolfenbarger 1948: 260, 1958: 1–51; Wood, S. L. 1982b: 764, 1986a: 83. (ds) Schedl 1966b: 77; Scheerpeltz & Winkler 1930: 257; Wood, S. L. 1982b: 764, 1986a: 83. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1949: 219; Bright 1968b: 1292; Browne 1963c: 54; Choo 1983: 97; Choo, Woo, & Nobuchi 1988b; Nobuchi 1981e; Reitter 1913a: 80, 83–84; Schedl 1977b: 219; Wood, S. L. 1982b: 764, 1986a: 83.

abruptoides (Schedl) 1955b: 298 (*Xyleborus*). Holotype ♀; Fiji: Viti Levu, Navai Mill, near Nandarivatu; BPBM, Honolulu.

Distribution: Fiji Islands.

Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).

References: (tx) Browne 1963c: 55; Schedl 1955b: 284, 298, 1959c: 8.

abruptulus (Schedl) 1953f: 81 (*Xyleborus*). Lectotype ♀; Wongabel, Australia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 9.

Distribution: Australia (Queensland).

Hosts: *Loranthus* sp.

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: (cn) Browne 1965b: 720. (hb) Browne 1968b: 720. (ds) Brimblecombe 1953: 27; Browne 1968: 720. (tx) Schedl 1953f: 81, 1964k: 213, 1979c: 9.

adherescens Schedl 1971c: 375. Holotype ♀; Hui (?), Chuo Chan [Tonkin]; Schedl Collection in NHMW, Wien.

Distribution: Asia (Tonkin Island in Vietnam).

References: (tx) Schedl 1971c: 375–376, 1979c: 12.

arquatus (Sampson) 1912: 246 (*Xyleborus*). Holotype ♀; BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: *Cinnamomum* spp., *Symplocos loha*.

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: (cn) Hutson 1937: 22–28; Rutherford 1914: 463–468; Speyer 1923: 17. (ds) Beeson 1930: 227; Bhasin, Roonwal, & Singh 1958; Kleine 1913b: 160, 1914b: 274, 1934a: 172; Schedl 1959a: 494. (tx) Beeson 1930: 227; Sampson 1912: 246; Schedl 1934d: 88, 1959a: 494, 1964k: 213, 1979c: 26.

assequens Schedl 1971c: 376. Holotype ♀; Malaya, Kelantan, Bukit Kabong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Xanthophyllum* sp.

References: (ds) Schedl 1971c: 366, 376.

ater (Eggers) 1923a: 210 (*Xyleborus*). Holotype ♀; Batoe Insel (Tanah Masa); Natura Artis Magistra, Amsterdam (Kalshoven 1960d: 63 gives RNH, Leiden).

Figures: Nunberg 1978: 109.

Distribution: Asia (Fujian in China/ Malaya), Indonesia (Batoe Island, Borneo).

Hosts: *Adenanthera pavonina*, *Artocarpus* sp., *Cinnamomum* sp., *Dehaasia cuneata*, *Dryobalanops oblongifolia*, *Grewia latifolia*, *Palaquium stellatum*, *Pometia pinnata*, *Shorea bracteolata*, *S. leprosula*, *S. sumatrana*, *Swietenia macrophylla*, *Vitex pubescens*.

References: (hb) Browne 1961c: 110. (ds) Browne 1961c: 110. (tx) Eggers 1923a: 210; Kalshoven 1960d: 63–64; Nunberg 1978: 108–109; Schedl 1960e: 172, 1972q: 258.

retusifornis Schedl 1936j: 31 (*Xyleborus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177.

References: (ds) Schedl 1936j: 31. (tx) Schedl 1962p: 207–208, 1972q: 258, 1979c: 211; Wood, S. L. 1989: 177.

borealis Nobuchi 1981e: 34. Holotype ♀; Honshu, Kyushu (Japan); Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1981e: figs 11–12.

Distribution: Asia (Japan/ Korea).

Hosts: *Camellia sasangua*, *Styrax obassia*.

References: (ds) Choo 1983: 97; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1983: 172; Nobuchi 1985c: 22. (tx) Choo 1983: 97; Nobuchi 1981e: 34, figs. 11–12.

brevis (Eichhoff) 1877a: 121 (*Xyleborus*). Syntypes ♀; Nipon and Nipon insula Asiatica; IRSNB, Brussels (?).

Figures: Nakane et al. 1963: pl. 192. Nobuchi 1981e: figs. 1–4.

Distribution: Asia (Xizang [Tibet] in China/ Japan/ Korea/ Taiwan/ Thailand).

Hosts: *Berberis* sp., *Camellia japonica*, *C. sasangua*, *Cinnamomum japonicum*, *Diospyros kaki*, *Grevillia* sp., *Hamamelis* sp., *Lindera* spp., *Machilus thunbergii*, *Maesa tenera*, *Meliosoma cuneifolia*, *Parabenzoin praecox*, *Quercus* spp., *Smilax china*, *Styrax obassia*, *Viburnum* sp., *Weigela hortensis*.

References: (cn) Anonymous 1980g; Green 1912a: 38; Mathur & Singh 1960b: 25; Murayama 1954a: 22; Shiraki 1952; Ueno 1960. (ds) Anonymous 1980g; Beaver & Browne 1975: 302; Blandford 1894c: 579; Cho 1957, 1963; Choo 1983: 97; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1983: 172, 1988a: 134; Green 1912a: 38; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 260, 1934a: 172; Ko 1969: 287; Mathur & Singh 1960b: 25; Murayama 1929b: 2, 1930b: 19, 1931a: 42, 1936a: 131, 1937b: 375, 1953a: 17, 1953c: 156, 1954a: 22, 1954b: 176, 1955: 99, 102; Nakane et al. 1963: 383; Nobuchi 1967: 20, 1981e: 29, 1985c: 22; Shiraki 1952; Yin & Huang 1981: 567; Yin, Huang, & Li 1984: 181. (tx) Blandford 1894d: 104; Browne 1965a: 205; Choo 1983: 97; Eggers 1923a: 190; Eichhoff 1877a: 121, 1878b: 319–320; Green 1912a: 38; Hagedorn 1910a: 152, 1910b; Murayama 1930b: 19–23, 1931a: 41–43, 1936a: 131, 1937b: 375, 1953a: 17, 1954b: 176, 1955: 99, 102; Nakane et al. 1963: 383; Nobuchi 1981e: figs. 1–4; Schedl 1934f: 1645; Yin & Huang 1981: 567; Yin, Huang, & Li 1984: 181.

cucullatus Blandford 1894d: 121 (*Xyleborus*).

Syntypes ♂; Kurigahara, and Konose in Higo, Japan; BMNH, London. Synonymy: Murayama 1954: 176.

References: (ds) Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 260. (tx) Blandford 1894d: 121; Hagedorn 1910a: 153; Murayama 1954: 176.

butamali (Beeson) 1930: 216 (*Xyleborus*). Syntypes 5 ♀; Bombay; Agsur, South Kanara, and Dandeli, North Kanara; FRI, Dehra Dun.

Figures: Chandra 1981: 287, Kumar & Chandra 1977: 41 (male).

Distribution: Asia (Maharashtra, Tamil Nadu in India).

Hosts: *Careya arborea*, *Dillenia pentagyna*, *Dipterocarpus indicus*, *Tectona grandis*, *Terminalia tomentosa*, *Vateria indica*.

Notes: (3) Kumar & Chandra 1977: 33 (described male).

References: (cn) Chandra 1981: 287; Mathur & Singh 1961b: 14. (cc) Chatterjee & Chatterjee 1951. (hb) Chandra 1981: 287; Chatterjee & Chatterjee 1951. (ds) Beeson 1930: 216–217; Chatterjee & Chatterjee 1951; Mathur & Singh 1961b: 14. (tx) Beeson 1930: 216–217; Chandra 1981: 287; Kumar & Chandra 1977: 33, 41; Schedl 1979c: 49.

compactus (Eichhoff) 1875: 201 (*Xyleborus*). Syntypes ♀; Japan; those in Hamburg Museum, lost, 1 in Schedl Collection in NHMW, Wien.

Figures: Lhost & Roche 1960: fig. 5, Nobuchi 1964: pl. 192, Samuelson 1981: 54, Schedl 1962j: 111.

Distribution: Africa (Cameroon/ Grande Comoro in Comoro Islands/ Equatorial Guinea/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Liberia/ Mauritania/ Nigeria/ Senegal/ Seychelles Islands/ Sierra

Leone/ South Africa/ Tanzania/ Uganda), Antilles Islands (Cuba/ Virgin Islands), Asia (Bonin Islands/ Guangdong in China/ Tamil Nadu in India/ Japan/ Malaya/ Ryukyu Islands/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam), Fiji Islands, Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, North America (Alabama, Florida, Louisiana, Mississippi, E Texas in USA), New Zealand, Philippine Islands, Reunion Island, Samoan Islands, South America (Brazil).

Hosts: Many listed by Browne 1961c: 169, Samuelson 1981: 54, Schedl 1962: 153–156. *Acalypha* sp., *Acer* sp., *Camellia sinensis*, *Cinnamomum camphora*, *Coffea arabica*, *Gossypium* sp., *Jacobina* sp., *Olea europaea*, *Persea* sp., *Quercus myrsinaefolia*, *Rhizophora* sp.

References: (ay) Entwistle 1964: 183; Murayama & Kalshoven 1962; Sekhar & Sekhar 1964; Takagi & Okitsu 1966: 5; Takenouchi & Takagi 1967: 105–110. (bv) Atkinson, Foltz, & Connor 1988; Aulmann 1911; Gopinath 1967a, 1984; Gray, B. 1974c. (cn) Alibert 1951; Anonymous 1962r, 1963p, 1964h, 1964k, 1964t, 1965d, 1965e, 1965q, 1966f, 1966j, 1966p, 1966t, 1967f, 1967i, 1967k, 1967s, 1968i, 1968n, 1968p, 1969g, 1969k, 1970h, 1970n, 1970r, 1971m, 1971u, 1971v, 1972j, 1972s, 1973e, 1973h, 1974j, 1975i, 1975s, 1975t, 1976b, 1976e, 1976e, 1976i, 1977j, 1977q, 1978d, 1979d, 1979n, 1980g, 1985, 1987; Anstead 1920: 179; Appanna 1946; Baldwin, J. G. 1977: 10; Ballard 1921; Barrett 1966: 88–89; Beardsley 1964; Beaver 1988a: 67; Bhat 1987; Bouriquet 1963: 130–131; Brader 1964: 109, 1965: 32; Browne 1968: 720; Chevalier 1931; Chobant 1897: 262; Corbett & Cater 1926: 22; Cramham 1963, 1964, 1966a, 1966b, 1966c; Davis 1966: 125; Dixon & Woodruff 1982; Drooz 1985: 375; Eden 1958, 1965; Entwistle 1960a, 1960b, 1962; Esser 1965: 3; Frappa 1929; Frohlich & Rodewald 1969: 99; Green 1912a: 39; Hall 1912: 741, 1913: 251–259; Hill, D. S. 1983: 496; Hofacker, Loomis, & Tucker 1984: 30; Jepson 1923: 19–21; Kaji 1964: 331; Kaneko 1965: 211–216, 1966: 5, 1967: 19–21; Kim 1965: 24; LePelley 1968: 138, 1973; Lever 1940a: 38–42; Lodos 1969; Low Chong Moi 1975; MacGowan 1973a: 3, 1979a, 1979b; Mangold, Wilkinson, & Short 1977; Mathur & Singh 1960a: 16, 1961a: 13; Mead 1965, 1966b: 8, 1967a: 7, 1967b: 4, 1969: 4, 1970b: 3, 1971: 3, 1972b: 3, 1973a: 3, 1978: 3, 1979a: 4, 1979b: 6; Miller, J. W. 1974: 6; Morstatt 1911b: 384; Nelson, R. E. & Davis 1972; Newton, A. P. 1960; Pierce, J. R., Srago, & Fujii 1977: 15; Pierce, J. R., Wood, & Fujii 1977: 16; Radhakrishnan, Ramaiah, & Bhat 1987; Ramachandra 1928: 1–30; Ramesh 1987; Reydon 1933: 172; Rutherford 1914a, 1914b, 1914c: 131–132; Sakhar, Suseela, & Sakhar 1965: 71–75; Seal 1964; Seymour 1966a, 1966b; Sivarami 1980: 58; Speyer 1916: 250, 1918, 1919, 1923: 16–17, 22;

- Stokes 1975b, 1975c; Szent-Ivany 1963: 42, 1964: 89; Strohmeier 1910f: 188; Takenouchi & Takagi 1967: 105–110; Taylor, W. E. 1973: 57; Thiruganasantharam & Calnaido 1968, 1969; Vazquez & Monteagudo 1988; Venkataramaiah & Sekhar 1964: 208–210; Visser 1961; Wilde, Brader, & Ticheler 1964: 550–552; Wood, S. L. 1977a: 74; Wurth 1910: 105. **(cc)** Anonymous 1987; Appanna 1946; Arx & Hemebert 1965; Betrem 1935a, 1953; Bhat & Sreedharan 1988; Brader 1964b; Browne 1958b; Gopinath 1970, 1972, 1984; Hara & Beardsley 1979; Kalshoven 1960b: 260; Kaneko 1967; Kaneko & Takagi 1966b; Kaneko, Tamiaki, & Takagi 1965, 1965a; Kashiwa & Bega 1973; LePelley 1968: 138; Mulder 1960: 167; Ngoan et al. 1976; Norris 1979; Sharples 1936: 384; Steinmann 1925: 143; Thompson, W. R. 1943: 117; Vinodkumar, Balakrishnan, & Govindarajan 1986. **(hb)** Alibert 1951; Anonymous 1987; Anstead 1920; Appanna 1946; Atkinson, Foltz, & Connor 1988; Auhmann 1911; Beaver 1976b: 543, 1988a: 67; Beaver & Browne 1978: 614; Blandford 1894b; Browne 1958b, 1963a: 246, 1968b: 720; Cranham 1963, 1966b, 1966c; Deyrup & Atkinson 1987a: 66; Dixon & Woodruff 1982; Eden 1958, 1965; Entwistle 1964; Fröhlich & Rodewald 1969: 99; Gopinath 1967a, 1984; Gray, B. 1974c; Hagedorn 1913a; Hamilton, W. D. 1967; Hara & Beardsley 1979; Hill, D. S. 1983: 496, 1987: 339; Kalshoven 1951: 850, 1959a: 224, 1959c: 162, 1961b, 1962: 17; Kaneko 1967; Kaneko & Takagi 1965: 23–28, 1966a: 1–20, 1966b: 173–176; Kaneko, Tamadi, & Takagi 1965a, 1965b: 23–28; Kleine 1932a: 306; LePelley 1968: 138; Ngoan et al. 1976; Pollet 1977; Roberts 1969: 134; Schedl 1977b: 219; Speyer 1923: 16; Takagi & Kaneko 1965a; Wood, S. L. 1982b: 768. **(ds)** Anonymous 1962r, 1963p, 1964h, 1964k, 1965d, 1965e, 1966f, 1966j, 1966p, 1966t, 1967f, 1967i, 1967k, 1967s, 1968i, 1968n, 1968p, 1968q, 1969g, 1969k, 1970h, 1970r, 1972j, 1972s, 1973e, 1973h, 1975i, 1975s, 1975t, 1976b, 1976c, 1976e, 1976i, 1977j, 1977q, 1978d, 1979d, 1979n, 1980g; Anstead 1920; Atkinson et al. 1991: 161; Ballard 1921; Beardsley 1965; Beaver 1976b: 543, 1988a: 67, 1990a: 280; Beaver & Browne 1978: 614; Beeson 1930: 250, 1938b; Bhasin, Roonwal, & Singh 1958: 111; Blandford 1894b, 1894c; Brader 1964b; Bright 1968b: 1294, 1985c: 174; Browne 1954, 1963c: 55, 1968: 720, 1974a: 65; Chapin & Oliver 1986; Chevalier 1931; Deyrup & Atkinson 1987a: 66; Dixon & Woodruff 1982; Drooz 1985: 375; Dumbleton 1954; Ebeling 1959; Frappa 1933b; Green 1912a; Hagedorn 1910d: 100, 1912: 38–40, 1913a; Hara & Beardsley 1979; Hargreaves 1930: 16–18, 1937: 510; Hill, D. S. 1983: 496; Kalshoven 1924b: 356, 1925b: 5, 1932: 244, 1958c: 220, 244, 1959c: 162, 1961b; Kashiwa & Bega 1973; Kleine 1913b: 160, 162, 1914b: 260, 323, 1932a: 306, 1934a: 172; Kolbe 1911: 508; LePelley 1968: 138; Lepesme et al. 1948: 647; Low Chong Moi 1975; Mathur & Singh 1960a: 16, 1961a: 13; Morstatt 1913: 292; Murayama 1949c: 102, 1952a: 17–20, 1953: 156–157, 1954b: 176, 1955: 99, 1961a: 99, 1961b: 26–28; Murayama & Kalshoven 1962: 447–450; Nobuchi 1981c: 29, 1985c: 22; Nobuchi & Ono 1973: 181; Pierce, J. R., Wood, & Fujii 1970: 16; Pollet 1977; Roba 1935: 340; Samuelson 1981; Schedl 1959a: 470, 495, 1962j: 153, 1967e: 215, 1969d: 7–12, 1969h: 101, 1971a: 274–276, 1971c: 366, 1971e: 1, 3, 1971g: 194, 1972c: 284, 1975h: 353, 1977b: 3219, 1979b: 416; Speyer 1916: 250; Strohmeier 1910f: 188; Vasquez & Monteagudo 1988; Wood, S. L. 1977a: 74, 1980b: 353, 1982b: 768; Yin, Hnang, & Li 1984: 169. **(tx)** Auhmann 1911; Beeson 1930; Blandford 1894b: 264, 1894c: 579, 1894d: 102, 107, 1896f: 243; Bright 1968b: 1294, 1985c: 174; Browne 1963c: 55; Eichhoff 1875: 201, 1877a: 123, 1878b: 328–329, 477; Green 1912a; Hagedorn 1910a: 153, 1912b: 36–39; Kalshoven 1959a: 1224; Murayama 1934c: 299, 1936: 149, 1952a: 20, 1954b: 176 1955: 99; Nobuchi 1964: 131, pl. 192, 1981e: figs. 8–10, 1983: 304; Numberg 1959: 434, 1969: 387; Samuelson 1977a: 219, 1981: 54; Schedl 1934f: 1646, 1939e: 330, 1942c: 163, 1942d: 4, 1950d: 18, 1950f: 39, 1953d: 70, 1954d: 872, 1954e: 54, 1959a: 495, 1977a: 219; Strohmeier 1910: 86; Wood, S. L. 1982b: 768; Yin, Huang, & Li 1984: 169. **(ms)** Radhakrishnan, Ramaiah, & Bhat 1987.
- morstatti* Hagedorn 1912: 37 (*Xyleborus*). Syn-types ♀; Anani, Deutsch-Ostafrika; Hamburg Museum, lost. Synonymy: Murayama & Kalshoven 1962: 247.
- References: **(ay)** Lhoste & Roche 1959: 76, 1960; Murayama & Kalshoven 1962. **(bv)** Betrem 1951: 281; Gopinath 1967a. **(cn)** Ahrens & Vandenput 1952; Alibert 1951: 148; Anonymous 1933c: 625, 1960, 1962g, 1962h, 1962k, 1962y, 1963j, 1963r, 1963x; Appanna 1946: 70–74, 1947: 175–176; Auhmann 1911: 430–431; Auhmann & La Baume 1912: 63–64; Bardin 1940; Begemann 1927a: 329–334, 1927b: 273, 1927c: 10; Benavides 1961: 17; Betrem 1930c, 1930d, 1930e, 1931b, 1931c, 1931d, 1931e, 1932a, 1932b, 1932d, 1932e, 1933, 1934, 1935a, 1935, 1953; Brader 1962: 111; Braudean 1960; Brown 1954: 707–710; Brunck 1966a; Chevalier 1931: 661–665; Corporaal 1920: 13, 31, 1921: 22; Decelle 1962a: 207; Donald 1960, 1966; Ebeling 1959; Entwistle 1962; Fluiter 1938: 37, 1939: 38, 1940: 12, 1960; Franssen 1935: 38–41; Frappa 1929: 15–20, 1931: 255, 1933b: 175–180; Gregory 1954; Hagedorn 1913a; Hall 1925: 1–51, 1926: 14; Henao 1958; Hill, D. S. 1983: 515; Isasca 1941: 1367–1369; Jacob 1931: 1193, 1934: 1141; Jepson 1939: 45; Kalshoven 1925b: 5, 1932: 244, 1951: 850, 1958c: 220, 244; Keuchenius 1931a: 203–204; Kleine 1932a: 306, 1934:

174; Klinkhammer 1925: 1379; Lavabre 1958: 119, 124, 1959: 21–33, 1960: 6, 1962: 5; Leefmans 1927: 28–29, 59, 1928: 294, 1928b: 924–925, 1929: 53–95, 1930: 52–90, 1933: 43–75, 1934: 49–81; Lever 1938: 17, 20, 1939: 17–20, 1940a: 38, 1945: 373, 1946: 4, 30–32; Lhoste & Roche 1959: 76–86; Magnin 1954: 468; Mathur & Singh 1960a: 6, 1960b: 58, 1961a: 79; McIntosh 1949: 46; Meiffren & Belin 1960: 150, 1961; Menzel 1929: 1–106; Merrill 1951: 41; Morstatt 1914b: 308, 1914d: 16, 1914e: 138, 1937: 23, 1941: 216; Muller 1933: 105–107; Paine 1934: 39–41, 1935: 40; Pasquier 1932: 223–253; Pierce, W. D. 1917: 64; Porteres 1959: 6–11; Ritchie 1934: 76; Schedl 1962k: 137; Schweizer 1932: 1–87, 1933: 1–100; Somasekhar 1958: 224; Souphieff & Scherbinovskaja 1935: 43–84, 1937: 103; Speyer 1923: 11–23; Subramanium 1935: 23–27, 1936: 23–25; Taylor, W. E. 1973: 57; Ultee 1928: 12, 1929: 59–60, 1930: 28, 1931a: 17, 1931b: 915, 1931c: 1100–1116, 1949: 7–88; Van der Goot 1928: 59–72, 1934: 39–69, 1935: 36–84; Venkataramaiah & Sekhar 1964: 208–210; Vincent 1961: 104; Vuillaume et al. 1981; Wyniger 1962a: 32; Yunus & Hua 1980: 230; Zeef & Leeuwenburgh 1931: 1065–1067; Zimmermann 1899: 43–44, 1901: 94–95, 1908: 328, 1908: 716. (ec) Appanna 1946; Benavides 1961: 17; Betrem 1935a, 1951: 278, 1953; Browne 1958b; Cahan 1957: 15; Decelle 1962a; Domenichini 1960; Donald 1960, 1966; Kalshoven 1960b: 260, 1960c, 1962a: 17; Lavabre 1962; Meiffren & Belin 1960: 150; Sharples 1936: 384; Thompson, W. R. 1943: 117; Vuillaume et al. 1981. (hb) Appanna 1946, 1947; Benavides 1961: 17; Betrem 1951: 278; Brader 1962; Browne 1941: 67, 1958b: 164–182, 1961c: 169–171; Dammerman 1929: 78; Donald 1960, 1966; Franklin & Roberts 1959: 10; Gerritsen 1931: 1080–1090; Chesquiere 1933a: 3, 1933b: 774; Gopinath 1967a; Greenwood 1940: 211–218; Hagedorn 1913a; Hill, D. S. 1983: 515; Jones, Roberts, & Baker 1959: 13–14; Kalshoven 1951: 850, 1959a: 224, 1959c: 162, 1960b: 259–262, 1961b: 93–110, 1962: 17; Kleine 1932a: 306; Kolbe 1911: 508; Kuneman 1931: 1077–1080; Lavabre 1962; Roepke 1909: 366; Schedl 1962j: 137; Schmidt 1939: 84–275; Sharples 1936: 384; Stadt 1931: 1073–1077; Steinmann 1931: 255–257; Webb & Jones 1957: 38, 43. (ds) Anonymous 1933c: 625, 1962g, 1962k, 1962y, 1963j, 1963r, 1963x; Beeson 1930: 249–250, 1938b: 293, 1941: 400; Bhasin, Roonwal, & Singh 1958: 61; Brown 1954; Browne 1954: 707, 1961c: 169; Chevalier 1931; Davis 1963: 197; Decelle 1962b; Dumbleton 1954: 28, 147; Ebeling 1959; Frappa 1933b; Greenwood 1930: 65; Gregory 1955: 294; Hagedorn 1913a: 43–270; Hardy, D. E. 1962; Hargreaves 1922: 20–22, 1937: 510;

Hill, D. S. 1983: 515; Kalshoven 1924b: 356, 1925b: 5–11, 1926a: 61–66, 118–120, 1926a: 629–635, 1926c: 172–178, 1932: 244, 1958a: 147–193, 1958c: 220, 244, 1959c: 147–162, 1961b, 1962a: 17; Kleine 1913b: 162, 1914b: 323, 1932a: 306, 1934a: 174; Lepesme et al. 1948: 647; Mathur & Singh 1960a: 6, 1960b: 58, 1961a: 79; Morstatt 1911: 69, 1913: 292, 1914: 139–141, 308; Muthukrishnan et al. 1958: 383; Nonveiller 1984: 41; Pierce, W. D. 1917: 64; Roba 1935: 340; Schedl 1936j: 31, 1961e: 144, 1961f: 91, 1961h: 349, 1962j: 137, 1964f: 618; Souphieff & Scherbinovskaja 1937: 103; Swezey 1945: 353; Szent-Ivany 1963: 42; Thompson, G. H. 1963: 72; Wichmann 1954: 520; Yunus & Hua 1980: 230. (tx) Beeson 1930: 249–250; Browne 1963c: 54; Eggers 1922a: 87, 1923a: 130, 1927b: 407, 1927c, 1930d: 182; Hagedorn 1912: 37–39; Kalshoven 1959a: 224–225, 1961b: 134; Lhoste & Roche 1960: fig. 5; Murayama & Kalshoven 1962: 247; Schedl 1936j: 31, 1939e: 330, 1942c: 163, 1942d: 4, 1950d: 18, 1950f: 39, 1953d: 70, 1954d: 872, 1954e: 54, 1959a: 470, 495, 1961e: 128, 144, 1962j: 111, 137, 1962k: 111.

corthyloides (Schedl) 1934d: 86 (*Xyleborus*).

Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 66.

Distribution: Indonesia (Java).

Hosts: Zingiberaceae.

Notes: (3) Schedl 1964e: 69, 1975h: 351 report this species from the Ivory Coast in Africa; the identifications should be confirmed before this record is accepted (SLW).

References: (ds) Kalshoven 1935a: 14; Schedl 1964e: 69, 1975h: 351. (tx) Schedl 1934d: 86–87, 1936h: 62, 1975d: 85, 1979c: 66.

percorthyloides Schedl 1957d: 85 (*Xyleborus*).

Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 66, automatic.

Notes: (1) This is an unneeded replacement name of *corthyloides*.

References: (hb) Kalshoven 1959c: 163. (ds) Kalshoven 1959c: 163. (tx) Browne 1962b: 50; Schedl 1957d: 85, 1958k: 149, 1979c: 188.

crassiusculus (Motschulsky) 1866: 403 (*Phloeotrogus*). Syntypes 3 ♀; published as Des Montagnes de Nura-Ellia, Ceylon, types labeled India Occidentale; IZM, Moscow.

Figures: Atkinson, Foltz, & Wilkinson 1988, Nakane et al. 1963: pl. 192. Sammelson 1981: 54, Schedl 1962j: 190, 1977b: 140.

Distribution: Africa (Cameroon/ Equatorial Guinea/ Fernando Poo/ Ghana/ Ivory Coast/ Kenya/ Mauritania/ Nigeria/ Sierra Leone/ Seychelles Islands/ Tanzania/ Zaire), Asia (Bhutan/ Bonin Islands/ Burma/ Fujian, Hong Kong,

Human, Sichuan, Xizang [Tibet] in China/ Andaman Islands, Assam, Bengal, Himachal Pradesh, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Japan/ Korea/ Malaya/ Nepal/ Sri Lanka/ Taiwan/ Vietnam), Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, Mauritian Islands, Micronesia (Palau Islands), New Caledonia, New Guinea, North America (Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas in USA), Philippine Islands, Samoan Islands.

Hosts: Many listed by Schedl 1962j: 197–205.

Albizia lebbek, *Alnus* sp., *Alstonia* sp., *Amoora* spp., *Artocarpus* spp., *Aucoumea klaineana*, *Bischofia javanica*, *Calophyllum tetrapterum*, *Canarium* sp., *Cannabris sativa*, *Castanea favanica*, *Castanopsis* spp., *Cedrela toona*, *Chloroxylon swietenia*, *Cinnamomum* sp., *Dalbergia sissoo*, *Dillenia pentagyna*, *Doonia zeylanica*, *Dipterocarpus* spp., *Elacocarpus sericeus*, *E. tetrapterum*, *E. tuberculata*, *Erythrina* spp., *Erythrophleum guineense*, *Ficus* spp., *Gliricidia maculata*, *Gluta tourtour*, *G. travancorica*, *Grevilla robusta*, *Guaera laurentii*, *Hevea brasiliensis*, *Holigarna arnottina*, *Hopea beccariana*, *H. ferrea*, *H. odorata*, *H. parviflora*, *H. wrightiana*, *Kayea floribunda*, *Khaya ivorensis*, *Lagerstroemia speciosa*, *Lannea grandis*, *Lasiococca* sp., *Leea sambucina*, *Lithocarpus wallichianus*, *Luffa* sp., *Macilus odoratissima*, *Malus pumila*, *Melanorrhoea* sp., *Murraya konigii*, *Myristica* spp., *Neodypsis baroni*, *Ongokea gore*, *Onginia dalbergioides*, *Pachytrophe dimepate*, *Phoebe lanceolata*, *Pinus khasia*, *Populus* sp., *Prunus persica*, *Pycnanthus angolensis*, *Quercus* spp., *Saccharum officinarum*, *Sageraea laurina*, *Sambucus chinensis*, *Scorodophloeus zenkeri*, *Shorea curtisii*, *S. maxwelliana*, *S. robusta*, *Sorbus alnifolia*, *Sterculia colorata*, *S. villosa*, *Styrax benzoin*, *Swietenia macrophylla*, *Swintonia specifera*, *Syzygium cumini*, *Tectona grandis*, *Terminalia* spp., *Theobroma cacao*, *Vateria indica*, *Vatica heteroptera*, *Vitex altissima*, *Wrightia tinctoria*, *Xanthophyllum affine*.

Notes: (1) Wood 1969c: 119 (types examined), 1982b: 766 (to *Xylosandrus*).

References: (bv) Choo, Woo, & Park 1988; Kovach 1986a. (cn) Anonymous 1979c, 1979i; Atkinson, Foltz, & Wilkinson 1988; Beaver 1988a: 68; Kovach 1986a; Kovach & Gorsuch 1985; Wood, S. L. 1977a: 74. (hb) Atkinson, Foltz, & Wilkinson 1988; Beaver 1988a: 68; Beaver & Browne 1978: 607; Deyrup & Atkinson 1987a: 66; Kovach 1986a; Wood, S. L. 1982b: 766; Wu, Sze-Jih Hsu, & Tou Chen 1978. (ds) Anonymous 1979c, 1979i; Atkinson, Foltz, & Wilkinson 1988; Atkinson et al. 1991: 161; Beaver 1988a: 68; Beaver & Browne 1978: 607; Chapin & Oliver 1986; Choo 1983: 98; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1983: 172, 1988a: 134; Choo, Woo, & Park 1988;

Deyrup & Atkinson 1987a: 66, 1987b: 68; Droyz 1985: 375; Gemminger & Harold 1872: 2692; Nobuchi 1985c: 22; Nobira & Ogawa 1986; Ohno, Yoneyama, & Nakazawa 1987a: 88, 1987b: 95; Ohno, Yoshioka, Uchida, Yoneyama, & Tsukamoto 1989: 61; Samuelson 1981; Schedl 1978d: 73; Wood, S. L. 1977a: 74, 1982b: 766. (tx) Anderson, D. M. 1975; Atkinson, Foltz, & Wilkinson 1988; Choo 1983: 98; Motschulsky 1866: 403; Ohno, Yoneyama, & Nakazawa 1982b: 9; Samuelson 1981: 54; Schedl 1951k: 136; Wood, S. L. 1969c: 119, 1982b: 766; Wylie & Yule 1977.

semiopacus Eichhoff 1878b: 334 (*Xyleborus*).

Syntypes ♀; Nipon insula Japonica; Hamburg Museum, lost. Synonymy: Wood 1969c: 119.

References: (ay) Browne 1961d: 49; Entwistle 1963b; Schedl, W. 1962: 375; Van Ryn-Tournel 1975. (bv) Entwistle 1963b. (cn) Anonymous 1966j, 1970n, 1980g; Box 1953a; Brader 1964: 5; Browne 1968b: 716–717; Cachan 1958: 394; Green 1911: 2–5, 1912a: 38, 1916: 608–636; Hill, D. S. 1983: 573; Kudler 1978; Mathur & Singh 1960b: 24, 1961a: 3; Roonwal 1954: 19; Speyer 1917a: 9, 1923: 18–21; Williams, L. H. & La Fage 1979. (ec) Banno, Mikata, & Kodama 1983: 445; Norris 1979; Schedl 1962j: 189. (hb) Entwistle 1963b; Hill, D. S. 1983: 573; Pollet 1977; Schedl 1962j: 189; Speyer 1923: 18. (ds) Anderson, D. M. 1974; Anonymous 1966j, 1980g; Beeson 1930: 257; Bhasin, Roonwal, & Singh 1958; Blandford 1894c: 579; Browne 1961c: 102, 1963a: 238–242, 1968: 716; Cole 1971: 65; Eggers 1941b: 222; Green 1912a: 38; Hagedorn 1910d: 110; Hill, D. S. 1983: 573, 1987: 341; Kalshoven 1924: 6–25, 1951: 851; Kleine 1913b: 162, 1914b: 260, 280, 1928: 307, 1934a: 175; Ko 1969: 286; Mathur & Singh 1960b: 24, 1961a: 3; Miwa 1931: 269; Muraleedharan & Kandasamy 1981; Murayama 1953a: 17, 1954b: 182, 204, 1961: 103; Nakane et al. 1963: 384; Nobuchi 1967: 13–14, 23, 1978a: 24; Nobuchi & Ono 1973: 182; Nonveiller 1984: 42; Nunberg 1961b: 610, 1968a: 272; Pollet 1977; Roberts 1960: 36–38; Roonwal 1954: 19; Schedl 1934f: 1646, 1959a: 496, 1960e: 173, 1962b: 185, 1962j: 189, 1964c: 305, 1964f: 618, 1965e: 355, 1966b: 69, 1966c: 228, 1966g: 30, 1967e: 219, 1969a: 208, 1969c: 54, 1969d: 8, 1970d: 234, 1971a: 279, 1971g: 193, 1973b: 211, 1973c: 379, 1975a: 451, 1975c: 383, 1975e: 451, 1975j: 294, 1977b: 141, 1979b: 416; Tynelak 1977; Yin & Huang 1981: 566. (tx) Beeson 1915: 297, 1916a: 221–223, 1923: 165, 1929: 236, 1930: 257; Blandford 1894c: 579, 1894d: 101–123, 1896b: 211, 1898a: 424; Eggers 1923a: 130, 1925: 153, 1927b: 400, 407, 1939c: 114, 1941b: 222; Eichhoff 1878b: 334; Green 1912a: 38–39; Hagedorn 1909: 733, 1910a: 96, 156, 1913: 15; Murayama 1936: 144–150, 1953a: 17, 1954b: 186; Motschulsky

- 1866: 403; Nakane et al. 1963: 384; Nobuchi 1978a: pl. 2, 1983: 303; Sampson 1914: 386; Schedl 1931c: 340, 1934f: 1646, 1935f: 271–272, 1941d: 380, 1951j: 20, 1953d: 70, 1955b: 272, 1959a: 496, 1960e: 173, 1962h: 60, 1962j: 189–190, 1962k: 1102, 1962n: 697, 1977b: 140–141; Schreiner 1882: 248; Wood, S. L. 1969c: 119; Yin & Huang 1981: 566; Yin, Huang, & Li 1984: 170.
- seuigranosus* Blandford 1896b: 211 (*Xyleborus*). Holotype ♀; Sumatra; BMNH, London. Synonymy: Schedl 1959a: 496.
- References: (ay) Gardner 1934b: 1–17. (bv) Beeson 1917. (cn) Anonymous 1953h: 31, 1953j: 25; Gadd 1943: 32–36; Holmes 1947: 3, 109; Kalshoven 1924c: 1–27, 1951: 851; Kleine 1932a: 307; Mathur, Chatterjee, & Thapa 1965: 16; Mathur & Singh 1960b: 10, 1960c: 8, 1961a: 5, 1961b: 14; Ramachandra Rao 1928: 1–30, 1936: 35–45; Roonwal 1954: 45; Roonwal, Chatterjee, & Thapa 1961b: 7; Speyer 1917a: 8–9; Stebbing 1914: 589; Webb & Jones 1957: 25–44, 1958: 383; Yunus & Hua 1980: 230. (ec) Anonymous 1953j: 25; Beeson 1923; Bhatia 1950; Browne 1958b; Cachan 1957: 43–53; Chatterjee & Chatterjee 1951; Schedl 1958d: 192; Stebbing 1914: 589. (hb) Beeson 1915b: 8–11, 1916a: 1–5, 1917, 1923, 1929: 236, 1938: 293–294; Browne 1958b: 164–182; Chatterjee & Chatterjee 1951; Jones, Roberts, & Baker 1959: 13–67; Kalshoven 1924c, 1951: 851, 1958a: 187, 1959c: 145; Kleine 1932a: 307; Schedl 1958d: 192; Stebbing 1914: 589; Thompson, C. H. 1963: 72. (ds) Beeson 1915b: 297, 1916a: 221, 1923, 1929: 236, 1930: 255–257, 1938b: 293–294, 1941: 395, 401–402; Bhasin, Roonwal, & Singh 1958: 61, 98, 111; Bhatia 1950; Blandford 1895a; Browne 1961c: 102, 1961e: 10, 13; Chatterjee & Chatterjee 1951; Dupont 1916, 1917: 20–22; Green 1916: 608–636; Hagedorn 1910d: 110; Holmes 1947: 109; Kalshoven 1958a: 187, 1959c: 145; Kleine 1913b: 162, 1914b: 268, 274, 1932a: 307, 1934a: 175; Mathur & Singh 1960b: 10, 1960c: 8, 1961a: 5, 1961b: 14; Mayne & Donis 1960: 104; Murayama 1936b: 115; Numberg 1961a: 331; Roberts 1960b: 36, 1960e, 1960f, 1961: 53–60, 1969: 133; Roonwal 1954: 45–87; Roonwal, Chatterjee, & Thapa 1961b: 7; Sampson 1914: 386; Schedl 1931c: 347, 1936j: 30; Thomas, R. T. S. 1960a, 1960b: 77; Thompson, C. H. 1963: 72; Van Zwanenburg 1956: 9; Wichmann 1954: 502, 521–522, 1955: 97; Wood, S. L. 1957e: 1273, 1960a: 51; Yunus & Hua 1980: 230. (tx) Beeson 1929, 1930: 255–257; Blandford 1896b: 211; Browne 1948: 908; Eggers 1923a: 130, 1925: 153, 1927b: 400–401, 1936d: 626; Gardner 1934b: 15–16; Hagedorn 1910a: 156; Sampson 1914: 386; Schedl 1936: 30, 1939e: 330, 1940b: 435, 1941d: 380, 1942a: 171, 1942d: 37, 1950e: 211, 1951e: 38, 1951i: 43–50, 1951j: 20, 1951k: 137, 1953b: 124, 1953d: 70, 1953f: 83, 1954a: 142, 1954d: 872, 1954e: 54–72, 1955d: 272, 1957d: 84, 1959a: 496, 1961e: 128, 1962b: 185–186, 1962j: 190; Stebbing 1914: 589; Wood, S. L. 1960a: 51, 56–57.
- cbriosus* Niisima 1909: 154 (*Xyleborus*). Holotype ♀; Sapporo, Japan; Nobuchi Collection, Ibaraki. Synonymy: Choo 1983: 98.
- References: (ay) Murayama 1933a: 7. (cn) Murayama 1954a: 14. (ec) Inouye et al. 1955: 94. (hb) Inouye et al. 1955: 94. (ds) Kleine 1913b: 161, 1914b: 260, 1934a: 172; Murayama 1929b: 2, 1930b: 20, 1931a: 43, 1933b: 7, 1934d: 508, 1936b: 114, 1937b: 375, 1949e: 102, 1950b: 1296, 1951a: 6, 1953a: 18, 1953c: 145, 157, 1954a: 14, 1954b: 177, 1955: 100, 102, 104. (tx) Hagedorn 1910a: 153; Murayama 1930b: 20–31, 1931a: 43–44, 1933a: 7, 19, 1934c: 299, 1937b: 375, 1950b: 1296, 1953a: 18, 1954b: 177, 1955: 100, 102, 104; Niisima 1909: 154; Schedl 1934f: 1646.
- bengalensis* Stebbing 1908: 12 (*Dryocoetes*). Syntypes ♀; Goalpara, Assam; FRI, Dehra Dun. Synonymy: Beeson 1915: 297.
- References: (cn) Pierce, W. D. 1917: 193; Stebbing 1914: 590. (ec) Stebbing 1914: 590. (hb) Stebbing 1914: 590. (ds) Kleine 1914b: 270; Pierce, W. D. 1917: 193. (tx) Beeson 1915: 297, 1929: 236, 1935: 294; Hagedorn 1910a: 96; Schedl 1959a: 496, 1962j: 190; Stebbing 1908b: 12, 1914: 590; Wood, S. L. 1960: 57.
- masarenius* Hagedorn 1908: 379 (*Xyleborus*). Syntypes ♀; Mauritius, and Bomole et Amani in Deutsch-Ostafrika; most lost with Hamburg Museum, 1 in Schedl Collection in NHMW, Wien. Synonymy: Eggers 1923a: 130.
- Notes: (1) Schedl 1979c: 149 (citation of holotype invalid).
- References: (cn) Sallenave 1948: 437. (ec) Sallenave 1948: 437. (ds) Beeson 1938: 294; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 323. (tx) Beeson 1929: 236; Eggers 1923a: 130, 1925: 153, 1927b: 400; Hagedorn 1908: 379, 1909a, 1910a: 155; Kalshoven 1959: 145; Numberg 1956a: 145; Schedl 1948c: 665, 1959a: 496, 1962j: 190, 332, 1979c: 149; Wood, S. L. 1960: 57.
- okoumeensis* Schedl 1935f: 271 (*Xyleborus*). Syntypes ♀; imported Okoume logs, Carlshafen, Hessen-Nassau [Germany]; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1959a: 496.
- Notes: (1) Schedl 1979c: 177 (citation of holotype invalid).
- References: (ec) Wichmann 1955a: 97. (ds) Wichmann 1955a: 97. (tx) Schedl 1935f: 271–272, 1950e: 209, 1959a: 496, 1962j: 190, 1979c: 177.
- declivigranulatus* Schedl 1936j: 30 (*Xyleborus*).

Lectotype ♀; Selangor, Malay Peninsula; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 76. Synonymy: Schedl 1959a: 496.

References: **(cn)** Browne 1935b, 1949e: 907, 1950a: 167–168, 1951: 98; Hill, D. S. 1983: 543; Mathur & Singh 1961b: 94; Sivaram 1980: 58; Yunus & Hua 1980: 230. **(cc)** Browne 1958b: 83. **(hb)** Browne 1936a: 122, 1958b: 83, 1961c: 102; Hill, D. S. 1983: 543. **(ds)** Browne 1936a: 122, 1941: 67, 1961c: 102; Hill, D. S. 1983: 543; Mathur & Singh 1961b: 94; Numberg 1961b: 610; Schedl 1936j: 30; Yunus & Hua 1980: 230. **(tx)** Browne 1949b: 907, 1949e: 174–189, 1950a: 167–168; Schedl 1936j: 30–31, 1939e: 330, 1959a: 496, 1962j: 190, 1962n: 697, 1979c: 76.

curtulus (Eichhoff) 1869a: 281 (*Xyleborus*). Holotype ♀; Brazil; IRSNB, Brussels.

Figures: Atkinson et al. 1986: 71.

Distribution: Antilles Islands (Guadeloupe), North America (Guatemala/ Honduras/ Colima, Nayarit, Oaxaca, San Luis Potosi, Veracruz in Mexico), South America (Brazil/ Colombia/ Venezuela).

Hosts: *Ficus* spp., *Phoradendron* spp., *Serjania* sp. Notes: (3) It is possible that *zimmermanni* Hopkins is also a synonym.

References: **(cc)** Equihua & Atkinson 1986: 630. **(hb)** Equihua & Atkinson 1986: 630. **(ds)** Atkinson & Equihua 1985: 102; Atkinson et al. 1986: 62; Blackwelder 1947: 779; Equihua & Atkinson 1986: 630; Estrada & Atkinson 1985: 208; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 101; Kleine 1913b: 160; Wood, S. L. 1982b: 770. **(tx)** Atkinson et al. 1986: 71; Eichhoff 1869a: 280–281, 1875: 201, 1878b: 329; Hagedorn 1910a: 153; Wood, S. L. 1973c: 187, 1982b: 770.

curtuloides Eggers 1941a: 102 (*Xyleborus*). Holotype ♀; Guadeloupe (Gourbeyre); Eggers Collection (not listed by Anderson & Anderson 1971 or Schedl 1979c). Synonymy: Wood 1982b: 770.

Notes: (1) Schedl 1979c: 72 (cites cotypes, but holotype not seen).

References: **(ds)** Bright 1985c: 174. **(tx)** Bright 1985c: 174; Eggers 1941a: 102; Schedl 1964k: 213, 1979c: 72; Wood, S. L. 1982b: 770.

biseriatus Schedl 1963d: 226 (*Xyleborus*). Holotype ♀; Nova Teutonia, Santa Catarina, Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1973c: 187.

References: **(ds)** Pedrosa-Macedo & Schonherr 1985: 26. **(tx)** Pedrosa-Macedo & Schonherr 1985: 26; de Ruelle 1970: 114; Schedl 1963d: 226, 1964k: 213, 1979c: 41; Wood, S. L. 1966b: 33, 1973c: 187.

strumosus Schedl 1972g: 73. Holotype ♀; Brasilien, Corcovado, Guanabara; Schedl Col-

lection in NHMW, Wien. Synonymy: Wood 1992:(in press).

References: **(ds)** Schedl 1972g: 73, 1976a: 53. **(tx)** Schedl 1972g: 73, 1979c: 239; Wood, S. L. 1992:(in press).

cylindrotomicus (Schedl) 1939f: 40 (*Pseudo-xyleborus*). Lectotype ♀; Sumatra, Benkoelen; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 74.

Figures: Numberg 1963b:pl. 30, figs. 3–6, Schedl 1962j: 575.

Distribution: Africa (Zaire), Indonesia (Sumatra). Hosts: *Albizia gummifera*, *Eugenia caryophyllata*, *Khinedoxa gabonensis* var. *oblongifolia*.

References: **(hb)** Kalshoven 1959c: 162. **(ds)** Kalshoven 1959c: 162. **(tx)** Kalshoven 1959c: 95, 1960d; Schedl 1939f: 40, 1942d: 6, 1951i: 79, 1959a: 511, 1979c: 74.

semitruncatus Schedl 1942d: 35 (*Xyleborus*).

Lectotype ♀; Sumatra, Manna; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 224. Synonymy: Wood 1989: 177.

References: **(tx)** Schedl 1942d: 35, 1951i: 79, 1979c: 224; Wood, S. L. 1989: 177.

truncatellus Schedl 1951i: 79 (*Xyleborus*). Lectotype ♀; Z. Sumatra, Poelau Pisang, and Manna; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 256. Synonymy: Kalshoven 1959b: 95.

Notes: Schedl 1979c: 138 (citation of holotype invalid).

References: **(tx)** Kalshoven 1959b: 95–96; Numberg 1963b: 60; de Ruelle 1970: 115; Schedl 1951i: 79, 1954a: 1979c: 138.

juvundus Schedl 1954a: 138 (*Xyleborus*). Lectotype ♀; Z. Sumatra, Poelau Pisang, and Manna; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 256, automatic. Synonymy: Kalshoven 1959b: 95.

Notes: (1) This is an unneeded replacement name for *truncatellus*.

References: **(tx)** Kalshoven 1959b: 95; Schedl 1954a: 138, 1979c: 256.

ramulorum Schedl 1957d: 115 (*Xyleborus*). Holotype ♀; Congo Belge; Yangambi; MRCB, Ter-vuren. Synonymy: Wood 1989: 177.

References: **(hb)** Schedl 1962j: 575. **(ds)** Schedl 1962j: 575. **(tx)** Browne 1965a: 204; Numberg 1963b: 47–48; Schedl 1957d: 113–115, 1962j: 575, 1979c: 210; Wood, S. L. 1989: 177.

derupteterminatus (Schedl) 1951i: 64 (*Xyleborus*). Holotype ♀; Java, Mount Gede; Schedl Collection in NHMW, Wien.

Figures: Nobuchi 1978a:pl. 1.

Distribution: Indonesia (Java).

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: **(ds)** Nobuchi 1978a: 12; Ohno, Yoneyama, & Nakazawa 1982a: 4. **(tx)** Nobuchi 1978a: pl. 1; Schedl 1951i: 64, 1964k: 213, 1979c: 78.

- deruptulus** (Schedl) 1942d: 37 (*Xyleborus*). Lectotype ♀; Java, Mount Dede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 78.
Distribution: Indonesia (Java).
Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).
References: (tx) Schedl 1942d: 37, 1953f: 82, 1964k: 213, 1979c: 78.
- difficilis** (Eggers) 1923a: 174 (*Xyleborus*). Lectotype ♀; Java: USNM, Washington, designated by Anderson & Anderson 1971: 12.
Distribution: Asia (Assam, Bengal in India/ Malaya/ Vietnam), Indonesia (Borneo, Celebes, Java, Sumatra), Cook Islands (?Rarotonga), Fiji Islands.
Hosts: *Amoora rohitika*, *Artocarpus elasticus*, *Beilschmiedia* sp., *Dipterocarpus kunstleri*, *Gmelina arborea*, *Macaranga* sp., *Shorea leprosula*, *S. macroptera*, *S. ovalis*, *Xanthophyllum* spp.
Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).
References: (cn) Browne 1952; Mathur & Singh 1960b: 17. (cc) Kalshoven 1960b; Roberts 1977a: 269. (hb) Browne 1961c: 165–166; Kalshoven 1959c: 161, 1960a: 120; Roberts 1977a: 269. (ds) Beeson 1930: 232; Browne 1961c: 166, 1974a: 66, 1983a: 555; Kalshoven 1959c: 161; Mathur & Singh 1960b: 17; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 92, 1989: 61; Roberts 1977a: 269. (tx) Anderson, W. H. & Anderson 1971: 11–12; Beeson 1930: 232; Browne 1963c: 55; Eggers 1923a: 174–175, 1941a: 102; Nunberg 1959a: 423; Schedl 1942a: 179, 1942d: 29, 37, 1950f: 39, 1951i: 42, 1954a: 141, 1965g: 24, 1979c: 80.
- discolor** (Blandford) 1898a: 429 (*Xyleborus*). Holotype ♀; Ceylon; BMNH, London.
Figures: Yin, Huang, & Li 1984: 180.
Distribution: Asia (Burma/ Fujian, Guangdong, Sichuan, Yunnan in China/ Andaman Islands, Assam, Tamil Nadu, Uttar Pradesh in India/ Sri Lanka), Indonesia (Java).
Hosts: *Ailanthus altissima*, *Albizia* sp., *Camellia sinensis*, *Cassia multijuga*, *Castanopsis fargesii*, *Cedrela toona*, *Chloroxylon swietenia*, *Coffea arabica*, *C. robusta*, *C.* spp., *Cinnamomum camphora*, *Grevillia robusta*, *Hevea brasiliensis*, *Juglans nigra*, *Machilus odoratissimus*, *M. thunbergii*, *Mangifera indica*, *Pterospermum acerifolium*, *Rhus chinensis*, *Sophora japonica*, *Swietenia mahagoni*, *Tephrosia candida*, *Terminalia myriocarpa*, *T. procera*, *Theobroma cacao*, *Vitis vinifera*.
References: (ay) Gardner 1934b: 1–17. (cn) Browne 1968b: 720; Chatterjee 1917b: 1–4; Frolich & Rodewald 1969: 99; Green 1912a: 39; Janaki et al. 1958: 138; Kalshoven 1932: 244, 1951: 851; Kleine 1932a: 307; Light 1928: 25–34; Mathur & Singh 1960a: 13, 1960b: 24, 1961a: 80, 1961b: 21; Muthukrishnan et al. 1959: 364; Pasquier 1932: 223–253; Roonwal 1954: 48; Stebbing 1914: 587; Ultee 1931: 1–55. (cc) Stebbing 1914: 587. (hb) Beaver & Browne 1975: 302; Browne 1961c: 169, 1968b: 720; Kalshoven 1951: 851, 1959c: 160; Kleine 1932a: 307; Speyer 1923: 20; Stebbing 1914: 587. (ds) Beaver & Browne 1975: 302; Beeson 1930: 232–233; Bhasin, Roonwal, & Singh 1958; Browne 1961c: 169, 1968b: 720; Green 1911: 2–5, 1912a: 39, 1916: 608–636; Hagedorn 1910d: 101; Kalshoven 1932: 244, 1959c: 160; Kleine 1913b: 160, 1914b: 274, 1932a: 307, 1934a: 173; LePelley 1968: 145; Mathur & Singh 1960a: 13, 1960b: 24, 1961a: 80, 1961b: 21; Nobuchi 1967: 21, 1979a: 406; Roba 1935: 340; Roonwal 1954: 48; Schedl 1959a: 496, 1961c: 71, 1971a: 277; Yin, Huang, & Li 1984: 180. (tx) Beeson 1930: 232–233; Blandford 1898a: 429; Browne 1963c: 55; Eggers 1923a: 174, 190, 1925: 153, 1927: 407, 1930d: 186, 1939c: 119, 1941b: 224; Gardner 1934b; Green 1912a: 39; Hagedorn 1910a: 153; Nobuchi 1983: 304; Nunberg 1959a: 424; Schedl 1942d: 4, 1951i: 63–64, 1954a: 141, 1958a: 148–149, 1958k: 149, 1959a: 496; Stebbing 1914: 587; Yin, Huang, & Li 1984: 180.
- diversepilosus** (Eggers) 1941b: 224 (*Xyleborus*). Holotype ♀; China, Prov. Fukien (Kuatun, 2300 m); Alexander Koenig Museum, Bonn.
Distribution: Asia (Fujian in China).
Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).
References: (tx) Browne 1963c: 55; Eggers 1941b: 224.
- eupatorii** (Eggers) 1940d: 140 (*Xyleborus*). Holotype ♀; Java (Tjibodas, G. Gedeh); Kalshoven Collection.
Distribution: Indonesia (Java).
Hosts: *Eupatorium tjibeureum*.
Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).
References: (tx) Eggers 1940d: 140–141; Schedl 1951i: 63, 1964k: 213, 1979c: 92.
- ferinus** (Schedl) 1936j: 31 (*Xyleborus*). Lectotype ♀; India: Travancore Mt. Estate, Tamil Nadu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 96.
Distribution: Asia (Tamil Nadu in India).
Hosts: Red gum.
References: (ds) Schedl 1936j: 31. (tx) Browne 1963c: 55; Schedl 1936j: 31–32, 1979c: 95–96.
- fijianus** (Schedl) 1938f: 50 (*Xyleborus*). Lectotypes ♀; Fiji Islands, Taverne Quilai; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 96.
Figures: Nunberg 1968a: pl. 1.
Distribution: Fiji Islands.
References: (cn) Anonymous 1985; Browne 1968b: 715; Ebeling 1959. (ce) Roberts 1977a: 257. (hb) Browne 1968b: 715; Roberts 1977a: 257. (ds) Browne 1968b: 715, 1974a: 65; Ebeling 1959; Lever 1943a: 82; Roberts 1977a: 257; Schedl 1962i: 75. (tx) Nunberg 1968a: 273, pl. 1; Schedl

1938f: 50–51, 1942c: 163, 1950f: 40, 1955b: 284–285, 1979c: 96.

germanus (Blandford) 1894d: 106 (*Xyleborus*).
Synatypes 16, sex?; Oyayama, Nikko, Subashiri, Kiga, Niyanashita; BMNH, London.

Figures: Balachowsky 1963a: 1286, Grune 1979: 158, Nakane et al. 1963: pl. 192, Nobuchi 1966d: pl. 3, 1978a: pl. 1, 1981e: figs. 5–7, Postner 1974: 468.

Distribution: Asia (Anhui, Fujian, Shanxi, Xizang [Tibet], Yunnan in China/ Japan/ Korea/ Ryukyu Islands/ Taiwan/ Vietnam), Europe (introduced: Austria/ France/ Germany/ Yugoslavia), North America (introduced: Ontario in Canada/ Connecticut, Illinois, Indiana, Kentucky, New Jersey, New York, North Carolina, Ohio, Pennsylvania, West Virginia in USA).

Hosts: *Abies fabri*, *Acer* spp., *Alnus* sp., *Carpinus laxiflora*, *Carya* sp., *Cassia siamea*, *Castanea crenata*, *Castanopsis* sp., *Chamaecyparis obtusa*, *Cleyera japonica*, *Cornus florida*, *Diospyros kaki*, *Fagus multinervis*, *F. sylvatica*, *Fraxinus* spp., *Juglans* sp., *Myrica* sp., *Lindera erythrocarpa*, *Liriodendron tulipifera*, *Machilus* sp., *Morus* spp., *Nyssa aquatica*, *Pinus* sp., *Prunus* spp., *Pyrus* sp., *Rhus chinensis*, *Quercus* spp., *Schinus superba*, *Styrax japonicus*, *Taxodium distichum*, *Ulmus* spp., *Vitis* sp., *Ziziphus jujuba*.

Notes: (1) Hoffman 1941: 38 (to *Xylosandrus*).

References: (ay) Finnegan 1963: 137; Fisher 1954; Francke-Grosmann 1956a, 1956b, 1956c, 1957; Lhoste & Roche 1960; Murayama 1933a: 2; Schneider 1976; Takagi & Kaneko 1965b, 1965c, 1966; Takenouchi & Takagi 1967. (bv) Choo, Woo, & Park 1988; Dethier 1947; Grune 1979: 159; Klimetzek et al. 1986: 270; Maksymov 1987; Moeck 1970b: 992; Rafes 1966: 69; Ueno 1960; Weber & McPherson 1984a, 1985. (cn) Anderson, R. F. 1948; Anderson, R. L. & Hoffard 1978; Androic 1966: 46; Anonymous 1964h, 1965g, 1968g, 1968k, 1969h, 1972f, 1973g, 1975c, 1978c, 1979n, 1980g; Blackman 1950; Bohm 1958; Browne 1952; Buchanan 1940: 819–820, 1941: 367–369; Clansen 1931; Collins 1941: 370–371; Cranham 1966c; Dehnert 1968; Felt 1932: 8, 80, 393, 418; Felt & Bromley 1937a: 20; Fisher, Thompson, & Webb 1953; Gabler 1955; Gauss 1960: 168–172; Groschke 1952b, 1954a; Heidenreich 1960a: 5–10, 1960b: 187–188, 1964: 131; Inouye 1955; Jones & Moses 1943: 79–85; Kamp 1953: 242, 1194, 1954: 5; Kaneko 1967; MacNay 1956: 109; Maksymov 1987; Murayama 1954a: 13; Ohnesorge 1955: 280; Rodary 1959: 850; Schimitschek 1955a: 136, 1955c: 84; Schwerdtfeger 1957a: 190; Shiraki 1952; Strong 1937: 21; Takagi & Kaneko 1965a: 54, 1965b: 247, 1966: 4, 1966: 29–31; Uchida et al. 1958: 181; Ueno 1960; Weber, B. C. 1984; Weber, B. C. & McPherson 1984a; Weise 1963; Wichmann 1955b: 250–251,

1957a: 82–84; Williams, L. H. & LaFage 1979: 426; Wood, S. L. 1977a: 74. (cc) Anderson, R. L. & Hoffard 1978; Baker, W. L. 1972: 271; Banno, Mikata, & Kodama 1983: 445; Batra 1963b: 217; Buchanan 1940a: 819–820, 1941; Dorsey & Leach 1956: 224; Drooz 1985: 374; Finnegan 1963: 137; Fisher 1954; Francke-Grosmann 1956a, 1956b, 1956c, 1957, 1959: 141; Heidenreich 1964; Inouye et al. 1955: 96; Kaneko 1967; Kaneko & Takagi 1965, 1966b; Kaneko, Tamaki, & Takagi 1965a, 1965b; Kessler 1974; Nishiguchi 1959: 271; Norris 1979; Rodary 1959: 850; Schimitschek 1955a: 136; Schneider 1976; Schwerdtfeger 1957a: 190; Steinhaus 1946: 405; Takagi & Kaneko 1965b, 1965c; Weber, B. C. & McPherson 1983b, 1984a, 1984b, 1985; Wichmann 1955a: 95, 103; Yoon et al. 1982. (hb) Anderson, R. F. 1948; Annala 1971: 12; Atkins 1968: 1116; Baker, W. L. 1972: 271; Balachowsky 1963a: 1285; Blackman 1950; Buchanan 1940a: 819–820, 1941; Cairaschi & d'Agilar 1957; Chamberlin 1939: 456; Cranham 1966c; Dehnert 1968; Deyrup & Atkinson 1987a: 66; Fisher 1954; Gabler 1955; Gauss 1960; Groschke 1952a, 1952b, 1953a: 2–12; Hoffmann 1941: 38–42; Inouye et al. 1955: 96; Kaneko 1965: 211, 1967: 19–21; Kaneko & Takagi 1965, 1966b: 173–176; Kaneko, Tamaki, & Takagi 1965a, 1965b: 23; Krivolutskaya 1965: 342, 1973; Maksymov 1987; Murayama 1965; Ohnesorge 1955: 280; Postner 1974: 468; Schimitschek 1955a: 136; Schneider & Farrier 1969: 412–415; Schwerdtfeger 1957a: 190, 1981: 196; Takahashi 1989: 403; Ueno 1960: 168; Weber, B. C. & McPherson 1983b; Wood, S. L. 1982b: 768; Yoon et al. 1982. (ds) Androic 1966: 46; Anonymous 1964h, 1965g, 1968g, 1969h, 1975c, 1978c, 1979n, 1980g; Arsenescu 1961; Blackman 1950; Blackwelder & Blackwelder 1948; Blandford 1894c; Bohm 1958; Bright 1968b: 1293, 1988b; Browne 1968a: 132–133; Chamberlin 1939: 456; Chapin & Oliver 1986; Cho 1957, 1963; Choo 1983: 99; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1983: 173, 1988a: 134; Choo, Woo, & Park 1988; Clausen 1931; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Drooz 1985: 374; Felt 1932; Felt & Bromley 1937a; Grune 1979: 159; Hagedorn 1910d: 105; Hoffmann 1940: 61, 1942: 13; Horion 1954b: 21; Kamp 1954: 124, 1963: 125, 1979; Kaston 1938: 240; Kleime 1913b: 161, 1914b: 260, 1934a: 173; Kono 1938b: 65, 72; Krivolutskaya 1965a: 342, 1973; Lucht 1987: 280; MacNay 1956: 109; Murayama 1929b: 2, 1930b: 20, 1931a: 45, 1936a: 132, 1936b: 114, 1942a: 56, 1949c: 103, 1950b: 1296, 1951a: 6, 1952a: 23, 1953a: 19, 1953c: 145, 158, 1954a: 13, 1954b: 178, 1955: 102, 104; Nakane et al. 1963: 384; Nobuchi 1966d: 25, 1967: 21, 1978a: 11, 1985c: 23; Nohira & Ogawa 1986; Pfeffer 1989a: 87; Postner 1974: 463; Sawamoto 1940a: 96, 107; Schedl 1960e: 172, 1966g: 30, 1981b: 98; Schneider & Farrier 1969;

- Schwerdtfeger 1981: 196; Shiraki 1952; Sonan 1933: 257–270; Staines 1984; Umnov 1956: 46–50; Weber, B. C. 1979; Weber, B. C. & McPherson 1982, 1983c, 1991: 49; Weise 1963; Wichmann 1955a: 95, 103, 1955b: 250, 1957a: 82; Wood, S. L. 1977a: 74, 1982b: 768; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 168. **(tx)** Balachowsky 1963a: 1286; Blandford 1894d: 106; Bright 1968b: 1293; Chamberlin 1939: 456; Choo 1983: 99; Eggers 1926b: 145–146, 1941b: 222; Gabler 1955; Groschke 1952a, 1953a; Grune 1979: 158–159; Hagedorn 1910a: 154; Lucht 1987: 280; Maksymov 1987; Murayama 1930b: 20, 22, 24, 31, 1931a: 45–46, 1933a: 2, 1934c: 299, 1936a: 132–133, 1950b: 1296, 1952a: 23, 1953a: 19, 1954b: 178 1955: 102, 104; Nakane et al. 1963: 384; Niisima 1909: 153, 157, 1910a: 3, 13, 1913a: 5; Nobuchi 1964: 129–134, 1966d: 25, pl. 3, 1978a: pl. 1, 1981e: figs. 5–7; Pfeffer 1955a: 194; Postner 1974: 468; Sawamoto 1940: 96, 107; Schedl 1934f: 1646, 1955d: 273, 1955h: 45, 1979c: 103, 1981b: 98; Schimitschek 1955c: 84; Wood, S. L. 1982b: 768; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 168. **(ms)** Thalenhorst 1962: 347; Weber, B. C. & McPherson 1983a.
- orbatus** Blandford 1894d: 123 (*Xyleborus*). Holotype ♂; Kurigabara, Japan; BMNH, London. Synonymy: Choo 1983: 100.
References: **(ds)** Hagedorn 1910d: 108; Kleine 1913b: 162, 1914b: 260; Murayama 1954b: 181. **(tx)** Choo 1983: 100; Hagedorn 1910a: 155; Murayama 1954: 181; Schedl 1934f: 1646.
- gravidus** (Blandford) 1898a: 427 (*Xyleborus*). Holotype ♀; Chittagong Hills [Bangladesh]; BMNH, London.
Figures: Kumar & Chandra 1977: 42 (male).
Distribution: Asia (Bangladesh/ Burma/ Xizang [Tibet] in China/ Assam, Bengal in India/ Laos/ Sri Lanka/ Thailand/ Tonkin in Vietnam).
Hosts: *Buchanania lanzon*, *Cinnamomum cicodaphne*, *Shorea bractcolata*, *Swietenia macrophylla*, *S. mahagoni*, *Tectona grandis*, *Vatica lanceaefolia*.
Notes: (3) Kumar & Chandra 1977: 34 (described male).
References: **(cn)** Browne 1968b: 716; Hagedorn 1913a; Mathur & Singh 1961a: 38, 1961b: 14; Stebbing 1914: 586. **(ce)** Stebbing 1914: 586. **(hb)** Browne 1968b: 716; Hagedorn 1913a; Stebbing 1914: 586. **(ds)** Beaver & Browne 1975: 298; Beeson 1930; Bhasin, Roonwal, & Singh 1958; Browne 1968b: 716, 1980a: 371; Hagedorn 1910d: 105, 1913a; Kleine 1913b: 161, 1914b: 270, 1934a: 173; Mathur & Singh 1961a: 38, 1961b: 371; Schedl 1937f: 15, 1962i: 185, 1971c: 363, 1971f: 149, 1974c: 262. **(tx)** Beeson 1930: 237; Blandford 1898: 427; Eggers 1930d: 185; Hagedorn 1910a: 154; Kumar & Chandra 1977: 34, 42; Schedl 1937f: 15–17; Stebbing 1914: 586.
- hirsutipeennis** (Schedl) 1961e: 144 (*Xyleborus*). Holotype ♀; Madagascar, Perinet, Montagne d'Ambre, Antaniditra; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Cassipourea* sp., *Ficus sorocoides* var. *macrophyllia*, *Harungana madagascariensis*, *Psychotia* sp., *Urophyllum lyallii*, *Vernonia* sp.
References: **(ds)** Schedl 1977b: 139. **(tx)** Schedl 1961e: 144, 1977b: 139.
- jaintianus** (Schedl) 1967f: 161 (*Xyleborus*). Holotype ♀; Shillong, Assam; Schedl Collection in NHMW, Wien.
Distribution: Asia (Burma/ Assam in India).
References: **(tx)** Schedl 1967f: 161, 1979c: 129.
- laticeps** (Wood) 1977b: 219 (*Xyleborus*). Holotype ♀; 20 km SW El Vigia, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Dendropanax arboreum*, *Inga* sp., *Jacaranda* sp., *Melicococcus bijugata*, *Protium tenuifolium*, *Spondias mombin*, *Theobroma cacao*.
References: **(tx)** Wood, S. L. 1977b: 219.
- mancus** (Blandford) 1898a: 428 (*Xyleborus*). Holotype ♀; Ceylon; BMNH, London.
Figures: Hin & Huang 1981: 568, Yin, Huang, & Li 1984: 179.
Distribution: Africa (Mauritania/ Seychelles Islands/ Tanzania), Asia (Gansu, Xizang [Tibet] in China/ Maharashtra, Tamil Nadu in India/ Japan/ Malaya/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Java, Sumatra), Madagascar, Philippine Islands.
Hosts: Many listed by Schedl 1962j: 573–574. *Adenantha pavinina*, *Aphananixia rohittuka*, *Artocarpus dadah*, *Brackenridgea hookeri*, *Buchanania lanzan*, *Cordia dichotoma*, *Dryobalanops oblongifolia*, *Gomphia serrata*, *Grewia paniculata*, *Hibiscus macrophyllus*, *Hopea beccariana*, *H. ferrea*, *Hullettia dumosa*, *Litsca megacarpa*, *Melanorrhoea* sp., *Nephelium lappaceum*, *Pometia pinnata*, *Quercus* sp., *Shorea bractcolata*, *S. leprosula*, *S. macroptera*, *S. sumatrana*, *Styrax benzoin*, *Swietenia macrophylla*, *S. mahagoni*, *Theobroma cacao*, *Tristania whitcana*, *Vateria copallifera*, *Vitex pubescens*.
References: **(cn)** Beaver 1988a: 63; Browne 1938b; Green 1912: 39; Kleine 1932a: 307; Mathur & Singh 1960a: 22, 1960b: 48, 1961a: 40, 1961b: 48; McIntosh 1949: 46; Stebbing 1914: 587; Yunus & Hua 1980: 230. **(ce)** Stebbing 1914: 587. **(hb)** Beaver 1988a: 63; Beaver & Browne 1978: 609; Browne 1935a: 4, 1938a: 27, 1938b: 83–84, 1941: 63, 67, 1958b: 164–182, 1961c: 157–159; Kalshoven 1959c: 159; Kleine 1932a: 307; Schedl 1962j: 571; Stebbing 1914: 587. **(ds)** Beaver 1988a: 63; Beaver & Browne 1978: 609; Beeson 1930, 1941: 393; Bhasin, Roonwal, & Singh 1958: 41; Browne 1938a: 27, 1938b: 83–84, 1941: 63, 67, 1961c: 157, 1981a: 126; Corbett 1935: 43–56; Corbett & Gater 1926: 22; Hagedorn 1910d: 106; Kalshoven

- 1959c: 159; Kleine 1913b: 161, 1914b: 274, 1932a: 307, 1934a: 174; Mathur & Singh 1960a: 22, 1960b: 48, 1961a: 40, 1961b: 48; Nobuchi 1979a: 406; Numberg 1959: 424, 1961b: 611; Sampson 1914: 388; Schedl 1936j: 19, 1959a: 510, 1962j: 571, 1966b: 59, 1969d: 8, 1971a: 281, 1973c: 379, 1975j: 291; Speyer 1923: 21; Wichmann 1954: 521; Yin & Huang 1981: 567; Yunus & Hua 1980: 230. **(tx)** Beeson 1930: 245; Blandford 1898a: 428; Eggers 1923a: 169, 1927b: 407, 1930d: 186, 1939c: 114, 1939e: 332; Hagedorn 1910a: 155, 1913a: 15, 1913b: 257; Nobuchi 1967: 13–14, 21, 1983: 303; Sampson 1914: 388; Schedl 1934: 86, 1936h: 61, 1936j: 19, 1938h: 463, 1939e: 332, 1942a: 164, 170, 1942d: 6, 1951i: 51, 1952b: 364, 1952c: 61–62, 1953d: 70, 1958k: 149, 1959a: 510, 1962j: 571–574, 1969d: 8, 11, 1977b: 192, 1979c: 147; Stebbing 1914: 587.
- abruptus* Sampson 1914: 388 (*Xyleborus*). Syn-types ♀; Seychelles, Mahe: high forest of Morne Blanc, and Cascade Estate; BMNH, London. Synonymy: Schedl 1951i: 51. References: **(cn)** Dupont 1916, 1917: 20–22; Miller, N. C. E. 1941: 10. **(ds)** Kleine 1934a: 171; Mathur & Singh 1961a: 78; Sampson 1914: 388; Schedl 1969d: 11. **(tx)** Eggers 1927b: 407; Sampson 1914: 388; Schedl 1934d: 86, 1936h: 61, 1939e: 332, 1942a: 170, 1942d: 6, 1951i: 51, 1962j: 571.
- manicus formosanus* Eggers 1930: 186 (*Xyleborus*). Holotype ♀; Formosa: Taihoku; FRI, Dehra Dun. Synonymy: Schedl 1952c: 61. References: **(ds)** Yin & Huang 1981: 567; Yin, Huang, & Li 1984: 179. **(tx)** Eggers 1930d: 186, 1939c: 114; Numberg 1959a: 424; Schedl 1938h: 463, 1952c: 61; Yin & Huang 1981: 568, 609; Yin, Huang, & Li 1984: 179.
- mediocris* (Schedl) 1942a: 185 (*Xyleborus*). Lectotype ♀; Malaya, N.S. Pasoh Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 150. Distribution: Asia (Malaya). Hosts: *Dipterocarpus cornutus*, *Shorea dasphylla*. References: **(hb)** Browne 1961c: 169. **(ds)** Browne 1949b, 1961c: 169. **(tx)** Browne 1949b, 1963c: 55; Schedl 1942a: 185, 1951i: 58, 1958b: 101, 1979c: 150.
- mesuae* (Eggers) 1930d: 182 (*Xyleborus*). Holotype ♀; Bengal (Kalimpong); FRI, Dehra Dun. Distribution: Asia (Bengal, Uttar Pradesh in India/ Sri Lanka). Hosts: *Mesua ferrea*, *Osbeckia aspera*, *Shorea robusta*. Notes: (1) Browne 1963c: 55 (to *Xylosandrus*). References: **(ds)** Beeson 1930; Kleine 1934a: 174; Schedl 1959a: 495, 1971a: 281. **(tx)** Beeson 1930: 69–70, 245; Browne 1963c: 55; Eggers 1930d: 182–183, 1940d: 142; Schedl 1942a: 185, 1957d: 86, 1959a: 495, 1979c: 152.
- metagermanus* (Schedl) 1951i: 58 (*Xyleborus*). Holotype ♀; U. Dihing Res., Lakhimpur, Assam; Schedl Collection in NHMW, Wien. Distribution: Asia (Assam in India). Hosts: *Gmelina arborea*. Notes: (1) Browne 1963c: 55 (to *Xylosandrus*). References: **(tx)** Browne 1963c: 55; Schedl 1951i: 58, 63, 1979c: 152.
- morigerus* (Blandford) 1894b: 264 (*Xyleborus*). Syntypes ♀; probably New Guinea; BMNH, London. Figures: Balachowsky 1963a: 1285–1286; Samuelson 1981: 54; Schedl 1962j: 111, Wood 1960a: 53. Distribution: Africa (Mauritius Islands/ Zaire), Antilles Islands (Puerto Rico), Asia (Bengal, Tamil Nadu in India/ Jordan/ Lebanon/ Malaya/ Sri Lanka/ Taiwan/ Tonkin Island in Vietnam, Vietnam), Australia (Queensland), Europe (introduced: Austria/ Czechoslovakia/ England/ France/ Italy), Fiji Islands, Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, Micronesia (Caroline Islands, Timor in Mariana Islands), North America (introduced: Costa Rica/ Honduras/ Chiapas, Veracruz in Mexico/ Panama, intercepted in USA ports), New Britain Island, New Guinea, Philippine Islands, Samoan Islands, South America (introduced: Brazil/ Colombia/ Venezuela). Hosts: Many listed by Beaver 1976b: 543, Schedl 1962j: 124–130. *Acalypha* sp., *Actinophora fragrans*, *Adeuathera pavonina*, *Albizzia falcata*, *A. procera*, *Altingia excelsa*, *Amonum* sp., *Bixa orellana*, *Boehmeria* sp., *Bridelia* sp., *Butea monosperma*, *Calamus* sp., *Camellia sinensis*, *Cassia multijuga*, *Castanea argentea*, *Centrosema plumieri*, *Cinchona* sp., *Claoxylon polot*, *Coffea excelsa*, *C. liberica*, *C. robusta*, *Cola acuminata*, *Crotalaria anagyroides*, *C. usaramoensis*, *Dalbergia latifolia*, *Dendrobium phalaenopsis*, *Derris microphylla*, *Erythroxylon novagrana-tense*, *Eugenia polyantha*, *Eupatorium pallescens*, *Eusideroxylon zwageri*, *Ficus* sp., *Flemingia strobilifera*, *Fuchsia* sp., *Grewia laevigata*, *Leucaena glauca*, *Marumia muscosa*, *Ochroma lagopus*, *Persca gratissima*, *Sambucus javanica*, *Schleichera oleosa*, *Swietenia macrophylla*, *S. mahagoni*, *Tarenna incerta*, *Tectona grandis*, *Tephrosia maxima*, *T. vogelii*, *Thea sinensis*, *Theobroma cacao*. Notes: (1) Reitter 1913a: 83 (to *Xylosandrus*). References: **(bv)** Betrem 1951: 281; Gray, B. 1974c; Grune 1979: 159; Nakayama & Terra 1986. **(cn)** Altona 1926: 31; Anonymous 1919b: 194; Arens 1915: 9; Arreola Vazquez 1980: 71; Auhmann 1911: 438; Barkmeyer 1927; Beaver 1988a: 65; Begegnann 1926, 1927a, 1927b, 1927c, 1928; Benavides 1961; Betrem 1930c, 1930d, 1930e, 1931b, 1931c, 1931d, 1931e, 1932a, 1932b, 1932d, 1932e, 1933, 1934, 1935a, 1938, 1953;

- Bleij 1907: 703; Browne 1968: 721; Cramer 1908, 1913; Frohlich & Rodewald 1969: 99; Garretsen 1926: 130–136; Ghesquiere 1933a; Grandi 1951; Green 1912: 89; Hall 1912, 1913, 1915, 1916, 1922, 1923, 1924, 1925, 1926; Hill, D. S. 1983: 496; Hunger 1907: 28, 1908: 35–131; Jacob 1931: 1193; Kalshoven 1924: 9, 1925: 5–7, 1926a: 61–66, 118–120, 1928: 609, 1932: 243, 1933: 5, 1934: 13–14, 1951: 847, 1961a: 133, 1961b; Koningsberger 1901: 94–95, 1908: 76, 1915; Lang 1909: 986; Lavabre 1962: 41; Leefmans 1923: 49, 1924: 224, 1927: 28, 1928; LePelley 1968: 143; Marchal 1909: 227–228; Mathur & Singh 1960a: 13, 1960b: 43, 1961a: 29, 1961b: 14; Morstatt 1911: 384, 1937: 23; Murillo Quinche 1959: 295; Neger 1911: 50; Pirone, Dodge, & Rickett 1960: 515; Pring 1944: 103–104; Rodary 1959: 852; Roepke 1911: 2, 11, 1914: 18, 1915, 1916; Rutgers 1914: 21, 23; Schedl 1962j: 111; Speyer 1923; Trojer & Gomez 1965: 12–30; Ultee 1925: 21, 1927, 1928; Van der Goot 1928: 59; Verbeck 1930a: 402; Wigman 1909: 564–565; Wood, S. L. 1977a: 74; Wurth 1907: 58, 68, 1908: 708, 719, 1909: 548, 1910: 101, 1916, 1921; Yunus & Hua 1980: 231; Zimmermann 1898: 43–44, 1899: 32. **(ec)** Beaver 1979: 298; Benavides 1961; Betrem 1935a, 1951: 278, 1953, 1959; Browne 1958b; Domenichini 1960; Kalshoven 1960b: 259, 1960c, 1962a: 17; Norris 1979; Roberts 1977a: 269; Rodary 1959: 852; Talhouk 1961: 218; Thompson, W. R. 1943: 117; Wichmann 1955a: 98. **(hb)** Balachowsky 1963a: 1285; Beaver 1976b: 298, 1988a: 68; Beaver & Browne 1978: 614; Beeson 1929; Benavides 1961; Betrem 1951: 278; Blandford 1894b: 264; Browne 1958b, 1961c: 166, 1968b: 721; Chobant 1897b: 261–264; Dupont 1909: 282–283, 1915; Grandi 1951; Gray, B. 1974c; Hill, D. S. 1983: 496, 1987: 339; Kalshoven 1951: 847, 1958a: 187, 1959a: 224, 1959c: 162, 1961a: 133, 1961b, 1962: 17; Klinkhamer 1925: 1380; Lengerken 1954: 324; LePelley 1968: 143; Murillo Quinche 1959: 295; Pring 1944: 103; Roberts 1977a: 269; Rutherford 1914c: 131–132, 1914d: 2, 7; Schedl 1962j: 111–130; Speyer 1923: 17; Weele 1910: 1; Wood, S. L. 1982b: 765. **(ds)** Anonymous 1919b: 194, 1971x; Atkinson & Equihua 1985b: 237, 1986a: 422, 1988: 102; Balachowsky 1963a: 1285; Beaver 1976b: 543, 1987b: 65, 1988a: 68; Beaver & Browne 1978: 614; Beeson 1929, 1930: 249, 1938b; Begemann 1927a; Bhasin, Roonwal, & Singh 1958; Blandford 1894b: 264, 1896f: 243, 1897b; Brakman 1966b: 205; Bright 1981c: 157, 1985c: 174; Brimblecombe 1953: 29; Browne 1958: 164–182, 1961c: 166, 1968: 721, 1972: 30, 1974a: 66, 1980a: 371, 1986a: 90; Costa Lima 1922: 34–35, 1925: 16; Donisthorpe 1931: 174; Drooz 1985: 375; Estrada & Atkinson 1988: 200; Everts 1922: 648; Fullaway 1935: 48; Ghesquiere 1933a; Grune 1979: 159; Hagedorn 1910d: 107, 1910e: 1; Hill, D. S. 1983: 496; Hoffmann 1936: 3; Kalshoven 1932: 243, 1933: 5, 1935a: 13, 1958a: 187, 1959c: 162, 1961b, 1962a: 17; Kleine 1913b: 162, 1914b: 296, 1928: 306–307, 1934a: 172, 174; LePelley 1968: 143; Lepesme et al. 1948: 648; Lucht 1987: 280; Mathur & Singh 1960a: 13, 1960b: 43, 1961a: 29, 1961b: 14; Menzel 1929: 29; Murayama 1936b: 115; Murayama & Kalshoven 1962; Neubauer 1959: 94; Nobuchi 1967: 21; Numberg 1958a: 481, 1961b: 610; Ohno et al. 1988a: 92; Reitter 1916: 295; Roba 1935: 340; Roberts 1977a: 269; Sainte-Claire & Mequignon 1938: 449; Samuelson 1981: 58; Schedl 1936g: 528, 1938d: 451, 1959a: 495, 1962j: 111–130, 1964d, 1966b: 77, 1966f: 76, 1969d: 11, 1971a: 281, 1981b: 97; Scheerpeltz & Winkler 1934f: 257; Schilsky 1909: 189; Spelz 1935: 6, 108, 1945: 352; Szent-Ivany 1963: 42; Talhouk 1961: 218; Terra 1987: 20; Velez 1972; Wichmann 1927a: 80, 1955a: 98–99; Wood, S. L. 1960a: 51, 1961c: 2, 1977a: 74, 1982b: 765; Yunus & Hua 1980: 231. **(tx)** Balachowsky 1949a: 219, 1963a: 1285, 1286; Beeson 1929: 233–234, 1930: 249, 1938: 293; Blandford 1894b: 264; Bright 1985c: 174; Browne 1963c: 55; Eggers 1922: 87, 1923a: 174, 1927b: 407, 1930d: 182, 1939c: 114, 1940d: 140; Fleischer 1927; Grune 1979: 159; Hagedorn 1910a: 155, 1912a, 1912b, 1913a, 1913b; Kalshoven 1959a: 224, 1961a: 133, 1961b; Lucht 1987: 280; Muskus, A. 1984: 94; Nobuchi 1983: 304; Numberg 1958a: 481, 1961b: 610; Portevin 1935: 331; Reitter 1913a: 80, 83–84, 1916: 295; de Ruette 1970: 115; Samuelson 1981: 54, 58; Schedl 1931c: 347, 1934f: 1646, 1936g: 528, 1942a: 185, 1942c: 163, 1942d: 4, 1950f: 39, 1951i: 42, 1951k: 136, 1954a: 142, 1954c: 154, 1955b: 281, 1958b: 101, 1959a: 495, 1961f: 91, 1962j: 111–130, 1964d: 212, 1980a: 20, 1981b: 97; Strohmeier 1910f: 186; Terra 1987: 20; Wood, S. L. 1960a: 51, 53, 1974d: 287, 1982b: 765.
- coffea* Wurth 1908: 199 (*Xyleborus*). Syntypes ♀; Java: not located. Synonymy: Strohmeier 1910f: 86, Schedl 1951k: 136.
- References: **(ay)** Herfs 1949: 26. **(bv)** Aulmann 1911. **(cn)** Azavedo 1924: 180–181; Begemann 1927: 1–21; Dupont 1911, 1913, 1915; Frappa 1931; Hagedorn 1913a; Hall 1916, 1918, 1919, 1920, 1921, 1922: 27, 1923b: 24, 1926: 14, 26, 1932: 265; Havard-Dukos 1928; Herfs 1949: 26; Hutton 1924: 91; Jepson 1920: 280–289; Kalshoven 1924c, 1925b: 5, 1926a: 61, 1953b: 157, 1958c: 220, 1961a: 133; Kleine 1932a: 306; Leefmans 1919: 1–8; Luziau 1953: 21; Mathur & Singh 1960a: 62; Morstatt 1911b: 384, 1937: 26; Pierce, W. D. 1917: 62; Roepke 1909: 365, 1910: 91, 1915, 1916; Rutherford 1914c: 131–132; Strohmeier 1910f: 186; Vayssiere 1923: 111; Wurth 1910: 101, 1919; Wyniger 1962a: 27, 1962b: 70. **(cc)** Neger 1911a: 53; Thompson, W. R. 1943: 117. **(hb)** Aulmann 1911; Dupont 1911; Evans 1952: 141; Hagedorn 1913a; Herfs 1949: 26;

Kalshoven 1924c, 1961a: 133; Kleine 1932a: 306; Morstatt 1924: 17. **(ds)** Beeson 1938: 293; Evans 1952: 141; Hagedorn 1910d: 100, 1912: 36–39, 1913a; Kalshoven 1925b: 5, 1958c: 220, 1961b; Kleine 1913b: 160, 1914b: 279, 288, 314, 1932a: 306, 1934a: 172; Koningsberger 1905: 76; Mathur & Singh 1960a: 15; Pierce, W. D. 1917: 62; Roba 1935: 340; Schedl 1935d: 451; Sprecher 1934: 150; Strohmeier 1910f: 186; Swezey 1945: 359; Vayssiére 1923: 111. **(tx)** Aulmann 1911; Browne 1963c: 55; Eggers 1922a: 87, 1923a: 130, 174, 190, 1930d: 182; Hagedorn 1910a: 153, 1912a, 1912b; Kalshoven 1961a: 133, 1961b; Lucas 1920: 674; Numberg 1959a: 420; Schedl 1931c: 346, 1951k: 136, 1954a: 140, 1959a: 495, 1962j: 111; Strohmeier 1910f: 86; Weele 1910: 308; Wurth 1905: 63–78, 199, 1910: 101–105. **(ms)** Lucas 1920: 674.

luzoniensis Eggers 1923a: 174 (*Xyleborus*). Lectotype ♀; Mt. Makiling, Insel Luzon, Philippinen; USNM, Washington, designated by Anderson & Anderson 1971: 18. Synonymy: Wood 1974d: 287.

References: **(ds)** Schedl 1966b: 77; Swezey 1945: 353. **(tx)** Anderson, W. H. & Anderson 1971: 18; Browne 1963c: 55; Eggers 1923a: 174; Nobuchi 1983: 304; Schedl 1961f: 91, 1979c: 143; Wood, S. L. 1974d: 287.

mutilatus (Blandford) 1894d: 103 (*Xyleborus*). Holotype ♀; Japan: BMNH, London.

Figures: Nakane et al. 1963: pl. 192, Nobuchi & Takahashi 1965: 1–2, Yin, Huang, & Li 1984: 181. Distribution: Asia (Burma/ Anhei, Sichuan, Yunnan, Zhejiang in China/ Andaman Islands, Assam in India/ Japan/ Korea/ Malaya/ Sri Lanka/ Taiwan/ Thailand), Indonesia (Batoe, Borneo, Java, Sumatra), New Guinea.

Hosts: *Acer* sp., *Albizzia* sp., *Benzoïn* sp., *Camellia* sp., *Carpinus laxiflora*, *Castanea* sp., *Cinnamomum camphora*, *Cornus* sp., *Cryptomeria japonica*, *Fagus crenata*, *Lindera erythrocarpa*, *Machilus thunbergii*, *Ormosia hosiei*, *Osmanthus fragrans*, *Parabezoïn praecox*, *Platyarya* sp., *Swietenia macrophylla*.

Notes: (3) Schedl 1962j: 208 (*pilula* Hagedorn, nomen nudum, cited as a synonym).

References: **(cn)** Anonymous 1980g; Ebeling 1959; Mathur & Singh 1961a: 79; Murayama 1954a: 16; Shiraki 1952. **(cc)** Banno, Mikata, & Kodama 1983: 445; Browne 1958b; Inouye et al. 1955: 100. **(hb)** Beaver & Browne 1975: 299; Browne 1958b; Inouye et al. 1955: 100; Kalshoven 1959c: 162. **(ds)** Anonymous 1950g; Beaver & Browne 1975: 299; Blandford 1894c: 579; Cho 1957, 1963; Choo 1983: 101; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Ebeling 1959; Hagedorn 1910d: 56, 107; Kalshoven 1959c: 162; Kleine 1913b: 128, 162, 1914b: 260, 273, 1934a: 174; Ko

1969: 285; Lacordaire 1866: 353; Mathur & Singh 1961a: 79; Murayama 1929b: 2, 1930b: 19, 1931a: 41, 1934d: 510, 1937b: 375, 1950b: 1297, 1953a: 20, 1953c: 159, 1954a: 16, 1954b: 180; Nakane et al. 1963: 383; Nobuchi 1967: 22; Nobuchi & Takahashi 1965: 1; Nohira & Ogawa 1986; Sampson 1921: 28; Schedl 1971f: 149; Shiraki 1952; Yin, Huang, & Li 1984: 181. **(tx)** Blandford 1894d: 103; Browne 1955: 353; Choo 1983: 101; Eggers 1939c: 118; Ferrari 1867a: 74; Hagedorn 1910a: 105, 155; Kalshoven 1960d: 63; Lacordaire 1866: 353; Motschulsky 1863: 514; Murayama 1930b: 19–31, 1931a: 41, 1934c: 300, 1937b: 375, 1950b: 1297, 1952a: 23, 1953a: 20, 1954b: 180; Nakane et al. 1963: 383, pl. 192; Niisima 1909: 152–154; Nobuchi & Takahashi 1965: 1–2, 1983: 303; Sampson 1921: 28; Schedl 1934f: 1646, 1962p: 208, 1972q: 255–267; Yin, Huang, & Li 1984: 181. **(ms)** Mastumura 1973.

sampsoni Eggers 1930d: 184 (*Xyleborus*). Holotype ♀; Assam (Haflong, Cachar); FRI, Dehra Dun. Synonymy: Wood 1989: 177.

References: **(tx)** Eggers 1930d: 184–185; Wood, S. L. 1989: 177.

banjoewangi Schedl 1939f: 41 (*Xyleborus*). Lectotype ♀; Banjoewangi, 270 m, Tjoerahlele; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 33. Synonymy: Kalshoven 1960d: 63.

References: **(tx)** Kalshoven 1960d: 63; Schedl 1939f: 40, 1940b: 435, 1951i: 85, 1979c: 33.

taitonus Eggers 1939c: 118 (*Xyleborus*). Holotype ♀; Formosa, Taito; Chujo Collection.

Notes: (1) Specimens in the FRI, Dehra Dun labeled by Eggers as *taitonus* are *mutilatus*; synonymy needs confirmation.

References: **(ds)** Nobuchi 1967: 23. **(tx)** Eggers 1939c: 118.

nanus (Blandford) 1896f: 242 (*Xyleborus*). Holotype ♀; Nonmea (Delauney); BMNH, London. Distribution: New Caledonia.

Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).

References: **(ds)** Beeson 1938b: 293; Hagedorn 1910d: 107; Kleine 1913b: 162, 1914b: 301. **(tx)** Blandford 1896f: 242; Browne 1955: 353, 1963c: 55; Eggers 1923a: 174; Hagedorn 1910a: 155.

omissus (Schedl) 1961e: 153 (*Xyleborus*). Holotype ♀; Madagascar, Antaniditra pres Perinet; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Eugenia* sp.

Notes: (1) Generic position uncertain, either *Amasa* or *Xylosandrus*.

References: **(ds)** Schedl 1977b: 194. **(tx)** Schedl 1961e: 153, 1977b: 194, 1979c: 178.

oralis (Schedl) 1961e: 164 (*Xyleborus*). Holotype ♀; Madagascar, Antaniditra pres Perinet; IRSM, Madagascar.

Distribution: Madagascar.

- Notes: (1) Generic position uncertain, either *Amasa* or *Xylosandrus*.
Hosts: *Eugenia* sp.
References: (ds) Schedl 1977b: 194. (tx) Schedl 1961e: 164, 1977b: 194, 1979c: 180.
- orbiculatus** (Schedl) 1942a: 186 (*Xyleborus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (hb) Browne 1961c: 106. (tx) Schedl 1942a: 186, 1951i: 51, 1955b: 298, 1979c: 180.
- posticestriatus** (Eggers) 1939c: 119 (*Xyleborus*). Lectotype ♀; Formosa (Taihoku); USNM, Washington, designated by Anderson & Anderson 1971: 26.
Distribution: Asia (Malaya/ Sri Lanka/ Taiwan), Micronesia.
Notes: (1) Nunberg 1959a: 434 (to *Xylosandrus*).
References: (ds) Schedl 1975j: 294. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1939c: 119; Nunberg 1959a: 434; Schedl 1942d: 4, 1951i: 63, 1954a: 142, 1958k: 149, 1959a: 496, 1979c: 198.
- pseudosolidus** (Schedl) 1936g: 530 (*Xyleborus*). Lectotype ♀; Tasmania, and New South Wales: Dorrigo, Narara; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 202.
Distribution: Australia (New South Wales, Queensland, Tasmania), New Zealand.
Hosts: *Araucaria cunninghami*, *Malus sylvestris*, *Mangifera indica*, *Prunus* spp.
References: (ds) Hardy, E. J. et al. 1971; Hardy, R. J. et al. 1982; Martyn et al. 1970: 4, 1975: 9; Schedl 1936g: 530, 1959d: 67. (tx) Schedl 1936g: 530, 1955b: 278, 1959d: 67, 1979c: 202.
- pusillus** (Schedl) 1961f: 91 (*Xyleborus*). Holotype ♀; Luzon, Rizal, Mt. Irid; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).
References: (ds) Schedl 1966b: 78. (tx) Nobuchi 1983: 303; Schedl 1961f: 91, 1964k: 213, 1979c: 206.
- pygmaeus** (Eggers) 1940d: 142 (*Xyleborus*). Holotype ♀; Ost-Java (Alas Tbedek); Kalshoven Collection.
Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Java).
Hosts: *Litsea amara*, *Vitex pubescens*.
References: (cn) Vayssiere 1923: 111. (hb) Browne 1961c: 169; Kalshoven 1959c: 147. (ds) Browne 1961c: 169; Kalshoven 1959c: 147; Schedl 1971a: 277; Vayssiere 1923: 111. (tx) Browne 1963c: 55; Eggers 1940d: 142; Schedl 1955b: 101, 1958k: 145, 1979c: 207.
- retusus** (Eichhoff) 1868c: 151 (*Xyleborus*). Syn-types ♀; N. Freiburg [Brazil]; Hamburg Museum, lost.
Figures: Pedrosa-Macedo & Schonherr 1985: 36.
Distribution: South America (Argentina/ Brazil).
Hosts: *Bauhinia* sp., *Cedrela fissilis*, *Coffea* spp., *Cratylia floribunda*, *Nectandra* sp.
References: (hb) Beaver 1976a: 25; Moreira 1928: 24–25; Viana 1964: 124. (ds) Beaver 1976a: 25; Blackwelder 1947: 780; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 110; Kleine 1913b: 162, 1934a: 174; Pedrosa-Macedo & Schonherr 1985: 36; Roba 1935: 340; Santoro 1957b: 25; Schedl 1966f: 89, 1970e: 84, 1971f: 149, 1972g: 45, 1973d: 159, 1976a: 55; Schonherr & Pedrosa-Macedo 1981: 56; Viana 1964: 124. (tx) Eichhoff 1868c: 151, 1878b: 316; Hagedorn 1908, 1910a: 156; Nunberg 1959a: 435; Pedrosa-Macedo & Schonherr 1985: 36; Schedl 1948d: 37, 1951h: 285.
- solidus** (Eichhoff) 1868c: 151 (*Xyleborus*). Holotype ♀; Neu-Holland; Hamburg Museum, lost.
Figures: Schedl 1972a: 148 (male).
Distribution: Australia (New South Wales, Queensland, Tasmania, Victoria).
Hosts: *Diploglottis australis*, *Eucalyptus* spp.
Notes: (1) Schedl 1979c: 232 (cited holotype as in Schedl Collection; if this is the holotype, then it was taken while on loan to Eggers). French 1911: pl. 1, fig. 4 (erroneously labeled this as *Apate collaris* Erichson).
References: (cn) Brimblecombe 1956; Froggatt 1900, 1907, 1924, 1927; Gurney 1915: 303–312; Jarvis 1922: 269–271, 1924: 435–438; Kleine 1932a: 306; Moore 1959: 188. (hb) Brimblecombe 1956; Froggatt 1900: 640–642, 1907, 1924, 1927; Kleine 1932a: 306. (ds) Gemminger & Harold 1872: 2686; Hagedorn 1910d: 111; Kleine 1913b: 162, 1914b: 299, 1932a: 306; Moore 1959: 188; Schedl 1936g: 529, 1936j: 31, 1959d: 67, 1965g: 25, 1972a: 144, 1979a: 159. (tx) Carne et al. 1980; Eggers 1927c: 88; Eichhoff 1868c: 151, 1878b: 518; French, C. 1911; Hagedorn 1908, 1910a: 156; Lea 1902: 221, 1904: 106; Schedl 1936g: 529, 1939j: 564, 1959d: 67, 1965g: 26, 1972a: 143–149, 1979c: 232.
- squamulatus** (Beaver) 1985: 69 (*Apoxyleborus*). Holotype ♀; Zambia; BMNH, London.
Distribution: Africa (Zambia).
References: (tx) Beaver 1985: 69.
- subsimiliformis** (Eggers) 1939b: 11 (*Xyleborus*). Holotype ♀; Nordostbirma (Kaimbaiti, 7000 Fuss); NHR, Stockholm, 1 Eggers cotype in NHMW, Wien.
Distribution: Asia (Burma).
References: (tx) Eggers 1939b: 11–12; Schedl 1979c: 243.
- subsimilis** (Eggers) 1930d: 186 (*Xyleborus*). Holotype ♀; Assam (Shillong); FRI, Dehra Dun, 1 Eggers cotype in NHMW, Wien.
Figures: Kumar & Chandra 1977: 47 (male).
Distribution: Asia (Assam, Bengal in India).
Hosts: *Cinnamomum obtusifolium*, *Tectona grandis*, *Terminalia myriocarpa*.

Notes: (3) Kumar & Chandra 1977: 36, 47 (described male).

References: (cn) Mathur & Singh 1961b: 14. (ds) Bhasin, Roonval, & Singh 1958; Mathur & Singh 1961b: 14. (tx) Eggers 1930d: 156, 1939b: 11; Kumar & Chandra 1977: 36, 47; Schedl 1979c: 244.

terminatus (Eggers) 1930d: 182 (*Xyleborus*). Holotype ♀; Coorg (Virojapet, Sidapur); FRI, Dehra Dun.

Distribution: Asia (Karnataka, Maharashtra, Tamil Nadu in India).

Hosts: *Holigarn arnottiana*, *Lantana* sp., *Swietenia macrophylla*.

Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).

References: (cn) Mathur & Singh 1960b: 55. (ds) Beeson 1930: 262; Mathur & Singh 1960b: 55. (tx) Beeson 1930: 262; Browne 1963c: 55; Eggers 1930d: 182, 1943d; Schedl 1955b: 298, 1979c: 252.

testudo (Eggers) 1939c: 116 (*Xyleborus*). Lectotype ♀; Formosa (Trichu); USNM, Washington, designated by Anderson & Anderson 1971: 34.

Distribution: Asia (Taiwan/ Vietnam).

References: (ds) Nobuchi 1967: 23; Schedl 1962b: 187, 1974c: 262. (tx) Anderson, W. H. & Anderson 1971: 34; Eggers 1939c: 116–118; Numberg 1959a: 440; Schedl 1979c: 252.

ursa (Eggers) 1923a: 172 (*Xyleborus*). Lectotype ♀; Haveri, Neu Guinea (Sudost); USNM, Washington, designated by Anderson & Anderson 1971: 35.

Distribution: Asia (Malaya), Indonesia (Celebes, Sumatra), New Guinea, Philippine Islands (Luzon), Solomon Islands.

References: (ds) Browne 1961c: 110, 1966: 248; Nobuchi 1979a: 407; Schedl 1936g: 528, 1966b: 75, 1969c: 156. (tx) Anderson, W. H. & Anderson 1971: 35; Beeson 1930: 41, 217; Eggers 1923a: 172–173, 1939b: 11; Nobuchi 1983: 304; Schedl 1936g: 528, 1940b: 434.

ursinus (Hagedorn) 1908: 381 (*Xyleborus*). Holotype ♀; Sumatra, Si-Rambe; MNB, Berlin.

Distribution: Indonesia (Borneo/ Soemba Island, Sumatra), Philippine Islands (Mindoro).

Hosts: *Theobroma cacao*.

References: (cn) Yunus & Hua 1980: 231. (ds) Hagedorn 1910d: 112; Kleine 1913b: 162, 1914b: 268; Sampson 1919: 109; Schedl 1965g: 22, 1966b: 75; Yunus & Hua 1980: 231. (tx) Beeson 1930: 41, 217; Eggers 1923a: 172–173, 1927b: 406, 1939b: 11; Hagedorn 1908: 381, 1910a: 157; Nobuchi 1983: 304; Numberg 1959a: 441; Sampson 1919: 109; Schedl 1965g: 22.

ursulus (Eggers) 1923a: 173 (*Xyleborus*). Syntypes ♀; Kintamani (Ost Bali, Sundainseln).

Figures: Nobuchi 1978a:pl. 2.

Distribution: Asia (Fujian in China/ Bengal, Nicobar Islands in India/ Malaya/ Thailand), Indonesia (Bali, Borneo, Java, Sumatra, Sunda Island), Philippine Islands (Luzon).

Hosts: *Celtis bizonicus*, *Ficus hainli*, *Gonostylus* sp.

References: (hb) Kalshoven 1959c: 143. (ds) Beaver & Browne 1978: 613; Browne 1961c: 110–111, 1965a: 189, 1954b: 257; Kalshoven 1959c: 143; Kleine 1934a: 176; Nobuchi 1978a: 25; Ohno, Yoneyama, & Nakazawa 1957a: 88, 1957b: 94; Ohno, Yoshioka, et al. 1959: 64; Schedl 1936d: 5, 1966b: 76, 1966g: 33, 1971c: 370, 1971f: 150. (tx) Eggers 1923a: 173, 1939b: 11; Nobuchi 1978a:pl. 2, 1983: 304; Schedl 1936d: 5, 1937c: 544, 1942d: 5, 1951i: 42, 91, 1954a: 144, 1965g: 24, 1979c: 261.

zimmermanni (Hopkins) 1915b: 67 (*Anisandrus*).

Holotype ♀; Biscayne, Florida [USA]; USNM, Washington.

Distribution: North America (Costa Rica/ Guatemala/ Chiapas in Mexico/ Florida in USA), South America (Venezuela).

Hosts: *Acer rubrum*, *Ardesia* sp., *Calliandra confusa*, *Chrysobalanus* sp., *Cupania guatemalensis*, *Ocotea catesbiana*.

Notes: (1) Wood 1962: 79 (to *Xylosandrus*). (3) Integration with *curtulus* is probable (SLW).

References: (cn) Blackman 1950. (hb) Blackman 1950; Chamberlin 1939: 445–446; Wood, S. L. 1982b: 769. (ds) Atkinson & Equihua 1985b: 237, 1986a: 422, 1988: 102; Baker, W. L. 1972: 271; Blackman 1950; Blackwelder & Blackwelder 1948; Blatchley & Leng 1916: 624; Bright 1968b: 1294; Chamberlin 1939: 445–446; Drooz 1985: 374; Leng 1920: 342; Wood, S. L. 1977a: 74, 1982b: 769. (tx) Blatchley & Leng 1916: 624; Bright 1968b: 1294; Chamberlin 1939: 445–446; Hopkins 1915b: 67–68; Wood, S. L. 1962: 79, 1966b: 33, 1982b: 769.

Genus *Cnestus* Sampson

CNESTUS SAMPSON 1911: 383. Type-species: *Cnestus magnus* Sampson, monobasic.

Tosaxyleborus Murayama 1950a: 49. Type-species: *Tosaxyleborus pallidipennis* Murayama = *Cnestus murayamai* Schedl, original designation. Synonymy: Browne 1955: 368.

References: (tx) Browne 1955: 368, 1963c: 54; Murayama 1950a: 49; Schedl 1962p: 207.

Keys: Numberg 1972a: 476.

References: (ay) Nobuchi 1969a: 64. (hb) Browne 1961c: 173; Wood, S. L. 1986a: 83. (ds) Schedl 1966b: 78; Wood, S. L. 1986a: 83. (tx) Browne 1955: 357, 1963c: 54; Choo 1983: 96; Choo, Woo, & Nobuchi 1985b; Hopkins 1915b: 10; Numberg 1972a: 476–477; Sampson 1911: 383–384; Schedl 1958k: 145, 1962p: 207; Wood, S. L. 1986a: 83.

aterrimus (Eggers) 1927b: 400 (*Xyleborus*). Holotype ♀; Sumatra; Eggers Collection, in NHMW, Wien.

Distribution: Asia (Malaya/ Thailand), Australia, Indonesia (Java, Sumatra), New Guinea.

Hosts: *Canarium littorale*, *Castanopsis sumatrana*, *Cinnamomum iners*, *Clerodendron villosum*,

- Elaeocarpus petiolatus*, *Fissistigma elegans*, *Grewia paniculata*, *Scorodocarpus borneensis*, *Shorea acuminata*, *Swietenia macrophylla*, *Vitex pubescens*. Notes: (1) Browne 1961c: 173 (to *Cnestus*). References: (ec) Browne 1958b. (hb) Beaver & Browne 1975: 287; Browne 1958b, 1961c: 173; Kalshoven 1959c: 165–166. (ds) Beaver & Browne 1975: 287, 1978: 583; Browne 1961c: 173; Kalshoven 1959c: 165–166. (tx) Browne 1961c: 173; Eggers 1927b: 400; Schedl 1951i: 61, 88, 1954a: 140, 1958k: 145, 1979c: 30.
- glaberrimus* Schedl 1942c: 184 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien. Synonymy: Browne 1961c: 173. References: (ds) Schedl 1965g: 25. (tx) Browne 1961c: 173, 1973c: 173; Schedl 1942c: 184, 1965g: 25, 1979c: 105.
- glabripennis* Schedl 1942a: 189 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Ulu Gombak; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 145. References: (tx) Schedl 1942a: 189, 1951i: 61, 1958k: 145, 1979c: 106.
- nitens* Browne 1955: 358. Holotype ♀; Malay Peninsula: Selangor, Kepong; BMNH, London. Synonymy: Schedl 1958k: 145. References: (tx) Browne 1955: 358; Schedl 1958k: 145.
- bicornioides** (Schedl) 1952b: 368 (*Xyleborus*). Holotype ♀; Philippine Islands: Mindanao, Lolumbugan; Schedl Collection in NHMW, Wien. Distribution: Asia (Malaya), Philippine Islands. Hosts: *Shorea sumatrana*, *Swietenia macrophylla*. Notes: (1) Browne 1961c: 174 (to *Cnestus*). References: (hb) Browne 1961c: 174. (ds) Browne 1961c: 174; Schedl 1966b: 78. (tx) Browne 1955: 360, 1961c: 174; Nobuchi 1983: 304; Schedl 1952b: 368, 1958k: 145, 1979c: 39.
- bicornis** (Eggers) 1923a: 194 (*Xyleborus*). Syntypes 2 ♀; Niederl. Indien.; MNB, Berlin, and Eggers Collection (USNM, Washington or NHMW, Wien?). Distribution: Asia (Assam in India/ Malaya), Indonesia (Java, Sumatra), Philippine Islands. Hosts: *Altingia excelsa*, *Cinchona* sp., *Coffea robusta*, *Erythroxylon novagranatae*, *Shorea bracteolata*, *S. leprosula*, *S. ovalis*, *S. sumatrana*. References: (cn) Frohlich & Rodewald 1969: 99; Kalshoven 1951: 849; Miller 1933: 105–107, 125; Ultee 1931: 1–51. (ec) Kalshoven 1960b: 260; Norris 1979. (hb) Browne 1961c: 189; Kalshoven 1951: 849, 1959c: 164. (ds) Browne 1961c: 189; Kalshoven 1959c: 164. (tx) Eggers 1923a: 194, 1927b: 390, 1930k: 201; Nunberg 1959a: 416; Schedl 1942d: 32, 1952b: 368, 1958k: 145, 1979c: 39.
- bimaculatus** (Eggers) 1927c: 88 (*Xyleborus*). Holotype ♂; Philippines: Mindanao, Provinz Lanao, Iligan; USNM, Washington. Distribution: New Guinea, Philippine Islands (Mindanao). References: (ds) Nobuchi 1979a: 407; Schedl 1936g: 532, 1966b: 78. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1927c: 88; Schedl 1958k: 145.
- cruralis** (Schedl) 1975e: 456 (*Xyleborus*). Holotype ♀; Siam; Schedl Collection in NHMW, Wien [probably from Eggers Collection]. Distribution: Asia (Xizang [Tibet] in China/ Andaman Islands, Bengal in India/ Thailand). Notes: (3) Schedl 1936j: 27, 1939e: 331 (*cruralis* Eggers, nomen nudum). References: (tx) Schedl 1936j: 27, 1939e: 331, 1975e: 456, 1979c: 71.
- klapperichi** (Schedl) 1955h: 46 (*Xyleborus*). Holotype ♀; Fukien: Kuatum, China; Klapperich Collection in Alexander Koenig Museum, Bonn?). Distribution: Asia (Fujian in China). References: (tx) Schedl 1955h: 46, 1960e: 172, 1979c: 133.
- maculatus** Browne 1983d: 33. Holotype ♀; China: Sichuan, Kangding; IZAS, Beijing. Distribution: Asia (Sichuan in China). References: (tx) Browne 1983d: 33.
- magnus Sampson** 1911: 383. Holotype ♀; Ceylon; BMNH, London. Distribution: Asia (Sri Lanka). Hosts: *Albizzia* spp., *Chloroxylon swietenia*, *Swietenia* spp. References: (cn) Green 1912a: 39; Mathur & Singh 1961a: 79. (ds) Beeson 1961: 286; Bhasin, Roonwal, & Singh 1958; Green 1912a: 39; Mathur & Singh 1961a: 79; Schedl 1959a: 511, 1971a: 281. (tx) Browne 1955: 358–360; Green 1912a: 39; Hopkins 1914: 118–119; Sampson 1911: 383–384; Schedl 1958k: 145, 1959a: 511.
- murayamai** Schedl 1962p: 207. Holotype ♀; Japan: Isa, Shimidzu, Hata-gun, Kochi Pref., Shikoku; Murayama Collection in USNM, Washington, automatic. Figures: Nobuchi 1964: pl. 1, 1967: pl. 2. Distribution: Asia (Japan/ Ryukyu Islands/ Taiwan). Hosts: *Cinnamomum camphora*, *Machilus thunbergii*. References: (ds) Choo 1983: 96; Choo & Woo 1985: 165; Nobuchi 1967: 24, 1985c: 28. (tx) Browne 1963c: 54; Choo 1983: 96; Nobuchi 1964: 131, 1967: pl. 2; Schedl 1962p: 207.
- pallidipennis** Murayama 1950a: 49 (*Tosaxyleborus*). Holotype ♀; Japan: Isa, Shimidzu, Hata-gun, Kochi pref., Shikoku; Murayama Collection in USNM, Washington, preoccupied by Eggers 1940. References: (ds) Murayama 1952a: 120. (tx) Browne 1963c: 54; Murayama 1950a: 49, 1952: 20; Schedl 1962p: 207.
- murayamai** Browne 1963c: 54. Holotype ♀; Japan: Isa, Shimidzu, Hata-gun, Kochi pref., Shikoku; Murayama Collection in USNM, Washington, automatic.

Notes: (1) This is an unneeded replacement name for *pallidipennis* Murayama.

References: (tx) Browne 1963c: 54; Nobuchi 1964: 131; Schedl 1962p: 207.

nitidiloides (Schedl) 1951i: 89 (*Xyleborus*). Holotype ♂; Java, Batoerraden, G. Slamet; Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: (tx) Schedl 1951i: 89, 1979c: 169.

nitidipennis (Schedl) 1951i: 88 (*Xyleborus*). Syn-types 2 ♀; Java, Batoerraden; Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java/Vietnam).

Hosts: *Eupatorium pallescens*.

Notes: (1) Schedl 1979c: 169 (citation of holotype invalid).

References: (hb) Kalshoven 1959c: 165. (ds) Kalshoven 1959c: 165; Nobuchi 1967: 22; Schedl 1969c: 52. 1974c: 262. (tx) Schedl 1951i: 88, 1954a: 142, 1979c: 169.

nitidus (Schedl) 1951i: 87 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Baguio; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

Hosts: *Ficus* sp.

References: (ds) Schedl 1966b: 78. (tx) Nobuchi 1983: 304; Schedl 1951i: 87, 1952b: 364, 1979c: 171.

nudus (Nunberg) 1956: 209 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Baguio; Schedl Collection in NHMW, Wien, automatic.

Distribution: Philippine Islands (Luzon).

References: (tx) Nunberg 1956: 209; Schedl 1958k: 145, 1960i: 109.

punctulatus Schedl 1951i: 61 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Baguio; Schedl Collection in NHMW, Wien, preoccupied by Kurenzov 1948.

Notes: (1) Schedl 1958k: 145 (to *Cnestus*).

References: (ds) Schedl 1966b: 78. (tx) Nobuchi 1983: 304; Nunberg 1956: 209; Schedl 1951i: 61, 1952b: 364, 1958k: 145, 1960i: 106, 109.

pallidipennis (Eggers) 1940d: 143 (*Xyleborus*). Holotype ♀; Java (Preanger, G. Tangkoeban Prahoë); Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: (ds) Murayama 1953c, 1954b: 185. (tx) Eggers 1940d: 143-144; Murayama 1954b: 185; Schedl 1958k: 145, 1962p: 207, 1979c: 182.

protensus (Eggers) 1930d: 201 (*Xyleborus*). Holotype ♀; Assam (Shillong, 6000 feet); FRI, Dehra Dun.

Distribution: Asia (Assam in India).

References: (tx) Eggers 1930d: 201; Schedl 1942a: 172, 1952b: 368, 1958k: 145.

pseudopunctulus (Schedl) 1942a: 194 (*Xyleborus*). Syn-types ♀; Malaya, Kuala Lumpur; BMNH, London and Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

Notes: (1) Browne 1961c: 174 (to *Cnestus*).

References: (tx) Browne 1961c: 174; Schedl 1942a: 194, 1971c: 365.

pseudosuturalis Schedl 1964k: 315. Lectotype ♂; Tonkin, Choganh; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 202.

Distribution: Asia (Tonkin Island in Vietnam).

References: (tx) Schedl 1964k: 315, 1979c: 202.

rostratus Schedl 1977f: 502. Holotype ♀; N. Vietnam: Thai-Nguyen; Schedl Collection in NHMW, Wien.

Distribution: Asia (Vietnam).

References: (tx) Schedl 1977f: 502.

rotundatus Schedl 1975f: 357. Holotype ♀; Block 10, N.G.I. logging area, Gabensis, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Hosts: *Dracontomelon* sp.

References: (tx) Schedl 1975f: 357.

suturalis (Eggers) 1930d: 200 (*Xyleborus*). Holotype ♀; Assam (Shillong, 6000 feet); FRI, Dehra Dun.

Distribution: Asia (Assam in India/ Malaya/ Tonkin Island in Vietnam), Indonesia (Java).

Hosts: *Acacia* sp., *Dipterocarpus* sp., *Eupatorium pallescens*, *Hopea* sp., *Melia* sp., *Piper* sp., *Shorea* sp., *Swietenia mahagoni*, *Terminalia nyriocarpa*, *Vatica* sp.

References: (en) Mathur & Singh 1961b: 34. (hb) Browne 1961c: 189; Kalshoven 1959c: 165. (ds) Kalshoven 1959c: 165; Schedl 1937f: 15, 1962b: 187. (tx) Eggers 1930d: 200-201, 1937f: 15-17, 1940d: 143, 1942d: 5; Mathur & Singh 1961b: 34; Schedl 1942a: 189, 1951i: 87, 1979c: 248.

triangularis (Schedl) 1975f: 370 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist., New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 370, 1979c: 255.

Genus *Xyleborinus* Reitter

XYLEBORINUS REITTER 1913a: 79, 83. Type-species: *Bostrichus saxeseni* Ratzeburg, subsequent designation by Swaine 1918a: 50.

Keys: Wood 1982b: 842 for North and Central America.

References: (ay) Francke-Grosman 1958: 139-144. (hb) Beaver 1976a: 22; Hopping & Jenkins 1933: 14; Wood, S. L. 1982b: 841, 1986a: 84. (ds) Scheerpeltz & Winkler 1930: 258; Wood, S. L. 1982b: 841, 1986a: 84. (tx) Arnett 1960: 1045, 1968: 1045; Balachowsky 1949a: 122; Choo 1983: 113; Choo, Woo, & Nobuchi 1985b; Wood, S. L. 1982b: 841, 1986a: 84.

- aduncus (Schedl)** 1961e: 148 (*Xyleborus*). Holotype ♀; Madagascar, Montagne d'Ambre; IRSM, Madagascar.
 Figures: Schedl 1961e: 149, 1977b: 217.
 Distribution: Madagascar.
 Hosts: *Cassipourea* sp., *Cinchona succerubra*, *Olea ambrensis*.
 References: (ds) Schedl 1977b: 217. (tx) Schedl 1961e: 148–149, 1977b: 217–218, 1979e: 12.
- aduncus profundus** Schedl 1961e: 149 (*Xyleborus*). Holotype ♀; Madagascar: Ambodivony; IRSM, Madagascar.
 References: (tx) Schedl 1961e: 149, 1977b: 218, 1979e: 12.
- adunculus** Schedl 1961e: 150 (*Xyleborus*). Holotype ♀; Madagascar, Morafenobe, foret Mahajeby; IRSM, Madagascar.
 References: (tx) Schedl 1961e: 150.
- aemulus (Wollaston)** 1869: 321 (*Tomicus*). Holotype ♀; St. Helena; BMNH, London.
 Figures: Schedl 1962j: 531.
 Distribution: Africa (South Africa), St. Helena Island.
 Hosts: *Acacia karroo*, *Acalypha glabrata*, *Commidendron robustum*, *Fagara capensis*, *Gonionia camassi*, *Ocotea bullata*, *Olea capensis*, *Podocarpus falcatus*, *Quercus* sp., *Rapanea melanophloeos*, *Rhus mucronata*, *Schotia latifolia*, *Veprisa undulata*, *Virgilia capensis*, *Xymalos monospora*.
 References: (cn) Anonymous 1970c: 14. (ec) Walt, Scott, & Van Der Klift 1971a, 1971b: 451. (ds) Anonymous 1970c: 14; Decelle 1972a, 1972b: 517–518; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 98; Kleine 1913b: 159; Schedl 1962b: 59, 1962j: 531, 1965g: 20, 1965h: 112, 1969d: 6, 1970h: 180, 1975k: 277, 1982: 279. (tx) Hagedorn 1910a: 152; Schedl 1957b: 151, 1957d: 84, 1959q: 709, 1962j: 531, 1962k: 1198, 1965g: 20; Wollaston 1869: 321.
- alienus (Schedl)** 1977c: 398 (*Xyleborus*). Holotype ♀; Sudafrika: Humansdorp, Kapprovins; Schedl Collection in NHMW, Wien.
 Distribution: Africa (South Africa).
 References: (tx) Schedl 1977c: 398.
- alni (Niisima)** 1909: 160 (*Xyleborus*). Holotype ♀; Sapporo (Mitsuhashi), Tomakomai; Nobuchi Collection, Ibaraki.
 Distribution: Asia (Japan/ E USSR), Europe (Czechoslovakia).
 Hosts: *Ahnus* spp., *Betula japonica*, *Tilia amurensis*.
 References: (cn) Kurenzov 1935c: 188. (ec) Kurenzov 1934a: 50. (hb) Kurenzov 1935a: 20, 38, 1948b: 114; Stark 1952: 438. (ds) Gemminger & Harold 1872: 2685; Kleine 1913b: 159, 1914b: 261, 1934a: 172; Knizek 1988; Kurenzov 1934a: 50, 1935a: 20, 38, 1935c: 188, 1936a: 109–110, 1936b: 350, 1938a: 59; Murayama 1954b: 202; Stark 1952: 438. (tx) Eggers 1933f: 53; Eichhoff 1868d: 419; Hagedorn 1910a: 152; Kurenzov 1941a: 188, 1948b: 114; Murayama 1954b: 202; Niisima 1909: 160; Schedl 1934f: 1645, 1940c: 208, 1979e: 16; Stark 1952: 438.
- andrewesi (Blandford)** 1896b: 227 (*Xyleborus*). Holotype ♀; India, Belgaum [Maharashtra]; BMNH, London.
 Figures: Numberg 1978: 105.
 Distribution: Africa (Kenya/ Seychelles Islands/ Zambia), Antilles Islands (introduced: Jamaica), Asia (Bangladesh/ Burma/ China/ Andaman Islands, Assam, Bengal, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Japan/ Malaya/ Nepal/ Ryukyu Islands/ Sri Lanka/ Thailand/ Vietnam), Indonesia (Borneo, Java), Micronesia (Timor in Mariana Islands), New Guinea, New Zealand, Philippine Islands.
 Hosts: Many listed by Browne 1961c: 120, Schedl 1962j: 486–488. *Albizia* spp., *Anacardium* sp., *Anthocephalus* sp., *Artocarpus dadah*, *Buchanania* sp., *Canarium* sp., *Cinnamomum* sp., *Cryptocaria* sp., *Garuga* sp., *Isonandra* sp., *Mallotus* sp., *Mangifera indica*, *Myristica indica*, *Odina wodiier*, *Palaquium elliptica*, *Pterospermum* sp., *Randia* sp., *Samanea saman*, *Shorea robusta*, *Tectona grandis*.
 References: (bv) Gray, B. 1974c. (cn) Beaver 1988a: 63; Chandra 1981: 287; Kalshoven 1924c; Kleine 1932a: 307; Mathur & Singh 1960b: 6, 1961a, 1961b: 13; Pierce, W. D. 1917: 193; Roonwal 1954: 45; Stebbing 1914: 593. (ec) Beeson 1923; Stebbing 1914: 593. (hb) Beaver 1988a: 63; Beaver & Browne 1975: 297, 1978: 603; Beaver & Loytyniemi 1985a: 72; Beeson 1915: 8–11, 1916a: 221, 1923; Browne 1961c: 120–122; Chandra 1981: 287; Gray, B. 1974c; Kalshoven 1924c: 6–25, 1958a: 186–189; Kleine 1932a: 307; Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 485; Stebbing 1914: 593. (ds) Beaver 1988a: 63; Beaver & Browne 1975: 297, 1978: 603; Beaver & Loytyniemi 1985a: 72; Beeson 1916a, 1923: 164, 1930: 226, 1941: 393; Bhasin, Roonwal, & Singh 1955: 41, 68; Bright 1985c: 173; Browne 1935: 3, 1941: 67, 1949: 178–189, 1961c: 120; Chandra 1981; Hagedorn 1910d: 99; Kalshoven 1958a: 186, 1959: 153; Kleine 1913b: 159, 1914b: 270, 1928: 307, 1932a: 307, 1934a: 172; Mathur & Singh 1960b: 6, 1961a: 13, 1961b: 14; Nobuchi 1979a: 406; Pierce, W. D. 1917: 193; Roonwal 1954: 45, 53, 67; Schedl 1962j: 485, 1969d: 12, 1971a: 277, 1973b: 211, 1973c: 378, 1975a, 1975c: 450, 1975i: 346, 1975j: 294; Wichmann 1954: 522; Yin, Huang, & Li 1984: 157. (tx) Beaver & Loytyniemi 1985a: 72; Beeson 1930: 226; Blandford 1896b: 227; Bright 1985c: 173; Eggers 1922b: 174, 1925: 153–154; Hagedorn 1910a: 152; Numberg 1978: 105–106; Sampson 1919: 110, 1923b: 287–288; Schedl 1939c: 332, 1942d: 7, 1962j: 485; Stebbing 1914: 593; Wood, S. L. 1989: 176; Yin, Huang, & Li 1984: 157.

- persphenos* Schedl 1970a: 219 (*Xyleborus*). Holotype ♀; New Guinea: Simbai, Madang Dist.; CSIRO, Canberra. Synonymy: Beaver & Browne 1978: 603, Wood 1989: 176.
References: (tx) Schedl 1970a: 219, 1979c: 191; Wood, S. L. 1989: 176.
- insolitus* Bright 1972d: 77 (*Xyleborus*). Holotype ♀; Irish Town, St. Andrew Parish, Jamaica; CNCI, Ottawa. Synonymy: Bright 1985: 173.
References: (tx) Bright 1972d: 77, 95, 1985: 179; McNamara 1977: 200.
- ankius* (Schedl) 1975f: 361 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; Schedl Collection in NIMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 361, 1979c: 21.
- armatus* (Schaufuss) 1891: 30 (*Xyleborus*). Holotype ♀; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluaud 1900: 440; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 326; Spahr 1981; Voeltzkow 1913: 256. (tx) Eggers 1920: 44; Fairmaire 1892b; Hagedorn 1910a: 152; Keler 1928: 33; Schaufuss 1891: 30; Schedl 1953d: 102, 1977b: 197.
- artelineatus* (Beeson) 1929: 239 (*Xyleborus*). Holotype ♀; Upolu: Malololelei, Samoa; BMNH, London.
Distribution: Fiji Islands, Samoan Islands.
References: (ds) Beeson 1938b: 291; Spahr 1981. (tx) Beeson 1929: 239; Schedl 1951k: 138, 1977b: 197.
- validicornis* Schedl 1950f: 52 (*Xyleborus*). Lectotype ♀; Fiji: 2700 ft., Tholo North, west slope of Mt. Victoria, 3000 ft.; Schedl Collection in NIMW, Wien, designated by Schedl 1979c: 263. Synonymy: Beaver 1991: 94.
References: (cc) Roberts 1977a: 267. (hb) Roberts 1977a: 267. (ds) Browne 1974a: 65; Roberts 1977a: 267. (tx) Beaver 1991: 94; Schedl 1950f: 52, 1979c: 263.
- artestriatus* (Eichhoff) 1878: 507 (*Xyleborus*). Holotype ♀; Asiae India orientalis; Hamburg Museum, lost.
Distribution: Asia (Burma/ Bengal, Madhya Pradesh, Uttar Pradesh in India/ Malaya/ Sri Lanka/ Vietnam), Australia (Darwin, Queensland), Bismarck Islands, Fiji Islands, Indonesia (Borneo, Java, Sumatra), New Guinea.
Hosts: *Eugenia jambolana*, *Ficus religiosa*, *Heritiera fomes*, *Juglans regia*, *Lannea grandis*, *Mallotus philippinensis*, *Mangifera indica*, *Phyllanthus emblica*, *Semecarpus anacardium*, *Shorea robusta*.
References: (bv) Gray, B. 1974c. (cn) Wylie & Shanahan 1975. (hb) Browne 1961c: 148; Gray, B. 1974c; Kalshoven 1958a: 186, 1959c: 147; Wylie & Shanahan 1975. (ds) Browne 1961c: 148, 1966: 252, 1970: 541; Hagedorn 1910d: 99; Kalshoven 1958a: 186, 1959c: 147-148; Kleine 1913b: 160, 1914b: 270; Schedl 1936d: 2, 1936g: 528, 1937j: 15-17, 1959a: 506, 1962b: 184, 1964c: 306, 1965a: 340, 1969c: 52, 1971c: 366, 1971f: 148, 1977d: 280. (tx) Beeson 1929: 240; Eggers 1923a: 196-197, 1925: 154, 1927c: 101, 1932b: 206; Eichhoff 1878b: 507; Hagedorn 1910a: 152; Schedl 1935j: 1, 1939e: 332, 1942d: 6, 1954a: 140, 1959a: 506; Wood, S. L. 1989: 176.
- laticollis* Blandford 1896b: 226 (*Xyleborus*). Holotype ♀; India, Kanara; BMNH, London. Synonymy: Schedl 1955k: 152.
References: (bv) Beeson 1917. (cn) Kleine 1932a: 307; Mathur & Singh 1961a: 32. (ec) Beeson 1923. (hb) Beeson 1915: 8-11, 1916a: 221, 1917, 1923; Chandra 1981; Kleine 1932a: 307. (ds) Beeson 1916a, 1923, 1930: 244, 1961: 306; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 270, 1932a: 307; Mathur & Singh 1961a: 32; Sampson 1921: 33; Schedl 1936j: 32. (tx) Beeson 1930: 244; Blandford 1896b: 226; Hagedorn 1910a: 155; Sampson 1919: 112, 1921: 32-33; Schedl 1955k: 152.
- rugipennis* Schedl 1953c: 303 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Cameron Highlands, Sinking Kial; Schedl Collection in NIMW, Wien, designated by Schedl 1979c: 216. Synonymy: Wood 1989: 176.
References: (ds) Browne 1961c: 151. (tx) Schedl 1953c: 303, 1979c: 216; Wood, S. L. 1989: 176.
- attenuatus* (Blandford) 1894d: 114 (*Xyleborus*). Holotype ♀; Nikko, Japan; BMNH, London.
Distribution: Asia (Japan/ Korea).
Hosts: *Diospyros kaki*, *Fagus crenata*, *Hamamelis japonica*, *Magnolia obovata*, *Prunus* sp., *Quercus stenophylla*.
References: (bv) Choo, Woo, & Park 1988. (cn) Murayama 1954a: 15; Shiraki 1952; Ueno 1960. (ds) Blandford 1894c; Cho 1957; Choo 1983: 105; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1988; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 260; Ko 1969: 284; Murayama 1929b: 2, 1937b: 375, 1949c: 102, 1953a: 16, 1953c: 156, 1954a: 15, 1954b: 175; Nobuchi 1967: 21; Shiraki 1952; Ueno 1960. (tx) Blandford 1894d: 114; Choo 1983: 105; Hagedorn 1910a: 152; Murayama 1930: 22, 26, 31, 1937b: 375, 1953a: 16, 1954b: 175; Niisima 1909: 161; Schedl 1934f: 1645.
- beaveri* Browne in Beaver & Browne 1978: 603. Holotype ♀; Malaysia: Penang; BMNH, London. Figures: Beaver & Browne 1978: 604.
Distribution: Asia (Malaya).
References: (tx) Beaver & Browne 1978: 603-605.

- bicornatus** (Wood) 1967c: 137 (*Xyleborus*). Holotype ♀; Moravia, Cartago, Costa Rica; Wood Collection. Distribution: North America (Costa Rica/Panama), South America (Colombia). Hosts: *Ochroma* sp., *Theobroma cacao*, palm log. References: (hb) Wood, S. L. 1982b: 847. (ds) Wood, S. L. 1982b: 847. (tx) McNamara 1977: 200; Wood, S. L. 1967c: 137, 1982b: 847.
- buscki** (Hopkins) 1915b: 63 (*Xyleborus*). Holotype ♀; Guadeloupe, West Indies; USNM, Washington. Distribution: Antilles Islands (Dominica/Guadeloupe). Notes: (1) Bright 1981c: 156 (to *Xyleborinus*). References: (ds) Blackwelder 1947: 779; Bright 1981c: 156, 1985c: 173. (tx) Bright 1981c: 156, 1985c: 173; Hopkins 1915b: 61–63.
- celatus** Wood 1974a: 43. Holotype ♀; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Icica altissima*, *Inga* sp., *Protium nervosum*. References: (tx) Wood, S. L. 1974a: 43.
- collarti** (Eggers) 1932d: 300 (*Xyleborus*). Holotype ♀; Congostaat (Foret de Kawa); USNM, Washington. Figures: Nunberg 1963b:pl. 9, figs. 5–8. Distribution: Africa (Angola/ Cameroon/ Ghana/ Tanzania/ Zaire). Hosts: *Acacia* sp., *Cinchona* sp., *Conopharyngia* sp., *Galiniera coffeoides*, *Haronga paniculata*, *Milletia ferruginea*, *Solanum aculeastrum*, *Syzygium congolense*, *Trichilia heudelotii*, *Turraeanthus africana*. Notes: (3) Browne 1973a: 296 (described male). References: (hb) Roberts 1969: 131; Schedl 1962j: 490. (ds) Ferreira 1965: 1121; Schedl 1959p: 19, 1962j: 490; Thompson, C. H. 1963: 71. (tx) Anderson, W. H. & Anderson 1971: 9; Browne 1973a: 296; Eggers 1932d: 300–301; Nunberg 1963b: 24, pl. 9; Schedl 1952j: 4, 1953g: 242, 1954e: 52, 1962j: 490, 1962k: 1099, 1979c: 60.
- semipilosus** Eggers 1932d: 300 (*Xyleborus*). Holotype ♀; Congostaat (Katanga: Lufudizi); MRCB, Tervuren. Synonymy: Schedl 1962q: 490. References: (tx) Eggers 1932d: 300; Nunberg 1963b:pl. 26; Schedl 1962q: 490.
- cuneidentis** (Schedl) 1961e: 151 (*Xyleborus*). Holotype ♀; Madagascar, Ambodivoangy; IRSM, Madagascar. Distribution: Madagascar. References: (tx) Schedl 1961e: 151, 1977b: 196, 1979c: 71.
- cuneolosus** (Schedl) 1959a: 510 (*Xyleborus*). Holotype ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien. Distribution: Asia (Sri Lanka). References: (ds) Schedl 1959a: 510. (tx) Schedl 1959a: 510, 1977b: 218, 1979c: 72.
- cupulatus** (Schedl) 1961e: 150 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Calophyllum chapelieri*, *Garcinia verucosa*, *Weilmannia* sp.. References: (tx) Schedl 1961e: 150, 1977b: 218, 1979c: 72.
- dentellus** (Schedl) 1953d: 102 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 77. Figures: Schedl 1977b: 213. Distribution: Madagascar. Hosts: *Uapaca* sp. Notes: (3) Schedl 1965c: 71 (described male). References: (ds) Schedl 1977b: 212. (tx) Schedl 1953d: 102, 1965c: 71, 1977b: 212–213, 1979c: 77.
- diapiformis** (Schedl) 1961e: 155 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Chrysophyllum boivianum*. References: (ds) Schedl 1977b: 207. (tx) Schedl 1961e: 155, 1977b: 207, 1979c: 80.
- dirus** Wood 1974a: 41. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection. Distribution: North America (Costa Rica), South America (Colombia). Hosts: *Cespedesia macrophylla*. References: (hb) Wood, S. L. 1982b: 845. (ds) Wood, S. L. 1982b: 845. (tx) Wood, S. L. 1974a: 41, 1982b: 845.
- diversus** (Schedl) 1954e: 80 (*Xyleborus*). Lectotype ♀; Gold Coast, Bekwai; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 83. Distribution: Africa (Angola/ Fernando Poo Island/ Ghana/ Ivory Coast/ Zaire). Hosts: *Anthocheista nobilis*, *Trichilia* sp., *Triplochiton scleroxylon*. References: (hb) Pollet 1977: Schedl 1962j: 493. (ds) Ferreira 1965: 1122; Pollett 1977; Schedl 1959p: 20, 1962j: 493, 1971g: 193, 1972e: 283, 1979b: 416; Thompson, C. H. 1963: 71. (tx) Schedl 1954e: 52, 80, 1962j: 493, 1979c: 83.
- excavatus** (Hagedorn) 1907b: 111 (*Xyleborus*). Syntypes 6 ♀; Madagaskarkopal; Hamburg Museum, lost. Distribution: Madagascar (fossil in copal). References: (ds) Begein 1907: 223; Hagedorn 1907a: 261, 1910d: 104, 1913b: 256; Kleine 1912a: 212, 1913b: 161, 1914b: 326; Schedl 1977b: 219; Spahr 1981. (tx) Hagedorn 1907b: 111, 1910a: 152–153; Keler 1928: 30; Schedl 1961e: 148, 1977b: 219, 1979c: 93.
- exiguus** (Walker) 1859: 260 (*Bostrichus*). Holotype ♀; Ceylon; BMNH, London. Figures: Nobuchi 1978a:pl. 4, Wood 1960a: 58.

Distribution: Asia (Burma/ Andaman Islands, Assam, Bengal, Nicobar Islands in India/ Malaya/ Nepal/ Sri Lanka/ Thailand/ Vietnam), Fiji Islands, Indonesia (Borneo, Java, Sumatra), Micronesia (Guam, Truk in Mariana Islands, Palau Islands), New Guinea, Philippine Islands, Society Islands, Solomon Islands (Rennell Island). Hosts: *Artocarpus* sp., *Bombax malabaricum*, *Canarium euphyllum*, *Cinnamomum iners*, *Dipterocarpus zeylanicus*, *Eucalyptus deghtpa*, *Hevea brasiliensis*, *Parkia speciosa*, *Pterocarpus dalbergoides*, *Quercus* sp., *Samanea saman*, *Terminalia bialata*.

References: (cn) Mathur & Singh 1960b: 43, 1961b: 28; Ranawera 1959: 78; Roonwal 1954: 85, 1959: 78. (hb) Beaver & Browne 1978: 608; Browne 1936a, 1961c: 122; Mathur & Singh 1960b: 43, 1961b: 28; Speyer 1923: 20. (ds) Beaver & Browne 1975: 298; Beeson 1930: 233–234, 1935a: 202, 1935b, 1938b: 202; Bhasin, Roonwal, & Singh 1958; Browne 1936a, 1961c: 122–123, 1966: 255–256, 1968c: 113; Eggers 1926a; Froggatt 1936; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 54, 104; Kleine 1913b: 127, 161, 1914b: 273, 278, 1934a: 172; Lacordaire 1866: 383; Mathur & Singh 1960b: 43, 1961b: 28; Nobuchi 1978a: 43, 1980a; Numberg 1964a: 236; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987a: 88, 1987b: 94; Ohno, Yoshioka, et al. 1988a: 93, 1989: 61; Roonwal 1954: 85; Schedl 1936g: 528, 1936j: 21, 1938g: 426, 1959a: 506, 1965a: 340, 1965g: 22, 1966b: 53, 1969a: 206, 1969e: 156, 1971a: 227, 1971f: 148, 1972b: 226, 1973b: 211, 1975j: 294; Thomas, R. T. S. 1960a, 1960b; Wood, S. L. 1960a: 51. (tx) Beeson 1930: 57–58, 283, 1935a: 118, 1935b; Eggers 1925: 154, 1926a: 300, 1927b: 407; Ferrari 1867: 75; Hagedorn 1910a: 154, 1910d: 104; Lacordaire 1866: 383; Motschulsky 1863: 511; Nobuchi 1978a: pl. 4, 1983: 302; Schedl 1933e: 106, 1939e: 332, 1942a: 170, 1942c: 163, 1942d: 7, 1950f: 40, 1951k: 138, 1952b: 364, 1954a: 141, 1958k: 155, 1959a: 506, 1962p: 207, 1965g: 22; Walker 1859: 260; Wood, S. L. 1960a: 51, 58–60.

muriceus Eichhoff 1878b: 506 (*Xyleborus*). Syn-types ♀; Asia India; Hamburg Museum, lost. Synonymy: Eggers 1925: 154.

References: (tx) Beeson 1935: 118; Eggers 1925: 154; Eichhoff 1878b: 506; Wood, S. L. 1960a: 60.

forcipatus (Schedl) 1957d: 104 (*Xyleborus*). Holotype ♀; Congo Belge; Kivu, Mulungu; MRCB, Tervuren.

Figures: Numberg 1963b: pl. 14, figs. 7–8, Schedl 1962j: 524.

Distribution: Africa (Zaire).

Hosts: *Acridocarpus fraxinifolius*, *Eucalyptus citriodora*.

References: (ds) Mayne & Donis 1962: 319;

Schedl 1962j: 523. (tx) Numberg 1963b: 32, pl. 14; Schedl 1957d: 104, 1962j: 523–524, 1979c: 98.

forciculoides (Schedl) 1951j: 24 (*Xyleborus*). Lectotype ♀; Madagascar, Tsimbazaza; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 98.

Figures: Schedl 1961e: 150, 1977b: 215.

Distribution: Madagascar.

Hosts: *Chrysophyllum boivianum*, *Coleus* sp., *Ekebergia* sp., *Eleocarpus* sp., *Eugenia* cf. *jambolana*, *Garcinia verrucosa*, *Leptolaena multiflora* var. *cuspidata*, *Mangifera indica*, *Neodypsis baroni*, *Neotina hoursii*, *Senecio erectitoides*, *Weilmannia* sp.

References: (hb) Paulian 1951: 28. (ds) Beaver & Loytyniemi 1985a: 72; Paulian 1951: 28. (tx) Beaver & Loytyniemi 1985a: 72; Schedl 1951j: 24, 1953d: 70, 1961e: 150, 1977b: 213–215, 1979c: 98.

forciculoides dentibaridis Schedl 1961e: 150 (*Xyleborus*). Holotype ♀; Madagascar, Montagne d'Ambre; IRSM, Madagascar.

References: (ds) Schedl 1977b: 214. (tx) Schedl 1961e: 150, 1977b: 214–215, 1979c: 98.

forciculoides pinguis Schedl 1961e: 150 (*Xyleborus*). Holotype ♀; Madagascar: Perinet; IRSM, Madagascar.

References: (tx) Schedl 1961e: 150–151, 1977b: 215, 1979c: 98.

forciculus (Eggers) 1922b: 171 (*Xyleborus*). Syn-types ♀; Sudl. Makonde Plateau in Deutsch-Ostafrika; Methner Collection and Eggers Collection USNM, Washington or NHMW, Wien[?]. Figures: Numberg 1963b: pl. 15, figs. 3–6.

Distribution: Africa (Angola/ Kenya/ Mozambique/ South Africa/ Tanzania/ Zaire/ Zimbabwe/ Zambia).

Hosts: *Coleus* sp.

References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (ds) Browne 1980b: 381; Ferreira 1965: 381; Numberg 1961a: 330; Schedl 1959p: 20, 1962j: 524, 1965e: 354, 1969d: 4, 1972k: 296. (tx) Eggers 1922b: 171–172, 1930d: 202, 1943c: 66; Numberg 1963b: 33, pl. 15; Schedl 1952g: 52, 1952j: 4, 1955d: 271, 1955i: 212, 1957d: 84, 104, 1962j: 524.

gracilicornis (Schedl) 1977e: 45 (*Xyleborus*). Holotype ♀; San Francisco Colera, El Salvador; Schedl Collection in NHMW, Wien.

Distribution: North America (El Salvador).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 844. (tx) Schedl 1977e: 45; Wood, S. L. 1982b: 844.

gracilipennis (Schedl) 1957d: 106 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Numberg 1963b: pl. 15–16.

Distribution: Africa (Ghana/ Zaire).

Hosts: *Anthonotha macrophylla*, *Clitandra* sp., *Croton haumanianus*, *Dialium corbisieri*,

- Macaranga* sp., *Microcos pimatifida*, *Musanga cecropioides*, *Peltophorum pterocarpum*, *Staudtia stipitata*, *Trichila* sp.
References: (hb) Schedl 1962j: 494. (ds) Schedl 1962j: 494. (tx) Nunberg 1963b: 34, pl. 15–16; Schedl 1957d: 106, 1962j: 60, 1962k: 1100, 1979c: 107.
- gracilis** (Eichhoff) 1868c: 145 (*Xyleborus*). Lectotype ♀; Brasilia; USNM, Washington, designated by Anderson & Anderson 1971: 14.
Figures: Pedrosa-Macedo & Schonherr 1985: 30. Distribution: Africa (Azores Islands), Antilles Islands (Guadeloupe), North America (Costa Rica/ Panama/ Florida, Louisiana, North Carolina in USA), South America (Argentina/ Brazil/ Colombia/ Galapagos Islands/ Venezuela).
Hosts: *Cedrela fissilis*, *Marcgravia* sp., *Pinus elliotii*, *Terminalia* sp., *Theobroma cacao*.
Notes: (3) Schedl 1948b: 278 (described male).
References: (hb) Viana 1964: 124. (ds) Blackwelder 1947: 779; Bright 1985c: 173, 1987b; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 337; Nunberg 1958a: 481, 1971: 58; Pedrosa-Macedo & Schonherr 1985: 30; Schedl 1966d: 89, 1967d: 3, 1970e: 83, 1971f: 149, 1973d: 158, 1974e: 51, 1976a: 54; Schonherr & Pedrosa-Macedo 1981: 56; Terra 1987: 25; Viana 1964: 124; Weber, B. C. 1982a. (tx) Anderson, W. H. & Anderson 1971: 14; Bright 1985c: 173; Eggers 1941a: 106; Eichhoff 1868c: 145, 1878b: 364–365; Hagedorn 1910a: 154; Hopkins 1915b: 61; Nunberg 1958a: 481; Pedrosa-Macedo & Schonherr 1985: 30; Schedl 1937h: 169, 1948f: 278, 1951h: 285, 1952a: 446, 1979c: 108; Terra 1987: 25; Wood, S. L. 1989: 176, Wylie & Yule 1977.
- aspericauda** Eggers 1941a: 106 (*Xyleborus*). Holotype ♀; Guadeloupe; Fleutiaux Collection. Synonymy: Bright 1985c: 177.
References: (hb) Beaver 1976a: 23; Wood, S. L. 1982b: 848. (ds) Atkinson & Equihua 1986a: 421; Beaver 1976a: 23; Estrada & Atkinson 1988: 207; Wood, S. L. 1977a: 73, 1982b: 848. (tx) Bright 1985c: 177; Eggers 1941a: 106; Wood, S. L. 1982b: 848.
- neogracilis** Schedl 1954b: 46 (*Xyleborus*). Lectotype ♀; Brasilien: Parana, Rondon; Schedl Collection in NHMW, Wien. Synonymy: Bright 1985c: 177; Wood 1989: 176.
References: (ds) Schedl 1967d: 3. (tx) Bright 1985c: 177; Schedl 1954b: 46, 1979c: 164; Wood, S. L. 1989: 176.
- heveae** (Schedl) 1957d: 97 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, route Tshilinda-Bunyakiri, Yangambi; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 16, fig. 1. Distribution: Africa (Zaire).
Hosts: *Albizzia* sp., *Hevea brasiliensis*.
References: (hb) Schedl 1962j: 495. (ds) Schedl 1962j: 495. (tx) Nunberg 1963b: 35, pl. 16–17; Schedl 1957d: 97, 1962j: 495, 1979c: 116.
- intersetosus** (Blandford) 1898b: 211 (*Xyleborus*). Holotype ♀; Tamahu, Vera Paz, Guatemala; BMNH, London.
Distribution: Antilles Islands (Guadeloupe), North America (Costa Rica/ Guatemala/ Isla del Coco/ Chiapas, Veracruz in Mexico/ Panama), South America (Brazil/ Colombia/ Suriname/ Venezuela).
Hosts: *Alexa imperatrix*, *Sloanea multiflora*, *Theobroma cacao*, *Vismia guianensis*.
References: (cn) Cleare 1924: 65–68. (hb) Wood, S. L. 1982b: 843. (ds) Atkinson & Equihua 1986a: 421; Bright 1982a: 128; Hagedorn 1910d: 106; Kleine 1913b: 161; Wood, S. L. 1982b: 843. (tx) Blandford 1898b: 211; Eggers 1940a; Hagedorn 1910a: 154; Wood, S. L. 1966b: 31, 1982b: 843.
- analogus** Schedl 1948f: 277 (*Xyleborus*). Holotype ♀; Mexico; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1966b: 31.
References: (ds) Schedl 1963f: 58, 1973d: 157. (tx) Schedl 1948f: 277, 1979c: 19; Wood, S. L. 1966b: 31.
- linearicollis** (Schedl) 1937h: 169 (*Xyleborus*). Holotype ♀; Nova-Teutonia, Brasilien; Schedl Collection in NHMW, Wien.
Figures: Pedrosa-Macedo & Schonherr 1985: 32. Distribution: South America (Brazil).
Hosts: *Pinus elliotii*.
References: (hb) Viana 1964: 124. (ds) Blackwelder 1947: 780; Pedrosa-Macedo & Schonherr 1985: 32; Schedl 1966f: 88, 1967d: 3, 1970e: 84, 1976a: 54; Schonherr & Pedrosa-Macedo 1981: 56; Viana 1964: 124. (tx) Pedrosa-Macedo & Schonherr 1985: 32; Schedl 1937h: 169–170, 1939m: 170, 1951h: 285–286, 288, 1954b: 46, 1958f: 35, 1979c: 139.
- longulus** (Schedl) 1966f: 117 (*Xyleborus*). Holotype ♀; Guadeloupe; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe).
Notes: (1) Bright 1985c: 177 (to *Xyleborinus*).
References: (ds) Bright 1985c: 173, 177. (tx) Bright 1966f: 117, 1985c: 173; Schedl 1979c: 142.
- longus** (Eggers) 1927b: 403 (*Xyleborus*). Lectotype ♀; Sumatra (Si Rambe); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 142. Distribution: Indonesia (Java, Sumatra).
Hosts: *Plochodion* sp.
References: (tx) Eggers 1927b: 403; Schedl 1942d: 6, 1957d: 112, 1958b: 103, 1979c: 142.
- marcidus** (Schedl) 1965c: 72 (*Xyleborus*). Holotype ♂; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 72, 1977b: 208, 1979c: 148.

- micrographus** (Schedl) 1958b: 103 (*Xyleborus*).
Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 153.
Distribution: Asia (Malaya).
Hosts: *Shorea gysbertsiana*.
References: (hb) Browne 1961c: 150. (ds) Browne 1961c: 150, 1983a: 554. (tx) Schedl 1958b: 103, 1960h: 110, 1979c: 153.
- decorus** Schedl 1960h: 110 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 153, automatic.
Notes: (1) This is an unneeded replacement name for *micrographus*.
References: (tx) Schedl 1960h: 110, 1979c: 153.
- mimosae** (Schedl) 1957d: 109 (*Xyleborus*). Holotype ♀; Congo Belge: Lushadi, cote Ouest Kivu; MRCB, Tervuren.
Figures: Numberg 1963b:pl. 19, figs. 2–3.
Distribution: Africa (Tanzania/Zaire).
Hosts: *Acacia podalyriaefolia*.
References: (ds) Schedl 1962j: 495, 1965e: 355, 1967e: 218. (tx) Numberg 1963b: 39, pl. 19; Schedl 1957d: 109, 1962j: 495, 1979c: 153.
- mitosomiformis** (Schedl) 1953d: 104 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. Tsaratanana, 1500 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 157.
Figures: Schedl 1977b: 198.
Distribution: Madagascar.
References: (tx) Schedl 1953d: 104, 1965c: 73, 1977b: 198, 1979c: 157.
- mitosomipennis** (Schedl) 1953d: 103 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 157.
Figures: Schedl 1977b: 199.
Distribution: Madagascar.
Hosts: *Foetida clusioides*, *Ravensara* sp.
Notes: (3) Schedl 1961e: 155 (named an aberration as var. *laevipennis*, no status).
References: (tx) Schedl 1953d: 103, 1961e: 155, 1977b: 198–199, 1979c: 157.
- namibiae** (Schedl) 1982: 285 (*Xyleborus*). Holotype ♀; Namibia: Klein Spitz-Koppe; TMP, Pretoria.
Figures: Schedl 1977b: 199.
Distribution: Africa (Namibia).
References: (tx) Schedl 1977b: 199, 1982: 285.
- octospinosus** (Eggers) 1920: 44 (*Xyleborus*). Lectotype ♀. Derema bei Amami, Ostafrika; Hagedorn Collection, apparently on loan to Eggers when removed by Schedl to NHMW, Wien, designated by Schedl 1979c: 177.
Distribution: Africa (Tanzania).
References: (tx) Eggers 1920: 44; Schedl 1962j: 532, 1979c: 177.
- opimus** (Schedl) 1976a: 77 (*Xyleborus*). Holotype ♀; Acungui, PR, Brazil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Hosts: *Cedrela fissilis*.
References: (ds) Schonherr & Pedrosa-Macedo 1981: 56. (tx) Schedl 1976a: 77.
- percuneolus** (Schedl) 1951i: 85 (*Xyleborus*). Syn-types ♀; Java; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
Notes: (1) Schedl 1979c: 10 (citation of holotype invalid).
References: (tx) Schedl 1951i: 85, 1979c: 188.
- perexiguus** (Schedl) 1971c: 381 (*Xyleborus*). Holotype ♀; Luzon, P.I., Tayabas Prov., Casiguran; Eggers Collection, in NHMW, Wien.
Distribution: Australia, Indonesia (Java), Cook Islands (Rarotonga), Fiji Islands, New Britain Island, New Guinea, Niue Island, Philippine Islands (Luzon), Samoan Islands.
Hosts: *Anacardium occidentale*.
References: (bv) Gray, B. 1974c. (cc) Roberts 1977a: 262. (hb) Beaver 1976b: 540; Gray, B. 1974c; Roberts 1977a: 262. (ds) Beaver 1976b: 540; Beaver & Maddison 1990: 1372–1373; Browne 1974a: 65; Roberts 1977a: 262; Schedl 1972b: 267. (tx) Schedl 1955b: 282, 1958k: 155, 1971c: 381, 1979c: 189.
- perminutissimus** (Schedl) 1934d: 90 (*Xyleborus*). Lectotype ♀; Java, Mt. Gede, 1000 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 190.
Distribution: Asia (Malaya), Indonesia (Java).
Hosts: Rattan, *Canarium litoralis*, *Dipterocarpus kunstleri*, *Hopea* sp., *Shorea sumatrana*.
References: (hb) Browne 1961c: 150; Kalshoven 1959c: 152. (ds) Browne 1961c: 150; Kalshoven 1935a: 14, 1959c: 152; Schedl 1971c: 365. (tx) Schedl 1934d: 90, 1942d: 7, 1979c: 190.
- angustatus** Schedl 1942d: 43 (*Xyleborus*).
Lectotype ♀; Java, Mt. Gede, 800 m, Tapos; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 20.
References: (tx) Schedl 1942d: 43, 1979c: 20.
- perpusillus** (Eggers) 1927b: 404 (*Xyleborus*). Holotype ♀; Sumatra; Eggers Collection (not mentioned by Anderson & Anderson 1971 or Schedl 1979c).
Distribution: Indonesia (Sumatra).
References: (tx) Eggers 1927b: 404.
- pilosellus** (Schedl) 1957d: 86 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Numberg 1963b:pl. 22, figs. 3–4.
Distribution: Africa (Zaire).
Hosts: *Angylocalyx pyuaertii*, *Garcinia punctata*.
References: (hb) Schedl 1962j: 168. (ds) Schedl 1962j: 168. (tx) Numberg 1963b: 45, pl. 22; Schedl 1957d: 85–86, 1962j: 168, 1979c: 194.

- polyalthiae** (Schedl) 1952i: 19 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren. Figures: Nunberg 1963b:pl. 22, figs. 5–6. Distribution: Africa (Zaire). Hosts: *Hevea brasiliensis*, *Isolona bruncei*, *Polyalthia suaveolens*, *Scorodophloeus zenkeri*. References: (cc) Schedl 1962j: 496. (hb) Schedl 1962j: 496. (ds) Mayne & Donis 1960: 104, 1962: 322; Schedl 1962j: 496. (tx) Nunberg 1963b: 45, pl. 22; Schedl 1952i: 19, 1962j: 496–497, 1979c: 196.
- pometianus** (Schedl) 1939e: 354 (*Xyleborus*). Lectotype ♀; Malaya, Selangor: Sungei Boloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 197. Distribution: Asia (Malaya/ Thailand). Hosts: *Nephelium* sp., *Pometia* sp., *Xerospermum* sp. References: (hb) Browne 1961c: 146. (ds) Browne 1961c: 146, 1984a: 150; Nunberg & Chujo 1961: 358. (tx) Nunberg 1961: 358; Schedl 1939e: 354–355, 1942a: 171, 1979c: 197.
- protinus** (Wood) 1974a: 42 (*Xyleborus*). Holotype ♀; Finca La Lola, Limon, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Theobroma cacao*. References: (ds) Wood, S. L. 1982b: 845. (tx) Wood, S. L. 1974a: 43, 1982b: 845.
- pseudopityogenes** (Eggers) 1943e: 76 (*Xyleborus*). Holotype ♀; Africa: Zambeze (Nova Choupanga pres Chemba); MNHN, Paris. Distribution: Africa (Mozambique/ Namibia/ South Africa/ Zaire). References: (ds) Schedl 1962j: 529. (tx) Eggers 1943e: 76; Schedl 1952j: 4, 1953d: 102, 1962j: 529, 1979c: 201.
- quadrispinis** (Schedl) 1953d: 102 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. Tsaratanana; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 208. Figures: Schedl 1977b: 209. Distribution: Madagascar. Hosts: *Olea ambrensis*, *Pachytrophe dimepate*, *Pittosporum* sp., *Trema orientalis*. References: (hb) Schedl 1977b: 208. (ds) Hagedorn 1910d: 58; Schedl 1977b: 208. (tx) Hagedorn 1910a: 105; Schedl 1953d: 102, 1961e: 152, 1977b: 208–209, 1979c: 208.
- quadrispinosus** (Eichhoff) 1878b: 396 (*Xyleborus*). Syntypes ♀; Africa meridionalis; IRSNB, Brussels? Distribution: Africa (South Africa), Madagascar. Hosts: *Bridelia tulasneana*, *Canarium* sp., *Cinchona succerubra*, *C. ledgeriana*, *Dalbergia pterocarpifolia*, *Eleocarpus* sp., *Macaranga* sp., *Mesogordonia* sp., *Psychotria* sp., *Vernonia* sp. References: (hb) Schedl 1977b: 209. (ds) Hagedorn 1910d: 110; Kleine 1913b: 128, 162, 1914b: 317; Schedl 1962j: 533, 1970d: 234, 1977b: 209; Thomas, R. T. S. 1960a, 1960b. (tx) Eggers 1920: 125–126; Eichhoff 1878b: 396; Hagedorn 1910a: 156; Schedl 1951j: 24, 1962j: 533, 1970d: 234, 1977b: 209.
- reconditus** (Schedl) 1963f: 60 (*Xyleborus*). Holotype ♀; Suriname, Tambahredjo; Schedl Collection in NHMW, Wien. Distribution: North America (Costa Rica/ Panama), South America (Brazil/ Guyana/ Suriname/ Venezuela). Hosts: *Cratylia floribunda*, *Eugenia jambos*, *Liriosoma singularis*, *Pouteria* sp., *Pseudoolmedia laevigata*, *Qualea ingens*, *Theobroma cacao*. References: (hb) Browne 1976a: 23; Wood, S. L. 1982b: 846. (ds) Beaver 1976a: 23; Schedl 1973d: 159; Wood, S. L. 1982b: 846. (tx) Schedl 1963f: 60; Wood, S. L. 1967c: 137, 1982b: 846.
- saxenseni** (Ratzeburg) 1837: 167 (*Bostrichus*). Syntypes ♀; Sudlichen Deutschland; not located. Figures: Bain 1976: 183, Borthwick 1981: 148, Bright 1976d: 132, Grune 1979: 152, Hickin 1963: 269, Hosking 1979c, Joly 1976, Lhoste & Roche 1960, Nobuchi 1966d:pl. 4, 1978a:pl. 4, Pfeffer 1989a:pls. 7–8, Postner 1974: 462, Samuelson 1981: 54, Yin & Huang 1981: 569. Distribution: Africa (Algeria/ Azores Islands/ Cameroon/ Canary Islands/ Egypt/ Libya/ Madeira Island/ Morocco/ Tunisia/ South Africa), Asia (Bonin Islands/ Xizang [Tibet] in China/ Assam, Bengal, Kashmir, Uttar Pradesh in India/ Iran/ Israel/ Japan/ Korea/ Kuril Islands/ Syria/ Taiwan/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR/ Vietnam), Australia, Europe (Albania/ Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), Hawaiian Islands, New Guinea, New Zealand, North America (British Columbia, Ontario in Canada/ Baja California, Hidalgo in Mexico/ Alabama, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missonri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia in USA), Philippine Islands, Samoan Islands, South America (Argentina/ Brazil/ Chile/ Paraguay). Hosts: Many listed by Schedl 1962j: 507, Yin, Huang, & Li 1984: 158. *Abies koreana*, A. spp., *Acacia koa*, *Acer* spp., *Abus japonica*, *Betula platyphylla japonica*, *Castanea crenata*, *Chamaecyparis obtusa*, *Cornus florida*, *Cryptomeria japonica*, *Eucalyptus* sp., *Fagus grandiflora*, *F. multinervis*, *Knightsia excelsa*, *Larix* spp., *Librocedrus decurrens*, *Machilus thunbergii*, *Melastoma* sp., *Metrosideros collina polymorpha*,

Myrica faya, *Myrsine*, *Picca jezoensis*, *P.* spp., *Pinus rigida*, *P. strobus*, *P.* spp., *Populus angustifolia*, *P.* spp., *Prunus armeniaca*, *P. serotina*, *Quercus stenophylla*, *Pseudotsuga menziesii*, *Tsuga* spp., *Ulmus* spp.

References: (ay) Bamberger 1919: 53; Bugnion 1887b; Escherich 1923b: 488, 629; Feytaud 1950a; Finnegan 1963: 137; Fischer 1954: 137–180; Francke-Grosmann 1956a: 112–118, 1956b, 1956c, 1957, 1958: 141; Hopkins 1894g; Lhoste & Roche 1960; Murayama 1933a: 2; Nosek 1958a: 87; Numberg 1928a: 140; Nusslin 1911a: 4–5, 82; Schneider-Orelli 1913: 27; Uchastnova 1988: 39. (bv) Atkinson, Foltz, & Connor 1988; Chapman 1963: 675; Chararas 1965: 2313; Choo, Woo, & Park 1988; Daterman, Rudinsky, & Nagel 1965; Dixon & Payne 1979b; Grune 1979: 153; Hosking 1973; Kirkendall 1984: 241; Klimetzek et al. 1986: 270; Kovach 1986a; Majernik 1960; Meixner 1937: 1216; Moeck 1971; Roling & Kearby 1975a, 1975b, 1977; Turnbow & Franklin 1980; Welch 1987. (cn) Acatay 1943a: 70; Androic 1966: 46; Anonymous 1940b: 9, 1961j, 1970c: 14, 1980g, 1982i; Barbey 1925: 176; Bargmann 1906: 14; Blackman 1950: 299; Blandford 1892b; Bodenheimer 1930: 234; Bohm 1958; Borthwick 1981: 44; Brandt 1952, 1957; Bremner 1907; Chamberlin 1939: 457–458; Chittenden 1902; Chorbadzhievo 1929; Currie 1905: 71; Davatchi 1958: 77; Doane et al. 1936; Dominik 1959: 1–9; Dugdale 1965b; Ebeling 1950: 666; Eckstein 1926: 572; Egger, A. 1977; Eichhorn & Graf 1974; Escherich 1923b: 488, 629; Essig 1915a: 314, 1926: 521, 1958: 521; Essig & Hoskins 1944: 16; Feytaud 1950a; Fischer 1954: 142; French, J. R. J., Rosel, & Robinson 1977; Gabler 1955; Garcia-Tejero 1955: 235; Georgescu et al. 1957: 357, 405, 417; Goidanich & Goidanich 1934; Grandi 1951; Grecikin 1956: 1480; Groschke 1952b, 1953a: 81–84; Heidenreich 1964: 131; Herfs 1930: 7; Hess & Beck 1914: 292, 1927: 347; Hopkins 1898d: 47, 1904a: 16; Hopping & Jenkins 1933; Hosking 1979a, 1979c; Johnson 1958a: 508, 1958b: 236; Joly 1976; Judeich & Nitsche 1895: 544–545; Kamp 1954: 5; Kershaw 1973; Kholodkovskii 1912: 278, 320; Kleine 1932a: 308; Knight, R. L. & Alston 1974; Konig, E. 1957: 110; Kotte 1941: 64, 1948: 71, 1958: 118; Kovacevic 1951: 69; Kovach 1986a; Kovach & Gorsuch 1985; Kurenzov 1935c: 189, 1951c: 78; Lachance & Pfeiffer 1989; Lamey 1881: 142–143; Leach 1940b: 61; Leiby 1925: 1–62; Lugger 1899a: 310; MacNay & Creelman 1958: 27; Majernik 1957: 71, 1959: 198; Marcu 1926c: 65; Menschoy & Martins 1974: 6; Milligan 1969a: 1–4, 1969b: 60; Mokrzecki 1931a: 68; Muller 1912: 186; Nash et al. 1951: 46; Nijholt 1978a; Nitto 1953: 302; Nosek 1951: 109, 1958: 87–90; Nusslin 1913: 204; Ormerod 1898: 192; Paillet 1926: 838; Prebble & Graham 1957: 93–96, 110–112; Puecher Passavalli 1931b: 657;

Rhumblor 1922: 329; Roling & Kearby 1973, 1977; Rossem 1954: 247; Ruppel 1967: 98; Savary 1946: 94; Schimitschek 1937c: 53, 1938c: 2119, 1939d: 2119, 1944: 181, 1952c: 58, 60, 1955a: 92, 1955c: 86; Schneider-Orelli 1915a: 66, 1915b: 47; Schuh & Mote 1948: 120; Schvester 1952c: 4, 1953: 1; Schwerdtfeger 1944a: 185, 1957a: 190; Shaw, M. J. P. & Borthwick 1982; Shea & Johnson 1962: 5; Shiraki 1952; Shore 1985; Souphieff & Scherbinovskaja 1937: 14; Strohmeier 1906b: 330; Swaine 1918a: 126–127; Taraschkewitsch 1934: 357; Theobald 1909: 370; Umnov 1956: 50; Wachtl 1901: 382; Wahl 1914: 1–4; Weber, H. 1926: 572; Wichmann 1927b: 359, 1957a: 95; Wilson 1913: 107, 1915: 6, 50–51; Wood, S. L. 1977a: 73; Zirnigiel 1901: 59; Zondag 1982; Zurn 1902: 20; Zwolfer 1949: 401. (cc) Apel 1983; Balazy & Michalski 1960; Banno, Mikata, & Kodama 1983: 445; Batra 1963b: 217; Batra & Lichtwardt 1962: 91–97; Beauverie 1910b; Cardip 1926; Chabrolin 1929; Chamberlin 1918, 1939: 457; Chapman 1963: 673–676; Cote & Allen 1980; Dereksen 1941; Dixon & Payne 1979b; Elmstrom 1983; Eichhorn & Graf 1974; Finnegan 1963: 137; Fisher 1954, 1971; Fleischer 1911; Francke-Grosmann 1956a, 1956b, 1956c, 1957, 1975; Furniss, R. L. & Carolin 1977: 412; Gyorfi 1941b; Hagedorn 1907c; Halperin & Holzschuh 1984: 29; Heliovaara & Lilja 1989; Inouye et al. 1955: 104; Jannicky 1958; Kalina 1977: 49; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 219, 1909a: 49, 77, 1944: 73; Klimesch 1914c: 59; Knauer 1908: 500; Kostenko 1929; Kovach & Gorsuch 1985; Kurenzov 1951c: 79, 1951d: 24; Lachance & Pfeiffer 1989; Lamey 1881; Leach 1940b: 61; Majernik 1960; Milligan 1969a: 1–4, 1969b: 60; Neger 1908c: 276, 1909a: 374, 1911a: 50; Nikitsky 1978; Nishiguchi 1959: 271; Norris 1979; Nosek 1951: 109, 1956: 204, 1959a: 118, 1959b: 85; Novak, P. 1952: 417; Nusslin 1927: 345; Peplinski & Merrill 1974; Perris 1856a: 244; Pfeiffer 1923a: 331, 1928b: 7, 1943b: 182, 1955b: 85; Roepel & French 1981; Roling & Kearby 1977; Roubal 1934b: 178; Rupertsberger 1893a: 215; Ruschka 1923: 201; Schedl 1962k: 498; Scheidter 1936: 236; Schimitschek 1941a: 314, 1946: 9, 1955a: 92, 1964e; Schneider-Orelli 1913: 27; Schwerdtfeger 1944a: 185, 1957a: 190; Sedlaczek 1915a: 127; Shore 1985; Skelly 1966: 49, 1968: 1541; Slaby 1947: 375; Stefanov 1949a: 96; Swaine 1925c: 265; Turnau 1984; Uchastnova 1988: 39; Vite 1952a: 106–107; Webb 1945: 68; Wertz, Skelly, & Merrill 1971; Wichmann 1955a: 95; Yoon et al. 1982. (hb) Acatay 1943a: 70; Adeli 1972: 14; Altum 1881c: 317; Apel 1983; Atkinson, Foltz, & Connor 1988; Bach 1864; Baeta Neves 1943a; Baker, W. L. 1972: 269; Balachowsky 1963a: 1255; Balachowsky & Mesnil 1935; Barbey 1901: 28, 107, 1925: 176, 1942; Bargmann 1906;

- Batra 1963b: 220; Bandys 1929; Beal & Massey 1945; Beffa 1949, 1961; Beiling 1873; Bellevoye 1894: 89–111, 1898, 1900: 89–111; Blackman 1922b: 116–118, 1950; Blandford 1892b; Bonnemaïson 1953; Bright 1976d: 136; Bright & Stark 1973: 77; Budge 1949; Bugnion 1887b; Bukowsky 1930; Buysson 1910; Cairaschi & d'Agiler 1957; Cecconi 1906: 988–990, 1924; Chamberlin 1939: 457, 1958: 186–187; Chararas 1962c: 321, 1965; Charvat 1950; Chorbadzhievo 1929; Dallimore & Munro 1922: 189–193; Daterman, Rudinsky, & Nagel 1965; Davatchi 1958; Deyrup & Atkinson 1987a: 65; Distant 1882: 16; Doane et al. 1936; Dombrowsky 1887; Drooz 1985: 374; Eckstein 1889, 1897, 1926: 572, 1928; Egger, A. 1973; Elnstrom 1983; Eichhoff 1881a: 54, 279, 1882c; Eichhorn & Graf 1974; Escherich 1923b: 488, 629; Essig 1915a: 314, 1926: 521, 1958: 521; Everts 1902, 1903: 767; Feytaud 1950a; Fisher 1936a, 1954, 1971; Fuchs 1904a; Furniss, M. M. & Johnson 1987: 377; Furniss, R. L. & Carolin 1977: 412; Furst 1888: 113; Gabler 1955; Gerhard 1908; Grandi 1951; Greckin 1956: 1480; Groschke 1952a, 1952b, 1953a; Gyorfı 1936: 525, 527, 1957; Hagedorn 1903a; Halperin & Holzschuh 1984: 29; Henschel 1895a: 193; Hergula 1939: 302; Hess & Beck 1914: 292, 1927: 347; Hoffmann 1940: 61, 1941; Hopkins 1894g, 1898b, 1904a: 10; Hosking 1969, 1971, 1973, 1979c; Houms 1939: 401–409; Inouye et al. 1955: 104; Johnson 1958a: 508, 1958b: 237; Joly 1950, 1976a, 1976b; Judeich & Nitsche 1895: 544; Karpinski & Strawinski 1948: 156; Kholodkovskii 1912: 278, 320; Kleine 1932a: 308; Knotek 1894a: 559; Konig, E. 1957: 110; Kostin 1960: 136; Kovach 1986a; Krivolitskaya 1973; Kurenzov 1935a: 39, 1948b: 112, 1951d: 24, 1951e: 79; Lengerken 1933: 248–255, 1939: 35, 1954: 315; Lepiney & Mimeur 1932: 46; Lindemann 1881a: 236; Louzil 1961: 23; Luggler 1899a: 310; Lmaradon & Leonardı 1889: 483; Majernik 1957: 71; Massei 1935; Milligan 1969a; Morstatt 1924: 19; Munro 1926: 57; Neger 1908: 276; Nijholt 1978a; Nordlinger 1855: 184, 1856: 31, 1869: 233; Nosek 1956: 204, 1959a: 118, 1959b: 85; Numberg 1929: 110; Nusslin 1898: 283, 1906b: 14, 1913: 204, 1927: 345; Ormerod 1898: 192; Ostmark 1968; Palm 1953a: 23, 1962: 354; Perris 1856a: 244; Pfeffer 1941c: 5, 1942a: 3; Pierce, W. D. 1907: 291; Postner 1974: 465; Ratzeburg 1837: 131, 167; Reh 1900b: 110; Rhumbler 1922: 329; Rimski-Korsakov et al. 1949: 269; Roling & Kearby 1973; Rumbold 1931: 849; Rupertsberger 1879: 231, 1880: 232; Schedl 1962j: 498; Scheidter 1936: 236; Schimitschek 1944: 181, 1946: 9, 1955a: 92; Schneider-Orelli 1913: 27; Schoch 1878: 367; Schwerdtfeger 1944a: 185, 1957a: 190, 1981: 196; Simmel 1919a: 34–36; Snyder 1927: 9; Spessivtsev 1913a: 103; Stark 1952: 436; Stefanov 1949a: 96; Strohmeier 1906b: 330; Swaine 1918a: 126–127; Takahashi 1989: 403; Taschenberg 1901: 109; Theobald 1909: 370; Thomsen 1948: 807; Titus & Pratt 1904: 20; Tschorbadjiev 1929: 169; Vasseur & Schvester 1948: 85; Vite 1952a: 106–107; Wachtl 1876a: 452, 1901: 382; Weber, H. 1926: 572; Wettstein 1959; Wichmann 1927b: 360; Wilson 1915: 6, 50–51; Wissman 1846: 24; Wood, S. L. 1982b: 847; Yoon et al. 1982; Zirngiebl 1901: 59; Zurn 1902: 20. (ds) Acloque 1896; Adeli 1972: 14; Alfken 1924: 405; Androic 1966: 46; Anonymous 1926c: 520, 1964e, 1970c: 14, 1980g; Audras & Schaefer 1957; Bain 1974: 16; Balachowsky 1963a: 1286; Balazy & Michalski 1960; Bangsholt 1975: 95; Barthe 1896; Bau 1888; Beal & Massey 1945; Bedel 1885b: 403, 419; Beeson 1930: 255, 1941: 401; Beffa 1949; Bejer-Petersen & Jorum 1977: 25; Benick 1921; Bielz 1887; Blackman 1922b: 116–118, 1950; Blatchley & Leng 1916: 616; Bohm 1958; Borchert 1951; Borges & Serrano 1989; Brakman 1966b: 206; Brancsik 1906; Bright 1968b: 1309, 1976d: 136, 1987a: 3; Bright & Stark 1973: 77; Buck 1955b: 191; Bukowsky 1930; Buresh & Lazarov 1956; Buysson 1910; Calwer 1884, 1893, 1916; Carpentier & Delaby 1908; Cecconi 1906; Chamberlin 1918a, 1939: 457, 1958: 186–187; Chapman 1963: 675; Clapius & Candeze 1853; Charvat 1950; Chittenden 1902; Cho 1957; Choo 1983: 113; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1983: 172, 1988a: 134; Choo, Woo, & Park 1988; Chorbadzhievo 1924d, 1929; Chrystal 1937; Cola 1971, 1973; Correa de Barros 1913; Croteh 1863; Csiki 1942c; Currie 1905; Dallimore & Munro 1922; Davatchi 1958: 77; Debatisse 1945; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dorsey & Leach 1956: 224; Drooz 1985: 374; Dugdale 1965b; Duprez 1938a; Eckstein 1923; Eder 1934; Eggers 1904, 1912f; Endrodi 1958a, 1958b, 1981: 185, 1986: 212; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 430, 487, 629–641, 1932b; Essig 1915a: 314, 1926: 521, 1958: 521; Everts 1922: 648; Favre 1897; Favre 1890; Fisher 1936a; Ford 1955: 388; Forster 1849: 439; Fowler 1891; Fricken 1889: 354; Frost & Dietrich 1929; Fuchs 1904a, 1905a; Furniss, M. M. & Johnson 1987: 377; Furniss, R. L. & Carolin 1977: 412; Ganglbauer 1904; Gaubil 1849: 126; Gemminger & Harold 1872: 2686; Gillerfors 1985; Gozis 1875: 80; Gredler 1868: 375; Grill 1895: 312; Grouzelle 1905; Grune 1979: 153; Gussmann 1919; Gyorfı 1936: 525, 527, 1941b; Hagedorn 1903a, 1910d: 112–113; Halperin & Holzschuh 1984: 29; Hansen, V. 1939, 1956, 1964: 463; Heidenreich 1934: 90; Heinemann 1908a; Hellen 1947; Henschel 1895a: 193; Hergler 1985a: 79; Heyden 1876: 301; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hickin 1963; Hilburn & Gordon 1989: 689; Hill, D. S. 1987: 341; Hoffmann 1936, 1940: 61, 1941: 42, 1942: 13; Holdhaus 1912: 454; Hopkins 1893a: 136; Hlorion 1949; Hosking 1969, 1973, 1979a; Israel-

- son 1985: 17; Jammicky 1960a; Jansson 1940: 63; Jazentkovsky 1912: 292; Joffre 1958: 25; Johnson, Wright, & Örr 1961; Joly 1960, 1976; Judeich & Nitsche 1895: 544; Kadyrov 1988: 43, 1989; Kaltenbach 1874: 71, 178, 624, 646; Karpinski 1925: 216, 1926: 82, 1931: 20, 1932b: 55; Karpinski & Strawinski 1948: 156; Keen 1929: 41; Keler 1925b: 275; Kersten 1933: 75; Kestercanek 1881a: 12; Kirk 1969, 1970; Klefbeck & Sjöberg 1960: 232; Kleine 1912a: 162, 262, 268, 1913a: 36, 1913b: 163, 1914a: 19–20, 1914b: 261, 410, 1928: 308, 1932a: 308, 1944: 68–83, 125–133; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 559; Ko 1969: 286; Kobakhidze 1957: 178; Koca 1900: 116; Koltze 1901: 154; Koschitsky 1900: 84; Kostenko 1929; Kotula 1873b: 80; Kovacevic 1957: 69; Kraatz 1869: 60; Krivolutskaya 1965: 241, 1973, 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1935c: 189, 1951b: 18, 1967; Kurir 1947c: 7; Kuschel 1972; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 140; Leonard 1928: 520; Lepiney & Memeur 1932: 46; Lokaj 1868: 64; Lomnicki 1886a: 243, 1913b: 148; Loos 1918: 372–377; Lucht 1987: 279; Lügger 1899: 226–228; Lunardon & Leonardi 1889: 483; Lundblad 1958: 489; MacNay & Creelman 1958: 27; Mahler 1987: 232; Majemik 1960; Marcu 1926c: 65; Matthews & Fowler 1883: 42; Mayne 1953: 310; Meinert 1887: 70; Michel 1937: 24; Milligan 1969a; Murayama 1929b: 2, 1930a: 3, 1930b: 22, 1933b: 6, 1936a: 136, 1936b: 116, 1937b: 374, 1948: 2, 1949a: 13, 1949c: 104, 1951a: 5, 1951c: 5, 1953a: 21–34, 1953c: 160, 1954b: 182, 1955: 100; Negru 1957: 129, 1968a: 456, 1968c: 91; Neumann & Harris 1974; Nobuchi 1966d: 30, 1967: 23, 1978a: 42; Nobuchi & Ono 1973: 182; Nohira & Ogawa 1986; Normand 1937: 269; Novak, P. 1952: 417, 1964; Numberg 1928b: 88, 110, 1954: 60, 1958a: 481; Nusslin 1898: 283; Orest 1926c: 65; Ortzen 1886: 280; Ostmark 1968; Palm 1953a: 23, 1959: 130, 214; Perris 1876a: 253, 255, 1877a: 413, 415; Peyerimhoff 1919: 248, 1933: 371; Pfeffer 1928b: 7, 1931b: 73, 1947e: 2, 1950b: 76, 1989a: 88; Pfeiffer & Axtell 1980; Pittioni 1943: 176; Pjatnitskii 1930a: 165; Postner 1974: 465; Ragusa 1924: 117; Rapp 1934: 735; Ratzburg 1837: 131, 167; Redtenbacher 1858: 836, 1874: 382; Reitter 1869: 155, 1894: 91, 1916: 295; Rimski-Korsakov et al. 1949: 269; Rohrig 1955: 37; Roubal 1941: 73, 276; Ruppel 1967: 98; Ruskov 1928c: 62; Rye 1858: 70; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Samuelson 1981: 59; Schaufuss 1915: 1239; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1960e: 173, 1962i: 74, 1962j: 498, 1963e: 155, 1964a, 1964i: 248, 1966g: 37, 1967c: 73, 1967d: 5, 1969c: 54, 1969d: 6, 1969g: 292, 1971b: 530, 1971d: 425, 427, 1971f: 149, 1972d: 153, 1972n: 352, 1975d: 2, 1975e: 451, 1975k: 278, 1976a: 55, 1977d: 281, 1978e: 37, 1979a: 159, 1979i: 292, 1980a: 20, 1981b: 94; Schedl, Lindberg, & Lindberg 1959: 25; Scheerpeltz & Winkler 1930: 255; Schilsky 1909: 189; Schmidt 1939: 26, 152, 192, 273; Schmitz 1898: 157; Schneider & Farrier 1969: 413; Schneider & Leder 1977: 55; Schuh & Mote 1945: 120; Schwarz 1856: 41; Schwerdtfeger 1981: 196; Seidlitz 1872: 396, 1891a: 568, 1891b: 613; Sharp & Fowler 1893: 34; Shiraki 1952; Shore 1985; Souphieff & Scherbinovskaja 1937: 14; Stark 1926b: 104, 1926j: 127, 1927b: 89, 1931d: 548, 1952: 436; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 447; Stierlin & Gautard 1871: 293, 1906: 230; Sturm 1843: 230; Swaine 1909: 158; Thomson 1865: 370, 1868: 223; Tredd 1907: 19; Tressens 1952: 90; Tschorbadjiev 1929: 169; Turnbow & Franklin 1980; Vite 1953: 42; Wachtl 1876a: 452; Wanka 1908: 231; Welch, R. C. 1980: 272; West 1938: 184; Westhoff 1882: 240; Wichmann, H. E. v. 1927: 360–378; Wichmann, H. E. 1927: 70, 1954: 522–523, 1955a: 95, 1957a: 95; Winter, T. C. 1983: 28; Wood, S. L. 1948: 74, 1951a: 128, 1957c: 403, 1972a: 422, 1977a: 73, 1982b: 847; Yanovskii & Tegshzhargal 1985: 415; Yin & Huang 1951: 569; Yin, Huang, & Li 1984: 158; Zondag 1966, 1982. (tx) Acloque 1896; Apel 1983; Bach 1854: 126, 134, 1864; Bain 1976: 183; Balachowsky 1949a: 224–229, 1963a: 1286; Balachowsky & Mesnil 1935: 25–26; Barbey 1901: 28, 107; Beal & Massey 1945; Bedel 1888b: 402–403, 419; Beeson 1930: 79, 255; Beffa 1949, 1961; Bertolini 1872; Blackman 1922b: 116–118; Blandford 1892b; Blatchley & Leng 1916: 616; Borthwick 1951: 46; Bright 1968b: 1309, 1976d: 132, 136; Buysson 1880: 73, 1910: 122–123; Carne et al. 1980; Carpentier & Delaby 1908; Ceballos 1945; Chamberlin 1918: 35–37, 1939: 448–458, 1958: 30, 186–187; Chapuis & Candeze 1853; Charvat 1950; Choo 1983: 113; Chorbadzhievo 1924d; Doebner 1862: 182; Dombrowsky 1887; Duffy 1953; Eggers 1912f: 29, 1920: 115, 1922c: 17, 1923a: 201, 1927b: 302, 1932d: 300–301, 1933f: 53–54, 1941a: 106, 1944c: 142; Eichhoff 1864b: 37–38, 46, 1866: 278, 1868d: 423, 1875: 202–203, 1876a: 378–379, 1878: 361–364, 506, 1881a: 54, 279–282, 1883a: 116, 142, 1896: 609; Endrodi 1957b: 417; Escherich 1923b: 488, 629; Everts 1903: 767, 1922: 648; Fauvel 1887: 276, 1889, 1897: 66; Ferrari 1911; Ferrari 1867a: 21–23, 89, 1867b: 114, 1868: 256; Fleischer 1927; Formanek 1907: 53; Fricken 1889: 354; Gabler 1955; Gebien 1907: 197; Groschke 1952a, 1953a; Grune 1979: 152, 153; Hagedorn 1907: 290–293, 1910a: 157; Hansen, V. 1956, 1964: 463; Henschel 1895a: 193; Hickin 1963: 269; Hoffmann 1936: 44–45; Hopkins 1898: 21–29, 1904: 16, 1915b: 60, 1915c: 184; Hosking 1979b, 1979c; Hubbard 1897: 24; Iablokoff-Khmzorian 1961: 90; Jacquelin du Val & Fairmaire 1868: 107, 109; Johnson 1958b: 237; Joly 1976; Judeich & Nitsche 1895: 544; Kalina 1975; Karpinski & Strawinski 1948: 156; Keen 1929: 41; Knotek 1892a: 38; Kri-

volutskaya 1958: 54–55, 168; Kuhnt 1913: 1060; Kurenzov 1941a: 189–193, 1948a: 52, 1948b: 112, 1951: 78–80, 1961: 24–25; Lacordaire 1866: 381; LeConte 1876: 360; Letzner 1891: 377; Lhoste & Roche 1960; Lindemann 1881a: 236; Lovendal 1889b: 74–75, 1898: 188; Lucht 1987: 279; Lunardon & Leonardi 1889: 483; Meixner 1937: 1216; Munro 1946: 10–72; Murayama 1930b: 22–31, 1933a: 2, 1933b: 18–19, 32–33, 1934a: 4, 1934c: 300, 1936: 135–136, 1937b: 374, 1951: 71, 1953a: 21, 1954: 182, 1955: 100; Niisima 1909: 154, 160, 1910: 14; Nobuchi 1966d: 30, pl. 4, 1978a:pl. 4; Nordlinger 1848: 246, 1856: 31; Nunberg 1928a: 140, 1954: 60, 1958a: 481; Nusslin 1911a: 5, 82; Perris 1877a: 413, 415; Pfeffer 1932b: 21, 1941c: 5, 1942a: 3, 1947e: 2, 1955a: 199, 1989a:pls. 7–8; Portevin 1935: 330; Postner 1974: 465; Quaschik 1953: 35; Ratzeburg 1837: 131, 167, 1839: 204; Redtenbacher 1849a: 791, 1849b: 26, 1858: 836, 1874: 382; Reitter 1894a: 91, 1905: 249, 1906: 713, 1913a: 83, 1916: 295; Rhumbler 1922: 329; Rupertsberger 1879: 231, 1880: 232; Samuelson 1981: 54, 59; Schedl 1934f: 1646, 1937h: 169, 1938i: 28, 1948d: 37, 1948f: 276, 1948g: 28, 1952f: 88, 1955e: 256, 1955i: 212, 1957b: 151, 1957d: 82, 84, 1959h: 100, 1959r: 43, 1960a: 11, 1962j: 498, 1963i: 63, 1964m: 313, 1966e: 44, 1972d: 153, 1980a: 20, 1981b: 94; Schedl, Lindberg, & Lindberg 1959: 25–26; Schimitschek 1937c: 53–54, 1955c: 86; Schwarz 1886: 41; Seidlitz 1872: 396, 1891a: 568, 1891b: 613; Semenov 1902: 271; Spessivtsev 1913a: 103, 1922a: 478, 492, 1925a: 180, 1931: 58–60; Stark 1952: 436; Stierlin 1898: 447; Strohmeyer 1906: 330, 416, 420, 509; Swaine 1909: 157–158, 1918a: 126–127, 1934: 204; Taschenberg 1901: 109; Thomson 1865: 370, 1868: 223; Wissman 1846: 24; Wollaston 1864: 255, 1865: 237; Wood, S. L. 1951a: 128, 1957c: 403, 1960b: 68, 1962: 79, 1972a: 422, 1982b: 847; Yin & Huang 1981: 569; Yin, Huang, & Li 1984: 158; Zimmermann 1868: 145. **(ms)** Eggers 1910a, 1910b, 1912e; Eichhoff 1868d: 423; Escherich 1932b; Heinemann 1908a; Klimesch 1914c: 59; Knight 1971: 40; Merino-Rodriguez 1966: 50; Reh 1900b: 110; Schwappach 1924: 57; Swaine 1925c: 265.

dolomi Wollaston 1854: 290 (*Tomiscus*). Syntypes ♀; BMNH, London. Synonymy: Ferrari 1867a: 22, Eichhoff 1878b: 362.

References: **(ds)** Lacordaire 1866: 383; Schaum 1862: 101; Stein 1868; Swaine 1909: 157; Wollaston 1854: 290, 1857: 96. **(tx)** Balachowsky 1949a: 229; Eichhoff 1878b: 362; Ferrari 1867a: 72; Hopkins 1898: 28; Lacordaire 1866: 383; Swaine 1909: 157; Wollaston 1854: 290, 1857: 96, 1864: 253.

decolor Boieldien 1859: 473 (*Tomiscus*). Syntypes ♀; Environs de Peronne, France; MNHN, Paris. Synonymy: Ferrari 1867a: 22.

References: **(hb)** Davatchi 1965: 77; Wachtl

1876a: 458. **(ds)** Calwer 1884, 1893; Gemminger & Harold 1872: 2685; Lacordaire 1866: 383; Perris 1866; Schaum 1862: 101; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 165; Strauch 1861: 122; Swaine 1909: 157; Wachtl 1876a: 458. **(tx)** Anbe 1959; Boieldien 1859: 473; Eichhoff 1868d: 419, 1876a: 378, 1878b: 362; Ferrari 1867a: 21–22, 1867b: 114; Hopkins 1898: 29; Lacordaire 1866: 383; Letzner 1891: 377; Swaine 1909: 157. **(ms)** Eichhoff 1868d: 419.

angustata Eichhoff 1866: 278 (*Xyleborus*). Syntypes ♀; Vollyhnia, USSR; Hamburg Museum, lost. Synonymy: Schedl 1964m: 313.

References: **(hb)** Eichhoff 1881a: 54, 282; Stark 1952: 438; Wachtl 1876a: 458. **(ds)** Gemminger & Harold 1872: 2685; Hagedorn 1910d: 99; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Jazentkovsky 1912: 292; Kleine 1913b: 160; Nunberg 1928b: 88, 110, 1960b: 157; Reitter 1894a: 91; Schaufuss 1915: 1239; Stark 1952: 438; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 458. **(tx)** Eichhoff 1866: 278, 1878b: 365, 1881a: 54, 282, 1883a: 116, 142; Ferrari 1867a: 21–22, 1867b: 114; Hagedorn 1910a: 152; Reitter 1894a: 91, 1913a: 83; Schedl 1942d: 41, 1964m: 313, 1979c: 20; Stark 1952: 438.

aesculi Ferrari 1867: 22 (*Xyleborus*). Syntypes ♀; Meidling bei Wien [Austria]; NHMW, Wien. Synonymy: Eichhoff 1878b: 362.

References: **(ds)** Lentz 1857: 138; Schilsky 1909: 189; Stein & Weise 1877: 165; Swaine 1909: 157. **(tx)** Eichhoff 1878b: 362; Ferrari 1867a: 22; Hopkins 1898: 28; Letzner 1891: 377; Swaine 1909: 157.

sobrinus Eichhoff 1875: 202 (*Xyleborus*). Syntypes ♀; Japan; IRSNB, Brussels. Synonymy: Schedl 1964m: 313.

References: **(cn)** Anonymous 1980g. **(hb)** Niisima 1908b: 18. **(ds)** Anonymous 1980g; Hagedorn 1910d: 111; Hill, D. S. 1987: 341; Kleine 1914b: 261; Murayama 1953a: 23, 1954b: 183; Niisima 1908b: 18. **(tx)** Eggers 1939c: 114; Eichhoff 1875: 202, 1878b: 363; Hagedorn 1910a: 156; Murayama 1934c: 300, 1953a: 23, 1954b: 183; Schedl 1948g: 28, 1964m: 313, 1979c: 231; Strohmeyer 1914: 32.

subdepressus Rey 1883: 142 (*Xyleborus*). Syntypes ♂; Lyons, France; MNHN, Paris. Synonymy: Bedel 1888b: 419.

References: **(ds)** Davatchi 1958: 77; Schilsky 1909: 189; Swaine 1909: 158. **(tx)** Balachowsky 1949a: 229; Bedel 1888b: 419; Eichhoff 1883a: 142; Hopkins 1898: 28; Rey 1885: 142, 1892b: 30; Schedl 1960i: 112; Swaine 1909: 158.

frigidus Blackburn 1885: 193 (*Xyleborus*). Holotype ♀; Haleakala, Maui, 4000 feet [Hawaiiian

- Islands]; BMNH, London. Synonymy: Samuelson 1951: 59.
References: **(ds)** Beeson 1938b: 292; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 302; Swezey 1941: 124, 1954: 14. **(tx)** Blackburn 1885: 193; Hagedorn 1910a: 154; Perkins 1900: 178.
- floridensis* Hopkins 1915b: 60, 63 (*Xyleborus*). Holotype ♀; Enterprise, Florida [USA]; USNM, Washington. Synonymy: Wood 1962: 79. References: **(hb)** Chamberlin 1939: 450. **(ds)** Blatchley & Leng 1916: 617; Chamberlin 1939: 450. **(tx)** Blatchley & Leng 1916: 617; Chamberlin 1939: 450; Hopkins 1915b: 60, 63; Wood, S. L. 1962: 79.
- peccanus* Hopkins 1915b: 63 (*Xyleborus*). Holotype ♀; Waynesboro, Mississippi [USA]; USNM, Washington. Synonymy: Wood 1962: 79. References: **(bv)** Dethier 1947. **(cn)** Blackman 1950; Doane et al. 1936; Turner 1918: 30. **(cc)** Slaby 1947: 378; Versall 1943: 125–143. **(hb)** Beal & Massey 1945: 152–153; Blackman 1922b: 116–117, 1950; Doane et al. 1936. **(ds)** Beal & Massey 1945: 152–153; Blackman 1922b: 116–117, 1950; Blatchley & Leng 1916: 617; Glick 1939: 37; Kleine 1934a: 175; Rosewell 1920: 148. **(tx)** Beal & Massey 1945: 152–153; Blackman 1922b: 116–117; Blatchley & Leng 1916: 617; Chamberlin 1939: 450; Hopkins 1915b: 60, 63; Wood, S. L. 1962: 79.
- quercus* Hopkins 1915b: 60, 63 (*Xyleborus*). Holotype ♀; Baxterville, Mississippi [USA]; USNM, Washington. Synonymy: Wood 1962: 79. References: **(cn)** Doane et al. 1936. **(hb)** Chamberlin 1939: 450; Doane et al. 1936. **(ds)** Blatchley & Leng 1916: 616; Chamberlin 1939: 450; Kleine 1934a: 175; Krivolutskaya 1983. **(tx)** Blatchley & Leng 1916: 616; Chamberlin 1939: 450; Hopkins 1915b: 60, 63; Wood, S. L. 1962: 79.
- arbuti* Hopkins 1915b: 64 (*Xyleborus*). Holotype ♀; Walker, California [USA]; USNM, Washington. Synonymy: Wood 1957c: 403. References: **(cn)** Chamberlin 1924, 1939: 451; Doane et al. 1936; Keen 1938: 147. **(cc)** Chamberlin 1939: 451; Keen 1938: 147. **(hb)** Chamberlin 1939: 451; Doane et al. 1936; Keen 1938: 147. **(ds)** Chamberlin 1939: 451; Keen 1929: 42, 1938: 147; Kleine 1934a: 172; Patterson & Hatch 1945: 154; Schedl 1962j: 498; Swaine 1918a: 127; Wood, S. L. 1957c: 403. **(tx)** Chamberlin 1939: 451; Hopkins 1915b: 64; Keen 1929: 42; Schedl 1962j: 498; Swaine 1918a: 127; Wood, S. L. 1957c: 403.
- subspinosus* Eggers 1930d: 203 (*Xyleborus*). Holotype ♀; India, Assam (Shillong, 6000 feet); FRI, Dehra Dun. Synonymy: Wood 1989: 176. References: **(tx)** Eggers 1930d: 203; Wood, S. L. 1989: 176.
- tsugae* Swaine 1934: 204. Holotype ♀; Oak Ridge, Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 403. References: **(bv)** Prebble & Graham 1957: 93. **(cn)** Johnson 1958: 236; McMullen 1956: 34; Prebble 1944: 52; Schuder 1969: 82. **(hb)** Chamberlin 1939: 457; Prebble & Graham 1957: 93. **(ds)** Blackwelder 1939; Chamberlin 1939: 457; Schuder 1969: 82. **(tx)** Bright 1967b: 679; Chamberlin 1939: 457; de Ruelle 1970: 114; Schedl 1962j: 499; Swaine 1934: 204–205; Wood, S. L. 1957c: 403. **(ms)** Prebble 1944: 52.
- librocedri* Swaine 1934: 205. Holotype ♀; Oak Ridge, Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 403. Notes: (1) A lapsus calami in the original spelling of this name, *libocedri*, was corrected by most authors. References: **(cn)** Chamberlin 1939: 457; Schuder 1969: 75. **(cc)** Chamberlin 1939: 457. **(hb)** Chamberlin 1939: 457. **(ds)** Blackwelder 1939; Chamberlin 1939: 457; Schuder 1969: 75. **(tx)** Bright 1967b: 679; Chamberlin 1939: 457; de Ruelle 1970: 114; Schedl 1962j: 502; Swaine 1934: 205–206; Wood, S. L. 1957c: 403.
- pseudogracilis* Schedl 1937h: 169 (*Xyleborus*). Lectotype ♀; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 201. Synonymy: Wood 1989: 176. References: **(ds)** Blackwelder 1947: 780. **(tx)** Schedl 1937h: 169, 1979c: 201; Wood, S. L. 1989: 176.
- retrusus* Schedl 1940c: 208 (*Xyleborus*). Lectotype ♀; Kameroun; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 211. Synonymy: Wood 1989: 176. References: **(tx)** Schedl 1940c: 208, 1957d: 97, 1962j: 497, 1979c: 210; Wood, S. L. 1989: 176.
- peregrinus* Eggers 1944c: 142 (*Xyleborus*). Holotype ♀; Stuttgart, Germany; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1980d: 122. References: **(ds)** Horion 1951. **(tx)** Eggers 1944c: 142; Schedl 1979c: 189, 1980d: 122.
- pseudoangustatus* Schedl 1948g: 28 (*Xyleborus*). Lectotype ♀; Queensland; Stapleton, Brookfield, Stanthorpe, and New South Wales; W. Pennant Hills; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 200. Synonymy: Schedl 1964m: 313. References: **(cn)** Moore 1959: 188. **(ds)** Moore 1959: 188, 1961: 92; Schedl 1959d: 67; Swezey 1941: 123, 1954: 14. **(tx)** Schedl 1941f: 116, 1942d: 43, 1948g: 28, 1964m: 313, 1979c: 200.
- paraguayensis* Schedl 1948f: 276 (*Xyleborus*). Holotype ♀; Paraguay, Villarrica; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.

- References: **(hb)** Viana 1964: 124. **(ds)** Schedl 1966f: 89, 1970e: 84, 1972d: 152, 1973d: 158; Viana 1964: 124. **(tx)** Schedl 1948f: 276, 1951h: 285, 1955e: 256, 1958f: 35, 1972d: 152, 1979c: 184; Wood, S. L. 1989: 176.
- cinctipennis* Schedl 1980b: 186 (*Xyleborus*). Holotype ♀; Queensland, Australia; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.
References: **(tx)** Schedl 1980b: 186; Wood, S. L. 1989: 176.
- schaufussi* (Blandford) 1894d: 117 (*Xyleborus*). Syntypes ♂ ♀; Japan: Lake Junsai, Nikko; BMNH, London.
Distribution: Asia (Japan/ Taiwan).
Hosts: *Fagus crenata*.
References: **(ec)** Inouye et al. 1955: 106. **(hb)** Inouye et al. 1955: 106. **(ds)** Blandford 1894c: 579; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 261, 1934a: 175; Murayama 1953c: 161, 1954b: 182; Nobuchi 1967: 23, 1985c: 27. **(tx)** Blandford 1894d: 117; Hagedorn 1910a: 156; Murayama 1954b: 182; Niisima 1909: 154, 162; Schedl 1934f: 1646, 1972d: 152, 1979c: 184.
- schoenherrii* (Schedl) 1981a: 5 (*Xyleborus*). Holotype ♀; Brasilien, PR [Parana (Telemaco-Borba), Schonherr & Pedrosa-Macedo 1981: 56]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Hosts: *Pinus elliottii*.
References: **(ds)** Pedrosa-Macedo & Schonherr 1985: 37; Schonherr & Pedrosa-Macedo 1981: 56. **(tx)** Pedrosa-Macedo & Schonherr 1985: 37; Schedl 1981a: 5.
- sclerocaryae* (Schedl) 1962h: 71 (*Xyleborus*). Holotype ♀; Transvaal, Lothion; NICP, Pretoria.
Distribution: Africa (South Africa).
Hosts: *Sclerocarya birrea*, *S. caffra*.
References: **(cn)** Anonymous 1970c: 14. **(ds)** Anonymous 1970c: 14; Schedl 1962j: 60. **(tx)** Schedl 1962h: 71, 1962k: 1102, 1979c: 222.
- sculptilis* (Schedl) 1964g: 247 (*Xyleborus*). Holotype ♀; Sarawak, Kuching; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Artocarpus heterophyllus*.
References: **(tx)** Schedl 1964g: 247, 1979c: 223.
- setosus* (Eichhoff) 1868c: 146 (*Xyleborus*). Holotype ♀; Brasilia; Schedl Collection in NHMW, Wien.
Figures: Pedrosa-Macedo & Schonherr 1985: 38. Distribution: South America (Brazil/ Paraguay/ Peru).
Hosts: *Araucaria angustifolia*, *Cedrela fissilis*.
Notes: (1) The original spelling on page 146 with the description was *setosus*, but it was corrected by Eichhoff 1878b: 64, 395; the original spelling (Eichhoff 1868c: 146) is treated as a lapsus calami.
References: **(cn)** Santoro 1966a. **(ds)** Ferrer 1942; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 337; Pedrosa-Macedo & Schonherr 1985: 38; Santoro 1957b: 26; Schedl 1960a: 77, 1966f: 90, 1967d: 3, 1971f: 149, 1972g: 45, 1973d: 162, 1976a: 551; Schonherr & Pedrosa-Macedo 1981: 57. **(tx)** Eggers 1920: 125–126; Eichhoff 1868c: 146; Iglesias 1914b: 130; Hagedorn 1910a: 156; Numberg 1956a: 145; Pedrosa-Macedo & Schonherr 1985: 38; Schaufuss 1891: 28; Schedl 1931c: 342–343, 1940a: 365, 1951h: 285, 1952a: 446, 1966e: 43, 1979c: 225.
- sharpae* (Hopkins) 1915b: 63 (*Xyleborus*). Holotype ♀; Mt. Coffee, Liberia; USNM, Washington. Figures: Nobuchi 1978a: pl. 4.
Distribution: Africa (Angola/ Cameroon/ Congo/ Equatorial Guinea/ Ghana/ Guinea/ Ivory Coast/ Liberia/ Tanzania/ Zaire).
Hosts: Many listed by Schedl 1962j: 509–513. *Albizzia ferruginea*, *A. zygia*, *Bosqueia angolensis*, *Bussea occidentalis*, *Celtis zenkeri*, *Eutandrophragma utile*, *Khaya ivorensis*, *Macrobium* sp., *Pinus caribaea*, *Piptadeniastrum africanum*, *Terminalia ivorensis*, *T. superba*, *Trichilia heudelotii*.
References: **(cn)** Anonymous 1953j: 25. **(ec)** Anonymous 1953j: 25; Banerjee 1983. **(hb)** Jones 1959: 6; Jones, Roberts, & Baker 1959: 13–37; Schedl 1962j: 512; Thompson, G. H. 1963: 72; Webb & Jones 1957: 25–36. **(ds)** Browne 1970: 542; Nobuchi 1978a: 43; Schedl 1962b: 61, 1962j: 512, 1964e: 69, 1969a: 203, 1971e: 2, 1971f: 149, 1971g: 194; Thompson, G. H. 1963: 72. **(tx)** Eggers 1940c: 237; Hopkins 1915b: 63–64; Nobuchi 1978a: pl. 4; Schedl 1951e: 39, 1954e: 54, 1955d: 269, 1962h: 61, 1962j: 512; Wood, S. L. 1962: 79.
- schreineri* Eggers 1920: 115 (*Xyleborus*). Lectotype ♀; Amami (D.O. Afrika); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 222. Synonymy: Wood 1962: 79.
References: **(hb)** Cachan 1957: 15; Schedl 1962j: 508. **(ds)** Ferreira 1965: 1125; Mayne & Donis 1962: 322; Schedl 1959p: 21, 1962j: 508, 1967c: 218. **(tx)** Eggers 1920: 115; Numberg 1963b: 51, pl. 26; Schedl 1951e: 39; 1954d: 572, 1962j: 508, 1979c: 222; Wood, S. L. 1962: 79.
- signatipennis* (Schedl) 1961e: 152 (*Xyleborus*). Holotype ♀; Madagascar, Perinet et Antaniditra, pres Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Alchornea coriacea*, *Cassipourea* sp., *Dalbergia pterocarpifolia*, *Ekebergia* sp., *Eleocarpus* sp., *Oncostemon* sp., *Peptadenia perivillei*.
References: **(hb)** Schedl 1977b: 211. **(ds)** Schedl 1977b: 211. **(tx)** Schedl 1961e: 152, 1977b: 211, 1979c: 228.
- similans* (Eggers) 1940c: 237 (*Xyleborus*). Holotype ♀; Congostaat: Kasunvu; Eggers Collection, in NHMW, Wien.
Figures: Numberg 1963b: pl. 27, figs. 3–5.

Distribution: Africa (Congo/ Ghana/ Ivory Coast/ Somalia/ Zaire).

Hosts: *Acacia dudgeoni*, *Albizzia adianthifolia*, *A. gummiifera*, *Alchornea hirtella*, *Blighia sapida*, *Cola chlamydantha*, *Funtumia elastica*, *Guarua laurentii*, *Hevea brasiliensis*, *Macaranga* sp., *Macrolobium heudelotianum*, *Pentadesma lebrunii*, *Scorodophloeus zenkeri*, *Sterculia rhinopetala*, *Terminalia superba*, *Triplochiton scleroxylon*, *Turraecanthus africana*.

References: (ce) Schedl 1962j: 514. (hb) Browne 1963: 244; Cachan 1957: 15; Schedl 1962j: 514. (ds) Browne 1963a: 244; Mayne & Donis 1962: 322; Schedl 1962h: 61, 1962j: 514, 1966c: 228, 1967a: 219; Thompson, G. H. 1963: 72. (tx) Eggers 1940c: 237; Nunberg 1963b: 54, pl. 27; Schedl 1951f: 40, 1954d: 872–873, 1954e: 54, 1955c: 31, 1962h: 61, 1962j: 514, 1979c: 229.

speciosus (Schedl) 1975e: 457 (*Xyleborus*). Holotype ♀; Bengal, Darjeeling; Schedl Collection in NHMW, Wien.

Distribution: Asia (Bengal in India).

References: (tx) Schedl 1975e: 457.

spiculatulus (Schedl) 1965c: 70 (*Xyleborus*). Holotype ♀; G. Comoren [apparently Grande Comoro Island in Indian Ocean off Mozambique]; Schedl Collection in NHMW, Wien.

Distribution: Africa (Grande Comoro Island), Madagascar.

References: (ds) Schedl 1969d: 10. (tx) Schedl 1965c: 70, 1977b: 200, 1979c: 234.

spiculatus (Schaufuss) 1891: 28 (*Xyleborus*). Holotype ♀; Madagascar; Hamburg Museum, lost.

Distribution: Madagascar.

Hosts: *Allophylus macrocarpus*, *Chrysophyllum boivinianum*, *Dombeya* sp., *Ficus sorocoides*, *Gouania glandulosa*, *Macphersonia* cf. *madagascariensis*, *Olea ambrensis*, *Panax* sp., *Pittosporum* sp., *Trema orientalis*, *Tricocodendron acuminatum*. References: (hb) Schedl 1977b: 200. (ds) Alluaud 1900: 441; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1907a: 261, 1907b: 111, 1910d: 111; Kleine 1913b, 1914b: 326; Schedl 1977b: 200; Spahr 1981. (tx) Eggers 1920: 125–126; Fairmaire 1892b; Hagedorn 1910a: 156, 1913b: 257; Keler 1928: 29; Schaufuss 1891: 28; Schedl 1953d: 71, 1965c: 70, 1969d: 10, 1977b: 200.

spimifer (Eggers) 1920: 116 (*Xyleborus*). Holotype ♀; Sogosse (British Bechuanaland), Sudafrika; MNB, Berlin.

Distribution: Africa (Angola/ Botswana/ Namibia/ South Africa), Madagascar.

Hosts: *Acacia* sp., *Pinus khasia*.

References: (cn) Anonymous 1970c: 14. (ds) Anonymous 1970c: 14; Ferreira 1965: 112; Schedl 1959p: 21, 1962j: 530, 1977b: 216. (tx) Eggers 1920: 116, 1922b: 171; Schedl 1957c: 325, 1957d: 85, 1962j: 530, 1977b: 216.

spiniger (Schedl) 1954b: 45 (*Xyleborus*). Lectotype ♀; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 235.

Distribution: South America (Brazil).

References: (tx) Schedl 1954b: 45, 1979c: 235.

spinipennis (Eggers) 1930d: 202 (*Xyleborus*). Holotype ♀; Assam (Haflong, Cachar); FRI, Dehra Dun, lost.

Distribution: Asia (Assam in India).

Notes: (1) A Beeson note in his collection states that the holotype was lost before 1941.

References: (tx) Eggers 1930d: 202.

spinipes (Schedl) 1957d: 103 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 28, figs. 4–5.

Distribution: Africa (Zaire).

Hosts: *Celtis brieayi*, *Scorodophloeus zenkeri*.

References: (ds) Schedl 1962j: 530, 1967e: 219. (tx) Nunberg 1963b: 57, pl. 28; Schedl 1957d: 103, 1962j: 530, 1979c: 235.

spiniposticus Wood 1992b: 80. Holotype, sex?; Fiji; Schedl Collection in NHMW, Wien, automatic.

Distribution: Fiji Islands.

References: (tx) Wood, S. L. 1992b: 80.

spinipennis Schedl 1979f: 106 (*Eidophelus*).

Holotype, sex?; Fiji; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1930.

References: (tx) Beaver 1991: 94; Schedl 1979f: 106; Wood, S. L. 1992b: 80.

spinosus (Schaufuss) 1891: 27 (*Xyleborus*). Syn-types ♀; Madagascar; Hamburg Museum, lost.

Distribution: Madagascar.

Hosts: *Allophylus macrocarpus*, *Chrysophyllum boivinianum*, *Dombeya* sp., *Ficus sorocoides* var. *macrophlebia*, *Gouania glandulosa*, *Pittosporum* sp. References: (ce) Schedl 1977a: 201, 1977b: 201. (hb) Fairmaire 1892b; Schedl 1977a: 201, 1977b: 201. (ds) Alluaud 1900: 438–442; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 111; Kleine 1913b, 1914b: 326; Schedl 1977a: 201, 1977b: 201. (tx) Eggers 1920: 44, 125–126; Hagedorn 1910a: 156, 1913b: 256; Schaufuss 1891: 27; Schedl 1953d: 71, 1977b: 201.

mitosomus Schedl 1965c: 73 (*Xyleborus*). Holotype ♀; Madagascar, Ankaratra; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1977b: 201.

References: (tx) Schedl 1965c: 73, 1977b: 201, 1979c: 157.

subgranulatus (Eggers) 1930d: 202 (*Xyleborus*). Holotype ♀; Assam (Central Range, Sibsagar Div.); FRI, Dehra Dun.

Distribution: Asia (Burma/ Assam, Bengal, Karnataka in India).

Hosts: *Amoora walichii*, *Cinnamomum zeylanicum*, *Juglans regia*, *Sapium eugeniacefolium*, *Terminalia myriocarpa*, *Vatica lanceaefolia*.

References: (cn) Mathur & Singh 1961b: 71. (ds)

Beeson 1930: 260; Kleine 1934a: 175; Mathur & Singh 1961b: 71. (tx) Beeson 1930: 260; Eggers 1930d: 84, 202; Schedl 1979c: 242.

subsulcatus (Eggers) 1927a: 190 (*Xyleborus*). Holotype ♀; Belge Congo (Barumbu); MRCB, Tervuren.

Figures: Numberg 1963b:pl. 29, figs. 3–4.

Distribution: Africa (Zaire/Zambia).

Hosts: *Theobroma cacao*.

References: (hb) Chesquiere 1933a: 31, 36, 1933b: 781–786; Loyttyniemi, Beaver, & Loyttyniemi 1984. (ds) Beaver & Loyttyniemi 1985a: 76; Kleine 1934a: 175; Schedl 1962j: 522; Wichmann 1954: 521. (tx) Eggers 1927a: 190–191; Numberg 1963b: 58, pl. 29; Schedl 1962j: 522.

syzygii (Schedl) 1959q: 709 (*Xyleborus*). Holotype ♀; Tanganyika, N. Prov.; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Syzygium* sp.

References: (ds) Schedl 1962j: 532. (tx) Schedl 1959q: 709, 1960h: 106, 1962j: 532, 1979c: 248.

tribuloides Wood 1977b: 218. Holotype ♀; 24 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa. Distribution: North America (Oaxaca in Mexico).

Hosts: *Cecropia* sp.

References: (ds) Atkinson & Equihua 1986a: 421; Wood, S. L. 1982b: 844. (tx) Wood, S. L. 1977b: 218, 1982b: 844.

tribulosus Wood 1974a: 42. Holotype ♀; Madden Forest, Canal Zone, Panama; Wood Collection.

Distribution: North America (Panama).

References: (hb) Wood, S. L. 1982b: 844. (ds) Wood, S. L. 1982b: 844. (tx) Wood, S. L. 1974a: 42, 1982b: 844.

truncatipennis (Schedl) 1961f: 92 (*Xyleborus*). Holotype ♀; Balaban, Philippines; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands.

References: (ds) Schedl 1966b: 75. (tx) Nobuchi 1983: 304; Schedl 1961f: 92, 1979c: 256.

undatus (Schedl) 1974c: 264 (*Xyleborus*). Holotype ♀; Nord-Vietnam, L. Thsi Nuguyen; MHNB, Bucharest.

Distribution: Asia (Vietnam).

References: (ds) Schedl 1974c: 262. (tx) Schedl 1974c: 264, 1979c: 260.

Genus *Mesoscolytus* Broun

MESOSCOLYTUS BROUN 1904: 125. Type-species: *Mesoscolytus inurbanus* Broun, monobasic.

References: (hb) Wood, S. L. 1986a: 84. (ds) Hagedorn 1910d: 75; Hutton 1904: 219; Wood, S. L. 1986a: 84. (tx) Broun 1904: 125, 1909: 125; Hagedorn 1910a: 92; Wood, S. L. 1986a: 84.

inurbanus (Broun) 1904: 126 (*Apate*). Holotype ♀; Tairua, New Zealand; not located.

Figures: Baine 1976: 183 (adult).

Distribution: New Zealand.

Notes: (1) The description cited here may be a redescription; Broun states that the type was found about 30 years prior to 1904 and was referred to *Apate*. (3) It is apparent that the species we cite as *inurbanus* is not congeneric with the one identified by Schedl; confirmation is needed.

References: (ds) Broun 1904: 126; Hagedorn 1910d: 75; Hutton 1904: 219; Kleine 1913b: 142, 1914b: 304. (tx) Bain 1976: 183; Broun 1904: 126; Hagedorn 1910a: 92; Hopkins 1914: 124; Lucas 1920: 406. (ms) Lucas 1920: 406.

Genus *Hadrodemius* Wood

HADRODEMIUS WOOD 1980c: 94. Type-species: *Xyleborus globus* Blandford, original designation.

Keys: Eggers 1939b: 11.

References: (hb) Wood, S. L. 1986a: 84. (ds) Wood, S. L. 1986a: 84. (tx) Wood, S. L. 1980c: 94, 1986a: 84.

amorphus (Eggers) 1926b: 147 (*Xyleborus*). Syn-types 1 ♀, 1 ♂; Formosa; Eggers Collection, in NHMW, Wien.

Figures: Nobuchi 1967:pl. 1, Yin & Huang 1981: 568.

Distribution: Asia (Fujian, Sichuan, Xizang [Tibet] in China/Taiwan).

Hosts: *Acacia* sp., *Ficus carica*, *Machilus* sp., *Quercus* sp.

Notes: (1) Schedl 1979c: 18 (citation of holotype invalid).

References: (ds) Miwa 1931: 269; Murayama 1934d: 505–512; Nobuchi 1967: 21; Yin & Huang 1981: 567; Yin, Huang, & Li 1984: 177. (tx) Eggers 1926b: 147–148, 1939b: 11; Nobuchi 1967:pl. 1; Schedl 1934f: 1645, 1960i: 109, 1979c: 18; Yin & Huang 1981: 567–568, Yin, Huang, & Li 1984: 177.

melli Schedl 1938h: 463 (*Xyleborus*). Lectotype ♀; China, Tsha-jiu-san; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 151. Synonymy: Schedl 1960i: 109.

References: (ds) Schedl 1960e: 172. (tx) Schedl 1938h: 463–464, 1960e: 172, 1960i: 109, 1979c: 151.

artecomans (Schedl) 1953c: 24 (*Xyleborus*). Lectotype ♀; Friken, Kautun, China (2300 m), M. Br. 117.40 degrees, 21.5 L; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 26.

Figures: Numberg 1959a:pl. 18, figs. 7–8, Yin, Huang, & Li 1984: 176 (male).

Distribution: Asia (Fujian, Hainan Island, Xizang [Tibet] in China).

Hosts: *Ficus chorocarpa*, *Machilus* sp.

References: (ds) Schedl 1960e: 172; Yin & Huang 1981: 566. (tx) McNamara 1984: 759; Numberg 1959a: 415–416; Schedl 1953c: 24, 1979c: 26; Yin & Huang 1981: 566, 567, Yin, Huang, & Li 1984: 176.

comans (Sampson) 1919: 109 (*Xyleborus*). Syntypes ♀; Borneo, Sarawak (Mt. Merinjak and Quop); BMNH, London.

Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).

Hosts: *Aphanamixis rohituka*, *Fordia* sp., *Hopea ferrea*, *H. odorata*, *Melanorrhoea* sp., *Rhodamnia trinervia*, *Saurauia pentapetala*, *Shorea bracteolata*, *S. leprosulata*, *S. maxwelliana*, *Strebilus elongatus*, *Swietenia macrophylla*.

References: (hb) Beaver & Browne 1978: 606; Browne 1961c: 111. (ds) Beaver & Browne 1978: 606; Browne 1961c: 111; Sampson 1919: 109; Schedl 1965g: 22. (tx) Eggers 1926b: 147, 1927b: 406, 1930d: 187–188; Sampson 1919: 109–110; Schedl 1953c: 290, 1964d: 212, 1965g: 22, 1979c: 60.

globus (Blandford) 1896b: 208 (*Xyleborus*). Holotype ♀; New Guinea, Dorey; BMNH, London.

Figures: Numberg 1959a: pl. 30, figs. 5–6.

Distribution: Asia (India/ Malaya/ Taiwan/ Thailand), Indonesia (Borneo, Java, Sumatra), New Guinea, Philippine Islands, Solomon Islands.

Hosts: *Artocarpus* sp., *Canarium littorale*, *Castanea argenea*, *Cinnamomum* sp., *Dryobalanops longifolia*, *Dysoxylum* sp., *Eupatorium pallescens*, *Intsia palembanica*, *Kleinhovia hospita*, *Litsea megacarpa*, *Piper* sp., *Swietenia macrophylla*, *Turpinia pomifera*.

Notes: (3) The record from "India" probably refers to the Malayan collections (SIW).

References: (ay) Browne 1961d: 49. (cn) Kleine 1932a: 307. (hb) Beaver & Browne 1975: 298; Browne 1961c: 111–112; Kalshoven 1924; 1959c: 163; Kleine 1932a: 307. (ds) Beaver & Browne 1975: 298; Browne 1981a: 125; Hagedorn 1910d: 105; Kalshoven 1924b: 358, 1959c: 163; Kleine 1913b: 161, 1914b: 296, 1932a: 307; Nobuchi 1967: 22; Schedl 1971f: 149, 1975e: 451. (tx) Blandford 1896b: 208; Hagedorn 1910a: 154.

ursus Eggers 1923a: 173 (*Xyleborus*). Holotype ♀; Malinao Tayabas (Luzon); SMTD, Dresden. Synonymy: Browne 1961c: 111.

References: (cn) Mathur & Singh 1961a: 79. (ds) Mathur & Singh 1961a: 79; Schedl 1936g: 528, 1964d, 1966b: 76. (tx) Browne 1961c: 111; Eggers 1923a: 172–174, 1926b: 147, 1927b: 406, 1939b: 11; Nobuchi 1983: 304; Numberg 1959a: 442; Schedl 1939e: 329.

ursus fuscus Eggers 1923a: 174 (*Xyleborus*). Holotype ♀; Si-Rambe auf Sumatra; MCG, Genova. Synonymy: Browne 1961c: 111.

References: (tx) Browne 1961c: 111; Eggers 1923a: 173–174, 1939b: 10–11; Kalshoven 1959: 163; Schedl 1937e: 544, 1939e: 329, 1942d: 5, 1951i: 42, 90, 1954a: 141, 1961c: 71, 1979c: 102.

metacomans (Eggers) 1930d: 188 (*Xyleborus*).

Holotype ♀; Assam (Haflong, Cachar); FRI, Dehra Dun.

Figures: Kumar & Chandra 1977: 45 (male).

Distribution: Asia (Burma/ Assam, Bengal in India).

Hosts: *Clerodendron infortunatum*, *Mesua ferrea*, *Terminalia myriocarpa*.

Notes: (3) Kumar & Chandra 1977: 35 (described male).

References: (ay) Gardner 1934b: 1–17. (cn) Mathur & Singh 1960a: 6, 1961b: 34. (ds) Mathur & Singh 1960a: 6, 1961b: 34. (tx) Eggers 1930d: 187–188, 1939d; Gardner 1934b: 1–17; Kumar & Chandra 1977: 35, 45.

pseudocomans (Eggers) 1930d: 187 (*Xyleborus*).

Holotype ♀; Assam: Upper Dihing Reserve, Lakhimpur; FRI, Dehra Dun.

Distribution: Asia (Burma/ Xizang [Tibet] in China/ Assam, Bengal in India).

Hosts: *Cinnamomum cecicodaphne*, *Mallotus alba*, *Myristica longifolia*, *Terminalia myriocarpa*.

References: (cn) Mathur & Singh 1961b: 34–5. (ds) Beeson 1930; Kleine 1934a: 175; Mathur & Singh 1961b: 34–5; Schedl 1969c: 54. (tx) Beeson 1930: 252; Eggers 1930d: 187; Schedl 1953c: 24, 1979c: 201.

pubifer (Schedl) 1972m: 200 (*Xyleborus*). Holotype ♀; Brit. N. Borneo; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: Schedl 1972m: 200.

tomentosus (Eggers) 1939b: 10 (*Xyleborus*). Holotype ♀; Nordostbirma (Kambaiti, 7000 Fuss); NHR, Stockholm.

Distribution: Asia (Burma).

References: (tx) Eggers 1939b: 10.

Genus *Eccoopterus* Motschulsky

ECCOPTOPTERUS MOTSCHULSKY 1863: 515. Type-species: *Eccoopterus sexspinosus* Motschulsky = *Scolytus spinosus* Olivier, monobasic.

Platydactylus Eichhoff 1886: 25. Type-species: *Platydactylus gracilipes* Eichhoff, monobasic, preoccupied by Goldfuss 1820.

References: (tx) Blandford 1893a: 162, 1893d: 442; Eichhoff 1886: 25; Hagedorn 1909a: 733; Schedl 1962j: 90.

Eurydactylus Hagedorn 1909a: 733. Type-species: *Platydactylus gracilipes* Eichhoff, automatic. Synonymy: Hagedorn 1910d: 110.

References: (tx) Hagedorn 1909a: 733, 1910d: 110, 1912b: 35; Schedl 1962j: 90.

References: (ay) Francke-Groszmann 1958: 139–144; Nobuchi 1969a: 64. (hb) Browne 1958b: 164–182; Wood, S. L. 1986a: 84. (ds) Brimblecombe 1953: 18; Hagedorn 1910d: 97–98; Schedl 1962j: 90, 1966b: 79, 1977b: 223; Wood, S. L. 1986a: 84. (tx) Blandford 1898b: 194; Browne 1955: 351, 1961c: 174–178, 1962g: 76; Eggers 1923a: 193; Eichhoff 1876a: 379; Hagedorn 1910a: 150, 1912b: 35; Hopkins 1914: 121, 135, 1915b: 10, 1915c: 176, 226; Motschulsky 1963: 515; Samp-

- son 1911: 382, 1919: 112; Schedl 1936j: 26, 1939j: 570, 1957d: 83–84, 1959a: 512, 1962j: 90, 1977b: 223; Strohmeier 1911: 25; Wood, S. L. 1986a: 84.
- drescheri** Eggers 1940d: 154. Holotype ♀; Java (Batoerraden, G. Slamet); F.C. Drescher Collection. Distribution: Indonesia (Java). References: (tx) Eggers 1940d: 154; Schedl 1979c: 84.
- eccoptopterus** (Schedl) 1951k: 154 (*Xyleborus*). Lectotype ♀; Tutuila, Fagatogo, 2100 ft., Upolu, Afiamali, 2200 ft.; Schedl Collection, designated by Schedl 1979c: 86. Distribution: Samoan Islands. References: (tx) Beaver 1976b: 544; Schedl 1951k: 138, 153–154, 1979c: 86.
- gracilipes** (Eichhoff) 1886: 25 (*Platydictylus*). Holotype ♀; Moluccas; Hamburg Museum, lost. Distribution: Asia (Malaya), Indonesia (Batu Island, Borneo, Java, Moluccas, Sumatra), New Guinea, Philippine Islands, Samoan Islands. Hosts: *Artocarpus elasticus*, *Shorea leprosula*. References: (cc) Browne 1958b. (hb) Browne 1958b, 1961c: 174; Kalshoven 1959a: 226, 1959c: 166. (ds) Browne 1961c: 174, 1980d: 491; Hagedorn 1910d: 105; Kalshoven 1959c: 166; Kleine 1913b: 168; Sampson 1919: 112; Schedl 1966b: 80. (tx) Eggers 1923a: 192–193, 1927b: 407, 1927c: 102; Eichhoff 1886: 25; Hagedorn 1910a: 154; Hopkins 1914: 122, 127; Kalshoven 1959a: 226; Nobuchi 1983: 304; Sampson 1919: 112; Schedl 1940b: 442, 1951i: 44, 1954a: 144.
- collaris** Eggers 1923a: 194 (*Xyleborus*). Lectotype ♀; Batoe Inseln (Tanah Masa); USNM, Washington, designated by Anderson & Anderson 1971: 9. Synonymy: Wood 1989: 172. References: (hb) Kalshoven 1959c: 166. (ds) Kalshoven 1959c: 166; Schedl 1961c: 70, 1965g: 24, 1966b: 80. (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1923a: 194; Nobuchi 1983: 304; Schedl 1939c: 332, 1940b: 435, 442, 1965g: 24; Wood, S. L. 1989: 172.
- limbus** Sampson 1911: 381. Holotype ♂; Perak; BMNH, London. Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra, Sunda Islands). Hosts: *Adenanthera pavonina*, *Aphanamixa rohituka*, *Arthrophyllum diversifolium*, *Castanopsis sumatrana*, *Dipterocarpus baudii*, *Eucalyptus deglupta*, *Grewia* sp., *Heritiera javanica*, *Hopea odorata*, *Koornpassia excelsa*, *Rhodamnia trinervia*, *Shorea leprosula*, *Swietenia macrophylla*, *Swintonia specifera*. References: (cn) Browne 1949c. (cc) Browne 1958b. (hb) Beaver & Browne 1978: 587; Browne 1935a, 1941, 1958b, 1961c: 177; Kalshoven 1959c: 167. (ds) Beaver & Browne 1978: 587; Browne 1935a, 1961c: 177–178, 1984b: 286, 1984c: 448; Kalshoven 1959c: 167. (tx) Browne 1955: 351; Eggers 1923a: 193, 1927b: 407; Sampson 1911: 381–383; Schedl 1954a: 144.
- squamulosus duplicatus** Eggers 1923a: 193 (*Xyleborus*). Lectotype ♀; Perak; USNM, Washington, designated by Anderson & Anderson 1971: 12. Synonymy: Wood 1989: 172. Notes: (3) Eggers 1923a: 193 (named var. *auratus*). References: (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1923a: 193; Schedl 1954a: 144, 1979c: 236; Wood, S. L. 1989: 172.
- multispinosus** (Hagedorn) 1908: 377 (*Platydictylus*). Syntypes ♀; Sumatra und Kamerun; MNB, Berlin? Distribution: Indonesia (Sumatra). Notes: (1) Originally named as a subspecies of *sexspinosus*. References: (hb) Hagedorn 1913a: 47–48. (ds) Kleine 1914b: 268, 312; Sampson 1914: 389. (tx) Eggers 1920: 125–126; Hagedorn 1908; Sampson 1911: 382, 1914: 389; Schedl 1962j: 92; Strohmeier 1911: 25.
- sexspinosus pluridentatus** Schedl 1942d: 49. Lectotype ♀; Sumatra; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 227. Synonymy: Kalshoven 1959b: 96. References: (cn) Yunus & Hua 1980: 231. (ds) Browne 1949b; Yunus & Hua 1980: 231. (tx) Browne 1949b; Kalshoven 1959b: 96–97; Schedl 1942a: 171, 1942d: 49, 1979c: 227.
- sagittarius** Schedl 1939f: 41. Lectotype ♀; Luzon Rizal, Mt. Irid; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 218. Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra), Philippine Islands. Hosts: *Gmelina arborea*, *Shorea* sp., *Swietenia macrophylla*. References: (hb) Browne 1961c: 176; Kalshoven 1959c: 167. (ds) Browne 1961a: 307, 1961c: 176–177; Kalshoven 1959c: 167; Nobuchi 1979a: 407; Schedl 1966b: 80. (tx) Nobuchi 1983: 304; Schedl 1939f: 41, 1979c: 218.
- spinosus** (Olivier) 1795: 9 (*Scolytus*). Holotype ♀; Java; MNHN, Paris. Figures: Nobuchi 1978a: pl. 1, Numberg 1959a: pl. 28, figs. 6–8, Schedl 1962j: 91, 1977b: 223. Distribution: Africa (Angola/ Batschian Island/ Cameroon/ Canary Islands/ Congo/ Dama Island/ Equatorial Guinea/ Fernando Poo Island/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Mauritania/ Nigeria/ Seychelles Islands/ South Africa/ Tanzania/ Uganda/ Zaïre/ Zambia), Asia (Burma/ Andaman Islands, Assam, Maharashtra, Tamil Nadu in India/ Japan/ Malaya/ Sri Lanka/ Taiwan/ Thailand/ Vietnam), Australia (Queensland), Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, New Guinea, Philippine Islands, Reunion Island, Tonga. Hosts: *Albizzia lebbek*, *Anacardium occidentale*, *Artocarpus nobilis*, *Bassia latifolia*, *Bridellia retusa*, *Canarium euphyllum*, *Dipterocarpus*

turbinatus, *Gluta travanicorica*, *Mangifera indica*, *Shorea robusta*, *Swietenia macrophylla*, *Tectona grandis*, *Terminalia belerica*.

References: (ay) Butovitsch 1929: 7; Francke-Grosmann 1963: 422. (bv) Gray, B. 1974c. (cn) Anonymous 1970c: 13; Beaver 1988a: 63; Cachan 1957: 15; Cotes 1891: 61, 1893: 155; Miller 1932: 19. (hb) Beaver 1988a: 63; Beaver & Browne 1975: 289, 1978: 587; Beaver & Loyttyniemi 1985a: 70; Browne 1961c: 175-176; Chobant 1897: 262; Gray, B. 1974c; Loyttyniemi, Beaver, & Loyttyniemi 1984; Roberts 1969: 125; Schedl 1962j: 91, 1977b: 224; Zimmermann 1908: 716-724. (ds) Alluaud 1900: 441; Anonymous 1970c: 13; Beaver 1988a: 63; Beaver & Browne 1975: 289, 1978: 587; Beaver & Loyttyniemi 1985a: 70; Browne 1963: 246-247, 1966: 257, 1970: 541, 1980d: 491, 1985b: 290; Ferreira 1965: 1119; Nobuchi 1979a: 407; Ohno, Yoneyama, & Nakazawa 1987a: 89; Ohno, Yoshioka, et al. 1988a: 95, 1989: 64; Schedl 1962j: 91, 1964d, 1965g: 21, 1966b: 80, 1966g: 33, 1968e: 263, 1969d: 7, 1969e: 156, 1970h: 150, 1971a: 279, 1971g: 190, 1974c: 262, 1975a: 454, 1975e: 452, 1975i: 347, 1975k: 278, 1977b: 224. (tx) Beaver 1987b: 87; Blandford 1863a: 162, 1893b: 63-65, 1894b: 261, 1895a: 322, 1896c: 64-65, 1898a: 425, 1898b: 201; Butovitsch 1929: 7; Eggers 1927c: 102; Hagedorn 1910a: 156; Nobuchi 1978a: pl. 1, 1983: 304; Olivier 1795b: 9; Schedl 1962j: 91, 1962p: 201, 1977b: 223-224.

sexspinosus Motschulsky 1863: 515. Syntypes ♀;

Des Montagnes de Nura-Ellia et du Birma; IZM, Moscow. Synonymy: Schedl 1962p: 201.

References: (ay) Francke-Grosmann 1957: 139-144. (cn) Beeson 1916: 221-223, 1922c: 495, 1923: 164; Brader 1964: 4; Dnpont 1916; Green 1912a: 39, 1916: 608-636; Hagedorn 1913a; Hall 1914: 1-5; Kalshoven 1924c, 1932: 247, 1951: 851; Kleine 1932a: 307; Mathur & Singh 1960b: 14, 1961a: 46, 1961b: 14; Mayne 1917: 1-8; Morstatt 1937: 26; Roonwal 1954: 19; Schultze 1923: 40; Stebbing 1903a: 281; Thompson, C. H. 1960; Webb & Jones 1957: 37, 42, 1958: 383. (cc) Beeson 1922c: 495, 1923: 164; Francke-Grosmann 1957. (hb) Beeson 1916a: 221, 1922c: 495, 1923: 164; Blandford 1894b; Braune 1941; Browne 1935a, 1941: 65, 1949b: 892, 1949c: 178-189, 1961c: 175-176, 1963a: 246; Cotes 1893a; Hagedorn 1913a: 5-25; Jones, Roberts, & Baker 1959: 10, 14, 23; Kalshoven 1924c: 10, 1958a: 186, 1959a: 224, 1959c: 167; Kleine 1932a: 307; Lengerken 1939: 257, 1954: 325; Neger 1911: 50-58; Roberts 1969: 125; Schedl 1959p: 18; Stebbing 1903a: 284, 1911a: 6; Webb & Jones 1958: 383. (ds) Beeson 1916a, 1922c: 495, 1923: 164, 1930: 257-258, 1941: 402; Bhasin, Roonwal, & Singh 1958: 17, 38, 68; Blandford 1894b: 221, 1895a: 495, 1896c, 1897b; Brimblecombe 1953: 18; Browne 1935a, 1961c:

175, 1963a: 246; Cotes 1893a; Gardner 1957a; Gemminger & Harold 1872: 2696; Green 1912a: 39; Hagedorn 1907a, 1907b, 1910d: 110-111, 1913a; Kalshoven 1932: 247, 1951: 851, 1958a: 186, 1959b: 96-97, 1959c: 167; Kleine 1912a: 212, 1913b: 168, 1914b: 268, 274, 278, 288, 290, 312, 1932a: 307, 1934a: 177; Lefroy & Howlett 1909: 395; Mathur & Singh 1960b: 14, 1961a: 46, 1961b: 14; Mayne & Donis 1962: 306; Miwa 1931: 269; Murayama 1934d: 511; Nobuchi 1967: 23; Nonveiller 1984: 40; Roba 1935: 338; Roonwal 1954: 19-67; Sampson 1914: 389; Schedl 1936d: 5, 1936g: 531, 1936j: 20, 1937f: 15, 1959a: 512, 1959p: 18, 1959q: 706, 1962i: 72, 1971a: 274, 1979f: 103; Schultze 1923: 401; Spahr 1981; Stebbing 1903a: 284; Strohmeier 1911b: 25; Thompson, C. H. 1960, 1963: 43; Wichmann 1954: 503, 524; Wood, S. L. 1957e: 1273. (tx) Beeson 1930: 257-258; Blandford 1893a, 1893b: 63-64, 1894b, 1896c; Eggers 1922b: 174, 1923a: 130, 193-194, 1925: 153, 1927b: 407, 1927c: 102-103, 1939c: 114; Eichhoff 1876a: 379; Green 1912a: 39; Hagedorn 1907a: 261, 1907b: 111-112, 1908: 337, 1910a: 156, 1912b: 33-36; Hopkins 1914: 121, 135; Kalshoven 1959a: 224, 1959b: 96; Keler 1928: 29; Motschulsky 1863: 515; Murayama 1934: 293; Numberg 1959a: 438; Sampson 1911: 382-383, 1914: 389; Schedl 1933e: 105, 1937f: 1, 1939f: 40-41, 1939g: 170, 1940b: 435, 1942a: 171, 1942d: 45, 1951f: 40, 1951i: 44, 1951k: 154, 1952c: 62, 1952g: 49, 52, 1953b: 124, 1953d: 69, 1953g: 243, 1954a: 144, 1954d: 873, 1954e: 54, 1955b: 279, 282, 1955d: 270, 1959a: 512, 1959q: 706, 1961e: 128, 1962b: 185-187, 1962p: 201, 1964d: 212, 1965g: 21, 1969d: 7-12; Schedl, W. 1962: 364; Strohmeier 1911b: 17, 25; Wood, S. L. 1969c: 118; Wylie & Yule 1977.

abnormis Eichhoff 1869b: 282 (*Xyleborus*). Syntypes ♀; Ceylon; Hamburg Museum, lost. Synonymy: Eichhoff 1878b: 378.

References: (ds) Blandford 1896c: 63; Gemminger & Harold 1872: 2684; Ghesquiere 1933a: 31, 36, 1933b: 781-786. (tx) Blandford 1896c: 63; Eichhoff 1869b: 282, 1876a: 378-379, 1878b: 341-342, 479, 1886: 25-26, 1898b: 341; Hagedorn 1905: 412, 1909: 733, 1912b: 33-36; Sampson 1911: 382; Schedl 1962j: 92; Strohmeier 1911: 25.

squamulosus (Eggers) 1923a: 193 (*Xyleborus*). Lectotype ♀; Pangherang-Pisang auf Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 31.

Distribution: Indonesia (Mentawai, Sumatra).

References: (tx) Anderson, W. H. & Anderson 1971: 31; Browne 1955: 351; Eggers 1923a: 193, 1927b: 407.

squamulosus auratus Eggers 1923a: 193 (*Xyle-*

borus). Lectotype ♀; Bandar Baroe an der Ostkust Sumatras; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 236.

Notes: (3) Schedl note in his collection treated this as a subspecies of *limbus*; it could be a good species.

References: (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1923a: 193–194; Schedl 1979c: 236.

tarsalis Schedl 1936j: 26. Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo).

References: (ds) Schedl 1936j: 26, 1964g: 241, 1965g: 24. (tx) Eggers 1940d: 154; Schedl 1936j: 26, 1954c: 154, 1964g: 246, 1965g: 24, 1979c: 250.

Genus *Schedlia* Browne

SCHEDLIA BROWNE 1950b: 641. Type-species: *Xyleborus sumatranus* Hagedorn, original designation.

Keys: Bright 1980b: 371, Browne 1950b: 642.

References: (hb) Browne 1961c: 183; Wood, S. L. 1986a: 84. (ds) Bright 1980b: 369; Wood, S. L. 1986a: 84. (tx) Bright 1980b: 369; Browne 1950b: 641; Wood, S. L. 1986a: 84.

allecta (Schedl) 1942d: 33 (*Xyleborus*). Holotype ♀; Saigon; Schedl Collection in NHMW, Wien.

Distribution: Asia (Vietnam).

References: (ds) Bright 1980: 369; Browne 1950b: 641–642. (tx) Bright 1980b: 371; Browne 1950b: 641–642, 1968a: 132; Schedl 1942d: 33, 1979c: 16.

brownei Bright 1980b: 369. Holotype ♀; Fly River, 5 miles below Palmer River, Papua [New Guinea]; AMNH, New York.

Figures: Bright 1980b: 371.

Distribution: New Guinea.

References: (tx) Bright 1980b: 369, 371.

convexa Bright 1980b: 370. Holotype ♀; Mt. Riu, Sudest Isl., 250–350 m, Papua, New Guinea; AMNH, New York.

Figures: Bright 1980b: 371.

Distribution: New Guinea.

References: (tx) Bright 1980b: 370–371.

paraconvexa Bright 1980b: 370. Holotype ♀; Abaleti, Rossei Isl., 0–50 m, Papua, New Guinea; AMNH, New York.

Distribution: New Guinea.

References: (ds) Browne 1986c: 661; Ohno et al. 1987: 89. (tx) Bright 1980b: 370.

praeusta (Eggers) 1923a: 167 (*Xyleborus*). Holotype ♀; Deutsch Neu Guinea, Kaiserin Augustafloss; MNB, Berlin.

Distribution: New Guinea.

References: (ds) Bright 1980b: 369. (tx) Bright 1980b: 371; Browne 1950b: 641; Eggers 1923a: 167; Schedl 1940b: 434–435, 1952k: 163.

sumatrana (Hagedorn) 1908: 381 (*Xyleborus*). Syntypes ♀; Sumatra-Palembang; Hamburg Museum, lost.

Distribution: Asia (Malaya/ Vietnam), Indonesia (Borneo, Sumatra), New Guinea.

Hosts: *Balanocarpus heimii*, *Dipterocarpus* sp., *Dryobalanops oblongifolia*, *Hopea* sp., *Shorea leprosula*, *S. spp.*

References: (ec) Browne 1958b. (hb) Beaver & Browne 1978: 598; Browne 1958b, 1961c: 183. (ds) Beaver & Browne 1978: 598; Bright 1980b: 369; Browne 1950: 643, 1961a: 307, 1961c: 183, 1968a: 133, 1984b: 286; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 268; Sampson 1919: 109, 111. (tx) Bright 1980b: 371; Browne 1950: 641–643, 1968a: 132; Eggers 1923a: 167; Hagedorn 1908: 381, 1910a: 157; Sampson 1919: 109, 111; Schedl 1939e: 331, 1942a: 171, 1942c: 188, 192, 1942d: 33–34.

usitata (Schedl) 1942c: 188 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (ds) Bright 1980b: 369; Browne 1950: 643. (tx) Bright 1980b: 371; Browne 1950: 641–643; Schedl 1942c: 188, 1942d: 33, 1979c: 262.

culpina (Schedl) 1942a: 192 (*Xyleborus*). Lectotype ♀; Malaya: Selangor, Ampang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 269.

Distribution: Asia (Malaya).

Hosts: *Quercus* sp.

References: (hb) Browne 1961c: 183. (ds) Bright 1980b: 369. (tx) Bright 1980b: 369; Browne 1950b: 641–642; Schedl 1942a: 191–192, 1942d: 33, 1979c: 269.

Genus *Coptodryas* Hopkins

COPTODRYAS HOPKINS 1915b: 10, 54. Type-species: *Coptodryas confusa* Hopkins, original designation.

Microperus Wood 1980c: 94. Type-species:

Xyleborus theae Eggers, original designation.

Synonymy: Wood 1986a: 84, 1986c: 265.

References: (tx) Wood, S. L. 1980c: 94, 1986a:

84, 1986c: 265.

Adryocoetes Eggers 1951: 370. Type-species: *Adryocoetes nitidus*, nomen nudum, = *Xyleborus pullus* Schedl. Synonymy: Schedl 1952b: 371.

References: (tx) Eggers 1951: 370; Schedl 1952b: 370–371.

References: (hb) Wood, S. L. 1986a: 84. (ds) Wood, S. L. 1986a: 84. (tx) Hopkins 1915b: 10, 54; Wood, S. L. 1986a: 84.

abbreviata (Schedl) 1942a: 195 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Biloh F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 8.

Distribution: Asia (Malaya).

Hosts: *Shorea leprosula*.

References: **(ds)** Browne 1961c: 119. **(tx)** Schedl 1942a: 195, 1979c: 8.

alpha (Beeson) 1929: 239 (*Xyleborus*). Holotype ♀; India: Sunderbans Div.; BMNH, London.

Distribution: Asia (Glizhou in China/ Assam, Bengal in India/ Malaya/ Sri Lanka/ Vietnam), Samoan Islands.

Hosts: *Chrysophyllum roxburghii*, *Cordia grandis*, *Shorea* sp., *Vatica lanceaefolia*.

Notes: (1) Described by Sampson 1923b: 289, but without an acceptable Linnaean name, as *bicolor* var. *a*.

References: **(cn)** Mathur & Singh 1960a: 23, 1961a: 37, 1961b: 71; Roonwal 1954: 48. **(ds)** Mathur & Singh 1960a: 23, 1961a: 37, 1961b: 71; Roonwal 1954: 48; Schedl 1959a: 505, 1971a: 271, 1971c: 364, 1973c: 378. **(tx)** Beeson 1929: 239, 1930: 225; Sampson 1923b: 289; Schedl 1959a: 505.

artographa (Schedl) 1942d: 44 (*Xyleborus*). Lectotype ♀; Mt. Gede, 800 m, Tofroo, Gombang, Mount Salak, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27.

Distribution: Indonesia (Java).

Hosts: *Albizzia falcata*, *Casurina equisetifolia*, *Marumia muscosa*.

References: **(bv)** Gray, B. 1974c. **(hb)** Gray, B. 1974c; Kalshoven 1959c: 148. **(ds)** Kalshoven 1959c: 148. **(tx)** Schedl 1942d: 44, 1979c: 27.

atava (Schedl) 1979g: 104 (*Xyleborus*). Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: **(tx)** Schedl 1979g: 104.

bella (Sampson) 1921: 31 (*Xyleborus*). Holotype ♀; Mt. Matang, Borneo; BMNH, London.

Figures: Nunberg 1978: 111.

Distribution: Asia (Malaya), Indonesia (Borneo, Moluccas).

Hosts: *Vatica* sp.

References: **(hb)** Browne 1961c: 165. **(ds)** Browne 1961c: 165; Sampson 1921: 31. **(tx)** Browne 1962c: 204–205; Nunberg 1978: 110–111; Sampson 1921: 31; Schedl 1935g: 427.

camela (Eggers) 1940d: 152 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: **(tx)** Eggers 1940d: 152; Schedl 1979c: 50.

chimbui (Schedl) 1973f: 74 (*Xyleborus*). Holotype ♀; Peria Creek, Kwagira River, Milne Bay Dist. [New Guinea]; AMNH, New York.

Distribution: New Guinea.

References: **(tx)** Schedl 1973f: 74, 1979c: 56.

chimbui Schedl 1973e: 90 (*Xyleborus*). Holotype ♀; Peria Creek, Kwagira River, Milne Bay Dis-

trict [New Guinea]; AMNH, New York, preoccupied by Schedl 1973f: 74.

Notes: (1) This is an apparent unintentional redescription of the *chimbui* Schedl that was named on p. 74 in the same journal.

References: **(tx)** Schedl 1973e: 90.

chrysophylli (Eggers) 1930d: 205 (*Xyleborus*). Holotype ♀; Assam (Longai Reserve, Syllhet); FRI, Dehra Dun.

Distribution: Asia (Assam, Bengal in India).

Hosts: *Chrysophyllum roxburghii*.

References: **(ds)** Beeson 1930: 229; Kleine 1934a: 175. **(tx)** Beeson 1930: 229; Eggers 1930d: 205.

confusa Hopkins 1915b: 54. Holotype ♀; Pagbilao, P.I.; USNM, Washington.

Figures: Browne 1972b: 22.

Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands.

Hosts: *Dipterocarpus grandiflorus*, *Hopea ferrea*, *Shorea curtisii*, *S. multiflora*, *S. parviflora*, *Vatica* sp.

References: **(ay)** Lhoste & Roche 1960. **(ds)** Kirk 1969; Kleine 1934a: 156; **(tx)** Hopkins 1915b: 54; Nobuchi 1983: 302; Schedl 1942a: 191, 1979c: 62; Wood, S. L. 1960a: 51.

cryphaloides Schedl 1942a: 191 (*Xyleborus*). Holotype ♀; Malaya, Selangor, Buloh F.R.; BMNH, London.

Notes: (1) A note by Schedl in his collection lists this as a synonym of *confusa* Hopkins.

References: **(hb)** Beaver & Browne 1978: 607; Browne 1961c: 161. **(ds)** Beaver & Browne 1978: 607; Browne 1961a: 305, 1961c: 161, 1981b: 598; Schedl 1954c: 154, 1958b: 101, 1964c: 304. **(tx)** Browne 1972b: 22; Schedl 1942a: 191.

corporaali (Eggers) 1923a: 210 (*Xyleborus*). Lectotype ♀; Kotangan an der Ostkuste Sumatras; USNM, Washington, designated by Anderson & Anderson 1971: 10.

Distribution: Asia (Bhutan/ Malaya), Indonesia (Java, Sumatra).

Hosts: *Hevea brasiliensis*, *Shorea leprosula*.

References: **(cn)** Kleine 1932a: 307; Mathur & Singh 1961a: 40. **(hb)** Browne 1961c: 146; Kleine 1932a: 307. **(ds)** Beeson 1961: 303; Browne 1961c: 164–165, 1986c: 663; Kleine 1932a: 307, 1934a: 175; Mathur & Singh 1961a: 40; Ohno et al. 1988a: 93, 1989: 61; Schedl 1936d: 2, 1975c: 383. **(tx)** Anderson, W. H. & Anderson 1971: 10; Eggers 1922a: 88, 1923a: 210, 1927a: 189, 1930d: 204–205; Schedl 1936d: 2, 1942d: 6.

costipennis (Schedl) 1959a: 501 (*Xyleborus*). Holotype ♀; Ceylon: Denawake Group; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

References: **(tx)** Schedl 1959a: 501, 1979c: 67.

- curvidentis** (Schedl) 1958b: 104 (*Xyleborus*).
Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 73.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Balanocarpus heinii*, *Fissistigma elegans*, *Shorea leprosula*.
References: (ds) Browne 1961c: 108, 1962c: 202. (tx) Schedl 1958b: 104, 1979c: 72–73.
- cylindrica** (Eggers) 1927c: 94 (*Xyleborus*). Lectotype ♀; Philippinen: Luzon, Provinz Mountain, Balaban; USNM, Washington, designated by Anderson & Anderson 1971: 11.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Luzon).
Hosts: *Artocarpus scortechinii*.
References: (ds) Browne 1961c: 156, 1965a: 189, 1980b: 380; Schedl 1966b: 50. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1927b: 402, 1927c: 94–95; Nobuchi 1983: 302; Schedl 1942a: 196, 1979e: 74.
- diversicolor** (Eggers) 1923a: 202 (*Xyleborus*). Holotype ♀; Butuan auf Mindanao; SMTD, Dresden.
Distribution: Asia (Malaya), Indonesia (Borneo), New Guinea, Philippine Islands (Mindanao).
Hosts: *Dipterocarpus baudii*, *Endospermum malaccense*, *Koompassia excelsa*, *Nephelium* sp., *Pasania sundaica*.
References: (cn) Mathur & Singh 1960b: 84. (hb) Browne 1961c: 135. (ds) Beeson 1961: 304; Browne 1961c: 135, 1965a: 189, 1980c: 482; Mathur & Singh 1960b: 84; Nobuchi 1978a: 42, 1979a: 406; Ohno et al. 1988a: 93, 1989: 61; Schedl 1966b: 51. (tx) Browne 1970: 573; Eggers 1923a: 202, 1930d: 204; Nobuchi 1983: 302; Schedl 1935g: 426, 1939e: 330, 1939f: 49.
- docta** (Schedl) 1975f: 364 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District [New Guinea]; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 364, 1979c: 83.
- elegans** (Sampson) 1923b: 288 (*Xyleborus*). Holotype ♀; Bengal: Raja Bhat Khawa; BMNH, London.
Distribution: Asia (Burma/ Bengal, Madhya Pradesh in India), Indonesia (Java).
Hosts: *Albizzia moluccana*, *Eugenia jambolana*, *Lansium* sp., *Shorea robusta*.
References: (cn) Mathur & Singh 1961a: 46. (cc) Banerjee 1983. (hb) Kalshoven 1959c: 152. (ds) Beeson 1930: 214, 233, 1961: 304; Kalshoven 1959c: 152; Kleine 1934a: 173; Mathur & Singh 1961a: 46; Schedl 1962b: 186. (tx) Beeson 1930: 214, 233; Sampson 1923b: 288; Schedl 1954a: 141, 1958k: 154.
- concinus** Beeson 1930: 214 (*Xyleborus*). Holotype ♀; Burma: Kondan Reserve, Insein; 4 at FRI, Dehra Dun, but none of these are labeled as the holotype. Synonymy: Wood 1989: 171.
References: (cn) Roonwal 1954: 48. (hb) Kalshoven 1959c: 152. (ds) Beeson 1930: 214, 1961: 303; Kalshoven 1959c: 152; Roonwal 1954: 48. (tx) Beeson 1930: 214.
- flexiocostatus** Schedl 1942d: 31 (*Xyleborus*). Lectotype ♀; Java, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 98. Synonymy: Schedl 1958k: 154.
References: (tx) Schedl 1942d: 31, 1958b: 104, 1958k: 154, 1959a: 501, 1979c: 98.
- erinacea** (Eggers) 1927c: 103 (*Xyleborus*). Holotype ♀; Philippinen: Mindanao, Prov. Lanao, Kolambagan; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands (Mindanao).
References: (ds) Schedl 1966b: 52. (tx) Eggers 1927c: 103–104; Nobuchi 1983: 302; Schedl 1979c: 91.
- eucalyptica** (Schedl) 1938f: 51 (*Xyleborus*). Lectotype ♀; North Queensland, Geagana [actually Gadgarra]; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 92.
Distribution: Australia (Queensland).
Hosts: *Araucaria cunninghamii*, *Cardwellia sublimis*, *Endiandra palmerstonii* [not *Eucalyptus palmerstonii* as reported by Schedl], *Euroschinus falcatus*, *Flindersia brayleyana*, *Nauclea orientalis*.
References: (cn) Brimblecombe 1951. (hb) Brimblecombe 1951. (tx) Schedl 1938f: 51–52, 1948g: 25, 1954a: 152, 1979c: 92.
- exsculpta** (Eggers) 1927c: 101 (*Xyleborus*). Lectotype ♀; Philippinen: Mindanao, Prov. Surigao, Surigao; USNM, Washington, designated by Anderson & Anderson 1971: 13.
Distribution: Philippine Islands (Luzon, Mindanao).
References: (ds) Schedl 1966b: 53. (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1927c: 101–102; Nobuchi 1983: 302; Schedl 1979c: 94.
- extensa** (Schedl) 1955b: 301 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 281, 301, 1979c: 94.
- gorontalosa** (Schedl) 1939f: 50 (*Xyleborus*). Lectotype ♀; Gorontalo, Celebes; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 107.
Distribution: Indonesia (Celebes).
Hosts: Rattan.
References: (hb) Kalshoven 1959c: 149. (ds) Kalshoven 1959c: 149. (tx) Schedl 1939f: 49–50, 1979c: 107.
- huangi** (Browne) 1983d: 34 (*Xyleborus*). Holotype ♀; China: Fujian, Chongan; IZAS, Beijing.
Distribution: Asia (Fujian in China).
References: (tx) Browne 1983d: 34.

intermedius (Eggers) 1923a: 201 (*Xyleborus*).
Lectotype ♀; Neu Pommern (Ralum); USNM,
Washington, designated by Anderson & Anderson
1971: 16.

Distribution: Asia (Malaya), Indonesia (Java),
Australia, New Britain Island, New Guinea, Phil-
ippine Islands.

References: (bv) Gray, B. 1974c. (hb) Kalshoven
1959c: 144. (ds) Browne 1961c: 201, 1984b: 287;
Gray, B. 1974c; Kalshoven 1959c: 144; Ohno et al.
1989: 62; Schedl 1977b: 58, 1971c: 364, 1979a:
158. (tx) Anderson, W. H. & Anderson 1971: 16;
Browne 1962: 201; Eggers 1923a: 201–202, 1927b:
40S, 1940d: 144, 1941b: 225; Nobuchi 1983: 303;
Schedl 1969a: 213.

izuensis (Murayama) 1952a: 16 (*Xyleborus*). Syn-
types ♀; Gaisho, Izu peninsula, Shizuoka pref.,
Japan; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).

Hosts: *Cinnamomum camphora*.

References: (ds) Murayama 1952a: 16, 19, 1954b:
179; Nobuchi 1985c: 25. (tx) Murayama 1952a:
16, 1954b: 179.

judenkoi (Schedl) 1959a: 507 (*Xyleborus*). Syntypes
♀; Ceylon: Millawitiya; Schedl Collection in
NHMW, Wien.

Distribution: Asia (Sri Lanka), Indonesia (Borneo).
Notes: (3) Schedl 1979c: 130 (citation of holotype
invalid).

References: (ds) Schedl 1959a: 507. (tx) Schedl
1958h: 498, 1959a: 507, 1979c: 130.

kirishimanus (Murayama) 1955: 85 (*Xyleborus*).
Syntypes ♂; Mt. Kirishima, Miyazaki pref.,
Kyushu, Japan; Murayama Collection in USNM,
Washington.

Figures: Nobuchi 1981b: 153.

Distribution: Asia (Japan).

Hosts: *Ilex macropoda*, *Quercus acuta*, *Q. glauca*.
References: (ds) Nobuchi 1985c: 25. (tx) Mura-
yama 1955: 85; Nobuchi 1981b: 152–153.

libra (Eggers) 1923a: 202 (*Xyleborus*). Lectotype
♀; Ralum auf Neupommern (Neubritannien);
USNM, Washington, designated by Anderson &
Anderson 1971: 17.

Distribution: New Britain Island.

References: (bv) Gray, B. 1974c. (hb) Gray, B.
1974c. (ds) Beeson 1938: 293; Schedl 1975i: 346.
(tx) Anderson, W. H. & Anderson 1971: 17;
Eggers 1923a: 202; Schedl 1971f: 155.

bismarcensis Browne 1966: 255 (*Xyleborus*).
Holotype ♀; Bismarck Islands, Mussau: Talu-
malaus; UZMC, Copenhagen. Synonymy:
Schedl 1971f: 155.

References: (tx) Browne 1966: 255; Schedl
1971f: 155.

mus (Eggers) 1930d: 203 (*Xyleborus*). Holotype ♀;
Bengal (Chittagong Hill Tracts, Sitapahar); FRI,
Dehra Dun.

Distribution: Asia (Bangladesh/ Guizhou in China).

Hosts: *Gmelina arborea*, *Michelia champaca*.

References: (cn) Mathur & Singh 1960b: 17. (ds)
Beeson 1930: 250, 1961: 308; Kleine 1934a: 174;
Mathur & Singh 1960b: 17. (tx) Beeson 1930:
250; Eggers 1930d: 203–204; Schedl 1979c: 162.

myristicae (Schedl) 1939f: 49 (*Xyleborus*). Lecto-
type ♀; Sumatra W., Padang; Schedl Collection in
NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Java,
Sumatra).

Hosts: *Castanea argentea*, *Myristica fragrans*.

References: (hb) Browne 1961c: 135; Kalshoven
1959c: 149. (ds) Browne 1961c: 135; Kalshoven
1959c: 149. (tx) Kalshoven 1959b: 95, 1960a:
Schedl 1939f: 49–50, 1953c: 290, 1979c: 162.

theae Eggers 1940d: 144 (*Xyleborus*). Holotype
♀; Java (Buitenzorg); Kalshoven Collection, 1
Eggers cotype, in NHMW, Wien. Synonymy:
Wood 1989: 171.

References: (hb) Kalshoven 1959c: 144. (ds)
Kalshoven 1959c: 144. (tx) Browne 1966: 255;
Eggers 1940d: 144–145; Schedl 1942d: 7,
1951i: 51, 1954a: 144, 151, 1979c: 252; Wood,
S. L. 1989: 171.

brevipilosus Eggers 1940d: 145 (*Xyleborus*).
Holotype ♀; Java (Walikoen Pematang;
Kalshoven Collection. Synonymy: Kalshoven
1959b: 95, Wood 1989: 171.

References: (tx) Eggers 1940: 145; Kalshoven
1959b: 95; Wood, S. L. 1989: 171.

cylindripennis Schedl 1954a: 152 (*Xyleborus*).
Lectotype ♀; Java, Batoerraden, G. Slamet;
Schedl Collection in NHMW, Wien, design-
ated by Schedl 1979c: 74. Synonymy: Wood
1989: 171.

References: (bv) Gray, B. 1974c. (hb) Gray, B.
1974c. (tx) Schedl 1954a: 141, 152, 1959a:
501, 1979c: 74; Wood, S. L. 1989: 171.

nudibrevis (Schedl) 1942a: 195 (*Xyleborus*). Holo-
type ♀; Malaya, Selangor, Kepong; Schedl Collec-
tion in NHMW, Wien.

Distribution: Asia (Malaya).

Hosts: *Elateriospermum* sp.

References: (hb) Browne 1961c: 119. (ds) Browne
1986c: 662. (tx) Browne 1955: 356; Schedl 1942a:
195, 1952b: 370, 1979c: 172.

nudipennis (Schedl) 1951i: 63 (*Xyleborus*). Holo-
type ♀; Java, Buitenzorg, 250 m; Schedl Collec-
tion in NHMW, Wien.

Distribution: Asia (Sri Lanka), Indonesia (Java).

Hosts: *Cinnamomum zeylanicum*, *Lansium*
domesticum.

References: (hb) Kalshoven 1959c: 152. (ds) Kal-
shoven 1959c: 152; Schedl 1942d: 5, 1951i: 63,
1959a: 497. (tx) Schedl 1942d: 5, 1951i: 63,
1959a: 497, 1979c: 173.

- nugax (Schedl)** 1939e: 353 (*Xyleborus*). Lectotype ♀; Malaya, Selangor: Sungei Buloh For. Res., Perak: Trolak For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 173. Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).
Hosts: *Actinomorpha fragrans*, *Arthrophyllum diversifolium*, *Artocarpus lanceaefolius*, *Castanopsis sumatrana*, *Dipterocarpus baudii*, *Dryobalanops oblongifolia*, *Garcinia* sp., *Hevea* sp., *Mecocylon* sp., *Myristica fragrans*, *Scaphium* sp., *Shorea curtisii*, *S. leprosula*, *S. macroptera*, *Strombosia javanica*, *Swietenia macrophylla*, *Theobroma cacao*, *Whitfordiodendron pubescens*, *Xanthophyllum* sp.
References: (cn) Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 610; Browne 1961c: 134–135; Kalshoven 1959c: 149. (ds) Beaver & Browne 1978: 610; Beeson 1961: 308; Browne 1961c: 134, 1981a: 126; Kalshoven 1959c: 149. (tx) Browne 1970: 573; Kalshoven 1959b: 97; Schedl 1939e: 353–354, 1942a: 171, 1979c: 173.
- pertuberculatus** Eggers 1940d: 144 (*Xyleborus*).
Holotype ♀; West Java (Mount Tjampea); Kalshoven Collection [1 Eggers cotype, in NHMW, Wien]. Synonymy: Kalshoven 1959b: 97.
References: (hb) Kalshoven 1958a: 186. (ds) Kalshoven 1958a: 186, 1959c: 149. (tx) Eggers 1940d: 144; Kalshoven 1959b: 97; Schedl 1939f: 49, 1942a: 171, 1979c: 191.
- fragosus** Schedl 1942d: 41 (*Xyleborus*). Lectotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 99. Synonymy: Wood 1989: 171.
References: (hb) Browne 1961c: 151; Kalshoven 1959c: 150. (ds) Browne 1961c: 151; Kalshoven 1959c: 150. (tx) Schedl 1942d: 41, 1953c: 290, 1979c: 100; Wood, S. L. 1989: 171.
- obtusicollis (Schedl)** 1938g: 427 (*Xyleborus*).
Lectotype ♀; Naganaga, Zamboanga Province, Mindanao, Philippines; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 175. Distribution: Philippine Islands (Mindanao).
Hosts: *Vatica* sp.
Notes: (3) Schedl 1942a: 192 (described male).
References: (ds) Schedl 1938g: 427, 1977b: 62. (tx) Nobuchi 1983: 303; Schedl 1938g: 427, 1942a: 191–192, 1950g: 894, 1961c: 107, 1979c: 175.
- parva (Lea)** 1893: 321 (*Xylopertha*). Holotype ♀; Richmond River [New South Wales, Australia]; SAM, Adelaide.
Distribution: Australia (New South Wales), Philippine Islands, Solomon Islands.
Hosts: *Eucalyptus torelliana*.
References: (cn) Froggatt 1926a, 1927. (hb) Froggatt 1926a, 1927. (ds) Brimblecombe 1953: 30; Schedl 1961f: 94, 1966b: 63, 1972a: 144, 1980b: 184. (tx) Eggers 1933b: 3, 1941a: 108; Lea 1893: 321, 1904: 106, 1910: 138; Schedl 1936g: 529, 1961f: 94, 1964m: 314.
- pedella (Schedl)** 1969a: 213 (*Xyleborus*). Holotype ♀; Philippine Islands, Diapitan to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: Philippine Islands.
Hosts: Lauan log.
References: (ds) Nobuchi 1978a: 44. (tx) Nobuchi 1983: 303; Schedl 1969a: 213–214, 1979c: 186.
- perparva (Sampson)** 1922b: 151 (*Xyleborus*). Syn-types ♀; Bengal: Kurseong Div.; BMNH, London.
Distribution: Asia (Bangladesh/ Burma/ Guizhou in China/ Andaman Islands, Assam, Bengal in India/ Malaya), Indonesia (Borneo).
Hosts: *Canarium euphyllum*, *Chrysophyllum roxburghii*, *Dipterocarpus baudii*, *Elaeocarpus* sp., *Elatiospermum taposi*, *Hopea ferrea*, *Pentacme suavis*, *Shorea curtisii*, *S. macroptera*, *S. maxwelliana*, *S. ovata*, *S. robusta*, *Swintonia floribunda*, *Vatica* sp.
References: (cn) Kleine 1932a: 307; Mathur & Singh 1961a: 40; Yunus & Hua 1980: 230. (cc) Beeson 1923. (hb) Beaver & Browne 1978: 610; Beeson 1923; Browne 1938a, 1961c: 118–119; Kleine 1932a: 307. (ds) Beaver & Browne 1978: 610; Beeson 1923, 1930: 252, 1961: 308; Browne 1938a, 1962c: 202, 1983: 555; Kleine 1932a: 307, 1934a: 175; Mathur & Singh 1961a: 40; Ohno, Yoneyama, & Nakazawa 1987: 94; Ohno et al. 1988a: 94; Schedl 1936j: 20. (tx) Beeson 1930: 252; Eggers 1923a: 212; Sampson 1922b: 151; Schedl 1936j: 20, 1939e: 332, 1942a: 171, 195.
- pubipennis (Schedl)** 1974c: 263 (*Xyleborus*). Holotype ♀; Nord-Vietnam, L. Thsi Nuguyen; MHNБ, Bucharest.
Distribution: Asia (Vietnam).
References: (ds) Schedl 1974c: 262. (tx) Schedl 1974c: 262–263, 1979c: 203.
- pulla (Schedl)** 1952b: 370 (*Xyleborus*). Holotype ♀; Philippines, Calapan; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands.
Notes: (1) Schedl 1952b: 371 (type was in Eggers Collection under *Adryocoetes nitidus*, nomen nudum, synonymy).
References: (ds) Schedl 1966b: 66. (tx) Nobuchi 1983: 303; Schedl 1952b: 370–371, 1959a: 507, 1979c: 203.
- punctipennis (Schedl)** 1953c: 302 (*Xyleborus*).
Lectotype ♀; Malaya, Kelantan, Tenanger F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 205.
Distribution: Asia (Malaya).
Hosts: Euphorbiaceae sp.
References: (hb) Browne 1961c: 161. (ds) Browne 1961c: 161. (tx) Schedl 1953c: 302, 1964g: 249, 1979c: 205.
- quadricostata (Schedl)** 1942d: 30 (*Xyleborus*).
Lectotype ♀; Java, Mt. Gede; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 208.

Distribution: Asia (Bengal in India/ Malaya), Indonesia (Borneo, Java).

Hosts: *Elacocarpus* sp., *Shorea parvifolia*.

Notes: (3) Beeson 1941 (cited *tetracanthus*, nomen nudum, a synonym).

References: (hb) Browne 1961c: 108. (ds) Browne 1962c: 201; Schedl 1971c: 365. (tx) Beeson 1941; Schedl 1942d: 30, 1953c: 290, 1955b: 104, 1979c: 208.

recidens (Sampson) 1923b: 287 (*Xyleborus*). Holotype ♀; Khariabandar, Lower Tondu, India; BMNH, London.

Distribution: Asia (Bangladesh/ Burma/ Guizhou in China/ Andaman Islands, Bengal in India/ Malaya/ Thailand), Indonesia (Borneo, Enggano), New Guinea, Philippine Islands.

Hosts: *Albizia stipulata*, *Hymenodictyon excelsum*, (?) *Lindera latifolia*, *Shorea robusta*, *Stryx benzoin*, *Terminalia bialata*.

References: (cn) Mathur & Singh 1961a: 46, 1961b: 28; Roonwal 1954: 45; Wylie & Shanahan 1975. (ce) Beeson 1923. (hb) Beeson 1923; Browne 1961c: 150; Wylie & Shanahan 1975. (ds) Beeson 1923, 1930: 252; Browne 1961c: 150, 1966: 255; Kleine 1934a: 175; Mathur & Singh 1961a: 46, 1961b: 28; Roonwal 1954: 45; Schedl 1966b: 67. (tx) Beeson 1929: 247–248, 1930: 252; Browne 1955: 354; Eggers 1925: 154, 1927b: 391; Nobuchi 1983: 303; Sampson 1923b: 287.

minusculus Eggers 1923a: 212 (*Xyleborus*).

Lectotype ♀; Engano (Bua Bua); USNM, Washington, designated by Anderson & Anderson 1971: 21. Synonymy: Eggers 1925: 154, 1927b: 391.

References: (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1923a: 212, 1925: 154, 1927b: 391; Schedl 1955b: 301.

minutissimus Eggers 1930d: 204 (*Xyleborus*). Holotype ♀; Chitagong Hill Tracts (Sitapahar Reserve); FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: (cn) Mathur & Singh 1960b: 61; Roonwal 1954: 53. (ds) Beeson 1930: 249; Kleine 1934a: 174; Mathur & Singh 1960b: 61; Roonwal 1954: 53. (tx) Beeson 1930: 249; Eggers 1930d: 204; Schedl 1934d: 90; Wood, S. L. 1989: 171.

crassitarsus Schedl 1936j: 28 (*Xyleborus*). Lectotype ♀; S.E. Borneo, N. Borneo: Samawang, near Sandakan, Philippine Is., Mt. Makiling, Laguna, Luzon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 67. Synonymy: Browne 1955: 364.

References: (cn) Anonymous 1975c; Vuillaume et al. 1981. (ec) Vuillaume et al. 1981. (ds) Anonymous 1975c; Numberg 1961b: 610; Schedl 1936j: 28, 1935g: 426. (tx) Browne 1955: 364; Schedl 1936j: 28–29, 1938g: 426, 1942a: 170, 1979c: 67.

rosseli (Schedl) 1975m: 34 (*Xyleborus*). Holotype ♀; Abaleti, Rossel Isl., M. Bay Dist.; AMNH, New York, automatic.

Distribution: New Guinea.

References: (tx) Schedl 1975m: 34.

chimbui Schedl 1973f: 75 (*Xyleborus*). Holotype ♀; Abaleti, Rossel Isl., M. Bay Dist.; AMNH, New York, preoccupied by Schedl 1973f: 74.

References: (tx) Schedl 1973f: 75, 1975m: 34.

tenella (Schedl) 1959a: 501 (*Xyleborus*). Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

Notes: (1) Schedl 1979c: 251 (citation of holotype invalid).

References: (ds) Schedl 1959a: 501. (tx) Schedl 1959a: 501, 1979c: 251.

undulata (Sampson) 1919: 111 (*Xyleborus*). Holotype ♀; Bengal, India; BMNH, London.

Distribution: Asia (Bengal in India/ Malaya), Indonesia (Java).

Hosts: *Shorea leprosula*, *S. robusta*.

References: (cn) Mathur & Singh 1961a: 46. (ce) Beeson 1923. (hb) Beeson 1923. (ds) Beeson 1923, 1930: 262, 1961: 310; Kleine 1934a: 176; Mathur & Singh 1961a: 46; Sampson 1919: 112. (tx) Beeson 1930: 262; Eggers 1927b: 404, 1940d: 144; Sampson 1919: 111–112; Schedl 1936j: 29.

leprosulus Schedl 1936j: 27 (*Xyleborus*). Lectotype ♀; Malay Peninsula, Selangor: Bukit Lagong For. Res., Kepong; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 171.

References: (cn) Mathur & Singh 1961a: 40. (hb) Browne 1961c: 151. (ds) Browne 1961c: 151; Mathur & Singh 1961a: 40; Schedl 1936j: 27, 1971c: 368. (tx) Schedl 1936j: 27–28, 1939e: 353, 1979c: 138; Wood, S. L. 1989: 171.

vafra (Schedl) 1957e: 880 (*Xyleborus*). Holotype ♀; Tanganyika, Lushoto; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Syzygium* sp.

Notes: (3) This is the only African species in the genus; for this reason synonymy or an error in identification is suspected.

References: (ds) Schedl 1962j: 328. (tx) Schedl 1957e: 880, 1962j: 328, 1979c: 263.

Genus *Taphrodasus* Wood

TAPHRODASUS WOOD 1980c: 95. Type-species: *Xyleborus percorthyllus* Schedl, original designation.

References: (hb) Wood, S. L. 1986a: 84. (ds) Wood, S. L. 1986a: 84. (tx) Wood, S. L. 1980c: 95, 1986: 84.

cuspidus (Schedl) 1975f: 363 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 363, 1979c: 73.

- divisus** (Browne) 1972b: 25 (*Webbia*). Holotype ♀; Malaya: Perak, Ipon; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Hopca* sp.
References: (ds) Browne 1972b: 25, 1983a: 555.
- penicillatus** (Hagedorn) 1910b: 7 (*Xyleborus*). Syn-types 2 ♀; Sumatra et Java; Hamburg Museum, lost.
Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).
Notes: (3) Browne 1963c: 57 (cited in *Prowebbia*), 1972b: 25 (cited in *Webbia*).
References: (ds) Browne 1980c: 484, 1983a: 555; Hagedorn 1910d: 108; Kleine 1913b: 163, 1914b: 268. (tx) Anderson, W. H. & Anderson 1971: 24; Browne 1963c: 57, 1972b: 25; Hagedorn 1910a: 155, 1910b: 7; Ohno, Yoneyama, & Nakazawa 1982b: 9; Schedl 1931c: 344–345, 1939j: 577, 1964k: 214.
- percorthylus** (Schedl) 1935f: 270 (*Xyleborus*). Lectotype ♀; F.M.S.: Bt. Enggany, Meranti, Selangor, Bangi Mercanti; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 188. Figures: Nunberg 1978: 115.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Shorea exima*, *S. leprosula*.
References: (cn) Mathur & Singh 1961a: 38. (hb) Browne 1936a, 1961c: 164. (ds) Beeson 1961: 308; Browne 1936a, 1961c: 164, 1962c: 202; Mathur & Singh 1961a: 38. (tx) Nunberg 1978: 114–115; Schedl 1935f: 270, 1936j: 19, 1979c: 188.
- Genus *Cryptoxyleborus* Schedl
- CRYPTOXYLEBORUS** SCHEDL 1937e: 550. Type-species: *Cryptoxyleborus naevus* Schedl, subsequent designation by Schedl 1962r: 103.
References: (tx) Browne 1960: 201–220, 1961c: 183; Schedl 1937e: 550, 1962r: 103.
- barbieri** Schedl 1953b: 128. Lectotype ♀; Saigon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34.
Distribution: Asia (Vietnam).
References: (tx) Schedl 1953b: 128, 1979c: 34.
- confusus** Browne 1950b: 644. Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Shorea leprosula*.
Notes: (3) Browne 1962c: 208 (described male).
References: (hb) Beaver & Browne 1978: 586; Browne 1961c: 185. (ds) Beaver & Browne 1978: 586; Browne 1961a: 308, 1961c: 185. (tx) Browne 1950b: 644, 1962c: 208; Schedl 1979c: 62.
- dryobalanopsis** Schedl 1942a: 184. Lectotype ♀; Malaya, Selangor, Kanching F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 84.
Distribution: Asia (Malaya).
Hosts: *Balanocarpus heimii*, *Dryobalanops aromatica*.
References: (ds) Browne 1961c: 184, 1981b: 598, 1985b: 291. (tx) Schedl 1942a: 184, 1979c: 84.
- eggersi** Schedl 1936h: 60. Lectotype ♀; Mindanao, Kolambugan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 87.
Distribution: Philippine Islands (Mindanao).
References: (tx) Anderson, W. H. & Anderson 1971: 12; Schedl 1936h: 60, 1942a: 184, 1960i: 109, 1979c: 87.
- eggerstianus** Schedl 1960i: 110 (*Xyleborus*). Lectotype ♀; Mindanao, Kolambugan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 87, automatic.
Notes: (1) This is an unneeded replacement name; original name restored under the Code of Nomenclature.
References: (ds) Schedl 1966b: 51. (tx) Nobuchi 1983: 302; Schedl 1960i: 109–110, 1979c: 87.
- gracilior** Browne 1984d: 101. Holotype ♀; New Guinea: Long Island L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (tx) Browne 1984d: 101.
- major** Browne 1986c: 665. Holotype ♀; Borneo: Tanjung Mani (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Dipterocarpus* sp. log.
References: (tx) Browne 1986c: 665.
- naevus** Schedl 1937e: 551. Lectotype ♀; Malay Peninsula, Jengang F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 163.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Shorea* spp.
References: (ds) Browne 1961c: 184; Schedl 1964g: 242. (tx) Browne 1972b: 24; Schedl 1937e: 551, 1979c: 163.
- nanus** Browne 1949b: 903. Holotype ♀; Malaya: Kelantan, Pulau Chondong; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Hopca ferrca*, *Shorea parviflora*, *S.* sp.
References: (tx) Browne 1949b: 903, 1955: 353.
- caelator** Browne 1955: 353 (*Xyleborus*). Holotype ♀; Malaya: Kelantan, Pulau Chondong; BMNH, London, automatic.
Notes: (1) This is an unneeded replacement name.
References: (hb) Beaver & Browne 1961c: 123–124. (ds) Beaver & Browne 1978: 605; Browne 1961c: 124, 1962c: 202. (tx) Browne 1955: 353.
- opacicaudulus** Schedl 1942a: 185. Lectotype ♀; Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 178.
Distribution: Asia (Malaya).
Hosts: *Shorea gysbertsiana*, *S. leprosula*, *S. macroptera*.
References: (hb) Beaver & Browne 1978: 586; Browne 1961c: 184. (ds) Beaver & Browne 1978:

- 586; Browne 1961c: 184. (tx) Schedl 1942a: 185, 1979c: 178.
- oxyurus** Schedl 1942a: 184. Lectotype ♀; Malaya, Pahang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 182.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 184, (tx) Browne 1950b: 644; Schedl 1937e: 551, 1942a: 184, 1950g: 894, 1979c: 182.
- quadriporus** Beaver 1990a: 281. Holotype ♀; Chiang Mai, Thailand; BMNH, London.
Figures: Beaver 1990a: 282 (outline of female).
Distribution: Asia (Thailand).
References: (tx) Beaver 1990a: 281.
- shoreae** Browne 1981b: 602. Holotype ♀; Philippines to Tagonoura (Japan), imported; BMNH, London.
Distribution: Philippine Islands.
Hosts: *Shorea* sp.
References: (tx) Browne 1981b: 602.
- stenographus** (Schedl) 1971c: 353 (*Xyleborus*). Holotype ♀; Sumatra, Pladjoe; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
References: (tx) Schedl 1971c: 383–384, 1979c: 237.
- subnaevus** Schedl 1937e: 552. Lectotype ♀; Borneo, Seravei, und Leb. Hara; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 242.
Distribution: Asia (Burma/ Kerala in India/ Thailand), Indonesia (Borneo, Sumatra), Philippine Islands.
Hosts: *Pentacme navis*, *Shorea curtisii*, *S. platycarpa*, *S. spp.*
References: (en) Mathur & Singh 1961a: 38. (ds) Beaver 1990a: 279; Beeson 1961: 286; Browne 1961c: 184, 1984c: 448; Mathur & Singh 1961a: 38; Nobuchi 1978a: 44; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1961c: 70, 1966g: 33. (tx) Nobuchi 1983: 304; Schedl 1937e: 552, 1939e: 333, 1950f: 36, 1961c: 70, 1966g: 40, 1979c: 242; Wylie & Yule 1977.
- turbineus** (Sampson) 1923b: 288 (*Xyleborus*). Holotype ♀; Bengal: Raja Bhat Khawa; BMNH, London.
Distribution: Asia (Burma/ Bengal, Bihar in India/ Thailand/ Vietnam), Philippine Islands.
Hosts: *Pentacme suavis*, *Shorea robusta*.
References: (en) Mathur & Singh 1961a: 45. (ec) Beeson 1923. (hb) Beeson 1923. (ds) Beaver & Browne 1975: 289; Beeson 1923, 1930: 262, 1961: 286; Kleine 1934a: 175; Mathur & Singh 1961a: 45; Schedl 1962b: 187, 1966b: 75, 1975e: 452. (tx) Beeson 1930: 262; Eggers 1927b: 407; Nobuchi 1983: 304; Sampson 1923b: 288; Schedl 1936h: 60, 1937b: 399, 1937e: 551, 1942a: 184, 1953b: 124.
- vestigator** (Schedl) 1973c: 93 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; CSIRO, Canberra.
Distribution: New Guinea.
Notes: (1) The holotype of *Platypus goialae* Schedl 1975f: 387 is apparently this species (DEB).
References: (tx) Schedl 1973c: 93, 1979c: 266.

Genus *Webbia* Hopkins

WEBBIA HOPKINS 1915c: 222. Type-species: *Webbia dipteroearpi* Hopkins, original designation.

Xelyborus Schedl 1939e: 349. Type-species: *Nomen nudum*. Synonymy: Browne 1963c: 57.
References: (tx) Browne 1961c: 189, 1963c: 57; Schedl 1939e: 349.

Pseudowebbia Browne 1961a: 308. Type-species: *Xyleborus trepanicauda* Eggers, original designation. Synonymy: Wood 1983a: 650.
References: (tx) Browne 1961a: 308, 1963c: 57; Schedl 1964k: 213; Wood, S. L. 1983a: 650.

Prowebbia Browne 1962c: 208. Type-species: *Prowebbia subuculae* Browne, original designation. Synonymy: Browne 1972b: 25.
References: (tx) Browne 1962c: 208, 1963c: 53–58, 1972b: 25; Schedl 1963j: 480, 1964h: 424, 1964k: 214.

Keys: Browne 1962c: 210.

References: (ay) Nobuchi 1969a: 64. (hb) Browne 1961c: 185; Gardier 1934: 1–17; Wood, S. L. 1986a: 84. (ds) Schedl 1966b: 79; Wood, S. L. 1986a: 84. (tx) Browne 1958a: 487–497, 1960: 208, 1962c: 210, 1963c: 57, 1965a: 204, 1972b: 25; Hopkins 1915c: 222; Murayama 1960: 49; Schedl 1936h: 62, 1939e: 349; Wood, S. L. 1986a: 84.

acutus (Schedl) 1975f: 361 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 361, 1979c: 11.

armifer (Schedl) 1942c: 185 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1942c: 185, 1955b: 306, 1979c: 26.

spinachius Schedl 1955b: 306 (*Xyleborus*). Holotype ♀; Deutsch-Neu-Guinea; Schedl Collection in NHMW, Wien.
Notes: (1) A probable synonym, needs confirmation.
References: (tx) Schedl 1955b: 281, 306, 1979c: 234.

bakoensis Browne 1961a: 310. Holotype ♀; Sarawak: Bako National Park; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Shorea* sp., *Dipterocarpus borneensis*, *Vatica* sp.

- References: (tx) Browne 1961a: 310.
- bicornis** (Schedl) 1939e: 349 (*Xelyborus*). Lectotype ♀; Malaya: Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 39.
Distribution: Asia (Malaya).
Hosts: *Shorea bracteolata*.
References: (hb) Browne 1961c: 189. (tx) Browne 1963c: 57; Eggers 1927b; Schedl 1939e: 349–350, 1942a: 193, 1979c: 39.
- biformis** Browne 1958a: 496. Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.
Distribution: Asia (Malaya/ Sri Lanka/ Thailand), Indonesia (Borneo), Philippine Islands.
Hosts: *Dipterocarpus obtusifolius*, *Shorea leprosula*.
Notes: (3) Browne 1958a: 497 (named an aberration as var. *minor*).
References: (hb) Beaver & Browne 1975: 296; Browne 1961c: 188. (ds) Beaver & Browne 1975: 296; Browne 1958a: 496, 1961c: 188.
- bituberculatus** Browne 1977c: 369. Holotype ♀; Malaysia: Penang, Telok Bahang; BMNH, London.
Figures: Browne 1977c: 370.
Distribution: Asia (Malaya).
Hosts: *Hopea ferrea*, *Shorea curtisii*, *S. maxwelliana*.
References: (hb) Beaver & Browne 1978: 600. (ds) Beaver & Browne 1978: 600. (tx) Browne 1977c: 369–370.
- ceylonae** Schedl 1959a: 493. Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
Hosts: *Dipterocarpus zeylanicus*.
Notes: (1) Schedl 1979c: 55 (citation of holotype invalid).
References: (ds) Schedl 1959a: 493. (tx) Schedl 1959a: 493, 1979c: 55.
- circumcisis** Schedl 1975f: 373. Holotype ♀; Mt. Riu, Sudest Isl., New Guinea, 250–350 m; AMNH, New York.
Distribution: New Guinea.
References: (ds) Schedl 1965g: 24, 1975f: 373.
- cornutus** Schedl 1942a: 183. Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 65.
Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo).
Hosts: *Dipterocarpus obtusifolius*, *Hopea beccariana*, *H. ferrea*, *H. odorata*, *Shorea macroptera*, *S. leprosula*.
Notes: (3) Browne 1955: 349 (described male).
References: (cn) Ymus & Hua 1980: 229. (hb) Beaver & Browne 1975: 297, 1978: 601; Browne 1961c: 188. (ds) Beaver & Browne 1975: 297, 1978: 601; Browne 1961c: 188, 1962c: 202, 1980c: 483; Ymus & Hua 1980: 229. (tx) Browne 1955: 349; Schedl 1942a: 183, 1979c: 65.
- costulatus** Schedl 1953c: 299. Lectotype ♀; Malaya, Selangor Kepong; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Palaquium stellatum*.
Notes: (3) Browne 1958a: 492 (described male).
References: (hb) Browne 1961c: 185. (ds) Browne 1961c: 185–186, 1962c: 202. (tx) Browne 1958a: 492, 1962c: 202; Schedl 1953c: 299.
- cylindricus** Schedl 1942a: 182. Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 74.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Palaquium* sp., *Shorea leprosula*, *S. macroptera*.
References: (hb) Browne 1961c: 187. (ds) Browne 1961a: 311, 1961c: 187. (tx) Schedl 1942a: 182, 1952k: 162, 1979c: 74.
- dasyurus** Browne 1981a: 133. Holotype ♀; Baculin (Philippine) to Tokyo (Japan), imported; BMNH, London.
Distribution: Philippine Islands.
Hosts: *Shorea* sp.
References: (tx) Browne 1981a: 133; Nobuchi 1983: 304.
- dentatus** Eggers 1927c: 108. Holotype ♀; Philippines: Negros, Cuernos Mts.; Eggers Collection, in NHMW, Wien.
Figures: Nobuchi 1978a: pl. 1.
Distribution: Philippine Islands (Negros).
References: (ds) Schedl 1966b: 79, 1966g: 30. (tx) Eggers 1927c: 108; Nobuchi 1978a: pl. 1, 1983: 304; Schedl 1936h: 63, 1979c: 77.
- denticulatus** Browne 1983a: 561. Holotype ♀; Terminaban (West Irian) [New Guinea] to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
References: (ds) Browne 1985b: 290. (tx) Browne 1983a: 561.
- diptocarpi** Hopkins 1915c: 223. Holotype ♀; near Pagbilao, Philippine Islands; USNM, Washington.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Quezon).
Hosts: *Dipterocarpus grandiflorus*, *D. baudi*, *Hopea* spp., *Shorea* spp.
References: (ds) Kleine 1934a: 167; Sampson 1919: 114; Schedl 1966b: 79. (tx) Hopkins 1915c: 223, pl. 9, fig. 5, pl. 10, fig. 5; Nobuchi 1983: 304; Sampson 1919: 114; Schedl 1936h: 63.
- octodecimspinus** Sampson 1921: 34. Holotype ♀; Penang; BMNH, London. Synonymy: Wood 1983a: 650.
Notes: (1) This name was originally given as *18-spinatus*, a name no longer acceptable

- under the Code. (3) Browne 1958b: 493 (described male).
References: (cn) Browne 1949e. (cc) Browne 1958b: 493. (hb) Beaver & Browne 1978: 601; Browne 1935a, 1941, 1958b: 493, 1961c: 186–187. (ds) Beaver & Browne 1978: 601; Beeson 1961: 301; Browne 1935a, 1958b: 380; Ohno, Yoneyama, & Nakazawa 1987a: 89; Sampson 1921: 34; Schedl 1936d: 2. (tx) Browne 1958b: 493; Nobuchi 1983: 304; Sampson 1921: 34; Schedl 1936d: 2, 1936h: 62–63, 1942a: 170; Wood, S. L. 1983a: 650.
- diversicauda** Browne 1972b: 26. Holotype ♀; Malaya: Sungei Buloh; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Browne 1972b: 26.
- duodecimspinatus** Schedl 1942a: 182. Lectotype ♀; Malaya, Selangor, Ulu Gombak; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 35.
Distribution: Asia (Malaya).
Hosts: *Hopea beccariana*, *H. ferrea*, *Shorea curtisii*, *S. maxwelliana*.
Notes: (1) This name was originally spelled 12-spinatus, a spelling no longer acceptable under the Code.
References: (hb) Beaver & Browne 1978: 601. (ds) Beaver & Browne 1978: 601; Browne 1961c: 187. (tx) Schedl 1942a: 182, 1979c: 35.
- gracilis** Browne 1972b: 27. Holotype ♀; Malaya: Sungei Buloh; BMNH, London.
Figures: Browne 1972b: 22.
Distribution: Asia (Malaya).
References: (tx) Browne 1972b: 22, 27.
- hatanakai** Browne 1986a: 99. Holotype ♀; Philippine Islands: Port Barton (Palawan) to Nagoya (Japan), imported; BMNH, London.
Distribution: Philippine Islands (Palawan).
Hosts: *Dipterocarpus* sp.
References: (ds) Ohno, Yoneyama, & Nakazawa 1987a: 89. (tx) Browne 1986a: 99.
- kuchingensis** (Browne) 1955: 348 (*Xyleborus*). Holotype ♀; Sarawak: Kuching; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Browne 1955: 348, 1963c: 57.
- micrographus** (Schedl) 1942a: 185 (*Cryptographus*). Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 152.
Distribution: Asia (Malaya).
Hosts: *Shorea macroptera*.
References: (hb) Browne 1961c: 184. (tx) Browne 1949b: 903; Schedl 1942a: 185, 1979c: 152.
- decorus** Schedl 1960i: 110 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 152, automatic.
Notes: (1) This is an unneeded replacement name for *micrographus*.
References: (tx) Schedl 1960i: 110, 1979c: 152.
- mucronatus** Eggers 1927c: 107. Holotype ♀; Philippines: Mindanao, Provinz Lanao, Kolambagan; USNM, Washington.
Distribution: Philippine Islands (Mindanao).
References: (ds) Schedl 1966b: 79. (tx) Anderson, W. H. & Anderson 1971: 21; Eggers 1927c: 107; Schedl 1936h: 62–63.
- multidentatus** Browne 1984c: 453. Holotype ♀; Kimanis (Sabah) to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (apparently Malaya).
Hosts: *Shorea* sp.
References: (tx) Browne 1984c: 453.
- obtusipennis** Schedl 1966g: 38. Holotype ♀; Diapitan, P.I. to Tokyo (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: pl. 1.
Distribution: Philippine Islands.
Hosts: Lauan log.
References: (ds) Nobuchi 1978a: 3. (tx) Nobuchi 1978a: pl. 1, 1983: 304; Schedl 1966g: 38.
- obtusipinosus** Schedl 1939e: 348. Lectotype ♀; Malaya, Selangor: Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 196.
Distribution: Asia (India, Malaya), Indonesia (Borneo).
Hosts: *Shorea parvifolia*.
Notes: (1) Originally named as a variety of *platypoides*, Browne 1958a: 494 elevated it to species rank. (3) Browne 1958a: 494 (described male).
References: (cn) Mathur & Singh 1961a: 41. (hb) Browne 1961c: 188. (ds) Beeson 1961: 301; Browne 1961a: 311, 1961c: 188. (tx) Browne 1958a: 494; Schedl 1939e: 348, 1979c: 196.
- orbicularis** Schedl 1970b: 361. Holotype ♀; Sarawak, Sibutu to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: Seraya.
References: (ds) Browne 1984c: 448; Nobuchi 1978a: 5. (tx) Schedl 1970b: 361–362, 1979c: 180.
- pabo** Sampson 1922b: 150. Holotype ♀; Kheri Lakhimpur, U.P., India; BMNH, London.
Figures: Nobuchi 1978a: pl. 1.
Distribution: Asia (Xizang [Tibet], Yunnan in China/ Madhya Pradesh, Uttar Pradesh in India/ Thailand), Indonesia (Sarawak in Borneo).
Hosts: *Anisoptera curtisii*, *Shorea robusta*.
References: (cn) Mathur & Singh 1961a: 45; Wylie & Shanahan 1975. (cc) Beeson 1922c: 500, 1923. (hb) Beeson 1922c: 500, 1923; Wylie & Shanahan 1975. (ds) Beaver & Browne 1975: 297; Beeson 1922c: 500, 1923, 1961: 301; Browne 1972b: 20, 1980c: 483; Kleine 1934a: 167;

- Mathur & Singh 1961a: 45. (tx) Eggers 1927c: 105; Nobuchi 1978a:pl. 1; Sampson 1922b: 150; Schedl 1936h: 62.
- philippinensis** Schedl 1971c: 374. Holotype ♀; Philippines: Luzon, Balaban; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
References: (tx) Nobuchi 1983: 304; Schedl 1971c: 374–375, 1979c: 192.
- picicauda** Schedl 1979j: 129. Holotype ♀; Papua New Guinea; Schedl Collection in NHMW, Wien [not seen].
Distribution: New Guinea.
References: (tx) Schedl 1979j: 129.
- piscecauda** Browne 1960: 210. Holotype ♀; Malaya: Kelantan, Pulai Chondong; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Pasania* sp., *Quercus* sp.
References: (ds) Browne 1961c: 188. (tx) Browne 1960: 210, 1972b: 26.
- platypoides** Eggers 1927c: 105. Lectotype ♀; Philippines: Kolambugan, Prov. Zamboanga, Port Banga; USNM, Washington, designated by Anderson & Anderson 1971: 26.
Figures: Nobuchi 1978a:pl. 1.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Mindanao).
Hosts: *Shorea* spp.
References: (cn) Ishikura 1966. (hb) Browne 1941, 1961c: 188. (ds) Browne 1961c: 188; Ishikura 1966; Nobuchi 1978a: 4; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1966b: 79, 1966g: 31, 1975a: 454. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1927c: 105; Nobuchi 1978a:pl. 1, 1983: 304; Schedl 1936h: 62–63, 1939e: 348–349, 1951i: 50, 1959a: 493, 1975a: 459, 1979c: 196.
- quadricinctus** Schedl 1972h: 62. Holotype ♀; Kulo logging area, Wau, M. Dist., New Guinea; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Castanopsis acuminatissima*.
References: (tx) Schedl 1972h: 62, 1979c: 207.
- quattuordecimspinatus** Sampson 1921: 34. Holotype ♂ ♀; Mt. Matang, Borneo; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands.
Hosts: *Dipterocarpus borneensis*, *Dryobalanops aromatica*, *Hopea* sp., *Shorea balanocarpoides*, *S.* sp., *Vatica* sp.
Notes: (1) This name was originally given as *14-spinatus*, a spelling not now acceptable under the Code.
References: (hb) Browne 1961c: 187. (ds) Browne 1961a: 310, 1961c: 187, 1981a: 125. (tx) Browne 1961a: 310, 1961c: 187; Sampson 1921: 34.
- quattuordecimspinatus** Schedl 1942a: 182. Syn- types ♀; Malaya, Mersing Reserve, Johre; BMNH, London and Schedl Collection in NHMW, Wien, preoccupied by Sampson 1921. Synonymy: Wood 1989: 176.
Notes: (1) The original spelling was *14-spinatus*. (3) Browne 1958a: 493 (described male).
References: (hb) Browne 1961c: 187. (ds) Browne 1961a: 310, 1961c: 187, 1981a: 185; Sampson 1921: 34. (tx) Browne 1958a: 493, 1961a: 310; Nobuchi 1983: 304; Nunberg 1956: 209; Schedl 1942a: 182, 1952c: 61; Wood, S. L. 1989: 176.
- quattuordecimcostatus** Schedl 1952c: 61. Syn- types ♀; Malaya, Mersing Reserve, Johre; BMNH, London, and Schedl Collection in NHMW, Wien. Synonymy: Browne 1961a: 310, 1961c: 187.
Notes: (1) This name was originally given as *14-costatus*. It is an unneeded replacement name. (3) Browne 1958a: 493 (described male).
References: (tx) Browne 1958a: 493, 1961a: 310, 1961c: 187; Schedl 1952c: 61.
- sampsoni** Nunberg 1956: 209. Syntypes ♀; Malaya, Mersing Reserve, Johre; BMNH, London and Schedl Collection in NHMW, Wien.
Notes: (1) This is an unneeded replacement name of *14-spinatus* Schedl.
References: (tx) Browne 1961a: 310; Nunberg 1956: 209, 1959c: 168.
- sarawakensis** Schedl 1964g: 245. Holotype ♀; Sarawak, Merurong Plateau, 2350 feet; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Palaquium* sp.
References: (ds) Browne 1965a: 189, 1981a: 126. (tx) Schedl 1964g: 245, 1979c: 219.
- seriata** (Browne) 1963c: 56 (*Pseudowebbia*). Holotype ♀; Sarawak, Kuching; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Vatica* sp.
References: (ds) Browne 1965a: 189. (tx) Browne 1963c: 57; Schedl 1964k: 213.
- brownei** Schedl 1964k: 214 (*Xyleborus*). Holotype ♀; Sarawak, Kuching; BMNH, London.
Notes: (1) This is an unneeded replacement name for *seriata*.
References: (tx) Schedl 1964k: 214, 1965f: 13, 1979c: 48.
- similis** (Eggers) 1923a: 213 (*Xyleboricus*). Holotype ♀; Deutsch Neu Guinea (Hunsteinspitze, 1350 feet); MNB, Berlin.
Distribution: New Guinea.
Notes: (1) Browne 1963c: 57 (to *Webbia*).
References: (tx) Browne 1963c: 57; Eggers 1923a: 213; Schedl 1936h: 64, 1958k: 145, 1973q: 259.
- obscurus** Schedl 1972q: 259 (*Xyleborus*). Holo-

- type ♀; Deutsch Neu Guinea (Hunsteinspitze, 1350 feet); MNB, Berlin.
Notes: (1) This is an unneeded replacement name for *similis*.
References: (tx) Schedl 1972q: 259.
- simplex** (Browne) 1949b: 902 (*Cryptoxyleborus*). Holotype ♀; Malaya: Kelantan, Pulau Chondong; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Dryobalanops oblongifolia*, *Shorea* sp.
References: (hb) Browne 1961c: 184. (ds) Schedl 1964g: 242. (tx) Browne 1949b: 902, 1960: 202; Schedl 1964g: 242.
- spinipennis** Schedl 1970b: 360. Holotype ♀; Borneo, Kennedy Bay to Nagoya (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a:pl. 1.
Distribution: Indonesia (Borneo).
References: (ds) Nobuchi 1978a: 5. (tx) Nobuchi 1978a:pl. 1; Schedl 1970b: 360–361, 1979c: 235.
- squamitilis** (Schedl) 1955b: 307 (*Xyleborus*). Holotype ♀; Deutsch-Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 281, 307, 1979c: 235.
- subuculae** (Browne) 1962c: 209 (*Prowebbia*). Holotype ♀; Sarawak: Bungo Hills, 4000 ft.; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).
References: (tx) Browne 1962c: 209, 1972b: 25; Schedl 1964k: 214, 1964h: 424.
- suturalis** Browne 1955: 349. Holotype ♀; Malay Peninsula: Kedah, Gunung Jerai; BMNH, London.
Figures: Browne 1972b: 22.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Dipterocarpus borneensis*, *Hopea* sp., *Shorea maxwelliana*.
References: (hb) Beaver & Browne 1978: 602; Browne 1961c: 189. (ds) Beaver & Browne 1978: 602; Browne 1961a: 311. (tx) Browne 1955: 349, 1963c: 57, 1972b: 22, 27.
- trepanicauda** (Eggers) 1923a: 170 (*Xyleborus*). Syntypes ♀; Tambang Salida (W. Sumatra), Borneo: Sarawak; RNH, Leiden and MCC, Genova.
Distribution: Asia (Vietnam), Indonesia (Sarawak in Borneo, Sumatra).
Hosts: *Vatica* sp.
Notes: (3) Browne 1961a: 309 (cited in *Pseudo-webbia*).
References: (ds) Browne 1968a: 133. (tx) Browne 1961a: 309, 1963c: 56, 1968a: 133; Eggers 1923a: 170–171; Schedl 1942a: 197, 1955b: 306–307.
- trigintispinatus** Sampson 1922: 149. Holotype ♀; Burma: Kaing R., Pyimana; BMNH, London.
Figures: Nobuchi 1978a:pl. 1.
Distribution: Asia (Burma/ Assam in India/ Malaya/ Vietnam), Indonesia (Borneo).
Hosts: *Dipterocarpus* spp., *Hopea odorata*, *Mallotus albus*.
Notes: (1) Originally named *30-spinatus*, a spelling not now accepted by the Code. (3) Browne 1963c: 57 (described male).
References: (ec) Beeson 1922c: 500. (hb) Beeson 1922c: 500. (ds) Beeson 1922c: 500, 1961: 301; Browne 1968a: 133; Kleine 1934a: 167; Olmo, Yoneyama, & Nakazawa 1982b: 9, 1987a: 89. (tx) Browne 1963c: 57, 1968a: 132; Eggers 1925: 160; Nobuchi 1978a:pl. 1; Sampson 1922b: 149.
- 26-spinatus** Sampson 1922b: 149. Holotype ♀; Burma: Kaing R., Pyimana; BMNH, London.
Synonymy: Browne 1963c: 57.
References: (ec) Beeson 1922c: 500. (hb) Beeson 1922c: 500. (ds) Beeson 1922c: 500; Kleine 1934a: 167. (tx) Browne 1963c: 57; Eggers 1925: 160; Sampson 1922b: 149; Schedl 1936c: 63.
- turbinatus** Maiti & Saha 1986: 104. Holotype ♀; North Andaman Island; FRI, Dehra Dun.
Figures: Maiti & Saha 1986: 105.
Distribution: Asia (Andaman Islands in India).
Hosts: *Dipterocarpus turbinatus*, *Sapium eugeniaefolium*.
References: (tx) Maiti & Saha 1986: 104.

Tribe Xyloctonini Eichhoff

Xyloctonidae

References: Eichhoff 1878b: 171.

Xyloctoninae

References: Hopkins 1915c: 224.

Xyloctonini

References: Wood, S. L. 1978a: 114, 1982b: 63, 1986a: 84–85.

Genus *Cryphalomimus* Eggers

CRYPHALOMIMUS EGGERS 1927a: 174. Type-species:

Cryphalomimus striatus Eggers, monobasic.

References: (ay) Nobuchi 1969a: 55. (hb) Wood, S. L. 1986a: 85. (ds) Wood, S. L. 1986a: 85. (tx) Eggers 1927a: 174, 1932c: 23; Schedl 1939i: 379, 1961k: 441; Wood, S. L. 1986a: 85.

ater Numberg 1952: 23. Holotype, sex?; Repub. of the Congo: Garamba Nat. Park; Inst. Parcs Nationaux du Congo Collection.

Distribution: Africa (Zaire).

References: (ds) Numberg 1952: 23. (tx) Numberg 1952: 23, 1965b: pl. 1.

grandis Schedl 1971e: 10. Holotype, sex?; Ehemaliger Kongo Belge, Yangambi; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

References: (tx) Schedl 1971e: 10, 1979c: 108.

striatus Eggers 1927a: 174. Holotype, sex?; Ost-Africa (Muansa); Methner Collection.

Distribution: Africa (Tanzania/Zaire).

References: (ds) Schedl 1961k: 442. (tx) Eggers 1927a: 174; Schedl 1939i: 379, 1961k: 442.

Genus *Glostatus* Schedl

GLOSTATUS SCHEDL 1939i: 386. Type-species: *Glostatus declividepressus* Schedl, monobasic.

Ctonocryphus Schedl 1941d: 398. Type-species:

Ctonocryphus xyloctonus Schedl, monobasic.

Synonymy: Wood 1986: 85.

References: (tx) Schedl 1941d: 398, 1957e: 865–883, 1961k: 638.

Apoglostatus Schedl 1957b: 155. Type-species:

Apoglostatus acaciae Schedl, monobasic. Synonymy: Schedl 1964m: 305.

References: (tx) Schedl 1957b: 155, 1961k: 642, 1964m: 305.

Paraglostatus Schedl 1964m: 304. Type-species:

Ctonocryphus uigricestis Schedl, original designation. Synonymy: Wood 1984b: 225.

References: (tx) Schedl 1964m: 304; Wood, S. L. 1984b: 225.

Rhopalocryphus Numberg 1967: 320. Type-species: *Rhopalocryphus seydeli* Numberg, monobasic. Synonymy: Schedl 1980d: 117.

References: (tx) Numberg 1967: 320; Schedl 1980d: 117.

References: (hb) Wood, S. L. 1986a: 85. (ds) Wood, S. L. 1986a: 85. (tx) Schedl 1939i: 386,

1957b: 155, 1958a: 557–560, 1961k: 638–639, 1964m: 305; Wood, S. L. 1986a: 85.

acaciae (Schedl) 1957b: 155 (*Apoglostatus*). Holotype, sex?; Muguga, Kenya, and Londiani, Kenya; BMNH, London.

Distribution: Africa (Kenya/Tanzania).

Hosts: *Acacia decurrens*, A. sp., *Ficus* sp.,

Juniperus procera, *Maba* sp., *Rhus* sp.

Notes: (1) Schedl 1964m: 305 (to *Glostatus*).

References: (ds) Gardner 1957: 30; Schedl 1961k: 642. (tx) Schedl 1957b: 150, 155, 1961k: 642–643, 1964m: 305, 1979c: 9.

assimilis Schedl 1957e: 871. Holotype, sex?; Kenya, Jilore; BMNH, London.

Distribution: Africa (Kenya).

References: (ds) Browne 1973a: 279; Schedl 1961k: 640. (tx) Powell, W. 1980: 29; Schedl 1957e: 871, 1958a: 558, 1959q: 705, 1961k: 640, 1979c: 29.

bispinosus Beaver 1955: 77. Holotype ♂; Zambia: Kitwe, Chati; BMNH, London.

Distribution: Africa (Zambia).

References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (tx) Beaver 1955: 77.

carinifer Schedl 1957e: 871. Holotype, sex?; Tanganyika, Lushoto; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Gologolo* sp., *Syzgium* sp.

References: (ds) Schedl 1961k: 640. (tx) Schedl 1957e: 871, 1961k: 640.

declividepressus Schedl 1939i: 386. Holotype, sex?; Usambara, Ost-Afrika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Kenya/Tanzania).

References: (tx) Schedl 1939i: 386, 1957b: 154, 1961k: 641, 1979c: 76.

delicatus (Schedl) 1962k: 1072 (*Paraglostatus*). Holotype, sex?; Zululand; Eshowe; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (ds) Schedl 1962k: 1072, 1965h: 111, 1975k: 277.

gracilior (Schedl) 1957e: 872 (*Apoglostatus*). Holotype, sex?; Shagai, Tanganyika; BMNH, London.

Distribution: Africa (Tanzania).

Notes: (1) Schedl 1964m: 305 (to *Glostatus*).

References: (tx) Schedl 1957e: 872, 1961k: 644, 1964m: 305, 1979c: 107.

hirsutus Schedl 1962k: 1070. Holotype, sex?; D.O.A.: Usambara; Schedl Collection in NHMW, Wien.

Distribution: Africa (Kenya).

References: (tx) Schedl 1962k: 1070, 1979c: 117.

kenyae Schedl 1957b: 154. Lectotype, sex?; Kenya, Forest de Nairobi, 1700 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 132.

Distribution: Africa (Kenya).

References: (tx) Schedl 1957b: 150, 154, 1957e: 871, 1961k: 641, 1979c: 131–132.

leprosus **Browne** 1973a: 290. Holotype ♀; Nigeria: Adamawa, Gango Forest Reserve at 4000 feet; MRCB, Tervuren.

Distribution: Africa (Nigeria/ Zaire).

References: (tx) Browne 1973a: 290.

multispinosus (**Schedl**) 1957e: 873 (*Ctonocryphus*). Holotype, sex?; Kenya, Kilifi; BMNH, London.

Distribution: Africa (Kenya/ Zambia).

Hosts: *Julberuardia paniculata*.

Notes: (1) Schedl 1964m: 305 (to *Glostatus*).

References: (hb) Loyttyneimi, Beaver, & Loyttyneimi 1984. (ds) Beaver & Loyttyneimi 1985a: 78.

(tx) Schedl 1957e: 873, 1961k: 638, 1964m: 305, 1979c: 161.

nigrivestis (**Schedl**) 1957e: 873 (*Ctonocryphus*). Holotype, sex?; Tanganyika, Ngorogoro; BMNH, London.

Distribution: Africa (Tanzania).

Notes: (1) Schedl 1964m: 305 (to *Paraglostatus*, = *Glostatus*).

References: (tx) Schedl 1957e: 873, 1961k: 638, 1964m: 305, 1979c: 167–168.

perplexus **Schedl** 1952: 281. Holotype, sex?; Cape Province, South Africa; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (tx) Schedl 1952: 281.

podoanus **Schedl** 1958a: 558. Holotype, sex?; South Africa: Pondoland, Port St. John; BMNH, London.

Distribution: Africa (South Africa).

References: (tx) Schedl 1958a: 558, 1961k: 642, 1979c: 197.

seydeli (**Nunberg**) 1967b: 321 (*Rhopalocryphus*). Holotype, sex?; Elisabethville, Congo; MRCB, Tervuren.

Distribution: Africa (Zaire/ Zambia).

Hosts: *Brachystegia utilis*.

Notes: (1) Wood 1986a: 85 (to *Glostatus*).

References: (hb) Loyttyneimi, Beaver, & Loyttyneimi 1984. (ds) Beaver & Loyttyneimi 1985a: 76. (tx) Nunberg 1967a: 336–337, 1967b: 321; Wood, S. L. 1986a: 85.

spinarinatus **Beaver in** Beaver & Loyttyneimi 1985a: 78. Holotype ♂; Zambia: Chati, Kitwe; BMNH, London.

Distribution: Africa (Zaire).

References: (hb) Loyttyneimi, Beaver, & Loyttyneimi 1984. (tx) Beaver & Loyttyneimi 1985a: 78.

squamosus **Schedl** 1962k: 1071. Holotype, sex?; Natal; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (ds) Schedl 1965h: 111, 1969d: 5. (tx) Schedl 1962k: 1071, 1979c: 236.

vyrdaghi (**Nunberg**) 1973: 10 (*Apoglostatus*). Holotype, sex?; north Ruwenzora, Kalonge, Zaire; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Nünberg 1973: 10.

xyloctonus (**Schedl**) 1941d: 398 (*Ctonocryphus*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon).

References: (tx) Schedl 1941d: 398, 1961k: 639, 1979c: 270.

Genus *Ctonoxylon* Hagedorn

CTONOXYLON HAGEDORN 1910b: 4. Type-species: *Ctonoxylon auratum* Hagedorn, subsequent designation by Hopkins 1914: 119.

References: (ay) Nobuchi 1969a: 55. (hb) Schedl 1958d: 184, 1961k: 426, 1977b: 35; Wood, S. L. 1986a: 85. (ds) Hagedorn 1910d: 81; Schedl 1961k: 426, 1977b: 35; Wood, S. L. 1986a: 85. (tx) Eggers 1923a: 130, 1935a: 76; Hagedorn 1910a: 136–137, 1910b: 4–5; Hopkins 1914: 119, 132, 1915c: 226; Schedl 1939i: 380, 1941d: 398, 1952g: 50, 1957d: 1–162, 1961k: 426, 1977b: 35; Wood, S. L. 1986a: 85.

acuminatum **Schedl** 1957d: 45. Holotype, sex?; Congo Belge; Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Clitandra* cf. *staultii*.

References: (ec) Schedl 1961k: 426. (hb) Schedl 1961k: 426. (ds) Schedl 1961k: 426, 1982: 280. (tx) Schedl 1957d: 45, 1961k: 426, 1979c: 11.

alutaceus (**Schaufuss**) 1897b: 102 (*Stephanoderes*). Holotype, sex?; Tanga in Ostafrika; Hamburg Museum, lost.

Distribution: Africa (Tanzania).

Notes: (1) Eggers 1922b: 173 (to *Ctonoxylon*).

References: (ds) Hagedorn 1910d: 40; Kleine 1913b: 121, 1914b: 322. (tx) Eggers 1922b: 173; Hagedorn 1910a: 85; Hopkins 1915b: 24; Schaufuss 1897b: 102; Schedl 1961k: 547.

amanicum **Hagedorn** 1912b: 42. Holotype, sex?; Amani; Hamburg Museum, lost.

Distribution: Africa (Tanzania).

References: (bv) Aulmann 1911: 441–442; Aulmann & La Baume 1912: 65. (cn) Hagedorn 1913a: 14; Kleine 1932a: 303; Morstatt 1937: 26. (hb) Aulmann 1911: 441–442; Hagedorn 1913a: 14; Kleine 1932a: 303; Kolbe 1911: 508; Schedl 1961k: 428. (ds) Hagedorn 1913c; Kleine 1913b: 149, 1914b: 322, 1932a: 303, 1934a: 168, 630; Roba 1935: 338. (tx) Aulmann 1911; Eggers 1920: 39, 42–43; Hagedorn 1912b: 42; Schedl 1961k: 428.

atrum **Browne** 1965a: 190. Holotype, sex?; Nigeria: Idanre; BMNH, London.

Distribution: Africa (Nigeria).

Hosts: *Cauthium* sp.

References: (tx) Browne 1965a: 190; Roberts 1969: 123.

- auratum Hagedorn** 1910b: 4. Holotype, sex?; Kamerun: MNB, Berlin.
Distribution: Africa (Cameroon/Zaire).
References: (ds) Hagedorn 1910d: 81; Kleine 1913b: 149, 1914b: 312. (tx) Eggers 1927a: 198; Hagedorn 1910a: 137, 1910b: 4, 1912b: 42; Hopkins 1914: 119; Schedl 1961k: 428.
- bosqueiae Schedl** 1962h: 66. Holotype, sex?; Africa: Ghana, Bobiri, Kumasi; BMNH, London.
Distribution: Africa (Ghana/South Africa).
Hosts: *Bosqueia angolense*.
References: (hb) Browne 1963a: 235. (ds) Browne 1963a: 235; Roberts 1969: 123; Schedl 1971g: 190, 1982: 279. (tx) Schedl 1962h: 66, 1962k: 1067, 1979c: 44.
- camerunum Hagedorn** 1910b: 4. Holotype, sex?; Kamerun: MNB, Berlin.
Distribution: Africa (Cameroon/ Equatorial Guinea/ Gabon/ Ivory Coast/ Nigeria/ Zaire).
Hosts: Liana.
References: (cn) Mayne & Donis 1951: 331. (ec) Mayne & Donis 1951: 331. (hb) Roberts 1969: 123. (ds) Hagedorn 1910d: 81; Kleine 1913b: 149, 1914b: 312; Schedl 1961k: 429. (tx) Eggers 1920: 37–38, 1927a: 198, 1943d: 246; Hagedorn 1910a: 137, 1910b: 4; Schedl 1939g: 171, 1950d: 6, 1961k: 429.
- fuscum Hagedorn** 1910b: 5. Holotype, sex?; Kamerun: MNB, Berlin.
Notes: (1) Eggers 1920: 37 (a variety of *camerunum*).
References: (ds) Hagedorn 1910d: 81; Schedl 1962k: 1067, 1964f: 618. (tx) Eggers 1920: 37–38; Hagedorn 1910a: 137, 1910b: 5; Schedl 1961k: 429, 1962k: 1067.
- capensis Schedl** 1971e: 8. Holotype, sex?; Umgeb. Cape Town; Schedl Collection in NHMW, Wien.
Distribution: Africa (South Africa).
References: (tx) Schedl 1971e: 8, 1979c: 51.
- caudatum Schedl** 1971e: 8. Holotype, sex?; Congo Belge, Stanleyville; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1971e: 8–9, 1979c: 54.
- conradi Schedl** 1939g: 171. Holotype, sex?; Ukerewi Island; Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Tanzania).
References: (ds) Ferreira 1965: 1112; Schedl 1959p: 16, 1961k: 430. (tx) Schedl 1939g: 171, 1961k: 430, 1979c: 63.
- cornutum Eggers** 1943d: 246. Holotype ♂; Kamerun; Strohmeier Collection.
Distribution: Africa (Cameroon).
References: (tx) Eggers 1943d: 246; Schedl 1961k: 430.
- crenatum Hagedorn** 1910b: 5. Holotype, sex?; Kamerun: MNB, Berlin.
Distribution: Africa (Cameroon).
References: (hb) Roberts 1969: 123. (ds) Hagedorn 1910d: 81; Kleine 1913b: 149, 1914b: 312; Schedl 1966c: 224. (tx) Eggers 1920: 39; Hagedorn 1910a: 137, 1910b: 5; Schedl 1961k: 430.
- dentigerum Schedl** 1941d: 388. Holotype, sex?; Spanish Guinea; Schedl Collection in NHMW, Wien.
Distribution: Africa (Equatorial Guinea).
References: (tx) Schedl 1941d: 388, 1961k: 430, 1979c: 78.
- festivum Schedl** 1941d: 389. Holotype, sex?; Kamerun, Soppo, 800 m; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1941d: 389, 1961k: 431, 1979c: 96.
- flavescens Hagedorn** 1910b: 4. Syntypes, sex?; Kamerun: MNB, Berlin.
Distribution: Africa (Cameroon/ Gabon/ Ghana/ Guinea/ Tanzania/ Zaire), Madagascar.
Hosts: *Allanblackia stuhlmannii*, *Carpodinus subrepanda*, *Landolphia robusta*, *Tripoohiton scleroxylon*.
Notes: (1) Eggers 1920: 38 (elevated to species rank from a variety of *camerunum*).
References: (bv) Aulmann 1911: 411. (hb) Aulmann 1911: 411; Roberts 1969: 124. (ds) Hagedorn 1910d: 81; Kleine 1913b: 149, 1914b: 312; Numberg 1952: 17, 1965b: 17; Schedl 1961k: 431, 1964j: 40, 1965e: 351, 1965f: 4, 1965g: 19, 1966a: 275. (tx) Aulmann 1911: 411; Eggers 1920: 38, 1922b: 170; Hagedorn 1910a: 137, 1910b: 4; Numberg 1952: 17; Schedl 1954e: 49, 1955d: 268, 1961k: 431, 1965f: 4.
- camerunum hirsutum Hagedorn** 1910b: 4. Syntypes, sex?; Kamerun: MNB, Berlin, 1 in Eggers Collection, in NHMW, Wien.
Notes: (3) Schedl 1961k: 431 (treated as a variety of *flavescens*).
References: (ds) Hagedorn 1910d: 81; Kleine 1913b: 149; Roberts 1969: 124; Schedl 1964f: 618, 1972e: 280; Thompson 1963: 37. (tx) Eggers 1920: 38; Hagedorn 1910a: 137, 1910b: 4; Schedl 1954e: 49, 70, 1961k: 431, 1979c: 50.
- flavescens usambaricum Eggers** 1920: 38. Syntypes, sex?; Mkulumusiberg (1000 m), bei Sigi in Ostafrika; 1 in Eggers Collection, in NHMW, Wien.
References: (ce) Schedl 1961k: 433. (hb) Schedl 1961k: 433, 1977b: 35. (ds) Schedl 1961k: 433, 1977b: 35. (tx) Eggers 1920: 38; Schedl 1961k: 433, 1977b: 35, 1979c: 97.
- griseum Schedl** 1941d: 389. Holotype, sex?; Brit. Ost-Afrika, Kikuyu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Kenya/ South Africa).
Hosts: *Olea capensis*, *O. hochstetteri*.
References: (cn) Anonymous 1970c: 13. (ds) Anon-

- ymous 1970c: 13; Gardner 1957a: 30; Schedl 1961k: 435, 1965f: 4. (tx) Browne 1965: 190; Eggers 1920: 35; Schedl 1941d: 389, 1955i: 211, 1961k: 435, 1965f: 4, 1979c: 113.
- hamatum** Schedl 1941d: 390. Holotype, sex?; Nairobi; Schedl Collection in NHMW, Wien.
Distribution: Africa (Kenya/ South Africa/ Tanzania).
Hosts: *Olea hochstetteri*, *O. welwitschii*.
References: (ds) Gardner 1957a: 30. (tx) Browne 1969: 190; Powell 1950: 29; Schedl 1941d: 390, 1957b: 150, 1961k: 436, 1979c: 115.
- hirtellum** Schedl 1971e: 9. Holotype, sex?; Congo Belge, Yangambi; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1971e: 9, 1979c: 117.
- intermedium** Schedl 1971e: 10. Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1971e: 10, 1979c: 126.
- kivuensis** Schedl 1957d: 44. Holotype, sex?; Congo Belge; Kivu, Mulungu; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Popowia* sp.
References: (ds) Schedl 1961k: 437. (tx) Schedl 1957d: 44, 1961k: 437, 1979c: 133.
- longipilum** Eggers 1935c: 308. Holotype ♀; Brit. Ostafrika (Mulanje); USNM, Washington.
Distribution: Africa (Ghana/ Ivory Coast/ Kenya/ Tanzania), Madagascar.
References: (ds) Schedl 1972e: 280, 1977b: 36, 1977d: 275, 1982: 281. (tx) Anderson, W. H. & Anderson 1971: 15; Eggers 1935c: 308, 1940c: 236; Nunberg 1969: 380; Schedl 1953d: 67, 1961k: 437, 1977b: 36.
- methneri** Eggers 1922b: 170. Holotype, sex?; Utzungwe-Berge, 1300–1600 m; Methner Collection.
Distribution: Africa (Kenya/ South Africa/ Tanzania).
References: (tx) Browne 1965: 22; Eggers 1922b: 170; Schedl 1961k: 435, 1962k: 1067, 1965g: 19.
- montanum** Eggers 1922b: 170. Holotype ♀; Buca, Kamerun; USNM, Washington.
Distribution: Africa (Cameroon).
References: (tx) Anderson, W. H. & Anderson 1971: 21; Eggers 1922b: 170, 1935c: 308; Schedl 1961k: 435.
- nodosum** Eggers 1940c: 236. Holotype, sex?; Congostaat; Mongwalu (Kilo), im Osten an der Grenze gegen Brit. Ostafrika; MRCB, Tervuren.
Distribution: Africa (Cameroon/ Ghana/ Nigeria/ Uganda/ Zaire).
References: (ds) Browne 1973a: 279; Roberts 1969: 124; Schedl 1962h: 58, 1962k: 1067, 1965f: 4. (tx) Eggers 1940c: 236; Schedl 1961k: 435, 1962k: 1067, 1965f: 4.
- pygmaeum** Eggers 1920: 39. Syntypes, sex?; Soppo in Kamerun, 800 m; MNB, Berlin, and Eggers Collection, 2 Eggers syntypes in NHMW, Wien.
Distribution: Africa (Cameroon).
References: (tx) Eggers 1920: 39; Schedl 1961k: 439, 1962h: 66, 1979c: 207.
- setifer** Eggers 1920: 39. Holotype, sex?; Amani; Hamburg Museum, lost.
Distribution: Africa (Kenya/ Tanzania/ Zaire).
References: (ds) Gardner 1957a: 30; Schedl 1961k: 439. (tx) Eggers 1920: 39, 1922b: 170, 1927a: 195; Schedl 1941d: 390, 1951e: 39, 1952g: 50, 1961k: 439, 1979c: 226.
- spathifer** Schedl 1951e: 39. Syntypes, sex?; Cote d'Ivoire, Reserve du Banco; MNHN, Paris, and Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast/ Tanzania).
Hosts: *Olea welwitschii*, *Pacllylobus deliciosus*, *Strombosia pustulata*.
References: (ds) Cachan 1957: 15; Schedl 1961k: 440, 1979b: 415. (tx) Schedl 1951e: 39, 1954d: 570, 1961k: 440, 1979c: 233.
- spinifer** Eggers 1920: 39. Lectotype ♀; Kamerun; USNM, Washington, designated by Anderson & Anderson 1971: 31.
Distribution: Africa (Cameroon/ Ivory Coast).
References: (ds) Cachan 1957: 15; Roberts 1969: 124; Schedl 1961k: 440, 1964j: 40, 1967e: 210. (tx) Anderson, W. H. & Anderson 1971: 30–31; Eggers 1920: 39; Schedl 1951e: 35, 1954d: 570, 1961k: 441, 1965h: 114.
- uniseriatum** Schedl 1965h: 114. Holotype, sex?; S.W. Africa; Schedl Collection in NHMW, Wien.
Distribution: Africa (South West Africa).
References: (tx) Schedl 1965h: 114, 1979c: 261.

Genus *Scolytomimus* Blandford

- Scolytomimus* BLANDFORD 1895a: 319. Type-species: *Scolytomimus dilutus* Blandford, monobasic.
Neoxyloctonus Eggers 1923a: 143. Type-species: *Neoxyloctonus philippinensis* Eggers, monobasic. Synonymy: Schedl 1951i: 53.
References: (tx) Eggers 1923a: 143; Schedl 1951i: 53.
- Scolytoleptes* Schedl 1962q: 490. Type-species: *Scolytomimus maculatus* Beeson, original designation. Synonymy: Browne 1970: 557.
References: (tx) Browne 1970: 557; Schedl 1962q: 490.
- Keys: Browne 1958a: 457.
References: (hb) Browne 1961c: 79–81; Wood, S. L. 1986a: 85. (ds) Browne 1961c: 79–81; Wood, S. L. 1986a: 85. (tx) Beeson 1938b: 290; Blandford 1895a: 319; Browne 1958: 487–497, 1970: 557; Schedl 1951i: 53; Wood, S. L. 1960a: 1–73, 1986a: 85.
- andamanensis** Wood 1988c: 199. Holotype ♂; Andaman Islands; FRI, Dehra Dun.
Distribution: Asia (Andaman Islands in India).

- Hosts: *Sideroxylon longepetiolatum*.
 Notes: (3) Schedl 1951i: 53 (*Xyloctonus andamanensis* Beeson, nomen nudum).
 References: (tx) Wood, S. L. 1988c: 199–200.
- assamensis** Schedl 1951i: 54. Holotype, sex?; Assam, Lushai Hills, India; Schedl Collection in NHMW, Wien.
 Distribution: Asia (Bangladesh/ Assam and Bihār in India/ Sri Lanka), Indonesia (Sarawak in Borneo).
 Hosts: *Bassia latifolia*, *B. butyraces*, *Bauhinia tomentosa*, *Camellia sinensis*, *Dichopsis polyantha*, *Isonandra polyantha*, *Palaquium pseudo-rostratum*.
 References: (cn) Mathur & Singh 1960b: 73. (ds) Mathew 1951, 1957: 188; Mathur & Singh 1960b: 73; Schedl 1962p: 203. (tx) Schedl 1951i: 54, 1962p: 203, 1979c: 29.
- bassiac** Schedl 1951i: 54. Holotype, sex?; Indien, Bihār, Balaghat; Schedl Collection in NHMW, Wien. Synonymy: Wood 1992:(in press).
 References: (ds) Bhasin, Roonwal, & Singh 1958. (tx) Browne 1958a: 491; Schedl 1951i: 54, 1979c: 35.
- quadrioculatus** Browne 1958: 490. Holotype, sex?; Sarawak: Setapok, near Kuching; BMNH, London. Synonymy: Schedl 1962p: 203.
 References: (ds) Bhasin, Roonwal, & Singh 1958. (tx) Browne 1958: 490; Schedl 1962p: 203.
- baloghi** Schedl 1969e: 157. Holotype, sex?; New Guinea, Mt. Kaindi; NIIMB, Budapest.
 Distribution: New Guinea.
 References: (tx) Schedl 1969e: 157, 1979c: 33.
- bicolor** Wood 1960a: 18. Holotype ♀; E. Ngatpang, Babelthuap, Palau Island; USNM, Washington.
 Distribution: Micronesia (Palau Island).
 References: (tx) Wood, S. L. 1960a: 17–18.
- costipennis** Schedl 1953c: 291. Syntypes 2, sex?; Malaya, Pahang, Ginting Kial; BMNH, London, and Schedl Collection in NHMW, Wien.
 Distribution: Asia (Malaya).
 References: (ds) Browne 1961c: 81. (tx) Browne 1970: 557; Schedl 1953c: 291, 1962q: 490, 1979c: 67.
- dilutus** Blandford 1895a: 320. Syntypes 2, sex?; Ceylon, Bogawantalawa; BMNH, London.
 Distribution: Asia (Sri Lanka).
 Hosts: Kiribade.
 Notes: (3) Schedl 1951i: 53 (*darwini*, nomen nudum).
 References: (ds) Kleine 1913b: 149; Schedl 1959a: 474, 1969c: 48. (tx) Beeson 1929: 224, 1938: 290; Blandford 1895a: 320; Browne 1955a: 491; Hopkins 1914: 129; Lucas 1920: 572; Schedl 1951i: 53, 1953c: 291, 1954a: 138, 1959a: 474. (ms) Lucas 1920: 572.
- maculatus** Beeson 1929: 223. Holotype, sex?; Upolu: Apia, Vailima; BMNH, London.
 Distribution: Samoan Islands.
 Hosts: *Planchouella samoensis*.
 References: (cc) Roberts 1976: 382. (hb) Beaver 1976b: 536; Roberts 1976: 382. (ds) Beaver 1976b: 532; Beeson 1938b: 290; Browne 1974a: 65, 1980c: 484, 1981b: 598, 1984a: 151; Olmo et al. 1987: 87; Roberts 1976: 382. (tx) Beeson 1929: 223; Browne 1970: 557; Schedl 1950f: 36, 1951i: 53, 1951k: 132, 1962q: 490, 1979c: 144; Wood, S. L. 1960a: 18.
- mimusopsis** Wood 1988c: 200. Holotype ♀; Palugama, Anuradhapura, Ceylon; FRI, Dehra Dun.
 Distribution: Asia (Sri Lanka).
 Hosts: *Bassia latifolia*, *Mimusops elengi*.
 Notes: (3) Schedl 1951i: 53 (*Xyloctonus mimusopsis* Beeson, nomen nudum).
 References: (tx) Wood, S. L. 1988c: 200.
- philippinensis** (Eggers) 1923: 143 (*Neoxyloctonus*). Syntypes, sex?; Brittan auf Mindanao, Philippines; SMTD, Dresden.
 Distribution: Australia, Philippine Islands (Mindanao).
 Hosts: *Palmctia pinnata*.
 References: (ds) Browne 1966: 245; Schedl 1966b: 16, 1972a: 143. (tx) Eggers 1923: 143, 1927b: 406, 1937b; Nobuchi 1983: 299; Schedl 1951i: 53.
- pusillus** (Eggers) 1927c: 88 (*Neoxyloctonus*). Lectotype, sex?; Philippinen: Mindanao, Prov. Lanao, Kolambugan; USNM, Washington, designated by Anderson & Anderson 1971: 27.
 Distribution: Asia (Andaman Islands in India/ Malaya), Indonesia (Borneo, Java), New Guinea, Philippine Islands (Mindanao).
 Hosts: *Achras sapota*, *Mimusops littoralis*, *Palaquium maingaji*, *P. stellatum*.
 References: (hb) Beaver & Browne 1978: 599; Browne 1961c: 80; Kalshoven 1958b: 180. (ds) Beaver & Browne 1978: 599; Browne 1961c: 80, 1966: 245, 1980b: 381, 1980c: 484, 1984a: 151; Ohno, Yoneyama, & Nakazawa 1987b: 93; Ohno, Yoshioka et al. 1985a: 91, 1989: 60; Schedl 1966b: 16, 1975i: 346. (tx) Anderson, W. H. & Anderson 1971: 27; Browne 1961: 80; Eggers 1927c: 88; Nobuchi 1983: 300; Schedl 1940b: 435, 1951i: 50, 53, 1953c: 288, 1962p: 203, 1979c: 206.
- kalshoveni** Eggers 1940d: 132. Holotype, sex?; Java; Kalshoven Collection. Synonymy: Wood 1989: 175.
 References: (hb) Kalshoven 1958: 180. (tx) Browne 1955a: 491; Eggers 1940d: 132; Schedl 1942d: 1, 1951i: 53, 1953c: 288, 1979c: 131; Wood, S. L. 1989: 175.
- brunigi** Browne 1958: 488. Holotype, sex?; Sarawak: Bako National Park; BMNH, London. Synonymy: Schedl 1962p: 203.
 References: (ds) Browne 1961a: 304. (tx) Browne 1958: 488; Schedl 1962p: 203.

- menoni* Browne 1958: 457. Holotype, sex?; Malaya: Selangor, Kepong; BMNH, London. Synonymy: Schedl 1962p: 203. References: **(ds)** Browne 1961c: 51, **(tx)** Browne 1958: 457, 1961c: 81; Schedl 1962p: 203.
- insularis* Schedl 1962q: 491 (*Scolytoleptes*). Holotype, sex?; Andaman Islands; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 175. Notes: (1) Browne 1970: 557 (to *Scolytominus*). (3) Beeson 1941: 295 (*insularis*, nomen nudum). References: **(ds)** Beeson 1961: 295, **(tx)** Browne 1958a: 491, 1970: 557; Schedl 1951i: 53, 1955b: 287, 1962q: 491, 1979c: 126; Wood, S. L. 1989: 175.
- quadridentis** Wood 1985c: 200. Holotype ♂; New Guinea (NE), Huron Peninsula, Finschafen; Wood Collection. Distribution: New Guinea. References: **(tx)** Wood, S. L. 1985c: 200–201.
- rectus** Wood 1985c: 201. Holotype ♂; 40 km NE Polonnaruwa, Pol. Distr., Sri Lanka; USNM, Washington. Distribution: Asia (Sri Lanka). Hosts: *Mauikara hexandra*. References: **(tx)** Wood, S. L. 1985c: 201.
- tennis** Browne 1984: 77. Holotype, sex?; Fiji: Viti Levu, Namosi Road, Savura Creek; BMNH, London. Distribution: Fiji Islands. References: **(tx)** Browne 1984: 77.
- woodi** Browne 1958: 489. Holotype, sex?; Malaya: Selangor, Kepong; BMNH, London. Distribution: Asia (Malaya). Hosts: *Palaquium maingayi*, *P. stellatum*. Notes: (3) Schedl 1962p: 203 (incorrectly cited as a synonym of *pusillus*). References: **(hb)** Browne 1961c: 80, **(ds)** Browne 1961c: 80, **(tx)** Browne 1958: 489, 1961c: 80; Schedl 1962p: 203.
- Genus *Xyloctonus* Eichhoff
- XILOCTONUS** EICHHOFF 1872a: 134. Type-species: *Xyloctonus scolytooides* Eichhoff, monobasic. Keys: Menier 1974: 635. References: **(hb)** Schedl 1958d: 184, 1961k: 418, 1977b: 31; Wood, S. L. 1986a: 85, **(ds)** Hagedorn 1910d: 81; Schedl 1961k: 418, 1977b: 31; Wood, S. L. 1986a: 85, **(tx)** Blandford 1893d: 441, 1895a: 320, 1904: 412; Eggers 1939a: 14; Eichhoff 1872a: 134, 1878b: 335; Hagedorn 1904: 412, 1910a: 135–136, 1910b: 4; Hopkins 1914: 132, 135, 1915c: 226; Menier 1974: 653–666; Schedl 1939e: 340, 1939i: 350, 1941d: 398, 1957d: 1–162, 1961k: 418, 1965e: 349–379, 1977b: 31; Wood, S. L. 1986a: 85.
- aethiops** Schedl 1953d: 77. Lectotype, sex?; Madagascar, Ankorika; MNHN, Paris, designated by Menier 1974: 660. Distribution: Madagascar. Hosts: *Savia hillebrandti*. References: **(tx)** Menier 1974: 660; Schedl 1953d: 77, 1977b: 31, 1979c: 14.
- stenographus** Schedl 1961e: 130. Holotype, sex?; Madagascar, Perinet; MNHN, Paris. Synonymy: Menier 1974: 660. References: **(hb)** Schedl 1977b: 34, **(ds)** Schedl 1977b: 34, **(tx)** Menier 1974: 660; Schedl 1961e: 130, 1977b: 31–34, 1979c: 237.
- bimarginatus** Eggers 1939a: 17. Holotype, sex?; Congo (Kundelungu); MRCB, Tervuren. Distribution: Africa (Zaire). References: **(tx)** Eggers 1939a: 17; Menier 1974: 656; Schedl 1961k: 419.
- biseriatus** Schedl 1953d: 76. Lectotype, sex?; Madagascar, Region de l'Androy, Ambovombe; MNHN, Paris, designated by Menier 1974: 661. Distribution: Madagascar. References: **(tx)** Menier 1974: 656, 661; Schedl 1953d: 76, 1977b: 31, 1979c: 41.
- latus** Eggers 1939a: 14. Lectotype, sex?; Abyssinia (Djem-djem Forest); BMNH, London, designated by Menier 1974: 661. Distribution: Africa (Ethiopia/ South Africa/ Zambia). References: **(ds)** Schedl 1965e: 351, 1965h: 111, 1969d: 5, **(tx)** Eggers 1939a: 14–15; Menier 1974: 661; Schedl 1961k: 419, 1965e: 365, 1979c: 137.
- maculatus** Schedl 1965h: 113. Holotype, sex?; Cape Prov., Port Elizabeth; Transvaal Museum. Distribution: Africa (South Africa). Hosts: *Sideroxylon incurvum*. References: **(tx)** Schedl 1965g: 19, 1965h: 113, 1979c: 114.
- mauritanus** Menier 1974: 662. Holotype ♂?; Corps de garde, Mauritius; MNHN, Paris. Distribution: Mauritius Island. References: **(tx)** Menier 1974: 662, 663.
- niger** Schedl 1938d: 452. Lectotype, sex?; Uganda: Entebbe; BMNH, London, designated by Menier 1974: 663. Distribution: Africa (Uganda). Hosts: *Conopharyngia holzkii*. References: **(ds)** Gardner 1957a: 33; Schedl 1938d: 452, **(tx)** Eggers 1939b: 14; Menier 1974: 663; Schedl 1938d: 452, 1961k: 419, 1979c: 179.
- opacus** Schedl 1957d: 43. Holotype, sex?; Ruanda: Ihembe; MRCB, Tervuren. Distribution: Africa (Ruanda in Zaire). Hosts: *Chrysophyllum boivinianum*. References: **(ce)** Schedl 1958d: 190–191, 1961k: 420, **(hb)** Schedl 1958d: 191, 1961k: 420, 1977b: 32, **(ds)** Mayne & Donis 1962: 323; Schedl 1961k: 420, 1977b: 32, 1979b: 415, **(tx)** Schedl 1957d: 43, 1961k: 420, 1977b: 32, 1979c: 179.
- pubifer** Schedl 1965e: 365. Holotype, sex?; Port Elisabeth; Schedl Collection in NHMW, Wien. Distribution: Africa (South Africa/ Zambia).

References: **(hb)** Loyttyneimi, Beaver, & Loyttyneimi 1984. **(ds)** Beaver & Loyttyneimi 1985a: 79; Schedl 1982: 281. **(tx)** Schedl 1965c: 365, 1979c: 203.

punctipennis Eggers 1939a: 16. Holotype, sex[?]; Somaliland (Basso Genana); USNM, Washington.

Distribution: Africa (Somalia).
References: **(tx)** Anderson, W. H. & Anderson 1971: 27; Eggers 1939a: 16; Schedl 1961k: 422, 1979c: 205.

quadricinctus Schedl 1941d: 387. Holotype, sex[?]; Usambara; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ghana/ Tanzania).

Hosts: *Chrysophyllum albidum*.

References: **(hb)** Thompson, G. H. 1963: 73. **(ds)** Roberts 1969: 134; Schedl 1961k: 423; Thompson, G. H. 1963: 73. **(tx)** Menier 1974: 656, 665; Schedl 1941d: 387, 1954e: 49, 1957d: 43, 1961k: 422, 1979c: 208.

quadridens Schedl 1953d: 77. Lectotype ♂; Madagascar, Mt. d'Ambre; MNHN, Paris, designated by Menier 1974: 665.

Distribution: Madagascar.

Hosts: *Filicium abbreviatum*.

References: **(hb)** Schedl 1977b: 33. **(ds)** Schedl 1977b: 33. **(tx)** Menier 1974: 665; Schedl 1953d: 77, 1977b: 33, 1979c: 208.

scolytoides Eichhoff 1872a: 134. Lectotype, sex[?]; Port Natal; IRSNB, Brussels, designated by Menier 1974: 665.

Distribution: Africa (Ghana/ Ivory Coast/ Kenya/ Nigeria/ South Africa/ Sudan/ Tanzania/ Zaire).

Hosts: *Butyrospermum parkii*, *Illepe* (*Bassia*) *latifolia*, *Minusops caffra*.

References: **(cn)** Anonymous 1970c: 14. **(cc)** Beeson 1922c: 500. **(hb)** Browne 1963a: 236;

Roberts 1969: 134. **(ds)** Anonymous 1970c: 14; Beeson 1922c: 500, 1961: 310; Browne 1963a: 236; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 81; Kleine 1913b: 148, 1914b: 319, 1934a: 167–168; Schedl 1938d: 450, 1961k: 423, 1962h: 53, 1962k: 1066, 1964j: 40, 1972e: 280, 1975h: 351, 1977d: 178, 1982: 279. **(tx)** Blandford 1895a: 320; Eggers 1922b: 173–174, 1927a: 198, 1936b: 28–33, 1939b: 14; Eichhoff 1872a: 134, 1878b: 171–172; Hagedorn 1910a: 136; Hopkins 1914: 132, 135, 1915c: pl. 9, fig. 6; Lucas 1920: 675; Menier 1974: 665; Schedl 1939g: 170, 1941d: 380, 1951i: 53–54, 1957b: 150, 1957d: 43, 1961k: 423, 1962k: 1066, 1965g: 17. **(ms)** Lucas 1920: 675.

cmarginatus Eggers 1939a: 16. Holotype, sex[?]; Brit. Ostafrika (W. Nile); USNM, Washington.

Synonymy: Menier 1974: 665.

References: **(tx)** Anderson, W. H. & Anderson 1971: 12; Eggers 1939a: 15–16; Menier 1974: 665; Schedl 1961k: 419, 1979c: 90.

striatus Eggers 1939a: 15. Holotype, sex[?]; Mozambique (Sangadze, Moulina); MNHN, Paris.

Distribution: Africa (Mozambique).

Hosts: *Acacia* sp.

References: **(ds)** Schedl 1961k: 425. **(tx)** Eggers 1939a: 15; Schedl 1961k: 425, 1965e: 365, 1979c: 238.

subcostatus Eggers 1939a: 15. Holotype, sex[?]; Deutsch Ost Africa (Bez. Tabora; Ngulu); USNM, Washington.

Distribution: Africa (Guinea/ Mozambique/ Sudan/ Tanzania).

References: **(ds)** Schedl 1961k: 425. **(tx)** Anderson, W. H. & Anderson 1971: 32; Eggers 1939a: 15–16; Schedl 1955d: 268, 1961k: 425, 1979c: 240.

Tribe Cryphalini Lindemann

Cryphaloidea

References: Lindemann 1876: 165.

Cryphalidae

References: Eichhoff 1878b: 107, 1881a: 169.

Cryphalinae

References: Hagedorn 1909: 162, 1910a: 24, 80, 1910d: 40; Hopkins 1915b, 1915c: 224; Leng 1920: 339; Lucas 1920: 19; Nusslin 1911: 430; Tredl 1907: 12.

Cryphalini

References: Leng 1920: 339; Reiter 1913a: 28; Wood, S. L. 1978a: 114, 1982b: 69, 1986a: 85–93.

Cryphalina

References: Balachowsky 1949a: 200; Barbey 1901: 21; Beal & Massey 1945: 119; Bedel 1888b: 397, 413.

Cryphali

References: Blandford 1904: 225.

Trypophloeinae

References: Nusslin 1911: 373, 431.

Ernoporinae

References: Nusslin 1911: 375, 429.

Eidophelinae

References: Murayama 1954: 200.

Genus *Trypophloeus* Fairmaire

TRYPOPHLOEUS FAIRMAIRE 1868: 105. Type-species:

Bostrichus binodulus Ratzeburg, monobasic.

Glyptoderes Eichhoff 1878b: 34, 44, 137. Type-species: *Bostrichus binodulus* Ratzeburg, subsequent designation by Hopkins 1914: 122. Synonymy: Bedel 1888b: 397.

References: (tx) Balachowsky 1949a: 213; Eichhoff 1878b: 34, 44, 137; Coz 1985: 278; Wood, S. L. 1954a: 998.

Keys: Wood 1954a: 989, 1982b: 851 for North America; Balachowsky 1949a: 214, Reitter 1913a: 69, Stark 1952: 281 for Asia and Europe.

References: (hb) Wood, S. L. 1982b: 850, 1986a: 89. (ds) Wood, S. L. 1982b: 850, 1986a: 89. (tx) Balachowsky 1949a: 213; Bright 1976d: 108; Dodge 1935: 18; Fairmaire 1864: 121–127, 1868: 105; Hansen, V. 1955: 169–176; Hopkins 1914: 131–132, 1915b: 8, 36; Karaman 1972: 122; Klimesch 1913: 105–116, 1914: 213–219, 231–241; Kostin 1973: 253; Krivolitskaya 1956: 152; Numberg 1956: 141; Peyerinhoff 1935: 194–195; Pfeffer 1889a: 83; Reitter 1913a: 65, 69–71; Rudnev 1958: 372; Saalas 1914: 73, 83; Schedl 1962p: 204, 1981b: 72; Scheerpeltz & Winkler 1930: 257; Schimitschek 1937: 50–51; Sokanovskii 1954: 21–22; Spessivtsev 1922: 470, 1931: 88; Stresemann et al. 1989: 353; Swaine 1918a: 45, 90; Trappen 1935: 142; Wood, S. L. 1954a: 988, 1967a: 122, 1982b: 850, 1986a: 89. (ms) Kangas 1969.

alni (Lindemann) 1875a: 136 (*Cryphalus*). Syn-types, sex?; Moskau; not located.

Figures: Grune 1979: 98.

Distribution: Asia (Xinjiang in China), Europe (Austria/ Czechoslovakia/ Finland/ Germany/ N Italy/ Norway/ Poland/ W USSR).

Hosts: *Alnus glutinosa*, *A. incana*.

References: (ay) Klimesch 1914: 218. (bv) Grune 1979: 99. (cn) Grandi 1951; Kontkanen 1932: 63; Koppen 1882: 252; Nestertschuk 1930: 176; Nusslin 1913: 291; Pierce, W. D. 1917: 12; Rhumbler 1922: 334, 1927: 351. (ec) Balazy & Michalski 1964b; Kangas 1942b; Kleine 1908c: 187, 1944: 70; Michalski & Ratajczak 1989; Nusslin 1927: 351. (hb) Altum 1881c: 322; Dombrowsky 1887, 1889; Eichhoff 1881a: 46, 189; Cornostaev 1916: 314; Grandi 1951; Henschel 1895a: 170; Kangas 1940b: 41–50; Klimesch 1915: 11; Kostin 1960: 132; Lengerken 1954b: 84; Lindemann 1875a: 136; Palm 1956: 63; Nusslin 1913: 291, 1927: 351; Rhumbler 1922: 334, 1927: 351; Rupertsberger 1879: 231, 1880: 229; Schedl 1981b: 73; Stark 1926a: 330, 1952: 283. (ds) Cornostaev 1917; Grune 1979: 99; Hagedorn 1910d: 40; Hansen, V. 1939; Hellen 1947; Henschel 1895a: 170; Heyden, Reitter, & Weise 1883: 181, 1891: 671, 1906: 711; Kangas 1942b; Klefbeck & Sjoberg 1960: 203; Kleine 1913a: 35, 1913b: 123, 1934a: 147; Kontkanen 1932: 63; Koppen 1882: 252; Kraatz 1876c: 107; Lindemann 1884b: 264; Linnamori 1949a: 185, 1949b: 34; Lucht 1987: 278; Numberg 1954: 50; Nuorteva 1971; Palm 1956: 63; Pierce, W. D. 1917: 12; Pittioni 1943: 176; Postner 1974: 428; Reitter 1889a: 93, 1894a: 72; Schanfuss 1915: 1233; Schedl 1980a: 15, 1981b: 73; Seidlitz 1891b: 563, 608; Sokanovskii 1960; Stark 1926a: 330, 1926j: 125, 1931a: 25, 1952: 283; Stein & Weise 1877: 164; Strand 1946: 600, 1953: 62; Swaine 1912a: 349; Tredl 1907: 13; Wichmann 1909b: 173; Yanovskii & Tegshzhargal 1985: 409; Zinovjev 1955: 191. (tx) Balachowsky 1949a: 218; Dombrowsky 1887, 1889; Eichhoff 1878b: 44, 139, 1881a: 46, 189, 1883a: 110, 133; Grune 1979: 98, 99; Hagedorn 1910a: 85; Henschel 1895a: 170; Hopkins 1915b: 36; Lindemann 1875a: 136, 1877a: 161; Lucht 1987: 278; Numberg 1954: 50; Pfeffer 1955a: 184; Reitter 1889a: 93, 1894a: 72, 1913a: 71; Rhumbler 1922: 334, 1927: 351; Rupertsberger 1879: 231, 1880: 229; Schedl 1934f: 1639, 1980a: 15, 1981b: 73; Sedlaczek 1912: 307; Seidlitz 1891a: 563, 1891b: 608; Sokanovskii 1954: 22, 1960: 676; Spessivtsev 1922a: 471, 492, 1931: 47; Stark 1935: 152, 1952: 203; Strand 1953: 62. (ms) Kraatz 1876c: 107.

holdhausi Wichmann 1912c: 186. Holotype ♀; Campo grosso [N Italy]; NHMW, Wien. Synonymy: Balachowsky 1949a: 218.

References: (ds) Kleine 1913b: 123; Schanfuss 1915: 1233. (tx) Balachowsky 1949a: 218;

Eggers 1914; Reitter 1913a: 70–71; Schedl 1934f: 1639; Wichmann 1912c: 186.

binodulus (Ratzeburg) 1837: 163 (*Bostrichus*).

Syntypes, sex?, apparently Germany; not located. Distribution: Africa (Algeria/ Morocco), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland). Hosts: *Populus pyramidalis*, *P. tremula*, *Salix caprea*, *S. fragilis*, *S. sp.*

Notes: (3) Most references (except Gyllenhal 1813: 363) to *Bostrichus asperatus* published prior to Wood 1972: 41 refer to *binodulus*; the species designated by the name *asperatus* is in *Cryphalus*.

References: (ay) Escherich 1923b: 482; Klimesch 1914: 216–217, 237; Nusslin 1911a: 112. (cn) Barbey 1925: 566; Escherich 1923b: 482; Esterberg 1959; Kontkanen 1932: 63; Nester-tschuk 1930: 176; Nusslin 1913: 291; Palm 1951: 231; Rhumbler 1922: 334, 1927: 351; Schwerdtfeger 1944a: 175, 1957a: 182; Wachtl 1901: 381. (cc) Brammanis 1938, 1940; Elliot & Morley 1907; Heqvist 1967: 69; Kleine 1908c: 187, 1909a: 47; Nosek 1959a: 118, 1959b: 86; Nusslin 1927: 351; Rondani 1873: 146; Schwerdtfeger 1944a: 175, 1957a: 182. (hb) Altum 1881c: 322; Barbey 1901: 74, 1925: 566; Chapman 1869a: 198; Dombrowsky 1887, 1889; Eichhoff 1881a: 46, 188; Escherich 1923b: 482; Everts 1903: 756; Gyorfi 1957; Hagedorn 1903a, 1904f; Henschel 1895a: 170; Karpinski & Strawinski 1948: 155; Kellner 1862: 280; Kemner 1919: 175; Klimesch 1915: 11; Lengerken 1939: 63, 1954: 84; Munro 1926: 62; Nordlinger 1856: 29; Nosek 1959a: 118, 1959b: 86; Numberg 1929a: 105; Nusslin 1895: 280, 1913: 291, 1927: 351; Palm 1950: 142, 1951: 231; Peyerimhoff 1926: 387; Pfeffer 1942a: 15; Ratzeburg 1837: 163, 1839: 199; Rhumbler 1922: 334, 1927: 351; Rupertsberger 1879: 231, 1880: 229; Saalas 1913a: 69, 83; Schwerdtfeger 1944a: 175, 1957a: 182; Stark 1926a: 334, 1952: 289; Wachtl 1876a: 458, 1901: 381. (ds) Acloque 1896; Allen, A. 1954, 1958: 216; Arnoldi et al. 1955: 694; Bedel 1888b: 397, 414; Bielz 1887; Blanchere & Robert 1889; Borchert 1951; Calver 1884, 1893; Carpentier & Delaby 1908; Crotch 1863; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 482, 1932b; Esterberg 1959; Everts 1922: 642; Fowler 1891; Fuchs 1905a; Fuss 1874; Gaubil 1849: 126; Gemminger & Harold 1872: 2683; Gozis 1875: 80, 1885: 278; Gredler 1875: 115; Grill 1895: 309; Hagedorn 1903a, 1910d: 41; Hansen, V. 1939, 1956; Hellen 1947; Henschel 1895a: 170; Heyden 1876: 299, 1879: 140; Heyden, Reitter, & Weise 1883: 181, 1891: 671, 1906: 711; Horion 1951; Jansson 1935: 77; Jazentkovsky 1912: 288; Kangas 1946a: 36;

Karpinski 1925: 216, 1931: 20, 39, 1932b: 54; Karpinski & Strawinski 1948: 155; Keler 1925b: 272; Kellner 1862: 280; Kemner 1919: 175; Kestercanek 1881a: 12; Kleine 1912a: 263, 267, 1913a: 35, 1913b: 123, 1934a: 147; Kloft & Hinks 1945: 218; Koltze 1901: 153; Kontkanen 1932: 63; Kozikovsky & Kuntze 1925: 20; Kraatz 1869: 59; Lacordaire 1866: 379; Langhoffer 1915c: 158; Lindemann 1854b: 264; Linder 1953: 71; Lindgren 1945: 77; Lomnicki 1886a: 242, 1913b: 148; Matthews & Fowler 1883: 42; Numberg 1928b: 88, 106, 1954: 50; Nusslin 1895: 280; Palm 1950: 142, 1959: 24, 350; Perris 1876a: 255, 1877a: 415; Peyerimhoff 1926: 387; Pfeffer 1931b: 73, 1936: 90; Pittioni 1943: 176; Poppius 1900: 108; Power 1865: 212; Prossen 1913: 83; Rapp 1934: 728; Ratzeburg 1837: 163, 1839: 199; Redtenbacher 1858: 832, 1874: 375; Reitter 1869b: 154, 1894a: 72, 1916: 289; Rohrig 1955: 37; Roubal 1941: 264; Saalas 1913a: 69, 83; Sahlberg 1900: 105; Sainte-Claire 1914: 472; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1233; Schamm 1859: 96, 1862: 101; Scheerpeltz & Winkler 1930: 257; Schilsky 1909: 188; Seidlitz 1872: 393, 1891a: 563, 1891b: 608; Sharp & Fowler 1893: 34; Stark 1926a: 334, 1926b: 103, 1926j: 125, 1931a: 25, 1952: 289; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 438; Thomson 1868: 219; Tredl 1907: 13; Wachtl 1876a: 458; Westhoff 1882: 238; Wichmann 1927a: 68. (tx) Acloque 1896; Bach 1854; Balachowsky 1949: 215; Barbey 1901: 74; Bedel 1888b: 397, 414; Bertolini 1872; Carpentier & Delaby 1908; Doebner 1860; Dombrowsky 1887, 1889; Duffy 1953; Eggers 1927: 121–122; Eichhoff 1864b: 35, 1878b: 44, 139, 1881a: 46, 188, 1883a: 110, 133; Endrodi 1957b: 416; Escherich 1923b: 482; Everts 1903: 756, 1922: 642; Fairmaire 1864: 105; Fauvel 1889; Ferrari 1867a: 11, 1867b: 114; Fleischer 1927; Formanek 1907: 36; Hagedorn 1904a: 230; Hansen, V. 1955, 1956: 179; Henschel 1895a: 170; Hopkins 1914: 122, 131, 1915b: 36–37; Houllbert 1922a: pl. 1; Jacquelin du Val & Fairmaire 1868: 105; Karpinski & Strawinski 1948: 155; Klimesch 1913: 112–113, 1914: 231–241; Kuhnt 1913: 1055; Lacordaire 1866: 379; Letzner 1891: 375; Nordlinger 1856: 29; Numberg 1954: 50, 1956c: 160, 168; Nusslin 1911a: 112; Perris 1877a: 415; Pfeffer 1932b: 18, 1942a: 15, 1955a: 186; Portevin 1935: 325; Quaschik 1953: 35; Ratzeburg 1837: 163, 1839: 199; Redtenbacher 1849a: 791, 1849b: 26, 1858: 832, 1874: 375; Reitter 1894a: 72, 1913a: 69, 1916: 289; Rhumbler 1922: 334, 1927: 351; Rupertsberger 1879: 231, 1880: 229; Saalas 1913a: 69, 83; Schedl 1934f: 1639, 1952f: 87, 1964a: 99; Seidlitz 1872: 393, 1891a: 563, 1891b: 608; Sharp 1879: 101; Sokanovskii 1954: 17; Spesivtsev 1922: 471, 491, 1925a: 171, 1931: 47–48; Stark 1952: 289; Stierlin 1898: 438; Thomson 1868: 219, 1871: 393. (ms) Escherich 1932b.

grothii Hagedorn 1904a: 232 (*Cryphalus*). Syntypes, sex?; Deutschl. [Osdorf near Hamburg]; Hamburg Museum, lost. Synonymy: Reitter 1913a: 69.

Notes: (3) Hansen 1955: 180 (treated this as a good species).

References: (ay) Eichelbaum 1905: 248–250; Klimesch 1914: 236, 238; Numborg 1928a: 140; Nusslin 1911a: 58, 89, 278, 337, 378. (cn) Barbey 1925: 566. (ce) Kleine 1908c: 187, 1909a: 46, 1944: 82. (hb) Barbey 1925: 566; Hagedorn 1904a: 232; Palm 1956: 63. (ds) Bejer-Petersen & Jorim 1977: 24; Bucking 1932; Hagedorn 1910d: 43; Hansen, V. 1956: 178, 1964: 462; Heyden, Reitter, & Weise 1906: 711; Horion 1960: 162; Jazentkovsky 1912: 288; Klefbeck & Sjöberg 1960: 230; Kleine 1912a: 263, 267, 1913b, 1934a: 146; Klimesch 1913: 106–116; Kozikowsky & Kuntze 1925: 20; Lundgren 1988; Mahler 1987: 232; Munster 1922b; Negru 1965: 114; Palm 1956: 63, 1959: 24, 350; Pfeffer 1989a: 85; Rohrig 1955: 37; Rydh 1977; Schilsky 1909: 188; Strand 1963: 91. (tx) Balachowsky 1949a: 215; Endrodi 1957b: 416; Hagedorn 1904a: 232, 1910a; Hansen, V. 1955: 180, 1956: 178, 1964: 462; Klimesch 1913: 106; Lundgren 1988; Numborg 1928a: 140; Nusslin 1911a: 58, 89, 278, 337, 378; Reitter 1913a: 69; Schedl 1934f: 1639.

spiculatus Eggers 1927d: 122. Lectotype ♂; Klana (Kraim); USNM, Washington, designated by Anderson & Anderson 1971: 30. Synonymy: Sokanovskii 1954: 17.

References: (bv) Grune 1979: 101. (cn) Grandi 1951. (hb) Grandi 1951; Stark 1952: 285. (ds) Arnoldi et al. 1955: 695; Grune 1979: 101; Horion 1951; Kleine 1934a: 147; Postner 1974: 428; Reitter 1916: 350; Sainte-Claire & Mequignon 1938: 446; Stark 1952: 285. (tx) Anderson, W. H. & Anderson 1971: 30; Balachowsky 1949a: 217; Eggers 1927d: 122; Grune 1979: 101; Numborg 1956c: 159–160, 168; Pfeffer 1955a: 185, 188; Postner 1974: 428; Reitter 1916: 350; Schedl 1934f: 1639, 1979c: 234; Sokanovskii 1954: 17; Stark 1952: 285.

berezinae Stark 1952: 285. Holotype, sex?; Archangel [USSR]; IZL, Leningrad. Synonymy: Sokanovskii 1954: 17.

References: (bv) Grune 1979: 101. (hb) Stark 1952: 285. (ds) Grune 1979: 101; Postner 1974: 428; Stark 1952: 285. (tx) Grune 1979: 101; Hansen, V. 1956: 179; Pfeffer 1955a: 185; Postner 1974: 428; Sokanovskii 1954: 17; Stark 1952: 285.

dejeri Stark 1936: 152. Lectotype, sex?; Asiatic Russia: Sejang Mt., Margassan R.; IZL, Leningrad, designated by Michalski 1969a: 892.

Distribution: Asia (Sakhalin Island, Siberia in E USSR).

Hosts: *Salix sachalinensis*.

Notes: (3) Original publication not seen by us; Stark 1952: 284 spelled the name *deevi*.

References: (hb) Kurenzov & Kononov 1961: 600. (ds) Krivolitskaya 1983; Kurenzov & Kononov 1961: 595; Stark 1936c: 152; Yanovskii & Tegsh-zhargal 1985: 409; Zinovjev 1955: 187. (tx) Krivolitskaya 1958: 153; Kurenzov 1941a: 232; Michalski 1969b: 567, 1970: 892; Pfeffer 1944: 131; Schedl 1952k: 155; Sokanovskii 1954: 17, 1960: 676; Stark 1936: 152, 1951: 299, 1952: 284.

dejevi Eggers 1942c: 31. Syntypes 2, sex?; Baikalgebiet (Sajon), Siberia, USSR; Eggers Collection, both in NIMW, Wien. Synonymy: Pfeffer 1944a: 131.

References: (hb) Stark 1952: 284. (ds) Stark 1952: 284. (tx) Eggers 1942c: 31; Pfeffer 1944a: 131; Schedl 1952k: 158; Stark 1952: 284–299. (ms) Pfeffer 1944a: 131, 1979c: 76.

grandis Schedl 1964a: 99. Holotype ♀; Alger; MNHN, Paris.

Distribution: Africa (Algeria, Morocco).

References: (tx) Schedl 1964a: 99.

granulatus (Ratzeburg) 1837: 164 (*Bostrichus*). Syntypes, sex?; Passau, Linz, in Sweden; not located.

Figures: Balachowsky 1949a: 210, 216, Grune 1979: 102.

Distribution: Africa (Egypt), Europe (Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Poland/ Spain/ Sweden/ W USSR).

Hosts: *Populus alba*, *P. pyramidalis*, *P. tremula*.

References: (ay) Escherich 1923b: 483; Heeger 1866; Klimesch 1914: 218, 237. (bv) Grune 1979: 103; Hellen 1921. (cn) Chararas 1972; Escherich 1923b: 483; Grandi 1951; Hellen 1921; Nusslin 1913: 291; Rhumbler 1922: 334, 1927: 351; Schwerdtfeger 1944a: 175, 1957a: 182; Wachtl 1901: 351. (ce) Balazy & Michalski 1960; Kleine 1908c; Krivolitskaya 1974; Krivosheina 1974; Michalski & Ratajczak 1989; Nosek 1959a: 118, 1959b: 86; Nusslin 1927: 351; Pfeffer 1923a: 331, 1928b: 2; Ruhm 1956b: 4; Schwerdtfeger 1944a: 175, 1957a: 182. (hb) Altum 1881c: 322; Budge 1949; Dombrowsky 1887, 1889; Eichhoff 1881a: 46, 188; Escherich 1923b: 483; Grandi 1951; Györfi 1957; Heeger 1866; Henschel 1895a: 170; Karpinski 1933b: 28; Karpinski & Strawinski 1948: 155; Klimesch 1915: 6; Kostin 1960: 132; Lengerken 1939: 63, 1954: 84; Mumro 1926: 62; Nosek 1959a: 118, 1959b: 86; Nusslin 1913: 291, 1927: 351; Palm 1949: 240, 1956: 63; Pfeffer 1942a: 15; Ratzeburg 1837: 164, 1839: 199; Rhumbler 1922: 334, 1927: 351; Saalas 1913a: 69, 83; Schedl 1981b: 73; Schwerdtfeger 1944a: 175, 1957a: 182, 1981: 188; Stark 1926a: 334, 1952:

- 288; Wachtl 1876a: 458, 1901: 381. (**ds**) Allen, A. A. 1954, 1977; Arnoldi 1955: 694; Balazy & Michalski 1960; Barthe 1896; Buresh & Lazarov 1956; Calver 1884, 1893; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923: 483, 1932b; Forster 1849: 439; Fowler 1891; Gaubil 1849: 126; Gemminger & Harold 1872: 2683; Gozis 1875: 80; Grill 1895: 309; Grune 1979: 103; Hagedorn 1904e, 1904f, 1910d: 43; Hansen, V. 1939, 1956: 183; Hellen 1947; Henschel 1895a: 170; Heyden, Reitter, & Weise 1883: 151, 1891: 671, 1906: 711; Horion 1951; Kangas 1946a: 36; Karpinski 1931: 20, 27, 1932b: 54, 1933b: 28, 1948b: 230; Karpinski & Strawinski 1948: 155; Kestercanek 1881a: 12; Kleine 1912a: 263, 267, 1913a: 35, 1913b: 123, 1934a: 147; Kloft & Hinks 1945: 218; Kraatz 1869: 59; Kurenzov 1936b: 350; Lacordaire 1866: 379; Langhoffer 1915c: 158; Leclercq 1971; Lomnicki 1913b: 148; Lucht 1987: 278; Lundblad 1950c: 115; Matthews & Fowler 1883: 42; Munster 1928: 289; Negru 1965: 114, 1968c: 91; Nunberg 1928b: 88, 107, 1954: 50, 1956c: 157, 1960b: 156; Palm 1949: 240, 1950: 143, 1956: 63; Perris 1876a: 254, 1877a: 414; Pfeffer 1923b: 106, 1924a: 96, 1924b: 471, 1928b: 2, 1931b: 73, 1936: 90, 1989a: 85; Pittioni 1943: 176; Postner 1974: 428; Ratzeburg 1837: 164, 1839: 199; Redtenbacher 1858: 832, 1874: 375; Reitter 1894a: 72, 1916: 289; Rohrig 1955: 37; Roubal 1941: 264; Saalas 1913a: 69, 83, 1931: 67; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1233; Schaum 1859: 96, 1862: 101; Schedl 1980a: 16, 1981b: 73; Scheerpeltz & Winkler 1930: 257; Schilsky 1890: 196, 1909: 188; Schwerdtfeger 1981: 188; Seidlitz 1872: 393, 1891a: 563; Sharp 1871: 84; Sharp & Fowler 1893: 34; Sokanovskii 1960; Stark 1926a: 334, 1926j: 126, 1952: 288; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 438; Teocchi 1965b; Tredl 1907: 13; Wachtl 1876a: 458; West 1938: 184; Wichmann 1927a: 68; Winter, T. G. 1983: 28; Yanovskii & Tegshzhargal 1985: 410. (**tx**) Allen, A. A. 1965b; Bach 1854; Balachowsky 1949a: 215; Berger 1917: 226–248; Doebner 1860; Dombrowsky 1887, 1889; Duffy 1953; Eggers 1915c: 188, 1927d: 121, 1942c: 31; Eichhoff 1878b: 44, 137, 1881a: 46, 188, 1883a: 110, 133; Endrodi 1957b; Escherich 1923b: 483; Fauvel 1889; Ferrari 1967b: 113; Fleischer 1927; Formanek 1907: 36; Grune 1979: 102–103; Hagedorn 1910a: 86; Hansen, V. 1955, 1956; Henschel 1895a: 170; Hopkins 1915b: 36–37; Karpinski & Strawinski 1948: 155; Klimesch 1913: 106, 1914: 231–241, 1915: 6–13; Kuhn 1913: 1056; Kurenzov 1941: 232; Lacordaire 1866: 379; Lucht 1987: 278; Nunberg 1954: 50; Perris 1877a: 414; Pfeffer 1932b: 18, 1942a: 15, 1955a: 187; Portevin 1935: 325; Postner 1974: 428; Quaschik 1953: 35; Ratzeburg 1837: 164, 1839: 199; Redtenbacher 1849a: 792, 1849b: 26, 1858: 832, 1874: 375; Reitter 1894a: 72, 1913a: 67, 69–70, 1916: 289; Rhumbler 1922: 334, 1927: 351; Saalas 1913a: 69, 83, 1914: 23, 305; Schedl 1934f: 1639, 1964a: 99, 1980a: 16, 1981b: 73; Seidlitz 1872: 393, 1891a: 563, 1891b: 608; Sokanovskii 1954: 17, 1960: 671; Spessivtsov 1922a: 471, 491, 1925a: 172, 1931: 48; Stark 1952: 288; Stierlin 1898: 438; Thomson 1871: 393. (**ms**) Escherich 1932b; Hellen 1921.
- tredli** Reitter 1908: 55. Syntypes, sex?; Agypoten: Cairo; NHMB, Budapest. Synonymy: Hagedorn 1904f: 232, Reitter 1913: 69.
- References: (**hb**) Hagedorn 1904f: 232. (**ds**) Negru 1965: 114; Schilsky 1909: 188. (**tx**) Balachowsky 1949a: 216; Reitter 1908: 55, 1913a: 67; Schedl 1934f: 1639.
- bispimulus** Eggers 1927d: 121. Syntypes, sex?; Finland: 2 in Eggers Collection, in NHMW, Wien. Synonymy: Sokanovskii 1954: 17, Nunberg 1956c: 159.
- Notes: (3) Hansen 1955: 182 (treated as a good species).
- References: (**bv**) Grune 1979: 103. (**cn**) Saalas 1949: 342, 372. (**cc**) Kangas 1940a, 1941, 1942a; Nuorteva 1957b: 68; Saalas 1949: 342, 372. (**hb**) Karpinski & Strawinski 1948: 155; Palm 1949: 239, 1950: 142; Saalas 1949: 342, 372; Stark 1952: 288. (**ds**) Arnoldi et al. 1955: 694; Grune 1979: 103; Hansen, V. 1939, 1956: 182; Hellen 1947; Kangas 1940: 32–34, 1941: 359–365, 1946a: 36, 1966d; Karpinski 1948a: 173; Karpinski & Strawinski 1948: 155; Klefbeck & Sjoberg 1960: 230; Lundberg 1981: 151; Nuorteva 1971: 71; Palm 1949: 239, 1950: 142, 1959: 24, 350; Pfeffer 1955a: 185; Postner 1974: 428; Stark 1952: 288; Yanovskii 1977a. (**tx**) Eggers 1927d: 121–122; Grune 1979: 103; Hansen, V. 1955, 1956; Karpinski & Strawinski 1948: 155; Nunberg 1956c: 157, 159, 167; Postner 1974: 428; Saalas 1949: 342, 372; Schedl 1934f: 1639, 1979c: 41; Sokanovskii 1954: 17; Stark 1952: 288.
- klimeschi** Eggers 1915c: 188. Holotype ♂: Alai in Ferganagebiet (Russisch-Turkestan); Eggers Collection, in NHMW, Wien.
- Distribution: Asia (Turkestan in W USSR).
- Hosts: *Elaeagnus* sp., *Populus diversifolia*, *P. pruinosa*, *P. suaveolens*, *Tamarix* sp.
- References: (**cn**) Yagdyev 1984. (**hb**) Stark 1952: 287. (**ds**) Kadyrov 1988: 43, 1989; Stark 1952: 287. (**tx**) Eggers 1915c: 188, 1933f: 6; Schedl 1934f: 1639, 1979c: 134; Sokanovskii 1954: 22; Stark 1952: 287.
- kurenzovi** Nunberg 1956d: 208. Lectotype, sex?; Ussuri, USSR: 15BN, Novosibirsk, USSR, and IZL, Leningrad/St. Petersburg, automatic, designated by Michalski 1969a: 893.
- Distribution: Asia (Japan/ Siberia, Ussuri in E USSR).
- Hosts: *Populus tremula*.

Notes: (1) Original spelling was *kurenzovi*; corrected here to conform to Dr. Kurenzov's spelling of his own name.

References: (tx) Krivolutsкая 1953; Michalski 1969b: 568; Nobuchi 1955c: 11; Numberg 1956d: 205; Schedl 1959r: 42, 1962p: 204.

populi Kurenzov 1941a: 30, 164. Lectotype, sex?; Ussuri, USSR; ISBN, Novosibirsk, USSR, and IZL, Leningrad/St. Petersburg, preoccupied by Hopkins 1915, designated by Michalski 1969a: 893.

References: (hb) Kurenzov 1945b: 113; Stark 1952: 286; Wood, S. L. 1953: 63, 1954a: 993. (ds) Keen 1929c: 29; Kleine 1934a: 147; Nobuchi 1966: 54; Stark 1952: 286; Wood, S. L. 1948: 45, 1951a: 128. (tx) Keen 1929c: 29; Kurenzov 1941a: 30, 163–164, 1945b: 113; Michalski 1969a: 893, 1969b: 567; Numberg 1956: 205; Schedl 1959r: 42; Stark 1952: 286; Wood, S. L. 1953: 63, 1954a: 993.

kurenzovi Schedl 1959r: 42. Lectotype, sex?; Ussuri, USSR; ISBN, Novosibirsk, USSR, and IZL, Leningrad/St. Petersburg, preoccupied by Numberg 1956, designated by Michalski 1969a: 893.

References: (tx) Michalski 1969a: 893; Schedl 1959r: 42.

niger Stark 1936e: 152. Lectotype, sex?; Far East: Vladivostok, Schkotov; IZL, Leningrad, designated by Michalski 1969a: 893.

Distribution: Asia (Siberia in E USSR).

Hosts: *Salix* sp.

References: (ec) Kurenzov 1934a: 50. (hb) Kurenzov 1935a: 19, 30, 1945b: 113; Stark 1952: 282. (ds) Kurenzov 1934a: 50, 1935a: 19, 30; Stark 1936e: 152, 1952: 282. (tx) Kurenzov 1941a: 163–164, 1945b: 113; Michalski 1969b: 568, 1970: 542; Pfeffer 1944a: 131; Sokanovskii 1954: 17; Stark 1936e: 152, 1952: 282. (ms) Pfeffer 1944a: 131.

palmi Hansen 1956: 183. Holotype ♂; Sweden: Ostergotland, Uppland, Jamtland; Hansen Collection.

Distribution: Europe (Finland/ Sweden).

Hosts: *Populus tremula*.

Notes: (1) This is probably a synonym of *granulatus*.

References: (hb) Palm 1956: 63. (ds) Hansen, V. 1956: 183; Kangas 1966d: 135; Karpainen 1966: 331; Klefbeck & Sjoberg 1960: 203; Nuorteva 1971: 71; Palm 1956: 63, 1959: 19, 24, 350. (tx) Hansen, V. 1955, 1956: 183.

populi Hopkins 1915b: 37. Holotype ♀; Williams, Arizona [USA]; USNM, Washington.

Figures: Krivolutsкая & Kupyanskaya 1970, Nobuchi 1966e: pl. 2.

Distribution: North America (Manitoba, New Brunswick, Saskatchewan in Canada/ Arizona, Colorado, Idaho, Montana, Nevada, Utah in USA).

Hosts: *Populus acuminata*, *P. angustifolia*, *P. tremuloides*, *P. trichocarpa*.

References: (bv) Petty, J. L. 1977. (cn) Doane et al. 1936. (cc) Tomalak, Welch, & Galloway 1989: 11. (hb) Doane et al. 1936; Furniss, M. M. & Johnson 1957: 380; Gast et al. 1959: 384; Harrison 1959: 80; Petty, J. L. 1977; Stewart, D. A., Booth, & Petty 1979; Wood, S. L. 1952b: 553. (ds) Atkinson & Equihua 1955c: 356; Bright 1976d: 109; Chamberlin 1939: 323; Furniss, M. M. & Johnson 1957: 380; Furniss, R. L. & Carolin 1977: 378; Gast et al. 1959: 384; Krivolutsкая & Kupyanskaya 1970; Nobuchi 1966c: 414, pl. 2; Wood, S. L. 1972a: 414, 1982b: 853. (tx) Bright 1976d: 109; Chamberlin 1939: 323; Hopkins 1915b: 36–37; Wood, S. L. 1951a: 128, 1954a: 990, 993, 1972a: 414, 1982b: 853. (ms) Stewart, D. A., Booth, & Petty 1979.

rybinskii Reitter 1894a: 72. Syntypes, sex?; Galizien; Tarnow; N11MB, Budapest.

Figures: Grune 1979: 98.

Distribution: Europe (Austria/ Corsica/ Czechoslovakia/ France/ Hungary/ Italy/ Poland/ Spain/ W USSR).

Hosts: *Alnus suavecolens*, *A. viridis*, *Salix silesiaca*.

References: (ay) Klimesch 1914: 218, 237. (bv) Grune 1979: 99. (cn) Nosek 1952l: 100; Nusslin 1913: 291; Rhumbler 1922: 334, 1927: 351; Wachtl 1901: 381. (cc) Kleine 1908c: 187, 1909a: 46, 76, 1944: 70, 1952b: 100, 1959a: 118; Nusslin 1927: 351; Pfeffer 1932a: 19, 1943b: 181; Rybinski 1897: 61. (hb) Formanek 1899; Karpinski & Strawinski 1948: 155; Klimesch 1915: 11; Lengerken 1939: 63, 1954: 84; Nosek 1959a: 118; Nusslin 1913: 291, 1927: 351; Pfeffer 1942a: 15; Rhumbler 1922: 334, 1927: 351; Stark 1952: 283; Wachtl 1901: 381. (ds) Endrodi 1958b; Escherich 1932b; Grune 1979: 99; Hagedorn 1910d: 45; Heyden, Reitter, & Weise 1906: 711; Horion 1951; Karpinski & Strawinski 1948: 155; Kleine 1913a: 35, 1913b: 123, 1934a: 147; Lomnicki 1913b: 148; Lucht 1987: 278; Numberg 1928b: 88, 1954: 50; Pfeffer 1930b: 119, 1931b: 73, 1935: 158, 1989a: 84; Pittioni 1943: 176; Reitter 1894a: 72, 1916: 289; Roubal 1941: 264; Schaufuss 1915: 1233; Schedl 1980a: 16, 1981b: 73; Schilsky 1909: 188; Stark 1952: 283; Tredl 1907: 13. (tx) Balachowsky 1949a: 215–216; Endrodi 1957a: 307, 1957b; Fleischer 1927; Formanek 1907: 36; Grune 1979: 98–99; Hagedorn 1910a: 87; Karpinski & Strawinski 1948: 155; Lucht 1987: 278; Michalski 1969a: 893; Numberg 1954: 50; Pfeffer 1932b: 19, 1942a: 15, 1955a: 185; Postner 1974: 428; Reitter 1894a: 72, 1913a: 70, 1916: 289; Rhumbler 1922: 334, 1927: 351; Schedl 1934f: 1639, 1980a: 16, 1981b: 73; Schmidt, G. 1980: 26; Sokanovskii 1954: 17; Stark 1952: 283. (ms) Escherich 1932b; Schimitschek 1930b: 407. *corsicus* Eggers 1912b: 113. Holotype, sex?; Mt.

Renoso auf Corsica; Leonhard Collection in IPKE, Eberswalde. Synonymy: Balachowsky 1949a: 216.

References: (ds) Kleine 1913b: 123, 1934a: 147; Sainte-Claire 1914: 472; Sainte-Claire & Mequignon 1938: 446. (tx) Balachowsky 1949a: 216; Eggers 1912b: 113; Portevin 1935: 325; Reitter 1913a: 70; Schedl 1934f: 1639; Wichmann 1912c: 156.

rybinskii salicis Stark 1952: 283. Syntypes, sex?; USSR; IZL, Leningrad, preoccupied by Hopkins 1915.

References: (tx) Stark 1952: 283.

salicis Hopkins 1915b: 36. Holotype ♀; Del Monte, California [USA]; USNM, Washington.

Distribution: North America (California, Oregon, Washington in USA).

Hosts: *Abus* sp., *Salix* sp.

References: (cn) Doane et al. 1936. (hb) Wood, S. L. 1953: 60, 1954a: 991. (ds) Bright 1976d: 109; Chamberlin 1939: 323, 1955: 131; Furniss, R. L. & Carolin 1977: 378; Keen 1934a: 147; Wood, S. L. 1972a: 414, 1982b: 552. (tx) Bright 1976d: 109; Chamberlin 1939: 323, 1955: 131; Hopkins 1915b: 36; Wood, S. L. 1953: 60, 1954a: 959, 979, 990-991, 1972a: 414, 1982b: 552.

concentralis Hopkins 1915b: 36. Holotype ♂; Easton, Washington [USA]; USNM, Washington. Synonymy: Wood 1954a: 991.

References: (hb) Chamberlin 1939: 324; Wood, S. L. 1953: 60. (ds) Chamberlin 1939: 324; Patterson & Hatch 1945: 152. (tx) Chamberlin 1939: 324; Hopkins 1915b: 36; Wood, S. L. 1953: 60, 1954a: 991.

striatulus (Mannerheim) 1853: 235 (*Cryphalus*). Holotype, sex?; Kenai Peninsula, Alaska; not in Helsinki Museum, presumably lost.

Figures: Bright 1976d: 202, 209 (adult).

Distribution: North America (Alaska/ Newfoundland, Nova Scotia, Quebec, Yukon in Canada/ Colorado, Idaho, Minnesota, Oregon, Utah in USA).

Hosts: *Abus crispus*, *A. rigosa*, *Salix scouleriana*.

References: (cn) Felt 1901: 516, 1906: 376, 650, 673; Swaine 1918a: 90. (hb) Chamberlin 1939: 315; Schwarz 1894b: 255; Swaine 1918a: 90; Wood, S. L. 1954a: 996, 1982b: 551. (ds) Blatchley & Leng 1916: 606; Bright 1976d: 109; Chamberlin 1925, 1939: 315; Elias 1985: 39; Furniss, R. L. & Carolin 1977: 378; Gemminger & Harold 1872: 2683; Hagedorn 1910d: 45; Hamilton 1894c: 35; Henshaw 1885: 148; Kleine 1913b: 115, 1914b: 397, 1934a: 142; Lacordaire 1866: 379; Swaine 1909: 92; Wood, S. L. 1982b: 551. (tx) Blatchley & Leng 1916; Bright 1976d: 109, 202, 209; Chamberlin 1939: 315; Eichhoff 1875b: 147; Ferrari 1867a: 17; Hagedorn 1910a: 99; Hopkins 1915b: 33; Lacordaire 1866: 379; LeConte 1865: 177, 1876: 362; Mannerheim 1853: 235; Swaine 1909: 92-93, 1912a: 349, 1918a: 89-90;

Wood, S. L. 1954a: 989-990, 996, 1969c: 115, 1973c: 186, 1982b: 551.

nitidus Swaine 1912a: 349. Lectotype, sex?; Weymouth, Nova Scotia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 679. Synonymy: Wood 1969c: 115.

References: (cn) Swaine 1918a: 90. (hb) Chamberlin 1939: 323, 1955: 131; Swaine 1918a: 90; Wood, S. L. 1953: 57, 1954a: 990. (ds) Beaulne 1956; Blatchley & Leng 1916: 605; Chamberlin 1939: 323, 1955: 131; Dodge 1953; Kleine 1913b: 123, 1914b: 399, 1934a: 147; Wood, S. L. 1972a: 414. (tx) Blatchley & Leng 1916: 605; Bright 1967b: 679; Chamberlin 1939: 323, 1955: 131; Dodge 1938: 16, 39-40; Hoebeke 1978; de Ruelle 1970: 114; Swaine 1912a: 349-350, 1918a: 90; Wood, S. L. 1953: 57, 1954a: 959, 990, 1969c: 115, 1972a: 414, 1973c: 186.

punctipennis Hopkins 1915b: 37. Holotype ♀; Alta, Utah [USA]; USNM, Washington. Synonymy: Wood 1954a: 990.

References: (hb) Chamberlin 1939: 323; Wood, S. L. 1953: 58. (ds) Chamberlin 1939: 323; Wood, S. L. 1948: 44, 1951a: 128. (tx) Chamberlin 1939: 323; Hopkins 1915b: 36-37; Wood, S. L. 1951a: 126, 1953: 58, 1954a: 990.

thatcheri (Wood) 1954a: 990, 994 (*Cryphalus*). Holotype ♀; 2 miles NW Blue Lake, Lassen County, California [USA]; SMUK, Lawrence.

Distribution: North America (British Columbia in Canada/ California, N Idaho, Oregon in USA).

Hosts: *Populus tremuloides*, *P. trichocarpa*.

References: (hb) Bright & Stark 1973: 66; Wood, S. L. 1953: 66, 1954a: 994. (ds) Bright 1976d: 110; Bright & Stark 1973: 66; Furniss, R. L. & Carolin 1977: 359; Wood, S. L. 1982b: 554. (tx) Bright 1976d: 110; de Ruelle 1970: 100; Wood, S. L. 1953: 66, 1954a: 990, 994, 1982b: 554.

tremulae Stark 1952: 287. Lectotype, sex?; Crimea, USSR; IZL, Leningrad, designated by Michalski 1969a: 893.

Distribution: Europe (Crimea in W USSR).

Hosts: *Populus tremula*.

Notes: (3) Sokanovskii 1954: 17 (treated as a synonym of *granulatus*).

References: (bv) Grune 1979: 101. (hb) Stark 1952: 287. (ds) Grune 1979: 101; Pfeffer 1989a: 85; Postner 1974: 428; Stark 1952: 289. (tx) Grune 1979: 101; Michalski 1969b: 565, 1969a: 893; Pfeffer 1955a: 185; Postner 1974: 428; Sokanovskii 1954: 17; Stark 1952: 287.

Genus *Procryphalus* Hopkins

PROCYPHALUS HOPKINS 1915b: 7, 33. Type-species: *Procryphalus populi* Hopkins, original designation. Keys: Hopkins 1915b: 33, Wood 1954a: 982, 1952b: 559 for North America.

References: (hb) Bright & Stark 1973: 67; Wood,

S. L. 1986a: 89. (**ds**) Bright & Stark 1973: 67; Wood, S. L. 1982b: 859, 1986a: 89. (**tx**) Arnett 1960: 1043, 1965: 1043; Balachowsky 1949a: 201; Bright 1976d: 111; Hopkins 1915b: 7, 33–34; Swaine 1918a: 45, 90; Wood, S. L. 1954a: 981, 1982b: 859, 1986a: 89.

fraxini (Berger) 1916: 235 (*Ernoporus*). Lectotype, sex?: Ussuri, USSR; IZL, Leningrad, designated by Michalski 1969a: 892.

Figures: Tsai & Li 1959: 92.

Distribution: Asia (Heilongjiang, Jilin in China/ Ussuri in E USSR).

Hosts: *Fraxinus mandshurica*.

References: (**cn**) Kurenzov 1935c: 189, 1951c: 79. (**ce**) Kurenzov 1934a: 50, 1951d: 24. (**hb**) Kurenzov 1935a: 19, 33, 1948b: 128, 1951d: 24; Stark 1952: 273. (**ds**) Kleine 1934a: 147; Kurenzov 1934a: 50, 1935a: 19, 33, 1935c: 189, 1936a: 110, 1936b: 350, 1935a: 59, 1940: 77; Stark 1952: 273; Yin, Huang, & Li 1984: 118. (**tx**) Berger 1916: 235; Kurenzov 1941a: 156, 1948b: 128; Michalski 1969a: 892; Schedl 1934f: 1639, 1962r: 91; Stark 1952: 273; Tsai & Li 1959: 92.

micronatus (LeConte) 1879: 518 (*Cryphalus*). Holotype ♀; LaVeta Pass, Colorado [USA]; MCZ, Cambridge.

Figures: Kusch 1967: 10.

Distribution: North America (Alaska/ Alberta, British Columbia in Canada/ Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah in USA).

Hosts: *Populus tremuloides*.

References: (**bv**) Petty, J. L. 1977. (**hb**) Chamberlin 1939: 322, 1955: 136; Furniss, M. M. & Johnson 1987: 379; Gast et al. 1989: 384; Petty, J. L. 1977; Wood, S. L. 1953: 46, 1954a: 984, 1982b: 859. (**ds**) Bright 1976d: 111; Chamberlin 1939: 322, 1955: 136; Furniss, M. M. & Johnson 1987: 379; Furniss, R. L. & Carolin 1977: 377; Gast et al. 1989: 384; Hagedorn 1910d: 44; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 118; Kusch 1967; Schwarz 1886: 42; Swaine 1909: 92; Wickham 1896a: 309; Wood, S. L. 1972a: 414. (**tx**) Bright 1976d: 111; Chamberlin 1939: 322, 1955: 136; Hagedorn 1910a: 87; Hopkins 1915b: 33; Kusch 1967: 10; LeConte 1879: 518; Schwarz 1886: 42; Swaine 1909: 92; Wood, S. L. 1953: 46, 1954a: 959, 984, 1982b: 859.

idahoensis Hopkins 1915b: 34. Holotype ♀; Beaver Canyon, Idaho [USA]; USNM, Washington. Synonymy: Wood 1954a: 985.

References: (**hb**) Chamberlin 1939: 321. (**ds**) Chamberlin 1939: 321. (**tx**) Chamberlin 1939: 321; Hopkins 1915b: 33–34; Wood, S. L. 1954a: 959, 984.

populi Hopkins 1915b: 34. Holotype ♂; Terco, Colorado [USA]; USNM, Washington. Synonymy: Wood 1954a: 985.

References: (**cn**) Doane et al. 1936. (**hb**)

Chamberlin 1939: 321; Doane et al. 1936. (**ds**) Chamberlin 1939: 321; Keen 1929c: 29; Kleine 1934a: 148; Wood, S. L. 1945: 42, 1951a: 128. (**tx**) Balachowsky 1949a: 201; Chamberlin 1939: 321; Hopkins 1915b: 33–34; Keen 1929: 29; Wood, S. L. 1951a: 128, 1954a: 959, 982–984.

utahensis Hopkins 1915b: 33. Holotype ♀; Alta, Utah [USA]; USNM, Washington.

Figures: Bright 1976d: 202, 209 (adult).

Distribution: North America (Alaska/ British Columbia, Quebec in Canada/ California, Idaho, Oregon, South Dakota, Utah in USA).

Hosts: *Salix scouleriana*, *S.* sp.

Notes: Hopkins 1915b: 33 (reported from *Acer macrophyllum*, an error); breeds only in *Salix*.

References: (**hb**) Bright & Stark 1973: 67; Chamberlin 1939: 321, 1955: 136; Wood, S. L. 1953: 44, 1954a: 983. (**ds**) Bright 1976d: 111; Bright & Stark 1973: 67; Chamberlin 1939: 321, 1955: 136; Furniss, R. L. & Carolin 1977: 378; Keen 1929c: 29; Wood, S. L. 1951a: 128, 1972a: 414, 1982b: 859. (**tx**) Bright 1976d: 111, 202, 209; Chamberlin 1939: 321, 1955: 136; Hopkins 1915b: 33; Keen 1929c: 29; Wood, S. L. 1951a: 128, 1953: 44, 1954a: 959, 979, 983, 1972a: 414, 1979a: 22, 1982b: 859. *salicis* Hopkins 1915b: 33. Holotype ♀; Black Hills, South Dakota [USA]; USNM, Washington. Synonymy: Wood 1954a: 983.

References: (**cn**) Doane et al. 1936. (**hb**) Chamberlin 1939: 321; Doane et al. 1936. (**ds**) Chamberlin 1939: 321. (**tx**) Chamberlin 1939: 321; Hopkins 1915b: 33; Wood, S. L. 1954a: 983. *aceris* Hopkins 1915b: 33. Holotype ♀; Albany, Oregon [USA]; USNM, Washington. Synonymy: Wood 1975a: 22.

References: (**cn**) Doane et al. 1936. (**hb**) Chamberlin 1939: 321, 1955: 136; Doane et al. 1936; Wood, S. L. 1953: 42, 1954a: 982. (**ds**) Chamberlin 1917: 355, 1939: 321, 1955: 136; Keen 1929c: 29; Kleine 1934a: 148; Wood, S. L. 1972a: 414. (**tx**) Chamberlin 1939: 321, 1955: 136; Hopkins 1915b: 33; Keen 1929c: 29; Wood, S. L. 1953: 42, 1954a: 979, 982, 1972a: 414, 1975a: 22.

Genus *Ernoporicus* Berger

ERNOPORICUS BERGER 1917: 242. Type-species: *Ernoporicus spessitzzevi* Berger, monobasic.

Eocryphalus Kurenzov 1941a: 161, 230. Type-species: *Eocryphalus semenovii* Kurenzov, monobasic. Synonymy: Schedl 1962r: 93.

References: (**tx**) Krivolutskaya 1958: 148; Kurenzov 1941a: 161, 230; Schedl 1962r: 93–94.

Ernopocenus Balachowsky 1949a: 211. Type-species: *Ernoporus caucasicus* Lindemann, subsequent designation by Wood 1954a: 986. Synonymy: Wood 1980c: 93.

References: (**tx**) Balachowsky 1949a: 211;

- Numberg 1958: 485; Schedl 1958k: 142, 1962r: 90; Wood, S. L. 1954a: 980.
- Keys: Balachowsky 1949a: 211, Reitter 1913a: 68, Stark 1952: 271 for Asia and Europe.
- Notes: (3) Kurenzov specimens of *Hypothenemus corni* deposited in the Wood Collection are of *Ernoporicus*.
- References: (ay) Nobuchi 1969a: 57. (hb) Wood, S. L. 1982b: 558, 1986a: 89. (ds) Wood, S. L. 1982b: 555, 1986a: 89. (tx) Arnett 1960: 1043, 1968: 1043; Balachowsky 1949a: 201, 211–213; Berger 1917: 242; Kurenzov 1941a: 161–162, 231; Numberg 1958: 485; Pfeffer 1989a: 82; Schedl 1960e: 104, 1962r: 95, 1981b: 75; Sokanovskii 1959: 277; Wood, S. L. 1982b: 558, 1986a: 89.
- africanus** Schedl 1977c: 396 (*Stephanorhopalus*). Holotype, sex?; Sudafrika: Natal; Schedl Collection in NHMW, Wien.
- Distribution: Africa (Natal in South Africa).
- Notes: (1) Wood 1983 (notes, p. 13, to *Ernoporicus*, type examined).
- References: (tx) Schedl 1977c: 396.
- aluiphagus** Nobuchi 1975: 43. Holotype, sex?; Konseitoge, Gunma pref., Japan; Nobuchi Collection, Iwabaki.
- Figures: Nobuchi 1975: pl. 1, fig. 3.
- Distribution: Asia (Japan).
- Hosts: *Alnus hirsutus*.
- References: (tx) Nobuchi 1975: 43.
- ater** Nobuchi 1975: 43. Holotype, sex?; Sogoya, Chichibu, Saitama pref., Japan; Nobuchi Collection, Iwabaki.
- Figures: Nobuchi 1975: pl. 1, fig. 2.
- Distribution: Asia (Japan).
- Hosts: *Pterocarya rhoifolia*.
- References: (tx) Nobuchi 1975: 42–43.
- capucinus** (Schedl) 1971a: 283 (*Cryphalops*). Holotype, sex?; Central Prov.: Hantane Estate, Kandy; Schedl Collection in NHMW, Wien.
- Distribution: Asia (Sri Lanka).
- References: (tx) Schedl 1971a: 283, 1979c: 52.
- caucasicus** (Lindemann) 1875c: 373 (*Ernoporus*). Syntypes, sex?; Piatigorsk, nordlichen Kaukasus; not located.
- Figures: Grune 1979: 108, Pfeffer 1989a: pl. 6.
- Distribution: Asia (Turkey/ E USSR), Europe (Austria/ Belgium/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Spain/ Sweden/ W USSR).
- Hosts: *Tilia intermedia*, *T. parvifolia*, *T. rubra*, *T. tomentosa*, rare in *Hibiscus syriacus*, *Ulmus montana*.
- Notes: (1) Balachowsky 1949a: 209 (to *Ernoporicus*).
- References: (bv) Grune 1979: 109. (cn) Koppen 1882: 252; Nusslin 1913: 291; Pierce, W. D. 1917: 141; Rhumbler 1922: 334, 1927: 350; Wachtl 1901: 381. (ec) Kleine 1908c: 185; Nosek 1959a: 118, 1959b: 87; Nusslin 1927: 350. (hb) Fuchs 1904a; Gyorfı 1957; Karpinski & Strawinski 1948: 155; Lengerken 1939: 63, 1954: 83; Nosek 1959a: 118, 1959b: 87; Nusslin 1913: 291, 1927: 350; Pfeffer 1942a: 15; Postner 1974: 431; Rhumbler 1922: 334, 1927: 350; Stark 1952: 276; Vinogradov-Nikitin 1911: 1472–1477; Wachtl 1901: 381; Wichmann 1910b: 210. (ds) Allen, A. A. 1970; Bakke 1963a: Bedel 1888b: 398, 413; Bejer-Petersen & Jorum 1977: 23; Borchert 1951; Brakman 1966b: 206; Endrodi 1958b; Ermisch 1953; Escherich 1932b; Fuchs 1904a; Grune 1979: 109; Hagedorn 1904e, 1910d: 41; Hansen, V. 1939, 1956, 1964: 462; Hellen 1947; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Horion 1951; Karpinski & Strawinski 1948: 155; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 303, 1913a: 34, 1934a: 147; Koppen 1882: 282; Leclercq 1971; Lomnicki 1913b: 148; Lovendal 1890c: 210; Lucht 1987: 278; Mahler 1987: 232; Numberg 1928b: 88, 106, 1954: 54; Palm 1959: 29, 130, 1960: 350; Pfeffer 1924b: 471, 1931b: 74, 1935: 160, 1989a: 83; Pierce, W. D. 1917: 141; Pittioni 1943: 175; Pjatnitskii 1930a: 165; Postner 1974: 431; Reitter 1894a: 71, 1916: 289; Roubal 1935b: 72, 1941: 264; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1232; Schedl 1961b: 187, 1980a: 15, 1981b: 75; Schilsky 1909: 188; Stark 1927b: 88, 1952: 276; Tredl 1907: 12; West 1983: 184; Wichmann 1910b: 210, 1927a: 66; Winter, T. G. 1983: 11. (tx) Allen, A. A. 1970: 246; Bakke 1964: 121; Balachowsky 1949a: 211–212; Bedel 1887: 191, 1888b: 398, 414; Eggers 1923b: 137; Endrodi 1957a: 307, 1957b; Fleischer 1927; Formanek 1907: 35; Grune 1979: 108–109; Hagedorn 1910a: 85; Hansen, V. 1956, 1964: 462; Karpinski & Strawinski 1948: 155; Kulmt 1913: 1055; Lindemann 1875c: 321; Lovendal 1890c: 210, 1898: 128; Lucht 1987: 278; Numberg 1954: 54; Pfeffer 1932b: 18, 1942a: 18, 1955a: 181, 1989a: pl. 6; Pjatnitskii 1932: 295–302; Postner 1974: 431; Reitter 1894a: 71, 1913a: 68–69, 1916: 289; Rhumbler 1922: 334, 1927: 350; Schedl 1934f: 1639, 1958k: 142, 1962r: 90, 1980a: 15, 1981b: 75; Semenov 1902: 271; Spessittsev 1922a: 473, 491, 1931: 50; Stark 1952: 276; Wood, S. L. 1954a: 986. (ms) Eggers 1910b; Escherich 1932b.
- schreineri** Eichhoff 1881a: 185 (*Cryphalus*). Syntypes, sex?; Hinterpommern; Hamburg Museum, lost. Synonymy: Bedel 1887: 191, Eggers 1923b: 137.
- References: (hb) Dombrowsky 1887; Eichhoff 1881a: 46, 185; Hagedorn 1903a; Henschel 1895a: 168. (ds) Barthe 1896; Grill 1895: 310; Hagedorn 1903a, 1910d: 45; Henschel 1895a: 168; Heyden, Reitter, & Weise 1883: 182, 1891: 671; Kleine 1913a: 85, 1934a: 147; Lovendal 1890c: 210; Pfeffer 1935: 160; Schilsky 1909: 188; Seidlitz 1891a: 562, 1891b: 608. (tx) Balachowsky 1949a: 213; Bedel 1887: 191; Dombrowsky 1887; Eggers 1923b: 137; Eichhoff 1881a: 46, 185, 1883a: 109, 133;

Fauvel 1857, 1859; Hagedorn 1910a: 58; Henschel 1895a: 168; Hopkins 1915b: 35; Lovendal 1890c: 210; Schedl 1934f: 1639, 1979c: 222; Seidlitz 1891a: 562, 1891b: 605. (**ms**) Eggers 1910a, 1910b.

ceylonicus (**Schedl**) 1959a: 475 (*Ptilopodius*). Syn-types 2, sex[?]; Ceylon: Sabargamva, Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (**tx**) Schedl 1959a: 475, 1979c: 56.

eximius (**Schedl**) 1942d: 9 (*Erischidius*). Holotype, sex[?]; Ost-Java; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
Notes: (3) Schedl 1963i: 64 (cited in *Ernoporus*).
References: (**tx**) Schedl 1942d: 9, 1963i: 64, 1979c: 93.

fagi (**Fabricius**) 1798: 157 (*Apate*). Holotype, sex[?]; Saxoniae; UZMC, Copenhagen, missing from its pin, apparently lost.

Figures: Postner 1974: 431 (adult), Pfeffer 1989a: pl. 6.

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ N Italy/ Netherlands/ Norway/ Poland/ Romania/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Fagus orientalis*, *F. sylvatica*, less common in *Betula* spp., *Carpinus betulus*, *Quercus cerris*.

References: (**ay**) Burrini et al. 1988; Escherich 1923b: 482, 510; Reichenbach-Klinke 1953: 338. (**bv**) Grune 1979: 109. (**en**) Barbey 1925: 508; Chorbadzhievo 1929; Escherich 1923b: 482, 510; Georgescu et al. 1957: 357, 407; Gradojevic 1940; Grandi 1951; Koppen 1882: 252; Kovacevic 1924: 21–22; Marcu 1926c: 64; Nosek 1951: 107, 1952b: 98; Nusslin 1913: 291; Pierce, W. D. 1917: 40; Puecher Passavalli 1931b: 657; Rhumbler 1922: 334, 1927: 350; Schimitschek 1937c: 52, 1955a: 139, 1955c: 83; Schwerdtfeger 1944a: 174, 1957a: 182; Wachtl 1901: 381; Wichmann 1927b: 361. (**ce**) Apel 1983; Balazy & Michalski 1964b; Benick 1952; Cooreman 1963: 45; Elliot & Morley 1907; Gillanders 1906; Hirschmann 1960, 1971a, 1971b; Hirschmann & Wisniewski 1982, 1983; Kleine 1908c: 185, 1909a: 46, 77, 1944: 73; Michalski & Ratajczak 1989; Nosek 1951: 107, 1952b: 98, 1959b: 87; Novak, P. 1952: 414; Nusslin 1927: 350; Pfeffer 1923a: 331, 1928b: 9; Ratzelburg 1869a: 176; Rondani 1873: 146; Ruhm 1956b: 4; Schimitschek 1930a: 281, 1955a: 139; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlaczek 1915a: 45; Wanka 1920: 202–203; Westerboer 1963: 349. (**hb**) Altum 1881c: 322; Apel 1983; Bach 1864; Barbey 1901: 23, 73, 1925: 508; Boffa 1961; Bnddenberg 1885: 97; Cecconi 1906, 1924; Chorbadzhievo 1929; Dallimore & Munro 1922; Dombrowsky 1887; Eichhoff 1881a: 46, 184; Escherich 1923b: 482, 510; Everts 1903: 756; Fuchs 1904a; Gillanders 1906, 1908; Grandi 1951;

Gyorfi 1957; Hagedorn 1903a; Henschel 1895a: 167; Karpinski & Strawinski 1948: 155; Karsch 1883: 142; Kemner 1919: 176; Knotek 1894a: 558; Lengerken 1939: 63, 1954: 83; Masutti 1964; Munro 1926: 62; Nordlinger 1856: 26; Nosek 1959b: 87; Nunberg 1929: 105; Nusslin 1898: 280, 1906b: 14, 1913: 291, 1927: 350; Palm 1954a: 184; Pfeffer 1942a: 6; Postner 1974: 431; Rhumbler 1922: 334, 1927: 350; Schedl 1951b: 75; Schimitschek 1930a: 281, 1955a: 139; Schwerdtfeger 1944a: 174, 1957a: 182, 1981: 188; Stark 1952: 276; Tschorbadzhiev 1929: 166; Wachtl 1876a: 458, 1901: 381; Wichmann 1927b: 361. (**ds**) Aclouque 1896; Andras & Schaefer 1957; Bangsholt 1975: 95; Barthe 1896; Bau 1888; Bejer-Petersen & Jorum 1977: 24; Bennett 1902, 1902b: 76; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 206; Brancsik 1906; Buck 1955b: 191; Buresh & Lazarov 1956; Calver 1884, 1893; Cecconi 1897, 1906; Chaptuis & Candeze 1853; Chorbadzhievo 1924d, 1929; Crotch 1863; Dallimore & Munro 1922: 189–193; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eggers 1904; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Escherich 1923b: 482, 510, 1932b; Everts 1922: 642; Fleischer 1888; Fowler 1891; Fricken 1889: 343; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminge & Harold 1872: 2652–2653; Gorham 1860; Cozis 1875: 80; Grill 1895: 310; Hagedorn 1910d: 42; Hansen, V. 1939, 1956, 1964: 462; Hellen 1947; Henschel 1895a: 167; Heyden 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Holdhaus & Deubel 1910: 145; Horion 1951; Jazentkovsky 1912: 288; Kaltenbach 1874: 624; Karpinski 1948b: 230; Karpinski & Strawinski 1948: 155; Kemner 1919: 176; Kersten 1933: 74; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 263, 267, 1913a: 34, 1934a: 147; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558; Koltze 1901: 153; Koppen 1882: 252; Kozikowsky 1921: 150; Kraatz 1869: 59; Kurir 1947c: 31; Lacordaire 1866: 379; Leclercq 1971; Lomnicki 1913b: 148; Lucht 1987: 278; Lundberg 1988; Mahler 1987: 232; Marcu 1926c: 64; Matthews & Fowler 1883: 42; Munro 1920a: 257; Negrn 1966b: 401, 1968a: 456; Nosek 1952: 414; Novak, P. 1952: 414, 1964; Nunberg 1928b: 88, 1954: 54, 1960b: 156; Nusslin 1898: 280; Orest 1926c: 64; Palm 1959: 32, 130, 1960: 350; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 472, 1928b: 9, 1931b: 74, 1950b: 76, 1989a: 83; Pierce, W. D. 1917: 40; Pittioni 1943: 175; Postner 1974: 431; Prossen 1913: 83; Rapp 1934: 728; Redtenbacher 1874: 376; Reitter 1869b: 154, 1894a: 71, 1911: 69, 1916: 289; Roubal 1941: 264; Schaufuss 1915: 1232; Schumm 1859: 96, 1862: 101; Schedl 1971b: 530, 1980a: 15, 1981b: 75; Schilsky 1909: 188; Schiodte 1873: 102; Schwerdtfeger 1981: 188; Seidlitz 1872: 394, 1891a: 562, 1891b: 608; Sharp & Fowler 1893: 34; Stark 1952: 276; Stein 1868:

114; Stein & Weise 1877: 164; Stierlin 1898: 439; Stierlin & Cantard 1871: 292; Sturm 1826: 102; Thomson 1865: 360, 1868: 220; Tredl 1907: 12; Tschorbadjev 1929: 166; Wachtl 1876a: 458; West 1938: 184; Westhoff 1882: 235; Wichmann 1927a: 66; Winter, T. G. 1983: 11. (**tx**) Aeloque 1896; Allen, A. A. 1970; Apel 1983; Bach 1854, 1864; Balachowsky 1949a: 211; Barbey 1901: 23, 73; Belfa 1961; Bertolini 1872; Chapuis & Candèze 1853; Chorbazhievo 1924d; Dejean 1821, 1825; Doebner 1860, 1868: 368; Dombrowsky 1887; Duftschmidt 1825; Eggers 1911a, 1929e, 1939b: 5; Eichhoff 1864: 35, 1868d: 422, 1876a: 378, 1878b: 132, 1881a: 46, 184, 1883a: 109, 133; Endrodi 1957b; Erichson 1836: 62; Escherich 1923b: 482, 510; Everts 1903: 756, 1922: 642; Fabricius 1798: 157, 1801: 383; Fairmaire 1864: 159; Fauvel 1887; Ferrari 1867a: 11, 13, 15, 1867b: 114, 1868: 255–256; Fleischer 1905, 1927; Formanek 1907: 35; Fricken 1889: 343; Gebien 1907: 197; Gillanders 1908; Grune 1979: 109; Hagedorn 1910a: 86; Hansen, V. 1956, 1964: 462; Henschel 1895a: 167; Hopkins 1915b: 35, 1915c: 221; Houlbert 1922a:pl. 1; Jacquelin du Val & Fairmaire 1868: 104; Karpinski & Strawinski 1948: 155; Knotek 1892a: 37; Lacordaire 1866: 379; Letzner 1891: 375; Lindemann 1875c: 321; Lovendal 1889b: 52, 1898: 126; Lucht 1987: 2781; Lundberg 1988; Negrin 1966b: 401; Nordlinger 1847: 21, 1848: 242, 1856: 26; Numberg 1954: 54; Perris 1877a: 414; Pfeffer 1932b: 18, 1942a: 6, 1955a: 181, 1989:pl. 6; Portevin 1935: 325; Quaschik 1953: 35; Redtenbacher 1849a: 851, 1849b: 26, 1874: 387; Reitter 1894a: 71, 1913a: 69, 1916: 289; Rhumbler 1922: 334, 1927: 350; Schedl 1934f: 1639, 1952f: 87, 1958k: 142, 1962r: 90, 1980a: 15, 1981b: 75; Schimitschek 1937c: 52, 1955c: 83; Schwerdtfeger 1981: 188; Seidlitz 1872: 394, 1891a: 562, 1891b: 608; Spessittsev 1922a: 472, 491, 1925a: 174, 1931: 47, 50; Stark 1952: 276; Stierlin 1898: 439; Thomson 1865: 360, 1868: 220. (**ms**) Eichhoff 1868d: 422; Escherich 1932b.

serratus Panzer 1795a: 288 (*Bostrichus*). Syn-types, sex?; Germania: Panzer Collection, lost. Synonymy: Eggers 1911a: 73.

References: (**hb**) Wachtl 1876a: 458. (**ds**) Beck 1817; Calwer 1884; Hagedorn 1910d: 116; Kleine 1913b: 169; Sainte-Claire & Mequignon 1938: 445; Wachtl 1876a: 458. (**tx**) Balachowsky 1949a: 211; Bechstein et al. 1805: 104; Eggers 1911a: 73; Hagedorn 1910a; Panzer 1795a: 288.

thomsoni Ferrari 1867a: 14 (*Ernoporus*). Syn-types, sex?; Europa; presumably NHMW, Wien, not found. Synonymy: Ferrari 1868: 255. References: (**ds**) Bedel 1888b: 398, 414; Heyden 1876: 299; Kraatz 1869: 59; Stein & Weise 1877: 164. (**tx**) Balachowsky 1949a: 211; Bedel 1888b: 394, 414; Dallimore 1868;

Doebner 1868: 368; Eichhoff 1868d: 422, 1876a: 378–379; Ferrari 1867a: 12, 14, 1867b: 114, 1868: 255; Letzner 1891: 375.

kanachae (Hopkins) 1915b: 35 (*Ernoporus*). Holotype ♂; Kanawah Station [Wood Co., West Virginia]; USNM, Washington.

Distribution: North America (Wood County, West Virginia in USA).

Notes: (1) Wood 1954a: 987, 1982b: 858 (re-described).

References: (**hb**) Chamberlin 1939: 317; Wood, S. L. 1953: 51, 1954a: 987. (**ds**) Blatchley & Leng 1916: 605; Chamberlin 1939: 317; Wood, S. L. 1982b: 858. (**tx**) Blatchley & Leng 1916: 605; Chamberlin 1939: 317; Hopkins 1915b: 35; Schedl 1962r: 90; Wood, S. L. 1953: 51, 1954a: 986–987, 1982b: 858.

longus (Eggers) 1926b: 136 (*Ernoporus*). Lectotype, sex?; Tomakomai, Japan; USNM, Washington, designated by Anderson & Anderson 1971: 18. Distribution: Asia (Hokkaido in Japan/Kamchatka, Siberia in E USSR).

Hosts: *Alnus fruticosa*, *A. kamschatica*, *A. maximowitzi*.

References: (**cn**) Kurenzov 1935c: 188. (**cc**) Kurenzov 1934a: 54. (**hb**) Kurenzov 1935a: 20, 34, 1948b: 115; Kurenzov & Konomov 1961: 600; Stark 1952: 275. (**ds**) Kurenzov 1934a: 54, 1935a: 20, 34, 1935c: 188, 1936b: 351, 1938a: 64, 1951b: 17, 1965, 1967; Kurenzov & Konomov 1961: 595–600; Stark 1952: 275. (**tx**) Anderson, W. H. & Anderson 1971: 18; Eggers 1926b: 136; Krivolutskaya 1955; Kurenzov 1941a: 158, 1948b: 115; Nobuchi 1985c: 11; Schedl 1934f: 1639, 1979c: 142; Sokanovskii 1954: 17; Stark 1952: 275.

semenovi (Kurenzov) 1941a: 231 (*Eocryphalus*). Lectotype, sex?; mountainous fir and broad-leaved woods in the upper course of the river Suputinka (Ussuri Region); ISBN, Novosibirsk, USSR, and IZL, Leningrad/St. Petersburg, designated by Michalski 1969a: 892.

Distribution: Asia (Sakhalin Island, Ussuri in E USSR).

Hosts: *Kalopanax ricinifolium*.

References: (**hb**) Krivolutskaya 1973: 137; Kurenzov 1948b: 125; Stark 1952: 279. (**ds**) Krivolutskaya 1965a: 235, 1973: 137; Stark 1952: 279. (**tx**) Krivolutskaya 1958: 148; Kurenzov 1941a: 161, 231, 1948b: 125; Michalski 1969a: 892, 1969b: 567; Stark 1952: 279.

spessittzeri Berger 1916: 243. Holotype, sex?; Sedanka, Ussuri, USSR; IZL, Leningrad.

Distribution: Asia (Ussuri in E USSR).

Hosts: *Fraxinus mandschurica*.

References: (**cn**) Kurenzov 1935c: 193, 1951c: 79. (**cc**) Kurenzov 1934a: 51, 1951d: 24. (**hb**) Krivolutskaya 1973: 136; Kurenzov 1948b: 128, 1951d: 24; Stark 1952: 277. (**ds**) Kleine 1934a: 147; Krivolutskaya 1965a: 235, 1973: 136; Kurenzov

1934a: 51, 1935c: 193, 1936a: 110, 1936b: 350; Stark 1952: 277. (tx) Balachowsky 1949a: 201; Berger 1916: 243; Kurenzov 1941a: 160–161, 1948b: 128; Michalski 1969a: 892, 1969b: 567; Schedl 1934f: 1639; Stark 1952: 277.

takahashii Nobuchi 1975: 43. Holotype, sex?; Mt. Daisetsu, Hokkaido, Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. I, fig. 4.
Distribution: Asia (Hokkaido in Japan).
Hosts: *Sorbus commixta*.
References: (tx) Nobuchi 1975: 43–44.

zachvatkini (Krivolutskaya) 1958: 149 (*Eocryphalus*). Holotype, sex?; Sakhalin Island, S. Uglegorsk region, near mouth of Kotan River, USSR; IZM, Moscow.
Distribution: Asia (Sakhalin Island in E USSR).
References: (hb) Krivolutskaia 1973: 137. (ds) Krivolutskaia 1973: 137. (tx) Krivolutskaia 1958: 149; Schedl 1962r: 93–94.

Genus *Allernoporus* Kurenzov

ALLERNOPORUS KURENZOV 1941a: 159. Type-species: *Allernoporus euonymi* Kurenzov, monobasic.

Notes: (3) When more thorough studies are made, it is probable that this genus will become a synonym of *Ernoporicus*.

References: (hb) Wood, S. L. 1986a: 89. (ds) Wood, S. L. 1986a: 89. (tx) Kurenzov 1941a: 159–160; Schedl 1962r: 93–94; Wood, S. L. 1986a: 89.

euonymi Kurenzov 1941a: 159, 230. Lectotype, sex?; mountainous woods in South of Soviet Far East: ISBN, Novosibirsk, USSR, and IZL, Leningrad/St. Petersburg, Michalski 1969a: 892.
Distribution: Asia (Sakhalin Island, Siberia in E USSR).
Hosts: *Euonymus* sp.

References: (hb) Kurenzov 1948b: 123; Stark 1952: 278. (ds) Krivolutskaia 1983; Stark 1952: 278. (tx) Krivolutskaia 1958: 140; Kurenzov 1941a: 159, 230, 1948b: 123; Michalski 1969a: 892, 1969b: 567; Schedl 1962r: 92–94; Stark 1952: 278.

Genus *Stegomerus* Wood

STEGOMERUS WOOD 1967c: 129. Type-species: *Stegomerus vulgaris* Wood, original designation.

Keys: Wood 1967c: 130, 1982b: 855.
References: (hb) Wood, S. L. 1986a: 90. (ds) Wood, S. L. 1986a: 90. (tx) Wood, S. L. 1967c: 129, 1982b: 854–858, 1986a: 90.

chiriquensis Wood 1967c: 131. Holotype ♂; Cerro Punta, Chiriqui, Panama; Wood Collection.

Distribution: North America (Panama).
Hosts: *Canavalia villosa*.
References: (tx) Wood, S. L. 1967c: 131, 1982b: 856.

mexicanus Wood 1967c: 133. Holotype ♂; 21 km W Morelia, Michoacan, Mexico; Wood Collection.
Figures: Atkinson & Equihua 1988: 101 (adult).

Distribution: North America (Michoacan, Puebla in Mexico).

Hosts: *Serjania* sp.
References: (ds) Atkinson & Equihua 1985c: 356, 1988: 101. (tx) Atkinson & Equihua 1988: 101; Wood, S. L. 1967c: 133, 1982b: 857.

mirandus Wood 1971: 32. Holotype ♀; El Laurel Experimental Farm, 12 km SW Caracas, Miranda, Venezuela; Wood Collection.

Distribution: South America (Venezuela).
Hosts: Vine (creeper).
References: (tx) Wood, S. L. 1971: 32–33.

montanus Wood 1967c: 132. Holotype ♂; Volcan Irazu, Cartago Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).

Hosts: *Mucenbeckia tannifolia*.
References: (tx) Wood, S. L. 1967c: 132.

pygmaeus Wood 1967c: 130. Holotype ♂; Los Corchos, Nayarit, Mexico; Wood Collection.

Distribution: North America (Costa Rica/ Honduras/ Jalisco, Nayarit in Mexico).
Hosts: *Canavalia villosa*, *Cestrum scandans*, *Dioclea megacarpa*.

References: (hb) Atkinson & Equihua 1985c: 356. (ds) Atkinson & Equihua 1985c: 356. (tx) Wood, S. L. 1967c: 130, 1982b: 855–856.

vulgaris Wood 1967c: 134. Holotype ♂; Volcan Zunil, Quezaltenango, Guatemala; Wood Collection.
Distribution: North America (Costa Rica/ Guatemala/ Honduras).

Hosts: *Serjania mexicana*, *S. triquetra*, *S.* sp.
References: (tx) Wood, S. L. 1967c: 133–134.

Genus *Neocryphus* Numberg

NEOCRYPHUS NUMBERG 1956a: 139. Type-species: *Neocryphus argentinensis* Numberg, original designation.

Notes: (3) Schedl 1979: 35 (erroneously placed in synonymy with *Phacrylus*).

References: (hb) Wood, S. L. 1986a: 90. (ds) Wood, S. L. 1986a: 90. (tx) Numberg 1956a: 139; Wood, S. L. 1986a: 90.

argentinensis Numberg 1956a: 141. Holotype, sex?; Argentina, Cordova; IZAW, Warsaw.

Distribution: South America (Argentina).
References: (tx) Numberg 1956a: 141.

cristatus (Schedl) 1979e: 61 (*Phacrylus*). Holotype, sex?; S. Luis, San Geronimo, Argentina; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).
References: (tx) Schedl 1979e: 61.

Genus *Acorthylus* Brethes

ACORTHYLUS BRETHES 1922: 304. Type-species: *Acorthylus asperatus* Brethes, monobasic.

Phacrylus Schedl 1935i: 24. Type-species: *Phacrylus bosqui* Schedl, monobasic. Synonymy: Wood 1983a: 647.

- References: **(tx)** Nimberg 1956a: 141; Schedl 1935i: 24; Wood, S. L. 1983: 647.
- References: **(hb)** Wood, S. L. 1986a: 90. **(ds)** Wood, S. L. 1986a: 90. **(tx)** Brethes 1922: 304; Wood, S. L. 1983a: 647, 1986a: 90.
- asperatus** **Brethes** 1922: 305. Holotype, sex?; Buenos Aires, Argentina; Brethes Collection. Distribution: South America (Argentina). References: **(ds)** Blackwelder 1947: 784. **(tx)** Brethes 1922: 305.
- bosqui** (**Schedl**) 1935i: 24 (*Phacrylus*). Lectotype, sex?; Argentinien, Prov. de Jujuy; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 44. Distribution: South America (Argentina). References: **(ds)** Blackwelder 1947: 778; Schedl 1966f: 84, 1967d: 2, 1972d: 141. **(tx)** Schedl 1935i: 24, 1951d: 17, 1952a: 453, 1964m: 304, 1972d: 141, 1979c: 44.
- squamulosus** **Eggers** 1943a: 356 (*Ernoporus*). Holotype, sex?; Bolivia (Cochabamba); Eggers Collection, not mentioned by either Anderson & Anderson 1971 or Schedl 1979c, Eggers cotype in NHMW, Wien. Synonymy: Schedl 1964m: 304. References: **(tx)** Eggers 1943a: 356; Schedl 1964m: 304, 1979c: 236.
- gracilis** (**Schedl**) 1972g: 58 (*Phacrylus*). Holotype, sex?; Brasil, Jacareacanga, Para; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: **(ds)** Schedl 1973a: 367. **(tx)** Schedl 1972g: 58, 1979c: 108.
- pruni** (**Wood**) 1971: 33 (*Phacrylus*). Holotype ♀; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: *Prunus sphaerocarpa*. References: **(tx)** Wood, S. L. 1971: 33.
- robustus** (**Schedl**) 1952a: 453 (*Phacrylus*). Lectotype ♂; Argentina, Cordoba, Dep. Calamuchita, El Sauce, La Cienaga, Belen, Catamarca; Schedl Collection in NHMW, Wien. Distribution: South America (Argentina/ Brazil). References: **(hb)** Viana 1964: 122. **(ds)** Viana 1964: 122. **(tx)** Schedl 1951h: 284, 1951m: 73, 1952a: 453, 1979c: 212.
- Genus *Stephanopodius* Schedl
- STEPHANOPODIUS** **SCHEDL** 1941d: 396. Type-species: *Stephanoderes dispar* Eggers, subsequent designation by Schedl 1961k: 633.
- Cryphalomimus* **Browne** 1962g: 75. Type-species: *Hypocryphalus ghanaensis* Schedl, original designation, preoccupied by Eggers 1927. Synonymy: Wood 1980c: 95. References: **(tx)** Browne 1962g: 75, 1963a: 242; Schedl 1963j: 478; Wood, S. L. 1980c: 95.
- Cryphalomimetus* **Browne** 1963b: 242. Type-species: *Hypocryphalus ghanaensis* Schedl, automatic. Synonymy: Wood 1980c: 95. References: **(tx)** Browne 1963b: 242; Schedl 1964m: 305; Wood, S. L. 1980c: 95.
- References: **(hb)** Wood, S. L. 1986a: 90. **(ds)** Wood, S. L. 1986a: 90. **(tx)** Schedl 1941d: 396, 1961k: 633; Wood, S. L. 1986a: 90.
- dispar** (**Eggers**) 1936c: 35 (*Stephanoderes*). Holotype, sex?; S. Rhodesia; Salisbury; BMNH, London. Figures: Schedl 1961k: 634. Distribution: Africa (South Africa/ Tanzania/ Zimbabwe). References: **(hb)** Loyttyneimi, Beaver, & Loyttyneimi 1954; Schedl 1961k: 633. **(ds)** Beaver & Loyttyneimi 1955a: 81; Schedl 1961k: 633. **(tx)** Eggers 1936c: 35; Schedl 1941d: 396, 1951j: 20, 1961i: 224, 1961k: 633–634, 1979c: 82.
- ghanaensis** (**Schedl**) 1962h: 66 (*Hypocryphalus*). Holotype, sex?; Ghana, Kumasi; BMNH, London. Distribution: Africa (Ghana). Hosts: *Bussa occidentalis*, *Hymenostegia afzelii*. References: **(hb)** Browne 1963a: 235. **(ds)** Browne 1963a: 235. **(tx)** Browne 1962g: 74–75, 1963b: 242; Schedl 1962h: 66, 1962k: 1069, 1979c: 103.
- giganteus** **Schedl** 1950d: 26. Holotype, sex?; Rhodesien; Schedl Collection in NHMW, Wien. Distribution: Africa (South Africa/ Zimbabwe). References: **(tx)** Schedl 1950d: 26, 1961k: 634, 1979c: 104.
- mkulumusius** (**Eggers**) 1919: 241 (*Stephanoderes*). Syntypes, sex?; Mkulumusiberg bei Sigi; Amani; Hamburg Museum, lost, and Eggers Collection ♂ ♀, in NHMW, Wien. Distribution: Africa (Tanzania). Notes: (1) Schedl 1979c: 157 (neotype designation invalid). References: **(tx)** Eggers 1919: 241, 1922b: 165; Schedl 1950d: 3, 1961k: 635, 1979c: 157.
- squamosus** **Nunberg** 1973: 9. Holotype ♀; Congo Belge, P.N.A., expl. sect. Nord Massif Ruwenzori, Kalonge; MRCB, Tervuren. Distribution: Africa (Zaire). References: **(tx)** Nunberg 1973: 9.
- usambaricus** **Schedl** 1941d: 396. Holotype, sex?; Usambara, Tanganyika; Schedl Collection in NHMW, Wien. Distribution: Africa (Tanzania). References: **(tx)** Schedl 1941d: 396, 1961k: 635, 1979c: 262.
- Genus *Coriacephilus* Schedl
- CORIACEPHILUS** **SCHEDL** 1939e: 339. Type-species: *Stephanoderes coriaceus* Eichhoff, original designation. References: **(hb)** Wood, S. L. 1986a: 90. **(ds)** Browne 1961c: 67; Schedl 1966b: 27; Wood, S. L.

1986a: 90. (tx) Schedl 1939e: 339–340; Wood, S. L. 1986a: 90.

coriaceus (Eichhoff) 1878b: 494 (*Stephanoderes*). Holotype ♀; Asia (Siam); Schedl Collection in NHMW, Wien.

Distribution: Asia (Burma/Thailand).

References: (ds) Beaver & Browne 1975: 287; Hagedorn 1910d: 41; Kleine 1913b: 121, 1914b: 280. (tx) Eichhoff 1878b: 494; Hagedorn 1910a: 86; Hopkins 1915b: 23; Schedl 1939e: 339–340, 1940d: 591, 1979c: 65.

birmanus Eggers 1925: 153 (*Cryphalus*). Syntypes, sex[?]; Tenasserim; Prague Museum, and 1 in Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1940d: 591.

References: (tx) Eggers 1925: 153, 156; Schedl 1940d: 591, 1979c: 40.

cribripennis Schedl 1943b: 40. Lectotype, sex[?]; Kalabangau, Mindanao, Philippines; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Mindanao).

References: (tx) Schedl 1943b: 40, 1979c: 69.

proximus (Eggers) 1925: 156 (*Cryphalus*). Holotype, sex[?]; Sud-Mysore (Vorder-Indien); Eggers Collection, in NHMW, Wien.

Distribution: Asia (Mysore in India).

Notes: (1) Schedl 1950f: 36 (to *Coriacephilus*).

References: (tx) Eggers 1925: 156; Schedl 1950f: 36–37, 1979c: 199.

xyloctonoides Schedl 1939e: 340. Lectotype, sex[?]; Malaya, Selangor, Sungai Buloh For. Res.; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

Hosts: *Kucma furfuracea*.

References: (cn) Mathur & Singh 1960b: 84. (ds) Beeson 1961: 286; Browne 1961c: 67; Mathur & Singh 1960b: 84. (tx) Browne 1961c: 67; Schedl 1939e: 340, 1979c: 270.

Genus *Ernoporus* Thomson

ERNOPORUS THOMSON 1859: 147. Type-species: *Bostrichus tiliac* Panzer, original designation.

Cryphalops Reitter 1889a: 94. Type-species: *Cryphalus lederi* Reitter = *Bostrichus tiliac* Panzer, monobasic. Synonymy: Reitter 1894: 71.

References: (tx) Balachowsky 1949a: 201; Hopkins 1915b: 8; Reitter 1889a: 94, 1894a: 71.

Stephanorhopalus Hopkins 1915b: 35. Type-species: *Stephanorhopalus melodori* Hopkins, original designation, spelling of type species amended by Schedl 1966: 19. Synonymy: Wood 1980c: 93.

References: (tx) Browne 1961c: 70; Hopkins 1915b: 35; Schedl 1962r: 93–94, 1966b: 19; Wood, S. L. 1980c: 93.

Euptilius Schedl 1940d: 589. Type-species:

Ernoporus concentralis Eggers, original designation. Synonymy: Wood 1980c: 93.

References: (tx) Schedl 1940d: 589, 1962r: 90; Wood, S. L. 1980c: 93.

References: (ay) Heymons 1920: 103; Nobuchi 1969a: 56. (hb) Escherich 1923: 460–482; Palm 1959: 34, 44, 57; Schedl 1977a: 41; Wood, S. L. 1986a: 90. (ds) Bertolini 1872: 201; Brimblecombe 1953: 23; Browne 1961c: 70; Feytaud 1950: 9; Schedl 1934f: 1639, 1966b: 19, 1977a: 41; Scheerpeltz & Winkler 1930: 257; Wood, S. L. 1986a: 90. (tx) Allen, A. A. 1970: 246; Balachowsky 1949a: 208; Beeson 1938b: 290; Berger 1916: 227–228; Blandford 1904: 226; Blatchley & Leng 1916: 593, 604; Browne 1961c: 70, 79; Chamberlin 1939: 316–317; Choo 1983: 69; Choo, Woo, & Nobuchi 1988b; Costa Lima 1956: 282; Endrodi 1957b: 416; Fauvel 1887: 276; Ferrari 1867a: 10, 16; Hopkins 1914: 121, 135, 1915b: 8, 35, 194–195, 221, 226; Kurenzov 1941: 159–162, 230–231; Kurenzov & Kononov 1961: 595; Lacordaire 1886: 378; Lekander 1962: 431; Lindemann 1876: 148–167, 320–350; Luigioni 1929: 997; Munro 1946: 19, 32, 42, 61; Murayama 1954: 205; Numberg 1928: 145, 1954: 10, 48, 52–53, 1956: 141; Nusslin 1898: 276, 1911, 1912; Peyerimhoff 1935: 194–195; Pfeffer 1989a: 82; Reitter 1913a: 65, 68–69, 1916: 287, 289; Schedl 1958d: 188, 1958k: 142, 1959a: 475, 1962r: 93–94, 1969i: 130, 1977a: 41, 1977b: 41, 1980b: 75; Schimitschek 1937: 50–52; Sokanovskii 1954: 17; Spessivtsov 1923: 422, 1931: 88; Stresemann et al. 1989: 354; Swaine 1909: 92; Thomson 1859: 147, 1865: 360; Trappen 1935: 142; Wood, S. L. 1954a: 988, 1960a: 13, 18, 1986a: 90.

acanthopanaxi (Niisima) 1913a: 4 (*Cryphalus*). Syntypes, sex[?]; Sapporo, Japan; Nobuchi Collection, Ibaraki.

Distribution: Asia (Hokkaido in Japan).

Hosts: *Acanthopanax ricinifolium*.

References: (ds) Kleine 1934a: 147; Nobuchi 1985c: 11. (tx) Murayama 1953a: 35; Niisima 1913a: 4; Schedl 1934f: 1639, 1979c: 9.

antemarius (Schedl) 1974d: 461 (*Ernoporus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; CSIRO, Canberra.

Distribution: New Guinea.

References: (tx) Schedl 1974d: 461, 1979c: 22.

papuanus Browne 1984f: 70 (*Euptilius*). Holotype, sex[?]; New Guinea: Morobe District, Mount Kaindi, 2500 m; BMNH, London, pre-occupied by Schedl 1973. Synonymy: Wood 1989: 172.

References: (tx) Browne 1984f: 70; Wood, S. L. 1989: 172

armatus (Browne) 1981a: 129 (*Euptilius*). Holotype, sex[?]; Bangkok (Thailand) to Yokohama (Japan), imported; BMNH, London.

Distribution: Asia (Thailand).

- Hosts: *Pterocarpus* sp.
References: (tx) Browne 1981a: 129.
- concentralis** Eggers 1936d: 629. Holotype, sex?; Vorderindien, Mysore; Sakalaspur; BMNH, London.
Distribution: Asia (Mysore in India).
Hosts: *Dalbergia latifolia*, *Pterocarpus marsupium*.
References: (ds) Beeson 1961: 287. (tx) Eggers 1936d: 629; Schedl 1940d: 589–590.
- dispar** (Schedl) 1972i: 49 (*Cryphalops*). Holotype ♂; New Ireland Dist., Karbil; CSIRO, Canberra.
Distribution: New Ireland Island.
Hosts: *Iutsia bijuga*.
References: (tx) Schedl 1972i: 49, 1979c: 82.
- exiguus** (Browne) 1984c: 451 (*Euptilius*). Holotype, sex?; Tolitoli (Celebes) to Omaezaki (Japan), imported; BMNH, London.
Distribution: Indonesia (Celebes).
References: (ds) Browne 1984c: 451, 1986a: 89.
- inermis** (Schedl) 1939e: 343 (*Stephanorhopalus*). Lectotype, sex?; Malaya, Selangor: Port Swettenham; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 124.
Distribution: Asia (Malaya).
Hosts: *Rhizophora mucronata*.
References: (ds) Beeson 1961: 299; Browne 1961c: 70. (tx) Schedl 1939e: 343, 1979c: 124.
- japonicus** Nobuchi 1966e: 52. Holotype ♀; Arashiyama, Kyoto City; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1966e: 52.
Distribution: Asia (Honshu in Japan).
References: (ds) Nobuchi 1955c: 11. (tx) McNamara 1977: 196; Nobuchi 1966e: 52.
- melodori** (Hopkins) 1915b: 36 (*Stephanorhopalus*). Holotype ♂; Calapan, P. I.; USNM, Washington.
Distribution: Philippines Islands (Mindoro).
Hosts: *Melodorum fulgens*.
Notes: (1) Schedl 1966b: 16 (*nulodori*, lapsus calami, corrected to *melodori*).
References: (ds) Kleine 1934a: 148; Schedl 1966b: 19. (tx) Hopkins 1915b: 35–38; Nobuchi 1983: 300; Schedl 1966b: 16, 19.
- papuanus** (Schedl) 1973e: 87 (*Margadillius*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; CSIRO, Canberra.
Distribution: New Guinea.
References: (tx) Schedl 1973e: 87, 1979c: 183–184.
- quadridens** (Schedl) 1971a: 284 (*Cryphalops*). Holotype, sex?; Central Prov.: Hantane Estate, Kandy; Schedl Collection in NHMW, Wien.
Figures: Schedl 1971a: 283.
Distribution: Asia (Sri Lanka).
References: (tx) Schedl 1971a: 283–284, 1979c: 208.
- shimanensis** Murayama 1953a: 36. Holotype ♂; Kakinoki vill. (Suzuno-ohitani), Kanoashi County, Shimane pref., Japan; Murayama Collection in USNM, Washington.
Distribution: Asia (Honshu in Japan).
Hosts: *Fagus crenata*.
References: (ds) Murayama 1954b: 185; Nobuchi 1955c: 11. (tx) Murayama 1953a: 36, 1954b: 185.
- thailandicus** (Schedl) 1967a: 127 (*Euptilius*). Holotype, sex?; Thailand via Hong Kong to Yokohama (Japan), imported; PPST, Tokyo.
Distribution: Asia (Thailand).
Hosts: Kwararin wood.
References: (ds) Beaver & Browne 1975: 290. (tx) Schedl 1967a: 127, 1979c: 252.
- tiliae** (Panzer) 1793: 14 (*Apate*). Syntypes, sex?; Brungsvigiae; not located, presumed lost.
Figures: Balachowsky 1963a: 1280, Grune 1979: 110, Pfeiffer 1989a: pl. 6, Postner 1974: 432 (adult).
Distribution: Asia (Korea/ Turkey/ E USSR), Europe (Austria/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ N Italy/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR).
Hosts: *Carpinus betulus*, *Fagus sylvatica*, *Hibiscus syriacus*, *Tilia amurensis*, *T. cordata*, *T. intermedia*, *T. parvifolia*.
References: (ay) Escherich 1923b: 482; Imhoff 1856: 228; Lekander 1959b: 60; Numberg 1928a: 140; Nusslin 1911a: 58, 155, 277, 337, 378. (bv) Grune 1979: 111; Hellen 1921. (cn) Acatay 1943a: 65; Barbey 1925: 587; Chorbadzhievo 1929; Escherich 1923b: 482; Esterberg 1959; Georgescu et al. 1957: 357, 406; Grandi 1951; Hellen 1921; Kamp 1956b: 471; Kholodkovskii 1912: 307; Koppen 1882: 251; Kovacevic 1924: 21–22; Marcu 1926c: 63; Nosek 1951: 106, 1952b: 98; Nusslin 1913: 290; Picard & Lichtenstein 1917: 17; Pierce, W. D. 1917: 141; Rhumbler 1922: 334, 1927: 350; Schimitschek 1937c: 52, 1955a: 146, 1955c: 83; Schuster 1918: 97; Schwerdtfeger 1944a: 175, 1957a: 182; Wachtl 1901: 381; Wichmann 1927b: 361. (ce) Balazy & Michalski 1964b; Elliot & Morley 1907; Gillanders 1906; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1983; Kleine 1905c: 186, 1909a: 46, 1944: 73; Kostenko 1929; Kurenzov 1934a: 57; Michalski & Ratajczak 1989; Nosek 1951: 106, 1952b: 98, 1959a: 118, 1959b: 87; Numberg & Wiackowski 1958: 130; Nusslin 1927: 350; Palmén 1944: 60; Perris 1856a: 244; Pfeiffer 1923a: 331; Rondani 1873: 146; Saalas 1930: 118; Schimitschek 1955a: 146; Schuster 1918: 97; Schwerdtfeger 1944a: 175, 1957a: 182; Sedlaczek 1935a: 162; Wisniewski 1979b. (hb) Acatay 1943a: 65; Altum 1881c: 322; Balachowsky 1963a: 1279; Barbey 1901: 23, 72, 1925: 587; Beffa 1961; Bukowsky 1930; Chorbadzhievo 1929; Dombrowsky 1887; Eichhoff 1881a: 45, 181, 1882a: 245, 1882c: 322, 1892b: 99; Escherich 1923b: 482; Fuchs 1904a, 1907: 48; Gillanders 1906, 1908; Gomostaev 1916: 314; Grandi 1951;

- Gyorfi 1957; Hagedorn 1903a; Henschel 1895a: 168; Karpinski & Strawinski 1948: 155; Karsch 1853: 142; Keller 1913: 242; Kemner 1919: 176; Kharltonov 1924: 199–204; Kholodkovskii 1912: 307; Kurenzov 1935a: 34; Lekander 1959b: 60; Lengerken 1954: 83; Marcu 1941: 403; Marie 1955: 78; Munro 1926: 61; Nordlinger 1856: 30; Nosek 1959a: 118, 1959b: 87; Nurnberg 1929c: 119; Nusslin 1898: 280, 1906b: 14, 1913: 290, 1927: 350; Perris 1856a: 244; Postner 1974: 432; Ratzeburg 1837: 164, 1839: 199; Rhumbler 1922: 334, 1927: 350; Rupertsberger 1879: 231, 1880: 229; Schedl 1981b: 76; Schimitschek 1955a: 146; Schwerdtfeger 1944a: 175, 1957a: 126, 1981: 188; Sedlacek 1935a: 102; Spessivtsov 1913a: 90; Stark 1926a: 335, 1952: 272; Tschorbadjiev 1929: 166; Vinogradov-Nikitin 1911: 1472–1477; Wachtl 1876a: 453, 1901: 381; Wichmann 1927b: 361; Zvierezomb-Zulovsky & Rostoff 1918: 1–36. (ds) Acatay 1943: 65; Acloque 1896; Allen, A. A. 1970; Ammann & Knabl 1913; Andersch 1851; Arnoldi et al. 1955: 693; Andras & Schaeffer 1957; Bakke 1963a: 121; Balachowsky 1963a: 1279; Barthe 1896; Bau 1888; Bedel 1888b: 398, 413–414; Bejer-Petersen & Jorm 1977: 23; Bielz 1851, 1857; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 206; Bukowsky 1930; Buresh & Lazarov 1956; Calwer 1884, 1893; Carpentier & Delaby 1908; Cecconi 1897; Cho 1957; Choo 1983: 69; Choo & Woo 1985: 164; Chorbadzhiyev 1929; Dejean 1837; Dnitschmidt 1825; Eder 1934; Eggers 1904; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Escherich 1923b: 482, 1932b; Esterberg 1928, 1959; Fjellberg 1966: 154; Fowler 1891; Fuchs 1904a, 1905a, 1907: 48; Gaubil 1849: 126; Gemminger & Harold 1872: 2683; Gornostaev 1917; Gozis 1875: 80; Grill 1895: 309; Grune 1979: 111; Gyllenhal 1827: 624; Hagedorn 1903a, 1910d: 46; Hansen, V. 1939, 1956, 1964: 462; Heimemann 1908a; Hellen 1947; Henschel 1895a: 168; Heyden 1876: 299, 1879: 140; Heyden, Reitter, & Weise 1853: 182, 1891: 671, 1906: 711; Horion 1951; Jazentkovsky 1912: 288; Kamp 1956b: 471; Karpinski 1926: 82, 1931: 27, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1925b: 272; Kemner 1919: 176; Kersten 1933: 74; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 2, 230; Kleine 1912a: 262, 267, 1913a: 34, 1934a: 143; Kloft & Hinks 1945: 218; Ko 1969: 276; Kolbe, W. 1918: 211; Koltze 1901: 153; Koppén 1882: 251; Kostenko 1929; Kozikowsky 1921: 180; Kraatz 1869: 59; Kurenzov 1934a: 57, 1935a: 34, 1936a: 110, 1936b: 350–351, 1938a: 59; Kurir 1947c: 27; Lacordaire 1866: 379; Langhoffer 1915c: 158; Leclercq 1971; Lengerken 1939: 39; Lentz 1857: 139; Liegel 1886: 43; Lindemann 1884b: 264; Lokaj 1868: 64; Lomnicki 1886a: 242, 1913b: 148; Lucht 1987: 278; Lundberg 1981: 151; Lundblad 1950b: 72; Mahler 1987: 232; Marcu 1926c: 63; Matthews & Fowler 1883: 42; Murayama 1929b: 2, 1930b: 10, 1937b: 375; Negru 1966b: 402, 1968a: 456; Negru & Rosca 1967: 141; Nurnberg 1928b: 85, 106, 1954: 53; Nusslin 1898: 280; Orest 1926c: 63; Palm 1959: 29, 60, 1986; Palmén 1944: 60; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 471, 1931b: 74, 1950b: 76, 1989a: 82; Pierce, W. D. 1917: 141; Pittioni 1943: 175; Power 1865: 212; Postner 1974: 432; Prossen 1913: 83; Rapp 1934: 728; Ratzeburg 1837: 164, 1839: 199; Redtenbacher 1858: 832, 1874: 375; Reitter 1869b: 154, 1889a: 94, 1894a: 71, 1916: 289; Roubal 1941: 264; Ruskov 1928c: 61; Saalas 1930: 118, 1931: 67; Sainte-Claire 1914: 472; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1232; Schann 1859: 96, 1862: 101; Schedl 1980a: 15, 1981b: 76; Schilsky 1909: 188; Schiodte 1873: 101; Schwerdtfeger 1981: 188; Seidlitz 1891b: 607; Sharp & Fowler 1893: 34; Siebke 1875: 283; Stark 1926a: 335, 1926j: 126, 1927b: 88, 1936c: 142, 1952: 272; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 439; Stierlin & Gautard 1871: 292; Sturm 1826: 102, 1843: 230; Thomson 1859: 147, 1865: 350, 1868: 218; Tredl 1907: 12; Tschorbadjiev 1929: 166; Villa & Villa 1833: 26; Wachtl 1876a: 453; Westhoff 1882: 238; Wichmann 1927a: 6; Winter, T. G. 1983: 11; Zimovjev 1955: 187. (tx) Acloque 1896; Allen, A. A. 1970; Bach 1854; Balachowsky 1949a: 209, 1963a: 1279–1280; Barbey 1901: 23, 72; Bechstein et al. 1805: 108; Bedel 1888b: 398, 413–414; Beffa 1961; Berger 1917: 226–248; Bertolini 1872; Calwer 1858; Carpentier & Delaby 1908; Castelnau 1840; Choo 1983: 69; Doebner 1860; Dombrowsky 1887; Duftschmidt 1825; Eggers 1929c: 41, 1936d: 629, 1942c: 29, 1943a: 355; Eichhoff 1864b: 35, 1878b: 130, 1881a: 45, 181, 1883a: 109, 133; Endrodi 1957b; Erichson 1836: 62; Escherich 1923b: 482; Fabricius 1798: 157, 1801: 383; Fauvel 1889; Ferrari 1867a: 12, 1867b: 106, 114; Fleischer 1905, 1927; Formanek 1907: 35; Gebien 1907: 197; Gillanders 1908; Grune 1979: 110–111; Gyllenhal 1813: 369, 1827: 624; Hagedorn 1910a: 88; Hansen, V. 1956, 1964: 462; Henschel 1895a: 168; Hopkins 1914: 121, 1915b: 35, 1915c: 221; Kalina 1970: 129; Karpinski & Strawinski 1948: 155; Kulmt 1913: 1055; Lacordaire 1866: 379; Lekander 1959b: 60; Letzner 1891: 375; Lindemann 1875c: 321; Lovendal 1889b: 52, 1898: 126; Lucht 1987: 278; Murayama 1930b: 10, 14, 30, 1937b: 375; Negru 1966b: 402; Nordlinger 1848: 245, 1856: 30; Nurnberg 1928a: 140, 1929c: 119, 1954: 53; Nusslin 1911a: 58, 155, 277, 337, 378; Panzer 1793: 14, 1795a: 284; Perris 1877a: 414; Pfeffer 1932b: 18, 1955a: 180, 1989a: pl. 6; Portevin 1935: 324; Postner 1974: 432; Quaschik 1953: 35; Ratzeburg 1837: 164, 1839: 199; Redtenbacher 1849a: 359, 1849b: 26, 1858: 832, 1874: 375; Reitter 1889a: 94, 1894a: 71, 1913a: 68, 1916: 289; Rhumbler 1922:

334, 1927: 350; Rupertsberger 1879: 231, 1880: 229; Sahlberg 1836: 154; Sampson 1919: 114; Schedl 1934f: 1639, 1952f: 87, 1958k: 142, 1967a: 127, 1980a: 15, 1981b: 76; Schimitschek 1937c: 52, 1955c: 83; Seidlitz 1891b: 607; Semenov 1902: 271; Sokanovskii 1954: 17; Spessivtsev 1913a: 90, 1922a: 472, 1925a: 173, 1931: 48–50; Stark 1952: 272; Stierlin 1898: 439; Thomson 1859: 147, 1865: 360, 1865: 219. (ms) Escherich 1932b; Heinemann 1908a; Hellen 1921.

cinereus Herbst 1793: 116 (*Bostrichus*). Syntypes, sex?; Deutschland; not located. Synonymy: Balachowsky 1949a: 209.

References: (tx) Balachowsky 1949a: 209; Herbst 1793: 116; Iablokoff-Khnzorian 1961: 105.

ratzburgi Ferrari 1867a: 11 (*Cryphalus*). Syntypes, sex?; Europe; not located. Synonymy: Balachowsky 1949a: 209.

References: (ds) Blanchere & Robert 1859; Heyden 1876: 299; Kestercanek 1851a: 12; Kraatz 1869: 59; Redtenbacher 1874: 375; Schilsky 1909: 155; Seidlitz 1872: 393; Stein 1868: 114; Stein & Weise 1877: 164. (tx) Balachowsky 1949a: 209; Bertolini 1872; Ferrari 1867a: 11, 1867b: 114; Letzner 1891: 375; Redtenbacher 1874: 375; Sampson 1923a: 270; Seidlitz 1872: 393.

lecleri Reitter 1859a: 93 (*Cryphalus*). Syntypes 2, sex?; Circassia; NHMB, Budapest. Synonymy: Balachowsky 1949a: 209.

References: (ds) Heyden, Reitter, & Weise 1891: 671; Reitter 1859a: 93. (tx) Balachowsky 1949a: 209; Hopkins 1914: 119; Reitter 1859a: 93; Schedl 1934f: 1639.

eggerti Stark 1936: 142. Syntypes, sex?; Soviet Far East; IZL, Leningrad, 1 Eggert syntype, in NHMW, Wien. Synonymy: Sokanovskii 1954: 17. Notes: (1) Original publication not seen, cited in Stark 1941: 155, 159.

References: (hb) Kurenzov 1948b: 124; Muranov 1941: 155, 159; Stark 1952: 273. (ds) Arnoldi et al. 1955: 692; Balachowsky 1963a: 1250; Kri-volutskaya 1953; Sokanovskii 1954: 17; Stark 1952: 273. (tx) Kurenzov 1941a: 155, 1948b: 124; Pfeffer 1944a: 131; Schedl 1952k: 155; Sokanovskii 1954: 17; Stark 1936: 142, 1952: 273. (ms) Pfeffer 1944a: 131.

starki Eggers 1942c: 31. Holotype, sex?; Ussuri; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1952k: 155.

References: (tx) Eggers 1942c: 31; Pfeffer 1944a: 131; Schedl 1952k: 155, 1979c: 236. (ms) Pfeffer 1944a: 131.

tuberculatus (Browne) 1981a: 128 (*Euptilus*). Holotype, sex?; Rangoon (Burma) to Kobe (Japan), imported; BMNH, London. Distribution: Asia (Burma).

Hosts: *Pterocarpus* sp.

References: (tx) Browne 1981a: 128.

Genus *Ernocladius* Wood

ERNOCLADIUS WOOD 1980c: 93. Type-species: *Cryphalus corpulentus* Sampson, original designation.

References: (hb) Wood, S. L. 1986a: 90. (ds) Wood, S. L. 1986a: 90. (tx) Wood, S. L. 1980c: 93, 1986a: 90.

corpulentus (Sampson) 1919: 113 (*Cryphalus*). Holotype ♂; India, Nilgiri Hills; BMNH, London. Distribution: Asia (Bengal, Tamil Nadu in India/Malaya), Indonesia (Java).

Hosts: *Hibiscus macrophyllus*, *Kydia calycina*, *Thespesia populnea*, rare in *Ficus religiosa*.

References: (en) Mathur & Singh 1960b: 86, 1961b: 51. (hb) Browne 1961c: 71; Kalshoven 1955b: 166–168. (ds) Browne 1961c: 71; Kleine 1934a: 147; Mathur & Singh 1961b: 51; Sampson 1919: 113. (tx) Eggers 1925: 153; Nobuchi 1959c: 22, 1966c: 53; Sampson 1919: 113–114; Schedl 1940d: 590–591, 1942a: 169, 1942d: 2; Wood, S. L. 1980c: 93.

corpulentus sundri Schedl 1969c: 48 (*Margadillius*). Holotype, sex?; India: Sundarbans (Bengal); FRI, Dehra Dun, not present. Synonymy: Wood 1989: 172.

Notes: (1) The holotype never reached the Forest Research Institute and is probably represented by Schedl's "paratype" that was examined by us. (3) This name has also been treated in *Ernoporus* and *Margadillius*.

References: (tx) Schedl 1969c: 48, 1979c: 65–66; Wood, S. L. 1989: 172.

guiboutiae (Schedl) 1957d: 53 (*Miocryphalus*). Holotype, sex?; Congo Belge: Mayumbe, Jombo de Bombo, 86 km Nord-Ouest de Tshela; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Guibourtia arnoldiana*.

References: (tx) Schedl 1957d: 53, 1961k: 538, 1979c: 114.

Genus *Cryphalogenes* Wood

CRYPHALOGENES WOOD 1980c: 91. Type-species: *Cryphalogenes euphorbiae* Wood, original designation.

References: (hb) Wood, S. L. 1986a: 90. (ds) Wood, S. L. 1986a: 90. (tx) Wood, S. L. 1980c: 91, 1986a: 90.

euphorbiae Wood 1980c: 91. Holotype ♂; 30 km SE Puttalam, Sri Lanka; USNM, Washington.

Distribution: Asia (Sri Lanka).

Hosts: *Euphorbia antiquorum*.

References: (tx) Wood, S. L. 1980c: 91.

exiguus Wood 1980c: 92. Holotype ♂; 30 km SE Puttalam, Sri Lanka; USNM, Washington.

Distribution: Asia (Sri Lanka).

Hosts: *Euphorbia antiquorum*.

References: (tx) Wood, S. L. 1980c: 92.

Genus *Scolytogenes* Eichhoff

- Scolytogenes* EICHHOFF 1878b: 475, 497. Type-species: *Scolytogenes darwini* Eichhoff, monobasic.
- Lepicerus* Eichhoff 1878b: 476, 501. Type-species: *Lepicerus aspericollis* Eichhoff, monobasic, preoccupied. Synonymy: Wood 1980e: 95. References: (tx) Eggers 1929e: 53; Eichhoff 1878b: 476, 501; Hinton 1936: 473; Hopkins 1915b: 8; Schedl 1940d: 585–587, 1952d: 344; Wood, S. L. 1954a: 996, 1980e: 95.
- Cryphalomorphus* Schaufuss 1891: 12. Type-species: *Cryphalomorphus communis* Schaufuss, monobasic. Synonymy: Schedl 1940d: 587. References: (ay) Gardner 1934: 10–11. (hb) Browne 1961c: 67. (ds) Blackwelder 1947: 778; Brimblecombe 1953: 21, 39; Hagedorn 1910d: 46. (tx) Chamberlin 1939: 279, 315–316; Eichhoff 1878b: 476, 501; Hagedorn 1910a: 80, 83, 1913b: 253; Hopkins 1914: 119, 133, 1915b: 7, 1915c: 226; Kurenzov 1941: 71; Schaufuss 1891: 12; Schedl 1938f: 41, 1939e: 337–338, 1940d: 585–587, 1950d: 2, 1952d: 344, 1954a: 138, 1957b: 152, 1957d: 59, 1959a: 476, 1961k: 523, 1962p: 203, 1963b: 265, 1963i: 62, 1965e: 349–379, 1965f: 3–15, 1970b: 358, 1971e: 11, 1977b: 44; Wood, S. L. 1954a: 980, 996–997, 1960a: 13.
- Letzarella* Reitter 1913a: 68. Type-species: *Bostrichus jalapae* Letzner, monobasic. Synonymy: Schedl 1940d: 587. References: (tx) Balachowsky 1949a: 20; Chamberlin 1939: 316; Reitter 1913a: 68; Schedl 1938f: 41, 583–587, 1952d: 344; Swaine 1918a: 90; Wood, S. L. 1954a: 996, 1960a: 37.
- Hypothenoides* Hopkins 1915b: 7, 11. Type-species: *Hypothenoides parvus* Hopkins, original designation. Synonymy: Schedl 1954a: 138. References: (tx) Hopkins 1915b: 7, 11; Schedl 1954a: 138; Wood, S. L. 1960a: 27.
- Ernoporides* Hopkins 1915b: 8, 34. Type-species: *Ernoporides floridensis* Hopkins, original designation. Synonymy: Schedl 1940d: 587. References: Chamberlin 1939: 315; Hopkins 1915b: 8, 34; Schedl 1938f: 41, 1940d: 584–587, 1952d: 344; Wood, S. L. 1954a: 990, 1960a: 27.
- Neocryphalus* Eggers 1922b: 169. Type-species: *Neocryphalus usagaricus* Eggers, monobasic. Synonymy: Schedl 1940d: 587. References: (tx) Eggers 1922b: 169; Schedl 1940d: 587, 1950d: 2, 1952d: 344, 1959a: 476; Wood, S. L. 1954a: 996, 1986: 90.
- Negritus* Eggers 1923a: 141. Type-species: *Negritus ater* Eggers, subsequent designation by Wood 1982b: 861. Synonymy: Schedl 1957b: 152. References: (tx) Eggers 1923a: 141–142; Schedl 1939e: 339, 1957b: 152, 1959a: 476; Wood, S. L. 1982b: 861.
- Cylindrotomicus* Eggers 1936d: 633. Type-species: *Cylindrotomicus squamulosus* Eggers, monobasic. Synonymy: Schedl 1957b: 152. References: (tx) Eggers 1936d: 633; Schedl 1957b: 152, 1959a: 476.
- Lepicerinus* Hinton 1936: 473. Type-species: *Lepicerus aspericollis* Eichhoff, automatic. Synonymy: Wood 1982b: 861. References: (tx) Hinton 1936: 473; Schedl 1950d: 2, 1952d: 344; Wood, S. L. 1954a: 996, 1982b: 861.
- Xylocryptus* Schedl 1975f: 352. Type-species: *Xylocryptus papuanus* Schedl, original designation. Synonymy: Wood 1986: 90.
- Cryphalophilus* Schedl 1970b: 358. Type-species: *Cryphalophilus afer* Schedl, monobasic. Synonymy: Wood 1984b: 228, 1992b: 81. References: (tx) Schedl 1970b: 358; Wood, S. L. 1984b: 228, 1986a: 61, 1992b: 81. References: (tx) Schedl 1975f: 352; Wood, S. L. 1986a: 90.
- Keys: Wood 1960a: 27, 1982b: 862. References: (ay) Nobuchi 1969a: 57. (hb) Beaver 1987a: 19; Schedl 1961k: 523, 1977a: 44; Wood, S. L. 1982b: 861, 1986a: 90. (ds) Beaver 1987a: 19; Browne 1961c: 67; Schedl 1961k: 523, 1966b: 22, 1977a: 44; Wood, S. L. 1982b: 861, 1986a: 90. (tx) Arnett 1960: 1043, 1968: 1043; Choo, Woo, & Nobuchi 1988b; Eggers 1929e: 53; Eichhoff 1878b: 475, 497; Schedl 1939e: 337–338, 1961k: 523, 1962p: 203, 1977a: 44; Wood, S. L. 1982b: 861–866, 1986a: 90.
- absonus (Schedl)** 1975f: 344 (*Cryphalomorphus*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1975f: 344, 1979c: 9.
- afer (Schedl)** 1970b: 359 (*Cryphalophilus*). Holotype, sex?; Mozambique, Lourenco-Marques to Yokohama (Japan), imported; PPST, Tokyo. Distribution: Africa (Mozambique). References: (tx) Schedl 1970b: 359, 1979c: 14.
- alternans (Schedl)** 1975f: 345 (*Cryphalomorphus*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1975f: 345, 1979c: 16.
- amanicus (Eggers)** 1919: 239 (*Cryphalus*). Holotype, sex?; Amami (Ostafrika); Hamburg Museum, lost. Distribution: Africa (Kenya/Tanzania). References: (tx) Eggers 1919: 239–240, 1931c: 185, 1932c: 23; Schedl 1940d: 587, 1961k: 525.
- ankius (Schedl)** 1979g: 96 (*Cryphalomorphus*). Holotype, sex?; Papua [New Guinea], Bulolo, Morobe Dist., Upper Manki L. A.; Schedl Collection in NHMW, Wien.

- Distribution: New Guinea.
References: (tx) Schedl 1979g: 96.
- apicalis** (Schedl) 1971e: 11 (*Cryphalomorphus*).
Holotype, sex[?]; Umgebung Brazzaville; Schedl Collection in NHMW, Wien.
Distribution: Africa (Congo).
References: (tx) Schedl 1971e: 11, 1979c: 23.
- approximatus** (Schedl) 1975f: 346 (*Cryphalomorphus*). Holotype, sex[?]; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 346, 1979c: 23.
- aspericollis** (Eichhoff) 1878b: 501 (*Lepicerus*).
Holotype, sex[?]; Hindostan Asiae (Birma); Hamburg Museum, lost.
Distribution: Africa (Ethiopia/ South Africa), Asia (Burma/ India/ Malaya), Europe (intercepted in Italy), Indonesia (Sumba).
Hosts: *Ipomoea turpethum*.
References: (ec) Schedl 1961k: 525–526. (hb) Emden 1925a: 215–216, 1925b: 89; Zaehner 1927: 161. (ds) Browne 1950d: 493; Hagedorn 1910d: 69; Kleine 1913b: 121, 139, 1914b: 277–278, 1934a: 148–149; Schedl 1934f: 1643, 1961c: 71, 1961k: 525, 1965f: 4, 1971c: 363, 1975e: 447. (tx) Eggers 1925: 153, 159, 1927b: 397, 1929e: 53; Eichhoff 1878a: 388, 1878b: 501–502; Hagedorn 1904d, 1910a: 91; Hinton 1936: 473; Hopkins 1914: 124; Lucas 1920: 357; Schedl 1934f: 1643, 1940d: 584–587, 1951i: 55–56, 1961c: 71, 1961k: 525, 1965f: 4; Wood, S. L. 1954a: 996.
- stierlini** Eggers 1911a: 121 (*Cryphalus*). Lectotype, sex[?]; Italia: Livorno (aus dem indischen Gebiet eingeschleppt); USNM, Washington, designated by Anderson & Anderson 1971: 31. Synonymy: Eggers 1929e: 53.
References: (cn) Emden 1925b. (ds) Emden 1925b; Kleine 1913b: 118; Schaufuss 1915: 1232. (tx) Anderson, W. H. & Anderson 1971: 31; Eggers 1911a: 121, 1925: 153, 1927b: 397, 1929e: 53; Reitter 1913a: 68; Schedl 1934f: 1643, 1940d: 585, 587, 1961k: 525.
- ater** (Eggers) 1923a: 142 (*Negritus*). Lectotype, sex[?]; Pt. Princesa (Insel Palawan); USNM, Washington, designated by Anderson & Anderson 1971: 5.
Distribution: Indonesia (E Borneo), Philippine Islands (Palawan), Australia.
References: (ds) Schedl 1966b: 23. (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1923a: 142, 1927b: 406; Nobuchi 1983: 300; Schedl 1939e: 337–338, 1940b: 434, 1950g: 894, 1957b: 152, 1965g: 23, 1979c: 29.
- australis** (Schedl) 1942c: 175 (*Lepicerinus*). Holotype, sex[?]; Australien; Schedl Collection in NHMW, Wien.
Distribution: Australia.
- References: (tx) Schedl 1942c: 175, 1950f: 43, 1952d: 344, 1979c: 31.
- badius** (Nobuchi) 1975: 44 (*Cryphalomorphus*).
Holotype, sex[?]; Inugakitage, Fukuoka pref., Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 1, fig. 5.
Distribution: Asia (Japan).
Hosts: *Wisteria floribunda*.
References: (ds) Nobuchi 1985c: 12. (tx) Nobuchi 1975: pl. 1, 44.
- bangensis** (Eggers) 1927c: 75 (*Cryphalomorphus*).
Lectotype, sex[?]; Philippinen: Mindanao, Provinz Zamboanga, Port Banga; USNM, Washington, designated by Anderson & Anderson 1971: 5.
Distribution: Philippine Islands (Mindanao).
Notes: (3) Schedl 1951i: 56 (described male).
References: (ds) Schedl 1966b: 23. (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1927c: 75–76, 1929e: 53; Nobuchi 1983: 300; Schedl 1940d: 587, 1951i: 50, 55–56, 1979c: 33.
- basilaris** (Wood) 1960a: 30 (*Cryphalomorphus*).
Holotype ♀; Caroline Islands (Koror, Palau); USNM, Washington.
Distribution: Micronesia (Koror Island in Palau Islands in Caroline Islands).
References: (tx) Wood, S. L. 1960a: 30.
- braderi** (Browne) 1965a: 191 (*Cryphalomorphus*).
Holotype, sex[?]; Ivory Coast: Adiopodoume; RNH, Leiden.
Distribution: Africa (Ghana/ Ivory Coast).
Hosts: *Triplochiton scleroxylon*.
References: (tx) Browne 1965a: 191; Wood, S. L. 1992b: 84.
- orientalis** Schedl 1971e: 11 (*Cryphalomorphus*).
Holotype, sex[?]; Ghana, Bekwai; Schedl Collection in NHMW, Wien. Synonymy: Wood 1992b: 84.
References: (ds) Schedl 1972e: 281. (tx) Schedl 1971e: 11–12, 1979c: 180; Wood, S. L. 1992b: 84.
- brimblecombei** (Schedl) 1972a: 146 (*Cryphalomorphus*). Holotype, sex[?]; Queensland: Emm Vale; Queensland Museum, Brisbane.
Distribution: Australia (Queensland).
References: (tx) Schedl 1972a: 146, 1979c: 47.
- buruensis** (Eggers) 1926a: 300 (*Cryphalomorphus*). Holotype, sex[?]; Buru-Insel; Eggers Collection, in NHMW, Wien.
Distribution: Indonesia (Buru Island).
References: (tx) Eggers 1926a: 300, 1927c: 75, 1929e: 53; Schedl 1940d: 587, 1952d: 344, 1979c: 49.
- camelliae** (Nobuchi) 1975: 45 (*Cryphalomorphus*).
Holotype, sex[?]; Taimaigoya, Nilgata pref., Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 1, fig. 6.
Distribution: Asia (Japan).
Hosts: *Camellia japonica rusticana*.

- References: (ds) Nobuchi 1955c: 12. (tx) Nobuchi 1975: 45–46.
- candidus (Nobuchi)** 1975: 47 (*Cryphalomorphus*). Holotype, sex?; Gyokuto, Kumamoto pref., Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 1, fig. 8.
Distribution: Asia (Kyushu in Japan).
References: (ds) Nobuchi 1955c: 12. (tx) Nobuchi 1975: 47.
- ceylonicus (Schedl)** 1959a: 477 (*Cryphalomorphus*). Holotype, sex?; Ceylon: Sabargamuva, Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Andaman Islands, Bengal, Uttar Pradesh in India/ Sri Lanka).
Hosts: *Lindera pulcherrima*.
References: (ds) Schedl 1959a: 477. (tx) Schedl 1959a: 477, 1979c: 56.
- cicatricosus (Schedl)** 1942c: 176 (*Lepicerinus*). Holotype, sex?; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: Fiji, New Caledonia, New Guinea.
References: (tx) Schedl 1942c: 176, 1952d: 343–344, 1978d: 73, 1979c: 57, 1979f: 103.
- coccotrypanoides (Schedl)** 1939e: 343 (*Lepicerinus*). Lectotype, sex?; Malaya, Selangor: Kuala Lumpur; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 59.
Distribution: Asia (Malaya).
References: (hb) Browne 1961c: 67. (ds) Browne 1961c: 67. (tx) Schedl 1939e: 343, 1940d: 588, 1952d: 343–344, 1979c: 59.
- communis (Schaufuss)** 1891: 12 (*Cryphalomorphus*). Holotype, sex?; Madagascar; Hamburg Museum, lost.
Distribution: Africa (Seychelles Islands), Madagascar.
Notes: (1) Schedl 1979c: 60 (reported 2 cotypes in his collection; if correct, these came from Eggers as a loan).
References: (ds) Alluaud 1900: 439–442; Anonymous 1892: 165; Eggers 1926g; Fairmaire 1892b; Hagedorn 1910d: 41, 46; Kleine 1913b: 121, 126, 1914b: 326; Kolbe 1910: 40; Sampson 1914: 386. (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1926a: 300; Fairmaire 1892b; Hagedorn 1910a: 83, 1913b: 254; Hopkins 1914: 119, 133, 1915b: 14; Michalski 1969b: 570; Sampson 1914: 386; Schaufuss 1891: 11–12, 1897a: 210; Schedl 1940d: 584, 588, 1961k: 523, 1969d: 11, 1971e: 11, 1977a: 45, 1977b: 70, 1979c: 60; Wood, S. L. 1954a: 996, 1960a: 27.
- concentralis (Schedl)** 1975f: 342 (*Cryphalophilus*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 342, 1979c: 60.
- confragosus (Sampson)** 1914: 386 (*Cryphalomorphus*). Holotype, sex?; Seychelles, Mahe: Cascade Estate, 500–1000 feet; BMNH, London.
Distribution: Africa (Seychelles Islands).
References: (ds) Beaver 1957a: 20; Sampson 1914: 386; Schedl 1969d: 11. (tx) Sampson 1914: 386; Schedl 1952d: 344.
- corpulentus (Schedl)** 1965c: 54 (*Cryphalomorphus*). Holotype, sex?; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 54, 1977a: 46, 1979c: 65.
- corrugatus (Schedl)** 1950d: 19 (*Stephanorhopalus*). Holotype ♀; Mauritius; Schedl Collection in NHMW, Wien.
Distribution: Africa (Mauritius Island).
References: (ds) Schedl 1969d: 11. (tx) Schedl 1950d: 19, 1962r: 94, 1969d: 11, 1977a: 46, 1979c: 66.
- creber (Schedl)** 1975f: 346 (*Cryphalomorphus*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 346, 1979c: 68.
- crenatus (Sampson)** 1914: 385 (*Cryphalomorphus*). Syntypes, sex?; Seychelles, Mahe: from high damp forest between Trois Freres and Morne Seychellois, 1500–2000 feet; BMNH, London?
Distribution: Africa (Seychelles Islands).
Hosts: *Wormia ferruginea*.
References: (ds) Beaver 1957a: 20; Sampson 1914: 385; Schedl 1969d: 11. (tx) Sampson 1914: 385; Schedl 1952d: 344.
- cylindricus (Schedl)** 1959a: 476 (*Cryphalomorphus*). Syntypes, sex?; Ceylon: Sabargamuva, Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka/Vietnam).
References: (ds) Schedl 1959a: 476, 1962b: 186, 1971a: 280. (tx) Schedl 1959a: 476, 1979c: 73.
- darwinii Eichhoff** 1878b: 497. Holotype, sex?; Hindostan (Birma); deposited in Dohrn Collection, now in Schedl Collection in NHMW, Wien.
Distribution: Asia (Burma/ Yunnan in China/ Uttar Pradesh in India/ Sri Lanka/Vietnam), Indonesia (Java), New Guinea, Philippine Islands.
Hosts: *Cryptolepis buchanani*.
References: (ds) Hagedorn 1910d: 81; Kleine 1913b: 149, 1914b: 278. (tx) Eggers 1925: 159; Eichhoff 1878b: 387, 497; Hagedorn 1910a: 133; Hopkins 1914: 129; Lucas 1920: 572; Schedl 1939e: 337–338. (ms) Lucas 1920: 572.
similis Eggers 1923a: 142 (*Nigrites*). Lectotype, sex?; Java; USNM, Washington, designated by

- Anderson & Anderson 1971: 30. Synonymy: Wood 1985: 269.
References: **(bv)** Gray, B. 1974c. **(hb)** Gray, B. 1974c. **(tx)** Anderson, W. H. & Anderson 1971: 30; Eggers 1923a: 142; Schedl 1939e: 337–338, 1957b: 152, 1979c: 229; Wood, S. L. 1985: 269.
- major* Eggers 1927c: 69 (*Nigrinus*). Lectotype, sex?; Philippinen: Mindanao, Provinz Surigao, Surigao; USNM, Washington, designated by Anderson & Anderson 1971: 19. Synonymy: Wood 1985: 269.
References: **(en)** Mathur & Singh 1960a: 36. **(hb)** Kalshoven 1958b: 180. **(ds)** Beeson 1961: 295; Mathur & Singh 1960a: 36; Schedl 1964c: 305, 1966b: 15. **(tx)** Anderson, W. H. & Anderson 1971: 19; Eggers 1927c: 69, 1929e: 53; Nobuchi 1983: 299; Schedl 1939e: 337–338, 1942d: 1, 1951i: 55, 1974c: 262, 1979c: 146; Wood, S. L. 1985: 269.
- cryptolepis* Schedl 1951i: 55. Holotype, sex?; Nakronda, Dehra Dm, U.P., India; Schedl Collection in NHMW, Wien. Synonymy: Wood 1985: 269.
References: **(tx)** Schedl 1951i: 55, 1955i: 214, 1979c: 71; Wood, S. L. 1985: 269.
- devius* (Schedl) 1975k: 280 (*Cryphalophilus*). Holotype, sex?; Transvaal: Barberton: TMP, Pretoria. Figures: Schedl 1975k: 281.
Distribution: Africa (South Africa).
References: **(tx)** Schedl 1975k: 280–281, 1979: 79.
- eggersi* (Schedl) 1962q: 490 (*Cryphalomorphus*). Lectotype, sex?; Philippinen: Luzon, Manila; USNM, Washington, designated by Anderson & Anderson 1971: 20, automatic.
Distribution: Philippine Islands (Luzon).
References: **(tx)** Schedl 1962q: 490, 1979c: 154.
- minor* Eggers 1927c: 76 (*Cryphalomorphus*). Lectotype, sex?; Philippinen: Luzon, Manila; USNM, Washington, designated by Anderson & Anderson 1971: 20, preoccupied by Eggers 1927c: 69.
References: **(tx)** Anderson, W. H. & Anderson 1971: 20; Eggers 1927c: 76, 1929e: 53; Schedl 1939e: 335, 1962q: 490, 1979c: 154.
- excellens* (Schedl) 1979g: 97 (*Cryphalomorphus*). Holotype, sex?; Papua New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(tx)** Schedl 1979g: 97.
- expers* (Blandford) 1894d: 85 (*Hypothenemus*). Syntypes 2, sex?; Kumamoto and Nagasaki, Japan; BMNH, London.
Figures: Nakane et al. 1963: 382.
Distribution: Asia (Japan).
Notes: (1) Wood 1966b: 22 (to *Scolytogenes*).
References: **(ds)** Hagedorn 1910d: 42; Kleine 1913b: 124, 1914b: 257; Nakane et al. 1963: 382; Nobuchi 1985c: 12. **(tx)** Blandford 1894d: 85; Hagedorn 1910a: 86; Hopkins 1915b: 24; Murayama 1961: 31; Nakane et al. 1963: 382; Schedl 1934f: 1640; Wood, S. L. 1966b: 22.
- fijianus* (Schedl) 1950f: 42 (*Lepicerinus*). Syntypes, sex?; Fiji: Viti Levu, several localities; BPBM, Honolulu, and Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
Hosts: *Plerandra grayi* leaf petioles.
Notes: (1) Schedl 1979c: 96 (citation of holotype invalid).
References: **(ds)** Beaver 1991: 54; Brownie 1974a: 63. **(tx)** Schedl 1950f: 42, 1952d: 343–344, 1979c: 96.
- fugax* (Schedl) 1975f: 347 (*Cryphalomorphus*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(tx)** Schedl 1975f: 347, 1979c: 101.
- fujisanus* (Nobuchi) 1975: 46 (*Cryphalomorphus*). Holotype, sex?; Mt. Fuji, Yamanashi pref., Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 1, fig. 7.
Distribution: Asia (Japan).
Hosts: *Pterocarya rhoifolia*.
References: **(ds)** Nobuchi 1985c: 12. **(tx)** Nobuchi 1975: 46–47.
- fulgens* (Schedl) 1975f: 348 (*Cryphalomorphus*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(tx)** Schedl 1975f: 348, 1979c: 101.
- fulgidus* (Schedl) 1975f: 348 (*Cryphalomorphus*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(tx)** Schedl 1975f: 348, 1979c: 101.
- fulvipemis* (Nobuchi) 1975: 47 (*Cryphalomorphus*). Holotype, sex?; Yona, Okinawa pref., Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 1, fig. 9.
Distribution: Asia (Okinawa in Japan/Taiwan).
References: **(ds)** Nobuchi 1985c: 12. **(tx)** Nobuchi 1975: 47–48.
- ghanaensis* (Schedl) 1977d: 281 (*Cryphalomorphus*). Holotype, sex?; Ghana, Volta Region, N 6 degrees 70', E 0 degrees 03'; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ghana).
References: **(tx)** Schedl 1977d: 281.
- gracilis* (Schedl) 1950f: 44 (*Lepicerinus*). Holotype, sex?; Fiji Islands; Eggers Collection, in NHMW, Wien.
Distribution: Fiji Islands, New Caledonia.
Hosts: *Garcinia* sp.

- References: (ds) Anonymous 1974a: 64. (tx) Schedl 1950f: 44, 1952d: 343–344, 1979c: 107.
- gramulatus (Wood)** 1960a: 31 (*Cryphalomorplus*). Holotype ♂; Kalabera area, Saipan, S. Mariana Islands; FMNH, Chicago.
Distribution: Micronesia (Saipan Island in Mariana Islands).
Hosts: *Cerbera manghas*.
References: (tx) de Ruette 1970: 99; Wood, S. L. 1960a: 31.
- grobleri (Schedl)** 1962h: 68 (*Cryphalomorplus*). Holotype, sex?, Cape Province, Alexandria; NICP, Pretoria.
Distribution: Africa (South Africa).
Hosts: *Strychnos decussata*.
References: (tx) Schedl 1962h: 68, 1962k: 1069, 1979c: 113.
- hirtus (Wood)** 1974a: 18 (*Cryphalomorplus*). Holotype ♀; 16 km S Oaxaca, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca, Puebla in Mexico).
Hosts: *Ipomoea* sp.
References: (ds) Atkinson et al. 1986: 66; Wood, S. L. 1982b: 864. (tx) Wood, S. L. 1974a: 18, 1982b: 864.
- hobohmi (Schedl)** 1955i: 215 (*Cryphalomorplus*). Lectotype, sex?, S.W. Africa, Otjewarongo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 119.
Figures:
Distribution: Africa (Namibia).
References: (tx) Schedl 1955i: 211, 215, 1961k: 526, 1965c: 54, 1979c: 119.
- hylesinopsis (Schedl)** 1975f: 349 (*Cryphalomorplus*). Holotype, sex?, New Guinea, Wan, McAdam Park; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 349, 1979c: 120.
- indicus Wood** 1989: 184. Holotype, sex?, Amarkantak, Rewah State, C. I. 3500 ft.; FRI, Dehra Dun.
Distribution: Asia (Burma/ Kashmir, Madhya, Uttar Pradesh in India).
Hosts: *Hedera helix*, *Moringa pterygosperma*, *Stereospermum suaveolens*, *Valleria haynei*.
Notes: (3) This is *indicus* Beeson 1941 (1961: 240), nomen nudum. Schedl 1979c: 127 (cited it as a synonym of *varius* Schedl; however, 2 distinct species are represented by these names).
References: (tx) Schedl 1939e: 343, 1940d: 588, 1959a: 477, 1979c: 123; Wood, S. L. 1989: 184.
- insularis (Nobuchi)** 1975: 48 (*Cryphalomorplus*). Holotype, sex?, Kawada, Miyake Is., Tokyo, Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 1.
Distribution: Asia (Mikura Island in Japan).
References: (ds) Nobuchi 1985c: 12. (tx) Nobuchi 1975: 48, pl. 1.
- jalapae (Letzner)** 1848b: 99 (*Bostrichus*). Syntypes, sex?, taken from Jalapa root in Mexico; not located.
Distribution: North America (Mexico), transported through commerce to many parts of the world but not established there.
Hosts: Presumably *Exogonium jalapa*.
References: (ay) Imhoff 1856: 228. (cn) Hagedorn 1913a; Kleine 1932a: 297; Mumford 1960: 22; Swaine 1918a: 90. (cc) Wichmann 1955a: 96. (hb) Blandford 1894b; Chamberlin 1939: 316; Dombrowsky 1887; Eichhoff 1881a: 46, 187; Hagedorn 1903a, 1913a; Kleine 1932a: 297; Lengerken 1939: 63, 1954: 83; Swaine 1918a: 90; Wachtl 1876a: 458; Wood, S. L. 1953: 73, 1954a: 997, 1982b: 866. (ds) Anonymous 1926c: 518; Blackwelder 1947: 778; Blandford 1894b: 261, 1897b, 1904: 226; Calwer 1884, 1893; Chamberlin 1939: 316; Cola 1973; Ferrer 1942; Gemminger & Harold 1872: 2683; Hagedorn 1903a, 1910d: 43, 1913a: 46–47; Hamilton 1889: 158, 1894b: 406; Henshaw 1885: 148, 1895: 44; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Horion 1935, 1951; Kleine 1914b: 349, 1932a: 297, 1934a: 142; Koltze 1901: 153; Lacordaire 1866: 383; Leonard 1928: 518; Lomnicki 1913b: 148; Mumford 1960: 22; Nunberg 1964a: 235; Pittioni 1943: 176; Reitter 1894a: 70, 1916: 289, 350; Schedl 1980a: 17; Schwarz 1883: 40, 140, 1886: 42, 1901: 432; Seidlitz 1891a: 562, 1891b: 608; Stein 1868: 114; Stein & Weise 1877: 164; Swaine 1909: 92; Townsend 1889: 235; Wachtl 1876a: 458; Wichmann 1927a: 79, 1955a: 96; Wood, S. L. 1977a: 69, 1982b: 866. (tx) Balachowsky 1949a: 201; Berger 1917: 226–248; Blandford 1894b: 261, 1904: 226; Chamberlin 1939: 316; Dombrowsky 1887; Eichhoff 1878b: 134, 1881a: 46, 74, 187, 1883a: 110, 133; Fauvel 1889; Ferrari 1867a: 12, 14, 16; Hagedorn 1910a: 86; Hopkins 1915b: 35; Kuhn 1913: 1055; Lacordaire 1866: 383; Letzner 1844, 1848b: 99; Lindemann 1875c: 321; Portevin 1935: 324; Reitter 1894a: 70, 1908a: 56, 1913a: 68, 1916: 289, 350; Schedl 1934f: 1639, 1938f: 41, 1940a: 341, 1940d: 584, 588, 1959a: 476, 1965i: 368, 1980a: 17; Schwarz 1886: 42; Seidlitz 1891a: 562, 1891b: 608; Swaine 1909: 92, 1918a: 90; Wood, S. L. 1953: 73, 1954a: 997, 1982b: 866.
- knabi (Hopkins)** 1915b: 34 (*Ernoporidae*). Holotype ♀; Cordoba, Mexico; USNM, Washington.
Figures: Bright 1972d: 59.
Distribution: Antilles Islands (Cuba/ Dominican Republic/ Guadalupe/ Jamaica/ Tortola in British West Indies, introduced?), Asia (Japan, introduced?), North America (Guatemala/ Honduras/ Chiapas, Nayarit, Oaxaca, Veracruz in Mexico/

Florida in USA, introduced?), South America (Brazil/Venezuela? introduced?).

Hosts: *Calonciton tannifolium*, *Candiosperma holacobium*, *Ipomoea pres-carpa*, *Serjania* spp., and other lianas.

Notes: Although known primarily from tropical America where it has no near relatives, this species was probably introduced; its occurrence in Japan supports that supposition.

References: (hb) Burgos & Saucedo 1982b: 865; Wood, S. L. 1982b: 865. (ds) Atkinson & Equihua 1985c: 356, 1988: 100; Atkinson et al. 1986: 66; Bright 1972d: 61, 1976d: 61, 1985c: 175; Burgos & Saucedo 1983: 103; Ferrer 1942; Schedl 1940a: 342, 1940d: 588, 1960d: 75; Wood, S. L. 1982b: 865. (tx) Bright 1972d: 59, 1976d: 61, 1985c: 175; Hopkins 1915b: 34; Schedl 1940a: 342, 1940d: 588, 1959a: 477, 1960a: 75; Wood, S. L. 1966b: 23, 1977c: 385, 1982b: 865.

floridensis Hopkins 1915b: 34 (*Ernoporides*).

Holotype ♀; Biscayne, Florida [USA]; USNM, Washington. Synonymy: Wood 1966b: 23.

References: (hb) Chamberlin 1939: 315; Wood, S. L. 1954a: 998. (ds) Blatchley & Leng 1916: 604; Chamberlin 1939: 315. (tx) Balachowsky 1949a: 201; Blatchley & Leng 1916: 604; Chamberlin 1939: 315; Hopkins 1915b: 34; Schedl 1940d: 588; Wood, S. L. 1954a: 979, 998, 1966b: 22.

ritchii Sampson 1918: 295 (*Hypothencmus*).

Syntypes ♀; Jamaica; BMNH, London. Synonymy: Wood 1966b: 23.

References: (ds) Cowdey 1926: 27. (tx) Eggers 1940a: 108; Sampson 1918: 295; Schedl 1940d: 588; Wood, S. L. 1966b: 23.

carabicus Schedl 1951m: 96 (*Cryphalomorphus*).

Syntypes, sex?; Guadeloupe, Delanney; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 23.

References: (tx) Schedl 1951m: 96, 1979c: 53; Wood, S. L. 1966b: 23.

minutissimus Schedl 1951m: 97 (*Cryphalomorphus*).

Holotype ♂; Guadeloupe, Env. de Trois-Rivieres; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977c: 385.

References: (tx) Schedl 1951m: 97, 1979c: 156; Wood, S. L. 1977c: 385.

substriatus Schedl 1952d: 360 (*Cryphalomorphus*).

Holotype, sex?; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 23.

References: (tx) Schedl 1951m: 97, 1952d: 360, 1979c: 244; Wood, S. L. 1966b: 23.

aliensis Schedl 1976a: 65 (*Cryphalomorphus*).

Holotype, sex?; Corcovado, Guanabara, Brasil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 175.

References: (tx) Schedl 1976a: 65; Wood, S. L. 1989: 175.

landolphiae (Schedl) 1961e: 133 (*Cryphalomorphus*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.

Distribution: Madagascar.

References: (hb) Schedl 1977a: 45. (tx) Schedl 1961e: 133, 1965c: 56, 1977a: 46, 1979c: 136.

leprosulus (Browne) 1974a: 66 (*Cryphalomorphus*).

Holotype, sex?; Fiji: Viti Levu, Nandarivatu; BMNH, London.

Distribution: Fiji Islands.

Hosts: *Garcinia* sp.

References: (ec) Roberts 1976: 377. (hb) Roberts 1976: 377. (ds) Browne 1974a: 63, 66; Roberts 1976: 377. (tx) Browne 1974a: 66.

longipennis (Eggers) 1936b: 30 (*Cryphalomorphus*).

Holotype, sex?; Abyssinia: Mt. Chillalo in the Forest, circa 9000 feet; BMNH, London.

Distribution: Africa (Ethiopia).

References: (tx) Browne 1965: 191; Eggers 1936b: 30; Schedl 1940d: 588, 1961k: 527.

mauritanus (Schedl) 1965c: 56 (*Cryphalomorphus*).

Holotype, sex?; Mauritius; Schedl Collection in NHMW, Wien.

Distribution: Africa (Mauritius Island).

References: (ds) Schedl 1969d: 10. (tx) Schedl 1965c: 10, 56, 1969d: 10, 1977a: 47, 1979c: 150.

micans (Eggers) 1927b: 396 (*Stephanoderes*).

Holotype, sex?; Java (Tenggergebirge); Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: (tx) Eggers 1927b: 396, 1940b: 62; Schedl 1952d: 343-344, 1979c: 152.

minor (Eggers) 1927c: 69 (*Negritus*). Holotype,

sex?; Philippinen: Mindanao, Provinz Zamboanga, Port Banga; Eggers Collection [not mentioned by Anderson & Anderson 1971 or Schedl 1979c].

Distribution: Asia (Malaya/ Vietnam), Philippine Islands (Mindanao).

References: (ds) Schedl 1962b: 186, 1966b: 15, 23, 1971c: 363. (tx) Eggers 1927c: 69, 76, 1929e: 53; Schedl 1939e: 337, 1940d: 588, 1942c: 175, 1942d: 2, 1950f: 44, 1951i: 50, 1962q: 490.

mus (Schedl) 1975f: 349 (*Cryphalomorphus*). Holotype, sex?; New Guinea, War; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 349, 1979c: 162.

nanulus (Wood) 1960a: 29 (*Cryphalomorphus*).

Holotype, sex?; Mt. Tagpochau, Saipan; FMNH, Chicago.

Distribution: Micronesia (Saipan, Tinian in Caroline Islands).

References: (tx) de Rnette 1970: 99; Wood, S. L. 1960a: 29.

nigellatus (Schedl) 1950f: 44 (*Lepicerinus*). Holotype, sex?; Fiji; Eggers Collection, in NHMW,

Wien.

- Distribution: Fiji Islands.
References: (ds) Browne 1974a: 63. (tx) Schedl 1950f: 44, 1951m: 97, 1952d: 343–344, 1979c: 166.
- nubilus** (Wood) 1960a: 30 (*Cryphalomorplus*).
Holotype ♀: Ine I., Arno Atoll, Marshall Islands; USNM, Washington.
Distribution: Micronesia (Caroline Islands/ Arno Atoll in Marshall Islands).
Hosts: *Scaevola frutescens*.
References: (tx) de Ruelle 1970: 99; Wood, S. L. 1960a: 30.
- ocularis** (Schedl) 1965e: 365 (*Cryphalomorplus*).
Holotype, sex?; Congo ex belge-Leopoldville; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1965e: 368, 1979c: 177.
- onyanganus** (Schedl) 1941d: 391 (*Letznerella*).
Lectotype, sex?; Mt. Cameroon, Onyanga, 8100 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 178.
Distribution: Africa (Cameroon/ Kenya/ Nigeria/ South Africa/ Tanzania/ Uganda).
Hosts: *Acacia decurrens*, *Celtis* sp., *Euclea lanceolata*.
References: (tx) Browne 1973a: 290; Schedl 1940d: 588, 1941d: 391–392, 1952d: 344, 1961k: 527, 1979c: 178.
similaris Schedl 1965f: 8 (*Cryphalomorplus*).
Holotype, sex?; Uganda, Mpanga; BMNH, London. Synonymy: Browne 1973a: 290.
References: (ds) Browne 1970: 540; Schedl 1969d: 5, 1982: 278. (tx) Browne 1973a: 290; Schedl 1965e: 55, 1965f: 8, 1979c: 229.
- opacus** (Schedl) 1959a: 477 (*Cryphalomorplus*).
Holotype, sex?; Ceylon: Sabargamva, Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (ds) Schedl 1959a: 477. (tx) Schedl 1959a: 477, 1979c: 179.
- pacificus** (Schedl) 1942c: 176 (*Lepicerinus*).
Lectotype, sex?; Piti, Guam; Schedl Collection in NHMW, Wien.
Distribution: Micronesia (Caroline Islands/ Guam, Truk in Mariana Islands).
Hosts: Breadfruit.
References: (ds) Wood, S. L. 1960a: 27. (tx) Schedl 1942c: 176, 1950f: 44, 1952d: 343–345, 1960a: 27–28, 1979c: 182.
- papuanus** (Schedl) 1974d: 459 (*Cryphalomorplus*).
Holotype, sex?; Panganda logging area, Walnut Valley, Morobe District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Evodia* sp., *Nothofagus* sp.
References: (tx) Schedl 1974d: 459, 1979c: 183.
- papuensis** Wood 1989: 179. Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
- References: Wood, S. L. 1989: 179, 1992b: 79–80.
papuanus Schedl 1975f: 352 (*Xylocryptus*).
Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1974.
References: (tx) Schedl 1975f: 352, 1979c: 184; Wood, S. L. 1989: 179, 1992b: 79–80.
- paradoxus** Wood 1992b: 80. Holotype, sex?; Papua New Guinea; Schedl Collection in NHMW, Wien, automatic.
Distribution: New Guinea.
References: (tx) Wood, S. L. 1992b: 80.
papuanus Schedl 1979g: 97 (*Cryphalomorplus*).
Holotype, sex?; Papua New Guinea; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1974.
References: (tx) Schedl 1979g: 97; Wood, S. L. 1992b: 80.
- parvatis** (Wood) 1974a: 17 (*Cryphalomorplus*).
Holotype ♀; La Lima, Cortez, Honduras; Wood Collection.
Distribution: North America (Costa Rica/ Honduras).
Hosts: *Cestrum scandens*.
References: (tx) Wood, S. L. 1974a: 17, 1982b: 862–863.
- parvus** (Hopkins) 1915b: 11 (*Hypothenoides*).
Holotype, sex?; Calapan, Philippine Islands; USNM, Washington.
Distribution: Philippine Islands.
Hosts: *Lemon silvestre*.
References: (ds) Kleine 1934a: 148; Schedl 1966b: 23. (tx) Hopkins 1915b: 11; Nobuchi 1983: 300.
- pityophthorinus** (Schedl) 1943b: 39 (*Lepicerinus*).
Holotype, sex?; Balbolan [?=Balbalan], Philippines; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands.
Notes: (1) Schedl 1979c: 195 (Errors in spelling both generic and specific names in the original publication are considered lapsus calami and were corrected).
References: (ds) Schedl 1966b: 24. (tx) Nobuchi 1983: 300; Schedl 1943b: 39, 1952d: 345, 1979c: 195.
- pleiocarpae** (Schedl) 1957d: 51 (*Cryphalomorplus*).
Holotype, sex?; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Schedl 1961k: 528.
Distribution: Africa (Angola/ Ghana/ Zaire).
Hosts: *Pleiocarpa micrantha*, *P. tubicina*.
References: (cc) Schedl 1958d: 188, 193, 1961k: 527, 1972c: 67. (hb) Schedl 1961k: 527. (ds) Ferreira 1965: 1114; Schedl 1959p: 17, 1961k: 527, 1964j: 40. (tx) Schedl 1957d: 51, 1961e: 133, 1961k: 527–528, 1965f: 8, 1979c: 196.

- praeda** (Browne) in Beaver & Browne 1978: 589 (*Ptilopodius*). Holotype, sex[?]; Malaysia; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Beaver 1991: 53; Beaver & Browne 1978: 604; Browne 1979: 589.
- puerarae** Choo & Woo 1989: 58. Holotype ♀; Korea: Sacheon, Gyeongnam province; not given.
Figures: Choo & Woo 1989: 60.
Distribution: Asia (Korea).
Hosts: *Pucrania thungergiana*.
References: (tx) Choo & Woo 1989: 58–60.
- pumilionides** (Schedl) 1977f: 500 (*Cryphalomorphus*). Holotype, sex[?]; India: Kerala; Schedl Collection in NHMW, Wien.
Distribution: Asia (Kerala in India).
References: (tx) Schedl 1977f: 500.
- pumilus** (Wood) 1960a: 29 (*Cryphalomorphus*). Holotype ♀; northwest slope, Mt. Lasso, Timian; FMNH, Chicago.
Distribution: Micronesia (Timian Island).
References: (tx) Wood, S. L. 1960a: 28–29.
- punctatulus** Nobuchi 1976: 72. Holotype, sex[?]; Mt. Inugaki, Fukuoka pref., Japan; Nobuchi Collection, Ibaraki, automatic.
Figures: Nobuchi 1975: pl. 1, fig. 11.
Distribution: Asia (Japan).
Hosts: *Trachelospermum asiaticum*.
References: (ds) Nobuchi 1985c: 12. (tx) Nobuchi 1976: 72.
- punctatus** Nobuchi 1975: 49 (*Cryphalomorphus*). Holotype, sex[?]; Inugaki, Fukuoka pref., Japan; Nobuchi Collection, Ibaraki, preoccupied by Schedl 1951.
References: (tx) Nobuchi 1975: 49, 1976: 72, 1985c: 12.
- nobuchii** Schedl 1980: 118 (*Cryphalomorphus*). Holotype, sex[?]; Mt. Inugaki, Fukuoka pref., Japan; Nobuchi Collection, Ibaraki, automatic.
Notes: (1) This is an unneeded replacement name.
References: (tx) Choo & Woo 1989a; Schedl 1980: 118.
- punctatus** (Schedl) 1951i: 55 (*Cryphalomorphus*). Holotype, sex[?]; Himalaya, Darjeeling; Schedl Collection in NHMW, Wien.
Figures: Nobuchi 1975: pl. 1.
Distribution: Asia (Bengal in India).
References: (tx) Nobuchi 1975: pl. 1, 1976: 72; Schedl 1951i: 55, 1952d: 345, 1979c: 204.
- puncticollis** (Schedl) 1950f: 43 (*Lepicerinus*). Syn-types, sex[?]; Fiji: Viti Levu, several localities; BPBM, Honolulu, and Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
Notes: (1) Schedl 1979c: 205 (citation of holotype invalid).
References: (ds) Browne 1974a: 63. (tx) Beaver 1991: 93; Schedl 1950f: 43, 1952d: 345, 1979c: 205.
- grosseopunctatus** Browne 1974a: 66 (*Cryphalomorphus*). Holotype, sex[?]; Fiji: Viti Levu, Nausori Highlands; BMNH, London. Synonymy: Beaver 1991: 93.
Notes: (3) Schedl 1980d: 118 (treated as a synonym of *gracilis*).
References: (ec) Roberts 1976: 376. (hb) Roberts 1976: 376. (ds) Browne 1974a: 63; Roberts 1976: 376. (tx) Beaver 1991: 93; Browne 1974a: 66; Schedl 1980d: 118.
- pygmaeolus** (Schedl) 1971e: 12 (*Cryphalomorphus*). Holotype, sex[?]; Cote d'Ivoire, Forêt du Banco; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast).
References: (tx) Schedl 1971e: 12, 1979c: 207.
- quadridens** (Browne) 1984f: 71 (*Hypotheneus*). Holotype, sex[?]; New Guinea: Morobe District, Wan, 1700 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Macaranga aleurutooides*.
References: (tx) Beaver 1991: 54; Browne 1984f: 71.
- robustus** (Schedl) 1955c: 32 (*Cryphalomorphus*). Lectotype, sex[?]; Somalia It: Belet Uen-Cabredarre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 212.
Distribution: Africa (Somalia).
References: (tx) Schedl 1955c: 32, 1961k: 533, 1979c: 212.
- rusticus** (Wood) 1974a: 18 (*Cryphalomorphus*). Holotype ♀; 33 km N Juchitlan, Jalisco, Mexico; Wood Collection.
Figures: Atkinson et al. 1986: 73.
Distribution: North America (Chiapas, Guanaajuato, Jalisco, Michoacan in Mexico).
Hosts: *Ipomoea* sp.
References: (ec) Equihua & Atkinson 1986: 633. (hb) Atkinson & Equihua 1985c: 356; Atkinson et al. 1986: 66; Burgos & Saucedo 1983: 101; Equihua & Atkinson 1986: 633; Wood, S. L. 1982b: 864. (ds) Atkinson & Equihua 1985c: 356; Atkinson et al. 1986: 66; Burgos & Saucedo 1983: 101; Equihua & Atkinson 1986: 633; Wood, S. L. 1982b: 864. (tx) Atkinson et al. 1986: 73; Wood, S. L. 1974a: 18, 1982b: 864–865.
- samoanus** (Browne) 1977c: 61 (*Cryphalomorphus*). Holotype, sex[?]; Samoa: Upolu; BMNH, London.
Distribution: Samoan Islands.
Hosts: *Psidium guajava*, *Theobroma cacao*.
References: (hb) Beaver 1976b: 534. (ds) Beaver 1976d: 534. (tx) Browne 1977c: 61.
- scolytomimoides** (Nobuchi) 1975: 50 (*Cryphalomorphus*). Holotype, sex[?]; Asakawa, Tokyo, Japan.
Figures: Nobuchi 1975: pl. 1.
Distribution: Asia (Japan).
Hosts: *Trachelospermum asiaticum*.

- References: (ds) Nobuchi 1955c: 12. (tx) Nobuchi 1975: 50, pl. 1.
- separandus (Schedl)** 1965c: 56 (*Cryphalomorphus*). Holotype, sex?; Madagascar; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 56, 1977a: 47, 1979c: 225.
- setifer (Wood)** 1974a: 18 (*Cryphalomorphus*). Holotype ♀; Volcan Pacaya, Esquinjala, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Liana.
References: (ds) Wood, S. L. 1982b: 863. (tx) Wood, S. L. 1974a: 18, 1982b: 863–864.
- sodalis (Schedl)** 1965c: 55 (*Cryphalomorphus*). Holotype, sex?; Madagascar, Perinet; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Landolphia* sp.
References: (tx) Schedl 1965c: 55, 1977a: 47, 1979c: 231.
- spirostachius (Schedl)** 1958a: 557 (*Ptilopodius*). Holotype, sex?; Zululand: W. Umfolosi Riv.; BMNH, London.
Distribution: Africa (South Africa).
Hosts: *Spirostactys* sp.
References: (ds) Schedl 1961k: 455, 1965h: 111. (tx) Schedl 1958a: 557, 1961k: 455, 1979c: 235.
- splendens (Schedl)** 1975f: 350 (*Cryphalomorphus*). Holotype, sex?; Bulolo, Compt. 5, Taun logging area, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 350, 1979c: 235.
- squamatilis (Schedl)** 1977f: 500 (*Cryphalomorphus*). Holotype, sex?; Vietnam: Dinh by NE of Hanoi; Schedl Collection in NHMW, Wien.
Distribution: Asia (Vietnam).
References: (tx) Schedl 1977f: 500.
- squamosus (Schedl)** 1942c: 175 (*Lepicerinus*). Holotype, sex?; New-Guinea, Kapa-Kapa; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (bv) Gray, B. 1974c. (hb) Gray, B. 1974c. (ds) Browne 1961c: 79. (tx) Schedl 1942c: 175, 1943b: 40, 1951m: 96, 1952d: 345, 1979c: 236.
- squamulosus (Eggers)** 1936d: 633 (*Cylindrotomicus*). Holotype, sex?; Vorderindien (Mysore: Jakkur); BMNH, London, 1 Eggers cotype, in NHMW, Wien.
Distribution: Asia (Karnataka in India).
Hosts: Wild creeper.
References: (tx) Eggers 1936d: 633; Schedl 1957b: 152, 1979c: 236.
- sumatranus (Schedl)** 1970b: 358 (*Chiloxylon*). Holotype, sex?; Sumatra, Palembang to Akita (Japan), imported; PPST, Tokyo.
Distribution: Indonesia (Sumatra).
Hosts: Pulau log.
References: (ds) Browne 1980d: 491; Ohno, Yoneyama, & Nakazawa 1982b: 7. (tx) Schedl 1970b: 358, 1979c: 246.
- tonsus (Schedl)** 1969c: 49 (*Cryphalomorphus*). Holotype, sex?; N. Vietnam: Hoa Binh, Tonkin.
Distribution: Asia (Vietnam).
References: (tx) Schedl 1969c: 49, 1979c: 254.
- tricolor (Lea)** 1910: 141 (*Cryphalus*). Holotype, sex?; Queensland: Cairns; SAM, Adelaide.
Distribution: Australia (Queensland).
Hosts: *Millettia megasperma*.
References: (ds) Brimblecombe 1953: 21; Schedl 1972a: 144. (tx) Lea 1910: 141; Schedl 1938f: 34, 41, 1940d: 588.
- trucis (Wood)** 1974a: 19 (*Cryphalomorphus*). Holotype ♀; 16 km S Oacaca, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca, Puebla in Mexico).
Hosts: *Ipomoea* sp.
References: (ds) Wood, S. L. 1982b: 866. (tx) Wood, S. L. 1974a: 19, 1982b: 866.
- uncatus (Schedl)** 1971c: 373 (*Cryphalophilus*). Holotype, sex?; Ins. Kei (Planten); MNHN, Paris.
Distribution: Indonesia (Kei Island), Niue Island, Tahiti.
References: (tx) Schedl 1971c: 373, 1979c: 260.
- ater (Schedl)** 1972a: 146 (*Cryphalomorphus*). Holotype, sex?; Queensland: Yarraman; Queensland Museum, Brisbane, preoccupied by Eggers 1923. Synonymy: Beaver 1991: 93. References: (tx) Beaver 1991: 93; Schedl 1940b: 434, 1950g: 894, 1972a: 146, 1972b: 267, 1979c: 29.
- usagaricus (Eggers)** 1922b: 169 (*Neocryphalus*). Holotype, sex?; Sudost-Usagra in Deutsch-Ostafrika; Methner Collection in MNH, Berlin, 1 Eggers cotype, in NHMW, Wien.
Distribution: Africa (Kenya/ Tanzania).
References: (hb) Roberts 1969: 123. (ds) Schedl 1971e: 5. (tx) Eggers 1922b: 169; Schedl 1950d: 2, 1952d: 345, 1955i: 215, 1961k: 534, 1979c: 262.
- varius (Schedl)** 1975f: 350 (*Cryphalomorphus*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 350, 1979c: 265.

Genus *Hemicryphalus* Schedl

- HEMICRYPHALUS SCHEDL. 1963h: 264. Type-species: *Eidophelus argutus* Wood, original designation.
Keys: Wood 1960a: 32.
Notes: (3) Schedl 1965a: 341 (used *Taphropteris*, nomen nudum, to cite a member of this genus).
References: (hb) Wood, S. L. 1986a: 90. (ds)

Wood, S. L. 1986a: 90. (tx) Schedl 1963h: 264, 1965a: 341; Wood, S. L. 1986a: 90.

argutus (Wood) 1960a: 33 (*Eidophelus*). Holotype ♀; Saipan, S. Mariana Is.; FMNH, Chicago. Figures: Wood 1960a: 33.

Distribution: Micronesia (Saipan in Mariana Islands).

References: (tx) de Ruelle 1970: 101; Schedl 1963h: 264; Wood, S. L. 1960a: 33.

atomus (Wood) 1960a: 34 (*Eidophelus*). Holotype ♂; Kolonia (Yaptown), Yap, Yap Is.; USNM, Washington.

Distribution: Micronesia (Yap Islands).

References: (tx) Schedl 1963h: 264; Wood, S. L. 1960a: 34.

incomptus (Wood) 1960a: 32 (*Eidophelus*). Holotype ♀; Iwo Jima, Volcano Is.; FMNH, Chicago. Distribution: Micronesia (Iwo Jima in Volcano Islands).

References: (tx) Schedl 1963h: 264; Wood, S. L. 1960a: 32.

Genus *Eidophelus* Eichhoff

EIDOPHELUS EICHHOFF 1875: 200. Type-species: *Eidophelus imitans* Eichhoff, monobasic.

Phellodendrophagus Krivolutskaya 1958: 150. Type-species: *Phellodendrophagus elegans* Krivolutskaya = *Eidophelus imitans* Eichhoff, monobasic. Synonymy: Schedl 1962q: 493.

References: (tx) Krivolutskaya 1958: 150; Schedl 1962q: 493.

References: (hb) Wood, S. L. 1986a: 90. (ds) Wood, S. L. 1986a: 90. (tx) Choo 1983: 76; Choo, Woo, & Nobuchi 1985b; Eichhoff 1875: 200; Hopkins 1915b: 8; Murayama 1930: 21–22; Niisima 1917: 1; Schedl 1935a: 158, 1962q: 493; Wood, S. L. 1960a: 31, 1986a: 90.

borneensis Browne 1984a: 153. Holotype, sex?; Baram (Sarawak) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: *Terminalia* sp.

References: (tx) Browne 1984a: 153.

gracilis Browne 1984a: 152. Holotype, sex?; Lasibu (New Britain) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Britain Island.

Hosts: *Labnlla* log.

References: (ds) Ohno, Yoshioka, et al. 1989: 60. (tx) Browne 1984a: 152.

imitans Eichhoff 1875: 201. Syntypes, sex?; Japan; 1 in BMNH, London.

Figures: Krivolutskaya 1958: 150, Kusch 1967: 10. Distribution: Asia (Uttar Pradesh in India/ Japan/ Korea/ Nepal/ Sri Lanka/ Sakhalin Island in E USSR).

Hosts: *Phellodendron sachalinensis*, *Quercus acutissima*, *Toxicodendron trichocarpum*.

References: (cn) Shiraki 1952. (ds) Blandford 1894c; Cho 1957; Choo & Woo 1985: 165; Hagedorn 1910d: 69; Kleine 1913b: 139, 1914b: 258, 1934a: 158; Ko 1969: 276; Murayama 1929b: 2, 1930b: 17, 1937b: 375, 1954b: 200; Nobuchi 1967: 20; Shiraki 1952. (tx) Choo 1983: 76; Eichhoff 1875: 201, 1877a: 118; Hagedorn 1910a: 90; Hopkins 1914: 121; Murayama 1930b: 17, 21–22, 31, 1937b: 375, 1954b: 200; Nobuchi 1981c: 29; Schedl 1934f: 1643, 1962b: 191.

elegans Krivolutskaya 1958(?): (p. ?, 150) (*Phellodendrophagus*). Holotype, sex?; Sakhalin Island; Zoological Institute, Academy of Science, Vladivostok. Synonymy: Wood 1989: 172. Notes: Krivolutskaya 1958: 150 apparently is not the original description of this name.

References: (hb) Krivolutskaya 1973: 137. (ds) Krivolutskaya 1965a: 236, 1973: 137; Krivolutskaya & Kupyanskaya 1970. (tx) Krivolutskaya 1958: 150; Schedl 1962q: 493; Wood, S. L. 1989: 172.

nitidus Schedl 1959a: 475 (*Ptilopodius*). Holotype ♀; Ceylon: Sabargamva, Millawitiya Estate; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 172.

References: (ds) Evans, D., Lowe, & Hunt 1978; Kusch 1967; Schedl 1959a: 475, 1965g: 20. (tx) Kusch 1967: 10; Schedl 1959a: 475, 1979c: 170; Wood, S. L. 1989: 172.

minutissimus Schedl 1962b: 191. Holotype ♀; Tonkin: Saigon; MNHN, Paris.

Distribution: Asia (Vietnam).

Notes: (1) Schedl 1979c: 156 (suggested a transfer to *Acanthotomicus* [not seen by us]).

References: (tx) Schedl 1962b: 191, 1979c: 156.

minutus Blandford 1894d: 88. Holotype, sex?; Chiussenji, Japan; BMNH, London.

Distribution: Asia (Japan).

References: (ds) Blandford 1894c: 579; Hagedorn 1910d: 69; Kleine 1913b: 139, 1914b: 258; Murayama 1954b: 165. (tx) Blandford 1894d: 88; Hagedorn 1910a: 90; Lucas 1920: 256; Murayama 1954b: 165; Nobuchi 1981c: 29; Schedl 1934f: 1643. (ms) Lucas 1920: 256.

samoanus Schedl 1972b: 268. Holotype, sex?; Samoa, Upolu; Schedl Collection in NHMW, Wien.

Distribution: Samoan Islands.

References: (ds) Beaver 1976b: 536. (tx) Schedl 1972b: 268, 1979c: 218.

sumatranus Schedl 1961c: 72. Holotype, sex?; Sumatra's Ostkuste, Bandar Baroe, 850 m; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Sumatra).

Notes: (1) Schedl 1979c: 246 (suggested a transfer to *Acanthotomicus* [not seen by us]).

References: (tx) Schedl 1961c: 72, 1979c: 246.

Genus *Hypocryphalus* Hopkins

Hypocryphalus Hopkins 1915b: 8, 41. Type-species: *Hypocryphalus rotundus* Hopkins, original designation.

Dacryphalus Hopkins 1915b: 8, 42. Type-species: *Dacryphalus obesus* Hopkins, original designation. Synonymy: Schedl 1938f: 48.

References: (tx) Hopkins 1915b: 8, 42; Schedl 1938f: 48, 1960g: 142; Wood, S. L. 1954a: 999.

References: (ay) Nobuchi 1969a: 58. (hb) Beaver 1987a: 18; Browne 1961c: 67; Schedl 1961k: 542, 1977a: 57; Wood, S. L. 1982b: 871. (ds) Beaver 1987a: 18; Beeson 1938: 288; Blackwelder 1947: 778; Brimblecombe 1953: 19; Browne 1961c: 67; Kalshoven 1945: 8; Schedl 1961k: 542, 1966b: 25, 1977a: 57; Wood, S. L. 1982b: 871. (tx) Arnett 1960: 1043, 1968: 1043; Hopkins 1915b: 8, 41; Schedl 1938f: 48, 1939i: 382, 1959a: 483, 1961k: 542, 1962h: 67, 1962m: 697–699, 1963j: 478, 1964i: 246–249, 1964m: 305, 1977a: 57; Wood, S. L. 1954a: 991, 1960a: 13, 1961a: 45, 1982b: 871, 1986a: 90.

aciculatus Schedl 1939e: 341. Lectotype, sex?; Malaya, Pahang; Semangkok For. Res., 2000 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 10.

Distribution: Asia (Malaya).

References: (tx) Schedl 1939e: 341, 1962r: 106, 1979c: 10.

afiamalus Schedl 1951k: 148. Lectotype, sex?; Upolu, Afiamalu; 2100 feet; Schedl Collection in NHMW, Wien.

Distribution: Samoan Islands.

References: (ds) Beaver 1976b: 534. (tx) Schedl 1951k: 134, 148, 1979c: 14.

angustior (Eggers) 1927b: 300 (*Cryphalus*). Holotype ♂; Snd-Sumatra: Buru; USNM, Washington.

Distribution: Indonesia (Sumatra).

References: (tx) Anderson, W. H. & Anderson 1971: 4; Eggers 1927b: 300; Schedl 1950g: 36–37, 1979c: 21.

asper (Broun) 1881: 742 (*Tomicus*). Syntypes, sex?; Wellington, New Zealand; not located.

Distribution: New Zealand.

References: (ds) Hagedorn 1910d: 48; Kleine 1913b: 127. (tx) Broun 1881: 742; Schedl 1938f: 48, 1942c: 163.

bakeri (Eggers) 1927c: 77 (*Stephanoderes*). Syn-types, sex?; Philippinen: Catanduanes, Prov. Albay, Virac; Eggers Collection [not mentioned by either Anderson & Anderson 1971 or Schedl 1979c].

Distribution: Philippine Islands.

References: (ds) Schedl 1966b: 25. (tx) Eggers 1927c: 77; Nobuchi 1983: 300; Schedl 1951i: 50, 57, 1962h: 66.

basihirtus (Beeson) 1929: 227 (*Cryphalus*). Syn-types 2, sex?; [Samoa] Upolu: Malololelei; BMNH, London.

Distribution: Samoan Islands.

Hosts: *Myristica* sp.

Notes: (3) Schedl 1951k: 145 (redescription, male described).

References: (cn) Kalshoven 1954: 8. (ds) Beaver 1976b: 534; Beeson 1938b: 288. (tx) Beeson 1929: 227; Schedl 1951k: 134, 145.

bidentatus Browne 1980b: 383. Holotype, sex?; Wasag (Philippine) to Kinunira (Japan), imported; BMNH, London.

Distribution: Philippine Islands.

References: (tx) Browne 1980b: 383; Nobuchi 1983: 301.

brebior Schedl 1943b: 40. Lectotype, sex?; St. Theodoro, Mindoro [Island], Philippines; USNM, Washington, designated by Anderson & Anderson 1971: 8.

Distribution: Philippine Islands (Mindoro).

References: (ds) Schedl 1966b: 26. (tx) Anderson, W. H. & Anderson 1974: 7; Nobuchi 1983: 301; Schedl 1943b: 40, 1979c: 46.

caplandicus Schedl 1965h: 115. Holotype, sex?; Cape Province, Grootvadersbosch; TMP, Pretoria.

Distribution: Africa (South Africa).

Hosts: *Podocarpus latifolius*, *Virgilia oroboides*.

References: (tx) Schedl 1965h: 115, 1979c: 52.

corpulentus Schedl 1942d: 22. Lectotype, sex?; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 65.

Distribution: Asia (Malaya), Indonesia (Java).

Hosts: *Artocarpus scortechini*, *Hibiscus tiliaceus*.

References: (cn) Mathur & Singh 1960b: 51. (hb) Browne 1961c: 67. (ds) Browne 1961c: 67; Mathur & Singh 1960b: 51. (tx) Schedl 1942a: 176, 1942d: 22, 1953c: 289, 1979c: 65.

cylindripennis Schedl 1959a: 483. Holotype ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

References: (ds) Schedl 1959a: 483. (tx) Schedl 1959a: 483, 1979c: 74.

cylindrus (Browne) 1950b: 647 (*Dacryphalus*). Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Palaquium stellatum*.

References: (tx) Browne 1950b: 647, 1961c: 68; Schedl 1959a: 483.

densepilosus Schedl 1942d: 21. Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 77.

Distribution: Indonesia (Java).

References: (tx) Schedl 1942d: 21, 1948g: 27, 1979c: 77.

- discrepans** Schedl 1965c: 58. Holotype, sex[?]; Madagascar, Montagne d'Ambre, 1000 m; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 58, 1977a: 59, 1979c: 82.
- dubiosus** Schedl 1970h: 177. Holotype, sex[?]; Alexandria (C.P.); NICP, Pretoria.
Figures: Schedl 1970h: 181.
Distribution: Africa (South Africa).
Hosts: *Ekebergia capensis*, *Eleocharis* sp.
References: (cn) Anonymous 1970c: 13, (ds) Anonymous 1970c: 13, (tx) Schedl 1970h: 177, 181, 1979c: 98.
- fici** Browne 1986a: 90. Holotype, sex[?]; Solomon Islands (Bougainville Island); Dios to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands (Bougainville).
Hosts: *Ficus* sp. log.
References: (tx) Browne 1986a: 90.
- formosanus** Schedl 1952c: 62. Holotype, sex[?]; Formosa, Riran; Schedl Collection in NHMW, Wien.
Distribution: Asia (Taiwan).
References: (ds) Nobuchi 1967: 24, (tx) Schedl 1952c: 62, 1979c: 98.
- glabratus** Schedl 1959a: 484. Holotype ♀; Ceylon; Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (ds) Schedl 1959a: 484, (tx) Schedl 1959a: 484, 1979c: 105.
- granulatus** Schedl 1942a: 176. Lectotype, sex[?]; Malaya, Selangor; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 110.
Distribution: Asia (Malaya).
Hosts: *Myristica fufuracea*.
References: (ds) Browne 1961c: 67, (tx) Schedl 1942a: 176, 1979c: 110.
- imitans** Schedl 1951k: 148. Lectotype ♂; Upolu, Tapatapao, 800 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 121.
Distribution: Samoan Islands.
References: (ds) Beaver 1976b: 534, (tx) Schedl 1951k: 134, 148, 1979c: 121.
- interponens** Schedl 1953b: 126. Lectotype ♀; Saigon, Jardin Botanique; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka/Vietnam).
References: (tx) Schedl 1953b: 126, 1979c: 127.
- kalabanganus** Schedl 1943b: 39. Lectotype, sex[?]; Kalabangan, Mindanao, Philippines; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131.
Distribution: Philippine Islands (Mindanao).
References: (ds) Schedl 1966b: 26, (tx) Nobuchi 1983: 301; Schedl 1943b: 39, 1979c: 131.
- laeris** Browne 1980a: 374. Holotype, sex[?]; Batanta (New Guinea) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Calophyllum* sp.
References: (tx) Browne 1980a: 374.
- laticollis** Browne 1974a: 67. Holotype, sex[?]; Fiji; Viti Levu, Colo-i-Suva; BMNH, London.
Distribution: Fiji Islands.
Notes: (3) Schedl 1980d: 118 (treated as a synonym of *tutuilaensis*). Beaver 1991: 91 (a good species).
References: (ec) Roberts 1976: 380, (hb) Roberts 1976: 380, (ds) Browne 1974a: 64; Roberts 1976: 380, (tx) Beaver 1991: 91; Browne 1974a: 64, 67; Schedl 1980d: 118.
- longipilis** Browne 1981a: 128. Holotype, sex[?]; Bacau (Moluccas) to Omaezaki (Japan), imported.
Distribution: Indonesia (Moluccas), New Britain Island.
References: (tx) Browne 1981a: 128.
- malayensis** Schedl 1942a: 176. Lectotype ♀; Malaya, Pahang, Kemasul; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 146.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: Burceraceae sp., *Canarium littorale*, *Dacryodes rostrata*.
References: (hb) Browne 1961c: 67, (ds) Browne 1961c: 67, (tx) Schedl 1942a: 176, 1953c: 289, 1979c: 146.
- mangiferae** (Stebbing) 1914: 542 (*Cryphalus*). Lectotype ♀; Eastern Dm, northern India; BMNH, London, designated by Wood 1982b: 871, name conserved by plenary powers.
Distribution: Africa (Ghana/ Guinea/ Kenya/ Ivory Coast/ Mauritius/ Nigeria/ Tanzania/ Uganda/ Zaire), Antilles Islands (Barbados/ Guadeloupe), Asia (Burma/ Nicobar Islands in India/ Malaya/ Sri Lanka/ Thailand), Australia (Queensland), Cook Islands (Rarotonga), Hawaii, Indonesia (Java), Madagascar, Micronesia (Caroline Islands, Palau), North America (Costa Rica/ Honduras/ Veracruz in Mexico/ Panama/ Florida in USA), Reunion Island, Samoan Islands, South America (Brazil/ Venezuela).
Hosts: *Mangifera indica*, *M. odorata*.
Notes: (1) Tubbs 1986: 245 (priority given *mangiferae* under plenary powers). (3) Schedl 1952: 62 (*africanus* Eggers, nomen nudum, synonymy). *Cryphalus robustus* Eichhoff may also be a synonym.
References: (ay) Browne 1962g: 77; Costa Lima 1929: 109–110; Gardner 1934: 11, (cn) Costa Lima 1956; Ebeling 1950, 1959; Pyenson 1938: 29–30, (ec) Silvas, Cayeo, & Castro 1959: 13, (hb) Beeson 1929: 226, 1938: 255, 1940: 198, 1941: 374; Browne 1968: 350–351; Carvalho 1938; Castro da Silveira 1960: 54; Costa Lima 1956, 1957: 276–290; Ebeling 1950, 1951: 680; Kalsho-

ven 1954: 8; Medeiros & Rosetto 1966: 30–38; Paulian 1951: 27; Rao 1953: 52; Roberts 1969: 125; Tucker 1952: 347; Wichmann 1954: 503–510; Wood, S. L. 1953: 77. **(ds)** Beaver 1989a: 2, 1990a: 280; Beaver & Maddison 1990: 1371; Beeson 1940, 1961: 285; Blackwelder 1947; Blackwelder & Blackwelder 1948; Bright 1985c: 174; Browne 1964: 188, 1965: 188, 1970: 540; Costa Lima 1936: 355, 1956; Dumbleton 1954: 28, 134; Ebeling 1950, 1959; Hopkins 1927: 23–32; Kalshoven 1958: 164; Kleine 1934a: 148; Mathur & Singh 1961a: 45, 81, 1961b: 51; Nurnberg 1958: 479, 507; Paulian 1951: 27; Schedl 1959a: 483, 1960a: 76, 79, 1961k: 542–544, 1966f: 84, 1967d: 2, 1967e: 211; Swezey 1949: 445; Tucker 1952: 347. **(tx)** Beeson 1929: 226, 1940; Bright 1985c: 174; Costa Lima 1929, 1956; Eggers 1928c: 85, 1931c: 185; Hopkins 1927: 28; Kalshoven 1958: 164, 169; Schedl 1942a: 176, 1942d: 2, 1948g: 25–29, 1950g: 894, 1951j: 19, 1951k: 134, 1952c: 62, 1958k: 153, 1961k: 543–544, 1970e: 81, 1977b: 59; Stebbing 1914: 542–543; Swezey 1949: 445; Thirumala Rao 1953: 52; Wood, S. L. 1953: 77, 1954a: 962–966, 999–1000, 1087, 1960a: 24–27.

inops Eichhoff 1872a: 131 (*Cryphalus*). Holotype ♀; Guadeloupe; IRSNB, Brussels, name suppressed by plenary powers. Synonymy: Wood 1982b: 871.

References: **(ds)** Beeson 1929: 225; Blackwelder 1947: 778; Fleutiaux & Salle 1890: 457; Hagedorn 1910d: 43; Kleine 1913b: 118, 1914b: 379. **(tx)** Eichhoff 1872a: 131; Hagedorn 1910a: 86; Tubbs 1986: 245; Wood, S. L. 1982b: 871.

griseus Blackburn 1885: 194 (*Hypothenemus*). Holotype ♀; plains of Honolulu, Oahu, Hawaiian Islands; BMNH, London, name suppressed by plenary powers. Synonymy: Wood 1982b: 871.

References: **(ds)** Beeson 1938b: 289; Hagedorn 1910d: 43; Kleine 1913b: 124, 1914b: 302; Swezey 1949: 445. **(tx)** Blackburn 1885: 194; Hagedorn 1910a: 86; Hopkins 1915b: 24; Perkins 1900: 180; Sharp 1892: 194; Swezey 1949: 445–446; Wood, S. L. 1982b: 871.

mangiferae Eggers 1928c: 85. Lectotype ♂; Brazil; USNM, Washington, designated by Anderson & Anderson 1971: 19. Synonymy: Eggers 1931: 185.

References: **(en)** Anonymous 1961k, 1962g, 1962y; Estrada & Atkinson 1988: 209; Kalshoven 1954: 8; Stebbing 1914: 542; Thirumala Rao 1953: 52. **(ce)** Abrahao & Wegmuller 1974; Castro 1960a; Equihua & Atkinson 1986: 630; Stebbing 1914: 542. **(hb)** Abrahao & Wegmuller 1969; Beaver 1976b: 534; Beaver & Browne 1978: 588; Beeson 1929; Castro 1960a; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 630; Kalshoven 1958b: 164;

Schedl 1961k: 543, 1977a: 59; Stebbing 1914: 542; Wood, S. L. 1954a: 999, 1982b: 871. **(ds)** Anonymous 1961k, 1962g, 1962y; Atkinson & Equihua 1985c: 356; Beaver 1976b: 534; Beaver & Browne 1978: 588; Beeson 1929, 1938b, 1961: 288; Blackwelder 1947; Bright 1985c: 174; Browne 1970: 540; Castro 1960a; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 630; Estrada & Atkinson 1988: 209; Hopkins 1927: 28; Mathew 1982, 1987: 188; Nurnberg 1958a: 480; Pedrosa-Macedo & Schonherr 1985: 45; Schedl 1959a: 483, 1960d: 76, 1961k: 543, 1977a: 59; Thirumala Rao 1953: 52; Wood, S. L. 1977a: 70, 1982b: 871. **(tx)** Anderson, W. H. & Anderson 1971: 19; Beeson 1929; Bright 1985c: 174; Castro 1960a; Eggers 1928c: 85, 1931c: 185; Nurnberg 1958a: 480; Pedrosa-Macedo & Schonherr 1985: 45; Schedl 1959a: 483, 1961k: 543, 1977a: 59; Stebbing 1914: 542; Wood, S. L. 1954a: 999, 1982b: 871, 1984a.

subcylindricus Schedl 1942d: 16 (*Cryphalus*). Lectotype ♀; Java, Semarang, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 240. Synonymy: Schedl 1958k: 153.

References: **(hb)** Browne 1961c: 70. **(ds)** Browne 1961c: 70; Schedl 1959a: 482. **(tx)** Schedl 1942a: 169–171, 1942d: 16–17, 1953c: 289, 1958k: 153, 1959a: 482, 1979c: 240.

mimicus Schedl 1942d: 17 (*Cryphalus*). Lectotype, sex?; Java; Pasoeroean; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 153. Synonymy: Kalshoven 1958: 164.

References: **(ds)** Schedl 1959a: 481. **(tx)** Kalshoven 1958: 164; Schedl 1942c: 171, 1942d: 17, 1959a: 481, 1979c: 153.

opacus Schedl 1942d: 20. Lectotype, sex?; Java, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 179. Synonymy: Kalshoven 1958: 164, Wood 1989: 173.

References: **(ds)** Maiti & Saha 1986: 157. **(tx)** Kalshoven 1958: 164; Schedl 1942a: 176, 1942d: 20, 1943b: 39, 1979c: 179; Wood, S. L. 1989: 173.

mindoroensis Schedl 1943b: 39. Lectotype ♀; Philippinen, San Theodoro [Mindoro]; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 153.

Distribution: Philippine Islands.

References: **(ds)** Schedl 1966b: 26. **(tx)** Anderson, W. H. & Anderson 1971: 20; Nobuchi 1983: 301; Schedl 1942a: 176, 1943b: 39, 1979c: 153.

minor Schedl 1943b: 40. Holotype, sex?; Port Banga, Mindanao; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Mindanao).

References: **(hb)** Browne 1961c: 71. **(ds)** Browne

- 1961c: 71; Schedl 1966b: 26. (tx) Nobuchi 1953: 301; Schedl 1943b: 40, 1979c: 154.
- minutus** Brown 1980d: 495. Holotype, sex?; Surabaya (Java) to Osaka (Japan), imported; BMNH, London.
Distribution: Indonesia (Java).
Hosts: Ingggris log.
References: (tx) Brown 1980d: 495.
- montanus** Schedl 1974d: 460. Holotype ♀; Mt. Kaindi, 2250 m, Morobe District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Dryadodaphne* sp.
References: (tx) Schedl 1974d: 460, 1979c: 158.
- moorei** Schedl 1964i: 247. Holotype ♂; Somersby, N.S.W., Australia; Australian Museum, Sydney.
Distribution: Australia (New South Wales).
Hosts: *Hakea sericea*.
References: (hb) Moore 1964: 300. (tx) Schedl 1964i: 247, 1979c: 159.
- nigrosetosus** Schedl 1948g: 27. Lectotype ♀; Queensland, Kalpowar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 168.
Distribution: Australia (Queensland).
Hosts: *Capparis uobilis*.
References: (ds) Brimblecombe 1953: 19. (tx) Schedl 1948g: 27, 1951k: 148, 1979c: 168.
- nitidicollis** Schedl 1975g: 219. Holotype, sex?; New Guinea, Bismarck-Geb.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 219, 1979c: 168.
- obesus** (Hopkins) 1915b: 42 (*Dacryphalus*). Holotype ♀; Pagbilao; USNM, Washington.
Distribution: Philippine Islands (Luzon).
Hosts: Margadilao log.
References: (ds) Kleine 1934a: 148; Schedl 1966b: 26. (tx) Hopkins 1915b: 42; Nobuchi 1953: 301.
- obscurus** Hopkins 1915b: 41. Holotype ♀; Calapan, P.I.; USNM, Washington.
Distribution: Philippine Islands (Mindoro).
Hosts: *Cacao silvestre*.
Notes: (3) Schedl 1963j: 480 (*setulosum* Eggers, nomen nudum?, cited as a possible synonym of *obscurus* Hopkins).
References: (ds) Kleine 1934a: 148; Schedl 1966b: 26. (tx) Hopkins 1915b: 41, 42; Nobuchi 1953: 301; Schedl 1963j: 480.
- ovalicollis** Schedl 1942c: 177. Holotype, sex?; Australien, Tambourin Mountain; Schedl Collection in NHMW, Wien.
Distribution: Australia.
References: (tx) Schedl 1942c: 177, 1979c: 181.
- perminimus** (Schedl) 1942d: 13 (*Cryphalus*). Lectotype, sex?; Java, Semarang teak forest; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 90.
Figures: Numberg 1961b: 626.
Distribution: Asia (Ryuka Islands/ Malaya), Fiji Islands, Indonesia (Java), New Britain Island, New Guinea, Philippine Islands.
Hosts: *Artocarpus* spp., *Ficus* sp., *Pterocarpus indicus*.
Notes: (1) Schedl 1958k: 153 (to *Hypocryphalus*).
References: (ec) Roberts 1976: 381. (hb) Brown 1961c: 68; Kalshoven 1958b: 164; Roberts 1976: 381. (ds) Brown 1961c: 68, 1966: 244, 1974a: 64, 1980a: 371; Roberts 1976: 381; Schedl 1966b: 26. (tx) Nobuchi 1953: 301; Schedl 1942a: 169–170, 1942c: 170, 1942d: 13, 1951k: 145, 1958b: 99, 1958k: 153, 1962p: 697, 1979c: 190.
- constrictus** Schedl 1942d: 22. Lectotype, sex?; Java, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 64. Synonymy: Schedl 1958k: 153.
References: (tx) Schedl 1942c: 174, 1942d: 22, 1950f: 49, 1958k: 153, 1979c: 64.
- coustrictus** Schedl 1942c: 174 (*Cryphalus*). Holotype, sex?; Neu-Guinea; Schedl Collection in NHMW, Wien. Synonymy: Kalshoven 1958: 164.
References: (tx) Kalshoven 1958: 164; Schedl 1942c: 174, 1942d: 22, 1950f: 49, 1954a: 139, 1958k: 153, 1979c: 64.
- froggatti** Numberg 1961b: 611. Holotype, sex?; New Britain, Rabaul; BMNH, London. Synonymy: Schedl 1962n: 697.
References: (tx) Numberg 1961b: 611, 626; Schedl 1962n: 697.
- pilifer** Schedl 1979g: 98. Holotype, sex?; New Guinea, N. E., Wau, Mt. Kaindi, Nami Creek; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 98.
- piliger** Schedl 1975g: 219. Holotype, sex?; New Guinea; Wau; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 219, 1979c: 194.
- polynesiae** Schedl 1979g: 105. Holotype, sex?; Samoa; Schedl Collection in NHMW, Wien.
Distribution: Samoan Islands.
References: (tx) Schedl 1979g: 105.
- reflexus** Brown 1980b: 383. Holotype, sex?; Ulanona (New Britain) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Britain Island.
References: (tx) Brown 1980b: 383.
- rotundus** Hopkins 1915b: 41. Holotype, sex?; Pagbilao, P.I.; USNM, Washington.
Distribution: Philippine Islands (Luzon).
Hosts: *Dipterocarpus grandiflorus*.
References: (ds) Beeson 1938b: 289; Kleine 1934a: 148; Schedl 1966b: 27. (tx) Hopkins 1915b: 41; Nobuchi 1953: 301; Wood, S. L. 1954a: 999.

- sandakanensis** (Schedl) 1937e: 548 (*Cryphalus*).
Lectotype ♀; N. Borneo, Bettotan, near Sandakan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 219.
Distribution: Indonesia (Borneo)
Hosts: *Garcinia* sp.
References: (tx) Schedl 1937e: 548, 1939f: 37, 1942a: 169–170, 1979c: 219.
maculatus Browne 1961a: 303. Holotype, sex?; Sarawak: Bako National Park; BMNH, London. Synonymy: Wood 1989: 173.
References: (hb) Browne 1961a: 303. (tx) Browne 1961a: 303; Schedl 1942a: 169; Wood, S. L. 1989: 173.
- spathulatus** Schedl 1935f: 49. Lectotype, sex?; Cairns district; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 233.
Distribution: Australia (Queensland).
References: (hb) Yimus & Hua 1980: 228. (ds) Brimblecombe 1953: 19; Schedl 1966b: 27; Yimus & Hua 1980: 228. (tx) Nobuchi 1983: 301; Schedl 1935f: 49–50, 1979c: 233.
- striatus** Hopkins 1915b: 41. Holotype ♀; Calapan, P.I.; USNM, Washington.
Distribution: Asia (Malaya), Philippine Islands (Mindoro).
Hosts: *Canarium* sp., *Parinarium* sp.
References: (ds) Beeson 1961: 287–288; Kleine 1934a: 148. (tx) Hopkins 1915b: 41–42; Schedl 1939c: 328, 1942a: 176.
- sumatranus** (Schedl) 1939f: 38 (*Dacryphalus*).
Lectotype, sex?; Solok, Sumatra; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 246.
Distribution: Indonesia (Sumatra).
Hosts: *Myristica fragrans*.
References: (cn) Kalshoven 1954: 5. (hb) Kalshoven 1955b: 164. (ds) Browne 1980d: 492. (tx) Schedl 1939f: 38, 1979c: 246.
- tongaensis** Schedl 1979g: 104. Holotype, sex?; Tonga, Tongatapu; Schedl Collection in NHMW, Wien.
Distribution: Tongan Islands.
References: (tx) Schedl 1979g: 104.
- triangularis** Schedl 1975f: 351. Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 351, 1979c: 255.
- tutuilaensis** Schedl 1951k: 147. Lectotype ♂; Samoa: Tutuila, Fagatogo, 800 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 259.
Distribution: Samoan Islands.
Hosts: *Calophyllum* sp.
References: (ds) Beaver 1976b: 534. (tx) Schedl 1951k: 134, 147, 1979c: 259.

Genus *Cryphalus* Erichson

- CYPHALUS ERICHSON 1836: 61. Type-species: *Bostrichus asperatus* Gyllenhal, subsequent designation by Thomson 1859: 147, lectotype designated for type-species by Wood 1972f: 41.
Pseudocryphalus Ferrari 1868b: 252. Type-species: *Pseudocryphalus siducyanus* Ferrari, monobasic. Synonymy: Wood 1986a: 91.
References: (tx) Eggers 1931c: 185; Ferrari 1868b: 252; Wood, S. L. 1986a: 91.
- Taenioglyptes* Bedel 1888b: 398. Type-species: *Bostrichus abietis* Ratzeburg = *Bostrichus asperatus* Gyllenhal, original designation. Synonymy: Wood 1972f: 40.
References: (tx) Balachowsky 1949a: 205; Bedel 1888b: 398; Bright & Stark 1973: 67; Wood, S. L. 1954a: 960, 1001, 1972f: 40.
- Cryptarthrum* Blandford 1896b: 200. Type-species: *Cryptarthrum walkeri* Blandford, monobasic. Synonymy: Schedl 1963i: 62.
References: (tx) Blandford 1896b: 200; Hopkins 1915b: 8; Schedl 1963i: 62.
- Allarthrum* Hagedorn 1912c: 355. Type-species: *Allarthrum kolbei* Hagedorn, monobasic. Synonymy: Wood 1986: 91.
References: (tx) Hagedorn 1912c: 355; Wood, S. L. 1986: 91.
- Eriocryphalus* Hopkins 1915b: 8, 38. Type-species: *Eriocryphalus henschawi* Hopkins = *Hypothenemus sylvicola* Perkins, original designation. Synonymy: Schedl 1962r: 92.
References: (tx) Beeson 1938: 288; Hopkins 1915b: 8, 38; Schedl 1939i: 383, 1942d: 14, 1957d: 1–162, 1958k: 142, 1961k: 455, 1962r: 92, 1963i: 62; Wood, S. L. 1960a: 22.
- Piperius* Hopkins 1915b: 8, 39. Type-species: *Piperius pinii* Hopkins = *Hypothenemus sylvicola* Perkins, original designation. Synonymy: Schedl 1962r: 92.
References: (tx) Hopkins 1915b: 8, 39; Schedl 1962r: 92, 1963i: 62.
- Ernocryphalus* Murayama 1958: 934. Type-species: *Ernocryphalus hirosinensis* Murayama, original designation. Synonymy: Schedl 1963i: 62.
References: (tx) Murayama 1958: 934; Schedl 1962p: 203, 1963i: 62.
- Acryphalus* Tsai & Li 1963: 604, 622. Type-species: *Cryphalus lipingensis* Tsai & Li, subsequent designation by Wood 1984b: 224. Synonymy: Wood 1984b: 224.
References: (tx) Tsai & Li 1963: 604, 622; Wood, S. L. 1984b: 224.
- Jugocryphalus* Tsai & Li 1963: 602, 622. Type-species: *Cryphalus picus* Eggers, subsequent designation by Wood 1984b: 224. Synonymy: Wood 1984b: 224.
References: (tx) Tsai & Li 1963: 602, 605, 622; Wood, S. L. 1984b: 224.
- Keys: Wood 1954a: 1002, 1960: 23, 1982b: 867 for

North America and Micronesia; Balachowsky 1949a: 206, Reitter 1913a: 66, Stark 1952: 254 for Europe and parts of Asia.

References: (ay) Fisher 1937: 118; Fuchs 1912: 14–33; Hymons 1921: 103; Nusslin 1910: 289–298, 1911, 1912; Nobuchi 1969a: 55, 57; Tsai & Li 1963: 597. (cn) Beaver 1987a; Beeson 1916: 1–5. (cc) Nickle 1976b. (hb) Barbey 1901: 69; Baumann 1906: 315; Beaver 1987a: 17; Beeson 1941: 372; Blackman 1950; Bright & Stark 1973: 66; Brimblecombe 1953: 15; Browne 1961c: 68; Escherich 1923: 446–476; Feytaud 1950: 9; Judeich & Nitsche 1895: 448, 451; Mayne 1917: 1–80; Munro 1946: 5–60; Nusslin 1907: 613; Schedl 1958d: 188, 1961k: 457, 1981b: 74; Tragardh 1930c: 469–480, 1931: 58; Wood, S. L. 1982b: 867, 1986a: 91. (ds) Beaver 1987a: 17; Bright & Stark 1973: 68; Browne 1961c: 68; Gaubil 1849: 126; Hagedorn 1910d: 40; Niisima 1908: 89; Schedl 1961k: 455, 1966b: 19, 1981b: 74; Scheerpeltz & Winkler 1930: 257; Tsai & Li 1963: 597; Wichmann 1927: 356–362; Wood, S. L. 1982b: 867, 1986a: 91. (tx) Arnett 1960: 1043, 1968: 1043; Balachowsky 1949a: 200, 205; Beal & Massey 1945: 59, 119; Bedel 1888b: 396–397; Beeson 1935b: 257; Berger 1916: 227–228; Bertolini 1872: 201; Blandford 1894b: 201, 1904: 225, 234; Blatchley & Leng 1916: 605–606; Bright 1976d: 112; Bright & Stark 1973: 66; Browne 1965: 188; Chamberlin 1918: 12–13, 1939: 316–327, 1958: 130–132; Chatterjee 1917: 1–4; Choo 1983: 70; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 48; Duffy 1953: 6; Eggers 1943c: 68; Eichhoff 1864: 34–35, 45–46, 1868e: 391, 1872a: 132, 134, 1875a: 384, 1878b: 34–487, 1881a: 45, 172, 1883: 107, 109; Endrodi 1957b: 417; Erichson 1836: 61; Fauvel 1887: 276; Ferrari 1867a: 10–18, 1867b: 113; Gardner 1934: 4, 11; Gozis 1886: 278; Hagedorn 1910a: 84–85; Hopkins 1914: 119, 130–135, 1915b: 8, 39–40, 1915c: 180–226; Inouye & Nobuchi 1957: 46–48; Jacquelin du Val & Fairmaire 1868: 104–105; Kalina 1970: 125; Karaman 1972: 118; Krivolutskaya 1958: 107, 140; Kurenzov 1941: 159–162, 230–231; Lacordaire 1866: 373; LeConte 1868: 151–152, 1876: 349, 362; LeConte & Horn 1883: 518; Lindemann 1876: 148–168, 345; Lovendal 1889: 17–18; Luigioni 1929: 996; Murayama 1930: 14, 1958: 935; Niisima 1909: 141; Numberg 1954: 48–52; Nusslin 1898: 276, 280; Peyerimhoff 1935: 194, 196; Pfeffer 1989a: 81; Prell 1930: 638; Ratzeburg 1837: 139, 163; Redtenbacher 1845: 95, 151, 162; Reitter 1889: 94, 1894: 69–75, 1906: 11, 1913a: 65–66, 1916: 287–288; Saalas 1914: 73, 83; Schedl 1934f: 638, 1938i: 24, 1957d: 1–162, 1960h: 105, 1960i: 105, 1961k: 455, 458, 1962r: 91–93, 1963h: 266, 1963i: 62, 1967f: 154–155, 1968e: 261–270, 1969i: 129, 1977b: 38, 1981b: 74; Schimitschek 1937: 50–52; Seidlitz 1891a: 561–563, 1891b: 151, 607–608; Sharp 1879: 101;

Sokanovskii 1954: 16; Spessivtsev 1922: 471, 1931: 88; Stark 1936c: 142–144, 1952: 15–280; Stebbing 1914: 528; Stresemann et al. 1989: 351; Swaine 1909: 91–92, 1918a: 87–89; Thomson 1859: 147, 1865: 354; Trappen 1935: 142; Tsai & Li 1963: 597, 600; Wollaston 1960: 364–365; Wood, S. L. 1954a: 980, 1960a: 23, 1961a: 45, 1967a: 121–122, 1972f: 41, 1974: 171, 1982b: 867–871, 1986a: 91; Yin & Huang 1981: 561; Yin, Huang & Li 1984: 97; Zivojinovic 1948: 65–73.

abbreviatus Schedl 1943b: 35. Lectotype ♀; Catbalogan, Ins. Samar, Philippines; Schedl Collection in NIHMW, Wien, designated by Schedl 1979c: 8.

Distribution: Asia (Okinawa in Japan/ Ryuku Islands), Philippine Islands (Samar).

References: (cn) Egorov 1958: 1492; Ekici 1971. (hb) Ekici 1971. (ds) Krivolutskaya 1965: 234; Nobuchi 1985c: 13; Schedl 1971c: 363. (tx) Nobuchi 1959c: 22; Schedl 1943b: 35, 1951i: 50, 57, 1979c: 8.

alni Krivolutskaya 1958: 145. Holotype, sex?; Sakhalin Island: Gornoravatsk region, Valley of Kuznetsovsk and Ribatsko rivers; Zoological Institute, Academy of Science, Vladivostok.

Distribution: Asia (E USSR).

Hosts: *Alnus* sp.

References: (hb) Krivolutskaya 1973: 136. (ds) Krivolutskaya 1964a: 234, 1973: 136. (tx) Krivolutskaya 1958: 141–145.

aquilinus (Nobuchi) 1975: 52 (*Taenioglyptes*). Holotype ♀; Nigorikawa, Hokkaido, Japan; Nobuchi Collection. Ibaraki.

Figures: Nobuchi 1975: pl. 2, fig. 14.

Distribution: Asia (Japan).

Hosts: *Carpinus cordata*.

References: (ds) Nobuchi 1985c: 13. (tx) Nobuchi 1975: 52.

araucariae Schedl 1969b (1970): 214. Holotype, sex?; New Guinea, Bulolo, Morobe Dist.; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Araucaria cuminghamii*.

References: (tx) Schedl 1969b (1970): 214, 1979c: 24.

armatus Schedl 1974d: 459. Holotype, sex?; Wau, Morobe District; BPBM, Honolulu.

Distribution: New Guinea.

References: (tx) Schedl 1974d: 459, 1979c: 26.

artestriatus (Browne) 1970: 553 (*Taenioglyptes*). Holotype ♀; Uganda: Zika; BMNH, London.

Distribution: Africa (Uganda).

References: (tx) Browne 1970: 553.

artocarpus (Schedl) 1939e: 342 (*Ericryphalus*). Syntypes, sex?; Malaya, Selangor; Kepong; BMNH, London, and Schedl Collection in NIHMW, Wien.

Distribution: Asia (Malaya).

Hosts: *Artocarpus kunstleri*.

Notes: (3) Beeson 1941 (1961: 257) (*artocarpus*, nomen nudum).

References: (**hb**) Yimus & Hua 1950: 225. (**ds**) Beeson 1941 (1961: 257); Brown 1961c: 68, 1954a: 150, 1954b: 287; Yimus & Hua 1950: 228. (**tx**) Schedl 1939e: 342, 1979c: 27.

asperatus (**Cyllenhal**) 1813: 363 (*Bostrichus*). Lectotype, sex?; Sweden: University of Uppsala Museum, designated by Wood 1972f: 41.

Figures: Balachowsky 1949a: 210, 216.

Distribution: Africa (Algeria/ Morocco), Asia (Honslu in Japan/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Abies pectinata*, *Picea excelsa*, *Larix* sp., *Pseudotsuga douglasii*.

Notes: (1) Due to an ancient error in identification, that has been perpetuated, numerous citations of this name actually refer to *Trypophloeus binodulus*, a species that breeds in *Populus* spp.

References: (**ay**) Heeger 1866: 533–537. (**bv**) Chararas 1950b: 563; Grune 1979: 101. (**cn**) Chararas 1972; Escherich 1917: 97–115; Karpinski 1933: 52–56; Wachtl 1901: 381. (**hb**) Eichhoff 1881a: 45, 179, 1882a: 241; Heeger 1866: 533–537; Henschel 1855b, 1895a: 166; Ratzeburg 1839: 197; Schwerdtfeger 1981: 188; Wachtl 1901: 381, 1876a: 458. (**ds**) Allen, A. A. 1977; Barthe 1896; Brakman 1966b: 206; Buresh & Lazarov 1956; Ericson & Sandin 1893; Gemminger & Harold 1872: 2653; Gozis 1875: 80; Grill 1895: 309; Crouzelle 1905; Grune 1979: 101; Cyllenhal 1827: 624; Hagedorn 1910d: 41; Henschel 1895a: 166; Heyden, Reitter, & Weise 1853: 182; Kaltenback 1874: 655; Kamp 1979; Kangas 1964d, 1966d; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 230; Kraatz 1869: 59; Lacordaire 1866: 379; Leclercq 1971; Lucht 1987: 278; Negru 1966b: 401; Nuorteva 1971: 71; Ortzen 1886: 279; Pfeffer 1959a: 84; Postner 1974: 428; Ratzeburg 1839: 197; Redtenbacher 1855: 832, 1874: 376; Reitter 1869b: 154; Sahlberg 1900: 105; Schaum 1859: 96, 1862: 101; Schedl 1964f; Schwerdtfeger 1981: 188; Seidlitz 1872: 393, 1891a: 562, 1891b: 607; Siebke 1875: 283; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 439; Stierlin & Gantard 1871: 292; Sturm 1843: 230; Thomson 1859: 146, 1865: 359, 1868: 219; Wachtl 1876a: 458; Westhoff 1882: 238; Winter, T. G. 1983: 28. (**tx**) Bach 1854; Balachowsky 1949a: 215; Beeson 1938b: 287; Bertolini 1872; Eichhoff 1864b: 35, 1866: 276, 1876a: 378, 1878b: 125, 1881a: 45, 179, 1883a: 109, 132; Erichson 1836: 62; Fauvel 1859; Ferrari 1867a: 11, 15, 80, 1867b: 114; Gebien 1907: 197; Grune 1979: 100–101; Cyllenhal 1813: 368, 1827: 624;

Hagedorn 1904: 230, 1910a: 85; Henschel 1895a: 166; Hopkins 1914: 118, 1915b: 39, 1915c: 221, pls. 9–10, fig. 1; Kalina 1969; Lacordaire 1866: 379; Letzner 1844: 68, 1891: 375; Lucht 1987: 278; Negru 1966b: 401; Postner 1974: 428; Ratzeburg 1839: 197; Redtenbacher 1849a: 791, 1849b: 26, 1858: 832, 1874: 376; Sahlberg 1836: 153; Schedl 1934f: 1639; Seidlitz 1872: 393, 1891a: 562, 1891b: 607; Stierlin 1898: 439; Thomson 1859: 146, 1865: 359, 1868: 219; Wood, S. L. 1954a: 988, 1972f: 42.

abietis Ratzeburg 1837: 163 (*Bostrichus*). Syn-types, sex?; Ober-Schleien, Ostprussen, dem Thuringer Walde und dem Harze; MNB, Berlin. Synonymy: Wood 1972f: 41.

References: (**ay**) Chararas 1973c; Escherich 1923b: 481, 597; Feytaud 1950a; Ritchie 1919: 171–199; Scherlb 1971. (**bv**) Byers, Anderbrant, & Lofqvist 1989; Chararas 1973c; Chararas, Desveaux, & Kogane-Charles 1978a; Chararas et al. 1982: 1094; Grune 1979: 107; Kevdina 1897: 108; Magema, Caspar, Severin 1982; Namann-Etienne 1978a; Nuorteva 1956c: 94; Nuorteva & Nuorteva 1965; Tragardh 1930b: 108; Winter, K. 1980. (**cn**) Anonymous 1978i; Barbey 1906a; Borcea 1924: 221–260; Bruneau 1950; Byers, Anderbrant, & Lofqvist 1989; Chararas 1961b: 69, 1961c: 92, 1978; Chorbadzhievo 1929; Eckstein 1926: 578; Escherich 1923b: 481, 597, 1936; Esterberg 1959; Feytaud 1946, 1950a; Forbes 1910; Gabler 1955; Georgescu et al. 1957: 357, 460; Hanson 1937; Hartig 1861: 330; Hess & Beck 1914: 265, 1927: 321; Inouye & Yamaguchi 1955a: 235; Joly 1976; Judeich & Nitsche 1895: 526; Kailidis & Georgivits 1972; Kalandra 1944; Kamp 1950; Keller 1903b: 49; Kholodkovskii 1912: 278, 307; Koch 1913: 100; Komarek et al. 1931: 1–256; Kozikowsky 1929: 254; Kunstler 1864: 783; Lekander 1955b: 17; Lozovoi 1961: 91–113; Lozovoi & Tropin 1965, 1967; MacDongall 1917: 1–38; Marcu 1926c: 63; Mokrzecki 1925: 1–7; Muller 1912: 185; Nestertschnk 1930: 176; Nosek 1951: 107, 1952b: 98; Nuorteva & Nuorteva 1965; Nusslin 1913: 227; Pfeffer 1928a: 467, 1950c: 3; Pierce, W. D. 1917: 69; Rlumibler 1922: 299, 1927: 312; Ritchie 1916: 301–302, 1919: 171; Ruhm 1958: 287; Schimitschek 1930d: 136, 1937c: 52, 1938b: 114, 1955a: 32, 36, 1955c: 82, 1964a; Schwerdtfeger 1944a: 180, 1957a: 186; Stewart 1915: 70; Tragardh 1919: 237–248, 1938a: 12; Wachtl 1901: 381; Weber, H. 1926: 578; Wichmann 1927b: 374; Zolk 1937: 147–172. (**ce**) Apfelbeck 1916b; Balazy & Michalski 1960, 1964a; Barbey 1906a, 1927; Capek 1957; Chararas 1959g; Chararas, Desveaux, & Kogane-Charles 1978a; Eidmann 1974b; Galoux 1947c, 1948a; Gillanders 1906:

- Heqvist 1963: 152; Hierholzer 1954b: 357; Inouye & Yamaguchi 1955a: 235; Kielczewski 1976; Kielczewski & Wisniewski 1978, 1983; Kleine 1905c: 186, 1909a: 46, 1944: 74; Kraemer 1950b: 379; Lozovoi & Tropin 1965, 1967; Lundberg 1984; Michalski & Ratajczak 1989; Naumann-Etienne 1975a; Nosek 1951: 107, 1952b: 98; Nuorteva 1957b: 68; Nuorteva & Nuorteva 1968; Nusslin 1927: 300; Perris 1856a: 244; Pfeffer 1923a: 331, 1932a: 5, 1943b: 179, 1950c: 3, 1955b: 84, 1959: 2; Poinar 1975: 151; Ratzeburg 1869a: 79; Ruhm 1955c: 176, 1956b: 3; Saalas 1917a: 18, 1930: 118; Schimitschek 1955a: 32, 36, 1964a; Schwerdtfeger 1944a: 180, 1957a: 186; Sedlaczek 1908: 46, 1935a: 163; Sitowski 1930: 4; Thompson, W. R. 1943: 37; Wichmann 1959: 412; Winter, K. 1980; Wisniewski 1979b; Zuzr 1955b. (hb) Altum 1881c: 321; Apfelbeck 1916b, 1917; Barbey 1901: 23, 71, 1925: 164; Beffa 1949, 1961; Boas 1923: 360; Borcea 1924; Budge 1949; Ceconi 1924; Chararas 1961b: 69, 1961c: 92, 1962c: 251; Charvat 1950; Chorbadzhievo 1929; Dallimore & Munro 1922; Eckstein 1897, 1926: 578; Eichhoff 1881a: 45, 176, 1882a: 241; Eidmann 1974b; Escherich 1923b: 481, 597; Everts 1903: 755; Feytaud 1946, 1950a; Fuchs 1904a, 1906c: 209, 1907: 48; Gabler 1955; Galoux 1947a, 1948a; Gillanders 1906, 1908; Gornostaev 1916: 314; Györfi 1957; Hagedorn 1903a; Hartig 1861: 330; Heinemann 1909; Henschel 1876a: 34, 240, 1895a: 166; Hess & Beck 1914: 265, 1927: 321; Hufnagl 1887: 512; Joly 1976; Judeich & Nitsche 1895: 526; Kahllich 1865b; Karpinski 1933b: 28; Karpinski & Strawinski 1948: 155; Karsch 1883: 142; Kholodkovskii 1912: 278, 307; Kraemer 1950b: 379; Lengerken 1939: 62, 1954: 83; Lozovoi & Tropin 1965, 1967; Lunardi & Leonardi 1889: 458; MacDougall 1917: 127; Magma, Gaspar, & Severin 1982; Masutti 1964; Munro 1926: 60; Naumann-Etienne 1978a; Nordlinger 1856: 28; Numberg 1929: 102, 1947c: 106, 1948: 1-30; Nuorteva 1956c: 94; Nusslin 1898: 280, 1906b: 14, 1913: 227, 1927: 300; Palm 1954a: 185; Perris 1856a: 244; Pfeffer 1941b: 1, 1941c: 5, 1989a; Postner 1974: 430; Ratzeburg 1837: 135, 163, 1839: 165, 198; Rhumbler 1922: 299, 1927: 312; Ritchie 1919: 171; Rupertsberger 1879: 231, 1880: 229; Saalas 1913a: 69, 83; Schimitschek 1955a: 32, 36; Schwerdtfeger 1944a: 180, 1957a: 156, 1981: 192; Sedlaczek 1935a: 163; Spessivtsev 1913a: 91; Stark 1926a: 335, 1952: 265; Thum 1885: 24; Tragardh 1929a: 313, 1930b: 108, 1930c: 474, 1931: 57, 1939b: 147, 198; Tredl 1908a: 30; Tschorbadzhiev 1929: 166; Wachtl 1876a: 458, 1901: 381; Weber, H. 1926: 578; Wichmann 1927b: 374; Winter, K. 1980. (ds) Ammann & Knabl 1913, 1923; Andersch 1851; Anonymous 1978i; Arnoldi et al. 1955: 687; Arru, Covassi, & de Bellis 1966: 32; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Bedel 1888b: 398; Beffa 1949; Bejer-Petersen & Jorum 1977: 23; Benick 1921; Benz 1985; Bielz 1887; Boas 1923: 360; Borcea 1924; Borchert 1951; Brakman 1966b: 206; Braucsik 1871; Bucking 1932; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Ceconi 1897; Chapuis & Candeze 1853; Chararas 1962c: 251; Charvat 1950; Chorbadzhievo 1924d, 1929; Crotch 1863; Dallimore & Munro 1922: 189-193; Dejean 1821, 1825, 1837; Eder 1934; Eggers 1904; Eidmann 1974b; Endrodi 1955b; Ermisch 1953; Escherich 1923b: 481, 597, 1932b; Esterberg 1925, 1959; Everts 1922: 642; Favre 1890; Florov 1949: 85; Forster 1849: 439; Fowler 1891; Fuchs 1904a, 1905a, 1906c: 209, 1907: 48; Gaubil 1849: 126; Gornostaev 1917: 308-315; Gozis 1875: 80; Grill 1895: 309; Grouzelle 1905; Grune 1979: 107; Gussmann 1919; Hagedorn 1903a, 1910d: 40; Hansen, V. 1939, 1956, 1964: 462; Heinemann 1908a; Hellen 1947; Hennig 1954: 257; Henschel 1895a: 166; Heyden 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Horion 1951; Inouye & Nobuchi 1957: 49; Jannicky 1960a; Jazentkovsky 1912: 288; Joly 1960; Judeich & Nitsche 1895: 526; Kahllich 1865b; Kailidis & Georgivits 1972; Kaltenbach 1874: 685; Karpinski 1931: 27, 1933b: 28, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1925b: 272; Kersten 1933: 74; Klefbeck & Sjoberg 1969: 230; Kleine 1912a: 262, 264, 267, 1913a: 35, 1913b: 118, 1934a: 142; Kloft & Hinks 1945: 218; Koltze 1901: 153; Kono & Tamanski 1939: 88, 91; Koschitsky 1900: 83; Kozikowsky 1921: 180; Kraatz 1869: 59; Kurir 1947c: 15; Lacordaire 1866: 379; Langhoffer 1915c: 157; Leclercq 1971; Leiler & Prutz 1977; Lekander 1955b: 17; Leng 1918: 211; Lentz 1857: 139; Lindemann 1884b: 264; Lokaj 1868: 64; Lomnicki 1913b: 148; Lucht 1987: 278; Lunardi & Leonardi 1889: 458; Lundberg 1979: 31, 1981: 151; Lundblad 1950c: 115; Marcu 1926c: 63; Matthews & Fowler 1883: 42; Mequignon 1936: 48; Michalski 1957: 164; Munro 1921: 57, 1926: 4-77; Munster 1922a: 155, 1928: 289; Murayama 1948: 2, 1949a: 12, 1951c: 3, 1954b: 162; Nash, D. R. 1978; Negri 1966b: 402, 1968a: 456; Nobuchi 1955c: 13; Numberg 1927a: 213, 1928b: 88, 105, 1954: 52; Nusslin 1898: 280; Orest 1926c: 63; Pacher 1865: 152; Palm 1959: 351; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 471, 1931b: 74, 1947e: 2, 1950b: 75; Pierce, W. D. 1917: 69; Pittioni 1943: 175; Postner 1974: 430; Power 1865: 212; Rapp

- 1934: 727; Ratzburg 1837: 135, 163, 1839: 165, 198; Redtenbacher 1855: 832; Reitter 1869b: 154, 1889a: 94, 1894a: 70, 1916: 285; Ronbal 1935b: 72, 1941: 263; Saalas 1913a: 69, 83, 1917a: 18, 1930: 118, 1931: 68; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 445; Schaschl 1854: 133; Schaufuss 1915: 1231; Schamm 1859: 96, 1862: 101; Schedl 1959h: 100, 1961b: 184, 1967c: 70, 1980a: 14, 1981b: 75; Schilsky 1909: 185; Schimitschek 1935b: 114; Schiodte 1873: 101; Schwerdtfeger 1981: 192; Seidlitz 1872: 393, 1891a: 562, 1891b: 607; Sharp & Fowler 1893: 34; Stark 1926a: 335, 1926b: 103, 1926j: 126, 1936e: 143, 1952: 265; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 439; Stierlin & Cantard 1906: 205; Sturm 1843: 230; Swaine 1909: 93; Tragardh 1939b: 147, 198; Tredl 1907: 12; Tschorbadjiev 1929: 166; Verhoff 1891: 22; Wachtl 1876a: 458; Wessel 1877: 390; Westhoff 1882: 238; Wichmann 1927a: 67; Winter, T. G. 1983: 5; Yanovskii & Tegshizhargal 1985: 415. **(tx)** Allen, A. A. 1965b: 47; Bach 1854; Balachowsky 1949a: 207; Barbey 1901: 23, 71; Bedel 1888b: 395; Belfa 1949, 1961; Boas 1923: 360; Brancsik 1871; Chapuis & Candeze 1853; Charanis 1962c: 252; Charvat 1950; Chorbadzhievo 1924d; Croteh 1966; Csiki 1910; Dejean 1821, 1825; Doebner 1860; Duffy 1953; Eggers 1920: 241, 1921; Eichhoff 1864b: 35, 1866: 275–276, 1878b: 124, 1881a: 45, 176, 1883a: 109, 132; Endrodi 1957b; Escherich 1923b: 481, 592; Everts 1903: 755, 1922: 642; Ferrant 1911; Ferrari 1867a: 15, 79, 80, 1867b: 106; Fleischer 1927; Formanek 1907: 35; Gabler 1955; Gillanders 1908; Grune 1979: 106–107; Hagedorn 1910a: 85; Hansen, V. 1956, 1964: 462; Henry 1892: 14; Henschel 1876a: 34, 240, 1895a: 166; Hopkins 1915b: 40; Inonye & Nobuchi 1957a; Joly 1976; Jundeich & Nitsche 1895: 526; Kalina 1970: 125; Karpinski 1949: 129; Karpinski & Strawinski 1948: 155; Koch 1913: 100, 1928: 104, 1932: 146; Kuhn 1913: 1055; Lacordaire 1866: 379; Letzner 1844: 68, 1891: 375; Lindemann 1875c: 362; Lovendal 1889b: 51, 1898: 124; Lucht 1987: 278; Lumardoni & Leonardi 1889: 458; Murayama 1954b: 162; Negri 1966b: 402; Niisima 1910a: 8, 1929: 376–381; Nordlinger 1848: 244, 1856: 28; Numberg 1954: 52; Perris 1877a: 414; Pfeiffer 1932b: 17, 1941b: 1, 1941c: 5, 1947c: 2, 1955a: 177; Portevin 1935: 324; Postner 1974: 430; Quaseliuk 1953: 35; Ratzburg 1837: 135, 163, 1839: 165, 198; Redtenbacher 1849a: 791, 1849b: 26, 1858: 832; Reitter 1889a: 94, 1894a: 70, 1913a: 67; Rhumbler 1922: 299, 1927: 231; Rupertsberger 1879: 231, 1880: 229; Saalas 1913a: 69, 83, 1914: 304–306, 1916: 110–116; Schedl 1934f: 1638, 1952f: 57, 1959: 100, 1980a: 14, 1981b: 75; Scherb 1971; Schimitschek 1937c: 52, 1955c: 82; Seidlitz 1872: 393, 1891a: 562, 1891b: 607; Simmel 1918: 288–291; Sokanovskii 1954: 16; Spessivtsev 1913a: 90–91, 1922a: 472, 1925a: 36, 173, 1931: 49; Stark 1936c: 143, 1952: 265; Stierlin 1898: 439; Swaine 1909: 93, 1918a: 89; Wood, S. L. 1972f: 41–42. **(ms)** Escherich 1932b; Heimann 1908a; Kozikowsky 1929: 254; Sedlacek 1902a: 126; Wichmann 1959: 412.
- asperulus Schedl** 1948g: 26. Lectotype ♀; Queensland, Imbil; Schedl Collection in NIMW, Wien, designated by Schedl 1979c: 28.
Distribution: Australia (Queensland).
Hosts: *Cryptocarya erythroxylon*, *Grevillea robusta*.
References: **(ds)** Brimblecombe 1953: 16. **(tx)** Schedl 1948g: 26, 1979c: 28.
- ater Browne** 1984d: 91. Holotype, sex?; New Guinea: Gumi; BMNH, London.
Distribution: New Guinea.
Hosts: *Garcinia* sp.
References: **(tx)** Browne 1984d: 91.
- babai Murayama** 1961b: 29. Holotype ♂; Noo, south part of Niigata prefecture, Japan; Murayama Collection in USNM, Washington.
Distribution: Asia (Honshu in Japan).
References: **(ds)** Nobuchi 1985c: 13. **(tx)** Murayama 1961b: 29.
- balanopselaphus Eggers** 1920: 121. Holotype, sex?; Amami, Ostafrika; Hamburg Museum, lost.
Distribution: Africa (Tanzania).
Hosts: *Rubus* sp.
References: **(tx)** Eggers 1920: 121–122; Sampson 1922a: 141; Schedl 1957d: 49, 1961k: 460.
- bellus Schedl** 1957d: 47. Holotype, sex?; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Ivory Coast/ Zaïre).
Hosts: *Ficus thonningis*, *Guarea cedrata*, *Musanga cercropioides*.
References: **(hb)** Schedl 1961k: 460. **(ds)** Browne 1973a: 279; Schedl 1961k: 460. **(tx)** Schedl 1957d: 47, 1961j: 349, 1961k: 460, 1979c: 36.
- bicarinatus (Nobuchi)** 1975: 53 (*Taenioglyptus*). Holotype ♂; Arakawa, Okinawa; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 2, fig. 16.
Distribution: Asia (Okinawa in Japan).
References: **(ds)** Nobuchi 1985c: 13. **(tx)** Nobuchi 1975: 53–54.
- bicolor (Browne)** 1984f: 69 (*Cryphalomorphus*). Holotype, sex?; New Guinea: Morobe District, Wau, Kunai Creek, 1500 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Castanopsis* sp.
References: **(tx)** Beaver 1991b: 53; Browne 1984f: 69.

- birosimensis** (Murayama) 1958: 935 (*Ernocryphalus*). Holotype ♂: Isl. Biro, Kagoshima pref., Japan; USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Pittosporum tobira*.
Notes: (1) Schedl 1963i: 62 (to *Cryphalus*). Nobuchi 1955c: 12 (treated in *Scolytogenes*).
References: (ds) Nobuchi 1955c: 12. (tx) Murayama 1958: 935; Schedl 1962p: 203, 1963i: 62.
- boettcheri** Schedl 1951i: 57. Syntypes, sex?; Philippinen, Mindoro, San Theodoro; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Mindoro).
References: (ds) Schedl 1966b: 19. (tx) Nobuchi 1953: 300; Schedl 1951i: 57, 1979c: 42.
- borneensis** Schedl 1943b: 38. Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Bruguiera gymnorhiza*, *Elaeocarpus* sp.
References: (hb) Browne 1961c: 68–69, (ds) Browne 1961c: 68–69; Schedl 1962b: 186. (tx) Schedl 1943b: 38, 1958b: 99, 1979c: 43.
- brasiliensis** Schedl 1976a: 65. Holotype, sex?; Botafogo, Guanabara, Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (3) This holotype is either mislabeled or it represents an introduction from another area of the world.
References: (tx) Schedl 1976a: 65.
- brevipilosus** Schedl 1942c: 173. Holotype, sex?; New-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1942c: 173, 1979c: 46.
- brimblecombei** Schedl 1948g: 26. Lectotype ♀; Queensland, Emu Vale; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 47.
Distribution: Australia (Queensland).
Hosts: *Cryptocarya erythroxylon*.
References: (ds) Brimblecombe 1953: 17; Schedl 1972a: 143. (tx) Schedl 1948g: 26, 1950f: 51, 1979c: 47.
- brownei** Wood 1992b: 79. Holotype, sex?; Sarawak, Semengoh; BMNH, London, automatic.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Artocarpus* sp.
References: (tx) Wood, S. L. 1992b: 79.
artocarpus Schedl 1958h: 498. Holotype, sex?; Sarawak, Semengoh; BMNH, London, preoccupied by Schedl 1939.
References: (tx) Schedl 1958h: 498, 1979c: 27; Wood, S. L. 1992b: 79.
- brunneus** Browne 1954d: 93. Holotype, sex?; New Guinea; Sawmill L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Araucaria humsteini*.
References: (tx) Browne 1954d: 93.
- buloloensis** Browne 1954e: 67. Holotype, sex?; New Guinea; Morobe District, Bulolo, Snake Creek, 1000 m; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1954e: 67.
- capucinicollis** Schedl 1950f: 47. Syntypes 2, sex?; Viti Levu; Navai Mill, near Nandarivatu, 2500 ft.; BPBM, Honolulu, and Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
References: (ds) Browne 1974a: 64; Roberts 1976: 377. (tx) Schedl 1950f: 47, 1979c: 52.
- capucinooides** Eggers 1939b: 4. Holotype, sex?; Nordost-Birma (Kambaiti, 7000 Fuss); NHR, Stockholm.
Distribution: Asia (Burma).
References: (tx) Eggers 1939b: 4–5.
- capucinomorphus** Schedl 1950f: 48. Syntypes ♂ ♀; Viti Levu; Tholo-i-Suva, 500 ft.; BPBM, Honolulu, and Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
References: (ec) Roberts 1976: 378. (hb) Roberts 1976: 378. (ds) Browne 1979a: 64; Roberts 1976: 378. (tx) Schedl 1950f: 38, 47–48, 1953f: 53, 1955b: 284, 1979c: 52.
- capucinus** Schedl 1938g: 425. Lectotype ♂; Luzon, Lagna Province, Mount Maquilang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 52.
Distribution: Asia (Burma/ "China"), Philippine Islands.
Hosts: *Cassia javanica*.
Notes: (3) This is *parkeri* Beeson 1941: 591, nomen nudum.
References: (ds) Schedl 1938g: 425, 1966b: 20. (tx) Eggers 1939b: 4; Nobuchi 1953: 300; Schedl 1938g: 425, 1940d: 591, 1950f: 47, 1979c: 52.
- carpini** Berger 1916: 234. Lectotype ♀; Ussuri, USSR; IZL, Leningrad, designated by Michalski 1969a: 891.
Distribution: Asia (Japan/ Korea/ Siberia, Ussuri in E USSR).
Hosts: *Carpinus cordata*, *C. laxifolia*.
Notes: (3) Choo 1983: 70 (re-described).
References: (cn) Kurenzov 1935c: 157. (ec) Kurenzov 1934a: 52. (hb) Kurenzov 1935a: 19, 30, 1948b: 114; Stark 1952: 261. (ds) Choo 1983: 70; Choo & Woo 1955: 164; Kleine 1934a: 142; Krivolutskaia 1953; Kurenzov 1934a: 52, 1935a: 19, 30, 1935c: 157, 1936b: 350; Nobuchi 1955c: 13; Stark 1936e: 143, 1952: 261. (tx) Berger 1916: 234; Choo 1983: 70; Eggers 1929b: 11, 1942c: 29; Kurenzov 1941a: 140–142, 1948b: 114; Michalski 1969a: 891, 1969b: 567; Nobuchi 1964: 133; Schedl 1934f: 1635, 1979c: 53; Stark 1936e: 143, 1952: 261.

- carpinivorus** Murayama 1930b: 14. Holotype, sex?; Koryo (Korea); Murayama Collection in USNM, Washington.
Distribution: Asia (Korea).
Hosts: *Carpinus laxiflora*.
References: (ds) Cho 1957; Choo & Woo 1955: 164; Kleine 1934a: 142; Ko 1969: 275; Murayama 1930b: 10, 1937b: 375. (tx) Murayama 1930b: 10, 14–16, 1937b: 375; Schedl 1934f: 1639.
- chamaecipariae** Niisima 1910a: 10. Syntypes, sex?; Tokio, Japan (Garten der Tokioer Universitat); Nobuchi Collection, Ibaraki.
Distribution: Asia (Honshu in Japan).
Hosts: *Chamaeciparus obtusa*.
Notes: (3) Nobuchi 1955c: 15 (treated in *Hypothenemus*).
References: (ds) Kleine 1934a: 143; Murayama 1954b: 162; Nobuchi 1955c: 15. (tx) Murayama 1954b: 162; Niisima 1910a: 10; Schedl 1934f: 1640.
- chulingensis** Tsai & Li 1963: 605, 612, 623. Holotype ♂; Szechuan, south of Yangtze River, China; Institute of Zoology, Academia Sinica.
Figures: Li, Dang, & Shi 1977: 192. Li & Zhou 1980: 192. Yin, Huang, & Li 1984: 108.
Distribution: Asia (Shanxi, Sichuan in China).
Hosts: *Pinus armandi*.
References: (hb) Li, Dang & Shi 1977: 72; Li & Zhou 1980: 72; Yang 1989c. (ds) Li, Dang, & Shi 1977: 72; Yin, Huang, & Li 1984: 107. (tx) Tsai & Li 1963: 605, 612, 623; Yin, Huang, & Li 1984: 107.
- ciliatipes** Blandford 1896f: 242. Syntypes ♂; Noumea a Kone (Delaney), New Caledonia; BMNH, London.
Distribution: New Caledonia Island.
References: (ds) Beeson 1938b: 287; Hagedorn 1910d: 41; Kleine 1913b: 118, 1914b: 300. (tx) Blandford 1896f: 242; Hagedorn 1910a: 85; Schedl 1953c: 296, 1957d: 12, 1979c: 57.
- cinereotestaceus** (Motschulsky) 1866: 403 (*Hypoborus*). Holotype ♀; Des Montagnes de Nura-Ellia, Ceylon; IZM, Moscow.
Distribution: Asia (Sri Lanka).
Notes: (3) Wood 1969c: 118 (near *paganus* or *pallidus*).
References: (ds) Gemminger & Harold 1872: 2685; Hagedorn 1910d: 29; Kleine 1912b: 186, 1914b: 273. (tx) Hagedorn 1910a: 61; Motschulsky 1866: 403; Wood, S. L. 1969c: 118.
- compactus** Lea 1910: 139. Syntypes, sex?; Queensland: Port Denison; SAM, Adelaide?.
Distribution: Australia (Queensland).
References: (ds) Brimblecombe 1953: 17. (tx) Lea 1910: 139; Schedl 1938f: 46–47.
- confusus** Eggers 1927b: 395. Holotype ♀; Sud Sumatra; Eggers Collection, in NHMW, Wien.
Distribution: Indonesia (Sumatra), New Guinea.
- Notes: (3) Schedl 1969b: 215 (described male).
References: (tx) Eggers 1927b: 395; Schedl 1943b: 38, 1969b: 215, 1979c: 62.
- coryli** Stark 1936: 144. Syntypes, sex?; publication not seen; IZL, Leningrad.
Distribution: Asia (E USSR).
Notes: (3) Doubtful species, could = *mandshuricus* Eggers.
References: (hb) Kurenzov 1948b: 113; Stark 1952: 269. (ds) Krivolutskaia 1983; Stark 1936e: 144, 1952: 269. (tx) Eggers 1942c: 28; Kurenzov 1948b: 113; Michalski 1969a: 591, 1969b: 567; Schedl 1979c: 66; Sokanovskii 1954: 17; Stark 1936e: 144, 1950: 229, 1952: 269.
- cryptomeriae** Niisima 1905a: 91. Syntypes 4, sex?; Kumamoto in der Provinz Higo, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Cryptomeria japonica*.
References: (ds) Kleine 1913b: 118, 1914b: 257, 1934a: 142; Murayama 1954b: 199; Nobuchi 1955c: 13. (tx) Murayama 1954b: 199; Niisima 1905a: 91; Schedl 1934f: 1639.
- cylindricus** Browne 1980b: 384. Holotype, sex?; Pagai Island (Mentawai Islands, Indonesia) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Mentawai).
References: (ds) Browne 1980b: 384, 1981b: 597.
- cylindrus** Browne 1984d: 92. Holotype, sex?; New Guinea; Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Auracaria humsteini*.
References: (tx) Browne 1984d: 92.
- densepilosus** Schedl 1943b: 36. Holotype, sex?; Mt. Makiling, Laguna, Luzon, Philippinen; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
Hosts: *Ficus nimialhasae*.
References: (ds) Schedl 1966b: 20. (tx) Nobuchi 1983: 300; Schedl 1943b: 36–37, 1953c: 295, 1979c: 77.
- dipterocarpi** Wood 1989: 179. Holotype ♀; Margherita Factory, Lakhimpur, Assam, India; FRI, Dehra Dun.
Distribution: Asia (Burma/ Assam in India).
Hosts: *Dipterocarpus alatus* D. pilosus.
Notes: (1) This is *dipterocarpi* Beeson 1941 (1961: 288), nomen nudum.
References: (ds) Beeson 1961: 288. (tx) Schedl 1940d: 591, 1942a: 169–170, 1943b: 39; Wood, S. L. 1989: 179.
- dissimilis** (Nobuchi) 1975: 57 (*Tacnioglyptes*). Holotype ♀; Mt. Fuji, Yamanashi pref., Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 2, fig. 21.
Distribution: Asia (Japan).
Hosts: *Abies homolepis*.

- References: **(ds)** Nobuchi 1955c: 13. **(tx)** Nobuchi 1975: 57–58.
- diversicolor** Browne 1984d: 90. Holotype, sex?; New Guinea: Sawmill L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Aracaria lunsteinii*.
References: **(tx)** Browne 1984d: 90.
- dorsalis** (Motschulsky) 1866: 403 (*Hypoborus*).
Syntypes 1 ♂, 2 ♀; India; IZM, Moscow.
Distribution: Asia (Burma/ Hainan Island in China/ Andaman Islands, Assam in India/ Vietnam), Indonesia (Java, Sumatra), Philippines (Luzon, Mindanao).
Hosts: *Artocarpus lakoocha*, *Ficus glomerata*, *F. rumphii*.
References: **(ds)** Gemminger & Harold 1872: 2684; Hagedorn 1910d: 29; Kleine 1912b: 186, 1914b: 273. **(tx)** Hagedorn 1910a: 61; Motschulsky 1866: 403; Wood, S. L. 1969c: 119.
- nebulosus** Motschulsky 1866: 403 (*Hypoborus*).
Syntypes 2, sex?; India; IZM, Moscow. Synonymy: Wood 1969c: 119.
References: **(ds)** Gemminger & Harold 1872: 2684; Hagedorn 1910d: 29; Kleine 1912b: 186, 1914b: 268. **(tx)** Hagedorn 1910a: 61; Motschulsky 1866: 403; Wood, S. L. 1969c: 119.
- sericeus** Motschulsky 1866: 402 (*Hylesinus*).
Holotype ♀; Ceylon; IZM, Moscow, preoccupied by Mannerheim 1843. Synonymy: Wood 1969c: 118.
References: **(ds)** Kleine 1912b: 171, 1914b: 273. **(tx)** Gemminger & Harold 1872: 2675; Hagedorn 1910a: 49; Motschulsky 1866: 402; Wood, S. L. 1969c: 118.
- indicus** Eichhoff 1878b: 489. Holotype ♂; Hindostan (Birma); Hamburg Museum, lost. Synonymy: Wood 1969c: 118.
References: **(cn)** Roonwal 1954: 89. **(hb)** Beaver & Browne 1975: 555; Browne 1935a, 1961c: 69; Kalshoven 1958b: 164; Yumms & Hua 1980: 228. **(ds)** Beaver & Browne 1975: 288, 1978: 555; Beeson 1961: 287; Browne 1935a, 1961c: 69; Hagedorn 1910d: 43; Kleine 1913b: 118, 1914b: 276, 278, 1934a: 142; Roonwal 1954: 89; Schedl 1938g: 424, 1962b: 186, 1966b: 21, 1971c: 376; Yumms & Hua 1980: 228. **(tx)** Eggers 1925: 152, 1927b: 396; Eichhoff 1878a: 384, 1878b: 489; Hagedorn 1910a: 87; Nobuchi 1983: 300; Schedl 1938g: 424, 1942a: 169, 1942d: 2, 22, 1951i: 50, 1965g: 22; Stebbing 1906: 403, 1914: 538; Wood, S. L. 1969c: 118.
- dubiosus** Schedl 1963i: 66. Holotype, sex?; Saigon; Schedl Collection in NHMW, Wien.
Distribution: Asia (Vietnam).
References: **(tx)** Schedl 1963i: 66, 1979c: 84.
- duplosquamosus** Schedl 1942d: 15. Lectotype, sex?; Java, Britenzorg; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
Hosts: *Canarium commune*.
References: **(ds)** Kalshoven 1958: 164. **(tx)** Schedl 1942d: 15, 1979c: 86.
- elaboratus** Schedl 1950f: 51. Syntypes 2, sex?; Vauva Mbalavai; Loma Loma, 200–500 ft., Myana, 200 ft.; BPBM, Honolulu, and Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
References: **(ds)** Browne 1974a: 64. **(tx)** Schedl 1950f: 51, 1979c: 88.
- elongatus** (Nobuchi) 1975: 42 (*Ericryphalus*).
Holotype, sex ?; Mt. Takao, Tokyo, Japan; Nobuchi, Ibaraki. Possible homonym.
Distribution: Asia (Japan).
Hosts: *Cornus controversa*.
Notes: (3) The position of this species is doubtful; it was named in an invalid genus and was said to be near *Ernioporicus caucasicus* (SLW).
References: **(tx)** Nobuchi 1975: 42, 1985c: 11.
- elongatus** Schedl 1962r: 105. Holotype, sex?; Fiji Inseln; Schedl Collection in NHMW, Wien.
Figures: Nobuchi 1975: pl. 1.
Distribution: Fiji Islands.
References: **(ds)** Browne 1974a: 64. **(tx)** Nobuchi 1975: pl. 1; Schedl 1962r: 105, 1979c: 89.
- erraticum** Schedl 1979g: 96. Holotype, sex?; Papua, Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(tx)** Schedl 1979g: 96.
- exiguus** Blandford 1894d: 82. Holotype, sex?; Fukuushima (Japan); BMNH, London.
Figures: Yin, Huang, & Li 1984: 112.
Distribution: Asia (Auhui, Guizhou, Hebei, Jiangsu, Shandong, Sichuan, Zhejiang in China/ Japan/ Korea/ Kuril Islands/ Taiwan).
Hosts: *Broussonetia kazinoki*, *Celtis sinensis*, *Diospyros kaki*, *Etodia rutacarpa*, *Ficus* spp., *Morus alba*, *M. bombycis*, *Salix* sp.
Notes: (3) Choo 1983: 71 (redescribed).
References: **(cn)** Anonyms 1980g; Clausen 1931; Shiraki 1952. **(hb)** Krivolitskaya 1965a: 233, 1973: 134. **(ds)** Anonyms 1980g; Blandford 1894c; Cho 1957; Choo 1983: 71; Choo & Woo 1985: 164; Clausen 1931; Hagedorn 1910d: 42; Kleine 1913b: 118, 1914b: 256, 1934a: 142; Ko 1969: 275; Krivolitskaya 1965a: 233, 1973: 134; Ku 1964; Murayama 1930b: 10, 1933b: 2, 1936a: 126, 1937b: 375, 1949c: 100, 1950b: 1292, 1952a: 22, 1953c: 151, 1954b: 162; Shiraki 1952; Tsai & Li 1963: 603, 606; Yin, Huang, & Li 1984: 112. **(tx)** Blandford 1894d: 82; Choo 1983: 71; Murayama 1930b: 10, 14, 30, 1933: 14, 1936a: 126, 1937b: 375, 1950: 1292, 1952a: 22, 1954b: 162; Niisima 1905a: 89–90, 1909: 140, 142, 1910a: 8–9; Nobuchi 1959c: 23; Schedl 1934f: 1639; Yin, Huang, & Li 1984: 112.

- pilosus* Sasaki 1899: 235. Syntypes?: Japan, publication not seen. Synonymy: Niisima 1909: 144. References: (tx) Niisima 1909: 146; Sasaki 1899: 235.
- felis* Wood 1959: 180.** Holotype ♀; Mussoorie, Uttar Pradesh, India; FRI, Dehra Dun.
Distribution: Asia (Uttar Pradesh in India).
Hosts: *Quercus* sp., *Vitis* sp.
Notes: (1) This is *felis* Beeson, nomen nudum.
References: (tx) Schedl 1940d: 591, 1943b: 37; Wood, S. L. 1959: 180.
- ficivorus* Murayama 1958: 933.** Syntypes 4, sex[?]; Muroto, Kochi pref., Shikoku, Japan; Murayama Collection in USNM, Washington.
Distribution: Asia (Shikoku in Japan).
Hosts: *Ficus wightiana*.
References: (ds) Nobuchi 1955c: 13. (tx) Murayama 1958: 933.
- formosanus* Schedl 1942a: 175.** Holotype, sex[?]; Formosa; Schedl Collection in NIIMW, Wien.
Distribution: Asia (Taiwan).
References: (ds) Nobuchi 1967: 24. (tx) Murayama 1934c: 288; Schedl 1942a: 174–175, 1943b: 35, 1979c: 95.
- fugax* Schedl 1973e: 87.** Holotype, sex[?]; Rambuso, Sudest Island, 0–100 m. Milne Bay District; AMNH, New York.
Distribution: New Guinea.
References: (tx) Schedl 1973e: 87, 1979c: 101.
- fuliginosus* Blandford 1895a: 319.** Holotype, sex[?]; Ceylon, Bogawantalawa; BMNH, London.
Distribution: Asia (Sri Lanka).
Hosts: Liana.
References: (ds) Hagedorn 1910d: 43; Kleine 1913b: 118, 1914b: 273; Schedl 1959a: 481. (tx) Blandford 1895a: 319; Hagedorn 1910a: 86; Schedl 1959a: 481.
- fulmineus* Wood 1959: 180.** Holotype, sex[?]; Tharal, Garhwal, Uttar Pradesh, India; FRI, Dehra Dun.
Distribution: Asia (Sichuan in China/ Uttar Pradesh in India).
Hosts: *Ahms nitida*.
Notes: (1) This is *dumineus* Beeson 1941 (1961: 286), nomen nudum.
References: (ds) Roonwal 1954: 59. (tx) Schedl 1940d: 591; Wood, S. L. 1959: 180.
- fulvus* Niisima 1905a: 92.** Syntypes, sex[?]; Yatsuo-Berg in der Provinz Ohmi, Japan; Nobuchi Collection, Ibaraki.
Figures: Nakane et al. 1963: 382, Nobuchi 1966d: pl. 3.
Distribution: Asia (Liaoning, "Manchuria" in China/ Japan/ Korea/ Ryukyu Islands).
Hosts: *Pimis hansiana*, *P. densiflora*, *P. koraiensis*, *P. rigida*, *P. tabulaeformis* var. *mukdensis*, *P. thumbergii*.
Notes: (3) Choo 1983: 72 (redescribed).
References: (ay) Sasakawa & Sasakawa 1981: Sasakawa & Yoshiyasu 1983. (bv) Nagasawa, Asano, & Makita 1968: 153–158, 1969: 80–85, 1970: 22–26; Nobuchi 1969b, 1969c; Sasakawa & Katayama 1975; Sasakawa & Kawaguchi 1987; Sasakawa & Negishi 1973; Sasakawa, Ohta, & Negishi 1976; Sasakawa & Sasakawa 1981, 1984; Sumimoto, Kondo, & Kaniyama 1974; Sumimoto et al. 1975; Yasunaga, Oshina, & Kuwatsuka 1962: 197–200; Yoshikawa et al. 1986. (cn) Anonymous 1950g; Godha et al. 1964; Mouye 1949a: 13, 110, 1949b; Ko 1984; Ko & Morimoto 1985; Nagasawa & Asano 1975; Nagasawa, Asano, & Fushimi 1965a, 1968b; Oda, Kato, & Nobuchi 1964; Sakai 1966: 120–129; Sakai et al. 1964: 61–68; Shiraki 1952; Yoshida & Fukuma 1972; Yoshida et al. 1974. (ce) Asano, Nagasawa, & Fushimi 1968; Heqvist 1967: 65; Kamijo 1981; Kishi 1969, 1970, 1972; Koyama 1963; Sasakawa & Negishi 1973; Sasakawa, Ohta, & Negishi 1976; Yasumatsu & Watanabe 1965: 68; Yoshikawa 1987a, 1987b; Yoshikawa et al. 1986. (hb) Asano, Nagasawa, & Fushimi 1968: 46–61; Nagawasa, Asano, & Makita 1969; Nagasawa et al. 1968; Sasakawa 1975; Sasakawa & Katayama 1975; Sasakawa & Negishi 1973; Sasakawa & Sasakawa 1984; Takahashi 1989: 403; Takahashi & Ito 1951: 159–161; Yoshikawa et al. 1986. (ds) Anonymous 1950g; Browne 1984b: 287; Cho 1955, 1957; Choo 1983: 72; Choo, Woo, & Nobuchi 1985a: 134; Choo, Woo, & Park 1983: 175; Mouye 1949b; Kleine 1913b: 118, 1914b: 257, 1934a: 142; Ko 1969: 275; Ku 1964; Murayama 1929b: 2, 1929d: 2, 1930a: 7, 1930b: 11, 1936b: 115, 1937b: 375, 1940a: 232, 1942a: 54, 1948: 2, 1949a: 11, 1949c: 100, 1950b: 1292, 1951a: 6, 1951c: 3, 1952a: 22, 1953a: 9, 1953c: 151, 1954b: 163, 1955: 98, 103; Nakane et al. 1963: 382; Nobuchi 1966d: 22; Nobuchi & Ono 1973: 181; Nohira & Ogawa 1986; Shiraki 1952; Tsai & Li 1963: 603; Yin, Hwang, & Li 1984: 110. (tx) Choo 1983: 72; Eggers 1923b: 139; Hagedorn 1910a: 86; Murayama 1930b: 11, 15, 30, 1934c: 298, 1937b: 375, 1939: 144, 1940a: 232, 1950b: 1292, 1952a: 22, 1953a: 9, 1954b: 163, 1955: 92, 98, 103; Nakane et al. 1963: 382; Niisima 1905a: 92, 1910a: 8; Nobuchi 1959c: 25, 1966d: 22, pl. 3; Schedl 1934f: 1639, 1979c: 101; Sokanovskii 1954: 17; Tsai & Li 1963: 605; Yin, Hwang, & Li 1984: 110.
- pini* Eggers 1921: 39. Lectotype ♂; Kiautschou (China); USNM, Washington, designated by Anderson & Anderson 1971: 139. Synonymy: Eggers 1923b: 139.
References: (ds) Schedl 1966b: 19. (tx) Anderson, W. H. & Anderson 1971: 25; Eggers 1921: 39, 1923b: 139; Nobuchi 1983: 300; Schedl 1934f: 1639.
- furukawai* Murayama 1934a: 59** (reprint p. 3). Holotype, sex[?]; Chochoin, south Korea; USNM, Washington.

- Distribution: Asia (Japan/ Korea).
 Hosts: *Alnus sibirica*, *Ficus wightiana*, *Pinus maximowiczii*, *P. thunbergii*.
 Notes: (3) Nobuchi 1985c: 16 (treated in *Hypothenemus* [not seen by us]).
 References: (ds) Cho 1957; Choo 1983: 72; Choo & Woo 1985: 164; Ko 1969: 275; Murayama 1936a: 127, 1937b: 375, 1935: 126, 1952a: 19, 1953c: 151, 1954b: 163; Nobuchi 1966d: 23, 1985c: 16. (tx) Choo 1983: 72; Murayama 1934a: 59 (reprint p. 3), 1936a: 127, 1937b: 375, 1952a: 19, 1954b: 163; Nobuchi 1966d: 23.
- garambaensis** Nunberg 1965b: 25. Holotype, sex?; Repub. of the Congo: Garamba Nat. Park, near 2801; Inst. Pares Nat. Congo Coll.
 Figures: Nunberg 1965a: 35, 1965b: pl. 1–2.
 Distribution: Africa (Congo).
 References: (ds) Nunberg 1952: 23. (tx) Nunberg 1952: 23, 1965a: 31, 35, 1965b: 25, pl. 1–2.
- giganteus** Schedl 1950d: 22. Holotype, sex?; Natal; Schedl Collection in NHMW, Wien.
 Distribution: Africa (Natal in South Africa).
 References: (tx) Schedl 1950d: 22, 1961k: 462, 1979c: 104.
- gigas** Schedl 1975g: 218. Holotype ♀; New Guinea, Wau; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1975f: 351, 1975g: 218, 1979c: 104.
- helopioides** Schedl 1953c: 295. Lectotype, sex?; Malaya Peninsula, Kelantan, Bt. Mengkebang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 116.
 Distribution: Asia (Malaya).
 References: (ds) Browne 1961c: 69; Schedl 1971c: 363. (tx) Schedl 1953c: 295, 1979c: 116.
- hirsutus** (Nobuchi) 1975: 52 (*Taenioglyptes*). Holotype ♀; Komanoyu, Nigata pref., Japan; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1975: pl. 2, fig. 15.
 Distribution: Asia (Japan).
 References: (ds) Nobuchi 1985c: 13. (tx) Nobuchi 1975: 52–53.
- horridus** Eichhoff 1878b: 488. Syntypes², sex?; Asiae India orientalis; Hamburg Museum, lost.
 Distribution: Asia (Burma).
 References: (hb) Schedl 1961k: 462. (ds) Hagedorn 1910d: 43; Kleine 1913b: 118, 1914b: 269; Schedl 1961k: 462. (tx) Eichhoff 1878a: 384, 1878b: 488; Hagedorn 1910a: 86; Schedl 1960h: 104, 1961k: 462.
- infimus** Schedl 1972e: 287. Holotype, sex?; Ghana, Ashanti Region, Kwadaso, 320 m, N 6 degrees 42, W 1 degree 39; NHMB, Budapest.
 Distribution: Africa (Ghana).
 References: (tx) Schedl 1972e: 287.
- intermedius** Ferrari 1867a: 79. Holotype, sex?; Germania borealis (Norddeutschland); NHMW, Wien?
 Figures: Grune 1979: 104. Pfeffer 1989a: pl. 6.
 Distribution: Europe (Austria/ Czechoslovakia/ Germany/ Hungary/ Italy/ Poland/ Romania).
 References: (ay) Escherich 1923b: 481, 616; Nusslin 1911a: 129. (bv) Grune 1979: 105; Kinelski 1958: 73. (cn) Escherich 1923b: 481, 616; Koch 1913: 95; Nusslin 1913: 257; Pierce, W. D. 1917: 84; Rhumbler 1922: 299, 1927: 312; Schimitschek 1937c: 52, 1955c: 82, 1955a: 44, 91, 1961a: 154; Schwerdtfeger 1944a: 183, 1957a: 188; Wichmann 1927b: 378. (ce) Hirschmann & Wisniewski 1982, 1983; Karpinski 1932a: 95; Kielczewski, Moser, & Weisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1983; Kleine 1908c: 186; Michalski & Ratajczak 1989; Nusslin 1927: 300; Pfeffer 1960: 345; Ruhm 1955c: 176; Schedl 1958d: 187; Schimitschek 1955a: 44, 91; Schwerdtfeger 1944a: 183, 1957a: 188; Wisniewski 1979a, 1979b. (hb) Dombrowsky 1887; Eichhoff 1881a: 45, 180; Escherich 1923b: 481, 616; Györfi 1957; Henschel 1885b, 1895a: 167; Karpinski & Strawinski 1948: 155; Lengerken 1939, 1954: 83; Nunberg 1929: 103; Nusslin 1913: 257, 1927: 300; Pfeffer 1941b: 18; Postner 1974: 430; Rhumbler 1922: 299, 1927: 312; Schimitschek 1955a: 44, 91; Schwerdtfeger 1944a: 183, 1957a: 188, 1981: 194; Stark 1952: 263; Tredd 1908a: 30–31; Wachtl 1876a: 458; Wichmann 1927b: 378. (ds) Calver 1884, 1893; Eggers 1904; Endrodi 1958b; Escherich 1923b: 481, 616, 1932b; Fuchs 1905a; Gemminger & Harold 1872: 2683; Grune 1979: 104–105; Hagedorn 1910d: 43; Henschel 1895a: 167; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Horion 1951; Karpinski 1932a: 95; Karpinski & Strawinski 1948: 155; Kiefer et al. 1942: 528; Kinelski 1958: 73; Kleine 1912a: 267, 1913a: 35, 1913b: 118, 1934a: 142; Kraatz 1869: 59; Kurir 1947c: 11; Lucht 1987: 278; Nunberg 1954: 52; Pfeffer 1926a: 11, 1931b: 75, 1950b: 75, 1960: 345, 1989a: 82; Pierce, W. D. 1917: 84; Pittioni 1943: 176; Postner 1974: 430; Prossen 1913: 83; Redtenbacher 1874: 376; Reitter 1894a: 70, 1916: 288; Roubal 1941: 263; Schaufuss 1915: 1232; Schedl 1980a: 14, 1981b: 74; Schilsky 1909: 188; Schremmer 1959: 137; Schwerdtfeger 1981: 194; Seidlitz 1872: 393, 1891a: 562; Stark 1936a: 143, 1952: 263; Stein 1868: 114; Stein & Weise 1877: 164; Tredd 1907: 12; Wachtl 1876a: 458; Wichmann 1927a: 67–68. (tx) Dombrowsky 1887; Eggers 1929b: 10; Eichhoff 1868d: 49, 1878b: 126, 1881a: 45, 180, 1883a: 109, 132; Endrodi 1957a: 307, 1957b; Escherich 1923b: 481, 616; Ferrari 1867a: 79–80, 1867b: 114; Fleischer 1927; Grune 1979: 104–105; Hagedorn 1910a: 87; Henschel 1895a: 167; Karpinski & Strawinski 1948: 155; Koch 1913: 95, 1932: 146; Kuhnt 1913:

- 1055; Lucht 1957: 278; Niisima 1909: 144; Numburg 1930, 1954: 52; Nusslin 1911a: 129; Pfeffer 1932b: 18, 1941b: 18, 1955a: 179, 1959a: pl. 6; Postner 1974: 430; Quaschik 1953: 35; Redtenbacher 1874: 376; Reitter 1894a: 70, 1913a: 67, 1916: 255; Rhumbler 1922: 299, 1927: 312; Schedl 1934f: 1639, 1980a: 14, 1981b: 74; Schimitschek 1937c: 52, 1955c: 82; Seidlitz 1872: 393, 1891a: 562; Stark 1936e: 143, 1952: 263. (**ms**) Escherich 1932b.
- jeholensis** Murayama 1939: 143. Syntypes, sex?; Shotoku, Manchukuo; Murayama Collection in USNM, Washington.
 Figures: Nakane et al. 1963: 352, Nobuchi 1966d: pl. 3.
 Distribution: Asia (Hebei, "Manchuria" in China/ Japan/ Korea).
 Hosts: *Abies firma*, *Pinus densiflora*, *P. nigra*, *P. tabulaeformis*, *P. thunbergii*, *Smilax china*.
 Notes: (3) Inouye & Nobuchi 1957: 50 (redescribed).
 References: (**ds**) Choo 1953: 73; Choo & Woo 1955: 164; Choo, Woo, & Nobuchi 1955a: 134; Murayama 1939: 140, 143, 1942a: 54, 1948: 2, 1949a: 12, 1951c: 3, 1952a: 20, 1953a: 10, 1953c: 151, 1954b: 163; Nakane et al. 1963: 352; Nobuchi 1966d: 23, 1955c: 14; Sawamoto 1940b: 141, 145; Tsai & Li 1963: 603, 605; Yin, Huang, & Li 1954: 110. (**tx**) Choo 1953: 73; Inouye & Nobuchi 1957a: 49; Murayama 1939: 140, 143, 1952a: 20, 1953a: 10, 1954b: 163; Nakane et al. 1963: 352; Nobuchi 1966d: 23, pl. 3; Sawamoto 1940b: 141-146; Yin, Huang, & Li 1954: 110.
- jezoensis** Inouye & Nobuchi 1957: 49. Syntypes 13, sex?; Soumkyo, Daisetsu-zan National Park, Hokkaido, Japan; Nobuchi Collection, Ibaraki.
 Distribution: Asia (Hokkaido in Japan).
 Hosts: *Picea jezoensis*.
 References: (**ds**) Nobuchi 1955c: 14. (**tx**) Inouye & Nobuchi 1952a, 1957: 49.
- juglansi** Niisima 1913a: 3. Syntypes, sex?; Prov. Kushiro (Hokkaido); Nobuchi Collection, Ibaraki.
 Distribution: Asia (Hokkaido, Honshu in Japan).
 Hosts: *Juglans sieboldiana*.
 References: (**en**) Anonymous 1980g, (**ds**) Anonymous 1980g; Kleine 1934a: 142; Murayama 1954b: 199; Nobuchi 1955c: 14. (**tx**) Murayama 1954b: 199; Niisima 1913a: 3; Schedl 1934f: 1639, 1979c: 130.
- kagoshimensis** (Nobuchi) 1975: 56 (*Taenioglyptes*). Holotype ♀; Satamisaki, Kagoshima, Japan; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1975: pl. 2, fig. 19.
 Distribution: Asia (Japan).
 References: (**ds**) Nobuchi 1985c: 14. (**tx**) Nobuchi 1975: 56.
- kesiyae** Browne 1975: 288 in Beaver & Browne. Holotype, sex?; Thailand: Chiang Mai, Doi Pui, 1600 m; BMNH, London.
 Distribution: Asia (Thailand).
 Hosts: *Pinus kesiya*.
 References: (**tx**) Beaver & Browne 1975: 288; Browne 1980a: 370.
- kiruensis** Schedl 1957d: 48. Holotype, sex?; Congo Belge; Kivu, Hembe Bitale; MRCB, Tervuren.
 Distribution: Africa (Zaire).
 Hosts: *Ficus* cf. *capensis*.
 References: (**ds**) Schedl 1961k: 464. (**tx**) Schedl 1957d: 48, 1961k: 464, 1979c: 132.
- kolbei** (Hagedorn) 1912c: 355 (*Allarthrum*). Syntypes, sex?; Peterhafen, Deutsch-Neuguinea; MNB, Berlin.
 Distribution: New Guinea.
 References: (**ds**) Kleine 1913b: 145, 1914b: 296; Krivolutskaya 1965a: 232, 1983. (**tx**) Hagedorn 1912c: 355; Hopkins 1914: 116; Michalski 1969b: 567; Schedl 1979c: 134.
- kurenzovi** Stark 1936: 142, 150. Lectotype, sex?; Maykhe R. Valley, Far East Terr.; IZL, Leningrad, designated by Michalski 1969a: 591.
 Distribution: Asia (Sakhalin Island, Siberia, Ussuri in E USSR).
 Hosts: *Abies holophylla*, *A. nephrolepis*.
 References: (**en**) Kurenzov 1935c: 157. (**cc**) Kurenzov 1934a: 52. (**hb**) Kurenzov 1935a: 20, 1948b: 102, 1950d: 145; Stark 1952: 256. (**ds**) Kurenzov 1934a: 52, 1935a: 20, 1935c: 157, 1936b: 351, 1935a: 61, 1950: 145; Stark 1936e: 142, 150, 1952: 256. (**tx**) Eggers 1942c: 28-30; Krivolutskaya 1958: 141-143; Kurenzov 1941a: 142-143, 1948b: 102; Michalski 1969a: 591, 1969b: 567; Murayama 1961: 30; Nobuchi 1965: 130; Nobuchi & Takahashi 1965: 3; Pfeffer 1944a: 131; Schedl 1952k: 158; Sokanovskii 1954: 16; Stark 1936e: 142, 150, 1951: 229, 1952: 256. (**ms**) Pfeffer 1944a: 131.
- punctulatus** Eggers 1942c: 29. Holotype, sex?; Ussuri, USSR; Eggers Collection (not mentioned by Anderson & Anderson 1971 or Schedl 1979c). Synonymy: Pfeffer 1944a: 131.
 References: (**tx**) Eggers 1942c: 29; Pfeffer 1944a: 131; Schedl 1952k: 158; Sokanovskii 1955: 38; Stark 1951: 229. (**ms**) Pfeffer 1944a: 131.
- ussuriensis** Eggers 1942c: 29. Holotype, sex?; Ussuri; Eggers Collection, in NHMW, Wien.
 Synonymy: Schedl 1952k: 158.
 References: (**hb**) Stark 1952: 269. (**ds**) Krivolutskaya 1983; Pfeffer 1944a: 131; Stark 1952: 269. (**tx**) Eggers 1942c: 29-30; Pfeffer 1944a: 131; Schedl 1952k: 158, 1979c: 262; Stark 1952: 269.
- kurilensis** Krivolutskaya 1968: 53. Holotype, sex?; Kuril Islands; Institute of Zoology, Academy of Science, Vladivostok.
 Figures: Krivolutskaya 1968: 53.
 Distribution: Asia (Kuril Islands).
 Hosts: *Toxicodendron trichocarpum*.

- References: (tx) Krivolitskaya 1968: 53–56, 1973: 136.
- kyotoensis Nobuchi** 1966d: 53. Holotype ♀; Mizorogaike, Kyoto City, Japan; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1966e: pls. 1–2.
 Distribution: Asia (Honsu in Japan).
 Hosts: *Alnus firma*.
 References: (ds) Nobuchi 1955c: 14, (tx) McNamara 1977: 196; Nobuchi 1966e: pls. 1–2, 1966d: 53.
- laevis Browne** 1984b: 288. Holotype, sex?; Malaysia: Kudat (Sabah) to Nagoya (Japan), imported; BMNH, London.
 Distribution: Asia (Malaya).
 Hosts: Keruing log.
 References: (tx) Browne 1984b: 288.
- laricis Niisima** 1909: 142. Syntypes, sex?; Nopporo in der Prov. Ishikari, Japan; Nobuchi Collection, Ibaraki.
 Figures: Nakane et al. 1963: 382, Nobuchi 1966d: pl. 3.
 Distribution: Asia (Japan/ Korea).
 Hosts: *Abies holophylla*, *A. sachalinensis*, *Larix leptolepis*, *Picea jezoensis*, *Pinus densiflora*, *P. koraiensis*, *P. silvestris*, *P. thumbergii*.
 Notes: (3) Inouye & Nobuchi 1957: 50 (re-described).
 References: (cn) Anonymous 1980g, (ec) Nishiguchi 1957: 75–78, 1959: 271, (ds) Anonymous 1980g; Choo 1983: 73; Choo & Woo 1985: 164; Kleine 1913b: 118, 1914b: 256, 1934a: 142; Kono 1938b: 65–68; Krivolitskaya 1983; Murayama 1948: 3, 1949a: 12, 1953a: 10, 1954b: 199; Nakane et al. 1963: 382; Nobuchi 1966d: 24, 1985c: 14; Sawamoto 1940a: 95–101, (tx) Choo 1983: 73; Hagedorn 1910a: 99; Inouye & Nobuchi 1957a: 49–50; Murayama 1953a: 10, 1954b: 199; Nakane et al. 1963: 382; Niisima 1909: 142; Nobuchi 1966d: 24, pl. 3; Sawamoto 1940a: 95, 100; Schedl 1934f: 1693, 1979c: 136.
- laticollis Browne** 1984b: 288. Holotype, sex?; Pomio (New Britain) to Nagoya (Japan), imported; BMNH, London.
 Distribution: New Guinea.
 Hosts: *Garcinia* sp.
 Notes: (3) Beaver 1991: 91 (cited in *Hypocryphalus* [not seen by us]).
 References: (ds) Ohno, Yoshioka et al. 1989: 60, (tx) Beaver 1991: 91; Browne 1974e: 67, 1984b: 288.
- latus Eggers** 1929b: 10. Holotype, sex?; Ussuri, USSR; USNM, Washington, 2 Eggers cotypes in NHMW, Wien.
 Figures: Yin, Huang, & Li 1984: 103.
 Distribution: Asia (Heilongjiang in China/ Ussuri in E USSR).
 Hosts: *Abies* sp., *Larix dahurica*, *L. gmelinii*, *L. sp.*, *Picea* sp.
 References: (cn) Kurenzov 1935c: 188, (ec) Kurenzov 1934a: 57, (hb) Kurenzov 1935a: 19, 32, 1948b: 103; Stark 1952: 264, (ds) Krivolitskaya 1983; Kurenzov 1934a: 57, 1935a: 19, 32, 1935c: 188, 1936a: 113, 1938a: 65, 1951b, 1967; Schedl 1969a: 202; Stark 1936e: 143, 1952: 264; Tsai & Li 1963: 602; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 102, (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1929b: 10; Kurenzov 1941a: 143–144, 1948b: 103; Murayama 1943: 97; Schedl 1934f: 1639, 1979c: 137; Sokanovskii 1954: 16; Stark 1936e: 143, 1952: 264; Tsai & Li 1963: 605; Yin, Huang, & Li 1984: 102.
- lepocrinus Tsai & Li** 1963: 606, 619, 624. Holotype ♂; Szechuan, China; IZAS, Beijing.
 Figures: Tsai & Li 1963: 620; Yin, Huang, & Li 1984: 117 (adult).
 Distribution: Asia (Sichuan in China).
 Hosts: *Abies* sp.
 References: (ds) Yin, Huang, & Li 1984: 116, (tx) Tsai & Li 1963: 606, 609, 619–620, 624; Yin, Huang, & Li 1984: 116.
- leprosulul Browne** 1980e: 774. Holotype, sex?; Zaire: Riviere Samliki, 690 m; BMNH, London.
 Distribution: Africa (Zaire).
 References: (tx) Browne 1980e: 774.
- lipingensis Tsai & Li** 1959: 90. Holotype, sex?; North China (publication not seen); IZAS, Beijing.
 Figures: Li, Dang, & Shi 1977: 192, Li & Zhou 1980: 192, Tsai & Li 1959: 91, 1963: 616.
 Distribution: Asia (Shanxi, Sichuan in China).
 Hosts: *Pinus armandi*.
 References: (hb) Li, Dang, & Shi 1977: 73; Li & Zhou 1980: 73; Yang 1989c, (ds) Li, Dang, & Shi 1977: 73; Yin, Huang, & Li 1984: 113, (tx) Tsai & Li 1959: 90–91, 1963: 606, 616, 624; Yin, Huang, & Li 1984: 113.
- longior Browne** 1984d: 91. Holotype, sex?; New Guinea: Kaismik; BMNH, London.
 Distribution: New Guinea.
 Hosts: *Castanopsis* sp.
 References: (tx) Browne 1984d: 91.
- longipennis (Browne)** 1970: 552 (*Taenioglyptes*). Holotype ♀; New Zealand: Greyouth; BMNH, London.
 Distribution: New Zealand.
 References: (tx) Browne 1970: 552–553.
- longipilus Schedl** 1943b: 34. Lectotype ♀; Sabaan, Ins. Mindoro, Philippinen; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 141.
 Distribution: Indonesia (Sumatra), Micronesia (Palau), Philippine Islands (Mindoro).
 References: (ds) Schedl 1966b: 21, (tx) Nobuchi 1983: 300; Schedl 1943b: 34, 1962r: 91, 1979c: 141; Wood, S. L. 1960a: 25.
- longisetosus (Nobuchi)** 1975: 57 (*Taenioglyptes*). Holotype ♀?; Hirogawara, Yamanashi pref., Japan; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1975: pl. 2, fig. 20.

Distribution: Asia (Japan).

Hosts: *Tsuga diversifolia*.

References: (ds) Nobuchi 1955c: 14. (tx) Nobuchi 1975: 57.

major Stebbing 1903a: 270. Holotype ♀; India, Tono Valley; FRI, Dehra Dun.

Distribution: Asia (Himachal Pradesh, Punjab, Uttar Pradesh in India).

Hosts: *Picea morinda*, *Pinus excelsa*, *P. roxburghii*.

References: (cn) Beeson 1915a: 317–325; Matlur & Singh 1960b: 51; Pierce, W. D. 1917: 74; Stebbing 1903a: 270, 1914: 530; Troup 1916: 1–126. (cc) Stebbing 1914: 530. (hb) Beeson 1915a: Stebbing 1903a: 270, 1914: 530. (ds) Beeson 1961: 286; Hagedorn 1910d: 44; Kleine 1913b: 115, 1914b: 276, 1934a: 142; Matlur & Singh 1960b: 51; Pierce, W. D. 1960b: 51; Stebbing 1903a: 270. (tx) Hagedorn 1910a: 57; Stebbing 1903a: 270, 1914: 530; Wood, S. L. 1959: 171.

morinda Stebbing 1903: 265. Syntypes 2, sex?; Sakahar, Bashar, Punjab, India; FRI, Dehra Dun. Synonymy: Wood 1959: 171.

References: (cn) Pierce, W. D. 1917: 81; Stebbing 1903a: 265, 1914: 535. (cc) Chararas 1959c; Stebbing 1914: 535. (hb) Stebbing 1903a: 265, 1914: 535. (ds) Hagedorn 1910d: 44; Kleine 1913b: 118, 1914b: 269, 1934a: 142; Pierce, W. D. 1917: 81; Stebbing 1903a: 265. (tx) Hagedorn 1910a: 57; Stebbing 1903: 265, 1914: 535; Wood, S. L. 1959: 171.

malloti Schedl 1943b: 37. Lectotype, sex?; Baguio, Luzon, Philippines; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 147.

Distribution: Philippine Islands (Luzon).

Hosts: *Mallotus ricinoides*, *Pinus insularis*.

References: (ds) Schedl 1966b: 21. (tx) Nobuchi 1953: 300; Schedl 1943b: 37, 1952b: 363, 1953c: 295, 1979c: 147.

malus Niisima 1909: 144. Syntypes, sex?; Hakodate; Nobuchi Collection, Ibaraki.

Distribution: Asia (Liaoning in China/ Japan/ Korea).

Hosts: *Armanica* sp., *Prunus armeniaca*, *P. mume*, *P. persica*, *P. pseudo-cerasus*, *P. salicina*, *P. sargentii*, *Pyrus malus*, *Sorbus commixta*.

References: (cn) Clausen 1931. (ds) Choo 1953: 74; Choo & Woo 1955: 165; Choo, Woo, & Nobuchi 1953: 171, 1955a: 134; Clausen 1931; Kleine 1913b: 118, 1914b: 257, 1934a: 142; Murayama 1954b: 199, 1955: 103; Nobuchi 1955c: 14; Tsai, Huang, & Li 1954: 104; Tsai & Li 1963: 602. (tx) Hagedorn 1910a: 88; Murayama 1954b: 199, 1955: 123; Niisima 1909: 144; Schedl 1934f: 1639; Tsai, Huang, & Li 1954: 104; Tsai & Li 1963: 605–606, 623.

mandshuricus Eggers 1929c: 10. Lectotype ♂; Ussuri; USNM, Washington, designated by Anderson & Anderson 1971: 19.

Figures: Yin, Huang, & Li 1954: 113 (gallery).

Distribution: Asia (Heilongjiang in China/ E USSR).

Hosts: *Corylus mandshurica*, *Juglans mandshurica*.

Notes: (3) Tsai & Li 1963: 25 (*coryli* Stark, nomen nudum, synonymy).

References: (cn) Kurenzov 1935c: 191. (cc) Kurenzov 1934a: 57. (hb) Kurenzov 1935a: 19, 30, 1945b: 113; Stark 1952: 262; Tsai & Li 1963: 599; Yin, Huang, & Li 1954: 113. (ds) Kleine 1934a: 142; Krivolitskaya 1953; Kurenzov 1934a: 51, 1935a: 19, 30; 1935c: 191, 1936a: 111, 1936b: 350, 1938a: 61; Murayama 1939: 137, 1942a: 49, 55; Stark 1936c: 143, 1952: 262; Tsai & Li 1963: 599; Yin, Huang, & Li 1954: 113. (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1929c: 10; 1942c: 28; Kurenzov 1941a: 145–146, 1945b: 113; Murayama 1939: 137, 140; Schedl 1934f: 1639, 1979c: 148; Stark 1936c: 143, 1952: 262; Tsai & Li 1963: 606; Yin, Huang, & Li 1954: 113.

markaugensis Tsai & Li 1963: 606, 615, 624. Holotype ♂; Szechuan (Markau); IZAS, Beijing.

Figures: Tsai & Li 1963: 618; Yin, Huang, & Li 1954: 116 (head, antenna).

Distribution: Asia (Sichuan in China).

Hosts: *Abies faxoniana*.

References: (ds) Yin, Huang, & Li 1954: 115. (tx) Tsai & Li 1963: 606, 615, 624; Yin, Huang, & Li 1954: 115.

massonianus Tsai & Li 1963: 605, 613, 626. Holotype ♂; Nanking, China; IZAS, Beijing.

Distribution: Asia (Jiangsu in China).

Hosts: *Pinus massoniana*.

Notes: Tsai & Li 1963: 613 (This species was treated as *Cryphalus piceus* in Tsai & Li 1959: 55–59; *C. piceus* is a different species).

References: (ds) Yin, Huang, & Li 1954: 109. (hb) Tsai & Li 1963: 599, 605, 613, 623, 626; Yin, Huang, & Li 1954: 109.

meridionalis (Nobuchi) 1975: 55 (*Taenioglyptes*). Holotype ♀; Yona, Okinawa pref., Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1975: pl. 2, fig. 19.

Distribution: Asia (Okinawa in Japan).

References: (ds) Nobuchi 1955c: 14. (tx) Nobuchi 1975: 55–56.

minimus Eggers 1927c: 76. Lectotype, sex?; Philippines: Luzon, Provinz Camarines Sur, Mount Isarog; USNM, Washington, designated by Anderson & Anderson 1971: 20.

Distribution: Micronesia (Caroline Islands, Palau), Philippine Islands (Luzon).

References: (ds) Schedl 1935g: 425; Wood, S. L. 1960a: 22. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1927c: 76–77; Schedl 1935g: 425, 1943b: 34–35, 1953c: 289, 293, 1962r: 91, 1979c: 153; Wood, S. L. 1960a: 22, 25.

miyalopiceus Tsai & Li 1963: 602, 604, 608, 622. Holotype, sex?; China; IZAS, Beijing.

- Figures: Tsai & Li 1963: 608. Yin, Huang, & Li 1984: 102 (adult).
Distribution: Asia (Sichuan in China).
Hosts: *Picea asperata*.
References: (ds) Yin, Huang, & Li 1984: 101. (tx) Tsai & Li 1963: 602, 604, 608, 618, 622; Yin, Huang, & Li 1984: 101.
- mollis** Schedl 1955b: 288. Holotype ♀; Fiji, Suva; BMNH, London.
Distribution: Fiji Islands, Niue Island, Samoan Islands.
Hosts: *Artocarpus* sp.
References: (ds) Beaver 1976b: 534, 1987b: 64; Beaver & Maddison 1991: 1371; Browne 1974a: 64; Roberts 1976: 379; Schedl 1955b: 284. (tx) Beaver 1979c: 158, 1987b: 67; Schedl 1955b: 284, 288, 1979c: 158.
- moutaus** Nobuchi 1964: 129. Holotype ♂; Shirotoge, Okumikko, Gumma pref., Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1964: 129.
Distribution: Asia (Houshu in Japan).
Hosts: *Abies mariesii*.
References: (cn) Anonymous 1980g, (ds) Anonymous 1980g; Nobuchi 1985c: 14. (tx) McNamara 1977: 196; Nobuchi 1964: 129; Schedl 1979c: 158.
- neglectus** Schedl 1962p: 106. Holotype, sex?; Bengal; Sunderbans; Schedl Collection in NHMW, Wien.
Distribution: Asia (Bengal in India).
Hosts: *Hibiscus tiliaceus*.
Notes: (3) This is *Eriocryphalus neglectus* Beeson 1941: 373 (1961: 287), nomen nudum. The type was sent by Beeson to Schedl for comparison, but was never returned to the Forest Research Institute.
References: (cn) Mathur & Singh 1960b: 51. (ds) Beeson 1961: 278; Mathur & Singh 1960b: 51; Schedl 1971a: 275. (tx) Schedl 1940d: 591, 1950f: 49, 1953c: 289, 1962p: 106, 1979c: 164.
- negrosensis** Browne 1979: 85. Holotype, sex?; Philippines: Negros, Dewey Island; BMNH, London.
Distribution: Philippine Islands (Negros).
Hosts: Bucayan seed, *Rhizophora* sp.
References: (tx) Browne 1979: 85; Nobuchi 1983: 300.
- niger** Schedl 1942c: 172. Holotype ♂; Australien, Queensland; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
References: (hb) Schedl 1977a: 37. (tx) Schedl 1942c: 172–173, 1977a: 37, 1979c: 166.
- nigericus** Browne 1973a: 289. Holotype ♀; Nigeria: Bongo; MRCB, Tervuren.
Distribution: Africa (Nigeria).
Hosts: *Albizia glaberrima*.
References: (tx) Browne 1973a: 289.
- nigricans** Schedl 1943b: 35. Lectotype ♀; Baguio, Luzon, Philippinen; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka), Philippine Islands (Luzon).
Hosts: *Myristica dactyloides*.
References: (ds) Schedl 1966b: 22. (tx) Nobuchi 1983: 300; Schedl 1942c: 172, 1943b: 35, 1979c: 167.
- niponensis** Inouye & Nobuchi 1957a: 51. Syntypes 4, sex?; Somkyo, Daisetsu-zan National Park, Hokkaido, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Hokkaido in Japan).
Hosts: *Picea jezoensis*.
References: (ds) Nobuchi 1985c: 14. (tx) Inouye & Nobuchi 1957a: 51.
- nitens** Browne 1980: 494. Holotype, sex?; Togian Isl. (Celebes) to Osaka (Japan), imported; BMNH, London.
Distribution: Indonesia (Celebes).
Hosts: *Gauna* sp.
References: (ds) Browne 1985a: 191, 1986c: 663. (tx) Browne 1980: 494.
- nitidipennis** Browne 1984d: 89. Holotype, sex?; New Guinea: Stony L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Protium* sp.
References: (ds) Browne 1983a: 555, 1984d: 89. (tx) Browne 1984d: 89.
- nothofagi** Browne 1984c: 68. Holotype, sex?; New Guinea: Morobe District, Mount Kaindi, 2350 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Nothofagus* sp.
References: (tx) Browne 1984c: 68.
- numidicus** Eichhoff 1878b: 487. Syntypes, sex?; Europae Graecia; Hamburg Museum, lost.
Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Timisia), Asia (Turkey), Europe (Bulgaria/ Corsica/ Greece/ Italy/ Spain/ Switzerland).
Hosts: *Abies numidica*.
References: (ay) Chararas 1973c, (bv) Chararas 1973c; Chararas, Desveaux, & Kogane-Charles 1978a; Grune 1979: 105. (cn) Chararas 1977c; Strohmeier 1930: 2. (cc) Chararas, Desveaux, & Kogane-Charles 1978a; Kleime 1905c: 186; Peyerimhoff 1934: 52. (hb) Barbey 1934; Dombrowsky 1887; Eichhoff 1881a: 45, 176; Henschel 1895a: 167; Lepiney & Mimeur 1932: 45; Postner 1974: 431; Strohmeier 1930: 2. (ds) Champion 1894; Grune 1979: 105; Hagedorn 1910d: 44; Henschel 1895a: 167; Heyden, Reitter, & Weise 1883: 181, 1891: 671, 1906: 711; Kleime 1913b: 119, 1934a: 142; Ortzen 1886: 279; Peyerimhoff 1919: 284, 1933b: 361, 1934: 52; Pfeffer 1935: 158, 1947d: 128; Pittioni 1943: 176; Postner 1974: 431; Reitter 1889a: 94, 1894a: 70; Schaufuss 1915: 1232; Schedl 1967c: 70; Stein & Weise 1877: 164; Tredl 1907: 12. (tx) Balachowsky 1949a: 207; Dombrowsky 1887; Eggers 1940g: 37; Eichhoff 1868b: 404, 1878a: 385, 1878b: 124, 487, 1881a: 45, 176, 1883a: 109, 132; Grune 1979: 105; Hagedorn 1910a: 87; Henschel

- 1895a: 167; Hopkins 1915b: 37, 39; Pfeffer 1955a: 176; Postner 1974: 431; Reitter 1889a: 94, 1894a: 70, 1913a: 66; Schedl 1934f: 1639; Strohmeier 1930: 1-7.
- nyalubombae** Schedl 1957d: 49. Holotype, sex?; Congo Belge: Kivu, Mt. Kahizi; MRCB, Tervuren. Figures: Schedl 1961k: 465. Distribution: Africa (Zaire). Hosts: *Xyralos monospora*. References: (ds) Schedl 1961k: 464, (tx) Schedl 1957d: 49, 1961k: 464-465, 1979c: 173.
- oblongus** Niisima 1910a: 9. Holotype, sex?; Tokio, Japan; Nobuchi Collection, Ibaraki. Distribution: Asia (Honshu in Japan). Hosts: *Pinus densiflora*. Notes: (3) Nobuchi 1985c: 16 (treated in *Hypothecum* [not seen by us]). References: (ds) Kleine 1934a: 143; Murayama 1945: 2, 1949a: 12, 1951c: 3, 1953a: 10, 1954b: 164; Nobuchi 1966b: 22, 1955c: 16, (tx) Murayama 1953a: 10, 1954b: 164; Niisima 1910a: 9; Nobuchi 1966b: 22; Schedl 1934f: 1640.
- orientalis** Eggers 1911a: 122. No mention of types; Herzegovina: Metallon Pass; not given. Distribution: Europe (Yugoslavia). Notes: (1) Originally named as a subspecies of *piccae*, elevated to species rank by Stark 1936c: 143. References: (ec) Krivosheina 1974; Nikitsky 1975; Poinar 1975: 151, (hb) Stark 1952: 260, (ds) Arnoldi et al. 1955: 689; Pfeffer 1924b: 472; Pjatnitskii 1930a: 165; Stark 1936c: 143, 1952: 260, (tx) Eggers 1911a: 122-123; Iablokoff-Khmzorian 1961: 157; Pfeffer 1932b: 17; Pjatnitskii 1932: 295-302; Schedl 1934f: 1639; Sokanovskii 1954: 17; Stark 1936c: 143, 1952: 260.
- paganus** Eichhoff 1878b: 43, 129-130, 474. Holotype, sex?; Insula principalis prope oram Guineensem Africanam; Dohrn Collection at Stettin Museum, now in Schedl Collection in NHMW, Wien. Distribution: Africa (Equatorial Guinea/ Ghana/ Guinea/ Principe Island/ Sao Tome Island/ Zaire). References: (ds) Hagedorn 1910d: 44; Kleine 1913b: 119, 1914b: 315; Schedl 1961k: 465, 1962h: 55, 1962k: 1065, 1964e: 65, 1971g: 190, (tx) Browne 1965: 188; Eggers 1943c: 68; Eichhoff 1878b: 43, 129-130, 474; Hagedorn 1910a: 87; Schedl 1961k: 465, 1962k: 1065, 1979c: 182.
- palawanus** Schedl 1942a: 174. Syntypes, sex?; N. Palawan, Binaluan, Philippinen; Schedl Collection in NHMW, Wien. Distribution: Asia (Sri Lanka), Philippine Islands (Palawan). Notes: (1) Schedl 1979c: 182 (citation of holotype invalid). References: (ds) Schedl 1959a: 481, 1966b: 22, (tx) Nobuchi 1953: 300; Schedl 1942a: 174, 1959a: 481, 1979c: 182.
- pallidus** Eichhoff 1872a: 131. Holotype ♂; Madagascar: IRSNB, Brussels. Distribution: Africa (Burkina Faso/ Mauritius/ Seychelles Islands), Madagascar. Hosts: *Ficus mellei*, *F. thomningii*. References: (hb) Beaver 1957a: 17; Paulian 1951: 27; Schedl 1961k: 466, (ds) Alliard 1900: 439; Anonymous 1892: 165; Beaver 1957a: 17; Fairmaire 1892b; Gemminger & Harold 1872: 2683; Hagedorn 1910d: 44; Kleine 1913b: 119; Lee 1971: 31; Lepesme 1945: 145; Paulian 1951: 27; Sampson 1914: 382; Schedl 1961k: 466, (tx) Duffv 1953: 13; Eichhoff 1872a: 131, 1878b: 127-128, 530; Fairmaire 1892b; Hagedorn 1910a: 87, 1913b: 254; Lepesme 1945: 145; Powell, W. 1980: 29; Sampson 1914: 382; Schedl 1951j: 19, 1961k: 466, 1969d: 8, 11, 1977a: 40, 1979c: 182.
- parculus** Niisima 1910a: 8. Holotype, sex?; Tokio, Japan; Nobuchi Collection, Ibaraki. Distribution: Asia (Honshu in Japan). References: (ds) Murayama 1954b: 199; Nobuchi 1955c: 14, (tx) Murayama 1954b: 199; Niisima 1910a: 8; Schedl 1934f: 1640.
- parvus** Browne 1984a: 152. Holotype, sex?; Viru Harbour (Solomon Islands) to Shimizu (Japan), imported; BMNH, London. Distribution: Solomon Islands. References: (tx) Browne 1984a: 152.
- pexus** Schedl 1979f: 104. Holotype, sex?; Samoa, Upolu, Tapatapao; Schedl Collection in NHMW, Wien. Distribution: Samoan Islands. References: (tx) Schedl 1979f: 104.
- piccae** (Ratzeburg) 1837: 163 (*Bostrichus*). Syn-types, sex?; Oberschlesien und Baiern: not located. Figures: Balachowsky 1949a: 16, 204, 206, 208, Chararas 1962c: 242, Grune 1979: 104, Hasek 1961: 5, Nobuchi 1966d: pl. 3, Pfeffer 1989a: pl. 6, Postner 1974: 429. Distribution: Africa (Algeria), Asia ("Manchuria" in China/ Japan/ Korea/ Kuril Islands/ Turkey/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Bulgaria/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Spain/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Abies cephalonica*, *A. firma*, *A. holophylla*, *A. mariesii*, *A. pectinata*, *A. sachalinensis*, *Picea excelsa*, *P. glehnii*, *P. jezoensis*, *Pinus densiflora*. Notes: (3) Inouye & Nobuchi 1957: 52 (re-described), Ferrari 1867a: 12 misidentified *asperatus* var. *abietis*; it was actually *piccae*. References: (ay) Chararas 1973c; Escherich 1923b: 462, 481, 611; Hadorn 1933; Numberg 1928a: 140; Nussling 1910: 293, 1911a: 5, 255, 277, 337, 378; Ritchie 1919: 171; Scherb 1971, (bv) Chararas 1973c; Chararas & Stephanopoulos 1975a; Chararas et al. 1982: 1094; Grune 1979: 105; Krol & Zabecky 1976; Prell 1931: 364;

- Schneider-Orelli 1947c: 94; Schwerdtfeger 1981: 193; Wichmann 1953a: 107, 1967. (**cn**) Androic 1966: 48; Barbey 1901: 69, 1906a, 1925: 162; Bezares 1921, 1929: 38–42; Borcea 1924: 221–260, 1930: 271; Braum 1941b: 375; Bruneau 1950; Capecki 1982; Capek et al. 1957; Chararas 1959c: 113–129, 1959f: 3612–3614, 1961b: 69, 1961c: 92, 1978; Chorbadzhievo 1929; Eckstein 1915, 1926: 578; Elmstrom et al. 1974; Escherich 1923b: 462, 481, 611, 1936; Fankhauser 1896; Felt 1906: 753; Fice 1961: 173–204; Fitze 1953: 1–28; Gabler 1955; Georgescu et al. 1957: 357, 448; Georgijevic 1966: 3–48; Gradojevic 1920; Grandi 1951; Hasek 1955, 1961: 5; Hess 1898: 360; Hess & Beck 1914: 265, 1927: 321; Hierholzer 1954a: 338; Hopkins 1899: 444; Hrubik 1973; Inouye 1955; Inouye & Yamaguchi 1955a: 235; Jacentkovsky 1933: 270; Joly 1949b: 253, 1976b; Judeich & Nitsche 1895: 492, 526; Kahl 1896; Kailidis 1964a: 41–54, 1966a: 81–85, 1968; Kailidis & Georgevits 1968: 1–64, 1972; Kailidis & Markalas 1988; Keller 1903b: 58; Koch 1913: 95; Kovacevic 1957: 67; Krol & Zabecki 1976; Maksimovic & Milanovic 1964, 1966; Maksymov 1950: 502; Marcu 1926c: 63, 1930: 327–336; Marie 1926: 167–171; Martin & Cobos 1986; Merker 1954b: 209; Mizuno 1963: 272–277, 1966: 93–97; Muller 1912: 185; Murayama 1954a: 14; Nosek 1951: 105, 1952b: 98; Novak, V., Hrozinka, & Stary 1976: 69; Nusslin 1913: 223; Pfeffer 1924b: 472; Pierce, W. D. 1917: 69; Regula 1955: 120; Rhumbler 1922: 299, 1927: 312; Ritchie 1919: 171; Scheidter 1919: 84, 1920: 209; Schimitschek 1937b: 9, 1937c: 52, 1947g: 188, 1949b: 180, 1950: 53, 1952a: 194, 1955a: 43, 85, 1955b: 102, 1955c: 82, 1956: 342, 1961a: 154; Schmidt 1881: 34; Schneeberg 1925: 495; Schneider-Orelli & Kuhn 1948: 533; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 182, 1950b: 68, 1957a: 188; Sedlaczek 1921: 335, 1933: 307, 1936: 200; Shiraki 1952; Sinreich 1958: 196–198, 1961: 166, 1962; Slander 1948: 10; Spaic 1955: 454; Stockl 1941: 177; Strohmeyer 1930: 2; Sturm 1843: 230; Thalenhorst 1950: 90; Tamanuki 1933: 1–54; Tomic 1957: 207–210; Trinchieri 1921: 1–12; Wachtl 1901: 381; Wahl & Muller 1913: 1–70, 1919: 168–170; Wardle 1929: 325; Weber, H. 1926: 578; Wilke 1931: 636; Wohlmann 1936: 41; Wolff & Krausse 1922: 88; Yamagisawa 1952: 106; Zivojinovic 1950: 299–310. (**cc**) Apfelbeck 1916b; Balazy & Michalski 1964b; Barbey 1906a; Belanowskii 1930; Capecki 1982; Capek 1957; Capek & Capecki 1979; Chararas 1958b, 1959a, 1959c, 1959d, 1959e, 1959f, 1960a: 31; Chararas et al. 1982: 1094; Fuchs 1914a, 1929a, 1930; Gaulle 1906: 237; Györfi 1952b; Haeselbarth 1962: 283, 1967; Hierholzer 1954a: 338, 1954b: 387; Hirschmann & Wisniewski 1982: 1983; Hubandt 1923a; Inouye 1954: 171; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 58; Jannicky 1957c; Joly 1949a: 7; Karpinski 1932a: 95; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 186, 1909a: 46, 1944: 80; Kraemer 1950b: 354; Krol & Zabecki 1976; Merker 1954b: 209; Michalski & Ragajczak 1989; Nishiguchi 1959: 271; Nosek 1951: 105, 1952b: 98; Numberg 1930: 203; Nusslin 1927: 300; Perris 1856a: 244; Pfeffer 1923a: 331, 1928b: 7, 1932a: 18, 1943b: 179, 1955b: 84, 1960: 345; Poinar 1975: 151; Rondani 1873: 146; Ruhm 1955c: 76, 1956b: 3; Scheidter 1919: 69–90, 1920, 1936: 235; Schimitschek 1930a: 326, 1950: 53, 1952a: 194, 1955a: 43, 85, 1964e; Schwerdtfeger 1944a: 182, 1950b: 68, 1957a: 188; Sedlaczek 1900: 503, 1908: 46, 1933: 307, 1935a: 163; Szymysik 1923: 7; Tenkacova & Mituch 1987; Thompson, W. R. 1943: 37; Wichmann 1953a: 107, 1967; Wilke 1931: 636; Yasumatsu & Watanabe 1965: 68. (**hb**) Altum 1881c: 322; Apfelbeck 1916b, 1917; Barbey 1901: 10, 22, 69, 1913, 1925: 162, 1934, 1942; Bargmann 1897a, 1900, 1906; Beffa 1949, 1961; Borcea 1924; Braum 1941c; Ceconi 1906, 1924; Chamberlin 1939: 315; Chararas 1961b: 69, 1961c: 92, 1962c: 242; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887; Eckstein 1897, 1915, 1926: 578; Eichhoff 1881a: 45, 172; Escherich 1923b: 462, 481, 611; Fuchs 1904a, 1905c: 339; Gabler 1955; Gillanders 1906, 1908; Grandi 1951; Györfi 1957; Hadorn 1933; Heimbacher 1924; Hennings 1908b, 1908c: 218; Henschel 1876a: 240, 1895a: 167; Hess 1898: 360; Hess & Beck 1914: 265, 1927: 321; Inouye 1954: 171; Inouye et al. 1954: 129, 1955: 58; Joly 1949a: 7, 1976b; Judeich & Nitsche 1895: 526; Kalandra 1948: 107–116; Kalina 1970: 123; Karpinski & Strawinski 1945: 155; Kraemer 1950b: 354; Kurenzov 1935a: 20; Lengerken 1939: 39, 1954: 82; Maksymov 1950: 502; Masutti 1964; Mizuno 1963; Nordlinger 1856: 29; Novak, V., Hrozinka, & Stary 1976: 69; Numberg 1929: 102; Nusslin 1898: 280, 1906b: 14, 1907: 613, 1913: 223, 1927: 300; Perris 1856a: 244; Pfeffer 1941b: 16; Postner 1974: 429; Prell 1931: 364; Ratzeburg 1837: 157, 1839: 197; Reh 1900a: 94; Rhumbler 1922: 299, 1927: 312; Ritchie 1919: 171; Rupertsberger 1880: 229; Schimitschek 1929: 83, 1930a: 326, 1955a: 43, 85; Schmidt 1881: 34; Schneider-Orelli 1947c: 94; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 182, 1957a: 188, 1981: 193; Sedlaczek 1900: 503, 1921: 335, 1935a: 163; Spessivtsev 1913a: 91; Stark 1952: 260; Strohmeyer 1930: 2; Szujeci 1955: 242; Wachtl 1901: 381; Weber, H. 1926: 578; Wolff & Krausse 1922: 88. (**ds**) Aclouie 1896; Allen, A. A. 1965b: 47; Anmann & Knabl 1923; Androic 1966: 48–49; Anonymous 1928c: 202; Arnoldi et al. 1955: 689; Arru, Covassi, & de Bellis 1966: 32; Andras & Schaefer 1957; Bach 1854: 136; Barthe 1896; Ban 1888; Bandisch 1899; Bedel 1888b: 398, 414; Beffa 1949; Bielz 1887;

- Blanchere & Robert 1889; Blatchley & Leng 1916: 606; Borcea 1924; Borchert 1951; Brakman 1966b: 206; Branesik 1906; Bucking 1932; Buresh & Lazarov 1956; Capek et al. 1957; Cecconi 1897, 1906; Chamberlin 1939: 315; Chapuis & Candeze 1853; Charvat 1950; Cho 1955, 1957; Choo 1983: 74; Choo & Woo 1985: 163; Chorbadzhievo 1924d, 1929; Crotch 1863; Eggers 1904; Endrodi 1955b; Escalera 1919; Fowler 1891; Fuels 1904a, 1905a, 1905c: 339; Fuss 1874; Gabler 1949b; Gaubil 1849: 126; Cozis 1875: 80; Gredler 1866: 373, 1875: 115; Grune 1979: 105; Hagedorn 1910d: 44; Henschel 1895a: 167; Heyden 1879: 140; Heyden, Reitter, & Weise 1883: 181, 1891: 671, 1906: 711; Holdhaus & Deubel 1910: 145; Horion 1935, 1951; Hubault 1923b; Jacentkovsky 1933: 270, 1939: 76; Jazentkovsky 1912: 288; Joly 1949b: 253, 1976b; Judeich & Nitsche 1895: 526; Kailidis 1964a, 1966: 55, 1985; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kaltenbach 1874: 685; Karpinski 1925: 216, 1926: 82, 1932a: 95, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1925b: 272; Kestercanek 1881a: 12; Kiefer et al. 1942: 525; Kleine 1912a: 161, 263–264, 267, 1913a: 35, 1913b: 119, 1914b: 256, 1934a: 142; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 555; Ko 1969: 275; Kocher 1953: 133; Kono 1938b: 65; Kono & Tamamki 1939: 88, 92–93; Kovacevic 1957: 67; Kraatz 1869: 59; Krivolutskaia 1983; Ku 1964; Kugela 1946a: 339; Kurenzov 1935a: 20; Kurir 1947c: 17; Lacordaire 1866: 379; Langhoffer 1915c: 157; Leng 1918: 211; Lokaj 1868: 64; Lomnicki 1913b: 145; Lucht 1957: 278; Marcus 1926c: 63; Matthews & Fowler 1883: 42; Michalski 1957: 164; Munro 1926: 4–77; Murayama 1929e: 44, 1930b: 7, 1949a: 12, 1949c: 101, 1950b: 1291, 1953a: 10, 1953c: 151, 1954a: 14, 1954b: 164; Negrn 1966b: 402, 1968a: 456; Nobuchi 1966d: 24, 1985c: 14; Nunberg 1928b: 88, 105, 1954: 52, 1964a: 235; Nusslin 1898: 280; Orest 1926c: 63; Perris 1876a: 254, 1877a: 414; Pfeffer 1924a: 96, 1928b: 7, 1931b: 75, 1947d: 125, 1960: 345, 1989a: 81; Pierce, W. D. 1917: 69; Pittioni 1943: 175; Postner 1974: 429; Prossen 1913: 83; Rapp 1934: 727; Ratzeburg 1837: 157, 1839: 197; Redtenbacher 1858: 832, 1874: 376; Reitter 1869a: 154, 1888b: 280, 1889a: 94, 1894a: 70, 1916: 288, 350; Ronbal 1941: 263; Sainte-Claire & Mequignon 1938: 445; Schanfuss 1915: 1231; Schann 1859: 96, 1862: 101; Schedl 1959b: 100, 1964a, 1967c: 70, 1980a: 14, 1981b: 74; Scheerpeltz & Winkler 1930: 257; Schilsky 1909: 188; Schwerdtfeger 1981: 193; Seidl 1876: 4; Seidlitz 1891a: 562, 1891b: 607; Sharp & Fowler 1893: 34; Shiraki 1952; Solla 1893: 217; Stark 1926b: 103, 1927b: 88, 1936c: 143, 1952: 260; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 439; Stierlin & Cantard 1871: 292, 1906: 205; Swaine 1909: 92; Szujecki 1955: 242; Thomson 1865: 359; Tredl 1907: 12; Wanka 1920: 202–213; Wichmann 1924: 15–17, 1927a: 67; Wilke 1931: 636; Winter, T. C. 1983: 8. (tx) Acloque 1896; Allen, A. A. 1965b; Bach 1854; Balachowsky 1949a: 16, 204, 206, 208; Barbey 1901: 10, 22, 69; Bedel 1888b: 398, 414; Beffa 1949, 1961; Bertolini 1872; Blatchley & Leng 1916: 606; Browne 1970: 552; Ceballos 1945; Chapuis & Candeze 1853; Chararas 1962c: 242; Charvat 1950; Choo 1983: 74; Chorbadzhievo 1924d; Csiki 1910; Doebner 1860, 1862; Dombrowsky 1887; Duffy 1953; Eggers 1911a: 121, 1921: 39–40, 1926b: 136, 1940g: 37; Eichhoff 1864b: 35, 1876a: 379, 1878a: 378–379, 1878b: 122, 1881a: 45, 172–176, 1883a: 109, 132; Endrodi 1957b; Escherich 1923b: 462, 481, 611; Fanvel 1889; Ferrant 1911; Ferrari 1867a: 12, 15; Fleischer 1905, 1927; Formanek 1907: 34; Gabler 1949b, 1955; Gebien 1907: 197; Gillanders 1906, 1908; Grune 1979: 104–105; Hagedorn 1910a: 87; Hasek 1961: 5; Henschel 1876a: 240, 1878a, 1895a: 167; Hopkins 1914: 130, 1915b: 39; Iablokoff-Khmzorian 1961: 157; Inouye & Nobuchi 1957a: 52; Joly 1976, 1976b; Judeich & Nitsche 1895: 526; Kailidis 1966a; Kalina 1970: 124; Karpinski 1949: 129; Karpinski & Strawinski 1948: 155; Kama 1970: 278; Knotek 1892a: 37; Koch 1913: 95; Kuhlnt 1913: 1055; Lacordaire 1866: 379; Letzner 1891: 375; Lucht 1987: 278; Murayama 1950b: 1291, 1953a: 10, 1954b: 164; Negrn 1966b: 402; Niisima 1908a: 90, 1909: 141, 1910a: 8, 1929: 376–381; Nobuchi 1966d: 24, pl. 3; Nordlinger 1848: 244, 1856: 29; Novak, V., Hrozinka, & Sary 1976: 69; Nunberg 1928a: 140, 1930: 200–208, 1948a: 1–30, 1954: 52; Nusslin 1911a: 5, 255, 277, 337, 378; Perris 1877a: 414; Pfeffer 1932b: 17, 1941b: 16, 1955a: 176, 1989a: pl. 6; Portevin 1935: 324; Postner 1974: 429; Quaschik 1953: 35; Ratzeburg 1837: 157, 163, 1839: 197; Redtenbacher 1849a: 791, 1849b: 26, 1858: 832, 1874: 376; Reitter 1889a: 94, 1894a: 70, 1913a: 66, 1916: 288, 350; Rhumbler 1922: 299, 1927: 312; Rupertsberger 1880: 229; Schedl 1934f: 1639, 1952f: 87, 1980a: 14, 1981b: 74; Scherb 1971; Schmittschek 1936a: 565–602, 1937b: 1–25, 1937c: 52, 1955c: 82; Seidlitz 1891a: 562, 1891b: 607; Spessivtsev 1913a: 91, 1931: 49, 1936: 143; Stark 1952: 260; Stierlin 1898: 439; Swaine 1909: 92–93; Thomson 1865: 359; Wood, S. L. 1954a: 1002–1004. (ms) Chararas 1959d; Fankhanser 1885: 185; Mizmo 1963; Reh 1900a: 94; Ritter 1929: 555; Schmittschek 1955b: 102; Sedlaczek 1936: 200; Sinreich 1962.
- hattorii* Kono 1938b: 67. Holotype, sex?; Nukahira; Kono Collection. Synonymy: Inouye & Nolinchi 1957a: 52.
- References: (cn) Inouye & Yamaguchi 1955a: 235, (cc) Inouye & Yamaguchi 1955a: 235. (ds) Kono 1938b: 65, 67–68; Murayama 1954b: 199. (tx) Inouye & Nobuchi 1957a: 52; Kono 1938b: 65, 67–68; Murayama 1954b: 199.

- subdepressus* Eggers 1940g: 37. Holotype, sex?; Kleinasien (Ayancik); Eggers Collection, in NHMW, Wien. Synonymy: Wood 1992a: 89. References: (cn) Schimitschek 1944: 172. (cc) Schimitschek 1941a: 305. (hb) Schimitschek 1944: 172. (tx) Eggers 1940g: 37–38; Schedl 1979c: 241; Wood, S. L. 1992a: 89.
- piceus* Eggers 1926b: 136. Lectotype, sex?; Hokkaido (Jozankei); USNM, Washington, designated by Anderson & Anderson 1971: 25. Figures: Tsai & Li 1959: 88. Distribution: Asia (Heilongjiang in China/ N Japan/ Sakhalin Island, Siberia in E USSR). Hosts: *Picea excelsa*, *P. glehnii*, *P. jezoensis*, *P. obovata*, *Pinus koraiensis*, *P. montana*. References: (cn) Anonymous 1980g; Inouye 1955; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 187, 1950a: 6, 1956a: 90, 1956b: 29. (cc) Inouye & Yamaguchi 1955a: 235; Kono & Watanabe 1935: 69; Kurenzov 1934a: 57; Nishiguchi 1960c: 64–73. (hb) Inouye, Koizumi, & Takai 1954: 129; Krivolutsкая 1956: 832, 1973: 134; Kurenzov 1935a: 32, 1948b: 109, 1950d: 146; Lumardoni & Leonardi 1889: 457; Munro 1926: 60. (ds) Anonymous 1980g; Krivolutsкая 1956: 832, 1965a: 232, 1973: 134; Kurenzov 1934a: 57, 1935a: 32, 1935c: 187, 1936a: 111, 1936b: 351, 1938a: 59, 1957b: 17, 1965; Lumardoni & Leonardi 1889: 457; Murayama 1951c: 4, 1954b: 199; Stark 1936e: 144, 1952: 268; Tsai & Li 1963: 603; Yin, Huang, & Li 1984: 108. (tx) Anderson, W. H. & Anderson 1971: 25; Beeson 1935: 107; Eggers 1926b: 136, 1942c: 29; Inouye & Nobuchi 1957a: 53; Koch 1932: 147; Krivolutsкая 1956: 832, 1958: 142; Kurenzov 1941a: 146–147, 1948b: 109, 1950: 146; Lumardoni & Leonardi 1889: 457; Murayama 1954b: 199, 1958: 934; Schedl 1934f: 1639, 1979c: 193; Stark 1936e: 144, 151, 1952: 268; Tsai & Li 1959: 88, 1963: 605; Yin, Huang, & Li 1984: 108.
- pilifer* Eggers 1927b: 394. Syntypes 1 ♂, 1 ♀; Sumatra (Si Rambi); MICG, Genova, and 1 in Eggers Collection, in NHMW, Wien. Distribution: Indonesia (Sumatra). References: (tx) Eggers 1927b: 394; Schedl 1979c: 193.
- pilosellus* Erichson 1842: 212. Holotype, sex?; Vandiemensland; MNB, Berlin. Distribution: Australia (Tasmania). Hosts: *Bursaria spinosa*. Notes: (3) Eichhoff 1878b: 135 (re-described). References: (ds) Brimblecombe 1953: 17; Gemminger & Harold 1872: 2683; Hagedorn 1910d: 44; Kleine 1913b: 119, 1914b: 299. (tx) Eichhoff 1878b: 135; Erichson 1842: 212; Ferrari 1867a: 17; Hagedorn 1910a: 87; Lea 1910a: 143; Schedl 1936g: 527; 1943b: 36.
- pilosulus* Browne 1980b: 355. Holotype, sex?; Kimi (New Guinea) to Yatsushiro (Japan), imported; BMNH, London. Distribution: New Guinea. References: (tx) Browne 1980b: 355.
- pilosus* Tsai & Li 1963: 606, 617, 624. Holotype, sex?; Ssuehuan, China; IZAS, Beijing. Figures: Tsai & Li 1963: 616–617, Yin, Huang, & Li 1984: 115 (adult). Distribution: Asia (Sichuan in China). Hosts: *Abies faxoniana*. References: (tx) Tsai & Li 1963: 606, 616–617, 624; Yin, Huang, & Li 1984: 114.
- planicollis* Schedl 1978d: 74. Holotype, sex?; Neukaledonien, Col. d'Amieu; Schedl Collection in NHMW, Wien. Distribution: New Caledonia Island. References: (tx) Schedl 1978d: 74.
- premayaensis* Murayama 1943b: 97. Holotype ♂; Premaya, dans le grand Khingan, Manchuria; Murayama Collection in USNM, Washington. Distribution: Asia ("Manchuria" in China). Hosts: *Larix gmelini*. References: (ds) Murayama 1943b: 97. (tx) Murayama 1943b: 97.
- procerus* Schedl 1953c: 296. Holotype, sex?; Sumatra, Post de Kock, 920 m; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Sumatra). Notes: (3) Schedl 1953c: 296 (*sumatranus* Eggers, nomen nudum, synonymy). References: (tx) Schedl 1953c: 296, 1979c: 199.
- pruni* Eggers 1929c: 11. Holotype, sex?; Ussuri; USNM, Washington. Distribution: Asia (Yunnan in China/ Sakhalin Island, Siberia in E USSR). Hosts: *Prunus triloba*. References: (cn) Kurenzov 1935c: 189. (cc) Kurenzov 1934a: 50. (hb) Kurenzov 1935a: 19, 31, 1948b: 121; Stark 1952: 270. (ds) Kleine 1934a: 142; Krivolutsкая 1958: 144, 1983; Krivolutsкая & Kupyanskaya 1970; Kurenzov 1934a: 50, 1935a: 19, 31, 1935c: 189, 1936a: 110, 1936b: 350; Stark 1936e: 144, 1952: 270. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1929c: 11; Kurenzov 1941a: 41, 146–149, 154, 1948b: 121; Schedl 1934f: 1639, 1979c: 200; Stark 1936e: 144, 151, 1942: 270.
- pseudochiulingensis* Tsai & Li 1963: 605, 610, 623. Holotype ♂; Shenhsi (Hsze Chuan), China. Distribution: Asia (Shanxi in China). Hosts: *Pinus armandi*, *P. tabulaeformis*. References: (hb) Yang 1989c. (ds) Yin, Huang, & Li 1984: 110. (tx) Tsai & Li 1963: 605, 610, 623; Yin, Huang, & Li 1984: 110.
- pseudotabulaeformis* Tsai & Li 1963: 605, 613, 623. Holotype ♂; Shenhsi (Li Ping), China; IZAS, Beijing.

- Distribution: Asia (Sichuan in China).
Hosts: *Pinus tabulaeformis*.
References: (ds) Yin, Huang, & Li 1984: 110 (tx) Tsai & Li 1963: 599, 605, 613, 623–624; Yin, Huang, & Li 1984: 110.
- puberulus** Schedl 1942c: 171. Lectotype ♀; Australien, Queensland, Imbil; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 202. Distribution: Australia (Queensland).
Hosts: *Grevillea robusta*.
References: (tx) Schedl 1942c: 171, 1979c: 202
- pubescens** Hopkins 1915b: 39–40. Holotype ♀; Port Williams, Washington [USA]; USNM, Washington.
Figures: Bright & Stark 1973: 157 (adult).
Distribution: North America (British Columbia in Canada/ California, Oregon, Washington in USA).
Hosts: *Abies grandis*, *Picea sitchensis*, *Pinus lambertiana*, *Pseudotsuga menziesii*, *Sequoia sempervirens*.
References: (bv) Daterman, Rudinsky, & Nagel 1965. (cn) Doane et al. 1936; Hopkins 1904c: 16; Swaine 1915a: 57. (cc) Dextrup & Gara 1978: 274; Kinn 1971; Marsli 1979: 150, 158. (hb) Bright & Stark 1973: 67; Chamberlin 1939: 314, 1958: 133; Daterman, Rudinsky, & Nagel 1965; DeLeon 1952: 75; Doane et al. 1936; Hopkins 1904a: 16; Swaine 1915a: 87; Wood, S. L. 1953: 84, 1954a: 1003. (ds) Bright 1976d: 112; Bright & Stark 1973: 67; Chamberlin 1925, 1939: 314, 1958: 133; DeLeon 1952; Furniss, R. L. & Carolin 1977: 377; Keen 1929a: 29; Kleine 1934a: 142; Patterson & Hatch 1945: 152; Wood, S. L. 1972a: 415, 1982b: 867. (tx) Bright 1976d: 112; Bright & Stark 1973: 157; Chamberlin 1939: 314, 1958: 133; Hopkins 1915b: 39–40; Keen 1929a: 29; Swaine 1915a: 57–58; Wood, S. L. 1953: 84, 1954a: 959–960, 1002–1003, 1972a: 415, 1982b: 867.
- subconcentralis** Hopkins 1915b: 39–40. Holotype ♀; Astoria, Oregon [USA]; USNM, Washington. Synonymy: Wood 1954a: 1003.
References: (cn) Doane et al. 1936; Swaine 1915a: 87–88. (hb) Chamberlin 1939: 313; Doane et al. 1936; Swaine 1915a: 87–88. (ds) Chamberlin 1917, 1925, 1939: 313; Hopping 1922; Keen 1929a: 29, 1934a: 142. (tx) Chamberlin 1939: 313; Hopkins 1915b: 39–40; Keen 1929a: 29; Swaine 1915a: 87–88; Wood, S. L. 1954a: 959, 979, 1003.
- pulchellus** (Nobuchi) 1975: 54 (*Taenioglyptes*). Holotype, sex?; Higashikawa, Nara pref., Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1975: pl. 2, fig. 17.
Distribution: Asia (Japan).
Hosts: *Aesculus turbinata*.
References: (ds) Nobuchi 1985c: 15. (tx) Nobuchi 1975: 54.
- punctatostratus** Schedl 1942a: 175. Holotype, sex?; Singapur; Schedl Collection in NHMW, Wien.
- Distribution: Asia (Singapore in Malaya).
References: (ds) Brownie 1961c: 69. (tx) Schedl 1942a: 175, 1953c: 296, 1979c: 204.
- punctatus** Brownie 1954: 66. Holotype, sex?; New Guinea: Morobe District, Wau, Kumai Creek; BMNH, London.
Distribution: New Guinea.
References: (ds) Brownie 1954c: 66.
- punctipennis** Schedl 1942c: 169. Holotype, sex?; Australien, Queensland; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
References: (tx) Schedl 1942c: 169, 1979c: 205.
- pusillimus** Schedl 1942c: 171. Holotype, sex?; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1942c: 171, 1979c: 206.
- pusillus** Schedl 1943b: 38. Holotype, sex?; Port Banga, Mindanao, Philippinen; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Mindanao).
References: (ds) Schedl 1966b: 22. (tx) Nobuchi 1983: 300; Schedl 1943b: 38, 1951i: 50, 1979c: 206.
- redikorzevi** Berger 1916: 232. Holotype ♀; S. Ussuri Terr., Sedanka; not located.
Figures: Yin, Huang, & Li 1984: 100 (adult).
Distribution: Asia (Sichuan in China/ Sakhalin Island, Siberia in E USSR).
Hosts: *Abies fabri*, *A. holopylla*.
References: (cn) Kurenzov 1935c: 191. (cc) Kurenzov 1934a: 51. (hb) Krivolutsкая 1956: 838; Kurenzov 1935a: 19, 32, 1948b: 102, 1950d: 144; Stark 1952: 257. (ds) Kleine 1934a: 142; Krivolutsкая 1956: 838, 1953; Kurenzov 1934a: 51, 1935a: 19, 32, 1935c: 191, 1936b: 350; Stark 1936e: 142, 1952: 257; Tsai & Li 1963; Yin, Huang, & Li 1984: 100. (tx) Berger 1916: 232; Eggers 1921: 39–40; Krivolutsкая 1956: 838, 1958: 142; Kurenzov 1941a: 149–150, 154, 1948b: 102, 1950: 144, 152; Michalski 1969a: 892, 1969b: 567; Schedl 1934f: 1639, 1952: 257; Sokanovskii 1954: 16; Stark 1936e: 142, 1952: 257; Tsai & Li 1963: 604, 622; Yin, Huang, & Li 1984: 100.
- resiniferi** Schedl 1943b: 36. Lectotype ♀; Benquet, Mt. Sta. Tomas (Philippines); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 210. Distribution: Philippine Islands (Luzon).
Hosts: *Pittosporum resiniferum*.
References: (ds) Schedl 1966b: 22. (tx) Nobuchi 1983: 300; Schedl 1943b: 36, 1954a: 148, 1979c: 210.
- rhusi** Niisima 1909: 145. Holotype, sex?; Chitose in der Prov. Ishikari; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Rhus toxicodendron* var. *radicans*.
References: (ds) Kleine 1913b: 119, 1914b: 251, 1934a: 142; Murayama 1954b: 164, 1955: 103; Nobuchi 1985c: 15. (tx) Hagedorn 1910a: 88;

Murayama 1954b: 164, 1955: 103; Niisima 1909: 145; Schedl 1934f: 1639.

robustus Eichhoff 1872a: 131. Syntypes 5, sex?; Amer. bor. (?), Eichhoff 1878b: 122 gives America septentrionalis; IRSNB, Brussels.

Distribution: America septentrionalis (?).

Notes: The syntypes resemble *Hypocryphalus mangiferae* and are either that species or they were mislabeled or represent an interception. They were apparently among Dejean material with only a blank disk to indicate origin.

References: (ds) Gemminger & Harold 1872: 2683; Hagedorn 1910d: 44–45; Kleine 1913b: 119; Swaine 1909: 93. (tx) Eichhoff 1872a: 131, 1878b: 121; Hagedorn 1910a: 57; LeConte 1876: 362; Swaine 1909: 93.

rubentis Hopkins 1915b: 39–40. Holotype ♀; Pocahontas Co., West Virginia [USA]; USNM, Washington.

Distribution: North America (North Carolina, Pennsylvania, West Virginia in USA).

Hosts: *Picea rubens*.

References: (cn) Blackman 1950; Doane et al. 1936; Hopkins 1904a: 24. (hb) Baker, W. L. 1972: 259; Blackman 1950; Chamberlin 1939: 313; Doane et al. 1936; Hopkins 1904a: 24; Wood, S. L. 1953: 87, 1954a: 1004. (ds) Baker, W. L. 1972: 259; Blackman 1950; Blatchley & Leng 1916: 606; Chamberlin 1925, 1939: 313; Drooz 1985: 363; Kleine 1934a: 142; Wood, S. L. 1952b: 869. (tx) Blackman 1922c: 126–128; Blatchley & Leng 1916: 606; Chamberlin 1939: 313; Hopkins 1915b: 39–40; Wood, S. L. 1953: 87, 1954a: 959, 979, 1004, 1982b: 869.

ruficollis Hopkins 1915b: 39–40. Holotype ♀; Alta, Utah [USA]; USNM, Washington.

Figures: Bright 1976d: 202, 210, Kusch 1967: 10. Distribution: North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, Quebec in Canada/ Nuevo Leon in Mexico/ Arizona/ California/ Colorado/ Idaho/ Maine/ Montana/ New Mexico/ New York/ Oregon/ Utah/ Washington/ Wyoming in USA).

Hosts: *Abies amabilis*, *A. balsamea*, *A. fraseri*, *A. grandis*, *A. magnifica*, *A. lasiocarpa*, *Picea engelmannii*, *P. glauca*, *P. rubens*, *Pseudotsuga menziesii*.

References: (bv) Furniss, M. M., Baker, & Hostetler 1976: 1300. (cn) Beckwith 1972; Dewey & Clinton 1980; Hopkins 1904a: 24; Smith, G. J. & Melvin 1974a, 1974b. (cc) Hertert, Miller, & Partridge 1975: 201; Tomalak, Welsh, & Garroway 1989b; Werner & Holsten 1984. (hb) Baker, W. L. 1972: 259; Bright & Stark 1973: 68; Chamberlin 1939: 314, 1958: 133–134; Hopkins 1904a: 24; Wood, S. L. 1953: 92, 1954a: 1005, 1982b: 870. (ds) Baker, W. L. 1972: 256; Beckwith 1972a; Bright 1971a: 125, 1976d: 113;

Bright & Stark 1973: 68; Chamberlin 1939: 314, 1958: 133–134; Drooz 1985: 363; Elias 1982c, 1985: 39; Evans, D., Lowe, & Hunt 1978; Furniss, M. M. 1978; Furniss, R. L. & Carolin 1977: 377; Gast et al. 1989: 355; Gautreau & Melvin 1974: 14; Hertert, Miller, & Partridge 1975: 201; Kusch 1967; Miller, R. F. & Morgan 1982; Miller, R. F., Morgan, & Hicock 1985: 500; Morgan, A. V. & Morgan 1980; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a: 14; Werner & Holsten 1984; Wood, S. L. 1948: 41, 1972a: 415, 1982b: 870. (tx) Beckwith 1972, 1972a; Bright 1976d: 113, 202, 210; Chamberlin 1939: 314, 1958: 133–134; Hopkins 1915b: 39–41; Kusch 1967: 10; Wood, S. L. 1953: 92, 1954a: 960, 1005, 1972a: 415, 1977d: 512, 1982b: 870, 1989: 171.

approximatus Hopkins 1915b: 40. Holotype ♀; Sandpoint, Idaho [USA]; USNM, Washington. Synonymy: Wood 1954a: 1005.

References: (cn) Doane et al. 1936; Swaine 1918a: 87. (hb) Chamberlin 1939: 315; Doane et al. 1936; Swaine 1918a: 87. (ds) Chamberlin 1925, 1939: 315; Keen 1929a: 29; Kleine 1934a: 142; Wood, S. L. 1951a: 128. (tx) Chamberlin 1939: 315; Hopkins 1915b: 40–41; Keen 1929a: 29; Swaine 1918a: 87; Wood, S. L. 1954a: 959, 1005.

fraseri Hopkins 1915b: 40–41. Holotype ♀; Pisgah Ridge, North Carolina [USA]; USNM, Washington. Synonymy: Wood 1989: 171.

References: (cn) Blackman 1950; Doane et al. 1936; Lindquist, O. H. & Syme 1981: 106. (hb) Baker, W. L. 1972: 259; Beal & Massey 1945: 119–120; Blackman 1950; Chamberlin 1939: 313; Doane et al. 1936; Wood, S. L. 1954a: 110, 1982b: 869. (ds) Amman 1969a; Baker, W. L. 1972: 259; Beal & Massey 1945: 119–120; Blackman 1950; Blatchley & Leng 1916: 607; Chamberlin 1925, 1939: 313; Drooz 1985: 363; Kleine 1934a: 142; Lindquist, O. H. & Syme 1981: 106; Wood, S. L. 1982b: 869. (tx) Beal & Massey 1945: 119–120; Blatchley & Leng 1916: 607; Chamberlin 1939: 313; Hopkins 1915b: 39–41; Lindquist, O. H. & Syme 1981: 106; Wood, S. L. 1954a: 960, 1010, 1982b: 869, 1989: 171.

balsameus Hopkins 1915b: 40. Holotype ♀; Camp Caribou, Maine [USA]; USNM, Washington. Synonymy: Wood 1954a: 1010.

References: (bv) Hosking & Knight 1975. (cn) Blackman 1919: 145, 1950; Doane et al. 1936; Swaine 1918a: 87, 89. (cc) Felt 1906: 673. (hb) Blackman 1950; Chamberlin 1939: 313; Doane et al. 1936; Felt 1906: 673; Swaine 1918a: 87, 89. (ds) Anonymous 1926c: 518; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 607; Chamberlin 1925, 1939: 313; Dodge 1938: 15, 39; Hatch 1924; Kleine 1934a: 142; Leonard 1928: 518. (tx) Blackman

- 1922c: 126–128; Blatchley & Leng 1916: 607; Chamberlin 1939: 313; Dodge 1938; Hopkins 1915b: 40–41; Swaine 1915a: 87, 89; Titus, Meikle, & Harrison 1985: 51; Wood, S. L. 1954a: 101.
- grandis* Chamberlin 1917: 323. Lectotype ♀; Corvallis, Oregon [USA]; CNCI, Ottawa, designated by Bright 1967c: 681. Synonymy: Wood 1954a: 1005.
- References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 315; Doane et al. 1936. (ds) Chamberlin 1917: 323, 1925, 1939: 315; Keen 1929a: 29; Kleine 1934a: 142. (tx) Bright 1967c: 681; Chamberlin 1917: 323, 1939: 315; Keen 1929a: 29; Wood, S. L. 1954a: 1005.
- amabilis* Chamberlin 1917: 321. Lectotype ♀; Elk Lake, Oregon [USA]; CNCI, Ottawa, designated by Bright 1967c: 681. Synonymy: Wood 1954a: 1005.
- References: (cn) Chamberlin 1924; Doane et al. 1936. (cc) Chamberlin 1918a; Schedl 1958d: 190. (hb) Chamberlin 1939: 312, 1958: 134; Doane et al. 1936; Wood, S. L. 1954a: 1005. (ds) Chamberlin 1917, 1918a: 13, 1925, 1939: 312, 1958: 134; Keen 1929a: 29; Kleine 1934a: 142; Patterson & Hatch 1945: 152. (tx) Bright 1967c: 681; Chamberlin 1917: 321–322, 1939: 312, 1958: 134; Keen 1929a: 29; de Ruelle 1970: 99; Wood, S. L. 1954a: 959, 1002, 1005, 1008, 1977d: 512.
- canadensis* Chamberlin 1918: 88. Holotype ♀; Roger's Pass, British Columbia [Canada]; CNCI, Ottawa. Synonymy: Wood 1954a: 1006.
- References: (cn) Swaine 1915a: 87–88. (hb) Chamberlin 1939: 314; Swaine 1915a: 87–88. (ds) Chamberlin 1939: 314; Hopping 1922; Keen 1929a: 29; Kleine 1934a: 142. (tx) Chamberlin 1918: 87–88, 1939: 314; Keen 1929a: 29; de Ruelle 1970: 99; Swaine 1915a: 87–88; Wood, S. L. 1954a: 1006.
- mainensis* Blackman 1922c: 126. Holotype ♀; Orono, Maine [USA]; USNM, Washington. Synonymy: Wood 1954a: 1006.
- References: (cn) Blackman 1950; Doane et al. 1936. (hb) Blackman 1950; Chamberlin 1939: 314; Doane et al. 1936. (ds) Anonymous 1926c: 518; Blackman 1922c: 126, 1950; Chamberlin 1925, 1939: 314; Leng & Mutchler 1927: 52; Leonard 1928: 518. (tx) Blackman 1922c: 126; Chamberlin 1939: 314; de Ruelle 1970: 100; Schedl 1979c: 145; Wood, S. L. 1954a: 960, 1005.
- ruficollis coloradensis* Wood 1954a: 1008. Holotype ♀; 7 miles N Grand Canyon National Park, Arizona [USA]; SMUK, Lawrence. Synonymy: Wood, S. L. 1977d: 512.
- Notes: (3) This is an indistinct geographical race that probably does not warrant subspecies recognition.
- References: (hb) Wood, S. L. 1954a: 1008. (tx) Wood, S. L. 1954a: 1008, 1977d: 512.
- rufopilosus* Schedl 1942a: 174. Lectotype, sex?; Celebes; Schedl Collection in NHMW, Wien.
- Distribution: Indonesia (Celebes).
- References: (tx) Schedl 1942a: 174, 1979c: 215.
- rugosus* (Schedl) 1958b: 102 (*Ericryphalus*). Lectotype, sex?; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 216–217.
- Distribution: Asia (Malaya).
- Hosts: *Shorea gysbertsiana*.
- References: (ds) Brown 1961c: 70. (tx) Schedl 1958b: 102, 1979c: 216–217.
- saltuarius* Weise 1891: 336. Syntypes², sex²; Caucasus; not located.
- Figures: Grune 1979: 106, Yin, Huang, & Li 1984: 103 (adult).
- Distribution: Asia (Sichuan in China/ E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ Finland/ Germany/ Hungary/ Italy/ Poland/ Sweden/ W USSR/ Yugoslavia).
- Hosts: *Picca asperata*, *P. excelsa*, *P. obovata*, *P. orientalis*.
- References: (ay) Escherich 1923b: 481, 597; Nusslin 1911a: 51. (bv) Grune 1979: 107; Nuorteva 1956c: 17; Nuorteva & Nuorteva 1968. (cn) Chorbadzhievo 1929; Escherich 1923b: 481, 616; Esterberg 1959; Gabler 1955; Juntinen 1960: 24; Kailidis & Georgievits 1972; Koch 1913: 95; Kozikovsky 1929: 254; Kurenzov 1935c: 188; Marcu 1926c: 63; Nestertschuk 1930: 176; Nosek 1951: 106, 1952b: 98; Nuorteva & Nuorteva 1968; Nusslin 1913: 257; Pfeffer 1949b: 147, 150, 1950c: 2; Pierce, W. D. 1917: 69; Rhumbler 1927: 312; Saalas 1949: 342, 372; Schimitschek 1937c: 52, 1955c: 82; Schwerdtfeger 1944a: 180; Tragardh 1938a: 12; Wachtl 1901: 381; Wardle 1929: 322. (cc) Annala 1977; Borodin 1967b; Heqvist 1963: 153; Kangas 1946b: 22; Karpinski 1932a: 103; Kleine 1908c: 186, 1944: 74; Kraemer 1950b: 379; Kurenzov 1934a: 54; Lundberg 1984; Nosek 1951: 106, 1952b: 98; Nuorteva 1956a: 17, 1957b: 68, 1968a, 1970, 1971; Nuorteva & Nuorteva 1968; Nusslin 1927: 300; Palmén 1946: 194; Pfeffer 1923a: 331, 1932a: 16, 1949b: 147, 150, 1950c: 2, 1959: 5; Rhumbler 1922: 299; Ruhm 1955c: 176, 1956b: 3; Saalas 1917a: 18, 1928: 652, 1949: 342, 372; Schwerdtfeger 1944a: 180; Wichmann 1959: 412. (hb) Annala 1977; Beffa 1949; Charvat 1950; Chorbadzhievo 1929; Escherich 1923b: 481, 616; Gabler 1955; Gornostaev 1916: 314; Karpinski & Strawinski 1948: 155; Knotek 1899b: 1, 1901: 565; Kraemer 1950b: 379; Kurenzov 1935a: 20, 32, 1948b: 110; Lengerken 1939: 63; Lindberg 1963: 243; Nuorteva 1956c: 17, 1968a, 1970; Nusslin 1898: 280, 1913: 257, 1927: 300; Pfeffer 1941c: 5; Postner 1974: 430; Rhumbler 1922: 299, 1927: 312; Saalas

1913a: 69, 82, 1949: 342, 372; Schwerdtfeger 1944a: 180, 1981: 192; Spessivtsev 1923: 207, 1928a: 221; Stark 1952: 267; Tragardh 1939b: 158, 199; Tschorbadjiev 1929: 166; Wachtl 1901: 381. **(ds)** Bakke & Kvanne 1977; Beffa 1949; Borchert 1951; Brakman 1966b; 206; Bucking 1932; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Charvat 1950; Chorbadzhievo 1924d, 1929; Eggers 1904; Endrodi 1958b; Escherich 1923b: 481, 597, 1932b; Esterberg 1959; Florov 1949: 84; Fuchs 1905a; Fornostaeve 1917; Grune 1979: 107; Hagedorn 1910a: 45; Hansen, V. 1939, 1956; Hellen 1947; Helliesen 1916: 84; Herger 1955c: 91; Heyden, Reitter, & Weise 1891: 671, 1906: 711; Holdhaus & Deubel 1910: 160; Horion 1951; Kailidis & Georgievits 1972; Karpinski 1932a: 103, 1948a: 173, 1948b: 230; Karpinski & Strawinski 1948: 155; Kiefer et al. 1942: 528; Klefbeck & Sjöberg 1960: 230–231; Kleine 1912a: 263, 1913a: 35, 1913b: 119, 1934a: 142; Knotek 1899b: 1, 1901: 565; Krivolutskaya 1983; Kurenzov 1934a: 54, 1935a: 20, 32, 1935c: 188; Laughoffer 1915c: 157; Lindberg & Saris 1952: 59; Lomnicki 1913b: 148; Lucht 1987: 278; Lundberg 1974: 92; Marcu 1926c: 63; Munster 1928: 259; Numberg 1928b: 85, 105, 1954: 52; Nuorteva 1971: 67; Nusslin 1898: 280; Orest 1926c: 63; Palm 1946: 122; Palmén 1946: 194; Pfeffer 1924b: 471, 1931b: 75, 1947e: 5, 1950b: 75, 1989a: 82; Pierce, W. D. 1917: 69; Pittioni 1943: 176; Platonoff 1943: 141; Postner 1974: 430; Prossen 1913: 83; Rapp 1934: 727; Reitter 1894a: 70, 1916: 288; Ronbal 1941: 263; Saalas 1913a: 69, 82, 1917a: 18, 1919: 1–415, 1931: 68; Schanfuss 1915: 1231; Schedl 1967c: 70, 1980a: 15, 1981b: 74; Schilsky 1909: 188; Schwerdtfeger 1981: 192; Stark 1926d: 103, 1926j: 126, 1931a: 25, 1931d: 546, 1936e: 144, 1952: 267; Strand 1946: 599; Tragardh 1938: 10–14, 1939b: 158, 199; Tredl 1907: 12; Tsai & Li 1963: 602; Tschorbadjiev 1929: 166; Wegelius 1960: 106; Wichmann 1927a: 67; Wood, S. L. 1982b: 74; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 103; Zimovjev 1955: 187. **(tx)** Beeson 1941 (1961: 287); Beffa 1949; Charvat 1950; Chorbadzhievo 1924d; Eggers 1914: 188; Endrodi 1957a: 307, 1957b; Escherich 1923b: 481, 597; Fleischer 1927; Fornanek 1907: 35; Gabler 1955; Grune 1979: 106–107; Hagedorn 1910a: 88; Hansen, V. 1956; Inouye & Nobuchi 1957a: 49; Kalina 1970: 125; Karpinski & Strawinski 1948: 155; Koch 1913: 95; Kurenzov 1941: 150–151, 1948b: 110; Lucht 1987: 278; Numberg 1954: 52; Nusslin 1911a: 51; Pfeffer 1932b: 17, 1941c: 5, 1947e: 5, 1955a: 178; Postner 1974: 430; Quaschik 1953: 35; Reitter 1894a: 70, 1913a: 67, 1916: 288; Rumbler 1922: 299, 1927: 312; Saalas 1913a: 69, 82, 1916: 91–95, 110–116, 1949: 342, 372; Schedl 1934f: 1639, 1940d: 591, 1980a: 15, 1981b: 74; Schimitschek 1937c: 52, 1955c: 82; Sokanovskii

1929: 521–526; Spessivtsev 1922a: 472, 1923: 200–214, 1925a: 173, 1925b: 29, 1925d: 102–106, 1931: 49; Stark 1936e: 144, 1952: 267; Tsai & Li 1963: 605; Weise 1891: 336; Yin, Huang, & Li 1984: 103. **(ms)** Escherich 1932b; Kozikovsky 1929: 254; Wichmann 1959: 412, 1961: 332. *scriba* Gozis 1886: 31. Automatic.

Notes: This was presented as a replacement name for *asperatus* Ratzeburg 1837: 163, a misidentification of *asperatus* Gyllenhal that never had standing in nomenclature.

References: **(tx)** Gozis 1886: 31; Hagedorn 1910: 45; Saalas 1914: 304–306.

samoensis Beeson 1929: 224. Holotype ♂; Samoa. Upolu; Malololelei; BMNH, London.

Distribution: Samoan Islands.

Hosts: *Planchonella samoensis*.

References: **(hb)** Beaver 1976b: 534; Beeson 1938b: 257. **(tx)** Beaver 1976b: 534; Beeson 1929: 224–226, 1935: 107, 1938b: 257; Schedl 1951k: 133.

sarawakensis Schedl 1972m: 199. Holotype, sex?; Borneo, Sarawak, Mt. Senrisoon, 3000 ft.; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: **(tx)** Schedl 1972m: 199.

savadai Nobuchi & Takahashi 1965: 3. Holotype ♂; Shirotoge, Gunma pref.; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1967.

Distribution: Asia (Honshu in Japan).

Hosts: *Abies veitchii*.

References: **(ds)** Nobuchi 1985c: 15. **(tx)** Nobuchi 1967; Nobuchi & Takahashi 1965: 3.

scabricollis Eichhoff 1878b: 491. Holotype, sex?; Hindostan Asiae; Hamburg Museum, lost.

Distribution: Asia (Bangladesh/ Burma/ Hainan Island, Yunnan in China/ Andaman Islands, Assam, Bengal, Bihar, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu, Uttar Pradesh in India/ Sri Lanka/ Vietnam), Philippine Islands (Luzon).

Hosts: *Azelia bijuga*, *Albizia stipulata*, *Bassia latifolia*, *Bombax malabaricum*, *Buchanania lanzan*, *Canarium euphyllum*, *Excaecaria agallocha*, *Ficus* spp., *Garuga pinnata*, *Mesua ferrea*, *Ocotea woderi*.

Notes: (3) Beeson 1941 (1961: 287) (*Ericryphalus ficus*, nomen nudum, synonymy), *Cryphalus flabellifer* Sampson, nomen nudum, is this species. Schedl Collection had male *mimicus* Schedl, nomen nudum, under this name.

References: **(ds)** Bhasin, Roonwal, & Singh 1955; Hagedorn 1910d: 45; Kleine 1913b: 119, 1914b: 269, 1934a: 142; Schedl 1959a: 481. **(tx)** Eggers 1925: 152; Eichhoff 1878b: 491; Hagedorn 1910a: 88; Schedl 1958b: 100, 1959a: 481–482, 1962b: 186, 1975e: 446, 1979c: 220; Wood, S. L. 1989: 172, 1992b: 82.

discretus Eichhoff 1878b: 490. Holotype, sex?;

- Hindustan (Birma); Hamburg Museum, lost. Synonymy: Wood 1989: 172.
References: **(cn)** Roonwal 1954: 40. **(hb)** Beaver 1987a: 17; Beaver & Browne 1978: 584. **(ds)** Beaver 1987a: 17; Beaver & Browne 1978: 584; Beeson 1935: 107, 1961: 287; Browne 1961c: 69, 1984c: 449; Hagedorn 1910d: 41, 1913b: 118, 1914b: 278, 1934a: 142; Ohno, Yoshioka et al. 1988a: 91, 1989: 60; Roonwal 1954: 40. **(tx)** Eggers 1925: 152; Eichhoff 1878a: 385, 1878b: 490; Hagedorn 1910a: 86; Schedl 1958b: 99; Wood, S. L. 1989: 172.
- dilutus* Eichhoff 1878b: 490. Holotype, sex?; Hindostan (Birma); Dohrn Collection in Stettin Museum, now in Schedl Collection in NHMW, Wien, Synonymy: Wood 1989: 172.
References: **(ds)** Beaver & Browne 1975: 288; Browne 1980b: 380, 1984a: 150, 1985a: 191; Hagedorn 1910d: 41; Kleine 1913b: 118, 1914b: 278; Ohno, Yoshioka, et al. 1988a: 91, 1989: 60; Schedl 1960h: 104. **(tx)** Eggers 1925: 152; Eichhoff 1878a: 384, 1878b: 490; Hagedorn 1910a: 86; Nobuchi 1983: 300; Schedl 1960h: 104, 1979c: 81; Wood, S. L. 1989: 172.
- brevisetosus* Schedl 1943b: 36. Lectotype ♀; Bagnio, Luzon, Philippines; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 47. Synonymy: Wood 1992b: 82.
References: **(ds)** Schedl 1959a: 481, 1966b: 19. **(tx)** Nobuchi 1983: 300; Schedl 1942a: 174, 1943b: 36, 1952b: 367, 1955b: 288, 1959a: 481, 1979c: 47; Wood, S. L. 1992b: 82.
- scabripennis* Schedl 1972m: 199. Holotype, sex?; Borneo, Sarawak, Mt. Poi, 4350 ft.; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: **(tx)** Schedl 1972m: 199, 1979c: 220.
- scopiger* Berger 1917: 228. Lectotype ♂; S. Ussuri Terr., near Vladivostok; IZL, Leningrad, designated by Michalski 1969a: 892.
Figures: Yin, Huang, & Li 1984: 105 (adult).
Distribution: Asia (Heilongjiang in China/ Japan/ Korea/ Sakhalin Island, Siberia in E USSR).
Hosts: *Padus asiatica*, *P. pubescens*, *Prunus padus*.
References: **(cn)** Kurenzov 1935c: 189. **(ec)** Kurenzov 1934a: 50, 1951e: 66. **(hb)** Kurenzov 1935a: 19, 31, 1951e: 66; Stark 1952: 258. **(ds)** Krivolutsкая 1983; Krivolutsкая & Kupyanskaya 1970; Kurenzov 1934a: 50, 1935a: 19, 31, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 59; Nobuchi 1985c: 15; Stark 1936e: 143, 1952: 258. **(tx)** Berger 1916: 228; Eggers 1942c: 29–30; Kurenzov 1941a: 151–152, 157; Michalski 1969a: 892, 1969b: 567; Nobuchi 1964: 133, 1966e: 54; Schedl 1934f: 1639, 1962p: 203, 1979c: 222; Sokanovskii 1954: 16; Stark 1952: 258.
- padi* Krivolutsкая 1958: 144. Holotype, sex?; Sakhalin Island; Sakhalin region, Suani River valley; not located. Synonymy: Schedl 1962p: 203.
References: **(hb)** Krivolutsкая 1973: 135. **(ds)** Krivolutsкая 1965a: 234, 1973: 135; Tsai & Li 1963: 602; Yin, Huang, & Li 1984: 105. **(tx)** Krivolutsкая 1958: 144; Schedl 1962p: 203, 1979c: 182; Tsai & Li 1963: 605, 623; Yin, Huang, & Li 1984: 105.
- securus* (Schedl) 1940b: 436 (*Ericryphalus*). Holotype, sex?; Dutch New Guinea, Cyclops Mts., Sabron, Camp 1, 1200 ft.; BMNH, London.
Distribution: New Guinea.
References: **(tx)** Schedl 1940b: 435–437, 1962r: 106, 1979c: 223.
- sejugatus* Schedl 1965: 54. Holotype, sex?; Madagascar, Montagne d'Ambre, 1000 m; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: **(tx)** Schedl 1965c: 54, 1977a: 41, 1979c: 223.
- sichotensis* Kurenzov 1941a: 152. Syntypes, sex?; Kolumbe River (middle Sikhote-Alin), Soviet Far East; ISBN, Novosibirsk, USSR.
Distribution: Asia (Hokkaido in Japan/ Sakhalin Island, E USSR).
Hosts: *Picca jezoensis*.
Notes: (3) Sokanovskii 1954: 16 (a possible synonym of *fulvus* Niisima).
References: **(hb)** Stark 1952: 266. **(ds)** Arnoldi et al. 1955: 691; Krivolutsкая 1983; Kurenzov 1967; Stark 1952: 266. **(tx)** Kurenzov 1941a: 152–153; Sokanovskii 1954: 16; Stark 1952: 266.
- sidneyanus* (Nordlinger) 1856: 75 (*Bostrichus*). Holotype ♂; Australischen Holz; NHMW, Wien.
Distribution: Australia.
Notes: (3) Also cited under the generic name *Pseudocryphalus*.
References: **(ds)** Gemminger & Harold 1872: 2683; Hagedorn 1910d: 45; Kleine 1913b: 119, 1914b: 298. **(tx)** Eggers 1931c: 185; Eichhoff 1878b: 136; Ferrari 1867a: 17, 75, 1868: 252; Hagedorn 1910a: 88; Nordlinger 1856: 75.
- silvanus* Schedl 1951k: 145. Lectotype ♂; Samoa, Upolu, Apia, Falefa Falls, Tapatapao 800 ft., Afiamalu 2200 ft., Tutuila, Utulei 500 ft., Fagatogo 700 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 229.
Distribution: Samoan Islands.
References: **(tx)** Beaver 1976b: 534; Schedl 1951k: 133, 145, 1958h: 498–499, 1979c: 229.
- similis* (Eggers) 1922b: 168 (*Stephanoderes*). Syntypes 6, sex?; S.O. Usagara und Nyerengere (Deutsch-Ostafrika); Methner Collection and 2 Eggers syntypes in NHMW, Wien.
Distribution: Africa (Tanzania).
Notes: (1) Schedl 1939i: 383 (to *Cryphalus*).
References: **(tx)** Eggers 1922b: 168; Schedl 1939i: 383, 1961k: 457, 1979c: 230.

- simplex** (Schedl) 1939e: 341 (*Eriocryphalus*). Syntypes 2, sex?; Malaya, Selangor: Kepong; BMNH, London, and Schedl Collection in NHMW, Wien. Distribution: Asia (Malaya). Hosts: *Arthrophyllum diversifolia*. References: (ds) Beeson 1961: 287; Browne 1961c: 68. (tx) Schedl 1939e: 341.
- sinoabietis** Tsai & Li 1963: 602, 604, 607, 622. Holotype ♂; Ssu Chuan, China; IZAS, Beijing. Figures: Tsai & Li 1963: 607, Yin, Huang, & Li 1984: 101 (adult). Distribution: Asia (Sichuan in China). Hosts: *Abies faxoniana*. References: (ds) Yin, Huang, & Li 1984: 100. (tx) Tsai & Li 1963: 602, 604, 607, 622; Yin, Huang, & Li 1984: 100.
- sinoabietis opienensis** Tsai & Li 1963: 602, 604, 607, 622. Holotype ♂; Ssu Chuan, China; IZAS, Beijing. References: (ds) Yin, Huang, & Li 1984: 101. (tx) Tsai & Li 1963: 602, 604, 607, 622; Yin, Huang, & Li 1984: 101.
- sordidus** (Nobuchi) 1975: 51 (*Taenioglyptes*). Holotype ♀; Mt. Hayachine, Iwate, Japan; Nobuchi Collection, Ibaraki. Figures: Nobuchi 1975: pl. 2, fig. 13. Distribution: Asia (Japan). References: (ds) Nobuchi 1985c: 15. (tx) Nobuchi 1975: 51–52.
- sparsipilosus** Schedl 1942c: 172. Holotype, sex?; Australien; Schedl Collection in NHMW, Wien. Distribution: Australia. References: (tx) Schedl 1942a: 175, 1942c: 172, 1979c: 233.
- squamatus** Schedl 1943b: 38. Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Borneo). References: (tx) Schedl 1943b: 38, 1979c: 235.
- squamulosus** Strohmeier 1911b: 20. Holotype, sex?; Mindoro, Calapan, Philippine Islands; Entomological Collection, Bureau of Science, Manila, P.I., and IPKE, Eberswalde. Distribution: Philippine Islands (Mindoro). References: (ds) Kleine 1913b: 119, 1914b: 290; Schedl 1966b: 22. (tx) Nobuchi 1983: 300; Strohmeier 1911b: 20–21.
- striatulus** Browne 1981a: 127. Holotype, sex?; Buluma (New Britain) to Omaezaki (Japan), imported; BMNH, London. Distribution: New Britain Island. References: (ds) Ohno, Yoneyama, & Nakazawa 1987: 93; Ohno, Yoshioka, et al. 1988a: 91, 1989: 60. (tx) Browne 1981a: 127.
- striatus** Browne 1974a: 66. Holotype, sex?; Fiji: Vanna Levu, Dreketi; BMNH, London. Distribution: Fiji Islands. Hosts: *Storckiella* sp. References: (ds) Browne 1974a: 64; Roberts 1976: 379. (tx) Browne 1974a: 66.
- strigilatus** Wichmann 1914c: 137. Holotype, sex?; Tana, Ostafrika; NHMW, Wien. Distribution: Africa (Ethiopia/ Kenya). References: (tx) Schedl 1966j: 467; Wichmann 1914c: 137.
- strigipennis** Schedl 1950f: 50. Lectotype, sex?; Viti Levu; Tholo-i-Suva, 500–1000 ft., Navai Mill, near Nandarivatu, 2500 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 235. Distribution: Fiji Islands. References: (ds) Browne 1974a: 64. (tx) Schedl 1950f: 50, 1979c: 238.
- strohmeieri** Stebbing 1914: 538. Syntypes 2, sex?; Jamsar, NW Himalaya, Chakrata, Uttar Pradesh, India; FRI, Dehra Dun, automatic. Distribution: Asia (Sichuan, Xizang [Tibet], Yunnan in China/ Bengal, Kashmir, Uttar Pradesh in India). Hosts: *Abies donsae*, *A. pindrow*, *A. webbiana*, *Pinus excelsa*. References: (cn) Pierce, W. D. 1917: 79; Roonwal 1954: 12; Stebbing 1914: 538. (ce) Stebbing 1914: 538. (hb) Stebbing 1914: 538. (ds) Beeson 1961: 286; Kleine 1934a: 142; Pierce, W. D. 1917: 79; Roonwal 1954: 12; Yin & Huang 1981: 561. (tx) Schedl 1939i: 350; Stebbing 1914: 538; Yin & Huang 1981: 561.
- indicus** Stebbing 1902: 403. Syntypes 2, sex?; Jamsar, NW Himalaya, Chakrata, Uttar Pradesh, India; FRI, Dehra Dun, preoccupied by Eichhoff 1878. References: (ds) Hagedorn 1910d: 43; Kleine 1913b: 118, 1934a: 142. (tx) Hagedorn 1910a: 87; Stebbing 1902: 403, 1914: 538.
- subcompactus** Lea 1910: 140. Syntypes, sex?; N.S. Wales; Galston, Sydney, Australia; SAM, Adelaide? Distribution: Australia (New South Wales, Queensland). Hosts: *Grevillea robusta*. References: (ds) Brimblecombe 1953: 17; Schedl 1972a: 144. (tx) Lea 1910: 140; Schedl 1938f: 47, 1948g: 25, 1979c: 240.
- subgranulatus** Schedl 1943b: 37. Holotype, sex?; S. Theodoro, Ins. Mindoro, Philippines; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Mindoro). References: (ds) Schedl 1966b: 22. (tx) Nobuchi 1983: 300; Schedl 1943b: 37, 1979c: 241.
- submuricatus** Eichhoff 1878b: 492. Syntypes, sex?; Asiae India orientalis; Hamburg Museum, lost. Distribution: Asia (Burma/ Andaman Islands in India). References: (ds) Beeson 1929: 255–226; Hagedorn 1910d: 45; Kleine 1913b: 119, 1914b: 269. (tx) Eggers 1925: 152; Eichhoff 1878a: 355, 1878b: 492; Hagedorn 1910a: 85.

- substriatus** Schedl 1942a: 174. Lectotype, sex?; Malaya, Selangor. Sg. Buloh F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 244.
Distribution: Asia (Yunnan in China/ Malaya).
Hosts: *Gluta elegans*, *Shorea sideroxylon*, *Sloetia elongata*.
References: (hb) Beaver & Browne 1978: 555; Browne 1961c: 70. (ds) Beaver & Browne 1978: 555; Browne 1961c: 70, 1984a: 151; Schedl 1959a: 452. (tx) Schedl 1942a: 174, 1953c: 288, 1959a: 452, 1979c: 244.
- subtuberculatus** Schedl 1942c: 168. Holotype, sex?; N.O. Papua, Mt. Lamington; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1942c: 168, 1979c: 245.
- subvestitus** Schedl 1959a: 482. Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (ds) Schedl 1959a: 482. (tx) Schedl 1959a: 482, 1979c: 245.
- sundaensis** Schedl 1942d: 14. Lectotype, sex?; Java, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 247.
Distribution: Asia (Burma/ Thailand), Indonesia (Java).
References: (hb) Kalshoven 1958b: 165. (ds) Beaver & Browne 1975: 289; Schedl 1969c: 50. (tx) Schedl 1942d: 14, 1943b: 36, 1979c: 247.
- sylvicola** (Perkins) 1900: 181 (*Hypothenemus*). Syntypes, sex?; Lanai and Kauai, Hawaiian Islands; BMNH, London.
Distribution: Cook Islands, Fiji Islands, Hawaiian Islands, Micronesia (Caroline Islands, Guam, Mariana Islands), Nine Island, Philippine Islands, Samoan Islands.
Hosts: *Acacia* sp., *Artocarpus* sp., *Ficus* spp., *Ilex* sp., *Pinus insularis*, *Piper guahamense*.
References: (hb) Beaver 1976b: 534. (ds) Beaver 1976b: 534; Beeson 1938b: 289; Browne 1970: 540, 1974a: 64; Hagedorn 1910d: 45; Kleine 1913b: 124; Krauss 1943: 88; Schedl 1972b: 267; Swezey 1949: 446, 1954: 116; Wood, S. L. 1960a: 23. (tx) Browne 1970: 520; Hagedorn 1910a: 88; Perkins 1900: 181; Schedl 1934g: 177, 179, 1939e: 327, 1941f: 111, 1950f: 48, 1963i: 62; Swezey 1949: 446; Wood, S. L. 1960a: 23, 1989: 172.
- henshawi** Hopkins 1915b: 38 (*Ericryphalus*). Holotype ♀; Hilo, Hawaii; USNM, Washington. Synonymy: Schedl 1941f: 111.
References: (ds) Beeson 1938: 288, 1939: 446; Ford 1960: 333; Swezey 1949: 446. (tx) Hopkins 1915b: 38; Schedl 1941f: 111, 1963i: 62; Swezey 1949: 446.
- pini** Hopkins 1915b: 39 (*Piperius*). Holotype ♀; Baguio, Philippine Islands; USNM, Washington. Synonymy: Schedl 1963i: 62.
References: (ds) Kleine 1934a: 148. (tx) Eggers 1923b; Hopkins 1915b: 39; Schedl 1963i: 62.
- swezeyi** Schedl 1942b: 147. Lectotype ♀; Guam: Dededo, Yigo, Ritidian, Mt. Alifan, Piti; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 248. Synonymy: Wood 1989: 172.
References: (ds) Swezey 1949: 446, 448. (tx) Schedl 1942b: 147–148, 1943b: 34, 1979c: 248; Wood 1960a: 23–25, 1989: 172.
- dimorphus** Schedl 1950f: 38. Lectotype ♀; Fiji, Vama Mbalavu: Loma Loma, 200–500 ft., Myana, 200 ft., 700 ft., Ovalau near Vuma, 200 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 81. Synonymy: Beaver 1991: 89.
References: (ds) Browne 1974a: 64. (tx) Beaver 1991: 89; Schedl 1950f: 38, 49, 1979c: 81.
- sylvicola obliquus** Schedl 1950f: 48. Lectotype ♀; Fiji: Vama Moalavu, Loma Loma; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 248. Synonymy: Wood 1960a: 23, 1989: 172.
References: (tx) Schedl 1950f: 48, 1951k: 133, 1979c: 248; Wood, S. L. 1960a: 23, 1989: 172.
- szechuanensis** Tsai & Li 1963: 605, 614, 624. Holotype ♂; Te Chang, Ssu Chuan, China; IZAS, Beijing.
Figures: Tsai & Li 1963: 615, Yin, Huang, & Li 1984: 111 (adult).
Distribution: Asia (Sichuan in China).
Hosts: *Pinus yunnanensis*.
References: (ds) Yin, Huang, & Li 1984: 111. (tx) Tsai & Li 1963: 605, 614–615, 624; Yin, Huang, & Li 1984: 111.
- szechuanensis telchangensis** Tsai & Li 1963: 606, 615, 624. Holotype ♂; Te Chang, Ssu Chuan, China; IZAS, Beijing.
References: (tx) Tsai & Li 1963: 606, 615, 624.
- tabulaeformis** Tsai & Li 1963: 605, 609, 623. Holotype ♂; Chin Huang Tao, Ho Pei, China; IZAS, Beijing.
Figures: Tsai & Li 1963: 609, Yin, Huang, & Li 1984: 106 (adult).
Distribution: Asia (Hebei in China, subspecies in Shanxi).
Hosts: *Pinus tabulaeformis*.
References: (ds) Yin, Huang, & Li 1984: 105. (tx) Tsai & Li 1963: 605, 609, 623; Yin, Huang, & Li 1984: 105.
- tabulaeformis chienzhuangensis** Tsai & Li 1963: 605, 610, 623. Holotype, sex?; China; IZAS, Beijing.
References: (ds) Yin, Huang, & Li 1984: 106. (tx) Tsai & Li 1963: 605, 610, 623; Yin, Huang, & Li 1984: 106.
- taivanus** Schedl 1970b: 359. Holotype, sex?; Formosa, Kaoshing to Nagoya (Japan), imported; PPST, Tokyo.

- Distribution: Asia (Taiwan).
Hosts: *Tsuga* sp.
References: (tx) Schedl 1970b: 359, 1979c: 249.
- tenuis** Schedl 1942d: 16. Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 251.
Distribution: Asia (Malaya), Indonesia (Java).
Hosts: *Artocarpus elasticus*, *A. rigidus*, *A. scortechini*, *Campnosperma auriculata*, *Schefflera aromatica*.
References: (ce) Beaver 1979b: 298. (hb) Beaver 1979b: 298; Beaver & Browne 1978: 585; Browne 1961c: 68. (ds) Beaver & Browne 1978: 585. (tx) Kalshoven 1958: 164; Schedl 1942c: 172, 1942d: 16, 1943b: 36, 1958b: 100, 1979c: 251.
- terminaliae** Browne 1980b: 384. Holotype, sex?; Pulau Adi (New Guinea) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Terminalia* sp.
References: (ds) Browne 1984b: 287; Ohno, Yoshioka, et al. 1988a: 91, 1989: 60. (tx) Browne 1980b: 384.
- tetricus** (Schedl) 1940b: 437 (*Ericryphalus*). Holotype, sex?; Dutch New Guinea, Cyclops Mts., Sabron, Camp 1, 1200 ft.; BMNH, London.
Distribution: New Guinea.
References: (ds) Schedl 1971a: 275. (tx) Schedl 1940b: 437–438, 1953b: 124–125, 1958b: 102, 1979c: 252.
- papuanus** Schedl 1942c: 170. Holotype ♂; N.O. Papua, Mt. Lamington; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1979g: 95.
References: (tx) Schedl 1942c: 170, 1969b: 214, 1972q: 256, 1979c: 183, 1979g: 95.
- grayi** Schedl 1968e: 265. Holotype, sex?; New Guinea, Rille Range, L.A. Bulolo, Inakanda L.A. Bulolo; CSIRO, Canberra. Synonymy: Schedl 1979g: 95.
References: (tx) Schedl 1968e: 265, 1979c: 112.
- brevis** Browne 1970: 556 (*Ptilopodius*). Holotype, sex?; New Guinea: Dorey; BMNH, London.
Synonymy: Schedl 1979q: 256.
References: (tx) Browne 1970: 556–557; Schedl 1972q: 256.
- theobromae** Numberg 1956d: 208. Syntypes, sex?; West Africa, S. Ashanti; not located, automatic.
Distribution: Africa (Ghana).
Hosts: *Theobroma cacao*.
References: (tx) Numberg 1956d: 208.
- horridus** Graham 1908: 113. Syntypes, sex?; West Africa, S. Ashanti; not located, preoccupied by Eichhoff 1878.
References: (tx) Graham 1908: 113; Hagedorn 1910a: 86; Numberg 1956d: 208; Schedl 1960i: 104, 1961k: 462.
- trypanoides** Beeson 1935: 106. Holotype ♂?; Marquesas Islands: Uapou, Hakahetau Valley, 2600 feet; BMNH, London.
Distribution: Hawaiian Islands, Marquesas Islands.
Hosts: *Artocarpus altalis*.
References: (ds) Beeson 1935b: 288, 1939: 106; Gemminger & Harold 1872: 2692; Van Zwahlenburg 1956: 9. (tx) Beeson 1935: 106–107.
- trypanus** Sampson 1914: 383. Holotype ♂; Seychelles, Silhouette, from near Mont Pot-a-eau, Mahe, 1500 feet; BMNH, London.
Distribution: Africa (Seychelles Islands), Asia (Yunnan in China).
References: (hb) Beaver 1987a: 17. (ds) Beaver 1987a: 17; Sampson 1914: 382; Schedl 1969d: 11. (tx) Beeson 1935: 107; Sampson 1914: 382–383.
- tuberculatus** Schedl 1943b: 37. Holotype, sex?; Tenasserim; Schedl Collection in NHMW, Wien.
Distribution: Asia (Burma).
References: (tx) Schedl 1943b: 37, 1979c: 257.
- uapouensis** (Beeson) 1935a: 107 (*Ericryphalus*). Syntypes 3 ♀; Marquesas Islands: Uapou, Hakahetau Valley, 1000 feet; BMNH, London.
Distribution: Marquesas Islands.
References: (ds) Beeson 1935b. (tx) Beeson 1935a: 107, 1935b: 288; Schedl 1942c: 173.
- upoluensis** Schedl 1951k: 144. Lectotype ♂; Samoa, Tutuila, Fagasa Trail 800 ft., Matafao Trail 1300 ft., Upolu, Tapatapao; Lamtoo Trail 1200 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 261.
Distribution: Samoan Islands.
References: (tx) Beaver 1976b: 534; Schedl 1951k: 133, 144, 1979c: 261.
- variolosus** Schedl 1950f: 49. Syntypes 2, sex?; Viti Levu: Navai Mill, near Nandarivatu 2500 ft., Ovalau: near Vuna 700 ft.; BPBM, Honolulu, and Schedl Collection (2 syntypes) in NHMW, Wien.
Distribution: Fiji Islands.
References: (ce) Roberts 1976: 379. (hb) Roberts 1976: 379. (ds) Browne 1974a: 64; Roberts 1976: 379. (tx) Schedl 1950f: 49, 1951i: 57, 1979c: 264.
- restitus** Blandford 1895a: 318. Holotype, sex?; Ceylon, Bogawantalawa; BMNH, London.
Distribution: Asia (Sri Lanka).
Hosts: *Callophyllum cuneifolium*, *Camellia sinensis*.
References: (ds) Bhasin, Roonwal, & Singh 1958; Hagedorn 1910d: 46; Kleine 1913b: 119, 1914b: 273; Schedl 1959a: 482. (tx) Blandford 1895a: 318; Hagedorn 1910a: 88; Schedl 1959a: 482.
- viburni** Stark 1936: 143. Lectotype, sex?; Far East, Vladivostok, Schkotov; IZL, Leningrad, designated by Michalski 1969a: 892.
Distribution: Asia (Shanxi in China/ E USSR).
Hosts: *Viburnum dilatatum*.
References: (hb) Stark 1952: 259. (ds) Kurenzov 1941: 153–154; Stark 1952: 259; Yin, Huang, & Li 1984: 104. (tx) Pfeffer 1944a: 131; Michalski 1969a: 892; Schedl 1952k: 158; Stark 1936: 143, 151, 1951: 229, 1952: 259; Tsai & Li 1963: 605–

- 606; Yin, Huang, & Li 1954: 104. (**ms**) Pfeffer 1944a: 131.
- viburni* Eggers 1942c: 30. Holotype, sex?; Ussuri: Eggers Collection (2 Eggers cotypes in NHMW, Wien, may include this holotype). Synonymy: Pfeffer 1942: 30.
Notes: (1) Michalski 1969a: 592 (designated a lectotype although Eggers' holotype designation appears valid).
References: (**cn**) Kurenzov 1935c: 189. (**ec**) Kurenzov 1934a: 57. (**hb**) Kurenzov 1935a: 19, 31, 1945b: 126. (**ds**) Krivolitskaya 1953; Kurenzov 1934a: 57, 1935a: 19, 31, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 59; Stark 1936e: 143, 151; Tsai & Li 1963: 602. (**tx**) Eggers 1942c: 30; Kurenzov 1941a: 153, 1945b: 126; Michalski 1969a: 592, 1969b: 567; Pfeffer 1942: 30, 1944: 131; Schedl 1952k: 155, 1979c: 267; Stark 1951: 155.
- vitiensis* Browne 1974a: 67. Holotype, sex?; Fiji: Viti Levu, Nausori Highlands; BMNH, London.
Distribution: Fiji Islands.
Hosts: *Dysoxylum* sp.
References: (**ec**) Roberts 1976: 350. (**hb**) Roberts 1976: 350. (**ds**) Browne 1974a: 64; Roberts 1976: 350. (**tx**) Browne 1974a: 67.
- walkeri* (Blandford) 1896b: 200 (*Cryptarthrum*). Syntypes 2, sex?; Damma I.; BMNH, London.
Distribution: Asia (Malaya/ Vietnam), Australia (Victoria), Indonesia (Damma, Java, Sumatra), Philippine Islands (Luzon, Mindanao, Mindoro).
Hosts: *Urostigma* sp.
References: (**cn**) Kleine 1932a: 302. (**hb**) Kleine 1932a: 302. (**ds**) Beaver & Browne 1978: 555; Browne 1966: 244, 1965a: 133; Hagedorn 1910d: 46; Kleine 1913b: 125, 1914b: 250, 1932a: 302, 1934a: 148; Schedl 1971f: 146. (**tx**) Blandford 1896b: 200; Browne 1968a: 132; Hagedorn 1910a: 83, 1912a: 340; Hopkins 1914: 119; Lucas 1920: 210; Nobuchi 1953: 300; Schedl 1963i: 62. (**ms**) Lucas 1920: 210.
- hagedornii* Eggers 1908c: 216 (*Coccotrypes*). Lectotype ♀; Java: USNM, Washington, designated by Anderson & Anderson. Synonymy: Schedl 1963i: 62.
Notes: (1) Eggers 1927b: 393 (to *Cryphalus*).
References: (**cn**) Kalshoven 1932: 252. (**hb**) Kalshoven 1955b: 165. (**ds**) Hagedorn 1910d: 68; Kalshoven 1932: 252, 1955b: 165; Kleine 1914b: 288, 1934a: 142; Schedl 1935g: 424, 1966b: 20. (**tx**) Anderson, W. H. & Anderson 1971: 14; Eggers 1908c: 216, 1927b: 393–394; Hagedorn 1910a: 94; Nobuchi 1953: 300; Schedl 1935g: 424, 1942a: 175, 1942d: 2, 13, 1950f: 48, 1951i: 50, 1958i: 214, 1958k: 153, 1963i: 61–62.
- javanicus* Schedl 1954a: 148. Lectotype, sex?; Java: Buitenzorg, 250 m, Semarang, 40 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 129. Synonymy: Schedl 1958k: 153.
References: (**tx**) Schedl 1954a: 139, 148–149, 1958k: 153, 1979c: 129.
- wapleri* Eichhoff 1872a: 131. Holotype, sex?; Australia: IRSNB, Brussels.
Distribution: Australia (Queensland), New Guinea.
Hosts: *Dysoxylum* sp., *Ficus carica*, *F.* sp., *Malasia scandens*.
References: (**ec**) Wichmann 1955a: 96. (**ds**) Brimblecombe 1953: 17; Browne 1950b: 351, 1955b: 291; Gemminger & Harold 1872: 2653; Hagedorn 1910d: 46; Kleine 1913b: 119, 1914b: 295, 1934a: 142; Kuschel 1972; Ohno, Yoneyama, & Narazawa 1957b: 93; Ohno, Yoshioka, et al. 1988a: 92, 1989: 60; Wichmann 1955a: 96. (**tx**) Eichhoff 1872a: 131, 1878b: 129; Hagedorn 1910a: 88.
- mckeoi* Schedl 1972h: 61. Holotype, sex?; Laviana Village, M. Bay Dist.; CSIRO, Canberra. Synonymy: Schedl 1979j: 126.
References: (**tx**) Schedl 1972h: 61, 1979c: 151, 1979j: 126.
- yamaguchii* Inouye & Nobuchi 1957a: 55. Holotype, sex?; Soumkyo, Daisetsu-zen National Park, Hokkaido, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Hokkaido in Japan).
Hosts: *Abies sachalinensis*.
References: (**ds**) Nobuchi 1955c: 15. (**tx**) Inouye & Nobuchi 1957a: 48, 55.
- zimmermani* Schedl 1950f: 51. Syntypes ♀; Viti Levu: Navai Mill, near Nandarivatu, 2500 ft.; BPBM, Honolulu, and Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
References: (**ds**) Browne 1974a: 64. (**tx**) Schedl 1950f: 51, 1979c: 271.

Genus *Margadillius* Hopkins

MARGADILLIUS HOPKINS 1915b: 8, 37. Type-species: *Margadillius margadilaonis* Hopkins, original designation.

Keys: Hopkins 1915b: 37.

Notes: (1) The status of this genus is doubtful; it may not be separable from *Cryphalus*.

References: (**ay**) Nobuchi 1969a: 56. (**hb**) Wood, S. L. 1956a: 91. (**ds**) Browne 1961c: 70–71; Schedl 1961k: 447, 1966b: 17. (**tx**) Hopkins 1915b: 8, 37; Nunberg 1956: 141; Schedl 1961k: 447; Wood, S. L. 1956a: 91.

carinatus Browne 1950b: 382. Holotype, sex?; Buluma (New Britain) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Britain Island.

References: (**tx**) Browne 1950b: 382.

centralis Schedl 1975f: 344. Holotype, sex?; Papua, upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.

- Distribution: New Guinea.
References: (tx) Schedl 1975f: 344, 1979c: 61.
- confusus** Hopkins 1915b: 38. Holotype ♀; Pagbilao, P.I.; USNM, Washington.
Distribution: Philippine Islands (Luzon).
Hosts: Tucueu tree.
References: (ds) Kleine 1934a: 148; Schedl 1966b: 17. (tx) Hopkins 1915b: 36–38; Nobuchi 1983: 300.
- erythrinae** Hopkins 1915b: 38. Holotype ♀; Calapan, P.I.; USNM, Washington.
Distribution: Philippine Islands.
References: (ds) Kleine 1934a: 148; Schedl 1966b: 17. (tx) Hopkins 1915b: 36, 37; Nobuchi 1983: 300.
- fulvus** Browne 1984b: 289. Holotype, sex?; Fakfak (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Terminalia* sp.
References: (tx) Browne 1984b: 289.
- loranthus** Schedl 1942d: 8. Lectotype, sex?; Java, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 142.
Distribution: Indonesia (Java).
Hosts: Loranthaceae seeds.
References: (hb) Kalshoven 1958b: 166. (ds) Browne 1986b: 334; Ohno, Yoshioka, et al. 1988b: 91. (tx) Schedl 1942d: 8, 1979c: 142.
- magnus** Browne 1984d: 88. Holotype, sex?; New Guinea: Mount Giluwe; BMNH, London.
Distribution: New Guinea.
Hosts: *Quintonia* sp.
References: (tx) Browne 1984d: 88.
- margadilaonis** Hopkins 1915b: 38. Holotype ♀; Pagbilao, P.I.; USNM, Washington.
Distribution: Philippine Islands (Luzon).
Hosts: Margadelaio log.
References: (ds) Kleine 1934a: 148; Schedl 1966b: 18. (tx) Hopkins 1915b: 36–38; Nobuchi 1983: 300.
- minor** Schedl 1942a: 176. Lectotype, sex?; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 155.
Distribution: Asia (Malaya), Indonesia (Java).
Hosts: *Hibiscus macrophyllus*.
References: (hb) Browne 1961c: 71. (tx) Schedl 1942a: 176, 1979c: 155.
- minutus** Hopkins 1915b: 37. Holotype ♀; Pagbilao, P.I.; USNM, Washington.
Distribution: Philippine Islands.
Hosts: Tucueu tree.
References: (ds) Kleine 1934a: 148; Schedl 1966b: 18. (tx) Hopkins 1915b: 36–37; Nobuchi 1983: 300.
- parvulus** Eggers 1943e: 75. Holotype, sex?; Zambeze (Nova Choupanga pres Chemba); Eggers Collection, in NHMW, Wien.
References: Schedl 1961k: 447.
Distribution: Africa (Mozambique/ South Africa).
Hosts: *Hibiscus* sp.
References: (ds) Schedl 1961k: 447. (tx) Eggers 1943e: 75; Schedl 1961k: 447.
- quadrituberculatus** Schedl 1963i: 64. Holotype, sex?; Java, Batoerraden; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (tx) Schedl 1963i: 64–65, 1979c: 186.
- terminaliae** Browne 1984c: 450. Holotype, sex?; Vini Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: *Terminalia* sp.
References: (ds) Browne 1985a: 191; Ohno, Yoneyama, & Nakazawa 1987b: 93; Ohno, Yoshioka, et al. 1988a: 91. (tx) Browne 1984c: 450.

Genus *Ptilopodius* Hopkins

PTILOPODIUS HOPKINS 1915b: 7, 11. Type-species: *Ptilopodius stephegyi* Hopkins, original designation.

Keys: Wood 1960a: 18 for Micronesia.

References: (hb) Wood, S. L. 1986a: 91. (ds) Beeson 1935: 101, 1938: 290; Brimblecombe 1953: 23; Browne 1961c: 79; Schedl 1961k: 454, 1966b: 18; Wood, S. L. 1986a: 91. (tx) Hopkins 1915b: 7, 11–12; Schedl 1953c: 294, 1961k: 454, 1962r: 93; Wood, S. L. 1960a: 18, 1986a: 91.

aitutakii Beaver & Maddison 1990: 1367. Holotype ♀; Cook Islands: Aitutaki Island, Angari islet; Auckland Museum.

Distribution: Cook Islands.

References: (tx) Beaver & Maddison 1990: 1367.

bambusae Browne 1984f: 69. Holotype, sex?; New Guinea: Morobe District, Wau, 1200 m; BMNH, London.

Distribution: New Guinea.

Hosts: Bamboo.

References: (tx) Browne 1984f: 69.

dubiosus Wood 1960a: 19. Holotype ♀; Caroline Islands, Palau Islands, Peleliu; USNM, Washington.

Distribution: Micronesia (Palau Islands in Caroline Islands).

Hosts: *Pandanus* sp.

References: (ds) Browne 1984a: 150; Ohno, Yoshioka, et al. 1987a: 87. (tx) de Ruelle 1970: 111; Wood, S. L. 1960a: 19.

formosanus Browne 1981a: 129. Holotype, sex?; Hualien (Formosa) to Yatsushiro (Japan), imported; BMNH, London.

Distribution: Asia (Taiwan).

References: (tx) Browne 1981a: 129.

javanus Schedl 1942d: 10. Lectotype, sex?; Java, Gedeh; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 129.

- Distribution: Indonesia (Java).
References: (hb) Kalshoven 1955b: 166. (tx) Schedl 1942d: 10, 1943b: 34, 1979c: 129.
- madagascariensis** Schedl 1961e: 133. Holotype, sex?; Madagascar, Montagne d'Ambre, Joffreville; IRSM, Madagascar.
Distribution: Madagascar.
References: (hb) Schedl 1977a: 44. (ds) Schedl 1977a: 44. (tx) Schedl 1961e: 133, 1962r: 93, 1977a: 44, 1979c: 144.
- marquesanus** Beeson 1935: 101. Syntypes 26, sex?; Marquesas Is.: Eiao, Hivaoa; Tahauku, Uapou, Hakagetan Valley; BPBM, Honolulu?
Distribution: Cook Islands (Aitutaki), Fiji Islands, Gambier Islands, Marquesas Islands, Samoan Islands (American Samoa, Western Samoa).
Hosts: *Hibiscus tiliacus*.
References: (ds) Beeson 1935b: 290, 1940: 193; Schedl 1972b: 266. (tx) Beaver 1991: 93; Beeson 1935: 101–102, 1938b: 290, 1940: 193; Schedl 1951k: 143.
- zimmernani** Schedl 1951k: 143. Syntypes, sex?; Tutuila, west side; Afono Trail; Amonli 400 ft.; Fagatogo 700 ft.; Samoa, Upolu Tapatapao; BPBM, Honolulu, and Schedl Collection in NHMW, Wien. Synonymy: Beaver 1991: 93.
References: (tx) Beaver 1991: 93; Schedl 1951k: 134, 143, 1953c: 294.
- minutissimus** Schedl 1943b: 34. Lectotype, sex?; Mt. Isarog, Luzon, Philippines; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 156.
Distribution: Philippine Islands (Luzon).
References: (hb) Kalshoven 1955b: 166. (ds) Schedl 1966b: 18. (tx) Nobuchi 1983: 300; Schedl 1943b: 34, 1951i: 50, 1954a: 139, 1979c: 156.
- pacificus** Schedl 1941f: 111. Holotype, sex?; Oahu; Waimano; BPBM, Honolulu?
Distribution: Micronesia (Kusaie, Marshall Islands, S Mariana Islands), Hawaiian Islands.
References: (tx) Browne 1970: 556; Schedl 1941f: 111, 1951m: 105, 1979c: 182; Wood, S. L. 1960a: 20.
- ramosus** Beeson 1935: 115. Holotype ♀; India: Bengal, Sunderbans; FRI, Dehra Dun.
Figures: Maiti & Saha 1956: 170 (adult, antenna).
Distribution: Asia (Bengal, Nicobar Islands in India), Mangareva Islands, Micronesia (Caroline Islands, Palau Islands, Ponape, Society Islands, Truk Island, Yap Island).
Hosts: *Hibiscus tiliaceus*.
References: (cn) Mathur & Singh 1960b: 5. (cc) Beeson 1922c: 498. (hb) Beeson 1922c: 498. (ds) Beeson 1922c: 498, 1938b: 290, 1940: 193, 1961: 295; Kleine 1934a: 148; Maiti & Saha 1956: 169; Mathur & Singh 1960b: 5; Wood, S. L. 1960a: 20. (tx) Beeson 1935: 115–116, 1940: 193; Maiti & Saha 1956: 169; Wood, S. L. 1960a: 20.
- rugosus** Schedl 1943b: 34. Lectotype, sex?; Manila, Philippines; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 217.
Distribution: Philippine Islands (Luzon).
References: (ds) Schedl 1966b: 18. (tx) Nobuchi 1983: 300; Schedl 1943b: 34, 1979c: 217.
- shoreae** Schedl 1953c: 293. Lectotype, sex?; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 227.
Distribution: Asia (Malaya).
Hosts: *Shorea macroptera*.
References: (ds) Browne 1961c: 79. (tx) Schedl 1953c: 293, 1979c: 227.
- squamosus** Schedl 1953c: 294. Lectotype, sex?; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 236.
Distribution: Asia (Malaya).
Hosts: *Shorea gibbertiana*, *S. parvifolia*.
References: (hb) Browne 1961c: 79. (tx) Schedl 1953c: 294.
- stephegynis** Hopkins 1915b: 11. Holotype ♀; Calapan, P.I.; USNM, Washington.
Distribution: Philippine Islands.
Hosts: *Stephegyne diversifolia*.
References: (ds) Beeson 1938: 290; Kleine 1934a: 148; Schedl 1959a: 475, 1966b: 18. (tx) Hopkins 1915b: 11; Nobuchi 1983: 300; Schedl 1933d: 201, 1959a: 475, 1961e: 133.
- tarawai** Beaver 1990: 149. Holotype ♀; Kiribati: S. Tarawa I; Auckland Museum.
Distribution: Tarawa Island.
Hosts: *Scavola* sp.
References: (tx) Beaver 1990: 149.
- venustus** Schedl 1953d: 75. Syntypes 2, sex?; Madagascar, Mt. d'Ambre; MNHN, Paris and Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (tx) Schedl 1953d: 78–79, 1962r: 93, 1977a: 44, 1979c: 265.

Genus *Cosmoderes* Eichhoff

- COSMODERES EICHHOFF 1878b: 495. Type-species: *Cosmoderes monilicollis* Eichhoff, monobasic.
- Erioschidius* Schedl 1935k: 42. Type-species: *Cryphalus setistriatus* Lea, subsequent designation by Wood 1960a: 21. Synonymy: Wood 1950c: 91.
References: (ds) Brimblecombe 1958: 18. (tx) Nunberg 1956a: 141; Schedl 1935k: 42, 1957d: 1–162, 1959a: 474, 1961k: 444, 1962r: 85–107; 1977b: 36; Wood, S. L. 1960a: 21, 1980c: 91.
- Dendriops* Schedl 1953b: 125. Type-species: *Dendriops granulicollis* Schedl, monobasic. Synonymy: Wood 1986a: 91.
References: (tx) Schedl 1953b: 125; Wood, S. L. 1986a: 91.
- Pseudocosmoderes* Nobuchi 1981c: 16. Type-species: *Pseudocosmoderes attenuatus* Nobuchi

- probably = *Cosmoderes monilicollis* Eichhoff, monobasic. Synonymy: Wood 1992b: 80–81. References: (tx) Nobuchi 1981c: 16–17; Wood, S. L. 1992b: 80–81.
- Vitaderes* Beeson 1941 (1961: 301). Type-species: *Vitaderes huffae*, nomen nudum, = *Cosmoderes monilicollis* Eichhoff, nomen nudum, no status. References: (tx) Beeson 1941 (1961: 301). References: (hb) Schedl 1977a: 36; Wood, S. L. 1986a: 91. (ds) Schedl 1961k: 444, 1966b: 17, 1977a: 36; Wood, S. L. 1986a: 91. (tx) Eichhoff 1878b: 475, 495; Hopkins 1915b: 7, 10–11; Nunberg 1956a: 141; Schedl 1961k: 444, 467, 1962r: 88, 1977a: 36; Wood, S. L. 1954a: 1050, 1986a: 91.
- anticus** (Schedl) 1975f: 343 (*Erioschidias*). Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1975f: 343, 1979c: 22.
- consobrinus** Blandford 1894d: 86. Holotype ♀?; Japan: BMNH, London. Distribution: Asia (Japan). References: (ds) Blandford 1894c: 579; Hagedorn 1910d: 46; Kleine 1913b: 125, 1914b: 257; Murayama 1949c: 101, 1961: 31. (tx) Blandford 1894d: 86; Hagedorn 1910a: 81; Schedl 1934f: 1640, 1963i: 61.
- corpulentus** (Schedl) 1971f: 151 (*Erioschidias*). Holotype, sex?; Philippinen, Palawan: Brooke's Point, Uring Uring; UZMC, Copenhagen. Distribution: Philippine Islands (Palawan). References: (tx) Schedl 1971f: 151–152.
- cyliudricus** (Schedl) 1962r: 103 (*Erioschidias*). Holotype, sex?; Fiji Inseln; Schedl Collection in NHMW, Wien. Distribution: Fiji Islands. References: (ds) Browne 1974a: 64. (tx) Schedl 1962r: 103, 1979c: 73–74.
- donisi** (Schedl) 1957d: 46 (*Erioschidias*). Holotype, sex?; Congo Belge: Yangambi; MRCB, Tervuren. Distribution: Africa (Zaire). Hosts: *Cynometra hankei*. References: (tx) Schedl 1957d: 46, 1979c: 83.
- elegans** Schedl 1975f: 342. Holotype, sex?; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1975f: 342, 1979c: 88.
- elongatus** (Eggers) 1939b: 4 (*Erioschidias*). Holotype, sex?; Nordost-Birma (Kambaiti, 7000 Fuss); NHR, Stockholm. Distribution: Asia (Burma). References: (tx) Eggers 1939b: 4–5.
- frontalis** (Wood) 1960a: 21 (*Erioschidias*). Holotype ♂; Ulebsehel (Aurapushekarn) Is., Palau Islands; USNM, Washington. Figures: Wood 1960a: 22. Distribution: Micronesia (Palau Islands, Truk in Caroline Islands). References: (tx) de Ruetten 1970: 101; Wood, S. L. 1960a: 21–22.
- imitatrix** (Schedl) 1977f: 499 (*Erioschidias*). Holotype, sex?; Vietnam: Yen So, SW of Hanoi; Schedl Collection in NHMW, Wien. Distribution: Asia (Vietnam). References: (tx) Schedl 1977f: 499.
- madagascariensis** (Schedl) 1963i: 65 (*Euptilius*). Syntypes, sex?; Madagascar: Mont. d'Ambre; Schedl Collection in NHMW, Wien. Distribution: Madagascar. Notes: (1) Schedl 1979c: 144 (citation of holotype invalid). (3) The syntype in NHMW, Wien, is largely covered by glue; identity uncertain. References: (tx) Schedl 1963i: 65–67, 1979c: 144.
- monilicollis** Eichhoff 1878b: 496. Holotype, sex?; Hindostan; Hamburg Museum, lost. Distribution: Asia (Burma/ Guizhou in China/ India/ Sri Lanka/ Vietnam), Indonesia (Sumatra). Hosts: *Actinidia polygama*, *Akebia trifoliata*, *Lagenaria ulgaris*, *Luffa aegyptiaca*, *Stanttonia hexaphylla*. References: (ds) Blandford 1895a; Hagedorn 1910d: 46; Kleine 1913b: 125, 1914b: 269; Schedl 1959a: 476. (tx) Eggers 1925: 153; Eichhoff 1878a: 387, 1878b: 496; Hagedorn 1910a: 81; Hopkins 1914: 119; Lucas 1920: 205; Schedl 1959a: 476, 1963i: 60; Wood, S. L. 1992b: 81. (ms) Lucas 1920: 205.
- granulicollis** Schedl 1953b: 125 (*Dendriops*). Lectotype, sex?; Indo-China: Saigon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 111. Synonymy: Schedl 1963i: 60. References: (ds) Schedl 1965a: 339. (tx) Schedl 1953b: 125, 1963i: 60, 1979c: 111.
- coriaceus** Schedl 1959a: 474 (*Erioschidias*). Syntypes, sex?; Ceylon: Sabargamuva, Millawitiya Estate; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1963i: 60. Notes: (1) Schedl 1979c: 65 (citation of holotype invalid). References: (ds) Schedl 1959a: 474, 1971a: 280. (tx) Schedl 1959a: 474, 1961e: 69, 1962r: 103, 1963i: 60, 1979c: 65.
- attenuatus** Nobuchi 1981c: 17 (*Pseudocosmoderes*). Holotype, sex?; Shimizucho, Wakayama [Japan]; Nobuchi Collection, Ibaraki. Synonymy: Wood 1992b: 81. Notes: Nobuchi's photograph of the type indicates that it is a female of *monilicollis*; confirmation is needed (SLW). References: (tx) Nobuchi 1981c: 17–18; Wood, S. L. 1992b: 80–81.
- niger** (Schedl) 1961e: 131 (*Erioschidias*). Holotype, sex?; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar.

- Hosts: *Erythroxylon sphaeranthrum*.
References: (tx) Schedl 1961e: 131, 1977b: 37, 1979c: 166.
- papuanus** Schedl 1975f: 341. Holotype, sex?; Peria Creek, Kwagira River, 50 m; AMNH, New York. Distribution: New Guinea.
References: (tx) Schedl 1975f: 341.
- pellitus** (Schedl) 1953d: 79 (*Erioschidias*). Lectotype, sex?; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 157.
Distribution: Madagascar.
References: (tx) Schedl 1953d: 79, 1961e: 131, 1977a: 37, 1979c: 157.
- philippinensis** (Schedl) 1967a: 126 (*Erioschidias*). Holotype, sex?; Bislig, Mindanao, Philippines to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: Philippine Islands (Mindanao).
References: (tx) Nobuchi 1983: 300; Schedl 1967a: 126–127, 1979c: 192.
- queenslandi** (Schedl) 1938f: 43 (*Erioschidias*). Lectotype, sex?; Cairns district; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
References: (ds) Brimblecombe 1953: 18. (tx) Schedl 1938f: 43, 1979c: 209.
- ruandae** (Schedl) 1962r: 104 (*Erioschidias*). Holotype, sex?; Ruanda; Ihembe; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ruanda in Zaire).
References: (tx) Schedl 1962k: 1067, 1962r: 104, 1979c: 213.
- sericeus** (Schedl) 1942d: 10 (*Erioschidias*). Lectotype ♂; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 225.
Distribution: Indonesia (Java).
References: (hb) Kalshoven 1955b: 166. (tx) Schedl 1942d: 10, 1958k: 153, 1979c: 225.
kalshoveni Schedl 1954a: 149 (*Ptilopodius*). Lectotype ♀; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131. Synonymy: Schedl 1958k: 153.
References: (ds) Schedl 1965g: 23. (tx) Schedl 1954a: 139, 149, 1958k: 153, 1979c: 131.
- setistriatus** (Lea) 1910: 141 (*Cryphalus*). Syntypes, sex?; W. Australia; Rottmest Island; SAM, Adelaide? Distribution: Australia (Western Australia).
Notes: (1) Schedl 1938f: 42 (to *Erioschidias*, =*Cosmoderes*, redescribed).
References: (ds) Brimblecombe 1953: 18. (tx) Lea 1910: 141; Schedl 1936g: 528, 1938f: 42, 1959a: 474.
- solitarius** (Schedl) 1957d: 46 (*Erioschidias*). Holotype, sex?; Congo Belge; Yangambi; MRCB, Tervuren.
Figures: Schedl 1961k: 445–446.
- Distribution: Africa (Zaire).
Hosts: *Dialium corbisieri*.
References: (hb) Schedl 1961k: 445. (ds) Schedl 1961k: 445. (tx) Schedl 1957d: 46, 1961k: 445–446, 1979c: 232.

Genus *Cryptocarenum* Eggers

CRYPTOCARENUS EGGERS 1937a: 79. Type-species: *Cryptocarenum diadematus* Eggers, original designation.

Tachyderes Blackman 1943b: 35. Type-species: *Tachyderes floridensis* Blackman = *Cryptocarenum scriatus* Eggers, original designation. Synonymy: Schedl 1951m: 72.

References: (tx) Blackman 1943b: 35; Schedl 1951m: 72, 1962p: 205; Wood, S. L. 1954a: 1011.

Keys: Wood 1982b: 912 for North and Central America.

References: (ay) Nobuchi 1969a: 57. (bv) Schedl 1960f: 11. (hb) Wood, S. L. 1982b: 911, 1986a: 91. (ds) Schedl 1962k: 23; Wood, S. L. 1982b: 911, 1986a: 91. (tx) Arnett 1960: 1043, 1968: 1043; Bright 1972d: 62; Eggers 1933b: 10, 1937a: 79–80; Schedl 1939a: 343, 1939h: 46–47, 1951m: 72, 1958f: 33–46, 1960f: 11, 34, 1962j: 23, 1962p: 205, 1965e: 349–379; Wood, S. L. 1954a: 981, 1011, 1982b: 911, 1986a: 91.

acaciae Schedl 1958f: 45. Syntypes, sex?; Argentinien: Buenos Aires, Tigre; Schedl Collection in NHMW, Wien, and Viana Collection.

Distribution: South America (Argentina).

Hosts: *Acacia nigra*.

Notes: (1) Schedl 1979c: 9 (citation on holotype invalid).

References: (hb) Viana 1964: 125. (ds) Numberg 1972b: 193; Viana 1964: 125. (tx) Schedl 1951m: 96, 1958f: 45, 1979c: 9.

brasilienis (Schedl) 1951m: 96 (*Miocryphalus*). Holotype, sex?; Brasilien, Bahia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1951m: 96, 1979c: 45.

brericollis Eggers 1937a: 81. Holotype ♀; Bolivien (Cochabamba); Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia/ Brazil/ Venezuela).

Hosts: *Nectandra* sp.

References: (ds) Blackwelder 1947: 781. (tx) Eggers 1937a: 81; Schedl 1939h: 47, 1979c: 46; Wood, S. L. 1976a: 347.

coronatus Wood 1971d: 36. Holotype ♀; 20 km SW El Vigia, Merida, Venezuela; Wood Collection. Synonymy: Wood 1976a: 347.

References: (hb) Wood, S. L. 1971d: 36. (ds) Beaver 1974a. (tx) Wood, S. L. 1971: 36, 1976a: 347.

- diadematus** Eggers 1937a: 80. Holotype ♀; Brasilien (Corumba, Matto Grosso); USNM, Washington.
Distribution: Antilles Islands (Jamaica), North America (Costa Rica/Oaxaca in Mexico/Panama), South America (Brazil/Colombia/Venezuela).
Hosts: *Persca americana*, *Saraca indica*, *Serjania* sp.
References: (ds) Beaver 1974; Blackwelder 1947: 781; Pedrosa-Macedo & Schonherr 1985: 49; Schedl 1970e: 82; Wood, S. L. 1982b: 912. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1937a: 80; Pedrosa-Macedo & Schonherr 1985: 49; Schedl 1939h: 47, 1979c: 79; Wood, S. L. 1954a: 1012, 1982b: 912.
- harringtoni** (Blackman) 1943b: 38 (*Tachyderes*). Holotype ♀; Yaguajay, Bolivia; USNM, Washington.
Distribution: South America (Bolivia).
References: (ds) Nunberg 1955a: 480. (tx) Blackman 1943b: 38; Nunberg 1955a: 480; Schedl 1962p: 205.
- heeracae** (Hagedorn) 1912a: 335 (*Stephanoderes*). Lectotype ♀; Eala, Congo; MRCB, Tervuren, designated by Wood 1982b: 914.
Figures: Schedl 1962j: 24–25.
Distribution: Africa (Ghana/ Zaire), Antilles Islands (Cuba/ Guadeloupe/ Jamaica/ Virgin Islands), North America (Costa Rica/ Colima, Veracruz in Mexico/ Panama/ Florida in USA), South America (Brazil/ Colombia/ Venezuela).
Hosts: *Canavalia villosa*, *Vitis* sp.
References: (ay) Van Ryn-Tourmel 1975. (bv) Schedl 1960f: 71. (cn) Aulmann 1912: 55; Chesquiere 1933a: 33–36, 1933b: 783; Green 1916: 608–636; Mayne & Donis 1951: 334; Schmitz & Crisinel 1957: 12. (cc) Equihua & Atkinson 1986: 630; Mayne & Donis 1951: 334. (hb) Beaver 1974a; Browne 1963a: 235; Equihua & Atkinson 1986: 630; Kalshoven 1963; Schedl 1962k: 24; Schmitz & Crisinel 1957: 12. (ds) Atkinson & Equihua 1985c: 358; Beaver 1974a; Bright 1972d: 62, 1985c: 174; Browne 1963a: 235; Equihua & Atkinson 1986: 630; Estrada & Atkinson 1988: 209; Chesquiere 1933c; Kalshoven 1963; Kleine 1913b: 121, 1914b: 314; Mayne 1915: 577–596; Pedrosa-Macedo & Schonherr 1985: 50; Schedl 1960f: 34–94, 1962k: 24, 1964j: 41, 1967e: 214, 1970e: 82; Wichmann 1954: 525; Wood, S. L. 1957c: 396, 1977a: 69, 1982b: 914. (tx) Bright 1972d: 62, 1985c: 174; Eggers 1924: 110, 1927a: 197, 1932c: 23, 1937a: 80, 1940h: 61; Hagedorn 1912a: 338, 1913a: 18; Pedrosa-Macedo & Schonherr 1985: 50; Schedl 1938a: 173, 1938i: 26, 1939h: 47, 1962j: 24–25; Wood, S. L. 1954a: 1014, 1957c: 396, 1962: 78, 1975b: 393, 1982b: 914.
- caraiubicus** Eggers 1937a: 82. Holotype ♀; Guadeloupe; USNM, Washington. Synonymy: Wood 1975b: 393.
References: (ds) Blackwelder 1947: 781. (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1937a: 82; Schedl 1938a: 162, 183, 1939h: 47, 1979c: 53; Wood, S. L. 1975f: 392.
- parvus** Blackman 1943b: 36 (*Tachyderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1962: 78.
References: (tx) Blackman 1943b: 36; Schedl 1962p: 205; Wood, S. L. 1962: 78.
- porosus** Wood 1954a: 1014. Holotype ♀; Royal Palm Hammock State Park, Florida [USA]; SMUK, Lawrence. Synonymy: Wood 1957c: 396.
References: (hb) Wood, S. L. 1953: 106, 1954a: 1014. (tx) Wood, S. L. 1953: 106, 1954a: 1014, 1957c: 396, 1962k: 24.
- laevigatus** (Blandford) 1904: 230 (*Hypothenemus*). Lectotype ♀; Los Remedios, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 914.
Distribution: North America (Nicaragua/ Panama).
References: (ds) Hagedorn 1910d: 44; Kleine 1913b: 121, 1914b: 361; Wood, S. L. 1982b: 914. (tx) Blandford 1904: 229–230; Browne 1970: 557; Hagedorn 1910a: 87, 1912a: 338–339; Wood, S. L. 1982b: 914.
- lepidus** Wood 1971: 36. Holotype ♀; Beverley, Limon Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Guatemala/ Oaxaca in Mexico/ Panama), South America (Brazil/ Colombia).
Hosts: *Canavalia villosa*, *Coffea robusta*, *Protium* sp., *Serjania* sp., *Xeipomia* sp.
Notes: (3) Wood 1982b: 913 (redescribed).
References: (ds) Atkinson & Equihua 1985c: 358, 1988: 88; Beaver 1974a; Wood, S. L. 1971: 36–37, 1982b: 913.
- pilosus** Eggers 1937a: 81. Holotype, sex?: Bolivien (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia/ Brazil).
Hosts: *Protium* sp.
References: (hb) Beaver 1974a. (ds) Beaver 1974a; Blackwelder 1947: 781. (tx) Anderson, W. H. & Anderson 1971: 25; Eggers 1937a: 81; Schedl 1939d: 410, 1939h: 47.
- pubescens** Wood 1986c: 271. Holotype ♀; 69 km N Manaus, Brazil; Wood Collection.
Distribution: South America (Brazil).
References: (tx) Wood, S. L. 1986c: 271.
- punctifrons** Schedl 1939d: 410. Syntypes, sex?: Isla Martin Garcia, Argentina; Schedl Collection in NHMW, Wien, and Viana Collection.
Distribution: South America (Argentina).
Notes: (3) Schedl 1979c: 205 (citation of holotype invalid).
References: (hb) Viana 1964: 125. (ds) Blackwelder 1947: 781; Viana 1964: 125. (tx) Schedl 1939d: 410, 1979c: 205.
- pygmaeus** Schedl 1965e: 370. Holotype, sex?: Congo ex belge, Yangambi; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Hosts: *Caloncobia welwitschii*.

Notes: (1) The holotype of this species does not belong to this genus; it may be a *Miocryphalus*.

References: (tx) Schedl 1965e: 370, 1979c: 207.

seriatus Eggers 1933b: 10. Holotype ♀; French Guayana (Nonveau Chantier); MNIN, Paris.

Figures: Atkinson & Aquihua 1988: 91, Bright 1972d: 59, Pedrosa-Macedo & Schonherr 1985: 51. Distribution: Antilles Islands (Cuba/ Haiti/ Jamaica/ Virgin Islands), North America (Costa Rica/ Honduras/ Colima, Nayarit, Oaxaca, Sinaloa in Mexico/ Florida, S Texas in USA), South America (Bolivia/ Brazil/ Cayenne/ Venezuela).

Hosts: *Araucaria angustifolia*, *Cauavalia villosa*, *Chenopodium ambrosioides*, *Conocarpus erecta*, *Dipholis salicifolia*, *Indica aurca*, *Ipomoea pres-caprae*, *Mangifera indica*, *Metopium toxiferum*, *Persea borbonca*, *Pithecellobium guadeloupense*, *Rhacoma crossopetalum*.

References: (bv) Atkinson, Foltz, & Connor 1988. (ec) Equihua & Atkinson 1986: 630. (hb) Atkinson, Foltz, & Connor 1988; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 630; Wood, S. L. 1953: 104. (ds) Atkinson & Equihua 1985c: 358, 1988: 88; Beaver 1974a; Blackwelder 1947: 781; Bright 1972d: 63, 1985c: 174; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1987a: 66; Estrada & Atkinson 1988: 209; Numberg 1958a: 480, 1972b: 193; Pedrosa-Macedo & Schonherr 1985: 51; Schedl 1960a: 78, 1972g: 39; Schonherr & Pedrosa-Macedo 1981: 52; Wood, S. L. 1977a: 69, 1982b: 913. (tx) Atkinson & Equihua 1988: 91; Bright 1972d: 59, 63, 1985c: 174; Eggers 1933b: 10; Numberg 1958a: 480; Pedrosa-Macedo & Schonherr 1985: 51; Schedl 1939h: 47, 1957a: 194, 1962p: 205, 1979c: 225; Wood, S. L. 1953: 104, 1972e: 193–194, 1975a: 21, 1982b: 913.

adustus Eggers 1933b: 11. Holotype ♀; St. Jean du Maroni, French Guayana; MNHN, Paris. Synonymy: Wood 1972e: 194.

References: (ds) Blackwelder 1947: 781. (tx) Eggers 1933b: 11; Wood, S. L. 1972e: 194.

floridensis Blackman 1943b: 36 (*Tachyderes*). Holotype ♀; Paradise Key, Florida [USA]. Synonymy: Schedl 1962p: 205.

References: (hb) Wood, S. L. 1954a: 1012. (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1943b: 36; Schedl 1962p: 205; Wood, S. L. 1954a: 959, 979, 1012.

bolivianus Eggers 1943a: 356. Holotype ♀; Cochabamba, Bolivia; USNM, Washington. Synonymy: Wood 1975a: 21.

References: (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1943a: 356; Schedl 1958f: 46, 1979c: 43; Wood, S. L. 1975a: 21.

Distribution: North America (Oaxaca in Mexico).

Hosts: *Struthanthus* sp.

References: (tx) Wood, S. L. 1986c: 272.

Genus *Hypothenemus* Westwood

HYPOTHENEMUS WESTWOOD 1836: 34. Type-species: *Hypothenemus cruditus* Westwood, monobasic.

Stephanoderes Eichhoff 1872a: 132. Type-species: *Stephanoderes chapuisi* Eichhoff = *Crypturgus dissimilis* Zimmermann, subsequent designation by Hopkins 1914: 130. Synonymy: Browne 1963: 53.

References: (ay) Van Ryn-Tournel 1975. (bv) Schedl 1960f: 11. (cn) Albuquerque Leao 1941: 319–328; Blackman 1950: 306, 327; Browne 1968: 660; Coleman 1931: 1–26; Dorsey & Leach 1956: 224; Hargreaves 1936: 8–11; Lefevre 1944: 191–200; Luigioni 1929: 997; Mertens 1920: 243–251; Myers 1947: 7; Roque 1946: 30–31; Tucker 1911: 27; Ultee 1925: 1–52; Wolcott 1921: 11. (hb) Browne 1961c: 71–76; Ghesquiere 1933a: 25, 1933b: 774–778; Nusslin 1912: 82; Schedl 1961k: 546, 1977a: 61. (ds) Blackwelder 1947: 777; Browne 1961c: 71; Costa Lima 1956: 292–293; Hagedorn 1910d: 40; Heyden, Reitter, & Weise 1906; Leng 1920; Schedl 1961k: 546, 1977a: 61; Swaine 1909: 116. (tx) Arnett 1960: 1043, 1968: 1043; Balachowsky 1949a: 201; Beal & Massey 1945: 48, 51, 115–117; Beeson 1938: 290; Blackman 1922a: 79, 89; Blandford 1894b: 262, 1894d: 83–85, 1904: 226; Blatchley & Leng 1916: 593, 599; Browne 1963c: 53; Chamberlin 1939: 303; Costa Lima 1928: 117; Dodge 1938: 18; Duffy 1953: 6, 14; Eggers 1940a: 123–141, 1940b: 99–108; Eichhoff 1872a: 132, 1878a: 387, 1878b: 44–46, 142, 475, 496, 1881a: 46, 190, 1883: 110, 134, 1896: 608; Hagedorn 1910a: 84, 1912: 33–43, 1913b: 3; Hopkins 1914: 130, 135, 1915b: 1–75, 1915c: 171–226; Numberg 1960: 287–308; Peyerimhoff 1935: 193–195; Reitter 1894: 73, 1906: 711, 1913a: 5, 71; Roepke 1919: 8; Sampson 1914: 379; Schedl 1934d: 84, 1939a: 342, 1939i: 381, 1941d: 379–424, 1957d: 1–162, 1958f: 33–46, 1959q: 705–710, 1961k: 546, 1962r: 89, 1963: 215–216, 1965f: 3–15, 1977a: 61, 1977b: 61; Stark 1952: 280; Swaine 1918a: 16, 18, 35, 45; Wood, S. L. 1954a: 1011, 1015, 1960a: 35.

Homocoryphalus Lindemann 1876: 168. Type-species: *Stephanoderes ehlersii* Eichhoff = *Hypothenemus cruditus* Westwood, monobasic. Synonymy: Fauvel 1884: 315.

References: (tx) Blandford 1904: 226; Fauvel 1884: 315, 390; Lindemann 1876: 168; Swaine 1909: 116.

spatulatus Wood 1986c: 272. Holotype ♀; Sta. Maria Chimalpa, Oaxaca, Mexico; Wood Collection.

- Adiacretus* Hagedorn 1909a: 744. Type-species: *Adiacretus spinosus* Hagedorn = *Stephanoderes elaphus* Eichhoff, monobasic. Synonymy: Schedl 1939: 380. References: (tx) Hagedorn 1909a: 744; Schedl 1939i: 380, 1961k: 467; Wood, S. L. 1954a: 1050.
- Stylotentus* Schedl 1939i: 380. *Hypothenemus concolor* Hagedorn, subsequent designation by Schedl 1961k: 448. Synonymy: Wood 1983: 648. References: (tx) Numberg 1956: 141; Schedl 1939i: 280, 1953c: 294, 1957d: 10, 1961k: 448, 1962r: 89–90, 1977b: 37.
- Triarmocerus* Eichhoff 1878b: 42, 119. Type-species: *Triarmocerus cryphaloides* Eichhoff, monobasic. Synonymy: Synonymy is based on Eichhoff's placement of *birmanus* in *Triarmocerus* and on a specimen in the Schedl Collection of *cryphaloides* presumably compared with the type. References: (tx) Eichhoff 1878b: 42, 119; Hagedorn 1910a: 46; Numberg 1956: 141; Schedl 1962r: 89.
- Chondronoderes* Schedl 1940d: 589. Type-species: *Stephanoderes magnus* Eggers, monobasic. Synonymy: Wood 1984b: 226. References: (tx) Schedl 1940d: 589, 1961k: 545; Wood, S. L. 1984b: 226.
- Archeophalus* Schedl 1941d: 392. Type-species: *Archeophalus natalensis* Schedl, monobasic. Synonymy: Wood 1984b: 226. References: (tx) Schedl 1941d: 392, 1961k: 443; Wood, S. L. 1984b: 226.
- Pachynoderes* Schedl 1941d: 393. Type-species: *Pachynoderes deprecator* Schedl, monobasic. Synonymy: Wood 1984b: 226. References: (tx) Schedl 1941d: 393, 1961k: 632; Wood, S. L. 1984b: 226.
- Lepicerooides* Schedl 1957d: 59. Type-species: *Lepicerooides aterrinus* Schedl, monobasic. Synonymy: Wood 1984b: 226. References: (tx) Schedl 1957d: 59, 1961k: 635; Wood, S. L. 1984b: 226.
- Ernophloeus* Numberg 1958a: 484. Type-species: *Ernophloeus costalinai* Numberg = *Stephanoderes fuscicollis* Eichhoff, original designation. Synonymy: Wood 1986c: 266. References: (tx) Numberg 1958a: 484; Schedl 1960i: 104; Wood, S. L. 1986c: 226.
- Epsips* Beeson 1941 (1961: 287). Type-species: *Epsips sylvitarum*, nomen nudum. Beeson's series was examined by SLW, but the name was never validated and is not needed. References: (tx) Beeson 1941 (1961: 287).
- Macrocryphalus* Nobuchi 1981c: 14. Type-species: *Macrocryphalus oblongus* Nobuchi, probable synonym of *Stephanoderes fuscicollis* Eichhoff. Synonymy: Wood 1992b: 81. References: (tx) Nobuchi 1981c: 14; Wood, S. L. 1992b: 81.
- Keys: Wood 1954a: 1017, 1052, 1982b: 876, Blandford 1904: 227 for North America. References: (ay) Nobuchi 1969a: 58; Nusslin 1911, 1912; Van Ryn-Toumel 1975. (bv) Schedl 1960f: 11–12. (cn) Blackman 1950: 306, 326–327; Goncalves 1935: 414–420; Mayne 1917: 1–80; Tulashvili 1930: 189–230. (hb) Beaver 1987a: 18; Bright & Stark 1973: 68; Browne 1963a: 233; Chesquiere 1933a: 25, 1933b: 774–775; Lengerken 1939: 63; Schedl 1958d: 189, 1961k: 467, 1977a: 37; Smith 1890: 54–55; White, R. E. 1983: 33; Wood, S. L. 1986a: 91. (ds) Beaver 1987a: 18; Bright & Stark 1973: 68; Britten 1920: 95–96; Hagedorn 1910d: 40; Schedl 1934f: 1640, 1961k: 467, 1966b: 24, 1977a: 37; Scheerpeltz & Winkler 1930: 257; Swaine 1909: 116; Wachtl 1876: 453; Wood, S. L. 1982b: 875, 1986a: 91. (tx) Arnett 1960: 1043, 1968: 1043; Balachowsky 1949a: 200; Beal & Massey 1945: 60, 117; Beeson 1935: 288, 1941: 374; Blackman 1922b: 76, 82; Blandford 1894b: 260–264, 1894d: 83–86, 1895b: 81–83, 1897a: 183, 1898b: 185, 225, 1904: 226–232, 249; Blatchley & Leng 1916: 592–596; Bright 1972: 48–49; Bright & Stark 1973: 68; Browne 1961: 76–79, 1963: 53–58, 1968: 60; Chamberlin 1939: 12, 37, 102–106, 275, 288, 303; Choo 1983: 65; Choo, Woo, & Nobuchi 1985b; Costa Lima 1928: 118–120; Dodge 1938: 18; Eggers 1934: 27, 1943c: 68; Eichhoff 1864: 34, 45, 56, 1868d: 421, 1896: 608; Erichson 1836: 61; Fauvel 1884: 315; Ferrari 1867a: 4, 7, 1867b: 113; Cozman 1885: 278; Hagedorn 1910a: 84, 86, 138; Hopkins 1914: 116, 123, 133, 1915b: 7, 12–15, 1915c: 117–121; Jacquelin du Val & Fairmaire 1868: 105; Kurenzov 1941: 70; Luigioni 1929: 997; LeConte 1876: 355; LeConte & Horn 1883: 517; Peyerimhoff 1935: 193–196; Reitter 1894: 73–75, 1906: 711, 1913a: 65, 71–74; Sampson 1914: 379; Schedl 1939i: 380, 1940c: 203–208, 1952g: 50, 1957d: 79, 1958f: 33–46, 1961k: 467, 1962r: 88, 1963b: 265, 1963i: 62, 1964k: 215–216, 1977a: 37, 1977b: 48; Sharp 1879: 101–102; Stark 1952: 13–27, 78, 153, 290; Westwood 1836: 34; Wood, S. L. 1954a: 981, 1067, 1960a: 40, 1961: 45, 1982b: 875–911, 1986: 91–93, 1986a: 91.
- aberrans** Browne 1973a: 287. Holotype ♀; Zaire: Lovanium (Kinshasa); MRCB, Tervuren. Distribution: Africa (Zaire). References: (hb) Van Ryn-Toumel 1975. (tx) Browne 1973a: 287.
- abruptus** (Schedl) 1961e: 135 (*Stephanoderes*). Holotype, sex?; Madagascar. Betsatsakry pres Perinet; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Ravensara* sp. References: (hb) Schedl 1977a: 62. (ds) Schedl 1977a: 62. (tx) Schedl 1961e: 135, 1977a: 62, 1979c: 9.

- acaciae (Eggers)** 1920: 120 (*Cryphalus*). Lectotype ♀; Cheren, Abessinien; USNM, Washington, designated by Anderson & Anderson 1971: 3.
Distribution: Africa (Ethiopia).
Hosts: *Acacia catechu*.
References: (hb) Schedl 1961k: 54S. (ds) Schedl 1961k: 54S, 1982b: 27S. (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1920: 120, 1927: 17S, 1935c: 304, 1936c: 35; Schedl 1961k: 54S, 1979c: 9.
- adscitus (Schedl)** 1950f: 46 (*Stephanoderes*). Holotype, sex?; Fiji Islands; Eggers Collection, in NHMW, Wien.
Distribution: Fiji Islands.
Hosts: *Acalypha* sp.
References: (ds) Browne 1974a: 64. (tx) Schedl 1950f: 37, 46, 1979c: 12.
- aethiops (Schedl)** 1965g: 26 (*Lepicicroides*). Holotype, sex?; Congo ex belge, Yangambi; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Dichopetalum thomleri*.
References: (tx) Schedl 1965g: 26, 1979c: 13.
- africanus (Hopkins)** 1915b: 30 (*Stephanoderes*). Holotype ♀; Capetown, South Africa; USNM, Washington.
Distribution: Africa (South Africa), Antilles Islands (Bahama Islands/ Dominican Republic in Hispaniola/ Jamaica/ Puerto Rico/ Virgin Islands), Asia (Malaya), Indonesia (Java), North America (Belize/ Costa Rica/ Honduras/ Alabama, Louisiana in USA), South America (Brazil/ Venezuela).
Hosts: Fruiting pods and twigs of trees, *Pyrus malus*.
Notes: (3) Wood 1967b: 7S (a possible synonym of *setosus*).
References: (hb) Wood, S. L. 1982b: 90S. (ds) Bright 1973: 18, 1985c: 174; Schedl 1961k: 54S; Wood, S. L. 1977a: 70, 1982b: 90S. (tx) Bright 1985c: 174; Hopkins 1915b: 23, 30; Schedl 1961k: 54S; Wood, S. L. 1967b: 7S, 1982b: 90S.
- agnatus (Eggers)** 1924: 103 (*Stephanoderes*). Lectotype ♂; Elisabethville (Congo); USNM, Washington, designated by Anderson & Anderson 1971: 3.
Distribution: Africa (Equatorial Guinea/ Fernando Po/ Namibia/ South Africa/ Tanzania/ Uganda/ Zaire/ Zambia), Madagascar.
Notes: (1) Schedl 1979c: 15 (designation of lectotype invalid).
References: (ds) Schedl 1961k: 549, 1977a: 62, 1982: 27S. (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1924: 103, 1927a: 197, 1940b: 102, 1940c: 235–236; Schedl 1939g: 170, 1939i: 35S, 1961k: 54S–549, 1962h: 67, 1977a: 62, 1979c: 15.
- alternatus (Eggers)** 1943e: 73 (*Stephanoderes*). Holotype, sex?; Zambeze (Environ de Sone, M. Soussou); MNHN, Paris.
Distribution: Africa (Mozambique).
References: (tx) Eggers 1943e: 73; Schedl 1961k: 549, 1979c: 17.
- amakusanus (Murayama)** 1934c: 2S7 (*Stephanoderes*). Holotype ♀; Kadoyama in Amakusa Is., Kinnamoto Pref., Kiusiu; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Daphniphyllum glaucescens*.
References: (cn) Anonymous 1980g. (ds) Anonymous 1980g; Murayama 1953c: 150, 1954b: 199; Nobuchi 1955c: 15. (tx) Murayama 1934a: 4, 1934c: 2S7–2S8, 1954b: 199.
- apicalis Wood** 1974a: 19. Holotype ♀; 3 km E Armeria, Colima, Mexico; Wood Collection.
Distribution: North America (Colima, Oaxaca in Mexico).
Hosts: Liana, shrub.
References: (ds) Wood, S. L. 1982b: 8S3. (tx) Wood, S. L. 1974a: 19, 1982b: 8S3.
- arecae (Hornung)** 1842: 117 (*Bostrichus*). Lectotype ♀; Ostindien nuts intercepted in Germany; MNB, Berlin, designated by Wood 1974d: 2S2.
Figures: Maiti & Saha 1986: 160 (adult, antenna).
Distribution: Africa (Cameroon/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Liberia/ Nigeria/ Sierra Leone/ Uganda/ Zaire), Antilles Islands (Bahama Islands/ Martinique/ Puerto Rico/ Virgin Islands), Asia (Bangladesh/ Burma/ Andaman Islands, Assam, Bengal, Maharashtra, Punjab, Tamil Nadu, Uttar Pradesh in India/ Sri Lanka/ Thailand), Europe (intercepted in Austria, Germany), Hawaiian Islands, Indonesia (Sumatra), Marquesas Islands, Micronesia (Caroline Islands, Mariana Islands, Marshall Islands), New Caledonia, Nine Island, North America (S Florida in USA), Philippine Islands, South America (Brazil).
Hosts: Numerous species of herbs, shrubs, and trees (Browne 1961c: 77–78); Schedl records are confused with those of *cruditus*. *Bosqueria angolensis*.
Notes: (3) Schedl 1957d: 12 (*maymbensis* Eggers, nomen nudum, synonymy).
References: (cn) Grandi 1951; Kalshoven 1932: 242; Kleine 1932a: 29S; Mathur & Singh 1960a: 16; Mathur, Singh, & Lal 1955: 32; Schmitz & Crisinel 1957: 10; Sivaram 1980: 5S; Smith, J. B. 1900: 362. (cc) Felt 1906: 702; Wichmann 1955a: 96, 9S. (hb) Blandford 1894b; Browne 1961c: 77–78; Felt 1906: 702; Grandi 1951; Kleine 1932a: 29S; Lengerken 1939: 64, 1954: 84; Schmitz & Crisinel 1952: 10; Vayssiere 1923: 10S; Yum & Hua 1980: 22S. (ds) Atkinson & Equilma 1985c: 357; Beaver 1987b: 64, 1990a: 280; Beeson 1935a: 103, 1935b, 1938b: 2S8, 1961: 2S8; Blandford 1894b; Borchert 1951; Browne 1961c: 78, 1980b: 380; Estrada & Atkinson 198S: 209; Gemminger & Harold 1872: 26S2; Hagedorn 1910d: 40, 1913b: 45–46; Heyden, Reitter, & Weise 1906: 711; Horion 1951; Kalshoven 1932:

242, 1958: 170; Kleine 1913b: 121, 1914b: 269, 288, 300, 307, 1932a: 298, 1934a: 145; LePelley 1966: 113; Lepesme et al. 1948: 645; Maiti & Saha 1980: 159; Mathur & Singh 1960a: 16; Mathur, Singh, & Lal 1958: 32; Pittioni 1943: 176; Reitter 1894a: 75, 1916: 290; Roba 1935: 338; Schedl 1980a: 16; Scheerpeltz & Winkler 1930: 257; Schilsky 1909: 188; Smith, J. B. 1900: 362; Stein & Weise 1877: 164; Sturm 1843: 230; Swaine 1909: 118; Vayssiére 1923: 108; Wichmann 1927a: 79, 1955a: 96, 98; Wood, S. L. 1957e: 1273, 1960a: 41, 1977a: 70, 1982b: 906; Yimus & Hua 1980: 228. **(tx)** Beaver 1991: 92; Beeson 1935a, 1935b; Blandford 1894b: 229–230, 1904: 229; Eggers 1908: 1, 1922a: 86, 1925: 153, 1929e: 55, 1936d: 626; Eichhoff 1878b: 165–166, 1896: 608; Fauvel 1884b: 315, 390; Ferrari 1867a: 17; Hagedorn 1910a: 85; Hopkins 1915b: 14, 1915c: 222; Hornung 1842: 117; Maiti & Saha 1980: 159; Numberg 1956a: 144; Portevin 1935: 325; Reitter 1894a: 75, 1902a: 141, 1913a: 73, 1916: 290; Schedl 1934f: 1640, 1935j: 1, 1942a: 169–170, 1942d: 2, 1950d: 19, 1950g: 895, 1953c: 288, 1954a: 139, 1957d: 12, 1980a: 16; Swaine 1909: 118; Wood, S. L. 1960a: 41, 1974d: 282, 1982b: 906.

vafer Blandford 1896f: 241. Syntypes 4, sex?; Noumea, New Caledonia; BMNH, London. Synonymy: Wood 1974d: 282.

References: **(ds)** Beaver 1976b: 536; Beeson 1938b: 288, 1940; Hagedorn 1910d: 46; Kalshoven 1958: 170; Kleine 1913b: 124, 1914b: 301. **(tx)** Beaver 1976b: 536; Beeson 1938b: 290, 1940: 198; Blandford 1896f: 241; Hagedorn 1910a: 88; Hopkins 1915b: 23; Schedl 1939f: 35; Wood, S. L. 1972f: 51, 1974d: 282.

fungicola Eggers 1908c: 216 (*Stephanoderes*). Holotype ♀; Java; Fiori Collection, Bologna. Synonymy: Eggers 1929e: 52, 55.

References: **(cn)** Kalshoven 1932: 242. **(ds)** Hagedorn 1910d: 43; Kalshoven 1932: 242; Kleine 1913b: 121. **(tx)** Eggers 1908c: 216, 1922a: 86, 1924: 153, 1929e: 55; Hagedorn 1910a: 86; Hopkins 1915b: 14.

polyphagus Eggers 1924: 104 (*Stephanoderes*). Syntypes, sex?; Congostaat: Mayumba and Barumba; MRCB, Tervuren, and 4 in Eggers Collection, in NHMW, Wien. Synonymy: Wood 1972f: 52.

Notes: (3) Schedl 1950: 15 (*mayumbensis* Eggers, nomen nudum).

References: **(cn)** Azavedo 1924a; Ghesquiere 1933a: 32–36, 1933b: 782–786; Magnin 1954: 468; Mayne & Donis 1951: 333; Schmitz & Crisinel 1957: 12. **(cc)** Mayne & Donis 1951: 33, 334; Schedl 1958d: 192. **(hb)** Schmitz & Crisinel 1957: 12. **(ds)** Hargreaves 1937: 509. **(tx)** Eggers 1924: 104; Numberg 1960a: 291, 1961b: 609; Schedl 1950c: 204, 1950d: 7, 15, 25, 1952g: 51, 1954e: 50, 70, 1957d: 12, 54,

1959q: 707, 1961k: 610, 1962k: 1070, 1965g: 20, 1979c: 119; Wood, S. L. 1957e: 1273, 1972f: 51.

hispidus Eggers 1925: 156 (*Stephanoderes*). Lectotype, sex?; Birma and India orient, both probably from Tenasserim; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 119.

References: **(bv)** Schedl 1960f: 30. **(hb)** Browne 1961c: 78. **(ds)** Bredo 1934: 18; Browne 1961c: 78–79; Ghesquiere 1933a: 26–36, 1933b: 775–782; Hagedorn 1910d: 43; Lepesme 1948: 145; Schedl 1951c: 69, 1959a: 479, 1960f: 30, 1961j: 504, 1962i: 74, 1964c: 305, 1966b: 25. **(tx)** Eggers 1925: 156; Hagedorn 1910a: 86; Nobuchi 1983: 300; Schedl 1950c: 204, 1950d: 3, 17, 1950f: 36, 1953c: 288, 1954d: 871, 1954e: 50, 62, 1959a: 478–479, 1961k: 504, 1979c: 119; Wood, S. L. 1960a: 41–42.

heterolepsis Costa Lima 1928: 117. Syntypes, sex?; Bahia, Brasil; Colleeao Entomologica do Instituto, Brazil. Synonymy: Wood 1972f: 52.

References: **(cn)** Costa Lima 1956. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947; Costa Lima 1936, 1956; Kleine 1934a: 145; Schedl 1967d: 2, 1973d: 155. **(tx)** Costa Lima 1928: 117, 1956; Schedl 1948d: 35, 1951m: 71–73, 1952k: 159–160; Wood, S. L. 1972f: 52.

capitalis Beeson 1935: 102. Lectotype ♀; Hakehetua Valley 1000 feet, Uahuka; Vaipall Valley 800 feet, Marquesas Islands; BPBM, Honolulu. Synonymy: Wood 1982b: 906.

References: **(tx)** Beeson 1935: 102–103, 1938b: 289, 1940: 193; Wood, S. L. 1960a: 42, 1982b: 906.

cupolyphagus Beeson 1940: 193. Holotype ♀; Dehra Dun, United Provinces, India; FRI, Dehra Dun. Synonymy: Wood 1960a: 41.

References: **(cn)** Mathur & Singh 1960b: 86, 1961a: 13, 1961b: 13; Roonwal 1954: 37. **(ds)** Beeson 1938b: 298, 1961: 288; Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1960b: 86, 1961a: 13, 1961b: 13; Roonwal 1954: 37. **(tx)** Beeson 1940: 193–195; Wood, S. L. 1960a: 41–42.

subvestitus Eggers 1940c: 232 (*Stephanoderes*). Holotype ♀; Mosolo Kwenge, Kwango, Congo; MRCB, Tervuren. Synonymy: Wood 1972f: 52.

References: **(cn)** Alvarado 1939b; Ghesquiere 1933a; Schmitz & Crisinel 1957: 12. **(cc)** Bredo 1934: 3–20, 1939: 266–307. **(hb)** Alvarado 1939b; Schmitz & Crisinel 1957: 12. **(ds)** Ghesquiere 1933a; Lepesme 1948: 145; Mayne & Donis 1962: 308; Roba 1935: 340; Thompson, G. H. 1963: 47. **(tx)** Eggers 1940c: 232; Lepesme 1948: 145; Schedl 1950c: 204, 1950d: 3, 17, 1954d: 871, 1954e: 49–50, 1959a: 478, 1961k: 504; Wood, S. L. 1972f: 51.

- baubesaui* Eggers 1940c: 232 (*Stephanoderes*). Holotype ♀; Congostaat; Bambesa; MRCB, Tervuren. 1 Eggers cotype in NHMW, Wien. Synonymy: Wood 1989: 173. References: (tx) Eggers 1940c: 232; Schedl 1950d: 3, 1961k: 469, 1979c: 33; Wood, S. L. 1989: 173.
- martiniquensis* Eggers 1941a: 99 (*Stephanoderes*). Holotype ♀; St. Pierre, Martinique; USNM, Washington. Synonymy: Wood 1972f: 52. References: (ds) Bright 1985c: 175. (tx) Anderson, W. H. & Anderson 1971: 19; Bright 1985c: 175; Eggers 1941a: 99; Schedl 1951m: 72, 1979c: 149; Wood, S. L. 1972f: 51.
- oahuensis* Schedl 1941f: 110. Syntypes ♀; Punahele, Oahu, Hawaiian Islands; BPBM, Honolulu. Synonymy: Wood 1960a: 41–42. References: (ds) Swezey 1941: 118. (tx) Schedl 1941f: 110, 1951k: 134, 1979c: 36; Wood, S. L. 1960a: 41–42.
- subglabratus* Schedl 1942c: 174. Holotype, sex?; Fiji; Schedl Collection in NHMW, Wien. Synonymy: Beaver 1991: 92. References: (ds) Browne 1974a: 64. (tx) Beaver 1991: 92; Schedl 1942c: 174, 1950f: 35, 1953c: 292, 1979c: 241.
- bauhaniae* Schedl 1950d: 19. Lectotype, sex?; Sierra Leone, Njala; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 36. Synonymy: Wood 1989: 173. References: (hb) Schedl 1961k: 470. (ds) Beaver & Loytyniemi 1955a: 79; Browne 1980b: 382; Schedl 1961k: 470, 1962h: 55, 1962k: 1065. (tx) Schedl 1950d: 19, 1952j: 2, 1957d: 10, 1961k: 470, 1979c: 36; Wood, S. L. 1989: 173.
- occidentalis* Schedl 1954e: 76 (*Stephanoderes*). Lectotype, sex?; Mpraeso [Ghana]; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 177. Synonymy: Wood 1989: 173. References: (hb) Thompson, G. H. 1963: 66. (ds) Schedl 1961k: 605; Thompson, G. H. 1963: 66. (tx) Browne 1965: 188; Schedl 1954e: 49, 76, 1961k: 605, 1979c: 177; Wood, S. L. 1989: 173.
- artocarpi* Browne in Beaver & Browne 1978: 588. Holotype ♀; Malaysia; Penang, Penang Hill, 1500 feet; BMNH, London. Figures: Beaver & Browne 1978: 576. Distribution: Asia (Malaya/Thailand). Hosts: *Artocarpus elastica*, *A. lauceifolius*, *A. rigidus*, *A. scortechinii*, *A. sticus*, *A.* sp., *Campnosperma* sp. References: (ce) Beaver 1979b: 298. (hb) Beaver 1979b: 298; Beaver & Browne 1978: 588. (ds) Beaver 1990a: 280. (tx) Beaver & Browne 1978: 576; Browne 1978: 588.
- arundinis* (Eichhoff) 1878b: 157 (*Stephanoderes*). Holotype, sex?; Italis (Pedemontina); IRSNB, Brussels. Distribution: Europe (Italy). References: (ce) Kleine 1908c: 187. (hb) Eichhoff 1881a: 47, 191. (ds) Hagedorn 1910d: 40–41; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Kleine 1913b: 121; Reitter 1894a: 73; Stein & Weise 1877: 164; Tredl 1907: 13. (tx) Eichhoff 1878a: 386, 1878b: 157, 1881a: 47, 185, 191, 1883a: 110, 134; Hagedorn 1910a: 85; Hopkins 1914b: 23, 1915b: 23; Reitter 1894a: 73, 1913a: 72; Schedl 1934f: 1640.
- ascitus* Wood 1971: 35. Holotype ♀; Puerto Viejo, Heredia Prov., Costa Rica; Wood Collection. Distribution: North America (Costa Rica/Panama). References: (hb) Wood, S. L. 1982b: 898. (ds) Wood, S. L. 1982b: 898. (tx) Wood, S. L. 1971: 35, 1982b: 898.
- ater* (Eggers) 1932c: 31 (*Stephanoderes*). Holotype, sex?; Congostaat (Arawimi; N' Gazi); MRCB, Tervuren. Figures: Numberg 1965b: 31. Distribution: Africa (Congo/ Fernando Po/ Gabon/ Ghana/ Ivory Coast/ Nigeria/ Sierra Leone/ Zaïre). Hosts: *Banhiinia tomentosa*, *Caloucoba welwitschii*, *Carapa procera*, *Chrysophyllum lacourtanum*, *Pascocia* spp., *Peucelethra macrophylla*, *Piptadenia africana*, *Theobroma cacao*. References: (cn) Ghesquiere 1933a: 31–36, 1933b: 782, 786; Gregory 1954. (ce) Schedl 1958d: 192. (hb) Roberts 1969: 129; Schedl 1961k: 448. (ds) Ghesquiere 1933a: 31–36, 1933b: 782, 786; Kleine 1934: 145; Mayne & Donis 1962: 313; Numberg 1965b: 31; Schedl 1961k: 448, 1971g: 192, 1972e: 280. (tx) Eggers 1927b, 1932c: 31–32; Numberg 1965b: 23, 31; Schedl 1939i: 380–381, 1950d: 20, 1961k: 448, 1962p: 204, 1965g: 23.
- aterrimus* Wood 1989: 178. Holotype, sex?; Ruanda; Ihembe; MRCB, Tervuren, automatic. Distribution: Africa (Ruanda in Zaïre). Hosts: *Microglossa volubilis*. References: (tx) Wood, S. L. 1989: 178, 1992b: 79.
- aterrimus* Schedl 1957d: 59 (*Lepiceroides*). Holotype, sex?; Ruanda; Ihembe; MRCB, Tervuren, preoccupied by Schedl 1951. References: (ce) Schedl 1958d: 192. (tx) Schedl 1951m: 104, 1957d: 59, 1961k: 636, 1979c: 30; Wood, S. L. 1989: 178, 1992b: 79.
- aterrimus* (Schedl) 1951m: 104 (*Stephanoderes*). Syntypes, sex?; Bolivien, Cochabamba; Schedl Collection in NHMW, Wien. Distribution: South America (Bolivia). Notes: (1) Schedl 1979c: 30 (citation of holotype invalid). References: (hb) Schedl 1961k: 636. (ds) Schedl 1961k: 636. (tx) Schedl 1951m: 104, 1957d: 59, 1961k: 636, 1979c: 30.

atratus (Schedl) 1964j: 45 (*Stephanoderes*). Holotype, sex?; Congo, Yangambi; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Hosts: *Theobroma cacao*.

References: (tx) Schedl 1964j: 45, 1979c: 30–31.

balachowskyi Menier 1973: 141. Holotype ♂; Madagascar Sud, 25 km a l'Est de Tulear sur la route de Tananarive; MNHN, Paris.

Distribution: Madagascar.

Hosts: *Euphorbia oucoclada*.

References: (tx) Menier 1973: 141.

baloghi (Schedl) 1967e: 226 (*Stephanoderes*). Holotype ♀; Kindamba, Meya, Loulo River, Congo; NHMB, Budapest.

Distribution: Africa (Zaire).

References: (tx) Schedl 1967e: 226–227, 1979c: 33.

bambusae Browne 1980: 775. Holotype, sex?; Zaire: Kilindera, 2750 m, face N. Ruwenzori; BMNH, London.

Distribution: Africa (Zaire).

Hosts: Bamboo.

References: (tx) Browne 1980: 775.

bauhaniae Schedl 1950d: 20 (*Stylotenus*). Lectotype, sex?; Sierra Leone, Njala; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 36.

Distribution: Africa (Ghana/ Ivory Coast/ Sierra Leone/ Zaire).

Hosts: *Bauhania tomentosa*, *Manihot utilissima*, *Saccharum spontaneum*.

References: (tx) Browne 1965: 188; Schedl 1950d: 19–20, 1952g: 51, 1952j: 2, 1957d: 10, 1961k: 451, 470, 1962k: 1068, 1979c: 36.

bezaziani Peyerimhoff 1935: 192. Syntypes 6, sex?; Perregaux (dep d'Oran), Algeria, Maison-Blanche pres Alger; MNHN, Paris.

Distribution: Africa (Algeria).

Hosts: *Epischlia* sp., *Juglans nigra*.

References: (ds) Peyerimhoff 1935: 192. (tx) Balachowsky 1949a: 205; Peyerimhoff 1935: 192–193.

bicinctus Schedl 1959a: 479. Syntypes ♀; Ceylon; Millawitiya Estate; Schedl Collection in NHMW, Wien.

Distribution: Sri Lanka.

Notes: (1) Schedl 1979c: 37 (citation of holotype invalid).

References: (ds) Schedl 1959a: 479. (tx) Schedl 1959a: 479, 1979c: 37.

bidens Browne 1973a: 285. Holotype ♀; Zaire: Lovanium (Kinshasa); MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Browne 1973a: 285.

birmanus (Eichhoff) 1878b: 486 (*Triarmocerus*). Holotype ♀; Birma; Dohrn Collection at Stettin Museum, now in Schedl Collection in NHMW, Wien.

Figures: Maiti & Saha 1986: 163 (adult).

Distribution: Antilles Islands (Cuba/ Jamaica),

Asia (Bangladesh/ Bonin Islands/ Burma/ Hong Kong in China/ Andaman Islands, Madhya Pradesh, Uttar Pradesh in India/ Japan/ Malaya/ Pakistan/ Sri Lanka/ Thailand/ Vietnam), Australia (Queensland), Cook Islands (Rarotonga), Fiji Islands, Indonesia (Sarawak in Borneo, Celebes, Java, Sumatra), Hawaiian Islands, Madagascar, Micronesia (Guam), New Caledonia, New Guinea, Nine Island, North America (Costa Rica/ Colima in Mexico/ Panama/ Florida in USA), Philippine Islands, Samoan Islands, Society Islands, South America (Galapagos Islands).

Hosts: *Acras sapota*, *Adenanthera pavonia*, *Annona* sp., *Ardesia paniculata*, *Cassia florida*, *Dalbergia gastrophylum*, *Eucalyptus trachyphloia*, *Eugenia buxifolia*, *Ficus aurca*, *Litchi chinensis*, *Mangifera indica*, *Melia azedarack*, *Ocotea catesbyana*, *Persea borbonica*, *Phelocarpus scptrionalis*, *Prunus domestica*, *Quercus* spp., *Rhizophora mangle*, *Swietenia macrophylla*, *Trema floridana*, *Vitis* sp.

Notes: (3) Schedl 1942b: 148 (holotype compared to specimen from Guam).

References: (bv) Gray, B. 1974c. (cn) Anonymous 1966j, 1967m, 1969g; Bigger 1982: 257; Browne 1968: 353; Low Chong Moi 1975. (cc) Equihua & Atkinson 1986: 630. (hb) Beaver 1976b: 534, 1987a: 18; Beaver & Browne 1978: 589; Beaver & Loytyniemi 1985a: 80; Browne 1961c: 71, 1968: 353; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 630; Gray, B. 1974c; Kalshoven 1958b: 168; Schedl 1977a: 65; Yunus & Hua 1980: 229. (ds) Anonymous 1966j, 1967m, 1969g, 1974j; Atkinson & Equihua 1985c: 356; Beaver 1976b: 534, 1987a: 18, 1987b: 64; Beaver & Browne 1978: 589; Beaver & Loytyniemi 1985a: 80; Beeson 1933: 11, 1938: 288–289, 1940: 197–198, 1941: 357; Blackburn & Sharp 1885: 192–194; Bright 1972d: 53, 1985c: 174; Browne 1961c: 71, 1965b: 188, 1968: 353, 1970: 556, 1974a: 64, 1984a: 353; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 630; Fumasaki 1967: 332; Hagedorn 1910d: 44, 46; Kleine 1913b: 126, 1914b: 278; Low 1975; Maiti & Saha 1986: 162; Mathew 1982, 1987: 188; Murayama 1934: 287–288, 1936: 127, 1939: 237; Nobuchi 1985c: 15; Nobuchi & Ono 1973: 181; Perkins 1900: 180; Peter, Bagle, & Balasubramanian 1984; Schedl 1934f: 1640, 1960f: 172, 1962b: 156, 1964c: 304, 1965g: 25, 1966b: 28, 1977a: 65; Swezey 1954: 145; Wood, S. L. 1957c: 402, 1960a: 35, 1977a: 70, 1982b: 886; Yunus & Hua 1980: 229. (tx) Blandford 1894c: 579; Bright 1972d: 53, 1985c: 174; Browne 1970: 556; Costa Lima 1928: 123, 1936: 357; Eggers 1925: 153, 1927: 406, 1935: 153; Eichhoff 1878a: 384, 1878b: 486; Hagedorn 1910a: 81; Hopkins 1915b: 23–24; Maiti & Saha 1986: 162; Michalski 1969b: 570; Nobuchi 1983: 300; Sampson 1914: 379; Schedl 1934g: 177, 1939c: 327, 1939f: 34–35, 1940a: 322, 1941f: 111,

1942b: 147–148, 1951k: 135, 1960c: 172, 1962r: 59, 1965g: 25, 1967f: 163, 1971a: 274, 1971c: 272, 1971f: 145, 1977a: 65, 1979c: 40; Wood, S. L. 1957c: 402, 1960a: 35–37, 1972f: 43, 1982b: 886. *maculicollis* Sharp 1879: 101. Syntypes, sex?;

Oahu, Hawaiian Islands; BMNH, London. Synonymy: Browne 1970: 556, Wood 1972f: 43. References: (ds) Beeson 1935b: 289; Brimblecombe 1953: 26; Hagedorn 1910d: 44; Kleine 1913b: 124, 1914b: 302; Perkins 1900: 180; Swezey 1941: 119, 1954: 145. (tx) Browne 1970: 556; Hagedorn 1910a: 57; Hopkins 1915b: 23; Schedl 1934g: 177, 1941f: 111, 1951k: 135; Sharp 1879: 101, 1892: 194; Wood, S. L. 1960a: 37, 1972f: 43.

peritus Blandford 1894d: 84. Holotype ♀; Nagasaki, Japan; BMNH, London. Synonymy: Browne 1970: 556.

References: (cn) Ebeling 1959. (ds) Blandford 1894c; Ebeling 1959; Hagedorn 1910d: 44; Kleine 1913b: 121, 1914b: 251; Lever 1943a: 52; Murayama 1936a: 127, 1951c: 3, 1954b: 199; Nobuchi 1966b: 22. (tx) Blandford 1894d: 84; Browne 1970: 556; Hagedorn 1910a: 57; Hopkins 1915b: 24; Murayama 1934c: 287–288, 1936a: 127, 1953: 10, 1954b: 199; Nobuchi 1966b: 22; Schedl 1934f: 1640.

farinosus Blandford 1896f: 241. Syntypes 2, sex?; Noumea [New Caledonia]; BMNH, London. Synonymy: Browne 1970: 556.

References: (ds) Anonymous 1964k, 1965e, 1965g; Beeson 1935b; Hagedorn 1910d: 43; Kleine 1913b: 124, 1914b: 301; Nakao 1963: 30. (tx) Blandford 1896f: 241; Browne 1970: 556; Hagedorn 1910a: 56; Hopkins 1915b: 23.

validus valens Sampson 1914: 355. Holotype ♀; Seychelles, Silhouette; Mare aux Cochons over 100 ft.; BMNH, London.

References: (ds) Sampson 1914: 355. (tx) Browne 1970: 556; Sampson 1914: 355.

perkinsi Hopkins 1915b: 31 (*Stephanoderes*). Holotype ♀; Honolulu, Hawaii; USNM, Washington. Synonymy: Wood 1972f: 43.

References: (ds) Kleine 1934a: 145. (tx) Hopkins 1915b: 23, 31; Wood, S. L. 1972f: 43.

sterculiae Hopkins 1915b: 32 (*Stephanoderes*). Holotype ♀; Calapan, P.I.; USNM, Washington. Synonymy: Wood 1972f: 43.

References: (ds) Kleine 1934a: 145; Schedl 1966b: 29. (tx) Beeson 1933: 11; Hopkins 1915b: 24, 32; Nobuchi 1983: 300; Wood, S. L. 1972f: 43.

psidii Hopkins 1915b: 32 (*Stephanoderes*). Holotype ♀; Calapan, P.I.; USNM, Washington. Synonymy: Wood 1972f: 43.

References: (ds) Kleine 1934a: 145; Schedl 1966b: 29. (tx) Beeson 1933: 11; Hopkins 1915b: 24, 32; Nobuchi 1983: 300; Wood, S. L. 1972f: 43.

alter Eggers 1923a: 219 (*Stephanoderes*). Syntypes 10 ♀; New Guinea (Augustafluss),

Ralum, Neu Pommern (New Britannien), Philippinen (Los Banos), Borneo (Sarawak); MNB, Berlin, SMTD, Dresden. MCG, Genova, USNM, Washington. Synonymy: Wood 1960a: 35.

References: (cn) Mathur & Singh 1961a: 79; McIntosh 1949: 46. (hb) Beeson 1933: 11; Yum & Hua 1950: 229. (ds) Beeson 1933: 11, 1935b: 290, 1961: 295; Mathur & Singh 1961a: 79; Schedl 1959a: 484, 1961c: 71, 1962b: 186; Yum & Hua 1950: 229. (tx) Beeson 1933: 11; Eggers 1923a: 219, 1927b: 406, 1936d: 624, 625; Michalski 1969b: 570; Schedl 1939e: 327, 329, 1939f: 35, 1939i: 350, 1940b: 434, 1942d: 2–3, 1950f: 37, 45, 1953b: 124, 1955b: 100, 1959a: 484; Wood, S. L. 1960a: 35.

uter Eggers 1923a: 219 (*Stephanoderes*). Syntypes 3, sex?; Neu Guinea (Andai und Waigmina) und Australien (Somerset). Synonymy: Browne 1970: 556.

References: (tx) Beeson 1933: 11; Eggers 1923a: 219, 1936d: 627–625; Schedl 1942d: 19, 1950d: 20.

nibarani Beeson 1933: 10 (*Stephanoderes*). Holotype ♀; Madras: North Salem Division, Jawalagiri; FRI, Dehra Dun. Synonymy: Wood 1959: 174.

References: (cn) Roonwal 1954: 73. (ds) Beeson 1961: 299; Roonwal 1954: 73. (tx) Beeson 1933: 10; Schedl 1940d: 591, 1942c: 178, 1942d: 20; Wood, S. L. 1989: 174.

ampliatus Eggers 1936d: 627 (*Stephanoderes*). Holotype, sex?; Brit. Indien (Mysore: Jakkur); BMNH, London. 1 Eggers cotype, in NHMW, Wien. Synonymy: Wood 1989: 174.

References: (tx) Eggers 1936d: 627–628; Schedl 1979c: 19; Wood, S. L. 1989: 174.

pacificus Beeson 1940: 197 (*Stephanoderes*). Holotype ♀; Henderson Island; northwest side; BPBM, Honolulu. Synonymy: Wood 1960a: 35. References: (tx) Beeson 1940: 197; Wood, S. L. 1960a: 37.

castaneus Wood 1954a: 1027 (*Stephanoderes*). Holotype ♀; Homestead, Florida [USA]; SMUK, Lawrence. Synonymy: Wood 1960a: 35. References: (hb) Wood, S. L. 1953: 135, 1954a: 1027. (tx) Wood, S. L. 1953: 135, 1954a: 1027, 1957c: 402, 1960a: 35–37.

biseriatus (Eggers) 1919: 240 (*Stephanoderes*). Lectotype ♀; Kilossa, Deutsch-Ostafrika; USNM, Washington, designated by Anderson & Anderson 1971: 6.

Distribution: Africa (Cameroon/ Ghana/ Kenya/ Mauritius/ Mozambique/ Sierra Leone/ South Africa/ Tanzania/ Uganda/ Zaire), Reunion Island. Hosts: *Acacia sieberiana*, *Albizia* spp., *Baphia pubescens*, *Cassia siamea*, *Chlorophora excelsa*, *Chrysophyllum lacourtianum*, *Dialium pachyphyllum*, *Gilbertiodendron dewecrei*, *Hevea*

brasiliensis, *Hylodendron gabunense*, *Musanga cecropioides*, *Paropsia schiebeniana*, *Pentaclethra macrophylla*, *Piptadenia africana*, *Tetrapleura tetraptera*, *Trema guineensis*.

References: (bv) Schedl 1960f: 75. (en) Ghesquiere 1933a: 35, 1933b: 782; Mayne & Donis 1951: 333; Schmitz & Crisinel 1957: 12. (ce) Mayne & Donis 1951: 33. (hb) Schmitz & Crisinel 1957: 12. (ds) Gardiner 1957a: 32; Ghesquiere 1933a: 35, 1933b: 782; Kleine 1934a: 145; Mayne & Donis 1962: 311; Schedl 1959q: 705, 1960f: 31, 1961k: 553, 1967e: 221, 1969d: 7, 1977a: 69; Wichmann 1954: 514. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1919: 240, 1924: 110, 1932c: 31, 1943c: 74; Schedl 1950c: 204, 1950d: 18, 1952j: 8, 1959q: 705, 1961k: 553, 1967e: 211, 1969d: 7-10, 1977a: 69.

bolivianus (Eggers) 1931b: 29 (*Stephanoderes*). Holotype ♀; Cochabamba, Bolivia; USNM, Washington.

Figures: Pedrosa-Macedo & Schonherr 1985: 46. Distribution: North America (Costa Rica), South America (Bolivia/ Brazil).

Hosts: *Guatteria* sp., *Pouteria* sp., *Protium* sp.

References: (hb) Beaver 1974a. (ds) Beaver 1974a; Blackwelder 1947: 777; Bright 1972d: 56; Numberg 1958a: 481; Pedrosa-Macedo & Schonherr 1985: 46; Schedl 1966f: 84, 1973d: 154. (tx) Anderson, W. H. & Anderson 1971: 7; Bright 1972d: 56; Eggers 1931b: 29, 1934a: 79; Numberg 1958a: 481; Pedrosa-Macedo & Schonherr 1985: 46; Schedl 1951m: 71, 1979c: 43.

brevicollis (Eggers) 1927a: 177 (*Stephanoderes*). Holotype, sex?; Ostafrika: Kirumba Muansa; Eggers Collection, in NHMW, Wien.

Distribution: Africa (Kenya/ Mozambique/ South Africa/ Tanzania), Madagascar.

References: (ds) Schedl 1961k: 555, 1977a: 70. (tx) Eggers 1927a: 177, 1935a: 304, 1936c: 36; Schedl 1950d: 18, 1961k: 555, 1977a: 70, 1979c: 46.

brevis (Eggers) 1932c: 30 (*Stephanoderes*). Holotype, sex?; Congostaat (Katanga, Prov. Katanga); MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Eggers 1932c: 30; Schedl 1961k: 555.

browni Beaver 1991: 53. Holotype ♀; Malaysia: Penang, Georgetown; BMNH, London, automatic.

Figures: Beaver & Browne 1978: 576.

Distribution: Asia (Malaya).

References: (tx) Beaver 1991: 53.

striatulus Browne in Beaver & Browne 1978: 584 (*Cryphalomorphus*). Holotype ♀; Malaysia: Penang, Georgetown; BMNH, London, pre-occupied by Schedl 1942.

References: (tx) Beaver 1991: 53; Beaver & Browne 1978: 576, 584.

brunneus (Hopkins) 1915b: 31 (*Stephanoderes*). Holotype ♀; Brownsville, Texas [USA]; USNM, Washington.

Figures: Bright 1972d: 59.

Distribution: Antilles Islands (Bahama Islands/ Cuba/ Guadeloupe/ Jamaica/ Puerto Rico/ Trinidad/ Virgin Islands), North America (Honduras/ Colima, Jalisco, Nayarit, Oaxaca, Puebla, Sinaloa, Sonora, Tamaulipas, Veracruz, Yucatan in Mexico/ Panama/ Alabama, Florida, Texas in USA), South America (Galapagos Islands).

Hosts: *Acacia farnesiana*, *Albizia labbekoides*, *Amona* sp., *Ardesia paniculata*, *Bauhinia grandiceps*, *Berria amonilla*, *Cajanus cajan*, *Cantavalia* sp., *Celtis ignana*, *C. laevigata*, *Clemetis* sp., *Condalia obtusifolia*, *Dalbergia ecastophyllum*, *Ficus* sp., *Galactia spiciformis*, *Giricidia sepium*, *Grevia asiatica*, *Hovenia dulcis*, *Ichthyomethia communis*, *Leucania glauca*, *Lysiloma bahamensis*, *Mimosa* sp., *Ocotea catesbyana*, *Poinsettia heterophylla*, *Serjania* sp., *Trema floridana*, *Vachellia farnesiana*.

References: (ce) Equihua & Atkinson 1986: 630. (hb) Chamberlin 1939: 309; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 630; Wood, S. L. 1953: 142, 1954a: 1031. (ds) Atkinson & Equihua 1985c: 357; Blackwelder 1947: 777; Bright 1972d: 54, 1985c: 174; Chamberlin 1939: 309; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 630, 1988: 209; Ferrer 1942; Kirkendall 1984: 242; Leng 1920: 340; Martorell 1945: 468-469; Wolcott 1936: 317; Wood, S. L. 1977a: 70, 1982b: 910. (tx) Bright 1972d: 54, 59, 1985c: 174; Chamberlin 1939: 309; Hopkins 1915b: 23, 31; Schedl 1940a: 342; Wood, S. L. 1953: 142, 1954a: 959, 1018, 1031, 1977b: 208, 1982b: 910.

frontalis Hopkins 1915b: 31 (*Stephanoderes*). Holotype ♀; Brownsville, Texas [USA]; USNM, Washington. Synonymy: Wood 1954a: 1031.

References: (hb) Chamberlin 1939: 309. (ds) Blackwelder 1947: 778; Chamberlin 1939: 309; Ferrer 1942; Leng 1920: 340. (tx) Chamberlin 1939: 309; Hopkins 1915b: 23, 31; Schedl 1940a: 342; Wood, S. L. 1954a: 959, 1031.

cryphalomorphus Schedl 1939n: 14. Holotype ♀; Trinidad, British West Indies; BMNH, London. Synonymy: Wood 1977b: 208.

References: (ds) Blackwelder 1947: 777. (tx) Schedl 1939n: 14; Wood, S. L. 1977b: 208.

bituberculatus Eggers 1940a: 126 (*Stephanoderes*). Holotype ♀; Env. de Trois Rivières, Guadeloupe; MNHN, Paris. Synonymy: Wood 1977b: 208.

References: (tx) Eggers 1940a: 126, 1979c: 41; Wood, S. L. 1977b: 208.

- californicus** Hopkins 1915b: 19. Holotype ♀; Pomona, California [USA]; USNM, Washington. Distribution: Africa (Liberia), Asia (Israel/ Korea), North America (Michoacan, Mexico, Tamaulipas in Mexico/ California, District of Columbia, Florida, Illinois, Indiana, Kansas, Kentucky, Maryland, Missouri, New Jersey, North Carolina, South Carolina, Tennessee, Texas, Virginia in USA), South America (Brazil).
Hosts: *Aloe vera*, *Bauhinia alba*, *Bidens pilosa*, *Boehmeria scabra*, *Cajanus cajan*, *Cappria bifolia*, *Galactia spiciformis*, *Ipomoea cathartica*, *I. litoralis*, *Iva imbricata*, *Malvastrum* sp., *Mangifera indica*, *Paspalum vaginatum*, *Quisqualis indica*, *Salix babylonica*, *Uniola paniculata*, *Verbena* sp., *Zea mays*.
Notes: (3) This species was probably introduced to America from Africa or SW Asia; synonymy with other species, possibly *leprieuri*, is expected.
References: (ec) Equihua & Atkinson 1986: 631. (hb) Bright & Stark 1973: 69; Burgos & Saucedo 1983: 106; Chamberlin 1939: 294; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 631; Wood, S. L. 1953: 190, 1954a: 1053, 1982b: 897. (ds) Atkinson & Equihua 1985c: 357; Atkinson et al. 1986: 64; Bright & Stark 1973: 69; Burgos & Saucedo 1983: 106; Chamberlin 1939: 294; Choo 1983: 65; Choo & Woo 1985: 164; Choo, Woo, & Park 1983: 174; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 631; Kirk 1970; Leng 1920: 340; Weber, B. C. & McPherson 1991: 49, 54; Wood, S. L. 1977a: 70, 1982b: 897. (tx) Chamberlin 1939: 294; Choo 1983: 65; Hopkins 1915b: 14, 19; Wood, S. L. 1953: 190, 1954a: 979, 1053, 1972f: 44, 1982b: 897.
- tritici** Hopkins 1915b: 19. Holotype ♀; Dallas, Texas [USA]; USNM, Washington. Synonymy: Wood 1954a: 1055.
References: (hb) Chamberlin 1939: 295; Wood, S. L. 1953: 192, 1954a: 1055. (ds) Chamberlin 1939: 295; Kleine 1934a: 144; Leng 1920: 340. (tx) Chamberlin 1939: 295; Hopkins 1915b: 14, 19; Wood, S. L. 1953: 192, 1954a: 1055, 1972f: 44.
- thoracicus** Hopkins 1916: 598. Holotype ♀; Clark Co., Indiana [USA]; USNM, Washington. Synonymy: Wood 1954a: 1055, 1982b: 897.
References: (hb) Chamberlin 1939: 294. (ds) Chamberlin 1939: 294; Leng 1920: 340. (tx) Chamberlin 1939: 294; Hopkins 1916: 598; Wood, S. L. 1954a: 959, 1055.
- zcae** Schedl 1973d: 169 (*Stephanoderes*). Holotype ♀; Brasilia, Sao Paulo, Pinhal; MZUSP, Sao Paulo. Synonymy: Wood 1989: 174.
References: (ds) Schedl 1973d: 155, 169, 1979c: 270; Wood, S. L. 1989: 174.
- camerunus** (Eggers) 1922b: 167 (*Stephanoderes*). Holotype, sex?: Joko (Kamerun); Eggers Collection. Figures: Numberg 1960a: 290, 292, 1960b: 29.
Distribution: Africa (Angola/ Cameroon/ Congo/ Ghana/ Ivory Coast/ Sierra Leone/ Tanzania/ Uganda/ Zaïre).
Hosts: *Acacia* spp., *Albizia* spp., *Baphia pubescens*, *Celtis soyauxii*, *Chrysothamnium* sp., *Dialium* sp., *Gilbertiodendron* sp., *Hecca* sp. See also Browne 1963a: 233.
Notes: (1) Neither Anderson & Anderson 1971 nor Schedl 1979c mention this holotype; however, Schedl 1979c: 51 mentions a cotype in NHMW, Wien, although no cotypes were designated. This specimen could be the type on loan to Schedl.
References: (hb) Browne 1963a: 223; Schedl 1961k: 555; Thompson, G. H. 1963: 66. (ds) Browne 1955: 188, 1963a: 233; Ferreira 1965: 1114; Gardner 1957a: 32; Mayne & Donis 1960: 104, 1962: 311; Schedl 1959p: 17, 1961k: 555, 1964j: 40, 1965f: 4, 1967e: 211; Thompson, G. H. 1963: 66. (tx) Eggers 1922b: 167, 1924: 111, 1927a: 198, 1941a: 99; Schedl 1954e: 49–50, 1961k: 555, 1962h: 69, 1962k: 1069, 1979c: 51.
- brunneipes** Numberg 1960a: 289 (*Stephanoderes*). Holotype, sex?: Uganda: Bugiri, 1400 m; MRCB, Tervuren. Synonymy: Schedl 1962k: 1069.
References: (tx) Numberg 1960a: 289–290, 292, 1960b: 29; Schedl 1962h: 64, 1962k: 1069.
- carbonarius** (Eggers) 1943e: 73 (*Stephanoderes*). Holotype ♀; Mozambique (Vila Pery); MNHN, Paris, 1 Eggers cotype, in NHMW, Wien.
Distribution: Africa (Mozambique/ South Africa).
Hosts: *Gossypium hirsutum*.
References: (ds) Schedl 1982: 278. (tx) Eggers 1943e: 73; Schedl 1950d: 24, 1957b: 150, 1961k: 557, 1979c: 53.
- ceibae** Hopkins 1915b: 20. Holotype ♀; Cayamas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba/ Granada/ Puerto Rico).
Hosts: *Ceiba* sp.
References: (ds) Blackwelder 1947: 777; Bright 1985c: 174; Kleine 1934a: 143; Leng & Mutchler 1917: 219. (tx) Bright 1985c: 174; Hopkins 1915b: 15, 20.
- colae** (Schedl) 1957d: 54 (*Stephanoderes*). Holotype ♀; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaïre).
Hosts: *Cola congolana*, *C. griseiflora*, *Duboscia viridiflora*.
References: (ec) Schedl 1958d: 190–191. (hb) Schedl 1961k: 558. (ds) Schedl 1961k: 558. (tx) Schedl 1957d: 54, 1961k: 558, 1979c: 59.
- columbi** Hopkins 1915b: 18. Holotype ♀; Columbus, Texas [USA]; USNM, Washington.
Distribution: Antilles Islands (Bahama Islands/ Cuba), North America (Belize/ Costa Rica/ Colima, Nayarit, Sinaloa, Veracruz in Mexico/ Panama/ Florida, Georgia, Louisiana, Mississippi,

- South Carolina, S Texas in USA), South America (Colombia/ Venezuela).
 Hosts: *Bauhinia alba*, *Citrus auratifolia*, *Ficus* sp., *Ichthyomethia communis*, *Morus rubra*, *Quercus* spp., *Salix* sp., *Serjania* sp.
 References: (ce) Equihua & Atkinson 1986: 631. (hb) Chamberlin 1939: 294; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 631; Wood, S. L. 1953: 205, 1954a: 1062. (ds) Atkinson & Equihua 1985c: 357; Bright 1985c: 174; Chamberlin 1939: 294; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 631; Estrada & Atkinson 1988: 209; Kirkendall 1984: 242; Leng 1920: 340; Wood, S. L. 1977a: 70, 1982b: 907. (tx) Bright 1985c: 174; Chamberlin 1939: 294; Hopkins 1915b: 14, 18; Wood, S. L. 1953: 208, 1954a: 959, 1062, 1982b: 907.
- abdominalis* Hopkins 1915b: 18. Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1954a: 1062.
 References: (ds) Blackwelder 1947: 777; Leng & Mutchler 1917: 219. (tx) Hopkins 1915b: 14, 18; Wood, S. L. 1954a: 1062.
- brunneipennis* Hopkins 1915b: 18. Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1954a: 1062.
 References: (ds) Blackwelder 1947: 777; Leng & Mutchler 1917: 219. (tx) Hopkins 1915b: 14, 18; Wood, S. L. 1954a: 959, 1062.
- rufopalhiatus* Hopkins 1915b: 18. Holotype ♀; Charleston, South Carolina [USA]; USNM, Washington. Synonymy: Wood 1954a: 1062.
 References: (hb) Chamberlin 1939: 294. (ds) Blatchley & Leng 1916: 598; Chamberlin 1939: 294; Kirk 1969; Kleine 1934a: 144; Leng 1920: 340. (tx) Blatchley & Leng 1916: 598; Chamberlin 1939: 294; Hopkins 1915b: 14, 18; Wood, S. L. 1954a: 959, 1062.
- amphipennis* Hopkins 1915b: 19. Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1954a: 1062.
 References: (cn) Souphieff & Scherbinovskaja 1937: 81. (ds) Blackwelder 1947; Leng & Mutchler 1917: 219; Souphieff & Scherbinovskaja 1937: 81. (tx) Hopkins 1915b: 14, 19; Wood, S. L. 1954a: 1062.
- comosus* Bright 1972d: 50. Holotype ♀; Clydesdale, St. Andrew Parish, Jamaica; CNCI, Ottawa.
 Distribution: Antilles Islands (Jamaica).
 References: (ds) Bright 1985c: 174. (tx) Bright 1972d: 50, 1985c: 174; McNamara 1977: 196.
- concolor* Hagedorn 1909a: 744. Syntypes, sex?; Kamerun; MNB, Berlin.
 Figures: Schedl 1961k: 452.
 Distribution: Africa (Cameroon/ Canary Islands/ Congo/ Ghana/ Ivory Coast/ Uganda/ Zaire).
 Hosts: *Aucoumea klaineana*, *Bussea occidentalis*, *Pancovia laurentii*, *Pentaclethra macrophylla*, *Synsepalum longecucucatum*, *Terminalia superba*, *Theobroma cacao*.
 References: (cn) Ghesquiere 1933a: 32–36, 1933b: 783, 786; Magnin 1954: 468. (hb) Browne 1963: 234; Roberts 1969: 129; Schedl 1961k: 451. (ds) Browne 1963a: 234, 1970: 540; Ghesquiere 1933a: 32–36, 1933b: 783, 786; Hagedorn 1910d: 41; Kleine 1913b: 124, 1914b: 310; Mayne & Donis 1962: 314; Schedl 1961k: 451, 1962b: 58, 1962k: 1068, 1964f: 618. (tx) Eggers 1919: 243, 1924: 102, 1932c: 31–32; Hagedorn 1909a: 744, 1910a: 86; Schedl 1939i: 380–381, 1950d: 20, 1954d: 871, 1961k: 451–452, 634.
- confusus* (Eggers) 1940c: 235 (*Stephanoderes*). Holotype, sex?; S. Rhodesia; Salisbury; Eggers Collection, in NHMW, Wien.
 Distribution: Africa (Namibia/ South Africa/ Tanzania/ Zambia/ Zimbabwe).
 References: (ds) Beaver & Loyttyniemi 1989; Schedl 1961k: 560. (tx) Beaver & Loyttyniemi 1989; Eggers 1940c: 235; Schedl 1957b: 150, 1961k: 560, 1979c: 62.
- corni* Kurenzov 1941a: 162. Syntypes, sex?; Iman and Khor rivers, Ussuri, USSR; ISBN, Novosibirsk, and IZL, Leningrad.
 Figures: Michalski 1969b: 568.
 Distribution: Asia (Sakhalin Island, E USSR).
 Hosts: *Cornus tataricum*.
 Notes: (1) Two specimens deposited by Kurenzov in the Wood Collection are of *Ernoporicus* [confirmation is needed].
 References: (cn) Kurenzov 1956a: 86, 102. (hb) Stark 1952: 283. (ds) Krivolutskaia 1958: 139, 1983; Kurenzov 1951b: 17; Stark 1952: 283. (tx) Kurenzov 1941a: 162–163; Michalski 1969a: 893, 1969b: 568; Stark 1952: 283.
- cosmoderoides* Murayama 1961b: 30. Holotype ♀; Noo, south part of Niigata prefecture, Japan; Murayama Collection in USNM, Washington.
 Distribution: Asia (Honshu in Japan).
 References: (ds) Nobuchi 1985c: 15. (tx) Murayama 1961b: 30.
- costatus* (Eichhoff) 1878a: 386 (*Stephanoderes*). Syntypes, sex?; America septentrionalis (Venezuela); Hamburg Museum, lost.
 Distribution: South America (Venezuela).
 References: (ds) Blackwelder 1947: 777; Hagedorn 1910d: 41; Kleine 1913b: 121, 1914b: 339. (tx) Eichhoff 1878a: 386, 1878b: 154; Hagedorn 1910a: 86; Hopkins 1915b: 24.
- criticus* (Schedl) 1937b: 398 (*Cryphalus*). Lectotype, sex?; Belgisch-Kongo, Stanleyville; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 70.
 Distribution: Africa (Cameroon/ Ghana/ Uganda/ Zaire).
 Hosts: *Beilschmiedia corbisieri*, *Paropsia schiebeniana*, *Theobroma cacao*, *Tridesmostemon claessensii*.

References: (**hb**) Schedl 1961k: 453–454. (**ds**) Mayne & Donis 1962: 314; Schedl 1961k: 453, 1964f: 618, 1967e: 210, 1972e: 280. (**tx**) Schedl 1937b: 398, 1957d: 10, 1961k: 453, 1972p: 155, 1979c: 70.

alternans Browne 1970: 554. Holotype ♀; Uganda, Entebbe; BMNH, London. Synonymy: Schedl 1972p: 155.

References: (**tx**) Browne 1970: 554; Schedl 1972p: 155.

crudiae (Panzer) 1791: 35 (*Bostrichus*). Syntypes, sex?: India occidentalis; lost.

Figures: Schedl 1961k: 611.

Distribution: Africa (Angola/ Cameroon/ Cape Verde Islands/ Congo/ Dahomey/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Nigeria/ Sierra Leone/ South Africa/ Uganda/ Zaïre), Antilles Islands (Cuba/ Grenada/ Puerto Rico/ Trinidad), Asia (Malaya/ Sri Lanka/ Thailand/ Vietnam), Cook Islands (Rarotonga), Hawaiian Islands, Indonesia (Java), Madagascar, Marquesas Islands, Micronesia, North America (Costa Rica/ El Salvador/ Guatemala/ Honduras/ all states in Mexico/ Nicaragua/ Alabama, Arkansas, District of Columbia, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA), South America (Argentina/ Bolivia/ Brazil/ Colombia/ Ecuador/ Guyana/ Paraguay/ Suriname/ Venezuela).

Hosts: *Abutilon mollissimum*, *Acacia farnesiana*, *Achras sapota*, *Adenantha pavonina*, *Aloc vera*, *Astragalus* sp., *Bauhinia grandiceps*, *B. krugi*, *Betula* sp., *Bidens pilosa*, *Bignonia* sp., *Boehmeria scabra*, *Bucida buceras*, *Busera* sp., *Carica papaya*, *Carya* spp., *Cassia nodosa*, *Cinnamomum camphora*, *Citrus* sp., *Clerodendron squamatum*, *Crataegus* sp., *Dalbergia ecastophyllum*, *Derris* sp., *Dioclea megacarpa*, *Diphysia robinoides*, *Dolonix regia*, *Ficus* spp., *Glycine max*, *Grewia asiatica*, *Inga* sp., *Juglans nigra*, *Magnolia* sp., *Mangifera indica*, *Morus rubra*, *Passiflora latifolia*, *Phalocarpus septentrionis*, *Pinus taeda*, *Prunus persica*, *Pyrus malus*, *Quercus* spp., *Quisqualis indica*, *Rhizophora mangle*, *Richinus communis*, *Schleichera trifuga*, *Serjania racemosa*, *Sida rhombifolia*, *Smilax* sp., *Theobroma cacao*, *Wisteria* sp., *Yucca* sp.

Notes: (1) Identification of this species was based on specimens compared to the types by Eggers before they were lost. Published reports of this species from India and other parts of Asia are apparently based on misidentifications.

References: (**cn**) Smith, J. B. 1900: 362. (**cc**) Equihua & Atkinson 1986: 631; Halperin & Holzschuh 1986: 26. (**hb**) Beaver & Browne 1975: 290; Burgos & Saucedo 1983: 105; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986:

631; Halperin & Holzschuh 1984: 26; Wood, S. L. 1953: 163, 1954a: 1041, 1982b: 891. (**ds**) Atkinson & Equihua 1985c: 357; Beaver & Browne 1975: 290; Blackwelder 1947: 777; Bright 1985c: 174; Browne 1974a: 64, 1985b: 291; Burgos & Saucedo 1983: 105; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 631, 1988: 209; Hagedorn 1910d: 43; Halperin & Holzschuh 1984: 26; Kirkendall 1984: 241; Smith, J. B. 1900: 362; Weber, B.C. & McPherson 1991: 54; Wood, S. L. 1977a: 71, 1983: 105. (**tx**) Bright 1985c: 174; Eggers 1931c: 184; Eichhoff 1896: 608; Panzer 1791: 35, 37; Schedl 1938i: 24; Wood, S. L. 1953: 163, 1954a: 1041, 1972f: 44, 1982b: 891.

mucronifer Wollaston 1867: 116 (*Cryphalus*). Syntypes, sex?: S. Antao, S. Vicente, S. Iago, et Fogo, Cape Verde Islands; BMNH, London. Synonymy: Wood 1989: 174.

References: (**cn**) Souphieff & Scherbinovskaja 1937: 36. (**ds**) Gemminger & Harold 1872: 2683; Hagedorn 1910d: 44; Kleine 1913b: 118, 1914b: 379; Souphieff & Scherbinovskaja 1937: 26. (**tx**) Hagedorn 1910a: 87; Wollaston 1867: 116; Wood, S. L. 1989: 174.

hispidulus LeConte 1868: 156 (*Cryphalus*). Syntypes, sex?: District of Columbia, Georgia, Louisiana [USA]; MCZ, Cambridge. Synonymy: Eichhoff 1896: 608.

References: (**cn**) Funk 1907: 217; Kleine 1932a: 302. (**hb**) Beal & Massey 1945: 118–119; Blackman 1922b: 84; Chamberlin 1939: 289; Costa Lima 1928b: 118–120; Kleine 1932a: 302; Morstatt 1924: 45; Smith, J. B. 1890b: 54. (**ds**) Anonymous 1926c: 518; Beal & Massey 1945: 118–119; Blackman 1922b: 84; Blackwelder 1947: 778; Blatchley & Leng 1916: 596; Britton 1920a: Chamberlin 1939: 289; Costa Lima 1936; Currie 1905; Gemminger & Harold 1872: 2688; Hagedorn 1910d: 43; Hamilton 1888: 158, 1894: 406; Henshaw 1882: 269; Kleine 1913b: 121, 1914b: 385, 1932a: 302, 1934a: 145; Leng 1920: 339; Leonard 1928: 518; Pfeffer 1932: 1–23; Schwarz 1878d: 468; Smith, J. B. 1890b: 54, 1900: 362, 1910: 401; Swaine 1909: 118. (**tx**) Beal & Massey 1945: 118–119; Blackman 1922b: 84; Blandford 1894b: 263; Blatchley & Leng 1916: 596; Chamberlin 1939: 289; Eichhoff 1878b: 136, 1896: 608, 610; Fauvel 1884, 1887; Hopkins 1915b: 13; LeConte 1868: 156, 1876: 355, 1878a: 468; Muesebeck 1942: 97, 1950: 133; Sharp 1879: 102; Swaine 1909: 118; Wood, S. L. 1954a: 959, 1041, 1972f: 44.

nanus Hagedorn 1909a: 744. Syntypes ♀; Argentina; La Plata Museum. Synonymy: Schedl 1952k: 162.

References: (**hb**) Viana 1964: 122. (**ds**) Blackwelder 1947: 777; Bruch 1914a; Hagedorn 1910d: 44; Kleine 1913b: 124, 1914b: 333; Viana

- 1964: 122. **(tx)** Hagedorn 1909a: 744, 1910a: 87; Hopkins 1915b: 23; Schedl 1935i: 24, 1948d: 36, 1948f: 363, 1951h: 284, 1951m: 71–73, 1952a: 446, 1952k: 159–162, 1958f: 34.
- differeus* Hopkins 1915b: 25 (*Stephanoderes*). Holotype ♀; San Bernardino, Paraguay; USNM, Washington. Synonymy: Wood 1972f: 44.
- References: **(ds)** Blackwelder 1947. **(tx)** Hopkins 1915b: 21, 25; Wood, S. L. 1962: 78, 1967b: 78, 1972f: 44.
- guatemalensis* Hopkins 1915b: 26 (*Stephanoderes*). Holotype ♀; Treces Aguas, Alta Verapaz, Guatemala; USNM, Washington. Synonymy: Wood 1954a: 1041.
- References: **(cn)** Anonymous 1928d: 14. **(ds)** Blackwelder 1947: 778; Dampf 1928: 14; Ferrer 1942; Kleine 1934a: 145; Wolcott 1936: 317. **(tx)** Hopkins 1915b: 22, 26; Schedl 1940a: 342, 1950c: 206–207; Wood, S. L. 1954a: 1041.
- brasilensis* Hopkins 1915b: 26 (*Stephanoderes*). Holotype ♀; Perambuco, Brazil; USNM, Washington. Synonymy: Wood 1954a: 1041.
- References: **(ds)** Blackwelder 1947: 777; Costa Lima 1936; Martorell 1945: 468; Wolcott 1936: 317, 1948: 380. **(tx)** Blackman 1922b: 95; Hopkins 1915b: 22, 26; Wood, S. L. 1954a: 959, 1041.
- paraguayensis* Hopkins 1915b: 26 (*Stephanoderes*). Holotype ♀; San Bernardino, Paraguay; USNM, Washington. Synonymy: Wood 1972f: 44.
- References: **(ds)** Blackwelder 1947: 778. **(tx)** Hopkins 1915b: 22, 26; Wood, S. L. 1972f: 44.
- lecontei* Hopkins 1915b: 27 (*Stephanoderes*). Holotype ♀; Jefferson County, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1041.
- References: **(hb)** Chamberlin 1939: 305. **(ds)** Blatchley & Leng 1916: 600; Chamberlin 1939: 305; Kleine 1934a: 145; Leng 1920: 340. **(tx)** Blatchley & Leng 1916: 600; Chamberlin 1939: 305; Hopkins 1915b: 22, 27; Wood, S. L. 1954a: 959, 1041.
- polyphagus* Costa Lima 1924: 316 (*Stephanoderes*). Syntypes, sex?; publication not seen, automatic. Synonymy: Wood 1972f: 44.
- References: **(bv)** Schedl 1960f: 43. **(cn)** Chesquiere 1933a. **(cc)** Schedl 1961k: 610. **(hb)** Browne 1963a: 234; Schedl 1961k: 610. **(ds)** Browne 1963a: 234; Chesquiere 1933a; LePelley 1968: 113; Mayne & Donis 1960: 104, 1962: 312; Nonveiller 1984: 41; Nunberg 1961b: 609; Schedl 1960f: 11, 1961k: 610, 1962h: 58, 1962k: 1070, 1964e: 68, 1964j: 41, 1965g: 20; 1966c: 224, 1967e: 212. **(tx)** Costa Lima 1924: 316, 414, 1925: 194–199, 365–368; Schedl 1961k: 610–611; Wood, S. L. 1972f: 44.
- fallax* Costa Lima 1924: 414 (*Stephanoderes*). Syntypes, sex?; publication not seen, automatic. Synonymy: Wood 1972f: 44.
- References: **(cn)** Azavedo 1924a: 359–360; Bondar 1925: 1–13; Kleine 1932a: 302. **(hb)** Kleine 1932a: 145, 302. **(ds)** Kleine 1932a: 145, 302. **(tx)** Costa Lima 1924: 316, 414, 1925: 197, 1925: 122; Wood, S. L. 1972f: 44.
- largipennis* Toleda Piza Junior 1924b: 354 (*Stephanoderes*). Syntypes, sex?; Brazil; not located. Synonymy: Costa Lima 1925: 197.
- References: **(cn)** Kleine 1932a: 302. **(hb)** Kleine 1932a: 302. **(ds)** Kleine 1932a: 145, 302. **(tx)** Costa Lima 1925: 197, 1925: 122; Toleda Piza Junior 1924b: 354–355.
- miscriatus* Eggers 1924: 103 (*Stephanoderes*). Lectotype ♀; Congostaat (Luebo); USNM, Washington, designated by Anderson & Anderson 1971: 35. Synonymy: Wood 1972f: 44.
- Notes: (3) Schedl 1963j: 479 (*Stephanoderes notatus* Eggers, nomen nudum, synonymy).
- References: **(bv)** Schedl 1960f: 43. **(cn)** Coleman 1931: 1–26; Corbett 1933; Chesquiere 1933a: 32–35, 1933b: 783; Mathur & Singh 1960a: 13; Mathur, Singh, & Lal 1958: 31; Mathur et al. 1958: 103; Mayne & Donis 1951: 333–334; Schmitz & Crisinel 1957: 12; Schouteden 1924: 56–58; Thomas, K. M. 1949: 83. **(cc)** Mayne & Donis 1951: 333–334; Schedl 1961k: 627. **(hb)** Browne 1963a: 234; Corbett 1933; Schedl 1961: 627; Schmitz & Crisinel 1957: 12; Schouteden 1924: 56; Thomas, K. M. 1949: 83. **(ds)** Beeson 1941: 389, 1961: 288, 299; Brader 1964: 5; Browne 1963a: 234; Ferreira 1965: 1116; Chesquiere 1933a; Mathur & Singh 1960a: 13; Mathur, Singh, & Lal 1958: 31, 103; Peyerimhoff 1935: 193; Schedl 1959a: 485, 1959p: 17, 1960f: 11, 1961k: 627, 1962h: 58, 1962k: 1070, 1964e: 68, 1964j: 41, 1967e: 212, 1969c: 50, 1969d: 5, 1977a: 77; Wichmann 1954: 514. **(tx)** Anderson, W. H. & Anderson 1971: 35; Corbett 1933; Eggers 1924: 103, 1936d: 626; Michalski 1969b: 570; Peyerimhoff 1935: 193; Schedl 1934d: 91, 1950d: 17–18, 1951j: 19, 1953d: 68, 1955d: 268, 1959a: 485, 1961k: 627, 1962k: 1070, 1963j: 478–479, 1964e: 68, 1964j: 41, 1967e: 212, 1967f: 151, 1969c: 50, 1969d: 5, 1971a: 280, 1971c: 364, 1977b: 77, 1979c: 261; Wood, S. L. 1972f: 44.
- hivaoca* Beeson 1935b: 105 (*Stephanoderes*). Holotype ♀; Tahauku, Hivaoca, Marquesas Islands; BPBM, Honolulu. Synonymy: Wood 1972f: 44.
- References: **(ds)** Beeson 1935b: 290; Ford 1958: 333; Wood, S. L. 1960a: 35. **(tx)** Beeson 1935b: 105, 1935b: 290, 1939: 105–106; Wood, S. L. 1960a: 38–39, 1972f: 44.
- lebromeci* Beeson 1935b: 104 (*Stephanoderes*). Syntypes, sex?; Tahuata; Hanatuma Valley 150 feet, Uapou; Hakahuetau 500 feet, Marquesas

- Islands: BPBM, Honolulu. Synonymy: Wood 1972f: 44.
References: (hb) Yunus & Hua 1980: 229. (ds) Beeson 1935b; Swezey 1941: 119; Yunus & Hua 1980: 229. (tx) Beeson 1935b: 104, 1938: 290; Schedl 1941f: 111, 1965g: 25; Wood, S. L. 1960a: 38–39, 1972f: 44.
- cryphaloides* (Eichhoff)** 1875b: 119 (*Triarmocerus*). Holotype ♀; Madagascar, insula Africana; Hamburg Museum, lost.
Distribution: Madagascar.
Notes: (3) A female from Clarion Island (Mexico) in the Schedl Collection was determined by Schedl as this species. Although that specimen is actually of *erectus* LeConte, *erectus* was apparently introduced to America from Africa. It is possible that the type of *cryphaloides* is a synonym of *erectus*.
References: (ds) Alluand 1900: 439; Hagedorn 1910d: 46; Kleine 1913b, 1914b: 326. (tx) Eichhoff 1878a: 384, 1878b: 119; Hagedorn 1910a: 81, 1913b; Hopkins 1914: 131.
- cuneolus* (Schedl)** 1936j: 24 (*Stephanoderes*). Lectotype, sex?; Malay Peninsula, Selangor: Kanching Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 72.
Distribution: Asia (Malaya).
Hosts: *Balanocarpus heimii*, *Dryobalanops aromatica*, *Shorea leprosula*.
References: (ds) Beeson 1961: 298; Browne 1961c: 72, 1970: 554; Schedl 1936j: 24. (tx) Schedl 1936j: 24, 1979c: 72.
- curtipennis* (Schedl)** 1950f: 45 (*Stephanoderes*). Holotype, sex?; Fiji, Viti Levu: Belt Road, 30 miles west of Suva, 10–250 feet; BPBM, Honolulu.
Distribution: Fiji Islands, Samoan Islands.
References: (ds) Beaver 1976b: 536; Browne 1974a: 64. (tx) Schedl 1950f: 45–46, 1951k: 135, 1979c: 72.
- cylindraceus* (Schedl)** 1972e: 287 (*Stephanoderes*). Holotype, sex?; Ghana, Kintampo: Ashanti Region, Ofinso, 259 m, N 6 54, W 1 39; Congo, Brazzaville, Lefinic reservation, Mbeokala forest; Brazzaville, Kindamba, Meya, Bangou forest; Schedl Collection in NHMW, Wien.
Distribution: Africa (Congo/ Ghana).
References: (ds) Wood, S. L. 1982b: 905. (tx) Schedl 1972e: 287, 1979c: 73; Wood, S. L. 1982b: 905.
- cynometrae* Schedl** 1957d: 50. Holotype, sex?; Congo Belge: Yangambi, Mahiba, 90 km N. Ouest de Tshela; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Cynometra hankei*.
References: (cc) Schedl 1961k: 471. (hb) Schedl 1961k: 471. (ds) Schedl 1961k: 471. (tx) Schedl 1957d: 50, 1961k: 471, 1979c: 75.
- delicatus* Schedl** 1964j: 44. Holotype, sex?; Congo: Kivu, Terr. Fizi, Itombwe, 900 m; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Schedl 1964j: 44, 1979c: 77.
- deprecator* (Schedl)** 1941d: 393 (*Pachynoderes*). Holotype, sex?; Deutch Ostafrika, Amami; Schedl Collection in NHMW, Wien.
Figures: Schedl 1961k: 632.
Distribution: Africa (Tanzania).
References: (tx) Schedl 1941d: 393, 1961k: 632–633, 1979c: 78.
- dexter* (Sampson)** 1922: 141 (*Cryphalus*). Holotype, sex?; Portuguese East Africa: Xinavane; BMNH, London.
Distribution: Africa (Mozambique).
Notes: (1) Browne 1970: 553 (to *Hypothencemus*).
References: (hb) Beaver & Loytyniemi 1955a: 80. (ds) Beaver & Loytyniemi 1955a: 80; Schedl 1961k: 462. (tx) Browne 1970: 553; Sampson 1922: 141; Schedl 1957b: 150, 1961k: 462.
- dimorphus* (Schedl)** 1959c: 168 (*Stephanoderes*). Holotype, sex?; Malaya, Negri Sembilan, Jelelu, Triang For. Res.; Forest Research Institute, Kepong.
Distribution: Asia (Malaya).
Hosts: *Acacia auriculaeformis*.
References: (cn) Browne 1968: 353. (ds) Browne 1961c: 72, 1968: 353; Schedl 1959c: 168. (tx) Schedl 1959c: 168, 1979c: 81.
- dipteroearpi* Hopkins** 1915b: 17. Holotype ♀; Calapan, Mindoro, P.I.; USNM, Washington.
Distribution: Mangareva Islands, Philippine Islands (Mindoro).
Hosts: *Dipteroearpus polosapis*, *Hibiscus tiliaceus*.
References: (ds) Browne 1983a: 555, 1983b: 76, 1984c: 449; Kleine 1934a: 143; Ohno, Yoneyama, & Nakazawa 1987b: 93; Schedl 1966b: 24. (tx) Hopkins 1915b: 14, 17; Noinchi 1983: 300; Wood, S. L. 1972f: 45.
- mangarevanus* Beeson** 1940: 196. Holotype ♀; Mangareva Islands: Ankena, northwest side; BPBM, Honolulu. Synonymy: Wood 1972f: 45.
References: (ds) Beeson 1935b: 289; Wood, S. L. 1960a: 41. (tx) Beeson 1940: 196; Wood, S. L. 1960a: 41, 1972f: 45.
- dissimilis* (Zimmermann)** 1868: 144 (*Crypturgus*). Holotype ♀; North Carolina [USA]; MCZ, Cambridge.
Figures: Blackman 1922b: pl. 5, figs. 29–30.
Distribution: North America (Alabama, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Louisiana, Kentucky, Maryland, Minnesota, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA).
Hosts: *Accr rubrum*, *Carya* spp., *Cercis canadensis*, *Fagus grandifolia*, *Kalmia latifolia*, *Quercus*

spp., *Ocotea catesbyana*, *Rhammus lanceolata*, *Vitis* spp.

References: (**bv**) Kirkendall 1984: 241; Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. (**cn**) Baker, W. L. 1972: 254; Lintner 1896: 270; Packard 1890: 93; Roling & Kearby 1977; Smith, J. B. 1900: 362. (**cc**) Burks 1979: 856; Bushing 1965: 460; Felt 1906: 702; Roling & Kearby 1977. (**hb**) Baker, W. L. 1972: 254; Beal & Massey 1945: 110–113; Blackman 1922b: 89; Chamberlin 1939: 304; Chittenden 1890, 1893a, 1895: 385, 1897: 393; Deyrup & Atkinson 1987a: 66; Drooz 1985: 367; Felt 1906: 702; Hopkins 1899a: 343; Packard 1890: 93; Pierce, W. D. 1907: 291; Schwarz 1888a: 80; Smith, J. B. 1890b: 54; Wenzel 1905: 124; Wood, S. L. 1953: 123, 1954a: 1021, 1982b: 882. (**ds**) Anonymous 1926c: 518; Beal & Massey 1942, 1945: 110–113; Beaulne 1956; Blackman 1922b: 89; Blatchley & Leng 1916: 603; Bright 1976d: 114; Britton 1920a; Chamberlin 1939: 304; Chittenden 1890, 1893: 393, 1895b: 355; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Dodge 1938; Drooz 1985: 367; Gemminger & Harold 1872: 2688; Hagedorn 1910d: 41; Hamilton 1895: 346, 378; Henshaw 1885: 148; Hoffmann 1940: 60, 1942: 13; Hopkins 1893a: 133, 1893b: 210; Kirk 1969, 1970; Kleine 1913b: 121, 1914b: 386, 1934a: 145; Leng 1920: 340; Leonard 1928: 518; Lintner 1896: 270; Schwarz 1878d: 468, 1888a: 80; Smith, J. B. 1890a: 276, 1890b: 54, 1900: 362, 1910: 402; Swaine 1909: 116; Turnbow & Franklin 1980; Ulke 1902: 56; Wenzel 1905: 124; Wood, S. L. 1982b: 882. (**tx**) Beal & Massey 1945: 110–113; Blackman 1922b: 89; Blatchley & Leng 1916: 603; Bright 1976d: 114; Chamberlin 1939: 304; Dodge 1938: 39; Eichhoff 1872a: 132, 1878b: 143–144, 1896: 605; Hagedorn 1910a: 86; Hopkins 1915b: 24; LeConte 1868: 154, 1876: 356, 1878a: 468; Schedl 1951m: 101; Sharp 1879: 101; Swaine 1909: 116, 1918a: 40; Wood, S. L. 1953: 123, 1954a: 959, 1017, 1021, 1982b: 882; Zimmerman 1868: 144.

chapuisii Eichhoff 1872a: 132 (*Stephanoderes*).
Lectotype ♀; America bor. [USA]; IRSNB, Brussels, designated by Wood 1982b: 882.
Synonymy: Eichhoff 1896: 608.

References: (**hb**) Baker, W. L. 1972: 254; Beal & Massey 1945: 112; Blackman 1922b: 90–91; Chamberlin 1939: 305. (**ds**) Beal & Massey 1945: 112; Beeson 1938b: 290; Blackman 1922b: 90–91; Blatchley & Leng 1916: 604; Chamberlin 1939: 305; Drooz 1985: 365; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 41; Kleine 1934a: 145; Knull 1934: 212; Leng 1920: 340; Swaine 1909: 117. (**tx**) Beal & Massey 1945: 112; Blackman 1922b: 90–91; Blatchley & Leng 1916: 604; Chamberlin 1939: 305; Eichhoff 1872a: 132, 1878b: 143, 1896: 608, 610; Hopkins 1914: 130,

1915b: 24; LeConte 1876: 356; Swaine 1909: 117; Wood, S. L. 1954a: 959, 1021.

distinctus Wood 1954a: 1053. Holotype ♀; Union, Missouri [USA]; SMUK, Lawrence.

Distribution: North America (Florida, Indiana, Missouri, Oklahoma).

Hosts: *Rhus aromatica*.

References: (**hb**) Wood, S. L. 1953: 214, 1982b: 903. (**ds**) Atkinson et al. 1991: 161; Wood, S. L. 1982b: 903. (**tx**) Wood, S. L. 1953: 214, 1954a: 1053, 1066, 1982b: 903.

dolichocola Hopkins 1915b: 19. Holotype ♀; Canton, China; USNM, Washington.

Distribution: Asia (Canton in China).

Hosts: *Dolichos lablab*.

References: (**ds**) Kleine 1934a: 143. (**tx**) Hopkins 1915b: 14, 19.

dolosus Wood 1974a: 21. Holotype ♀; Pandora, Limon, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica/ Honduras/ Chiapas, Veracruz in Mexico).

Hosts: *Mimosa* sp., *Sucietenia* sp.

References: (**ds**) Atkinson & Equihua 1986a: 422; Wood, S. L. 1982b: 889. (**tx**) Wood, S. L. 1974a: 21, 1982b: 889.

donisi (Schedl) 1957d: 46 (*Ericryphalus*). Holotype, sex?; Congo Belge; Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire), Madagascar.

Hosts: *Cynometra hankei*.

References: (**tx**) Schedl 1957d: 46, 1961k: 455–456; Wood, S. L. 1989: 174.

madagascariensis Schedl 1961e: 131 (*Ericryphalus*). Holotype, sex?; Madagascar, petite foret pres de Tananarive; IRSM, Madagascar.
Synonymy: Wood 1989: 174.

References: (**hb**) Schedl 1977a: 40. (**tx**) Schedl 1961e: 131, 1977a: 40; Wood, S. L. 1989: 174.

dorsosignatus (Schedl) 1950f: 46 (*Stephanoderes*). Holotype, sex?; Fiji Islands, Suva; Eggers Collection, in NHMW, Wien.

Distribution: Fiji Islands.

References: (**ds**) Browne 1974a: 64. (**tx**) Beaver 1991: 92; Schedl 1950f: 46–47, 1979c: 84.

fijianus Schedl 1955b: 289 (*Stephanopolinus*). Holotype, sex?; Fiji; Schedl Collection in NHMW, Wien. Synonymy: Beaver 1991: 92.

References: (**ds**) Browne 1974a: 65. (**tx**) Beaver 1991: 92; Schedl 1955b: 289, 1979c: 96.

dubius (Schedl) 1971c: 372 (*Stylotentus*). Holotype, sex?; Ceylon: Rolonnenarawa; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka/Vietnam).

References: (**tx**) Schedl 1971c: 372, 1973c: 377, 1979c: 85.

elaphas (Eichhoff) 1872a: 132 (*Stephanoderes*). Holotype, sex?; Isle de France [Eichhoff 1878b: 143 gives St. Mauritius]; IRSNB, Brussels.

Distribution: Africa (Mauritius Island/ Mozambique/ South Africa/ Tanzania/ Zaire), Madagascar.

References: (ds) Allhaud 1900: 439; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 42; Kleine 1913b: 121; Schedl 1961k: 472, 1962b: 58, 1962k: 1068, 1965c: 352. (tx) Eggers 1920: 121, 1924: 202, 1932: 31, 1934b: 27, 1943c: 75; Eichhoff 1872a: 132, 1878b: 142–143; Hagedorn 1910a: 82, 86, 1913a: 254; Hopkins 1914: 116, 135, 1915b: 24; Schedl 1939i: 380, 1950c: 203, 1953d: 68, 1961k: 472–473, 1962h: 58, 1962k: 1068, 1969d: 10, 1977b: 49.

spinosus Hagedorn 1909a: 745 (*Adiaeretus*). Syn-types 2, sex?; Caffiraria, Transval; MNB, Berlin. Synonymy: Schedl 1961k: 472.

References: (ds) Hagedorn 1910d: 47; Kleine 1913b, 1914b: 319. (tx) Eggers 1924: 102, 1932c: 31, 1934b: 27; Hagedorn 1909a: 745, 1910a: 82; Hopkins 1914: 116; Schedl 1939i: 380, 387, 1961k: 472.

° *emmi* (Hagedorn) 1913a: 254 (*Cryphalus*). Syn-types, sex?; Madagascar; Hamburg Museum, lost.

Distribution: Madagascar (fossil in copal).

References: (ds) Kleine 1912a: 213; Spahr 1981. (tx) Eggers 1919: 240, 1927a: 196; Hagedorn 1913a: 254.

emmi Eggers 1919: 240 (*Stephanoderes*). Holotype, sex?; Madagascar-Copal; Hamburg Museum, lost. Synonymy: Eggers 1919: 241.

Notes: (1) Eggers renamed this species from the Hagedorn holotype without realizing that a description had already been published.

References: (tx) Eggers 1919: 240–241, 1927a: 196.

erectus LeConte 1876: 356. Lectotype ♀; labeled “Texas, [collected by] Belfrage,” presumably from the lower Rio Grande Valley [USA]; MCZ, Cambridge, designated by Wood 1972f: 45.

Figures: Atkinson & Equihua 1988: 95 (adult).

Distribution: “Africa”, Antilles Islands (Cuba/ St. Thomas), North America (Honduras/ Chiapas, Colima, Hidalgo, Jalisco, Nayarit, Nueve Leon, Puebla, Queretaro, San Luis Potosi, Sinaloa, Tamaulipas, Veracruz in Mexico/ S Texas in USA), South America (Venezuela).

Hosts: *Condalia* sp., *Ficus* sp., *Inga* sp., *Miconia* sp., *Mimosa* spp., *Prosopis* sp., *Rubus* sp., *Serjania* sp., *Toxicodendron* sp., *Verbisina agricolorum*, *Vismia* sp.

Notes: (3) This species was apparently introduced to America from Africa or Madagascar where numerous variants occur.

References: (cn) Packard 1890: 93; Smith, J. B. 1900: 362. (cc) Equihua & Atkinson 1986: 631; Felt 1906: 702, 740. (hb) Burgos & Saucedo 1983: 104; Chamberlin 1939: 310; Chittenden 1890; Equihua & Atkinson 1986: 631; Felt 1906: 702, 740; Packard 1890: 93; Pierce, W. D. 1907: 291;

Smith, J. B. 1890b: 54; Wood, S. L. 1953: 132, 1954a: 1026. (ds) Atkinson & Equihua 1985c: 356, 1986a: 422, 1988: 92; Blackwelder 1947: 775; Blandford 1904: 227; Blatchley & Leng 1916: 602; Bright 1955c: 174; Burgos & Saucedo 1983: 104; Chamberlin 1939: 310; Chittenden 1890; Equihua & Atkinson 1986: 631; Estrada & Atkinson 1988: 209; Ferrer 1942; Hagedorn 1910d: 42; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 132, 1893b; Kleine 1913b: 121, 1914b: 350, 386, 1934a: 145; Leng 1920: 340; Smith, J. B. 1890a: 267, 1890b: 54, 1900: 362, 1910: 401; Swaine 1909: 117; Thomas, J. B. 1966; Wood, S. L. 1977a: 71, 1983: 104. (tx) Atkinson & Equihua 1988: 95; Blandford 1904: 227; Blatchley & Leng 1916: 602–603; Bright 1955c: 174; Chamberlin 1939: 310; Eichhoff 1878b: 146, 1896: 608; Hagedorn 1910a: 86; Hopkins 1915b: 24; LeConte 1876: 356; Schedl 1940a: 342; Swaine 1909: 117; Wood, S. L. 1953: 132, 1954a: 959, 1018, 1026, 1972f: 45, 1976a: 348, 1982b: 885.

validus Blandford 1904: 228. Holotype ♀; Motzorongo, Veracruz, Mexico; BMNH, London. Synonymy: Wood 1972f: 46.

References: (ds) Blackwelder 1947: 778; Ferrer 1942; Hagedorn 1910a: 46; Kleine 1913b: 124, 1914b: 350; Sampson 1914: 385; Wichmann 1955a: 107. (tx) Blandford 1904: 228; Browne 1970: 556; Hagedorn 1910a: 88; Hopkins 1915b: 24; Sampson 1914: 385; Schedl 1940a: 342; Wood, S. L. 1972f: 46.

puncticollis Hopkins 1915b: 32 (*Stephanoderes*).

Holotype ♀; Tampico, Tamaulipas, Mexico; USNM, Washington. Synonymy: Wood 1972f: 46. References: (ds) Blackwelder 1947: 778; Ferrer 1942; Schedl 1963c: 157; Wood, S. L. 1961c: 1. (tx) Hopkins 1915b: 25, 32; Schedl 1940a: 342, 1940c: 206; Wood, S. L. 1961c: 1, 1972f: 46.

cubensis Hopkins 1915b: 32 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 46.

References: (ds) Blackwelder 1947: 777; Leng & Mutchler 1917: 219. (tx) Eggers 1940a; Hopkins 1915b: 24, 32; Schedl 1951m: 103; Wood, S. L. 1972f: 46.

brunneicollis Hopkins 1915b: 33 (*Stephanoderes*). Holotype ♀; Round Mountain, Texas [USA]; USNM, Washington. Synonymy: Wood 1954a: 1026.

References: (hb) Chamberlin 1939: 310. (ds) Chamberlin 1939: 310; Kleine 1934a: 145; Leng 1920: 340. (tx) Chamberlin 1939: 310; Hopkins 1915b: 24, 32–33; Wood, S. L. 1954a: 959, 1026.

discedens Schedl 1950d: 23 (*Stephanoderes*). Holotype ♀; St. Thomas; Schedl Collection in NHMW, Wien. Synonymy: Wood 1976a: 348. References: (tx) Schedl 1950d: 23, 1961k: 562; Wood, S. L. 1976a: 348.

eruditus Westwood 1836: 34. Syntypes ♀: England?; some in BMNH, London.

Figures: Balachowsky 1949a: 203–204, Grune 1979: 112, Masutti 1968: 365, Pedrosa-Macedo & Schonherr 1985: 47.

Distribution: Africa (Algeria/ Angola/ Cameroon/ Canary Islands/ Egypt/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Morocco/ Nigeria/ Seychelles Islands/ Sierra Leone/ South Africa/ Tanzania/ Togo/ Uganda/ Zaire), Antilles Islands (Cuba/ Guadeloupe/ Jamaica/ Puerto Rico/ Trinidad), Asia (Bonin Islands/ Burma/ Andaman Islands, Assam, Punjab, Uttar Pradesh in India/ Iran/ Israel/ Japan/ Malaya/ Sri Lanka/ Thailand/ Vietnam), Australia (Queensland), Cook Islands, Europe (Corsica/ England/ France/ Italy/ Spain), Fiji Islands, Hawaiian Islands, Indonesia (Java/ Sumatra), Madagascar, Marquesas Islands, Micronesia, New Caledonia, Niue Island, North America (Costa Rica/ Guatemala/ Honduras/ Chiapas, Colima, Jalisco, Michoacan, Nayarit, Oaxaca, Puebla, San Luis Potosi, Veracruz, Yucatan in Mexico/ Panama/ Alabama, Arkansas, California, District of Columbia, Florida, Georgia, Illinois, Louisiana, Maryland, Michigan, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA), Philippine Islands.

Hosts: Numerous hosts recorded by Beaver 1976b: 536, 1979b: 295, Browne 1961c: 76, Schedl 1961k: 488–498, Wood 1954a, 1982b: 902–903.

Notes: (3) Schedl 1965g: 19 (*Styphnaderes phascoli* Eggers, nomen nudum, synonymy).

References: (ay) Van Ryn-Tourmel 1975. (bv) Gray, B. 1974c; Grune 1979: 113; Schedl 1960f: 11; Turnbow & Franklin 1980. (cn) Anonymous 1970c: 13; Arruda 1965; Box 1953a; Brader 1964: 5; Browne 1961c: 76, 1968: 353; Chittenden 1893: 250; Corbet 1931: 351–355; Currie 1905: 7; Downe & Williams 1950; Ebeling 1950: 353, 533; Equihua 1988; Hagedorn 1913a; Hammad 1961; Hargreaves 1927: 24–27; Hubbard 1885: 173; Kleine 1932c: 302; Kumar, Jayaraj, & Mnthukrishnan 1979; Murillo Quinche 1959: 300; Petri 1912; Roark 1939: 308; Souphieff & Scherbinovskaja 1937: 81; Tsankov 1977; Vuillaume et al. 1981; Zacher 1913: 131–144. (ec) Ashmead 1883a, 1893: 451; Beaver 1979b: 298; Bushing 1965: 460; Chittenden 1893b; Equihua & Atkinson 1986: 632; Felt 1906: 725; Halperin & Holzschuh 1984: 26; Kleine 1908c: 187; Mendel 1986c: 115; Schedl 1958d: 190; Vuillaume et al. 1981; Wichmann 1955a: 105. (hb) Ashe 1949; Atkinson et al. 1986: 64; Baker, W. L. 1972: 254; Beaver 1974a, 1976b: 536, 1979b: 295, 1987a: 19; Beaver & Browne 1978: 590; Blandford 1894b; Bodenheimer 1930; Bright & Stark 1973: 69; Browne 1961c: 76, 1968: 353; Burgos & Saucedo 1983: 108; Deyrup & Atkinson 1987a: 66;

Equihua & Atkinson 1986: 632; Felt 1906: 725; Gardner 1957: 31; Gray, B. 1974c; Hagedorn 1913a; Halperin & Holzschuh 1984: 26; Hammad 1961; Hubbard 1885: 173; Kalshoven 1932: 242, 1951: 856, 1958b: 170–172, 179, 1963; Kleine 1932a: 302; Lengerken 1939: 64, 1954: 84; Loytyniemi, Beaver, & Loytyniemi 1984; Masutti 1968; Murillo Quinche 1959: 300; Pierce, W. D. 1907: 291; Pollet 1977; Postner 1974: 432; Roberts 1969: 66, 86; Schedl 1960f: 86, 1961k: 474; Schwarz 1889: 139, 1891e: 73–74; Smith, J. B. 1890b: 54; Wachtl 1876a: 453; Wood, S. L. 1953: 198, 1954a: 1058, 1982b: 900; Yunus & Hua 1980: 229; Zacher 1927: 161. (ds) Alkan 1964: 374, 390; Anonymous 1970c: 13; Atkinson & Equihua 1985c: 357, 1986a: 422, 1988: 92; Atkinson et al. 1986: 64; Aulmann 1912: 55–56; Barber 1919: 53–60; Beaver 1974a, 1976b: 536, 1987a: 19, 1987b: 65, 1990a: 280; Beaver & Browne 1975: 590; Beeson 1935: 103, 1938b: 289, 1940: 196–197, 1941: 374; Blackwelder 1947: 777; Blandford 1894b: 261–264, 1897b, 1904: 229–230; Bright 1972d: 50, 1985c: 175; Bright & Stark 1973: 69; Brimley 1938: 247; Browne 1963: 53, 1966: 245, 1968b: 353–354, 1968c: 111, 1974a: 64, 1976, 1984a: 150; Burgos & Saucedo 1983: 108; Bytinski-Salz 1966: 38; Cachan 1957: 15; Calver 1884, 1893; Chobant 1897: 262; Choo 1983: 65; Choo & Woo 1985: 164; Choo, Woo, & Nobuchi 1983: 172; Crotch 1863, 1866: 18; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Drooz 1985: 368; Equihua & Atkinson 1986: 632; Estrada & Atkinson 1988: 210; Fairmaire 1863: 33; Ferreira 1965: 1113; Ferrer 1942; Fowler 1891; Fowler & Donisthorpe 1913: 199; Gardner 1957a; Ganbil 1849: 127; Gemminger & Harold 1872: 2679; Ghesquiere 1933a: 32–36, 1933b: 783–786; Gray 1967: 9; Grune 1979: 113; Hagedorn 1903b: 546, 1910d: 42, 1913a: 44–45; Halperin & Holzschuh 1984: 26; Hamad 1961: 150; Hamilton 1889: 158, 1894b: 406, 1895a: 346, 378; Hargreaves 1948; Henshaw 1885: 148; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Hopkins 1893a: 132; Israelson 1972; Kalshoven 1963: 233; Kirk 1970; Kirkendall 1984: 242; Kleine 1913b: 124, 1914a: 15, 22, 1914b: 300, 308, 350, 361, 408, 1932a: 143, 302, 1934: 142–146; Kloft & Hinks 1945: 218; Krauss 1943: 88; Lacordaire 1866: 374; Lepesme 1944: 241, 1947: 645–646; Lintner 1896: 270; Lundblad 1958: 489; Marcu 1934: 57; Martorell 1945: 469; Masutti 1968: 360–370; Matthews & Fowler 1883: 42; Mayne & Donis 1951: 332–333; Miller, N. C. E. 1934; Moore 1964: 300; Munro 1946: 15; Newberry 1910: 83; Nobuchi 1985c: 16; Nobuchi & Ono 1973: 181; Nohira & Ogawa 1986; Numberg 1952: 18, 1961b: 609, 1965b: 18, 1971: 58, 1972b: 195; Ohno, Yoneyama, & Nakazawa 1982b: 7; Ohno, Yoskioka et al. 1985a: 92; Pedrosa-Macedo & Schonherr 1985: 47; Peyerimhoff

1911: 314, 1912: 173, 1915: 60, 1919: 225, 1935: 195; Pollet 1977; Postner 1974: 432; Redtenbacher 1858: 831, 1874: 374; Reitter 1894a: 75; Ross 1919: 83; Rye 1866a: 198, 1890: 270; Sampson 1914: 385; Sankeral & Rao 1966: 67; Schamm 1859: 96, 1862: 101; Schedl 1934f: 1640, 1959a: 478, 1959p: 16, 1960d: 76, 1960f: 11, 1961b: 187, 1961c: 69, 1961e: 131, 1961j: 349, 1961k: 474-476, 1961m: 84, 1962h: 58, 1962k: 1068, 1963c: 157, 1963f: 53, 1964a, 1964c: 305, 1966b: 24, 1969g: 290; Schedl, Lindberg, & Lindberg 1959: 16; Schonherr & Pedrosa-Macedo 1981: 52; Scudder 1864: 14, 1865: 13-14; Seidlitz 1891: 151; Smith, J. B. 1890b: 54, 1892: 43, 1900: 362, 1910: 401; Souphieff & Scherbinovskaja 1937: 81; Stein & Weise 1877: 164; Stephens 1830: 418, 1839: 209; Sufiew 1937: 65-68; Swaine 1909: 117-118; Swezey 1941: 117-118; Terra 1987: 19; Turnbow & Franklin 1980; Ulke 1902: 56; Wachtl 1876a: 453; Wichmann 1927: 79, 1927: 379, 1954: 509-510, 522, 1955a: 105; Wolcott 1945: 379; Wollaston 1864: 256, 1865: 239, 1868: 116-117; Wood, S. L. 1957e: 1273, 1960a: 41, 1977a: 71, 1982b: 900; Yunus & Hua 1980: 229. **(tx)** Balachowsky 1943: 168, 1949a: 202-205; Beal & Massey 1945: 117-118; Blackman 1922b: 6-104; Blandford 1894b: 261-264, 1904: 229-230; Blatchley & Leng 1916: 598; Bright 1972d: 50, 1985c: 175; Castelnau 1840; Chamberlin 1939: 288-289; Choo 1983: 65; Costa Lima 1928: 118, 1936: 356; Dodge 1938: 39; Duffy 1953: 3, 6; Eggers 1919: 241, 1921: 40, 1922: 86, 1924: 110, 1925: 153, 1927: 173, 1929: 55, 1936: 126; Eichhoff 1864b: 34, 1868d: 421, 1878a: 387, 1878b: 165, 1883: 134, 1896: 608; Erichson 1836: 61; Fauvel 1884a: 390, 1884b: 315, 1889, 1897: 66; Ferrari 1867a: 7, 17, 89, 1867b: 113, 1868: 255-256; Grune 1979: 112-113; Hagedorn 1903b: 546, 1909: 744, 1910a: 85-86; Hammad 1961; Hopkins 1914: 123, 133, 1915b: 12, 14, 1915c: 221-222; Houllbert 1922a: 13; Jacquelin du Val & Fairmaire 1868: 105; Lacordaire 1866: 374; LeConte 1876: 355-356; Masutti 1968: 365; Miller, N. C. E. 1934: 27; Murayama 1936: 126; Newberry 1910: 83; Niisima 1913: 1; Nobuchi 1983: 300; Numberg 1952: 18, 1956: 144; Pedrosa-Macedo & Schonherr 1985: 47; Perkins 1900: 173-180; Peyerimhoff 1935: 195-196; Portevin 1935: 325; Postner 1974: 432; Redtenbacher 1858: 831, 1874: 374; Reitter 1887: 194, 1894a: 75, 1902: 141, 1906: 711, 1911: 711, 1913a: 73-74; Sampson 1914: 385; Schedl 1934g: 178, 1935j: 1, 1939e: 328, 1939f: 32, 1939g: 170, 1940a: 322, 342, 1940c: 207, 1941f: 110, 1942a: 170, 1942b, 1942c: 174, 1942d: 12-13, 1950c: 204, 1950d: 3-20, 1950g: 895, 1951f: 40, 1951j: 19, 1951k: 134, 1952a: 449, 1952g: 49-50, 1952j: 2, 1953b: 124, 1953c: 288, 1953d: 68, 1954a: 139, 1954d: 871, 1954e: 50, 70, 1957a: 191-192, 1957b: 150, 1957d: 10-11, 1958b: 99, 1958d: 189-190, 1959a:

478, 1960a: 76, 1961b: 187, 1961k: 474, 1963e: 155, 1963h: 266, 1964a: 96-97, 1964c: 305, 1964e: 65, 1964i: 248, 1964j: 40, 1964k: 222, 1965a: 399, 1965f: 4, 1965g: 19, 22, 1966b: 24, 1966f: 80, 83, 1967e: 210, 1968c: 261-262, 1969d: 8-11, 1969e: 261-262, 1969g: 286, 290, 1969i: 140, 1970e: 80, 91, 1971a: 275, 280, 1971c: 366, 1971e: 2, 1971f: 147, 1977b: 51; Schedl, Lindberg, & Lindberg 1959: 16; Sharp 1879: 101-102; Stark 1952: 292; Stephens 1830: 418, 1839: 209-210; Swaine 1909: 117-118; Terra 1987: 19; Tredl 1907: 13; Westwood 1836: 34-36, 1839: 353, 1840: 157; Wood, S. L. 1953: 198, 1954a: 959, 1058-1061, 1960a: 41-44, 1972f: 46, 1974d: 282, 1977d: 513, 1982b: 900; Wylie & Yule 1977. **(ms)** Eichhoff 1868d: 421. *aspericollis* Wollaston 1860a: 365 (*Cryphalus*).

Syntypes, sex?: Madera; BMNH, London. Synonymy: Schedl 1960h: 16.

References: **(ay)** Peyerimhoff 1912: 173. **(cn)** Ebeling 1959; Garcia-Tejero 1955: 234; Gentry, J. W. 1975: 105; Grandi 1951; Hammad 1961; Souphieff & Scherbinovskaja 1937: 83. **(hb)** Balachowsky 1963a: 1280; Davatchi 1958; Eichhoff 1878b: 162; Grandi 1951; Hammad 1961; Peyerimhoff 1915: 19. **(ds)** Balachowsky 1963a: 1280; Beeson 1940: 196-197, 1961: 288; Davatchi 1958: 76; Ebeling 1959; Eichhoff 1878b: 162; Escalera 1919; Fauvel 1897; Gemminger & Harold 1872: 2683; Gentry, J. W. 1965: 105; Hagedorn 1910d: 41; Jansson 1940: 63; Lacordaire 1866: 379; Lundblad 1958: 489; Newberry 1910: 84; Peyerimhoff 1912: 173, 1935: 194-195; Schmitz 1898: 157; Sharp 1879: 102; Souphieff & Scherbinovskaja 1937: 83. **(tx)** Balachowsky 1949a: 202, 1963a: 1280; Beeson 1940; Eggers 1921: 40; Eichhoff 1878b: 162; Fauvel 1884; Hagedorn 1910a: 85; Hammad 1961; Hopkins 1915b: 13; Lacordaire 1866: 379; Newberry 1910: 84; Peyerimhoff 1911: 314, 1912: 173-174, 1935: 194; Schedl 1934f: 1640, 1951a: 449, 1960h: 16; Schedl, Lindberg, & Lindberg 1959: 16; Sharp 1879: 102; Sokanovskii 1954: 17; Wollaston 1860a: 365, 1864: 256, 1865: 239.

boieldieu Perrond 1864: 188 (*Bostrichus*). Holotype ♀; Kanala, New Caledonia; not located. Synonymy: Eichhoff 1878b: 166.

References: **(ds)** Gemminger & Harold 1872: 2690; Swaine 1909: 118. **(tx)** Blandford 1904: 229-230; Eichhoff 1878b: 166; Fauvel 1884b; Ferrari 1867a: 75; Hopkins 1915c: 222; Perrond 1864: 188; Swaine 1909: 118.

obscurus Ferrari 1867a: 17 (*Cryphalus*). Holotype ♀; Cuba; NHMW, Wien, preoccupied by Fabricius 1801. Synonymy: Wood 1974d: 282. References: **(ds)** Browne 1965: 187; Hagedorn 1910d: 44; Kalshoven 1964: 233; Kleine 1914b: 378. **(tx)** Eggers 1929e: 50-51, 1940a; Eichhoff 1878b: 163; Ferrari 1867a: 17; Hage-

- dorn 1910a: 87; Hopkins 1915b: 13; Wood, S. L. 1974d: 282.
- geruari* Eichhoff 1875b: 159 (*Stephanoderes*). Syntypes, sex?; America borealis (Mexico); Hamburg Museum, lost. Synonymy: Wood 1977d: 513.
References: (**hb**) Blackman 1922b: 83–84; Chamberlin 1939: 290. (**ds**) Blackman 1922b: 83–84; Blackwelder 1947: 778; Blandford 1904: 127–128; Chamberlin 1939: 290; Ferrer 1942; Hagedorn 1910d: 43; Kleine 1913b: 121, 1914b: 349; Leng & Mutchler 1927: 52. (**tx**) Blackman 1922b: 83–84; Blandford 1904: 127–128; Chamberlin 1939: 290; Eichhoff 1878a: 386, 1878b: 159; Hagedorn 1910a: 86; Hopkins 1915b: 13; Schedl 1940a: 342; Wood, S. L. 1954a: 1058, 1977d: 513.
- myrmedon* Eichhoff 1875b: 160 (*Stephanoderes*). Holotype ♂; Colombia: IRSNB, Brussels. Synonymy: Wood 1977d: 513.
References: (**ds**) Blackwelder 1947: 778; Hagedorn 1910d: 44; Kleine 1913b: 121, 1914b: 342. (**tx**) Eichhoff 1865, 1878a: 386, 1878b: 160; Hagedorn 1910a: 87; Hopkins 1915b: 21; Reitter 1902a: 141; Wood, S. L. 1977d: 513.
- chlersi* Eichhoff 1878b: 493 (*Stephanoderes*). Syntypes, sex?; Spain; Hamburg Museum, lost. Synonymy: Balachowsky 1949a: 202.
References: (**cn**) Anonymous 1980g; Widiez 1932: 415–445. (**hb**) Eichhoff 1881a: 47, 192; Peyerimhoff 1915: 60, 1919: 255. (**ds**) Anonymous 1980g; Balachowsky 1943a; Barthe 1896; Beeson 1940: 197; Davatchi 1955: 78; Fauvel 1885; Hagedorn 1910d: 42; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Kleine 1913b: 121, 1914a: 19, 1934a: 145; Murayama 1954b: 162; Peyerimhoff 1919: 255, 1935: 195–196; Pittioni 1943: 176; Ragusa 1924: 116; Reitter 1894a: 74; Sainte-Claire & Mequignon 1938: 446; Stein & Weise 1877: 164; Tredl 1907: 13. (**tx**) Balachowsky 1926: 263–264, 1943a: 168, 1949a: 202; Eggers 1940c: 233–234; Eichhoff 1878a: 387, 1878b: 493–495, 1881a: 47, 192, 1883a: 110, 134; Fauvel 1884a: 390, 1884b: 315, 1885; Hagedorn 1910a: 86; Hopkins 1914: 122, 1915b: 13, 1915c: 222; Murayama 1954b: 162; Niisima 1910a: 9; Portevin 1935: 325; Reitter 1887b: 194, 1894a: 74, 1913a: 73; Schedl 1934f: 1640, 1961k: 472.
- communis* Schaufuss 1891: 11 (*Stephanoderes*). Holotype ♀; Madagascar; Schedl Collection in NHMW, Wien. Synonymy: Wood 1992a: 90.
Notes: (1) Schedl 1977b: 70 (head of type missing).
References: (**hb**) Beaver 1987a: 18. (**ds**) Alluaud 1900: 439; Beaver 1987a: 18; Hagedorn 1910d: 41; Kleine 1914b: 326; Sampson 1914: 384; Schedl 1969d: 11, 1977b: 70. (**tx**) Hagedorn 1910a: 86; Sampson 1914: 384; Schaufuss 1891: 11; Schedl 1977b: 70–71; Wood, S. L. 1992a: 90.
- insularis* Perkins 1900: 181. Syntypes, sex?; Kauai, Hawaiian Islands; BMNH, London. Synonymy: Wood 1960a: 42.
References: (**ds**) Beeson 1938b: 289; Hagedorn 1910d: 43; Kleine 1913b: 124, 1914b: 302; Krauss 1943: 88; Swezey 1940: 169, 1941: 117, 1954: 14, 83. (**tx**) Hagedorn 1910a: 86; Perkins 1900: 181; Schedl 1934g: 177–178, 1939f: 32, 1941f: 109, 1942b: 147, 1951k: 134, 1951m: 71, 1958f: 35, 1966b: 24; Wood, S. L. 1960a: 42–43.
- tectonae* Stebbing 1903a: 263 (*Cryphalus*). Syntypes ♀; India. Berar, Melghat teak forests; FRI, Dehra Dun. Synonymy: Wood 1989: 174.
References: (**cn**) Mathur & Singh 1961b: 13; Stebbing 1903a: 263. (**hb**) Stebbing 1903a: 263. (**ds**) Beeson 1941 (1961: 288); Hagedorn 1910d: 45; Kleine 1914b: 269, 1934a: 143; Mathur & Singh 1961b: 13; Stebbing 1903a: 263. (**tx**) Beeson 1941 (1961: 288); Hagedorn 1910a: 88; Stebbing 1903a: 263, 1914: 536; Wood, S. L. 1989: 174.
- striatopunctatus* Lea 1910: 142 (*Cryphalus*). Syntypes, sex?; National Park, Sidney, New South Wales, Australia; SAM, Adelaide. Synonymy: Wood 1989: 174.
References: (**ds**) Schedl 1936f: 527. (**tx**) Lea 1910: 141–142; Schedl 1938f: 45, 1939f: 32; Wood, S. L. 1989: 174.
- tantillus* Lea 1910: 142 (*Cryphalus*). Holotype, sex?; N.S. Wales: Richmond River, Australia; SAM, Adelaide. Synonymy: Wood 1989: 174.
Notes: (1) Schedl 1938f: 44 (to *Hypothenus*).
References: (**ds**) Brimblecombe 1953: 20. (**tx**) Lea 1910: 142; Schedl 1938f: 44, 1942a: 169–170, 1942c: 163, 1948g: 25; Wood, S. L. 1989: 174.
- basjoo* Niisima 1910a: 9 (*Cryphalus*). Syntypes, sex?; Tokyo, Japan; Nobuchi Collection, Ibaraki. Synonymy: Wood 1972f: 46.
References: (**ds**) Beeson 1938: 288; Kleine 1934a: 142; Murayama 1936a: 126, 1953a: 9, 1954b: 162. (**tx**) Eggers 1929e; Murayama 1936a: 126, 1953a: 9, 1954b: 162; Niisima 1910a: 9, 1929: 55; Schedl 1934f: 1640, 1961k: 474; Wood, S. L. 1960a: 41, 1972f: 46.
- tuberculosis* Hagedorn 1912a: 339. Syntypes, sex?; Congo; Hamburg Museum, lost. Synonymy: Wood 1989: 174.
Notes: (3) Schedl 1939g: 170 (*pterygosperma*, nomen nudum).
References: (**cn**) Ghesquiere 1933a; Kleine 1932a: 302; Mayne & Donis 1951: 332. (**cc**) Aulmann 1913: 1–126; Mayne 1915: 577–596; Mayne & Donis 1951: 332. (**hb**) Kleine 1932a: 302. (**ds**) Ghesquiere 1933a; Kleine 1913b: 124, 1914b: 314, 1932a: 302, 1934a: 144; Lepesme et al. 1948: 645; Thompson, C. H.

- 1963: 45. **(tx)** Eggers 1924: 110, 1927a: 173; Hagedorn 1912a: 339; Schedl 1939g: 170, 1950d: 7, 17, 1951f: 40, 1951j: 19, 1952g: 50, 1952j: 2, 1954d: 871, 1954e: 49–50, 1957d: 10–11, 1961k: 475; Wood, S. L. 1989: 174.
- schwarzii* Hopkins 1915b: 11 (*Cosmoderes*). Holotype ♀; Haw Creek, Florida [USA]; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(bv)** Schedl 1960f: 29. **(hb)** Wood, S. L. 1953: 215, 1954a: 1066. **(ds)** Blatchley & Leng 1916: 593; Leng 1920: 339; Schedl 1960f: 29, 1961k: 502. **(tx)** Blatchley & Leng 1916: 593; Chamberlin 1939: 287; Hopkins 1915b: 11; Schedl 1961k: 502; Wood, S. L. 1953: 215, 1954a: 959, 1066, 1972f: 46.
- bradfordi* Hopkins 1915b: 15. Holotype ♀; Honolulu, Hawaii; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(ds)** Beeson 1938b: 289. **(tx)** Hopkins 1915b: 13, 15; Wood, S. L. 1972f: 46.
- flavosquamosus* Hopkins 1915b: 15. Holotype ♀; Mount Coffee, Liberia, West Africa; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(ds)** Kleine 1934a: 143. **(tx)** Hopkins 1915b: 13, 15; Schedl 1961k: 502; Wood, S. L. 1972f: 46.
- asiminae* Hopkins 1915b: 16. Holotype ♀; Plummers Island, Maryland [USA]; USNM, Washington. Synonymy: Wood 1954a: 1058. References: **(hb)** Blackman 1922b: 85; Chamberlin 1939: 291. **(ds)** Blackman 1922b: 85; Blatchley & Leng 1916: 597; Chamberlin 1939: 291; Kleine 1934a: 143; Leng 1920: 340. **(tx)** Blackman 1922b; Blatchley & Leng 1916: 597; Chamberlin 1939: 291; Hopkins 1915b: 13, 16; Schedl 1961k: 475; Wood, S. L. 1954a: 979, 1058.
- hamamelidis* Hopkins 1915b: 16. Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1058. References: **(hb)** Chamberlin 1939: 294. **(ds)** Blatchley & Leng 1916: 597; Chamberlin 1939: 294; Kleine 1934a: 143; Leng 1920: 340. **(tx)** Blatchley & Leng 1916: 597; Chamberlin 1939: 294; Hopkins 1915b: 13, 16; Schedl 1961k: 475; Wood, S. L. 1954a: 959, 1058.
- myristicac* Hopkins 1915b: 16. Holotype ♀; Buitenzorg, Java; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(hb)** Kalshoven 1958a: 172. **(ds)** Browne 1961c: 78; Kleine 1934a: 143; Schedl 1959a: 479. **(tx)** Hopkins 1915b: 14, 16; Schedl 1939d: 408, 1939f: 31, 1942d: 2, 1958b: 99, 1959a: 479; Wood, S. L. 1972f: 46.
- nigricollis* Hopkins 1915b: 16. Holotype ♀; Capetown, South Africa; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(ds)** Kleine 1934a: 143. **(tx)** Hopkins 1915b: 13–19; Schedl 1961k: 475; Wood, S. L. 1972f: 46.
- pruni* Hopkins 1915b: 16. Holotype ♀; Tryon, North Carolina [USA]; USNM, Washington. Synonymy: Wood 1954a: 1058. References: **(hb)** Beal & Massey 1945: 119; Chamberlin 1939: 294. **(ds)** Beal & Massey 1945: 119; Blatchley & Leng 1916: 597; Chamberlin 1939: 294; Kleine 1934a: 143; Leng 1920: 340. **(tx)** Beal & Massey 1945: 119; Blatchley & Leng 1916: 597; Chamberlin 1939: 294; Hopkins 1915b: 13, 16; Schedl 1961k: 475; Wood, S. L. 1954a: 959, 1058.
- runseji* Hopkins 1915b: 16. Holotype ♀; Little Falls, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1058. References: **(hb)** Beal & Massey 1945: 117; Blackman 1922b; Chamberlin 1939: 290. **(ds)** Beal & Massey 1945: 117; Blackman 1922b: 85; Blatchley & Leng 1916: 597; Chamberlin 1939: 290; Hopkins 1915b: 13, 16; Schedl 1961k: 475; Wood, S. L. 1954a: 959, 1058.
- temis* Hopkins 1915b: 16. Holotype ♀; Trece Aguas, Alta Verapaz, Guatemala; USNM, Washington. Synonymy: Wood 1972f: 47. References: **(ds)** Blackwelder 1947: 777; Kleine 1934a: 144. **(tx)** Hopkins 1915b: 14, 16; Wood, S. L. 1972f: 47.
- koebelii* Hopkins 1915b: 17. Holotype ♀; Brazil; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(ds)** Blackwelder 1947: 777. **(tx)** Hopkins 1915b: 14, 17; Wood, S. L. 1972f: 46.
- lineatifrons* Hopkins 1915b: 17. Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(ds)** Blackwelder 1947: 777; Leng & Mutchler 1917: 219. **(tx)** Hopkins 1915b: 14, 17; Wood, S. L. 1972f: 46.
- ndli* Hopkins 1915b: 17. Holotype ♀; Capetown, South Africa; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(ds)** Kleine 1934a: 143. **(tx)** Hopkins 1915b: 14, 17; Schedl 1961k: 508; Wood, S. L. 1972f: 46.
- parvus* Hopkins 1915b: 17. Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 46. References: **(ds)** Blackwelder 1947: 777; Kleine 1934a: 143; Leng & Mutchler 1917: 219; Martorell 1945: 469. **(tx)** Hopkins 1915b: 14, 17; Wood, S. L. 1972f: 46.
- sacchari* Hopkins 1915b: 17. Holotype ♀; Nevis, West Indies; USNM, Washington. Synonymy: Wood 1972f: 47. References: **(ds)** Blackwelder 1947: 777; Kleine 1934a: 144; Leng & Mutchler 1917: 219. **(tx)** Hopkins 1915b: 14, 17; Wood, S. L. 1972f: 47.
- webbi* Hopkins 1915b: 17. Holotype ♀; Calapan,

- Mindoro, Philippine Islands; USNM, Washington. Synonymy: Wood 1972f: 47.
References: **(ds)** Kleine 1934a: 144; Schedl 1966b: 25. **(tx)** Hopkins 1915b: 14, 17; Nobuchi 1953: 300; Wood, S. L. 1972f: 47.
- flatipes* Hopkins 1915b: 18. Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 46.
References: **(ds)** Blackwelder 1947: 777; Leng & Mutchler 1917: 219. **(tx)** Hopkins 1915b: 14, 18; Wood, S. L. 1972f: 46.
- punctifrons* Hopkins 1915b: 18. Holotype ♀; Lakeland, Florida [USA]; USNM, Washington. Synonymy: Wood 1954a: 1059.
References: **(hb)** Blackman 1922b: 88; Chamberlin 1939: 291. **(ds)** Blackman 1922b: 88; Blatchley & Leng 1916: 598; Chamberlin 1939: 291; Dodge 1938: 39; Hoffmann 1942: 13; Kaston 1938: 240; Kleine 1934a: 144; Leng 1920: 340. **(tx)** Blackman 1922b: 88; Blatchley & Leng 1916: 598; Chamberlin 1939: 291; Dodge 1938: 39; Hopkins 1915b: 14, 18; Schedl 1961k: 475; Wood, S. L. 1954a: 959, 1058.
- nigripennis* Hopkins 1915b: 19. Holotype ♀; Tallulah, Louisiana [USA]; USNM, Washington. Synonymy: Wood 1954a: 1059.
References: **(hb)** Blackman 1922b: 86–87; Chamberlin 1939: 291. **(ds)** Blackman 1922b: 86–87; Blatchley & Leng 1916: 598; Chamberlin 1939: 291; Kirk 1960a; Kleine 1934a: 143; Leng 1920: 340. **(tx)** Blackman 1922b: 86–87; Blatchley & Leng 1916: 598; Chamberlin 1939: 291; Hopkins 1915b: 14, 19; Schedl 1961k: 475; Wood, S. L. 1954a: 959, 1058–1059.
- ferrugineus* Hopkins 1915b: 20. Holotype ♀; Trece Agnas, Alta Verapaz, Guatemala; USNM, Washington. Synonymy: Wood 1972f: 46.
References: **(ds)** Blackwelder 1947: 777. **(tx)** Blackman 1922b: 87; Hopkins 1915b: 14, 20; Wood, S. L. 1972f: 46.
- heathi* Hopkins 1915b: 20. Holotype ♀; Independencia, Parahyba, Brazil; USNM, Washington. Synonymy: Wood 1972f: 46.
References: **(ds)** Blackwelder 1947: 777. **(tx)** Hopkins 1915b: 14, 20; Schedl 1952e: 450; Wood, S. L. 1972f: 46.
- punctipennis* Hopkins 1915b: 20. Holotype ♀; Capetown, "West" Africa; USNM, Washington. Synonymy: Wood 1972f: 46.
References: **(ds)** Kleine 1934a: 144; Schedl 1961k: 510. **(tx)** Hopkins 1915b: 15, 20; Schedl 1961k: 510; Wood, S. L. 1972f: 46.
- flavicollis* Hopkins 1915b: 24 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 47.
References: **(ds)** Blackwelder 1947: 778; Leng & Mutchler 1917: 219. **(tx)** Hopkins 1915b: 21, 24; Wood, S. L. 1972f: 47.
- pygmaeus* Hopkins 1915b: 24 (*Stephanoderes*). Holotype ♀; Pagbilao, P.I.; USNM, Washington. Synonymy: Wood 1972f: 47.
References: **(ds)** Schedl 1966b: 29. **(tx)** Hopkins 1915b: 21, 24; Nobuchi 1953: 300; Wood, S. L. 1972f: 47.
- elongatus* Hopkins 1915b: 25 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 47.
References: **(ds)** Blackwelder 1947: 778; Leng & Mutchler 1917: 219. **(tx)** Hopkins 1915b: 21, 25; Wood, S. L. 1972f: 47.
- subconcentralis* Hopkins 1915b: 25 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 47.
References: **(ds)** Blackwelder 1947: 778; Leng & Mutchler 1917: 219. **(tx)** Hopkins 1915b: 21, 25; Wood, S. L. 1972f: 47.
- unicolor* Hopkins 1915b: 25 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 47.
References: **(ds)** Blackwelder 1947: 778; Leng & Mutchler 1917: 219. **(tx)** Hopkins 1915b: 21, 25; Wood, S. L. 1972f: 47.
- ecynomi* Hopkins 1915b: 26 (*Stephanoderes*). Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1059.
References: **(hb)** Chamberlin 1939: 303. **(ds)** Chamberlin 1939: 303; Kleine 1934a: 145; Leng 1920: 340. **(tx)** Blatchley & Leng 1916: 600; Chamberlin 1939: 303; Hopkins 1915b: 22, 26; Schedl 1961k: 475; Wood, S. L. 1954a: 1058.
- bicolor* Eggers 1919: 241. Lectotype ♀; Anani, East Africa; USNM, Washington, designated by Anderson & Anderson 1971: 6. Synonymy: Schedl 1957d: 11.
References: **(cn)** Souphieff & Scherbinovskaya 1937: 81. **(ds)** Kleine 1934a: 143; Souphieff & Scherbinovskaja 1937: 81. **(tx)** Anderson, W. H. & Anderson 1971: 6; Eggers 1919: 241, 1924: 110.
- chlersi rottoni* Peyerimhoff 1919: 255. Syntypes, sex?; Sidi-bel-Abbes, Oran, North Africa; MNIN, Paris. Synonymy: Balachowsky: 1949a: 202.
References: **(tx)** Balachowsky 1943: 168, 1949a: 202; Peyerimhoff 1919: 255, 1938: 195; Schedl 1934f: 1640, 1961k: 475.
- juglandis* Blackman 1922b: 88. Syntypes, sex?; Port Gibson, Mississippi [USA]; USNM, Washington. Synonymy: Wood 1954a: 1058.
References: **(hb)** Chamberlin 1939: 292. **(ds)** Chamberlin 1939: 292; Kleine 1934a: 243; Leng & Mutchler 1927: 52. **(tx)** Blackman 1922b: 88; Chamberlin 1939: 292; Schedl 1961k: 475; Wood, S. L. 1954a: 959, 1058.
- pusillus* Eggers 1927a: 173. Lectotype ♀; Belg.-Congo (Mayumbe); USNM, Washington, designated by Anderson & Anderson 1971: 27. Synonymy: Wood 1989: 174.

- References: **(bv)** Schedl 1960f. **(cn)** Ghesquiere 1933a: 32–36, 1933b: 753–756; Magnin 1954: 468; Mayne & Donis 1951: 331; Schedl 1960f: 77; Souplieff & Scherbinovskaja 1937: 51. **(ec)** Cachan 1957: 15; Entwistle 1963a: 57; Mayne & Donis 1951: 331; Schedl 1955d: 190, 1961k: 511. **(hb)** Jones, Roberts, & Baker 1959: 23; Paulian 1951: 27–31; Schedl 1958d: 190, 1961k: 511. **(ds)** Ghesquiere 1933a: 32–36; Kleine 1934a: 144; Mayne & Donis 1962: 307; Schedl 1960f, 1961k: 511; Souplieff & Scherbinovskaja 1937: 51; Thompson, G. H. 1963: 47. **(tx)** Anderson, W. H. & Anderson 1971: 27; Eggers 1927a: 173; Mayne & Donis 1962: 307; Schedl 1950c: 204, 1950d: 7, 17, 1951f: 40, 1952j: 2, 1953d: 68, 1954d: 570, 1954e: 49, 1955f: 258, 1957c: 324, 1957d: 11, 1961k: 511, 1979c: 206; Wood, S. L. 1959: 174.
- intersetosus* Eggers 1928c: 85 (*Stephanoderes*). Lectotype ♀; Brazil, Sao Paulo (Umgegend der Stadt); USNM, Washington designated by Anderson & Anderson 1971: 16. Synonymy: Wood 1972f: 47. References: **(cn)** Costa Lima 1956. **(hb)** Costa Lima 1956; Viana 1964: 122. **(ds)** Blackwelder 1947; Bright 1972d: 53; Costa Lima 1936, 1956; Kleine 1934a: 145; Schedl 1960a: 76; Viana 1964: 122. **(tx)** Anderson, W. H. & Anderson 1971: 16; Bright 1972d: 53, 1973: 18; Costa Lima 1956; Eggers 1928c: 85; Schedl 1951m: 71–73, 1957a: 192, 1958f: 35; Wood, S. L. 1972f: 47, 1977d: 513, 1979c: 127.
- gracilis* Eggers 1929c: 51 (*Stephanoderes*). Holotype ♀; Cuba; NHMW, Wien, automatic. Synonymy: Wood 1974d: 282. Notes: (1) A replacement name for *obscurus* Ferrari. References: **(cn)** Costa Lima 1956; Schmitz & Crisinel 1957: 11. **(hb)** Costa Lima 1956; Kalshoven 1963; Schmitz & Crisinel 1957: 11. **(ds)** Blackwelder 1947: 778; Costa Lima 1956; Dinther 1960: 111; Kalshoven 1963. **(tx)** Costa Lima 1956; Eggers 1929c: 51, 1940a; Schedl 1951b: 375–376, 1951m: 71–73; Wood, S. L. 1974d: 282.
- lezjavai* Pjatuiskii 1929a: 15. Syntypes, sex?; Georgia, USSR; not located. Synonymy: Schedl 1961k: 482. References: **(hb)** Davatchi 1955; Lezhava 1930: 863; Stark 1952: 291. **(ds)** Balachowsky 1963a: 1281; Davatchi 1958; Kleine 1934a: 143; Kobakhidze 1957: 175; Pfeffer 1935: 158; Stark 1952: 291. **(tx)** Pjatuiskii 1929a: 1, 15; Schedl 1934f: 1640, 1961k: 475; Sokanovskii 1954: 17; Stark 1952: 291.
- citri* Ebeling 1935: 21. Holotype ♀; Orange, California [USA]; CAS, San Francisco. Synonymy: Wood 1954a: 1059. References: **(cn)** Ebeling 1950, 1959. **(hb)** Chamberlin 1939: 289; Ebeling 1950. **(ds)** Blackwelder 1939; Chamberlin 1939: 289; Ebeling 1935: 21, 1950, 1959. **(tx)** Chamberlin 1939: 289; Ebeling 1935: 21; Schedl 1961k: 475; Wood, S. L. 1954a: 959, 1058.
- erythrinae* Eggers 1936d: 628 (*Stephanoderes*). Holotype ♀; Sakalapur, India; BMNH, London, 1 Eggers cotype in NHMW, Wien. Synonymy: Wood 1972f: 47. References: **(ds)** Beeson 1940: 195, 1961: 288; Brimblecombe 1953: 20; Browne 1961c: 78. **(tx)** Eggers 1936d: 627–628; Schedl 1948g: 25, 1953b: 124, 1955b: 284, 1958b: 99, 1979c: 92; Wood, S. L. 1972: 47.
- bicolor* Schedl 1939f: 32. Lectotype ♀; Java, Pengandaran; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 38, preoccupied by Eggers 1919. Synonymy: Schedl 1957d: 11. References: **(hb)** Kalshoven 1958: 170; Yunus & Hua 1980: 229. **(ds)** Yunus & Hua 1980: 229. **(tx)** Eggers 1919, 1924; Numborg 1960: 609; Schedl 1939e: 326, 328, 1939f: 32, 1942d: 2, 1950g: 896, 1953b: 124, 1953c: 288, 1957d: 11, 1961k: 475–476, 1979c: 38.
- argentincensis* Schedl 1939d: 405. Lectotype, sex?; Corrientes, Buenos Aires; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 24. Synonymy: Wood 1959: 174. References: **(hb)** Viana 1964: 121. **(ds)** Blackwelder 1947; Viana 1964: 121. **(tx)** Schedl 1939d: 408–409, 1948d: 36, 1952a: 446, 1958f: 34–35, 1979c: 24; Wood, S. L. 1959: 174.
- cylindricus* Schedl 1939d: 409. Lectotype, sex?; Isla Martin Garcia [Argentinien]; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 74, preoccupied by Hopkins 1915. Synonymy: Wood 1959: 174. References: **(cn)** Ghesquiere 1933a: 32. **(ds)** Blackwelder 1947: 777; Ghesquiere 1933a. **(tx)** Schedl 1939d: 409, 1951m: 71–73, 1952a: 446, 1957d: 12, 1961k: 547, 1979c: 74; Wood, S. L. 1959: 174.
- asaroriensis* Beeson 1940: 195. Holotype ♀; United Provinces: Asarori, Dehra Dun Division; FRI, Dehra Dun. Synonymy: Wood 1959: 174. References: **(cn)** Mathur & Singh 1960b: 9, 1961a: 63. **(ds)** Beeson 1961: 228; Bhasin, Roonwal, & Singh 1955; Mathur & Singh 1960b: 9, 1961a: 63. **(tx)** Beeson 1940: 195; Wood, S. L. 1959: 174.
- dubiosus* Schedl 1940c: 207. Lectotype, sex?; Hamburgfarm, Ebene Limon, Costa Rica; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 84. Synonymy: Wood 1972f: 47. References: **(tx)** Schedl 1940c: 207, 1979c: 84; Wood, S. L. 1972f: 47.
- subcylindricus* Eggers 1940c: 233 (*Stephanoderes*). Holotype ♀; Mosolo Kwenge, Kwango,

- Congo; MRCB, Tervuren. Synonymy: Schedl 1957d: 10.
References: (tx) Eggers 1940c: 233–234; Schedl 1950d: 3, 1953d: 68, 1957d: 10–11, 1961k: 476, 1979c: 241.
- mauiensis* Schedl 1941f: 110. Lectotype, sex?; Mani: Iao Valley; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 150. Synonymy: Wood 1989: 174.
References: (ds) Ford 1958: 333; Swezey 1941: 119, 1954: 83. (tx) Schedl 1941f: 110, 1959a: 480, 1979c: 150; Wood, S. L. 1989: 174.
- glabratus* Schedl 1942a: 175. Lectotype ♀; Kuala Lumpur, Malaya; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 105. Synonymy: Schedl 1961k: 482.
References: (ds) Browne 1961c: 78. (tx) Schedl 1942a: 175, 1942c: 174, 1953c: 288, 292, 1961k: 476, 482, 1979c: 105.
- calacensis* Eggers 1944b: 94 (*Archicophalus*). Syntypes ♀; Eala, Belgisch-Congo; MRCB, Tervuren. Synonymy: Schedl 1957d: 10.
Notes: (1) Schedl 1961k: 476 (to *Hypothenus*).
References: (cn) Mayne & Donis 1951: 333. (ec) Mayne & Donis 1951: 333. (ds) Mayne & Donis 1962: 311. (tx) Eggers 1944b: 94; Schedl 1950c: 204, 1950d: 3, 17, 1957d: 10–11, 1961k: 476, 1979c: 86.
- namulus* Schedl 1948f: 263 (*Stephanoderes*). Lectotype, sex?; Fernando, Noronha; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 163. Synonymy: Wood 1989: 174.
References: (tx) Schedl 1948f: 263, 1979c: 163; Wood, S. L. 1989: 174.
- parilis* Schedl 1951m: 100. Lectotype, sex?; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 185. Synonymy: Wood 1989: 174.
References: (ec) Schedl 1958d: 190. (tx) de Ruette 1970: 102; Schedl 1951m: 100, 1963i: 64, 1979c: 185; Wood, S. L. 1989: 174.
- obscuriceps* Schedl 1952a: 449. Lectotype ♀; Argentina: Buenos Aires, Pilar. Misiones, Dep. Concep., Santa Maria; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 175. Synonymy: Wood 1989: 174.
References: (hb) Viana 1964: 121. (ds) Viana 1964: 121. (tx) Schedl 1951m: 98, 1952a: 449, 1958f: 35–36, 1979c: 175; Wood, S. L. 1989: 174.
- tigrensis* Schedl 1952a: 452 (*Stephanoderes*). Lectotype, sex?; Argentina, Buenos Aires, Tigre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 253. Synonymy: Wood 1989: 174.
References: (hb) Browne 1961c: 78. (ds) Browne 1961c: 78. (tx) Schedl 1952a: 452, 1979c: 253; Wood, S. L. 1989: 174.
- glabratellus* Schedl 1953c: 292. Lectotype, sex?; Selangor, Kepong, Malaya; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 105. Synonymy: Schedl 1961k: 482.
References: (hb) Browne 1961c: 78. (ds) Bright 1972d: 52; Browne 1961c: 78. (tx) Bright 1972d: 52; Schedl 1953c: 288, 292, 1961k: 476, 482, 1979c: 105.
- parvus* Schedl 1957d: 49. Holotype, sex?; Congo Belge: Yangambi, Mabikwa; MRCB, Tervuren. Synonymy: Wood 1989: 174.
References: (hb) Schedl 1961k: 509. (ds) Browne 1963a: 556; Schedl 1959a: 479, 1961k: 509. (tx) Schedl 1957d: 49, 1959a: 479, 1961k: 509, 1963i: 44, 1979c: 185; Wood, S. L. 1989: 174.
- cylindripennis* Schedl 1957d: 51. Holotype, sex?; Congo Belge: Kivu, Mulungu; MRCB, Tervuren. Synonymy: Wood 1989: 174.
References: (ds) Mayne & Donis 1962: 306; Schedl 1961k: 471. (tx) Schedl 1957d: 51, 1961k: 471, 1979c: 74; Wood, S. L. 1989: 174.
- vianai* Schedl 1958f: 42. Lectotype, sex?; Argentinien: Buenos Aires, Tigre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 267. Synonymy: Wood 1989: 174.
References: (hb) Viana 1964: 121. (ds) Viana 1964: 121. (tx) Schedl 1958f: 42, 1979c: 267; Wood, S. L. 1989: 174.
- mesoleius* Schedl 1959a: 480. Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 174.
References: (ds) Schedl 1959a: 480. (tx) Schedl 1959a: 480, 1979c: 152.
- minutulus* Schedl 1972j: 225. Holotype, sex?; Ceylon, Central-North Central, Peradeniya, 550 m; MHNG, Geneve. Synonymy: Wood 1989: 174.
References: (tx) Schedl 1972j: 225; Wood, S. L. 1989: 174.
- minutus* Schedl 1978c: 299 (*Cryphalus*). Holotype, sex?; Brasilien, Nova Teutonia, 300–500 m, 27 11 Br., 52 23 L.; Schedl Collection in NHMW, Wien, preoccupied by Hopkins 1915. Synonymy: Wood 1989: 177.
References: (tx) Schedl 1978c: 299, 1979c: 157; Wood, S. L. 1989: 277.
- euphorbiae* (Schedl) 1961e: 135 (*Stephanoderes*). Holotype, sex?; Madagascar, Faux-Cap; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Euphorbia stenocladia*.
References: (tx) Schedl 1961e: 135, 1977a: 71, 1979c: 92.
- eximius* Schedl 1951m: 99. Lectotype, sex?; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 94.
Distribution: South America (Brazil).

- References: (tx) Schedl 1951m: 99, 1979c: 94.
- externedentatus** Schedl 1959a: 450. Holotype ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (ds) Schedl 1959a: 450, (tx) Schedl 1959a: 450, 1979c: 94.
- flavus** Hopkins 1915b: 17. Holotype ♀; Island of Java; USNM, Washington.
Distribution: Indonesia (Java).
References: (tx) Hopkins 1915b: 14, 17; Schedl 1942d: 12, 1950g: 896.
- fuscicollis** (Eichhoff) 1878b: 148 (*Stephanoderes*). Holotype, sex?; Columbia; Hamburg Museum, lost.
Distribution: Africa (Ghana), Antilles Islands (Jamaica), Asia (Punjab in India/ Japan), Indonesia (Java, Sumatra), North America (Belize), South America (Brazil/ Colombia/ Venezuela).
Notes: (1) Identity of this species is based on a specimen in the Schedl Collection (on loan from Eggers) that was compared by Eggers in 1925 to the holotype of *fuscicollis*.
References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 778; Costa Lima 1936, 1956; Hagedorn 1910d: 43; Kleine 1913b: 121, 1914b: 342; LaPelly 1968: 113. (tx) Costa Lima 1956; Eichhoff 1878a: 386, 1878b: 148; Hagedorn 1910a: 86; Hopkins 1915b: 23.
- sundaensis** Eggers 1927b: 396 (*Stephanoderes*). Holotype ♀; Haboko, Sumatra; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 174.
References: (hb) Kalshoven 1958b: 170. (ds) Browne 1961c: 79, 1970: 540, 1984a: 150; Peter, Bagle, & Balasabramanian 1984; Schedl 1959a: 455, 1964c: 304; Wood, S. L. 1982b: 881. (tx) Eggers 1927b; Schedl 1939f: 34, 1942a: 169–170, 1950f: 36–37, 1952c: 63, 1953b: 124, 1959a: 455, 1979c: 247; Wood, S. L. 1982b: 881, 1989: 174.
- acqualiclavatus** Schedl 1939f: 33. Lectotype ♀; Buitenzorg, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 13. Synonymy: Wood 1982b: 881.
References: (ds) Kalshoven 1958: 170; Wood, S. L. 1977a: 70. (tx) Schedl 1939f: 33–35, 1942d: 2, 1979c: 13; Wood, S. L. 1982b: 881.
- costalimai** Numberg 1958a: 484 (*Ernophilocus*). Holotype, sex?; Ceara [Brazil]; Numberg Collection, IZW, Warsaw. Synonymy: Wood 1986c: 266.
References: (cn) Azavedo 1924a. (ds) Numberg 1958a: 480. (tx) Numberg 1958a: 480; Wood, S. L. 1986c: 266.
- ghanaensis** Schedl 1962h: 67. Holotype, sex?; Ghana, Kumasi; BMNH, London. Synonymy: Wood 1989: 174.
References: (tx) Schedl 1962h: 67, 1962k: 1068, 1979c: 103; Wood, S. L. 1989: 174.
- glabratulus** (Schedl) 1957a: 192 (*Stephanoderes*). Syntypes, sex?; Jamaica, Rum Cave vicinity, St. Ann Parish, and Puerto Rico: Rio Piedras; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Jamaica/ Puerto Rico).
Notes: (1) Schedl 1979c: 105 (citation of holotype invalid).
References: (ds) Bright 1972d: 52, 1985c: 175. (tx) Bright 1972d: 52, 1985c: 175; Schedl 1957a: 192, 1979c: 105.
- glabripennis** (Hopkins) 1915b: 32 (*Stephanoderes*). Holotype ♀; Angat, P.I.; USNM, Washington.
Figures: Maiti & Saha 1986: 165 (adult).
Distribution: Asia ("China"/ Andaman Islands in India/ Malaya/ Thailand), Indonesia (Java, Sumatra), Philippine Islands.
Hosts: *Cassia* sp., *Styrax benzoin*, *Swietenia macrophylla*, *Tamarindus indica*.
References: (hb) Beaver & Browne 1975: 290, 1978: 591; Kalshoven 1958b: 168–169. (ds) Beaver & Browne 1975: 290, 1978: 591; Beeson 1961: 29S; Browne 1961c: 72; Maiti & Saha 1986: 164. (tx) Browne 1970: 555; Hopkins 1915b: 24, 32; Maiti & Saha 1986: 164; Nobuchi 1983: 300; Schedl 1942a: 169–170, 1942d: 2, 1953b: 124, 1954a: 139.
- gossypii** (Hopkins) 1915b: 25 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba), North America (Hidalgo in Mexico/ S Florida in USA).
Hosts: *Ammonia* sp., *Bidens pilosa*, *Cajanus cajan*, *Capparis bifolia*, *Gossypium* spp., *Ica imbricata*, *Mangifera indica*, *Parmentiera edulis*, *Persca americana*, *Poinsettia heterophylla*, *Sida rhombifolia*, *Tectona grandis*.
References: (cn) Simmonds 1924: 61–62; Souphieff & Scherbinovskaja 1937: 81. (ds) Atkinson & Equilua 1985c: 357; Atkinson et al. 1986: 64; Beeson 1938b: 295; Bright 1985c: 175; Costa Lima 1928: 121; Hargreaves 1948; Kleine 1934a: 145; Leng & Mutschler 1917: 219; Souphieff & Scherbinovskaja 1937: 81; Wood, S. L. 1982b: 903. (tx) Bright 1985c: 175; Hopkins 1915b: 21, 25; Schedl 1950f: 38; Wood, S. L. 1967b: 78, 1982b: 903.
- beameri** Wood 1954a: 1056. Holotype ♀; Homestead, Florida [USA]; SMUK, Lawrence. Synonymy: Wood 1967b: 78, 1972: 48.
References: (hb) Wood, S. L. 1953: 196, 1954a: 1056. (tx) Wood, S. L. 1953: 196, 1954a: 1056, 1967b: 78, 1972f: 48.
- grandis** Schedl 1939i: 384. Lectotype, sex?; Ukerewe, Tanganyika Territory; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 109.
Figures: Schedl 1961k: 503.

Distribution: Africa (Tanzania/ Zaire).

Hosts: *Anisopappus* sp., *Coffea* sp., *Dissotis graudiflora*, *Doryalis* sp., *Geniosporum paludosum*, *Indigofera arrecta*, *Kosteletzkya adocensis*, *Lactuca* sp., *Paulinia pinnata*, *Phyllanthus* sp., *Polygonum tomentosum*, *Pruus salassii*, *Theobroma cacao*, *Triunfetta* sp., *Veronia* sp., *Vireta multiflora*.

References: (tx) Schedl 1939g: 170, 1939i: 384, 1961k: 502–503, 1964j: 45, 1979c: 109.

hampei (Ferrari) 1867a: 11–12 (*Cryphalus*). Syn-types ♀; Gallia [in coffee beans]; NHMW, Wien. Figures: Frolich & Rodewald 1969, Le Pelley 1968: 114, Mbondii 1973, Schedl 1961k: 562–563, Yunus & Balsubramanian 1975: 74.

Distribution: Africa (Angola/ Cameroon/ Canary Islands/ Equatorial Guinea/ Central African Republic/ Chad/ Congo/ Fernando Po/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Liberia/ Nigeria/ Sao Tome Island/ Sierra Leone/ South Africa/ Sudan/ Tanzania/ Togo/ Uganda/ Zaire), Antilles Islands (Jamaica/ Puerto Rico), Asia (India/ Iran/ Malaya/ Sri Lanka/ Thailand), Indonesia (Java, Sumatra), Micronesia, New Caledonia, North America (Guatemala/ Honduras), Philippine Islands, Samoan Islands, South America (Argentina/ Brazil/ Colombia/ Suriname), Tahiti Islands. Intercepted worldwide in coffee beans.

Hosts: *Coffea arabica*, *C. liberica*, *C. robusta*.

References: (ay) Brun, Gaudichan, & Marcilland 1989; Edwards et al. 1952, 1953; Ferrao 1951; Herfs 1949: 26; Lhoste & Roche 1960; Mbondji 1973; Van Ryn-Tournal 1975. (bv) Abdul Aziz 1969; Baker, P. 1984; Meixner 1937: 1217; Schedl 1960f: 43. (cn) A. T. 1925: 287–298; Abasa 1975, 1983; Abdul Aziz 1969; Ahrens & Vandenput 1952: 65–72; Almeida & Cavalcante 1964: 85–90; Almeida, Cavalcante, & Holanda 1967; Almeida, Pigatti, & Arruda 1980; Alvarado 1939b; Amante, Cavalcante, & Balut 1971; Amaral 1959, 1962, 1963a, 1963b, 1964; Amaral, Arruda, & Yaya 1965; Amaral Castro 1924: 342–343; Ament 1928: 952; Anderson 1933: 95–110; Andrade 1914: 1–118; Annand 1942: 45–46; Anonymous 1919b: 194, 1921d: 603, 1922a: 456, 1924a: 354, 1926d: 920, 1928d: 14, 1930a: 23, 1937a: 217, 1962q, 1970p, 1980d; Arens 1921a: 314–320, 1921b: 296; Arisz 1923: 40–41, 1924: 1–63, 1925: 1–70; Arruda 1965; Aulmann & La Baume 1912: 48–54; Averna Sacea 1926: 1–87, 1930: 10–24, 195–213; Averoldi 1948; Azevedo 1924a: 85–86, 359–360; Baker, P. 1984; Bakker 1923: 1342; Bally 1921: 1, 1922: 43–61, 1924: 1–24, 1931; Bardner 1978: 459; Begemann 1925: 12–20, 1925: 97, 1925: 1263, 1926: 187, 1926: 194–232, 1926: 364, 1926: 803, 1927a: 329, 1927b: 1–21, 1927c: 194–207, 1928a: 285, 1928b: 573, 1928c: 353–359, 1929: 1–54, 1930, 1930: 11, 1956; Beille 1925: 387–388;

Bemelmans 1930: 418–424; Bergamin 1943: 31–72, 1944a, 1944b, 1944d, 1944e: 706–716, 1944g, 1945a, 1945c: 290–293, 1945d, 1945e, 1945f, 1945g, 1945h, 1945i, 1945j, 1946b, 1947a, 1947b, 1957, 1960; Berge 1922: 957; Bernard 1923: 175–187, 1926: 1–22, 1928: 1–14; Berry 1959; Berthet 1913a: 312–313, 701, 1925: 1–54; Betrem 1931: 799, 1936: 196; Blackman 1950; Bondar 1925: 1–13, 1928: 1–64; Bonnefil 1954: 12; Boocock 1959d; Borgmeier 1927: 279; Bos 1923: 988–999; Bontilly 1900: 1–139; Bowden 1960; Bredo 1934: 8–19, 494–514; Browne 1961c: 73; Brum, Gandichon, & Marcilland 1989; Bunting & Milsum 1930; Busck & Oliveira Filho 1925: 1–19; Bussy 1921, 1925: 249; Buzck, Schmitz, & Crisinel 1954: 297–310; Cachan 1957: 15; Caminha Filho 1926: 122–127; Campos Novas 1922: 67–70; Cheam & Ung 1973; Chevalier 1947: 1–356; Chiaromonte 1938b: 398–399; Cohic 1951, 1958: 10–14; Coleman 1931: 1–26; Coolhaas 1951; Coquard 1955: 137–142; Corbett 1929: 261–276, 1930: 212–214, 1931: 36–40, 1931: 48–64, 1931: 496–498, 1933: 8–22, 1935: 43–56, 1936: 41–53; Cordeiro Leite 1935: 645–654; Corporaal 1921: 1–5; Correa & Bastos 1960a, 1960b; Costa Lima 1922: 34–35, 1923: 111–114, 1925a: 194–199, 1925b: 368–374, 1925c: 16–19, 141–143, 226–227, 1928b: 117–123, 1928c: 3–49, 1936: 1–460, 1956; Costa Lima & Ravache 1925: 39–42; Cramer 1924: 20–21; Dammerman 1929; Dampf 1928: 14; D'Angremond 1940: 1–76; Davelaar 1921: 1–2; De Albuquerque Leao 1941; Decelle 1954; De Ingunza & Augusto 1964: 96–98; De La Torre et al. 1962a: 1–6, 1962b; Dias 1936: 60–66; Dinther 1960: 111; Do Amaral & Oliveira 1974; Do Amaral, Vaz Arruda, & Do Amaral 1973; Drouillon 1959: 198–207; Dumbleton 1954: 28, 104; Dupont 1925: 79; Duval 1949: 85–102; Duval et al. 1948; Edwall 1924: 257–302; Edwards et al. 1952, 1953; Emden 1924: 187–188; Escherich 1926: 593–613, 645–652, 1927: 493–498; Esteves 1959a, 1959b, 1961; Evans, A. C. 1960; Evans, D. E. 1965a, 1965b: 335, 1965c; Ferrao 1951, 1964; Ferreira Lima 1945: 225–231; Figueiredo, Puzzie, & Orlando 1959: 21–24; Filho 1925; Fleutiaux 1901; Flores Ruegg, Lord, & Mesquita 1977; Fonseca 1930: 87, 1934: 267, 1937: 220–229, 1939a: 57–59; Fonseca & Antuori 1932: 1–87; Fonseca & Araujo 1939: 486–504; Fonseca & Morae 1938: 285–291, 325–334, 368–376; Fontes 1961a, 1961b; Forsyth 1960: 280; Franco do Amaral 1956: 39–47; Franco do Amaral & Puzzi 1960; Franz 1949a; Friederichs 1921: 368, 1922b, 1922c, 1922e, 1922f, 1923a, 1923b, 1923c, 1923d, 1923e, 1923f, 1924b, 1924c, 1924d, 1925a, 1925b, 1925c, 1925d, 1925e, 1926d: 36–40, 78, 123, 1927b: 1–14; Friederichs & Bally 1922: 75–80, 1923: 103–147; Frohlich & Rodewald 1969: 97; Gallo 1963; Gandrup 1921: 886, 1922b, 1922c.

- 1923a: 2508, 1924a: 219-228, 1925: 124, 1926: 605, 1927: 1-42, 1929: 1842; Gentry, J. W. 1965: 190; Chesquiere 1933a: 26-36, 1933b: 773-786; Giannotti et al. 1965; Gignoux 1949: 183-184; Girard 1935: 96-98; Golding 1946: 1-48; Gomes 1962; Gonzaga et al. 1954: 49-50; Gonzalez 1978; Coot 1928: 2-4, 38-46, 69-72, 1935: 1-79, 1935: 1-94; Cowdley 1910: 7-8, 1912: 1-32, 1914: 36-58, 1916: 48-53, 1917: 32-37; Guenther 1925: 400-414; Haan 1922: 63-75, 1927: 16-30; Hagedorn 1913a: Halauer 1921: 1-2, 1922: 6-11, 1923: 1-41; Hall [van Hall] 1913: 256, 1919a: 291, 1919a: 980, 1919b: 201-205, 1919c: 1099, 1919d: 1-49, 1920: 1-50, 1921: 1-50, 1922: 25, 1923a: 1913-1926, 1924: 1-47, 1924: 1-53, 1925: 1-51, 1926: 75; Hall, Dammerman, & Ruitgers 1915; Hall & Ruitgers 1922: 81-89; Hambleton 1932: 384, 1944: 383-386, 1948; Hancock 1925: 25-28; Hargreaves 1921: 57-64, 1922: 29-32, 1922: 58, 1923: 15-21, 1923: 172-173, 347-354, 1924: 16, 1926: 51, 1927: 24-27, 1928: 1-11, 1929: 44-45, 1933: 50-54, 1934: 62-72, 1935: 218-224, 1936: 10, 1940: 372-380; Harris 1935: 84-89; Heinrich 1960, 1961: 17-29, 1965; Hempel 1933: 197-212, 1934a: 551-555; Herfs 1949: 26, 1950: 6; Hernandez-Paz & Penagos Dardon 1974; Heuren 1919: 1-66; Heyden, Reitter, & Weise 1883: 182; Hill, D. S. 1883: 70; Hoedt 1924: 248-258, 1929: 147; Hucce 1925: 1-11; Hutson 1936: 379, 1937a: 22-28, 1937b: 1, 1939: 36-41, 1941: 19-20; Ihering 1924: 111-114; Ingram 1965, 1968; Ingunza, S. 1962, 1964; Jack 1927: 23-27; Jepson 1936: 47-53; Jervis 1939: 121-124; Jong 1925: 1-30; Kaatz 1964; Kaden 1930: 1-56; Kalshoven 1932: 253, 1937: 1, 1951: 852, 1953b: 157; Kleine 1913b: 121, 1914b: 288, 323, 1932a: 145, 298; Knaus 1930: 1036; Kuneman 1923: 2321-2323; Kumihi 1930: 1-12; Lambourne 1936; Lankester 1921: 1-26, 1922: 1-26; Lavalre 1958: 124, 1962: 36, 1979; Lefmans 1920: 645-659, 1922a: 339, 1923: 5, 1923: 191-201, 1923: 1341, 1924a: 9, 1924b: 191-201, 1926: 439-441, 1927: 29-31, 1929: 1-96, 1930: 1-100; Lefevre 1954: 261-263; Leggeri 1952: 85; Lepage & Giannotti 1949: 299-308, 1950: 299-308; Lepage, Giannotti, & Orlando 1948: 17-18; LePelley 1959, 1968: 114, 1973; Lepesme 1944: 239-241, 1947: 644; Leplae 1928a: 271-276, 1928b: 121-123; Leroy 1936: 1-30; Lester-Smith 1937: 39; Lew 1924: 1-26; Licerias & Farge 1974; Ligt 1931: 5-7; Loureiro 1948: 24; Maas 1927: 803; Maas & Boedijn 1927: 1-16, 1927: 233; Maas et al. 1927: 806; Machado 1925: 1-11; Mallamaire 1935: 70-79, 1937: 1-45; Mancion & Alibert 1936: 33-43; Mansingh & Rhodes 1953; Marcu 1934: 57; Margarinos Torres 1926: 41-43; Mathur & Singh 1960a: 13; Mathur, Singh, & Lal 1958: 31, 1958: 103; Maurenbacher 1922: 769; Mayne 1914: 596-598, 1924: Mayne & Donis 1951: 333; McCrae 1958: 68; McDonald 1925: 163; McPherson, C. I. 1978; Mendes 1938a: 339-355, 1938b: 405, 1939a: 549-551, 1939b: 574-591, 1949a: 203-214, 1949b: 275-290; Mendes & Franco 1940: 1-33; Mendes et al. 1940: 3; Mertens 1916: 285-301, 1920: 246, 1922: 909; Michelmore 1949: 1-15, 1952: 4-22; Montealegre 1949c: 477; Monti 1954: 817-885; Moreira 1925: 1-26, 1928: 24-25; Morstatt 1911b: 384, 1912: 87, 1914: 137-139, 308, 1937: 26, 1941: 216, 1943: 84; Mumford 1960: 4, 1961: 33, 1962: 35, 1963: 44, 1964: 39, 1965: 33, 1966: 50; Munro 1927: 563; Nanta 1954: 471-473; Neiva 1925: 235-238, 1928: 1-27; Neiva & Acerra-Sacca 1927: 10; Neiva, Costa Lima, & Navarro de Andrade 1924: 235-238, 1925: 1-11; Neiva & Friederichs 1927: 69-74; Neiva, Navarro de Andrade, & Queiroz Telles 1924: 484-503, 1925a: 53, 93, 1925b: 1-11; Newcomer 1950: 5; Oakley 1953: 174-185; Oliveira Filho 1927: 1-95; Ore 1965; Ortiz & Leon 1972a, 1972b; Pamplona 1927: 1-104; Pascual 1939: 753-764; Paxquier 1932: 223-253; Penados-Robles & Ochoa 1978; Penagos Dardon 1974a; Penagos Dardon & Flores 1974; Petch 1926: 244-271; Pierrand 1962; Pigatti & Pereira 1960: 206-209; Pinto da Fonseca [Fonseca] 1932: 1-87, 1939: 57, 1939: 133-136; Poer, Trench, & Anderson 1930: 1-19; Porteres 1959: 6; Prates 1971; Puzzi 1939: 259-264; Ramachandrarao 1927: 373-374; Rai 1935: 10-25; Rayner 1951: 90-91; Restrepo 1920: 326-327; Rhodes, L. F. & Mansingh 1952; Ribas et al. 1976; Rienoso, C. 1964; Ritchie 1924: 20-22, 1925: 41-44 (141-144?), 1926: 33-36, 1929: 34-40, 1934: 73, 1935: 73-83, 1935: 95-103; Roba 1935: 299-305, 333-347, 371-379; Rocha 1926: 1-37; Rocha Lima 1945: 46; Rodovalho 1925: 1-32; Rodrigo 1941; Rocchoudt 1933: 34-35; Roepke 1909: 365, 1919a: 7; Ross 1919: 85; Rubies 1959: 11; Ruest 1938: 330, 1946: 18; Rutgers 1920: 1-43, 1921: 1-25, 1922: 1-27, 85-89; Sauer 1939: 165-192; Sauer, Duval, & Falanghe 1947: 205-214; Schedl 1961k: 562; Schmeideknecht 1924: 202; Schmidt 1939: 78, 132-150, 187, 239; Schmitz 1958: 261-266; Schmitz & Crisinel 1957: 9-156; Schmitterer 1961: 469; Schouteden 1924: 56-60, 1927: 114; Schwarz 1924: 68-69; Schweizer 1924a: 1387-1390, 1924b: 307-314, 1932: 1-87; Sefer 1961; Seixas 1947: 205, 215, 1948a: 71-89, 1948f: 163-164, 1950: 216-217, 1958a: 13, 1958b: 21; Serratet 1922: 117-118; Siemaszko 1937: 1-83; Silberschmidt 1951: 217; Sivaram 1980; Sladden 1932: 331, 1934: 26, 77; Small 1915: 751, 1921: 41; Smee 1927: 13-20; Smith & Andre Andant 1930: 978; Soares 1945: 138; Solly 1966; Sonsa Geribello 1928: 270-271; Sprengel 1926: 78; Stahel 1925: 103, 1926: 79; Staner 1928: 128-140; Stayaert 1935: 1-46; Steimman 1925: 143; Strohmeier 1910f: 187; Sulistowati 1986; Swain 1953: 166; Taylor, W. E. 1973: 57; Tempany 1930: 14; Thomas, J. M. 1949: 73; Thomas, R. T. S. 1961; Ticheler 1961: 1, 1963: 223-318; Toledo 1942:

- 233–260, 1943: 79–83, 1945: 27–32, 1947: 213–238; Toledo, Duvall, & Sauer 1947: 113–118; Toledo & Sauer 1947: 113; Toledo Piza Junior 1924: 3, 13, 1924b: 354–355, 1928a: 84–85, 1928b: 1–52, 1938: 424; Toledo Piza Junior and Pinto da Fonseca 1935a: 179–199; Toledo Rodovalho [Rodovalho] 1925b: 188–192; Trench 1932: 158–175; Ultee 1919: 1–25, 1921: 1–25, 1923: 22–24, 1924a: 359–367, 1924b: 1–43, 1924: 478, 1925: 1–43, 1926: 1–52, 1927: 18–23, 1928: 10–18, 41–42, 1929: 1–64, 1930: 647, 1931: 1–51, 1931: 1–55; Ultee & Arisz 1924: 229–237; Van der Goot 1928: 39; Van Roeholdt 1933: 34; Vayssiere 1923: 107–112, 136–150, 1924: 26–32, 1925: 241–248, 1927: 106–110; Vecht 1953: 272–277; Voute 1937: 28–34; Vrydagh 1940: 1–4; Vuillet 1914: 19–21; Wallace 1942: 45–46; Waterston 1923: 112–118; Weele [van der Weele] 1910: 1–6, 1910: 308–316; Wildman 1927: 205; Wilkinson 1928: 1–10, 1929: 172–186, 1933: 172–186, 1939: 86–101; Wille 1924: 171–174, 1925: 139–141; Willet 1952: 383; Wood, S. L. 1977a: 71; Wurth 1908a: 63–78, 1908b: 2–20, 1910: 101–105, 1913, 1919: 245–247, 1920: 1–21, 1922: 3–6, 49–52; Wyniger 1962b: 83; Yaya, V. 1965; Yunus & Balasubramaniam 1975: 75; Zacher 1927: 161. **(cc)** Abasa 1983; Averna-Sacca 1930; Baker, P. 1984; Bally 1922; Begemann 1925, 1926; Bemelmann 1930; Betrem 1961; Bredo 1934, 1939; Browne 1961c: 73; Buyckx et al. 1954; Chiaromonte 1938a; Clausen 1978: 292; Costa & Villacorta 1989; Fonseca & Araujo 1939; Friederichs 1923a, 1923b, 1923c, 1923d, 1923e, 1924a; Fry 1989: 16; Gomes 1962; Gosswald 1938: 434; Hempel 1934a; Koch, J. M. 1973; Leefmans 1923: 5; Madelin 1963: 260; Mayne & Donis 1951: 333; Mbondji 1974; Melville, A. R. 1958; Mendes 1949a: 203; Mumford 1960: 4; Puzzi 1939; Schedl 1961k: 562; Schouteden 1924: 56; Schwarz 1924: 68; Sladden 1934: 26, 77; Tanada 1963: 454; Thompson, W. R. 1943: 112; Thompson, W. R. & Simmonds 1964: 38; Toledo 1942: 234, 1948: 189; Toledo & Sauer 1947: 113; Toledo Piza Junior & Pinto da Fonseca 1935a: 179; Villacorta 1984; Waterston 1923: 112–118; Wichmann 1955a: 96; Yokoyama et al. 1978. **(hb)** Abasa 1983; Abdul Aziz 1969; Ahrens & Vandenput 1952; Alvarado 1939b; Amante & Balut 1972; Anonymous 1926d: 920; Baltazar & Salazar 1979: 86; Barkmeyer 1927; Bemelmann 1930; Bergamin 1944d; Blackman 1950: 327; Browne 1961c: 73–76; Chevalier 1947; Clausen 1978: 292; Cohic 1958; Corbett 1933; Costa & Villacorta 1989; Costa Lima 1924, 1956; Essig 1942: 605; Evans 1952: 141; Everts 1903: 756; Ferrao 1951; Filho 1928; Friederichs 1924a, 1925a; Frohlich & Rodewald 1969: 97; Hagedorn 1913a; Herfs 1949: 26; Hill, D. S. 1983: 70; Hutson 1936: 379; Kalshoven 1937: 1, 1951: 852–855, 1958: 172, 1963; Kleine 1932a: 298; Lengerken 1939: 64; LePelly 1968: 114; Mbondji 1974; Mendes 1949c: 203, 1951a: 213; Montealegre 1949c: 477; Mumro 1927: 563; Ortiz & Leon 1972a, 1972b; Penagos Dardon 1974a; Pasquier 1932: 238–247; Prates 1971; Roepke 1919a: 7; Schedl 1961k: 562; Schmitz & Crisinel 1957: 9–156; Sequeira 1961; Sivaram 1980; Sladden 1934: 26, 77; Sulistyowati 1986; Thomas, K. M. 1949: 83; Ticheler 1961, 1963; Wachtl 1876a: 456, 458; Wood, S. L. 1982b: 888; Yunus & Balasubramaniam 1975: 75; Yunus & Hua 1980: 228. **(ds)** Anonymous 1919b: 194, 1962q, 1968j, 1970p, 1980d, 1989c; Atkinson & Equihua 1985c: 357; Barthe 1896; Beaver 1989a: 2; Beaver & Browne 1975: 291; Beeson 1941: 368, 387–388, 925, 1961: 298; Begemann 1926; Bielz 1887; Blackman 1950; Blackwelder 1947: 778; Brakman 1966b: 206; Bright 1981c: 154, 1985c: 175; Browne 1961c: 73; Choo & Woo 1983; Costa Lima 1922, 1924, 1936, 1956; De Ingunza & Augusto 1964; Dumbleton 1954; Endrodi 1958b; Evans 1952: 141; Everts 1927; Ferreira 1965: 1115; Gemminger & Harold 1872: 2684; Gentry, J. W. 1965: 190; Ghesquiere 1933a; Gonzalez 1978; Hagedorn 1910d: 43, 1912: 41, 1913a: 12; Hambleton 1932, 1947, 1948; Heyden, Reitter, & Weise 1891: 671, 1906: 711; Hill, D. S. 1983: 70, 495, 552; Horion 1951; Johnston, A. 1963b; Kaatz 1961, 1962, 1964; Kalshoven 1932: 253, 1937: 1, 1963; Kleine 1913a: 35, 1932a: 298, 1934: 145; Lee 1971: 31; LePelley 1968: 114; Mathur & Singh 1960a: 13; Mathur, Singh, & Lal 1958: 31; Mayne & Donis 1962: 331; McPherson, G. I. 1978; Mendes 1951a: 213; Mumford 1960: 4, 1961: 33, 1962: 38, 1963: 44, 1964: 39, 1965: 33, 1966: 50; Nonveiller 1984: 40; Nunberg 1952: 19, 1961a: 329, 1965b: 20, 1972b: 197; Ortiz & Leon 1972a, 1972b; Peyerimhoff 1935: 193; Reid, J. C. 1983; Reitter 1894a: 74, 1916: 290; Roba 1935: 340; Schedl 1959a: 485, 1959p: 17, 1960f: 11, 1961k: 562, 662, 1962b: 58, 1962h: 58, 1962k: 1069, 1964j: 40, 1965g: 19, 1967e: 211, 1971d: 425, 1980a: 16; Schmutterer 1961: 469; Sefer 1961; Seidlitz 1891: 608; Sprecher 1934: 150; Stahel 1926: 79; Stein 1868: 114; Stein & Weise 1877: 164; Straby 1970: 6; Strohmeier 1910f: 186–187; Ticheler 1961, 1963; Tymchak 1976: 9, 1977: 10, 1978: 12, 1980: 17; Wachtl 1876a: 456–459; Wichmann 1927a: 79, 1955a: 96; Wood, S. L. 1957e: 1273, 1960a: 35, 1977a: 71, 1982b: 888; Yunus & Hua 1980: 228; Zimmermann 1904: 70. **(tx)** Bright 1985c: 175; Corbett 1933; Costa Lima 1924, 1956; Eggers 1922a: 85, 1923a: 129–130, 1927a: 177, 1929: 50, 1936d: 626, 1940c: 233; Eichhoff 1872a: 133, 1878b: 153–155; Endrodi 1957b; Essig 1942: 605; Everts 1903: 756; Ferrari 1867a: 11–12, 1867b: 113; Frolich & Rodewald 1969; Hagedorn 1910a: 86, 1910e: 2; Hopkins 1915b: 24; Le Pelley 1968: 114; Lindemann 1877a: 168; Mbondji 1973; Meixner 1937: 1217; Nunberg

1952: 19; Peyerimhoff 1935: 193; Reitter 1894a: 74, 1902: 191, 1906: 707–713, 1913a: 72, 1916: 290; Sampson 1923a: 269–271; Schedl 1934f: 1640, 1941d: 350, 1942d: 2, 1950c: 204, 1950d: 7, 16, 19, 1951b: 376, 1951f: 40, 1953g: 241, 1954d: 871, 1955f: 258, 1957a: 192, 1959a: 485, 1961k: 562–563, 1980a: 16; Wood, S. L. 1957e: 1273, 1960a: 35, 1972f: 48, 1982b: 888; Yunus & Balasubramaniam 1975: 74. (**ms**) Boocock 1959d; Busse 1926; Do Amaral, Vaz Arruda, & Do Amaral 1973; Eggers 1940e: 63; Howard 1930: 360; Kalshoven 1961b: 94; Merino-Rodriguez 1966: 49; Solly 1966; Sprengel 1926: 78.

coffea Hagedorn 1910e: 1 (*Stephanoderes*). Syntypes ♀; Entebbe, Uganda, Zentralafrika, Angola; BMNH, London. Synonymy: Hagedorn 1912: 40.

References: (**cn**) A. A. 1924; A. T. 1925; Alvarado 1939a; Anonymous 1921k: 624, 1924g: 266, 1924m: 265; Azavedo 1924a, 1924b, 1925a, 1925c; Bergamin 1943: 31–72; Conceicao 1943: 895–904; Costa Lima 1924, 1925c; Duclos 1928; Escherich 1927; Gowdey 1912: 1–32, 1913: 29–39, 1914: 36–58, 1917: 32–37, 48–53; Grandi 1951; Hagedorn 1913a; Herfs 1950: 6; Leplae 1925a: 271, 1928b: 121; Mayne 1914: 596; Morstatt 1911a: 69, 1914b: 305, 1914e: 138; Paulian 1943: 359; Rodovalho 1925b: 188; Roepke 1910: 91, 1919a: 7; Schmitz & Crisinel 1957: 9; Schouteden 1924: 56, 1927: 114; Sladden 1934: 27; Small 1915: 71–77, 1915: 751, 1921: 36; Van Roehoudt 1933: 34; Vayssiere 1924: 26; Vuillet 1914: 19–21, 1925: 601; Wille 1924: 172, 1925a: 139. (**ec**) Neger 1911a: 51; Neiva, Costa Lima, and Navarro de Andrade 1925a: 235, 264–273; Schouteden 1924: 56; Sladden 1934: 27; Thompson, W. R. 1943: 112. (**hb**) A. T. 1925; Alvarado 1939a; Costa Lima 1924: 316, 1925c; Grandi 1951; Hagedorn 1913a; Lengerken 1939: 64, 1954: 84; Morstatt 1924: 11, 17, 30; Paulian 1943: 359; Roepke 1919a: 7; Schmitz & Crisinel 1957: 9; Sladden 1934: 27; Vayssiere 1923: 107; Yunus & Hua 1980: 229. (**ds**) Azavedo 1925c; Blackwelder 1947: 778; Costa Lima 1924, 1925c; Hagedorn 1910d: 41, 1913a; Kleine 1913b: 121, 1914b: 288, 1934a: 145; Toledo Piza Junior 1924a: 325; Vayssiere 1923: 107; Yunus & Hua 1980: 229. (**tx**) Costa Lima 1924: 316; Eggers 1922a: 85, 1923a: 129–130; Hagedorn 1910a: 86, 1910e: 1–2, 1912b: 40–41; Lepesme 1944: 238; Sampson 1923a: 270; Schedl 1961k: 563–564; Toledo Piza Junior 1924b: 354.

coffeivorus Weele 1910: 1 (*Xyleborus*). Syntypes, sex?; Java; not located. Synonymy: Strohmeier 1910f: 186.

References: (**cn**) Chevalier 1947; Kalshoven 1932: 253; Roepke 1919a: 7; Strohmeier 1910f: 186–187. (**hb**) Chevalier 1947; Kalsho-

ven 1932: 253; Roepke 1919a: 7. (**ds**) Brakman 1966: 206; Everts 1927; Strohmeier 1910f: 186–187. (**tx**) Hagedorn 1912b: 40–41; Schedl 1962j: 583; Weele 1910: 308.

cooki Hopkins 1915b: 27 (*Stephanoderes*). Holotype ♀; Mount Coffee, Liberia; USNM, Washington. Synonymy: Schedl 1959a: 485.

References: (**tx**) Hopkins 1915b: 22, 27; Schedl 1959a: 111, 1961k: 563.

cofeicola Campos Novaes 1922: 67 (*Xyleborus*). Syntypes, sex?; Brazil; not located. Synonymy: Costa Lima 1924: 316.

References: (**cn**) Bergamin 1945: 290–293. (**hb**) Kalshoven 1963. (**ds**) Blackwelder 1947: 778; Kalshoven 1963; Kleine 1934a: 172; Roba 1935: 340. (**tx**) Campos Novaes 1922: 67–68; Costa Lima 1924: 316–319, 413–416, 1925: 194–199, 365–368; Schedl 1959a: 485, 1961k: 563.

punctatus Eggers 1924: 101 (*Stephanoderes*). Lectotype, sex?; Eala (Congostaat); USNM, Washington, designated by Anderson & Anderson 1971: 27. Synonymy: Wood 1972f: 48. References: (**bv**) Schedl 1960f: 33. (**cn**) Chesquiere 1933a: 26–36, 1933b: 774–782; Kemmer 1924: 1–33; Mayne & Donis 1951: 333–334. (**ec**) Mayne & Donis 1951: 333–334. (**hb**) Schedl 196k: 618. (**ds**) Chesquiere 1933a: 26–36; Lepesme 1947: 644–645; Lepesme et al. 1948: 644; Mayne & Donis 1962: 313; Roba 1935: 340; Schedl 1960f: 11, 1961k: 618, 1967e: 212. (**tx**) Anderson, W. H. & Anderson 1971: 27; Eggers 1924: 101; Schedl 1961k: 618; Wood, S. L. 1972f: 48.

glabellus Schedl 1952a: 452 (*Stephanoderes*). Lectotype, sex?; Argentina, Buenos Aires, Isla Martin Cargia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 104. Synonymy: Wood 1989: 174.

References: (**hb**) Viana 1964: 122. (**ds**) Viana 1964: 122. (**tx**) Schedl 1952a: 452, 1979c: 104; Wood, S. L. 1974: 174.

hirsutus (Wood) 1954a: 1020 (*Stephanoderes*). Holotype ♀; Plantation Key, Florida [USA]; SMUK, Lawrence.

Distribution: North America (S Florida in USA). Hosts: *Aceras sapota*, *Ardesia paniculata*, *Eugenia buxifolia*, *Ipomoea cathartica*, *Lysoloma bahamensis*, *Metopium toxiferum*, *Pithecellobium glandulouense*, *P. nigris-cati*, *Reynosia septentrionalis*. References: (**hb**) Wood, S. L. 1953: 120, 1954a: 1020. (**ds**) Wood, S. L. 1982b: 881. (**tx**) Wood, S. L. 1953: 120, 1954a: 1017, 1020, 1982b: 881.

hirtipennis Schedl 1952a: 450. Lectotype, sex?; Argentine, Buenos Aires, Tigre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 115.

Distribution: South America (Argentina).

- References: **(hb)** Viana 1964: 121. **(ds)** Viana 1964: 121. **(tx)** Schedl 1952a: 450, 1979c: 118.
- hystrix** (Eggers) 1919: 242 (*Adiacretus*). Lectotype ♀; Amami (Deutsch-Ostafrika); USNM, Washington, designated by Anderson & Anderson 1971: 14. Distribution: Africa (Tanzania). Hosts: *Laurus nobilis*. References: **(ds)** Kleine 1934a: 149; Schedl 1961k: 507. **(tx)** Anderson, W. H. & Anderson 1971: 14; Eggers 1919: 242–243, 1920: 120–121; Schedl 1939i: 350, 1961k: 507.
- incognitus** (Schedl) 1967e: 227 (*Stephanoderes*). Holotype ♀; Kindamba, Mexa, Bangou forest [Congo, Brazzaville]; NHMB, Budapest. Distribution: Africa (Congo). References: **(tx)** Schedl 1967e: 227–228, 1979c: 123.
- indigenus** Wood 1974a: 20. Holotype ♀; 9 km S Huajuapán, Oaxaca, Mexico; Wood Collection. Distribution: North America (Jalisco, Nayarit, Oaxaca, Puebla in Mexico). Hosts: *Psittacanthus* sp., *Serjania* sp., *Toxicodendron* sp. References: **(ds)** Wood, S. L. 1982b: 883. **(tx)** Wood, S. L. 1974a: 20, 1982b: 883.
- inermis** Browne 1984d: 94. Holotype, sex?; New Guinea; Kaisenik; BMNH, London. Distribution: New Guinea. Hosts: *Nothofagus* sp. References: **(tx)** Browne 1984d: 94.
- ingens** (Schedl) 1942d: 18 (*Stephanoderes*). Lectotype, sex?; Java, Semarang, teak forest, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 124. Distribution: Asia (Vietnam), Indonesia (Java, Sumatra). References: **(hb)** Kalshoven 1958b: 169. **(ds)** Browne 1970: 540; Schedl 1965a: 339, 1967e: 212. **(tx)** Schedl 1942d: 18, 1953b: 124, 1954a: 139, 1965g: 22, 1979c: 124. *grandis* Schedl 1969c: 49 (*Cryphalomorphus*). Holotype, sex?; Indo-China; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 174. References: **(tx)** Schedl 1961k: 502, 1969c: 49, 1971e: 10, 1979c: 108; Wood, S. L. 1989: 174.
- insignis** Browne 1984a: 151. Holotype, sex?; Niah (Sarawak) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). References: **(tx)** Browne 1984a: 151.
- interstitialis** (Hopkins) 1915b: 28 (*Stephanoderes*). Holotype ♀; Victoria, Texas [USA]; USNM, Washington. Distribution: Antilles Islands (Cuba/ Jamaica), North America (Costa Rica/ Guatemala/ Honduras/ Chiapas, Nayarit, Veracruz in Mexico/ Panama/ Alabama, Connecticut, District of Columbia, Florida, Georgia, Illinois, Kansas, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA), South America (Brazil/ Colombia). Hosts: *Acer rubrum*, *Aesculus* sp., *Carya* spp., *Cercis canadensis*, *Fagus grandifolia*, *Ficus* sp., *Liquidambar styraciflua*, *Magnolia* sp., *Miconia* sp., *Mimosa* sp., *Morus rubra*, *Ocotea catesbyana*, *Persca borbonica*, *Picea* sp., *Prosopis* sp., *Quercus* spp., *Rhododendron* sp., *Rhus* spp., *Serjania* sp., *Vismia* sp., *Vitis* sp. References: **(bv)** Roling & Kearby 1975b, 1977. **(cn)** Roling & Kearby 1977. **(ce)** Equihua & Atkinson 1986: 632; Roling & Kearby 1977. **(hb)** Baker, W. L. 1972: 254; Blackman 1922b: 93–94; Chamberlin 1939: 307; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 632; Wood, S. L. 1953: 145, 1954a: 1033. **(ds)** Atkinson & Equihua 1985c: 356, 1988: 92; Blackman 1922b: 93–94; Bright 1985c: 175; Chamberlin 1939: 307; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Drooz 1985: 365; Equihua & Atkinson 1986: 632, 1988: 210; Kirk 1970; Leng 1940: 340; Turnbow & Franklin 1980; Wood, S. L. 1982b: 887. **(tx)** Blackman 1922b: 93–94; Bright 1985c: 175; Chamberlin 1939: 307; Hopkins 1915b: 22, 28; Wood, S. L. 1953: 145, 1954a: 959, 1033, 1972f: 48, 1982b: 887.
- interpunctus* Hopkins 1915b: 28 (*Stephanoderes*). Holotype ♀; Brownsville, Texas [USA]; USNM, Washington. Synonymy: Wood 1954a: 1033. References: **(hb)** Beal & Massey 1945: 114; Blackman 1922b: 93; Chamberlin 1939: 307. **(ds)** Beal & Massey 1945: 114; Blackman 1922b: 93; Blackwelder 1947: 778; Chamberlin 1939: 307; Kleine 1934a: 145; Leng 1920: 340. **(tx)** Beal & Massey 1945: 114; Blackman 1922b: 93; Chamberlin 1939: 307; Hopkins 1915b: 22, 28; Schedl 1940a: 342; Wood, S. L. 1954a: 959, 1033.
- flavescens* Hopkins 1915b: 29 (*Stephanoderes*). Holotype ♀; Tallahassee, Florida [USA]; USNM, Washington. Synonymy: Wood 1954a: 1033. References: **(hb)** Chamberlin 1939: 309. **(ds)** Blatchley & Leng 1916: 602; Chamberlin 1939: 309; Leng 1920: 340. **(tx)** Blackman 1922b: 92; Blatchley & Leng 1916: 602; Chamberlin 1939: 309; Hopkins 1915b: 23, 29; Wood, S. L. 1954a: 959, 1033.
- approximatus* Hopkins 1915b: 29 (*Stephanoderes*). Holotype ♀; Columbus, Texas [USA]; USNM, Washington. Synonymy: Wood 1954a: 1033. References: **(hb)** Blackman 1922b: 93; Chamberlin 1939: 307. **(ds)** Blackman 1922b; Chamberlin 1939: 307; Kleine 1934a: 145; Leng 1920: 340. **(tx)** Blackman 1922b: 93;

- Chamberlin 1939: 307; Hopkins 1915b: 23, 29; Wood, S. L. 1954a: 959, 1033.
- obliquus* Hopkins 1915b: 30 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 48. References: (**ds**) Blackwelder 1947: 778; Leng & Mutchler 1917: 219. (**tx**) Hopkins 1915b: 23, 30; Wood, S. L. 1972f: 48.
- opacipennis* Hopkins 1915b: 30 (*Stephanoderes*). Holotype ♀; District of Columbia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1033. References: (**hb**) Chamberlin 1939: 309. (**ds**) Blatchley & Leng 1916: 602; Chamberlin 1939: 309; Leng 1920: 340. (**tx**) Blatchley & Leng 1916: 602; Chamberlin 1939: 309; Hopkins 1915b: 23, 30; Wood, S. L. 1954a: 959, 1033.
- quadridentatus* Hopkins 1915b: 30 (*Stephanoderes*). Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1033. References: (**hb**) Blackman 1922b: 91; Chamberlin 1939: 306. (**ds**) Blackman 1922b: 91; Blatchley & Leng 1916: 602; Chamberlin 1925, 1939: 306; Hoffmann 1942: 13; Kleine 1934a: 145; Leng 1920: 340. (**tx**) Blackman 1922b: 91; Blatchley & Leng 1916: 602; Chamberlin 1939: 306; Hopkins 1915b: 23, 30; Wood, S. L. 1954a: 959, 1033.
- intricatus* (Schedl) 1950d: 25 (*Stephanoderes*). Holotype, sex?; Uganda; Schedl Collection in NHMW, Wien. Distribution: Africa (Uganda). Hosts: *Theobroma cacao*. References: (**ds**) Schedl 1961k: 599. (**tx**) Numberg 1960: 291; Schedl 1950d: 25, 1961k: 590, 599, 1979c: 128.
- japonicus* (Niisima) 1910a: 10 (*Cryphalus*). Syn-types, sex?; Japan: Honshu; Nobuchi Collection, Ibaraki. Distribution: Asia (Honshu in Japan). References: (**ds**) Murayama 1954b: 199; Nobuchi 1955c: 16. (**tx**) Murayama 1954b: 199; Niisima 1910a: 10; Schedl 1934f: 1640.
- javanus* (Eggers) 1908c: 215 (*Stephanoderes*). Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 16. Figures: Maiti & Saha 1986: 167 (adult, antenna). Distribution: Africa (Cameroon/ Congo/ Gabon/ Ghana/ Ivory Coast/ Mozambique/ Sierra Leone/ St. Thome Island/ Zaïre/ Zambia), Antilles Islands (Cuba/ Guadeloupe/ Haiti in Hispaniola/ Martinique), Asia (Andaman Islands, Assam, Kerala, Nicobar Islands in India/ Malaya/ Sri Lanka/ Taiwan/ Thailand), Indonesia (Borneo, Java), North America (Jalisco in Mexico/ Florida in USA), Philippine Islands, South America (Brazil/ Venezuela). Hosts: *Banhinia alba*, *B. tomentosa*, *Budianana sessilifolia*, *Cuculphania pulcherrima*, *Conocarpus erecta*, *Dipterocarpus zeylanicus*, *Dryobalanops aromatica*, *Dyera costulata*, *Elcagnus pungens fruitlandi*, *Ficus aurea*, *Cossypium hirsutum*, *Hevea brasiliensis*, *Leucania glauca*, *Mangifera indica*, *Ochroma* sp., *Ocotea catesbiana*, *Personia borbonica*, *Rhcedia* sp., *Rhizophora mangle*, *Sterculia macrophylla*, *Tamarindus indica*, *Trema floridana*, *Vitis* sp. References: (**cn**) Mathur & Singh 1961a: 70; Sladden 1934: 27. (**cc**) Sladden 1934: 27; Wichmann 1955a: 98. (**hb**) Beaver 1957a: 19; Beaver & Loytyniemi 1955a: 80; Browne 1961c: 72–73; Deyrup & Atkinson 1957a: 66; Kalshoven 1955b: 169; Loytyniemi, Beaver, & Loytyniemi 1954; Sladden 1934: 27; Yunus & Hua 1980: 229. (**ds**) Atkinson & Equilma 1985c: 357; Beaver 1957a: 19, 1990a: 280; Beaver & Loytyniemi 1955a: 80; Beeson 1961: 299; Bright 1955c: 175; Browne 1961c: 73, 1980d: 493; Deyrup & Atkinson 1957a: 66; Hagedorn 1910d: 43; Kleine 1913b: 121, 1914b: 288, 1934a: 145; Maiti & Saha 1986: 167; Mathur & Singh 1961a: 70; Nobuchi 1967: 24; Schedl 1936d: 1, 1959a: 485; Van Swalolenburg 1956: 9; Wichmann 1955a: 98; Wood, S. L. 1957c: 402, 1977a: 71, 1982b: 909; Yunus & Hua 1980: 229. (**tx**) Anderson, W. H. & Anderson 1971: 16; Bright 1955c: 175; Eggers 1908c: 215, 1922b: 167, 1927b: 396, 1936d: 626; Hagedorn 1910a: 86; Hopkins 1915b: 24; Schedl 1939f: 35, 1942d: 3, 1952c: 62, 1954a: 139, 1958k: 143, 1959a: 485, 1959e: 328, 1961k: 603, 1962p: 204, 1979c: 130; Wood, S. L. 1957c: 402, 1960a: 79, 1967b: 79, 1975b: 393, 1976a: 348, 1982b: 909.
- obesus* Hopkins 1915b: 30 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1957c: 402. References: (**hb**) Wood, S. L. 1953: 139, 1954a: 1029. (**ds**) Blackwelder 1947: 775; Leng & Mutchler 1917: 219. (**tx**) Hopkins 1915b: 23, 30; Schedl 1962p: 204; Wood, S. L. 1953: 139, 1954a: 1018, 1029, 1957c: 402, 1975b: 393.
- philippinensis* Hopkins 1915b: 31 (*Stephanoderes*). Holotype ♀; Angat, Philippine Islands; USNM, Washington. Synonymy: Wood 1975f: 393. References: (**tx**) Hopkins 1915b: 23, 31; Wood, S. L. 1957c: 402, 1975b: 393.
- bananensis* Eggers 1922b: 167 (*Stephanoderes*). Syntypes 2, sex?; Banana, Congo; Eggers Collection (USNM, Washington or NHMW, Wien?). Synonymy: Wood 1972f: 51. References: (**bv**) Schedl 1960f: 77. (**cn**) Ghesquiere 1933a: 31–35, 1933b: 782; Schmitz & Crisinel 1957: 12. (**hb**) Schmitz & Crisinel 1957: 12. (**ds**) Ghesquiere 1933a; Kleine 1934a: 145; Schedl 1960f: 31, 1961k: 552. (**tx**) Eggers 1922b: 167–168, 1924: 102, 1927a:

- 197; Schedl 1948c: 664, 1950d: 17, 1954d: 871, 1961k: 547, 552; Wood, S. L. 1967b: 79, 1972f: 51, 1975b: 393.
- kalshovenii* Schedl 1939f: 35 (*Stephanoderes*). Lectotype, sex?; Pasoeroean, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131. Synonymy: Wood 1972f: 51. References: (hb) Kalshoven 1958: 169. (tx) Schedl 1939f: 35–36; Wood, S. L. 1972f: 51, 1975b: 393, 1979c: 131.
- subagnatus* Eggers 1940b: 101 (*Stephanoderes*). Holotype ♀; Eala, Congo; MRCB, Tervuren. Synonymy: Wood 1972f: 51. References: (cc) Schedl 1961k: 625. (hb) Schedl 1961k: 625. (ds) Mayne & Donis 1962: 313; Schedl 1961k: 625, 1962h: 58, 1962k: 1070. (tx) Eggers 1940b: 101–102; Schedl 1961k: 625, 1979c: 239; Wood, S. L. 1967b: 79, 1972f: 51, 1975b: 393.
- pistor* Schedl 1951m: 102 (*Stephanoderes*). Syn-types 2, sex?; Havana, Cuba; Schedl Collection in NHMW, Wien. Synonymy: Wood 1976a: 348. Notes: (1) Schedl 1979c: 195 (citation of holotype invalid). References: (tx) Schedl 1951m: 102, 1979c: 195; Wood, S. L. 1976a: 348.
- prosper* Schedl 1951m: 103 (*Stephanoderes*). Holotype ♀; Guadeloupe; Schedl Collection in NHMW, Wien. Synonymy: Wood 1976a: 348. References: (ds) Schedl 1960a: 76. (tx) Schedl 1951m: 103, 1979c: 199; Wood, S. L. 1976a: 348.
- kraunhiae* (Murayama) 1950a: 50 (*Cryphalus*). Syntypes, sex?; Fuchu, Tokyo pref., Honshu, Japan; Murayama Collection in USNM, Washington. Distribution: Asia (Honshu in Japan). Hosts: *Kraunhia floribunda*. References: (ds) Murayama 1954b: 164. (tx) Murayama 1950a: 50, 1954b: 164.
- krivolutskayae* Wood 1992b: 79. Holotype, sex?; Eastern USSR; Institute of Zoology, Academy of Science, Vladivostok, automatic. Distribution: Asia (eastern USSR). Hosts: *Botrocarium controversum*. References: (tx) Krivolutskaya 1968: 56–58; Wood, S. L. 1992b: 79.
- insularum* Krivolutskaya 1968: 56. Holotype, sex?; Eastern USSR; Institute of Zoology, Academy of Science, Vladivostok, preoccupied by Perkins 1900. References: (hb) Krivolutskaya 1973: 138. (ds) Krivolutskaya 1965a: 236, 1973: 138. (tx) Krivolutskaya 1968: 56–58; Wood, S. L. 1992b: 79.
- lamuensis* (Eggers) 1935c: 304 (*Stephanoderes*). Holotype, sex?; Kenya Colony (Lamu); BMNH, London. Distribution: Africa (Kenya). References: (tx) Eggers 1935c: 304; Schedl 1950d: 17, 1961k: 601.
- lefevrei* (Schedl) 1952j: 8 (*Stephanoderes*). Lectotype, sex?; Congo Belge; Kivu, Mulungu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 138. Distribution: Africa (Ruanda/ Zaire). Hosts: *Ficus capensis*, *Millettia ferruginea*, *Myrica salicifolia*. References: (ds) Schedl 1961k: 602. (tx) Schedl 1952j: 8, 1961k: 602, 1979c: 138.
- leprieuri* (Perris) 1866: 194 (*Dryocoetes*). Holotype, sex?; Algier; MNHN, Paris. Distribution: Africa (Algeria), Asia (Israel/ Syria/ Turkey), Europe (Sardinia). Notes: (1) Eggers 1940b: 62 (to *Hypothenemus*). (3) Although verification is needed, *californicus* may be a synonym (SLW). References: (ds) Gemminger & Harold 1872: 2687; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914a: 16; Peyerimhoff 1935: 195; Reitter 1894a: 75; Schedl 1969g: 290. (tx) Balachowsky 1949a: 205; Eggers 1921: 40, 1940b: 62; Eichhoff 1868d: 419; Ferrari 1867a: 31; Hagedorn 1910a: 96; Perris 1866: 194; Peyerimhoff 1935: 195–196; Reitter 1894a: 75; Schedl 1934f: 1640; Wichmann 1913d: 144. (ms) Eichhoff 1986d: 419.
- albipilis* Reitter 1857b: 195 (*Stephanoderes*). Holotype, sex?; Jerusalem; NHMB, Budapest. Synonymy: Eggers 1940b: 62. References: (ds) Hagedorn 1910d: 40; Hariri 1971: 262; Kleine 1913b: 121; Reitter 1894a: 74. (tx) Eggers 1940b: 62; Hagedorn 1910a: 85; Hopkins 1915b: 15; Reitter 1857b: 195, 1894a: 74, 1913a: 72; Schedl 1934f: 1640; Wichmann 1911c: 210.
- kraussei* Wichmann 1911c: 210. Syntypes, sex?; Sardinia; not located. Synonymy: Eggers 1921: 40. References: (tx) Eggers 1912f: 29, 1921: 40, 1940b: 62; Reitter 1913a: 72; Schedl 1934f: 1640; Wichmann 1911c: 210, 1913: 144.
- liberiensis* (Hopkins) 1915b: 31 (*Stephanoderes*). Holotype, sex? Mount Coffee, Liberia, West Africa; USNM, Washington. Distribution: Africa (Ivory Coast/ Liberia/ Tanzania/ Uganda/ Zaire). Hosts: *Coffea* sp., *Delonix regia*, *Prosopis chilensis*, *Theobroma cacao*. References: (cc) Halperin & Holzschuh 1984: 26. (hb) Halperin & Holzschuh 1984: 26. (ds) Beaver & Loyttyniemi 1985a: 80; Halperin & Holzschuh 1984: 26; Schedl 1961k: 602. (tx) Hopkins 1915b: 24, 31; Schedl 1961k: 602; Wood, S. L. 1967b: 78. *theobromae* Eggers 1932c: 32 (*Stephanoderes*). Holotype, sex?; Congostaat (N' Gazi, Aruwini), und Barumbi; MRCB, Tervuren. Synonymy: Wood 1968b: 78.

- References: **(cn)** Ghesquiere 1933a: 25–36, 1933b: 74–75; Magnin 1954: 465. **(hb)** Schedl 1961k: 626. **(ds)** Ghesquiere 1933a: Kleine 1934a: 145; Schedl 1961k: 625, 1962k: 1070, 1965f: 4, 1967c: 212. **(tx)** Eggers 1932c: 32–33; Schedl 1950d: 17, 1961k: 625–626, 1962k: 1070.
- lineatus (Eggers)** 1927a: 175 (*Stephanoderes*). Holotype ♀; Belg.-Congo: Banana; USNM, Washington.
Distribution: Africa (Tanzania/ Zaire).
References: **(ds)** Schedl 1961k: 507. **(tx)** Anderson, W. H. & Anderson 1971: 18; Eggers 1927a: 175–176; Schedl 1950d: 3, 1961k: 507
- longipennis (Eggers)** 1935c: 305 (*Stephanoderes*). Holotype, sex?; Congostaat (Nialopu); Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Tanzania/ Zaire).
Hosts: *Hagenia abyssinica*, *Persca indica*.
References: **(ds)** Ferreira 1965: 1115; Mayne & Donis 1962: 312; Schedl 1959p: 17, 1961k: 602, 1967c: 212. **(tx)** Eggers 1935c: 305, 1936c: 36; Schedl 1961k: 602–603, 1979c: 141.
- longipilis Schedl** 1952a: 451. Lectotype, sex?; Argentina, Buenos Aires, Tigre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 141.
Distribution: South America (Argentina).
References: **(hb)** Viana 1964: 121. **(ds)** Viana 1964: 121. **(tx)** Schedl 1952a: 451, 1979c: 141.
- macrobii (Eggers)** 1940c: 234 (*Stephanoderes*). Holotype, sex?; Congostaat; Eggers Collection, in NHMW, Wien.
Distribution: Africa (Angola/ Tanzania/ Zaire), Madagascar.
Hosts: *Anacardium occidentale*, *Gilbertiodendron deucevevi*, *Jatropha* sp., *Macrobium* sp., *Microcos pinnatifida*, *Polyalthia suaveolens*, *Synscephalum subcordatum*.
References: **(cn)** Beccari & Gerini 1968: 129–134. **(hb)** Schedl 1961: 603–604, 1977a: 71. **(ds)** Schedl 1961k: 604, 1977a: 71. **(tx)** Eggers 1940c: 234; Schedl 1950d: 17–18, 1954e: 76, 1957d: 58, 1961k: 604, 1977a: 71, 1979c: 143.
- madagascariensis Schedl** 1953d: 82. Lectotype ♀; Tananarive, Tsimbazaza; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 144.
Distribution: Madagascar.
Notes: (3) The lectotype on which this species is based could be a specimen of *erectus* LeConte or *crystalloides* Eichhoff.
References: **(tx)** Schedl 1953d: 82, 1961e: 131–132, 1963i: 61–62, 1977b: 40, 56, 1979c: 144.
- maguus (Eggers)** 1924: 102 (*Stephanoderes*). Holotype, sex?; Malela (Congostaat); MRCB, Tervuren. Figures: Schedl 1961k: 545.
Distribution: Africa (Congo).
References: **(tx)** Eggers 1924: 102, 1927a: 198, 1932c: 33; Schedl 1939g: 170, 1939i: 384, 1940d: 589, 1961k: 545.
- major Browne** 1970: 555. Holotype ♀; Sarawak: Quop; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).
References: **(tx)** Browne 1970: 555.
- malayensis (Schedl)** 1977f: 499 (*Lepiceriodes*). Holotype, sex?; Malaysia: Malaya, Selangor, Sungei Buloh, Kuala Lumpur; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: **(tx)** Schedl 1950d: 3, 1977f: 499.
- mallyi (Hopkins)** 1915b: 32 (*Stephanoderes*). Holotype ♀; Capetown, South Africa; USNM, Washington.
Distribution: Africa (Congo/ Mozambique/ South Africa).
References: **(tx)** Hopkins 1915b: 24, 32; Schedl 1961k: 604; Wood, S. L. 1972f: 48.
- soussouensis Eggers** 1943e: 74 (*Stephanoderes*). Holotype ♀; Zambese (Environ de Sone, M. Soussou); MNHN, Paris, 2 Eggers cotypes in NHMW, Wien. Synonymy: Wood 1972f: 48.
References: **(ds)** Eggers 1943e: 74; Schedl 1965g: 20, 1982: 278. **(tx)** Schedl 1953d: 68, 1961k: 624, 1965c: 59, 1965g: 20, 1965j: 198, 1979c: 232; Wood, S. L. 1972f: 48.
- malus (Schedl)** 1957d: 56 (*Stephanoderes*). Holotype, sex?; Cape Province: Trappes Valley; BMNH, London.
Distribution: Africa (South Africa).
Hosts: *Ficus* sp., *Pyrus malus*, *Rhus lancea*.
References: **(cn)** Anonymous 1970c: 13. **(ds)** Anonymous 1970c: 13; Schedl 1961k: 604. **(tx)** Schedl 1957d: 56, 1961k: 604, 1979c: 147.
- mangovororus Schedl** 1961e: 134. Holotype, sex?; Madagascar, Montagne d'Ambre, Joffreville; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Mangifera indica*.
References: **(tx)** Schedl 1961e: 134, 1977b: 56, 1979c: 148.
- marshalli (Eggers)** 1936c: 36 (*Stephanoderes*). Holotype, sex?; Natal: Estcourt, 4000 feet; BMNH, London.
Distribution: Africa (South Africa/ Zaire).
Hosts: *Azacia bella*, *Scutia myrtina*.
References: **(tx)** Eggers 1936c: 36; Schedl 1961k: 605.
- mateui (Schedl)** 1965j: 198 (*Stephanoderes*). Holotype, sex?; Sahara mer., Ouedi Kobone, Ennedi; MNHN, Paris.
Distribution: Africa (Chad), Asia (Israel).
Hosts: *Acacia raddiana*.
References: **(cc)** Halperin & Holzschuh 1984: 26. **(hb)** Halperin & Holzschuh 1984: 26. **(ds)**

- Halperin & Holzschub 1984: 26. (tx) Schedl 1965j: 198, 1971d: 433, 1979c: 149.
- melanarius (Schedl)** 1953d: 80 (*Cosmoderes*). Lectotype, sex[?]; Madagascar; Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 151.
Distribution: Madagascar.
Notes: (1) Schedl 1962: 88 (to *Stylotenus*, =*Hypothenemus*).
References: (hb) Schedl 1977a: 38. (ds) Schedl 1977a: 38. (tx) Schedl 1953d: 80–81, 1962r: 88, 1977a: 38, 1979c: 151.
- melasomus (Lea)** 1910: 140 (*Cryphalus*). Syntypes, sex[?]; N.S. Wales: Clearence River, Wollongong; SAM, Adelaide.
Distribution: Australia (New South Wales/Queensland).
Hosts: *Alphitonia excelsa*, *Casuarina* sp., *Delonix regia*, *Encalyptus acenioides*.
References: (ds) Brimblecombe 1953: 26; Schedl 1936g: 527, 1962i: 74. (tx) Lea 1910: 140; Schedl 1936g: 527, 1938f: 46, 1948g: 25, 1958i: 214, 1959c: 168.
- miles (LeConte)** 1878a: 433 (*Cryphalus*). Syntypes 2 ♀; Tampa, Florida [USA]; USNM, Washington, 1 syntype lost before 1952.
Distribution: North America (Florida, Georgia, E Texas in USA).
References: (hb) Chamberlin 1939: 288; Deyrup & Atkinson 1987a: 66. (ds) Atkinson et al. 1991: 161; Chamberlin 1939: 288; Deyrup & Atkinson 1987a: 66; Hagedorn 1910d: 44; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 118, 1914b: 383, 1934a: 142; Leng 1920: 339; Schwarz 1878d: 468; Swaine 1909: 92; Wood, S. L. 1982b: 904. (tx) Chamberlin 1939: 288; Hagedorn 1910a: 87; Hopkins 1915b: 13; LeConte 1878a: 433, 468; Swaine 1909: 92; Wood, S. L. 1953: 211, 1954a: 979, 1053, 1064, 1982b: 904.
- minor (Eggers)** 1927a: 178 (*Adiaerctus*). Holotype, sex[?]; Ostafrika: Muansa; Methmer Collection in MNB, Berlin.
Distribution: Africa (Mozambique/Tanzania).
References: (tx) Eggers 1927a: 178; Schedl 1961k: 508.
- modestus (Murayama)** 1940a: 236 (*Cryphalus*). Syntypes, sex[?]; Seiryu dans Jehol, Manchonkuo, China; Murayama Collection in USNM, Washington.
Distribution: Asia ("Manchonkuo," "Manchuria" in China/Japan/ Korea).
Hosts: *Ulmus pumila*.
References: (ds) Murayama 1940a: 232, 236, 1942a: 55, 1953c: 151, 1954b: 164, 1955: 102. (tx) Murayama 1940a: 232, 236, 1950a: 51, 1954b: 164, 1955: 102; Nobuchi 1985c: 16; Sokanovskii 1959a: 277.
- morigerus (Schedl)** 1957d: 57 (*Stephanoderes*). Holotype, sex[?]; Congo Belge: Yangambi, Kivu, Clute de la Rutschuru; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Afzelia bella*, *Scutia myrtina*.
References: (hb) Schedl 1961k: 605. (ds) Schedl 1961k: 605. (tx) Schedl 1957d: 57, 1961k: 605, 1979c: 159.
- morio (Eggers)** 1940b: 101 (*Stephanoderes*). Lectotype ♀; Congostaat (Lusambo); USNM, Washington, designated by Anderson & Anderson 1971: 21.
Distribution: Africa (Angola/ Ghana/ Sierra Leone/ South Africa/ Uganda/ Zaire), Madagascar.
Hosts: *Bauhinia tomentosa*, *Cassia parkii*, *Cynometra alexandri*, *Mangifera indica*, *Spondianthus preusii*, *Theobroma cacao*.
References: (hb) Pollet 1977; Schedl 1961k: 605. (ds) Ferreira 1965: 1115; Mayne & Donis 1962: 312; Pollet 1977; Schedl 1959p: 17, 1961k: 605, 1962h: 58, 1962k: 1070, 1965f: 4, 1977a: 72. (tx) Anderson, W. H. & Anderson 1971: 21; Eggers 1940b: 101; Schedl 1950d: 24, 1961k: 605, 1965g: 19, 1977a: 72, 1979c: 159.
- morosus Schedl** 1965c: 57. Holotype, sex[?]; Madagascar, Ambodivoangy, Madagascar-Est, det., Sambava, R.N. XII, Marojejy-Onest, 1140 m; IRSM, Madagascar.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 57, 1977b: 57, 1979c: 160.
- mozambiquensis Eggers** 1943e: 75. Holotype ♀; Mozambique (Chimoio, Vila Pery); MNHN, Paris, 2 Eggers cotypes in NHMW, Wien.
Distribution: Africa (Mozambique/ Sierra Leone/ South Africa).
Hosts: *Bauhinia tomentosa*.
References: (ds) Schedl 1961k: 508. (tx) Browne 1970: 553; Eggers 1943e: 75; Schedl 1950d: 18, 1953d: 80, 82, 1961k: 508, 1979c: 160.
- mulongensis (Eggers)** 1940c: 235 (*Stephanoderes*). Syntypes ♀; Congostaat, Mulongo (Nimzui); MRCB, Tervuren.
Distribution: Africa (Ghana/ Zaire).
Hosts: *Cassia siamea*.
References: (cn) Magnin 1954: 468. (hb) Paulian 1951: 27–28. (ds) Mayne & Donis 1962: 306; Paulian 1951: 28; Thompson, G. H. 1963: 47. (tx) Eggers 1940c: 235; Schedl 1950d: 3, 1951j: 20, 1952j: 2, 1953d: 68, 1954d: 870, 1954e: 49, 1957d: 11, 1961k: 511, 1979c: 160.
- multidentatus (Schedl)** 1962r: 95 (*Stephanoderes*). Holotype, sex[?]; Uganda: Budongo; BMNH, London, antomatic.
Distribution: Africa (Uganda).
Notes: (3) This is a probable synonym of *setosus* Eichhoff.
References: (tx) Schedl 1962r: 95.
multidentatus Schedl 1959q: 707 (*Stephano-*

deres). Holotype, sex?: Uganda: Budongo; BMNH, London, preoccupied by Hopkins 1915. References: (ds) Ferrer 1942; Schedl 1959q: 705, 707. (tx) Schedl 1959q: 707, 1961k: 605, 1962r: 95, 1979c: 161.

multidentatus (Hopkins) 1915b: 28 (*Stephanoderes*). Holotype ♀; Tampico, Tamaulipas, Mexico; USNM, Washington.

Distribution: North America (Guatemala/Puebla, Tamaulipas in Mexico), South America (Colombia). Hosts: *Coffea* spp., etc.

References: (hb) Wood, S. L. 1982b: 894. (ds) Blackwelder 1947: 775; Browne 1973a: 250; Wood, S. L. 1982b: 894. (tx) Hopkins 1915b: 22, 28; Schedl 1940a: 342, 1961k: 608; Wood, S. L. 1972f: 49, 1982b: 894.

ferruginus Hopkins 1915b: 29 (*Stephanoderes*). Holotype ♀; Livingston, Guatemala; USNM, Washington, preoccupied by Hopkins 1915. Synonymy: Wood 1972f: 49.

References: (tx) Browne 1963c: 53; Hopkins 1915b: 23, 29; Wood, S. L. 1967b: 78, 1972f: 49.

nitidifrons Hopkins 1915b: 31 (*Stephanoderes*). Holotype ♀; Tampico, Tamaulipas, Mexico; USNM, Washington. Synonymy: Wood 1972f: 49.

References: (ds) Blackwelder 1947: 775; Ferrer 1942. (tx) Hopkins 1915b: 24, 31; Schedl 1940a: 342; Wood, S. L. 1972f: 49.

hopkinsi Browne 1963c: 53. Holotype ♀; Livingston, Guatemala; USNM, Washington, automatic. Synonymy: Wood 1972f: 49.

References: (tx) Browne 1963c: 53; Wood, S. L. 1972f: 49.

multipunctatus (Schedl) 1939f: 36 (*Stephanoderes*). Lectotype, sex?: Buitenzorg, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 161.

Distribution: Indonesia (Java), Samoa.

Notes: (3) A possible synonym of *africanus* Hopkins (SLW, and Beaver 1976b).

References: (hb) Kalshoven 1958b: 170. (ds) Beaver 1976b: 536. (tx) Schedl 1939f: 36, 1951k: 135, 1953b: 124, 1979c: 161.

muticus (Schedl) 1961e: 136 (*Stephanoderes*). Holotype, sex?: Madagascar, Ambila, La Reunion; IRSM, Madagascar.

Distribution: Madagascar, Reunion Island.

Hosts: *Ochrocarpus* sp.

References: (ds) Schedl 1969d: 10, 1977a: 72. (tx) Schedl 1961e: 136, 1969d: 10, 1977a: 72, 1979c: 162.

namosianus Browne 1984e: 78. Holotype, sex?: Viti Levu; Namosi Road [Fiji]; BMNH, London.

Distribution: Fiji Islands.

References: (tx) Browne 1984e: 78.

nanellus Wood 1971: 34. Holotype ♀; Turrialba, Cartago Prov., Costa Rica, 500 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Tree twigs.

References: (hb) Wood, S. L. 1982b: 899. (ds) Wood, S. L. 1982b: 899. (tx) Wood, S. L. 1971: 34, 1982b: 899.

natalensis (Schedl) 1941d: 392 (*Archcophalus*). Holotype ♀; Natal; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (ds) Schedl 1961k: 442–443. (tx) Schedl 1941d: 392, 1957e: 324, 1961k: 443, 1979c: 163.

nigropiceus (Schedl) 1951j: 20 (*Stephanoderes*). Holotype, sex?: Madagascar, Friedrichs; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

References: (tx) Schedl 1950d: 23, 1951j: 20, 1953d: 68, 1957d: 59, 1977a: 73, 1979c: 168.

novateutonicus (Schedl) 1951m: 105 (*Ptilopodius*). Syntypes, sex?: Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien and Plammann Collection.

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 172 (citation of holotype invalid).

References: (tx) de Ruelle 1970: 112, 113; Schedl 1951m: 105, 1979c: 172.

oblongus (Nobuchi) 1981c: 14 (*Macrocryphalus*). Holotype, sex?: Takao, Tokyo; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1981c: 15.

Distribution: Asia (Japan).

Hosts: *Trachelospermum asiaticum*.

Notes: (1) The Nobuchi photographs of the "male" and "female" types appear to represent females of two different species of *Hypothenemus*. The female almost certainly is *fuscicollis* Eichhoff. The "male" photograph is not clear enough to permit species identification; further study is needed to determine specific synonymy (SLW).

References: (tx) Nobuchi 1981c: 14–16; Wood, S. L. 1992: (in press).

obscurus (Fabricius) 1801: 395 (*Hylesinus*). Lectotype ♀; type labeled as Essequibo [Suriname], published as *Americae meridionalis*; UZMC, Copenhagen, designated by Wood 1972f: 49.

Figures: Pedrosa-Macedo & Schonherr 1985: 48. Distribution: Antilles Islands (Cuba/ Dominican Republic in Hispaniola/ Guadeloupe/ Jamaica/ Puerto Rico/ Trinidad/ Virgin Islands), North America (Costa Rica/ "Mexico"/ Panama/ Florida in USA), South America (Brazil/ Colombia/ Suriname/ Venezuela). Intercepted worldwide in Brazil nuts.

Hosts: *Bertholletia excelsa*, *Crotalaria* sp., *Hymenaea courbaril*, *Myristica fragrans*, *Tamarindus indica*, *Theobroma cacao*.

Notes: (3) Eggers 1929e: 50 (*Stephanoderes subopacus*, nomen nudum, synonymy).

References: (cn) Costa Lima 1956; Wood, S. L.

1977a: 71. (**ce**) Beaver 1979b: 298. (**hb**) Baker, W. L. 1972: 254; Beaver 1974a, 1979b: 298; Beaver & Browne 1978: 591; Costa Lima 1956; Kalshoven 1963; Wood, S. L. 1982b: 893. (**ds**) Beaver 1974a; Beaver & Browne 1978: 591; Berti-Filho 1979: 41; Blackwelder 1947; Bright 1972d: 57, 1985c: 175; Costa Lima 1956; Drooz 1985: 368; Kalshoven 1963; Kirk 1969, 1970; Kleine 1913b: 118, 1934a: 145; Leng & Mutchler 1917: 219; LePeller 1968: 113; Pedrosa-Macedo & Schonherr 1985: 48; Roba 1935: 340; Schedl 1960a: 78, 1963c: 157, 1963f: 54, 1966f: 84, 1967d: 2, 1970e: 81, 1973d: 155; Schonherr & Pedrosa-Macedo 1981: 52; Wood, S. L. 1977a: 71, 1982b: 893. (**tx**) Benoit 1985: 136; Bright 1972d: 57, 1985c: 175; Costa Lima 1956; Eggers 1929e: 43; Fabricius 1801: 395; Pedrosa-Macedo & Schonherr 1985: 48; Reitter 1902a: 141; Schedl 1939j: 564, 1940c: 206, 1942e: 178, 1951m: 71-73, 1952k: 159-160, 1963i: 60; Wood, S. L. 1954a: 959, 1041, 1972f: 49, 1977d: 513, 1982b: 893.

asperulus Eichhoff 1872a: 133 (*Stephanoderes*). Lectotype ♀; northern South America; IRSNB, Brussels, designated by Wood 1982b: 893, preoccupied by LeConte 1868. Synonymy: Wood 1977d: 513, 1982b: 893.

References: (**tx**) Eichhoff 1872a: 133; Wood, S. L. 1977: 513, 1982b: 893.

cassiae Eichhoff 1878b: 152 (*Stephanoderes*). Lectotype ♀; northern South America; IRSNB, Brussels, designated by Wood 1982b: 893, automatic. Synonymy: Wood 1977d: 513, 1982b: 893.

References: (**cn**) Mathur & Singh 1960a: 15, 1960b: 24; Mathur, Singh, & Lal 1958: 24, 103. (**hb**) Beaver & Browne 1975: 290. (**ds**) Beaver & Browne 1975: 290; Beeson 1961: 298; Hagedorn 1910d: 41; Kleine 1913b: 121, 1914b: 247, 269, 1934a: 145; Mathur & Singh 1960a: 15, 1960b: 24; Mathur, Singh, & Lal 1958: 24, 103; Peyerimhoff 1935: 193. (**tx**) Eggers 1936d: 626; Eichhoff 1872a: 133, 1878b: 152; Hagedorn 1910a: 85, 1910e; Hopkins 1915b: 24; Peyerimhoff 1935: 193; Sampson 1923a: 270; Schedl 1934f: 1640; Wood, S. L. 1977d: 513, 1982b: 893.

kuennemanni Reitter 1902a: 140. Lectotype ♀; Bremen, Germany [in Brazil nuts]; NHMB, Budapest, designated by Wood 1972f: 49. Synonymy: Wood 1972f: 49.

References: (**cn**) Costa Lima 1956; Souphieff & Scherbinovskaja 1937: 81. (**ce**) Wichmann 1955a: 96. (**hb**) Costa Lima 1956; Lengerken 1939: 64, 1954: 84. (**ds**) Blackwelder 1947: 778; Brakman 1966b: 206; Costa Lima 1956; Everts 1922: 642, 1927; Hagedorn 1910d: 44; Horion 1951; Kleine 1913b: 121; Numberg 1958a: 481; Reitter 1916: 290; Schilsky 1909: 188; Souphieff & Scherbinovskaja 1937: 81; Straby 1975: 7; Wichmann 1955a: 96. (**tx**)

Costa Lima 1956; Everts 1922: 642; Hagedorn 1910a: 87; Hopkins 1915b: 14; Numberg 1958a: 481; Reitter 1902a: 140, 1913a: 72, 1916: 290; Schedl 1934f: 1640; Wood, S. L. 1972f: 49.

moschatae Schaufuss 1905: 8 (*Stephanoderes*). Holotype ♀; Guadeloupe; Hamburg Museum, lost. Synonymy: Wood 1972f: 49.

References: (**cn**) Hagedorn 1913a; Souphieff & Scherbinovskaja 1937: 81. (**ce**) Wichmann 1955a: 96. (**hb**) Hagedorn 1913a. (**ds**) Blackwelder 1947: 778; Browne 1970: 540; Hagedorn 1910d: 44, 1913a; Kleine 1913b: 121, 1914b: 379, 1934a: 145; Leng & Mutchler 1917: 219; McFarlane 1961; Souphieff & Scherbinovskaja 1937: 81; Wichmann 1955a: 96. (**tx**) Eggers 1940a; Hagedorn 1910a: 87; Hopkins 1915b: 14; Schaufuss 1905: 8; Schedl 1948f: 261, 1957a: 192; Wood, S. L. 1972f: 49.

rufescens Hopkins 1915b: 29 (*Stephanoderes*). Holotype ♀; Allegheny, Pennsylvania [USA]; USNM, Washington. Synonymy: Wood 1972f: 49.

References: (**hb**) Chamberlin 1939: 309; Wood, S. L. 1953: 153, 1954a: 1036. (**ds**) Blatchley & Leng 1916: 601; Chamberlin 1939: 309; Leng 1920: 340. (**tx**) Blatchley & Leng 1916: 601; Chamberlin 1939: 309; Hopkins 1915b: 23, 29; Wood, S. L. 1953: 153, 1954a: 1019, 1036, 1966b: 29, 1972f: 49.

buscki Hopkins 1915b: 30 (*Stephanoderes*). Holotype ♀; Trinidad, West Indies; USNM, Washington. Synonymy: Wood 1972f: 49.

References: (**ds**) Blackwelder 1947: 777; Leonard 1933: 97-137; Martorell 1945: 468-469; Wolcott 1936: 317, 1948: 380. (**tx**) Hopkins 1915b: 23, 30; Wood, S. L. 1972f: 49.

amazoniens Eggers 1934a: 78 (*Stephanoderes*). Lectotype ♀; Manaus, Brazil; USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Wood 1972f: 49.

References: (**ds**) Blackwelder 1947: 777; Schedl 1963f: 54. (**tx**) Anderson, W. H. & Anderson 1971: 4; Eggers 1934a: 78; Schedl 1951a: 452; Wood, S. L. 1967b: 78, 1972f: 49, 1979c: 18.

emarginatus Schedl 1942d: 11. Lectotype ♀; Buitenzorg, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 90. Synonymy: Wood 1972f: 50.

References: (**tx**) Schedl 1942d: 11; Wood, S. L. 1966g: 29, 1972f: 50, 1979c: 90.

opacus (Eichhoff) 1872a: 132 (*Stephanoderes*). Lectotype ♀; Nov. Grenada; IRSNB, Brussels, designated by Wood 1982b: 889.

Distribution: North America (Costa Rica/Panama), South America (Brazil/Colombia/Venezuela).

Hosts: *Calliandra confusa*, *Cassia* sp., *Coffea*

- arabica*, *Inga* sp., *Mimosa* sp., *Nectandra* sp., *Ochroma* sp., *Protium* sp., *Totomita guianensis*.
References: (cn) Costa Lima 1956; Murillo Quinche 1959: 300. (hb) Costa Lima 1956; Murillo Quinche 1959: 300. (ds) Blackwelder 1947: 778; Costa Lima 1936, 1956; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 44; Kleine 1913b: 121, 1914b: 336, 342; LePelley 1968: 113; Wood, S. L. 1982b: 889. (tx) Costa Lima 1956; Eichhoff 1872a: 132-133, 1878b: 151; Hagedorn 1910a: 87; Hopkins 1915b: 24; Wood, S. L. 1982b: 889.
- paradoxus** Schedl 1964j: 45. Holotype, sex?; Congo, Yangambi; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1964j: 45, 1979c: 184.
- parallelus** (Hopkins) 1915b: 25 (*Stephanoderes*). Holotype ♀; Tampico, Mexico; USNM, Washington. Distribution: Hawaiian Islands, North America (Colima, Tamaulipas in Mexico).
Hosts: "*L. glauca*."
References: (ds) Atkinson & Equihua 1958: 92; Blackwelder 1947: 778; Ferrer 1942; Wood, S. L. 1977a: 71, 1982b: 905. (tx) Hopkins 1915b: 21, 25; Schedl 1940a: 342; Wood, S. L. 1982b: 905.
- parvulus** Browne 1984d: 93. Holotype, sex?; New Guinea; Savmill L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Evodia* sp.
References: (tx) Browne 1984d: 93.
- perappositus** (Schedl) 1934d: 91 (*Stephanoderes*). Lectotype, sex?; Java, Bandjar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 188.
Distribution: Indonesia (Java).
Hosts: From grass.
References: (hb) Kalshoven 1958b: 170. (tx) Schedl 1934d: 91, 1979c: 188.
- perhispidus** (Eggers) 1927a: 177 (*Stephanoderes*). Holotype, sex?; Belg.-Congo: Sankuru; MRCB, Tervuren.
Distribution: Africa (Angola/ Ghana/ Nigeria/ Zaire/ Zambia).
Hosts: *Balanites wilsoniana*, *Elaeis guineensis*, *Gilbertiodendron dewevrei*, *Pleiocarpa tubicina*, *Polypodium lycopodioides*, *Randia congolana*, *Theobroma cacao*.
References: (bv) Schedl 1960f: 32. (cn) Chesquiere 1933a: 27-35, 1933b: 776-782; Schmitz & Crisinel 1957: 12. (ce) Schedl 1961k: 608. (hb) Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1961k: 608; Schmitz & Crisinel 1957: 12. (ds) Beaver & Loytyniemi 1985a: 81; Ferreira 1966: 1115; Chesquiere 1933a; Kleine 1934a: 145; Lepesme et al. 1948: 643-644; Schedl 1959p: 17, 1960f: 32, 1961k: 608, 1964j: 40. (tx) Eggers 1927a: 177; Schedl 1961k: 608.
- perpunctatus** (Eggers) 1940c: 233 (*Stephanoderes*). Holotype, sex?; Congostaat (Rutshurn); Eggers Collection, in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Eggers 1940c: 233; Schedl 1950d: 3, 1961k: 609, 1979c: 190.
- pilosus** Hopkins 1915b: 20. Holotype, sex?; Cayamas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba).
References: (ds) Blackwelder 1947: 777; Bright 1985c: 175; Leng & Mutchler 1917: 219. (tx) Bright 1985c: 175; Hopkins 1915b: 20.
- plumeriae** (Nordlinger) 1856: 74 (*Bostrichus*). Holotype ♀; Venezuela; NHMW, Wien.
Figures: Schedl 1961k: 547.
Distribution: Africa (Liberia/ Zaire), Antilles Islands (Gnadeloupe/ San Domingo/Trinidad), North America (Costa Rica/ Guatemala/ Honduras/ Veracruz in Mexico/ Panama), South America (Brazil/ Colombia/ Venezuela).
Hosts: *Acacia* sp., *Canavalia villosa*, *Cayaponia microdonta*, *Coffea* sp., *Daphnopsis seibertii*, *Dioclea megacarpa*, *Harungana madagascariensis*, *Qualea wittrockii*, *Serjania* sp.
Notes: (3) This species is apparently native to western Africa and was introduced into America.
References: (cn) Box 1953a; Costa Lima 1956; De Albuquerque Leao 1941; Green 1912a; Kleine 1932a: 302; Schmitz & Crisinel 1957: 11. (hb) Costa Lima 1928b: 121-122, 1956; Kleine 1932a: 302; Schmitz & Crisinel 1957: 11. (ds) Alvarenga 1962: 24; Blackwelder 1947: 778; Blandford 1904; Costa Lima 1928: 121-122, 1936, 1956; Ferreira 1947; Ferrer 1942; Gemminger & Harold 1872: 2683; Green 1912a: 2-5, 1916: 608-636; Hagedorn 1910d: 45; Kleine 1913b: 121, 1914b: 336, 339, 361, 379, 1932a: 145, 302; Lacordaire 1866: 383; LePelley 1968: 113; Ran 1935: 10-25; Schedl 1960a: 79; Stahel 1925: 1-3. (tx) Blandford 1904; Costa Lima 1945; Eichhoff 1878b: 164; Ferrari 1867a: 17, 1868: 252; Green 1912a; Hagedorn 1910a: 87; Kirsch 1875: 283; Lacordaire 1866: 383; Nordlinger 1856: 74; Schedl 1940a: 342, 1952k: 159-160; Wood, S. L. 1989: 174.
- pallidus** Hopkins 1915b: 18. Holotype ♀; Mt. Coffee, Liberia; USNM, Washington. Synonymy: Wood 1972f: 45.
References: (bv) Schedl 1960f: 29. (ds) Kleine 1914b: 326; Schedl 1960f: 29, 1961k: 509. (tx) Hopkins 1915b: 14, 18; Schedl 1961k: 509; Wood, S. L. 1972f: 45.
- cylindricus** Hopkins 1915b: 25 (*Stephanoderes*). Holotype ♀; Trece Aguas, Alta Verapaz, Guatemala; USNM, Washington. Synonymy: Wood 1989: 174.
References: (bv) Schedl 1960f: 110. (hb) Beaver 1974a; Viana 1964: 121. (ds) Beaver 1974a; Blackwelder 1947: 777; Bright 1985c:

174; Schedl 1960f: 110; Viana 1964: 121; Wood, S. L. 1977a: 71. **(tx)** Bright 1985c: 174; Hopkins 1915b: 21, 25; Schedl 1957d; Wood, S. L. 1972f: 45, 1976a: 348, 1989: 174.

transatlanticus Eggers 1941a: 99 (*Stephanoderes*). Holotype ♀; Trois Rivières, Guadeloupe; MNHN, Paris. Synonymy: Wood 1972f: 45.

References: **(tx)** Eggers 1941a: 99; Schedl 1951m: 72, 1979c: 254; Wood, S. L. 1972f: 45.

guadeloupensis Schedl 1951m: 98. Syntypes ♀; Guadeloupe; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 174.

Notes: (1) Schedl 1979c: 114 (citation of holotype invalid).

References: **(tx)** Schedl 1951m: 98, 1979c: 114; Wood, S. L. 1976a: 348, 1989: 174.

ituriensis Schedl 1957d: 55 (*Stephanoderes*). Holotype, sex?; Congo Belge: Kivu, Beni; MRCB, Tervuren. Synonymy: Wood 1989: 174.

References: **(cc)** Schedl 1958d: 190. **(hb)** Schedl 1961k: 599. **(ds)** Schedl 1961k: 599. **(tx)** Schedl 1957d: 55, 1961k: 547, 599, 1965g: 20, 1979c: 128; Wood, S. L. 1989: 174.

praecellens (Schedl) 1972e: 288 (*Stephanoderes*). Holotype, sex?; Ghana, Ashanti Region, Ofinso, 259 m, N 6 54, W 1 39; NHMB, Budapest.

Distribution: Africa (Ghana).

References: **(tx)** Schedl 1972e: 288, 1979c: 198.

pubescens Hopkins 1915b: 19. Holotype ♀; Key West, Florida [USA]; USNM, Washington.

Distribution: Antilles Islands (Puerto Rico), Hawaiian Islands, North America (Durango, Yucatan in Mexico/ Florida, Texas in USA), South America (Argentina/ Brazil).

Hosts: *Andropogon* sp., *Cynodon dactylon*, *Paspalum vaginatum*.

Notes: (3) Breeds in fruiting stems of grass.

References: **(cn)** Anonymous 1965e, 1966m, 1966t. **(hb)** Chamberlin 1939: 295; Wood, S. L. 1953: 206, 1954a: 1061, 1952b: 899. **(ds)** Anonymous 1965e, 1966m, 1966t; Blatchley & Leng 1916: 598; Bright 1985c: 175; Chamberlin 1939: 295; Davis 1965: 36; Leng 1920: 340; Thomas, J. B. 1966; Wood, S. L. 1977a: 71, 1982b: 899. **(tx)** Blatchley & Leng 1916: 598; Bright 1985c: 175; Chamberlin 1939: 295; Hopkins 1915b: 14, 19; Wood, S. L. 1953: 206, 1954a: 1053, 1061, 1972f: 50, 1982b: 899.

subelongatus Hopkins 1915b: 19. Holotype ♀; Victoria, Texas [USA]; USNM, Washington. Synonymy: Wood 1972f: 50.

References: **(hb)** Chamberlin 1939: 295. **(ds)** Chamberlin 1939: 295; Leng 1920: 340. **(tx)** Chamberlin 1939: 295; Hopkins 1915b: 14, 19; Schedl 1961k: 475; Wood, S. L. 1954a: 959, 1058, 1972f: 50.

opaciformis Hopkins 1915b: 25 (*Stephanoderes*). Holotype ♀; Aguadilla, Puerto Rico; USNM, Washington. Synonymy: Wood 1972f: 50.

References: **(ds)** Blackwelder 1947; Gowdy 1926: 27; Leng & Mutschler 1917: 219; Walcott 1948: 351. **(tx)** Hopkins 1915b: 21, 25; Wood, S. L. 1972f: 50.

minutissimus Schedl 1952a: 450. Lectotype, sex?; Argentina, Buenos Aires, Pilar, Córdoba, Dep. Pimilla; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 174.

References: **(hb)** Viana 1964: 121. **(ds)** Viana 1964: 121. **(tx)** Schedl 1952a: 450, 1958f: 35, 1979c: 156; Wood, S. L. 1989: 174.

pubipennis (Eggers) 1935c: 305 (*Stephanoderes*). Holotype, sex?; Congostaat (Mulongo Niinzu); MRCB, Tervuren.

Distribution: Africa (Congo/ Ghana/ Ivory Coast/ Nigeria/ Zaire).

Hosts: *Celtis bricij*, *Citrus* sp., *Cola griseiflora*, *Ficus polita*, *Monodora* cf. *myristica*, *Pterocarpus tinctorius*, *Theobroma cacao*, *Trema guineensis*, *Triplochiton scleroxylon*.

References: **(bv)** Schedl 1960f: 33. **(ec)** Cachan 1957: 15; Schedl 1961k: 616–617. **(hb)** Schedl 1961k: 616; Thompson, G. H. 1963: 67. **(ds)** Mayne & Donis 1962: 312; Schedl 1960f: 33, 1961k: 616; Thompson, G. H. 1963: 67. **(tx)** Eggers 1935c: 305, 1936c: 36; Schedl 1950e: 211, 1954d: 871, 1954e: 50, 1961k: 616, 1965g: 20, 1979c: 203.

rotundicollis (Eichhoff) 1878b: 45 (*Stephanoderes*). Syntypes ♀; America septentrionalis [USA?]; Hamburg Museum, lost.

Distribution: Antilles Islands (Puerto Rico/ Virgin Islands), North America (Michoacan, Nayarit, Oaxaca, Tamaulipas in Mexico/ Arkansas, Florida, Georgia, Illinois, Kansas, Maryland, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Texas, Virginia, West Virginia in USA).

Hosts: *Carya alba*, *C. glabra*, *C. ovata*, *Cercis canadensis*, *Fagus grandifolia*, *Mimosa* sp., *Prosopis* sp., *Quercus* sp., *Rhamnus lanceolata*.

References: **(bv)** Roling & Kearby 1975b. **(cn)** Baker, W. L. 1972: 254. **(hb)** Atkinson et al. 1986: 64; Baker, W. L. 1972: 254; Beal & Massey 1945; Blackman 1922b: 91; Blatchley & Leng 1916: 602; Burgos & Saucedo 1983: 103; Chamberlin 1939: 306; Deyrup & Atkinson 1987a: 66; Hagedorn 1910d: 45; Hopkins 1893a: 133; Kleine 1913b: 121, 1934a: 145; Leng 1920: 340; Swaine 1909: 118; Wood, S. L. 1953: 128, 1954a: 1023. **(ds)** Beal & Massey 1945; Blackman 1922b: 91; Blatchley & Leng 1916: 602; Burgos & Saucedo 1983: 103; Chamberlin 1939: 306; Hagedorn 1910d: 45; Hopkins 1893a: 133; Kleine 1913b: 121, 1934a: 145; Leng 1920: 340; Weber, B. C. & McPherson 1991: 54; Wood, S. L. 1982b: 854. **(tx)** Beal & Massey 1945; Blackman 1922b: 91; Blatchley & Leng 1916: 602; Bright 1985c: 175; Chamberlin 1939: 306; Eichhoff 1878a: 355.

- 1878b: 45, 145, 1896: 608; Hagedorn 1910a: 87; Hopkins 1915b: 24; Swaine 1909: 118; Wood, S. L. 1953: 128, 1954a: 960, 1023, 1982b: 884.
- sculpturatus* Eichhoff 1878b: 45 (*Stephanoderes*).
Syntypes, sex?; Tennessee [USA]; Hamburg Museum, lost. Synonymy: Eichhoff 1896: 610. References: (**hb**) Chamberlin 1939: 310. (**ds**) Blatchley & Leng 1916: 603; Chamberlin 1939: 310; Hagedorn 1910d: 42; Leng 1920: 340; Swaine 1909: 117. (**tx**) Blatchley & Leng 1916: 603; Chamberlin 1939: 310; Eichhoff 1878a: 385, 1878b: 45, 146, 1896: 608, 610; Hopkins 1915b: 24; Swaine 1909: 117; Wood, S. L. 1954a: 960, 1023.
- quercus* Hopkins 1915b: 32 (*Stephanoderes*).
Holotype ♀; Berkeley, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1024.
References: (**hb**) Baker, W. L. 1972: 254; Beal & Massey 1945: 112; Blackman 1922b: 91; Chamberlin 1939: 306. (**ds**) Beal & Massey 1942, 1945: 112; Blackman 1922b: 91; Blatchley & Leng 1916: 602; Chamberlin 1939: 306; Drooz 1985: 368; Kleine 1934a: 145; Leng 1920: 340. (**tx**) Beal & Massey 1945: 112; Blackman 1922b: 91; Blatchley & Leng 1916: 602; Chamberlin 1939: 306; Hopkins 1915b: 24, 32; Wood, S. L. 1954a: 960, 1023–1024.
- ruficeps* Perkins 1900: 181. Holotype ♀; Oahu; Kaala, Waianae range (2000 ft.); BMNH, London, apparently lost.
Distribution: Hawaiian Islands
Notes: (3) The type of *ruficeps* is lost, but this species is probably *crudiae* Panzer.
References: (**ds**) Hagedorn 1910d: 45; Kleine 1913b: 124, 1914b: 302; Swezey 1935: 21, 1941: 118, 1954: 14. (**tx**) Hagedorn 1910a: 87; Hopkins 1915b: 21; Perkins 1900: 181; Schedl 1934g: 177, 179, 1941f: 110, 1951m: 100.
- rugifer* (Schedl) 1965f: 9 (*Stephanoderes*).
Holotype, sex?; Uganda, Walulumbu; BMNH, London.
Distribution: Africa (Uganda).
Hosts: *Prosopis chilensis*.
References: (**tx**) Schedl 1965f: 9, 1977c: 395.
- ruginosus* Wood 1989: 178. Holotype, ♀; Sudafrica: Potgietersrust, Transvaal; Schedl Collection in NHMW, Wien, automatic.
Distribution: Africa (South Africa).
References: (**tx**) Wood, S. L. 1989: 178.
- rugifer* Schedl 1977c: 395 (*Pachynoderes*).
Holotype, ♀; Sudafrica: Potgietersrust, Transvaal; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1965.
References: (**tx**) Schedl 1977c: 395; Wood, S. L. 1989: 178.
- sambesianus* Eggers 1943e: 74. Holotype ♀; Zambeze (Nova Choupanga pres Chemba); MNHN, Paris, 2 Eggers cotypes in NHMW, Wien.
Distribution: Africa (Mozambique).
References: (**tx**) Eggers 1943e: 74; Schedl 1961k: 523, 1979c: 215.
- sapporoensis* (Niisima) 1910a: 3 (*Cryphalus*).
Holotype ♀; Sapporo; Nobuchi Collection, Ibaraki.
Distribution: Asia (Hokkaido, Honshu in Japan).
Hosts: *Tilia cordata* var. *japonica*.
References: (**ds**) Kleine 1934a: 144; Murayama 1954b: 199; Nobuchi 1985c: 16. (**tx**) Murayama 1954b: 199; Niisima 1910a: 3; Schedl 1934f: 1640, 1979c: 21.
- sassaensis* (Eggers) 1924: 102 (*Stephanoderes*).
Lectotype, sex?; Congostaat (Region de Sassa); Eggers Collection, in NHMW, Wien.
Distribution: Africa (Zaire).
References: (**tx**) Eggers 1924: 102; Schedl 1961k: 619, 1979c: 219.
- schedli* Browne 1963c: 54. Holotype, sex?; Takao, Formosa, Santer; Schedl Collection in NHMW, Wien, automatic.
Distribution: Asia (Taiwan).
References: (**tx**) Browne 1963c: 54.
- pubescens* Schedl 1942d: 18 (*Stephanoderes*).
Holotype, sex?; Takao, Formosa, Santer; Schedl Collection in NHMW, Wien, preoccupied by Hopkins 1915.
References: (**tx**) Browne 1963c: 54; Schedl 1942d: 18, 1979c: 203.
- scutiae* (Schedl) 1959q: 708 (*Stephanoderes*).
Holotype, sex?; Kenya, Mukutano; BMNH, London.
Distribution: Africa (Kenya).
Hosts: *Scutia commersonii*.
Notes: (1) This is probably a *Glostatus* (Schedl's slide mount has the funicle twice broken; only 5 segments show).
References: (**ds**) Schedl 1959q: 705, 708, 1961k: 619. (**tx**) Schedl 1959q: 708, 1961k: 619, 1979c: 223.
- seoulensis* Choo & Woo 1989: 58. Holotype ♀; Korea: Cheongyangri, Dongdaemum, Seoul; not given.
Figures: Choo & Woo 1989: 60.
Distribution: Asia (Korea).
References: (**tx**) Choo & Woo 1989: 58.
- seriatus* (Eichhoff) 1872a: 133 (*Stephanoderes*).
Lectotype ♀; New Orleans, Louisiana [USA]; IRSNB, Brussels, designated by Wood 1973c: 177. Figures: Numberg 1965b: pl. 1.
Distribution: Africa (Angola/ Congo/ Egypt/ Equatorial Guinea/ Ghana/ Ivory Coast/ Liberia/ Mozambique/ Nigeria/ Rwanda/ Seychelles Islands/ Sierra Leone/ South Africa/ Tanzania/ Uganda/ Zaire), Antilles Islands (Barbados/ Cuba/ Haiti in Hispanola/ Puerto Rico/ Virgin Islands), Asia (Sri Lanka/ Turkey), Australia, Fiji Islands, Hawaiian Islands, Indonesia (Java), Madagascar, Micronesia, Niue Island, North America (Costa

Rica/ El Salvador/ Guatemala/ Honduras/ Chiapas, Jalisco, Nayarit, Oaxaca, Puebla, San Luis Potosí, Tamaulipas, Veracruz, Yucatan in Mexico/ Panama/ Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Texas, Virginia, West Virginia in USA), Philippine Islands, South America (Brazil/ Colombia/ Paraguay).

Hosts: *Acia farnesiana*, *Acras sapota*, *Acrocomia sclerocarpa*, *Aleurites fordii*, *Cassia glauca*, *Bauhinia tomentosa*, *Bursera* sp., *Cajanus cajan*, *Calliandra confusa*, *Callicarpa* sp., *Canavalia* sp., *Carya* spp., *Cecropia* sp., *Citrus aurantifolia*, *Coccoloba alba*, *Coffea bukovensis*, *Cordia* sp., *Dipholis salicifolia*, *Eleagnus pungens*, *Erythrina* sp., *Eugenia buxifolia*, *Ficus* spp., *Galactia spiciformis*, *Guacca quara*, *Hydracrepans* sp., *Ipomoea cathartica*, *Juglans nigra*, *Liquidambar styraciflua*, *Maclura pomifera*, *Mangifera indica*, *Mouinia* sp., *Ochroma* sp., *Ocotea catesbiana*, *Persca americana*, *P. borbonica*, *Philabertella clausa*, *Pinus* spp., *Pithecellobium guadeloupense*, *Pittospermum* sp., *Populus deltoides*, *Prunus persica*, *Quercus* spp., *Rhamnus* sp., *Rhus glabra*, *Saba parviflora*, *Salix* sp., *Serjania* sp., *Sida rhombifolia*, *Tectona grandis*, *Theobroma cacao*, *Thespersia pulchra*, *Trachylobium narrucosum*, *Trema floridana*, *Trichilia arborea*, *Wisteria* sp., *Urena* sp., *Yucca* sp.

References: (cn) Caminha Filho 1926: 122–127; Costa Lima 1956; Kleine 1932a: 302; Moreira 1928: 24–25; Stokes 1975a. (ec) Equihua & Atkinson 1986: 632. (hb) Atkinson et al. 1986: 66; Beaver 1987a: 19; Burgos & Saucedo 1983: 105; Chamberlin 1939: 103; Costa Lima 1956; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 632; Fonseca 1937: 366–368; Kleine 1932a: 302; Sequira 1961; Wood, S. L. 1982b: 895. (ds) Atkinson & Equihua 1985c: 357, 1986a: 422, 1988: 92; Atkinson et al. 1986: 66; Azavedo 1925b: 85–86; Beaver 1987a: 19, 1987b: 65; Blatchley & Leng 1916: 600; Bright 1985c: 175; Burgos & Saucedo 1983: 105; Chamberlin 1939: 103; Costa Lima 1925: 147, 1928: 117–122, 1956; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 632; Estrada & Atkinson 1988: 210; Gemminger & Harold 1872: 2685; Grunwald 1930: 1–58; Hagedorn 1910d: 45; Hambleton 1947; Kleine 1913b: 121, 1914b: 355, 1932a: 145, 302; Leng 1920: 340; Roba 1935: 340; Swaine 1909: 118; Tucker 1952: 347; Wood, S. L. 1977a: 72, 1983: 105. (tx) Blatchley & Leng 1916: 600; Bright 1985c: 175; Chamberlin 1939: 103; Costa Lima 1956; Eggers 1940a; Eichhoff 1872a: 133, 1878b: 158; Fauvel 1884; Hagedorn 1910a: 85; Hopkins 1915b: 22; LeConte 1876: 356; Reitter 1907: 192; Schedl 1940d: 160, 1945d: 35, 1951m: 104, 1952k: 159–160; Sharp 1879: 102; Swaine 1909: 118; Wood, S. L. 1954a: 959, 1041, 1972f: 50, 1973c: 177, 1977d: 513, 1982b: 895.

pulverulentus Eichhoff 1872a: 133 (*Stephanoderes*). Syntypes ♀; Mexico; Hamburg Museum, lost. Synonymy: Wood 1973c: 177. References: (ds) Blackwelder 1947: 778; Blandford 1904; Browne 1974a: 64; Ferrer 1942; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 45; Kleine 1913b: 121, 1914b: 349. (tx) Blandford 1904; Eichhoff 1872a: 133, 1878b: 161; Hagedorn 1910a: 87; Hopkins 1915b: 22; Reitter 1907: 192; Schaufuss 1891: 12; Schedl 1940a: 342; Wood, S. L. 1972f: 50, 1973c: 177.

vulgaris Schaufuss 1897a: 209 (*Stephanoderes*). Syntypes ♀; La Digne, Sechelles Islands; Hamburg Museum, lost. Synonymy: Wood 1972f: 50.

References: (cn) Anonymous 1961m, 1966j, 1966k; Hammad 1961. (hb) Hammad 1961: 150. (ds) Allmand 1900: 439; Anonymous 1961m, 1966j; Ford 1961: 321; Fumasaki 1967: 343; Hagedorn 1910d: 46; Kleine 1913b: 121; Kolbe 1910: 40; Sampson 1914: 384; Schedl 1961k: 629, 1962h: 58, 1962k: 1070, 1969d: 11, 1977a: 78. (tx) Hagedorn 1910a: 85; Hammad 1961: 150; Hammad & El Cherif 1962; Hopkins 1915b: 22; Sampson 1914: 384; Schaufuss 1897a: 209; Schedl 1940d: 586, 1950f: 46, 1951j: 19, 1953d: 68, 1957b: 150, 1961k: 629, 1977a: 78.

aulmanni Hagedorn 1912b: 41 (*Cryphalus*). Syntypes ♀; Daressalam; Hamburg Museum, lost. Synonymy: Wood 1989: 174.

References: (bv) Schedl 1960f: 71. (cn) Ghesquiere 1933a; Hagedorn 1913a; Kleine 1932a: 302; Morstatt 1937: 26; Schmitz & Crisinel 1957: 17. (hb) Hagedorn 1913a; Kleine 1932a: 302; Schedl 1961k: 549, 1977a: 63; Schmitz & Crisinel 1957: 12. (ds) Aulmann & La Baume 1911: 64–65; Beaver & Loytyniemi 1985a: 79; Ghesquiere 1933a; Hagedorn 1913a: 13; Kleine 1913b: 121, 1914b: 322, 1932a: 145, 302; LePelley 1968: 113; Mayne & Donis 1962: 311; Morstatt 1913: 292; Numberg 1952: 19, 1965b: 19; Roba 1935: 335; Schedl 1959a: 484, 1961k: 549, 1965f: 4, 1971d: 432, 1977a: 63; Thompson, C. H. 1963: 66. (tx) Eggers 1922: 173, 1927a: 176, 1936c: 36–37; Hagedorn 1912b: 41–42; Numberg 1952: 19, 1965b: pl. 1; Schedl 1950c: 204, 1952j: 2, 1954e: 49–50, 1959a: 484, 1961k: 549, 1965f: 4, 1977a: 63; Wood, S. L. 1989: 174.

georgiae Hopkins 1915b: 26 (*Stephanoderes*). Holotype ♀; Georgia [USA]; USNM, Washington. Synonymy: Wood 1972f: 50.

References: (cn) Anonymous 1960t, 1961m, 1966j. (ec) Bushing 1965: 460. (hb) Baker, W. L. 1972: 254; Beal & Massey 1945: 114–115; Chamberlin 1939: 303; Kalshoven 1963; Wood, S. L. 1953: 177, 1954a: 1048. (ds) Anonymous 1960t, 1961m, 1966j; Beal &

- Massey 1945; Blackwelder 1947: 778; Blatchley & Leng 1916: 600; Bright 1972d: 58; Chamberlin 1939: 303; Cooper 1935; Ford 1961: 321; Fumasaki 1967: 333; Kalshoven 1963; Kirk 1970; Knull 1934: 212; Leng 1920: 340; Martorell 1945: 469; Wolcott 1936: 317, 1945: 350; Wood, S. L. 1960a: 35. **(tx)** Beal & Massey 1945: 114–115; Blackman 1922b: 95; Blatchley & Leng 1916: 600; Bright 1972d: 58; Chamberlin 1939: 303; Hopkins 1915b: 22, 26; Wood, S. L. 1953: 177, 1954a: 959, 1048, 1960a: 35, 1972f: 50.
- minutus* Hopkins 1915b: 26 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 50. References: **(ds)** Blackwelder 1947: 775; Leng & Mutchler 1917: 219. **(tx)** Hopkins 1915b: 22, 26; Wood, S. L. 1972f: 50.
- texanus* Hopkins 1915b: 26 (*Stephanoderes*). Holotype ♀; Columbus, Texas [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(hb)** Blackman 1922b: 94; Chamberlin 1939: 305. **(ds)** Blackman 1922b: 94; Chamberlin 1939: 305; Kleine 1934a: 145; Leng 1920: 340; Wolcott 1936: 317. **(tx)** Blackman 1922b: 94; Chamberlin 1939: 305; Hopkins 1915b: 22, 26; Wood, S. L. 1954a: 959, 1048.
- fibrigi* Hopkins 1915b: 27 (*Stephanoderes*). Holotype ♀; San Bernardino, Paraguay; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(ds)** Blackwelder 1947: 778. **(tx)** Hopkins 1915b: 22, 27; Wood, S. L. 1954a: 1048, 1967b: 78, 1972f: 50.
- floridensis* Hopkins 1915b: 27 (*Stephanoderes*). Holotype ♀; Haw Creek, Florida [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(hb)** Chamberlin 1939: 306. **(ds)** Blatchley & Leng 1916: 601; Chamberlin 1939: 306; Leng 1920: 340. **(tx)** Blatchley & Leng 1916: 601; Chamberlin 1939: 306; Hopkins 1915b: 22, 27; Wood, S. L. 1954a: 1048.
- pini* Hopkins 1915b: 27 (*Stephanoderes*). Holotype ♀; Kanawha Station, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(hb)** Chamberlin 1939: 305. **(ds)** Blatchley & Leng 1916: 600; Chamberlin 1939: 305; Kleine 1934a: 145; Leng 1920: 340. **(tx)** Blatchley & Leng 1916: 600; Chamberlin 1939: 305; Hopkins 1915b: 22, 27; Wood, S. L. 1954a: 959, 1048.
- salicis* Hopkins 1915b: 27 (*Stephanoderes*). Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(hb)** Beal & Massey 1945: 113; Bright & Stark 1973: 66; Chamberlin 1939: 305. **(ds)** Beal & Massey 1945: 113; Blatchley & Leng 1916: 600; Bright & Stark 1973: 66; Chamberlin 1939: 305; Kleine 1934a: 145; Leng 1920: 340; Blatchley & Leng 1916: 600; Chamberlin 1939: 305; Hopkins 1915b: 22, 27; Wood, S. L. 1954a: 959, 1048.
- tamarindi* Hopkins 1915b: 27 (*Stephanoderes*). Holotype ♀; Manila, Philippine Islands; USNM, Washington. Wood 1972f: 50. References: **(cn)** Costa Lima 1956. **(hb)** Costa Lima 1956. **(ds)** Costa Lima 1956; Kleine 1934a: 145; Schedl 1966b: 30. **(tx)** Costa Lima 1956; Hopkins 1915b: 22, 27; Nobuchi 1983: 300; Wood, S. L. 1972f: 50.
- ficus* Hopkins 1915b: 28 (*Stephanoderes*). Holotype ♀; Alabama [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(hb)** Beal & Massey 1945: 110–113; Blackman 1922b: 94; Chamberlin 1939: 305; James 1942: 37. **(ds)** Beal & Massey 1945: 110–113; Blackman 1922b: 94; Blatchley & Leng 1916: 602; Chamberlin 1939: 308; Kirk 1969; Kleine 1934a: 145; Leng 1920: 340. **(tx)** Beal & Massey 1945: 110–113; Blackman 1922b: 94; Blatchley & Leng 1916: 601; Chamberlin 1939: 308; Hopkins 1915b: 22, 28; Schedl 1960h: 104; Wood, S. L. 1954a: 959, 1048.
- lucasi* Hopkins 1915b: 28 (*Stephanoderes*). Holotype ♀; southern United States [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(hb)** Blackman 1922b: 94; Chamberlin 1939: 308. **(ds)** Blackman 1922b: 94; Chamberlin 1939: 308. **(tx)** Blackman 1922b: 94; Chamberlin 1939: 308; Hopkins 1915b: 22, 28; Wood, S. L. 1954a: 959, 1048.
- soltani* Hopkins 1915b: 28 (*Stephanoderes*). Holotype ♀; New Orleans, Louisiana [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(hb)** Chamberlin 1939: 308. **(ds)** Chamberlin 1939: 308; Leng 1920: 340. **(tx)** Blatchley & Leng 1916: 601; Chamberlin 1939: 308; Hopkins 1915b: 22, 28; Wood, S. L. 1954a: 959, 1048.
- virentis* Hopkins 1915b: 28 (*Stephanoderes*). Holotype ♀; Lakeland, Florida [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: **(hb)** Chamberlin 1939: 308. **(ds)** Blatchley & Leng 1916: 602; Chamberlin 1939: 308; Kleine 1934a: 145; Leng 1920: 340. **(tx)** Blatchley & Leng 1916: 602; Chamberlin 1939: 308; Hopkins 1915b: 22, 28; Wood, S. L. 1954a: 959, 1048.
- nitidipennis* Hopkins 1915b: 29 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1972f: 50. References: **(hb)** Wood, S. L. 1953: 150, 1954a: 1035. **(ds)** Blackwelder 1947: 778;

- Leng & Mutchler 1917: 219. (**tx**) Hopkins 1915b: 23, 29; Wood, S. L. 1953: 150, 1954a: 959, 1018, 1035, 1972f: 50.
- nitidulus* Hopkins 1915b: 29 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1977d: 513. References: (**ds**) Blackwelder 1947: 778. (**tx**) Hopkins 1915b: 23, 29; Wood, S. L. 1954a: 959, 1035, 1977d: 513.
- pecanis* Hopkins 1915b: 29 (*Stephanoderes*). Holotype ♀; Orlando, Florida [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: (**hb**) Beal & Massey 1945: 114; Chamberlin 1939: 308. (**ds**) Beal & Massey 1945: 114; Blatchley & Leng 1916: 601; Chamberlin 1939: 308; Leng 1920: 340. (**tx**) Beal & Massey 1945: 114; Blatchley & Leng 1916: 601; Chamberlin 1939: 308; Hopkins 1915b: 23, 29; Wood, S. L. 1954a: 1048.
- subopacicolis* Hopkins 1915b: 30 (*Stephanoderes*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1977d: 513. References: (**ds**) Blackwelder 1947: 778; Leng & Mutchler 1917: 219. (**tx**) Hopkins 1915b: 23, 30; Wood, S. L. 1954a: 959, 1035, 1977d: 513.
- niger* Hopkins 1915b: 31 (*Stephanoderes*). Holotype ♀; Brownsville, Texas [USA]; USNM, Washington. Synonymy: Wood 1972f: 50. References: (**hb**) Chamberlin 1939: 309; Wood, S. L. 1953: 157, 1954a: 1038. (**ds**) Chamberlin 1939: 309; Ferrer 1942; Leng 1920: 340. (**tx**) Chamberlin 1939: 309; Hopkins 1915b: 24, 31; Schedl 1940a: 342; Wood, S. L. 1953: 157, 1954a: 1019, 1038, 1972f: 50.
- tonsus* Eggers 1919: 242. Lectotype ♀; Amani (Ostafrika); USNM, Washington, designated by Anderson & Anderson 1971: 34. Synonymy: Eggers 1922b: 173. References: (**tx**) Anderson, W. H. & Anderson 1971: 34; Eggers 1919: 242, 1922b: 173, 1927a: 176; Schedl 1961k: 549.
- robustus* Blackman 1922b: 88. Syntypes ♀; Newton, Mississippi [USA]; USNM, Washington. Synonymy: Wood 1954a: 1048. References: (**hb**) Chamberlin 1939: 293. (**ds**) Chamberlin 1939: 293; Kleine 1934a: 144; Leng & Mutchler 1927: 52. (**tx**) Blackman 1922b: 88; Chamberlin 1939: 293; Wood, S. L. 1954a: 959, 1048.
- cassavaensis* Schedl 1938d: 453. Lectotype ♀; Uganda, Kampala; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 54. Synonymy: Wood 1989: 175. References: (**cc**) Beaver 1979b: 298. (**hb**) Beaver 1976b: 535, 1979b: 298; Beaver & Browne 1978: 590. (**ds**) Beaver 1976b: 535; Beaver & Browne 1978: 590; Brader 1964: 5; Browne 1980c: 455, 1980d: 493; Ferreira 1965: 1113; Paulian 1951: 31; Schedl 1938d: 453, 1959a: 478, 1959p: 16, 1961k: 470. (**tx**) Schedl 1938d: 453-454, 1941d: 397, 1951j: 21, 1951k: 134, 1953d: 81, 1955b: 284, 1957d: 12, 1959a: 478, 1959p: 16, 1961k: 470, 1977b: 49; Wood, S. L. 1989: 175.
- hawaiiensis* Schedl 1941f: 112 (*Stephanoderes*). Lectotype ♀; Oahu, Honolulu; BPBM, Honolulu², designated by Schedl 1979c: 116. Synonymy: Wood 1989: 175. References: (**ds**) Swezey 1941: 120. (**tx**) Schedl 1941f: 112, 1979c: 116; Wood, S. L. 1960a: 39, 1961a: 38, 1989: 175.
- striatulus* Schedl 1942d: 12. Lectotype, sex²?; Java, Buitenzorg, Nr. 388 Kalshoven, Walikoekeo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 237. Synonymy: Wood 1989: 175. References: (**ds**) Blackwelder 1947: 778; Browne 1961c: 79. (**tx**) Schedl 1942d: 12, 1951k: 134, 1953c: 288, 1955b: 284, 1957d: 12, 1959a: 478, 1979c: 237; Wood, S. L. 1989: 175.
- darwinensis* Schedl 1942c: 178 (*Stephanoderes*). Lectotype, sex²?; Australia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 75. Synonymy: Wood 1972f: 50. References: (**ds**) Brimblecombe 1953: 25; Schedl 1959d: 67. (**tx**) Schedl 1942c: 178, 1948g: 25, 1950f: 37, 1959d: 67, 1979c: 75; Wood, S. L. 1972f: 50.
- marovoayi* Schedl 1953d: 81. Lectotype, sex²?; Madagascar, plaine de Marovoay, Madagascar, plantation du Sambirano; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 149. Synonymy: Wood 1989: 175. References: (**tx**) Schedl 1953d: 81, 1977b: 56, 1979c: 149; Wood, S. L. 1989: 175.
- andersoni* Wood 1954a: 1045 (*Stephanoderes*). Holotype ♀; Coconut Grove, Florida [USA]; USNM, Washington. Synonymy: Wood 1972f: 50. References: (**hb**) Wood, S. L. 1953: 171, 1954a: 1045. (**tx**) Wood, S. L. 1953: 171, 1954a: 1045, 1972f: 50.
- liquidambarae* Wood 1954a: 1046 (*Stephanoderes*). Holotype ♀; Jacksonboro, South Carolina [USA]; SMUK, Lawrence. Synonymy: Wood 1972f: 51. References: (**hb**) Wood, S. L. 1953: 174, 1954a: 1046. (**tx**) Wood, S. L. 1953: 174, 1954a: 1046, 1972f: 50.
- asperatus* Schedl 1967e: 226 (*Stephanoderes*). Holotype ♀; Kindamba, Meya, Bangou forest, Sibiti, IRHO rain forest; NHMB, Budapest. Synonymy: Wood 1989: 175. References: (**tx**) Schedl 1967e: 226, 1979c: 28; Wood, S. L. 1989: 175.
- setosus* (Eichhoff) 1868e: 391 (*Hypoborus*). Syntypes ♀; Guadeloupe; Hamburg Museum, lost except for 1 in USNM, Washington. Distribution: Africa (Cameroon/ Ivory Coast/

Sierra Leone/ South Africa/ Tanzania/ Uganda/ Zaire), Antilles Islands (Cuba/ Guadeloupe/ Haiti in Hispaniola/ Jamaica/ Puerto Rico), Asia (Taiwan), Madagascar, North America (Costa Rica/ Honduras/ Chiapas in Mexico/ Panama/ Florida in USA), South America (Brazil/ Colombia/ Venezuela).

Hosts: *Acacia pennatula*, *Bauhinia variegata*, *Cecropia* sp., *Mangifera indica*, *Theobroma cacao*.

References: (cn) Aulmann 1912: 54; Aulmann & La Baume 1911: 6, 67; Corporaal 1921: 5; Ghesquiere 1933a: 31, 1933b: 782. (cc) Wichmann 1955a: 98. (hb) Beaver & Browne 1975: 291, 1978: 591; Eichhoff 1881a: 46, 191; Kalshoven 1963; Wachtl 1876a: 458; Wood, S. L. 1982b: 909. (ds) Atkinson & Equihua 1988: 92; Beaver 1990a: 280; Beaver & Browne 1975: 291, 1978: 591; Beeson 1941: 389; Blackvelder 1947: 779; Brader 1964: 5; Bright 1972d: 55, 1985c: 175; Browne 1981b: 600; Estrada & Atkinson 1988: 210; Fleutiaux & Salle 1890: 457; Gemminger & Harold 1872: 2684, 2686; Hagedorn 1910d: 45; Heyden, Reitter, & Weise 1883: 182, 1891: 671, 1906: 711; Horion 1951; Kalshoven 1955: 169–170, 1963: 233; Kleine 1913b: 121; Kraatz 1869: 59; Leng & Mutchler 1917: 219; Lepesme 1947: 645; Nobuchi 1967: 13, 24; Pittioni 1943: 176; Reitter 1894a: 73, 1916: 290; Schedl 1966b: 29, 1977a: 73; Schilsky 1909: 188; Seidlitz 1872: 394, 1891a: 563, 1891b: 608; Stein 1868: 114; Wachtl 1876a: 458; Wichmann 1954: 514, 1955a: 98; Wood, S. L. 1977a: 72, 1982b: 909. (tx) Bright 1972d: 55, 1985c: 175; Chamberlin 1939: 303; Eggers 1922b: 174, 1923a: 130, 1924: 102, 1927a: 195, 1936d: 626, 1940a, 1941a: 108; Eichhoff 1868d: 419, 1868e: 391, 1872a: 133, 1877a: 117, 1878b: 149–150, 1881a: 46, 191, 1883a: 110, 134; Ferrari 1867a: 81, 1867b: 81, 114; Hagedorn 1910a: 88, 1910e: 2; Hopkins 1915b: 23; Lindemann 1877a: 168; Nobuchi 1983: 300; Reitter 1894a: 73, 1913a: 71, 1916: 290; Schaufuss 1905: 8; Schedl 1934f: 1640, 1936j: 1, 1939e: 328, 1939f: 35, 1942a: 197, 1942d: 3, 1945c: 664, 1950d: 17, 1951m: 102, 1952c: 62, 1954a: 139, 1954d: 871, 1955k: 143, 1959a: 485, 1962h: 58, 1962p: 204, 1967b: 29, 1971a: 274, 280, 1971c: 363, 1971f: 148, 1977a: 73; Seidlitz 1872: 394, 1891a: 563, 1891b: 608; Wood, S. L. 1954a: 1029, 1957c: 402–403, 1962: 79, 1967b: 79, 1972f: 51, 1975b: 393, 1982b: 909. (ms) Eichhoff 1868d: 419.

obscurus Eichhoff 1872a: 133 (*Stephanoderes*).

Holotype ♀; Antilles; IRSNB, Brussels, preoccupied by Fabricius 1801. Synonymy: Wood 1975b: 393.

References: (ds) Gemminger & Harold 1872: 2684; Hagedorn 1910d: 133. (tx) Eichhoff 1872a: 133, 1878b: 155; Ferrari 1867a: 17; Wood, S. L. 1975b: 393.

depressus Eichhoff 1878b: 155 (*Stephanoderes*).

Holotype ♀; Antilles; IRSNB, Brussels, automatic. Synonymy: Wood 1975b: 393.

References: (ds) Blackvelder 1947: 777; Bright 1985c: 174; Hagedorn 1910d: 41, 47; Kleine 1913b: 121; Leng & Mutchler 1917: 219. (tx) Bright 1985c: 174; Eggers 1929e; Eichhoff 1878b: 155; Hagedorn 1910a: 86; Hopkins 1915b: 21; Wood, S. L. 1975b: 393.

congonus Hagedorn 1912a: 337 (*Stephanoderes*).
Lectotype ♀; Eala, Congo; MRCB, Tervuren, designated by Wood 1975b: 393. Synonymy: Wood 1975b: 393.

References: (bv) Schedl 1960f: 11. (cn) Aulmann 1912: 54–55; Ghesquiere 1933a: 34–36, 1933b: 782–785; Kleine 1932a: 302; Mayne 1915: 577–596; Mayne & Donis 1951: 333. (cc) Mayne & Donis 1951: 333. (hb) Kleine 1932a: 302; Schedl 1961k: 560. (ds) Aulmann 1913: 1–126; Gardner 1933a, 1957a: 32; Green 1916: 608–636; Kleine 1913b: 121, 1914b: 314, 1932a: 145, 302, 1934: 145; Schedl 1960f: 11, 1961k: 560. (tx) Eggers 1922b: 174, 1924: 103, 1927a: 197; Hagedorn 1912a: 337, 1913b: 18; Numberg 1960: 291; Schedl 1950d: 17, 1961k: 560, 1965g: 19; Wood, S. L. 1967b: 78, 1975b: 393.

simoni (Reitter) 1887b: 194 (*Stephanoderes*). Holotype, sex?; Syrien; Haifa; NHMB, Budapest.

Distribution: Asia (Israel/ Syria).

References: (ds) Hagedorn 1910d: 45; Hariri 1971: 262; Kleine 1913b: 124; Reitter 1894a: 74; Schedl 1969g: 290. (tx) Hagedorn 1910a: 88; Hopkins 1915b: 15; Reitter 1887b: 194, 1894a: 74, 1913a: 73; Schedl 1934f: 1640.

sobrius (Schedl) 1965c: 58 (*Stephanoderes*). Holotype, sex?; Madagascar, Montange d'Ambre; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 58, 1977a: 76, 1979c: 231.

socialis (Schedl) 1957d: 57 (*Stephanoderes*). Holotype, sex?; Congo Belge; Yangambi, Kibalilturi, Kilometre 518, Ouest d'Irumu; MRCB, Tervuren.

Distribution: Africa (Angola/ Congo/ Ghana/ Zaire).
Hosts: *Anthonotha macrocarpa*, *Balanites wilsoniana*, *Cola griseiflora*, *Dialium corbisieri*, *Duboscia viridiflora*, *Gilbertiodendron devicrei*, *Polyalthia suae-colens*, *Trema guineense*.

References: (bv) Schedl 1960f: 33. (cc) Schedl 1961k: 620. (hb) Browne 1963a: 234; Schedl 1961k: 620. (ds) Browne 1963a: 234; Ferreira 1965: 1115; Schedl 1959p: 17, 1960f: 33, 1961k: 620, 1962h: 58, 1962k: 1070, 1964j: 41. (tx) Schedl 1957d: 57, 1959p: 17, 1961k: 620, 1962k: 1070, 1965g: 20.

solitarius (Schedl) 1950d: 24 (*Stephanoderes*). Holotype, sex?; D.O. Africa, Uganda; Schedl Collection in NHMW, Wien.

- Distribution: Africa (Cameroon/ Ghana/ Ivory Coast/ Nigeria/ South Africa/ Uganda/ Zaire).
Hosts: *Albizia gummifera*, *Bambus* sp., *Coffea* sp., *Pancovia harmsiana*, *Pterocarpus tinctorius*, *Synsepalum subcordatum*, *Theobroma cacao*.
References: (cn) Gregory 1954; Magnin 1954: 468; Schmitz & Crisinel 1957: 12. (hb) Pollet 1977; Schedl 1961k: 622; Schmitz & Crisinel 1957: 12. (ds) Mayne & Donis 1962: 313; Pollet 1977; Schedl 1961k: 622, 1964e: 68, 1965f: 618. (tx) Schedl 1950d: 24, 1954d: 571, 1961k: 622–623, 1965g: 20, 1979c: 232.
- solicis** Wood 1974a: 21. Holotype ♀; 3 km W Armeria, Colima, Mexico; Wood Collection.
Distribution: North America (Colima, Nayarit, Sinaloa in Mexico).
Hosts: *Inga* sp., *Phoradendron* sp., *Serjania* sp.
References: (ec) Equilma & Atkinson 1986: 632. (hb) Baker, W. L. 1972: 254; Equilma & Atkinson 1986: 632. (ds) Equilma & Atkinson 1986: 632; Wood, S. L. 1982b: 891. (tx) Wood, S. L. 1974a: 21, 1982b: 891.
- sparsedentatus** (Schedl) 1942c: 178 (*Stephanoderes*). Holotype, sex?; Witu, Tanagergebiet, Denhardt; Schedl Collection in NHMW, Wien.
Distribution: Australia.
References: (tx) Schedl 1942c: 178, 1979c: 232.
- sparsus** Hopkins 1915b: 20. Holotype ♀; Cohnmbus, Texas [USA]; USNM, Washington.
Distribution: North America (Tamaulipas in Mexico/ S Texas in USA).
Hosts: *Celtis pallida*, *Condalia* sp., *Rhamnus* sp.
References: (hb) Blackman 1922b: 87–88; Chamberlin 1939: 292; Wood, S. L. 1953: 159, 1954a: 1040, 1982b: 896. (ds) Blackman 1922b: 87–88; Chamberlin 1939: 292; Kleine 1934a: 144; Leng 1920: 340; Wood, S. L. 1982b: 896. (tx) Blackman 1922b: 87–88; Chamberlin 1939: 292; Hopkins 1915b: 14, 20; Wood, S. L. 1953: 159, 1954a: 959, 1040, 1982b: 896.
- similis** Hopkins 1915b: 20. Holotype ♀; Victoria, Texas [USA]; USNM, Washington. Synonymy: Wood 1954a: 1040.
References: (hb) Chamberlin 1939: 295. (ds) Chamberlin 1939: 295; Leng 1920: 340. (tx) Anderson, W. H. & Anderson 1971: 30; Chamberlin 1939: 295; Hopkins 1915b: 14, 20; Wood, S. L. 1954a: 959, 1040.
- tridentatus** Hopkins 1915b: 31 (*Stephanoderes*). Holotype ♀; San Diego, Texas [USA]; USNM, Washington. Synonymy: Wood 1954a: 1040.
References: (hb) Chamberlin 1939: 309. (ds) Chamberlin 1939: 309; Leng 1920: 340. (tx) Chamberlin 1939: 309; Hopkins 1915b: 24, 31; Wood, S. L. 1954a: 1040.
- spimicollis** (Schedl) 1965c: 59 (*Stephanoderes*). Holotype, sex?; Madagascar, Umgebung Fort Dauphin; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
- References: (tx) Schedl 1965c: 59, 1977a: 76, 1979c: 234.
- spinosus** (Schedl) 1979g: 98 (*Lepiceroides*). Holotype, sex?; Papua, Bnlolo, Morobe District. Upper Manki L. A.; Schedl Collection in NHMW, Wien preoccupied by Hagedorn 1909.
Distribution: New Guinea.
Notes: (1) Technically, this is a junior homonym, but the probability that it will become a junior synonym is so high that a replacement name was not considered to be in the best interests of nomenclature.
References: (tx) Schedl 1979g: 98, 1961k: 635; Wood, S. L. 1984b: 226.
- squamosus** (Hopkins) 1915b: 26 (*Stephanoderes*). Holotype ♀; Caymanas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba), North America (Colima, Tamaulipas, Veracruz in Mexico/ S Florida, Texas in USA).
Hosts: *Ardisia paniculata*, *Dipholis salicifolia*, *Galactia spiciformis*, *Ichthyomethia communis*, *Lysiloma bahamensis*, *Parthenocissus quinquefolia*, *Phoradendron* sp., *Pithecolobium unguis-cati*, *Serjania* sp., *Torruba longifolia*, *Vismia* sp.
References: (ec) Equilma & Atkinson 1986: 633. (hb) Equilma & Atkinson 1986: 633; Wood, S. L. 1954a: 1038. (ds) Atkinson & Equilma 1985c: 357; Atkinson et al. 1991: 161; Blackwelder 1947: 775; Equilma & Atkinson 1986: 633; Estrada & Atkinson 1988: 211; Wood, S. L. 1982b: 890. (tx) Hopkins 1915b: 21, 26; Wood, S. L. 1954a: 1019, 1037–1038, 1982b: 890.
- stigmaticus** (Schedl) 1951m: 101 (*Stephanoderes*). Holotype, sex?; Argentinien; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
References: (tx) Schedl 1951l: 284, 1951m: 101, 1979c: 237.
- garciae** Schedl 1958f: 42 (*Stephanoderes*). Holotype, sex?; Argentinien: Buenos Aires, Isla Martin Garcia; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 175.
References: (tx) Schedl 1958f: 42, 1979c: 102; Wood, S. L. 1989: 175.
- styrax** (Schedl) 1942a: 177 (*Stephanoderes*). Lectotype, sex?; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 239.
Distribution: Asia (Malaya).
Hosts: *Styrax benzoin*.
References: (ds) Browne 1961c: 73. (tx) Schedl 1942a: 177, 1979c: 239.
- subacuminatus** (Schedl) 1942a: 177 (*Stephanoderes*). Lectotype, sex?; Malaya, Pk; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 239.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 73, 1980d: 492. (tx) Schedl 1942a: 177, 1979c: 239.

- suspectus Wood** 1974a: 22. Holotype ♀; Pandora, Limon, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Nayarit in Mexico/ Panama), South America (Venezuela).
Hosts: *Albizia caribaea*, *Cecropia* sp., *Inga* sp., *Theobroma cacao*.
References: (ds) Wood, S. L. 1952b: 906. (tx) Wood, S. L. 1974a: 22. 1952b: 906.
- taihokuensis (Schedl)** 1952c: 63 (*Stephanoderes*). Holotype, sex?; Formosa, Taihoku; Schedl Collection in NHMW, Wien.
Figures: Nobuchi 1967: pl. 1.
Distribution: Asia (Taiwan).
References: (ds) Nobuchi 1967: 24. (tx) Nobuchi 1967: 24. pl. 1; Schedl 1952c: 63. 1979c: 249.
- teretis Wood** 1971: 35. Holotype ♀; Finca La Lola, Limon, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica), South America (Venezuela).
Hosts: *Canavalia villosa*, *Cecropia* sp., *Inga* sp., *Serjania* sp., *Sterculia pruriens*, *Theobroma cacao*.
References: (hb) Wood, S. L. 1952b: 904. (ds) Wood, S. L. 1952b: 904. (tx) Wood, S. L. 1971: 35–36. 1952b: 904.
- teteforti (Menier)** 1971: 141 (*Stephanoderes*). Holotype ♂; Madagascar Sud, 25 km a l'Est de Tulear, sur la route de Tananarive; MNHN, Paris.
Distribution: Madagascar.
Hosts: *Euphorbia oncoclada*.
References: (tx) Menier 1971: 141; Schedl 1977a: 77.
- tredli (Reitter)** 1905a: 55 (*Cryphalus*). Holotype, sex?; Agypten; Cairo; NHMB, Budapest.
Distribution: Africa (Egypt).
References: (ds) Kleine 1914a: 15. (tx) Eggers 1940h: 62; Reitter 1905a: 55–56, 1913a: 67; Schedl 1934f: 1639.
- trinitatis (Hopkins)** 1915b: 28 (*Stephanoderes*). Holotype ♀; Montserrat, Trinidad; USNM, Washington.
Distribution: Antilles Islands (Puerto Rico/Trinidad).
Hosts: *Guarica trichilionides*.
References: (ds) Blackwelder 1947: 778; Bright 1955c: 175; Martorell 1945: 469; Wolcott 1945: 381. (tx) Bright 1955c: 175; Hopkins 1915b: 22, 28.
- tristis (Eichhoff)** 1875: 200 (*Stephanoderes*). Holotype, sex?; Japan; IRSNB, Brussels.
Distribution: Asia (Japan).
References: (ds) Blandford 1894c; Hagedorn 1919d: 46; Kleine 1913b: 121, 1914b: 257; Murayama 1954b: 199; Nobuchi 1955c: 16. (tx) Blandford 1894d; Eichhoff 1875: 200, 1877a: 117, 1878b: 150; Hagedorn 1910a: 88; Hopkins 1915b: 24; Murayama 1934c: 298, 1954b: 199; Schedl 1934f: 1640, 1955k: 143.
- apatoides Eichhoff** 1875: 201 (*Dryocoetes*). Holotype, sex?; Japan; IRSNB, Brussels. Synonymy: Schedl 1955k: 143.
- References: (tx) Eichhoff 1875: 201; Schedl 1955k: 143.
- trivialis Wood** 1974a: 20. Holotype ♀; Santa Ana, San Jose, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Veracruz in Mexico/ Panama), South America (Colombia/ Venezuela).
Hosts: *Cuparia guatemalensis*, *Ficus* sp., *Ochroma* sp., *Serjania* sp., *Vismia guianensis*.
References: (ds) Wood, S. L. 1952b: 857. (tx) Wood, S. L. 1974a: 20, 1952b: 857.
- tuberosus (Schedl)** 1942d: 19 (*Stephanoderes*). Lectotype, sex?; Java, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 258.
Distribution: Indonesia (Java).
References: (tx) Schedl 1942d: 19. 1979c: 258.
- tungamicansolus (Schedl)** 1939i: 355 (*Stephanoderes*). Lectotype, sex?; Ukerewe, Tanganyika; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 258.
Distribution: Africa (Tanzania/ Zambia).
Hosts: *Bridelia scleroneuroides*.
References: (ds) Beaver & Loytyniemi 1959; Schedl 1961k: 626. (tx) Beaver & Loytyniemi 1959; Schedl 1939g: 170, 1939i: 355–356, 1957d: 56, 1961k: 626, 1979c: 258.
- vesculus Wood** 1974a: 21. Holotype ♀; Ocosingo Valley, Chiapas, Mexico; Wood Collection.
Distribution: North America (Chiapas in Mexico).
References: (ds) Wood, S. L. 1952b: 898. (tx) Wood, S. L. 1974a: 21, 1952b: 898.
- vitis Browne** 1970: 554. Holotype ♀; South Africa: Transvaal; BMNH, London.
Distribution: Africa (South Africa).
Hosts: *Vitis* sp.
References: (tx) Browne 1970: 554, 556; Schedl 1972q: 256.
- winkleri (Reitter)** 1907: 192 (*Stephanoderes*). Holotype ♀; Kamerun; NHMB, Budapest.
Figures: Numberg 1965a: 35, 1965b: pl. 2.
Distribution: Africa (Cameroon).
References: (ds) Hagedorn 1910d: 46; Kleine 1913b: 121, 1914b: 310, 1934a: 145; Numberg 1952: 20, 1965b: 20. (tx) Hagedorn 1910a: 88; Hopkins 1915b: 24; Numberg 1952: 20, 1965a: 35, 1965b: 26, pl. 2; Reitter 1907: 192; Schedl 1959q: 708, 1965e: 367.
- xanthophloeae (Schedl)** 1957d: 58 (*Stephanoderes*). Holotype, sex?; Kenya: Nairobi, Rift Valley; Schedl Collection in NHMW, Wien.
Distribution: Africa (Kenya).
Hosts: *Acacia xanthophloea*.
References: (cc) Schedl 1961k: 630. (hb) Schedl 1961k: 630. (ds) Schedl 1961k: 630. (tx) Schedl 1957d: 58, 1961k: 630, 1979c: 270.

Genus *Trischidias* Hopkins

TRISCHIDIAS HOPKINS 1915b: 7, 12. Type-species:

Trischidias georgiae Hopkins, original designation.

Keys: Wood 1954a: 1067, 1982b: 872.

References: (hb) Wood, S. L. 1986a: 91. (ds) Wood, S. L. 1986a: 91. (tx) Arnett 1960: 1043, 1968: 1043; Hopkins 1915b: 7, 12; Numberg 1956: 141; Wood, S. L. 1954a: 962, 981, 1067, 1982b: 872, 1986a: 92.

atoma (Hopkins) 1915b: 15 (*Hypothenemus*). Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington.

Distribution: North America (District of Columbia, Florida, Georgia, Kansas, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, South Carolina, Texas, Tennessee, Virginia, West Virginia in USA), South America (Brazil).

Hosts: *Acer rubrum*, *Asimina trilobata*, *Carya* spp., *Castanea dentata*, *Liriodendron tulipifera*, *Pinus* sp., *Quercus marylandica*, *Rhizophora mangle*, *Rhus toxicodendron*, *Robinia pseudacacia*, *Salix nigra*, *Ulmus rubra*.

References: (hb) Beal & Massey 1945: 118; Chamberlin 1939: 293; Deyrup & Atkinson 1987a: 66; Wood, S. L. 1953: 219, 1954a: 1068, 1982b: 872. (ds) Beal & Massey 1945: 118; Blatchley & Leng 1916: 596; Chamberlin 1939: 293; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Kleine 1934a: 143; Leng 1920: 339; Smith, J. B. 1910: 401; Wood, S. L. 1982b: 872. (tx) Beal & Massey 1945: 118; Blatchley & Leng 1916: 596; Chamberlin 1939: 293; Hopkins 1915b: 15; Schedl 1962r: 89; Wood, S. L. 1953: 219, 1954a: 960, 976, 1068, 1982b: 872–873.

inpressifrons Hopkins 1915b: 15 (*Hypothenemus*). Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1068.

References: (hb) Chamberlin 1939: 293. (ds) Chamberlin 1939: 293; Kleine 1934a: 143; Leng 1920: 339. (tx) Chamberlin 1939: 293; Hopkins 1915b: 15; Wood, S. L. 1954a: 979, 1068.

marylandica Hopkins 1915b: 15 (*Hypothenemus*). Holotype ♀; Pregnall, South Carolina [USA]; USNM, Washington. Synonymy: Wood 1954a: 960.

References: (hb) Blackman 1922b: 83; Chamberlin 1939: 290. (ds) Blackman 1922b: 83; Blatchley & Leng 1916: 596; Chamberlin 1939: 290; Kirk 1969; Kleine 1934a: 143; Leng 1920: 339. (tx) Blackman 1922b: 83; Blatchley & Leng 1916: 596; Chamberlin 1939: 290; Hopkins 1915b: 15; Schedl 1962r: 89; Wood, S. L. 1954a: 960, 1068.

robiniae Hopkins 1915b: 15 (*Hypothenemus*). Holotype ♀; Chevy Chase, Maryland [USA]; USNM, Washington. Synonymy: Wood 1954a: 1068.

References: (hb) Beal & Massey 1945: 118;

Chamberlin 1939: 293. (ds) Beal & Massey 1945: 118; Blatchley & Leng 1916: 597; Chamberlin 1939: 293; Kleine 1934a: 144; Leng 1920: 339. (tx) Beal & Massey 1945: 118; Blatchley & Leng 1916: 597; Chamberlin 1939: 293; Hopkins 1915b: 15; Schedl 1962r: 89; Wood, S. L. 1954a: 960, 1068.

toxicodendri Hopkins 1915b: 15 (*Hypothenemus*). Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1954a: 1068.

References: (hb) Blackman 1922b: 83; Chamberlin 1939: 290. (ds) Blackman 1922b: 83; Blatchley & Leng 1916: 597; Chamberlin 1939: 290; Kleine 1934a: 144; Leng & Mutchler 1920: 339. (tx) Blackman 1922b: 83; Blatchley & Leng 1916: 597; Chamberlin 1939: 290; Hopkins 1915b: 15; Schedl 1962r: 89–90; Wood, S. L. 1954a: 960, 1068.

exigua Wood 1986c: 273. Holotype ♀; Campo Experimental, INIF, Escarcega, Campeche, Mexico; Wood Collection.

Distribution: North America (Campeche in Mexico/S Florida in USA).

Hosts: *Belotia campbelli*.

References: (hb) Deyrup 1987; Deyrup & Atkinson 1987a: 66. (ds) Deyrup 1987; Deyrup & Atkinson 1987a: 66; Estrada & Atkinson 1988: 211. (tx) Wood, S. L. 1986c: 273.

georgiae Hopkins 1915b: 12. Holotype ♀; Brunswick, Georgia [USA]; USNM, Washington.

Distribution: North America (Georgia).

References: (hb) Chamberlin 1939: 287; Wood, S. L. 1954a: 1070. (ds) Blatchley & Leng 1916: 594; Chamberlin 1939: 287; Leng 1920: 339; Wood, S. L. 1982b: 974. (tx) Blatchley & Leng 1916: 594; Chamberlin 1939: 287; Hopkins 1915b: 12; Wood, S. L. 1954a: 979, 1068, 1070, 1982b: 874.

minutissima Wood 1954a: 1069. Holotype ♀; Sugar Loaf Key, Florida [USA]; SMUK, Lawrence.

Distribution: North America (S Florida in USA).

Hosts: *Rhizophora mangle* roots.

References: (hb) Wood, S. L. 1954a: 1069, 1982b: 874. (ds) Wood, S. L. 1982b: 874. (tx) Schedl 1962r: 89; Wood, S. L. 1954a: 1068–1069, 1982b: 874.

nigrina (Schedl) 1967d: 7 (*Ernoporus*). Holotype, sex?, Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) A probable synonym of *atoma* Hopkins. References: (tx) de Ruelle 1970: 101; Schedl 1967d: 7, 1979c: 167.

spinata (Schedl) 1977d: 282 (*Miocryphalus*). Holotype, sex?, Ghana, Volta Region, Ho, N 6 degrees 70', E 0 degrees 03'; NHMB, Budapest.

Distribution: Africa (Ghana).

References: (tx) Schedl 1977d: 282.

Genus *Periocryphalus* Wood

PERIOCRYPHALUS WOOD 1971: 33. Type-species: *Periocryphalus pullus* Wood, original designation.

References: (hb) Wood, S. L. 1986a: 92. (ds) Wood, S. L. 1986a: 92. (tx) Wood, S. L. 1971: 33, 1986a: 92.

pullus Wood 1971: 33. Holotype ♀; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.

Distribution: South America (Brazil/Venezuela).

Hosts: Liana.

References: (hb) Wood, S. L. 1971: 33. (ds) Beaver 1974a. (tx) Wood, S. L. 1971: 33.

sobrinus Wood 1974a: 22. Holotype ♀; 260 km N Xavantina, Mato Grosso, Brazil; BMNH, London. Distribution: South America (Brazil).

Hosts: *Protium* sp., *Siparuna* cf. *guianensis*.

References: (hb) Beaver 1974a. (ds) Beaver 1974a. (tx) Wood, S. L. 1974a: 22.

Tribe Corthylini LeConte

Corthyli

References: Blandford 1904: 248; LeConte 1876: 346–347; LeConte & Horn 1883: 516.

Corthyliidae

References: Eichhoff 1878b: 421.

Corthylinae

References: Beal & Massey 1945: 104; Hagedorn 1909: 162, 1910a: 24, 137, 1910d: 90; Hopkins 1915c: 224.

Corthylini

References: Leng 1920: 339; Lucas 1920: 339; Wood, S. L. 1978a: 114, 1982b: 69, 1986a: 93–100.

Pityophthoridae

References: Eichhoff 1878b: 173.

Araptidae

References: Eichhoff 1878b: 305.

Amphiceranidae

References: Eichhoff 1878b: 460.

Corthylini: Pityophthorina

Pityophthoridae

References: Eichhoff 1878b: 173.

Pityophthorinae

References: Nusslin 1911: 431.

Pityophthorina

References: Balachowsky 1949a: 232; Numberg 1954: 17; Wood, S. L. 1978a: 115, 1982b: 73, 1986a: 94, 97–98.

Araptidae

References: Eichhoff 1878b: 305.

Genus *Mimiocurus* Schedl

MIMIOCURUS SCHEDL 1957d: 72. Type-species: *Mimiocurus acuminatus* Schedl, monobasic.

Micracidendron Schedl 1957d: 71. Type-species: *Micracidendron montanum* Schedl, monobasic. Synonymy: Wood 1984b: 226.

References: (tx) Schedl 1957d: 71, 1962j: 29, 1977b: 120; Wood, S. L. 1984b: 226.

Mimiophthorus Schedl 1957d: 77. Type-species: *Brachydendrus montanus* Schedl, nomen nudum, an error for *B. congonus* Schedl, original designation (Schedl 1962j: 63). Synonymy: Wood 1984b: 226.

References: (tx) Schedl 1957d: 77, 1962j: 63; Wood, S. L. 1984b: 226.

References: (hb) Wood, S. L. 1986a: 97. (ds) Schedl 1962j: 52, 63, 1977b: 120; Wood, S. L. 1986a: 97. (tx) Schedl 1957d: 72, 1962j: 52, 63, 1977b: 120; Wood, S. L. 1986a: 97.

acuminatus Schedl 1957d: 72. Holotype, sex?; Congo Belge: Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: Liana.

References: (ce) Schedl 1962j: 53. (hb) Schedl

1962j: 53. (ds) Schedl 1962j: 53. (tx) Schedl 1957d: 72, 1962j: 53, 1979c: 11.

beesoni Wood 1989: 182. Holotype ♂; Amarampalam R., Nilambur, Madras, India; FRI, Dehra Dun.

Distribution: Asia (Tamil Nadu in India).

Hosts: *Tiliacora acuminata*.

References: (tx) Wood, S. L. 1989: 182.

congonus (Schedl) 1952i: 14 (*Brachydendrus*). Holotype ♀; Kivu, Mulingu, Congo Belge; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Asparagus* sp., *Chlorocodon whiteii*, *Leucas* sp.

Notes: (3) Schedl 1962j: 63 (treated in *Mimiophthorus*).

References: (hb) Schedl 1962j: 63. (ds) Mayne & Donis 1962: 302; Schedl 1962j: 63. (tx) Schedl 1952i: 14–15, 1955f: 258, 262, 1957d: 77, 1962j: 63–64, 1963a: 30, 1964m: 317, 1979c: 62.

kikusae (Schedl) 1957d: 77 (*Mimiophthorus*). Holotype, sex?; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.

Distribution: Africa (Ivory Coast/ Zaire).

Hosts: *Salacia* cf. *erecta*.

References: (ce) Schedl 1962j: 67. (hb) Schedl 1958d: 185, 1962j: 67. (ds) Schedl 1962j: 67. (tx) Schedl 1957d: 77, 1961m: 83–84, 1962j: 67, 1979c: 132.

kikusuae occidentalis Schedl 1961m: 83 (*Mimiophthorus*). Lectotype, sex?; Cote d'Ivoire; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 132.

References: (ds) Schedl 1964e: 68, 1972e: 282. (tx) Schedl 1961m: 83, 1962j: 68, 1979c: 132.

montanus (Schedl) 1957d: 71 (*Micracidendron*). Holotype, sex?; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Alchornea hirtella*.

References: (hb) Schedl 1958d: 185–194, 1962j: 29. (ds) Schedl 1962j: 29. (tx) Schedl 1957d: 71, 1962j: 29–30, 1979c: 158.

monticulus Wood 1989: 178. Holotype, sex?; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren, automatic.

Distribution: Africa (Zaire).

References: (ds) Schedl 1962j: 55. (tx) Schedl 1962j: 55; Wood, S. L. 1989: 175.

montanus Schedl 1957d: 73. Holotype, sex?; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren, preoccupied by Schedl 1957.

References: (ce) Schedl 1958d: 185. (tx) Schedl 1957b: 156–157, 1957d: 72–73, 1962j: 55, 1979c: 158; Wood, S. L. 1989: 178.

orientalis (Schedl) 1972i: 51 (*Mimiophthorus*). Holotype ♀; New Guinea (NW), Nabire; BPBM, Honolulu.

- Distribution: New Guinea.
References: (tx) Schedl 1972i: 51, 1979c: 181.
- rosseli (Schedl)** 1973e: 88 (*Taphroterus*). Holotype, sex?; New Guinea: Abaleti, Rossel Island, Milne Bay District; AMNH, New York.
Distribution: New Guinea.
Notes: (3) The holotype was examined by Wood and referred to *Mimiocurus* (Wood 1983 private notes, p. 16).
References: (tx) Schedl 1973e: 88, 1979c: 213.
- rugicollis (Schedl)** 1957d: 78 (*Mimiophthorus*). Holotype, sex?; Congo Belge: Kivu, Hembé-Bitale; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Salacia* cf. *erecta*.
References: (ec) Schedl 1962j: 70. (hb) Schedl 1962j: 70. (ds) Schedl 1962j: 70, 1971g: 191. (tx) Schedl 1957d: 78, 1962j: 70, 1979c: 216.
- ruwenzoriensis (Schedl)** 1963a: 30 (*Mimiophthorus*). Holotype, sex?; Uganda, Ruwenzori Range, Nyangasani Valley, 13,000 ft.; BMNH, London.
Distribution: Africa (Uganda).
Hosts: *Senecio erioneuron*.
References: (tx) Schedl 1963a: 30, 1979c: 217.
- setifer (Schedl)** 1957b: 156 (*Mimips*). Lectotype, sex?; Tanganyika, Lushoto; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 226.
Distribution: Africa (Tanzania).
Hosts: *Syzygium* sp.
Notes: (1) Schedl 1979c: 226 (to *Mimiophthorus*, = *Mimiocurus*). This species has also been cited in *Dendrocraniulus*.
References: (hb) Gardner 1957: 31. (ds) Schedl 1962j: 60. (tx) Schedl 1957b: 156, 1962j: 60, 1979c: 226.
- tongatapu (Schedl)** 1979f: 106 (*Mimiophthorus*). Holotype, sex?; Tonga, Tongatapu: Tupon College; New Zealand DSIR, Auckland.
Distribution: Tonga Islands.
References: (tx) Beaver 1987: 68; Schedl 1979f: 106.
- umbratus (Schedl)** 1972e: 290 (*Mimiophthorus*). Holotype ♀; [Ghana] Ashanti Region: Kumasi, Nhiasu 330 m, N 6-43, W 1 36; NHMB, Budapest.
Distribution: Africa (Ghana).
References: (tx) Schedl 1972e: 290, 1979c: 260.
- uiseriatu (Schedl)** 1979d: 451 (*Mimiophthorus*). Holotype, sex?; Kamerun, Mukonje; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1979d: 451.
- 232; Hagedorn 1910a: 96-97, 1910d: 69; Wood, S. L. 1982b: 916-917, 1986a: 97-98.
- boliviae (Schedl)** 1961i: 224 (*Stephanopodius*). Holotype ♀; Bolivia, Do Santa Cruz, Prov. Jaíta, Buenovista; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Schedl 1961i: 224, 1979c: 42.
- brasiliensis (Schedl)** 1972g: 58 (*Stephanopodius*). Holotype, sex?; Brasilien, Corcovado, Gramabara; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 58, 1979c: 45.
- granulatum Blandford** 1904: 232. Holotype ♂; Bugaba, Chiriqui, Panama; BMNH, London.
Distribution: North America (Costa Rica/ Campeche in Mexico/ Panama).
Hosts: *Spondias mombin*.
Notes: (3) Wood 1971: 43 (described female).
References: (ec) Equihua & Atkinson 1986: 634; Matthews 1969: 111. (hb) Equihua & Atkinson 1986: 634. (ds) Blackwelder 1947: 782; Equihua & Atkinson 1986: 634; Estrada & Atkinson 1985: 212; Kleine 1913b: 139, 1914b: 362; Wood, S. L. 1982b: 917. (tx) Blandford 1904: 232; Hagedorn 1910a: 97; Hopkins 1914: 130; Lucas 1920: 619; Wood, S. L. 1982b: 917. (ms) Lucas 1920: 619.
- subulatum Wood** 1971: 43. Holotype ♀; 9 km S Barancas, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Astronium graveolens*.
References: (hb) Wood 1971: 43.

Genus *Dendroterus* Blandford

- DENDROTERUS BLANDFORD 1904: 233. Type-species: *Dendroterus mexicanus* Blandford, subsequent designation by Hopkins 1914: 120.
- Plesiophthorus* Schedl 1940a: 343. Type-species: *Plesiophthorus perspectus* Schedl, monobasic. Synonymy: Wood 1959b: 2.
References: (tx) Schedl 1940a: 343, 1964m: 312; Wood, S. L. 1959b: 2, 1986a: 97.
- Xylochilus* Schedl 1956b: 30. Type-species: *Xylochilus insularis* Schedl = *Dendroterus sallaci* Blandford, original designation. Synonymy: Wood 1972e: 191.
References: (tx) Schedl 1956b: 30; Wood, S. L. 1972e: 191, 1986a: 97.
Keys: Wood 1982b: 918.
References: (hb) Bright & Stark 1973: 96; Wood, S. L. 1982b: 917, 1986a: 97. (ds) Bright & Stark 1973: 96; Estrada & Atkinson 1985: 212; Wood, S. L. 1982b: 917, 1986a: 97. (tx) Arnett 1960: 1045, 1968: 1045; Blandford 1904: 233; Hopkins 1914: 120, 1915b: 9; Wood, S. L. 1982b: 917, 1986a: 97.
- cognatus Wood** 1971: 46. Holotype ♀; 5 km W El Salto, Durango, Mexico; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: *Bursera* sp.
References: (hb) Wood, S. L. 1982b: 923. (ds)

Genus *Styphlosoma* Blandford

- STYPHILOSOMA BLANDFORD 1904: 232. Type-species: *Styphlosoma granulatum* Blandford, monobasic.
References: (hb) Wood, S. L. 1986a: 97-98. (ds) Wood, S. L. 1986a: 97-98. (tx) Blandford 1904:

- Wood, S. L. 1982b: 923. (tx) Wood, S. L. 1971: 46, 1982b: 923.
- decipiens** Wood 1959b: 5. Holotype ♂; 3 miles NW Tequila, Jalisco, Mexico; SMUK, Lawrence. Distribution: North America (Jalisco, Oaxaca in Mexico). Hosts: *Bursera* sp. References: (hb) Atkinson et al. 1986: 68; Burgos & Saucedo 1983: 109; Wood, S. L. 1982b: 926. (ds) Atkinson et al. 1986: 68; Burgos & Saucedo 1983: 109; Wood, S. L. 1982b: 926. (tx) Wood, S. L. 1959b: 5, 1982b: 926.
- defectus** Wood 1971: 45. Holotype ♀; near Rincon de Osa, Puntarenas, Costa Rica; Wood Collection. Distribution: North America (Costa Rica/Panama). Hosts: *Bursera simarubra*. References: (hb) Wood, S. L. 1982b: 923. (ds) Wood, S. L. 1982b: 923. (tx) Wood, S. L. 1971: 45–46, 1982b: 923.
- eximius** Wood 1971: 44. Holotype ♀; Lago Amatitlan, Esquintla, Guatemala; Wood Collection. Distribution: North America (Guatemala). Hosts: *Bursera simarubra*. References: (hb) Wood, S. L. 1982b: 923. (ds) Wood, S. L. 1982b: 923. (tx) Wood, S. L. 1971: 44, 1982b: 923.
- fossifrons** Wood 1984e: 114. Holotype ♂; Estacion de Biologia, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: *Bursera* sp. References: (ec) Equihua & Atkinson 1986: 633. (hb) Equihua & Atkinson 1986: 633. (ds) Equihua & Atkinson 1986: 633. (tx) Wood, S. L. 1984e: 114.
- luteolus** (Schedl) 1951m: 111 (*Plesiophthorus*). Holotype ♂; Mexico; Schedl Collection in NHMW, Wien. Figures: Atkinson et al. 1986: 77. Distribution: North America (Chiapas, Morelos, Nayarit, Puebla in Mexico). Hosts: *Bursera* spp. References: (ec) Equihua & Atkinson 1986: 634. (hb) Atkinson et al. 1986: 70; Equihua & Atkinson 1986: 634; Wood, S. L. 1954a: 107, 1982b: 926. (ds) Atkinson & Equihua 1988: 90; Atkinson et al. 1986: 70; Equihua & Atkinson 1986: 634; Estrada & Atkinson 1988: 211; Wood, S. L. 1982b: 926. (tx) Atkinson et al. 1986: 77; Schedl 1951m: 111–112, 1952e: 123, 1979c: 143; Wood, S. L. 1954a: 107, 1959b: 2, 1972e: 194, 1982b: 926.
- mnudus** Wood 1959b: 3. Holotype ♂; Tehuiztingo, Puebla, Mexico; SMUK, Lawrence. Synonymy: Wood 1972e: 194. References: (tx) Schedl 1964m: 312; Wood, S. L. 1959b: 3, 1972e: 194.
- mexicanus** Blandford 1904: 233. Holotype ♀; Tehuantepec, Oaxaca, Mexico; BMNH, London. Distribution: North America (Jalisco, Morelos, Nayarit, Oaxaca in Mexico). Hosts: *Bursera* spp. References: (ec) Equihua & Atkinson 1986: 634. (hb) Atkinson & Equihua 1985c: 358; Atkinson et al. 1986: 70; Burgos & Saucedo 1983: 105; Equihua & Atkinson 1986: 634; Wood, S. L. 1982b: 924. (ds) Atkinson & Equihua 1985c: 355, 1988: 90; Atkinson et al. 1986: 70; Blackwelder 1947: 782; Burgos & Saucedo 1983: 108; Equihua & Atkinson 1986: 634; Ferrer 1942; Hagedorn 1910d: 69; Kleine 1913b: 139, 1914b: 351; Wood, S. L. 1982b: 924. (tx) Blandford 1904: 233; Hagedorn 1910a: 91; Hopkins 1914: 120; Lucas 1920: 230; Schedl 1940a: 343; Wood, S. L. 1959b: 2, 1972e: 194, 1976a: 348, 1982b: 924. (ms) Lucas 1920: 230.
- unbratus** Schedl 1937h: 168 (*Conophthoracraulus*). Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1976a: 348. References: (tx) Schedl 1937h: 168–169, 1940a: 346, 1964m: 312; Wood, S. L. 1976a: 348.
- confinis** Wood 1959b: 6. Holotype ♂; 23 km NW Magdalena, Jalisco, Mexico; SMUK, Lawrence. Synonymy: Wood 1972e: 196. References: (tx) Schedl 1959b: 6, 1964m: 312; Wood, S. L. 1959b: 6, 1972e: 194.
- modicus** Wood 1984e: 115. Holotype ♀; Volcan Ceboruco, Nayarit, Mexico, 1100 m; Wood Collection. Distribution: North America (Nayarit in Mexico). Hosts: *Bursera* sp. References: (tx) Wood, S. L. 1984e: 115.
- parilis** Wood 1971: 44. Holotype ♀; Santa Ana, San Jose, Costa Rica, 1300 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Bursera simarubra*. References: (hb) Wood, S. L. 1982b: 922. (ds) Wood, S. L. 1982b: 922. (tx) Wood, S. L. 1971: 44, 1982b: 922.
- perspectus** (Schedl) 1940a: 343 (*Plesiophthorus*). Holotype ♀; Omiltilme, Guerrero, Mexico; Schedl Collection in NHMW, Wien. Distribution: North America (Guerrero in Mexico). Notes: (1) Wood 1959b: 2 (to *Dendroterus*). (3) Wood 1982b: 924 (re-described female). References: (hb) Atkinson et al. 1986: 70. (ds) Atkinson et al. 1986: 70; Blackwelder 1947: 781; Ferrer 1942. (tx) Schedl 1940a: 343, 1952e: 122, 1979c: 191; Wood, S. L. 1959b: 2, 1982b: 924.
- resolutus** Wood 1971: 45. Holotype ♀; Playa del Coco, Guanacaste, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Bursera simarubra*. References: (hb) Wood, S. L. 1982b: 925. (ds) Wood, S. L. 1982b: 925. (tx) Wood, S. L. 1971: 45, 1982b: 925.

sallaei Blandford 1904: 233. Holotype ♀; Veracruz, Veracruz, Mexico; BMNH, London.

Distribution: North America (Costa Rica/ Chiapas, Jalisco, Nayarit, Oaxaca, Tamaulipas, Tres Marias Islands in Mexico).

Hosts: *Bursera sinarubra*, *B.* sp.

References: (ce) Equihua & Atkinson 1986: 634. (hb) Equihua & Atkinson 1986: 634; Wood, S. L. 1982b: 924. (ds) Atkinson & Equihua 1988: 90; Blackwelder 1947: 782; Equihua & Atkinson 1986: 634; Ferrer 1942; Hagedorn 1910d: 69; Kleine 1913b: 139, 1914b: 351; Wood, S. L. 1982b: 924. (tx) Blandford 1904: 233; Hagedorn 1910a: 91; Lucas 1920: 230; Schedl 1940a: 343; Wood, S. L. 1959b: 2, 1972e: 195, 1982b: 924. (ms) Lucas 1920: 230.

insularis Schedl 1956b: 31 (*Xylochilus*). Holotype ♂; Arroyo Hondo, Maria Madre, Tres Marias Islands, Gulf of California, Mexico; CAS, San Francisco. Synonymy: Wood 1972e: 195.

References: (hb) Wood, S. L. 1982b: 921. (ds) Wood, S. L. 1982b: 921. (tx) Schedl 1956b: 31, 1979c: 126; Wood, S. L. 1972e: 195, 1982b: 921.

sodalis Wood 1971: 44. Holotype ♀; Volcan de Agua, Esquintla, Guatemala; Wood Collection.

Distribution: North America (Guatemala).

Hosts: *Bursera sinarubra*.

References: (tx) Wood, S. L. 1971: 44.

striatus (LeConte) 1868: 156 (*Cryphalus*). Lectotype ♀; Cape San Lucas, Baja California, Mexico; MCZ, Cambridge, designated by Wood 1982b: 927. Distribution: North America (Baja California in Mexico/ S California in USA).

Hosts: *Bursera microphylla*.

Notes: (1) Wood 1954a: 1071 (to *Plesiophthorus*, 1972e: 195 to *Dendroterus*).

References: (hb) Bright & Stark 1973: 96; Wood, S. L. 1954a: 1071, 1982b: 927. (ds) Blatchley & Leng 1916: 631; Bright & Stark 1973: 96; Chamberlin 1939: 295; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 45; Henshaw 1882: 269, 1885: 148; Horn 1894: 359; Leng 1920: 340; Wood, S. L. 1982b: 927. (tx) Blatchley & Leng 1916: 631; Hagedorn 1910a: 88; Hopkins 1915b: 33; LeConte 1868: 156, 1876: 356; Swaine 1909: 119; Wood, S. L. 1954a: 960, 1071, 1959b: 2, 1972e: 195, 1982b: 927. *californicus* Schedl 1952e: 123 (*Plesiophthorus*).

Holotype ♀; Angeles Bay, Gulf of California, Baja California, Mexico; CAS, San Francisco. Synonymy: Wood 1972e: 195.

References: (hb) Wood, S. L. 1954a: 1071. (tx) Schedl 1952e: 122–123, 1979c: 50; Wood, S. L. 1954a: 1071, 1959b: 2, 1972e: 195.

texasus Wood 1959b: 4. Holotype ♂; Presidio, Texas [USA]; USNM, Washington.

Distribution: North America (SW Texas in USA). Hosts: *Jatropha spatulata*.

References: (hb) Wood, S. L. 1982b: 920. (ds) Wood, S. L. 1982b: 920. (tx) Schedl 1964m: 312; Wood, S. L. 1959b: 4, 1982b: 920.

Genus *Phloeoterus* Wood

PHLOEOTERUS WOOD 1984e: 117. Type-species: *Phloeoterus burserae* Wood, original designation. References: (hb) Wood, S. L. 1986a: 97. (ds) Wood, S. L. 1986a: 97. (tx) Wood, S. L. 1984e: 117, 1986a: 97.

burserae Wood 1984e: 117. Holotype ♀; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: *Bursera instabilis*.

References: (ce) Equihua & Atkinson 1986: 634. (hb) Equihua & Atkinson 1986: 634. (ds) Equihua & Atkinson 1986: 634. (tx) Muskus, A. 1984: 100; Wood, S. L. 1984e: 117.

Genus *Araptus* Eichhoff

ARAPTUS EICHHOFF 1872a: 136. Type-species: *Araptus rufopalliatius* Eichhoff, monobasic.

Neodryocoetes Eggers 1933b: 9. Type-species: *Neodryocoetes hymenacae* Eggers, monobasic. Synonymy: Blackman 1942a: 180, Wood 1973c: 170.

References: (tx) Blackman 1942a: 178–181; Bright 1972d: 91; Diakonoff 1938: 12–14; Eggers 1933b: 9, 1936a: 388–390, 1940a: 123–141; Schedl 1937h: 165, 1938a: 160–167, 177, 1939c: 344, 1951m: 72, 1962p: 206, 1964m: 311; Wood, S. L. 1973c: 170, 1986a: 97.

Thamnophthorus Schedl 1938a: 174. Type-species: *Thamnophthorus volastos* Schedl, subsequent designation by Blackman 1942a: 178. Synonymy: Wood 1973c: 170.

References: (tx) Arnett 1960: 1045, 1968: 1045; Blackman 1942a: 178; Schedl 1938a: 174; Wood, S. L. 1961a: 41–48, 1973c: 170, 1986a: 97.

Neopityophthorus Schedl 1938a: 180. Type-species: *Pityophthorus laevigatus* Eggers, subsequent designation by Wood 1982b: 928. Synonymy: Schedl 1951m: 72.

References: (tx) Blackman 1942a: 180; Eggers 1940a: 123–141; Schedl 1937h: 165, 1938a: 160–167, 180, 1951m: 72; Wood, S. L. 1982b: 928, 1986a: 97.

Sphenoceros Schedl 1939j: 565. Type-species: *Sphenoceros limax* Schedl, monobasic. Synonymy: Wood 1973c: 170.

References: (tx) Schedl 1939j: 565–566; Wood, S. L. 1973c: 170, 1986a: 97.

Hypertenus Hagedorn 1950: 164 (*in* Schedl 1950i: 164). Type-species: *Hypertenus reitteri*, nomen nudum, = *Sphenoceros limax* Schedl. Nomen nudum, no status.

References: (tx) Hagedorn 1950: 164 (*in* Schedl 1950i); Wood, S. L. 1986a: 97.

Brachydendrus Schedl 1951m: 114. Type-species: *Brachydendrus eggersi* Schedl, monobasic. Synonymy: Wood 1984b: 224.

References: (tx) Schedl 1951m: 114, 1957d: 1–162; Wood, S. L. 1984b: 224, 1986a: 97.

Gnathocranus Schedl 1951m: 116. Type-species: *Gnathocranus novateutonicus* Schedl, monobasic. Synonymy: Wood 1984b: 224.

References: (tx) Schedl 1951m: 116; Wood, S. L. 1984b: 224, 1986a: 97.

Gnathoborus Schedl 1970e: 93. Type-species: *Breviophthorus argentinae* Schedl, original designation. Synonymy: Wood 1984b: 224.

References: (tx) Schedl 1970e: 93; Wood, S. L. 1984b: 224, 1986a: 97.

Keys: Wood 1982b: 928 for North and Central America, Bright 1972d: 91 for Jamaica.

References: (hb) Wood, S. L. 1982b: 927, 1986a: 97. (ds) Hagedorn 1910d: 77; Wood, S. L. 1982b: 927, 1986a: 97. (tx) Eichhoff 1872a: 136, 1878b: 35, 37, 305; Hagedorn 1909a: 743, 1909b: 412, 1910a: 110; Hopkins 1914: 117, 1915c: 228; Schedl 1962j: 28; Wood, S. L. 1973c: 170, 1982b: 927–928, 1986a: 97.

accinctus Wood 1974a: 44. Holotype ♂; 3 km SE Acatlan, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico). Hosts: Liana, in pith.

References: (hb) Atkinson et al. 1986: 68; Wood, S. L. 1982b: 938. (ds) Atkinson et al. 1986: 68; Wood, S. L. 1982b: 938. (tx) Wood, S. L. 1974a: 44, 1982b: 938.

amazonicus (Eggers) 1936a: 391 (*Neodryocoetes*). Holotype ♂; Brasilien, Amazonas, Manaus; Eggers Collection, in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 781. (tx) Eggers 1936a: 391–392; Schedl 1938a: 177, 1979c: 18.

araucariae (Schedl) 1966f: 109 (*Conophthoracranulus*). Holotype ♀?; Argentinien, Misiones, Dep. Concep., Sta. Maria; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Hosts: *Araucaria brasiliensis*, in seeds.

References: (tx) Schedl 1966e: 43, 1966f: 109, 1979c: 24.

araujiae Brethes 1921: 165 (*Xyleborus*). Syntypes, sex?; La Plata, Argentina; Museo Argentino de Ciencias Naturales, Buenos Aires.

Figures: Brethes 1921: 166 (adult, antenna).

Distribution: South America (Argentina/ Brazil).

Hosts: *Araujia sericifera*.

Notes: (1) Schedl 1939m: 169 (to *Neodryocoetes*, = *Araptus*).

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956; Viana 1964: 125. (ds) Blackwelder 1947: 781; Costa Lima 1956; Schedl 1972g: 43, 1973d: 155; Viana 1964: 125. (tx) Brethes 1921: 165; Costa Lima 1956; Schedl 1939d: 412, 1939m: 169, 1951h: 284, 1952a: 446.

longicollis Schedl 1938a: 179 (*Neodryocoetes*).

Holotype, sex?; Argentinien, Prov. Tucuman;

Eggers Collection, in NHMW, Wien. Synonymy: Costa Lima 1956: 288.

Notes: (3) Schedl 1938a: 25 gives the host as *Araujia* sp.

References: (ds) Blackwelder 1947: 781. (tx) Costa Lima 1956: 288; Schedl 1938a: 179, 1938i: 25, 1939m: 169, 1961b: 187, 1979c: 140.

argentinae (Schedl) 1958f: 44 (*Breviophthorus*). Syntypes, sex?; Argentinien: Misiones, Dep. Concep., Sta. Maria; Schedl Collection in NHMW, Wien and Viana Collection.

Distribution: South America (Argentina/ Brazil). Notes: (1) Schedl 1970e: 93, 1979c: 25 (citation of holotype invalid).

References: (ds) Schedl 1958f: 44, 1970e: 82, 93; Schonherr & Pedrosa-Macedo 1981: 53. (tx) Schedl 1958f: 44, 1979c: 25.

attenuatus Wood 1975a: 30. Holotype ♀; 48 km W Baja de los Angeles, Baja California Norte, Mexico; Wood Collection.

Distribution: North America (Baja California Norte in Mexico).

Hosts: *Pedialanthus macrocarpus*.

References: (ds) Wood, S. L. 1982b: 951. (tx) McNamara 1984: 752; Wood, S. L. 1975a: 30, 1982b: 951.

aztecus (Wood) 1971: 54 (*Sphenoceros*). Holotype ♀; 6 km W Tepic, Nayarit, Mexico; Wood Collection. Distribution: North America (Nayarit, San Luis Potosi in Mexico).

Hosts: Tree limb, in phloem, in transverse, biramous parental tunnels; *Ficus* sp.

References: (hb) Wood, S. L. 1982b: 962. (ds) Atkinson & Equihua 1985c: 355; Estrada & Atkinson 1988: 211; Wood, S. L. 1982b: 962. (tx) Wood, S. L. 1971: 54, 1982b: 962.

blanditus Wood 1974a: 47. Holotype ♀; Fortin de las Flores, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico/ Panama).

Hosts: Tree branch.

References: (ds) Wood, S. L. 1982b: 951. (tx) Wood, S. L. 1974a: 47, 1982b: 951.

bolivianus (Schedl) 1951m: 110 (*Neodryocoetes*). Holotype, sex?; Bolivien, Cochabamba (German); Schedl Collection in NHMW, Wien.

Distribution: South America (Bolivia).

References: (tx) Schedl 1951h: 291, 1951m: 110, 115, 1979c: 43.

brasiliensis (Schedl) 1938a: 178 (*Neodryocoetes*). Holotype ♂; Brasilien; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 781. (tx) Schedl 1938a: 175, 178, 1938i: 26, 1979c: 45.

carinifrons (Blandford) 1904: 244 (*Pityophthorus*). Holotype ♂; Motzorongo, Veracruz, Mexico; BMNH, London.

- Distribution: North America (Veracruz in Mexico/Panama).
Hosts: Liana, in pith.
Notes: (1) Bright 1976c: 425 (to *Araptus*).
References: (**hb**) Wood, S. L. 1982b: 941. (**ds**) Blackwelder 1947: 781; Hagedorn 1910d: 70; Kleine 1913b: 140, 1914b: 351; Wood, S. L. 1982b: 941. (**tx**) Blandford 1904: 244; Bright 1976c: 425; Hagedorn 1910a: 100; Schedl 1940a: 348; Wood, S. L. 1982b: 941.
- chilensis** (Schedl) 1955c: 258 (*Conophthocramulus*). Syntypes, sex?; Chile, Valparaíso, Algarrobo; Kuschel Collection and 2 ♂ in Schedl Collection in NHMW, Wien.
Distribution: South America (Chile).
Notes: (1) Schedl 1979: 56 (citation of holotype invalid).
References: (**ds**) Schedl 1972d: 144. (**tx**) Schedl 1955c: 256, 258, 1972d: 144, 1979c: 56.
- columbianus** (Schedl) 1938a: 178 (*Neopityophthorus*). Holotype, sex?; Colombian; Schedl Collection in NHMW, Wien.
Distribution: South America (Colombia).
Hosts: *Theobroma cacao*, in seeds.
References: (**ds**) Blackwelder 1947: 781. (**tx**) Blackman 1942a: 183-184; Schedl 1938a: 178, 1979c: 60.
- concentralis** (Schedl) 1951m: 107 (*Neodryocoetes*). Holotype, sex?; Mexico; Schedl Collection in NHMW, Wien.
Distribution: North America (Jalisco, Oaxaca, Puebla in Mexico).
Hosts: Shrub (? Compositae), in phloem, in radiate parental tunnels.
References: (**hb**) Wood, S. L. 1982b: 959. (**ds**) Wood, S. L. 1982b: 959. (**tx**) Schedl 1951m: 107, 1979c: 61; Wood, S. L. 1982b: 959.
- conditus** Wood 1974a: 48. Holotype ♀; Puerto Viejo, Heredia, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Liana phloem, in radiate parental tunnels.
References: (**hb**) Wood, S. L. 1982b: 953. (**ds**) Wood, S. L. 1982b: 953. (**tx**) Wood, S. L. 1974a: 48, 1982b: 953.
- confinis** (Blandford) 1904: 241 (*Pityophthorus*). Lectotype ♂; Jalapa, Veracruz, Mexico; BMNH, London, designated by Wood 1975b: 39.
Distribution: North America (Guatemala/ Honduras/ Chiapas, Veracruz in Mexico/ Panama).
Hosts: Liana.
References: (**hb**) Wood, S. L. 1982b: 942. (**ds**) Blackwelder 1947: 781; Ferrer 1942; Hagedorn 1910d: 70; Kleine 1913b: 140, 1914b: 351, 362; Wood, S. L. 1982b: 942. (**tx**) Blandford 1904: 241; Bright 1976b: 185; Eggers 1936a: 390; Hagedorn 1910a: 100; Schedl 1938a: 177, 1940a: 346, 1955g: 18; Wood, S. L. 1975b: 391, 1982b: 942.
glabricollis Schedl 1938a: 181. Holotype ♂; [Teopisca, Chiapas] Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1975b: 391.
- References: (**ds**) Blackwelder 1947: 781; Ferrer 1942. (**tx**) Schedl 1938a: 181, 1940a: 346, 1951m: 108, 1979c: 106; Wood, S. L. 1975b: 391.
- confluens** (Schedl) 1964k: 311 (*Ctenyophthorus*). Holotype ♀; Nova Teutonia, Santa Catarina, Brazil; Schedl Collection in NHMW, Wien, automatic.
Distribution: South America (Brazil).
References: (**tx**) Schedl 1964k: 311.
- concentralis** Schedl 1963d: 222 (*Ctenyophthorus*). Holotype, sex?; Nova Teutonia, Santa Catarina, Brazil; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1951.
References: (**tx**) Schedl 1951m: 107, 1963d: 222, 1964m: 311, 1979c: 61.
- consobrinus** Wood 1975b: 394. Holotype ♂; 6 km N Tepic, Nayarit, Mexico, 1000 m; Wood Collection.
Distribution: North America (Jalisco, Nayarit in Mexico).
Hosts: *Ficus* sp.
References: (**ec**) Equihua & Atkinson 1986: 633. (**hb**) Equihua & Atkinson 1986: 633. (**ds**) Atkinson & Equihua 1985c: 358; Equihua & Atkinson 1986: 633; Kirkendall 1984: 242; Wood, S. L. 1982b: 950. (**tx**) Wood, S. L. 1975b: 394, 1982b: 950.
- corpulentus** (Schedl) 1973a: 371 (*Neodryocoetes*). Holotype, sex?; Bolivien, Guayaramerin (Beni); NHMB, Budapest.
Distribution: South America (Bolivia).
References: (**tx**) Schedl 1973a: 371.
- costaricensis** (Schedl) 1938a: 180 (*Neodryocoetes*). Holotype ♀; Costa Rica; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Cecropia* sp. petiole, and tree twigs.
Notes: (1) Validated as *insularis* var. *costaricensis*. (3) Allied to *laevigatus*, with similar reproduction and sexual dimorphism.
References: (**ds**) Wood, S. L. 1982b: 945. (**tx**) Schedl 1938a: 180, 1951m: 73, 1979c: 126; Wood, S. L. 1982b: 945.
- crassulus** Wood 1981: 122. Holotype ♀; 8 km NE Cerro Jefe, Panama Prov., Panama, 700 m; CNCI, Ottawa, automatic.
Distribution: North America (Panama).
References: (**ds**) Wood, S. L. 1982b: 947. (**tx**) Wood, S. L. 1981: 122, 1982b: 947.
- crassus** Wood 1977b: 211. Holotype ♀?; 8 km NE Cerro Jefe, Panama Prov., Panama; CNCI, Ottawa, preoccupied by Schedl 1966.
References: (**tx**) Wood, S. L. 1977b: 211.
- crassus** (Schedl) 1966f: 108 (*Thammophthorus*). Holotype, sex?; Surinam, Moenge; Schedl Collection in NHMW, Wien.
Distribution: South America (Suriname).

- References: (tx) Schedl 1966f: 108, 1979c: 68.
- cribricollis** (Schedl) 1954b: 36 (*Neodryocoetes*).
Syntypes ♂ ♀; Brasilien, Fortaleza R. G.; Schedl Collection in NHMW, Wien, and Planmann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 69 (citation of holotype invalid).
References: (tx) Schedl 1954b: 36, 1963d: 223, 1979c: 69.
- sulcatus** Schedl 1959m: 552 (*Breviophthorus*).
Holotype ♀; Matto Grosso: Rio Caraguata; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1963d: 223.
References: (tx) Schedl 1959m: 552, 1963d: 223, 1979c: 245.
- cribripennis** (Schedl) 1976a: 70 (*Neodryocoetes*).
Holotype ♀?; Xingu, Mato Grosso, Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 70.
- cubensis** (Blackman) 1942a: 191 (*Neodryocoetes*).
Holotype ♀; Cayamas, Cuba; USNM, Washington.
Figures: Blackman 1942a: figs. 8-9.
Distribution: Antilles Islands (Cuba).
References: (ds) Blackwelder 1947: 781; Bright 1985c: 175. (tx) Blackman 1942a: 191-192; Bright 1985c: 175; Schedl 1951m: 107.
- decorulus** Wood 1974d: 278. Holotype ♂; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Tree log, in phloem.
References: (hb) Wood, S. L. 1982b: 948. (ds) Wood, S. L. 1982b: 948. (tx) Wood, S. L. 1974d: 278, 1982b: 948.
- decorus** Wood 1974a: 47. Holotype ♂; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection, preoccupied by Bright 1972.
References: (tx) Wood, S. L. 1974a: 47, 1974d: 278.
- decorus** (Bright) 1972d: 96 (*Neodryocoetes*). Holotype ♂; Good Hope, Trelawny Parish, Jamaica; CNCI, Ottawa.
Distribution: Antilles Islands (Jamaica).
References: (ds) Bright 1985c: 176. (tx) Bright 1972d: 96, 1985c: 176; McNamara 1977: 196; Wood, S. L. 1974d: 278.
- delicatus** Wood 1974a: 44. Holotype ♂; 8 km S La Huerta, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco, Nayarit in Mexico).
Hosts: Liana, in pith.
References: (ec) Equihua & Atkinson 1986: 633. (hb) Equihua & Atkinson 1986: 633; Wood, S. L. 1982b: 939. (ds) Equihua & Atkinson 1986: 633; Wood, S. L. 1982b: 939. (tx) McNamara 1984: 752; Wood, S. L. 1974a: 44, 1982b: 939.
- dentifrons** Wood 1974a: 45. Holotype ♂; 3 km SE Acatlan, Puebla, Mexico; Wood Collection.
Distribution: North America (Honduras/ Jalisco, Puebla in Mexico/ Florida in USA).
Hosts: Lianas (in pith), *Sarcostemma clausum*.
References: (hb) Atkinson et al. 1986: 35; Burgos & Saucedo 1983: 110; Wood, S. L. 1982b: 942. (ds) Atkinson & Equihua 1985a: 88; Atkinson et al. 1986: 35, 1991: 162; Burgos & Saucedo 1983: 110; Wood, S. L. 1982b: 942. (tx) Wood, S. L. 1974a: 45, 1982b: 942.
- mexicanus** Schedl 1963c: 161 (*Breviophthorus*).
Holotype ♂; Mexico; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1936.
Synonymy: Wood 1982b: 942.
References: (tx) Schedl 1963c: 161, 1979c: 152; Wood, S. L. 1982b: 942.
- deyrollei** (Blandford) 1904: 245 (*Pityophthorus*).
Lectotype ♂; Mexico; BMNH, London, designated by Wood 1974d: 278.
Distribution: North America (Guatemala/ Honduras/ "Mexico").
Hosts: In seeds.
References: (hb) Wood, S. L. 1982b: 937. (ds) Blackwelder 1947: 781; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 351; Wood, S. L. 1982b: 937. (tx) Blandford 1904: 245; Hagedorn 1910a: 100; Schedl 1938a: 174, 1940a: 348; Wood, S. L. 1974d: 278, 1982b: 937.
- insimatus** Wood 1974a: 43. Holotype ♂; Guatemala seeds intercepted at San Pedro, California; Wood Collection. Synonymy: Wood 1974d: 278.
References: (tx) Wood, S. L. 1974a: 43, 1974d: 278.
- dubiosus** (Schedl) 1964b: 206 (*Thamnopthorus*).
Holotype, sex?; Jacarepagna, Rio de Janeiro, Argentina; Servicio de Defensa Sanitaria Vegetal, Rio de Janeiro.
Distribution: South America (Argentina).
Hosts: *Nerium oleander*.
References: Schedl 1964b: 206, 1979c: 84.
- dubius** (Schedl) 1966f: 105 (*Neodryocoetes*). Holotype ♀; Brasilien, Nova Teutonia, Sta. Catarina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1966f: 85, 105, 1979c: 85.
- eggersi** (Schedl) 1951m: 115 (*Brachydendrulus*).
Holotype, sex?; Bolivien, Cochabamba (German); Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
Notes: (3) Schedl 1951m: 115 (cited as *Brachydendrulus laevis* Eggers, nomen nudum).
References: (tx) Schedl 1951m: 115, 1952i: 14, 1954b: 34, 1979c: 86.
- eggersianus** (Schedl) 1955k: 144 (*Pityophthorus*).
Holotype, sex? Guadeloupe: Trois-Rivieres; Eggers Collection, in NHMW, Wien, automatic.
Distribution: Antilles Islands (Guadeloupe).

- References: (tx) Schedl 1958k: 144, 1960i: 106.
denticulatus Eggers 1940a: 129 (*Pityophthorus*).
 Holotype, sex?; Guadeloupe; Trois-Rivieres; Eggers Collection, in NHMW, Wien, preoccupied by Wichmann 1915.
 Notes: (1) Bright 1981c: 158 (to *Araptus*).
 References: (ds) Bright 1985c: 176. (tx) Bright 1981c: 158, 1985c: 176; Eggers 1940a: 129; Schedl 1938a: 162, 1952d: 347, 1957c: 878, 1958k: 144, 1960h: 106, 1979c: 78.
- guadeloupensis* Numberg 1956d: 208 (*Pityophthorus*). Holotype, sex?; Guadeloupe; Trois-Rivieres; Eggers Collection, in NHMW, Wien, automatic, preoccupied by Schedl 1951.
 References: (tx) Numberg 1956d: 208, 1963c: 98; Schedl 1960i: 106.
- elongatus* (Schedl) 1961i: 226 (*Thamnoplythorus*). Holotype, sex?; Bolivia, Cochabamba, Taguina; Schedl Collection in NHMW, Wien.
 Distribution: South America (Bolivia).
 References: (ds) Schedl 1960a: 77, 1961i: 226, 1979c: 90.
- eruditus* (Schedl) 1938a: 182 (*Neopityophthorus*). Holotype ♀; [El Cora, Tepic], Mexico; Schedl Collection in NHMW, Wien.
 Figures: Blackman 1942a: fig. 15.
 Distribution: North America (Costa Rica/ Guatemala/ Honduras/ Chiapas, Nayarit, Oaxaca in Mexico/ Panama).
 Hosts: Limb and log, in phloem, in radiate parental tunnels.
 Notes: (1) Wood 1975b: 392 (to *Araptus*).
 References: (hb) Wood, S. L. 1982b: 956. (ds) Atkinson & Equihua 1986a: 422; Blackwelder 1947: 781; Ferrer 1942; Wood, S. L. 1982b: 956. (tx) Schedl 1938a: 182, 1940a: 346, 1951m: 109, 1954b: 36, 1979c: 91; Wood, S. L. 1975b: 392, 1982b: 956.
- burscki* Blackman 1942a: 192 (*Neodryocetes*). Holotype ♀; Cabima, Panama; USNM, Washington. Synonymy: Wood 1975b: 392.
 References: (ds) Blackwelder 1947: 781. (tx) Blackman 1942a: 192; Wood, S. L. 1975b: 392.
- exigialis* Wood 1974a: 50. Holotype ♀; Fort Clayton, Canal Zone, Panama, 30 m; Wood Collection.
 Distribution: North America (Panama).
 Hosts: Liana phloem, in radiate parental tunnels.
 References: (hb) Wood, S. L. 1982b: 957. (ds) Wood, S. L. 1982b: 957. (tx) Wood, S. L. 1974a: 50, 1982b: 957.
- facetus* Wood 1974a: 46. Holotype ♀; Rio Tempisque, Guanacaste, Costa Rica; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: *Ficus* sp. twigs.
 References: (hb) Wood, S. L. 1982b: 944. (ds) Wood, S. L. 1982b: 944. (tx) Wood, S. L. 1974a: 46, 1982b: 944.
- fossifrons* Wood 1975a: 30. Holotype ♂; Lago Amatitlan, Guatemala; Wood Collection.
 Figures: Burgos & Saucedo 1983: 111.
 Distribution: North America (Guatemala/ Jalisco, Nayarit, Oaxaca in Mexico).
 Hosts: Seed pods of trees, lianas.
 References: (cc) Equihua & Atkinson 1986: 633. (hb) Atkinson et al. 1986: 68; Burgos & Saucedo 1983: 110; Equihua & Atkinson 1986: 633; Wood, S. L. 1982b: 937. (ds) Atkinson et al. 1986: 68; Burgos & Saucedo 1983: 110; Equihua & Atkinson 1986: 633; Wood, S. L. 1982b: 937. (tx) Burgos & Saucedo 1983: 111; Wood, S. L. 1975a: 30, 1982b: 937.
- foveifrons* (Schedl) 1963c: 161 (*Thamnoplythorus*). Holotype ♂; Mexico; Jalisco, Guadalajara; Schedl Collection in NHMW, Wien.
 Distribution: North America (Guatemala/ Jalisco in Mexico).
 Hosts: Liana, in pith.
 Notes: Wood 1975a: 21 (to *Araptus*).
 References: (hb) Wood, S. L. 1982b: 938. (ds) Wood, S. L. 1982b: 938. (tx) Schedl 1963c: 161, 1979c: 99; Wood, S. L. 1974a: 44, 1975a: 21, 1982b: 938.
- interjectus* Wood 1974a: 44. Holotype ♂; Volcan de Agua, Guatemala; Wood Collection. Synonymy: Wood 1975a: 21.
 References: (tx) Wood, S. L. 1974a: 44, 1975a: 21.
- frenatus* (Schedl) 1939d: 411 (*Thamnoplythorus*). Syntypes, sex?; Cordoba, San Javier [Argentina]; Schedl Collection in NHMW, Wien, and Bosq Collection.
 Distribution: South America (Argentina).
 Notes: (1) Schedl 1979c: 100 (citation of holotype invalid).
 References: (hb) Viana 1964: 125. (ds) Blackwelder 1947: 781; Viana 1964: 125. (tx) Schedl 1939d: 411, 1964b: 208, 1979c: 100.
- frontalis* Wood 1974a: 52. Holotype ♀; Volcan Zunil, Quezaltenango, Guatemala, 1000 m; Wood Collection.
 Distribution: North America (Guatemala).
 Hosts: Compositae shrub, in phloem, in radiate parental tunnels.
 References: (tx) Wood, S. L. 1974a: 52, 1982b: 959, 1989: 177.
- frontis* Wood 1989: 177. Holotype ♀; Brasilien, Encruzilhada, Bahia; Schedl Collection in NHMW, Wien, automatic.
 Distribution: South America (Brazil).
 References: (tx) Wood, S. L. 1989: 117.
- frontalis* Schedl 1978c: 302 (*Gnathocranus*). Holotype ♀; Brasilien, Encruzilhada, Bahia; Schedl Collection in NHMW, Wien, preoccupied by Wood 1974.
 References: (ds) Schedl 1973d: 162. (tx) Schedl 1978c: 302; Wood, S. L. 1989: 117.
- frugalis* Wood 1974a: 49. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.

- Distribution: North America (Costa Rica/Panama).
Hosts: Liana.
References: **(hb)** Wood, S. L. 1982b: 954. **(ds)** Wood, S. L. 1982b: 954. **(tx)** Wood, S. L. 1974a: 49, 1982b: 954.
- furvescens** Wood 1974a: 53. Holotype ♀; Volcan Pacaya, Esquinla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: *Roupala* sp., in phloem.
References: **(ds)** Wood, S. L. 1982b: 961. **(tx)** Wood, S. L. 1974a: 53, 1982b: 961.
- furrus** Wood 1974a: 53. Holotype ♀; Cerro Punta (Volcan Chiriqui), Chiriqui, Panama, 1800 m; Wood Collection.
Distribution: North America (Panama).
Hosts: *Roupala* sp. in phloem, in longitudinal, biramous parental tunnels.
References: **(hb)** Wood, S. L. 1982b: 961. **(ds)** Wood, S. L. 1982b: 961. **(tx)** Wood, S. L. 1974a: 53, 1982b: 961.
- genealis** Wood 1974a: 45. Holotype ♂; Volcan de Agra, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Liana, in pith.
References: **(hb)** Burgos & Saucedo 1983: 112; Wood, S. L. 1982b: 939. **(ds)** Burgos & Saucedo 1983: 112; Wood, S. L. 1982b: 939. **(tx)** Wood, S. L. 1974a: 45, 1982b: 939.
- gracileus** Wood 1976a: 364. Holotype ♂; 6 km N Mazatlan, Sinaloa, Mexico; CNCI, Ottawa.
Distribution: North America (Sinaloa in Mexico).
Hosts: Twig in occupied oriole nest.
References: **(ds)** Wood, S. L. 1982b: 942. **(tx)** McNamara 1984: 752; Wood, S. L. 1976a: 364, 1982b: 942.
- gracilentus** (Schedl) 1972g: 61 (*Neodryocoetes*). Holotype, sex?; Brasilien, Pedra Azul, M. Gerais; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1972g: 61, 1979c: 107.
- gracilis** (Schedl) 1966f: 106 (*Neodryocoetes*). Holotype, sex?; Argentinien, Buenos Aires, Isla Maria Garcia; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
References: **(ds)** Schedl 1966f: 95, 106, 1979c: 108.
- grandis** (Schedl) 1954b: 35 (*Neodryocoetes*). Syn-types, sex?; Brasilien, Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien and Planmann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 109 (citation of holotype invalid).
References: **(tx)** de Ruetten 1970: 104; Schedl 1954b: 35, 1959m: 550, 1963c: 161, 1979c: 109.
- graulipennis** (Schedl) 1967d: 12 (*Neodryocoetes*). Holotype ♂; Brasilien, Nova Tentonia, Santa Catarina; Schedl Collection in NHMW, Wien.
- Distribution: South America (Brazil).
References: **(ds)** Schedl 1976a: 52. **(tx)** McNamara 1977: 196; Schedl 1967d: 12, 1979c: 111.
- guadeloupanus** Wood 1989: 177. Holotype, sex?; Guadeloupe; Schedl Collection in NHMW, Wien, automatic.
Distribution: Antilles Islands (Guadeloupe).
References: **(tx)** Wood, S. L. 1989: 177.
- guadeloupenensis** Schedl 1970e: 91 (*Brachyden-drulus*). Holotype, sex?; Guadeloupe; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1951.
References: **(ds)** Bright 1985c: 176. **(tx)** Bright 1985c: 176; Schedl 1970e: 91, 1979c: 113–114; Wood, S. L. 1989: 117.
- hostilis** (Blackman) 1942a: 189 (*Neodryocoetes*). Holotype ♀; *Erythrina cristagalli* seeds from Paris intercepted at Washington, D.C.; USNM, Washington.
Distribution: South America?
Hosts: *Erythrina cristagalli*, in seeds.
References: **(ds)** Blackwelder 1947: 781. **(tx)** Blackman 1942a: 189.
- hymenaeae** (Eggers) 1933b: 9 (*Neodryocoetes*). Holotype ♂; Gourdonville, French Guiana; MNHN, Paris.
Figures: Blackman 1942a: fig. 14.
Distribution: Antilles Islands (Guadeloupe/ Dominican Republic in Hispanola/ Jamaica/ Santa Lucia/ St. Vincent/ Trinidad), North America (Panama), South America (Brazil/ Cayenne/ Colombia/ Guyana/ Suriname/ Venezuela).
Hosts: *Brounea* sp., *Cajanus cajan*, *Ceratonia* sp., *Cicer arctinum*, *Erythrina* sp., *Hymenaea courbaril*, in seeds.
References: **(cn)** Costa Lima 1956. **(hb)** Costa Lima 1956; Kalshoven 1963; Wood, S. L. 1982b: 936. **(ds)** Blackwelder 1947: 781; Bright 1981c: 152, 1982b: 163, 1985c: 176; Costa Lima 1956; Kalshoven 1961: 233, 1963; Numberg 1958a: 480, 1963c: 97; Schedl 1960a: 78, 1966f: 85, 1970e: 82, 1971f: 147, 1976a: 52; Wood, S. L. 1982b: 936. **(tx)** Blackman 1942a: 179; Bright 1985c: 176; Costa Lima 1956; Eggers 1933b: 9, 1936a: 388, 390, 1938a: 177, 1940a: 127–128; Numberg 1958a: 480; Schedl 1938a: 177, 1979c: 120; Wood, S. L. 1973c: 172, 1974b: 392, 1982b: 936, 1986a: 97.
- insularis** Eggers 1940a: 128 (*Neodryocoetes*). Holotype ♀; Guadeloupe; Fleutiaux Collection, MNHN, Paris. Synonymy: Wood 1973c: 172.
References: **(hb)** Kalshoven 1963; **(ds)** Blackwelder 1947: 781; Bright 1972d: 91; Kalshoven 1963: 235; Schedl 1973d: 155. **(tx)** Bright 1972d: 91; Eggers 1940a: 128; Schedl 1951m: 73, 1979c: 125; Wood, S. L. 1973c: 172.
- caribaicus** Blackman 1942a: 185 (*Neodryocoetes*). Holotype ♀; Trinidad, West Indies; USNM, Washington. Synonymy: Wood 1973c: 172.
References: **(cn)** Costa Lima 1956. **(hb)** Costa

- Lima 1956; Kalshoven 1963: 235. (**ds**) Blackwelder 1947: 781; Browne 1970: 541; Costa Lima 1956; Kalshoven 1963. (**tx**) Blackman 1942a: 185; Costa Lima 1956; Schedl 1964k: 221; Wood, S. L. 1973c: 172.
- guianae* Blackman 1942a: 186 (*Neodryocoetes*). Holotype ♀; British Guiana; USNM, Washington. Synonymy: Wood 1973c: 172. References: (**cn**) Mumford 1960: 33. (**ds**) Blackwelder 1947: 781; Mumford 1960: 33. (**tx**) Blackman 1942a: 186; Schedl 1963f: 57; Wood, S. L. 1973c: 172.
- hoodi* Blackman 1942a: 187 (*Neodryocoetes*). Holotype ♀; Taboga Island, Panama; USNM, Washington. Synonymy: Wood 1973c: 172. References: (**ds**) Blackwelder 1947: 781. (**tx**) Blackman 1942a: 187-188; Wood, S. L. 1973c: 172.
- humilis* Blackman 1942a: 188 (*Neodryocoetes*). Holotype ♀; Bonito, Pernambuco, Brazil; USNM, Washington. Synonymy: Wood 1975b: 392. References: (**ds**) Blackwelder 1947: 781. (**tx**) Blackman 1942a: 188; Wood, S. L. 1975b: 392.
- imitatrix* (Schedl) 1972g: 62 (*Neodryocoetes*). Holotype ♂?; Brasil, Jacareacanga. Para; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (**tx**) Schedl 1972g: 62, 1979c: 121.
- impensus* (Wood) 1961c: 6 (*Thamphylthorus*). Holotype ♂; Bogota, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Podocarpus raspigilosii*, in fallen seeds. References: (**tx**) Wood, S. L. 1961c: 6.
- incommodus* (Blandford) 1904: 245 (*Pityophthorus*). Holotype ♀; Cerro Zmil, Guatemala, 1300 m; BMNH, London. Distribution: North America (Guatemala). Notes: (3) Bright 1976c: 426 (to *Araptus*). References: (**ds**) Blackwelder 1947: 782; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 363. (**tx**) Blandford 1904: 245; Bright 1976c: 426; Hagedorn 1910a: 101; Schedl 1955g: 18; Wood, S. L. 1982b: 941.
- incompositus* (Blandford) 1904: 243 (*Pityophthorus*). Holotype ♀; Coatepeque, Guatemala, 1300 feet; BMNH, London. Distribution: North America (Guatemala). Notes: (1) Bright 1976c: 426 (to *Araptus*). References: (**ds**) Blackwelder 1947: 782; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 363; Wood, S. L. 1982b: 954. (**tx**) Blandford 1904: 243; Bright 1976c: 426; Hagedorn 1910a: 101; Schedl 1955g: 18; Wood, S. L. 1982b: 954.
- laevigatus* (Eggers) 1933b: 6 (*Pityophthorus*). Holotype ♀; St. Laurent du Maroni, French Guiana; MNHN, Paris. Distribution: Antilles Islands (Guadeloupe), North America (Costa Rica/ Panama), South America (Brazil/ Cayenne/ Colombia/ Suriname). Hosts: *Brownea* sp., *Cynometra hemitomophylla*, *Daphnopsis seibertii*, *Entada gigas*, *Euterpe oleracea*, in seeds. Notes: (3) Wood 1973c: 173 (to *Araptus*). This species apparently reproduces by arrhenotocous parthenogenesis: flightless males are dwarfed. References: (**hb**) Wood, S. L. 1982b: 944. (**ds**) Blackwelder 1947: 781; Bright 1985c: 176; Schedl 1963f: 56; Wood, S. L. 1982b: 944. (**tx**) Bright 1985c: 176; Eggers 1933b: 6; Schedl 1938a: 180, 1963f: 56, 1979c: 135; Wood, S. L. 1973c: 173, 1982b: 944. *insularis* Eggers 1940a: 130 (*Neopityophthorus*). Holotype ♀; Trois Rivieres, Guadeloupe; Eggers Collection, in NHMW, Wien, preoccupied by Eggers 1940a: 128. Synonymy: Wood 1973c: 173. References: (**tx**) Blackman 1942a: 195; Eggers 1936a: 390, 1940a: 130; Schedl 1935a: 180, 1951m: 73, 1979c: 125; Wood, S. L. 1973c: 173.
- guadeloupensis* Schedl 1951m: 73 (*Neodryocoetes*). Holotype ♀; Trois Rivieres, Guadeloupe; Eggers Collection, in NHMW, Wien, automatic. Synonymy: Wood 1973c: 173. References: (**tx**) Schedl 1951m: 73, 109; Wood, S. L. 1973c: 173.
- laevis* (Schedl) 1938a: 181 (*Neopityophthorus*). Syntypes, sex?; Guadeloupe; Eggers Collection (in USNM, Washington?) and 2 ♀ in Schedl Collection in NHMW, Wien. Distribution: Antilles Islands (Guadeloupe). Notes: (1) Schedl 1979c: 135 (citation of holotype invalid). References: (**ds**) Blackwelder 1947: 781; Bright 1985c: 176. (**tx**) Bright 1985c: 176; Eggers 1940a: 108; Schedl 1938a: 181, 1979c: 135.
- laudatus* Wood 1974a: 49. Holotype ♀; San Isidro del General, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: Tree branch, in phloem. References: (**hb**) Wood, S. L. 1982b: 955. (**ds**) Atkinson & Equihua 1986a: 422; Wood, S. L. 1982b: 955. (**tx**) Wood, S. L. 1974a: 54, 1982b: 955.
- lepidus* Wood 1974a: 54. Holotype ♀; Volcan, Puntarenas, Costa Rica, 1000 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Tree branch, in phloem. References: (**hb**) Wood, S. L. 1982b: 962. (**ds**) Wood, S. L. 1982b: 962. (**tx**) Wood, S. L. 1974a: 54, 1982b: 962.
- leptus* (Bright) 1972c: 1666 (*Neodryocoetes*). Holotype ♀; Ejixantla, 8 km S San Andres Tuxtla, Veracruz, Mexico; CNCI, Ottawa. Distribution: North America (Veracruz in Mexico). References: (**ce**) Equihua & Atkinson 1986: 633. (**hb**) Equihua & Atkinson 1986: 633. (**ds**) Equihua & Atkinson 1986: 633; Wood, S. L.

- 1982b: 950. (tx) Bright 1972c: 1666; McNamara 1977: 196; Wood, S. L. 1982b: 950.
- limax (Schedl)** 1939j: 566 (*Sphenoceros*). Syntypes ♀; Brasilien, Sta. Catarina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (3) Schedl 1950i: 164 (cites *Hypertensus reitteri* Hagedorn, nomen nudum, synonymy).
References: (ds) Blackwelder 1947: 784; Schedl 1966f: 91. (tx) Schedl 1939j: 566–567, 1950i: 164, 1979c: 139.
- linearis (Schedl)** 1938a: 174 (*Thamnophthorus*). Holotype, sex?; Bolivien, Cochabamba; Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 781. (tx) Anderson, W. H. & Anderson 1971: 17; Schedl 1938a: 169, 174, 1961i: 226, 1979c: 139.
- macer (Bright)** 1972c: 1666 (*Neodryocoetes*). Holotype ♀; Ejipantla, 8 km S San Andres Tuxtla, Veracruz, Mexico; CNCI, Ottawa.
Figures: Bright 1972c: 1669.
Distribution: North America (Honduras/ Veracruz in Mexico).
Hosts: Shrub, in phloem.
References: (ds) Wood, S. L. 1982b: 960. (tx) Bright 1972c: 1666, 1669; McNamara 1977: 197; Wood, S. L. 1973c: 173, 1982b: 960.
- tuberculatus** Bright 1972c: 1665 (*Neodryocoetes*). Holotype ♀; Lago Catemaco, Veracruz, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 173.
References: (tx) Bright 1972c: 1665, 1669; McNamara 1977: 197; Wood, S. L. 1973c: 173.
- medialis** Wood 1974a: 48. Holotype ♀; San Isidro del General, San Jose, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Tree branch, in phloem.
References: (hb) Wood, S. L. 1982b: 953. (ds) Wood, S. L. 1982b: 953. (tx) Wood, S. L. 1974a: 48, 1982b: 953.
- mendicus** Wood 1974a: 54. Holotype ♀; Cartago, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Persea americana*.
References: (ds) Wood, S. L. 1982b: 953. (tx) Wood, S. L. 1974a: 54, 1982b: 953.
- micaceus** Wood 1975b: 395. Holotype ♂; Los Corchos, Nayarit, Mexico; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: Liana.
References: (ds) Wood, S. L. 1982b: 947. (tx) Wood, S. L. 1975b: 395, 1982b: 947.
- micropilosus** Wood 1982a: 224. Holotype ♀; Rancho Tepetates, Km 35 on Veracruz-Xalapa highway, Veracruz, Mexico; Wood Collection.
Distribution: North America (Veracruz in Mexico).
References: (tx) Wood, S. L. 1982a: 224.
- minutissimus (Schedl)** 1954b: 35 (*Brachydendrolus*). Syntypes, sex?; Brasilien, Panama, Rondon, 500 m; Schedl Collection in NHMW, Wien, and Plamann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 155 (citation of holotype invalid).
References: (ds) Schedl 1966f: 85. (tx) de Ruetten 1970: 98; Schedl 1954b: 35, 1979c: 155.
- montanus (Bright)** 1972d: 93 (*Neodryocoetes*). Holotype, sex?; Hardwar Gap, 4000', St. Andrew Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 59, 75.
Distribution: Antilles Islands (Jamaica).
References: (ds) Bright 1985c: 176. (tx) Bright 1972d: 59, 75, 93, 1985c: 176; McNamara 1977: 197.
- morigerus** Wood 1982a: 224. Holotype ♀; Cerro Punta (labeled Volcan Chiriqui), 5500 ft., Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Tree branch, in phloem.
References: (tx) Wood, S. L. 1982a: 224.
- mucunae (Blackman)** 1942a: 181 (*Neodryocoetes*). Holotype ♀; Perene River, Peru; USNM, Washington.
Distribution: South America (Peru).
Hosts: *Mucuna* sp., in seeds.
References: (ds) Blackwelder 1947: 781. (tx) Blackman 1942a: 181–182.
- namulus** Wood 1974a: 54. Holotype ♀; Tampico, Tamaulipas, Mexico; Wood Collection.
Distribution: North America (Tamaulipas in Mexico).
Hosts: *Disholcopsis* gall on *Quercus virginiana*.
References: (ds) Wood, S. L. 1982b: 948. (tx) Wood, S. L. 1974a: 54, 1982b: 948.
- niger (Bright)** 1972d: 93 (*Neodryocoetes*). Holotype, sex?; Hardwar Gap, 4000', St. Andrew Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 75.
Distribution: Antilles Islands (Dominican Republic in Hispaniola/ Jamaica).
References: (ds) Bright 1981c: 152, 1985c: 176. (tx) Bright 1972d: 75, 93, 1985c: 176; McNamara 1977: 197.
- nigrellus** Wood 1974a: 52. Holotype ♀; 10 km SE Cartago, Cartago, Costa Rica, 1800 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Myrica pubescens*, in phloem, in radiate parental tunnels.
References: (hb) Wood, S. L. 1982b: 960. (ds) Wood, S. L. 1982b: 960. (tx) McNamara 1984: 197; Wood, S. L. 1974a: 52, 1982b: 960.

- nitidipennis** (Schedl) 1963f: 57 (*Neodryocoetes*).
Holotype, sex[?]; Suriname, Maripalheuvel, Oe. v. Dam; Schedl Collection in NHMW, Wien.
Distribution: South America (Suriname).
References: (ds) Schedl 1963f: 57, 1973d: 155, 1979c: 169.
- nitidulus** (Schedl) 1967d: 11 (*Neodryocoetes*).
Holotype, sex[?]; Brasiliens, Parana, Caioba, 10 m, 25 50, 48 40; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1970e: 82. (tx) McNamara 1977: 197; Schedl 1967d: 11, 1979c: 169.
- novateutonicus** (Schedl) 1951m: 116 (*Gnathocraunus*).
Syntypes ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (f) Schedl 1979c: 172 (citation of holotype invalid).
References: (ds) Schedl 1976a: 53, 1975c: 291; Schonherr & Pedrosa-Macedo 1981: 53. (tx) Schedl 1951h: 284, 1951m: 116, 1979c: 172.
- nudus** (Schedl) 1938a: 176 (*Thamnophtorus*).
Holotype, sex[?]; Brasilien, Sao Paulo; Eggers Collection, in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 781; Schedl 1973d: 155. (tx) Schedl 1938a: 176, 1964b: 207, 1979c: 173.
- obesus** Wood 1977b: 212. Holotype ♀[?]; 18 km NE Oriximina, Brazil; CNCI, Ottawa.
Distribution: South America (Brazil).
References: (tx) Wood, S. L. 1977b: 212.
- obscurus** (Eggers) 1936a: 390 (*Neodryocoetes*).
Holotype, sex[?]; Brasilien, Sta. Catharina, Blumenau; USNM, Washington [2 cotypes in Eggers Collection, in NHMW, Wien (Schedl 1979c: 175)].
Distribution: South America (Brazil/ Paraguay).
References: (ds) Blackwelder 1947: 781; Schedl 1973a: 367. (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1936a: 390; Schedl 1938a: 177, 1962p: 206, 1979c: 175.
- obsoletus** (Blandford) 1904: 242 (*Pityophthorus*).
Holotype ♀; Las Mercedes, Guatemala; BMNH, London.
Distribution: North America (Guatemala/ Jalisco in Mexico).
Hosts: Liana, *Ficus* sp., in phloem.
Notes: (3) Bright 1977: 512 (to *Araptus*).
References: (hb) Wood, S. L. 1982b: 946. (ds) Blackwelder 1947: 781; Hagedorn 1910d: 73; Kleine 1913b: 140, 1914b: 363; Wood, S. L. 1982b: 946. (tx) Blackman 1928b: 148; Blandford 1904: 242; Bright 1977: 512; Hagedorn 1910a: 101; Schedl 1938a: 177, 1955g: 18; Wood, S. L. 1982b: 946.
- oleanderi** (Schedl) 1961b: 187 (*Neodryocoetes*).
Holotype ♂; Turkei bei Gilindire; Schedl Collection in NHMW, Wien.
Distribution: Europe (Turkey, obviously introduced, probably from South America).
Hosts: *Nerium oleander*.
References: (tx) Schedl 1961b: 187, 1979c: 178.
- pallidus** (Blackman) 1942a: 193 (*Neodryocoetes*).
Holotype ♀; Cayamas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba/ Dominican Republic in Hispanola/ Puerto Rico), South America (Brazil).
Hosts: *Callophyllum brasiliensis* var. *antellanum*.
References: (ds) Blackwelder 1947: 781; Bright 1981c: 152, 1985c: 176. (tx) Blackman 1942a: 193; Bright 1985c: 176; Wood, S. L. 1977b: 208.
- portoricensis** Schedl 1951m: 109 (*Neodryocoetes*).
Holotype, sex[?]; Portorico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977b: 208.
References: (ds) Bright 1985c: 174. (tx) Bright 1985c: 174; Schedl 1951m: 109, 1964m: 311, 1979c: 198; Wood, S. L. 1977b: 208.
- decius** Schedl 1972g: 61 (*Neodryocoetes*).
Holotype, sex[?]; Cuba, Valle Ancon, Pinar del Rio Prov.; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977b: 208.
References: (tx) Schedl 1972g: 61, 1979c: 79; Wood, S. L. 1977b: 208.
- paranae** (Schedl) 1954b: 34 (*Brachydendrulus*).
Syntypes ♂ ♀; Brasilien, Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 185 (citation of holotype invalid).
References: (tx) de Ruelle 1970: 98; Schedl 1954b: 34, 1979c: 185.
- placetulus** Wood 1982a: 225. Holotype ♀; Uruapan, Michoacan, Mexico, 1600 m; Wood Collection.
Distribution: North America (Michoacan in Mexico).
Hosts: *Persea americana*.
References: (ds) Atkinson & Equihua 1985c: 358; Wood, S. L. 1982a: 225.
- plaumanni** (Schedl) 1976a: 70 (*Brachydendrulus*).
Holotype, sex[?]; Nova Teutonia, Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 70.
- politus** (Blandford) 1904: 244 (*Pityophthorus*).
Lectotype ♂; Mexico; BMNH, London, designated by Bright 1976b: 184.
Figures: Blackman 1942a: figs. 3-4.
Distribution: Antilles Islands (Cuba/ Haiti in Hispanola/ Jamaica), North America (Costa Rica/ Veracruz in Mexico/ Florida in USA).

- Hosts: *Cola* sp., *Mucuna andreana*, *M. fauvecetti*, in seeds.
 Notes: (1) Wood 1973c: 173 (to *Araptus*), 1982b: 940 (lectotype designation invalid).
 References: (hb) Atkinson & Equihua 1986a: 422; Wood, S. L. 1982b: 940. (ds) Atkinson & Equihua 1986a: 422; Blackwelder 1947: 781; Bright 1985c: 176; Ferrer 1942; Hagedorn 1910d: 73; Kleine 1913b: 140, 1914b: 351; Schedl 1963c: 157; Wood, S. L. 1977a: 69, 1982b: 940. (tx) Blandford 1904: 244; Bright 1976b: 184, 1985c: 176; Hagedorn 1910a: 101; Schedl 1938a: 177, 1940a: 346, 348; Wood, S. L. 1973c: 173, 1982b: 940.
- mexicanus* Eggers 1936a: 391 (*Neodryocoetes*).
 Holotype, sex?; Colonia [Veracruz?], Mexico; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1938a: 177.
 References: (tx) Eggers 1936a: 391; Schedl 1938a: 177, 1940a: 346, 1979c: 152.
- hubhardi* Blackman 1942a: 182 (*Neodryocoetes*).
 Holotype ♀; Kingston, Jamaica; USNM, Washington. Synonymy: Wood 1973c: 173.
 References: (cn) Judd 1970; Mumford 1961: 28. (ds) Blackwelder 1947: 781; Bright 1972d: 94; Judd 1970; Mumford 1961: 28; Straly 1975: 8. (tx) Blackman 1942a: 182-183; Bright 1972d: 94; Wood, S. L. 1973c: 173.
- poricollis* (Blandford) 1904: 238 (*Pityophthorus*).
 Holotype ♂; Cerro Zumil, Quezaltenango, Guatemala; BMNH, London.
 Distribution: North America (Guatemala).
 Notes: (1) Bright 1977: 512 (to *Araptus*).
 References: (ds) Blackwelder 1947: 781; Hagedorn 1910d: 73; Kleine 1913b: 140, 1914b: 363; Wood, S. L. 1982b: 958. (tx) Blandford 1904: 238; Bright 1977: 512; Hagedorn 1910a: 101; Schedl 1938a: 180, 1955g: 18; Wood, S. L. 1982b: 958.
- pubescens* (Schedl) 1951h: 291 (*Neodryocoetes*).
 Syntypes, sex?; Argentinien, Cordoba, Punilla Dep., Valle Hermoso; Schedl Collection in NHMW, Wien, and Viana Collection.
 Distribution: South America (Argentina).
 Notes: (1) Schedl 1979: 203 (citation of holotype invalid).
 References: (hb) Viana 1964: 125. (ds) Viana 1964: 125. (tx) Schedl 1951h: 291-292, 1979c: 203.
- punctatissimus* (Schedl) 1938a: 179 (*Neodryocoetes*). Holotype ♂; Bolivien, Cochabamba; Eggers Collection, in NHMW, Wien.
 Distribution: South America (Bolivia).
 References: (ds) Blackwelder 1947: 781; Schedl 1966f: 86. (tx) Schedl 1938a: 179, 1939m: 169, 1951h: 284-285, 1958f: 35, 1979c: 204.
- refertus* Wood 1974a: 51. Holotype ♀; Volcan Zumil, Quezaltenango, Guatemala; Wood Collection.
 Distribution: North America (Guatemala).
 Hosts: Shrub phloem, in radiate parental tunnels.
 References: (hb) Wood, S. L. 1982b: 957. (ds) Wood, S. L. 1982b: 957. (tx) Wood, S. L. 1974a: 51, 1982b: 957.
- robustus* (Schedl) 1964b: 207 (*Thamnophtorus*).
 Holotype, sex?; Belem, Para; Servico de Defesa Sanitaria Vegetal, Rio de Janeiro.
 Distribution: South America (Brazil).
 References: (tx) Schedl 1964b: 207, 1979c: 213.
- rufopalliatu*s Eichhoff 1872a: 136. Holotype ♀; Nova Granada [now Colombia]; IRSNB, Brussels.
 Distribution: South America (Colombia/Venezuela).
 Hosts: *Nectandra* sp., in phloem, in transverse, biramous, parental tunnels.
 References: (ds) Blackwelder 1947: 758; Gemminger & Harold 1872: 2687; Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 342. (tx) Eichhoff 1872a: 136, 1878b: 305; Hagedorn 1910a: 111; Hopkins 1914: 117.
- schedli* (Blackman) 1942a: 195 (*Neodryocoetes*).
 Holotype ♂; Tampico, Mexico; USNM, Washington.
 Distribution: North America (Tamaulipas, Veracruz in Mexico).
 Hosts: Seeds.
 References: (ds) Blackwelder 1947: 781; Wood, S. L. 1982b: 946. (tx) Blackman 1942a: 195; Wood, S. L. 1975b: 392, 1982b: 946.
- lenis* Blackman 1942a: 198 (*Neodryocoetes*).
 Holotype ♂; Cordoba, Veracruz, Mexico; USNM, Washington. Synonymy: Wood 1975b: 392.
 References: (ds) Blackwelder 1947: 781. (tx) Blackman 1942a: 198; Wood, S. L. 1975b: 392.
- schwarzii* (Blackman) 1942a: 178 (*Thamnophtorus*). Holotype ♀; Boquete, Panama; USNM, Washington.
 Distribution: North America (Costa Rica/Hidalgo, Quintana Roo in Mexico), South America (Ecuador).
 Hosts: *Annona cherimola*, *Persca americana*, *P. pittieri*, in seeds.
 References: (hb) Atkinson & Equihua 1985a: 88; Blackwelder 1947: 781; Wood, S. L. 1982b: 952. (ds) Atkinson & Equihua 1985a: 88, 1985c: 358, 1988: 85; Wood, S. L. 1982b: 952. (tx) Blackman 1942a: 178; Wood, S. L. 1982b: 952.
- sobrinus* Wood 1974d: 287. Holotype ♀; Siquatepec, Honduras; Wood Collection.
 Distribution: North America (Honduras).
 Hosts: *Pinus oocarpa* rust cones.
 References: (ds) Wood, S. L. 1982b: 952. (tx) Wood, S. L. 1974d: 287, 1982b: 952.
- sparsepunctatus* (Schedl) 1938i: 26 (*Neodryocoetes*). Syntypes, sex?; Argentinien, Prov. Buenos Aires, Tigre; 2 ♂, 7 ♀ in Schedl Collection in NHMW, Wien, and others in Viana Collection.
 Distribution: South America (Argentina).
 Hosts: *Acacia negra*.
 Notes: (1) Schedl 1979c: 233 (citation of holotype invalid).

- References: **(hb)** Viana 1964: 125. **(ds)** Blackwelder 1947: 781; Viana 1964: 125. **(tx)** Schedl 1938i: 26, 1939m: 169, 1951h: 284, 1952a: 446, 1958f: 35, 1979c: 233.
- speciosus** Wood 1980b: 357. Holotype ♀; 8 km S La Huerta, Jalisco, Mexico, 500 m; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: *Ficus* sp. twigs, in pith. Reference: **(hb)** Atkinson & Equihua 1985c: 359; Wood, S. L. 1982b: 943. **(ds)** Atkinson & Equihua 1985c: 358; Atkinson et al. 1986: 68; Wood, S. L. 1982b: 943. **(tx)** Wood, S. L. 1980b: 357, 1982b: 943.
- splendidulus** (Schedl) 1966f: 107 (*Neodryocoetes*). Holotype ♀?; Brasiliën, Corumba, Matto Grosso; Eggers Collection, in NHMW, Wien. Distribution: South America (Brazil). References: **(ds)** Schedl 1966f: 86. **(tx)** Schedl 1966f: 107, 1979c: 235.
- sulcatus** (Numberg) 1964b: 435 (*Neodryocoetes*). Holotype, sex?; Argentina, Salta Prov., Urundel; NHMB, Budapest, preoccupied by Schedl 1959. Figures: Numberg 1964b: 436. Distribution: South America (Argentina). Notes: (1) Although technically this is a secondary homonym, a new name was not given because of the high probability that synonymy exists. References: **(tx)** Numberg 1964b: 435–436.
- tabogae** (Blackman) 1942a: 184 (*Neodryocoetes*). Holotype ♀; Taboga Island, Panama; USNM, Washington. Distribution: North America (Costa Rica/ Honduras/ Veracruz in Mexico/ Panama). Hosts: Liana, in pith. References: **(cc)** Equihua & Atkinson 1986: 633. **(hb)** Equihua & Atkinson 1986: 633; Wood, S. L. 1982b: 940. **(ds)** Blackwelder 1947: 781; Equihua & Atkinson 1986: 633; Estrada & Atkinson 1988: 211; Wood, S. L. 1982b: 940. **(tx)** Blackman 1942a: 184; Wood, S. L. 1973c: 174, 1982b: 940.
- vincalis** Bright 1972c: 1667 (*Neodryocoetes*). Holotype ♀; Ejipantla, 8 km S San Andres Tuxtla, Veracruz, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 174. References: **(tx)** Bright 1972c: 1667; McNamara 1977: 197; Wood, S. L. 1973c: 174.
- tenellus** (Schedl) 1951m: 109 (*Neodryocoetes*). Holotype ♂; [Chiapas], Mexico; Schedl Collection in NHMW, Wien. Distribution: North America (Campeche, Chiapas, Nayarit in Mexico). Hosts: Tree branch phloem. Notes: (1) Wood 1982b: 945 (to *Araptus*). References: **(hb)** Wood, S. L. 1982b: 945. **(ds)** Atkinson & Equihua 1986a: 422; Wood, S. L. 1982b: 945. **(tx)** Schedl 1951m: 109, 1979c: 251; Wood, S. L. 1975b: 392, 1982b: 945.
- mexicanus** Schedl 1963c: 162 (*Ctenyophthorus*). Holotype ♀; Mexico: Trampaluz, Escarcaga, Campeche; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1936a: 391. Synonymy: Wood 1975b: 392. References: **(tx)** Schedl 1963c: 162, 1964m: 311, 1979c: 152; Wood, S. L. 1975b: 392.
- granulatus** Schedl 1964m: 311 (*Neodryocoetes*). Holotype ♀; Trampaluz, Escarcaga, Campeche, Mexico; Schedl Collection in NHMW, Wien, automatic. Synonymy: Wood 1975b: 392. Notes: (1) Wood 1975b: 392 (to *Araptus*). References: **(tx)** Schedl 1964m: 311; Wood, S. L. 1975b: 392.
- cuspidis** Wood 1974a: 46. Holotype ♀; 8 km E San Blas, Nayarit, Mexico; Wood Collection. Synonymy: Wood 1975b: 392. References: **(tx)** Wood, S. L. 1974a: 46, 1975b: 392.
- tenuis** (Blackman) 1942a: 197 (*Neodryocoetes*). Holotype ♀; Tampico, Mexico; USNM, Washington. Distribution: North America (Honduras/ Veracruz in Mexico). Hosts: Lianas, in pith. References: **(hb)** Wood, S. L. 1982b: 949. **(ds)** Blackwelder 1947: 781; Wood, S. L. 1982b: 949. **(tx)** Blackman 1942a: 197; Wood, S. L. 1982b: 949.
- placatus** Wood 1974a: 46. Holotype ♂; 5 km W Jaltipan, Veracruz, Mexico; Wood Collection. Synonymy: Wood 1982b: 949. References: **(tx)** Wood, S. L. 1974a: 46, 1982b: 949.
- teres** (Blackman) 1942a: 190 (*Neodryocoetes*). Holotype ♀; Paraiso, Canal Zone, Panama; USNM, Washington. Distribution: North America (Panama). References: **(ds)** Blackwelder 1947: 781; Wood, S. L. 1982b: 949. **(tx)** Blackman 1942a: 190; Wood, S. L. 1982b: 949.
- trepidus** Wood 1974a: 51. Holotype ♀; Volcan de Agua, Esquintla, Guatemala, 1000 m; Wood Collection. Distribution: North America (Guatemala). Hosts: *Meispermia* sp., in stem. References: **(hb)** Atkinson & Equihua 1985c: 358; Wood, S. L. 1982b: 958. **(ds)** Atkinson & Equihua 1985c: 358; Wood, S. L. 1982b: 958. **(tx)** Wood, S. L. 1974a: 51, 1982b: 958.
- umbraticus** (Schedl) 1966f: 108 (*Neodryocoetes*). Holotype ♂; Brasiliën, Nova Teutonia; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). Notes: (3) Schedl 1967d: 11 (described female). References: **(ds)** Schedl 1966f: 86, 1967d: 2. **(tx)** Schedl 1966f: 108, 1967d: 11, 1979c: 259.
- vesculus** Wood 1974a: 50. Holotype ♀; Guapiles, Limon, Costa Rica, 100 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Liana, in phloem. References: **(hb)** Wood, S. L. 1982b: 957. **(ds)**

- Wood, S. L. 1982b: 957. (**tx**) Wood, S. L. 1974a: 50, 1982b: 957.
- vinnulus** Wood 1974a: 53. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Roupala complicata*, in phloem, in radiate parental tunnels. References: (**hb**) Wood, S. L. 1982b: 961. (**ds**) Wood, S. L. 1982b: 961. (**tx**) Wood, S. L. 1974a: 53, 1982b: 961.
- volastos** (Schedl) 1938a: 175 (*Thamnopthorus*). Holotype, sex?; Bolivien. Cochabamba; USNM, Washington. Distribution: South America (Bolivia). References: (**tx**) Anderson, W. H. & Anderson 1971: 36; Blackman 1942a: 178; Schedl 1938a: 165, 169, 175, 1979c: 268; Wood, S. L. 1961c: 6.
- xylotrupes** (Eichhoff) 1872a: 135 (*Pityophthorus*). Syntypes, sex?; Bahia, Brazil; IRSNB, Brussels. Distribution: South America (Argentina/ Brazil). References: (**cn**) Costa Lima 1956. (**hb**) Costa Lima 1956. (**ds**) Blackwelder 1947: 781; Bruch 1914a; Costa Lima 1936, 1956; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 75; Kleine 1913b: 141. (**tx**) Costa Lima 1956; Eggers 1936a: 390; Eichhoff 1872a: 135, 1875b: 194; Hagedorn 1910a: 101.
- Genus *Conophthorus* Hopkins
 CONOPHITHORUS HOPKINS 1915a: 430. Type-species: *Pityophthorus coniperda* Schwarz, original designation.
 Keys: Hopkins 1915a: 430, Wood 1982b: 982.
 Notes: (3) All species of *Conophthorus* breed in cones of *Pinus* spp. in North America; a few species may also breed in twigs when cones are unavailable.
 References: (**ay**) Nobuchi 1969a: 66. (**cn**) Shenefelt & Benjamin 1955: 68–69. (**ce**) McCain, Koehler, & Tjosvold 1987. (**hb**) Flores & Bright 1987: 181; Herdy 1959: 1–2; Herdy & Thomas 1961: 936; Lyons 1956: 600; Ruckes 1963: 43–50; Schwerdtfeger 1957: 494–508; Thomas & Herdy 1961: 406–408; Wood, S. L. 1986a: 97. (**ds**) Wood, S. L. 1986a: 97. (**tx**) Blackman 1925b: 6–16, 1942a: 178–179; Bright 1976d: 169–173; Bright & Stark 1973: 97; Chamberlin 1939: 332–337, 1958; Cibrian-Tovar et al. 1986: 38; Dodge 1938: 18; Hopkins 1915a: 430–433; Keen 1958: 47; Sawamoto 1942: 166; Schedl 1935h: 343, 1938a: 158, 163, 165, 167, 1955g: 4; Swaine 1918a: 46, 92; Thomas 1957: 4, 26; Wood, S. L. 1982b: 982–992, 1986a: 97. (**ms**) Austara 1979.
- apachecae** Hopkins 1915a: 432. Holotype ♂; Chiricahua Mountains, Arizona [USA]; USNM, Washington. Distribution: North America (Arizona in USA). Hosts: *Pinus engelmannii*. References: (**cn**) Cibrian-Tovar et al. 1986: 40; Doane et al. 1936; Keen 1938: 16, 1955a: 47–48, 159–164. (**ce**) Keen 1938: 16, 1955a: 47–48, 159–164. (**hb**) Chamberlin 1939: 335; Doane et al. 1936; Keen 1938: 16, 1955a: 48. (**ds**) Chamberlin 1939: 335; Cibrian-Tovar et al. 1986: 40; Furniss, R. L. & Carolin 1977: 377; Keen 1929: 30, 1938: 16, 1958a: 47–48, 159–164; Kleine 1934a: 162; Leng 1920: 340; Wood, S. L. 1982b: 989. (**tx**) Chamberlin 1939: 335; Hopkins 1915a: 432; Keen 1929: 30; Wood, S. L. 1982b: 989.
- conicolens** Wood 1977b: 212. Holotype ♀; 13 km W Texmelucan, Puebla, Mexico; Wood Collection. Figures: Atkinson et al. 1986: 33. Distribution: North America (Hidalgo, Mexico, Puebla in Mexico). Hosts: *Pinus leiophylla*. References: (**cn**) Cibrian-Tovar et al. 1986: 41. (**hb**) Atkinson et al. 1986: 35; Cibrian-Tovar et al. 1986: 41. (**ds**) Atkinson & Equilua 1985a: 90, 1985c: 359, 1988: 86; Atkinson et al. 1986: 35; Cibrian-Tovar et al. 1986: 41; Wood, S. L. 1977b: 212, 1982b: 988. (**tx**) Atkinson et al. 1986: 33; Muskus, A. 1984: 97; Wood, S. L. 1977b: 212, 1982b: 988.
- coniperda** (Schwarz) 1895a: 144 (*Pityophthorus*). Lectotype ♂; Marquette, Michigan [USA]; USNM, Washington, designated by Wood 1977c: 384. Distribution: North America (Nova Scotia, Ontario, Quebec in Canada/ Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Virginia, West Virginia, Wisconsin in USA). Hosts: *Pinus strobus*, accidental or non-persistent in other *Pinus* spp. References: (**ay**) Godwin & Odell 1965: 213; Golden & Norris 1964b: 747; Hardy 1959; Henson 1961a, 1962; Thomas, J. B. 1967. (**bv**) Godwin & Odell 1965; Henson 1960a, 1961b, 1966b; Morgan, F. D. & Mailh 1976. (**cn**) Anonymous 1956f: 108, 1961b, 1961s, 1962h, 1963y, 1965b, 1965m, 1967f, 1977a: 44; Baker, W. L. 1972: 256; Barber et al. 1979; Beal et al. 1952; Bean 1966: 43; Blackman 1950; Borden 1967: 1187; Britton 1933: 393; Brown 1958: 47, 1959: 20–22; Browne 1968b: 155; Buchanan 1964, 1965: 35; DeBarr, Barber, & Maxwell 1982; Doane et al. 1936; Droot 1985: 365; Ebel et al. 1976: 24; Ehlers, Hoffard, & Jarrett 1978; Felt 1906: 751; Felt & Rankin 1932: 378, 449; Fogal 1979: 10; Gerhold et al. 1966; Godwin & Odell 1965; Graber 1964: 499–500; de Groot 1985; Hall, K. C., Biggs, & MacLeod 1975: 3; Hensen 1966a; Hitchings 1908: 4; Hoekstra, Merkel, & Powers 1961; Hofacker & Loomis 1982: 26, 1983: 28; Hofacker, Loomis, & Tucker 1984: 45, 1987; Hofacker et al. 1989; Johannsen 1910: 40; Kondo & Moody 1987: 50; Lentz 1929: 424–425; Lindquist, O. H. & Syme 1981: 31; Loomis, Hofacker, &

- Tucker 1986; Lyons 1956: 600; MacLeod & Lawrence 1972: 4; Magasi 1957: 63, 1985: 103; Marquis 1959: 31–41; Martineau 1985: 76; Merkel 1976: 364; Moody 1988: 69; Mook et al. 1959: 36; Morgan, F. D. & Mailu 1976; Odell & Goodwin 1964: 1–7; Pierson 1927: 109–110; Rogers, T. J. 1975c: 25; Santamour 1965: 1–8; Sterner & Davidson 1981: 32; Swaine 1915a: 92; Syme & Nystrom 1988: 33; Wilson, L. F. 1977: 51. **(cc)** Anonymous 1956f: 108, 1965: 9; Felt 1906: 751; Gerhold et al. 1966; Godwin & Odell 1965: 213; Henson 1960a, 1961b, 1962: 524, 1964: 77; Marsh 1966b: 541–549, 1979: 157; Matthews 1970; Muesebeck 1942: 94, 1950: 130; Odera 1971; Santamour 1965. **(hb)** Baker, W. L. 1972: 256; Blackman 1950; Bright 1976d: 170; Browne 1968b: 185; Chamberlin 1939: 335; Clittenden 1899a; Deyrup & Atkinson 1987a: 66; Doane et al. 1936; Drooz 1985: 365; Durfee 1958; Durfee et al. 1959: 32–33; Ebel et al. 1972: 24; Felt 1906: 751; Felt & Rankin 1932: 378, 449; Fogal 1979: 9; Godwin & Odell 1965: 213; Harrington 1902a: 116, 1902b; Henson 1960a, 1961b, 1962; Lyons 1956: 600; Martineau 1985: 76; Miller 1975: 698; Morgan, F. D. & Mailu 1976; Odell & Goodwin 1964; Pierson 1927: 109–110; Schwarz 1895a: 144; Swaine 1915a: 92; Thomas & Lindquist 1956: 2; Wilson, L. F. 1977: 81. **(ds)** Allison 1977, 1978; Anderson, R. L. & Barry 1980: 44; Anonymous 1926c: 518, 1963y, 1965b, 1967f, 1977v; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 634; Bright 1976d: 170; Browne 1968b: 185; Chamberlin 1925: 1, 30, 1939: 335; Clittenden 1899a; Deyrup 1981b: 8; Deyrup & Atkinson 1987a: 66; Dodge 1938: 14, 41; Drooz 1985: 365; Felt & Rankin 1932: 378, 449; Godwin & Odell 1965: 213–219; Hagedorn 1910d: 70; Kleine 1913b: 140, 1934a: 162; Knull 1932: 66; Leonard 1928: 518; Lindquist, O. H. & Syme 1981: 31; Morgan, A. V. & Morgan 1979, 1980; Proctor 1946: 207; Swaine 1909: 134; Syme & Nystrom 1988: 33; Thomas, J. B. 1957: 4; Wood, S. L. 1982b: 987. **(tx)** Benoit 1985: 76; Blackman 1928b: 148; Blatchley & Leng 1916: 634; Chamberlin 1939: 335; Dodge 1935: 14, 41; Ebel et al. 1976: 24; Godwin & Odell 1965; Hagedorn 1910a: 100; Hopkins 1915a: 430–432; Lindquist, O. H. & Syme 1981: 31; Schedl 1938a: 158, 164; Schwarz 1895a: 144; Swaine 1909: 134, 1918a: 92–93; Syme & Nystrom 1988: 33; Thomas, J. B. 1957: 4, 17–26, 1967; Titus, Meikle, & Harrison 1985: 49; Wood, S. L. 1977c: 384, 1982b: 987. **(ms)** Eckstein 1900c; Hoekstra, Merkel, & Powers 1961; Marquis 1961: 23.
- taedae* Hopkins 1915a: 431. Holotype, sex?, Ft. Monroe, Virginia [USA]; USNM, Washington. Synonymy: Wood 1977c: 385.
References: **(cn)** Beal et al. 1952; Blackman 1950; Doane et al. 1936. **(hb)** Baker, W. L. 1972: 258; Blackman 1950; Doane et al. 1936.
- (ds)** Baker, W. L. 1972: 258; Blackman 1950; Kleine 1934a: 163; Leng 1920: 340. **(tx)** Chamberlin 1939: 333–334; Hopkins 1915a: 431; Wood, S. L. 1977c: 384.
- clunicus* Hopkins 1915a: 432. Holotype ♀; “13, 122, *Tomicus clunicus* Fitch det. No. 12 Hopk., Collection Fitch” [USA]; USNM, Washington. Synonymy: Wood 1977c: 384.
References: **(hb)** Chamberlin 1939: 335. **(ds)** Chamberlin 1939: 335; Leng 1920: 340. **(tx)** Chamberlin 1939: 335; Hopkins 1915a: 432; Wood, S. L. 1977c: 384.
- echinatae* Wood 1978b: 398. Holotype ♀; Winona, Missouri [USA]; Wood Collection.
Distribution: North America (Missouri in USA).
Hosts: *Pinus echinata*.
References: **(cn)** Yates, H. O. 1981. **(ds)** Wood, S. L. 1982b: 986. **(tx)** Wood, S. L. 1978b: 398, 1982b: 986.
- edulis* Hopkins 1915a: 430. Holotype ♀; Las Vegas Hot Springs, New Mexico [USA]; USNM, Washington.
Distribution: North America (Chihuahua in Mexico/ Arizona, Colorado, New Mexico, W Texas, Utah in USA).
Hosts: *Pinus cembroides*, *P. discolor*, *P. edulis*.
References: **(cn)** Doane et al. 1936; Keen 1938: 16, 1958a: 48; Lyons 1956: 600; Ostmark & Wilford 1956: 12–13. **(cc)** Burks 1979: 781; Bushing 1965: 458; Forcella 1980; Keen 1938: 16, 1958a: 48; Muesebeck 1942: 94, 1950: 130. **(hb)** Chamberlin 1939: 334; Doane et al. 1936; Forcella 1980; Keen 1938: 16, 1958a: 48; Little 1943: 249; Lyons 1956: 600. **(ds)** Chamberlin 1925, 1939: 334; Furniss, R. L. & Carolin 1977: 377; Keen 1929: 30, 1938: 16, 1958: 48; Kleine 1934a: 162; Leng 1920: 340; Wood, S. L. 1982b: 985. **(tx)** Chamberlin 1939: 334; Hopkins 1915a: 430; Keen 1929: 30; Wood, S. L. 1982b: 985, 1989: 171.
- cembroides* Wood 1972d: 74. Holotype ♂; Miller Canyon, Huachuca Mts., Arizona [USA]; Wood Collection. Synonymy: Wood 1989: 171.
References: **(cn)** Cibrian-Tovar et al. 1986: 40. **(hb)** Cibrian-Tovar et al. 1986: 40. **(ds)** Atkinson & Equihua 1985c: 359; Cibrian-Tovar et al. 1986: 40; Furniss, R. L. & Carolin 1977: 377; Wood, S. L. 1982b: 985. **(tx)** Wood, S. L. 1972d: 74, 1982b: 985, 1989: 171.
- mexicanus* Wood 1962: 79. Holotype ♂; Necaxa, Puebla, Mexico; Wood Collection.
Distribution: North America (Puebla in Mexico).
Hosts: *Pinus* sp.
References: **(cn)** Cibrian-Tovar et al. 1986: 42. **(hb)** Cibrian-Tovar et al. 1986: 42. **(ds)** Atkinson & Equihua 1985: 86; Cibrian-Tovar et al. 1986: 42; Wood, S. L. 1982b: 988. **(tx)** Wood, S. L. 1962: 79, 1982b: 988.
- michoacanae* Wood 1980b: 354. Holotype ♂; Uruapan, Michoacan, Mexico; Wood Collection.

Distribution: North America (Michoacan in Mexico).

Hosts: *Pinus michoacana*.

References: **(cn)** Cibrian-Tovar et al. 1986: 43. **(hb)** Cibrian-Tovar et al. 1986: 43. **(ds)** Cibrian-Tovar et al. 1986: 43; Wood, S. L. 1982b: 989. **(tx)** Wood, S. L. 1980b: 354, 1982b: 989.

monophyllae Hopkins 1915a: 433. Holotype ♀; Ventura County, California [USA]; USNM, Washington.

Distribution: North America (California, SW Idaho, Nevada, Utah in USA).

Hosts: *Pinus monophylla*.

References: **(ay)** Thomas, J. B. 1967. **(cn)** Cibrian-Tovar et al. 1986: 44; Keen 1938: 16, 1958a: 48. **(cc)** Bushing 1965: 458; Keen 1938: 16, 1958a: 48; Poinar 1975: 151; Poinar & Caylor 1974; Richerson, J. V. & Borden 1972a. **(hb)** Bright & Stark 1973: 98; Chamberlin 1939: 336; Cibrian-Tovar et al. 1986: 44; Keen 1938: 16, 1958a: 48; Ruckes 1963; Wood, S. L. 1982b: 984. **(ds)** Bright & Stark 1973: 98; Chamberlin 1939: 336; Cibrian-Tovar et al. 1986: 44; Furniss, M. M. & Johnson 1987: 376; Furniss, R. L. & Carolin 1977: 377; Keen 1929: 30, 1938: 16, 1958a: 48, 159–164; Kleine 1934a: 162; Leng 1920: 340; Ruckes 1963: 47; Wood, S. L. 1982b: 984. **(tx)** Chamberlin 1939: 336; Hopkins 1915a: 433; Keen 1929: 30; Thomas, J. B. 1967; Wood, S. L. 1982b: 984.

ponderosae Hopkins 1915a: 431. Holotype ♀; Ashland, Oregon [USA]; USNM, Washington.

Figures: Evans 1982: 8, 20, Furniss & Carolin 1977: 376, Kinzer, Ridgill, & Watts 1972: 12.

Distribution: North America (British Columbia in Canada/Durango, Mexico, Michoacan in Mexico/Arizona, California, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Pinus aristata*, *P. contorta* (rare, mostly in twigs), *P. douglasiana*, *P. durangensis*, *P. flexilis*, *P. jeffreyi*, *P. lambertiana*, *P. leiophylla*, *P. montezumae*, *P. monticola*, *P. ponderosa*, *P. strobiformis*, *P. washoensis*.

Notes: (3) Recent studies (not seen) of epicuticular hydrocarbons suggest that *lambertiana* may be distinct from *ponderosae* (SLW).

References: **(ay)** Kinzer & Ridgill 1972; Thomas, J. B. 1967. **(bv)** Kinzer & Reeves 1976; Kinzer, Ridgill, & Reeves 1972; Kinzer, Ridgill, & Watts 1970. **(cn)** Anonymous 1961h, 1965b, 1966i, 1979g, 1980m: 33; Arno & Hoff 1989; Beatty 1980: 8; Blake, Wagner, & Koerber 1986, 1989; Bodenham & Stevens 1981; Chamberlin 1924; Cibrian-Tovar et al. 1986: 44; Dale & Schenk 1978, 1979; Doane et al. 1936; Essig 1926: 519, 1958: 519; Hagle et al. 1987: 95; Hatch 1938: 194; Haverty & Dell 1984; Hopkins 1899b: 8; Jenkins 1984b; Keen 1929: 54, 1938: 16, 1958a: 48; Kinzer, Ridgill, & Watts 1972: 795–798; Koerber

1968: 229; Lyons 1956: 600; Miller 1914: 4, 1915: 1; Ragenovich 1979; Rogers, T. J. 1981; Schmid, Mitchell, & Mata 1986; Schmidt et al. 1984; Shea, P. J. 1984; Shea, P. J., Jenkins, & Haverty 1984; Stevens, Brewer, & Leatherman 1980: 27, 1982: 27; Swaine 1918a: 92. **(cc)** Bushing 1965: 458; Jenkins 1983, 1984b; Keen 1938: 16, 1958a: 48, 159–164; Kinzer, Ridgill, & Watts 1972: 795–798; Marsh 1979: 270; Muesebeck 1942: 94, 1950: 130, 1957: 54; Ruckes 1956: 184–185; Shea, P. J., Jenkins, & Haverty 1984. **(hb)** Atkinson et al. 1986: 36; Bright & Stark 1973: 98; Chamberlin 1939: 334, 1958: 141–142; Cibrian-Tovar et al. 1986: 44; Dale & Schenk 1979; Doane et al. 1936; Essig 1926: 519, 1958: 519; Hopkins 1899b: 8; Jenkins 1983, 1984a, 1984b; Keen 1929: 54, 1938: 16, 1958a: 48; Kinzer & Reeves 1976; Kinzer, Ridgill, & Watts 1970, 1972; Lyons 1956: 600; Miller 1915: 1; Ruckes 1963: 47; Shea, P. J., Jenkins, & Haverty 1984; Stevens, Brewer, & Leatherman 1980: 27, 1982: 27; Swaine 1918a: 92; Wood, S. L. 1982b: 990. **(ds)** Anonymous 1965b, 1966f, 1979g, 1980m: 33; Atkinson & Equihua 1985a: 90; Atkinson et al. 1986: 36; Bright 1976d: 172; Bright & Stark 1973: 98; Chamberlin 1917, 1925, 1939: 334, 1958: 141–142; Cibrian-Tovar et al. 1986: 44; Essig 1926: 519, 1958: 519; Furniss, R. L. & Carolin 1977: 377; Gast et al. 1989: 385; Hopping 1922; Keen 1929: 50, 54, 1938: 16, 1958a: 48; Kinzer & Reeves 1976; Kleine 1934a: 162; Leng 1920: 340; Ruckes 1963: 47; Schedl 1963c: 157; Thomas, J. B. 1966; Wood, S. L. 1982b: 990. **(tx)** Benoit 1986: 26; Bodenham & Stevens 1981; Chamberlin 1939: 334, 1958: 141–142; Hopkins 1915a: 431; Keen 1929: 30; Kinzer, Ridgill, & Watts 1972: 12; Swaine 1918a: 92; Thomas, J. B. 1967; Wood, S. L. 1962: 79, 1977c: 385, 1982b: 990. **(ms)** Hatch 1938: 194.

scopulorum Hopkins 1915a: 431. Holotype ♀; Flagstaff, Arizona [USA]; USNM, Washington. Synonymy: Wood 1977c: 385.

References: **(cn)** Anonymous 1967t; Doane et al. 1936; Keen 1938: 16, 1958a: 48; Lucht 1966: 30; Pearson 1950: 155; Swaine 1918a: 92. **(cc)** Keen 1938: 16, 1958a: 48, 159–164. **(hb)** Chamberlin 1939: 335; Doane et al. 1936; Keen 1938: 16, 1958a: 48; Swaine 1918a: 92. **(ds)** Anonymous 1967t; Chamberlin 1939: 335; Furniss, R. L. & Carolin 1977: 377; Keen 1929: 30, 1938: 16, 1958a: 48; Kleine 1934a: 163; Leng 1920: 340. **(tx)** Chamberlin 1939: 335; Hopkins 1915a: 431; Keen 1929: 30; Swaine 1918a: 92; Wood, S. L. 1977c: 385.

contortae Hopkins 1915a: 432. Holotype ♀; Newport, Oregon [USA]; USNM, Washington. Synonymy: Wood 1977c: 385.

References: **(cn)** Clapp 1942: 31; Doane et al. 1936; Keen 1938: 16, 1958a: 48; Lindgren 1980a: 93; Swaine 1918a: 92. **(cc)** Keen 1938:

- 16, 1958a: 48. **(hb)** Bright 1976d: 171; Bright & Stark 1973: 100; Chamberlin 1939: 336, 1958: 141-142; Doane et al. 1936; Keen 1938: 16, 1958a: 48; Lindgren 1980a: 93; Ruckes 1959: 94, 1963; Swaine 1918a: 92. **(ds)** Bright 1976d: 171; Bright & Stark 1973: 100; Chamberlin 1939: 336, 1958: 141-142; Furniss, R. L. & Carolin 1977: 377; Keen 1929: 30, 1938: 16, 1958a: 48; Kleine 1934a: 162; Leng 1920: 340; Ruckes 1963. **(tx)** Chamberlin 1939: 336, 1958: 141-142; Hopkins 1915a: 432; Keen 1958: 47-48; Swaine 1918a: 92; Wood, S. L. 1977c: 385.
- monticolae* Hopkins 1915a: 432. Holotype ♀; Priest River, Idaho [USA]; USNM, Washington. Synonymy: Wood 1977c: 385.
References: **(cn)** Andrews 1968: 154; Barnes, Brigham, & Schenk 1962: 1-7; Browne 1968b: 185; Dewey & Clinton 1980; Doane et al. 1936; Evans, D. 1982: 8; Graham 1963; Hatch 1938: 194; Haverty & Wood 1981; Hedlin 1974: 34; Keen 1938: 16, 1958a: 48; Morris, E. V. & Monts 1973a: 15; Robinson, L. A. & Dooling 1978: 11; Ruppel 1967: 27; Schenk & Goyer 1967: 186-187; Silver & Ross 1957: 85; Swaine 1918a: 93. **(cc)** Keen 1938: 16, 1958a: 48; Schenk & Goyer 1967: 186-187; Williamson, D. L., Schenk, & Barr 1966. **(hb)** Barnes, Brigham, & Schenk 1962: 1-7; Bright 1976d: 172; Bright & Stark 1973: 100; Browne 1968b: 185; Chamberlin 1939: 337, 1958: 141-142; Doane et al. 1936; Evans, D. 1982: 8; Graham 1963; Hedlin 1982: 34; Keen 1938: 16, 1958a: 48, 159-164; Ruckes 1959: 94, 1963: 49; Swaine 1918a: 93; Williamson, D. L., Schenk, & Barr 1966. **(ds)** Bright & Stark 1973: 100; Browne 1968b: 185; Chamberlin 1925, 1939: 336, 1958: 141-142; Evans, D. 1983: 31; Furniss, R. L. & Carolin 1977: 377; Hopping 1922; Keen 1929: 30, 1938: 16, 1958a: 48, 159-164; Kleine 1934a: 162; Leng 1920: 340; Patterson & Hatch 1945: 152; Ross 1958: 30; Ruckes 1963: 49; Ruppel 1967: 27. **(tx)** Bright 1976d: 172; Chamberlin 1939: 336, 1958: 141-142; Evans, D. 1982: 8, 20, 1983: 31; Hopkins 1915a: 432; Keen 1929: 30; Schedl 1938a: 161; Swaine 1918a: 92-93; Wood, S. L. 1977c: 385.
- flexilis* Hopkins 1915a: 433. Holotype ♀; Mount Manitou, Colorado [USA]; USNM, Washington. Synonymy: Wood 1977c: 385.
References: **(ay)** Thomas, J. B. 1967. **(bv)** Kinzer & Reeves 1976. **(cn)** Johnson, D. W. & Minnemeyer 1976; Keen 1938: 16, 1958a: 48. **(cc)** Burks 1979: 781; Bushing 1965: 458; Keen 1938: 16, 1958a: 48. **(hb)** Bright & Stark 1973: 100; Chamberlin 1939: 337, 1958: 142; Keen 1938: 16, 1958a: 48. **(ds)** Atkinson & Equihua 1988: 86; Bright 1964: 170, 1976d: 171; Bright & Stark 1973: 100; Chamberlin 1939: 337, 1958: 142; Furniss, R. L. & Carolin 1977: 377; Keen 1929: 30, 1938: 16, 1958a: 48; Kinzer & Reeves 1976; Kleine 1934a: 162; Leng 1920: 340; McComb et al. 1953: 1; Wood, S. L. 1948: 46, 1951a: 128. **(tx)** Chamberlin 1939: 337, 1958: 142; Hopkins 1915a: 433; Keen 1929: 30; Thomas, J. B. 1967; Wood, S. L. 1951a: 128, 1977c: 385.
- lambertianae* Hopkins 1915a: 433. Holotype ♀; Hilt, California [USA]; USNM, Washington. Synonymy: Wood 1977c: 385.
References: **(ay)** Thomas, J. B. 1967. **(cn)** Anonymous 1955j: 3, 1958a: 10; Chamberlin 1924; Doane et al. 1936; Essig 1926: 519, 1958: 519; Fowells & Schubert 1956: 27; Hall 1955; Keen 1929: 54, 1958a: 48-55; Lyons 1956: 600; Struble 1947b: 48-50. **(cc)** Anonymous 1960i, 1960j: 12, 1961h, 1961i, 1961s, 1962i, 1963y, 1965b, 1966i, 1979g, 1980a, 1980m: 33; Bedard, W. L. Jr. 1968b; Hoekstra, Plerker, & Powers 1961; Keen 1958a: 48; Muesebeck 1942: 94, 1950: 130; Ruckes 1956: 184-185; Thatcher, T. O. 1961. **(hb)** Bedard 1966b: 152-157, 1968a: 7-17, 1968b: 1-6; Bright & Stark 1973: 99; Chamberlin 1939: 337, 1958: 142; Doane et al. 1936; Essig 1926: 519, 1958: 519; Keen 1929: 54-55, 1958a: 48; Lyons 1956: 600; Miller 1915: 1-12; Ruckes 1957: 367, 1958: 214, 1963: 48; Struble 1947b: 48; Thatcher, T. O. 1961. **(ds)** Anonymous 1958a: 10, 1962i, 1963y, 1965b, 1979g, 1980a, 1980m: 33; Atkinson & Equihua 1988: 86; Bedard 1966b, 1968b; Bright & Stark 1973: 99; Chamberlin 1925, 1939: 337, 1958: 142; Essig 1926: 519, 1958: 519; Furniss, R. L. & Carolin 1977: 377; Hall & Eaton 1960: 8; Hopping 1922; Keen 1929: 30, 54, 1958a: 48; Kleine 1934a: 162; Leng 1920: 340; Ruckes 1963; Thatcher, T. O. 1961. **(tx)** Anonymous 1960j: 12; Blackman 1925b; Chamberlin 1939: 337, 1958: 142; Furniss, R. L. & Carolin 1977: 376; Hopkins 1915a: 433; Keen 1929: 30; Thomas, J. B. 1967; Wood, S. L. 1977c: 385. **(ms)** Hoekstra, Merkel, & Powers 1961.
- radiatae* Hopkins 1915a: 432. Holotype ♀; Pacific Grove, California [USA]; USNM, Washington. Figures: Schaefer 1962: 570.
Distribution: North America (California in USA). Hosts: *Pinus radiata*.
References: **(ay)** Schaefer, C. H. 1962, 1964; Thomas, J. B. 1967. **(bv)** Schaefer, C. H. 1962. **(cn)** Keen 1929: 55, 1938: 16, 1958a: 48. **(cc)** Bushing 1965: 458; Keen 1938: 16; Muesebeck 1942: 94, 1950: 130; Odera 1971; Ruhm 1964; Schaefer, C. H. 1962, 1963, 1964. **(hb)** Bright & Stark 1973: 101; Chamberlin 1939: 336; Godwin & Odell 1965: 213-219; Keen 1929: 55, 1938: 16, 1958a: 48; Ruckes 1955: 214, 1963: 49; Schaefer, C. H. 1962, 1964; Wood, S. L. 1982b: 986. **(ds)** Atkinson & Equihua 1988: 86; Bedard 1966b:

- 156; Berryman & Stark 1962a; Bright & Stark 1973: 101; Chamberlin 1925, 1939: 336; Furniss, R. L. & Carolin 1977: 377; Hopping 1922; Keen 1929: 30, 55, 1938: 16, 1958a: 48, 159–164; Kleine 1934a: 163; Leng 1920: 340; McPherson, Wilson, & Stehr 1970a: 1008; Ruckes 1963: 49; Schaefer, C. H. 1962: 569, 1963: 79, 1964: 195; Schedl 1963c: 157; Wood, S. L. 1982b: 986. (tx) Chamberlin 1939: 336; Hopkins 1915a: 432; Keen 1929: 30; Schaefer 1962: 570; Thomas, J. B. 1967; Wood, S. L. 1982b: 986.
- resinosae** Hopkins 1915a: 431. Holotype ♂; not given, collected by Harrington [USA]; USNM, Washington.
- Figures: Bright 1976d: 204, 213 (adults), MacLeod, Hook, & Livesay 1975: 2.
- Distribution: North America (Nova Scotia, Ontario, Quebec in Canada/ Michigan, Minnesota, New Hampshire, New Jersey, New York, West Virginia, Wisconsin in USA).
- Hosts: *Pinus resinosa*, uncommon in *P. banksiana* twigs, rare and non-persistent in other *Pinus* spp.
- References: (ay) Herdy 1959; McPherson, J. E., Wilson, & Stehr 1970a; Thomas, J. B. 1957: 4, 1967, 1971b. (bv) Mattson, Tabashnik, & Miller 1984; McPherson, J. E. 1969b; McPherson, J. E., Wilson, & Stehr 1970b; Tabashnik, Mattson, & Miller 1985. (cn) Anonymous 1956f: 108, 1958a: 9, 1964h; Applejohn & Howse 1982b; Baker, W. L. 1972: 257; Berryman 1987; Blackman 1950; Bowser & Weir 1975: 12; Browne 1968b: 185; Doane et al. 1936; Drooz 1985: 365; Fogal 1979: 9; Forbes, Underwood, & Van Sickle 1969: 25; Foster & Applejohn 1975: 7; Hall, K. C., Biggs, & MacLeod 1975: 3; Hall, K. C., Livesay, & Houser 1972; Hard 1964; Howse et al. 1982: 47; Kondo & Moody 1987: 97; Kondo & Taylor 1985: 55; Lindquist, O. H. & Syme 1981: 31; Lyons 1951: 1, 1956: 600, 1957a: 70–79, 1957b: 150, 1957c: 265; MacLeod & Lawrence 1972: 4; Mattson 1968, 1971, 1972a, 1972b, 1978, 1980; Miller, W. E. 1978, 1979; Moody 1988: 66; Prebble 1954: 221; Rauf, Benjamin, & Cecich 1985; Sippell, MacDonald, & Rose 1960: 59; Sterner & Davidson 1981, 1983; Swaine 1918a: 92–93; Syme & Nystrom 1988: 33; Vandenburg 1966: 33; Weir, H. J. et al. 1984a: 105; Weir & Lawrence 1975: 10; Wilson, L. F. 1977: 81. (ce) Anonymous 1956f: 108; Berryman 1987; Mattson 1968: 1–2, 1972b, 1980, 1986; Miller, W. E. 1978; Muesebeck 1942: 94; Thomas & Lindquist 1956: 2. (hb) Baker, W. L. 1972: 257; Blackman 1950; Bright 1976d: 173; Browne 1968b: 185; Doane et al. 1936; Drooz 1985: 365; Fogal 1979: 9; Godwin & Odell 1965: 213–219; Hard 1964; Lyons 1951: 1, 1956: 599–600, 1957a: 150, 1957b: 264–265; Mattson 1980; Mattson, Tabashnik, & Miller 1984; McPherson, J. E. 1969b: 241–242; McPherson, J. E., Wilson, & Stehr 1970a: 1008–1022; Miller, W. E. 1978; Ruckes 1955: 215; Swaine 1918a: 92, 93; Wilson, L. F. 1977: 81; Wood, S. L. 1982b: 988. (ds) Anonymous 1926c: 518, 1958a: 9; Beaulne 1956; Blackman 1950; Bright 1976d: 173; Browne 1968b: 185; Deyrup 1981b: 8; Dodge 1938: 14, 41; Drooz 1985: 365; Kleine 1934a: 163; Leng 1920: 340; Leonard 1928: 518; Lindquist, O. H. & Syme 1981: 31; McPherson, J. E., Wilson, & Stehr 1970a; Miller, W. E. 1978; Syme & Nystrom 1988: 33; Wood, S. L. 1982b: 988. (tx) Benoit 1985: 76; Bright 1976d: 204, 213; Chamberlin 1939: 334; Dodge 1938: 14, 41; Hopkins 1915a: 431; Lindquist, O. H. & Syme 1981: 31; McPherson, J. E. 1969b; Swaine 1918a: 92–93; Syme & Nystrom 1988: 33; Thomas, J. B. 1957: 4, 22, 1967, 1971b; Titus, Meikle, & Harrison 1985: 49; Wood, S. L. 1977c: 385, 1982b: 988, 1989: 171. (ms) Mattson, Tabashnik, & Miller 1984.
- virginianae* Hopkins 1915a: 431. Holotype ♂; Huttonsville, West Virginia [USA]; USNM, Washington. Synonymy: Wood 1977c: 385.
- References: (cn) Beal et al. 1952; Blackman 1950; Doane et al. 1936. (hb) Baker, W. L. 1972: 258; Blackman 1950; Chamberlin 1939: 334; Doane et al. 1936. (ds) Blackman 1950; Chamberlin 1939: 334; Kleine 1934a: 163; Leng 1920: 340. (tx) Chamberlin 1939: 334; Hopkins 1915a: 431; Wood, S. L. 1977c: 385.
- banksianae* McPherson 1970: 1020. Holotype ♂; Fife Lake, Michigan [USA]; Michigan State University Collection, East Lansing. Synonymy: Wood 1989: 171.
- References: (ay) McPherson, Wilson, & Stehr 1970a. (bv) Anonymous 1979a; Hall, D. J. 1973b; McPherson, J. E. 1969b. (cn) Anonymous 1979a, 1989; Drooz 1985: 366; Howse, Gross, & Rose 1981: 61; Howse et al. 1981: 43, 1982: 42, 1983; Kondo & Moody 1987: 91; Kondo & Taylor 1985: 50; Lindquist, O. H. & Syme 1981; MacLeod, Hook, & Livesay 1975; Sippell, Rose, & Gross 1975: 65; Sterner & Davidson 1981, 1983; Syme & Nystrom 1988: 33; Thompson, M. J. & Houser 1975: 2. (ce) Hall, D. J. 1975; Hall, D. J. & Wilson 1975. (hb) Anonymous 1979a; Bright 1976d: 170; Drooz 1985: 366; Hall, D. J. 1973b; Hall, D. J. & Wilson 1974, 1975; McPherson 1969b; McPherson, Wilson, & Stehr 1970a; Wilson, L. F. 1977: 72; Wood, S. L. 1982b: 987. (ds) Bright 1976d: 170; Drooz 1985: 366; Lindquist, O. H. & Syme 1981; McPherson, Wilson, & Stehr 1970a; Syme & Nystrom 1988: 33; Wood, S. L. 1982b: 987. (tx) Benoit 1985: 76; Lindquist, O. H. & Syme 1981; MacLeod, Hook, & Livesay 1975: 2; McNamara 1977: 195; McPherson 1969b: 241, 1970: 1020; Syme & Nystrom 1988: 33; Titus, Meikle, & Harrison 1985: 49; Wood, S. L. 1982b: 987, 1989: 171.

teocotum Wood 1950b: 354. Holotype ♂; Uruapan, Michoacan, Mexico; Wood Collection.
Distribution: North America (Michoacan in Mexico).
Hosts: *Pinus teocote*.

References: (cn) Cibrian-Tovar et al. 1986: 46. (hb) Cibrian-Tovar et al. 1986: 46. (ds) Cibrian-Tovar et al. 1986: 46; Wood, S. L. 1982b: 991. (tx) Wood, S. L. 1980b: 354, 1982b: 991.

terminalis Flores & Bright 1987: 181. Holotype ♀; Mexico: Nuevo Leon. La Primavera, Galeana, 1700 m; CNCI, Ottawa.

Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Pinus cembroides*.

References: (tx) Flores & Bright 1987: 181.

Genus *Pityoborus* Blackman

PITYOBORUS BLACKMAN 1922b: 96. Type-species: *Crypturgus comatus* Zimmermann, monobasic.
Keys: Wood 1958a: 47, 1982b: 1147.

Notes: Members of this genus breed in the shaded-out, dying branches of living *Pinus* spp.

References: (hb) Wood, S. L. 1986a: 97. (ds) Wood, S. L. 1986a: 97. (tx) Beal & Massey 1945: 60, 124; Blackman 1922b: 96, 1928b: 3–16, 1942a: 177; Schedl 1938a: 159, 163, 165, 168; Wood, S. L. 1958a: 46–56, 1982b: 1146–1152, 1986a: 97.

comatus (Zimmermann) 1865: 143 (*Crypturgus*). Holotype ♀; South Carolina [USA]; MCZ, Cambridge.

Figures: Blackman 1922b: pl. 10, figs. 51–52 (adult).

Distribution: Antilles Islands (Andros Island in Bahamas Islands), North America (Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina in USA).

Hosts: *Pinus* spp.

Notes: (3) Blackman 1928b: 145 (redescribed).

References: (ay) Furniss, M. M. et al. 1987. (bv) Atkinson, Foltz, & Connor 1988; Turnbow & Franklin 1980. (cn) Baker, W. L. 1972: 258; Doane et al. 1936; Schuder 1969: 79; Swaine 1918a: 104. (cc) Furniss, M. M. et al. 1987. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 258; Beal & Massey 1945: 125; Blackman 1922b: 96–98; Chamberlin 1939: 343; Deyrup & Atkinson 1987a: 66; Doane et al. 1936; Drooz 1985: 364; Swaine 1918a: 104. (ds) Atkinson et al. 1991: 162; Baker, W. L. 1972: 258; Beal & Massey 1945: 125; Blackman 1922b: 96–98; Blatchley & Leng 1916: 632; Chamberlin 1925, 1939: 343; Deyrup & Atkinson 1987a: 66; Drooz 1985: 364; Hagedorn 1910d: 70; Henshaw 1885: 148; Kirk 1970; Kleine 1913b: 140, 1934a: 163; Leng 1920: 341; Ostmark 1968; Schuder 1969: 79; Swaine 1909: 134; Turnbow & Franklin 1980; Wood, S. L. 1982b: 1148. (tx) Beal & Massey 1945: 125;

Blackman 1922b: 96–98, 1928b: 145–146, 1942a: 203; Blatchley & Leng 1916: 632; Chamberlin 1939: 343; Eichlhoﬀ 1878b: 136; Hagedorn 1910a: 100; LeConte 1868: 157, 1876: 354–355; Schedl 1938a: 159; Swaine 1909: 134, 1918a: 104; Wood, S. L. 1958a: 48, 53, 1982b: 1148; Zimmerman 1865: 143.

seriatus LeConte 1878a: 432 (*Pityophthorus*).

Holotype ♂; Tampa, Florida [USA]; MCZ, Cambridge. Synonymy: Blackman 1928b: 146.

References: (cn) Swaine 1918a: 104. (hb) Swaine 1918a: 104. (ds) Hagedorn 1910d: 70; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 140; Leng 1920: 341; Schwarz 1878d: 468. (tx) Blackman 1928b: 145–146; Chamberlin 1939: 342; Hagedorn 1910a: 101; LeConte 1878a: 432–433, 468; Swaine 1909: 140, 1918a: 104.

frontalis Wood 1971: 49. Holotype ♀; 13 km SE El Cameron, Oaxaca, Mexico; Wood Collection.

Figures: Bright 1972c: 1675.

Distribution: North America (Oaxaca in Mexico).

Hosts: *Pinus oocarpa*, *P. sp.*

References: (ds) Wood, S. L. 1982b: 1151. (tx) Wood, S. L. 1971: 49, 1973c: 182, 1982b: 1151.

severus Bright 1972c: 1676. Holotype ♀; 5 km N Suchixtepec, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 182.

References: (tx) Bright 1972c: 1675–1676; McNamara 1977: 197; Wood, S. L. 1973c: 182, 1982b: 1151.

hirtellus Wood 1958a: 50. Holotype ♀; 23 km NW Guadalupe, Jalisco, Mexico; SMUK, Lawrence.

Distribution: North America (Durango, Jalisco in Mexico).

Hosts: *Pinus pseudostrobus*, *P. sp.*

References: (hb) Atkinson & Equihua 1985a: 98; Atkinson et al. 1986: 36. (ds) Atkinson & Equihua 1985a: 98; Atkinson et al. 1986: 36; Wood, S. L. 1958a: 98. (tx) Wood, S. L. 1958a: 47, 50, 1982b: 1150.

hondurensis Wood 1971: 49. Holotype ♀; Yuncaran, Paraiso, Honduras; Wood Collection.

Distribution: North America (Belize/ Honduras).
Hosts: *Pinus caribaea*, *P. oocarpa*.

References: (ds) Wood, S. L. 1982b: 1151. (tx) Wood, S. L. 1971: 49, 1982b: 1151.

rubentis Wood 1958a: 51. Holotype ♀; 23 km W Texmelucan, Puebla, Mexico; SMUK, Lawrence.

Distribution: North America (Chihuahua, Durango, Michoacan, Puebla, Veracruz in Mexico).
Hosts: *Pinus* spp.

References: (hb) Wood, S. L. 1982b: 1150. (ds) Atkinson & Equihua 1988: 94; Wood, S. L. 1982b: 1150. (tx) McNamara 1977: 197; Wood, S. L. 1958a: 48, 51, 1982b: 1150.

secundus Blackman 1928b: 146. Holotype ♀; La Sal Mts., Utah [USA]; USNM, Washington.

Figures: Bright 1972c: 1675.

Distribution: North America (Distrito Federal, Durango, Hidalgo, Michoacan, Puebla, Veracruz in Mexico/ Arizona, New Mexico, Utah in USA).

Hosts: *Pinus ayacalhuite*, *P. leiophylla*, *P. oocarpa*, *P. ponderosa*, *P. pseudostrobus*, *P.* spp.

References: (ec) Furniss, R. L. & Carolin 1977: 399. (hb) Atkinson et al. 1986: 36; Chamberlin 1939: 345; Furniss, R. L. & Carolin 1977: 399. (ds) Atkinson & Equihua 1988: 94; Atkinson et al. 1986: 36; Chamberlin 1939: 345; Furniss, R. L. & Carolin 1977: 399; Leng & Mutchler 1933: 52; Wood, S. L. 1960b: 69, 1982b: 1148. (tx) Blackman 1928b: 146, 1942a: 203; Chamberlin 1939: 345; Wood, S. L. 1958a: 48, 53–54, 1960b: 69, 1973c: 182, 1982b: 1148.

tertius Blackman 1942a: 202. Holotype ♀; Chalco, D.F., Mexico; USNM, Washington. Synonymy: Wood 1973c: 182.

References: (ds) Blackwelder 1947: 781; Bright 1972c: 1679. (tx) Blackman 1942a: 202–203; Wood, S. L. 1958a: 48, 58, 1973c: 182.

intonus Wood 1958a: 54. Holotype ♀; 23 km W Texmelucan, Puebla, Mexico; SMUK, Lawrence. Synonymy: Wood 1973c: 182.

References: (ay) Thomas, J. B. 1967. (ds) Thomas, J. B. 1967. (tx) Thomas, J. B. 1967; Wood, S. L. 1958a: 48, 54, 1973c: 182, 1982b: 1148.

immitus Bright 1972c: 1674. Holotype ♀; 68 km W Durango, Durango, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 182.

References: (tx) Bright 1972c: 1674–1675; McNamara 1977: 197; Wood, S. L. 1973c: 182.

ramosus Bright 1972c: 1677. Holotype ♀; 5.6 km S Suchixtepec, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 182.

References: (tx) Bright 1972c: 1675, 1677; Wood, S. L. 1973c: 182, 1982b: 148.

velutinus Wood 1958a: 48. Holotype ♀; 23 km NW Guadalupe, Jalisco, Mexico; SMUK, Lawrence. Distribution: North America (Jalisco in Mexico). Hosts: *Pinus* sp.

References: (ds) Atkinson & Equihua 1988: 94; Wood, S. L. 1982b: 1151. (tx) Wood, S. L. 1958a: 47–48, 1982b: 1151.

Genus *Dacnophthorus* Wood

DACNOPHTHORUS WOOD 1975b: 394. Type-species: *Gnathophthorus clematis* Wood, original designation.

Keys: Wood 1982b: 1152 for Central America.

Notes: The species of this genus breed in the phloem of lianas.

References: (hb) Wood, S. L. 1986a: 98. (ds) Wood, S. L. 1986a: 98. (tx) Wood, S. L. 1975b: 394, 1982b: 1152–1154, 1986a: 98.

artus (Wood) 1974a: 27 (*Cnathophthorus*). Holotype ♀; ca 260 km N Xavantina, Matto Grosso, Brasil (12 49 S, 41 46 W); BMNH, London.

Distribution: South America (Brazil).

Notes: (1) Wood 1975b: 394 (to *Dacnophthorus*).

References: (tx) Wood, S. L. 1974a: 27, 1975b: 394.

clematis (Wood) 1971: 51 (*Gnathophthorus*). Holotype ♀; Volcan Colima, Jalisco, Mexico; Wood Collection.

Figures: Wood 1971: 52, 1982b: 1153 (female outline, head).

Distribution: North America (Costa Rica/ Honduras/ Jalisco in Mexico/ Panama).

Hosts: *Clematis* sp.

Notes: (1) Wood 1975b: 394 (to *Dacnophthorus*).

References: (hb) Wood, S. L. 1982b: 1153. (ds) Wood, S. L. 1982b: 1153. (tx) Wood, S. L. 1971: 51–52, 1975b: 394, 1982b: 1153, 1986a: 98.

craceus (Wood) 1971: 53 (*Cnathophthorus*). Holotype ♀; La Ceiba, Atlantida, Honduras; Wood Collection.

Distribution: North America (Honduras).

Notes: (1) Wood 1975b: 394 (to *Dacnophthorus*).

References: (ds) Wood, S. L. 1982b: 1154. (tx) Wood, S. L. 1971: 53, 1975b: 394, 1982b: 1154.

pertusus (Wood) 1971: 53 (*Cnathophthorus*). Holotype ♀; 20 km SW El Vigía, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Bignoniaceae liana.

References: (tx) Wood, S. L. 1971: 53–54, 1975b: 394.

rallus (Wood) 1971: 53 (*Cnathophthorus*). Holotype ♀; Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Clematis* sp.

Notes: (1) Wood 1975b: 394 (to *Dacnophthorus*).

References: (tx) Wood, S. L. 1971: 53, 1975b: 394.

Genus *Pityotrichus* Wood

PITYOTRICHUS WOOD 1962: 76. Type-species: *Pityophilus barbatus* Blackman, automatic.

Pityophilus Blackman 1928b: 147. Type-species: *Pityophilus barbatus* Blackman, original designation, preoccupied by Brulle 1884.

References: (tx) Arnett 1960: 1045, 1965: 1045; Blackman 1928b: 8–16, 147–148; Chamberlin 1939: 345; Schedl 1938a: 159, 163, 165, 168; Wood, S. L. 1961: 48, 1962: 76, 1982b: 1140, 1986a: 98.

Keys: Bright 1971b: 68–69, Wood 1982b: 1141.

Notes: The species of this genus breed in the shaded-out, dying branches of living *Pinus* spp.

References: (hb) Wood, S. L. 1982b: 1140, 1986a: 98. (ds) Wood, S. L. 1982b: 1140, 1986a: 98. (tx) Bright 1971b: 68–69; Wood, S. L. 1962: 76, 1982b: 1140, 1986a: 98.

barbatus (Blackman) 1928b: 147 (*Pityophilus*).
Holotype ♀; Las Vegas H.S. [Hot Springs], New Mexico [USA]; USNM, Washington.

Distribution: North America (Arizona, New Mexico in USA).

Hosts: *Pinus edulis*, *P. cembroides*, uncommon in *P. ponderosa*.

Notes: (3) Blackman 1928b: 147–148 (*Pityophthorus edulis*, nomen nudum, synonymy), 1928b: 147–149 (*Pityophthorus nitidicollis*, nomen nudum, synonymy).

References: (hb) Chamberlin 1939: 345; Wood, S. L. 1952b: 1141. (ds) Chamberlin 1939: 345; Furniss, R. L. & Carolin 1977: 400; Keen 1929a: 34; Kleine 1934a: 163; Leng & Mutchler 1933: 52; Wood, S. L. 1952b: 1141. (tx) Blackman 1928b: 147–148; Bright 1971b: 68; Chamberlin 1939: 345; Keen 1929a: 34; de Ruette 1970: 107; Schedl 1935a: 162; Wood, S. L. 1952b: 1141.

hesperius Bright 1971b: 69. Holotype ♀; Pinaleno Mts., Graham County, Arizona [USA]; CNCI, Ottawa.

Distribution: North America (Arizona, New Mexico in USA).

Hosts: *Pinus flexilis*, *P. strobiformis*.

References: (ds) Furniss, R. L. & Carolin 1977: 401; Wood, S. L. 1952b: 1142. (tx) Bright 1971b: 69–70; McNamara 1977: 198; Wood, S. L. 1952b: 1142.

Genus *Gnatholeptus* Blackman

GNATHOLEPTUS BLACKMAN 1943b: 34. Type-species: *Gnatholeptus mandibularis* Blackman = *Pityophthorus shannoni* Blackman, original designation.

Keys: Wood 1952b: 1142.

Notes: (1) Bright 1951d: 16 (treated as a subgenus of *Pityophthorus*).

References: (ds) Wood, S. L. 1956a: 98. (tx) Blackman 1943b: 34; Bright 1951: 16; Wood, S. L. 1952b: 1142–1146, 1956a: 98.

panamensis Blackman 1943b: 35. Holotype ♀; Barro Colorado Island, Canal Zone, Panama; USNM, Washington.

Figures: Wood 1952b: 1144 (female head).

Distribution: North America (Costa Rica/Panama), South America (Suriname).

Hosts: *Protium* sp.

References: (ds) Blackman 1943b: 35; Bright 1951d: 19; Wood, S. L. 1952b: 1145. (tx) Blackman 1943b: 35; Bright 1951d: 19; Wood, S. L. 1979b: 134, 1952b: 1145.

epistomalis Schedl 1961i: 224 (*Pityophthorus*).
Holotype ♀; Barro Colorado Island, Canal Zone, Panama; Cornell University; Ithaca, New York. Synonymy: Wood 1979b: 134.

References: (tx) Bright 1977: 513; Schedl 1961i: 224; Wood, S. L. 1979b: 134, 1952b: 145.

semiermis (Nunberg) 1963c: 98 (*Pityophthorus*).

Holotype ♂; Finca La Lola, Limon, Costa Rica; University of Wisconsin Collection, Madison.

Figures: Nunberg 1963c: 102, Wood 1952b: 1144 (female head).

Distribution: North America (Costa Rica), South America (Colombia/ Suriname/ Venezuela).

Hosts: *Protium* cf. *copal*.

Notes: (1) Bright 1977: 513 (to *Gnatholeptus*).

References: (ds) Bright 1951d: 21; Estrada & Atkinson 1958: 212; Wood, S. L. 1952b: 1145. (tx) Bright 1977: 513, 1951d: 21; Nunberg 1963c: 98, 102; Wood, S. L. 1952b: 1145.

shannoni (Blackman) 1942a: 224 (*Pityophthorus*).

Holotype ♀; Cano Saddle at Gatun Lake, Panama; USNM, Washington.

Figures: Bright 1951d: 334, Wood 1952b: 1144 (female head).

Distribution: North America (Panama), South America (Colombia).

Hosts: *Protium* sp.

Notes: (1) Bright 1977: 513 (to *Gnatholeptus*).

References: (ds) Blackwelder 1947: 782; Bright 1951d: 20; Wood, S. L. 1952b: 1144. (tx) Blackman 1942a: 224; Bright 1977: 513, 1951d: 20, 334; Schedl 1961i: 226; Wood, S. L. 1979b: 134, 1952b: 1144.

mandibularis Blackman 1943b: 34. Holotype ♀; Barro Colorado Island, Canal Zone, Panama; USNM, Washington. Synonymy: Wood 1979b: 134.

References: (tx) Blackman 1943b: 34; Wood, S. L. 1979b: 134, 1952b: 1144.

gentilis Schedl 1961i: 225 (*Pityophthorus*).
Holotype ♂; Barro Colorado Island, Gatun Lake, Canal Zone, Panama; Cornell University Collection, Ithaca, New York. Synonymy: Bright 1977: 513, Wood 1979b: 134.

References: (tx) Bright 1977: 513; Schedl 1961i: 225, 1979c: 103; Wood, S. L. 1979b: 134, 1952b: 1144.

Genus *Pityodendron* Schedl

PITYODENDRON SCHEDL 1953d: 93. Type-species:

Pityodendron madagascariensis Schedl, monobasic.

References: (hb) Wood, S. L. 1956a: 98. (ds) Wood, S. L. 1956a: 98. (tx) Schedl 1953d: 93, 1964m: 307, 1977b: 106; Wood, S. L. 1956a: 98.

madagascariensis Schedl 1953d: 93. Lectotype, sex?; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 144.

Figures: Schedl 1977a: 105.

Distribution: Madagascar.

References: (tx) Schedl 1953d: 93, 1977b: 105–106, 1979c: 144.

Genus *Saurophtilius* Browne

SAUROPTILIUS BROWNE 1970: 558. Type-species: *Xyleborus sauropterus* Schedl, original designation.

References: (hb) Wood, S. L. 1986: 98. (ds) Wood, S. L. 1986a: 98. (tx) Browne 1970: 558–559; Schedl 1977b: 114; Wood, S. L. 1986a: 98.

sauropterus (Schedl) 1953d: 101 (*Xyleborus*). Holotype ♂; Madagascar, Sikora; Schedl Collection in NHMW, Wien.

Figures: Schedl 1977b: 113.

Distribution: Madagascar.

Hosts: *Maulontchia* sp.

References: (tx) Schedl 1953d: 101–102, 1970d: 558–559, 1977b: 113–114, 1979c: 220; Wood, S. L. 1986a: 98, 1989: 175.

sauropteroides Schedl 1970d: 237 (*Xyleborus*).

Holotype ♀; Madagascar, Bemampidy; MNHN, Paris. Synonymy: Wood 1989: 175.

References: (tx) Schedl 1970d: 234, 237, 1977b: 114, 1979c: 220; Wood, S. L. 1989: 175.

Genus *Phelloterus* Wood

PHELLOTERUS WOOD 1971: 46. Type-species: *Phelloterus tersus* Wood, original designation.

References: (hb) Wood, S. L. 1986a: 98. (ds) Wood, S. L. 1986a: 98. (tx) Wood, S. L. 1971: 46–47, 1986a: 98.

anaxeus Wood 1971: 47. Holotype ♂; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Couma macrocarpa*, *Eshweilera* sp., *Lecythia* sp., *Licania* sp., *Sacoglothia procera*.

References: (tx) McNamara 1977: 197; Wood, S. L. 1971: 47.

atrocis Wood 1971: 48. Holotype ♂; Campamento Capote, 27 km NE Montoya, Santander, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Eschweilera* sp., *Sacoglothia* sp.

References: (tx) Wood, S. L. 1971: 48.

tersus Wood 1971: 47. Holotype ♂; Colonia Tovar, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Eschweilera* sp.

References: (tx) Wood, S. L. 1971: 47, 1986a: 98.

Genus *Spermophthorus* Costa Lima

SPERMOPHTHORUS COSTA LIMA 1929: 111. Type-species: *Spermophthorus apuleiae* Costa Lima, monobasic.

References: (hb) Wood, S. L. 1986: 98. (ds) Wood, S. L. 1986: 98. (tx) Blackman 1942a: 178; Costa Lima 1929: 111–112; Schedl 1937l: 165, 1938a: 160, 168; Wood, S. L. 1982b: 963–965, 1986a: 98.

aberrans Wood 1965b: 11. Holotype ♂; 6 km S San Vito, Puntarenas, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: 3.5 x 4.5 cm gall found on forest floor.

References: (hb) Wood, S. L. 1982b: 964. (ds) Wood, S. L. 1982b: 964. (tx) Wood, S. L. 1968b: 11, 1982b: 964.

apuleiae Costa Lima 1929: 111. Syntypes ♂ ♀; Campos, Estado do Rio, Brasil; Inst. Oswaldo Cruz, Rio de Janeiro.

Distribution: South America (Argentina/ Brazil).

Hosts: *Apuleia forrea* seeds.

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Costa Lima 1936, 1956. (tx) Blackman 1942a: 203–204; Costa Lima 1929: 111, 1956; Schedl 1938a: 162, 1964m: 311; Wood, S. L. 1986a: 98.

vianai Schedl 1938i: 27 (*Conophthocranulus*).

Syntypes ♂ ♀; Argentinien, Prov. Salta; Viana Collection, and Schedl Collection in NHMW, Wien. Synonymy: Schedl 1964m: 311.

Notes: (1) Schedl 1979c: 267 (citation of holotype invalid).

References: (hb) Viana 1964: 125. (ds) Viana 1964: 125. (tx) Schedl 1938i: 27, 1939m: 169, 1964m: 311, 1979c: 267.

caesalpiniae Blackman 1942a: 203. Holotype ♀; Paraguay; USNM, Washington.

Distribution: South America (Brazil/ Paraguay).

Hosts: *Caesalpinia melanocarpa*.

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Costa Lima 1956. (tx) Blackman 1942a: 203; Costa Lima 1956.

Genus *Pseudopityophthorus* Swaine

PSEUDOPITYOPHTHORUS SWAINE 1918a: 93. Type-species: *Crypturgus minutissimus* Zimmermann, original designation.

Xenophthorus Wood & Yin 1986: 462. Type-species: *Pseudopityophthorus peregrinus* Wood & Yin, original designation. Used as a subgenus for this Asiatic species.

References: (tx) Wood, S. L. & Yin 1986: 462.

Keys: Swaine 1918a: 93, Blackman 1931a: 225, Wood 1982b: 966.

Notes: (3) Blackman 1931a and Wood 1982b: 965–982 (revision of genus).

References: (ay) Nobuchi 1969a: 67. (cn) Rexrode 1967: 755–757, 1969a: 448–449. (cc) Rexrode 1969a: 448–449. (hb) Anderson, R. F. 1960: 243; Bright & Stark 1973: 101; Cowlin 1956: 35–36; Griswold & Neiswander 1953: 205; Gruenfeld et al. 1956: 92–93; McGinnies 1955: 47; Orr 1955: 4, 7; Rexrode & Krause 1965: 1340–1341; Stambough 1955: 567–571; Whiteside 1957: 2, 20; Wood, S. L. 1982b: 965, 1986a: 98. (ds) Anderson, R. F. 1960: 243; Bright & Stark 1973: 101; Leng & Mutchler 1933: 95; Wood, S. L. 1982b: 965, 1986a: 98. (tx) Anderson, R. F.

- 1960: 243; Arnett 1960: 1045; Beal & Massey 1945: 60, 121; Blackman 1922b: 98–99, 1928b: 6–16, 1931a: 223–236, 1942a: 175; Bright 1976d: 176; Bright & Stark 1973: 101; Chamberlin 1939: 346–353; Dodge 1938: 19; Schedl 1938a: 158, 163, 168; Swaine 1918a: 93; Wood, S. L. 1961a: 48, 1967d: 37–57, 1982b: 965–982, 1986a: 98; Wood, S. L. & Yin 1986: 462.
- agrifoliae** Blackman 1931a: 230. Holotype ♂; Golden Gate Park, San Francisco, California [USA]; USNM, Washington.
Distribution: North America (S Arizona, California in USA).
Hosts: *Quercus agrifolia*, *Q. kelloggii*, *Q. wislizenii*, *Q. sp.*
References: (hb) Bright & Stark 1973: 101; Chamberlin 1939: 350; Wood, S. L. 1982b: 975. (ds) Atkinson & Equilua 1985: 100; Bright & Stark 1973: 101; Chamberlin 1939: 350; Leng & Mutchler 1933: 95; Wood, S. L. 1982b: 975. (tx) Blackman 1931a: 230; Chamberlin 1939: 350; Wood, S. L. 1967d: 42, 1982b: 975.
- asperulus** (LeConte) 1868: 155 (*Cryphalus*). Holotype ♂; Virginia [USA]; MCZ, Cambridge.
Figures: Blackman 1922b: pl. 1, fig. 4.
Distribution: North America (Connecticut, District of Columbia, Florida, Georgia, Illinois, Louisiana, Maine, Massachusetts, Mississippi, Missouri, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, E. Texas, West Virginia in USA).
Hosts: *Quercus nigra*, *Q. rubra*, *Q. velutina*, *Q. sp.*, rare and not persistent in *Betula populifera*, *Castanea dentata*, *Ostrya virginiana*.
Notes: (1) Blackman 1931a: 224 (to *Pseudopityophthorus*). (3) Blackman 1931a: 226 (re-described).
References: (bv) Atkinson, Foltz, & Connor 1988; Roling & Kearby 1975b, 1977. (cn) Blackman 1950; Doane et al. 1936; Felt 1906: 726; Packard 1890: 720; Roling & Kearby 1977. (ec) Roling & Kearby 1977; Steinhaus 1946: 404. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 256; Beal & Massey 1945: 124; Blackman 1950; Chamberlin 1939: 349; Chittenden 1890; Deyrup & Atkinson 1987a: 66; Doane et al. 1936; Hubbard 1897; Packard 1890: 720; Schwarz 1888a: 80; Wood, S. L. 1982b: 971. (ds) Atkinson et al. 1991: 163; Baker, W. L. 1972: 256; Beal & Massey 1945: 124; Blackman 1950; Blatchley & Leng 1916: 647; Bright 1976d: 177; Chamberlin 1939: 349; Chittenden 1890; Deyrup 1981b: 8, 1987a: 66; Dorsey & Leach 1955: 224; Drooz 1985: 363; Gemminger & Harold 1872: 2684, 2688; Hagedorn 1910d: 96; Henshaw 1885: 147; Hubbard & Schwarz 1878b: 626; Kleine 1913b: 145, 158, 1914b: 394, 1934a: 165; Leng 1920: 340; Schwarz 1886: 40, 1888a: 80; Swaine 1909: 108; Ulke 1902: 56; Weber, B. C. & McPherson 1991: 54; Wood, S. L. 1982b: 971. (tx) Beal & Massey 1945: 124; Blackman 1931a: 224–228, 1931b: 266; Blatchley & Leng 1916: 647; Bright 1976d: 177; Chamberlin 1939: 349; Eichhoff 1878b: 202; Hagedorn 1910a: 147; Hubbard & Schwarz 1878a: 666; LeConte 1868: 155, 1876: 350; Swaine 1909: 108, 1918a: 91–92; Wood, S. L. 1959b: 2, 1982b: 971. *gracilis* Blackman 1921: 6. Lectotype ♂; Natchez, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 971. Synonymy: Blackman 1931a: 228.
References: (hb) Blackman 1922b: 99–100. (ds) Blackman 1922b: 99–100; Henshaw 1882i: 268; Kleine 1934a: 162; Leng & Mutchler 1927: 52. (tx) Blackman 1921: 6–7, 1922b: 99–100, 1931a: 224–228.
- cincinnatus** (Blandford) 1904: 242 (*Pityophthorus*). Holotype ♀; Quiche Mts., Guatemala, 7–9000 ft.; BMNH, London.
Distribution: North America (Guatemala).
References: (ds) Hagedorn 1910d: 70; Kleine 1913b: 140; Wood, S. L. 1982b: 973. (tx) Blandford 1904: 242; Bright 1981d: 328; Hagedorn 1910a: 100; Schedl 1955g: 17; Wood, S. L. 1982b: 973.
- colombianus** Wood 1971: 51. Holotype ♂; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Quercus humboldtii*.
References: (tx) Wood, S. L. 1971: 51, 1982b: 966.
- comosus** Bright 1972c: 1670. Holotype ♂; Highway 131, 178 km S Oaxaca, Oaxaca, Mexico; CNCI, Ottawa.
Figures: Bright 1972c: 1669, 1675.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Quercus sp.*
References: (ds) Wood, S. L. 1982b: 978. (tx) Bright 1972c: 1669–1670; McNamara 1977: 198; Wood, S. L. 1982b: 978.
- declivis** Wood 1971: 50. Holotype ♀; Laguna Santa Maria, Nayarit, Mexico; Wood Collection.
Distribution: North America (Chiapas, Jalisco, Nayarit, Oaxaca in Mexico).
Hosts: *Quercus sp.*
References: (hb) Wood, S. L. 1982b: 969. (ds) Atkinson & Equilua 1985c: 358; Schedl 1977e: 42; Wood, S. L. 1982b: 969. (tx) Wood, S. L. 1971: 50, 1973c: 184, 1982b: 969.
- truncatus** Bright 1972c: 1673. Holotype ♂; 184 km S Oaxaca, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 184.
References: (tx) Bright 1972c: 1673–1675; McNamara 1977: 199; Wood, S. L. 1973c: 184.
- curtus** Bright 1972c: 1674. Holotype ♀; 13 km N Ocosingo, Chiapas, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 184.
References: (tx) Bright 1972c: 1674–1675; McNamara 1977: 199; Wood, S. L. 1973c: 184.

- denticulus** Wood 1977b: 216. Holotype ♀; Boot Springs, Big Bend National Park, Brewster Co., Texas [USA]; CNCI, Ottawa.
Distribution: North America (W Texas in USA).
Hosts: *Quercus* sp.
References: (hb) Atkinson et al. 1986: 41; Burgos & Saucedo 1983: 112. (ds) Atkinson & Equihua 1985c: 358; Atkinson et al. 1986: 41; Burgos & Saucedo 1983: 112; Wood, S. L. 1982b: 971. (tx) Wood, S. L. 1977b: 216, 1982b: 971.
- durangoensis** Wood 1987: 549. Holotype ♂; 96 km W Durango, Durango, Mexico; Wood Collection.
Distribution: North America (Durango in Mexico).
Hosts: *Quercus* sp.
References: (tx) Wood, S. L. 1987: 549.
- fagi** Blackman 1931a: 228. Holotype ♂; Morgantown, West Virginia [USA]; USNM, Washington.
Distribution: North America (Pennsylvania, West Virginia in USA).
Hosts: *Fagus grandifolia*.
References: (ec) Felt 1906: 702. (hb) Chamberlin 1939: 349; Felt 1906: 702. (ds) Chamberlin 1939; Leng & Mutchler 1933: 95; Smith, J. B. 1910: 401; Wood, S. L. 1982b: 975. (tx) Blackman 1931a: 225–229; Chamberlin 1939: 349; Wood, S. L. 1982b: 975.
- festivus** Wood 1974a: 55. Holotype ♂; 11 km NE Copala, Sinaloa, Mexico; Wood Collection.
Distribution: North America (Sinaloa in Mexico).
Hosts: *Quercus* sp.
References: (hb) Wood, S. L. 1982b: 980. (ds) Wood, S. L. 1982b: 980. (tx) Wood, S. L. 1974a: 55, 1982b: 980.
- granulatus** Blackman 1931a: 230. Holotype ♂; Prescott National Forest, Arizona [USA]; USNM, Washington.
Distribution: North America (Arizona in USA).
Hosts: *Quercus hypoleucoides*, *Q.* spp.
References: (hb) Chamberlin 1939: 350; Wood, S. L. 1982b: 970. (ds) Chamberlin 1939: 350; Leng & Mutchler 1933: 95; Wood, S. L. 1982b: 970. (tx) Blackman 1931a: 225, 227, 230; Chamberlin 1939: 350; Wood, S. L. 1967d: 42, 1982b: 970.
- granulifer** Wood 1967d: 42. Holotype ♀; Zamorano, Morazan, Honduras; Wood Collection.
Distribution: North America (Guatemala/ Honduras/ Chiapas in Mexico).
Hosts: *Quercus hondurensis*, *Q. sapotaefolia*.
References: (ec) Bright 1976a. (hb) Wood, S. L. 1982b: 970. (ds) Bright 1972c: 1679; Wood, S. L. 1982b: 970. (tx) Wood, S. L. 1967d: 42–43, 1982b: 970.
- hispidus** Eggers 1930a: 170. Holotype ♀; labeled "R.d.M. Mexico," published as Valle de Mexico, Mexico; MNB, Berlin.
Distribution: North America (Distrito Federal in Mexico).
References: (ds) Atkinson & Equihua 1985a: 90; Blackwelder 1947: 782; Ferrer 1942; Wood, S. L. 1982b: 968. (tx) Eggers 1930a: 170; Schedl 1940a: 348, 1979c: 118; Wood, S. L. 1982b: 968.
- hondurensis** Wood 1967d: 42. Holotype ♂; Buenos Aires, Cortes, Honduras; Wood Collection.
Figures: Bright 1972c: 1669.
Distribution: North America (Honduras/ Chiapas in Mexico).
Hosts: *Quercus* sp.
References: (hb) Wood, S. L. 1982b: 972. (ds) Wood, S. L. 1982b: 972. (tx) Wood, S. L. 1967d: 42, 1973c: 184, 1982b: 972.
- montanus** Bright 1972c: 1667. Holotype ♂; Mt. Tzontehuitz, Chiapas, Mexico; CNCI, Ottawa.
Synonymy: Wood 1973c: 184.
References: (tx) Bright 1972c: 1667, 1669; McNamara 1977: 199; Wood, S. L. 1973c: 184.
- limbatus** Eggers 1930a: 169. Holotype ♀; "R.d.M.," Mexico; Eggers Collection, in NHMW, Wien.
Figures: Atkinson et al. 1986: 43.
Distribution: North America (Distrito Federal, Durango, Hidalgo, Michoacan, Oaxaca, Tlaxcala in Mexico).
Hosts: *Quercus* sp.
References: (hb) Atkinson & Equihua 1985c: 358; Burgos & Saucedo 1983: 113; Wood, S. L. 1982b: 975. (ds) Atkinson & Equihua 1985a: 89, 1985c: 358, 1988: 100; Blackwelder 1947; Burgos & Saucedo 1983: 113; Ferrer 1942; Wood, S. L. 1982b: 975. (tx) Atkinson et al. 1986: 43; Eggers 1930a: 169; Schedl 1940a: 347, 1979c: 139; Wood, S. L. 1966b: 27, 1975b: 394, 1982b: 976.
- micans** Wood 1967d: 44. Holotype ♂; 96 km W Durango, Durango, Mexico; Wood Collection.
Synonymy: Wood 1975b: 394.
References: (hb) Thomas, J. B. 1967. (tx) de Ruelle 1970: 113; Thomas, J. B. 1967; Wood, S. L. 1967d: 44–45, 1973c: 184, 1975b: 394.
- minutissimus** (Zimmermann) 1868: 143 (*Crypturgus*). Lectotype ♂; Carolina [USA]; MCZ, Cambridge, designated by Wood 1982b: 976.
Figures: Blackman 1922b: pl. 9, fig. 45, Bright 1976d: 204, 213.
Distribution: North America (Arkansas, District of Columbia, Florida, Georgia, Illinois, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Virginia, West Virginia, Wisconsin in USA).
Hosts: *Quercus* spp., rare and apparently not persistent in *Amelanchier* sp., *Betula* sp., *Carpinus* sp., *Carya* sp., *Fagus* sp., *Hamamelis* sp.
Notes: (3) Blackman 1931a: 231 (redescribed).
References: (ay) Hopkins 1894g. (bv) Haack, R. A., Benjamin, & Haack 1983; Rexrode 1969: 306–313; Rexrode & Jones 1972; Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. (cn)

- Anonymous 1979d; Baker, W. L. 1972: 255; Blackman 1950; Buchanan 1956: 654, 1958a: 9, 1958b: 414–415, 1958c: 646; Clittenden 1898: 78; Currie 1905: 50; Doane et al. 1936; Felt 1905: 257, 295, 1906: 295, 1926: 247–248, 1930a: 272; Felt & Rankin 1932: 359; Fitch 1858; Hopkins 1894: 277, 1898a: 105, 1904a: 24; MacAloney & Ewan 1964; McGinnies 1957: 45–47; Packard 1890: 93, 221, 720; Rexrode & Jones 1971: 108–111; Roling & Kearby 1977; Walsh 1867: 103. (ec) Baker, W. L. 1972: 255; Berry & Bretz 1959: 66–67, 1966; Buchanan 1956: 654, 1958a: 9, 1958b: 414–415, 1958c: 646; Burks 1979: 791; Bushing 1965: 465; Clittenden 1901; Drooz 1985: 362; Griswold 1956: 560; Griswold & Bart 1954; Griswold & Neiswander 1953, 1954: 708; Haack, R. A., Benjamin, & Haack 1983; Marsh 1979: 150; Pierce, W. D. 1908: 385; Rexrode 1969, 1976; Rexrode & Jones 1971: 108–111, 1972; Rexrode, Jones, & Jones 1972; Rexrode & Krause 1968: 814–816; Roling & Kearby 1977; Singh 1977: 101; Thewke & Emms 1965: 215–219. (hb) Baker, W. L. 1972: 255; Beal & Massey 1945; Blackman 1922b: 99–100, 1950; Bright 1976d: 177; Buchanan 1956, 1958b; Chamberlin 1939: 350; Clittenden 1890; Deyrup & Atkinson 1987a: 66; Doane et al. 1936; Drooz 1985: 362; Felt 1906: 295, 1926: 247–248, 1930a: 272; Felt & Rankin 1932: 359; Fitch 1858; Haack, R. A., Benjamin, & Haack 1983; Hopkins 1894g, 1899a: 343, 1904a: 24; MacAloney & Ewan 1964; McMullen et al. 1955: 491; Packard 1890: 221, 720; Pierce, W. D. 1907: 290; Rexrode 1969; Rexrode & Jones 1972; Rexrode, Jones, & Jones 1972; Rexrode & Krause 1968a; Schwarz 1858a: 113; Swaine 1918a: 93–94; Wood, S. L. 1982b: 976. (ds) Anonymous 1926c: 518, 1979d; Atkinson et al. 1991: 163; Beal & Massey 1945; Beaulne 1956; Blackman 1922b: 99–100, 1950; Blandford 1895b; Blatchley & Leng 1916: 628; Bright 1976d: 177; Chamberlin 1939: 350; Clittenden 1890; Currie 1905; Deyrup 1981b: 8; Deyrup & Atkinson 1987a: 66; Dodge 1938; Drooz 1985: 362; Felt 1926: 247–248, 1930a: 247, 272; Felt & Rankin 1932: 359; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 72; Henshaw 1885: 147; Hopkins 1893a: 129, 149, 1893b: 208; Hubbard & Schwarz 1878a: 665; Kirk 1970; Kleine 1913b: 140, 1914b: 392, 1934a: 162; Leng 1920: 341; Leonard 1928: 518; Rexrode 1969; Rexrode & Jones 1972; Schwarz 1886: 40, 1888a: 113; Smith, J. B. 1900: 362 1910: 401; Swaine 1909: 139; Turnbow & Franklin 1980; Ulke 1902: 56; Weber, B. C. & McPherson 1991: 54; Wickham 1896c: 168; Wood, S. L. 1982b: 976. (tx) Beal & Massey 1945; Benoit 1985: 211; Blackman 1921: 6–7, 1922b: 99–100, 1928b: 148, 1931a: 224–232; Blandford 1895b; Blatchley & Leng 1916: 628; Bright 1976d: 204, 213; Chamberlin 1939: 350; Dodge 1938: 16, 41; Eichhoff 1878b: 200; Green 1918: 257; Hagedorn 1910a: 101; LeConte 1868: 154, 157, 1876: 351, 1878b: 665; Schedl 1938a: 158; Schwarz 1886: 40, 1888: 56, 113, 1891a: 168; Swaine 1909: 139–140, 1918a: 93–94; Wood, S. L. 1982b: 976; Zimmermann 1868: 143. (ms) Rexrode & Krause 1968a. (?) *pusillus* Harris 1837: 82 (*Tomicus*). Holotype, sex?, eastern U.S.; lost.
- Notes: (1) LeConte 1868: 143 (possible synonymy with *minutissimus*). The probability of this synonymy being correct is remote, but no alternative has been suggested. Because of this uncertainty, the name *minutissimus* is retained as the name for this species.
- References: (cn) Fitch 1858; Packard 1890: 717. (hb) Fitch 1858; Packard 1890: 717. (ds) Gemminger & Harold 1872: 2689; Leng 1920: 341; Melsheimer 1853: 87; Swaine 1909: 140. (tx) Blackman 1931a: 225; Blackman & Stage 1918: 55; Eichhoff 1878b: 200; Harris 1837: 82; LeConte 1868: 143, 1876: 351; Swaine 1909: 140.
- opacicollis** Blackman 1931a: 235. Holotype ♂; Santa Catalina Mts., Arizona [USA]; USNM, Washington.
- Figures: Bright 1972c: 1675.
- Distribution: North America (Chiapas, Durango, Hidalgo, Oaxaca, Tlaxcala in Mexico/S Arizona in USA).
- Hosts: *Quercus emoryi*, *Q.* spp.
- References: (hb) Atkinson et al. 1986: 42; Burgos & Saucedo 1983: 115; Chamberlin 1939: 353; Wood, S. L. 1982b: 980. (ds) Atkinson & Equihua 1985a: 89, 1985c: 359, 1988: 100; Atkinson et al. 1986: 42; Burgos & Saucedo 1983: 115; Chamberlin 1939: 353; Leng & Mutchler 1933: 95; Thomas, J. B. 1966. (tx) Blackman 1931a: 226–236; Chamberlin 1939: 353; Wood, S. L. 1959b: 1, 1967d: 44, 1973c: 185, 1982b: 980.
- aesculimus** Bright 1972c: 1672. Holotype ♀; 112 km N Oaxaca, Oaxaca, Mexico; CNCI, Ottawa.
- Synonymy: Wood 1973c: 185.
- References: (tx) Bright 1972c: 1672, 1675; McNamara 1977: 198; Wood, S. L. 1973c: 185.
- peregrinus** Wood & Yin 1986: 462. Holotype ♀; Zayu, Xizang (Tibet), China; IZAS, Beijing.
- Distribution: Asia (Xizang [Tibet] in China).
- Hosts: *Quercus* sp.
- Notes: (1) This species is in the subgenus *Xenophthorus*.
- References: (tx) Wood, S. L. & Yin 1986: 462.
- primosus** (Eichhoff) 1878b: 198 (*Pityophthorus*). Lectotype ♂; published as "Carolina," labeled "Am. bor., No. 11" [USA]; USNM, Washington, designated by Wood 1982b: 979.
- Figures: Blackman 1922b: pl. 9, fig. 46, Bright 1972c: 1675.
- Distribution: North America (Guatemala/ Honduras/ Durango, Michoacan, Oaxaca, Sinaloa, Veracruz in Mexico/ Alabama, Arizona, Arkansas,

District of Columbia, Florida, Georgia, Louisiana, Maryland, Michigan, Mississippi, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA).

Hosts: *Quercus hondurensis*, *Q. hypoleucoides*, *Q. marylandica*, *Q. nigra*, *Q. sapotaefolia*, *Q. spp.*

Notes: (3) Blackman 1931a: 232 (re-described).
References: (bv) Rexrode 1969; Rexrode & Jones 1972; Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. (cn) Anonymous 1971e; Blackman 1950; Chamberlin 1924; Doane et al. 1936; Dorsey et al. 1953: 419–420; Griswold 1955: 23–24; Hopkins 1903: 318; Rexrode & Jones 1971; Rexrode, Kulman, & Dorsey 1965; Roling & Kearby 1977; Swaine 1918a: 94. (cc) Burks 1979: 556; Bushing 1965: 465; Funk, D. W., Brooks, & Butler 1973; Griswold 1955: 23–24; Griswold & Bart 1954: 591; Griswold & Neiswander 1953: 208, 1954; Jewell 1956: 255; Marsh 1979: 150; Poinar 1975: 167; Rexrode 1969, 1976; Rexrode & Jones 1971, 1972; Rexrode, Jones, & Jones 1972; Rexrode, Kulman, & Dorsey 1965; Roling & Kearby 1977; Singh 1977: 101; Stambaugh et al. 1955: 867. (hb) Atkinson et al. 1986: 42; Baker, W. L. 1972: 256; Beal & Massey 1945: 122; Blackman 1922b: 99–100, 1950; Bright 1976d: 178; Burgos & Saucedo 1983: 113; Chamberlin 1939: 351; Doane et al. 1936; Hopkins 1904b: 314; Ostmark 1968; Rexrode 1969; Rexrode & Jones 1972; Rexrode, Jones, & Jones 1972; Rexrode & Krause 1968a; Rexrode, Kulman, & Dorsey 1965; Swaine 1918a: 94; Wood, S. L. 1982b: 979. (ds) Anonymous 1926c: 518; Atkinson & Equihua 1985c: 358; Atkinson et al. 1986: 42, 1991: 163; Baker, W. L. 1972: 256; Beal & Massey 1945: 122; Blackman 1922b: 99–100, 1950; Blatchley & Leng 1916: 629; Bright 1976d: 178; Burgos & Saucedo 1983: 113; Chamberlin 1939: 351; Deyrup 1981b: 8; Dorsey & Leach 1956: 220; Hagedorn 1910d: 73; Kirk 1969, 1970; Kleine 1913b: 140, 1914b: 384, 1934a: 162; Leng 1920: 341; Leonard 1928: 518; Norris 1955: 252; Ostmark 1968; Rexrode 1969; Rexrode & Jones 1972; Swaine 1909: 137; Turnbow & Franklin 1980; Wood, S. L. 1982b: 979. (tx) Beal & Massey 1945: 122; Blackman 1922b: 99–100, 1925b: 148, 1931a: 224–233; Blatchley & Leng 1916: 629; Bright 1976d: 178; Chamberlin 1939: 351; Drooz 1985: 363; Eichhoff 1878a: 390, 1878b: 198, 1896: 609–610; Hagedorn 1910a: 101; Schedl 1938a: 155; Swaine 1909: 137, 1918a: 93–94; Wood, S. L. 1973c: 185, 1982b: 979. (ms) Rexrode & Krause 1968a.

tomentosus Eichhoff 1878b: 201 (*Pityophthorus*).
Holotype, sex?; America borealis [USA]; Hamburg Museum, lost. Synonymy: Blackman 1931a: 225.

References: (ds) Blatchley & Leng 1916: 630; Hagedorn 1910d: 7; Kleine 1913b: 140; Leng 1920: 341; Swaine 1909: 140. (tx) Blackman

1925b: 148, 1931: 224–233; Blatchley & Leng 1916: 630; Eichhoff 1878a: 390, 1878b: 201; Hagedorn 1910a: 101; Swaine 1909: 140.

querciperda Schwarz 1888a: 56 (*Pityophthorus*).
Syntypes, sex?; New York to Florida [USA]; USNM, Washington. Synonymy: Eichhoff 1896: 609.

References: (cn) Packard 1890: 93. (cc) Felt 1906: 702. (hb) Chittenden 1890; Felt 1906: 702; Packard 1890: 93; Pierce, W. D. 1907: 291; Schwarz 1888a: 56. (ds) Chittenden 1890; Henshaw 1887: 8, 1895: 44; Leng 1920: 341; Schwarz 1888a: 56; Smith, J. B. 1900: 362, 1910: 401; Swaine 1909: 137. (tx) Blackman 1931a: 224–231; Eichhoff 1896: 609–610; Schwarz 1888a: 56; Swaine 1909: 137, 1918: 94.

pulvereus Blackman 1931a: 232. Holotype ♂; Chiricahua Reserve, Arizona [USA]; USNM, Washington. Synonymy: Wood 1973c: 185.

References: (hb) Bright & Stark 1973: 102; Chamberlin 1939: 351. (ds) Bright & Stark 1973: 102; Chamberlin 1939: 351; Leng & Mutchler 1933: 95; Wood, S. L. 1960b: 69. (tx) Blackman 1931a: 232; Chamberlin 1939: 351; Wood, S. L. 1959b: 1; 1967d: 43, 1973c: 185.

tropicalis Wood 1967d: 43. Holotype ♂; Zamorano, Morazan, Honduras; Wood Collection. Synonymy: Wood 1967d: 43–44, 1973c: 185.

References: (tx) McNamara 1977: 199; Wood, S. L. 1967d: 43, 1973c: 185.

contexus Bright 1972c: 1672. Holotype ♂; 184 km S Oaxaca, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 185.

References: (tx) Bright 1972c: 1672, 1675; McNamara 1977: 199; Wood, S. L. 1973c: 185.

pubescens Blackman 1931a: 229. Holotype ♂; Tryon, North Carolina [USA]; USNM, Washington. Distribution: North America (Maryland, North Carolina, Oklahoma, Virginia in USA).

Hosts: *Quercus alba*, *Q. borealis*, *Q. rubra*, one record from *Castanea dentata*.

References: (bv) Turnbow & Franklin 1980. (cn) Hopkins 1904a: 16. (hb) Baker, W. L. 1972: 256; Beal & Massey 1945. (ds) Atkinson et al. 1991: 163; Baker, W. L. 1972: 256; Beal & Massey 1945; Chamberlin 1939: 349; Drooz 1985: 363; Leng & Mutchler 1933: 95; Rexrode 1969: 307; Turnbow & Franklin 1980; Wood, S. L. 1982b: 974. (tx) Beal & Massey 1945; Blackman 1931a: 229; Chamberlin 1939: 349; McNamara 1984: 759; Wood, S. L. 1982b: 974.

pubipennis (LeConte) 1860: 59 (*Bostrichus*).
Lectotype ♀; San Jose, California [USA]; MCZ, Cambridge, designated by Wood 1982b: 981.

Figures: Bright 1973: 161.

Distribution: North America (California, Oregon in USA).

Hosts: *Quercus agrifolia*, *Q. garryana*, *Q. kelloggii*.

Notes: (1) Swaine 1915a: 93 (to *Pseudopityophthorus*). (3) Blackman 1931a: 234 (re-described).

References: (cn) Anonymous 1960q, 1961p, 1963q, 1964m, 1964n, 1965b, 1965f; Currie 1905: 71; Doane et al. 1936; Essig 1926: 519, 1958: 519; Herbert 1936: 41; Hopkins 1904a: 16; Keen 1938: 132, 1952c: 169; Packard 1890: 93; Swaine 1915a: 93. (cc) Bushing 1965: 203; Keen 1938: 132; Marsh 1979: 15. (hb) Bright 1976d: 179; Bright & Stark 1973: 102; Chamberlin 1939: 352, 1958: Chittenden 1890; Doane et al. 1936; Essig 1926: 519, 1958: 519; Hopkins 1904a: 16; Keen 1938: 132, 1952c: 169; Packard 1890: 93; Pierce, W. D. 1907: 290; Swaine 1915a: 93. (ds) Anonymous 1961p, 1965b, 1965f; Blackwelder 1947: 782; Blandford 1904; Bright 1976d: 179; Bright & Stark 1973: 102; Chamberlin 1917: 354, 1939: 352, 1958; Chittenden 1890; Currie 1905: 71; Essig 1926: 519, 1958: 519; Furniss, R. L. & Carolin 1977: 402; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 74; Henshaw 1882: 268, 1885: 147; Keen 1929a: 34, 1938: 132, 1949a: 93, 1952c: 169; Kleine 1913b: 140, 1914b: 391, 1934a: 162; Lacordaire 1866: 353; Leng 1920: 341; Patterson & Hatch 1945: 152; Wood, S. L. 1972a: 634, 1982b: 951. (tx) Benoit 1986: 36; Blackman 1928b: 148, 1931a: 224–235; Blandford 1904: 243; Bright & Stark 1973: 161, 1976d: 179; Chamberlin 1939: 352, 1958; Eggers 1930a: 159; Eichhoff 1878b: 197; Ferrari 1867: 17; Hagedorn 1910a: 101; Keen 1929a: 34; Lacordaire 1866: 353; LeConte 1857: 22, 59, 1860: 59, 1865: 156, 1876: 351; Schedl 1935a: 158; Swaine 1909: 137–138, 1915a: 93; Wood, S. L. 1972a: 425, 1982b: 951.

singularis Wood 1971: 50. Holotype ♂; 1 km W Las Vigas, Veracruz, Mexico; Wood Collection.
Distribution: North America (Chiapas, Veracruz in Mexico).

Hosts: *Quercus* sp.

References: (ds) Atkinson & Equihua 1955c: 358; Wood, S. L. 1982b: 973. (tx) Wood, S. L. 1971: 50, 1973c: 185, 1982b: 973.

acuminatus Bright 1972c: 1671. Holotype ♂; 13 km NE San Cristobal de las Casas, Chiapas, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 185.

References: (tx) Bright 1972c: 1669–1671; McNamara 1977: 198; Wood, S. L. 1973c: 185.

squamosus Bright 1972c: 1670. Holotype ♀; 14 km W La Ciudad, Durango, Mexico; CNCI, Ottawa.
Figures: Bright 1972c: 1669.

Distribution: North America (Durango, Sinaloa in Mexico).

Hosts: *Quercus* sp.

References: (ds) Atkinson & Equihua 1955c: 358; Wood, S. L. 1982b: 978. (tx) Bright 1972c: 1669–1670; McNamara 1977: 199; Wood, S. L. 1973c: 184, 1982b: 978.

tenuis Wood 1959b: 1. Holotype ♂; 15 km NE Jacala, Hidalgo, Mexico; SMUK, Lawrence.

Figures: Bright 1972c: 1669.

Distribution: North America (Chiapas, Hidalgo, Veracruz in Mexico).

Hosts: *Quercus* sp.

References: (hb) Wood, S. L. 1982b: 974. (ds) Bright 1972c: 1679; Thomas, J. B. 1966; Wood, S. L. 1982b: 974. (tx) Wood, S. L. 1959b: 1–2, 1973c: 185, 1982b: 974.

hirsutus Bright 1972c: 1665. Holotype ♂; 5 km SE Teopisca, Chiapas, Mexico; CNCI, Ottawa.
Synonymy: Wood 1973c: 185.

References: (tx) Bright 1972c: 1668–1669; McNamara 1977: 199; Wood, S. L. 1973c: 185.

virilis Wood 1971: 50. Holotype ♂; 1 km W Las Vigas, Veracruz, Mexico; Wood Collection.

Distribution: North America (Hidalgo, Veracruz in Mexico).

Hosts: *Quercus* sp.

References: (hb) Wood, S. L. 1982b: 971. (ds) Atkinson & Equihua 1955c: 358; Wood, S. L. 1982b: 971. (tx) Wood, S. L. 1971: 50, 1982b: 971.

xalapae Wood 1957: 549. Holotype ♂; Xalapa, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: Presumably from *Quercus* sp.

References: (tx) Wood, S. L. 1957: 549.

yavapaii Blackman 1931a: 233. Holotype ♂; Prescott National Forest, Arizona [USA]; USNM, Washington.

Distribution: North America (Chihuahua in Mexico/ Arizona, W Texas in USA).

Hosts: *Quercus griseus*, *Q. lyallii*, *Q. spp.*
References: (hb) Chamberlin 1939: 352; Wood, S. L. 1982b: 982. (ds) Atkinson et al. 1991: 163; Chamberlin 1939: 352; Furniss, R. L. & Carolin 1977: 403; Leng & Mntchler 1933: 95; Wood, S. L. 1960b: 69, 1982b: 982. (tx) Blackman 1931a: 233; Chamberlin 1939: 352; Wood, S. L. 1959b: 1, 1960b: 69, 1982b: 982.

Genus *Pityophthorus* Eichhoff

PITYOPHTHORUS EICHHOFF 1864b: 39. Type-species: *Bostrichus lichtensteini* Ratzelburg, subsequent designation by Hopkins 1914: 127.

Trigonogenius Hagedorn 1912c: 354. Type-species: *Trigonogenius fallax* Hagedorn, monobasic, preoccupied by Solier 1849. Synonymy: Schedl 1952d: 347.

References: (tx) Hagedorn 1912c: 354; Lucas 1920: 683; Schedl 1952d: 347.

Hagedornius Lucas 1920: 683. Type-species: *Trigonogenius fallax* Hagedorn, automatic. Synonymy: Schedl 1952d: 347.

References: (tx) Lucas 1920: 683; Schedl 1952d: 347.

Mycloborus Blackman 1928b: 16. Type-species:

- Pityophthorus ramiperda* Swaine, original designation. Synonymy: Bright 1977: 511.
References: (tx) Arnett 1960: 1040, 1045, 1968: 1040, 1045; Blackman 1928b: 3–16, 1942a: 178, 199; Bright 1977: 511, 1978: 167; Bright & Stark 1973: 96; Chamberlin 1939: 335–343, 1958: 143; Craighead 1950: 331; Dodge 1938: 15, 41; Furniss & Carolin 1977: 398; Murayama 1963: 390; Sawamoto 1942: 166; Schedl 1935h: 342, 1937h: 165, 1938a: 159–167, 1959r: 42, 1964m: 311; Wood, S. L. 1961a: 47, 1972a: 424.
- Gnathophorus* Schedl 1935h: 342. Type-species: *Gnathophorus sparsepilosus* Schedl, preoccupied by Kirby 1837. Synonymy: Wood 1975b: 391.
References: (tx) Schedl 1935h: 342; Wood, S. L. 1962: 76, 1975b: 391.
- Couophthocranulus* Schedl 1935h: 343. Type-species: *Conophthocranulus blackman* Schedl, monobasic. Synonymy: Wood 1982b: 963.
References: (tx) Schedl 1935h: 343, 1937h: 165, 1938a: 160–168, 1950i: 146, 1955e: 258; Wood, S. L. 1982b: 963.
- Breviophthorus* Schedl 1938a: 176. Type-species: *Breviophthorus brasiliensis* Schedl, monobasic. Synonymy: Wood 1984b: 227.
References: (tx) Schedl 1938a: 160, 166, 176–177, 1958f: 33–46, 1959m: 545–557; Wood, S. L. 1984b: 227.
- Pityophthoroides* Blackman 1942a: 199. Type-species: *Pityophthoroides pudens* Blackman, original designation. Synonymy: Wood 1977b: 207.
References: (tx) Blackman 1942a: 178, 199; Schedl 1964m: 311; Wood, S. L. 1977b: 207.
- Cladoborus* Sawamoto 1942: 165. Type-species: *Cladoborus arakii* Sawamoto, monobasic. Synonymy: Bright 1977d: 511.
References: (tx) Bright 1977d: 511; Murayama 1963c: 390; Sawamoto 1942: 165–167; Schedl 1959r: 421.
- Neomips* Schedl 1954b: 37. Type-species: *Neomips brasiliensis* Schedl = *Pityophthorus dimorphus* Schedl, monobasic. Synonymy: Wood 1984b: 227.
References: (tx) Schedl 1954b: 37; Wood, S. L. 1984b: 227.
- Ctenyophthorus* Schedl 1955g: 26. Type-species: *Ctenyophthorus glabratus* Schedl, monobasic. Synonymy: Bright 1977d: 511.
References: Bright 1977d: 511; Schedl 1955g: 26, 1963a: 162, 1964m: 311; Scherdtfeger 1957: 494–508.
- Gnathophthorus* Wood 1962: 76. Type-species: *Gnathophthorus sparsepilosus* Schedl, automatic. Synonymy: Wood 1975b: 391.
References: (tx) Wood, S. L. 1962: 76, 1975b: 391.
- Hypopythorus* Bright 1981d: 14. Type-species: *Pityophthorus inops* Wood, original designation. Synonymy: Wood 1983a: 648.
References: (tx) Bright 1981d: 14; Wood, S. L. 1983a: 648.
- Keys: Blackman 1928b for Canada and USA, Bright 1981d and Wood 1982b: 991 for North and Central America, Blandford 1904: 235 for Mexico and Central America, Pfeffer 1976: 334 for Europe and part of Asia, Yin, Huang, & Li 1984: 119 for China.
References: (ay) Fuchs 1912: 14–33; Nobuchi 1969a: 67; Van Ryn-Toumel 1975. (bv) Chow et al. 1988; Schedl 1960f: 11. (cn) Bess 1944: 14–16; Blackman 1950: 295–330; Caesar 1910: 17; Felt 1906: 372–373, 1924: 272; Furniss, R. L. & Carolin 1977: 401; Haddow & Newman 1942: 1–17; Harper & Lockwood 1959: 116–128; Keen 1928: 53–54; Kondo & Taylor 1985: 42; Parr 1943: 419; Schultz & Kliejumas 1951; Zivojinovic 1948: 65–73; Zolk 1935: 258–294. (cc) Ashraf & Barryman 1969: 13; Balazy & Michalski 1964a; McCain, Koehler, & Tjosvold 1987; Nickle 1976b; Tomalak, Welch, & Garroway 1989b. (hb) Bright 1981d; Bright & Stark 1973: 103; Escherich 1923: 446, 476–477, 555, 619; Fisher 1937: 118; Formanek 1907: 33, 37–38; Judeich & Nitsche 1895: 448, 451; Karpinski 1933: 290–302; Keen 1933: 297, 1953: 37, 154; Lengerken 1939: 68, 75–76; Lloyd 1908: 124; Lugger 1899: 299; Lyons 1946: 7–8, 43, 63; Rice 1968: 53–56; Schedl 1962j: 1, 1977b: 106; Scheidter 1934; Scherdtfeger 1957: 494; Trappen 1935: 143; Wichmann 1927: 348, 362, 374; Wood, D. L. & Stark 1968: 147; Wood, S. L. 1982b: 991, 1986a: 95. (ds) Beeson 1941: 364, 366, 379; Bertolini 1872: 201; Blackwelder 1947: 781; Bright 1981d, 1982a: 127; Bright & Stark 1973: 103; Chamberlin 1917: 353–356, 1918: 15; Duffy 1953: 9, 14; Fowler 1882: 262; Hagedorn 1910d: 69–75; Jacobson 1927: 463–478; Kostin 1973: 261; Leng 1920: 341; Luigioni 1929: 1000; Martin 1965: 40–43; Pfeffer 1976: 324, 1989a: 62; Rio Mora 1985; Rohwer 1917: 151–176; Schedl 1934f: 1643, 1960f: 11, 34, 1962j: 7, 1966b: 41, 1981b: 76; Scheerpeltz & Winkler 1930: 258; Scherdlin 1914: 255, 1920: 206; Schilsky 1885: 121; Schwarz 1885: 40; Swaine 1909: 82, 133–134; Tredl 1907: 14; Van Dyke 1922: 180; Westhoff 1882: 238; Wood, S. L. 1982b: 991, 1986a: 98. (tx) Arnett 1960: 1040, 1045, 1968: 1040, 1045; Baker, W. L. 1972: 254; Balachowsky 1949a: 232; Barbey 1901: 74; Beal & Massey 1945: 125, 135; Bedel 1885b: 396, 398; Blackman 1922b: 77, 100–102, 1928b: 1–183, 1932: 264–265, 1942a: 177, 1943: 24; Blandford 1891: 15–16, 1894b: 260, 1894d: 55, 57, 1895b: 81, 84–86, 1897a: 183–184, 1904: 231–237; Blatchley & Leng 1916: 627–628; Bright 1968c: 604–608, 1972d: 86–87, 1976d: 179, 1977: 511, 1978, 1981d: 1–377; Bright & Stark 1973: 103;

- Chamberlin 1939: 353–402, 1955: 146–148; Choo 1983: 75; Choo, Woo, & Nobuchi 1988b; Costa Lima 1929: 111–112; Dodge 1938: 15, 19, 42–43; Eggers 1914: 183, 1937: 80, 1940a: 123–141, 1940b: 99–108; Eichhoff 1864: 39, 1872b: 137, 1878b: 35, 47, 49, 173, 476, 1881a: 49, 192, 1883a: 107, 110; Ferrari 1867a: 32–35, 1867b: 114; Feytaud 1950: 9; Hagedorn 1906: 116, 1907: 260, 1909: 135, 1910a: 88–89, 99–101, 1912: 354, 1913a: 29, 1913b: 253; Hopkins 1914: 127, 134, 1915c: 173–226; Hopping 1922: 128–134; Keen 1958: 95, 159–164; Krivolutskaia 1958: 163; Kurenzov 1941: 71, 180; Lacordaire 1866: 373, 381–382; LeConte 1876: 347, 349–352; LeConte & Horn 1883: 517; Lekander 1962: 431; Lindemann 1876: 148–168, 345; Murayama 1953: 11, 1957: 590, 1963c: 375; Niisima 1911: 1, 1917: 1; Numberg 1954: 6, 11, 68; Nusslin 1898: 281, 1911, 1912; Pfeffer 1940: 107–127, 1946: 113, 1962: 240, 244, 1976: 324; Redtenbacher 1874: 379; Reitter 1869: 154, 1894: 68, 75–76, 1906: 711, 1913a: 92, 1916: 297; Rio Mora 1985: Saalas 1914: 74, 86; Sawamoto 1942: 166; Schedl 1930: 195–199, 1931: 163–168, 1935j: 342–343, 1936h: 59, 1938a: 158–183, 1940a: 348, 1951m: 114, 1952d: 347, 1954b: 37, 1955g: 4, 1956a: 31, 1957d: 77, 1958d: 187–193, 1958k: 144, 1959m: 545, 557, 1960i: 106, 1961i: 224, 1962j: 104, 1963h: 264–265, 1964m: 310–311, 1965f: 3–15, 1969e: 157, 1970e: 93, 1977b: 106, 1981b: 76; Schimitschek 1937: 50–55; Sedlaczek 1935: 155, 157; Spessivtsev 1922: 487, 1929: 297–303, 1931: 89; Stark 1952: 340–349; Stebbing 1914: 551; Swaine 1909: 133–134, 1913: 41–43, 87–92, 1918a: 46, 94; Stresemann et al. 1989: 351; Wachtl 1876: 460; Watson 1928: 629; Wood, S. L. 1961a: 45, 1967d: 37–57, 1972a: 435, 1975b: 391, 1977b: 207, 1982b: 991–1140, 1986a: 95.
- abbreviatus** Schedl 1972g: 63. Holotype ♂?; Brasil, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 63.
- abiagnus** Wood 1964: 67. Holotype ♀; 7 km W Rio Frio, Mexico, Mexico; Wood Collection.
Distribution: North America (Jalisco, Mexico, Oaxaca, Puebla, Tlaxcala in Mexico).
Hosts: *Abies religiosa* limbs.
References: (hb) Atkinson et al. 1986: 36; Burgos & Saucedo 1983: 121; Wood, S. L. 1982b: 1097. (ds) Atkinson & Equihua 1985a: 94; Atkinson et al. 1986: 36; Bright 1981d: 165; Burgos & Saucedo 1983: 121; Wood, S. L. 1964: 67, 1982b: 1097. (tx) Bright 1981d: 165; Schedl 1979c: 8; Wood, S. L. 1964: 67.
- abietinus** Wood 1989: 175. Lectotype, sex?, S Coast (Primorsky) Region, Voroshilovsk district; ISBN, Novosibirsk, designated by Michalsky 1969a: 895, automatic.
Distribution: Asia (E USSR).
Hosts: *Abies holophila*.
References: (tx) Wood, S. L. 1989: 178–179.
- abietis** Kurenzov 1941: 179, 234. Lectotype, sex?, S Coast (Primorsky) Region, Voroshilovsk district; ISBN, Novosibirsk, designated by Michalsky 1969a: 895, preoccupied by Blackman 1928.
References: (hb) Karpinski 1949: 129; Krivolutskaia 1956: 838; Kurenzov 1948b: 102, 1950d: 228; Stark 1952: 357. (ds) Kleine 1934a: 155; Krivolutskaia 1956: 838; Pfeffer 1976: 340; Stark 1952: 357. (tx) Krivolutskaia 1956: 838; Kurenzov 1941a: 179, 234, 1948b: 102, 1956: 118; Michalski 1969a: 895; Numberg 1956: 208; Pfeffer 1976: 340; Stark 1952: 357; Wood, S. L. 1989: 179.
- sibiricus** Numberg 1956: 208. Lectotype, sex?, S Coast (Primorsky) Region, Voroshilovsk district; ISBN, Novosibirsk, designated by Michalsky 1969a: 895, automatic, preoccupied by Stark 1952.
References: (ds) Krivolutskaia 1958; Yanovskii & Tegshzhargal 1955: 410. (tx) Michalski 1969b: 569; Numberg 1956: 208; Wood, S. L. 1989: 179.
- abulus** Bright 1985b: 476. Holotype ♀; Mexico: Pachuca, Edo. Hgo; CNCI, Ottawa.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Zexmenia* sp.
References: (tx) Bright 1985b: 476.
- abnormalis** Bright 1972d: 58. Holotype ♀; Duncans, Trelawny Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 19, 59.
Distribution: Antilles Islands (Jamaica).
References: (ds) Bright 1985c: 176. (tx) Bright 1972d: 19, 59, 88, 1985c: 176; McNamara 1977: 197.
- absonus** Blackman 1928b: 35. Holotype ♀; Mineral King, California [USA]; USNM, Washington.
Figures: Bright 1981d: 362.
Distribution: North America (Alberta, British Columbia in Canada/ California, Colorado, Montana, Nevada, New Mexico, Utah in USA).
Hosts: *Abies lasiocarpa*, *Pinus albicaulis*, *P. aristata*, *P. balfouriana*, *P. contorta*, *P. flexilis*, *P. monticola*.
References: (cc) Stephen & Dahlsten 1976b: 292. (hb) Bright & Stark 1973: 107; Chamberlin 1939: 357. (ds) Bright 1981d: 230; Bright & Stark 1982b: 1037; Chamberlin 1939: 357; Evans, D. 1983: 34; Furniss, M. M. & Johnson 1987: 377; Gast et al. 1989: 385; Keen 1929a: 32; Kleine 1934a: 158; Leng & Mutchler 1933: 52. (tx) Blackman 1928b: 35; Bright 1977: 513, 1981d: 230, 362; Chamberlin 1939: 357; Evans, D. 1983: 34; Keen 1929a: 32; Wood, S. L. 1982b: 1037.
- demissus** Blackman 1928b: 74. Holotype ♀; Glacier National Park, Montana [USA]; USNM, Washington. Synonymy: Bright 1977: 513.

References: **(hb)** Chamberlin 1939: 377, 1958; **(ds)** Chamberlin 1939: 377, 1958; Keen 1929a: 32; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1948: 52, 1951a: 128, 1972a: 425. **(tx)** Blackman 1928b: 74; Bright 1977: 513; Chamberlin 1939: 377, 1958: 152; Keen 1929a: 32; Wood, S. L. 1972a: 425.

inyoensis Bright 1971b: 65. Holotype ♀; 2 km S Onion Valley, Inyo Co., California [USA]; CNCI, Ottawa. Synonymy: Bright 1977: 513. References: **(hb)** Bright & Stark 1973: 110. **(ds)** Bright & Stark 1973: 110. **(tx)** Bright 1971b: 65–66, 1977: 513; McNamara 1977: 195.

abstrusus Bright 1976c: 427. Holotype ♀; 40 km W Orizaba, Veracruz, Mexico; CNCI, Ottawa. Distribution: North America (Durango, Veracruz in Mexico).

Hosts: *Pinus ayacahuite*, *P.* sp.

References: **(ds)** Bright 1981d: 232; Wood, S. L. 1982b: 1034. **(tx)** Bright 1976c: 427, 1981d: 232; McNamara 1984: 754; Wood, S. L. 1982b: 1034.

aciculatus Bright 1977: 519. Holotype ♀; San Cristobal, Huehuetenango, Guatemala; Wood Collection.

Figures: Bright 1981d: 347.

Distribution: North America (Guatemala/ Mexico in Mexico).

Hosts: *Pinus leiophylla*, *P. pseudostrobus*.

References: **(hb)** Atkinson et al. 1986: 36; Burgos & Saucedo 1983: 117. **(ds)** Atkinson & Equihua 1985a: 94, 1988: 94; Atkinson et al. 1986: 36; Bright 1981d: 139; Burgos & Saucedo 1983: 117; Wood, S. L. 1982b: 1049. **(tx)** Bright 1977: 519, 1981d: 139, 347; McNamara 1984: 754; Wood, S. L. 1982b: 1049.

acuminatus (Schedl) 1940a: 346 (*Neopityophthorus*). Syntypes ♀; Tuxtepec, Oaxaca and Finca la Florida, Chiapas, Mexico; Schedl Collection in NHMW, Wien, and Dampf Collection.

Distribution: North America (Honduras/ Campeche, Chiapas, Oaxaca, Tabasco in Mexico).

Hosts: Log phloem.

Notes: (1) Bright 1981d: 18 (to *Pityophthorus*).

References: **(ds)** Estrada & Atkinson 1988: 212; Wood, S. L. 1982b: 1134. **(tx)** Bright 1981d: 18; Schedl 1940a: 346–347, 1979c: 11; Wood, S. L. 1982b: 1134.

acutus Blackman 1928b: 134. Holotype ♀; Kaibab N.F., Arizona [USA]; USNM, Washington.

Figures: Bright 1981d: 373.

Distribution: North America (Arizona, Colorado, New Mexico, Utah in USA).

Hosts: *Pinus flexilis*, *P. leiophylla*, *P. ponderosae*, *P. strobiformis*, rare in *Pseudotsuga menziesii*.

References: **(cn)** Blackman 1931c. **(ec)** Blackman 1931c. **(hb)** Blackman 1931c; Bright 1981d: 321; Chamberlin 1939: 398. **(ds)** Bright 1981d: 321; Chamberlin 1939: 398; Keen 1929a: 33; Kleine 1934a: 155; Leng & Mutchler 1933: 52. **(tx)**

Blackman 1928b: 116, 134–136; Bright 1981d: 321, 373; Chamberlin 1939: 398; Keen 1929a: 33; Wood, S. L. 1982b: 111.

africanulus Wood 1992b: 79. Holotype, sex?; Congo: Mayumbe; MRCB, Tervuren, automatic. Distribution: Africa (Mozambique/ Zaire).

Hosts: *Klainedoxa gabonensis*.

References: **(tx)** Schedl 1962k: 1079; Wood 1992b: 79.

africanus Schedl 1962k: 1079 (*Neodryocoetes*). Holotype, sex?; Congo: Mayumbe; MRCB, Tervuren, preoccupied by Eggers 1927.

References: **(tx)** Schedl 1962k: 1079; Wood, S. L. 1992b: 79.

africanus Eggers 1927a: 184. Holotype, sex?; Kirumba bei Muansa, Ost-Africa; Methner Collection in MNB, Berlin.

Distribution: Africa (Tanzania/ Zaire).

Hosts: *Klainedoxa gabonensis*.

References: **(hb)** Schedl 1962j: 4. **(ds)** Schedl 1962j: 4. **(tx)** Eggers 1927a: 184; Schedl 1953d: 69, 1961e: 143, 1962j: 4, 1962k: 1079, 1979c: 15.

alienus Eichhoff 1872b: 135. Holotype, sex?; Brasilia; Hamburg Museum, lost.

Distribution: South America (Brazil).

References: **(ds)** Blackwelder 1947: 781; Gemminger & Harold 1872: 2688; Hagedorn 1910d: 70; Kleine 1913b: 140, 1914b: 336. **(tx)** Eichhoff 1872b: 135, 1878b: 192; Hagedorn 1910a: 100.

alni Blackman 1942a: 209. Holotype ♀; Mexico, Veracruz, Jalapa; USNM, Washington.

Distribution: North America (Hidalgo, Veracruz in Mexico).

Hosts: *Alnus* sp.

References: **(hb)** Atkinson & Equihua 1985c: 359. **(ds)** Atkinson & Equihua 1985c: 359; Blackwelder 1947: 781; Bright 1981d: 93; Wood, S. L. 1982b: 1027. **(tx)** Blackman 1942a: 209–210; Bright 1981d: 93; McNamara 1984: 754; Wood, S. L. 1982b: 1027.

alnicolens Wood 1977b: 213. Holotype ♂?; Highway 131, 184 km S Oaxaca, Oaxaca, Mexico; CNCI, Ottawa.

Distribution: North America (Oaxaca in Mexico).

Hosts: *Alnus* sp.

References: **(ds)** Bright 1981d: 94; Wood, S. L. 1982b: 1027. **(tx)** Bright 1981d: 94; Wood, S. L. 1977b: 213, 1982b: 1027.

alpinensis Hopping, G. 1960a: 865. Holotype ♀; Highwood Pass, Alberta [Canada]; CNCI, Ottawa.

Figures: Hopping 1960a: 866 (adult). Kusch 1967: 10. Distribution: North America (Alberta in Canada/ Idaho, Montana in USA).

Hosts: *Larix lyallii*.

References: **(cn)** Baranyay & Stevenson 1966: 55; Hopping 1960b: 258. **(hb)** Gast et al. 1989: 384. **(ds)** Baranyay & Stevenson 1966: 55; Bright

- 1976d: 180, 1981d: 132; Gast et al. 1989: 384; Hopping 1960b: 258; Kusch 1967: Wood, S. L. 1982b: 1054. **(tx)** Bright 1977: 516, 1981d: 132; Hopping 1960a: 865–867; Kusch 1967: 10; Wood, S. L. 1964: 59, 1982b: 1054.
- alvarengai** Schedl 1972g: 63. Holotype ♂; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1972g: 63, 1979c: 17.
- amiculus** Wood 1975b: 398. Holotype ♂; Guapiles, Limon, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Veracruz in Mexico).
Hosts: Liana.
References: **(ds)** Bright 1981d: 97; Wood, S. L. 1982b: 1030. **(tx)** Bright 1981d: 97; McNamara 1984: 754; Wood, S. L. 1975b: 398, 1982b: 1030.
- amoenus** Blandford 1904: 237. Holotype ♀; Duenas, Guatemala; BMNH, London.
Distribution: North America (Guatemala).
References: **(ds)** Blackwelder 1947: 781; Bright 1981d: 45; Hagedorn 1910d: 70; Kleine 1913b: 140, 1914b: 362; Wood, S. L. 1982b: 1062. **(tx)** Blackman 1942a: 218; Blandford 1904: 237; Bright 1981d: 48; Hagedorn 1910a: 100; Schedl 1955g: 17; Wood, S. L. 1982b: 1062.
- amplus** (Blackman) 1928b: 18 (*Myeloborus*). Holotype ♀; Kaibab N.F., Arizona [USA]; USNM, Washington.
Distribution: North America (Arizona, S Nevada, New Mexico in USA).
Hosts: *Pinus flexilis*, *P. ponderosa*, *P. strobiformis*.
Notes: (1) Bright 1977: 511 (to *Pityophthorus*).
References: **(cn)** Doane et al. 1936. **(hb)** Chamberlin 1939: 339; Doane et al. 1936. **(ds)** Bright 1981d: 203; Chamberlin 1939: 339; Furniss, R. L. & Carolin 1977: 398; Keen 1929a: 31; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 1044. **(tx)** Blackman 1928b: 3–6, 18; Bright 1977: 511, 1981d: 203; Chamberlin 1939: 339; Keen 1929a: 31; McNamara 1984: 753; Wood, S. L. 1982b: 1044.
- angustus** Blackman 1928b: 83. Holotype ♀; Cranberry Lake, New York [USA]; USNM, Washington.
Distribution: North America (New Brunswick, Nova Scotia, Ontario in Canada/ New York, North Carolina in USA).
Hosts: *Abies balsamea*, *Picea rubens*, *Pinus strobus*.
Notes: (3) Bright 1981d: 182 (This name was treated as a synonym of *balsameus*).
References: **(cn)** Blackman 1950. **(hb)** Blackman 1950. **(ds)** Blackman 1950; Bright 1976d: 185; Chamberlin 1939: 380; Kleine 1934a: 158; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 83–84; Chamberlin 1939: 380; de Ruelle 1970: 107; Wood, S. L. 1982b: 1077.
- annectens** LeConte 1878b: 622. Lectotype ♀; Tampa, Florida [USA]; MCZ, Cambridge, designated by Bright 1976: 185.
Figures: Blackman 1922b: pl. 9, fig. 47, Bright 1981d: 371.
Distribution: Antilles Islands (Andros Island/ Bahamas Islands), North America (Belize/ Chiapas (?), Durango, Hidalgo, Jalisco, Mexico, Michoacan in Mexico/ Alabama, Arizona, Arkansas, Florida, Georgia, Illinois, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, E Texas, Virginia, West Virginia in USA).
Hosts: *Pinus ayacahuite*, *P. caribaea*, *P. edulis*, *P. elliotii*, *P. engelmannii*, *P. lawsonii*, *P. leiophylla*, *P. palustris*, *P. ponderosa*, *P. resinosa*, *P. taeda*, *P. spp.*
Notes: (3) Blackman 1928b: 138 (redescribed).
References: **(bv)** Dixon & Payne 1979b; Jacobson 1972; Tumbow & Franklin 1980; Vite 1965: 267; Vite, Gara, & von Scheller 1964: 461–470; Vite & Pitman 1967: 683–701. **(cn)** Blackman 1950; Packard 1890: 715; Swaine 1918a: 104. **(ce)** Dixon & Payne 1979b; Felt 1906: 751; Kinn 1983a; Schwarz 1889a: 164. **(hb)** Atkinson et al. 1986: 36; Baker, W. L. 1972: 255; Beal & Massey 1945: 136; Blackman 1922b: 109–110, 1950; Bright 1981d: 293; Chamberlin 1939: 400; Chittenden 1890; Deyrup & Atkinson 1987a: 66; Felt 1906: 751; Ostmark 1968; Packard 1890: 715; Swaine 1918a: 104. **(ds)** Atkinson et al. 1986: 36, 1991: 162; Baker, W. L. 1972: 255; Beal & Massey 1945: 136; Blackman 1922b: 109–110, 1950; Blatchley & Leng 1916: 631; Bright 1981d: 293; Chamberlin 1925, 1939: 400; Chittenden 1890; Deyrup & Atkinson 1987a: 66; Drooz 1985: 364; Hagedorn 1910d: 70; Henshaw 1882: 268, 1885: 147; Hubbard & Schwarz 1878b: 622; Kirk 1970; Kleine 1913b: 140, 1914b: 383, 1934a: 158; Leng 1920: 341; Ostmark 1968; Rio Mora 1985: 14; Schwarz 1889a: 164, 1891c: 357; Swaine 1909: 133; Turnbow & Franklin 1980; Weber, B. C. & McPherson 1991: 54; Ulke 1902: 56; Wood, S. L. 1982b: 1101. **(tx)** Beal & Massey 1945: 136; Blackman 1922b: 109–110, 1928b: 117, 138; Blatchley & Leng 1916: 631; Bright 1976b: 185, 1981d: 293, 371; Chamberlin 1939: 400; Hagedorn 1910a: 100; LeConte 1878b: 622; Schedl 1955g: 25; Schwarz 1889: 163–164, 1891a: 167, 1891c: 357; Swaine 1909: 133–134, 1918a: 104; Wood, S. L. 1977d: 514, 1982b: 1101.
- citus** Blackman 1928b: 137. Holotype ♀; Chiricahua Mts., Arizona [USA]; USNM, Washington. Synonymy: Wood 1977d: 514.
References: **(hb)** Chamberlin 1939: 399. **(ds)** Chamberlin 1939: 399; Keen 1929a: 34; Kleine 1934a: 159; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 137; Chamberlin 1939: 399; Keen 1929a: 34; Wood, S. L. 1977d: 514.
- anthracinus** Bright 1976c: 428. Holotype ♀; Cerro Potosi, Nuevo Leon, Mexico; Wood Collection.

- Distribution: North America (Nuevo Leon, Tlaxcala in Mexico).
Hosts: *Abies religiosa*.
References: **(hb)** Bright 1981d: 317. **(ds)** Bright 1981d: 317; Wood, S. L. 1982b: 1087. **(tx)** Bright 1976c: 428, 1981d: 317; McNamara 1984: 754; Wood, S. L. 1982b: 1087.
- auticus** Schedl 1976a: 66. Holotype ♂; Brasilien, Rio Negro; Schedl Collection in NHMW, Wien. Figures: Pedrosa-Macedo & Schonherr 1985: 52. Distribution: South America (Brazil).
Hosts: *Araucaria angustifolia*, *Pinus elliottii*.
References: **(ds)** Pedrosa-Macedo & Schonherr 1985: 52; Schonherr & Pedrosa-Macedo 1981: 53. **(tx)** Pedrosa-Macedo & Schonherr 1985: 52; Schedl 1976a: 66.
- autillicus** Bright 1981c: 162. Holotype ♀; Jarabacoa, Dominican Republic, Hopk US 32062-G; USNM, Washington. Distribution: Antilles Islands (Dominican Republic in Hispanola).
Hosts: *Pinus occidentalis*.
References: **(bv)** Haack et al. 1989. **(cc)** Haack et al. 1989. **(hb)** Haack et al. 1989. **(ds)** Bright 1985c: 176. **(tx)** Bright 1981c: 162, 1985c: 176.
- apachae** Bright 1977: 520. Holotype ♀; Rustler's Park, Chiricahua Mts., Arizona [USA]; Wood Collection. Distribution: North America (Arizona in USA).
Hosts: *Abies concolor*.
References: **(ds)** Bright 1981d: 241; Wood, S. L. 1982b: 1070. **(tx)** Bright 1977: 520, 1981d: 241; McNamara 1984: 754; Wood, S. L. 1982b: 1070.
- apicenotatus** Schedl 1976a: 66. Holotype, sex?; Cachimbo, BA, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil).
References: **(tx)** Schedl 1976a: 66.
- apicipennis** Schedl 1976a: 67. Holotype ♂; Serra do Caraca, Minas Gerais, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil).
References: **(tx)** Schedl 1976a: 67.
- apiculatus** Schedl 1937h: 167. Holotype ♀; Nova Teutonia [Brazil]; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil).
References: **(ds)** Blackvelder 1947: 781; Schedl 1966f: 86. **(tx)** Schedl 1937h: 167-168, 1938a: 183, 1979c: 23.
- aquilus** Blackman 1928b: 33. Holotype ♀; Kaibab N.F., Arizona [USA]; USNM, Washington. Figures: Bright 1981d: 361. Distribution: North America (Alberta, British Columbia, Saskatchewan in Canada/Arizona, California, Colorado, Montana, New Mexico, South Dakota, Utah, Wyoming in USA).
Hosts: *Picea engelmannii* (rare), *Pinus albicaulis*, *P. aristata*, *P. contorta*, *P. flexilis*, *P. ponderosa*.
References: **(cn)** Loomis, Hofacker, & Tucker 1986; Raimo 1985. **(hb)** Bright 1981d: 224; Chamberlin 1939: 358; Furniss, M. M. & Johnson 1987: 377. **(ds)** Bright 1981d: 224; Chamberlin 1939: 358; Evans, D., Lowe, & Hunt 1978; Furniss, M. M. & Johnson 1987: 377; Gast et al. 1989: 385; Keen 1929a: 32; Kleine 1934a: 158; Leng & Mutchler 1933: 52; Wood, S. L. 1948: 52, 1951a: 128, 1982b: 1064. **(tx)** Blackman 1928b: 30-34; Bright 1977: 514, 1981d: 224, 361; Chamberlin 1939: 358; Keen 1929a: 32; de Ruelle 1970: 105; Wood, S. L. 1977b: 209, 1982b: 1064.
- caelator** Blackman 1928b: 78. Holotype ♀; Black Hills, South Dakota [USA]; USNM, Washington. Synonymy: Bright 1977: 514.
References: **(cn)** Blackman 1931c. **(cc)** Blackman 1931c. **(hb)** Blackman 1931c; Chamberlin 1939: 378. **(ds)** Chamberlin 1939: 378; Keen 1929a: 32; Kleine 1934a: 159; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 62, 78-79; Bright 1977: 514; Chamberlin 1939: 378; Keen 1929a: 32; de Ruelle 1970: 108.
- aristatae** Bright 1964: 166. Holotype ♀; Crooked Creek, White Mts., Mono County, California [USA]; CAS, San Francisco. Synonymy: Bright 1971b: 67.
References: **(tx)** Bright 1964: 166, 168, 1971b: 67, 1977: 514.
- arakii** (Sawamoto) 1942: 167 (*Cladoborus*). Syn-types ♂ ♀; Hokkaido (Kutchan); Entomological Institute, Imperial Hokkaido University and Sawamoto Collection. Distribution: Asia (Japan).
Hosts: *Picea excelsa*.
Notes: (1) Bright 1977: 511 (to *Pityophthorus*).
References: **(ds)** Murayama 1954b: 201. **(tx)** Bright 1977: 511; Murayama 1954b: 201, 1963c: 391; Nobuchi 1981c: 29; Sawamoto 1942: 167; Schedl 1959r: 42.
- arcanus** Bright 1976c: 429. Holotype ♀; Bear Canyon, Santa Catalina Mts., Santa Cruz Co., Arizona [USA]; CNCI, Ottawa. Figures: Bright 1981d: 335. Distribution: North America (Arizona, Nevada, W Texas in USA).
Hosts: *Pinus cembroides*, *P. monophylla*, *P. ponderosa*, 1 series from *Pseudotsuga menziesii*.
References: **(ds)** Bright 1981d: 35; Wood, S. L. 1982b: 1110. **(tx)** Bright 1976c: 429, 1981d: 35, 335; McNamara 1984: 754; Wood, S. L. 1982b: 1110.
- arceuthobii** Wood 1971: 48. Holotype ♀; 96 km W Durango, Durango, Mexico; Wood Collection. Distribution: North America (Durango, Mexico in Mexico).
Hosts: *Arceuthobium globosum* (parasite on *Pinus montezumae*).

- References: **(ds)** Atkinson & Equihua 1955a: 96; Bright 1981d: 242; Wood, S. L. 1982b: 1046. **(tx)** Bright 1981d: 242; Wood, S. L. 1971: 48, 1982b: 1046.
- argentinensis** Eggers 1951: 150. Lectotype, sex?; Argentinien (Salta); USNM, Washington.
Distribution: South America (Argentina/ Brazil).
References: **(hb)** Viana 1964: 125. **(ds)** Schedl 1967d: 2; Viana 1964: 125. **(tx)** Anderson, W. H. & Anderson 1971: 4; Eggers 1951: 150; Schedl 1935i: 28, 1951h: 285, 1958f: 35, 1979c: 25.
- argentinae** (Schedl) 1958f: 44 (*Breviophthorus*).
Syntypes, sex?; Argentinien: Misiones, Dep. Concep., Sta. Maria; Schedl Collection in NHMW, Wien and Viana Collection.
Distribution: South America (Argentina).
Notes: (1) Schedl 1979c: 25 (citation of holotype invalid).
References: **(tx)** Schedl 1958f: 44, 1970e: 93, 1979c: 25.
- ascendens** Schedl 1972g: 64. Holotype ♀; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1972g: 64, 1979c: 27.
- ashanti** Schedl 1972e: 291. Holotype ♀; Ghana, Ashanti Region, Kwadaso, 320 m, N 6 42, W 1 39; NHMB, Budapest.
Distribution: Africa (Ghana).
References: **(tx)** Schedl 1972e: 291, 1979c: 28.
- assitus** Wood 1977b: 214. Holotype ♀; Lagos des Colores, Chiapas, Mexico, 1300 m; CNCI, Ottawa.
Distribution: North America (Chiapas, Oaxaca in Mexico).
References: **(ds)** Bright 1981d: 50; Wood, S. L. 1982b: 1129. **(tx)** Bright 1981d: 50; Wood, S. L. 1977b: 214, 1982b: 1129.
- aterrimus** Eggers 1931b: 31. Holotype, sex?; Brasilien (Sao Paulo); Eggers Collection [not mentioned by Anderson & Anderson 1971 or Schedl 1979c], not in NHMW, Wien.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 781. **(tx)** Eggers 1931b: 31.
- atkinsoni** Bright 1985a: 467. Holotype ♀; Mexico: Cardonal (Cerca Ixmiquilpan), Edo. Hidalgo; CNCI, Ottawa.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Flourenzia resinosa*.
References: **(tx)** Bright 1985a: 467.
- atomus** Wood 1964: 61. Holotype ♀; Veracruz, Veracruz, Mexico; Wood Collection.
Distribution: North America (Hidalgo, Jalisco, Michoacan, Oaxaca, Veracruz in Mexico).
Hosts: Shrub.
References: **(ds)** Bright 1981d: 44, 1986b: 682; Wood, S. L. 1982b: 1137. **(tx)** Bright 1981d: 44; McNamara 1977: 197; Wood, S. L. 1964: 61, 1982b: 1137.
- attenuatus** Blackman 1942a: 222. Holotype ♀; Mexico; USNM, Washington.
Figures: Bright 1981d: 336.
Distribution: North America (El Salvador/ Guatemala/ Hidalgo, Jalisco, Michoacan in Mexico).
Hosts: Compositae shrub.
References: **(hb)** Atkinson et al. 1986: 36; Burgos & Saucedo 1983: 124. **(ds)** Atkinson et al. 1986: 36; Blackwelder 1947: 781; Bright 1981d: 45; Burgos & Saucedo 1983: 124; Schedl 1977e: 42; Wood, S. L. 1982b: 1136. **(tx)** Blackman 1942a: 222; Bright 1981d: 45, 336; McNamara 1984: 754; Wood, S. L. 1978b: 397, 1982b: 1136.
- pusillus** Wood 1964: 62. Holotype ♀; 14 km S Zimapan, Hidalgo, Mexico; Wood Collection.
Synonymy: Wood 1978b: 397.
References: **(tx)** McNamara 1977: 198; Wood, S. L. 1964: 62, 1978b: 397.
- aztecus** Bright 1977: 520. Holotype ♀; Km 50 Mexico-Puebla [Highway], Mexico; USNM, Washington.
Figures: Bright 1981d: 340.
Distribution: North America (Coahuila, Mexico, Veracruz in Mexico).
Hosts: *Pinus* sp. branches.
References: **(hb)** Atkinson et al. 1986: 37; Burgos & Saucedo 1983: 115. **(ds)** Atkinson & Equihua 1985a: 92, 1985: 94; Atkinson et al. 1986: 37; Bright 1981d: 90; Burgos & Saucedo 1983: 115; Wood, S. L. 1982b: 1046. **(tx)** Bright 1977: 520, 1981d: 90, 340; McNamara 1984: 754; Wood, S. L. 1982b: 1046.
- balcanicus** Pfeffer 1940b: 123. Syntypes, sex?; Bulgaria near Sofia; Serbia, Demir Kapija, Kozuf Planina Bosnia; Zavidovic, Hercegovina, Albania; Ilgora; Pfeffer Collection in Prague Museum.
Distribution: Europe (Albania/ Bulgaria/ Yugoslavia).
Hosts: *Pinus heldreichii*, *P. nigra*.
References: **(bv)** Grune 1979: 121. **(ds)** Grune 1979: 121; Pfeffer 1976: 340, 1984: 277; Postner 1974: 437. **(tx)** Grune 1979: 121; Pfeffer 1940b: 109, 113, 123, 1955a: 211, 1964m: 312, 1976: 340; Postner 1974: 437.
- balsameus** Blackman 1922c: 119. Holotype ♀; Orono, Maine [USA]; USNM, Washington.
Figures: Blackman 1922c: figs. 20–21, Bright 1981d: 355.
Distribution: North America (New Brunswick, Nova Scotia in Canada/ Maine, Michigan, Minnesota, New Hampshire, New York, North Carolina, West Virginia, Wisconsin in USA).
Hosts: *Abies balsamea*, *Picea glauca*, *P. sp.*, *Pinus banksiana*, *P. resinosa*, *P. strobus*.
References: **(en)** Blackman 1950. **(cc)** Bushing 1965: 464; Marsh 1979: 158; Matthews 1970. **(hb)** Baker, W. L. 1972: 255; Blackman 1950; Chamberlain 1939: 381. **(ds)** Baker, W. L. 1972: 255;

- Blackman 1950; Bright 1976d: 185, 1981d: 181; Chamberlin 1939: 381; Drooz 1985: 364; Kleine 1934a: 158; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 1076. **(tx)** Blackman 1922c: 119–120, 1928b: 63, 88; Bright 1981d: 181, 355; Chamberlin 1939: 381; Wood, S. L. 1977d: 514, 1982b: 1076.
- patchi** Blackman 1922c: 120. Holotype ♀; Orono, Maine [USA]; USNM, Washington. Synonymy: Wood 1977d: 514.
- References: **(cn)** Blackman 1950. **(hb)** Baker, W. L. 1972: 255; Blackman 1950; Chamberlin 1939: 379. **(ds)** Baker, W. L. 1972: 255; Blackman 1950; Bright 1976d: 187; Chamberlin 1925, 1939: 379; Kleine 1934a: 161; Leng & Mutchler 1927: 52; Proctor 1946: 208. **(tx)** Blackman 1922c: 120; Chamberlin 1939: 379; de Ruelle 1970: 110; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1977d: 514.
- barberi** Blackman 1928b: 112. Holotype, sex?; New Mexico: Las Vegas H.S. [Hot Springs] [USA]; USNM, Washington.
- Figures: Bright 1981d: 339.
- Distribution: North America (Durango, Nuevo Leon in Mexico/ Arizona, Colorado, New Mexico, W Texas, Utah in USA).
- Hosts: *Pinus cembroides*, *P. edulis*, *P. leiophylla*, *P. ponderosa*.
- References: **(hb)** Bright 1981d: 69; Chamberlin 1939: 389. **(ds)** Bright 1981d: 69; Chamberlin 1939: 389; Keen 1929a: 33; Kleine 1934a: 158; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1117. **(tx)** Blackman 1928b: 91, 112–113; Bright 1981d: 69, 339; Chamberlin 1939: 389; Keen 1929a: 33; de Ruelle 1970: 108; Schedl 1937h: 167; Wood, S. L. 1982b: 1117.
- barbifer** Schedl 1964j: 46. Holotype ♂; Ghana: Kintampo; BMNH, London.
- Distribution: Africa (Ghana).
- Hosts: *Daniellia oliveri*.
- References: **(hb)** Roberts 1969: 126. **(ds)** Schedl 1962j: 5–6, 1964j: 46, 1972e: 282. **(tx)** Schedl 1962j: 5, 1964j: 46, 1979c: 35.
- bassetti** Blackman 1920b: 1. Lectotype ♂; Pitkin, Colorado [USA]; USNM, Washington, designated by Bright 1976b: 183.
- Figures: Bright 1981d: 319, 373.
- Distribution: North America (Alaska/ Northwest Territories, Yukon in Canada/ Chihuahua in Mexico/ Colorado, Utah in USA).
- Hosts: *Picea chiluhuana*, *P. engelmannii*, *P. glauca*, *P. pungens*.
- Notes: (3) Blackman 1928b: 136 (redescribed).
- References: **(ec)** Werner & Holsten 1984. **(hb)** Blackman 1920b: 1; Chamberlin 1939: 399, 1958. **(ds)** Bright 1981d: 318; Chamberlin 1925, 1939: 399, 1958; Elias 1982d; Keen 1929a: 33; Kleine 1934a: 158; Leng & Mutchler 1927: 52; Werner & Holsten 1984; Wood, S. L. 1948: 55, 1951a: 128, 1972a: 427, 1982b: 1109. **(tx)** Blackman 1920b: 1, 1928b: 117, 136; Bright 1976b: 183, 1981d: 318–319, 373; Chamberlin 1939: 399, 1958; Keen 1929a: 33; de Ruelle 1970: 108; Wood, S. L. 1951a: 128, 1972a: 427, 1982b: 1109.
- bioealis** Blackman 1922c: 122. Holotype ♀; Brunswick, Maine [USA]; USNM, Washington.
- Distribution: North America (Nova Scotia, Ontario in Canada/ Maine, New York in USA).
- Hosts: *Picea glauca*, *P. mariana*, *P. rubens*, *Pinus strobus*.
- References: **(cn)** Baker, W. L. 1972: 255; Blackman 1950. **(hb)** Baker, W. L. 1972: 255; Blackman 1950; Chamberlin 1939: 380. **(ds)** Baker, W. L. 1972: 255; Blackman 1950; Bright 1976d: 255, 1981d: 178; Chamberlin 1925, 1939: 380; Drooz 1985: 364; Kleine 1934a: 158; Leng & Mutchler 1927: 52; Proctor 1946: 208; Wood, S. L. 1982b: 1074. **(tx)** Blackman 1922c: 122–123, 1928b: 63, 85; Bright 1981d: 178; Chamberlin 1939: 380; Wood, S. L. 1982b: 1074.
- blackmani** (Schedl) 1935h: 344 (*Conophthoracranulus*). Holotype ♀; Costa Rica, Turrialba, 800 m; Schedl Collection in NIMW, Wien.
- Distribution: North America (Costa Rica).
- Notes: (1) Wood 1986a: 98 (to *Pityophthorus*).
- References: **(ds)** Blackwelder 1947: 781. **(tx)** Schedl 1935h: 344, 1938a: 162, 1979c: 42; Wood, S. L. 1982b: 963, 1986a: 98.
- blandulus** Schedl 1955g: 19. Lectotype ♀; Guatemala, Las Trojades; Schedl Collection in NIMW, Wien, designated by Bright 1976b: 186.
- Figures: Bright 1981d: 363.
- Distribution: North America (Guatemala/ Chiapas, Mexico in Mexico).
- Hosts: *Pinus hartwegii*, *P. ochoterenai*, *P. oocarpa*, *P. rudis*.
- References: **(hb)** Schwerdtfeger 1957c: 494. **(ds)** Atkinson & Equihua 1985c: 360, 1988: 94; Bright 1981d: 244; Schedl 1963c: 158; Wood, S. L. 1982b: 1068. **(tx)** Bright 1976b: 186, 1981d: 244, 363; Schedl 1955g: 17, 19, 1979c: 42; Wood, S. L. 1982b: 1068.
- blandulus** Blackman 1928b: 107. Holotype ♀; Argus Mts., California [USA]; USNM, Washington.
- Figures: Bright 1981d: 363.
- Distribution: North America (Arizona, California, Colorado, Nevada, New Mexico, Utah in USA).
- Hosts: *Pinus monophylla*, *P. edulis*, 1 pair from *P. ponderosa*.
- References: **(hb)** Bright & Stark 1973: 114; Chamberlin 1939: 387. **(ds)** Bright 1981d: 245; Bright & Stark 1973: 114; Chamberlin 1939: 387; Furniss, M. M. & Johnson 1987: 377; Keen 1929a: 23; Kleine 1934a: 158; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 107–108; Bright 1977: 513, 1981d: 245, 363; Chamberlin 1939: 387; Keen 1929a: 33; Wood, S. L. 1982b: 1066.
- singularis** Bright 1966b: 300. Holotype ♀; 19 km W Lone Pine, Inyo Co., California [USA];

- CAS, San Francisco. Synonymy: Bright 1977: 513.
References: **(hb)** Bright & Stark 1973: 111. **(ds)** Bright & Stark 1973: 111; **(tx)** Bright 1966b: 300, 1977: 513; de Ruelle 1970: 111.
- bolivianus** Eggers 1943a: 359. Holotype, sex[?]: Bolivia (Cochabamba); MNHN, Paris.
Distribution: South America (Bolivia).
References: **(tx)** Eggers 1943a: 359; Schedl 1951m: 73, 1979c: 43.
- borrichiae** Wood 1964: 60. Holotype ♀; Key Largo, Florida [USA]; Wood Collection.
Distribution: North America (S Florida).
Hosts: *Borrichia arborescens*, *B. frutescens*.
References: **(ds)** Bright 1981d: 61; Wood, S. L. 1982b: 1130. **(tx)** Bright 1981d: 61; McNamara 1977: 197; Wood, S. L. 1964: 60, 1982b: 1130.
- boycei** Swaine 1925b: 192. Holotype ♂; Cisco, Placer Co., California [USA]; CNCI, Ottawa.
Figures: Bright 1981d: 355, Ives & Wong 1988: 54.
Distribution: North America (Alberta, British Columbia in Canada/California, Colorado, Idaho, Montana, Oregon, South Dakota, Wyoming in USA).
Hosts: *Pinus aristata*, *P. contorta*, *P. flexilis*, *P. monticola*, *P. ponderosa*.
Notes: (3) Blackman 1928b: 26 (re-described).
References: **(cn)** Doane et al. 1936; Evans, D. 1982; Ives & Wong 1988: 55; Lindgren 1980a: 66. **(hb)** Bright & Stark 1973: 97; Chamberlin 1939: 342, 1958: 145; Doane et al. 1936; Evans, D. 1982; Ives & Wong 1988: 55; Lindgren 1980a: 66. **(ds)** Bright 1976d: 168, 1980d: 204; Bright & Stark 1973: 97; Chamberlin 1939: 342, 1958: 145; Evans, D. 1983: 35; Evans, D., Lowe, & Hunt 1975; Furniss, R. L. & Carolin 1977: 395; Gast et al. 1989: 355; Keen 1929a: 31; Kleine 1934a: 163; Leng & Mutchler 1933: 52; Wood, S. L. 1972a: 424, 1982b: 1043. **(tx)** Blackman 1928b: 16–17, 26–27; Bright 1967b: 678, 1976c: 426, 1976d: 168, 1981d: 204, 358; Chamberlin 1939: 342, 1958: 145; Evans, D. 1982, 1983: 35; Ives & Wong 1988: 54; Keen 1929a: 31; de Ruelle 1970: 108; Swaine 1925b: 192–193; Wood, S. L. 1972a: 424, 1977c: 357, 1982b: 1043.
- catulus** Blackman 1928b: 21. Holotype ♀; Clark's Fork, Idaho [USA]; USNM, Washington. Synonymy: Bright 1976b: 186, 1976c: 426.
References: **(hb)** Chamberlin 1939: 341, 1958. **(ds)** Chamberlin 1939: 341, 1958: 144–145; Keen 1929a: 31; Kleine 1934a: 163; Leng & Mutchler 1933: 53; Wood, S. L. 1972a: 424. **(tx)** Blackman 1928b: 17, 21–22; Bright 1976b: 186, 1976c: 426; Chamberlin 1939: 341, 1958: 144–145; Keen 1929a: 31; de Ruelle 1970: 104; Wood, S. L. 1972a: 424.
- iniquus** Blackman 1928b: 27. Holotype ♀; Keystone, Wyoming [USA]; USNM, Washington. Synonymy: Bright 1976c: 426.
References: **(cn)** Doane et al. 1936. **(hb)** Chamberlin 1939: 343; Doane et al. 1936. **(ds)** Chamberlin 1939: 343; Keen 1929a: 31; Kleine 1934a: 163; Leng & Mutchler 1933: 53. **(tx)** Blackman 1928b: 27; Bright 1976c: 426; Chamberlin 1939: 343; Keen 1929a: 31.
- siouxensis** Bright 1977: 439. Holotype ♀; Black Hills, South Dakota [USA]; CNCI, Ottawa. Synonymy: Wood 1977c: 357.
References: **(tx)** Bright 1977: 439; McNamara 1984: 757; Wood, S. L. 1977d: 357.
- brasilensis** (Schedl) 1938a: 177 (*Breviophthorus*). Holotype, sex[?]; Brasilien, Sao Paulo; Schedl Collection in NHMW, Wien.
Figures: Schedl 1938a: 161, 164.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 781. **(tx)** Schedl 1938a: 161, 164, 177, 1979c: 44.
- bravoi** Bright 1986b: 679. Holotype ♀; Mexico: Carr. Mex-Popo., Km 85; CNCI, Ottawa.
Distribution: North America (Mexico in Mexico).
References: **(tx)** Bright 1986b: 679.
- brevicomatus** Bright 1976c: 430. Holotype ♀; Cerro Potosi, Nuevo Leon, Mexico; CNCI, Ottawa.
Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Pinus strobiformis*.
References: **(ds)** Bright 1981d: 145; Wood, S. L. 1982b: 1094. **(tx)** Bright 1976c: 430, 1981d: 145; McNamara 1984: 754; Wood, S. L. 1982b: 1094.
- brevis** Blackman 1928b: 81. Holotype ♀; Kaibab National Forest, Arizona [USA]; USNM, Washington.
Figures: Bright 1981d: 364.
Distribution: North America (Durango in Mexico/Arizona, Colorado, New Mexico, W Texas in USA).
Hosts: *Pinus ayacahuite*, *P. edulis*, *P. ponderosa*, *P. strobiformis*.
References: **(cn)** Blackman 1931c. **(ce)** Blackman 1931c. **(hb)** Blackman 1931c; Chamberlin 1939: 379. **(ds)** Atkinson & Equilua 1985c: 360, 1988: 94; Bright 1981d: 247; Chamberlin 1939: 379; Keen 1929a: 32; Kleine 1934a: 158; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1065. **(tx)** Blackman 1928b: 81; Bright 1981d: 247; Chamberlin 1939: 379; Keen 1929a: 32; de Ruelle 1970: 108; Wood, S. L. 1982b: 1065.
- brevisetosus** Eggers 1933b: 3, 7. Holotype, sex[?]; Venezuela (Caracas); MNHN, Paris.
Distribution: South America (Venezuela).
References: **(ds)** Blackwelder 1947: 781. **(tx)** Eggers 1933b: 3, 7–8.
- brighti** Wood 1989: 178. Holotype ♀; Amecameca, Mexico, Mexico; USNM, Washington.
Distribution: North America (Hidalgo, Mexico in Mexico).
Hosts: *Abies religiosa*.

References: **(tx)** Wood, S. L. 1989: 178.

blackmani Bright 1977: 521. Holotype ♀; Amecameca, Mexico, Mexico; USNM, Washington, preoccupied by Schedl 1935.

References: **(ds)** Atkinson & Equihua 1955a: 96; Bright 1981d: 243. **(tx)** Bright 1977: 521, 1981d: 243; McNamara 1984: 754; Wood, S. L. 1989: 178.

briscoei Blackman 1922c: 123. Holotype ♀; Brunswick, Maine [USA]; USNM, Washington.

Distribution: North America (New Brunswick, Ontario, Quebec in Canada/ Maine, Minnesota, New Hampshire, New York, Pennsylvania in USA). Hosts: *Picea mariana*, *P. rubens*, *Pinus banksiana*, *P. strobus*.

References: **(cn)** Blackman 1950. **(hb)** Blackman 1950; Chamberlin 1939: 380. **(ds)** Blackman 1950; Bright 1976d: 185, 1981d: 184; Chamberlin 1925, 1939: 380; Kleine 1934a: 158; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 1076. **(tx)** Blackman 1922c: 123–124, 1928b: 63, 84–85; Bright 1981d: 184; Chamberlin 1939: 380; Wood, S. L. 1977d: 514, 1982b: 1076.

mundus Blackman 1928b: 86. Holotype ♀; Littleton, New Hampshire [USA]; USNM, Washington. Synonymy: Wood 1977d: 514.

References: **(cn)** Blackman 1950. **(hb)** Blackman 1950; Chamberlin 1939: 380. **(ds)** Blackman 1950; Bright 1976d: 186; Chamberlin 1939: 380; Dodge 1935; Kleine 1934a: 160; Knull 1932: 66; Leng & Mutchler 1933: 52; Proctor 1946: 208. **(tx)** Blackman 1928b: 86–87; Chamberlin 1939: 380; Dodge 1935: 43–45; McNamara 1984: 757; Wood, S. L. 1977d: 514.

burserae Wood 1976a: 362. Holotype ♀; Atencuque, Jalisco, Mexico, 1000 m; Wood Collection. Distribution: North America (Jalisco).

Hosts: *Bursera* sp.

References: **(ds)** Bright 1981d: 76; Wood, S. L. 1982b: 1127. **(tx)** Bright 1981d: 76; Wood, S. L. 1976a: 362, 1982b: 1127.

busseae Schedl 1962h: 69. Holotype ♂?; Ghana, Bobiri Forest Reserve; BMNH, London.

Distribution: Africa (Ghana).

Hosts: *Bussea occidentalis*.

References: **(hb)** Browne 1963a: 236. **(ds)** Browne 1963a: 236; Schedl 1962h: 59, 1962j: 6, 1967e: 214, 1972e: 282. **(tx)** Schedl 1962h: 69, 1962j: 6, 1962k: 1080, 1979c: 49.

buyssoni Reitter 1901a: 101. Syntypes, sex?; Europe; NHMB, Budapest.

Figures: Chararas 1962c: 360.

Distribution: Europe (Bulgaria/ Corsica/ Czechoslovakia/ S France/ Greece/ Italy/ Spain/ Yugoslavia). Hosts: *Pinus nigra*, *P. sylvestris*, rare in *Larix europaea*.

References: **(bv)** Grune 1979: 121. **(cn)** Grandi 1951; Joly 1976. **(ec)** Kleine 1905c: 213; Pfeffer 1960: 346. **(hb)** Chararas 1982c: 363; Grandi

1951; Joly 1976; Pfeffer 1941b: 3; Spessivtsev 1921b: 221. **(ds)** Audras & Schaefer 1957; Barthe 1896; Buresh & Lazarov 1956; Chararas 1962c: 363; Grandi 1979: 121; Hagedorn 1910d: 70; Joly 1976; Karpinski 1931: 30; Kleine 1913b: 140, 1934a: 159; Linder 1953: 71; Maire et al. 1927: 1576; Pfeffer 1947e: 17, 1960: 346, 1976: 340, 1984: 227, 1989a: 65; Pittioni 1943: 176; Postner 1974: 437; Sainte-Claire 1905: 157; Sainte-Claire & Mequignon 1935: 447; Tredl 1907: 14. **(tx)** Balachowsky 1949a: 238; Chararas 1962c: 360; Eggers 1914: 189, 1915b: 13–14, 1923a: 215, 1933i: 7; Grune 1979: 121; Hagedorn 1910a: 100; Joly 1976; Peyerimhoff 1930: 259; Pfeffer 1927: 111–112, 1940b: 109, 113, 121, 1941b: 3, 1947e: 17, 1955a: 219, 1976: 340; Postner 1974: 437; Reitter 1901a: 101, 1913a: 94; Schedl 1934f: 1643, 1960b: 164, 1964m: 312; Spessivtsev 1922: 221, 1926: 50; Wichmann 1913d: 144.

senex Wichmann 1913d: 143. Holotype ♀?; Bistolas, Htes Alpes; not given. Synonymy: Balachowsky 1949a: 238.

References: **(hb)** Spessivtsev 1921b: 221. **(ds)** Karpinski 1931: 30; Kleine 1913b: 141; Sainte-Claire & Mequignon 1935: 448. **(tx)** Balachowsky 1949a: 238–239; Eggers 1915b; Pfeffer 1927: 111–112, 1940b: 109, 113, 122; Schedl 1934f: 1643, 1964m: 312; Spessivtsev 1922: 221, 1926: 50; Wichmann 1913d: 143–144.

angeri Pfeffer 1927: 111. Syntypes, sex?; Vizzavona, Venaco (Korsika); Pfeffer Collection in Prague Museum.

Notes: (1) Pfeffer 1940b: 122 (treated as a subspecies of *buyssoni*).

References: **(ds)** Pfeffer 1947d: 127; Sainte-Claire & Mequignon 1935: 447. **(tx)** Balachowsky 1949a: 239; Pfeffer 1927: 111, 1940b: 109; Schedl 1934f: 1643.

cacuminatus Blandford 1904: 238. Lectotype ♀; San Geronimo, Verapaz, Guatemala; BMNH, London, designated by Bright 1976b: 184.

Distribution: North America (Guatemala/ Honduras/ Jalisco, Michoacan in Mexico).

Hosts: *Pinus oocarpa*, *P. spp.*

References: **(hb)** Atkinson & Equihua 1955c: 360; Atkinson et al. 1956: 37. **(ds)** Atkinson & Equihua 1955c: 360, 1958: 94; Atkinson et al. 1956: 37; Blackwelder 1947: 751; Bright 1981d: 304; Hagedorn 1910d: 70; Kleine 1913b, 1914b: 362; Wood, S. L. 1982b: 1101. **(tx)** Blackman 1942a: 215; Blandford 1904: 238; Bright 1976b: 184, 1981d: 304; Hagedorn 1910a: 100; Schedl 1935a: 183, 1955g: 17; Wood, S. L. 1982b: 1101.

californicus Bright 1976c: 427. Holotype ♀; Bonnie Doone, Santa Cruz Co., California [USA]; USNM, Washington, automatic.

Distribution: North America (California).

Hosts: *Pinus attenuata*, *P. radiata*.

References: **(ds)** Bright 1981d: 249; Wood, S. L.

- 1952b: 1069. **(tx)** Bright 1976c: 427, 1981d: 249; Wood, S. L. 1952b: 1069.
- deleoni* Bright 1966b: 302. Holotype ♀; Bonnie Doone, Santa Cruz Co., California [USA]; USNM, Washington, preoccupied by Blackman 1942.
References: **(tx)** Bright 1966b: 302, 1976c: 427.
- camerunus* **Eggers** 1920: 35. Syntypes 2, sex?; Kamerun; Hamburg Museum specimen to Eggers Collection now in NHMW, Wien, 1 in MNB, Berlin.
Distribution: Africa (Cameroon).
Notes: (1) Schedl 1979c: 51 (citation of holotype invalid).
References: **(ds)** Schedl 1965e: 353, 1966c: 225. **(tx)** Eggers 1920: 35, 1927a: 154; Schedl 1938a: 183, 1962j: 6, 1979c: 51.
- carinatus* **Bright** 1978: 73. Holotype ♀; Sevey, New York [USA]; CNCI, Ottawa.
Notes: (1) Bright 1978: 73 (subspecies established).
References: **(ds)** Bright 1981d: 179; Furniss, M. M. 1978; Wood, S. L. 1952b: 1077. **(tx)** Bright 1978: 73, 1981d: 179; McNamara 1984: 754; Wood, S. L. 1952b: 1077.
- carinatus carinatus*:
Distribution: North America (New Brunswick, Quebec in Canada/ New York in USA).
Hosts: *Picea* sp., *Pinus strobus*.
References: **(tx)** Bright 1978: 73.
- carinatus monticolae* **Bright** 1978: 74. Holotype ♀; Hazelton, British Columbia [Canada]; CNCI, Ottawa.
Distribution: North America (Alberta, British Columbia in Canada).
Hosts: *Pinus contorta*.
References: **(ds)** Bright 1981d: 179; Wood, S. L. 1952b: 1077. **(tx)** Bright 1978: 74, 1981d: 179; McNamara 1984: 754; Wood, S. L. 1952b: 1077.
- cariniceps* **LeConte** 1876: 353. Holotype ♀; Detroit, Michigan [USA]; MCZ, Cambridge.
Figures: Bright 1981d: 355.
Distribution: North America (Alberta, NE British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Connecticut, Indiana, Kentucky, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Virginia, Wisconsin in USA).
Hosts: *Abies balsamea*, *Picea glauca*, *Pinus banksiana*, *P. resinosa*, *P. strobus*, *P. virginiana*.
Notes: (3) Blackman 1928b: 72 (re-described).
References: **(cn)** Blackman 1950; Browne 1968b: 564; Chamberlin 1924; Currie 1905: 80; Doane et al. 1936; Hopkins 1899c: 443, 1901b: 8, 1904a: 24; Lindquist, O. H. & Syme 1981: 88; Martin, J. L. 1964; Schuder 1969: 80; Swaine 1918a: 97, 102; Syme & Nystrom 1988: 84. **(cc)** Bushing 1965: 464; Felt 1906: 674; Frederick, Sloan, & Skowron 1976; Hopkins 1901b: 8; Pierce, W. D. 1908: 357; Thomas & Lindquist 1956: 2. **(hb)** Baker, W. L. 1972: 255; Blackman 1950; Browne 1968b: 564; Chamberlin 1939: 377; Clittenden 1893a: 393; Doane et al. 1936; Felt 1906: 674; Hopkins 1899c: 443, 1901b: 8, 1904a: 24; Pierce, W. D. 1907: 290; Swaine 1918a: 97, 102. **(ds)** Anonymous 1926c: 519; Atkinson et al. 1991: 162; Baker, W. L. 1972: 255; Blackman 1950; Blatchley & Leng 1916: 633; Bright 1976d: 185, 1981d: 174; Browne 1968b: 564; Chamberlin 1925, 1939: 377; Currie 1905; Deyrup & Atkinson 1987b: 67; Dodge 1938; Drooz 1985: 364; Hagedorn 1910d: 70; Henshaw 1882: 268, 1885: 147; Hopkins 1893a: 130, 1893b: 209; Hubbard & Schwarz 1878a: 665; Kleine 1913b: 140, 1934a: 159; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 88; Morgan, A. V. & Morgan 1980: 1110; Proctor 1946: 208; Schuder 1969: 80; Schwert et al. 1985; Swaine 1909: 133; Syme & Nystrom 1988: 84; Wichmann 1896a: 309; Wood, S. L. 1952b: 1077. **(tx)** Blackman 1919b: 134–136, 142, 1928b: 72; Blatchley & Leng 1916: 633; Bright 1981d: 174, 355; Chamberlin 1939: 377; Dodge 1938: 43–45; Hagedorn 1910a: 100; LeConte 1876: 353; Lindquist, O. H. & Syme 1988: 84; Swaine 1909: 133–134, 1917: 24, 1918a: 97, 102; Syme & Nystrom 1988: 84; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1977d: 514, 1982b: 1077. **(ms)** Eckstein 1900c.
- canadensis* Swaine 1917: 24. Lectotype ♀; Ste. Anne de Bellvue, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1967b: 678. Synonymy: Blackman 1928b: 72.
References: **(cn)** Chamberlin 1924; Swaine 1918a: 97, 102. **(hb)** Swaine 1918a: 97, 102. **(ds)** Anonymous 1926c: 519; Beaulne 1956; Britton 1920a; Chamberlin 1925; Hatch 1924; Leng 1920: 341; Leonard 1928: 519. **(tx)** Blackman 1919b: 136–137, 1922c, 1928b: 72; Bright 1967b: 678; de Ruelle 1970: 108; Swaine 1917: 24, 1918a: 97, 102.
- cognatus* Blackman 1928b: 69. Holotype ♀; Davidson's R., Asheville, North Carolina, 3200 ft. [USA]; USNM, Washington. Synonymy: Wood 1977d: 514.
References: **(cn)** Blackman 1950; Schuder 1969: 80. **(hb)** Beal & Massey 1945: 132; Blackman 1950; Chamberlin 1939: 376. **(ds)** Beal & Massey 1945: 132; Blackman 1950; Chamberlin 1939: 376; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Schuder 1969: 80. **(tx)** Beal & Massey 1945: 132; Blackman 1928b: 69; Chamberlin 1939: 376; de Ruelle 1970: 108; Wood, S. L. 1977d: 514.
- carinulatus* **Swaine** 1925b: 193. Holotype ♂; Tres Ritos, New Mexico [USA]; CNCI, Ottawa.
Distribution: North America (Alaska/ Arizona, Colorado, New Mexico, Utah in USA).

- Hosts: *Picea engelmannii*, *P. pungens*, 2 males from Alaska in *Pinus contorta*.
- References: **(hb)** Chamberlin 1939: 375. **(ds)** Bright 1981d: 228; Chamberlin 1939: 375; Evans, D. 1983: 35; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1068. **(tx)** Blackman 1928b: 60, 66–67; Bright 1967b: 678, 1977: 514, 1981d: 228; Chamberlin 1939: 375; Evans, D. 1983: 35; LeConte 1874a: 70; de Ruelle 1970: 108; Swaine 1925b: 193; Wood, S. L. 1977b: 209, 1982b: 1068.
- opimus* Blackman 1928b: 80. Holotype ♀; Capitan Mts., New Mexico [USA]; USNM, Washington. Synonymy: Bright 1977: 514.
- References: **(cn)** Evans, D. 1982; Lindgren 1980: 69. **(ce)** Stevens 1973. **(hb)** Bright & Stark 1973: 109; Chamberlin 1939: 379; Evans, D. 1982; Lindgren, B. 1980a: 69. **(ds)** Bright 1976d: 183; Bright & Stark 1973: 109; Chamberlin 1939: 379; Keen 1929a: 32; Kleine 1934a: 160; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 62, 80–81; Bright 1971b: 67, 1977: 514; Chamberlin 1939: 379; Evans, D. 1982; Keen 1929a: 32; McNamara 1984: 757; Wood, S. L. 1951a: 128.
- carmeli* Swaine 1918a: 100. Holotype ♀; Carmel, California [USA]; CNCI, Ottawa.
- Figures: Bright 1981d: 347.
- Distribution: North America (California).
- Hosts: *Pinus attenuata*, *P. coulteri*, *P. muricata*, *P. radiata*, *P. torreyana*.
- Notes: (3) Blackman 1928b: 97 (redescribed). The holotype is missing from its microcard and may be lost (DEB).
- References: **(cn)** Anonymous 1964h, 1966p, 1968g, 1975d; Doane et al. 1936; Herrick 1935: 250; Swaine 1918a: 96, 100. **(ce)** Bushing & Bright 1965: 203; Kimm 1971; Marsh 1979: 150. **(hb)** Bright 1981d: 137; Bright & Stark 1973: 111; Burke 1932; Chamberlin 1939: 385; Doane et al. 1936; Herrick 1935: 250; Swaine 1918a: 96, 100. **(ds)** Anonymous 1964h, 1966p, 1968g, 1975d; Bright 1981d: 137; Bright & Stark 1973: 111; Burke 1932: 366, 1933: 49–59, 1937: 28; Chamberlin 1925, 1939: 385; Hopping 1922; Keen 1929a: 33; Kleine 1934a: 159; Leng 1920: 341; Wood, S. L. 1982b: 1049. **(tx)** Blackman 1928b: 97; Bright 1964: 166, 1967b: 678, 1981d: 137, 347; Chamberlin 1939: 385; Keen 1929a: 33; de Ruelle 1970: 108; Swaine 1918a: 96, 100; Wood, S. L. 1982b: 1049.
- torreyanae* Swaine 1918a: 101. Holotype ♀; San Diego, California [USA]; CNCI, Ottawa. Synonymy: Blackman 1928b: 98.
- References: **(cn)** Keen 1929: 54; Swaine 1918a: 97, 101. **(hb)** Keen 1929: 54; Swaine 1918a: 97, 101. **(ds)** Chamberlin 1925: Hopping 1922; Keen 1929: 54; Leng 1920: 341. **(tx)** Blackman 1928b: 97; Bright 1970: 679; de Ruelle 1970: 111; Swaine 1918a: 97, 101–102.
- carriolicus* Wichmann 1910a: 145. Syntypes, sex²; Krain (Anstria-Hung.); Adelsberg; not given.
- Figures: Grune 1979: 118.
- Distribution: Europe (Austria/ Czechoslovakia/ France/ Germany/ Hungary).
- Hosts: *Pinus nigra*, *P. sylvestris*.
- References: **(bv)** Grune 1979: 119. **(ce)** Nosek 1959b: 87; Pfeffer 1960: 346; Wichmann 1916: 23. **(hb)** Nosek 1959b: 87; Spessivtsev 1921b: 221, 1923: 208; Wichmann 1916: 23. **(ds)** Bovey 1976; Grune 1979: 119; Holzschuh 1966: 61; Horion 1951; Karpinski 1931: 30; Kleine 1913a: 35, 1934a: 159; Lucht 1987: 278; Pfeffer 1960: 346, 1976: 340, 1984: 277, 1989a: 65; Postner 1974: 436; Schedl 1980a: 22, 1981b: 78. **(tx)** Balachowsky 1949a: 238; Eggers 1915b; Grune 1979: 118–119; Lucht 1987: 278; Pfeffer 1927: 111–112, 1940b: 109, 113, 123, 1955a: 220, 1976: 340; Postner 1974: 436; Reitter 1913a: 94; Schedl 1934f: 1643, 1980a: 22, 1981b: 78; Spessivtsev 1922: 221, 1926: 50; Wichmann 1910a: 145, 1913d: 144, 1916: 23–25, 1916: 432–433.
- cascoensis* Blackman 1928b: 99. Holotype ♀; Peak Island, Maine [USA]; USNM, Washington.
- Figures: Bright 1981d: 349.
- Distribution: North America (Alberta, Newfoundland, Northwest Territories, Ontario in Canada/ Maine, New York in USA).
- Hosts: *Picea glauca*.
- References: **(cn)** Blackman 1950. **(hb)** Blackman 1950; Chamberlin 1939: 386. **(ds)** Blackman 1950; Bright 1976d: 186, 1981d: 150; Chamberlin 1939: 386; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1088. **(tx)** Blackman 1928b: 89, 99–100; Bright 1977: 515, 1981d: 150, 349; Chamberlin 1939: 386; McNamara 1984: 754; Wood, S. L. 1977b: 209, 1982b: 1088.
- pilifer* Schedl 1931b: 166. Holotype ♀; Frater, Ontario [Canada]; CNCI, Ottawa. Synonymy: Bright 1977: 515.
- References: **(hb)** Chamberlin 1939: 378. **(ds)** Chamberlin 1939: 378; Kleine 1934a: 161; Leng & Mutchler 1933: 95. **(tx)** Bright 1977: 515; Chamberlin 1939: 378; de Ruelle 1970: 110; Schedl 1931b: 166–168.
- cavatus* Bright 1978: 74. Holotype ♀; Canoe Lake, Saskatchewan [Canada]; CNCI, Ottawa.
- Distribution: North America (Manitoba, Saskatchewan in Canada).
- Hosts: *Pinus banksiana*, *P. resinosa*.
- References: **(ds)** Bright 1981d: 187; Wood, S. L. 1982b: 1075. **(tx)** Bright 1978: 74, 1981d: 187; McNamara 1984: 754; Wood, S. L. 1982b: 1075.
- cedri* Wood 1989: 182. Holotype ♀; Kashmir; Buniyār, Jhelum Valley; FRI, Dehra Dun.
- Distribution: Asia (Kashmir in India).
- Hosts: *Cedrus deodara*, *Pinus gerardiana*.
- Notes: (1) Beeson 1941: 292 (*cedri*, nomen nudum).
- References: **(tx)** Wood, S. L. 1989: 182.

- celatus (Schedl)** 1967d: 9 (*Breriophthorus*). Holotype, sex?; Nova Teutonia, Santa Catarina, Brasilien; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) McNamara 1977: 194; Schedl 1967d: 9–10, 1979c: 55.
- cephalonicae Pfeffer** 1940b: 119. Syntypes, sex?; Graecia Meridionalis, Montes Chelmos; Pfeffer Collection in Prague Museum. Distribution: Europe (Greece/ Poland). Hosts: *Abies cephalonica*, *A. alba*. References: (bv) Grune 1979: 119. (ec) Michalski & Ratajczak 1989. (hb) Karpinski 1955: 80. (ds) Atkinson et al. 1986: 38; Grune 1979: 119; Karpinski 1955: 80; Nunberg 1954: 71, 1956c: 163, 168; Pfeffer 1940b: 119, 1947: 129, 1976: 340; Postner 1974: 437. (tx) Grune 1979: 119; Nunberg 1954: 71; Pfeffer 1940b: 108, 119, 1955a: 215, 1976: 340; Postner 1974: 437.
- polonicus Karpinski** 1949: 125. Syntypes, sex?; mountain forests of National Park in Pieniny (Carpathian Mts.); Karpinski Collection. Synonymy: Nunberg 1956c: 163. References: (ec) Boucek 1955: 83–92; Graham 1969: 878; Nuorteva 1957b: 69. (hb) Karpinski 1955: 77. (ds) Horion 1951; Karpinski 1949: 125, 1955: 77. (tx) Karpinski 1949: 125; Nunberg 1956c: 161, 163, 168.
- chalcoensis Hopkins** 1905b: 73. Holotype ♀; Chalco, Mexico; USNM, Washington. Distribution: North America (Mexico, Michoacan in Mexico). Hosts: *Pinus* sp. (bole). Notes: (1) Hopkins published the species name *chalcoensis* and the type locality as "Chaleco," but the label on the holotype clearly reads "Chalco." The error in spelling is an obvious lapsus calami that was corrected in Wood 1982b: 1099. References: (ds) Atkinson & Equihua 1985a: 97, 1988: 96; Blackwelder 1947: 781; Bright 1981d: 279; Ferrer 1942; Hagedorn 1910d: 70; Kleine 1913b: 140, 1914b: 351; Wood, S. L. 1982b: 1099. (tx) Bright 1978: 71, 1981d: 279; Hagedorn 1910a: 100; Hopkins 1905b: 73; Schedl 1940a: 348; Wood, S. L. 1982b: 1099.
- herrarii Hopkins** 1905b: 71. Syntypes, sex?; Chalco, Mexico; USNM, Washington. Synonymy: Bright 1978: 71. References: (ds) Blackwelder 1947: 782; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 351. (tx) Bright 1978: 71; Hagedorn 1910a: 101; Hopkins 1905b: 71; Schedl 1940a: 348.
- chilgoza Wood** 1989: 183. Holotype ♀; Punjab; Kilba, U. Bashar; FRI, Dehra Dun. Distribution: Asia (Punjab in India). Hosts: *Pinus gerardiana*. Notes: (1) Beeson 1941 (1961: 292) (*chilgoza*, nomen nudum). References: (tx) Wood, S. L. 1989: 183.
- ciliatus Blackman** 1942a: 211. Holotype ♀; Jalapa, Veracruz, Mexico; USNM, Washington. Distribution: North America (Veracruz in Mexico). Hosts: *Pinus patula*, *P.* sp. References: (hb) Atkinson & Equihua 1985c: 360. (ds) Atkinson & Equihua 1985c: 360, 1988: 94; Bright 1981d: 250; Thomas, J. B. 1966; Wood, S. L. 1982b: 1069. (tx) Blackman 1942a: 211; Bright 1981d: 250; McNamara 1984: 754; Wood, S. L. 1982b: 1069.
- clarus Blackman** 1928b: 130. Holotype ♀; Kaibab National Forest, Arizona [USA]; USNM, Washington. Distribution: North America (Arizona). Hosts: *Pinus leiophylla*, *P. ponderosa*. References: (cn) Blackman 1931c. (ec) Blackman 1931c. (hb) Blackman 1931c; Chamberlin 1939: 397. (ds) Bright 1981d: 324; Chamberlin 1939: 397; Keen 1929a: 33; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1108. (tx) Blackman 1928b: 130; Bright 1981d: 324; Chamberlin 1939: 397; Keen 1929a: 33; de Ruelle 1970: 108; Wood, S. L. 1982b: 1108.
- clivus Bright** 1977: 522. Holotype ♀; Cerro Potosi, Nuevo Leon, Mexico; CNCI, Ottawa. Distribution: North America (Nuevo Leon in Mexico). Hosts: *Pinus strobiformis*. References: (ds) Bright 1981d: 250; Wood, S. L. 1982b: 1040. (tx) Bright 1977: 522, 1981d: 250; McNamara 1984: 754; Wood, S. L. 1982b: 1040.
- collaris Schedl** 1965c: 67. Holotype ♀; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien. Distribution: Madagascar. Hosts: Tree twigs. References: (tx) Schedl 1965c: 67, 1977b: 110, 1979c: 59.
- comosus Blackman** 1928b: 65. Holotype ♀; Sacramento Mts., New Mexico [USA]; USNM, Washington. Distribution: North America (Durango in Mexico/ Arizona, New Mexico in USA). Hosts: *Pinus ponderosa*. References: (hb) Chamberlin 1939: 375. (ds) Bright 1981d: 277; Chamberlin 1939: 375; Keen 1929a: 32; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1045. (tx) Blackman 1928b: 65; Bright 1977: 514, 1981d: 277; Chamberlin 1939: 375; Keen 1929a: 32; McNamara 1984: 754; Wood, S. L. 1982b: 1045.
- foratus Wood** 1967d: 40. Holotype ♀; 16 km W El Salto, Durango, Mexico; CNCI, Ottawa. Synonymy: Bright 1977: 514. References: (tx) Bright 1977: 514; de Ruelle 1970: 109; Wood, S. L. 1967d: 40.
- concarus Blackman** 1928b: 85. Holotype ♀; Seney, Michigan [USA]; USNM, Washington.

Distribution: North America (British Columbia (?), New Brunswick, Nova Scotia, Ontario, Quebec in Canada/ Maine, Michigan, Wisconsin in USA). The British Columbia population could be distinct.

Hosts: *Pinus banksiana*, *P. resinosa*, *Picea glauca*.
References: (cn) Blackman 1950. (hb) Blackman 1950; Chamberlin 1939: 380. (ds) Blackman 1950; Bright 1976d: 156, 1981d: 185; Chamberlin 1939: 380; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1075. (tx) Blackman 1928b: 85; Bright 1981d: 185; Chamberlin 1939: 380; Wood, S. L. 1982b: 1075.

hesperius Bright 1978: 76. Holotype ♀; Hudson Hope, British Columbia [Canada]; CNCI, Ottawa. Synonymy: Wood 1982b: 1075.

Notes: (1) This could possibly be a subspecies; not enough material available for study to evaluate (SLW); should be treated as a species (DEB).

References: (ds) Bright 1981d: 181. (tx) Bright 1978: 76, 1981d: 181; McNamara 1984: 755; Wood, S. L. 1982b: 1075.

concentralis Eichhoff 1878b: 188. Holotype, sex?; Cuba; Hamburg Museum, lost; neotype ♀: Biscayne Bay, Florida [USA]; USNM, Washington, designated by Bright 1978: 72.

Figures: Bright 1981d: 337.

Distribution: Antilles Islands (Bahamas Islands/Cuba), North America (Florida in USA).

Hosts: *Metopium toxiferum*.

References: (cn) Swaine 1918a: 95, 104. (cc) Schwarz 1889a: 163. (hb) Chamberlin 1939: 361; Swaine 1918a: 95, 104. (ds) Beutenmuller 1891: 50; Blackwelder 1947; Blatchley & Leng 1916: 630; Bright 1981d: 56, 1985c: 176; Chamberlin 1939: 361; Hagedorn 1910d: 70; Henshaw 1895: 44, 1899: 132; Kleine 1913b: 140, 1914b: 378, 383, 1934a: 159; Leng 1920: 341; Schwarz 1889a: 163–164; Swaine 1909: 134; Wood, S. L. 1957c: 401, 1982b: 1114. (tx) Blackman 1928b: 37, 40; Blatchley & Leng 1916: 630; Bright 1978: 72, 1981d: 56, 337, 1985c: 176; Chamberlin 1939: 361; Eichhoff 1878a: 389, 1878b: 188; Hagedorn 1910a: 100; Swaine 1909: 134, 1918a: 95, 104; Wood, S. L. 1957c: 401, 1982b: 1114.

lateralis Swaine 1917: 27. Lectotype ♀; Key West, Florida [USA]; Cornell University, Ithaca, New York, designated by Bright 1967b: 678. Synonymy: Wood 1957c: 401.

References: (cn) Swaine 1918a: 95, 104. (hb) Chamberlin 1939: 361; Swaine 1918a: 95, 104. (ds) Chamberlin 1939: 361; Kleine 1934a: 160; Leng 1920: 341. (tx) Blackman 1928b: 37, 40; Bright 1967b: 678; Chamberlin 1939: 361; Hoebeke 1978; de Ruelle 1970: 110; Swaine 1917: 27, 1918a: 95, 104; Wood, S. L. 1957c: 401, 1982b: 1114.

concinus Wood 1977b: 214. Holotype ♀; in wood from Plaquepaque, Mexico, intercepted at Nogales, Arizona [USA]; USNM, Washington.

Distribution: North America ("Mexico").

References: (ds) Bright 1981d: 34; Wood, S. L. 1982b: 1116. (tx) Bright 1981d: 34; Wood, S. L. 1977b: 214, 1982b: 1116.

confertus Swaine 1917: 27. Lectotype ♀; Adams Lake, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1966b: 304, 1967b: 678.

Figures: Bright 1981d: 306, 372, Evans 1982: 31.

Distribution: North America (S British Columbia in Canada/ Baja California, Chihuahua, Coahuila, Hidalgo, Nuevo Leon, Puebla in Mexico/ Arizona, California, Colorado, Idaho, W Montana, Nevada, New Mexico, Oregon, W Texas, Utah, Washington, Wyoming in USA).

Hosts: *Pinus albicollis*, *P. cembroides*, *P. contorta*, *P. edulis*, *P. flexilis*, *P. jeffreyi*, *P. monticola*, *P. ponderosa*, *P. strobiformis*.

Notes: (3) Blackman 1928b: 122 (redescribed). Bright 1981d: 307 (subspecies *agnatus* recognized, validity?).

References: (bv) Jacobson 1972; Miller & Keen 1960: 115; Schmitz 1988; Vite 1965: 267; Vite & Pitman 1967: 683–701. (cn) Chamberlin 1924; Evans, D. 1982b: 8; Keen 1929: 53; Lindgren 1980a: 68; Miller & Keen 1960: 115; Ruppel 1967: 78; Salman 1938a: 613–616; Schuder 1969: 78; Swaine 1918a: 98, 103. (cc) Amman, A. G., Amman, & Amman 1974; Chatelain & Schenk 1983; Dahlsten & Stephen 1974: 1213; Deyrup & Gara 1978: 275; Miller & Keen 1960: 115; Rice 1965; Salman 1938a: 613; Schmitz 1988. (hb) Amman, A. G., Amman, & Amman 1974; Bright & Stark 1973: 115; Chamberlin 1939: 395, 1955; Evans, D. 1982: 8; Keen 1929: 53; Lindgren 1980a: 68; Miller & Keen 1960: 115; Schmitz 1988; Swaine 1918a: 98, 103. (ds) Amman, A. G., Amman, & Amman 1974; Atkinson & Equihua 1985c: 361, 1988: 94; Bright 1976d: 181, 1981d: 305; Bright & Stark 1973: 115; Chamberlin 1917: 355, 1925, 1939: 395, 1955; Evans, D. 1983: 35; Furniss, R. L. & Carolin 1977: 402; Hopping 1922; Keen 1929a: 33; 1929c: 53; Kleine 1934a: 159; Leng 1920: 341; McComb et al. 1953: 2; Patterson & Hatch 1945: 153; Ruppel 1967: 78; Schuder 1969: 78; Wood, S. L. 1948: 53, 1951a: 128, 1972a: 427, 1982b: 1107. (tx) Blackman 1928b: 115, 122–123; Bright 1966b: 304, 1967b: 678, 1981d: 305–306, 372; Chamberlin 1939: 395, 1955; Evans, D. 1982: 8, 31, 1983: 35; Hoebeke 1978; Keen 1929a: 33; de Ruelle 1970: 109; Swaine 1917: 27, 1918a: 98, 103; Wood, S. L. 1951a: 128, 1972a: 427, 1977d: 514, 1982b: 1107. *agnatus* Blackman 1928b: 125. Holotype ♀; Clondercroft, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1977d: 514.

Notes: (1) Bright 1981d: 305 (treated as a sub-

- species, validity doubtful). Wood 1952b: 1107 (this name was based on a minor clinal variation with no taxonomic value).
References: (**hb**) Chamberlin 1939: 396. (**ds**) Bright 1981d: 305; Chamberlin 1939: 396; Keen 1929a: 33; Kleine 1934a: 158; Leng & Mutchler 1933: 52. (**tx**) Blackman 1928b: 115, 125–127; Bright 1981d: 305; Chamberlin 1939: 396; Keen 1929a: 33; de Ruelle 1970: 107; Wood, S. L. 1977d: 514.
- comptus* Blackman 1928b: 127. Holotype ♀: Santa Catalina Mts., Arizona [USA]; USNM, Washington. Synonymy: Wood 1977d: 514.
References: (**hb**) Chamberlin 1939: 396. (**ds**) Chamberlin 1939: 396; Keen 1929a: 33; Kleine 1934a: 159; Leng & Mutchler 1933: 52. (**tx**) Blackman 1928b: 127; Chamberlin 1939: 396; Keen 1929a: 33; de Ruelle 1970: 109; Wood, S. L. 1977d: 514.
- burkei* Blackman 1928b: 129. Holotype ♀; Meyers, California [USA]; USNM, Washington. Synonymy: Bright 1966b: 304.
References: (**ec**) Bushing 1965: 464; DeLeon 1934a. (**hb**) Chamberlin 1939: 396, 1958. (**ds**) Chamberlin 1939: 396, 1958; Keen 1929a: 33; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1948: 53, 1951a: 128. (**tx**) Blackman 1928b: 115, 129–130; Bright 1966b: 304; Chamberlin 1939: 396, 1958; Keen 1929a: 33; Wood, S. L. 1951a: 128.
- confinis* LeConte 1876: 354. Lectotype ♀; Mojave region, California [USA]; MCZ, Cambridge, designated by Bright 1976b: 185.
Figures: Bright 1976d: 204, 213, 1981d: 268, 367. Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming in USA).
Hosts: *Pinus albicaulis*, *P. contorta*, *P. conulteri*, *P. jeffreyi*, *P. lambertiana*, *P. monophylla*, *P. ponderosa*, *P. sabiniana*, *P. strobiformis*.
References: (**ay**) Hopkins 1894. (**bv**) Miller & Keen 1960: 115. (**en**) Anonymous 1964h; Chamberlin 1924; Currie 1905: 71; Doane et al. 1936; Essig 1926: 519, 1958: 519; Evans, D. 1982: 8; Felt 1906: 751; Hopkins 1894: 278, 1904a: 16; Keen 1929c: 53; Lindgren 1980a: 68; Miller & Keen 1960: 115; Salman 1938a: 613–618; Schuder 1969: 78; Swaine 1918a: 97, 101. (**ec**) Felt 1906: 751; Miller & Keen 1960: 115; Salman 1938a: 613. (**hb**) Bright 1981d: 267; Bright & Stark 1973: 267; Chamberlin 1939: 375, 1958; Doane et al. 1936; Essig 1926: 519, 1958: 519; Evans, D. 1982: 8; Felt 1906: 751; Hopkins 1894g, 1904a: 16; Keen 1929c: 53; Lindgren 1980a: 68; Miller & Keen 1960: 115; Pierce, W. D. 1907: 290; Swaine 1918a: 97, 101. (**ds**) Anonymous 1964h; Atkinson & Equihua 1985: 94; Bright 1976d: 181, 1981d: 267; Bright & Stark 1973: 111; Chamberlin 1925, 1939: 375, 1958; Currie 1905; Essig 1926: 519, 1958: 519; Evans, D. 1983: 35; Ferrer 1942; Furniss, R. L. & Carolin 1977: 402; Gast et al. 1989: 385; Hagedorn 1910d: 70; Henshaw 1882: 268, 1885: 147; Hopkins 1893a: 130, 1893b: 209, 1899: 284, 344, 443; Hopping 1922; Keen 1929a: 32, 1929c: 53; Kleine 1913b: 140, 1914b: 351, 391, 1934a: 159; Leng 1920: 341; Patterson & Hatch 1945: 163; Schuder 1969: 78; Swaine 1909: 135; Wood, S. L. 1972a: 426, 1982b: 1079. (**tx**) Blackman 1928b: 60, 67; Bright 1976b: 185, 1976d: 204, 213, 1981d: 267–268, 367; Chamberlin 1939: 375, 1958; Evans, D. 1982: 8, 1983: 35; Hagedorn 1910a: 100; Keen 1929a: 32; LeConte 1876: 354; Schedl 1940a: 348; Swaine 1909: 135, 1918a: 97, 101; Wood, S. L. 1972a: 426, 1982b: 1079.
- confractus* Bright 1985c: 179. Holotype ♀; Jamaica: Portland between Hardwar Cap and Green Hills, 1100 m; Carnegie Museum of Natural History, Pittsburgh.
Distribution: Antilles Islands (Jamaica).
References: (**ds**) Bright 1985c: 176, 179. (**tx**) Bright 1985c: 176, 179.
- confusus* Blandford 1904: 237. Lectotype ♀; San Geronimo, Guatemala; BMNH, London, designated by Bright 1976b: 184.
Figures: Bright 1981d: 370.
Distribution: North America (El Salvador/ Guatemala/ Honduras/ Chiapas, Durango, Guerrero, Jalisco in Mexico/ Nicaragua/ Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Pennsylvania, South Carolina, Texas, Virginia, West Virginia in USA).
Hosts: *Pinus chhinata*, *P. elliotti*, *P. michoacana*, *P. ochoterrenai*, *P. oocarpa*, *P. palustris*, *P. taeda*.
Notes: (3) Bright 1981d: 291 (subspecies *bellus* recognized). Subspecies apparently based on obscure clinal variation; validity very doubtful (SLW).
References: (**bv**) Turnbow & Franklin 1980. (**ec**) Becker 1953, 1955. (**hb**) Becker 1953, 1955; Deyrup & Atkinson 1957a: 66; Schwerdtfeger 1957c: 494. (**ds**) Atkinson & Equihua 1985c: 360, 1988: 96; Becker 1953; Blackwelder 1947: 781; Bright 1981d: 291; Deyrup & Atkinson 1957a: 66; Kleine 1913b: 140, 1914b: 363; Schedl 1963c: 158, 1977e: 42; Turnbow & Franklin 1980; Wood, S. L. 1977a: 72, 1982b: 1100. (**tx**) Blandford 1904: 237; Bright 1976b: 184, 1981d: 291; Hagedorn 1910a: 100; Hopkins 1905b: 74; de Ruelle 1970: 104; Schedl 1938a: 183, 1955g: 18–19; Wood, S. L. 1977d: 515, 1982b: 1100.
- bellus* Blackman 1928b: 123. Holotype ♀; Monongalia Co., West Virginia [USA]; USNM, Washington. Synonymy: Wood 1977d: 515.
Notes: (3) Bright 1981: 291 (a subspecies of *confusus*, validity?).
References: (**en**) Blackman 1950. (**hb**) Beal & Massey 1945: 129; Blackman 1950; Chamberlin

1939: 396. **(ds)** Beal & Massey 1945: 129; Blackman 1950; Bright 1981d: 291; Chamberlin 1939: 396; Kirk 1969, 1970; Kleine 1934a: 158; Knull 1932: 66; Leng & Mutchler 1933: 52; Smith, J. B. 1910: 401. **(tx)** Beal & Massey 1945: 129; Blackman 1928b: 115, 123–124; Bright 1981d: 291, 370; Chamberlin 1939: 396; Hopkins 1915c: 186; de Ruelle 1970: 108; Wood, S. L. 1977d: 515.

congonus Eggers 1927a: 185. Syntypes, sex?, Belg. Congo: MRCB, Tervuren and Eggers Collection, 1 Eggers syntype in NIMW, Wien.

Distribution: Africa (Zaire).

Hosts: *Azelia africanus*, *Albizzia gummifera*, *Pentaclethra celtidifera*.

References: **(cn)** Ghesquiere 1933a, **(hb)** Schedl 1962j: 6. **(ds)** Ghesquiere 1933a: 33–35, 1933b: 783; Kleine 1934a: 159; Schedl 1962j: 6. **(tx)** Eggers 1927a: 185; Schedl 1933a: 183, 1962j: 5, 7, 1965f: 10, 1979c: 63.

conscriptus Bright 1986b: 680. Holotype ♀; Mexico: La Herradura, Mpio, Tepoztlán, Mor; CNCI, Ottawa.

Distribution: North America (Morelos in Mexico).

References: **(tx)** Bright 1986b: 680.

consimilis LeConte 1878b: 622. Lectotype ♂; Marquette, Michigan [USA]; MCZ, Cambridge, designated by Bright 1976b: 185.

Figures: Bright 1981d: 369.

Distribution: North America (Alberta, British Columbia, Manitoba, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Florida, Georgia, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New York, North Carolina, Ohio, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Picea glauca*, *P. sp.*, *Pinus banksiana*, *P. resinosa*, *P. rigida*, *P. strobus*, *P. taeda*, *P. virginiana*, *P. spp.*, *Larix laricina*.

Notes: (3) Blackman 1928b: 131 (redescribed).

References: **(ay)** Thomas, J. B. 1957: 4. **(cn)** Beutenmiller 1891: 50; Blackman 1950; Doane et al. 1936; Felt 1906: 482, 503, 737; Schuder 1969: 80; Swaine 1918a: 104; Syme & Nystrom 1988: 84; Thomas, J. B. 1958: 394. **(ec)** Ashmead 1894: 33; Bushing 1965: 464; Felt 1906: 482; Pierce, W. D. 1908: 385; Riley 1891c: 123; Riley & Howard 1891: 123; Schwarz 1889a: 163; Thomas, J. B. 1958: 394. **(hb)** Beal & Massey 1945; Blackman 1950; Chamberlin 1939: 397; Doane et al. 1936; Felt 1906: 482; Swaine 1918a: 104. **(ds)** Anonymous 1926c: 519; Beal & Massey 1945; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 630; Bright 1976d: 186, 1981d: 283; Burks 1979: 781; Chamberlin 1939: 397; Chapin 1917: 29; Deyrup 1951b: 8; Dodge 1938; Evans, D. 1983: 35; Hagedorn 1910d: 71; Henshaw 1882: 268, 1885: 147; Hopkins 1893a: 130, 1893b: 209;

Hubbard & Schwarz 1878a: 665, 1878b: 622; Kleine 1913b: 140, 1914b: 384, 1934a: 159; Leng 1920: 341; Leonard 1928: 519; Notman 1920: 184; Schuder 1969: 80; Schwarz 1889a: 163–164, 1891c: 357; Swaine 1909: 135; Syme & Nystrom 1988: 84; Ulke 1902: 56; Wood, S. L. 1982b: 1104. **(tx)** Beal & Massey 1945; Blackman 1921: 14–16, 1928b: 116, 131–133; Blatchley & Leng 1916: 630; Bright 1976b: 185, 1981d: 283, 369; Chamberlin 1939: 397; Dodge 1938: 43, 45; Evans, D. 1983: 35; Hagedorn 1910a: 100; LeConte 1878b: 622; Schedl 1955g: 25; Schwarz 1891a: 167, 1891c: 357, 1893: 167, 1909: 135; Swaine 1909: 135, 1918a: 104; Syme & Nystrom 1988: 84; Thomas, J. B. 1957: 4; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1977d: 515, 1982b: 1104. **gramulatus** Swaine 1917: 28. Lectotype ♂; presumably Manitoba, Quebec, or Nova Scotia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 675. Synonymy: Blackman 1928b: 132.

References: **(cn)** Barker 1949: 82; Browne 1968b: 566; Chamberlin 1924; Pettit 1928: 1–2; Swaine 1918a: 98, 103. **(hb)** Blackman 1919a, 1922b; Browne 1968b: 564; Swaine 1918a: 98, 103. **(ds)** Anonymous 1926c: 519; Blackman 1922b; Browne 1968b: 564; Chamberlin 1925; Hatch 1924; Kleine 1934a: 160; Leng 1920: 341; Leonard 1928: 519. **(tx)** Blackman 1919a: 85–96, 1919b: 137–139, 1922b: 101, 107–108, 1928b: 131–133; Bright 1967b: 678; Hoebeke 1978; de Ruelle 1970: 109; Swaine 1917: 28, 1918a: 98, 103.

mudus Swaine 1917: 30. Lectotype ♂; Ste. Anne de Bellevue, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1967b: 678. Synonymy: Wood 1977d: 515.

References: **(cn)** Blackman 1950; Chamberlin 1924; Swaine 1918a: 98, 104; Swaine & Craighead 1924: 1–27. **(hb)** Beal & Massey 1945; Blackman 1922b: 102, 108, 1950; Chamberlin 1939: 397; Swaine 1918a: 98, 104; Thomas, J. B. 1958: 394. **(ds)** Anonymous 1926c: 519; Beal & Massey 1945; Beaulne 1956; Blackman 1922b: 102, 108, 1950; Chamberlin 1925, 1939: 397; Dodge 1938; Hatch 1924; Kleine 1934a: 160; Knull 1932: 66; Leng 1920: 341; Leonard 1928: 519. **(tx)** Beal & Massey 1945; Blackman 1919b: 139–140, 1922b: 102, 108, 1928b: 113, 116; Bright 1967b: 678; Chamberlin 1939: 397; Dodge 1938: 43–45; Hoebeke 1978; de Ruelle 1970: 110; Swaine 1917: 28, 30, 1918a: 98, 103–106; Wood, S. L. 1977d: 515.

conspicuosus Wood 1976c: 360. Holotype ♀; Volcan Irazu, Cartago, Costa Rica, 2300 m; Wood Collection. Distribution: North America (Costa Rica).

Hosts: *Quercus* sp.

References: **(ds)** Bright 1981d: 105; Wood, S. L.

- 1952b: 1053. (tx) Bright 1951d: 105; Wood, S. L. 1976c: 360, 1982b: 1083.
- corouarius Blackman** 1942a: 220. Holotype ♀; Jalisco, Mexico; USNM, Washington. Figures: Bright 1951d: 334. Distribution: North America (Jalisco in Mexico). Hosts: *Sambucus* sp. References: (hb) Burgos & Saucedo 1983: 122. (ds) Atkinson & Equihua 1985c: 359; Atkinson et al. 1986: 70; Blackwelder 1947: 781; Bright 1951d: 33, 1955a: 472; Burgos & Saucedo 1983: 122; Wood, S. L. 1942a: 220, 1952b: 1115. (tx) Blackman 1942a: 220; Bright 1951d: 33, 334.
- corruptus Wood** 1976c: 363. Holotype ♀; 5 km S Matamoros, Puebla, Mexico, 2000 m; Wood Collection. Distribution: North America (Puebla in Mexico). Hosts: *Toxicolendron* sp. References: (ds) Bright 1951d: 68, 1986a: 645, 1986b: 682. (tx) Bright 1951d: 65; McNamara 1984: 754; Wood, S. L. 1976c: 363, 1982b: 1133.
- cortezii Bright** 1977: 523. Holotype ♀; Ixtacuiluatl-Popocatepetl National Park, Mexico-Puebla border, Mexico; CNCI, Ottawa. Figures: Bright 1951d: 352. Distribution: North America (Mexico, Puebla in Mexico). Hosts: *Pinus hartwegii*. References: (hb) Atkinson & Equihua 1985c: 360; Atkinson et al. 1986a: 37. (ds) Atkinson & Equihua 1985a: 95, 1985c: 360, 1988: 96; Atkinson et al. 1986: 37; Bright 1951d: 172; Wood, S. L. 1982b: 1097. (tx) Bright 1977: 523, 1981d: 172, 352; McNamara 1984: 755; Wood, S. L. 1982b: 1097.
- corticalis Eichhoff** 1872a: 135. Holotype, sex?; Chili; Hamburg Museum, lost. Distribution: South America (Chile). References: (ds) Blackwelder 1947: 781; Gemminger & Harold 1872: 2688; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 332; Schedl 1972d: 144. (tx) Eichhoff 1872a: 135, 1878b: 191; Hagedorn 1910a: 100; Schedl 1938a: 183, 1951d: 17, 1951m: 112, 1972d: 144.
- costabilis Wood** 1976c: 352. Holotype ♀; 16 km W Tizapan, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco). Hosts: *Thevetia* sp. References: (ec) Equihua & Atkinson 1986: 634. (hb) Atkinson et al. 1986: 70; Equihua & Atkinson 1986: 634. (ds) Atkinson et al. 1986: 70; Bright 1951d: 74, 1985b: 482; Equihua & Atkinson 1986: 634; Wood, S. L. 1982b: 1121. (tx) Bright 1951d: 74, 1985b: 482; Wood, S. L. 1976c: 352, 1982b: 1121.
- costalimai Blackman** 1942a: 223. Holotype ♀; Brazil; USNM, Washington. Figures: Blackman 1942a: fig. 34. Distribution: South America (Brazil). References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Blackwelder 1947; Costa Lima 1956. (tx) Blackman 1942a: 223–224; Costa Lima 1956; Schedl 1938a: 165, 169.
- costatulus Wood** 1976c: 351. Holotype ♀; 29 km W Nilttepec, Oaxaca, Mexico; Wood Collection. Distribution: North America (Jalisco, Oaxaca in Mexico). Hosts: *Thevetia* sp. References: (ec) Equihua & Atkinson 1986: 634. (hb) Atkinson et al. 1986: 70; Burgos & Saucedo 1983: 122; Equihua & Atkinson 1986: 634. (ds) Atkinson et al. 1986: 70; Bright 1951d: 73, 1985b: 482; Burgos & Saucedo 1983: 122; Equihua & Atkinson 1986: 634; Wood, S. L. 1982b: 1120. (tx) Bright 1951d: 73; McNamara 1984: 755; Wood, S. L. 1976c: 351, 1982b: 1120.
- costatus Wood** 1975b: 395. Holotype ♀; Tapanti, Cartago, Costa Rica, 1800 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Liana. References: (ds) Bright 1951d: 47; Wood, S. L. 1982b: 1025. (tx) Bright 1951d: 47; McNamara 1984: 755; Wood, S. L. 1975b: 395, 1982b: 1025.
- costifera Bright** 1985b: 477. Holotype ♀; Mexico; Taxco, Guerrero; CNCI, Ottawa. Distribution: North America (Guerrero in Mexico). Hosts: Apocynaceae sp. References: (tx) Bright 1985b: 477.
- cracentis Bright** 1985b: 477. Holotype ♀; Mexico; Carr. Xochicalco-Cuentepec, Km 6, Tenixco, Moralia; CNCI, Ottawa. Distribution: North America (Morelos in Mexico). Hosts: Compositae sp. References: (tx) Bright 1985b: 477.
- crassus Blackman** 1928b: 67. Holotype ♀; Capitan, New Mexico [USA]; USNM, Washington. Figures: Bright 1951d: 368. Distribution: North America (Durango, Hidalgo, Mexico, Michoacan, Morelos, Nuevo Leon, Oaxaca, Puebla, Querteraro, Tlaxcala, Veracruz in Mexico; Arizona, Colorado, New Mexico, W Texas, Wyoming in USA). Hosts: *Pinus aristata*, *P. arizonica*, *P. ayacahuite*, *P. cembroides*, *P. contorta* (rare), *P. cooperi*, *P. culminicola*, *P. durangensis*, *P. edulis*, *P. engelmannii*, *P. flexilis*, *P. greggii*, *P. hartwegii*, *P. leiophylla*, *P. lunifolia*, *P. montezuma*, *P. oocarpa*, *P. patula*, *P. ponderosa*, *P. strobiliformis*, *P. teocote*. References: (hb) Atkinson et al. 1986: 37; Burgos & Saucedo 1983: 120; Chamberlin 1939: 376. (ds) Atkinson & Equihua 1985a: 97, 1988: 96; Atkinson et al. 1986: 37; Bright 1951c: 275; Burgos & Saucedo 1983: 120; Chamberlin 1939: 376; Keen 1929a: 32; Kleine 1934a: 159; Leng & Mutchler 1933: 62; Rio Mora 1985: 11; Schedl 1963c: 158. (tx) Blackman 1928b: 60, 67–69, 1942a: 212–213;

Bright 1981d: 275, 368; Chamberlin 1939: 376; Keen 1929a: 32; Rio Mora 1985: 11; de Ruelle 1970: 109; Wood, S. L. 1982b: 1081.

crinalis Blackman 1928b: 41. Holotype ♀; Washington, D.C. [USA]; USNM, Washington.

Figures: Bright 1981d: 338.

Distribution: North America (Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Mississippi, North Carolina, Texas, West Virginia in USA).

Hosts: *Rhus toxicodendron*, *R. vernix*.

References: (bv) Turnbow & Franklin 1980. (hb) Baker, W. L. 1972: 255; Beal & Massey 1945: 128; Chamberlin 1939: 362; Deyrup & Atkinson 1987a: 66. (ds) Beal & Massey 1945: 128; Bright 1981d: 66; Chamberlin 1939: 362; Deyrup 1981b: 8; Deyrup & Atkinson 1987a: 66; Drooz 1985: 363; Favinger & Wade 1973; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Turnbow & Franklin 1980; Wood, S. L. 1982b: 1134. (tx) Beal & Massey 1945: 128; Blackman 1928b: 41; Bright 1981d: 66, 338; Chamberlin 1939: 362; McNamara 1984: 755; Weber, B. C., & McPherson 1991: 54; Wood, S. L. 1982b: 1134.

cristatus Wood 1964: 68. Holotype ♀; 14 km N Perote, Veracruz, Mexico; Wood Collection.

Figures: Bright 1981d: 118, 343.

Distribution: North America (Durango, Hidalgo, Mexico, Michoacan, Oaxaca, Veracruz in Mexico/ Arizona in USA).

Hosts: *Pinus ayacahuite*, *P. engelmannii*, *P. leiophylla*, *P. lunholti*, *P. spp.*

References: (hb) Atkinson & Equihua 1985c: 359; Atkinson et al. 1986: 37; Burgos & Sancedo 1983: 118. (ds) Atkinson & Equihua 1985c: 359, 1985: 96; Atkinson et al. 1986: 37; Bright 1971b: 68, 1981d: 114; Burgos & Sancedo 1983: 118; Rio Mora 1985: 13; Thomas, J. B. 1966; Wood, S. L. 1982b: 1067. (tx) Bright 1981d: 114, 118, 343; Rio Mora 1985: 13; Wood, S. L. 1964: 68, 1982b: 1067.

crotonis Wood 1977d: 517. Holotype ♂; 30 km E Merida, Merida, Venezuela, 2500 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Croton* sp.

References: (tx) Wood, S. L. 1977d: 517.

culminicola Bright 1977: 524. Holotype ♀; Cerro Potosi, Nuevo Leon, Mexico; CNCI, Ottawa.

Figures: Bright 1981d: 359.

Distribution: North America (Nuevo Leon in Mexico).

Hosts: *Pinus culminicola*.

References: (ds) Bright 1981d: 215; Wood, S. L. 1982b: 1036. (tx) Bright 1977: 524, 1981d: 215, 359; McNamara 1984: 755; Wood, S. L. 1982b: 1036.

cuspidatus Blackman 1942a: 217. Holotype ♀; Jacala, Hidalgo, Mexico; USNM, Washington.

Distribution: North America (Durango, Hidalgo, Mexico, Puebla, Veracruz in Mexico/ S Arizona in USA).

Hosts: *Pinus ayacahuite*, *P. lawsonii*, *P. lunholtzii*, *P. ponderosa*, *P. strobiformis*.

References: (ds) Atkinson & Equihua 1985c: 98, 1988: 96; Blackwelder 1947: 781; Bright 1981d: 324. (tx) Blackman 1942a: 217; Bright 1981d: 324; McNamara 1984: 755.

debilis Wood 1976a: 354. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica/ Chiapas in Mexico).

Hosts: *Mauria glauca*, *Rhus* sp., and a tree branch.

References: (ds) Bright 1981d: 15; Wood, S. L. 1982b: 1122. (tx) Bright 1981d: 15; McNamara 1984: 755; Wood, S. L. 1976a: 354, 1982b: 1122.

declivisetosus Bright 1977: 525. Holotype ♀; 51 km SE Nochistlan, Oaxaca, Mexico; CNCI, Ottawa.

Distribution: North America (Oaxaca in Mexico).

Hosts: *Pinus pringlei*, *P. sp.*

References: (ds) Bright 1981d: 251; Wood, S. L. 1982b: 1062. (tx) Bright 1977: 525, 1981d: 251; McNamara 1984: 755; Wood, S. L. 1982b: 1062.

degener Wood 1975b: 397. Holotype ♂; Volcan Chiriqui (near Cerro Punta), Chiriqui, Panama, 1800 m; Wood Collection.

Distribution: North America (Panama).

Hosts: Tree limb.

References: (ds) Bright 1981d: 96; Wood, S. L. 1982b: 1029. (tx) Bright 1981d: 96; Wood, S. L. 1975b: 397, 1982b: 1029.

deleoni (Blackman) 1942a: 201 (*Myeloborus*). Holotype ♀; El Seco, Puebla, Mexico; USNM, Washington.

Distribution: North America (Nuevo Leon, Puebla in Mexico).

Hosts: *Pinus* sp.

Notes: (1) Bright 1976c: 427 (to *Pityophthorus*).

References: (hb) Bright 1981d: 202; Bright & Stark 1973: 109. (ds) Blackwelder 1947: 781; Bright 1981d: 202; Bright & Stark 1973: 109; Wood, S. L. 1982b: 1044. (tx) Blackman 1942a: 201; Bright 1976c: 427, 1981d: 202; Wood, S. L. 1982b: 1044.

deletus LeConte 1879: 519. Lectotype, sex?, Veta Pass, Colorado [USA]; MCZ, Cambridge, designated by Bright 1976b: 185.

Figures: Bright 1981d: 343.

Distribution: North America (Coahuila, Durango in Mexico/ Arizona, California, Colorado, Nevada, New Mexico, South Dakota, W Texas, Utah, Wyoming in USA).

Hosts: *Pinus cembroides*, *P. edulis*, *P. monophylla*, uncommon in *P. flexilis*, *P. ponderosa*, *P. strobiformis*.

Notes: (3) Blackman 1928b: 43 (re-described).

References: (cn) Swaine 1915a: 104. (hb) Cham-

berlin 1939: 364; Furniss, M. M. & Johnson 1957: 377; Swaine 1918a: 104. **(ds)** Atkinson & Equihua 1988: 96; Bright 1981d: 110, 1986b: 682; Chamberlin 1939: 364; Furniss, M. M. & Johnson 1957: 377; Hagedorn 1910d: 71; Henshaw 1882: 268, 1885: 147; Keen 1929a: 32; Kleine 1913b: 140, 1934a: 159; Leng 1920: 341; Swaine 1909: 135; Wickham 1896a: 309; Wood, S. L. 1982b: 1040. **(tx)** Blackman 1928b: 43–46; Bright 1976b: 185, 1977: 515, 1981d: 110, 343; Chamberlin 1939: 364; Hagedorn 1910a: 100; Keen 1929a: 32; LeConte 1879: 519; Swaine 1909: 135, 1918a: 104; Wood, S. L. 1977c: 387, 1982b: 1040.

inquietus Blackman 1928b: 46. Holotype ♀; Las Vegas H.S. [Hot Springs], New Mexico [USA]; USNM, Washington. Synonymy: Wood 1977c: 387.

References: **(hb)** Chamberlin 1939: 364. **(ds)** Chamberlin 1939: 364; Keen 1929a: 32; Kleine 1934a: 160; Leng & Mutchler 1933: 52; Wood, S. L. 1948: 51, 1951a: 128, 1972a: 425. **(tx)** Blackman 1928b: 43–47; Chamberlin 1939: 364; Keen 1929a: 32; de Ruelle 1970: 109; Wood, S. L. 1951a: 128, 1972a: 425, 1977c: 387.

monophyllae Blackman 1928b: 47. Holotype ♀; Argus Mts., California [USA]; USNM, Washington. Synonymy: Wood 1977c: 387.

References: **(hb)** Bright & Stark 1973: 107; Chamberlin 1939: 365. **(ds)** Bright & Stark 1973: 107; Chamberlin 1939: 365; Keen 1929a: 32; Kleine 1934a: 160; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 47; Bright 1971b: 67; Chamberlin 1939: 365; Keen 1929a: 32; Wood, S. L. 1964: 65, 1977c: 387.

socius Blackman 1928b: 48. Holotype ♂; Argus Mts., California [USA]; USNM, Washington. Synonymy: Bright 1971b: 67.

References: **(hb)** Chamberlin 1939: 365. **(ds)** Chamberlin 1939: 365; Keen 1929a: 32; Kleine 1934a: 161; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 48; Bright 1971b: 67; Chamberlin 1939: 365; Keen 1929a: 32; McNamara 1984: 758.

picus Bright 1966b: 297. Holotype ♀; Mount Pinos, Ventura Co., California [USA]; CAS, San Francisco. Synonymy: Bright 1971b: 67.

References: **(tx)** Bright 1966b: 297, 1971b: 67.

praealtus Bright 1966b: 303. Holotype ♀; Mt. Shasta Ski Area, Siskiyou Co., California [USA]; CAS, San Francisco. Synonymy: Wood 1977c: 387.

References: **(hb)** Bright & Stark 1973: 106. **(ds)** Bright & Stark 1973: 106. **(tx)** Bright 1966b: 303; de Ruelle 1970: 110; Wood, S. L. 1977c: 387.

brucki Bright 1971b: 63. Holotype ♂; Mt. Hawkins, San Bernardino Co., California [USA]; OSUC, Columbus. Synonymy: Wood 1977c: 388.

References: **(hb)** Bright & Stark 1973: 106. **(ds)** Bright & Stark 1973: 106. **(tx)** Bright 1971b: 63–64; Wood, S. L. 1977c: 387–388.

delicatus Wood 1978b: 399. Holotype ♀; 56 km SW El Salto, Durango, Mexico; Wood Collection. Distribution: North America (Guatemala/ Honduras/ Chiapas, Chihuahua, Durango, Mexico, Michoacan in Mexico).

Hosts: *Pinus ayacahuite*, *P. leiophylla*, *P. oocarpa*, *P. pseudostrobus*, *P. tenuifolia*, *P.* spp.

References: **(cn)** Schwerdtfeger 1956b: 48. **(hb)** Schwerdtfeger 1956b: 48. **(ds)** Atkinson & Equihua 1988: 96; Bright 1981d: 323; Wood, S. L. 1982b: 1109. **(tx)** Bright 1981d: 323; Wood, S. L. 1978b: 399, 1982b: 1109.

denticulatus (Wichmann) 1915a: 106 (*Trigonogenius*). Holotype ♂; Deutsch-Ostafrika; MNB, Berlin.

Distribution: Africa (Tanzania).

Hosts: Tree.

References: **(tx)** Eggers 1940a: 30; Lucas 1920: 683; Numberg 1956: 205; Schedl 1952d: 347, 1957e: 878, 1958k: 144, 1960i: 106, 1962j: 7–8; Wichmann 1915a: 106–107.

dentifrons Blackman 1922c: 125. Holotype ♀; Orono, Maine [USA]; USNM, Washington.

Figures: Blackman 1922c: figs. 22–23.

Distribution: North America (Alberta, New Brunswick, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, Quebec in Canada/ Maine, Maryland, Minnesota, New Hampshire, New York, North Carolina, West Virginia in USA).

Hosts: *Abies fraseri*, *Picea glauca*, *P. rubens*, *Pinus banksiana*, *P. strobus*.

References: **(cn)** Blackman 1950. **(hb)** Baker, W. L. 1972: 255; Beal & Massey 1945: 134; Blackman 1950; Chamberlin 1939: 379. **(ds)** Anonymous 1926c: 519; Baker, W. L. 1972: 255; Beal & Massey 1945: 134; Blackman 1950; Bright 1971a: 127, 1976d: 186, 1981d: 226; Chamberlin 1925, 1939: 379; Drooz 1985: 364; Kleine 1934a: 159; Leng & Mutchler 1927: 52; Leonard 1928: 519; Wood, S. L. 1982b: 1072. **(tx)** Beal & Massey 1945: 134; Blackman 1922c: 125–126, 1928b: 62, 81; Bright 1981d: 226; Chamberlin 1939: 379; de Ruelle 1970: 109; Wood, S. L. 1982b: 1072.

deodara (Stebbing) 1903: 274 (*Cryphalus*). Syn-types ♀; India: N.W. Himalayas, Bashahr Div., Kotgarh, Nagkela Forest, Jaunsar Div., Konain; FRI, Dehra Dun.

Distribution: Asia (Himachal Pradesh, Kashmir, and Uttar Pradesh in India).

Hosts: *Abies pindrow*, *A. webbiana*, *Cedrus deodara*, *Pinus excelsa*, *P. roxburghii*.

Notes: (3) Beeson 1941 (1961: 292) (cited *chir*, nomen nudum, *pindrow*, nomen nudum, synonyms).

References: **(cn)** Pierce, W. D. 1917: 52; Stebbing 1903a: 274, 1914: 528. **(cc)** Stebbing 1914: 528.

- (**hb**) Stebbing 1903a: 274, 1914: 528. (**ds**) Beeson 1961: 292; Hagedorn 1910d: 41; Kleine 1913b: 118, 1914b: 269, 276, 1934a: 159; Pierce, W. D. 1917: 52; Stebbing 1903a: 274. (**tx**) Hagedorn 1910a: 86; Stebbing 1903: 274, 1914: 528.
- himalayensis* Stebbing 1914: 540 (*Cryphalus*).
 Syntypes, sex?: Jamsar, Simla Forests, North-West Himalaya; FRI, Dehra Dun. Synonymy: Wood 1989: 175.
 References: (**cn**) Pierce, W. D. 1917: 52; Stebbing 1914: 540. (**cc**) Stebbing 1914: 540. (**hb**) Stebbing 1914: 540. (**ds**) Beeson 1961: 292; Pierce, W. D. 1917: 52; Schedl 1974a: 86. (**tx**) Stebbing 1914: 540; Wood, S. L. 1989: 175.
- sampsoni* Stebbing 1914: 551. Syntypes, sex?: Jamsar, North-West Himalaya; FRI, Dehra Dun, lost. Synonymy: Wood 1989: 175.
 References: (**cn**) Browne 1968: 565; Pierce, W. D. 1917: 74; Stebbing 1914: 551. (**cc**) Beeson 1922c: 497; Stebbing 1914: 551. (**hb**) Beeson 1922c: 497; Browne 1968: 565; Stebbing 1914: 551. (**ds**) Beeson 1922c: 497, 1961: 292; Browne 1968: 565; Pierce, W. D. 1917: 74; Zethner 1973. (**tx**) Stebbing 1914: 551; Wood, S. L. 1989: 175.
- deprecator* Schaufuss 1891: 15. Syntypes 2, sex?: Madagascar; Hamburg Museum, lost.
 Distribution: Madagascar.
 References: (**ds**) Allmand 1900: 441; Anonymous 1892: 165; Fairmaire 1892b; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 326; Schedl 1977b: 111. (**tx**) Fairmaire 1892b; Hagedorn 1910a: 100, 1913b: 244; Schaufuss 1891: 15; Schedl 1938a: 183, 1977b: 111.
- desultorius* Bright 1985b: 478. Holotype ♀; Mexico: Oriental, Puebla; CNCI, Ottawa.
 Distribution: North America (Puebla in Mexico).
 Hosts: Compositae sp.
 References: (**tx**) Bright 1985b: 478.
- detectus* Schedl 1972g: 66. Holotype ♀; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
 Distribution: South America (Brazil).
 References: (**tx**) Schedl 1972g: 66.
- detentus* Wood 1976a: 352. Holotype ♀; Carapan, Michoacan, Mexico, 2300 m; Wood Collection.
 Distribution: North America (Michoacan, Queretaro in Mexico).
 Hosts: *Toxicodendron* sp., and a liana.
 References: (**ds**) Bright 1981d: 82; Wood, S. L. 1982b: 112. (**tx**) Bright 1981d: 82; McNamara 1984: 755; Wood, S. L. 1976a: 352, 1982b: 1121.
- digestus* (LeConte) 1874a: 71 (*Cryphalus*). Lectotype, sex?: Mojave Desert [USA]; MCZ, Cambridge, designated by Bright 1976b: 185.
 Figures: Bright 1981d: 366.
 Distribution: North America (Alberta, S British Columbia in Canada/ Durango in Mexico/ Arizona, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming in USA).
 Hosts: *Pinus contorta*, *P. jeffreyi*, *P. ponderosa*, *P. washoensis*.
 Notes: (1) LeConte 1876: 355 (to *Pityophthorus*). (3) Blackman 1928b: 54 (re-described).
 References: (**hb**) Bright & Stark 1973: 108; Chamberlin 1939: 368. (**ds**) Blaisdell 1892: 36; Bright 1981d: 261; Bright & Stark 1973: 108; Chamberlin 1939: 368; Gast et al 1989: 385; Hagedorn 1910d: 71; Henshaw 1882: 269, 1885: 147; Keen 1929a: 32; Kleine 1913b: 140, 1914b: 391, 1934a: 159; Leng 1920: 341; Swaine 1909: 135; Wood, S. L. 1982b: 1032. (**tx**) Blackman 1928b: 53–55; Bright 1976b: 185, 1977: 514, 1981d: 261, 366; Chamberlin 1939: 368; Hagedorn 1910a: 100; Keen 1929a: 32; LeConte 1874a: 71, 1876: 354–355; Swaine 1909: 135; Wood, S. L. 1978b: 398, 1982b: 1032.
- idoneus* Blackman 1928b: 55. Holotype ♀; Centerville, Idaho [USA]; USNM, Washington.
 Synonymy: Bright 1977: 514.
 References: (**cn**) Anonymous 1964h; Lindgren 1980a: 68. (**hb**) Bright & Stark 1973: 108; Chamberlin 1939: 368, 1955: 149; Lindgren 1980a: 68. (**ds**) Anonymous 1964h; Bright 1976d: 182; Bright & Stark 1973: 108; Chamberlin 1939: 368; Evans, D. 1983: 35; Keen 1929a: 32; Kleine 1934a: 160; Leng & Mutchler 1933: 52; Wood, S. L. 1972a: 425. (**tx**) Blackman 1928b: 55; Bright 1966b: 304, 1977: 514; Chamberlin 1939: 368, 1955: 149; Evans, D. 1983: 35; Keen 1929a: 32; Wood, S. L. 1972a: 425.
- hopkinsi* Blackman 1928b: 56. Holotype ♀; California: Ventura Co. [USA]; USNM, Washington. Synonymy: Bright 1966b: 304.
 References: (**cc**) Marsh 1979: 150. (**hb**) Chamberlin 1939: 368. (**ds**) Chamberlin 1939: 368; Keen 1929a: 32; Kleine 1934a: 160; Leng & Mutchler 1933: 52. (**tx**) Blackman 1928b: 56; Bright 1966b: 304, 1977: 514; Chamberlin 1939: 368; Keen 1929a: 32.
- ponderosae* Blackman 1928b: 57. Holotype ♀; Las Vegas H.S. [Hot Springs], New Mexico [USA]; USNM, Washington. Synonymy: Bright 1966b: 304.
 References: (**cn**) Anonymous 1967f. (**hb**) Chamberlin 1939: 369, 1958: 150. (**ds**) Anonymous 1967f; Chamberlin 1939: 369, 1958: 150; Keen 1929a: 32; Kleine 1934a: 161; Leng & Mutchler 1933: 52; Smith, G. S. 1930. (**tx**) Blackman 1928b: 57; Bright 1966b: 304, 1977: 514; Chamberlin 1939: 369, 1958: 150; Hoebeke 1978; Keen 1929a: 32; de Ruelle 1970: 110; Schedl 1930: 195; Wood, S. L. 1967d: 39.
- aplanatus* Schedl 1930: 195. Holotype ♀; Athabasca Falls, Alberta [Canada]; CNCI, Ottawa. Synonymy: Wood 1978b: 398.

Notes: (3) Bright 1951d: 212 (a good species). Wood 1952b: 1032 (a character cline from Alberta to eastern Wyoming intergrades with *digestus*).

References: (cn) Lindgren, B. 1950a: 67. (hb) Chamberlin 1939: 369; Lindgren, B. 1950a: 67. (ds) Bright 1976d: 180, 1981d: 212; Chamberlin 1939: 369; Evans, D. 1983: 34; Leng & Mutchler 1933: 52. (tx) Bright 1981d: 212, 352; Chamberlin 1939: 369; Evans, D. 1983: 34; de Ruelle 1970: 108; Schedl 1930: 195; Wood, S. L. 1975: 395.

diglyphus Blandford 1904: 240. Lectotype, sex?; Quiche Mts., Guatemala; BMNH, London, designated by Bright 1976b: 184.

Distribution: North America (Guatemala).

Hosts: *Pinus pseudostrobus*.

References: (hb) Atkinson et al. 1986: 38; Burgos & Saucedo 1983: 118. (ds) Atkinson et al. 1986: 38; Blackwelder 1947: 781; Bright 1981d: 121, 1986b: 683; Burgos & Saucedo 1983: 118; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 362; Wood, S. L. 1982b: 1058. (tx) Blandford 1904: 240; Bright 1976b: 184, 1977: 515, 1981d: 121; Hagedorn 1910a: 100; Schedl 1935a: 183, 1955g: 18; Wood, S. L. 1982b: 1058.

diligens Wood 1976a: 363. Holotype ♀; 16 km E Pachuca, Hidalgo, Mexico; Wood Collection.

Distribution: North America (Hidalgo in Mexico).

Hosts: Desert shrub, *Zexmenia* sp.

References: (ds) Atkinson & Equihua 1985a: 92; Bright 1981c: 77, 1982b: 482, 1985b: 482; Wood, S. L. 1982b: 1132. (tx) Bright 1981d: 77; McNamara 1984: 755; Wood, S. L. 1976a: 363, 1982b: 1132.

dimidiatus Blackman 1942a: 221. Holotype ♀; Mexico [intercepted at USA port of entry]; USNM, Washington.

Distribution: North America ("Mexico").

References: (ds) Blackwelder 1947: 781; Bright 1981d: 41; Wood, S. L. 1982b: 1138. (tx) Blackman 1942a: 221; Bright 1981c: 41; McNamara 1984: 755; Wood, S. L. 1982b: 1138.

diminutivus Bright 1985a: 468. Holotype ♀; Mexico: Estacion de Biología, Chameña, Edo. Jalisco; CNCI, Ottawa.

Distribution: North America (Jalisco in Mexico).

Hosts: Leguminosae sp.

References: (tx) Bright 1985a: 468.

dimorphus Schedl 1959m: 551. Holotype ♀; Matto Grosso: Rio Caragnata; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1959m: 551, 1979c: 81.

brasiliensis Schedl 1954b: 38. Syntypes ♀; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Planmann Collection, preoccupied by Schedl

1938. Synonymy: Schedl 1979c: 81, Wood 1984b: 227.

Notes: (1) Schedl 1979c: 45 (citation of holotype invalid).

References: (tx) Schedl 1954b: 38, 1979c: 45, 81; Wood, S. L. 1984b: 227.

discretus Wood 1977c: 394. Holotype ♀; 5 km W El Salto, Durango, Mexico, 2500 m; Wood Collection.

Distribution: North America (Durango, Jalisco, Michoacan, Puebla in Mexico).

Hosts: *Pinus ayacahuite*, *P. sp.*

References: (ds) Bright 1981d: 283; Rio Mora 1985: 14; Wood, S. L. 1982b: 1098. (tx) Bright 1981d: 283; Wood, S. L. 1977c: 394, 1982b: 1098.

dispar Bright 1976c: 431. Holotype ♀; 11 km E San Cristobal, Chiapas, Mexico; CNCI, Ottawa.

Figures: Bright 1981d: 341.

Distribution: North America (Chiapas in Mexico).

Hosts: *Pinus montezuma*, *P. ochoterenai*.

References: (ds) Bright 1981d: 91; Wood, S. L. 1982b: 1037. (tx) Bright 1976c: 431, 1981d: 91, 341; McNamara 1984: 755; Wood, S. L. 1982b: 1037.

dissolutus Wood 1975b: 398. Holotype ♀; 13 km SE Cartago, Cartago, Costa Rica, 1800 m; Wood Collection.

Distribution: North America (Costa Rica/Panama).

Hosts: Liana and a tree seedling.

References: (ds) Bright 1981d: 98; Wood, S. L. 1982b: 1031. (tx) Bright 1981d: 98; McNamara 1984: 755; Wood, S. L. 1975b: 398, 1982b: 1031.

diversus Bright 1972d: 87. Holotype ♂; Cornwall Mountain, Westmoreland Parish, Jamaica; CNCI, Ottawa.

Distribution: Antilles Islands (Jamaica).

References: (ds) Bright 1985c: 176. (tx) Bright 1972d: 87, 1985c: 176; McNamara 1977: 197.

djuguensis Eggers 1940b: 103. Holotype, sex?; Congostaat: Ituri (Djugu); MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Eggers 1940b: 103–104; Schedl 1962j: 8.

ituriensis Eggers 1940b: 104. Holotype, sex?; Congostaat: Ituri (Djugu); MRCB, Tervuren.

Synonymy: Schedl 1962j: 8.

References: (tx) Eggers 1940b: 104; Schedl 1962j: 8.

dolus Wood 1964: 65. Holotype ♀; McCloud, Siskiyou Co., California [USA]; Wood Collection.

Distribution: North America (California in USA).

Hosts: *Pinus lambertiana*, *P. ponderosa*.

Notes: (3) Bright 1981d: 110 (treated this name as a synonym of *deletus*).

References: (hb) Bright & Stark 1973: 107. (ds) Bright 1981d: 110; Bright & Stark 1973: 107; Wood, S. L. 1982b: 1039. (tx) Wood, S. L. 1964: 65, 1982b: 1039.

- dorsalis** Schedl 1953d: 94. Syntypes ♂ ♀; Madagascar: Mt. d'Ambre; MNHN, Paris and Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Dichaetanthera cordifolia*.
References: (hb) Schedl 1977b: 111. (ds) Schedl 1977b: 111. (tx) Schedl 1953d: 94, 1965c: 69, 1977b: 111, 1979c: 83.
- durus** Blackman 1928b: 70. Holotype ♀; Paradise, Arizona [USA]; USNM, Washington.
Figures: Bright 1981d: 364.
Distribution: North America (Chihuahua, Durango, Hidalgo, Mexico, Michoacan, Morelos, Nuevo Leon, Oaxaca, Puebla, Sonora, Veracruz in Mexico/ Arizona in USA).
Hosts: *Pinus lawsoni*, *P. leiophylla*, *P. michoacana*, *P. pringlei*, *P. strobiformis*, *P. sp.*
References: (hb) Atkinson et al. 1986: 38; Chamberlin 1939: 377. (ds) Atkinson & Equihua 1985a: 96, 1985: 96; Atkinson et al. 1986: 38; Bright 1981d: 252; Chamberlin 1939: 377; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Rio Mora 1985: 13; Thomas, J. B. 1966; Wood, S. L. 1982b: 1060. (tx) Blackman 1928b: 60, 70–71; Bright 1981d: 252, 364; Chamberlin 1939: 377; Rio Mora 1985: 13; Wood, S. L. 1982b: 1060.
- eggersi** Schedl 1952d: 347. Holotype ♀?; Kamerun; Schreiner Collection in Hamburg Museum to Eggers Collection, now in NHMW, Wien, automatic.
Distribution: Africa (Cameroon).
References: (ds) Schedl 1966c: 225. (tx) Schedl 1952d: 347, 1962j: 8.
- similis** Eggers 1920: 34 (*Trigonogenius*). Holotype ♀?; Kamerun; Schreiner Collection in Hamburg Museum to Eggers Collection, in NHMW, Wien, preoccupied by Eichhoff 1869.
References: (ds) Blackwelder 1947: 782; Hagedorn 1910d: 75. (tx) Eggers 1920: 34–35; Hagedorn 1910a: 101; Lucas 1920: 683; Schedl 1952d: 347, 1979c: 230.
- elatinus** Wood 1964: 66. Holotype ♀; 8 km W Ciudad Hidalgo, Michoacan, Mexico; Wood Collection.
Figures: Atkinson et al. 1986: 33, Bright 1981d: 345.
Distribution: North America (Mexico, Michoacan, Tlaxcala in Mexico).
Hosts: *Abies religiosa*.
References: (hb) Atkinson & Equihua 1985a: 93; Atkinson et al. 1986: 38; Burgos & Saucedo 1983: 119. (ds) Atkinson & Equihua 1985a: 93, 1988: 96; Atkinson et al. 1986: 38; Bright 1981d: 125; Burgos & Saucedo 1983: 119; Wood, S. L. 1982b: 1072. (tx) Atkinson et al. 1986: 33; Bright 1981d: 125, 345; Wood, S. L. 1964: 66, 1982b: 1072.
- electus** Blackman 1928b: 140. Holotype ♀; Ashland, Oregon [USA]; USNM, Washington.
Distribution: North America (California, Oregon in USA).
Hosts: *Pinus coulteri*, *P. jeffreyi*, *P. ponderosa*.
References: (hb) Chamberlin 1939: 401, 1958: 161. (ds) Bright 1981d: 254; Chamberlin 1939: 401, 1958: 161; Keen 1929a: 34; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1972a: 427, 1982b: 1066. (tx) Blackman 1928b: 140; Bright 1981d: 254; Chamberlin 1939: 401, 1958: 161; Keen 1929a: 34; Wood, S. L. 1972a: 427, 1982b: 1066.
- elegans** Schedl 1935a: 184. Holotype ♂; Guatemala; USNM, Washington.
Distribution: North America (Guatemala).
References: (ds) Blackwelder 1947: 781; Bright 1981d: 32; Wood, S. L. 1982b: 1028. (tx) Anderson, W. H. & Anderson 1971: 12; Bright 1981d: 32; Schedl 1935a: 184–185; Wood, S. L. 1982b: 1028.
- elongatulus** Schedl 1976a: 67. Holotype ♀; Tapuruquara, Rio Negro [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 67.
- equihuai** Bright 1985a: 469. Holotype ♀; Mexico: Estacion de Biologia, Chamela, Edo. Jalisco; CNCI, Ottawa.
Distribution: North America (Jalisco in Mexico).
References: (tx) Bright 1985a: 469.
- erraticus** Schedl 1976a: 68. Holotype ♀; Jacareacanga, Para, Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 68.
- espinosai** Brethes 1925: 202. Syntypes, sex?; Santiago, Chile; Brethes Collection in MACN, Buenos Aires.
Distribution: South America (Chile).
References: (ds) Blackwelder 1947: 781; Schedl 1972d: 144. (tx) Brethes 1925: 202; Porter 1932: 106; Schedl 1972d: 144.
- euterpes** Bright 1978: 75. Holotype ♂; 35 km W Lazaro Cardenas, Chiapas, Mexico; CNCI, Ottawa.
Distribution: North America (Chiapas in Mexico).
Hosts: *Pinus oocarpa*.
References: (ds) Atkinson & Equihua 1985: 96; Bright 1981d: 52; Wood, S. L. 1982b: 1128. (tx) Bright 1978: 75, 1981d: 52; McNamara 1984: 755; Wood, S. L. 1982b: 1128.
- excellens** Schedl 1972g: 66. Holotype ♀; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 66, 1979c: 93.
- eximius** Schedl 1935a: 184. Holotype ♀; Kongo [Lekimi, Schedl 1962j: 9]; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).

- References: (tx) Schedl 1938a: 184, 1962j: 9, 1979c: 94.
- explicitus** Wood 1975b: 399. Holotype ♂; 9 km NE Teziutlan, Puebla, Mexico, 1600 m; Wood Collection.
- Distribution: North America (Puebla in Mexico).
- Hosts: *Liana*.
- References: (ds) Bright 1981d: 98; Wood, S. L. 1982b: 1031. (tx) Bright 1981d: 98; McNamara 1984: 755; Wood, S. L. 1975b: 399, 1982b: 1031.
- exquisitus** (Blackman) 1942a: 196 (*Neodryocetes*). Holotype ♀; Mexico: USNM, Washington.
- Figures: Blackman 1942a: fig. 21, Bright 1981d: 3-42.
- Distribution: Antilles Islands (Virgin Islands), North America (Jalisco, Michoacan in Mexico).
- Hosts: *Sambucus* sp.
- Notes: (1) Bright 1981d: 102 (to *Pityophthorus*).
- References: (hb) Atkinson et al. 1986: 38; (ds) Atkinson et al. 1986: 38, 72; Blackman 1942a: 196-197; Bright 1981d: 102, 176, 1986b: 683; Wood, S. L. 1982b: 1026. (tx) Blackman 1942a: 196-197; Bright 1981d: 102, 176, 342.
- inceptis** Wood 1975b: 396. Holotype ♀; 6 km W Quiroga, Michoacan, Mexico; Wood Collection. Synonymy: Bright 1981d: 102, Wood 1982b: 1026.
- References: (tx) Bright 1981d: 102; Wood, S. L. 1975b: 396, 1982b: 1026.
- exsulptus** (Ratzeburg) 1837: 162. Syntypes, sex?; Europe; not located.
- Distribution: Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Germany/ Hungary/ Poland/ Switzerland/ W USSR/ Yugoslavia).
- Hosts: *Picea excelsa*, rare in *Pinus* spp.
- References: (ay) Escherich 1923b: 483, 555, 602; Nusslin 1911a: 129. (bv) Chararas 1977b; Grune 1979: 115; Meixner 1937: 1214. (cn) Eckstein 1926: 579; Escherich 1923b: 483, 555, 602; Gabler 1955; Joly 1976; Judeich & Nitsche 1895: 526; Nosek 1951: 109; Nusslin 1913: 205; Pfeffer 1928a: 468, 1950c: 2; Pierce, W. D. 1917: 81; Rhumbler 1922: 308, 1927: 322; Schimitschek 1937c: 55, 1955a: 59, 1955c: 87; Schwerdtfeger 1944a: 181, 1957a: 186; Wachtl 1901: 381; Weber 1926: 579; Wichmann 1927b: 358. (ec) Balazy & Michalski 1964b; Kleine 1908c: 213; Michalski & Ratajczak 1989; Nosek 1951: 109; Nusslin 1927: 322; Pfeffer 1923a: 331, 1950c: 2, 1959: 2, 1960: 344; Schimitschek 1955a: 59; Schwerdtfeger 1944a: 181, 1957a: 186; Sedlaczek 1935a: 163; Zimm 1985b). (hb) Chararas 1977b; Charvat 1950; Eckstein 1926: 579; Escherich 1923b: 483, 555, 602; Fuchs 1904a; Gabler 1955; Györfi 1957; Joly 1976; Judeich & Nitsche 1895: 526; Karpinski & Strawinski 1948: 156; Lenggerken 1939: 65, 1954: 85; Lindemann 1881a: 236; Nusslin 1913: 205, 1927: 322; Pfeffer 1941a: 11, 1989a: 63; Postner 1974: 433; Ratzeburg 1837: 162, 1839: 197; Rhumbler 1922: 308, 1927: 322; Schimitschek 1955a: 59; Schwerdtfeger 1944a: 181, 1957a: 186, 1957a: 186, 1981: 193; Sedlaczek 1935a: 163; Spessivtsev 1913a: 87, 1921b: 221; Tredl 1908b: 138, 1915a: 148; Wachtl 1876a: 460, 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 358. (ds) Ammann & Knabl 1923; Audras & Schaefer 1957; Buresh & Lazarov 1956; Calwer 1884, 1893; Chararas 1977b; Charvat 1950; Endrodi 1958b; Escherich 1923b: 483, 555, 602, 1932b; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2688; Grune 1979: 115; Hagedorn 1910d: 71; Heyden, Reitter & Weise 1883: 182, 1891: 672, 1906: 712; Horion 1951; Joly 1976; Judeich & Nitsche 1895: 526; Karpinski 1926: 82, 1931: 30, 1933a: 290; Karpinski & Strawinski 1948: 156; Kleine 1912a: 268, 1913a: 35, 1913b: 140, 1934a: 159; Kolbe, W. 1918: 211; Kraatz 1869: 59; Kurir 1947c: 6, 14; Langhoffer 1915c: 158; Leder 1871: 132; Lomnicki 1913b: 148; Lucht 1987: 278; Numberg 1928b: 88, 112, 1938: 126, 1954: 70, 1960b: 158; Pacher 1865: 152; Pfeffer 1931b: 74, 1935: 159, 1947e: 4, 1950b: 75, 1960: 345, 1976: 340, 1989a: 63; Pierce, W. D. 1917: 81; Pittioni 1943: 176; Postner 1974: 433; Prossen 1913: 83; Ratzeburg 1837: 162, 1839: 197; Reitter 1894a: 76, 1916: 298; Roubal 1941: 269; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1242; Schamm 1859: 95, 1862: 101; Schedl 1980a: 22; Schilsky 1909: 188; Schwerdtfeger 1981: 193; Seidlitz 1872: 394; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 14, 1908b: 138; Wachtl 1876a: 460; Wichmann 1927a: 74. (tx) Bach 1854; Balachowsky 1949a: 234; Charvat 1950; Eggers 1914, 1915b: 13-14, 1920; Eichhoff 1864: 39; Endrodi 1957a: 307, 1957b; Escherich 1923b: 483, 555, 602; Ferrari 1867: 32, 1867b; Fleischer 1927; Formanek 1907: 38; Gabler 1955; Grune 1979: 115; Hagedorn 1910a: 101; Jansson 1936: 220; Joly 1976; Judeich & Nitsche 1895: 526; Karpinski & Strawinski 1948: 156; Koch 1928: 82, 1932: 122; Kubnt 1913: 1056; Letzner 1891: 376; Lindemann 1881a: 236; Lucht 1987: 278; Meixner 1937: 1214; Numberg 1938: 126, 1954: 70; Nusslin 1911a: 129; Postner 1974: 433; Quaschik 1953: 35; Pfeffer 1932f: 23, 1940b: 107, 110, 1941c: 11, 1947e: 4, 1955a: 212, 1976: 340; Pjati-nitskii 1931: 171-173; Ratzeburg 1837: 162, 1839: 197; Redtenbacher 1849a: 790, 1849b: 26; Reitter 1894a: 76, 1913a: 93, 1916: 298; Rhumbler 1922: 308, 1927: 322; Schedl 1934f: 1643, 1980a: 22; Schimitschek 1937c: 55, 1955c: 87; Seidlitz 1872: 394; Spessivtsev 1913a: 87-89, 1922: 221, 1923: 200-214, 1925: 50. (ms) Eggers 1910a, 1910b; Escherich 1932b.
- macrographus** Eichhoff 1880a: 200. Syntypes, sex?; Silesia; Hamburg Museum, lost. Synonymy: Balachowsky 1949a: 234.
- References: (cn) Barbey 1925: 70; Judeich & Nitsche 1895: 525. (ec) Barbey 1927. (hb)

- Barbey 1901: 23, 78, 1925: 70; Bargmann 1906; Dombrowsky 1887, 1891; Eckstein 1897; Eichhoff 1881a: 147, 200; Henschel 1895a: 172; Judeich & Nitsche 1895: 525; Seitner 1911: 99. **(ds)** Gerhardt 1898b; Gronzelle 1905; Hagedorn 1910d: 72; Henschel 1895a: 172; Heyden, Reitter, & Weise 1883: 182, 1891: 672; Judeich & Nitsche 1895: 525; Kleine 1913b: 140; Pfeffer 1935: 159; Schilsky 1909: 188; Seidlitz 1891a: 564, 1891b: 610. **(tx)** Balachowsky 1949a: 234; Barbey 1901: 23, 78; Dombrowsky 1887, 1891; Eichhoff 1881a: 147, 200; Hagedorn 1910a: 101; Henschel 1895a: 172; Judeich & Nitsche 1895: 525; Schedl 1934f: 1643; Seidlitz 1891a: 564, 1891b: 610; Seitner 1887: 44; Spessivtsev 1913: 87–89. **(ms)** Eggers 1910a, 1910b.
- exsectus** Schedl 1972g: 67. Holotype ♀; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1972g: 67, 1979c: 94.
- fallax (Hagedorn)** 1912c: 354 (*Trigonogenitus*). Holotype, sex?; Amani, Deutsch-Ostafrika; Hamburg Museum, lost.
Distribution: Africa (Tanzania).
Hosts: *Khaya senegalensis*.
References: **(cn)** Hagedorn 1913a: 29, **(hb)** Hagedorn 1913a: 29; Schedl 1962j: 9. **(ds)** Hagedorn 1913a: 29; Kleine 1914b: 322, 1934a: 163; Schedl 1962j: 9. **(tx)** Eggers 1920: 34; Hagedorn 1912c: 354, 1913a: 29; Hopkins 1914: 131; Lucas 1920: 683; Schedl 1952d: 347, 1962j: 9; Wichmann 1915a: 107.
- festus** Wood 1967d: 39. Holotype ♂; 29 km W El Salto, Durango, Mexico; Wood Collection.
Figures: Bright 1981d: 359.
Distribution: North America (El Salvador/ Chiapas, Chihuahua, Durango, Jalisco, Mexico, Oaxaca, Puebla, Veracruz in Mexico/ Arizona in USA).
Hosts: *Pinus ayacalhuite*, *P. durangensis*, *P. leiophylla*, *P. oocarpa*, *P. tenuifolia*, *P.* sp.
References: **(ds)** Atkinson & Equihua 1988: 96; Bright 1981d: 213; Rio Mora 1985: 14; Schedl 1977e: 42; Wood, S. L. 1982b: 1033. **(tx)** Bright 1981d: 213, 359; Rio Mora 1985: 14; de Ruelle 1970: 109; Wood, S. L. 1967d: 39, 1982b: 1033.
- flavimaculatus** Murayama 1963: 392. Holotype, sex?; Taïrei, North Manchuria; Murayama Collection in USNM, Washington.
Distribution: Asia (Manchuria).
Hosts: *Picea obovata*.
References: **(tx)** Murayama 1963: 392.
- formosus** Bright 1972d: 88. Holotype ♂; Barbecue Bottom, Trelawny Parish, Jamaica; CNCI, Ottawa.
Distribution: Antilles Islands (Jamaica).
References: **(ds)** Bright 1985c: 176. **(tx)** Bright 1972d: 88, 1985c: 176; McNamara 1985c: 176.
- franseriae** Wood 1972d: 75. Holotype ♀; 10 km W High Rolls, Lincoln National Forest, New Mexico [USA]; Wood Collection.
Distribution: North America (New Mexico in USA).
Hosts: *Franseria* sp.
References: **(tx)** Bright 1981d: 80; Wood, S. L. 1972d: 75, 1982b: 1124.
- frontalis (Schedl)** 1967d: 8 (*Breviophthorus*). Holotype ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1967d: 8, 1979c: 100.
- fulgens** Schedl 1965c: 68. Holotype ♀; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: Tree twigs.
References: **(tx)** Schedl 1965c: 68, 1977b: 111, 1979c: 101.
- furnissi** Bright 1976c: 433. Holotype ♀; Amecameca, Mexico; USNM, Washington.
Distribution: North America (Mexico in Mexico).
Hosts: *Pinus hartwegii*.
References: **(ds)** Atkinson & Equihua 1985a: 94; Bright 1981d: 144, 1986b: 683; Wood, S. L. 1982b: 1094. **(tx)** Bright 1976c: 433, 1981d: 144; McNamara 1984: 755; Wood, S. L. 1976c: 433, 1982b: 1094.
- fuscus** Blackman 1928b: 32. Holotype ♀; Glacier National Park, Montana [USA]; USNM, Washington.
Distribution: North America (British Columbia in Canada/ Montana in USA).
Hosts: *Pinus contorta*.
References: **(cn)** Lindgren 1980a: 68. **(hb)** Lindgren 1980a: 68. **(ds)** Bright 1976d: 182, 1981d: 211; Chamberlin 1939: 358; Gast et al. 1989: 385; Keen 1929a: 32; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1972a: 425, 1982b: 1053. **(tx)** Blackman 1928b: 30–33; Bright 1981d: 211; Chamberlin 1939: 358; Keen 1929a: 33; Wood, S. L. 1972a: 425, 1977d: 515; 1982b: 1053.
- smithii** Schedl 1931b: 163. Holotype ♀; Copper Mountain, British Columbia [Canada]; USNM, Washington. Synonymy: Wood 1977d: 515.
References: **(cn)** Lindgren 1980a: 69. **(hb)** Chamberlin 1939: 369, 1955: 150; Lindgren 1980a: 69. **(ds)** Bright 1976d: 184; Chamberlin 1939: 369, 1955: 150; Kleine 1934a: 161; Leng & Mutchler 1933: 95. **(tx)** Chamberlin 1939: 369, 1955: 150; de Ruelle 1970: 111; Schedl 1931b: 163, 1979c: 231; Wood, S. L. 1977d: 515.
- galeritus** Wood 1976a: 355. Holotype ♀; Rio Damitas, Dota Mts., San Jose, Costa Rica, 250 m; Wood Collection.
Distribution: North America (Costa Rica).

Hosts: *Rhucedda edulis*.

References: (ds) Bright 1981d: 75; Wood, S. L. 1982b: 1125. (tx) Bright 1981d: 75; Wood, S. L. 1976a: 355, 1982b: 1125.

germanus Bright 1976c: 434. Holotype ♂; 154 km N Oaxaca, Oaxaca, Mexico; CNCI, Ottawa.

Distribution: North America (Oaxaca in Mexico).
References: (ds) Bright 1981d: 51; Wood, S. L. 1982b: 1127. (tx) Bright 1976c: 434, 1981d: 51; McNamara 1984: 755; Wood, S. L. 1982b: 1127.

ghanaensis Schedl 1972k: 292. Holotype, sex[?]; Ghana: Ashanti Region, Kwadaso, 320 m, N 6 42. W 1 39; NIMB, Budapest.

Distribution: Africa (Ghana).
References: (tx) Schedl 1972k: 292, 1979c: 104.

glabratus (Schedl) 1955g: 26 (*Ctenyophthorus*).
Lectotype ♀; Guatemala, Quezaltenango, 2350 m; Schedl Collection in NHMW, Wien, designated by Bright 1976b: 186.

Figures: Bright 1981d: 344.
Distribution: North America (Guatemala/ Chiapas, Oaxaca in Mexico).

Hosts: *Pinus ayacahuite*, *P. ocheternae*, *P. pringlei*, *P. rudis*, *P. pseudostrobus*.

Notes: (1) Bright 1976b: 186 (to *Pityophthorus*). Schedl 1979c: 105 (citation of holotype invalid). (3) Schedl 1963c: 162 (cited in *Neodryocotes*).

References: (hb) Schwerdtfeger 1957c: 505. (tx) Bright 1976b: 186, 1977: 512, 1981d: 117, 359; Schedl 1955g: 18, 26, 1963c: 162, 1964m: 311, 1979c: 105; Wood, S. L. 1982b: 1056.

glabratus Eichhoff 1878b: 179. Holotype, sex[?]; Berlin, Corsica; Hamburg Museum, lost.

Figures: Grune 1979: 120.
Distribution: Africa (Egypt), Europe (Austria/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ France/ Germany/ Greece/ Hungary/ Luxembourg/ Poland/ Spain/ S Sweden/ Switzerland/ W USSR).
Hosts: *Pinus mugo rotundata*, *P. nigra*, *P. sylvestris*, *P. uncinata*, rare in *Larix europaea*.

References: (ay) Escherich 1923b: 483, 555; Feytaud 1950a. (bv) Grune 1979: 121. (cn) Barbey 1924a, 1925: 281; Chorbadzhievo 1929; Eckstein 1926: 579, 1939a: 33–42, 81–92; Escherich 1923b: 483, 555; Feytaud 1950a; Grandi 1951; Joly 1976; Judeich & Nitsche 1895: 526; Maksimovic 1952: 20–40; Maksimovic & Milanovic 1964, 1966; Marcu 1926c: 65; Nusslin 1913: 205; Pierce, W. D. 1917: 75; Rhumbler 1922: 308, 1927: 322; Schimitschek 1937c: 55, 1955a: 29, 1955c: 87; Schwerdtfeger 1944a: 177, 1957a: 183; Wächtl 1883b: 319, 1901: 377, 381; Weber, H. 1926: 579; Wichmann 1927b: 361; Wilke 1931: 663. (ec) Barbey 1927; Berland 1934; Karpinski 1932a: 95; Kleine 1908c: 213; Masutti 1959: 268, 299; Michalski & Ratajczak 1989; Nusslin 1927: 322; Peyerimhoff 1928: 110–111; Pfeffer 1923a: 332, 1925b: 8, 1943b: 181, 1960: 346; Roubal 1934a: 86; Ruhm 1956b: 4; Schimit-

schek 1955a: 29; Schwerdtfeger 1944a: 177, 1957a: 183; Sedlaczek 1935a: 163; Seitner & Notzl 1925: 188; Thompson, W. R. 1943: 90; Wilke 1931: 663. (hb) Barbey 1901: 23, 76, 1913, 1924a, 1925: 281; Bargmann 1906; Chararas 1962c: 363; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1891; Eckstein 1926: 579, 1939a, 1939c; Eckstein, F. 1939; Eggers 1906; Eichhoff 1881a: 47, 196; Escherich 1923b: 483, 555; Feytaud 1950a; Grandi 1951; Györfi 1957; Hagedorn 1903a; Henschel 1895a: 172; Joly 1976; Judeich & Nitsche 1895: 526; Karpinski 1948: 156; Karpinski & Strawinski 1948: 156; Kemner 1919: 175; Lengerken 1954: 86; Masutti 1959: 269, 299, 1964; Numberg 1929c: 122; Nusslin 1913: 205, 1927: 322; Orest 1926b: 81; Pfeffer 1941b: 3; Postner 1974: 436; Rhumbler 1922: 308, 1927: 322; Schimitschek 1955a: 29; Schwerdtfeger 1944a: 177, 1957a: 183, 1981: 190; Sedlaczek 1935a: 163; Seitner & Notzl 1925: 188; Shatilov 1985; Spessivtsev 1913a: 88, 1921b: 220, 1923: 209; Stark 1926a: 336, 1952: 354; Tschorbadzhiev 1929: 170; Wächtl 1901: 377, 381; Weber, H. 1926: 579; Wichmann 1927b: 361. (ds) Ammann & Knabl 1913, 1923; Barth 1896; Bejer-Petersen & Jorun 1977: 25; Borchert 1951; Brakman 1966b: 206; Buresh & Lazarov 1956; Champion 1894; Chararas 1962c: 363; Charvat 1950; Chorbadzhievo 1929; Eggers 1904, 1906; Endrodi 1958b; Escherich 1923b: 483, 555, 1932b; Everts 1922: 643, 1925; Fjellberg 1966: 154; Fuchs 1905a; Grune 1979: 121; Hagedorn 1903a, 1910d: 71; Hansen, V. 1939, 1956, 1964: 463; Hellen 1947; Henschel 1895a: 172; Heyden, Reitter, & Weise 1883: 182, 1891: 672, 1906: 71; Horion 1951; Jansson 1935: 77, 1936: 220; Jazentkovsky 1912: 288; Joly 1976; Judeich & Nitsche 1895: 526; Kangas 1965; Karpinski 1931: 30, 1932a: 95, 1948a: 173, 1948b: 231; Karpinski & Strawinski 1948: 156; Kemner 1919: 175; Kersten 1933: 76; Kiefer et al. 1942: 528; Klefbeck & Sjöberg 1960: 230; Kleine 1912a: 268, 1913a: 35, 1913b: 140, 1934a: 159; Kozikowsky 1921: 181; Kurir 1947c: 6; Lomnicki 1913b: 148; Lucht 1987: 278; Mahler 1987: 232; Maïre et al. 1927: 1516; Marcu 1926c: 65, 1930: 327–336; Mequignon 1936: 54; Mirzorian 1950: 139; Morivee 1961: 141; Murayama 1940a: 232, 1942a: 55; Numberg 1928b: 88, 112, 1938: 126–131, 1954: 71, 1960b: 159; Orest 1926c: 65, 81–87; Pfeffer 1924b: 471, 1928b: 8, 1931b: 74, 1947e: 12, 1950b: 76, 1960: 346, 1976: 340, 1984: 277, 1989a: 65; Pierce, W. D. 1917: 75; Pittioni 1943: 175; Postner 1974: 436; Prossen 1913: 83; Rapp 1934: 729; Reitter 1894a: 76; Roubal 1935b: 72, 1941: 269; Sainte-Claire 1914: 472; Sainte-Claire & Mequignon 1938: 447; Schanfiuss 1915: 1243; Schedl 1971d: 427, 1980a: 22, 1981b: 78; Schilsky 1891: 157, 1909: 188; Schwerdtfeger 1981: 190; Seidlitz 1891a: 564, 1891b: 610; Stark 1926a: 336, 1926b: 105, 1926j:

127, 1952: 554; Stein & Weise 1877: 164; Tredl 1907: 14; Tschorbadjiev 1929: 170; Wichmann 1927a: 73; Wilke 1931: 663; Zinovjev 1955: 157. (tx) Balachowsky 1949a: 237; Barbey 1901: 23, 76; Charvat 1950; Dombrowsky 1887, 1891; Eggers 1915b: 13–14, 1920: 125–126; Eichhoff 1875b: 179, 1881a: 47, 196, 1883a: 110, 134; Endrodi 1957a: 307, 1957b; Escherich 1923b: 483, 555; Everts 1922: 643; Ferrant 1911; Fleischer 1927; Formanek 1907: 37; Grune 1979: 120–121; Hagedorn 1904e, 1910a: 101; Hansen, V. 1956, 1964: 463; Henschel 1895a: 172; Iablokoff-Khuzorian 1961: 105; Joly 1976; Judeich & Nitsche 1895: 526; Karpinski & Strawinski 1948: 156; Koch 1913: 126, 1932: 121; Kuhlnt 1913: 1056; Lucht 1987: 278; Michalski 1969b: 569; Murayama 1940a: 232; Numberg 1929c: 122, 1935: 126; Peyerimhoff 1930: 258–259; Pfeffer 1927: 111–112, 1932b: 23, 1940b: 109, 112, 120, 1941b: 3, 1947e: 12, 1955a: 219, 1976: 340; Postner 1974: 436; Quaschik 1953: 35; Reitter 1894a: 76, 1913a: 94; Rhumbler 1922: 38, 1927: 322; Schedl 1934f: 1643, 1938a: 164, 1952f: 87, 1980a: 22, 1981b: 78; Schimitschek 1937c: 55, 1955c: 87; Seidlitz 1891a: 564, 1891b: 610; Seitner 1887: 45; Sokanovskii 1929: 670–672; Spessivtsev 1913a: 88, 1922a: 488, 490, 1922b: 219–221, 1923: 209, 1925a: 183, 1926: 50, 1929c: 298–303, 1931: 64; Stark 1952: 354. (ms) Escherich 1932b.

glutae Wood 1989: 183. Holotype ♀; Tamil Nadu: Evergreens, Timnevelly (Tirunelveli); FRI, Dehra Dun.
 Distribution: Asia (Tamil Nadu in India).
 Hosts: *Gluta travancorica*.
 References: (cn) Mathur & Singh 1960b: 14. (ds) Mathur & Singh 1960b: 14. (tx) Wood, S. L. 1989: 183.

grandis Blackman 1928b: 119. Holotype, sex?; Arizona: Kaibab National Forest [USA]; USNM, Washington.
 Figures: Bright 1981d: 370.
 Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Nebraska, New Mexico, South Dakota, W Texas, Utah, Wyoming in USA).
 Hosts: *Pinus flexilis*, *P. leiophylla*, *P. monophylla*, *P. ponderosa*.
 References: (cn) Blackman 1931c. (ec) Blackman 1931c. (hb) Blackman 1931c; Bright & Stark 1973: 115; Chamberlin 1939: 395, 1958: 157. (ds) Bright 1976d: 182, 1981d: 289; Bright & Stark 1973: 115; Chamberlin 1939: 395, 1958: 157; Keen 1929a: 33; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1972a: 426, 1982b: 1106. (tx) Blackman 1928b: 114, 119–121; Bright 1981d: 289, 370; Chamberlin 1939: 395, 1958: 157; Keen 1929a: 33; de Ruette 1970: 109; Wood, S. L. 1972a: 426, 1982b: 1106.

granulipennis Schedl 1965c: 69. Holotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien.
 Distribution: Madagascar.
 Hosts: Tree twigs.
 References: (tx) Schedl 1965c: 69, 1977b: 112, 1979c: 112.

granulosus (Schedl) 1972h: 60 (*Breviophthorus*). Holotype, sex?; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
 Distribution: South America (Brazil).
 References: (tx) Schedl 1972h: 60, 1979c: 112.

guatemalensis Blandford 1904: 239. Lectotype ♀; Guatemala City, Guatemala; BMNH, London, designated by Bright 1976b: 184.
 Figures: Bright 1981d: 342.
 Distribution: North America (Guatemala).
 Hosts: Probably *Quercus* sp.
 Notes: (3) Bright 1981d: 106 (treated *quercinus* as a synonym; it is at least a subspecies, perhaps a distinct species).
 References: (hb) Bright 1981d: 106. (ds) Blackwelder 1947: 782; Bright 1981d: 106; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 363; Wood, S. L. 1982b: 1084. (tx) Blandford 1904: 239; Bright 1976b: 184, 1977: 515, 1981d: 106, 342; Hagedorn 1910a: 101; Schedl 1938a: 183, 1955g: 18; Wood, S. L. 1982b: 1084.

gunneri Schedl 1970f: 583. Holotype ♀; Guyane française, Camopi-Oyapock dans nid d'Atta; Schedl Collection in NHMW, Wien.
 Distribution: South America (Cayenne).
 Notes: (1) Below the type label on the holotype is a subsequently placed white label with red margin that says "holotype, *Pityophthorus quadrispinatus* Schedl." Whether this was an error in labeling or a suggestion of synonymy by Schedl was not determined.
 References: (tx) Schedl 1970f: 583–584, 1979c: 113.

henscheli Seitner 1887: 44. Syntypes, sex?; Tyrol, Austria; not located, 1 syntype in NHMW, Wien.
 Figures: Grune 1979: 118.
 Distribution: Europe (Austria/ Czechoslovakia/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ W USSR/ Yugoslavia).
 Hosts: *Pinus cembrae montana*, *P. heldreichii*, *P. mugo*.
 Notes: (1) Schedl 1979c: 116 (citation of holotype invalid).
 References: (bv) Grune 1979: 119; Hellrigl 1985. (cn) Schimitschek 1938b: 114, 1955a: 42; Schwerdtfeger 1944a: 177, 1957a: 183; Wachtl 1901: 381; Wichmann 1927b: 378. (ec) Hellrigl 1985; Heqvist 1955a: 96; Jahn & Simreich 1960b; Kleine 1908c: 213; Pfeffer 1960: 346; Ruschka 1925: 200; Schimitschek 1955a: 42; Seitner 1913a: 27; Seitner & Notzl 1925: 187; Schwerdtfeger 1944a: 177, 1957a: 183; Thompson, W. R. 1943: 90. (hb) Bargmann 1906; Dombrowsky 1891; Henschel

- 1895a; Karpinski & Strawinski 1948: 156; Knotek 1899b: 1, 1901: 565; Lengerken 1939: 65; Numberg 1947c: 106; Schimitschek 1955a: 42; Seitner & Notzl 1925: 187; Schwerdtfeger 1944a: 177, 1957a: 183, 1981: 190; Spessivtsev 1921b: 221; Wachtl 1901: 381; Wichmann 1927b: 378. **(ds)** Annmann & Knabl 1923; Bilek 1944; Endrodi 1957a: 307, 1958b; Favre 1890; Fuchs 1905a; Grune 1979: 119; Hagedorn 1910d: 71; Henschel 1895a: 172; Heyden, Reitter, & Weise 1891: 672, 1906: 711; Horion 1951, 1954b: 21; Karpinski 1931: 30; Karpinski & Strawinski 1948: 156; Kleine 1913a: 35, 1913b: 140, 1934a: 160; Knotek 1899b: 1, 1901: 565; Knir 1947c: 9; Lucht 1987: 278; Numberg 1938: 126, 1954: 71; Pfeffer 1924a: 96, 1931b: 76, 1960: 346, 1989a: 66; Pittioni 1943: 176; Postner 1974: 436; Prossen 1913: 83; Reitter 1894a: 76, 1916: 299; Schedl 1967c: 71, 1980a: 22, 1981b: 78; Schilsky 1909: 188; Schimitschek 1938b: 114; Schwerdtfeger 1981: 190; Stierlin 1898: 441; Tredl 1907: 14; Wichmann 1927a: 73. **(tx)** Dombrowsky 1891; Eggers 1911a: 122, 1914: 189; Endrodi 1957a, 1957b; Fanvel 1887, 1889; Fleischer 1927; Grune 1979: 118–119; Hagedorn 1910a: 101; Hellbrigl 1985; Henschel 1895a: 172; Karpinski & Strawinski 1948: 156; Lucht 1987: 278; Numberg 1938: 126–131, 1954: 71; Pfeffer 1932b: 4, 1940b: 109, 113, 123, 1955a: 211; Postner 1974: 436; Reitter 1894a: 76, 1913a: 94, 1916: 299; Schedl 1934f: 1643, 1964m: 312, 1981b: 78; Seitner 1887: 44–45; Spessivtsev 1922: 221, 1926: 49; Stierlin 1898: 441, 1925: 187–196; Wichmann 1910a: 146. **(ms)** Eggers 1911b; Seitner 1913a: 27.
- hermosus** Wood 1976a: 356. Holotype ♀; Yuscaram, Paraiso, Honduras; Wood Collection.
Distribution: North America (Honduras).
Hosts: *Eupatorium dahioides*, *Perynanium grande*.
References: **(ds)** Bright 1981d: 40; Wood, S. L. 1982b: 1139. **(tx)** Bright 1981d: 40; McNamara 1984: 755; Wood, S. L. 1976a: 356, 1982b: 1139.
- hintzi** Schedl 1938h: 459. Syntypes ♂; Portugiesisch Guinea; MNB, Berlin and Schedl Collection in NHMW, Wien.
Distribution: Africa (Ghana/Guinea-Bissau/Ivory Coast/Tanzania/Zaire).
Hosts: *Kluya* sp., *Mitragyne* sp.
Notes: (1) Schedl 1979c: 117 (citation of holotype invalid).
References: **(ds)** Browne 1975a: 758, 1981a: 126; Mayne & Donis 1962: 309; Schedl 1962j: 10, 1972e: 282, 1977d: 278, 1979b: 415. **(tx)** Schedl 1938h: 459, 1962j: 10, 1970i: 223, 1979c: 117.
- acuminatus** Browne 1965a: 192. Holotype ♀; Ivory Coast: Adiopodoume; RNIH, Leiden, preoccupied by Schedl 1940a: 346. Synonymy: Schedl 1970i: 223 (possible synonymy).
References: **(tx)** Browne 1965a: 192; Schedl 1970i: 223.
- hispaniolus** Bright 1985c: 181. Holotype ♀; Colonia, Dominican Republic, 1000 m; NHMBS Basel, Switzerland.
Distribution: Antilles Islands (Dominican Republic).
References: **(ds)** Bright 1985c: 176. **(tx)** Bright 1985c: 176, 181.
- hylocuroides** Wood 1964: 69. Holotype ♀; 18 km NE Jacala, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Rhus* cf. *aromatica*.
References: **(ds)** Bright 1981d: 32, 1986b: 683; Wood, S. L. 1982b: 1120. **(tx)** Bright 1981d: 32; McNamara 1984: 756; Wood, S. L. 1964: 69, 1982b: 1120.
- ignotus** Schedl 1961e: 143. Holotype ♀; Madagascar. Mt. d'Ambre; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: **(tx)** Schedl 1953d: 69, 1961e: 143, 1977b: 112, 1979c: 120.
- ikelaensis** Numberg 1967b: 322. Holotype ♀; Tshuapa, Ikela [Congo]; MRCB, Tervuren.
References: Numberg 1967a: 337.
Distribution: Africa (Zaire).
References: **(tx)** Numberg 1967a: 337, 1967b: 322.
- imitans** (Eggers) 1920: 34 (*Trigonogenius*). Lectotype, sex?, Amani (Deutsch-Ostafrika); USNM, Washington, designated by Anderson & Anderson 1971: 15.
Distribution: Africa (Tanzania).
References: **(ds)** Schedl 1962j: 10. **(tx)** Anderson, W. H. & Anderson 1971: 15; Eggers 1920: 34; Lucas 1920: 683; Numberg 1969a: 396; Schedl 1952d: 347, 1979c: 121.
- immanis** Blackman 1928b: 98. Holotype ♀; Chiricahua Mts., Arizona [USA]; USNM, Washington.
Distribution: North America (Chiricahua in Mexico/Arizona, New Mexico in USA).
Hosts: *Pinus ponderosa*, *P. strobiformis*.
References: **(hb)** Chamberlin 1939: 385. **(ds)** Bright 1981d: 15; Chamberlin 1939: 385; Keen 1929a: 33; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 89, 98–99; Bright 1981d: 159; Chamberlin 1939: 385; Keen 1929a: 33; McNamara 1984: 756; Wood, S. L. 1964: 67, 1977d: 515, 1982b: 1097.
- sulcatus** Bright 1977: 528. Holotype ♀; Mt. Lemon, Pima Co., Arizona [USA]; CNCI, Ottawa. Synonymy: Wood 1977d: 515, 1982b: 1096–1097.
Notes: Bright 1981d: 166 (treated as a distinct species).
References: **(ds)** Bright 1981d: 166. **(tx)** Bright 1977: 528, 1981d: 166, 352; McNamara 1984: 758; Schedl 1979c: 245; Wood, S. L. 1977d: 515, 1982b: 1096.
- impexus** Bright 1978: 76. Holotype ♀; 10 km S Carapan, Michoacan, Mexico; Wood Collection.

- Distribution: North America (Durango, Mexico, Michoacan in Mexico).
Hosts: *Pinus ayacaluuite*, *P. sp.*
References: (**hb**) Burgos & Saucedo 1983: 120. (**ds**) Atkinson & Equihua 1985a: 95; Bright 1981d: 197; Burgos & Saucedo 1983: 120; Wood, S. L. 1982b: 1086. (**tx**) Bright 1978: 76, 1981d: 197; McNamara 1984: 756; Wood, S. L. 1982b: 1086.
- inaequidens** Schedl 1976a: 68. Holotype, sex[?]; Jacareacanga, Para, Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (**tx**) Schedl 1976a: 68.
- indefessus** Bright 1986a: 641. Holotype, sex[?]; Mexico: Estacion de Biologia, Chamela, Edo. Jalisco; CNCI, Ottawa.
Distribution: North America (Jalisco in Mexico).
References: (**tx**) Bright 1986a: 641.
- indigenus** Wood 1976a: 361. Holotype ♀; 3 km W Armeria, Colima, Mexico, 70 m; Wood Collection.
Distribution: North America (Colima, Jalisco, Oaxaca in Mexico).
Hosts: *Bursera* sp.
References: (**ec**) Equihua & Atkinson 1986: 634. (**hb**) Equihua & Atkinson 1986: 634. (**ds**) Bright 1981d: 79; Equihua & Atkinson 1986: 634; Wood, S. L. 1982b: 1126. (**tx**) Bright 1981d: 79; Wood, S. L. 1976a: 361, 1982b: 1126.
- indigus** Wood 1978b: 398. Holotype ♀; 3 km E Gould, Jackson Co., Colorado [USA]; Wood Collection, automatic.
Distribution: North America (Colorado in USA).
Hosts: *Pinus contorta*
References: (**ds**) Bright 1981d: 128; Wood, S. L. 1982b: 1053. (**tx**) Bright 1981d: 128; Wood, S. L. 1978b: 398, 1982b: 1053.
- indigenus** Wood 1977b: 214. Holotype ♀; 3 km E Gould, Jackson Co., Colorado [USA]; Wood Collection, preoccupied by Wood 1976a: 361.
References: (**tx**) Wood, S. L. 1977b: 214, 1978b: 398.
- irritans** Schedl 1979j: 127. Holotype ♀; 3 km E Gould, Jackson Co., Colorado [USA]; Wood Collection, automatic.
Notes: (1) This is an unneeded replacement name for *indigenus* Wood 1977: 214.
References: (**tx**) Bright 1981d: 128; Schedl 1979j: 127.
- ineditus** Bright 1976c: 434. Holotype ♀; 53 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa.
Distribution: North America (Oaxaca, Veracruz in Mexico).
Hosts: *Pinus* sp.
References: (**ds**) Bright 1981d: 118; Wood, S. L. 1982b: 1057. (**tx**) Bright 1976c: 434, 1981d: 118; McNamara 1984: 756; Wood, S. L. 1982b: 1057.
- infimus** Schedl 1972g: 68. Holotype, sex[?]; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (**tx**) Schedl 1972g: 68, 1979c: 124.
- infulatus** Blackman 1928b: 103. Holotype ♀; Sacramento Mts., New Mexico [USA]; USNM, Washington.
Distribution: North America (Arizona, New Mexico in USA).
Hosts: *Pinus ponderosa*, *P. strobiformis*.
References: (**hb**) Chamberlin 1939: 387. (**ds**) Atkinson & Equihua 1985c: 360, 1988: 98; Bright 1981d: 160; Chamberlin 1939: 387; Keen 1929a: 32; Kleine 1934a: 160; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1090. (**tx**) Blackman 1928b: 103; Bright 1977: 515, 1981d: 160; Chamberlin 1939: 387; Keen 1929a: 32; Wood, S. L. 1982b: 1090.
- mollis** Blackman 1928b: 104. Holotype ♀; Tortillo Canyon, New Mexico [USA]; USNM, Washington. Synonymy: Bright 1977: 514.
References: (**hb**) Chamberlin 1939: 387. (**ds**) Chamberlin 1939: 387; Keen 1929a: 33; Kleine 1934a: 160; Leng & Mutchler 1933: 52. (**tx**) Blackman 1928b: 104; Bright 1977: 514; Chamberlin 1939: 387; Keen 1929a: 33; McNamara 1984: 757.
- lubbaridi** Blackman 1928b: 105. Holotype ♀; Chiricahua Mts., Arizona [USA]; USNM, Washington. Synonymy: Bright 1977: 514.
References: (**hb**) Chamberlin 1939: 387. (**ds**) Chamberlin 1939: 387; Leng & Mutchler 1933: 52. (**tx**) Blackman 1928b: 105, 1942a: 215–216; Bright 1977: 515; Chamberlin 1939: 387; McNamara 1984: 755.
- ingens** Blackman 1928b: 124. Holotype ♀; Santa Catalina Mts., Arizona [USA]; USNM, Washington. Distribution: North America (Chihuahua, Durango in Mexico/ Arizona in USA).
Hosts: *Pinus ponderosa*, *P. sp.*
References: (**hb**) Chamberlin 1939: 395. (**ds**) Bright 1981d: 281; Chamberlin 1939: 395; Furniss, M. M. 1978; Keen 1929a: 33; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 110. (**tx**) Blackman 1928b: 115, 124–125; Bright 1981d: 281; Chamberlin 1939: 395; Keen 1929a: 33; McNamara 1984: 756; Wood, S. L. 1982b: 1100.
- inhabilis** Bright 1986a: 642. Holotype ♀; Mexico: Chilapa, Guerrero; CNCI, Ottawa.
Distribution: North America (Guerrero in Mexico).
References: (**tx**) Bright 1986a: 642.
- inops** Wood 1976c: 353. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Tree limb.
References: (**ds**) Bright 1981d: 15; Wood, S. L. 1982b: 1122. (**tx**) Bright 1981d: 15; Wood, S. L. 1976c: 353, 1982b: 1122, 1983a: 648.

- insuetus** Bright 1955b: 479. Holotype ♀; Mexico: Huitzilac, Morelos: CNCI, Ottawa.
Distribution: North America (Morelos in Mexico).
Hosts: Compositae sp.
References: (tx) Bright 1955b: 479.
- intentus** Bright 1975: 77. Holotype ♀; Bear Canyon, Santa Catalina Mts., Arizona [USA]; CNCI, Ottawa.
Figures: Bright 1981d: 369.
Distribution: North America (Durango in Mexico/ Arizona in USA).
Hosts: *Pinus engelmannii*, *P. leiophylla*, *P. ponderosa*, *P. strobiformis*, *Pseudotsuga menziesii*.
References: (ds) Bright 1981d: 286; Wood, S. L. 1982b: 1105. (tx) Bright 1975: 77, 1981d: 286, 369; McNamara 1984: 756; Wood, S. L. 1982b: 1105.
- intextus** Swaine 1917: 29. Holotype ♂; Athabaska Landing, Alberta [Canada]; CNCI, Ottawa.
Distribution: North America (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Saskatchewan in Canada/ Maine, Michigan, New Hampshire, New York, West Virginia, Wyoming in USA).
Hosts: *Picea canadensis*, *Pinus resinosa*.
Notes: (3) Blackman 1928b: 101 (re-described). Bright 1981d: 147 (treated *ornatus* Blackman as a synonym).
References: (cn) Doane et al. 1936; Swaine 1918a: 97, 102. (hb) Chamberlin 1939: 386, 1958: 153–154; Doane et al. 1936; Swaine 1918a: 97, 102. (ds) Bright 1976d: 182, 1981d: 147; Chamberlin 1925, 1939: 386, 1958: 153–154; Drooz 1985: 364; Hopping 1922; Kleine 1934a: 160; Leng 1920: 341; Wood, S. L. 1972a: 426, 1982b: 1089. (tx) Blackman 1928b: 90, 101; Bright 1967b: 678, 1977: 515, 1981d: 147, 349; Chamberlin 1939: 386, 1958: 153–154; Hoebeke 1978; Pardy 1983; de Ruelle 1970: 109; Swaine 1917: 29–30, 1918a: 97, 102; Wood, S. L. 1972a: 426, 1977b: 209, 1982b: 1089.
- shepardi** Blackman 1922c: 124. Holotype ♀; Chamberlin Lake region, Township 7, R12, Piscataquis Co., Maine [USA]; USNM, Washington. Synonymy: Bright 1977: 515.
References: (cn) Blackman 1950. (hb) Baker, W. L. 1972: 255; Blackman 1950; Chamberlin 1939: 386. (ds) Anonymous 1926c: 519; Baker, W. L. 1972: 255; Blackman 1950; Bright 1971a: 127, 1976d: 188; Chamberlin 1925, 1939: 386; Kleine 1934a: 161; Leng & Mutchler 1927: 52; Leonard 1928: 519. (tx) Blackman 1922c: 124–125, 1928b: 90, 100–101; Bright 1977: 515; Chamberlin 1939: 386.
- tonsus** Blackman 1928b: 101. Holotype ♀; Grand Island, Michigan [USA]; USNM, Washington. Synonymy: Bright 1977: 515.
References: (cn) Blackman 1950. (hb) Blackman 1950; Chamberlin 1939: 386. (ds) Blackman 1950; Bright 1976d: 188; Chamberlin 1939: 386; Kleine 1934a: 161; Leng & Mutchler 1933: 52. (tx) Blackman 1928b: 101; Bright 1977: 515; Chamberlin 1939: 386; de Ruelle 1970: 111.
- irregularis** Eggers 1931b: 31. Holotype ♀; Brasilien (Sao Paulo); Eggers Collection, in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 782; Eggers 1931b: 31; Schedl 1972g: 44, 1979c: 128.
- jeffreyi** Blackman 1928b: 113. Holotype ♀; Inyo N.F., Bishop, California [USA]; USNM, Washington. Distribution: North America (California, Oregon in USA).
Hosts: *Pinus aristata*, *P. jeffreyi*, *P. ponderosa*, rare or accidental in other *Pinus* spp.
References: (hb) Bright & Stark 1973: 114; Chamberlin 1939: 389. (ds) Bright 1981d: 71; Bright & Stark 1973: 114; Chamberlin 1939: 389; Keen 1929a: 33; Kleine 1934a: 160; Leng & Mutchler 1933: 52. (tx) Blackman 1928b: 91, 113–114; Bright 1981d: 71; Chamberlin 1939: 389; Keen 1929a: 33; de Ruelle 1970: 110; Schedl 1939h: 167; Wood, S. L. 1982b: 1116.
- joveri** Schedl 1954d: 881. Lectotype ♀; Cote d'Ivoire, Adiopodoume; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 130. Figures: Schedl 1962j: 11.
Distribution: Africa (Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Zaïre).
Hosts: *Fagara macrophylla*, *Phialodiscus bancoensis*.
References: (ce) Schedl 1958d: 190, 1962k: 10. (hb) Schedl 1958d: 191, 1962j: 10. (ds) Schedl 1962h: 59, 1962j: 10, 1966c: 225, 1971g: 191, 1972e: 282. (tx) Schedl 1954d: 881–882, 1962j: 10–11, 1962k: 1080, 1964j: 46, 1979c: 130.
- jucundus** Blandford 1894d: 87. Syntypes 4, sex?: near Nagasaki, Japan; BMNH, London.
Figures: Nobuchi 1966d: pl. 5.
Distribution: Asia (NE China/ Japan/ Korea/ Sakhalin Island, Siberia in E USSR).
Hosts: *Pinus densiflora*, *P. thunbergii*, *Picea ajanensis*, *Abies* sp.
References: (bv) Choo, Woo, & Park 1988. (cn) Inouye 1949b; Murayama 1957a: 7; Shiraki 1952; Yasunga 1962: 197–200. (ce) Inouye et al. 1955: 80. (hb) Inouye et al. 1955: 80; Stark 1952: 351. (ds) Blandford 1894c; Cho 1957; Choo 1983: 76; Choo & Woo 1985: 165; Choo, Woo, & Park 1988; Hagedorn 1910d: 71; Inouye 1949b; Kleine 1913b: 140, 1914b: 258, 1934a: 160; Ko 1969: 281; Kurenzov 1965; Murayama 1929b: 2, 1930a: 9, 1930b: 14, 1936b: 116, 1937b: 375, 1948: 2, 1949a: 12, 1949c: 101, 1950b: 1293, 1951c: 4, 1954a: 7, 1954b: 169, 1955: 99; Nobuchi 1966d: 33; Pfeffer 1976: 340; Shiraki 1952; Stark 1936c: 142, 1952: 351. (tx) Blandford 1894d: 87; Choo 1983: 76; Hagedorn 1910a: 101; Murayama

1930b: 14, 1934c: 298, 1937b: 375, 1950b: 1293, 1954b: 169, 1955: 99; Nobuchi 1966d: 33, pl. 5; Pfeffer 1940b: 108, 1976: 340; Pjatkitskii 1931: 169; Schedl 1934f: 1643, 1938a: 183; Stark 1952: 351.

juglandis Blackman 1928b: 42. Holotype ♀; Lone Mountain, New Mexico [USA]; USNM, Washington. Distribution: North America (Chihuahua in Mexico/ Arizona, California, New Mexico in USA).

Hosts: *Juglans californica*, *J. major*, *J. nigra*.

References: (bv) Roling & Kearby 1975b. (cn) Anonymous 1960q: 28, 1961t, 1964h. (hb) Bright & Stark 1973: 106; Chamberlin 1939: 362. (ds) Anonymous 1961t, 1964h; Bright 1981c: 81; Bright & Stark 1973: 106; Chamberlin 1939: 362; Furniss, R. L. & Carolin 1977: 402; Harper 1965: 82, 1969: 93; Keen 1929a: 32; Kleine 1934a: 160; Leng & Mutchler 1933: 52; Wamer 1960: 1; Wood, S. L. 1960b: 69, 1977a: 72, 1982b: 1123. (tx) Blackman 1928b: 42; Bright 1981d: 81; Chamberlin 1939: 362; Keen 1929a: 32; McNamara 1984: 756; Wood, S. L. 1960b: 69, 1982b: 1123.

keeni (Blackman) 1928b: 19 (*Myeloborus*). Holotype, sex?; Jacumba, California [USA]; USNM, Washington.

Distribution: North America (Arizona, California, Colorado, New Mexico in USA).

Hosts: *Pinus cembroides*, *P. edulis*, *P. monophylla*.

Notes: (1) Bright 1976c: 427 (to *Pityophthorus*). References: (hb) Bright & Stark 1973: 96; Chamberlin 1939: 340. (ds) Bright 1981d: 209; Bright & Stark 1973: 96; Chamberlin 1939: 340; Keen 1929a: 31; Kleine 1934a: 163; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 1042. (tx) Blackman 1928b: 19; Bright 1976c: 427, 1981d: 209; Chamberlin 1939: 340; Keen 1929a: 31; McNamara 1984: 753; Wood, S. L. 1982b: 1042.

kenyae Schedl 1955i: 217. Syntypes, sex?; Kenya: Londiani; BMNH, London, and Schedl Collection in NHMW, Wien.

Distribution: Africa (Kenya).

Hosts: *Calodendrum capensis*.

References: (ds) Gardner 1957a: 31; Schedl 1962j: 12. (tx) Schedl 1955i: 217, 1962j: 12, 1979c: 132.

kirgisisus Pjatkitskii 1931: 167. Lectotype, sex?; Kirgisien, USSR; Pjatkitskii Collection, not located, designated by Michalski 1969a: 895.

Figures: Tsai & Li 1959: 94.

Distribution: Europe (W USSR).

Hosts: *Picea schrenkiana*.

References: (cc) Kostin 1964: 111. (hb) Kostin 1960: 133; Stark 1952: 348. (ds) Kadyrov 1989; Kleine 1934a: 160; Marikovskii 1956: 73; Parfentev 1951: 429; Pfeffer 1976: 340; Stark 1952: 348. (tx) Michalski 1969a: 895, 1969b: 569; Pfeffer 1940b: 108, 111, 117, 1976: 340; Pjatkitskii 1931: 167–169; Schedl 1934f: 1643, 1979c: 132; Stark 1952: 348; Tsai & Li 1959: 94.

kiruensis Schedl 1957d: 61. Holotype, sex?; Congo Belge; Kivu, Mt. Kabuzi versant Ouest, 2310 m; MRCB, Tervuren.

Figures: Schedl 1962j: 14.

Distribution: Africa (Zaire).

Hosts: *Albizzia gummifera*, *Persca gratissima*, *Ricinus communis*, *Sapinum manneanum*, *Trema orientale*.

References: (cc) Schedl 1962j: 14. (hb) Schedl 1962j: 14. (ds) Mayne & Donis 1962: 309; Schedl 1962j: 14. (tx) Schedl 1955i: 217, 1957d: 61, 1962j: 14, 1979c: 133.

knoteki Reitter 1898b: 356. Syntypes, sex?; Tyrol, Austria; NHMB, Budapest.

Figures: Grune 1979: 116, Pfeffer 1989a: pl. 9.

Distribution: Europe (Austria/ Bulgaria/ Poland/ W USSR).

Hosts: *Pinus cembrae montana*, *P. mugo*, *P. peuce*.

References: (bv) Grune 1979: 117; Hellrigl 1985. (cn) Schimitschek 1938b: 115, 120, 1955a: 42; Wachtl 1901: 351. (cc) Hellrigl 1985; Jahn & Sinreich 1960; Kleine 1908c: 313; Schimitschek 1955a: 42; Seitner 1913a: 27; Thompson, W. R. 1943: 91; Wichmann 1959: 413. (hb) Karpinski & Strawinski 1948: 156; Pfeffer 1941b: 19; Postner 1974: 436; Schimitschek 1955a: 42; Spessivtsev 1921b: 221; Wachtl 1901: 351. (ds) Buresh & Lazarov 1956; Grune 1979: 117; Hagedorn 1910d: 71; Heyden, Reitter, & Weise 1906: 711; Horion 1961; Karpinski 1931: 30; Karpinski & Strawinski 1948: 156; Kleine 1913a: 35, 1913b: 140, 1934a: 160; Marcu 1957b: 213; Numberg 1938: 126; Pfeffer 1936: 90, 1976: 340, 1989a: 64; Postner 1974: 436; Reitter 1916: 248; Schilsky 1909: 188; Schimitschek 1938b: 115, 120; Trell 1907: 14. (tx) Balachowsky 1949a: 236; Cole & Freude 1972; Eggers 1915b: 13–14; Grune 1979: 116–117; Hagedorn 1910a: 101; Hellrigl 1985; Jansson 1936: 220; Karpinski & Strawinski 1948: 156; Kolubajiv 1934: 65; Numberg 1938: 126; Pfeffer 1940b: 108, 112, 118, 1941b: 19, 1955a: 210, 1965: 63, 1976: 340, 1989a: pl. 9; Pjatkitskii 1931: 169; Postner 1974: 436; Reitter 1898b: 356, 1913a: 93, 1916: 298; Schedl 1934f: 1643, 1979c: 134; Spessivtsev 1922: 221, 1926: 50. (ms) Eggers 1911b; Seitner 1913a: 27; Wichmann 1959: 413.

kuscheli Schedl 1951d: 19. Syntypes, sex?; Chile; NMHN, Santiago, and 4 in Schedl Collection in NHMW, Wien.

Distribution: South America (Chile).

References: (ds) Schedl 1972d: 145. (tx) Schedl 1951d: 19, 1972d: 145, 1979c: 135.

laetus Wood 1976a: 355. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Tree branch.

References: (ds) Bright 1981d: 103; Wood, S. L. 1982b: 1081. (tx) Bright 1981d: 103; Wood, S. L. 1976a: 355, 1982b: 1081.

languidus Eichhoff 1878b: 186. Holotype, sex?; America meridionalis (Venezuela); Hamburg Museum, lost.

Distribution: South America (Venezuela).

References: (ds) Blackwelder 1947: 782; Bruch 1914a; Hagedorn 1910d: 71; Kleine 1913b: 140, 1914b: 339. (tx) Eichhoff 1878a: 389, 1878b: 186; Hagedorn 1910a: 101.

lupponicus Stark 1952: 356. Syntypes, sex?; Kola peninsula, Maritime Prov.; IZL, Leningrad.

Distribution: Asia (Finland/Ussuri in E USSR).

Hosts: *Picea obovata*, *Pinus cembra siberica*, *P. koraiensis*.

References: (cc) Pfeffer 1960: 345. (hb) Kurenzov 1948b: 105, 1950d: 148; Stark 1952: 356. (ds) Nuorteva 1971: 71; Pfeffer 1960: 345, 1976: 340; Postner 1974: 437; Stark 1952: 356. (tx) Kurenzov 1941a: 177, 1948b: 105; Pfeffer 1976: 340; Postner 1974: 437; Stark 1952: 356.

laticeps Bright 1978: 78. Holotype ♂; 20.5 km N Oaxaca, Oaxaca, Mexico, 300 m; CNCI, Ottawa.

Distribution: North America (Oaxaca in Mexico).

Hosts: *Pinus* sp.

References: (ds) Bright 1981d: 237; Wood, S. L. 1982b: 1060. (tx) Bright 1978: 78, 1981d: 237; McNamara 1984: 756; Wood, S. L. 1982b: 1060.

lautus Eichhoff 1872a: 135. Holotype, sex?; Amer. bor.; Hamburg Museum, lost; neotype ♀; Morgantown, West Virginia [USA], designated by Bright 1976c: 427.

Figures: Blackman 1922b:pl. 1, fig. 5, Bright 1981d: 337.

Distribution: North America (Ontario, Quebec in Canada/ Connecticut, District of Columbia, Florida, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Acer saccharum*, *Cercis canadensis*, *Hammamelis* sp., *Juglans nigra*, *Quercus* sp., *Picea* sp., *Pinus strobus*, *Rhus typhina*, *R. radicans*.

Notes: (3) Blackman 1928b: 37 (re-described), 1928b: 39 (*rhois acerini*, *rhois hammamelidis*, *rhois swainnei*, *piccae*, nomen nudum, no status).

References: (bv) Kirkendall 1951b. (cn) Felt 1906: 751; Hopkins 1899c: 443; Lindquist, O. H. & Syme 1981: 88; Swaine 1918a: 95; Syme & Nystrom 1988: 84. (cc) Bushing 1965: 465; Felt 1906: 751; Kirkendall 1951b. (hb) Blackman 1922b: 101, 103; Bright 1981d: 58; Chamberlin 1939: 360; Felt 1906: 751; Hopkins 1899c: 443; Kirkendall 1951b; Swaine 1918a: 95. (ds) Atkinson & Equihua 1985a: 92, 1988: 98; Atkinson et al. 1991: 163; Blackman 1922b: 101, 103; Blatchley & Leng 1916: 633; Bright 1981d: 58; Chamberlin 1925, 1939: 360; Deyrup 1981b: 8; Deyrup & Atkinson 1987a: 66; Drooz 1985: 363; Gemminger & Harold 1872: 2688; Hagedorn

1910d: 71; Henshaw 1885: 147; Hopkins 1893a: 131, 1893b: 209; Kleine 1913b: 140, 1914b: 386, 1934a: 160; Leng 1920: 341; Lindquist, O. H. & Syme 1981: 88; Swaine 1909: 135; Syme & Nystrom 1988: 84; Weber, B. C., & McPherson; Wood, S. L. 1982b: 1131. (tx) Blackman 1922b: 101, 103, 1928b: 36–38; Blandford 1898c: 6; Blatchley & Leng 1916: 633; Bright 1976c: 427, 1981d: 58, 337; Chamberlin 1939: 360; Eichhoff 1872a: 135, 1878b: 190; Hagedorn 1910a: 101; LeConte 1876: 354; Lindquist, O. H. & Syme 1988: 84; Swaine 1909: 135, 1918a: 95, 104; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1982b: 1131. (ms) Eckstein 1900c.

rhois Swaine 1917: 26. Holotype, sex?; Ithaca, New York [USA]; CNCI, Ottawa. Synonymy: Bright 1976c: 427.

References: (cn) Blackman 1950; Lindquist, O. H. & Syme 1988: 84; Swaine 1918a: 95, 99; Syme & Nystrom 1988: 84. (cc) Loan & Matthews 1973; Marsh 1979: 295. (hb) Baker, W. L. 1972: 255; Beal & Massey 1945: 126–129; Blackman 1922b, 1950; Chamberlin 1939: 360; Swaine 1918a: 95, 99. (ds) Anonymous 1926c: 518; Beal & Massey 1945: 126–129; Beaulne 1956; Blackman 1922b: 103–104, 1950; Bright 1976d: 188; Chamberlin 1939: 360; Dodge 1938; Glick 1939: 37, 71; Hoffmann 1940: 60–61, 1942: 13; Kirk 1969; Kleine 1934a: 161; Leng 1920: 341; Leonard 1928: 518; Lindquist, O. H. & Syme 1981: 88; Syme & Nystrom 1988: 84. (tx) Beal & Massey 1945: 126–129; Blackman 1921: 7–8, 1922b: 103–104, 1928b: 36–39; Bright 1967b: 678, 1976c: 427, 1977: 517; Chamberlin 1939: 360; Dodge 1938: 43; Hoebeke 1978; Lindquist, O. H. & Syme 1981: 88; de Ruelle 1970: 111; Swaine 1917: 26, 1918a: 95, 99, 104; Syme & Nystrom 1988: 84; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1967d: 40.

natalis Blackman 1921: 8. Lectotype ♂?; Agricultural College, Mississippi [USA]; USNM, Washington. Synonymy: Bright 1976c: 427.

Notes: (3) Blackman 1928b: 37 (re-described).

References: (cn) Blackman 1950. (hb) Baker, W. L. 1972: 255; Beal & Massey 1945: 130; Blackman 1922b: 101–105, 1950; Chamberlin 1939: 360. (ds) Beal & Massey 1945: 130; Blackman 1922b, 1950; Chamberlin 1939: 360; Kleine 1934a: 160; Leng & Mutchler 1927: 52. (tx) Beal & Massey 1945: 130; Blackman 1921: 8, 1922b: 101–105, 1928b: 37–40; Bright 1976c: 193, 427, 1977: 517; Chamberlin 1939: 360; de Ruelle 1970: 110; Wood, S. L. 1964: 61.

lecontei Bright 1977: 525. Holotype ♀; Kitt Peak, Pima Co., Arizona [USA]; CNCI, Ottawa. Figures: Bright 1981d: 366.

Distribution: North America (Chihuahua in Mexico/ Arizona, New Mexico in USA).

Hosts: *Pinus cembroides*, *P. edulis*, one pair in *P. ponderosa*.

References: (ds) Bright 1981d: 260; Wood, S. L. 1982b: 1065. (tx) Bright 1977: 525, 1981d: 260, 366; McNamara 1984: 756; Wood, S. L. 1982b: 1065.

leechi Wood 1977b: 215. Holotype ♀; 3 km NNE Angwin on N side of Howell Mt., Napa Co., California [USA]; CAS, San Francisco.

Distribution: North America (California in USA).

Hosts: *Pinus ponderosa*.

References: (ds) Bright 1981d: 134; Wood, S. L. 1982b: 1051. (tx) Bright 1981d: 134; Wood, S. L. 1977b: 215, 1982b: 1051.

leiophyllae Blackman 1942a: 205. Holotype ♀; Chalco, Mexico, Mexico; USNM, Washington.

Distribution: North America (Hidalgo, Mexico, Michoacan, Oaxaca, Puebla, Veracruz in Mexico).

Hosts: *Pinus cembroides*, *P. leiophylla*, *P. teocote*, *P. sp.*

References: (hb) Atkinson & Equilma 1985a: 93; Atkinson et al. 1986: 39. (ds) Atkinson & Equihua 1985a: 93, 1985c: 360; Atkinson et al. 1986: 39; Blackwelder 1947: 782; Bright 1981d: 120; Wood, S. L. 1982b: 1057. (tx) Blackman 1942a: 205–206; Bright 1977: 515, 1981d: 120; Schedl 1955g: 24; Wood, S. L. 1982b: 1057.

auctor Blackman 1942a: 214. Holotype ♀; near Perote, Veracruz, Mexico; USNM, Washington. Synonymy: Bright 1977: 514.

References: (ds) Blackwelder 1947: 781. (tx) Blackman 1942a: 214; Bright 1977: 514; McNamara 1984: 754.

lenis Wood 1976c: 348. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Liana.

References: (ds) Bright 1981d: 101; Wood, S. L. 1982b: 1082. (tx) Bright 1981d: 101; McNamara 1984: 756; Wood, S. L. 1976c: 348, 1982b: 1082.

lepidus Bright 1977: 526. Holotype ♀; 5.6 km S Suchixtepec on Highway 175, Oaxaca, Mexico, 2600 m; CNCI, Ottawa.

Figures: Bright 1981d: 356.

Distribution: North America (Oaxaca, Veracruz in Mexico).

Hosts: *Pinus lawsonii*, *P. sp.*

References: (hb) Atkinson et al. 1986: 39. (ds) Atkinson et al. 1986: 39; Bright 1981d: 191; Wood, S. L. 1982b: 1071. (tx) Bright 1977: 526, 1981d: 191, 356; McNamara 1984: 756; Wood, S. L. 1982b: 1071.

leris Wood 1986: 273. Holotype ♀; 25 km NW Flagstaff, Arizona (Hart's Prairie Road) [USA]; Wood Collection.

Distribution: North America (Arizona in USA).

Hosts: *Pinus ponderosa* twigs.

References: (tx) Wood, S. L. 1986: 273.

lichtensteini (Ratzeburg) 1837: 162 (*Bostrichus*).

Syntypes, sex?; Berlin, Germany; not located.

Figures: Grune 1979: 116, Pfeffer 1989a: pl. 9.

Distribution: Asia (Fujian in China/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus cembra*, *P. nigra*, *P. peuce*, *P. sylvestris*, *Picea obovata*, rare in *Larix sibericae*.

Notes: (3) Pfeffer 1940: 108, 112 (cites var. *robustus*, synonymy in Pfeffer 1965: 63).

References: (ay) Escherich 1923b: 483; Feytaud 1950a; Lekander 1959b: 36; Numberg 1928a: 141; Nusslin 1911a: 109; Schlerb 1971. (bv) Grune 1979: 117; Hellen 1921. (cn) Barbey 1925: 281; Chorbadzhievo 1929; Eckstein 1926: 579; Egorov 1958: 1482; Escherich 1923b: 483; Esterberg 1959; Feytaud 1950a; Greckin 1962b: 707; Hellen 1921; Joly 1976; Judeich & Nitsche 1895: 526; Kangas 1937; Kobakhidze 1960: 1853; Koch 1913: 123; Kontkanen 1932: 59; Maar & Voore 1935: 641–651; Muller 1912: 185; Nestertschuk 1930: 172; Nosek 1952b: 103; Nusslin 1913: 205; Pfeffer 1933: 43; Pierce, W. D. 1917: 75; Rhumbler 1922: 308, 1927: 322; Saalas 1949: 343, 380; Schimitschek 1937c: 55, 1955c: 87; Schwerdtfeger 1944a: 177, 1957a: 183; Seitner 1913a: 27; Wachtl 1883b: 319, 1901: 377, 381; Weber, H. 1926: 579; Wichmann 1927b: 353. (cc) Barbey 1927; Boucek 1974; Carpelan 1921; Jamnicky 1957b: 26; Kangas 1937; Karpinski 1932a: 95; Kleime 1905c: 213; Kobakhidze 1960: 1853; Kostin 1964: 110; Lundberg 1984; Michalski & Ratajczak 1989; Nosek 1952b: 103, 1959a: 118, 1959b: 87; Nuorteva 1956a: 17, 1968a, 1970; Nusslin 1927: 322; Okolow 1963; Pfeffer 1923a: 332, 1928b: 3, 1933: 43, 1960: 345; Roubal 1934a: 86; Rulm 1956b: 4; Saalas 1930: 119, 1949: 343, 380; Schwerdtfeger 1944a: 177, 1957a: 183; Sedlaczek 1935a: 163; Seitner 1913a: 27; Seitner & Notzl 1925: 185; Tragardh 1927a: 210; Wichmann 1959: 413. (hb) Altum 1881c: 322; Barbey 1901: 23, 74, 1925: 281; Bargmann 1906; Bukowsky 1930; Chararas 1962c: 363; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1891; Eckstein 1926: 579; Eichhoff 1881a: 47, 193; Escherich 1923b: 483; Esterberg 1959; Feytaud 1950a; Fuchs 1904a; Gerhard 1908: 157–162; Gornostaev 1916: 312; Gyorfi 1957; Heinemann 1908: 156–164, 1909; Henschel 1895a: 172; Joly 1976; Judeich & Nitsche 1895: 526; Karpinski 1933b: 30; Karpinski & Strawinski 1948: 156; Knotek 1897: 136; Kostin 1960: 134; Kriwolitskaya 1973: 140; Lekander 1959b: 36; Lengerken 1939: 65, 1954: 85; Michalski 1959a: 291; Mumro 1920, 1926: 63; Nordlinger 1856: 27; Nosek 1959a: 118, 1959b: 87; Numberg 1929a: 111, 1929c: 121; Nuorteva 1968a, 1970; Nusslin 1898: 280, 1913: 205, 1927:

- 322; Pfeffer 1941b: 3; Postner 1974: 435; Ratzeburg 1839: 197; Rhumbler 1922: 308, 1927: 322; Rimski-Korsakov et al. 1949: 288; Rupertsberger 1879: 231, 1880: 229; Saalas 1919, 1949: 343, 380; Schwerdtfeger 1944a: 177, 1957a: 183, 1981: 190; Sedlacek 1935a: 163; Seitner & Notzl 1925: 185; Spessivtsev 1913a: 89, 1921b: 221; Stark 1926a: 336, 1952: 350; Tschorbadjiev 1929: 170; Wachtl 1876a: 460, 1901: 377, 381; Weber, H. 1926: 579; Wichmann 1927b: 353. (**ds**) Acloque 1896; Allen, A. 1954; Bangsholt 1975: 95; Barthe 1896; Bau 1888; Bejer-Petersen & Jorum 1977: 25; Blandford 1891c; Borchiert 1951; Brakman 1966b: 206; Brundin 1934; Buecking 1932; Bukowsky 1930; Buresh & Lazarov 1956; Calwer 1884, 1893; Carpelan 1921; Chapuis & Candeze 1853; Chararas 1962c: 363; Charvat 1950; Chorbadzhievo 1924d, 1929: Csiki 1914; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 483, 1932b; Esterberg 1928; Everts 1922: 643, 1925; Favre 1890; Fedorov 1930; Fowler 1891; Fuclis 1904a; Gaubil 1849: 126; Gemminger & Harold 1872: 2688; Gerhardt 1900; Gobbi 1989: 61; Gornostaev 1917; Gozis 1875: 80; Greekin 1962b: 707; Grill 1895: 311; Grune 1979: 117; Gussmann 1919: 62; Hagedorn 1910d: 72; Hansen, V. 1939, 1956, 1964: 463; Heinemann 1908a, 1908b; Hellen 1947; Henschel 1895a: 172; Heyden 1876: 299, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 672, 1906: 711; Horion 1951; Janovsky & Tegshzhargal 1955: 41; Joly 1976; Judeich & Nitsche 1895: 526; Kaltenbach 1874: 685; Karpinski 1926: 82, 1931: 25, 28, 1932a: 95, 1933b: 30; Karpinski & Strawinski 1948: 156; Kersten 1933: 75; Kiefer et al. 1942: 528; Klefbeck & Sjoberg 1960: 230; Kleime 1912a: 267, 1913a: 35, 1913b: 140, 1934a: 160; Kloft & Hinks 1945: 218; Kolbe, W. 1918: 211; Kontkanen 1932: 59; Kotula 1873b: 80; Kraatz 1869: 59; Krivolutskaya 1965a: 238, 1973: 140, 1983; Krogerus 1921b: 115; Kunnemann 1921: 58; Kurir 1947c: 6; Lacordaire 1866: 382; Leclercq 1971; Lindberg & Saris 1952: 59; Lomnicki 1886a: 242, 1913b: 148; Lucht 1987: 278; Lundberg 1974: 92, 1981: 151; Maren 1957b: 213; Mequignon 1936: 54; Michalski 1957: 165; Mirzoiian 1950: 141; Munster 1928: 289; Negru 1968a: 456; Numberg 1928b: 88, 112, 1935: 126, 1954: 70; Nusslin 1898: 280; Perris 1876a: 255, 1877a: 415; Pfeffer 1924b: 471, 1925b: 3, 1931b: 74, 1935: 158, 1947e: 17, 1960: 346, 1976: 340, 1984: 277, 1989a: 64; Pierce, W. D. 1917: 75; Pittioni 1943: 176; Postner 1974: 435; Ragusa 1924: 116; Rapp 1934: 728; Ratzeburg 1839: 197; Redtenbacher 1858: 830, 1874: 379; Reitter 1869b: 154, 1894a: 75, 1916: 295; Rimski-Korsakov et al. 1949: 288; Rouhal 1941: 269; Ruskov 1928c: 61; Rye 1866: 93; Saalas 1930: 119, 1931: 70; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1242; Schaum 1859: 95, 1862: 101; Schedl 1980a: 23, 1981b: 78; Schilsky 1909: 188; Schwerdtfeger 1981: 190; Seidlitz 1872: 394, 1891a: 564, 1891b: 610; Sokanovskii 1960; Stark 1926a: 336, 1926b: 105, 1926j: 127, 1931a: 28, 1952: 350; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 441; Stierlin & Gautard 1871: 292, 1906: 205; Strand 1940: 601; Strand & Hanssen 1935: 70; Thomson 1865: 368, 1868: 223; Trappen 1935: 143; Tredl 1907: 14; Tschorbadjiev 1929: 170; Wachtl 1870: 259, 1876a: 460; Wichmann 1927a: 72; Winter, T. C. 1983: 22; Wiren 1945: 43; Yanovskii 1977a, 1989: 64; Yanovskii & Tegshzhargal 1985: 410; Zinovjev 1955: 187; Zivojinovic 1960: 25. (**tx**) Acloque 1896; Bach 1854; Balachovsky 1949a: 236; Barbey 1901: 23, 74; Blandford 1891c; Chapuis & Candeze 1853; Charvat 1950; Chorbadzhievo 1924d; Cola 1972: 12; Cola & Freude 1972; Doebner 1860; Dombrowsky 1887, 1891; Duffy 1953; Eggers 1915b: 13–14, 1931b: 31, 1941b: 222; Eichhoff 1864: 39, 1868d: 422, 1875: 201, 1878b: 176, 1881a: 47, 193, 1883a: 110, 134; Endrodi 1957a: 307, 1957b; Escherich 1923b: 483; Everts 1922: 643; Fairmaire 1864: 33; Fauvel 1889; Ferrant 1911; Ferrari 1867a: 32–33, 1867b: 114; Fleischer 1927; Formanek 1907: 37; Grune 1979: 116–117; Hagedorn 1910a: 101; Hansen, V. 1956, 1964: 463; Henschel 1895a: 172; Hopkins 1914: 127; Iablokoff-Khuzorian 1961: 105; Jacquelin du Val & Fairmaire 1868: 104, 112; Jansson 1936: 220; Joly 1976; Judeich & Nitsche 1895: 526; Karpinski & Strawinski 1948: 156; Koch 1913: 123, 1932: 121; Kuhnt 1913: 1056; Lacordaire 1866: 382; Leksander 1959b: 36; Letzner 1891: 375; Lovendal 1898: 131; Lucht 1987: 278; Nordlinger 1848: 242, 1856: 27; Numberg 1928a: 141, 1929c: 121, 1938: 126, 1954: 70; Nusslin 1911a: 109; Perris 1877a: 415; Pfeffer 1932b: 23, 1933: 3–54, 1940b: 108, 112, 117, 1941b: 3, 1947e: 17, 1955a: 215, 1965: 63, 1976: 340, 1989a: 9; Pjatnitskii 1931: 169; Portevin 1935: 333; Postner 1974: 435; Quaschik 1953: 35; Ratzeburg 1837: 162, 1839: 197; Redtenbacher 1849a: 790, 1849b: 26, 1858: 830, 1874: 379; Reitter 1894a: 75, 1898b: 356, 1901: 101, 1913a: 93, 1916: 298; Rhumbler 1922: 308, 1927: 322; Rupertsberger 1879: 231, 1880: 229; Saalas 1949: 343, 380; Schedl 1934f: 1643, 1938a: 158, 1952f: 87, 1980a: 23, 1981b: 78; Scherb 1971; Schimitschek 1937c: 55, 1955c: 87; Seidlitz 1872: 394, 1891a: 564, 1891b: 610; Seitner 1887: 44; Sokanovskii 1929: 670–672, 1959b: 93–94, 1960: 677; Spessivtsev 1913a: 89, 1922a: 487, 1922b: 221, 1925a: 182, 1925b: 27, 1926: 50, 1929c: 298, 1931: 61–63; Stark 1952: 350; Stierlin 1898: 441; Thomson 1865: 368, 1868: 223; Wichmann 1918: 106–107. (**ms**) Eichhoff 1868d: 422; Escherich 1932b; Heinemann 1908a; Hellen 1921; Michalski 1951a: 291; Wichmann 1959: 413.

- liquidambarus** Blackman 1921: 14. Lectotype ♀; Mound, Louisiana [USA]; USNM, Washington, designated by Bright 1976b: 183. Figures: Bright 1981d: 338. Distribution: North America (Arkansas, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Louisiana, Mississippi, North Carolina, West Virginia in USA). Hosts: *Liquidambar styraciflua*. References: (cn) Blackman 1950, (cc) Bright 1981d: 64; Burks 1979: 856; Bushing 1965: 464; Marsh 1977: 150. (hb) Baker, W. L. 1972: 255; Beal & Massey 1945: 131; Blackman 1922b: 101–105, 1950; Bright 1981d: 64; Chamberlin 1939: 361; Ostmark 1968. (ds) Beal & Massey 1945: 131; Blackman 1922b: 101–105, 1950; Bright 1981d: 64; Chamberlin 1939: 361; Deyrup & Atkinson 1987b: 68; Drooz 1985: 363; Kirk 1970; Kleine 1934a: 160; Leng & Mutchler 1927: 52; Ostmark 1968; Weber, B. C., & McPherson 1991: 54; Wood, S. L. 1982b: 1133. (tx) Beal & Massey 1945: 131; Blackman 1921: 14, 1922b: 101–105, 1928b: 37–41; Bright 1976b: 183, 1981d: 64, 338; Chamberlin 1939: 361; de Ruelle 1970: 110; Wood, S. L. 1982b: 1133.
- litos** Bright 1976c: 435. Holotype ♀; 40 km W Orizaba, Veracruz, Mexico; CNCI, Ottawa. Distribution: North America (Veracruz in Mexico). Hosts: *Pinus* sp. References: (ds) Bright 1981d: 136; Wood, S. L. 1982b: 1055. (tx) Bright 1976c: 435, 1981d: 136; McNamara 1984: 756; Wood, S. L. 1982b: 1055.
- longipilus** Schedl 1951m: 112. Holotype ♀; Bolivien, Cochabamba; Eggers Collection, in NHMW, Wien. Distribution: South America (Bolivia). References: (tx) Schedl 1951m: 112, 1979c: 141.
- madagascariensis** Schedl 1951j: 21. Syntypes, sex²; Tananarive, Tsimbazaza; IRSM, Madagascar, and 2 ♂, 2 ♀ in Schedl Collection in NHMW, Wien. Distribution: Madagascar. Hosts: *Vernonia appendiculata*. References: (hb) Paulian 1951: 28. (ds) Paulian 1951: 28; Schedl 1977b: 112. (tx) Schedl 1951j: 2, 1953d: 69, 1965c: 69, 1977b: 112, 1979c: 144.
- malleatus** Bright 1978: 79. Holotype ♀; Walker, Yavapai Co., Arizona [USA]; CNCI, Ottawa. Figures: Bright 1981d: 351. Distribution: North America (Arizona in USA). Hosts: *Pseudotsuga menziesii*. References: (ds) Bright 1981d: 164. (tx) Bright 1978: 79, 1981d: 164, 351; McNamara 1984: 756.
- mandibularis** Schedl 1951m: 113. Syntypes ♂ ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plammann Collection. Distribution: South America (Brazil). Notes: (1) Schedl 1979c: 148 (citation of holotype invalid). References: (ds) Schedl 1966f: 86. (tx) de Ruelle 1970: 110; Schedl 1951m: 112–113, 1979c: 148.
- maroantsetrae** Schedl 1965c: 69. Holotype ♂ ♀; Madagascar, Maroantsetra; Schedl Collection in NHMW, Wien. Distribution: Madagascar. References: (tx) Schedl 1965c: 69, 1977b: 113, 1979c: 149.
- mauretanicus** Peyerimhoff 1930: 259. Syntypes, sex²; Algerie: Djurdjura a Tidjida, 1750 m; MNHN, Paris. Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Europe (France). Hosts: *Pinus nigra mauretanicus*. Notes: (1) Originally named as a subspecies of *glabratus*. Pfeffer 1940: 121 (raised to specific rank). References: (ec) Berland 1934: 215. (hb) Chararas 1962c: 363. (ds) Chararas 1962c: 363; Peyerimhoff 1933b: 370; Pfeffer 1935: 158, 1976: 340, 1984: 277. (tx) Balachowsky 1949a: 239; Peyerimhoff 1930: 255, 259; Pfeffer 1940b: 109, 112, 1955a: 211, 1976: 340; Schedl 1934f: 1643, 1979c: 106.
- medialis** Wood 1976c: 361. Holotype ♀; Volcan Irazu, Cartago, Costa Rica, 2300 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Quercus* sp. References: (ds) Bright 1981d: 106; Wood, S. L. 1982b: 1084. (tx) Bright 1981d: 106; McNamara 1984: 756; Wood, S. L. 1976c: 361, 1982b: 1084.
- megas** Bright 1976c: 436. Holotype ♀; Cerro Potosi, Nuevo Leon, Mexico; CNCI, Ottawa. Distribution: North America (Nuevo Leon in Mexico). Hosts: *Pinus cumminicola*. References: (ds) Bright 1981d: 298; Wood, S. L. 1982b: 1113. (tx) Bright 1976c: 436, 1981d: 298; McNamara 1984: 756; Wood, S. L. 1982b: 1113.
- melanurus** Wood 1976c: 364. Holotype ♀ ♀; 8 km W San Cristobal de las Casas, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas in Mexico). Hosts: *Quercus* sp. References: (ds) Bright 1981d: 93; Wood, S. L. 1976c: 364, 1982b: 1026. (tx) Bright 1981d: 3; Wood, S. L. 1976c: 364.
- mendosus** Wood 1975b: 397. Holotype ♂; San Isidro del General, Costa Rica, 1000 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: "Fosforo" leaf petioles. References: (ds) Bright 1981d: 95; Wood, S. L. 1982b: 1029. (tx) Bright 1981d: 95; McNamara 1984: 756; Wood, S. L. 1975b: 397, 1982b: 1029.
- mesembria** Bright 1978: 80. Holotype ♀; Cerro Cael, Quezaltenango, Guatemala; Wood Collection. Distribution: North America (Guatemala). Hosts: *Abies guatemalensis*.

- References: (**ds**) Bright 1981d: 318; Wood, S. L. 1982b: 1088. (**tx**) Bright 1978: 80, 1981d: 318; McNamara 1984: 756; Wood, S. L. 1982b: 1088.
- mexicanus** Blackman 1928b: 121. Holotype ♀; Correen, Coahuila, Mexico; USNM, Washington. Distribution: North America (Coahuila, Jalisco, Tabasco in Mexico).
Hosts: *Parthenium argentatum*.
References: (**cn**) Lloyd 1911: 43. (**hb**) Bright 1981d: 30; Lange 1944: 395; Lloyd 1911: 43. (**ds**) Blackwelder 1947: 782; Bright 1981d: 30; Ferrer 1942; Kleine 1934a: 160; Lloyd 1911: 43; Romney 1946: 670–671; Wood, S. L. 1982b: 1118. (**tx**) Blackman 1928b: 121; Bright 1981d: 30; McNamara 1984: 756; Schedl 1940a: 348; Wood, S. L. 1982b: 1118.
- micans** Bright 1981d: 188. Holotype ♀; Chiltepec, Oaxaca, Mexico; CNCI, Ottawa.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Pinus montezumae*.
References: (**ds**) Wood, S. L. 1982b: 1070. (**tx**) Bright 1981d: 188; Wood, S. L. 1982b: 1070.
- micrographus** (Linnaeus) 1758: 355 (*Dermestes*).
Syntypes, sex?; Europa; not located.
Figures: Postner 1974: 433 (adult).
Distribution: Asia (Turkey), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Luxemburg/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
Hosts: *Abies bornmuelleriana*, *Picea abies*, *P. excelsa*, *P. obovata*, *P. omorika*, *Larix sibirica*.
References: (**ay**) Escherich 1923b: 463, 483, 601; Hadorn 1933; Nusslin 1911a: 5, 51, 60, 278, 338, 378; Sedlacek 1902b: 244. (**bv**) Grime 1979: 117; Kinelski 1958: 73; Meixner 1937: 1214; Naumann-Etienne 1978a; Nuorteva 1956c: 93; Rozhkov 1970: 143; Tragardh 1930b: 102. (**cn**) Androic 1966: 49; Baisch 1954: 321; Barbey 1906a, 1925: 70; Besceli 1963, 1964: 50–57; Borcea 1924; Borodajewsky 1929: 515–521, 1931: 155–156; Eckstein 1926: 579; Eliescu & St. Negrn 1956; Escherich 1923b: 463, 483, 601, 1929, 1930a; Esterberg 1959; Feytaud 1950a; Gabler 1955; Hartig 1861: 330, 1877: 196; Hess 1898: 348; Hess & Beck 1914: 283, 1927: 339; Jacentkovsky 1933: 271; Jaensch 1835: 50; Judeich & Nitsche 1895: 524; Juntinen 1960: 25; Kamp 1950; Kangas 1947: 1–192, 1958d: 164; Keller 1903b: 48; Kholodkovskii 1912: 307; Koch 1913: 125; Komarek et al. 1931: 1–256; Kovacevic 1952: 69, 1957: 67; Kozikowsky 1929: 252; Maksimovic & Barlov 1961: 37; Maksimovic & Milanovic 1964, 1966; Marcu 1926c: 65; Merker 1954b: 209; Muller 1912: 252; Mumford 1960: 37; Nusslin 1913: 205; Ohnesorge 1955: 280; Pfeffer 1928a: 467, 1947c: 204, 1948a: 801, 1949b: 147, 1950c: 3; Pierce, W. D. 1917: 69; Postner 1971; Ratzburg 1871c: 81; Rhumbler 1927: 321; Rozhkov 1970: 143; Saalas 1949: 343, 379; Scheidter 1919: 88; Schimitschek 1930d: 136, 1935b: 149, 1938b: 115, 1944: 182, 1947g: 191, 1955a: 36–37, 1955c: 87; Schneeberg 1925: 495; Schwerdtfeger 1944a: 181, 1957a: 186; Sedlacek 1933: 307; Sierpinski 1958: 69; Sinreich 1961: 166; Slander 1948: 10; Spaic 1956: 88, 1966: 454; Springer 1936b: 178; Thalenhorst 1950: 90; Tragardh 1938a: 12; Vappula 1965: 153; Wachtl 1883b: 319, 1901: 381; Walsh 1867: 103; Wardle 1929: 322; Weber, H. 1926: 579; Wichmann 1927b: 353; Zieger 1948a: 378. (**cc**) Baisch 1954: 321; Balazy 1962; Balazy & Michalski 1960; Barbey 1906a, 1927; Borodin 1962; Egger, A. 1974; Gaus & Wellenstein 1950; Geschwind 1918; Graham 1969: 877; Gyorf 1941b; Heqvist 1956, 1957a, 1963: 154; Kangas 1946b: 21, 1971; Karpinski 1932a: 101; Kielczewski 1976; Kielczewski & Wisniewski 1983; Kleine 1908c: 213, 1909a: 47, 77, 1944: 69–70; Kraemer 1950b: 380; Lundberg 1984; Merker 1954b: 209; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Numberg & Wiackowski 1958: 130; Nuorteva 1956a: 17, 1957b: 62, 1968a, 1970, 1971; Nusslin 1927: 321; Okolow 1963; Pfeiffer 1923a: 331, 1943b: 179, 1947c: 204, 1949b: 147, 1950c: 3; Poinar 1975: 167; Ruhn 1956b: 4; Saalas 1937: 154, 1949: 343, 379, 1951: 16; Schimitschek 1930a: 340, 1955a: 36–37, 1957a: 186; Schwerdtfeger 1944a: 181; Sedlacek 1908: 53, 1933: 307, 1935a: 163; Seitter 1913a: 27; Sitowski 1930: 4; Szezepanski 1960a: 408, 1961: 3; Thompson, W. R. 1943: 91; Tragardh 1925a: 171, 1927a: 208; Vietinghoff 1924: 335; Wiackowski 1957b: 312; Zinovjev 1958: 386; Zimm 1985b. (**hb**) Apfelbeck 1916: 429–439, 1917; Barbey 1901: 23, 77, 1913, 1925: 70; Bargmann 1906; Belfa 1949; Berg 1827; Besceli 1963; Bloch 1776; Borcea 1924; Borodajewsky 1930a; Brandt 1948; Cecconi 1906, 1924; Charvat 1950; Dombrowsky 1887, 1891; Eckstein 1889, 1897, 1926: 579; Eichhoff 1881a: 47, 197; Egger, A. 1974; Escherich 1923b: 463, 483, 601; Feisthamel 1835; Feytaud 1950a; Fuchs 1904a, 1905c: 339, 1906: 46; Gabler 1955; Gornostaev 1916: 312; Gyorf 1957; Hadorn 1933; Hartig 1861: 330, 1877: 196; Helmbacher 1924; Hennings 1908c: 218, 1908d; Henschel 1895a: 172; Hess 1898: 348; Hess & Beck 1914: 283, 1927: 339; Hufnagel 1887: 512; Hufnagel & Puzyr 1951: 108, 110; Jaensch 1835: 50; Judeich & Nitsche 1895: 524; Karpinski 1933b: 30; Karpinski & Strawinski 1948: 156; Kholodkovskii 1912: 307; Knotek 1894a: 558; Kozikowsky 1922a: 42; Kraemer 1948: 133, 1950b: 380; Lengerken 1939: 36, 65, 1954: 85; Lindberg 1963: 243; Loos 1913: 406; Lamardonii & Leonardi 1889: 458; Madon 1930: 99; Marcu 1930: 327–336; Mokrzecki 1925: 1–7; Naumann-Etienne 1978a; Numberg 1929: 110; Nuorteva 1956c: 93, 1968, 1970; Nusslin 1898: 281, 1906: 14, 1913: 205, 1927: 321; Ohnesorge 1955: 280; Pfeffer 1941c: 5; Postner 1974: 434; Ratzburg 1837: 162, 1839:

- 197, 1871c: 81; Reh 1900a: 95; Rhumbler 1927: 321; Rodd 1897: 34; Rozhkov 1970: 143; Rupertsberger 1880: 230; Saalas 1949: 343, 379, 1951: 16; Schimitschek 1930a: 340, 1944: 182, 1955a: 36–37; Schneider-Orelli 1947b: 157; Schwerdtfeger 1944a: 181, 1957a: 186; Sedlaczek 1935a: 163; Seitner 1911: 99; Simmel 1918: 288–291, 1925: 154; Spessivtsev 1913a: 87, 1921b: 221, 1923: 205, 1925d: 103, 1928a: 221, 1929: 678–682; Stark 1926a: 336, 1952: 342; Tragardh 1929a: 313, 1930b: 102, 1930c: 474, 1931: 57, 1939b: 147, 227; Tredl 1908b: 140; Wachtl 1876a: 460, 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 353; Zinovjev 1958: 386; Zivojinovic 1950: 299–310. (ds) Acloque 1896; Ammann & Knabl 1923; Androic 1966: 49; Arnoldi et al. 1955: 712; Badoux 1921; Bakke & Kvamme 1977; Balazy & Michalski 1960; Barth 1896; Ban 1888; Bëffa 1949; Belonsov 1916, 1917: 336; Bielz 1887; Blanchere & Robert 1889; Blandford 1891a; Borcea 1924: 221–260; Brakman 1966b: 206; Branesik 1871, 1906; Buresh & Lazarov 1956; Calver 1893; Ceconi 1897, 1906; Charvat 1950; Chorbadzhievo 1924d; Credler 1868; Crotch 1863; Dejean 1821, 1825; Duftschmidt 1825; Eder 1934; Eggers 1904; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 463, 483, 601, 1929, 1930a; Esterberg 1928, 1959; Favre 1890; Florov 1940: 94; Fowler 1882: 64, 1891; Fuchs 1904a, 1905a, 1905c: 339, 1907: 46, 1913; Ganbil 1849: 126; Gauss & Wellenstein 1950; Gemminger & Harold 1872: 2688; Gerhardt 1898a; Geschwind 1918; Gillefors 1966; Goeze 1777: 130; Gornostaev 1917: 308–315; Gredler 1866: 374, 1869: 73, 1875: 115; Grill 1895: 311; Grouzelle 1905; Grune 1979: 117; Gussmann 1919: 62; Gyllenhal 1827: 624; Gyorfi 1941b; Hagedorn 1910d: 72; Hansen, V. 1939; Heinemann 1908a; Hellen 1947; Hennings 1954: 256, 261; Henschel 1879a, 1895a: 172; Heyden 1879: 140; Heyden, Reitter, & Weise 1883: 181, 1891: 672, 1906: 712; Holdhaus & Deubel 1910: 145; Horion 1935, 1949, 1951, 1956: 123; Homuzaki 1891: 174; Ihssen 1939: 336; Jacentkovsky 1933: 271; Jacentkovsky 1912: 288; Judeich & Nitsche 1895: 524; Kangas 1971; Karpinski 1925: 216, 1926: 82, 1931: 19, 28, 1932a: 101, 1933a: 290, 1933b: 30; Karpinski & Strawinski 1948: 156; Keler 1925b: 272; Kersten 1933: 76; Kestercanek 1881a: 12; Kinelski 1958: 73; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 262, 264, 268, 1913a: 35, 1913b: 140, 1934a: 160; Knotek 1892a: 37, 1894a: 558; Koca 1900: 116; Kolbe, W. 1916: 211, 1918: 211; Kovacevic 1957: 67; Kozikowsky 1921: 181, 1922: 42–43; Kraatz 1869: 59; Kraemer 1948: 133; Krivolutskaya 1983; Krol 1877: 34; Kurir 1947c: 14; Lacordaire 1866: 382; Langhoffer 1915c: 158; Leder 1871: 132; Leiler & Prutz 1977; Liegel 1886: 43; Lindberg & Saris 1952: 59; Lokaj 1868: 64; Lomnicki 1886a: 242, 1913b: 148; Loos 1913: 406; Lmardoni & Leonardi 1889: 458; Lundberg 1974: 92, 1979: 31; Lundblad 1950c: 115; Marcu 1926c: 65, 1957b: 213; Matthews & Fowler 1883: 42; Meinert 1887: 70; Mumford 1960: 37; Munster 1928: 259; Novak, P. 1964; Numberg 1927a: 214, 1928b: 88, 112, 1938: 126, 1954: 70, 1960: 158; Nuorteva 1956b: 168, 1971: 67; Nusslin 1898: 281; Orest 1926c: 65; Ortzen 1886: 279; Palm 1946: 122, 1948a: 91; Pfeffer 1924a: 96, 1924b: 471, 1935: 158, 1947c: 4, 1950b: 73, 1976b: 340, 1989a: 63; Pierce, W. D. 1917: 69; Platonoff 1943: 141; Pomerantzev 1907b: 492; Poppins 1900: 108; Postner 1974: 434; Prossen 1913: 83; Rapp 1934: 729; Ratzeburg 1837: 162, 1839: 197; Redtenbacher 1874: 379; Reitter 1894a: 76, 1916: 298, 352; Ruskov 1928c: 61; Saalas 1931: 70; Sahlberg 1900: 106; Schaufuss 1915: 1242; Schamm 1859: 95, 1862: 101; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 188; Schimitschek 1938b: 115; Schiodte 1873: 103; Seidl 1876: 4; Seidlitz 1872: 394, 1891a: 564, 1891b: 610; Sharp & Fowler 1893: 34; Solla 1893: 217; Sparre-Schneider 1889: 61; Stark 1926a: 336, 1926b: 105, 1926j: 127, 1931a: 26, 1931d: 548, 1952: 342; Stein 1868: 114; Stein & Weise 1877: 164; Stephens 1829a: 145, 1830: 356, 1839: 206; Stierlin 1898: 44; Stierlin & Gautard 1871: 293; Strand 1946: 601; Sturm 1826: 102; Thomson 1865: 368, 1868: 223; Tragardh 1919: 237–248, 1930: 468–480, 1938: 10–14, 1939b: 147, 227; Trappen 1935; Tredl 1907: 14, 1908b: 140; Vappula 1965: 153; Villa & Villa 1833: 26; Wachtl 1876a: 460; Westhoff 1882: 238; Wichmann 1909b: 173, 1927a: 73–74; Yanovskii 1977a; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 410; Zinovjev 1955: 187. (tx) Acloque 1896; Balachowsky 1949a: 235; Barbey 1901: 23, 77; Bechstein et al. 1805; Bëffa 1949; Bertolini 1872; Blandford 1891a; Branesik 1871; Charvat 1950; Chorbadzhievo 1924d; Dejean 1821, 1825; Doebner 1860; Dombrowsky 1887, 1891; Duftschmidt 1825; Eggers 1914: 183–184, 1915b: 13–14, 1940g: 36; Eichhoff 1864: 39, 1868d: 424, 1878b: 183, 1881a: 47, 197, 1883a: 111, 135; Endrochi 1957b; Escherich 1923b: 463, 483, 601; Escherich & Escherich 1897; Fabricius 1801: 387; Fankhauser 1912a; Fanvel 1889; Ferrant 1911; Ferrari 1867a: 32–33, 1867b: 114; Fleischer 1927; Formanek 1907: 37; Fuchs 1913; Gabler 1955; Gebien 1907: 197; Gmelin 1790: 1601; Goeze 1777: 130; Grune 1979: 117; Gyllenhal 1813: 362, 1827: 624; Hagedorn 1910a: 101; Henry 1892: 14; Henschel 1895a: 172; Houlbert 1922a:pl. 1; Jacobson 1895: 521; Jacquelin du Val & Fairmaire 1868: 112; Jansson 1936: 220; Judeich & Nitsche 1895: 524; Karpinski & Strawinski 1948: 156; Knotek 1892a: 37; Koch 1913: 125, 1928: 99, 1932: 119; Kuhn 1913: 1056; Kurenzov 1941: 233; Lacordaire 1866: 382; LeConte 1858: 355; Letzner 1891: 376; Linnaeus 1758: 355, 1767: 143; Lovendal 1898: 131; Lucas

- 1920: 515; Lunardoni & Leonardi 1889: 458; Marsham 1802: 52; Meixner 1937: 1214; Numberg 1930, 1938: 126, 1954: 70; Nusslin 1911a: 5, 51, 60, 110, 278, 338, 378; Olivier 1795b: 9; Paykull 1800: 155; Pfeffer 1940b: 107, 116, 1941c: 5, 1947c: 4, 1955a: 214, 1976: 340; Pjatnitskii 1931: 171, 173; Portevin 1935: 333; Postner 1974: 434; Quaschik 1953: 35; Ratzeburg 1837: 162, 1839: 197; Redtenbacher 1849a: 359, 851, 1849b: 26, 1874: 379; Reitter 1894a: 76, 1913a: 92, 1916: 298, 352; Rhumbler 1927: 321; Rupertsberger 1880: 230; Saalas 1949: 343, 379; Sahlberg 1836: 150; Schedl 1934f: 1643; Schimitschek 1937: 55, 1955c: 87; Seidlitz 1872: 394, 1891a: 564, 1891b: 610; Seitner 1887: 44; Simmel 1918: 288; Sokanovskii 1929: 670–672, 1954: 19; Spessivtsev 1913a: 87–88, 1922a: 487, 1922b: 221, 1923: 205–206, 1925a: 182, 1925b: 23, 1925d: 103–104, 1926b: 48–50, 1929c: 298, 303, 1931: 61–62; Stark 1927: 227–230, 1952: 342; Stephens 1829a: 145, 1829b: 12, 1830: 356, 1839: 206; Stierlin 1898: 441; Thomson 1865: 368, 1868: 223; Villers 1789: 214. (**ms**) Eichhoff 1868d: 424; Hartig 1834: 109; Heinemann 1908a; Kozikowsky 1929: 252; Lucas 1920: 515; Reh 1900a: 95; Seitner 1913a: 27.
- femicus* Eggers 1914: 183. Lectotype ♂; Finland: Karislojo, Turtola; USNM, Washington, designated by Anderson & Anderson 1971: 13. Synonymy: Stark 1952: 342.
References: (**bv**) Pfeffer 1940b: 116; Tragardh 1930b: 102. (**cc**) Saalas 1917a: 18, 1928: 652. (**hb**) Saalas 1913a: 67, 86, 1914: 88, 305; Spessivtsev 1921b: 221; Tragardh 1930b: 102. (**ds**) Pfeffer 1924b: 471, 1935: 159; Saalas 1913a: 67, 86, 1916: 110–116, 1917a: 18; Schaufuss 1915: 1242. (**tx**) Anderson, W. H. & Anderson 1971: 13; Balachowsky 1949a: 235; Eggers 1914: 183–184, 1915b: 13–14; Endrodi 1957b: 417; Michalski 1969b: 569; Pfeffer 1940b: 116; Saalas 1913a: 67, 86; Schedl 1934f: 1643; Spessivtsev 1922a: 487, 1922b: 221, 1923: 205–206, 1925d: 103–104, 1926b: 48–50, 1931: 61–62; Tragardh 1930b: 102.
- micrographus sibiricus* Stark 1952: 344. Syntypes, sex?; Siberia, USSR; IZL, Leningrad.
References: (**ds**) Pfeffer 1976: 340. (**tx**) Pfeffer 1976: 340; Stark 1952: 344.
- micrographus curtulus* Sokanovskii 1954: 19. Syntypes ?; Poland; not located.
References: (**ds**) Pfeffer 1976: 340. (**tx**) Pfeffer 1976: 340; Sokanovskii 1954: 19.
- micrographus longulus* Sokanovskii 1954: 19. Syntypes ?; Poland; not located.
References: (**tx**) Endrodi 1957b: 417; Kinclaki 1958: 73; Numberg 1960: 158; Sokanovskii 1954: 19.
- micrograptinus* Wood 1989: 179. Holotype, sex?; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien, automatic.
- Distribution: South America (Brazil).
References: (**tx**) Wood, S. L. 1989: 179.
- micrographus* Schedl 1972g: 60 (*Breviophthorus*). Holotype, sex?; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien, preoccupied by Linnaeus 1758.
References: (**tx**) Schedl 1972g: 60, 1979c: 152; Wood, S. L. 1989: 179.
- miniatus* Bright 1981d: 280. Holotype ♀; Cerro Pena Blanca, Honduras; Wood Collection.
Distribution: North America (Guatemala/ Honduras/ Oaxaca in Mexico/ Nicaragua).
Hosts: *Pinus lawsoni*, *P. oocarpa*, *P. pseudostrobus*.
References: (**ds**) Wood, S. L. 1982b: 1099. (**tx**) Bright 1981d: 280; Wood, S. L. 1982b: 1099.
- minus* Bright 1976c: 437. Holotype ♀; Hannagan Camp, Greenlee Co., Arizona [USA]; CNCI, Ottawa.
Distribution: North America (Arizona in USA).
Hosts: (?) *Pinus* sp.
References: (**ds**) Bright 1981d: 197; Wood, S. L. 1982b: 1036. (**tx**) Bright 1976c: 437, 1981d: 197; McNamara 1984: 757; Wood, S. L. 1982b: 1036.
- minutalis* Wood 1976c: 357. Holotype ♀; Palim, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Shrub.
References: (**ds**) Bright 1981d: 42; Wood, S. L. 1982b: 1139. (**tx**) Bright 1981d: 42; McNamara 1984: 757; Wood, S. L. 1976c: 357, 1982b: 1139.
- minutus* Schedl 1963d: 221. Holotype ♂; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (**tx**) Schedl 1963d: 221, 1979c: 157.
- modicus* Blackman 1928b: 94. Holotype ♀; Las Vegas H.S. [Hot Springs], New Mexico [USA]; USNM, Washington.
Figures: Bright 1981d: 344.
Distribution: North America (Chihuahua, Durango in Mexico/ Arizona, California, Nevada, New Mexico, Utah in USA).
Hosts: *Pinus cembroides*, *P. edulis*, *P. monophylla*, *P. sabiniana*.
References: (**cc**) Bushing & Bright 1965: 203. (**hb**) Bright & Stark 1973: 112; Chamberlin 1939: 385. (**ds**) Bright 1964: 170, 1981d: 123; Bright & Stark 1973: 112; Chamberlin 1939: 385; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1035. (**tx**) Blackman 1928b: 89, 94–95; Bright 1964: 165–170, 1966b: 304, 1981d: 123, 344; Chamberlin 1939: 385; Wood, S. L. 1982b: 1035.
- navis* Blackman 1928b: 95. Holotype ♀; Morgan Hill, California [USA]; USNM, Washington.
Synonymy: Bright 1966b: 304.
References: (**hb**) Chamberlin 1939: 385. (**ds**) Chamberlin 1939: 385; Kleine 1934a: 160; Leng & Mutchler 1933: 52. (**tx**) Blackman

1928b: 95; Bright 1966b: 304; Chamberlin 1939: 355; de Ruelle 1970: 110.

molestus Wood 1976c: 362. Holotype ♀; Los Abritos, San Luis Potosi, Mexico; Wood Collection. Distribution: North America (San Luis Potosi in Mexico).

Hosts: *Liquidambar styraciflua*.

References: (ds) Atkinson & Equihua 1988: 98; Bright 1981d: 61, 1986b: 683; Estrada & Atkinson 1988: 212; Wood, S. L. 1982b: 1131. (tx) Bright 1981d: 61; McNamara 1984: 757; Wood, S. L. 1976c: 362, 1982b: 1131.

montezumae Bright 1978: 81. Holotype ♀; 11 km E San Cristobal, Chiapas, Mexico; CNCI, Ottawa. Figures: Bright 1981d: 367.

Distribution: North America (Chiapas in Mexico).

Hosts: *Pinus montezumae*.

References: (hb) Atkinson et al. 1986: 39; Burgos & Saucedo 1983: 119. (ds) Atkinson & Equihua 1985a: 97; Atkinson et al. 1986: 39; Bright 1981d: 272, 1986b: 683; Burgos & Saucedo 1983: 119; Wood, S. L. 1982b: 1079. (tx) Bright 1978: 81, 1981d: 272, 367; McNamara 1984: 757; Wood, S. L. 1982b: 1079.

montivagus Bright 1977: 527. Holotype ♀; Km 77 on Highway 175 about 85 km N Oaxaca, Oaxaca, Mexico; CNCI, Ottawa.

Figures: Bright 1981d: 348.

Distribution: North America (Oaxaca in Mexico).

Hosts: *Pinus ayacahuite*, *P. patula*.

References: (hb) Atkinson et al. 1986: 39. (ds) Atkinson et al. 1986: 39; Bright 1981d: 145; Wood, S. L. 1982b: 1094. (tx) Bright 1977: 527, 1981d: 145, 348; McNamara 1984: 757; Wood, S. L. 1982b: 1094.

mormon Bright 1977: 528. Holotype ♀; Parawan Canyon, Utah [USA]; Wood Collection. Distribution: North America (Arizona, California, Utah in USA).

Hosts: *Pinus aristata*, *P. contorta*, *P. flexilis*.

References: (ds) Bright 1981d: 236; Wood, S. L. 1982b: 1039. (tx) Bright 1977: 528, 1981d: 236; McNamara 1984: 757; Wood, S. L. 1982b: 1039.

morosovi Spessivtsev 1926b: 48. Syntypes, sex?; Central Russia, Gouv. Kaluga, Orlov; Spessivtsev Collection in IPKE, Eberswalde.

Figures: Tsai & Li 1959: 94, Yin, Huang, & Li 1984: 120.

Distribution: Asia (China/ E USSR), Europe (Czechoslovakia/ Finland/ Poland/ Sweden/ W USSR).

Hosts: *Picea excelsa*, *P. koraiensis*, *P. obovata*.

References: (bv) Grune 1979: 119. (cn) Esterberg 1959; Kontkanen 1932: 62; Pfeffer 1948a: 501, 1950c: 3. (ce) Karpinski 1932a: 103; Pfeffer 1950c: 3, 1960: 345. (hb) Karpinski 1933b: 30, 1955: 79; Karpinski & Strawinski 1948: 156; Postner 1974: 435; Stark 1952: 353. (ds) Esterberg 1959; Grune 1979: 119; Hansen 1939; Hellen

1947; Karpinski 1931: 18, 30, 1932a: 103, 1933b: 30, 1948b: 231, 1955: 79; Karpinski & Strawinski 1948: 156; Kleine 1934a: 160; Klefbeck & Sjöberg 1960: 230; Kontkanen 1932: 62; Lucht 1957: 278; Lundberg 1975: 12, 1977; Numberg 1954: 71; Nuorteva 1971: 71; Pfeffer 1960: 345, 1976: 340, 1989a: 66; Postner 1974: 435; Schedl 1980a: 23, 1981b: 79; Stark 1931a: 26, 1931d: 553, 1952: 353; Strand 1946: 601; Yanovskii & Tegshzhargal 1985: 410; Yin, Huang, & Li 1984: 120; Zinovjev 1955: 187. (tx) Blackman 1928b: 1-184; Grune 1979: 119; Karpinski & Strawinski 1948: 156; Lucht 1957: 278; Numberg 1938: 126, 1954: 71; Pfeffer 1940b: 109, 113, 124, 1955a: 221, 1976: 340; Postner 1974: 435; Schedl 1934f: 1643, 1980a: 23, 1981b: 79; Sokanovskii 1929: 670-672; Spessivtsev 1926b: 48, 1931: 63-64; Stark 1927: 227-230, 1952: 353; Tsai & Li 1959: 94; Yin, Huang, & Li 1984: 120.

morosus Wood 1976c: 362. Holotype ♀; Zamorano, Morazan, Honduras; Wood Collection.

Figures: Bright 1981d: 338.

Distribution: North America (Guatemala/ Honduras/ Chiapas, Veracruz in Mexico).

Hosts: *Eupatorium dalioides*, and a liana.

References: (ds) Bright 1981d: 62; Wood, S. L. 1982b: 1129. (tx) Bright 1981d: 62, 338; McNamara 1984: 757; Wood, S. L. 1976c: 362, 1982b: 1129.

mpossae Schedl 1957d: 63. Holotype, sex?; Congo Belge; Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Berlinia acuminata*, *B. grandiflora*.

References: (bv) Schedl 1960f: 34. (hb) Schedl 1960f: 77, 1962j: 15. (ds) Schedl 1960f: 34, 1962j: 15. (tx) Schedl 1957d: 63, 1962j: 15, 1979c: 160.

mulungensis Schedl 1957d: 60. Holotype ♂?; Congo Belge; Kivu, Chute de la Rutshuru; MRCB, Tervuren.

Distribution: Africa (Kenya/ Zaire).

Hosts: *Caesalpinia decapetala*, and a liana.

References: (hb) Schedl 1962j: 16. (ds) Schedl 1962j: 16. (tx) Schedl 1957d: 60, 1962j: 16, 1979c: 161.

murrayanae Blackman 1922d: 138. Holotype ♀; Grand Lake, Colorado [USA]; USNM, Washington.

Figures: Bright 1981d: 372.

Distribution: North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Ontario in Canada/ Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Picea glauca*, *P. engelmannii*, *P. pungens*, *Pinus albicaulis*, *P. contorta*, *P. flexilis*, *P. ponderosa*, *P. radiata*.

Notes: (3) Blackman 1928b: 133 (redescribed).

Bright 1981d: 311 (recognized subsp. *aurulentus*; its status is very doubtful).

References: **(cn)** Lindgren 1980a: 68. **(cc)** Matthews 1970; Powell, J. M., Wong, & Melvin 1972: 15; Werner & Holsten 1984. **(hb)** Bright & Stark 1973: 115; Chamberlin 1939: 398, 1958: 160; Lindgren 1980a: 68. **(ds)** Bright 1976d: 153, 1981d: 311; Chamberlin 1925, 1939: 398, 1958: 160; Evans, D. 1978, 1983: 35; Gast et al. 1989: 385; Keen 1929a: 33; Kleine 1934a: 160; Leng & Mutchler 1927: 52; Werner & Holsten 1984; Wood, S. L. 1957c: 401, 1972a: 427, 1982b: 1103. **(tx)** Blackman 1922d: 138, 1928b: 115, 133; Bright 1981d: 311, 372; Chamberlin 1939: 398, 1958: 160; Evans, D. 1983: 35; Keen 1929a: 33; de Ruelle 1970: 110; Wood, S. L. 1957c: 401, 1972a: 427, 1977d: 515, 1982b: 1103.

elongatus Swaine 1925b: 194. Holotype ♀; Midday Valley, Merritt, British Columbia [Canada]; CNCI, Ottawa. Synonymy: Blackman 1928b: 133.

References: **(ds)** Kleine 1934a: 159; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 117, 133; Bright 1967b: 675; de Ruelle 1970: 109; Swaine 1925b: 194.

gracilis Swaine 1925b: 195. Holotype ♀; Grant Co., Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1977d: 515.

Notes: (3) Blackman 1928b: 134 (re-described).

References: **(cn)** Lindgren 1980a: 68. **(hb)** Chamberlin 1939: 398, 1958: 160; Lindgren 1980a: 68. **(ds)** Bright 1976d: 182; Chamberlin 1939: 398, 1958; Evans, D. 1983: 35; Evans, D., Lowe, & Hunt 1978; Keen 1929a: 33; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1948: 54, 1951a: 128, 1972a: 427. **(tx)** Blackman 1928b: 116, 134; Bright 1966b: 301, 1967b: 678; Chamberlin 1939: 398, 1958: 160; Evans, D. 1983: 35; Keen 1929a: 33; de Ruelle 1970: 109; Swaine 1925b: 195; Wood, S. L. 1951a: 128, 1972a: 427, 1977d: 515.

cutleri Swaine 1925b: 195. Holotype ♀; Midday Valley, Merritt, British Columbia [Canada]; CNCI, Ottawa. Synonymy: Wood 1977d: 515.

Notes: (3) Blackman 1928b: 136 (re-described).

References: **(hb)** Chamberlin 1939: 399, 1958: 161. **(ds)** Bright 1976d: 181; Chamberlin 1939: 399, 1958: 161; Keen 1929a: 34; Kleine 1934a: 159; Leng & Mutchler 1933: 52; Wood, S. L. 1972a: 427. **(tx)** Blackman 1928b: 117, 136; Bright 1967b: 678; Chamberlin 1939: 399, 1958: 161; Keen 1929a: 34; de Ruelle 1970: 109; Swaine 1925b: 195; Wood, S. L. 1972a: 427, 1977d: 515.

exilis Swaine 1925b: 196. Holotype ♀; Ochoco National Forest, Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1977d: 515.

References: **(hb)** Chamberlin 1939: 398. **(ds)**

Chamberlin 1939: 398; Leng & Mutchler 1933: 52; Patterson & Hatch 1945: 153. **(tx)** Blackman 1928b: 116, 134; Chamberlin 1939: 398; de Ruelle 1970: 109; Swaine 1925b: 196; Wood, S. L. 1977d: 515.

tenuis Swaine 1925b: 196. Holotype ♀; Merritt, Midday Valley, British Columbia [Canada]; CNCI, Ottawa. Synonymy: Wood 1957c: 401.

References: **(hb)** Chamberlin 1939: 398. **(ds)** Chamberlin 1939: 398; Keen 1929a: 33; Kleine 1934a: 161; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 116, 134; Bright 1967b: 679; Chamberlin 1939: 398; Keen 1929a: 33; de Ruelle 1970: 111; Swaine 1925b: 196; Wood, S. L. 1957c: 401.

depygus Blackman 1928b: 128. Holotype ♀; Clyde, Colorado [USA]; USNM, Washington. Synonymy: Wood 1977: 515.

References: **(hb)** Chamberlin 1939: 396. **(ds)** Chamberlin 1939: 396; Keen 1929a: 33; Kleine 1934a: 159; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 128; Chamberlin 1939: 396; Keen 1929a: 33; McNamara 1984: 755; Wood, S. L. 1977: 515.

watsonii Schedl 1930: 197. Holotype ♀; Nictor Lake, New Brunswick [Canada]; CNCI, Ottawa. Synonymy: Wood 1977d: 515.

References: **(hb)** Chamberlin 1939: 401. **(ds)** Beanline 1956; Bright 1976d: 188; Chamberlin 1939: 401; Leng & Mutchler 1933: 52. **(tx)** Chamberlin 1939: 401; de Ruelle 1970: 112; Schedl 1930: 197–199, 1931b: 166; Wood, S. L. 1964: 65, 1977d: 515.

aurulentus Bright 1966b: 301. Holotype ♀; Shell Ridge at Walnut Creek, Contra Costa Co., California [USA]; CAS, San Francisco. Synonymy: Wood 1977d: 516.

Notes: (3) Bright 1981d: 311 (treated as a subspecies; validity doubtful). Wood 1982b: 1103 (This name is based on females with long frontal hair; this variation occurs sporadically throughout the range of the species).

References: **(hb)** Bright & Stark 1973: 116. **(ds)** Bright 1971d: 311; Bright & Stark 1973: 116. **(tx)** Bright 1966b: 301, 1981d: 311; de Ruelle 1970: 108; Wood, S. L. 1977d: 516.

acceptus Bright 1981d: 315. Holotype ♀; Granite Pass, Big Horn Mountains, Wyoming [USA]; CNCI, Ottawa. Synonymy: Wood 1982b: 1103.

References: **(tx)** Bright 1981d: 315; Wood, S. L. 1982b: 1103.

namus Wood 1964: 64. Holotype ♀; Totolapan, Oaxaca, Mexico; Wood Collection.

Distribution: North America (Chiapas, Jalisco, Oaxaca in Mexico).

Hosts: *Bursera* sp.

References: **(cc)** Equihua & Atkinson 1986: 634.

(hb) Atkinson et al. 1986: 72; Burgos & Saucedo 1983: 123; Equihua & Atkinson 1986: 634. **(ds)**

- Atkinson et al. 1986: 72; Bright 1981d: 78; Burgos & Sancedo 1983: 123; Equihua & Atkinson 1986: 634; Wood, S. L. 1982b: 1125. **(tx)** Bright 1981d: 78; McNamara 1977: 198; Wood, S. L. 1964: 64, 1982b: 1125.
- nebulosus Wood** 1976a: 363. Holotype ♀; Lake Catemaco, Veracruz, Mexico; CNCI, Ottawa. Figures: Bright 1981d: 341. Distribution: North America (Veracruz in Mexico). Hosts: *Bursera* sp. References: **(ds)** Bright 1981d: 100, 1986: 683; Estrada & Atkinson 1988: 212; Wood, S. L. 1982b: 1126. **(tx)** Bright 1981d: 100, 341; McNamara 1984: 757; Wood, S. L. 1976a: 363, 1982b: 1126.
- nemoralis Wood** 1976a: 351. Holotype ♀; Zamorano, Morazan, Honduras; Wood Collection. Distribution: North America (Costa Rica/Honduras). Hosts: *Aristolochia anguicida*, and a liana. References: **(ds)** Bright 1981d: 55; Wood, S. L. 1982b: 1114. **(tx)** Bright 1981d: 55; McNamara 1984: 757; Wood, S. L. 1976a: 351, 1982b: 1114.
- niger Schedl** 1938a: 187. Holotype, sex?; Porto Alegre [Brasil]; USNM, Washington. Distribution: South America (Brazil). References: **(ds)** Blackwelder 1947: 782. **(tx)** Anderson, W. H. & Anderson 1971: 22; Schedl 1938a: 187–188, 1979c: 166.
- nigricans Blandford** 1904: 236. Lectotype ♂; Quiche Mountains, Guatemala; BMNH, London, designated by Bright 1976b: 184. Figures: Bright 1981d: 356. Distribution: North America (El Salvador/Guatemala/ Chiapas, Durango, Hidalgo in Mexico). Hosts: *Pinus ayacahuite*, *P. rudis*, *P. strobiformis*. Notes: (3) Bright 1981d: 189 (This is *nitidulus* of Schedl 1956: 18 and Schwerdtfeger 1957: 497). References: **(ec)** Becker, G. 1953, 1955. **(hb)** Becker, G. 1953, 1955. **(ds)** Becker, G. 1953; Blackwelder 1947: 782; Bright 1981d: 189; Ferrer 1942; Hagedorn 1910d: 173; Kleine 1913b: 140, 1914b: 363; Schedl 1963c: 158, 1977e: 42; Wood, S. L. 1982b: 1071. **(tx)** Blandford 1904: 236; Bright 1976b: 184, 1978: 72, 1981d: 189, 356; Hagedorn 1910a: 101; Schedl 1935a: 183, 1940a: 348, 1955g: 18, 20; Wood, S. L. 1982b: 1071. *chiapensis* Bright 1977: 522. Holotype ♀; 13 km E San Cristobal, Chiapas, Mexico; CNCI, Ottawa. Synonymy: Bright 1978: 72. References: **(tx)** Bright 1977: 522, 1978: 72; McNamara 1984: 754.
- nitellus Browne** 1973a: 291. Holotype, sex?; Zaire: Mwaka, Bulongo; MRCB, Teveren. Distribution: Africa (Zaire). References: **(tx)** Browne 1973a: 291.
- nitidipennis (Schedl)** 1967d: 10 (*Breviophthorus*). Holotype, sex?; Brasilien, Chapeco, 24 07, 52 36, 600 m; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: **(ds)** Schedl 1976a: 52. **(tx)** Schedl 1967d: 10–11, 1979c: 169.
- nitidulus (Mannerheim)** 1843: 298. Lectotype ♀; Sitka Island, Alaska; MZU, Helsinki, designated by Bright 1976b: 186. Figures: Bright 1981d: 351, Chamberlin 1958: 155 (galleries). Distribution: North America (Alaska/ Alberta, British Columbia in Canada/ Arizona, California, Idaho, Nevada, Oregon, Utah, Washington, Wyoming in USA). Hosts: *Picea engelmannii*, *P. glauca*, *P. sitchensis*, *Pinus contorta*, *P. muricata*, *P. radiata*. Notes: (3) Blackman 1928b: 108 (redescribed). References: **(bv)** Furniss, M. M., Baker, & Hostetler 1976: 1300; Melsheimer 1853: 87. **(en)** Anonymous 1968g; Chamberlin 1924; Currie 1905: 72; Doane et al. 1936; Essig 1926: 519, 1958: 519; Fall & Cockerell 1907: 217; Gillette 1903: 118; Hopkins 1904a: 17; Lindgren 1980a: 68; Ohmart & Voigt 1982: 345; Schuder 1969: 76; Swaine 1918a: 96, 100. **(ec)** Bushing & Bright 1965: 203; Chamberlin 1918a; Deyrup & Gara 1978: 275; Marsh 1979: 295; Ohmart & Voigt 1982: 340; Schedl 1958d: 187; Werner & Holsten 1984. **(hb)** Bright & Stark 1973: 113; Chamberlin 1939: 388, 1958: 154–155; Doane et al. 1936; Essig 1926: 519, 1958: 519; Hopkins 1904a: 17; Lindgren 1980a: 68; Pierce, W. D. 1906: 290; Schwarz 1894b: 255, 1905: 185; Schwerdtfeger 1957: 496; Swaine 1918a: 96, 100. **(ds)** Anonymous 1968g; Blackwelder 1947: 782; Bright 1976d: 183, 1981d: 167; Bright & Stark 1973: 113; Chamberlin 1917: 355, 1918a: 16, 1925, 1939: 388, 1958: 154–155; Cockerell et al. 1907; Currie 1905; Essig 1926: 519, 1958: 519; Evans, D. 1983: 35; Evans, D., Lowe, & Hunt 1978; Furniss, M. M., Hungerford, & Wicker 1972; Furniss, R. L. & Carolin 1977: 402; Gemminger & Harold 1872: 2688; Hagedorn 1910d: 73; Hamilton 1894a: 35; Henshaw 1885: 147; Keen 1929a: 33, 1938: 32; Kleine 1912a: 218, 1913b: 140, 1934a: 160; Leng 1920: 341; Ohmart & Voight 1981: 677, 1982: 340; Schedl 1955g: 18–20, 1963c: 155; Schuder 1969: 76; Schwarz 1894: 255, 1900: 537, 1910: 185; Swaine 1909: 135; Van Dyke 1924: 26; Werner & Holsten 1984; Wickham 1896a: 309; Wood, S. L. 1982b: 1095. **(tx)** Blackman 1928b: 91, 108–109; Bright 1976b: 186, 1981d: 167–168, 351; Chamberlin 1939: 388, 1958: 154–155; Eichhoff 1878b: 173; Evans, D. 1983: 35; Fall 1926: 208; Hagedorn 1910a: 101; Hoebcke 1978; Keen 1929a: 33; LeConte 1857: 22, 1868: 157, 1876: 354; Mannerheim 1843: 298 (reprint p. 126), 1852: 359 (reprint p. 152), 1853: 273; Melsheimer 1853: 87; Swaine 1909: 135, 1918a: 96, 100–101; Wood, S. L. 1969c: 115, 1982b: 1095. *atratus* LeConte 1868: 156. Lectotype ♂; Cabo de los Reyes, California [USA]; MCZ, Cam-

bridge, designated by Bright 1967b: 185. Synonymy: LeConte 1876: 354.

References: **(cn)** Chamberlin 1924; Swaine 1918a: 96, 101. **(hb)** Swaine 1918a: 96, 101. **(ds)** Chamberlin 1925; Henshaw 1882: 268; Hopping 1922; Leng 1920: 341; Swaine 1909: 136. **(tx)** Blackman 1928b: 108; Bright 1976b: 185; Eichhoff 1872b: 137, 1878b: 175; LeConte 1868: 156–157, 1876: 354; Schedl 1955g: 21; Swaine 1909: 136, 1918a: 96, 101.

puncticollis LeConte 1874: 71. Lectotype ♀; Calaveras, California [USA]; MCZ, Cambridge, designated by Bright 1976b: 185. Synonymy: Blackman 1928b: 109.

References: **(cn)** Currie 1905: 72; Essig 1926: 519; Fall & Cockerell 1907: 217; Hopkins 1904a: 16; Keen 1929: 53. **(hb)** Essig 1926: 519; Hopkins 1904a: 16; Keen 1929: 53; Pierce, W. D. 1907: 291. **(ds)** Chamberlin 1917: 355, 1925; Cockerell et al. 1907; Currie 1905; Essig 1926: 519, 1958: 519; Hagedorn 1910d: 75; Henshaw 1882: 268, 1885: 147; Keen 1929: 53; Kleine 1913b: 141, 1914b: 387, 1934a: 161; Leng 1920: 341; Swaine 1909: 139. **(tx)** Blackman 1928b: 108–109; Bright 1976b: 185; Hagedorn 1910a: 101; LeConte 1874a: 70–71, 1876: 354; Schedl 1955g: 21; Swaine 1909: 139, 1918a: 101.

nitidus Swaine 1917: 25. Lectotype ♀; Tullochgoram, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1967b: 678.

Figures: Bright 1981d: 346.

Distribution: North America (Alaska/ Alberta, British Columbia, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Ontario, Quebec, Yukon in Canada/ Colorado, Maine, Montana, Oregon in USA).

Hosts: *Picea engelmannii*, *P. glauca*, *P. mariana*, *Pinus resinosa*, *P. strobus*, rare in other *Pinus* spp.

References: **(cn)** Lindgren 1980a: 69; Ruppel 1967: 78; Swaine 1918a: 94, 98; Swaine & Craighead 1924: 1–27. **(ce)** Werner & Holsten 1984. **(hb)** Chamberlin 1939: 358; Lindgren 1980a: 69; Schwerdtfeger 1957c: 496; Swaine 1918a: 94, 98. **(ds)** Atkinson & Equihua 1988: 98; Beaulne 1956; Bright 1971a: 127, 1976d: 183, 1981d: 129; Chamberlin 1925, 1939: 358; Elias 1982b, 1982d; Kleine 1934a: 160; Leng 1920: 341; Miller, R. F. & Morgan 1982; Morgan, A. V. & Morgan 1980: 1110; Patterson & Hatch 1945: 153; Ruppel 1967: 78; Schwert et al. 1985; Swaine 1919b: 8; Werner & Holsten 1984; Wood, S. L. 1972a: 426, 1982b: 1052. **(tx)** Blackman 1928b: 30, 35; Bright 1967b: 678, 1977: 516, 1981d: 129, 346; Chamberlin 1939: 358; de Ruelle 1970: 110; Swaine 1917: 25–26, 1918a: 94, 98, 1919b: 8, 1925b: 192; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1972a: 426, 1982b: 1052.

borcalis Swaine 1925b: 195. Holotype ♀; Copper-

mine River, Arctic Canada; CNCI, Ottawa. Synonymy: Bright 1977: 516.

References: **(cn)** Evans, D. 1982; Lindgren 1980a: 68. **(hb)** Chamberlin 1939: 358; Evans, D. 1982; Lindgren 1980a: 68. **(ds)** Bright 1976d: 181; Chamberlin 1939: 358; Evans, D., Lowe, & Hunt 1978; Fall 1926: 208; Kleine 1934a: 158; Leng & Mutchler 1933: 52; Wood, S. L. 1957c: 401. **(tx)** Blackman 1928b: 30, 35; Bright 1967b: 678, 1977: 516; Chamberlin 1939: 358; Evans, D. 1982; Fall 1926: 208; de Ruelle 1970: 108; Swaine 1925b: 195–196; Wood, S. L. 1957c: 401.

anceps Blackman 1928b: 31. Holotype ♀; Clyde, Colorado [USA]; USNM, Washington. Synonymy: Bright 1977: 516.

References: **(hb)** Chamberlin 1939: 357. **(ds)** Chamberlin 1939: 357; Keen 1929a: 32; Kleine 1934a: 158; Leng & Mutchler 1933: 10, 52. **(tx)** Blackman 1928b: 29–32; Bright 1977: 516; Chamberlin 1939: 357; Keen 1929a: 32; de Ruelle 1970: 107; Wood, S. L. 1964: 59.

varians Schedl 1930: 196. Holotype ♀; Truro, Nova Scotia [Canada]; CNCI, Ottawa. Synonymy: Wood 1957c: 401.

References: **(hb)** Chamberlin 1939: 369. **(ds)** Beaulne 1956; Chamberlin 1939: 369; Leng & Mutchler 1933: 52. **(tx)** Bright 1977: 516; Chamberlin 1939: 369; de Ruelle 1970: 112; Schedl 1930: 196, 1931b: 163, 1979c: 264; Wood, S. L. 1957c: 401.

aquilonius Bright 1968c: 604. Holotype ♀; Rampart House, Yukon Territory [Canada]; CNCI, Ottawa. Synonymy: Bright 1977: 516.

References: **(ds)** Bright 1976d: 180. **(tx)** Bright 1968c: 604, 1977: 516; de Ruelle 1970: 108.

nocturnus Schedl 1938a: 185. Lectotype ♂; San Geronimo, Verapaz, Guatemala; BMNH, London, designated by Bright 1976b: 186.

Figures: Blackman 1942a: fig. 45, Bright 1981d: 357.

Distribution: North America (Guatemala/ Honduras/ Chiapas, Hidalgo, Veracruz in Mexico).

Hosts: *Pinus lawsonii*, *P. oocarpa*, *P. pseudostrobus*, *P. strobus* var. *chiapensis*, *P. tenuifolia*.

References: **(cn)** Schwerdtfeger 1956b: 48. **(hb)** Atkinson et al. 1986: 39; Schwerdtfeger 1956b: 48, 1957c: 499. **(ds)** Atkinson & Equihua 1988: 98; Atkinson et al. 1986: 39; Blackwelder 1947: 782; Bright 1981d: 192, 1986: 684; Wood, S. L. 1982b: 1087. **(tx)** Bright 1976b: 186, 1977: 517, 1979c: 171, 1981d: 192, 357; Schedl 1938a: 185–186, 1955g: 23, 1979c: 171; Wood, S. L. 1982b: 1087.

hidalgoensis Blackman 1942a: 215. Holotype ♀; Jacala, Hidalgo, Mexico; USNM, Washington. Synonymy: Bright 1977: 516.

References: **(ds)** Blackwelder 1947: 782. **(tx)** Blackman 1942a: 215; Bright 1977: 516–517.

- novateutonicus** Schedl 1964b: 205. Holotype ♂; Nova Teutonia, S. Catarina, Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1964b: 205, 1979c: 172.
- novellus** Blackman 1928b: 96. Holotype ♀; Tehachipi, California [USA]; USNM, Washington. Distribution: North America (California in USA). Hosts: *Pinus sabiniana*.
Notes: (3) Bright 1981d: 328 (the holotype is callow, shriveled, and in poor condition; it may be of *infulatus*). Wood 1982b: 1091 (the allotype and female paratype are of *tuberculatus*; type data of this species and of *infulatus* and its synonyms suggest that *novellus* is synonymous with *infulatus*).
References: (hb) Chamberlin 1939: 385. (ds) Chamberlin 1939: 385; Keen 1929a: 33; Kleine 1934a: 160; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1091. (tx) Blackman 1928b: 96; Bright 1971b: 68, 1981d: 328; Chamberlin 1939: 385; Keen 1929a: 33; Wood, S. L. 1982b: 1091.
- nugalis** Wood 1976a: 356. Holotype ♀; Volcan Pacaya, Esquintla, Guatemala, 1300 m; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Liana.
References: (ds) Bright 1981d: 43; Wood, S. L. 1982b: 1138. (tx) Bright 1981d: 43; Wood, S. L. 1976a: 356, 1982b: 1138.
- obtusipennis** Blandford 1904: 240. Lectotype ♂; Balheu, Verapaz, Guatemala; BMNH, London, designated by Bright 1976b: 184.
Figures: Bright 1981d: 336.
Distribution: North America (Guatemala/ Chiapas, Hidalgo, Mexico, Michoacan in Mexico).
Hosts: *Pinus lawsonii*, *P. leiophylla*, *P. strobus* var. *chiapensis*, *P. sp.*
References: (hb) Atkinson et al. 1986: 39; Burgos & Saucedo 1983: 123. (ds) Atkinson & Equihua 1988: 98; Atkinson et al. 1986: 39; Blackwelder 1947: 782; Bright 1981c: 51; Burgos & Saucedo 1983: 123; Hagedorn 1910d: 73; Kleine 1913b: 140, 1914b: 363; Wood, S. L. 1982b: 1128. (tx) Blandford 1904: 240; Bright 1976b: 184, 1981d: 51, 336; Hagedorn 1910a: 101; Schedl 1955g: 18; Wood, S. L. 1982b: 1128.
- obtusus** Schauffuss 1891: 17. Syntypes ♂ ♀; Madagascar; Hamburg Museum, lost, 1 syntype in Eggers Collection, in NHMW, Wien.
Distribution: Madagascar
Notes: (1) Schedl 1979c: 176 (citation of holotype invalid).
References: (ds) Alluaud 1900: 441; Anonymous 1892: 165; Fairmaire 1892b; Hagedorn 1910d: 73; Kleine 1913b: 140, 1914b: 326. (tx) Fairmaire 1892b; Hagedorn 1910a: 101, 1913b: 255; Schauffuss 1891: 17; Schedl 1938a: 183, 1965c: 67, 1977b: 113, 1979c: 176.
- occidentalis** Blackman 1920b: 4. Lectotype ♂; Pitkin, Colorado [USA]; USNM, Washington, designated by Bright 1976b: 183.
Distribution: North America (Colorado, New Mexico, Utah, S Wyoming in USA).
Hosts: *Picea engelmannii*, *P. pungens*, apparently accidental in *Pinus contorta*, *P. flexilis*.
Notes: (3) Blackman 1928b: 110 (re-described).
References: (hb) Chamberlin 1939: 389. (ds) Bright 1976d: 183, 1981d: 171; Chamberlin 1925, 1939: 389; Keen 1929a: 33; Kleine 1934a: 160; Leng & Mutchler 1927: 52; Snow 1907: 188; Wickham 1898: 312; Wood, S. L. 1972a: 426, 1982b: 1095. (tx) Blackman 1920b: 4–5, 1928b: 91, 110; Bright 1976b: 183, 1981d: 171; Chamberlin 1939: 389; Keen 1929a: 33; McNamara 1984: 757; Wood, S. L. 1972a: 426, 1982b: 1095.
- occlusus** Bright 1976c: 437. Holotype ♀; Yucaran, Paraiso, Honduras; Wood Collection.
Figures: Bright 1981d: 336.
Distribution: North America (Honduras/ Nayarit, Oaxaca in Mexico).
Hosts: *Pinus caribaea*, *P. oocarpa*.
References: (ds) Atkinson & Equihua 1985c: 359; Bright 1981d: 53; Wood, S. L. 1982b: 1128. (tx) Bright 1976c: 437, 1981d: 53, 336; McNamara 1984: 757; Wood, S. L. 1982b: 1128.
- olivierai** Schedl 1972g: 68. Holotype, sex?; Brasilien, Pedra Azul, Minas Gerais; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 68, 1979c: 178.
- opaculus** LeConte 1878b: 623. Holotype ♀; Marquette, Michigan [USA]; MCZ, Cambridge.
Figures: Bright 1981d: 360.
Distribution: North America (Alaska/ all provinces in Canada/ Arizona, California, Colorado, Idaho, Maine, Michigan, Minnesota, Nevada, New Hampshire, New Mexico, New York, Pennsylvania, South Dakota, Utah, West Virginia, Wyoming in USA).
Hosts: *Abies balsamea*, *A. concolor*, *A. lasiocarpa*, *Larix laricina*, *Picea engelmannii*, *P. glauca*, *P. pungens*, *Pinus sylvestris*, *Pseudotsuga menziesii*.
References: (bv) Hosking & Knight 1975. (cn) Blackman 1950; Chamberlin 1924; Doane et al. 1936; James & Linnane 1979; Schuder 1969: 80; Stevens, Lister, & Linnane 1979; Swaine 1918a: 95, 99; Swaine & Craighead 1924: 1–27. (ce) Werner & Holsten 1984. (hb) Baker, W. L. 1972: 255; Blackman 1950; Chamberlin 1939: 366; Deyrup & Atkinson 1987a: 66; Doane et al. 1936; Swaine 1918a: 95, 99. (ds) Anonymous 1926c: 519; Ashworth 1977; Blackman 1950; Blatchley & Leng 1916: 633; Bright 1976d: 187, 1981d: 218; Chamberlin 1925, 1939: 366; Deyrup 1981: 8; Deyrup & Atkinson 1987a: 66; Drooz 1985: 363; Elias 1982b, 1982c, 1982d; Hagedorn 1910d: 73; Henshaw 1882: 268, 1885: 147; Hubbard &

- Schwarz 1878a: 665, 1878b: 623; Kleine 1913b: 140, 1934a: 160; Leng 1920: 341; Leonard 1925: 519; Miller, R. F. & Morgan 1952; Morgan, A. V. & Morgan 1950: 1110; Schuder 1969: 80; Swaine 1909: 136; Werner & Holsten 1954; Wood, S. L. 1957c: 401, 1952b: 1037. **(tx)** Blackman 1922b, 1928b: 44, 52; Blatchley & Leng 1916: 633; Bright 1977: 517, 1981d: 218, 360; Chamberlin 1939: 366; Hagedorn 1910a: 101; LeConte 1878b: 623; Schedl 1931b: 165; Swaine 1909: 136, 1918a: 95, 99; Wood, S. L. 1957c: 401, 1952b: 1037.
- abietis* Blackman 1928b: 49. Holotype ♀; Silver Lake, Utah [USA]; USNM, Washington. Synonymy: Bright 1977: 517.
References: **(hb)** Bright & Stark 1973: 107; Chamberlin 1939: 365. **(ds)** Bright & Stark 1973: 107; Chamberlin 1939: 365; Keen 1929a: 32; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 49–50; Bright 1977: 517; Chamberlin 1939: 365; Keen 1929a: 32; Michalski 1969b: 569; de Ruelle 1970: 107.
- albertensis* Blackman 1928b: 50. Holotype ♀; Banff Sp. [Banff Springs], Alberta, Canada; USNM, Washington. Synonymy: Bright 1977: 517.
References: **(cn)** Lindgren 1980a: 67. **(hb)** Chamberlin 1939: 365. 1958: 149; Lindgren 1980a: 67. **(ds)** Bright 1976d: 180; Chamberlin 1939: 365, 1958: 149; Leng & Mutchler 1933: 52; Smith, G. S. 1930; Wood, S. L. 1972a: 425. **(tx)** Blackman 1928b: 44, 50–51; Bright 1977: 517; Chamberlin 1939: 365, 1958: 149; de Ruelle 1970: 107; Wood, S. L. 1972a: 425.
- exiguus* Blackman 1928b: 51. Holotype ♀; Ft. Garland, Colorado [USA]; USNM, Washington. Synonymy: Bright 1977: 517.
References: **(hb)** Chamberlin 1939: 366. **(ds)** Chamberlin 1939: 366; Keen 1929a: 32; Kleine 1934a: 159; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 51; Bright 1966b: 298, 1977: 517; Chamberlin 1939: 366; Keen 1929a: 32; de Ruelle 1970: 109.
- pygmaeus* Schedl 1931b: 165. Holotype ♀; Ste. Anne's, Quebec [Canada]; CNCI, Ottawa. Synonymy: Wood 1957c: 401.
References: **(hb)** Chamberlin 1939: 366. **(ds)** Beaulne 1956; Chamberlin 1939: 366; Leng & Mutchler 1933: 95. **(tx)** Bright 1977: 517; Chamberlin 1939: 366; de Ruelle 1970: 111; Schedl 1931b: 165–166; Wood, S. L. 1957c: 401.
- orarius* Bright 1968c: 607. Holotype ♀; Colwood, Esquimalt District, British Columbia [Canada]; CNCI, Ottawa.
Figures: Ruth 1980: 15.
Distribution: North America (British Columbia in Canada).
Hosts: *Pseudotsuga menziesii*.
- References: **(cn)** Hedlin 1974: 53; Meso 1979: 247; Ruth 1980: 15. **(hb)** Bright 1981d: 255; Hedlin 1974: 53; Hedlin & Ruth 1970: 105–108; Meso 1979: 247; Ruth 1980: 15. **(ds)** Bright 1976d: 184, 1981d: 255; Furniss, R. L. & Carolin 1977: 402; Hedlin & Ruth 1970; Wood, S. L. 1982b: 1061. **(tx)** Bright 1968c: 607–608; 1981d: 255; de Ruelle 1970: 110; Ruth 1980: 15; Wood, S. L. 1982b: 1061.
- ornatus* Blackman 1928b: 102. Holotype ♀; Manitou, Colorado [USA]; USNM, Washington.
Distribution: North America (Colorado, Utah, Wyoming in USA).
Hosts: *Picea pungens*, rare or accidental in *Pinus* spp.
Notes: (3) Bright 1981d: 147 (treated as a synonym of *intextus*).
References: **(hb)** Chamberlin 1939: 387. **(ds)** Chamberlin 1939: 387; Keen 1929a: 33; Kleine 1934a: 161; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1090. **(tx)** Blackman 1928b: 102; Chamberlin 1939: 387; Keen 1929a: 33; McNamara 1954: 757; Wood, S. L. 1977d: 516, 1982b: 1090.
- kenti* Blackman 1928b: 141. Holotype ♀; Black Hills, Wyoming [USA]; USNM, Washington. Synonymy: Wood 1977b: 210.
References: **(hb)** Chamberlin 1939: 401. **(ds)** Chamberlin 1939: 401; Keen 1929a: 34; Kleine 1934a: 160; Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 141; Bright 1977: 515; Chamberlin 1939: 401; Keen 1929a: 34; McNamara 1954: 756; Wood, S. L. 1977b: 210.
- limatus* Wood 1964: 65. Holotype ♀; Sanford Canyon, Dixie National Forest, Utah [USA]; Wood Collection. Synonymy: Wood 1977d: 516.
References: **(tx)** McNamara 1977: 198; Wood, S. L. 1964: 65, 1977d: 516.
- ostriacolens* Bright 1986b: 681. Holotype ♀; Mexico: Cuernavaca, Morelos; CNCI, Ottawa.
Distribution: North America (Morelos in Mexico).
Hosts: *Ostrya virginiana*.
References: **(tx)** Bright 1986b: 681.
- pampasae* Schedl 1970e: 92. Holotype, sex?; Pampas (wohl Argentinien); Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
References: **(tx)** Schedl 1970e: 92, 1979c: 183.
- parfentievi* Pjatsnitskii 1931: 169. Syntypes, sex?; Kirgisien, USSR: Pjatsnitskii Collection.
Distribution: Europe (W USSR).
Hosts: *Picea schrenkiana*.
References: **(hb)** Stark 1952: 345. **(ds)** Kadyrov 1989; Kleine 1934a: 161; Marikovskii 1956: 73; Parfentev 1951: 429–430; Pfeffer 1976: 340; Stark 1952: 345. **(tx)** Pfeffer 1940b: 108, 111, 117, 1976: 340; Pjatsnitskii 1931: 169–171; Schedl 1934f: 1643, 1979c: 185; Sokanovskii 1954: 19; Stark 1952: 345.
- parilis* Wood 1976a: 359. Holotype ♀; Buenos Aires, Cortez, Honduras, 2300 m; Wood Collection.

Distribution: North America (Honduras).

Hosts: *Quercus* sp. branch.

References: (ds) Bright 1981d: 103; Wood, S. L. 1982b: 1082. (tx) Bright 1981d: 103; Wood, S. L. 1976a: 359, 1982b: 1082.

paulus Wood 1964: 63. Holotype ♀; 40 km NE Jacala, Hidalgo, Mexico; Wood Collection.

Distribution: North America (Chiapas, Chihuahua, Hidalgo, Michoacan, San Luis Potosi, Tlaxcala, Veracruz in Mexico).

Hosts: *Senecio* sp.

Notes: (3) The host recorded as *Baccharis* sp. was actually *Senecio* (SLW).

References: (hb) Atkinson & Equihua 1985a: 91, 1985c: 359; Atkinson et al. 1986: 40, 72; Burgos & Saucedo 1983: 124. (ds) Atkinson & Equihua 1985a: 91, 1985c: 359; Atkinson et al. 1986: 40, 72; Bright 1981d: 63; Burgos & Saucedo 1983: 124; Wood, S. L. 1982b: 1130. (tx) Bright 1981d: 63; McNamara 1977: 198; Wood, S. L. 1964: 63, 1982b: 1130.

pellitus Schedl 1955g: 23. Lectotype ♀; Quezaltenango, Guatemala; Schedl Collection in NHMW, Wien, designated by Bright 1976b: 186. Figures: Bright 1981d: 360.

Distribution: North America (Guatemala/ Chiapas, Hidalgo, Oaxaca, Puebla, Queretaro in Mexico).

Hosts: *Pinus greggii*, *P. lawsonii*, *P. michoacana*, *P. montezumae*, *P. oocarpa*, *P. pseudostrobus*, *P. rudis*, *P. tenuifolia*, *P. spp.*

References: (hb) Bright 1981d: 216; Schwerdtfeger 1957c: 500. (ds) Bright 1981d: 216; Wood, S. L. 1982b: 1138. (tx) Bright 1976b: 186, 1981d: 216, 360; Schedl 1955g: 18, 23, 1979c: 187; Wood, S. L. 1982b: 1035.

pentaclethrae Schedl 1957d: 62. Holotype ♂²; Congo Belge; Luki, Mayumbe; MRCB, Tervuren. Distribution: Africa (Zaire).

Hosts: *Pentaclethra macrophylla*.

References: (cc) Schedl 1958d: 188, 1962j: 18. (hb) Schedl 1962j: 18. (ds) Schedl 1962j: 18. (tx) Schedl 1957d: 62, 1962j: 18, 1979c: 187-188.

peregrinus Eichhoff 1878b: 193. Holotype, sex²; America meridionalis (Brasilia); Hamburg Museum, lost.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 782; Gonçalves 1935: 414-420; Hagedorn 1910d: 73; Kleine 1913b: 140, 1914b: 336. (tx) Eichhoff 1878a: 389, 1878b: 193; Hagedorn 1910a: 101.

perexiguus Wood 1976a: 355. Holotype ♀; Dominical, Puntarenas, Costa Rica, 3 m; Wood Collection. Distribution: North America (Costa Rica/ Panama).

Hosts: Tree limb.

References: (ds) Bright 1981d: 67; Wood, S. L. 1982b: 1138. (tx) Bright 1981d: 67; McNamara 1984: 757; Wood, S. L. 1976a: 355, 1982b: 1138.

perotei Blackman 1942a: 218. Holotype ♀; Perote, Veracruz, Mexico; USNM, Washington.

Distribution: North America (Mexico, Morelos, Puebla, Veracruz in Mexico).

Hosts: *Pinus leiophylla*, *P. teocote*.

References: (hb) Atkinson et al. 1986: 40; Burgos & Saucedo 1983: 121. (ds) Atkinson & Equihua 1985a: 97; Atkinson et al. 1986: 40; Blackwelder 1947: 782; Bright 1981c: 282; Burgos & Saucedo 1983: 121; Thomas, J. B. 1966; Wood, S. L. 1982b: 1098. (tx) Blackman 1942a: 218; Bright 1981d: 282; McNamara 1984: 757; Wood, S. L. 1982b: 1098.

philippinensis Schedl 1936h: 59. Holotype ♀; Luzon, Manila; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Luzon).

References: (ds) Schedl 1966b: 41. (tx) Schedl 1936h: 59, 1938a: 183, 1979c: 192.

pinarorus Bright 1955c: 182. Holotype ♀; Florida: Highlands Co., Lake Placid, 3 miles [5 km] E Archbold Biological Station [USA]; CNCI, Ottawa.

Distribution: Antilles Islands (Dominican Republic in Hispanola), North America (Florida in USA).

Hosts: *Pinus elliottii*, *P. occidentalis*.

References: (cc) Haack et al. 1989. (bv) Haack et al. 1989. (hb) Haack et al. 1989. (ds) Bright 1985c: 176. (tx) Bright 1985c: 176, 182.

pinguis (Blackman) 1928b: 20 (*Myeloborus*). Holotype ♀; Longmont, Colorado [USA]; USNM, Washington.

Distribution: North America (Arizona, Colorado, Nevada, New Mexico, Utah, Wyoming in USA).

Hosts: *Pinus flexilis*, *P. strobiformis*.

Notes: (1) Blackman 1928: 20 (*pinquis*, lapsus calami; name correctly spelled on p. 17, 149, 153, and fig. 60 as *pinguis*).

References: (hb) Chamberlin 1939: 340. (ds) Chamberlin 1939: 340; Keen 1929a: 31; Kleine 1934a: 163; Leng & Mutchler 1933: 53; Wood, S. L. 1972a: 424. (tx) Blackman 1928b: 20; Bright 1976c: 427, 1981d: 210; Chamberlin 1939: 340; Keen 1929a: 31; de Ruelle 1970: 104; Wood, S. L. 1951a: 128, 1972a: 424.

pini Kurenzov 1941a: 176. Lectotype, sex²; Ternei region, Suputinia River, Ussuri, USSR; Kurenzov Collection in ISBN, Novosibirsk, designated by Michalski 1969a: 895.

Figures: Yin, Huang, & Li 1984: 120 (elytral declivity).

Distribution: Asia (China/ E USSR).

Hosts: *Picea koraiensis*, *P. obovata*, *Pinus koraiensis*.

References: (hb) Krivolotskaya 1956: 838, 1960: 78; Kurenzov 1948b: 108, 1950d: 228; Stark 1952: 357. (ds) Krivolotskaya 1956: 838, 1960: 78, 1983; Pfeiffer 1976: 340; Stark 1952: 357; Zinovjev 1955: 187, 190. (tx) Krivolotskaya 1956: 836, 838; Kurenzov 1941a: 176, 233, 1948b: 108; Michalski

1969a: 595, 1969b: 569; Pfeffer 1976: 340; Stark 1952: 357; Yin, Huang, & Li 1954: 120.

pinsapo Pfeffer 1982b: 154. Holotype, sex?; Spain; apparently in Prague Museum.
Distribution: Europe (Spain).

Hosts: *Abies pinsapo*.

References: (tx) Pfeffer 1982b: 154–157.

pityographus (Ratzeburg) 1837: 162 (*Bostrichus*).
Synatypes, sex?: Europe; not located.

Figures: Grune 1979: 114, Joly 1976b: fig. 143, Pfeffer 1989a: pl. 9, Tsai & Li 1959: 94.

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Crimea, Ukraine in W USSR/ Yugoslavia).

Hosts: *Picea excelsa*, *P. omorica*, *P. orientalis*, *Abies alba*, *A. borisi*, *A. bornmilleriana*, *A. cephalonica*, *A. pectinata*, *Pinus heldreichii*, *P. peuce*.

References: (ay) Chararas 1977b, (bv) Chararas 1966b, 1977b; Francke et al. 1987; Grune 1979: 115; Hellrigl 1985; Jacobson 1972; Krol & Zabecki 1976; Mori & Puapoomchareon 1987; Prell 1930c: 631; Tragardh 1930b: 102; Zurr & Landa 1985. (cn) Capecki 1982; Capek et al. 1957; Chararas 1961b: 70, 1961c: 93, 1978; Chorbadzhiev 1929; Gradojevic 1933; Grandi 1951; Hess 1907: 245; Hrbick 1973; Joly 1976; Kailidis & Georgevits 1972; Komarek 1931: 1–256; Konig, E. 1971; Krol 1980a; Krol & Zabecki 1976; Lezhava 1930: 1–15; Lozovoi & Tropin 1965, 1967; Martinek 1953a: 373; Nosek 1951: 106, 1952b: 98, 1959b: 73; Oppermann 1965; Pfeffer 1947c: 204, 1949b: 147, 1950c: 3; Schimitschek 1937c: 55, 1952c: 59; Szujecki 1956: 241–242; Vite 1984b; Wichmann 1927b: 353; Zurr & Landa 1985. (ce) Balazy 1962, 1968; Balazy & Michalski 19641, 1964b; Balazy et al. 1977; Capecki 1982; Chararas 1959d; Cadek 1976; Hellrigl 1985; Heuer & Vite 1984b; Hirschmann & Wisniewski 1982, 1983; Karpinski 1932a: 95, 99, 101; Kielczewski 1976; Kielczewski & Balazy 1966; Kielczewski, Bohdan, & Balazy 1967: 161–163; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Krol 1980a; Krol & Zabecki 1976; Kudela 1981; Lozovoi & Tropin 1965, 1967; Masutti 1959: 268, 299; Michalski & Ratajczak 1989; Nosek 1951: 106, 1952b: 98, 1959b: 87; Numberg 1930: 201; Numberg & Wiackowski 1958: 130; Pfeffer 1932a: 8, 1943b: 182, 1947c: 204, 1949b: 147, 1950c: 3, 1955b: 84, 1957a: 198, 1959: 5, 1960: 346; Ratzeburg 1869a: 79; Rondani 1873: 140; Schimitschek 1941a: 312; Zurr 1985b. (hb) Balachowsky 1963a: 1254; Balazy 1968; Budge 1949; Chararas 1961b: 70, 1961c: 93, 1962c: 363, 1977b; Chorbadzhiev 1929; Grandi 1951; Henschel 1876a: 99, 240; Hess 1907: 245; Joly 1976; Karpinski & Strawinski 1948: 156; Konig, E. 1971; Kudela 1981; Lozovoi & Tropin 1965, 1967; Masutti 1959: 268,

299, 1964; Michalski 1959a: 291; Nordlinger 1856: 27; Nosek 1959b: 87; Numberg 1929a: 111, 1929c: 121, 1947c: 106; Pfeffer 1941b: 1, 1941c: 5, 1959a: 63; Postner 1974: 434; Prell 1930c: 631; Ratzeburg 1837: 136, 1839: 166; Schwerdtfeger 1981: 192; Simmel 1928: 154; Spessivtsev 1923: 205; Stark 1952: 344; Szujecki 1955: 241; Tragardh 1930b: 102; Tschorbadjiev 1929: 169; Wichmann 1927b: 353. (ds) Andersch 1851; Arnoldi et al. 1955: 713; Arru, Covassi, & de Bellis 1966: 32; Benz 1985; Bielz 1851; Borchert 1951; Brakman 1966b: 206; Buresh & Lazarov 1956; Capek et al. 1957; Chapuis & Candeze 1853; Chararas 1962c: 363; Chorbadzhiev 1929; Endrodi 1958b; Escherich 1932b; Forster 1849: 439; Gaubil 1849: 126; Gozis 1875: 80; Gradojevic 1933: 789–790; Gredler 1868: 374; Grune 1979: 115; Hansen, V. 1956; Horion 1951; Jacentkovsky 1939: 76; Jammicky 1960a; Joly 1976; Kailidis & Georgevits 1972; Kaltenbach 1874: 685; Karpinski 1931: 19, 1932a: 95, 99, 101, 1933a: 290, 1948b: 231; Karpinski & Strawinski 1948: 156; Kiefer et al. 1942: 528; Kraatz 1869: 59; Kudela 1946a: 339; Leclercq 1971; Lindemann 1884b: 264; Lucht 1987: 278; Mequignon 1936: 54; Michalski 1957: 165; Negru 1966b: 403; Numberg 1928b: 88, 111, 1938: 126, 1954: 70; Perris 1876a: 255, 1877a: 255; Pfeffer 1931b: 74, 1935: 158, 1947d: 129, 1947e: 2, 1950b: 73, 1960: 346, 1976: 339, 1989a: 63; Pittioni 1943: 175; Pjatnitskii 1930a: 165, 1931: 171–173; Postner 1974: 434; Ratzeburg 1837: 136, 1839: 166; Redtenbacher 1858: 830; Ronbal 1935b: 72, 1936b: 193, 1941: 269; Sainte-Claire & Mequignon 1938: 448; Schaum 1859: 95, 1862: 101; Schedl 1959h: 100, 1961b: 184, 1967c: 71, 1980a: 23, 1981b: 77; Schilsky 1909: 188; Schwerdtfeger 1981: 192; Seidl 1876: 4; Stark 1952: 344; Stein 1868: 114; Stein & Weise 1877: 164; Stolima 1969: 610–627; Strand 1964: 243; Sturm 1843: 230; Szujecki 1955: 241; Tschorbadjiev 1929: 159; Wachtl 1870: 259; West 1938: 184; Wichmann 1927a: 73–74; Zivojinovic 1960: 25. (tx) Bach 1854; Balachowsky 1949a: 235; Chapuis & Candeze 1853; Eggars 1940g: 36; Endrodi 1957a: 307, 1957b; Grune 1979: 114–115; Hansen, V. 1956; Hellrigl 1985; Henschel 1876a: 99, 240; Joly 1976, 1976b: fig. 143; Karpinski 1949: 129; Karpinski & Strawinski 1948: 156; Letzner 1891: 376; Lucht 1987: 278; Negru 1966b: 403; Nordlinger 1848: 242, 1856: 27; Numberg 1929c: 121, 1930, 1938: 126, 1954: 70; Perris 1877a: 255; Pfeffer 1930: 111, 116, 1932b: 22, 1940b: 107, 114, 116, 1941b: 1, 1941c: 5, 1947e: 2, 1976: 339, 1989a: pl. 9; Pjatnitskii 1931: 171; Postner 1974: 434; Ratzeburg 1837: 136, 162, 1839: 166; Redtenbacher 1849: 26, 851, 1858: 830; Schedl 1934f: 1643, 1952f: 87, 1958k: 144, 1959h: 100, 1980a: 23, 1981b: 77; Schimitschek 1937c: 55; Schmidt, G. 1980: 17; Spessivtsev 1923: 205–206, 1926b: 50, 1929a: 678–682,

- 1929c: 297; Stark 1952: 344; Trappen 1935; Tsai & Li 1959: 94. (**ms**) Chararas 1959d; Escherich 1932b; Michalski 1959a: 291; Mori & Puapoomchareon 1987.
- pityographus cribratus* Pfeffer 1940: 110. Holotype, sex?; Mt. Chelmon, Greece; Pfeffer Collection in Prague Museum.
- Notes: (3) Pfeffer 1976: 335 (cited as a subspecies).
- References: (**ds**) Pfeffer 1976: 340, 1989a: 64. (**tx**) Pfeffer 1940: 107, 110, 1976: 340.
- pityographus bibractensis* Balachowsky 1949a: 236. Holotype ♂; Foret de St.-Prix (Morvan), France, 800 m; MNHN, Paris. Synonymy: Schedl 1958k: 144.
- References: (**ds**) Larroche & Torossian 1971. (**tx**) Balachowsky 1949a: 236; Schedl 1958k: 144.
- pityographus maritimus* Stark 1952: 344. Holotype, sex?; Caucasus; IZL, Leningrad.
- References: (**tx**) Michalski 1969b: 569; Stark 1952: 344.
- plauumami* (Schedl) 1970e: 102 (*Breviophthorus*). Holotype, sex?; Brasilien, Bocaiuva (Pa), 25 08, 49 04, 1000 m; Schedl Collection in NIMW, Wien. Distribution: South America (Brazil).
- References: (**tx**) Schedl 1970e: 102, 1979c: 196.
- pseudotsugae* Swaine 1918a: 99. Holotype ♀; BX Mountain, Vernon District, British Columbia [Canada]; CNCL, Ottawa.
- Figures: Bright 1981d: 350.
- Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming in USA).
- Hosts: *Abies concolor*, *A. grandis*, *A. lasiocarpa*, *A. magnifica*, *Picea engelmannii*, *Pinus lambertiana*, *Pseudotsuga menziesii*, *Tsuga heterophylla*.
- Notes: (3) Blackman 1928b: 106 (re-described).
- References: (**cn**) Anonymous 1963k, 1963y; Browne 1968b: 564; Chamberlin 1924; Doane et al. 1936; Hofacker et al. 1989; Ruppel 1967: 78; Schuder 1969: 77; Stark & Borden 1965: 1162–1163; Struble 1937d: 11, 1957: 14; Swaine 1918a: 96, 99. (**ec**) Ashraf & Berryman 1969: 19; Berryman 1968a: 66; Bushing & Bright 1965: 203; Dewey & Clinton 1980; Deyrup & Gara 1978: 275; Struble 1957: 14. (**hb**) Bright & Stark 1973: 114; Browne 1968b: 564; Chamberlin 1939: 387, 1958: 154; Doane et al. 1936; Furniss 1968: 1384–1389; Struble 1937d: 11, 1957: 14; Swaine 1918a: 96, 99. (**ds**) Anonymous 1963k, 1963y; Bedard 1938a; Bright 1976d: 184, 1981d: 162; Bright & Stark 1973: 114; Browne 1968b: 564; Chamberlin 1925, 1939: 387, 1958: 154; Downing 1963: 8; Evans, D. 1983: 35; Furniss, R. L. & Carolin 1977: 402; Gast et al. 1989: 385; Hopping 1922; Keen 1929a: 33; Kleine 1934a: 161; Leng 1920: 341; McComb et al. 1953: 2; Patterson & Hatch 1945: 153; Ruppel 1967: 78; Schuder 1969: 77; Thatcher 1935: 261; Wood, S. L. 1948: 53, 1951a: 128, 1972a: 426, 1982b: 1093. (**tx**) Blackman 1928b: 91, 106–107; Bright 1967b: 678, 1981d: 162, 350; Chamberlin 1939: 387, 1958: 154; Evans, D. 1983: 35; Hoebeke 1978; Keen 1929a: 33, 1938: 32; de Ruette 1970: 110; Swaine 1918a: 96, 99; Wood, S. L. 1951a: 128, 1972a: 426, 1977d: 516, 1982b: 1093.
- thatcheri* Bright 1976c: 442. Holotype ♀; Big Sandy Meadow, S28, T5S, R2E, California [USA]; Wood Collection. Synonymy: Wood 1977d: 516.
- References: (**tx**) Bright 1976c: 442; McNamara 1984: 758; Wood, S. L. 1977d: 516.
- puberulus* (LeConte) 1868: 157 (*Cryphalus*). Holotype, sex?; District of Columbia [USA]; MCZ, Cambridge.
- Figures: Bright 1981d: 366.
- Distribution: North America (New Brunswick, Nova Scotia, Ontario, Quebec in Canada/ District of Columbia, Indiana, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Virginia, West Virginia, Wisconsin in USA).
- Hosts: *Abies balsamea*, *Picea* spp., *Pinus banksiana*, *P. resinosa*, *P. strobus*, *P. sylvestris* twigs.
- Notes: (1) LeConte 1876: 354 (to *Pityophthorus*). (3) Blackman 1928b: 48 (re-described).
- References: (**ay**) Thomas, J. B. 1957: 4, 1967. (**bv**) Kirkendall 1984: 241. (**cn**) Anonymous 1965b; Blackman 1950; Browne 1968b: 564; Chamberlin 1924; Doane et al. 1936; Felt 1906: 752; Hopkins 1899c: 443; Lanier, Abrahamson, & Schoeneck 1983; Lindquist, O. H. & Syme 1981: 88; Packard 1890: 718; Pettit 1928: 1–20; Schuder 1969: 80; Swaine 1918a: 95, 99; Syme & Nystrom 1988: 84. (**cc**) Bushing 1965: 464; Felt 1906: 752; Heqvist 1959: 181; Lanier, Abrahamson, & Schoeneck 1983; Reid 1957b: 7. (**hb**) Baker, W. L. 1972: 255; Blackman 1950; Browne 1968b: 564; Chamberlin 1939: 365; Chittenden 1890; Deyrup & Atkinson 1987a: 66; Deyrup & Kirkendall 1983; Doane et al. 1936; Felt 1906: 752; Hopkins 1899c: 443; Packard 1881: 170–175, 1890: 718, 812; Pierce, W. D. 1907: 291; Schwarz 1885a: 80; Swaine 1918a: 95, 99. (**ds**) Anonymous 1926c: 519, 1965b; Baker, W. L. 1972: 255; Blackman 1919b: 140–142, 1950; Blatchley & Leng 1916: 629; Bright 1971a: 127, 1976d: 157, 1981d: 264; Britton 1920a; Browne 1968b: 564; Chamberlin 1925, 1939: 365; Chittenden 1890; Deyrup 1981b: 8; Deyrup & Atkinson 1987a: 66; Dodge 1938; Drooz 1985: 364; Gemminger & Harold 1892: 2688; Hagedorn 1910d: 73; Hamilton 1895a: 378; Hatch 1924; Henshaw 1882: 268, 1885: 147; Hopkins 1893a: 131, 1893b: 209; Hubbard & Schwarz 1878a: 665; Kleine 1913b: 140, 1914b: 391, 1934a:

- 161; Knull 1932: 1196–1203, 1934: 212; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 88; Morgan, A. V. & Morgan 1979; Schuder 1969: 80; Schwarz 1888a: 50, 1891: 65; Smith, J. B. 1890: 267, 1900: 362, 1910: 401; Swaine 1909: 137; Syme & Nystrom 1958: 84; Ulke 1902: 56; Wood, S. L. 1952b: 1034. (**tx**) Beal & Massey 1945: 136–137; Blackman 1919b: 140–142, 1922c, 1928b: 44, 48–49; Blatchley & Leng 1916: 629; Bright 1981d: 264, 366; Chamberlin 1939: 365; Dodge 1938: 15; Eichhoff 1878b: 202, 1896: 609–610; Hagedorn 1910a: 101; LeConte 1868: 157, 1876: 354, 1878: 665; Lindquist, O. H. & Syme 1981: 88; Pfeffer 1932b: 23; Swaine 1909: 137, 1918a: 95, 99; Syme & Nystrom 1958: 84; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1955: 105; Wood, S. L. 1952b: 1034.
- infaus* Eichhoff 1872a: 135. Holotype, sex?, Amer. Bor. (Civitat. mit.); Hamburg Museum, lost, neotype, ♀; Syracuse, New York [USA], USNM, Washington, designated by Bright 1978: 72.
- Notes: (3) Blackman 1928b: 49 (redescribed). References: (**ds**) Gemminger & Harold 1872: 2688; Leng 1920: 341. (**tx**) Blackman 1928b: 49; Bright 1978: 72; Eichhoff 1872a: 135, 1878b: 157, 1896: 609–610; LeConte 1876: 355; Swaine 1909: 137.
- pubescens* (Marshall) 1802: 58 (*Ips*). Syntypes, sex?, not given, presumably England; not located, presumably in BMNH, London.
- Figures: Pfeffer 1989a: pl. 9.
- Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Cyprus/ Israel), Europe (Austria/ Belgium/ Corsica/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Sweden/ S Switzerland).
- Hosts: *Abies cephalonica*, *Pinus halepensis*, *P. maritima*, *P. nigra*, *P. pinaster*, *P. pinca*, *P. radiata*, *P. sylvestris*, *P. uncinata*.
- References: (**ay**) Feytaud 1950. (**bv**) Grune 1979: 117; Wichmann, H. E. 1967. (**cn**) Barbey 1925: 280; Browne 1968b: 565; Feytaud 1946, 1950a; Forbes 1910; Grandi 1951; Hanson 1937, 1940a; Joly 1976; Kailidis & Georgevits 1984; Elliot & Morley 1907; Halperin & Holzschuh (19c) 28; Heqvist 1963: 154; Kleine 1908c: 213, 1909a: 47, 78; Kraemer 1950b: 380; Nosek 1959a: 118; Pfeffer 1960: 346; Thompson, W. R. 1943: 91; Wichmann, H. E. 1967. (**hb**) Barbey 1925: 280; Browne 1968b: 565; Chararas 1962c: 363; Dallimore & Munro 1922; Feytaud 1946, 1950a; Gillanders 1908; Grandi 1951; Gyorf 1957; Halperin & Holzschuh 1984: 28; Joly 1976; Kemner 1919: 175; Kraemer 1950b: 380; Lengerken 1939: 65, 1954: 85; Masutti 1964; Munro 1926: 63; Nosek 1959a: 118; Pfeffer 1941b: 3; Postner 1974: 435; Spessivtsev 1913a: 89, 1921b: 221; Stark 1952: 352; Zocchi 1959: 105. (**ds**) Audras & Schaefer 1957; Bangsholt 1975: 95; Beaulne 1956; Bejer-Petersen & Jorum 1977: 26; Blandford 1891c; Brakman 1966b: 206; Browne 1968b: 565; Butovitsch 1963; Chararas 1962c: 363; Chrystal 1937; Dallimore & Munro 1922: 189–193; Eggers 1918; Endrodi 1958a, 1958b; Escherich 1932b; Everts 1925; Fowler 1891; Georghion 1977: 75; Grune 1979: 117; Hagedorn 1910d: 75; Halperin & Holzschuh 1984: 28; Hanan 1919; Hansen, V. 1939, 1956, 1964: 464; Hellen 1947; Horion 1951; Jansson 1936: 220; Johnson & Halbert 1902: 819; Joly 1976; Kailidis & Georgevits 1972; Karpinski 1949: 125; Kemner 1919: 175; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 267, 1913a: 35, 1913b: 141, 1934a: 161; Kloft & Hinks 1945: 218; Leclercq 1971; Lucht 1987: 278; Mahler 1987: 232; Munro 1920: 1–35, 1921: 88; Pfeffer 1930b: 120, 1931b: 74, 1935: 158, 1947d: 126–127, 1947e: 12, 1960: 346, 1976: 340, 1984: 277, 1989a: 66; Pittioni 1943: 175; Postner 1974: 435; Reitter 1916: 298; Roukal 1941: 270; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1243; Schedl 1964a, 1976c: 71, 1978e: 37, 1981b: 78; Schilsky 1909: 188; Stark 1927b: 90, 1952: 352; Stephens 1829a: 145, 1830: 357, 1839: 207; Tredl 1907: 14; Winter, T. G. 1983: 22; Zocchi 1959: 105. (**tx**) Balachowsky 1949a: 237; Blandford 1891c: 15–17; Duffy 1953; Eggers 1915b: 13–14, 1918: 181; Endrodi 1957b; Fleischer 1927; Gillanders 1908; Grune 1979: 117; Hagedorn 1910a: 101; Hansen, V. 1956, 1964: 464; Joly 1976; Karpinski 1949: 125; Lucht 1987: 278; Marshall 1802: 58; Olivier 1795b: 11; Pfeffer 1933: 3–54, 1940b: 108, 112, 119, 1941b: 3, 1947e: 12, 1955a: 217, 1976: 340, 1989a: pl. 9; Portevin 1935: 333; Postner 1974: 435; Reitter 1913a: 93, 1916: 298; Schedl 1934f: 1643, 1967f: 149, 1980a: 23, 1981b: 78; Sokanovskii 1954: 19; Spessivtsev 1913a: 89, 1922a: 488, 1922b: 221, 1925a: 182, 1926b: 50, 1929c: 298–303, 1931: 63; Stark 1952: 352; Stephens 1829a: 145, 1829b: 12, 1830: 357, 1839: 207. (**ms**) Eggers 1910a, 1910b; Escherich 1932b; Schimitschek 1930b: 407.
- ramulorum* Perris 1856: 191. Syntypes, sex?, Pyrenees, France; not given, presumably MNHN, Paris. Synonymy: Blandford 1891c: 15. References: (**ay**) Nusslin 1911a: 155. (**cn**) Packard 1890: 715; Pfeffer 1933: 43; Wachtl 1883b: 319, 1901: 381; Walsh 1867a: 103. (**cc**) Perris 1852: 504, 1856a: 191, 1862: 189; Pfeffer 1928b: 8, 1933: 43; Wichmann 1959: 413. (**hb**) Barbey 1901: 23, 75; Dombrowsky 1891, 1892; Everts 1903: 758; Henschel 1895a: 173; Nordlinger 1870a: 187; Packard 1890: 715; Perris 1852: 504, 1856a: 191; Peyerimhoff 1915: 61; Rupertsberger 1879: 231, 1880: 230; Wachtl 1901: 381. (**ds**) Acloque 1896; Barthe 1896; Bedel 1888b: 298, 414; Blanchere & Robert 1889; Brancsik 1871, 1906; Buecking

1932; Carpentier & Delaby 1908; Cecconi 1897; Eggers 1904; Everts 1922: 643; Favre 1890; Gozis 1875: 80; Grill 1895: 311; Henschel 1895a: 173; Heyden, Reitter, & Weise 1891: 672, 1906: 711; Kloft & Hinks 1945: 218; Lacordaire 1866: 381; Kunnemann 1921: 58; Mequignon 1936: 15; Micke 1915: 111; Perris 1876a: 255, 1877a: 415; Peyerimhoff 1915: 61, 1933b: 367; Pfeffer 1928b: 8; Ragusa 1924: 116; Reitter 1890b: 212, 1894a: 76; Sainte-Claire 1914: 472; Schilsky 1909: 188; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 442; Strauch 1861: 122; Wichmann 1910: 146, 1927: 72. (tx) Aeloque 1896; Balachowsky 1949a: 237; Barbey 1901: 23, 75; Bedel 1888b: 298, 414; Bertolini 1872; Blandford 1891c: 15–17; Branscik 1871; Carpentier & Delaby 1908; Dombrowsky 1891, 1892; Eggers 1915b: 13–14; Eichhoff 1878b: 178, 1883a: 110, 134; Everts 1903: 758, 1922: 643; Favel 1889; Ferrari 1867a: 32, 1867b: 114; Henschel 1895a: 173; Lacordaire 1866: 381; Kuhnt 1913: 1056; Nordlinger 1870a: 187; Nusslin 1911a: 155; Perris 1856: 196, 1877a: 415; Reitter 1894a: 76, 1901: 101, 1913a: 93; Rupertsberger 1879: 231, 1880: 230; Schedl 1934f: 1643; Spessivtsev 1913: 89; Stierlin 1898: 442; Wichmann 1910a: 146. (ms) Eggers 1910b; Wichmann 1959: 413.

pubifrons Bright 1981d: 195. Holotype ♀; Parque Nacional Zoquiapan, Mexico, Mexico; CNCI, Ottawa.

Distribution: North America (Mexico in Mexico).
Hosts: *Pinus hartwegii*.

References: (hb) Atkinson et al. 1986: 40. (ds) Atkinson & Equihua 1985a: 95; Atkinson et al. 1986: 40; Bright 1981d: 195. (tx) Bright 1981d: 195.

pudens (Blackman) 1942a: 199 (*Pityophthoroides*). Holotype ♀; Cayamas, Cuba; USNM, Washington. Distribution: Antilles Islands (Cuba/ Dominican Republic in Hispaniola/ Virgin Islands).

References: (ds) Blackwelder 1947: 782; Bright 1981c: 156, 1985c: 176. (tx) Blackman 1942a: 199; Bright 1985c: 176; Wood, S. L. 1977b: 207.

pudicus Blackman 1942a: 208. Holotype ♂; Guadalupe, Jalisco, Mexico; USNM, Washington. Distribution: North America (Jalisco in Mexico).

Hosts: *Sambucus* sp.
References: (ds) Blackwelder 1947; Bright 1981d: 80. (tx) Blackman 1942a: 208–209; Bright 1981d: 80; Wood, S. L. 1982b: 1025.

pulchellus Eichhoff 1869a: 275. Holotype, sex?; America septentr.: Hamburg Museum, lost, neotype ♀; Marquette, Michigan [USA]; USNM, Washington, designated by Bright 1978: 73.

Figures: Bright 1981d: 350.
Distribution: North America (Alberta, British Columbia, Manitoba, New Brunswick, Ontario,

Quebec, Saskatchewan, Yukon in Canada/ District of Columbia, Florida, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, North Carolina, Pennsylvania, Texas, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Pinus banksiana*, *P. palustris*, *P. resinosa*, *P. rigida*, *P. strobus*, *P. virginiana*.

Notes: (3) Blackman 1928b: 110 (re-described). Bright 1981d: 153 (subspecies *tuberculatus* recognized). Wood 1982b: 1091 (treated this taxon as a species distinct from *tuberculatus*, although the hosts hybridize in part of Alberta; intergradation between the beetle species is almost, if not entirely, nonexistent).

References: (ay) Thomas, J. B. 1957: 4. (cn) Blackman 1950; Doane et al. 1936; Felt 1906: 752; Hopkins 1899c: 442; Lindquist, O. H. & Syme 1981: 88; Martin, J. L. 1964; Swaine 1918a: 97, 102; Syme & Nystrom 1988: 84; Thomas, J. B. 1958: 394. (ec) Bushing 1965: 464; Felt 1906: 752; Frederick, Sloan, & Skowron 1976; Heqvist 1959: 181; Reid 1957b: 7; Thomas, J. B. 1958: 394. (hb) Baker, W. L. 1972: 255; Beal & Massey 1945: 129; Blackman 1950; Chamberlin 1939: 389; Doane et al. 1936; Felt 1906: 752; Hopkins 1899c: 442; Swaine 1918a: 97, 102. (ds) Anonymous 1926c: 519; Baker, W. L. 1972: 255; Beal & Massey 1945: 129; Blackman 1950; Blatchley & Leng 1916: 632; Bright 1976d: 187, 1981d: 152; Chamberlin 1939: 389; Deyrup & Atkinson 1987b: 68; Dodge 1938; Drooz 1985: 364; Evans, D. 1983: 35; Gemming & Harold 1872: 2689; Hagedorn 1910a: 73; Henshaw 1885: 147; Hopkins 1893c: 132; Kleine 1913b: 140, 1914b: 394, 1934a: 161; Knull 1932: 66; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 88; Swaine 1909: 138; Syme & Nystrom 1988: 84; Wood, S. L. 1982b: 1091. (tx) Beal & Massey 1945: 129; Blackman 1922c: 125–126, 1928b: 91, 110–111; Blatchley & Leng 1916: 632; Bright 1978: 73, 1981d: 152, 350; Chamberlin 1939: 389; Dodge 1938: 43, 45; Eichhoff 1869a: 275, 1878b: 181, 1896: 609–610; Evans, D. 1983: 35; Hagedorn 1910a: 101; LeConte 1876: 352, 435; Lindquist, O. H. & Syme 1981: 88; Swaine 1909: 138, 1918a: 97, 102; Syme & Nystrom 1988: 84; Thomas, J. B. 1957: 4; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1982b: 1091.

hirticeps LeConte 1878b: 623. Lectotype ♂; Marquette, Michigan [USA]; MCZ, Cambridge, designated by Bright 1976b: 185. Synonymy: Eichhoff 1896: 609.

References: (ce) Felt 1906: 751–752. (hb) Felt 1906: 752; Schwarz 1885a: 80. (ds) Chamberlin 1925; Henshaw 1885: 147; Hopkins 1893a: 131, 1893b: 209, 1899: 442; Hubbard & Schwarz 1878a: 665, 1878b: 623; Leng 1920: 341; Schwarz 1886: 41, 1888a: 80; Swaine 1909: 138, 1918a: 102; Ulke 1902: 56. (tx) Blackman 1922b: 125–126, 1928b: 110; Bright

- 1976b: 185; Eichhoff 1896: 609–610; LeConte 1875b: 623; Schwarz 1886: 41, 1888: 80; Swaine 1909: 138.
- pusio* LeConte 1878b: 623. Holotype ♂; Marquette, Michigan [USA]; MCZ, Cambridge. Synonymy: Blackman 1928b: 111. References: (ds) Blatchley & Leng 1916: 632; Hagedorn 1910d: 75; Henshaw 1882: 265, 1885: 147; Hubbard & Schwarz 1878a: 643, 665, 1878b: 623; Kleine 1913b: 141; Leng 1920: 341; Swaine 1909: 140. (tx) Blackman 1922b: 125–126, 1928b: 110; Blatchley & Leng 1916: 632; Hagedorn 1910a: 101; LeConte 1878b: 623; Swaine 1909: 140, 1918a: 102.
- pulicarius* (Zimmermann) 1868: 144 (*Crypturgus*). Lectotype, sex?; Lake Superior [USA]; MCZ, Cambridge. Figures: Bright 1981d: 55, 339. Distribution: Antilles Islands (Cuba), North America (Manitoba, New Brunswick, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Illinois, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Virginia, West Virginia, Wisconsin in USA). Hosts: *Pinus caribaea*, *P. echinata*, *P. palustris*, *P. resinosa*, *P. rigida*, *P. strobus*, *P. sylvestris*, *P. taeda*, *P. virginiana* twigs, uncommon in *Abies balsamea*, *Picea* spp. Notes: (3) Blackman 1928b: 101 (re-described). References: (bv) Clark 1972. (cn) Anonymous 1962h, 1963r, 1965b; Baker, W. L. 1972: 255; Blackman 1950; Browne 1968b: 565; Clark 1972; Doane et al. 1936; Drooz 1985: 363; Felt 1906: 751, 1933b: 994–995, 1934: 195–200; Hoekstra, Merkel, & Powers 1961; Hopkins 1899c: 442; Kowal 1956a: 9; Lindquist, O. H. & Syme 1981: 88; Mason, G. N. & Jones 1969: 12; Merkel & Kowal 1956: 7; Ollien & Mason 1968: 13; Perry & Wu 1957: 10; Smith, R. H. & Mergen 1959a: 564–865; Swaine 1918a: 95, 99; Syme & Nystrom 1988: 84; Yearian & Warren 1964. (cc) Felt 1906: 751; Hines, J. W. & Heikkinen 1977; Schwarz 1889a: 163; Thomas & Lindquist 1956: 2. (hb) Baker, W. L. 1972: 255; Beal & Massey 1945: 133–134; Blackman 1950; Browne 1968b: 565; Chamberlin 1939: 374; Clark 1972; Deyrup & Atkinson 1987a: 66; Doane et al. 1936; Felt 1906: 751; Hopkins 1899c: 442; Ostmark 1968; Swaine 1918a: 95, 99. (ds) Anonymous 1926c: 518, 1963r, 1965b; Beal & Massey 1945: 133–134; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 629; Bright 1976d: 187, 1981d: 84, 1985c: 84; Browne 1968b: 565; Chamberlin 1925, 1939: 374; Deyrup 1981b: 8; Deyrup & Atkinson 1987a: 66; Dodge 1938; Drooz 1985: 363; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 74; Henshaw 1885: 147; Kirk 1969, 1970; Kleine 1913b: 141, 1934a: 161; Knull 1932: 66, 212; Leng 1920: 341; Leonard 1928: 518; Lindquist, O. H. & Syme 1981: 88; Merkel & Kowal 1956: 7; Ostmark 1968; Proctor 1946: 208; Schuder 1969: 76; Schwarz 1878d: 468, 1889a: 163–164, 1890: 231; Smith, J. B. 1890: 267, 1900: 362, 1910: 401; Swaine 1909: 138; Syme & Nystrom 1988: 84; Ulke 1902: 56; Wood, S. L. 1982b: 1048; Yearian & Warren 1964: 262. (tx) Beal & Massey 1945: 133–134; Blackman 1922b: 101–103, 1928b: 59, 63–64; Blatchley & Leng 1916: 629; Bright 1976b: 187, 1981d: 84–85, 339, 1985c: 176; Britton 1920a: Chamberlin 1939: 374; Dodge 1938: 15, 43–44; Eichhoff 1878b: 195; Hagedorn 1910a: 101; LeConte 1868: 155, 157, 1876: 353, 1878a: 468; Lindquist, O. H. & Syme 1981: 88; Swaine 1909: 138, 1918a: 95, 99; Wood, S. L. 1977b: 210, 1982b: 1048; Zimmermann 1868: 144. (ms) Hoekstra, Merkel, & Powers 1961; Schuder 1969: 76.
- cubensis* Schedl 1972: 65. Holotype ♂; Cuba, Vinales, Prov. de Pinar del Rio; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977b: 210. References: (tx) Schedl 1972: 65, 1979c: 71; Wood, S. L. 1977b: 210.
- pullus* (Zimmermann) 1868: 143 (*Crypturgus*). Holotype ♀; South Carolina [USA]; MCZ, Cambridge. Distribution: North America (District of Columbia, Florida, Illinois, Maryland, Massachusetts, Michigan, Mississippi, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Texas, West Virginia in USA). Hosts: *Pinus echinata*, *P. palustris*, *P. strobus*, *P. taeda*, *P. spp.* Notes: (1) LeConte 1876: 352 (to *Pityophthorus*). (3) LeConte 1868: 155 (cited in *Cryphalus*). Blackman 1928b: 118 (re-described). References: (cn) Blackman 1950; Chamberlin 1924; Doane et al. 1936; Felt 1906: 751; Hopkins 1899c: 357, 442; Swaine 1918a: 98, 103. (cc) Felt 1906: 751. (hb) Beal & Massey 1945: 131; Blackman 1922b: 101, 105–106, 1950; Chamberlin 1939: 394; Doane et al. 1936; Felt 1906: 751; Hopkins 1899c: 357, 442–444; Schwarz 1888a: 80; Swaine 1918a: 98, 103. (ds) Anonymous 1926c: 519; Atkinson et al. 1991: 163; Beal & Massey 1945: 131; Blackman 1922b: 101, 105–106, 1950; Blatchley & Leng 1916: 636; Bright 1981d: 287; Chamberlin 1925, 1939: 394; Deyrup & Atkinson 1987b: 68; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 74; Henshaw 1885: 147; Hopkins 1893a: 129, 1893b: 208; Hubbard & Schwarz 1878: 643; Kirk 1969; Kleine 1913b: 141, 1914b: 391, 1934a: 161; Leng 1920: 341; Leonard 1928: 519; Schwarz 1887: 20, 1888a: 80, 1892: 168; Smith, J. B. 1890: 267, 1900: 362; Swaine

- 1909: 138; Townsend 1889: 235; Ulke 1902: 56; Wood, S. L. 1982b: 1105. **(tx)** Beal & Massey 1945: 131; Blackman 1922b: 101, 105–106, 1928b: 114–118; Blandford 1898c: 5; Blatchley & Leng 1916: 636; Bright 1976b: 187, 1981d: 287; Chamberlin 1939: 394; Eichhoff 1878b: 186; Hagedorn 1910a: 101; LeConte 1868: 155, 157, 1876: 352; Schwarz 1891a: 168; Swaine 1909: 138–139, 1918a: 98, 103; Wood, S. L. 1977d: 516, 1982b: 1105; Zimmermann 1868: 143. **(ms)** Eckstein 1900c.
- cribripennis* Eichhoff 1869a: 274. Holotype, sex?; America septentr.; Hamburg Museum, lost, neotype, sex?; Ripley, Mississippi [USA]; USNM, Washington, designated by Bright 1978: 72. Synonymy: Blackman 1928b: 119. References: **(cc)** Felt 1906: 752. **(hb)** Felt 1906: 751–752. **(ds)** Hopkins 1899: 437–442; Leng 1920: 341; Swaine 1909: 139. **(tx)** Blackman 1928b: 118; Bright 1978: 72; Eichhoff 1869a: 274, 1872b: 137, 1878b: 175, 1896: 609–610; LeConte 1876: 354; Swaine 1909: 139.
- bisulcatus* Eichhoff 1869a: 274. Holotype, sex?; America borealis; Hamburg Museum, lost. Synonymy: LeConte 1876: 352. References: **(bv)** Dixon & Payne 1979b. **(cn)** Hopkins 1899c: 443; Swaine 1918a: 98, 103. **(cc)** Cross & Moser 1971; Dixon & Payne 1979b; Moser, J. C., Cross, & Roton 1971. **(hb)** Blackman 1922b: 108–109; Chamberlin 1939: 400; Hopkins 1899c: 443; Swaine 1918a: 98, 103. **(ds)** Blackman 1922b: 108–109; Chamberlin 1925, 1939: 400; Kirk 1970; Leng 1920: 341; Swaine 1909: 139. **(tx)** Blackman 1922b: 102, 108–109, 1928b: 117, 138; Chamberlin 1939: 400; Eichhoff 1869a: 274, 1878b: 185; LeConte 1876: 352; Swaine 1909: 139, 1918a: 98, 103; Wood, S. L. 1977d: 516.
- punctatus* Eggers 1940a: 130. Holotype ♀; Guadeloupe (Trois Rivières); Eggers Collection, in NHMW, Wien. Distribution: Antilles Islands (Guadeloupe). References: **(cn)** Schuder 1969: 80. **(hb)** Bright 1981d: 257. **(ds)** Bright 1985c: 176; Schuder 1969: 80. **(tx)** Bright 1985c: 176; Eggers 1940a: 130; Schedl 1979c: 204.
- punctifrons* Bright 1966b: 298. Holotype ♀; Frazier Park, Kern Co., California [USA]; CAS, San Francisco. Distribution: North America (California, New Mexico in USA). Hosts: *Pinus edulis*, *P. monophylla*, *P. quadrifolia*. References: **(hb)** Bright & Stark 1973: 106. **(ds)** Bright 1981d: 143; Bright & Stark 1973: 106; Wood, S. L. 1982b: 1035. **(tx)** Bright 1966b: 298, 1981d: 143; de Ruelle 1970: 110; Wood, S. L. 1982b: 1035.
- punctiger* (Schedl) 1951m: 108 (*Neodryocoetes*). Holotype, sex?; Mexico, collected by Flohr; Schedl Collection in NHMW, Wien. Distribution: North America (“Mexico”). References: **(ds)** Wood, S. L. 1982b: 1030. **(tx)** Schedl 1951m: 108, 1979c: 205; Wood, S. L. 1982b: 1030.
- pygmaeolus* Schedl 1970e: 93. Holotype, sex?; Brasilien, Caioba, 45 50, 48 40, 10 m; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: **(tx)** Schedl 1970e: 93, 1979c: 207.
- quadriscopinus* Schedl 1966f: 110. Holotype ♂; published as Surinam, Moengo, type in Schedl Collection (♀) labeled Canopi-Oyapock, Guayane (dans nid d’*Atta*); Schedl Collection in NHMW, Wien. Distribution: South America (Suriname). References: **(ds)** Schedl 1966f: 79, 110, 1979c: 208.
- quercinus* Wood 1967d: 40. Holotype ♀; 5 km W El Salto, Durango, Mexico; Wood Collection. Distribution: North America (Durango, Michoacan, Oaxaca in Mexico/ W Texas in USA). Hosts: *Quercus* sp. bole. Notes: (3) Bright 1977: 515 (a synonym of *guatemalensis*). Wood 1982b: 1085 (a distinct species or a very distinct geographical race of *guatemalensis*). References: **(ds)** Wood, S. L. 1982b: 1085. **(tx)** Bright 1977: 515; de Ruelle 1970: 111; Wood, S. L. 1967d: 40–41, 1982b: 1085.
- ramiperda* Swaine 1917: 28. Holotype ♀; Ile Perrot, Quebec [Canada]; CNCI, Ottawa. Distribution: North America (Ontario, Quebec in Canada/ Maine, Massachusetts, Michigan, New York, Rhode Island, Vermont, Wisconsin in USA). Hosts: *Pinus resinosa*, *P. strobus*. References: **(cn)** Blackman 1950; Britton 1923: 369; Chamberlin 1924; Pettit 1928: 1–20; Randall 1941: 53, 1943: 53; Sterner & Davidson 1983: 37; Swaine 1918a: 94, 98. **(cc)** Bushing 1965: 462. **(hb)** Baker, W. L. 1972: 259; Blackman 1950; Bright 1981d: 207; Chamberlin 1939: 341; Swaine 1918a: 94, 98. **(ds)** Anonymous 1926c: 518; Baker, W. L. 1972: 259; Beaulne 1956; Blackman 1930; Bright 1976d: 168, 1981d: 207; Chamberlin 1939: 341; Drooz 1985: 364; Kleine 1934a: 161, 163; Leng 1920: 341; Leonard 1928: 518; Proctor 1946: 208; Wood, S. L. 1982b: 1044. **(tx)** Blackman 1928b: 16–17, 22–23; Bright 1967b: 678, 1976c: 426, 1976d: 168, 1981d: 207; Chamberlin 1939: 341; Dodge 1938: 41; Hoebeke 1978; de Ruelle 1970: 111; Swaine 1917: 28–29, 1918a: 94, 98, 1925b: 192; Wood, S. L. 1982b: 1044.
- fixasi* Blackman 1928b: 23 (*Myeloborus*). Holotype ♀; Cranberry Lake, New York [USA]; USNM, Washington. Synonymy: Bright 1976c: 426. References: **(cn)** Doane et al. 1936. **(hb)** Baker, W. L. 1972: 259; Blackman 1928b; Bright 1976d: 168; Chamberlin 1939: 341; Doane et

al. 1936. (**ds**) Baker, W. L. 1972: 259; Bright 1976d: 165; Chamberlin 1939: 341; Dodge 1935: 41–42; Leng & Mutchler 1933: 53. (**tx**) Blackman 1928b: 23; Bright 1976c: 426, 1976d: 165; Chamberlin 1939: 341; Dodge 1935: 41–42; Schedl 1938a: 161.

recens Bright 1976c: 438. Holotype ♀; Pine Pass, British Columbia [Canada]; CNCI, Ottawa. Distribution: North America (British Columbia, Yukon in Canada).

Hosts: *Picea glauca*, *P. engelmannii*.

References: (**ds**) Bright 1981d: 142; Wood, S. L. 1982b: 1061. (**tx**) Bright 1976c: 438, 1981d: 142; McNamara 1984: 757; Wood, S. L. 1982b: 1061.

regularis Blackman 1942a: 206. Holotype, sex?; Cayamas, Cuba; USNM, Washington.

Distribution: Antilles Islands (Cuba).

References: (**ds**) Blackwelder 1947: 782; Bright 1985c: 176. (**tx**) Blackman 1942a: 206; Bright 1985c: 176; Wood, S. L. 1964: 63.

robai (Blackman) 1942a: 200 (*Pityophthoroides*). Holotype ♀; Dept. Santander, Colombia, S. America. 700–1300 m; USNM, Washington.

Figures: Blackman 1942a: fig. 28.

Distribution: South America (Colombia).

Hosts: *Psidium guajava*.

Notes: (1) Wood 1977b: 207 (to *Pityophthorus*).

References: (**ds**) Blackwelder 1947: 781. (**tx**) Blackman 1942a: 200; Wood, S. L. 1977b: 207.

roppae Schedl 1976a: 69. Holotype ♀; Linhares, E. Santo, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil).

References: (**tx**) Schedl 1976a: 69.

rossicus Eggers 1915b: 13. Holotype ♀; Russia: Tambow; Eggers Collection, in NHMW, Wien. Distribution: Europe (W USSR).

References: (**hb**) Stark 1952: 352. (**ds**) Kleine 1934a: 161; Postner 1974: 437; Stark 1952: 352. (**tx**) Eggers 1915b: 13–14; Pfeffer 1940b: 108, 112, 120, 1979c: 213; Postner 1974: 437; Schedl 1934f: 1643; Spessivtsev 1926: 50; Stark 1952: 352.

rubidus Wood 1978b: 400. Holotype ♀; Madera Canyon, Santa Rita Mts., Arizona [USA]; Wood Collection.

Distribution: North America (Durango in Mexico, Arizona in USA).

Hosts: *Pinus cooperi*, *P. engelmannii*, *P. leiophylla*, *P. lumholtzi*, *P. ponderosa*.

References: (**ds**) Bright 1981d: 301; Wood, S. L. 1982b: 1113. (**tx**) Bright 1981d: 301; Wood, S. L. 1978b: 400, 1982b: 1113.

rudis Blackman 1942a: 212. Holotype ♀; Amecameca, Distrito Federal, Mexico; USNM, Washington.

Figures: Blackman 1942a: fig. 46.

Distribution: North America (Distrito Federal in Mexico).

Hosts: *Abies religiosa*, *Pinus* sp.

References: (**hb**) Atkinson et al. 1986: 40. (**ds**) Atkinson & Equihua 1985a: 95; Atkinson et al. 1986: 40; Blackwelder 1947: 782; Bright 1981d: 223; Wood, S. L. 1982b: 1058. (**tx**) Blackman 1942a: 212; Bright 1981d: 223; McNamara 1984: 757; Wood, S. L. 1982b: 1058.

sachalinensis Krivolutsкая 1956: 838. Holotype, sex?; Sakhalin: Kirovsk region, Tyn river basin, village of Argi-Pag; Institute of Zoology, Academy of Science, Vladivostok.

Distribution: Asia (Sakhalin Island in USSR).

References: (**hb**) Krivolutsкая 1956: 838. (**ds**) Krivolutsкая 1956: 838; Kurenzov 1967; Pfeffer 1976: 340. (**tx**) Krivolutsкая 1956: 838, 1958: 163; Pfeffer 1976: 340.

sambuci Blackman 1942a: 207. Holotype ♂; Jalisco, Mexico; USNM, Washington.

Figures: Blackman 1942a: fig. 38, Bright 1981d: 337.

Distribution: North America (Jalisco in Mexico).

Hosts: *Sambucus* sp.

References: (**ds**) Blackwelder 1947: 782; Bright 1981d: 58; Wood, S. L. 1982b: 1132. (**tx**) Blackman 1942a: 207; Bright 1981d: 58, 337; McNamara 1984: 757; Wood, S. L. 1982b: 1132.

sapineus Bright 1981d: 194. Holotype ♀; Atenquique, Jalisco, Mexico; CNCI, Ottawa.

Figures: Bright 1981d: 357.

Distribution: North America (Jalisco in Mexico).

Hosts: *Pinus* sp.

References: (**ds**) Atkinson & Equihua 1985c: 360, 1988: 98; Wood, S. L. 1982b: 1056. (**tx**) Bright 1981d: 194, 357; Wood, S. L. 1982b: 1056.

scabridus Schedl 1955g: 24. Lectotype ♀; Quezaltenango, Guatemala; Schedl Collection in NHMW, Wien, designated by Bright 1976b: 186. Figures: Bright 1981d: 365.

Distribution: North America (El Salvador/ Guatemala/ Honduras/ Chiapas, Jalisco, Mexico, Michoacan, Morelos, Nayarit, Oaxaca, Veracruz in Mexico).

Hosts: *Pinus ayacaluite*, *P. caribaea*, *P. montezumae*, *P. oocarpa*, *P. patula*, *P. pseudostrabus*, *P. rudis*.

References: (**hb**) Atkinson et al. 1986: 40; Bright 1981d: 257; Burgos & Sancedo 1983: 117; Schwerdtfeger 1957: 502. (**ds**) Atkinson & Equihua 1985a: 96, 1985c: 360, 1988: 98; Atkinson et al. 1986: 40; Bright 1981d: 257; Burgos & Sancedo 1983: 117; Schedl 1963c: 158, 1977e: 42; Wood, S. L. 1982b: 1050. (**tx**) Bright 1976b: 186, 1981d: 257, 365; Schedl 1955g: 18, 24, 1979c: 220; Wood, S. L. 1982b: 1050.

scalptor Blackman 1928b: 30. Holotype ♀; Julian, California [USA]; USNM, Washington.

Distribution: North America (British Columbia in Canada/ California, Idaho, Oregon in USA).

Hosts: *Pinus contorta*, *P. coulteri*, *P. jeffreyi*, *P. ponderosa*.

References: **(bv)** Moeck, Wood, & Lindahl 1981. **(cn)** Lindgren 1980: 69. **(hb)** Bright & Stark 1973: 105; Furniss, M. M. & Johnson 1987: 377; Lindgren 1980: 69. **(ds)** Bright 1981d: 135; Bright & Stark 1973: 105; Chamberlin 1939: 357; Furniss, M. M. & Johnson 1987: 377; Keen 1929a: 32; Kleine 1934a: 161; Leng & Mutchler 1933: 152; Wood, S. L. 1982b: 1051. **(tx)** Blackman 1928b: 30; Bright 1981d: 135; Chamberlin 1939: 357; Hopping 1960a: 867; Keen 1929a: 32; de Ruelle 1970: 111; Wood, S. L. 1982b: 1051.

scalptus Bright 1978: 82. Holotype ♀; Aspen Grove, British Columbia [Canada]; CNCI, Ottawa.

Distribution: North America (British Columbia in Canada/ Colorado, Montana in USA).

Hosts: *Pinus ponderosa*.

References: **(ds)** Bright 1981d: 127; Wood, S. L. 1982b: 1052. **(tx)** Bright 1978: 82, 1981d: 127; Cast et al. 1989: 385; McNamara 1984: 757; Wood, S. L. 1982b: 1052.

schrenkianae Pjatnitskii 1931: 171. Lectotype, sex?; Kirgisien, USSR: Pjatnitskii Collection not located, designated by Michalski 1969a: 895.

Distribution: Asia (E USSR).

Hosts: *Picea schrenkianae*.

References: **(ce)** Kostin 1964: 112. **(hb)** Kostin 1960: 133; Stark 1952: 347. **(ds)** Kleine 1934a: 161; Marikovskii 1956: 73; Parfentev 1951: 429–430; Stark 1952: 347. **(tx)** Michalski 1969a: 895, 1969b: 569; Pfeffer 1940b: 107, 110, 116; Pjatnitskii 1931: 171; Schedl 1934f: 1643, 1979c: 222; Sokanovskii 1954: 19; Stark 1952: 347.

schwarzii Blackman 1928b: 71. Holotype ♀; Las Vegas H.S. [Hot Springs], New Mexico [USA]; USNM, Washington.

Figures: Bright 1981d: 368.

Distribution: North America (Coahuila, Durango, Hidalgo, Nuevo Leon, Queretaro, Tlaxcala in Mexico/ Arizona, New Mexico, W Texas, Utah, Wyoming in USA).

Hosts: *Pinus cembroides*, *P. edulis*, *P. greggii*, *P. leiophylla*, *P. humboltzii*, *P. montezuma*, *P. ponderosa*, *P. teocote*.

References: **(hb)** Chamberlin 1939: 377. **(ds)** Atkinson & Equihua 1988: 98; Bright 1981d: 273; Chamberlin 1939: 377; Keen 1929a: 32; Kleine 1934a: 161; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1080. **(tx)** Blackman 1928b: 71–72; Bright 1981d: 273, 368; Chamberlin 1939: 377; Keen 1929a: 32; de Ruelle 1970: 111; Wood, S. L. 1982b: 1080.

schwerdtfegeri (Schedl) 1955g: 28 (*Conophthorus*). Lectotype ♂; Guatemala: Strasse Quezaltenango-Huehuetenango, Rancho Alegre; Schedl Collection in NHMW, Wien, designated by Bright 1976b: 187.

Figures: Bright 1981d: 340.

Distribution: North America (Guatemala/ Hon-

duras/ Chiapas, Durango, Mexico, Nuevo Leon in Mexico/ Arizona, Nevada, W Texas in USA).

Hosts: *Pinus engelmannii*, *P. oocarpa*, *P. ponderosa*, *P. pseudostrobus*.

References: **(cn)** Cibrian-Tovar et al. 1986: 47. **(hb)** Atkinson & Equihua 1985c: 359; Atkinson et al. 1986: 41; Bright 1981d: 88; Burgos & Saucedo 1983: 116; Schwerdtfeger 1957c: 506. **(ds)** Atkinson & Equihua 1985c: 359, 1988: 98; Atkinson et al. 1986: 41; Bright 1981d: 88; Burgos & Saucedo 1983: 116; Cibrian-Tovar et al. 1986: 47; Rio Mora 1985: 13; Wood, S. L. 1982b: 1047. **(tx)** Bright 1976b: 187, 1981d: 88, 340; Rio Mora 1985: 13; Schedl 1955g: 18, 28, 1963c: 163, 1979c: 222; Wood, S. L. 1966b: 28, 1982b: 1047.

islasi Wood 1962: 80. Holotype ♀; Temascaltepec, Mexico, Mexico; Wood Collection. Synonymy: Wood 1966b: 28.

References: **(tx)** Schedl 1979c: 128; Wood, S. L. 1962: 80, 1966b: 28.

islasi Schedl 1963c: 163 (*Conophthocranulus*). Holotype ♀; Temascaltepec, Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 28.

References: **(tx)** Schedl 1963c: 163, 1979c: 128; Wood, S. L. 1966b: 28.

situlus Wood 1976a: 359. Holotype ♀; Volcan Chiriqui [near Cerro Punta], Chiriqui, Panama; Wood Collection.

Distribution: North America (Costa Rica/ Panama).

Hosts: *Quercus* sp. limb.

References: **(ds)** Bright 1981d: 104; Wood, S. L. 1982b: 1083. **(tx)** Bright 1981d: 104; McNamara 1984: 757; Wood, S. L. 1976a: 359, 1982b: 1083.

scriptor Blackman 1921: 7. Lectotype ♀; Agricultural College [Starkville], Mississippi [USA]; USNM, Washington, designated by Bright 1976b: 184. Figures: Blackman 1922b: pl. 1, fig. 6.

Distribution: North America (Georgia, Mississippi, North Carolina, Oklahoma, Tennessee, Texas in USA).

Hosts: *Rhus typhina*.

References: **(cn)** Anonymous 1977f, 1975v; Blackman 1950. **(hb)** Baker, W. L. 1972: 255; Beal & Massey 1945: 127–128; Blackman 1922b: 106–107, 1950; Chamberlin 1939: 401. **(ds)** Anonymous 1977f, 1975v; Beal & Massey 1945: 127–128; Blackman 1922b: 106–107, 1950; Bright 1981b: 5; Chamberlin 1939: 401; Dextrup 1981b: 5; Drooz 1985: 363; Kleine 1934a: 161; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 1118. **(tx)** Beal & Massey 1945: 127–128; Blackman 1921: 7–8, 1922b: 106–107, 1928b: 114, 142; Bright 1976b: 184, 1981d: 39; Chamberlin 1939: 401; de Ruelle 1970: 111; Wood, S. L. 1982b: 1118.

segnis Blackman 1928b: 52. Holotype ♀; Santa Catalina Mts., Arizona [USA]; USNM, Washington. Figures: Bright 1981d: 358.

- Distribution: North America (Durango in Mexico/ Arizona, New Mexico in USA).
Hosts: *Pinus engelmannii*, *P. strobiformis* twigs.
Notes: (3) Bright 1951d: 199 (recognized subspecies *subopacus*). Wood 1952b: 1036 (intergrades with *subopacus*).
References: (hb) Atkinson et al. 1956: 41; Chamberlin 1939: 366. (ds) Atkinson & Equihua 1955a: 95; Atkinson et al. 1956: 40; Bright 1951d: 195; Chamberlin 1939: 366; Keen 1929a: 32; Kleine 1934a: 161; Leng & Mutchler 1933: 52; Wood, S. L. 1952b: 1036. (tx) Blackman 1928b: 44, 52–53; Bright 1951d: 195–199; Chamberlin 1939: 366; Keen 1929a: 32; McNamara 1954: 757; Wood, S. L. 1952b: 1036.
- seiryuensis** Murayama 1963c: 393. Holotype, sex?; Seiryu, South Manchuria; Murayama Collection in USNM, Washington.
Distribution: Asia (Manchuria).
Hosts: *Pinus tabulaeformis*.
References: (tx) Murayama 1963c: 393.
- separatus** Bright 1977: 529. Holotype ♂; Poinsett State Park, South Carolina [USA]; Wood Collection.
Distribution: North America (South Carolina in USA).
Hosts: (?) *Pinus* sp. (probably in twigs of living trees).
References: (ds) Bright 1951d: 203; Wood, S. L. 1952b: 1042. (tx) Bright 1977: 529, 1951d: 203; Wood, S. L. 1952b: 1042.
- serratus** Swaine 1918a: 103. Holotype ♂; Barkhouse Creek, Siskiyou Co., California [USA]; CNCI, Ottawa.
Distribution: North America (S British Columbia in Canada/ California, N Idaho in USA).
Hosts: *Pinus ponderosa*.
References: (cn) Keen 1929: 53; Swaine 1918a: 98, 103. (hb) Bright & Stark 1973: 115; Chamberlin 1939: 395, 1955: 157; Keen 1929: 53; Swaine 1918a: 98, 103. (ds) Bright 1951d: 304; Bright & Stark 1973: 115; Chamberlin 1939: 395, 1955: 157; Hopping 1922; Keen 1929a: 33, 1929c: 53; Kleine 1934a: 161; Leng 1920: 341; Wood, S. L. 1972a: 427, 1952b: 1106. (tx) Blackman 1928b: 115, 122; Bright 1967b: 678, 1951d: 304; Chamberlin 1939: 395, 1955: 157; Keen 1929a: 33; de Ruelle 1970: 111; Swaine 1918a: 98, 103; Wood, S. L. 1972a: 427, 1952b: 1106.
- setifer** Browne 1965a: 193. Holotype, sex?; Ivory Coast: Adiopodoume; RNH, Leiden.
Distribution: Africa (Ghana/ Ivory Coast).
References: (ds) Schedl 1972e: 282. (tx) Browne 1965a: 193.
- setosus** Blackman 1928b: 77. Holotype ♀; Monterey, California [USA]; USNM, Washington.
Figures: Bright 1951d: 361.
Distribution: North America (California in USA).
Hosts: *Pinus radiata*, 1 series from *P. muricata*.
References: (cc) Kinn 1971. (hb) Bright & Stark 1973: 109; Chamberlin 1939: 378. (ds) Bright 1951d: 222; Bright & Stark 1973: 109; Chamberlin 1939: 378; Keen 1929a: 32; Kleine 1934a: 161; Leng & Mutchler 1933: 52; Wood, S. L. 1952b: 1073. (tx) Blackman 1928b: 62, 77–78; Bright 1951d: 222, 361; Chamberlin 1939: 378; Keen 1929a: 32; de Ruelle 1970: 111; Schedl 1931b: 166; Wood, S. L. 1952b: 1073.
- sextuberculatus** Eggers 1933b: 6. Holotype, sex?; Franz, Guayana (Nonveau Chantier: Bas-Maroni); MNHN, Paris.
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 782. (tx) Eggers 1933b: 6–7.
- sichotensis** Kurenzov 1941a: 175. Holotype, sex?; Ussuri, USSR; Kurenzov Collection in IBSN, Novosibirsk.
Distribution: Asia (USSR).
Hosts: *Picea ajawensis*.
References: (hb) Krivolutsкая 1956: 838; Kurenzov 1948b: 111; Stark 1952: 358. (ds) Krivolutsкая 1956: 838; Pfeiffer 1976: 340; Sokanovskii 1960; Stark 1952: 358. (tx) Krivolutsкая 1956: 838; Kurenzov 1941a: 175, 1948b: 111; Michalski 1969b: 570; Pfeiffer 1976: 340; Sokanovskii 1960: 675; Stark 1952: 358.
- sierrensis** Bright 1971b: 64. Holotype ♀; 1 mile S Onion Valley, Inyo Co., California [USA]; CNCI, Ottawa.
Figures: Bright 1951d: 365.
Distribution: North America (British Columbia in Canada/ California, Colorado, Nevada, Wyoming in USA).
Hosts: *Pinus albicaulis*, *P. aristata*, *P. balfouriana*, *P. flexilis*.
References: (hb) Bright & Stark 1973: 110. (ds) Bright 1951d: 259; Bright & Stark 1973: 110. (tx) Bright 1971b: 64–65, 1951d: 259, 365; McNamara 1977: 198; Wood, S. L. 1952b: 1063.
- signatifrons** Browne 1975a: 758. Holotype ♂; Tanzania: Mts. Uluguru, Kimboza, 600 m; MRCB, Tervuren.
Distribution: Africa (Tanzania).
References: (tx) Browne 1975a: 758.
- similis** Eichhoff 1869a: 275. Syntypes, sex?; Venezuela; Hamburg Museum, lost.
Distribution: South America (Venezuela).
References: (ds) Gemminger & Harold 1872: 2689; Kleine 1913b: 141, 1914b: 339. (tx) Eggers 1933b: 3; Eichhoff 1869a: 275, 1878b: 182; Hagedorn 1905a: 412.
- sinopae** Schedl 1976a: 69. Holotype, sex?; Sinop, M. Grosso, Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 69.
- sobrinus** Wood 1976a: 357. Holotype ♀; 3 km SE Cartago, Cartago, Costa Rica, 1300 m; Wood Collection.

- Distribution: North America (Costa Rica).
 Hosts: Liana.
 References: (ds) Bright 1981d: 46; Wood, S. L. 1982b: 1140. (tx) Bright 1981d: 46; McNamara 1984: 758; Wood, S. L. 1976a: 357, 1982b: 1140.
- solatus** Wood 1977b: 215. Holotype ♀; 81 km NW Oaxaca, Oaxaca, Mexico; CNCI, Ottawa.
 Distribution: North America (Oaxaca in Mexico).
 Hosts: *Pinus lawsonii*, *P. spp.*
 References: (ds) Bright 1981d: 327; Wood, S. L. 1982b: 1108. (tx) Bright 1981d: 327; Wood, S. L. 1977b: 215, 1982b: 1108.
- solers** Blackman 1928b: 138. Holotype ♀; Cloudercroft, New Mexico [USA]; USNM, Washington.
 Figures: Bright 1981d: 375.
 Distribution: North America (Chihuahua, Nuevo Leon in Mexico/ Arizona, New Mexico, Utah in USA).
 Hosts: *Abies concolor* twigs, uncommon in *A. lasiocarpa*, *A. magnifica*, *A. religiosa*, *Pseudotsuga menziesii*, *Pinus* sp.
 References: (hb) Chamberlin 1939: 401. (ds) Bright 1981d: 325; Chamberlin 1939: 401; Keen 1929a: 34; Kleine 1934a: 161; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1108. (tx) Blackman 1928b: 117, 138–140; Bright 1981d: 325, 374; Chamberlin 1939: 401; Keen 1929a: 34; de Ruetten 1970: 111; Schedl 1930: 197; Wood, S. L. 1982b: 1108.
- solus** Blackman 1928b: 64. Holotype ♂?; Pinal Mountains, Arizona [USA]; USNM, Washington.
 Figures: Blackman 1981d: 348.
 Distribution: North America (Chiapas, Distrito Federal, Durango, Hidalgo, Mexico, Oaxaca, Puebla, Queretaro, Tlaxcala in Mexico/ Arizona, New Mexico in USA).
 Hosts: *Pinus ayacahuite*, *P. edulis*, *P. greggii*, *P. hartwegii*, *P. lawsonii*, *P. leiophylla*, *P. montezumae*, *P. oocarpa*, *P. spp.*
 References: (hb) Atkinson et al. 1986: 41; Burgos & Saucedo 1983: 116; Chamberlin 1939: 375. (ds) Atkinson & Equihua 1985a: 94, 1985c: 360; Atkinson et al. 1986: 41; Bright 1981d: 140; Burgos & Saucedo 1984: 116; Chamberlin 1939: 375; Leng & Mutchler 1933: 52; Schedl 1960a: 75; Wood, S. L. 1982b: 1148. (tx) Blackman 1928b: 64; Bright 1977: 518, 1981d: 140, 348; Chamberlin 1939: 375; Wood, S. L. 1982b: 1048.
- cribratus** Blackman 1942a: 216. Holotype ♀; Mexico, D.F., Mexico; USNM, Washington, preoccupied by Pfeffer 1940. Synonymy: Bright 1977: 518.
 References: (ds) Blackwelder 1947: 781. (tx) Blackman 1942a: 216; Bright 1977: 518; McNamara 1984: 755; Wood, S. L. 1982b: 1048.
- spadix** Blackman 1942a: 219. Holotype ♀; Rio Frio, Puebla, Mexico; USNM, Washington.
 Distribution: North America (Chihuahua, Durango, Hidalgo, Mexico, Michoacan, Puebla, Oaxaca, Veracruz in Mexico).
 Hosts: *Pinus leiophylla*, *P. pseudostrobus*, *P. spp.*
 References: (ds) Atkinson & Equihua 1985a: 97, 1985c: 360; Blackwelder 1947: 782; Bright 1981d: 300; Wood, S. L. 1982b: 1112. (tx) Blackman 1942a: 219; Bright 1981d: 300; McNamara 1984: 758; Wood, S. L. 1982b: 1112.
- sparsepilosus** (Schedl) 1935h: 343 (*Gnathophorus*).
 Syntypes ♀; Hamburgfarm on Rio Reventazon, Limon, Costa Rica; Schedl Collection in NHMW, Wien.
 Distribution: North America (Costa Rica).
 Hosts: (?) *Protium* sp. limbs.
 Notes: (1) Wood 1975b: 391 (to *Pityophthorus*).
 References: (ds) Blackwelder 1947: 782; Wood, S. L. 1982b: 1135. (tx) Bright 1981d: 18; Schedl 1935h: 343, 1979c: 233; Wood, S. L. 1975b: 391, 1982b: 1135.
- speciosus** Wood 1977b: 215. Holotype ♀; 24 km S Valle Nacional, Oaxaca, Mexico, 1300 m; CNCI, Ottawa.
 Distribution: North America (Oaxaca in Mexico).
 References: (ds) Bright 1981d: 49; Wood, S. L. 1982b: 1129. (tx) Bright 1981d: 49; Wood, S. L. 1977b: 215, 1982b: 1129.
- speculum** Bright 1976c: 440. Holotype ♀; Cerro Potosi, Nuevo Leon, Mexico, 3600 m; CNCI, Ottawa.
 Figures: Bright 1981d: 345.
 Distribution: North America (Hidalgo, Nuevo Leon in Mexico).
 Hosts: *Abies* sp., *Pseudotsuga menziesii*.
 References: (hb) Atkinson & Equihua 1985a: 93, 1985c: 350; Bright 1981d: 126. (ds) Atkinson & Equihua 1985a: 93, 1985c: 360, 1988: 98; Bright 1976c: 440, 1981d: 126; Wood, S. L. 1982b: 1072. (tx) Bright 1976c: 440, 1981d: 126, 345; McNamara 1984: 758; Wood, S. L. 1982b: 1072.
- strictus** Wood 1976a: 354. Holotype ♀; Santa Ana, San Jose, Costa Rica; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: *Rhceclia edulis*.
 References: (ds) Bright 1981d: 77; Wood, S. L. 1982b: 1124. (tx) Bright 1981d: 77; Wood, S. L. 1976a: 354, 1982b: 1124.
- subconcentralis** Schedl 1938a: 183. Lectotype, sex?; Trois Rivières, Guadeloupe, Dufour; USNM, Washington, designated by Anderson & Anderson 1971: 32.
 Distribution: Antilles Islands (Guadeloupe).
 References: (ds) Blackwelder 1947: 782; Bright 1985c: 176. (tx) Anderson, W. H. & Anderson 1971: 32; Bright 1985c: 176; Eggers 1941a: 108, 1951: 150; Schedl 1938a: 183, 1964m: 317, 1979c: 240.

- subcristatus** Schedl 1937h: 168. Holotype ♀; Costa Rica. Hamburgfarm, Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien. Figures: Blackman 1942a: 226. Distribution: North America (Costa Rica/ Nicaragua/ Panama). Hosts: (?) *Protium* sp. limbs. Notes: (3) Bright 1977: 513 (to *Gnatholeptus*). Wood 1952b: 1143 (cited in *Gnatholeptus*). References: (ds) Blackwelder 1947: 752. (tx) Bright 1977: 513, 1981d: 17; Schedl 1937h: 168, 1938a: 183, 1979c: 241; Wood, S. L. 1979b: 135.
- zeteki** Blackman 1942a: 226. Holotype ♀; Trinidad River, Panama; USNM, Washington. Synonymy: Bright 1977: 513. References: (ds) Blackwelder 1947: 752. (tx) Blackman 1942a: 226; Bright 1977: 513; Wood, S. L. 1979b: 135.
- subopacus** Blackman 1942a: 210. Holotype ♂?; Chalco, Mexico, Mexico; USNM, Washington. Figures: Blackman 1942a: figs. 41–42. Distribution: North America (Durango, Mexico, Michoacan, Nuevo Leon, Oaxaca, Puebla, Tlaxcala, Veracruz in Mexico). Hosts: *Pinus cembroides*, *P. leiophylla*, *P. michoacana*, *P. montezumae*, *Pinus* spp. Notes: (3) Bright 1981d: 198 (treated as a subspecies of *seguis*). Wood 1952: 1086 (intergrades with *seguis*). References: (ds) Blackwelder 1947: 752; Bright 1981d: 198; Rio Mora 1985: 11; Thomas, J. B. 1966; Wood, S. L. 1982b: 1086. (tx) Blackman 1942a: 210; Bright 1981d: 198; Rio Mora 1985: 11; Wood, S. L. 1982b: 1086.
- elimatus** Bright 1976c: 432. Holotype ♀; 85 km NW Oaxaca, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1952b: 1086. References: (ds) Atkinson & Equihua 1988: 96; Bright 1981d: 196, 1986b: 683; Wood, S. L. 1982b: 1086. (tx) Bright 1976c: 432, 1981d: 196; McNamara 1984: 755; Wood, S. L. 1982b: 1086.
- subsimilans** Wood 1989: 179. Holotype, sex?; Brasilien, Rio Caraguata, Matto Grosso; Schedl Collection in NHMW, Wien, automatic. Distribution: South America (Brazil). References: (tx) Wood, S. L. 1989: 179.
- subsimilis** Schedl 1966f: 104 (*Breviophthorus*). Holotype, sex?; Brasilien, Rio Caraguata, Matto Grosso; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1955. References: (cn) Schwerdtfeger 1956b: 48. (hb) Atkinson et al. 1986: 41; Bright 1981d: 301; Schwerdtfeger 1956b: 48, 1957c: 504. (ds) Atkinson et al. 1986: 41; Bright 1981d: 301; Schedl 1966f: 85, 1973d: 155; Wood, S. L. 1982b: 1136. (tx) Bright 1976b: 187, 1981d: 301, 345; Schedl 1955g: 25, 1966f: 104, 1979c: 244; Wood, S. L. 1977b: 210, 1982b: 1136, 1989: 179.
- subsimilis** Schedl 1955g: 25. Lectotype ♂; G. Ciudad [Guatemala City], Guatemala; Schedl Collection in NHMW, Wien, designated by Bright 1976b: 187. Figures: Bright 1981d: 371. Distribution: North America (Guatemala/ Chiapas, Oaxaca, Puebla in Mexico). Hosts: *Pinus strobus* var. *chiapensis*, *P. tenuifolia*, *P.* sp. References: (hb) Schwerdtfeger 1957: 504. (tx) Bright 1976b: 187, 1981d: 301, 371; Schedl 1955g: 18, 25, 1979c: 244.
- subimpressus** Bright 1976c: 441. Holotype ♀; 51 km S Valle Nacional, Oaxaca, Oaxaca; CNCI, Ottawa. Synonymy: Wood 1977b: 210, 1982b: 1136. Notes: (3) Bright 1981d: 303 (treated as a good species). Wood 1952b: 1136 (this is only one of several minor variations of *subsimilis*). References: (ds) Bright 1981d: 303. (tx) Bright 1976c: 441, 1981d: 303, 371; McNamara 1984: 758; Wood, S. L. 1977b: 210.
- subsulcatus** (Schedl) 1963d: 223 (*Breviophthorus*). Holotype, sex?; Brasilien: Parama, Rondon; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1963d: 223, 1979c: 244.
- surinamensis** Schedl 1961i: 226. Holotype ♀; Surinam, Moengo, Boven, Cottica R.; Cornell University Collection, Ithaca, New York. Distribution: South America (Suriname). References: (ds) Schedl 1960a: 78. (tx) Hoebeke 1978; Schedl 1961i: 226, 1964b: 206, 1979c: 247.
- suspicious** Bright 1972d: 89. Holotype ♀; Blue Mountain Peak, Jamaica, 7400 [feet]; CNCI, Ottawa. Figures: Bright 1972: 75. Distribution: Antilles Islands (Jamaica). References: (ds) Bright 1985c: 176. (tx) Bright 1972: 75, 1972d: 89, 1985c: 176; McNamara 1984: 198.
- suturalis** Eggers 1932d: 291. Holotype, sex?; Congostaat (Haut-Ucle: Yebo Moto); MRCB, Tervuren. Distribution: Africa (Ghana/ Zaïre). Hosts: *Busseca occidentalis*. References: (ds) Browne 1965a: 188; Schedl 1962h: 59, 1962j: 20. (tx) Eggers 1932d: 291; Schedl 1938a: 183, 1962j: 20; 1962k: 1080.
- tenax** Wood 1976a: 354. Holotype ♀; Volcan Pacaya, Esquintla, Guatemala, 1300 m; Wood Collection. Distribution: North America (Guatemala). Hosts: Tree branch. References: (ds) Bright 1981d: 74; Wood, S. L. 1982b: 1123. (tx) Bright 1981d: 74; Wood, S. L. 1976a: 354, 1982b: 1123.

- terebrens Schedl** 1970i: 223. Holotype, sex?; Brasilien, Amazonas; Schedl Collection in NHMW, Wien, automatic.
Distribution: South America (Brazil).
References: (tx) Schedl 1970i: 223.
- grandipennis** Schedl 1966f: 111. Holotype, sex?; Brasilien, Amazonas; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1965.
References: (ds) Schedl 1966f: 87. (tx) Schedl 1966f: 111, 1970i: 123, 1977b: 112, 1979c: 112.
- grandicanda** Schedl 1979c: 112. Holotype, sex?; Brasilien, Amazonas; Schedl Collection in NHMW, Wien, automatic.
Notes: (1) Because a synonym was available, this is an unneeded replacement name.
References: (tx) Schedl 1979c: 112.
- thamnis Bright** 1985a: 470. Holotype ♀; Mexico: Pachuca, Edo. Hidalgo; CNCI, Ottawa.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Aluzaania angusta*.
References: (tx) Bright 1985a: 470.
- thomasi Bright** 1976c: 443. Holotype ♀; 17 km SW El Salto, Durango, Mexico, 2600 m; CNCI, Ottawa.
Distribution: North America (Durango in Mexico).
Hosts: *Pinus cooperi*.
References: (ds) Bright 1981d: 122; Wood, S. L. 1982b: 1031. (tx) Bright 1976c: 443, 1981d: 122; McNamara 1984: 758; Wood, S. L. 1982b: 1031.
- timidulus Wood** 1975b: 396. Holotype ♂; Volcan Chiriqui [near Cerro Punta], Chiriqui, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Small tree (? *Orcopanax rubigenus*).
References: (ds) Bright 1981d: 96; Wood, S. L. 1982b: 1028. (tx) Bright 1981d: 96; McNamara 1984: 758; Wood, S. L. 1975b: 396, 1982b: 1028.
- timidus Blandford** 1904: 241. Holotype ♀; Mexico (Salle Coll.); BMNH, London.
Distribution: North America ("Mexico").
Notes: (3) Wood 1982b: 1138 (*dimidiatus* Blackman may be a junior synonym).
References: (ds) Blackwelder 1947: 782; Ferrer 1942; Hagedorn 1910d: 75; Kleine 1913b: 141, 1914b: 351; Wood, S. L. 1982b: 1138. (tx) Blandford 1904: 241; Bright 1981d: 328; Hagedorn 1910a: 101; Schedl 1930: 196, 1940a: 348; Wood, S. L. 1982b: 1138.
- togonus Eggers** 1920: 35. Syntypes, sex?; Kete Kratje in Togo; 4 syntypes in MNB, Berlin, 2 in Eggers Collection, in NHMW, Wien.
Distribution: Africa (Ghana/ Togo/ Zaïre).
Hosts: *Carapa grandiflora*, *C. procera*, *Khaya ivorensis*, *Parinari holstii*.
Notes: (1) Schedl 1979: 253 (citation of holotype invalid).
References: (ce) Schedl 1958d: 188. (hb) Schedl 1962j: 21. (ds) Schedl 1962j: 21. (tx) Eggers 1920: 35, 1932d: 291; Schedl 1938a: 183, 1954e: 47, 1962j: 21, 1962k: 1080, 1979c: 253.
- toralis Wood** 1964: 59. Holotype ♀; Beaver Creek, Logan Canyon, Utah [USA]; Wood Collection.
Figures: Bright 1981d: 346.
Distribution: North America (Alberta, British Columbia in Canada/ California, Idaho, Oregon, Utah, Wyoming in USA).
Hosts: *Pinus albicaulis*, *P. flexilis*, *P. monticola*, rare in *P. contorta*.
References: (cn) Lindgren 1980a: 69. (hb) Bright & Stark 1973: 105; Lindgren 1980a: 69. (ds) Bright 1976d: 184, 1981d: 133; Bright & Stark 1973: 105; Wood, S. L. 1982b: 1054. (tx) Bright 1977: 518, 1981d: 133, 346; McNamara 1977: 198; Wood, S. L. 1964: 59, 1982b: 1054.
- confusus** Bright 1966b: 295 (*Myeloborus*). Holotype ♀; Mt. Tallac, Eldorado Co., California [USA]; OSUC, Columbus, preoccupied by Blandford 1904. Synonymy: Bright & Stark 1973: 105.
References: (tx) Bright 1966b: 295, 1977: 518; Bright & Stark 1973: 105.
- collinus Bright** 1968c: 605. Holotype ♀; Terrace Mt., 25 km W Nahm, Osoyoos District, British Columbia [Canada]; CNCI, Ottawa. Synonymy: Bright 1977: 518.
References: (ds) Bright 1976d: 181. (tx) Bright 1968c: 605–606, 1976d: 181, 1977: 518; de Ruelle 1970: 108.
- torridus Wood** 1972d: 76. Holotype ♀; 10 km W High Rolls, Lincoln National Forest, New Mexico, 2000 m [USA]; Wood Collection.
Distribution: North America (New Mexico in USA).
Hosts: *Franseria* sp., probably *deltoides*.
References: (ds) Bright 1981d: 43; Wood, S. L. 1982b: 1117. (tx) Bright 1981d: 43; Wood, S. L. 1972d: 76, 1982b: 1117.
- tragardhi Spessivtsev** 1921a: 219. Syntypes, sex?; Hallnas in Norrland (Nord-Schweden); Spessivtsev Collection, not located.
Distribution: Asia (E USSR), Europe (Finland/ Norway/ Poland/ Sweden/ W USSR).
Hosts: *Picea abies*, *P. excelsa*, *P. obovata*.
References: (bv) Grune 1979: 121; Kangas 1980a: Kinelski 1958: 74. (cn) Esterberg 1959; Juutinen 1960: 8; Kangas 1980a; Kontkanen 1932: 61; Kozikowsky 1929: 253; Wardle 1929: 322. (ce) Kangas 1946b: 23; Karpinski 1932a: 103; Lundberg 1984; Nuorteva 1971; Saalas 1937: 154; Tragardh 1925a: 171. (hb) Karpinski 1933b: 30, 1955: 79; Karpinski & Postner 1974: 435; Stark 1952: 355; Strawinski 1948: 156; Spessivtsev 1921b: 219, 1923: 206, 1925d: 104, 1928a: 221; Stark 1952: 355. (ds) Bakke & Kvamme 1977; Butovitsch & Heqvist 1947; Esterberg 1959; Florov 1949: 97; Grune 1979: 121; Hansen, V. 1939; Hellen 1947; Horion 1951; Karpinski 1931: 18, 28, 1932a: 103, 290, 1933b: 30, 1948b: 231, 1955: 79; Karpinski & Strawinski 1948: 156;

- Kinelski 1958: 74; Klefbeck & Sjoberg 1960: 230; Kleine 1934a: 161; Kontkanen 1932: 611; Krivolutskaia 1983; Kurenzov 1967; Lindberg & Saris 1952: 59; Lindberg 1981: 151; Numberg 1938: 126, 1954: 71, 1960b: 158–159; Nuorteva 1971: 67; Pfeffer 1935: 158, 1976: 340; Postner 1974: 435; Stark 1931a: 26, 1931d: 548, 1952: 355; Yanovskii & Togshzhargal 1985: 410; Zinovjev 1955: 187. **(tx)** Grune 1979: 121; Jansson 1936: 220; Karpinski & Strawinski 1948: 156; Numberg 1938: 126, 1954: 71; Pfeffer 1927: 111–112, 1940b: 109, 112, 121, 1955a: 21, 1976: 340; Postner 1974: 435; Schedl 1934f: 1643; Sokanovskii 1929: 670–672, 1960: 677; Spessivtsev 1921a: 219–223, 1922a: 448, 488, 491, 1923: 206, 1925a: 183, 1925b: 27, 1925d: 104, 1926b: 50, 1929c: 298–303, 1931a: 65; Stark 1952: 355. **(ms)** Kozikowsky 1929: 253.
- treculiae** Schedl 1962k: 1080. Holotype ♂; Congo: Stanleyville; Schedl Collection in NHMW, Wien. Distribution: Africa (Zaire). Hosts: *Treculia africana*. References: **(hb)** Schedl 1962j: 22. **(ds)** Schedl 1962j: 22. **(tx)** Schedl 1962j: 22, 1962k: 1080, 1979c: 255.
- trepidus** Bright 1978: 83. Holotype ♀; Ukiah, California [USA]; USNM, Washington. Distribution: North America (California in USA). Hosts: *Pinus radiata*. References: **(ds)** Bright 1981d: 208; Wood, S. L. 1982b: 1041. **(tx)** Bright 1978: 83, 1981d: 208; McNamara 1984: 758; Wood, S. L. 1982b: 1041.
- trunculus** Bright 1985a: 470. Holotype ♀; Mexico: Estacion de Biologia, Chameka, Edo. Jalisco; CNCI, Ottawa. Distribution: North America (Jalisco in Mexico). References: **(tx)** Bright 1985a: 470.
- tuberculatus** Eichhoff 1878b: 498. Holotype, sex?; California [USA]; Hamburg Museum, lost, neotype ♀; Black Hills, South Dakota [USA]; USNM, Washington, designated by Bright 1975: 72. Figures: Kusch 1967: 10. Distribution: North America (Alaska/ Alberta, British Columbia in Canada/ Baja California Norte, Coahuila, Durango, Nuevo Leon in Mexico/ Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, W Texas, Utah, Washington, Wyoming in USA). Hosts: *Pinus aristata*, *P. attenuata*, *P. cembroides*, *P. contorta*, *P. coulteri*, *P. edulis*, *P. flexilis*, *P. jeffreyi*, *P. monophylla*, *P. ponderosa*, *P. sabiniana*, *P. strobiformis*, rare in *Picea engelmannii*, *P. pungens*. Notes: (1) Schedl 1979c: 258 (invalid neotype designation). (3) Blackman 1928b: 92 (re-described), p. 94 (aberration named as var. *australis*, nomen nudum, no status). Bright 1981d: 153 (treated as a subspecies of *pulechellus* on basis of host hybridization; however, there is little or no intergradation between beetle populations). References: **(cn)** Blackman 1931c; Doane et al. 1936; Felt 1906: 753; Hopkins 1899: 443; Keen 1929: 53; Lindgren 1980a: 69; Ruppel 1967: 78; Schuder 1969: 77; Swaine 1918a: 96, 99. **(ce)** Blackman 1931c; Powell, J. M., Wong, & Melvin 1972: 15. **(hb)** Blackman 1931c; Bright & Stark 1973: 112; Chamberlin 1939: 354, 1958: 153; Doane et al. 1936; Keen 1929: 53; Lindgren 1980a: 69; Swaine 1918a: 96, 99. **(ds)** Atkinson & Equihua 1985c: 360, 1988: 98; Blatchley & Leng 1916: 635; Bright 1976d: 184, 1981d: 152; Bright & Stark 1973: 112; Chamberlin 1925, 1939: 384, 1958: 153; Elias 1982a, 1982b, 1983; Evans, D., Love, & Hunt 1978; Gast et al. 1989: 355; Hopkins 1893a: 132, 1893b: 209; Hopping 1922; Keen 1929: 53, 1929a: 33; Kleine 1913b: 141, 1914b: 391, 1934a: 161; Kusch 1967; Leng 1920: 341; McComb et al. 1953: 2; Patterson & Hatch 1945: 153; Ruppel 1967: 78; Schuder 1969: 77; Smith, C. S. 1930; Still, Tidsbury, & Melvin 1974a: 14; Swaine 1909: 140; Wood, S. L. 1948: 53, 1951a: 128, 1972a: 426, 1982b: 1092. **(tx)** Blackman 1928b: 92–94; Blatchley & Leng 1916: 635; Bright 1971b: 67–68, 1978: 73, 1981d: 152; Chamberlin 1939: 354, 1958: 153; Eichhoff 1878a: 388, 1878b: 498; Hagedorn 1910a: 101; Keen 1929a: 33; Kusch 1967: 10; Swaine 1909: 140, 1918a: 96, 99–102, 1925b: 193; Wood, S. L. 1951a: 128, 1972a: 426, 1982b: 1092.
- rugicollis** Swaine 1925b: 193. Holotype ♀; Glen Alpine, California [USA]; CNCI, Ottawa. Synonymy: Bright 1971b: 67. References: **(ds)** Leng & Mutchler 1933: 52. **(tx)** Blackman 1928b: 93–94; Bright 1967b: 678, 1971b: 67; de Ruette 1970: 111; Swaine 1925b: 193–194.
- tumidus** Blackman 1928b: 58. Holotype ♀; Eureka, California [USA]; USNM, Washington. Distribution: North America (N California in USA). References: **(hb)** Bright & Stark 1973: 108; Chamberlin 1939: 369. **(ds)** Bright 1981d: 229; Bright & Stark 1973: 108; Chamberlin 1939: 369; Leng & Mutchler 1933: 52; Wood, S. L. 1982b: 1063. **(tx)** Blackman 1928b: 58; Bright 1981d: 229; Chamberlin 1939: 369; Wood, S. L. 1982b: 1063.
- turbiculus** Schedl 1938a: 187. Holotype, sex?; Brasilien; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: **(ds)** Blackwelder 1947: 782. **(tx)** Schedl 1938a: 187, 1966f: 86, 1979c: 259.
- tutulus** Bright 1986a: 643. Holotype ♀; Mexico: Jalapa, Veracruz; CNCI, Ottawa. Distribution: North America (Veracruz in Mexico). Hosts: *Rhus radicans*. References: **(tx)** Bright 1986a: 643.
- vegrandis** Bright 1986a: 643. Holotype ♀; Mexico: Chetumal, Quintana Roo; CNCI, Ottawa.

- Distribution: North America (Quintana Roo in Mexico).
References: (tx) Bright 1986a: 643.
- venezuelensis** Schedl 1935d: 91. Holotype ♂; Venezuela; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 782; Bright 1981d: 233; Wood, S. L. 1982b: 1059. (tx) Bright 1977: 518, 1981d: 233; de Ruelle 1970: 112; Schedl 1935d: 91, 1935a: 183, 1952k: 161, 1979c: 265; Wood, S. L. 1982b: 1059.
- venustus** Blackman 1928b: 75. Holotype ♀; Kaibab National Forest, Arizona [USA]; USNM, Washington.
Figures: Bright 1981d: 362.
Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Idaho, Nebraska, New Mexico, South Dakota, Texas, Utah in USA).
Hosts: *Pinus aristata*, *P. contorta*, *P. coulteri*, *P. jeffreyi*, *P. leiophylla*, *P. monticola*, *P. ponderosa*, *P. strobiformis*.
References: (hb) Chamberlin 1939: 377, 1958: 152. (ds) Chamberlin 1939: 377, 1958: 152; Keen 1929a: 32; Kleine 1934a: 161; Leng & Mutchler 1933: 52. (tx) Blackman 1928b: 75; Bright 1977: 518, 1981d: 362; Chamberlin 1939: 377, 1958: 152; Keen 1929a: 32.
- artifex** Blackman 1928b: 76. Holotype ♀; Meyers, California [USA]; USNM, Washington. Synonymy: Bright 1977: 518.
References: (hb) Bright & Stark 1973: 110; Chamberlin 1939: 378. (ds) Bright & Stark 1973: 110; Chamberlin 1939: 378; Keen 1929a: 32; Kleine 1934a: 158; Leng & Mutchler 1933: 52. (tx) Blackman 1928b: 76; Bright 1977: 518; Chamberlin 1939: 378; Keen 1929a: 32; McNamara 1984: 754.
- vesculus** Wood 1978b: 401. Holotype ♀; Ft. Clayton, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Log phloem.
References: (ds) Bright 1981d: 35; Wood, S. L. 1982b: 1135. (tx) Bright 1981d: 35; Wood, S. L. 1978b: 401, 1982b: 1135.
- vespertinus** Bright 1978: 83. Holotype ♀; 37 km W Durango, Durango, Mexico; Wood Collection.
Distribution: North America (Durango in Mexico).
Hosts: *Pinus* sp.
References: (ds) Atkinson & Equihua 1988: 100; Bright 1981d: 119, 1986: 684; Wood, S. L. 1982b: 1058. (tx) Bright 1978: 83, 1981d: 119; McNamara 1984: 758; Wood, S. L. 1982b: 1058.
- viminalis** Bright 1977: 530. Holotype ♀; Cerro Potosí, Nuevo Leon, Mexico; CNCI, Ottawa.
Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Pinus culminicola*.
References: (ds) Bright 1981d: 173; Wood, S. L. 1982b: 1096. (tx) Bright 1977: 530, 1981d: 173; McNamara 1984: 755; Wood, S. L. 1982b: 1096.
- virilis** Blackman 1928b: 143. Holotype ♀; Vermego, New Mexico [USA]; USNM, Washington. Figures: Bright 1981d: 37, 335.
Distribution: North America (Chihuahua in Mexico/ Arizona, Colorado, S Idaho, Missouri, New Mexico, Texas, Utah, Wyoming in USA).
Hosts: *Rhus trilobata*.
References: (hb) Chamberlin 1939: 402, 1958: 160. (ds) Bright 1981d: 36; Chamberlin 1939: 402, 1958: 160; Deyrup 1961b: 8; Kleine 1934a: 162; Leng & Mutchler 1933: 52; Wood, S. L. 1945: 55, 1951a: 128, 1960b: 69, 1972a: 427, 1982b: 1119. (tx) Blackman 1928b: 143, 1942a: 223; Bright 1977: 518, 1981d: 36–37, 335; Chamberlin 1939: 402, 1958: 160; de Ruelle 1970: 112; Wood, S. L. 1951a: 128, 1960b: 69, 1972a: 427; 1982b: 1119.
- fortis** Blackman 1928b: 142. Holotype ♀; Montell, Texas [USA]; USNM, Washington. Synonymy: Bright 1977: 518.
References: (hb) Chamberlin 1939: 402. (ds) Chamberlin 1939: 402; Kleine 1934a: 159; Leng & Mutchler 1933: 52. (tx) Blackman 1928b: 142, 1942a: 223; Bright 1977: 518; Chamberlin 1939: 402; de Ruelle 1970: 109.
- virtus** Schedl 1938a: 186. Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 782. (tx) Schedl 1938a: 186, 1979c: 265.
- volvulus** Schedl 1965f: 10. Holotype, sex?; D. Ost Afrika, Usambara Kwai; Schedl Collection in NHMW, Wien.
Distribution: Africa (Kenya/ Tanzania/ Uganda).
Hosts: *Acacia* sp.
References: (ds) Schedl 1962j: 23. (tx) Schedl 1962j: 23, 1965f: 10, 1979c: 265.
- vydaghi** Nunberg 1973: 13. Holotype ♂; Congo Belge, Parc National Virunga; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Nunberg 1973: 13.
- woodi** Bright 1977: 531. Holotype ♀; 11.5 km W Kingston, New Mexico [USA]; CNCI, Ottawa.
Distribution: North America (New Mexico in USA).
Hosts: *Pinus edulis* twigs.
References: (ds) Bright 1981d: 109; Wood, S. L. 1982b: 1039. (tx) Bright 1977: 531, 1981d: 109; McNamara 1984: 758; Wood, S. L. 1982b: 1039.
- zaxmenivora** Bright 1985a: 471. Holotype ♀; Mexico: Pachuca, Edo. Hidalgo; CNCI, Ottawa.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Zexmenia* sp.
References: (tx) Bright 1985a: 471.
- zonalis** Bright 1976c: 443. Holotype ♀; Jerome, Arizona [USA]; USNM, Washington.
Distribution: North America (Nuevo Leon in Mexico/ Arizona in USA).

Hosts: *Pinus cembroides*, *P. ponderosa*.

References: (ds) Bright 1981d: 299; Wood, S. L. 1982b: 1111. (tx) Bright 1976c: 443, 1981d: 299; Wood, S. L. 1982b: 1111.

Corthylini: Corthyliina

Corthyli

References: LeConte 1876: 346–347.

Corthyliina

References: Wood, S. L. 1978a: 115, 1982b: 73, 1986a: 94, 98–100.

Gnathotrichina

References: Balachowsky 1949a: 241; Schedl 1958k: 144.

Genus *Gnathotrichus* Eichhoff

GNATHOTRICHUS EICHHOFF 1869a: 275. Type-species: *Gnathotrichus corthyloides* Eichhoff = *Tomicus materiarius* Fitch, monobasic.

Gnathotrichoides Blackman 1931b: 267. Type-species: *Cryphalus sulcatus* LeConte, subsequent designation by Wood 1982b: 1155. Synonymy: Wood 1982b: 1155.

References: (tx) Blackman 1931b: 267; Wood, S. L. 1982b: 1155.

Acyloides Blackman 1938a: 205. Type-species: *Cryphalus pilosus* LeConte, original designation. Synonymy: Wood 1973c: 172.

References: (hb) Bright & Stark 1973: 116. (ds) Bright & Stark 1973: 116. (tx) Blackman 1938a: 205–206; Schedl 1950i: 146; Wood, S. L. 1966b: 18, 1973c: 172.

Paraxyleborus Hoffmann 1942: 72. Type-species: *Xyleborus duprezi* Hoffmann = *Tomicus materiarius* Fitch, monobasic. Synonymy: Balachowsky 1949a: 241.

References: (tx) Balachowsky 1949a: 241; Hoffmann 1942: 72, 1947: 47.

Prognathotrichus Bright 1972c: 1678. Type-species: *Prognathotrichus primus* Bright, original designation. Synonymy: Wood 1973c: 172.

References: (tx) Bright 1972c: 1678; Wood, S. L. 1973c: 172.

Keys: Blackman 1931b: 266, Wood 1982b: 1156.

Notes: (1) Blackman 1931b (revision), Wood 1982b: 1155 (revision).

References: (ay) Browne 1961d: 49; Nobuchi 1969a: 67; Schedl 1931a: 1–88. (bv) Chapman, J. A. 1957: 3–4, 1962b: 88; Chapman, J. A. & Kinghorn 1958: 368; Moeck 1970b: 993; Vite 1975b, 1976. (cn) Drake 1921: 201–205; Hagle et al. 1987: 39; Johnson 1958a: 508–511, 1958b: 238; Kinghorn 1961; Snyder 1927: 1–46; Swaine 1913: 87–92. (hb) Bright & Stark 1973: 117; Schedl 1981b: 79; Wood, S. L. 1982b: 1155, 1986a: 98. (ds) Bright & Stark 1973: 117; Patterson & Hatch 1945: 152; Richmond 1953: 86–89; Schedl 1981b: 79; Swaine 1909: 108; Wood, S. L. 1982b: 1155, 1986a: 98. (tx) Arnett 1960: 1045,

1968: 1045; Balachowsky 1949a: 241; Beal & Massey 1945: 60, 120; Blackman 1922b: 98, 1928: 6–16, 1931b: 264–276, 1942a: 178; Blandford 1904: 246; Bright 1976d: 174; Bright & Stark 1973: 117; Chamberlin 1939: 325–332, 1958: 137–140; Dodge 1938: 18; Eichhoff 1869a: 275, 1878b: 405; Hoffmann 1947: 47; LeConte 1876: 350; LeConte & Horn 1883: 517; Schedl 1935h: 342, 1938a: 158–168, 1939h: 45–48, 1951m: 125, 1955g: 4, 1958k: 144, 1981b: 79; Swaine 1918a: 45, 90–91; Wood, S. L. 1961: 48, 1967d: 37–57, 1973c: 172, 1982b: 1155–1166, 1986a: 98–99.

abiphagus Wood 1984: 115. Holotype ♀; Fierro del Toro, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico). Hosts: *Alnus firnifolia*.

References: (hb) Atkinson et al. 1986: 47. (ds) Atkinson & Equihua 1985a: 100; Atkinson et al. 1986: 47. (tx) Wood, S. L. 1984: 115.

consentaneus Blandford 1904: 247. Lectotype ♂; Totonicipán, Guatemala: BMNH, London, designated by Wood 1973c: 176.

Distribution: North America (Guatemala/ Chiapas in Mexico).

References: (ds) Blackwelder 1947: 782; Ferrer 1942; Hagedorn 1910d: 96; Kleine 1913b: 158, 1914b: 354. (tx) Blackman 1931b: 266; Blandford 1904: 247; Hagedorn 1910a: 147; Hopkins 1905b: 73; Schedl 1940a: 348, 1955g: 29, 1979c: 64; Wood, S. L. 1973c: 176.

deleoni Blackman 1942a: 227. Holotype ♂; Chalco, Distrito Federal, Mexico; USNM, Washington.

Distribution: North America (Distrito Federal, Durango, Mexico, Tlaxcala in Mexico).

Hosts: *Pinus leiophylla*, *P. montezumae*, *P.* spp. Notes: (3) Breeds in shaded-out limbs 7 cm in diameter or larger of living trees.

References: (hb) Atkinson et al. 1986: 47; Burgos & Saucedo 1983: 129; Wood, S. L. 1982b: 1161. (ds) Atkinson & Equihua 1985a: 99, 1988: 90; Atkinson et al. 1986: 47; Blackwelder 1947: 782; Burgos & Saucedo 1983: 99; Dominguez & Carrillo 1976: 141; Wood, S. L. 1982b: 1161. (tx) Blackman 1942a: 227; Wood, S. L. 1967d: 47, 1982b: 1161.

dentatus Wood 1967d: 45. Holotype ♀; 29 km W El Salto, Durango, Mexico; Wood Collection.

Figures: Wood 1967d: 46, 1982b: 1219 (declivity). Distribution: North America (Durango, Michoacan in Mexico).

Hosts: *Quercus* sp.

References: (hb) Atkinson et al. 1986: 47; Burgos & Saucedo 1983: 128. (ds) Atkinson & Equihua 1985a: 98; Atkinson et al. 1986: 47; Burgos & Saucedo 1983: 128; Wood, S. L. 1982b: 1158. (tx) de Ruelle 1970: 101; Wood, S. L. 1967d: 45–46, 1982b: 1158.

denticulatus Blackman 1931b: 270. Holotype ♀; Cloudercroft, New Mexico [USA]; USNM, Washington.

Distribution: North America (Chihuahua, Distrito Federal, Durango, Guerrero, Michoacan, Puebla, San Luis Potosi in Mexico/ Arizona, Colorado, SE Montana, New Mexico, South Dakota, W Texas, E Utah in USA).

Hosts: *Pinus ponderosa*, *P. strobiformis*, *P.* spp., rare in *Abies concolor*, *Picea engelmannii*.

References: (cn) Blackman 1931c: 35–36; Chamberlin 1939: 328–329; Keen 1938: 146; Schuder 1969: 74. (ce) Blackman 1931c: 35–36; Chamberlin 1939: 328–329; Keen 1938: 146; Massey 1961: 358. (hb) Blackman 1931c: 35–36; Chamberlin 1939: 328–329; Keen 1938: 146; Wood, S. L. 1982b: 1163. (ds) Atkinson & Equihua 1985c: 361; Chamberlin 1939: 328–329; Furniss, R. L. & Carolin 1977: 382; Gast et al. 1989: 384; Keen 1938: 146; Leng & Mutchler 1933: 94; Schuder 1969: 74; Snow 1883: 44, 1906: 175, 1907: 155; Wood, S. L. 1982b: 1163. (tx) Blackman 1931b: 270; Chamberlin 1939: 328–329; Hoffmann 1947; Wood, S. L. 1982b: 1163.

imitans Wood 1967d: 48. Holotype ♂; 5 km W El Salto, Durango, Mexico; Wood Collection.

Distribution: North America (Durango, Hidalgo, Mexico in Mexico/ Arizona, New Mexico in USA).

Hosts: *Pinus ponderosa*, *P.* sp.

References: (hb) Wood, S. L. 1982b: 1164. (ds) Furniss, R. L. & Carolin 1977: 382; Wood, S. L. 1982b: 1164. (tx) de Ruetten 1970: 101; Wood, S. L. 1967d: 48–49, 1982b: 1164.

materiaricus (Fitch) 1858: 726 (*Tomicus*). Holotype ♀; New York [USA]; USNM, Washington.

Figures: Balachowsky 1949a: 231, 243, Blackman 1922b: pl. 9, fig. 49, Brakman 1966b: 52, Bright 1976d: 204, 213, Dillon & Dillon 1961: 801, Cover et al. 1980: 21, Joly 1976b: 148, Postner 1974: 438.

Distribution: Antilles Islands (Dominican Republic), Europe (introduced: France/ Germany/ Netherlands), North America (New Brunswick, Nova Scotia, Ontario, Quebec in Canada/ Alabama, Arkansas, District of Columbia, Florida, Georgia, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, South Carolina, South Dakota, E Texas, Virginia, Vermont, West Virginia, Wisconsin in USA).

Hosts: *Pinus echinata*, *P. ponderosa*, *P. strobus*, *P. taeda*, *Picea* spp., *Larix* sp., *Abies* sp., *Tsuga* sp.

Notes: (3) Blackman 1931b: 268 (redescribed).
References: (ay) Hopkins 1894g; Kaston 1936: 645; Schedl 1931a: 6–11; Thomas, J. B. 1957: 3, 1967. (bv) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 268; Barr, B. A. 1969: 641; Clemens 1916; Dixon & Payne 1979b; Grune 1979: 123;

Luitjes 1976; Tumbow & Franklin 1980. (cn) Anonymous 1962m; Balch 1945; Beal et al. 1952; Becker, W. D. 1955d, 1959b: 173–174, 1962, 1964c, 1966c; Becker, W. D. & Abbott 1956: 664–666, 1960: 46–47, 1961: 367, 1966; Blackman 1950; Chamberlin 1924, 1939: 327–328; Clemens 1916: 297; Connola et al. 1956: 1–36; Currie 1905: 70; Doane et al. 1936; Doom 1963: 420–423, 1967c; Felt 1901: 495–496, 1926: 247–248, 276, 1930a: 247–248, 276; Felt & Rankin 1932: 408; Fisher, Thompson, & Webb 1953, 1954b: 3–15; Fitch 1858; Garman 1905: 69; Gause 1968: 454–456; Grandi 1951; Herrick 1935: 138; Hopkins 1894: 277, 1899c: 383, 434, 442, 1902c: 14, 1904a: 15; Hubbard 1897b: 30; Jablokoff 1953: 325; Joly 1976; Packard 1890: 718–720; Pierson 1927: 110; Rodary 1959: 850; Smith, J. B. 1901b: 92; Snyder 1927: 7; Swaine 1918a: 91; Swaine & Craighead 1924: 1–27. (ce) Batra 1963a: 481–487, 1963b: 216; Batra & Michie 1963: 477; Chamberlin 1939: 327–328; Dixon & Payne 1979b; Felt 1906: 371; Hines, J. W. & Heikkinen 1977; Hirschmann & Wisniewski 1982, 1983; Hurlbutt 1967; Luitjes 1976; Morley 1939: 244; Ogaz Ituarte & Cibrian 1980; Rodary 1959: 850; Roeper & French 1981; Rumbold 1931c: 849; Steinhaus 1946: 404; Tomalak, Welch, & Galloway 1989b: 27; Wichmann 1955a: 93, 103; Woodring & Moser 1970. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 268; Batra 1963b: 221; Beal & Massey 1945: 120–121; Blackman 1919a, 1950; Blandford 1894b; Chamberlin 1939: 327–328; Chittenden 1890, 1899a; Clemens 1916; Doane et al. 1936; Drooz 1985: 372; Felt 1906: 371, 1926: 247–248, 276, 1930a: 247–248, 276; Felt & Rankin 1932: 408; Fitch 1858; Grandi 1951; Herrick 1935: 135; Hopkins 1894g, 1899c: 383, 442, 1904a: 15; Hubbard 1897b: 30; Joly 1968: 508–511, 1976; Luitjes 1976; Morley 1939: 244; Ogaz Ituarte & Cibrian 1980; Ostmark 1966; Packard 1890: 718; Pierce, W. D. 1907: 290; Pierson 1927: 110; Postner 1974: 437; Schwarz 1888a: 80; Skimmer 1905: 248; Swaine 1911b: 85, 1918a: 91; Wolcott & Montgomery 1933: 165; Wood, S. L. 1982b: 1160. (ds) Anonymous 1926c: 518, 1962m; Atkinson et al. 1991: 162; Bain 1974: 15; Baker, W. L. 1972: 268; Balachowsky 1949b; Beal & Massey 1945: 120–121; Beaulne 1956; Blackman 1950; Blandford 1894b; Blatchley & Leng 1916: 643; Brakman 1966a: 51, 1966b: 207; Bright 1976d: 176, 1985c: 176; Chamberlin 1925, 1939: 327–328; Chittenden 1890, 1899a: 55–61; Cockerell et al. 1907; Currie 1905; DeLeon 1942a; Deyrup 1981: 8; Dodge 1938; Doom 1967c: 143; Drooz 1985: 372; Fall & Cockerell 1907: 217; Felt 1906: 370, 1924: 276, 1926: 247–248, 276, 1930a: 247–248, 276; Felt & Rankin 1932: 408; Gauss 1968; Gemminger & Harold 1872: 2688; Glick 1939: 37; Grune 1979: 123; Hagedorn 1910d: 96; Hamilton 1895a: 346, 378; Harde 1967; Henshaw 1885: 147;

- Hoffmann 1956: 91; Hopkins 1893a: 128, 1893b: 208, 1902c: 14; Houghton 1905; Howden & Vogt 1951; Hubbard & Schwarz 1878a: 665; Jablokov 1953: 325; Joly 1968, 1976; Kaup 1979; Kirk 1970; Kleine 1913b: 158, 1914b: 393, 1934a: 171; Leng 1920: 340; Leonard 1928: 518; Lucht 1957: 275; MacGillivray, A. & Houghton 1902; Menier 1972; Morgan, Anne, Morgan, & Elias 1985: 1821; Ostmark 1968; Postner 1974: 437; Proctor 1946: 207; Provancher 1877: 566; Rodary 1959: 550; Saint-Albin 1949: 2; Schedl 1966d: 118, 1981b: 79; Schiender 1985; Schiender & Niedersaechs 1985; Schwarz 1878d: 468, 1886: 40, 44, 1888a: 50; Smith, J. B. 1910: 401; Swaine 1909: 108, 1911b: 85; Timbrow & Franklin 1980; Ulke 1902: 56; Wichmann 1955a: 93, 103; Wickham 1896a: 309, 1896c: 168; Wolcott & Montgomery 1933: 165; Wood, S. L. 1977a: 70, 1982b: 1160. **(tx)** Balachowsky 1948: 140, 1949a: 242; Beal & Maasey 1945: 120–121; Benoit 1985: 119; Blackman 1922b: 95–96, 1931b: 264–268; Blandford 1894b; Blatchley & Leng 1916: 643; Brakman 1966b: 52; Bright 1976d: 176, 204, 213, 1985c: 176; Chamberlin 1939: 327–328; Clemens 1916; Dillon & Dillon 1961: 801, 811; Dodge 1938: 13; Eichhoff 1869a: 275, 1878b: 406; Fitch 1855: 726; Goyer et al. 1980: 21; Grune 1979: 123; Hagedorn 1910: 147; Hoffmann 1947: 47, 1956: 91; Hopkins 1905b: 73; Hubbard 1897b: 30; Jacques 1951: 353; Joly 1976, 1976b: 148; LeConte 1868: 155, 1876: 350, 1878a: 468; Lucht 1987: 278; Postner 1974: 437; Provancher 1877: 566; Schedl 1931a: 6–7, 1981b: 79; Schwarz 1886: 40, 44; Swaine 1909: 108–109, 1918a: 91; Thomas, J. B. 1957: 3, 1967; Titus, Meikle, & Harrison 1985: 71; Wood, S. L. 1982b: 1160; Zimmermann 1868: 143. **(ms)** Eckstein 1900c.
- corthyloides* Eichhoff 1869a: 275. Syntypes, sex²; Carolina [USA]; Hamburg Museum, lost. Synonymy: Eichhoff 1878b: 406.
References: **(ay)** Schedl 1931a: 7. **(ds)** Leng 1920: 340; Swaine 1909: 108. **(tx)** Blackman 1931b: 264–268; Eichhoff 1869a: 275, 1878b: 406; Hopkins 1914: 122; LeConte 1876: 350; Schedl 1931a: 7; Swaine 1909: 108, 1918a: 91.
- duprezi* Hoffmann 1936: 43. Holotype ♀; Forêt du Ronvay, Seine-Inferieure, France; MNHN, Paris. Synonymy: Balachowsky 1949a: 242.
References: **(ds)** Duprez 1938a; Hoffmann 1936; Sainte-Claire & Mequignon 1938: 449. **(tx)** Balachowsky 1948: 140, 1949a: 242; Hoffmann 1936: 43, 1942: 72, 1947: 47; Wood, S. L. 1982b: 1160.
- nimifrons* Wood 1967d: 47. Holotype ♀; 29 km W El Salto, Durango, Mexico; Wood Collection.
Distribution: North America (Durango, Puebla in Mexico/ Arizona in USA).
Hosts: *Quercus* sp.
References: **(hb)** Wood, S. L. 1982b: 1159. **(ds)** Atkinson & Equihua 1985a: 99; Furniss, R. L. & Carolin 1977: 382; Wood, S. L. 1982b: 1159. **(tx)** Wood, S. L. 1967d: 47, 1982b: 1159.
- nitidifrons* Hopkins 1905b: 72. Holotype ♀; Michoacan, Mexico; USNM, Washington.
Distribution: North America (Guatemala/ Durango, Hidalgo, Mexico, Michoacan in Mexico).
Hosts: *Pinus cooperi*, *P. leiophylla*, *P. montezumae*.
References: **(ay)** Thomas, J. B. 1967. **(hb)** Wood, S. L. 1982b: 1161. **(ds)** Atkinson & Equihua 1985a: 99, 1985c: 361, 1988: 90; Blackwelder 1947: 752; Ferrer 1942; Hagedorn 1910d: 97; Kleine 1913b: 158, 1914b: 354, 1934a: 171; Wood, S. L. 1982b: 1161. **(tx)** Blackman 1931b: 266; Hagedorn 1910a: 147; Hopkins 1905b: 72; Schedl 1940a: 348, 1948f: 268, 1979c: 169; Thomas, J. B. 1967.
- obscurus* Wood 1974a: 55. Holotype ♀; 9 km NE Teziutlan, Puebla, Mexico; Wood Collection.
Distribution: North America (Puebla, Tlaxcala in Mexico).
Hosts: *Quercus* sp.
References: **(hb)** Wood, S. L. 1982b: 1158. **(ds)** Wood, S. L. 1974a: 55, 1982b: 1158. **(tx)** Wood, S. L. 1974a: 55, 1982b: 1158.
- omissus* Wood 1974a: 57. Holotype ♀; Volcan Irazu, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Guatemala).
Hosts: *Orcopanax ubiigenus*.
References: **(hb)** Wood, S. L. 1982b: 1165. **(ds)** Atkinson & Equihua 1988: 90; Wood, S. L. 1982b: 1165. **(tx)** McNamara 1984: 753; Wood, S. L. 1974a: 56–57, 1982b: 1165.
- perniciosus* Wood 1967d: 47. Holotype ♂; 9 km S Carapan, Michoacan, Mexico; Wood Collection.
Distribution: North America (Honduras/ Chiapas, Chihuahua, Distrito Federal, Jalisco, Michoacan, Morelos in Mexico).
Hosts: *Pinus chiapensis*, *P. leiophylla*, *P. montezuma*, *P. occarpa*, *P. pseudostrobus*, *P. spp.*
References: **(hb)** Atkinson et al. 1986: 49; Burgos & Saucedo 1984: 129; Wood, S. L. 1982b: 1162. **(ds)** Atkinson & Equihua 1985a: 99, 1985c: 361; Atkinson et al. 1986: 49; Burgos & Saucedo 1984: 129; Furniss, R. L. & Carolin 1977: 382; Schedl 1977e: 42; Wood, S. L. 1982b: 1162. **(tx)** Wood, S. L. 1967d: 47–48, 1982b: 1162.
- pilosus* (LeConte) 1868: 156 (*Cryphalus*). Lectotype, sex[?]; middle California [USA]; MCZ, Cambridge, designated by Wood 1982b: 1160.
Distribution: North America (Durango in Mexico/ Arizona, S California, S Nevada, New Mexico in USA).
Hosts: *Quercus* sp. limbs (Keen 1929a: 34); commonly collected at light.
Notes: (1) Blackman 1938: 204 (*pilosulus* an invalid spelling). Wood 1973: 172 (to *Gnathotrichus*). (3) Blackman 1938a: 205 (re-described, cited in *Ancylocleres*).
References: **(cn)** Swaine 1918a: 94. **(hb)** Bright &

- Stark 1973: 116; Chamberlin 1939: 324–325; Swaine 1918a: 94. **(ds)** Blackwelder 1939; Bright & Stark 1973: 116; Chamberlin 1939: 324–325; Gemminger & Harold 1872: 2688; Hagedorn 1910d: 73; Henshaw 1882: 268, 1885: 147; Keen 1929c: 34; Kleine 1914b: 391; Leng 1920: 340; Snow 1906: 175; Swaine 1909: 136; Wood, S. L. 1982b: 1160. **(tx)** Blackman 1921: 148, 1931a: 225, 1935a: 205–206; Chamberlin 1939: 324–325; Hagedorn 1910a: 101; Keen 1929: 34; LeConte 1868: 154, 156, 1876: 351; Swaine 1909: 136, 1918a: 94; Wood, S. L. 1966b: 18–21, 1982b: 1162. *saltoni* Blackman 1935a: 206. Holotype, sex?; Flagstaff, Arizona [USA]; USNM, Washington. Synonymy: Wood 1966b: 21. References: **(ds)** Blackwelder 1939; Chamberlin 1939: 325. **(tx)** Blackman 1935a: 206; Chamberlin 1939: 325; Wood, S. L. 1966b: 21.
- primus (Bright)** 1972c: 1678 (*Prognathotrichus*). Holotype ♂; Mt. Tzontehuitz, Chiapas, Mexico; CNCI, Ottawa. Figures: Bright 1972c: 1678. Distribution: North America (Chiapas in Mexico). Hosts: Probably *Quercus* sp. References: **(ds)** Wood, S. L. 1982b: 1158. **(tx)** Bright 1972c: 1678; McNamara 1977: 198; Wood, S. L. 1973c: 172, 1982b: 1158.
- retusus (LeConte)** 1868: 155 (*Cryphalus*). Lectotype ♀; California [USA]; MCZ, Cambridge, designated by Wood 1982b: 1163. Figures: Blackman 1931b: 270. Distribution: North America (British Columbia in Canada/ Baja California Norte in Mexico/ California, Idaho, Montana, Nevada, Oregon, NW Utah, Washington in USA). Hosts: *Alnus* sp. (Oregon, Washington only), *Picea engelmannii*, *Pinus contorta*, *P. flexilis*, *P. jeffreyi*, *P. lambertiana*, *P. radiata*, *P. ponderosa*, *Populus trichocarpa* (accidental), *Pseudotsuga menziesii*, *Abies concolor*, *A. magnifica*, *Tsuga heterophylla*. Notes: (3) Blackman 1931b: 271 (*occidentalis* Hopkins, nomen nudum, synonymy). References: **(ay)** Farris 1963: 257; Farris & Funk 1965: 527; Hopkins 1894g; Schedl 1931a: 11; Schneider 1976; Schneider & Rudinsky 1969a, 1969b; Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 641; Borden 1984; Borden, Lindgren, & Chong 1980; Borden & McLean 1979; Borden et al. 1980, 1981; Buttrick 1912: 457; Chapman 1963: 675, 1966: 54; Inscoc 1982; Jacobson 1965, 1972; Johnston, B. D. & Slessor 1979; Klassen, Ridgway, & Inscoc 1982; Lindgren 1983; Lindgren et al. 1982, 1983; Liu & McLean 1989; Moeck, Wood, & Lindahl 1981; Nijholt 1980; Ohmart & Voigt 1982: 340; Rudinsky 1966b: 356–361, 1966c: 218–219; Rudinsky & Daterman 1964: 1339; Rudinsky & Schneider 1969a: 1248–1255; Schneider & Rudinsky 1969a: 27–39, 1969b: 995–1003; Shore & McLean 1983: 3, 1985; Zhong & Schowalter 1989. **(cn)** Chamberlin 1924, 1939: 328–329; Essig 1926: 519, 1958: 519; Fall & Cockerell 1907: 217; Felt 1906: 752; Graham 1953; Gray & Borden 1985; Hatch 1938: 194; Hopkins 1902: 14, 1904a: 15; Johnson 1958a: 508; Keen 1929c: 56, 1935: 146; Lindgren 1980a: 63, 1983; Lindgren & Borden 1983; Lindgren et al. 1983; McLean & Borden 1977b; McMullan 1956: 34; Molnar et al. 1969: 117, 1970: 104; Molnar, Ross, & Fiddick 1971: 81; Nijholt 1978a: 1980; Prebble 1944: 50, 1954: 220; Prebble & Graham 1957: 90–112; Ruppel 1967: 47; Shore 1985; Shore & McLean 1985; Silver & Ross 1958: 79, 1960: 98; Stevens, Brewer, & Leatherman 1980: 27; Swaine 1914: 33, 37, 40, 1918a: 90, 91. **(ec)** Borden et al. 1981; Chamberlin 1918a, 1939: 328–329; Chate-lain & Schenk 1983; Deyrup & Gara 1978: 274; Farris 1963; Farris & Funk 1965: 527; Felt 1906: 751; Keen 1935: 146; McLean & Borden 1977; Nakashima 1975: 4; Nijholt 1980, 1981; Ohmart & Voigt 1982: 340; Otvos 1977; Roeper & French 1981; Rudinsky & Schneider 1969a; Schneider 1976; Shore 1985; Steinhaus 1946: 404; Stephen & Dahlsten 1976b: 292. **(hb)** Blandford 1894b; Bright & Stark 1973: 117; Chamberlin 1939: 328–329, 1958; Essig 1926: 519, 1958: 519; Felt 1906: 751; Gast et al. 1989: 385; Hopkins 1894g, 1904a: 15; Johnson 1958a: 508, 1958b: 237; Keen 1929c: 56, 1938: 146; Kimmey 1943: 22; Lindgren 1980a: 63; Nijholt 1978a; Rudinsky & Schneider 1969a; Shore 1985; Stevens, Brewer, & Leatherman 1980: 27; Swaine 1918a: 90–91. **(ds)** Blandford 1894b; Bright 1976d: 176; Bright & Stark 1973: 117; Chamberlin 1917: 325, 1918a: 39, 1925, 1939: 328–329, 1958: 138–139; Chapman 1963: 675; Cockerell et al. 1907; Essig 1926: 519, 1958: 519; Evans, D. 1983: 32, 1985; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 381; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 97; Henshaw 1882: 268, 1885: 147; Hopkins 1893a: 128, 1893b: 208, 1894: 277; Hopping 1922; Keen 1929a: 35, 1929c: 56–57, 1935: 146, 1949a: 93; Kleine 1913b: 158, 1914b: 399, 1934a: 171; Lange 1937: 174; Leng 1920: 340; Marchant & Borden 1976; McComb et al. 1953: 4; Miller, S. E. 1983: 99; Murayama 1957a: 37; Nijholt 1980; Ohmart & Voigt 1982: 340; Patterson & Hatch 1945: 152; Rudinsky & Schneider 1969a: 1248–1255; Ruppel 1967: 47; Schedl 1972a: 144; Shore 1985; Smith, C. S. 1930; Swaine 1909: 108, 1914: 33; Wickham 1896a: 309; Wood, S. L. 1951a: 128, 1972a: 425, 1977d: 512, 1982b: 1163. **(tx)** Blackman 1931b: 270–271; Blandford 1894b; Bright 1976d: 176; Chamberlin 1939: 328–329, 1958: 138–139; Eichhoff 1878b: 407, 511; Evans, D. 1983: 32; Hagedorn 1910a: 147; Hopkins 1905b: 73; Johnson 1958b: 237; Keen 1929a: 35; LeConte 1868: 155, 1876: 350; Schedl 1931a: 11, 1935a: 160, 164; Swaine 1909: 108, 1918a: 90–91; Thomas, J. B. 1967; Wood, S. L. 1972a: 428,

1952b: 1163. (ms) Hatch 1938: 194; Johnston, B. D. & Slessor 1979; Lindgren B. et al. 1982; Prebble 1944: 50.

abi Blackman 1931b: 271. Holotype ♀; Hoquiam, Washington [USA]; USNM, Washington. Synonymy: Wood 1977d: 512.

Notes: (3) The closest relative of *retusus* is *aliphagus* Wood; perhaps the original host of *retusus* was *Abies* and the adaptation to conifers was secondary, but the original habit persisted in parts of Oregon and Washington (SLW). References: (cn) Chamberlin 1939: 330; Hatch 1935: 194; Keen 1938: 146; Kinghorn 1957b: 213; Ruppel 1967: 47. (cc) Chamberlin 1939: 330; Keen 1938: 146. (hb) Chamberlin 1939: 330, 1958: 139; Keen 1938: 146. (ds) Chamberlin 1939: 330, 1958: 139; Furniss, R. L. & Carolin 1977: 382; Keen 1938: 146; Leng & Mutchler 1933: 94; Patterson & Hatch 1945: 152; Ruppel 1967: 47. (tx) Blackman 1931b: 271; Chamberlin 1939: 330, 1958: 139; Schedl 1979c: 16; Wood, S. L. 1977d: 512.

sulcatus (LeConte) 1868: 155 (*Cryphalus*). Holotype ♀; middle California [USA]; MCZ, Cambridge.

Figures: Atkinson et al. 1986: 48, Blackman 1931b: 273 (antenna), Bright & Stark 1973: 163, Furniss & Carolin 1977: 391, Schwerdtfeger 1960b: 254–257, Shore 1985.

Distribution: North America (British Columbia in Canada/ El Salvador/ Guatemala/ Honduras/ Distrito Federal, Durango, Hidalgo, Michoacan, Puebla, Tlaxcala, Veracruz in Mexico/ Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington in USA).

Hosts: *Abies concolor*, *A. magnifica*, *A. religiosa*, *Pinus leiophylla*, *P. montezumae*, *P. ponderosa*, *P. pseudostrobus*, *P. spp.*, *Pseudotsuga menziesii*, *Tsuga heterophylla*.

Notes: (3) Blackman 1931b: 274 (re-described).

References: (ay) Farris 1963: 257; Farris & Funk 1965: 527; Schedl 1931a: 13; Schneider 1976; Schneider & Rudinsky 1969a, 1969b; Thomas, J. B. 1967. (bv) Barr, B. A. 1969: 641; Borden 1984; Borden, Lindgren, & Chong 1980; Borden & McLean 1979; Borden & Stokkink 1973; Borden et al. 1976, 1980: 108, 1981; Byrne et al. 1974; Cade 1970, 1971; Cade, Hnutfiord, & Gara 1970: 1014–1015; Chapman 1966: 55; Gagne & Kearby 1978: 1012; Grossman 1988: 9; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1965, 1972; Johnson 1960b: 4; Johnson, Wright, & Orr 1961: 8; Kinghorn & Chapman 1957: 48; Klassen, Ridgeway, & Inscoc 1982; Lindgren 1983, 1984; Lindgren et al. 1983; Lin & McLean 1989; McLean 1976b, 1980a, 1988; McLean & Borden 1975a, 1975b, 1977a, 1977b, 1979; Moeck 1970b: 993, 1971; Mori 1975c; Nijholt 1980; Oda 1974:

7; Payne & Wood 1981: 492; Plummer et al. 1976; Prebble & Graham 1957: 93; Renwick, Vite, & Billings 1977; Roelofs 1978; Rudinsky 1966b: 356–361, 1966c: 218–219; Rudinsky & Daterman 1964: 1339; Rudinsky & Schneider 1969a: 1248–1255; Schneider & Rudinsky 1969a: 995–1003, 1969b: 27–39; Schuler & Slessor 1977; Shore & McLean 1983; Silverstein 1974; Silverstein & Young 1976: 20; Wood, D. L. 1975, 1979a, 1980b; Wright, R. H. 1974: 134; Zannucio 1981b, 1983; Zhong & Schowalter 1989. (cn) Atkins 1976; Boocock 1959d; Boyce 1929; Buttrick 1912: 457; Chamberlin 1918: 40, 1924, 1939: 331–332; Currie 1905: 70; Doane et al. 1936; Essig 1926: 519, 1958: 519; Fiddick & Van Sickle 1980: 20; Fisher, Thompson, & Webb 1953, 1954b: 3–15; Graham 1953, 1963; Graham et al. 1950: 43–44, 48; Gray 1985; Hatch 1935: 194; Hopkins 1902c: 14, 1904a: 15; Hopping & Jenkins 1933: 1–14; Janssen 1955: 10–14; Jardine 1969: 48; Johnson 1955a: 508; Keen 1929c: 56, 1938: 144, 146; Kinghorn 1957b: 213; Lindgren 1980a: 63, 1983, 1984; Lindgren & Borden 1982; Lindgren et al. 1983; Mathers 1935: 14; McBride, C. F. 1950: 46; McBride, C. F. & Kinghorn 1960: 40–52; McLean 1976b, 1980a, 1980b, 1985, 1988; McLean & Borden 1975a, 1975b, 1977a, 1977b, 1979; McMullan 1956: 34–43; Nijholt 1975a, 1980; Ostaff 1974; Payne & Wood 1981: 492; Prebble 1944: 50, 1954: 220; Roelofs 1978; Rudinsky, Terriere, & Allen 1960: 949; Ruppel 1967: 47; Schuler 1969: 74; Schuler & Slessor 1977; Schwerdtfeger 1960b; Shea & Johnson 1962: 5; Shore & McLean 1983; Stevens, Brewer, & Leatherman 1980: 27; Struble 1937d: 11, 1957: 14; Swaine 1914: 37–38, 1918a: 91; Thatcher, T. O. 1961; Wood, D. L. 1979a, 1980b. (cc) Becker 1953: 361, 1955; Borden et al. 1981; Cade 1970, 1971; Chamberlin 1918a, 1939: 331–332; Deyrup & Gara 1978: 275; Farris 1963; Farris & Funk 1965: 527; Funk, A. 1970: 1445–1448, 1973; Keen 1938: 144, 146; Kinghorn 1956: 4, 1957a: 3; McLean & Borden 1977a, 1977b; Nakashima 1975: 4; Nijholt 1980; Ostaff 1974; Roeper & French 1981; Rudinsky & Schneider 1969a; Rumbold 1931c: 849; Schneider 1976; Struble 1957: 14; Webb 1945: 71; Wichmann 1955a: 93, 103. (hb) Atkinson & Equihua 1985a: 100; Atkinson et al. 1986: 49; Becker, C. 1953, 1955; Bright 1976d: 174; Bright & Stark 1973: 118; Burgos & Saucedo 1983: 130; Cade 1970, 1971; Chamberlin 1939: 331–332, 1958: 139–140; DeLeon 1952: 78–79; Doane & Gilliland 1929: 920–921; Doane et al. 1936; Essig 1926: 519, 1958: 519; Graham 1963; Hopkins 1904a: 15; Johnson 1958a: 508–511, 1958b: 237; Kalshoven 1962: 12; Keen 1929c: 56, 1938: 144, 146; Kimmey & Furniss 1943: 22–23; Lindgren 1980a: 63; McLean 1980a, 1988; McLean & Bennett 1978; McLean & Borden 1977; Nijholt 1978a, 1983; Ostaff 1974;

Pierce, W. D. 1907: 290; Prebble & Graham 1957: 93–112; Rudinsky & Schneider 1969a; Schwerdtfeger 1960b: 254; Stevens, Brewer, & Leatherman 1980: 27; Struble 1937d: 11, 1957: 14; Swaine 1918a: 91; Thatcher, T. O. 1983; Zanoncio 1981b, 1983. (**ds**) Atkinson & Equihua 1955a: 100, 1955c: 361, 1988: 90; Atkinson et al. 1986: 49; Bain 1974: 15; Becker, G. 1953; Blackwelder 1947: 782; Bright 1976d: 174; Bright & Stark 1973: 118; Burgos & Saucedo 1983: 130; Chamberlin 1917: 325, 1918a, 1925, 1939: 331–332, 1958: 139–140; Choo & Woo 1983; Cockerell et al. 1907; Currie 1905: 70; DeLeon 1952; Dominguez & Carrillo 1976: 141; Essig 1926: 519, 1958: 519; Evans, D. 1983; Fall & Cockerell 1907: 217; Furniss, M. M. 1978; Furniss, R. L. & Carolin 1977: 381; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 97; Henshaw 1882: 269; Hopkins 1902c: 14; Hopping 1922; Keen 1929a: 35, 1926c: 56, 1938: 144, 146; Kleine 1913b: 158, 1914b: 354, 391, 1934a: 171; Leng 1920: 340; Marchant & Borden 1976; McLean & Bennett 1978; McLean & Borden 1977; Murayama 1957a: 37; Nijholt 1980; Patterson & Hatch 1945: 152; Rudinsky & Schneider 1969a; Ruppel 1967: 47; Schedl 1940a: 348, 1963c: 158, 1977e: 43; Schuder 1969: 74; Schwerdtfeger 1960b; Swaine 1909: 108, 1914: 38; Thatcher, T. O. 1961; Thomas, J. B. 1966; Wichmann 1955a: 93, 103; Wood, S. L. 1982b: 1164. (**tx**) Atkinson et al. 1986: 48; Blackman 1931b: 274–275; Bright 1976d: 174; Bright & Stark 1973: 163; Chamberlin 1939: 331–332, 1958: 139–140; Eichhoff 1878b: 408, 512; Evans, D. 1983: 32; Furniss, R. L. & Carolin 1977: 391; Hagedorn 1910a: 147; Hopkins 1905a: 73; Hopping & Jenkins 1933; Johnson 1958b: 237; Keen 1929: 35; LeConte 1868: 154–155, 1876: 350; Schedl 1931a: 13, 1940a: 348, 1955g: 18, 29; Schwerdtfeger 1960b: 254–257; Shore 1985; Swaine 1909: 109–110, 1918a: 91; Thomas, J. B. 1967; Wood, S. L. 1977d: 513, 1982b: 1164. (**ms**) Boocock 1959d; Hatch 1938: 194; Kinghorn 1957b: 213; McLean & Bennett 1978; Mori 1975c; Prebble 1944: 50.

aciculatus Blackman 1931b: 272. Holotype ♀; Clondercroft, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1977c: 513.

References: (**cn**) Blackman 1931c; Doane et al. 1936; Keen 1938: 146; Schuder 1969: 74. (**cc**) Blackman 1931c; Keen 1938: 146. (**hb**) Baker, W. L. 1972: 268; Blackman 1931c; Chamberlin 1939: 330–331; Doane et al. 1936; Keen 1938: 146. (**ds**) Chamberlin 1939: 330–331; Keen 1938: 146; Leng & Mutchler 1933: 95; Schuder 1969: 74. (**tx**) Blackman 1931b: 272; Chamberlin 1939: 330–331; Schedl 1955g: 29, 1979c: 10; Wood, S. L. 1977d: 513.

Genus *Gnathotrupes* Schedl

GNATHOTRUPES SCHEDL 1951m: 125. Type-species: *Gnathotrupes holtzianus* Schedl, monobasic.

Gnathotrypanus Wood 1968b: 9. Type-species: *Gnathotrypanus terabratus* Wood, original designation. Synonymy: Wood 1973c: 172.

References: (**tx**) Wood, S. L. 1968b: 9, 1973c: 172.

Gnathocortus Schedl 1975d: 11. Type-species: *Gnathocortus caliculus* Schedl, original designation. Synonymy: Wood 1984b: 225.

References: (**tx**) Schedl 1975d: 11; Wood, S. L. 1984b: 225.

Gnathomimus Schedl 1975d: 12. Type-species: *Gnathomimus nothofagi* Schedl, original designation. Synonymy: Wood 1984b: 225.

References: (**tx**) Schedl 1975d: 12; Wood, S. L. 1984b: 225.

Gnathoglochinus Schedl 1975d: 16. Type-species: *Gnathoglochinus impressus* Schedl, original designation. Synonymy: Wood 1984b: 225.

References: (**tx**) Schedl 1975d: 16; Wood, S. L. 1984b: 225.

Keys: Wood 1982b: 1167 for Central America.

References: (**hb**) Wood, S. L. 1982b: 1166, 1986a: 99. (**ds**) Browne 1970: 448; Schedl 1951m: 125; Wood, S. L. 1973c: 172, 1982b: 116, 1986a: 99. (**tx**) Browne 1970: 558; Schedl 1951m: 125; Wood, S. L. 1973c: 172, 1982b: 1166–1170, 1986a: 99.

barbifer (Schedl) 1967d: 13 (*Gnathotrichus*). Holotype, sex?, Chiloe, Chile; Schedl Collection in NHMW, Wien.

Distribution: South America (Chile).

Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).

References: (**ds**) Schedl 1972d: 145. (**tx**) Schedl 1967d: 13, 1972d: 145, 1979c: 34; Wood, S. L. 1973c: 172.

bituberculatus (Blandford) 1904: 248 (*Gnathotrichus*). Lectotype ♀; Pirulha, Baja Verapaz, Guatemala; BMNH, London, designated by Wood 1982b: 1168.

Distribution: North America (El Salvador/ Guatemala/ Veracruz in Mexico).

Hosts: *Inga* sp., *Quercus* sp.

Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).

References: (**ds**) Blackwelder 1947: 782; Hagedorn 1910d: 96; Kleine 1914b: 368. (**tx**) Blackman 1931b: 266; Blandford 1904: 248; Hagedorn 1910a: 147; Schedl 1955g: 29; Wood, S. L. 1973c: 172, 1982b: 1168–1169.

impressus Schedl 1977e: 44 (*Gnathotrichus*).

Holotype ♀; El Salvador, Metapan, 1600–2200 m; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1975. Synonymy: Wood 1989: 173.

References: (**tx**) Schedl 1977e: 44; Wood, S. L. 1989: 173.

- bolivianus** Schedl 1951m: 126. Holotype ♀; Bolivia: Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Schedl 1951m: 126, 1979c: 43.
- caliculus** (Schedl) 1975d: 12 (*Gnathocortus*). Holotype ♂; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.
Figures: Schedl 1975k: 13.
Distribution: South America (Argentina).
Hosts: *Nothofagus dombeyi*.
Notes: (3) Wood 1984b: 225 (to *Gnathotrupes*).
References: (ay) Naumann-Etienne 1978b, (hb) Naumann-Etienne 1978b, (ds) Naumann-Etienne 1978b, (tx) Schedl 1975d: 11, 1975k: 13, 1979c: 50; Wood, S. L. 1984b: 225.
- castaneus** (Schedl) 1972d: 145 (*Gnathotrichus*). Holotype ♂?; Chile; Schedl Collection in NHMW, Wien.
Distribution: South America (Chile).
Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).
References: (tx) Schedl 1972d: 145, 1979c: 54; Wood, S. L. 1973c: 172.
- cirratus** Schedl 1975d: 5. Holotype ♀; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
Hosts: *Nothofagus dombeyi*.
References: (tx) Schedl 1975d: 5, 1979c: 58.
- colapthus** Wood 1989: 181. Holotype ♀; La Carbonera Experimental Forest, 50 km W Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Nectandra* sp., etc.
References: (tx) Wood, S. L. 1989: 181.
- consobrinus** (Eichhoff) 1878b: 409. *America meridionalis* (Chili); Hamburg Museum, lost.
Distribution: South America (Chile).
Notes: (1) Schedl 1972: 150, Wood 1973: 172 (to *Gnathotrupes*).
References: (ds) Blackwelder 1947: 752; Hagedorn 1910d: 96; Kleine 1914b: 332; Schedl 1972d: 151, (tx) Blackman 1931b: 266; Eichhoff 1878b: 409; Hagedorn 1910a: 147; Schedl 1939h: 47, 1951m: 122, 1972d: 151; Wood, S. L. 1973c: 172.
- crecentus** Wood 1974a: 56. Holotype ♀; Volcan, Puntarenas, Costa Rica, 1000 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Tree limb.
References: (tx) Wood, S. L. 1974a: 56, 1982b: 1169–1170.
- dilutus** Wood 1974a: 56. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Miconia caudata*.
References: (hb) Wood, S. L. 1982b: 1169, (ds) Wood, S. L. 1982b: 1169, (tx) Wood, S. L. 1974a: 56, 1982b: 1169.
- electus** (Wood) 1968b: 10 (*Gnathotrypanus*). Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Tree limb.
Notes: (1) Wood 1968b: 10, 1982b: 1168 (to *Gnathotrupes*).
References: (ds) Wood, S. L. 1982b: 1168, (tx) Wood, S. L. 1968b: 10, 1973c: 172, 1982b: 1168.
- fimbriatus** (Schedl) 1955e: 259 (*Gnathotrichus*). Lectotype ♀; Chile, P. Arenas, Sud-Chile, Termas de Puyehue; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 152.
Distribution: South America (Chile).
Notes: (1) Wood 1966b: 23 (to *Gnathotrupes*).
References: (ds) Schedl 1980c: 160, (tx) Schedl 1955e: 256, 259, 1972d: 152, 1979c: 97; Wood, S. L. 1966b: 23, 1973c: 172.
- frontalis** (Schedl) 1972d: 146 (*Gnathotrichus*). Holotype ♂; Sudchile, Puerto Puyulmapu; Schedl Collection in NHMW, Wien.
Distribution: South America (Chile).
Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).
References: (tx) Schedl 1972d: 146, 1979c: 100; Wood, S. L. 1973c: 172.
- herbertfranzi** (Schedl) 1972d: 147 (*Gnathotrichus*). Holotype ♂; S. Chile, Umg. Malacahuello; Schedl Collection in NHMW, Wien.
Distribution: South America (Chile).
Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).
References: (ds) Schedl 1980c: 159, (tx) Schedl 1972d: 147, 1979c: 116; Wood, S. L. 1973c: 172.
- impressus** (Schedl) 1975d: 17 (*Gnathoglochinus*). Holotype ♀; Argentinien, Nahuel Huapi National Park; NHMW, Wien.
Figures: Schedl 1975d: 17.
Distribution: South America (Argentina).
Hosts: *Nothofagus dombeyi*.
Notes: (3) Wood 1984b: 16 (to *Gnathotrupes*).
References: (ay) Naumann-Etienne 1978b, (hb) Naumann-Etienne 1978b, (ds) Naumann-Etienne 1978b; Schedl 1980c: 160, (tx) Schedl 1975d: 17, 1979c: 122; Wood, S. L. 1984b: 16.
- longicollis** (Schedl) 1951m: 120 (*Gnathotrichus*). Holotype, sex?; Colombia; Schedl Collection in NHMW, Wien.
Distribution: South America (Colombia).
Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).
References: (tx) Schedl 1951m: 120, 1979c: 140; Wood, S. L. 1973c: 172.
- longipennis** (Blanchard) 1851: 429 (*Tomicus*). Syn-types, sex?; Cercanias de Santiago, Chile; not located.
Distribution: South America (Argentina/Chile).
Hosts: *Nothofagus dombeyi*.
Notes: (1) Eichhoff 1878b: 408 (to *Gnathotrichus*), Wood 1973c: 172 (to *Gnathotrupes*).

Schedl 1972d: 150 (*springer* Eggers, nomen nudum, synonymy).

References: (**ds**) Blackwelder 1947: 782; Bruch 1914a; Elgnetta & Jackson 1957: 77; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 96; Kleine 1913b: 161, 1914b: 332; Lacordaire 1866: 353; Schedl 1972d: 148. (**tx**) Blackman 1931b: 266; Blanchard 1851: 429; Eggers 1929e: 49; Eichhoff 1878b: 408; Gay 1852: 429; Hagedorn 1910a: 147; Lacordaire 1866: 353; Lucas 1920: 305; Porter 1932: 106; Schedl 1939h: 47, 1951m: 118, 1955e: 256, 1972d: 148; Wood, S. L. 1973c: 172.

obnixus Schedl 1939h: 47 (*Gnathotrichus*). Syn- types 2 ♀; Puerto Puyuhuapi, Sud-Chile; 1 in IPKE, Eberswalde, 1 in Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

Notes: (1) Schedl 1979c: 175 (citation of holotype invalid). Wood 1973c: 172 (to *Gnathotrupes*).

References: (**ay**) Naumann-Etienne 1978b. (**hb**) Naumann-Etienne 1978b. (**ds**) Blackwelder 1947: 782; Naumann-Etienne 1978b; Schedl 1972d: 149, 1973d: 162, 1975d: 2, 1978c: 293. (**tx**) Schedl 1939h: 47–48, 1972d: 149, 1979c: 174; Wood, S. L. 1973c: 172.

corthyloides Schedl 1951d: 20 (*Gnathotrichus*). Lectotype ♀; Chile, Valdivia; Schedl Collection in NHMW, Wien, preoccupied by Eichhoff 1869, designated by Schedl 1979c: 66. Synonymy: Wood 1989: 173.

Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).

References: (**tx**) Schedl 1951d: 20, 1955e: 256, 1979c: 66; Wood, S. L. 1973c: 172, 1989: 173.

sextuberculatus Schedl 1951m: 118 (*Gnathotrichus*). Holotype, sex?; Chile; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1972d: 150.

Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).

References: (**ay**) Naumann-Etienne 1978b. (**hb**) Naumann-Etienne 1978b. (**ds**) Hoganson & Ashworth 1982; Naumann-Etienne 1978b; Schedl 1975d: 2. (**tx**) Schedl 1951m: 118, 1955e: 256, 1964m: 312, 1972d: 150, 1979c: 227; Wood, S. L. 1973c: 172.

quadrituberculatus Schedl 1951m: 122 (*Gnathotrichus*). Holotype, sex?; Chile; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1972d: 150.

Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).

References: (**tx**) Schedl 1951d: 17, 1951m: 118, 122, 1955e: 256, 1972d: 150, 1979c: 200; Wood, S. L. 1973c: 172.

corthyliformis Schedl 1964m: 312 (*Gnathotrichus*). Lectotype ♀; Chile, Valdivia; Schedl Collection in NHMW, Wien, automatic, designated by Schedl 1979c: 66. Synonymy: Wood 1989: 173.

References: (**ds**) Schedl 1967d: 5, 1972d: 151–152. (**tx**) Schedl 1964m: 312, 1972d: 151–152, 1979c: 66; Wood, S. L. 1973c: 172.

constrictus Schedl 1975d: 6. Holotype ♂; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

References: (**ay**) Naumann-Etienne 1978b. (**hb**) Naumann-Etienne 1978b. (**ds**) Naumann-Etienne 1978b. (**tx**) Schedl 1975d: 6, 1979c: 64; Wood, S. L. 1989: 173.

longiusculus (Schedl) 1951m: 121 (*Gnathotrichus*). Holotype ♂; Tierra del Fuego, Via Monte; Eggers Collection, in NHMW, Wien.

Distribution: South America (Argentina, Chile).

Hosts: *Nothofagus dombeyi*.

Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).

References: (**ds**) Schedl 1972d: 148. (**tx**) Schedl 1951m: 121, 1972d: 148, 1979c: 142; Wood, S. L. 1973c: 172.

ciliatus Schedl 1975d: 4. Holotype ♀; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien. Synonymy: Wood 1992a: 89.

References: (**tx**) Schedl 1975d: 4; Wood, S. L. 1992a: 89.

nanulus (Schedl) 1972d: 149 (*Gnathotrichus*).

Holotype, sex?; Chile; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina/ Chile).

Hosts: *Nothofagus dombeyi*.

References: (**ay**) Naumann-Etienne 1978b. (**hb**) Naumann-Etienne 1978b. (**ds**) Naumann-Etienne 1978b; Schedl 1975d: 2. (**tx**) Schedl 1972d: 149, 1975d: 4, 1979c: 163; Wood, S. L. 1973c: 172.

nanus (Eichhoff) 1878b: 410 (*Gnathotrichus*).

Holotype ♀; America meridionalis (Chile); Hamburg Museum, lost.

Distribution: South America (Chile).

References: (**ds**) Hagedorn 1910d: 97. (**tx**) Blackman 1931b: 266; Eichhoff 1978b: 410; Hagedorn 1910a: 147; Schedl 1939g: 727; Wood, S. L. 1973c: 172.

naumanni (Schedl) 1975d: 15 (*Gnathomimus*).

Holotype ♀; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.

Figures: Schedl 1975d: 16.

Distribution: South America (Argentina).

Hosts: *Nothofagus dombeyi*.

Notes: (3) Wood 1984b: 225 (to *Gnathotrupes*).

References: (**ay**) Naumann-Etienne 1978b. (**hb**) Naumann-Etienne 1978b. (**ds**) Naumann-Etienne 1978b. (**tx**) Schedl 1975d: 15–16, 1979c: 164; Wood, S. L. 1984b: 225.

nectandrae Wood 1989: 181. Holotype ♂; La Carbonera Experimental Forest, 50 km W Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Nectandra* sp.

References: (**tx**) Wood, S. L. 1989: 181.

nothofagi (Schedl) 1975d: 13 (*Gnathomimus*).

Holotype ♀: Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Hosts: *Nothofagus dombeyi*.

Notes: (3) Wood 1984b: 225 (to *Gnathotrupes*).

References: (tx) Schedl 1975d: 13, 1979c: 171; Wood, S. L. 1984b: 225.

pauciconcarus Schedl 1975d: 7. Holotype ♀; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Hosts: *Nothofagus dombeyi*.

Notes: (1) This name was originally spelled *pauciconvacus*, an obvious lapsus calami; Schedl 1979c: 186 gave the corrected spelling.

References: (tx) Schedl 1975d: 7, 1979c: 186.

pustulatus Schedl 1975d: 9. Holotype ♀; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Hosts: *Nothofagus dombeyi*.

References: (ay) Naumann-Etienne 1978b. (hb) Naumann-Etienne 1978b. (ds) Naumann-Etienne 1978b; Schedl 1980c: 159. (tx) Schedl 1975d: 9, 1979c: 206.

similis Schedl 1975d: 10. Holotype ♀; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Hosts: *Nothofagus dombeyi*.

References: (ay) Naumann-Etienne 1978b. (hb) Naumann-Etienne 1978b. (ds) Naumann-Etienne 1978b. (tx) Schedl 1975d: 10, 1979c: 229.

solidus Schedl 1975d: 8. Holotype ♂; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Hosts: *Nothofagus dombeyi*.

References: (ay) Naumann-Etienne 1978b. (hb) Naumann-Etienne 1978b. (ds) Naumann-Etienne 1978b. (tx) Schedl 1975d: 8, 1979c: 232.

terebratus (Wood) 1968b: 9 (*Gnathotrypanus*).

Holotype ♂; Volcan, Puntarenas, Costa Rica; Wood Collection.

Figures: Wood 1968b: 5.

Distribution: North America (Costa Rica).

Hosts: Presumably *Pourouma aspera*.

Notes: (1) Wood 1973c: 172, 1982: 1167 (to *Gnathotrupes*).

References: (hb) Wood, S. L. 1982b: 1167. (ds) Wood, S. L. 1982b: 1167. (tx) Wood, S. L. 1968b: 5, 9, 1973c: 172, 1982b: 1167.

vafer (Schedl) 1975d: 3 (*Gnathotrichus*). Holotype, sex?; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Hosts: *Nothofagus dombeyi*.

Notes: (1) Wood 1973c: 172 (to *Gnathotrupes*).

References: (ay) Naumann-Etienne 1978b. (hb) Naumann-Etienne 1978b. (ds) Naumann-Etienne 1978b; Schedl 1980c: 159. (tx) Schedl 1975d: 3, 1979c: 263; Wood, S. L. 1973c: 172.

velatus Schedl 1975d: 10. Holotype ♀; Argentinien, Nahuel Huapi National Park; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

Hosts: *Nothofagus dombeyi*.

References: (ay) Naumann-Etienne 1978b. (hb) Naumann-Etienne 1978b. (ds) Naumann-Etienne 1978b; Schedl 1980c: 160. (tx) Schedl 1975d: 10, 1979c: 265.

Genus *Tricolus* Blandford

TRICOLUS BLANDFORD 1905: 286. Type-species: *Tricolus ovicollis* Blandford, subsequent designation by Hopkins 1914: 131.

Pterocyclonoides Schedl 1970e: 101. Type-species: *Pterocyclonoides octodentatus* Schedl, monobasic. Synonymy: Wood 1984b: 228.

References: (tx) Schedl 1970e: 101–102; Wood, S. L. 1984b: 228.

Keys: Wood 1982b: 1170 for Central America.

References: (ay) Nobuchi 1969a: 65. (hb) Wood, S. L. 1982b: 1170, 1986a: 99. (ds) Wood, S. L. 1982b: 1170, 1986a: 99. (tx) Blandford 1905: 286; Bright 1972d: 98; Wood, S. L. 1967c: 119–141, 1982b: 1170–1185, 1986a: 99.

abruptus Schedl 1976a: 83. Holotype, sex?; Carnam, Pernambuco, Brasil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 83.

aciculatus Wood 1974a: 62. Holotype ♀; 10 km NE Teziutlan, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: *Miconia* sp., *Rubus* sp.

References: (hb) Atkinson & Equihua 1985c: 361; Wood, S. L. 1982b: 1183. (ds) Atkinson & Equihua 1985c: 361; Wood, S. L. 1982b: 1183. (tx) McNamara 1984: 759; Wood, S. L. 1974a: 62, 1982b: 1183–1184.

affinis Eggers 1931b: 38. Holotype, sex?; Sao Paulo, Brasil; Prague Museum.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 783. (tx) Eggers 1931b: 38; Schedl 1939j: 581, 1979c: 14.

amplus Wood 1974a: 63. Holotype ♀; 10 km NE Teziutlan, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: Tree limb.

References: (hb) Wood, S. L. 1982b: 1185. (ds) Wood, S. L. 1982b: 1185. (tx) Wood, S. L. 1974a: 63, 1982b: 1185.

ardis Wood 1974a: 58. Holotype ♀; Escasu, San Jose, Costa Rica, 1300 m; Wood Collection.

- Figures: Wood 1952b: 1174 (declivity).
 Distribution: North America (Costa Rica/ Panama).
 Hosts: Tree branches and a seedling.
 References: **(hb)** Wood, S. L. 1952b: 1176. **(ds)** Wood, S. L. 1952b: 1176. **(tx)** Wood, S. L. 1974a: 58, 1952b: 1176.
- badius** Wood 1974a: 60. Holotype ♀; Pandora, Limon, Costa Rica, 50 m; Wood Collection.
 Figures: Wood 1952b: 1174 (declivity).
 Distribution: North America (Costa Rica/ Panama).
 Hosts: *Serjania* sp., a liana, and a tree branch.
 References: **(hb)** Wood, S. L. 1952b: 1177. **(ds)** Wood, S. L. 1952b: 1177. **(tx)** Wood, S. L. 1974a: 60, 1952b: 1177.
- bicolor** Wood 1974a: 63. Holotype ♀; Volcan Poas, Heredia, Costa Rica, 1500 m; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: Tree branch.
 References: **(hb)** Burgos & Saucedo 1983: 132; Wood, S. L. 1952b: 1184. **(ds)** Burgos & Saucedo 1983: 132; Wood, S. L. 1952b: 1184. **(tx)** Wood, S. L. 1974a: 63, 1952b: 1184.
- bifidus** Schedl 1939j: 579. Holotype, sex?; Brasilien; Schedl Collection in NHMW, Wien.
 Figures: Pedrosa-Macedo & Schonherr 1955: 53.
 Distribution: South America (Brazil).
 References: **(ds)** Blackwelder 1947: 783; Pedrosa-Macedo & Schonherr 1955: 53; Schedl 1976a: 56. **(tx)** Pedrosa-Macedo & Schonherr 1955: 53; Schedl 1939j: 579, 1979c: 39–40.
- capitalis** Wood 1974a: 61. Holotype ♀; 13 km SE El Hato del Volcan, Chiriqui, Panama, 1000 m; Wood Collection.
 Figures: Wood 1952b: 1174 (declivity).
 Distribution: North America (Panama).
 References: **(hb)** Wood, S. L. 1952b: 1179. **(ds)** Wood, S. L. 1952b: 1179. **(tx)** Wood, S. L. 1974a: 61, 1952b: 1179.
- cecropii** Wood 1974a: 58. Holotype ♀; Turrialba, Cartago, Costa Rica, 700 m; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: *Cecropia peltata* leaf petioles.
 Notes: (3) Wood 1982: 1176 (this is a domicile parasite of *Corthylus cecropii* Wood).
 References: **(hb)** Wood, S. L. 1952b: 1175–1176; **(ds)** Wood, S. L. 1952b: 1175–1176; **(tx)** Wood, S. L. 1974a: 58, 1952b: 1175–1176.
- difodinus** Bright 1972a: 1380. Holotype ♂; 21 km N Ocozacoautla, Chiapas, Mexico; CNCI, Ottawa.
 Figures: Bright 1972a: 1377, Wood 1952b: 1181 (declivity).
 Distribution: North America (Guatemala/ Chiapas in Mexico).
 Hosts: Tree branches.
 References: **(cc)** Equihua & Atkinson 1986: 634. **(hb)** Atkinson & Equihua 1986a: 422; Equihua & Atkinson 1986: 634; Wood, S. L. 1952b: 1182. **(ds)** Atkinson & Equihua 1985c: 361, 1986a: 422.
- 1988: 102; Equihua & Atkinson 1986: 634, 1988: 212; Wood, S. L. 1952b: 1182. **(tx)** Bright 1972a: 1377, 1380; McNamara 1977: 199; Wood, S. L. 1952b: 1182.
- fenoris** Wood 1974a: 60. Holotype ♂?; 15 km SE Cartago, Cartago, Costa Rica, 1800 m; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: Liana.
 References: **(hb)** Wood, S. L. 1952b: 1175. **(ds)** Wood, S. L. 1952b: 1175. **(tx)** Wood, S. L. 1974a: 60, 1952b: 1175.
- frontalis** Wood 1974a: 61. Holotype ♀; 8 km NE Tezintlan, Puebla, Mexico, 1600 m; Wood Collection.
 Distribution: North America (Puebla in Mexico).
 Hosts: Tree branch.
 References: **(ds)** Wood, S. L. 1952b: 1179. **(tx)** Wood, S. L. 1974a: 61, 1952b: 1179.
- gracilipennis** Schedl 1950i: 170. Lectotype, sex?; Brazil, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 107.
 Distribution: South America (Brazil).
 References: **(tx)** de Ruelle 1970: 114; Schedl 1950i: 170, 1979c: 107.
- gracilis** Eggers 1937a: 87. Holotype, sex?; Guadeloupe; USNM, Washington.
 Distribution: Antilles Islands (Guadeloupe).
 References: **(ds)** Blackwelder 1947: 783; Bright 1955c: 176. **(tx)** Anderson, W. H. & Anderson 1971: 13; Bright 1955c: 176; Eggers 1937a: 87, 1940a: 108; Schedl 1950i: 170, 1954b: 40, 1979c: 108.
- inaffectus** Wood 1974a: 57. Holotype ♀; Volcan Poas, Heredia, Costa Rica, 2600 m; Wood Collection.
 Distribution: North America (Costa Rica).
 References: **(ds)** Wood, S. L. 1952b: 1175. **(tx)** Wood, S. L. 1974a: 57, 1952b: 1175.
- incisus** Schedl 1976a: 84. Holotype, sex?; Caraguatatuba, SP, Res. Flor., 40 m, Brazil; MZUSP, Sao Paulo.
 Distribution: South America (Brazil).
 References: **(tx)** Schedl 1976a: 84.
- inornatus** Wood 1974a: 57. Holotype ♀; 15 km SE Cartago, Cartago, Costa Rica, 2500 m; Wood Collection.
 Figures: Wood 1952b: 1174 (declivity).
 Distribution: North America (Costa Rica).
 Hosts: *Siparuna nicaraguaensis*.
 References: **(hb)** Atkinson & Equihua 1985c: 361; Wood, S. L. 1952b: 1174. **(ds)** Atkinson & Equihua 1985c: 361; Wood, S. L. 1952b: 1174. **(tx)** Wood, S. L. 1974a: 57, 1952b: 1174.
- intrusus** Wood 1974a: 58. Holotype ♀; El Laurel, 12 km SW Caracas, Venezuela, 1300 m; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Cecropia* sp. leaf petioles.

- References: (tx) Wood, S. L. 1974a: 55.
- minutissimus** Schedl 1976a: 54. Holotype, sex?; Linhares, E. Santos [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 54.
- naevus** Wood 1974a: 61. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Figures: Wood 1952b: 1181 (declivity).
Distribution: North America (Costa Rica).
Hosts: *Phoebe mexicana*, *Werklia insignata*, and a liana.
References: (hb) Wood, S. L. 1952b: 1180. (ds) Wood, S. L. 1952b: 1180. (tx) Wood, S. L. 1974a: 61, 1952b: 1180.
- nodifer** Blandford 1905: 257. Holotype, sex?; Mirandilla, Esquintla, Guatemala; BMNH, London.
Figures: Blandford 1905:pl. 9, Wood 1952b: 1174 (declivity).
Distribution: North America (Costa Rica/ Guatemala/ Veracruz? in Mexico).
Hosts: *Cecropia* sp. leaf petiole, and a tree branch.
References: (hb) Wood, S. L. 1952b: 1178. (ds) Blackwelder 1947: 753; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1952b: 1178. (tx) Blandford 1905: 257; Eggers 1937a: 35; Hagedorn 1910a: 149; Wood, S. L. 1966b: 30, 1967c: 139, 1952b: 1178.
- triarmatus** Schedl 1939j: 575. Holotype, sex?; Colonia, vermutlich Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 30.
References: (ds) Blackwelder 1947: 753; Ferrer 1942. (tx) Schedl 1939j: 575, 1940a: 355; Wood, S. L. 1966b: 30.
- octodentatus** (Schedl) 1970b: 102 (*Pterocyclo-noides*). Holotype, sex?; Brasilien, Parana, Rondon; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1970b: 102.
- oricollis** Blandford 1905: 257. Holotype, sex?; Cerro Zamil, Quezaltenango, Guatemala; BMNH, London.
Figures: Wood 1952b: 1181 (declivity).
Distribution: North America (Costa Rica/ Puebla in Mexico/ Panama).
Hosts: *Miconia* sp., *Phoebe mexicana*, and a liana.
References: (hb) Wood, S. L. 1952b: 1180. (ds) Blackwelder 1947: 753; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1952b: 1180. (tx) Blandford 1905: 257; Eggers 1937a: 57; Hagedorn 1910a: 149; Hopkins 1914: 131; Schedl 1939j: 579; Wood, S. L. 1952b: 1180–1183.
- parsus** Wood 1974a: 59. Holotype ♂?; 15 km SE Cartago, Cartago, Costa Rica, 1800 m; Wood Collection.
Figures: Wood 1952b: 1174 (declivity).
Distribution: North America (Costa Rica).
Hosts: Liana.
References: (hb) Wood, S. L. 1952b: 1176. (ds) Wood, S. L. 1952b: 1176. (tx) Wood, S. L. 1974a: 59, 1952b: 1176.
- partilis** Wood 1974a: 60. Holotype ♂; Volcan, Puntarenas, Costa Rica; Wood Collection.
Figures: Wood 1952b: 1174 (declivity).
Distribution: North America (Costa Rica).
Hosts: Tree branch.
References: (hb) Wood, S. L. 1952b: 1178. (ds) Wood, S. L. 1952b: 1178. (tx) Wood, S. L. 1974a: 60, 1952b: 1178.
- peltatus** Wood 1974a: 62. Holotype ♀; Cerro Punta near Volcan Chiriqui, Chiriqui, Panama; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: Tree branches and a liana.
References: (hb) Wood, S. L. 1952b: 1183. (ds) Wood, S. L. 1952b: 1183. (tx) Wood, S. L. 1974a: 62, 1952b: 1183.
- perdiligens** Schedl 1950i: 171. Holotype ♀; Jamaica; Schedl Collection in NHMW, Wien.
Figures: Bright 1972d: 59, 75, 95.
Distribution: Antilles Islands (Dominican Republic in Hispanola/ Jamaica).
References: (ds) Bright 1973: 18, 1951c: 156, 1955c: 176. (tx) Bright 1951c: 156, 1955c: 176; Schedl 1950i: 170, 1979c: 188.
- ignotus** Bright 1972d: 99. Holotype ♀; Hardwar Gap, 4000', St. Andrew Parish, Jamaica; CNCI, Ottawa. Synonymy: Bright 1955c: 176.
References: (tx) Bright 1972d: 59, 75, 95, 99, 1955c: 176.
- pernanulus** Schedl 1939j: 581. Holotype, sex?; Sauda (Brasilien?); Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 753; Schedl 1972g: 46. (tx) Schedl 1939j: 581, 1979c: 190.
- plamanui** Schedl 1954b: 40. Lectotype, sex?; Rondon, Parana, Brazil; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 196.
Figures: Wood 1952b: 1181 (declivity).
Distribution: North America (Costa Rica/ Panama), South America (Brazil/ Venezuela).
Hosts: Tree branches and lianas.
References: (hb) Wood, S. L. 1952b: 1184. (ds) Wood, S. L. 1952b: 1184. (tx) de Ruelle 1970: 114; Schedl 1954b: 40, 1979c: 196; Wood, S. L. 1952b: 1184.
- pumilio** Eggers 1937a: 87. Holotype, sex?; Bolivien (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 753. (tx) Eggers 1937a: 87; Schedl 1939j: 580, 1939k: 726, 1979c: 204.

ruficollis (Fabricius) 1801: 388 (*Bostrichus*). Holotype ♀; published as *America meridionali*, type labeled Essequibo [Guyana]; UZMC, Copenhagen.

Distribution: South America (Guyana).

References: (ds) Dejean 1937; Stein & Weise 1877: 164. (tx) Eichhoff 1868d: 421; Fabricius 1801: 388; Ferrari 1868: 255; Sharp 1879: 102. (ms) Eichhoff 1868d: 421.

rufithorax Wood 1974a: 59. Holotype ♀; Finca Cromaco on Rio Coto Brus, Puntarenas, Costa Rica, 500 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Liana.

References: (hb) Wood, S. L. 1982b: 1177. (ds) Wood, S. L. 1982b: 1177. (tx) Wood, S. L. 1974a: 59, 1982b: 1177.

saunderi Wood 1967c: 139. Holotype ♂; Dominical, Puntarenas, Costa Rica; Wood Collection.

Figures: Wood 1982b: 1174 (declivity).

Distribution: North America (Costa Rica).

Hosts: *Theobroma cacao*, and a liana.

References: (ds) Wood, S. L. 1982b: 1179. (tx) Wood, S. L. 1967c: 139, 1982b: 1179.

scitulus Wood 1974a: 62. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.

Figures: Wood 1982b: 1181 (declivity).

Distribution: North America (Costa Rica/Panama), South America (Venezuela).

Hosts: *Crotalaria* sp., *Phoebe mexicana*, etc.

References: (hb) Wood, S. L. 1982b: 1182. (ds) Wood, S. L. 1982b: 1182. (tx) Wood, S. L. 1974a: 62, 1982b: 1182.

senex Schedl 1939j: 580. Lectotype ♂; Nova Teutonia, Brazil; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 225.

Figures: Schedl 1939j: 580, Terra 1987: 28, Wood 1982b: 1181 (declivity).

Distribution: North America (Costa Rica), South America (Bolivia/Brazil).

Hosts: *Calandria confusa*, *Siporana nicaraguensis*, etc.

References: (hb) Wood, S. L. 1982b: 1182. (ds) Blackwelder 1947: 783; Numberg 1971: 58; Schedl 1966f: 91, 1973d: 161, 1975c: 291; Terra 1987: 27; Wood, S. L. 1982b: 1182. (tx) de Ruelle 1970: 114; Schedl 1939j: 580, 1979c: 225; Terra 1987: 27–28; Wood, S. L. 1982b: 1181–1183.

simplicis Wood 1974a: 57. Holotype ♀; Palin, Esquintla, Guatemala; Wood Collection.

Distribution: North America (Costa Rica/Guatemala).

Hosts: *Ficus* sp., and a tree branch.

References: (hb) Wood, S. L. 1982b: 1173. (ds) Wood, S. L. 1982b: 1173. (tx) Wood, S. L. 1974a: 57, 1982b: 1173.

spheiscus Schedl 1939j: 581. Lectotype ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 234. Figures: Pedrosa-Macedo & Schonherr 1985: 54. Distribution: South America (Brazil).

References: (ds) Blackwelder 1947; Pedrosa-Macedo & Schonherr 1985: 54; Schedl 1966f: 91, 1967d: 4, 1970e: 85, 1972g: 46, 1976a: 56. (tx) Pedrosa-Macedo & Schonherr 1985: 54; Schedl 1939j: 581, 1950i: 171, 1979c: 234.

subincisuralis Schedl 1939k: 726. Holotype, sex?; Brasilien, Sta. Catharina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 783; Pedrosa-Macedo & Schonherr 1985: 55; Schedl 1973d: 161, 1976d: 4. (tx) Pedrosa-Macedo & Schonherr 1985: 55; Schedl 1939k: 726, 1979c: 242.

uidentatus Bright 1972d: 98. Holotype ♀; Barbecue Bottom, Trelawny Parish, Jamaica; CNCI, Ottawa.

Figures: Bright 1972: 95.

Distribution: Antilles Islands (Jamaica).

References: (ds) McNamara 1977: 200; Bright 1985c: 176. (tx) Bright 1972d: 95, 98, 1985c: 176.

Genus *Amphicranus* Erichson

AMPHICRANUS ERICHSON 1836: 63. Type-species: *Amphicranus thoracicus* Erichson, monobasic.

Piezorhopalus Guerin-Meneville 1838: 107.

Type-species: *Piezorhopalus nitidulus* Guerin-Meneville = *Amphicranus thoracicus* Erichson, monobasic. Synonymy: Blandford 1905: 290.

References: (tx) Blandford 1905: 290; Guerin-Meneville 1838: 107.

Steganocranus Eichhoff 1878b: 460. Type-species: *Steganocranus dohrni* Eichhoff, monobasic. Synonymy: Blandford 1905: 289.

References: (tx) Blandford 1905: 289; Eichhoff 1878b: 70, 460; Schedl 1939j: 583, 1950i: 176.

Keys: Blandford 1905: 289 and Wood 1982b: 1186 for Central America.

References: (hb) Wood, S. L. 1982b: 1185, 1986a: 99. (ds) Wood, S. L. 1982b: 1185, 1986a: 99. (tx) Blandford 1905: 289; Eggers 1935a: 157; Erichson 1836: 63; Wood, S. L. 1967d: 37–57, 1982b: 1185, 1986a: 99.

acus Wood 1974a: 66. Holotype ♀; El Laurel Experiment Station, 12 km SW Caracas, Venezuela, 1800 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Croton* sp., etc.

References: (tx) Wood, S. L. 1974a: 66.

argutus Wood 1976a: 349. Holotype ♀; Finca La Lola, Limon, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Theobroma cacao*.

- References: (ds) Wood, S. L. 1952b: 1193. (tx) Wood, S. L. 1976a: 349, 1952b: 1193.
- balteatus** Blandford 1905: 291. Holotype, sex?; Cerro Zumil, Quezaltenango, Guatemala, 1300 m; BMNH, London.
Figures: Blandford 1905: pl. 9.
Distribution: North America (Guatemala).
Hosts: "Caldo de Frijol," a tree.
References: (hb) Wood, S. L. 1952b: 1201. (ds) Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 257, 1914b: 308; Wood, S. L. 1952b: 1201. (tx) Blandford 1905: 291; Hagedorn 1910a: 139; Wood, S. L. 1952b: 1201.
- belti** Blandford 1905: 292. Holotype, sex?; Chontales, Nicaragua; BMNH, London.
Figures: Blandford 1905: pl. 9.
Distribution: North America (Costa Rica/Nicaragua).
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 368. (tx) Blandford 1905: 289, 292; Hagedorn 1910a: 139; Wood, S. L. 1952b: 201.
- bipunctatus** Eichhoff 1878b: 469. Holotype, sex?; America meridionalis (Nova Granada); Hamburg Museum, lost.
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 783; Blandford 1905: 289; Kleine 1913b: 157. (tx) Blandford 1905: 289; Eichhoff 1878b: 469; Hagedorn 1910a: 139.
- brasiliensis** Eggers 1931b: 37. Holotype, sex?; Brazil: Sao Paulo; Prague Museum.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 783. (tx) Eggers 1931b: 37-38.
- brevipennis** Blandford 1905: 293. Holotype ♀?; San Isidro, Suchitepequez, Guatemala; BMNH, London.
Figures: Blandford 1905: pl. 9. Wood 1952b: 1191.
Distribution: North America (Costa Rica/Guatemala).
Hosts: Tree branch.
References: (hb) Wood, S. L. 1952b: 1190. (ds) Blackwelder 1947: 783; Bright 1972a: 1385; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 368; Wood, S. L. 1952b: 1190. (tx) Blandford 1905: 293; Hagedorn 1910a: 139; Wood, S. L. 1952b: 1190-1191.
- brounei** Schedl 1979j: 128. Holotype, sex?; Brasilien, Amapa, Alt. Amapari; Schedl Collection in NHMW, Wien, automatic.
Distribution: South America (Brazil).
References: (tx) Schedl 1979j: 128.
- legantulus** Schedl 1978c: 304. Holotype, sex?; Brasilien, Amapa, Alt. Amapari; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1963.
References: (tx) Schedl 1978c: 304; Wood, S. L. 1981: 122.
- electus** Wood 1981: 122. Holotype, sex?; Brasilien, Amapa, Alta. Amapari; Schedl Collection in NHMW, Wien, automatic.
Notes: (1) This is an unneeded replacement name.
References: (tx) Schedl 1979j: 128; Wood, S. L. 1981: 122.
- collosus** (Schedl) 1935h: 351 (*Pterocyclon*). Holotype ♀; Coronado [presumably San Isidro de Coronado, San Jose], Costa Rica. 1400-1500 m; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
References: (ds) Wood, S. L. 1952b: 1194. (tx) Schedl 1935h: 350-351, 1952a: 450, 1979c: 50; Wood, S. L. 1952b: 1194.
- collaris** Blandford 1905: 294. Holotype ♀?; Volcan Chiriqui, Panama; BMNH, London.
Figures: Blandford 1905: pl. 9.
Distribution: North America (Costa Rica/Panama).
Hosts: *Pluoch mexicana*, etc.
References: (hb) Wood, S. L. 1952b: 1200. (ds) Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1952b: 1200. (tx) Blandford 1905: 294; Hagedorn 1910a: 139; Sampson 1912: 245; Wood, S. L. 1952b: 1200.
- cordatus** (Bright) 1972a: 1380 (*Tricolus*). Holotype ♂; 184 km S Oaxaca on Highway 131, Oaxaca, Mexico, 2000 m; CNCI, Ottawa.
Figures: Atkinson et al. 1986: 43, Bright 1972a: 1377.
Distribution: North America (Oaxaca in Mexico).
References: (hb) Atkinson et al. 1986: 44; Burgos & Saucedo 1983: 132. (ds) Atkinson et al. 1986: 44; Burgos & Saucedo 1983: 132; Wood, S. L. 1952b: 1203. (tx) Bright 1972a: 1380; Atkinson et al. 1986: 43; Bright 1972a: 1377; McNamara 1977: 199; Wood, S. L. 1952b: 1203.
- dohrni** (Eichhoff) 1878b: 461 (*Steganocranus*). Syntypes 2, 1 ♀; America meridionalis; 1 lost with Hamburg Museum, 1 ♀ in Dohrn Collection at Stettin now in Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/Venezuela).
Hosts: Tree bole.
Notes: (1) Schedl 1979c: 83 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 96; Schedl 1966f: 91. (tx) Eichhoff 1878b: 461; Hagedorn 1910a: 139; Hopkins 1914: 129; Schedl 1939j: 583, 1950i: 146, 1951h: 285, 1979c: 83.
- caudatus** Eggers 1931a: 17. Holotype, sex?; Brazil; MNB, Berlin. Synonymy; Schedl 1950i: 176.
References: (ds) Blackwelder 1947: 783. (tx) Eggers 1931a: 17, 1943a: 384; Schedl 1950i: 146.
- eichhoffi** Eggers 1931a: 17. Holotype ♂; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).

- References: **(ds)** Blackwelder 1947: 783. **(tx)** Eggers 1931a: 17, 1943a: 384; Schedl 1950i: 176, 1979c: 87.
- galeatus* (Eggers) 1943a: 384 (*Steganocramus*).
Holotype ♀; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1950i: 176.
References: **(tx)** Eggers 1943a: 384; Schedl 1950i: 176, 1979c: 102.
- elegans* Eichhoff 1869a: 276. Holotype, sex?; Mexico; Hamburg Museum, lost.
Figures: Blandford 1905: pl. 9, Wood 1982b: 1191.
Distribution: North America (Costa Rica/ Veracruz in Mexico/ Nicaragua).
Hosts: *Theobroma cacao*.
References: **(ds)** Blackwelder 1947: 783; Blandford 1905: 290; Ferrer 1942; Gemminger & Harold 1872: 2680, 2692; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 353; Wood, S. L. 1982b: 1192. **(tx)** Blandford 1905: 289–290; Eggers 1931a: 18; Eichhoff 1869a: 276, 1878b: 465; Hagedorn 1910a: 139; Schedl 1940a: 359; Wood, S. L. 1982b: 1191–1192.
- elegantulus* Schedl 1963d: 225. Holotype, sex?; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1963d: 225, 1979c: 88.
- fastigiatus* Blandford 1905: 296. Holotype ♂; Cerro Zunil, Quezaltenango, Guatemala; BMNH, London.
Figures: Blandford 1905: pl. 9.
Distribution: North America (Costa Rica/ Guatemala).
Hosts: *Conostegia oerstediana*, *Parkinsonia aculeata*.
References: **(hb)** Wood, S. L. 1982b: 1205. **(ds)** Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 368; Schedl 1933c: 164; Wood, S. L. 1982b: 1205. **(tx)** Blandford 1905: 296; Eggers 1931a: 16, 18; Hagedorn 1910a: 139; Schedl 1939j: 583, 1950i: 176; Wood, S. L. 1982b: 1205–1206.
- filliformis* Blandford 1905: 295. Holotype, sex?; Omilteme, Guerrero, Mexico; BMNH, London.
Figures: Blandford 1905: pl. 9.
Distribution: North America (Chiapas, Guerrero in Mexico).
References: **(hb)** Atkinson & Equihua 1985c: 361. **(ds)** Atkinson & Equihua 1985c: 361; Blackwelder 1947: 783; Ferrer 1942; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 353; Wood, S. L. 1982b: 1203. **(tx)** Blandford 1905: 295; Hagedorn 1910a: 139; Schedl 1940a: 359; Wood, S. L. 1982b: 1203.
- fryi* Blandford 1905: 291. Holotype, sex?; Brazil, Rio de Janeiro; BMNH, London.
Distribution: South America (Brazil/ Cayenne/ Ecuador).
References: **(ds)** Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 337. **(tx)** Blandford 1905: 289, 291; Hagedorn 1910a: 139.
- fulgidus* Wood 1976a: 350. Holotype ♀; Finca Los Diamantes [near Dominical], Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Theobroma cacao*.
References: **(ds)** Wood, S. L. 1982b: 1195. **(tx)** Wood, S. L. 1976a: 350, 1982b: 1195.
- gracilis* Eggers 1943a: 383. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: **(tx)** Anderson, W. H. & Anderson 1971: 13; Eggers 1943a: 383.
- grouvellei* Blandford 1905: 294. Syntypes 2, sex?; tobacco-refuse, probably Brazilian, intercepted at Paris; BMNH, London.
Distribution: South America (Brazil).
References: **(ec)** Wichmann 1955a: 107. **(ds)** Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 337; Wichmann 1955a: 107. **(tx)** Blandford 1905: 290, 294; Hagedorn 1910a: 139.
- hybridus* Blandford 1905: 295. Holotype ♀; Guatemala, Guatemala; BMNH, London.
Figures: Blandford 1905: pl. 9.
Distribution: North America (Guatemala/ Nayarit in Mexico).
References: **(ds)** Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 368; Wood, S. L. 1982b: 1193. **(tx)** Blandford 1905: 298; Eggers 1931a: 19; Hagedorn 1910a: 139; Wood, S. L. 1982b: 1193.
- lesnei* Hagedorn 1903b: 550. Holotype, sex?; Vallee de Cauca, Colombia; MNIN, Paris.
Distribution: South America (Colombia).
References: **(ds)** Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 157. **(tx)** Hagedorn 1903b: 550, 1910a: 139.
- macellus* Wood 1974a: 64. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica, 30 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Tree limb.
References: **(hb)** Wood, S. L. 1982b: 1202. **(ds)** Wood, S. L. 1982b: 1202. **(tx)** Wood, S. L. 1974a: 64, 1982b: 1202.
- melanura* (Blandford) 1904: 272 (*Pterocyclon*). Holotype ♂; Volcan de Chiriqui, Panama; BMNH, London.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Phoebe mexicana*.
References: **(hb)** Wood, S. L. 1982b: 1195. **(ds)** Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1195. **(tx)** Blandford 1904: 272; Hagedorn 1910a: 149; Schedl 1935h: 348; Wood, S. L. 1982b: 1195–1196.
- opacifrons* Schedl 1935h: 350. Holotype ♀; Coro-

- nado [presumably San Isidro de Coronado, San Jose]. Costa Rica: Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 26. References: (tx) Schedl 1935h: 350, 1979c: 179; Wood, S. L. 1966b: 26.
- micans** Wood 1976a: 350. Holotype ♀; Rio Damitas, Dota Mts., San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica/Oaxaca, Veracruz in Mexico/Panama). Hosts: *Protium* sp., *Terminalia* sp. References: (hb) Wood, S. L. 1982b: 1194. (ds) Atkinson & Equihua 1986a: 422, 1988: 85; Wood, S. L. 1982b: 1194. (tx) Wood, S. L. 1976a: 350, 1982b: 1194.
- minor** (Eggers) 1935a: 332 (*Anthonocerus*). Holotype ♂; Bolivien (Cochabamba): USNM, Washington. Distribution: South America (Bolivia). References: (ds) Blackwelder 1947: 783. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1935a: 332–333.
- mirandus** Wood 1974a: 63. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica, 30 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Tree limb. References: (hb) Wood, S. L. 1982b: 1197. (ds) Wood, S. L. 1982b: 1197. (tx) Wood, S. L. 1974a: 63, 1982b: 1197–1198.
- mucronatus** Wood 1974a: 66. Holotype ♀; Volcan de Chiriqui at Cerro Pmta, Chiriqui, Panama, 1800 m; Wood Collection. Distribution: North America (Panama). Hosts: Tree branch. References: (ds) Wood, S. L. 1982b: 1205. (tx) Wood, S. L. 1974a: 66, 1982b: 1205.
- parilis** Wood 1975a: 31. Holotype ♂; 6 km W Tepic, Nayarit, Mexico, 1000 m; Wood Collection. Distribution: North America (Nayarit in Mexico). Hosts: Tree branch. References: (ds) Wood, S. L. 1982b: 1202. (tx) Wood, S. L. 1975a: 31, 1982b: 1202–1203.
- plaumanni** Schedl 1978c: 305. Holotype, sex?; Brasilien, Nova Teutonia, 300–400 m, 27 11 Br., 52 23 L; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1978c: 305
- politus** Eichhoff 1869a: 276. Holotype, sex?; Nov. Friburg; IRSNB, Brussels. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 783; Blandford 1905: 289; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 337; Schedl 1973d: 160. (tx) Blandford 1905: 289; Eichhoff 1869a: 276, 1878b: 467; Hagedorn 1910a: 139.
- propugnatus** Blandford 1905: 297. Holotype ♀?; Cerro Zunil, Quezaltenango, Guatemala; BMNH, London. Figures: Blandford 1905: pl. 9. Distribution: North America (Costa Rica/ Guatemala). References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 157; Wood, S. L. 1982b: 1203. (tx) Blandford 1905: 297; Hagedorn 1910a: 139; Schedl 1934c: 38; Wood, S. L. 1967d: 55, 1982b: 1203.
- armatus** Schedl 1934c: 37. Holotype ♀?; Turrialba, Costa Rica; Schedl Collection in NHMW, Wien. Synonymy: Wood 1982b: 1203–1204. References: (ds) Blackwelder 1947: 783. (tx) Schedl 1934c: 37–38, 1979c: 26; Wood, S. L. 1982b: 1203.
- quadrinaculatus** Schedl 1966f: 127. Holotype, sex?; Chanchamajo, Peru; Schedl Collection in NHMW, Wien. Distribution: South America (Peru). References: (ds) Schedl 1966f: 92. (tx) Schedl 1966f: 127, 1979c: 208.
- rameus** Wood 1967d: 55. Holotype ♀; 5 km W El Salto, Durango, Mexico, 2500 m; Wood Collection. Figures: Wood 1967d: 54, 1982b: 1233 (declivity). Distribution: North America (Durango in Mexico). Hosts: *Quercus* sp. References: (hb) Wood, S. L. 1982b: 1196. (ds) Wood, S. L. 1982b: 1196. (tx) Wood, S. L. 1967d: 54–55, 1982b: 1196, 1233.
- rasis** Schedl 1950i: 174. Syntypes ♀; Brazil, Santa Catharina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection. Distribution: South America (Brazil). Notes: (1) Schedl 1979c: 210 (citation of holotype invalid). References: (ds) Pedrosa-Macedo & Schonherr 1985: 56; Schedl 1960f: 92, 1967d: 4, 1970g: 46. (tx) Pedrosa-Macedo & Schonherr 1985: 56; Schedl 1950i: 174, 1979c: 210.
- retusus** Eichhoff 1869a: 276. Holotype, sex?; Amer. mer. (Cayenne); IRSNB, Brussels. Distribution: South America (Brazil/ Cayenne/ Ecuador). References: (ds) Blackwelder 1947: 783; Blandford 1905: 291; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 95; Kleine 1913b: 157, 1914b: 337–338. (tx) Blandford 1904: 289, 291; Eichhoff 1869a: 276, 1878b: 466; Hagedorn 1910a: 139.
- schaufussi** Blandford 1905: 293. Holotype, sex?; Venezuela; Hamburg Museum, lost. Distribution: South America (Venezuela). References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 158, 1914b: 340. (tx) Blandford 1905: 290, 293; Hagedorn 1910a: 139; Wood, S. L. 1982b: 1199.

- speciosus (Schedl)** 1934c: 38 (*Tricolus*). Holotype, sex[?]; Hamburgfarm on Rio Reventazon. Limon, Costa Rica; Schedl Collection in NHMW, Wien. Distribution: North America (Costa Rica). Hosts: Tree. References: (ds) Blackwelder 1947: 783; Wood, S. L. 1982b: 1199. (tx) Schedl 1934c: 58, 1979c: 233; Wood, S. L. 1967c: 140, 1982b: 1199.
- spectabilis (Wood)** 1967c: 140 (*Tricolus*). Holotype ♀; Finca La Lola. Limon, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Theobroma cacao*. References: (hb) Wood, S. L. 1982b: 1199. (ds) Wood, S. L. 1982b: 1199. (tx) Wood, S. L. 1967c: 140, 1982b: 1199–1200.
- spectus Wood** 1980b: 358. Holotype ♂; Pichucalco, Chiapas, Mexico; Wood Collection. Distribution: North America (Chiapas, Veracruz in Mexico). Hosts: *Theobroma cacao*, *Zygia* sp. References: (ds) Atkinson & Equihua 1986a: 422; Wood, S. L. 1982b: 1200. (tx) Wood, S. L. 1980b: 358, 1982b: 1200.
- spinachius (Schedl)** 1939j: 584 (*Staganocranus*). Holotype, sex[?]; Brasilien; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 783. (tx) Schedl 1939j: 584, 1950i: 177, 1979c: 234.
- spinescens Wood** 1974a: 65. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica, 30 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Tree limb. References: (hb) Wood, S. L. 1982b: 1204. (ds) Wood, S. L. 1982b: 1204. (tx) Wood, S. L. 1974a: 65, 1982b: 1204.
- spinosus Wood** 1974a: 65. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica, 30 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Tree limb. References: (hb) Wood, S. L. 1982b: 1204. (ds) Wood, S. L. 1982b: 1204. (tx) Wood, S. L. 1974a: 65, 1982b: 1204–1205.
- splendens Wood** 1982a: 223. Holotype ♂; San Rafael, Mexico, Mexico; Wood Collection. Distribution: North America (Mexico in Mexico). Hosts: *Quercus* sp. References: (hb) Atkinson & Equihua 1985a: 101. (ds) Atkinson & Equihua 1985a: 101. (tx) Wood, S. L. 1982a: 223.
- stenodermis (Schedl)** 1963: 166 (*Pterocyclon*). Holotype, sex[?]; Cordoba [presumably in Veracruz, Mexico]; Schedl Collection in NHMW, Wien. Distribution: North America (Nayarit, Veracruz in Mexico). Hosts: Tree limb. References: (hb) Wood, S. L. 1982b: 1193. (ds) Wood, S. L. 1982b: 1193. (tx) Schedl 1963c: 166, 1979c: 237; Wood, S. L. 1982b: 1193.
- tenuis Blandford** 1905: 295. Holotype ♀; “Mexican” tobacco refuse [probably from Brazil]; BMNH, London. Figures: Blandford 1905: pl. 9. Distribution: South America (Brazil/Venezuela). Notes: All of Blandford’s species named from Mexican tobacco refuse are actually from Brazil. References: (ec) Wichmann 1955a: 107. (hb) Wood, S. L. 1982b: 1197. (ds) Blackwelder 1947: 783; Ferrer 1942; Hagedorn 1910d: 95; Kleine 1913b: 158, 1914b: 354; Wichmann 1955a: 107; Wood, S. L. 1982b: 1197. (tx) Blandford 1905: 295; Hagedorn 1910a: 139; Schedl 1934c: 37, 1940a: 359, 1950i: 174; Wood, S. L. 1982b: 1197, 1202.
- terebella Blandford** 1905: 296. Holotype ♂[?]; Volcan de Chiriqui, Panama; BMNH, London. Figures: Blandford 1905: pl. 9. Distribution: North America (Panama), South America (Venezuela). Hosts: *Nectandra* sp., Guttiferae (near *Vismia* sp.). References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 158. (tx) Blandford 1905: 296; Hagedorn 1910a: 139.
- theobroma Sampson** 1912: 245. Holotype, sex[?]; Trinidad; BMNH, London. Distribution: Antilles Islands (Trinidad). Hosts: *Theobroma cacao*. References: (ds) Blackwelder 1947: 783; Kleine 1913b: 158, 1914b: 344. (tx) Sampson 1912: 245.
- thoracicus Erichson** 1836: 64. Holotype, sex[?]; Brasilien; MNB, Berlin. Distribution: South America (Brazil/ Cayenne/ Guyana). References: (ds) Blackwelder 1947: 783; Blandford 1905: 290; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 95; Kleine 1914b: 337–338; Lacordaire 1866: 383; Nunberg 1962: 223; Schedl 1966f: 79, 1967d: 4. (tx) Blandford 1905: 289–290; Castelnau 1840; Erichson 1836: 64; Ferrari 1867a: 48; Hagedorn 1910a: 139; Hopkins 1914: 116; Lacordaire 1866: 383; Lucas 1920: 90. *nitidulus* Guerin-Meneville 1835b: 107 (*Piezorhopalus*). Holotype, sex[?]; Brazil; not located. Synonymy: Blandford 1904: 290. References: (ds) Gemminger & Harold 1872: 2692; Lacordaire 1866: 383. (tx) Blandford 1904: 290; Eichhoff 1878b: 464; Ferrari 1867: 48; Guerin-Meneville 1835b: 107; Hopkins 1914: 127; Lacordaire 1866: 383.
- tornatilis Wood** 1974a: 64. Holotype ♀; 6 km S San Vito, Puntarenas, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: Tree. References: (ds) Wood, S. L. 1982b: 1195. (tx) Wood, S. L. 1974a: 64, 1982b: 1195–1199.

torneutes Blandford 1905: 292. Holotype, sex?; Chilpancingo, Guerrero, Mexico; BMNH, London. Figures: Blandford 1905: pl. 9. Distribution: North America (Guerrero at 1300 m in Mexico).

References: (ds) Blackwelder 1947: 753; Ferrer 1942; Hagedorn 1910d: 95; Kleine 1914b: 354; Wood, S. L. 1982b: 1201. (tx) Blandford 1905: 292; Hagedorn 1910a: 139; Schedl 1940a: 359; Wood, S. L. 1967d: 55, 1982b: 1201.

truncatorus Schedl 1950i: 175. Syntypes ♂; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 257 (corrects spelling, citation of holotype invalid).

References: (ds) Schedl 1967d: 4; Wood, S. L. 1982b: 1201. (tx) Schedl 1950i: 175, 1979c: 256; Wood, S. L. 1982b: 1201.

ursus Schedl 1934c: 37. Holotype ♀?; San Jose, Costa Rica, 1000–1500 m; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica).

References: (ds) Blackwelder 1947: 753; Wood, S. L. 1982b: 1198. (tx) Schedl 1934c: 37, 1979c: 262; Wood, S. L. 1982b: 1198.

vagabundus (Schedl) 1966f: 124 (*Cosmocorynus*). Holotype ♀; Boliviën; Schedl Collection in NHMW, Wien.

Distribution: South America (Bolivia).

References: (ds) Schedl 1966f: 50. (tx) Schedl 1966f: 80, 124, 1979c: 263.

Genus *Gnatharus* Wood & Yin

GNATHARUS WOOD & YIN 1986: 463. Type-species: *Gnatharus tibetensis* Wood & Yin, original designation.

Notes: (3) This is the only member of the subtribe Corthylina that occurs naturally in an area outside of America.

References: (hb) Wood, S. L. 1986a: 99. (ds) Wood, S. L. 1986a: 99. (tx) Wood, S. L. 1986a: 99; Wood, S. L. & Yin 1986: 463.

tibetensis Wood & Yin 1986: 463. Holotype ♀; Medog, Xizang [Tibet], China; IZAS, Beijing. Distribution: Asia (Xizang [Tibet] in China). References: (tx) Wood, S. L. & Yin 1986: 463.

Genus *Monarthrum* Kirsch

MONARTHNUM KIRSCH 1866: 213. Type-species: *Monarthrum chapuisi* Kirsch, monobasic.

Corthylomimus Ferrari 1867a: 48. Type-species: *Bostrichus fasciatus* Say, subsequent designation by Hopkins 1914: 118. Synonymy: Eichhoff 1869c: 300.

References: (tx) Eichhoff 1869c: 297–301; Ferrari 1867a: 48; Hagedorn 1910d: 92; Hopkins 1914: 118; LeConte 1876: 153.

Cosmocorynus Ferrari 1867a: 62. Type-species:

Cosmocorynus cristatus Ferrari, monobasic. Synonymy: LeConte 1876: 348.

References: (tx) Eggers 1937a: 85; Eichhoff 1869c: 297–301; Ferrari 1867a: 62; Hagedorn 1910d: 92; LeConte 1876: 348; Wood, S. L. 1966b: 19.

Pterocyclon Eichhoff 1869a: 276. Type-species: *Pterocyclon laterale* Eichhoff, subsequent designation by Hopkins 1914: 125, neotype designated for type-species by Wood 1966b: 25. Synonymy: Eichhoff 1869c: 299.

References: (cn) Brooks 1917: 1–15; Drake 1921: 201–205; Swabey 1935: 1–35. (ds) Swaine 1909: 141. (tx) Beal & Massey 1945: 59, 102; Blackman 1922b: 76, 80; Blandford 1898c: 6, 1904: 268–286; Eggers 1935a: 75–77, 153; Eichhoff 1869a: 276, 1869c: 297–301, 1878b: 437; Hagedorn 1910a: 147–149; Schedl 1935h: 343, 1952k: 161, 1959m: 545–557; Swaine 1918a: 45, 86–87; Wood, S. L. 1966b: 19.

Anchonocerus Eichhoff 1878b: 67, 431. Type-species: *Anchonocerus rufipes* Eichhoff = *Pterocyclon ingens* Eichhoff, monobasic. Synonymy: Wood 1977d: 512.

References: (tx) Blandford 1905: 250, 266; Eggers 1935a: 329; Eichhoff 1878b: 67, 431; Hagedorn 1910d: 95; Wood, S. L. 1977d: 512.

Phthorius Eichhoff 1878b: 67, 433. Type-species: *Pterocyclon ingens* Eichhoff, monobasic. Synonymy: Eggers 1935a: 329.

References: (tx) Eggers 1935a: 329; Eichhoff 1878b: 67, 433.

Trypocranus Eichhoff 1878b: 67, 435. Type-species: *Trypocranus cincinnatus* Eichhoff, monobasic. Synonymy: Wood 1982b: 1206.

References: Eichhoff 1878b: 67, 435; Eggers 1935a: 76, 329; Schedl 1952k: 161; Wood, S. L. 1982b: 1206.

Eupteroxylon Eggers 1936a: 392. Type-species: *Eupteroxylon comatum* Eggers, monobasic. Synonymy: Wood 1986a: 266.

References: (tx) Eggers 1936a: 392–393; Wood, S. L. 1986a: 266.

Keys: Blandford 1904: 269; Wood 1982b: 1207.

Notes: (3) Schedl 1939k: 726–727 (*Pterocyclon perduratum*, nomen nudum).

References: (ay) Nobuchi 1969a: 67. (cn) Ebeling & Pence 1953: 31; Howard 1897: 84–87; Hubbard 1897: 9–30; Snyder 1927: 1–46. (hb) Bright & Stark 1973: 94; Wood, S. L. 1982b: 1206, 1986a: 99. (ds) Bright & Stark 1973: 94; Swaine 1909: 142; Wood, S. L. 1982b: 1206, 1986a: 99. (tx) Arnett 1960: 1045, 1968: 1045; Bright 1972d: 101, 1976d: 188–189; Bright & Stark 1973: 94; Chamberlin 1939: 279–283, 1958: 128–129; Dodge 1938: 14, 18, 37; Eggers 1935a: 75–78, 1936a: 392; Eichhoff 1869c: 297–301; Ferrari 1867a: 104–115; Kirsch 1866: 213, 1868: 214; LeConte 1876: 347; LeConte & Horn 1883: 517; Swaine 1918a: 86; Wood, S. L. 1964: 19, 1966b:

19. 1967d: 37–57, 1977d: 512, 1982b: 1206, 1986a: 99.
- aberrans** Schedl 1977e: 46. Holotype ♂; El Salvador, Metapan, 1600–2200 m; Schedl Collection in NHMW, Wien.
Distribution: North America (El Salvador).
Hosts: *Quercus* sp.
References: (tx) Schedl 1977e: 46.
- abruptum** (Nunberg) 1962: 233 (*Microcorthyus*). Holotype ♂; Estacao Biologica de Boraceia, Salesopolis, Estado de Sao Paulo, Brasilien; DZSA, Sao Paulo.
Distribution: South America (Brazil).
References: (tx) Nunberg 1962: 233.
- adjunctum** (Schedl) 1967d: 15 (*Pterocyclon*). Holotype ♀; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1967d: 15–16, 1979c: 12.
- amphicranoides** (Schedl) 1963d: 225 (*Pterocyclon*). Holotype, sex?; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1963c: 166, 1963d: 225, 1979c: 18.
- appendicinum** (Schedl) 1967d: 14 (*Pterocyclon*). Holotype ♂; Brasilien, Nova Teutonia, Santa Catarina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1976a: 56. (tx) Schedl 1967d: 14–15.
- bicallosum** (Schedl) 1939j: 577 (*Pterocyclon*). Holotype, sex?; Brasilien; Schedl Collection in NHMW, Wien.
Figures: Schedl 1939j: 578.
Distribution: South America (Brazil).
Hosts: *Cedrela fissilis*.
References: (ds) Blackwelder 1947: 782; Schedl 1966f: 91, 1976a: 56; Schonherr & Pedrosa-Macedo 1981: 53. (tx) Schedl 1939j: 577–578, 1950i: 164–165, 1951h: 285, 1979c: 37.
- bicavum** Wood 1967d: 51. Holotype ♀; Laguna Santa Maria, Nayarit, Mexico, 1000 m; Wood Collection.
Figures: Wood 1967a: 46, 1982b: 1219 (declivity).
Distribution: North America (Nayarit in Mexico).
Hosts: *Quercus* sp.
References: (hb) Wood, S. L. 1982b: 1234. (ds) Wood, S. L. 1982b: 1234. (tx) Wood, S. L. 1967a: 46, 1967d: 51–52, 1982b: 1234.
- bicolor** (Ferrari) 1867a: 56 (*Corthyus*). Holotype ♀; Venezuela [presumably Colonia Tovar]; NHMW, Wien.
Distribution: South America (Venezuela).
Hosts: *Clusia* sp., etc.
References: (ds) Blackwelder 1947: 782; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 92; Kleine 1914b: 340. (tx) Ferrari 1867a: 54, 56; Wood, S. L. 1974d: 283.
- signatus** Ferrari 1867a: 56 (*Corthyus*). Syntypes ♂; Venezuela [presumably Colonia Tovar]; NHMW, Wien. Synonymy: Wood 1974d: 283.
References: (ds) Gemminger & Harold 1872: 2680. (tx) Ferrari 1867a: 54, 56; Wood, S. L. 1974d: 283.
- edentatus** Hagedorn 1903b: 549 (*Phthorinus*). Holotype ♂; Colonia Tovar, Venezuela; NHMW, Paris. Synonymy: Wood 1974d: 284.
Notes: (3) Eggers 1935a: 82 (redescribed).
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 95; Kleine 1913b: 158, 1914b: 340. (tx) Eggers 1929e: 51, 1933b: 3, 1935a: 76–83; Hagedorn 1903b: 549, 1910a: 142; Wood, S. L. 1974d: 284.
- bicoloratum** Wood 1974d: 284. Holotype ♂; Mile 10 on Bartica-Potaro Road, British Guiana; BMNH, London, automatic.
Distribution: South America (Guyana).
References: (tx) Wood, S. L. 1974d: 284.
- bicolor** Wood 1968b: 4. Holotype ♂; Mile 10 on Bartica-Potaro Road, British Guiana; BMNH, London, preoccupied by Ferrari 1867.
References: (ds) Hagedorn 1910d: 92; Kleine 1913b: 156. (tx) Hagedorn 1910a: 148; Wood, S. L. 1968b: 4, 1974d: 284.
- bidens** (Blandford) 1904: 277 (*Pterocyclon*). Holotype ♂; Volcan de Chiriqui, Panama; BMNH, London.
Distribution: North America (Costa Rica/ Chiapas in Mexico/ Panama).
Hosts: *Conostegia oerstediana*.
References: (hb) Wood, S. L. 1982b: 1241. (ds) Blackwelder 1947: 782; Bright 1972a: 1385; Hagedorn 1910d: 92; Kleine 1913b: 156, 1914b: 367; Wood, S. L. 1982b: 1241. (tx) Blandford 1904: 277; Hagedorn 1910a: 148; Wood, S. L. 1982b: 1241.
- bidentatum** Wood 1974b: 142. Holotype ♂; 9 km NE Teziutlan, Puebla, Mexico; Wood Collection.
Distribution: North America (Puebla in Mexico).
Hosts: *Alnus* sp., and a tree limb.
References: (hb) Wood, S. L. 1982b: 1240. (ds) Wood, S. L. 1982b: 1240. (tx) Wood, S. L. 1974b: 142, 1982b: 1240.
- bifoventum** Wood 1974b: 137. Holotype ♀; San Jose, San Jose, Costa Rica; Wood Collection.
Distribution: Antilles Islands (Dominican Republic in Hispanola [?]), North America (Costa Rica), South America (Venezuela).
Hosts: *Spondias purpurea*, and a tree limb.
References: (hb) Wood, S. L. 1982b: 1229. (ds) Bright 1985c: 176; Wood, S. L. 1982b: 1229. (tx) Bright 1985c: 176; Wood, S. L. 1974b: 137, 1982b: 1229.

- bispinum** (Blandford) 1905: 251 (*Pterocyclon*).
Holotype ♂; Bugaba, Chiriqui, Panama, 800–1500 ft.; BMNH, London.
Figures: Blandford 1905: pl. 9.
Distribution: North America (Costa Rica/Panama).
Hosts: Log.
References: (ds) Blackwelder 1947: 782; Hagedorn 1910d: 92; Kleine 1913b: 156, 1914b: 342, 367; Wood, S. L. 1982b: 1221. (tx) Blandford 1905: 251; Hagedorn 1910a: 148; Schedl 1952a: 459; Wood, S. L. 1982b: 1221.
- boliviensis** Wood 1989: 178. Holotype ♀; Bolivia, Yungas del Palmar, 2000 m; Schedl Collection in NHMW, Wien, automatic.
Distribution: South America (Bolivia).
References: (tx) Wood, S. L. 1989: 178.
- bolivianum** Schedl 1970e: 103 (*Cosmocorynus*).
Holotype ♀; Bolivia, Yungas del Palmar, 2000 m; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1935.
References: (tx) Schedl 1970e: 103; Wood, S. L. 1989: 178.
- brasilensis** (Schedl) 1936i: 107 (*Anchonocerus*).
Holotype ♂; Nova Teutonia, S. Catharina, Brasilien; Schedl Collection in NHMW, Wien.
Figures: Pedrosa-Macedo & Schonherr 1985: 57.
Distribution: South America (Brazil).
Notes: (1) Schedl 1959m: 553 (to *Pterocyclon*, =*Monarthrum*). (3) Schedl 1959m: 553 (described female).
References: (ds) Blackwelder 1947: 783; Pedrosa-Macedo & Schonherr 1985: 57; Schedl 1966f: 92, 1967d: 4, 1972g: 46, 1976a: 56. (tx) Pedrosa-Macedo & Schonherr 1985: 57; Schedl 1936i: 107, 1951h: 285, 1952k: 161, 1959m: 553, 1979c: 44.
- brittoni** (Schedl) 1970e: 101 (*Pterocyclon*). Holotype ♂; Jamaica; Corn Puss Gap, St. Thomas-Portland Parish line, 2200 ft.; Schedl Collection in NHMW, Wien.
Figures: Bright 1972d: 59, 95.
Distribution: Antilles Islands (Jamaica).
References: (ds) Bright 1972d: 101, 1985c: 176. (tx) Bright 1972d: 59, 95, 101, 1985c: 176; Schedl 1957a: 194, 1970e: 101, 1979c: 45.
- brunneum** (Eichhoff) 1869a: 278 (*Pterocyclon*).
Holotype, sex?; Columbia; Hamburg Museum, lost.
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 782; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 92; Kleine 1914b: 342. (tx) Eichhoff 1869a: 278, 1869c: 301, 1878b: 452; Hagedorn 1910a: 148.
- carinatum** Wood 1974b: 139. Holotype ♂; Cerro de la Muerte, San Jose, Costa Rica, 2600 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Tree bole.
References: (hb) Wood, S. L. 1982b: 1237. (ds) Wood, S. L. 1982b: 1237. (tx) Wood, S. L. 1974b: 139, 1982b: 1237.
- carinulum** Wood 1974b: 144. Holotype ♂; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Miconia caudata*, *Phoebe mexicana*, and a liana.
References: (hb) Wood, S. L. 1982b: 1243. (ds) Wood, S. L. 1982b: 1243. (tx) Wood, S. L. 1974b: 144, 1982b: 1243.
- chapuisi** Kirsch 1866: 213. Holotype ♂; Bogota, Colombia; MNB, Berlin.
Distribution: South America (Bolivia/Colombia).
Notes: (3) Eggers 1935a: 79 (redescribed).
References: (ds) Blackwelder 1947: 783; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 92; Kleine 1914b: 342. (tx) Eggers 1929e: 51, 1935a: 76–83; Eichhoff 1869a: 277, 1869c: 299, 301, 1878b: 440; Ferrari 1967b: 105; Hagedorn 1910a: 148; Hopkins 1914: 125; Kirsch 1866: 213, 1868: 214; Wood, S. L. 1989: 175.
- bolivianum** Eggers 1935a: 80. Holotype ♀; Bolivia (Cochabamba); USNM, Washington.
Synonymy: Wood 1989: 175.
References: (ds) Blackwelder 1947: 783. (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1935a: 80; Schedl 1950i: 176, 1958c: 1, 1979c: 42; Wood, S. L. 1989: 175.
- cincinnatum** (Eichhoff) 1878b: 435 (*Trypocranus*).
Holotype ♀; America septentrionalis (Bogota); Hamburg Museum, lost.
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 92; Kleine 1914b: 342. (tx) Eggers 1935a: 77–78; Eichhoff 1878b: 435; Hagedorn 1910a: 148; Hopkins 1914: 131.
- comatum** (Eggers) 1936a: 393 (*Eupterocydon*).
Holotype ♀; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 783. (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1936a: 393–394.
- consimile** (Blandford) 1904: 275 (*Pterocyclon*).
Holotype ♀; Volcan de Chiriqui, Panama, 25–4000 ft.; BMNH, London.
Distribution: North America (Costa Rica/Panama).
Hosts: *Ochroma* sp.
References: (hb) Wood, S. L. 1982b: 1236. (ds) Blackwelder 1947: 782; Hagedorn 1910d: 92; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1236. (tx) Blandford 1904: 275; Hagedorn 1910a: 148; Wood, S. L. 1974d: 284, 1982b: 1236.
- pseudosulcatum** Schedl 1935h: 348 (*Pterocyclon*).
Holotype ♀; Vara Blanca, Heredia, Costa Rica; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974: 254.
References: (ds) Blackwelder 1947: 783. (tx)

Schedl 1935h: 348, 1979c: 202; Wood, S. L. 1974d: 284.

conversum Wood 1974b: 138. Holotype ♂; 6 km W Tepic, Nayarit, Mexico, 1000 m; Wood Collection. Distribution: North America (Jalisco, Nayarit in Mexico).

Hosts: Tree limb.

References: (hb) Wood, S. L. 1982b: 1236. (ds) Atkinson & Equihua 1985c: 362; Wood, S. L. 1982b: 1236. (tx) Wood, S. L. 1974b: 138, 1982b: 1236.

corculum Wood 1974b: 146. Holotype ♂; Turrialba, Cartago, Costa Rica, 700 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Theobroma cacao*, and a liana.

References: (hb) Wood, S. L. 1982b: 1245. (ds) Wood, S. L. 1982b: 1245. (tx) Wood, S. L. 1974b: 146, 1982b: 1245.

cordatum (Blandford) 1904: 279 (*Pterocyclon*). Holotype ♀; Quiche Mts., Guatemala; BMNH, London.

Distribution: North America (Guatemala/Panama).

Hosts: *Quercus* sp.

References: (hb) Wood, S. L. 1982b: 1223. (ds) Blackwelder 1947: 782; Hagedorn 1910d: 92; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1223. (tx) Blandford 1904: 279; Hagedorn 1910a: 148; Schedl 1935h: 349, 1952a: 460; Wood, S. L. 1982b: 1223.

corditicum Wood 1974b: 135. Holotype ♂; 30 km E Tulancingo, Hidalgo, Mexico, 2300 m; Wood Collection.

Distribution: North America (Hidalgo, Puebla in Mexico).

Hosts: *Quercus* sp.

References: (hb) Wood, S. L. 1982b: 1222. (ds) Atkinson & Equihua 1988: 92; Wood, S. L. 1982b: 1222. (tx) Wood, S. L. 1974b: 135, 1982b: 1222.

costatum (Eggers) 1937a: 85 (*Brachyspartus*). Syn-types, sex?; Brasilien (Bahia); BMNH, London.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 784. (tx) Anderson, W. H. & Anderson 1971: 10; Eggers 1937a: 85–86; Schedl 1979c: 67.

cristatum (Ferrari) 1867a: 64 (*Cosmocorynus*). Holotype ♀; Venezuela [presumably Colonia Tovar]; NHMW, Wien.

Distribution: South America (Venezuela).

References: (ds) Gemminger & Harold 1872: 2693. (tx) Eggers 1937a: 84–85; Eichhoff 1868d: 419, 1869c: 301; Ferrari 1867a: 64; Hopkins 1914: 119; Schedl 1979c: 70; Wood, S. L. 1966b: 19. (ms) Eichhoff 1868d: 419.

dentatum Wood 1989: 178. Holotype ♂; Bolivien (Cochabamba); USNM, Washington, automatic.

Distribution: South America (Bolivia).

References: (tx) Wood, S. L. 1989: 178.

dentatum Eggers 1935a: 84. Holotype ♂; Bolivien

(Cochabamba); USNM, Washington, preoccupied by Eggers 1931.

References: (ds) Blackwelder 1947: 783; Schedl 1970e: 91; Wood, S. L. 1982b: 1216. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1935a: 84; Schedl 1970e: 97, 1979c: 77; Wood, S. L. 1982b: 1216, 1989: 178.

dentatum (Eggers) 1931a: 19 (*Amphicranus*). Holotype ♂; Mineral del Chico, Hidalgo, Mexico; MNB, Berlin.

Distribution: Antilles Islands (Guadeloupe), North America (Hidalgo in Mexico).

References: (ds) Blackwelder 1947: 783; Schedl 1970e: 91. (tx) Eggers 1931a: 19; Schedl 1940a: 359; Wood, S. L. 1982b: 1216.

denticulatum Wood 1981: 122. Holotype ♂; Guadeloupe (Trois Rivières); Eggers Collection, in NHMW, Wien, automatic.

Distribution: Antilles Islands (Guadeloupe).

References: (ds) Bright 1985c: 176. (tx) Bright 1985c: 176; Wood, S. L. 1981: 122.

dentatum Eggers 1941a: 101 (*Pterocyclou*). Holotype ♂; Guadeloupe (Trois Rivières); Eggers Collection, in NHMW, Wien, preoccupied by Eggers 1931.

Notes: (3) Schedl 1970e: 97 (described female).

References: (tx) Eggers 1941a: 101; Schedl 1940a: 359, 1970e: 97.

dentigerum (LeConte) 1868: 154 (*Cryphalus*). Holotype ♂; middle California [USA]; MCZ, Cambridge.

Figures: Bright & Stark 1973: 163.

Distribution: North America (Baja California Norte in Mexico/Arizona, California, Oregon, W Texas in USA).

Hosts: *Quercus agrifolia*, *Q.* spp.

Notes: (1) The original (masculine) spelling was *dentiger*.

References: (ay) Francke-Grosman 1956b. (cn) Chamberlin 1939: 281; Doane & Gilliland 1929: 918–920; Doane et al. 1936; Keen 1935: 147; Linsley & MacLeod 1942: 601; Michelbacher & Ortega 1958: 62; Swaine 1918a: 86. (ce) Chamberlin 1939: 281; Francke-Grosman 1956b; Keen 1935: 147; Slaby 1947: 377; Steinhaus 1946: 404; Webb 1945: 65. (hb) Bright & Stark 1973: 95; Chamberlin 1939: 281; Chittenden 1893a: 393; Doane & Gilliland 1929; Doane et al. 1936; Keen 1938: 147; Swaine 1918a: 86; Wood, S. L. 1982b: 1229. (ds) Bright & Stark 1973: 95; Chamberlin 1939: 281, 1958: 128; Furniss, R. L. & Carolin 1977: 398; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 92; Henshaw 1882: 268, 1885: 147; Keen 1929a: 28, 1938: 147; Kleine 1913b: 157, 1914b: 391, 1934a: 171; Leng 1920: 339; Patterson & Hatch 1945: 152; Rivers 1886: 66; Swaine 1909: 142; Wood, S. L. 1959a: 62, 1972a: 425, 1982b: 1229. (tx) Bright & Stark 1973: 163; Chamberlin 1939: 281; Eichhoff 1878b: 449;

- Hagedorn 1910a: 148; Keen 1929a: 28; LeConte 1868: 154, 1876: 348–349; Swaine 1909: 142, 1918a: 86; Wood, S. L. 1959a: 62, 1972a: 428, 1982b: 1229.
- desum** (Wood) 1967d: 52 (*Microcorthylus*). Holotype ♂; 25 km E Morelia, Michoacan, Mexico, 2500 m; Wood Collection.
 Figures: Wood 1967d: 46, 1982b: 1219 (declivity).
 Distribution: North America (Chihuahua, Michoacan in Mexico).
 Hosts: *Quercus* spp.
 References: (hb) Atkinson & Equihua 1985a: 101; Atkinson et al. 1986: 49; Burgos & Saucedo 1983: 136; Wood, S. L. 1982b: 1238. (ds) Atkinson & Equihua 1985a: 101, 1985c: 362; Atkinson et al. 1986: 49; Burgos & Saucedo 1983: 136; Wood, S. L. 1982b: 1238. (tx) Wood, S. L. 1967d: 46, 52, 1982b: 1238.
- difficile** (Blandford) 1904: 276 (*Pterocyclon*). Holotype ♀; Volcan de Chiriqui, Chiriqui, Panama; BMNH, London.
 Distribution: North America (Costa Rica/ Panama).
 Hosts: Small tree.
 References: (ds) Blackwelder 1947; Hagedorn 1910d: 92; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1239. (tx) Blandford 1904: 276; Hagedorn 1910a: 148; Wood, S. L. 1982b: 1239.
- dimidiatum** (Ferrari) 1867a: 57 (*Corthylus*). Syn-types, sex?; Venezuela; NHMW, Wien.
 Distribution: North America (Costa Rica/ Panama), South America (Colombia/ Venezuela).
 Hosts: *Alexa imperitricia*, *Croton* sp., *Eschuceilera corrugata*, etc.
 References: (ds) Blackwelder 1947; Gemminger & Harold 1872: 2650; Hagedorn 1910d: 90, 92; Kleine 1913b: 156–157, 1914b: 340, 1934a: 171; Wood, S. L. 1982b: 1227. (tx) Eichhoff 1869c: 301; Ferrari 1867a: 54, 57, 1867b: 105; Hagedorn 1910a: 145, 148; Kirsch 1868: 214; Schedl 1939k: 726–727; Wood, S. L. 1979b: 135, 1982b: 1227.
- moritzi** Schedl 1939k: 727 (*Pterocyclon*). Holotype ♂; Venezuela, 1858, Moritz (Schedl 1979c: 159) [Moritz collected primarily near his home in Colonia Toxar]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1979b: 135.
 Notes: (3) Schedl 1939k: 727 (cites *perduratum* Schedl, nomen nudum, synonymy).
 References: (tx) Schedl 1939k: 727, 1954b: 40, 1979c: 159; Wood, S. L. 1979b: 135.
- distans** (Schedl) 1970e: 97 (*Pterocyclon*). Holotype, sex?; Argentina, Misiones, Dept. Concept. Santa Maria; Schedl Collection in NHMW, Wien.
 Distribution: South America (Argentina/ Brazil).
 References: (ds) Schedl 1970e: 97, 1976a: 56. (tx) Schedl 1970e: 97, 1979c: 83.
- dubiosum** (Schedl) 1976a: 82 (*Pterocyclon*). Holotype, sex?; Camaru, Pernambuco [Brazil]; Schedl Collection in NHMW, Wien.
 Distribution: South America (Brazil).
 References: (tx) Schedl 1976a: 82.
- duplocordatum** Eggers 1935a: 86. Holotype ♂; Bolivien (Cochabamba); MNHN, Paris.
 Distribution: South America (Bolivia).
 References: (ds) Blackwelder 1947: 783. (tx) Eggers 1935a: 86.
- durum** (Schedl) 1972e: 74 (*Pterocyclon*). Holotype, sex?; Brasiliën, Represa, Rio Grande, Guanabara; Schedl Collection in NHMW, Wien.
 Figures: Pedrosa-Macedo & Schonherr 1985: 74.
 Distribution: South America (Brazil).
 References: (ds) Pedrosa-Macedo & Schonherr 1985: 58. (tx) Pedrosa-Macedo & Schonherr 1985: 58, 74; Schedl 1972e: 74, 1979c: 86.
- egeum** (Blandford) 1904: 280 (*Pterocyclon*). Holotype ♀; San Juan, Verapaz, Guatemala; BMNH, London.
 Distribution: North America (Costa Rica/ Guatemala), South America (Brazil/ Colombia).
 Hosts: Leguminous trees.
 References: (cc) Wichmann 1955a: 107. (hb) Atkinson & Equihua 1985c: 361; Wood, S. L. 1982b: 1226. (ds) Atkinson & Equihua 1985c: 361; Blackwelder 1947: 782; Hagedorn 1910d: 92; Kleine 1913b: 157, 1914b: 367; Schedl 1966f: 92, 1972g: 46, 1973d: 161; Wichmann 1955a: 107; Wood, S. L. 1982b: 1226. (tx) Blandford 1904: 280; Hagedorn 1910a: 148; Schedl 1935b: 347, 1939e: 68, 1939k: 726, 1940c: 208, 1950i: 167; Wood, S. L. 1974d: 284, 1982b: 1226.
- bisetosus** Schedl 1954b: 38 (*Brachyspartus*). Lectotype ♀; Rio Caragnata, Matto Grosso, Brazil; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 41. Synonymy: Wood 1974d: 284.
 References: (tx) de Ruelle 1970: 98; Schedl 1954b: 38, 1979c: 41; Wood, S. L. 1966b: 18, 24, 1974d: 284, 1979c: 41.
- elegans** (Eichhoff) 1869a: 277 (*Pterocyclon*). Holotype, sex?; Brasilia; Hamburg Museum, lost.
 Distribution: South America (Brazil).
 References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 92; Kleine 1913b: 157, 1914b: 337. (tx) Eggers 1935a: 78; Eichhoff 1869a: 277, 1869c: 301, 1878b: 437; Hagedorn 1910a: 148.
- eumerum** (Schedl) 1952a: 459 (*Pterocyclon*). Syn-types 2 ♂; Argentina, Misiones, Dep. Concep., Sta. Maria; 1 in Schedl Collection in NHMW, Wien, and 1 in Viana Collection.
 Distribution: South America (Argentina).
 Notes: (1) Schedl 1979c: 92 (citation of holotype invalid).
 References: (tx) Schedl 1952a: 459, 1979c: 92.
- excavatus** (Eggers) 1935a: 330 (*Anchonocerus*). Holotype ♂; Bolivien (Cochabamba); USNM, Washington.
 Distribution: South America (Bolivia).
 References: (ds) Blackwelder 1947: 783. (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1935a: 330.

exornatum (Schedl) 1939j: 575 (*Pterocyclon*).
Holotype ♂; Colonia (vermutlich Mexico); Schedl
Collection in NHMW, Wien.

Distribution: North America (Costa Rica/ Vera-
cruz in Mexico), South America (Colombia/
Venezuela).

Hosts: *Alexia imperitricia*, *Coffea arabica*, *Ficus* sp.
References: (hb) Wood, S. L. 1982b: 1237. (ds)
Blackwelder 1947: 782; Ferrer 1942; Wood, S. L.
1982b: 1237. (tx) Schedl 1939j: 575, 1939k: 727,
1940a: 359, 1950a: 167, 1963c: 167, 1979c: 94;
Wood, S. L. 1966b: 25, 1982b: 1237.

gracilicornum Schedl 1939j: 576 (*Pterocyclon*).
Holotype ♂; Mexico, Jalapa; Schedl Collection
in NHMW, Wien. Synonymy: Wood 1966b: 25.
References: (ds) Blackwelder 1947: 782;
Ferrer 1942. (tx) Schedl 1939j: 576, 1939k:
727, 1940a: 359, 1979c: 107; Wood, S. L.
1966b: 25.

fasciatum (Say) 1826: 255 (*Bostrichus*). Syntypes,
sex[?]; Sinepuxent Bay, New York [USA]; lost.

Figures: Blackman 1922b: pl. 10, fig. 53, Bright
1976d: 189, Roling & Kearby 1974: 1303, 1305.

Distribution: North America (Arkansas, Connect-
icut, District of Columbia, Florida, Georgia,
Illinois, Indiana, Iowa, Kansas, Kentucky, Louisi-
ana, Maryland, Massachusetts, Michigan, Missis-
sippi, Missouri, New Jersey, New York, North
Carolina, Ohio, Pennsylvania, South Carolina,
Tennessee, Texas, Virginia, West Virginia, Wiscon-
sin in USA).

Hosts: *Acer rubrum*, *Carya* spp., *Castanea*
dentata, *Liquidambar styraciflua*, *Mimosa* sp.,
Nyssa sp., *Pinus* sp., *Prunus* sp., *Quercus alba*, *Q.*
digitata, *Q. rubra*, *Q.* spp.

References: (ay) Batra 1963b: 227; Hopkins
1894g; Lowe, R. E., Giese, & McManus 1967:
451; Roling & Kearby 1974; Schneider 1976. (bv)
Atkinson, Foltz, & Connor 1988; Dethier 1947;
Haack, R. A., Benjamin, & Haack 1983; Hosking
& Knight 1975; Kovach 1986a; Roling & Kearby
1975a, 1975b, 1977; Turnbow & Franklin 1980.
(cn) Anonymous 1960q, 1964h, 1973g, 1977f;
Beal et al. 1952; Blackman 1950; Brooks 1916: 14,
1917: 1-15; Chamberlin 1939: 281; Christian
1939; Comstock 1880: 274-275; Davis 1895;
Doane et al. 1936; Dorsey & Leech 1956: 220-
224; Dorsey et al. 1953: 419-420; Felt 1906: 751;
Forbes 1894: 23; Gagne & Kearby 1978: 1013;
Gahan 1906: 81; Garman 1905: 68-74; Gossard
1911: 206, 1913: 61, 1914: 11; Herrick 1935: 43;
Himelick & Curl 1958: 539-541; Hopkins 1899c:
347, 442, 1904: 45; Howard 1897: 85; Hubbard
1897b: 27-28; Kleine 1932a: 304; Kovach 1986a;
Kovach & Gorsuch 1985; Lugger 1899a: 308;
Packard 1890: 328-520; Quaintance & Siegler
1922: 66, 1931b: 75; Roling & Kearby 1973, 1977;
Swaine 1918a: 86. (ec) Batra 1963b: 216; Batra &
Michie 1963: 475; Chamberlin 1939: 281; Currie

1905; Felt 1906: 751; Haack, R. A., Benjamin, &
Haack 1983; Hagedorn 1907c; Hirschmann
1972a; Jewell 1956: 251; Lowe, R. E., Giese, &
McManus 1967: 451; Roling & Kearby 1974,
1977; Schneider 1963: 661, 1976; Slaby 1947:
378; Steinhaus 1946: 404, 1949: 92; Verrall 1943:
135-137, 142-143; Webb 1945: 68; Wertz, Skelly,
& Merrill 1971. (hb) Atkinson, Foltz, & Connor
1988; Baker, W. L. 1972: 267; Batra 1963b: 221;
Beal & Massey 1945: 102-104; Blackman 1922b,
1950; Chamberlin 1939: 281; Chittenden 1890,
1893a: 391; Deyrup & Atkinson 1987a: 66; Doane
et al. 1936; Felt 1906: 751; Forbes 1894: 23;
Haack, R. A., Benjamin, & Haack 1983; Herrick
1935: 43; Hopkins 1894g, 1899c: 442; Hubbard
1897b: 27; Kleine 1932a: 304; Kovach 1986a;
Lugger 1899a: 308; Ostmark 1968; Packard 1890:
328; Pierce, W. D. 1907: 290; Roling & Kearby
1973, 1974a, 1974b; Swaine 1918a: 86. (ds) Anon-
ymous 1926c: 517, 1964h, 1977f; Atkinson et al.
1991: 162; Beal & Massey 1945: 102-104;
Beaulne 1956; Blackman 1922b: 81-82, 1950;
Blandford 1895b; Blatchley & Leng 1916: 641;
Bright 1976d: 191; Britton 1920a; Chamberlin
1925, 1939: 281; Chittenden 1890; Cola 1973;
Deyrup 1981b: 8; Deyrup & Atkinson 1987a: 66;
Dodge 1938; Dolphin, Mouzin, & Cleveland
1972: 1600; Droyz 1985: 370; Frost & Dietrich
1929; Gagne & Kearby 1978: 1013; Gemminger
& Harold 1872: 2680; Hagedorn 1910d: 92; Ham-
ilton 1895a: 346, 378; Henshaw 1885: 147;
Hoffmann 1940: 60, 1942: 12; Hopkins 1893a:
128, 1893b: 277; Hubbard & Schwarz 1878a: 665;
Kirk 1969, 1970; Kleine 1913b: 157, 1914b: 399,
1932a: 304, 1934a: 171; Lacordaire 1866: 385;
Leng 1920: 339; Leonard 1928: 517; Melsheimer
1806: 8, 1853: 87; Ostmark 1968; Roling &
Kearby 1974; Schneider & Farner 1969: 413;
Smith, J. B. 1900: 361, 1910: 401; Swaine 1909:
143; Turnbow & Franklin 1980; Wood, S. L.
1982b: 1235. (tx) Beal & Massey 1945: 102-104;
Blackman 1922b: 81-82; Blandford 1895b;
Blatchley & Leng 1916: 641; Bright 1976d: 189,
191; Chamberlin 1939: 281; Dodge 1938: 28;
Eggers 1935a: 75; Eichhoff 1868d: 419, 1869a:
277, 1869c: 297-301, 1878b: 442-444; Erichson
1836: 64, 79; Ferrari 1867a: 48-49; Hagedorn
1910a: 148; Hopkins 1914: 118; Hubbard 1897b:
27; Jacques 1951: 352; Lacordaire 1866: 385;
LeConte 1868: 153, 1876: 348, 1878a: 468, 665;
Lucas 1920: 556; Motschulsky 1856: 10; Roling &
Kearby 1974: 1303, 1305; Say 1826: 253-255;
Swaine 1909: 143, 1918a: 86; Wood, S. L. 1982b:
1235; Zimmermann 1868: 143. (ms) Eichhoff
1868d: 419; Lucas 1920: 556.

simile Eichhoff 1869a: 277 (*Pterocyclon*). Syn-
types, sex[?]; America bor. [USA]; Hamburg
Museum, lost. Synonymy: LeConte 1876: 348.
References: (ds) Gemminger & Harold 1872:
2680; Leng 1920: 339; Swaine 1909: 142. (tx)

- Eichhoff 1869a: 277. 1869c: 301; LeConte 1876: 348; Swaine 1909: 142, 1915a: 86.
- gracile* Eichhoff 1875b: 444 (*Pterocyclon*). Syn- types, sex?, Tennessee, Pennsylvania, Carolina [USA]; Hamburg Museum, lost. Synonymy: Eichhoff 1875b: 444. References: (ds) Hagedorn 1910d: 93; Kleine 1913b: 157, 1914b: 393; Leng 1920: 339; Swaine 1909: 142. (tx) Eichhoff 1875b: 444; Hagedorn 1910a: 148; Swaine 1909: 142.
- fastigiorum* Wood 1974b: 141. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Liana. References: (ds) Wood, S. L. 1982b: 1240. (tx) Wood, S. L. 1974b: 141, 1982b: 1240.
- fenestratum* Eggers 1935a: 85. Holotype ♀; Bolivien (Cochabamba); MNIN, Paris. Distribution: South America (Bolivia). References: (ds) Blackwelder 1947: 783. (tx) Eggers 1935a: 85, 1979c: 95.
- ferrarii* (Blandford) 1905: 284 (*Pterocyclon*). Holotype ♀; Volcan de Chiriqui, Panama; BMNH, London. Figures: Blandford 1905: pl. 5. Distribution: North America (Veracruz in Mexico/ Panama), South America (Venezuela). References: (ds) Blackwelder 1947: 782; Hagedorn 1910d: 92; Kleine 1913b: 157, 1914b: 340, 367. (tx) Blandford 1905: 284; Hagedorn 1910a: 148; Wood, S. L. 1982b: 1233.
- fimbriaticorne* (Blandford) 1905: 285 (*Pterocyclon*). Holotype ♀; Pirula, Alta Verapaz, Guatemala; BMNH, London. Figures: Blandford 1905: pl. 5. Distribution: North America (Costa Rica/ Guatemala/Veracruz in Mexico), South America (Brazil/ Venezuela). Hosts: *Erythrina costaricensis*, *Parkinsonia aculeata*, *Spondias purpurea*, *Thecobroma cacao*. References: (hb) Wood, S. L. 1982b: 1232. (ds) Atkinson & Equihua 1985c: 362; Blackwelder 1947; Bright 1972a: 1385; Hagedorn 1910d: 93; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1232. (tx) Blandford 1905: 285; Hagedorn 1910a: 148; Wood, S. L. 1974d: 285, 1982b: 1232.
- turbinatum* Schedl 1961i: 230 (*Pterocyclon*). Holotype ♂; Cordoba, Veracruz, Mexico; C.A.S., San Francisco. Synonymy: Wood 1974d: 285. References: (ds) Schedl 1960a: 75, 1961i: 230, 1976a: 56; Wood, S. L. 1974d: 285. (tx) Schedl 1961i: 230, 1979c: 259.
- flohri* (Schedl) 1950i: 168 (*Pterocyclon*). Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Distribution: North America ("Mexico"). References: (ds) Wood, S. L. 1982b: 1228. (tx) Schedl 1950i: 168, 1979c: 95; Wood, S. L. 1982b: 1228.
- fulgens* Schedl 1971f: 153. Holotype ♂; Ecuador: Quito; UZMC, Copenhagen. Distribution: South America (Ecuador). References: (tx) Schedl 1971f: 153, 1979c: 101.
- gibber* (Schedl) 1952a: 460 (*Pterocyclon*). Holotype ♀; Argentina, Concepcion; Eggers Collection, in NHMW, Wien. Distribution: South America (Argentina/ Brazil). References: (ds) Schedl 1972g: 46. (tx) Schedl 1952a: 460, 1979c: 104.
- glabriculum* (Schedl) 1976a: 82 (*Pterocyclon*). Holotype, sex?, Brazil: Represa Rio Grande, Guanabara; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 82.
- glabrifrons* (Blandford) 1904: 278 (*Pterocyclon*). Lectotype ♀; Quiche Mts., Guatemala, 7000–9000 ft.; BMNH, London. Distribution: North America (Guatemala). References: (ds) Blackwelder 1947: 782; Hagedorn 1910d: 115; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1243. (tx) Blandford 1904: 278; Hagedorn 1910a: 148; Wood, S. L. 1982b: 1243.
- gnarum* (Schedl) 1950i: 169 (*Pterocyclon*). Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Figures: Bright 1972a: 1384. Distribution: North America (Chiapas, Hidalgo, Oaxaca in Mexico). Hosts: *Quercus* sp. References: (hb) Wood, S. L. 1982b: 1220. (ds) Wood, S. L. 1982b: 1220. (tx) Schedl 1950i: 169, 1979c: 106; Wood, S. L. 1974d: 285, 1982b: 1220.
- spinatus* Bright 1972a: 1383 (*Amphicranus*). Holotype ♂; 51 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1974d: 285. References: (tx) Bright 1972a: 1383–1384; McNamara 1977: 194; Wood, S. L. 1974d: 285.
- gracilentum* (Schedl) 1972e: 75 (*Pterocyclon*). Holotype, sex?, Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1972e: 75, 1979c: 107.
- gracilior* (Schedl) 1959m: 553 (*Pterocyclon*). Holotype ♂; Brazil: Nova Teutonia; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) de Ruette 1970: 113; Schedl 1959m: 553, 1979c: 107.
- granulatum* Bright 1972a: 1382. Holotype ♂; 24 km S Valle Nacional, Oaxaca, Mexico, 1300 m; CNCI, Ottawa. Distribution: North America (Oaxaca, Puebla in Mexico). Hosts: Tree branch. References: (ds) Wood, S. L. 1982b: 1244. (tx)

- Bright 1972a: 1377, 1382; McNamara 1977: 196; Wood, S. L. 1982b: 1244.
- hagedorni** (Schedl) 1939k: 727 (*Pterocyclon*). Holotype, sex?; Campoi Guyanae; MNHN, Paris, automatic. Distribution: South America (Guyana). References: (ds) Blackwelder 1947: 783. (tx) Schedl 1939k: 727.
- dimidiatum** Hagedorn 1903b: 550 (*Pterocyclon*). Holotype, sex?; Campoi Guyanae; MNHN, Paris, preoccupied by Ferrari 1867. References: (tx) Hagedorn 1903b: 550; Schedl 1939k: 727.
- hoegi** (Blandford) 1904: 274 (*Pterocyclon*). Holotype, sex?; Jalapa, Veracruz, Mexico; BMNH, London. Figures: Bright 1972a: 1377. Distribution: North America (Oaxaca, Puebla in Mexico). Hosts: *Alnus* sp., *Miconia* sp. References: (hb) Wood, S. L. 1982b: 1225. (ds) Blackwelder 1947: 783; Ferrer 1942; Hagedorn 1910d: 93; Kleine 1913b: 157, 1914b: 353; Wood, S. L. 1982b: 1225. (tx) Blandford 1904: 274; Hagedorn 1910a: 148; Schedl 1940a: 359; Wood, S. L. 1982b: 1225.
- oaxacaensis** Bright 1972a: 1382. Holotype ♂; 51 km S Valle Nacional, Oaxaca, Mexico; CNCL, Ottawa. Synonymy: Wood 1982b: 1225. References: (tx) Bright 1972a: 1377, 1382; McNamara 1977: 196; Wood, S. L. 1982b: 1225.
- huachucae** Wood 1959a: 61. Holotype ♂; Miller Canyon, Huachuca Mts., Arizona [USA]; USNM, Washington. Distribution: North America (Arizona in USA). Hosts: *Quercus hypoleucoides*. References: (ds) Furniss, R. L. & Carolin 1977: 398; Wood, S. L. 1959a: 61, 1982b: 1217. (tx) Wood, S. L. 1959a: 61, 1982b: 1217.
- infradentatum** Wood 1974b: 145. Holotype ♂; Rincon de Osa, Puntarenas, Costa Rica, 30 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Tree limb. References: (ds) Wood, S. L. 1982b: 1244. (tx) Wood, S. L. 1974b: 145, 1982b: 1244.
- ingens** (Eichhoff) 1869a: 278 (*Pterocyclon*). Holotype, sex?; Columbia; IRSNB, Brussels. Distribution: South America (Colombia/ Peru). References: (ds) Blackwelder 1947: 783; Gemminger & Harold 1872: 2680; Kleine 1913b: 155, 1914b: 342. (tx) Eggers 1935a: 329–334; Eichhoff 1869a: 278–279, 1869c: 301, 1878b: 433; Hopkins 1914: 127; Lucas 1920: 507. (ms) Lucas 1920: 507.
- rufipes** Eichhoff 1878b: 431 (*Anchonocerus*). Holotype ♀; America meridionalis (Nova Granada); IRSNB, Brussels. Synonymy: Eggers 1935a: 329.
- References: (ds) Hagedorn 1910d: 95; Kleine 1913b: 158, 1914b: 342. (tx) Eggers 1935a: 329; Eichhoff 1878b: 431; Hagedorn 1910a: 141; Hopkins 1914: 116; Lucas 1920: 94. (ms) Lucas 1920: 94.
- assequens** Schedl 1978c: 302 (*Pterocyclon*). Holotype, sex?; Peru, Dep. Cuzco, Marcapata-Thal. Nbl. d. Madre de Dios, 3000 m; Schedl Collection in NIMW, Wien. Synonymy: Wood 1959: 175. References: (tx) Schedl 1978c: 302; Wood, S. L. 1959: 175.
- insignatum** Wood 1974b: 141. Holotype ♀; Volcan Poas, Heredia, Costa Rica, 2600 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: Tree branch, and a shrub. References: (ds) Wood, S. L. 1982b: 1240. (tx) Wood, S. L. 1974b: 141, 1982b: 1240.
- insolitum** (Schedl) 1976a: 83 (*Pterocyclon*). Holotype, sex?; Brazil; Manaus, Amazonas; Schedl Collection in NIMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 83.
- intermedium** Schedl 1970e: 105. Holotype ♀; Bolivien, Jungas, de Arepunchu, Chacisacho, ca 1500 m; ZSSM, Munchen. Distribution: South America (Bolivia). References: (tx) Schedl 1970e: 105.
- laevigatum** (Eichhoff) 1869a: 278 (*Pterocyclon*). Holotype, sex?; Brasilia; Hamburg Museum, lost. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 783; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 93; Kleine 1913b: 157, 1914b: 337; Schedl 1972g: 46, 1976a: 56. (tx) Eichhoff 1869a: 278, 1869c: 301, 1878b: 449; Hagedorn 1910: 145; Schedl 1939j: 574, 1972g: 46.
- laterale** (Eichhoff) 1869a: 278 (*Pterocyclon*). Holotype ♂; Mexico; Hamburg Museum, lost, neotype: Toxpan, Mexico. BMNH, London, designated by Wood 1966b: 25. Figures: Atkinson et al. 1986: 48. Distribution: North America (Costa Rica/ Guatemala/ Michoacan, Morelos, Puebla, Veracruz in Mexico), South America (Venezuela). Hosts: *Alnus* sp., *Quercus* sp., etc. References: (hb) Atkinson et al. 1986: 50; Burgos & Saucedo 1983: 134; Wood, S. L. 1982b: 1231. (ds) Atkinson et al. 1986: 50; Blackwelder 1947: 783; Blandford 1905: 281; Burgos & Saucedo 1983: 134; Ferrer 1942; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 93; Kleine 1913b: 157, 1914b: 353, 367; Wood, S. L. 1982b: 1231. (tx) Atkinson et al. 1986: 48; Blandford 1905: 281; Eggers 1929c: 51; Eichhoff 1869a: 278, 1869c: 301, 1878b: 439; Hagedorn 1910a: 145; Hopkins 1914: 128; Schedl 1935h: 351, 1936i: 108, 1940a: 359; Wood, S. L. 1966b: 25, 1982b: 1231.
- trifasciatus** Schedl 1950i: 173 (*Cosmocerinus*).

Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 25.
References: (tx) Schedl 1950i: 173, 1979c: 255; Wood, S. L. 1966b: 25.

latum (Schedl) 1966f: 126 (*Cosmocrypus*). Holotype ♂; Unleserlich, vielleicht Maydes, vermutlich Columbian; Schedl Collection in NHMW, Wien.
Distribution: South America (possibly Colombia).
References: (ds) Schedl 1966f: 79. (tx) Schedl 1966f: 126, 1979c: 137.

limulum Wood 1974b: 143. Holotype ♂; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Liana.
References: (hb) Wood, S. L. 1982b: 1242. (ds) Wood, S. L. 1982b: 1242. (tx) Wood, S. L. 1974b: 143, 1982b: 242.

lobatum (Ferrari) 1867a: 57 (*Corthylns*). Holotype ♂; Venezuela; NHMW, Wien.
Figures: Blandford 1905: pl. 8.
Distribution: North America (Costa Rica/ Guatemala), South America (Venezuela).
Hosts: *Clusia* sp., *Nectandra* sp., *Spondias purpurea*, etc.
References: (hb) Wood, S. L. 1982b: 1230. (ds) Blackwelder 1947: 783; Blandford 1905: 283; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 93; Kleine 1913b: 157, 1914b: 340, 367; Wood, S. L. 1982b: 1230. (tx) Blandford 1905: 283; Ferrari 1867a: 54, 57; Hagedorn 1910a: 148; Wood, S. L. 1982b: 1230.

longus (Schedl) 1950i: 172 (*Anchocercus*). Holotype ♀; Bolivia, Cochabamba; Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Schedl 1950i: 172, 1979c: 142.

luctuosum (Blandford) 1904: 276 (*Pterocyclon*). Holotype ♂; Cerro Zunil, Guatemala, 4000 ft.; BMNH, London.
Distribution: North America (Guatemala/ Puebla in Mexico).
Hosts: *Quercus* sp.
References: (hb) Wood, S. L. 1982b: 1225. (ds) Atkinson & Equihua 1955c: 361, 1955a: 92; Blackwelder 1947: 783; Hagedorn 1910d: 93; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1225. (tx) Blandford 1904: 276; Hagedorn 1910a: 148; Wood, S. L. 1982b: 1225.

mali (Fitch) 1855: 326 (*Tomicus*). Syntypes, sex?; Middlefield, Massachusetts [USA]; not located.
Figures: Blackman 1922b: pl. 10, fig. 54, Dillon & Dillon 1961: 801.
Distribution: Antilles Islands (Cuba), North America (British Columbia in Canada, introduced/ Alabama, Arkansas, California, Connecticut, District of Columbia, Florida, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine,

Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, E Texas, Virginia, Vermont, West Virginia, Wisconsin in USA).
Hosts: *Acer rubrum*, *Betula lutea*, *Fagus americana*, *Liquidambar styraciflua*, *Nyassa* sp., *Quercus rubra*, *Tilia* sp.

Notes: (3) Three specimens from California and one from British Columbia have been examined; whether these represent errors in labeling, interceptions, or established populations is not yet known (SIW).

References: (ay) Hopkins 1894g; Schneider 1976. (bv) Atkinson, Foltz, & Connor 1985; Dethier 1947; Meixner 1937: 1218; Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. (cn) Anonymous 1976c; Beal et al. 1952; Blackman 1950; Brooks 1916: 13, 1917: 1–15; Chamberlin 1939: 282; Christian 1939; Collins & Connola 1955; Connola et al. 1956: 1–36; Craighead 1935: 139; Davis 1895; Doane et al. 1936; Felt 1901: 517–518, 1905: 289–292, 1906: 336, 1924: 277, 1926: 247–248, 277; Felt & Rankin 1932: 145; Fletcher 1888: 15; Garman 1905: 68–70; Gossard 1913: 62, 1914: 12; Herrick 1935: 375; Hopkins 1894b: 295, 1894g: 277, 1898d: 47, 1899c: 347, 442, 1904a: 45, 1905a: 384, 1907b, 1909c: 65, 1910g: 65; Howard 1897: 85; Hubbard 1897b: 26–28; Keen 1938: 147; Kleine 1932a: 304; Leach 1940b: 61; Lintner 1878: 455, 1896: 270; Lugger 1899a: 306, 308; Packard 1890: 93–94; Pierson 1927: 89; Quaintance & Siegler 1922: 66, 1931b: 75; Roling & Kearby 1973, 1977; Saunders 1883: 24; Schneider 1963: 661; Slingerland & Crosby 1914: 198; Swaine 1918a: 86–87; Wheeler 1922: 520. (ec) Batra 1963b: 216; Chamberlin 1939: 282; Currie 1905; Dorsey & Leach 1956: 220–224; Felt 1906: 289; Jewell 1956: 251; Leach 1940b: 61; Roling & Kearby 1977; Schneider 1976; Slaby 1947: 378; Steinhaus 1946: 404; Thompson, W. R. & Simmonds 1964: 30, 1965: 68; Verrall 1941: 552, 1943: 135–137, 142–143; Webb 1945: 68. (hb) Atkinson, Foltz, & Connor 1985; Baker, W. L. 1972: 267; Beal & Massey 1945: 103–104; Blackman 1922b: 80–81, 1950; Chamberlin 1939: 282; Chittenden 1890, 1893a: 392, 1897: 79; Dillon & Dillon 1961: 810; Deyrup & Atkinson 1987a: 66; Doane et al. 1936; Drake 1921: 201, 205; Drooz 1985: 370; Felt 1906: 289, 1926: 247–248, 277; Felt & Rankin 1932: 145; Fitch 1856: 5, 8–9; Herrick 1935: 375; Hoffmann 1941; Hopkins 1894g, 1899c: 442, 1904a: 45, 1905a: 384; Hubbard 1897b: 26; Kleine 1932a: 304; Lengerken 1954: 312; Lugger 1899a: 305; Morstatt 1924: 7, 40; Ostmark 1965; Packard 1890: 93; Pierce, W. D. 1907: 290; Pierson 1927: 89; Roling & Kearby 1973; Saunders 1883: 24; Skinner 1905: 248; Swaine 1907: 191, 1918a: 86, 87; Titus & Pratt 1904: 19; Wood, S. L. 1982b: 1234. (ds) Anonymous 1926c: 517, 1976c; Atkinson et al.

- 1991: 162; Beal & Massey 1945: 103–104; Beaulne 1956; Blackman 1922b: 80–81, 1950; Blackwelder 1947: 783; Blandford 1904: 279; Blatchley & Leng 1916: 641; Bright 1976d: 191, 204, 214, 1955c: 176; Britton 1920a; Chamberlin 1925, 1939: 282; Chittenden 1890; Currie 1905; Deyrup 1981b: 9; Deyrup & Atkinson 1987a: 66; Dillon & Dillon 1961: 801; Dodge 1938: 36, 39; Dolphin, Mouzin, & Cleveland 1972: 1600; Drake 1921: 201, 205; Drooz 1985: 370; Felt 1926: 247–248, 277, 1930a: 247–248; Felt & Rankin 1932: 145; Ferrer 1942; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 93; Hamilton 1895a: 378; Henshaw 1885: 147; Hoffmann 1942: 12; Hopkins 1893a: 128, 1893b: 208, 1894: 295; Kaston 1938: 240; Kleine 1913b: 157, 1914b: 378, 384, 1932a: 304, 1934a: 171; Knull 1924: 212; Leng 1920: 339; Leonard 1928: 517; Ostmark 1968; Pechuman 1937: 13; Schedl 1971f: 148; Schwarz 1878: 468, 1886: 44, 1888: 48; Smith, J. B. 1900: 361, 1910: 401; Swaine 1909: 143; Turnbow & Franklin 1980; Wood, S. L. 1982b: 1234. **(tx)** Beal & Massey 1945: 103–104; Benoit 1985: 167; Blackman 1922b: 80–81; Blandford 1904: 270–279; Blatchley & Leng 1916: 641; Bright 1976d: 189, 191, 204, 214, 1955c: 176; Chamberlin 1939: 282; Comstock 1948; Dillon & Dillon 1961: 810; Dodge 1938; Eichhoff 1876a: 378–379, 1878b: 447–449; Fitch 1855: 326; Hagedorn 1910a: 148; Hubbard 1897b: 26; Jacques 1951: 352; LeConte 1868: 154, 1876: 349, 1878a: 465, 468; Meixner 1937: 1218; Schedl 1940a: 359; Schwarz 1886: 44; Swaine 1909: 143, 1918a: 86–87; Titus, Meikle, & Harrison 1985: 89; Wood, S. L. 1982b: 1234; Zimmermann 1868: 143. **(ms)** Swaine 1907: 191.
- longulum* Eichhoff 1869a: 278 (*Pterocyclon*). Syn-types, sex?; Carolina [USA]; Hamburg Museum, lost. Synonymy: LeConte 1876: 349. References: **(ds)** Gemminger & Harold 1872: 2680; Leng 1920: 339; Swaine 1909: 143. **(tx)** Blandford 1904: 279; Eichhoff 1869a: 278, 1869c: 301, 1876a: 378–379, 1878b: 448; LeConte 1876: 349; Swaine 1909: 143, 1918a: 87.
- marcidum* (Schedl) 1970e: 98 (*Pterocyclon*). Holotype, sex?; Bolivien, Yungas del Palmar, 2000 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: **(tx)** Schedl 1970e: 98–99, 1979c: 148.
- minutissimum* (Schedl) 1954b: 40 (*Pterocyclon*). Lectotype ♂; Brasilien: Matto Grosso, Rio Caragnata; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 155.
Figures: Bright 1972d: 95.
Distribution: South America (Brazil).
Notes: (3) Schedl 1959m: 554 (described female).
References: **(ds)** Schedl 1972g: 46. **(tx)** Bright 1972d: 95, 102; de Ruette 1970: 113; Schedl 1954b: 40, 1959m: 553–554, 1961i: 230, 1979c: 155. *schedli* Bright 1972d: 102. Lectotype ♂; Brasilien: Matto Grosso, Rio Caragnata; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 155, an unneeded replacement name for *minutissimum* (Schedl 1954).
Notes: Bright 1972d: 102 presumed that this species was congeneric with *Microcorthylys minutissimus* Schedl 1952 and introduced a replacement name. The 1952 species is in fact a *Microcorthylys* and is also a junior synonym; therefore, homonymy never existed and the original 1954 name is retained.
References: **(tx)** Bright 1972d: 102; Schedl 1972g: 46, 1979c: 155.
- minutum* (Schedl) 1939j: 577 (*Pterocyclon*). Lectotype ♀; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien designated by Schedl 1979c: 157.
Distribution: Antilles Islands (Cuba/ Jamaica), North America ("Mexico"), South America (Brazil).
References: **(ds)** Blackwelder 1947: 783; Bright 1981c: 155; Numberg 1958a: 480; Schedl 1976a: 56. **(tx)** Numberg 1958a: 480; Schedl 1939j: 577, 1950i: 166, 1952a: 460, 1979c: 157.
- morsum* Wood 1974b: 139. Holotype ♂; Pandora, Limon, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Veracruz in Mexico).
Hosts: *Quercus* sp., and a tree limb.
References: **(hb)** Wood, S. L. 1982b: 1236. **(ds)** Wood, S. L. 1982b: 1236. **(tx)** Wood, S. L. 1974b: 139, 1982b: 1236.
- nevermanni* (Schedl) 1935h: 348 (*Pterocyclon*). Holotype ♂; Kraterlagune, Vulcan Poas, Heredia, Costa Rica; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: *Clusia* sp., *Quercus* sp., *Podocarpus oleifolius*.
References: **(hb)** Wood, S. L. 1982b: 1223. **(ds)** Blackwelder 1947: 783; Wood, S. L. 1982b: 1223. **(tx)** Schedl 1935h: 348, 1950i: 168, 1979c: 165; Wood, S. L. 1982b: 1223.
- notatum* Wood 1974b: 143. Holotype ♀; Vulcan Poas, Heredia, Costa Rica, 2500 m; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Inga* sp., and a leguminous shrub.
References: **(hb)** Wood, S. L. 1982b: 1241. **(ds)** Wood, S. L. 1982b: 1241. **(tx)** Wood, S. L. 1974b: 143, 1982b: 1241.
- nudum* (Schedl) 1939j: 574 (*Pterocyclon*). Holotype, sex?; Brasilien, Sta. Catharina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 783; Schedl 1966f: 92, 1976a: 56. **(tx)** Schedl 1939j: 574, 1950i: 164, 1979c: 173.
- obesum* (Schedl) 1970e: 99 (*Pterocyclon*). Holotype, sex?; Peru; Schedl Collection in NHMW, Wien.

- Distribution: South America (Peru).
References: (tx) Schedl 1970e: 99, 1979c: 174.
- obliquum** (Schedl) 1970e: 99 (*Pterocyclon*). Holotype, sex?; Brasilien, Rio Caraguata, Matto Grosso; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1970e: 99–100, 1972g: 46. (tx) Schedl 1979c: 174.
- obtusum** (Eggers) 1935a: 334 (*Anchonocerus*). Holotype ♂; Bolivien (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 783. (tx) Eggers 1935a: 334; Schedl 1979c: 176.
- omissum** (Schedl) 1952d: 347 (*Pterocyclon*). Syn-types ♂; Portorico, Mor.; Schedl Collection in NHMW, Wien, automatic.
Distribution: Antilles Islands (Puerto Rico).
References: (ds) Bright 1955c: 176. (tx) Bright 1955c: 176; Schedl 1952d: 347.
- opacifrons** Schedl 1950i: 167 (*Pterocyclon*). Syn-types ♂; Portorico, Mor.; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1935.
Notes: (1) The replacement name was presented prior to 1960; consequently, even though the senior homonym is now in a different genus, restoration of the 1950 name is not permitted by the Code. Schedl 1979c: 179 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 783. (tx) Schedl 1935h: 350, 1950i: 167, 1952d: 347, 1979c: 179.
- parvum** (Eggers) 1933b: 22 (*Anchonocerus*). Holotype ♂; Franz. Guayana (Nouveau Chantier); MNHN, Paris.
Distribution: South America (Cayenne/ Guyana).
Hosts: *Peltogyne* sp.
References: (ds) Blackwelder 1947: 783. (tx) Eggers 1933b: 22–23, 1935a: 329–333; Schedl 1935a: 329; Wood, S. L. 1977b: 208.
- preclarum** Wood 1968b: 6. Holotype ♂; Manaka, British Guiana; BMNH, London. Synonymy: Wood 1977b: 208.
References: (tx) Wood, S. L. 1968a: 5, 1968b: 6, 1977b: 208.
- penicillatum** (Eichhoff) 1878b: 457 (*Pterocyclon*). Holotype, sex?; America meridionalis (Columbia); Steinheil Munielensis Collection or Hamburg Museum?
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 342. (tx) Eggers 1936a: 393; Eichhoff 1878b: 457; Hagedorn 1910a: 149.
- pennatum** (Schedl) 1963c: 167 (*Pterocyclon*). Holotype ♀; Cordoba, Veracruz, Mexico; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica/ Guate-
- mala/ Honduras/ Nayarit, Veracruz in Mexico), South America (Colombia/ Venezuela).
Hosts: *Conostegia oerstediana*, *Miconia pubescens*, "Caldo de Frijol" [a tree], etc.
References: (hb) Atkinson et al. 1986: 50; Wood, S. L. 1982b: 1228. (ds) Atkinson & Equihua 1985c: 361; Atkinson et al. 1986: 50; Wood, S. L. 1982b: 1228. (tx) Schedl 1963c: 167, 1979c: 157; Wood, S. L. 1982b: 1228.
- peruanum** (Schedl) 1950i: 168 (*Pterocyclon*). Holotype ♂; Peru; Schedl Collection in NHMW, Wien.
Distribution: South America (Peru).
References: (tx) Schedl 1950i: 168, 1979c: 191.
- peruvianum** Wood 1981: 122. Holotype ♀; Peru, Tambo, Enenas, Com. del Pichis; Schedl Collection in NHMW, Wien, automatic.
Distribution: South America (Peru).
References: (tx) Wood, S. L. 1981: 122.
- peruanum** Schedl 1978c: 306. Holotype ♀; Peru, Tambo, Enenas, Com. del Pichis; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1950.
References: (tx) Schedl 1978c: 306; Wood, S. L. 1981: 122.
- plagiatum** (Eichhoff) 1869a: 279 (*Corthylius*). Holotype, sex?; Columbia; Hamburg Museum, lost.
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 783; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 94; Kleine 1913b: 157. (tx) Eggers 1936a: 393; Eichhoff 1869a: 279, 1869c: 301, 1878b: 455; Hagedorn 1910a: 149.
- plaumanni** (Schedl) 1937g: 68 (*Pterocyclon*). Syn-types ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, Strohmeyer Collection, Eberswalde, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 196 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 783; Numburg 1963c: 98; Santoro 1957b: 26; Schedl 1966f: 92. (tx) Schedl 1937g: 68, 1939k: 726, 1950i: 167, 1954b: 38, 1979c: 196.
- posticum** Wood 1974b: 146. Holotype ♂; Santa Ana, San Jose, Costa Rica, 1300 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Tree limbs, and a liana.
References: (hb) Wood, S. L. 1982b: 1245. (ds) Wood, S. L. 1982b: 1245. (tx) Wood, S. L. 1974b: 146, 1982b: 1245.
- praeruptum** (Blandford) 1904: 273 (*Pterocyclon*). Holotype ♂; Totonicipan, Guatemala, 85–10,500 ft.; BMNH, London.
Figures: Blandford 1904: pl. 8.
Distribution: North America (Guatemala).
References: (hb) Wood, S. L. 1982b: 1220. (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94;

- Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1220. (tx) Blandford 1904: 273; Hagedorn 1910a: 149; Schedl 1935h: 348; Wood, S. L. 1982b: 1220.
- praeustum** (Eggers) 1941a: 100 (*Pterocyclon*). Lectotype ♂; Guadeloupe (Trois Rivières); USNM, Washington, designated by Anderson & Anderson 1971: 26. Distribution: Antilles Islands (Dominica/ Guadeloupe/ Puerto Rico). Hosts: *Dacryodes excelsa*, *Inga laurina*. References: (ds) Bright 1981c: 155, 1985c: 176. (tx) Anderson, W. H. & Anderson 1971: 26; Bright 1985c: 176; Eggers 1941a: 100; Schedl 1950i: 167, 1979c: 198.
- proprium** Wood 1974b: 136. Holotype ♂; Cerro Punta near Volcan Chiriqui, Panama; Wood Collection. Distribution: North America (Costa Rica/ Panama). Hosts: *Conostegia oerstediana*, *Inga* sp., and tree limbs. References: (hb) Wood, S. L. 1982b: 1227. (ds) Wood, S. L. 1982b: 1227. (tx) Wood, S. L. 1974b: 136, 1982b: 1227.
- proximum** Wood 1974b: 147. Holotype ♂; San Isidro del General, San Jose, Costa Rica, 1000 m; Wood Collection. Distribution: North America (Costa Rica), South America (Venezuela). Hosts: *Alexia imperitricia*, *Miconia pubescens*. References: (ds) Wood, S. L. 1982b: 1245. (tx) Wood, S. L. 1974b: 147, 1982b: 1245.
- pseudoscutellare** (Schedl) 1935h: 349 (*Pterocyclon*). Holotype ♀; Laguna Volcan Poas, Heredia, Costa Rica; Schedl Collection in NHMW, Wien. Distribution: North America (Costa Rica). Hosts: *Quercus costaricensis*, *Q.* spp. References: (hb) Wood, S. L. 1982b: 1239. (ds) Blackwelder 1947: 783; Wood, S. L. 1982b: 1239. (tx) Schedl 1935h: 349–350, 1979c: 202; Wood, S. L. 1982b: 1239.
- adustum** Wood 1974b: 140. Holotype ♂; Cerro de la Muerte, San Jose, Costa Rica; Wood Collection. Synonymy: Wood 1982b: 1239. References: (tx) Wood, S. L. 1974b: 140, 1982b: 1239.
- pumilio** (Eichhoff) 1878b: 445 (*Pterocyclon*). Holotype, sex?; America meridionalis (Venezuela); Hamburg Museum, lost. Distribution: South America (Venezuela). References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 340. (tx) Eichhoff 1878b: 445; Hagedorn 1910a: 149; Schedl 1939k: 727.
- punctifrons** (Blandford) 1904: 278 (*Pterocyclon*). Holotype ♀; Volcan de Chiriqui, Panama; BMNH, London. Distribution: North America (Costa Rica/ Panama). Hosts: Logs. References: (hb) Wood, S. L. 1982b: 1239. (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1239. (tx) Blandford 1904: 278; Hagedorn 1910a: 149; Wood, S. L. 1982b: 1239.
- quadridens** (Eichhoff) 1869a: 277 (*Pterocyclon*). Holotype, sex?; Brasilia; Hamburg Museum, lost. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 783; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 337. (tx) Eichhoff 1869a: 277, 1869c: 301, 1878b: 446; Hagedorn 1910a: 149.
- dubium** Eichhoff 1869a: 277 (*Pterocyclon*). Holotype, sex?; Brasilia; Hamburg Museum, lost. Synonymy: Eichhoff 1878b: 446. References: (ds) Gemminger & Harold 1872: 2680. (tx) Eichhoff 1869a: 277, 1869c: 301, 1878b: 446.
- quadridentatum** (Eggers) 1935a: 333 (*Anchonoceus*). Lectotype ♂; Venezuela; USNM, Washington, designated by Anderson & Anderson 1971: 28. Distribution: South America (Venezuela). References: (ds) Blackwelder 1947: 783. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1935a: 329, 333–334; Schedl 1979c: 208.
- quercicolens** Wood 1967d: 49. Holotype ♂; 53 km E Morelia, Michoacan, Mexico; Wood Collection. Figures: Wood 1967a: 46, 1982b: 1219 (declivity). Distribution: North America (Guatemala/ Chihuahua, Durango, Michoacan in Mexico/ Panama). Hosts: *Quercus* spp. References: (hb) Atkinson et al. 1986: 50; Burgos & Saucedo 1983: 133. (ds) Atkinson et al. 1986: 50; Bright 1972a: 1385; Burgos & Saucedo 1983: 133; Wood, S. L. 1982b: 1219. (tx) de Ruette 1970: 104; Wood, S. L. 1967a: 46, 1967d: 49–50, 1982b: 1219.
- quercivorum** Schedl 1977e: 46. Holotype ♂; Metapan, El Salvador, 1600–2200 m; Schedl Collection in NHMW, Wien. Distribution: North America (El Salvador). Hosts: *Quercus* sp. References: (tx) Schedl 1977e: 46.
- quercum** (Wood) 1967d: 53 (*Amphicranus*). Holotype ♂; 5 km W El Salto, Durango, Mexico, 2500 m; Wood Collection. Figures: Wood 1967d: 54, 1982b: 1233 (declivity). Distribution: North America (Durango in Mexico). Hosts: *Quercus* sp. References: (tx) Wood, S. L. 1967d: 53–54.
- querneum** Wood 1967d: 50. Holotype ♂; 53 km E Morelia, Michoacan, Mexico; Wood Collection. Figures: Bright 1972a: 1377, Wood 1967d: 46, 1982b: 1219 (declivity).

Distribution: North America (El Salvador/ Honduras/ Chiapas, Hidalgo, Michoacan in Mexico).

Hosts: *Quercus loudourensis*, *Q.* spp.

References: (hb) Atkinson & Equihua 1955c: 361; Atkinson et al. 1956: 50; Burgos & Saucedo 1953: 133. (ds) Atkinson & Equihua 1955a: 101, 1955c: 361; Atkinson et al. 1956: 50; Burgos & Saucedo 1953: 133; Schedl 1977e: 43; Wood, S. L. 1952b: 1215. (tx) McNamara 1977: 196; Wood, S. L. 1967a: 46, 1967d: 50, 1973c: 179, 1952b: 1215.

bifidus Bright 1972a: 1351. Holotype ♂; 13 km E San Cristobal de las Casas, Chiapas, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 179. References: (tx) Bright 1972a: 1377, 1351; McNamara 1977: 196; Wood, S. L. 1973c: 179.

***robustum* (Schedl)** 1966f: 123 (*Pterocyclon*). Holotype ♀; Las Mercedes, Santa Clara [district in Limon], Costa Rica, 100 m; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica), South America (Trinidad).

Hosts: *Spondias purpurea*, etc.

References: (hb) Wood, S. L. 1952b: 1224. (ds) Atkinson & Equihua 1956a: 422, 1955: 92; Schedl 1966f: 77; Wood, S. L. 1952b: 1224. (tx) Schedl 1966f: 123, 1979c: 212; Wood, S. L. 1952b: 1224.

***scrobiceps* (Eichhoff)** 1875b: 455 (*Pterocyclon*). Holotype, sex?; America meridionalis (Columbia orientalis); Hamburg Museum, lost.

Distribution: South America (Colombia).

Hosts: *Quercus* sp. (?).

References: (ds) Blackwelder 1947: 753; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 342. (tx) Eggers 1936a: 393; Eichhoff 1875b: 455; Hagedorn 1910a: 149; Schedl 1966f: 76.

***scutellare* (LeConte)** 1857: 59 (*Corthybus*). Holotype ♀; San Jose, California [USA]; MCZ, Cambridge.

Figures: Bright 1976d: 189.

Distribution: North America (British Columbia in Canada/ Baja California Norte in Mexico/ California, Oregon, Washington in USA).

Hosts: *Chrysolepsis* sp., *Lithocarpus densiflorus*, *Quercus agrifolia*, *Q. kelloggii*.

Notes: (1) The original (masculine) spelling was *scutellaris*.

References: (ay) Farris 1965b: 30, 1969: 529; Francke-Grosmann 1956b. (bv) Daterman, Rudinsky, & Nagel 1965. (cn) Chamberlin 1939: 250; Doane et al. 1936; Keen 1935: 147; Ruppel 1967: 64; Swaine 1915a: 56. (ce) Chamberlin 1939: 250; Farris 1965b: 30, 1969: 529; Francke-Grosmann 1956b; Keen 1935: 147; Roepel & French 1981; Slaby 1947: 377; Steinhaus 1946: 404; Webb 1945: 65. (hb) Bright 1976d: 190; Bright & Stark 1973: 95; Chamberlin 1939: 250, 1955: 125–129; Chittenden 1893a: 392; Daterman, Rudinsky, & Nagel 1965; DeLeon 1952; Doane & Gilliland 1929: 916–918; Doane et al.

1936; Funk 1965: 929–932; Keen 1935: 147; Roling & Kearby 1974: 1303; Swaine 1915a: 56; Wood, S. L. 1952b: 1216. (ds) Bright 1976d: 190; Bright & Stark 1973: 95; Chamberlin 1939: 250, 1955: 125–129; DeLeon 1952: 79; Evans, D. 1955; Furniss, R. L. & Carolin 1977: 395; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 94; Henshaw 1852: 265, 1855: 147; Keen 1929a: 25, 1935: 147; Kleine 1913b: 157, 1914b: 391, 1934a: 171; Leng 1920: 339; Patterson & Hatch 1945: 152; Ritcher 1955: 16; Rivers 1856: 66; Ruppel 1967: 64; Swaine 1909: 144; Wood, S. L. 1959a: 61, 1972a: 425, 1952b: 1216. (tx) Bright 1976d: 189–190; Bruck 1936a; Chamberlin 1939: 250, 1955: 125–129; Eichhoff 1869a: 277, 1869c: 295, 1875b: 447; Ferrari 1867a: 48–49; Hagedorn 1910a: 149; Keen 1929a: 28; LeConte 1857: 22, 59, 1865: 153, 1876: 348; Schedl 1935h: 347; Swaine 1909: 144, 1915a: 56; Wood, S. L. 1959a: 61, 1966b: 26, 1972a: 425, 1952b: 1216.

cavus LeConte 1868: 153 (*Cryphalus*). Holotype ♂; coast region south of San Francisco, California [USA]; MCZ, Cambridge. Synonymy: LeConte 1876: 348.

References: (ds) Henshaw 1852: 265; Leng 1920: 339; Swaine 1909: 144. (tx) Eichhoff 1875b: 451; LeConte 1868: 153, 1876: 348; Swaine 1909: 144.

obliquecaudatum Schedl 1935h: 351 (*Pterocyclon*). Syntypes ♀; California [USA]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 26.

References: (ds) Blackwelder 1939. (tx) Schedl 1935h: 351, 1979c: 174; Wood, S. L. 1966b: 26.

***semipallens* (Schedl)** 1954b: 41 (*Pterocyclon*). Lectotype ♂; Brasilien: Matto Grosso, Rio Caragnata; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 224.

Distribution: South America (Brazil).

References: (tx) Schedl 1954b: 41, 1979c: 224.

***sexdentatum* Eggers** 1935a: 53. Lectotype ♀; Bolivien (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 29.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 783. (tx) Eggers 1935a: 53, 329, 331–332; Schedl 1979c: 227.

***sexdentulum* Wood** 1959: 175. Holotype ♂; Columbian (Agnatal); USNM, Washington, automatic. Distribution: South America (Colombia).

References: (tx) Wood, S. L. 1959: 175.

sexdentatum Eggers 1935a: 331 (*Anchonocerus*). Holotype ♂; Columbian (Agnatal); USNM, Washington, preoccupied by Eggers 1935.

References: (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1935a: 331–332; Wood, S. L. 1959: 175.

- subductum** (Schedl) 1978c: 303 (*Pterocyclou*).
Holotype, sex[?]; Peru, Torentoy Canyon (Base Machu-Picchu), 2000–2200 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Peru).
References: (tx) Schedl 1978c: 303.
- subgranulatum** Wood 1974b: 144. Holotype ♂; Cerro Pena Blanca, Honduras, 1900 m; Wood Collection.
Distribution: North America (Honduras).
Hosts: *Persea popenoi*.
References: (hb) Wood, S. L. 1982b: 1243. (ds) Wood, S. L. 1982b: 1243. (tx) Wood, S. L. 1974b: 144, 1982b: 1243.
- subprorum** (Schedl) 1976a: 83 (*Pterocyclou*).
Holotype, sex[?]; Brazil: Salesopolis, S.P.; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 83.
- subtruncatum** (Schedl) 1978c: 303 (*Pterocyclou*).
Holotype, sex[?]; Columbién, Caucahal, O. Thieme S.; Schedl Collection in NHMW, Wien.
Distribution: South America (Colombia).
References: (tx) Schedl 1978c: 303.
- sulcatum** (Blandford) 1905: 284 (*Pterocyclou*).
Holotype ♂; Volcan de Chiriqui, Panama, 1800 m; BMNH, London.
Distribution: North America (Panama).
Hosts: *Quercus* sp.
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157. (tx) Blandford 1905: 284; Hagedorn 1910a: 149; Schedl 1935h: 348.
- sulcipenne** (Schedl) 1978c: 304 (*Pterocyclou*).
Holotype, sex[?]; Peru, Torentoy Canyon (Base Machu-Picchu), 2000–2200 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Peru).
Notes: (3) This may be a synonym of *lobatum* Ferrari.
References: (tx) Schedl 1978c: 304.
- terminatum** (Blandford) 1904: 280 (*Pterocyclou*).
Holotype ♂; Capetillo, Guatemala; BMNH, London.
Distribution: North America (Guatemala).
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1222. (tx) Blandford 1904: 280; Hagedorn 1910a: 149; Wood, S. L. 1982b: 1222.
- tetradontium** Wood 1974b: 137. Holotype ♂; SE slope of Mt. Colima, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
References: (hb) Atkinson et al. 1986: 51; Burgos & Saucedo 1983: 134; Wood, S. L. 1982b: 1235. (ds) Atkinson et al. 1986: 51; Burgos & Saucedo 1983: 134; Wood, S. L. 1982b: 1235. (tx) Wood, S. L. 1974b: 137, 1982b: 1235.
- tomicoides** (Blandford) 1904: 273 (*Pterocyclou*).
Lectotype ♂; San Geronimo, Verapaz, Guatemala; BMNH, London, designated by Wood 1982b: 1221.
Figures: Blandford 1904: pl. 8.
Distribution: North America (Guatemala).
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1221. (tx) Blandford 1904: 273; Hagedorn 1910a: 149; Wood, S. L. 1982b: 1221.
- tridentatum** (Schedl) 1971f: 152 (*Cosmocorymus*).
Holotype ♀; Brazil: Lagoa Santa; UZMC, Copenhagen.
Distribution: South America (Brazil).
References: (tx) Schedl 1971f: 152.
- umbrium** (Blandford) 1904: 275 (*Pterocyclou*).
Holotype ♀; Purula, Verapaz, Guatemala; BMNH, London.
Distribution: North America (Guatemala/ Puebla in Mexico).
Hosts: *Alnus* sp.
References: (hb) Wood, S. L. 1982b: 1225. (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1225. (tx) Blandford 1904: 275; Hagedorn 1910a: 149; Wood, S. L. 1982b: 1225.
- unifasciatum** (Schedl) 1970e: 104 (*Cosmocorymus*).
Holotype ♀; Columbia, La Estrella II, 1700 m; Frey Collection in NHMBS, Basal.
Distribution: South America (Colombia).
References: (tx) Schedl 1970e: 104.
- vallidum** (Ferrari) 1867a: 55 (*Corthylus*).
Lectotype ♂; Mexico; NHMW, Wien, designated by Wood 1974d: 285.
Distribution: North America (Costa Rica/ Veracruz in Mexico/ Panama).
Hosts: *Quercus* spp.
References: (hb) Wood, S. L. 1982b: 1220. (ds) Atkinson & Equihua 1985c: 361; Blackwelder 1947: 783; Blandford 1904: 271; Ferrer 1942; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 340, 353; Wood, S. L. 1982b: 1220. (tx) Blandford 1904: 271; Eichhoff 1869c: 301; Ferrari 1867a: 54–55, 61; Hagedorn 1910a: 149; Schedl 1940a: 359; Wood, S. L. 1974d: 285, 1982b: 1220.
- mexicanus** Eggers 1931a: 18 (*Amphicraus*).
Holotype ♂; Mexico; MNB, Berlin. Synonymy: Wood 1974d: 285.
References: (ds) Blackwelder 1947: 783. (tx) Eggers 1931a: 18; Schedl 1940a: 359; Wood, S. L. 1974d: 285.
- jalapae** Schedl 1939j: 584 (*Pterocyclou*).
Holotype ♂; Jalapa, Veracruz, Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 285.
References: (ds) Blackwelder 1947: 783; Ferrer 1942. (tx) Schedl 1939j: 584, 1940a: 359, 1979c: 129; Wood, S. L. 1974d: 285.

vernaculum (Schedl) 1952a: 460 (*Pterocyclon*).
Syntypes 2 ♀; Argentina, Dep. Concep., Sta. Maria; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina/ Brazil).
Notes: (1) Schedl 1979c: 266 (citation of holotype invalid).
References: (ds) Schedl 1967d: 4. (tx) de Ruette 1970: 113; Schedl 1950i: 166, 1952a: 460, 1979c: 266.

vicinum (Schedl) 1970e: 100 (*Pterocyclon*). Holotype, sex?; Brasilien, S. Catarina, Luderwaldt; Eggers Collection, in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1970e: 100–101, 1979c: 267.

vittatum (Blandford) 1905: 282 (*Pterocyclon*). Holotype ♀; Volcan de Chiriqui, Panama; BMNH, London.
Figures: Blandford 1904: pl. 8.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Bromelia costaricensis*, *Clusia* sp., *Quercus* sp.
References: (hb) Wood, S. L. 1982b: 1242. (ds) Blackwelder 1947: 783; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 367; Wood, S. L. 1982b: 1242. (tx) Blandford 1905: 282; Hagedorn 1910a: 149; Wood, S. L. 1982b: 1242.

volvulum (Eichhoff) 1869a: 279 (*Pterocyclon*). Holotype, sex?; Columbia; IRSNB, Brussels.
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 783; Gemming & Harold 1872: 2680; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 342. (tx) Eichhoff 1869a: 279, 1869c: 301, 1878b: 454; Hagedorn 1910a: 149.

xalapensis Wood 1987: 548. Holotype ♂; Estacion de Biología, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Croton pseudoniveus*.
References: (tx) Wood, S. L. 1987: 548.

Genus *Glochinoscerus* Blandford

GLOCHINOSCERUS BLANDFORD 1904: 266. Type-species: *Glochinoscerus retusipennis* Blandford, subsequent designation by Hopkins 1914: 122.

Keys: Wood 1982b: 1246.

References: (hb) Wood, S. L. 1986a: 99. (ds) Hagedorn 1910d: 92; Wood, S. L. 1986a: 99. (tx) Blandford 1904: 266; Hagedorn 1910a: 142–143; Hopkins 1914: 122; Wood, S. L. 1982b: 1246–1247, 1986a: 99.

gemellus Blandford 1904: 267. Lectotype ♀; Quiche Mountains, El Quiche, Guatemala; BMNH, London, designated by Wood 1982b: 1247. Figures: Atkinson et al. 1986: 48.
Distribution: North America (Guatemala/ Hidalgo, Mexico, Puebla in Mexico).
Hosts: *Primus* sp., *Quercus* sp., etc.
References: (hb) Atkinson & Equihua 1985a: 101; Atkinson et al. 1986: 47; Burgos & Saucedo 1983:

136. (ds) Atkinson & Equihua 1985a: 101; Atkinson et al. 1986: 47; Blackwelder 1947: 783; Burgos & Saucedo 1983: 136; Hagedorn 1910d: 92; Kleine 1913b: 156, 1914b: 367; Wood, S. L. 1982b: 1247. (tx) Atkinson et al. 1986: 48; Blandford 1904: 267; Hagedorn 1910a: 143; Wood, S. L. 1982b: 1247.

retusipennis Blandford 1904: 266. Lectotype ♀; Cerro Zunil, Quezaltenango, Guatemala; BMNH, London, designated by Wood 1982b: 1246. Figures: Blandford 1904: pl. 9.
Distribution: North America (Guatemala).
Hosts: Caldo de Frijol bole, and a tree branch.
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 92; Kleine 1913b: 156, 1914b: 367; Wood, S. L. 1982b: 1246. (tx) Blandford 1904: 266; Hagedorn 1910a: 143; Hopkins 1914: 122; Lucas 1920: 303; Wood, S. L. 1982b: 1246. (ms) Lucas 1920: 303.

Genus *Metacorthylus* Blandford

METACORTHYLUS BLANDFORD 1904: 251, 263. Type-species: *Metacorthylus nigripennis* Blandford, monobasic.

Paracorthylus Wood 1968b: 7. Type-species: *Paracorthylus velutinus* Wood, original designation. Synonymy: Wood 1976a: 347.

References: (tx) Wood, S. L. 1968b: 7, 1976a: 347.

Keys: Wood 1982b: 1245.

References: (hb) Fonseca 1925: 1–8 [these citations erroneous, =*Corthylus* (SLW)]; Wood, S. L. 1982b: 1247, 1986a: 99. (ds) Wood, S. L. 1982b: 1247, 1986a: 99. (tx) Blandford 1904: 251, 263; Wood, S. L. 1976a: 347, 1982b: 1247, 1986a: 99.

concisus (Wood) 1974a: 67 (*Paracorthylus*). Holotype ♀; Moravia, Cartago, Costa Rica, 500 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Log.

Notes: (1) Wood 1976: 347 (to *Metacorthylus*).

References: (hb) Wood, S. L. 1982b: 1249. (ds) Wood, S. L. 1982b: 1249. (tx) Wood, S. L. 1974a: 67, 1976a: 347, 1982b: 1249.

mutilus (Wood) 1974a: 66 (*Paracorthylus*). Holotype ♀; Fort Sherman, Canal Zone, Panama; Wood Collection.

Distribution: North America (Panama).

Notes: (1) Wood 1976a: 347 (to *Metacorthylus*).
References: (ds) Wood, S. L. 1982b: 1248. (tx) Wood, S. L. 1974a: 66, 1976a: 347, 1982b: 1248.

nigripennis Blandford 1904: 263. Holotype ♀; Bugaba, Chiriqui, Panama, 800–1500 ft.; BMNH, London.

Distribution: North America (Panama).

References: (ds) Blackwelder 1947: 782; Hagedorn 1910d: 91; Kleine 1913b: 156, 1914b: 366; Wood, S. L. 1982b: 1251. (tx) Blandford 1904: 263; Fonseca 1925: 1–8; Hagedorn 1910a: 146;

Hopkins 1914: 124; Lucas 1920: 408; Wood, S. L. 1982b: 1251. (ms) Lucas 1920: 408.

velutinus (Wood) 1968b: 7 (*Paracorthylylus*). Holotype ♀; Moravia, Cartago Prov., Costa Rica, 500 m; Wood Collection.

Figures: Wood 1968a: 5, 1982b: 1250.

Distribution: North America (Costa Rica), South America (Colombia).

Hosts: Log, and guano seco.

References: (hb) Wood, S. L. 1982b: 1249. (ds) Wood, S. L. 1982b: 1249. (tx) Wood, S. L. 1968a: 5, 1968b: 7, 1976a: 347, 1982b: 1249.

Genus *Microcorthylylus* Ferrari

MICROCORTHYLUS FERRARI 1867a: 58. Type-species: *Microcorthylylus parvulus* Ferrari, monobasic.

Keys: Wood 1982b: 1252 for Mexico and Central America.

References: (hb) Wood, S. L. 1986a: 99. (ds) Wood, S. L. 1986a: 99. (tx) Eggers 1935a: 75, 153; Ferrari 1867a: 58; Kirsch 1868: 214; Schedl 1939j: 570, 1940a: 359; Wood, S. L. 1967d: 37–57, 1982b: 1251–1259, 1986a: 99.

abruptus Nunberg 1962: 233. Holotype ♀; Estacao Biologica de Boraceia, Salesopolis, Estado de Sao Paulo, Brasilien; DZSA, Sao Paulo.

Figures: Nunberg 1962: 234.

Distribution: South America (Brazil).

Notes: (3) This is probably a *Monarthrum*.

References: (hb) Wood, S. L. 1982b: 1251. (ds) Wood, S. L. 1982b: 1251. (tx) Nunberg 1962: 233–234; Wood, S. L. 1982b: 1251.

bicolor Eggers 1935a: 154. Holotype, sex?; Bolivien, Cochabamba; Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 783. (tx) Eggers 1935a: 153–155; Schedl 1939j: 573, 1979c: 38.

brevis Eggers 1935a: 155. Holotype ♀; Guadeloupe; Eggers Collection, in NHMW, Wien.

Distribution: Antilles Islands (Guadeloupe).

References: (ds) Blackwelder 1947: 783; Bright 1985c: 176. (tx) Bright 1985c: 176; Eggers 1935a: 155–156, 1941a: 108; Schedl 1979c: 47.

castaneus Schedl 1939j: 572. Holotype, sex?; Brasilien, Sta. Catharina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 783. (tx) Schedl 1939j: 572, 1979c: 54.

concisus Wood 1973a: 270. Holotype ♀; Volcan, Puntarenas, Costa Rica, 1000 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Croton gossypifolius*, and other tree branches.

References: (hb) Wood, S. L. 1982b: 1259. (ds)

Wood, S. L. 1982b: 1259. (tx) Wood, S. L. 1973a: 270, 1982b: 1259.

contractus Wood 1973a: 274. Holotype ♂; 7 km NW Socopo, Barinas, Venezuela, 200 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Nectandra* sp.

References: (tx) Wood, S. L. 1973a: 274.

curtus Wood 1973a: 274. Holotype ♂; 20 km SW El Vigia, Merida, Venezuela, 50 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Tree seedling.

References: (tx) Wood, S. L. 1973a: 274.

debilis Wood 1973a: 265. Holotype ♀; Volcan Pacaya, Guatemala, 1300 m; Wood Collection.

Distribution: North America (Guatemala).

Hosts: Tree branch, and a liana.

References: (hb) Wood, S. L. 1982b: 1254. (ds) Atkinson & Equilua 1985c: 362; Wood, S. L. 1982b: 1254. (tx) Wood, S. L. 1973a: 265, 1982b: 1254.

demissus Wood 1973a: 266. Holotype ♀; 9 km NE Teziutlan, Puebla, Mexico; Wood Collection.

Distribution: North America (Costa Rica/ Puebla in Mexico).

Hosts: *Boehmeria ulmifolia*, *Conostegia ocrstediana*, *Miconia* sp.

References: (hb) Wood, S. L. 1982b: 1254. (ds) Wood, S. L. 1982b: 1254. (tx) Wood, S. L. 1973a: 266, 1982b: 1254.

dilutus Wood 1973a: 271. Holotype ♂; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia, 2500 m; Wood Collection.

Distribution: South America (Colombia).

Hosts: Guttiferae sp.

References: (tx) Wood, S. L. 1973a: 271.

diversus Wood 1973a: 272. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela, 2500 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Nectandra* sp.

References: (tx) Wood, S. L. 1973a: 272.

glabratus (Ferrari) 1867a: 60 (*Corthylylus*). Holotype, sex?; Venezuela [presumably Colonia Tovar]; NHMW, Wien.

Distribution: South America (Brazil/ Venezuela).

Notes: Schedl 1963h: 268 (to *Microcorthylylus*).

References: (ds) Bright 1985c: 176; Fleutiaux & Salle 1890: 458; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 93; Kleine 1914b: 340. (tx) Bright 1985c: 176; Ferrari 1867a: 53, 60; Hagedorn 1910a: 148; Schedl 1936i: 108, 1963h: 268.

subopacus Schedl 1939j: 573. Lectotype, sex?; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c:

243. Synonymy: Schedl 1963h: 268.

- References: (ds) Blackwelder 1947: 783. (tx) Schedl 1939j: 573, 1963l: 268, 1979c: 243.
- grandiclavatus** Eggers 1935a: 156. Holotype ♂; Costa Rica, San Jose, 1300 m; Hamburg Museum, lost, neotype ♂, Escasu, San Jose, Costa Rica. USNM, Washington, designated by Wood 1982b: 1255.
Distribution: North America (Costa Rica/ Panama).
Hosts: Small tree.
References: (hb) Wood, S. L. 1982b: 1255. (ds) Blackwelder 1947: 783; Wood, S. L. 1982b: 1255. (tx) Eggers 1935a: 156; Wood, S. L. 1982b: 1255.
- hostilis** Wood 1973a: 272. Holotype ♀; 30 km N Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Tree branch.
References: (tx) Wood, S. L. 1973a: 272.
- inermis** Wood 1973a: 267. Holotype ♀; 15 km SE Cartago, Cartago, Costa Rica, 1500 m; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Guazuma ulmifolia*, *Siparuna nicaraguensis*.
References: (hb) Wood, S. L. 1982b: 1255. (ds) Wood, S. L. 1982b: 1255. (tx) Wood, S. L. 1973a: 267, 1982b: 1255.
- invalidus** Wood 1973a: 265. Holotype ♀; 6 km W Tepic, Nayarit, Mexico, 1000 m; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: Tree branch.
References: (hb) Atkinson & Equihua 1955c: 362; Wood, S. L. 1982b: 1255. (ds) Atkinson & Equihua 1955c: 362; Wood, S. L. 1982b: 1255. (tx) Wood, S. L. 1973a: 265, 1982b: 1255.
- lassus** Wood 1973a: 270. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: Small trees, and a liana.
References: (hb) Wood, S. L. 1982b: 1255. (ds) Wood, S. L. 1982b: 1255. (tx) Wood, S. L. 1973a: 270, 1982b: 1255.
- mexicanus** Eggers 1934a: 81. Holotype, sex?; Mexico; Hamburg Museum, lost.
Distribution: North America ("Mexico").
References: (ds) Blackwelder 1947: 783. (tx) Eggers 1934a: 81–82; Schedl 1940a: 359.
- minus** Schedl 1950i: 160. Lectotype ♀; Nova Teutonia, Santa Catarina, Brazil; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 154.
Figures: Atkinson & Aquihua 1988: 97, Pedrosa-Macedo & Schonherr 1985: 59
Distribution: Antilles Islands (Cuba/ Jamaica), North America (Costa Rica/ Honduras/ Veracruz in Mexico/ Panama), South America (Brazil).
Hosts: *Acacia pennatula*, *Serjania* sp., and other small branches.
References: (cc) Equihua & Atkinson 1986: 634. (hb) Equihua & Atkinson 1986: 634; Wood, S. L. 1982b: 1256. (ds) Atkinson & Equihua 1988: 92; Bright 1981c: 155, 1985c: 176; Equihua & Atkinson 1986: 634; Pedrosa-Macedo & Schonherr 1985: 59; Schedl 1966f: 91, 1967d: 4, 1976a: 56; Wood, S. L. 1982b: 1256. (tx) Atkinson & Equihua 1988: 97; Bright 1985c: 176; Pedrosa-Macedo & Schonherr 1985: 59; Schedl 1950i: 160, 1979c: 154; Wood, S. L. 1982b: 1256.
- minutissimus** Schedl 1952d: 361. Syntypes, sex?; Jamaica; Schedl Collection in NHMW, Wien.
Synonymy: Wood 1975b: 394.
Notes: (1) Schedl 1979c: 156 (citation of holotype invalid).
References: (ds) Bright 1972d: 102; Schedl 1966f: 91, 1967d: 4, 1971f: 147, 1972g: 46. (tx) Bright 1972d: 102; Schedl 1950i: 160, 1952d: 361, 1979c: 156; Wood, S. L. 1975b: 394.
- obscurus** Eggers 1935a: 155. Holotype, sex?; Bolivia, Cochabamba; USNM, Washington.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 783. (tx) Anderson, W. H. & Anderson 1971: 22; Eggers 1934a: 81, 1935a: 155; Schedl 1939j: 570–571, 1979c: 175.
- ocularis** Wood 1973a: 266. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Boehmeria ulmifolia*, *Conostegia oerstediana*, *Siparuna nicaraguensis*.
References: (hb) Wood, S. L. 1982b: 1254. (ds) Wood, S. L. 1982b: 1254. (tx) Wood, S. L. 1973a: 266–267, 1982b: 1254.
- pallidus** Schedl 1939j: 571. Lectotype, sex?; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 182.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 783; Nunberg 1964a: 235; Schedl 1966f: 78. (tx) Nunberg 1956: 235; Schedl 1939j: 570–571, 1979c: 182.
- parvulus** Ferrari 1867a: 53, 58. Holotype ♂; Venezuela [probably Colonia Tovar]; NHMW, Wien.
Distribution: North America (Costa Rica/ Guatemala), South America (Colombia/ Venezuela).
Hosts: *Spondias purpurea*, and other tree branches.
References: (hb) Wood, S. L. 1982b: 1255. (ds) Blackwelder 1947: 783; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 94; Kleine 1913b: 157, 1914b: 340, 366; Wood, S. L. 1982b: 1255. (tx) Eggers 1935a: 153–156; Ferrari 1867a: 53, 58; Hagedorn 1910a: 145; Hopkins 1914: 125; Schedl 1939j: 570; Wood, S. L. 1974d: 283, 1982b: 1255.
- exile** Eichhoff 1878b: 451 (*Pterocyclon*). Holotype ♂; America meridionalis (Nova Granada [probably Colonia Tovar, Colombia]); IRSNB, Brussels. Synonymy: Wood 1974d: 283.
References: (ds) Blackwelder 1947: 783; Hagedorn 1910d: 92; Kleine 1913b: 157. (tx)

Eichhoff 1878b: 444, 451; Hagedorn 1910a: 148; Swaine 1909: 142, 1918a: 88; Wood, S. L. 1974d: 283.

porrectus Schedl 1951b: 292. Lectotype, sex?; Argentinien, Dep. Concepcion, Sta. Maria; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 197.

Distribution: South America (Argentina).

References: (hb) Viana 1964: 126. (ds) Viana 1964: 126. (tx) Schedl 1951b: 292, 1979c: 197.

puerulus Schedl 1939j: 571. Lectotype, sex?; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 203. Figures: Schedl 1939j: 570 (antenna, tibia).

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 783. (tx) Schedl 1939j: 570–571, 1950, 1951b: 292, 1979c: 203.

pumilus Wood 1973a: 268. Holotype ♀; 15 km SE Cartago, Costa Rica, 1800 m; Wood Collection.

Distribution: North America (Costa Rica/Panama).
Hosts: *Conostegia oerstediana*, etc.

References: (hb) Wood, S. L. 1982b: 1257. (ds) Wood, S. L. 1982b: 1257. (tx) Wood, S. L. 1973a: 268, 1982b: 1257.

pusillus Wood 1973a: 269. Holotype ♀; Buenos Aires, Cortez, Honduras, 2300 m; Wood Collection.
Distribution: North America (Guatemala/Honduras).
Hosts: Tree branch.

References: (hb) Wood, S. L. 1982b: 1257. (ds) Wood, S. L. 1982b: 1257. (tx) Wood, S. L. 1973a: 269, 1982b: 1257.

rufotestaceus Schedl 1939j: 572. Lectotype, sex?; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 215.
Distribution: South America (Brasil).

References: (ds) Blackwelder 1947: 783. (tx) Schedl 1939j: 572, 1979c: 215.

suggrandis Schedl 1939j: 574. Lectotype, sex?; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 245. Figures: Pedrosa-Macedo & Schonherr 1985: 60.

Distribution: South America (Brazil).

Hosts: *Ocotea puberula*.

References: (ds) Blackwelder 1947: 783; Pedrosa-Macedo & Schonherr 1985: 60; Schedl 1966f: 91; Schonherr & Pedrosa-Macedo 1981: 53. (tx) Numberg 1962: 235; Pedrosa-Macedo & Schonherr 1985: 60; Schedl 1939j: 574, 1979c: 245.

umbratus Wood 1973a: 273. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela, 2500 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Nectandra* sp.

References: (tx) Wood, S. L. 1973a: 273.

vescus Wood 1973a: 271. Holotype ♀; Volcan Zumil, Quezaltenango, Guatemala, 1000 m; Wood Collection.

Distribution: North America (Guatemala).

References: (ds) Atkinson & Equihua 1985c: 362; Wood, S. L. 1982b: 1259. (tx) Wood, S. L. 1973a: 271, 1982b: 1259.

vicinus Wood 1977b: 213. Holotype ♀; 51 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa.

Distribution: North America (Chiapas, Oaxaca in Mexico).

Hosts: *Quercus* sp., *Salix* sp.

References: (ds) Wood, S. L. 1982b: 1256. (tx) Wood, S. L. 1977b: 213, 1982b: 1256.

Genus *Corthyicyclon* Schedl

CORTHYCYCLON SCHEDL 1951m: 128. Type-species: *Corthyicyclon ustum* Schedl, monobasic.

Keys: Wood 1982b: 1260 for Mexico and Central America.

References: (hb) Wood, S. L. 1986a: 100. (ds) Wood, S. L. 1986a: 100. (tx) Schedl 1951m: 128; Wood, S. L. 1982b: 1259–1264, 1986a: 100.

aztecum (Bright) 1972a: 1374 (*Corthyylus*). Holotype ♀; 5.6 km S Suchixtepec, Oaxaca, Mexico; CNCI, Ottawa.

Figures: Bright 1972a: 1370, Wood 1982b: 1262 (antenna).

Distribution: North America (Costa Rica/Chiapas, Oaxaca, Puebla in Mexico).

Hosts: *Bocconia frutescens*, *Miconia dodecandra*, *M.* sp., *Oreopanax xalapense*, *Quercus* sp., *Siparuna nicaraguensis*, *Vaccinium cou-sanguinenum*.

Notes: (1) Wood 1982b: 1263 (to *Corthyicyclon*).
References: (hb) Wood, S. L. 1982b: 1261. (ds) Wood, S. L. 1982b: 1263. (tx) Bright 1972a: 1370, 1374; McNamara 1977: 195; Wood, S. L. 1982b: 1263–1264.

caliginis Wood 1974b: 148. Holotype ♀; 16 km SE Cartago, Costa Rica, 1800 m; Wood Collection.

Figures: Wood 1982b: 1262.

Distribution: North America (Costa Rica).

Hosts: Liana.

References: (hb) Wood, S. L. 1982b: 1261. (ds) Wood, S. L. 1982b: 1261. (tx) Wood, S. L. 1974b: 148, 1982b: 1261.

ebeninum (Blandford) 1904: 265 (*Brachyspartus*). Holotype ♀; Volcan de Chiriqui, Chiriqui, Panama, 4–6000 ft.; BMNH, London.

Distribution: North America (Panama).

References: (ds) Blackwelder 1947: 784; Hagedorn 1910d: 91; Kleine 1913b: 156, 1914b: 366; Wood, S. L. 1982b: 1262. (tx) Blandford 1904: 265; Hagedorn 1910a: 140; Wood, S. L. 1982b: 1262.

furcum Wood 1974b: 148. Holotype ♀; Peralta, Cartago, Costa Rica, 500 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Liana.

References: (hb) Wood, S. L. 1982b: 1261. (ds) Wood, S. L. 1982b: 1261. (tx) Wood, S. L. 1974b: 148, 1982b: 1261.

morulum Wood 1974b: 149. Holotype ♀; 16 km SE Cartago, Costa Rica, 1800 m; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Conostegia oerstediana*. References: (hb) Wood, S. L. 1982b: 1261. (ds) Wood, S. L. 1982b: 1261. (tx) Wood, S. L. 1974b: 149, 1982b: 1261.

tardum Wood 1974b: 149. Holotype ♀; 16 km SE Cartago, Costa Rica, 1800 m; Wood Collection. Figures: Wood 1982b: 1262 (antenna, tibia). Distribution: North America (Costa Rica/Panama). Hosts: *Cecropia* sp. (leaf petioles), *Siparuna nicaraguensis*, *Vaccinium consanguineum*. References: (hb) Wood, S. L. 1982b: 1263. (ds) Wood, S. L. 1982b: 1263. (tx) Wood, S. L. 1974b: 149, 1982b: 1263.

ustum Schedl 1951m: 128. Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). Notes: (3) Schedl 1959m: 555 (described male). References: (tx) Schedl 1951m: 128, 1959m: 555, 1979c: 263.

Genus *Brachyspartus* Ferrari

BRACHYSPARTUS FERRARI 1867a: 65. Type-species: *Brachyspartus moritzi* Ferrari, monobasic.

Thylurcos Schedl 1939j: 567. Type-species: *Brachyspartus moritzi* Ferrari, by subsequent monotypy. Synonymy: Wood 1966b: 18, 1986: 100. References: (tx) Schedl 1939j: 567–568; Wood, S. L. 1966b: 18, 1986: 100.

Notes: (1) *Thylurcos* Schedl was based on 2 species; *nevermanni* Schedl was transferred to *Corthylus* (Wood 1982b: 1298) leaving *moritzi* Ferrari as the only original species in the genus; thus, *Thylurcos* became an objective junior synonym of *Brachyspartus*.

References: (hb) Wood, S. L. 1986a: 100. (ds) Hagedorn 1910d: 91; Wood, S. L. 1986a: 100. (tx) Blandford 1904: 264; Eichhoff 1878b: 429; Ferrari 1867a: 65; Hagedorn 1910a: 140; Schedl 1935b: 347, 1939j: 567; Wood, S. L. 1966b: 18, 1986a: 100.

moritzi Ferrari 1867a: 68. Holotype ♀; Venezuela; NHMW, Wien.

Distribution: South America (Venezuela). References: (ds) Blackwelder 1947: 784; Geminger & Harold 1872: 2693; Hagedorn 1910d: 91; Kleine 1913b: 156, 1914b: 340, 342. (tx) Eichhoff 1868d: 419, 1878b: 429; Ferrari 1867a: 68; Hagedorn 1910a: 140; Hopkins 1914: 117; Schedl 1939j: 567; Wood, S. L. 1966b: 18, 1992b: 82. (ms) Eichhoff 1868d: 419.

obtusus Schedl 1966f: 122 (*Corthylus*). Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien. Synonymy: Wood 1992b: 82.

References: (tx) Schedl 1966f: 122, 1979c: 176; Wood, S. L. 1992b: 82.

Genus *Corthylocurus* Wood

CORTHYLOCURUS WOOD 1966b: 18. Type-species: *Brachyspartus barbatus* Blandford, original designation.

Keys: Wood 1982b: 1265 for Mexico and Central America.

References: (hb) Wood, S. L. 1986a: 100. (ds) Wood, S. L. 1986a: 100. (tx) Wood, S. L. 1966b: 18–19, 1973c: 175, 1982b: 1264–1270, 1986a: 100.

aguacatensis (Schedl) 1940a: 357 (*Metacorthylus*). Lectotype ♂; Xochitlan, Morelos, Mexico; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 15.

Figures: Atkinson et al. 1986: 43, Wood 1982b: 1267 (female head, declivity).

Distribution: North America (Michoacan, Morelos, Nayarit in Mexico).

Hosts: *Persca americana*, *Spondias mombin*.

Notes: (1) Wood 1982b: 1266 (designation of lectotype not needed).

References: (hb) Atkinson et al. 1986: 44; Burgos & Saucedo 1983: 183; Wood, S. L. 1982b: 1266. (ds) Atkinson et al. 1986: 44, 68; Blackwelder 1947: 782; Burgos & Saucedo 1983: 138; Wood, S. L. 1982b: 1266. (tx) Atkinson et al. 1986: 43; Schedl 1940a: 357, 1950i: 161, 1979c: 15; Wood, S. L. 1982b: 1266.

barbatus (Blandford) 1904: 265 (*Brachyspartus*). Holotype ♀; Volcan de Chiriqui, Chiriqui, Panama; BMNH, London.

Figures: Blandford 1904: 265, pl. 5, Wood 1982b: 1267 (female head, declivity).

Distribution: North America (Costa Rica/Oaxaca, Puebla in Mexico/Panama).

Hosts: *Conostegia oerstediana*, *Miconis* sp., *Spondias purpurea*.

References: (hb) Wood, S. L. 1982b: 1269. (ds) Atkinson & Equilina 1985c: 362; Blackwelder 1947: 784; Bright 1972a: 1385; Hagedorn 1910d: 91; Kleine 1913b: 156, 1914b: 366; Wood, S. L. 1982b: 1269. (tx) Blandford 1904: 265; Hagedorn 1910a: 140; Schedl 1935b: 349, 1939j: 569, 1950i: 162; Wood, S. L. 1966b: 19, 1973c: 175, 1982b: 1269.

brunneus (Nunberg) 1972b: 191 (*Corthylus*). Holotype ♂; Sao Paulo, Itarare (Sampaio); MZUSP, Sao Paulo.

Distribution: South America (Brazil).

References: (tx) Nunberg 1972a, 1972b: 191–192.

cinnamatus Bright 1972a: 1379. Holotype ♀; Mexico: 21 km N Ocozoautla, Chiapas; CNCL, Ottawa.

Figures: Bright 1972a: 1377, Wood 1982b: 1267 (female head).

Distribution: North America (Costa Rica/Chiapas in Mexico).

Hosts: Liana.

References: (hb) Wood, S. L. 1982b: 1269. (ds)

Wood, S. L. 1982b: 1269. (tx) Bright 1972a: 1377, 1379; McNamara 1977: 195; Wood, S. L. 1973c: 175, 1982b: 1269.

costaricensis (Schedl) 1936i: 108 (*Microcorthylylus*). Holotype ♀; Turrialba, Cartago, Costa Rica; Schedl Collection in NHMW, Wien.

Figures: Wood 1982b: 1267 (female head, declivity). Distribution: North America (Costa Rica).

Hosts: Lianas.

Notes: (1) Wood 1982b: 1268 (to *Corthylocurus*).

References: (hb) Wood, S. L. 1982b: 1268. (ds) Blackwelder 1947: 783; Wood, S. L. 1982b: 1268. (tx) Schedl 1936i: 108, 1979c: 67; Wood, S. L. 1982b: 1268.

debilis Wood 1974b: 150. Holotype ♀; Beverley, Limon, Costa Rica; Wood Collection.

Figures: Wood, S. L. 1982b: 1267 (female head, declivity).

Distribution: North America (Costa Rica/Panama). Hosts: *Serjania* sp.

References: (cn) Equihua 1988. (hb) Wood, S. L. 1982b: 1266. (ds) Atkinson & Equihua 1985c: 362, 1988: 86; Estrada & Atkinson 1988: 211; Wood, S. L. 1982b: 1266. (tx) Wood, S. L. 1974b: 150, 1982b: 1266.

mexicanus (Schedl) 1950i: 163 (*Brachyspartus*). Holotype ♂; Comitán, Mexico; Schedl Collection in NHMW, Wien.

Figures: Wood, S. L. 1982b: 1267 (female head, declivity).

Distribution: North America (Costa Rica/ Guatemala/ Chiapas, Oaxaca, Puebla, Veracruz in Mexico/ Panama).

Hosts: *Acacia* sp., *Arbutus* sp., *Inga* sp., *Miconia* sp., *Rhus* sp., *Rubus* sp., and other small branches.

References: (hb) Wood, S. L. 1982b: 1268. (ds) Atkinson & Equihua 1985c: 362; Ferrer 1942; Wood, S. L. 1982b: 1268. (tx) Schedl 1950i: 163, 1979c: 152; Wood, S. L. 1973c: 175, 1974d: 279, 1982b: 1268.

cylindricus Schedl 1963c: 164 (*Corthylylus*). Holotype ♀; Jalapa, Veracruz, Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 279.

References: (tx) Schedl 1963c: 164, 1979c: 73; Wood, S. L. 1974d: 279.

anomalous Bright 1972a: 1378 (*Corthylylus*). Holotype ♀; Highway 175, 5.6 km S Suchixtepec, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 175.

References: (tx) Bright 1972a: 1378; McNamara 1977: 195; Wood, S. L. 1973c: 175.

signatifrons (Schedl) 1950i: 162 (*Brachyspartus*). Holotype ♀; Tybays or Tybagos [presumably Brazil]; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil?).

References: (tx) Schedl 1950i: 162, 1979c: 225.

tuberculifer (Eggers) 1937a: 86 (*Brachyspartus*). Syntypes 2, sex?; Brasil, Bahia; BMNH, London, 2 Eggers syntypes in NHMW, Wien.

Figures: Terra 1987: 28.

Distribution: South America (Brazil).

Hosts: *Theobroma cacao*.

References: (ds) Blackwelder 1947: 784; Nummer 1976a: 56; Schedl 1976a: 56; Terra 1987: 27. (tx) Anderson, W. H. & Anderson 1971; Eggers 1937a: 86–87; Schedl 1939j: 569, 1979c: 255; Terra 1987: 27–28.

vernaculus (Schedl) 1939j: 569 (*Brachyspartus*). Syntypes ♀; Nova Teutonia, Brazil; Schedl Collection in NHMW, Wien, and Plannann Collection.

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 266 (citation of holotype invalid).

References: (ds) Blackwelder 1947: 784; Schedl 1966f: 91, 1967d: 4, 1970e: 85, 1976a: 56. (tx) Schedl 1939j: 569, 1950i: 163, 1979c: 266.

Genus *Corthylylus* Erichson

CORTHYLUS ERICHSON 1836: 64. Type-species: *Bostrichus compressicornis* Fabricius, by subsequent monotypy by Ferrari 1867a: 49. Wood 1974c: 202 designated lectotype for type-species.

Morizus Ferrari 1867a: 49. Type-species: *Morizus excisus* Ferrari, monobasic. Synonymy: Eichhoff 1869c: 300.

References: (tx) Blandford 1904: 251; Eichhoff 1869c: 297–301; Ferrari 1867a: 49, 59, 69; Swaine 1909: 90.

Pseudocorthylylus Ferrari 1867a: 59. Type-species: *Pseudocorthylylus letzneri* Ferrari. Synonymy: Wood 1977d: 511.

References: (tx) Ferrari 1867a: 59; Kirsch 1868: 214; Wood, S. L. 1977d: 511.

Corthylominus Schedl 1972g: 73. Type-species: *Corthylominus gracilis* Schedl, original designation, preoccupied by Ferrari 1867.

References: (tx) Schedl 1972g: 73, 1979c: 107.

Keys: Blandford 1904: 253 for Mexico and Central America; Wood 1982b: 1271 for North and Central America.

References: (ay) Nobuchi 1969a: 68. (hb) Hubbard 1897: 16; Merino & Vasquez 1963: 59–67; Wood, S. L. 1982b: 1270, 1986a: 100. (ds) Hagedorn 1910d: 90–91; Wood, S. L. 1982b: 1270, 1986a: 100. (tx) Arnett 1960: 1045, 1968: 1045;

Beal & Massey 1945: 59, 104; Blandford 1904: 251–254; Bright 1972d: 103, 1976d: 191, 1978: 192; Chamberlin 1939: 283–285; Dodge 1938: 18; Eggers 1935a: 76–77, 1940a: 123–141;

Eichhoff 1869a: 279, 1869c: 297–301, 1878b: 66, 421; Erichson 1836: 64; Ferrari 1867a: 48, 1867b: 104–115; Fonseca 1927: 585–590; Hagedorn 1910a: 144–145; LeConte 1876: 347; LeConte & Horn 1883: 517; Schedl 1939j: 567, 1940a: 349–

350; Wood, S. L. 1966b: 19, 1967b: 37–57, 1967c:

- 119–141, 1974c: 181–202, 1977d: 511, 1982b: 1270–1310, 1986a: 100.
- abbreviatus** Eichhoff 1869a: 279. Holotype ♀; Columbia; IRSNB, Brussels.
Figures: Menschoy & Martin 1974: 6.
Distribution: South America (Colombia/Venezuela).
Hosts: *Ahuus* sp., *Crotou* sp., *Ficus* sp., *Vismia* sp.
References: (hb) Menschoy & Martins 1974. (ds) Blackwelder 1947: 784; Blandford 1904: 254; Gemminger & Harold 1872: 2693; Hagedorn 1903: 547, 1910d: 90; Kleine 1913b: 155, 1914b: 342. (tx) Blandford 1904: 254; Eggers 1933b: 2, 21; Eichhoff 1869a: 279, 1869c: 301, 1878b: 425; Hagedorn 1903b: 547, 1910a: 145; Menschoy & Martin 1974: 6.
- abrupteclivis** Schedl 1966f: 121. Holotype ♀; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1966f: 121, 1979c: 8.
- additus** Wood 1974c: 199. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Clusia* sp., *Ficus* sp., *Nectandra* sp., *Rubus* sp., *Vismia* sp.
References: (tx) Wood, S. L. 1974c: 199.
- alienus** Schedl 1966f: 119. Holotype ♀; Argentinien, Tucuman; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
References: (tx) Schedl 1966f: 119, 1979c: 16.
- antemarius** Schedl 1966f: 120. Holotype ♀; Brasilien, Nova Teutonia, Santa Catarina; Schedl Collection in NHMW, Wien.
Figures: Pedrosa-Macedo & Schonherr 1985: 61.
Distribution: South America (Brazil).
References: (ds) Pedrosa-Macedo & Schonherr 1985: 61; Schedl 1976a: 55. (tx) Pedrosa-Macedo & Schonherr 1985: 61; Schedl 1966f: 120, 1979c: 22.
- argentinensis** Schedl 1950i: 157. Holotype ♂; Argentina, Pr. Jujuy, Verzenyi; Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
Notes: (3) Schedl 1976a: 79 (described female).
References: (ds) Schedl 1976a: 53. (tx) Numberg 1962: 230; Schedl 1950i: 156–157, 1976a: 79, 1979c: 24.
- bifurcus** Schedl 1935h: 345. Holotype ♂; Costa Rica, Lagune Vulkan Poas, 2600 m; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: Probably a native bamboo.
References: (ds) Blackwelder 1947: 784; Wood, S. L. 1982b: 1282. (tx) Schedl 1935h: 345, 1979c: 40; Wood, S. L. 1982b: 1282.
- bolivianus** Eggers 1943a: 379. Holotype ♀; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1943a: 379–380.
- brunnesceus** Wood 1981: 122. Holotype ♀; Volcan Barba, Heredia, Costa Rica; Wood Collection, automatic.
Figures: Wood 1982b: 1291 (female).
Distribution: North America (Costa Rica).
Hosts: Native bamboo.
References: (hb) Wood, S. L. 1982b: 1290. (ds) Wood, S. L. 1982b: 1290. (tx) Wood, S. L. 1981: 122, 1982b: 1290.
- brunneus** Wood 1974c: 188. Holotype ♀; Volcan Barba, Heredia, Costa Rica; Wood Collection, preoccupied by Numberg 1972.
References: (tx) Wood, S. L. 1974c: 188, 1981: 122.
- calamarius** Wood 1974c: 185. Holotype ♀; Volcan Poas, Heredia, Costa Rica, 2000 m; Wood Collection.
Figures: Wood 1982b: 1280 (female).
Distribution: North America (Costa Rica).
Hosts: Native bamboo.
References: (hb) Wood, S. L. 1982b: 1282. (ds) Wood, S. L. 1982b: 1282. (tx) Wood, S. L. 1974c: 185, 1982b: 1282.
- callidus** Schedl 1973d: 172. Holotype ♀; Brasilien, Guanabara, Rio de Janeiro, Ilha do Governador; MZUSP, Sao Paulo.
Distribution: South America (Brazil).
References: (tx) Schedl 1973d: 172, 1979c: 50.
- calmicoleus** Wood 1974c: 189. Holotype ♀; Volcan Poas, Heredia, Costa Rica, 2500 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Native bamboo.
References: (tx) Wood, S. L. 1974c: 189, 1982b: 1291.
- caunularius** Wood 1974c: 186. Holotype ♀; Cerro de la Muerte, San Jose, Costa Rica, 3200 m; Wood Collection.
Figures: Wood 1982b: 1284 (female).
Distribution: North America (Costa Rica).
Hosts: Native bamboo.
References: (hb) Wood, S. L. 1982b: 1283. (ds) Wood, S. L. 1982b: 1283. (tx) Wood, S. L. 1974c: 186, 1982b: 1283.
- cavifrons** Numberg 1962: 230. Holotype ♀; Estacao Biologica de Boraceia, Salesopolis, Estado de Sao Paulo, Brasilien; DZSA, Sao Paulo.
Distribution: South America (Brazil).
References: (tx) Numberg 1962: 230.
- cecropii** Wood 1975a: 31. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Distribution: North America (Costa Rica), South America (Venezuela).
Hosts: *Cecropia peltata* leaf petioles.
References: (hb) Wood, S. L. 1982b: 1278. (ds) Wood, S. L. 1982b: 1278. (tx) Wood, S. L. 1975a: 31, 1982b: 1278.

cirritus Wood 1974c: 200. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela, 1100 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Nectandra* sp., *Piper* sp., and other small branches.

References: (tx) Wood, S. L. 1974c: 200.

collaris Blandford 1904: 261. Holotype ♂; Cerro Zunil, Guatemala; BMNH, London.

Figures: Wood 1952b: 1254 (female).

Distribution: North America (Costa Rica/ Guatemala/ Chiapas in Mexico/ Panama).

Hosts: *Acacia* sp., *Crotalaria* sp., *Miconia globuliflora*, *Phoebe mexicana*, *Theobroma cacao*, and other small branches.

Notes: (3) Schedl 1950i: 160 (described female).

References: (ec) Wichmann 1955a: 107. (hb) Wood, S. L. 1952b: 1285. (ds) Blackwelder 1947: 784; Hagedorn 1910d: 90; Kleine 1913b: 155, 1914b: 366; Wichmann 1955a: 107; Wood, S. L. 1952b: 1285. (tx) Blandford 1904: 261; Hagedorn 1910a: 145; Numberg 1962: 230; Schedl 1950i: 160, 1979c: 59; Wood, S. L. 1967c: 138, 1974d: 279, 1952b: 1285.

splendens Wood 1967c: 138. Holotype ♀; 16 km SE Cargago, Cartago, Costa Rica; Wood Collection. Synonymy: Wood 1974d: 279.

References: (tx) Wood, S. L. 1967c: 138, 1974d: 279.

columbianus Hopkins 1895d: 104. Syntypes, sex?; Raleigh Co., West Virginia [USA]; USNM, Washington.

Figures: Baker 1972: 266, Giese 1967: 56, Kabir & Giese 1966a: 886–891, Wood, S. L. 1952b: 1294 (female).

Distribution: North America (District of Columbia, Florida, Georgia, Indiana, Kansas, Maryland, Massachusetts, Missouri, New Jersey, North Carolina, South Carolina, Tennessee, Vermont, Virginia, West Virginia in USA).

Hosts: *Acer rubrum*, *A. saccharinum*, *Castanea dentata*, *Liriodendron tulipifera*, *Platanus occidentales*, *Quercus alba*, *Ulmus* sp.

References: (ay) Giese 1964, 1967; Hopkins 1894g. (bv) Crozier & Giese 1967b; Gagne & Kearby 1979: 300; Kabir 1963, 1964; Kabir & Giese 1966a; Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. (cn) Anonymous 1960q, 1961h, 1962h, 1963y, 1965b, 1955k: 23; Baker, W. L. 1972: 265; Beal et al. 1952: 59; Bongberg 1962; Burns 1969, 1970: 1–15; Chamberlin 1924, 1939: 284–285; Coulson & Witter 1984: 566; Doane et al. 1936; Drooz 1955: 369; Felt 1906: 702; Hopkins 1894a: 146, 1894b: 300, 313–336, 1895: 104–107, 1896b: 81, 1896c: 76, 1897a: 37, 1897b: 17, 1898a: 106, 1902d: 24, 1909c: 61, 1910d; Hubbard 1897b: 17; Kabir & Giese 1966a; MacAloney & Ewan 1964; Marlatt 1929: 1–39; Mattson & Haack 1957; McCambridge

& Kowal 1957: 7; McManus & Giese 1967; Nord & McManus 1972; Pettinger 1963: 65; Roling & Kearby 1973, 1977; Snyder 1923: 131, 1927: 3; White, W. B. & Giese 1968; Yates 1968. (ec) Baker, W. L. 1972: 265; Chamberlin 1939: 284–285; Crozier & Giese 1967b; Drooz 1955: 369; Felt 1906: 702; Giese 1962, 1966b, 1967b; Hopkins 1897a: 37; Kabir 1963, 1964: 4894–4895; Kabir & Giese 1966a, 1966b; Mattson & Haack 1957; McManus 1969; McManus & Giese 1968; Nord 1973; Oliveria 1975b; Pettinger & Giese 1968; Roling & Kearby 1974: 1305, 1977; Steinhans 1946: 404; White, W. B. & Giese 1968: 1400; Wilson 1959a: 311–317, 1959b: 114. (hb) Anonymous 1985: 23; Baker, W. L. 1972: 265; Beal & Massey 1945: 105–106; Bright 1976d: 193; Burns 1969; Chamberlin 1939: 284–285; Coulson & Witter 1984: 566; Crozier 1968b: 5062; Crozier & Giese 1967a: 55–58, 1967b: 1203–1214; Doane et al. 1936; Drooz 1955: 369; Felt 1906: 702; Giese 1966a, 1966b, 1967: 55; Hoffmann & St. George 1949: 78; Hopkins 1894a, 1894g, 1904b: 325, 327, 1905c: 146; Hubbard 1897b: 17; Kabir 1963, 1964, 1966; Kabir & Giese 1966a: 887; Lucht & Giese 1961; MacAloney & Ewan 1964; McManus 1969: 2479; McManus & Giese 1966, 1967: 410, 1968; Milne 1968b; Milne & Giese 1969: 225–237, 1970: 12–24; Nord 1972, 1973; Nord & Lewis 1970: 155–157; Nord & McManus 1972; Oliveria 1975b; Pettinger & Giese 1963; Roling & Kearby 1973; Wilson 1959: 114; Wood, S. L. 1952b: 1255; Yates 1968. (ds) Anderson, R. L. & Barry 1950: 48; Anonymous 1963y, 1965b; Atkinson et al. 1991: 161; Beal & Massey 1945: 105–106; Blandford 1904: 253; Blatchley & Leng 1916: 643; Bright 1976d: 193; Chamberlin 1939: 284–285; Deyrup 1981b: 8; Drooz 1955: 369; Hagedorn 1910d: 90; Henshaw 1895: 44; Hoffmann 1940: 60, 1942: 12; Hoffmann & St. George 1949: 78; Kabir & Giese 1966a: 887; Kleine 1913b: 155, 1914b: 394, 1934a: 170; Leng 1920: 339; McManus 1969; Nord & McManus 1972; Schuder 1960a: 23; Smith, J. B. 1910: 400; Swaine 1909: 90; Turnbow & Franklin 1980; Wood, S. L. 1952b: 1285. (tx) Baker, W. L. 1972: 266; Beal & Massey 1945: 105–106; Blandford 1904: 253–254; Blatchley & Leng 1916: 643; Bright 1976d: 193; Chamberlin 1939: 284–285; Giese 1967: 56; Hagedorn 1910a: 145; Hopkins 1895d: 104 1915c: pl. 9, fig. 3, pl. 10, fig. 3; Hubbard 1897b: 17–18; Kabir & Giese 1966a: 886–891; Muesebeck 1942: 95, 1950: 130; Schedl 1940a: 354, 1979c: 60; Swaine 1909: 90–91; Wood, S. L. 1952b: 1285. (ms) Anonymous 1985k: 23; Giese 1966a; Nord & Lewis 1970; Tates 1968.

comatus Blandford 1904: 258. Holotype ♀; Cerro Zunil, Guatemala; BMNH, London.

- Figures: Blandford 1904:pl. 8, Wood 1952b: 1292 (female).
 Distribution: North America (Costa Rica/ Guatemala/ Oaxaca, Puebla in Mexico/ Panama).
 Hosts: *Alnus* sp., *Miconia* sp., *Ochroma* sp., *Phoebe mexicana*, *Solanum torvum*, etc.
 References: (hb) Atkinson et al. 1956: 44; Wood, S. L. 1952b: 1292. (ds) Atkinson & Equihua 1955c: 362; Atkinson et al. 1956: 44; Blackwelder 1947: 754; Hagedorn 1910d: 90; Kleine 1913b: 155, 1914b: 366; Wood, S. L. 1952b: 1292. (tx) Blandford 1904: 255; Hagedorn 1910a: 145; Wood, S. L. 1974d: 279, 1952b: 1292.
- splendidus* Bright 1972a: 1371. Holotype ♀; Highway 175, 5.6 km S Suchixtepec, Oaxaca, Mexico; CNCI, Ottawa. Synonymy: Wood 1974d: 279.
 References: (tx) Bright 1972a: 1370–1371; McNamara 1977: 195; Wood, S. L. 1974d: 279.
- comosus** Wood 1974c: 186. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
 Figures: Wood 1952b: 1284 (female).
 Distribution: North America (Costa Rica).
 Hosts: *Piper* sp.
 References: (hb) Wood, S. L. 1952b: 1283. (ds) Wood, S. L. 1952b: 1283. (tx) Wood, S. L. 1974c: 186, 1952b: 1283–1285.
- compressicornis** (Fabricius) 1801: 388 (*Bostrichus*). Lectotype ♀; published as *America meridionali*, type labeled Essequibo [Guyana]; UZMC, Copenhagen, designated by Wood 1974c: 202.
 Distribution: South America (Guyana/ Suriname).
 Notes: (3) Wood 1974c: 202 (re-described type). Citations of this species from Colombia and Central America are based on erroneous identifications (SIW).
 References: (ay) Imhoff 1856: 228. (ds) Blackwelder 1947: 784; Blandford 1904: 254; Bright 1972a: 1385; Dejean 1837; Gemminger & Harold 1872: 2693; Hagedorn 1903b: 547, 1910d: 90; Kleine 1913b: 155; Lacordaire 1866: 385; Melsheimer 1853: 57; Wood, S. L. 1961c: 1. (tx) Blandford 1904: 254; Castelnau 1840; Eggers 1929e, 1931b: 39, 1931c: 184, 1934a: 82; Eichhoff 1868: 421, 1869c: 297, 301, 1878b: 422; Fabricius 1801: 388; Ferrari 1867a: 48–49, 61; Hagedorn 1903b: 547, 1910a: 145; Hopkins 1914: 119; Lacordaire 1866: 385; Lucas 1920: 203; Schedl 1933b: 33, 35, 1950i: 153–154, 1979c: 60; Wood, S. L. 1961c: 1, 1967d: 56, 1974c: 202. (ms) Eichhoff 1868d: 421; Lucas 1920: 203.
- concarus** Bright 1972a: 1376. Holotype ♀; 24 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa.
 Distribution: North America (Oaxaca, Puebla in Mexico).
 Hosts: *Alnus* sp., and a tree limb.
 References: (hb) Wood, S. L. 1952b: 1296. (ds) Wood, S. L. 1952b: 1296. (tx) Bright 1972a: 1376; McNamara 1977: 195; Wood, S. L. 1952b: 1296.
- concisus** Wood 1974c: 201. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
 Figures: Blandford 1904:pl. 8, Wood 1952b: 1307, 1309 (female).
 Distribution: North America (Costa Rica/ Chiapas in Mexico/ Panama).
 Hosts: *Conostegia oerstediana*, *Spondias purpurea*, *Theobroma cacao*.
 Notes: (1) Blandford 1904: 255 (this species was cited erroneously as *compressicornis*).
 References: (hb) Wood, S. L. 1952b: 1309. (ds) Atkinson & Equihua 1956a: 422; Kleine 1914b: 366; Wood, S. L. 1952b: 1309. (tx) Wood, S. L. 1974c: 201, 1952b: 1309.
- consimilis** Wood 1974c: 188. Holotype ♀; 9 km NE Teziutlan, Puebla, Mexico, 1600 m; Wood Collection.
 Figures: Wood 1952b: 1291.
 Distribution: North America (Guatemala/ Puebla in Mexico).
 Hosts: *Acacia* sp., and tree branches.
 References: (hb) Wood, S. L. 1952b: 1288. (ds) Wood, S. L. 1952b: 1288. (tx) Wood, S. L. 1974c: 188, 1952b: 1288.
- convexicauda** Eggers 1931b: 40. Syntypes 1 ♂, 1 ♀; Sao Paulo; Prague Museum, 2 Eggers syntypes in NHMW, Wien.
 Distribution: South America (Brazil).
 References: (ds) Blackwelder 1947: 784; Pedrosa-Macedo & Schonherr 1955: 62; Schedl 1973d: 160, 1976a: 56. (tx) Eggers 1931b: 40–41; Pedrosa-Macedo & Schonherr 1955: 62; Schedl 1966f: 76, 1979c: 64.
- bituberculatus* Numberg 1962: 229. Holotype ♂; Barra do Tapirape, Estado de Matto Grosso, Brasilien; DZSA, Sao Paulo. Synonymy: Schedl 1966f: 76.
 References: (tx) Numberg 1962: 228–231; Schedl 1966f: 76.
- convexifrons** Wood 1956c: 270. Holotype ♀; La Mucuy, 20 km W Merida, Merida, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Nectandra* sp., and a tree branch.
 References: (tx) Wood, S. L. 1956c: 270.
- coronatus** Eggers 1933b: 21. Holotype ♀; Venezuela (Colonia Tovar); MNHN, Paris.
 Distribution: South America (Venezuela).
 References: (ds) Blackwelder 1947: 784. (tx) Eggers 1933b: 2, 21–22.
- curiosus** Bright 1972d: 104. Holotype ♀; Hardwar Gap, 4000', St. Andrew Parish, Jamaica; CNCI, Ottawa.
 Figures: Bright 1972d: 59, 75.
 Distribution: Antilles Islands (Jamaica).
 References: (ds) Bright 1955c: 176. (tx) Bright

- 1972d: 59, 75, 104, 1985c: 176; McNamara 1985c: 176.
- dentatus** Eggers 1943a: 382. Holotype ♂?; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien. Distribution: South America (Bolivia). References: (tx) Eggers 1943a: 382–383; Schedl 1979c: 77.
- detrimentosus** Schedl 1940a: 355. Syntypes, sex?; Sierra de Durango, Mexico; Schedl Collection in NHMW, Wien. Figures: Atkinson et al. 1986: 44. Distribution: North America (Durango, Guerrero, Morelos in Mexico). Hosts: *Arbutus* sp., etc. References: (hb) Atkinson & Equihua 1985a: 102; Atkinson et al. 1986: 44; Burgos & Saucedo 1983: 141; Wood, S. L. 1982b: 1300. (ds) Atkinson & Equihua 1985a: 102, 1985c: 362; Atkinson et al. 1986: 44; Blackwelder 1947: 784; Burgos & Saucedo 1983: 141; Ferrer 1942; Thomas, J. B. 1966; Wood, S. L. 1982b: 1300. (tx) Atkinson et al. 1986: 44; Schedl 1940a: 355, 1979c: 79; Wood, S. L. 1982b: 1300.
- diligens** Wood 1974c: 190. Holotype ♀; Volcan de Agua, Esquinla, Guatemala; Wood Collection. Figures: Wood 1982b: 1292 (female). Distribution: North America (Guatemala). Hosts: *Alnus* sp., *Chusia* sp., *Ficus* sp., etc. References: (hb) Wood, S. L. 1982b: 1293. (ds) Wood, S. L. 1982b: 1293. (tx) Wood, S. L. 1974c: 190, 1982b: 1293.
- discoideus** Blandford 1904: 262. Holotype ♂; Venezuela; BMNH, London. Distribution: South America (Venezuela). References: (ds) Blackwelder 1947: 784; Hagedorn 1910d: 90; Kleine 1913b: 155, 1914b: 340. (tx) Blandford 1904: 262; Hagedorn 1910a: 145; Schedl 1979c: 92.
- donaticus** Wood 1974c: 198. Holotype ♀; Colonia Tovar, Aragua, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: Small trees and branches. References: (tx) Wood, S. L. 1974c: 198.
- dubiosus** (Schedl) 1976a: 81 (*Metacorthylus*). Holotype ♂; Encruzilhada, Bahia, Brazil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 81.
- eichhoffi** Schedl 1933b: 34. Holotype ♀; Costa Rica, Iberia, Sta. Clara [district in Limon Province]; Schedl Collection in NHMW, Wien. Distribution: North America (Costa Rica). References: (ds) Blackwelder 1947: 784; Wood, S. L. 1982b: 1310. (tx) Schedl 1933b: 34–35, 1979c: 87; Wood, S. L. 1982b: 1310.
- emarginatus** Eggers 1943a: 380. Lectotype ♂; Bolivia (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 12. Distribution: South America (Bolivia). Notes: (3) Eggers 1943a: 380 (cites *bicolor* Eggers, nomen nudum, synonymy). References: (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1943a: 380; Schedl 1979c: 90; Wood, S. L. 1966b: 22.
- excisus** (Ferrari) 1867a: 71 (*Morizus*). Holotype, sex?; Venezuela [probably Colonia Tovar]; NHMW, Wien. Distribution: South America (Venezuela). References: (ds) Blackwelder 1947: 784; Blandford 1904: 253; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 90; Kleine 1914b: 340. (tx) Blandford 1904: 253; Eichhoff 1868d: 419, 1869c: 301; Ferrari 1867a: 71, 1867b: 255; Hagedorn 1910a: 145; Hopkins 1914: 125. (ms) Eichhoff 1868d: 419.
- exiguus** Wood 1984: 113. Holotype ♀; Cuantenango, Guerrero, Mexico, 1650 m; Wood Collection. Distribution: North America (Guerrero in Mexico). References: (ds) Kleine 1913b: 155. (tx) Wood, S. L. 1984: 113.
- flagellifer** Blandford 1904: 255. Syntypes, sex?; Toxpan in Mexico, San Geronimo and Pantaleon in Guatemala, and Boquete in Panama; BMNH, London. Figures: Lara & Shenefelt 1965: 174, 176, Wood 1982b: 1304 (female). Distribution: North America (Guatemala/ Chiapas, Morelos, Nayarit, Veracruz in Mexico/ Panama). Hosts: *Acacia* sp., *Pearcea americana*, and other tree branches. References: (ce) Wichmann 1955a: 107. (hb) Atkinson & Equihua 1985c: 363; Atkinson et al. 1986: 45; Burgos & Saucedo 1983: 143; Lara & Shenefelt 1965: 175; Moreira 1928: 24–25; Wood, S. L. 1982b: 1305. (ds) Atkinson & Equihua 1985c: 363; Atkinson et al. 1986: 45; Blackwelder 1947: 784; Burgos & Saucedo 1983: 143; Ferrer 1942; Guagliumi 1966: 218; Hagedorn 1910d: 90; Kleine 1913b: 155, 1914b: 353, 366; Roba 1935: 338; Wichmann 1955a: 107; Wood, S. L. 1982b: 1305. (tx) Blandford 1904: 255; Eggers 1931b: 41; Hagedorn 1910a: 145; Lara & Shenefelt 1965: 174–176; Schedl 1940a: 350, 1979c: 97; Wood, S. L. 1966b: 22, 1982b: 1305.
- cirrus** Schedl 1940a: 351. Lectotype ♂; Xochitlan, Morelos, Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 22. References: (ds) Blackwelder 1947: 784; Ferrer 1942. (tx) Schedl 1940a: 351–354, 1979c: 58; Wood, S. L. 1966b: 22.
- nudiusculus** Schedl 1950i: 156. Holotype ♀; Mexico, Comitán; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 22. References: (tx) Schedl 1950i: 156, 1979c: 173; Wood, S. L. 1966b: 22.

fuscus Blandford 1904: 262. Syntypes ♀; "Brazilian" tobacco intercepted at Paris [actual origin was Mexico]; BMNH, London.

Figures: Bustamante & Atkinson 1984: 88; Oranegni & Atkinson 1984: 88.

Distribution: North America (El Salvador/ Guatemala/ Distrito Federal, Mexico in Mexico).

Hosts: *Coffea* sp., *Malus* sp., *Pyrus* sp.

References: (cn) Bustamante & Atkinson 1984; Oranegni & Atkinson 1984. (cc) Wichmann 1955a: 107. (hb) Atkinson & Equihua 1985a: 102, 1985c: 362; Atkinson et al. 1986: 45; Bustamante & Atkinson 1984; Oranegni & Atkinson 1984; Wood, S. L. 1982b: 1283. (ds) Atkinson & Equihua 1985a: 102, 1985c: 362; Atkinson et al. 1986: 45; Blackwelder 1947; Hagedorn 1910d: 90; Kleine 1913b: 155; Wichmann 1955a: 107; Wood, S. L. 1982b: 1289. (tx) Blandford 1904: 262; Bustamante & Atkinson 1984: 88; Hagedorn 1910a: 145; Oranegni & Atkinson 1984: 88; Schedl 1950i: 158; Wood, S. L. 1982b: 1289.

gracilis (Schedl) 1972g: 74 (*Cortylomimus*). Holotype, sex?; Brasilien, Corcovado, Guanabara; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) A note written by Schedl in his collection gave the genus as *Cortheloderes*, nomen nudum (SLW).

References: (tx) Schedl 1972g: 74, 1979c: 107.

granulatus Schedl 1935h: 345. Holotype ♀; Costa Rica, Turrialba, 800 m; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica).

References: (ds) Blackwelder 1947: 784; Wood, S. L. 1982b: 1289. (tx) Schedl 1935h: 345–346, 1979c: 110; Wood, S. L. 1982b: 1289.

granulifer Wood 1974c: 181. Holotype ♂; Volcan Poas, Heredia, Costa Rica, 2500 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Myrica pubescens*, and a tree branch.

References: (tx) Wood, S. L. 1974c: 181.

ingaensis (Schedl) 1939n: 14 (*Metacorthylus*). Holotype ♂; Colombia: El Collegio; BMNH, London.

Distribution: South America (Colombia).

Hosts: *Inga* sp.

References: (ds) Blackwelder 1947: 782. (tx) Schedl 1939n: 14, 1954b: 43, 1979c: 124.

insignis Wood 1974c: 200. Holotype ♀; 24 km E Barbosa, Antioquia, Colombia, 1200 m; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Inga* sp.

References: (tx) Wood, S. L. 1974c: 200.

letzneri Ferrari 1867a: 55, 59. Syntypes, sex?; Venezuela [probably Colonia Tovar]; NHMW, Wien.

Distribution: South America (Colombia/Venezuela).

References: (ds) Blackwelder 1947: 784;

Blandford 1904: 254; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 90; Kleine 1913b: 155, 1914b: 340. (tx) Blandford 1904: 254; Ferrari 1867a: 55, 59; Hagedorn 1910a: 145; Hopkins 1914: 128; Schedl 1950i: 146; Wood, S. L. 1977b: 208, 1977d: 511.

castaneus Ferrari 1867a: 55, 59. Holotype ♂; Venezuela [probably Colonia Tovar]; NHMW, Wien. Synonymy: Schedl 1950i: 146.

References: (ds) Blackwelder 1947: 784; Blandford 1904: 258; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 90; Kleine 1913b: 155, 1914b: 340. (tx) Blandford 1904: 258; Ferrari 1867a: 55, 59; Hagedorn 1910a: 145; Schedl 1950i: 146, 158.

strigilatus Eggers 1933b: 20. Holotype ♂; Venezuela (Colonia Tovar); MNHN, Paris. Synonymy: Wood 1977b: 208.

References: (ds) Blackwelder 1947: 784. (tx) Eggers 1933b: 2, 20–21; Wood, S. L. 1977b: 208.

columbianus Schedl 1950i: 158. Holotype ♀; Columbia, Comatan; Schedl Collection in NHMW, Wien, preoccupied by Hopkins 1895. Synonymy: Wood 1977b: 208.

References: (cn) Blackman 1950. (hb) Blackman 1950. (ds) Blackman 1950. (tx) Schedl 1950i: 158, 1952d: 347, 1979c: 60; Wood, S. L. 1977b: 208.

ater Schedl 1952d: 347. Holotype ♀; Columbia, Comatan; Schedl Collection in NHMW, Wien, automatic. Synonymy: Wood 1977b: 208.

References: (tx) Schedl 1952d: 347, 1979c: 60; Wood, S. L. 1977b: 208.

luridus Blandford 1904: 256. Holotype ♀; Volcan de Chiriqui, Chiriqui, Panama; BMNH, London.

Distribution: Antilles Islands (Guadeloupe), North America (Guatemala/Panama).

References: (ds) Blackwelder 1947: 784; Bright 1985c: 176; Hagedorn 1910d: 90; Kleine 1913b: 155, 1914b: 366; Wood, S. L. 1982b: 1300. (tx) Blandford 1904: 256; Bright 1985c: 176; Hagedorn 1910a: 145; Wood, S. L. 1982b: 1300.

biseriatus Eggers 1943d: 247. Holotype ♀; Guatemala; IPKE, Eberswalde. Synonymy: Wood 1982b: 1300.

References: (tx) Eggers 1943d: 247; Numberg 1962: 229; Wood, S. L. 1982b: 247.

lustratus Wood 1984: 113. Holotype ♀; "Texcal," Maiote Poxtlan, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

References: (ds) Atkinson et al. 1986: 68; Wood, S. L. 1984: 113.

macrocerus Eichhoff 1869a: 279. Holotype ♀; Colombia; IRSNB, Brussels.

Distribution: South America (Colombia/Ecuador).

References: (ds) Blackwelder 1947: 784; Blandford 1904: 254; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 90; Kleine 1913b: 155,

- 1914b: 342. (tx) Blandford 1904: 254; Eichloff 1869a: 279–280, 1878b: 423; Hagedorn 1910a: 145.
- mexicanus** Schedl 1950i: 159. Holotype ♂; Mexico, Comitán; Schedl Collection in NHMW, Wien. Figures: Wood 1982b: 1301 (female). Distribution: North America (Honduras/Chiapas, Puebla, Veracruz in Mexico). Hosts: *Clethra hondurensis*, *Lippia substrigosa*, *Malus* sp., *Oreopanax* sp., *Parathesis serrulata*, *Pinus pseudostrubus*, *Rapanea guyanensis*, *Salix* sp. References: (hb) Atkinson & Equilma 1985a: 103; Atkinson et al. 1986: 46; Burgos & Saucedo 1983: 141; Wood, S. L. 1982b: 1301. (ds) Atkinson & Equilma 1985a: 103, 1985c: 362; Atkinson et al. 1986: 46; Burgos & Saucedo 1983: 141; Wood, S. L. 1982b: 1301. (tx) Atkinson et al. 1986: 46; Numberg 1962: 229; Schedl 1950i: 156, 159, 1979c: 152; Wood, S. L. 1973c: 175, 1982b: 1301.
- glabrinus** Bright 1972a: 1372. Holotype ♀; 14 km SW Teopisca, Chiapas, Mexico; CNCI, Ottawa. Synonymy: Wood 1973c: 175. References: (tx) Bright 1972a: 1370–1372; McNamara 1977: 195; Wood, S. L. 1973c: 175.
- micacirrus** Wood 1984: 114. Holotype ♀; Chilapa, Guerrero, Mexico; Wood Collection. Distribution: North America (Guerrero in Mexico). Hosts: *Ardesia* sp. References: (tx) Wood, S. L. 1984: 114.
- minimus** Wood 1974c: 192. Holotype ♀; La Ceiba, Atlántida, Honduras; Wood Collection. Distribution: North America (Honduras). References: (ds) Wood, S. L. 1982b: 1297. (tx) Wood, S. L. 1974c: 192, 1982b: 1297.
- minutissimus** Schedl 1940a: 353. Lectotype ♀; Mexico: Chiltepec (Oaxaca); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 156. Distribution: North America (Honduras/Oaxaca in Mexico). Hosts: *Sivictenia* sp. References: (hb) Wood, S. L. 1982b: 1299. (ds) Blackwelder 1947: 784; Ferrer 1942; Wood, S. L. 1982b: 1299. (tx) Schedl 1940a: 353–354, 1979c: 156; Wood, S. L. 1982b: 1299.
- minutus** Bright 1972a: 1373. Holotype ♀; Lagos de Colores (Lagunas de Montebello National Park), Chiapas, Mexico; CNCI, Ottawa. Figures: Bright 1972a: 1370. Distribution: North America (Chiapas in Mexico). Hosts: *Quercus* sp. References: (ds) Wood, S. L. 1982b: 1303. (tx) Bright 1972a: 1370, 1373; McNamara 1977: 195; Wood, S. L. 1982b: 1303.
- mirabilis** Numberg 1962: 226. Holotype ♀; Estacao Biologica de Boraceia, Salesopolis, Estado de Sao Paulo, Brasilien; IZW, Warsaw. Figures: Numberg 1962: 225, 228. Distribution: South America (Brazil). References: (tx) Numberg 1962: 225–226, 228.
- nanus** Wood 1979b: 138. Holotype ♂; 1 km SW Rincon de Osa, Puntarenas, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Cecropia* sp. leaf petiole. References: (ds) Wood, S. L. 1982b: 1298. (tx) Wood, S. L. 1979b: 138, 1982b: 1298.
- neotardus** Schedl 1980d: 120 (*Corthy cyclon*). Holotype ♂; Caruaru, Pernambuco, Brazil; Schedl Collection in NHMW, Wien, automatic. Distribution: South America (Brazil). References: (tx) Schedl 1980d: 120.
- tardus** Schedl 1976a: 85 (*Corthy cyclon*). Holotype ♂; Caruaru, Pernambuco, Brazil; Schedl Collection in NHMW, Wien, preoccupied by Wood 1974. References: (tx) Schedl 1976a: 85, 1980d: 120; Wood, S. L. 1981: 122.
- tardulus** Wood 1981: 122. Holotype ♂; Caruaru, Pernambuco, Brazil; Schedl Collection in NHMW, Wien, automatic, an unneeded replacement name. References: (tx) Wood, S. L. 1981: 122.
- nevermanni** (Schedl) 1939j: 568 (*Thylurcos*). Holotype ♂; Hamburgfarm on Rio Reventazon, Limón, Costa Rica; Schedl Collection in NHMW, Wien. Distribution: North America (Costa Rica). Notes: (1) Wood 1982b: 1298 (to *Corthy lylus*). References: (ds) Wood, S. L. 1982b: 1298. (tx) Schedl 1939j: 568, 1951m: 127, 1979c: 165; Wood, S. L. 1982b: 1298.
- niger** (Schedl) 1954b: 43 (*Metacorthy lylus*). Lectotype ♀; Brasilien: Sta. Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 166. Distribution: South America (Brazil). References: (ds) Schedl 1966f: 91, 1970e: 85. (tx) Schedl 1954b: 43, 1979c: 166.
- nolanae** Wood 1974c: 194. Holotype ♀; Huajuapapan, 21 km SE Oaxaca, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico). Hosts: *Nolena* sp. fruiting stalk. References: (hb) Wood, S. L. 1982b: 1302. (ds) Wood, S. L. 1982b: 1302. (tx) Wood, S. L. 1974c: 194, 1982b: 1302.
- nudipennis** Schedl 1950i: 155. Syntypes ♀; Brazil, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection. Figures: Pedrosa-Macedo & Schonherr 1985: 63. Distribution: South America (Brazil). Notes: (1) Schedl 1979c: 173 (citation of holotype invalid). References: (ds) Pedrosa-Macedo & Schonherr 1985: 63; Schedl 1967d: 4, 1972f: 47. (tx) McNamara 1977: 1195; Pedrosa-Macedo & Schonherr

- 1955: 63; de Ruelle 1970: 90; Schedl 1950i: 155, 1961i: 229, 1979c: 172.
- nudus** Schedl 1940a: 354. Syntypes ♀; Mexico: San Antonio Nexapa, Chiapas; Dampf Collection and Schedl Collection in NHMW, Wien.
Distribution: North America (Chiapas, Distrito Federal, Mexico, Michoacan in Mexico).
Notes: (1) Schedl 1979c: 173 (citation of holotype invalid).
References: (hb) Atkinson & Equihua 1955a: 102; Atkinson et al. 1986: 46; Burgos & Saucedo 1983: 140; Wood, S. L. 1982b: 1289. (ds) Atkinson & Equihua 1955a: 102; Atkinson et al. 1986: 46; Blackwelder 1947: 784; Burgos & Saucedo 1983: 140; Ferrer 1942; Wood, S. L. 1982b: 1289. (tx) Schedl 1940a: 354, 1979c: 173; Wood, S. L. 1982b: 1289.
- obliquus** Schedl 1976a: 79. Holotype ♀; Represa Rio Grande, Guanabara [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 79.
- oculatus** Wood 1974c: 184. Holotype ♀; Pandora, Limon, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
References: (hb) Wood, S. L. 1982b: 1289. (ds) Wood, S. L. 1982b: 1289. (tx) Wood, S. L. 1974c: 184, 1982b: 1289.
- oliveirai** Schedl 1976a: 80. Holotype ♂; Represa Rio Grande, Guanabara [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 80.
- panamensis** Blandford 1904: 259. Lectotype ♀; Volcan de Chiriqui, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 1287.
Figures: Blandford 1904: pl. 8, Wood 1982b: 1288 (female).
Distribution: North America (Costa Rica/ Guatemala (?)/ Panama).
Hosts: *Phoebe mexicana*, etc.
References: (hb) Wood, S. L. 1982b: 1287. (ds) Blackwelder 1947: 784; Hagedorn 1910d: 91; Kleine 1913b: 155, 1914b: 366; Schedl 1976a: 56; Wood, S. L. 1982b: 1287. (tx) Blandford 1904: 259; Hagedorn 1910a: 145; Schedl 1933b: 33, 1961i: 230, 1979c: 183; Wood, S. L. 1982b: 1287.
- papulans** Eichhoff 1869a: 280. Holotype, sex?; Brasilia; IRSNB, Brussels.
Figures: Wood 1982b: 1304 (female).
Distribution: Antilles Islands (Eleuthera Islands in Bahamas Islands/ Grenada), North America (Costa Rica/ Honduras/ Michoacan, Nayarit, Oaxaca, Veracruz in Mexico/ Panama/ Florida in USA), South America (Brazil/ Cayenne/ Guyana/ Venezuela).
Hosts: *Persea americana*, *Salix guatemalensis*, *Spondias mombin*, *S. purpurea*, *Theobroma cacao*, and other tree branches.
References: (ds) Blackwelder 1947: 784; Blandford 1904: 254; Gemminger & Harold 1872: 2693; Hagedorn 1903b: 547, 1910d: 91; Kleine 1913b: 155, 1914b: 337; Nurnberg 1955a: 480; Pedrosa-Macedo & Schonherr 1985: 64; Schedl 1967d: 4, 1972g: 47, 1973d: 160. (tx) Blandford 1904: 254; Eggers 1931b: 42, 1933b: 2; Eichhoff 1869a: 280, 1869c: 301, 1878b: 427; Hagedorn 1903b: 547, 1910a: 145; Nurnberg 1955a: 480; Pedrosa-Macedo & Schonherr 1985: 64.
- spinifer** Schwarz 1891b: 114. Syntypes ♀; Key West, Florida [USA]; USNM, Washington.
Synonymy: Eggers 1933b: 2.
References: (bv) Atkinson, Foltz, & Connor 1988. (ec) Equihua & Atkinson 1986: 633; Wilson 1959b: 118. (hb) Atkinson, Foltz, & Connor 1988; Atkinson et al. 1986: 46, 68; Burgos & Saucedo 1983: 142; Chamberlin 1939: 285; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 633; Kabir & Giese 1966a; Ostmark 1968; Schwarz 1891b: 114; Wood, S. L. 1982b: 1304. (ds) Atkinson & Equihua 1985c: 362, 1986a: 422, 1988: 88; Atkinson et al. 1986: 46, 68, 1991: 162; Blatchley & Leng 1916; Bright 1982b: 164, 1985c: 176; Burgos & Saucedo 1983: 142; Chamberlin 1939: 285; Deyrup & Atkinson 1987a: 66; Equihua & Atkinson 1986: 633; Estrada & Atkinson 1988: 211; Hagedorn 1910d: 91; Henshaw 1895: 44; Kabir & Giese 1966a: 884; Kleine 1913b: 155, 1914b: 384, 1934a: 170; Leng 1920: 339; Ostmark 1968; Schwarz 1891b: 114; Swaine 1909: 91; Wood, S. L. 1977a: 69, 1982b: 1304. (tx) Blatchley & Leng 1916; Bright 1985c: 176; Chamberlin 1939: 285; Eggers 1933b: 2; Hagedorn 1910a: 145; Hopkins 1895d: 104; Kabir & Giese 1966a: 884; Schedl 1940a: 350; Schwarz 1891b: 114; Swaine 1909: 91; Wood, S. L. 1976a: 347, 1977c: 208, 1977d: 512, 1982b: 1304.
- affinis** Fonseca 1925a: 3 (*Metacorthylus*). Syntypes, sex?; Itatiba, Sao Paulo, Brazil; not located, probably in DZSA, Sao Paulo. Synonymy: Eggers 1933b: 2, Wood 1982b: 1304.
References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 784; Costa Lima 1936, 1956; Roba 1935: 338; Schedl 1966f: 91, 1970e: 85, 1973d: 160. (tx) Costa Lima 1956; Fonseca 1925a: 3, 1927: 583–590; Wood, S. L. 1977d: 512, 1982b: 1304.
- affinis** Fonseca 1927: 585. Syntypes, sex?; Itatiba, Sao Paulo, Brazil; not located, probably in DZSA, Sao Paulo. Synonymy: Eggers 1933b: 2, Wood 1982b: 1304.
References: (ds) Kleine 1934a: 171. (tx) Fonseca 1927: 583–590; Wood, S. L. 1977d: 512, 1982b: 1304.
- guayanensis** Eggers 1933b: 22. Syntypes ♂;

- Camopi*, Franz. Guayana: MNHN, Paris. Synonymy: Eggers 1933b: 2, Wood 1977b: 208. References: (ds) Blackwelder 1947: 784. (tx) Eggers 1933b: 2, 22; Wood, S. L. 1977b: 208.
- tomentosus* Schedl 1940a: 350. Syntypes ♀; Mexico: Tuxtpec, Oaxaca; Dampf Collection and Schedl Collection in NHMW, Wien. Synonymy: Wood 1976a: 347. Notes: (3) Part of the Dampf Collection went to Schedl, part to an Italian collector whose residence was Rome, and part to the Museo Nacional de Historia Natural or Instituto de Biología, Universidad Nacional Autónoma de México, Ciudad México (SLW). References: (ds) Blackwelder 1947: 784. (tx) Schedl 1940a: 350–351, 1979c: 253; Wood, S. L. 1976a: 347.
- parvulus* Blandford 1904: 261. Holotype ♂; Las Mercedes, Guatemala; BMNH, London. Distribution: North America (Guatemala). Notes: (3) *Corthylinus uniseptis* Schedl could be a synonym (SLW). References: (ds) Blackwelder 1947: 784; Hagedorn 1910d: 91; Kleine 1913b: 155. (tx) Blandford 1904: 261; Ferrari 1867a: 53; Hagedorn 1910a: 145; Schedl 1940a: 353; Wood, S. L. 1982b: 1299.
- peruanus* Schedl 1950i: 155. Holotype ♂; Callanga, Peru; [probably from Eggers Collection] in NHMW, Wien. Distribution: South America (Peru). References: (tx) Schedl 1935h: 345–346, 1950i: 154–155, 1979c: 191.
- petilus* Wood 1967d: 56. Holotype ♀; 5 km W El Salto, Durango, Mexico; Wood Collection. Figures: Wood 1967d: 54, 1982b: 1233. Distribution: North America (Durango in Mexico/Arizona in USA). Hosts: *Quercus hypoleucoides*, *Q.* sp. References: (tx) Wood, S. L. 1967d: 54, 56–57, 1982b: 1233, 1308.
- pharax* Schedl 1976a: 80. Holotype ♀; Carnaru, Pernambuco, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (hb) Wood, S. L. 1982b: 1308. (ds) Pedrosa-Macedo & Schonherr 1985: 65; Wood, S. L. 1982b: 1308. (tx) Pedrosa-Macedo & Schonherr 1985: 65; Schedl 1976a: 80; Wood, S. L. 1982b: 1308.
- pisinnus* Bright 1972d: 103. Holotype ♀; Penlyne Castle, St. Thomas Parish, Jamaica; CNCI, Ottawa. Distribution: Antilles Islands (Jamaica). References: (ds) Bright 1985c: 176. (tx) Bright 1972d: 103, 1985c: 176; McNamara 1977: 195.
- praealtus* Schedl 1976a: 80. Holotype ♂; Brasilien, Rio Negro; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 80.
- praeustus* Schedl 1950i: 153. Lectotype ♀; Guatemala; Schedl Collection in NHMW, Wien, designated by Wood 1982b: 1308. Distribution: North America (Guatemala), South America (Peru). Notes: (1) Schedl 1979c: 198 (citation of holotype invalid). References: (ds) Blackwelder 1947: 784; Wood, S. L. 1982b: 1308. (tx) Eggers 1931c: 184; Schedl 1950i: 153, 1979c: 198; Wood, S. L. 1982b: 1308.
- procerus* Bright 1972a: 1376. Holotype ♀; 10 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa. Figures: Bright 1972a: 1370, 1377, Wood 1982b: 1307 (female). Distribution: North America (Costa Rica/ Oaxaca in Mexico/ Panama). Hosts: *Siparuna nicaraguensis*, and a liana. References: (hb) Wood, S. L. 1982b: 1310. (ds) Wood, S. L. 1982b: 1310. (tx) Bright 1972a: 1370, 1376–1377; McNamara 1977: 195; Wood, S. L. 1982b: 1310.
- ptyocerus* Blandford 1904: 257. Lectotype ♀; Volcan de Chiriquí, Chiriquí, Panama; BMNH, London, designated by Wood 1982b: 1295. Distribution: North America (Panama). References: (ds) Blackwelder 1947: 784; Hagedorn 1910d: 91; Kleine 1913b: 155, 1914b: 366; Wood, S. L. 1982b: 1295. (tx) Blandford 1904: 257; Hagedorn 1910a: 145; Wood, S. L. 1982b: 1295.
- pumilus* Wood 1974c: 192. Holotype ♀; Madden Forest, Canal Zone, Panama, 30 m; Wood Collection. Distribution: North America (Panama). Hosts: Tree branch. References: (hb) Wood, S. L. 1982b: 1297. (ds) Atkinson & Equihua 1986a: 422; Wood, S. L. 1982b: 1297. (tx) Wood, S. L. 1974c: 192, 1982b: 1297.
- punctatissimus* (Zimmermann) 1868: 144 (*Crypturgus*). Syntypes, sex?; South Carolina [USA]; not located. Figures: Wood 1982b: 1288 (female). Distribution: North America (Ontario in Canada/ Arkansas, Colorado, Connecticut, District of Columbia, Florida, Georgia, Illinois, Kentucky, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, Vermont, Virginia, West Virginia in USA). Hosts: *Acer saccharinum*, *Berberis* sp., *Carpinus* sp., *Cercocarpus* sp., *Cornus* sp., *Corylus* sp., *Gaylussacia* sp., *Ostrya* sp., *Rhododendron* sp., *Sassafras* sp., *Vaccinium* sp., *Viburnum betuloides*. References: (ay) Finnegan 1963, 1967; Hopkins 1894g. (bv) Atkinson, Foltz, & Connor 1988; Meixner 1937: 1218; Rose, A. H. & Lindquist 1982b: 133. (cn) Adrien 1947: 113–117; Baker, W. L. 1972: 265; Beal et al. 1952: 46; Blackman 1950; Boyd 1945: 114–115, 1953: 139–140; Comtois

- 1988: 182; Daviault 1948: 30; Doane et al. 1936; Drooz 1985: 370; Felt 1905: 50, 65, 1906: 732, 1913: 427, 1915: 36, 1924: 44, 1926: 44, 1933: 45–51; Felt & Rankin 1932: 328, 437; Finnegan 1967; Finnegan, McPhee, & Watson 1959: 2; Fisher, Thompson, & Webb 1953; Hamilton 1933: 62–63; Headlee 1916, 1917: 306–335; Herrick 1935: 179, 322; Howse, Cross, & Rose 1981: 61; Hubbard 1897b: 16–17; Langford & Cory 1939: 50; Lindquist, O. H. & Syme 1981: 32; Martineau 1964b: 45; Packard 1890: 387–390; Pirone 1941: 376; Robert 1947a: 113; Roeper et al. 1987; Rose, A. H. & Lindquist 1982a, 1982b: 133; Sippell, Dance, & Rose 1966: 57; Sippell, MacDonald, & Rose 1960: 56–57, 1961: 56, 1962: 61, 1963: 63, 1964: 62, 1965: 63; Sorachi 1934: 34, 42, 1937: 50, 1941: 50–51; Syme & Nystrom 1988: 33; Twinn 1934: 124; Weigel & Baumhofer 1948: 73–74; White 1933: 631–640; White & Hamilton 1935: 15. **(cc)** Baker, W. L. 1972: 265; Comtois 1988: 182; Felt 1905, 1906: 65, 1915: 36; Finnegan 1963; Roeper 1988; Rose, A. H. & Lindquist 1982b: 133; Rumbold 1931c: 849; Steinhaus 1946: 404; Wilson 1959b: 115. **(hb)** Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 265; Beal & Massey 1945: 104–105; Bellevoye 1895; Blackman 1950; Boyd 1953: 139; Bright 1976d: 192; Chamberlin 1939: 284; Chittenden 1890; Comtois 1988: 182; Deyrup & Atkinson 1987a: 66; Doane et al. 1936; Drooz 1985: 370; Felt 1905, 1906: 65, 1915: 36, 1926: 44; Felt & Rankin 1932: 328, 437; Finnegan 1967; Herrick 1935: 179, 322; Hopkins 1894d: 145, 281, 1894g: 277, 1905c: 145; Hubbard 1897a: 423, 1897b: 16; Kabir & Giese 1966a; Lengerken 1954: 312; Merriam 1883: 84–86; Packard 1890: 387; Pierce, W. D. 1907: 290; Robert 1947a: 113; Roeper et al. 1987; Rose, A. H. & Lindquist 1982a, 1982b: 133; Schwarz 1890: 178, 1891b: 109–115; Smith, E. F. 1896: 318; Sorachi 1937: 50; Weiss 1916: 105; Wenzel 1906: 37; Wood, S. L. 1982b: 1290. **(ds)** Anonymous 1926c: 517, 1964h; Atkinson et al. 1991: 162; Beal & Massey 1945: 105–106; Beanline 1956; Blackman 1950; Blandford 1904: 253; Blatchley & Leng 1916: 642; Bright 1976d: 192; Chamberlin 1939: 284; Chittenden 1890; Deyrup 1981b: 8; Deyrup & Atkinson 1987a: 66, 1987b: 68; Dodge 1938; Drooz 1985: 370; Felt 1915: 36, 1926: 44; Felt & Rankin 1932: 328, 437; Finnegan 1963: 137, 1967: 50; Fox-Wilson 1938: 2, 318; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 91; Hamilton 1895a: 346, 378; Henshaw 1885: 147; Hopkins 1893a: 127, 1893b: 207; Kabir & Giese 1966a: 884; Kirk 1970; Kleine 1913b: 155, 1914b: 384, 1934a: 170; Knull 1932: 66; Leng 1920: 339; Leonard 1928: 517; Lindquist, O. H. & Syme 1981: 32; Robert 1947a: 113; Roeper et al. 1987; Schwarz 1895b: 109; Smith, J. B. 1900: 361, 1910: 400; Swaine 1909: 91; Syme & Nystrom 1988: 33; Thatcher, T. O. 1951: 80; Weiss 1915: 473; Wood, S. L. 1982b: 1290. **(tx)** Beal & Massey 1945: 104–105; Benoit 1985: 78; Blandford 1904: 253–254; Blatchley & Leng 1916: 642; Bright 1976d: 192, 204, 214; Chamberlin 1939: 284; Dodge 1938: 13, 38; Eichloff 1878b: 428, 460; Finnegan 1967; Hagedorn 1910a: 145; Hopkins 1895d: 104; Hubbard 1897b: 16; Jacques 1951: 353; Kabir & Giese 1966a: 884; LeConte 1868: 154, 1876: 347; LeConte & Horn 1883: 517; Lindquist, O. H. & Syme 1981: 32; Meixner 1937: 218; Schedl 1940a: 354, 1950: 155, 1960a: 77; Schwarz 1891b: 109; Swaine 1909: 91; Syme & Nystrom 1988: 33; Wood, S. L. 1982b: 1290; Zimmerman 1868: 144.
- punctatus** Eggers 1943a: 382. Holotype ♀; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: **(cn)** Lavalley & Benoit 1978: 42; Pirone, Dodge, & Rickett 1960: 615; Sippell, Dance, & Rose 1966: 57; Sippell, MacDonald, & Rose 1960: 57. **(tx)** Anderson, W. H. & Anderson 1971: 26; Eggers 1943a: 382.
- pusillus** Eggers 1943a: 380. Holotype ♂; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: **(tx)** Anderson, W. H. & Anderson 1971: 27; Eggers 1943a: 380–381.
- pygmaeus** Wood 1974c: 195. Holotype ♀; Finca La Lola, Limon, Costa Rica; Wood Collection.
Figures: Wood 1982b: 1301 (female).
Distribution: North America (Costa Rica).
Hosts: *Theobroma cacao*, and a tree branch.
References: **(hb)** Wood, S. L. 1982b: 1303. **(ds)** Atkinson & Equihua 1988: 86; Wood, S. L. 1982b: 1303. **(tx)** Wood, S. L. 1974c: 195, 1982b: 1303.
- redtenbacheri** Ferrari 1867a: 55, 60, 70. Syntypes ♂; Venezuela [probably Colonia Tovar]; NHMW, Wien.
Distribution: South America (Venezuela).
References: **(ds)** Blackwelder 1947: 784; Blandford 1904: 259; Gemminger & Harold 1872: 2680; Hagedorn 1910d: 91; Kleine 1913b: 155, 1914b: 340. **(tx)** Blandford 1904: 259; Ferrari 1867a: 55, 60, 70; Hagedorn 1910a: 145; Schedl 1935h: 345, 1940a: 354, 1950i: 146.
- retusifera** Wood 1974c: 183. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Figures: Wood 1982b: 1280 (female).
Distribution: North America (Costa Rica).
Hosts: *Phoebe mexicana*, a tree branch, and a liana.
References: **(hb)** Wood, S. L. 1982b: 1281. **(ds)** Wood, S. L. 1982b: 1281. **(tx)** Wood, S. L. 1974c: 183, 1982b: 1281.
- retusus** Wood 1974c: 182. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Figures: Wood 1982b: 1280 (female).
Distribution: North America (Costa Rica).

- Hosts: *Miconia* sp., *Phoebe mexicana*, *Solanum torvum*.
References: (hb) Wood, S. L. 1952b: 1279. (ds) Wood, S. L. 1952b: 1279. (tx) Wood, S. L. 1974c: 182, 1952b: 1279.
- robustus Schedl** 1936i: 108. Holotype ♀; Brasilien, Nova-Teutonia; Schedl Collection in NHMW, Wien. Figures: Pedrosa-Macedo & Schonherr 1955: 66. Distribution: South America (Brazil).
Hosts: *Inga* sp.
Notes: (3) Schedl 1950d: 120 (described male).
References: (ds) Blackwelder 1947: 754; Pedrosa-Macedo & Schonherr 1955: 66; Schedl 1976a: 56; Schonherr & Pedrosa-Macedo 1951: 54. (tx) Pedrosa-Macedo & Schonherr 1955: 66; Schedl 1936i: 108, 1939j: 564, 1979c: 212, 1950d: 120.
- rubricollis Blandford** 1904: 260. Lectotype ♀; Volcan de Chiriquí, Chiriquí, Panama; BMNH. London, designated by Wood 1952b: 1254. Figures: Blandford 1904: pl. 8, Wood 1952b: 1254 (female).
Distribution: North America (Costa Rica/ Guatemala (?)/ Panama), South America (Colombia).
Hosts: *Miconia caudata*, *Myrica pubescens*, *Werklia insignis*.
References: (hb) Wood, S. L. 1952b: 1256. (ds) Blackwelder 1947: 754; Hagedorn 1910d: 91; Kleine 1913b: 155, 1914b: 366; Schedl 1961c: 1; Wood, S. L. 1961c: 1, 1952b: 1256. (tx) Blandford 1904: 260; Hagedorn 1910a: 145; Schedl 1933b: 33, 1935h: 346, 1950i: 158, 1979c: 214; Wood, S. L. 1961c: 1, 1952b: 1256.
- rufopilosus Eggers** 1931b: 39. Holotype ♀; Sao Paulo [Brazil]; Prague Museum.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 754. (tx) Eggers 1931b: 39–40; Schedl 1954n: 42, 1963d: 224, 1979c: 215.
- sanguineus Schedl** 1935h: 346. Holotype ♀; Costa Rica, [San Isidro de] Coronado; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: *Pearcea americana*.
References: (ds) Blackwelder 1947: 754; Wood, S. L. 1952b: 1257. (tx) Schedl 1935h: 346–347, 1950i: 156, 1979c: 219; Wood, S. L. 1952b: 1257.
- schaufussi Schedl** 1937g: 69. Lectotype ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.
Figures: Pedrosa-Macedo & Schonherr 1955: 66–67, Terra 1957: 29.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 754; Nunberg 1971: 57; Pedrosa-Macedo & Schonherr 1955: 67; Schedl 1966f: 91, 1967d: 4, 1970e: 85, 1972g: 47, 1973d: 160; Terra 1957: 27. (tx) Pedrosa-Macedo & Schonherr 1955: 66–67; Schedl 1937g: 69–70, 1939j: 564, 1950i: 147, 1979c: 221; Terra 1957: 27, 29.
- senticosus Wood** 1956c: 271. Holotype ♀; Jalapa, Veracruz, Mexico; Wood Collection.
Distribution: North America (Veracruz in Mexico).
Hosts: *Psittacanthus schiedeanus*.
References: (tx) Wood, S. L. 1956c: 271.
- sentosus Wood** 1956c: 271. Holotype ♀; Km 32 on Carretera Patzcuaro-Ario de Rosales, Michoacan, Mexico; Wood Collection.
Distribution: North America (Michoacan in Mexico).
Hosts: *Psittacanthus* sp.
References: (tx) Wood, S. L. 1956c: 271.
- sentus Wood** 1974c: 195. Holotype ♀; 2 km SE Cartago, Cartago, Costa Rica, 1300 m; Wood Collection.
Figures: Wood 1952b: 1301 (female).
Distribution: North America (Costa Rica/ Guatemala).
Hosts: *Miconia schlechtendalii*, also in a liana, shrub, and tree.
References: (hb) Wood, S. L. 1952b: 1303. (ds) Wood, S. L. 1952b: 1303. (tx) Wood, S. L. 1974c: 195, 1952b: 1303.
- serratus Wood** 1974c: 197. Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.
Figures: Wood 1952b: 1307 (female).
Distribution: North America (Costa Rica/ Panama).
Hosts: *Inga* sp., *Miconia globuliflora*, *Phoebe mexicana*, *Siparuna nicaraguensis*, *Werklia insignis*.
References: (hb) Wood, S. L. 1952b: 1306. (ds) Wood, S. L. 1952b: 1306. (tx) Wood, S. L. 1974c: 197, 1952b: 1306.
- serrulatus Eggers** 1934a: 52. Syntypes 1 ♂, 1 ♀; Bolivien (Cochabamba); ♂ MNHN, Paris. ♀ Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 754. (tx) Eggers 1934a: 52; Schedl 1979c: 225.
- simillimus Schedl** 1966f: 115. Holotype ♂; Venezuela; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
References: (tx) Schedl 1966f: 115, 1979c: 230.
- simplex Wood** 1974c: 187. Holotype ♀; Cerro de la Muerte, San Jose, Costa Rica, 3100 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Podocarpus oleifolius*, and other tree branches.
References: (ds) Wood, S. L. 1952b: 1256. (tx) Wood, S. L. 1974c: 187, 1952b: 1256.
- sobrinus Wood** 1974c: 196. Holotype ♀; Turrialba, Cartago, Costa Rica, 700 m; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Theobroma cacao*.
References: (hb) Wood, S. L. 1952b: 1305. (ds) Wood, S. L. 1952b: 1305. (tx) Wood, S. L. 1974c: 196, 1952b: 1305.

- spinus** Wood 1974c: 194. Holotype ♂; Fortin de las Flores-Sumidero, Veracruz, Mexico, 900 m; Wood Collection.
Distribution: North America (Veracruz in Mexico).
References: (ds) Wood, S. L. 1982b: 1302. (tx) Wood, S. L. 1974c: 194, 1982b: 1302.
- strigilis** Wood 1974c: 189. Holotype ♀; 16 km SE Cartago, Cartago, Costa Rica, 1500 m; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Cecropia* sp., *Miconia globuliflora*, *Myrica pubescens*, *Ochroma* sp., *Phoebe mexicana*, *Werklia insignis*.
References: (hb) Wood, S. L. 1982b: 1293. (ds) Wood, S. L. 1982b: 1293. (tx) Wood, S. L. 1974c: 189, 1982b: 1293.
- subasperulus** Eggers 1940a: 141. Lectotype ♀; Guadeloupe; USNM, Washington, designated by Anderson & Anderson 1971: 32.
Distribution: Antilles Islands (Dominica/ Guadeloupe).
References: (tx) Anderson, W. H. & Anderson 1971: 32; Bright 1981c: 153; Eggers 1940a: 141; Schedl 1979c: 240.
- suberratus** Wood 1974c: 197. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection.
Figures: Wood 1982b: 1307 (female).
Distribution: North America (Costa Rica).
Hosts: Tree branch, *Vaccinium consanguineum*.
References: (hb) Wood, S. L. 1982b: 1306. (ds) Wood, S. L. 1982b: 1306. (tx) Wood, S. L. 1974c: 197, 1982b: 1306.
- subsulcatus** Schedl 1961i: 230. Holotype ♀; Bolivia, Cochabamba, Prov. Chapara, km 150, Jungas del Palmar; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Schedl 1960a: 77, 1961i: 230.
- suturalis** Eggers 1931b: 41. Lectotype ♂; Brasilien (Espiritu Santo); USNM, Washington, designated by Anderson & Anderson 1971: 33.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 784; Pedrosa-Macedo & Schonherr 1985: 68; Schedl 1967d: 4, 1972g: 47, 1973d: 160. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1931b: 41-42; Pedrosa-Macedo & Schonherr 1985: 68; Schedl 1950i: 155, 1979c: 247.
- suturifer** Schedl 1963c: 165. Holotype ♀; Cordoba, Veracruz, Mexico; Schedl Collection in NHMW, Wien.
Distribution: North America (Veracruz in Mexico).
References: (ds) Atkinson & Equihua 1986a: 422; Wood, S. L. 1982b: 1296. (tx) Schedl 1963c: 165, 1979c: 248; Wood, S. L. 1982b: 1296.
- theobromae** Nunberg 1971: 59. Holotype ♂; Ilheus, Bahia, Brasilien; MZUSP, Sao Paulo.
Figures: Nunberg 1971: 60, Terra 1987: 27, 29.
Distribution: South America (Brazil).
Hosts: *Theobroma cacao*.
References: (ds) Nunberg 1971: 59; Terra 1987: 27. (tx) Nunberg 1971: 59-60; Terra 1987: 27, 29.
- transversus** Eichhoff 1869a: 279. Holotype, sex?; Nov. Granada; IRSNB, Brussels.
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 784; Blandford 1904: 254; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 91; Kleine 1913b: 155, 1914b: 342. (tx) Blandford 1904: 254; Eichhoff 1869a: 279, 1869c: 301, 1878b: 426; Hagedorn 1910a: 145.
- trucis** Wood 1974c: 193. Holotype ♀; 16 km SE Cartago, Cartago, Costa Rica, 1500 m; Wood Collection.
Figures: Wood 1982b: 1301 (female).
Distribution: North America (Costa Rica).
Hosts: *Miconia globuliflora*.
References: (hb) Atkinson et al. 1986: 46; Burgos & Saucedo 1983: 140. (ds) Atkinson et al. 1986: 46; Burgos & Saucedo 1983: 140; Wood, S. L. 1982b: 1299. (tx) Wood, S. L. 1974c: 193, 1982b: 1299.
- truncatus** Wood 1985: 272. Holotype ♀; jungle near Leonpampa, Huanuco Department, Peru, 500 m; Wood Collection.
Distribution: South America (Peru).
References: (tx) Wood, S. L. 1985: 272.
- trunculus** Wood 1974c: 191. Holotype ♀; 13 km S El Hato del Volcan, Chiriquí, Panama; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: Small tree, and a liana.
References: (hb) Wood, S. L. 1982b: 1296. (ds) Wood, S. L. 1982b: 1296. (tx) Wood, S. L. 1974c: 191, 1982b: 1296.
- tuberculatus** Eggers 1940a: 140. Lectotype ♂; Guadeloupe; USNM, Washington, designated by Anderson & Anderson 1971: 34.
Distribution: Antilles Islands (Dominica/ Guadeloupe).
References: (ds) Bright 1981c: 153, 1985c: 176. (tx) Anderson, W. H. & Anderson 1971: 34; Bright 1985c: 176; Eggers 1940a: 140, 1941a: 108; Schedl 1979c: 257.
- tulcanus** Hagedorn 1910b: 6. Holotype, sex?; Ecuador - Tulcan; MNHN, Paris.
Distribution: South America (Ecuador).
References: (ds) Blackwelder 1947: 784; Hagedorn 1910d: 91; Kleine 1913b: 155, 1914b: 343. (tx) Hagedorn 1910a: 145, 1910b: 6.
- uniseptis** Schedl 1961i: 229. Holotype ♂; Mexico, Cordoba, Ver.; CAS, San Francisco.
Figures: Bright 1972a: 1370.
Distribution: North America (Chiapas, Veracruz in Mexico).
References: (ds) Atkinson & Equihua 1985c: 362,

- 1986a: 422; Schedl 1960a: 75; Wood, S. L. 1982b: 1299. **(tx)** Schedl 1960a: 75, 1961i: 229, 1979c: 260; Wood, S. L. 1974d: 280, 1982b: 1299.
- reburus* Bright 1972a: 1375. Holotype ♀; Palenque Ruins, Chiapas, Mexico; CNCI, Ottawa. Synonymy: Wood 1974d: 280. References: **(tx)** Bright 1972a: 1370, 1375; McNamara 1977: 195; Wood, S. L. 1974d: 280.
- venustus* Schedl 1951m: 127 (*Thylurcos*). Holotype ♂; Brasilien; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: **(tx)** Schedl 1951m: 127, 1979c: 265.
- villifer* Wood 1974c: 183. Holotype ♀; 15 km SE Cartago, Costa Rica, 1800 m; Wood Collection. Distribution: North America (Costa Rica/ Panama). Hosts: *Siparuna nicaraguensis*, and a liana. References: **(hb)** Wood, S. L. 1982b: 1281. **(ds)** Wood, S. L. 1982b: 1281. **(tx)** Wood, S. L. 1974c: 183, 1982b: 1281.
- villosus* Eggers 1943a: 381. Holotype ♂; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien. Distribution: South America (Bolivia/ Brazil). Notes: (3) Schedl 1976a: 81 (described female). References: **(ds)** Schedl 1972g: 47, 1973d: 160.
- (tx)** Eggers 1943a: 381; Schedl 1976a: 81, 1979c: 268.
- villus* Bright 1972a: 1371. Holotype ♀; Yerba Buena, 32 km N Bochil, Chiapas, Mexico; CNCI, Ottawa. Figures: Bright 1972a: 1370, Wood 1982b: 1280 (female). Distribution: North America (Costa Rica/ Guatemala/ Chiapas, Puebla in Mexico). Hosts: *Ahuus* sp., *Spondias purpurea*, and other tree branches. References: **(hb)** Wood, S. L. 1982b: 1281. **(ds)** Atkinson & Equihua 1986a: 422; Wood, S. L. 1982b: 1281. **(tx)** Bright 1972a: 1370–1371; McNamara 1977: 195; Wood, S. L. 1982b: 1281.
- zelus* Wood 1974c: 190. Holotype ♀; Cerro de la Muerte, San Jose, Costa Rica; Wood Collection. Figures: Wood 1982b: 1294 (female). Distribution: North America (Costa Rica). Hosts: *Brunellia costaricensis*. References: **(hb)** Wood, S. L. 1982b: 1293. **(ds)** Wood, S. L. 1982b: 1293. **(tx)** McNamara 1977: 195; Wood, S. L. 1974c: 190, 1982b: 1293.

Genera Incertae Sedis

Genus *Bufonus* Eggers

BUFONUS EGGERS 1919: 231. Type-species: *Bufonus obscurus* Eggers, monobasic.

Notes: (1) The holotype and only known specimen of the type-species is lost. The description suggests that is a Hypoborini.

References: (tx) Eggers 1919: 231; Schedl 1961k: 444.

**obscurus* Eggers 1919: 231. Holotype, sex?; Amani, Ost-Afrika; Hamburg Museum, lost.

Distribution: Africa (Tanzania).

References: (tx) Eggers 1919: 231; Schedl 1961k: 444.

Genus *Carphoborites* Schedl

CARPHOBORITES SCHEDL 1947a: 32. Type-species: *Carphoborites keilbachi* Schedl, present designation.

Notes: (1) This genus is doubtfully distinct from *Carphoborus*. The lapsus calami, *Charphoborites*, was corrected by Schedl on p. 33.

References: (tx) Schedl 1947a: 32.

**keilbachi* Schedl 1947a: 32. Holotype, sex?; Baltische Bernstein; Geologisch-Palaeontologische Institut Albertus Universitat, Konigsberg.

Distribution: Europe (fossil in Baltic amber).

References: (tx) Schedl 1947a: 32.

**posticus* Schedl 1947a: 33. Holotype, sex?; Baltische Bernstein; Geologisch-Palaeontologische Institut Albertus Universitat, Konigsberg.

Distribution: Europe (fossil in Baltic amber).

References: (tx) Schedl 1947a: 33.

Genus *Cryphalites* Cockerell

CRYPHALITES COCKERELL 1917: 368. Type-species: *Cryphalites rugosissimus* Cockerell, monobasic.

References: (tx) Cockerell 1917: 368.

**rugosissimus* Cockerell 1917: 368. Holotype, sex?; Burmese amber; University of Colorado, Boulder [not now present in that collection].

Distribution: Asia (fossil in Burmese amber).

Notes: (1) This specimen was not examined by us, and is unknown to us except for the very brief description. It is tentatively assigned to the Cryphalini.

References: (ds) Keilbach 1985: 255. (tx) Cockerell 1917: 368. (ms) Keilbach 1985: 255.

Genus *Taphramites* Schedl

TAPHRAMITES SCHEDL 1947a: 41. Type-species: *Taphramites gnathotrichus* Schedl, monobasic.

References: (tx) Schedl 1947a: 41–43.

**gnathotrichus* Schedl 1947a: 42. Holotype, sex?; Baltische Bernstein; Geologisch-Palaeontologische Institut Albertus Universitat, Konigsberg.

Distribution: Europe (fossil in Baltic amber).

Notes: (1) This species probably belongs in or near *Dryocoetes* in the Dryocoetini.

References: (ds) Keilbach 1982: 255. (tx) Schedl 1947a: 42, 1970c: 68–70. (ms) Keilbach 1982: 255.

Genus *Toxophthorus* Wood

TOXOPHTHORUS WOOD 1962: 77. Type-species: *Toxophthorus africanus* Eggers, automatic.

Toxophthorus Eggers 1920: 119. Type-species: *Toxophthorus africanus* Eggers, preoccupied by Schoenherr 1836.

References: (tx) Eggers 1920: 119–120; Schedl 1957d: 14, 1961k: 735; Wood, S. L. 1962: 77.

References: (tx) Wood, S. L. 1962: 77.

**africanus* (Eggers) 1920: 119 (*Toxophthorus*). Holotype, sex?; Deutsch-Ostafrika; Hamburg Museum, lost.

Distribution: Africa (Tanzania).

Hosts: Copal.

Notes: (1) This species is apparently a Dryocoetini in or near *Tiarophorus* or *Xylocleptes*. Although it was named as a fossil, it is probably a living species.

References: (tx) Eggers 1920: 119; Schedl 1957d: 14, 1961k: 735.

Genus *Xyleborites* Wickham

XYLEBORITES WICKHAM 1913: 26. Type-species: *Xyleborites longipennis* Wickham, monobasic.

References: (tx) Leng 1920: 363; Wickham 1913: 26.

**longipennis* Wickham 1913: 26. Holotype, sex?; Miocene (Colorado) [USA]; not located.

Distribution: North America (Miocene fossil from Colorado in USA).

Notes: (1) Essential characters were not described. It is uncertain where this species fits in classification or even if it is actually a scolytid.

References: (tx) Leng 1920: 363; Wickham 1913: 26.

Genus *Xylechinites* Hagedorn

XYLECHINITES HAGEDORN 1906: 120. Type-species: *Xylechinites anceps* Hagedorn, monobasic.

References: (tx) Hagedorn 1906: 120; Schedl 1947a: 30–31.

**anceps* Hagedorn 1906: 120. Holotype, sex?; Baltische Bernstein; Geologisch-Palaeontologische Institut Albertus Universitat, Konigsberg.

Figures: Schedl 1947a: 31 (photograph of type).

Distribution: Europe (fossil in Baltic amber).

Notes: (1) This species appears to be a Tomicini, but it may not be allied to *Xylechinus*. (3) Schedl 1947a: 31 (re-described).

References: (ds) Keilbach 1982: 255. (tx) Hagedorn 1906: 120; Keler 1928: 28; Schedl 1947a: 31. (ms) Keilbach 1982: 255.

Genus *Cynanchophagus* Axentjev

CYNANCHOPHAGUS AXENTJEV 1987:000. Type-species: *Cynanchophagus cornutus* Axentjev, monobasic.

References: (tx) Axentjev 1987:000.

cornutus Axentjev 1987:000. Holotype ♀;
Tadzhikistan: lowland of river Vakhsh, nature
reserve "Tigrovia balka"; IZL, St. Petersburg/Len-
ingrad.
Distribution: Asia (Tadzhikistan in USSR).

Hosts: *Cynanchum sibiricum*.

Notes: (1) We have not seen the original descrip-
tion or specimens of this species.

References: (tx) Axentjev 1987:000.

Catalog of Platypodidae

Family Platypodidae Erichson

Platypodidae (including the French Platypides)

Notes: In the absence of a comprehensive review of genera for the Platypodidae since the family was named, it was intended that such a study would be completed prior to completion of this catalog. Immovable publication deadlines made that impossible. However, after the catalog was completed but before it was published the review of genera was prepared and will be published in the 1993 *Great Basin Naturalist* (SLW).

References: Balachowsky 1949a: 275; Barbey 1901: 28; Beal & Massey 1945: 62; Bedel 1858b: 385, 404, 421; Blandford 1895b: 89; Brom 1850: 539; Brues & Melander 1932: 445; Chapuis 1865; Costa Lima 1956: 339; Erichson 1847: 138; Handlirsch 1925: 692; Hopkins 1915c: 225; Jacquelin du Val & Fairmaire 1868: 109; Lacordaire 1866: 355; LeConte 1873: 13, 1876: 341; LeConte & Horn 1853: 513; Leng 1920: 337; Lindemann 1876: 151; Lovendal 1889b: 5; Lucas 1920: 50; Numberg 1954: 13, 92; Reitter 1894: 39, 93, 1913a: 13; Schedl 1939b: 377, 388, 396, 1972f; Strohmeier 1912c: 1–26; Swaine 1909: 83; Thomson 1865: 377; Tredl 1907: 4.

Platypodinae

References: Blandford 1895b: 89; Strohmeier 1911: 218, 1912: 4; Swaine 1909: 83.

Platypodini

References: Schedl 1939b: 396.

Platypites

References: Fairmaire 1868: 107.

Platypodae

References: Eichhoff 1881: 305.

Platytarsulidae

References: Schedl 1939b: 381, 387.

Platytarsulinae

References: Schedl 1972f: 83, 269.

Subfamily Coptonotinae Chapuis

Coptonotidae

References: Balachowsky 1949a: 51; Blackman 1944: 77–78; Blackwelder 1947: 788; Chapuis 1869: 11, 1873: 219; Numberg 1953: 43, 46; Schedl 1939b: 381, 386–387, 1940a: 318, 328, 1962: 3–14.

Coptonotinae

References: Hopkins 1915c: 225, 227; Schedl 1939b: 381, 387.

Chapuisidae

References: Blackman 1944: 77–78; Strohmeier 1914b: 1–4.

Tribe Coptonotini Chapuis

Coptonotidae

References: Balachowsky 1949a: 51; Blackman 1944: 77–78; Blackwelder 1947: 788; Chapuis 1869: 11, 1873: 219; Numberg 1953: 43, 46; Schedl 1939b: 381, 386–387, 1940a: 318, 328, 1962d: 314.

Genus *Coptonotus* Chapuis

COPTONOTUS CHAPUIS 1869: 11. Type-species: *Coptonotus cyclopus* Chapuis, monobasic.

References: (ds) Blackwelder 1947: 788; Hagedorn 1910d: 7, (tx) Blackman 1944: 77–78; Blandford 1893d: 427, 441; Chapuis 1869: 11, 1873: 219; Eggers 1935a: 75; Hagedorn 1910a: 34–37; Hopkins 1914: 118, 133; Schaufuss 1905: 89; Schedl 1939b: 386, 1948b: 262, 1962d: 8.

cyclopus Chapuis 1869: 11. Syntypes, sex?; Nouvelle-Grenade; IRSNB, Brussels.

Figures: Equihua & Atkinson 1987: 11, Schedl 1962d: fig. 3.

Distribution: North America (Costa Rica/Panama), South America (Colombia/Peru).

Hosts: Probably *Quercus* sp.

References: (ds) Blackwelder 1947: 788; Equihua & Atkinson 1987: 10; Hagedorn 1910d: 7; Kleine 1912b: 162, 1914b: 341, (tx) Blackman 1944: 75; Chapuis 1869: 11, 1873: 219; Equihua & Atkinson 1987: 10–11; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 37; Hopkins 1914: 118, 133; Lucas 1920: 202; Schaufuss 1905: 89; Schedl 1939b: 379, 384, 1962d: 8, 1962q: 485, (ms) Lucas 1920: 202.

striatus Eggers 1933b: 3. Holotype ♀; Franz, Guayana; USNM, Washington.

Distribution: South America (Cayenne/Peru/Suriname).

Notes: (1) Schedl 1979c: 237 (holotype designation invalid).

References: (ds) Blackwelder 1947: 788, (tx) Eggers 1933b: 3–4; Schedl 1962d: 8, 1979c: 237.

Genus *Protohylastes* Wood

PROTOHYLASTES WOOD 1973d: 83. Type-species: *Protohylastes amosus* Wood, original designation.

References: (tx) Wood, S. L. 1973d: 83.

amosus Wood 1973d: 84. Holotype ♂; Eungella National Park, Queensland, Australia; Queensland Museum, Brisbane.

Distribution: Australia (Queensland).

References: (tx) Wood, S. L. 1973d: 84.

latirostris (Pascoe) 1873: 197 (*Psepholax*). Holotype ♀; Klawara, N.S. Wales; BMNH, London.

Distribution: Australia (New South Wales).

Notes: (1) Scale color and body shape of these two species are obviously different; however, they

could represent different sexes of the same species. Both holotypes were studied.

References: (tx) Pascoe 1873: 197.

Genus *Scolytotarsus* Schedl

SCOLYTOTARSUS SCHEDL 1937: 404. Type-species: *Scolytotarsus impar* Schedl, monobasic.

References: (tx) Schedl 1937b: 404, 1939b: 387.

impar Schedl 1937b: 405. Holotype, sex[?]; Wahrscheinlich Kamerun, aus einem Ankauf von Banghaas, Dresden; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon).

References: (tx) Schedl 1936g: 534, 1937b: 405.

maculatus Schedl 1936g: 534. Syntypes, sex[?]; Queensland: Coen district, Cape York; SAM, Adelaide, and NHMW, Wien.

Distribution: Australia (Cape York in Queensland).

Notes: (3) Voss 196.: 282 (treated in Curculionidae under *Myopsepholax*).

References: (ds) Brimblecombe 1953: 24; Schedl 1936g: 535. (tx) Schedl 1936g: 534, 1939b: 379–380, 384; Voss 196.: 282.

Tribe Mecopelmini Wood

Mecopelmini

References: Wood, S. L. 1966a: 45.

Genus *Mecopelmus* Blackman

Mecopelmus BLACKMAN 1944: 78. Type-species: *Mecopelmus zeteki* Blackman, original designation.

References: (tx) Blackman 1944: 78; Schedl 1962d: 12; Wood, S. L. 1966a: 45.

zeteki Blackman 1944: 78. Holotype, sex?: Barro Colorado Island, Panama Canal Zone; USNM, Washington.

Figures: Blackman 1944: figs. 1-5, Equihua & Atkinson 1987: 12, Schedl 1962d: fig. 2.

Distribution: North America (Canal Zone in Panama).

Hosts: *Serjania* sp.

Notes: (3) The species is phloeophagous, monogynous; the larvae make individual mines.

References: (hb) Wood, S. L. 1966a: 45. (ds)

Equihua & Atkinson 1987: 12. (tx) Blackman 1944: 76-80; Equihua & Atkinson 1987: 12; Schedl 1962d: 12; Wood, S. L. 1966a: 45, 1987: 12.

Genus *Protoplatypus* Wood

PROTOPLATYPUS WOOD 1973b: 81. Type-species: *Protoplatypus vetulus* Wood, original designation.

References: (tx) Wood, S. L. 1973b: 81.

vetulus Wood 1973b: 82. Holotype ♂; 8 km NW Bulolo, Morobe, New Guinea; CSIRO, Canberra. Figures: Wood 1973b: 82.

Distribution: New Guinea (near Bulolo in Morobe District).

Hosts: Log (an uncommon species, possibly *Harpullia pedicellaris*).

Notes: (3) The species is phloeophagous, polygynous, and the larvae make individual mines.

References: (hb) Wood, S. L. 1973b: 82. (tx) McNamara 1977: 191; Wood, S. L. 1973b: 82.

Tribe Schedlarini Wood

Schedlarini (automatic replacement)

References: Wood, S. L. 1957b: 103.

Chapnisiidae (automatically replaced by new name when type-genus became a homonym)

References: Brues & Melander 1932: 445; Schedl 1939b: 377; Strohmeyer 1914b: 1-6.

Chapnisiidae

References: Blandford 1895b: 89, 117.

Chapnisiinae

References: Brues & Melander 1932: 445; Handlirsch 1925: 692; Hopkins 1915c: 225; Schedl 1939b: 377; Strohmeyer 1911: 218, 1912c: 3.

Genus *Schedlarius* Wood

SCHEDLARIUS WOOD 1957b: 103. Type-species: *Chapnisia mexicana* Duges, automatic.

Chapnisia Duges 1886: 56. Type-species: *Chapnisia mexicana* Duges, monobasic, preoccupied by Duvivier 1885.

References: (hb) Duges 1885: 58; Wood, S. L. 1957b: 103-104. (tx) Blackman 1944: 76-79; Blandford 1893d: 427, 1895a: 317-318, 1895b: 81, 88, 1896e: 117; Duges 1885: 58, 1888: 141; Hopkins 1914: 118, 134, 1915c: 227; Numberg 1953: 44, 46; Schedl 1939b: 387, 1962d: 9; Strohmeyer 1914b: 1-5, 1914c: 16-17; Wood, S. L. 1957b: 103-104.

References: (tx) Schedl 1962d: 9-11; Wood, S. L. 1957b: 103-104.

mexicanus Duges 1885: 58 (*Chapnisia*). Syntypes, sex?; Mexico; presumably in Duges Collection, Mexico City.

Figures: Blandford 1896e: pl. 5, Burgos & Saucedo 1983: 43, Duges 1885: pl. 5, Equihua & Atkinson 1987: 13, Schedl 1962d: fig. 3.

Distribution: North America (Mexico).

Hosts: *Bursera capallifera*, *B. sinarubra*.

Notes: (3) This species is xylophagous, monogynous, and the larvae make long, tortuous, individual tunnels in the xylem; ambrosial fungus is not present although obvious fungal decay of host xylem occurs near larval mines.

References: (hb) Atkinson et al. 1986: 47; Burgos & Saucedo 1983: 42; Duges 1885; Wood, S. L. 1957b: 103. (ds) Atkinson et al. 1986: 47; Blackwelder 1947: 788; Blandford 1896e; Burgos & Saucedo 1983: 42; Equihua 1985: 144; Equihua & Atkinson 1987: 13; Strohmeyer 1912c: 3. (tx) Blackman 1944: 77; Blandford 1896e: 117; Burgos & Saucedo 1983: 43; Crowson 1955; Duges 1885: 58, 1888: 141; Equihua & Atkinson 1987: 13; Hopkins 1914: 118, 134; Schedl 1939b: 379-380, 1940a: 328, 1962d: 9; Strohmeyer 1911d: 218, 1912c: 3, 1914b: 1-5, 1914c: 16; Wood, S. L. 1957b: 103, 1959b.

Subfamily Tesserocerinae Blandford

Tesserocerini gemini

References: Blandford 1895b: 115.

Tesserocerini

References: Schedl 1939b: 396, 400.

Tesserocerinae

References: Strohmeier 1914b: 18, 1918: 40, 1920: 44.

Tesserocerariae

References: Strohmeier 1914b: 18–19.

Symmerariae

References: Strohmeier 1914b: 18.

Periommatinae

References: Schedl 1939b: 397, 403, 1972f: 83, 249.

Cenocephalariae

References: Strohmeier 1914b: 18.

Cenocephalini

References: Schedl 1939b: 397.

Platypicerinae

References: Numberg 1953: 44.

Tribe Diapodini Strohmeier

Diapodariae

References: Strohmeier 1914b: 18.

Diaporinae

References: Schedl 1939b: 397, 404, 1972f: 83, 259.

Genyocerinae

References: Hopkins 1915c: 225.

Genus *Diapus* ChapuisDIAPUS CHAPUIS 1865: 43, 329. Type-species: *Diapus quadrispinatus* Chapuis, subsequent designation by Hopkins 1914: 121.Notes: (3) Beeson 1941: 260 (*himalayensis*, nomen nudum), *rostratus*, nomen nudum).

References: (ay) Gardner 1932: 1–9; Nobuchi 1969a: 69. (cn) Beeson 1918: 114–124, 1922: 1–2; Fisher, Thompson, & Webb 1953: 1–21; Garthwaite 1940: 94–106. (hb) Beeson 1910: 222, 1935b: 182–186; Brown 1936b: 1, 1961c: 230; Kalshoven 1960: 31–34, 45; Schedl 1972f: 261. (ds) Beeson 1923: 173, 1941: 335; Munro 1928: 1–29; Schedl 1966b: 102, 1972f: 261, 1977b: 276. (tx) Beeson 1917: 1–29; Blandford 1893d: 426, 1894d: 139; Brown 1958b: 164–182, 1972a: 188; Chapuis 1865: 329, 332; Hopkins 1914: 121, 135, 1915c: 227; Lacordaire 1866: 389, 397–398; Murayama 1925: 216–217, 1934f: 148, 1954: 206; Nobuchi 1973b: 17; Numberg 1951: 262, 1953: 144; Sampson 1913: 449, 1923: 449; Schedl 1936e: 61, 1937d: 44, 1939b: 391–393, 404, 408, 1957b: 159, 1959a: 516, 1962k: 1052–1053, 1968e: 261–270, 1972f: 259–264, 1977b: 276; Stebbing 1907a: 42, 1914: 613, 628–634; Stroh-

meyer 1911c: 105–107, 1912c: 22, 1914c: 6–19, 46–47, 1918: 1–46, 1942: 286–287; Wood, S. L. 1960a: 3, 6.

aculeatus Blandford 1894d: 139. Syntypes 2 ♂; Higo, Japan; BMNH, London.

Figures: Nobuchi 1973b: pl. 2, figs. 38–39.

Distribution: Asia (Assam, Uttar Pradesh in India/ Japan/Vietnam), Indonesia (Java).

Hosts: *Ahus nitida*, *Castanea javanica*, *C. tunggurut*, *Quercus dilatata*, *Q. incana*, *Q. semicarpifolia*.

References: (cn) Kleine 1932a: 310, 402. (ec) Beeson 1921b: 22. (hb) Kalshoven 1960c: 46, 1960d: 46; Kleine 1932a: 310, 402; Murayama 1931b: 201. (ds) Beeson 1921b: 22; Blandford 1894c; Kalshoven 1960d: 46; Kleine 1932a: 310, 402; Murayama 1929a: 679, 1931b: 201–203, 1934f: 143, 1936b: 141, 1937c: 582, 1949c: 104, 1950b: 1300, 1953c: 165, 1955: 100–101; Nobuchi 1967: 27, 1973b: 17; Schedl 1962f: 169, 1972f: 263, 1974c: 262, 1975c: 384; Strohmeier 1912c: 22, 1914c: 47. (tx) Blandford 1894d: 139; Murayama 1925b: 234, 1950b: 1300, 1955: 100–101; Nobuchi 1973b: 17, pl. 2; Schedl 1934f: 1647, 1969b: 223, 1972f: 263; Strohmeier 1912c: 22, 1914c: 47.

aculeatus javanus Murayama 1931b: 200. Holotype, sex?; Mt. Gede, 600 m, Java; Murayama Collection in USNM, Washington.

References: (ds) Schedl 1972f: 263. (tx) Murayama 1931b: 200; Schedl 1962f: 263.

amblylaminatus Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Mo: Oomsis L.A., 900 m; BPBM, Honolulu.

Distribution: New Guinea.

Hosts: *Canarium* sp., *Castanopsis* sp., *Litsea* sp., *Myristica* sp.

References: (tx) Roberts 1992:(in press).

angustidontus Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Gumi L.A., Bulolo, 2000 m; BPBM, Honolulu.

Distribution: New Guinea.

Hosts: *Garcinia* sp.

References: (tx) Roberts 1992:(in press).

bilunatus Schedl 1975f: 399. Holotype ♀; New Guinea NE, Mt. Missim, 2400–2800 m; BPBM, Honolulu.

Distribution: New Guinea.

Hosts: *Aemena* sp., *Castanopsis* sp., *Elaeocarpus* sp., *Litsea* sp., *Macaranga* sp., *Phyllocladus* sp., *Sericolea* sp., *Tenstromia* sp.

References: (tx) Roberts 1992:(in press); Schedl 1975f: 399.

bispinus Schedl 1974d: 471. Holotype ♂; Panganda Logging Area, 2126 m, Watut Valley, Morobe District, New Guinea; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Calophyllum* sp., *Castanopsis acuminatestissima*, *Garcinia* sp., *Xanthophyllum* sp.

- Notes: (3) A note in the Schedl Collection says that *latespinis* is a synonym [requires verification].
References: (tx) Schedl 1974d: 471, 1975a: 16.
- borneensis** Browne 1980d: 500. Holotype ♂; Kimanis (Borneo) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
References: (tx) Browne 1980d: 500.
- brownei** Schedl 1971c: 398. Holotype ♂; Sarawak, Semengoh; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (ds) Schedl 1972f: 263. (tx) Schedl 1971c: 398–399, 1972f: 263.
- curvidens** Schedl 1965g: 30. Holotype ♂; O. Borneo, Mt. Tibang, 1300 m; NHR, Stockholm.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 263. (tx) Schedl 1965g: 30, 1972f: 263, 1978a: 23.
- elongatus** Schedl 1969b: 225. Holotype ♂; New Guinea: Marafunga, 2800 m, E.H.D.; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Cryptocarya* sp., *Dryodaphnae* sp., *Elacocarpus* sp., *Galbulilina* sp., *Phyllocladus* sp., *Planchonella* sp., *Podocarpus* sp., *Spherostemon* sp.
Notes: (3) Schedl 1969b: 225 (in key).
References: (ds) Schedl 1972f: 263. (tx) Roberts 1992:(in press); Schedl 1969b: 225, 1972f: 263, 1978a: 27.
- formosanus** Niisima & Murayama 1925a: 217. Syntypes 4♂, 4♀; Rengeti: Taichu Prov. [Taiwan]; Murayama Collection in USNM, Washington.
Figures: Murayama 1925a: pl. 12, figs. 7–8, pl. 15, figs. 35–47.
Distribution: Asia (Taiwan).
Hosts: *Lithocarpus konishii*, *Psidium guajava*.
References: (hb) Murayama 1931b: 202. (ds) Miwa 1931: 268; Murayama 1925a: 217, 1929a: 679, 1931b: 202, 1937c: 583; Nobuchi 1967: 27; Schedl 1972f: 263. (tx) Murayama 1925a: 217–223, 1925b: 235; Schedl 1972f: 263.
- gestroi** Sampson 1923c: 74. Holotype ♀; Burma: Carin Cheba, 900–1100 m; MCG, Genova.
Distribution: Asia (Burma).
References: (tx) Sampson 1923c: 74–75; Schedl 1939e: 364, 1972f: 263.
- kuperi** Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Mo: Kuper Range, 2200 m; BPBM, Honolulu.
Distribution: New Guinea.
Hosts: *Nothofagus grandis*, *Syzygium* sp.
References: (tx) Roberts 1992:(in press).
- latespinis** Schedl 1979g: 120. Holotype ♂; Papua, Upper Manki L.A., Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Castanopsis* sp., *Lithocarpus* sp., *Myristica* sp.
Notes: (3) See note under *bispinus* above.
- References: (tx) Roberts 1992:(in press); Schedl 1979g: 120.
- malgassicus** Schedl 1970d: 240. Holotype ♂; Madagascar, Perinet; MNHN, Paris.
Distribution: Madagascar.
Hosts: *Eucalyptus* sp., *Pinus insularis*, *Symphonia* sp.
References: (ds) Schedl 1972f: 263, 1977b: 277. (tx) Schedl 1970d: 240–241, 1972f: 263, 1977b: 277, 1978a: 42.
- minor** Schedl 1954a: 155. Holotype ♂; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien.
Distribution: Asia (Bengal in India), Indonesia (Borneo, Java).
Hosts: *Castanea javanica*, *Castanopsis hystrix*, *Cinnamomum camphora*, *Lindera pulcherrima*, *Quercus lamellosa*.
Notes: (3) Beeson 1961: 260 (*minor*, nomen nudum, synonymy in Browne 1977a: 101).
References: (ds) Beeson 1941 (1961: 260); Bhasin, Roonwal, & Singh 1958; Browne 1977a: 101, 1986c: 662; Kalshoven 1960c: 46; Schedl 1965g: 25, 1971c: 71, 1972f: 263. (tx) Beeson 1941 (1961: 260); Browne 1977a: 101; Schedl 1954a: 145, 158, 1961c: 75, 1969a: 219, 1972f: 263, 1978a: 44.
- minutissimus** Schedl 1969a: 219. Holotype ♂; Sumatra, Singij to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra).
Hosts: *Calophyllum tetrapterum*.
References: (hb) Beaver & Browne 1978: 617. (ds) Beaver & Browne 1978: 617; Browne 1980c: 484; Nobuchi 1977: 146; Schedl 1971c: 370, 1972c: 263. (tx) Schedl 1962f: 263, 1969a: 219, 1978a: 44.
- molossus** Chapuis 1865: 333. Holotype ♀; Inde orientale, dans la contree d'Almora au Nord-ouest des possessions anglaises; BMNH, London.
Distribution: Asia (Uttar Pradesh in India/ Malaya).
Hosts: *Ahus nepalensis*, *Quercus dilatata*, *Q. lamellosa*, *Q. semicarpifolia*, *Schleichera olcosa*.
References: (ds) Gemminger & Harold 1872: 2702; Lacordaire 1866: 397; Schedl 1962f: 169, 1972f: 263; Strohmeier 1912c: 22, 1914c: 47. (tx) Browne 1977a: 102; Chapuis 1865: 333; Janson 1893: 75; Lacordaire 1866: 397; Schedl 1960c: 63, 1962f: 169, 1972f: 263; Strohmeier 1912c: 22, 1914c: 47.
- impressus* Janson 1893: 74. Syntypes ♂ ♀; Deoband, NW Prov., India; BMNH, London.
Synonymy: Schedl 1972f: 264.
References: (cn) Kleine 1932a: 311, 402; Mathur & Singh 1961a: 29; Pierce, W. D. 1917: 154; Roonwal 1954: 58; Stebbing 1914: 628. (ec) Beeson 1921b; Stebbing 1914: 628. (hb) Beeson 1917: 10; Cotes 1893a; Kleine 1932a: 311, 402; Stebbing 1899: 62, 1906: 414, 1908a: 112, 1914: 328. (ds) Beeson 1916: 23,

- 1916a: 222. 1921b: 21–25, 1941 (1961: 260); Cotes 1893a: Kleine 1932a: 311, 402; Mathur & Singh 1961a: 29; Pierce, W. D. 1917: 154; Roonwal 1954: 58; Strohmeier 1912c: 22, 1914c: 47. (tx) Janson 1893: 74; Murayama 1925: 219; Schedl 1972f: 263–264; Stebbing 1908b: 1, 1914: 628; Strohmeier 1912c: 22, 1914c: 47.
- capillatus* Sampson 1913: 449. Holotype ♀; Darjeeling, N. India; BMNH, London.
Notes: (1) Browne 1977a: 102 (treated as a subspecies).
References: (en) Kleine 1932a: 310, 402; Pierce, W. D. 1917: 154; Stebbing 1914: 633. (ce) Beeson 1921b: 23; Stebbing 1914: 633. (hb) Kleine 1932a: 310, 402; Stebbing 1914: 633. (ds) Beeson 1921b: 23; Kleine 1932a: 310, 402; Pierce, W. D. 1917: 154; Schedl 1972f: 263; Strohmeier 1914c: 47. (tx) Browne 1977a: 102; Sampson 1913: 449–450; Schedl 1939e: 364, 1972f: 263; Stebbing 1914: 633; Strohmeier 1914c: 47.
- nanodontus* Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Mo., Oomsis L.A., 800 m; BPBM, Honolulu.
Distribution: New Guinea.
Hosts: *Castanopsis* sp., *Cryptocarya* sp., *Sterculia* sp.
References: (tx) Roberts 1992:(in press).
- nanus* Schedl 1969b: 225. Holotype ♀; New Guinea: Erave pine forest, S.H.D.; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Anisoptera* sp., *Araucaria cunninghamii*, *Calophyllum* sp., *Castanopsis acuminatissima*, *C.* sp., *Cryptocarya* sp., *Elacocarpus* sp., *Haplolobus* sp., *Lithocarpus* sp., *Mangifera* sp., *Myristica* sp., *Phyllocladus* sp., *Sterculia* sp., *Xanthophyllum* sp.
References: (ds) Schedl 1972f: 264. (tx) Roberts 1992:(in press); Schedl 1969b: 225–226, 1972f: 264, 1978a: 46.
- nebulosus* Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Mo., Gumi L.A., 1900 m; BPBM, Honolulu.
Distribution: New Guinea.
Hosts: *Alphitonia* sp., *Caldehucia* sp., *Calophyllum* sp., *Castanopsis* sp., *Cryptocarya* sp., *Dacrycarpus* sp., *Elacocarpus* sp., *Garcinia* sp., *Ilex* sp., *Litsca* sp., *Macaranga* sp., *Nothofagus* sp., *Phyllocladus* sp., *Planchonella* sp., *Syzygium* sp., *Xanthomyrtus* sp.
References: (tx) Roberts 1992:(in press).
- obtusicornis* Schedl 1965g: 31. Holotype ♀; O. Borneo, Mt. Tibang, 1300 m; NHR, Stockholm.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 264. (tx) Schedl 1965g: 31, 1972f: 264, 1978a: 49.
- oomsis* Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Mo., Oomsis L.A., 800 m; BPBM, Honolulu.
Distribution: New Guinea.
Hosts: *Burkella* sp., *Canarium* sp., *Dysoxylum* sp., *Elacocarpus* sp., *Garcinia* sp., *Myristica* sp.
References: (tx) Roberts 1992:(in press).
- oreogenus* Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Mo., Gumi L.A., 2,000 m; BPBM, Honolulu.
Distribution: New Guinea.
Hosts: *Galbulilima* sp.
References: (tx) Roberts 1992:(in press).
- papuanus* Schedl 1968e: 269. Holotype ♂; Afafiningetu, E. Highlands Dist.; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Agathis alba*, *Araucaria cunninghamii*, *Calophyllum* sp., *Castanopsis* sp., *Casuarina* sp., *Endospermum* sp., *Eugenia* sp., *Garcinia* sp., *Glochidion* sp., *Macaranga* sp., *Myristica* sp., *Planchonella* sp., *Podocarpus* sp., *Sterculia* sp., *Syzygium* sp.
Notes: (3) Schedl 1969b: 225 (in key).
References: (ds) Schedl 1969b: 226, 1972f: 264, 1979h: 158. (tx) Schedl 1968e: 269, 1969b: 225–226, 1972f: 264, 1978a: 51.
- pendleburyi* Schedl 1936d: 18. Lectotype ♂; Malay Peninsula, Selangor: Kuala Lumpur; Schedl Collection in NIIMW, Wien.
Distribution: Asia (Burma/ Assam in India/ Malaya/ Thailand/ Vietnam), Indonesia (Borneo), Philippine Islands.
Hosts: *Dipterocarpus pilosus*, *Dryobalanops aromatica*, *Pentacme suavis*, *Quercus* sp.
Notes: (3) Schedl 1942a: 218 (described female). Beeson 1941 (1961: 260) (*longispinus*, nomen nudum, synonymy in Browne 1977a: 100).
References: (hb) Browne 1941. (ds) Beeson 1941 (1961: 260); Browne 1949b, 1961c: 233, 1968a: 134, 1977a: 100; Choo, Woo, & Kim 1981: 203; Nobuchi 1977: 145; Olmo, Yoneyama, & Nakazawa 1982b: 11, 1987b: 90; Schedl 1962f: 169, 1966b: 102, 1966g: 34, 1969a: 207, 218, 1972f: 264. (tx) Browne 1949b, 1977a: 100; Nobuchi 1985: 330; Schedl 1936d: 18, 1942a: 218, 1942c: 172, 1972f: 264, 1978a: 52; Strohmeier 1942: 285.
- perpygmaeus* Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Mo., Oomsis L.A., 850 m; BPBM, Honolulu.
Distribution: New Guinea.
Hosts: *Calophyllum* spp., *Castanopsis* sp., *Cryptocarya* sp., *Lithocarpus* sp., *Neonauclea* sp., *Planchonella* sp., *Pometia* sp., *Xanthophyllum* sp.
References: (tx) Roberts 1992:(in press).
- pusillimus* Chapuis 1865: 335. Syntypes 3♂, 1♀ (Schedl 1960: 63); Nouvelle-Guinée, Dorey; BMNH, London.
Distribution: Asia (India, Malaya), Australia, Bismarck Islands (New Britain Island), Indonesia (Borneo), Madagascar, Micronesia (Caroline Islands), New Guinea, Philippine Islands, Samoan Islands.

Hosts: *Afzelia bijuga*, *A. palembanica*, *Agathis alba*, *Albizzia falcata*, *Anisoptera* sp., *Araucaria* sp., *Altingia exelsa*, *Balanocarpus heimii*, *Canarium* sp., *Castanopsis* sp., *Celtis* sp., *Cryptocarya* sp., *Dipterocarpus* sp., *Dracontomelon* sp., *Dryobalanops aromatica*, *Dyera costulata*, *Eugenia argutata*, *Ficus* spp., *Garcinia* sp., *Grevillea robusta*, *Lithocarpus* sp., *Mangifera* sp., *Nothofagus pullei*, *Planchonella samoensis*, *Pometia* sp., *Pterocymbium* sp., *Shorea bracteolata*, *S. kunstleri*, *S. leprosula*, *S. singkawang*, *Sloanea* sp., *Sterculia* sp., *Syzygium* sp., *Terminalia brassii*, *Xanthophyllum* sp.

Notes: (3) Schedl 1969a: 225 (in key).

References: (ay) Numberg 1951: 262. (bv) Gray, B. 1974b. (cn) Brimblecombe 1956; Brownie 1968b: 233; Hill, D. S. 1983: 679; Wylie & Shanahan 1975. (cc) Browne 1958b; Thompson, W. R. & Simmonds 1964: 15, 1965: 28. (hb) Beaver 1976b: 544; Beaver & Browne 1978: 617; Beeson 1941 (1961: 260–261); Brimblecombe 1956; Browne 1936a, 1941, 1955b, 1961c: 231–232, 1965b: 233; Gray, B. 1974b; Hill, D. S. 1983: 679; Kalshoven 1960c: 46; Wylie & Shanahan 1975. (ds) Beaver 1976b: 544; Beaver & Browne 1975: 305, 1978: 617; Beeson 1941 (1961: 260); Browne 1936a, 1961a: 317, 1961c: 232, 1966: 242, 1968b: 233, 1980a: 370; Chadwick & Nikitin 1968; Choo, Woo, & Kim 1981: 203; Froggatt 1936; Gemminger & Harold 1872: 2702; Hill, D. S. 1983: 679; Kalshoven 1960d: 46; Lacordaire 1866: 397; Nobuchi 1977: 146; Numberg 1961b: 611; Ohno, Yoneyama, & Nakazawa 1982a, 1982b: 5, 1987a: 96, 1987b: 90; Olmo et al. 1988b: 99, 1989: 67; Sampson 1919: 107, 1925: 3, 1926: 121; Schedl 1936d: 8, 22, 1936g: 519, 1936j: 22, 1966b: 103, 1966g: 34, 1968e: 265, 1972f: 264, 1974c: 262, 1975h: 352, 1975i: 347, 1979a: 160; Strohmeier 1912c: 22, 1914c: 47; Wood, S. L. 1960: 6. (tx) Browne 1966: 242; Carne et al. 1980; Chapuis 1865: 335; Lacordaire 1866: 397; Nobuchi 1955: 330; Sampson 1919: 107, 1925: 3; Schedl 1936e: 61, 1939b: 391, 1939e: 337, 1941c: 354–355, 1942c: 165, 1951k: 141–142, 1954a: 158, 1958i: 215, 1960c: 63, 1965g: 31, 1969a: 225, 1972f: 264; Strohmeier 1912c: 22, 1914c: 47; Wood, S. L. 1960a: 6; Wylie & Yule 1977.

grevilleae Lea 1914: 226 (*Crossotarsus*). Holotype ♀; Queensland; Lea Collection at SAM, Adelaide. Synonymy: Schedl 1936g: 519.

References: (cn) Kleine 1932a: 401; Smith, J. H. 1932: 230, 1935: 3. (cc) Smith, J. H. 1935: 3. (hb) Kleine 1932a: 401. (ds) Kleine 1932a: 401; Smith, J. H. 1935: 3. (tx) Browne 1961c: 231; Lea 1914: 226; Schedl 1936g: 519, 1972f: 264; Wood, S. L. 1960a: 6.

quadriscopinus Chapuis 1865: 332. Syntypes 2♂, 1♀ (Schedl 1960c: 62); D l'Inde orientale; IRSNB, Brussels.

Figures: Nakashima 1975: 60–65. Schedl 1962k: 1054, 1972f: 261.

Distribution: Asia (Burma/ Uttar Pradesh in India). Hosts: *Ahus nepalensis*, *Castanopsis hystrix*, *Cedrus deodara*, *Lindera pulcherrima*, *Machilus odoratissima*, *Prunus nepalensis*, *Quercus incana*, *Q. lamellosa*.

References: (cn) Kleine 1932a: 311, 402. (cc) Beeson 1921b: 23. (hb) Kleine 1932a: 311, 402; Yimns & Hua 1980: 216. (ds) Beeson 1921b, 1941 (1961: 261); Bhasin, Roonwal, & Singh 1955; Gemminger & Harold 1872: 2702; Kleine 1932a: 311, 402; Nobuchi 1977: 144; Schedl 1962f: 169, 1967e: 222, 1968e: 265, 1972f: 264, 1973b: 212; Strohmeier 1912c: 22, 1914c: 47. (tx) Chapuis 1865: 332; Gardiner 1932b; Hopkins 1914: 121; Nakashima 1975: 60–65; Schedl 1936d: 15, 1939g: 2, 1960c: 62, 1962k: 1054, 1972f: 261, 264; Strohmeier 1912c: 22, 1914c: 47.

quadriscopinus Schedl 1969a: 218. Holotype ♂; Philippine Islands, Iligan to Tokyo (Japan), imported; PPST, Tokyo.

Distribution: Philippine Islands.

Hosts: Luanan log.

References: (ds) Lacordaire 1866: 397; Schedl 1972f: 264. (tx) Lacordaire 1866: 397; Nobuchi 1985: 330; Schedl 1969a: 218–219, 1972f: 264, 1987a: 61.

quinquespinatus Chapuis 1865: 334. Syntypes: Iles Celebes, Borneo, Morty, Nouvelle-Guinea: 6♂, 1♀ in BMNH, London, 1♂ in IRSNB, Brussels. Figures: Schedl 1972f: 262 (male).

Distribution: Africa (Angola/ Cameroon/ Central African Republic/ Equatorial Guinea/ Fernando Po/ Ghana/ Nigeria/ Sierra Leone/ Zaire/ Zambia), Asia (Bhutan/ Burma/ Andaman Islands, Assam, Uttar Pradesh in India/ Japan/ Malaya/ Sri Lanka/ Taiwan/ Thailand/ Tonkin in Vietnam), Australia, Fiji Islands, Indonesia (Borneo, Buru, Celebes, Java, Sumatra), Madagascar, New Guinea, Philippine Islands, Samoan Islands, Solomon Islands.

Hosts: *Acmencia* sp., *Afzelia palembanica*, *Agathis alba*, *Araucaria humsteeinii*, *Artocarpus chaplasha*, *A. elasticus*, *A. scortechiniii*, *Balanocarpus heimii*, *Canarium euphyllum*, *Castanea argentea*, *Castanopsis tribuloides*, *Dipterocarpus coriatus*, *D. pilosus*, *Dracontomelon* sp., *Dryobalanops aromatica*, *Durio zibethinus*, *Dyera costulata*, *Dysoxylum binectariferum*, *Elacis guineensis*, *Elatiospermum tapos*, *Endospermum malaccense*, *Eucalyptus grandis*, *Eugenia argutata*, *Fagraea gigantea*, *Glochidion* sp., *Hopea* sp., *Horsfieldia* cf. *glabra*, *Lithocarpus* sp., *Mangifera indica*, *Neonauclea* sp., *Pasania sundaica*, *Pentacme suavis*, *Planchonella samoensis*, *Pometia* sp., *Pygeum parviflorum*, *Quercus fagifolia*, *Q. serrata*, *Sarcocephalus cordatus*, *Shorea assamica*, *S. bentongensis*, *S. bracteolata*, *S. faguetiana*, *S. kunstleri*, *S. leprosula*, *S. parvifolia*, *S. robusta*,

Sindora sp., *Sloanea sigun*, *Tectona grandis*, *Terminalia hederica*, *T. bialata*, *T. manni*, *Vatica lanceaefolia*.

References: (ay) Nakashima 1975: 6; Strohmeyer 1918: 34; 1920: 42. (bv) Beeson 1917; Loyttyneimi, Beaver, & Loyttyneimi 1985: 28. (cn) Beeson 1915; Browne 1965b: 233; Kalshoven 1924c; Kleine 1932a: 311, 402; Mathur & Singh 1961a: 26, 1961b: 13; Mayne & Donis 1951: 335; Pierce, W. D. 1917: 194; Roberts 1977b: 574; Roonwal 1954: 85; Stebbing 1914: 632. (ce) Beeson 1921b, 1923; Browne 1955b; Mayne & Donis 1951: 335; Nakashima 1975: 6; Stebbing 1914: 632. (hb) Beaver 1976b: 545; Beaver & Browne 1975: 617; Beaver & Loyttyneimi 1985b: 120; Beeson 1916a, 1917: 10, 1923; Browne 1935a, 1941: 65, 1949: 174–189, 1955b: 164–182, 1961c: 230, 1962: 93, 1963a: 264, 1968: 233; Kalshoven 1924c, 1960c: 45; Kleine 1932a: 311, 402; Lepesme 1947: 649; Loyttyneimi, Beaver, & Loyttyneimi 1985: 28; Roberts 1969: 105–106, 1977b: 574; Schedl 1962k: 1053; Stebbing 1914: 632; Thompson, C. H. 1963: 39. (ds) Beaver 1976b: 545; Beaver & Browne 1975: 305; Beaver & Loyttyneimi 1985b: 120; Beeson 1910: 223, 1916a: 223, 1921b: 23, 1923: 165, 1941: 341, 1961: 261; Bhasin, Roonwal, & Singh 1958: 92; Browne 1935a: 24, 29, 1961a: 317, 1961c: 230–231, 1963a: 264, 1966: 242, 1965b: 233, 1980c: 486; Choo & Woo 1983; Ferreira 1965: 1136; Gemminger & Harold 1872: 2702; Kalshoven 1924: 8, 1960d: 45–46; Kleine 1928: 311, 1932a: 311, 402; Lacordaire 1866: 397; Mathur & Singh 1961a: 26, 1961b: 13; Mayne & Donis 1951: 335, 1962: 266; Miller 1932: 19; Miwa 1931: 265; Murayama 1925a: 217, 1929a: 679, 1931: 203, 1934f: 145, 1937c: 583; Nakashima 1975: 3; Nobuchi 1967: 27, 1977: 45, 1980a; Ohno, Yoneyama, & Nakazawa 1982a: 5, 1982b: 11, 1987a: 96, 1987b: 90; Ohno, Yoshioka, et al. 1985b: 99, 1989: 67; Pierce, W. D. 1917: 194; Roberts 1968: 193, 1977b: 574; Roonwal 1954: 85; Sampson 1919: 107, 1926: 120–121; Schedl 1936d: 8, 1936g: 519, 1937b: 407, 1938d: 452, 1959a: 516, 1959c: 168, 1959d: 67, 1959p: 24, 1961c: 70, 1961e: 128, 156, 1962f: 169, 1962i: 73, 1962k: 1053, 1964f: 620, 1965e: 360, 1965g: 25, 1966b: 103, 1966g: 34, 1971c: 367, 1971f: 150, 1971g: 194, 1972f: 264, 1974c: 262, 1975a: 453, 1975c: 354, 1979a: 160; Strohmeyer 1911f: 204, 1912c: 22, 1914c: 47; Thompson, C. H. 1963: 39. (tx) Blandford 1894d: 140; Browne 1966: 242; Chapuis 1865: 334; Janson 1893: 75; Lacordaire 1866: 397; Lucas 1920: 235; Murayama 1925a: 217, 1925b: 235; Nobuchi 1985: 330; Sampson 1919: 107; Schedl 1936e: 61, 1937b: 407, 1937d: 44, 1937e: 544, 1939b: 403–404, 1939c: 2, 1939e: 337, 1941c: 354–355, 1941e: 157, 1942a: 172, 1950d: 14, 1951k: 141, 1953g: 245, 1954c: 155, 1954e: 60, 1955b: 286, 1955i: 215, 1960c: 63,

1962k: 1053–1054, 1972f: 264; Stebbing 1914: 632; Strohmeyer 1912c: 22, 1914c: 47; Wylie & Yule 1977. (ms) Lucas 1920: 235.

robustus Schedl 1969b: 225. Holotype ♂; New Guinea: Kunn, 11 miles from Mt. Hagen, W.H.D.; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Acmena* sp., *Castanopsis* sp., *Cryptocarya* sp., *Dryodaphnue* sp., *Lithocarpus* sp., *Nothofagus* sp., *Syzygium* sp.

References: (ds) Schedl 1972f: 264. (tx) Schedl 1969b: 225–226, 1972f: 264, 1975a: 63.

spatulifer Browne 1977a: 101. Holotype ♂; Bengal: Darjeeling, Ranbe; BMNH, London.

Distribution: Asia (India).

Hosts: *Beilschmiedia sikkimensis*, *Bucklandia populuca*, *Castanopsis hystrix*, *Cryptomeria japonica*, *Echonicarpus dasycarpus*, *Lindera pulcherrima*, *Litsca elongata*, *Machilus edulis*, *M. spp.*, *Michelia excelsa*, *Nyssa sessiliflora*, *Prunus nepalensis*, *Quercus glauca*, *Q. dilatata*, *Q. lamellosa*, *Syningtonia populnea*, *Symplocos theaeifolia*.

Notes: (3) Beeson 1941 (1961: 260) (*brochus* nomen nudum, *capitalis* nomen nudum, *discolor* nomen nudum, *spatulifer* nomen nudum, synonymy in Browne 1977a: 102).

References: (cn) Mathur & Singh 1960a: 36, 1961a: 82. (ds) Beeson 1941 (1961: 260); Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1960a: 36, 1961a: 82. (tx) Browne 1977a: 101.

spinatus Browne 1980d: 499. Holotype ♂; Semangka (Sumatra) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Sumatra).

References: (ds) Ohno, Yoneyama, & Nakazawa 1982b: 11. (tx) Browne 1980d: 499.

spinifer Schedl 1969b: 224. Holotype ♂; New Guinea: Porotop L.M. Station, W.H.D.; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Ficus* sp., *Nothofagus pullei*, *N. sp.*, *Podocarpus* sp., *Syzygium* sp.

References: (ds) Schedl 1972f: 264. (tx) Schedl 1969b: 224–225, 1972f: 264, 1975a: 68.

tonkinensis Schedl 1972m: 201. Holotype ♂; Tonkin: Ngai-Tio, 4800 ft.; BMNH, London.

Distribution: Asia (Tonkin Island in Vietnam).

References: (tx) Schedl 1972m: 201.

truncatus Niisima & Murayama 1934f: 143. Holotype ♂; Arisan (Formosa); Murayama Collection in USNM, Washington.

Distribution: Asia (Taiwan).

References: (ds) Nobuchi 1967: 27, 1977: 147; Schedl 1972f: 264. (tx) Murayama 1934f: 143, 1937c: 583; Nobuchi 1967: pl. 2; Schedl 1972f: 264.

turgidus Roberts 1992: (in press). Holotype ♂; Papua New Guinea: Mo., Gumi, 2220 m; BPBM, Honolulu.

Distribution: New Guinea.

Hosts: *Antidesma* sp., *Castanopsis* sp., *Dryodaphne* sp., *Garcinia* sp., *Glochidion* sp., *Macaranga* sp., *Microcos* sp., *Planchonella* sp., *Spherostenon* sp., *Syzygium* sp., *Terminalia* sp.

References: (tx) Roberts 1992:(in press).

amispineus Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Mo., Kuper Range, Wau, 2,300 m; BPBM, Honolulu.

Distribution: New Guinea.

Hosts: *Caldcluvia* sp., *Castanopsis* sp., *Elaeocarpus* sp., *Litsca* sp., *Nothofagus* sp.

References: (tx) Roberts 1992:(in press).

Genus *Genyocerus* Motschulsky

GENYOCERUS MOTSCHULSKY 1858: 6S. Type-species: *Genyocerus albipennis* Motschulsky, monobasic.

Diacavus Schedl 1939: 363. Type-species: *Diapys frontalis* Strohmeyer, original designation. Synonymy: Wood 1969c: 118.

References: (tx) Browne 1949d: 73–76, 1960: 201–220, 1961c: 232–233, 1972a: 188; Schedl 1939c: 363–364, 1962f: 163–169, 1972f: 265–266; Wood, S. L. 1969c: 118.

Notes: (1) Wood 1969c: 118 (identity of genus confirmed). (3) Beeson 1941 (1961: 257) (*atkinsoni*, nomen nudum, from Burma).

References: (ay) Nobuchi 1969a: 69. (hb) Schedl 1972f: 265. (ds) Schedl 1959c: 168, 1966b: 101, 1972f: 265. (tx) Browne 1972a: 188; Chapuis 1865: 338; Schedl 1972f: 265; Strohmeyer 1942: 286–287; Wood, S. L. 1969c: 118.

abdominalis (Schedl) 1942a: 218 (*Diacavus*). Lectotype ♂; Malaya, Raub; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 9.

Figures: Nakashima 1975: 69 (mycetangia).

Distribution: Asia (introduced in Japan/ Malaya), Indonesia (Borneo), Philippine Islands.

Hosts: *Balanocarpus heimii*, *Parashorea* sp.

References: (ay) Nakashima 1975: 7. (ec) Nakashima 1975: 7. (ds) Browne 1961c: 233; Choo & Woo 1983; Nakashima 1975: 3; Nobuchi 1977: 152, 1980a; Ohno, Yoneyama, & Nakazawa 1982b: 11; Schedl 1959c: 168, 1966g: 34, 1972f: 267. (tx) Browne 1961c: 233; Nakashima 1975: 69; Nobuchi 1985: 330; Schedl 1942a: 218, 1959c: 168, 1972f: 267, 1978a: 9.

albipennis Motschulsky 1858: 6S. Holotype ♀; type label reads “Aus Indien or [word illegible],” all known specimens are from Sri Lanka; IZM, Moscow.

Figures: Browne 1970: 582 (as *irregularis*).

Distribution: Asia (Sri Lanka).

Hosts: *Dipterocarpus* sp.

Notes: (1) Wood 1969c: 118 (identity clarified). (3) Beeson 1961: 260 (*zeylanicus*, nomen nudum, synonymy in Browne 1977a: 97).

References: (ds) Gemminger & Harold 1872: 2702; Lacordaire 1866: 398; Schedl 1959a: 515,

1972f: 267. (tx) Beeson 1941 (1961: 260); Blandford 1893d; Browne 1977a: 97; Hopkins 1914: 122; Lacordaire 1866: 398; Motschulsky 1858: 6S; Schedl 1959a: 515, 1972f: 277; Strohmeyer 1942: 284–287; Wood, S. L. 1969c: 118.

irregularis Browne 1970: 582 (*Diacavus*). Holotype ♂; Ceylon: in gurjun (*Dipterocarpus*) timber from Ceylon, intercepted at Princes Risborough, England; BMNH, London. Synonymy: Wood 1981: 122.

References: (ds) Schedl 1972f: 268. (tx) Browne 1970: 582–583, 1977a: 99; Schedl 1972f: 268; Wood, S. L. 1981: 122.

biporus (Schedl) 1942a: 217 (*Diacavus*). Lectotype ♂; Malaya, Selangor, Buloh F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 16.

Figures: Schedl 1972f: 265.

Distribution: Asia (Burma/ Cambodia/ Malaya/ Vietnam), Indonesia (Borneo).

Hosts: *Cotylelobium flacum*, *Dipterocarpus pilosus*, *Hopea odorata*, *Parashorea stellata*, *Shorea leprosula*, *S. parvifolia*, *Vatica* sp.

Notes: (3) Beeson 1941 (1961: 257) (*biporus* nomen nudum, synonymy in Browne 1977a: 97).

References: (cn) Browne 1949d, 1949e; Mathur & Singh 1960b: 57; Sen-Sarma & Thakur 1956: 37. (hb) Browne 1961c: 233. (ds) Beeson 1941 (1961: 257); Browne 1961a: 318, 1968a: 132–134, 1970: 577, 1977a: 98, 1980c: 484, 1981b: 599; Mathur & Singh 1960d: 57; Nobuchi 1977: 151; Ohno, Yoneyama, & Nakazawa 1982b, 1987a: 96; Schedl 1969a: 206, 1972f: 265, 267. (tx) Browne 1949d: 73, 1977a: 97; Schedl 1942a: 217, 1978a: 16.

compactus (Schedl) 1966g: 40 (*Diacavus*). Holotype ♂; Diapitan, Philippine Islands to Tokyo (Japan), imported; PPST, Tokyo.

Distribution: Philippine Islands.

Hosts: Lauan log.

Notes: (1) Wood 1969c: 118 (to *Genyocerus*).

References: (ds) Browne 1984c: 449; Choo & Woo 1983; Nobuchi 1977: 149; Ohno, Yoneyama, & Nakazawa 1982b: 11; Schedl 1972f: 267. (tx) Nobuchi 1985: 330; Schedl 1966g: 40, 1972f: 267, 1978a: 20; Wood, S. L. 1969c: 118.

compactus dubiosus Schedl 1966g: 41 (*Diacavus*). Lectotype ♂; Aparri, Philippine Islands to Tokyo (Japan), imported; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 20.

Notes: (3) It appears that this is no more than an aberration.

References: (ds) Schedl 1972f: 267. (tx) Schedl 1966g: 41, 1972f: 267, 1978a: 20.

decemspinatus (Schedl) 1942a: 216 (*Diacavus*). Lectotype ♂; Malaya, Batu Jalam; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 23.

Distribution: Asia (Malaya/ Vietnam), Philippine Islands.

Hosts: *Vatica* spp.

Notes: (1) Wood 1969c: 118 (to *Genyocerus*).

References: (cn) Browne 1949d. (hb) Browne 1949d. (ds) Browne 1961c: 233, 1965a: 190; Nobuchi 1977: 150; Ohno, Yoneyama, & Nakazawa 1957b: 90; Schedl 1966g: 34, 1972f: 267. (tx) Browne 1968a: 134; Nobuchi 1985: 330; Schedl 1942a: 216, 1966b: 102, 1966g: 42, 1972f: 267, 1978a: 23; Wood, S. L. 1969c: 118.

diaphanus (Schedl) 1939c: 364 (*Diacavus*). Lectotype ♀; Malaya, Selangor: Sungai Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 24.

Distribution: Asia (Assam in India/ Malaya/ Vietnam), Indonesia (Sarawak in Borneo).

Hosts: *Anisoptera* sp., *Artocarpus* sp., *Dipterocarpus cornutus*, *Hopca odorata*, *Parashorea lucida*, *Shorea assamica*, *S. luyppochra*, *S. leprosula*, *S. maxwelliana*.

Notes: (1) Wood 1969c: 118 (to *Genyocerus*). (3) Beeson 1941 (1961: 260) (*hopcae* nomen nudum, synonymy in Browne 1977a: 97). Browne 1960: 216–217 and Schedl 1962f: 168 (described male). References: (cn) Mathur & Singh 1961a: 39. (hb) Beaver & Browne 1978: 617; Browne 1941, 1961c: 233. (ds) Beaver & Browne 1978: 617; Beeson 1941 (1961: 257); Browne 1961c: 233, 1977a: 98; Mathur & Singh 1961a: 39; Schedl 1962f: 168, 1972f: 267. (tx) Browne 1960: 216–217, 1962c: 216, 1964: 760, 1977a: 98; Schedl 1939c: 364, 1962f: 168, 1966g: 42, 1972f: 267, 1972p: 159, 1978a: 24; Wood, S. L. 1969c: 118, 1978a: 24.

assamensis Browne 1964: 760 (*Diacavus*). Holotype ♂; India: Assam, Margherata, Lakhimpur Div.; BMNH, London. Synonymy: Schedl 1972f: 267.

Notes: (3) Beeson 1941 (1961: 257) (*assamensis* nomen nudum, synonymy in Browne 1977a: 97).

References: (cn) Sen-Sarma & Thakur 1986: 37. (ds) Beeson 1941 (1961: 257); Browne 1968a: 132–134, 1970: 576, 1977a: 97, 1980d: 490; Mathew 1982, 1987: 185. (tx) Browne 1964: 760, 1977a: 97; Schedl 1972f: 267, 1972p: 159.

dipterocarp Browne 1977b: 98. Holotype ♂; Andaman Islands; BMNH, London.

Figures: Browne 1977b: 99.

Distribution: Andaman Islands.

Hosts: *Canarium euphyllum*, *Dipterocarpus turbinatus*.

Notes: (3) Beeson 1941 (1961: 257) (*dipterocarpi* nomen nudum, synonymy in Browne 1977a: 97). References: (cn) Sen-Sarma & Thakur 1986: 37. (ds) Beeson 1941 (1961: 257); Blasin, Roonwal, & Singh 1958; Browne 1981b: 598; Ohno, Yoneyama, & Nakazawa 1982b: 11. (tx) Browne 1977b: 98–99.

exilis (Schedl) 1942a: 218 (*Diacavus*). Lectotype ♂; Malaya, Selangor, Bukit Arang; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 118.

Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).

Hosts: *Shorea lacvis*, *Vatica* sp.

Notes: (3) Browne 1962c: 219 (described female).

References: (hb) Browne 1961c: 233. (ds) Browne 1961c: 233, 1980a: 371, 1984c: 449; Ohno, Yoneyama, & Narazawa 1987a: 96; Schedl 1959c: 168, 1972f: 267. (tx) Browne 1962c: 219; Schedl 1942a: 218, 1972f: 267, 1978a: 29.

frontalis (Strohmeyer) 1914f: 5 (*Diapus*). Holotype ♂; Borneo (Sarawak); Stettin Museum, presumably lost.

Distribution: Indonesia (Sarawak in Borneo).

Notes: (1) Schedl 1939c: 363 (to *Diacavus*), Wood 1969c: 118 (to *Genyocerus*).

References: (ds) Schedl 1972f: 267. (tx) Browne 1964: 760; Schedl 1939c: 363–364, 1942a: 216, 1972f: 267; Strohmeyer 1914f: 5–6; Wood, S. L. 1969c: 118.

intermedius (Browne) 1968a: 134 (*Diacavus*). Holotype ♂; Vietnam: near Bien Hoa; BMNH, London.

Distribution: Asia (Malaya/ Vietnam), Philippine Islands.

Notes: (1) Wood 1969c: 118 (to *Genyocerus*).

References: (ds) Browne 1977a: 99, 1981b: 597; Schedl 1972f: 268. (tx) Browne 1968a: 134, 1977a: 99; Schedl 1972f: 268; Wood, S. L. 1969c: 118.

laticollis (Browne) 1962c: 217 (*Diacavus*). Holotype ♂; Malaya: Selangor, Keping; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Shorea leprosula*.

Notes: (1) Browne 1964: 753 (original spelling of *haticollis* corrected to *laticollis*), Wood 1969c: 118 (to *Genyocerus*).

References: (ds) Schedl 1972f: 268. (tx) Browne 1962c: 217, 1964: 753; Schedl 1972f: 268; Wood, S. L. 1969c: 118.

multiaporus (Schedl) 1936h: 67 (*Diapus*). Holotype ♀; Philippine Islands; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands.

Notes: (1) Wood 1969: 118 (to *Genyocerus*).

References: (ds) Schedl 1966b: 102, 1972f: 268. (tx) Nobuchi 1985: 330; Schedl 1936h: 67, 1939c: 364, 1942a: 216, 1950g: 894, 1972f: 268, 1978a: 45.

papuanus Roberts 1992:(in press). Holotype ♂; Papua New Guinea: Wp., Wawoi-Guavi, 150 m; BPBM, Honolulu.

Distribution: New Guinea.

Hosts: *Anisoptera* sp.

References: (tx) Roberts 1992:(in press).

philippinensis (Schedl) 1942a: 216 (*Diacavus*).
Holotype ♂; Kolombugan, Philippines; Schedl
Collection in NHMW, Wien.

Figures: Nakashima 1975: 67 (mycetangia).

Distribution: Asia (introduced in Japan/ Malaya),
Indonesia (Borneo), Philippine Islands.

Hosts: *Dryobalanops oblongifolia*, *Shorea lepro-*
sula, *S. maxwelliana*.

Notes: (1) Wood 1969c: 118 (to *Genyocerus*). (3)
Schedl 1966g: 41 (described female).

References: (ay) Nakashima 1975: 7. (ec)
Nakashima 1975: 7. (hb) Beaver & Browne 1978:
617. (ds) Beaver & Browne 1978: 618; Nakashima
1975: 3; Nobuchi 1977: 151; Olmo, Yoneyama, &
Nakazawa 1987b: 90; Schedl 1966b: 102, 1966g:
34, 1972f: 268. (tx) Nakashima 1975: 67; Nobuchi
1985: 330; Schedl 1942a: 216, 1963j: 483, 1964h:
425, 1966g: 40–41, 1972f: 268, 1978a: 55.

quadridens Browne 1962c: 218 (*Diacavus*). Holo-
type ♂; Philippines: Mt. Maquiling, Laguna;
Forest Products Research Institute, Laguna.
Synonymy: Schedl 1964h: 425.

References: (hb) Browne 1961c: 233. (ds)
Browne 1961c: 233–234. (tx) Browne 1962c:
218; Schedl 1963j: 483, 1964h: 425.

plumatus (Schedl) 1936h: 66 (*Diapus*). Holotype
♀; Philippines (Luzon?); Schedl Collection in
NHMW, Wien.

Distribution: Philippine Islands (Luzon?).

References: (ds) Schedl 1966b: 103, 1972f: 268.
(ds) Nobuchi 1985: 330; Schedl 1936h: 66, 1972f:
268, 1978a: 55. (tx) Schedl 1936h: 66.

puer (Schedl) 1969b: 223 (*Diapus*). Holotype ♂;
New Guinea: Oomsis, Morobe Distr.; CSIRO,
Canberra.

Hosts: *Anisoptera polyandra*, *A. sp.*, *Dysoxylum*
sp., *Hopca sp.*

Notes: (1) Roberts 1992:(in press) (subspecies
established).

References: (ds) Schedl 1972f: 264. (tx) Roberts
1992:(in press); Schedl 1972f: 264, 1978a: 58.

puer puer:

Distribution: New Guinea.

References: (tx) Roberts 1992:(in press).

trispinatus Schedl 1974d: 471 (*Diacavus*). Holo-
type ♂; New Guinea Industries Logging Area,
Gubensis, Morobe Distr.; CSIRO, Canberra.
Synonymy: Roberts 1992:(in press).

References: (ds) Browne 1984c: 449. 1985:
191. (tx) Browne 1985a: 197; Roberts 1992:(in
press); Schedl 1974d: 471, 1978a: 75.

puer fergussoni Roberts 1992:(in press).
Holotype ♂; Papua New Guinea: Mb;
Camadoudou, 50 m; BPBM, Honohihu.

Distribution: New Guinea (Fergusson Island).

References: (tx) Roberts 1992:(in press).

quadrioveolatus (Schedl) 1970b: 369 (*Diacavus*).
Holotype ♂; Sabah, Sempoma (Borneo) to
Miyako (Japan), imported; PPST, Tokyo.

Figures: Nobuchi 1978a: 80.

Distribution: Indonesia (Borneo).

Hosts: Lanan log.

References: (ds) Browne 1984c: 449; Nobuchi
1977: 149; Schedl 1972f: 268. (tx) Nobuchi 1978a:
80, 1978b: 82; Schedl 1970b: 369–370, 1972f:
268, 1978a: 60.

quadriporus (Schedl) 1942a: 217 (*Diacavus*).
Lectotype ♂; Malaya, Selangor, Buloh F.R.;
Schedl Collection in NHMW, Wien, designated
by Schedl 1978a: 60.

Distribution: Asia (Malaya), Philippine Islands.

Hosts: *Shorea bracteolata*, *S. parvifolia*.

Notes: (1) Wood 1969c: 118 (to *Genyocerus*).

References: (hb) Yunus & Hua 1980: 216. (ds)
Schedl 1971c: 366, 1972f: 268; Yunus & Hua
1980: 216. (tx) Schedl 1942a: 217, 1972f: 268,
1978a: 60; Wood, S. L. 1969c: 118.

serratus (Schedl) 1936d: 17 (*Diapus*). Lectotype ♂;
Malay Peninsula: Pahang, Bilut For. Res.; Schedl
Collection in NHMW, Wien, designated by
Schedl 1978a: 66.

Distribution: Asia (India/ Malaya), Indonesia
(Sarawak in Borneo).

Hosts: *Dipterocarpus borneensis*, *Dryobalanops*
oblongifolia, *Hopca ferrea*, *Parashorea lucida*,
Shorea bracteolata, *S. laevis*, *S. leprosula*, *S.*
macrocarpa, *S. maxwelliana*.

Notes: (1) Wood 1969c: 118 (to *Genyocerus*).

References: (cn) Browne 1949d. (ec) Browne
1955b. (hb) Beaver & Browne 1978: 618; Browne
1961c: 233–235; Browne 1936a, 1941, 1949d: 73,
1955b; Yunus & Hua 1980: 216. (ds) Beaver &
Browne 1978: 618; Browne 1936a, 1941, 1949d,
1955b, 1961a: 317, 1961c: 233. (ds) Beaver &
Browne 1978: 618; Beeson 1941 (1961: 260);
Browne 1936a, 1961a: 317, 1961c: 233; Schedl
1936j: 22, 1959c: 168, 1964c: 305, 1972f: 268. (tx)
Schedl 1936d: 17–18, 22, 1939e: 364, 1942a: 216,
1972f: 268, 1978a: 65.

sexporus (Schedl) 1942a: 217 (*Diacavus*). Lecto-
type ♂; Malaya, Kuala Lumpur; Schedl Collection
in NHMW, Wien, designated by Schedl 1978a: 66.

Distribution: Asia (Malaya).

Hosts: *Gonystylus sp.*, *Shorea sp.*

Notes: (1) Wood 1969c: 118 (to *Genyocerus*).

References: (hb) Browne 1961c: 235. (ds)
Browne 1961c: 235; Choo & Woo 1983; Schedl
1971c: 366, 1972f: 268. (tx) Browne 1964: 760,
1970: 552; Schedl 1942a: 217, 1972f: 268, 1978a:
66; Wood, S. L. 1969c: 118.

shoreae Browne 1981b: 605. Holotype ♂; Butuan
(Philippines) to Nagoya (Japan), imported;
BMNH, London.

Distribution: Philippine Islands.

Hosts: *Shorea sp.*

References: (tx) Browne 1981b: 605.

strohmeyeri Wood 1992b: 78. Syntypes, sex?; Insel Simaloer, westlich Sumatra; IPKE, Eberswalde, automatic.

Distribution: Indonesia (Sumatra).

References: (tx) Wood, S. L. 1992b: 78–79.

albipennis Strohmeyer 1942: 284 (*Diapus*). Syntypes, sex?; Insel Simaloer, westlich Sumatra; IPKE, Eberswalde, preoccupied by Motschulsky 1858.

Notes: (1) Schedl 1972f: 267 (to *Diacavus*, =*Genyocerus*).

References: (tx) Schedl 1959a: 515, 1966g: 40–42, 1972f: 267; Strohmeyer 1942: 284; Wood, S. L. 1992b: 78–79.

talurae (Stebbing) 1906: 418 (*Diapus*). Holotype ♂; Talamalai Forest, N. Coimbarori Hills, Madras, India; FRI, Dehra Dun.

Figures: Beeson 1917: pls. 1–2, figs. 1–12 (as *furtivus*), Stebbing 1906: pl. 24, fig. 4.

Distribution: Asia (Assam, Bengal, Bihar, Madhya Pradesh, Orissa, Tamil Nadu, Uttar Pradesh in India/ Pakistan/ Thailand/ Vietnam).

Hosts: *Dipterocarpus pilosus*, *Odina wodier*, *Quercus semicarpifolia*, *Shorea robusta*, *S. talura*, *Vateria indica*, *Vatica lanceaefolia*.

Notes: (1) Beeson 1921: 22 (synonymy of *talurae* and *furtivus* cited). Wood 1981 research notes (male syntype found, synonymous with *furtivus*). Schedl 1939e: 364 (to *Diacavus*, =*Genyocerus*).

References: (cn) Pierce, W. D. 1917: 194. (ds) Pierce, W. D. 1917: 194; Schedl 1972f: 264; Strohmeyer 1912c: 22. (tx) Beeson 1921: 22; Schedl 1972f: 264; Stebbing 1914: 626; Strohmeyer 1912c: 22.

furtivus Sampson 1913: 450 (*Diapus*). Holotype, sex?; Assam; BMNH, London. Synonymy: Beeson 1921: 22, confirmed by Wood in 1981. Notes: (1) Schedl 1939e: 364 (to *Diacavus*, =*Genyocerus*).

References: (ay) Farris & Funk 1965: 531; Francke-Grosmann 1956b; Numberg 1951: 262. (cn) Beeson 1915: 8–11, 1916: 1–5, 1918: 114–124, 1919: 10–15, 1922: 81–91, 1935:

539–543; Chatterjee 1923: 1–3; Fisher, Thompson, & Webb 1953; Mathur & Singh 1961a: 45; Pierce, W. D. 1917: 194; Sen-Sarma & Thakur 1986: 37; Stebbing 1914: 630; Waterson 1922: 51–94. (ec) Beeson 1921b: 298, 1923: 222; Farris & Runk 1965: 531; Francke-Grosmann 1956b; Stebbing 1914: 630; Thompson, W. R. & Simmonds 1964: 15, 1965: 68. (hb) Beaver & Browne 1975: 305; Beeson 1915b: 298, 1916a: 222, 1923, 1941 (1961: 258); Imms 1925: 510, 1957: 816; Stebbing 1914: 630. (ds) Beaver & Browne 1975: 305; Beeson 1915b, 1916a, 1919b, 1921b, 1923, 1930, 1941 (1961: 258); Mathur & Singh 1961a: 45; Murayama 1934f: 145; Pierce, W. D. 1917: 194; Schedl 1962f: 168, 1972f: 267; Strohmeyer 1914c: 47. (tx) Beeson 1915: 298, 1917: 1–29, 1921: 22, 1930; Browne 1968a: 134; Imms 1925: 510, 1957: 816; Sampson 1913: 450–451; Schedl 1939e: 364, 1972f: 267; Stebbing 1914: 630; Strohmeyer 1914c: 47.

mirus Sampson 1913: 452 (*Diapus*). Holotype ♀; Assam; BMNH, London. Synonymy: Schedl 1972q: 268.

Notes: (1) Wood 1969c: 118 (to *Genyocerus*). References: (cn) Pierce, W. D. 1917: 194; Stebbing 1914: 633. (ec) Stebbing 1914: 633. (hb) Stebbing 1914: 633. (ds) Pierce, W. D. 1917: 194; Strohmeyer 1914c: 47. (tx) Beeson 1915: 298, 1917: 1–29; Sampson 1913: 452; Schedl 1939e: 364, 1942a: 216, 1972f: 268; Stebbing 1914: 633; Strohmeyer 1914c: 47.

tenellus (Schedl) 1966g: 42 (*Diacavus*). Holotype ♂; Diapitan, Philippine Islands to Tokyo (Japan), imported; PPST, Tokyo.

Distribution: Philippine Islands.

Hosts: Lauan log.

References: (ds) Nobuchi 1977: 148; Ohno, Yoneyama, & Nakazawa 1987b: 90; Schedl 1972f: 268. (tx) Nobuchi 1985: 330; Schedl 1966g: 42, 1972f: 268, 1978a: 72.

Tribe Tesserocerini Blandford

Tesserocerini genuini

References: Blandford 1895b: 115.

Tesserocerini

References: Schedl 1939b: 396, 400.

Tesserocerariae

References: Strohmeier 1914b: 18–19.

Platyarsulinae

References: Schedl 1972f: 83, 269.

Genus *Platyarsulus* Schedl

PLATYARSULUS SCHEDL 1935: 632. Type-species: *Platyarsulus marshalli* Schedl, monobasic.

References: (hb) Browne 1961c: 235; Schedl 1972f: 273. (ds) Schedl 1972f: 273. (tx) Blackman 1944: 77; Schedl 1935n: 632, 1939b: 387, 1972f: 273.

biconicus Schedl 1954e: 162. Lectotype, sex?; Borneo; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 14.

Figures: Schedl 1972f: 272.

Distribution: Indonesia (Borneo).

Hosts: Camphor wood.

References: (ds) Browne 1981b: 599; Schedl 1972a: 274. (tx) Schedl 1954e: 162, 1972f: 272, 274, 1978a: 14.

borneensis Schedl 1942a: 214. Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo).

References: (ds) Schedl 1972f: 274. (tx) Schedl 1942a: 214, 1972f: 274, 1978a: 17.

declivis Schedl 1942a: 215. Holotype, sex?; Malaya, Temerloh F.R.; Schedl Collection in NHMW, Wien. Distribution: Asia (Malaya).

Hosts: *Dryobalanops aromatica*.

References: (ds) Browne 1961c: 235, 1983a: 555; Schedl 1964g: 242, 1971c: 366, 1972f: 274. (tx) Schedl 1942a: 215, 1972f: 274, 1978a: 23.

elongatus Schedl 1942a: 215. Lectotype ♂; Malaya, Selangor, Gombak; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 27.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Balanocarpus heimii*, *Dryobalanops aromatica*, *Shorea faguetiana*.

References: (ds) Browne 1961c: 235, 1980c: 483, 1980d: 491, 1984c: 449; Schedl 1959c: 165, 1971c: 371, 1972f: 274. (tx) Nobuchi 1985: 330; Schedl 1942a: 215, 1972f: 274, 1978a: 27.

marshalli Schedl 1935n: 632. Syntypes, sex?; Malay States: Johore North, Kluang, North Borneo: Bettotan near Sandakan; BMNH, London, and Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Dryobalanops aromatica*.

Notes: (1) Schedl 1978a: 43 (restricts location of "types" to those in BMNH, London).

References: (hb) Browne 1941. (ds) Browne

1961c: 235; Schedl 1972f: 274. (tx) Schedl 1935n: 632–633, 1942a: 215, 1972f: 274, 1978a: 43.

mirabilis Menier 1978: 36. Holotype ♂; Santibang?; BMNH, London.

Figures: Menier 1978: 37.

Distribution: Asia (Malaya), Indonesia (Borneo).

References: (tx) Menier 1978: 36.

nanulus Schedl 1942a: 215. Holotype, sex?; Selangor, Bukit, Arang, 1000 Fuss; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

References: (ds) Browne 1961c: 235; Schedl 1972f: 274. (tx) Schedl 1942a: 215, 1972f: 274, 1978a: 46.

tuberculatus Browne 1983a: 572. Holotype, sex?; Tatau (Sarawak) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: (tx) Browne 1983a: 572.

Genus *Notoplatypus* Lea

NOTOPLATYPUS LEA 1910: 135. Type-species: *Notoplatypus elongatus* Lea, monobasic.

References: (tx) Blackman 1944: 77; Lea 1910: 135; Numberg 1953: 46; Schedl 1936g: 519, 1939b: 387–389, 1972f: 275–277.

elongatus Lea 1910: 136. Syntypes, sex?; N.S. Wales: Ropes Creek, Galston; Lea Collection in SAM, Adelaide.

Figures: Numberg 1953: pl. 9, fig. 7, Schedl 1972f: 275.

Distribution: Australia (New South Wales, Queensland).

Hosts: *Eucalyptus acmenioides*, *E. drepanophylla*.

References: (ds) Schedl 1936g: 519, 1965g: 25, 1971f: 151, 1972a: 144, 1972f: 277, 1975h: 352; Strohmeier 1912c: 19, 1914c: 29. (tx) Hopkins 1914: 125; Lea 1910: 136; Schedl 1936g: 519, 1939b: 379–380, 384, 1941e: 157–158, 1965g: 25, 1972f: 275–277; Strohmeier 1912c: 19, 1914c: 29.

Genus *Tesserocerus* Saunders

TESSEROCERUS SAUNDERS 1836: 155. Type-species: *Platypus (Tesserocerus) insignis* Saunders, monobasic.

Danicerus Spinola 1837: 333 (in Dejean). Type-species: *Danicerus agilis* Spinola = *Tesserocerus insignis* Saunders. Synonymy: Schedl 1972a: 119.

References: (tx) Schedl 1972a: 119; Spinola 1837: 333.

Tesseroplatypus Schedl 1935e: 149. Type-species: *Tesseroplatypus ursus* Schedl = *Tesserocerus insignis* Saunders, designated by Wood 1992a: 90–91. Synonymy: Schedl 1972: 115.

References: (tx) Schedl 1935e: 149, 1939b: 400, 1972a: 115; Wood, S. L. 1992a: 90–91.

Tesserocephalus Schedl 1936: 103. Type-species:

- Tesserocephalus forficula* Schedl, monobasic. Synonymy: Schedl 1972a: 116. References: (tx) Schedl 1936i: 103, 1939b: 400. References: (ds) Donrojeami 1965: 9–25; Reichardt 1965b: 162; Schedl 1972f: 116–119. (tx) Chapuis 1865: 7–23; Sampson 1924: 545; Saunders 1836: 155–157; Schedl 1933c: 164, 1935c: 149, 1939b: 383, 400, 1952a: 444, 1960c: 56, 1972f: 116.
- alternantes** Schedl 1977: 47. Holotype ♂; El Salvador, Metapan, 1600–2200 m; Schedl Collection in NHMW, Wien. Distribution: North America (El Salvador). Hosts: *Quercus* sp. References: (tx) Schedl 1977c: 47.
- belti** Sharp 1880: 112. Syntypes, sex?; Chontales [Nicaragua]; BMNH, London. Distribution: North America (Costa Rica/ Nicaragua). Hosts: *Cedrus amarga*, *Vismia guianensis*. References: (cn) Grandi 1951. (hb) Grandi 1951; Paulian 1949a: 989. (ds) Blackwelder 1947: 791; Blandford 1896e; Equihua & Atkinson 1987: 16; Reichardt 1965b: 163; Schedl 1933c: 163, 1972f: 119; Strohmeier 1911f: 204, 1912c: 20. (tx) Blandford 1896e: 114, 117; Equihua & Atkinson 1987: 16; Schedl 1933c: 163, 1940c: 203, 1941e: 157, 1972f: 119; Sharp 1880: 112; Strohmeier 1911f: 204, 1912c: 20.
- bilobus** (Schedl) 1961i: 231 (*Platypus*). Syntypes ♂; Cayenne; Schedl Collection in NHMW, Wien. Distribution: South America (Cayenne). References: (ds) Schedl 1972f: 119. (tx) Schedl 1961i: 231–232, 1972f: 119, 1978a: 16.
- brasilienis** Evers 1910: 18. Holotype ♂; Curitiba, Parana (Sud-Brasilien); Hamburg Museum, lost. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 791; Schedl 1972f: 119; Strohmeier 1912c: 19, 1914c: 40. (tx) Evers 1910: 18; Schedl 1972f: 119; Strohmeier 1912c: 19, 1914c: 40.
- chapuisi** Schedl 1937d: 43. Lectotype ♂; Brasilien, St. Catharina, Lages Hochland; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 19. Figures: Schedl 1972f: 116. Distribution: South America (Brazil/ Colombia). References: (ds) Blackwelder 1947: 791; Schedl 1972f: 119. (tx) Schedl 1937d: 43, 1952a: 444, 1963d: 234, 1972f: 116, 119, 1978a: 19; Wood, S. L. 1966a: 46.
- contractus** Chapuis 1865: 298. Holotype ♂ (Schedl 1960: 57); Bresil, Obydos; BMNH, London. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Schedl 1972f: 119; Strohmeier 1912c: 19. (tx) Chapuis 1865: 298; Schedl 1960c: 57, 1972f: 119; Strohmeier 1912c: 19.
- despectus** Schedl 1971f: 154. Holotype ♂; Brasilien; UZMC, Copenhagen. Distribution: South America (Brazil). References: (ds) Schedl 1972f: 119. (tx) Schedl 1971f: 154–155, 1972f: 119.
- devalquei** Chapuis 1865: 300. Syntypes 2♂, 1♀ (Schedl 1960c: 58); Bresil, Ega; BMNH, London. Distribution: North America (Costa Rica/ El Salvador/ Guatemala/ Nayarit, Veracruz in Mexico/ Nicaragua/ Panama), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Colombia/ Paraguay/ Peru/ Suriname/ Venezuela). Hosts: *Caryocar nucifera*, *Hevea brasiliensis*, *Ocotea rodiaei*. Notes: (3) Dejean 1837: 333 (*appendiculatus* nomen nudum, synonymy in Schedl 1937d: 43). References: (ds) Blackwelder 1947: 791; Equihua 1985: 144; Equihua & Atkinson 1987: 16; Estrada & Atkinson 1988: 213; Gemminger & Harold 1872: 2700; Nnberg 1963c: 107; Reichardt 1965b: 163; Schedl 1960a: 80, 1970c: 89, 1970f: 582, 1971f: 151, 1972f: 119, 1972g: 51, 1976a: 59, 1977c: 44, 1978c: 292, 1979e: 59; Strohmeier 1912c: 19, 1914c: 40. (tx) Chapuis 1865: 300; Dejean 1837: 333; Equihua & Atkinson 1987: 16; Reichardt 1965b: 163; Schedl 1936c: 249, 1936e: 61, 1937d: 43, 1938i: 28, 1948d: 38, 1952a: 445, 1952e: 123, 1952h: 74, 1955c: 2, 1960a: 80, 1960c: 58, 1972f: 119; Strohmeier 1912c: 19, 1914c: 40.
- aubei** Chapuis 1865: 301. Syntypes 1♂, 1♀ (Schedl 1960c: 58); Bresil, Ste-Catherine; BMNH, London. Synonymy: Reichardt 1957b: 163, Schedl 1972: 119. References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Strohmeier 1914c: 40. (tx) Chapuis 1865: 301; Reichardt 1957b: 163, 1965: 163; Schedl 1960c: 58, 1972a: 119; Strohmeier 1914c: 40.
- dejeani** Chapuis 1865: 303. Syntypes; Colombie et du Mexique; 2♂, 1♀ in BMNH, London, 3♂, 2♀ in IRSNB, Brussels, 1♂, 2♀ in MNB, Berlin (Schedl 1960c: 59). Synonymy: Reichardt 1965b: 163, Schedl 1972a: 119. References: (hb) Kalshoven 1963: 238; Swabey 1935: 7. (ds) Blackwelder 1947: 791; Blandford 1896e: 115; Ferrer 1942; Gemminger & Harold 1872: 2701; Kalshoven 1963: 238; Schedl 1933c: 163, 1963c: 160, 1966f: 77; Strohmeier 1912c: 19, 1914c: 40; Swabey 1935: 7. (tx) Blandford 1896e; Chapuis 1865: 303; Schedl 1937d: 43, 1940a: 328, 1952e: 123, 1952h: 14, 1960c: 59, 1972a: 119; Strohmeier 1912c: 19, 1914c: 40.
- elegans** Chapuis 1865: 295. Syntypes; Colombie; 1♂ BMNH, London, 1♂, 3♀ in IRSNB, Brussels (Schedl 1960c: 57). Distribution: North America (Costa Rica/ Panama), South America (Colombia/ Peru/ Venezuela).

- Hosts: *Enterolobium* sp., *Erythrina costaricensis*, *Lonchocarpus magaritensis*, *Spondias purpurea*.
References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Schedl 1972f: 119; Strohmeier 1912c: 20, 1914c: 40. (tx) Chapuis 1865: 295; Numberg 1939: 241, 1940: 69; Schedl 1937d: 43, 1952h: 74, 1960c: 57, 1972f: 119; Strohmeier 1912c: 20, 1914c: 40.
- ericus Blandford** 1896e: 115. Syntypes 1♂, ♂ ♀; Mexico (Orizaba), Guatemala (Cerro Zamil, El Tumbador, Las Mercedes), Panama (Volcan de Chiriqui); BMNH, London.
Figures: Equihua & Atkinson 1987: 15.
Distribution: North America (Belize/ Costa Rica/ Guatemala/ Veracruz in Mexico/ Panama), South America (Brazil).
Hosts: *Bursera simarubra*, *Vismia guianensis*.
References: (ds) Atkinson & Equihua 1986a: 423; Blackwelder 1947: 791; Equihua 1985: 144; Equihua & Atkinson 1987: 16; Ferrer 1942; Reichardt 1965b: 163; Schedl 1933c: 163, 1966f: 94, 1967d: 5, 1972f: 119; Strohmeier 1912c: 20, 1914c: 40. (tx) Blandford 1896e: 114–115; Equihua & Atkinson 1987: 15, 16; Reichardt 1965b: 163; Schedl 1940a: 327–328, 1941e: 157, 1972f: 119; Strohmeier 1912c: 20, 1914c: 40.
- forceps Wood** 1966b: 46. Holotype ♂; Pandora, Limon Prov., Costa Rica; Wood Collection.
Figures: Wood 1966b: 47.
Distribution: North America (Costa Rica).
References: (ds) Equihua & Atkinson 1987: 16; Schedl 1972f: 119. (tx) Equihua & Atkinson 1987: 16; Schedl 1972f: 119; Wood, S. L. 1966b: 46–47.
- forcipatus Schedl** 1972g: 84. Holotype ♂; Brasilien, Jacareacanga, Para; MZUSP, Sao Paulo.
Distribution: South America (Brazil).
References: (ds) Schedl 1976a: 59. (tx) Schedl 1972g: 84, 1978a: 31.
- forficulus (Schedl)** 1936i: 103 (*Tesserocephalus*). Holotype ♀; Guyana; Schedl Collection in NHMW, Wien.
Distribution: South America (Guyana).
Notes: (1) Schedl 1972f: 119 (to *Tesserocherus*).
References: (ds) Blackwelder 1947: 791; Schedl 1972f: 119. (tx) Reichardt 1965: 163; Schedl 1936i: 103, 1972f: 119.
- fronteproductus Schedl** 1936i: 102. Holotype ♂; Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 791; Schedl 1972f: 119. (tx) Schedl 1936i: 101–103, 1972f: 119, 1978a: 31.
- gebieni Evers** 1910: 18. Holotype ♀; Lages (Brasilien); Hamburg Museum, lost.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 791; Schedl 1972f: 119; Strohmeier 1912c: 20, 1914c: 40. (tx) Evers 1910: 18; Schedl 1972f: 119; Strohmeier 1912c: 20, 1914c: 40.
- guerini Chapuis** 1865: 299. Syntypes; Bresil; 1♂, 2♀ in BMNH, London, 1♂, 1♀ in IRSNB, Brussels (Schedl 1960c: 58).
Distribution: South America (Argentina/ Bolivia/ Brazil/ Cayenne).
Hosts: *Araucaria angustifolia*, *Cedrela fissilis*, *Eschweilera sagotianum*, *Ocotea rodiaei*.
References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Schedl 1960a: 75, 1966f: 94, 1967d: 5, 1970e: 89, 1971f: 151, 1972f: 119, 1972f: 51, 1976a: 59; Schonherr & Pedrosa-Macedo 1981: 58; Strohmeier 1912c: 20, 1914c: 40. (tx) Chapuis 1865: 299; Schedl 1936c: 249, 1937d: 43, 1939b: 394, 1941e: 157, 1951h: 285, 1960c: 58, 1972f: 119; Strohmeier 1912c: 20, 1914c: 40.
- guerini montanus Schedl** 1960a: 78. Syntypes, sex?; Corvico, Huarinillas, Bolivia, 1160 m; not given, presumably CAS, San Francisco, and Schedl Collection in NHMW, Wien.
Notes: (1) Schedl 1972f: 119 (not mentioned).
References: (tx) Schedl 1960a: 78.
- inermis Guerin-Meneville** 1838a: 106. Holotype ♂; Cayenne; MNHN, Paris.
Distribution: South America (Brazil/ Cayenne/ Ecuador/ Guyana/ Peru).
References: (ds) Blackwelder 1947: 791; Chapuis 1865; Gemminger & Harold 1872: 2701; Schedl 1972f: 119, 1976a: 59; Strohmeier 1912c: 20. (tx) Chapuis 1865: 310; Guerin-Meneville 1838a: 106; Lucas 1920: 633; Schedl 1941e: 157, 1960c: 61, 1972f: 119; Strohmeier 1912c: 20. (ms) Lucas 1920: 633.
- insignis (Saunders)** 1836: 155 (*Platypus*). Holotype ♀; Brasilia circum Monte Video; possibly in BMNH, London.
Distribution: South America (Argentina/ Bolivia/ Brazil/ Paraguay/ Uruguay).
Hosts: *Cedrela fissilis*.
Notes: Dejean 1837: 333 (*Damicerus agilis* nomen nudum, *D. denticornis* nomen nudum, *D. melanocephalus* nomen nudum, synonymy in Schedl 1972f: 119–120).
References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (ds) Blackwelder 1947: 791; Blandford 1895b; Chapuis 1865; Gemminger & Harold 1872: 2701; Lacordaire 1866: 392; Santoro 1957b: 25; Schedl 1966f: 94, 1970e: 88, 1971f: 151, 1972f: 119, 1972g: 51, 1976a: 59, 1979e: 59; Schonherr & Pedrosa-Macedo 1981: 58; Strohmeier 1911f: 204, 1912c: 20, 1914c: 40. (tx) Blandford 1895b; Castelnau 1840; Chapuis 1865: 308; Dejean 1837: 333; Guerin-Meneville 1838a; Hopkins 1914: 130; Lacordaire 1866: 392; Lucas 1920: 633; Numberg 1959: 493; Saunders 1836: 155; Schedl 1935e: 150, 1936c: 249, 1936e: 61, 1937d: 43, 1939j: 565, 1941e: 157, 1951h: 285–

- 256, 1952d: 343, 1960c: 60, 1966e: 43, 1972f: 119–120; Sharp 1880: 112; Strohmeyer 1911c: 204, 1912c: 20, 1914c: 40. (ms) Lucas 1920: 633.
- bilamatus* Guerin-Meneville 1835a: 106. Holotype ♀; Bresil: MNHN, Paris. Synonymy: Schedl 1972f: 119.
References: (ds) Blackwelder 1947: 791. (tx) Guerin-Meneville 1835a: 106; Schedl 1972f: 119–120.
- ursus* Schedl 1935e: 149 (*Tesseroplatypus*). Holotype ♀; Parana, Brasilien; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1972f: 120.
References: (ds) Blackwelder 1947: 791. (tx) Schedl 1935e: 149, 1972f: 120, 1978a: 78.
- linearis* Chapuis** 1865: 302. Syntypes, sex?; Bresil; BMNH, London.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Schedl 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40. (tx) Chapuis 1865: 302; Schedl 1960c: 58, 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40.
- morsi* Chapuis** 1865: 298. Syntypes 2 ♀; Cayenne; 1 ♀ IRSNB, Brussels, 1 ♀ MNB, Berlin.
Distribution: South America (Cayenne).
Notes: (3) Schedl 1960: 57 (*mutilatus* Chapuis, nomen nudum, synonymy in Schedl 1972f: 120).
References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Schedl 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40. (tx) Chapuis 1865: 298; Schedl 1937d: 33, 43, 1960c: 57, 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40.
- procer* (Erichson)** 1847: 135 (*Platypus*). Holotype ♀; not given; MNB, Berlin.
Distribution: South America (Bolivia/ Brazil/ Cayenne/ Guyana/ Peru/ Suriname/ Venezuela).
Hosts: *Catostemma* sp., *Simarubra suara*.
References: (ds) Blackwelder 1947: 791; Chapuis 1865; Gemminger & Harold 1872: 2701; Lacordaire 1866: 392; Schedl 1972f: 120, 1972g: 51, 1976a: 59, 1978c: 293; Strohmeyer 1912c: 20, 1914c: 40. (tx) Chapuis 1865: 305; Erichson 1847: 135; Lacordaire 1866: 392; Numberg 1939: 241, 1940: 69; Schedl 1937d: 33, 43, 1952d: 343, 1952h: 74, 1960c: 59, 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40.
- obtusus* Chapuis** 1865: 304. Syntypes 1♂, 1♀ (Schedl 1960c: 59); Guyane française, Cayenne et du Bresil, Ega; BMNH, London. Synonymy: Schedl 1960c: 59.
References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Schedl 1960a: 79; Strohmeyer 1912c: 20, 1914c: 40. (tx) Chapuis 1865: 304–305; Schedl 1936e: 61, 1941e: 157, 1952d: 343, 1952h: 74, 1958c: 2, 1960a: 79, 1960c: 59, 1972a: 120; Strohmeyer 1912c: 20, 1914c: 40.
- productus* Shuckard** 1838: 509. Holotype ♀; Brazil?; Shuckard Collection.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Strohmeyer 1912c: 20. (tx) Schedl 1972a: 120; Shuckard 1838: 509; Strohmeyer 1912c: 20.
- quadridens* Schedl** 1972g: 54. Holotype ♂; Brasilien, Jacareacanga, Para; MZUSP, Sao Paulo.
Distribution: South America (Brazil).
Notes: (3) Schedl 1976a: 92 (described female).
References: (tx) Schedl 1972g: 54, 1976a: 92, 1978a: 60.
- retusus* Guerin-Meneville** 1838a: 106. Holotype ♂; Mexique: MNHN, Paris (not found by Schedl 1960c: 56).
Distribution: North America (apparently Veracruz in Mexico), South America (Colombia).
References: (ds) Blackwelder 1947: 791; Chapuis 1865: 294; Equilua & Atkinson 1957: 16; Gemminger & Harold 1872: 2701; Lacordaire 1866: 392; Schedl 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40. (tx) Chapuis 1865: 294; Equilua & Atkinson 1957: 16; Guerin-Meneville 1838a: 106; Lacordaire 1866: 392; Lucas 1920: 633; Schedl 1960c: 56, 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40. (ms) Lucas 1920: 633.
- affinis* Guerin-Meneville** 1838: 106. Holotype ♀; Mexique; MNHN, Paris. Synonymy: Schedl 1972f: 120.
References: (tx) Guerin-Meneville 1838a: 106; Schedl 1960c: 56, 1972f: 120.
- rudis* Chapuis** 1865: 297. Holotype ♀ (Schedl 1960c: 47); De la province de Venezuela et Caracas; MNHN, Paris.
Distribution: South America (Venezuela).
Hosts: *Eschweilera* sp.
References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Schedl 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40. (tx) Chapuis 1865: 297; Schedl 1960c: 47, 1972f: 120; Strohmeyer 1912c: 20, 1914c: 40.
- schmutzenhoferi* Schedl** 1977e: 48. Holotype ♂; El Salvador, Metapan, 1600–2200 m; Schedl Collection in NHMW, Wien.
Distribution: North America (El Salvador).
Hosts: *Quercus* sp.
References: (tx) Schedl 1977e: 48.
- simulatus* Schedl** 1936c: 249. Lectotype ♀; Guyane Française; Gourdonville, St.-Laurent du Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 66.
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 791; Numberg 1958a: 482, 492; Schedl 1972f: 120. (tx) Numberg 1958a: 482, 492; Schedl 1936c: 249, 1960h: 111, 1972f: 120, 1978a: 66.
- spinax* Blandford** 1896e: 116. Syntypes 2 ♂; Nicaragua (Chontales), Panama (Volcan de Chiriqui); BMNH, London.

Distribution: North America (Costa Rica/ Nicaragua/ Panama), South America (Brazil/ Colombia/ Guyana).

Hosts: *Caryocar micifera*, *Dialanthera gordonifolis*, *Slouea multiflora*, *Visnia guianensis*.

References: (ds) Blackwelder 1947: 791; Equihua & Atkinson 1987: 16; Schedl 1972f: 120, 1972g: 52; Strohmeier 1912c: 20, 1914c: 40. (tx) Blandford 1896e: 114, 116; Equihua & Atkinson 1987: 16; Schedl 1933c: 163, 1939j: 565, 1972f: 120, 1972g: 55, 1978a: 68; Strohmeier 1912c: 20, 1914c: 40.

spinolae Chapuis 1865: 307. Syntypes 2; Mexique; 1♂ BMNH, London, 1♂ IRSNB, Brussels (Schedl 1960c: 60).

Distribution: North America (Puebla in Mexico).

Hosts: *Alnus* sp.

References: (ds) Blackwelder 1947: 791; Blandford 1896e: 115; Equihua & Atkinson 1987: 16; Ferrer 1942; Gemminger & Harold 1872: 2701; Schedl 1972f: 120; Strohmeier 1912c: 20, 1914c: 40. (tx) Blandford 1896e: 115; Chapuis 1865: 307; Equihua & Atkinson 1987: 16; Schedl 1940a: 328, 1960c: 60, 1972f: 120; Sharp 1880: 112; Strohmeier 1912c: 20, 1914c: 40.

vegrandis Schedl 1935e: 150 (*Tesseroplattypus*).

Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1972f: 120.

References: (ds) Blackwelder 1947: 791; Ferrer 1942. (tx) Schedl 1935e: 150–151, 1940a: 328, 1972f: 120, 1978a: 79.

ustulatus Shuckard 1838: 508. Holotype ♂; Brazil?; Shuckard Collection.

Distribution: South America (Brazil?).

References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2701; Schedl 1972f: 120; Strohmeier 1912c: 20. (tx) Schedl 1972f: 120; Shuckard 1838: 508–509; Strohmeier 1912c: 20.

Genus *Tesserocranulus* Schedl

TESSEROCRANULUS SCHEDL 1933: 164. Type-species: *Tesserocranulus nevermanni* Schedl, original designation.

References: (ds) Schedl 1972f: 121. (tx) Reichardt 1965b: 165; Schedl 1933c: 164, 1939b: 400, 1972f: 121.

nevermanni Schedl 1933c: 164. Holotype ♂; Costa Rica, Hamburgfarm, Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien.

Figures: Reichardt 1965b: 161, Schedl 1972f: 121 (male).

Distribution: North America (Costa Rica), South America (Cayenne).

Hosts: *Eschweilera* sp.

References: (ds) Blackwelder 1947: 791; Equihua & Atkinson 1987: 18; Reichardt 1965b: 165; Schedl 1933c: 164, 1972f: 123, 1976a: 59. (tx) Equihua & Atkinson 1987: 18; Reichardt 1965b:

161, 165; Schedl 1933c: 164, 1935e: 151–152, 1936c: 250, 1940c: 203, 1972f: 121, 123, 1978a: 47.

Genus *Spathidicerus* Chapuis

SPATHIDICERUS CHAPUIS 1865: 42, 311. Type-species: *Spathidicerus thomsoni* Chapuis, subsequent designation by Hopkins 1914: 129.

References: (hb) Schedl 1972f: 256. (ds) Schedl 1966b: 101, 1972f: 256. (tx) Chapuis 1865: 42, 311; Hopkins 1914: 129; Murayama 1925: 199–201; Numberg 1963d: 357–361; Schedl 1939b: 403, 1941c: 359–360, 1957b: 159, 1960c: 61, 1972f: 256–258.

corporaali Browne 1964: 753. Holotype ♀; Sumatra; BMNH, London.

Distribution: Indonesia (Sumatra).

Notes: (3) Schedl 1972f: 253 (treated in *Periommatulus*).

References: (ds) Schedl 1972f: 253. (tx) Browne 1964: 753; Schedl 1972f: 253.

javanus Strohmeier 1913: 165. Syntypes ♂ ♀; Java (Banjoevangi); IPKE, Eberswalde.

Distribution: Indonesia (Java).

References: (ds) Schedl 1972f: 255; Strohmeier 1914c: 43. (tx) Schedl 1972f: 258; Strohmeier 1913: 165, 1914c: 43.

nobilis Chapuis 1865: 315. Syntypes 2♂; Nouvelle-Guinée; BMNH, London.

Distribution: New Guinea.

References: (ds) Browne 1980a: 373; Gemminger & Harold 1872: 2701; Nobuchi 1977: 143; Ohno, Yoshioka, et al. 1988b: 95, 1989: 67; Schedl 1962i: 73, 1972f: 258; Strohmeier 1912c: 21, 1914c: 43. (tx) Chapuis 1865: 315; Schedl 1960c: 61, 1962i: 73, 75, 1972f: 258, 1978a: 47; Strohmeier 1912c: 21, 1914c: 43.

internedius Schedl 1936g: 519. Syntypes ♂; North-East Papua: Mt. Lamington, 1300–1500 feet; SAM, Adelaide, and Schedl Collection in NHMW, Wien. Synonymy: Schedl 1972f: 258.

References: (ds) Schedl 1936g: 519, 1968f: 537. (tx) Schedl 1936g: 519–520, 1939b: 379, 1941e: 157, 1972f: 255.

papuanus Schedl 1935f: 276. Lectotype ♀; Papua: Kokoda, 1200 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 51.

Distribution: New Guinea.

Notes: (3) Schedl 1972f: 255 (treated in *Periommatulus*).

References: (ds) Schedl 1972f: 255. (tx) Schedl 1935f: 276, 1940b: 434, 1942a: 216, 1972f: 255, 1978a: 51.

philippinensis Schedl 1942a: 216. Holotype ♂; Philippinen; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands.

Notes: (3) Schedl 1972f: 255 (treated in *Periommatulus*).

References: (ds) Schedl 1966b: 101, 1972f: 255.

(**tx**) Nobuchi 1985: 330; Schedl 1942a: 216, 1972f: 255, 1978a: 55.

sumatranus Schedl 1935j: 4. Lectotype ♀; N.O. Sumatra, Tebing-tinggi; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 72. Distribution: Asia (Malaya), Indonesia (Sumatra). Notes: (3) Schedl 1961c: 70, 74 (described male), 1972f: 255 (treated in *Periommatius*). References: (**ds**) Schedl 1972f: 255, 1975a: 453. (**tx**) Schedl 1935j: 4, 1961c: 70, 74, 1972f: 255, 1978a: 72.

thomsoni Chapuis 1865: 314. Holotype ♀; Inde orientale, Chenabor; IRSNB, Brussels (Schedl 1960h: 61). Figures: Schedl 1972f: 256 (male, part of female). Distribution: Indonesia (Celebes, Java, Sumatra), New Guinea. References: (**ay**) Strohmeier 1918: 21. (**bv**) Meixner 1937: 1218. (**cc**) Fuller 1955: 100. (**ds**) Browne 1980a: 371; Gemminger & Harold 1872: 2701; Lacordaire 1866: 392; Schedl 1971c: 367, 1972f: 258; Strohmeier 1911f: 204, 1912c: 21, 1914c: 43. (**tx**) Chapuis 1865: 314; Hopkins 1914: 129; Lacordaire 1866: 392; Lucas 1920: 572; Meixner 1937: 1218; Schedl 1937d: 44, 1942c: 165, 1960h: 61, 1972f: 256–258; Strohmeier 1911c: 105, 1912c: 21, 1913: 165, 1914c: 43. (**ms**) Lucas 1920: 572.

Genus *Periommatius* Chapuis

PERIOMMATIUS CHAPUIS 1865: 42, 316. Type-species: *Periommatius longicollis* Chapuis, monobasic.

Asetus Numberg 1958a: 10. Type-species: *Periommatius severini* Strohmeier, designated by Wood 1992a: 90. Synonymy: Schedl 1972f: 250.

References: (**tx**) Numberg 1958a: 10; Schedl 1972f: 250; Wood, S. L. 1992a: 90.

Scantius Numberg 1966b: 25. Type-species: *Periommatius titschacki* Schedl, original designation. Synonymy: Schedl 1972f: 250.

References: (**tx**) Numberg 1966b: 25; Schedl 1972f: 250.

References: (**hb**) Schedl 1972f: 250. (**ds**) Schedl 1972f: 250. (**tx**) Blackman 1944: 77; Browne 1972a: 179; Chapuis 1865: 42, 316–318; Hopkins 1914: 126, 134, 1915c: 227; Kolbe 1897: 284; Lacordaire 1866: 389, 394; Numberg 1953: 44, 1958a: 1–57, 1966b: 17–39, 1968b: 373–380; Sampson 1924: 132–133; Schedl 1933c: 164, 1933f: 204, 1935c: 154, 1935f: 276, 1936e: 62, 1937d: 44, 1939b: 403–404, 1939g: 169, 1941c: 359–360, 1952i: 7, 1957d: 147, 1960c: 61, 1962k: 1000, 1965f: 3–15, 1969h: 104, 1972f: 250, 1977b: 272; Strohmeier 1911c: 105, 1912a: 17–18, 27–28, 1912c: 21, 1914b: 4–42, 1918: 1–46.

abruptus Numberg 1966b: 26. Holotype ♂; Idanre, Nigeria; Federal Department of Forest Research in Ibadan, Nigeria.

Figures: Numberg 1966b: 39.

Distribution: Africa (Nigeria).

Hosts: *Strombosia pustula*.

References: (**ds**) Numberg 1966b: 20, 26; Roberts 1968: 192; Schedl 1972f: 252. (**tx**) Numberg 1966b: 26, 39; Schedl 1972f: 252.

angustior Schedl 1954e: 87. Lectotype ♂; Sinyani [Gold Coast]; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 11.

Figures: Numberg 1966b: pl. 2, figs. 22, 25.

Distribution: Africa (Ghana/ Nigeria/ Zaire).

Hosts: *Chlorophora excelsa*, *Funtumia elastica*, *Terminalia superba*, *Xylopi* sp.

Notes: (3) Numberg 1958b: 22 (description quoted), Schedl 1972f: 253 (a subspecies of *excisus*).

References: (**ds**) Browne 1983a: 556; Numberg 1968b: 373; Roberts 1960b: 35, 1960e, 1960f; Schedl 1962k: 1029, 1966c: 234, 1967e: 222, 1972f: 253. (**tx**) Numberg 1958b: 22, 1966b: 32; Schedl 1954e: 59, 87, 1962k: 1029, 1972f: 253, 1978a: 11.

simillimus Numberg 1966b: 34. Holotype ♂; Nigerien, Oban; Federal Department of Forest Research in Ibadan, Nigeria. Synonymy: Schedl 1972f: 253.

References: (**ds**) Numberg 1966b: 21; Roberts 1965: 193. (**tx**) Numberg 1966b: 34, 39; Schedl 1972f: 253.

artecircularis Schedl 1966c: 238. Holotype ♂; Congo ex-belge, Luki; Schedl Collection in NHMW, Wien.

Distribution: Africa (Congo/ Zaire).

Hosts: *Xylopi* sp.

References: (**ds**) Schedl 1972f: 252. (**tx**) Schedl 1966c: 238, 1972f: 252, 1978a: 12.

artestrigatus Numberg 1958b: 23. Holotype ♀; Congo Belge; Sankuru; MRCB, Tervuren.

Figures: Numberg 1958b: pl. 1, figs. 1–5.

Distribution: Africa (Uganda/ Zaire).

References: (**ds**) Browne 1972c: 103, 1983a: 556; Schedl 1972: 252. (**tx**) Browne 1972c: 103; Numberg 1958b: 23; Schedl 1972f: 252.

basilewskyi Numberg 1958b: 24. Holotype ♂; Congo Belge; Ruanda, Biimba; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (**ds**) Schedl 1972f: 252. (**tx**) Numberg 1958b: 24; Schedl 1972f: 252.

bicallosus Schedl 1971g: 199. Holotype ♂; Guinea espanol, Mikmeseng; Instituto Espanol de Entom. Distribution: Africa (Equatorial Guinea).

References: (**tx**) Schedl 1971g: 199.

bifrons Schedl 1936b: 134. Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.

Figures: Numberg 1966b: pl. 2, figs. 4–11.

Distribution: Africa (Angola/ Cameroon/ Nigeria). Notes: (3) Numberg 1958b: 26 (description quoted), 1966: 27 (described female).

References: (**ds**) Ferreira 1965: 1134; Numberg

- 1966b: 20; Roberts 1968: 193; Schedl 1959p: 23, 1962k: 1035, 1972f: 252. (tx) Nunberg 1958b: 26, 1966b: 27, 39; Schedl 1936b: 134, 1962k: 1035, 1972f: 252, 1978a: 15
- bispinus** Strohmeyer 1912c: 19. Syntypes 3 ♂; Kamerun; Strohmeyer Collection.
 Figures: Nunberg 1958b: pl. 1, figs. 11–17, pl. 2, figs. 1–4.
 Distribution: Africa (Cameroon/ Equatorial Guinea/ Ghana/ Guinea/ Ivory Coast/ Nigeria/ Zaïre).
 Hosts: *Albizzia zygia*, *Celtis soyauxii*, *Xylopia villosa*.
 Notes: (3) Nunberg 1968b: 374–375 (named aberration *brevispinatus*, no status).
 References: (ay) Strohmeyer 1918: 18, 1920: 22. (ds) Nunberg 1968b: 374; Roberts 1968: 193; Schedl 1962h: 63, 1962k: 1001, 1964f: 620, 1965g: 22, 1966a: 276, 1971e: 3, 1971g: 195, 1972f: 252, 1979b: 417; Strohmeyer 1912c: 2, 1914c: 42; Wood, S. L. 1957e: 1272. (tx) Nunberg 1958b: 27, 1968b: 374–377; Sampson 1924c: 132; Schedl 1937d: 44, 1955d: 270, 1962k: 1001, 1972f: 252; Strohmeyer 1912c: 19–21, 1914c: 42, 1918: 22.
- circularis** Schedl 1935e: 174. Holotype ♂; Kongo (Haut-Uele; Mauda) (Schedl 1978a: 19); Schedl Collection in NHMW, Wien.
 Figures: Nunberg 1966b: pl. 1, figs. 1–2.
 Distribution: Africa (Uganda/ Zaïre).
 Hosts: *Celtis brieiyi*, *Cyometra haukei*.
 References: (ds) Mayne & Donis 1962: 579; Nunberg 1966b: 18; Schedl 1962h: 63, 1962k: 1030, 1972f: 252. (tx) Nunberg 1958b: 32, 1966b: 18; Schedl 1935e: 174, 1941d: 421, 1962k: 1030, 1972f: 252, 1978a: 19.
- circulariscirculariceps** Schedl 1962k: 1030. Holotype ♂; Congo Belge; Yangambi; Schedl Collection in NHMW, Wien.
 References: (ds) Schedl 1966c: 234, 1972f: 252. (tx) Schedl 1962k: 1030, 1972f: 252, 1978a: 20.
- collaticius** Schedl 1941d: 420. Holotype ♂; Ogooue [French West Africa]; Schedl Collection in NHMW, Wien.
 Distribution: Africa (Gabon).
 References: (ds) Schedl 1972f: 252. (tx) Nunberg 1958b: 12; Schedl 1941d: 420, 1957d: 148, 1962k: 1036, 1972f: 252, 1978a: 20.
- congoanus** Nunberg 1958b: 33. Holotype ♀; [Belge, Congo] Maniema, bei riv. Kasa-Niamba; MRCB, Tervuren.
 Distribution: Africa (Zaïre).
 References: (cn) Mayne & Donis 1951: 332. (ce) Mayne & Donis 1951: 332. (ds) Schedl 1972f: 252. (tx) Nunberg 1958b: 33; Schedl 1972f: 252.
- costatus** Nunberg 1966b: 28. Holotype ♂; Nigerien, Oban; Federal Department of Forest Research in Ibadan, Nigeria.
 Figures: Nunberg 1966b: pl. 2, figs. 12–13.
 Distribution: Africa (Nigeria).
 References: (ds) Nunberg 1966b: 20; Roberts 1968: 193; Schedl 1972f: 253. (tx) Nunberg 1966b: 39; Schedl 1972f: 253.
- defranatus** Schedl 1941d: 420. Holotype ♂; Ogooue [French West Africa]; Schedl Collection in NHMW, Wien.
 Distribution: Africa (Congo/ Equatorial Guinea/ Gabon/ Zaïre).
 Notes: (3) Nunberg 1958b: 34 (description quoted).
 References: (ds) Schedl 1966c: 234, 1971g: 195, 1972f: 253. (tx) Nunberg 1958b: 34; Schedl 1941d: 420, 1962k: 1034, 1972f: 253, 1978a: 24.
- elongatus** Nunberg 1958b: 35. Holotype ♂; Belgisch-Congo, Elisabethville; MRCB, Tervuren.
 Figures: Nunberg 1958b: pl. 3, figs. 5–8.
 Distribution: Africa (Zaïre).
 References: (ds) Schedl 1972f: 253. (tx) Nunberg 1958b: 35; Schedl 1972f: 253.
- excisus** Strohmeyer 1912: 22. Holotype ♂; Kongo; Strohmeyer Collection.
 Figures: Mayne & Donis 1962: 279, Nunberg 1958b: pl. 3, figs. 9–12, 1966b: pl. 1, figs. 6–8, 1968b: 377. Roche & Lhoste 1960: fig. c, Schedl 1962k: 1028, 1972f: 250.
 Distribution: Africa (Angola/ Cameroon/ Ethiopia/ Equatorial Guinea/ Fernando Po/ Gabon/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Principe Island/ Sao Tome Island/ Sierra Leone/ Spanish Guinea/ Tanzania/ Zaïre).
 Hosts: Browne 1963a: 247, Schedl 1962k: 1020–1023 (lists many hosts). *Hypodaphnis* sp.
 Notes: (3) Nunberg 1958b: 37 (named aberration *sulcatus*, synonymy in Schedl 1972f: 253).
 References: (ay) Lhoste & Roche 1960; Roche & Lhoste 1960: 2056. (en) Thompson, G. H. 1960. (ce) Jover 1952: 73–81; Roche & Lhoste 1960: 2056. (hb) Browne 1963a: 247; Jover 1952: 73–81. (ds) Browne 1963a: 247; Cachan 1957: 6, 15; Cola 1971; Ferreira 1965: 1135; Gardner 1957a: 29; Jones, Roberts, & Baker 1959: 13, 23, 45, 53; Mayne & Donis 1960: 98, 1962: 279; Menier 1973a; Nunberg 1966b: 20; Roberts 1968: 193, 1969: 116; Schedl 1962h: 63, 1962k: 1018, 1964f: 620, 1965g: 22, 1966a: 276, 1966c: 234, 1971e: 3, 1971g: 195, 1972e: 285, 1972f: 253, 1972k: 296, 1975h: 352, 1979b: 417; Strohmeyer 1912c: 21, 1914c: 42; Thompson, G. H. 1960, 1963: 55; Webb & Jones 1959: 35–39. (tx) Mayne & Donis 1962: 279; Nunberg 1958b: 36, 1968b: 375, 377; Roche & Lhoste 1960: fig. c; Schedl 1936e: 62, 1937d: 44, 1938d: 452, 1939g: 167, 1941e: 156, 1950c: 205–206, 1950d: 12, 1950e: 213, 1951f: 40, 1953g: 245, 1954d: 875, 1954e: 60, 1955d: 270–271, 1957d: 149, 1959p: 23, 1962k: 1018–1023, 1028–1036, 1972f: 253; Strohmeyer 1912a: 22, 1912c: 21, 1914c: 42, 1920: 1–47.
- gracilis** Strohmeyer 1912a: 24. Holotype ♀; Kamerun; IPKE, Eberswalde.
 Distribution: Africa (Cameroon/ Zaïre).

- Notes: (3) Numberg 1958b: 37 (description quoted), 1966: 23 (redescribed female).
References: (ay) Strohmeier 1918: 17. (ds) Numberg 1966b: 19; Schedl 1972f: 253; Strohmeier 1911c: 106, 1912c: 21, 1914c: 42. (tx) Numberg 1958b: 37, 1966b: 23; Schedl 1962k: 1036, 1972f: 253; Strohmeier 1911c: 106, 1912a: 24, 1912c: 21, 1914c: 42.
- grandis** Schedl 1953g: 248. Syntypes, sex?; Kamerun: Umgeb. Kamerunberg, Missellele, Congo Belge: Mayidi, Moto, Stanleyville; MRCB, Tervuren and Schedl Collection in NHMW, Wien. Figures: Numberg 1958b: pl. 3, figs. 19–20. Distribution: Africa (Cameroon/ Equatorial Guinea/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Uganda/ Zaïre). Hosts: Schedl 1962k: 1005–1009 (numerous hosts listed). Notes: (1) Schedl 1978a: 33 (citation of holotype invalid). (3) Numberg 1958b: 37 (description quoted), Schedl 1972f: 254 (treated as a subspecies of *longicollis*). References: (ds) Browne 1983a: 556; Cachan 1957: 15; Gardner 1957a: 29; Jones, Roberts, & Baker 1959: 13–53; Mayne & Donis 1960: 98, 1962: 280; Numberg 1966b: 19; Roberts 1960b: 36, 39, 1960e, 1960f, 1968: 193; Schedl 1962h: 63, 1962k: 1005, 1964f: 620, 1967e: 222, 1971g: 196, 1972e: 286, 1972f: 620; Thompson, G. H. 1963: 55. (tx) Numberg 1958b: 37; Powell, W. 1987: 28; Sampson 1924: 133; Schedl 1933f: 204, 1939b: 354, 1950d: 12, 1953g: 248, 1954e: 60, 86, 1962h: 63, 1962k: 1005, 1972f: 254, 1978a: 33.
- inermis** Strohmeier 1912a: 26. Syntypes ♂ ♀; Kinchassa, Kongo; Strohmeier Collection. Figures: Numberg 1958b: pl. 3, figs. 14–18. Distribution: Africa (Zaïre). Hosts: *Scorodophloeus zenkeri*. References: (ds) Numberg 1966b: 18; Schedl 1933f: 204, 1962k: 1033, 1972f: 255; Strohmeier 1912c: 21, 1914c: 42. (tx) Numberg 1958b: 12; Sampson 1924c: 132; Schedl 1933f: 204, 1950d: 5, 1962k: 1033, 1972f: 255; Strohmeier 1912a: 18, 26, 28, 1912c: 21, 1914c: 42.
- kreczmeri** Numberg 1958b: 38. Holotype ♀; Madagascar Contr., Prov. Moromongo, Ortschaft Perinet; Poln. Inst. Poln. Ak. d. Wiss., Warszawa. Distribution: Madagascar. Notes: (3) Browne 1972c: 104 (described male). References: (ds) Schedl 1972f: 253. (tx) Browne 1972c: 104–105; Numberg 1958b: 38; Schedl 1972f: 253, 1977b: 273.
- latescapus** Numberg 1968b: 378. Holotype ♀; Obudu Cattle Ranch, Nigeria; Federal Department of Forest Research in Ibadan, Nigeria. Figures: Numberg 1968b: 377. Distribution: Africa (Nigeria). References: (ds) Numberg 1968b: 374; Roberts 1968: 193; Schedl 1972f: 253. (tx) Numberg 1968b: 377–378; Schedl 1972f: 253.
- latespinatus** Numberg 1969b: 196. Holotype ♂; Nord-Nigerien, Cyl Nyaki; BMNH, London. Distribution: Africa (Congo/ Nigeria). References: (ds) Browne 1972c: 100; Schedl 1972f: 254. (tx) Numberg 1969b: 196; Schedl 1972f: 254.
- longicollis** Chapuis 1865: 318. Syntypes ♂; Cap de Bonne-Esperance; apparently at MNHN, Paris. Figures: Lhoste & Roche 1960: fig. 1, Numberg 1958b: pl. 4, figs. 6–8, 1966b: pl. 1, figs. 10–14, pl. 2, fig. 3. Distribution: Africa (Angola/ Cameroon/ Congo/ Equatorial Guinea/ Ethiopia/ Fernando Po/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Madagascar/ Mozambique/ Nigeria/ Ruanda/ Senegal/ South Africa/ Tanzania/ Zaïre/ Zambia/ Zimbabwe). Hosts: Browne 1963a: 248, Schedl 1962k: 1012–1013, 1017 (numerous hosts listed). Notes: (3) Numberg 1958b: 40 (description quoted), Schedl 1954e: 59, 70 (*angustus*, nomen nudum, synonymy in Schedl 1957d: 149). References: (hb) Browne 1963a: 248. (ds) Browne 1963a: 248; Ferreira 1965: 1134; Gemminger & Harold 1872: 2701; Kolbe 1897: 283; Lacordaire 1866: 392; Menier 1973a; Schedl 1962k: 1002, 1965g: 22, 1972f: 254; Strohmeier 1912c: 21, 1914c: 42. (tx) Chapuis 1865: 318; Hopkins 1914: 126, 134; Lacordaire 1866: 392–394; Lucas 1920: 494; Numberg 1958b: 40; Sampson 1924: 132; Schedl 1952j: 7, 1953g: 248, 1954e: 59, 1957d: 149, 1960c: 61–62, 1962k: 1002, 1972f: 254; Strohmeier 1912a: 17–18, 27, 1912c: 21, 1914c: 42. (ms) Lucas 1920: 494.
- camerunus** Strohmeier 1912a: 21. Syntypes, sex?; Kamerun; IPKE, Eberswalde. Notes: (1) Schedl 1972f: 254 (a subspecies of *longicollis*). (3) Numberg 1958b: 29 (description quoted, redescribed). References: (ay) Lhoste & Roche 1960; Roche 1960: 2056–2058; Roche & Lhoste 1960: 385–386; Strohmeier 1918: 18. (cc) Roche & Lhoste 1960: 385–386. (hb) Beaver & Loytyniemi 1985b: 119. (ds) Beaver & Loytyniemi 1985b: 119; Browne 1962: 93, 1963: 248, 1975a: 757, 1975b: 395, 1980c: 495, 1984c: 450; Cachan 1957: 15; Gardner 1957a: 29; Mayne & Donis 1950: 332, 1960: 98, 1962: 278; Numberg 1966b: 18–20, 1968b: 374; Roberts 1968: 193, 1969: 116; Schedl 1933f: 204, 1938d: 452, 1959p: 23, 1962h: 63, 1962k: 1009, 1123, 1964f: 620, 1966c: 236, 1967e: 222, 1971e: 3, 1971g: 196, 1972e: 286, 1972f: 254, 1972k: 296, 1977a: 273, 1982: 279; Strohmeier 1911c: 106, 1912c: 21, 1914c: 42; Thompson, G. H. 1963: 55; Wood, S. L. 1957e: 1272. (tx) Lhoste & Roche 1960: fig. 1; Numberg 1958b: 29; Sampson 1924c: 133; Schedl 1933f: 204, 1935e: 174, 1936b: 135, 1937b: 407,

1937d: 44, 1941d: 423, 1941e: 156, 1950d: 5, 12, 19, 1953g: 245, 248, 1954d: 875, 1954e: 60–61, 1955d: 270–271, 1955f: 262, 1957b: 152, 1957d: 148–149, 1959p: 23, 1962h: 63, 1962k: 1009–1018, 1964f: 620, 1964k: 220–221, 1965g: 22, 1966c: 235, 1967e: 222, 1972f: 254, 1977b: 273; Strohmeier 1911c: 106, 1912a: 21–24, 27, 1912c: 21, 1914c: 42, 1918: 22.

camerunus angustiformis Schedl 1957d: 149. Lectotype ♂; Congo Belge; Yangambi; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 18.

Notes: (1) The original description is of an individual variation (aberration) within a series that does not meet the criteria of a species or subspecies. Schedl 1972f: 254 (a variety of *longicollis*).

References: (ds) Ferreira 1965: 1134; Mayne & Donis 1960: 98, 1962: 279; Roberts 1969: 116; Schedl 1954e: 59, 70, 1959p: 23, 1962h: 63, 1962k: 1014–1016, 1964f: 620, 1966c: 235, 1971g: 195, 1972e: 286, 1972f: 254. (tx) Browne 1962: 93; Schedl 1957d: 149, 1962k: 1016, 1123, 1972f: 254, 1978a: 18.

camerunus brevestrigatus Nunberg 1958b: 32. Holotype ♀; Belgisch Congo, Lulonga-Befale; MRCB, Tervuren. Synonymy: Schedl 1972f: 254.

References: (ds) Schedl 1972f: 254. (tx) Nunberg 1958b: 11, 32; Schedl 1972f: 254.

camerunus crebrestrigatus Nunberg 1972c: 133. Holotype, sex?; Bafuhngemba, Cameroon Republic; Roberts Collection. Synonymy: Schedl 1972f: 254.

Notes: (1) This was originally named as a form, not as a species or subspecies; as such, it has no standing in nomenclature.

References: (tx) Nunberg 1972c: 133; Schedl 1972f: 254.

longus Nunberg 1966b: 25. Holotype ♀; Tshuapa; Bokuma; MRCB, Tervuren.

Figures: Nunberg 1966b: pl. 1, figs. 15–20.

Distribution: Africa (Zaire).

References: (ds) Nunberg 1966b: 20; Schedl 1972f: 254. (tx) Nunberg 1966b: 25, 37; Schedl 1972f: 254.

luebensis Nunberg 1958: 13. Holotype ♀♀; Belgisch Congo; Luebo; MRCB, Tervuren.

Figures: Nunberg 1966b: pl. 1, figs. 3–4.

Distribution: Africa (Zaire).

References: (ds) Nunberg 1966b: 18; Schedl 1972f: 254. (tx) Nunberg 1958a: 13, 1966b: 21, 37; Schedl 1972f: 254.

major Strohmeier 1912a: 20. Syntypes 1♂, 1♀; Kamerun; Strohmeier Collection.

Figures: Nunberg 1958a: pl. 4, figs. 13–19

Distribution: Africa (Cameroon/ Nigeria).

Notes: (3) Nunberg 1958a: 41 (description

quoted, redescribed), Schedl 1972f: 254 (treated as a subspecies of *longicollis*).

References: (ds) Nunberg 1958a: 41, 1966b: 20; Roberts 1968: 193; Schedl 1933f: 204, 1972f: 254; Strohmeier 1912c: 21, 1914c: 42. (tx) Sampson 1924c: 133; Schedl 1933f: 204, 1939b: 354, 1950d: 12, 1953g: 248, 1954e: 60, 86, 1962k: 1004–1005, 1972f: 254; Strohmeier 1912a: 20–21, 27, 1912c: 21, 1914c: 42.

minutus Nunberg 1966b: 29. Holotype ♂; Nigerien, Oban; Federal Department of Forest Research in Ibadan, Nigeria.

Figures: Nunberg 1966b: pl. 2, figs. 14–16.

Distribution: Africa (Nigeria).

References: (ds) Nunberg 1966b: 20; Roberts 1968: 193; Schedl 1972f: 254. (tx) Nunberg 1966b: 29; Schedl 1972f: 254.

mirabilis Nunberg 1969b: 200. Syntypes, sex?; Nord-Nigerien, Gyel Nyaki; BMNH, London.

Distribution: Africa (Cameroon/ Nigeria).

Notes: (3) Nunberg 1972c: 134 (redescribed).

References: (ds) Schedl 1972f: 254. (tx) Nunberg 1969b: 200, 1972c: 134; Schedl 1972f: 254.

mkusii Strohmeier 1912a: 21. Syntypes ♂♀; Deutsch Ostafrika (Mkulusumi-Berg), Nguelo; IPKE, Eberswalde.

Figures: Nunberg 1958a: pl. 4, figs. 1–8.

Distribution: Africa (Cameroon/ Kenya/ Tanzania/ Zaire), Madagascar.

Hosts: *Albizia zygia*, *Pansinystalia* sp.

Notes: (3) Nunberg 1958a: 43 (description quoted, redescribed), Schedl 1972f: 254 (treated as a subspecies of *longicollis*).

References: (hb) Strohmeier 1911a: 182. (ds) Beaver & Loytyniemi 1955b: 120; Nunberg 1958a: 43, 1966b: 19, 1968b: 374; Roberts 1968: 193; Schedl 1933f: 204, 1938d: 452, 1962k: 1004, 1966c: 234, 1972f: 254, 1977b: 275; Strohmeier 1911a: 182, 1912c: 21, 1914c: 42. (tx) Schedl 1933f: 204, 1937d: 44, 1962k: 1004–1005, 1966c: 234, 1972f: 254, 1977b: 275; Strohmeier 1911: 182, 1912a: 21, 27, 1912c: 21, 1914c: 42.

nigeriensis Nunberg 1966b: 30. Holotype, sex?; Nigeria, Ore FR; Federal Department of Forest Research, Ibadan, Nigeria.

Figures: Nunberg 1966b: 39.

Distribution: Africa (Nigeria).

Hosts: *Coryphanthe pachyceras*.

References: (ds) Nunberg 1966b: 21; Schedl 1972f: 254. (tx) Nunberg 1966b: 30, 39; Schedl 1972f: 254.

nitidicollis Strohmeier 1912a: 23. Syntypes, sex?; Kamerun, Deutsch Ostafrika; IPKE, Eberswalde. Figures: Nunberg 1958a: pl. 4, figs. 1–15.

Distribution: Africa (Angola/ Cameroon/ Congo/ Ghana/ Ivory Coast/ Nigeria/ Tanzania/ Zaire).

Hosts: *Chlorophora excelsa*, *Enantia clorantha*, *Oxytigma msoo*.

Notes: (3) Nunberg 1958a: 44 (description

- quoted, redescribed). Schedl 1972f: 253 (a subspecies of *excisus*).
- References: (**hb**) Strohmeier 1911a: 182. (**ds**) Ferreira 1965: 1135; Numberg 1952: 22, 1958a: 44, 1965b: 22, 1966b: 19, 1968b: 374; Roberts 1968: 193; Schedl 1933f: 205, 1959p: 23, 1962k: 1024, 1972c: 255, 1972h: 253; Strohmeier 1911a: 182, 1912c: 21, 1914c: 42. (**tx**) Numberg 1952: 22; Schedl 1933f: 205, 1941e: 157, 1950d: 5, 1953g: 245, 1954d: 575, 1954e: 57, 1962k: 1024, 1972f: 253; Strohmeier 1912a: 23–24, 1912c: 21, 1914c: 42.
- penicillatus** Schedl 1965f: 14. Holotype ♀; Uganda. Mganga; BMNH, London.
Distribution: Africa (Uganda).
References: (**ds**) Schedl 1972f: 255. (**tx**) Schedl 1965f: 14, 1972f: 255, 1978a: 52.
- piceus** Strohmeier 1912a: 24. Holotype ♂; Kamerun; IPKE, Eberswalde.
Figures: Numberg 1958b: pl. 5, figs. 14–16.
Distribution: Africa (Cameroon/ Congo/ Ivory Coast/ Nigeria/ Sierra Leone/ Zaïre).
References: (**ds**) Browne 1965a: 205, 1972c: 100; Numberg 1952: 22, 1965b: 22, 1966b: 21; Roberts 1968: 193; Schedl 1972f: 253; Strohmeier 1912c: 21, 1914c: 42. (**tx**) Numberg 1952: 22, 1958b: 46, 1964: 22; Sampson 1924c: 132; Schedl 1962k: 1026, 1972f: 253; Strohmeier 1912a: 24–27, 1912c: 21, 1914c: 42.
- pseudocamerunus** Numberg 1958b: 47. Syntypes 2 ♀; Kasenya [Congo], N. Rhodesia; 1 in MRCB, Tervuren, 1 in IZW, Warsaw.
Distribution: Africa (South Africa/ Zaïre/ Zambia/ Zimbabwe).
References: (**ds**) Beaver & Loytyniemi 1958b: 120; Numberg 1966b: 19; Schedl 1972f: 255. (**tx**) Numberg 1958b: 47; Schedl 1972f: 255.
- pseudogracilis** Numberg 1969b: 198. Holotype ♀; Nord-Nigerien, Gyl Nyaki; BMNH, London.
Distribution: Africa (Nigeria).
References: (**ds**) Schedl 1972f: 255. (**tx**) Numberg 1969b: 198; Schedl 1972f: 255.
- pseudomajor** Schedl 1954e: 86. Lectotype ♂; Mpraeso [Gold Coast]; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 58.
Figures: Numberg 1966b: pl. 2, figs. 18–21.
Distribution: Africa (Cameroon/ Ghana/ Ivory Coast/ Nigeria).
Hosts: *Ficus exasperata*, *Sterculia oblonga*.
Notes: (3) Numberg 1958b: 48 (description quoted), 1966b: 33 (described female), Schedl 1972f: 254 (a subspecies of *longicollis*).
References: (**ds**) Numberg 1966b: 21; Roberts 1968: 193; Schedl 1962k: 1003, 1972e: 286, 1972f: 254; Thompson, G. H. 1963: 55. (**tx**) Browne 1970: 577; Numberg 1958b: 48, 1966b: 21, 33–34, 39; Schedl 1954e: 60–63, 86, 1962k: 1003, 1972e: 277–294, 1972f: 254, 1978a: 58.
- pseudoseverini** Numberg 1958b: 15. Holotype ♂; [Congo] Sankuru; Lodja; MRCB, Tervuren.
Figures: Numberg 1958b: pl. 6, figs. 1–8.
Distribution: Africa (Zaire).
References: (**ds**) Schedl 1972f: 255. (**tx**) Numberg 1958b: 15; Schedl 1972f: 255.
- quinquespinatus** Numberg 1958b: 48. Holotype ♂; Congo Belge (Katanga: Lufudizi); MRCB, Tervuren.
Figures: Numberg 1958b: pl. 6, figs. 9–14.
Distribution: Africa (Zaire).
References: (**ds**) Schedl 1972f: 255. (**tx**) Numberg 1958b: 48; Schedl 1972f: 255.
- robertsi** Numberg 1972c: 134. Holotype ♂; Nigeria; Nindam Forest Reserve; Roberts Collection.
Distribution: Africa (Nigeria).
References: (**tx**) Numberg 1972c: 134.
- severini** Strohmeier 1912a: 25. Syntypes, sex?; Kinchassa, Kongo; IPKE, Eberswalde.
Figures: Numberg 1958b: pl. 6, figs. 15–22.
Distribution: Africa (Zaire).
Notes: (3) Numberg 1958b: 18 (description quoted, redescribed), Numberg 1959b: 127 (reported also as a fossil).
References: (**ds**) Numberg 1959b: 127, 1966b: 18; Schedl 1933f: 204, 1962k: 1032, 1966c: 235, 1972: 255; Spahr 1981: 79; Strohmeier 1912c: 21, 1914c: 42. (**tx**) Numberg 1958b: 18, 1959b: 127; Sampson 1924c: 132; Schedl 1933f: 204, 1941d: 422, 1962k: 1032, 1972f: 255; Strohmeier 1912a: 25–28, 1912c: 21, 1914c: 42.
- signatus** Strohmeier 1912a: 25. Syntypes ♂ ♀; Kamerun; IPKE, Eberswalde.
Figures: Numberg 1958b: pl. 7, figs. 1–5.
Distribution: Africa (Cameroon/ Zaïre).
Notes: (3) Numberg 1958b: 50 (description quoted, redescribed).
References: (**ds**) Numberg 1966b: 19; Schedl 1972f: 255; Strohmeier 1912c: 21, 1914c: 42. (**tx**) Numberg 1958b: 48–50; Schedl 1962k: 1035, 1972f: 255; Strohmeier 1912a: 25, 27, 1912c: 21, 1914c: 42.
- similis** Strohmeier 1912a: 22. Syntypes ♂ ♀; Kamerun; 3♂ in Strohmeier Collection.
Figures: Numberg 1958b: pl. 7, figs. 6–8, 1966b: pl. 1, figs. 9, 11–13.
Distribution: Africa (Cameroon/ Ghana/ Zaïre).
Hosts: *Bolboceranius bicolor*, *Isoloma brunclii*, *Scorodophloeus zenkeri*.
Notes: (3) Numberg 1958b: 51 (description quoted), 1966: 24 (described female), Schedl 1972f: 253 (a subspecies of *excisus*).
References: (**ds**) Browne 1980b: 382; Numberg 1966b: 19; Schedl 1962k: 1029, 1966c: 234, 1972e: 286, 1972f: 253; Strohmeier 1912c: 21, 1914c: 42. (**tx**) Numberg 1958b: 51, 1966b: 19, 24–25, 37; Schedl 1935e: 174, 1962k: 1029, 1972f: 253; Strohmeier 1912a: 22–27, 1912c: 21, 1914c: 42.

subcircularis Schedl 1941d: 421. Syntypes 2♂, 1♀; Congo Belge: Stanleyville; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Notes: (3) Numberg 1958b: 20 (description quoted).

References: (ds) Schedl 1962k: 1031, 1972f: 255. (tx) Numberg 1958b: 20; Schedl 1941d: 421, 1962k: 1031, 1966c: 239, 1972f: 255, 1978a: 70.

subrobustus Schedl 1957d: 149. Holotype ♂; Congo Belge: Yanganbi; MRCB, Tervuren.

Figures: Numberg 1958b: pl. 7, figs. 17–20.

Distribution: Africa (Ghana/ Nigeria/ Uganda/ Zaire).

Hosts: *Afrostryax lepidophyllus*, *Anonidium manuii*, *Beilschmiedia gilbertii*, *Macaranga cf. lancifolia*, *Maesopsis eminii*, *Mitragyne* sp., *Scorodophloeus zeukeri*.

Notes: (3) Schedl 1972f: 253 (treated as a subspecies of *excisus*).

References: (ds) Mayne & Donis 1960: 98, 1962: 280; Schedl 1962k: 1027, 1972e: 286, 1972f: 253. (tx) Numberg 1958b: 51; Schedl 1957d: 149, 1962k: 1027, 1972f: 253, 1978a: 71.

substriatus Strohmeier 1912a: 23. Syntypes ♂ ♀; Kamerun; IPKE, Eberswalde.

Figures: Numberg 1958b: pl. 7, figs. 9–16.

Distribution: Africa (Cameroon/ Fernando Po/ Ghana/ Nigeria/ Togo/ Zaire).

Hosts: *Albizzia zygia*, *Drypetes gossweilerii*, *Napoleana imperialis*, *Pancovia harmstiana*, *P. laurentii*, *Polyalthia suaveolens*, *Synsepalum subcordatum*, *Ternstroemia ivorensis*, *Xylopia aethiopica*.

Notes: (3) Numberg 1958b: 52 (description quoted). Schedl 1972f: 253 (a subspecies of *excisus*).

References: (hb) Thompson, G. H. 1963: 55. (ds) Mayne & Donis 1960: 98, 1962: 280; Numberg 1966b: 21, 1968b: 374; Roberts 1968: 374; Schedl 1933f: 205, 1972e: 286, 1972f: 253; Strohmeier 1912c: 21, 1914c: 42; Thompson, G. H. 1963: 55. (tx) Numberg 1958b: 52; Schedl 1933f: 205, 1937d: 44, 1954e: 48, 60, 65, 71, 1962k: 1026, 1972f: 253; Strohmeier 1912a: 20, 23, 27, 1912c: 21, 1914c: 42.

suturalis Browne 1972c: 101. Holotype ♂; Central African Republic: Bambari; MRCB, Tervuren.

Figures: Browne 1972c: 102.

Distribution: Africa (Central African Republic).

References: (tx) Browne 1972c: 101–102.

titschaki Schedl 1935e: 154. Lectotype ♂; Deutsch E. Africa: Amani; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 74.

Figures: Numberg 1958b: pl. 7, fig. 24.

Distribution: Africa (Tanzania).

Notes: (3) Numberg 1958b: 52 (description quoted), Schedl 1957d: 147 (described female).

References: (ds) Schedl 1962k: 1034, 1972f: 255. (tx) Numberg 1958b: 52, 1966b: 25; Schedl 1935e:

154, 1937d: 44, 1939b: 390, 403, 1957d: 147–148, 1962k: 1034, 1972f: 255, 1978a: 74.

triquetrus Schedl 1941d: 423. Holotype ♂; Congo Belge: Likimi, Bondia, Monveda; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Notes: (3) Numberg 1958b: 53 (description quoted), Schedl 1972f: 253 (a subspecies of *excisus*).

References: (ds) Schedl 1972f: 253. (tx) Numberg 1958b: 53; Schedl 1941d: 423, 1972f: 253, 1978a: 75.

truncatellus Schedl 1957d: 148. Holotype ♂; Congo Belge: Kinchassa; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

References: (ds) Schedl 1972f: 255. (tx) Schedl 1957d: 148, 1962k: 1036, 1972f: 255, 1978a: 75.

truncatiformis Schedl 1941d: 422. Holotype ♂; Congo; Schedl Collection in NHMW, Wien.

Distribution: Africa (Senegal/ Zaire).

Notes: (3) Numberg 1958b: 20 (description quoted). A note in the Schedl Collection says this is a synonym of *collaticus* [confirmation needed]. References: (ds) Schedl 1972f: 255. (tx) Numberg 1958b: 20; Schedl 1941d: 422, 1950d: 5, 1962k: 1032, 1972f: 255, 1978a: 75.

plauifrons Schedl 1941d: 423. Holotype ♀; Casamance [Senegal]; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1972f: 255. Notes: (3) Numberg 1958b: 15 (description quoted).

References: (tx) Numberg 1958b: 15; Schedl 1941d: 422–423, 1972f: 255, 1978a: 55.

truncatipennis Schedl 1966c: 239. Holotype ♂; Republique du Congo, Dimonika; MNHN, Paris.

Distribution: Africa (Congo/ Zaire).

References: (ds) Schedl 1972f: 255. (tx) Schedl 1966c: 239, 1972f: 255.

truncatus Schedl 1936b: 135. Lectotype ♂; Belgisch Kongo, Likimi; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 76.

Figures: Numberg 1958b: pl. 7, figs. 21–23.

Distribution: Africa (Equatorial Guinea/ Zaire).

Notes: (3) Numberg 1958b: 21 (description quoted). References: (ds) Schedl 1962k: 1031, 1971f: 196, 1972f: 255. (tx) Numberg 1958b: 21; Schedl 1936b: 135–136, 1950d: 5, 1962k: 1031, 1037, 1972f: 255, 1978a: 76.

Genus *Chaetastus* Numberg

CHAETASTUS NUMBERG 1953: 44. Type-species: *Symmerus tuberculatus* Chapuis, automatic.

Symmerus Chapuis 1865: 42, 319. Type-species: *Symmerus tuberculatus* Chapuis, monobasic, preoccupied by Walker 1845.

References: (tx) Browne 1972a: 179; Chapuis 1865: 319–321; Hopkins 1914: 136, 1915c: 227; Lacordaire 1866: 389, 395; Numberg 1953: 44; Sampson 1924: 133; Schedl 1933f:

203, 1936e: 62, 1937d: 44, 1939b: 390–401, 1956d: 145; Strohmeier 1911d: 218, 1912c: 21, 1914: 12–44, 1920: 1–46.

Keys: Browne 1971: 11.

References: (hb) Browne 1971c: 8. (ds) Browne 1971c: 8. (tx) Browne 1971c: 8, 1972a: 179; Numburg 1953: 44; Schedl 1960c: 62, 1962k: 1039.

diversifrons Browne 1971b: 19. Holotype ♂; Uganda: Ruwenzori Forest; BMNH, London.

Figures: Browne 1971b: 13.

Distribution: Africa (Uganda).

Hosts: *Mitragyna stipulosa*, *Olea hochstetteri*,

Pygmeum africanum.

References: (ds) Schedl 1972f: 127. (tx) Browne 1971b: 13–19; Schedl 1972f: 127.

fradei (Tordo) 1966: 16 (*Symmerus*). Syntypes?; Silva Porto, Angola; not seen.

Figures: Tordo 1966: 16.

Distribution: Africa (Angola).

References: (tx) Tordo 1966: 16.

montanus Schedl 1957d: 145. Holotype ♂; Congo Belge; Kivu, Hembe-Bitale; MRCB, Tervuren.

Distribution: Africa (Brundi/ Kenya/ Nigeria/ Ruanda/ Tanzania/ Uganda/ Zaire).

Hosts: Browne 1971: 17 and Schedl 1962k: 1051–1052 (many hosts listed).

Notes: (3) Browne 1971c: 16 (re-described).

References: (bv) Jones 1960c: 231. (cn) Curry 1955b: 128–132. (ds) Browne 1971c: 16; Gardner 1957a: 30, 1957b: 204; Jones 1960: 3; Mayne & Donis 1962: 288; Roberts 1960: 241, 1962: 1050, 1965: 193; Schedl 1962k: 1050, 1972f: 128. (tx) Browne 1971c: 16; Powell, W. 1987: 27; Schedl 1955f: 261, 1955i: 213–214, 1957d: 145–146, 1962h, 1962k: 1050, 1972f: 128, 1978a: 45.

persimilis (Schedl) 1933f: 203 (*Symmerus*). Lectotype ♂; Haut-Uele; Adra, Congo-Kinshasa; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 54.

Figures: Schedl 1962k: 1048 (male).

Distribution: Africa (Cameroon/ Congo/ Fernando Po Island/ Gabon/ Nigeria/ Ruanda/ Sao Tome Island/ Zaire).

Hosts: *Combretodendrum macrophyllum*, *Diospyros crassiflora*, *Garcinia polyantha*, *Pycnanthus angolensis*, *P. kombo*, *Staudtia stipitata*, *Strombosia glaucescens*, *Tridesmostemon classensii*.

References: (cc) Schedl 1962k: 1048. (ds) Browne 1971c: 15, 1980b: 382; Mayne & Donis 1962: 288; Roberts 1968: 193, 1969: 103; Schedl 1933f: 203, 1962k: 1123, 1972f: 128. (tx) Browne 1971c: 15; Schedl 1933f: 203–204, 1936e: 62, 1952i: 60–62, 1955f: 261, 1957d: 146, 1962h: 60–61, 1962k: 1048, 1972f: 128, 1978a: 54.

striatus Browne 1986b: 334. Holotype ♂; Cameroon: Douala to Nagoya (Japan), imported; BMNH, London.

Distribution: Africa (Cameroon).

Hosts: *Paraberlina bifoliolata* log.

References: (tx) Browne 1986b: 334.

subalpinus (Schedl) 1957d: 146 (*Symmerus*). Holotype ♂; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Anthocleista nobilis*.

Notes: (3) Browne 1971: 18 (re-described).

References: (cc) Schedl 1962k: 1050. (ds) Browne 1971c: 18. (tx) Browne 1971c: 18; Schedl 1957d: 145–146, 1962k: 1050, 1972f: 128, 1978a: 69.

tuberculatus (Chapuis) 1865: 321 (*Symmerus*). Holotype ♂ (Schedl 1960: 62); Guinee, Coll. de M. Thomson; IRSNB, Brussels.

Figures: Browne 1971c: 9, Schedl 1962k: 1040 (male).

Distribution: Africa (Angola/ Cameroon/ Central African Republic/ Congo/ Equatorial Guinea/ Fernando Po Island/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Sao Tome Island/ Sierra Leone/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia).

Hosts: Browne 1971c: 14 and Schedl 1962k: 1043–1046 (many hosts listed).

References: (bv) Jones 1960c: 231; Loytyniemi, Beaver, & Loytyniemi 1985: 28; Meixner 1937: 1218. (cn) Duffy 1956: 198; Thompson, G. H. 1959b: 420. (cc) Roberts 1969a; Schedl 1962k: 1040. (hb) Anonymous 1959i: 18; Beaver & Loytyniemi 1985b: 114; Browne 1963a: 248; Loytyniemi, Beaver, & Loytyniemi 1985: 28; Schedl 1962k: 1040. (ds) Beaver & Loeytyniemi 1985b: 114; Browne 1963a: 248, 1971c: 12, 1972c: 99, 1980a: 373, 1980c: 485; Cachan 1957: 15; Cola 1971, 1973; Ferreira 1965: 1135; Gardner 1957a: 30, 1957b: 205; Gemminger & Harold 1872: 2702; Jones 1960: 3; Jones, Roberts, & Baker 1959: 13–55; Lacordaire 1866: 395; Mayne & Donis 1960: 100, 1962: 289; Menier 1973a; Roberts 1960b: 35–37, 1960e, 1960f, 1968: 193, 1969: 103–104; Schedl 1933f: 203, 1959p: 23, 1962h: 61, 1962k: 1040, 1964f: 620, 1966c: 235, 1967e: 222, 1971e: 4, 1971g: 194, 1972e: 286, 1972f: 129; Strohmeier 1911f: 204, 1912c: 21; Thompson, G. H. 1959b: 420, 1963: 35; Webb & Jones 1957: 36, 41. (tx) Browne 1971c: 12, 19, 1972a: 179; Chapuis 1865: 321–322; Hopkins 1914: 130, 136; Lacordaire 1866: 395; Lucas 1920: 621; Meixner 1937: 1218; Powell, W. 1987: 27; Sampson 1924c: 133; Schedl 1933f: 203–204, 1936e: 62, 1937b: 407, 1937d: 44, 1939b: 391, 1941d: 381, 1941e: 156, 1950d: 5, 1953g: 245, 1954d: 874, 1954e: 48, 60–71, 1955d: 271, 1955f: 261, 1960c: 62, 1962k: 1040, 1972f: 129; Strohmeier 1911f: 203–204, 1911g: 232, 1912c: 21, 1914: 5, 7, 44, 1920: 16. (ms) Lucas 1920: 621.

tuberculatus robustus Schedl 1952i: 62 (*Symmerus*). Holotype ♂; Congo Belge, Yangambi; MRCB, Tervuren. Synonymy: Browne 1971c: 12.

References: (ds) Mayne & Donis 1960: 100,

1962: 290; Schedl 1962k: 1047, 1972f: 129.
(**tx**) Browne 1971c: 12; Schedl 1952i: 62,
1962k: 1047, 1972f: 129, 1978a: 76.

Genus *Cenocephalus* Chapuis

CENOCEPHALUS CHAPUIS 1865: 325. Type-species:
Cenocephalus thoracicus Chapuis, monobasic.

Notes: (1) This genus is endemic to tropical America.
References: (**tx**) Chapuis 1865: 325, 327; Nun-
berg 1963c: 109; Schedl 1939b: 401, 1960c: 62;
Strohmeyer 1911c: 105, 107.

epistomalis Wood 1966a: 47. Holotype ♀; Mile 10
on Bartica-Potaro road, British Guiana; BMNH,
London.

Figures: Wood 1966a: 47.

Distribution: South America (Guyana).

References: (**ds**) Equihua & Atkinson 1987: 18;
Schedl 1972f: 130. (**tx**) Equihua & Atkinson 1987:
18; Schedl 1972f: 130; Wood, S. L. 1966a: 47.

flexibilis (Schedl) 1936c: 249 (*Tesserocranulus*).
Holotype ♀; Brazil or Guayana; Schedl Collection in
NHMW, Wien.

Distribution: South America (Cayenne/Suriname).

References: (**ds**) Blackwelder 1947: 791; Schedl
1972f: 123. (**tx**) Reichardt 1964: 149; Schedl
1936c: 249, 1972f: 123.

° **hurdi** Schedl 1962g: 1037. Holotype ♂; Mexican
amber, Miocene, Simojovel, U.C.M.P. no. 12976,
loc. B-7456 (late Oligocene or early Miocene);
University of California Museum of Paleontology,
Berkeley.

Figures: Schedl 1962g: 1036.

Distribution: North America (fossil in Mexican
amber).

References: (**cn**) Hosking 1989. (**ds**) Keilbach
1982: 256; Schedl 1972f: 130; Spahr 1981: 79. (**tx**)
Schedl 1962g: 1036–1037, 1972f: 130. (**ms**)
Keilbach 1982: 256.

lalolaensis Nunberg 1963c: 107. Holotype ♀;
Finca La Lola, Limon Prov., Costa Rica; Univer-
sity of Wisconsin Collection, Madison.

Distribution: North America (Costa Rica), South
America (Brazil).

Notes: (1) This female remains unidentifiable at
the present time.

References: (**ds**) Equihua & Atkinson 1987: 791;
Schedl 1970e: 88. (**tx**) Nunberg 1963c: 107;
Schedl 1972f: 79.

ornatus (Schedl) 1936c: 250 (*Tesserocranulus*).
Holotype ♀; Brazil; Schedl Collection in NHMW,
Wien.

Distribution: South America (Brazil/ Cayenne).

References: (**ds**) Blackwelder 1947: 791. (**tx**)
Schedl 1936c: 250, 1972f: 123, 1978a: 50.

pulchellus Schedl 1935e: 152. Holotype ♀;
Guyana; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil/ Guyana/
Suriname).

References: (**ds**) Blackwelder 1947: 791. (**tx**)
Schedl 1935e: 152, 1972f: 130, 1978a: 59; Wood,
S. L. 1966a: 47.

pulchellus minor Schedl 1961i: 233. Holotype ♀;
Surinam, Moengo, Boven, Cottica R.; Cornell
University Collection, Ithaca, New York.

Notes: (3) Schedl 1970e: 110, 1972g: 83–84
(described male; listed as a species).

References: (**ds**) Schedl 1960a: 79, 1970e: 88,
1970f: 582, 1972f: 130, 1972g: 51. (**tx**) Schedl
1961i: 233, 1970e: 110, 1972f: 130, 1972g: 83–
84, 1978a: 59.

pusillus Schedl 1936c: 250. Lectotype ♂; French
Guyana: Nouveau Chantier, St. Jean du Maroni;
Schedl Collection in NHMW, Wien.

Distribution: South America (Cayenne).

References: (**ds**) Blackwelder 1947: 791; Schedl
1972f: 130. (**tx**) Schedl 1935b: 400, 1936c: 250,
1952d: 365, 1972f: 130, 1978a: 59.

° **quadrilobus** Schedl 1962g: 1037. Holotype ♂;
Mexican amber, late Oligocene to Miocene,
Simojovel, Chiapas, U.C.M.P. no. 12877, loc. B-
4117; University of California Museum of Paleon-
tology, Berkeley.

Distribution: North America (fossil in Mexican
amber).

References: (**ds**) Keilbach 1982: 256. (**tx**) Schedl
1962g: 1035–1037, 1972f: 130. (**ms**) Keilbach
1982: 256.

° **rhinoceroide** (Schawaller) 1981: 10 (*Mitosoma*).
Holotype, sex?; Dominikanischem Bernstein
(SMNS Inv. Nr. Do. 119–k-1); Staatlichen
Museum fur Naturkunde, Stuttgart.

Figures: Schawaller 1981: 11 (adult).

Distribution: Antilles Islands (fossil in Dominican
Republic amber in Hispanola).

Notes: (3) Three species of *Cenocephalus* have
been found in Dominican amber; all three appear
to be the three named previously by Schedl from
Mexican amber; consequently, the Schawaller type
should be re-examined; synonymy is probable
[SLW].

References: (**ds**) Spahr 1981: 79. (**tx**) Schawaller
1981: 10.

robustus Schedl 1966f: 128. Holotype ♂; Col-
umbien; Schedl Collection in NHMW, Wien.

Distribution: South America (Colombia).

References: (**ds**) Schedl 1966f: 79, 128, 1972f:
130.

robustum Schedl 1972f: 130. Holotype ♂; Col-
umbien; Schedl Collection in NHMW, Wien.

Notes: (1) This is an unneeded replacement
name for *robustus*.

References: (**tx**) Schedl 1972f: 130.

rugicollis Schedl 1952d: 365. Holotype ♂; Peru;
Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil/ Peru).

Notes: *Eugenia* sp.

References: (**ds**) Schedl 1970e: 88, 1972f: 130.

- (**tx**) Reichardt 1964b: 59; Schedl 1952d: 365–366, 1972f: 130, 1978a: 63.
- ° **succinicaptus** Schedl 1962g: 1036. Holotype ♀; Mexican amber, late Oligocene to early Miocene, 12 km SE Sinojovel (U.C.M.P. no. 12718 loc. B-4116, Las Cruces landslide); University of California Museum of Paleontology, Berkeley. Figures: Schedl 1962g: 1036. Distribution: North America (fossil in Mexican amber). References: (**ds**) Keilbach 1982: 256; Spahr 1981: 79. (**tx**) Schedl 1962g: 1036, 1972f: 130. (**ms**) Keilbach 1982: 256.
- thoracicus** Chapuis 1865: 327. Syntypes; Bresil: Rio-Janeiro, Ste-Catherine; BMN11, London. Distribution: South America (Brazil). References: (**ds**) Blackwelder 1947: 791; Gemminger & Harold 1872: 2702; Lacordaire 1866: 397; Santoro 1957b: 26; Schedl 1933c: 163–164, 1967d: 5; Strohmeier 1912c: 22, 1914c: 45. (**tx**) Chapuis 1865: 327–329; Hopkins 1914: 117; Lacordaire 1866: 397; Schedl 1935e: 152, 1937d: 44, 1972f: 130; Strohmeier 1912c: 22, 1914c: 45.
- Genus *Mitosoma* Chapuis
- MITOSOMA** CHAPUIS 1865: 43, 322. Type-species: *Mitosoma crenulata* Chapuis, monobasic.
- Platypicerus* Numberg 1953: 46. Type-species: *Platypicerus hamatus* Numberg, monobasic. Synonymy: Schedl 1972f: 124. References: (**tx**) Numberg 1953: 44, 1963d: 357; Schedl 1957b: 159, 1972f: 124.
- Coccephalonus* Schedl 1965c: 84. Type-species: *Coccephalophonus sulcipennis* Schedl, original designation. Synonymy: Schedl 1972f: 124. References: (**tx**) Schedl 1965c: 84, 1972f: 124. Notes: (3) This genus is endemic to Madagascar. References: (**tx**) Chapuis 1865: 324; Hopkins 1914: 125, 133, 1915c: 227; Lacordaire 1866: 395; Nunberg 1953: 44–46; Schaufuss 1897: 223, 1905: 19; Schedl 1935n: 633, 1936e: 62, 1939b: 401, 1960c: 62, 1961e: 160, 1962k: 1035, 1972f: 124–130, 1977b: 256–267; Strohmeier 1911c: 104, 1911d: 218, 1912c: 22, 1914c: 13–19, 44–46, 1918: 1–46.
- accuratum** Schaufuss 1897: 224. Holotype ♂; Madagascar (Sikora num. 91.); Hamburg Museum, lost. Distribution: Madagascar. Hosts: *Chrysophyllum boivianum*. Notes: (3) Schedl 1965c: 79 (described female). References: (**ds**) Alluaud 1900: 441; Schedl 1972f: 127, 1977b: 258; Strohmeier 1912c: 22. (**tx**) Schaufuss 1897a: 223–224; Schedl 1936e: 62, 1961e: 162, 1965c: 79, 1972f: 127, 1977b: 257–258, 1978a: 9; Strohmeier 1912c: 22, 1914c: 46, 1918: 16, 21.
- ampliatum** Schedl 1965c: 80. Holotype ♂; Madagascar: Sambava; Schedl Collection in NHMW, Wien. Distribution: Madagascar. References: (**ds**) Schedl 1972f: 127. (**tx**) Schedl 1972f: 127, 1965c: 80, 1978a: 10.
- chapuisi** Strohmeier 1911g: 233. Syntypes ♂ ♀; Madagascar: IRSNB, Brussels, NHR, Stockholm, IPKE, Eberswalde. Distribution: Madagascar. References: (**ec**) Fuller 1958: 100. (**ds**) Schedl 1972f: 127; Strohmeier 1912c: 22, 1914c: 46. (**tx**) Schedl 1972f: 127; Strohmeier 1911c: 104–105, 1911g: 233, 1912c: 22, 1914c: 46.
- crenulatum** Chapuis 1865: 324. Syntypes 2 ♂; Madagascar; MNHN, Paris. Distribution: Madagascar. Hosts: *Canarium boivin*, *Ficus sorocooides* var. *macrophlebia*. Notes: (3) Schedl 1961e: 158 (described female). References: (**av**) Menier 1976: 348. (**bv**) Menier 1976: 348. (**hb**) Schedl 1977b: 258. (**ds**) Alluaud 1900: 441; Fairmaire 1892b; Gemminger & Harold 1872: 2702; Lacordaire 1866: 396; Schedl 1970d: 234, 1972f: 127, 1977b: 258; Strohmeier 1912c: 22, 1914c: 46. (**tx**) Chapuis 1865: 324; Fairmaire 1892b; Hopkins 1914: 125, 133; Lacordaire 1866: 396; Lucas 1920: 421; Schaufuss 1890: 38, 1897a: 224; Schedl 1960c: 62, 1961e: 158, 1970d: 234, 1972f: 124, 127, 1977b: 258, 1978a: 22; Strohmeier 1912c: 22, 1914c: 46. (**ms**) Lucas 1920: 421.
- dispar** Schedl 1961e: 160. Madagascar, Montagne d'Ambre; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Ficus sorocooides* var. *macrophlebia*. References: (**ds**) Schedl 1972f: 127, 1977b: 260. (**tx**) Schedl 1961e: 160, 1972f: 127, 1977b: 260, 1978a: 25.
- excisum** Schaufuss 1897a: 224. Holotype ♂; Madagascar, Antananarive (Schedl 1977b: 260); Hamburg Museum, lost. Distribution: Madagascar. Hosts: *Aphloia theaeformis*, *Chrysophyllum boivianum*, *Dracaena* sp., *Elaeocarpus* sp., *Ficus sorocooides* var. *macrophlebia*, *Macphersonia* cf. *madagascarensis*, *Ocotia* sp., *Pinus insularis*, *P. patula*, *Pittosporum* sp., *Terminalia* sp., *Tricocodendron acuminatum*. Notes: (3) Schedl 1961e: 162 (described female). References: (**ds**) Alluaud 1900: 441; Schedl 1970d: 234, 1972f: 128, 1977b: 260; Strohmeier 1912c: 22, 1914c: 46. (**tx**) Schaufuss 1897a: 223–224; Schedl 1961e: 162, 165, 1970d: 234, 1972f: 128, 1977b: 260, 1978a: 29; Strohmeier 1912c: 22, 1914c: 46.
- hamatus** (Numberg) 1953: 49 (*Platypicerus*). Holotype ♀; Central Madagascar, district Moramanga, Perinet; IZW, Warsaw.

- Distribution: Madagascar.
Notes: (3) Schedl 1971e: 17 (described female).
References: (ds) Schedl 1972f: 128. (tx) Nunberg 1953: 49–51, 1963d: 357; Schedl 1952b: 159, 1957b: 159, 1971e: 17, 1972f: 128, 1978a: 34.
- lobatum** Schedl 1961e: 163. Holotype ♂; Madagascar. Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Cedrela* sp., *Dalbergia pterocarpifolia*, *Foetidia chusoides*, *Carcinia verrucosa*, *Leptolaena multiflora* var. *cuspidata*, *Symphonia* sp.
References: (ds) Schedl 1970d: 235, 1972f: 128, 1977b: 261. (tx) Schedl 1961e: 163, 1970d: 235, 1972f: 128, 1977b: 261, 1978a: 41.
- mirabile** Nunberg 1967a: 332. Holotype ♀; Madagascar (foret de Fito); MRCB, Tervuren.
Figures: Nunberg 1967a: 339.
Distribution: Madagascar.
References: (tx) Nunberg 1967a: 332, 339.
- nigrum** Schaufuss 1893: 621. Holotype ♂; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluand 1900: 441; Fairmaire 1892b; Schedl 1972f: 128, 1977b: 262; Strohmeyer 1912c: 22, 1914c: 46. (tx) Fairmaire 1892b; Schaufuss 1890: 621, 1897a: 223, 1905: 19; Schedl 1972f: 128, 1977b: 262; Strohmeyer 1912c: 22, 1914c: 46.
- obconiceps** Schedl 1970d: 238. Holotype ♂; Madagascar, Perinet; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Cedrela* sp., *Commiphora* sp., *Dalbergia* sp., *Erythroxylon* sp., *Pinus insularis*, *Ravensara* sp., *Rhodobaena bakeriana*.
References: (ds) Schedl 1970d: 235, 1972f: 128, 1977b: 263. (tx) Schedl 1965c: 83, 1970d: 235, 238, 1972f: 128, 1977b: 263, 1978b: 48.
- obliquatum** Schedl 1961e: 164. Holotype ♂; Madagascar, Perinet, Betsatsakry, Antaniditra pres Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Cedrela* sp., *Chrysophyllum boivinianum*, *Dalbergia* sp., *Erythroxylon* sp., *Eucalyptus* sp., *Ocotea* sp., *Pinus insularis*, *Rhodobaena bakeriana*, *Symphonia* sp., *Trichilia* sp., *Uapaca* sp.
References: (ds) Schedl 1970d: 235, 1972f: 128, 1977b: 264. (tx) Schedl 1961e: 164, 1965c: 80, 1972f: 128, 1977b: 264, 1978a: 48.
- obtusum** Schedl 1961e: 165. Holotype ♂; Madagascar, Perinet, Betsatsakry pres Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Cussonia vantsilana*, *Dalbergia* sp., *Leptolaena multiflora*, *Symphonia* sp.
References: (ds) Schedl 1970d: 235, 1972f: 128, 1977b: 265. (tx) Schedl 1961e: 165, 1972f: 128, 1977b: 265, 1978a: 49.
- octospinosum** Schedl 1970d: 239. Holotype ♂; Madagascar, Bemampidy; MNHN, Paris.
Distribution: Madagascar.
Hosts: *Mauloutchia* sp.
References: (ds) Schedl 1972f: 128, 1977b: 265. (tx) Schedl 1970d: 239, 1972f: 128, 1977b: 265, 1978a: 49.
- odonticeps** Schedl 1961e: 159. Holotype ♂; Madagascar, Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Ravensara perillei*, *R. polyneura*, *Ravenala madagascarensis*, *Sydcroxylon* sp., *Trichilia* sp.
References: (ds) Schedl 1972f: 128, 1977b: 266. (tx) Schedl 1961e: 159, 1970d: 235, 1972f: 128, 1977b: 266, 1978a: 49.
- paulianum** Schedl 1950h: 111. Lectotype ♂; Madagascar, Manjakatampo; Schedl Collection in NHMW, Wien.
Figures: Schedl 1962k: 1038 (male).
Distribution: Madagascar, South Africa.
Hosts: *Chrysophyllum boivinianum*, *Elacocarpus* sp., *Ficus* sp., *Mespilodaphne* sp., *Rhodobaena bakeriana*, *Symphonia* sp., *Tricocodendron acuminatum*.
Notes: (3) Schedl 1961e: 166 (described female).
References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (ds) Schedl 1972f: 128, 1977b: 267. (tx) Schedl 1950h: 111, 1961e: 166, 1962k: 1038, 1972f: 128, 1977b: 267, 1978a: 52.
- planum** Schaufuss 1897a: 224. Holotype ♂; Madagascar (Sikora num. 91.); Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluand 1900: 441; Schedl 1972f: 128, 1977b: 268; Strohmeyer 1912c: 22, 1914c: 46. (tx) Schaufuss 1897a: 223–224, 1905: 19; Schedl 1972f: 128, 1977b: 268; Strohmeyer 1912c: 22, 1914c: 46.
- robustum** Schaufuss 1890: 623. Holotype ♂; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluand 1900: 441; Fairmaire 1892b; Schedl 1972f: 128, 1977b: 268; Strohmeyer 1912c: 22, 1914c: 46. (tx) Fairmaire 1892b; Schaufuss 1890: 623, 1897a: 223; Schedl 1972f: 128, 1977b: 268; Strohmeyer 1912c: 22, 1914c: 46.
- rugosum** Schaufuss 1905: 11. Holotype ♂; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Schedl 1972f: 128, 1977b: 268. (tx) Schaufuss 1905: 11; Schedl 1972f: 128, 1977b: 268.
- sexspinosum** Schedl 1961e: 160. Holotype ♂; Madagascar, Montagne d'Ambre, Plateau 1100 m; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Canarium* sp., *Didymeles* sp., *Ekbergia suavis*, *Elacocarpus* sp., *Eugenia* sp., *Ficus* sp.

References: (ds) Schedl 1972f: 128, 1977b: 269. (tx) Schedl 1961e: 160, 1972f: 128–129, 1977b: 269–270, 1978a: 66.

sulcipeennis (Schedl) 1965c: 84 (*Coccephalophilomus*). Holotype, sex?: Madagascar, Perinet; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.

Notes: (3) Schedl 1979j: 130 (described male).

References: (ds) Schedl 1972f: 129, 1977b: 270. (tx) Schedl 1965c: 84–85, 1971e: 17, 1972f: 129, 1977b: 270, 1978a: 72, 1979j: 130.

suspica Schedl 1970d: 239. Holotype ♂; Madagascar, Sahafanjana (Manambato), Anove; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Mauloutchia* sp.

References: (ds) Schedl 1972f: 129, 1977b: 270. (tx) Schedl 1970d: 239–240, 1972f: 129, 1977b: 270, 1978a: 72.

thoracicum Schedl 1965c: 80. Holotype ♂; Madagascar, Sambava; Schedl Collection in NHMW, Wien.

Figures: Schedl 1972f: 129 (male).

Distribution: Madagascar.

References: (ds) Schedl 1972f: 73. (tx) Schedl 1960c: 62, 1965c: 80, 1972f: 129–130, 1977b: 270, 1978a: 73.

umbonatum Schedl 1972f: 130. Holotype ♂; Madagascar, Sambava; Schedl Collection in NHMW, Wien, automatic.

Notes: (1) This is an unneeded replacement name.

References: (ds) Schedl 1972f: 130. (tx) Schedl 1972f: 130.

truncatipennis Schedl 1961e: 162. Holotype ♀; Madagascar, Perinet, Scierie; IRSM, Madagascar.
Distribution: Madagascar.

Hosts: *Eucalyptus robusta*, *Ravensara* sp., *Trichilia* sp.

Notes: (3) Schedl 1965c: 81 (described male).

References: (ds) Schedl 1970d: 235, 1972f: 129, 1977b: 271. (tx) Schedl 1961e: 162, 1965c: 81, 1970d: 235, 1972f: 129, 1977b: 271, 1978a: 75.

truncatipennis tavolac Schedl 1965c: 82. Holotype ♂; Madagascar, Betsatsaky bei Perinet; Schedl Collection in NHMW, Wien.

References: (hb) Schedl 1977b: 271. (ds) Schedl 1972f: 129. (tx) Schedl 1965c: 82, 1972f: 129, 1977b: 271, 1978a: 76.

truncatum Schedl 1965c: 82. Holotype ♂; Madagascar, Kahlschlag in Betsatsaky bei Perinet; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

References: (ds) Schedl 1972f: 129, 1977b: 272. (tx) Schedl 1965c: 82–83, 1972f: 129, 1977b: 272, 1978a: 76.

vulpinum Schedl 1965c: 83. Holotype ♂; Madagascar, Perinet; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Cussonia vantsilana*.

References: (ds) Schedl 1972f: 130, 1977b: 272. (tx) Schedl 1965c: 83, 1972f: 130, 1977b: 272, 1978a: 81.

Subfamily Platypodinae Erichson

See also the citations of Family Platypodidae

Platypodinae

References: Handlirsch 1925: 692; Hopkins 1915c: 227; Lucas 1920: 50; Schedl 1972f: 83, 113; Strohmeier 1912c: 4.

Tribe Platypodini Erichson

Platypodariae

References: Strohmeier 1914b: 18.

Platypodini

References: Lucas 1920: 50; Schedl 1939b: 396.

Crossotarsariae

References: Strohmeier 1914b: 18.

Crossotarsini

References: Schedl 1939b: 397, 401.

Crossotarsinae

References: Schedl 1972f: 83.

Genus *Platypus* Herbst

PLATYPUS HERBST 1793: 128. Type-species: *Bostrichus cylindrus* Fabricius, monobasic.

Cylindra Illiger 1825: 87. Type-species: *Cylindra platypus* Illiger = *Bostrichus cylindrus* Fabricius, monobasic. Synonymy: Chapuis 1865: 97.

References: (tx) Bedel 1888b: 404; Chapuis 1865: 97; Illiger 1825: 87; Swaine 1909: 84; Wood, S. L. 1979a: 1.

Steuoplatypus Strohmeier 1914c: 35. Type-species: *Crossotarsus spinulosus* Strohmeier, subsequent designation by Wood 1992a: 90. Synonymy: Schedl 1939: 398.

References: (tx) Browne 1961c: 216, 1972a: 181; Kalshoven 1960: 31–50; Schedl 1939b: 398, 1972f: 215; Strohmeier 1914c: 35; Wood, S. L. 1979a: 1, 1992a: 90.

Platypinus Schedl 1939b: 397. Type-species: *Platypus curtus* Chapuis, subsequent designation by Wood 1992a: 90. Synonymy: Wood 1979a: 1.

References: (tx) Schedl 1939b: 397; Wood, S. L. 1979a: 1, 1992a: 90.

Austroplatypus Browne 1971a: 49. Type-species: *Platypus incompertus* Schedl, original designation. Synonymy: Wood 1993: (in preparation).

References: (hb) Schedl 1972f: 269–272. (ds) Schedl 1972f: 269–272. (tx) Browne 1971a: 49–50, 1972a: 180; Schedl 1972f: 269.

Keys: Chapuis 1865 (worldwide), Blandford 1894d: 133 and Nobuchi 1973b: 8 (Japan), Blandford 1895b: 91 (Mexico and Central America), for generic groups Schedl 1972f: 169–183, Strohmeier 1914c, Wood ex 1993.

Notes: (3) A major generic revision of Platypodidae was prepared by me after this catalog was complete, but before it was published, in which more than half of the species of *Platypus* were transferred elsewhere. Only a small fraction of those changes are found in this catalog, i. e., *Platyscapulus* and *Treptoplatypus*. The generic revision is expected to be published in 1993 (SLW).

References: (ay) Fuchs 1912: 5–7, 14–33; Gardner 1932: 1–9; Strohmeier 1918: 1–46. (cn) Barbey 1901: 115; Beeson 1916: 1–5, 1918: 114–124; Bennett 1958: 1–35; Blackman 1950: 300, 341–342; Catoni 1921: 21–25; Chamberlin 1918: 34–35, 1958: 33–34; Chellman 1958: 3, 8–9; Curry 1958: 128–132; Dorsey & Leach 1956: 222; Dourojeanni 1965: 9–32; Ferguson, Gibbs, & Thatcher 1960: 27–29; Fisher, Thompson, & Webb 1954: 1–21; Fonseca, Pinto da 1934: 263–289; Froggatt 1926: 359–382; Greene & Ulrich 1931: 227–282; Hagle et al. 1987: 39; Johnson 1958: 508–511; Kelsey 1947: 65–100; Maas 1921: 1–12; Mayne 1917: 1–80; Menzel 1923: 3; Roughley & Welch 1931: 1–27; Sheppard 1925: 50–54; Shuckard 1938: 508–509; Sterrett 1916: 1–88; Swaine 1914: 40, 1916c: 628; Wearne 1923: 412–413; Wolcott 1948: 385; Yazawa, Higochi, & Machii 1957: 1–56. (hb) Beeson 1910: 222–223; Froggatt 1927: 77–79; Hetrick 1967: 297; Johnson 1958: 236; Judeich & Nitsche 1895: 441–442; Kalshoven 1960: 31–34, 1963: 237; Lengerken 1939: 250, 257–258; Munro 1928: 1–29, 1946: 10–43; Neger 1908: 279; Snyder 1927: 13, 40. (ds) Beeson 1938: 295; Blackwelder 1947: 788; Cachan 1957: 5; Crotch 1863: 18; Hetrick 1967: 297; Horn 1933: 173–174; Kolbe 1897: 37, 284; Lara & Shenefelt 1965: 175; Lever 1940: 38; Lovendal 1889: 29, 83; Lundblad 1958: 512; Murayama 1928: 30; Roepke 1911: 10–11; Shuckard 1838: 508–509. (tx) Balachowsky 1949a: 276; Beal & Massey 1945: 62; Bedel 1888b: 385, 404, 421; Beeson 1922: 1–2, 1941: 341–347; Bertolini 1872: 202; Blackman 1922b: 38–39, 1944: 78; Blandford 1893c: 11; 1893d: 442, 1894d: 133, 1895b: 81–95, 114, 193–198; Blatchley & Leng 1916: 581–584; Bright 1972d; Broum 1880: 539–540; Browne 1935b: 182–186, 1936a: 1, 1950b: 649, 1955: 364, 1958b: 164–182, 1960: 213, 1961c: 194–212, 1962e: 652, 655, 1966: 233–257, 1971a: 49–50, 1972a: 184; Chamberlin 1939: 17, 36, 102–109, 1958: 33–34; Chapuis 1865: 22, 97–288; Eichhoff 1864b: 18–22, 42–45, 1881a: 305–307; Endrodi 1957: 420; Erichson 1836: 64; Escherich 1923: 459–460, 633, 638; Gaubil 1849: 125; Guerin-Meneville 1838: 183; Hagedorn 1904: 411–412, 1907: 290–293, 1910a: 1; Herbst 1793: 128; Hopkins 1914: 127, 133, 1915c: 179, 181, 198–199, 202, 227; Hubbard 1897: 14–15; Jacquelin du Val & Fairmaire 1868: 107; Karaman

- 1972: 162; Lacordaire 1866: 355, 389, 391; Latreille 1807: 277; Lea 1910: 136; LeConte 1868: 150, 1876: 343; LeConte & Horn 1883: 513–514; Motschulsky 1858: 68; Murayama 1925: 210–211, 1934: 146; Niisima 1909: 171; Nunberg 1940: 63–69, 1951: 261, 1953: 46; Nusslin 1911a; Ratzeburg 1837: 129–138, 187–188, 1839: 230; Redtenbacher 1845: 95, 151, 167; Reitter 1913a: 111–112, 1916: 306; Sampson 1924a: 545, 1924c: 129; Schedl 1935g: 320, 1935n: 633, 1939b: 383, 388–391, 397, 1940c: 203–208, 1955g: 3, 48, 1957b: 159, 1957d: 118, 1958k: 145, 1959a: 512, 1959n: 545–557, 1962k: 597–599, 1962n: 697–699, 1963j: 483, 486, 1968e: 261–270, 1972f: 169–242, 1977b: 239; Schimitschek 1937: 60; Sedlacek 1902: 2; Shuckard 1840 (1861: 64); Stebbing 1907: 41, 1914: 619–628, 634; Stephens 1839: 205–206; Strohmeyer 1911a: 174, 1911b: 26, 1911d: 218, 1912c: 3, 10–19, 1912f: 78, 1914c: 1–22; Swaine 1909: 83–84; Westwood 1836: 35, 1840: 40; Wood, S. L. 1958b: 37–40, 1960a: 3, 6; Zimmermann 1868: 142.
- abietis** Wood 1958b: 39. Holotype ♂; Oak Creek Canyon, Millard Co., Utah [USA]; Wood Collection. Distribution: North America (Arizona, New Mexico, Utah in USA). Hosts: *Abies concolor*. References: (ds) Equihua & Atkinson 1987: 18; Furniss, R. L. & Carolin 1977: 338; Schedl 1972f: 197; Wood, S. L. 1958b: 39, 1979a: 1. (tx) Equihua & Atkinson 1987: 18; Schedl 1972f: 197, 1978b: 9; Wood, S. L. 1958b: 39, 1979a: 1.
- abnormis** Schedl 1975f: 378. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1975f: 378.
- abruptifer** Wood 1992a: 90. Holotype ♂; New Guinea: Adi Island to Nagoya (Japan), imported; BMNH, London, automatic. Distribution: New Guinea. Hosts: *Pometia* sp. References: (tx) Wood, S. L. 1992a: 90.
- abruptus** Browne 1986b: 337. Holotype ♂; New Guinea: Adi Island to Nagoya (Japan), imported; BMNH, London, preoccupied by Sampson 1923. References: (tx) Browne 1986b: 337; Wood, S. L. 1992a: 90.
- abruptulus** Browne 1984a: 158. Holotype ♂; Pomio (New Britain) to Nagoya (Japan), imported; BMNH, London. Distribution: New Britain Island. References: (ds) Ohno, Yoshioka, et al. 1989: 65. (tx) Browne 1984a: 158.
- abruptus** Sampson 1923b: 285. Holotype ♂; India: Mandali, Jamsar, 6000 ft.; BMNH, London. Distribution: Asia (Uttar Pradesh in India). Hosts: *Quercus incana*. References: (ds) Schedl 1972f: 212. (tx) Browne 1962e: 643; Murayama 1928a: 286; Sampson 1923b: 285; Schedl 1964c: 301, 1972f: 212.
- acetabuliformis** Roberts 1986: 40. Holotype ♂; New Guinea: Papua, Popondetta; BMNH, London. Distribution: New Guinea. Hosts: *Amoora* sp. Notes: (3) Roberts 1989: 263 (described female). References: (tx) Roberts 1986: 40.
- acetabuliformis comalis** Roberts 1989: 263. Holotype ♂; Papua New Guinea: Gumi, Watit Logging Area, Bulolo, 2200 m; NIIMW, Wien. References: (tx) Roberts 1989: 263, 286.
- acuticornifer** Wood 1981: 121. Holotype ♂; Luth. Miss. Sawmill, Porotop, Papua; Schedl Collection in NHMW, Wien, automatic. Distribution: New Guinea. References: (tx) Schedl 1975g: 223; Wood, S. L. 1981: 121 (published in March).
- acuticornis** Schedl 1975g: 223. Holotype ♂; Luth. Miss. Sawmill, Porotop, Papua; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1973. References: (tx) Schedl 1975g: 223.
- longicornis** Browne [1980f] 1981: 215. Holotype ♂; Luth. Miss. Sawmill, Porotop, Papua; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1942. References: (tx) Browne 1980f: 215 (actually published in September–December 1981).
- acuticornis** Schedl 1973f: 77. Holotype ♂; N. slope Mt. Dayman, Maneau Range, M. Bay Dist., 1550 m; AMNH, New York. Distribution: New Guinea. References: (tx) Schedl 1973f: 77, 1978b: 9.
- acutidentatus** Murayama 1956b: 11. Holotype ♂; Palau Island; USNM, Washington. Figures: Murayama 1956b: figs. 1–8, Wood 1960a: 10. Distribution: Micronesia (Palau Island). References: (ds) Schedl 1972f: 208; Wood, S. L. 1960a: 7. (tx) Murayama 1956b: 11; de Ruelle 1970: 68; Schedl 1972f: 208; Wood, S. L. 1960a: 7, 10.
- adnexus** Schedl 1967d: 17. Holotype ♂; Brasilien, Nova Teutonia, Santa Catarina; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (ds) Schedl 1972f: 213. (tx) Schedl 1967d: 17–18, 1972f: 213, 1978b: 9; Wood, S. L. 1966a: 62.
- aduncus** Chapuis 1865: 283. Holotype ♀; Borneo, Sarawak; BMNH, London. (Schedl 1960c: 55). Distribution: Indonesia (Borneo). References: (ds) Sampson 1928b: 392; Schedl 1972f: 208; Strohmeyer 1912c: 18, 1914c: 28. (tx) Chapuis 1865: 283; Sampson 1928b: 392; Schedl 1935k: 481, 1941b: 416, 1960c: 55, 1972f: 208; Strohmeyer 1912c: 18, 1914c: 28.

- advena** Schedl 1972i: 54. Holotype ♂; New Guinea (NW), W. of Sentani, 75 m; BPBM, Honolulu.
Distribution: New Guinea.
Hosts: *Alstonia scholaris*, *Pimeleodendron* sp.
Notes: (3) Schedl 1974d: 464 (described female).
References: (ds) Schedl 1972f: 189. (tx) Schedl 1972f: 189, 1972i: 54, 1974d: 465, 1978b: 9.
- aequalicinctus** Schedl 1948d: 41. Lectotype ♂; Brasil: Sao Paulo: Schedl Collection in NHMW, Wien, designated by Schedl 1978b: 10.
Distribution: South America (Brazil).
References: (ds) Schedl 1972f: 230. (tx) Schedl 1948d: 41, 1972f: 230, 1978b: 10.
- aequalis** Schedl 1975g: 223. Holotype ♂; Papua, Porotop, Luth. Mission Sawmill; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 223, 1978b: 10.
- aequilaterus** Roberts 1986: 40. Holotype ♂; New Guinea: Papua, Bulolo: BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: (tx) Roberts 1986: 40.
- afzeliae** Browne 1972b: 29. Holotype ♂; Thailand: Donglam; BMNH, London.
Distribution: Asia (Thailand).
Hosts: *Afzelia xylocarpa*.
References: (ds) Beaver & Browne 1975: 305. (tx) Browne 1972b: 29.
- agathis** Browne 1986b: 335. Holotype ♂; Borneo: Bangkuran (Sabah) to Hirao (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: *Agathis* sp.
References: (tx) Browne 1986b: 335.
- agnatus** Schedl 1969a: 217. Holotype ♂; Borneo (Sarawak), Lawas to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: Indonesia (Borneo).
Hosts: *Scyara* sp., *Shorea* sp.
References: (ds) Browne 1980c: 484, 1980d: 492, 1984c: 449; Choo, Woo, & Kim 1981: 202; Nobuchi 1977: 141; Ohno et al. 1988b: 97; Schedl 1972f: 208. (tx) Nobuchi 1985: 329; Schedl 1969a: 217, 1972f: 208, 1978b: 10.
- algius** Schedl 1936j: 33. Lectotype ♂; Malaya Peninsula: Penang Id.; Schedl Collection in NHMW, Wien, designated by Schedl 1978b: 10.
Distribution: Asia (Malaya).
References: (hb) Browne 1941. (ds) Beaver & Browne 1978: 618; Browne 1961c: 206; Schedl 1936j: 33, 1972f: 208. (tx) Schedl 1936j: 33–34, 1941b: 418, 425, 1972f: 208, 1978b: 10.
- alienus** Schedl 1963d: 228. Holotype ♂; Surinam: Schedl Collection in NHMW, Wien.
Distribution: South America (Suriname).
Hosts: Bamboo and poesentria logs.
References: (ds) Schedl 1972f: 230, 1972g: 47, 1976a: 57. (tx) Schedl 1963d: 228, 1972f: 230, 1978b: 10.
- alternans** Chapuis 1865: 156. Holotype ♂ (Schedl 1960c: 24); Venezuela; BMNH, London.
Distribution: North America ("Mexico"), South America (Colombia/ Guyana/ Venezuela).
Notes: (3) Schedl 1935h: 356 (described female).
References: (hb) Cleare 1924: 61–68; Swabey 1935: 7. (ds) Blackwelder 1947: 788; Blandford 1896e: 105; Equihua & Atkinson 1987: 19; Ferrer 1942; Gemminger & Harold 1872: 2697; Schedl 1960a: 79, 1972f: 205; Strohmeier 1912c: 10, 1914c: 24; Swabey 1935: 7. (tx) Blandford 1896e: 105; Chapuis 1865: 156; Equihua & Atkinson 1987: 19; Schedl 1935h: 356, 1937c: 14, 1937d: 38, 1940a: 324, 1960a: 79, 1960c: 24, 1972f: 205, 1978b: 10; Strohmeier 1912c: 10, 1914c: 24.
- alternantecostatus** (Schedl) 1941c: 364 (*Platy-scapus*). Syntypes ♂ ♀; Java, Mt. Gede, 800 m; Kalshoven Collection, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
Hosts: *Dysoxylum* sp.
Notes: (1) Schedl 1978a: 10 (citation of holotype invalid).
References: (hb) Kalshoven 1960c: 41, 1960d: 41. (ds) Browne 1984c: 448; Kalshoven 1960d: 41; Schedl 1972f: 186. (tx) Browne 1962e: 653, 1972b: 30; Schedl 1941c: 363–365, 1972f: 186, 1978a: 10.
- ambiguus** Roberts 1987: 163. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo, 2,200 m; BMNH, London.
Figures: Roberts 1987: 176 (male elytron).
Distribution: New Guinea.
Hosts: *Planchonella* sp.
References: (tx) Roberts 1987: 163, 176.
- aniteps** Schedl 1969a: 215. Holotype ♂; Borneo (Kalimantan), Numukan to Muroan (Japan), imported; PPST, Tokyo.
Distribution: Indonesia (Borneo).
Hosts: Meranti logs.
References: (tx) Schedl 1969a: 215, 1978a: 10.
- andrewesi** Strohmeier 1910e: 128. Holotype ♂; Nilgiri Hills; H.L. Andrewes Collection.
Distribution: Asia (India/ Malaya).
Notes: (3) Schedl 1942a: 211 (described female).
References: (hb) Browne 1941. (ds) Browne 1961c: 210, 1981a: 125; Mathew 1982, 1987: 188; Schedl 1936j: 21, 1972f: 201; Strohmeier 1912c: 19, 1914c: 28. (tx) Nobuchi 1985: 329; Schedl 1936j: 21, 1939c: 2, 1939e: 337, 1942a: 211, 1972: 201, 1978b: 11; Strohmeier 1910e: 128–129, 1912c: 19, 1914c: 28.
- anguis** Browne 1984f: 59. Holotype ♂; New Guinea: Morobe District, Bulolo, Snake Creek, 1000 m; BMNH, London.
Distribution: New Guinea.

- Hosts: *Aglaia* sp.
References: (tx) Browne 1954f: 59.
- angustatulus Wood** 1966a: 55. Holotype ♂; 10 km SE Cartago on Pan-American Highway, Cartago Prov., Costa Rica, 5600 feet; Wood Collection.
Figures: Wood 1966a: 52.
Distribution: North America (Costa Rica).
References: (ds) Equihua & Atkinson 1987: 19; Schedl 1972f: 205. (tx) Equihua & Atkinson 1987: 19; Schedl 1972f: 205; Wood, S. L. 1966a: 52, 55.
- angustatus Chapuis** 1865: 157. Holotype ♂; Mexico; MNHN, Paris (Schedl 1960c: 24).
Distribution: North America (probably Veracruz in Mexico).
References: (cn) Anonymous 1953j: 25. (ce) Anonymous 1953j: 25. (ds) Blackwelder 1947: 788; Blandford 1896e: 104–105; Equihua & Atkinson 1987: 19; Ferrer 1942; Gardiner 1957a; Gemminger & Harold 1872: 2697; Mayne & Donis 1960: 98, 1962: 280; Schedl 1972f: 205; Strohmeier 1912c: 10, 1914c: 24, 36. (tx) Blandford 1896e: 104–105; Chapuis 1865: 157; Equihua & Atkinson 1987: 19; Schedl 1940a: 324, 1950d: 14, 1953g: 244, 1960c: 24, 1972f: 205; Strohmeier 1912c: 10, 1914c: 24, 36.
- angusticollis Schedl** 1942c: 197. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (bv) Gray, B. 1974b. (hb) Gray, B. 1974b. (ds) Schedl 1972f: 199. (tx) Schedl 1942c: 197, 1972f: 199, 1978b: 11.
- angustior Schedl** 1942c: 196. Holotype ♂; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: Asia (India), New Guinea.
References: (ds) Schedl 1969c: 62, 1972f: 200. (tx) Schedl 1942c: 196, 1969b: 233, 1972f: 200.
- angustioris Schedl** 1948d: 42. Syntypes ♂; Brasil, Sao Paulo; Prague Museum, and Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (1) Schedl 1978a: 11 (citation of holotype invalid).
References: (ds) Schedl 1970f: 582, 1972f: 230, 1972g: 47. (tx) Schedl 1948d: 42, 1972f: 230, 1978b: 11.
- annexus Wood** 1966a: 62. Holotype ♂; Tapanti, Cartago Prov., Costa Rica, 4000 feet; Wood Collection.
Figures: Wood, S. L. 1966a: fig. 20.
Distribution: North America (Costa Rica).
Hosts: *Quercus* sp.
References: (ds) Equihua & Atkinson 1987: 19; Schedl 1972f: 214. (tx) Equihua & Atkinson 1987: 19; Schedl 1972f: 214; Wood, S. L. 1966a: 62, 67.
- anomalus Schedl** 1975g: 224. Holotype ♀; New Guinea, Porotop, Luth. M. Station; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 224, 1978b: 11.
- anoplus Schedl** 1975f: 380. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 380.
- anthocephali Schedl** 1969c: 60. Holotype ♂; India: Bengal, Samsing, 1800 ft., Kalimpong; not in FRI, Dehra Dun.
Distribution: Asia (Bengal in India).
Hosts: *Anthocephalus cadamba*.
Notes: (1) The Schedl "paratypes" apparently are the types; none of the specimens cited by Schedl (1969c: 60) ever reached FRI. (3) Schedl 1969c: 60 (this is *anthocephali* Beeson, nomen nudum).
References: (ds) Schedl 1972f: 208. (tx) Beeson 1941 (1961: 263); Schedl 1969c: 60–61, 1972f: 208, 1978b: 11.
- aolai Browne** 1986c: 669. Holotype ♂; Solomon Islands: Aola to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: *Nonauclea* sp. log.
References: (tx) Browne 1986c: 669.
- apertulus Schedl** 1975f: 380. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 380.
- apertus (Schedl)** 1979g: 119 (*Diapus*). Holotype ♂; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Notes: (1) Roberts 1992:(in press) (to *Platypus*).
References: (tx) Roberts 1992:(in press); Schedl 1979g: 119.
- apicalis (White)** 1846: 18 (*Crossotarsus*). Holotype ♂; New Zealand, North Island; BMNH, London.
Figures: Milligan 1979: fig. 5.
Distribution: Australia, Chatham Islands, New Zealand.
Hosts: *Cordyline australis*, *Pseudotsuga menziesii*.
References: (bv) Alma & van Boven 1976; Hosking 1977; Milligan 1974, 1982a, 1982b; Neumann & Harris 1974: 136; Ytsma 1986, 1988. (cn) Grehan & Nixon 1978; Hosking 1977; Milligan 1974, 1979, 1982a, 1982b; Zondag 1982. (ce) Hosking 1977; Milligan 1974; Payton 1989; Zervos 1980. (hb) Grehan & Nixon 1978; Laird 1956: 76–84; Milligan 1970a: 61–62, 1979. (ds) Alma & van Boven 1976; Broun 1918: 147; Chapuis 1865: 337; Gemminger & Harold 1872: 2697; Grehan & Nixon 1978; Hosking 1977; Hutton 1904: 219; Laird 1956: 79, 81; Milligan 1979; Nobuchi 1977: 121; Schedl 1972f: 190; Strohmeier 1912c: 5, 1914c: 35; Zondag 1982. (tx) Broun 1880; Browne 1964: 754; Chapuis 1865: 337; Milligan 1979, fig. 5; Schedl 1941e: 154, 1942c: 164, 1960c: 64, 1972f: 190; Strohmeier 1912c: 5, 1914c: 35; White 1846: 18. (ms) Ytsma 1986.

- douci* Chapuis 1865: 237. Syntypes ♂ ♀; de la Nouvelle-Zelande; BMNH, London, MNB, Berlin, IRSNB, Brussels, and MNHN, Paris (Schedl 1960c: 44). Synonymy: Schedl 1941e: 154.
References: (cn) Zondag 1966. (hb) Clark 1932a: 235–243. (ds) Clark 1932a: 235–243; Gemminger & Harold 1872: 2698; Hutton 1904: 219; Strohmeier 1912c: 16, 1914c: 26. (tx) Broun 1880; Browne 1964: 754; Chapuis 1865: 237; Schedl 1935k: 485, 1937d: 40, 1941e: 154, 1960c: 44, 1972f: 190; Strohmeier 1912c: 16, 1914c: 26.
- castaneus* Broun 1880: 542. Holotype ♂; Tairua, New Zealand; Broun Collection. Synonymy: Schedl 1962n: 754.
References: (ds) Hutton 1904: 219; Strohmeier 1912c: 19, 1914c: 28. (tx) Broun 1880: 542; Browne 1964: 754; Schedl 1957d: 118, 1972f: 190; Strohmeier 1912c: 19, 1914c: 28.
- apicaloides* Schedl 1964g: 251. Holotype ♂; Sarawak, Setapok; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Garcinia* sp.
References: (hb) Browne 1961c: 212. (ds) Browne 1961c: 212; Schedl 1972f: 186. (tx) Schedl 1964g: 251, 1972f: 186, 1978b: 12.
- apicatus* Schedl 1975f: 381. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 381.
- apicatus* Schedl 1974d: 466. Holotype ♂; Panganda logging area, Watut Valley, Morobe District, New Guinea, 2126 m; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Castanopsis acuminatissima*.
References: (tx) Schedl 1974d: 466.
- applanatus* Wood 1992b: 79. Holotype ♂; Manaus, Amazonas; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Wood, S. L. 1992b: 79.
- aplanatus* Schedl 1976a: 85. Holotype ♂; Manaus, Amazonas; Schedl Collection in NHMW, Wien, preoccupied by *applanatus* Wood 1972.
Notes: (1) The names *aplanatus* and *applanatus* are homonyms under the Code even though they differ by one letter.
References: (tx) Schedl 1976a: 85; Wood, S. L. 1992b: 79.
- applanatus* Wood 1972b: 244. Holotype ♂; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Pouteria egregia*.
References: (tx) Wood, S. L. 1972b: 244.
- araucariae* Schedl 1966e: 44. Holotype ♂; Sudbrasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Hosts: *Araucaria angustifolia*.
References: (ds) Schedl 1972f: 205, 1976a: 57; Schonherr & Pedrosa-Macedo 1981: 57. (tx) Schedl 1966e: 44, 1972f: 205, 1978b: 12.
- arcuatus* Schedl 1976a: 86. Holotype ♂; V. Vera, Matto Grosso, Brazil, Lon. 55 36. Lat. 12 46; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 86.
- arduus* (Schedl) 1942a: 214 (*Platyscapus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
Hosts: *Shorea* sp.
Notes: (3) Schedl 1969a: 218 (described male).
References: (ds) Nobuchi 1977: 123; Schedl 1969a: 206, 1972f: 190. (tx) Browne 1962e: 653; Schedl 1942a: 214, 1969a: 218, 1972a: 190, 1978b: 12.
- areolatus* Chapuis 1865: 179. Holotype ♀; Cuba; Schedl (1960c: 30) was unable to find this type.
Distribution: Antilles Islands (Cuba).
References: (ds) Blackwelder 1947: 788; Equihua & Atkinson 1987: 19; Schedl 1972f: 230; Strohmeier 1912c: 10, 1914c: 24. (tx) Chapuis 1865: 179; Equihua & Atkinson 1987: 19; Schedl 1960c: 30, 1972f: 230; Strohmeier 1912c: 10, 1914c: 24.
- arisaunensis* Murayama 1934f: 135. Holotype ♀; Arisan (Formosa); Murayama Collection in USNM, Washington.
Distribution: Asia (Taiwan).
References: (ds) Murayama 1934f: 135, 1937c: 578; Nobuchi 1967: 26; Schedl 1972f: 194. (tx) Murayama 1934f: 135; Schedl 1972f: 194.
- armaticeps* Schedl 1936d: 15. Lectotype ♂; Malay Peninsula, Perak, Bintang Hijau Res., Chengal; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 12.
Distribution: Asia (India/ Malaya).
Hosts: *Balanocarpus heimii*.
Notes: (3) Beeson 1941 (1961: 263) (*armaticeps*, nomen nudum, not found in FRI by SLW in 1981).
References: (hb) Browne 1941. (ds) Beeson 1941 (1961: 263); Browne 1961c: 202; Schedl 1960c: 206. (tx) Schedl 1936d: 15–16, 1972f: 206, 1978a: 12.
- armatus* Chapuis 1865: 222. Holotype ♂; Colombie; Schedl (1960c: 41) was unable to find this type.
Distribution: North America (Costa Rica), South America (Colombia).
References: (ds) Blackwelder 1947: 788; Blandford 1896e: 109–110; Equihua & Atkinson 1987: 19; Gemminger & Harold 1872: 2697; Schedl 1972f: 226; Strohmeier 1912c: 13, 1914c: 26. (tx) Blandford 1896e: 109–110; Chapuis 1865: 222; Equihua & Atkinson 1987: 19; Lucas 1920: 522;

- Schedl 1939b: 399, 1960c: 41, 1972f: 226; Strohmeyer 1912c: 13, 1914c: 26.
- arrogans** Schedl 1971c: 357. Holotype ♀; Laos; Schedl Collection in NHMW, Wien.
Distribution: Asia (Laos).
References: (ds) Schedl 1972f: 194. (tx) Schedl 1971c: 357–388, 1972f: 194, 1978b: 12.
- artecarinatus** Schedl 1935l: 352. Holotype ♂; Costa Rica, Hamburgfarm, [Rio] Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
References: (ds) Blackwelder 1947: 788; Equihua & Atkinson 1957: 19; Schedl 1972f: 235. (tx) Equihua & Atkinson 1957: 19; Schedl 1935h: 352–353, 1972f: 238, 1978b: 12.
- artecostatus** (Schedl) 1941c: 363 (*Platyscapus*). Syntypes ♂ ♀; Java, Mnt. Gede, 800 m; Kalshoven Collection, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo, Java).
Notes: (1) Schedl 1978a: 13 (citation of holotype invalid).
References: (hb) Kalshoven 1960c: 41. (ds) Browne 1961c: 213; Kalshoven 1960d: 41; Schedl 1972f: 186. (tx) Browne 1962e: 653; Schedl 1941c: 363–364, 1958h: 498, 1972f: 186, 1978a: 12.
- artesolidus** Schedl 1942a: 201. Lectotype ♂; Malaya, Rotan Tunggal F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 13.
Distribution: Asia (Malaya), Philippine Islands.
Hosts: *Vatica* sp.
References: (ds) Browne 1961c: 209, 1962c: 201, 1980d: 490, 1983a: 555; Schedl 1966b: 89, 1972f: 197. (tx) Nobuchi 1985: 329; Schedl 1942a: 201, 1972f: 197, 1978a: 13.
- artetrumcatus** Schedl 1979g: 109. Holotype ♂; Papua UMLA [Upper Manki logging area], Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 109.
- asperatus** Schedl 1976a: 86. Holotype ♂; V. Vera, Matto Grosso, Brazil, Lon. 55° 36', Lat. 12° 46'; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 86.
- aspicis** Roberts & Morimoto 1986: 163. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Planchonella* sp.
References: (tx) Roberts & Morimoto 1986: 163.
- assamelae** Browne 1986b: 339. Holotype ♂; Congo: Pointe Noire to Nagoya (Japan), imported; BMNH, London.
Distribution: Africa (Zaire)
Hosts: *Pericopsis elata* log.
- References: (tx) Browne 1986b: 339.
- assimilis** Schedl 1965g: 28. Holotype ♂; O. Borneo, Mt. Tibang, 1300 and 1400 m; NHR, Stockholm.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 207. (tx) Schedl 1965g: 28, 1972f: 207, 1978b: 13.
- associatus** Schedl 1973e: 95. Holotype ♂; Buvusi, West New Britain District; CSIRO, Canberra.
Distribution: New Britain Island.
Hosts: *Eucalyptus deglupta*.
References: (tx) Schedl 1973e: 95, 1978a: 13.
- astutus** Schedl 1965g: 28. Holotype ♂; O. Borneo, Mt. Tibang, 1300 m; NHR, Stockholm.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 200. (tx) Schedl 1965g: 28, 1972f: 200, 1978b: 13.
- atrans** Roberts 1989: 264. Holotype ♂; Papua New Guinea: Mt. Kaindi, 2100–2350 m; NHMW, Wien.
Figures: Roberts 1989: 286.
Distribution: New Guinea.
References: (tx) Roberts 1989: 264.
- attentus** Schedl 1936c: 234. Holotype ♀; Suriname; Schedl Collection in NHMW, Wien.
Distribution: South America (Guyana/Suriname).
References: (ds) Blackwelder 1947: 788; Schedl 1972f: 238. (tx) Schedl 1936c: 234, 1972f: 238, 1978b: 13.
- auricularis** Chapuis 1865: 125. Syntypes 2 ♂; Ste. Catherine; 1 in MNB, Berlin, 1 in IRSNB, Brussels (Schedl 1960c: 16).
Distribution: South America (Brazil/ Cayenne).
References: (ds) Blackwelder 1947: 788; Gemminger & Harold 1872: 2697; Schedl 1972f: 238; Strohmeyer 1912c: 8, 1914c: 23. (tx) Chapuis 1865: 125; Schedl 1936c: 224, 1937d: 37, 1960c: 16, 1972f: 238; Strohmeyer 1912c: 8, 1914c: 23.
- auritus** Chapuis 1865: 123. Syntypes ♂ ♀; Mexico: Toxpan; BMNH, London.
Distribution: North America (Veracruz in Mexico).
References: (ds) Blackwelder 1947: 788; Blandford 1896e: 97; Equihua & Atkinson 1957: 19; Gemminger & Harold 1872: 2697; Schedl 1972f: 238; Strohmeyer 1912c: 8, 1914c: 23. (tx) Blandford 1896e: 97; Chapuis 1865: 123; Equihua & Atkinson 1957: 19; Schedl 1934e: 210, 1936c: 224, 1940a: 324, 1960c: 16, 1972f: 238; Strohmeyer 1912c: 8, 1914c: 23.
- australis** Chapuis 1865: 240. Holotype ♀; Moreton-Bay, cote orientale de la Nouvelle-Hollande [Australia]; BMNH, London.
Distribution: Australia.
Hosts: *Argyrodendron peralatum*, *Beilschmidia bancroftii*, *Ceratopetalum succirubrum*, *Cryptocarya ablato*, *Doryphora armatica*, *Yantho-phyllum ostandrum*.
References: (av) Ting 1936: 95. (cn) Brimblecombe 1951, 1956; Froggatt 1926b, 1927; Smith,

- J. H. 1932: 232, 1939: 32–35. (**hb**) Brimblecombe 1951, 1956; Froggatt 1926b, 1927. (**ds**) Boisduval 1835; Browne 1981a: 126; Gemminger & Harold 1872: 2697; Nobuchi 1977: 125; Sampson 1925: 1; Schedl 1936g: 515, 1964c: 306, 1966g: 36, 1972a: 144, 1972f: 144, 196, 1975h: 352, 1979a: 159; Strohmeier 1912c: 18, 1914c: 28. (**tx**) Carne et al. 1980; Chapuis 1865: 240; Lea 1904: 105; Sampson 1925: 1; Schedl 1936e: 58–59, 1936g: 515, 1960c: 45, 1972f: 196; Strohmeier 1912c: 18, 1914c: 28.
- crenatus* Chapuis 1865: 287. Holotype ♂; Moreton Bay, Nouvelle-Hollande [Australia]; IRSNB, Brussels (Schedl 1960c: 56). Synonymy: Lea 1904: 105.
References: (**en**) Froggatt 1926b. (**hb**) Froggatt 1926b. (**ds**) Gemminger & Harold 1872: 2698; Sampson 1925: 1. (**tx**) Chapuis 1865: 287; Lea 1904: 105; Sampson 1925: 1; Schedl 1960c: 56, 1972f: 196.
- bajulus** Schedl 1936e: 52. Lectotype ♂; Mentawai, Sipora, Sereinu; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 13.
Distribution: Asia (Malaya), Indonesia (Java, Mentawai, Sumatra).
Hosts: *Artocarpus elastica*, *Etodia* sp., *Horsfieldia glabra*, *Podocarpus imbricata*, *Sarcocephalus* sp.
References: (**hb**) Kalshoven 1960c: 35. (**ds**) Browne 1961c: 198, 1986c: 662; Kalshoven 1960d: 36; Schedl 1972f: 192. (**tx**) Schedl 1936e: 52–53, 1939e: 336, 1941c: 354, 1942a: 172, 1950g: 895–896, 1972f: 192, 1978b: 13.
- bajulus sumatranus* Schedl 1936e: 53. Holotype ♂; Sumatra; Schedl collection in NHMW, Wien (Schedl 1978a: 14).
Notes: This is apparently an aberration that should have no taxonomic status.
References: (**ds**) Schedl 1972f: 192. (**tx**) Schedl 1936e: 53, 1972f: 192, 1978a: 14.
- balanocarpus** Schedl 1936d: 15. Lectotype ♂; Malay Peninsula, Pahang; Trannu; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 14.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Balanocarpus heinuii*, *Shorea ovata*, *S. parvifolia*.
Notes: (3) Beeson 1941 (1961: 263) (*balanocarpus*, nomen nudum, not now in FRI).
References: (**hb**) Browne 1936a, 1941, 1961c: 212. (**ds**) Beeson 1961: 263; Browne 1936a, 1961c: 212, 1980b: 381, 1984c: 448; Schedl 1959c: 168, 1971c: 366, 1972f: 185. (**tx**) Schedl 1936d: 15, 1972f: 185, 1978a: 14.
- barbatulus** Schedl 1942a: 209. Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (**ds**) Schedl 1972f: 194. (**tx**) Schedl 1942a: 209, 1972f: 194, 1978a: 14.
- barbosai** Schedl 1972g: 75. Holotype ♂; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (3) Schedl 1976a: 87 (described female).
References: (**tx**) Schedl 1972g: 75, 1976a: 87, 1978a: 14.
- batesi** Chapuis 1865: 139. Holotype ♀; Bresil, Ega.; BMNH, London.
Distribution: South America (Brazil).
References: (**ds**) Blackwelder 1947: 788; Gemminger & Harold 1872: 2697; Schedl 1972f: 238; Strohmeier 1912c: 8, 1914c: 23. (**tx**) Chapuis 1865: 139; Schedl 1960c: 19, 1972f: 238; Strohmeier 1912c: 8, 1914c: 23.
- beareri** Browne 1975: 306 in Beaver & Browne. Holotype ♂; Thailand: Chiang Mai, Doi Pui, 1600 m; BMNH, London.
Distribution: Asia (Thailand).
Hosts: *Castanopsis* sp., *Quercus* sp.
References: (**tx**) Beaver & Browne 1975: 306.
- beilschmiediae** Schedl 1957d: 122. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Nigeria/ Zaire).
Hosts: *Beilschmiedia gilbertii* var. *glabra*.
References: (**ds**) Mayne & Donis 1962: 281; Roberts 1968: 281; Schedl 1962k: 639, 1972a: 223. (**tx**) Schedl 1957d: 120, 122, 1962k: 639, 1972f: 223, 1978b: 14.
- bellus** Schedl 1933c: 172. Holotype ♂; Argentina, San Ignacio, Alto Parana; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Cuba/ Guadeloupe), North America (Mexico), South America (Argentina/ Bolivia/ Brazil/ Colombia/ Paraguay).
Notes: (3) This is a southern South American species; records from the Antilles Islands and from North America may represent interceptions or errors in identification.
References: (**ds**) Blackwelder 1947: 788; Santoro 1957b: 25; Schedl 1933c: 172. (**tx**) Schedl 1933c: 172, 1936c: 237, 1936e: 51, 1937d: 39, 1948d: 38, 1952a: 446, 1958f: 35, 1960c: 26, 1972f: 233 (error), 1978b: 14; Wood, S. L. 1973a: 52.
- virgatus* Schedl 1935h: 355. Holotype ♂; Cuba; Schedl Collection in NHMW, Wien. Synonymy: Wood 1973f: 52.
References: (**ds**) Blackwelder 1947: 791. (**tx**) Schedl 1935h: 355–356, 1960c: 26, 1972f: 233, 1978a: 81; Wood, S. L. 1973f: 52.
- bicarimulatus** Schedl 1942a: 200. Holotype ♂; Malaya, Pahang, Frasers Hills; BMNH, London.
Distribution: Asia (Malaya).
References: (**ds**) Browne 1961c: 199; Schedl 1972f: 197. (**tx**) Schedl 1942a: 200, 1972f: 197, 1978a: 14.
- bicaudatulus** Schedl 1935h: 359. Holotype ♂; Venezuela; Schedl Collection.

- Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 788; Schedl 1972f: 213. (tx) Schedl 1935h: 359, 1972f: 213, 1978a: 14.
- bicaudatus** Browne 1981a: 134. Holotype ♂; Lavas (Borneo) to Tokyo (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: *Shorea* sp.
References: (tx) Browne 1981a: 134.
- bicolor** Montrouzier 1861: 266. Syntypes?; Neu Caledonien; not located.
Distribution: New Caledonia Island.
References: (ds) Beeson 1938b: 295; Schedl 1972f: 242. (tx) Montrouzier 1861: 266; Schedl 1972f: 242.
- bicorniger** Schedl 1937e: 547. Syntypes ♂; Sarawak, foot of Mt. Dulit, junction of rivers Tinjar and Lejok; BMNH, London.
Distribution: Indonesia (Borneo).
Notes: (1) Schedl 1978a: 15 restricts type to BMNH, London material; the form he designated as the female of this species was later described as the male of *bihamatus* Schedl.
References: (ds) Schedl 1972f: 192. (tx) Schedl 1937e: 547, 1942a: 209, 1972f: 192, 1978a: 15.
- bicornis** Nunberg 1939: 219. Holotype ♀; Peru; Polischen Zoologischen Staatsmuseums, Warsaw.
Distribution: South America (Peru).
References: (ds) Blackwelder 1947: 788; Schedl 1972f: 238. (tx) Nunberg 1939: 219, 1940: 68, 1959c: 168; Schedl 1960e: 110.
- bidens** Schedl 1970e: 106. Holotype ♀; Brasilien, Terr. Amapa, Rio Felício; Departamento de Zoologia, Secretaria Agricultura, Sao Paulo.
Distribution: South America (Brazil).
References: (ds) Schedl 1970e: 86, 1972f: 186. (tx) Schedl 1970e: 106, 1972f: 186.
- bifidus** Schedl 1942a: 211. Lectotype ♂; Malaya, Pahang, Buloh F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 15.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: Anonaceae sp., *Canarium* sp., *Dryobalanops oblongifolia*, *Myristica* sp.
References: (hb) Browne 1961c: 212. (ds) Browne 1961a: 313, 1961c: 212; Schedl 1972f: 213. (tx) Schedl 1942a: 211, 1972f: 213, 1978b: 15.
- biflexuosus** Schedl 1962f: 163. Holotype ♂; Assam, Namerlik, Lakhimpur; FRI, Dehra Dun, lost?
Distribution: Asia (Assam in India/ Malaya/ Thailand/ Vietnam).
Hosts: *Dipterocarpus obtusifolius*, *D. pilosus*, *Pinus merkusii*.
Notes: (1) The types which Schedl claimed to return never reached FRI, Dehra Dun, and in all probability are represented by the "paratypes" in the Schedl Collection. (3) Schedl 1962f: 163–164 and 1972f: 197 (cited as *Mesoplatypus beesonii* Sampson, nomen nudum, synonymy).
References: (ds) Beaver & Browne 1975: 306, 1978: 618; Browne 1968a: 132–133, 1970: 576, 1972b: 28; Nobuchi 1977: 127; Schedl 1972f: 197. (tx) Browne 1965a: 206; Schedl 1962f: 163, 1967f: 146–163, 1972f: 197, 1978b: 15.
- biformis** Chapuis 1865: 255. Holotype ♂; Inde, Dargeling; BMNH, London.
Distribution: Asia (Bengal, Uttar Pradesh in India/ Pakistan).
Hosts: *Pinus roxburghii*.
Notes: (3) Schedl 1971c: 388 (described female).
References: (cn) Beeson 1915a: 317–325; Champion 1922: 168–174, 232–246; Huque 1966; Khan 1975; Kleine 1932a: 310, 401; Pierce, W. D. 1917: 75; Stebbing 1914: 619; Troup 1916: 1–126. (cc) Beeson 1921b: 23; Stebbing 1914: 619. (hb) Beeson 1915a: 317–325, 1916: 222, 1921b: 23; Kleine 1932a: 310, 401; Stebbing 1914: 619. (ds) Beeson 1921b, 1941 (1961: 263); Gemminger & Harold 1872: 2697; Kleine 1932a: 310, 401; Pierce, W. D. 1917: 75; Qadri 1951a: 369, 1951c: 238; Sampson 1921: 25–26; Schedl 1971c: 164, 1972f: 184, 1974a: 88; Strohmeier 1912c: 16, 1914c: 27. (tx) Chapuis 1865: 255; Gardner 1932b; Nakashima 1975: 48–51; Sampson 1921: 25–26; Schedl 1933a: 402, 1960c: 48, 1971c: 388, 1972f: 184, 1978b: 15; Stebbing 1914: 619; Strohmeier 1912c: 16, 1914c: 27.
- bifurcus** (Schedl) 1938g: 422 (*Crossotarsus*).
Syntypes ♂ ♀; Mindanao, Lanao Province, Kolambagan; Division For. Studies and Res., Bureau For., and Schedl Collection in NHMW, Wien.
Figures: Nakashima 1975: 48–51.
Distribution: Asia (Burma/ Malaya/ Vietnam), Australia, Indonesia (Borneo), New Guinea, Philippine Islands (Luzon, Mindanao).
Hosts: *Balanocarpus heimii*, *Cotylelobium* sp., *Dipterocarpus grandiflorus*, *Dryobalanops aromatica*, *Endospermum malaccense*, *Hopcea* sp., *Ocoteles* sp., *Palaquium* sp., *Parashorea lucida*, *P. malaanan*, *Pentaeme* sp., *Shorea bentongensis*, *S. bracteolata*, *S. dasyphylla*, *S. leprosula*, *S. negrosensis*, *S. parvifolia*, *S. singkawang*.
Notes: (1) Schedl 1978a: 15 (citation of holotype invalid). This was originally treated as a subspecies of *shorcans*. (3) Schedl 1939e: 359 (var. *mutillus*, nomen nudum, an aberration).
References: (ay) Nakashima 1975: 6. (cn) Ishikura 1966. (cc) Nakashima 1975: 6. (hb) Browne 1961c: 210–211. (ds) Browne 1968a: 132–133; Chadwick & Nikitin 1968; Choo, Woo, & Kim 1981: 203; Ishikura 1966; Nakashima 1975: 3; Nobuchi 1977: 117, 1979a: 407; Ohno, Yoneyama, & Nakazawa 1982b: 10, 1987b: 90; Schedl 1936d: 6, 1936j: 21, 1938g: 422, 1966b: 99, 1966g: 33, 1972f: 224. (tx) Nobuchi 1985: 329; Schedl 1936e: 59, 1937e: 544, 1938g: 422, 1939e:

- 1, 1939e: 334, 359, 1942a: 213, 1952b: 366, 1972f: 224, 1978a: 15.
- bigranulatus** Schedl 1980d: 122. Holotype ♂; New Guinea, Wau, Morobe District; Schedl Collection in NHMW, Wien, automatic.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 224, 1980d: 122.
- bituberculatus** Schedl 1975g: 224. Holotype ♂; New Guinea, Wau, Morobe District; Schedl Collection in NHMW, Wien, preoccupied by Nunberg 1967.
References: (tx) Browne 1980f: 215; Schedl 1975g: 224; Wood, S. L. 1981: 121.
- bituberculifer** Wood 1981: 121. Holotype ♂; New Guinea, Wau, Morobe District; Schedl Collection in NHMW, Wien, automatic.
Notes: (1) This is an unneeded replacement name.
References: (tx) Wood, S. L. 1981: 121.
- jeffersi** Browne 1980f: 215. Holotype ♂; New Guinea, Wau, Morobe District; Schedl Collection in NHMW, Wien, automatic.
Notes: (1) This is an unneeded replacement name.
References: (tx) Browne 1980f: 215.
- bihamatus** Schedl 1942a: 209. Syntypes ♂; Sarawak, foot of Mt. Dulit, junction of rivers Tinjar and Lejok; BMNH, London, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sarawak in Borneo).
Notes: (1) The male of this species was originally described as the female of *bicorniger*, an error.
References: (ds) Kolbe 1897: 255; Schedl 1972f: 193. (tx) Schedl 1937e: 547–548, 1942a: 209, 1972f: 193.
- bilobatus** Strohmeier 1911g: 234. Holotype ♂; Peru; Strohmeier Collection.
Distribution: South America (Peru).
References: (ds) Blackwelder 1947: 788; Schedl 1972f: 230; Strohmeier 1912c: 13, 1914c: 25. (tx) Lucas 1920: 522; Schedl 1952h: 72, 1972f: 230; Strohmeier 1911g: 234, 1912c: 13, 1914c: 25.
- bilobipennis** Schedl 1964g: 250. Holotype ♂; Sarawak, Semengoh; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).
Hosts: *Shorea leprosula*, *S. parvifolia*, *S. pauciflora*.
References: (ds) Browne 1961c: 211, 1980c: 483; Schedl 1972f: 207. (tx) Schedl 1964g: 250, 1972f: 207, 1978b: 16.
- binodulus** Chapuis 1865: 130. Holotype ♀; Bresil meridional, Nova Fribourg; IRSNB, Brussels (Schedl 1960c: 17).
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 788; Gemminger & Harold 1872: 2697; Schedl 1972f: 238; Strohmeier 1912c: 8, 1914c: 23. (tx) Chapuis 1865: 130; Schedl 1934e: 211, 1960c: 17, 1972f: 238; Strohmeier 1912c: 8, 1914c: 23.
- biporus** Blandford 1896e: 109. Syntypes 6, ♂ ♀; Mexico, Guatemala: Quiche Mountains, Capetillo, San Geronimo; BMNH, London.
Figures: Blandford 1896e: pl. 4, figs. 19–20.
Distribution: North America (Guatemala/ Hidalgo, Michoacan, Veracruz in Mexico).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 19; Ferrer 1942; Schedl 1972f: 220; Strohmeier 1912c: 13, 1914c: 25. (tx) Blandford 1896e: 109; Equihua & Atkinson 1987: 19; Schedl 1939b: 399, 1940a: 327, 1972f: 220; Strohmeier 1912c: 13, 1914c: 25; Wood, S. L. 1966a: 64.
- bipyramidus** Roberts & Morimoto 1986: 165. Holotype ♂; New Guinea: Papua, Gumti, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthomyrtus* sp.
References: (tx) Roberts & Morimoto 1986: 165.
- bisignatus** Schedl 1962f: 164. Holotype ♂; Margherita, Lakhimpur, Assam; FRI, Dehra Dun, lost?
Distribution: Asia (Assam in India/ Malaya).
Hosts: *Shorea assanica*.
Notes: (1) None of the types studied by Schedl, including this one, had reached the FRI by 1981; Schedl's "paratype" is probably the missing type.
References: (ds) Schedl 1972f: 198. (tx) Schedl 1962f: 164, 1972f: 198, 1978b: 16.
- bispinatus** Browne 1984c: 457. Holotype ♂; Tg. Usau (West Irian) to Nagoya (Japan), imported; BMNH, London, automatic.
Distribution: New Guinea.
References: (tx) Browne 1984c: 457.
- trispinatus** Browne 1983a: 561. Holotype ♂; Tg. Usau (West Irian) to Nagoya (Japan), imported, preoccupied by Schedl 1951.
References: (tx) Browne 1983a: 561, 1984c: 457.
- biuncus** Blandford 1896b: 194. Syntypes ♂ ♀; Sumatra; BMNH, London.
Distribution: Asia (Bengal in India/ Malaya), Indonesia (Borneo, Java, Sumatra), Philippine Islands (Luzon).
Hosts: *Actinophora fragrans*, *Albizia falcata*, *Artocarpus elastica*, *Bischofia javanica*, *Cananga odorata*, *Castanospermum* sp., *Dryobalanops aromatica*, *D. biuncus*, *D. oblongifolia*, *Elaeocarpus ganitrus*, *Eusideroxylon zuageri*, *Gluta rengas*, *Heritiera fomes*, *Hevea brasiliensis*, *Millettia delaiscens*, *Pasania* sp., *Persea gratissima*, *Piarua* sp., *Schinus noronhai*, *Semicarpus heterophylla*, *Tectona* sp., *Thea sinensis*, *Xylocarpus granatum*.
References: (en) Ishikura 1966; Yumus & Hua 1980: 216. (hb) Browne 1941 (1961c: 206–207); Kalshoven 1960c: 39, 1960d: 39. (ds) Browne 1961c: 206; Choo, Woo, & Kim 1981: 202;

- Ishikura 1966; Kalshoven 1960d: 39; Murayama 1957a: 37; Nobuchi 1977: 141; Ohno, Yoneyama, & Nakazawa 1982b: 9, 1987b: 89; Schedl 1933c: 176, 1936d: 7, 1962f: 164, 1966b: 89, 1969a: 205, 217, 1972f: 208; Strohmeier 1912c: 18, 1914c: 28; Yunis & Hina 1980: 216. (tx) Blandford 1896b: 194; Nobuchi 1985: 329; Schedl 1935j: 1, 1937d: 42, 1941b: 416, 425, 1972f: 208; Strohmeier 1912c: 18, 1914c: 28.
- boettcheri** Schedl 1966b: 89. Holotype ♂; Philippine Is., Mindanao, Kolambugan; MNB, Berlin. Distribution: Philippine Islands (Mindanao). References: (ds) Schedl 1966b: 86, 1972f: 198. (tx) Schedl 1966b: 89, 1972f: 198, 1978b: 16.
- borneensis** Browne 1983a: 565. Holotype ♂; Lawas (Sarawak) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). References: (tx) Browne 1983a: 565.
- brasilensis** Nunberg 1959c: 168. Holotype ♂; Brazil; Schedl Collection in NHMW, Wien, automatic. Distribution: South America (Brazil). References: (ds) Schedl 1972f: 214, 1976a: 57. (tx) Nunberg 1959c: 168; Schedl 1960i: 110, 1972f: 214.
- caudatus** Schedl 1933c: 169. Holotype ♂; Brazil; Schedl Collection in NHMW, Wien, preoccupied by Motschulsky 1863. References: (ds) Blackwelder 1947: 789. (tx) Nunberg 1959c: 168; Schedl 1933c: 169, 1960i: 110, 1972f: 214.
- brevicaudatus** Nunberg 1939: 232. Holotype ♂; Peru: Lima; Polischen Zoologischen Staatmuseum, Warsaw. Figures: Nunberg 1939: pl. 16, fig. 3, pl. 19, pl. 21, figs. 4, 6, pl. 22, figs. 3, 10. Distribution: South America (Peru). References: (ds) Blackwelder 1947: 789; Schedl 1972f: 238. (tx) Nunberg 1939: 232–237, 1940: 50–58; Schedl 1952l: 72, 1972f: 238.
- brevicornis** Wood 1966a: 61. Holotype ♂; Villa Mills near Cerro de la Muerte, Costa Rica, 10,000 feet; Wood Collection. Figures: Wood 1966a: 60. Distribution: North America (Costa Rica). Hosts: *Bruellia costaricensis*. References: (ds) Equihua & Atkinson 1987: 19; Schedl 1972f: 220. (tx) Equihua & Atkinson 1987: 19; Wood, S. L. 1966a: 60–61.
- brevis** Browne 1975: 306 in Beaver & Browne. Holotype ♂; Thailand; Nakhon Ratchasima, Khao Yai; BMNH, London. Distribution: Asia (Thailand). Hosts: Tree. References: (tx) Beaver & Browne 1975: 306–307.
- brownei** Schedl 1979j: 128. Holotype ♂; Malaysia: Penang, Telok Bahang; BMNH, London, automatic. Figures: Browne 1977b: 370 (male declivity). Distribution: Asia (Malaya). References: (tx) Schedl 1979j: 128.
- pusillus** Browne 1977l: 370. Holotype ♂; Malaysia: Penang, Telok Bahang; BMNH, London, preoccupied by Schedl 1952. References: (ds) Beaver & Browne 1978: 620; Mayne & Donis 1962: 286. (hb) Beaver & Browne 1978: 620. (tx) Browne 1977b: 370; Schedl 1979j: 128.
- brunneus** Chapuis 1865: 228. Holotype ♂; Bresil, Para; BMNH, London (Schedl 1960c: 42). Distribution: South America (Brazil/ Cayenne). References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2697; Schedl 1972f: 218; Strohmeier 1912c: 14, 1914c: 26. (tx) Chapuis 1865: 228; Schedl 1936c: 240, 1939j: 565, 1948f: 283, 1960c: 42, 1972f: 218; Strohmeier 1912c: 14, 1914c: 26.
- burmanus** (Sampson) 1923c: 72 (*Crossotarsus*). Holotype ♂; Burma; BMNH, London. Distribution: Asia (Burma). References: (ds) Beeson 1937: 90–92; Schedl 1972f: 236. (tx) Beeson 1937: 90–92; Sampson 1923c: 2; Schedl 1936e: 46, 1939b: 398, 1972f: 236.
- caelestis** Roberts & Morimoto 1986: 165. Holotype ♂; New Guinea; Papua, Gumi, Bulolo; BMNH, London. Distribution: New Guinea. Hosts: *Xanthomyrtus* sp. References: (tx) Roberts & Morimoto 1986: 165.
- calamus** Blandford 1894d: 137. Syntypes 16 ♂; Miyanosita, Oshima, Kiushiu (Iligo, Yuyama, etc.), Japan; BMNH, London. Figures: Nakane et al. 1963: pl. 192, Nakashima 1975: 24, Nobuchi 1973b: pl. 2. Distribution: Asia (Fujian in China/ Japan/ Korea/ Taiwan). Hosts: *Aesculus turbinata*, *Castanopsis cuspidata* var. *sieboldii*, *Cleycla japonica*, *Daphniphyllum glaucescens*, *Fagus crenata*, *Ilex* sp., *Machilus thunbergii*, *Meliosoma myriantha*, *Prunus* sp., *Quercus crispula*, *Q. gilva*, *Q. glauca*, *Q. myrsinaefolia*, *Q. stenophylla*. Notes: (3) Murayama 1925b: 232 (described female). References: (ay) Nakashima 1972, 1975: 4, 1978. (cn) Anonymous 1980g; Kleine 1932a: 402; Shiraki 1952. (cc) Inouye et al. 1955: 120; Nakashima 1972, 1975: 4, 1978; Yasumatsu & Watanabe 1965: 70. (hb) Inouye et al. 1955: 120; Kleine 1932a: 402; Murayama 1931b: 196; Nakashima 1972. (ds) Anonymous 1980g; Blandford 1894c; Choo 1983: 32; Choo & Woo 1985: 163; Kleine 1932a: 402; Ko 1969: 273; Murayama 1929a: 673, 1931b: 196, 1934f: 136, 1936a: 138, 1937c: 579, 1949c:

- 104, 1950b: 1300, 1953: 25, 1954b: 187; Nakane et al. 1963: 384; Nakashima 1975: 3; Nobuchi 1973b: 11; Schedl 1972f: 209; Shiraki 1952; Strohmeier 1912c: 18, 1914c: 28. (tx) Blandford 1894d: 137; Choo 1983: 32; Murrayama 1925b: 214, 232, 235, 1936a: 138–139, 1950b: 1300, 1954b: 187; Nakane et al. 1963: 384, pl. 192; Nakashima 1975: 24–27; Nobuchi 1973b: 11, pl. 2; Schedl 1934f: 1647, 1941b: 416, 1972f: 209; Strohmeier 1912c: 18, 1914c: 28.
- calamus fukiensis* Schedl 1941a: 43. Holotype ♂; Fukien, Kuatun; Schedl Collection in NHMW, Wien (Schedl 1978a: 17).
References: (ds) Schedl 1972f: 209. (tx) Schedl 1941a: 43, 1972f: 209, 1978a: 17.
- caledoniae* Schedl 1974d: 466. Holotype ♂; Ouenarou, N. Caledoniae; Centre Technique Forestier Tropical, Nogent-Sur-Marne, France. Distribution: New Caledonia Island, New Guinea. Hosts: Kaori.
Notes: (3) Schedl 1975f: 382 (described female).
References: (ds) Schedl 1979b: 158. (tx) Schedl 1974d: 466, 1975f: 382, 1978b: 17.
- caligatus* Schedl 1972g: 76. Holotype ♂; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 76, 1978b: 17.
- calignosus* Schedl 1936e: 58. Syntypes ♂; Mt. Makiling, Laguna, Luzon, Philippine Islands; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
Hosts: *Displodiscus paniculatus*.
Notes: (1) Schedl 1978a: 17 (citation of holotype invalid).
References: (ds) Schedl 1966b: 91, 1972f: 227. (tx) Nobuchi 1985: 329; Schedl 1936e: 58, 1972f: 227, 1978a: 17.
- canaliculatus* Schedl 1942a: 199. Syntypes ♂; Malaya, Pahang, Bt. Kajang; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Dialium* sp.
Notes: (1) Schedl 1978a: 18 (types restricted to BMNH series).
References: (ds) Browne 1961c: 199; Schedl 1972f: 198. (tx) Schedl 1942a: 199, 1972f: 198, 1978a: 18.
- candezei* Chapuis 1865: 257. Syntypes 4 ♂, 1 ♀; Borneo, Malacca; BMNH, London (Schedl 1960c: 49).
Distribution: Asia (Malaya/Singapore), Indonesia (Borneo, Malacca).
References: (hb) Browne 1941, 1961c: 198–199. (ds) Browne 1961c: 198–199, 1960a: 371; Gemminger & Harold 1872: 2697; Sampson 1919: 107, 1928b: 394; Schedl 1971f: 150, 1972f: 184; Strohmeier 1912c: 16, 1914c: 27. (tx) Chapuis 1865: 257; Sampson 1919: 107, 1928b: 394; Schedl 1939b: 398, 1960c: 49, 1972f: 184; Strohmeier 1912c: 16, 1914c: 27.
- capitilanus* Roberts & Morimoto 1986: 166. Holotype ♂; New Guinea: Papua, Cumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Macaranga* sp.
References: (tx) Roberts & Morimoto 1986: 166.
- capito* Browne 1984f: 60. Holotype ♂; New Guinea: Morobe District, Mount Kaindi, 2350 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Cinnamomum* sp., *Nothofagus carrii*.
References: (tx) Browne 1984f: 60.
- caravanis* Schedl 1948d: 39. Lectotype ♂; Bolivia, Nor Yungas, Caramavi; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Schedl 1972f: 238. (tx) Schedl 1948d: 39, 1952a: 445, 1972f: 238, 1978a: 18.
- carbonescens* (Beeson) 1937: 100 (*Crossotarsus*). Syntypes ♂ ♀; Queensland: Gargarra; FRI, Dehra Dun.
Distribution: Australia (Queensland).
Hosts: *Beilschmidia bancroftii*.
References: (ds) Browne 1981a: 126; Nobuchi 1977: 131; Schedl 1966g: 36, 1972f: 206, 1975f: 352. (tx) Beeson 1937: 100–101; Schedl 1972f: 206.
- carduus* Schedl 1936c: 238. Lectotype ♂; Guyane Francaise, Nouvean Chantier; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 18.
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 219. (tx) Schedl 1936c: 238, 1972f: 219, 1978a: 18.
- carinifer* Schedl 1970e: 106. Holotype ♂; Bolivien, Chapare; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Schedl 1972f: 238. (tx) Schedl 1970e: 106–107, 1972f: 238, 1978b: 18.
- carinifrons* Schedl 1965b: 87. Holotype ♂; Venezuela, La Macuy [La Mucuy]; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
Hosts: *Acacia decurrens*.
References: (ds) Schedl 1972f: 218. (tx) Schedl 1965b: 87, 1972f: 218, 1978b: 18.
- caryophyllatus* Schedl 1941c: 357. Syntypes ♂ ♀; Ema (Peninsula Leitimor), Amboina; Kalshoven Collection, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Amboine Island).
Hosts: *Eugenia aromatica*. *E. caryophyllata*.
Notes: (1) Schedl 1978a: 18 (citation of holotype invalid).
References: (hb) Kalshoven 1960c: 36. (ds) Kalshoven 1960c: 36; Schedl 1972f: 188. (tx) Schedl 1941c: 357, 1972f: 188, 1978a: 18.

castigatus (Schedl) 1936e: 47 (*Crossotarsus*).
Lectotype ♂; N. Guinea S.E., Moroka, 1300 m;
Schedl Collection in NHMW, Wien, designated
by Schedl 1975a: 19.

Distribution: New Guinea.

Notes: (1) Schedl 1972f: 237 (to *Platypus*). (3)
Schedl 1942c: 195 (described female).

References: (ds) Schedl 1972f: 237. (tx) Schedl
1936e: 47–48, 1942c: 195, 1972f: 237, 1975a: 19.

cariceps Broun 1850: 541. Holotype ♀; Tairua,
New Zealand; Broun Collection.

Figures: Milligan 1979: fig. 5.

Distribution: New Zealand.

Hosts: Recorded as *Fagus* sp., now [= *Nothofagus* sp.].

References: (bv) Milligan 1974, 1952a; Ytsma 1956,
1958, 1959. (cn) Milligan 1974, 1979, 1952a; Ytsma
1959. (cc) Milligan 1974; Ytsma 1959; Zervos 1950.

(hb) Milligan 1970a: 61–62, 1979; Neumann &
Harris 1974: 135. (ds) Hutton 1904: 219; Milligan
1979; Schedl 1972f: 195; Strohmeier 1912c: 19,
1914c: 28. (tx) Broun 1850: 541–542; Milligan
1979: fig. 5; Schedl 1939b: 401, 1972f: 195; Stroh-
meyer 1912c: 19, 1914c: 28. (ms) Ytsma 1956.

lobatus Broun 1893: 1253. Syntypes?; New Zea-
land; Broun Collection. Synonymy: Schedl
1939b: 401, 1972f: 195.

References: (ds) Gemminger & Harold 1872:
2699; Hutton 1904: 219; Strohmeier 1912c:
19, 1914c: 29. (tx) Broun 1893: 1253; Schedl
1939b: 401, 1952a: 443, 1972f: 195; Stroh-
meyer 1912c: 19, 1914c: 29.

carus Strohmeier 1913: 163. Syntypes ♂ ♀; Nilgiri
Hills; presumably Strohmeier Collection.

Distribution: Asia (Bhutan/ Burma/ Cambodia/
Assam, Tamil Nadu in India/ Malaya/ Pakistan/
Thailand/ Tonkin Island in Vietnam and Vietnam),
Indonesia (Bali, Borneo, Java, Sumatra, Sumba),
Philippine Islands.

Hosts: *Albizzia lucida*, *Amoora rohituka*,
Alphonsoa ventricosa, *Bischofia javanica*, *Bombax
malabaricum*, *Castanopsis tribuloides*, *Dalbergia
assamica*, *D. latifolia*, *Diospyros pseudo-evemon*,
Dipterocarpus pilosus, *Dysoxylum* sp., *Elvretia
acuminata*, *Ficus glomerata*, *Gluta travancorica*,
Hevea brasiliensis, *Lagerstroemia parviflora*,
Mallotus albus, *Meliosma simplicifolia*, *Mesua
ferrea*, *Michelia oblonga*, *Nauclea excelsa*, *Nyssa
javanica*, *Pinus merkusii*, *Podocarpus imbricata*,
Pometia pinnata, *Sabhalia malabarica*, *Schinus
noronhai*, *S. wallichii*, *Shorea robusta*, *Swietenia
macrophylla*, *Talauma hodgsoni*, *Tectona* sp., *Ter-
minalia catappa*, *Tetrameles nudiflora*, *Vatica
lancaefolia*, *Vernonia arborea*.

Notes: (3) Schedl 1941b: 422 (review).

References: (bv) Beeson 1917. (cn) Kalshoven
1960c: 48; Mathur & Singh 1960b: 14, 1961a: 45;
Supriana et al. 1978. (hb) Beaver & Browne 1975:
307; Beeson 1916a: 223, 1917; Browne 1961c:
206; Kalshoven 1960c: 36–37. (ds) Beaver &

Browne 1975: 307; Beeson 1916a, 1961: 264;
Browne 1961c: 206, 1980d: 491; Kalshoven 1960c:
37; Mathew 1952, 1957: 185; Mathur & Singh
1960b: 14, 1961a: 45; Numberg 1960b: 161; Num-
berg & Chujo 1961: 358; Ohno, Yoneyama, &
Nakazawa 1952a: 5, 1952b: 10; Schedl 1962b:
157, 1962f: 165, 1964c: 305, 1965a: 430, 1966b:
91, 1971c: 368, 1971f: 150, 1972f: 209, 1975a:
453; Strohmeier 1914c: 28; Supriana et al. 1978.
(tx) Nobuchi 1955: 329; Schedl 1939c: 1, 1941b:
422, 1942a: 172, 1955d: 273, 1972f: 209; Stroh-
meyer 1913: 162–163, 1914c: 28; Wylie & Yule
1977.

cupulifer Wichmann 1914a: 413. Syntypes 2;
Rotung, India, 1400 ft., and Debrugrah,
Assam; not given. Synonymy: Schedl 1941b:
422.

References: (cn) Kleine 1932a: 310, 402;
Roonwal 1954: 47. (cc) Beeson 1921b: 23,
1923. (hb) Beeson 1923; Kleine 1932a: 310,
402. (ds) Beeson 1921b: 23, 1923, 1941 (1961:
264); Bhasin, Roonwal, & Singh 1955; Kleine
1932a: 310, 402; Roonwal 1954: 47. (tx)
Schedl 1941b: 422, 1972f: 209; Wichmann
1914a: 413–414.

celsus Roberts 1979: 84. Holotype ♂; Papua New
Guinea: 5 km south-west of Onim Hut, Mt.
Gihwe, 240 m; BMNH, London.

Distribution: New Guinea.

Hosts: *Nothofagus pullei* (living tree).

References: (tx) Roberts 1979: 84.

chevrolati Chapuis 1865: 251. Syntypes; de la Nou-
velle Guinee et l'île Waigiu; 4 ♂, 2 ♀ BMNH.
London, 1 ♂, 1 ♀ IRSNB, Brussels.

Distribution: New Guinea.

Hosts: *Heritiera trifolia*.

References: (bv) Gray, B. 1974b. (cn) Wylie &
Shanahan 1975. (cc) Roberts 1980. (hb) Gray, B.
1974b; Wylie & Shanahan 1975. (ds) Browne
1980a: 372; Gemminger & Harold 1872: 2698;
Olmo et al. 1988b: 98, 1989: 65; Schedl 1936g:
515, 1962i: 73, 1968e: 264; Strohmeier 1912c:
18, 1914c: 28. (tx) Chapuis 1865: 151; Schedl
1936e: 56, 1937d: 42, 1940b: 434–435, 1941b:
417, 424, 1941e: 155, 1955b: 282, 1960c: 53,
1972f: 209; Strohmeier 1912c: 18, 1914c: 28.

chimbui Schedl 1972f: 207. Holotype ♂; New
Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1972f: 207, 1978b: 19.

chiriquirensis Wood 1966a: 59. Holotype ♂; near
Cerro Punta, Chiriqui Prov., Panama, 5500 feet;
Wood Collection.

Figures: Schedl 1972f: 237, Wood 1966a: 60.

Distribution: North America (Panama).

Hosts: *Inga* sp., *Ochroma* sp.

References: (ds) Equihua & Atkinson 1957: 21;
Schedl 1972f: 238. (tx) Equihua & Atkinson 1957:

- 21; Schedl 1972f: 237–238; Wood, S. L. 1966a: 59–60.
- cicatricosus Roberts** 1989: 264. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo, 2200 m; NHMW, Wien.
Figures: Roberts 1989: 286.
Distribution: New Guinea.
Hosts: *Xanthomyrtus* sp.
References: (tx) Roberts 1989: 264, 286.
- circulariceps Schedl** 1975f: 382. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Castanopsis acuminatissima*.
References: (tx) Schedl 1975f: 382–383.
- circularis Chapuis** 1865: 285. Holotype ♂; Ile de Waigiu; BMNH, London (Schedl 1960c: 55).
Distribution: Indonesia (Sumatra), New Guinea, Philippine Islands.
Notes: (3) Schedl 1936e: 57 (in key, described female).
References: (hb) Browne 1941. (ds) Gemminger & Harold 1872: 2698; Schedl 1972f: 227; Strohmeier 1912c: 18, 1914c: 28. (tx) Chapuis 1865: 285; Lucas 1920: 522; Schedl 1933d: 202–203, 1936e: 56–58, 1939b: 398, 1960c: 55, 1972f: 227, 1978b: 19; Strohmeier 1912c: 18, 1914c: 28.
- circumdentatus Strohmeier** 1910e: 132. Syn-types, sex?; Nilgiri Hills (India orientalis); H.L. Andrews, 1 in Strohmeier Collection.
Distribution: Asia (Karnataka, Tamil Nadu in India).
Hosts: *Machilus macrantha*.
References: (ds) Beeson 1941 (1961: 264); Schedl 1969c: 61, 1972f: 237; Strohmeier 1912c: 19, 1914c: 28. (tx) Schedl 1972f: 237; Strohmeier 1910e: 132, 1912c: 19, 1914c: 28.
- clarkei Browne** 1975b: 395. Holotype ♂; Ethiopia: 15 km E Jimma, Badabuna Forest, 1870 m; MRCB, Tervuren.
Distribution: Africa (Ethiopia).
References: (tx) Browne 1975b: 395.
- clunialis Wood** 1966a: 67. Holotype ♂; near Moravia, Cartago Prov., Costa Rica, 1500 feet; Wood Collection.
Figures: Schedl 1972f: 195, Wood 1966a: 67.
Distribution: North America (Costa Rica).
References: (ds) Equihua & Atkinson 1957: 20; Schedl 1972f: 195. (tx) Equihua & Atkinson 1957: 20; Schedl 1972f: 195; Wood, S. L. 1966a: 67.
- cluniculus Wood** 1966a: 69. Holotype ♂; Ikuribisi, British Guiana; BMNH, London.
Figures: Schedl 1972f: 195, Wood 1966a: 67.
Distribution: South America (Guyana).
Hosts: *Pouteria guianensis*.
References: (ds) Schedl 1972f: 195. (tx) Schedl 1972f: 195; Wood, S. L. 1966a: 67, 69.
- clunis Wood** 1966a: 68. Holotype ♂; Playon, Puntarenas Prov., Costa Rica, 150 feet; Wood Collection.
Figures: Schedl 1972f: 195, Wood 1966a: 67.
Distribution: North America (Costa Rica).
Hosts: *Cedrela mexicana*.
References: (ds) Equihua & Atkinson 1957: 20; Schedl 1972f: 195. (tx) Equihua & Atkinson 1957: 20; Schedl 1972f: 195; Wood, S. L. 1966a: 67–68.
- coadunatus Schedl** 1975g: 225. Holotype ♂; New Guinea, Wau; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 225, 1978b: 20.
- cognatus Roberts** 1989: 266. Holotype ♂; Papua New Guinea: Upper Manki Logging Area, Bulolo, 1800 m; NHMW, Wien.
Figures: Roberts 1989: 286.
Distribution: New Guinea.
Hosts: *Castanopsis* sp.
References: (tx) Roberts 1989: 266, 286.
- coleopteratus (Schedl)** 1935b: 400 (*Crossotarsus*). Holotype ♂; Philippine Islands; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 91, 1972f: 237. (tx) Nobuchi 1985: 330; Schedl 1935b: 400–401, 1937d: 35, 1952b: 366, 1972f: 237, 1978a: 20.
- collaris Schedl** 1979g: 110. Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 110.
- collatatus Schedl** 1936c: 245. Holotype ♂; Demerara [Guyana]; Schedl Collection in NHMW, Wien.
Distribution: South America (Guyana).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 218. (tx) Schedl 1936c: 245, 1972f: 218, 1978b: 20.
- collinus Browne** 1972c: 105. Holotype ♂; Uganda: Ruwenzori Forest; MRCB, Tervuren.
Distribution: Africa (Uganda).
Hosts: *Dombeya goetzenii*, *Macaranga* sp.
References: (tx) Browne 1972c: 105.
- comoreanus Schedl** 1969d: 15. Holotype ♂; Grande Comore: Niombadjou, 505 m; MNHN, Paris.
Distribution: Comoro Islands in Indian Ocean.
References: (ds) Schedl 1969d: 7, 1972f: 200. (tx) Schedl 1969d: 15–16, 1972f: 200, 1977a: 240.
- complanatus Schedl** 1936c: 245. Syntypes ♂ ♀; Guyane Française: Nouveau Chantier, Les Hattes, Charvin (Bas Maroni), St.-Laurent du Maroni; MNHN, Paris and Schedl Collection in NHMW, Wien.
Distribution: South America (Guyenne).

Notes: (1) Schedl 1978a: 20 (type restricted to MNHN, Paris material).

References: **(ds)** Blackwelder 1947: 789; Schedl 1972f: 214. **(tx)** Schedl 1936c: 242, 245, 1939b: 399, 1972f: 214, 1975a: 20.

complanus Schedl 1967d: 16. Holotype ♂; Brasilien, Nova Tentonia, Santa Catarina; Schedl Collection in NIMW, Wien.

Distribution: South America (Brazil).

References: **(ds)** Schedl 1972f: 214. **(tx)** Schedl 1967d: 16–17, 1972f: 214, 1975b: 21.

compositus Say 1824: 324. Holotype ♂; Missouri [USA]; Say Collection, lost.

Figures: Atkinson 1989c, Solomon & Payne 1986: 23. Distribution: Africa (Seychelles Islands), Antilles Islands (Puerto Rico), Madagascar, North America (Costa Rica/ Guatemala/ Mexico/ Alabama, Arkansas, Florida, Illinois, Louisiana, Maryland, Mississippi, Missouri, New York, North Carolina, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA), South America (Argentina/ Brazil/ Cayenne/ Guyana/ Venezuela).

Hosts: *Carya* spp., *Cassia siamea*, *Dacrynodes excelsa*, *Diospyros* sp., *Fraxinus* sp., *Magnolia grandiflora*.

References: **(ay)** Boving & Craighead 1931; Francke-Grosman 1956b: 292; Hopkins 1894g; Khalaf 1980: 339. **(bv)** Atkinson, Foltz, & Connor 1985; Dethier 1947. **(cn)** Anonymous 1895: 72, 1966f, 1966h; Beal & Massey 1945: 65; Beal et al. 1952: 114–115; Blackman 1950: 342–343; Chamberlin 1939: 107–111; Christian 1939: 110; Craighead 1935: 139; Creighton 1945: 706; Doane et al. 1936; Dorsey & Leach 1955: 222; Ebeling 1950: 535, 1959; Felt 1924: 275, 1926: 275, 1930a: 275; Fisher, Thompson, & Webb 1953, 1954b: 3–15; Head 1966a: 4; Herrick 1935: 375; Hopkins 1894: 277, 1896d: 250, 1897b: 151, 1904a: 39, 45, 1905: 381–398, 1907b: 2; Hubbard 1897b: 14; Kowal 1949b: 470–475; Riley 1893b: 17; Rosenfeld 1910: 216; Schluder 1969: 82; Snyder 1927: 10–12; Solomon & Payne 1986. **(ce)** Baker 1963: 222–265; Batra 1963a, 1963b: 216; Chamberlin 1925: 34, 1939: 107–111; Equihua & Atkinson 1986: 624; Felt 1906: 720; Francke-Grosman 1956b: 292; Pierce, W. D. 1908: 380; Verrall 1941: 552, 1943: 125; Webb 1945: 75. **(hb)** Atkinson 1989c; Atkinson, Foltz, & Connor 1985; Baker, W. L. 1972: 273; Beal & Massey 1945: 65; Blackman 1922b: 38–39, 1950; Chamberlin 1939: 107–111; Chittenden 1890; Deyrup & Atkinson 1987a: 64; Doane et al. 1936; Dyakowski 1911; Ebeling 1950; Equihua & Atkinson 1986: 624; Felt 1906: 720, 1926: 275, 1930a: 275; Herrick 1935: 375; Hetrick 1967; Hopkins 1894g, 1904a: 39, 45, 1905a: 384, 1907: 2, 1910: 2; Hubbard 1897a: 426, 1897b: 14; Husson 1955: 350; Ostmark 1968; Pierce, W. D. 1907: 289; Schedl 1977b: 241; Solomon & Payne 1986; White, R. E. 1983: 326. **(ds)**

Anonymous 1926c: 514, 1966f, 1966h, 1979i; Atkinson 1989c; Atkinson & Equihua 1987: 20; Atkinson et al. 1991: 153; Beal & Massey 1945: 65; Blackman 1922b: 38–39, 1950; Blackwelder 1947: 789; Blandford 1895b, 1896c; Blatchley & Leng 1916: 583; Brimley 1938: 245–248; Chamberlin 1925, 1939: 107–111; Chapuis 1865: 163–164; Chittenden 1890; Currie 1905; Deyrup & Atkinson 1987a: 64; Dozier 1918: 374; Drooz 1985: 376; Ebeling 1950, 1959; Equihua 1985: 143; Equihua & Atkinson 1986: 624, 1987: 20; Erichson 1836: 65; Felt 1926: 275, 1930a: 275; Ferrer 1942; Frost 1964: 144; Gemminger & Harold 1872: 2698; Glick 1939: 37, 70; Henshaw 1885: 147; Hoffmann 1940: 60, 1942: 12; Hopkins 1893a: 127, 1893b: 207; Kirk 1969, 1970; Leng 1920: 337; Leonard 1928: 514; Martorell 1945: 468; Melsheimer 1853: 87; Nunberg 1963: 107, 1972b: 189; Ostmark 1968; Riley 1894: 227; Riley & Howard 1891: 418; Rosewell 1920: 148; Schedl 1933c: 171, 1972f: 231, 1977b: 241, 1977d: 281; Schwarz 1878d: 468, 1882: 823; Schwerdtfeger 1960: 255–259; Staines, C. L. 1982; Strohmeier 1911f: 204, 1912c: 10, 1914c: 24; Swaine 1909: 84; Wolcott 1948: 384; Wood, S. L. 1979a: 1. **(tx)** Atkinson 1989c; Beal & Massey 1945: 65; Blackman 1922b: 38–39; Blandford 1895b: 89–94, 1896c: 106; Blatchley & Leng 1916: 583–584; Boving & Craighead 1931; Chamberlin 1939: 107–111; Chapuis 1865: 37, 163–164; Equihua & Atkinson 1987: 20; Erichson 1836: 65; Gardner 1932b: 1; Hubbard 1897b: 14; LeConte 1868: 151, 1876: 344, 1878a: 468; Sampson 1922: 141; Say 1824: 182; Schaufuss 1897: 222; Schedl 1933a: 400, 1937d: 38–39, 1939b: 399, 1940a: 324, 1955g: 48, 1960c: 25, 1961e: 128, 157, 1969d: 9, 12, 1972f: 231, 1977b: 241; Schwarz 1889b: 149; Solomon & Payne 1986: 23; Strohmeier 1911f: 204, 1912c: 10–11, 1914c: 24; Swaine 1909: 84; Wood, S. L. 1979a: 1.

tremiferus Chapuis 1865: 174. Syntypes ♂ ♀; Louisiane et de Texas: 1 ♀ in BMNH, London. 2 ♂, 2 ♀ in IRSNB, Brussels. Synonymy: LeConte 1876: 344.

References: **(cn)** Schwerdtfeger 1960b. **(ds)** Gemminger & Harold 1872: 2700; Leng 1920: 337; Sampson 1928a: 3; Schwerdtfeger 1960b: 258; Strohmeier 1912c: 13, 1914c: 25; Swaine 1909: 84. **(tx)** Chapuis 1865: 174; LeConte 1865: 151, 1876: 344; Sampson 1928a: 3; Schedl 1955g: 48, 1960c: 29, 1972f: 231; Strohmeier 1912c: 13, 1914c: 25; Swaine 1909: 84; Wood, S. L. 1979a: 1.

perfossus Chapuis 1865: 176. Syntypes ♂ ♀; de l'Amerique boreale, de la Louisiane; 1 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 29). Synonymy: LeConte 1876: 344.

References: **(ds)** Gemminger & Harold 1872: 2699; Leng 1920: 337; Strohmeier 1912c: 11, 1914c: 25; Swaine 1909: 84. **(tx)** Chapuis 1865:

- 176; LeConte 1868: 151, 1876: 344; Schedl 1960c: 29, 1972f: 231; Strohmeier 1912c: 11, 1914c: 25; Swaine 1909: 84; Wood, S. L. 1979a: 1.
- rugosus* Chapuis 1865: 176. Holotype ♂; Amerique boreale, Lousiane and Texas; IRSNB, Brussels (Schedl 1960c: 29). Synonymy: LeConte 1876: 344.
- References: (ds) Gemminger & Harold 1872: 2700; Leng 1920: 337; Strohmeier 1912c: 12, 1914c: 25; Swaine 1909: 84. (tx) Chapuis 1865: 176; LeConte 1868: 151, 1876: 344; Schedl 1960c: 29, 1972f: 231; Strohmeier 1912c: 12, 1914c: 25; Swaine 1909: 84; Wood, S. L. 1979a: 1.
- subcaevifrons* Chapuis 1865: 177. Syntypes 2 ♀; de Rio-Janeiro; BMNH, London (Schedl 1960c: 29). Synonymy: Schedl 1972f: 231.
- References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Strohmeier 1912c: 13, 1914c: 25. (tx) Chapuis 1865: 177; Schedl 1960c: 29, 1972f: 231; Strohmeier 1912c: 13, 1914c: 25; Wood, S. L. 1979a: 1.
- rudifrons* Chapuis 1865: 179. Holotype ♀; de Teapa; IRSNB, Brussels (Schedl 1960c: 30). Synonymy: Schedl 1960c: 25, 30.
- References: (ds) Blackwelder 1947: 790; Ferrer 1942; Gemminger & Harold 1872: 2700; Nunberg 1963c: 107; Schedl 1933c: 172; Strohmeier 1912c: 12, 1914c: 25. (tx) Blandford 1896e: 106; Chapuis 1865: 179; Schedl 1933a: 400, 1933e: 172, 1940a: 325, 1960c: 25, 30, 1972f: 231; Strohmeier 1912c: 12, 1914c: 25; Wood, S. L. 1979a: 1.
- diegensis* Schaufuss 1897a: 222. Holotype ♀; Madagascar; Hamburg Museum, lost. Synonymy: Schedl 1972f: 231.
- References: (cn) Beaver 1988a: 70. (hb) Beaver 1988a: 70. (ds) Alluaud 1900: 441; Beaver 1988a: 70; Schedl 1969d: 9; Strohmeier 1912c: 11, 1914c: 24. (tx) Schaufuss 1897a: 222; Schedl 1961e: 157, 1972f: 231; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 1.
- foraminosus* Schedl 1933a: 400. Holotype ♀; Rio Janeiro, Brazil; BMNH, London. Synonymy: Schedl 1972f: 231.
- References: (ds) Blackwelder 1947: 789. (tx) Schedl 1933a: 400, 1972f: 231, 1978a: 30; Wood, S. L. 1979a: 1.
- concarifrons* Schedl 1975f: 383. Holotype ♀; Karamui, Chimbu Dist., New Guinea; Schedl Collection in NHMW, Wien.
- Distribution: New Guinea.
- References: (tx) Schedl 1975f: 383.
- concentriporus* Roberts 1979: 85. Holotype ♂; Papua New Guinea: 14 km south-west of Onim Hut, Mount Giluwe, 2900 m; BMNH, London.
- Distribution: New Guinea.
- Hosts: *Schizomeria* sp.
- References: (tx) Roberts 1979: 85.
- conciliatus* Schedl 1936c: 225. Holotype ♂; Guyana; Schedl Collection in NHMW, Wien.
- Distribution: South America (Guyana).
- References: (ds) Blackwelder 1947: 789; Schedl 1972f: 235. (tx) Schedl 1936c: 225, 1972f: 235, 1978b: 21.
- concinulus* Blandford 1896e: 111. Syntypes ♂ ♀; Guatemala: Pantaleon, Zapote; BMNH, London.
- Figures: Blandford 1896e: pl. 4, fig. 23.
- Distribution: North America (Guatemala).
- References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 20; Schedl 1972f: 218; Strohmeier 1912c: 14, 1914c: 26. (tx) Blandford 1896e: 111–112; Equihua & Atkinson 1987: 20; Schedl 1936c: 244, 1972f: 218; Strohmeier 1912c: 14, 1914c: 26.
- conjunctus* Schedl 1957d: 121. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
- Distribution: Africa (Zaire).
- Hosts: *Drypetes* spp.
- Notes: (1) This name is junior to *cupulatus conjunctus* Schedl 1941: 420; however, the senior name appears to be no more than an aberration and, as such, has no status in nomenclature (SLW).
- References: (ds) Mayne & Donis 1962: 281; Schedl 1962k: 640, 1972f: 215. (tx) Schedl 1957d: 120–121, 1962k: 640, 1972f: 215, 1975b: 21.
- connexus* Wood 1966a: 65. Holotype ♂; Volcan Irazu, Cartago Prov., Costa Rica, 7000 feet; Wood Collection.
- Figures: Schedl 1972f: 220, Wood 1966a: 67.
- Distribution: North America (Costa Rica).
- Hosts: *Quercus* sp.
- References: (ds) Equihua & Atkinson 1987: 20; Schedl 1972f: 220. (tx) Equihua & Atkinson 1987: 20; Schedl 1972f: 220; Wood, S. L. 1966a: 65–67.
- consequens* Schedl 1970e: 107. Holotype ♂; Brasilien, Amazonas, Sierra Neblina, N. Rio Cauaburi; Zoologischen Sammlungen des Bayerischen Staates, Munchen.
- Distribution: South America (Brazil).
- References: (ds) Schedl 1970e: 86, 1972f: 235. (tx) Schedl 1970e: 107–108, 1972f: 235.
- contaminatus* (Blandford) 1894d: 131 (*Crossotarsus*). Syntypes 4 ♀; Japan: Higo; BMNH, London.
- Figures: Nobuchi 1967: pl. 2, 1973b: pl. 2.
- Distribution: Asia (Fujian in China/ N India/ Japan/ Taiwan).
- Hosts: *Actinodaphne laucifolia*, *Aesculus turbinata*, *Fraxinus commemoralis*, *F. lanuginosa*, *F. sieboldi*, *Lindera erythrocarpa*, *Machilus thunbergii*, *Pterocarpa rhoifolia*.
- References: (ds) Blandford 1894c; Murayama 1934f: 137, 1936a: 140, 1937c: 581; Nobuchi 1967: 25, 1973b: 12, 1977: 130; Schedl 1960e:

- 173, 1972f: 200; Strohmeier 1912c: 5, 1914c: 35. (tx) Blandford 1894d: 131–132; Murayama 1936a: 146–147; Nobuchi 1967: pl. 2, 1973b: 12, pl. 2; Schedl 1934f: 1647, 1941a: 43, 1955h: 46, 1972f: 200; Strohmeier 1912c: 5, 1914c: 35.
- contextus** Schedl 1963d: 229. Holotype ♂; Bolivia tropica, Region Chapare, 400 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Schedl 1972f: 205. (tx) Schedl 1963d: 229, 1972f: 205, 1978b: 21.
- contractus** Chapuis 1865: 148. Holotype ♂; Colombia; IRSNB, Brussels (Schedl 1960c: 22).
Distribution: North America (Guatemala), South America (Colombia).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 20; Gemminger & Harold 1872: 269S; Schedl 1966f: 77, 1972f: 23S; Strohmeier 1912c: 5, 1914c: 23. (tx) Chapuis 1865: 148; Equihua & Atkinson 1987: 20; Schedl 1960c: 22, 1972f: 23S; Strohmeier 1912c: 5, 1914c: 23.
- convexicauda** Schedl 1935n: 636. Lectotype ♂; Malaya States: Pahang, Jahit Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 21.
Distribution: Asia (Malaya), Indonesia (Java).
Hosts: *Pasania sundaica*, *Quercus* sp.
References: (hb) Browne 1935a, 1941. (ds) Beeson 1941 (1961: 264); Browne 1935a, 1961c: 212; Schedl 1972f: 195. (tx) Schedl 1935n: 635–636, 1972f: 195, 1978a: 21.
- convexus** Schedl 1972g: 77. Holotype ♂; Surinam, Moengo; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/ Suriname).
References: (ds) Schedl 1972f: 187, 1976a: 57. (tx) Schedl 1972f: 187, 1972g: 77, 1978a: 21.
- cordiger** Chapuis 1865: 275. Holotype ♀; de la presqu'île de Malacca (Singapour) et de Borneo (Sarawak); IRSNB, Brussels (Schedl 1960c: 52).
Distribution: Asia (Andaman Islands in India/ Malaya/ Singapore/ Vietnam), Indonesia (Borneo), New Guinea.
Hosts: *Diospyros pyrrihocarpa*, *Dipterocarpus indicus*, *D. turbinatus*, *Dysoxylum* sp.
References: (cn) Ishikura 1966. (hb) Browne 1941. (ds) Beeson 1941 (1961: 264); Browne 1961c: 213; Gemminger & Harold 1872: 269S; Ishikura 1966; Schedl 1972f: 186, 1974c: 262; Strohmeier 1912c: 17, 1914c: 2S. (tx) Chapuis 1865: 275; Lucas 1920: 522; Schedl 1939b: 399, 1941c: 365, 1960c: 52, 1972f: 186; Strohmeier 1912c: 17, 1914c: 2S. (ms) Lucas 1920: 522.
- cordiger bifrons** Chapuis 1865: 276. Syntypes ♀; Borneo (Sarawak); BMNH, London.
References: (ds) Sampson 1928b: 394; Schedl 1972f: 186. (tx) Chapuis 1865: 275–276; Sampson 1928b: 394; Schedl 1972f: 186.
- corniventris** Schedl 1968f: 536. Holotype ♂; New Guinea, River Tor (mouth), 4 km E Hol Maffen; BPBM, Honolulu.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 100. (tx) Schedl 1968f: 535–537, 1972f: 100, 1978a: 21.
- cornutus** Schedl 1942a: 208. Holotype ♂; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 190. (tx) Schedl 1942a: 208, 1972f: 190, 1978b: 21.
- coronatus** Schedl 1933c: 170. Holotype ♀; Costa Rica, Vara Blanca, 1700 m; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: *Alius acuminata*, *Brannelia costaricensis*.
Notes: (3) Schedl 1939k: 720 (described male).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 20; Schedl 1933c: 170, 1972f: 205. (tx) Equihua & Atkinson 1987: 20; Schedl 1933c: 170, 1939k: 720–722, 1972f: 205, 1978b: 21; Wood, S. L. 1966a: 57, 1966b: 17.
- platyurius** Schedl 1933c: 176. Holotype ♂; Costa Rica, Santiago, 1080 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1966b: 17.
References: (ds) Blackwelder 1947: 790. (tx) Schedl 1933c: 176, 1972f: 205; Wood, S. L. 1966b: 17.
- costaricensis** Schedl 1936i: 101. Holotype ♂; Costa Rica; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 21; Schedl 1972f: 231. (tx) Equihua & Atkinson 1987: 21; Schedl 1936i: 101–102, 1972f: 231, 1978b: 22.
- costipennis** Schedl 1933a: 398. Holotype ♂; Mexico (Truqui); BMNH, London.
Distribution: North America (apparently Mexico in Mexico).
Notes: (3) Because Truqui collected on the slopes of Volcan Popocatepetl, it is presumed that the type locality was near there; the Truqui notes are at BMNH, London.
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 21; Ferrer 1942; Schedl 1972f: 23S. (tx) Equihua & Atkinson 1987: 21; Schedl 1933a: 398–400, 1940a: 324, 1972f: 23S.
- crassicornis** Schedl 1975f: 384. Holotype ♂; Mt. Kaindi, M. District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Ardisia* sp.
References: (tx) Schedl 1975f: 384.
- inversus** Roberts 1979: 88. Holotype ♂; Papua New Guinea; 8 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London. Synonymy: Roberts 1989: 285.
References: (tx) Roberts 1979: 88, 1989: 285.

crassiusculus Schedl 1935j: 3. Holotype ♂; Sumatra, Medan; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
References: (ds) Schedl 1935j: 3, 1972f: 193. (tx) Schedl 1935j: 3, 1972f: 193, 1978a: 22.

crassus Strohmeier 1913: 162. Holotype ♂; Brit. New Guinea; Aroa Fluss; SMTD, Dresden.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 193; Strohmeier 1914c: 29. (tx) Schedl 1935j: 3, 1936e: 53, 1940b: 435, 1972f: 193; Strohmeier 1913: 162, 1914c: 29.

crubicollis Blandford 1896e: 108. Syntypes 2 ♂; Panama, Bugaba; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 18.
Distribution: North America (Panama).
References: (ds) Blackwelder 1947: 789; Equilma & Atkinson 1987: 21; Schedl 1972f: 231; Strohmeier 1912c: 11, 1914c: 24. (tx) Blandford 1896e: 108–109; Equilma & Atkinson 1987: 21; Schedl 1972f: 231; Strohmeier 1912c: 11, 1914c: 24.

cupulatus Schedl 1941b: 420. Syntypes ♂ ♀; Sumatra, Indragiri; Kalshoven Collection and Schedl Collection in NHMW, Wien.
Distribution: Asia (Burma/ Andaman Islands in India/ Malaya/ Vietnam), Indonesia (Borneo, Java, Malacca, Sumatra, Sunda Islands), New Guinea, Philippine Islands.
Notes: (1) Schedl 1978a: 22 (citation of holotype invalid).
References: (cn) Supriana et al. 1978. (hb) Browne 1961c: 204. (ds) Browne 1956b: 333; Olmo, Yoneyama, & Nakazawa 1957b: 89; Schedl 1972f: 209, 1975c: 384, 1975e: 452, 1975j: 294, 1978a: 22, 1979h: 158; Supriana et al. 1978. (tx) Schedl 1941b: 420, 1972f: 209, 1978a: 22.

cupulatus piccus Schedl 1941b: 419. Holotype ♂; Malaya; Pahang, Bukit F.R.; Schedl Collection in NHMW, Wien.
References: (hb) Browne 1961c: 203. (ds) Schedl 1941b: 419, 1972f: 209. (tx) Schedl 1972a: 209, 1978a: 22.

cupulatus conjunctus Schedl 1941b: 420. Holotype ♂; Malayische Halbinsel; Schedl Collection in NHMW, Wien.
Notes: (3) This may be no more than an aberration.
References: (hb) Browne 1961c: 203. (ds) Schedl 1972f: 209. (tx) Schedl 1941b: 420–421, 1972f: 209, 1978a: 22.

cupulatus Chapuis 1865: 278. Syntypes 2 ♂, 1 ♀; de l'île de Borneo, Sarawak; BMNH, London (Schedl 1960c: 52).
Distribution: Asia (Bhutan/ Burma/ Hainan Island in China/ Andaman Islands, Tamil Nadu in India/ Malaya/ Sri Lanka/ Thailand/ Tonkin Island in Vietnam), Australia (Victoria), Hawaiian Islands, Indonesia (Malacca, Sarawak in Borneo, Sumatra, Sunda Islands), New Guinea, Philippine Islands (Luzon).

Hosts: *Agathis alba*, *Agave sisalana*, *Albizzia falcata*, *Alstonia* sp., *Artocarpus* sp., *Austroboxus nitidus*, *Bombax malabaricum*, *Coclostegia griffithii*, *Croton* sp., *Dipterocarpus pilosus*, *Dolichandrone stipulata*, *Dryobalanops oblongifolia*, *Durio carinata*, *Dyera costulata*, *Elaeocarpus ganitrus*, *Endospermum malaccense*, *Enterolobium saman*, *Eugenia glomerata*, *E. jabolana*, *Eusideroxylon zwageri*, *Ficus glomerata*, *Garcinia* sp., *Hevea brasiliensis*, *Intsia palenbanica*, *Ixonanthes reticulata*, *Lanuca grandis*, *Palaquium* sp., *Parkia speciosa*, *Persea gratissima*, *Polyosma* sp., *Pterocarpus dalbergioides*, *Shorea guiso*, *S. leprosula*, *S. maxwelliana*, *S. ovalis*, *S. robusta*, *S. uliginosa*, *Styrax benzoin*, *Swintonia floribunda*, *Tectona grandis*, *Terminalia bellerica*, *T. catappa*, *Vatica staphiana*, *Xylia dolabriformis*.

References: (ay) Strohmeier 1918: 8. (bv) Beeson 1917; Meixner 1937: 1217. (cn) Beeson 1916: 1–5; Browne 1935b: 182–186, 1935b: 77–86, 1949c; Corbett & Gater 1926b: 261; French 1911; Kalshoven 1960d: 49; Kleine 1932a: 310, 402; Leeftinck 1927: 1–60; Mathur & Singh 1960a: 34, 1960b: 43, 1961a: 45, 1961b: 13; Pierce, W. D. 1917: 218; Stebbing 1914: 626; Yumus & Hua 1980: 216. (ec) Beeson 1921b; Browne 1958b; Fuller 1958: 100; Speyer 1923: 11–23; Stebbing 1914: 626. (hb) Beaver & Browne 1978: 618; Beeson 1916a: 223, 1917; Browne 1935a, 1941, 1958b, 1961c: 203–204; Kalshoven 1960c: 36; Kleine 1932a: 310, 402; Mercer 1982: 210; Speyer 1923: 23; Stebbing 1914: 626. (ds) Beaver & Browne 1975: 307, 1978: 618; Beeson 1916a: 223, 1921b: 23, 1961: 264; Browne 1935a, 1961c: 203–204, 1980b: 351; Corbett & Gater 1926b: 261; French 1911; Gemminger & Harold 1872: 2698; Kalshoven 1960d: 37; Kleine 1932a: 310, 402; Mathur & Singh 1960a: 34, 1960b: 43, 1961a: 45, 1961b: 13; Mercer 1982: 210; Murayama 1936b: 113; Nobuchi 1977: 135; Ohno, Yoneyama, & Nakazawa 1952b: 10, 1957b: 89; Pierce, W. D. 1917: 218; Sampson 1928b: 391; Schedl 1935k: 479–489, 1936d: 7, 22, 1936g: 515, 1936j: 22, 1937f: 15, 1959c: 168, 1961c: 70, 1962b: 157, 1962f: 165, 1964c: 304, 1965g: 24, 1966b: 92, 1966g: 33, 1969e: 156, 1971c: 367, 1971f: 150, 1972f: 209, 1974c: 262, 1975a: 452; Strohmeier 1911f: 204, 1912c: 18, 1914c: 28; Yumus & Hua 1980: 216. (tx) Browne 1955: 368; Chapuis 1865: 278; Lea 1910: 135; Lucas 1920: 522; Meixner 1937: 1217; Nobuchi 1955: 329; Sampson 1928b: 391; Schedl 1935n: 635, 1936e: 56, 1937d: 41, 1939b: 394, 1939c: 1, 1941b: 419, 1942a: 172, 1952b: 366, 1953b: 124, 1953c: 291, 1954a: 145, 1958b: 102, 1960c: 53, 1972f: 209; Stebbing 1914: 626; Strohmeier 1911f: 204, 1912c: 18, 1913: 162, 1914c: 28; Wylie & Yule 1977. (ms) Lucas 1920: 522.

cupulatus bhumi Schedl 1979h: 158. Syntypes

♂ ♀; Ostliche Neu Guinea, 4.25–4.30 S, 140 Long., Eipome-Tal, Murggona; Schedl Collection in NHMW, Wien.

References: (tx) Schedl 1979h: 158.

curtatus Sampson 1923b: 286. Syntypes ♂ ♀; Panghloria Block, Upper Tondu, India; BMNH, London.

Distribution: Asia (Assam, Bengal in India).

Hosts: *Anoora wallichii*, *Artocarpus lakoocha*, *Beilschmiedia sikkimensis*, *Eugenia jambolana*, *Girtona jentinsiana*, *Machilus odoratissimus*, *Quercus lamellosa*, *Shorea robusta*, *Tetraneles midiflora*, *Vatica lanceaefolia*.

References: (cn) Mathur & Singh 1961a: 45, 1961b: 46; Roonwal 1954: 66. (ds) Beeson 1961: 264; Bhasin, Roonwal, & Singh 1955; Mathur & Singh 1961a: 45, 1961b: 46; Roonwal 1954: 66; Schedl 1962f: 165. (tx) Sampson 1923b: 286; Schedl 1972f: 185.

curtus Chapuis 1865: 261. Syntypes ♂; de la presqu'île de Malacca (Singapour), et de l'île de Bornéo (Sarawak); 1 in BMNH, London.

Distribution: Asia (Burma/ Fujian in China/ Assam in India/ Malaya/ Singapore/ Taiwan/ Thailand/ Vietnam), Australia (Queensland), Indonesia (Borneo, Sumatra), Philippine Islands.

Hosts: *Balanocarpus heimii*, *Dipterocarpus baudii*, *D. crinitus*, *Dryobalanops aromatica*, *D. camphora*, *Durio carinatus*, *Endospermum malaccense*, *Hopea odorata*, *Intsia palembanica*, *Koompassia excelsa*, *Parashorea lucida*, *Shorea bentongensis*, *S. faguetiana*, *S. leprosula*, *S. parviflora*, *S. robusta*, *S. pauciflora*, *S. sericeiflora*, *S. uliginosa*, *Swintonia floribunda*.

References: (ay) Nakashima 1975: 5. (bv) Beeson 1917. (cn) Beeson 1915: 8–11, 1916: 1–5; Halperin & Menier 1981; Ishikura 1966; Kleine 1932a: 310, 402; Mathur & Singh 1960b: 5, 1961a: 38; Pierce, W. D. 1917: 194; Sen-Sarma & Thakur 1956: 37; Stebbing 1914: 624; Yunus & Hua 1980: 216. (cc) Beeson 1921b: 24, 1923; Browne 1955b; Nakashima 1975: 5; Stebbing 1914: 624; Thompson, W. R. & Simmonds 1964: 34, 1965: 30. (hb) Beaver & Browne 1978: 619; Beeson 1916a: 222, 1917, 1923; Browne 1935a, 1941, 1955b, 1961c: 199–200; Kalshoven 1960c: 36; Kleine 1932a: 310, 402; Mercer 1982: 210; Stebbing 1914: 624. (ds) Beaver & Browne 1978: 619; Beeson 1916a: 222, 1921b: 24, 1923, 1961: 264; Browne 1935a, 1961a: 312, 1961c: 199–200, 1966: 237, 1965a: 133; Choo, Woo, & Kim 1981: 202; Gemminger & Harold 1872: 2698; Halperin & Menier 1981; Ishikura 1966; Kalshoven 1960d: 36; Kleine 1932a: 402, 310; Mathur & Singh 1960b: 57, 1961a: 38; Mercer 1982: 210; Nakashima 1975: 3; Nobuchi 1967: 26, 1977: 118, 1980a: Ohno, Yoneyama, & Nakazawa 1982b: 10, 1987a: 95, 1987b: 89; Pierce, W. D. 1917: 194; Sampson 1925b: 394; Schedl 1936d: 7, 1953f: 83, 1959c:

168, 1964f: 305, 1964i: 249, 1966b: 92, 1966g: 33, 1971f: 150; Strohmeier 1912c: 17, 1914c: 27; Yunus & Hua 1980: 216. (tx) Browne 1955: 369; Chapuis 1865: 261; Nakashima 1975: 42–47; Nobuchi 1985: 328; Sampson 1925b: 394; Schedl 1935k: 488, 1935n: 635, 1939b: 398, 1941a: 43, 1942a: 172, 1950g: 895–896, 1952b: 365, 1955h: 46, 1960c: 49–50, 1972f: 185, 1978b: 22; Stebbing 1914: 624; Strohmeier 1912c: 17, 1914c: 27.

curtus artocurtus Schedl 1960c: 50. Syntypes ♂ ♀; Fukien, Kuatun, 27.40 nBr., oL. 21, 22, 23 [China]; Schedl Collection, and Alexander Konig Museum, Bom.

Notes: (1) Schedl 1978a: 23 (citation of holotype invalid).

References: (ds) Schedl 1962f: 165, 1964c: 262, 1972f: 185. (tx) Schedl 1960c: 50, 1972f: 185, 1978a: 23.

curvidens Schedl 1939k: 719. Holotype ♂; Costa Rica, Hamburgfarm, [Rio] Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica).

References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 21; Schedl 1972f: 238. (tx) Equihua & Atkinson 1987: 21; Schedl 1939k: 719, 1972f: 238, 1978a: 23.

cuspidatus Schedl 1963d: 229. Holotype ♂; Argentinien: Tucuman, Siambon; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

References: (ds) Schedl 1972f: 205. (tx) Schedl 1963d: 229, 1972f: 205, 1978a: 23.

° **cylindricus Burmeister** 1831: 1100. Holotype, sex?; Baltischer Bemstein. Lower Oligocene; not located.

Distribution: Europe (fossil in Lower Oligocene Baltic amber).

References: (hb) Rupertsberger 1879: 231, 1880: 232. (ds) Kugelann 1794: 526. (tx) Burmeister 1831: 1100; Latreille 1807: 277; Kugelann 1794: 526; Olivier 1795b: 4; Rupertsberger 1879: 231, 1880: 232.

cylindrus (Fabricius) 1792: 364 (*Bostrichus*). Syntypes 2 ♂; Germania; UZMC, Copenhagen.

Figures: Acatay 1960: 12, Balachowsky 1949a: 23, 274, 277, 1963b: 1290, Bevan 1987: 116, Duffy 1953: 17, Hickin 1963: 257, Lonzil 1961: 108, Pfeffer 1989a: pls. 1, 14, Postner 1974: 484.

Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Iran/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Spain/ Sweden/ Switzerland/ Caucasus, Ukraine in W USSR/ Yugoslavia).

Hosts: *Castanea vesca*, *Cerasus avium*, *Fagus orientalis*, *F. sylvatica*, *Fraxinus* spp., *Phytophthora cambivora*, *Prunus* spp., *Quercus* spp.

- References: **(ay)** Baker, J. M. 1960b, 1965a; Baker, J. M. & Kreger-Van Rij 1964: 433–441; Chapman 1904; Crowson 1938; Dudich 1922: 1–8; Escherich 1923b: 638; Francke-Grosmann 1956b; Fuchs 1912a; Mamaev & Semenova 1961; Menier 1976: 348; Numberg 1928a: 144; Parkin 1943: 64; Roberts 1961c. **(bv)** Baker, J. B. 1956b, 1960b; Espanol 1967a; Menier 1976: 348. **(cn)** Aeloque 1914; Androic 1966: 46; Anonymous 1940b: 9, 1966c, 1972c; Barbey 1901: 115; Becker, C. 1950; Bletchley 1962, 1964; Boocock 1959a, 1959d; Breschke 1954: 104; Browne 1952, 1968b: 570; Cermak 1938; Eckstein 1926: 579; Escherich 1916: 272–273, 1923b: 638, 1936; Fagel & Guilleaume 1945; Falck 1916; Fisher 1933, 1937a, 1954a, 1954b; Gabler 1955; Gebin 1857b: 42, 63; Georgescu et al. 1957: 357, 427; Goidanich & Goidanich 1934; Groschke 1953b, 1954b: 107; Hess 1900: 56; Hess & Beck 1927: 348; Jacquist 1951a: 1, 1951b; Joly 1953, 1956: 192, 1960; Jones 1959a; Judeich & Nitsche 1895: 546; Kamp 1954: 6; Kholodkovskii 1912: 287, 323; Kleine 1932a: 310, 401; Kollar 1849b: 3; Konig, E. 1957: 113; Lapeyronie 1948: 274; Lucas 1880: 26; Maksimovic 1959: 3–13; Marcu 1962; Marie 1922: 306–311; Novak, V., Hrozinka, & Stary 1976: 88; Nusslin 1913: 292; Petrovic 1960: 23; Pierce, W. D. 1917: 154; Reissig 1949: 131; Rhumbler 1922: 335, 1927: 352; Roberts 1961c; Schimitschek 1937c: 61, 1944: 227, 1955a: 136, 1955c: 94, 1961a: 154; Schwerdtfeger 1944a: 185, 1957a: 191; Sinreich 1961: 166; Strohmeier 1906b: 329; Thalenhorst 1950: 90; Vrydagh 1947a: 8; Wachtl 1901: 382; Weber, W. 1926: 581; Weber, T. 1965; Wichmann 1927b: 379; Wolff & Krasne 1922: 105; Zwolfer 1949: 401. **(cc)** Apel 1983; Arx & Hennebert 1965; Baker, J. M. 1960b, 1963; Baker, J. M. & Kreger-Van Rij 1964: 433, 441; Favard 1962; Fleischer 1911; Francke-Grosmann 1956b; Gauss & Wellenstein 1950; Hicken 1963; Horn 1933: 173; Kangas 1946b: 41; Kleine 1908c: 222, 1909a: 49, 78; Kostenko 1929; Neger 1909b: 408; Nosek 1959a: 118, 1959b: 85, 87; Novak, P. 1952: 417; Nusslin 1927: 352; Perris 1852: 497, 1856a: 197, 244; Pfeffer 1923a: 332, 1928b: 7; Ratzeburg 1869a: 175; Rondani 1873: 158; Scheerpeltz & Hofler 1948: 281; Schimitschek 1955a: 136; Schwerdtfeger 1944a: 185, 1957a: 191; Sedlaczek 1935a: 157; Slaby 1947: 375; Turnau 1984; Vite 1952a: 99; Wichmann 1955a: 95. **(hb)** Altum 1881c: 323; Anonymous 1966c, 1972c; Apel 1983; Baeta Neves 1943a; Baker, J. M. 1956a, 1956b, 1960b: 94, 1963: 232–265, 1965a; Balachowsky 1963b: 1290; Barbey 1901: 28, 115; Bargmann 1894d, 1906; Becker, C. 1950; Browne 1968b: 570; Buysson 1910; Cecconi 1905, 1924; Cermak 1938; Chapman 1870a: 103–106, 132–135, 1904; Chittenden 1890; Claudon 1871; Dyakowski 1911; Eckstein 1897, 1915, 1926: 579, 1928; Eichhoff 1881a: 55, 305; Escherich 1923b: 638; Espanol 1964b: 115–116; Falck 1916; Favard 1962; Fisher 1936a; Fleischer 1927; Fuchs 1904a; Furst 1888: 340; Gabler 1955; Gerhard 1908; Girard 1873; Groschke 1953b, 1954b; Henschel 1876a: 217, 219, 242, 1895a: 196; Hergula 1939: 305; Hess 1900: 56; Hess & Beck 1927: 348; Hicken 1963; Husson 1955: 248–356; Jacobi 1906: 148; Jacquiot 1951a: 1–4, 1951b: 283–284; Joly 1953: 3–7; Jones 1959a; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 157; Karsch 1883: 143; Kholodkovskii 1912: 287, 323; Kleine 1932a: 310, 401; Knotek 1896: 148; Kollar 1849: 3; Konig, E. 1957: 113; Korolev 1989; Lengerken 1954: 325; Lepiney & Mimeur 1932: 46; Liese 1950: 141; Louzil 1961: 27; Lmardoni & Leonardi 1889: 492; Madon 1930: 98; Nordlinger 1855: 186, 1869: 335; Nosek 1959a: 118, 1959b: 85, 87; Novak, V., Hrozinka, & Stary 1976: 88; Nusslin 1898: 283, 1913: 292, 1927: 352; Perris 1852: 497, 1856a: 197, 244; Peverimhoff 1919: 257; Pfeffer 1942a: 2; Postner 1974: 483; Ratzeburg 1837: 168, 188, 1839: 165, 230; Rhumbler 1922: 335, 1927: 352; S. H. 1851: 36; Schimitschek 1944: 227, 1955a: 136; Schwerdtfeger 1944a: 185, 1957a: 191, 1981: 197; Sedlaczek 1935a: 157; Strohmeier 1906b: 329, 1907a: 66; Taschenberg 1880: 247; Vite 1952a: 99; Wachtl 1901: 382; Weber, H. 1926: 581; Wichmann 1927b: 379; Wolff 1927: 76; Wolff & Krasne 1922: 105. **(ds)** Acatay 1960: 12; Aeloque 1896, 1914; Andersch 1851; Androic 1966: 46; Anonymous 1966c, 1972c; Arnoldi et al. 1955: 736; Audras & Schaefer 1957; Balachowsky 1963b: 1290; Barthe 1896; Bau 1888; Bedel 1888b: 404, 421; Bielz 1851, 1887; Blackwelder 1947: 789; Blanchere & Robert 1889; Bletchley 1962; Borchert 1951; Brakman 1966b: 207; Brancsik 1871, 1906; Brown, S. C. S. 1971; Browne 1968b: 570; Buck 1955b: 191; Buecking 1932; Buresh & Lazarov 1956; Buysson 1910; Calwer 1854, 1893; Cecconi 1905; Chapuis & Candeze 1853; Chittenden 1890; Chrysal 1937; Debatisse 1945; Dejean 1821, 1825, 1837; Dieckmann 1960: 117; Duffy 1945: 175; Eggers 1904, 1912f; Endrodi 1958a: 69, 1958b; Erichson 1836: 65; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 638, 1932b: 43; Espanol 1964b; Eyquem 1891; Fedorov 1930; Fisher 1936a, 1937: 1–3; Fowler 1891; Fricken 1889: 357; Fuchs 1904a, 1905a; Gabler 1949b; Gaubil 1849: 125; Gauss & Wellenstein 1950; Gebin 1857a: 392; Gemminger & Harold 1872: 2698; Gozis 1875: 80; Gredler 1866: 375; Grill 1895: 313; Hallett 1923c; Hamilton 1894b: 406; Hansen, V. 1939, 1956; Hellen 1947; Hennig 1954: 265; Henschel 1895a: 196; Heyden 1876; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Horion 1935, 1951; Hunefeld 1831: 2000; Illiger 1805: 129; Joly 1960; Judeich & Nitsche 1895: 546–547; Kaltenbach 1874: 632; Kangas 1946d: 35; Karpinski 1926: 83, 1931: 20,

1932b: 56; 1945a: 173; Karpinski & Strawinski 1948: 157; Keler 1925b: 275; Kersten 1933: 76; Kestercanek 1881a: 12; Klefbeck & Sjöberg 1960: 232; Kleine 1932a: 310, 401; Kloft & Hinke 1945: 218; Koca 1905: 192; Kostenko 1929; Kozikowsky 1921: 181; Kraatz 1869: 60; Kurir 1947c: 22; Lacordaire 1866: 391; Langhoffer 1915c: 158–159, 1929; 1196–1203; Leclercq 1971; Leng 1918: 210; Lentz 1857: 140; Lepiney 1927: 145–174; Lepiney & Mimeur 1932: 46; Liese 1950: 141; Lokaj 1860: 64; Lomnicki 1913b: 149; Lompe 1973; Lucas 1880: 26; Lucht 1957: 250; Luna de Carvalho 1947: 15; Luardoni & Leonardi 1889: 492; Massee 1947: 126; Matthews & Fowler 1883: 42; Michel 1937: 24–28; Negrn 1966b: 404, 1968a: 457; Novak, P. 1952: 417; Numberg 1954: 96; Nusslin 1898: 283; Oliveira 1887: 329; Orzen 1886: 280; Pachter 1865: 152; Paganetti-Hummiler 1901: 150; Palm 1959: 22, 28, 354, 1966: 18; Parkin 1943: 61–66; Peclaire & Van der Wiel 1946: 76; Perris 1876a: 256, 1877a: 412; Peyerimhoff 1919: 257; Pfeffer 1928b: 7, 1931b: 73, 1936: 90, 1989a: 92; Pierce, W. D. 1917: 154; Postner 1974: 486; Ragusa 1924: 117; Rapp 1934: 738; Ratzburg 1837: 168, 188, 1839: 165, 230; Redtenbacher 1858: 839; Reissig 1949: 131; Reitter 1869b: 155, 1888b: 280, 1894a: 93, 1916: 306, 352; Romanyk 1959: 425; Roschkaup 1929: 178–180; Roubal 1941: 276; Rye 1866a: 199, 1890: 271; S. H. 1851: 36; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaschl 1854: 133; Schaufuss 1915: 1201; Schamm 1853: 292, 1859: 96, 1862: 101; Schedl 1961b: 185, 1964a, 1967c: 73, 1971d: 429, 1972f: 189, 1980a: 29, 1981c: 101; Schilsky 1909: 189; Schiodte 1873: 105; Scheerpeltz & Winkler 1930: 253; Scherdtfeiger 1981: 197; Scudder 1891: 540; Seidlitz 1872: 389, 1891a: 556, 1891b: 601; Sharp & Fowler 1893: 35; Stark 1927b: 90, 1936e: 142; Stein & Weise 1877: 165; Stephens 1829a: 145, 1830: 355, 1839: 206; Stierlin & Gantard 1871: 294, 1906: 205; Strohmeier 1907e: 170, 1912c: 15, 1914c: 26; Sturm 1843: 231; Swaine 1909: 85; Thomson 1865: 376, 1868: 224; Trappen 1935: 144; Tredl 1907: 19; Vigiani 1943: 102; Villa & Villa 1833: 26; Vite 1953: 41; Vrydagh 1947a: 8; Wanka 1908: 231, 1915: 213; Westhoff 1882: 240; Wichmann 1909b: 172, 1955a: 95; Winter, T. C. 1983: 22; Wolff 1927: 76. (tx) Acatay 1960: 12; Acoloque 1896; Altman 1844; Apel 1983; Bach 1854; Balachowsky 1949a: 277, 1963b: 1290; Barbey 1901: 28, 115; Bechstein et al. 1805: 96; Bedel 1888b: 404, 421; Beeson 1938: 295; Bertolini 1872; Brancsik 1871; Calver 1858; Castelman 1840; Ceballos 1945; Chapuis 1865: 246; Chapuis & Candeze 1853; Chevrolat 1838; Dejean 1821, 1825; Duffy 1953: 17; Eggers 1912f: 29, 1929e: 42; Eichhoff 1864b: 43, 1881a: 55, 108, 305, 1883a: 117, 144; Emden 1942; Endrodi 1957b: 43; Escherich 1923b: 638; Espanol 1964b; Fabricius 1792: 364,

1801: 384; Fauvel 1889; Fleischer 1905; Formanek 1907: 56; Fricken 1889: 357; Fuchs 1912a; Gabler 1949b, 1955; Girard 1873; Hansen 1956; Henry 1892: 15; Henschel 1876a: 217, 219, 242, 1895a: 196; Hickin 1963: 257; Hopkins 1914: 127, 1915c: pl. 9, fig. 18, pl. 12, fig. 18; Houlbert 1922a: 15–16; Iablokoff-Klmzorian 1961: 89; Illiger 1805: 321; Jacobi 1906: 148; Jacquelin du Val & Fairmaire 1868: 108; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 157; Keler 1928: 1; Korolev 1989; Kuhnt 1913: 1061; Lacordaire 1866: 391; Latreille 1803: 204, 1804: 108; Letzner 1891: 378; Lemis 1886: 183; Louzil 1961: 108; Lovendal 1889b: 83, 1898; Lucas 1920: 521; Lucht 1987: 280; Luardoni & Leonardi 1889: 492; Negrn 1966b: 404; Novak, V., Hrozinka, & Stary 1976: 88; Numberg 1928a: 144, 1953: 52, 1954: 96; Panzer 1795: 285; Perris 1877a: 112; Pfeffer 1932b: 27, 1942a: 2, 1955a: 265, 1989a: pl. 1, 14; Portevin 1935: 339; Postner 1974: 486; Ratzburg 1837: 168, 188, 1839: 165, 230; Redtenbacher 1849a: 356, 1849b: 26, 1858: 839; Reitter 1894a: 93, 1913a: 112, 1916: 306, 352; Rey 1892b: 31; Rhumbler 1922: 335, 1927: 352; Saunders 1836: 155; Schedl 1934f: 1647, 1937d: 40, 1942a: 200, 1947a: 13, 1952f: 88, 1960c: 47, 1972f: 189, 1980a: 29, 1981c: 101; Schimitschek 1937c: 60–61, 1955c: 94; Seidlitz 1872: 389, 1891a: 556, 1891b: 601; Stephens 1829a: 145, 1829b: 12, 1830: 355, 1839: 206; Stresemann et al. 1989: 357; Strohmeier 1911d: 217, 1912c: 15, 1914c: 26; Swaine 1909: 85; Taschenberg 1880: 247; Thomson 1865: 376, 1868: 224; Westwood 1840: 40. (ms) Boocock 1959a, 1959d; Eggers 1912e; Escherich 1932b; Fisher 1954a, 1954b; Keler 1956: 440; Lucas 1920: 521; Schamm 1854: 148.

platypus Duftschmidt 1825: 87 (*Cylindra*). Syntypes ♂; Wien; not located. Synonymy: Chapuis 1865: 246.

References: (tx) Chapuis 1865: 246; Duftschmidt 1825: 87; Schedl 1972f: 189.

bimaculata Duftschmidt 1825: 88 (*Cylindra*). Syntypes, sex?; Wien; not located. Synonymy: Chapuis 1865: 246.

References: (ds) Schilsky 1909: 189. (tx) Balachowsky 1949a: 277; Chapuis 1865: 246; Duftschmidt 1825: 88; Espanol 1964: 116; Letzner 1891: 378; Schedl 1972f: 189.

flavicornis Kugelann 1872: 496 (*Bostrichus*). Syntypes, sex?; Germany; not located. Synonymy: Strohmeier 1912: 15.

References: (tx) Kugelann 1872: 496; Schedl 1972f: 189.

cylindriformis Reitter 1894: 94. Syntypes ♂ ♀; Algier (St. Charles); NHMB, Budapest. Synonymy: Balachowsky 1949a: 277.

Notes: (3) Dejean 1837: 333 (*sulcatus*, nomen nudum, synonymy in Strohmeier 1911: 85–88). References: (ay) Escherich 1923b: 638; Korolev 1989; Strohmeier 1918: 1. (cn) Acatay 1943a:

- 73, 1949: 73–74; Escherich 1923b: 638; König, E. 1957: 17; Schimitschek 1955a: 136, 1955c: 94; Weber 1926: 581; Wichmann 1927b: 379. (**cc**) Beauverie 1910b; Schimitschek 1955a: 136; Uchastnova 1985; Vite 1952a: 99. (**hb**) Acatay 1943a: 73; Eckstein 1926: 581; Escherich 1923b: 638; König, E. 1957: 17; Schimitschek 1937: 61, 1955a: 136; Strohmeier 1906b: 329–341, 409–420, 506–511, 1907a: 66, 1910b: 89; Vite 1952a: 99; Weber 1926: 581; Wichmann 1927b: 379. (**ds**) Eckstein 1926: 581; Escherich 1923b: 638; Gabler 1949b; Heyden, Reitter, & Weise 1906: 713; Holdhaus 1912: 454; Lima de Carvalho 1950: 15; Normand 1937: 269; Pfeffer 1947d: 126; Reitter 1894a: 94; Roschkamp 1929: 178–180; Schilsky 1909: 189; Strohmeier 1907e: 170–173, 1911c: 106, 1912e: 251, 1914c: 26; Tredl 1907: 20. (**tx**) Balachowsky 1949a: 277; Eggers 1923a: 214; Escherich 1923b: 638; Espanol 1964: 116; Fleischer 1927; Gabler 1949b; Korolev 1989; Kuhlnt 1913: 1061; Pfeffer 1989a: pl. 12; Portevin 1935: 339; Reitter 1894a: 93–94, 1913a: 113; Schedl 1934f: 1647, 1972f: 189; Schimitschek 1955c: 94, 1972f: 189; Strohmeier 1910g: 85, 1911c: 106, 1912b: 57, 1914c: 26.
- cymbiformis** Roberts 1979: 86. Holotype ♂; Papua New Guinea: 8 km south-west Onim Hut, Mount Giluwe, 2450 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Galbulimima* sp.
References: (**cn**) Schimitschek 1937c: 61, 1938c: 2119, 1939d: 2119, 1944: 227; Schwerdtfeger 1944a: 185, 1957a: 191. (**cc**) Schimitschek 1941a: 317; Schwerdtfeger 1944a: 185, 1957a: 191. (**hb**) Schimitschek 1944: 227; Schwerdtfeger 1944a: 185, 1957a: 191. (**ds**) Strohmeier 1912c: 14. (**tx**) Schimitschek 1937c: 61; Strohmeier 1912c: 14.
- daedalus** Roberts 1986: 41. Holotype ♂; New Guinea: Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: (**tx**) Roberts 1986: 41.
- darjeelingensis** Schedl 1969c: 61. Holotype ♂; India: W. Bengal, Lepchajagat, 7000', Rangirum 6000', Darjeeling; FRI, Dehra Dun, not found in 1981 by SLW.
Distribution: Asia (Bengal in India).
Hosts: *Acer campbellii*, *Odina fraxinifolia*, *Symplocos theaeifolia*.
Notes: (1) None of the specimens borrowed by Schedl from FRI, Dehra Dun, was ever returned; the types he cites may be represented by the "paratypes" in his collection. (3) Schedl 1969c: 61 (this is *darjeelingensis* Beeson, nomen nudum), 1971c: 389 (described female).
References: (**cn**) Mathur & Singh 1961a: 83. (**ds**) Beeson 1941: 344, 1961: 265; Mathur & Singh 1961a: 83; Schedl 1971c: 362, 1972f: 189. (**tx**) Schedl 1969c: 61–62, 1971c: 389, 1972f: 189, 1978a: 23.
- darlingtoni** Reichardt 1965: 162. Holotype ♂; Toledo Dist., Brit. Honduras; MCZ, Cambridge.
Distribution: North America (Belize).
References: (**ds**) Schedl 1972f: 239. (**tx**) Reichardt 1965: 162; Schedl 1972f: 239.
- dasycauda** Browne 1980a: 376. Holotype ♂; Keelung (Formosa) to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (Taiwan).
References: (**tx**) Browne 1980a: 376.
- decens** Sampson 1922b: 147. Holotype ♂; Assam; Nowgong; BMNH, London.
Distribution: Asia (China/ Assam in India/ Malay/ Nepal).
Hosts: *Castanopsis tribuloides*, *Shorea* sp., *Vatica lauceaeifolia*.
References: (**cn**) Mathur & Singh 1961b: 71. (**ds**) Beaver & Browne 1978: 619; Beeson 1961: 265; Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1961b: 71; Schedl 1962f: 165, 1972f: 209, 1973b: 211. (**tx**) Murayama 1956: 13; Sampson 1922b: 147; Schedl 1941b: 416, 1972f: 209.
- deceptor** Wood 1972c: 244. Holotype ♂; La Carbonera Experimental Forest, 50 km W. Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Ficus* sp., *Nectandra* sp., *Prunus sphacrocarpa*.
References: (**tx**) Wood, S. L. 1972c: 244.
- declivis** Sampson 1923c: 72. Lectotype ♂; Labuen, Batjan; BMNH, London, designated by Browne 1970: 580.
Distribution: Indonesia (Batjan Island near Borneo, Java).
References: (**ds**) Beeson 1937: 92; Equilma & Atkinson 1987: 21; Schedl 1972f: 237. (**tx**) Beeson 1937: 90, 92; Browne 1970: 580; Equilma & Atkinson 1987: 21; Sampson 1923c: 72; Schedl 1936c: 46, 1972f: 237.
- declivitatis** Schedl 1941c: 356. Syntypes ♂; Java, Mount Gede, 500 m; Schedl Collection in NHMW, Wien, and RNH, Leiden.
Distribution: Indonesia (Java).
Notes: (1) Schedl 1978a: 23 (citation of holotype invalid, this specimen was lost).
References: (**ds**) Schedl 1972f: 242. (**tx**) Schedl 1941c: 356, 1972f: 242, 1978a: 23.
- decorus** Schedl 1936c: 235. Syntypes ♂; French Guyana, St-Laurent du Maroni; MNHN, Paris, and Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne).
References: (**ds**) Blackwelder 1947: 789; Schedl 1972f: 205. (**tx**) Schedl 1935k: 480, 1936c: 235, 1972f: 205, 1978a: 24.

- deductus** Schedl 1964c: 299. Holotype ♂: Ostkuste Sumatras: Bandar Baroe, 550 m; ZMA, Amsterdam. Distribution: Indonesia (Java, Sumatra). References: (ds) Schedl 1972f: 195. (tx) Schedl 1964c: 299, 1972f: 195, 1978a: 24.
- deflectus** Schedl 1941c: 355. Syntypes ♂ ♀; Java, Mt. Gede, 1000 m; Kalshoven Collection, and Schedl Collection in NHMW, Wien. Distribution: Indonesia (Java), Philippine Islands. References: (hb) Kalshoven 1960c: 40–41. (ds) Kalshoven 1960c: 40–41; Schedl 1972f: 196. (tx) Browne 1966: 235; Nobuchi 1955: 329; Schedl 1941c: 355–356, 1971f: 156, 1972f: 196, 1978a: 24.
- bistriatus** Browne 1966: 235. Holotype ♂; Philippines: Palawan, Pinigisan, Mantalingajan Range, 600 m; UZMC, Copenhagen. Synonymy: Schedl 1971f: 156. References: (tx) Browne 1966: 235; Schedl 1971f: 156, 1972f: 196.
- delicatus** (Schedl) 1936b: 129 (*Crossotarsus*). Syntypes ♂; Belg, Kongo, Kibali-Ituri: Kilo; MRCB, Tervuren, and Schedl Collection in NHMW, Wien. Distribution: Africa (Angola/ Uganda/ Zaïre). Notes: (1) Schedl 1959p: 27 (described female, as *Mesoplatypus*), 1978a: 24 (restricted male type to specimen in MRCB, Tervuren). References: (ds) Ferreira 1965: 1134; Schedl 1959p: 23, 27, 1962k: 996, 1972f: 203. (tx) Schedl 1936b: 129–130, 1962k: 996, 1972f: 203, 1978a: 24.
- dentatus** Dalman 1823: 83. Holotype ♂; Brasilia; Schoenherr Collection. Distribution: North America (Costa Rica), South America (Bolivia/ Brazil/ Colombia). Hosts: *Cecropia peltata*, *Inga vera*, *Jacaranda copatia*. Notes: (3) Schedl 1970e: 108 (described female). References: (ds) Schedl 1970e: 89, 1972f: 239. (tx) Dalman 1823: 83; Schedl 1970e: 108, 1972f: 239, 1978a: 24.
- fortis** Blandford 1896e: 98. Holotype ♂; Colombia; BMNH, London. Synonymy: Schedl 1972f: 238. References: (ds) Blackwelder 1947: 789; Schedl 1966f: 50. (tx) Blandford 1896e: 98; Schedl 1958c: 2, 1972f: 238–239.
- denticollis** Browne 1984f: 61. Holotype ♂; New Guinea: Morobe District, Mount Kaindi, 2350 m; BMNH, London. Distribution: New Guinea. Hosts: *Nothofagus* sp. References: (tx) Browne 1984f: 61.
- denticulatus** Browne 1980c: 497. Holotype ♂; Mt. Maunganui (New Zealand) to Kawasaki (Japan), imported; BMNH, London. Distribution: New Zealand. References: (tx) Browne 1980c: 497.
- deperditus** Schedl 1975f: 384. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1975f: 384.
- priscus** Schedl 1975f: 375 (*Crossotarsus*). Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection NHMW, Wien. Synonymy: Roberts 1989: 285. References: (tx) Roberts 1989: 285; Schedl 1975f: 375.
- deplanatus** Wood 1972c: 245. Holotype ♂; La Carbonera Experimental Forest, 50 km W Merida, Merida, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: *Prunus sphaerocarpa*. References: (tx) Wood, S. L. 1972c: 245.
- depressus** Schedl 1979g: 110. Holotype ♀; Papua, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1939e: 333, 1979g: 110.
- desultor** Schedl 1939k: 719. Holotype ♂; Costa Rica, San Jose; Schedl Collection in NHMW, Wien. Distribution: North America (Costa Rica). References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1957: 21; Schedl 1972f: 234. (tx) Equihua & Atkinson 1957: 21; Schedl 1939k: 719, 1972f: 239, 1978a: 24.
- detectus** Schedl 1976a: 57. Holotype ♂; Porto Velho, Territ. Rondon, Brazil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 57.
- devius** Schedl 1976a: 85. Holotype ♂; Brasil, PA, Santarem; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 85.
- deyrollei** Chapuis 1865: 127. Syntypes ♂ ♀; Toxpan; 1 ♂, 1 ♀ in BMNH, London, 1 ♂, 1 ♀ in IRSNB, Brussels. Distribution: North America (Costa Rica/ Guatemala/ Veracruz in Mexico/ Panama). Hosts: *Theobroma cacao*. References: (ds) Blackwelder 1947: 789; Blandford 1896e; Equihua & Atkinson 1957: 21; Ferrer 1942; Gemminger & Harold 1872: 2698; Nunberg 1972b: 190; Schedl 1933c: 166, 1972f: 239; Strohmeier 1912c: 8, 1914c: 23. (tx) Blandford 1896e: 97; Chapuis 1865: 127; Equihua & Atkinson 1957: 21; Schedl 1935h: 352, 1937d: 37, 1940a: 324, 1960c: 17, 1972f: 239; Strohmeier 1912c: 8, 1914c: 23.
- dibrachiatus** Roberts 1989: 267. Holotype ♂; Papua New Guinea: Divide Logging Area, Bulolo, 1200 m; MHNW, Wien. Distribution: New Guinea. Hosts: *Terminalia complanata*.

- References: (tx) Roberts 1989: 267.
- diductus Chapuis** 1865: 139. Holotype ♀; Cayenne; IRSNB, Brussels.
Distribution: South America (Cayenne/ Venezuela).
References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Schedl 1972f: 239; Strohmeyer 1912c: 8, 1914c: 23. (tx) Chapuis 1865: 139; Schedl 1935h: 353–354, 1960c: 20, 1972f: 239; Strohmeyer 1912c: 8, 1914c: 23.
- diffidens Schedl** 1964g: 251. Holotype ♂; Sarawak, Setapok; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (ds) Schedl 1971c: 370, 1972f: 185. (tx) Schedl 1964g: 251, 1972f: 185, 1978a: 25.
- diffinis Schedl** 1972i: 55. Holotype ♀; New Guinea (NE), Wan, Morobe Dist., Kunai Creek, 1250 m; BPBM, Honolulu.
Distribution: New Britain Island, New Guinea.
References: (ds) Schedl 1972f: 200. (tx) Schedl 1972f: 200, 1972i: 55, 1978a: 25.
- digestus Schedl** 1975g: 255. Holotype ♂; Papua, Porotop, Luth. Miss. Sawmill; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 225, 1978b: 25.
- dignatus Schedl** 1936c: 236. Syntypes ♂; French Guyana, St.-Laurent du Maroni; MNHN, Paris, and Schedl Collection in NHMW, Wien.
Figures: Reichardt 1964b: 87.
Distribution: South America (Brazil/ Cayenne/ Guyana/ Suriname).
Hosts: *Eugenia* sp.
Notes: (1) Schedl 1975a: 25 (restricted type to MNHN, Paris material). (3) Schedl 1976a: 88 (described female).
References: (ds) Blackwelder 1947: 789; Schedl 1960d: 79, 1972a: 205. (tx) Reichardt 1964b: 87–88; Schedl 1936c: 236, 1972f: 205, 1976a: 88, 1978a: 25.
- dignus Schedl** 1964g: 252. Holotype ♂; Sarawak, Setapok; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).
Hosts: *Castanopsis sumatranus*, *Dipterocarpus borneensis*.
Notes: (3) Schedl 1971c: 389 (described female).
References: (hb) Brownie 1961c: 218. (ds) Brownie 1961a: 315, 1961c: 218; Schedl 1971c: 366, 1972f: 217. (tx) Schedl 1964g: 252, 1971c: 389, 1972f: 217, 1978a: 25.
- dimidiatus Chapuis** 1865: 153. Syntypes 2 ♂; Cayenne; 1 in MNB, Berlin, 1 in IRSNB, Brussels (Schedl 1960c: 23).
Distribution: South America (Cayenne/ Colombia/ Venezuela).
References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Schedl 1972f: 205; Strohmeyer 1912c: 10, 1914c: 24. (tx) Chapuis 1865: 153; Lucas 1920: 521; Schedl 1937d: 37, 1939b: 399, 1960c: 22–23, 1972f: 205; Strohmeyer 1912c: 10, 1914c: 24. (ms) Lucas 1920: 521.
- dipteroearpi Browne** 1956b: 338. Holotype ♂; Borneo: Tatan (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Dipterocarpus* sp.
References: (tx) Brownie 1956b: 338.
- discollis Chapuis** 1865: 254. Syntypes ♂ ♀; Colombia; 1 in MNB, Berlin, 3 in IRSNB, Brussels, 7 ♂, 1 ♀ in BMNH, London (Schedl 1960c: 48).
Distribution: North America (Costa Rica/ Guatemala), South America (Bolivia/ Brazil/ Cayenne/ Colombia).
References: (ds) Atkinson & Equihua 1956a: 422; Blackwelder 1947: 789; Blandford 1896e: 112–113; Equihua 1955: 143; Equihua & Atkinson 1957: 22; Gemminger & Harold 1872: 2698; Numberg 1963c: 106; Sampson 1925a: 3; Schedl 1960a: 77, 1970e: 86, 1971f: 150, 1972f: 187, 1972g: 40, 1976a: 57; Strohmeyer 1912c: 16, 1914c: 27. (tx) Blandford 1896e: 112–113; Chapuis 1865: 254; Equihua & Atkinson 1957: 22; Sampson 1925a: 3; Schedl 1933a: 402, 1936c: 248, 1937d: 40, 1939b: 399, 1941e: 156, 1960c: 48, 1972f: 187; Strohmeyer 1912c: 16, 1914c: 27.
- discipennis Schedl** 1975g: 226. Holotype ♀; New Guinea, Wan; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 226, 1978a: 25.
- discoidalis Schedl** 1933a: 402. Holotype ♂; British Guiana, Essequibo R., Moraballi Creek; BMNH, London.
Distribution: South America (Guyana).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 187. (tx) Schedl 1933a: 402–403, 1972f: 187.
- discolor Blandford** 1896e: 101. Holotype ♂; Volcan de Chiriqui, Panama; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 9.
Distribution: North America (Panama).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1957: 22; Schedl 1972f: 214; Strohmeyer 1912c: 9, 1914c: 23. (tx) Blandford 1896e: 101; Equihua & Atkinson 1952: 22; Schedl 1936c: 226, 1972f: 214; Strohmeyer 1912c: 9, 1914c: 23.
- dissimilis Chapuis** 1865: 271. Syntypes ♀; de la Nouvelle Grenada [Colombia]; 1 in BMNH, London (Schedl 1960c: 52).
Distribution: South America (Colombia).
References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Schedl 1972f: 231; Strohmeyer 1912c: 17, 1914c: 27. (tx) Chapuis 1865: 271; Schedl 1935h: 356, 1960c: 52, 1972f: 231; Strohmeyer 1912c: 17, 1914c: 27.

- dissipabilis* Schedl 1934e: 212. Syntypes 2 ♂; Bogota und Neu-Granada; Hamburg Museum, lost, and Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe), South America (Brazil/ Colombia/ Ecuador/ Venezuela).
Notes: (1) Schedl 1978a: 25 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 231, 1972g: 48, 1976a: 57. (tx) Schedl 1934e: 210, 212, 1962p: 210, 1972f: 231, 1978a: 25.
- perplandus* Schedl 1935i: 46. Lectotype ♂; Venezuela, Etat d'Apure; San Fernando de Apure; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 52. Synonymy: Schedl 1962p: 210.
References: (ds) Blackwelder 1947: 790. (tx) Schedl 1935i: 46, 1962p: 210, 1972f: 231, 1978a: 52.
- distinctipes* Schedl 1972i: 55. Holotype ♂; New Guinea (NW), Wau, Kumai Creek, 1270 m; BPBM, Honolulu.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 200. (tx) Schedl 1972f: 200, 1972i: 55, 1978a: 25.
- ponamae* Schedl 1975f: 392. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Synonymy: Roberts 1989: 285.
Notes: (3) Schedl 1979g: 96 (treated as a synonym of *apicatus*).
References: (tx) Roberts 1989: 285; Schedl 1975f: 392, 1979g: 96.
- distinguendis* Schedl 1934e: 210. Holotype ♂; Costa Rica, Hamburg-Farni, [Rio] Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 22; Santoro 1957b: 25; Schedl 1972f: 239. (tx) Equihua & Atkinson 1987: 22; Schedl 1934e: 210–211, 1936c: 224, 1972f: 239, 1927g: 26.
- diversipennis* Schedl 1962p: 210. Holotype ♂; Madras, Kattiyur, Wynaad (Perya); FRI, Dehra Dun, not found in 1951 by SIW.
Distribution: Asia (India).
Hosts: *Dipterocarpus indicus*.
Notes: (1) None of the material borrowed by Schedl from FRI was ever returned to FRI; the Schedl "paratype" may be the missing type (SIW).
References: (ds) Schedl 1972f: 204. (tx) Schedl 1962p: 210, 1972f: 204, 1978a: 26.
- dobunabae* Roberts & Morimoto 1986: 167. Holotype ♂; New Guinea; Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Calbulimima belgravena*.
References: (tx) Roberts & Morimoto 1986: 167.
- dolabratus* Blandford 1896e: 102. Syntypes 5, ♂ ♀; Bugaba, Panama; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 12.
Distribution: North America (Panama).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 22; Schedl 1972f: 239; Strohmeier 1912c: 9, 1914c: 23. (tx) Blandford 1896e: 102; Equihua & Atkinson 1987: 22; Schedl 1940c: 203, 1972f: 239; Strohmeier 1912c: 9, 1914c: 23.
- dolus* Schedl 1975f: 385. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 385.
- dorsalis* Schedl 1972g: 77. Holotype ♀; Brasilien, Amazonas, Manaus; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 77.
- dorsatus* Schedl 1975g: 226. Holotype ♀; New Guinea, Sarmi; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 226, 1978b: 26.
- drescheri* Schedl 1941c: 358. Syntypes ♂; Java, Preanger, G. Tangkoeban Prahoe, 4000–5000 Voet; Kalshoven Collection, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
Hosts: *Nyssa javanica*.
Notes: (1) Schedl 1978a: 26 (citation of holotype invalid).
References: (hb) Kalshoven 1960e: 40; Schedl 1972f: 207. (tx) Schedl 1941c: 358, 1965g: 28, 1972f: 207, 1978a: 26.
- dryobalanopsis* Browne 1981b: 603. Holotype ♂; Kuala Madai (Sabah, Borneo) to Ganagori (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: Kapur log.
References: (ds) Browne 1985b: 290. (tx) Browne 1981b: 603, 1985b: 293.
- dubiosus* Schedl 1933a: 401. Holotype ♂; Brazil, Rio Janeiro; BMNH, London.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 242. (tx) Schedl 1933a: 401, 1972f: 242.
- duplicatus* Schedl 1979g: 111. Holotype ♂; Onenarou, W. Caledonie; Schedl Collection in NHMW, Wien.
Distribution: New Caledonia.
References: (tx) Schedl 1979g: 111.
- duplosignatus* Schedl 1975f: 386. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 386.

- duriovorus** Brown 1955a: 196. Holotype ♂; Tatan (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Durio* sp.
References: (tx) Brown 1955a: 196.
- durus** Schedl 1936c: 233. Syntypes ♂; Demerara, Brit. Guyana; Hamburg Museum, lost, and Schedl Collection in NHMW, Wien.
Distribution: South America (Guyana).
Notes: (1) Schedl 1975a: 27 (neotype designation apparently invalid).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 239. (tx) Schedl 1936c: 233, 1939b: 399, 1972f: 239, 1975b: 27.
- dyerae** Brown 1956c: 670. Holotype ♂; Borneo: Sandakan (Sabah) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sabah in Borneo).
Hosts: *Dyera costulata* log.
References: (tx) Brown 1956c: 670.
- echinatus** Roberts & Morimoto 1986: 167. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Cryptocarya* sp.
References: (tx) Roberts & Morimoto 1986: 167.
- effertus** Schedl 1935h: 357. Holotype ♀; Brazil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/ Cayenne/ Guyana).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 231. (tx) Schedl 1935h: 357–358, 1972f: 231, 1975b: 27.
- effetus** Schedl 1935n: 637. Lectotype ♂; Borneo; Schedl Collection in NHMW, Wien, designated by Schedl 1975a: 27.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 193. (tx) Schedl 1935n: 637, 1965g: 30, 1972f: 193, 1975a: 27.
- egregius** Schedl 1936c: 229. Holotype ♂; probably Guyana; Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne/ Guyana?).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 239. (tx) Schedl 1936c: 228–229, 1972f: 239, 1975b: 27.
- elaboratus** Schedl 1975g: 227. Holotype ♂; New Guinea, Wau; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 227, 1975b: 27.
- elongatus** Chapuis 1865: 141. Syntypes 2 ♀; de Caracass; 1 in BMNH, London, 1 in IRSNB, Brussels (Schedl 1960c: 20).
Distribution: South America (Brazil/ Venezuela).
References: (ds) Blackwelder 1947: 789; Gemming & Harold 1872: 269S; Schedl 1972f: 239; Strohmeier 1912c: 9, 1914c: 23. (tx) Chapuis 1865: 141; Schedl 1935g: 313, 1950d: 11, 1952i: 22, 1960c: 20, 1972f: 239, 1975a: 27; Strohmeier 1912c: 9, 1914c: 23.
- emarginatulus** Brown 1951a: 134. Holotype ♂; Dingalan (Philippines) to Tokyo (Japan), imported; BMNH, London.
Distribution: Philippine Islands.
Hosts: *Shorea* sp.
References: (ds) Schedl 1936d: 6; Swaine 1909: 86. (tx) Brown 1951a: 134; Swaine 1909: 86.
- emdeni** Schedl 1935e: 174. Lectotype ♂; D. Neuguinea, Rawlinson Geb. (Schedl 1975a: 28); Schedl Collection in NHMW, Wien, designated by Schedl 1975a: 28.
Distribution: New Guinea.
References: (ds) Schedl 1936d: 15, 1936g: 514, 1972f: 184. (tx) Schedl 1935e: 174–175, 1940b: 434, 1972f: 184, 1975b: 28.
- enixus** Schedl 1936c: 244. Lectotype ♂; Demerara, St.-Jean du Maroni, St.-Laurent du Maroni, Charvein, Bas Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1975a: 28.
Distribution: South America (Brazil/ Cayenne/ Guiana).
References: (ds) Atkinson & Equihua 1986a: 422; Blackwelder 1947: 789; Equihua 1985: 143; Equihua & Atkinson 1987: 22; Schedl 1966f: 92, 1972f: 218, 1973d: 164, 1976a: 57. (tx) Equihua & Atkinson 1987: 22; Schedl 1936c: 244, 1972f: 218, 1975a: 28.
- enormis** Schedl 1970a: 130. Holotype ♂; New Guinea, Okasa Pine Forest, Eastern Highlands District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Cryptocarya* sp.
Notes: (3) Schedl 1972i: 57 (described female).
References: (ds) Schedl 1972f: 217. (tx) Schedl 1970a: 130, 1972f: 217, 1972i: 57, 1975a: 28.
- equadorensis** Schedl 1933a: 396. Holotype ♂; Ecuador, Caclabe, low country; BMNH, London.
Distribution: South America (Ecuador/ Peru).
Notes: (3) Brown 1962e: 646 (placed in *Neotrichyostus*).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 229. (tx) Brown 1962e: 646; Schedl 1933a: 396, 1939b: 380, 1972f: 229; Wood, S. L. 1966b: 17.
- manipularis** Schedl 1937c: 14. Lectotype ♂; Peru; Caclabe; Schedl Collection in NHMW, Wien, designated by Schedl 1975a: 42. Synonymy: Wood 1966b: 17.
References: (ds) Blackwelder 1947: 789. (tx) Schedl 1937c: 14, 1952h: 72, 1972f: 229, 1975a: 42; Wood, S. L. 1966b: 17.
- errans** (Sampson) 1922b: 145. Holotype ♂; Burma: Mohnyin R., Katha; BMNH, London.
Distribution: Asia (Burma/ Assam, Bengal in India).
Hosts: *Acrocarpus fraxinifolius*. *Bombax*

malabricum, *Buchanania latifolia*, *Careya arborea*, *Eugenia jambolana*, *Ficus infectoria*, *Magnolia cathartii*, *Mesua ferrea*, *Phoebe attenuata*, *Tectona grandis*, *Terminalia myriocarpa*, *Wrightia tomentosa*.

Notes: (3) Schedl 1972f: 206 (treated as a subspecies of *indicus*).

References: (cn) Matlur & Singh 1961b: 13, 34, 93. (ds) Beeson 1941 (1961: 265); Bhasin, Roonwal, & Singh 1958; Matlur & Singh 1961b: 13, 34, 93; Schedl 1969c: 68, 1972f: 206. (tx) Sampson 1922b: 145, 1923c: 72; Schedl 1972f: 206.

erraticus Schedl 1972g: 78. Holotype ♂; Brasilien, Jacareacanga, Para; Alvarenga Collection.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 78, 1975a: 28.

eugeniae Schedl 1971c: 390. Holotype ♂; Horai, Haldwani, U. P.; Schedl Collection in NHMW, Wien.

Distribution: Asia (Uttar Pradesh in India).

Hosts: *Eugenia jambolana*.

Notes: (3) Beeson 1941: 344, 1961: 265 (*eugeniae*, nomen nudum). The type specimen obviously came from a FRI, Dehra Dun, loan to Schedl dated approximately 1962, that was not returned. References: (ds) Beeson 1941: 344, 1961: 265; Schedl 1972f: 200. (tx) Schedl 1971c: 390–391, 1972f: 200, 1975b: 28.

eugestus Wood 1966a: 64. Holotype ♂; Volcan Irazu, Cartago Prov., Costa Rica, 7000 feet; Wood Collection.

Figures: Schedl 1972f: 213, Wood 1966a: 67.

Distribution: North America (Costa Rica).

Hosts: *Brunellia costaricensis*, *Quercus* sp.

References: (ds) Equihua & Atkinson 1987: 22; Schedl 1972f: 214. (tx) Equihua & Atkinson 1987: 22; Schedl 1972f: 213–214; Wood, S. L. 1966a: 64, 67.

evandimerius Roberts & Morimoto 1986: 169.

Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London.

Distribution: New Guinea.

Hosts: *Syzygium* sp.

References: (tx) Roberts & Morimoto 1986: 169.

evanidus Roberts 1986: 42. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London.

Distribution: New Guinea.

Hosts: *Xanthophyllum papuanum*.

References: (tx) Roberts 1986: 42.

eversus Wood 1972b: 251. Holotype ♂; 8 km S Colonia, Valle de Cauca, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Lecythis* sp.

References: (tx) Wood, S. L. 1972b: 251.

exaratus Blandford 1896e: 98. Syntypes 5, ♂ ♀; Guatemala: Cerro Zamil, Panajachel, San Geronimo; BMNH, London.

Figures: Blandford 1896e: pl. 4, fig. 5.

Distribution: North America (Guatemala/ Mexico).

References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 22; Schedl 1972f: 239; Strohmeier 1912c: 9, 1914c: 23. (tx) Blandford 1896e: 98; Equihua & Atkinson 1987: 22; Schedl 1939k: 719, 1955b: 30, 1972f: 239; Strohmeier 1912c: 9, 1914c: 23.

excedens Chapuis 1865: 276. Holotype ♂; de la Nouvelle Guinee, Dorey; BMNH, London (Schedl 1960c: 52).

Distribution: Bismarck Islands, Indonesia (Borneo), New Guinea, Philippine Islands (Luzon, Palawan).

References: (bv) Gray, B. 1974b. (cn) Wylie & Shanahan 1977. (hb) Browne 1941; Gray, B. 1974b; Wylie & Shanahan 1975. (ds) Browne 1966: 239, 1980a: 372; Gemminger & Harold 1872: 2698; Ohno, Yoneyama, & Nakazawa 1987b: 89; Ohno et al. 1988b: 98, 1989: 65; Sampson 1928b: 374; Schedl 1938g: 423, 1966b: 92, 1968f: 535, 1972f: 186, 1975i: 347; Strohmeier 1912c: 17, 1914c: 28. (tx) Browne 1970: 579; Chapuis 1865: 276; Nobuchi 1985: 329; Sampson 1928b: 374; Schedl 1935k: 487, 1936h: 65–66, 1936j: 19–35, 1937d: 42, 1941c: 363, 1960c: 52, 1972f: 186, 1975b: 29; Strohmeier 1912c: 17, 1914c: 28; Wylie & Yule 1977.

excellens Schedl 1973e: 95. Holotype ♂; Sattelberg, Papua New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1973e: 95, 1975a: 29.

excisus Chapuis 1865: 225. Syntypes ♂ ♀; du Mexique, Toxpan; 1 ♂, 3 ♀ in BMNH, London, 1 ♂, 2 ♀ in IRSNB, Brussels.

Distribution: Antilles Islands (Puerto Rico), North America (Costa Rica/ Guatemala/Veracruz in Mexico/ Panama), South America (Argentina/ Brazil/ Cayenne/ Paraguay).

Hosts: *Inga vera*.

References: (cc) Equihua & Atkinson 1986: 624. (hb) Equihua & Atkinson 1986: 624. (ds) Atkinson & Equihua 1986a: 422, 1988: 104; Atkinson et al. 1986: 46; Blackwelder 1947: 789; Blandford 1896e: 110–111; Equihua 1985: 143; Equihua & Atkinson 1986: 624, 1987: 22; Estrada & Atkinson 1988: 212; Ferrer 1942; Gemminger & Harold 1872: 2698; Martorell 1945: 467; Numberg 1972b: 190; Schedl 1966f: 92, 1972f: 218, 1973d: 163, 1976a: 57, 1978c: 292, 1979e: 58; Strohmeier 1912c: 14, 1914c: 26; Wolcott 1936: 316, 1948: 384. (tx) Blandford 1896e: 110–111; Chapuis 1865: 225; Equihua & Atkinson 1987: 22; Schedl 1936c: 239, 1937d: 40, 1940a: 327, 1941e: 156, 1960c: 41–42, 1972f: 218; Strohmeier 1912c: 14, 1914c: 26.

eximius Wood 1972b: 248. Holotype ♂; Colonia Tovar, Aragua, Venezuela; Wood Collection.

Figures: Schedl 1972f: 229, Wood 1966a: 52.

Distribution: South America (Venezuela).

- References: (tx) Wood, S. L. 1972b: 248.
- exitialis** Wood 1966a: 51. Holotype ♂; Bartica triangle, British Guiana; BMNH, London.
 Figures: Schedl 1972f: 229; Wood 1966a: 52 (male).
 Distribution: South America (Cayenne/ Guyana).
 Hosts: *Licania* sp., *Poveria engleri*.
 References: (ds) Schedl 1972f: 229. (tx) Schedl 1972f: 229; Wood, S. L. 1966a: 51–52.
- exitiosus** Schedl 1936c: 236. Syntypes ♂ ♀; St. Laurent du Maroni, Nouveau Chantier; MNHN, Paris, and Schedl Collection in NHMW, Wien.
 Distribution: South America (Cayenne).
 Notes: (1) Schedl 1978a: 29 (citation of holotype invalid).
 References: (ds) Blackwelder 1947: 789; Schedl 1972f: 229. (tx) Schedl 1936c: 236, 1972f: 229, 1978a: 29; Wood, S. L. 1966a: 51.
- exsuperans** Beaver 1990a: 283. Holotype ♂; Thailand, Chiang Mai, Doi Pui; BMNH, London.
 Figures: Beaver 1990a: 282 (male declivity).
 Distribution: Asia (Thailand).
 Hosts: *Quercus* sp.
 References: (tx) Beaver 1990a: 283.
- extensus** Schedl 1979g: 111. Holotype ♂; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1979g: 111.
- falcatus** Strohmeyer 1908b: 73. Holotype ♂; Himalaya occidentalis (Kulu); Strohmeyer Collection.
 Distribution: Asia (Uttar Pradesh in India/ Nepal).
 Hosts: *Acer campbelli*, *Alnus nepalensis*, *A. nitida*, *Echinocarpus dasyarpus*, *Elaeocarpus lanceae-folius*, *Evodia fraxinifolia*, *Machilus odoratissima*, *Populus* sp., *Quercus lamellosa*.
 Notes: (3) Beeson 1961: 265 (*falcator*, nomen nudum, synonymy in Schedl 1969c: 62).
 References: (cn) Kleine 1932a: 310, 402; Roonwal 1954: 58. (ec) Beeson 1921b. (hb) Kleine 1932a: 310, 402. (ds) Beeson 1921b: 24, 1941: 344, 1961: 265; Kleine 1932a: 310, 402; Nunberg 1964a: 236; Roonwal 1954: 55; Schedl 1962f: 166, 1969c: 62, 1972f: 209, 1973b: 212; Strohmeyer 1912c: 18, 1914c: 28. (tx) Schedl 1941b: 416, 1969c: 62–63, 1972f: 209; Strohmeyer 1908b: 73, 1912c: 18, 1914c: 28.
- fallax** Schedl 1970b: 367. Holotype ♂; Sabah, Sandakan [Borneo]; PPST, Tokyo.
 Distribution: Indonesia (Borneo).
 Hosts: Seraya.
 References: (ds) Browne 1980d: 491, 1981b: 598; Nobuchi 1977: 133; Schedl 1972f: 212. (tx) Nobuchi 1985: 329; Schedl 1970b: 367, 1972f: 212, 1978a: 30.
- fenestrallatus** Roberts 1989: 268. Holotype ♀; Papua New Guinea: Divide Logging Area, Bulolo, 1200 m; NHMW, Wien.
 Distribution: New Guinea.
 Hosts: *Terminalia complanata*.
 References: (tx) Roberts 1989: 268–269.
- ficus** Roberts 1970a: 71. Holotype ♂; Nigeria: Ngel Nyaki For. Res., Mambilla Plateau; MRCB, Tervuren.
 Distribution: Africa (Congo/ Nigeria).
 Hosts: *Ficus eriobotryoides*, *F. macrosperma*.
 References: (ds) Browne 1972c: 100. (tx) Roberts 1970a: 71.
- flaris** Wood 1972: 246. Holotype ♂; Rancho Grande in Pittier National Park, Aragua, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Eschweilera* sp., *Tabebuia* sp.
 References: (tx) Wood, S. L. 1972b: 246.
- flipennis** Schedl 1979g: 111. Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1979g: 111.
- firmus** Schedl 1975g: 227. Holotype ♂; New Guinea, Sepik Area; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1975g: 227, 1978a: 30.
- flavicornis** (Fabricius) 1776: 211. Holotype ♂; America boreali [USA]; UZMC, Copenhagen.
 Figures: Atkinson 1989c, Coyer et al. 1980: 18, White 1983: 324.
 Distribution: North America (Mexico (?)/ Alabama, Arkansas, Florida, Georgia, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, E Texas, Virginia, West Virginia in USA).
 Hosts: *Pinus* spp.
 Notes: (3) Chapuis 1865: 154 (redescribed, =*bidentatus* Dejean 1837: 333, nomen nudum). The occurrence of this species in Mexico could not be confirmed (SLW).
 References: (ay) Hopkins 1894g; Stickney 1921: 15. (bv) Atkinson, Foltz, & Connor 1988; Barker, J. A. 1976; Barker, J. A. & Schmid 1976; Coster 1969; Dixon & Payne 1979b; Inscoc 1982; Klassen, Ridgway, & Inscoc 1982; Madrid, Vite, & Renwick 1972; Renwick, Vite, & Billings 1977. (cn) Anonymous 1966h; Beal et al. 1952: 114–115; Blackman 1950; Chamberlin 1939: 110; Chellman 1958; Doane et al. 1936; Drooz 1985: 375; Fatzinger 1985b; Hertel, Williams, & Merkel 1977; Hopkins 1894: 277; Hubbard 1897b: 15; Luger 1886: 36; Mead 1966a: 4; Moore, H. B. & McGraw 1976; Williams, L. H. 1988: 73. (cc) Chamberlin 1939: 110; Coster 1969; Dixon & Payne 1979b; Kinn 1984c; Savelly 1939: 336. (hb) Atkinson 1989c; Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 272; Beal & Massey 1945; Blackman 1922b: 39–40, 1950; Blandford 1896c: 104; Chamberlin 1939: 110; Coster 1969: 1008–

1011; Dalman 1825; Deyrup & Atkinson 1957a: 64; Doane et al. 1936; Drooz 1955: 375; Hetrick 1967; Hopkins 1894g; Hubbard 1897b: 15; Husson 1955: 350; Moore, H. B. & McGraw 1976; Ostmark 1965; White, R. E. 1983. **(ds)** Anonymous 1966h; Atkinson 1989c; Atkinson et al. 1991: 153; Beal & Massey 1945; Blackman 1922b: 39–40; Blackwelder 1947: 759; Blandford 1896e: 104; Blatchley & Leng 1916: 582; Chamberlin 1939: 110; Chapuis 1865; Deyrup & Atkinson 1957a: 64; Drooz 1955: 375; Equihua & Atkinson 1957: 22; Ferrer 1942; Frost 1964: 144; Gemminger & Harold 1872: 2698; Henshaw 1855: 147, 1895: 44; Illiger 1805: 129; Kirk 1969, 1970; Lacordaire 1866: 391; Leng 1920: 337; Melsheimer 1853: 57; Ostmark 1965; Sampson 1928a: 3; Schedl 1933c: 169, 1972f: 223; Schwarz 1878d: 468; Smith, J. B. 1900: 361, 1910: 400; Spahr 1981: 80; Staines, C. L. 1952; Strohmeier 1912c: 10, 1914c: 24; Swaine 1909: 85; Wood, S. L. 1979a: 2. **(tx)** Atkinson 1989c; Beal & Massey 1945: 63–64; Blackman 1922b: 39–40; Blandford 1895: 93–95, 1896e: 104; Blatchley & Leng 1916: 582; Chamberlin 1939: 110; Chapuis 1865: 154–155; Dalman 1825; Dejean 1837: 333; Eggert 1929e: 42; Equihua & Atkinson 1957: 23; Fabricius 1776: 211–212, 1781: 67, 1787: 36, 1792: 364, 1801: 384; Gmelin 1790: 1601; Goyer et al. 1980: 18; Herbst 1793: 118; Hubbard 1897b: 15; Keler 1927d: 232–236; Lacordaire 1866: 391; LeConte 1868: 151, 1876: 343, 1878a: 465; Lucas 1920: 521; Olivier 1795b: 4, 1808: 4; Sampson 1928a: 3; Saunders 1836: 156; Say 1824: 183; Schedl 1935h: 356, 1937c: 14, 1937d: 38, 1940a: 324, 1972f: 223; Strohmeier 1912c: 10, 1914c: 24; Swaine 1909: 85; White, R. E. 1983: 324; Wood, S. L. 1966a: 61, 1979a: 2. **(ms)** Lucas 1920: 521.

flectus Niisima & Murayama 1931: 197. Holotype ♂; Rengeti, Taichu Prov., Formosa; Murayama Collection in USNM, Washington, automatic. Distribution: Asia (Fujian in China/ Japan/ Taiwan).

Hosts: *Psidium guajava*, *Styrax formosanum*.

Notes: (1) Originally named as a subspecies of *lepidus*. (3) Schedl 1972f: 210 (treated as a subspecies of *lepidus*).

References: **(ds)** Nobuchi 1967: 26; Schedl 1972f: 210. **(tx)** Niisima & Murayama in Murayama 1931: 197; Schedl 1972f: 210.

lepidus formosanus Niisima & Murayama in Murayama 1925a: 214. Holotype ♂; Regeti, Taichu Prov., Formosa; Murayama Collection in USNM, Washington, preoccupied by Murayama 1925a: 215, priority by choice of first revisor.

References: **(tx)** Murayama 1925a: 214–215; Niisima & Murayama in Murayama 1931: 197; Schedl 1972f: 210.

murayamaensis Schedl 1941a: 43. Holotype ♂;

Regeti, Taichu Prov., Formosa; Murayama Collection in USNM, Washington, automatic. Notes: (1) This is an unneeded replacement name.

References: **(ds)** Nobuchi 1967: 26, 1977: 139; Schedl 1966g: 30. **(tx)** Schedl 1941a: 43, 1941b: 416–417, 1972f: 210.

flexiosus Schedl 1936c: 232. Lectotype ♂; Guyane Francaise; Riviere Lumier; Schedl Collection in NHMW, Wien.

Distribution: South America (Cayenne).

References: **(ds)** Blackwelder 1947: 759; Schedl 1972f: 239. **(tx)** Schedl 1936c: 228, 232, 1972f: 239, 1978b: 30.

forcipatus Schedl 1962k: 1106. Holotype ♂; Kamerun; Schedl Collection in NHMW, Wien. Figures: Schedl 1972f: 203.

Distribution: Africa (Cameroon/ Nigeria).

Hosts: *Anthonothea* sp.

Notes: (3) Roberts 1966b: 630 (described female).

References: **(ds)** Roberts 1968: 188, 1969: 116; Schedl 1972f: 202. **(tx)** Roberts 1966b: 630; Schedl 1962k: 1106, 1972f: 202–203, 1975a: 31.

forcifcula Chapuis 1865: 283. Syntypes ♂; des iles Moluques, Batchian; BMNH, London (Schedl 1960c: 54).

Figures: Nakashima 1975: 55.

Distribution: Asia (Burma/ Cambodia/ Assam in India/ Malay/ Thailand/ Vietnam), Indonesia (Borneo, Java, Moluccas, Sumatra), New Britain Island, New Guinea, New Ireland Island.

Hosts: *Actinophora fragrans*, *Artocarpus elastica*, *Bruguiera parviflora*, *Chrysothryllum roxburghii*, *Koompassia excelsa*, *K. malaccensis*, *Rhizophora mucronata*, *Shorea leprosula*, *Sinodora* sp., *Spondias mangifera*, *Sterculia foetida*.

References: **(ay)** Nakashima 1975: 6. **(cn)** Mathur & Singh 1960a: 84, 1961a: 66, 1961b: 41. **(cc)** Nakashima 1975: 6. **(hb)** Browne 1935a, 1941, 1961c: 206; Kalshoven 1960c: 36. **(ds)** Beaver & Browne 1975: 308; Beeson 1941 (1961: 265); Browne 1935a, 1961c: 206, 1970: 576, 1972b: 28, 1980d: 491; Froggatt 1936; Gemminger & Harold 1872: 2698; Kalshoven 1960d: 38; Mathur & Singh 1960b: 41, 1961a: 66, 1961b: 41; Nakashima 1975: 3; Nobuchi 1977: 133; Ohno et al. 1987: 90, 1988b: 98, 1989: 65; Ohno, Yoneyama, & Nakazawa 1982a, 1982b: 5, 10, 1987: 95; Sampson 1928a; Schedl 1936d: 7, 1936g: 515, 1962f: 166, 1966g: 35, 1969a: 206, 1972f: 209, 1974c: 262, 1975a: 453, 1975e: 452, 1979a: 161; Strohmeier 1911f: 204, 1912c: 18, 1914c: 28. **(tx)** Chapuis 1865: 283; Nakashima 1975: 55; Nobuchi 1985: 329; Sampson 1928a: 3; Schedl 1936d: 7, 1939b: 400, 1939e: 336, 1941b: 416, 1942c: 165, 1953b: 124, 1954a: 145, 1960c: 54, 1972f: 209; Strohmeier 1911f: 204, 1912c: 18, 1914c: 28; Wylie & Yule 1977.

- forficuloides* Schedl 1942a: 212. Syntypes ♂; Malaya, Selangor, Gap; BMNH, London, and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
Notes: (1) Schedl 1978a: 31 (type restricted to BMNH, London material).
References: (ds) Browne 1961c: 212; Schedl 1972f: 198. (tx) Schedl 1942a: 212, 1972f: 198, 1978b: 31.
- formosanus* Niisima & Murayama in Murayama 1925: 215. Holotype ♂; Rengeti, Taichu Prov., Formosa; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan/Taiwan).
Hosts: *Ficus* sp., *Quercus* sp., *Styrax formosanum*.
Notes: (1) Originally named as a subspecies of *lepidae*.
References: (hb) Murayama 1931b: 197. (ds) Miwa 1931: 266; Murayama 1925a: 215, 1929a: 672, 1931b: 197, 1937c: 578. (tx) Murayama 1925a: 215–216, 1925b: 235; Nobuchi 1967: 11–30; Schedl 1941a: 43, 1960h: 111.
- taiwansis* Schedl 1960i: 111. Holotype ♂; Rengeti, Taichu Prov., Formosa; Murayama Collection in USNM, Washington automatic.
Notes: (3) Schedl transferred this species from *Platypus* to *Crossotarsus*, thus creating homonymy; then he transferred it back to *Platypus*; this action occurred after 1960, and because of this the original name is restored (SLW).
References: (ds) Nobuchi 1967: 27, 1973b: 16; Schedl 1972f: 189. (tx) Nobuchi 1973b: 16, pl. 2; Schedl 1960i: 111, 1972f: 189.
- fossilatus* Chapuis 1865: 123. Holotype ♀; Bresil, Ega.; BMNH, London (Schedl 1960c: 16).
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Schedl 1972f: 239; Strohmeier 1912c: 9, 1914c: 23. (tx) Chapuis 1865: 123; Schedl 1960c: 16, 1972f: 239; Strohmeier 1912c: 9, 1914c: 23.
- fracticinctus* Schedl 1975f: 386. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 385.
- fracticornis* (Schedl) 1936e: 49 (*Crossotarsus*).
Lectotype ♀; N. Guinea S.E., Moroka, 1300 m; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 31.
Figures: Schedl 1972f: 221.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 221. (tx) Schedl 1936e: 49–50, 1972f: 221, 1978a: 31.
- fracticostis* Schedl 1972i: 57. Holotype ♂; New Guinea (NE), Wau, Morobe Dist., Kunai Creek, 1250 m; BPBM, Honolulu.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 237. (tx) Schedl 1972f: 237, 1972i: 57, 1978a: 31.
- fragosus* Schedl 1936c: 228. Holotype ♂; Guyana; Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne/ Guyana).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 239. (tx) Schedl 1936c: 228, 1972f: 239, 1978b: 31.
- franciai* Browne 1962c: 212. Holotype ♂; Philippines: Laguna, Mt. Maquiling; Forest Products Research Institute, Laguna.
Distribution: Philippine Islands (Luzon).
Hosts: *Shorea* sp.
Notes: (1) Browne 1964: 753 (amended the lapsus calami *franciae* to *franciai*). (3) Browne 1985a: 195 (described female).
References: (ds) Browne 1985a: 190; Schedl 1966b: 93, 1972f: 198. (tx) Browne 1962c: 212, 1964: 753, 1970: 577, 1985a: 195; Schedl 1972f: 198.
- fraterculus* Schedl 1941c: 361. Syntypes ♂ ♀; Java, Mount Gede, 800 m; Kalshoven Collection, and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Borneo, Java), Nicobar Islands.
Hosts: *Castanea argentea*, *Cinnamomum camphora*, *Endriandra rubescens*, *Marrubium muscosa*, *Shorea leprosula*, *Xanthophyllum* sp.
Notes: (1) Schedl 1978a: 31 (citation of holotype invalid).
References: (hb) Kalshoven 1960c: 39. (ds) Browne 1949b, 1961a: 313, 1961c: 211; Kalshoven 1960d: 39; Schedl 1971f: 150, 1972f: 200. (tx) Browne 1949b; Schedl 1941c: 361, 1942a: 172, 1965g: 28, 1972f: 200, 1978a: 31.
- froggatti* Sampson in Froggatt 1926: 259. Lectotype ♂; Sydney, N.S.W., Australia; BMNH, London.
Figures: Brimblecombe 1951: 2 in reprint.
Distribution: Australia (New South Wales, Queensland).
Hosts: *Araucaria cunninghamii*.
Notes: (1) Froggatt (1926b: 259) published this as a new species under Sampson's name after Sampson had designated it as an undescribed species.
References: (cn) Brimblecombe 1951: 69–105, 1956; Browne 1968b: 570; Froggatt 1926b: 259, 1927. (hb) Brimblecombe 1951: 69–105, 1956; Browne 1968b: 570; Froggatt 1926b: 259, 1927. (ds) Browne 1968b: 570. (tx) Browne 1970: 580; Carne et al. 1980; Sampson in Froggatt 1926b: 259; Schedl 1972f: 184.
- pseudoopacus* Schedl 1936g: 517. Lectotype ♂; New South Wales: Dorrigo; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1978a: 58.
References: (ds) Schedl 1936g: 517, 1962i: 74, 1972f: 184. (tx) Browne 1970: 580; Schedl 1936g: 517, 1955i: 215, 1972f: 184, 1978a: 58.
- frontebulbifer* Schedl 1979g: 112. Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.

References: (tx) Schedl 1979g: 112.

fugax Schedl 1975g: 228. Holotype ♂; New Guinea, Wan; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975g: 228, 1975b: 31.

fulgens Schedl 1951i: 97. Syntypes 2 ♂; Saigon; Schedl Collection in NHMW, Wien.

Distribution: Asia (Vietnam).

References: (ds) Schedl 1972f: 198, (tx) Numberg 1960: 624; Schedl 1951i: 97, 1969a: 216, 1972f: 198, 1975a: 32.

fulgidus Browne 1956b: 340. Holotype ♂; New Guinea: Fakfak to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Pinelcoedendron* log.

References: (tx) Browne 1956b: 340.

fulmeki (Schedl) 1935j: 1 (*Crossotarsus*). Holotype ♂; Sumatra, Medan; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Sumatra).

References: (ds) Schedl 1972f: 201, (tx) Schedl 1935j: 1, 1972f: 201, 1978a: 32.

furcatus Blandford 1895a: 325. Syntypes ♂ ♀; Ceylon, Dikoya; BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: *Acacia* spp., *Colophyllum walkeri*, *Cupressus macrocarpa*, *Elacocarpus serratus*, *Eucalyptus robusta*, *Gordonia zeylanica*, *Litsaea zeylanica*, *Michelia nilagirica*.

References: (cn) Mathur & Singh 1960a: 40, 1960b: 20; Roonwal 1954: 19, (ds) Beeson 1941 (1961: 265); Mathur & Singh 1960a: 40, 1960b: 20; Roonwal 1954: 19; Schedl 1959a: 512, 1962f: 166, 1972f: 198, (tx) Blandford 1895a: 325; Schedl 1959a: 512, 1972f: 198.

fuscus Chapuis 1865: 134. Syntypes 2 ♂; du Bresil; 1 in MNB, Berlin, 1 in IRSNB, Brussels (Schedl 1960c: 18).

Distribution: South America (Brazil).

Notes: (3) Schedl 1960c: 18 (described female).

References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Schedl 1966f: 92, 1967d: 4, 1972f: 239, 1972g: 48, 1976a: 57; Strohmeier 1912c: 9, 1914c: 23, (tx) Chapuis 1865: 134; Schedl 1936c: 230, 1937d: 37, 1951h: 285, 1952d: 363, 1960c: 18, 1972f: 239, 1975b: 32; Strohmeier 1912c: 9, 1914c: 23.

gabensis Schedl 1974d: 467. Holotype ♂; Block 10, New Guinea Industries logging area, Gabensis, Morobe District, CSIRO, Canberra. Distribution: New Guinea.

Hosts: *Terminalia conopsea*.

Notes: (1) Roberts 1989: 269 (originally a subspecies of *cordiger*; raised to species rank).

References: (tx) Roberts 1989: 269; Schedl 1974d: 467, 1978b: 21.

gagates Schedl 1976a: 89. Holotype ♂; Rio Caragnata, Matto Grosso, Brazil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 89.

galbulimimae Roberts & Morimoto 1986: 169. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.

Distribution: New Guinea.

Hosts: *Galbulimima* sp.

References: (tx) Roberts & Morimoto 1986: 169.

gemellus (Schedl) 1936e: 48 (*Crossotarsus*). Lectotype ♂; N. Guinea, Moroka, 1300 m; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (ds) Schedl 1972f: 221, (tx) Schedl 1936e: 48–50, 1972f: 221, 1978a: 32.

geminatus Chapuis 1865: 239. Syntypes 2♀, ♀; de la Nouvelle-Hollande; 1 in MNB, Berlin, 1 ♀ in MNHN, Paris.

Distribution: Asia (Malaya), Australia, Bougainville Island, Indonesia (Borneo, Celebes, Sumatra, Sumbawa), New Guinea, Philippine Islands (Luzon), Solomon Islands.

Hosts: *Albizzia* sp., *Cassia javanica*, *Polyosma* sp., *Scaplium affine*.

References: (cn) Froggatt 1926b, (hb) Froggatt 1926b, (ds) Beeson 1938b: 295; Browne 1981a: 126; Choo, Woo, & Kim 1981: 202; Gemminger & Harold 1872: 2698; Nobuchi 1977: 124; Ohno, Yoneyama, & Nakazawa 1987a: 95, 1987b: 90; Ohno et al. 1988b: 98, 1989: 65; Schedl 1937d: 40, 1938g: 423, 1965g: 23, 1966b: 93, 1966g: 33, 1969a: 207, 1969e: 156, 1971c: 367, 1972f: 189; Strohmeier 1912c: 16, 1914c: 26, (tx) Chapuis 1865: 239; Nobuchi 1985: 329; Schedl 1960c: 45–46, 1972f: 189; Strohmeier 1912c: 16, 1914c: 26, *turbatus* Chapuis 1865: 242. Syntypes ♂; de l'île

Luçon, Manille; 1 in MNB, Berlin, 1 in IRSNB, Brussels (Schedl 1960c: 46). Synonymy: Schedl 1972f: 190.

References: (hb) Browne 1935a, 1941, (ds) Baer 1886; Beeson 1941 (1961: 267); Browne 1935a; Gemminger & Harold 1872: 2700; Sampson 1928a: 3; Schedl 1936j: 22, 1962i: 75, 1964c: 305; Strohmeier 1912c: 16, 1914c: 27, (tx) Chapuis 1865: 242; Sampson 1928a: 3; Schedl 1937d: 33, 40, 1938g: 423, 1942c: 164, 1952b: 365, 1955b: 282, 1960c: 45–46, 1972f: 190; Strohmeier 1911b: 17, 1912c: 16, 1914c: 217; Wylie & Yule 1977.

gerstaeckeri Chapuis 1865: 240. Syntypes ♂ ♀; des îles Fiji; 1 ♀ BMNH, London, 1 ♂ IRSNB, Brussels.

Distribution: Australia, Fiji Islands, New Guinea.

Hosts: *Swietenia macrophylla*.

References: (bv) Roberts 1977c, (cn) Lever 1938: 14–15, 1940a: 38; Roberts 1977b: 563, 1977c, (hb) Roberts 1977b: 563, 1977c, (ds) Beeson

- 1938b: 295; Gemminger & Harold 1872: 269S; Roberts 1977b: 563; Schedl 1972f: 202, 1979h: 158; Strohmeyer 1912c: 16, 1914c: 26. (tx) Chapuis 1865: 240; Fairmaire 1881: 468; Schedl 1941e: 154, 1942c: 163–164, 1950f: 35, 41, 1960c: 45, 1972f: 202; Strohmeyer 1912c: 16, 1914c: 26. (ms) Roberts 1977c.
- giluwe** Roberts 1979: 87. Holotype ♂; Papua New Guinea: 14 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Ficins* sp., *Syzygium* sp.
References: (tx) Roberts 1979: 87.
- glabratus** Roberts 1972: 69. Holotype ♂; West Cameroon: Buea, 4000 feet; BMNH, London.
Distribution: Africa (Cameroon).
Hosts: *Ficus vogeliana*.
References: (tx) Roberts 1972: 69.
- glocollis** Schedl 1979g: 112. Holotype ♀?; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 112.
- glochideus** Roberts & Morimoto 1986: 170. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Planchonella* sp.
References: (tx) Roberts & Morimoto 1986: 170.
- godmani** Blandford 1896e: 101. Syntypes ♂ ♀; Guatemala, Sinanja in Vera Paz; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 10.
Distribution: North America (Guatemala).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 23; Schedl 1972f: 239; Strohmeyer 1912c: 9, 1914c: 23. (tx) Blandford 1896e: 101–102; Equihua & Atkinson 1987: 23; Nunberg 1939: 228, 232; Schedl 1972f: 239; Strohmeyer 1912c: 9, 1914c: 23.
- gotilae** Schedl 1975f: 387. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 387.
- gongylodes** Roberts & Morimoto 1986: 170. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Syzygium* sp.
References: (tx) Roberts & Morimoto 1986: 170.
- gotoi** Browne 1981b: 604. Holotype ♂; Muara Sabak (Sumatra) to Ishinomaki (Japan), imported; BMNH, London.
Distribution: Indonesia (Sumatra).
References: (tx) Browne 1981b: 604.
- gracilicornis** (Schedl) 1936e: 49 (*Crossotarsus*). Syntypes ♂; N. Guinea S.E., Moroka, 1300 m; MCG, Genova, and Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Notes: (1) Schedl 1978a: 33 (citation of holotype invalid). (3) Schedl 1942c: 200 (described female).
References: (ds) Schedl 1972f: 221. (tx) Schedl 1936e: 49, 1942c: 200, 1972f: 221, 1978a: 33, 1978b: 33.
- gracilior** Browne 1984f: 63. Holotype ♂; New Guinea: Morobe District, Mount Kaindi, 2350 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Nothofagus carrii*.
References: (tx) Browne 1984f: 63.
- gracilis** Broun 1893: 1254. Syntypes?; New Zealand; Broun Collection.
Figures: Milligan 1979: fig. 5.
Distribution: New Guinea, New Zealand.
References: (bv) Milligan 1974, 1982a; Ytsma 1986. (cn) Milligan 1974, 1979, 1982a. (ec) Milligan 1974; Payton 1989; Zervos 1980. (hb) Milligan 1970a, 1979; Neumann & Harris 1974: 135. (ds) Broun 1887; Hutton 1904: 219; Milligan 1979; Schedl 1972f: 203; Strohmeyer 1912c: 19, 1914c: 29. (tx) Broun 1893: 1254; Milligan 1979: fig. 5; Milligan, Osorne, & Ytsma 1988; Milligan & Ytsma 1988; Schedl 1972f: 203; Strohmeyer 1912c: 19, 1914c: 29; Ytsma 1988. (ms) Ytsma 1986.
- inimicus** Broun 1910: 71. Holotype ♂; New Zealand: Raurimu; Broun Collection. Synonymy: Schedl 1972f: 203.
References: (tx) Broun 1910: 71; Schedl 1939e: 362, 1941c: 360, 1972f: 203.
- granarius** Schedl 1952d: 363. Holotype ♂; Paraguay, Hohenau; Schedl Collection in NHMW, Wien.
Distribution: South America (Paraguay).
References: (ds) Schedl 1972f: 239. (tx) Schedl 1952d: 363, 1972f: 239, 1978a: 33.
- grandiporus** Schedl 1961i: 232. Holotype ♀; Bolivia; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Schedl 1972f: 242. (tx) Schedl 1961i: 232, 1972f: 242, 1978a: 33.
- granifer** Schedl 1942a: 200. Holotype ♂; Malaya, Rotan Tinggi F.R.; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Vatica* sp.
References: (ds) Browne 1961c: 199; Schedl 1972f: 213. (tx) Schedl 1942a: 200, 1972f: 213.
- granosus** Browne 1986b: 341. Holotype ♂; New Guinea: Fak fak to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Penarahan* (Myristicaceae) log.
References: (tx) Browne 1986b: 341.

- gramlipennis** Schedl 1975g: 228. Holotype ♂; Australien, New South Wales, Williams R.; Schedl Collection in NHMW, Wien.
Distribution: Australia (New South Wales), New Guinea.
References: (ds) Schedl 1979a: 159. (tx) Schedl 1975g: 228, 1978a: 33.
- gramulosus** Browne 1984c: 455. Holotype ♂; Manokwari (West Irian) to Nagoya (Japan), imported.
Distribution: New Guinea.
Hosts: *Pometia* sp.
References: (tx) Browne 1984c: 455.
- graji** Schedl 1972i: 59. Holotype, sex?; Namarodu, New Ireland Dist.; CSIRO, Canberra.
Distribution: Bougainville Island, New Ireland Island.
References: (ds) Schedl 1972a: 193. (tx) Schedl 1972f: 193, 1972i: 59, 1978a: 34.
- graji immersus** Schedl 1972i: 60. Holotype ♂; Tonolei, Bougainville Dist., New Ireland; CSIRO, Canberra.
References: (ds) Schedl 1972f: 193. (tx) Schedl 1972f: 193, 1972i: 60, 1978a: 34.
- gregalis** Schedl 1936c: 227. Lectotype ♂; Guyane Française, St.-Laurent du Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 34.
Distribution: South America (Cayenne/ Guyana).
References: (ds) Blackwelder 1947: 789; Schedl 1934a: 247, 1972f: 239. (tx) Schedl 1934a: 247, 1936c: 227, 1972f: 239, 1978a: 34.
- grumosus** Roberts & Morimoto 1986: 171. New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Agathis alba*.
References: (tx) Roberts & Morimoto 1986: 171.
- guadeloupensis** Schedl 1935i: 45. Lectotype ♂; Guadeloupe; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 34.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 214. (tx) Schedl 1935i: 45, 1972f: 214, 1978a: 34.
- gumicus** Roberts 1986: 51. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Galbulimina* sp.
References: (tx) Roberts 1986: 51.
- gumiensis** Roberts 1989: 270. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo, 2200 m; NHMW, Wien.
Figures: Roberts 1989: 286.
Distribution: New Guinea.
Hosts: *Garcinia* sp.
References: (tx) Roberts 1989: 270, 286.
- haagi** Chapuis 1865: 173. Syntypes ♂♀; du Mexique: 1 ♂, 1 ♀ in BMNH, London (Schedl 1960c: 28).
Distribution: North America (Veracruz in Mexico/ Panama).
References: (ds) Blackwelder 1947: 789; Blandford 1896e: 107; Equilina & Atkinson 1987: 23; Ferrer 1942; Gemminger & Harold 1872: 2698; Schedl 1972f: 231; Strohmeier 1912c: 11, 1914c: 24. (tx) Blandford 1896e: 101; Chapuis 1865: 173; Equilina & Atkinson 1987: 23; Schedl 1940a: 324, 1952a: 462, 1960c: 28, 1972f: 231; Strohmeier 1912c: 11, 1914c: 24.
- hamaticeps** Schedl 1942a: 205. Lectotype ♂; Malaya, Negri Sembilan, Pasoh F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 34.
Distribution: Asia (Malaya).
References: (ds) Schedl 1972f: 198. (tx) Schedl 1942a: 205, 1972f: 198, 1978a: 34.
- hamaticollis** Schedl 1942a: 204. Lectotype ♂; Malaya, Perak, Trolak F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 34.
Distribution: Asia (India/ Malaya), Indonesia (Borneo).
Hosts: *Amoora spectabilis*, *Garcinia* sp., *Gonystylus bancanus*.
References: (ds) Browne 1961c: 210; Schedl 1969c: 64, 1972f: 186. (tx) Schedl 1942a: 203, 1972f: 186, 1978b: 34.
- garciniae** Browne 1961a: 314. Holotype ♂; Sarawak: Bako National Park; BMNH, London. Synonymy: Schedl 1972f: 186.
References: (ds) Parsons 1963: 352. (tx) Browne 1961a: 314; Schedl 1972f: 186.
- hamatipennis** Schedl 1970b: 364. Holotype ♂; Malaya, Singapore to Nagoya (Japan), imported; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
Hosts: Sepetir.
References: (ds) Nobuchi 1977: 115; Schedl 1972f: 220. (tx) Schedl 1970b: 364–365, 1972f: 220, 1978b: 34.
- hamatulus** Schedl 1942a: 204. Holotype ♂; Malaya, Bukit, Kajang F.R.; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
Hosts: *Pseudocugenia* sp.
References: (ds) Browne 1961c: 198, 1980d: 492; Schedl 1972f: 206. (tx) Schedl 1942a: 203–204, 1972f: 206, 1978a: 34.
- hamatus** Blandford 1894d: 138. Syntypes 2 ♂; Yuyama and Miyanoshta, Japan; BMNH, London.
Figures: Nobuchi 1973b: pl. 2.
Distribution: Asia (Japan).
Notes: (3) Murayama 1953: 37 (described female).
References: (ds) Blandford 1894c: 579; Murayama 1929a: 673, 1937c: 579, 1954b: 188; Nobuchi

- 1973b: 12; Schedl 1972f: 210; Strohmeier 1912c: 18, 1914c: 28. (tx) Blandford 1894d: 138; Murayama 1925b: 235, 1953: 37, 1954b: 188; Nobuchi 1973b: 12, pl. 2; Schedl 1934f: 1647, 1941b: 416, 1972f: 210; Strohmeier 1912c: 18, 1914c: 28.
- hashimotoi** Browne 1986b: 338. Holotype ♂; Fakfak (New Guinea) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Nayatoh* (Sapotaceae) log.
References: (tx) Browne 1986b: 338.
- hastulifer** Schedl 1959d: 68. Holotype ♂; Crocodile Is., Millingimbi, N. Australia; F. E. Wilson Collection.
Distribution: Australia (Northern Australia).
References: (ds) Schedl 1959d: 67, 1972f: 198. (tx) Schedl 1959d: 67–68, 1972f: 198, 1978a: 35.
- hebetatus** Roberts 1986: 43. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: (tx) Roberts 1986: 43.
- heterodoxus** Schedl 1967f: 162. Holotype ♀; Borneo, Xantus; NHMB, Budapest.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 210. (tx) Schedl 1967f: 162–163, 1972f: 210.
- hians** Chapuis 1865: 167. Syntypes ♀; du Bresil; 1 in BMNH, London, 1 apparently lost with Stettin Museum.
Figures: Bright 1972d: 19.
Distribution: Antilles Islands (Bahamas Islands/ Barbados/ Guadeloupe/ Jamaica), North America (Costa Rica/ Panama), South America (Bolivia/ Brazil/ Cayenne/ Guyana/ Paraguay/ Peru/ Suriname/ Venezuela).
Hosts: *Castilloa costaricensis*.
References: (ds) Blackwelder 1947: 789; Bright 1972d: 18; Equihua & Atkinson 1987: 23; Gemminger & Harold 1872: 2698; Schedl 1960a: 76, 1963f: 64, 1966f: 92, 1972f: 231, 1972g: 48, 1973a: 368, 1978c: 292; Strohmeier 1912c: 11, 1914c: 24. (tx) Bright 1972d: 18–19; Chapuis 1865: 167; Equihua & Atkinson 1987: 23; Keler 1927a: 235; Schedl 1960c: 27, 1972f: 231; Strohmeier 1912c: 11, 1914c: 24.
- apertus** Chapuis 1865: 169. Syntypes ♂; Guadeloupe; 1 in BMNH, London (Schedl 1960c: 27). Synonymy: Schedl 1972f: 231.
References: (ds) Blackwelder 1947: 788; Flentiaux & Salle 1890: 455; Gemminger & Harold 1872: 2697; Schedl 1933c: 171; Strohmeier 1912c: 10, 1914c: 24. (tx) Chapuis 1865: 169; Keler 1927a: 235; Schedl 1933c: 171, 1934e: 212, 1941c: 155, 1960c: 27, 1972f: 231; Strohmeier 1912c: 10, 1914c: 24.
- perpusillus** Chapuis 1865: 171. Syntypes ♂ ♀; ♀ du Bresil. Ega, ♂ Caracas; 1 ♀ MNB, Berlin, 2 ♂ in BMNH, London. Synonymy: Schedl 1972f: 231.
- References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Numberg 1963c: 107; Strohmeier 1912c: 12, 1914c: 25. (tx) Chapuis 1865: 171; Numberg 1939: 241, 1940: 69; Schedl 1936c: 238, 1937d: 39, 1960c: 28, 1972f: 231; Strohmeier 1912c: 12, 1914c: 25, 1960c: 28.
- hinchuachani** Schedl 1939e: 361. Holotype ♀; Hin-chua-Chau, Malaya; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: (ds) Schedl 1972f: 194. (tx) Schedl 1939e: 361, 1972f: 194, 1978a: 35.
- hintzi** Schaufuss 1897b: 103. Syntypes ♂; Gemein [Zaire?]; Hamburg Museum, lost.
Figures: Lhoste & Roche 1960: fig. 2, Mayne & Donis 1962: 282, Roche & Lost 1960: figs. a–b.
Distribution: Africa (Angola/ Cameroon/ Central African Republic/ Congo/ Ethiopia/ Fernando Po Island/ French Guinea/ Gabon/ Ghana/ Ivory Coast/ Kenya/ Malawi/ Mozambique/ Namibia/ Niger/ Nigeria/ Ruanda/ Senegal/ Sierra Leone/ South Africa/ Spanish Guinea/ Sudan/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia/ Zimbabwe).
Hosts: Browne 1963a: 250–251, Schedl 1962k: 609–616 (many hosts listed).
Notes: (3) Numberg 1967b: 325 (named aberration *uiger*, no status).
References: (ay) Entwistle 1963b; Farris & Funk 1965: 531; Lhoste & Roche 1959: 76–86, 1960; Mayne & Donis 1960: 95; Roche & Lhoste 1960: 2056. (bv) Entwistle 1963b; Loytyniemi, Beaver, & Loytyniemi 1985: 28. (cn) Alliot & Ivanes 1950: 163–168; Anonymous 1953j: 25; Beaver 1988a: 69; Browne 1961e: 10, 1968b: 571; Cachan 1957: 5–6, 15, 42–53; Halperin & Menier 1981; Mayne & Donis 1951: 337; Roberts 1961a: 41, 1969: 117; Sallenove 1948: 435; Vrydagh 1947a: 5. (ec) Anonymous 1953j: 25; Browne 1961e: 10; Farris & Funk 1965: 531; Jover 1952: 73–81; Mayne & Donis 1951: 337; Roche & Lhoste 1960: 2056; Sallenove 1948: 435; Schedl 1958d: 189, 1962k: 600; Smiley & Moser 1984. (hb) Beaver 1988a: 69; Beaver & Loytyniemi 1985b: 116; Browne 1963a: 250, 1968b: 571; Entwistle 1963b; Jones, Roberts, & Baker 1959: 13–54; Jover 1952: Loytyniemi, Beaver, & Loytyniemi 1985: 28; Roberts 1961a; Schedl 1958d: 189, 1962k: 600; Thompson, G. H. 1963: 58; Webb & Jones 1957: 25–41. (ds) Amaro & Gouveia 1957: 99–100, 131, 141; Beaver 1988a: 69; Beaver & Loytyniemi 1985b: 116; Browne 1961e: 10, 1963a: 250, 1968b: 571, 1972c: 100, 1975a: 757, 1975b: 396; Cola 1971, 1973; Collart 1934: 249; Ferreira 1965: 1129; Gardner 1957a: 29; Halperin & Menier 1981; Hargreaves 1937: 509; Lee 1971: 30; Mayne & Donis 1962: 282; Menier 1973a; Monteiro Guimaraes 1959: 159; Numberg 1952: 22, 1960a: 301, 1965b: 22; Roberts 1960a: 35–37, 1960e,

- 1960f, 1961a: 39–43, 1961b: 53–60, 1968: 185; Schedl 1933f: 192, 1937f: 15, 1938d: 452, 1959p: 22, 1961d: 178, 1962h: 63, 1962k: 600–601, 1964f: 619, 1964i: 249, 1964j: 42, 1965e: 356, 1965g: 21, 1966a: 276, 1966c: 229, 1966g: 37, 1967e: 220, 1968b: 145, 1969d: 4, 1971e: 1, 1971f: 150, 1971g: 196, 1972c: 284, 1972f: 231, 1972k: 296, 1975h: 351, 1977d: 279, 1979b: 416, 1982: 279; Spahr 1981: 50; Strohmeier 1912c: 11, 1914c: 24; Thompson, C. H. 1963: 58; Vrydagh 1947a: 8; Wood, S. L. 1957e: 1272. **(tx)** Eggers 1936b: 33; Lhoste & Roche 1960: fig. 2; Mayne & Donis 1962: 282; Numberg 1952: 22, 1962: 325, 1967b: 325; Powell, W. 1987: 28; Roche & Lhoste 1960: fig. a, b; Schaufuss 1897b: 103; Schedl 1933f: 192, 1936e: 51, 1936f: 102, 1937c: 39, 1937f: 15–17, 1939g: 167, 1941d: 351, 1941e: 155, 1950c: 205, 1950d: 4, 10, 14, 18, 1950e: 212, 1951e: 39, 1951g: 1104, 1952g: 53, 1952j: 5, 1953g: 243, 1954d: 874, 1954e: 48, 58, 1955c: 31, 1955d: 268–271, 1955i: 213, 1962k: 600, 1972f: 231; Strohmeier 1912c: 11, 1912f: 78, 1914c: 24.
- dispar* Schaufuss 1897b: 108. Syntypes ♂ ♀; Gabun; Hamburg Museum, lost. Synonymy: Schedl 1937d: 39.
References: **(ec)** Hughes & Jackson 1958: 57; Krezal 1959: 611; Vitzthum 1923: 162. **(hb)** Strohmeier 1911a: 182. **(ds)** Schedl 1933f: 192; Strohmeier 1911a: 182, 1911f: 204, 1912c: 11, 1914c: 24. **(tx)** Jeannel 1949: 989; Schaufuss 1897b: 108; Schedl 1933f: 192, 1937d: 39, 1972f: 231; Strohmeier 1912c: 11, 1912f: 78, 1914c: 24.
- penetrans* Sampson 1922: 140. Syntypes ♂ ♀; Portuguese East Africa: Xinavane; BMNH, London. Synonymy: Schedl 1937d: 39.
References: **(cn)** Slow 1954. **(ds)** Schedl 1933f: 192. **(tx)** Sampson 1922a: 140, 1924c: 129; Schedl 1933f: 192, 1937d: 39, 1972f: 231.
- hippocrepicus** Roberts 1986: 44. Holotype ♂; New Guinea: Papua, Popodetta; BMNH, London.
Distribution: New Guinea.
Hosts: *Amoora* sp.
References: **(tx)** Roberts 1986: 44.
- hirtellus** Schedl 1936c: 55. Syntypes ♂; Mentawai Island, Sipora Sereimu; MCG, Genova, and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo, Mentawai), Samoan Islands.
Hosts: *Palaquium* sp.
Notes: (1) Schedl 1978a: 35 (citation of holotype invalid).
References: **(hb)** Browne 1961c: 200. **(ds)** Beaver 1976b: 545; Browne 1961a: 312, 1961c: 200, 1980a: 372, 1980d: 381, 1986c: 662; Schedl 1964c: 305, 1972f: 185. **(tx)** Browne 1961a: 312, 1970: 578; Schedl 1936c: 55, 1942a: 172, 200, 1964g: 251, 1972f: 185, 1978a: 35.
- hirtus** Schedl 1955b: 310. Holotype ♂; Dutch New Guinea, Maffin Bay; CAS, San Francisco.
Distribution: New Guinea, Philippine Islands.
Hosts: *Diospyros* sp.
Notes: (1) Browne 1966: 235 (raised from subspecies of *solidus* to species rank). (3) Schedl 1972h: 66 (described female).
References: **(ds)** Browne 1966: 235; Schedl 1972f: 198. **(tx)** Browne 1966: 235; Nobuchi 1985: 329; Schedl 1955b: 282, 310, 1972f: 198, 1972h: 66–67, 1978a: 35, 67.
- histris** (Schedl) 1969a: 217 (*Platyscapus*). Holotype ♂; Borneo (Sarawak), Lawas to Tokyo (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: 80.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).
Hosts: *Shorea* sp.
References: **(ds)** Browne 1983a: 555; Nobuchi 1977: 122; Schedl 1972f: 190. **(tx)** Nobuchi 1978a: 80, 1978b: 78; Schedl 1969a: 217–218, 1972f: 190.
- holdhausi** Schedl 1935e: 176. Lectotype ♀; Brasilien; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 35.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 789; Schedl 1972f: 239. **(tx)** Schedl 1935e: 176, 1972f: 239, 1978a: 35.
- horisheusis** Murayama 1928a: 284. Holotype ♂; Formosa; Horishia; Murayama Collection in USNM, Washington.
Distribution: Asia (Taiwan).
References: **(ds)** Browne 1972f: 217; Miwa 1931: 266; Murayama 1929a: 674, 1937c: 579; Nobuchi 1967: 26; Schedl 1972f: 217. **(tx)** Murayama 1928a: 284; Schedl 1972f: 217.
- hospes** Schedl 1964g: 253. Holotype ♂; Sarawak, Semengoh; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).
Hosts: *Campnosperma* sp.
References: **(ds)** Schedl 1972f: 227. **(tx)** Schedl 1964g: 253, 1969b: 232, 1972f: 227, 1978a: 35.
- humilis** Chapuis 1865: 229. Holotype ♀; de Caraccas; lost? (Schedl 1960c: 43).
Distribution: South America (Cayenne/Venezuela).
Notes: (3) Schedl 1936c: 241 (described male).
References: **(ds)** Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Schedl 1972f: 218; Strohmeier 1912c: 14, 1914c: 26. **(tx)** Chapuis 1865: 229; Schedl 1936c: 241, 1939b: 394, 1960c: 43, 1972f: 218, 1978b: 35; Strohmeier 1912c: 14, 1914c: 26.
- hybridus** Schedl 1935b: 395. Holotype ♂; Philippine Islands; Schedl Collection in NHMW, Wien.
Distribution: Asia (Burma/ Assam in India/ Malaya/ Pakistan/ Thailand/ Vietnam), Indonesia

- (Java), New Guinea, Philippine Islands (Mindanao), Lesser Sunda Islands (Bali).
 Hosts: *Alphouca ventricosa*, *Diospyros pseudo-ebenum*, *Meilosoma simplicifolia*, *Odinia wodier*, *Shorea leprosula*.
 Notes: (3) Browne 1955: 371 (described female), Beeson 1961: 266 (*seni*, nomen nudum, synonymy in Schedl 1969c: 69).
 References: (**hb**) Browne 1961c: 198; Kalshoven 1960c: 36. (**ds**) Beaver & Browne 1975: 309; Browne 1961c: 198, 1981b: 598; Kalshoven 1960: 36; Schedl 1938g: 423, 1962f: 166, 1962i: 73, 1966b: 93, 1969c: 69, 1972f: 192, 1975a: 453. (**tx**) Beeson 1941 (1961: 266); Browne 1955: 371; Nobuchi 1985: 329; Schedl 1935b: 395–396, 1935g: 423, 1941a: 43, 1953c: 291, 1955b: 102, 1972f: 192, 1978a: 36.
- ignotus** Schedl 1936c: 232. Holotype ♂; Suriname; Schedl Collection in NHMW, Wien.
 Distribution: South America (Suriname).
 References: (**ds**) Blackwelder 1947: 789; Schedl 1972f: 239. (**tx**) Schedl 1936c: 227, 232, 1972f: 239.
- imberbis** Roberts 1989: 271. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo, 2000 m; NHMW, Wien.
 Distribution: New Guinea.
 Hosts: *Myristica* sp.
 References: (**tx**) Roberts 1989: 271.
- imitatrix** Schedl 1972f: 195–196. Holotype ♂; Brasilien, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
 Distribution: South America (Brazil).
 References: (**ds**) Schedl 1972f: 195, 1973d: 163, 1976a: 57. (**tx**) Schedl 1972f: 195–196 (footnote).
- immunis** Schedl 1959m: 556. Holotype ♂; Matto Grosso: Rio Caraguata; Schedl Collection in NHMW, Wien.
 Distribution: South America (Brazil).
 References: (**ds**) Schedl 1966f: 93, 1970e: 86, 1972f: 231, 1972g: 48, 1976a: 57. (**tx**) Schedl 1959m: 556, 1972f: 231, 1978a: 36.
- imparidens** Browne 1981b: 604. Holotype ♂; Kimi (New Guinea) to Yatsushiro (Japan), imported; BMNH, London.
 Distribution: New Guinea.
 References: (**tx**) Browne 1981b: 604.
- impolitus** Roberts 1972: 70. Holotype ♂; West Cameroon: Bafut-Ngamba Forest Reserve, 5000 feet; BMNH, London.
 Distribution: Africa (Cameroon).
 Hosts: *Fagara macrophylla*, *Polyscias fulva*.
 References: (**tx**) Roberts 1972: 70.
- imporcatus** Blandford 1896e: 100. Holotype ♂; Panama, Volean de Chiriqui; BMNH, London.
 Distribution: North America (Panama).
 References: (**ds**) Blackwelder 1947: 789; Equihua & Atkinson 1987: 23; Schedl 1972f: 239; Stroh-
 meyer 1912c: 9, 1914c: 23. (**tx**) Blandford 1896e: 100–101; Equihua & Atkinson 1987: 23; Schedl 1933a: 400, 1972f: 239; Strohmeyer 1912c: 9, 1914c: 23.
- impressifrons** Schedl 1942a: 208. Lectotype ♀; Malaya, Buloh F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 36.
 Distribution: Asia (Malaya).
 Hosts: *Shorea leprosula*.
 References: (**ds**) Browne 1961c: 202; Schedl 1972f: 242. (**tx**) Schedl 1942a: 208, 1972f: 242, 1978a: 36.
- impressus** (Strohmeyer) 1912f: 82 (*Crossotarsus*).
 Syntypes ♂; Ostafrika: MNB, Berlin and Strohmeyer Collection.
 Distribution: Africa (Cameroon/ Congo/ Ethiopia/ Fernando Po Island/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Sierra Leone/ South Africa/ Tanzania/ Togo/ Uganda/ Zaire).
 Hosts: Schedl 1962k: 655–656 (45 host species listed).
 References: (**bv**) Loyttniemi, Beaver, & Loyttniemi 1985: 28. (**hb**) Beaver & Loyttniemi 1955b: 116; Loyttniemi, Beaver, & Loyttniemi 1985: 28; Roberts 1969: 117; Schedl 1962k: 653–657; Strohmeyer 1911a: 182. (**ds**) Beaver & Loyttniemi 1955b: 116; Mayne & Donis 1951: 336, 1960: 98, 1962: 285; Schedl 1933f: 203, 1962h: 62–63, 1962k: 653, 1107, 1964f: 619, 1965g: 21, 1967e: 220, 1972f: 215, 1979h: 416; Scott 1936: 33; Strohmeyer 1911a: 182, 1912c: 6, 1914c: 36. (**tx**) Eggers 1936b: 33; Schedl 1933f: 202–203, 1937d: 42, 1938d: 452, 1941d: 415, 1950d: 34, 1950g: 896, 1954d: 874, 1954e: 48–73, 1957d: 119–121, 1965: 21, 1970: 228, 1972f: 215; Strohmeyer 1912c: 6, 1912f: 82–85, 1914c: 36.
- mordax** Sampson 1924c: 131. Holotype ♂; Gold Coast, Aburi; BMNH, London. Synonymy: Schedl 1957d: 119.
 References: (**hb**) Thompson, G. H. 1963: 59. (**ds**) Browne 1981a: 127; Mayne & Donis 1960: 98, 1962: 286; Schedl 1933f: 202, 1938d: 452, 1943c: 70; Thompson, G. H. 1963: 59. (**tx**) Sampson 1924c: 131–132; Schedl 1933f: 202, 1954d: 874, 1954e: 48, 58, 1957d: 118–119, 1972f: 215.
- occidentalis** Schedl 1950d: 34. Holotype ♂; Fernando Poo; Deutsche Ent. Inst.
 Notes: (3) Schedl 1972f: 215 (treated as a subspecies of *impressus*).
 References: (**ds**) Schedl 1972f: 215. (**tx**) Schedl 1950d: 34, 1962k: 657, 1972f: 215.
- impressus ater** Schedl 1957d: 121. Lectotype ♂; Embu, Kenya; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 36.
 References: (**ds**) Gardner 1957a: 29; Schedl 1962k: 658, 1972f: 215. (**tx**) Schedl 1955i: 213, 1957d: 121, 1962k: 658, 1972f: 215, 1978a: 36.
- malacanthae** Roberts 1966: 630. Holotype ♂;

- Nigeria; Jemima; BMNH, London. Synonymy: Schedl 1972f: 215.
References: (ds) Browne 1972c: 101; Roberts 1966: 630, 1968: 188; Schedl 1972f: 215.
- xylopiac* Roberts 1966: 633. Holotype ♂; Nigeria; Obudu Cattle Ranch; BMNH, London. Synonymy: Schedl 1970i: 228.
References: (ds) Roberts 1966: 633, 1968: 189, 1969: 120; Schedl 1970i: 228, 1972f: 215.
- inaccessus** Schedl 1936c: 242. Lectotype ♂; Guyane Francaise, St-Laurent du Maroni, Bas Maroni, Nouveau Chantier; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 36.
Distribution: North America (San Luis Potosi in Mexico), South America (Brazil/ Cayenne).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 23; Schedl 1966f: 93, 1970e: 86, 1972f: 218. (tx) Equihua & Atkinson 1987: 23; Schedl 1936c: 242, 1952e: 123, 1972f: 218, 1978a: 36.
- incertus** Schedl 1970a: 130. Holotype, ♂; New Guinea, Wabag, Western Highlands District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Casuarina oligoderes*.
Notes: (3) Roberts 1989: 272 (described female).
References: (ds) Schedl 1970a: 130–131, 1972f: 198. (tx) Roberts 1989: 272; Schedl 1970a: 130, 1972f: 198, 1978a: 36.
- heteromorphus* Schedl 1975f: 388. Holotype ♂; Papua, Wabag, Western Highlands District; Schedl Collection in NHMW, Wien. Synonymy: Roberts 1989: 285.
References: (tx) Roberts 1989: 285; Schedl 1975f: 388.
- incognitus** Schedl 1958h: 499. Lectotype ♀; Sarawak, Setapok; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 37.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).
References: (hb) Browne 1961c: 212. (ds) Browne 1961c: 212; Schedl 1972f: 242. (tx) Schedl 1958h: 499, 1972f: 242, 1978a: 37.
- incompertus** Schedl 1968d: 15. Holotype ♂; Eden, N.S.W., Australia; NMV, Melbourne.
Figures: Browne 1971a: 49, Neumann & Harris 1974: 133, Schedl 1968d: pl. 6.
Distribution: Australia (New South Wales).
Hosts: *Eucalyptus fastigiata*, *E. gigantea*, *E. obliqua*, *E. sibiriana*.
Notes: (1) Browne 1971a: 49 (treated in *Austroplatypus*).
References: (bv) Wright, G. M. & Harris 1974. (cn) Harris, Campbell, & Wright 1976; Neumann & Harris 1974. (hb) Harris, Campbell, & Wright 1976; Neumann & Harris 1974; Neumann & Marks 1976; Wright, G. M. & Harris 1974. (tx) Browne 1971a: 49, 1972a: 180; Carne et al. 1980; Neumann & Harris 1974: 133; Schedl 1968d: 15–17, pl. 6. 1972f: 272. 1978a: 37.
- inconstans** Schedl 1971c: 391. Holotype ♂; Sumatra, Teping Tingi; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
References: (ds) Schedl 1972f: 186. (tx) Schedl 1971c: 391, 1972f: 186, 1978a: 37.
- incostatus** Schedl 1972h: 68. Holotype, sex?; Dorrigo, N.S.W.; BMNH, London.
Distribution: Australia (New South Wales).
Hosts: *Eucalyptus lacopinea*.
References: (tx) Schedl 1972h: 68.
- indicus** Strohmeier 1910e: 131. Syntypes ♂; Nilgiri Hills (India orientalis); 1 in Andrews Collection, 2 in Strohmeier Collection.
Distribution: Asia (Bangladesh/ Burma/ Assam, Bengal, Karnataka, Tamil Nadu, Uttar Pradesh in India/ Taiwan/ Tonkin Island in Vietnam), Indonesia (Borneo).
Hosts: *Alphonsea ventricosa*, *Atrocarpus integrifolia*, *Bombax* spp., *Dalbergia assamica*, *Dipterocarpus pilosus*, *Ficus* spp., *Meliosma simplicifolia*, *Millettia atropurpurea*, *Poinciana elata*, *Salmalia insignis*, *S. malabarica*, *Schima wallichii*, *Spondias mangifera*, *Talauma hodgsonii*, *Tetraneles nudiflora*.
Notes: (3) Sampson 1922b: 146 (re-described).
References: (cn) Mathur & Singh 1961a: 10, 1961b: 4; Roonwal 1954: 60. (ee) Beeson 1921b: 24. (ds) Beeson 1921b: 24, 1941 (1961: 265); Browne 1970: 576, 1980b: 350; Mathew 1987: 188; Mathur & Singh 1961a: 10, 1961b: 4; Nobuchi 1977: 132, 1978a: 26; Roonwal 1954: 60; Schedl 1937f: 15, 1962b: 187, 1962f: 166, 1966g: 30, 1969c: 67, 1972f: 206, 1975a: 455, 1975e: 453; Strohmeier 1912c: 19, 1914c: 29. (tx) Beeson 1937: 89–90; Gardner 1932b; Sampson 1922b: 146, 1923c: 2, 1928a: 1–3; Schedl 1942a: 172, 1972f: 206; Strohmeier 1910e: 131, 1912c: 19, 1914c: 29.
- inermis** Sampson 1923c: 73. Holotype ♂; Burma; Tenasserim, Thagata (Fea); MCG, Genova.
Distribution: Asia (Burma).
References: (ds) Schedl 1972f: 201. (tx) Sampson 1923c: 73–74; Schedl 1972f: 201.
- infuscatus** Browne 1970: 579. Holotype ♂; Burma; Mohnyin River, Katha; BMNH, London.
Distribution: Asia (Burma).
Hosts: *Wrightia tomentosa*.
References: (ds) Schedl 1972f: 186. (tx) Browne 1970: 579–580; Schedl 1972f: 186.
- insculptus** Schedl 1967d: 18. Holotype ♂; Brasilien, Nova Tentonia, Santa Catarina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1972f: 219. (tx) Schedl 1967d: 18, 1972f: 219, 1978a: 37.

- insidiosus** Schedl 1935h: 355. Holotype ♂; Petropolis [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 239. (tx) Schedl 1935h: 353–355, 1952d: 364, 1972f: 239, 1978a: 37.
- insignatus** Schedl 1936c: 231. Holotype ♂; Albina, Dutch Guyana; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/ Suriname).
Notes: (3) Schedl 1976a: 89 (described female).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 239. (tx) Schedl 1935h: 355, 1936c: 230–231, 1952h: 72, 1972f: 239, 1976a: 89, 1978a: 37.
- insularis** Strohmeier 1914f: 4. Syntypes ♂ ♀; Sumatra; Stettin Museum, lost?, and Strohmeier Collection, Eberswalde.
Distribution: Asia (Malaya), Indonesia (Borneo, Java, Malacca, Sumatra).
Hosts: *Albizzia falcata*, *Diospyros* sp., *Elateryospermum tapos*, *Endospermum malaccense*, *Gnelina arborea*, *Hevea brasiliensis*, *Koompassia malaccensis*, *K. malaccensis*, *Pterocarpus indicus*, *Rhizophora mucronata*, *Scaphium affine*, *Shorea bractcolata*, *S. guiso*.
References: (cn) Supriana et al. 1978; Yunus & Hua 1980: 216. (hb) Browne 1961c: 195. (ds) Beeson 1941 (1961: 265); Browne 1961c: 195, 1980a: 371, 1980d: 491; Ohno, Yoneyama, & Nakazawa 1982b: 10, 1987a: 95, 1987b: 90; Schedl 1936d: 7, 1959c: 168, 1961c: 70, 1971c: 367, 1971f: 150, 1972f: 190; Supriana et al. 1978; Yunus & Hua 1980: 216. (tx) Schedl 1937d: 40, 1939e: 336, 1942a: 172, 1954a: 145, 1958b: 102, 1972f: 190; Strohmeier 1914f: 4–5.
- insulindicus** Schedl 1952k: 164. Lectotype ♂; Malaya, Selangor; Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 15, automatic.
Distribution: Asia (Burma/ Malaya), Indonesia (Borneo, Java).
Hosts: *Albizzia falcata*, *A. moluccana*, *Artocarpus scortechnii*, *Alstonia* sp., *Dipterocarpus* sp., *Dryobalanops oblongifolia*, *Durio zibethinus*, *Kopsia flavida*, *Parkia speciosa*, *Persca gratissima*, *Pometia* sp., *Shorea leprosula*, *Whitfordiodendron pubescens*.
References: (hb) Browne 1961c: 202; Kalshoven 1960c: 36. (tx) Browne 1961c: 202; Kalshoven 1960d: 202; Schedl 1952k: 164, 1960d: 36, 1960i: 110, 1972f: 220.
- bicornis** Schedl 1939e: 360. Lectotype ♂; Selangor; Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 15, preoccupied by Numberg 1939.
Notes: (3) Browne 1955: 370 (described female).
References: (cn) Browne 1949c; Hill, D. S. 1983: 515; Mathur & Singh 1961b: 90; Yunus & Hua 1980: 216. (hb) Browne 1938a, 1941; Hill, D. S. 1983: 515. (ds) Beeson 1941 (1961: 263); Browne 1938a; Hill, D. S. 1983: 515; Mathur & Singh 1961b: 90; Yunus & Hua 1980: 216. (tx) Browne 1955: 370; Schedl 1939e: 360–361 (December), 1941c: 354, 1952k: 164, 1972f: 220, 238, 1978a: 15.
- bicornutus** Numberg 1959c: 168. Lectotype ♂; Selangor; Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 15, automatic.
Notes: (1) An unneeded replacement name.
References: (tx) Numberg 1959c: 168; Schedl 1959c: 168, 1960h: 110, 1972f: 220, 1978a: 15.
- intermedius** (Schedl) 1937d: 42 (*Stenoplatypus*). Lectotype ♂; Kamerun, Soppo, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 37.
Distribution: Africa (Cameroon/ Ghana/ Sao Tome Island/ Zaire).
Hosts: Schedl 1962k: 650–651 (29 host species listed).
References: (cn) Anonymous 1953j: 25; Mayne & Donis 1951: 337. (cc) Anonymous 1953j: 25; Mayne & Donis 1951: 337. (hb) Jones, Roberts, & Baker 1959: 13; Schedl 1962k: 648–652; Thompson, G. H. 1963: 59; Webb & Jones 1957: 25–26, 37, 41. (ds) Mayne & Donis 1960: 98, 1962: 285; Schedl 1962k: 648–652, 1964f: 619, 1962h: 63, 1972f: 215; Thompson, G. H. 1963: 59. (tx) Schedl 1937d: 42–43, 1950d: 14, 1954e: 58–62, 1957d: 120, 1962k: 648–651, 1972f: 215, 1978a: 37.
- feae** Schedl 1936e: 61 (*Stenoplatypus*). Lectotype ♂; Is. S. Thome, Agua Ize, 400–700 m; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 30.
Notes: (1) Schedl 1972f: 215 (treated as a subspecies of *intermedius*).
References: (ds) Schedl 1972f: 215. (tx) Schedl 1936e: 61, 1957d: 120, 1962k: 652, 1972f: 215, 1978a: 30.
- interponens** Schedl 1978c: 308. Holotype ♂; Brasilien, Encruzilhada, 980 m, Bahia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1978c: 308.
- inutilis** (Schedl) 1935k: 479 (*Crossotarsus*). Lectotype ♂; Luzon, Mountain Province, Benguet, Baguio, 1600 m; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 38.
Distribution: Philippine Islands (Luzon).
References: (ds) Schedl 1966b: 94, 1972f: 200. (tx) Nobuchi 1985: 329; Schedl 1935k: 479–480, 1939b: 398, 1941c: 361, 1955b: 309, 1965g: 29, 1972f: 200, 1978a: 38.
- inviolatus** Schedl 1936c: 230. Lectotype ♂; Guyane Francaise, Nonveau Chantier; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 38.

- Distribution: South America (Brazil/Cayenne).
Notes: (3) Schedl 1972g: 79 (described female).
References: (ds) Blackwelder 1947: 789; Schedl 1970e: 86, 1972f: 239. (tx) Schedl 1936c: 230, 1972f: 239, 1972g: 79, 1978a: 35.
- iriani Browne** 1950e: 377. Holotype ♂; Kimi (West Irian, New Guinea) to Yatsushiro (Japan), imported; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1950e: 377.
- irregularis Schedl** 1967d: 18. Holotype ♂; Brasilien, Utinga bei Belem; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1972f: 240. (tx) Schedl 1967d: 18–19, 1972f: 240, 1978a: 38.
- irrepertus Schedl** 1936c: 248. Lectotype ♂; Guyane Francaise, St.-Laurent du Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 39.
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 240. (tx) Schedl 1936c: 247–248, 1972f: 240, 1978a: 39.
- irruptus Schedl** 1935e: 176. Holotype ♂; Albina; Dutch Guyana (Schedl 1978a: 38); Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/Suriname).
Notes: (3) Schedl 1976a: 89 (described female).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 240. (tx) Schedl 1935e: 176–177, 1936c: 228–229, 1972f: 240, 1976a: 89, 1978b: 39.
- iragauii Roberts & Morimoto** 1986: 171. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Garcinia* sp.
References: (tx) Roberts & Morimoto 1986: 171.
- jamaicensis Bright** 1972d: 17. Holotype ♂; Hardwar Gap, St. Andrew Parish, Jamaica, 4000'.
Figures: Bright 1972d: 19.
Distribution: Antilles Islands (Jamaica).
References: (tx) Bright 1972d: 17–19; McNamara 1977: 191.
- jansonii Chapuis** 1865: 244. Syntypes ♂ ♀; de la Nouvelle Guinee, des iles Moluques et Celebes; BMNH, London.
Figures: Wood 1960a: 12.
Distribution: Admiralty Islands, Asia (Sri Lanka/Taiwan), Australia, Bismarck Islands, Indonesia (Buru, Celebes, Java, Key, Moluccas, Sumatra, Timor), Micronesia (Caroline Islands, Marshall Islands), New Britain, New Guinea, New Hebrides Islands, Philippine Islands (Luzon, Mindanao, Negros), Seychelles Islands, Solomon Islands.
Hosts: *Albizzia* sp., *Alstonia scholaris*, *Althoffia* sp., *Anisoptera* sp., *Autocephalus* sp., *Araucaria cunninghamii*, *A. huasteinii*, *Artocarpus elasticus*, *A. incisus*, *Buchanania* sp., *Carallia* sp., *Cocos nucifera*, *Dalbergia latifolia*, *Dysoxylum* sp., *Endospermum medullulosum*, *Evodia* sp., *Ficus* sp., *Garuga* sp., *Hevea brasiliensis*, *Intsia bijuga*, *Laportea* sp., *Litsea domarensis*, *Macaranga* sp., *Mangifera indica*, *M. minor*, *Millettia dehiscens*, *Myristica* sp., *Orctomeles sumatrana*, *Parkia speciosa*, *Planchonella* sp., *Polyalthis* sp., *Pometia pinnata*, *Pterocymbium* sp., *Sloanea forbesii*, *Spondias* sp., *Stereulia campanulata*, *S. foetida*, *Tectonus graudis*, *Terminalia brassii*, *Theobroma cacao*, *Trema orientalis*, *Xanthophyllum* sp.
References: (bv) Gray, B. 1974b. (cn) Froggatt 1926b; Gray, B. & Wylie 1974; Kalshoven 1924c; Kleine 1932a: 402; Roberts 1987; Wylie & Shanahan 1975. (cc) Nakashima 1975: 5. (hb) Froggatt 1926b; Gray, B. 1968: 307, 1974b; Gray, B. & Wylie 1974; Kalshoven 1924c, 1960c: 34; Kleine 1932a: 310, 402; Roberts 1987; Wylie & Shanahan 1975. (ds) Beeson 1938b: 295; Browne 1966: 234; Chadwick & Nikitin 1968; Choo, Woo, & Kim 1981: 202; Froggatt 1936; Genminger & Harold 1872: 2698; Gray, B. 1968: 307; Kalshoven 1960d: 35; Kleine 1932a: 310, 402; Nakashima 1975: 3; Nobuchi 1977: 125; Numberg 1961b: 611; Ohno, Yoneyama, & Nakazawa 1987a: 95, 1987b: 90; Ohno et al. 1988b: 98, 1989: 65; Sampson 1926: 120; Schedl 1936g: 514, 1961c: 72, 1962i: 73, 1964c: 304, 1964d: 213, 1965g: 25, 1966b: 94, 1966g: 33, 1968e: 264, 1972f: 190, 1979a: 159; Strohmeier 1912c: 16, 1914c: 27; Wood, S. L. 1960a: 7. (tx) Chapuis 1865: 244; Nobuchi 1985: 329; Sampson 1923c: 3; Schedl 1933e: 105, 1936e: 51–52, 1937d: 40, 1940b: 434–435, 1941c: 354, 1941e: 154, 1942a: 172, 1942c: 164, 1952b: 365, 1955b: 282–283, 1958i: 215, 1960c: 46, 1972f: 190; Strohmeier 1911b: 26, 1912c: 16, 1914c: 27; Wood, S. L. 1960a: 7, 11–12; Wylie & Yule 1977.
- javanus Browne** 1964: 755. Holotype ♂; Java: Malang; BMNH, London.
Distribution: Indonesia (Java).
References: (ds) Schedl 1972f: 210. (tx) Browne 1964: 755; Schedl 1972f: 210.
- jelskii Nunberg** 1939: 226. Holotype ♂; Amable, Peru; IZW, Warsaw.
Distribution: South America (Peru).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 240. (tx) Nunberg 1939: 226–232; Schedl 1952h: 72, 1972f: 240.
- juvenus Schedl** 1972h: 68. Holotype ♂; Gogol Island Base, Madang District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Evodia* sp., *Pometia* sp.
Notes: (3) Schedl 1974d: 464 (described female).
References: (ds) Schedl 1972f: 224. (tx) Schedl 1972f: 224, 1972h: 68, 1974d: 464, 1978a: 39.
- kalshoveni Schedl** 1941: 360. Syntypes ♀; Java, Preanger, 4000–5000 voet; Kalshoven Collection, and Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Java).

Notes: (1) Schedl 1978a: 39 (citation of holotype invalid).

References: (ds) Schedl 1972f: 194. (tx) Schedl 1941c: 360–361, 1972f: 194, 1978a: 39.

katoi Browne 1983a: 568. Holotype ♂; Wapoga (West Irian) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: Matoa log.

References: (tx) Browne 1983a: 568.

keelungensis Browne 1985b: 294. Holotype ♂; Keelung (Formosa) to Nagoya (Japan), imported; BMNH, London.

Distribution: Asia (Taiwan).

Hosts: *Quercus* sp.

References: (tx) Browne 1985b: 294.

kiushuensis Murayama 1936a: 145. Holotype ♀; Ishikochi [Japan]; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan/Taiwan).

Hosts: *Quercus gilva*, *Q.* spp.

References: (ds) Murayama 1936a: 139–146, 1937c: 577, 1954b: 205; Nobuchi 1973b: 13; Schedl 1972f: 194. (tx) Murayama 1936a: 139–146, 1954b: 205; Nobuchi 1973b: 13; Schedl 1972f: 194.

klapperichi (Schedl) 1941a: 44 (*Stenoplatypus*). Holotype ♂; Fukien, Kuantun, 2300 m, 27.40 n.Br., 117.4 o.L.: Alexander Koenig Museum, Bonn.

Distribution: Asia (Fujian in China).

References: (ds) Schedl 1972f: 217. (tx) Schedl 1941a: 44, 1972f: 217.

kokodaensis (Schedl) 1935f: 274 (*Crossotarsus*). Lectotype ♀; Papua: Kokoda, 1200 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 40.

Distribution: New Guinea.

References: (ds) Schedl 1972f: 200. (tx) Schedl 1935f: 274–275, 1940b: 434–435, 1941e: 152, 1972f: 200, 1978a: 39.

konincki Chapuis 1865: 128. Syntypes ♂ ♀; de la Nouvelle-Grenade, de Bahia; 1 ♂ in MNB, Berlin, 1 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 17). Distribution: South America (Argentina/ Brazil/ Magdalena Island in Chile/ Colombia/ Guyana/ Venezuela), Maria Madre Island.

Hosts: *Theobroma cacao*.

References: (cn) Idrobo 1958: 75. (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2695; Santoro 1957b: 25; Schedl 1960a: 77–79, 1972f: 240, 1972g: 48, 1976a: 57; Steinhausen 1956: 49; Strohmeier 1912c: 9, 1914c: 23. (tx) Chapuis 1865: 128; Schedl 1936c: 224, 1937d: 37, 1955b: 30, 1960c: 17, 1972f: 240; Steinhausen 1956: 49; Strohmeier 1912c: 9, 1914c: 23.

koryoensis (Murayama) 1930b: 24 (*Crossotarsus*). Holotype ♂; Korea; Murayama Collection in USNM, Washington.

Figures: Nobuchi 1967: pl. 2.

Distribution: Asia (Japan/ Korea/ Taiwan/ Ussuri in E USSR).

Hosts: *Acer* sp., *Carpinus laxiflora*, *Quercus acutissima*, *Q. alieua*, *Q. serrata*.

Notes: (3) Arnoldi et al. 1955 (Far East records of *cylindrus* are these species).

References: (ds) Arnoldi et al. 1955: 735–736; Cho 1957; Choo 1983: 32; Choo, Woo, & Nobuchi 1988a: 133; Ko 1969: 273; Murayama 1934f: 142, 1937b: 372, 375, 1937c: 580; Nobuchi 1967: 25; Schedl 1972f: 219. (tx) Choo 1983: 32; Murayama 1930b: 24, 28–31, 35, 1937b: 372, 375; Nobuchi 1967: pl. 2; Schedl 1934f: 1647, 1935k: 484, 1972f: 219.

kusukusensis Murayama 1956b: 13. Holotype ♂; Kusikus, Formosa; Murayama Collection in USNM, Washington.

Distribution: Asia (Taiwan).

Hosts: *Cryptomeria japonica*.

References: (ds) Nobuchi 1967: 26; Schedl 1972f: 210. (tx) Murayama 1956b: 13; Schedl 1972f: 210.

lablabiae Schedl 1979g: 113. Holotype ♂; NE New Guinea, Umboi I., ca 8 km NW Lab Lab, 300 m; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 113.

labrifrons Schedl 1974d: 467. Holotype ♀; Nanwata Banda logging area, Road 14, Bulolo, Morobe District; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Acanthocephalus cadamba*.

References: (tx) Schedl 1974d: 467, 1978a: 40.

laevis Browne 1980a: 376. Holotype ♂; Bialla (New Britain) to Yatsushiro (Japan), imported.

Distribution: New Britain Island.

References: (ds) Ohno et al. 1988b: 98, 1989: 66. (tx) Browne 1980a: 376.

lafertei Chapuis 1865: 144. Syntypes ♂; de la Colombie; 1 in MNB, Berlin, 2 in BMNH, London, 1 in IRSNB, Brussels (Schedl 1960c: 21).

Distribution: North America (Costa Rica/ "Mexico"/ Panama), South America (Brazil/ Colombia/ Guyana/ Venezuela).

References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 23; Gemminger & Harold 1872: 2699; Schedl 1933c: 166, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23. (tx) Chapuis 1865: 144; Equihua & Atkinson 1987: 23; Schedl 1937d: 37, 1940c: 203–204, 1960c: 21, 1971f: 153, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23; Wood, S. L. 1966a: 59.

parysi Chapuis 1865: 145. Syntypes ♂; de la Colombie; 2 in IRSNB, Brussels (Schedl 1960c: 21). Synonymy: Schedl 1960c: 21.

References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Strohmeier 1912c: 9, 1914c: 23. (tx) Chapuis 1865:

- 145; Schedl 1960c: 21, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23.
- laminatus** Schedl 1964m: 316. Syntypes ♂; Tamandrana, Tamatave [Madagascar]; IRSM, Madagascar, and Schedl Collection in NHMW, Wien. Distribution: Madagascar.
Notes: (1) Schedl 1975a: 40 (type restricted to IRSM, Madagascar specimens).
References: (ds) Schedl 1972f: 232, 1977b: 244. (tx) Schedl 1961e: 157–158, 1964m: 316, 1972f: 232, 1977b: 244, 1978a: 40.
- laosi** Schedl 1971c: 391. Holotype ♂; Laos area, Vankly; Schedl Collection in NHMW, Wien. Distribution: Asia (Laos).
References: (ds) Schedl 1972f: 212. (tx) Schedl 1971c: 391–392, 1972f: 212, 1978a: 40.
- lateconcarus** Schedl 1942a: 207. Lectotype ♀; Sumatra, Si-Rambe; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 40. Distribution: Indonesia (Sumatra).
References: (ds) Schedl 1972f: 242. (tx) Schedl 1942a: 207, 1972f: 242, 1978a: 40.
- latedeclivis** Schedl 1942a: 206. Holotype ♂; Borneo; Schedl Collection in NHMW, Wien, lost. Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 201. (tx) Browne 1962c: 643; Schedl 1942a: 206, 1972f: 201, 1978a: 40.
- latelobatus** Browne 1984f: 62. Holotype ♂; New Guinea; Morobe District, Mount Kaindi, 2350 m; BMNH, London. Distribution: New Guinea.
References: (tx) Browne 1984f: 62.
- laticollis** Chapuis 1865: 250. Syntypes ♂; du Bresil; 2 in BMNH, London (Schedl 1960c: 47). Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2699; Schedl 1972f: 187; Strohmeier 1912c: 16, 1914c: 27. (tx) Chapuis 1865: 250; Schedl 1960c: 47, 1972f: 187; Strohmeier 1912c: 16, 1914c: 27.
- latidens** Browne 1985b: 296. Holotype ♂; Tg. Mani (Sarawak) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Browne 1985b: 296.
- latifnis** Walker 1859: 261. Holotype ♂; Ceylon; BMNH, London. Distribution: Asia (Karnataka, Tamil Nadu in India/ Sri Lanka), Indonesia (Borneo).
Hosts: *Bombax malabaricum*, *Diospyros paniculata*, *Doonia zeylanica*, *Eugenia jambolana*, *Ficus asperina*, *Lamaca grandis*, *Mangifera indica*, *Salmalia malabarica*, *Terminalia bellerica*, *T. paniculata*, *Vateria indica*.
References: (cn) Mathur & Singh 1961a: 13, 1961b: 26; Rau 1936: 35–45; Roonwal 1954: 57. (ec) Mathew 1985. (hb) Speyer 1923: 23. (ds) Beeson 1961: 265; Blandford 1895a; Gemminger & Harold 1872: 2699; Mathew 1982, 1987: 188; Mathur & Singh 1961a: 13, 1961b: 26; Roonwal 1954: 57; Schedl 1959a: 514, 1962f: 166, 1971a: 278, 1972f: 210; Strohmeier 1912c: 19, 1914c: 29. (tx) Blandford 1895a: 327–328; Motschulsky 1863; Nimberg 1964: 236; Schedl 1937d: 42, 1939b: 398, 1941b: 423–424, 1959a: 514, 1972f: 210; Strohmeier 1912c: 19, 1914c: 29; Walker 1859: 261.
- excavatus** Chapuis 1865: 280. Holotype ♂; de l'ile de Ceylan; BMNH, London (Schedl 1960c: 53). Synonymy: Schedl 1972f: 210.
References: (ds) Gemminger & Harold 1872: 2698; Strohmeier 1912c: 18, 1914c: 28. (tx) Chapuis 1865: 280; Schedl 1937d: 33, 1941b: 417, 1960c: 53, 1972f: 210; Strohmeier 1912c: 18, 1914c: 28.
- latreillei** Chapuis 1865: 143. Syntypes ♂ ♀; du Mexique; 1 ♂ in MNB, Berlin, 3 ♂, 1 ♀ in BMNH, London, 2 ♂ in IRSNB, Brussels (Schedl 1960c: 21).
Figures: Lara & Shenefelt 1965: 174. Distribution: North America (Costa Rica/ Guatemala/ Mexico/ Nicaragua), South America (Brazil).
References: (hb) Lara & Shenefelt 1965: 175. (ds) Blackwelder 1947: 789; Blandford 1896c: 100; Equihua & Atkinson 1987: 24; Ferrer 1942; Gemminger & Harold 1872: 2699; Schedl 1933c: 166, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23. (tx) Blandford 1896c: 100; Chapuis 1865: 143; Equihua & Atkinson 1987: 24; Lara & Shenefelt 1965: 174; Schedl 1934e: 210, 1940a: 324, 1960c: 21, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23.
- lawasensis** Browne 1970: 578. Holotype ♂; Sarawak; Lawas; BMNH, London. Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).
Hosts: *Dryobalanops lanceolata*, *Koordersiodendron pinnatum*.
References: (ds) Schedl 1972f: 211. (tx) Browne 1970: 578–579; Schedl 1972f: 211.
- lepidus** Chapuis 1865: 282. Syntypes ♂ ♀; des iles Celebes, des iles Moluques, des Philippines; 3 ♂ in BMNH, London, 2 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 54).
Figures: Nobuichi 1967: pl. 2. Distribution: Africa (Seychelles Islands), Asia (Burma/ India/ Malaya/ Sri Lanka/ Taiwan/ Tonkin Island in Vietnam), Australia, Bismarck Islands, Indonesia (Borneo, Buru, Celebes, Engano, Mentawai, Moluccas, Sumatra), New Guinea, Philippine Islands, Sula, Sunda Islands.
Hosts: *Adinobotrys atropurpureus*, *Albizzia stipulata*, *Amoora rohutuka*, *Artocarpus introcha*, *Camellia sinensis*, *Castanopsis tribuloides*, *Drimycarpus racemosus*, *Elateriospermum tapos*, *Endospermum malaccense*, *Eugenia* spp., *Ficus glomerata*, *Hevea brasiliensis*, *Hibiscus* sp.,

- Lanuca grandis*, *Millettia pendula*, *Parkia speciosa*, *Pithecolobium* sp., *Pometia* sp., *Sarcocephalus cordatus*, *Shorea leprosula*, *Sterculia macrophylla*, *Tectona grandis*, *Vatica lanceaefolia*, *Xanthophyllum glaucum*.
Notes: (3) Schedl 1941b: 424 (review).
References: (cn) Beaver 1958a: 70; Browne 1935b; Corbett 1935: 43–56; Lloyd 1928: 417–426; Mathur & Singh 1960b: 43, 1961b: 71; Yunn & Hua 1980: 217. (hb) Beaver 1958a: 70; Browne 1935a, 1941; Murayama 1931b: 197; Schedl 1977b: 245; Speyer 1923: 23. (ds) Baer 1886: 148; Beaver 1958a: 70; Beeson 1941: 344, 1961: 265; Bhasin, Roonwal, & Singh 1958: 61, 92; Browne 1935a: 1, 1938: 83–84, 1941: 66, 1966: 237, 1980c: 484, 1984c: 449; Choo & Woo 1953; Gemminger & Harold 1872: 2699; Kalshoven 1924b: 357; Leefmans 1927: 6; Lepesme 1947: 649; Mathur & Singh 1960b: 43, 1961b: 71; Mesa 1935: 96; Miwa 1931: 266; Murayama 1925a: 213–214, 1928: 31, 1929a: 673, 1931b: 197, 203, 1934f: 134, 146, 1937c: 579; Nobuchi 1967: 26, 1977: 135; Ohno, Yoneyama, & Nakazawa 1952a: 5, 1957a: 95, 1987b: 90; Ohno, Yoshioka, et al. 1989: 66; Sampson 1914: 382, 1926: 121, 1928a: 3; Schedl 1936d: 7, 1936e: 56, 1936g: 515, 1938g: 423, 1959a: 515, 1966b: 95, 1969d: 9, 12, 1970b: 355, 1972f: 210, 1977b: 245; Strohmeier 1911f: 204, 1912e: 18, 1914c: 28; Yunn & Hua 1980: 217. (tx) Browne 1964: 755; Chapuis 1865: 282; Kalshoven 1960: 38; Murayama 1925a: 213, 1925b: 235; Nobuchi 1967: pl. 2, 1985: 329; Sampson 1914: 382, 1928a: 3; Schedl 1935j: 1, 1937d: 41, 1940b: 434, 1941a: 43, 1941b: 417, 424, 1952b: 366, 1955d: 273, 1959a: 515, 1960c: 54, 1972f: 210, 1977b: 245; Strohmeier 1911b: 17, 27, 1912c: 18, 1914c: 28; Wylie & Yule 1977.
- leprosus** **Browne** 1980f: 215. Holotype ♂; Papua, UMLA [Upper Manki logging area], Bulolo, Morobe District; Schedl Collection in NHMW, Wien, automatic.
Distribution: New Guinea.
References: (tx) Browne 1980f: 215.
- neotruncatus** **Schedl** 1979g: 114. Holotype ♂; Papua, UMLA, Bulolo, Morobe District; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1972.
References: (tx) Schedl 1978a: 46, 1979g: 114.
- lesiniformis** **Roberts** 1989: 273. Holotype ♂; Papua New Guinea: Divide Logging Area, Bulolo, 1200 m; NHMW, Wien.
Distribution: New Guinea.
Hosts: *Celtis* sp.
References: (tx) Roberts 1989: 273.
- levannongi** **Schedl** 1974c: 265. Holotype ♂; Nord-Vietnam, L.Thsi Nuguyen; MHN, Bucharest.
Distribution: Asia (Vietnam).
References: (tx) Schedl 1974c: 265, 1978a: 41.
- lewisi** **Blandford** 1894d: 134. Syntypes 5, ♂ ♀; Miyoshihita, Kiga, and Yiyama; BMNH, London. Figures: Nakane et al. 1963: pl. 192, Nobuchi 1973b: pl. 2.
Distribution: Asia (Bhutan/ Fujian in China/ Bengal in India/ Japan/ Korea/ Taiwan).
Hosts: *Abies firma*, *Aesculus turbinata*, *Betula grossa*, *B. platyphylla japonicum*, *Castanea crenata*, *Cryptomeria japonica*, *Fagus crenata*, *Kalopanax ricinifolium*, *K. septendobus*, *Quercus acuta*, *Q. acutissima*, *Q. aliena*, *Q. gilva*, *Q. glauca*, *Q. lamellosa*, *Q. mongolica* var. *grosseserrata*, *Q. serrata*.
Notes: (3) Beeson 1941 (1961: 267) *uncacanthurus*, nomen nudum, synonymy in Schedl 1969c: 69.
References: (cn) Kleine 1932a: 402; Shiraki 1952. (ce) Banno, Mikata, & Kodama 1953: 445; Kurenzov 1934a: 58. (hb) Kleine 1932a: 402; Kurenzov 1935a: 44; Murayama 1931b: 197. (ds) Anonymous 1980g; Beeson 1941 (1961: 266); Blandford 1894c; Cho 1957; Choo 1983: 33; Choo & Woo 1985: 163; Kleine 1932a: 402; Ko 1969: 274; Kurenzov 1934a: 58, 1935a: 44, 1936a: 109, 1936b: 350; Miwa 1931: 266; Murayama 1925a: 211, 1929a: 671, 1931b: 197, 1933b: 19, 1934f: 133, 1936a: 139, 1937b: 372, 375, 1937c: 577, 1954b: 188; Nakane et al. 1963: 384; Nobuchi 1967: 26, 1973b: 13; Schedl 1972f: 219, 1975c: 384; Shiraki 1952; Stark 1936e: 142; Strohmeier 1912c: 16, 1914c: 27. (tx) Blandford 1894d: 134; Choo 1983: 33; Murayama 1925a: 211–212, 1925b: 235, 1936a: 139, 146, 1937b: 372, 375, 1954b: 188; Nakane et al. 1963: 384, pl. 192; Nobuchi 1972f: 13, 1973b: pl. 2; Schedl 1934f: 1647, 1969c: 69, 1972f: 219; Strohmeier 1912c: 16, 1914c: 27; Wylie & Yule 1977.
- limbatus** **Chapuis** 1865: 253. Syntypes ♂ ♀; Mexique, Toxpan; 1 ♂, 2 ♀ in BMNH, London.
Distribution: North America (Costa Rica/ Guatemala/ Mexico), South America (Brazil).
References: (ds) Blackwelder 1947: 789; Blandford 1896e: 112; Equihua & Atkinson 1987: 24; Ferrer 1942; Gemminger & Harold 1872: 2699; Santoro 1957b: 25; Schedl 1933c: 175, 1972f: 157; Strohmeier 1911f: 204, 1912c: 16, 1914c: 27. (tx) Blandford 1896e: 112; Chapuis 1865: 253; Equihua & Atkinson 1987: 24; Lucas 1920: 522; Schedl 1933a: 402, 1940a: 327, 1960c: 48, 1972f: 187; Strohmeier 1912c: 16, 1914c: 27.
- lineaticornis** **Schedl** 1936c: 226. Syntypes ♂; Guyane Française; St.-Laurent du Maroni; MNHN, Paris, and Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne).
Notes: (1) Schedl 1978a: 41 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 789; Schedl 1972f: 240. (tx) Schedl 1936c: 226, 1972f: 240.

- lineellus** Schedl 1972h: 69. Holotype ♂; Sydney, New South Wales; Schedl Collection in NHMW, Wien.
Distribution: Australia (New South Wales).
References: (ds) Schedl 1972f: 201. (tx) Schedl 1972a: 143-149, 1972f: 201, 1972h: 69, 1975a: 41.
- lingulatus** Roberts & Morimoto 1986: 173. Holotype ♂; Borneo: Niah (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Lophopetalum* sp. log.
References: (tx) Roberts & Morimoto 1986: 173.
- liraticus** Wood 1966a: 58. Holotype ♂; Rio Danaita, San Jose Prov., Costa Rica, 700 feet; Wood Collection.
Figures: Wood 1966a: 60.
Distribution: North America (Costa Rica).
References: (ds) Equihua & Atkinson 1987: 24; Schedl 1972f: 240. (tx) Equihua & Atkinson 1987: 24; Schedl 1972f: 240; Wood, S. L. 1966a: 58-60.
- liratus** Blandford 1896: 99e. Holotype ♂; Nicaragua. Chiontales; BMNH, London.
Distribution: North America (Costa Rica/ El Salvador/ Nicaragua).
Hosts: *Hevea brasiliensis*.
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 24; Schedl 1972f: 240, 1977e: 44; Strohmeier 1912c: 9, 1914c: 23. (tx) Blandford 1896e: 99-100; Equihua & Atkinson 1987: 24; Schedl 1972f: 240; Strohmeier 1912c: 9, 1914c: 23; Wood, S. L. 1966a: 58.
- longicalcaratus** Roberts 1989: 274. Holotype ♂; Papua New Guinea: Mt. Giluwe, Western Highlands Province, 2900 m; NHMW, Wien.
Figures: Roberts 1989: 286.
Distribution: New Guinea.
Hosts: *Nothofagus pullei*.
References: (tx) Roberts 1989: 274, 286.
- longicollis** Browne 1984c: 455. Holotype ♂; Ambon (Moluccas) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Moluccas).
Hosts: *Canarium* sp., *Shorea* sp.
References: (ds) Ohno, Yoneyama, & Nakazawa 1987a: 95. (tx) Browne 1984c: 455.
- longior** Wood 1966a: 56. Holotype ♂; 16 km SE Cartago, Cartago Prov., Costa Rica; Wood Collection.
Figures: Wood 1966a: 52.
Distribution: Antilles Islands (Puerto Rico), North America (Costa Rica).
References: (ds) Equihua & Atkinson 1987: 24; Schedl 1972f: 205. (tx) Equihua & Atkinson 1987: 24; Schedl 1972f: 205; Wood, S. L. 1966a: 52, 56.
- longipennis** Montrouzier 1861: 265. Holotype ♂; Nouvelle Calédonie; not located.
Distribution: New Caledonia.
References: (ds) Beeson 1938b: 295; Gemminger & Harold 1872: 2699; Lacordaire 1866: 392; Schedl 1972b: 266, 1972f: 196; Strohmeier 1912c: 18, 1914c: 28. (tx) Blandford 1896f: 244; Chapuis 1865: 286; Lacordaire 1866: 392; Montrouzier 1861: 263; Schedl 1939b: 395, 1941e: 156, 1960c: 56, 1972f: 196; Strohmeier 1912c: 18, 1914c: 28.
- longissimus** Roberts 1979: 90. Holotype ♂; Papua New Guinea: 8 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Cloaxylon* sp., *Galbulimima* sp.
References: (tx) Roberts 1979: 90.
- longius** Wood 1966a: 57. Holotype ♂; Volcan Pacaya, Esquintla Prov., Guatemala, 4000 feet; Wood Collection.
Figures: Wood 1966a: 52.
Distribution: North America (Guatemala/ Morelos in Mexico).
Hosts: *Quercus tomentocaulis*.
References: (hb) Atkinson et al. 1986: 12; Burgos & Saucedo 1983: 42. (ds) Atkinson & Equihua 1985a: 103; Atkinson et al. 1986: 12; Burgos & Saucedo 1983: 42; Equihua 1985: 143; Equihua & Atkinson 1987: 42; Schedl 1972f: 205. (tx) Equihua & Atkinson 1987: 24; Schedl 1972: 205; Wood, S. L. 1966a: 52, 57.
- longulus** Chapuis 1865: 158. Syntypes ♂; du Mexique, Toxpan; 2 ♂ in BMNH, London (Schedl 1960c: 24).
Distribution: North America (Costa Rica/ Guatemala/ Chiapas, Veracruz in Mexico), South America (Brazil/ Guyana/ Peru/ Venezuela).
Hosts: *Eschweilera sagotiana*, *Eugenia* sp., *Ocotea rodiaci*, *Tapirira marchandii*.
References: (ds) Blackwelder 1947: 789; Blandford 1896e: 105; Equihua & Atkinson 1987: 24; Ferrer 1942; Gemminger & Harold 1872: 2699; Schedl 1970c: 87, 1972f: 205, 1972g: 50, 1976a: 58; Strohmeier 1912c: 10, 1914c: 24; Wood, S. L. 1966a: 53. (tx) Blandford 1896e: 105; Chapuis 1865: 158; Equihua & Atkinson 1987: 24; Reichardt 1964b: 86; Schedl 1933a: 397, 1937d: 38, 1940a: 324, 1970c: 87, 1972f: 205, 1972g: 50, 1976a: 58; Strohmeier 1912c: 10, 1914c: 24; Wood, S. L. 1966a: 51.
- peregrinus** Schedl 1935h: 356. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien.
Synonymy: Reichardt 1964b: 86.
References: (ds) Blackwelder 1947: 790; Ferrer 1942. (tx) Reichardt 1964b: 86; Schedl 1935h: 356-357, 1940a: 324, 1972f: 205, 1975a: 53.
- lopchuensis** Schedl 1969c: 68. Holotype ♂; India: W. Bengal. Lopchu, 1525 m, Darjeeling; FRI, Dehra Dun, not found in 1981 by SLW.
Distribution: Asia (Bengal in India).
Hosts: *Beilschmiedia sikkimensis*, *Macaranga denticulata*.

- Notes: (1) None of the types of Indian species named by Schedl were ever returned to FRI; one non-type is present; this species is not mentioned in Schedl 1978a (SIW). (3) Beeson 1941: 345, 1961: 265 (*lopchluensis*, nomen nudum, synonymy in Schedl 1969c: 68).
References: (ds) Beeson 1941: 345, 1961: 265; Bhasin, Roonwal, & Singh 1958; Schedl 1972f: 200. (tx) Schedl 1969c: 68, 1972f: 200.
- lophopetali** **Browne** 1985b: 295. Holotype ♂; Niah (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Lophopetalum* sp.
References: (tx) Browne 1985b: 295.
- loriae** (**Schedl**) 1936e: 44 (*Crossotarsus*). Lectotype ♂; N. Guinea, S.E. Moroka, 1300 m; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 41.
Distribution: New Guinea.
Hosts: *Eudiandra* sp.
Notes: (3) Schedl 1974d: 468 (described female).
References: (ds) Schedl 1972f: 200. (tx) Schedl 1936e: 44, 1942a: 207, 1942c: 196, 1972f: 200, 1974d: 468, 1978a: 41.
- loricatus** (**Sampson**) 1923c: 71 (*Crossotarsus*). Holotype ♂; Burma: Carin, Ascini Ghecu, 1200–1400 m; MCG, Genova.
Distribution: Asia (Burma/ India/ Malaya/ Vietnam), Indonesia (Borneo, Java, Mentawai, Sumatra), Philippine Islands (Mindoro).
Hosts: *Ficus* sp., *Lucuma malaccensis*, *Pouteria malaccensis*.
Notes: (3) Schedl 1936e: 45 (described female).
References: (hb) Browne 1961c: 200. (ds) Beeson 1941 (1961: 265); Browne 1980b: 381; Ohno, Yoneyama, & Nakazawa 1987b: 90; Schedl 1966b: 95, 1971c: 368, 1971f: 150. (tx) Beeson 1937: 91; Nobuchi 1985: 330; Sampson 1923c: 71–72; Schedl 1936e: 45–46, 1937e: 546, 1939e: 335, 1941c: 354, 1942a: 172, 1972f: 237, 1978a: 41.
- lucaris** **Schedl** 1979g: 114. Holotype ♂; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 114.
- lucasi** **Chapuis** 1865: 243. Holotype ♂; de la Nouvelle Guinée (Dorey); BMNH, London (Schedl 1960c: 46).
Distribution: Asia (Malaya), Indonesia (Java), New Guinea, New Hebrides.
Notes: (3) Schedl 1935f: 275 (described female).
References: (ds) Beeson 1938b: 296; Browne 1961c: 196, 1980d: 492; Gemminger & Harold 1872: 2699; Kalshoven 1924b: 361; Schedl 1936g: 514, 1962i: 73, 1972f: 190; Strohmeier 1912c: 16, 1914c: 27. (tx) Chapuis 1865: 243; Sampson 1923c: 3; Schedl 1935f: 275–276, 1939b: 384, 1940b: 434–435, 1960c: 46, 1972f: 190; Strohmeier 1912c: 16, 1914c: 27.
- lunatellus** **Browne** 1983a: 569. Holotype ♂; Tg. Usau (West Irian) to Nagoya (Japan), imported.
Distribution: New Guinea.
Hosts: Matoa log.
References: (ds) Ohno et al. 1989: 66. (tx) Browne 1983a: 569.
- lunatipennis** **Schedl** 1958b: 105. Lectotype ♂; Malaya, Kelantan; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 42.
Distribution: Asia (Malaya).
Hosts: *Sapium baccatum*.
References: (hb) Browne 1961c: 210. (ds) Browne 1961c: 210, 1981a: 126; Schedl 1972f: 201. (tx) Browne 1964: 757; Schedl 1958b: 105, 1972f: 201, 1978a: 42.
- lunifer** **Schedl** 1960i: 111. Syntypes ♂; Sumatra, N.-Palawan, Binaluan; MNB, Berlin, and Schedl Collection in NHMW, Wien, automatic.
Distribution: Asia (Burma/ Assam in India/ Malaya), Indonesia (Borneo, Engano, Mentawai, Sumatra), Philippine Islands (Palawan), Si-Oban Island.
Hosts: *Afzelia palembanica*, *Albizzia* sp., *Coccoceras muticum*, *Shorea beutongensis*.
Notes: (1) Schedl 1978a: 28 (citation of holotype invalid). (3) Schedl 1961f: 95 (described female).
References: (ds) Browne 1966: 237, 1980b: 351, 1980c: 483; Ohno, Yoneyama, & Nakazawa 1982b: 10, 1987b: 90; Schedl 1961f: 95, 1966b: 95, 1971f: 150, 1972f: 201. (tx) Browne 1962e: 654; Schedl 1960i: 111, 1961f: 95, 1972f: 201, 1978a: 28.
- emarginatus** **Schedl** 1937d: 34 (*Crossotarsus*). Syntypes ♂; Sumatra, N.-Palawan, Binaluan; MNB, Berlin, and Schedl Collection in NHMW, Wien, preoccupied by Chapuis 1865.
Notes: (1) Schedl 1978a: 28 (citation of holotype invalid).
References: (cn) Mathur & Singh 1961a: 38. (hb) Browne 1961c: 210. (ds) Beeson 1941 (1961: 253); Browne 1961c: 210, 1983a: 555; Mathur & Singh 1961a: 38; Schedl 1936j: 21. (tx) Schedl 1936e: 43, 1937d: 34, 1939e: 334, 1960c: 35, 1960i: 110–111, 1978a: 28.
- luniger** **Motschulsky** 1863: 510. Syntypes 6 ♂ ♀; Montagnes de Nura-Ellia [Ceylon]; IZM, Moscow.
Distribution: Africa (Seychelles Islands), Asia (Burma/ Cambodia/ China/ Andaman Islands, Assam, Bengal in India/ Japan/ Malaya/ Sri Lanka/ Taiwan/ Thailand/ Vietnam), Australia (Queensland), Indonesia (Alabal, Borneo, Engano, Java, Mentawai, Moluccas, Sumatra), New Guinea, Philippine Islands (Luzon, Mindoro).
Hosts: *Anoora* sp., *Ehretia acuminata*, *Ficus minnahasse*, *Meliosma simplicifolia*.
References: (hb) Speyer 1923: 23. (ds) Gemminger & Harold 1872: 2699; Schedl 1972f: 242; Strohmeier 1912c: 19, 1914c: 29. (tx) Motschul-

- sky 1863: 510; Schedl 1972f: 242; Strohmeier 1912c: 19, 1914c: 29; Wood, S. L. 1969c: 120.
- caliculus** Chapuis 1865: 280. Syntypes ♂ ♀; Siam; 1 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 53). Synonymy: Wood 1969c: 120. Notes: (3) Schedl 1941b: 423 (review). References: (ay) Nakashima 1975: 5. (cn) Beaver 1988a: 70; Yunus & Hua 1980: 216. (ce) Nakashima 1975: 5; Roberts 1980. (hb) Beaver 1988a: 70. (ds) Beaver 1988a: 70; Beaver & Browne 1975: 307; Blandford 1896a; Browne 1970: 576, 1980d: 491; Gemminger & Harold 1872: 2697; Nakashima 1975: 3; Nobuchi 1977: 137; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 10, 1987a: 95, 1987b: 89; Schedl 1962b: 187, 1962f: 165, 1962i: 73, 1966b: 90, 1966g: 33, 1971f: 150, 1972f: 209, 1975a: 453, 1979a: 159; Strohmeier 1911f: 204, 1912c: 18, 1914c: 28; Yunus & Hua 1980: 216. (tx) Browne 1964: 755; Chapuis 1865: 280; Murayama 1925b: 234–235, 1925a: 284, 287; Nakashima 1975: 28–33; Nobuchi 1985: 329; Schedl 1937d: 42, 1941b: 417–423, 1952b: 366, 1954a: 145, 1960c: 53, 1972f: 209; Strohmeier 1912c: 18, 1914c: 28; Wood, S. L. 1969c: 120.
- sultzei** Strohmeier 1911b: 26. Syntypes ♂ ♀; Negros, Maa, Philippine Islands; Bureau of Science, Manila. Synonymy: Schedl 1972f: 209. References: (cn) Ishikura 1966. (ds) Ishikura 1966; Strohmeier 1914c: 28. (tx) Schedl 1936e: 56, 1937d: 42, 1940b: 435, 1941b: 417, 1972f: 209, 1978a: 64; Strohmeier 1911b: 26–28, 1914c: 28.
- luridus** Chapuis 1865: 122. Holotype ♀; du Bresil: Sao Paulo; BMNH, London (Schedl 1960c: 15). Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2699; Schedl 1972f: 240; Strohmeier 1912c: 9, 1914c: 23. (tx) Chapuis 1865: 122; Lucas 1920: 521; Schedl 1960c: 15, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23. (ms) Lucas 1920: 521.
- luzonicus** Schedl 1935k: 486. Syntypes ♂ ♀; Luzon, Mountain Province, Benguet, Mount Santo Tomas; W. Schultze Collection, and Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Luzon). Notes: (1) Schedl 1975a: 42 (citation of holotype invalid). References: (ds) Schedl 1966b: 96, 1972f: 190. (tx) Nobuchi 1985: 329; Schedl 1935k: 486–487, 1939b: 390, 1962b: 193, 1972f: 190, 1978a: 42.
- macer** Browne in Beaver & Browne 1978: 619. Holotype ♂; Malaysia: Penang, Georgetown; BMNH, London. Figures: Beaver & Browne 1978: 604. Distribution: Asia (Malaya). Hosts: Removed from a bird stomach. References: (tx) Beaver & Browne 1978: 604, 619.
- macroporus** Chapuis 1865: 220. Holotype ♀; de la Colombie; IRSNB, Brussels. Distribution: South America (Colombia/Suriname). Notes: (3) Schedl 1936c: 238 (described male). References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2699; Schedl 1972f: 219; Strohmeier 1912c: 13, 1914c: 25. (tx) Chapuis 1865: 200; Schedl 1936c: 238, 1960c: 40, 1961i: 232, 1972f: 219, 1978a: 42; Strohmeier 1912c: 13, 1914c: 26.
- madagascariensis** Chapuis 1865: 161. Syntypes ♂ ♀; de Madagascar; 1 ♂, 1 ♀ in MNB, Berlin, 1 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 25). Distribution: Comoro Islands, Madagascar, Reunion Island, St. Marie Island. Hosts: *Acridocarpus* sp., *Aphananthe sakalava*, *Canarium* sp., *Cassipourea* sp., *Chrysophyllum boivianum*, *Cinchona succerubra*, *Commiphora* sp., *Dalbergia pterocarpifolia*, *Ekebergia suavis*, *Eugenia* cf. *jambolana*, *Ficus soroccooides*, *Ocotea laevis*, *Olea ambrensis*, *Paclitrophe dimepate*, *P. obovata*, *Pearcea americana*, *Pinus* sp., *Plagiocoryphus* sp., *Protorhus* sp., *Ravensara pervillei*, *Symphonia* sp., *Vapaca cf. ferruginea*, *Vernonia* sp. References: (cn) Paulian 1950b: 59. (ce) Schedl 1977b: 247. (hb) Paulian 1950b: 59–60. (ds) Alluaud 1900: 441; Breniere & Dubois 1965: 16, 80; Fairmaire 1892b; Gemminger & Harold 1872: 2699; Heyden 1878: 102; Sampson 1928a: 3; Schedl 1969d: 7, 10, 1970d: 234, 1972f: 233, 1977b: 247; Strohmeier 1912c: 11, 1914c: 25. (tx) Chapuis 1865: 161; Fairmaire 1892b; Lucas 1920: 522; Sampson 1928a: 3; Schaufuss 1897a: 222; Schedl 1937d: 38, 1950h: 105–106, 1951j: 20, 1953d: 70–71, 1960c: 25, 1972f: 233, 1977b: 247; Strohmeier 1912c: 11, 1914c: 25. (ms) Lucas 1920: 522.
- magnus** Browne 1980a: 378. Holotype ♂; Solomon Islands to Taganoura (Japan), imported; BMNH, London. Distribution: Solomon Islands. Hosts: *Gonystylus* sp. References: (ds) Ohno et al. 1988b: 98. (tx) Browne 1980a: 378.
- malaisei** Schedl 1939c: 2. Holotype ♂; NE Burma, Kambaiti, 7000 ft.; NHR, Stockholm. Distribution: Asia (Burma). References: (ds) Schedl 1972f: 210. (tx) Murayama 1956b: 13; Schedl 1939c: 2–3, 1972f: 210.
- malignus** Schedl 1936c: 228. Holotype ♂; Dutch Guyana; Schedl Collection in NHMW, Wien. Distribution: South America (Suriname). References: (ds) Blackwelder 1947: 789. (tx) Schedl 1936c: 228, 1972f: 240.
- maniensis** Browne 1985a: 197. Holotype ♂; Tg. Mani (Sarawak) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). References: (tx) Browne 1985a: 197.

- * *maravignae* **Guérin-Meneville** 1838: 170. Holotype ♂; Sizilianischen (miozanen) Bernstein (Sinetit).
Distribution: Europe (Sicilian amber, Miocene).
References: (ds) Handlirsch 1908; Keilbach 1982: 256; Schedl 1960c: 64; Scudder 1891: 569. (tx) Chapuis 1865: 337; Guérin-Meneville 1838: 170; Keler 1928: 3; Schedl 1947a: 14, 1960c: 64. (ms) Keilbach 1982: 256.
- marcidus* **Blandford** 1896e: 110. Holotype ♂; Panama, Volcan de Chiriqui; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 21.
Distribution: North America (Panama).
Hosts: *Quercus* sp.
References: (ds) Blackwelder 1947: 790; Equihua & Atkinson 1987: 24; Schedl 1972f: 218; Strohmeier 1912c: 14, 1914c: 26. (tx) Blandford 1896e: 110; Equihua & Atkinson 1987: 24; Schedl 1972f: 218; Strohmeier 1912c: 14, 1914c: 26.
- margaritaceus* **Roberts & Morimoto** 1986: 173. Holotype ♂; New Guinea: Papua, Kaisenik, Wau; BMNH, London.
Distribution: New Guinea.
Hosts: *Nothofagus* sp.
References: (tx) Roberts & Morimoto 1986: 173.
- marginatus* **Chapuis** 1865: 133. Syntypes ♂; Bresil: Para, Ega; 2 in BMNH, London.
Distribution: South America (Argentina/ Brazil/ Paraguay).
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Schedl 1972f: 240, 1978c: 292; Strohmeier 1912c: 9, 1914c: 23. (tx) Chapuis 1865: 133; Schedl 1933a: 400, 1935h: 355, 1936c: 228–232, 1960c: 18, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23.
- maritimus* **Schedl** 1969c: 64. Holotype ♂; Bengal: Sunderbans; FRI, Dehra Dun, not present.
Distribution: Asia (Bengal in India/ Malaya).
Hosts: *Sonneratia apetala*.
Notes: (1) None of the specimens borrowed by Schedl were ever returned to FRI; the Schedl paratypes probably include the type. (3) Beeson 1941: 345, 1961: 265 (*maritimus*, nomen nudum, synonymy in Schedl 1972f: 210).
References: (ds) Beeson 1941: 345, 1961: 265; Choo, Woo, & Kim 1981: 202; Mather & Singh 1961a: 61; Nobuchi 1969a: 206, 1972f: 210. (tx) Schedl 1969c: 64–65, 1972f: 210, 1978a: 43.
- matoae* **Browne** 1986b: 337. Holotype ♂; New Guinea: Fak fak to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Pometia* sp. log.
References: (tx) Browne 1986b: 337.
- micrographus* **Schedl** 1979g: 114. Holotype ♀; Papua, Upper Manki L.A., Bulolo, Morobe District.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 114.
- microlunatus* **Browne** 1983a: 571. Holotype ♂; Viru Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: "Basswood" log.
References: (ds) Ohno et al. 1988b: 98. (tx) Browne 1983a: 571.
- micrurus* **Schedl** 1951i: 96. Syntypes 1 ♂, 1 ♀; Java, Preanger, G. Tangkoeban Prahoë, 4000–5000 Fuss; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java), New Britain Island.
Hosts: *Dracoutomelium mangiferum*.
Notes: (1) Schedl 1978a: 43 (citation of holotype invalid).
References: (ds) Schedl 1972f: 198. (tx) Nunberg 1961: 624; Schedl 1951i: 96, 1962n: 697, 1972f: 198, 1978a: 43.
- longicaudatus* **Nunberg** 1961b: 623. Holotype ♂; New Britain, Rabaul; BMNH, London. Synonymy: Schedl 1972f: 198.
References: (tx) Nunberg 1961b: 623; Schedl 1972f: 198.
- minaciior* **Schedl** 1971c: 392. Holotype ♂; Sarawak, Kuching; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Vatica* sp.
References: (ds) Schedl 1972f: 213. (tx) Schedl 1971c: 392, 1972f: 213.
- minor* **Browne** 1980b: 388. Holotype ♂; Vanimo (New Guinea) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
References: (ds) Ohno, Yoneyama, & Nakazawa 1987a: 95; Ohno, Yoshioka, et al. 1988b: 98, 1989: 66. (tx) Browne 1980b: 388.
- minusculus* **Schedl** 1936i: 102. Holotype ♂; Costa Rica; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica), South America (Brazil/ Colombia/ Guyana/ Venezuela).
References: (ds) Blackwelder 1947: 790; Equihua & Atkinson 1987: 25; Schedl 1972f: 233, 1976a: 58. (tx) Equihua & Atkinson 1987: 25; Schedl 1936i: 101–102, 1972f: 233, 1978a: 44.
- minutissimus* **Schedl** 1971e: 13. Holotype ♀; Congo Belge, Yangambi; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Macaranga* cf. *spinosa*.
References: (ds) Schedl 1972f: 215. (tx) Schedl 1971e: 13–14, 1972f: 215, 1978b: 44.
- mirandus* **Schedl** 1969b: 227. Holotype ♂; New Guinea: Karamui, Chimbu District; CSIRO, Canberra.
Distribution: New Guinea
References: (ds) Schedl 1972f: 191. (tx) Schedl 1969b: 227, 1972f: 191, 1978a: 44.

- misoolensis** Brown 1954c: 453. Holotype ♂; Tg. Hoakep (Misool Island, West Irian) to Nagoya (Japan), imported; BMNH, London. Distribution: New Guinea. Hosts: *Maniltoa* sp. References: (tx) Browne 1954c: 453.
- mixtus** Schedl 1976a: 90. Holotype ♀; Ter. Anapa, Rio Anicohi [Brazil]; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 90.
- mjobergi** Schedl 1965g: 30. Holotype ♂; O. Borneo, Mt. Tibang, 1300 und 1400 m; NHR, Stockholm. Distribution: Indonesia (Borneo). References: (ds) Schedl 1965g: 24, 1972f: 193. (tx) Schedl 1965g: 24, 30, 1972f: 193, 1978a: 44.
- modestus** Blandford 1894d: 133. Syntypes 4, ♂ ♀; Nikko and Shimidzu Toge [Japan]; BMNH, London. Figures: Nobuchi 1967:pl. 2, 1973b:pl. 2. Distribution: Asia (Japan/Taiwan). Hosts: *Acer palmatum*, *Aesculus turbinata*, *Cercidiphyllum japonicum*, *Fagus crenata*, *Juglans sieboldiana*, *Quercus mongolica* var. *grosseserrata*. References: (cn) Kleine 1932a: 402. (hb) Kleine 1932a: 402; Murayama 1931b: 195. (ds) Blandford 1894c: 579; Kleine 1932a: 402; Murayama 1929a: 671, 1931b: 195, 1934f: 134, 1936a: 139, 1937c: 575, 1954b: 188; Nobuchi 1967: 26, 1973b: 14; Strohmeier 1912c: 15, 1914c: 27. (tx) Blandford 1894d: 133; Murayama 1925b: 235, 1928a: 283, 1936a: 139, 1954b: 188; Niisima 1910a: 15; Nobuchi 1967:pl. 2, 1973b: 14, pl. 2; Schedl 1934f: 1647, 1972f: 159; Strohmeier 1912c: 16, 1914c: 27.
- modigliani** (Schedl) 1936c: 46 (*Crossotarsus*). Lectotype ♂; Sumatra, Si-Rambe; Schedl Collection in NHMW, Wien, designated by Schedl 1975a: 44. Figures: Schedl 1972f: 236. Distribution: Indonesia (Sumatra). References: (ds) Schedl 1971f: 150, 1972f: 237. (tx) Beeson 1937: 91; Schedl 1936c: 46–47, 1942c: 198, 1972f: 236–237, 1978a: 44.
- morigerus** Schedl 1970a: 131. Holotype ♂; New Guinea, Awande, Eastern Highlands District; CSIRO, Canberra. Distribution: New Guinea. References: (ds) Schedl 1972f: 190. (tx) Schedl 1970a: 131–132, 1972f: 190, 1978b: 45.
- morebeensis** Browne 1954f: 65. Holotype ♂; New Guinea, Morobe District, Mount Kaiudi, 2350 m; BMNH, London. Distribution: New Guinea. References: (tx) Browne 1954f: 65.
- morosus** Schedl 1975f: 358. Holotype ♂; Kinn, 11 miles from Mt. Hagen, W.H.D., New Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1975f: 358.
- multisanti** Chapuis 1865: 154. Holotype ♂; Guadeloupe; BMNH, London (Schedl 1960c: 23). Distribution: Antilles Islands (Guadeloupe). References: (cn) Cleare 1924: 65–68. (ds) Blackwelder 1947: 790; Fleutiaux & Salle 1890: 458; Gemminger & Harold 1872: 2699; Schedl 1966f: 78, 1970e: 91, 1972f: 205; Strohmeier 1912c: 10, 1914c: 24. (tx) Chapuis 1865: 154; Schedl 1941c: 156, 1960c: 23, 1972f: 205, 1978a: 45; Strohmeier 1912c: 10, 1914c: 24; Wood, S. L. 1966a: 55.
- multiporus** Schedl 1971c: 392. Holotype ♀; Malaya, Pahang; Schedl Collection in NHMW, Wien. Distribution: Asia (Malaya). References: (ds) Schedl 1972f: 194. (tx) Schedl 1971c: 392–393, 1972f: 194, 1978a: 45.
- muricatus** Roberts 1989: 274. Holotype ♂; Papua New Guinea: Upper Stony Logging Area, Bulolo; NHMW, Wien. Figures: Roberts 1989: 255. Distribution: New Guinea. Hosts: *Syzygium* sp. References: (tx) Roberts 1989: 274.
- mutatus** Chapuis 1865: 136. Holotype ♀; du Bresil; BMNH, London (Schedl 1960c: 19). Distribution: South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Paraguay/ Peru/ Uruguay/ Venezuela). Hosts: *Eucalyptus rostrata*, *Quercus robur*. References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Reichardt 1964b: 86; Schedl 1966f: 93, 1972f: 240, 1972g: 59, 1973d: 163, 1976a: 58; Strohmeier 1910g: 85–88, 1912c: 9, 1914c: 23. (tx) Chapuis 1865: 136; Reichardt 1964b: 86; Schedl 1934e: 211, 1960c: 19, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23.
- sulcatus** Chapuis 1865: 137. Syntypes ♂ ♀; du Bresil; 1 ♂ in MNB, Berlin, 3 ♂ in BMNH, London, and 2 ♂, 1 ♀ in IRSNB, Brussels. Synonymy: Strohmeier 1910g: 85–88, Schedl 1960c: 19. References: (bv) Santoro 1962c, 1963a. (cn) Bosq 1934: 335; Costa Lima 1956; Ebeling 1950, 1959; Hayward 1941: 91, 1942: 27, 1944: 4; Marelli 1929: 245; Santoro 1957a: 7, 13, 1960a: 965, 1962b: 17–23, 1965b, 1966a, 1967: 70–74; Toscani & De Santis 1960. (ce) Guerrero 1966: 97–103; Santoro 1963a, 1963b. (hb) Costa Lima 1956; Ebeling 1950; Santoro 1957a: 7, 1962b, 1963a, 1965a: 49–58. (ds) Blackwelder 1947: 791; Bosq 1927; Costa Lima 1956; Dejean 1837; Ebeling 1950, 1959; Gemminger & Harold 1872: 2700; Numberg 1958a: 481, 1972b: 190; Ruffinelli & Carbonell 1944: 27; Ruffinelli Rey 1967; Santoro 1957b: 25, 1960a, 1962a; Schedl 1933c: 166, 1960a: 77, 1966f: 81, 94, 1970e: 87, 1972g: 51,

- 1976a: 58, 1978c: 292, 1979e: 58; Strohmeyer 1912c: 9, 1914c: 24. **(tx)** Brethes 1909; Chaupuis 1965: 137; Costa Lima 1956; Marzelli 1931: 6; Numberg 1958a: 481; Santoro 1965a; Schedl 1935e: 176–177, 1936c: 228, 230, 1936e: 51, 1937d: 37, 1939b: 379, 399, 1939j: 565, 1939m: 170, 1941e: 154, 1948d: 37, 1950i: 148, 1951h: 285, 287, 1952a: 444, 1952e: 123, 1958f: 36, 1960c: 19, 1972f: 240; Strohmeyer 1910g: 85–88, 1912c: 9, 1914c: 24.
- plicatus* Brethes 1909: 225. Syntypes ♂ ♀; Buenos Aires, Argentina; Brethes Collection. Synonymy: Bosq 1934: 335.
References: **(en)** Marelli 1929: 245, 1931: 6; Santoro 1957a: 8. **(hb)** Santoro 1957a: 8. **(ds)** Bruch 1914a; Strohmeyer 1912c: 9, 1914c: 23. **(tx)** Bosq 1934: 355; Brethes 1909: 225; Schedl 1939m: 170, 1972f: 240; Strohmeyer 1912c: 9, 1914c: 23.
- nagakii** Browne 1983a: 567. Holotype ♂; Tanjong Mani (Sarawak) to Toyohashi (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: "Kapur" log.
References: **(tx)** Browne 1983a: 567.
- navarrodeandradei** Marelli 1931: 10. Syntypes?; Brazil; not located.
Distribution: South America (Brazil).
Hosts: *Casuarina* sp., *Eucalyptus* sp.
References: **(en)** Costa Lima 1956. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947: 790; Costa Lima 1936, 1956; Schedl 1972f: 240. **(tx)** Costa Lima 1956; Marelli 1931: 10; Schedl 1972f: 240.
- nebulosus** Roberts 1970: 73. Holotype ♂; Nigeria; Ngel Nyaki Forest Reserve, Mambilla, 1650 m; MRCB, Tervuren.
Distribution: Africa (Nigeria).
Hosts: *Anigeria altissima*.
References: **(ds)** Browne 1972c: 101. **(tx)** Roberts 1970: 73; Schedl 1978b: 46.
- negatus** Schedl 1973e: 96. Holotype ♂; Gogol, Madang District [New Guinea]; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Buchanania* sp., *Ficus* sp., *Myristica* sp., *Spondias* sp.
References: **(tx)** Schedl 1973e: 96, 1978a: 46.
- neglectus** Schedl 1963d: 231. Holotype ♂; Brasilien: Parana, Rondon; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(ds)** Schedl 1970f: 87, 1972f: 240. **(tx)** Schedl 1963d: 231, 1972f: 240, 1978a: 46.
- memorosus** Roberts 1986: 45. Holotype ♂; New Guinea: Papua, Popondetta; BMNH, London.
Distribution: New Guinea.
Hosts: *Myristica* sp.
References: **(tx)** Roberts 1986: 45.
- neopartibilis** Roberts 1989: 276. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo; NHMW, Wien.
Figures: Roberts 1989: 288.
Distribution: New Guinea.
Hosts: *Calbulimima* sp.
References: **(tx)** Roberts 1989: 276, 288.
- neoplicatus** Schedl 1964c: 300. Holotype ♂; Sumatra, Mt. Teleman; RNH, Leiden.
Figures: Schedl 1964c: 301.
Distribution: Indonesia (Sumatra).
References: **(ds)** Schedl 1972f: 191. **(tx)** Schedl 1964c: 300–301, 1972f: 191.
- neosolidus** Schedl 1971e: 14. Holotype ♂; Congo, Camp Putnam, an der Strasse Stanleyville, Immun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Berlinia* sp.
References: **(ds)** Schedl 1972f: 198. **(tx)** Schedl 1971e: 14–15, 1972f: 198, 1978a: 46.
- neotruncatus** Schedl 1972g: 79. Holotype ♂; Brasil. Xingu, Matto Grosso; MZSP, Sao Paulo.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1972g: 79, 1972f: 212.
- nijimai** Murayama 1931b: 197. Syntypes ♂; Nanto [Taiwan]; Murayama Collection in USNM, Washington.
Figures: Nobuchi 1978a: 80.
Distribution: Asia (Taiwan).
Hosts: *Psidium guajava*.
References: **(hb)** Murayama 1931b: 197. **(ds)** Murayama 1931b: 197, 1934f: 134, 1937c: 578; Nobuchi 1967: 26, 1977: 123; Schedl 1972f: 190. **(tx)** Murayama 1931b: 197; Nobuchi 1978a: 80, 1978b: 75; Schedl 1972f: 190.
- nitens** Browne 1980a: 379. Holotype ♂; Ulamona (New Britain) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Britain Island.
References: **(ds)** Ohno, Yoneyama, & Nakazawa 1987a: 95; Ohno et al. 1989: 66. **(tx)** Browne 1980a: 379.
- nitidicollis** Schedl 1935h: 358. Syntypes ♀; Brazil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 790; Schedl 1972f: 240. **(tx)** Schedl 1935h: 358, 1972f: 240, 1978a: 47.
- nitidipennis** Schedl 1948d: 41. Holotype ♂; Guayana Francesa, Riviere Lumier; Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne).
References: **(ds)** Schedl 1972f: 233. **(tx)** Schedl 1948d: 41, 1972f: 233, 1978a: 47.
- nivalis** Sampson 1923c: 73. Holotype ♂; Burma: Tenasserim, Thagata; MCG, Genova.
Distribution: Asia (Burma/ India/ Malaya).
Hosts: *Xanthophyllum* sp.

- References: (**en**) Mathur & Singh 1961b: 94. (**hb**) Browne 1936a, 1941. (**ds**) Beeson 1941 (1961: 266); Browne 1936a, 1961c: 196; Mathur & Singh 1961b: 94; Schedl 1936d: 7, 1972f: 183. (**tx**) Sampson 1923c: 73; Schedl 1972f: 183.
- nocuus** Schedl 1935k: 487. Syntypes ♂ ♀; Luzon, Mountain Province, Mount Santo Tomas; W. Schultze Collection, and Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
Hosts: *Ficus* sp.
Notes: (1) Schedl 1978: 47 (citation of holotype invalid).
References: (**ds**) Schedl 1966b: 96, 1972f: 186. (**tx**) Nobuchi 1955: 329; Schedl 1935k: 487–488, 1942a: 214, 1972f: 186, 1978a: 47.
- noonadanae** Browne 1966: 237. Holotype ♂; Philippines: Palawan, Pinigisan, Mantalingajan Range, 600 m; UZMC, Copenhagen.
Distribution: Philippine Islands (Palawan).
References: (**ds**) Schedl 1972f: 210. (**tx**) Browne 1966: 237; Nobuchi 1955: 329; Schedl 1972f: 210.
- norfolkensis** Schedl 1972b: 271. Holotype ♂; Norfolk Island, Middlegate, 120 m, and Bumbora; CSIRO, Canberra.
Distribution: Pacific Ocean Islands (Norfolk Island).
Hosts: *Laguaria patersonia*.
References: (**tx**) Schedl 1972b: 271, 1978a: 48.
- nothofagus** Roberts 1979: 91. Holotype ♂; Papua New Guinea: 8 km south-west of Onim Hut, Mount Giluwe, 2540 m; BMNH, London.
Figures: Roberts 1979: 93 (male, head of female).
Distribution: New Guinea.
Hosts: *Nothofagus pullei*.
References: (**tx**) Roberts 1979: 91.
- noaeguineensis** Roberts 1989: 277. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo, 2200 m; NHMW, Wien.
Figures: Roberts 1989: 288.
Distribution: New Guinea.
Hosts: *Lithocarpus* sp.
References: Roberts 1989: 277, 288.
- nudatus** Wood 1972b: 243. Holotype ♂; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Couma macrocarpa*, *Lecythis* sp., *Sacoglottia procera*.
References: (**tx**) Wood, S. L. 1972b: 243.
- nudiusculus** Roberts 1986: 46. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: (**tx**) Roberts 1986: 46.
- nudus** Schedl 1936c: 242. Lectotype ♂; Guyane Francaise: Camopi, St. Laurent du Maroni, St. Jean du Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 48.
Distribution: South America (Cayenne).
References: (**ds**) Blackwelder 1947: 790; Schedl 1972f: 214. (**tx**) Schedl 1936c: 242, 1972f: 214, 1978a: 48.
- obliquecaudatus** Schedl 1936e: 59. Lectotype ♂; New Guinea, Moroka, 1300 m; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya), New Guinea.
References: (**ds**) Browne 1961c: 210; Schedl 1972f: 211. (**tx**) Numberg 1959: 168; Schedl 1936e: 59–60, 1942a: 210, 1960h: 110, 1972f: 211, 1978b: 48.
obliquecaudatus Schedl 1942a: 210. Syntypes ♀; BMNH, London, and Schedl Collection in NHMW, Wien, preoccupied by Schedl 1936.
Notes: (1) Schedl obviously intended to describe the female of this established name, but in so doing inadvertently validated a homonymous synonym.
References: (**tx**) Numberg 1959: 168; Schedl 1936e: 59, 1942a: 210.
- obliquesectus** Schedl 1973f: 77. Holotype ♂; Pengagl, camp east Mt. Wilhelm, Chimbu District, 2770 m; AMNH, New York.
Distribution: New Guinea.
References: (**tx**) Schedl 1973f: 77, 1978a: 48.
- obliquetruncatus** Schedl 1972h: 69. Holotype ♂; Nauwata Banda logging area, Rd 14, Bulolo, M. Dist.; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Anthoccephalus cadaniba*, *Pterygota* sp.
References: (**ds**) Schedl 1972f: 198. (**tx**) Schedl 1972f: 198, 1972h: 69, 1978a: 48.
- obliquus** Wood 1981: 121. Holotype ♂; Neuguinea, Mt. Wilhelm; Schedl Collection in NHMW, Wien, automatic.
Distribution: New Guinea.
References: (**tx**) Wood, S. L. 1981: 121.
obliquesectus Schedl 1975g: 229. Holotype ♂; Neuguinea, Mt. Wilhelm; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1973.
References: (**tx**) Schedl 1975g: 229; Wood, S. L. 1981: 121.
- obliteratus** Blandford 1896e: 99. Holotype ♂; Costa Rica, Irazu; BMNH, London.
Distribution: North America (Costa Rica).
References: (**ds**) Blackwelder 1947: 790; Equihua & Atkinson 1987: 25; Schedl 1972f: 240; Strohmeier 1912c: 9, 1914c: 23. (**tx**) Blandford 1896e: 99; Brethes 1909; Equihua & Atkinson 1987: 25; Schedl 1940c: 204–205, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23.
- obscurus** Schedl 1971c: 393. Holotype ♂; Java, Preanger; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java), Philippine Islands.
References: (**ds**) Nobuchi 1977: 127; Olmo, Yoneyama, & Nakazawa 1982b: 10; Schedl 1972f: 198. (**tx**) Schedl 1971c: 393–394, 1972f: 198, 1978a: 48.

- obsitus** Schedl 1976a: 90. Holotype ♂; Manaus, Amazonas; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 90.
- obtectus** (Schedl) 1935n: 641 (*Crossotarsus*). Syn-types ♂; British North Borneo: Mt. Kinabalu, Kamborangah, 7000 feet; BMNH, London, and Schedl Collection in NHMW, Wien. Distribution: Indonesia (Borneo). Notes: (1) Schedl 1978a: 149 (citation of holotype invalid). References: (ds) Schedl 1972f: 200. (tx) Schedl 1935k: 479, 1935n: 641–642, 1936j: 33, 1937e: 544–546, 1972f: 200, 1978a: 49.
- obtusipennis** Schedl 1939c: 2. Holotype ♂; N.E. Burma, Kambaiti, 7000 ft.; NHR, Stockholm. Distribution: Asia (Burma/ Tamil Nadu in India/ Taiwan). Hosts: *Dipterocarpus indicus*. References: (ds) Schedl 1972f: 167, 201, 1975a: 455. (tx) Schedl 1939c: 2, 1962p: 210, 1972f: 201.
- obtusus** Chapuis 1865: 251. Holotype ♂; du Bresil, Bahia; IRSNB, Brussels (Schedl 1960c: 47). Distribution: North America (Costa Rica), South America (Brazil/ Cayenne). References: (ds) Atkinson & Equihua 1986a: 423; Blackwelder 1947: 790; Equihua 1985: 143; Equihua & Atkinson 1987: 25; Gemminger & Harold 1872: 2699; Numberg 1963c: 107; Schedl 1970f: 582, 1972f: 187, 1972g: 49; Strohmeier 1912c: 16, 1914c: 27. (tx) Chapuis 1865: 251; Equihua & Atkinson 1987: 25; Murayama 1925: 215–216; Reichardt 1962: 339; Schedl 1933a: 402, 1936c: 248, 1939b: 399, 1939p: 289, 1960c: 47, 1972f: 187; Strohmeier 1912c: 16, 1914c: 27.
- occipitalis** Chapuis 1865: 273. Syntypes ♂ ♀; du Guatemala, Costa Rica; MNB, Berlin (Schedl 1960c: 52). Distribution: North America (Costa Rica/ Guatemala/ Panama). References: (ds) Blackwelder 1947: 790; Blandford 1896c; Equihua & Atkinson 1987: 25; Gemminger & Harold 1872: 2699; Schedl 1966f: 93, 1972f: 184; Strohmeier 1912c: 17, 1914c: 28. (tx) Blandford 1896c; Chapuis 1865: 273; Equihua & Atkinson 1987: 25; Lucas 1920: 522; Schedl 1933c: 175, 1937d: 33, 42, 1939b: 399, 1941e: 156, 1960c: 52, 1972f: 184; Strohmeier 1912c: 17, 1914c: 28; Wood, S. L. 1966a: 54. (ms) Lucas 1920: 522.
- interstitialis** Schedl 1963d: 230. Holotype ♂; Costa Rica: San Jose, 1000–1200 m; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1972f: 184. References: (tx) Schedl 1963d: 230, 1972f: 184, 1978a: 35.
- occipitis** Wood 1966a: 54. Holotype ♂; Ikuribisi, British Guiana; BMNH, London. Distribution: South America (Guyana/ Venezuela). Hosts: *Pouteria guianensis*. References: (tx) Schedl 1972f: 195; Wood, S. L. 1966a: 54.
- octodentatus** Browne 1955b: 294. Holotype ♂; Keelung (Formosa) to Nagoya (Japan), imported. Distribution: Asia (Taiwan). References: (tx) Browne 1955b: 294.
- octospinosus** Browne 1985a: 193. Kudat (Sabah) to Nagoya (Japan), imported. Figures: Numberg 1960a: 296. Distribution: Indonesia (Borneo). Hosts: *Shorea* sp. References: (tx) Browne 1985a: 193; Numberg 1960a: 296.
- ohnoi** Browne 1951a: 136. Holotype ♂; Singapore to Nagoya (Japan), imported; BMNH, London. Distribution: Asia (Malaya). References: (tx) Browne 1951a: 136.
- olivieri** Chapuis 1865: 132. Holotype ♂; du Bresil, Para, Ega; BMNH, London (Schedl 1960c: 15). Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Schedl 1972f: 240; Strohmeier 1912c: 9, 1914c: 23. (tx) Chapuis 1865: 132; Schedl 1936c: 230, 1960c: 18, 1972f: 240; Strohmeier 1912c: 9, 1914c: 23.
- omega** Schedl 1970b: 365. Holotype ♂; Malaya, Singapore to Nagoya (Japan), imported; PPST, Tokyo. Figures: Nobuchi 1978a: 80. Distribution: Asia (Malaya). Hosts: *Sepetir*. References: (ds) Nobuchi 1977: 134; Schedl 1972f: 210. (tx) Nobuchi 1978a: 80–81; Schedl 1970b: 365–366, 1972f: 210, 1978a: 49.
- omissus** Schedl 1965e: 267. Holotype ♂; Afafiningetu, E. Highlands Dist. [New Guinea]; CSIRO, Canberra. Distribution: New Guinea. Hosts: *Araucaria cunninghamii*. References: (bv) Gray, B. 1974b. (hb) Gray, B. 1974b. (ds) Schedl 1972f: 191. (tx) Schedl 1965e: 267, 1972f: 191, 1978a: 50.
- omnivorus** (Lea) 1904: 104 (*Crossotarsus*). Syn-types ♂ ♀; Tasmania; SAM, Adelaide. Distribution: Australia, Tasmania, New Guinea. Hosts: *Acacia* spp., *Araucaria cunninghamii*, *Eucalyptus* spp., *Flindersia brayleyana*, *F. pubescens*, *Geisios benthamii*. Notes: (1) Schedl 1972f: 206 (to *Platypus*). References: (cn) Browne 1968b: 571; Froggatt 1921: 645–648, 1926b, 1927; Kleine 1932a: 310, 402; Miller 1950: 318; Veitch 1933: 122–127. (cc) Froggatt 1923. (hb) Browne 1968b: 571; Froggatt 1923, 1926b, 1927; Kleine 1932a: 310, 402; Lengerken 1954: 326. (ds) Browne 1968b: 571; Kleine 1932a: 310, 402; Sampson 1925: 2, 1928a: 3; Schedl 1936g: 514, 1962a: 74, 1972f: 206, 1979a: 160, 1980b: 185; Strohmeier 1912c: 19, 1914c: 29. (tx) Beeson 1937: 101; Carne et al.

- 1950; Lea 1904: 104, 1910: 135; Sampson 1925: 2, 1925a: 3, 1925b: 391; Schedl 1939b: 398, 1941c: 153–154, 1942c: 164, 1972f: 206; Strohmeier 1912c: 19, 1914c: 29.
- oneratus** Schedl 1970b: 366. Holotype ♂; Philippine Isl., Dinajawan to Nagoya (Japan), imported; PPST, Tokyo.
 Figures: Nobuchi 1978a: 80.
 Distribution: Philippine Islands.
 Hosts: Lauan log.
 References: (ds) Nobuchi 1977: 128; Ohno, Yoneyama, & Nakazawa 1987b: 90; Schedl 1972f: 198. (tx) Nobuchi 1978a: 80, 1978b: 80, 1985: 329; Schedl 1970b: 366, 1972f: 198, 1978a: 50.
- opacicauda** Browne 1983a: 565. Holotype ♂; Tg. Usau (West Irian) to Nagoya (Japan), imported; BMNH, London.
 Distribution: New Guinea.
 Hosts: Watergum log.
 References: (tx) Browne 1983a: 565.
- opacicaudulus** Browne 1983a: 566. Holotype ♂; Tg. Usau (West Irian) to Nagoya (Japan), imported; BMNH, London.
 Distribution: New Guinea.
 Hosts: Watergum log.
 References: (tx) Browne 1983a: 566.
- opacideclivis** Schedl 1969b: 227. Holotype ♂; New Guinea: Tari Saymill, S. D. H.; CSIRO, Canberra.
 Distribution: New Guinea.
 Hosts: *Araucaria cunninghamii*, *Macaranga* sp.
 References: (ds) Schedl 1972f: 184. (tx) Schedl 1969b: 227–228, 1972f: 184, 1978a: 50.
- opacifrons** Schedl 1936g: 515. Syntypes ♂ ♀; New Guinea and Bougainville; 1 ♀ in SAM, Adelaide, and 1 ♂, 1 ♀ in Schedl Collection in NHMW, Wien.
 Distribution: Bougainville Island, New Guinea, Solomon Islands.
 Notes: (1) Schedl 1978a: 50 (citation of holotype invalid, male syntype lost).
 References: (ds) Schedl 1936g: 515–516, 1972f: 190. (tx) Schedl 1936g: 515, 1942c: 165, 1972f: 190, 1978a: 50.
- opacipennis** Schedl 1975g: 230. Holotype ♂; New Guinea, War; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1975g: 230, 1978a: 50.
- opacurus** Browne 1980b: 387. Holotype ♂; Jayapura (New Guinea) to Nagoya (Japan), imported; BMNH, London.
 Distribution: New Guinea.
 References: (tx) Browne 1980b: 387.
- opimus** Schedl 1975f: 390. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 Hosts: *Castanopsis acuminatissima*.
 References: (tx) Schedl 1975f: 390.
- orientalis** (Strohmeier) 1912f: 83 (*Steuoplattypus*).
 Syntypes ♂ ♀; Ost-Afrika; Strohmeier Collection.
 Distribution: Africa (Cameroon/ Congo/ Ethiopia/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Sierra Leone/ Tanzania/ Togo/ Uganda/ Zaïre).
 Hosts: Schedl 1962k: 661–667 (many hosts listed).
 Notes: (3) Schedl 1972f (etc.) treated this species as *refertus*, although two other names had priority.
 References: (hb) Jones, Roberts, & Baker 1959: 13; Strohmeier 1911a: 182; Thompson, C. H. 1963: 59; Webb 1957: 36–41. (ds) Mayne & Donis 1960: 98, 1962: 286; Strohmeier 1911a: 182, 1912c: 6, 1914c: 36; Thompson, C. H. 1963: 59. (tx) Schedl 1954e: 58, 1957d: 118–120, 1962h: 63, 1962k: 663, 1972f: 216; Strohmeier 1911a: 182, 1912c: 6, 1912f: 83, 1914c: 36.
- augustatus** Strohmeier 1912f: 83 (*Crossotarsus*).
 Syntypes ♂; Kamerin ud Deutsch Ostafrika am Mkulusami-Berg; MNB, Berlin, Hamburg Museum, lost, and Strohmeier Collection, preoccupied by Chapuis 1865.
 References: (en) Mayne & Donis 1951. (ce) Mayne & Donis 1951. (hb) Gardner 1957: 29; Jones, Roberts, & Baker 1959: 13–54; Webb & Jones 1957: 25–26, 38, 41. (ds) Mayne & Donis 1960: 98, 1962: 280; Strohmeier 1912c: 6. (tx) Schedl 1950d: 4, 11, 14, 1952j: 5, 1953g: 244, 1954e: 48, 1955f: 260, 1957d: 118–122; Strohmeier 1912c: 6, 1912f: 83–85.
- castaneus** Strohmeier 1912f: 84 (*Crossotarsus*).
 Syntypes ♂ ♀; West-USambara (Karasek); Strohmeier Collection. Synonymy: Schedl 1972f: 216.
 References: (ds) Strohmeier 1912c: 6, 1914c: 36. (tx) Schedl 1936e: 47–48, 1957d: 118–121, 1972f: 216; Strohmeier 1912c: 6, 1912f: 84–85, 1914c: 36.
- refertus** Schedl 1941d: 415. Holotype ♀; Togo; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1957d: 122.
 References: (en) Browne 1968b: 571. (ce) Schedl 1962k: 659. (hb) Browne 1968b: 571; Schedl 1962k: 659. (ds) Browne 1968b: 571; Mayne & Donis 1960: 100, 1962: 286; Roberts 1968: 189; Schedl 1962h: 63, 1962k: 659, 1972e: 284, 1972f: 215. (tx) Numberg 1964: 237; Powell, W. 1987: 28; Schedl 1941d: 415, 1954e: 48, 1957d: 118–122, 1962h: 63, 1962k: 659, 1972f: 215, 1972p: 159, 1978a: 62.
- tetricus** Schedl 1941d: 415. Holotype ♀; Congo; Schedl Collection in NHMW, Wien.
 Notes: (1) Schedl 1972f: 216 (treated as a subspecies of *refertus*).
 References: (ds) Roberts 1968: 180, 1969: 119; Schedl 1962k: 670. (tx) Schedl 1941d: 415, 1957d: 119, 121, 1962k: 666, 1972f: 216, 1978a: 62.
- pygmaeus** Schedl 1952i: 25. Holotype ♂; Congo Belge; Yaungambi; MRCB, Tervuren.

- Notes: (1) Schedl 1972f: 216 (treated as a subspecies of *refertus*).
- References: (cn) Thompson, G. H. 1960. (hb) Jones, Roberts, & Baker 1959: 13; Schedl 1962k: 670; Webb & Jones 1957: 37, 41. (ds) Browne 1975b: 396; Mayne & Donis 1960: 100, 1962: 286; Roberts 1968: 189, 1969: 118; Schedl 1962h: 63, 1962k: 670, 1972f: 216; Thompson, G. H. 1960, 1963: 59. (tx) Schedl 1952i: 25–26, 1954e: 58–73, 1957d: 119, 1962h: 63, 1962k: 670, 1972f: 216, 1978a: 60.
- refertus montanus* Schedl 1957d: 119. Syntypes ♂; Congo Belge: Hembé-Bitale; Schedl Collection in NHMW, Wien.
- Notes: This appears to be an aberration with no taxonomic status.
- References: (ds) Roberts 1968: 188; Schedl 1962k: 665, 1972f: 216. (tx) Roberts 1969: 118; Schedl 1957d: 119–120, 1962k: 665, 1972f: 216, 1978a: 62.
- minutus* Roberts 1966: 631. Holotype ♂; Nigeria: Cross River N.F.R.; BMNH, London. Synonymy: Schedl 1972f: 216.
- References: (ds) Roberts 1966: 631, 1968: 188, 1969: 118; Schedl 1972f: 216.
- refertus vogelii* Roberts 1970a: 78. Holotype ♂; Vogel Peak, Nigeria, 1380 m; MRCB, Tervuren. References: (tx) Roberts 1970a: 78.
- leonensis* Roberts 1970b: 479. Holotype ♂; Sierra Leone: Loma Mountains, 1200 m; BMNH, London. Synonymy: Schedl 1972f: 216.
- References: (ds) Browne 1972c: 101. (tx) Roberts 1970b: 479–483; Schedl 1972f: 216, 1972p: 159–160.
- refertus lomaensis* Roberts 1970b: 483. Holotype ♂; Loma Mountains, 1650 m, Sierra Leone; BMNH, London. Synonymy: Schedl 1972f: 216.
- References: (tx) Roberts 1970b: 483; Schedl 1972f: 216.
- ornaticeps* (Schedl) 1935b: 401 (*Stenoplatypus*). Syntypes ♂ ♀; Mount Maquilang, Laguna, Luzon, Philippine Islands; F. C. Hadden Collection, and Schedl Collection in NHMW, Wien.
- Distribution: Philippine Islands.
- Notes: (1) Schedl 1978a: 50 (citation of holotype invalid).
- References: (ds) Schedl 1966b: 96, 1972f: 217. (tx) Nobuchi 1985: 329; Schedl 1935b: 401–402, 1939c: 4, 1941a: 44, 1964g: 252, 1972f: 217, 1978a: 50.
- ornatifrons* Schedl 1942: 198. Syntypes ♂; New Guinea; Schedl Collection in NHMW, Wien.
- Distribution: New Guinea.
- References: (ds) Schedl 1972f: 203. (tx) Schedl 1942a: 210, 1942c: 198, 1968e: 270, 1972f: 203, 1978a: 50.
- ornatus* Schedl 1936c: 241. Lectotype ♂; Guyane Française, St.-Jean du Maroni, St. Laurant de Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 50.
- Distribution: South America (Cayenne).
- References: (ds) Blackwelder 1947: 790; Schedl 1972f: 218. (tx) Schedl 1936c: 241, 1972f: 218, 1978a: 50.
- othiodes* Schedl 1974d: 469. Holotype ♂; Inakanda logging area, Bulolo, Morobe District; CSIRO, Canberra.
- Distribution: New Guinea.
- Notes: (3) Schedl 1975f: 391 (described female).
- References: (tx) Schedl 1974d: 469, 1975f: 391, 1978a: 50.
- otiosus* Schedl 1936i: 100. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien.
- Distribution: North America (Guatemala/ Durango in Mexico).
- Hosts: *Alnus* sp., *Quercus* sp.
- References: (hb) Burgos & Saucedo 1983: 44. (ds) Atkinson & Equihua 1985a: 103, 1988: 104; Atkinson et al. 1986: 12–13; Blackwelder 1947: 790; Burgos & Saucedo 1983: 44; Equihua 1985: 143; Equihua & Atkinson 1987: 25; Ferrer 1942; Schedl 1972f: 205; Wood, S. L. 1966a: 53. (tx) Equihua & Atkinson 1987: 25; Schedl 1936i: 100–101, 1940a: 327, 1972f: 205, 1978a: 51; Wood, S. L. 1966a: 53.
- ovalicollis* Schedl 1936e: 56. Syntypes ♂; Sumatra, Si-Rambe; MCG, Genova, and Schedl Collection in NHMW, Wien.
- Distribution: Indonesia (Sumatra).
- Notes: (1) Schedl 1978a: 51 (citation of holotype invalid).
- References: (ds) Schedl 1972f: 196. (tx) Schedl 1936e: 56–57, 1941c: 355, 1972f: 196, 1978a: 51.
- ovatus* Strohmeier 1914f: 1. Holotype ♂; Birma; Stettin Museum, presumably lost.
- Distribution: Asia (Burma/ Malaya), Indonesia (Sarawak in Borneo).
- Hosts: *Dipterocarpus* sp., *Eugenia* sp., *Mangifera*, *Swintonia floribunda*, *S. specifera*.
- References: (cn) Mathur & Singh 1961a: 81. (hb) Browne 1941, 1961c: 213. (ds) Beaver & Browne 1978: 620; Beeson 1941 (1961: 266); Browne 1961a: 315, 1961c: 213, 1980d: 491; Mathur & Singh 1961a: 81; Schedl 1972f: 191. (tx) Browne 1961a: 315, 1962e: 653; Schedl 1972f: 191; Strohmeier 1914f: 1–4.
- oxyurus* Dufour 1843: 92. Syntypes²: Des Pyrenees; not located.
- Figures: Pfeffer 1989a: pl. 12.
- Distribution: Asia (India/ Iran/ Turkey), Europe (Corsica/ France/ Greece/ Italy/ Spain).
- Hosts: *Abies cephalonica*, *A. numidica*, *A. pectinata*.
- References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (cn) Joly 1953: 3–6; Kailidis &

- Georgevits 1972. (**cc**) Kleine 1908c: 222. (**hb**) Eggers 1906; Eichhoff 1881a: 55, 306; Espanol 1964b; Husson 1955: 249; Knotek 1899b: 18, 1901: 576; Pfeffer 1989a: 92; Postner 1974: 486. (**ds**) Acloque 1896; Aube 1950; Barthe 1896; Chapuis 1865; Eggers 1906; Espanol 1985: 115; Gemminger & Harold 1872: 2699; Cogola 1985; Cozis 1815: 80; Herve 1956a; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Kailidis & Georgevits 1972; Knotek 1899b: 18, 1901: 576; Lacordaire 1866: 391; Lapeyronie 1948: 274; Ortzen 1886: 280; Perris 1876a: 157; Pfeffer 1989a: 92; Postner 1974: 486; Reitter 1894a: 94; Sainte-Claire 1905: 157, 1909: 146, 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaum 1859: 96, 1862: 101; Schedl 1967c: 73; Siebold 1849: 310; Stein & Weise 1877: 165; Strauch 1861: 122; Strohmeier 1912c: 17, 1914c: 27; Tredl 1907: 20. (**tx**) Acloque 1896; Balachowsky 1949a: 279; Ceballos 1945; Chapuis 1865: 263; Dufour 1843: 263; Eggers 1908c, 1914; Eichhoff 1864b: 43, 1881a: 55, 306, 1883a: 117, 145; Espanol 1964b; Fairmaire 1864: fig. 167; Jacquelin du Val & Fairmaire 1868: 107; Lacordaire 1866: 391; Lucas 1920: 522; Pfeffer 1989a: pl. 12; Portevin 1935: 339; Postner 1974: 486; Reitter 1894a: 94, 1913a: 113; Schedl 1934f: 1647, 1935n: 633, 1960c: 50, 1972f: 198; Strohmeier 1912c: 17, 1914c: 27.
- pahangensis** Schedl 1936j: 34. Lectotype ♂; Malay Peninsula, Pahang; Cameron Highlands, 4800 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 51.
Distribution: Asia (Malaya).
References: (**hb**) Browne 1941, 1961c: 198. (**ds**) Browne 1978b: 51; Nobuchi 1977: 119; Schedl 1936j: 34, 1972f: 193. (**tx**) Schedl 1936j: 34–35, 1972f: 193, 1978a: 51.
- pallidipennis** Blandford 1896e: 111. Holotype ♀; Panama, Bugaba; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 22.
Distribution: North America (Panama).
References: (**ds**) Blackwelder 1947: 790; Equihua & Atkinson 1987: 25; Schedl 1972f: 219; Strohmeier 1912c: 14, 1914c: 26. (**tx**) Blandford 1896e: 111; Equihua & Atkinson 1987: 25; Schedl 1972f: 218; Strohmeier 1912c: 14, 1914c: 26.
- pallidus** Chapuis 1865: 284. Syntypes ♀; de la Nouvelle Guinee, Dorey; 2 ♀ in BMNH, London, 1 ♀ in IRSNB, Brussels.
Distribution: Australia, New Guinea, Solomon Islands.
Hosts: *Pterocymbium beccarii*.
Notes: (3) Schedl 1937d: 41 (described male), 1979g: 115 (named an aberration as var. *unimodus*, no status).
References: (**bv**) Gray, B. 1974b. (**cn**) Wylie & Shanahan 1975. (**cc**) Roberts 1980. (**hb**) Gray, B. 1974b; Wylie & Shanahan 1975. (**ds**) Browne 1980c: 483, 1980d: 492; Froggatt 1936; Gemminger & Harold 1872: 2699; Nobuchi 1977: 136; Ohno, Yoneyama, & Nakazawa 1982a: 5, 1982b: 10, 1987a: 95; Ohno et al. 1989: 66; Schedl 1936g: 515, 1962i: 73, 1966b: 96, 1972f: 210, 1979a: 160; Strohmeier 1912c: 18, 1914c: 28. (**tx**) Chapuis 1865: 284; Nobuchi 1985: 329; Schedl 1936e: 56, 1936j: 33–34, 1937d: 41, 1940b: 434, 1941b: 424, 1941e: 155, 1960c: 55, 1972f: 210, 1979g: 115; Strohmeier 1912c: 18, 1914c: 28; Wylie & Yule 1977.
- pallidus sabroni** Schedl 1940b: 433. Holotype ♂; Papua: Kokoda, 1200 ft; Schedl Collection in NHMW, Wien.
References: (**ds**) Schedl 1972f: 210. (**tx**) Schedl 1940b: 433, 1941b: 423, 1946c: 96, 1972f: 210, 1978a: 51.
- panduriformis** Roberts 1989: 278. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, 2200 m; NHMW, Wien.
Figures: Roberts 1989: 286.
Distribution: New Guinea.
Hosts: *Nothofagus* sp.
References: (**tx**) Roberts 1989: 278, 286.
- papuanus** Roberts 1979: 92. Holotype ♂; Papua New Guinea: 12 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Dysoxylum* sp.
References: (**tx**) Roberts 1979: 92.
- papulosus** Roberts 1989: 279. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo, 2200 m; NHMW, Wien.
Figures: Roberts 1989: 286.
Distribution: New Guinea.
Hosts: *Myristica* sp.
References: (**tx**) Roberts 1989: 279, 286.
- paradoxus** Schedl 1979g: 115. Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1979g: 115.
- paralleiventrus** Roberts 1989: 280. Holotype ♂; Papua New Guinea: Divide Logging Area, Bulolo, 1200 m; NHMW, Wien.
Distribution: New Guinea.
Hosts: *Terninalia complanata*.
References: (**tx**) Roberts 1989: 280.
- parallelus** (Fabricius) 1801: 284 (*Bostrichus*). Holotype ♀; America meridionali, type labeled Essequeibo [Suriname].
Figures: Atkinson 1989c, Bright 1972d: 19, Equihua & Atkinson 1987: 17, Lara & Schenefelt 1965: 172.
Distribution: Africa (introduced in: Angola/ Cameroon/ Chad/ Congo/ Equatorial Guinea/ Fernando Po Island/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ Principe Island/ Sao Tome

Island/ Senegal/ Sierra Leone/ South Africa/ Tanzania/ Togo/ Uganda/ Zaïre), Antilles Islands (Cuba/ Dominican Republic in Hispanola/ Jamaica/ Puerto Rico), Australia (Queensland, introduced), Madagascar (introduced), North America (Belize/ Costa Rica/ El Salvador/ Guatemala/ Honduras/ all states in Mexico/ Nicaragua/ Panama/ S California, S Florida, S Texas in USA), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Chile/ Colombia/ Ecuador/ Galapagos Islands/ Guyana/ Paraguay/ Peru/ Suriname/ Uruguay/ Venezuela).

Hosts: Schedl 1962k: 624–628, 1979a: 157–164 (many listed).

Notes: (1) Prior to Wood 1973a: 51–52 this name was incorrectly applied to *bellus*. (3) Dejean 1837: 333 (*pracustus*, nomen nudum, *testaceus*, nomen nudum, synonymy in Schedl 1972f: 232). (3) This is the most destructive and the most widely distributed species of Platypodidae in the world (SLW).

References: (cn) Beaver 1988a: 70; Idrobe 1958: 75. (cc) Equihua & Atkinson 1986: 624. (hb) Atkinson 1989c; Beaver 1988a: 70; Burgos & Saucedo 1983: 44; Deyrup & Atkinson 1987a: 64; Equihua & Atkinson 1986: 624. (ds) Allen, A. A. 1976, 1985; Alvarenga 1962: 24; Atkinson 1989c; Atkinson & Equihua 1986a: 423, 1988: 104; Atkinson et al. 1986: 47; Beaver 1988a: 70; Blackwelder 1947: 790; Browne 1975a: 757, 1980d: 491; Burgos & Saucedo 1983: 44; Chapuis 1865: 29, 37, 164; Deyrup & Atkinson 1978a: 64; Drooz 1985: 377; Equihua 1985: 143; Equihua & Atkinson 1986: 624, 1987: 25; Estrada & Atkinson 1988: 212; Gemminger & Harold 1872: 2699; Lacordaire 1866: 391; Leng 1920: 337; Melsheimer 1853: 87; Ohno, Yoneyama, & Nakazawa 1982b: 10; Santoro 1957: 25; Schedl 1933: 193, 1960a: 77, 1965g: 21, 1966f: 81, 1970e: 87, 1972f: 233, 1972g: 50, 1977e: 44, 1978c: 292, 1979a: 160, 1979b: 416, 1979e: 58; Steinhausen 1956: 49; Strohmeier 1912c: 11, 1914c: 25; Swaine 1909: 84; Wood, S. L. 1979a: 2. (tx) Atkinson 1989c; Carne et al. 1980; Chapuis 1865: 29, 37, 164; Equihua & Atkinson 1987: 17, 24; Erichson 1836: 65; Fabricius 1801: 354; Lacordaire 1866: 391; LeConte 1876: 344; Schedl 1933c: 171, 1933e: 193, 1934e: 212, 1936e: 51, 1937d: 39, 1939j: 565, 1939m: 170, 1941e: 155, 1948d: 35, 1952a: 446, 1952h: 73, 1958f: 35, 1960c: 26, 1962k: 624–628, 1972f: 233; Steinhausen 1956: 49; Strohmeier 1912c: 11, 1914c: 25; Swaine 1909: 84; Waterhouse 1890: 554; Wood, S. L. 1973a: 51–52, 1979a: 2; Wylie & Yule 1977.

linearis Stephens 1830: 419. Holotype ♂; Sydenham [England]; BMNH, London. Synonymy: Wood 1979a: 2.

References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (cn) Halperin & Menier 1981. (cc) Schedl 1962k: 620. (hb) Cachan

1957: 15; Kalshoven 1963; Lara & Shenefelt 1965: 175; Schedl 1962k: 620. (ds) Anonymus 1965k; Blackwelder 1947: 789; Bright 1972d: 20; Browne 1965a: 205, 1972c: 101; Chapuis 1865: 338; Cola 1971, 1973; Collart 1934: 249; Dejean 1837: 333; Ferreira 1965: 1130; Gemminger & Harold 1872: 2699; Ghesquiere 1966: 41; Halperin & Menier 1981; Kalshoven 1963: 237; Mayne & Donis 1951: 336; Menier 1973a; Mumford 1960: 37, 1961: 31, 43, 1962: 35, 48, 1963: 41, 50, 1964: 30, 1966: 38, 53; Numberg 1971: 59, 1972b: 190; Roberts 1961: 39–43, 1968: 188, 1969: 117–118; Schedl 1941d: 351, 1941e: 155, 1950c: 206, 1950d: 3, 10, 14, 1952j: 5, 1953g: 243, 1954e: 48, 57, 71, 1955d: 270, 1957b: 152, 1957c: 326, 1961e: 157, 1962h: 53, 1962k: 620, 1962m: 64, 1962n: 698, 1963c: 160, 1963f: 64, 1964f: 619, 1964j: 42, 1965e: 357, 1965g: 21, 1966a: 276, 1966c: 230, 1966f: 77, 79, 1966g: 37, 1967e: 220, 1970e: 86, 1970f: 582, 1971e: 2, 1971f: 150, 1971g: 196, 1972e: 284, 1972f: 232, 1972g: 35, 1973a: 368, 1973d: 163, 1974e: 52, 1975h: 351, 1976a: 58, 1976d: 5; Schoneherr & Pedrosa-Macedo 1981: 57; Stephens 1830: 419; Strohmeier 1912e: 19, 1914c: 29; Wolcott 1948: 385; Wood, S. L. 1957e: 1272. (tx) Bright 1972d: 19, 20; Chapuis 1865: 338; Lara & Shenefelt 1965: 175; Sampson 1924: 129; Schedl 1933e: 193, 1936e: 51, 1937b: 407, 1937d: 39, 1941e: 155, 1960c: 64, 1962k: 620, 1972f: 232; Stephens 1830: 419; Strohmeier 1912c: 11, 19, 1914c: 24, 29; Vrydagh 1947: 8; Wood, S. L. 1979a: 2.

poeyi Guerin-Meneville 1838: 183. Syntypes ♂ ♀; de Cuba, de Haiti; 4 ♂, 2 ♀ in BMNH, London, 1 ♂, 1 ♀ IRSNB, Brussels. Synonymy: Schedl 1960c: 64, Wood 1979a: 2.

Notes: (3) Chapuis 1865: 208 (redescribed).

References: (cn) Tsankov et al. 1974: 25. (ds) Blackwelder 1947: 790; Chapuis 1865; Fleutiaux & Salle 1890: 458; Gemminger & Harold 1872: 2699; Lacordaire 1866: 391; Schedl 1933c: 171, 1966f: 80, 1970e: 89; Strohmeier 1912c: 12, 1914c: 25; Wolcott 1936: 316, 1948: 354. (tx) Chapuis 1865: 208; Chevrolat 1838; Guerin-Meneville 1838: 183; Lacordaire 1866: 391; Sagra 1856: 98; Schedl 1933c: 171, 1960c: 37, 1972f: 232; Strohmeier 1912c: 12, 1914c: 25; Wood, S. L. 1979a: 2.

subcostatus Jacquelin-Duval 1857: 238. Synonyms? Cuba; not located. Synonymy: Wood 1979a: 2.

Notes: (3) Chapuis 1865: 210 (redescribed).

References: (ds) Blackwelder 1947: 790; Chapuis 1865: 210; Fleutiaux & Salle 1890: 458; Gemminger & Harold 1872: 2700; Lacordaire 1866: 391; Schedl 1933c: 172; Strohmeier 1912c: 13, 1914c: 25; Wolcott 1936: 317, 1948: 385. (tx) Chapuis 1865: 210; Jacquelin-Duval

- 1857: 238; Lacordaire 1866: 391; Sagra 1856: 99; Schedl 1933c: 172, 1937d: 39, 1941e: 155, 1952a: 444, 1960c: 38, 1972f: 233; Strohmeier 1912c: 13, 1914c: 25; Wood, S. L. 1979a: 2.
- dejeani* Chapuis 1865: 186. Syntypes ♂ ♀; du Bresil, de la Guyanne; 1 ♀ in MNHN, Paris, 1 ♂, 3 ♀ in BMNH, London, and 2 ♂, 3 ♀ in IRSNB, Brussels (Schedl 1960c: 31). Synonymy: Schedl 1972f: 232. References: (cn) Costa Lima 1956; Mayne & Donis 1951: 336, (cc) Mayne & Donis 1951: 336. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 789; Blandford 1896e: 107; Costa Lima 1956; Ferrer 1942; Gemminger & Harold 1872: 2698; Hayward 1943: 27; Numberg 1958a: 482, 1963c: 106; Ruffinelli & Carbonelli 1944: 27; Sampson 1928a: 3; Schedl 1933c: 171, 1933f: 192, 1960a: 75-77; Strohmeier 1911f: 204, 1912c: 11, 1914c: 24. (tx) Blandford 1896e: 790; Chapuis 1865: 186; Costa Lima 1956; Numberg 1958a: 482; Ruffinelli Rey 1967; Sampson 1924c: 129, 1928a: 3; Schedl 1933f: 192-193, 1936e: 51, 1937d: 39, 1939m: 170, 1940a: 324, 1948d: 38, 1950i: 148, 1951m: 72, 74, 1952a: 444, 1952h: 73, 1960c: 31, 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 1.
- marseuli* Chapuis 1865: 188. Syntypes ♂ ♀; Bresil, Ste. Catherine; 1 ♀ in BMNH, London, 1 ♂ in IRSNB, Brussels (Schedl 1960c: 32). Synonymy: Wood 1979a: 2. References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Strohmeier 1912c: 11, 1914c: 25. (tx) Chapuis 1865: 188; Numberg 1939: 240-241, 1940: 68; Schedl 1941e: 156, 1960c: 32, 1972f: 232; Strohmeier 1912c: 11, 1914c: 25; Wood, S. L. 1979a: 1.
- proximus* Chapuis 1865: 188. Syntypes ♂; du Bresil; 2 ♂ in IRSNB, Brussels (Schedl 1960c: 32). Synonymy: Wood 1979a: 2. References: (ds) Blackwelder 1947; Gemminger & Harold 1872: 2700; Strohmeier 1912c: 12, 1914c: 25. (tx) Chapuis 1865: 188; Schedl 1941e: 156, 1960c: 32, 1972f: 232; Strohmeier 1912c: 12, 1914c: 25; Wood, S. L. 1979a: 2.
- compressus* Chapuis 1865: 191. Syntypes ♂ ♀; Caracas; 2 ♂, 3 ♀ in BMNH, London (Schedl 1960c: 32). Synonymy: Wood 1979a: 2. References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Strohmeier 1912c: 11, 1914c: 24. (tx) Chapuis 1865: 191; Schedl 1936c: 238, 1937d: 39, 1941e: 156, 1952h: 73, 1960c: 32, 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 1-2.
- regularis* Chapuis 1865: 192. Holotype ♂; du Bresil; IRSNB, Brussels (Schedl 1960c: 33). Synonymy: Wood 1979a: 2. References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Strohmeier 1912c: 12, 1914c: 25. (tx) Schedl 1936e: 51, 1937d: 39, 1939j: 565, 1940a: 324, 1940c: 203, 1941e: 156, 1948d: 38, 1951h: 287, 1952a: 446, 1952e: 123, 1955b: 274, 1957a: 195, 1958c: 2, 1958f: 35-36, 1972f: 233; Strohmeier 1912c: 12, 1914c: 25; Swaine 1909: 86; Wood, S. L. 1973a: 51, 1979a: 2.
- reticulatus* Chapuis 1865: 194. Syntypes ♂ ♀; du Mexique; Mexico, Teapa; 1 ♂, 1 ♀ in BMNH, London, 1 ♂, 2 ♀ in IRSNB, Brussels (Schedl 1960c: 33). Synonymy: Wood 1979a: 2. References: (ds) Gemminger & Harold 1872: 2700; Leng 1920: 337; Swaine 1909: 86. (tx) Blandford 1896e: 107; Chapuis 1865: 194; Schedl 1960c: 33, 1972f: 233; Swaine 1909: 86; Wood, S. L. 1979a: 2.
- rotundatus* Chapuis 1865: 195. Syntypes ♂ ♀; du Mexique, Izabal; 3 ♂, 2 ♀ in BMNH, London, 2 ♀ in IRSNB, Brussels (Schedl 1960c: 34). Synonymy: Wood 1979a: 2. References: (ds) Blackwelder 1947: 790; Blandford 1896e: 108; Gemminger & Harold 1872: 2700; Strohmeier 1912c: 12, 1914c: 25. (tx) Blandford 1896e: 108; Chapuis 1865: 195; Schedl 1960c: 34, 1972f: 233; Strohmeier 1912c: 12, 1914c: 25; Wood, S. L. 1979a: 2.
- kraatzi* Chapuis 1865: 196. Syntypes ♂; de la Colombie et du Bresil; 2 ♂ in IRSNB, Brussels (Schedl 1960c: 34). Synonymy: Wood 1979a: 2. References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Strohmeier 1912c: 11, 1914c: 24. (tx) Chapuis 1865: 196; Schedl 1960c: 34, 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 2.
- lebasi* Chapuis 1865: 197. Holotype ♀; de Carthagene [Colombia]; IRSNB, Brussels (Schedl 1960c: 34). Synonymy: Wood 1979a: 2. References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2699; Strohmeier 1912c: 11, 1914c: 24. (tx) Chapuis 1865: 197; Schedl 1960c: 34, 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 2.
- emarginatus* Chapuis 1865: 199. Holotype ♂;

- de Toxpan; BMNH, London (Schedl 1960c: 35). Synonymy: Wood 1979a: 2.
References: **(ds)** Blackwelder 1947: 789; Gemminger & Harold 1872: 2698; Leng 1920: 337; Strohmeier 1912c: 11, 1914c: 24. **(tx)** Blandford 1896e: 107; Chapuis 1865: 199; Schedl 1960c: 35 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Swaine 1909: 86; Wood, S. L. 1979a: 1–2.
- punctulatus* Chapuis 1865: 199. Syntypes ♂; du Texas; 1 ♂ in BMNH, London, 4 ♂ in IRSNB, Brussels (Schedl 1960c: 35). Synonymy: Wood 1979a: 2.
References: **(cn)** Felt 1913: 275. **(ds)** Anonymous 1926c: 514; Blackwelder 1947: 790; Ferrer 1942; Gemminger & Harold 1872: 2700; Henshaw 1885: 147; Leng 1920: 337; Leonard 1928: 514; Strohmeier 1912c: 12, 1914c: 25; Swaine 1909: 85; Tucker 1952: 347; Wolcott 1948: 385. **(tx)** Chapuis 1865: 199; LeConte 1865: 151, 1876: 345; Schedl 1937d: 39, 1939j: 565, 1940a: 324–325, 1940c: 203, 1941e: 156, 1952e: 123, 1952h: 73, 1955d: 273, 1960c: 35, 1972f: 232; Strohmeier 1912c: 12, 1914c: 25; Swaine 1909: 85; Wood, S. L. 1979a: 2.
- subaequalis* Chapuis 1865: 200. Holotype ♂; de la Colombia; IRSNB, Brussels (Schedl 1960c: 35). Synonymy: Wood 1979a: 2.
References: **(ds)** Blackwelder 1947; Gemminger & Harold 1872: 2700; Strohmeier 1912c: 13, 1914c: 25. **(tx)** Chapuis 1865: 200; Schedl 1941e: 156, 1960c: 35, 1972f: 233; Strohmeier 1912c: 13, 1914c: 25; Wood, S. L. 1979a: 2.
- wesmaeli* Chapuis 1865: 201. Syntypes ♂ ♀; de Buenos-Ayres; 1 ♂, 1 ♀ in IRSNB, Brussel (Schedl 1960c: 35). Synonymy: Wood 1979a: 2.
References: **(cn)** Costa Lima 1956; Silva, Gayao, & Castro 1959: 12. **(hb)** Bosq 1934: 335; Costa Lima 1956. **(ds)** Blackwelder 1947: 791; Bruch 1914a; Costa Lima 1956; Gemminger & Harold 1872: 2700; Sampson 1928a: 3; Schedl 1933e: 172; Strohmeier 1911f: 204, 1912e: 13, 1914c: 25. **(tx)** Brethes 1909, 1919; Chapuis 1865: 201; Costa Lima 1956; Nummer 1939: 241, 1940: 69; Sampson 1928a: 3; Schedl 1937d: 39, 1938i: 28, 1941e: 156, 1948d: 37, 1951h: 285–286, 1952a: 445, 1952h: 73, 1958f: 36, 1960c: 35, 1972f: 233; Strohmeier 1912c: 13, 1914c: 25; Wood, S. L. 1979a: 2.
- oblongus* Chapuis 1865: 203. Holotype ♀; de Cumana [Venezuela]; IRSNB, Brussels (Schedl 1960c: 35). Synonymy: Wood 1979a: 2.
References: **(ds)** Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Strohmeier 1912c: 11, 1914c: 25. **(tx)** Chapuis 1865: 203; Schedl 1960c: 35, 1972f: 232; Strohmeier 1912c: 11, 1914c: 25; Wood, S. L. 1979a: 2.
- difficilis* Chapuis 1865: 204. Bresil, a la Guyane; 2 ♂, 1 ♀ in MNB, Berlin, 2 ♂, 1 ♀ in BMNH, London, 4 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 36). Synonymy: Wood 1979a: 2.
References: **(ds)** Blackwelder 1947: 789; Ferrer 1942; Gemminger & Harold 1872: 2698; Sampson 1928a: 3; Schedl 1933c: 171; Strohmeier 1912c: 11, 1914c: 24; Vital 1951: 177–179. **(tx)** Chapuis 1865: 204; Sampson 1928a: 3; Schedl 1936c: 238, 1937d: 39, 1940a: 325–326, 1952d: 343, 1952h: 73, 1960c: 36, 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 2.
- praevis* Chapuis 1865: 205. Syntypes ♂ ♀; de la Colombie; 1 ♀ in BMNH, London, 1 ♂, 2 ♀ in IRSNB, Brussels (Schedl 1960c: 36). Synonymy: Wood 1979a: 2.
References: **(ds)** Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Strohmeier 1911f: 204, 1912c: 12, 1914c: 25. **(tx)** Chapuis 1865: 205; Schedl 1960c: 36, 1972f: 232; Strohmeier 1912c: 12, 1914c: 25; Wood, S. L. 1979a: 2.
- macklini* Chapuis 1865: 207. Syntypes ♂ ♀; de la Colombie et du Bresil; 1 ♀ MNHN, Paris, 4 ♂, 2 ♀ in BMNH, London, 3 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 36–37). Synonymy: Wood 1979a: 2.
References: **(ds)** Blackwelder 1947: 789; Gemminger & Harold 1872: 2699; Schedl 1933c: 171; Strohmeier 1912c: 11, 1914c: 25. **(tx)** Chapuis 1865: 207; Schedl 1960c: 36–37, 1972f: 232; Strohmeier 1912c: 11, 1914c: 25; Wood, S. L. 1979a: 1.
- erichsoni* Chapuis 1865: 211. Syntypes ♂ ♀; de l'île St. Thomas; 1 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 38). Synonymy: Wood 1979a: 2.
References: **(cn)** Lapevronie 1948: 275; Mayne & Donis 1951: 326, 336; Vrydagh 1947a: 8. **(cc)** Mayne & Donis 1951: 326, 336. **(ds)** Blackwelder 1947: 789; Collard 1934; Gemminger & Harold 1872: 2698; Hoffmann 1957; Mayne & Donis 1962: 281; Schedl 1933f: 192; Strohmeier 1912c: 11, 1914c: 24; Thompson, G. H. 1963: 58; Vrydagh 1947a: 8; Wood, S. L. 1957c: 1272. **(tx)** Chapuis 1865: 211; Sampson 1924c: 127; Schedl 1933f: 192–193, 1936e: 51, 1937b: 407, 1937d: 39, 1941d: 351, 1941e: 155, 1950c: 206, 1950d: 3, 10, 14, 1952j: 5, 1953g: 243, 1954e: 48, 57, 1955d: 270, 1957b: 152, 1960c: 12, 35, 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 2.
- laevicollis* Chapuis 1865: 212. Syntypes ♂ ♀; de la Guadeloupe; 1 ♂, 1 ♀ in BMNH, London, 1 ♂ in IRSNB, Brussels (Schedl 1960c: 38). Synonymy: Schedl 1972f: 232, Wood 1979a: 2.
References: **(ds)** Blackwelder 1947: 789; Fleutiaux & Salle 1890: 458; Gemminger & Harold 1872: 2699; Strohmeier 1912c: 11, 1914c: 24. **(tx)** Chapuis 1865: 212; Schedl 1941e: 156, 1960c: 39, 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 2.

- congoanus* Duvivier 1891: 363. Syntypes ♂ ♀; Ibeombo, Congo; not located. Synonymy: Wood 1979a: 2.
References: (ds) Schedl 1933f: 192; Strohmeier 1912c: 11, 1914c: 24. (tx) Duvivier 1891: 363; Sampson 1924: 129; Schedl 1933f: 192–193, 1960c: 39, 1972f: 232; Strohmeier 1912c: 11, 1914c: 24; Wood, S. L. 1979a: 2.
- triquetrus* Brethes 1909: 226. Syntypes ♂ ♀; Chaco [Argentina]; Brethes Collection. Synonymy: Wood 1979a: 2.
References: (en) Bosq 1934: 335; Hayward 1942: 27. (ds) Bruch 1914a; Strohmeier 1912c: 13, 1914c: 25. (tx) Brethes 1909: 226; Schedl 1939m: 170, 1972f: 233; Strohmeier 1912c: 13, 1914c: 25; Wood, S. L. 1979a: 2.
- mattai* Brethes 1921: 26. Holotype ♂; Manaus [Brazil]; Brethes Collection. Synonymy: Wood 1979a: 2.
References: (en) Costa Lima 1956. (hb) Costa Lima 1956; Matta 1922: 158, 1929: 495–498. (ds) Blackwelder 1947: 790; Costa Lima 1936, 1956. (tx) Brethes 1921: 26; Costa Lima 1956; Schedl 1972f: 232; Wood, S. L. 1979a: 2.
- paramonovi* Schedl 1972g: 80. Holotype ♂; Guiana; Schedl Collection in NHMW, Wien. Distribution: South America (Suriname?).
References: (tx) Schedl 1972g: 80, 1978a: 51.
- parapetax* Roberts & Morimoto 1986: 174. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London. Distribution: New Guinea.
Hosts: *Dysoxylum* sp.
References: (tx) Roberts & Morimoto 1986: 174.
- partibilis* Roberts & Morimoto 1986: 174. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London. Distribution: New Guinea.
Hosts: *Syzgium* sp.
References: (tx) Roberts & Morimoto 1986: 174.
- particeps* Schedl 1976a: 91. Holotype ♂; Villhena, Rondonia, Lon. 55 36, Lat. 12 46; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 91.
- partitus* Schedl 1935n: 639. Syntypes ♂; Malay States: Selangor, Ayer Itam; BMNH, London, and Schedl Collection in NHMW, Wien. Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Endospermum malaccense*, Pernarahan, and Sendoksendok logs.
Notes: (1) Schedl 1978a: 51 (type restricted to BMNH, London specimens).
References: (hb) Browne 1941. (ds) Browne 1961c: 198, 1984c: 448; Nobuchi 1977: 118; Schedl 1972f: 193. (tx) Schedl 1935n: 639, 1936c: 52, 1972f: 193, 1978a: 51.
- parvus* Browne 1986b: 340. Holotype ♂; Solomon Islands: Vini Harbor to Nagoya (Japan), imported; BMNH, London. Distribution: Solomon Islands.
Hosts: *Terminalia* sp.
References: (tx) Browne 1986b: 340.
- pasanaie* Schedl 1958b: 105. Lectotype ♂; Malaya, Selangor; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 51. Distribution: Asia (Malaya).
Hosts: *Pasania sundaica*.
References: (ds) Browne 1961c: 216; Schedl 1972f: 217. (tx) Schedl 1958b: 105, 1972f: 217, 1978b: 217.
- patens* Roberts 1986: 46. Holotype ♂; New Guinea: Papua, Popondetta; BMNH, London. Distribution: New Guinea.
Hosts: *Myristica* sp.
References: (tx) Roberts 1986: 46.
- patulus* Chapuis 1865: 190. Holotype ♂; du Bresil; MNHN, Paris (Schedl 1960c: 32). Distribution: South America (Brazil).
References: (ds) Gemminger & Harold 1872: 2699; Schedl 1972f: 233. (tx) Chapuis 1865: 190; Schedl 1960c: 32, 1972f: 233.
- pectinatus* Roberts 1986: 47. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London. Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: (tx) Roberts 1986: 47.
- pedellus* Schedl 1975g: 230. Holotype ♂; New Guinea, Wau, 1200 m; Schedl Collection in NHMW, Wien. Distribution: New Guinea.
References: (tx) Schedl 1975g: 230, 1978a: 52.
- pedum* Sampson 1928a: 2. Holotype ♂; Sumatra, Sibajak vulkan 1600 m; BMNH, London. Distribution: Indonesia (Sumatra).
References: (ds) Sampson 1928a: 2; Schedl 1972f: 194. (tx) Sampson 1928a: 2; Schedl 1935g: 320, 1972f: 194, 1978a: 52.
- pennatus* Schedl 1962k: 643. Lectotype ♂; Kenya: S. Kinangop; Schedl Collection in NHMW, Wien. Distribution: Africa (Kenya/ Nigeria/ Zaire).
Hosts: *Cassipourea* sp., *Erythrina* sp.
References: (ds) Roberts 1968: 188, 1969: 118; Schedl 1972f: 215. (tx) Schedl 1957d: 120, 1962k: 643, 1972f: 215, 1978a: 52.
- perbinodulus* Schedl 1934e: 211. Holotype ♂; Rio de Janeiro, Brazil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 790; Schedl 1972f: 241. (tx) Schedl 1934e: 211, 1937d: 37, 1972f: 241, 1978a: 52.
- perbrevis* Browne 1986b: 336. Holotype ♂; Borneo: Tanjong Mani (Sarawak) to Nagoya (Japan), imported; BMNH, London.

- Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Rengas* sp. (Anacardiaceae) log.
References: (tx) Browne 1986b: 336.
- percomis** Schedl 1936c: 239. Syntypes ♂; Venezuela, Moritz [presumably Colonia Tovar]; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 790; Schedl 1972f: 218. (tx) Schedl 1936c: 239, 1972f: 218, 1978a: 53.
- perdiligens** Schedl 1936c: 240. Lectotype ♂; Guyane Française, Nouveau Chantier and St.-Laurent du Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 53.
Distribution: South America (Brazil/ Cayenne).
References: (ds) Blackwelder 1947: 790; Schedl 1966f: 93, 1970e: 87, 1972f: 218, 1972g: 50. (tx) Schedl 1936c: 240, 1972f: 218, 1978a: 53.
- perditus** Schedl 1975f: 391. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 391.
- perforans** Schedl 1961i: 232. Holotype ♀; Bolivia, Corvico, Huarimillas; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: (ds) Schedl 1960a: 77, 1972f: 219. (tx) Schedl 1961i: 232, 1972f: 219, 1978a: 53.
- permarginatus** Schedl 1936c: 230. Lectotype ♂; Guyane Française: Nouveau Chantier, St. Jean du Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 53.
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 790; Schedl 1972f: 241. (tx) Schedl 1936c: 225, 230–235, 1972f: 241, 1978a: 53.
- permimicus** Schedl 1936c: 237. Lectotype ♂; Guyane Française: St. Laurent du Maroni and Bas Maroni; Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne).
References: (hb) Kalshoven 1960c: 40, 1960d: 40. (ds) Blackwelder 1947: 790; Kalshoven 1960d: 40; Schedl 1961c: 70, 1972f: 233. (tx) Schedl 1936c: 236–237, 1972f: 233, 1978a: 53.
- permodestus** Schedl 1936c: 235. Lectotype ♀; French Guyana, St. Laurent du Maroni; Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947; Schedl 1972f: 241. (tx) Schedl 1936c: 235, 1972f: 241, 1978a: 54.
- pernudus** Schedl 1936c: 243. Syntypes ♂ ♀; Guyana[?]; Schedl Collection in NHMW, Wien.
Distribution: South America (Guyana[?]).
Notes: (1) Schedl 1978a: 54 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 790; Schedl 1972f: 214. (tx) Schedl 1936c: 243, 1972f: 214, 1978a: 54.
- perplexus** Bright 1972d: 20. Holotype ♂; Good Hope, Trelawny Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 19.
Distribution: Antilles Islands (Jamaica).
References: (tx) Bright 1972d: 19–20; McNamara 1977: 191.
- perrisi** Chapuis 1865: 260. Syntypes ♀; de la presqu'île de Malacca (Singapour) at de l'île de Borneo (Sarawak); 3 ♀ in BMNH, London, 1 ♀ in IRSNB, Brussels.
Distribution: Asia (Malaya/ Singapore), Indonesia (Sarawak in Borneo), Philippine Islands.
Hosts: *Shorea robusta*.
References: (cn) Mathur & Singh 1961a: 45. (hb) Browne 1941; Mercer 1982: 210. (ds) Beaver & Browne 1978: 620; Browne 1961c: 200; Gemminger & Harold 1872: 2699; Mathur & Singh 1961a: 45; Mercer 1982: 210; Sampson 1919: 106, 1928b: 394; Schedl 1962h: 63, 1966b: 97, 1972f: 185; Strohmeier 1912c: 17, 1914c: 27. (tx) Chapuis 1865: 260; Nobuchi 1985: 328; Sampson 1919: 106, 1928b: 394; Schedl 1939b: 398, 1960c: 49, 1972f: 185; Strohmeier 1912c: 17, 1914c: 27.
- pertusus** Chapuis 1865: 170. Holotype ♂; de Caracas; BMNH, London (Schedl 1960c: 27).
Distribution: South America (Brazil/ Venezuela).
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Schedl 1972f: 233, 1976a: 58; Strohmeier 1912c: 11, 1914c: 25. (tx) Chapuis 1865: 170; Keler 1927a: 235; Schedl 1939j: 565, 1948d: 37, 1960c: 27, 1972f: 233, 1978a: 54; Strohmeier 1912c: 11, 1914c: 25.
- peruanus** Nunberg 1939: 238. Holotype ♀; Lima, Peru; Polischen Zoologischen Staatismuseums.
Distribution: South America (Peru).
References: (ds) Blackwelder 1947: 790; Schedl 1972f: 241. (tx) Nunberg 1939: 238–241, 1940: 63; Schedl 1952h: 72, 1972f: 241.
- petalinus** Roberts & Morimoto 1986: 175. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Nothofagus* sp.
References: (tx) Roberts & Morimoto 1986: 175.
- petaloideus** Roberts 1979: 93. Holotype ♂; Papua New Guinea: 8 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Nothofagus pullei*.
References: (tx) Roberts 1979: 93.
- petax** Schedl 1974d: 469. Holotype ♂; Latep logging area, Bulolo, Morobe District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Caruga floribunda*.
Notes: (3) Schedl 1979c: 116 (described female).

- References: (tx) Schedl 1974d: 469, 1978a: 54, 1979c: 116.
- picinus** Schedl 1952i: 22. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren. Figures: Schedl 1962k: 636, 1972f: 222. Distribution: Africa (Cameroon/ Nigeria/ Zaire). Hosts: *Anonidium mannii*, *Macaranga* cf. *lanceifolia*, *Polyalthia suavcolens*, *Pycnanthus angolensis*, *Ricinodendron hendelotii*, *Scorodophloeus zenkeri*, *Terminalia superba*. References: (ds) Mayne & Donis 1960: 98, 1962: 286; Roberts 1968: 188, 1969: 118; Schedl 1962k: 636, 1972f: 223. (tx) Schedl 1952i: 22, 1957d: 120, 1962k: 636, 1108, 1972f: 222–223, 1978a: 55.
- piroti** Browne 1972c: 106. Holotype ♂; Congo-Kinshasa: Kivu, Bitale; MRCB, Tervuren. Distribution: Africa (Zaire). References: (tx) Browne 1972c: 106.
- pidens** Schedl 1955b: 309. Holotype ♂; New-Guinea, Berlinhafen; originally in Schedl Collection but transferred to NHMB, Budapest (Schedl 1978a: 55). Distribution: New Guinea. References: (ds) Schedl 1972f: 200. (tx) Schedl 1955b: 252, 309, 1972f: 200, 1978a: 55.
- pini** Hopkins 1905b: 71. Holotype ♂; Mexico: Chalco; USNM, Washington. Figures: Reichardt 1965b: 161. Distribution: North America (Guatemala/ Honduras/ Durango, Hidalgo, Mexico, Puebla, Tlaxcala in Mexico/ Arizona, New Mexico in USA). Hosts: *Pinus chihuahuana*, *P. leiophylla*, *P. ochoterenai*, *P. ponderosa*, *P. rudis*, *P. pseudostrobus*. Notes: (3) Reichardt 1965b: 159 (described female). References: (hb) Atkinson et al. 1986: 12; Burgos & Saucedo 1984: 45. (ds) Atkinson & Equihua 1985a: 103, 1988: 104; Atkinson et al. 1986: 12; Blackwelder 1947: 790; Burgos & Saucedo 1983: 45; Equihua 1985: 144; Equihua & Atkinson 1987: 26; Ferrer 1942; Furniss, R. L. & Carolin 1977: 339; Schedl 1972f: 223, 1977e: 44; Snow 1881: 70, 1907: 188; Strohmeier 1912c: 11, 1914c: 25; Thomas, J. B. 1966; Wickham 1898: 312; Wood, S. L. 1958b: 37, 1979a: 2. (tx) Equihua & Atkinson 1987: 26; Hopkins 1905b: 71; Reichardt 1965b: 159, 161; Schedl 1940a: 324–325, 1972f: 223; Strohmeier 1912c: 11, 1914c: 25; Wood, S. L. 1958b: 37, 1966b: 17, 1979a: 2.
- quadridens** Schedl 1937d: 38. Lectotype ♂; Mexico, Sierra de Durango und Camelas, Staat Durango; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 60. Synonymy: Wood 1966b: 17. References: (cn) Schwerdtfeger 1960b: 254–259. (ec) Becker 1953: 363, 1955; Schwerdtfeger 1960b: 254–259. (hb) Becker 1953: 363, 1955. (ds) Becker 1953: 363; Blackwelder 1947: 790; Ferrer 1942; Kirk 1969, 1970; Schwerdtfeger 1960b: 254–259. (tx) Schedl 1937d: 38, 1940a: 324, 1955g: 48, 1972f: 223, 1978a: 60; Schwerdtfeger 1960b: 254–259; Wood, S. L. 1966b: 17–18, 1979a: 2.
- piniperda** Schedl 1969c: 65. Holotype ♂; Burma: Kalaw, Shan States; FRI, Dehra Dun, not found in 1981 by SLW. Distribution: Asia (Burma/ Cambodia/ Thailand). Hosts: *Pinus insularis*. Notes: (1) None of the specimens borrowed by Schedl from FRI were ever returned to FRI; the type apparently is represented by “paratypes” in the Schedl Collection. (3) Beeson 1941: 345, 1961: 266 (*piniperda*, nomen nudum, synonymy in Schedl 1972f: 211). References: (ds) Beaver 1990a: 280; Beeson 1941: 345, 1961: 266; Browne 1980a: 370; Schedl 1972f: 211. (tx) Schedl 1964c: 303, 1969a: 216, 1969c: 65–66, 1972f: 211, 1978a: 55.
- piniperda cambodianus** Schedl 1969a: 216. Holotype ♂; Cambodia, Phnompenh to Tokyo (Japan), imported; PPST, Tokyo. References: (ds) Nobuchi 1977: 138; Schedl 1972f: 211. (tx) Schedl 1969a: 216–217, 1972f: 211, 1978a: 55.
- planodeclivis** Schedl 1942a: 206. Lectotype ♂; Malaya, Pahang, Raub (Chengal); Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 55. Figures: Nobuchi 1978a: 80. Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: *Balanocarpus heinii*. References: (ds) Browne 1961c: 229; Nobuchi 1977: 126; Schedl 1972f: 196. (tx) Browne 1962e: 643; Nobuchi 1978a: 80, 1978b: 79; Schedl 1942a: 206, 1972f: 196, 1978a: 55.
- platypoides** (Browne) 1955: 368 (*Crossotarsus*). Holotype ♂; Malay Peninsula: Kelantan, Sokor; BMNH, London. Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: *Calophyllum* sp., *Castanopsis* spp., *Dipterocarpus borneensis*, *Dryobalanops oblongifolia*, *Pasania sundaica*, *Quercus* sp., *Swietenia macrophylla*. Notes: (1) Schedl 1972f: 212 (to *Platypus*). References: (hb) Browne 1961c: 229. (ds) Schedl 1964c: 305, 1972f: 212. (tx) Browne 1955: 368–369, 1961a: 316, 1961c: 229; Schedl 1972f: 212.
- plumatus** Schedl 1979g: 116. Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1979g: 116.
- podocarpus** Browne 1986c: 669. Holotype ♂; Vietnam: Qui Nhon to Tagonoura (Japan), imported; BMNH, London. Distribution: Asia (Vietnam). References: (tx) Browne 1986c: 669.

- politus Chapuis** 1865: 249. Holotype ♀; de l'île de Borneo, Sarawak; BMNH, London (Schedl 1960c: 47).
Distribution: Indonesia (Sarawak in Borneo).
References: (ds) Gemminger & Harold 1872: 2699; Sampson 1928b: 392; Schedl 1972f: 194; Strohmeier 1912c: 16, 1914c: 27. (tx) Chapuis 1865: 249; Sampson 1928b: 392; Schedl 1960c: 47, 1972f: 194; Strohmeier 1912c: 16, 1914c: 27.
- porcellinus Schedl** 1975f: 392. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 392.
- porcellus Schedl** 1942a: 209. Holotype ♂; Salomons Inseln; Schedl Collection in NHMW, Wien.
Figures: Nobuchi 1978a: 80.
Distribution: New Guinea, Solomon Islands.
Hosts: *Catophyllum* sp.
Notes: (3) Schedl 1972h: 70 (described female).
References: (ds) Nobuchi 1977: 120; Ohno, Yoshioka, et al. 1988b: 98, 1989: 66; Schedl 1972f: 193. (tx) Nobuchi 1978b: 77, 80; Schedl 1942a: 209, 1972f: 193, 1972b: 70, 1978a: 55.
- poricollis Schedl** 1950i: 147. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien, automatic.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 199. (tx) Schedl 1950i: 147, 1972f: 199.
- porosus Schedl** 1942c: 193. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien, preoccupied by Blandford 1896.
References: (ds) Equihua & Atkinson 1987: 27; Schedl 1972f: 205. (tx) Equihua & Atkinson 1987: 27; Schedl 1942c: 193, 1950i: 147, 1972f: 205, 1978b: 56.
- porosulus Browne** 1983a: 564. Holotype ♂; Teminaban (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1983a: 564.
- porosus Blandford** 1896e: 105. Syntypes ♂ ♀; Panama, Volcan de Chiriqui; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 16.
Distribution: North America (Panama).
References: (ds) Blackwelder 1947: 790; Strohmeier 1912c: 10, 1914c: 24. (tx) Blandford 1896e: 105–106; Strohmeier 1912c: 10, 1914c: 24.
- porrectus Chapuis** 1865: 150. Holotype ♀; de la Colombie; IRSNB, Brussels (Schedl 1960c: 22).
Distribution: North America (Costa Rica/Panama), South America (Colombia).
References: (ds) Blackwelder 1947: 790; Blandford 1896e: 103–104; Equihua & Atkinson 1987: 27; Gemminger & Harold 1872: 2699; Schedl 1933c: 166, 1972f: 241; Strohmeier 1912c: 9, 1914c: 23. (tx) Blandford 1896e: 103–104; Chapuis 1865: 150; Equihua & Atkinson 1987: 27; Schedl 1960c: 22, 1972f: 241; Strohmeier 1912c: 9, 1914c: 23.
- pouteriae Wood** 1972b: 252. Holotype ♂; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.
Distribution: South America (Colombia/Venezuela).
Hosts: *Pouteria amibaefolia*, *P.* sp.
References: (tx) Wood, S. L. 1972b: 252.
- praealtus Schedl** 1975f: 393. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 393.
- praecegens Schedl** 1969b: 228. Holotype ♂; New Guinea; Porotop L.M. Station, W. H. D.; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Nothofagus* sp.
References: (ds) Schedl 1972f: 200. (tx) Schedl 1969b: 228, 1972f: 200, 1978a: 56.
- praepositus Schedl** 1969b: 229. Holotype ♂; New Guinea; Watut Valley, 1200 m, Morobe District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Araucaria hunsteinii*, *Xanthophyllum* sp.
Notes: (3) Schedl 1972i: 58 (described female).
References: (ds) Schedl 1972f: 200. (tx) Schedl 1969b: 229–230, 1972f: 200, 1972i: 58, 1978a: 56.
- praeteritus Schedl** 1969b: 230. Holotype ♂; New Guinea; Porotop L. M. Station, W. H. D.; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Syzygium* sp.
References: (ds) Schedl 1972f: 193. (tx) Schedl 1969b: 230, 1972f: 193, 1978a: 56.
- praetermissus Schedl** 1979g: 117. Holotype ♂; Papua, Bulolo, Morobe District. Upper Manki L.A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 117.
- prenexus Wood** 1966a: 64. Holotype ♂; 16 km SE Cartago on Pan-American Highway, Cartago Prov., Costa Rica, 5600 feet; Wood Collection.
Figures: Schedl 1972f: 220. Wood 1966a: 67.
Distribution: North America (Costa Rica).
References: (ds) Equihua & Atkinson 1987: 27; Schedl 1972f: 220. (tx) Equihua & Atkinson 1987: 27; Schedl 1972f: 220; Wood, S. L. 1966a: 64, 67.
- principeensis (Schedl)** 1936e: 60 (*Stenoplatypus*).
Lectotype ♂; Is. Principe, Roca Inf. D. Henrique, 100–300 m; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 56.
Distribution: Africa (Principe Island).
Notes: (3) Schedl 1972f: 215 (treated as a subspecies of *intermedius*), Roberts 1972: 71 (treated as a good species).
References: (ds) Schedl 1972f: 215. (tx) Roberts

- 1972: 71; Schedl 1936e: 60–61, 1957d: 120, 1962k: 653, 1972f: 215, 1978a: 56.
- propinquus** Schedl 1959m: 555. Holotype ♂; Brasilien, Nova Tentonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1967d: 5, 1972f: 219. (tx) Schedl 1959m: 555, 1972f: 219, 1978a: 57.
- protenus** (Schedl) 1939e: 356 (*Crossotarsus*). Lectotype ♂; Malaya, Pahang; Kemasn For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 57.
Distribution: Asia (India, Malaya).
Hosts: *Hopea mengarawan*, *Pometia macrocarpa*, *Xerospermum* sp.
References: (ds) Beeson 1961: 266; Browne 1961c: 200; Schedl 1972f: 207. (tx) Schedl 1939e: 356–357, 1942a: 172, 1972f: 207, 1978a: 57.
- pseudocupulatus** Schedl 1935n: 635. Syntypes ♂ ♀; Malay States: Selangor, Rawang, Sungei Buloh, and Kakang; BMNH, London, and Schedl Collection in NHMW, Wien.
Figures: Nakashima 1975: 59, Nobuchi 1978a: 80.
Distribution: Asia (Bangladesh/ Burma/ China/ Assam in India/ Malaya/ Thailand/ Tonkin in Vietnam), Australia, Indonesia (Aru Island, Batchian, Borneo, Celebes, Java, Moluccas, Sumatra), New Guinea, Philippine Islands, Sumba Island.
Hosts: *Agava sisalana*, *Aleurites moluccana*, *Alstonia* sp., *Arenga* sp., *Arthrophyllum diversifolium*, *Artocarpus elasticus*, *A. lakoocha*, *Austroboxus nitidus*, *Bonca* sp., *Cassia siamea*, *Castanopsis* sp., *Chrysophyllum roxburghii*, *Dalbergia latifolia*, *Dryobalanops aromatica*, *D. oblongifolia*, *Durio* sp., *Elaterospermum tapos*, *Endospermum malaccense*, *Erythrina* sp., *Eucalyptus deglupta*, *Ficus elastica*, *Garcinia* sp., *Gmelina arborea*, *Gonostylus bancanus*, *Heritiera trifolia*, *Hevea brasiliensis*, *Lithocarpus wallichianus*, *Litsea megacarpa*, *Lophopetalum* sp., *Mangifera* sp., *Millettia dehiscens*, *Parkia speciosa*, *Pithecellobium* sp., *Pometia* sp., *Pouteria malaccensis*, *Rhizophora apiculata*, *Saraca* sp., *Shorea leprosula*, *S. maxwelliana*, *S. parvifolia*, *S. pauciflora*, *Sterculia foetida*, *S. macrophylla*, *Styrax benzoin*, *Terminalia belerica*, *Xanthophyllum* spp., *Xylopia caudata*, *X. cordata*.
Notes: (1) Schedl 1978a: 57 (citation of holotype invalid). (3) Schedl 1941b: 421 (redescription).
References: (ay) Nakashima 1975: 6. (bv) Gray, B. 1974b. (cn) Browne 1949e; Kalshoven 1960d: 48; Supriana et al. 1978. (cc) Browne 1958b; Nakashima 1975: 6. (hb) Beaver & Browne 1978: 620; Browne 1941, 1958b, 1961c: 205–206; Gray, B. 1974b; Kalshoven 1960c: 36; Mercer 1982: 210. (ds) Beaver & Browne 1975: 308, 1978: 620; Beeson 1961: 266; Browne 1961a: 313, 1961c: 205–206, 1972b: 29, 1950d: 492; Choo, Woo, & Kim 1981: 203; Kalshoven 1960d: 48; Mercer 1982: 210; Nakashima 1975: 3; Nobuchi 1977: 137, 1979a: 407; Ohno, Yoneyama, & Nakazawa 1982a: 5, 1982b: 10, 1987b: 90; Ohno, Yoskioka, et al. 1988b: 98; Schedl 1959c: 168, 1961c: 71, 1964c: 304, 1965g: 23, 1965j: 304, 1966c: 97, 1972f: 211, 1974f: 262, 1975g: 294; Supriana et al. 1978. (tx) Nakashima 1975: 59; Nobuchi 1985: 329; Schedl 1935n: 635, 1936e: 56, 1939c: 1, 1941b: 421–422, 1942a: 172, 1955i: 215, 1972f: 211, 1978a: 57.
- pseudocupulatus sudaensis** Schedl 1941b: 421. Holotype ♂; Java, Bandjar; Schedl Collection in NHMW, Wien.
References: (cn) Kalshoven 1960d: 48. (ds) Browne 1955b: 290; Kalshoven 1960d: 38; Nobuchi 1977: 138; Ohno, Yoneyama, & Nakazawa 1987a: 95; Schedl 1962f: 167, 1969a: 208, 1972f: 211. (tx) Nobuchi 1978a: 80, 1978b: 82; Schedl 1941b: 421, 1972f: 211, 1978a: 57.
- pseudocupulatus arceavus** Schedl 1941b: 422. Holotype ♂; New Guinea: Papua, Kokoda, 1200 ft.; Schedl Collection in NHMW, Wien.
References: (ds) Schedl 1961c: 69, 71, 1965e: 264, 1972f: 211. (tx) Schedl 1941b: 422, 1972f: 211, 1978a: 57.
- pseudocurtus** Schedl 1935n: 635. Lectotype ♀; Malay States: Pahang (Mentakab), Pahang (Tranum), Johore North (Kluang); Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 57.
Distribution: Asia (Malaya/Vietnam).
Hosts: *Dipterocarpus knustleri*, *Dryobalanops aromatica*, *Shorea faguetiana*, *S. leprosula*, *Intsia palembanica*.
Notes: (3) Browne 1955: 369 (described male).
References: (hb) Browne 1941, 1961c: 200. (ds) Beeson 1941 (1961: 266); Browne 1961c: 200, 1968a: 132–133, 1980d: 491; Ohno, Yoneyama, & Nakazawa 1982b: 10; Schedl 1972f: 185. (tx) Browne 1955: 369; Schedl 1935n: 635–636, 1972f: 185, 1978a: 57.
- pseudodignatus** Schedl 1963d: 232. Holotype ♂; Brasilien: Sao Paulo, Caraguatatuba, Res. Flor., 40 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1972f: 241. (tx) Schedl 1963d: 232, 1972f: 241, 1978a: 58.
- pseudolongulus** Schedl 1963d: 233. Holotype ♂; Franz. Guayana; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/ Cayenne).
References: (ds) Schedl 1972f: 205, 1976a: 58. (tx) Schedl 1963d: 233, 1972f: 205, 1978a: 58.
- pseudoplicatus** Schedl 1933c: 168. Holotype ♂; Costa Rica, San Jose, 1000–1200 m; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
References: (ds) Blackwelder 1947: 790; Equihua

- & Atkinson 1987: 27; Schedl 1933c: 168, 1972f: 241. (tx) Equihua & Atkinson 1987: 27; Schedl 1933c: 168, 1972f: 241, 1978b: 58.
- pseudoporus** Schedl 1979g: 117. Holotype ♂; Papua, Upper Manki L.A., Bulolo. Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 117.
- pseudoselysi** Schedl 1972h: 71. Holotype ♂; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 224. (tx) Schedl 1972f: 224, 1972h: 71, 1978a: 58.
- pseudosindorae** Browne 1983a: 570. Holotype ♂; Wapoga (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: "Himelio, Matoa" logs.
References: (ds) Ohno, Yoneyama, & Nakazawa 1987a: 95. (tx) Browne 1983a: 570.
- pseudosolidus** Schedl 1936e: 56. Lectotype ♂; Sumatra, Si-Rambe; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 58.
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo, Sumatra).
Hosts: *Castanopsis sumatrana*, *Pasania* sp.
Notes: (3) Browne 1955: 370 and Schedl 1971: 394 (described female).
References: (hb) Browne 1961c: 209. (ds) Schedl 1971c: 370, 1972f: 199. (tx) Browne 1955: 370; Numberg 1961: 624; Schedl 1936e: 56, 1953c: 291, 1971c: 394, 1972f: 199, 1978a: 58.
- pseudoterminalis** Schedl 1936j: 35. Lectotype ♂; Malay Peninsula, Pahang; Rotan Tunggal Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 58.
Distribution: Asia (Malaya).
References: (hb) Browne 1941. (ds) Browne 1961c: 213; Schedl 1936j: 35, 1972f: 186. (tx) Schedl 1936j: 35, 1941c: 363, 1972f: 186, 1978a: 58.
- ptochoides** Schedl 1970b: 367. Holotype ♂; Philippine Islands, Talomo to Miyako (Japan), imported; PPST, Tokyo.
Distribution: Philippine Islands.
References: (ds) Browne 1984c: 499; Nobuchi 1977: 127; Schedl 1972f: 196. (tx) Nobuchi 1985: 329; Schedl 1970b: 367–368, 1972f: 196, 1978a: 58.
- puerulus** (Schedl) 1939e: 357 (*Crossotarsus*). Lectotype ♂; Malaya, Perak; Trolak; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 59.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Dialium* sp., *Elateriospermum tapos*, *Laurineae* sp., *Lophopetalum* sp., *Nephelium* sp., *Xylopia cordata*.
Notes: (1) Schedl 1972f: 237 (to *Platypus*).
References: (hb) Browne 1961c: 200. (ds) Beeson 1941 (1961: 254); Browne 1961c: 200, 202, 1981b: 599, 1986c: 662; Schedl 1972f: 237. (tx) Schedl 1939e: 357–358, 1941c: 356, 1950g: 895–896, 1972f: 237, 1978a: 59.
- puerulus parvulus** Schedl 1939e: 358 (*Crossotarsus*). Holotype ♂; Kepong, Malaya; Schedl Collection in NHMW, Wien.
References: (ds) Schedl 1972f: 237. (tx) Schedl 1939e: 358, 1972f: 237, 1978a: 59.
- pulicaris** Chapuis 1865: 165. Holotype ♂; du Bresil, Ste. Catherine; IRSNB, Brussels (Schedl 1960c: 26).
Figures: Bright 1972d: 19.
Hosts: *Cedrela fissula*.
Distribution: Antilles Islands (Guadeloupe/ Jamaica/ Puerto Rico/ Trinidad), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Colombia/ Paraguay/ Suriname).
References: (cn) Ruffinelli & Carbonell 1944: 27. (ds) Blackwelder 1947: 790; Bright 1972d: 22; Browne 1981b: 600; Equihua & Atkinson 1987: 27; Gemminger & Harold 1872: 2700; Schedl 1967d: 5, 1972f: 234, 1972g: 40, 1973d: 164, 1976a: 58, 1978c: 292, 1979e: 58; Schonherr & Pedrosa-Macedo 1981: 58; Strohmeier 1912c: 12, 1914c: 25. (tx) Bright 1972d: 19, 22; Chapuis 1865: 165; Equihua & Atkinson 1987: 27; Reichardt 1964b: 88; Schedl 1934e: 212, 1938i: 28, 1939j: 565, 1941e: 155, 1952e: 123, 1959m: 557, 1960c: 26, 1972f: 234; Strohmeier 1912c: 12, 1914c: 25.
- melanurus** Chapuis 1865: 180. Holotype ♂; de la Colombie; IRSNB, Brussels (Schedl 1960c: 30).
Synonymy: Reichardt 1964: 88.
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Numberg 1958a: 481, 1972b: 190; Strohmeier 1912c: 11, 1914c: 25. (tx) Chapuis 1865: 180; Numberg 1958a: 481–482; Reichardt 1964: 88; Schedl 1936e: 237, 1948d: 41, 1960c: 30, 1972f: 234; Strohmeier 1912c: 11, 1914c: 25.
- schaumi** Chapuis 1865: 181. Syntypes ♂ ♀; du Porto-Rico; 1 ♂, 1 ♀ in MNB, Berlin. Synonymy: Reichardt 1964: 88.
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Reichardt 1948: 355; Strohmeier 1912c: 13, 1914c: 25; Wolcott 1936: 317, 1948: 355. (tx) Chapuis 1865: 181; Reichardt 1964: 88; Schedl 1936e: 237, 1937d: 33, 39, 1951h: 287, 1952a: 446, 1972f: 234; Strohmeier 1912c: 13, 1914c: 25.
- pulvinatus** Roberts & Morimoto 1986: 175. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
References: (tx) Roberts & Morimoto 1986: 175.
- quadricornutus** Roberts 1989: 281. Holotype ♂; Papua New Guinea: Upper Stony Logging Area, Bulolo, 1200 m; NHMW, Wien.
References: (tx) Roberts 1989: 281.

- pumilus** **Browne** 1955a: 195. Holotype ♂; Kadat (Sabah) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: *Shorea* sp.
References: (tx) Browne 1955a: 195.
- quadricaudatus** **Schedl** 1934e: 211. Holotype ♂; Caracas [Venezuela]; Schedl Collection in NHMW, Wien.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 790; Schedl 1969c: 66, 1972f: 219. (tx) Schedl 1934e: 211, 1972f: 219, 1978a: 60.
- quadrinotatus** **Schedl** 1962i: 77. Holotype ♂; New South Wales; Tweed River; Schedl Collection in NHMW, Wien.
Distribution: Australia (New South Wales).
References: (ds) Schedl 1962i: 74, 1972f: 201. (tx) Schedl 1962i: 77, 1972f: 201, 1978a: 60.
- quadricornis** **Schedl** 1957d: 123. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Figures: Schedl 1962k: 673, 1972f: 226.
Distribution: Africa (Zaire).
Hosts: *Polyalthia suavecolens*.
References: (tx) Mayne & Donis 1960: 100, 1962: 286; Schedl 1957d: 123–124, 1962k: 673, 1972f: 226.
- quadridentatus** (**Olivier**) 1795: 5 (*Scolytus*). Holotype ♂; Amerique septentrionale [USA]; MNHN, Paris, not found, presumed lost.
Figures: Atkinson 1989c.
Distribution: North America (Alabama, Arkansas, Florida, Georgia, S Indiana, Louisiana, Maryland, Mississippi, North Carolina, E Oklahoma, South Carolina, Tennessee, E Texas, Virginia, West Virginia in USA).
Hosts: *Quercus* spp.
Notes: A report of this species from Arizona requires confirmation.
References: (ay) Hopkins 1894g; Khalaf 1980: 339. (cn) Anonymous 1968g; Blackman 1950; Chamberlin 1939: 110–112; Doane et al. 1936; Hubbard 1897b: 15; Seymour 1968. (cc) Chamberlin 1939: 110–112; Felt 1906: 720. (hb) Atkinson 1989c; Baker, W. L. 1972: 273; Beal & Massey 1945: 64–65; Beal et al. 1952: 114–115; Blackman 1922b: 39–41, 1950; Chamberlin 1939: 110–112; Doane et al. 1936; Felt 1906: 720; Hetrick 1967; Hopkins 1894g: 277; Hubbard 1897b: 15; Husson 1955: 350. (ds) Anonymous 1968g; Atkinson 1989c; Atkinson et al. 1991: 153; Beal & Massey 1945: 64–65; Blackman 1922b: 39–41, 1950; Blatchley & Leng 1916: 583; Chamberlin 1939: 110–112; Drooz 1985: 375; Equihua & Atkinson 1987: 28; Gemminger & Harold 1872: 2700; Henshaw 1885: 147; Hopkins 1893a: 127, 1893b: 207; Schedl 1972f: 223; Schwarz 1878d: 468; Staines, C. L. 1982; Strohmeier 1912c: 12, 1914c: 25; Swaine 1909: 85; Wood, S. L. 1979a: 2. (tx) Atkinson 1989c; Beal & Massey 1945: 64–65; Blackman 1922b: 39–41; Blatchley & Leng 1916: 583; Chamberlin 1939: 110–112; Chapuis 1865: 338; Equihua & Atkinson 1987: 28; Hubbard 1897b: 15; LeConte 1868: 151, 1876: 343–344, 1878a: 468; Olivier 1795b: 5; Schedl 1972f: 223; Strohmeier 1912c: 12, 1914c: 25; Swaine 1909: 85; Wood, S. L. 1972b: 249, 1979a: 2.
- blanchardi** Chapuis 1865: 185. Syntypes ♂; Texas; 2 ♂ in MNB, Berlin, 1 ♂ in MNHN, Paris (Schedl 1960c: 31). Synonymy: LeConte 1876: 344.
References: (ds) Blackwelder 1939; Gemminger & Harold 1872: 2697; Leng 1920: 337; Schedl 1933c: 171; Swaine 1909: 86. (tx) Chapuis 1865: 185; LeConte 1868: 151, 1876: 344; Schedl 1937d: 39, 1960c: 31, 1972f: 223; Swaine 1909: 86; Wood, S. L. 1979a: 2.
- disciporus** Chapuis 1865: 219. Holotype ♀; de l'Amerique boreale, Tennesse, Coll. de M. Dohm; presumably Stettin Museum, lost, 1 ♀ not in type series, det. Chapuis in MNB, Berlin. Synonymy: Wood 1955b: 37, 1972b: 249.
References: (hb) Chamberlin 1939: 110. (ds) Chamberlin 1939: 110; Gemminger & Harold 1872: 2698; Leng 1920: 337; Sampson 1928a: 3; Strohmeier 1912c: 13, 1914c: 26; Swaine 1909: 85; Wood, S. L. 1958b: 37. (tx) Chamberlin 1939: 110; Chapuis 1865: 219; LeConte 1865: 151, 1876: 343; Sampson 1928a: 3; Schedl 1937d: 40, 1960c: 31, 1961i: 232, 1972f: 223; Strohmeier 1912c: 13, 1914c: 26; Swaine 1909: 85; Wood, S. L. 1958b: 37, 1972b: 249, 1979a: 1.
- quadrifissilis** **Schedl** 1936e: 58. Lectotype ♂; Mt. Makiling, Laguna, P.I., 400 Fuss; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 60.
Distribution: Asia (Andaman Islands in India/Malaya), Indonesia (Borneo, Mentawai), Philippine Islands.
Hosts: *Bombax insigne*, *Pterocymbium cinctorium*, *Sabnia insignis*, *Scaphium affine*, *Shorea leprosula*, *Sterculia villosa*.
References: (cn) Mathur & Singh 1961a: 10. (hb) Browne 1941, 1961c: 202. (ds) Beeson 1961: 266; Browne 1961a: 313, 1961c: 202, 1980c: 484, 1984c: 449; Mathur & Singh 1961a: 10; Nobuchi 1977: 116; Schedl 1961f: 96, 1966b: 94, 1966g: 33, 1969c: 66, 1972f: 227. (tx) Nobuchi 1985: 330; Schedl 1936e: 58, 1939c: 336, 1942a: 172, 1961f: 96, 1972f: 227, 1978a: 60.
- quadrinotatus** **Schedl** 1975g: 231. Holotype ♂; New Guinea, Wan; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Notes: (3) Roberts 1989: 281 (described female).
References: (tx) Schedl 1975g: 231, 1978a: 60.

- quadriporus (Beeson)** 1937: 96 (*Crossotarsus*).
Syntypes ♂ ♀; Bengal: Darjeeling division, Debrepani, 6000 feet; FRI, Dehra Dum.
Distribution: Asia (Bhutan/ Bengal in India).
Hosts: *Quercus lamellosa*, *Q. lineata*.
Notes: (1) Schedl 1972f: 219 (to *Platypus*).
References: (ds) Schedl 1972f: 219, 1975c: 384. (tx) Beeson 1937: 96–97; Schedl 1969c: 66, 1972f: 219, 1978a: 60.
- quadrispinatus Chapuis** 1865: 221. Syntypes ♂; de la Colombie; 1 ♂ in MNB, Berlin, 1 ♂ in IRSNB, Brussels.
Distribution: South America (Brazil/ Cayenne/ Colombia/ Venezuela).
Hosts: *Cedrela fissilis*.
Notes: (3) Schedl 1936c: 239 (described female).
References: (cn) Morris 1955: 139. (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Sampson 1928a: 3; Schedl 1972f: 219, 1976a: 58; Schonherr & Pedrosa-Macedo 1981: 58; Strohmeier 1912c: 13, 1914c: 26. (tx) Chapuis 1865: 221; Sampson 1928a: 3; Schedl 1934e: 211, 1935i: 44, 1936c: 239, 1937d: 33, 40, 1948f: 283, 1959m: 555, 1960c: 40, 1972f: 219, 1978a: 61; Strohmeier 1912c: 13, 1914c: 26.
- quadrispinis Browne** 1980d: 496. Holotype ♂; Manokwari (New Guinea) to Nagoya (Japan), imported; BMNH, London.
Figures: *Ficus* sp.
Distribution: New Guinea.
References: (ds) Browne 1984b: 287. (tx) Browne 1980d: 496, 1984c: 292.
- quaesitus Schedl** 1934e: 210. Holotype ♀; Costa Rica, St. Jose [San Jose]; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
References: (ds) Blackwelder 1947: 790; Equihua & Atkinson 1987: 28; Schedl 1972f: 241. (tx) Equihua & Atkinson 1987: 28; Schedl 1934e: 210, 1972f: 241, 1978a: 61.
- queenslandi Schedl** 1936g: 518. Lectotype ♂; North Queensland; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
Hosts: *Alphitonia petrici*, *Araucaria cunninghamii*, *Canarium australasicum*, *Juglans* sp.
References: (ds) Schedl 1936g: 518, 1972f: 185, 1980b: 185. (tx) Schedl 1936g: 518–519, 1955i: 214, 1972f: 185, 1978b: 61.
- querceus Wood** 1972b: 251. Holotype ♂; Volcan de Chiriqui (near Cerro Punta), Chiriqui, Panama; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Quercus* sp.
References: (ds) Equihua & Atkinson 1987: 28. (tx) Equihua & Atkinson 1987: 28; Wood, S. L. 1972b: 251.
- querqi Browne** 1980c: 488. Holotype ♂; Keelung (Formosa) to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (Taiwan).
Hosts: *Quercus* sp.
References: (tx) Browne 1980c: 488.
- quercicola Schedl** 1971c: 394. Holotype ♂; Malay Penin.: Kelantan Chabong, Jongtrat F.R.; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Quercus* sp.
References: (ds) Schedl 1972f: 185. (tx) Schedl 1971c: 394–395, 1972f: 185.
- quercinus Schedl** 1942a: 213. Holotype ♂; Malaya, N.S., Pasoh F.R.; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Castanopsis sumatrana*, *Quercus wrayi*.
References: (ds) Browne 1961c: 218; Schedl 1972f: 217. (tx) Schedl 1942a: 213, 1972f: 217.
- quercivorus Murayama** 1925b: 229. Syntypes ♂ ♀; Taiwan: Murayama Collection in USNM, Washington.
Figures: Nobuchi 1973b: pl. 2.
Distribution: Asia (Bengal in India/ Japan/ Taiwan), Indonesia (Java), New Guinea.
Hosts: *Castanopsis cuspidata*, *Cryptomeria japonica*, *Ilex chinensis*, *Lindera erythrocarpa*, *Lithocarpus edulis*, *Pasania glabra*, *Prunus* sp., *Quercus acuta*, *Q. acutissima*, *Q. gilva*, *Q. glauca*, *Q. mouglolica* var. *grosseserrata*, *Q. myrsinaefolia*, *Q. salicina*, *Q. serrata*, *Q. sessilifolia*.
Notes: (1) Schedl 1972f: 217 (to *Platypus*).
References: (cn) Anonymous 1980g; Murayama 1954a: 17. (ds) Anonymous 1980g; Murayama 1929a: 678, 1936a: 140, 1937c: 580, 1954a: 17, 1955: 100, 105; Nobuchi 1973b: 14; Schedl 1972f: 217. (tx) Beeson 1937: 94; Murayama 1925b: 229–231, 235, 1928a: 287, 1930b: 28–29, 1936a: 140–141, 1955: 100, 105; Nobuchi 1973b: 14, pl. 2; Schedl 1939c: 4, 1972f: 217, 1972p: 156.
- sexfenestratus Beeson** 1937: 94 (*Crossotarsus*).
Syntypes ♂ ♀; Bengal: Kalimpong division, Samsingh; FRI, Dehra Dum. Synonymy: Schedl 1972p: 156.
Notes: (1) Schedl 1972f: 217 (to *Platypus*).
References: (ds) Beeson 1941 (1961: 266); Kalshoven 1960d: 41. (tx) Beeson 1937: 94–95; Schedl 1939c: 4, 1941c: 354, 1969c: 66, 1972f: 217, 1972p: 156.
- quinquecostatus Chapuis** 1865: 149. Syntypes ♂; du Mexique; 2 ♂ in IRSNB, Brussels (Schedl 1960c: 22).
Distribution: North America (El Salvador/ Guatemala/ Mexico).
Hosts: *Hevea brasiliensis*.
References: (ds) Blackwelder 1947: 790; Blandford 1896e: 103; Equihua & Atkinson 1987: 28; Ferrer 1942; Gemminger & Harold 1872: 2700; Schedl 1972f: 241, 1977e: 44; Strohmeier 1912c:

- 9, 1914c: 24. (tx) Blandford 1896e: 103; Chapuis 1865: 149; Equihua & Atkinson 1957: 28; Schedl 1940a: 324, 1960c: 22, 1972f: 241; Strohmeier 1912c: 9, 1914c: 24.
- ramali Schedl** 1940c: 203. Syntypes ♂; Costa Rica. Ramal Parismina, Sta. Clara; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica/ Panama).
References: (ds) Equihua & Atkinson 1957: 28; Schedl 1972f: 241. (tx) Equihua & Atkinson 1957: 28; Schedl 1940c: 203, 1972f: 241, 1978a: 61.
- ramosissimus Roberts & Morimoto** 1986: 176. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Cryptocarya* sp.
References: (tx) Roberts & Morimoto 1986: 176.
- ramulosus Roberts & Morimoto** 1986: 177. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Cryptocarya* sp.
References: (tx) Roberts & Morimoto 1986: 177.
- rasilis Schedl** 1979g: 118. Holotype ♀; Papua, Upper Manki L.A., Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 118.
- ratzeburgi Chapuis** 1865: 227. Syntypes ♂ ♀; de la Guyanne française, de la Colombie, et du Bresil; 1 ♀ in MNB, Berlin, 2 ♂ in BMNH, London, 1 ♂, 1 ♀ in IRSNB, Brussels.
Distribution: Antilles Islands (Cuba/ Guadeloupe/ Puerto Rico/ Trinidad), North America (Costa Rica/ El Salvador), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Colombia/ Paraguay/ Peru/ Suriname/ Venezuela).
Hosts: *Erythrina costaricensis*, *Inga* sp., *Lonchocarpus margaritensis*.
References: (hb) Kalshoven 1963; Swabey 1935: 7. (ds) Blackwelder 1947: 790; Equihua & Atkinson 1957: 28; Gemminger & Harold 1872: 2700; Kalshoven 1963: 238; Martorell 1945: 467–468; Santoro 1957b: 26; Schedl 1933c: 174, 1960a: 78, 1970e: 87, 1972f: 218, 1972g: 50, 1977e: 44; Strohmeier 1912c: 14, 1914c: 26; Swabey 1935: 7; Wolcott 1936: 316, 1948: 385. (tx) Chapuis 1865: 227; Equihua & Atkinson 1957: 28; Schedl 1936e: 55, 1937d: 40, 1939j: 565, 1941e: 156, 1948d: 37, 1952a: 444, 1952e: 123, 1952h: 73, 1957a: 194, 1960a: 78, 1960c: 41–42, 1972f: 218; Strohmeier 1912c: 14, 1914c: 26.
- raucis Schedl** 1936c: 224. Syntypes ♂ ♀; Guayana (?); Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne/ Suriname).
Notes: (1) Schedl 1978a: 62 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 790; Schedl 1972f: 241. (tx) Schedl 1936c: 224, 1972f: 241, 1978a: 62.
- refractus Roberts & Morimoto** 1986: 178. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
References: (tx) Roberts & Morimoto 1986: 178.
- reichei Chapuis** 1865: 135. Syntypes ♂ ♀; de la Colombie; 1 ♀ in MNB, Berlin, 1 ♂ in IRSNB, Brussels (Schedl 1960c: 19).
Distribution: North America (Costa Rica/ Nicaragua/ Panama), South America (Brazil/ Colombia).
Hosts: *Ficus* sp., etc.
Notes: (3) Breeds only in healthy, green tissue of living trees.
References: (ds) Blackwelder 1947: 790; Blandford 1896e: 98; Equihua & Atkinson 1957: 28; Gemminger & Harold 1872: 2700; Schedl 1933c: 166, 1972f: 241; Strohmeier 1912c: 9, 1914c: 24. (tx) Blandford 1896e: 98; Chapuis 1865: 135; Equihua & Atkinson 1957: 28; Schedl 1934e: 210, 1935e: 176, 1935h: 354, 1936c: 225, 1960c: 19, 1972f: 241; Strohmeier 1912c: 9, 1914c: 24.
- retusipennis Schedl** 1964c: 301. Holotype ♂; Ostkuste Sumatras, Brastagi, 1300 m; ZMA, Amsterdam.
Distribution: Indonesia (Sumatra).
References: (ds) Schedl 1972f: 212. (tx) Schedl 1964c: 301, 1972f: 212.
- retusulus Schedl** 1975a: 460. Holotype ♂; Vietnam: Tonkin, Kelao; Schedl Collection in NHMW, Wien.
Distribution: Asia (Tonkin Island in Vietnam).
References: (ds) Schedl 1975a: 453. (tx) Schedl 1975a: 453, 460.
- retusus Strohmeier** 1910e: 132. Holotype ♂; Nilgiri Hills (India orientalis); H. L. Andrews Collection.
Distribution: Asia (India).
References: (ds) Schedl 1972f: 212; Strohmeier 1912c: 19, 1914c: 29. (tx) Schedl 1972f: 212; Strohmeier 1910e: 132, 1912c: 19, 1914c: 29.
- rimulosus Schedl** 1950e: 215. Lectotype ♀; Cote d'Ivoire, Adiopodoume, upon Avodire; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ghana/ Ivory Coast).
Hosts: *Turraacanthus africana*.
References: (ce) Jover 1952: 73–81. (hb) Caehan 1957: 6, 15; Jover 1952: 73–81. (ds) Browne 1984b: 287; Schedl 1962h: 63, 1962k: 640, 1972f: 216. (tx) Schedl 1950e: 215, 1954d: 874, 885, 1957d: 120–121, 1962k: 640, 1972f: 216, 1978a: 62.
- roberti Chapuis** 1865: 183. Syntypes ♂; de Madagascar; 1 ♂ in MNB, Berlin, 2 ♂ in MNHN, Paris.
Distribution: Madagascar.
Notes: (3) Browne 1972c: 108 (described female).
References: (ds) Alluand 1900: 441; Fairmaire 1892b; Gemminger & Harold 1872: 2700; Nurnberg 1964: 237; Schedl 1972f: 234, 1977b: 253;

- Strohmeyer 1912c: 12, 1914c: 25. (tx) Browne 1972c: 108; Chapuis 1865: 183; Fairmaire 1892b; Schanfuß 1897b: 109; Schedl 1936c: 237, 1937d: 33, 39, 1960c: 31, 1961e: 156–157, 1964m: 316, 1967f: 149, 1972f: 234, 1977b: 253, 1978b: 62; Strohmeyer 1912c: 12, 1914c: 25.
- robustus Chapuis** 1865: 146. Holotype ♂; du Venezuela; BMNH, London (Schedl 1960c: 21).
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Schedl 1972f: 241; Strohmeyer 1912c: 7, 1914c: 24. (tx) Chapuis 1865: 146; Schedl 1960c: 21, 1972f: 241; Strohmeyer 1912c: 9, 1914c: 24.
- roppai Schedl** 1978c: 308. Holotype ♂; Brasilien, Linhares, E. Santo; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1978c: 308.
- rotundicauda Motschulsky** 1863: 509. Syntypes 2 ♀; des Montagnes de Nura-Ellia, syntypes labeled India Orientalis; IZM, Moscow.
Distribution: Asia (Sri Lanka).
References: (hb) Speyer 1923: 23. (ds) Gemminger & Harold 1872: 2700; Schedl 1972f: 242; Strohmeyer 1912c: 19, 1914c: 29. (tx) Motschulsky 1863: 509; Schedl 1972f: 242; Strohmeyer 1912c: 19, 1914c: 29.
- rufescens (Strohmeyer)** 1912f: 82 (*Crossotarsus*). Holotype ♂; Kamerun; MNB, Berlin, and Strohmeyer Collection.
Figures: Schedl 1962k: 643.
Distribution: Africa (Cameroon/ Ivory Coast/ Nigeria/ Sierra Leone/ Zaire/ Zambia).
Hosts: *Ochthocosmus africanus*, *Parinarium holstii*, *Terminalia superba*.
Notes: (1) Schedl 1972f: 223 (to *Platypus*).
References: (ds) Schedl 1933f: 202, 1972f: 223, 1979b: 416; Strohmeyer 1912c: 6, 1914c: 36. (tx) Schedl 1933f: 202, 1935g: 313–314, 1957d: 118, 120–123, 1962k: 641, 1972f: 223; Strohmeyer 1912c: 6, 1912f: 82, 85, 1914c: 36.
- elongatus** Schedl 1935g: 313 (*Stenoplatypus*).
Lectotype ♂; Belgian Congo: Sandoa, Lulua; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 27, preoccupied by Chapuis 1865.
Notes: (3) Schedl 1972f: 223 (treated as a subspecies of *rufescens*).
References: (ds) Schedl 1972f: 223. (tx) Schedl 1933f: 202, 1935g: 313–314, 1950d: 11, 1952i: 23, 1957d: 120, 123, 1959c: 168, 1962k: 642, 1972f: 223, 1978a: 27.
- rufescens parinariae** Schedl 1957d: 122. Holotype ♀; Kivu, Hembe-Bitale, 1800 m; MRCB, Teruvuren.
Notes: (3) Schedl 1972f: 223 (treated as a subspecies of *rufescens*).
References: (ds) Roberts 1968: 189, 1969: 119; Schedl 1962k: 642, 1972f: 223. (tx) Schedl 1957d: 120, 122–123, 1962k: 642–643, 1972f: 223, 1972p: 159, 1978a: 63.
- ochthocosmus** Roberts 1970b: 480. Holotype ♂; Sierra Leone: Gola West Forest Reserve; BMNH, London. Synonymy: Schedl 1972f: 223.
References: (ds) Beaver & Loytyniemi 1989. (tx) Beaver & Loytyniemi 1989; Roberts 1970b: 480; Schedl 1972f: 223, 1972p: 159.
- rufobrunneus Schedl** 1942a: 207. Holotype ♀; Tenasserim; Schedl Collection in NHMW, Wien.
Distribution: Asia (Burma).
References: (ds) Schedl 1972f: 242. (tx) Schedl 1942a: 207, 1972f: 242, 1978a: 63.
- rugosifrons Schedl** 1933c: 173. Holotype ♂; Brazil, S. Paulo, Alto da Serra; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/ Venezuela).
References: (ds) Blackwelder 1947: 790; Schedl 1933c: 173, 1972f: 234. (tx) Schedl 1933c: 173, 1972f: 234, 1978a: 63; Wood, S. L. 1992a: 91.
- pretiosus** Schedl 1961i: 233. Holotype ♂; Venezuela, Mt. Duida; CAS, San Francisco. Synonymy: Wood 1992a: 91.
References: (ds) Schedl 1960a: 78, 1972f: 234. (tx) Schedl 1961i: 233, 1972a: 234, 1978a: 56; Wood, S. L. 1992a: 91.
- rucinatus Roberts** 1986: 52. Holotype ♂; Papua New Guinea: Mt. Giluwe, 2000 m; BMNH, London.
Figures: Roberts 1986: 57.
Distribution: New Guinea.
Hosts: *Nothofagus pullei*, *Vavaca* sp.
References: (tx) Roberts 1986: 52, 57.
- sallei Chapuis** 1865: 218. Syntypes 2 ♂; de la Colombie; BMNH, London.
Distribution: South America (Colombia/ Venezuela).
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Schedl 1972f: 219; Strohmeyer 1912c: 13, 1914c: 26. (tx) Chapuis 1865: 218; Schedl 1939b: 399, 1948f: 253, 1960c: 40, 1972f: 219; Strohmeyer 1912c: 13, 1914c: 26.
- salvini Blandford** 1896e: 103. Syntypes 2 ♂; Guatemala, Cerro Zumil; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 14.
Distribution: North America (Guatemala).
References: (ds) Blackwelder 1947; Equihua & Atkinson 1957: 28; Schedl 1972f: 241; Strohmeyer 1914c: 24. (tx) Blandford 1896e: 103; Equihua & Atkinson 1957: 28; Schedl 1972f: 241; Strohmeyer 1914c: 24.
- sampsoni (Schedl)** 1933f: 202 (*Stenoplatypus*).
Lectotype ♂; South Africa, Zululand: Eshowe, and Port St. John; Pondoland; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 63.
Distribution: Africa (South Africa).

- Hosts: *Cassipourea gummiflora*, *Fagara capensis*, *Olea laurifolia*, *Virgilia capensis*.
References: (cn) Anonymous 1970c: 12. (ce) Walt & Scott 1971a; Walt, Scott, & van der Klift 1971b: 463. (hb) Browne 1961c: 221. (ds) Anonymous 1970c: 12; Schedl 1933f: 202–203, 1962k: 658, 1969d: 6, 1970h: 179, 1972f: 216, 1975k: 279. (tx) Schedl 1933f: 202–203, 1948c: 665, 1957c: 326, 1957d: 120, 1962k: 658–659, 1972f: 216.
- sandakanensis** Browne 1970: 577. Holotype ♂; Sabah; Sandakan; BMNH, London.
Distribution: Indonesia (Borneo).
References: (ds) Browne 1980c: 484, 1981b: 598; Olmo, Yoneyama, & Nakazawa 1987a: 95; Schedl 1972f: 199. (tx) Browne 1970: 577–578; Schedl 1972f: 199.
- santacruzensis** Mutchler 1925: 233. Holotype ♂; Galapagos Islands: Seymour Bay, Indefatigable Island; AMNH, New York.
Distribution: South America (Galapagos Islands).
References: (ds) Blackwelder 1947: 790; Mutchler 1924: 232; Schedl 1972f: 234, 1974e: 52, 1978c: 293. (tx) Mutchler 1924: 232; Schedl 1972f: 234.
- santiriae** Roberts 1970: 75. Holotype ♂; Nigeria: Ngel Nyaki Forest Reserve, Mambilla Plateau, 1650 m; MRCB, Teruven.
Distribution: Africa (Nigeria).
Hosts: *Santiria trimera*.
References: (tx) Roberts 1970: 75.
- saravakensis** (Schedl) 1937e: 546 (*Crossotarsus*). Lectotype ♂; Saravak, foot of Mt. Dulit, junction of rivers Tinjar and Lejok; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 64.
Distribution: Indonesia (Saravak in Borneo).
References: (ds) Schedl 1972f: 224. (tx) Schedl 1937e: 544–547, 1972f: 224, 1978a: 64.
- scalaris** Schedl 1980b: 188. Holotype ♂; Nth [Northern] Queensland, Australia; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
Hosts: *Flindersia pubescence*.
References: (tx) Schedl 1980b: 188.
- sculptor** Schedl 1975f: 394. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 394.
- schenklingi** (Strohmeyer) 1912f: 81 (*Crossotarsus*). Syntypes ♂; Kamerun; MNB, Berlin, and Strohmeyer Collection.
Distribution: Africa (Cameroon/ Congo/ Ghana/ Ivory Coast/ Nigeria/ Sierra Leone/ Tanzania/ Uganda/ Zaïre).
Hosts: Schedl 1962k: 638–639 (15 host species listed).
Notes: (3) Schedl 1939g: 169–170 (described female).
References: (ce) Schedl 1962k: 637. (hb) Browne 1963a: 252; Schedl 1962k: 637. (ds) Browne 1963a: 252; Mayne & Donis 1960: 100, 1962: 287; Roberts 1968: 189, 1969: 119; Schedl 1961m: 85, 1962h: 63, 1962k: 637, 1108, 1964j: 42, 1972f: 223; Strohmeyer 1912c: 6, 1914c: 36. (tx) Schedl 1937d: 42, 1939g: 169–170, 1941d: 414, 1952i: 22, 1957d: 118, 120, 1962k: 637, 1972f: 223, 1978a: 64; Strohmeyer 1912c: 6, 1912f: 81–85, 1914c: 36.
- schmidti** Chapuis 1865: 150. Holotype ♂; de Cayenne; IRSNB, Brussels (Schedl 1960c: 22).
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Schedl 1972f: 241; Strohmeyer 1912c: 9, 1914c: 24. (tx) Chapuis 1865: 150; Schedl 1936c: 234, 1939b: 399, 1948d: 39–40, 1960c: 22, 1972f: 241; Strohmeyer 1912c: 9, 1914c: 24.
- schultzeanus** Schedl 1966b: 98. Syntypes ♂; Luzon, Mountain Province, Benguet, Mount Santo Tomas; W. Schultze Collection, and Schedl Collection in NHMW, Wien, automatic.
Distribution: Philippine Islands (Luzon).
References: (ds) Schedl 1966b: 98, 1972f: 200. (tx) Nobuchi 1985: 329; Schedl 1966b: 98, 1972f: 200.
- schultzei** Schedl 1935k: 481 (*Crossotarsus*). Syntypes ♂; Mountain Province, Benguet, Mount Santo Tomas; W. Schultze Collection, and Schedl Collection in NHMW, Wien, preoccupied by Strohmeyer 1911.
References: (ds) Murayama 1957a: 37; Strohmeyer 1912c: 18. (tx) Schedl 1935k: 481–482, 1940b: 435, 1966b: 98, 1972f: 200.
- scrobicularis** Roberts 1979: 95. Holotype ♂; Papua New Guinea: 8 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Euodia* sp.
References: (tx) Roberts 1979: 95.
- secretus** Sampson 1921: 25. Syntypes ♂ ♀; Tonkin, Hoabinh; BMNH, London.
Distribution: Asia (Bangladesh/ Bhutan/ Burma/ Assam, Bengal in India/ Laos/ Malaya/ Tonkin Island in Vietnam).
Hosts: *Aesculus pinduana*, *Albizia* spp., *Alphonsa ventricosa*, *Anthocephalus cadamba*, *Artocarpus fraxinifolius*, *Cinnamomum* sp., *Dalbergia assamensis*, *Diospyros* spp., *Dipterocarpaceae pilosus*, *Hymenodictyon excelsum*, *Lansea grandis*, *Meliosma simplicifolia*, *Odina wodier*, *Ostodes paniculata*, *Stereulia ornata*, *Terminalia bclerica*.
References: (cn) Kleine 1932a: 310, 402; Mathur & Singh 1960b: 61, 1961a: 70, 1961b: 26; Roonwal & Singh 1954: 33, 40. (ce) Beeson 1921b: 24. (hb) Kleine 1932a: 310, 402. (ds) Beaver & Browne 1975: 308; Beeson 1921b: 24, 1941 (1961: 266); Blasin, Roonwal, & Singh 1955; Browne 1970: 576, 1972b: 29; Kleine 1932a: 310,

402; Mathur & Singh 1960b: 61, 1961a: 70, 1961b: 26; Roonwal 1954: 33, 40; Sampson 1921: 25; Schedl 1962f: 167, 1971c: 363, 1972a: 191, 1974c: 262, 1975c: 354. (tx) Browne 1964: 755, 1972b: 29; Sampson 1921: 25; Schedl 1972f: 191.

eruditus Schedl 1942a: 212. Lectotype ♂; Tonkin, Region de Hoa-Binh; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 28. Synonymy: Schedl 1972f: 191.

References: (tx) Schedl 1942a: 212, 1972f: 191, 1978a: 28.

secus Wood 1972b: 248. Holotype ♂; La Carbonera Experimental Forest, 50 km W Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Eschweilera* sp., *Nectandra* sp., *Podocarpus raspigliosii*.

References: (tx) Wood, S. L. 1972b: 248.

segnis Chapuis 1865: 166. Holotype ♂; de la Nouvelle-Grenade; IRSNB, Brussels (Schedl 1960c: 27). Distribution: Antilles Islands (Guadeloupe), North America (Costa Rica/ Guatemala/ Chiapas, Veracruz in Mexico/ Panama), South America (Bolivia/ Brazil/ Colombia/ Peru/ Venezuela).

References: (en) Kleine 1932a: 402. (cc) Equihua & Atkinson 1986: 625. (hb) Burgos & Saucedo 1983: 46; Equihua & Atkinson 1986: 625; Kleine 1932a: 402. (ds) Atkinson & Equihua 1986a: 423, 1988: 104; Atkinson et al. 1986: 47; Blackwelder 1947: 790; Burgos & Saucedo 1983: 46; Equihua 1985: 144; Equihua & Atkinson 1986: 625, 1987: 29; Estrada & Atkinson 1988: 213; Gemminger & Harold 1872: 2700; Kleine 1932a: 402; Numberg 1971: 59; Schedl 1966f: 94, 1972f: 234; Strohmeier 1912c: 13, 1914c: 25; Wille 1943: 315. (tx) Chapuis 1865: 166; Equihua & Atkinson 1987: 29; Schedl 1952h: 72, 1960c: 27, 1972f: 234; Strohmeier 1912c: 13, 1914c: 25.

poriferus Chapuis 1865: 168. Syntypes 2 ♂; de Toxpan; BMNH, London (Schedl 1960c: 27). Synonymy: Schedl 1972f: 234.

References: (ds) Blackwelder 1947: 790; Blandford 1896c: 106; Ferrer 1942; Schedl 1933c: 172, 1960a: 75, 1970c: 90; Strohmeier 1912c: 12, 1914c: 25. (tx) Blandford 1896c: 106; Chapuis 1865: 168; Keler 1927a: 235; Schedl 1940a: 324–325, 1941e: 156, 1960c: 27, 1972f: 234; Strohmeier 1912c: 12, 1914c: 25.

viduus Chapuis 1865: 178. Holotype ♂; Mexico; Haag Collection or lost (Schedl 1960c: 30). Synonymy: Schedl 1972f: 234.

References: (ds) Gemminger & Harold 1872: 2700. (tx) Chapuis 1865: 178; Schedl 1960c: 30, 1972f: 234.

sellaeformis Roberts & Morimoto 1986: 178. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.

Distribution: New Guinea.

Hosts: *Cryptocarya* sp.

References: (tx) Roberts & Morimoto 1986: 178.

selysi Chapuis 1865: 215. Syntypes 2 ♂, 1 ♀; de la Nouvelle Guinee, Dorey; BMNH, London (Schedl 1960c: 39).

Figures: Gray & Wylie 1974: 81.

Distribution: New Guinea.

Hosts: *Aleurites muluccana*, *Evodia* sp., *Hevea brasiliensis*, *Horsfieldia irya*, *Intsia* sp., *Myristica* sp., *Polyalthia* sp.

References: (hb) Gray, B. 1968: 307. (ds) Gemminger & Harold 1872: 2700; Gray, B. 1968: 307; Schedl 1962i: 73, 1964c: 305, 1964d, 1968c: 264, 1972f: 224; Smece 1964: 25; Strohmeier 1912c: 13, 1914c: 25. (tx) Chapuis 1865: 215; Gray, B. & Wylie 1974: 81; Schedl 1939b: 398, 1940b: 434–435, 1941c: 154, 1960c: 39, 1964d: 213, 1972f: 224; Strohmeier 1912c: 13, 1914c: 25.

semicarinatus Schedl 1942a: 203. Lectotype ♂; Malaya, Pahang, Cameron's Highlands; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 64.

Distribution: Asia (Malaya).

References: (ds) Browne 1961c: 198; Schedl 1972f: 206. (tx) Schedl 1942a: 203, 1942c: 194, 1972f: 206, 1978a: 64.

semiermis Schedl 1941c: 362. Syntypes ♂ ♀; Java, Mount Gede, 800 m; Kalshoven Collection, and Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Borneo, Java).

Hosts: *Pasania* sp.

Notes: (1) Schedl 1978a: 65 (citation of holotype invalid).

References: (hb) Kalshoven 1960c: 41. (ds) Browne 1961c: 218; Kalshoven 1960d: 41; Schedl 1971c: 370, 1972f: 217. (tx) Schedl 1941c: 362–363, 1942a: 172, 1958h: 498, 1972f: 217.

semigranosus (Sampson) 1925: 2 (*Crossotarsus*). Holotype ♂; Queensland: Malanda; BMNH, London.

Distribution: Australia (Queensland).

Hosts: *Argyrodendron* sp., *Cinnamomum* sp., *Elaeocarpus* sp., *Flindersia pubescens*, *Panax* sp.

Notes: (3) Schedl 1980b: 189 (described female). References: (en) Brimblecombe 1951; Froggatt 1926b, 1927. (hb) Brimblecombe 1951; Froggatt 1926b, 1927. (ds) Sampson 1925: 2; Schedl 1972f: 185, 1980b: 185. (tx) Sampson 1925: 2; Schedl 1936g: 516, 1972f: 185, 1980b: 189.

semiopacus Strohmeier 1913: 163. Holotype ♂?; Brit. Neu-Guinea. Aroa-Fluss; Strohmeier Collection.

Distribution: New Guinea.

Hosts: *Podocarpus* sp.

References: (ds) Schedl 1968e: 264, 1968f: 535, 1972f: 185; Strohmeier 1914c: 29. (tx) Schedl 1935e: 174, 1936g: 517, 1939b: 398, 1969b: 231, 1972f: 185; Strohmeier 1913: 163, 1914c: 29.

- semisulcatus** Schedl 1969b: 231. Holotype ♂; New Guinea: Kimm, 11 miles from Mt. Hagen; CSIRO, Canberra.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 212. (tx) Schedl 1969b: 231, 1972f: 212, 1975a: 65.
- senexus** Wood 1966a: 66. Holotype ♂; 16 km SE Cartago on Pan-American Highway, Cartago Prov., Costa Rica, 5600 feet; Wood Collection.
Figures: Schedl 1972f: 220, Wood 1966a: 67.
Distribution: North America (Costa Rica).
References: (ds) Equihua & Atkinson 1987: 29; Schedl 1972f: 220. (tx) Equihua & Atkinson 1987: 29; Schedl 1972f: 220; Wood, S. L. 1966a: 66–67.
- sepaloides** Roberts 1959: 281. Holotype ♂; Papua New Guinea: Upper Stony Logging Area, Bulolo, 1200 m; NHMW, Wien.
Figures: Roberts 1959: 286.
Distribution: New Guinea.
Hosts: *Castanopsis* sp.
References: (tx) Roberts 1959: 281, 286.
- sequius** Schedl 1935i: 44. Syntypes ♂; Guadeloupe, env. de Trois-Rivieres; MNHN, Paris, and Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe).
Notes: (1) Schedl 1975a: 65 (type restricted to MNHN, Paris specimens).
References: (ds) Blackwelder 1947: 790; Schedl 1972f: 219. (tx) Schedl 1935i: 44, 1972f: 219, 1975a: 65.
- sericans** Schedl 1942a: 211. Lectotype ♀; Malaya, Perak, Trolak F.R.; Schedl Collection, designated by Schedl 1975a: 65.
Distribution: Asia (Malaya).
Hosts: *Vatica* sp.
References: (ds) Browne 1961c: 200; Schedl 1972f: 242. (tx) Schedl 1942a: 210–211, 1972f: 242, 1975a: 65.
- setaceus** Chapuis 1865: 234. Syntypes 2 ♂; des îles Philippines; IRSNB, Brussels (Schedl 1960c: 43).
Distribution: Philippine Islands, New Guinea.
Hosts: *Diplodiscus paniculatus*.
Notes: (3) Schedl 1935k: 484 (described female).
References: (cn) Ishikura 1966. (ds) Baer 1886; Browne 1983a: 554; Gemminger & Harold 1872: 2700; Ishikura 1966; Nobuchi 1977: 122; Ohno, Yoneyama, & Nakazawa 1987b: 90; Schedl 1966b: 98, 1972f: 191; Strohmeier 1912c: 16, 1914c: 27. (tx) Chapuis 1865: 234; Nobuchi 1985: 329; Schedl 1933e: 105, 1935k: 484–486, 1942a: 212, 1960c: 43, 1972f: 191, 1975a: 66; Strohmeier 1911b: 17, 1912c: 16, 1914c: 27.
- severiini** Blandford 1894d: 136. Syntypes (many) ♀; Japan: Nikko, Chiuzenji, and Hakodate; BMNH, London.
Figures: Nakane et al. 1963: pl. 192, Nobuchi 1973b: pl. 2.
Distribution: Asia (Japan/Taiwan).
Hosts: *Acer mono*, *Aesculus turbinata*, *Abnus hirsuta*, *A. japonica*, *Camellia japonica*, *Carpinus japonicus*, *Fagus crenata*, *Fraxinus spachiana*, *F. lanuginosa*, *Prunus* sp., *Quercus gilva*, *Tilia japonica*.
References: (ay) Korolev 1989; Nakashima 1972. (cn) Anonymous 1980g; Ishikura 1966; Kleine 1932a: 402; Uchida et al. 1958: 181. (cc) Banno, Mikata, & Kodama 1983: 445; Inouye et al. 1955: 122; Nakashima 1972. (hb) Inouye et al. 1955: 122; Kleine 1932a: 402; Murayama 1931b: 195; Nakashima 1972. (ds) Anonymous 1980g; Blandford 1894c; Ishikura 1966; Kleine 1932a: 402; Miwa 1931: 266; Murayama 1925a: 212, 1929a: 672, 1931b: 195, 1934f: 133–149, 1937c: 578, 1949c: 104, 1950b: 1299, 1954b: 188; Nakane et al. 1963: 384; Nobuchi 1967: 27, 1973b: 15; Schedl 1934f: 1647, 1972f: 199; Strohmeier 1912c: 16, 1914c: 27. (tx) Blandford 1896e: 136; Korolev 1989; Murayama 1925a: 212, 1925b: 235, 1928a: 283–284, 1950b: 1299, 1954b: 188; Nakane et al. 1963: 384, pl. 2; Nisima 1909: 171, 1910a: 5, 1913a: 5; Nobuchi 1967: 26, 1973b: 15, pl. 2; Schedl 1959d: 68, 1972f: 199; Strohmeier 1912c: 16, 1914c: 27.
- sexcostatus** Chapuis 1865: 126. Holotype ♂; du Bresil; MNHN, Paris (Schedl 1960c: 16).
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Schedl 1972f: 241; Strohmeier 1912c: 9, 1914c: 24. (tx) Chapuis 1865: 126; Schedl 1936c: 225, 1960c: 16, 1972f: 241; Strohmeier 1912c: 9, 1914c: 24.
- sexporus** (Schedl) 1935k: 484 (*Crossotarsus*). Holotype ♀; Philippinen; Schedl Collection in NHMW, Wien.
Distribution: Asia (Vietnam), Indonesia (Java), Philippine Islands.
Hosts: *Castanea argentea*, *C. javanica*, *C. tunggurat*.
Notes: (1) Schedl 1954a: 138 (to *Platypus*).
References: (ds) Schedl 1966b: 98, 1972f: 217, 1974c: 262. (tx) Beeson 1937: 93; Nobuchi 1985: 329; Schedl 1935k: 484, 1939c: 4, 1939e: 335, 1954a: 138, 1972f: 217, 1975a: 66.
- sexforaminatus** Beeson 1937: 92. Syntypes ♂ ♀; Philippine Is.; BMNH, London. Synonymy: Schedl 1939c: 4, 1972f: 335.
References: (tx) Beeson 1937: 92–94; Schedl 1939c: 4, 1939e: 335, 1972f: 217.
- sexualis** Beeson 1937: 95. Syntypes ♂ ♀; United Provinces: Chakrata division, Mandali, 6000 feet; FRI, Dehra Dun.
Distribution: Asia (Uttar Pradesh in India).
Hosts: *Quercus dilatata*.
Notes: (1) Schedl 1972f: 217 (to *Platypus*).
References: (ds) Beeson 1941 (1961: 266); Schedl 1972f: 217. (tx) Beeson 1937: 95–96; Schedl 1939c: 4, 1972f: 217.

- seydéli (Nunberg)** 1967: 326 (*Stenoplatypus*). Holotype ♂; Elisabethville [Congo]; MRCB, Tervuren. Figures: Nunberg 1967b: 339. Distribution: Africa (Zaire). References: (tx) Nunberg 1967b: 326, 338–339.
- shillongensis Schedl** 1969c: 66. Holotype ♂; India: Assam, Shillong, 6000 feet; FRI, Dehra Dun. Distribution: Asia (Assam in India, Malaya). Hosts: *Acer campbelli*, *Livistona jenkinsiana*. Notes: (1) None of the specimens borrowed from FRI by Schedl were ever returned to FRI; the type of this species is probably among the Schedl paratypes (SLW). (3) Beeson 1941: 345, 1961: 266 (*shillongensis*, nomen nudum, synonymy in Schedl 1969c: 66). References: (ds) Beeson 1941: 345, 1961: 266; Schedl 1972f: 189. (tx) Schedl 1969c: 66–67, 1972f: 189, 1978a: 66.
- shoreanus (Beeson)** 1937: 98 (*Crossotarsus*). Syntypes ♂ ♀; Assam: Lakhimpur division, Upper Dihing reserve; FRI, Dehra Dun. Distribution: Asia (Burma/ Cochin in China/ Assam in India/ Malaya/ Sri Lanka/ Vietnam), Indonesia (Borneo), New Guinea, Philippine Islands. Hosts: *Anisoptera cochinchinensis*, *A. polyandra*, *Balanocarpus heimii*, *Dipterocarpus zeylanicus*, *Doonia zeylanicus*, *Hopea odorata*, *Shorea assamica*, *S. bracteolata*, *S. singkawang*, *Terminalia brassii*. Notes: (1) Schedl 1972f: 224 (to *Platypus*). (3) Schedl 1936d: 7 (*imitator*; nomen nudum, synonymy in Schedl 1972f: 224). References: (cn) Mathur & Singh 1960b: 57, 1961a: 37. (ds) Beeson 1941 (1961: 266); Mathur & Singh 1960b: 57, 1961a: 37; Ohno, Yoneyama, & Nakazawa 1987a: 96; Schedl 1969c: 66, 1972f: 224. (tx) Beeson 1937: 98–99; Schedl 1972f: 224, 1978a: 66; Wylie & Yule 1977.
- doonae** Beeson 1937: 99 (*Crossotarsus*). Syntypes ♂ ♀; Ceylon: S.A.B., Rattnapura, Mawagan-kanda, 500'; FRI, Dehra Dun, not found in 1981 by SLW. Notes: Schedl 1972: 224 (treated as a subspecies). References: (ds) Beeson 1941 (1961: 265); Schedl 1959a: 513. (tx) Beeson 1937: 99–100; Schedl 1959a: 513, 1972f: 224, 1978a: 26.
- bifurcus mutilus** Schedl 1939e: 359 (*Crossotarsus*). Lectotype ♂; Malaya, Selangor: Kepong; Schedl Collection in NHMW, Wien. Notes: (3) Schedl 1972f: 224 (treated as a subspecies), 1942a: 213 (described female). References: (an) Nakashima 1975: 6–8. (ec) Nakashima 1975: 6–8. (ds) Beeson 1941 (1961: 265); Browne 1961a: 314, 1966: 237; Nakashima 1975: 3; Nobuchi 1977: 117; Ohno, Yoneyama, & Nakazawa 1982b: 10; Schedl 1936d: 7, 1959c: 168, 1964i: 249, 1966g: 34, 1972a: 145, 1972f: 224. (tx) Nobuchi 1985: 329; Schedl 1939e: 359, 1942a: 207, 213, 1972f: 224, 1978a: 15; Wylie & Yule 1977.
- shoreanus tersus** Schedl 1972h: 71. Holotype ♂; Wara Sweet logging area, Kuni, Morobe District, New Guinea; CSIRO, Canberra. References: (ds) Browne 1983a: 55; Schedl 1972f: 224, 1972h: 71.
- sicarius Wood** 1972b: 250. Holotype ♂; 10 km SE Miri, Barinas, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: *Pouteria anibaefolia*. References: (tx) Wood, S. L. 1972b: 250.
- signatus Chapuis** 1865: 235. Syntypes 3 ♂; de ile de Borneo, Sarawak; BMNH, London. Distribution: Asia (Burma/ India/ Malaya), Indonesia (Sarawak in Borneo, Java, Sumatra). Hosts: *Artocarpus lakoocha*, *Ctenolophon grandifolius*, *Endospermum malaccense*, *Gonystylus bancanus*, *Hevea brasiliensis*, *Kickxia arborea*, *Koompassia malaccensis*, *Lucuma malaccensis*, *Pometia tomentosa*, *Pouteria malaccensis*, *Psychotia viridiflora*, *Schinus noronhai*, *Sterculia macrophylla*, *S. urceolata*, *Symplocos* sp., *Xylia dolabriformis*, *X. xylocarpa*. Notes: (3) Schedl 1942a: 208 (described female). References: (cn) Kalshoven 1924; Kleine 1932a: 310, 402; Mathur & Singh 1961a: 70, 1961b: 96; Roonwal 1954: 89; Yumus & Hua 1980: 217. (hb) Browne 1935a, 1941, 1961c: 196; Kalshoven 1960c: 34, 1960d: 34; Kleine 1932a: 310, 402; Mercer 1982: 210. (ds) Beeson 1941 (1961: 266); Browne 1935a, 1961c: 196, 1980c: 484; Gemminger & Harold 1872: 2700; Kalshoven 1924b: 358, 1960d: 34; Kleine 1932a: 310, 402; Mathur & Singh 1961a: 70, 1961b: 96; Mercer 1982: 210; Nobuchi 1977: 119; Roonwal 1954: 89; Sampson 1928b: 392; Schedl 1965g: 24, 1969a: 206, 1971f: 151, 1972f: 194; Strohmeier 1912c: 16, 1914c: 27; Yumus & Hua 1980: 217. (tx) Chapuis 1865: 235; Sampson 1913: 448, 1919: 106, 1928b: 392; Schedl 1937e: 544, 1939b: 398, 1939c: 337, 362–363, 1941c: 354, 1942a: 208, 1960c: 44, 1972f: 194, 1978a: 66; Strohmeier 1912c: 16, 1914c: 27.
- similis (Nunberg)** 1973: 26 (*Stenoplatypus*). Holotype ♂; Massif Ruwenzori, Zalonge, 2100 m, Riv. Nyamwamba, affl. Butahu; MRCB, Tervuren. Distribution: Africa (Zaire). References: (tx) Nunberg 1973: 26.
- simpliciformis Wood** 1966a: 57. Holotype ♂; Tapanti, Cartago Prov., Costa Rica, 4000 feet; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Phoebe mexicana*. References: (ds) Equihua & Atkinson 1987: 29; Schedl 1972f: 206. (tx) Equihua & Atkinson 1987: 29; Schedl 1972f: 206; Wood, S. L. 1966a: 52, 57.
- simulans Schedl** 1941d: 413. Holotype ♂; Syr. [Syrien]; Schedl Collection in NHMW, Wien. Distribution: Asia (Syria/ Turkey).

- Hosts: *Alnus* sp., *Liquidambar orientalis*.
References: (ds) Schedl 1961b: 185, 1972f: 191. (tx) Schedl 1941d: 413, 1961b: 186–187, 1972f: 191, 1978a: 66.
- sinodora** Browne 1980c: 488. Holotype ♂; Singapore to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Sinodora* sp.
References: (tx) Browne 1980c: 488.
- sinensis** Schedl 1941a: 43. Holotype ♀; Fukien, Kuatun, 2300 m; Museum Alexander Koenig, Bonn.
Figures: Schedl 1941a: 44.
Distribution: Asia (Fujian in China).
Notes: (1) Schedl 1978a: 67 (Lectotype designation invalid; the designation should have been a lectoallotype because a holotype already existed).
References: (ds) Schedl 1972f: 192. (tx) McNamara 1984: 750; Schedl 1941a: 43, 1953e: 22, 26, 1972f: 192, 1978a: 67.
- singalangensis** Schedl 1936e: 53. Syntypes ♂; Sumatra, Mte. Singalang; MCG, Genova, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
Notes: (1) Schedl 1978a: 67 (citation of holotype invalid).
References: (ds) Schedl 1972f: 193. (tx) Schedl 1936e: 53–54, 1972f: 193, 1978a: 67.
- singularis** Schedl 1975f: 394. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 394.
- sinuosus** Chapuis 1865: 198. Holotype ♂; de Varinas [now Barinas, Venezuela]; presumably Stettin Museum, lost (Schedl 1960c: 34).
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Schedl 1972f: 234; Strohmeier 1912c: 13, 1914c: 25. (tx) Chapuis 1865: 198; Schedl 1960c: 34, 1972f: 234; Strohmeier 1912c: 13, 1914c: 25.
- sirambeensis** Schedl 1936e: 59. Syntypes ♂; Sumatra, Si-Rambe; MCG, Genova, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
Notes: (1) Schedl 1978a: 67 (citation of holotype invalid).
References: (ds) Schedl 1972f: 227. (tx) Schedl 1936e: 59, 1964g: 253, 1972f: 227, 1978a: 67.
- sobrinus** Schedl 1935h: 353. Syntypes ♂ ♀; Guatemala; Schedl Collection in NHMW, Wien.
Distribution: North America (Guatemala).
Notes: (1) Schedl 1978a: 67 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 790; Equihua & Atkinson 1987: 29; Schedl 1972f: 241. (tx) Equihua & Atkinson 1987: 29; Schedl 1935h: 353, 1972f: 241, 1978a: 67.
- solicitatus** Schedl 1975f: 395. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 395.
- solidulus** Browne 1980: 496. Holotype ♂; Palembang (Sumatra) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sumatra).
References: (ds) Ohno, Yoneyama, & Nakazawa 1982b: 10. (tx) Browne 1980: 496.
- solidus** Walker 1859: 261. Holotype ♂; Ceylon; BMNH, London.
Figures: Nakashima 1975: 38–41, Nobuchi 1967: pl. 2, 1973b: pl. 2, Wood 1960a: 9.
Distribution: Asia (Burma/ Andaman Islands, Assam, Bengal, Bihar, Karnataka, Orissa, Tamil Nadu in India/ Israel/ Japan/ Korea/ Malaya/ Nepal/ Pakistan/ Singapore/ Sri Lanka/ Taiwan/ Vietnam), Admiralty Islands, Australia (Queensland), Indonesia (Aru, Borneo, Celebes, Damma, Java, Malacca, Sumatra), Micronesia (Caroline Islands, Mariana Islands), New Guinea, Philippine Islands, Solomon Islands.
Hosts: *Acacia catechii*, *Acacia decurrens*, *Acrocarpus fraxinifolia*, *Adina* spp., *Azcleia palembanica*, *Albizzia* spp., *Anisoptera* sp., *Anogeissus latifolia*, *Anthocephalus cadamba*, *Artocarpus* spp., *Bombax malabaricum*, *Buchanania* spp., *Butea* spp., *Canarium strictum*, *Carallia suffruticosa*, *Carpinus laxiflora*, *Castanopsis tribuloides*, *Ceratonia siliqua*, *Chloroxylon swietenia*, *Cinnamomum* spp., *Cocos nucifera*, *Cullenia excelsa*, *Dalbergia latifolia*, *D. sissoo*, *Dipterocarpus pilosus*, *Dolichandrone stipulata*, *Drimycarpus racemosus*, *Dryobalanops oblongifolia*, *Duabanga sonneratioides*, *Elateriospermum tapos*, *Eugenia* sp., *Ficus* spp., *Garuga pinnata*, *Gmelina arborea*, *Hexca brasiliensis*, *Holoptelea integrifolia*, *Lannea grandis*, *Litsea polyantha*, *Mallotus albus*, *Mangifera indica*, *Naucllea sessilifolia*, *Odina wodier*, *Palaquium* sp., *Pterocarpus dalbergioides*, *Pterospermum acerifolium*, *Salmalia malabarica*, *Schleichera oleosa*, *S. trijuga*, *Schinus noronhai*, *S. wallichii*, *Semecarpus heterophylla*, *Shorea leprosula*, *S. robusta*, *Stereulia campanulata*, *S. villosa*, *Stereospermum chelonoides*, *Styrax benzoin*, *Swintonia floribunda*, *Syzygium cumini*, *Talauma gioi*, *Tamarindus indica*, *Tectona grandis*, *Terminalia bellerica*, *T. tomentosa*, *Tetrameles nudiflora*.
Notes: (3) Schedl 1937d: 40 (*walkerii*, nomen nudum, synonymy in Schedl 1959a: 513).

- References: **(ay)** Kempers 1932: 69; Nakashima 1975: 5. **(bv)** Beeson 1917; Gray, B. 1974b. **(cn)** Beeson 1915, 1916: 1-5, 1938a; Browne 1938b: 77-86; Chatterjee et al. 1923, 1950; Gray, B. & Wylie 1974; Green 1912a: 2-5, 1916: 608-636; Ishikura 1966; Kalshoven 1924, 1925c: 1, 1960d: 48; Kleine 1932a: 310, 402; Leefmans 1920: 1-90; MacKenzie 1922: 1-14; Mathur & Singh 1960a: 39, 1960b: 6, 1961a: 13, 1961b: 13; Mesa 1931: 18; Ranawera 1959: 78; Roonwal 1954: 18; Roonwal, Chatterjee, & Thapa 1961b: 7; Rutgers 1918: 1-44; Speyer 1923: 11-23; Stebbing 1914: 624; Tammimgkeng & Tantra 1971; Tryon 1917: 49-63; Wylie & Shanahan 1975. **(cc)** Beeson 1921b: 24, 1923; Bhatia 1950; Browne 1955b; Chatterjee & Chatterjee 1951; Halperin & Holzschuh 1984: 29; Mathew 1985; Nakashima 1975: 5; Stebbing 1914: 624. **(hb)** Beeson 1916a: 222, 1917, 1923, 1938a; Browne 1935a, 1941, 1958b, 1961c: 207-209; Chatterjee & Chatterjee 1951; Chatterjee et al. 1950; Gray, B. 1968: 308, 1974b; Gray, B. & Wylie 1974; Halperin & Holzschuh 1984: 29; Kalshoven 1959a: 224-226, 1960c: 39, 1960d: 1; Kleine 1932a: 310, 402; Murayama 1931b: 196; Speyer 1923: 22; Stebbing 1914: 624; Wylie & Shanahan 1975. **(ds)** Beaver & Browne 1975: 308, 1978: 620; Beeson 1916a, 1921b, 1923, 1938a, 1941 (1961: 266); Bhasin, Roonwal, & Singh 1958; Bhatia 1950; Blandford 1895a; Browne 1935a, 1961c: 207, 1966: 235, 1980d: 492, 1984c: 450; Chapuis 1865; Chatterjee & Chatterjee 1951; Chatterjee et al. 1950: 37; Cho 1957; Choo 1983: 33; Choo & Woo 1985: 163; Choo, Woo, & Kim 1981: 203; Gemminger & Harold 1872: 2700; Gray, B. 1968: 308; Green 1912a; Halperin 1976b; Halperin & Holzschuh 1984: 29; Ishikura 1966; Kalshoven 1924b: 358, 1925c: 1, 1960d: 48; Kleine 1932a: 310, 402; Ko 1969: 274; Lacordaire 1866: 392; Mathew 1982, 1987: 188; Mathur & Singh 1960a: 39, 1960b: 6, 1961a: 13, 1961b: 13; Mesa 1935: 96; Miwa 1931: 266; Murayama 1925a: 213, 1929a: 672, 1929b: 2, 1930b: 23, 1931b: 196, 1936b: 113, 1937b: 375, 1937c: 579, 1954b: 205, 1957a: 37; Nakashima 1975: 3; Nobuchi 1967: 27, 1973b: 16, 1977: 129; Numberg 1960b: 161, 1961b: 624; Ohno, Yoneyama, & Nakazawa 1982b: 11, 1987a: 96, 1987b: 90; Ohno, Yoshioka, et al. 1988b: 98, 1989: 67; Roonwal 1954: 18; Roonwal, Chatterjee, & Thapa 1961b: 7; Sampson 1919: 106, 1926: 120; Schedl 1936d: 7, 1936g: 514, 1938g: 423, 1959a: 513, 1961e: 70-71, 1962b: 187, 1962f: 167, 1962i: 75, 1964d: 213, 1965a: 340, 1965g: 23-25, 1966b: 99, 1966g: 34, 1968e: 264, 1971a: 278, 1971c: 368, 1971f: 151, 1972a: 145, 1973b: 212, 1974c: 262, 1975a: 453, 1975e: 453, 1978e: 37; Strohmeier 1912c: 17, 1914c: 27; Wood, S. L. 1960a: 7. **(tx)** Chapuis 1865: 267; Choo 1983: 33; Gardiner 1932b; Green 1912a; Kalshoven 1959a: 224; Lacordaire 1866: 392; Lea 1910: 135; Motschulsky 1863; Murayama 1925a: 213, 1925b: 235, 1930b: 23, 27-28, 31, 1937b: 375, 1950d: 98, 1954b: 205; Nakashima 1975: 38-41; Nobuchi 1967: pl. 2, 1973b: 16, pl. 2, 1985: 329; Sampson 1919: 106; Schedl 1934f: 1647, 1936e: 55-56, 1937d: 40, 1939b: 398, 1939e: 336, 1941e: 156, 1942a: 172, 199, 1942b: 147, 1942c: 164, 1951i: 96, 1953b: 124, 128, 147, 1954a: 145, 1955b: 282-283, 310, 1959a: 513, 1960c: 50, 1969b: 233; Stebbing 1914: 624; Strohmeier 1912c: 17, 1912d: 42, 1914c: 27; Walker 1859: 261; Wood, S. L. 1960a: 7-9, 1969c: 120; Wylie & Yule 1977.
- caudatus* Motschulsky 1863: 509. Syntypes 6 ♂; Nura-Ellia, specimens labeled India oriental; IZM, Moscow. Synonymy: Schedl 1959a: 513, Wood 1969c: 120.
References: **(ds)** Gemminger & Harold 1872: 2698. **(tx)** Motschulsky 1863: 509; Numberg 1959c: 168, 1961b: 624; Schedl 1959a: 513, 1960h: 110, 1972f: 199; Wood, S. L. 1969c: 120.
- cordatus* Motschulsky 1863: 510. Syntypes 4 ♀; Des Montagnes de Nura-Ellia, syntypes labeled India oriental; IZM, Moscow. Synonymy: Wood 1969c: 120.
References: **(hb)** Speyer 1923: 23. **(ds)** Gemminger & Harold 1872: 2698; Schedl 1972f: 242; Strohmeier 1912c: 19, 1914c: 28. **(tx)** Motschulsky 1863: 510; Schedl 1972f: 242; Strohmeier 1912c: 19, 1914c: 28; Wood, S. L. 1969c: 120.
- pilifrons* Chapuis 1865: 265. Syntypes 4 ♀; Du continent et de l'Archipel indiens; BMNH, London (Schedl 1960c: 50). Synonymy: Strohmeier 1912d: 42.
References: **(bv)** Beeson 1917. **(cn)** Kalshoven 1925c: 1; Kleine 1932a: 310, 402; Mathur & Singh 1961a: 45. **(hb)** Beeson 1916a: 223, 1917; Kleine 1932a: 310, 402. **(ds)** Beeson 1916a: 223; Gemminger & Harold 1872: 2699; Kalshoven 1925c: 1; Kleine 1932a: 310, 402; Lefroy & Hawlett 1909: 395; Mathur & Singh 1961a: 45; Sampson 1919: 106, 1926: 120; Strohmeier 1912c: 17. **(tx)** Beeson 1921: 24; Chapuis 1865: 265; Murayama 1930: 28; Sampson 1919: 106; Schedl 1959a: 513, 1960c: 50, 1972f: 199; Strohmeier 1912c: 17, 1912d: 42; Wood, S. L. 1960a: 8.
- solidus exilis* Chapuis 1865: 268. Syntypes, sex?; Iles Celebes et spécialement aux environs de Macassar; BMNH, London.
Notes: (3) Schedl 1972f: 199 (treated as a subspecies). An apparent aberration.
References: **(ds)** Schedl 1972f: 199. **(tx)** Chapuis 1865: 268; Schedl 1933e: 105, 1972f: 199.
- solidus obtusus* Chapuis 1865: 268. Syntypes, sex?; Ceylan; BMNH, London, preoccupied by Chapuis 1865: 265.

- Notes: (3) Schedl 1972f: 199 (treated as a subspecies). An apparent aberration.
References: (tx) Chapuis 1865: 265; Schedl 1972f: 199.
- solidus rudis* Chapuis 1865: 268. Syntypes, sex?; Iles de Baichian et de Marty dans les Moluques; BMNH, London.
Notes: (3) Schedl 1972f: 199 (treated as a subspecies). It is an apparent aberration.
References: (ds) Schedl 1972f: 199. (tx) Chapuis 1865: 268; Schedl 1972f: 199.
- solomonicus* Browne 1954b: 291. Holotype ♂; Ringi Cove (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: *Neonauclea* sp.
References: (ds) Olmo, Yoshioka, et al. 1958b: 97–98, 1959: 67. (tx) Browne 1954b: 291.
- solutus* Schedl 1933f: 193. Lectotype ♂; Haut-Uele; Moto, Avakubi, Equateur; Boende, Haut-Uele; Abinva, Koteli, Sankuru, Kindu, Likimi, Ituri; Mahagi, Avakubi; Schedl Collection in NHMW, Wien, designated by Schedl 1975a: 67. Figures: Schedl 1962k: 600.
Distribution: Africa (Angola/ Cameroon/ Congo/ Equatorial Guinea/ Kenya/ Malawi/ Mozambique/ Nigeria/ Sierra Leone/ Somalia/ South Africa/ Tanzania/ Zaïre/ Zambia), Madagascar.
Hosts: Many listed in Schedl 1962k: 632–634. *Ficus sycomorus*, *Melia azedarach*.
References: (en) Halperin & Menier 1951; Mayne & Donis 1951: 337; Tordo 1957: 8. (ec) Mayne & Donis 1951: 337; Schedl 1962k: 629. (hb) Schedl 1962k: 629. (ds) Browne 1975a: 757; Ferreira 1965: 1130; Lee 1971: 30; Mayne & Donis 1960: 100, 1962: 287; Menier 1951; Roberts 1968: 188, 1969: 119; Schedl 1934a: 247, 1935d: 452, 1943c: 70, 1959p: 22, 1962k: 629, 1964f: 619, 1965e: 357, 1966c: 230, 1971e: 4, 1971g: 196, 1972f: 234, 1972k: 296, 1975: 279; Spahr 1951: 80. (tx) Powell, W. 1987: 28; Schedl 1933f: 193, 1934a: 247, 1937d: 39, 1939a: 468, 1941d: 381, 1941c: 155, 1948d: 42, 1950d: 4, 11, 14, 1952g: 54, 1952j: 5, 1953g: 243, 1955c: 31, 1955f: 260, 1962k: 600, 629, 1972f: 234, 1978a: 67.
- flavicornis* Dalman 1825: 381, 404–405. Syntypes, sex?; Sierra Leone Africa; not located, preoccupied by Fabricius 1776. Synonymy: Schedl 1972f: 234.
References: (tx) Dalman 1825: 381, 404–405; Schedl 1972f: 234.
- spectabilis* Schedl 1935b: 396. Holotype ♀; Philippine Islands; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands.
Hosts: *Dipterocarpus grandiflorus*.
References: (ds) Schedl 1938g: 424, 1966b: 100, 1972f: 192. (tx) Nobschli 1985: 329; Schedl 1935b: 395–397, 1941a: 43, 1941c: 360, 1972f: 192, 1978a: 68.
- spectus* Wood 1972b: 247. Holotype ♂; Rancho Grande in Pittier National Park, Aragua, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
References: (tx) Wood, S. L. 1972b: 247.
- spiculatus* Browne 1972b: 30. Holotype ♂; Malaya; Sungei Buloh; BMNH, London.
Distribution: Asia (Malaya).
References: (ds) Browne 1986c: 663; Ohno, Yoshioka, et al. 1959: 67. (tx) Browne 1972b: 30.
- spiviventris* Schedl 1969b: 232. Holotype ♂; New Guinea; Kumi, 11 miles from Mt. Hagen; CSIRO, Canberra.
Distribution: New Guinea.
Notes: (3) Roberts 1959: 283 (described female).
References: (ds) Schedl 1972f: 227. (tx) Schedl 1969b: 232–233, 1972f: 227, 1978a: 68.
- spinosus* Browne 1981a: 135. Holotype ♂; Way Semangka (Sumatra) to Sakaide (Japan), imported; BMNH, London.
Distribution: Indonesia (Sumatra).
Hosts: *Dipterocarpus* sp.
References: (ds) Mayne & Donis 1960: 98, 1962: 276. (tx) Browne 1981a: 135.
- spinulosus* (Strohmeyer) 1912: 80 (*Stenoplatypus*). Syntypes ♂ ♀; Kamerun, Deutsch-Ostafrika und Franzosisch-Kongo; MNB, Berlin, Hamburg Museum, lost. Strohmeyer Collection.
Figures: Schedl 1962k: 646, 1972f: 214.
Distribution: Africa (Cameroon/ Congo/ Gabon/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Sierra Leone/ South Africa/ Tanzania/ Uganda/ Zaïre/ Zimbabwe).
Hosts: Schedl 1962k: 646–647 listed 21 host species.
References: (ay) Strohmeyer 1918: 42. (ec) Jover 1952: 73–81; Schedl 1962k: 644. (hb) Browne 1963a: 252; Jones, Roberts, & Baker 1959: 13–14; Jover 1952: 73–81; Schedl 1962k: 644; Webb & Jones 1957: 37, 41. (ds) Browne 1963a: 252; Gardner 1957a: 29; Mayne & Donis 1960: 100, 1962: 288; Numborg 1952: 22, 1965b: 22; Roberts 1968: 189, 1969: 119; Schedl 1961m: 85, 1962h: 63, 1962k: 644, 1967e: 221, 1971e: 4, 1972c: 284, 1972f: 216, 1982: 279; Strohmeyer 1911a: 182, 1912c: 6, 1914c: 36. (tx) Numborg 1952: 22; Powell, W. 1987: 28; Schedl 1937d: 42, 1939b: 395, 1941c: 361, 1950d: 19, 1950e: 212, 1954d: 874, 1957d: 118, 120, 1962k: 644, 646, 1108, 1972f: 216; Strohmeyer 1911a: 182, 1912c: 6, 1912f: 80–82, 85, 1914c: 35–36.
- spinulosus montivagus* Roberts 1970a: 77. Holotype ♂; Nigeria; Ngel Nyaki Forest Reserve, 1650 m, Mambilla Plateau; BMNH, London.
References: (tx) Roberts 1970a: 77.
- squamens* Schedl 1942a: 200. Holotype ♂; Tenasserim; Schedl Collection in NHMW, Wien.
Distribution: Asia (Burma/ Thailand), Indonesia (Borneo, Sumatra).
References: (ds) Beaver & Browne 1975: 309;

- Browne 1972b: 29; Schedl 1964c: 304, 1972f: 183. (tx) Schedl 1942a: 200, 1972f: 183, 1978a: 68.
- squmifer** Schedl 1963d: 233. Holotype ♀; Brasilien: Sao Paulo; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1972f: 219. (tx) Schedl 1963d: 233, 1972f: 219, 1978a: 68.
- stenoplicatus** Schedl 1939c: 3. Lectotype ♂; N.E. Burma, Kambaiti, 7000 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 69.
Distribution: Asia (Burma, Fujian in China).
References: (ds) Schedl 1972f: 219. (tx) Schedl 1939c: 3, 1955h: 46, 1972f: 219, 1978a: 69.
- strenuus** Schedl 1969b: 233. Holotype ♂; New Guinea: Togoba [Western Highlands District]; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Anisoptera polyandra*, *Cinnamomum* sp., *Eucalyptus grandis*.
Notes: (3) Schedl 1973i: 96 (described female).
References: (ds) Schedl 1972f: 199. (tx) Schedl 1969b: 233, 1972f: 199, 1973i: 96, 1978a: 69.
- striatodeclivis** Schedl 1975f: 396. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 396.
- striatopennis** Schedl 1952a: 463. Syntypes 2 ♂; Argentina, Misiones, Departamento Concepcion Santa Maria; Viana Collection, and Schedl Collection in NHMW, Wien.
Distribution: South America (Argentina).
Notes: (1) Schedl 1978a: 69 (citation of holotype invalid).
References: (ds) Schedl 1972f: 218. (tx) Schedl 1952a: 463, 1972f: 218, 1978a: 69.
- striatopunctatus** Schedl 1942a: 210. Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 201. (tx) Schedl 1942a: 210, 1972f: 201, 1978a: 69.
- striatus** Chapuis 1865: 270. Holotype ♂; du Bresil; BMNH, London (Schedl 1960c: 51).
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947; Gemminger & Harold 1872: 2700; Schedl 1972f: 234; Strohmeier 1912c: 17, 1914c: 27. (tx) Chapuis 1865: 270; Schedl 1960c: 51; Strohmeier 1912c: 17, 1914c: 27.
- strigillatus** Schedl 1941c: 359. Syntypes ♂; Java. Mount Gede, 800 m; Kalshoven Collection, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
Hosts: *Castanea javanica*.
Notes: (1) Schedl 1978a: 69 (citation of holotype invalid).
References: (hb) Kalshoven 1960c: 41. (ds) Kalshoven 1960c: 41; Schedl 1972f: 195. (tx) Schedl 1941c: 359–360, 1954a: 145, 158, 1972f: 195, 1978a: 69.
- suavifer** Schedl 1970e: 109. Holotype ♂; Brasilien, Amazonas, Sierra Neblina, M. Rio Canaburi, 1000 m; Zoologischen Sammlungen des Bayrischen Staates, Munchen.
Distribution: South America (Brazil).
References: (ds) Schedl 1970e: 87, 1972f: 241. (tx) Schedl 1970e: 87, 109–110, 1972f: 241.
- subaequalispinosus** Schedl 1936i: 100. Holotype ♂; Bolivien; Schedl Collection in NHMW, Wien.
Figures: Schedl 1972f: 225.
Distribution: South America (Bolivia/ Peru).
References: (ds) Blackwelder 1947: 790; Schedl 1972f: 225. (tx) Schedl 1936i: 100, 1958c: 1–2, 1972f: 225, 1978a: 69.
- subangustior** Schedl 1942a: 207. Lectotype ♀; Malaya, Kuala Lumpur; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 69.
Distribution: Asia (Malaya).
Hosts: *Albizzia falcata*, *A. moluccana*.
References: (ds) Browne 1961c: 220; Schedl 1972f: 201. (tx) Schedl 1942a: 207, 1972f: 201, 1978a: 69.
- subcuratus** Browne 1983a: 563. Holotype ♂; Tg. Usau (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: Watergun log.
References: (ds) Browne 1986c: 663; Olmo, Yoneyama, & Nakazawa 1987a: 96. (tx) Browne 1983a: 563.
- subdepressus** (Schedl) 1935b: 397 (*Crossotarsus*). Syntypes ♂ ♀; Mount Maquiling, Laguna Province, and Quezon Park, Tayabas Province, Luzon, Philippine Islands; F. C. Hadden Collection, and Schedl Collection in NHMW, Wien.
Distribution: Asia (Assam in India/ Malaya), Indonesia (Borneo, Sumatra), Philippine Islands (Luzon).
Hosts: *Dipterocarpus pilosus*, *Ehretia acuminata*, *Meliosma simplicifolia*.
Notes: (1) Schedl 1978a: 70 (citation of holotype invalid).
References: (ds) Browne 1981b: 598, 1984c: 151; Nobuchi 1977: 129; Olmo, Yoneyama, & Nakazawa 1987b: 90; Schedl 1934a: 247, 1962f: 167, 1966b: 88, 1966g: 34, 1972f: 202. (tx) Nobuchi 1985: 329; Schedl 1934a: 247, 1935b: 397–398, 1935k: 481, 1937d: 34, 1939b: 394, 395, 1962f: 167, 1969c: 64, 1972f: 202, 1978a: 70.
- sandakanus** Beeson 1937: 64 (*Crossotarsus*). Holotype ♂; Borneo: Sandakan, Baker; BMNH, London. Synonymy: Schedl 1939e: 333.
Notes: (1) Schedl 1972f: 202 (to *Platypus*).
References: (tx) Beeson 1937: 64–65; Schedl 1939e: 333, 1972f: 202.
- latchunatus** Beeson 1937: 66 (*Crossotarsus*).

Holotype ♂; Assam: Sibsagar division, Central Range, Nakachari; FRI, Dehra Dun. Synonymy: Schedl 1972f: 202.

References: (cn) Sen-Sarma & Thakur 1956: 37. (ds) Beeson 1941 (1961: 254); Browne 1961a: 314. (tx) Beeson 1937: 66–67; Browne 1962e: 654; Schedl 1972f: 202.

subgranosus Schedl 1936g: 516. Lectotype ♂; Tasmania: Waratah and Queensland: Dividing Range V.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 70.

Figures: Britton 1970: 621, Neumann & Harris 1974: 134

Distribution: Australia (Queensland, Tasmania).

Hosts: *Brachyhiton acerifolium*, *B. populicum*, *Encalyptus maculata*, *Nothofagus cunninghamii*, *Pterocymbium beccarii*, *Scolopia brownii*.

References: (bv) Elliott, H. J., Madden, & Bashford 1983; Elliott, H. J. et al. 1987. (cn) Brimblecombe 1951; Fisher 1952a; Fisher, Thompson, & Webb 1953; Kile, Elliot, & French 1976; Neumann & Harris 1974; Neumann & Marks 1976. (cc) Batra 1963a; Elliott, H. J. et al. 1987; Kile 1987; Kile & Hall 1988; Neumann & Harris 1974; Slaby 1947: 378; Webb 1945: 57. (hb) Brimblecombe 1951; Elliott & Little 19..: 49, 65; Fisher 1952a; Neumann & Harris 1974; Neumann & Marks 1976. (ds) Hogan 1948: 373; Schedl 1959d: 67–68, 1972f: 185, 1979a: 160. (tx) Britton 1970: 621; Carne et al. 1980; Neumann & Harris 1974: 134; Schedl 1936g: 516–517, 1941c: 155, 1942c: 164, 1958i: 214.

subgranulosa Browne 1955a: 194. Holotype ♂; Lawas (Sarawak) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: (tx) Browne 1955a: 194.

subitarius Schedl 1936c: 241. Holotype ♂; Brazil, Rio de Janeiro; Schedl Collection in NHMW, Wien.

Figures: Reichardt 1964b: 87.

Distribution: North America (Costa Rica), South America (Argentina/ Brazil).

References: (ds) Blackwelder 1947: 790; Equihua & Atkinson 1987: 29; Numborg 1963c: 107, 1964a: 237; Schedl 1966f: 94, 1967d: 5, 1970e: 87, 1972f: 218, 1973d: 163, 1976a: 58, 1979e: 58. (tx) Equihua & Atkinson 1987: 29; Reichardt 1964b: 87–89; Schedl 1936c: 241, 1948f: 283, 1972f: 218, 1978a: 70.

perdifficilis Schedl 1936c: 245. Holotype ♂; Rio Grande do Sul [Brazil]; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1948f: 283. References: (ds) Blackwelder 1947: 790. (tx) Schedl 1936c: 240, 245, 1948f: 283, 1972f: 218, 1978a: 53.

subnitens Browne 1983: 571. Holotype ♂; Lever Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.

Distribution: Solomon Islands.

References: (ds) Ohno, Yoshioka, et al. 1988b: 95. (tx) Browne 1983a: 571.

suboblitaratus Schedl 1940c: 204. Syntypes ♂; Costa Rica, Turrialba, 500 m and San Jose, 1000–1200 m; Neumann Collection and Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica).

Notes: (1) Schedl 1978a: 71 (citation of holotype invalid).

References: (ds) Equihua & Atkinson 1987: 29; Schedl 1972f: 241. (tx) Equihua & Atkinson 1987: 29; Schedl 1940c: 204, 1972f: 241, 1978a: 71.

subplicatus Schedl 1962b: 193. Holotype ♂; Indochina: Reg. de Hoa-Binh; MNHN, Paris.

Distribution: Asia (Tonkin Island in Vietnam, also Vietnam).

References: (ds) Schedl 1972f: 191. (tx) Schedl 1962b: 193, 1964c: 300, 1972f: 191, 1978a: 71.

subpraeteritus Schedl 1975g: 231. Holotype ♂; Papua, Porotop, Lath. Miss. Sawmill; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975g: 231, 1978a: 71.

subpronus Schedl 1969b: 233. Holotype ♂; New Guinea: Watut Valley 1200 m, Morobe District; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Aglaiia* sp.

Notes: (3) Schedl 1975f: 396 (described female). References: (ds) Schedl 1972f: 201. (tx) Schedl 1969b: 233–234, 1972f: 201, 1975f: 396, 1978a: 71.

subsecretus Browne 1964: 755. Holotype ♂; Burma: Ruby Mines; BMNH, London.

Distribution: Asia (Burma).

References: (ds) Schedl 1972f: 191. (tx) Browne 1964: 755; Schedl 1972f: 191.

subsidarius Schedl 1935j: 2. Holotype ♂; Sumatra, Medan; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Sumatra).

Notes: (1) Schedl 1972f: 202 (to *Platypus*).

References: (ds) Schedl 1972f: 202. (tx) Schedl 1935j: 2, 1972f: 202, 1978a: 71.

subsimilis Schedl 1936e: 54. Lectotype ♂; Mentawai, Si-Matobe and Sumatra; Siboga; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 71.

Distribution: Asia (Malaya), Indonesia (Mentawai, Sumatra).

Hosts: *Albizzia falcata*, *A. moluccana*.

References: (ds) Beeson 1941 (1961: 267); Browne 1961c: 195; Schedl 1961c: 70, 1972f: 192. (tx) Schedl 1936e: 54, 1939b: 394, 1939e: 336, 1972f: 192, 1978a: 71.

substriatus (Schedl) 1936j: 33 (*Crossotarsus*). Lectotype ♂; Malay Peninsula, Pahang; Cameron Highlands, 4500–4800 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 71.

- Distribution: Asia (Malaya), Indonesia (Sumatra).
Hosts: *Cinnamomum camphora*.
Notes: (1) Schedl 1972f: 202 (to *Platypus*).
References: (hb) Kalshoven 1960c: 41. (ds) Kalshoven 1960c: 41; Schedl 1965g: 23 (as *substrictus*), 1972f: 201–202. (tx) Schedl 1936j: 33, 1972f: 201–202, 1978a: 71.
- subsulcatus** Chapuis 1865: 140. Syntypes 3 ♂; de Cayenne; IRSNB, Brussels (Schedl 1960c: 20).
Distribution: South America (Brazil/ Cayenne/ Venezuela).
References: (ds) Blackwelder 1947: 790; Dejean 1837; Gemminger & Harold 1872: 2700; Schedl 1960a: 78, 1972f: 241, 1972g: 51, 1976a: 58. (tx) Chapuis 1865: 140; Schedl 1933c: 167, 1935e: 176, 1936c: 226, 1952a: 444, 1960c: 20, 1972f: 241; Strohmeier 1912c: 9, 1914c: 24.
- subtruncatus** Browne 1980d: 498. Holotype ♂; Wallace Bay (Borneo) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: *Nauclea* sp., *Shorea* sp.
References: (tx) Browne 1980d: 498.
- suffodiens** Sampson 1913: 447. Syntypes ♂ ♀; Lower Burma; BMNH, London.
Distribution: Asia (Bangladesh/ Burma/ Bengal, Tamil Nadu in India/ Malaya), Indonesia (Borneo, Java), Philippine Islands.
Hosts: *Adina* spp., *Anthocephalus cadamba*, *Fagraea gigantea*, *Hymenodictyon excelsum*, *Nauclea sessilifolia*, *Pithecolobium saman*, *Samanca saman*, *Vateria indica*.
References: (en) Corbett 1935: 43–56; Kleine 1932a: 310, 402; Mathur & Singh 1960b: 61, 1961a: 17, 1961b: 69; Roonwal 1954: 36; Stebbing 1914: 621. (ec) Beeson 1921b: 25; Stebbing 1914: 621. (hb) Browne 1961c: 197–198; Kalshoven 1960d: 35; Kleine 1932a: 310, 402; Stebbing 1914: 621. (ds) Beeson 1921b: 25, 1941 (1961: 267); Browne 1961c: 197–198, 1980a: 372, 1980c: 483, 1981b: 599; Kalshoven 1960d: 35; Kleine 1932a: 310, 402; Mathur & Singh 1960b: 61, 1961a: 17, 1961b: 69; Ohno, Yoneyama, & Nakazawa 1982a: 5, 1987a: 96, 1987b: 90; Roonwal 1954: 36; Sampson 1919: 107, 1925b: 392; Schedl 1962f: 168, 1972f: 193; Strohmeier 1914c: 27. (tx) Sampson 1913: 447–448, 1919: 107, 1925b: 392; Schedl 1939e: 336–360, 1941c: 354, 1942a: 209, 1972f: 193; Stebbing 1914: 621; Strohmeier 1914c: 27.
- sulciceps** Schedl 1979g: 118. Holotype ♂; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 118.
- sulcinodis** Schedl 1975f: 397. Holotype ♂; Mt. Kaindi, 2250 m, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Castanopsis accuminatissima*, *Dysoxylum* sp.
References: (tx) Schedl 1975f: 397.
- sulcipennis** Schedl 1976a: 91. Holotype ♂; Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 91.
- suzukii** Browne 1981b: 605. Holotype ♂; Lawas (Sarawak, Borneo) to Tokyo (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Shorea* sp.
References: (tx) Browne 1981b: 605.
- taiheizanensis** (Murayama) 1932: 485 (*Crossotarsus*). Holotype ♂; Formosa; Taiheizan: Murayama Collection in USNM, Washington.
Distribution: Asia (Taiwan).
Hosts: *Castanopsis kawakamii*.
Notes: (1) Schedl 1935b: 401 (to *Platypus*).
References: (ds) Murayama 1937c: 580; Nobuchi 1967: 25; Schedl 1972f: 220. (tx) Murayama 1932: 485–486; Schedl 1935b: 401, 1939c: 4, 1941a: 44, 1972f: 220.
- takeharai** Browne 1983a: 563. Holotype ♂; Tg. Usau (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: "Matoa" log.
References: (tx) Browne 1983a: 563.
- tasmanicus** Schedl 1942c: 192. Holotype ♂; Tasmanien; Schedl Collection in NHMW, Wien.
Distribution: Australia (Tasmania).
References: (ds) Schedl 1972f: 185. (tx) Schedl 1942c: 192, 1972f: 185, 1978a: 72.
- tayabasi** Schedl 1935k: 481. Holotype ♂; Luzon, Tayabas Province, Quezon Park; Schedl Collection in NHMW, Wien.
Distribution: Asia (Andaman Islands in India/ Taiwan), Philippine Islands (Luzon, Mindanao).
Hosts: Matoa log.
References: (ds) Browne 1980d: 493; Ohno, Yoneyama, & Nakazawa 1987b: 90; Schedl 1966b: 101, 1972f: 202. (tx) Beeson 1937: 65; Nobuchi 1985: 329; Schedl 1935k: 481, 1972f: 202, 1972p: 159, 1978a: 72.
- luatus** Browne 1964: 757. Holotype ♂; Philippines: Iligan, Mindanao; BMNH, London.
Synonymy: Schedl 1972f: 202.
References: (tx) Browne 1964: 757; Schedl 1972f: 202, 1972p: 159.
- lunatulus** Browne 1980d: 497. Holotype ♂; Keelung (Formosa) to Nagoya (Japan), imported; BMNH, London. Synonymy: Wood 1993:(in press).
References: (ds) Browne 1980d: 497, 1986b: 333. (tx) Wood, S. L. 1993:(in press).

- tenellus** Schedl 1935k: 455. Syntypes ♂ ♀; Luzon, Mountain Province, Benguet, Mount Santo Tomas; W. Schultze Collection, and Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
Hosts: *Ficus* sp., *Pinus insularis*.
Notes: (1) Schedl 1978a: 72 (citation of holotype invalid).
References: (ds) Schedl 1966b: 101, 1972f: 191. (tx) Nobuchi 1985: 329; Schedl 1935k: 454–456, 1942c: 198, 1972f: 191, 1978a: 72.
- tenuis** Murayama 1925b: 233. Holotype ♀; Sapporo, Hokkaido; Murayama Collection in USNM, Washington.
Figures: Nobuchi 1973b: pl. 2.
Distribution: Asia (Japan/ Malaya).
References: (ds) Murayama 1929a: 674, 1937c: 579, 1954b: 205; Schedl 1972f: 211. (tx) Murayama 1925b: 233, 1954b: 205; Nobuchi 1973b: pl. 2; Schedl 1934f: 1647, 1972f: 211.
- tenisculptus** Roberts 1979: 95. Holotype ♂; Papua New Guinea: 14 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London.
Figures: Roberts 1979: 97.
Distribution: New Guinea.
Hosts: *Ficus* sp.
References: (tx) Roberts 1979: 95–97.
- tenuissimus** Schedl 1941b: 426. Syntypes ♂ ♀; Java: Mt. Gede, 1000 m; Kalshoven Collection and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
Hosts: *Castanea argentea*, *Eurya japonica*, *Nyssa javanica*.
Notes: (1) Schedl 1978a: 73 (citation of holotype invalid).
References: (hb) Kalshoven 1960c: 39. (ds) Kalshoven 1960d: 39; Schedl 1972f: 211. (tx) Schedl 1941b: 416–426, 1972f: 211, 1978a: 73.
- tepidus** Schedl 1942a: 210. Lectotype ♀; Lower Burma: Bhamo, Birmania and Tenasserim, Thagata; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 73.
Distribution: Asia (Burma).
References: (ds) Schedl 1972f: 242. (tx) Browne 1972b: 29; Schedl 1942a: 210, 1972f: 242, 1978a: 73.
- terebrans** Schedl 1970b: 365. Holotype ♂; Sarawak, Lawas to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: Indonesia (Borneo).
Hosts: Kapur log.
References: (ds) Nobuchi 1977: 120; Schedl 1972f: 194. (tx) Schedl 1970b: 368–369, 1972f: 194, 1978a: 73.
- terminatulus** Schedl 1971c: 396. Holotype ♂; Malaya, Kelantan; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: (ds) Schedl 1972f: 196. (tx) Schedl 1971c: 396, 1978a: 73.
- ternus** Roberts 1986: 48. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: (tx) Roberts 1986: 48.
- tetracerus** Beeson 1929: 219. Holotype ♂; Samoa: Upolu, Malololelei, 2000 ft.; BMNH, London.
Distribution: Samoan Islands.
Hosts: *Plauchonella samoensis*.
References: (ds) Beaver 1976b: 545; Beeson 1938b: 296; Schedl 1972f: 211. (tx) Beeson 1929: 219–220; Schedl 1941b: 416, 1951k: 141, 155, 1972f: 211, 1978a: 73.
- tiriosensis** Reichardt 1965a: 53. Holotype ♂; Brasil, Estado do Para, Tirios (Alto rio Para d'Oeste); Dep. Zool., Sec. Agric., Sao Paulo.
Distribution: South America (Brazil/ Cayenne/ Guyana/ Suriname).
Hosts: *Catostemma* sp., *Eperia falcata*, *Eschweilera sagottianum*.
References: (ds) Schedl 1972f: 229. (tx) Reichardt 1965a: 53; Schedl 1972f: 229; Wood, S. L. 1992a: 91.
schedli Wood 1966a: 51. Holotype ♂; Manaka, British Guiana; BMNH, London. Synonymy: Wood 1992a: 91.
References: (ds) Schedl 1972f: 229, 1972g: 51. (tx) Schedl 1972f: 229, 1978a: 64; Wood, S. L. 1966a: 51–52, 1992a: 91.
- torulosus** Roberts & Morimoto 1986: 179. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London.
Distribution: New Guinea.
References: (tx) Roberts & Morimoto 1986: 179.
- tragus** Schedl 1939k: 718. Holotype ♂; Brazil: Rio Negro; Schedl Collection in NHMW, Wien.
Figures: Schedl 1939k: 721 (male outline).
Distribution: South America (Brazil).
Hosts: *Hevea* sp.
References: (ds) Blackwelder 1947: 791; Schedl 1972f: 234. (tx) Schedl 1939k: 718, 1972f: 234, 1978a: 74.
- transformis** Schedl 1936d: 16. Lectotype ♂; Malay Peninsula, Selangor: Kerling Res., Pahang; Temerloh; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 74.
Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Borneo), Philippine Islands.
Hosts: *Balanocarpus heimii*, *Dryobalanops aromatica*, *Shorea* spp. in living trees.
Notes: (3) Schedl 1971c: 396 (described female).
References: (hb) Browne 1936a, 1941, 1961c: 202. (ds) Beeson 1961: 267; Browne 1936a: 120–127, 1961c: 202–203; Nobuchi 1977: 132; Ohno, Yoneyama, & Nakazawa 1987a: 96; Ohno, Yoshioka, et al. 1989: 67; Schedl 1959a: 514,

- 1959c: 168, 1971c: 371, 1972f: 207. (tx) Nobuchi 1985: 329; Schedl 1936d: 16, 1959a: 514, 1971c: 396–397, 1972f: 207, 1978a: 74.
- transindicus** (Beeson) 1937: 89 (*Crossotarsus*). Syntypes ♂ ♀; Tonkin: Hoabinh: FRI, Dehra Dum. Distribution: Asia (Tonkin Island in Vietnam). Notes: (1) Schedl 1972f: 206 (to *Platypus*). (3) Schedl 1972f: 206 (treated as a subspecies of *indicus*). References: (ds) Schedl 1972f: 206. (tx) Beeson 1937: 89; Schedl 1939e: 335, 1972f: 206.
- transversecarinatus** Schedl 1942c: 199. Holotype ♀; Australien, New Queensland; Schedl Collection in NHMW, Wien. Distribution: Australia (Queensland). References: (ds) Schedl 1972f: 242. (tx) Schedl 1942c: 199, 1972f: 242, 1978a: 74.
- transversus** Schedl 1979g: 119. Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L.A.; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1979g: 119.
- triangulatus** Browne 1984c: 454. Holotype ♂; Lever Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London. Distribution: Solomon Islands. Hosts: *Xanthophyllum* sp. References: (ds) Ohno, Yoshioka, et al. 1988b: 98. (tx) Browne 1984c: 454.
- tricuspidatus** Schedl 1954b: 48. Syntypes ♂; Brasilien; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1954b: 48, 1972f: 234, 1978a: 74.
- trilobipennis** Browne 1983a: 567. Holotype ♂; Sandakan (Sabah) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Borneo). Hosts: "Erima" log. References: (tx) Browne 1983a: 567.
- triplurus** Browne 1980b: 388. Holotype ♂; Bangkok (Thailand) to Nagoya (Japan), imported; BMNH, London. Distribution: Asia (Thailand). Hosts: *Pterocarpus* sp. References: (tx) Browne 1980b: 388.
- trispinatus** Schedl 1970f: 584. Holotype ♂; Guyane française, Forêt d'Acaronany; Schedl Collection in NHMW, Wien. Distribution: South America (Cayenne). References: (ds) Schedl 1972f: 234. (tx) Schedl 1970f: 584, 1972f: 234, 1978a: 75.
- trispinatus** Schedl 1952a: 462. Syntypes ♂; Prov. Salta, Oran, Buenos Aires, Prov. Corrientes, Brazo Largo; Museo La Plata and Schedl Collection in NHMW, Wien. Distribution: South America (Argentina/ Brazil). Notes: (1) Schedl 1978a: 75 (citation of holotype invalid). References: (ds) Schedl 1970e: 87, 1972f: 234, 1979e: 58; Spahr 1981: 80. (tx) Schedl 1951h: 287, 1952a: 462, 1972f: 234, 1978a: 75.
- trispinosus** Chapuis 1865: 184. Holotype ♂; de Rio Janeiro, Bresil; BMNH, London (type not found by Schedl 1960c: 31). Distribution: South America (Argentina/ Brazil/ Venezuela). References: (cn) Santoro 1966a. (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2700; Santoro 1957b: 25; Schedl 1933c: 172, 1965b: 87, 1966f: 94, 1972: 234, 1979e: 59; Strohmeier 1912c: 13, 1914c: 25. (tx) Chapuis 1865: 184; Schedl 1936i: 101, 1951h: 287, 1960c: 31, 1972f: 234, 1978a: 75; Strohmeier 1912c: 13, 1914c: 25.
- quadricuspidatus** Schedl 1948f: 283. Syntypes ♂ ♀; Brasil, Nova Teutonia; Plammann Collection and Schedl Collection in NHMW, Wien. Synonymy: Schedl 1972f: 234. Notes: (1) Schedl 1978a: 60 (citation of holotype invalid). References: (tx) de Ruelle 1970: 68; Schedl 1948f: 283, 1972f: 234, 1978a: 60.
- tristis** Roberts 1986: 49. Holotype ♂; New Guinea; Papua, Bulolo; BMNH, London. Distribution: New Guinea. Hosts: *Protium* sp. References: (tx) Roberts 1986: 49.
- truncatellus** Browne 1975: 309 in Beaver & Browne. Holotype ♂; Thailand; Nakhon Ratchasima, Khao Yai; BMNH, London. Distribution: Asia (Thailand). Hosts: Tree. References: (tx) Beaver & Browne 1975: 309.
- truncaticauda** Schedl 1968f: 536. Holotype ♂; New Guinea (NW), Bodem, 100 m, 11 km SE of Oerberfaren; apparently in BPBM, Honolulu. Distribution: New Guinea. References: (ds) Schedl 1972f: 212. (tx) Schedl 1968f: 536, 1972f: 212, 1978a: 75.
- truncatigranosus** Schedl 1970a: 132. Holotype ♂; New Guinea, Porotop Lutheran Mission Sawmill, Western Highlands District; CSIRO, Canberra. Distribution: New Guinea. References: (ds) Schedl 1968f: 535, 1972f: 212. (tx) Schedl 1970a: 132, 1972f: 212, 1975f: 398, 1978a: 75.
- truncatipennis** Schedl 1964c: 302. Holotype ♂; New Guinea, Humboldt Bai; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (ds) Schedl 1968f: 537, 1972f: 212. (tx) Schedl 1964c: 302, 1972f: 212, 1978a: 76.
- diversiporus** Schedl 1972i: 56. Holotype ♀; Papua, Western Dist., Oriomo Gov. Sta.; BPBM, Honolulu. Synonymy: Roberts 1989: 285.

- References: (ds) Schedl 1972f: 217. (tx) Schedl 1972f: 217, 1972i: 56, 1978a: 26.
- multifoveolatus* Schedl 1975f: 359. Holotype ♀; New Guinea, Madang District, Nr. 1, Ramp, Gogol.; Schedl Collection in NHMW, Wien. Synonymy: Roberts 1989: 285. References: (tx) Roberts 1989: 285; Schedl 1975f: 359.
- truncatulus* Browne in Beaver & Browne 1978: 621. Holotype ♂; Malaya, Penang, Muka Head; BMNH, London. Distribution: Asia (Malaya). Hosts: *Calophyllum tetrapterum*. References: (tx) Beaver & Browne 1978: 621.
- truncaturus* Browne 1983a: 562. Holotype ♂; Tatan (Sarawak) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). References: (tx) Browne 1983a: 562.
- truncatus* Chapuis 1865: 269. Syntypes 2 ♂; de l'île de France (Mauritius); 1 in BMNH, London. 1 in IRSNB, Brussels. Distribution: Madagascar, Mauritius Island. References: (en) Montia 1932: 9–12. (ds) Alluaud 1900: 441; Gemminger & Harold 1872: 2700; Schedl 1972f: 234; Strohmeier 1912c: 17, 1914c: 27. (tx) Chapuis 1865: 269; Lucas 1920: 522; Schedl 1939b: 399, 1960c: 51, 1972f: 234; Strohmeier 1912c: 17, 1914c: 27. (ms) Lucas 1920: 522.
- tuberculatus* Chapuis 1865: 131. Holotype ♂; de Cayenne; IRSNB, Brussels (Schedl 1960c: 17). Figures: Mayne & Donis 1962: 289. Distribution: South America (Cayenne). Notes: (3) Schedl 1936c: 226 (described female). References: (ds) Blackwelder 1947: 791; Gemminger & Harold 1872: 2700; Schedl 1970f: 582, 1972f: 241, 1972g: 51; Strohmeier 1912c: 9, 1914c: 24. (tx) Chapuis 1865: 131; Mayne & Donis 1962: 289; Schedl 1933c: 167, 1935e: 176, 1936c: 226, 1960c: 17, 1972f: 241, 1978a: 76; Strohmeier 1912c: 9, 1914c: 24.
- tuberculosis* Strohmeier 1910e: 128. Holotype ♂; Tasmania; Strohmeier Collection. Distribution: Australia (Tasmania). References: (ds) Schedl 1972f: 199; Strohmeier 1912c: 19, 1914c: 29. (tx) Schedl 1936c: 226, 1972f: 199; Strohmeier 1910e: 128, 1912c: 19, 1914c: 29.
- tuberosus* (Schedl) 1942a: 214. Holotype ♂; Malaya, Pahang, Cameron's Highlands, 4800 Fuss; Schedl Collection in NHMW, Wien. Distribution: Asia (Malaya). References: (ds) Browne 1961c: 213; Schedl 1972f: 186. (tx) Browne 1962e: 653; Schedl 1942a: 214, 1972f: 186, 1978a: 76.
- turcicus* Schedl 1970b: 366. Holotype ♂; New Guinea, Vanimo to Nagoya (Japan), imported; PPST, Tokyo. Distribution: New Guinea. References: (ds) Nobuchi 1977: 131; Schedl 1972f: 201. (tx) Schedl 1970b: 366–367, 1972f: 201, 1978a: 76.
- turriiformis* Roberts & Morimoto 1986: 180. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London. Distribution: New Guinea. Hosts: *Xanthophyllum papuanum*. References: (tx) Roberts & Morimoto 1986: 180.
- ugandae* Browne 1965a: 205. Holotype ♂; Uganda: Zika; BMNH, London. Distribution: Africa (Uganda). References: (ds) Schedl 1972f: 235. (tx) Browne 1965a: 205; Schedl 1972f: 235.
- umbonatus* Blandford 1896e: 97. Holotype ♂; Guatemala, Cerro Zunil; BMNH, London. Distribution: North America (Guatemala). References: (ds) Blackwelder 1947: 791; Equihua & Atkinson 1987: 30; Schedl 1972f: 241; Strohmeier 1912c: 9, 1914c: 24. (tx) Blandford 1896e: 97–98; Equihua & Atkinson 1987: 30; Schedl 1972f: 241; Strohmeier 1912c: 9, 1914c: 24.
- umbraticus* Schedl 1964c: 303. Holotype ♂; Java: Mt. Ardjoena; ZMA, Amsterdam. Distribution: Indonesia (Java). References: (ds) Schedl 1972f: 211. (tx) Schedl 1964c: 303–304, 1972f: 211.
- umbrinus* Roberts 1989: 283. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo, 2200 m; NHMW, Wien. Figures: Roberts 1989: 288. Distribution: New Guinea. Hosts: *Syzygium* sp. References: (tx) Roberts 1989: 283, 288.
- uncatus* Browne 1980c: 498. Holotype ♂; Kennedy Bay (Borneo) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Borneo). Hosts: *Nauclea* sp. References: (tx) Browne 1980c: 489.
- uncinatus* Blandford 1895a: 327. Syntypes (several) ♂ ♀; Ceylon, Dikoya, Bogawantalawa; BMNH, London. Distribution: Asia (Burma/ Assam, Bengal, Karnataka, Tamil Nadu in India/ Malaya/ Sri Lanka). Hosts: *Albizia* spp., *Anogeissus latifolia*, *Bassia latifolia*, *Bombax malabaricum*, *Boswellia serrata*, *Bridelia retusa*, *Buchanania latifolia*, *Camellia sinensis*, *Castanopsis tribuloides*, *Cedrela toona*, *Cochlospermum gossypium*, *Diospyros paniculata*, *Dipterocarpus pilosus*, *Doonia zeylanica*, *Eugenia jambolana*, *Ficus glomerata*, *Gmelina arborea*, *Heritiera fomes*, *Salmalia malabarica*, *Shorea* spp., *Terminalia* spp., *Vatica lanceaefolia*. Notes: (3) Beeson 1941: 265 (*forfex*, nomen nudum, *kanarensis*, nomen nudum, synonymy in Schedl 1960c: 63).

- References: **(cn)** Kleine 1932a: 310, 402; Mathur & Singh 1960a: 7, 1960b: 17, 1961a: 13, 1961b: 26; Roonwal 1954: 45; Sen-Sarma & Thakur 1986: 37. **(ec)** Beeson 1921b; Thompson, W. R. 1943: 91. **(hb)** Kleine 1932a: 310, 402; Speyer 1923: 23. **(ds)** Beeson 1919: 1–23, 1921b: 25, 1961: 267; Bhasin, Roonwal, & Singh 1958: 17; Browne 1951b: 599; Kleine 1932a: 310, 402; Mathew 1982, 1987: 188; Mathur & Singh 1960a: 7, 1960b: 17, 1961a: 13, 1961b: 26; Ohno, Yoneyama, & Nakazawa 1982b: 11, 1987b: 90; Roonwal 1954: 45; Schedl 1959a: 515, 1969c: 63, 1971a: 281, 1971c: 362; Waterston 1922: 51–94. **(tx)** Beeson 1941: 265; Blandford 1895a: 327; Schedl 1941b: 416, 1959a: 51, 1960c: 63, 1972f: 211.
- rectangulatus* Sampson 1913: 448. Syntypes ♂ ♀; Tharrawaddy, Lower Burma; BMNH, London. Synonymy: Schedl 1972f: 221.
- References: **(cn)** Kleine 1932a: 310; Mathur & Singh 1961b: 41; Stebbing 1914: 623. **(ec)** Stebbing 1914: 623. **(hb)** Kleine 1932a: 310; Stebbing 1914: 623. **(ds)** Beeson 1921: 24, 1941 (1961: 266); Kleine 1932a: 310; Mathur & Singh 1961b: 41; Schedl 1961c: 167; Strohmeier 1914c: 28. **(tx)** Mathur & Singh 1961b: 41; Sampson 1913: 448–449; Schedl 1941b: 416, 1972f: 211; Stebbing 1914: 623; Strohmeier 1914c: 28.
- uniformis* Schedl 1970: 234. Holotype ♂ ♀; New Guinea: Porotop L.M. Station, W.H.D.; CSIRO, Canberra.
- Distribution: New Guinea.
- Hosts: *Cryptocarya* sp., *Podocarpus* sp., *Syzygium* sp.
- References: **(ds)** Schedl 1972f: 185. **(tx)** Schedl 1969b: 234–235, 1972f: 185, 1978a: 77.
- ursinus* Schedl 1935h: 353. Syntypes ♂ ♀; Brazilien, S. Paulo; Schedl Collection in NHMW, Wien.
- Distribution: North America (Costa Rica), South America (Brazil/ Cayenne).
- References: **(ds)** Blackwelder 1947: 791; Schedl 1970f: 582, 1972f: 242. **(tx)** Schedl 1935h: 353–354, 1972f: 242, 1978a: 78.
- ursus* Schedl 1933c: 166. Holotype ♂; Costa Rica, Hamburgfarn, Reventazon, Ebene Limon, 200–300 m; Schedl Collection in NHMW, Wien.
- Distribution: North America (Costa Rica).
- Notes: (3) Schedl 1934e: 209 (described female).
- References: **(ds)** Blackwelder 1947: 791; Equihua & Atkinson 1987: 30; Schedl 1933c: 166, 1972f: 242. **(tx)** Equihua & Atkinson 1987: 30; Schedl 1933c: 166, 1934e: 209, 1972f: 242, 1978a: 78.
- ustulatus* Chapuis 1865: 224. Syntypes ♂ ♀; du Mexique, Toxpan; 2 ♂, 1 ♀ in BMNH, London, 2 ♂, 1 ♀ in IRSNB, Brussels.
- Figures: Bright 1972d: 19.
- Distribution: Antilles Islands (Jamaica), North America (Costa Rica/ Guatemala/ Veracruz in Mexico), South America (Brazil/ Cayenne/ Colombia).
- References: **(ds)** Blackwelder 1947: 791; Blandford 1896e: 110; Bright 1972d: 16; Equihua & Atkinson 1987: 30; Gemminger & Harold 1872: 2700; Numberg 1958a: 482, 1972b: 190; Schedl 1966f: 94, 1967d: 5, 1972f: 218, 1972g: 35, 1976a: 59; Strohmeier 1912c: 14, 1914c: 26; Sturm 1843: 231. **(tx)** Blandford 1896e: 110; Bright 1972d: 16, 19; Chapuis 1865: 224; Equihua & Atkinson 1987: 30; Numberg 1958a: 482; Schedl 1939b: 399, 1952c: 123, 1960c: 41, 1972f: 218; Strohmeier 1912c: 14, 1914c: 26.
- petersi* Chapuis 1865: 226. Syntypes ♂ ♀; du Bresil; 1 ♂, 1 ♀ in MNB, Berlin, 1 ♂ in IRSNB, Brussels. Synonymy: Schedl 1972f: 219.
- References: **(ds)** Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Strohmeier 1912c: 14, 1914c: 26. **(tx)** Chapuis 1865: 226; Schedl 1937d: 33, 40, 1952a: 463, 1960c: 42, 1972f: 219; Strohmeier 1912c: 14, 1914c: 26.
- obsoletus* Chapuis 1865: 228. Syntypes ♂ ♀; de la Colombie; 1 ♂ ex typis in IRSNB, Brussels (Schedl 1960c: 42). Synonymy: Schedl 1972f: 218.
- References: **(ds)** Blackwelder 1947: 790; Gemminger & Harold 1872: 2699; Numberg 1958a: 481; Strohmeier 1912c: 14, 1914c: 26. **(tx)** Chapuis 1865: 228; Numberg 1958a: 481–482; Schedl 1936c: 242, 1960c: 41–42, 1972f: 218; Strohmeier 1912c: 14, 1914c: 26.
- ustus* Schedl 1968e: 268. Holotype ♂; Okapa (Okasa), E. Highlands District; CSIRO, Canberra.
- Distribution: New Guinea.
- Hosts: *Heritiera trifolia*, *Pterocymbium beccarii*.
- Notes: (3) Schedl 1969b: 235 (described female).
- References: **(ds)** Schedl 1972f: 201, 1979a: 160. **(tx)** Schedl 1968e: 268, 1969b: 235, 1972f: 201, 1978a: 78; Wylie & Yule 1977.
- uter* Schedl 1968b: 236. Holotype ♂; New Guinea: Karanui, Chimbu District; CSIRO, Canberra.
- Distribution: New Guinea.
- Notes: (3) Schedl 1975f: 398 (described female).
- References: **(ds)** Schedl 1972f: 191. **(tx)** Schedl 1968b: 236, 1972f: 191, 1975f: 398, 1978a: 78.
- utilis* (Schedl) 1939e: 360 (*Crossotarsus*). Lectotype ♂; Malaya, Perak: Trolak For. Res. and Pahang; Kemasil For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 78.
- Distribution: Asia (Malaya).
- Hosts: *Aporosa* (?) sp.
- References: **(hb)** Browne 1941. **(ds)** Browne 1961c: 210, 1980c: 483; Schedl 1972f: 202. **(tx)** Schedl 1939e: 360, 1972f: 202, 1978a: 78.
- uvarius* Roberts 1989: 284. Holotype ♂; Papua New Guinea: Gumi, Watut Logging Area, Bulolo, 2200 m; NHMW, Wien.
- Figures: Roberts 1989: 286.

- Distribution: New Guinea.
References: (tx) Roberts 1989: 284, 286.
- vafner Schedl** 1972g: 51. Holotype ♂; Brasilien, Utinga bei Belem, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Schedl 1976a: 59. (tx) Schedl 1972g: 51, 1978a: 78.
- vaginervis Roberts** 1986: 51. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: (tx) Roberts 1986: 51.
- vagus Browne** 1983a: 568. Holotype ♂; Bintulu (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Saravak in Borneo).
Hosts: Pernarahan log.
References: (tx) Browne 1983a: 568.
- valdephlebius Roberts** 1979: 96. Holotype ♂; Papua New Guinea: 12 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London.
Figures: Roberts 1979: 93 (male, head of female).
Distribution: New Guinea.
Hosts: *Schizomeria* sp.
References: (tx) Roberts 1979: 93.
- validus Schedl** 1973e: 97. Holotype ♂; New Guinea: Tam logging area, Bulolo, Morobe District; CSIRO, Canberra.
Distribution: New Guinea.
References: (tx) Schedl 1973e: 97, 1978a: 78.
- varipennis Schedl** 1968e: 269. Holotype ♂; Afafingetu, E. Highlands District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (tx) Schedl 1968e: 269, 1972f: 201, 1978a: 78.
- vegestus Wood** 1966a: 63. Holotype ♂; Pan-American Highway 15 miles NW Cerro de la Muerte, San Jose Prov., Costa Rica, 7500 feet; Wood Collection.
Figures: Schedl 1972f: 213, Wood 1966a: 67.
Distribution: North America (Costa Rica).
Hosts: *Brucea costaricensis*.
References: (ds) Equihua & Atkinson 1987: 30; Schedl 1972f: 214. (tx) Equihua & Atkinson 1987: 30; Schedl 1972f: 213–214; Wood, S. L. 1966a: 63, 67.
- verluunatus (Beeson)** 1937: 65 (*Crossotarsus*). Holotype ♂; Middle Andaman; FRI, Dehra Dun.
Distribution: Asia (Andaman Islands in India/Vietnam).
Hosts: *Artocarpus chaplasha*, *Bassia butyracea*, *Pterocarpus dalbergioides*, *Sterculia* spp., *Terminalia manii*.
References: (cn) Mathur & Singh 1961a: 69, 1961b: 32; Roonwal 1954: 85. (ds) Beeson 1941 (1961: 257); Mathur & Singh 1961a: 69, 1961b: 32; Roonwal 1954: 85; Schedl 1972f: 202, 1974c: 262. (tx) Beeson 1937: 65–66; Schedl 1939e: 360, 1972f: 202, 1978b: 80.
- vernaculus Schedl** 1965g: 29. Holotype ♂; O. Borneo, Mt. Tibang, 1300 und 1400 m; NHR, Stockholm.
Distribution: Indonesia (Borneo).
References: (ds) Schedl 1972f: 201. (tx) Schedl 1965g: 29, 1972f: 201, 1978a: 80.
- vesculus Schedl** 1972i: 58. Holotype ♂; New Guinea (NE), Karimui, 1000 m; BPBM, Honolulu.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 191. (tx) Schedl 1972f: 191, 1972i: 58, 1978a: 80.
- vethi Strohmeyer** 1913: 161. Syntypes ♂ ♀; Preanger (Java); Strohmeyer Collection.
Distribution: Asia (Malaya), Indonesia (Java, Sumatra).
Hosts: *Cinnamomum camphora*, *Dalbergia latifolia*, *Dyera costulata*, *Podocarpus imbricata*, *Schinus molle*.
Notes: (3) Schedl 1972f: 193 *suffodiens* var. *major* Sampson, nomen nudum, synonymy).
References: (cn) Browne 1968b: 572; Kalshoven 1960d: 35. (hb) Browne 1961c: 196, 1968b: 572; Kalshoven 1960c: 34. (ds) Browne 1961c: 196, 1968b: 572; Kalshoven 1960d: 35; Strohmeyer 1914c: 27. (tx) Browne 1961c: 196, 1968b: 572; Kalshoven 1960d: 63; Schedl 1972f: 193; Strohmeyer 1913: 161–162, 1914c: 27.
- suffodiens malayensis** Schedl 1936: 34. Holotype ♂; Malaya (Bukit Cherakash Forest Reserve and Pahang, Memasul Forest Reserve; not given, but added as NHMW, Wien, in Schedl 1978a: 71. Synonymy: Kalshoven 1960: 63.
References: (bv) Bletchly 1961: 15. (cn) Browne & Foenander 1937: 240–254. (ce) Bletchly 1961: 15; Browne 1958b. (hb) Browne 1935a, 1958b. (ds) Beeson 1961: 265; Bletchly 1961: 15; Browne 1935a; Browne & Foenander 1937: 240–254; Schedl 1936j: 34. (tx) Browne 1949b: 910; Kalshoven 1960d: 63; Schedl 1936j: 34, 1939e: 336, 360, 1972f: 193, 1978a: 71.
- spretus** Schedl 1939e: 360. Holotype ♂; Malaya (Bukit Cherakash Forest Reserve and Pahang, Memasul Forest Reserve; Schedl Collection in NHMW, Wien, automatic. Synonymy: Kalshoven 1960d: 63.
References: (hb) Browne 1941. (tx) Browne 1949b: 910; Kalshoven 1960d: 63; Schedl 1939e: 336, 360, 1941c: 354, 1942a: 209.
- vetulus Schedl** 1935n: 638. Lectotype ♂; Malay States: Johore North, Klang; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 80.
Distribution: Asia (Malaya), Indonesia (Borneo, Mentawai, Sumatra).
Hosts: *Dryobalanops aromatica*.

- Notes: (3) Schedl 1936d: 14 (described female).
References: **(hb)** Browne 1941. **(ds)** Beeson 1941 (1961: 267); Browne 1961c: 196, 1981b: 599; Schedl 1965g: 24, 1971c: 370, 1971f: 151, 1972f: 193. **(tx)** Schedl 1935n: 638, 1936d: 14, 1936e: 51, 1939e: 336, 1954c: 155, 1972f: 193, 1978a: 80.
- vetustus** Schedl 1941d: 414. Holotype ♂; Belge Congo: Likimi, Gumba; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: **(ds)** Schedl 1972f: 223. **(tx)** Schedl 1941d: 414, 1957d: 120, 1962k: 637, 1972f: 223, 1978a: 80.
- vexans** Schedl 1972g: 82. Holotype ♂; Brasilien, Cachimbo, Para; MZUSP, Sao Paulo.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1972g: 82, 1978a: 80.
- viaticus** Schedl 1974d: 470. Holotype ♀; New Guinea: Taun logging area, Bulolo, Morobe District; CSIRO, Canberra.
Distribution: New Guinea.
References: **(tx)** Schedl 1974d: 470, 1978a: 80.
- vicarius** Schedl 1975g: 232. Holotype ♀; New Guinea, Wan; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(tx)** Schedl 1975g: 232, 1978a: 81.
- vicinus** Blandford 1896e: 104. Holotype ♂; Mexico; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 14.
Distribution: North America (Mexico).
References: **(ds)** Blackwelder 1947: 791; Equihua & Atkinson 1987: 30; Ferrer 1942; Schedl 1972f: 206; Strohmeier 1912c: 10, 1914c: 24. **(tx)** Blandford 1896e: 104; Equihua & Atkinson 1987: 30; Schedl 1940a: 324, 1972f: 206; Strohmeier 1912c: 10, 1914c: 24.
- vitiensis** Roberts 1977b: 571. Holotype ♂; Fiji Islands: Viti Levu, 10 km N Ngaloa Village, 300 m; BMNH, London.
Distribution: Fiji Islands.
Hosts: *Agathis vitiensis*, *Burckella* sp., *Calophyllum vitiense*, *Canarium vitiense*, *Cerbera odollum*, *Cynometra insularis*, *Dacrydium clatum*, *Dysoxylon* sp., *Endospermum macrophyllum*, *Garcinia myrtifolia*, *Gonystylus punctatus*, *Maniltoa* sp., *Myristica castaneifolia*, *Palaquium hornei*, *Parinari insularum*.
References: **(ce)** Roberts 1977b: 571. **(hb)** Roberts 1977b: 571. **(ds)** Roberts 1977b: 571. **(tx)** Roberts 1977b: 571.
- voluticus** Schedl 1936j: 35. Lectotype ♂; Malay Peninsula, Pahang; Trantum, Tersang Forest Reserve, and Perak; Chenderoh; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 29.
Distribution: Asia (Malaya), Bougainville, Indonesia (Java), New Britain, New Guinea, New Ireland.
Hosts: *Diospyros* sp., *Dysoxylum* sp., *Micromcles* sp.
- Notes: (1) Schedl 1941c: 365 (raised to species rank from subspecies of *excedens*). (3) Schedl 1941c: 365 (described female).
References: **(hb)** Browne 1961c: 213; Kalshoven 1960d: 41. **(ds)** Browne 1961c: 213; Kalshoven 1960d: 41; Schedl 1936j: 35, 1968f: 537, 1972f: 186. **(tx)** Browne 1962e: 653; Schedl 1936j: 35, 1941c: 365–366, 1972f: 186, 1978a: 29, 81.
- vonfaberi** Reichardt 1962: 336. Holotype ♂; Brasil, Estado de Matto Grosso, Xingu (lat. 12 00, long. 53 22); DZSA, Sao Paulo.
Distribution: South America (Brazil).
References: **(ds)** Schedl 1972f: 187. **(tx)** Reichardt 1962: 336, 1964: 147; Schedl 1972f: 187.
- watbrui** Roberts 1965: 219. Holotype ♂; Nigeria: Idanre; BMNH, London.
Distribution: Africa (Nigeria/ Sierra Leone).
Hosts: *Xylopia* sp.
References: **(ds)** Roberts 1968: 189, 1969: 120; Schedl 1972f: 228. **(tx)** Roberts 1965: 219; Schedl 1972f: 228.
- watutensis** Roberts 1986: 53. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: **(tx)** Roberts 1986: 53.
- webberi** Schedl 1939e: 362. Syntypes ♂; Malaya, Selangor: The Gap, 2700 feet; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Sumatra).
Hosts: *Myristica fragrans*.
References: **(hb)** Browne 1941; Kalshoven 1960c: 34. **(ds)** Browne 1961c: 196; Kalshoven 1960d: 34; Schedl 1972f: 194. **(tx)** Schedl 1939e: 362–363, 1941c: 354, 1958b: 102, 1972f: 194, 1978a: 81.
- westwoodi** Chapuis 1865: 236. Syntypes 2 ♂; Ile Borneo, Sarawak; BMNH, London (Schedl 1960c: 44).
Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo, Java, Mentawai, Sumatra), Si-Oban Island.
Hosts: *Azela bakeri*, *A. palembanica*, *Artocarpus lakoocha*, *Calophyllum* sp., *Cratoxylon arborescens*, *Dyera costulata*, *Endospermum malaccense*, *Eugenia* sp., *Ficus* sp., *Gonostylus bancanus*, *Hevea brasiliensis*, *Koompassia malaccensis*, *Lucuma malaccensis*, *Palaquium* sp., *Pouteria malaccensis*, *Sapium baccatum*, *Scaphium* sp., *Xylopia cordata*.
Notes: (3) Schedl 1936d: 14 (described female).
References: **(cn)** Ishikura 1966; Yunus & Hua 1980: 217. **(cc)** Browne 1958b. **(hb)** Browne 1935a, 1941, 1958b, 1961c: 194; Kalshoven 1960c: 34; Mercer 1982: 210. **(ds)** Beaver & Browne 1975: 309, 1978: 621; Beeson 1941 (1961: 267); Browne 1935a, 1961c: 194–195, 1972b: 29, 1980a: 371; Gemminger & Harold 1872: 2700; Ishikura 1966; Kalshoven 1924b: 358, 1960d: 34; Mercer 1982: 210; Ohno, Yoneyama, & Nakazawa 1952b: 11; Sampson 1919: 106.

- 1925b: 392; Schedl 1936d: 7, 1936j: 22, 1959c: 165, 1971f: 151, 1972f: 192; Strohmeier 1912c: 16, 1914c: 27; Yimms & Hua 1980: 217. **(tx)** Chapuis 1865: 236; Sampson 1913: 448, 1919: 106, 1928b: 392; Schedl 1936d: 14–15, 1937e: 544, 1939e: 336, 1941c: 354, 1972f: 192, 1978a: 51; Strohmeier 1912c: 16, 1914c: 27.
- wilsoni Swaine** 1916a: 98. Holotype ♀; Campbell River, British Columbia [Canada]; CNCI, Ottawa. Figures: Arnett 1960: 1029, Swaine 1916a: pls. 6–7. Distribution: North America (British Columbia in Canada/ California, Idaho, Oregon, Washington in USA). Hosts: *Abies magnifica*, *Pseudotsuga menziesii*, *Tsuga heterophylla*. References: **(ay)** Chapman 1961b: 3; Farris 1969: 529; Farris & Funk 1965: 527–537; Livingston & Berryman 1972: 1799. **(bv)** Prebble & Graham 1957: 91–92; Shore & McLean 1953b. **(cn)** Chamberlin 1917: 356, 1924, 1939: 112; Doane et al. 1936; Fisher, Thompson, & Webb 1953, 1954b: 3–15; Furniss, R. L. 1937: 30; Graham 1939b: Hatch 1938: 192; Johnson 1958a: 508, 1958b: 236–240; Keen 1936: 145; Kowal 1949a: 12–13; Mathers 1935: 14; McMullan 1956: 34; Nijholt 1978a: Prebble 1944: 50; Ruppel 1967: 79; Schuder 1969: 74; Shore 1985; Silver & Ross 1960: 99, 1961: 99; Struble 1937d: 11, 1957: 14; Swaine 1914: 38, 1918a: 38; Thatcher, T. O. 1961. **(cc)** Chamberlin 1918a: 35, 1939: 112; Farris 1969: 529; Farris & Funk 1965: 929–932; Furniss, R. L. & Carolin 1977: 338; Graham 1939b; Keen 1938: 145; Roeper & French 1981; Schedl 1958d: 188; Shore 1985; Struble 1957: 14. **(hb)** Bright & Stark 1973: 10; Chamberlin 1939: 112, 1958: 33–34; DeLeon 1952; Doane et al. 1936; Ferrell 1969: 2238; Furniss, R. L. & Carolin 1977: 338; Graham 1939b; Husson 1955: 350; Johnson 1958a: 508, 1958b: 237; Keen 1938: 145; Kinney & Furniss 1943: 26–27; Nijholt 1978a; Prebble & Graham 1957: 91–92; Shore 1985; Struble 1937d: 11, 1957: 14; Swaine 1918a: 38; Thatcher, T. O. 1961; White, R. E. 1983: 326. **(ds)** Blackwelder & Blackwelder 1948; Chamberlin 1918a: 35, 1925, 1939: 112, 1958: 33–34; Currie 1905; DeLeon 1952: 78; Equihua & Atkinson 1987: 30; Furniss, R. L. & Carolin 1977: 338; Hopping 1922; Keen 1929a: 11, 1938: 145; Leng 1920: 337; Murayama 1957a: 37; Patterson & Hatch 1945: 148; Ruppel 1967: 79; Schedl 1933c: 172, 1972f: 199; Schuder 1969: 74; Shore 1985; Swaine 1914: 38; Thatcher, T. O. 1961; Wood, S. L. 1958b: 39, 1972b: 394. **(tx)** Arnett 1960: 1029, 1968: 1029; Chamberlin 1939: 112, 1958: 33–34; Equihua & Atkinson 1987: 30; Hoelbeke 1978; Johnson 1958b: 237; Keen 1929a: 11; de Rente 1970: 68; Schedl 1972f: 199; Swaine 1916a: 97–100, 1918a: 38; Wood, S. L. 1958b: 39, 1972b: 394, 1979a: 2. **(ms)** Hatch 1938: 192; Prebble 1944: 50.
- xanthopus Schedl** 1957d: 124. Holotype ♀; Congo Belge; Yangambi; MRCB, Tervuren. Figures: Schedl 1962k: 673, 1972f: 228. Distribution: Africa (Zaire). Hosts: *Xylopiia* sp. Notes: (3) Schedl 1962k: 1108 (described female). References: **(ds)** Mayne & Donis 1962: 228; Schedl 1962k: 673, 1972f: 228. **(tx)** Schedl 1957d: 124, 1962k: 673, 1108, 1972f: 228, 1978a: 81.
- xylographus Schedl** 1969a: 216. Holotype ♂; Formosa, Kaohsiung to Tokyo (Japan), imported; PPST, Tokyo. Distribution: Asia (Taiwan). Hosts: *Picea* sp., *Pinus* sp. References: **(ds)** Nobuchi 1977: 128; Schedl 1972f: 199. **(tx)** Schedl 1969a: 216, 1972f: 199, 1978a: 82.
- yasiyasi Roberts** 1977b: 560. Holotype ♂; Fiji Islands; Viti Levu, 12 km W Namulolo Village, 200 m; BMNH, London. Figures: Roberts 1977b: 561. Distribution: Fiji Islands. Hosts: *Cleistocalyx* sp., *Syzygium effusum*. References: **(bv)** Roberts 1977b: 560. **(cn)** Essig 1958: 509. **(hb)** Essig 1958: 509; Roberts 1977b: 560. **(ds)** Essig 1958: 509. **(tx)** Roberts 1977b: 560–561.

Genus *Treptoplatypus* Schedl

- TREPTOPLATYPUS SCHEDL** 1939b: 401. Type-species: *Crossotarsus trepanatus* Chapuis, subsequent designation by Wood 1992a: 91. Notes: (2) Browne 1962e: 653 (treated as a synonym of *Platypus*). References: **(tx)** Browne 1962e: 653; Schedl 1939b: 401, 1968e: 261–270, 1972f: 243–245; Wood, S. L. 1992a: 91.
- circulicauda Browne** 1949b: 911. Holotype ♂; Malaya: Kelantan, Bukit Besi; BMNH, London. Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: *Diospyros* sp., *Dipterocarpus* sp. References: **(ds)** Browne 1961c: 209, 1962c: 202, 1981b: 598; Schedl 1972f: 245. **(tx)** Browne 1949b: 911; Schedl 1972f: 245.
- fischeri (Strohmeier)** 1907g: 29 (*Crossotarsus*). Holotype ♀; Sumatra (Regentschaft Palembang); Strohmeier Collection. Distribution: Indonesia (Sumatra). Notes: (1) Schedl 1972f: 245 (to *Treptoplatypus*). References: **(ds)** Schedl 1972f: 245; Strohmeier 1912c: 5, 1914c: 35. **(tx)** Schedl 1972f: 245; Strohmeier 1907g: 29–30, 1912c: 5, 1914c: 35.
- multiporus Schedl** 1968e: 270. Holotype ♀; Okapa (Okasa), E. Highlands District; CSIRO, Canberra. Distribution: New Guinea. Hosts: *Heritiera trifolia*, *Podocarpus* sp. Notes: (1) Schedl 1978a: 46 (type restricted to CSIRO specimens).

References: **(ds)** Schedl 1972f: 245. **(tx)** Schedl 1968e: 270, 1972f: 245, 1978a: 45.

fastuosus Schedl 1969b: 226 (*Platypus*). Holotype ♂; New Guinea: Marafunga, 2500 m; CSIRO, Canberra. Synonymy: Wood 1992a: 92.

References: **(tx)** Schedl 1969b: 226; Wood, S. L. 1992a: 92.

quadriporus Schedl 1971c: 397. Holotype ♀; China: Fukien; Schedl Collection in NHMW, Wien. Distribution: Asia (Fujian in China).

References: **(ds)** Schedl 1972f: 245. **(tx)** Schedl 1971c: 397, 1972f: 245, 1978a: 61.

subaplanatus (Schedl) 1935n: 634 (*Platypus*). Lectotype ♂; Malay States: Selangor, Ulu Gombak, 17th mile; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 70.

Distribution: Asia (Malaya).

Hosts: Leguminosae sp.

References: **(cn)** Yunus & Hua 1980: 217. **(hb)** Mercer 1982: 210. **(ds)** Browne 1949b: 892–912, 1961c: 209, 1962c: 202; Mercer 1982: 210; Schedl 1972f: 245; Yunus & Hua 1980: 217. **(tx)** Schedl 1935n: 634, 1939b: 401, 1972f: 245, 1978a: 70.

taxicornis (Schedl) 1968f: 537 (*Platypus*). Holotype ♂; New Guinea (NW), Wau, Morobe District, 1050 m; BPBM, Honolulu.

Distribution: New Guinea.

Notes: (1) Schedl 1972f: 245 (to *Treptoplastypus*).

References: **(ds)** Schedl 1972f: 245. **(tx)** Schedl 1968f: 535–537, 1972f: 245, 1978a: 72.

trepanatus (Chapuis) 1865: 75 (*Crossotarsus*). Holotype ♀; Borneo (Sarawak); BMNH, London (Schedl 1960c: 9).

Figures: Schedl 1972f: 243.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Eugenia* sp., *Gonystylus bancanus*, *Shorea uliginosa*.

References: **(cn)** Supriana et al. 1978. **(hb)** Browne 1961c: 209; Mercer 1982: 210. **(ds)** Browne 1961c: 209; Mercer 1982: 210; Sampson 1928b; Schedl 1972f: 245; Strohmeier 1912c: 5, 1914c: 35; Supriana et al. 1978. **(tx)** Browne 1949b: 911, 1962e: 653; Chapuis 1865: 75–76; Sampson 1928b; Schedl 1935n: 633–634, 1939b: 390, 401, 1939c: 335, 1960c: 9, 1972f: 243, 245; Strohmeier 1907g: 30, 1912c: 5, 1914c: 35; Wood, S. L. 1992b: 91.

Genus *Crossotarsus* Chapuis

CROSSOTARSUS CHAPUIS 1865: 23, 44. Type-species: *Crossotarsus wallacei* Thomson, subsequent designation by Hopkins 1914: 119.

References: **(ay)** Nobuchi 1969a: 69; Strohmeier 1918: 1–46. **(cn)** Beeson 1916: 216–223, 1918: 114–124; Browne 1936: 1; Chatterjee 1917: 1–4; Fisher, Thompson, & Webb 1954: 1–21; Hargreaves 1925: 21–28; Mayne 1917: 1–80; Munro 1928: 1–29; Smith 1932: 229–246; Yano 1919: 453–470. **(hb)** Beeson 1910: 222, 1937: 45–103,

1941: 328–338, 1961: 252–257; Browne 1941: 62–63, 1958b: 164–182, 1960: 313, 1961c: 221–229; Gardner 1932b: 1–6, 9; Kalshoven 1960d: 31–50; Schedl 1972f: 96. **(ds)** Beeson 1935: 295, 1941: 328–338, 1961: 252–257; Kleine 1931: 152, 165; Kolbe 1897: 283; Schedl 1966b: 83, 1972f: 96, 1977b: 234. **(tx)** Beeson 1937: 45–103; Blandford 1894d: 128–129, 1895b: 82, 85, 90; Browne 1950b: 649, 1955: 364, 1962c: 642, 1966: 233–257, 1972a: 187; Chapuis 1865: 22–26, 44–97, figs. 1–29; Choo 1983: 31; Choo, Woo, & Nobuchi 1988b; Hopkins 1914: 119, 136, 1915c: 188–227; Lacordaire 1866: 389–390; Murayama 1925: 201–202, 1928: 29–30, 1934: 147; Nüßima 1909: 170; Nobuchi 1973b: 3; Nunberg 1953: 46; Sampson 1923: 449; Schedl 1934f: 1647, 1935n: 633, 1936e: 43, 1937d: 33, 1939b: 401, 1959a: 515, 1960c: 5, 1972f: 96–112, 1977b: 234; Stebbing 1907: 19, 1914: 613–619; Strohmeier 1911a: 174, 1911b: 26, 1911c: 104–105, 1911d: 218, 1912c: 4–7, 1912f: 79, 1914c: 5–35.

adurus Beeson 1937: 69. Holotype ♂; Borneo: "E.I.M."; BMNH, London.

Distribution: Indonesia (Borneo).

References: **(ds)** Schedl 1972f: 110. **(tx)** Beeson 1937: 69–70; Schedl 1939e: 334, 1972f: 110.

andamanus Beeson 1937: 82. Syntypes ♂ ♀; Andamans: North Andaman; FRI, Dehra Dun.

Distribution: Asia (Andaman Islands in India).

Hosts: *Diospyros oocarpa*, *Dipterocarpus turbinatus*, *Myristica andamanica*, *Pterocarpus dalbergioides*, *Sagraea elliptica*, *Terminalia* spp.

Notes: (3) Schedl 1972f: 107 (treated as a subspecies of *squamulatus*).

References: **(cn)** Mathur & Singh 1961a: 5, 1961b: 32; Sen-Sarma & Thakur 1986: 37. **(ds)** Mathur & Singh 1961a: 5, 1961b: 32; Schedl 1972f: 107. **(tx)** Beeson 1937: 82; Schedl 1972f: 107, 1978a: 11.

armipennis Lea 1910: 134. Holotype ♀?; N.S. Wales: Macleay Museum, not located.

Distribution: Australia (New South Wales).

References: **(cn)** Froggatt 1927; Smith, J. H. 1935: 3; Tryon 1917. **(cc)** Smith, J. H. 1935: 3. **(hb)** Froggatt 1927. **(ds)** Sampson 1925: 2; Schedl 1936g: 513, 1972a: 110; Smith, J. H. 1935: 3; Strohmeier 1912c: 5, 1914c: 35. **(tx)** Beeson 1937: 72; Browne 1962e: 644; Lea 1910: 134; Sampson 1925: 2; Schedl 1939b: 400, 1939p: 288, 1942c: 165, 1972f: 110; Strohmeier 1912c: 5, 1914f: 7–8, 1914c: 35.

aruensis Beeson 1937: 54. Holotype ♀; Aru Is.: Wokan; FRI, Dehra Dun.

Distribution: Indonesia (Aru Island).

References: **(ds)** Schedl 1972f: 101. **(tx)** Beeson 1937: 54–55; Schedl 1972f: 101.

aureipilus Roberts 1989: 88. Holotype ♂; New Guinea: Papua, Gumi; NHMW, Wien.

Distribution: New Guinea.

Hosts: *Aglia* sp.

References: (tx) Roberts 1959: 55.

barbatus Chapuis 1865: 66. Syntypes ♂ ♀; Molucces, Ceram, Bomru; 1 ♂, 1 ♀ in BMNH, London, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 5). Distribution: Indonesia (Borneo, Buru, Ceram, Molucces), New Guinea.

Hosts: *Theobroma cacao*.

References: (ay) Strohmeier 1918: 15. (cc) Roberts 1950. (ds) Browne 1950c: 482, 1951a: 126; Gemminger & Harold 1872: 2696; Ohno, Yoshioka, et al. 1958b: 97; Sampson 1925b: 390; Schedl 1936g: 513; Strohmeier 1912c: 4, 1914c: 33. (tx) Beeson 1937: 56; Chapuis 1865: 66; Sampson 1925b: 390; Schedl 1936d: 12, 1936e: 43, 1937d: 34, 1939b: 402, 1940b: 434–435, 1955b: 282, 1960c: 8, 1972f: 103; Sharp & Muir 1912: 572; Strohmeier 1912c: 4, 1914c: 33; Wylie & Yule 1977.

benevolus Beeson 1937: 50. Holotype ♂; Sumbawa; BMNH, London.

Distribution: Indonesia (Sumbawa).

References: (ds) Schedl 1972f: 101. (tx) Beeson 1937: 50–51; Schedl 1972f: 101.

biconcavus Schedl 1962i: 76. Holotype ♂; Ned. Nieuw Guinea, Sibil Sterrengeb.; ZSSM, Munchen. Distribution: New Guinea, New Ireland.

Hosts: *Theobroma cacao*.

Notes: (3) Schedl 1970: 221 (described female). References: (cn) Roberts 1957; Wylie & Shanahan 1975. (hb) Roberts 1957; Wylie & Shanahan 1975. (ds) Schedl 1962i: 73, 76, 1964d: 212, 1968e: 264, 1969e: 156, 1972f: 101. (tx) Schedl 1962i: 76, 1969b: 221, 1972f: 101, 1975a: 14.

bonrouloiri Chapuis 1865: 55. Syntypes ♂ ♀; Camboje; 1 ♂, 1 ♀ in BMNH, London, 1 ♀ in IRSNB, Brussels (Schedl 1960).

Distribution: Asia (Cambodia/ Assam, Bengal in India/ Malaya/ Thailand), Indonesia (Celebes, Sumatra), Philippine Islands, Sunda Islands.

Hosts: *Buka lindia*, *Citrus* sp., *Cryptocarya wrightiana*, *Dysoxylum binectariferum*, *Engelhardtia spicata*, *Mesua ferrea*, *Sapium eugeniaefolium*, *Shorea robusta*, *Terminalia bellerica*, *Vatica lancaefolia*, *Xylia xylocarpa*.

References: (bv) Beeson 1917. (cn) Beeson 1916: 1–5; Kleine 1932a: 310, 401; Mathur & Singh 1960a: 35, 1961a: 23, 1961b: 25; Roonwal 1954: 65; Sen-Sarma & Thakur 1956: 37. (cc) Beeson 1921b, 1923. (hb) Beaver & Browne 1975: 302; Beeson 1916a: 222, 1917, 1923; Browne 1961c: 224; Kleine 1932a: 310, 401. (ds) Beaver & Browne 1975: 302; Beeson 1916a, 1921b: 21, 1923, 1961: 253; Bhasin, Roonwal, & Singh 1958; Browne 1961c: 55, 1950c: 484; Gemminger & Harold 1872: 2696; Kleine 1932a: 310, 401; Lacordaire 1866: 389; Mathur & Singh 1960a: 35, 1961a: 23, 1961b: 25; Roonwal 1954: 65; Schedl 1969c: 55, 1972f: 101; Strohmeier 1911f: 203,

1912c: 4, 1914c: 33. (tx) Beeson 1937: 50–53; Chapuis 1865: 55; Lacordaire 1866: 389; Schedl 1937d: 33, 1960c: 6, 1972f: 101; Strohmeier 1912c: 4, 1914c: 33.

brevidens Browne 1975: 302 in Beaver & Browne. Holotype ♂; Thailand: Chiang Mai, Doi Pui, 1450 m; BMNH, London.

Distribution: Asia (Thailand).

Hosts: *Quercus* sp.

References: (tx) References: Beaver & Browne 1975: 302–303.

brownei Schedl 1936d: 12. Lectotype ♂; Malay Peninsula, Pahang; Rotan Tunggul For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 17.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Dacryodes rostrata*, *Elateriospermum tapos*, *Gluta elegans*, *Mangifera* sp., *Melanorrhoea curtisii*, *Shorea leprosula*.

Notes: (3) Schedl 1942a: 199 (described female).

References: (cc) Browne 1955b. (hb) Beaver & Browne 1975: 615; Browne 1935a, 1941, 1955b, 1961c: 224; Yunus & Hua 1980: 216. (ds) Beaver & Browne 1975: 615; Beeson 1961: 253; Browne 1935a, 1949b, 1961a: 316, 1961c: 224; Schedl 1972f: 103. (tx) Browne 1949b, 1955: 365; Schedl 1936d: 12–13, 1942a: 199, 1950g: 894, 1972f: 103, 1978a: 17.

desectus Beeson 1937: 58. Holotype ♂; Borneo: Kuching; BMNH, London. Synonymy: Browne 1955: 365.

References: (tx) Beeson 1937: 58; Browne 1955: 365; Schedl 1972f: 103.

caliginosus Roberts 1979: 81. Holotype ♂; Papua New Guinea: 12 km south-west of Onim Hut, Mount Giluwe, 2900m; BMNH, London.

Distribution: New Guinea.

Hosts: *Quintinia* sp.

References: (tx) Roberts 1979: 81.

chalcographus Schedl 1972h: 64. Holotype ♂; New Guinea: Kulolo logging area, Wau, Morobe District; CSIRO, Canberra.

Distribution: Australia, New Guinea.

Hosts: *Calophyllum inophyllum*, *Castanopsis acuminatissima*, *Pasania aspericupula*.

Notes: (1) Five localities are given with no indication of which one is the type locality.

References: (ds) Schedl 1972f: 103, 1980b: 184. (tx) Schedl 1972f: 103, 1972h: 64, 1975a: 19.

cheesmani Schedl 1935f: 275. Lectotype ♂; Papua: Mt. Tafa, 8500 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 19.

Distribution: New Britain Island, New Guinea.

References: (ds) Schedl 1968f: 535, 1972f: 110. (tx) Schedl 1935f: 275, 1935j: 2, 1940b: 434, 1972f: 110, 1978a: 19.

cincinnatus Chapuis 1865: 57. Syntypes 4 ♀; Borneo (Sarawak); BMNH, London.

Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo, Sumatra).

Hosts: *Coccocheras* sp.

Notes: (3) Schedl 1935n: 639 (described male).

References: (hb) Browne 1935a, 1941. (ds) Beeson 1937, 1941 (1961: 253); Browne 1935a; Gemminger & Harold 1872: 2696; Sampson 1925a: 3, 1925b: 389; Schedl 1936d: 6, 1960c: 6, 1966b: 83, 1972f: 102; Strohmeier 1911f: 203, 1912c: 4, 1914c: 33. (tx) Beeson 1937: 54, 56; Browne 1962c: 214; Chapuis 1865: 57; Nobuchi 1985: 328; Sampson 1919: 105, 1925a: 3, 1925b: 389; Schedl 1935n: 639, 1939e: 333, 1952b: 385, 1960c: 6, 1972f: 102; Strohmeier 1912c: 4, 1914c: 33.

peucillatus Chapuis 1865: 64. Holotype ♂; Borneo (Sarawak); BMNH, London (Schedl 1960c: 7). Synonymy: Browne 1962c: 214.

References: (ds) Gemminger & Harold 1872: 2697; Sampson 1919: 105, 1925b: 389; Strohmeier 1912c: 4, 1914c: 33. (tx) Beeson 1937: 54, 56; Browne 1962c: 214; Chapuis 1865: 64; Sampson 1919: 105, 1925b: 389; Schedl 1960c: 7, 1972f: 214; Strohmeier 1912c: 4, 1914c: 33.

cinnamomi Beeson 1937: 97. Syntypes ♂; Bengal: Kalimpong division, Samsingh, 1800 m; FRI, Dehra Dun.

Distribution: Asia (Assam, Bengal, Uttar Pradesh in India).

Hosts: *Cinnamomum cecidodaphne*, *Ilex diplyrena*.
References: (cn) Mathur & Singh 1960b: 63. (ds) Beeson 1941 (1961: 253); Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1960b: 63; Schedl 1969c: 55, 1972f: 110. (tx) Beeson 1937: 97–98; Schedl 1972f: 110, 1975a: 19.

cliens (Schedl) 1964g: 253 (*Platypus*). Holotype ♂; Sarawak, Merurong Plateau, 2350 ft.; BMNH, London.

Figures: Schedl 1972f: 110.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: *Santiria* sp.

References: (ds) Browne 1980a: 372; Schedl 1972f: 111. (tx) Browne 1962c: 644; Schedl 1964g: 242, 253, 1972f: 110–111, 1975a: 20.

comatus Chapuis 1865: 59. Holotype ♀; Celebes (Macassar); BMNH, London (Schedl 1960c: 7).

Distribution: Asia (Malaya), Indonesia (Celebes), Philippine Islands.

References: (cn) Mesa 1931: 18. (hb) Browne 1935a. (ds) Beeson 1941 (1961: 253); Browne 1935a; Gemminger & Harold 1872: 2696; Numburg 1964a: 237; Schedl 1966b: 83, 1972f: 102; Strohmeier 1912c: 4, 1914c: 33. (tx) Beeson 1937: 55; Chapuis 1865: 59; Nobuchi 1985: 328; Schedl 1960c: 7, 1972f: 102; Strohmeier 1911b: 26, 1912c: 4, 1914c: 33.

concarifrons Schedl 1935b: 399. Syntypes ♀; Philippine Islands; Hamburg Museum, lost, and Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands.

References: (ds) Schedl 1966b: 83, 1972f: 112. (tx) Nobuchi 1985: 328; Schedl 1935b: 395–399, 1972f: 112.

concinnus Blandford 1894c: 578. Holotype ♀; Japan: Higo; BMNH, London, automatic.

Distribution: Asia (Japan/Taiwan).

References: (ds) Blandford 1894c: 578; Murayama 1929a: 675, 1937c: 582, 1954b: 205; Nobuchi 1973b: 5; Schedl 1972f: 100; Strohmeier 1912c: 4, 1914c: 34. (tx) Lucas 1920: 209; Murayama 1925b: 235, 1954b: 205; Nobuchi 1973b: 5; Schedl 1934f: 1647, 1939b: 402, 1972f: 100; Strohmeier 1912c: 4, 1914c: 34. (ms) Lucas 1920: 209.

chapuisi Blandford 1894d: 129. Holotype ♀; Japan: Higo; BMNH, London, preoccupied by Duvivier 1891.

References: (tx) Blandford 1894d: 129, 1894c: 578.

coniferae Stebbing 1906: 411. Syntypes ♂ ♀; North-West Himalayas: Tehri Garhwal forest; FRI, Dehra Dun.

Distribution: Asia (Kashmir, Punjab, Uttar Pradesh in India).

Hosts: *Cedrus deodara*, *Picea morinda*.

References: (cn) Kleine 1932a: 310, 401; Roonwal 1954: 12; Stebbing 1914: 613. (cc) Beeson 1921b; Stebbing 1914: 613. (hb) Beeson 1916: 222; Kleine 1932a: 310, 401; Stebbing 1908a: 112, 1911a: 66, 1914: 613. (ds) Beeson 1921b: 21, 1961: 253; Bhasin, Roonwal, & Singh 1955; Kleine 1932a: 310, 401; Roonwal 1954: 12; Schedl 1969c: 56, 1972f: 104; Strohmeier 1912c: 5, 1914c: 35. (tx) Schedl 1972f: 104; Stebbing 1906: 411–413, 1910: 66, 1914: 613; Strohmeier 1912c: 5, 1914c: 35.

corrugatus Roberts 1989: 88. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; NHMW, Wien.

Distribution: New Guinea.

Hosts: *Aglaiia* sp.

References: (tx) Roberts 1989: 88.

coxalis Schedl 1970a: 129. Holotype ♂; New Guinea, Porotop, Lutheran Mission Sawmill, Western Highlands District; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Nothofagus* sp., *Podocarpus* sp., *Syzygium* sp.

References: (bv) Gray, B. 1974b. (hb) Gray, B. 1974b. (ds) Schedl 1972f: 103. (tx) Schedl 1970a: 129–130, 1972f: 103, 1975a: 22.

dammanus Beeson 1937: 63. Holotype ♂; Damma Is., 92–20, 5944; BMNH, London.

Distribution: Indonesia (Damma, Moluccas).

Hosts: "Canari" log.

Notes: Browne 1981b: 606 (described female).

References: (ds) Schedl 1972f: 109. (tx) Beeson 1937: 63–64; Browne 1981b: 606; Schedl 1972f: 109.

- declivioruatus** (Schedl) 1942a: 205 (*Platypus*).
Lectotype ♂; Malaya, Perak, Trolak F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1975a: 23.
Distribution: Asia (Malaya).
Hosts: Rubiaceae sp., *Castanopsis sumatrana*.
Notes: (1) Browne 1962e: 643 (to *Crossotarsus*).
References: (ds) Browne 1961c: 229; Schedl 1972f: 106. (tx) Browne 1962e: 643; Schedl 1942a: 205, 1972f: 106, 1975a: 23.
- denticulus** Browne 1984f: 57. Holotype ♂; New Guinea: Morobe District, Wau, Kumi Creek, 1500 m; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1984f: 57.
- denturus** Browne 1984f: 55. Holotype ♂; New Guinea: Morobe District, Mount Kaindi, 2350 m; BMNH, London.
Distribution: New Guinea.
Hosts: *Nothofagus* sp.
References: (tx) Browne 1984f: 55.
- derosus** Schedl 1935j: 2. Holotype ♂; Sumatra, Medan; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java, Sumatra).
References: (ds) Schedl 1972f: 104. (tx) Beeson 1937: 77; Schedl 1935j: 2, 1938g: 422, 1972f: 104, 1975a: 24.
- dolus** Schedl 1975f: 373. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 373.
- edentatus** Beeson 1937: 90. Holotype ♂; Java: Mt. Preanger, 1400 m; Buitenzorg Museum.
Distribution: Indonesia (Java).
Hosts: *Schima noronhaiac*.
References: (ds) Kalshoven 1960d: 36; Schedl 1972f: 112. (tx) Beeson 1937: 90; Schedl 1972f: 112.
- emancipatus** Murayama 1934f: 138. Syntypes ♂ ♀; Kiushu; Murayama Collection in USNM, Washington.
Figures: Nobuchi 1973b: pl. 1.
Distribution: Asia (Japan/Taiwan).
Hosts: *Actinodaphne longifolia*, *Castanopsis cuspidata*, *Clochidium hongkongense*, *Lindera erythrocarpa*, *Machilus thunbergii*, *Mallotus japonicus*, *Pasania cuspidata*, *Quercus salicina*.
References: (cn) Kleine 1932a: 401. (hb) Kleine 1932a: 401. (ds) Kleine 1932a: 401; Murayama 1934f: 138, 1936a: 140, 1937c: 582, 1954b: 206, 1955: 100; Nobuchi 1967: 25, 1973b: 5, 1977: 106; Schedl 1972f: 106. (tx) Beeson 1937: 84; Murayama 1928a: 288, 1934f: 138, 1936a: 140, 1954b: 206, 1955: 100–101; Nobuchi 1973b: 5, pl. 1; Schedl 1972f: 106.
- emorsus** Beeson 1937: 87. Syntypes ♂ ♀; Burma: Katha division, Molmyin reserve; FRI, Dehra Dun.
Distribution: Asia (Burma), Indonesia (Borneo).
Hosts: *Bauhinia malabarica*, *Careya arborea*, *Sterculia ornata*, *Tectona grandis*, *Xylia dolabriformis*.
Notes: (3) A male type is labeled in the FRI Collection (SLW).
References: (cn) Mathur & Singh 1961a: 70, 1961b: 13. (ds) Beeson 1941 (1961: 253); Bhasin, Roonwal, & Singh 1955; Mathur & Singh 1961a: 70, 1961b: 13; Schedl 1972f: 107. (tx) Beeson 1937: 87–88; Schedl 1939e: 335, 1972f: 107.
- externedentatus** (Fairmaire) 1849: 78 (*Platypus*).
Holotype ♂; Taiti, M. Vescó; MNHN, Paris.
Figures: Nobuchi 1967: pl. 2, 1973b: pl. 1, Wood 1960a: 7–8.
Distribution: Africa (Mauritius Island/ Seychelles Islands/ South Africa/ Tanzania), Asia (Burma/ Andaman Islands, Assam, Bengal, Karnataka, Tamil Nadu in India/ Japan/ Malaya/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam), Australia (W Australia), Bismarck Islands, Fiji Islands, Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, Mangareva, Micronesia (Caroline Islands, Cook Islands, Kiribati Islands, Palau), Moorea Island, New Zealand, Niue Island, Philippine Islands (Luzon), Raoul Island, Samoan Islands, Society Islands, Tahiti.
Hosts: Anonymous 1970c, Beeson 1937: 73, 1941 (1961: 254–255) (many hosts listed), Browne 1961c (many hosts listed), Schedl 1962: 678–680 (41 host species listed). *Bauhinia* sp., *Buchanania* spp., *Butea monosperma*, *Cavarium euphyllum*, *Cassia* spp., *Castanopsis cuspidata*, *C. tribuloides*, *Casuarina equisetifolia*, *Cedrela odorata*, *Cinnamomum camphora*, *Cryptomeria japonica*, *Ficus retusa*, *Heritiera fomes*, *Leucaena glauca*, *Machilus thunbergii*, *Ocimum woderi*, *Quercus* sp., *Shorea* spp., *Terminalia tomentosa*.
Notes: (3) Fairmaire 1850: 51 (redescribed). Wood 1992b: 91 and others have considered *Diapus taburae* Stebbing as a synonym; however, the holotype was found and *taburae* was transferred to *Genyocerus* (SLW).
References: (bv) Gray, B. 1974b; Roberts 1977c. (cn) Anonymous 1967s, 1970c: 11; Beaver 1988a: 69; Ceyer 1960; Pierce, J. R., Wood, & Fujii 1977: 17; Roberts 1977b: 555, 1977c. (ce) Scott & Dutoit 1970; Walt & Scott 1971a, 1971b; Walt, Scott, & van der Klift 1971a: 458, 1971b: 464. (hb) Beaver 1976b: 544, 1988a: 69; Beeson 1929; Gray, B. 1974b; Roberts 1977b: 55, 1977c; Schedl 1962k: 674, 1977b: 235. (ds) Anonymous 1967s, 1970c: 11; Barber 1919: 53–60; Beaver 1976b: 544, 1987b: 65, 1988a: 69, 1990b: 150; Beaver & Browne 1975: 303, 1978: 615; Beaver & Maddison 1990: 1372; Beeson 1915: 297–298, 1929: 218, 1935a: 115, 1935b, 1937: 72–73, 1938b: 295, 1940: 191; Browne 1949: 74, 1966: 241, 1980a: 372, 1980c: 485; Chapnis 1865; Dumbleton 1954: 25, 184; Dupont 1916: 20–22; Gemminger &

Harold 1872: 2696; Lacordaire 1866: 390; Lever 1943a: 82; Miwa 1931: 266; Murayama 1925a: 203, 1929a: 676, 1937c: 582; Nobuchi 1967: 25, 1973b: 5, 1977: 108; Olmo, Yoneyama, & Nakazawa 1982a, 1982b, 1987a: 95, 1987b: 89; Olmo, Yoshioka, et al. 1988b: 97, 1989: 64; Pierce, J. R., Wood, & Fujii 1977: 17; Roberts 1977b: 555; Roonwal 1954: 36; Schedl 1934f: 1647, 1960c: 10, 1961e: 128, 1962b: 187, 1962i: 77, 1962k: 674, 1964c: 305, 1964d: 212, 1965a: 340, 1965g: 23, 1966b: 84, 1969a: 206, 1969c: 56, 1969d: 4, 7, 9, 1970d: 234, 1970h: 179, 1971a: 281, 1972b: 266, 1972f: 111, 1974c: 262, 1975k: 278, 1977b: 235; Strohmeier 1911f: 204, 1912c: 5, 1914c: 35; Swezey 1941: 124, 126, 1954: 14, 78, 112, 198; Wood, S. L. 1960a: 7; Zimmerman 1941: 176. **(tx)** Beeson 1929: 218, 1935a: 115, 1935b, 1940; Browne 1962e: 644; Chapuis 1865: 81–82; Fairmaire 1847: 78, 1850: 51, 1866: 81; Lacordaire 1866: 390; Murayama 1925a: 203–204, 1925b: 235; Nobuchi 1967: pl. 2, 1972b: 5, 1973b: pl. 1, 1985: 328; Perkins 1900: 181; Powell, W. 1987: 28; Schedl 1934f: 1647, 1937d: 34, 1939b: 398, 1941e: 153, 1941f: 116, 1948c: 665, 1950f: 35, 41, 1951k: 141, 1952j: 6, 1953b: 124, 1953d: 70–71, 1955b: 286, 1957b: 150–152, 1960c: 10–11, 1962k: 674–675, 1964d: 212, 1972f: 111, 1972p: 156; Sharp (in Perkins) 1900: 173, 182; Sharp & Muir 1912: 572; Stebbing 1914: 628–630; Strohmeier 1911f: 204, 1912c: 5, 1914c: 11, 35; Wood, S. L. 1960a: 7–8, 1992b: 91 (error, Note 3 above). **(ms)** Roberts 1977c.

saundersi Chapuis 1865: 80. Syntypes ♂ ♀; Celebes, Borneo; 3 ♂, 2 ♀ in BMNH, London, 1 ♂ IRSNB, Brussels (Schedl 1960c: 10). Synonymy: Schedl 1972f: 111.

References: **(bv)** Beeson 1917; Bletchly 1961: 15. **(cn)** Anonymous 1970c: 11; Beeson 1919: 1–23, 1935a; Browne 1952; Kalshoven 1924c: 310; Lever 1940a: 38, 1943a: 14, 1946: 4; Mathur & Singh 1960a: 45, 1960b: 6, 1960c: 3, 1961a: 5, 1961b: 13; Roonwal 1954: 33; Sen-Sarma & Thakur 1986: 37; Stebbing 1914: 617; Yunus & Hua 1980: 216. **(cc)** Beeson 1921b: 22, 1923; Bhatia 1950; Browne 1958b; Stebbing 1914: 617. **(hb)** Beeson 1915b: 298, 1916a: 222, 1917, 1923, 1933, 1938a; Browne 1935a, 1941, 1958b, 1961c: 218; Kalshoven 1924c, 1960c: 42, 1960d: 1; Kleine 1932a: 310, 401; Speyer 1923: 22; Stebbing 1914: 617. **(ds)** Anonymous 1970c: 11; Beeson 1915b, 1916a: 1–5, 1921b: 22, 1923, 1933: 9, 1935: 539–543, 1938a, 1941 (1961: 254); Bhasin, Roonwal, & Singh 1958; Bhatia 1950; Blandford 1895a, 1895a; Browne 1935a, 1961a: 316, 1961c: 218, 1966: 241, 1980a: 372; Gemminger & Harold 1872: 2697; Kalshoven 1924b: 357; Kleine 1932a: 310, 401; Lever 1940a: 38–42, 1940b: 99, 1941: 80, 1942: 23, 1943a: 14, 1945: 367–377; Mathew 1982, 1987: 188; Mathur & Singh

1960a: 45, 1960b: 6, 1960b: 3, 1961a: 5, 1961b: 13; Olmo, Yoneyama, & Nakazawa 1982b: 9; Roonwal 1954: 33; Sampson 1928a: 2, 1928b: 390; Schedl 1936d: 6, 1936j: 21, 1937f: 15, 1948c: 665, 1950f: 41, 1953b: 124, 1959a: 513, 1971a: 279; Speyer 1923: 11–23; Strohmeier 1912c: 6, 1914c: 35. **(tx)** Beeson 1933, 1937: 37, 72; Browne 1962e: 644; Chapuis 1865: 80; Gardner 1932b; Murayama 1925: 203; Sampson 1924b: 89, 1926: 120, 1928a: 2, 1928b: 390; Schedl 1935n: 640, 1936e: 43, 1937d: 34, 1939e: 334, 1941c: 354, 1942a: 172, 206, 1942c: 163–164, 1954a: 145, 1959a: 513, 1960c: 10, 1964g: 253, 1972f: 111; Stebbing 1914: 617; Strohmeier 1912c: 6, 1914c: 35, 1914f: 8.

leritirae Stebbing 1906: 420 (*Diapus*). Syntypes ♂ ♀; India, Bengal: Backerganj District, Wazirpur, Sunderbans; FRI, Dehra Dun. Synonymy: Beeson 1915: 298.

References: **(cn)** Stebbing 1914: 628. **(cc)** Stebbing 1914: 628. **(hb)** Stebbing 1914: 628. **(ds)** Strohmeier 1912c: 22, 1914c: 47. **(tx)** Stebbing 1914: 628; Strohmeier 1912c: 22, 1914: 47.

posticus Broun 1909: 301 (*Platypus*). Holotype ♀; Raoul Island (New Zealand); Broun Collection (damaged). Synonymy: Schedl 1972f: 111.

References: **(tx)** Broun 1909: 301; Schedl 1972f: 111, 1972p: 156.

saundersi usambaricensis Strohmeier 1911: 182. Syntypes ♂ ♀; Usambarica; IPKE, Eberswalde. Synonymy: Schedl 1972f: 111.

References: **(hb)** Strohmeier 1911a: 182. **(tx)** Schedl 1972f: 111; Strohmeier 1911a: 182.

saundersi submontanus Beeson 1937: 72. Syntypes ♂ ♀; India, Burma, Ceylon, United Provinces: Dehra Dun division, 2000–2500 ft.; FRI, Dehra Dun. Synonymy: Schedl 1972f: 111.

References: **(cn)** Mathur & Singh 1960b: 6, 1960c: 6, 1961a: 32, 1961b: 26; Sen-Sarma & Thakur 1986: 37. **(ds)** Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1960b: 6, 1960c: 6, 1961a: 32, 1961b: 26. **(tx)** Beeson 1937: 72; Schedl 1972f: 111.

nilgircus Beeson 1937: 73. Syntypes, ♂ ♀; Madras: Nilgiris, Coonoor Valley; FRI, Dehra Dun. Synonymy: Schedl 1972f: 111.

References: **(ds)** Bhasin, Roonwal, & Singh 1958; Mathew 1952, 1987: 188. **(tx)** Beeson 1937: 73; Schedl 1972f: 111.

externespinulosus (Schedl) 1942a: 206 (*Platypus*). Holotype ♂; Malaya: Pahang, Rotan Tinggi F.R.; Schedl Collection, lost, authentic examples in BMNH, London.

Distribution: Asia (Malaya).

Notes: (1) Browne 1961c: 220, 1962e: 644 (to *Crossotarsus*).

References: **(ds)** Browne 1961c: 220; Schedl 1972f:

111. (tx) Brownie 1962e: 644; Schedl 1942a: 206, 1972f: 111, 1978a: 29.
- fagaccarum** Brownie 1975: 303 in Beaver & Brownie. Holotype ♂; Thailand: Chiang Mai, Doi Pui, 1450 m; BMNH, London.
Distribution: Asia (Thailand).
Hosts: *Castanopsis* cf. *acuminatissima*, *Quercus* sp.
References: (tx) Beaver & Brownie 1975: 303–304.
- fairmairei** Chapuis 1865: 79. Syntypes ♂; Inde: 1 ♂ in BMNH, London, 3 ♂ in IRSNB, Brussels (Schedl 1960c: 10).
Distribution: Asia (Punjab, Uttar Pradesh in India/ Japan/ Sri Lanka).
Hosts: *Abies pindrow*, *Cedrus deodara*, *Juglans regia*, *Pinus excelsa*, *Quercus incana*, *Q. semicarpifolia*.
References: (cn) Kleine 1932a: 310, 401; Mathur & Singh 1960b: 80; Roonwal 1954: 17, 29; Stebbing 1914: 617. (cc) Beeson 1921b: 21; Stebbing 1914: 617. (hb) Kleine 1932a: 310, 401; Stebbing 1914: 617. (ds) Beeson 1921b: 21, 1937: 73–74, 1961: 253; Blasius, Roonwal, & Singh 1958; Gemminger & Harold 1872: 2697; Kleine 1932a: 310, 401; Mathur & Singh 1960b: 80; Nobuchi 1973b: 6; Roonwal 1954: 17, 29; Schedl 1969c: 56, 1972f: 104; Strohmeier 1911f: 203, 1912c: 5, 1914c: 35. (tx) Beeson 1937: 73–74; Chapuis 1865: 79; Nobuchi 1973b: 6; Sampson 1919: 110; Schedl 1960c: 10, 1972f: 104; Stebbing 1914: 617; Strohmeier 1912c: 5, 1912d: 42, 1914c: 35.
- flacomaculatus** Strohmeier 1912: 40. Holotype ♂; Hoozan in Formosa, Philippinen; MNB, Berlin. Figures: Nobuchi 1967:pl. 2, 1973b:pl. 1.
Distribution: Asia (China ?/ Japan/ Malaya/ Taiwan), Indonesia (Java), Philippine Islands.
Hosts: *Quercus glauca*.
References: (hb) Murayama 1931b: 199. (ds) Miwa 1931: 266; Murayama 1925a: 205, 1931b: 199, 1934f: 138, 1937c: 581, 1954b: 206, 1955: 100; Nobuchi 1967: 25, 1973b: 7; Schedl 1966b: 84, 1972f: 104; Strohmeier 1912c: 5, 1914c: 35. (tx) Murayama 1925a: 205–206, 1925b: 235, 1954b: 206, 1955: 100–101; Nobuchi 1967:pl. 2, 1973b: 7, pl. 1, 1985: 328; Schedl 1934f: 1647, 1972f: 104; Strohmeier 1912c: 5, 1912d: 40–41, 1914c: 35.
- fluminalis** Beeson 1937: 57. Holotype ♀; New Guinea: N.N. Guinea Exped., Albatros Bivak V, Manberano; Buitenzorg Museum.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 102. (tx) Beeson 1937: 57–58; Schedl 1972f: 102.
- forcipes** Schedl 1975f: 374. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 374.
- formosanus** Strohmeier 1912: 41. Syntypes ♂ ♀; Kosempo (Formosa); 2 ♂, 1 ♀ in MNB, Berlin, some in Strohmeier Collection.
Distribution: Asia (Taiwan).
References: (ds) Murayama 1925a: 206, 1929a: 676, 1937c: 582; Nobuchi 1967: 26; Schedl 1972f: 111; Strohmeier 1912c: 5, 1914c: 35. (tx) Murayama 1925a: 206–207, 1925b: 235, 1928a: 287–288; Schedl 1972f: 111; Strohmeier 1912c: 5, 1912d: 40–41, 1914c: 35.
- fractus** Sampson 1912: 249. Holotype ♂; Borneo: Kuching, Sarawak; BMNH, London.
Distribution: Asia (Assam in India/ Malaya), Bismarck Islands, Indonesia (Borneo, Java, Sumatra), Philippine Islands (Luzon).
Hosts: *Azelia palembanica*, *Albizia procera*, *Dalbergia latifolia*, *Dryobalanus oblongifolia*, *Eucalyptus* sp., *Grewia* sp., *Palaquium stellatum*, *Quercus* sp., *Styrax benzoii*, *Sucietenia macrophylla*.
Notes: (3) Schedl 1935k: 483 (described female), 1972f: 107 (treated as a subspecies of *squamulatus*).
References: (cn) Brownie 1938b. (hb) Brownie 1935a, 1941, 1961c: 227; Kalshoven 1960c: 45. (ds) Beeson 1937, 1941 (1961: 254); Brownie 1935a, 1961c: 227, 1966: 242, 1980b: 351; Kalshoven 1960c: 45; Olmo, Yoneyama, & Nakazawa 1987b: 89; Schedl 1936d: 6, 1936j: 6, 21, 1938g: 421, 1966b: 87, 1972f: 107; Strohmeier 1914c: 35. (tx) Beeson 1937: 79, 81; Nobuchi 1985: 328; Sampson 1912: 249–250, 1919: 106; Schedl 1935k: 483, 1936e: 44–45, 1939e: 334–335, 1941c: 354, 1952b: 366, 1972f: 107, 1978a: 31; Strohmeier 1914c: 35.
- gressitti** Schedl 1972i: 53. Holotype ♂; New Guinea, Papua, Western District, Oriomo Gov. Station: BPBM, Honolulu.
Distribution: New Guinea.
References: (ds) Schedl 1972f: 104. (tx) Schedl 1972f: 104, 1972i: 53, 1978a: 34.
- hastatus** (Schedl) 1942c: 194 (*Platyypus*). Holotype ♂; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (ds) Schedl 1968f: 535, 1972f: 111. (tx) Brownie 1962e: 643; Schedl 1942c: 194, 1972f: 111, 1978a: 35.
- hebridensis** Beeson 1937: 71. Holotype ♂; New Hebrides: Aneityum; BMNH, London.
Distribution: New Hebrides Islands.
References: (ds) Beeson 1938b: 295; Schedl 1972f: 111. (tx) Beeson 1937: 71–72; Schedl 1972f: 111.
- horni** Schedl 1934a: 247. Lectotype ♂; Kerhamanab, Java, Bandoeng; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 35.
Hosts: *Acacia decurrens*, *Cinchona ledgeriana*, *Horsfieldia* cf. *glabra*, *Quercus* sp.
Distribution: Indonesia (Java).
References: (ds) Kalshoven 1960d: 40; Schedl 1934a: 247, 1972f: 111. (tx) Beeson 1937: 68;

- Browne 1962e: 644; Schedl 1934a: 247, 1939c: 333, 1941c: 35-4, 1942a: 204, 1963j: 486, 1972f: 111, 1978a: 35.
- biceps* Beeson 1937: 67. Syntypes ♂ ♀; Java: G. Slamet, Batoerraden; Buitenzorg Museum. Synonymy: Schedl 1939e: 333. References: (tx) Beeson 1937: 67-68, 71; Browne 1962e: 644; Schedl 1939e: 333, 1972f: 111.
- inaequidens* Browne 1984c: 456. Holotype ♂; Kaonassu (Solomon Islands) to Nagoya (Japan), imported; BMNH, London. Distribution: Solomon Islands. Hosts: *Pometia* sp. References: (ds) Ohno, Yoshioka, et al. 1988b: 97. (tx) Browne 1984c: 456.
- indomitus* Chapuis 1865: 84. Holotype ♀; Moluques, de l'île Morty; BMNH, London (Schedl 1960c: 11). Distribution: Asia (Malaya), Australia, Indonesia (Moluccas). References: (ds) Gemminger & Harold 1872: 2697; Schedl 1972f: 111; Strohmeier 1912c: 5, 1914c: 35. (tx) Chapuis 1865: 84; Schedl 1960c: 11, 1972f: 111; Strohmeier 1912c: 5, 1914c: 35.
- cavifrons* Blandford 1896b: 192. Syntypes 2 ♂; Gilolo [Moluccas]; BMNH, London. Synonymy: Schedl 1978a: 111. References: (cn) Smith, J. H. 1935: 3. (ec) Smith, J. H. 1935: 3. (ds) Smith, J. H. 1935: 3; Strohmeier 1912c: 5, 1914c: 35. (tx) Blandford 1896b: 192; Schedl 1960c: 11, 1972f: 111; Strohmeier 1912c: 5, 1914c: 35.
- inermis* Schedl 1937d: 33. Lectotype ♂; West-Sumatra, Padang-Pandjang and Sudost-Borneo; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 37. Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo, Mentawai, Sumatra). Hosts: *Azela palembanica*, *Aglaia* sp., *Grewia* sp., *Koompassia excelsa*, *Parkia speciosa*, *Parinarium griffithianum*, *Sterculia macrophylla*. References: (ds) Beaver & Browne 1975: 304; Schedl 1971f: 150, 1972f: 102. (tx) Schedl 1936e: 43, 1937d: 33, 1962p: 209, 1972f: 102, 1978a: 37. *foederatus* Beeson 1937: 53. Holotype ♂; Federated Malay States; Perak; FRI, Dehra Dun. Synonymy: Schedl 1962p: 209. References: (cn) Browne 1949e. (hb) Browne 1941, 1961c: 223. (ds) Browne 1961c: 223. (tx) Beeson 1937: 53-54; Schedl 1962p: 209, 1972f: 102.
- intermedius* Chapuis 1865: 69. Holotype ♀; des îles Celebes (Macassar); BMNH, London. Distribution: Indonesia (Celebes), New Guinea. References: (ds) Gemminger & Harold 1872: 2697; Schedl 1972a: 103; Strohmeier 1912c: 4, 1914c: 33. (tx) Chapuis 1865: 69; Schedl 1960c: 8, 1972f: 103; Strohmeier 1912c: 4, 1914c: 33.
- javanus* Beeson 1937: 51. Syntypes 1 ♂, 1 ♀; Java: Soekaboeni; FRI, Dehra Dun. Distribution: Indonesia (Java, Sumatra), New Guinea. Hosts: *Albizzia sumatrana*, *Celtis wrightia*, *Dalbergia latifolia*, *Eucalyptus* sp., *Hevea brasiliensis*, *Pometia tomentosa*. References: (hb) Kalshoven 1960c: 44. (ds) Kalshoven 1960c: 44; Schedl 1971c: 367, 1971f: 150, 1972f: 102. (tx) Beeson 1937: 51-52; Schedl 1961c: 74, 1972f: 102.
- keyensis* Strohmeier 1913: 163. Syntypes ♂; Key-Inseln; SMTD, Dresden, and IPKE, Eberswalde. Distribution: Indonesia (Key Island), New Guinea. References: (ds) Schedl 1972f: 102; Strohmeier 1914c: 34. (tx) Schedl 1937d: 34, 1941e: 152, 1972f: 102, 1978a: 39; Strohmeier 1913: 163-164, 1914c: 34.
- kondulensis* Beeson 1937: 86. Syntypes ♂ ♀; Nicobars: Little Nicobar; FRI, Dehra Dun. Distribution: Asia (Nicobar Islands in India). References: (ds) Schedl 1972f: 106. (tx) Beeson 1937: 86-87; Schedl 1939e: 335, 1972f: 106.
- lacordairei* Chapuis 1865: 85. Syntypes 2 ♂; Nouvelle-Guinee; BMNH, London (Schedl 1960c: 11). Distribution: Bismarck Islands, Indonesia (Aru), New Guinea, New Ireland. References: (ds) Browne 1966: 241; Gemminger & Harold 1872: 2697; Nobuchi 1977: 106; Ohno, Yoneyama, & Nakazawa 1987a: 95; Ohno, Yoshioka, et al. 1989: 64; Schedl 1936g: 514, 1972f: 106; Strohmeier 1914c: 35. (tx) Chapuis 1865: 85; Lucas 1920: 209; Schedl 1937d: 34-35, 1960c: 11, 1969b: 222, 1972f: 106; Strohmeier 1914c: 35.
- laevigatus* Chapuis 1865: 70. Syntypes 2 ♀; Iles Molucques (Batchian); BMNH, London. Distribution: Indonesia (Moluccas). References: (ds) Gemminger & Harold 1872: 2697; Schedl 1972f: 103; Strohmeier 1912c: 4, 1914c: 34. (tx) Chapuis 1865: 70; Schedl 1960c: 9, 1972f: 103; Strohmeier 1912c: 4, 1914c: 34.
- laratensis* Beeson 1937: 56. Syntypes ♂ ♀; Larat Is.; 1 ♂, 3 ♀ in BMNH, London. Distribution: Indonesia (Larat Island), Philippine Islands. References: (ds) Nobuchi 1977: 104, 1980a; Ohno, Yoneyama, & Nakazawa 1987b: 89; Schedl 1966b: 84, 1966g: 34, 1972f: 102. (tx) Beeson 1937: 56-57; Nobuchi 1955: 328; Schedl 1972f: 102.
- lecontei* Chapuis 1865: 60. Syntypes ♂ ♀; l'île de Lucon; 2 ♂, 1 ♀ in BMNH, London, 2 ♂, 1 ♀ in IRSNB, Brussels, 1 ♀ in MNB, Berlin (Schedl 1960c: 7). Distribution: Asia (Vietnam), Philippine Islands (Luzon). References: (ds) Baer 1886; Browne 1966: 239-240, 1986c: 663; Gemminger & Harold 1872: 2697; Lacordaire 1866: 389; Mesa 1935: 96;

- Nobuchi 1977: 104, 1979a: 407; Ohno, Yoneyama, & Nakazawa 1987b: 89; Schedl 1935g: 421, 1966b: 85, 1971f: 150, 1972f: 102, 1974c: 262; Strohmeier 1912c: 4, 1912e: 251, 1914c: 33. (**tx**) Beeson 1937: 56–57; Chapuis 1865: 60; Hopkins 1914c: 183, 191; Lacordaire 1866: 389; Nobuchi 1985: 328; Schedl 1933e: 105, 1935n: 639, 1937d: 33, 1939b: 392, 1952b: 365, 1960c: 7, 1972f: 102; Strohmeier 1911b: 17, 1912c: 4, 1912e: 251, 1914c: 33.
- longicollis** **Browne** 1950b: 649. Holotype ♂; Malaya: Selangor, Kepong; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Castanopsis sumatrana*, *Lithocarpus wallichianus*, *Pasania sundaica*.
References: (**hb**) Beaver & Browne 1975: 615; Browne 1961c: 221. (**ds**) Beaver & Browne 1978: 615; Browne 1961c: 221; Schedl 1972f: 111. (**tx**) Browne 1950b: 649, 1962c: 213, 1962e: 644; Schedl 1972f: 111.
- longicornis** (**Schedl**) 1942c: 196 (*Platypus*). Holotype ♂; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Myristica* sp.
Notes: (3) Schedl 1972i: 65 (described female).
References: (**ds**) Schedl 1972f: 111. (**tx**) Schedl 1942c: 196, 1972f: 111, 1972i: 65, 1978a: 41.
- machili** **Beeson** 1937: 76. Syntypes ♂ ♀; Bengal: Darjeeling division, Debpreani, 6000 ft.; FRI, Dehra Dun.
Distribution: Asia (Bengal in India).
Hosts: *Machilus odoratissima*, *Mallotus roxburghianus*, *Symplocos theaeifolia*.
References: (**cn**) Mathur & Singh 1961a: 83. (**ds**) Beeson 1941 (1961: 265); Mathur & Singh 1961a: 83; Schedl 1972f: 104. (**tx**) Beeson 1937: 76–77; Schedl 1972f: 104, 1978a: 42.
- majusculus** **Sampson** 1924b: 89. Syntypes ♂ ♀; New Guinea, Mamberamo River; Buitenzorg Museum?
Distribution: New Guinea.
References: (**ds**) Schedl 1936g: 514, 1968f: 535, 1972f: 112. (**tx**) Sampson 1924b: 89; Schedl 1937d: 34, 1940b: 434–435, 1941e: 153, 1942a: 213, 1942c: 165, 201, 1972f: 112, 1978a: 42.
- abdominalis** **Schedl** 1969b: 220. Holotype ♂; New Guinea: Karamui, Chimbu District; CSIRO, Canberra. Synonymy: Schedl 1972f: 112.
References: (**tx**) Schedl 1969b: 220–221, 1972f: 112.
- minax** (**Walker**) 1856: 286 (*Platypus*). Holotype ♂; Ceylon; BMNH, London.
Distribution: Asia (Karnataka, Tamil Nadu in India/Sri Lanka).
Hosts: *Anacardium occidentale*, *Buchanania lanzan*, *Butea monosperma*, *Calycopteris floribunda*, *Dalbergia latifolia*, *Eugenia* sp., *Gluta travancorica*, *Hevea brasiliensis*, *Lagerstroemia lanceolata*, *Mangifera indica*, *Pterocarpus marsupium*, *Salmalia malabarica*, *Semicarpus gardneri*, *Spodias mangifera*, *Swietenia macrophylla*, *Tectona grandis*, *Terminalia arjuna*, *T. bellerica*, *T. paniculata*, *T. tomentosa*, *Theobroma cacao*, *Wormia triquetra*, *Xylocarpus xylocarpa*.
Notes: (1) The Walker 1856 article was not seen by us; this species was also named as new in Walker 1859: 260.
References: (**cn**) Holmes 1947: 3, 109; Kleine 1932a: 310, 401; Mathur & Singh 1960b: 14, 1960c: 4, 1961a: 13, 1961b: 13; Roonwal 1954: 67. (**ce**) Beeson 1921b: 22; Chatterjee & Chatterjee 1951. (**hb**) Beeson 1933: 9; Chatterjee & Chatterjee 1951; Kleine 1932a: 310, 401; Speyer 1923: 22. (**ds**) Beeson 1921b, 1933: 9, 1941 (1961: 254); Bhasin, Roonwal, & Singh 1958; Chapuis 1865: 71–73; Chatterjee & Chatterjee 1951; Gemminger & Harold 1872: 2697; Holmes 1947: 109; Kleine 1932a: 310, 401; Lacordaire 1866: 390; Mathur & Singh 1960b: 14, 1960c, 1961a: 13, 1961b: 13; Roonwal 1954: 67; Schedl 1969c: 55, 1971a: 279, 1971f: 150, 1972f: 100, 1975e: 452; Strohmeier 1912c: 4, 1914c: 34. (**tx**) Beeson 1933: 9; Chapuis 1865: 71; Gardner 1932b; Lacordaire 1866: 390; Lucas 1920: 209; Schedl 1937d: 34, 1939b: 402, 1959a: 515, 1960c: 9, 1972f: 100; Strohmeier 1912c: 4, 1914c: 34; Walker 1856: 286, 1859: 260–261. (**ms**) Lucas 1920: 209.
- minusculus** **Chapuis** 1865: 68. Syntypes ♂; Nouvelle-Guinee; 1 in BMNH, London, 1 in IRSNB, Brussels (Schedl 1960c: 8).
Distribution: Asia (Malaya), Bismarck Islands, Bougainville Island, Indonesia (Sumatra), New Guinea, New Ireland.
Hosts: *Terminalia complanata*, *Xylocarpus gangeticum*.
References: (**hb**) Browne 1961c: 224. (**ds**) Browne 1961c: 224, 1981b: 599; Gemminger & Harold 1872: 2697; Ohno, Yoshioka, et al. 1985b: 97, 1989: 65; Schedl 1972f: 103; Strohmeier 1912c: 4, 1914c: 34. (**tx**) Browne 1955: 365; Chapuis 1865: 68; Schedl 1960c: 8, 1972f: 103; Strohmeier 1912c: 4, 1914c: 34.
- inornatus** **Chapuis** 1865: 68. Syntypes 2 ♀; Nouvelle-Guinee (Dorey); BMNH, London (Schedl 1960c: 8). Synonymy: Browne 1955: 365.
References: (**ds**) Gemminger & Harold 1872: 2697; Strohmeier 1912c: 4, 1914c: 33. (**tx**) Browne 1955: 365; Chapuis 1865: 11; Schedl 1960c: 8, 1972f: 103; Strohmeier 1912c: 4, 1914c: 33.
- minusculus grandis** **Schedl** 1975: 374. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.
Notes: (3) This appears to be no more than a size variant.
References: (**tx**) Schedl 1975f: 374.

novaeguineensis Roberts 1989: 90. Holotype ♂; New Guinea: Papua, Bulolo; NHMW, Wien. References: (tx) Roberts 1989: 90.

mniszewi Chapuis 1865: 62. Syntypes ♂ ♀; Iles de la Nouvelle Guinee, d'Arou, de Celebes; 4 ♂, 2 ♀ in BMNH, London, 3 ♂ in IRSNB, Brussels (Schedl 1960c: 7).

Distribution: Asia (Malaya), Australia, Bismarck Islands, Indonesia (Aru, Celebes, Key Island), Fergussou Island, New Britain Island, New Guinea, New Ireland, Philippine Islands.

Hosts: *Antidesma* sp., *Cananga odorata*, *Dracontomelum* sp., *Maniltoa* sp., *Pangium* sp., *Polyalthea* sp., *Pometia pinnata*, *Vitex* sp.

References: (cn) Gray, B. & Wylie 1974; Smith, J. H. 1935: 3. (ce) Smith, J. H. 1935: 3. (hb) Gray, B. 1968: 307; Gray, B. & Wylie 1974. (ds) Browne 1966: 239, 1980a: 372, 1980c: 484, 1984c: 449; Gemminger & Harold 1872: 2697; Gray, B. 1968: 307; Schedl 1936g: 513, 1962i: 73, 1966b: 85, 1972f: 102, 1979a: 159; Smith, J. H. 1935: 3; Strohmeier 1912c: 4, 1914c: 33. (tx) Beeson 1937: 57-58; Browne 1964: 758; Chapuis 1865: 62; Lea 1910: 133; Nobuchi 1985: 328; Sampson 1924b: 89; Schedl 1936e: 43, 1937d: 33, 1939b: 384, 394, 1940b: 434-435, 1941e: 53, 1942c: 164, 1952b: 365, 1955b: 282, 1958i: 215, 1960c: 7, 1969b: 221, 1972f: 102; Strohmeier 1912c: 4, 1914c: 33; Wylie & Yule 1977.

moluccanus Schedl 1961c: 74. Holotype ♂; Ternate; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Ternate in Moluccas).

References: (ds) Schedl 1961c: 74. 1965g: 23, 1972f: 102. (tx) Schedl 1961c: 74. 1972f: 102, 1978a: 45.

motui Schedl 1973f: 76. Holotype ♂; Pengagl, Camp east slopes Mt. Wilhelm, Chimbu District, 2770 m; AMNH, New York.

Distribution: New Guinea.

References: (tx) Schedl 1973f: 76-77.

mussooriensis Beeson 1937: 84. Holotype ♂; United Provinces: Mussoorie, Mackinnon Park, 6500 ft.; FRI, Dehra Dun.

Distribution: Asia (Uttar Pradesh in India).

Hosts: *Cedrela serrata*.

Notes: (3) Schedl 1972f: 107 (treated as a subspecies of *terminatus*).

References: (ds) Beeson 1941 (1961: 254); Bhasin, Roonwal, & Singh 1958. (tx) Beeson 1937: 84-85; Schedl 1939e: 355. 1972f: 107.

nakazawai Browne 1986b: 342. Holotype ♂; New Guinea: Fakfak to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Pometia* sp.

References: (tx) Browne 1986b: 342.

nepalensis Schedl 1973b: 212. Holotype ♂; Nepal, Phulchoki b. Kathmandu; Schedl Collection in NHMW, Wien.

Distribution: Asia (Bhutan/ Nepal).

References: (ds) Schedl 1975c: 384. (tx) Schedl 1973b: 212, 1978a: 46.

niponicus Blandford 1894d: 130. Syntypes (many) ♂ ♀; Sapporo and Hakodate in Yezo, also Miyanoshita, Yuyama, etc., and in Kiushiu, Japan; BMNH, London.

Figures: Nakane et al. 1963:pl. 192. Nakashima 1975: 15. 1979:pl. 1, Nobuchi 1973b:pl. 1.

Distribution: Asia (Japan/ Taiwan).

Hosts: *Acer mono*, *A. palmatum*, *Aesculus turbinata*, *Alnus japonica*, *Carpinus laxiflora*, *C. tschonoskii*, *Castanea crenata*, *Clethra barbinervis*, *Euonymus alatus*, *Euptelea polyandra*, *Fagus crenata*, *F. japonica*, *Fraxinus mandshurica* var. *japonica*, *Kalopanax septemlobus*, *Lindera erythrocarpa*, *Machilus thunbergii*, *Magnolia obovata*, *Phellodendron amurense*, *Pterocarya rhoifolia*, *Quercus mongolica* var. *grosseserrata*, *Q. myrsinaefolia*, *Q. salicina*, *Styrax japonica*, *Tilia japonica*, *Tsuga sieboldii*, *Zelkova serrata*.

Notes: (1) The type of *Geujocerus adustipennis* Motschulsky was examined at Moscow in 1968 and, in all probability, is of this species: because no material was available for comparison, synonymy should be confirmed before it is accepted (SLW).

References: (ay) Nakashima 1971, 1975: 4, 1978. (cn) Anonymous 1980g; Kleine 1932a: 401; Uchida et al. 1958: 181; Yazowa, Higochi, & Machii 1957: 1-56. (ce) Banno, Mikata, & Kodama 1983: 445; Inouye et al. 1955: 118; Nakashima 1971, 1975: 4, 1978, 1979; Nakashima, Goto, & Iizuka 1987. (hb) Inouye et al. 1955: 118; Kleine 1932a: 401; Murayama 1931b: 199; Nakashima 1971, 1975: 7. (ds) Anonymous 1980g; Blandford 1894c; Kleine 1932a: 401; Miwa 1931: 266; Murayama 1925a: 207, 1929a: 678, 1931b: 199, 1934f: 141, 1937c: 580, 1949c: 104, 1950b: 1299, 1954b: 189, 1955: 103; Nakane et al. 1963: 384; Nakashima 1975: 3, 1979; Nobuchi 1967: 25, 1973b: 7; Schedl 1969a: 204, 1972f: 105; Strohmeier 1912c: 6, 1914c: 35. (tx) Beeson 1937: 69; Blandford 1894d: 130; Murayama 1925a: 207, 1925b: 235, 1928a: 287, 1950b: 1299, 1954b: 189, 1955: 103; Nakane et al. 1963: 384. pl. 192; Nakashima 1975: 15. 1979:pl. 1; Niisima 1909: 170; Nobuchi 1973b: 7, pl. 1; Schedl 1934f: 1647, 1969b: 222, 1972f: 105; Strohmeier 1912c: 6, 1914c: 35; Wylie & Yule 1977.

nitens Chapuis 1865: 77. Holotype ♂; Ile de Sula; BMNH, London.

Distribution: Asia (Malaya), Indonesia (Borneo, Sulh).

Hosts: *Araucaria cunninghamii*, *Canarium australasicum*, *Elacocarpus* sp., *Eugenia gustavioides*, *Euodia* sp., *Pithecellobium* sp.

References: (hb) Browne 1941. (ds) Browne 1961c: 224, 1984c: 448; Choo & Woo 1983; Gemminger

- & Harold 1872: 2697; Nobuchi 1977: 105; Schedl 1936d: 6, 1966g: 35, 1972f: 109; Strohmeier 1912c: 4, 1914c: 34. (tx) Chapuis 1865: 77; Lucas 1920: 209; Schedl 1939b: 395, 1954a: 156, 1960c: 10, 1971e: 387, 1972f: 109, 1978a: 47; Strohmeier 1912c: 5, 1914c: 34.
- nitescens Schedl** 1979a: 162. Holotype ♂: Tarzali, Atherton Sub. District, Queensland, Australia; CSIRO, Canberra.
Distribution: Australia (Queensland).
Hosts: *Araucaria cunninghamii*, *Canarium australasicum*, *Elacocarpus* sp., *Eugenia gustavoides*, *Euodia* sp.
Notes: (3) Schedl 1980b: 187 (described female).
References: (ds) Schedl 1950b: 185–187. (tx) Schedl 1979a: 162.
- nitidior (Schedl)** 1953b: 129 (*Trachyostus*). Syntypes ♀: Hiep-Hoa, East-Vaico River, 40 km W Saigon, Indo China; Barbier Collection and Schedl Collection in NHMW, Wien.
Distribution: Asia (Vietnam).
Notes: (1) Schedl 1978a: 47 (citation of holotype invalid).
References: (ds) Schedl 1972f: 112. (tx) Browne 1962e: 644; Schedl 1953b: 129–130, 1963j: 486, 1972f: 112, 1978a: 47.
- nitidulus (Schedl)** 1954a: 156 (*Platypus*). Syntypes ♂ ♀: Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo, Java, Sumatra).
Hosts: *Castanea argentea*, *Garcinia* sp., *Nephelium* sp.
Notes: (1) Schedl 1978a: 47 (citation of holotype invalid).
References: (hb) Kalshoven 1960c: 44. (ds) Browne 1961c: 224; Kalshoven 1960d: 44; Schedl 1964c: 304, 1971c: 370, 1972f: 109. (tx) Browne 1962e: 643; Schedl 1954a: 145, 156–157, 1972f: 109, 1978a: 47.
- octocostatus Schedl** 1935b: 398. Syntypes ♂ ♀: Mount Maquilang, Laguna Province, Philippine Islands; F. C. Hadden Collection, and Schedl Collection in NHMW, Wien.
Figures: Schedl 1972f: 109.
Distribution: Indonesia (Borneo, Mentawai), Philippine Islands (Luzon).
Notes: (1) Schedl 1978a: 49 (citation of holotype invalid).
References: (ds) Browne 1966: 241; Nobuchi 1977: 107, 1979a: 407; Ohno, Yoneyama, & Nakazawa 1987b: 89; Schedl 1938g: 421, 1966b: 86, 1966g: 34, 1972f: 108. (tx) Browne 1962e: 644; Nobuchi 1985: 328; Schedl 1935b: 398–399, 1935j: 2, 1936e: 43, 1939b: 398, 1939e: 334, 1963j: 486, 1972f: 108–109, 1978a: 49.
- oligodontus Roberts** 1979: 82. Holotype ♂: Papua New Guinea: 12 km south-west of Onim Int, Momt Giluwe, 2900 m; BMNH, London.
Distribution: New Guinea.
- Hosts: *Quintonia* sp.
References: (tx) Roberts 1979: 82.
- palatus Beeson** 1937: 55. Holotype ♂; C. Borneo: Banguay; BMNH, London.
Distribution: Indonesia (Borneo, Ternate in Moluccas), Philippine Islands.
Notes: (3) Browne 1964: 758 (described female).
References: (ds) Browne 1966: 239, 1980c: 485, 1986a: 90; Ohno, Yoshioka, et al. 1989: 65; Schedl 1966b: 86, 1972f: 102. (tx) Beeson 1937: 55–56; Browne 1964: 758; Nobuchi 1985: 328; Schedl 1972f: 102.
- paucidentatus Roberts** 1989: 90. Holotype ♂; New Guinea: Papua; NHMW, Wien.
Distribution: New Guinea.
Hosts: *Evodia* sp.
References: (tx) Roberts 1989: 90.
- pectinatus Browne** 1966: 240. Holotype ♂; Bismarck Island, New Britain: Yalom, Gazelle Peninsula, 1000 m; UZMC, Copenhagen.
Distribution: Bismarck Island, New Britain Island.
References: (ds) Schedl 1972f: 102. (tx) Browne 1966: 240; Schedl 1972f: 102.
- piceae Stebbing** 1906: 413. Syntypes ♂ ♀; Tehri Garhwal, North-West Himalayas, India; not found in FRI, Dehra Dun.
Distribution: Asia (Uttar Pradesh in India).
Hosts: *Picea* sp.
References: (ds) Schedl 1972f: 112; Strohmeier 1912c: 6, 1914c: 35. (tx) Schedl 1972f: 112; Stebbing 1906: 413; Strohmeier 1912c: 6, 1914c: 35.
- piceus Chapuis** 1865: 56. Syntypes ♂ ♀; Moluques et d'Arou: 3 ♂, 2 ♀ in BMNH, London, 1 ♂, 1 ♀ in IRSNB, Brussels (Schedl 1960c: 6).
Distribution: Asia (Taiwan), Indonesia (Arru, Moluccas, Sumatra), New Guinea, Philippine Islands.
References: (ay) Strohmeier 1918: 13. (ds) Gemminger & Harold 1872: 2697; Miwa 1931: 266; Murayama 1925a: 202, 1929a: 674, 1937e: 582; Nobuchi 1967: 25; Schedl 1966b: 86, 1972f: 102; Strohmeier 1912c: 4, 1914c: 33. (tx) Beeson 1937: 51–53; Chapuis 1865: 56; Murayama 1925a: 202, 1925b: 235; Nobuchi 1985: 328; Schedl 1937d: 33, 1960c: 6, 1972f: 102; Strohmeier 1912c: 4, 1914c: 33.
- porcatus Roberts** 1988: 91. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; NHMW, Wien.
Distribution: New Guinea.
Hosts: *Litsea* sp.
References: (tx) Roberts 1988: 91.
- procius Schedl** 1975g: 222. Holotype ♂; New Guinea, Geelkink Bay, 10 m; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975g: 222, 1978a: 56.

- quadricaudatus (Strohmeyer)** 1910e: 131 (*Platypus*). Syntypes 3. ♂ ♀; Nilgiri Hills; 1 in H. L. Andrews Collection, 2 in IPKE, Eberswalde. Distribution: Asia (Tamil Nadu in India). Hosts: *Canarium strictum*, *Palaquium elliptica*, *Vateria indica*. Notes: (1) Schedl 1972f: 100 (to *Crossotarsus*). References: (en) Mathur & Singh 1961b: 69. (ds) Beeson 1941 (1961: 254); Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1961b: 69; Schedl 1972f: 100; Strohmeyer 1912c: 19, 1914c: 34. (tx) Schedl 1978a: 56, 1972f: 100; Strohmeyer 1910e: 131, 1912c: 19, 1913: 165, 1914c: 34.
- rasis Roberts** 1979: 83. Holotype ♂; Papua New Guinea: 8 km south-west of Onim Hut, Mount Giluwe, 2450 m; BMNH, London. Distribution: New Guinea. Hosts: *Evodia* sp. References: (tx) Roberts 1979: 83.
- rastellus Beeson** 1937: 82. Syntypes ♂ ♀; Philippines: BMNH, London. Distribution: Philippine Islands. Notes: (3) Schedl 1972f: 107 (treated as a subspecies of *squamulatus*). References: (ds) Schedl 1966b: 88, 1972f: 107. (tx) Beeson 1937: 82–83; Nobuchi 1985: 328; Schedl 1972f: 107.
- rengetensis Niisima & Murayama** in Murayama 1925a: 208. Syntypes ♂ ♀; Rengeti, Taichu Prov., Formosa; Murayama Collection in USNM, Washington. Distribution: Asia (Taiwan). Hosts: *Cinnamomum* spp., *Cryptocarya chinensis*, *Machilus longipaniculata*, *Melia azedarach*, *Pasania cuspidata*, *Taonabo japonica*, *Tetradenia konishii*. References: (hb) Murayama 1928b: 26. (ds) Miwa 1931: 266; Murayama 1925a: 208, 1928b: 26, 1929a: 678, 1937c: 580; Nobuchi 1967: 25, 1977: 108; Schedl 1972f: 112, 1975a: 455. (tx) Beeson 1937: 97–98; Murayama 1925a: 208–210, 1925b: 235; Schedl 1934f: 1647, 1972f: 112.
- saltator Schedl** 1935k: 480. Syntypes ♂ ♀; Luzon, Nueva Vizcaya Province, Bayombong; W. Schultze Collection, and Schedl Collection in NHMW, Wien. Distribution: Asia (Vietnam), Philippine Islands (Luzon). Notes: (1) Schedl 1978a: 63 (citation of holotype invalid). References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (ds) Browne 1968a: 133, 1980a: 371, 1980c: 484; Nobuchi 1977: 109; Schedl 1966b: 87, 1969a: 205, 1972f: 112. (tx) Nobuchi 1985: 328; Schedl 1935k: 480, 1954a: 157, 1963j: 482, 1964h: 424, 1972f: 112, 1978a: 63.
- parvus** Browne 1962c: 213 (*Trachyostus*). Holotype ♂; Philippines: Laguna, Mt. Maquiling; Forest Products Research Institute, Laguna. Synonymy: Schedl 1972f: 112. Notes: (1) Browne 1962e: 644 (to *Crossotarsus*). References: (ds) Olmo, Yoshioka, et al. 1988b; Schedl 1966b: 104. (tx) Browne 1962c: 213, 1962e: 644; Nobuchi 1985: 328; Schedl 1963j: 482, 1964h: 424, 1972f: 112.
- saltatorinus (Schedl)** 1954a: 157 (*Platypus*). Syntypes ♀; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, and Kalshoven Collection. Distribution: Asia (Fujian in China), Indonesia (Java). Notes: (1) Schedl 1978a: 63 (citation of holotype invalid). References: (ds) Kalshoven 1960d: 40; Schedl 1972f: 105. (tx) Browne 1962e: 644; Schedl 1954a: 145, 157–158, 1972f: 105, 1978a: 63.
- schedli Browne** 1962c: 215. Holotype ♀; Malaya: Selangor, Kepong; BMNH, London. Distribution: Asia (Malaya). Hosts: *Azelia palembanica*, *Buchanania sessifolia*, *Canarium littorale*, *Castanopsis sumatrana*, *Coccoceras muticum*, *Diplospora* sp., *Dryobalanops oblongifolia*, *Elateriospermum tapos*, *Endospermum malaccense*, *Hymenaea courbaril*, *Mesua ferrea*, *Parkia speciosa*, *Shorea* spp., *Sterculia macrophylla*, *Styrax benzoin*, *Xanthophyllum* sp., *Xerospermum* sp. Notes: (3) This series had been previously misidentified as *cinnamatus* by Schedl 1935n: 639). References: (hb) Browne 1961c: 223. (ds) Browne 1961c: 223, 1980b: 381; Ohno, Yoshioka, et al. 1989: 65; Schedl 1972f: 102. (tx) Browne 1962c: 215; Schedl 1935n: 639, 1972f: 102.
- scorpius (Schedl)** 1942c: 195 (*Platypus*). Holotype ♂; Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. Notes: (1) Browne 1962e: 643 (to *Crossotarsus*). References: (ds) Schedl 1972a: 109. (tx) Browne 1962e: 643; Schedl 1942c: 195, 1972f: 109, 1978a: 64.
- semicinctus Schedl** 1973e: 93. Holotype ♂; Potogalai logging area, Hoskins, West New Britain District; CSIRO, Canberra. Distribution: New Britain. Hosts: *Eugenia* sp., *Octomeles sumatrana*. References: (tx) Schedl 1973e: 93, 1978a: 65.
- serratulus (Browne)** 1964: 756 (*Platypus*). Holotype ♂; Philippines; BMNH, London. Distribution: Philippine Islands. Notes: (1) Schedl 1972f: 103 (to *Crossotarsus*). References: (ds) Schedl 1972f: 103. (tx) Browne 1964: 756; Schedl 1972f: 103, 1972p: 158.
- simplex Murayama** 1925b: 231. Syntypes ♂ ♀; Japan: Ayakita (Miyazaki Prov., Kyushu); Murayama Collection in USNM, Washington.

- Figures: Nobuchi 1973b: pl. 1.
 Distribution: Asia (Japan/ Korea/ Taiwan).
 Hosts: *Ilex oldhami*, *Lindera thunbergii*, *Prunus jamasakura*, *Quercus* spp.
 References: (cn) Ishikura 1966; Kleine 1932a: 401; Murayama 1954a: 19; Shiraki 1952. (hb) Kleine 1932a: 401. (ds) Cho 1957, 1963; Choo 1983: 31; Ishikura 1966; Kleine 1932a: 401; Ko 1969: 273; Murayama 1929a: 676, 1929b: 2, 1930b: 24, 1931a, 1934f: 135, 1936a: 140–141, 1937b: 375, 1937c: 581, 1949c: 104, 1950b: 1299, 1954a: 19, 1954b: 206, 1955: 100, 105, 1957a: 37; Nobuchi 1967: 25, 1973b: 8, 1977: 105; Schedl 1972f: 105; Shiraki 1952. (tx) Beeson 1937: 77; Choo 1983: 31; Choo & Woo 1985: 163; Murayama 1925b: 231–232, 235, 1928a: 289–290, 1930b: 24, 28, 31, 1931a: 50, 1936a: 140, 1937b: 375, 1950b: 1299, 1954b: 206, 1955: 100, 105; Nobuchi 1973b: 8, pl. 1; Schedl 1934f: 1647, 1972f: 105.
- spiporanus** Schedl 1936e: 44. Lectotype ♂; Mentawai, Sopora Sereinu; Schedl Collection in NHMW, Wien.
 Distribution: Asia (Malaya), Indonesia (Borneo, Mentawai, Sumatra), New Guinea.
 Hosts: *Aporosa globifera*, *Baccaura parvifolia*, *Schoutenia mastersii*, *Xerospermum* sp.
 Notes: (3) Schedl 1962f: 209 (treated in *Platypus*).
 References: (hb) Beaver & Browne 1975: 616; Browne 1961c: 228. (ds) Beaver & Browne 1975: 616; Browne 1961c: 228; Schedl 1972f: 107. (tx) Schedl 1936e: 44–45, 1939e: 335, 1962p: 209, 1964d: 213, 1972e: 107, 1978a: 67.
- oblongirosus** Beeson 1937: 88. Holotype ♂; F.M.S.: Pahang, Raub; FRI, Dehra Dun. Synonymy: Schedl 1962p: 208.
 References: (hb) Browne 1941. (tx) Beeson 1937: 88–89; Schedl 1939c: 335, 1962p: 209, 1972f: 107.
- sira** Beeson 1937: 85. Holotype ♂; Bengal: Kurseong division, Sivakhola, 3500 ft.; FRI, Dehra Dun, not found in 1951 by SLW [20 paratypes were present].
 Distribution: Asia (Bengal in India).
 Hosts: *Albizzia stipulata*, *Cryptocarya wrightiana*, *Engelhardtia spicata*.
 Notes: (3) Schedl 1972f: 107 (treated as a subspecies of *terminatus*).
 References: (cn) Mathur & Singh 1960a: 35; Roonwal 1954: 53. (ds) Beeson 1941 (1961: 256); Mathur & Singh 1960a: 35; Roonwal 1954: 53; Schedl 1972f: 107. (tx) Beeson 1937: 85; Schedl 1939c: 365, 1972f: 107, 1978a: 67.
- spectrum** Schedl 1975f: 376. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1975f: 376.
- spiuifer** (Sampson) 1925b: 393 (*Platypus*). Syn-types ♂ [♀?]; Borneo: Quop, Sandakan; BMNH, London.
 Distribution: Indonesia (Borneo).
 Notes: (1) Schedl 1972f: 192 (Sampson's female belongs to a *Platypus* species). (3) Schedl 1972f: 105 (to *Crossotarsus*).
 References: (ds) Sampson 1925b: 393; Schedl 1972f: 105, 192. (tx) Browne 1955: 365; Sampson 1925b: 393; Schedl 1939c: 4, 1972f: 105, 192.
- spinipennis** Schedl 1972i: 54. Holotype ♂; Tonolei, Bougainville District, New Guinea; CSIRO, Canberra.
 Distribution: Bougainville Island.
 References: (ds) Schedl 1972f: 103. (tx) Schedl 1972f: 103, 1972i: 54.
- squamulatus** Chapuis 1865: 87. Syntypes ♀; Java; 1 in BMNH, London. 1 in IRSNB, Brussels (Schedl 1960c: 12).
 Figures: Sampson 1912: 249 (male).
 Distribution: Asia (Bangladesh/ Burma/ Andaman Islands, Assam, Bengal in India/ Malaya/ Pakistan/ Thailand/ Tonkin Island in Vietnam and Vietnam), Bismarck Island, Indonesia (Borneo, Java, Sumatra), Philippine Islands.
 Hosts: *Acacia decurrens*, *Azelia palembanica*, *Albizzia lebbek*, *Amoora rohataka*, *Anstroboxus nitidus*, *Bauhinia* sp., *Bouea macrophylla*, *Brackenridgea hookeri*, *Bridelia tomentosa*, *Bruguiera parviflora*, *Calophyllum tetrapterum*, *Carya arborea*, *Castanopsis sumatrana*, *Cinnamomum cecidodaphne*, *Cinnamomum iners*, *Coccoceras muticum*, *Cratogeomys arborescens*, *Diospyros* sp., *Durio griffithii*, *Endospermum malaccense*, *Eugenia bernardii*, *E. grandis*, *Ficus* sp., *Fordia* sp., *Grewia* sp., *Heritiera fomes*, *Koompassia excelsa*, *Lithocarpus wallichianus*, *Melanorrhoea* sp., *Ochanostachys amentacea*, *Odina wodier*, *Palaquium* sp., *Parinarium griffithianum*, *Parkia speciosa*, *Pasania oocarpa*, *Pithecellobium* sp., *Ponteria malaccensis*, *Schoutenia acerescens*, *Shorea leprosula*, *S. maxwelliana*, *Sloetia elongata*, *Tectona grandis*, *Whitfordiodendron pubescens*.
 References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (cn) Beeson 1915: 8–11, 1918: 114–124, 1919: 1–23; Huque 1966; Kalshoven 1960d: 48; Kleine 1932a: 310, 401; Mathur & Singh 1961b: 94; Roonwal 1954: 89. (cc) Beeson 1921b: 22; Browne 1955b. (hb) Beaver & Browne 1975: 616; Beeson 1941 (1961: 256); Browne 1936a, 1941, 1955b. 1961c: 225–228; Kalshoven 1960c: 44, 1960d: 2; Kleine 1932a: 310, 401; Yunus & Hua 1980: 216. (ds) Beaver & Browne 1975: 304, 1978: 616; Beeson 1916: 106, 1921b: 22, 1937: 77–83, 1941 (1961: 256); Bhasin, Roonwal, & Singh 1958; Browne 1936a, 1961a: 316, 1961c: 225, 1966: 241, 1980b: 350; Gemminger & Harold 1872: 2697; Kalshoven 1960d: 48; Kleine

- 1932a: 310, 401; Mathur & Singh 1961b: 94; Murayama 1934f: 140; Ohno, Yoneyama, Nakazawa 1957b: 89; Roonwal 1954: 89; Sampson 1919: 106; Schedl 1936d: 6, 1936j: 22, 1937f: 15, 1966b: 87, 1971f: 150, 1972f: 107, 1974c: 262; Strohmeier 1914c: 35; Yumus & Hua 1950: 216. (**tx**) Beeson 1937: 79–80; Chapuis 1865: 87; Gardner 1932b; Nobuchi 1985: 328; Sampson 1919: 106; Schedl 1935k: 483, 1937d: 35, 1939e: 334, 1941c: 354, 1942a: 172, 1960c: 11, 1972f: 107; Strohmeier 1914c: 35.
- fragmentus* Sampson 1912: 249. Holotype ♂; Singapore; BMNH, London. Synonymy: Beeson 1937: 79.
- Notes: (3) Schedl 1978a: 107 (treated as a subspecies of *fractus*).
- References: (**cn**) Kalshoven 1924c. (**hb**) Browne 1935a; Kalshoven 1924c. (**ds**) Browne 1935a; Murayama 1934f: 140; Sampson 1928b: 391; Strohmeier 1914c: 35. (**tx**) Beeson 1937: 79; Sampson 1912: 249–250, 1919: 106, 1928b: 391; Schedl 1933e: 105, 1935k: 483, 1972f: 107, 1978a: 107; Strohmeier 1914c: 35.
- fragmentus minor* Sampson 1928a: 2. Syntypes ♂; Tjijuta Radja, Medan, Sumatra; BMNH, London. Synonymy: Schedl 1972f: 107.
- References: (**ds**) Sampson 1928a: 2–3. (**tx**) Beeson 1937: 81; Sampson 1928a: 2–3; Schedl 1972f: 107.
- squamulatus squamuloides* Beeson 1937: 79. Syntypes ♂; many localities in Bengal, India; FRI, Dehra Dun. Synonymy: Schedl 1972f: 107.
- References: (**cn**) Mathur & Singh 1961b: 3. (**ds**) Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1961b: 3; Schedl 1969c: 58. (**tx**) Beeson 1937: 79–81; Schedl 1972f: 107, 1978a: 68.
- squamulatus sundri* Beeson 1937: 79. Syntypes ♂; Sunderbans Division, Bengal, India; FRI, Dehra Dun. Synonymy: Schedl 1972f: 107.
- References: (**cn**) Chaudry 1966. (**ce**) Chaudry 1966. (**ds**) Chaudry 1966. (**tx**) Beeson 1937: 79–80; Schedl 1972f: 107, 1978a: 68.
- subopacus* Schedl 1969b: 222. Holotype ♂; New Guinea; Watut Valley, 1200 m. Morobe District; CSIRO, Canberra.
- Distribution: New Guinea.
- Hosts: *Aglaia* sp.
- References: (**ds**) Schedl 1972f: 107. (**tx**) Schedl 1969b: 222, 1972f: 107, 1978a: 71.
- subpellucidus* Lea 1910: 134. Syntypes 2 ♂; Queensland: Cairns, Kuranda; Lea Collection.
- Distribution: Australia (Queensland), New Guinea.
- Hosts: *Pterocymbium beccarii*.
- References: (**cn**) Smith, J. H. 1935: 3. (**ce**) Smith, J. H. 1935: 3. (**ds**) Schedl 1936g: 513, 1964c: 306, 1968f: 535, 1972a: 144, 1972f: 103, 1979a: 159; Smith, J. H. 1935: 3; Strohmeier 1912c: 7, 1914c: 35. (**tx**) Lea 1910: 134; Schedl 1942c: 165, 1950g: 894, 1972f: 103; Strohmeier 1912c: 7, 1914c: 35.
- sumbawanus* Beeson 1937: 50. Syntypes 2 ♂, 1 ♀; Sumbawa: B. Aroe Hassa, 2–5,000, Doherty; BMNH, London.
- Distribution: Sunda Islands (Sumbawa).
- References: (**ds**) Schedl 1972a: 102. (**tx**) Beeson 1937: 50–51; Schedl 1972f: 102.
- terminatus* Chapuis 1865: 83. Holotype ♂; Singapore; BMNH, London (Schedl 1960c: 11).
- Distribution: Asia (Andaman Islands, Bengal, Uttar Pradesh in India/ Malaya/ Sri Lanka/ Taiwan), Indonesia (Borneo, Java), New Guinea.
- Hosts: *Aglaia* sp., *Artocarpus elasticus*, *Calophyllum* sp., *Castanea argentea*, *Castanopsis acuminatissima*, *Cinnamomum iners*, *Cupressus macrocarpa*, *Dipterocarpus borneensis*, *D. cornutus*, *Doonia zeylanica*, *Dryobalanops oblongifolia*, *Elavocarpus petiolatus*, *Eulandria* sp., *Eugenia* sp., *Gordonia zeylanica*, *Hevea brasiliensis*, *Lagerstroemia hypoleuca*, *Macaranga* spp., *Marumia nuscosa*, *Pariuarium griffithianum*, *Pasania aspericupula*, *P. sundaica*, *Pithecolobium* sp., *Quercus* sp., *Sautiria griffithii*, *Scaphium* sp., *Semecarpus gardneri*, *Shorea leprosula*, *S. parvifolia*, *Swietenia macrophylla*, *Whitfordiodendron pubescens*, *Wormia triquetra*, *Xanthophyllum affine*.
- Notes: (3) Schedl 1936d: 13 (described female).
- References: (**cn**) Roonwal 1954: 37. (**ce**) Browne 1958b. (**hb**) Browne 1936a, 1941, 1958b, 1961c: 228; Kalshoven 1960c: 45; Yumus & Hua 1950: 216. (**ds**) Beeson 1941 (1961: 257); Browne 1936a, 1961a: 317, 1961c: 228–229, 1964b: 287; Gemminger & Harold 1872: 2697; Kalshoven 1960d: 45; Murayama 1929a: 677, 1934f: 141; Nobuchi 1967: 25, 1979a: 407; Ohno, Yoshioka, et al. 1988b: 97; Roonwal 1954: 37; Schedl 1966b: 88, 1969c: 58, 1972f: 107; Strohmeier 1912c: 6, 1914c: 35; Yumus & Hua 1950: 216. (**tx**) Beeson 1937: 84–86, 88; Chapuis 1865: 83; Murayama 1928: 288; Nobuchi 1984: 328; Sampson 1912: 249; Schedl 1936d: 13–14, 1939e: 335, 358, 1941c: 354, 1942a: 205, 1960c: 11, 1972f: 107, 1978a: 73; Strohmeier 1912c: 6, 1914c: 35.
- venustus* Chapuis 1865: 88. Holotype ♀; Ceylan; BMNH, London.
- Notes: (3) Schedl 1972f: 107 (treated as a subspecies of *terminatus*), Blandford 1895a: 324 (described female).
- References: (**cn**) Mathur & Singh 1960a: 40, 1960b: 20, 1961a: 33; Roonwal 1954: 19. (**hb**) Speyer 1923: 22. (**ds**) Beeson 1941 (1961: 257); Blandford 1895a; Gemminger & Harold 1872: 2697; Mathur & Singh 1960a: 40, 1960b: 20, 1961a: 33; Murayama 1934f: 140; Roonwal 1954: 19; Schedl 1959a: 513; Speyer 1923: 11–23; Strohmeier 1914c: 35. (**tx**) Beeson 1937: 84–88; Blandford 1895a: 324; Chapuis 1865: 88; Sampson 1912; Schedl 1937d: 35, 1939b: 398,

- 1939e: 335, 355, 1942a: 205, 1959a: 513, 1960e: 12, 1972f: 107–108; Strohmeier 1914c: 35.
- venustus venustulus* Beeson 1937: 85. Syntypes, sex²; Ceylon: Mavagankanda, Ratnapura, 500 ft.; FRI, Dehra Dun.
- Notes: (3) Schedl 1942a: 205 (described female), 1972f: 107 (treated as a subspecies of *terminatus*).
- References: (cn) Mathur & Singh 1961a: 33, 1961b: 92. (ds) Beeson 1941 (1961: 257); Mathur & Singh 1961a: 33, 1961b: 92; Schedl 1964c: 305. (tx) Beeson 1937: 85–86; Schedl 1942a: 205, 1959a: 514, 1972f: 107, 1978a: 80.
- nicobaricus* Beeson 1937: 86. Syntypes ♂♀; Nicobars: Car Nicobar; FRI, Dehra Dun. Synonymy: Wood 1992a: 91.
- References: (cn) Mathur & Singh 1960c: 3; Roonwal 1954: 67. (ds) Mathur & Singh 1960c: 3; Roonwal 1954: 67; Schedl 1972f: 106. (tx) Beeson 1937: 86–87, 1941 (1961: 254); Schedl 1939e: 335, 1972f: 106; Wood, S. L. 1992a: 91.
- terminatus sedulus* Schedl 1972h: 66. Holotype ♂; Kulolo logging area, Wau, M. District, New Guinea; CSIRO, Canberra.
- Notes: (3) Schedl 1972f: 107 (treated as a subspecies of *terminatus*).
- References: (ds) Browne 1983a: 555; Ohno, Yoshioka, et al. 1989: 65; Schedl 1972f: 107. (tx) Schedl 1972f: 107, 1972h: 66, 1978a: 73.
- toralis* Schedl 1975f: 376. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
- Distribution: New Guinea.
- References: (tx) Schedl 1975f: 376.
- trachypennis* (Schedl) 1942a: 213 (*Trachyostus*). Lectotype ♀; Malaya, Perak, Chenderoh; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 74.
- Figures: Schedl 1972f: 104.
- Distribution: Asia (Malaya).
- Hosts: Anouaceae sp.
- Notes: (1) Browne 1962e: 644 (to *Crossotarsus*).
- References: (ds) Browne 1961c: 220; Schedl 1972f: 105. (tx) Browne 1962e: 644; Schedl 1942a: 213–214, 1963j: 486, 1972f: 104–105, 1978a: 74.
- sampsonii* Browne 1955: 366. Holotype ♂; Malay Peninsula: Kelantan, Temangan; BMNH, London. Synonymy: Schedl 1972f: 105.
- References: (hb) Browne 1961c: 221. (ds) Browne 1955: 366, 1961c: 221. (tx) Schedl 1972f: 105, 1972p: 156, 1978a: 63.
- tribunarius* Schedl 1939e: 358. Holotype ♂; Luzon, Philippine Islands; Schedl Collection in NHMW, Wien.
- Distribution: Philippine Islands (Luzon).
- References: (ds) Schedl 1966b: 89, 1972f: 108. (tx) Nobuchi 1985: 328; Schedl 1939e: 358–359, 1972f: 108, 1978a: 74.
- trigonus* Beeson 1937: 83. Holotype ♂; Damma Is.; BMNH, London.
- Distribution: Indonesia (Damma Island).
- References: (ds) Schedl 1972f: 108. (tx) Beeson 1937: 83–84; Schedl 1972f: 108.
- tumidus* Schedl 1975f: 377. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
- Distribution: New Guinea.
- References: (tx) Schedl 1975f: 377.
- ursus* Schedl 1935b: 640. Lectotype ♂; British North Borneo: Mt. Kinabalu, Kamborangah, 7000 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 75.
- Distribution: Asia (Bengal in India), Indonesia (Borneo).
- Hosts: *Engelhardtia spicata*.
- Notes: (3) Beeson 1937: 60 (*pseudoniponicus* Sampson, nomen nudum, synonymy).
- References: (ds) Schedl 1972f: 112. (tx) Beeson 1937: 69; Browne 1962e: 644, 1970: 582; Schedl 1935b: 640–641, 1939e: 333, 1960i: 111, 1972f: 112, 1978a: 78.
- deceptus* Beeson 1937: 68. Syntypes ♂; Borneo, "E.M. 8"; BMNH, London. Synonymy: Schedl 1939e: 333.
- References: (tx) Beeson 1937: 68; Browne 1962e: 644; Schedl 1939e: 333, 1972f: 112.
- perceptus* Beeson 1937: 70. Syntypes ♂♀; Bengal: Kurseong, division, Sivakhola, 3500 ft.; FRI, Dehra Dun. Synonymy: Schedl 1972f: 112.
- References: (tx) Beeson 1937: 70–71, 1941 (1961: 254); Schedl 1939c: 2, 1958b: 105, 1972f: 2, 112.
- ursulus* Schedl 1960g: 111. Lectotype ♂; British North Borneo: Mt. Kinabalu, Kamborangah, 7000 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 78, automatic. Synonymy: Browne 1962e: 644.
- Notes: (1) Schedl transferred *ursus* to *Platypus*, renamed it, then transferred it back to *Crossotarsus* in 1960; because of the date on which this was done, the Code mandates that the original name be restored.
- References: (ds) Schedl 1965g: 24. (tx) Browne 1962e: 644, 1970: 582; Schedl 1960g: 111, 1965g: 24, 1972f: 112, 1978a: 78.
- vafer* Schedl 1972h: 66. Holotype ♂; Buin, Bougainville District; CSIRO, Canberra.
- Distribution: Bougainville Island.
- Hosts: *Heritiera trifolia*, *Theobroma cacao*.
- References: (ds) Schedl 1972f: 108. (tx) Schedl 1972f: 108, 1972h: 66, 1978a: 78.
- ventricornis* Schedl 1972h: 67. Holotype ♂; Warangoi, East New Britain District; CSIRO, Canberra.
- Distribution: New Britain.
- Hosts: *Canarium indicum*.

References: **(ds)** Schedl 1972f: 105. **(tx)** Schedl 1972f: 105, 1972h: 67, 1978a: 79.

ventrispinis Schedl 1969b: 222. Holotype ♂; New Guinea, Kim, 11 miles from Mt. Hagen, W.H.D.; CSIRO, Canberra.

Distribution: New Guinea.

References: **(ds)** Schedl 1972f: 105. **(tx)** Schedl 1969b: 222, 1972f: 105, 1978a: 79.

ventrosus Schedl 1973e: 94. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; CSIRO, Canberra.

Distribution: New Guinea.

Notes: (1) A lapsus calami occurred in the naming of this species. The abstract that introduces the article gives the correct name *ventrosus*, but the heading at the beginning of the description gives the name as *scuicinctus*, a name previously used on p. 93 of that article, and an obvious oversight by the printer and by the author.

References: **(tx)** Schedl 1973e: 94, 1978a: 79.

vicius Schedl 1975f: 378. Holotype, sex?; Karamui, Chimbu D., New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Hosts: Derebe.

References: **(tx)** Schedl 1975f: 378.

wallacei (Thomson) 1858: 343 (*Platypus*). Syntypes ♂; Borneo; BMNH, London (Schedl 1960c: 5).

Figures: Schedl 1972f: 101.

Distribution: Asia (Burma/ India/ Malaya/ Singapore/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Borneo, Java, Malacca, Sumatra), New Guinea.

Hosts: *Azelia palembanica*, *Albizia falcata*, *Artocarpus dadah*, *Bouea macrophylla*, *Calophyllum* sp., *Castanopsis* sp., *Croton argyратum*, *Dryobalanops oblongifolia*, *Elateriospermum tapos*, *Endospermum malaccense*, *Eugenia grandis*, *Fagraea gigantea*, *Girardinia* sp., *Heritiera javanica*, *Hevea brasiliensis*, *Ixonanthes reticulata*, *Koompassia excelsa*, *Litsea megacarpa*, *Ochanostachys amantacea*, *Parashorea lucida*, *Parinarium griffithianum*, *Parkia speciosa*, *Payena* sp., *Pometia pinnata*, *Pterocymbium* sp., *Scaphium affine*, *Schoutenia accrescens*, *Shorea leprosula*, *Sivictenia macrophylla*, *Whitfordiodendron pubescens*.

Notes: (3) Chapuis 1865: 53 (redescribed both sexes).

References: **(ay)** Menier 1976: 348; Strohmeyer 1918: 8. **(bv)** Menier 1976: 348. **(cn)** Browne 1938b, 1949c; Corbett & Gater 1926b: 261; Kalshoven 1924b: 357, 1936a: 188; Kleine 1932a: 310, 401; Supriana et al. 1978; Yunus & Hua 1980: 216. **(ce)** Browne 1958b. **(hb)** Beaver & Browne 1978: 616; Browne 1935a, 1941, 1958b, 1961c: 222; Kalshoven 1960c: 43; Kleine 1932a: 310, 401; Mercer 1982: 210. **(ds)** Beaver & Browne 1975: 305, 1978: 616; Beeson 1961: 257; Browne 1935a, 1938b: 77–86, 1961a: 316, 1961c: 222.

1972b: 28, 1980b: 381; Chapuis 1865: 53; Corbett & Gater 1926b: 261; Gemminger & Harold 1872: 2697; Hagen 1890; Kalshoven 1924b: 357; Kleine 1932a: 310, 401; Lacordaire 1866: 389; Mercer 1982: 210; Miwa 1931: 266; Murayama 1925a: 202, 1929a: 675, 1937c: 582; Nobuchi 1967: 26; Sampson 1919: 105, 1928a: 2, 1928b: 390; Schedl 1937f: 15, 1960c: 5, 1964c: 305, 1965g: 24, 1971c: 367, 1971f: 150, 1972f: 102, 1974c: 262, 1975a: 453; Strohmeyer 1911f: 203, 1912c: 4, 1914c: 33; Supriana et al. 1978; Yunus & Hua 1980: 216. **(tx)** Beeson 1937: 51, 1938b: 295; Browne 1972b: 28; Chapuis 1865: 53; Lacordaire 1866: 389; Lucas 1920: 209; Murayama 1925a: 202–203, 1925b: 235; Sampson 1919: 105, 1928a: 2, 1928b: 390; Schedl 1936e: 43, 1937d: 33, 1939b: 402, 1939e: 333, 1960c: 5, 1972f: 101–102; Strohmeyer 1911f: 203, 1912c: 4, 1914c: 33; Thomson 1858: 343.

wilmoti (Stebbing) 1911b: 36 (*Platypus*). Syntypes ♂ ♀; published as Tons Valley, Jaunsar, labeled Kathian, Jaunsar, NWH; FRI, Dehra Dun.

Distribution: Asia (Kashmir, Uttar Pradesh in India). Hosts: *Cedrela serrata*, *Cedrus deodara*, *Pinus roxburghii*, *Populus ciliata*, *Quercus incana*.

References: **(cn)** Kleine 1932a: 310; Roonwal 1954: 59. **(ec)** Beeson 1921b: 21. **(hb)** Kleine 1932a: 310; Stebbing 1911a: 6. **(ds)** Beeson 1921b: 21, 1937: 74–76, 1961: 257; Bhasin, Roonwal, & Singh 1958; Kleine 1932a: 310; Roonwal 1954: 59; Schedl 1969c: 59, 1972f: 105; Strohmeyer 1914c: 27. **(tx)** Beeson 1937: 74–76; Schedl 1972f: 105; Stebbing 1911b: (reprint p. 36), 1914: 618; Strohmeyer 1914c: 27.

Genus *Carchesiopygus* Schedl

CARCHESIOPYGUS SCHEDL 1939b: 402–403. Type-species: *Crossotarsus wollastoni* Chapuis, original designation.

Notes: (1) This genus, as recognized by Schedl 1939b, 1972f, appears to be a conglomeration of unrelated species, most of which belong elsewhere.

References: **(hb)** Browne 1961c: 218; Kalshoven 1960: 31–50. **(ds)** Kendrick & Molnar 1965: 39–43; Schedl 1972f: 93. **(tx)** Browne 1962e: 647; Schedl 1939b: 402–403, 1963j: 484, 1972f: 93.

acanthurus (Beeson) 1937: 61 (*Crossotarsus*). Holotype ♂; Java: Preanger, G. Tongkoeban Prahoe, 4000–5000 ft.; Buitenzorg Museum. Distribution: Asia (Malaya), Indonesia (Java). References: **(ds)** Schedl 1972f: 95. **(tx)** Beeson 1937: 61; Browne 1962e: 647; Schedl 1972f: 95.

alternantes Schedl 1971c: 397. Holotype ♂; Borneo; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Borneo).

References: **(ds)** Schedl 1971c: 369, 1972f: 95. **(tx)** Schedl 1971c: 369, 397–398, 1972f: 95, 1978a: 10.

assamensis (Beeson) 1937: 59 (*Crossotarsus*). Syntypes ♂ ♀; Assam: Lakhimpur division, Upper Dihing reserve; FRI, Dehra Dun, not found in 1981 by SIW [1 ♂ paratype in FRI].

Distribution: Asia (Assam in India).

Hosts: *Vatica lancaefolia*.

Notes: (1) Browne 1962e: 647 (to *Carchesiopygus*).

References: (cn) Mathur & Singh 1961b: 70. (ds) Beeson 1941 (1961: 253); Mathur & Singh 1961b: 70; Schedl 1969c: 59, 1972f: 95. (tx) Beeson 1937: 59–60; Browne 1962e: 647; Schedl 1972f: 95.

dentipennis Schedl 1964i: 246. Holotype ♂; Somersby, New South Wales; Schedl Collection in NHMW, Wien.

Distribution: Australia (New South Wales).

Hosts: *Hakea sericca*.

References: (ds) Schedl 1972f: 95. (tx) Schedl 1964i: 246, 1972f: 95, 1978a: 24.

impariporus (Beeson) 1937: 62 (*Crossotarsus*). Syntypes ♂; Assam: Lakhimpur division, Mokum Reserve, Upper Dihing reserve; FRI, Dehra Dun, not found in 1981 by SIW [paratypes were present]. Distribution: Asia (Assam in India/ Vietnam), Indonesia (Java).

Hosts: *Dipterocarpus pilosus*, *Mallotus albus*, *Mesua ferrea*.

Notes: (1) Browne 1962a: 647 (to *Carchesiopygus*).

References: (ds) Beeson 1941 (1961: 265); Schedl 1965a: 340, 1971c: 362, 1972f: 95, 1974c: 262. (tx) Beeson 1937: 62–63; Browne 1962e: 647; Schedl 1939e: 333, 1962n: 647, 1972f: 95.

lobacanthus Schedl 1969c: 59. Holotype ♂; India: Kausani, Almora; FRI, Dehra Dun.

Distribution: Asia (India).

Hosts: *Quercus incana*.

Notes: (3) Beeson 1961: 254 (*lobacanthus*, nomen nudum, synonymy in Schedl 1972f: 95).

References: (ds) Beeson 1941: 330, 1961: 254; Schedl 1972f: 95. (tx) Browne 1962e: 647; Schedl 1963j: 485, 1969c: 59–60, 1972f: 95.

multidentatus (Strohmeyer) 1913: 163 (*Crossotarsus*). Syntypes ♂ ♀; Preanger, Java; Strohmeyer Collection.

Figures: Schedl 1972f: 93.

Distribution: Asia (Malaya), Indonesia (Java).

Hosts: *Dalbergia latifolia*.

References: (ds) Strohmeyer 1914c: 34. (tx) Schedl 1963j: 483, 1972f: 93, 95; Strohmeyer 1913: 163–165, 1914c: 34.

oculatus (Beeson) 1937: 62 (*Crossotarsus*). Holotype ♀; United Provinces: West Almora, Kumaon [India]; FRI, Dehra Dun.

Distribution: Asia (Uttar Pradesh in India).

References: (ds) Schedl 1972f: 95. (tx) Beeson 1937: 62; Browne 1962e: 647; Schedl 1972f: 95.

psilicanthurus (Beeson) 1937: 60 (*Crossotarsus*). Holotype ♂; Bengal: Kalimpong division. Samsingh, 1800 ft.; FRI, Dehra Dun.

Distribution: Asia (Bengal in India).

Hosts: *Cedrela serrata*.

References: (ds) Beeson 1941 (1961: 254); Schedl 1972f: 95. (tx) Beeson 1937: 60; Browne 1962e: 647; Schedl 1972f: 95.

wollastoni (Chapuis) 1865: 74 (*Crossotarsus*). Syntypes 3 ♂; Borneo (Sarawak); BMNH, London (Schedl 1960c: 7).

Distribution: Asia (Assam in India/ Malaya/ Vietnam), Indonesia (Sarawak in Borneo).

Hosts: *Dyera costulata*, *Vatica lancaefolia*.

Notes: (3) Schedl identified a Beeson male of this species as *Crossotarsus assamensis* Beeson; synonymy? (SIW).

References: (cn) Mathur & Singh 1961b: 70. (cc) Batra 1971. (hb) Browne 1936a, 1941; Kalshoven 1960c: 42. (ds) Beeson 1937: 55–59, 1941 (1961: 257); Browne 1936a, 1961c: 218; Mathur & Singh 1961b: 70; Sampson 1919: 106, 1925b: 390; Schedl 1936d: 5, 1971c: 363, 1972f: 95, 1974c: 262; Strohmeyer 1912c: 5, 1914c: 34. (tx) Beeson 1937: 58–59; Chapuis 1865: 25, 74–75; Sampson 1919: 106, 1925b: 390; Schedl 1939b: 394, 403, 1960c: 9, 1972f: 95; Strohmeyer 1912c: 5, 1914c: 34.

Genus *Crossotarsinulus* Schedl

CROSSOTARSINULUS SCHEDL 1972: 84–87. Type-species: *Crossotarsus sauteri* Strohmeyer, original designation.

References: (tx) Schedl 1972f: 84–87.

sauteri (Strohmeyer) 1913: 164 (*Crossotarsus*). Syntypes ♂ ♀; Kosempo, Formosa; SMTD, Dresden, and IPKE, Eberswalde.

Distribution: Asia (Taiwan).

References: (ds) Murayama 1925a: 207–208, 1929a: 676; Nobuchi 1967: 25; Schedl 1972f: 87; Strohmeyer 1914c: 35. (tx) Murayama 1925a: 207–208, 1925b: 235; Schedl 1972f: 85–87; Strohmeyer 1913: 164, 1914c: 35.

Genus *Spathicranuloides* Schedl

SPATHICRANULOIDES SCHEDL 1972h: 71. Type-species: *Spathicranuloides moikui* Schedl, original designation.

References: (ds) Schedl 1972f: 135–137. (tx) Schedl 1972f: 135–137, 1972h: 71–72.

Spathicranuloides Schedl 1972f: 135. Type-species: *Spathicranuloides moikui* Schedl, original designation, preoccupied by Schedl 1972h.

References: (tx) Schedl 1972f: 135–137.

moikui Schedl 1972h: 72. Holotype ♂; Tonolei, Bougainville District; CSIRO, Canberra.

Figures: Schedl 1972f: 135.

Distribution: Bougainville Island.

References: (tx) Schedl 1972f: 135, 1972h: 71–72.

Genus *Trachyostus* Schedl

TRACHYOSTUS SCHEDL 1939b: 397, 400. Type-species: *Platypus schaufussi* Strohmeyer, subsequent designation by Browne 1962e: 646.

Keys: Browne 1962e: 646 (adults), Roberts 1962a: 29 (larvae).

References: (ay) Nobuchi 1969a: 69. (hb) Browne 1960: 213, 1961e: 218–221; Roberts 1965: 325–352; Schedl 1962k: 69S, 1972f: 87, 1977b: 253. (ds) Schedl 1962k: 69S, 1966b: 104, 1972f: 87, 1977b: 253. (tx) Browne 1962e: 646, 1972a: 184; Roberts 1962a: 29, 1962b: 241–244; Schedl 1939b: 397, 400, 1939p: 25S, 1952i: 7, 1957d: 225, 1962h: 65, 1962k: 69S, 1963j: 483, 1964b: 425, 1972f: 87, 1977b: 253.

antongilis Schedl 1961e: 166. Holotype ♂; Madagascar, S. Baie Antongil, Humblot; MNHN, Paris. Figures: Schedl 1972f: 86.

Distribution: Madagascar.

References: (ds) Schedl 1972f: 88, 1977b: 254. (tx) Schedl 1961e: 166, 1972f: 88, 1977b: 254, 1978a: 12.

ater (Strohmeyer) 1911g: 230 (*Platypus*). Syntypes 3 ♂; Madagascar (Antongil Bai); IPKE, Eberswalde.

Distribution: Madagascar.

Notes: (1) Schedl 1972f: 88 (to *Trachyostus*).

References: (ds) Schedl 1972f: 88; Strohmeyer 1912c: 14, 1914c: 26. (tx) Schedl 1955i: 213, 1972f: 88; Strohmeyer 1911g: 230–231, 1912c: 14, 1914c: 26.

aterrimus (Schaufuss) 1897b: 107 (*Platypus*). Syntypes ♂; Gabon; IPKE, Eberswalde.

Figures: Mayne & Donis 1962: 291.

Distribution: Africa (Cameroon/ Congo/ Gabon/ Ghana/ Kenya/ Nigeria/ Sierra Leone/ Tanzania/ Uganda/ Zaïre).

Hosts: Schedl 1962k: 700–702 (45 host species listed).

References: (ay) Roberts 1962a: 699. (bv) Roberts 1962a: 699. (cn) Kudler 1978: 16; Roberts 1962a: 699. (cc) Akanbi 1978: 123; Roberts 1969a; Schedl 1962k: 699. (hb) Gardner 1957: 29; Roberts 1961: 8, 1962a: 29, 1967; Schedl 1962k: 699; Strohmeyer 1911a: 182. (ds) Collart 1934: 248; Mayne & Donis 1960: 100, 1962: 29; Roberts 1962a: 699, 1968: 189, 1969b: 120; Schedl 1933f: 193–194, 1962k: 699, 1964f: 619, 1966c: 230, 1971g: 196, 1972f: 88; Strohmeyer 1911a: 182, 1912c: 14, 1914c: 26; Thompson, G. H. 1963: 69. (tx) Mayne & Donis 1962: 291; Roberts 1962a; Sampson 1924c: 130; Schaufuss 1897b: 107–108; Schedl 1933f: 193–194, 1937d: 40, 1941d: 381, 1941e: 154, 1950d: 5, 1953g: 243, 1954e: 59, 1962k: 699, 1964j: 49, 1972f: 88; Strohmeyer 1911a: 182, 1912c: 14, 1913: 161, 1914c: 26.

vastus Strohmeyer 1911g: 229 (*Platypus*). Holotype ♂; Kamerun; Strohmeyer Collection. Synonymy: Schedl 1972f: 88.

References: (tx) Schedl 1972f: 88; Strohmeyer 1911g: 229.

aterrimus minor Roberts 1965: 225. Holotype ♂; river valleys south of Jos Plateau, N. Nigeria; BMNH, London, preoccupied by Schedl 1962. References: (hb) Roberts 1967. (ds) Roberts 1968: 189; Schedl 1972a: 88. (tx) Roberts 1965: 225; Schedl 1972a: 88.

carinatus Schedl 1962h: 73. Holotype ♂; South Nigeria, Sapele; BMNH, London.

Distribution: Africa (Ghana/ Nigeria).

Hosts: *Ficus asperifolia*.

References: (hb) Roberts 1967. (ds) Roberts 1968: 189, 1969b: 120; Schedl 1962h: 63, 1962k: 710, 1972f: 89. (tx) Schedl 1962h: 73, 1962k: 710, 1972f: 89, 1978a: 18.

decellei Schedl 1962k: 710. Holotype ♂; Congo Belge; Yangambi; Schedl Collection in NHMW, Wien.

Figures: Schedl 1962k: 711 (male).

Distribution: Africa (Zaïre).

Hosts: *Scorodophloeus zeukeri*.

References: (ds) Schedl 1962k: 710, 1972f: 89. (tx) Schedl 1962k: 711, 1972f: 89, 1978a: 23.

fecundus (Sampson) 1924c: 130 (*Platypus*). Holotype ♂; Belgian Congo: Haut Uele and Moto; MRCB, Tervuren.

Distribution: Africa (Uganda/ Zaïre).

Hosts: *Albizia* spp.

Notes: (1) Schedl 1972f: 89 (to *Trachyostus*).

References: (ds) Gardner 1957a: 30; Schedl 1933f: 195, 1962k: 712, 1972f: 89. (tx) Sampson 1924c: 130–131; Schedl 1933f: 195, 1955i: 213, 1962k: 712, 1972f: 89.

fecundus ovalis Schedl 1962k: 713. Holotype ♂; Congo Belge; Yangambi; Schedl Collection in NHMW, Wien.

Notes: (3) This appears to be an aberration.

References: (ds) Mayne & Donis 1960: 100, 1962: 290; Schedl 1972f: 89. (tx) Schedl 1962k: 713, 1972f: 89, 1978a: 30.

fecundus transversus Schedl 1962k: 713. Holotype ♂; Congo Belge; Mayidi; Schedl Collection in NHMW, Wien.

Notes: (3) This appears to be an aberration.

References: (ds) Schedl 1962k: 713, 1972f: 89. (tx) Schedl 1972f: 89, 1978a: 30.

ghanaensis Schedl 1959b: 235. Holotype ♂; Gold Coast, Wiawso; BMNH, London.

Figures: Roberts 1960: pls. 1, 3–4.

Distribution: Africa (Ghana/ Guinea/ Ivory Coast/ Liberia).

Hosts: *Triplochiton scleroxylon*.

References: (ay) Roberts 1961c; Schedl 1962k: 713. (bv) Bletchly 1961: 16; Jones 1960c: 231; Neumann & Harris 1974: 136; Roberts 1960a, 1960b, 1960i, 1962b: 241. (cn) Atuahene 1970; Jones 1960a: 93–94, 1960d: 3; Jones et al. 1959: 10; Kudler 1978: 15; Roberts 1960a, 1960b, 1960i,

- 1966a; Thompson, C. H. 1959b: 420. (**cc**) Browne 1961e: 7–5; Roberts 1960a, 1960b, 1960i: 5, 1961e: 8–34, 1962a: 29–40, 1962b: 241–244. (**hb**) Browne 1961e: 7, 1965b; Duffy 1956: 195–200; Jones et al. 1959: 10; Roberts 1960a: 10, 1960b, 1960i: 5, 1961a, 1962b: 241–244, 1967; Schedl 1972k: 713; Thompson, C. H. 1963: 69. (**ds**) Bletchly 1961: 16; Browne 1960a; Duffy 1956: 195–200; Roberts 1960a: 10, 1960b, 1960i: 5, 1961b: 32, 1966a; Schedl 1962k: 713, 1972e: 256, 1972f: 89; Thompson, C. H. 1959b: 420, 1963: 69. (**tx**) Roberts 1960a, 1960i: pls. 1, 3–4; Schedl 1959b: 235, 1962c: 244, 1962k: 713, 1972f: 89, 1975a: 32.
- interstitialis** Schedl 1964j: 49. Holotype ♂: Ghana: Bibiani; BMNH, London.
Distribution: Africa (Ghana).
References: (**hb**) Roberts 1962a: 33, 1967. (**ds**) Schedl 1972f: 89. (**tx**) Schedl 1962k: 727, 1964j: 49, 1972f: 89, 1975a: 35.
- nobilis** (Schaufuss) 1897a: 221 (*Platyypus*). Syntypes 3 ♂; Madagascar: Diego Suarez; Hamburg Museum, lost.
Distribution: Madagascar.
References: (**ds**) Alluaud 1900: 441; Schedl 1972f: 89, 1977b: 254; Strohmeier 1912c: 16, 1914c: 27. (**tx**) Numberg 1961b: 625, 1964a: 237; Schaufuss 1897a: 221–222; Schedl 1964j: 49, 1967f: 149, 1972f: 89, 1977b: 254; Strohmeier 1912c: 16, 1914c: 27.
- punctatus** Strohmeier 1911g: 229. Syntypes 2 ♂, 2 ♀; Madagascar: Diego Suarez; Strohmeier Collection. Synonymy: Schedl 1962p: 210.
References: (**tx**) Schedl 1933f: 195, 1952i: 22, 1962p: 210, 1972f: 89; Strohmeier 1911g: 229–230.
- schaufussi** (Strohmeier) 1913: 161 (*Platyypus*). Syntypes ♂ ♀; Kilimandjaro; Strohmeier Collection. Figures: Bright 1972d: 19, Numberg 1961b: 632, Schedl 1962k: 798, 1972f: 86.
Distribution: Africa (Cameroon/ Congo/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Kenya/ Malawi/ Nigeria/ Sierra Leone/ Tanzania/ Togo/ Uganda/ Zaire), Antilles Islands (introduced: Jamaica).
Hosts: Schedl 1962k: 730–732 (51 host species listed), 1962k: 735–735 (53 host species listed).
References: (**ay**) Menier 1976: 348; Strohmeier 1913: 34. (**bv**) Menier 1976: 348. (**en**) Thompson, C. H. 1960; Webb & Jones 1958: 353. (**cc**) Roberts 1969a. (**hb**) Beaver & Loytyniemi 1955b: 117; Thompson, C. H. 1963: 69; Webb & Jones 1958: 353. (**ds**) Beaver & Loytyniemi 1955b: 117; Bright 1972d: 14; Browne 1961: 8, 1972c: 101; Gardner 1957a: 30; Jones, Roberts, & Baker 1959: 13–14, 23, 36, 55; Lee 1971: 30; Mayne & Donis 1960: 100, 1962: 290; Roberts 1960b: 36, 40, 1960e, 1960f, 1962a: 33, 1968: 189; Schedl 1933f: 195, 1938d: 400, 452, 1972f: 89, 1979b: 417; Strohmeier 1914c: 27; Thompson, C. H. 1960e, 1963: 69. (**tx**) Bright 1972d: 14, 19; Browne 1962e: 646; Numberg 1961b: 632; Sampson 1924c: 131; Schedl 1933f: 195, 1937d: 40, 1939b: 394, 400–401, 1939p: 255, 1941d: 381, 1941e: 154, 1950e: 212, 1953g: 243, 1954d: 874, 1954e: 48, 59, 1962h: 65, 1962k: 798, 1962n: 698, 1964h: 425, 1972f: 86, 89; Strohmeier 1913: 161, 1914c: 27.
- ugandensis** Numberg 1961b: 624 (*Platyypus*). Holotype ♀; Uganda, Kampala; BMNH, London. Synonymy: Schedl 1972f: 89.
References: (**tx**) Numberg 1961b: 624, 632; Schedl 1962h: 65, 1962k: 718, 1972f: 89.
- schaufussi major** Schedl 1962k: 734. Holotype ♂; Congo Belge: Kasai, Makumbi; Schedl Collection in NHMW, Wien.
References: (**ds**) Schedl 1972f: 89. (**tx**) Schedl 1962k: 734, 1972f: 89, 1975a: 64.
- schaufussi minor** Schedl 1962k: 735. Syntypes ♂; Gold Coast: Koforidua; Schedl Collection in NHMW, Wien.
References: (**hb**) Roberts 1967. (**ds**) Mayne & Donis 1960: 100, 1962: 292; Roberts 1968: 189, 1969b: 121; Schedl 1967e: 221, 1972e: 286, 1972f: 89; Thompson, C. H. 1963: 69; Webb & Jones 1957: 37, 41. (**tx**) Schedl 1954e: 59, 1962k: 738, 1972f: 89, 1975a: 64.
- schaufussi medius** Schedl 1962k: 734. Lectotype ♂; Gold Coast, Sunyani; Schedl Collection in NHMW, Wien.
References: (**hb**) Loytyniemi, Beaver, & Loytyniemi 1955: 28. (**hb**) Loytyniemi, Beaver, & Loytyniemi 1955: 29; Roberts 1967; Schedl 1962k: 734. (**ds**) Mayne & Donis 1960: 100, 1962: 292; Roberts 1962: 33–35, 1968: 189, 1969b: 121; Schedl 1962h: 63, 1964f: 619, 1971f: 196, 1972e: 286, 1972f: 89; Webb & Jones 1957: 36, 39, 41. (**tx**) Schedl 1952j: 6, 1954e: 59, 1962k: 734, 1972f: 89, 1975a: 64.
- schoutedeni** (Schedl) 1933f: 195 (*Platyypus*). Syntypes ♂; Mongwahn (Kilo), Kwamouth, Sankuru; Komi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: Schedl 1962k: 740–742 (20 host species listed).
Notes: (1) Schedl 1975a: 64 (type restricted to Tervuren specimens).
References: (**cc**) Schedl 1962k: 740. (**hb**) Schedl 1962k: 740. (**ds**) Mayne & Donis 1960: 100, 1962: 292; Schedl 1933f: 195, 1962k: 740, 1972f: 89. (**tx**) Schedl 1933f: 195, 1962k: 740, 1964j: 49, 1972f: 89, 1975b: 64.
- similis** Numberg 1967b: 330. Holotype ♀; Elisabethville; MRCB, Tervuren.
Figures: Numberg 1967: pl. 5, fig. 4.
Distribution: Africa (Zaire).
References: (**tx**) Numberg 1967b: 330, 339.
- tomentosus** (Strohmeier) 1911g: 231 (*Platyypus*). Holotype ♂; Kamerun; MNB, Berlin.

Figures: Schedl 1962k: 743.

Distribution: Africa (Cameroon/ Ghana/ Nigeria/ Togo/ Zaïre).

Hosts: *Scorodophloeus zenkeri*.

Notes: (3) Schedl 1962h: 73 (described female).

References: (hb) Roberts 1967. (ds) Roberts 1962a: 33, 1968: 189, 1969b: 121; Schedl 1962h: 63, 1972k: 742, 1972f: 89; Strohmeier 1912c: 19, 1914c: 29. (tx) Schedl 1962h: 73, 1962k: 742–743, 1972f: 89, 1978a: 74; Strohmeier 1911g: 231–232, 1912c: 19, 1914c: 29.

Genus *Neotrachyostus* Browne

NEOTRACHYOSTUS BROWNE 1962e: 645. Type-species:

Platypus abbreviatus Chapuis, original designation.

References: (ds) Schedl 1972f: 90. (tx) Browne 1962e: 645; Schedl 1972f: 90.

abbreviatus (Chapuis) 1865: 28, 35, 106 (*Platypus*). Syntypes ♂ ♀; Bresil; 2 ♂, 1 ♀ in BMNH, London, 2 ♂ in IRSNB, Brussels (Schedl 1960c: 13). Distribution: South America (Brazil).

Notes: (3) Browne 1962e: 645 (to *Neotrachyostus*).

References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (ds) Blackwelder 1947: 788; Schedl 1933c: 166, 1972f: 92, 1976a: 57; Strohmeier 1912c: 8, 1914c: 22. (tx) Browne 1962e: 645; Chapuis 1865: 28, 35, 106; Lucas 1920: 521; Schedl 1933c: 166, 1937b: 399, 1939p: 288, 1960c: 13, 1972f: 92; Strohmeier 1912c: 8, 1914c: 22. (ms) Lucas 1920: 521.

abdominalis (Schedl) 1936i: 99 (*Platypus*). Holotype ♂; Brasil, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) Schedl 1972f: 92 (to *Neotrachyostus*, described female).

References: (ds) Blackwelder 1947: 788; Schedl 1972g: 51. (tx) Schedl 1936i: 99–100, 1972f: 92, 1972g: 51, 1978a: 9.

acutidens (Blandford) 1895e: 96 (*Platypus*). Syntypes 4, ♂ ♀; Guatemala, Capetillo; BMNH, London.

Distribution: North America (Guatemala).

Notes: (1) Browne 1962e: 646 (to *Neotrachyostus*).

References: (ds) Blackwelder 1947: 788; Equihua & Atkinson 1987: 14; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 23. (tx) Blandford 1895e: 93–96; Browne 1962e: 646; Equihua & Atkinson 1987: 14; Schedl 1933a: 938, 1939b: 399, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23.

concaucus (Chapuis) 1865: 108 (*Platypus*). Holotype ♀; Bresil; BMNH, London (Schedl 1960c: 13).

Distribution: South America (Brazil).

Notes: (1) Browne 1962e: 645 (to *Neotrachyostus*).

References: (ds) Blackwelder 1947: 789; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 22. (tx) Browne 1962e: 645; Chapuis 1865: 108–109; Schedl 1960c: 13, 1972f: 92; Strohmeier 1912c: 8, 1914c: 22.

digitalis (Chapuis) 1865: 111 (*Platypus*). Syntypes 4 ♂; Bresil meridional, Nova Fribourg; IRSNB, Brussels (Schedl 1960c: 14).

Distribution: South America (Brazil).

Notes: (1) Browne 1962e: 645 (to *Neotrachyostus*).

References: (ds) Blackwelder 1947: 789; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 22. (tx) Browne 1962e: 645; Chapuis 1865: 111; Reichardt 1964: 85; Schedl 1960c: 14, 1972f: 92; Strohmeier 1912c: 8, 1914c: 22.

distinctus (Chapuis) 1865: 111 (*Platypus*). Holotype ♂; Para.; IRSNB, Brussels (Schedl 1960c: 14). Distribution: South America (Bolivia/ Brazil).

Notes: (1) Browne 1962e: 645 (to *Neotrachyostus*).

References: (ds) Blackwelder 1947: 789; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 22. (tx) Browne 1962e: 645; Chapuis 1865: 111–112; Schedl 1960c: 14, 1972f: 92; Strohmeier 1912c: 8, 1914c: 22.

dohrni (Chapuis) 1865: 115 (*Platypus*). Holotype ♂; Mexico; not found at BMNH, London, or IRSNB, Brussels (Schedl 1960c: 15).

Distribution: North America (Mexico).

Notes: (1) Browne 1962e: 646 (to *Neotrachyostus*).

References: (ds) Blackwelder 1947: 789; Blandford 1895b: 96; Equihua & Atkinson 1987: 14; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 23. (tx) Blandford 1895b: 96; Browne 1962e: 646; Chapuis 1865: 115–116; Equihua & Atkinson 1987: 14; Schedl 1939b: 399, 1939p: 288–289, 1940a: 323, 1960c: 15, 1962e: 646, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23.

filiformis (Chapuis) 1865: 116 (*Platypus*). Syntypes 2 ♀; Mexico; IRSNB, Brussels (Schedl 1960c: 15). Distribution: North America (Mexico).

References: (ds) Blackwelder 1947: 789; Blandford 1896e; Equihua & Atkinson 1987: 14; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 23. (tx) Blandford 1896e: 97; Browne 1962e: 646; Chapuis 1865: 116–117; Equihua & Atkinson 1987: 14; Schedl 1940a: 323, 1960c: 15, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23.

fuscifrons (Chapuis) 1865: 110 (*Platypus*). Holotype ♀; Bresil (Ega); BMNH, London (Schedl 1960c: 14).

Distribution: South America (Brazil).

Notes: (1) Browne 1962e: 645 (to *Neotrachyostus*).

References: (ds) Blackwelder 1947: 789; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 23. (tx) Browne 1962e: 645; Chapuis 1865: 110–111; Schedl 1960c: 14, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23.

lobatus (Chapuis) 1865: 109 (*Platypus*). Syntypes ♂; Cayenne; 1 in MNB, Berlin, 2 in IRSNB, Brussels, 1 in BMNH, London (Schedl 1960c: 14).

Distribution: South America (Brazil/ Cayenne/ Venezuela).

Notes: (1) Browne 1962e: 645 (to *Neotrachyostus*).

References: (ds) Blackwelder 1947: 789; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 23. (tx) Browne 1962e: 645; Chapuis 1865: 110–111; Schedl 1960c: 14, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23.

References: (ds) Blackwelder 1947: 789; Schedl 1960a: 78, 1972f: 92, 1976a: 57; Strohmeier 1912c: 8, 1914c: 23. (tx) Browne 1962e: 645; Chapuis 1865: 109; Schedl 1937d: 37, 1952a: 443, 1960c: 13–14, 1972f: 90, 92; Strohmeier 1912c: 8, 1914c: 23.

obliquus Wood 1966b: 49. Holotype ♂; Volcan, Puntarenas Prov., Costa Rica; Wood Collection. Figures: Wood 1966b: 47 (male).

Distribution: North America (Costa Rica).
References: (ds) Equihua & Atkinson 1987: 14; Schedl 1972f: 92. (tx) Equihua & Atkinson 1987: 14; Schedl 1972f: 92; Wood, S. L. 1966b: 47, 49–50.

pacificus (Chapuis) 1865: 118 (*Platypus*). Holotype ♀; Cayenne; IRSNB, Brussels (Schedl 1960c: 15). Distribution: South America (Cayenne/ Venezuela).

References: (ds) Blackwelder 1947: 790; Schedl 1933c: 170, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23. (tx) Browne 1962e: 646; Chapuis 1865: 118–119; Numberg 1939: 241; Schedl 1960c: 15, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23.

putzeysi (Chapuis) 1865: 28, 117 (*Platypus*). Syn-types 2 ♀; Mexico, Toxpan, Oaxaca; BMNH, London (Schedl 1960c: 15).

Distribution: North America (Guatemala/ Oaxaca, Veracruz in Mexico).

Notes: (1) Browne 1962e: 646 (to *Trachyostus*).
References: (ds) Blackwelder 1947: 790; Blandford 1896e: 97; Equihua & Atkinson 1987: 14; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 23. (tx) Blandford 1897e: 97; Browne 1962e: 646; Chapuis 1865: 117–118; Equihua & Atkinson 1987: 14; Schedl 1940a: 323, 1960c: 15, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23; Wood, S. L. 1966.

quadrilobus (Blandford) 1895b: 95 (*Platypus*). Syntypes 4 ♂; Costa Rica, Irazu; BMNH, London. Figures: Schedl 1962g: 1036.

Distribution: North America (Costa Rica).
Hosts: Logs.

Notes: (1) Browne 1962e: 645 (to *Neotrachyostus*).
(3) This species does not belong to this genus (SLW).

References: (ds) Blackwelder 1947: 790; Equihua & Atkinson 1987: 14; Schedl 1933c: 166, 1972f: 92; Spahr 1981: 79; Strohmeier 1912c: 8, 1914c: 23. (tx) Blandford 1895b: 93, 95–96; Browne 1962e: 645; Equihua & Atkinson 1987: 14; Numberg 1939: 241; Schedl 1962g: 1036, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23.

springi (Chapuis) 1865: 112 (*Platypus*). Syntypes 1 ♂, 1 ♀; Colombie; IRSNB, Brussels (Schedl 1960c: 14).

Distribution: South America (Colombia).
Notes: (1) Browne 1962e: 645 (to *Neotrachyostus*).
References: (ds) Blackwelder 1947; Schedl 1972f: 92; Strohmeier 1912c: 8, 1914c: 23. (tx) Browne 1962e: 645; Chapuis 1865: 112–114; Schedl 1960c: 14, 1972f: 92; Strohmeier 1912c: 8, 1914c: 23.

Genus *Platyscapulus* Schedl

PLATYSCAPULUS SCHEDL 1957d: 125. Type-species: *Platypus carinulatus* Chapuis, automatic, subsequent designation by Wood 1992b: 90.

Platyscapus Schedl 1939b: 397, 399. Type-species: *Platypus carinulatus* Chapuis, subsequent designation by Wood 1990b: 90, preoccupied by Huistache 1921.

References: (tx) Browne 1962e: 652; Kalshoven 1960: 31–50; Schedl 1939b: 397, 399, 1939k: 718, 1957d: 125; Wood, S. L. 1979a: 1, 1992b: 90.

Costaroplatus Numberg 1963c: 109. Type-species: *Costaroplatus shenefelti* Numberg, original designation. Synonymy: Wood 1979a: 1.

References: (tx) Numberg 1963c: 109; Schedl 1969f: 555; Wood, S. L. 1979a: 1, 1992b: 90.

Notes: (3) A generic revision of Platypodidae is in progress; the species listed below are transferred into *Platyscapulus* in that study (SLW).

References: (tx) Browne 1961c: 212–213, 1962e: 652; Schedl 1957d: 125; Wood, S. L. 1979a: 1, 1992b: 90.

abdutilus (Wood) 1966b: 50 (*Platypus*). Holotype ♂; near Moravia, Cartago Prov., Costa Rica, 1500 feet; Wood Collection.

Figures: Wood 1966b: figs. 5–6.

Distribution: North America (Costa Rica).
References: (ds) Equihua & Atkinson 1982: 18; Schedl 1972f: 235. (tx) Equihua & Atkinson 1987: 18; Schedl 1972f: 235; Wood, S. L. 1966b: 47–50.

abditus (Schedl) 1936c: 246 (*Platypus*). Holotype ♂; Brazil; Schedl Collection in NIMW, Wien.

Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 788. (tx) Schedl 1936c: 246, 1972f: 235; Wood, S. L. 1966b: 50.

transitus Schedl 1978b: 309. Holotype ♂; Brasilien, Linhares, E. Santo; Schedl Collection in NIMW, Wien. Synonymy: Wood 1992b: 90.

References: (ds) Schedl 1972f: 235. (tx) Schedl 1936c: 246, 1972f: 235, 1978b: 309; Wood, S. L. 1992b: 90.

carinulatus (Chapuis) 1865: 231 (*Platypus*). Syn-types 1 ♂, 1 ♀; Bresil, Ega; BMNH, London.

Distribution: South America (Brazil/ Cayenne/ Suriname).

Notes: (3) Schedl 1976a: 87 (described female).
References: (ds) Blackwelder 1947: 789; Gemminger & Harold 1872: 2697; Reichardt 1964: 145; Schedl 1960a: 79, 1966f: 92, 1970e: 86, 1972f: 235, 1972g: 47; Strohmeier 1912c: 14, 1914c: 26. (tx) Chapuis 1865: 135; Lucas 1920: 522; Schedl 1960a: 79, 1960c: 43, 1972f: 235, 1976a: 87; Strohmeier 1912c: 14, 1914c: 26. (ms) Lucas 1920: 522.

- costellatus (Schedl)** 1933c: 175 (*Platypus*). Holotype ♂; Brazil, Ypiranga; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 789; Schedl 1933c: 175, 1966f: 92, 1970e: 86, 1972f: 235, 1972g: 47, 1976a: 57. (tx) Reichardt 1962: 333, 335; Schedl 1933c: 175, 1962q: 493, 1972f: 235, 1978a: 22.
- luederwaldti** Schedl 1933c: 177 (*Platypus*). Holotype ♀; Brazil, Ypiranga; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962q: 493.
References: (ds) Blackwelder 1947: 789; Schedl 1933c: 177. (tx) Reichardt 1962q: 333; Schedl 1933c: 177, 1962q: 493, 1972f: 235, 1978a: 41.
- calix** Schedl 1934e: 212 (*Platypus*). Syntypes ♀; Brasilien: Alto da Serra, 700 m; Hamburg Museum, lost, and Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962q: 493.
Notes: (1) Schedl 1978a: 17–18 (citation of holotype invalid).
References: (ds) Blackwelder 1947: 789. (tx) Schedl 1934e: 212, 1962q: 493, 1972f: 235, 1978a: 17.
- frontalis (Blandford)** 1896e: 113 (*Platypus*). Holotype ♀; Bugaba, Panama; BMNH, London.
Figures: Blandford 1896e: pl. 4, fig. 25.
Distribution: North America (Guatemala/ Panama), South America (Brazil).
References: (ds) Blackwelder 1947: 789; Equihua & Atkinson 1987: 23; Schedl 1933c: 177, 1966f: 77, 1972f: 235, 1972g: 48, 1976a: 57; Strohmeier 1912c: 19, 1914c: 29. (tx) Blandford 1896e: 113; Equihua & Atkinson 1987: 23; Schedl 1972f: 235; Strohmeier 1912c: 19, 1914c: 29.
- manus (Schedl)** 1936c: 247 (*Platypus*). Holotype ♂; Brazil; Schedl Collection in NHMW, Wien.
Figures: Reichardt 1962: 335.
Distribution: South America (Bolivia/ Brazil/ Guyana).
References: (ds) Blackwelder 1947: 790; Schedl 1960a: 79, 1970f: 582, 1972f: 235, 1973a: 369. (tx) Reichardt 1962: 335–336; Schedl 1936c: 247, 1972f: 235, 1978a: 42.
- pulchellus (Chapuis)** 1865: 230 (*Platypus*). Holotype ♀; de Mexico; IRSNB, Brussels (Schedl 1960c: 43).
Distribution: North America (Belize/ Costa Rica/ Guatemala/ Honduras/ Chiapas, Nayarit, Veracruz in Mexico/ Panama), South America (Brazil/ Guyana/ Suriname/ Venezuela).
Hosts: *Gossypiospermum praecox*.
References: (ce) Equihua & Atkinson 1986: 625. (hb) Equihua & Atkinson 1986: 625. (ds) Atkinson & Equihua 1986a: 423, 1988: 104; Blackwelder 1947: 790; Blandford 1896i: 112; Cola 1973; Equihua 1988: 144; Equihua & Atkinson 1986: 625, 1987: 27; Estrada & Atkinson 1955: 213; Ferrer 1942; Gemminger & Harold 1872: 2700; Numberg 1963c: 107; Reichardt 1965b: 160; Schedl 1933c: 174, 1960a: 78, 1963c: 160, 1972f: 235; Strohmeier 1912c: 14, 1914c: 26. (tx) Blandford 1895b: 93–95, 1896e: 112; Chapuis 1865: 230; Equihua & Atkinson 1987: 27; Schedl 1936c: 247, 1939b: 399, 1940a: 327, 1956b: 30, 1960c: 43, 1972f: 235; Strohmeier 1912c: 14, 1914c: 26.
- pulcher (Chapuis)** 1865: 249 (*Platypus*). Holotype ♀; du Bresil; BMNH, London.
Distribution: North America (Mexico), South America (Brazil/ Venezuela).
Notes: (3) Schedl 1933a: 401 (described male).
References: (ds) Blackwelder 1947: 790; Equihua & Atkinson 1987: 27; Ferrer 1942; Gemminger & Harold 1872: 2700; Schedl 1933c: 177, 1972f: 235; Strohmeier 1912c: 16, 1914c: 27. (tx) Chapuis 1865: 249; Equihua & Atkinson 1987: 27; Schedl 1933a: 401, 1936c: 234, 1937d: 40, 1940a: 327, 1941e: 156, 1960c: 47, 1972f: 235; Strohmeier 1912c: 16, 1914c: 27.
- pusillimus (Chapuis)** 1865: 232 (*Platypus*). Holotype ♂; du Bresil, Bahia; IRSNB, Brussels (Schedl 1960c: 43).
Distribution: South America (Brazil/ Guyana).
References: (ds) Blackwelder 1947: 790; Gemminger & Harold 1872: 2700; Schedl 1972f: 235, 1972g: 50, 1976a: 58; Strohmeier 1912c: 14, 1914c: 26. (tx) Chapuis 1865: 232; Schedl 1959m: 556, 1960c: 43, 1972f: 235, 1978a: 59; Strohmeier 1912c: 14, 1914c: 26.
- shenefelti (Numberg)** 1963c: 110 (*Costaroplatus*). Holotype ♀; Costa Rica; University of Wisconsin Collection, Madison.
Figures: Numberg 1963c: 100
Distribution: North America (Costa Rica).
Notes: (1) Schedl 1969f: 555 (to costellati group in *Platypus*).
References: (ds) Equihua & Atkinson 1987: 29; Schedl 1972f: 235. (tx) Equihua & Atkinson 1987: 29; Numberg 1963c: 100, 110; Schedl 1969f: 555, 1972f: 235.
- subabditus (Schedl)** 1935i: 47 (*Platypus*). Lectotype ♀; Guyane française, Saint-Laurent du Maroni; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 69.
Distribution: South America (Cayenne).
Notes: (3) Schedl 1935i: 47 (described female).
References: (ds) Schedl 1972f: 235. (tx) Schedl 1935i: 47, 1972f: 235, 1978a: 69.
- turgifrons (Schedl)** 1935h: 358 (*Platypus*). Holotype ♀; Equador; Schedl Collection in NHMW, Wien.
Distribution: South America (Ecuador).
References: (ds) Blackwelder 1947: 791; Schedl 1972f: 235. (tx) Schedl 1935h: 358–359, 1972f: 235, 1978a: 76.

umbrosus (Schedl) 1936c: 247 (*Platypus*). Lectotype ♂: Guyane Francaise: St. Laurent du Maroni, St. Jean du Maroni, Nouveau Chantier; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 77.

Distribution: South America (Cayenne).

References: (ds) Blackvelder 1947: 791; Schedl 1972f: 235, 552. (tx) Schedl 1936c: 247, 1972f: 235, 1978a: 77.

Genus *Baiocis* Browne

BAIOCIS BROWNE 1962e: 651. Type-species: *Crossotarsus peruaulidus* Schedl, original designation. References: (ds) Schedl 1972f: 140. (tx) Browne 1962e: 652; Schedl 1972f: 140–142.

anaticeps (Schedl) 1969a: 215 (*Platypus*). Holotype ♂; Borneo (Kalimantan). Nunukan to Murooran (Japan), imported; PPST, Tokyo. Distribution: Indonesia (Borneo).

Hosts: Meranti log.

References: (ds) Nobuchi 1977: 142; Ohno, Yoneyama, & Nakazawa 1987b: 89; Schedl 1972f: 142. (tx) Nobuchi 1985: 330; Schedl 1969a: 215–216, 1972f: 142.

angusticeps (Schedl) 1942a: 203 (*Platypus*). Syn-types ♀; Malaya, Selangor, Ulu Gombak; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Shorea faguetiana*.

Notes: (1) Schedl 1978a: 11 (citation of holotype invalid). Browne 1962e: 651 (to *Baiocis*). References: (ds) Browne 1961c: 211; Schedl 1972f: 197. (tx) Browne 1962e: 651; Schedl 1942a: 203, 1972f: 197, 1978a: 11.

angustiformis (Schedl) 1942a: 202 (*Platypus*). Lectotype ♂; Malaya, Rotan Tunggul F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 11.

Distribution: Asia (Malaya).

Hosts: Anonaceae sp.

Notes: (1) Browne 1962e: 651 (to *Baiocis*). References: (ds) Browne 1961c: 211; Roberts 1968: 192; Schedl 1972f: 142. (tx) Browne 1962e: 651; Schedl 1942a: 202, 1972f: 142, 1978a: 11.

angustipennis (Schedl) 1942a: 203 (*Platypus*). Lectotype ♂; Malaya, Perak, Trolak F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 11.

Distribution: Asia (Malaya).

Hosts: *Xylopia caudata*.

Notes: (1) Browne 1962e: 651 (to *Baiocis*). References: (ds) Browne 1961c: 211; Schedl 1971f: 142. (tx) Browne 1962e: 651; Schedl 1942a: 203, 1972f: 142, 1978a: 11.

angustulus (Schedl) 1942a: 202 (*Platypus*). Syn-types ♀; Teibodas, Giava; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Teibodas, Giava).

References: (ds) Schedl 1972f: 142. (tx) Browne

1962e: 651; Schedl 1942a: 202, 1972f: 142, 1978a: 11.

annularis (Schedl) 1975f: 379. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Hosts: *Syzygium* sp.

Notes: (3) Roberts 1989: 262 (described female). References: (tx) Roberts 1989: 262; Schedl 1975f: 379.

imitatrix Schedl 1973e: 94. Holotype ♂; Upper Manki logging area, Bulolo, Morobe District, New Guinea; CSIRO, Canberra.

Distribution: New Guinea.

References: (tx) Schedl 1973e: 94, 1978a: 36.

incisus (Sampson) 1928: 1 (*Crossotarsus*). Holotype ♂; Sibajak vulkan [Sumatra]; BMNH, London.

Distribution: Indonesia (Sumatra).

Notes: (1) Browne 1962e: 651 (to *Baiocis*).

References: (ds) Schedl 1972f: 142. (tx) Browne 1962e: 651; Sampson 1928: 1; Schedl 1941c: 359, 1972f: 142.

inimicus (Schedl) 1935k: 482 (*Crossotarsus*).

Lectotype ♂; Luzon, Mountain Province, Benguet, Mount Santo Tomas; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 37.

Distribution: New Britain Island, Philippine Islands (Luzon).

Hosts: *Ficus* sp.

Notes: (1) Schedl 1958k: 152 (erroneously placed this species in *Platypus* and gave it an unneeded new name).

References: (ds) Schedl 1972f: 142. (tx) Browne 1962e: 651; Nobuchi 1985: 330; Schedl 1935k: 482, 1939b: 398, 1941c: 258–259, 1958k: 152, 1972f: 142, 1978a: 37.

velatus Schedl 1958k: 152 (*Platypus*). Lectotype ♂; Luzon, Mountain Province, Benguet, Mount Santo Tomas; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 37, automatic.

Notes: (1) This is an unneeded replacement name that resulted from a taxonomic error in generic placement.

References: (ds) Schedl 1965g: 24, 1966b: 101, 1968f: 537. (tx) Browne 1962e: 652; Schedl 1958k: 152, 1972f: 142.

kuntzeni (Schedl) 1937d: 40 (*Platypus*). Lectotype ♂; Deutsch-Neu-Guinea, Hauptlager, Flusslager, Etappenberg, Maifluss; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 40.

Distribution: New Guinea.

Notes: (1) Browne 1983a: 555 (to *Baiocis*).

References: (en) Wylie & Shanahan 1975. (cc) Roberts 1980. (hb) Wylie & Shanahan 1975. (ds) Browne 1983a: 555; Schedl 1936g: 513, 1965e: 264, 1972f: 103. (tx) Browne 1983a: 555; Schedl

- 1936d: 13, 1937d: 40–41, 1940b: 434–435, 1941e: 153, 1955b: 282, 1972f: 103, 1978a: 40.
- umbilosus Roberts & Morimoto** 1986: 162. Holotype ♂; New Guinea: Papua, Gumi, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Garcinia* sp.
References: (tx) Roberts & Morimoto 1986: 162.
- pasohensis (Schedl)** 1939e: 362 (*Platypus*). Syntypes ♂; Malaya, Negri Sembilan: Pasoh For. Res.; BMNH, London and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
Hosts: *Shorea lacvis*.
Notes: (1) Schedl 1978a: 51 (intended to designate a lectotype, but cited the wrong publication; this invalidated the designation). (3) Schedl 1942a: 203 (described female).
References: (cn) Mathur & Singh 1961a: 39. (ds) Beeson 1941 (1961: 266); Browne 1961c: 211; Mathur & Singh 1961a: 39; Schedl 1972f: 198. (tx) Browne 1962e: 652; Schedl 1939e: 362, 1942a: 203, 1972f: 198, 1978a: 51.
- perangustus (Schedl)** 1942a: 202 (*Platypus*). Lectotype ♂; Malaya, Rotan Tunggal F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 53.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 212; Schedl 1972f: 200. (tx) Browne 1962e: 652; Schedl 1942a: 202, 1972f: 200, 1978b: 52.
- perinimicus (Schedl)** 1941c: 358 (*Platypus*). Lectotype ♂; Java, Mount Gede, Kalshoven Nr. 20; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 53.
Distribution: Indonesia (Java, Sumatra).
Hosts: *Castanea argentea*, *C. javanica*, *Cinnamomum camphora*, *Eurya japonica*.
References: (ds) Kalshoven 1960: 40; Schedl 1972f: 142. (tx) Schedl 1941c: 358–359, 1942a: 203, 1954a: 145, 1961c: 70, 1972f: 142, 1978a: 53.
- pernanulus (Schedl)** 1935k: 482 (*Crossotarsus*). Lectotype ♂; Luzon, Laguna Province, Mount Maquiling, 400 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 54.
Distribution: Asia (India/ Malaya/ Thailand), Australia (Queensland), Indonesia (Borneo, Java), New Guinea, Philippine Islands (Luzon).
Hosts: *Artocarpus lakoocha*, *Castanopsis sumatrana*, *Dryobalanops aromatica*, *Lophopetalum* sp., *Nephelinum* sp., *Pometia* sp., *Shorea leprosula*.
Notes: (1) Browne 1962e: 652 (to *Baiocis*).
References: (hb) Browne 1961c: 211. (ds) Beaver & Browne 1975: 302; Beeson 1941 (1961: 266); Browne 1961c: 211, 1962c: 202, 1980a: 371, 1983a: 554, 1984c: 450; Ohno, Yoneyama, & Nakazawa 1987a: 95, 1987b: 89; Schedl 1936g: 514, 1966b: 96, 1969c: 61, 1972f: 143, 1980b: 195. (tx) Browne 1962e: 652; Nobuchi 1955: 330; Schedl 1935k: 482, 1939e: 336, 362, 1942c: 165, 1958i: 214, 1969a: 215, 1972f: 143, 1978a: 54.
- seminitens (Schedl)** 1971c: 395 (*Platypus*). Holotype ♂; India; Schedl Collection in NHMW, Wien.
Distribution: Asia (India).
Notes: (1) Schedl 1978a: 65 (to *Baiocis*).
References: (ds) Schedl 1972f: 143. (tx) Schedl 1971c: 395–396, 1972f: 143, 1978a: 65.
- solomonicus Browne** 1986b: 335. Holotype ♂; Solomon Islands: Lever Harbor to Nagoya (Japan); BMNH, London.
Distribution: Solomon Islands.
Hosts: *Bcilschmiedia* sp.
References: (tx) Browne 1986b: 335.
- sublunaris (Schedl)** 1937e: 544 (*Crossotarsus*). Syntypes ♂ ♀; S.O. Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
Notes: (1) Schedl 1978a: 71 (citation of holotype invalid, to *Baiocis*).
References: (ds) Schedl 1972f: 142–143. (tx) Schedl 1937e: 544, 1972f: 142–143.
- unispinosus Roberts** 1986: 39. Holotype ♂; New Guinea: Papua, Bulolo; BMNH, London.
Distribution: New Guinea.
Hosts: *Xanthophyllum papuanum*.
References: (tx) Roberts 1986: 39.
- variolosus (Schedl)** 1942a: 201 (*Platypus*). Lectotype ♀; Malaya, Perak, Larut Hills, 4500 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 79.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 212; Schedl 1971c: 367, 1972f: 242. (tx) Browne 1962e: 652; Schedl 1942a: 201, 1972f: 242, 1978a: 79.

Genus *Cylindropalpus* Strohmeier

CYLINDROPLATYPUS STROHMEIER 1911a: 174. Type-species: *Cylindropalpus africanus* Strohmeier, monobasic.

References: (hb) Schedl 1958d: 195, 1962k: 959, 1972f: 131, 1977b: 255. (ds) Schedl 1962k: 959, 1972f: 131, 1977b: 255. (tx) Browne 1955: 364, 1962e: 650, 655, 1972a: 183; Hopkins 1914: 120, 132, 1915c: 227; Sampson 1924: 133; Schedl 1935g: 320, 1939b: 397–399, 1941d: 416, 1952i: 7, 1952j: 6, 1957d: 125, 1961e: 157, 1962k: 959, 1972f: 131, 1977b: 255; Strohmeier 1911a: 174, 1912c: 21, 1914c: 12–13, 17–20, 29–30, 1918: 1–46.

affinis Strohmeier 1912f: 80. Holotype ♂; West-Usambara; Strohmeier Collection.

Distribution: Africa (Ghana/ Tanzania/ Uganda).
Hosts: *Aningeria altissima*, *A. robusta*, *Chrysophyllum metallicum*, *C. natalensis*, *C. perpulchrum*, *Scorodophloeus zenkeri*.

References: (hb) Browne 1963a: 249; Gardner 1957: 30. (ds) Browne 1963a: 249; Mayne & Donis 1960: 98, 1962: 280; Schedl 1962k: 978,

- 1972f: 133; Strohmeier 1912c: 21, 1914c: 30. **(tx)** Schedl 1941d: 416, 1950d: 14, 1952j: 6, 1957d: 125, 1962k: 978, 1972f: 133; Strohmeier 1912c: 21, 1912f: 80, 1914c: 30.
- auricomans (Schaufuss)** 1897b: 106 (*Platypus*). Holotype ♂; Kamerun; IPKE, Eberswalde. Distribution: Africa (Cameroon/ Ghana/ Ivory Coast/ Nigeria/ Sierra Leone/ Togo/ Zaïre/ Zambia). Hosts: Browne 1963a: 249, Schedl 1962k: 969–971 (many hosts listed). Notes: (3) Strohmeier 1911a: 174 (described female). References: **(an)** Roberts 1961. **(bv)** Loyttyneimi, Beaver, & Loyttyneimi 1985: 28. **(cn)** Caehan 1955; Fougereusse 1957. **(cc)** Akanbi 1978: 123; Caehan 1957: 1–126, 1958: 393–398; Roberts 1969a; Schedl 1962k: 967; Schimitschek 1964c. **(hb)** Beaver & Loyttyneimi 1985b: 115; Browne 1961b: 23, 1962d: 94, 1963a: 249; Loyttyneimi, Beaver, & Loyttyneimi 1985: 28; Roberts 1961: 31; Schedl 1962k: 967; Thompson, G. H. 1963: 59. **(ds)** Beaver & Loyttyneimi 1985b: 115; Bletchly 1961: 15; Browne 1963a: 249, 1980c: 486, 1984b: 228; Jones, Roberts, & Baker 1959: 13–14, 44–50, 54; Mayne & Donis 1951: 355, 1960: 98, 1962: 192; Roberts 1968: 192, 1969: 104; Schedl 1933f: 195, 1937b: 407, 1937d: 43, 1938d: 452, 1950d: 14, 1951f: 40, 1961g: 22, 1962h: 61, 1962k: 967, 1120, 1965e: 357, 1965g: 22, 1972f: 133; Strohmeier 1912c: 19, 1914c: 28; Thompson, G. H. 1963: 59. **(tx)** Hopkins 1914: 120, 132; Sampson 1924: 133; Schaufuss 1897b: 106–107; Schedl 1933f: 195, 1935g: 320, 1938d: 452, 1939b: 398, 1941d: 416, 1951f: 40, 1954d: 874, 1954e: 48, 51, 59, 71–72, 1957b: 152, 1957d: 125, 1962k: 967, 1965g: 22, 1972f: 133; Strohmeier 1911a: 174, 1912c: 19, 21, 1912f: 80, 1914c: 28.
- africanus** Strohmeier 1911e: 174. Syntypes: Kamerun: 2♂, 1♀ in MNB, Berlin, 1♂, 1♀ in IPKE, Eberswalde. Synonymy: Schedl 1962k: 967, 1972f: 133. References: **(cn)** Mayne & Donis 1951: 335. **(cc)** Mayne & Donis 1951: 335. **(ds)** Mayne & Donis 1962: 266; Strohmeier 1912c: 21, 1914c: 30. **(tx)** Hopkins 1914: 120; Sampson 1924c: 133; Schedl 1933f: 195, 1935g: 319–320, 1937b: 407, 1937d: 42–43, 1950d: 14, 1972f: 133; Strohmeier 1911e: 174, 1912c: 21, 1912f: 80, 1914c: 30.
- caliginosus** Roberts 1966b: 619. Holotype ♂; Nigeria: Cyel Nyaki, Mambilla Plateau, Sardauna Province, over 5000 feet; BMNH, London. Distribution: Africa (Nigeria). References: **(ds)** Roberts 1968: 192, 1969: 104; Schedl 1972f: 134. **(tx)** Roberts 1966b: 619, 1970a: 65; Schedl 1970i: 221–231, 1972f: 134.
- camerunus (Schedl)** 1941d: 417 (*Platyscapus*). Holotype ♂; Kamerun; Schedl Collection in NHMW, Wien. Distribution: Africa (Cameroon/ Ghana/ Ivory Coast/ Nigeria/ Sierra Leone). Hosts: *Afelzia* spp., *Anthonotha* spp., *Baphia nitida*, *Barteria nigritiana*, *Chrysophyllum lacourtiannum*, *Pentaclethra cetrifera*, *Terminalia superba*, *Triplochiton scleroxylon*. Notes: (3) Schedl 1954d: 885 (described female). References: **(cc)** Akanbi 1978: 123; Jover 1952: 73–81; Roberts 1969a; Schedl 1962k: 977. **(hb)** Browne 1962d: 94; Jover 1952: 73–81; Schedl 1962k: 973. **(ds)** Caehan 1957: 15, 43–50; Roberts 1968: 192, 1969b: 104–105; Schedl 1962b: 61, 1962k: 977, 1965e: 357, 1971g: 194, 1972f: 133, 1975h: 352, 1984b: 620; Thompson, G. H. 1963: 60. **(tx)** Schedl 1941d: 447, 1950e: 212, 1954d: 874, 885–886, 1954e: 59, 65, 71, 1957d: 125, 1962k: 977, 1121, 1972f: 133, 1978a: 18.
- cultellus (Schedl)** 1953d: 105 (*Platyscapus*). Lectotype ♀; Madagascar, Mt. d'Ambre, 1140 m; Schedl Collection in NHMW, Wien. Distribution: Madagascar. Notes: (3) Schedl 1961e: 157 (described male). References: **(ds)** Schedl 1972f: 133, 1977b: 256. **(tx)** Schedl 1953d: 105–106, 1961e: 157, 1972f: 133, 1977b: 256, 1978a: 22.
- granulosus (Schedl)** 1957d: 126 (*Platyscapulus*). Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. Distribution: Africa (Ghana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Sierra Leone/ Tanzania/ Uganda/ Zaïre). Hosts: *Aningeria robusta*, *Anthonotha macrophylla*, *Barteria nigritiana*, *Carapa grandiflora*, *Chrysophyllum* spp., *Combretodendron macrophyllum*, *Drypetes leuocensis*, *Khaya anthotheca*, *Microcos pinnatifida*, *Paclystela laurentii*, *Randia acuminata*, *Scorodophloeus zenkeri*, *Synsepalum* spp., *Tridesmostemon claessensii*. References: **(cc)** Schedl 1958d: 197. **(ds)** Schedl 1962h: 61, 1962k: 979, 1972f: 134. **(tx)** Schedl 1957d: 125–127, 1962k: 979, 1972f: 134, 1978a: 33.
- granulosus subaffinis** Schedl 1957d: 126 (*Platyscapulus*). Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. References: **(cc)** Schedl 1962k: 979. **(hb)** Schedl 1962k: 979. **(ds)** Schedl 1959q: 706, 1962k: 979, 1972f: 134. **(tx)** Schedl 1952j: 6, 1957d: 126–127, 1959q: 706, 1962h: 61, 1962k: 979–980, 1972f: 134, 1978a: 34.
- granulosus fratellus** Schedl 1957d: 127 (*Platyscapulus*). Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. References: **(cc)** Schedl 1962k: 983. **(hb)** Schedl 1962k: 983. **(ds)** Mayne & Donis 1960: 100, 1962: 288; Schedl 1958d: 196, 1961m: 84, 1962k: 983–984, 1972f: 134. **(tx)** Schedl 1957d:

- 127, 1961m: 84, 1962k: 983–984, 1972f: 134, 1978a: 33.
- interpositus** (Schedl) 1957d: 127 (*Platyscapulus*). Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Ruanda/ Zaïre).
Hosts: *Chrysophyllum africanum*, *C. lacourtianum*, *C. pruniforme*, *Drypetes leonensis*, *Jubbernardia sereti*, *Pachystela laurentii*, *Strombosiopsis tetrauda*, *Synsepalum longecuneatum*.
References: (cn) Anonymous 1970c: 12. (ce) Schedl 1962k: 841. (hb) Browne 1963a: 260; Schedl 1962k: 841, 989. (ds) Anonymous 1970c: 12; Browne 1963a: 260; Mayne & Donis 1960: 96, 1962: 271; Schedl 1962k: 841, 989, 1964f: 619, 1964j: 43, 1970h: 179, 1972f: 134, 158, 1975k: 279. (tx) Schedl 1957d: 127–128, 1962k: 841, 989, 1972f: 134, 1978a: 38.
- laudatus** (Schedl) 1941d: 416 (*Platyscapus*). Syn-types ♂ ♀; ♂ from Niala, Congo, ♀ from Ukaika; Schedl Collection in NHMW, Wien.
Figures: Schedl 1962k: 961, 1972f: 131 (male).
Distribution: Africa (Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Tanzania/ Uganda/ Zaïre).
Hosts: Schedl 1962k: 961–964 (many hosts listed).
Notes: (1) Schedl 1978a: 40 (citation of male holotype invalid).
References: (ce) Schedl 1962k: 960, 1972c: 59. (hb) Cardner 1957: 30; Schedl 1962k: 960. (ds) Browne 1984b: 288; Cachan 1957: 15; Mayne & Donis 1960: 98, 1962: 285, 288, 1984b: 288; Roberts 1968: 192, 1969: 105; Schedl 1962k: 960, 1965e: 357, 1972f: 134. (tx) Numberg 1961b: 625; Schedl 1941d: 416, 1950e: 211, 1952j: 6, 1954d: 874, 1955f: 260–261, 1957d: 125, 1962k: 960–961, 1962n: 698, 1972f: 134, 1978a: 40.
- maximus** Browne 1972c: 109. Holotype ♂; Congo-Kinshasa: Kivu, Bitale; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Browne 1972c: 109.
- pernix** (Schedl) 1941d: 418 (*Platyscapus*). Holotype ♂; St. Thome [Africa]; Schedl Collection in NHMW, Wien.
Distribution: Africa (Sao Tome Island).
References: (ce) Schedl 1972c: 60. (ds) Schedl 1972f: 134. (tx) Numberg 1967b: 329; Schedl 1941d: 418, 1962k: 989, 1972f: 134, 1978a: 54.
- pertinax** (Schedl) 1941d: 418 (*Platyscapus*). Holotype ♂; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon/ Nigeria/ Sierra Leone/ Zaïre).
Hosts: *Chrysophyllum* spp., *Pterocarpus soyauxii*, *Synsepalum subcordatum*, *Trichilia lanata*, *Tridesmostemon claessensii*.
References: (ce) Schedl 1962k: 988. (hb) Schedl 1962k: 988. (ds) Roberts 1968: 192, 1969: 105; Schedl 1957d: 127, 1962k: 988, 1972f: 134. (tx) Numberg 1968: 329; Schedl 1941d: 418, 1962k: 988, 1121, 1972f: 134, 1978a: 54.
- pumilio** (Schedl) 1941d: 419 (*Platyscapus*). Holotype ♂; Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ghana/ Ivory Coast/ Nigeria/ Sierra Leone/ Zaïre).
Hosts: *Anopyxis klainiana*, *Chrysophyllum africanum*, *C. lacourtianum*, *Iringia gabonensis*, *Microdesmis puberula*, *Synsepalum longecuneatum*.
References: (bv) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (ce) Schedl 1962k: 922. (hb) Beaver & Loytyniemi 1985b: 115; Browne 1963a: 250; Loytyniemi, Beaver, & Loytyniemi 1985: 28; Schedl 1962k: 922. (ds) Beaver & Loytyniemi 1985b: 115; Browne 1963a: 250; Mayne & Donis 1962: 286; Roberts 1968: 192, 1969: 105; Schedl 1962h: 61, 1962k: 922, 1972f: 134; Thompson, G. H. 1963: 60. (tx) Schedl 1941d: 419–420, 1952i: 22, 1954e: 59, 71, 1957d: 128, 1961m: 84, 1962h: 61, 1962k: 992, 1121, 1972f: 134, 1978a: 59.
- pusillus** (Schedl) 1952i: 22 (*Platypus*). Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Chrysophyllum africanum*, *Microdesmis puberula*, *Synsepalum subcordatum*.
References: (ce) Schedl 1962k: 991. (hb) Schedl 1962k: 991. (ds) Schedl 1962k: 991, 1972f: 134. (tx) Schedl 1952i: 22, 1957d: 125, 128, 1962k: 991, 1972f: 134, 1978a: 59.
- pusillus** Schedl 1957d: 128 (*Platyscapulus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren, preoccupied by Schedl 1952.
Notes: (1) It is obvious that Schedl intended to describe only the female of an established species, but in so doing he inadvertently validated a new homonymous name.
References: (tx) Schedl 1957d: 128.
- sulcatulus** Browne 1986c: 670. Holotype ♂; Solomon Islands: Lever Harbor to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: *Calophyllum* sp., *Celtis* sp. logs.
References: (tx) Browne 1986c: 670.
- tenax** (Schedl) 1941d: 419 (*Platyscapus*). Holotype ♀; Fernando-Po; Schedl Collection in NHMW, Wien.
Distribution: Africa (Fernando Po Island).
References: (ds) Schedl 1972f: 134. (tx) Schedl 1941d: 419, 1962k: 989, 1972f: 134, 1978a: 72.

Genus *Triozastus* Schedl

- TRIOZASTUS SCHEDL 1939b: 402, 403. Type-species: *Crossotarsus banghaasi* Strohmeier, monobasic.
Keys: Browne 1962e: 635, 1971d: 224.
References: (av) Browne 1972a: 182. (hb) Browne 1971d: 224–225; Schedl 1962k: 680, 1972f: 246. (ds) Browne 1971d: 224–225; Schedl

- 1952g: 54, 1972f: 246. (**tx**) Browne 1962e: 635, 649, 1971d: 224–225, 1972a: 182; Numberg 1953: 44, 1960: 287–305, 1963a: 567–572; Schedl 1936e: 51, 1939b: 397, 400–403, 1939p: 288–289, 1952i: 7, 1962k: 680–681, 1972f: 246.
- banghaasi** (**Schaufuss**) 1905: 87 (*Crossotarsus*). Holotype ♂; Dar-es-Salaam, Afr. Or. [Tanzania]; Hamburg Museum, lost.
 Figures: Numberg 1963a: 566, Schedl 1962k: 681.
 Distribution: Africa (Angola/ Cameroon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ South Africa/ Tanzania/ Uganda/ Zaïre/ Zimbabwe).
 Hosts: *Albizzia ferruginea*, *A. zygia*, *Antiaris africana*, *Baphia nitida*, *Blighia welwitschii*, *Bosqueia angolensis*, *Piptadeniastrum africanum*, *Sterculia rhinopetala*, *Strombosia pustulata*, *Trachylobium verrucosum*, *Trichilia heudelotii*, *T. lanata*, *T. rubescens*, *Triplochiton scleroxylon*.
 Notes: (1) Schedl 1939b: 402 (to *Triozastus*), Browne 1971d: 228 (established subspecies *banghaasi* and *handeniensis*). (3) Schedl 1935: 314 (described female).
 References: (**ay**) Menier 1976: 348. (**bv**) Menier 1976: 348. (**cc**) Akanbi 1978: 123; Schedl 1962k: 682. (**hb**) Browne 1963a: 253; Schedl 1962k: 682; Strohmeier 1911a: 182. (**ds**) Beaver & Loyttniemi 1985b: 117; Browne 1963a: 253, 1971d: 227, 1975a: 757; Menier 1973a; Roberts 1968: 189; Schedl 1962k: 682, 1966a: 276, 1971e: 4, 1972e: 285, 1972f: 248; Strohmeier 1911a: 182, 1911f: 204, 1912c: 6, 1914c: 34. (**tx**) Browne 1971d: 227–228; Numberg 1963a: 566, 568; Powell, W. 1987: 28; Schaufuss 1905: 5, 87; Schedl 1933f: 200, 1935e: 153, 1935g: 314–315, 1939b: 402–403, 1961m: 85, 1962k: 681–682, 1970i: 229, 1972f: 248, 1978a: 14; Strohmeier 1912c: 6, 1914c: 34.
- bifurcus** Schedl 1941d: 412. Holotype ♂; Mayumbe, Congo; Schedl Collection in NHMW, Wien.
 Notes: (3) Schedl 1972f: 248 (treated as a subspecies).
 References: (**tx**) Schedl 1941d: 411–413, 1962h: 65, 1962k: 697, 1972f: 248, 1978a: 15.
- handeniensis** Numberg 1960b: 306. Holotype ♂; Tanganyika Terr., Handeni, 350 m; MRCB, Tervuren.
 Notes: (3) Browne 1971d: 228 (treated as a subspecies).
 References: (**bv**) Loyttniemi, Beaver, & Loyttniemi 1985: 28. (**hb**) Loyttniemi, Beaver, & Loyttniemi 1985: 28. (**tx**) Browne 1971d: 228–229; Numberg 1960a: 287–308, 1960b: 153–162, 1963a: 569–571; Schedl 1972f: 248.
- brevidens** Browne 1971d: 226. Holotype ♂; Ghana; Kintampo; MRCB, Tervuren.
 Distribution: Africa (Ghana).
 References: (**hb**) Beaver & Browne 1975: 302. (**tx**) Browne 1971d: 226–227.
- brownei** Beaver in Beaver & Loyttniemi 1985: 118. Holotype ♂; Zambia: Chati, Kitwe; BMNH, London.
 Distribution: Africa (Zambia).
 References: (**bv**) Loyttniemi, Beaver, & Loyttniemi 1985: 28. (**hb**) Beaver & Loyttniemi 1985b: 118; Loyttniemi, Beaver, & Loyttniemi 1985: 28. (**ds**) Beaver & Loyttniemi 1985b: 118.
- caliginosus** Roberts 1966b: 634. Holotype ♂; Nigeria: Boshi Extension F.R.; BMNH, London.
 Distribution: Africa (Nigeria/ an apparent separate geographical race in Ghana, Zaïre).
 Hosts: *Bosqueia angolensis*, *Deinbollia* sp., *Pausinystalia macroceras*, *Piptadeniastrum africanum*, *Pittosporum viridiflorum*, *Rauwolfia vomitoria*, *Santiria trimera*, *Schefflera manii*, *Strombosia* spp.
 Notes: (1) Browne 1971d: 233 (established subspecies).
 References: (**ds**) Roberts 1968: 189, 1969: 122. (**tx**) Roberts 1966b: 364; Schedl 1970i: 229, 1972f: 248.
- caliginosus humilis** Browne 1971d: 233. Holotype ♂; Congo-Kinshasa: Yangambi; MRCB, Tervuren.
 Notes: (1) Distribution: Ghana and Zaïre.
 References: (**tx**) Browne 1971d: 233.
- elongatus** Schedl 1954e: 83. Lectotype ♂; Mpraeso [Ghana]; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 27.
 Figures: Numberg 1963a: 570.
 Distribution: Africa (Ghana/ Nigeria).
 Hosts: *Albizzia zygia*, *Bussa occidentalis*, *Cleistopholis patens*, *Piptadeniastrum africanum*, *Strombosia pustulata*, *Trichilia prieuriana*.
 Notes: (3) Browne 1965a: 207 (described female), Browne 1971d: 229 (a good species), Schedl 1972f: 248 (a subspecies of *banghaasi*).
 References: (**ds**) Browne 1971d: 229; Roberts 1968: 189, 1969: 122; Thompson, G. H. 1963: 70. (**tx**) Browne 1965a: 207, 1971d: 229; Numberg 1963a: 569–571; Schedl 1954e: 59, 65, 82–85, 1962h: 64, 1962k: 697, 1972f: 248, 1978a: 27.
- marshalli** (**Sampson**) 1924c: 128 (*Crossotarsus*). Holotype ♀; S. Africa, Salisbury; BMNH, London.
 Figures: Browne 1971d: 219, Numberg 1963a: 566, 570, Schedl 1972f: 246.
 Distribution: Africa (Angola/ Cameroon/ Congo/ Dahomey/ Fernando Po Island/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Mozambique/ Nigeria/ Ruanda/ Sierra Leone/ South Africa/ Tanzania/ Uganda/ Zaïre/ Zambia/ Zimbabwe).
 Hosts: *Afromosia elata*, *Azelia cuanzensis*, *Albizzia gummifera*, *Alstonia boonei*, *Antiaris welwitschii*, *Bosqueia angolensis*, *Celtis mildbraedii*, *Daniellia oliveri*, *Drypetes gossweileri*, *Ekebergia* sp., *Entandrophragma* sp., *Erythrophloeum guineense*, *Gilbertiodendron dewevrei*,

Grevillea sp., *Guarea cedrata*, *G. thompsonii*, *Macaranga* sp., *Ongokoa gore*, *Parkia biglobosa*, *Polyalthia suaveolens*, *Pygeum africanum*, *Scorodophloeus zenkeri*, *Terminalia superba*, *Trachylobium verrucosum*. Browne 1971d, Schedl 1962k: 687–690 (list many additional hosts).

Notes: (3) Browne 1971d: 230 (a good species), Schedl 1972f: 248 (treated as a subspecies of *banghaasi*).

References: (hb) Beaver & Loytyniemi 1985b: 119. (ds) Beaver & Loytyniemi 1985b: 119; Browne 1971d: 230, 1983a: 556; Mayne & Donis 1960: 100, 1962: 292; Roberts 1968: 189, 1969: 122; Schedl 1933f: 200, 1938d: 452, 1975h: 351; Wood, S. L. 1957e: 1272. (tx) Browne 1971d: 219, 230; Numberg 1963a: 569–570; Sampson 1924c: 128–129; Schedl 1933f: 200, 1935e: 153, 1935g: 314–315, 1936e: 51, 1937d: 33–36, 1939b: 390, 1941d: 413, 1941e: 153–154, 1950d: 5, 12, 1952g: 69, 1953g: 243, 1955d: 270, 1955f: 261, 1955i: 213, 1962k: 684–685, 1109, 1972f: 248.

pertenuis Schedl 1935g: 315 (*Crossotarsus*). Syn-types ♂; French Equatorial Africa: Lambarene; MNHN, Paris and Schedl Collection in NHMW, Wien. Synonymy: Browne 1971d: 230. Notes: (3) Schedl 1939g: 169 (described female), 1972f: 248 (a subspecies of *banghaasi*).

References: (ds) Mayne & Donis 1960: 100, 1962: 293; Roberts 1968: 189, 1969: 122. (tx) Browne 1971d: 230; Schedl 1935g: 315–316, 1939g: 169, 1954e: 82, 1962k: 688, 1109, 1972f: 248, 1978a: 54.

propatulus Schedl 1935e: 153. Lectotype ♂; Deutsch-Afrika: Amami; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 57. Synonymy: Browne 1971d: 230.

Notes: (1) Schedl 1952g: 54 (to *Triozastus*). (3) Schedl 1937d: 35 (described female).

References: (cn) Curry 1958b: 128–132. (cc) Akanbi 1978: 123; Jover 1952: 73–81; Roberts 1969a: 122. (hb) Gardner 1957: 30; Jones, Roberts, & Baker 1959: 13; Jover 1952: 73–81; Webb & Jones 1957: 36–37, 41. (ds) Cachan 1957: 6, 15; Ferreira 1965: 1130; Mayne & Donis 1960: 100, 1962: 293; Numberg 1960a: 306; Roberts 1961: 39–43, 1968: 189; Schedl 1934a: 247, 1938d: 451, 1959p: 22, 1962h: 64, 1962k: 691, 1966c: 230, 1967e: 221, 1969a: 203, 1971e: 2, 1971g: 196, 1972e: 285, 1972f: 64, 1975h: 352, 1979b: 417; Thompson, G. H. 1960, 1963: 70; Tordo 1957: 9. (tx) Browne 1971d: 230; Numberg 1963a: 570–571; Schedl 1934a: 247, 1935e: 153–154, 1935g: 314, 1937b: 407, 1937d: 35–36, 1939g: 169, 1941d: 381, 1950e: 212, 1952g: 54, 1954d: 874, 1954e: 59–71, 1955i: 213, 1962h: 64–65, 1962k: 691, 1972f: 248, 1978a: 57.

dubiosus Schedl 1937d: 36 (*Crossotarsus*). Lectotype ♀; D.-O.-Afrika: Morogara; Schedl Col-

lection in NHMW, Wien, designated by Schedl 1978a: 27. Synonymy: Schedl 1962k: 685.

References: (tx) Numberg 1963a: 566, 568; Schedl 1935g: 314, 1937d: 35–36, 1939b: 390, 1941e: 154, 1962k: 685, 1972f: 248, 1978a: 27.

pilosulus (Schedl) 1933f: 200 (*Crossotarsus*). Syn-types ♂; Equator: Flandria and Haut-Uele; Moto; MRCB, Tervuren, and Schedl Collection in NHMW, Wien.

Figures: Numberg 1963a: 570.

Distribution: Africa (Central African Republic/ Nigeria/ Sierra Leone/ Zaire).

Hosts: *Piptadeniastrum africanum*.

Notes: (3) Numberg 1963a: 569 and Browne 1971d: 225 (a good species), Schedl 1941d: 413, 1972f: 248 (= *marshalli*).

References: (ds) Browne 1971d: 225, 1980c: 486, 1980d: 493; Roberts 1969: 121; Schedl 1933f: 200, 1938d: 452, 1943c: 69; Wood, S. L. 1957e: 1272. (tx) Browne 1971d: 225; Numberg 1963a: 569–570; Schedl 1933f: 200, 1935e: 153, 1935g: 314, 1937d: 35–36, 1941d: 381–413, 1941e: 153.

Genus *Mesoplatypus* Strohmeier

MESOPLATYPUS STROHMEIER 1912: 78. Type-species: *Mesoplatypus grandiclava* Strohmeier, monobasic. Keys: Browne 1962e: 655.

References: (bv) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (hb) Loytyniemi, Beaver, & Loytyniemi 1985: 28; Schedl 1972f: 166. (ds) Schedl 1972f: 166. (tx) Browne 1962e: 649, 655, 1965a: 206, 1972a: 184; Hopkins 1914: 124, 133, 1915c: 227; Numberg 1953: 44, 1965a: 385; Schedl 1939b: 402–403, 1957d: 128, 1962k: 995, 1963j: 483, 1965e: 349–379, 1972f: 166–168; Strohmeier 1912c: 7, 1914c: 8–37, 1918: 1–46.

appendicius Schedl 1965e: 374. Holotype ♂; Congo ex belge-Katanga, Bukama; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

References: (ds) Schedl 1972f: 168. (tx) Schedl 1965e: 374, 1972f: 168, 1978a: 12.

bilobatus Numberg 1969a: 400. Holotype ♂; Bingerville [Ivory Coast]; MRCB, Tervuren.

Distribution: Africa (Ivory Coast).

Notes: (3) Schedl 1972q: 264 (= *nigeriensis*, *venustus*), Beaver & Loytyniemi 1985: 115 (a good species).

References: (ds) Schedl 1972f: 168. (tx) Beaver & Loytyniemi 1985: 115; Numberg 1969a: 400; Schedl 1972f: 168, 1972q: 264.

calabaricus Roberts 1965: 226. Holotype ♂; Nigeria: Obar; BMNH, London.

Distribution: Africa (Nigeria).

Hosts: *Diospyros* sp.

Notes: (3) Schedl 1972: 168 (= *nigeriensis*), Browne 1972: 111 and Beaver & Loytyniemi 1985: 115 (a good species).

References: (ds) Roberts 1968: 192. (tx) Beaver

- & Loyttniemi 1985b: 115; Browne 1972c: 111; Roberts 1965: 226, 1972f: 168.
- curvidens** Browne 1980e: 777. Holotype ♂; Zaire: Park National Albert, secteur nord, Ihunga, affl. rive droite Semliki, 1050 m; MRCB, Tervuren. Distribution: Africa (Zaire). References: (tx) Browne 1980e: 777.
- elegans** Schedl 1962k: 1121. Holotype ♂; Congo: Schedl Collection in NHMW, Wien. Distribution: Africa (Zaire). References: (ds) Schedl 1972f: 168. (tx) Schedl 1962k: 1121, 1972f: 168, 1978a: 27.
- ermaceus** Schedl 1957d: 130. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. Distribution: Africa (Zaire). Hosts: *Tridesmostemon claessensii*. References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (ds) Mayne & Donis 1962: 278; Schedl 1962k: 996, 1966c: 233, 1972f: 168. (tx) Numberg 1965a: 357; Schedl 1957d: 130, 1962k: 996, 1966c: 238, 1972f: 168, 1978a: 28.
- flavescens** (Strohmeyer) 1912f: 85 (*Crossotarsus*). Syntypes ♂ ♀; Mkululumi-Berg (Deutsch-Ost-Afrika) und West-Usambara; Hamburg Museum, lost, IPKE, Eberswalde. Distribution: Africa (Cameroon/ Equatorial Guinea/ Tanzania). References: (hb) Strohmeyer 1911a: 182. (ds) Schedl 1933f: 202–203, 1972f: 168; Strohmeyer 1911a: 1182, 1912c: 7, 1914c: 34. (tx) Schedl 1933f: 202–203, 1941d: 410, 1962k: 957, 1972f: 168; Strohmeyer 1911a: 182, 1912c: 7, 1912f: 85–86, 1914c: 34.
- grandiclava** Strohmeyer 1912f: 79. Syntypes ♂ ♀; Franzosisch-Kongo; Strohmeyer Collection. Distribution: Africa (Cameroon/ Equatorial Guinea/ Gabon/ Guinea/ Zaire). References: (ds) Schedl 1962k: 997, 1966c: 233, 1971g: 195, 1972f: 168; Strohmeyer 1912c: 7, 1914c: 37. (tx) Hopkins 1914: 124, 133; Lucas 1920: 406; Numberg 1965a: 386–387; Schedl 1939b: 394, 403, 1962k: 997, 1972f: 168; Strohmeyer 1912c: 7, 1912f: 78–79, 1914c: 27. (ms) Lucas 1920: 406.
- grandis** Schedl 1950d: 33. Holotype ♀; Congo Belge: Elisabethville; IRSNB, Brussels. Distribution: Africa (Zaire). Notes: (3) Schedl 1965e: 375 (described male). References: (ds) Schedl 1972f: 168. (tx) Schedl 1950d: 33, 1962k: 997, 1965e: 375, 1972f: 168, 1978a: 33.
- imparispinosus** Roberts 1972: 67. Holotype ♂; West Cameroon: Bafut-Ngemba Forest Reserve; BMNH, London. Distribution: Africa (Cameroon). References: (ds) Browne 1986b: 334. (tx) Roberts 1972: 67.
- kitushi** Schedl 1957d: 128. Holotype ♂; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Distribution: Africa (Nigeria/ Zaire). Hosts: *Beilschmiedia lousii*, *Bosquevia angolensis*, *Ficus* sp., *Garcinia polyantha*, *Parinari holstii*, *Syzygium* sp. References: (hb) Schedl 1962k: 998. (ds) Roberts 1968: 192, 1969: 116; Schedl 1962k: 998, 1972f: 168. (tx) Numberg 1965a: 388; Schedl 1957d: 128, 1962k: 998, 1972f: 168, 1978a: 39.
- parvus** Numberg 1967b: 333. Holotype ♂; Cote d'Ivoire, Adiopodoume; MRCB, Tervuren. Figures: Numberg 1967b: 333. Distribution: Africa (Ivory Coast). References: (tx) Numberg 1967b: 333.
- quadriscopis** Browne 1972c: 110. Holotype ♂; Congo-Kinshasa: Kivu, Bitale; MRCB, Tervuren. Distribution: Africa (Zaire). References: (ds) Ohno, Yoshioka, et al. 1989: 66. (tx) Browne 1972c: 110.
- quinquecinctus** (Schedl) 1941d: 410 (*Doliopygus*). Lectotype ♂; Congo, Kivu: Lugira-Kalehe, 1600 m; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 61. Figures: Schedl 1962k: 958. Distribution: Africa (Guinea/ Ivory Coast/ Sierra Leone/ Tanzania/ Uganda/ Zaire). Hosts: *Parinari holstii*, *Piptadenia* sp., *Syzygium* sp. Notes: (1) Browne 1970: 580 (to *Mesoplatypus*). References: (ds) Schedl 1962k: 957, 1966c: 232, 1972f: 168, 1979b: 416. (tx) Browne 1970: 580; Numberg 1966a: 188; Schedl 1941d: 410, 1957d: 144, 1962k: 957–958, 1972f: 168, 1978a: 61.
- quinquecinctus cachaui** Schedl 1957d: 145 (*Doliopygus*). Lectotype ♂; Ivory Coast: Adiopodoume; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 61. References: (ds) Schedl 1962k: 958, 1966a: 276, 1967e: 22, 1972f: 168. (tx) Schedl 1957d: 144–145, 1962k: 958, 1972f: 168, 1978a: 61.
- ustus** Schedl 1965e: 376. Holotype ♀; Congo ex belge-Yangambi; Schedl Collection in NHMW, Wien. Distribution: Africa (Zaire). Hosts: *Maba laurentii*. References: (ds) Schedl 1972f: 168. (tx) Schedl 1965e: 374–376, 1972f: 168, 1978a: 78.
- ventricornis** Schedl 1957d: 129. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. Figures: Numberg 1967a: 338. Distribution: Africa (Ghana/ Nigeria/ Zaire). Hosts: *Bussia occidentalis*, *Celtis soyauxii*, *Dialium corbisieri*. References: (bv) Loyttniemi, Beaver, & Loyttniemi 1985: 28. (hb) Beaver & Loyttniemi 1985b: 116; Browne 1963a: 253; Loyttniemi, Beaver, & Loyttniemi 1985: 28; Schedl 1962k: 998. (ds) Beaver & Loyttniemi 1985b: 116; Browne

1963a: 253; Roberts 1968: 192, 1969: 116; Schedl 1962h: 62–63, 1962k: 998, 1972f: 168. (tx) Numberg 1965a: 388; Schedl 1957d: 129, 1962k: 998–999, 1972f: 168, 1978a: 79.

bituberculatus Numberg 1967a: 325. Holotype ♀; Elisabethville, Congo; MRCB, Tervuren. Synonymy: Beaver & Loytyniemi 1985: 116.

Notes: (1) Beaver & Loytyniemi 1985: 116 (to *Mesoplatypus*).

References: (tx) Beaver & Loytyniemi 1985: 116; Numberg 1967a: 325, 338.

venustus Schedl 1962k: 1122. Holotype ♂; Congo; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ghana/ Nigeria/ Sierra Leone/ Zaire).

Hosts: *Amphimas pterocarpoides*, *Bussea occidentalis*, *Celtis soyauxii*, *Coelocaryon* sp., *Dialium corbisieri*, *Hydodendron gabunensis*, *Monodora myristica*, *Oxystigma mounii*, *Pterocarpus osun*, *Pycnanthus angolensis*.

Notes: (3) Schedl 1965c: 376 (described female). References: (ds) Schedl 1966c: 233. (tx) Schedl 1962k: 112, 1965c: 376, 1972f: 168, 1978a: 80.

nigeriensis Roberts 1964: 412. Holotype ♂; Nigeria: Cross River North Forest Reserve. Synonymy: Schedl 1972g: 264.

References: (bv) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (hb) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (ds) Beaver & Loytyniemi 1985b: 115; Menier 1973a; Roberts 1968: 192, 1969: 115; Schedl 1972f: 168. (tx) Browne 1972c: 111; Roberts 1964: 412; Schedl 1972f: 168, 1972g: 264.

Genus *Doliopygus* Schedl

DOLIOPYGUS SCHEDL 1939b: 402–403. Type-species: *Crossotarsus bohemanii* Chapuis, subsequent designation by Schedl 1972f: 143.

Scutopygus Numberg 1966a: 187, 189. Type-species: *Crossotarsus rapax* Sampson, subsequent designation by Wood 1992a: 90.

References: (tx) Numberg 1966a: 187, 189; Wood, S. L. 1992a: 90.

Pygodolius Numberg 1966a: 188–189. Type-species: *Crossotarsus vegrandis* Sampson, subsequent designation by Wood 1992a: 90.

References: (tx) Numberg 1966a: 188–189; Wood, S. L. 1992a: 90.

Mixopygus Numberg 1966a: 188. Type-species: *Crossotarsus conradti* Strohmeier, subsequent designation by Wood 1992a: 90.

References: (tx) Numberg 1966a: 188; Wood, S. L. 1992a: 90.

Mesopygus Numberg 1966a: 187–188. Type-species: *Crossotarsus nkereweensis* Schedl, subsequent designation by Wood 1992a: 90.

References: (tx) Numberg 1966a: 187–188; Wood, S. L. 1992a: 90.

Keys: Schedl 1972f: 145 (to species groups only).

References: (ay) Nobuchi 1969a: 69. (hb) Curry 1958: 128–132; Schedl 1972f: 143–146. (ds) Schedl 1972f: 143–146. (tx) Browne 1962c: 648, 1972a: 182; Numberg 1966a: 185; Schedl 1939b: 402–403, 1957d: 1–162, 1962k: 744, 1965c: 52, 1965e: 349–379, 1972f: 143–146.

abbreviatus (Strohmeier) 1911g: 224 (*Crossotarsus*). Holotype ♂; Kamerun; Strohmeier Collection.

Distribution: Africa (Cameroon/ Nigeria)

References: (cc) Roberts 1969a. (ds) Roberts 1968: 190, 1969b: 106; Schedl 1972f: 157; Strohmeier 1912c: 7, 1914c: 34. (tx) Schedl 1962k: 825, 1972f: 157; Strohmeier 1911g: 224–225, 1912c: 7, 1914c: 34.

abdominales Schedl 1962k: 1109. Holotype ♂; Congo; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

References: (ds) Schedl 1972f: 159. (tx) Schedl 1941d: 413, 1952g: 56, 1962k: 1109, 1972f: 159, 1978a: 9.

acutespinatus Numberg 1966a: 190. Holotype ♂; Congo: Kivu, foret Biambwe, terr. Lubero, 950 m; MRCB, Tervuren.

Figures: Numberg 1966a: pl. 2, figs. 1–3.

Distribution: Africa (Zaire).

References: (tx) Numberg 1966a: 190.

adumcus Schedl 1961d: 178. Holotype ♂; [Senegal] Parc Natl. du Niokolo-Koba, Badi; MNHN, Paris. Distribution: Africa (Burkina Faso/ Central African Republic/ Ghana/ Nigeria/ Senegal/ Sierra Leone).

Hosts: *Daniella oliveri*.

References: (cc) Roberts 1969a. (hb) Browne 1963a: 254. (ds) Browne 1963a: 254, 1972c: 99; Roberts 1968: 191, 1969b: 106; Schedl 1962h: 61, 1962k: 885, 1972f: 162. (tx) Numberg 1966a: 186; Schedl 1961d: 178, 1962k: 885, 1965g: 21, 1972f: 162, 1978a: 9.

aequalidentatus Schedl 1966a: 377. Holotype ♂; Congo ex belge-Elisabethville; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire/ Zambia).

References: (bv) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (hb) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (ds) Beaver & Loytyniemi 1985b: 123; Schedl 1972f: 149. (tx) Schedl 1965a: 377, 1972f: 149, 1978a: 10.

semimitratus Numberg 1966a: 193. Holotype ♀; Congo: Elisabethville; MRCB, Tervuren. Synonymy: Beaver & Loytyniemi 1985: 123.

References: (tx) Beaver & Loytyniemi 1985: 123; Numberg 1966a: 193.

alternans (Strohmeier) 1911g: 224 (*Crossotarsus*). Holotype ♂; Kamerun; MNB, Berlin.

Distribution: Africa (Cameroon/ Nigeria).

Hosts: *Trichilia* sp.

Notes: (3) Roberts 1966b: 620 (described female).

- References: **(ds)** Roberts 1968: 190; Schedl 1962k: 110, 1972f: 157; Strohmeier 1912c: 7, 1914c: 34. **(tx)** Numberg 1966a: 186; Roberts 1966b: 620, 1969b: 106; Sampson 1924: 127; Schedl 1962k: 826, 1110, 1972f: 157; Strohmeier 1911g: 224, 1912c: 7, 1914c: 34.
- angolensis** Schedl 1959p: 26. Holotype, sex?: Dundo, Angola; MRCB, Tervuren.
Distribution: Africa (Angola/ Nigeria/ Zaire).
Hosts: *Dialium* sp.
Notes: (1) Originally named as a subspecies of *exilis*; Browne 1965a: 209 (a good species).
References: **(ds)** Roberts 1968: 190, 1969b: 110; Schedl 1962k: 1113, 1972f: 154. **(tx)** Browne 1965a: 209; Schedl 1959p: 26, 1962k: 779, 1113, 1972f: 154, 1978a: 11.
- arrowi** (Schedl) 1937b: 406 (*Crossotarsus*). Lectotype ♂; N. Rhodesia, N'Change, Belgisch Kongo; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 12.
Figures: Schedl 1962k: 927, 1972f: 150.
Distribution: Africa (Zaire/ Zambia/ Zimbabwe).
References: **(bv)** Loytyniemi, Beaver, & Loytyniemi 1955: 28. **(hb)** Loytyniemi, Beaver, & Loytyniemi 1955: 28. **(ds)** Beaver & Loytyniemi 1955b: 123; Schedl 1935d: 451, 1962k: 927, 1972f: 149. **(tx)** Numberg 1966a: 187; Schedl 1937b: 406, 1938d: 451, 1957d: 136, 1962k: 927, 1972f: 149–150, 1978a: 12.
- artespinitatus** (Schedl) 1935g: 318 (*Crossotarsus*). Holotype ♂; Belgian Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Gabon/ Ghana/ Nigeria/ Uganda/ Zaire).
Hosts: Schedl 1962k: 746 (23 host species listed).
Notes: (3) Schedl 1936b: 131, 1957d: 130 (described female).
References: **(ce)** Schedl 1962k: 745. **(hb)** Schedl 1962k: 745. **(ds)** Mayne & Donis 1960: 96, 1962: 266; Numberg 1964a: 237; Roberts 1961a: 39–43; Schedl 1962h: 61, 1962k: 745, 1967e: 221, 1972f: 153. **(tx)** Numberg 1966a: 186; Powell, W. 1957: 27; Schedl 1935g: 318–319, 1936b: 131, 1936e: 50, 1939g: 168, 1957d: 130, 1962h: 61, 1962k: 745, 1972f: 153, 1978a: 12.
- bituberculatus** Schedl 1936b: 134 (*Crossotarsus*). Holotype ♀; Kongo; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1957d: 131. References: **(tx)** Numberg 1967b: 338; Schedl 1936b: 134, 1939g: 168, 1957d: 130, 1978a: 16.
- caliginosus** Roberts 1966: 620. Holotype ♂; Nigeria: Boshi Extension F.R.; BMNH, London. Synonymy: Schedl 1972f: 153.
References: **(ds)** Roberts 1968: 189. **(tx)** Roberts 1966: 620; Schedl 1972f: 153.
- ater** Browne 1972c: 117. Holotype ♂; Congo-Kinshasa: Kivu, Bitale; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: **(tx)** Browne 1972c: 117.
- berliniae** Roberts 1970a: 66. Holotype ♂; Nigeria: Mayo Selbe; MRCB, Tervuren.
Distribution: Africa (Nigeria).
Hosts: *Berlinia confusa*.
References: **(tx)** Roberts 1970a: 66.
- bidentatus** (Strohmeier) 1911g: 222 (*Crossotarsus*). Syntypes ♂ ♀; Deutsch-Ost-Afrika; MNB, Berlin, Strohmeier Collection.
Figures: Schedl 1962k: 948–949, 1972f: 164.
Distribution: Africa (Kenya/ Nigeria/ Ruanda/ Tanzania/ Zaire).
Hosts: *Cephalosphaera usambarensis*, *Pachystela laurentii*, *Polyscias kikuyuensis*. Schedl 1962k: 950–951 (15 host species listed).
References: **(hb)** Strohmeier 1911a: 182. **(ds)** Gardner 1957a; Schedl 1962k: 947, 1971e: 4, 1972f: 163; Strohmeier 1911a: 182, 1912c: 7, 1914c: 35. **(tx)** Numberg 1966a: 187; Powell, W. 1957: 27; Schedl 1935g: 319, 1937d: 35–36, 1941d: 411, 1941e: 154, 1957d: 144, 1962h: 64, 1962k: 947–948, 1972f: 163–164; Strohmeier 1911a: 182, 1911g: 222–223, 1912c: 7, 1914c: 11, 35.
- kenyaensis** Schedl 1941d: 411. Syntypes ♂ ♀; Kenya: Mt. Elgon, 2470 m; Schedl Collection in NHMW, Wien.
Notes: (1) Schedl 1978a: 39 (citation of holotype invalid). (3) Schedl 1972f: 163 (treated as a subspecies of *bidentatus*).
References: **(cn)** Browne 1968: 247. **(hb)** Browne 1968: 247. **(ds)** Browne 1968: 247; Gardner 1957a: 28. **(tx)** Numberg 1966a: 187; Powell, W. 1957: 27; Schedl 1941d: 408, 411, 1952j: 6, 1957d: 144, 1962h: 65, 1962k: 955, 1972f: 163, 1978a: 39.
- bidentatus posticalis** Schedl 1957d: 144. Lectotype ♂; Ruanda et du Congo Belge; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 15.
References: **(ce)** Schedl 1962k: 949. **(hb)** Gardner 1957: 28–29; Schedl 1962k: 949. **(ds)** Mayne & Donis 1962: 266; Roberts 1968: 192, 1969: 106; Schedl 1955i: 213, 1962k: 949, 1972f: 163. **(tx)** Numberg 1966a: 189; Schedl 1957d: 144, 1962k: 949, 1972f: 163–164, 1978a: 15.
- leleupi** Numberg 1960b: 305. Holotype ♂; Tanganyika Terr., Bunduki, Uluguru Mts., 1300 m; MRCB, Tervuren. Synonymy: Schedl 1972f: 163. References: **(tx)** Numberg 1960b: 300, 304, 1966a: 197; Schedl 1962h: 64, 1972f: 163.
- uluguruensis** Numberg 1960b: 306. Holotype, sex?; Tanganyika Terr.: Uluguru Mts., vallee de l'Ululu-Ndogo, 1500 m; MRCB, Tervuren. Synonymy: Schedl 1972f: 163.
References: **(tx)** Numberg 1960b: 304, 1966a: 197; Schedl 1962h: 65, 1972f: 163.
- bidiscoplans** Roberts 1970b: 474. Holotype ♂; Sierra Leone: Gola North Forest Reserve; BMNH, London.
Distribution: Africa (Sierra Leone).

- Hosts: *Tarrietia utilis*, *Tieghmella hecklii*.
References: (ds) Schedl 1972f: 149. (tx) Roberts 1970b: 474; Schedl 1972f: 149.
- bijunctispinae Roberts** 1970b: 475. Holotype ♂; Sierra Leone: Gola West Forest Reserve; BMNH, London.
Distribution: Africa (Sierra Leone).
Hosts: *Ochthocosmus africanus*.
References: (ds) Schedl 1972f: 149. (tx) Roberts 1970b: 475; Schedl 1972f: 149.
- bilobatus (Schedl)** 1936b: 127 (*Crossotarsus*). Holotype ♂; Franz. Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Gabon/ Nigeria/ Sierra Leone/ Zaïre).
Hosts: *Antrocaryon micraster*; *Dialium* spp., *Distemonanthus benthamianus*, *Klainedoxa gabonensis*, *Lindackeria dentata*, *Macaranga* sp., *Pentaeteletra macrophylla*, *Pycnanthus angolensis*, *Strombosia scheffleri*.
Notes: (3) Schedl 1950d: 36 (described female).
References: (ec) Schedl 1962k: 748. (hb) Schedl 1962k: 748. (ds) Cola 1973; Mayne & Donis 1962: 267; Schedl 1962k: 748, 1972a: 153. (tx) Numberg 1966a: 186; Schedl 1936b: 127–128, 1950d: 36, 1957d: 133, 142, 1962k: 748, 1972a: 153, 1978a: 16. *dialiumi* Roberts 1966: 221. Holotype ♂; Nigeria: Alade; BMNH, London. Synonymy: Schedl 1972f: 153.
References: (ds) Roberts 1968: 189, 1969b: 108–109. (tx) Roberts 1965: 221, 1966c: 410; Schedl 1972f: 153.
- bipapillatus Roberts** 1966c: 410. Holotype ♂; Nigeria: Cross River South Forest Reserve; BMNH, London.
Distribution: Africa (Nigeria).
References: (ds) Roberts 1968: 191; Schedl 1972f: 150. (tx) Roberts 1966c: 410; Schedl 1972f: 150.
- bitalei Schedl** 1957d: 135. Holotype ♂; Congo Belge: Kivu, Hembé-Bitale; MRCB, Tervuren.
Distribution: Africa (Nigeria/ Ruanda/ Zaïre).
Hosts: *Beilschmiedia lousii*, *Berlinia* sp., *Diospyros* sp., *Lovoa trichiloides*, *Radlkofera* sp.
References: (ec) Schedl 1958d: 196, 1962k: 928. (hb) Schedl 1958d: 196, 1962k: 928. (ds) Roberts 1968: 191, 1969b: 107; Schedl 1962k: 928, 1972f: 150. (tx) Numberg 1966a: 187; Schedl 1955f: 261, 1957d: 135, 1962k: 928, 1972f: 150, 1978a: 16.
- integerrimus* Roberts 1966b: 625. Holotype ♂; Nigeria: Oban; BMNH, London. Synonymy: Schedl 1972f: 150.
References: (ds) Roberts 1968: 192. (tx) Roberts 1966b: 625; Schedl 1972f: 150.
- bohemani (Chapuis)** 1865: 93 (*Crossotarsus*). Holotype ♂; Cafrerie [Mandibira, D.O.A., given by Schedl 1971: 15]; NHR, Stockholm (Schedl 1960c: 12).
Distribution: Africa (Cameroon/ Chad/ Ethiopia/ Ghana/ Kenya/ Mozambique/ Nigeria/ Senegal/ South Africa/ Sudan/ Tanzania/ Uganda/ Zaïre/ Zambia/ Zimbabwe).
Notes: (3) Schedl 1971c: 15 (described female).
References: (ec) Roberts 1969b: 107. (ds) Browne 1975b: 395; Fahraeus 1871: 661; Schedl 1938d: 451, 1943c: 69, 1962k: 750, 1965e: 358, 1968b: 145, 1971e: 5, 15, 1971f: 150, 1972f: 153, 1975h: 351, 1982: 279; Strohmeier 1911f: 204, 1912c: 6, 1914c: 34. (tx) Browne 1962e: 648; Chapuis 1865: 93; Numberg 1966a: 186; Schaufuss 1905: 103; Schedl 1936b: 128, 1937d: 35, 1939b: 403, 1941d: 381, 1941e: 154, 1952g: 69, 1952i: 53, 1960c: 12, 1962k: 750, 1971e: 15, 1972f: 153, 1978a: 17; Strohmeier 1911f: 204, 1912c: 6, 1914c: 34.
- bothrocephalus (Strohmeier)** 1907g: 29 (*Crossotarsus*). Holotype ♀; Tanga, Ostafrika; Strohmeier Collection.
Distribution: Africa (Tanzania).
References: (ds) Numberg 1960a: 301; Schedl 1972f: 112; Strohmeier 1912c: 7, 1914c: 35. (tx) Numberg 1960: 301, 1966a: 186; Schedl 1962k: 1060, 1123, 1972f: 112; Strohmeier 1907g: 29, 1912c: 7, 1914c: 35.
- brevis (Strohmeier)** 1911g: 228 (*Crossotarsus*). Holotype ♂; Kamerun; Strohmeier Collection.
Distribution: Africa (Cameroon/ Ghana/ Ivory Coast/ Tanzania).
Hosts: *Azelia africana*, *Albizia zygia*, *Antiaris africana*, *Blighia sapida*, *Bosqueia angolensis*, *Bussea occidentalis*, *Castilloa* sp., *Celtis mildbraedii*, *Cylicodiscus gabonensis*, *Entandrophragma utile*, *Ficus exasperata*, *Guarea cedrata*, *Hexalobus africanus*, *Hymenostegia afzelii*, *Lonchocarpus sericeus*, *Morus mesozygia*, *Panda oleosa*, *Sterculia rhinopetala*, *Strombosia glaucescens*, *Terminalia ivorensis*, *T. superba*, *Trichilia heudelotii*, *Vernonia* sp.
References: (cn) Kleine 1932a: 310, 401. (hb) Aulmann 1912: 58, 1913: 1–126; Browne 1963a: 254; Kleine 1932a: 310, 401; Strohmeier 1911a: 182. (ds) Browne 1963a: 254; Cachan 1957: 15; Kleine 1932a: 310, 401; Mayne & Donis 1962: 267; Schedl 1959p: 22, 1962k: 898, 1972f: 147; Strohmeier 1911a: 182, 1912c: 6, 1914c: 34. (tx) Numberg 1966a: 187; Schedl 1951p: 40, 1952i: 30, 1954d: 873, 1957d: 142, 1962k: 898, 1972f: 147; Strohmeier 1911a: 182, 1911g: 228–229, 1912c: 6, 1914c: 34.
- bulbifer Schedl** 1962k: 1110. Holotype ♂; Nigeria: Abuja; Schedl Collection in NHMW, Wien.
Figures: Roberts 1964: 402.
Distribution: Africa (Equatorial Guinea/ Nigeria/ Sierra Leone).
Hosts: *Cordia senegalensis*, *Milletia thonningii*.
References: (ec) Roberts 1969a. (ds) Roberts 1968: 191; Schedl 1971g: 194, 1972f: 151. (tx) Schedl 1962k: 1110, 1972f: 151, 1978a: 17.
- bulbosus* Roberts 1964: 401. Holotype ♂; Nigeria:

Abuja; BMNH, London. Synonymy: Schedl 1972f: 151.

References: (ds) Browne 1954c: 450, (tx) Roberts 1964: 401, 1969b: 107; Schedl 1972f: 151.

bulbiventris Schedl 1962k: 1112. Holotype ♂; Kamerun; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon/ Ghana).

References: (ds) Schedl 1972f: 151, (tx) Schedl 1962k: 872, 1972f: 151, 1975a: 17.

umbonatus Browne 1965a: 205. Holotype ♂; Ghana; Kumasii; BMNH, London. Synonymy: Schedl 1972f: 151.

References: (tx) Browne 1965a: 205; Schedl 1972f: 151.

caesalpiniae Roberts 1970a: 67. Holotype ♂; Nigeria; Mayo Selbe; MRCB, Tervuren.

Distribution: Africa (Nigeria).

Hosts: *Anthonota macrophylla*, *Berlinia confusa*, *Brachystegia nigerica*.

References: (tx) Roberts 1970a: 67.

carapae Schedl 1957d: 132. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Alstonia boonei*, *Carapa procera*.

References: (ds) Mayne & Donis 1960: 96, 1962: 267; Schedl 1962k: 751, 1972f: 153, (tx) Numberg 1966a: 186; Schedl 1957d: 132, 1962k: 751, 1972f: 153, 1975a: 18.

chapuisi (Duvivier) 1891: 377 (*Crossotarsus*). Holotype ♀; Ibembo, Congo; not given.

Figures: Browne 1972c: 112, Numberg 1960a: 300, 1966a: 197.

Distribution: Africa (Angola/ Bechuanaland/ Cameroon/ Congo/ Equatorial Guinea/ Ghana/ Guinea/ Ivory Coast/ Mozambique/ Nigeria/ Sierra Leone/ South Africa/ Spanish Guinea/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia/ Zimbabwe).

Hosts: Browne 1963a: 255, Schedl 1962k: 755–757 (many host species listed).

References: (ay) Lhoste & Roche 1960; Menier 1976: 348; Strohmeier 1918: 8, (bv) Meixner 1937: 1217; Menier 1976: 348, (cn) Anonymous 1953j: 25; Browne 1968b: 246; Mayne & Donis 1951: 335, (cc) Anonymous 1953j: 25; Fuller 1955: 100; Jover 1952: 73–81; Mayne & Donis 1951: 335; Roberts 1969a, (hb) Beaver & Loytyniemi 1955b: 125; Browne 1963a: 255, 1968b: 246; Cachan 1957: 6, 15; Husson 1955: 354; Jones, Roberts, & Baker 1959: 13, 21, 36; Jover 1952: 73–81; Schedl 1962k: 751; Thompson, G. H., 1963: 40; Webb 1957: 26, 36–37, 40, (ds) Beaver & Loytyniemi 1955b: 125; Browne 1963a: 255, 1968b: 246, 1975a: 757, 1980a: 373, 1980b: 382; Cola 1973; Ferreira 1965: 1131; Gardner 1957a: 28; Mayne & Donis 1960: 96, 1962: 267; Menier 1973a; Roberts 1960b: 35, 1960c: 35–37, 1960f: 39, 1965: 189, 1969b: 107–108; Schedl 1933f: 196, 1959p: 22, 1962h: 62–64, 1962k: 751, 1964j: 42, 1965c: 358, 1966c: 231, 1967e: 221, 1971g:

194, 1972e: 285, 1975b: 351, 1979b: 416; Strohmeier 1912c: 6, 1914c: 34; Thompson, G. H., 1963: 40, (tx) Browne 1972c: 112; Duvivier 1891: 377, 386; Meixner 1937: 1217; Numberg 1966a: 186, 197; Powell, W., 1987: 27; Sampson 1924: 125–126; Schaufuss 1897b: 104–105, 1905: 103; Schedl 1933f: 196, 1936e: 51, 1937b: 407, 1937d: 35, 1939b: 391, 1939g: 167, 1941d: 381, 1941e: 153, 1950c: 205–206, 1950d: 4, 11, 14–15, 19, 1950e: 212, 1951e: 39, 1951f: 40, 1952j: 6, 1953g: 244, 1954d: 873, 1954e: 47, 54, 1955e: 270, 1962k: 751, 1972f: 153; Strohmeier 1911f: 204, 1912c: 6–7, 1914c: 34, 1918: 12–41.

maculatus Schaufuss 1897b: 104 (*Crossotarsus*).

Syntypes ♂ ♀; Sierra Leone; Hamburg Museum, lost. Synonymy: Schedl 1972f: 153.

References: (ds) Strohmeier 1911f: 204, (tx) Schaufuss 1897b: 104; Schedl 1933f: 196.

chapuisi nitidiventris Schedl 1962k: 757. Lectotype ♂; Belgisch Kongo; Elisabethville; Schedl Collection in NHMW, Wien, designated by Schedl 1975a: 19.

References: (ds) Schedl 1972f: 153, (tx) Schedl 1962k: 757, 1972f: 153, 1975a: 19.

bugiriensis Numberg 1960a: 301. Holotype ♂; Uganda; Bugiri Terr., Longido, Masai District; MRCB, Tervuren. Synonymy: Schedl 1962h: 64.

References: (tx) Numberg 1960a: 300–301; Schedl 1962h: 64, 1972f: 153.

citri Schedl 1948c: 667. Lectotype ♂; Newcastle, Natal; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon/ Congo/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Sierra Leone/ South Africa/ Tanzania/ Zaire).

Hosts: *Citrus aurantium*. Schedl 1962k: 842–843 (30 host species listed).

References: (ds) Schedl 1972f: 157, (tx) Browne 1972c: 121; Numberg 1966a: 187; Schedl 1948c: 667, 1962k: 826, 1972f: 157, 1975a: 20.

interpositus Schedl 1952i: 56. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren. Synonymy: Browne 1972c: 121.

References: (ds) Cachan 1957: 15; Gardner 1957a: 28; Roberts 1968: 190, 1969b: 111; Schedl 1975k: 279, (tx) Browne 1972c: 121; Numberg 1966a: 187; Schedl 1952i: 56–57, 1954d: 873, 1955f: 261, 1962h: 62, 1962k: 841, 1115, 1972f: 158, 1975a: 38.

clarus (Schedl) 1936b: 132 (*Crossotarsus*). Syntypes ♀; Belg. Kongo, Diobo, and Likimi-Mimbo; Collart Collection, and Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Hosts: *Oxytigma oxyphyllum*.

Notes: (1) Schedl 1975a: 20 (citation of holotype invalid).

References: (ds) Schedl 1962k: 875, 1972a: 160, (tx) Numberg 1966a: 186; Schedl 1936b: 131–132, 1952i: 45, 1962k: 875, 1972f: 160, 1975a: 20.

- coelocephalus (Schaufuss)** 1905: 103 (reprint p. 5) (*Crossotarsus*). Holotype ♀; Cameroon; Hamburg Museum, lost.
Distribution: Africa (Cameroon/ Gabon/ Ghana/ Kenya/ Nigeria/ Uganda/ Zaïre).
Hosts: Browne 1963a: 256, Schedl 1962k: 759 (many host species listed).
References: (hb) Browne 1962d: 94, 1963a: 256; Schedl 1962k: 757. (ds) Browne 1963a: 256, 1984b: 287; Gardner 1957a: 28; Jones, Roberts, & Baker 1959: 13; Mayne & Donis 1960: 96, 1962: 268; Roberts 1968: 189, 1969b: 108; Schedl 1933f: 196, 1962h: 62, 1962k: 757, 1966c: 231, 1972f: 153; Strohmeier 1912c: 6, 1914c: 34. (tx) Numberg 1966a: 186; Schaufuss 1905: 103–104; Schedl 1933f: 196–197, 1937d: 35, 1950d: 11, 1952i: 26, 1955f: 261, 1955i: 213, 1962h: 64, 1962k: 757, 1965g: 21, 1972a: 153; Strohmeier 1912c: 6–7, 1914c: 34.
- tricuspis** Schedl 1933f: 196 (*Crossotarsus*).
Lectotype ♂; Sankuru: Lofja, Sandoa, Haut-Uele; Watsa; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 74. Synonymy: Schedl 1972f: 153.
References: (ds) Schedl 1933f: 196. (tx) Schedl 1933f: 196, 1937d: 35, 1950d: 11, 1952i: 26, 1972f: 153, 1978a: 74.
- fenestralis** Numberg 1960a: 303. Type not designated; type locality and repository not stated, nomen nudum (?). Synonymy: Schedl 1962h: 64.
References: (tx) Numberg 1960a: 300, 1960b; Schedl 1962h: 64, 1972f: 153.
- congonus** Browne 1972c: 115. Holotype ♂; Congo-Kinshasa: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (tx) Browne 1972c: 115.
- conjunctus** Schedl 1957d: 140. Holotype ♂; Congo Belge: route Stanleyville-Irumu, Camp Putnam; MRCB, Tervuren.
Figures: Schedl 1962k: 877, 1972f: 161.
Distribution: Africa (Tanzania/ Zaire).
Hosts: *Julbernardia sereti*.
References: (ds) Schedl 1962k: 876, 1972f: 160. (tx) Numberg 1966a: 186; Schedl 1957d: 140, 1962k: 876–877, 1972f: 160–161, 1978a: 21.
- conradti (Strohmeier)** 1911g: 227 (*Crossotarsus*).
Syntypes ♂ ♀; Kamerun; MNB, Berlin, Strohmeier Collection.
Figures: Schedl 1962k: 853, 1972f: 159.
Distribution: Africa (Angola/ Cameroon/ Central African Republic/ Congo/ Equatorial Guinea/ Fernando Po Island/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Mozambique/ Nigeria/ Sierra Leone/ Togo/ Zaire).
Hosts: Schedl 1962k: 855–861 (138 host species listed).
References: (ay) Entwistle 1963b; Farris & Funk 1965: 531. (bv) Browne 1962f; Entwistle 1963b. (cn) Anonymous 1953h: 31, 1953j: 25; Browne 1968: 246; Kudler 1978: 16; Thompson, G. H. 1960; Webb & Jones 1958: 383. (cc) Anonymous 1953j: 25; Browne 1961e: 10, 1962d; Farris & Funk 1965: 531; Roberts 1969b: 108; Schedl 1958d: 195–196, 1962k: 852. (hb) Anonymous 1959i: 18; Browne 1961b: 21–22, 24, 1962f, 1963a: 256, 1968: 246; Entwistle 1963b; Roberts 1961: 53–60; Schedl 1958d: 195–196, 1962k: 852; Thompson, G. H. 1963: 40; Webb & Jones 1958: 383. (ds) Browne 1961e: 10, 1963: 256, 1968: 246; Cachan 1957: 5–6, 15, 43–53; Ferreira 1965: 1131; Gardner 1957a: 28; Jones, Roberts, & Baker 1959: 13–52; Jover 1952: 73–81; Kolbe 1897: 283; Mayne & Donis 1960: 96, 1962: 268; Roberts 1960b: 35, 1960e, 1960f, 1968: 191; Schedl 1959p: 22, 1962k: 852, 1965e: 358, 1965g: 21, 1971g: 194, 1972e: 285, 1972f: 159, 1979b: 417; Strohmeier 1912c: 6, 1914c: 34; Thompson, G. H. 1960, 1963: 40; Tordo 1957: 9; Webb & Jones 1957: 25–40. (tx) Numberg 1966a: 186; Powell, W. 1957: 27; Schedl 1933f: 201, 1937d: 35, 1938d: 451, 1941e: 153, 1950d: 5, 1950e: 212, 1951e: 39, 1954d: 873, 1954e: 48, 55, 1955d: 270, 1959p: 22, 1962k: 852–853, 1965g: 21, 1972f: 159; Strohmeier 1911g: 227–228, 1912c: 6–7, 1914c: 34.
- vegrandis** Sampson 1924c: 126 (*Crossotarsus*).
Holotype ♂; Belgian Congo: Mayumbe; MRCB, Tervuren. Synonymy: Schedl 1972f: 159.
Notes: (1) Schedl 1972f: 159 (to *Doliopygus*). (3) Schedl 1941d: 409 (described female).
References: (cc) Jover 1952. (hb) Jover 1952. (ds) Gardner 1957a; Mayne & Donis 1960: 98, 1962: 278; Schedl 1933f: 201, 1938d: 451. (tx) Numberg 1966a: 187; Sampson 1924c: 126–127; Schedl 1933f: 201, 1940d: 5, 11, 1941d: 409, 1950d: 11, 1950e: 212, 1951e: 39, 1972f: 159–160, 1978a: 79.
- convexus** Roberts 1965: 224. Holotype ♂; Nigeria: Bende; BMNH, London.
Distribution: Africa (Nigeria).
Hosts: *Diospyros* sp.
References: (ds) Roberts 1965: 224, 1968: 191; Schedl 1972f: 150. (tx) Roberts 1965: 224; Schedl 1972f: 150.
- costatus** Schedl 1957d: 136. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Numberg 1966a: 187.
Distribution: Africa (Nigeria/ Zaire).
Hosts: *Ochthocosmus africanus*.
Notes: (3) Schedl 1962k: 1112 (described female).
References: (hb) Schedl 1962k: 930. (ds) Roberts 1968: 191; Schedl 1962k: 930, 1972f: 150. (tx) Numberg 1966a: 187; Schedl 1957d: 136, 1962k: 930, 1112, 1972f: 150, 1978a: 22.
- crinitus (Chapuis)** 1865: 90 (*Crossotarsus*).
Syntypes ♂ ♀; Senegal et du fleuve Blanc dans la Haute Egypte; MNHN, Paris (Schedl 1960c: 12).
Figures: Numberg 1966a: 187.
Distribution: Africa (Cameroon/ Congo/ S Egypt/

- Cabon/ Kenya/ Malawi/ Mozambique/ Senegal/ South Africa/ Tanzania/ Zaïre/ Zambia/ Zimbabwe).
Hosts: *Pterocarpus angolensis*.
References: (cn) Anonymous 1970c: 11. (ds) Anonymous 1970c: 11; Beaver & Loytyniemi 1985b: 130; Browne 1972c: 99, 1984b: 288; Schedl 1938d: 451, 1962h: 62, 1962k: 578, 1969a: 204, 1972f: 161; Spahr 1981: 79; Strohmeier 1911f: 204, 1912c: 6, 1914c: 34; Tordo 1957: 9. (tx) Chapuis 1865: 24–25, 90–92; Duvivier 1891: 377; Lucas 1920: 209; Numberg 1966a: 187; Powell, W. 1987: 27; Sampson 1922: 139, 1924c: 126; Schaufuss 1905: 103; Schedl 1936e: 51, 1937b: 406, 1937d: 35, 1939a: 468–469, 1939b: 403, 1941e: 154, 1952i: 26–27, 1953g: 244, 1957b: 152, 1960c: 12, 1962k: 578, 1972f: 161; Strohmeier 1911g: 227–228, 1912c: 6–7, 1914c: 34.
hardenbergi Sampson 1922a: 137 (*Crossotarsus*).
Holotype ♂; Portuguese East Africa: Xina-vane; BMNH, London. Synonymy: Schedl 1951i: 26.
Notes: (3) Schedl 1941d: 408 (described female).
References: (ds) Gardner 1957a; Schedl 1933f: 198. (tx) Sampson 1922a: 137–139, 1924c: 126; Schedl 1933f: 198, 1937b: 406–407, 1937d: 35, 1941d: 408, 1950d: 12, 1951i: 26–27, 1956a: 35, 1972f: 161, 1978a: 35.
- dentiventris* Browne 1984c: 456. Holotype ♂; Owendo (Gabon) to Nagoya (Japan), imported; BMNH, London.
Distribution: Africa (Cabon).
Hosts: *Gnibourtia* sp.
References: (tx) Browne 1984c: 456.
- deruptus* Schedl 1950d: 35. Holotype ♀; Rhodesien (Chirinda); Schedl Collection in NHMW, Wien.
Distribution: Africa (Zimbabwe).
References: (tx) Numberg 1966a: 187; Schedl 1950d: 35, 1962k: 826, 1972f: 157, 1978a: 24.
- divaricus* (Schedl) 1936b: 126 (*Crossotarsus*).
Holotype ♂; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon/ Zaïre).
Hosts: *Gnarea laurentii*. Schedl 1962k: 866–867 (18 host species listed).
References: (ds) Browne 1987b: 334; Schedl 1962k: 871, 1972f: 160. (tx) Numberg 1966a: 187; Schedl 1936b: 126–127, 1962k: 871, 1972f: 160, 1978a: 26.
- discrepans* Schedl 1952i: 38. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren. Synonymy: Schedl 1972f: 160.
References: (ec) Schedl 1962k: 866. (hb) Schedl 1962k: 866. (ds) Mayne & Donis 1960: 96, 1962: 268; Schedl 1962k: 866. (tx) Numberg 1966a: 186; Schedl 1952i: 38, 1957d: 133, 1962k: 866, 1972f: 160, 1978a: 25.
- divisus* Browne 1972c: 114. Holotype ♂; Congo-Kinshasa; Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaïre).
References: (tx) Browne 1972c: 114.
- dolosus* Schedl 1950c: 216. Lectotype ♂; Congo Belge, Vieux-Kilo; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 26.
Distribution: Africa (Ivory Coast/ Nigeria/ Zaïre).
Hosts: *Diospyros* sp., *Drypetes leouensis*, *Pachystela laurentii*.
References: (ec) Roberts 1969a. (ds) Cachan 1957: 15; Roberts 1968: 190, 1969b: 109; Schedl 1962k: 827, 1972f: 157. (tx) Numberg 1966a: 187; Schedl 1950c: 216, 1952i: 52, 1962k: 827, 1113, 1972f: 157, 1978a: 26.
- donisi* Schedl 1952i: 49. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Figures: Schedl 1962k: 761 (male), 1972f: 152 (male).
Distribution: Africa (Zaïre).
Hosts: *Chrysophyllum lacourtianum*, *Pterygopodium oxyphyllum*, *Scorodophloeus zenkeri*. Schedl 1962k: 760–761 (12 host species listed).
References: (hb) Schedl 1962k: 760. (ds) Mayne & Donis 1960: 96, 1962: 269; Schedl 1962k: 760, 1972f: 153. (tx) Numberg 1966a: 186; Schedl 1952i: 49, 1962k: 760–761, 1972f: 152–153, 1978a: 26.
- dubius* (Sampson) 1924c: 126 (*Crossotarsus*).
Holotype ♂; Belgian Congo; MRCB, Tervuren.
Figures: Browne 1961b: pl. 1–2.
Distribution: Africa (Angola/ Bechuanaland/ Cameroon/ Congo/ Equatorial Guinea/ Fernando Po Island/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Senegal/ South Africa/ Sudan/ Tanzania/ Uganda/ Zaïre/ Zambia/ Zimbabwe).
Hosts: Schedl 1962k: 764–767 (79 host species listed).
Notes: (1) Originally named as a subspecies of *crinitus*.
References: (ay) Entwistle 1963b. (bv) Browne 1961b, 1961e: 8; Entwistle 1963b; Loytyniemi, Beaver, & Loytyniemi 1985: 28; Roberts 1960b: 21. (cn) Browne 1961b, 1961e: 8, 1968: 246; Jones et al. 1959: 21–52; Kudler 1978: 16; Roberts 1960b: 21, 1966a. (ec) Browne 1961b, 1961e: 8, 1962d; Roberts 1960b: 21, 1969a; Schedl 1962k: 761. (hb) Beaver & Loytyniemi 1985b: 126; Browne 1961b: 15–27, 1961e: 8, 13, 1963a: 259, 1965b, 1968: 246; Entwistle 1963b; Jones et al. 1959: 21–52; Loytyniemi, Beaver, & Loytyniemi 1985: 28; Roberts 1935e: 35–37, 1961a: 39–43, 1961c: 37, 1962a: 37–38, 1962b: 241, 1969b: 109; Schedl 1962k: 761; Thompson, C. H. 1963: 41; Webb & Jones 1957: 36–40. (ds) Beaver & Loytyniemi 1985b: 126; Browne 1961e: 8, 13, 1963a: 259, 1968: 246, 1972c: 99, 1980c: 485, 1984c: 450; Cola 1973; Ferreira 1965: 1132; Lee, R. F. 1971: 29; Mayne & Donis 1960: 96, 1962: 269; Roberts 1960b: 35–39, 1960e, 1960f, 1966a, 1968: 190; Schedl 1938d: 451, 1959p: 23, 1962h: 62,

- 1962k: 761, 1964j: 42, 1965e: 358, 1965g: 21, 1965h: 112, 1966a: 276, 1966c: 231, 1971e: 5, 1971f: 150, 1971g: 194, 1972e: 285, 1972f: 154, 1975b: 351, 1979b: 417; Thompson, G. H. 1963: 41; Wichmann 1955: 97. (**tx**) Browne 1961b: pl. 1, 2; Numberg 1966a: 186; Powell, W. 1987: 27; Sampson 1924c: 126; Schedl 1941d: 408, 1950d: 11, 1952g: 54, 1952i: 27, 1953g: 244, 1954d: 873, 1954e: 55, 1955i: 213, 1962k: 761, 1113, 1972f: 154; Strohmeier 1911g: 226–227.
- paradubius* Roberts 1964: 404. Holotype ♂; Nigeria: Omo Forest Reserve; BMNH, London. Synonymy: Schedl 1972f: 154. References: (**cn**) Browne 1968b: 248; Kudler 1978: 16. (**hb**) Browne 1968b: 248. (**ds**) Browne 1968b: 248; Roberts 1968: 190. (**tx**) Roberts 1964: 404, 1969b: 112–113; Schedl 1972f: 154.
- confusus* Roberts 1966b: 621. Holotype ♂; Nigeria: Oban; BMNH, London. Synonymy: Schedl 1972f: 154. References: (**ds**) Roberts 1968: 189. (**tx**) Roberts 1966b: 621; Schedl 1972f: 154.
- rhizophorae* Roberts 1966b: 629. Holotype ♂; Nigeria: Buguma; BMNH. Synonymy: Schedl 1972f: 154. References: (**ds**) Roberts 1968: 190. (**tx**) Roberts 1966b: 629; Schedl 1972f: 154.
- erichsoni* (Chapuis) 1865: 95 (*Crossotarsus*). Syntypes ♂ ♀; Port Natal; 1 ♂, 2 ♀ in BMNH, London, 1 ♂ in IRSNB, Brussels 1 ♂ in MNB, Berlin, 1 ♂ in MNHN, Paris. Figures: Schedl 1962k: 829, 1972f: 157. Distribution: Africa (Cameroon/ Congo/ Equatorial Guinea/ Gabon/ Ghana/ Guinea/ Kenya/ Mozambique/ Nigeria/ Ruanda/ Sao Tome Island/ Sierra Leone/ South Africa/ Tanzania/ Uganda/ Zaire). Hosts: Schedl 1962k: 830–833 (73 host species listed). References: (**bv**) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (**cn**) Anonymous 1970c: 12; Browne 1968b: 247; Jones 1959a. (**cc**) Schedl 1962k: 827. (**hb**) Anonymous 1959i: 18; Beaver & Loytyniemi 1985b: 129; Browne 1963a: 259, 1968b: 247; Jones 1959a, 1966: 127; Jones, Roberts, & Baker 1959: 13–21; Loytyniemi, Beaver, & Loytyniemi 1985: 29; Schedl 1962k: 827; Strohmeier 1911a: 182; Thompson, G. H. 1963: 41; Took & Scott 1944: 2–5; Tordo 1957: 9; Webb & Jones 1957: 37, 40. (**ds**) Anonymous 1970c: 12; Beaver & Loytyniemi 1985b: 129; Browne 1963a: 259, 1968b: 247, 1980b: 381; Gardner 1957a: 28; Mayne & Donis 1960: 96, 1962: 269; Roberts 1960b: 35, 1960e, 1960f: 35–39, 1966a, 1968: 190, 1969b: 109; Schedl 1933f: 201, 1935d: 452, 1962k: 827, 1964j: 43, 1965e: 359, 1965g: 21, 1972f: 157; Strohmeier 1911a: 182, 1911f: 204, 1914c: 34; Thompson, G. H. 1963: 41. (**tx**) Chapuis 1865: 24–25, 95–97; Lucas 1920: 209; Numberg 1966a: 187; Powell, W. 1987: 27; Sampson 1924a: 545, 1924c: 127; Schedl 1933f: 201, 1935g: 319–320, 1937c: 14, 1937d: 35–36, 1939b: 403, 1939g: 167, 1941d: 409, 1941e: 154, 1948c: 667, 1950d: 11, 1952g: 55, 1952i: 40, 1952j: 6, 1954e: 55, 1955j: 261, 1957c: 326, 1960c: 12–13, 1962k: 827–829, 1113, 1965g: 21, 1972f: 157; Strohmeier 1911a: 182, 1911f: 204, 1912c: 11, 1914c: 11, 34.
- varius* Sampson 1924a: 545 (*Platypus*). Holotype, sex?; South Africa: Cape Colony, Transkei; BMNH, London. Synonymy: Schedl 1937c: 14, Beaver & Loytyniemi 1985: 129. References: (**tx**) Beaver & Loytyniemi 1985: 129; Sampson 1924a: 545; Schedl 1937c: 14, 1957b: 152, 1972f: 157.
- excavatus* (Sampson) 1924c: 124 (*Crossotarsus*). Holotype ♂; Belgian Congo, Kapiri (Miss. Agric.); MRCB, Tervuren. Figures: Browne 1972c: 112. Distribution: Africa (Cameroon/ Kenya/ Nigeria/ Uganda/ Zaire/ Zambia). Hosts: Schedl 1962k: 775–776 (14 host species listed). References: (**cn**) Hargreaves 1927: 24–27. (**hb**) Roberts 1969b: 109–110. (**ds**) Gardner 1957a: 28. (**tx**) Browne 1972c: 111–112; Numberg 1966a: 186; Powell, W. 1987: 27; Sampson 1924c: 124; Schedl 1933f: 196, 1935g: 318, 1941e: 154, 1955f: 261, 1962h: 62, 1962k: 744, 1972f: 154.
- exilis* (Chapuis) 1865: 92 (*Crossotarsus*). Syntypes ♂ ♀; Fleuve Blanc [White Nile]; MNHN, Paris (Schedl 1960c: 12). Distribution: Africa (Cameroon/ Chad/ Congo/ Equatorial Guinea/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Spanish Guinea/ Sudan/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia/ Zimbabwe). Hosts: Schedl 1962k: 777–778 (23 host species listed). Notes: (3) Schedl 1954e: 57 (*piptadeniae*, nomen nudum, synonymy in Schedl 1972f: 154), Schedl 1957d: 137 (*pygmaeus*, nomen nudum, synonymy in Schedl 1972f: 154). References: (**bv**) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (**cn**) Thompson, G. H. 1960. (**cc**) Roberts 1969a: 110; Schedl 1962k: 776. (**hb**) Beaver & Loytyniemi 1985b: 126; Browne 1963a: 260; Jones, Roberts, & Baker 1959: 13–14; Loytyniemi, Beaver, & Loytyniemi 1985: 28; Schedl 1962k: 776; Thompson, G. H. 1963: 41; Webb & Jones 1957: 37–40. (**ds**) Beaver & Loytyniemi 1985b: 126; Browne 1963a: 260; Ferreira 1965: 1132; Gardner 1957a: 28; Mayne & Donis 1960: 96; Roberts 1968: 190; Schedl 1933f: 197, 1959p: 23, 1959q: 706, 1962k: 776, 1964j: 619, 1967c: 221, 1969a: 204, 1971g: 195, 1972f: 154; Strohmeier 1911f: 204, 1912c: 6, 1914c: 34; Thompson, G. H. 1960, 1963: 41. (**tx**) Chapuis

- 1865: 92; Numberg 1966a: 186; Sampson 1924c: 126; Schaufuss 1905: 103; Schedl 1933f: 197, 1936b: 131, 1937d: 35, 1941e: 154, 1953g: 244, 1954e: 48, 56–57, 1955i: 213, 1957d: 131, 1960: 12, 1962k: 776, 1113, 1972f: 154; Strohmeier 1911f: 204, 1912c: 6–7, 1912f: 86, 1914c: 34.
- eximius Schedl** 1941d: 407. Holotype ♂; D.O.A., Nyembe; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast/Tanzania/Zaire/Zambia).
Hosts: *Piptadenia africana*.
Notes: (3) Beaver et al. 1955: 130 (described female).
References: (bv) Loyttyniemi, Beaver, & Loyttyniemi 1955: 28. (cc) Jover 1952: 73–81. (hb) Jover 1952: 73–81; Loyttyniemi, Beaver, & Loyttyniemi 1955: 28. (ds) Beaver & Loyttyniemi 1955b: 130; Cachan 1957: 6, 15; Schedl 1962k: 931, 1965g: 21, 1972f: 160. (tx) Numberg 1966a: 187; Schedl 1941d: 406–407, 1951f: 40, 1952g: 55, 1954d: 573, 1962k: 931, 1965g: 21, 1972f: 160, 1978a: 29.
- expletus Schedl** 1941d: 412. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon/Ruanda/Zaire).
Hosts: Schedl 1962k: 836 (13 host species listed).
Notes: (3) Schedl 1951i: 58 (described female).
References: (cc) Schedl 1962k: 834. (hb) Schedl 1962k: 834. (ds) Mayne & Donis 1960: 96, 1962: 270; Schedl 1962k: 834, 1972f: 158. (tx) Numberg 1966a: 187; Schedl 1941d: 412, 1951i: 58, 1957d: 134, 1962k: 834, 1972f: 158, 1978a: 29.
- falsificus (Schedl)** 1933f: 201 (*Crossotarsus*).
Lectotype ♂; Mayumbe, Soc. Bombo, and Lucalla, Cie Ind. Bois Congo; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 30.
Distribution: Africa (Nigeria/Zaire).
Hosts: *Milletia* sp.
References: (cn) Vrydagh 1947a: 8. (cc) Roberts 1969b: 110. (ds) Browne 1980d: 493; Roberts 1968: 190; Schedl 1933f: 202, 1962k: 838, 1972f: 158; Vrydagh 1947a: 8. (tx) Schedl 1933f: 201–202, 1937c: 15, 1950d: 5, 1952i: 56, 1962k: 838, 1972f: 158, 1978a: 31.
- forcipatus Schedl** 1955c: 33. Lectotype ♂; Africa Orient. Ital.: Sagan-Omo, Caschei; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 31.
Distribution: Africa (Mozambique/Somalia).
References: (ds) Schedl 1972f: 154. (tx) Numberg 1966a: 186; Schedl 1955c: 33, 1962k: 932, 1972f: 154, 1978a: 31.
- fulgens Schedl** 1951i: 51. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Nigeria/Uganda/Zaire).
Hosts: *Chrysophyllum lacourtiannum*, *Cynometra alexandri*, *Dacryodes yangambiensis*.
References: (ds) Gardner 1957a: 28; Mayne & Donis 1962: 270; Roberts 1968: 181, 1969b: 110; Schedl 1962k: 879, 1972f: 161. (tx) Numberg 1966a: 186; Schedl 1952i: 51, 1957d: 140, 1962k: 879, 1972f: 161, 1978a: 32.
- fuscipilosulus (Schedl)** 1936b: 133 (*Crossotarsus*).
Holotype ♂; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: (ds) Schedl 1972f: 150. (tx) Schedl 1936b: 133, 1937c: 14–15, 1962k: 932, 1972f: 150, 1978a: 32.
- galerus (Schedl)** 1936b: 131 (*Crossotarsus*).
Holotype ♀; Franz. Kongo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Congo/Gabon/Zaire).
Hosts: *Allogogus brunneus*, *Combretum oblongum*.
References: (cc) Schedl 1962k: 779. (ds) Schedl 1962k: 779, 1972f: 154. (tx) Numberg 1966a: 186; Schedl 1936b: 131, 1962k: 779, 1972f: 154, 1978a: 32.
- ghesquieri (Schedl)** 1933f: 198 (*Crossotarsus*).
Lectotype ♂; Wendji, Sankuru, Haut-Uele, Moto; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 32.
Figures: Schedl 1962k: 887, 1972f: 163.
Distribution: Africa (Cameroon/Congo/Ivory Coast/Kenya/Malawi/Nigeria/Zaire).
Hosts: Schedl 1962k: 887–889 (39 host species listed).
Notes: (3) Schedl 1952i: 57 (described female).
References: (ay) Lhoste & Roche 1960. (cc) Jover 1952: 73–81; Schedl 1962k: 886. (hb) Jover 1952: 73–81; Schedl 1962k: 886. (ds) Browne 1972c: 100; Cachan 1957: 6, 15; Gardner 1957a: 28; Mayne & Donis 1960: 96, 1962: 270; Roberts 1968: 191, 1969b: 110; Schedl 1933f: 198, 200, 1962k: 886, 1966c: 231, 1972f: 162. (tx) Numberg 1966a: 186; Powell, W. 1957: 27; Schedl 1933f: 198, 200, 1937d: 35, 1941d: 381, 1950e: 212, 1952i: 57, 1954d: 873, 1955i: 213, 1956a: 35, 1962k: 886–887, 1114, 1972f: 162–163, 1978a: 32.
- glaber Schedl** 1962k: 1114. Holotype ♂; Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (ds) Schedl 1972f: 162. (tx) Schedl 1962k: 1114, 1972f: 162, 1978a: 32.
- gracilior Schedl** 1954d: 883. Lectotype ♂; Cote d'Ivoire, Lagune Ono; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 33.
Distribution: Africa (Ghana/Ivory Coast/Nigeria/Zaire).
Hosts: *Albizia zygia*, *Pentaclethra macrophylla*, *Piptadenia africana*, *Theobroma cacao*.
References: (hb) Roberts 1969b: 110; Thompson, C. H. 1963: 41. (ds) Schedl 1962k: 779, 1972f: 154; Thompson, C. H. 1963: 41. (tx) Numberg 1966a: 186; Schedl 1954d: 873, 883, 1954e: 56, 1962k: 779, 1972f: 154, 1978a: 33.
- guineensis Roberts** 1965: 223. Holotype ♂; Nigeria: Oban; BMNH, London.

- Distribution: Africa (Nigeria).
Hosts: *Strombosia pustulata*.
References: (ds) Roberts 1968: 191; Schedl 1972f: 154. (tx) Roberts 1965: 223; Schedl 1972f: 154.
- hartwegi** Schedl 1979d: 452. Holotype ♂; Kamerun, Oku-See; Alexander Koenig Museum, Bonn.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1979d: 452.
- ibex** Schedl 1941d: 411. Holotype ♂; St. Thome Isle; Schedl Collection in NHMW, Wien.
Figures: Schedl 1962k: 956, 1972f: I61.
Distribution: Africa (Sao Tome Island).
References: (ds) Schedl 1972f: 162. (tx) Numberg 1966a: 187; Schedl 1941d: 411, 1962k: 956, 1972f: 161–162, 1978a: 36.
- incilis** Schedl 1957d: 143. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Nigeria/ Zaire).
Hosts: *Cynometra hankci*.
References: (ds) Roberts 1968: 191; Schedl 1962k: 923, 1972f: 148. (tx) Numberg 1966a: 186; Schedl 1957d: 143, 1962k: 923, 1972f: 148, 1978a: 37.
- insitivus** Schedl 1971e: 15. Holotype ♂; Fernando Poo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Fernando Po Island/ Ivory Coast/ Zaire).
References: (ds) Schedl 1971e: 15, 1972f: 154. (tx) Schedl 1972f: 154, 1978a: 37.
- integratus** Roberts 1964: 409. Holotype ♂; Nigeria; Adaura; BMNH, London.
Distribution: Africa (Nigeria).
Hosts: *Crossandra* sp.
Notes: (3) Schedl 1972f: 151 (treated as a synonym of *ukerweensis*), Beaver & Loytyniemi 1985b: 125 (a good species).
References: (tx) Roberts 1964: 409, 1968: 192; Roberts & Loytyniemi 1985b: 125; Schedl 1972f: 151.
- interjectus** Schedl 1941d: 409. Holotype ♂; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon/ Ghana/ Ivory Coast/ Nigeria/ Sierra Leone/ Uganda/ Zaire).
Hosts: Schedl 1962k: 840 (19 host species listed).
References: (cn) Thompson, G. H. 1960. (ec) Roberts 1969a: 111. (hb) Schedl 1962k: 839; Thompson, G. H. 1963: 41. (ds) Browne 1980b: 381; Cachan 1957: 5, 15; Mayne & Donis 1962: 271; Roberts 1968: 190; Schedl 1961m: 85, 1962h: 62, 1962k: 839, 1964j: 43, 1965e: 355, 1972f: 158; Thompson, G. H. 1960, 1963: 41. (tx) Numberg 1966a: 187; Schedl 1941d: 408–409, 1950e: 215–216, 1954d: 873, 1954e: 56, 1957d: 138, 1961m: 85, 1962h: 62, 1962k: 839, 1115, 1962q: 494, 1972f: 158, 1978a: 37.
- interruptus** (Sampson) 1924c: 124 (*Crossotarsus*).
Holotype ♂; Belgian Congo, Elisabethville (Miss. Agric.); MRCB, Tervuren.
Distribution: Africa (Angola/ Ghana/ Guinea/ Kenya/ Tanzania/ Uganda/ Zaire/ Zambia/ Zimbabwe).
Hosts: *Acacia* sp., *Antiaris* sp., *Baikaca* sp., *Brachyptegia* sp.
Notes: (3) Schedl 1936b: 132 (described female).
References: (bv) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (hb) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (ds) Beaver & Loytyniemi 1985b: 131; Ferreira 1965: 1132; Gardier 1957a: 28; Schedl 1933f: 198–199, 1959p: 23, 1962k: 890, 1972f: 162, 1975h: 351. (tx) Numberg 1966a: 186; Sampson 1924c: 124–126; Schedl 1933f: 198–199, 1936b: 131–133, 1937b: 406–407, 1937d: 35, 1950d: 12, 1952i: 26–27, 1961d: 178–179, 1962k: 890, 1965g: 21, 1972f: 162, 1978a: 38.
- intritus** (Schedl) 1939g: 167 (*Crossotarsus*).
Syn-types ♂ ♀; Insel Ukerewe [Schedl 1979: 38]; Conrad Collection and Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast/ Tanzania/ Uganda/ Zaire).
Hosts: *Cynometra alexandrii*, C. sp., *Parinariium curatellifolium*.
Notes: (1) Schedl 1978a: 38 (citation of holotype invalid).
References: (ds) Schedl 1959q: 706, 1962k: 780, 1972f: 154. (tx) Numberg 1966a: 186; Schedl 1939g: 167, 1953g: 244, 1957d: 132, 1962k: 780, 1972f: 154, 1978a: 38.
- jurioni** Schedl 1952i: 37. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Figures: Schedl 1962k: 933.
Distribution: Africa (Cameroon/ Nigeria/ Zaire).
Hosts: *Allophylbus africanus*, *Alstonia boone*, *Blighia wehwithschii*, *Carapa procera*, *Celtis brieji*, *Drypetes leonensis*, *Guarea cedrata*, *Microcos pinatifida*, *Microdesmis puberula*, *Pancovia harmsiana*, *P. laurentii*, *Pterygota bequaertii*.
Notes: (3) Schedl 1957: 139 (described female).
References: (ec) Schedl 1962k: 932. (hb) Schedl 1962k: 932. (ds) Mayne & Donis 1960: 96, 1962: 271; Roberts 1968: 192, 1969b: 111; Schedl 1962k: 932, 1972f: 160. (tx) Numberg 1966a: 186; Schedl 1952i: 37, 1953g: 244, 1957d: 139, 1962k: 932–933, 1964j: 48, 1972f: 160, 1978a: 39.
- kakaoensis** Schedl 1941d: 408. Holotype ♂; Kamerun, Victoria Co.; Schedl Collection in NHMW, Wien [data not given in original publication, added in Schedl 1978a: 39].
Distribution: Africa (Cameroon/ Ghana/ Zaire).
Hosts: Kakao [presumably *Theobroma cacao*].
References: (ds) Schedl 1972e: 255, 1972f: 158. (tx) Numberg 1966a: 187; Schedl 1941d: 408, 1962k: 843, 1972f: 158, 1978a: 39.

- karii** Beaver in Beaver & Loyttniemi 1955b: 127. Holotype ♂; Zambia: Chati, Kitwe; BMNH, London.
 Figures: Beaver & Loyttniemi 1955b: 127.
 Distribution: Africa (Zambia).
 References: (bv) Loyttniemi, Beaver, & Loyttniemi 1955: 25. (hb) Loyttniemi, Beaver, & Loyttniemi 1955: 25. (tx) Beaver & Loyttniemi 1955b: 127.
- lateralis** Schedl 1952i: 35. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
 Figures: Schedl 1962k: 752, 1972f: 152.
 Distribution: Africa (Nigeria/ Togo/ Zaire).
 Hosts: *Anonidium mannii*, *Guarea laurentii*, *Macaranga* sp., *Mammea africana*, *Ongokea gore*, *Pterygota bequaertii*, *Scorodophloeus zenkeri*. Schedl 1962k: 781–782 (23 host species listed).
 References: (cc) Schedl 1962k: 781. (hb) Schedl 1962k: 781. (ds) Mayne & Donis 1960: 96, 1962: 271; Roberts 1965: 190, 1969b: 111; Schedl 1962k: 781, 1972f: 154. (tx) Numberg 1966a: 186; Schedl 1952i: 35, 1957d: 141, 1962k: 781–782, 1972f: 152, 154, 1978a: 40.
- lebrunii** Schedl 1952i: 40. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
 Figures: Schedl 1962k: 845.
 Distribution: Africa (Nigeria/ Sierra Leone/ Zaire).
 Hosts: Schedl 1962k: 844–847 (48 host species listed).
 References: (cc) Schedl 1962k: 844. (hb) Schedl 1962k: 844. (ds) Mayne & Donis 1960: 271; Roberts 1965: 190, 1969b: 11; Schedl 1962k: 844, 1972f: 158. (tx) Numberg 1966a: 187; Schedl 1952i: 40–44, 1962k: 844–845, 1972f: 158, 1978a: 40.
- lecomtei** Schedl 1957d: 134. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
 Distribution: Africa (Fernando Po Island/ Nigeria/ Zaire).
 Hosts: *Angylocalyx pynaertii*, *Guarea laurentii*, *Strombosia grandiflora*.
 References: (cc) Schedl 1962k: 935, 1972c: 60. (hb) Schedl 1962k: 935. (ds) Roberts 1968: 192, 1969b: 111; Schedl 1962k: 935, 1971g: 195, 1972f: 150. (tx) Numberg 1966a: 187–194; Schedl 1957d: 134, 1962k: 935, 1972f: 150, 1978a: 40.
- lefevrei** Schedl 1952i: 53. Holotype ♂; Congo Belge: Kivu, Mulungi; MRCB, Tervuren.
 Figures: Mayne & Donis 1962: 272, Schedl 1962k: 785–786, 1972f: 152.
 Distribution: Africa (Nigeria/ Zaire).
 Hosts: Schedl 1962k: 786–788 (53 host species listed).
 References: (hb) Schedl 1962k: 785. (ds) Mayne & Donis 1960: 96, 1962: 272; Roberts 1968: 190, 1969b: 111–112; Schedl 1962k: 785, 1972f: 154. (tx) Mayne & Donis 1962: 272; Numberg 1966a: 186; Schedl 1952i: 53, 1962k: 785–786, 1972f: 152, 154, 1978a: 40.
- lobatus** (Schedl) 1936b: 128 (*Crossotarsus*). Syn-types ♂♀; Ostafrika: Schedl Collection in NHMW, Wien.
 Distribution: Africa (Kenya/ Tanzania/ Zaire/ Zambia).
 Hosts: *Acacia lahai*, *A.* spp.
 Notes: (1) Schedl 1978a: 41 (citation of holotype invalid).
 References: (ds) Beaver & Loyttniemi 1955b: 128; Schedl 1938d: 451, 1962k: 789, 1966c: 232, 1971e: 5, 1972f: 155. (tx) Numberg 1966a: 186; Schedl 1936b: 128–129, 1938d: 451, 1939g: 167, 1962k: 789, 1972f: 155, 1978a: 41.
- malkini** Schedl 1956a: 34. Holotype ♂; Nigeria, Ogbomosh; CAS, San Francisco.
 Distribution: Africa (Ghana/ Ivory Coast/ Nigeria/ Sierra Leone).
 Hosts: *Cassia* sp., *Sterculia rhinopetala*.
 Notes: (3) Schedl 1962k: 1115 (described female).
 References: (hb) Browne 1963a: 261. (ds) Browne 1963a: 261; Roberts 1968: 190, 1969b: 112; Schedl 1962h: 62, 1962k: 789, 1964j: 43, 1972e: 255, 1972f: 155. (tx) Numberg 1966a: 186; Schedl 1956a: 34, 1962h: 72, 1962k: 789, 1115, 1972f: 155, 1978a: 42.
- maynei** Schedl 1952i: 45. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
 Figures: Schedl 1962k: 881.
 Distribution: Africa (Zaire).
 Hosts: *Chrysophyllum pruniferum*, *Erythrophleum guineense*, *Pterocarpus soyauxii*, *Scorodophloeus zenkeri*, *Strombosia grandifolia*, *S. scheffleri*.
 References: (ds) Mayne & Donis 1960: 96, 1963: 272; Schedl 1962k: 880, 1972f: 162. (tx) Numberg 1966a: 186; Schedl 1952i: 45, 1957d: 140, 1962k: 880–881, 1972f: 162, 1978a: 43.
- medius** Schedl 1952i: 28. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
 Figures: Schedl 1962k: 923, 1972f: 147.
 Distribution: Africa (Angola/ Cameroon/ Congo/ Gabon/ Ghana/ Kenya/ Nigeria/ Sierra Leone/ Zaire/ Zambia/ Zimbabwe).
 Hosts: Schedl 1962k: 913–916 (60 host species listed).
 Notes: (1) Originally named as a subspecies of *rapax*. (3) Schedl 1972f: 147 (treated as a subspecies of *brevis*), Browne 1972c: 125 (a good species).
 References: (ds) Ferreira 1965: 1131; Mayne & Davis 1960: 96–97, 1962: 275; Roberts 1968: 191, 1969b: 107; Schedl 1959p: 22, 1962k: 913–918, 1964f: 619, 1965e: 358, 1967e: 221, 1969a: 205, 1972e: 255; Thompson, C. H. 1963: 43. (tx) Browne 1972c: 125; Schedl 1952i: 28–30, 1952j: 7, 1954e: 57–69, 1957d: 142–143, 1962h: 61, 1962k: 913–918, 1110, 1972f: 147, 1978a: 61.
- megatoma** Schedl 1952i: 31. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.

Distribution: Africa (Cameroon/ Nigeria/ Uganda/ Zaire).

Hosts: Schedl 1962k: 924–925 (31 host species listed).

References: (cc) Schedl 1962k: 923. (ds) Mayne & Donis 1960: 96, 1962: 273; Roberts 1968: 191, 1969b: 187; Schedl 1962k: 923, 1972f: 148. (tx) Numberg 1966a: 187; Schedl 1952i: 31, 1957d: 143, 1962k: 923, 1972f: 148–149, 1978a: 43.

megatoma vexator Schedl 1957d: 144. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. Notes: (3) Schedl 1978a: 43 (treated as a subspecies of *megatoma*).

References: (ds) Mayne & Donis 1962: 273; Roberts 1968: 191, 1969b: 115. (tx) Schedl 1957d: 143–144, 1962k: 925, 1119, 1972f: 148, 1978a: 43.

minimus (Schedl) 1933f: 198 (*Crossotarsus*). Lectotype ♂; Katanga: Mulando; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 43. Figures: Browne 1972c: 119.

Distribution: Africa (Angola/ Cameroon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Malawi/ Mozambique/ Nigeria/ Sierra Leone/ South Africa/ Tanzania/ Zaire/ Zambia/ Zimbabwe).

Hosts: *Albizzia* spp., *Brachystegia* spp., *Bussea occidentalis*, *Celtis* spp., *Entandrophragma utile*, *Pterygota macrocarpa*, *Triplochiton scleroxylon*.

References: (bv) Loyttyniemi, Beaver, & Loyttyniemi 1985: 28. (hb) Jones, Roberts, & Baker 1959: 13–53; Loyttyniemi, Beaver, & Loyttyniemi 1985: 28. (ds) Browne 1972c: 119; Ferreira 1965: 1132; Gardner 1957a: 28; Schedl 1933f: 198, 1938d: 451, 1962k: 891, 1972f: 162; Tordo 1957: 10. (tx) Browne 1972c: 119; Numberg 1966a: 186, 197; Powell, W. 1987: 27; Schedl 1933f: 198–199, 1936b: 127, 1941e: 154, 1950d: 4, 12, 1952g: 54, 1952i: 48, 1953g: 244, 1957b: 152–153, 1962k: 891, 1965c: 52, 1972f: 162, 1978a: 43, 77.

unispinosus Schedl 1936: 127 (*Crossotarsus*).

Holotype ♂; Guinea; Schedl Collection in NHMW, Wien. Synonymy: Browne 1972c: 119, Schedl 1978a: 77.

Notes: (3) Schedl 1954e: 84 (described female).

References: (cc) Roberts 1969b: 115. (hb) Browne 1962: 94, 1963a: 263, 1968: 249; Roberts 1961c: 37; Thompson, G. H. 1963: 43. (ds) Browne 1961: 39–43, 1963a: 263, 1972c: 119, 1968: 249; Cola 1971; Ferreira 1965: 1133; Roberts 1968: 191, 1969b: 115; Schedl 1959p: 23, 1962h: 63, 1962k: 895, 1972e: 285, 1972f: 162, 1975b: 351, 1982: 279; Thompson, G. H. 1963: 43. (tx) Browne 1972c: 119; Numberg 1959: 167, 1966a: 186; Schedl 1936b: 126–127, 1937b: 406, 1954e: 57, 84, 1955d: 270, 1960h: 111, 1962k: 895, 1119, 1972f: 162, 1978a: 77.

unispinosus Schedl 1937b: 406. Lectotype ♂; N.

Rhodesia, N'Changa; Schedl Collection in NHMW, designated by Schedl 1978a: 77. Synonymy: Schedl 1972f: 162.

Notes: (3) This synonym resulted from inadvertent double naming by Schedl.

References: (tx) Schedl 1937b: 406, 1972f: 162, 1978a: 77.

minimus Schedl 1957d: 131. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Numberg 1966b: 197.

Distribution: Africa (Nigeria/ Zaire).

Hosts: *Dialium corbisieri*, *Terminalia superba*.

References: (ds) Roberts 1969b: 112; Schedl 1962k: 790, 1972f: 155. (tx) Numberg 1966b: 186, 197; Schedl 1957d: 131, 1962k: 790, 1972f: 155, 1978a: 43.

minor Schedl 1952i: 28. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.

Distribution: Africa (Nigeria/ Zaire).

Hosts: Schedl 1962k: 919–920 (25 host species listed).

Notes: (1) Originally named as a subspecies of *rapax*. (3) Schedl 1972f: 147 (treated as a subspecies of *brevis*), Browne 1972c: 125 (a good species).

References: (ds) Browne 1980c: 486; Roberts 1968: 191. (tx) Browne 1972c: 125; Schedl 1952i: 28–30, 1957d: 142–143, 1962k: 919, 1972f: 147, 1972g: 83.

minutissimus (Schedl) 1935g: 316 (*Crossotarsus*). Holotype ♂; Kamerun; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon/ Equatorial Guinea/ Ghana/ Guinea/ Sierra Leone/ Tanzania/ Zaire).

Hosts: *Celtis mildbraedii*, *Guarea thompsonii*, *Occhiocosmus africanus*.

Notes: (3) Roberts 1970b: 478 (described female). References: (ds) Browne 1980b: 382; Schedl 1962h: 62, 1962k: 937, 1971f: 195, 1972f: 150, 1975h: 352. (tx) Numberg 1966a: 187; Roberts 1970b: 478; Schedl 1935g: 316, 1957d: 136, 1962k: 936–937, 1972f: 150, 1978a: 44.

mitratus Nunberg 1966a: 192. Holotype ♀; Congo: Elisabethville; MRCB, Tervuren.

Figures: Nunberg 1966a: pl. 2, figs. 4–6.

Distribution: Africa (Zaire).

References: (tx) Nunberg 1966a: 192.

modestus Beaver in Beaver & Loyttyniemi 1985: 123. Holotype ♂; Zambia: Chati, Kitwe; BMNH, London.

Distribution: Africa (Zambia).

References: (bv) Loyttyniemi, Beaver, & Loyttyniemi 1985: 28. (hb) Loyttyniemi, Beaver, & Loyttyniemi 1985: 28. (tx) Beaver & Loyttyniemi 1985: 123.

- montanus Roberts** 1966b: 626. Holotype ♂; Nigeria: Gyele Nyaki (Mambilla Plateau), Sardauna Prov.; BMNH, London.
Distribution: Africa (Nigeria).
References: (ds) Browne 1980b: 382; Roberts 1966b: 626. 1968: 192; Schedl 1972f: 150. (tx) Schedl 1972f: 150.
- multipunctus Roberts** 1964: 405. Holotype ♂; Nigeria: Idanre; BMNH, London.
Distribution: Africa (Nigeria).
References: (ds) Roberts 1968: 190; Schedl 1972f: 155. (tx) Roberts 1964: 405; Schedl 1972f: 155.
- nairobiensis (Schedl)** 1937c: 15 (*Crossotarsus*). Lectotype ♂; British East Africa: Nairobi; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 45.
Distribution: Africa (Ghana/ Kenya/ Tanzania).
Hosts: *Antiaris africana*, *Baphia nitida*, *Cassipourea* sp., *Cordia* sp., *Dombeya* sp., *Ekebergia ruppeliana*, *Eutaenidophragma cylindricum*, *Eucalyptus* sp., *Mansonia altissima*, *Polyscias* sp., *Turracanthus vignei*, *Warburgia ugandensis*.
References: (cn) Anonymous 1953j: 25; Curry 1958b: 128–132; Thompson, G. H. 1960. (cc) Anonymous 1953j: 25; Jover 1952: 73–81. (hb) Jones, Roberts, & Baker 1959: 13, 21; Jover 1952: 73–81; Thompson, G. H. 1963: 42; Webb & Jones 1957: 25–40. (ds) Gardner 1957a: 29; Schedl 1962k: 847, 1972f: 158; Thompson, G. H. 1960, 1963: 42. (tx) Numberg 1966a: 187; Powell, W. 1987: 27; Schedl 1937c: 15, 1941d: 409, 1950e: 212, 215, 1952j: 6, 1954d: 873, 1954e: 56, 1957d: 138, 1962k: 847, 1972f: 158, 1978a: 45.
- nanus (Schedl)** 1937d: 37 (*Crossotarsus*). Syntypes ♀; Kamerun; MNB, Berlin, Hamburg Museum, lost, Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon/ Tanzania/ Togo).
Notes: (1) Schedl 1978a: 46 (type restricted to MNB, Berlin specimens). (3) Schedl 1972f: 147 (treated as a subspecies of *brevis*).
References: (tx) Numberg 1966a: 187; Schedl 1937d: 37, 1941d: 409, 1952j: 6, 1954e: 48, 1957d: 118, 142, 144, 1962k: 922, 1972f: 147.
- neoconjunctus Schedl** 1962k: 1115. Holotype ♂; Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (ds) Schedl 1972f: 162. (tx) Schedl 1962k: 1115, 1972f: 162, 1978a: 46.
- nigeriensis Roberts** 1971a: 283. Holotype ♂; Nigeria: Boshi Extension Forest Reserve, Obudu Plateau, 5000 feet; BMNH, London.
Distribution: Africa (Nigeria).
Hosts: *Garcinia guetoides*.
References: (tx) Roberts 1971a: 283.
- nitens Browne** 1970: 581. Holotype ♂; Tanzania: Lushoto, Shume Forest Reserve; BMNH, London.
Distribution: Africa (Tanzania).
Hosts: *Albizia maranguensis*.
References: (ds) Schedl 1972f: 158. (tx) Browne 1970: 581; Schedl 1972f: 158.
- nitidulus Schedl** 1957d: 141. Holotype ♂; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.
Distribution: Africa (Sierra Leone/ Zaire).
Hosts: *Bussa occidentalis*, *Carapa grandiflora*.
Notes: (3) Schedl 1971e: 15 (described female).
References: (ds) Schedl 1962k: 790, 1971e: 4, 1972f: 155. (tx) Numberg 1966a: 186; Schedl 1957d: 141, 1962k: 790, 1971e: 15, 1972f: 155, 1978a: 47.
- leoneusis Roberts** 1970b: 477. Holotype ♂; Sierra Leone: Gola West Forest Reserve; BMNH, London. Synonymy: Schedl 1972f: 155.
References: (tx) Roberts 1970b: 477; Schedl 1972f: 155.
- notatus Schedl** 1962k: 872. Holotype ♂; Gold Coast: MRCB, Tervuren.
Distribution: Africa (Ghana/ Nigeria/ Uganda/ Zaire).
Hosts: *Cynometra alexandri*, *Hymenocardia ulmoides*, *Pentaclethra macrophylla*, *Scorodophloeus zenkeri*, *Triplochiton scleroxylon*.
Notes: (1) Schedl 1978a: 48 (citation of holotype invalid). (3) Browne 1980e: 779 (described female).
References: (hb) Thompson, G. H. 1963: 42. (ds) Gardner 1957a: 29; Roberts 1968: 191; Schedl 1972f: 160; Thompson, G. H. 1963: 42. (tx) Browne 1980e: 779; Numberg 1966a: 188; Schedl 1950d: 35, 1952i: 59, 1954e: 56, 1962k: 872, 1972f: 160, 1978a: 48.
- obauensis Roberts** 1964: 407. Holotype ♂; Nigeria: Obau; BMNH, London.
Distribution: Africa (Congo/ Nigeria).
References: (ds) Browne 1972c: 100; Roberts 1968: 190; Schedl 1972f: 155. (tx) Roberts 1964: 407; Schedl 1972f: 155.
- obuduensis Roberts** 1966b: 623. Holotype ♂; Nigeria: Obudu Cattle Ranch; BMNH, London.
Distribution: Africa (Nigeria).
Hosts: *Scottellia coriacea*, *Trichilia* sp.
Notes: (3) Schedl 1972f: 151 (treated as a subspecies of *strombosiopsis*).
References: (ds) Roberts 1966b: 623, 1968: 192; Schedl 1972f: 151. (tx) Roberts 1966b: 623; Schedl 1972f: 151.
- occalleseus Schedl** 1957d: 134. Holotype ♂; Ruanda: Hembe; MRCB, Tervuren.
Distribution: Africa (Ruanda/ Zaire).
Hosts: *Drypetes ituriensis*, *Syzygium parvifolium*.
References: (ds) Mayne & Donis 1962: 273; Schedl 1962k: 849, 1972f: 158. (tx) Numberg 1966a: 187; Schedl 1957d: 134, 1962k: 849, 1972f: 158, 1978a: 49.

octodentatus Brown 1980e: 778. Holotype ♂; Zaire: Kisangani; MRCB, Tervuren. Distribution: Africa (Zaire). References: (tx) Brown 1980e: 778.

omissus Schedl 1957: 133. Holotype ♂; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Figures: Schedl 1962k: 874, 1972f: 159. Distribution: Africa (Zaire). Hosts: *Radlkofera* sp.

Notes: (3) Schedl 1962k: 1116 (described female). References: (ds) Schedl 1962k: 873, 1972f: 160. (tx) Numberg 1966a: 186; Schedl 1957d: 133, 1962k: 873–874, 1116, 1972f: 159–160, 1978a: 49.

opifex (Sampson) 1922a: 139 (*Crossotarsus*). Holotype ♂; Portuguese East Africa: Xinavane; BMNH, London.

Distribution: Africa (Equatorial Guinea/ Ghana/ Kenya/ Malawi/ Mozambique/ Nigeria/ Senegal/ Sierra Leone/ Sudan/ Tanzania/ Uganda/ Zaire/ Zambia/ Zimbabwe), Madagascar.

Hosts: *Acacia lahai*, *Azacia africana*, *Albizzia zygia*, *Antiaris africana*, *Bussea occidentalis*, *Hymenostegia afzelii*, *Panda oleosa*, *Piptadeniastrum africanum*, *Triplochiton scleroxylon*.

References: (bv) Loyttyneimi, Beaver, & Loyttyneimi 1955: 28. (hb) Brown 1963a: 261; Jones, Roberts, & Baker 1959: 13–53; Loyttyneimi, Beaver, & Loyttyneimi 1955: 28; Roberts 1969: 112; Thompson, G. H. 1963: 42; Webb & Jones 1957: 37, 40. (ds) Beaver & Loyttyneimi 1955b: 128; Brown 1963a: 261, 1972c: 100; Gardner 1957a: 29; Mayne & Donis 1962: 273; Schedl 1933f: 197–198, 1938d: 451, 1962k: 791, 1965c: 52, 1965e: 359, 1968b: 145, 1971f: 150, 1971g: 195, 1972f: 155; Thompson, G. H. 1963: 42. (tx) Numberg 1966a: 186; Powell, W. 1987: 27; Sampson 1922a: 137–139, 1924c: 126; Schedl 1933f: 197–198, 1935g: 319, 1936b: 128, 1939g: 167–168, 1950d: 11, 1952g: 54, 1953g: 244, 246, 1954d: 883, 1954e: 56, 1957d: 131, 1962k: 791, 1117, 1972f: 155.

opulentus Schedl 1952i: 59. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. Distribution: Africa (Zaire).

Hosts: *Dacryodes yangambiensis*, *Pterocarpus soyauxii*.

References: (ds) Mayne & Donis 1962: 273; Schedl 1962k: 874, 1972f: 160. (tx) Numberg 1966a: 187; Schedl 1952i: 59, 1962k: 874, 1972f: 160, 1978a: 50.

oraclatus Roberts 1964: 403. Holotype ♂; Nigeria: Idanre; BMNH, London.

Distribution: Africa (Nigeria).

Hosts: *Ficus* sp.

References: (ds) Roberts 1968: 191; Schedl 1972f: 148. (tx) Roberts 1964; Schedl 1972f: 148.

perbrevis Schedl 1952i: 30. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Schedl 1962k: 899.

Distribution: Africa (Congo/ Ghana/ Ivory Coast/ Kenya/ Malawi/ Nigeria/ Sierra Leone/ Uganda/ Zaire).

Hosts: *Azacia africana*, *Albizzia zygia*, *Blighia sapida*, *Celtis* spp., *Croton* sp., *Cynometra* sp., *Ficus exasperata*, *Khaya* spp., *Lonchocarpus sericeus*, *Mildbraediendron excelsum*, *Tetrapleura tetraptera*, *Trema guineensis*, *Vernonia conferta*. Schedl 1962k: 901–903 (29 host species listed).

Notes: (3) Schedl 1957d: 142 and 1972f: 146 (treated as a subspecies of *brevis*), Brown 1972c: 147 (a good species).

References: (av) Entwistle 1963b. (bv) Entwistle 1963b. (cn) Thompson, G. H. 1960. (hb) Entwistle 1963b. (ds) Brown 1980a: 373; Cachan 1957: 15; Gardner 1957a: 29; Lee 1971: 29; Mayne & Donis 1960: 96, 1962: 274; Roberts 1968: 191, 1969b: 107; Schedl 1959q: 706, 1975h: 351; Thompson, G. H. 1960. (tx) Brown 1972c: 123; Powell, W. 1987: 27; Schedl 1952i: 30–31, 1954e: 85, 1955i: 213, 1957d: 142–143, 1959q: 706, 1962h: 61, 1962k: 899, 1972f: 146–147, 1978a: 52.

perbrevis solidus Schedl 1954e: 85. Lectotype ♂; Gold Coast: Koforidua; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 53. Synonymy: Brown 1972c: 123.

Notes: (3) Schedl 1972f: 148 (treated as a subspecies of *brevis*).

References: (hb) Jones, Roberts, & Baker 1959: 13–51; Thompson, G. H. 1963: 42; Webb & Jones 1957: 35–40. (ds) Roberts 1968: 191, 1969b: 107; Thompson, G. H. 1963: 42. (tx) Brown 1972c: 123; Schedl 1954e: 56, 85, 1957d: 142–143, 1962h: 62, 1962k: 900, 1110, 1972f: 148, 1978a: 53.

perminutissimus (Schedl) 1936b: 130 (*Crossotarsus*). Lectotype ♀; Kamerun and Spanish Guinea; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 53.

Distribution: Africa (Cameroon/ Equatorial Guinea/ Ghana/ Nigeria/ Sierra Leone).

Hosts: *Albizzia zygia*, *Cassia siamea*, *Parkia* sp., *Piptadenia africana*, *Piptadeniastrum africanum*.

Notes: (1) Schedl 1972f: 155 (to *Doliopygus*). (3) Schedl 1954e: 65 (described female), 1954e: 85 (described male).

References: (hb) Thompson, G. H. 1963: 42. (ds) Roberts 1968: 190, 1969b: 133; Schedl 1962k: 792, 1966a: 276, 1972f: 155; Thompson, G. H. 1963: 42. (tx) Numberg 1966a: 186; Schedl 1936b: 130, 1954e: 57, 65, 85, 1957d: 131, 1962k: 792, 1117, 1972f: 155, 1978a: 53.

praeclarus (Schedl) 1933f: 199 (*Crossotarsus*). Lectotype ♂; Katanga: Lubombo, Elisabethville, Dunga; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 56.

Distribution: Africa (Angola/ Cameroon/ Ivory

- Coast/ Mozambique/ Nigeria/ Tanzania/ Zaire/ Zambia/ Zimbabwe).
Notes: (3) Schedl 1936b: 130 and 1941d: 407 (described female).
References: (**bv**) Loyttyneimi, Beaver, & Loyttyneimi 1955: 28. (**hb**) Loyttyneimi, Beaver, & Loyttyneimi 1955: 28. (**ds**) Beaver & Loyttyneimi 1955b: 130; Ferreira 1965: 1132; Roberts 1968: 191, 1969b: 113; Schedl 1933f: 199, 1935d: 451, 1959p: 23, 1962h: 62, 1962k: 882, 1965g: 22, 1966c: 232, 1972f: 162, 1979b: 417. (**tx**) Numberg 1966a: 186; Schedl 1933f: 199, 1934a: 247, 1936b: 130, 1937b: 407, 1937d: 35, 1941d: 407, 1941e: 153, 1952g: 55, 1962h: 62, 1962k: 882, 1117, 1972f: 162, 1978a: 56.
- praemorsus (Dalman)** 1823: 82 (*Platypus*). Holotype ♂; Sierra Leona; Schoenherr Collection.
Distribution: Africa (Sierra Leone).
References: (**ds**) Schedl 1972f: 155. (**tx**) Dalman 1823: 82; Schedl 1972f: 155.
- prolongatus Schedl** 1962k: 1117. Holotype ♂; Senegal; Schedl Collection in NHMW, Wien.
Distribution: Africa (Senegal).
References: (**ds**) Schedl 1972f: 155. (**tx**) Schedl 1962k: 1117, 1972f: 155, 1978a: 57.
- propinquus Schedl** 1954e: 83. Lectotype ♂; Mpraeso; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ghana/ Guinea/ Ivory Coast/ Nigeria/ Sierra Leone/ Zaire).
Hosts: *Albizia* spp., *Celtis mildbraedii*, *Cola* sp., *Entandrophragma utile*, *Hymenostegia afzchia*, *Mammea africana*, *Pentaclethra macrophylla*, *Piptadenia africana*, *Piptadeniastrum africanum*, *Strombosia glaucescens*.
References: (**cn**) Anonymous 1953j: 25. (**cc**) Anonymous 1953j: 25. (**hb**) Browne 1963a: 261; Jones, Roberts, & Baker 1959: 13, 44–53; Thompson, G. H. 1963: 42; Webb & Jones 1957: 25–41. (**ds**) Browne 1963a: 261; Roberts 1968: 190; Schedl 1962h: 62, 1962k: 793, 1965e: 359, 1966a: 276, 1972f: 155; Thompson, G. H. 1963: 42. (**tx**) Numberg 1966a: 186; Schedl 1954e: 57, 83, 1962k: 793, 1972f: 155, 1978a: 57.
- proxilus Schedl** 1965e: 378. Holotype ♂; Nig. (vermutlich Nigerien); Schedl Collection in NHMW, Wien.
Distribution: Africa (Nigeria).
References: (**ds**) Schedl 1972f: 148. (**tx**) Schedl 1965e: 378, 1972f: 148, 1978a: 57.
- proximus Schedl** 1957d: 137. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Cameroon/ Fernando Po Island/ Ghana/ Nigeria/ Zaire/ Zambia/ Zimbabwe).
Hosts: *Bussia occidentalis*, *Guarea laurentii*, *Strombosia grandifolia*, *S. scheffleri*.
Notes: (1) Originally named as a subspecies of *ukereveensis*. Beaver & Loyttyneimi 1955: 124 (raised to species rank).
References: (**bv**) Loyttyneimi, Beaver, & Loyttyneimi 1955: 28. (**hb**) Beaver & Loyttyneimi 1955b: 124; Loyttyneimi 1955: 28. (**ds**) Beaver & Loyttyneimi 1955b: 124; Mayne & Donis 1967: 278; Roberts 1968: 192; Schedl 1962h: 62, 1962k: 944, 1964f: 619, 1972e: 285, 1972f: 151. (**tx**) Beaver & Loyttyneimi 1955b: 124; Schedl 1957d: 137, 1962h: 62, 1962k: 944, 1972f: 151, 1978a: 77.
- pseudoserratus Roberts** 1966b: 627. Holotype ♂; Nigeria; Akure; BMNH, London.
Distribution: Africa (Nigeria).
Hosts: *Cola gigantea*, *Oxytigma manni*, *Pterocarpus mildbraedii*, *Sterculia rhinopetal*.
References: (**ds**) Browne 1980c: 485; Roberts 1968: 190; Schedl 1972f: 155. (**tx**) Roberts 1966b: 627; Schedl 1972f: 155.
- punctiventris Schedl** 1952i: 52. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Cameroon/ Ghana/ Nigeria/ Sierra Leone/ Zaire).
Hosts: Schedl 1962k: 850 (11 host species listed). *Alstonia congensis*, *Klainedoxa gabonensis*, *Scorodophloeus zenkeri*.
References: (**cc**) Schedl 1962k: 849. (**hb**) Schedl 1962k: 849; Thompson, G. H. 1963: 42. (**ds**) Mayne & Donis 1960: 96, 1962: 274; Roberts 1968: 190, 1969b: 113; Schedl 1962h: 62, 1962k: 849, 1964f: 619, 1964j: 43, 1965e: 359, 1972f: 158; Thompson, G. H. 1963: 42. (**tx**) Numberg 1966a: 187; Schedl 1952i: 52, 1954e: 57, 1962k: 849, 1972f: 158, 1978a: 59.
- pygmaeolus Schedl** 1957d: 137. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Combretum oblongum*, *Julbernardia secreti*.
References: (**ds**) Schedl 1962k: 937, 1972f: 150. (**tx**) Schedl 1957d: 137, 1962k: 937, 1966a: 187, 1972f: 150, 1978a: 59.
- rapax (Sampson)** 1924c: 127. Holotype ♂; S. Rhodesia; BMNH, London.
Distribution: Africa (Angola/ Cameroon/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Sierra Leone/ Uganda/ Zaire/ Zimbabwe).
Hosts: Schedl 1962k: 909–911 (56 host species listed).
Notes: (3) Schedl 1952i: 27 (described female), 1972f: 148 (treated as a subspecies of *brevis*).
References: (**bv**) Loyttyneimi, Beaver, & Loyttyneimi 1955: 28. (**cc**) Jover 1952: 73–81; Schedl 1962k: 907–912, 1972c: 69. (**hb**) Beaver & Loyttyneimi 1955b: 121; Jover 1952: 73–81; Loyttyneimi, Beaver, & Loyttyneimi 1955: 28. (**ds**) Beaver & Loyttyneimi 1955b: 121; Cachan 1957: 6, 15; Cola 1971; Gardner 1957a: 29; Mayne & Donis 1960: 96–97, 1962: 267; Numberg 1966a: 187; Roberts 1968: 191; Schedl 1937d: 37, 1938d: 451; Thompson, G. H. 1960. (**tx**) Browne 1972c: 123; Mayne & Donis 1960: 96, 1962: 274; Numberg 1966a: 187; Sampson 1924c: 127–128;

- Schedl 1937d: 37, 1941d: 381, 1950d: 5, 1951f: 40, 1952i: 27–31, 1952j: 6–7, 1954d: 873, 1957d: 123, 142–143; 1962k: 907, 1972f: 148, 1978a: 61. *perbrevis brevisculus* Schedl 1952i: 31. Holotype ♂; Congo Belge: Yangambi; Schedl Collection in NHMW, Wien. Synonymy: Browne 1972c: 123.
- Notes: (3) Schedl 1972f: 147 (treated as a subspecies of *brevis*).
- References: (hb) Thompson, C. H. 1963: 42. (ds) Ferreira 1965: 1131; Mayne & Donis 1960: 96, 1962: 274; Thompson, C. H. 1963: 42. (tx) Browne 1972c: 123; Schedl 1952i: 31, 1954e: 56–69, 1957d: 142–143, 1959p: 22, 1962k: 905, 1972f: 147, 1978a: 53.
- brevis interstitialis* Schedl 1957d: 143. Syntype ♂; Congo Belge, Camp Putnam [Schedl 1978a: 17]; Schedl Collection in NHMW, Wien. Synonymy: Browne 1972c: 123.
- Notes: (1) Schedl 1978a: 17 (citation of holotype invalid).
- References: (ec) Schedl 1962k: 912. (hb) Schedl 1962k: 912. (ds) Mayne & Donis 1962: 267; Roberts 1968: 191; Schedl 1962k: 912, 1972f: 147. (tx) Browne 1972c: 123; Schedl 1957d: 143, 1962k: 912, 1972f: 147, 1978a: 17.
- regularis** Schedl 1941d: 406. Holotype ♂; Isle Principe, Rocafif. Henrique; Schedl Collection in NHMW, Wien.
- Distribution: Africa (Principe Island in Gulf of Guinea).
- References: (ds) Schedl 1972f: 155. (tx) Numberg 1966a: 186; Schedl 1936e: 51, 1941d: 406, 1962k: 794, 1972f: 155, 1978a: 62.
- retusus** Schedl 1957d: 131. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
- Distribution: Africa (Angola/ Equatorial Guinea/ Ghana/ Nigeria/ Ruanda/ Sierra Leone/ Zaïre).
- Hosts: *Barteria nigritiana*, *Bussea occidentalis*, *Celtis adolphofrederici*, *Chrysophyllum* sp., *Combretodendron africanum*, *C. macrophyllum*, *Macaranga* sp., *Maesopsis emini*, *Oxystigma oxyphyllum*, *Paramacrolobium coerulescens*.
- References: (ec) Schedl 1962k: 795. (hb) Browne 1963a: 261; Schedl 1962k: 795. (ds) Browne 1962d: 93, 1963a: 261; Ferreira 1965: 1132; Mayne & Donis 1962: 275; Roberts 1968: 190, 1969b: 113; Schedl 1959p: 23, 1962h: 62, 1962k: 795, 1965e: 359, 1971g: 195, 1972e: 285, 1972f: 155. (tx) Numberg 1966a: 186; Schedl 1957d: 131, 1962k: 795, 1118, 1972f: 155, 1978a: 62.
- rhodesianus** (Schedl) 1937c: 178 (*Crossotarsus*). Syntypes ♀; Rhodesia: Salisbury; BMNH, London.
- Distribution: Africa (Cameroon/ Fernando Po Island/ Ghana/ Nigeria/ Tanzania/ Uganda/ Zaïre/ Zambia).
- Hosts: Schedl 1962k: 941–942 (20 host species listed).
- Notes: (1) Schedl 1978a: 62 (type restricted to BMNH specimens). (3) Schedl 1972f: 151 (treated as a subspecies of the junior name *ukereveensis*), Beaver et al. 1985: 125 (corrected name priority). References: (ds) Gardner 1957: 29. (tx) Schedl 1937c: 14–15, 1957b: 158, 1962k: 945, 1972f: 151, 1978a: 62.
- ukereveensis* Schedl 1939g: 168 (*Crossotarsus*). Syntypes ♂ ♀; Insel Ukerewe [Uganda] [Schedl 1978a: 77]; Conrad Collection, and Schedl Collection in NHMW, Wien. Synonymy: Beaver & Loytyniemi 1955: 124.
- Notes: (1) Schedl 1978a: 77 (citation of holotype invalid).
- References: (ec) Schedl 1962k: 940. (hb) Browne 1963a: 263; Schedl 1962k: 940. (ds) Browne 1963a: 263; Gardner 1957a; Mayne & Donis 1960: 95, 1962: 277; Schedl 1962k: 940, 1971g: 195, 1972f: 151. (tx) Numberg 1966a: 187; Schedl 1939g: 168–169, 1957b: 152, 158, 1957d: 137, 1962k: 940, 1118, 1972f: 151, 1978a: 77.
- exasperatus* Roberts 1966a: 624. Holotype ♂; Nigeria: Awi; BMNH, London.
- Notes: (1) The status of this name is questionable; Schedl 1972f: 151 treated it as a synonym of *ukereveensis* subspecies *proximus*; Beaver et al. 1985: 125 treated it as a good species.
- References: (ds) Roberts 1968: 191. (tx) Roberts 1966a: 624; Schedl 1972f: 151.
- robustus** Browne 1972c: 113. Holotype ♂; Congo-Kinshasa: Yangambi; MRCB, Tervuren.
- Distribution: Africa (Zaïre).
- References: (tx) Browne 1972c: 112–113.
- santiriae** Roberts 1970a: 68. Holotype ♂; Nigeria: Ngel Nyaki, Mambilla Plateau, 1500 m; MRCB, Tervuren.
- Distribution: Africa (Nigeria).
- Hosts: *Santiria trimera*.
- References: (tx) Roberts 1970a: 68.
- schoutedeni** (Sampson) 1924c: 123 (*Crossotarsus*). Holotype ♂; Belgian Congo: Elisabethville (Miss. Agric.); MRCB, Tervuren.
- Distribution: Africa (Angola/ Zaïre/ Zambia).
- Notes: (1) Schedl 1972: 150 (to *Doliopygus*).
- References: (bv) Loytyniemi, Beaver, & Loytyniemi 1955: 28. (hb) Loytyniemi, Beaver, & Loytyniemi 1955: 28. (ds) Beaver & Loytyniemi 1955b: 124; Ferreira 1965: 1133; Schedl 1959p: 23, 1962k: 938, 1972f: 150. (tx) Numberg 1966a: 187; Powell, W. 1987: 27; Sampson 1924c: 123–124; Schedl 1937b: 406, 1941d: 407, 1953g: 244, 1957d: 136, 1962k: 938, 1972f: 150.
- semipilosus** (Schedl) 1936b: 133 (*Crossotarsus*). Holotype ♀; Kongo; Schedl Collection in NHMW, Wien.
- Distribution: Africa (Zaïre).
- Hosts: *Combretodendron africanum*, *C. macrophyllum*, *Pterocarpus soyauxii*, *Strombosia glaucescens*, *Tridesmostemon claessensii*.

- Notes: (1) Schedl 1972f: 155 (to *Doliopygus*). (3) Schedl 1957d: 141 (described male).
References: (ds) Mayne & Donis 1962: 275; Schedl 1962k: 798, 1966c: 232, 1972f: 155. (tx) Numberg 1966a: 186; Schedl 1936b: 133–134, 1957d: 141, 1962k: 798, 1972f: 155, 1978a: 65.
- serratulus** Schedl 1953g: 246. Lectotype ♂; Congo Belge, Kasenyi, W. Darfur, N. Jebel Murra, Kurra, 5600 ft., and Senegal: Thies; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 65.
Distribution: Africa (Ghana/ Senegal/ Sudan/ Zaire).
Notes: (3) Roberts 1971a: 285 (described female).
References: (ds) Schedl 1962k: 938, 1968b: 145, 1972f: 155, 1975h: 351. (tx) Numberg 1966a: 186; Powell, W. 1987: 27; Roberts 1971a: 285; Schedl 1953g: 246, 1957d: 132, 1962k: 938, 1972k: 938, 1972f: 155, 1978a: 65.
- serratus** (Strohmeyer) 1911g: 226 (*Crossotarsus*).
Syntypes ♂ ♀; Kamerun and Kilimandjaro; Strohmeyer Collection, and MNB, Berlin.
Distribution: Africa (Angola/ Bechuanaland/ Cameroon/ Congo/ Dahomey/ Equatorial Guinea/ Fernando Po Island/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ Sierra Leone/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia/ Zimbabwe).
Hosts: Schedl 1962k: 802–807 (118 host species listed).
Notes: (1) Schedl 1941d: 351 (to *Doliopygus*).
References: (ay) Entwistle 1963b; Francke-Grosmann 1956b: 275–308; Lhoste & Roche 1960; Strohmeyer 1918: 15, 21. (bv) Entwistle 1963b. (cn) Anonymous 1953j: 25; Browne 1965b: 248; Curry 1958b: 128–132; Mayne & Donis 1951: 335; Vrydagh 1947a: 9. (ce) Anonymous 1953j: 25; Francke-Grosmann 1956b; Jover 1952: 73–81; Mayne & Donis 1951: 335; Roberts 1960: 37–39, 1969b: 113; Schedl 1962k: 798. (hb) Beaver & Loytyniemi 1985b: 128; Browne 1963a: 262, 1968b: 248; Entwistle 1963b; Jover 1952: 73–81; Schedl 1962k: 798; Thompson, G. H. 1963: 43. (ds) Amaro & Gouveia 1957: 100, 130, 141; Beaver & Loytyniemi 1985b: 128; Browne 1962: 94, 1963a: 262, 1968b: 248, 1980b: 382; Cachan 1957: 5, 15, 43–53; Cola 1971; Ferreira 1965: 1133; Gardner 1957a: 29; Jones, Roberts, & Baker 1959: 13, 50; Mayne & Donis 1960: 98, 1962: 275; Menier 1973a; Roberts 1960b: 37, 1960e, 1960f, 1968: 190; Schedl 1933f: 196, 1959p: 23, 1962h: 62, 1962k: 798, 1964f: 619, 1964j: 43, 1965e: 359, 1965g: 22, 1965h: 112, 1966c: 232, 1967e: 221, 1971e: 2, 1971g: 195, 1972e: 285, 1972f: 156, 1975h: 351, 1979b: 417; Strohmeyer 1912c: 7, 1914c: 34; Thompson, G. H. 1963: 43; Vrydagh 1947a: 8; Webb & Jones 1957: 25–41. (tx) Numberg 1966a: 186; Sampson 1924c: 125; Schedl 1933f: 196, 1935g: 318–319, 1936b: 127–132, 1936e: 51, 1937b: 407, 1937d: 35, 1939b: 394, 1941d: 351, 406–407, 1941e: 153, 1950d: 4, 11, 14, 1950e: 212, 1951e: 39, 1951f: 40, 1952g: 54, 1952i: 27, 1953g: 244–245, 1954d: 873, 1954e: 48, 57, 1955d: 270, 1962k: 798, 1118, 1972f: 156; Strohmeyer 1911g: 225–227, 1912c: 7, 1914c: 34.
- spatiosus** (Schedl) 1935g: 316 (*Crossotarsus*).
Lectotype ♂; Belgian Congo: 18 miles SW Elisabethville, Mozambique: Prov. de Gorongosa, Tendos du Sungoae et Riy Vunduzialt, N. Rhodesia: N'Changa, Tanganyika: Nord Rubcho; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 67.
Distribution: Africa (Bechuanaland/ Malawi/ Mozambique/ South Africa/ Tanzania/ Zaire/ Zambia/ Zimbabwe).
Hosts: *Brachystegia* sp.
Notes: (1) Schedl 1972f: 156 (to *Doliopygus*).
References: (bv) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (hb) Loytyniemi, Beaver, & Loytyniemi 1985: 28. (ds) Beaver & Loytyniemi 1985b: 129; Browne 1980c: 485; Lee 1971: 30; Schedl 1938d: 451, 1962k: 883, 1972f: 156. (tx) Numberg 1966a: 186; Powell, W. 1987: 27; Schedl 1935g: 316–318, 1936b: 126, 1937c: 15, 1941e: 154, 1962k: 883, 1972f: 156, 1978a: 67.
- spectabilis** Schedl 1952i: 44. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Schedl 1962k: 884.
Distribution: Africa (Zaire).
Hosts: Schedl 1962k: 884–885 (11 host species listed).
References: (ds) Mayne & Donis 1960: 98, 1962: 276; Schedl 1962k: 884, 1972f: 162. (tx) Numberg 1966a: 186; Schedl 1952i: 44, 1962k: 884, 1972f: 162, 1978a: 67.
- spinidens** (Strohmeyer) 1911g: 225 (*Crossotarsus*).
Holotype ♂; Sankuru-Fluss [Zaire]; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Notes: (1) Schedl 1972f: 156 (to *Doliopygus*).
References: (ds) Schedl 1972f: 156; Strohmeyer 1912c: 7, 1914c: 34. (tx) Numberg 1966a: 186; Schedl 1962k: 809, 1972f: 156; Strohmeyer 1911g: 225–226, 1912c: 7, 1914c: 34.
- staueri** Schedl 1952i: 33. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Schedl 1962k: 810.
Distribution: Africa (Zaire).
Hosts: *Canarium schweinfurthii*, *Entandrophragma* sp., *Guarica thompsonii*, *Tessmannia claessensii*.
References: (ds) Mayne & Donis 1960: 98, 1962: 277; Schedl 1962k: 810, 1972f: 156. (tx) Numberg 1966a: 186; Schedl 1952i: 33, 1962k: 810, 1972f: 156, 1978a: 68.
- strombosiopsis** Schedl 1957d: 137. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).

- Hosts: *Strombosioipsis tetrandra*.
References: (ds) Schedl 1962k: 939, 1967e: 221, 1972f: 151. (tx) Numberg 1966a: 194; Schedl 1957d: 137, 1962k: 939, 1972f: 151, 1978a: 69.
- subditivus** (Schedl) 1935g: 319 (*Crossotarsus*).
Syntypes ♂; Congo; A. Collart Collection, and Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Cameroon/ Central African Republic/ Ivory Coast/ Kenya/ Nigeria/ Zaïre).
Hosts: Schedl 1962k: 812–814 (28 host species listed).
Notes: (1) Schedl 1978a: 70 (citation of holotype invalid). (3) Schedl 1954d: 854 (described female).
References: (ec) Roberts 1969a; Schedl 1962k: 801. (hb) Gardner 1957c; Schedl 1962k: 811. (ds) Browne 1965a: 205, 1972c: 100; Ferreira 1965: 1133; Gardner 1957a: 29, 1957c: 292; Mayne & Donis 1960: 98, 1962: 277; Menier 1973a; Roberts 1968: 190, 1969b: 114; Schedl 1959p: 23, 1962k: 811, 1964f: 619, 1964j: 43, 1966c: 232, 1967e: 221, 1972f: 156, 1979b: 417. (tx) Nunberg 1966a: 186; Schedl 1935g: 319, 1952i: 38, 1954d: 874, 885, 1954e: 84, 1957d: 131, 1962k: 811, 1972f: 156, 1978a: 70.
- subdolosus** Schedl 1952i: 52. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Celtis brieuji*, *Ficus* sp., *Maba laurentii*, *Piptadenia africana*.
References: (ds) Mayne & Donis 1962: 277; Schedl 1962k: 851, 1972f: 158. (tx) Browne 1970: 581; Numberg 1966a: 187; Schedl 1952i: 52, 1962k: 851, 1972f: 158, 1978a: 70.
- submarginatus** Schedl 1962k: 873. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Hymenocardia ulmoides*, *Pentaclethra macrophylla*, *Scorodophloeus zenkeri*.
Notes: (1) This was originally named as a subspecies of *notatus*, but was needlessly redescribed as a homonymous new species with a different holotype when it was raised to specific rank (Schedl 1971e: 16).
References: (ds) Schedl 1972f: 160. (tx) Schedl 1962k: 873, 1972f: 160, 1978a: 48.
- submarginatus** Schedl 1971e: 16. Holotype ♂; Ehemaliger Congo Belge, Yangambi; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1962.
References: (tx) Schedl 1971e: 16.
- subnotatus** Schedl 1950d: 35. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
Notes: (3) Schedl 1972f: 148 (treated as a subspecies of *brevis*).
References: (tx) Numberg 1966a: 187; Schedl 1950d: 35, 1952j: 6, 1957d: 142, 1962k: 907, 1972f: 148, 1978a: 70.
- subserratus** Browne 1980b: 359. Holotype ♂; Mtwara (Tanzania) to Nagoya (Japan), imported; BMNH, London.
Distribution: Africa (Tanzania).
Hosts: *Pterocarpus angolensis*.
References: (tx) Browne 1980b: 359.
- tenuis** (Strohmeyer) 1912f: S6 (*Crossotarsus*).
Holotype ♂; Mkulusimi-Berg (Deutsch-Ostafrika); Hamburg Museum, lost, and IPKE, Eberswalde.
Distribution: Africa (Cameroon/ Congo/ Dahomey/ Equatorial Guinea/ Ghana/ Guinea/ Ivory Coast/ Nigeria/ Sierra Leone/ Tanzania/ Uganda/ Zaïre).
Hosts: Schedl 1962k: 819–823 (66 host species listed).
Notes: (1) Schedl 1972f: 156 (to *Doliopygus*).
References: (ay) Menier 1976: 348. (bv) Menier 1976: 348. (ec) Schedl 1962k: 818. (hb) Anonymous 1959i: 18; Browne 1963a: 263; Schedl 1962k: 818; Strohmeyer 1911a: 182. (ds) Browne 1963a: 263; Cola 1973; Jones, Roberts, & Baker 1959: 13–53; Mayne & Donis 1951: 335–336, 1960: 277, 1962: 277; Menier 1973a; Roberts 1960b: 35, 1960e, 1960f: 39, 1968: 190, 1969b: 114; Schedl 1933f: 198, 1962h: 62, 1962k: 818, 1964f: 619, 1966c: 233, 1967e: 222, 1969a: 203, 1971g: 195, 1972f: 156, 1975h: 351; Spahr 1981: 79; Strohmeyer 1911a: 182, 1912c: 7, 1914c: 34. (tx) Nunberg 1966a: 186; Sampson 1924c: 126; Schedl 1933f: 197–198, 1939a: 468–469, 1941d: 381, 1941e: 154, 1950d: 4, 14, 1953g: 245, 1954d: 874, 1955d: 270, 1957d: 130–131, 1962k: 818, 1965c: 52, 1972f: 156, 1978a: 70, 72; Strohmeyer 1911a: 182, 1912e: 7, 1912f: 86, 1914c: 34.
- terebrans** Schedl 1964j: 48. Holotype ♂; Nigeria: Kano; BMNH, London.
Distribution: Africa (Angola/ Ghana/ Nigeria/ Senegal/ Sierra Leone/ Uganda/ Zaïre).
Hosts: *Acacia dudgeoni*, *Daniellia oliveri*, *Monotes kerstingii*.
References: (ec) Roberts 1969a. (hb) Browne 1963a: 263. (ds) Browne 1963a: 263; Roberts 1968: 192; Schedl 1962k: 939, 1972f: 160. (tx) Numberg 1966a: 186; Schedl 1962k: 939, 1964j: 48, 1972f: 160, 1978a: 73.
- togatus** (Schedl) 1937c: 15 (*Crossotarsus*). Lectotype ♀; Rhodesia; Salisbury; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 74.
Distribution: Africa (Zambia/ Zimbabwe).
Notes: (1) Schedl 1972f: 148 (to *Doliopygus*). (3) Schedl 1972f: 148 (treated as a subspecies of *brevis*), Beaver & Loytyniemi 1955b: 122 (described male).
References: (bv) Loytyniemi, Beaver, & Loytyniemi 1955: 28. (hb) Loytyniemi, Beaver, & Loytyniemi 1955: 28. (ds) Beaver & Loytyniemi 1955b: 122. (tx) Schedl 1937c: 15, 1950d: 35, 1952j: 6, 1957d: 142, 1962k: 907, 1972f: 48, 1978a: 74.
- trichiliae** Schedl 1957d: 132. Holotype ♂; Congo Belge; Yangambi; MRCB, Tervuren.

- Distribution: Africa (Zaire).
Hosts: *Trichilia rubescens*.
References: (cc) Schedl 1962k: 940. (hb) Schedl 1962k: 940. (ds) Schedl 1962k: 940, 1972f: 156. (tx) Numberg 1966a: 186; Schedl 1957d: 132, 1962k: 940, 1972f: 156, 1978a: 74.
- tridens** Roberts 1970a: 69. Holotype ♂; Nigeria: Idanre Forest Reserve; MRCB, Tervuren.
Distribution: Africa (Nigeria).
References: (tx) Roberts 1970a: 69.
- ugandae** Schedl 1956a: 35. Holotype ♂; Uganda: Kampala, Mulange Mbira Forest, 4000 ft.; Schedl Collection in NHMW, Wien.
Distribution: Africa (Uganda).
References: (ds) Schedl 1972f: 162. (tx) Numberg 1966a: 186; Schedl 1956a: 32–35, 1962k: 855, 1972f: 162, 1978a: 76.
- uncinatus** Schedl 1953g: 247. Lectotype ♂; Congo Belge: Elisabethville; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 77.
Distribution: Africa (Angola/ Tanzania/ Zaire/ Zambia).
References: (bv) Loyttyneimi, Beaver, & Loyttyneimi 1985: 28. (hb) Loyttyneimi, Beaver, & Loyttyneimi 1985: 28. (ds) Beaver & Loyttyneimi 1985b: 129; Ferreira 1965: 1133; Schedl 1959p: 23, 1962h: 73, 1972f: 156. (tx) Numberg 1966a: 186; Schedl 1953g: 247, 1956a: 34, 1962k: 823, 1972f: 156, 1978a: 77.
- unicornis** Schedl 1952i: 48. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Cameroon/ Congo/ Equatorial Guinea/ Ivory Coast/ Nigeria/ Zaire).
Hosts: Schedl 1962k: 893–895 (45 host species listed).
References: (cc) Schedl 1962k: 892. (hb) Schedl 1962k: 892. (ds) Browne 1984b: 287; Cola 1971; Mayne & Donis 1960: 98, 1962: 278; Roberts 1968: 191, 1969b: 115; Schedl 1962k: 892, 1964f: 619, 1966c: 233, 1967e: 222, 1972f: 162. (tx) Numberg 1966a: 186; Schedl 1952i: 48, 1954d: 874, 1957d: 130, 1962k: 892–895, 1119, 1972f: 162, 1978a: 77.
- unicus** (Schedl) 1935g: 319 (*Crossotarsus*). Syn-types ♂; Belgian Congo: Kasamvu; A. Collart Collection, and Schedl Collection in NHMW, Wien.
Distribution: Africa (Kenya/ Nigeria/ Zaire).
Hosts: *Celtis* sp., *Croton* spp.
References: (ds) Gardner 1957a: 29; Roberts 1968: 190; Schedl 1962k: 851, 1972f: 158. (tx) Numberg 1966a: 187; Schedl 1935g: 319–320, 1962k: 851, 1972f: 158.
- vilis** Schedl 1962k: 1119. Holotype ♂; Kenya: Schedl Collection in NHMW, Wien.
Distribution: Africa (Kenya/ Nigeria/ Uganda).
Notes: (3) Roberts 1972: 72 (described female).
References: (ds) Browne 1983a: 556, 1984b: 287; Roberts 1968: 192, 1969b: 115; Schedl 1972f: 151. (tx) Roberts 1972: 72; Schedl 1962k: 1119, 1972f: 151, 1978a: 81.
- wittei** Schedl 1952g: 55. Lectotype ♂; Parc Nat. de l'Upemba, Kaswabilenga, 700 m; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 81.
Distribution: Africa (Zaire).
References: (ds) Schedl 1972f: 156. (tx) Schedl 1952g: 55, 1962k: 824, 1972f: 156, 1978a: 81.
- woltschei** Schedl 1957d: 138. Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Dialium corbisieri*, *Staudtia stiptata*, *Turraeanthus africana*.
References: (hb) Schedl 1962k: 945. (ds) Schedl 1962k: 945, 1972f: 151. (tx) Numberg 1966a: 187; Schedl 1957d: 138, 1962k: 945, 1972f: 151, 1978a: 81.
- zonatus** Schedl 1962k: 1120. Holotype ♂; Congo: Kivu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ghana/ Zaire).
References: (ds) Schedl 1972f: 158. (tx) Schedl 1962k: 1120, 1972f: 158, 1978a: 82.

Genus *Dendroplatypus* Browne

- DENDROPLATYPUS BROWNE 1955: 363. Type-species: *Crossotarsus impar* Schedl, original designation.
References: (cn) Browne 1968b: 228. (hb) Browne 1961c: 213, 1968b: 228; Schedl 1972f: 138. (ds) Browne 1968b: 228; Schedl 1972f: 138. (tx) Browne 1955: 365, 1962e: 650, 655, 1972a: 180; Schedl 1972f: 138.
- impar** (Schedl) 1936d: 13 (*Crossotarsus*). Lectotype ♂; Malay Peninsula, Johore North: Kluang, Lower Perak, Bt. Tunggal For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1978a: 36.
Figures: Schedl 1972f: 138 (male).
Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo, Sumatra).
Hosts: *Shorea leprosula*, *S. parvifolia*.
Notes: (1) Browne 1955: 365 (to *Dendroplatypus*).
References: (bv) Bletchly 1961: 15; Neumann & Harris 1974: 136. (cn) Beeson 1961 (1941: 254); Browne 1935b, 1952; Browne & Foenander 1937. (hb) Browne 1936b: 13, 1961c: 213–216, 1965b. (ds) Beeson 1941 (1961: 254); Browne 1961c: 213, 1980a: 371; Browne & Foenander 1937; Schedl 1972f: 140. (tx) Browne 1936a: 120–127, 1936b: 3, 1950b: 649, 1955: 364–365, 372, 1972a: 180; Schedl 1936d: 13, 1939b: 391, 1972a: 180, 1972f: 138, 140, 1978a: 36.
- philippinensis** (Blandford) 1896b: 193 (*Platypus*). Holotype ♂; Philippine Is.; BMNH, London.
Figures: Schedl 1972f: 193 (male).
Distribution: Philippine Islands (Luzon, Mindanao).
Notes: (3) Schedl 1935b: 395 (described female).
References: (ds) Schedl 1966b: 97, 1972f: 204; Strohmeier 1912c: 19, 1914c: 29. (tx) Blandford 1896b: 193; Browne 1962e: 650; Nobuchi 1985: 329; Schedl 1935b: 395, 1939b: 398, 1952b: 366, 1972f: 204, 1978a: 55; Strohmeier 1911b: 17, 1912c: 19, 1914c: 29.

Hosts of Scolytidae and Platypodidae

The following host list includes only those host associations for Scolytidae that were in the computer in January 1992. Almost all associations for Platypodidae are included to August 1992. The user should also consult the hosts listed under beetle species in order to include the maximum number of host associations.

"*L. glauca*"

Hypothenemus parallelus (Hopkins).

"*Mudirira*"

Phrixosoma nigra (Eggers).

"*Nudarira*"

Hylesinopsis niger (Schedl).

Abies alba

Hylurgops glabratus (Zetterstedt), *Hylurgops palliatus* (Gyllenhal), *Pityophthorus cephalonicae* Pfeffer, *Pityophthorus pityographus* (Ratzeburg).

Abies amabilis

Cryphalus ruficollis Hopkins, *Dryocoetes confusus* Swaine, *Pityokteines lasiocarpi* (Swaine), *Pityokteines mystacinus* Wood, *Pseudohylesinus dispar dispar* Blackman, *Pseudohylesinus dispar pullatus* Blackman, *Pseudohylesinus granulatus* (LeConte), *Pseudohylesinus nobilis* Swaine, *Pseudohylesinus sericeus* (Mannerheim).

Abies balsamea

Cryphalus ruficollis Hopkins, *Crypturgus borealis* Swaine, *Pityokteines sparsus* (LeConte), *Pityophthorus angustus* Blackman, *Pityophthorus balsameus* Blackman, *Pityophthorus cariniceps* LeConte, *Pityophthorus opaculus* LeConte, *Pityophthorus puberulus* (LeConte), *Pityophthorus pulicarius* (Zimmermann).

Abies borisi-regis

Pityophthorus pityographus (Ratzeburg).

Abies bornmulleriana

Cryphalus asperatus (Gyllenhal), *Pityophthorus pityographus* (Ratzeburg).

Abies bracteata

Scolytus dentatus Bright.

Abies cephalonica

Cryphalus piccae (Ratzeburg), *Pityophthorus cephalonicae* Pfeffer, *Pityophthorus pityographus* (Ratzeburg), *Pityophthorus pubescens* (Marshall), *Platypus oxyurus* Dufour.

Abies concolor

Crypturgus borealis Swaine, *Dryocoetes confusus* Swaine, *Gnathotrichus denticulatus* Blackman, *Gnathotrichus retusus* (LeConte), *Gnathotrichus sulcatus* (LeConte), *Hylastes gracilis* LeConte, *Pityokteines elegans* Swaine, *Pityophthorus apachae* Bright, *Pityophthorus opaculus* LeConte, *Pityophthorus pseudotsugae* Swaine, *Pityophthorus solers* Blackman, *Platypus abietis* Wood, *Pseudohylesinus dispar dispar* Blackman, *Pseudohylesinus maculosus* Blackman, *Scolytus obelus* Wood, *Scolytus opacus* Blackman, *Scolytus praeceps* LeConte, *Scolytus robustus* Blackman, *Scolytus subscaber* LeConte, *Scolytus ventralis* LeConte.

Abies delavayi

Hylurgops eusulcatus Tsai & Huang, *Phloeosinus abietis* Tsai & Yin.

Abies densa

Cryphalus strolmeyerii Stebbing.

Abies fabri

Ambrosiodmus rubricollis (Eichhoff), *Cryphalus redikorzevi* Berger, *Polygraphus major* Stebbing, *Poly-*

graphus zhungdianensis Tsai & Yin, *Xyleborus emarginatus* Eichhoff, *Xyleborus pfeili* (Ratzeburg), *Xylosandrus germanus* (Blandford).

Abies faxoniana

Cryphalus markangensis Tsai & Li, *Cryphalus pilosus* Tsai & Li, *Cryphalus sinoabietis* Tsai & Li.

Abies firma

Coccotrypes norimasanus (Murayama), *Cryphalus jeholensis* Murayama, *Cryphalus piccae* (Ratzeburg), *Euwallacea validus* (Eichhoff), *Platypus calamus* Blandford, *Platypus lewisi* Blandford, *Polygraphus oblongus* Blandford.

Abies fraseri

Cryphalus ruficollis Hopkins, *Pityophthorus dentifrons* Blackman, *Polygraphus rufipennis* (Kirby).

Abies grandis

Cryphalus pubescens Hopkins, *Cryphalus ruficollis* Hopkins, *Crypturgus borealis* Swaine, *Pityophthorus pseudotsugae* Swaine, *Pseudohylesinus dispar dispar* Blackman, *Pseudohylesinus dispar pullatus* Blackman, *Pseudohylesinus granulatus* (LeConte), *Pseudohylesinus sericeus* (Mannerheim), *Scolytus opacus* Blackman, *Scolytus subscaber* LeConte, *Scolytus ventralis* LeConte.

Abies guatemalensis

Pityophthorus mesembria Bright.

Abies holophylla

Cryphalus kurenzovi Stark, *Cryphalus laricis* Niisima, *Cryphalus piccae* (Ratzeburg), *Cryphalus redikorzevi* Berger, *Dryocoetes striatus* Eggers, *Hylurgops interstitialis* (Chapuis), *Pityophthorus abietinus* Wood, *Polygraphus abietis* Kurenzov.

Abies koreana

Ambrosiodmus rubricollis (Eichhoff), *Xyleborinus saxseui* (Ratzeburg).

Abies lasiocarpa

Cryphalus ruficollis Hopkins, *Crypturgus borealis* Swaine, *Dryocoetes confusus* Swaine, *Dryocoetes sechelti* Swaine, *Hylastes subopacus* Blackman, *Phloeotribus lecontei* Schedl, *Pityokteines lasiocarpi* (Swaine), *Pityokteines minutus* (Swaine), *Pityophthorus absonus* Blackman, *Pityophthorus opaculus* LeConte, *Pityophthorus pseudotsugae* Swaine, *Pityophthorus solers* Blackman, *Pseudohylesinus granulatus* (LeConte), *Pseudohylesinus maculosus* Blackman, *Sciurus pubescens* Swaine, *Scolytus opacus* Blackman.

Abies magnifica

Cryphalus ruficollis Hopkins, *Gnathotrichus retusus* (LeConte), *Gnathotrichus sulcatus* (LeConte), *Pityokteines elegans* Swaine, *Pityophthorus pseudotsugae* Swaine, *Pityophthorus solers* Blackman, *Platypus wilsoni* Swaine, *Pseudohylesinus dispar dispar* Blackman, *Pseudohylesinus granulatus* (LeConte), *Scolytus subscaber* LeConte, *Scolytus ventralis* LeConte.

Abies mariesii

Cryphalus montanus Nobuchi, *Cryphalus piccae* (Ratzeburg), *Polygraphus oblongus* Blandford.

Abies nephrolepis

Cryphalus kurenzovi Stark, *Dryocoetes striatus* Eggers.

- Hylastes plumbicus* Blandford, *Pityogenes scirindensis* Murayama, *Polygraphus jezcoensis* Niisima, *Polygraphus miser* Blandford, *Polygraphus proximus* Blandford.
- Abies nobilis**
Dolurgus pumilus (Mannerheim).
- Abies nordmanniana**
Hylurgops palliatus (Gyllenhal).
- Abies numidica**
Cryphalus numidicus Eichhoff, *Crypturgus numidicus* Ferrari, *Platypus oxyurus* Dufour.
- Abies pectinata**
Cryphalus asperatus (Gyllenhal), *Cryphalus piccae* (Ratzeburg), *Hylurgops palliatus* (Gyllenhal), *Ips anitimus* (Eichhoff), *Phlocotribus spinulosus* (Rey), *Pityogenes irkutensis* Eggers, *Pityokteinus curvidens* (Gernar), *Pityokteinus spinidens* (Reitter), *Pityokteinus vorontzovi* (Jacobson), *Pityophthorus pityographus* (Ratzeburg), *Platypus oxyurus* Dufour.
- Abies pindroic**
Cryphalus strommeyeri Stebbing, *Dryocoetes quadrisulcatus* Strohmeier, *Pityophthorus deodara* (Stebbing), *Scolytoplatypus siomio* Blandford.
- Abies pinsapo**
Crypturgus numidicus Ferrari, *Pityophthorus pinsapo* Pfeffer.
- Abies procera**
Pseudohylesinus dispar pullatus Blackman, *Pseudohylesinus granulatus* (LeConte), *Pseudohylesinus nobilis* Swaine, *Pseudohylesinus scriccus* (Mannerheim), *Pseudohylesinus tsugae* Swaine.
- Abies religiosa**
Gnathotrichus sulcatus (LeConte), *Pityophthorus abiegus* Wood, *Pityophthorus anthracinus* Bright, *Pityophthorus brighti* Wood, *Pityophthorus rudis* Blackman, *Pityophthorus solers* Blackman, *Pseudohylesinus magnus* Wood, *Pseudohylesinus variegatus* (Blandford), *Scolytus aztecus* Wood, *Scolytus hernosus* Wood, *Scolytus nudus* Wood.
- Abies sachalinensis**
Cryphalus larcis Niisima, *Cryphalus piccae* (Ratzeburg), *Cryphalus yamaguchii* Inoye & Nobuchi, *Dryocoetes striatus* Eggers, *Polygraphus gracilis* Niisima, *Polygraphus proximus* Blandford.
- Abies sibirica**
Carphoborus jurinskii Eggers, *Carphoborus rossicus* Semenov, *Carphoborus toplouchovi* Spessivtsev, *Polygraphus subopacus* Thomson.
- Abies spp.**
Cryphalus latus Eggers, *Cryphalus lepocrinus* Tsai & Li, *Cryphalus markangensis* Tsai & Li, *Cryphalus pilosus* Tsai & Li, *Cryphalus sinobietis* Tsai & Li, *Crypturgus cinereus* (Herbst), *Crypturgus hispidulus* Thomson, *Crypturgus pusillus* (Gyllenhal), *Dendroctonus micans* (Kugelann), *Dendroctonus valens* LeConte, *Dryocoetes affaber* (Mannerheim), *Dryocoetes autographus* (Ratzeburg), *Dryocoetes hectographus* Reitter, *Dryocoetes pini* Niisima, *Dryocoetes rugicollis* Eggers, *Gnathotrichus materiarius* (Fitch), *Hylastes ater* (Paykull), *Hylastes nigrinus* (Mannerheim), *Hylurgops glabratus* (Zetterstedt), *Ips acuminatus* (Gyllenhal), *Ips cembrae* (Heer), *Pityogenes bidentatus* (Herbst), *Pityogenes chalcographus* (Linnaeus), *Pityogenes quadridens* (Hartig), *Pityophthorus jucundus* Blandford, *Pityophthorus micrographus* (Linnaeus), *Pityophthorus speculum* Bright, *Polygraphus horvarensis* Murayama, *Polygraphus japonicus* Numberg, *Polygraphus polygraphus* (Linnaeus), *Polygraphus proximus* Blandford, *Scolytoplatypus dainio* Blandford, *Scolytoplatypus shogun* Blandford, *Scolytoplatypus tycon* Blandford, *Trypodendron lineatum* (Olivier), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus aquilus* Blandford, *Xylechinus pilosus* (Ratzeburg).
- Abies veitchii**
Cryphalus sawadai Nobuchi & Takahashi, *Polygraphus fulvipennis* Niisima.
- Abies webbiana**
Cryphalus strommeyeri Stebbing, *Crypturgus beesoni* Eggers, *Dryocoetes indicus* Stebbing, *Dryocoetes quadrisulcatus* Strohmeier, *Hylastes brunneus* Erichson, *Ips stebbingi* Strohmeier, *Pityophthorus deodara* (Stebbing), *Pityophthorus clatinus* Wood, *Polygraphus aterrimus* Strohmeier, *Polygraphus pini* Stebbing, *Scolytoplatypus raja* Blandford.
- Abrus precatorius**
Hypothenemus eruditus Westwood.
- Abutilon mollissimum**
Hypothenemus erudiae (Panzer), *Hypothenemus eruditus* Westwood.
- Abutilon spp.**
Xylosandrus compactus (Eichhoff).
- Acacia auriculaeformis**
Hypothenemus dimorphus (Schedl).
- Acacia catechu**
Euwallacea andamanensis (Blandford), *Hypothenemus acaciae* (Eggers), *Platypus solidus* Walker.
- Acacia cavenia**
Chramesus spinosus Brethes.
- Acacia decurrens**
Crossotarsus horni Schedl, *Crossotarsus squamulatus* Chapuis, *Doliopygus excavatus* (Sampson), *Glostatus acaciae* (Schedl), *Hypothenemus eruditus* Westwood, *Platypus carinifrons* Schedl, *Platypus solidus* Walker, *Platypus solutus* Schedl, *Scolytoplatypus nitidus* Eggers, *Scolytoplatypus raja* Blandford, *Xyleborus alluaudi* Schanfuss, *Xyleborus perforans* (Wollaston), *Xyleborus piccus* (Motschulsky), *Xyleborus principalis* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky), *Zygophloeus australis* Schedl.
- Acacia dudgeoni**
Doliopygus terebraus Schedl, *Xyleborinus similans* (Eggers).
- Acacia farnesiana**
Hypothenemus brunneus (Hopkins), *Hypothenemus erudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus seriatus* (Eichhoff).
- Acacia karroo**
Xyleborinus acmulus (Wollaston).
- Acacia koa**
Crossotarsus externedentatus (Fairmaire), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xyleborus spinulosus* Blandford.
- Acacia lahai**
Doliopygus ghesquieri (Schedl), *Doliopygus lefevrei* Schedl, *Doliopygus opifex* (Sampson).
- Acacia melanoxylon**
Xyleborus affinis Eichhoff.
- Acacia mollissima**
Chaetastus montanus Schedl, *Scolytoplatypus eichelbaumi* Hagedorn, *Xyleborus atratus* Eichhoff, *Xyleborus clerodendronae* Schedl.

Acacia nigra

Arapilus sparsepunctatus (Schedl), *Cucosinus dividius* Schedl, *Cryptocarenum acaciae* Schedl.

Acacia pennata

Coccotrypes longior (Eggers), *Coccotrypes nubilus* (Blandford), *Eucallalca xanthoph* (Eichhoff), *Rhopalopselion acaciae* (Schedl), *Xyleborus ficus* Eggers, *Xyleborus picus* (Motschulsky).

Acacia pennatula

Cucosinus adusticus Wood, *Cucosinus setulosus* Blandford, *Hylocurus atkinsoni* Wood, *Hypothenemus setosus* (Eichhoff), *Microcorthyus minimus* Schedl, *Pseudothysanoes contrarius* Wood.

Acacia podalyriaefolia

Xyleborinus mimosae (Schedl).

Acacia polyphylla

Xyleborus spinulosus Blandford.

Acacia raddiana

Hypothenemus mateni (Schedl).

Acacia sieberiana

Hypothenemus biseriatus (Eggers), *Rhopalopselion maculatus* (Schedl).

Acacia spp.

Acaciacs abundans Lea, *Ambrosiodmus aegir* (Eggers), *Ambrosiodmus albizzianus* (Schedl), *Ambrosiodmus camphorae* (Hagedorn), *Ambrosiodmus eichhoffi* (Schreiner), *Ambrosiodmus hagedorni* (Iglesias), *Ambrosiodmus obliquus* (LeConte), *Ambrosiodmus rubricollis* (Eichhoff), *Ambrosiodmus sakoae* (Schedl), *Chramesus acacicolens* Wood, *Chramesus disparilis* Wood, *Chramesus secus* Wood, *Chramesus strigatus* Wood, *Chramesus varius* Wood, *Cladoctonus eggersi* Wichmann, *Cladoctonus natalensis* Eggers, *Cucosinus suturalis* (Eggers), *Corthylocurus mexicanus* (Schedl), *Corthylus collaris* Blandford, *Corthylus consimilis* Wood, *Corthylus flagellifer* Blandford, *Cryphalus sylvicola* (Perkins), *Doliopygus interruptus* (Sampson), *Doliopygus lefevrei* Schedl, *Doliopygus subditicus* (Schedl), *Eucallalca fornicatus* (Eichhoff), *Glostatus acaciae* (Schedl), *Hadrodemus amorphus* (Eggers), *Hylesinopsis acacicolens* Wood, *Hylesinopsis striatus* (Schedl), *Hylocurus elegans* Eichhoff, *Hylocurus inaequalis* Wood, *Hylocurus scitulus* Wood, *Hypothenemus agnatus* (Eggers), *Hypothenemus camerunus* (Eggers), *Hypothenemus eruditus* Westwood, *Hypothenemus plumeriae* (Nordlinger), *Phlocotribus acaciae* (Lea), *Pityophthorus colvulus* Schedl, *Platypus furcatus* Blandford, *Platypus omnivorus* (Lea), *Platypus solidus* Walker, *Premnobius cavipennis* Eichhoff, *Pseudothysanoes acacicolens* Wood, *Pseudothysanoes aquilus* (Wood), *Scolytoplatypus kiracensis* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Thysanoes fimbriicornis* LeConte, *Thysanoes mexicanus* Wood, *Thysanoes texanus* Blackman, *Xyleborinus collarti* (Eggers), *Xyleborinus spinifer* (Eggers), *Xyloctonus striatus* Eggers, *Xylosandrus compactus* (Eichhoff).

Acacia xanthophloea

Cladoctonus ananicus Eggers, *Hypothenemus xanthophloea* (Schedl), *Lamirgus xanthophloea* Schedl, *Phlococurus africanus* (Schedl).

Acalypha neptunica

Xyleborus scobinatus Hagedorn.

Acalypha spp.

Ambrosiodmus albizzianus (Schedl), *Hypothenemus adscitus* (Schedl), *Micracis exilis* Wood, *Xyleborus alluaudi* Schaufuss, *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Acanthocephalus cadamba

Ficicis javanus (Eggers), *Platypus labrifrons* Schedl.

Acanthopanax ricinifolium

Eruoporus acanthopanaxi (Niisima).

Acanthopanax spinosum

Phlocosinus pulchellus Blandford.

Acanthopanax spp.

Scolytoplatypus mikado Blandford.

Acanthus pubescens

Xyleborus multispinatus Eggers.

Acer argutum

Taphrocyclus mikuniyamaensis (Murayama).

Acer babinerve

Indocryphalus aceris (Niisima).

Acer caesium

Scolytoplatypus darjeelingi Stebbing, *Scolytoplatypus sionio* Blandford.

Acer campbellii

Eucallalca velatus (Sampson), *Platypus darjeelingensis* Schedl, *Platypus falcatus* Strohmeyer, *Platypus shallongensis* Schedl, *Scolytoplatypus pubescens* Hagedorn.

Acer campestre

Lymantor aceris (Lindemann), *Lymantor coryli* (Perris).

Acer macrophyllum

Procryphalus utahensis Hopkins.

Acer mandshuricum

Indocryphalus aceris (Niisima).

Acer mayrii

Dryocoetes picipennis Eggers.

Acer mono

Crossotarsus niponicus Blandford, *Indocryphalus aceris* (Niisima), *Neopteleobius scutulatus* (Blandford), *Platypus sereni* Blandford.

Acer palmatum

Crossotarsus niponicus Blandford, *Platypus modestus* Blandford, *Xyleborus atratus* Eichhoff, *Xyleborus praeceus* Blandford.

Acer palmatum matsumurae

Crossotarsus niponicus Blandford.

Acer pictum

Dryocoetes aceris Krivolitskaya, *Hyorrhynchus lewisi* Blandford, *Indocryphalus aceris* (Niisima).

Acer platanoides

Lymantor aceris (Lindemann), *Lymantor coryli* (Perris).

Acer pseudoplatanus

Lymantor aceris (Lindemann).

Acer pseudosieboldianum

Indocryphalus aceris (Niisima).

Acer rubrum

Corthylus columbianus Hopkins, *Hypothenemus dissimilis* (Zimmermann), *Hypothenemus interstitialis* (Hopkins), *Thysanoes fimbriicornis* LeConte, *Lymantor decipiens* (LeConte), *Monarthrum fasciatum* (Say), *Monarthrum mali* (Fitch), *Trischidias atomus* (Hopkins), *Xyleborus ferrugineus* (Fabricius), *Xylosandrus zimmermanni* (Hopkins).

Acer rufinerve

Xyleborus aquilus Blandford, *Xyleborus seriatus* Blandford.

Acer saccharinum

Corthylus columbianus Hopkins, *Corthylus punctatissimus* (Zimmermann), *Lymantor decipiens* (LeConte), *Pityophthorus lautus* Eichhoff.

Acer spp.

Amasa amputatus (Blandford), *Ambrosiodmus lewisi* (Blandford), *Ambrosiodmus tachygraphus* (Zimmer-

- mann). *Dryocoetes padi* Stark. *Dryocoetes ussuriensis* Eggers. *Eucallacea validus* (Eichhoff). *Hylocurus torosus* Wood. *Lymantor decipiens* (LeConte). *Platypus korjoensis* (Murayama). *Scolytoplatypus daimio* Blandford. *Scolytoplatypus mikado* Blandford. *Scolytoplatypus shogun* Blandford. *Scolytoplatypus tycon* Blandford. *Scolytus belokanicus* Stark. *Scolytus koenigi* Schleyrew. *Scolytus laevis* Chapuis. *Taphrotychus lenkoranus* Reitter. *Trypodendron domesticum* (Linnaeus). *Trypodendron signatum* (Fabricius). *Xyleborinus saxeseni* (Ratzeburg). *Xyleborus maiche* (Stark). *Xyleborus obesus* LeConte. *Xyleborus orientalis* Eggers. *Xyleborus sayi* (Hopkins). *Xyleborus pelliculosus* Eichhoff. *Xyleborus pfeili* (Ratzeburg). *Xylosandrus compactus* (Eichhoff). *Xylosandrus germanus* (Blandford). *Xylosandrus mutilatus* (Blandford). *Xyloterinus politus* (Say).
- Acer tataricum**
Lymantor aceris (Lindemann).
- Acer tegmentosum**
Indocryphalus aceris (Niisima).
- Acer turkestanicum**
Scolytus tadzhikistanicus Stark.
- Acer ukuruduiense**
Indocryphalus aceris (Niisima).
- Achras sapota**
Chaetophloeus insularis (Blackman). *Hypothenemus birmanus* (Eichhoff). *Hypothenemus crudiae* (Panzer). *Hypothenemus hirsutus* (Wood). *Hypothenemus seriatus* (Eichhoff). *Micracisella nanula* (LeConte). *Scolytominus pusillus* (Eggers). *Xyleborus fallax* Eichhoff. *Xyleborus perforans* (Wollaston).
- Acmena spp.**
Diapus bilunatus Schedl. *Diapus quinquespinatus* Chapuis. *Diapus robustus* Schedl.
- Aconium stoerkianum**
Thamurgus petzi Reitter.
- Acridocarpus fraxinifolius**
Doliopygus excavatus (Sampson).
- Acridocarpus spp.**
Ambrosiodmus albizzianus (Schedl). *Ambrosiodmus cichoffi* (Schreiner). *Platypus madagascariensis* Chapuis.
- Acrocarpus fraxinifolius**
Ambrosiodmus cichoffi (Schreiner). *Doliopygus erichsoni* (Chapuis). *Leptoxyloborus sordicauda* (Motschulsky). *Platypus errans* (Simpson). *Platypus solidus* Walker. *Platypus solutus* Schedl. *Xyleborinus forcipatus* (Schedl). *Xyleborinus sharpae* (Hopkins). *Xyleborus affinis* Eichhoff. *Xyleborus sphenos* Sampson.
- Acrocarpus spp.**
Cyclorhpidion crucifer (Hagedorn). *Doliopygus coclocephalus* (Schauffuss). *Leptoxyloborus concisus* (Blandford). *Prennobius cavipennis* Eichhoff.
- Acrocomia sclerocarpa**
Hypothenemus seriatus (Eichhoff).
- Actinodaphne acuminata**
Xyleborus volvulus (Fabricius).
- Actinodaphne lancifolia**
Platypus calanus Blandford.
- Actinodaphne longifolia**
Phloeosinus kiushuensis Murayama. *Phloeosinus lewisi* Chapuis.
- Actinophora fragrans**
Coptodryas nugax (Schedl). *Platypus biuncus* Blandford. *Platypus forficula* Chapuis. *Xyleborinus andrewesi* (Blandford). *Xylosandrus morigerus* (Blandford).
- Adenantha microsperma**
Hypothenemus eruditus Westwood.
- Adenantha parvonia**
Arixyleborus suturalis (Eggers). *Eccoptopterus limbos* Sampson. *Hypothenemus birmanus* (Eichhoff). *Hypothenemus crudiae* (Panzer). *Hypothenemus eruditus* Westwood. *Xyleborus perforans* (Wollaston). *Xylosandrus ater* (Eggers). *Xylosandrus compactus* (Eichhoff). *Xylosandrus maucus* (Blandford). *Xylosandrus morigerus* (Blandford).
- Adenia cisampeloides**
Xylocleptes adeniae (Schedl).
- Adina cordifolia**
Crossotarsus externedentatus (Fairmaire). *Xyleborus perforans* (Wollaston). *Xyleborus similis* Ferrari.
- Adina rubescens**
Xyleborus javanus Eggers. *Xylosandrus crassiusculus* (Motschulsky).
- Adina rubrostipulata**
Platypus impressus (Strohmeyer). *Xyleborus alluaudi* Schauffuss. *Xyleborus principalis* Eichhoff.
- Adina spp.**
Platypus solidus Walker. *Platypus suffodiens* Sampson.
- Adinaudra dumosa**
Eucallacea xanthopus (Eichhoff). *Xylosandrus crassiusculus* (Motschulsky).
- Adinobotrys atropurpureus**
Platypus lepidus Chapuis. *Xylosandrus crassiusculus* (Motschulsky).
- Aegle marmelos**
Xyleborinus andrewesi (Blandford). *Xyleborus adusticollis* (Motschulsky). *Xyleborus similis* Ferrari.
- Aerca sanguinolenta**
Xyleborus picus (Motschulsky).
- Aesculus punduana**
Coccotrypes cyperi (Beeson). *Coccotrypes vulgaris* (Eggers). *Platypus secretus* Sampson.
- Aesculus spp.**
Hypothenemus eruditus Westwood. *Hypothenemus interstitialis* (Hopkins). *Scolytoplatypus tycon* Blandford. *Xyleborus dispar* (Fabricius).
- Aesculus turbiuata**
Crossotarsus niponicus Blandford. *Indocryphalus dainichiensis* (Murayama). *Platypus calanus* Blandford. *Platypus lewisi* Blandford. *Platypus modestus* Blandford. *Platypus severini* Blandford. *Xyleborus seriatus* Blandford.
- Afromosia elata**
Chaetastus tuberculatus (Chapuis). *Cyrtogenius chlorophorae* (Schedl). *Doliopygus artespinatus* (Schedl). *Doliopygus conradti* (Schauffuss). *Doliopygus divaricus* (Schedl). *Doliopygus dubius* (Sampson). *Doliopygus lebruni* Schedl. *Doliopygus medius* Schedl. *Doliopygus serratus* (Strohmeyer). *Doliopygus spectabilis* Schedl. *Doliopygus sublitivus* (Schedl). *Doliopygus tenuis* (Strohmeyer). *Doliopygus unicornis* Schedl. *Hypothenemus eruditus* Westwood. *Platypus hintzi* Schauffuss. *Platypus solutus* Schedl. *Platypus spinulosus* (Strohmeyer). *Periommatius excisus* Strohmeyer. *Periommatius grandis* Schedl. *Trachyostus aterrimus* (Schauffuss). *Trachyostus schaufussi* (Strohmeyer). *Trachyostus schoutedeni* (Schedl). *Triozastus marshalli* (Sampson). *Xyleborus alluaudi* Schauffuss. *Xyleborus ferrugineus* (Fabricius).
- Afrostyrax lepidophyllus**
Doliopygus erichsoni (Chapuis). *Doliopygus interjectus*

- Schedl, *Doliopygus rapax* (Sampson), *Eucallacea granosus* (Schedl), *Periommatius subrobustus* Schedl.
- Afzelia africana**
Doliopygus brevis (Strohmeyer), *Doliopygus opifex* (Sampson), *Doliopygus perbrevis* Schedl, *Pityophthorus congonus* Eggers, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer).
- Afzelia bakeri**
Platypus westwoodi Chapuis, *Xyleborus bidentatus* (Motschulsky), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.
- Afzelia bella**
Doliopygus conradti (Strohmeyer), *Doliopygus erichsonii* (Chapuis), *Doliopygus subditicus* (Schedl), *Hypothenemus marshalli* (Eggers), *Hypothenemus morigerus* (Schedl), *Platypus hintzi* Schaufuss, *Polygraphus afzeliae* Schedl, *Polygraphus carphoboroides* Eggers, *Xyleborus alluaudi* Schaufuss, *Xyleborus ustus* Schedl.
- Afzelia bijuga**
Cryphalus scabricollis Eichhoff, *Diapus pusillimus* Chapuis, *Erioporus dispar* (Schedl), *Platypus jansonii* Chapuis, *Xyleborus bidentatus* (Motschulsky).
- Afzelia bipindensis**
Doliopygus chapuisi (Duvivier), *Doliopygus dubius* (Sampson), *Doliopygus rapax* (Sampson), *Doliopygus tenuis* (Strohmeyer), *Platypus hintzi* Schaufuss, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky).
- Afzelia cuanzenis**
Triozastus marshalli (Sampson).
- Afzelia palembanica**
Crossotarsus externedentatus (Fairmaire), *Crossotarsus fractus* Sampson, *Crossotarsus inermis* Schedl, *Crossotarsus schedli* Brownie, *Crossotarsus squamulatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Eucallacea destruens* (Blandford), *Eucallacea fornicatus* (Eichhoff), *Hadrodemus globus* (Blandford), *Leptoxyleborus concisus* (Blandford), *Leptoxyleborus puer* (Eggers), *Platypus cupulatus* Chapuis, *Platypus curtus* Chapuis, *Platypus hmifer* Schedl, *Platypus pseudocurtus* Schedl, *Platypus solidus* Walker, *Platypus westwoodi* Schedl, *Xyleborus birmanus* Eggers, *Xyleborus emarginatus* Eichhoff, *Xyleborus fallax* Eichhoff, *Xyleborus latus* Eggers, *Xyleborus perforans* (Wollaston), *Xylosandrus morigerus* (Blandford).
- Afzelia spp.**
Cylindropalpus camerunus (Schedl), *Platypus schysi* Chapuis.
- Afzelia xylocarpa**
Platypus afzeliae Brownie.
- Agatha citiensis**
Cyrtogenius fijianus (Schedl).
- Agathis alba**
Cyrtogenius perakensis (Schedl), *Diapus papuanus* Schedl, *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Hypothenemus eruditus* Westwood, *Platypus cupulatus* Chapuis, *Platypus grumosus* Roberts & Morimoto, *Xyleborus multipunctulus* Brownie.
- Agathis borneensis**
Xyleborus apertus Schedl, *Xyleborus eximius* Schedl.
- Agathis dammara**
Cyrtogenius perakensis (Schedl).
- Agathis palmerstonii**
Xyleborus perforans (Wollaston).
- Agathis spp.**
Platypus agathis Brownie, *Xyleborus agathis* Brownie, *Xyleborus bidentatus* (Motschulsky).
- Agathis citiensis**
Platypus citiensis Roberts.
- Agave sisalana**
Platypus cupulatus Chapuis, *Platypus pseudocupulatus* Schedl.
- Agave spp.**
Chramesus amectens (Wood), *Platypus cupulatus* Chapuis, *Platypus pseudocupulatus* Schedl, *Xyleborus perforans* (Wollaston).
- Aglaia spp.**
Crossotarsus aureipilus Roberts, *Crossotarsus corrugatus* Roberts, *Crossotarsus inermis* Schedl, *Crossotarsus subopacus* Schedl, *Crossotarsus terminatus* Chapuis, *Platypus anguis* Brownie, *Platypus subpronus* Schedl, *Xyleborus aglaiae* Brownie.
- Ailanthus altissima**
Ambrosiodinus levisi (Blandford), *Hypothenemus eruditus* Westwood, *Xylosandrus discolor* (Blandford).
- Alatonia spatulata**
Acanthotomicus onerosus (Schedl).
- Albizzia adianthifolia**
Ambrosiodinus tropicus (Hagedorn), *Doliopygus chapuisi* (Duvivier), *Eccoptopterus spinosus* (Olivier), *Premnobius cavipennis* Eichhoff, *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus similans* (Eggers), *Xyleborus subtuberculatus* Eggers.
- Albizzia caribaea**
Hypothenemus suspectus Wood.
- Albizzia chinensis**
Eucallacea xanthopus (Eichhoff), *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky).
- Albizzia coriaria**
Acanthotomicus sexdentatus (Eggers), *Doliopygus chapuisi* (Duvivier), *Platypus parallelus* (Fabricius).
- Albizzia falcata**
Ambrosiodinus wilderi (Beeson), *Crossotarsus wallacei* (Thomson), *Diapus pusillimus* Chapuis, *Eucallacea fornicatus* (Eichhoff), *Platypus binucus* Blandford, *Platypus cupulatus* Chapuis, *Platypus insularis* Strohmeyer, *Platypus insulindicus* Schedl, *Platypus subangustior* Schedl, *Platypus subsilimus* Schedl, *Xyleborus emarginatus* Eichhoff, *Xyleborus perforans* (Wollaston), *Xylosandrus morigerus* (Blandford).
- Albizzia ferruginea**
Doliopygus chapuisi (Duvivier), *Doliopygus exilis* (Chapuis), *Trachyostus aterrimus* (Schaufuss), *Triozastus banghaasi* (Schaufuss), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus subtuberculatus* Eggers, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Albizzia glaberrima**
Chaetastus tuberculatus (Chapuis), *Cryphalus nigericus* Brownie, *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus excavatus* (Sampson), *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus alluaudi* Schaufuss, *Xyleborus picus* (Motschulsky).
- Albizzia grandibracteata**
Doliopygus chapuisi (Duvivier), *Hypothenemus eruditus* Westwood, *Rhopalopselion congonum* (Schedl).

Albizzia gummifera

Acanthotomicus acuminatus (Schedl), *Acanthotomicus biconicus* (Schedl), *Ambrosiodmus albizzianus* (Schedl), *Ambrosiodmus bostrichoides* (Schedl), *Chaetastus montanus* Schedl, *Chaetastus tuberculatus* (Chapuis), *Coptoborus adjunctus* (Eggers), *Cylindropalpus pumilio* (Schedl), *Doliopygus artespinatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus exilis* (Chapuis), *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus punctiventris* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Dryococtoides cristatus* (Fabricius), *Eccoptopterus spinosus* (Olivier), *Hylesinopsis seriatus* (Eggers), *Hypothenemus eruditus* Westwood, *Hypothenemus solitarius* (Schedl), *Perionnatus excisus* Strohmeyer, *Perionnatus grandis* Schedl, *Perionnatus longicollis* Chapuis, *Pityoplathorus congonus* Eggers, *Pityoplathorus kiuensis* Schedl, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Platypus schenklingi* (Strohmeyer), *Polygraphus coronatus* Eggers, *Premnobius corthyloides* Hagedorn, *Premnobius quadrispinosus* Schedl, *Rhopalopsclion suturalis* (Schedl), *Theoborus ricini* (Eggers), *Tiarophorus elongatus* Schreiner, *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborinus similans* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus africanus* Eggers, *Xyleborus ambasiusculus* Eggers, *Xyleborus annexus* Schedl, *Xyleborus ferrugineus* (Fabricius), *Xyleborus multispinatus* Eggers, *Xyleborus piceus* (Motschulsky), *Xyleborus subtuberculatus* Eggers, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus cylindrotomicus* (Schedl).

Albizzia julibrissin

Xyleborus atratus Eichhoff, *Xyleborus colvulus* (Fabricius).

Albizzia lebbek

Ambrosiodmus lantanae (Eggers), *Ambrosiodmus subnepotulus* (Eggers), *Arixyleborus malayensis* (Schedl), *Chaetastus tuberculatus* (Chapuis), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus squamulatus* Chapuis, *Eccoptopterus spinosus* (Olivier), *Hypothenemus eruditus* Westwood, *Xyleborinus andrevesi* (Blandford), *Xyleborus affinis* Eichhoff, *Xyleborus perforans* (Wollaston), *Xyleborus volvulus* (Fabricius), *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky).

Albizzia lebbekioides

Hypothenemus brunneus (Hopkins), *Hypothenemus eruditus* Westwood.

Albizzia lucida

Platypus curvus Strohmeyer, *Xyleborus perforans* (Wollaston).

Albizzia macrocarpa

Pseudotlysanoes murilloi (Blackman).

Albizzia maranguensis

Doliopygus nitens Brownie.

Albizzia moluccana

Coptodryas elegans (Sampson), *Eucallacea bicolor* (Blandford), *Eucallacea fornicatus* (Eichhoff), *Platypus insulindicus* Schedl, *Platypus subangustior* Schedl, *Platypus subsimilis* Schedl, *Xyleborus haberkorni* Eggers, *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky).

Albizzia odoratissima

Eucallacea fornicatus (Eichhoff), *Xyleborus perforans* (Wollaston).

Albizzia procera

Crossotarsus fractus Sampson, *Xylosandrus morigerus* (Blandford).

Albizzia sekiabalaruguma

Cyclorhupidion sulcipenne (Eggers).

***Albizzia* spp.**

Ambrosiodmus cichhoffi (Schreiner), *Ambrosiodmus factus* (Schedl), *Ambrosiodmus obliquus* (LeConte), *Ambrosiodmus tropicus* (Hagedorn), *Cnestus magnus* Sampson, *Cyclorhupidion crucifer* (Hagedorn), *Cyclorhupidion crucipenne* (Schedl), *Diapus pusillinus* Chapuis, *Diapus quinquespinatus* Chapuis, *Doliopygus citri* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus excavatus* (Sampson), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus megaloma* Schedl, *Doliopygus propinquus* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Eucallacea xanthopus* (Eichhoff), *Hylesinopsis seriatus* (Eggers), *Hypothenemus biseriatus* (Eggers), *Hypothenemus camerinus* (Eggers), *Leptoxyleborus concisus* (Blandford), *Perionnatus excisus* Strohmeyer, *Perionnatus grandis* Schedl, *Platypus biuncus* Blandford, *Platypus curvus* Strohmeyer, *Platypus geminatus* Chapuis, *Platypus hintzi* Schaufuss, *Platypus insularis* Strohmeyer, *Platypus jansoni* Chapuis, *Platypus lunifer* Schedl, *Platypus orientalis* (Strohmeyer), *Platypus parallelus* (Fabricius), *Platypus secretus* Sampson, *Platypus solidus* Walker, *Platypus uncinatus* Blandford, *Premnobius ambitiosus* (Schaufuss), *Premnobius catipennis* Eichhoff, *Premnobius sexspinosus* Eggers, *Rhopalopsclion rufus* (Schedl), *Scolytoplattypus armatus* Eggers, *Scolytoplattypus eichelbaumi* Hagedorn, *Trachyostus fecundus* (Sampson), *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborinus andrevesi* (Blandford), *Xyleborinus hercae* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus clerodendronae* Schedl, *Xyleborus insignis* Browne, *Xyleborus spheonus* Sampson, *Xyleborus spinulosus* Blandford, *Xyleborus colvulus* (Fabricius), *Xylosandrus compactus* (Eichhoff), *Xylosandrus discolor* (Blandford), *Xylosandrus morigerus* (Blandford), *Xylosandrus mutilatus* (Blandford).

Albizzia stipulata

Coptodryas recidens (Sampson), *Cryphalus scabricollis* Eichhoff, *Platypus lepidus* Chapuis, *Xyleborinus andrevesi* (Blandford), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky).

Albizzia sumatrana

Crossotarsus javanus Beeson, *Eucallacea fornicatus* (Eichhoff).

Albizzia warneckeii

Doliopygus coelocephalus (Schaufuss), *Doliopygus exilis* (Chapuis).

Albizzia welwitschii

Doliopygus chapuisi (Duvivier), *Platypus hintzi* Schaufuss, *Xyleborus volvulus* (Fabricius).

Albizzia zygia

Chaetastus tuberculatus (Chapuis), *Cyclorhupidion psaltes* (Schedl), *Doliopygus brevis* (Strohmeyer), *Doliopygus chapuisi* (Duvivier), *Doliopygus coelocephalus* (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus excavatus* (Sampson), *Doliopygus exilis* (Chapuis), *Doliopygus*

- gracilior* Schedl, *Doliopygus opifex* (Sampson), *Doliopygus perbrevis* Schedl, *Doliopygus perminutissimus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Eccoptypterus spinosus* (Olivier), *Periommatius bispinus* Strohmeyer, *Periommatius nkusii* Strohmeyer, *Periommatius substriatus* Strohmeyer, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Scolyto-platypus africanus* Eggers, *Trachyostus schaufussi* (Strohmeyer), *Triozastus banghaasi* (Schaufuss), *Triozastus elongatus* Schedl, *Xyleborinus sharpa* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus eichhoffianus* Schedl, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volvulus* (Fabricius), *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky).
- Alchornea cordifolia**
Cyclorhipidion agnaticeps (Schedl), *Xyleborus ruandae* Schedl.
- Alchornea coriacea**
Ambrosiodmus camphorae (Hagedorn), *Ambrosiodmus inominatus* (Schedl), *Xyleborinus signatipennis* (Schedl), *Xyleborus alluaudi* Schaufuss.
- Alchornea hirtella**
Doliopygus bidentatus (Strohmeyer), *Mimiocturus montanus* (Schedl), *Polygraphus tenuipennis* Schedl, *Premnobius mukunyeae* (Schedl), *Xyleborinus similans* (Eggers), *Xyleborus comparabilis* Schedl, *Xyleborus tenellus* Schedl, *Xyleborus truncatulus* Schedl.
- Alchornea spp.**
Scolytoplatypus kivuensis Schedl, *Xyleborus bezanozano* Schedl.
- Aleurites fordii**
Eucallacea xanthopus (Eichhoff), *Hypothenemus seriatus* (Eichhoff).
- Aleurites noluccana**
Crossotarsus externodentatus (Fairmaire), *Platypus pseudocupulatus* Schedl, *Platypus selysi* Chapuis, *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xyleborus rugatus* Blackburn, *Xyleborus wchitteni* Beeson.
- Aleurites spp.**
Eucallacea fornicatus (Eichhoff), *Xylosandrus compactus* (Eichhoff).
- Alexa imperitricia**
Dryocoetoides cristatus (Fabricius), *Monarthrum dimidiatum* (Ferrari), *Monarthrum exornatum* (Schedl), *Monarthrum proximum* Wood, *Taurodemus flavipes* (Fabricius), *Xyleborinus intersetosus* (Blandford), *Xyleborus affinis* Eichhoff, *Xyleborus semipunctatus* Eggers.
- Alibertia edulis**
Premnobius cavipennis Eichhoff.
- Allanblackia floribunda**
Phrixosoma fuscicollis (Schedl), *Polygraphus longipilis* Schedl.
- Allanblackia parvifolia**
Doliopygus serratus (Strohmeyer), *Platypus hintzi* Schaufuss, *Xyleborus affinis* Eichhoff.
- Allanblackia spp.**
Premnobius cavipennis Eichhoff.
- Allanblackia stuhlmannii**
Ctonoxylon flavescens Hagedorn.
- Allogogus brunneus**
Doliopygus galerus (Schedl).
- Allophyllus africanus**
Doliopygus jurioni Schedl, *Eucallacea granosus* (Schedl), *Premnobius nodulosus* Hagedorn.
- Allophyllus cobbe**
Eucallacea fornicatus (Eichhoff).
- Allophyllus kivuensis**
Eucallacea xanthopus (Eichhoff), *Platypus impressus* (Strohmeyer), *Platypus solutus* Schedl, *Scolytoplatypus armatus* Eggers, *Xyleborus piceus* (Motschulsky), *Xyleborus principalis* Eichhoff.
- Allophyllus macrocarpus**
Xyleborinus spiculatus (Schaufuss), *Xyleborinus spinosus* (Schaufuss), *Xyleborus alluaudi* Schaufuss.
- Alluaudia pourri**
Xyleborus pourriensis Schedl.
- Alluaudia procera**
Xyleborus submolestus Schedl.
- Alniophyllum fortuni**
Xyleborus atratus Eichhoff.
- Alnus acuminata**
Platypus coronatus Schedl, *Scolytodes alni* Wood.
- Alnus crispa**
Trypophloeus striatulus (Mammerheim).
- Alnus firma**
Cryphalus kytoeensis Nobuchi.
- Alnus firmifolia**
Gnathotrichus alni Schaufuss Wood.
- Alnus fruticosa**
Alniophagus alni (Niisima), *Dryocoetes ussuriensis* Eggers, *Ernoporicus longus* (Eggers).
- Alnus glutinosa**
Dryocoetes alni (Georg), *Dryocoetes villosus* (Fabricius), *Taphrorhynchus alni* Pfeffer, *Trypodendron domesticum* (Linnaeus), *Trypophloeus alni* (Lindemann).
- Alnus hepalensis**
Xyleborus lineatus Eggers.
- Alnus hirsuta**
Alniophagus alni (Niisima), *Ambrosiodmus apicalis* (Blandford), *Ambrosiodmus hirsuta* (Eichhoff), *Platypus severini* Blandford, *Trypodendron niponicum* Blandford, *Trypodendron signatum* (Fabricius), *Xyleborus atratus* Eichhoff.
- Alnus incana**
Alniophagus alni (Niisima), *Dryocoetes alni* (Georg), *Trypophloeus alni* (Lindemann).
- Alnus japonica**
Ambrosiodmus apicalis (Blandford), *Ambrosiodmus rubricollis* (Eichhoff), *Crossotarsus niponicus* Blandford, *Neopteleobius scutulatus* (Blandford), *Platypus severini* Blandford, *Xyleborinus saxseni* (Ratzeburg), *Xyleborus atratus* Eichhoff, *Xyleborus sciryorensis* Murayama.
- Alnus kamtschatica**
Ernoporicus longus (Eggers).
- Alnus maximoviczii**
Ernoporicus longus (Eggers).
- Alnus nepalensis**
Diapus quadrispinatus Chapuis, *Diapus quinquespinatus* Chapuis, *Platypus falcatus* Strohmeyer, *Scolytoplatypus darjeelingi* Stehling, *Scolytoplatypus pubescens* Hagedorn.
- Alnus nitida**
Cryphalus fulvipes Wood, *Diapus aculeatus* Blandford, *Platypus falcatus* Strohmeyer, *Scolytoplatypus minimus* Hagedorn.
- Alnus rhombifolia**
Alniophagus aspericollis (LeConte).
- Alnus rubra**
Alniophagus aspericollis (LeConte).

Alnus rugosa*Trypophloeus striatulus* (Mannerheim).***Alnus sibirica****Ambrosiodmus apicalis* (Blandford), *Ambrosiodmus rubricollis* (Eichhoff), *Cryphalus furukawai* Murayama.***Alnus sinuata****Alniphagus hirsutus* Schedl.***Alnus* spp.**

Ambrosiodmus lewisi (Blandford), *Caryphoreus alni* (Bright), *Corthylus abbreviatus* Eichhoff, *Corthylus comatus* Blandford, *Corthylus concavus* Bright, *Corthylus diligens* Wood, *Corthylus villus* Bright, *Cryphalus alni* Krivulitskaya, *Dryocoetes padi* Stark, *Gnathotrichus retusus* (LeConte), *Gymnochilus alni* Wood, *Hyllocurus hirtellus* (LeConte), *Monarthrum bidentatum* Wood, *Monarthrum hoegei* (Blandford), *Monarthrum laterale* (Eichhoff), *Monarthrum umbrinum* (Blandford), *Pityophthorus alni* Blackman, *Pityophthorus abnicolus* Wood, *Platypus otiosus* Schedl, *Platypus simulans* Schedl, *Scolytoplatypus daïmo* Blandford, *Scolytoplatypus mikado* Blandford, *Scolytoplatypus tycon* Blandford, *Scolytus laevis* Chapuis, *Tessrocercus spinolae* Chapuis, *Trypodendron gainaensis* (Murayama), *Trypophloeus salicis* Hopkins, *Xyleborinus alni* (Nisima), *Xyleborus atratus* Eichhoff, *Xyleborus dispar* (Fabricius), *Xyleborus maiche* (Stark), *Xyleborus pfeili* (Ratzeburg), *Xyleborus seriaton* Blandford, *Xyleborus titubanter* Schedl, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus germanus* (Blandford), *Xyloterinus politus* (Say).

Alnus suaveolens*Trypophloeus rybinskii* Reitter.***Alnus tenuifolia****Alniphagus aspericollis* (LeConte), *Alniphagus hirsutus* Schedl.***Alnus tiliaefolia****Scolytoplatypus darjeelingi* Stebbing.***Alnus tinctoria glabra****Xyleborus atratus* Eichhoff.***Alnus viridis****Dryocoetes alni* (Georg), *Trypophloeus rybinskii* Reitter.***Aloe vera****Hypothenemus californicus* Hopkins, *Hypothenemus erudiae* (Panzer), *Hypothenemus eruditus* Westwood.***Alphitonia excelsa****Hypothenemus melasomus* (Lea).***Alphitonia petriei****Anasa truncatus* (Erichson), *Platypus queenslandi* Schedl, *Xyleborus similis* Ferrari.***Alphitonia* spp.***Diapys nebulosus* Roberts, *Hyledius nitidicollis* (Motschulsky).***Alphousea ventricosa****Platypus curvus* Strohmeier, *Platypus hybridus* Schedl, *Platypus indicus* Strohmeier, *Platypus secretus* Sampson.***Alstonia angustifolia****Anasa versicolor* (Sampson).***Alstonia boonei****Ambrosiodmus aegir* (Eggers), *Chaetastus tuberculatus* (Chapuis), *Cyclorhipidium crucepennae* (Schedl), *Doliopygus carapae* Schedl, *Doliopygus jurioni* Schedl, *Platypus hüntzi* Schaufuss, *Triozastus marshalli* (Sampson), *Xyleborus consobrinus* Eggers.***Alstonia congensis****Chaetastus tuberculatus* (Chapuis), *Doliopygus divaricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus**erichsoni* (Chapuis), *Doliopygus lebruni* Schedl, *Doliopygus punctiventris* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeier), *Doliopygus unicornis* Schedl, *Periommatius grandis* Schedl, *Platypus hüntzi* Schaufuss, *Platypus solutus* Schedl, *Trachyostus schaufussi* (Strohmeier), *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus colvulus* (Fabricius).***Alstonia scholaris****Crossotarsus externidentatus* (Fairmaire), *Platypus advena* Schedl, *Platypus jansoni* Chapuis.***Alstonia* spp.***Anasa versicolor* (Sampson), *Eccoptyopterus spinosus* (Olivier), *Eucallacea andamanensis* (Blandford), *Periommatius grandis* Schedl, *Platypus cupulatus* Chapuis, *Platypus insulindicus* Schedl, *Platypus pseudocupulatus* Schedl, *Trachyostus aterrinus* (Schaufuss), *Xyleborus minutus* Blandford, *Xylosandrus crassiusculus* (Motschulsky).***Althoffia* spp.***Platypus jansoni* Chapuis, *Platypus solidus* Walker.***Altingia excelsa****Cnestus bicorus* (Eggers), *Diapys pusillimus* Chapuis, *Xyleborus mucronatus* Eggers, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus morigerus* (Blandford).***Amelauchier oralis****Scolytus amygdali* Guerin-Meneville.***Amelauchier* spp.***Chaetophloeus luterodoxus* (Casey), *Pseudopityophthorus minutissimus* (Zimmermann), *Scolytus rugulosus* (Muller).***Amerimonon brownei****Cnesinus strigicollis* LeConte.***Anherstia nobilis****Hypothenemus eruditus* Westwood.***Amonum* spp.***Xylosandrus morigerus* (Blandford).***Amoora rohituka****Coccotrypes vulgaris* (Eggers), *Crossotarsus squamulatus* Chapuis, *Platypus curvus* Strohmeier, *Platypus lepidus* Chapuis, *Xylosandrus difficilis* (Eggers).***Amoora spectabilis****Coccotrypes longior* (Eggers), *Platypus hamaticollis* Schedl.***Amoora* spp.***Platypus acctabuliformis* Roberts, *Platypus hippocrepicus* Roberts, *Platypus huijgeri* Motschulsky, *Xylosandrus crassiusculus* (Motschulsky).***Amoora wallichii****Coccotrypes cyperi* (Beeson), *Coccotrypes salakensis* (Schedl), *Ambrosiodmus lewisi* (Blandford), *Eucallacea wallacei* (Blandford), *Leptoxyleborus concisus* (Blandford), *Platypus curtatus* Sampson, *Scolytoplatypus pubescens* Hagedorn, *Xyleborinus subgranulatus* (Eggers), *Xyleborus shoreae* (Stebbing).***Amphimas ferrugineus****Acanthotomicus sexdentatus* (Eggers), *Doliopygus chapuisi* (Duvivier), *Doliopygus serratus* (Strohmeier), *Platypus parallelus* (Fabricius), *Xyleborus colvulus* (Fabricius).***Amphimas pterocarpoides****Doliopygus unicornis* Schedl, *Mesoplatypus venustus* Schedl.***Amygdalus communis****Scolytus amygdali* Guerin-Meneville.

- Amyris balsamifera**
Pseudotsyanoxes securigerus (Blackman).
- Anacardium excelsum**
Xyleborus volutus (Fabricius).
- Anacardium occidentale**
Crossotarsus minax (Walker), *Eccoptyterus spinosus* (Olivier), *Hypothenemus macrolabii* (Eggers), *Xyleborinus andrevesi* (Blandford), *Xyleborinus perexiguus* (Schedl), *Xyleborus perforans* (Wollaston), *Xylosandrus manicus* (Blandford).
- Anacardium spp.**
Xyleborinus andrevesi (Blandford), *Xylosandrus compactus* (Eichhoff).
- Anagyris foetida**
Liparthrum genistae (Aube).
- Audira jamaicensis**
Xyleborus ferrugineus (Fabricius).
- Audira spp.**
Xylosandrus compactus (Eichhoff).
- Andropogon spp.**
Hypothenemus pubescens Hopkins.
- Angophora costata**
Xyleborus perforans (Wollaston).
- Angylocalyx pynaertii**
Acanthotomicus angylocalyx (Schedl), *Chaetastus tuberculatus* (Chapuis), *Cylindropalpus laudatus* (Schedl), *Doliopygus artespimatus* (Schedl), *Doliopygus citri* Schedl, *Doliopygus ghesquieri* (Schedl), *Doliopygus lebrunii* Schedl, *Doliopygus lecontei* Schedl, *Doliopygus medius* Schedl, *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus unicomis* Schedl, *Hypothenemus eruditus* Westwood, *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Platypus orientalis* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus pilosellus* (Schedl), *Xyleborus alluaudi* Schauffuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Aningeria altissima**
Cylindropalpus affinis Strohmeyer, *Periommatius grandis* Schedl, *Platypus nebulosus* Roberts.
- Aningeria robusta**
Chaetastus tuberculatus (Chapuis), *Cylindropalpus affinis* Strohmeyer, *Cylindropalpus granulatus* (Schedl), *Cylindropalpus pumilio* (Schedl), *Doliopygus coclocephalus* (Schauffuss).
- Aningeria spp.**
Trachyostus aterrimus (Schauffuss).
- Anisopappus spp.**
Hypothenemus grandis Schedl.
- Anisophyllea spp.**
Doliopygus bidentatus (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Platypus solutus* Schedl, *Xyleborus alluaudi* Schauffuss.
- Anisoptera cochinchinensis**
Platypus shoreanus (Beeson).
- Anisoptera curtisii**
Webbia pabo Sampson.
- Anisoptera polyandra**
Cyclorhpidion sulcinoides (Schedl), *Genyocerus puer* (Schedl), *Platypus shoreanus* (Beeson), *Platypus strenuus* Schedl.
- Anisoptera spp.**
Acanthotomicus emarginatus Browne, *Cyrtogenius anisopterae* (Browne), *Diapus nanus* Schedl, *Diapus pusillimus* Chapuis, *Genyocerus diaphanus* (Schedl), *Genyocerus papuanus* Roberts, *Genyocerus puer* (Schedl), *Platypus jansonii* Chapuis, *Platypus solidus* Walker, *Xyleborus bidentatus* (Motschulsky), *Xyleborus moluccanus* Browne.
- Annona cherimolia**
Araptus selcazi (Blackman).
- Annona mucosa**
Coccotrypes rutschuruiensis Eggers.
- Annona spp.**
Eucallalcea xanthopus (Eichhoff), *Hypothenemus birnanus* (Eichhoff), *Hypothenemus brunus* (Hopkins), *Hypothenemus eruditus* Westwood, *Hypothenemus gossypii* (Hopkins), *Xyleborus similis* Ferrari, *Xylosandrus compactus* (Eichhoff).
- Annona squamosa**
Coccotrypes carpophagus (Homung), *Xyleborus perforans* (Wollaston).
- Anogeissus acuminata**
Ambrosiodinus lantanae (Eggers), *Coccotrypes nubibus* (Blandford), *Polygraphus anogeissi* Wood, *Sphaerotrypes coimbatorensis* Stebbing, *Xyleborus similis* Ferrari.
- Anogeissus latifolia**
Platypus solidus Walker, *Platypus uncinatus* Blandford, *Sphaerotrypes coimbatorensis* Stebbing, *Sphaerotrypes globulus* Blandford, *Xyleborus perforans* (Wollaston).
- Anogeissus spp.**
Ficicis despectus (Walker).
- Anonidium manni**
Chaetastus tuberculatus (Chapuis), *Coccotrypes ghesquieri* Eggers, *Coccotrypes sparsepilosus* (Eggers), *Coccotrypes subovalis* Eggers, *Cylindropalpus laudatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus citri* Schedl, *Doliopygus conradi* (Strohmeyer), *Doliopygus divaricus* (Schedl), *Doliopygus donisi* Schedl, *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus lateralis* Schedl, *Doliopygus lebrunii* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus megaloma* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicomis* Schedl, *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Periommatius longicollis* Chapuis, *Periommatius subrobustus* Schedl, *Platypus hintzi* Schauffuss, *Platypus impressus* (Strohmeyer), *Platypus intermedius* (Schedl), *Platypus orientalis* (Strohmeyer), *Platypus picinus* Schedl, *Platypus schenklingi* (Strohmeyer), *Platypus solutus* Schedl, *Platypus spinulosus* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus ferrugineus* (Fabricius).
- Anopyxis klaineana**
Cylindropalpus pumilio (Schedl), *Xyleborus affinis* Eichhoff.
- Anopyxis spp.**
Hypothenemus eruditus Westwood.
- Anthocaryon spp.**
Premnobius cavipennis Eichhoff.
- Anthocephalus cadamba**
Dactylipalpus transversus Chapuis, *Eucallalcea interjectus* (Blandford), *Platypus anthocephali* Schedl, *Platypus obliquetruncatus* Schedl, *Platypus secretus* Sampson, *Platypus solius* Walker, *Platypus suffodiens* Sampson.

Anthocephalus spp.

Leptoxyleborus concisus (Blandford), *Platypus jansoni* Chapuis, *Platypus solidus* Walker, *Xyleborinus andrewesi* (Blandford).

Anthocleista nobilis

Chaetastus montanus Schedl, *Chaetastus subalpinus* (Schedl), *Chaetastus tuberculatus* (Chapuis), *Doliopygus chapuisi* (Duvivier), *Doliopygus dubius* (Sampson), *Doliopygus punctiventris* Schedl, *Hylesinopsis baphiac* (Schedl), *Periommatius grandis* Schedl, *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Xyleborinus diversus* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volvulus* (Fabricius).

Anthonota fragrans

Cylindropalpus auricomans (Schaufuss), *Platypus hintzi* Schaufuss, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Anthonota macrocarpa

Hypothenemus socialis (Schedl).

Anthonota macrophylla

Coptoborus usagarius (Eggers), *Coptoborus forficatus* (Schedl), *Cylindropalpus auricomans* (Schaufuss), *Cylindropalpus grandulosus* (Schedl), *Cylindropalpus laudatus* (Schedl), *Doliopygus caesalpinii* Roberts, *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Polygraphus kasukunbii* Schedl, *Premnobius longus* Eggers, *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus gracilipennis* (Schedl), *Xyleborinus sharpa* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus amanicus* Hagedorn, *Xyleborus ferrugineus* (Fabricius), *Xyleborus ficus* Eggers, *Xyleborus subtuberculatus* Eggers, *Xyleborus volvulus* (Fabricius).

Anthonota micraster

Coptoborus usagarius (Eggers), *Premnobius longus* Eggers.

Anthonota spp.

Cylindropalpus camerunus (Schedl), *Platypus forcipatus* Schedl.

Anthurium spp.

Xylosandrus compactus (Eichhoff).

Antiaris africana

Chaetastus tuberculatus (Chapuis), *Doliopygus brevis* (Strohmeyer), *Doliopygus conradi* (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Doliopygus exilis* (Chapuis), *Doliopygus nairobiensis* (Schedl), *Doliopygus opifex* (Sampson), *Doliopygus perbrevis* Schedl, *Doliopygus punctiventris* Schedl, *Doliopygus tenuis* (Strohmeyer), *Dryocoetoides cristatus* (Fabricius), *Periommatius excisus* Strohmeyer, *Platypus hintzi* Schaufuss, *Platypus intermedius* (Schedl), *Platypus orientalis* (Strohmeyer), *Platypus spinulosus* (Strohmeyer), *Polygraphus coronatus* Eggers, *Trachyostus schaufussi* (Strohmeyer), *Triozastus baughae* (Schaufuss), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xyleborus pseudoambasius* Schedl, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Antiaris spp.

Diamerus impar Chapuis, *Doliopygus interruptus* (Sampson), *Premnobius cavipennis* Eichhoff, *Trachyostus aterrimus* (Schaufuss).

Antiaris toxicaria

Chaetastus tuberculatus (Chapuis), *Xyleborus emarginatus* Eichhoff.

Antiaris wehleitschii

Chaetastus tuberculatus (Chapuis), *Doliopygus conradi* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebrunii* Schedl, *Doliopygus leferrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus spectabilis* Schedl, *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xyleborus volvulus* (Fabricius).

Antidesma petiolare

Eucallacca xanthopus (Eichhoff).

Antidesma spp.

Crossotarsus muiszechi Chapuis, *Diapus turgidus* Roberts, *Xylosandrus compactus* (Eichhoff).

Antrocaryon micraster

Diapus quinquespinatus Chapuis, *Doliopygus bilobatus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus leferrei* Schedl, *Hypothenemus eruditus* Westwood, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Premnobius robustulus* (Schedl), *Xyleborus alluaudi* Schaufuss, *Xyleborus caudatus* Schedl, *Xyleborus ferrugineus* (Fabricius).

Antrocaryon namani

Xyleborus affinis Eichhoff, *Xylosandrus crassiusculus* (Motschulsky).

Aphanamixa rohituka

Eccoptopterus limbus Sampson, *Hadrodenius comans* (Sampson), *Xyleborus perforans* (Wollaston), *Xylosandrus maucus* (Blandford).

Aphananthe aspera

Eucallacca validus (Eichhoff).

Aphananthe sakalava

Platypus madagascariensis Chapuis.

Aphloia theaeformis

Mitosoma excisum Schaufuss.

Apoplanesia paniculata

Chaetophloeus minimus Wood.

Aporosa glohifera

Crossotarsus siva Beeson.

Aporosa spp.

Platypus utilis (Schedl).

Aptandra zenkeri

Doliopygus citri Schedl, *Theoborus ricini* (Eggers), *Xyleborus affinis* Eichhoff.

Apuleia forrea

Spernophthorus apuleiae Costa Lima.

Aralia decaimcana

Xyleborus atratus Eichhoff.

Aralidium pinnatifidum

Arixyleborus leprosulus Schedl, *Eccoptopterus spinosus* (Olivier).

Araucaria angustifolia

Cryptocarenum seriatus Eggers, *Pityophthorus anticus* Schedl, *Platypus araucariae* Schedl, *Tesserocerus guerini* Chapuis, *Xyleborinus scutosus* (Eichhoff), *Xyleborus*

- adelographus* Eichhoff, *Xylechinomus contractus* (Chapuis), *Xylechinomus minimus* Schedl, *Xylechinomus pilosus* Wood.
- Araucaria araucana**
Hylurgonotus antipodius (Eggers).
- Araucaria bidicillii**
Hylurdretonus piniarius Schedl.
- Araucaria brasiliiana**
Arauptus araucariae (Schedl), *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xylechinomus brasiliensis* (Schedl), *Xylechinomus hirsutus* Schedl.
- Araucaria cunninghamii**
Coptodryas eucalyptica (Schedl), *Cryphalus araucariae* Schedl, *Cryptoxyleborus gracilior* Browne, *Diapus nanus* Schedl, *Diapus papuanus* Schedl, *Eucallacca barbatus* (Hagedorn), *Hyleops glabratus* Schedl, *Hylurdretonus araucariae* Schedl, *Hylurdretonus piniarius* Schedl, *Pachycotes araucariae* Schedl, *Pachycotes australis* Schedl, *Pachycotes clavatus* Schedl, *Pachycotes minor* Wood, *Platypus froggatti* Sampson, *Platypus jansoni* Chapuis, *Platypus opacideclivis* Schedl, *Platypus parallelus* (Fabricius), *Platypus queenslandi* Schedl, *Platypus solidus* Walker, *Platypus varipennis* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus graciosus* Schedl, *Xyleborus nitellus* Browne, *Xyleborus perforans* (Wollaston), *Xyleborus perplexus* Schedl, *Xyleborus similis* Ferrari, *Xylosandrus pseudosolidus* (Schedl).
- Araucaria heterophylla**
Pachycotes kuscheli Schedl.
- Araucaria hunsteini**
Chaetoptelius impar (Schedl), *Cryphalus brunneus* Browne, *Cryphalus cylindrus* Browne, *Cryphalus diversicolor* Browne, *Diapus quinquespinatus* Chapuis, *Hylurdretonus corticinus* Wood, *Platypus jansoni* Chapuis, *Platypus praepositus* Schedl.
- Araucaria spp.**
Ambrosiodmus compressus (Lea), *Diapus pusillinus* Chapuis, *Hylurgonotus arnaticeps* Schedl, *Hylurgonotus solidus* (Schedl), *Hylurgonotus tuberculatus* (Eggers), *Pachycotes peregrinus* (Chapuis), *Pachycotes villosus* Schedl, *Xylechinomus valdivianus* (Eggers), *Xylosandrus compactus* (Eichhoff).
- Araujia sericifera**
Arauptus araujiae Brethes.
- Arbutus arizonicus**
Liparthrum arizonicum Wood.
- Arbutus menziesii**
Hylcurus hirtellus (LeConte).
- Arbutus spp.**
Cnesinus elegans Blandford, *Cnesinus elegantis* Wood, *Corthylocurus mexicanus* (Schedl), *Corthylus detrimentosus* Schedl, *Liparthrum arizonicum* Wood, *Micracisella nitidula* Wood, *Micracisella ocellata* Wood, *Pseudothy-sanoes arbuti* (Wood).
- Arbutus xalapensis**
Cnesinus setulosus Blandford.
- Arceuthobium globosum**
Pityophthorus arceuthobii Wood.
- Archontophoenix alexandrae**
Coccotrypes carpophagus (Hornung).
- Archontophoenix cunninghamiana**
Coccotrypes congonus Eggers.
- Ardisia paniculata**
Cnesinus strigicollis LeConte, *Hypothenemus birmanus* (Eichhoff), *Hypothenemus brunneus* (Hopkins), *Hypothenemus hirsutus* (Wood), *Hypothenemus squamosus* (Hopkins).
- Ardisia spp.**
Corthylus micacirrus Wood, *Platypus crassicornis* Schedl, *Xylosandrus zimmermanni* (Hopkins).
- Areca catechu**
Coccotrypes carpophagus (Hornung), *Coccotrypes dactyliperda* (Fabricius), *Hypothenemus eruditus* Westwood, *Xyleborus perforans* (Wollaston).
- Arenga saccharifera**
Coccotrypes magnus Beeson.
- Arenga spp.**
Platypus pseudocupulatus Schedl, *Xyleborus affinis* Eichhoff.
- Argyrodeudron peralatum**
Platypus australis Chapuis.
- Argyrodeudron spp.**
Ambrosiodmus compressus (Lea), *Platypus semi-granosus* (Sampson), *Xyleborus similis* Ferrari.
- Argyrodeudron trifoliolatum**
Xyleborus perforans (Wollaston).
- Argyrodeudron trifoliolatum peralatum**
Xyleborus perforans (Wollaston).
- Aristolochia anguicida**
Pityophthorus uemoralis Wood.
- Armanica spp.**
Cryphalus malus Nüsisima.
- Artemisia argentea**
Liparthrum artemisiae Wollaston.
- Arthrophyllum diversifolium**
Coptodryas nugas (Schedl), *Cryphalus simplex* (Schedl), *Eccoptopterus limbis* Sampson, *Eccoptopterus spinosus* (Olivier), *Eucallacca fornicatus* (Eichhoff), *Eucallacca xanthopus* (Eichhoff), *Platypus pseudocupulatus* Schedl, *Xyleborus perforans* (Wollaston), *Xylosandrus morigerus* (Blandford).
- Arthrosamanea altissima**
Doliopygus exilis (Chapuis), *Premnobius nodulosus* Hagedorn, *Xyleborus affinis* Eichhoff, *Xyleborus ambasi-usculus* Eggers.
- Artobotrys spp.**
Coccotrypes subovalis Eggers.
- Artocarpus altilis**
Cryphalus trypanoïdes Beeson.
- Artocarpus anisophylla**
Diamerus interstitialis (Lea).
- Artocarpus chaplasha**
Coccotrypes salakensis (Schedl), *Diapus quinquespinatus* Chapuis, *Leptoxyleborus concisus* (Blandford), *Platypus verehumatus* (Beeson), *Xyleborus pumilus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).
- Artocarpus dadah**
Crossotarsus wallacci (Thomson), *Xyleborinus andreweisi* (Blandford), *Xyleborus haberkorni* Eggers, *Xylosandrus mancus* (Blandford).
- Artocarpus diversifolium**
Cryphalus artocarpus (Schedl).
- Artocarpus elastica**
Acanthotomicus artocarpi (Browne), *Coccotrypes cinnamomi* (Eggers), *Coccotrypes marginatus* (Browne), *Crossotarsus terminatus* Chapuis, *Cryphalus artocarpus* (Schedl), *Cryphalus tenuis* Schedl, *Cyclorhpidion polyodon* (Eggers), *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Eccoptopterus gracilipes* (Eichhoff), *Eucallacca destrucens* (Bland-

ford), *Hypothenemus artocarpi* Browne, *Leptoxyleborus concisus* (Blandford), *Platypus bajulus* Schedl, *Platypus biuncus* Blandford, *Platypus forficula* Chapuis, *Platypus jansonii* Chapuis, *Platypus pseudocupulatus* Schedl, *Xyleborus amphiceranoides* Hagedorn, *Xyleborus apertus* Schedl, *Xyleborus fallax* Eichhoff, *Xyleborus picus* (Motschulsky), *Xylosandrus difficilis* (Eggers).

Artocarpus fraxinifolius

Coccotrypes vulgaris (Eggers), *Platypus secretus* Sampson.

Artocarpus heterophylla

Hyledius detersus (Chapuis), *Xyleborinus sculptilis* (Schedl).

Artocarpus hirsuta

Xyleborus perforans (Wollaston).

Artocarpus incisa

Cyrtogenius brevior (Eggers), *Platypus jansonii* Chapuis.

Artocarpus integrifolia

Diameris curvifer (Walker), *Eucallacea interjectus* (Blandford), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus eruditus* Westwood, *Liparthrum artocarpi* Wood, *Platypus indicus* Strohmeier, *Xyleborus perforans* (Wollaston), *Xyleborus picus* (Motschulsky), *Xyleborus similis* Ferrari, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Artocarpus introcha

Platypus lepidus Chapuis.

Artocarpus kunstleri

Acanthotomicus kepongi (Schedl), *Cryphalus artocarpus* (Schedl), *Cyrtogenius brevior* (Eggers), *Diameris luteus* Hagedorn, *Eucallacea subparallelus* (Eggers), *Hypothenemus eruditus* Westwood, *Xyleborus amphiceranoides* Hagedorn.

Artocarpus lakoocha

Ambrosiodmus dihingensis (Eggers), *Ambrosiodmus sulcatus* (Eggers), *Baiocis perianthus* (Schedl), *Coccotrypes cyperi* (Beeson), *Cryphalus dorsalis* (Motschulsky), *Cyrtogenius glaber* (Schedl), *Eucallacea wallacci* (Blandford), *Ozopemon obanus* Hagedorn, *Platypus curtatus* Sampson, *Platypus pseudocupulatus* Schedl, *Platypus signatus* Chapuis, *Platypus westwoodi* Chapuis, *Xyleborus perforans* (Wollaston), *Xyleborus pumilus* Eggers, *Xyleborus rufobrunneus* Eggers, *Xyleborus volutus* (Fabricius).

Artocarpus lauceaeifolia

Coccotrypes advena Blandford, *Coccotrypes cinnamomi* (Eggers), *Coptodryas nuxax* (Schedl), *Hypothenemus artocarpi* Browne, *Xyleborus perforans* (Wollaston).

Artocarpus nobilis

Eccoptopterus spinosus (Olivier).

Artocarpus rigida

Coccotrypes advena Blandford, *Coccotrypes cinnamomi* (Eggers), *Cryphalus tenuis* Schedl, *Hypothenemus artocarpi* Browne.

Artocarpus scortechini

Anasa versicolor (Sampson), *Coccotrypes advena* Blandford, *Coccotrypes cinnamomi* (Eggers), *Coccotrypes marginatus* (Browne), *Coccotrypes petioli* (Browne), *Coptodryas cylindrica* (Eggers), *Cryphalus tenuis* Schedl, *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Eucallacea xanthopus* (Eichhoff), *Hypocryphalus corpulentus* Schedl, *Hypothenemus artocarpi* Browne, *Platypus insulindicus* Schedl, *Xyleborus amphiceranoides* Hagedorn.

Artocarpus spp.

Cladoconus interruptus (Eggers), *Coccotrypes*

gedeanus (Eggers), *Coccotrypes longior* (Eggers), *Coccotrypes medius* (Eggers), *Cryphalus bronnei* Wood, *Cryphalus mollis* Schedl, *Cryphalus sylvicola* (Perkins), *Cyrtogenius parvus* Browne, *Eucallacea andamanensis* (Blandford), *Eucallacea fornicatus* (Eichhoff), *Ficicis despectus* (Walker), *Genyocerus diaphanus* (Schedl), *Hadrodemius globus* (Blandford), *Hypocryphalus perminimus* (Schedl), *Hypothenemus artocarpi* Browne, *Hypothenemus eruditus* Westwood, *Leptoxyleborus concisus* (Blandford), *Platypus cupulatus* Chapuis, *Platypus forficula* Chapuis, *Platypus insulindicus* Schedl, *Xyleborinus exiguus* (Walker), *Platypus jansonii* Chapuis, *Platypus solidus* Walker, *Platypus westwoodi* Chapuis, *Xyleborus alluaudi* Schaufuss, *Xyleborus apertus* Schedl, *Xyleborus javanus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus principalis* Eichhoff, *Xyleborus pseudocylindricus* Eggers, *Xylosandrus ater* (Eggers), *Xylosandrus crassiusculus* (Motschulsky).

Artocarpus sticus

Hypothenemus artocarpi Browne.

Arundinaria alpina

Dendrochilus arundinarius Schedl.

Asimina spp.

Hypothenemus eruditus Westwood.

Asimina triloba

Hypothenemus eruditus Westwood, *Trischidias atomus* (Hopkins).

Asparagus spp.

Mimioctonus congonus (Schedl), *Xylosandrus compactus* (Eichhoff).

Aspericollis spp.

Hypothenemus eruditus Westwood.

Astragalus spp.

Hypothenemus eruditus (Panzer).

Astrocarym murumura

Coccotrypes surinamensis Schedl.

Astronium graveolens

Styphlosoma subulatum Wood, *Xyleborus volutus* (Fabricius).

Aucoumea klaineana

Doliopygus coelocephalus (Schaufuss), *Doliopygus conradii* (Strohmeier), *Doliopygus erichsonii* (Chapuis), *Doliopygus serratus* (Strohmeier), *Dryocotoides cristatus* (Fabricius), *Hypothenemus concolor* Hagedorn, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Trachyostus aterrimus* (Schaufuss), *Xyleborus affinis* Eichhoff, *Xyleborus ambasiusculus* Eggers, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky).

Augophora costata

Xyleborus perforans (Wollaston).

Austrobuxus nitidus

Crossotarsus squanulatus Chapuis, *Platypus cupulatus* Chapuis, *Platypus pseudocupulatus* Schedl.

Autranella congolensis

Chaetastus tuberculatus (Chapuis), *Coccotrypes cylindricus* (Eggers), *Diapus quinquespinatus* Chapuis, *Doliopygus artespinatus* (Schedl), *Doliopygus coelocephalus* (Schaufuss), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebrunii* Schedl, *Doliopygus leferrei* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeier), *Platypus parallelus* (Fabricius), *Trachyostus schaufussi* (Strohmeier), *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius).

Acicennia officinalis*Xyleborus ferrugineus* (Fabricius).**Acicennia spp.***Xyleborus bidentatus* (Motschulsky).**Baccharus spp.***Micracis sicainei* Blackman, *Pityophthorus paulus* Wood, *Scolytodes constrictus* Wood.**Baccaura parvifolia***Crossotarsus siporamus* Schedl.**Baikaca eminii***Xyleborus multispinatus* Eggers, *Xylocleptes baikiae* Schedl.**Baikaea spp.***Ambrosiodonus albizzianus* (Schedl), *Doliopygus interruptus* (Sampson).**Bailonella toxisperma***Cyclorhipidion agnaticeps* (Schedl).**Balanites wilsoniana***Hypothenemus eruditus* Westwood, *Hypothenemus perhispidus* (Eggers), *Hypothenemus socialis* (Schedl).**Balanocarpus heimii***Arixyleborus mediosectus* (Eggers), *Arixyleborus scabripennis* (Blandford), *Coccotrypes brunneus* (Nunberg), *Coccotrypes gedeanus* (Eggers), *Coccotrypes suberibrosus* (Blandford), *Coptodryas curvidentis* (Schedl), *Crossotarsus externedentatus* (Fairmaire), *Cryptoxyleborus dryobalanopsis* Schedl, *Cyclorhipidion agnatum* (Eggers), *Cyclorhipidion longatum* (Blandford), *Diapys pusillimus* Chapuis, *Diapys quinquespinatus* Chapuis, *Genyocerus abdominalis* (Schedl), *Hypothenemus cuneolus* (Schedl), *Leptoxyleborus concisus* (Blandford), *Platypus armaticeps* Schedl, *Platypus balanocarpus* Schedl, *Platypus bifurcus* (Schedl), *Platypus curtus* Chapuis, *Platypus planodeclivis* Schedl, *Platypus shoreanus* (Beeson), *Platypus transformis* Schedl, *Platytarsulus elongatus* Schedl, *Schedlia sumatrana* (Hagedorn), *Xyleborus amplexicauda* Hagedorn, *Xyleborus apertus* Schedl, *Xyleborus balanocarpus* Nunberg, *Xyleborus cylindromorphus* Eggers, *Xyleborus dolosus* Blandford, *Xyleborus emarginatus* Eichhoff, *Xyleborus macropterus* Schedl, *Xyleborus persimilis* Eggers, *Xyleborus triangi* Schedl.**Balfourodendron riedelianum***Xyleborus ferrugineus* (Fabricius).**Baloghia lucida***Chaetoptelinus tricolor* (Schedl), *Xyleborus perforans* (Wollaston).**Bambusa spp.***Hypothenemus solitarius* (Schedl), *Scolytoplattypus mikado* Blandford.**Bambusa tulda***Coccotrypes barbatus* (Schedl).**Bambusa vulgaris***Chramesus gracilis* Wood, *Chramesus macrocornis* Wood, *Hylocurus nodulus* Wood.**Banksia grandis***Anasa banksiae* (Schedl).**Baphia nitida***Cyclorhipidion crucifer* (Hagedorn), *Cylindropalpus camerunus* (Schedl), *Cylindropalpus laudatus* (Schedl), *Doliopygus citri* Schedl, *Doliopygus interjectus* Schedl, *Doliopygus nairobiensis* (Schedl), *Hypothenemus eruditus* Westwood, *Triozastus banghuasi* (Schaufuss), *Xyleborus affinis* Eichhoff, *Xyleborus ambasiusculus* Eggers.**Baphia pubescens***Hylesinopsis baphiae* (Schedl), *Hylesinopsis quadrilaterulatus* (Schedl), *Hypothenemus biseriatus* (Eggers), *Hypothenemus camerunus* (Eggers), *Rhopalopselion grande* Schedl, *Rhopalopselion intermedium* Schedl, *Rhopalopselion nitidum* Schedl, *Rhopalopselion thompsoni* Schedl, *Tiarophorus intermedius* Schedl, *Xyleborus picus* (Motschulsky).**Baphia soldheidii***Hylesinopsis quadrilaterulatus* (Schedl), *Rhopalopselion grande* Schedl, *Rhopalopselion intermedium* Schedl, *Rhopalopselion nitidum* Schedl.**Baphia spp.***Premnobius cavipennis* Eichhoff, *Rhopalopselion confusum* Eggers, *Xyleborus volvulus* (Fabricius).**Barringtonia excelsa***Hypothenemus eruditus* Westwood.**Barringtonia macrostachya***Anasa versicolor* (Sampson).**Barteria fistulosa***Doliopygus lefevrei* Schedl, *Doliopygus tenuis* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Xyleborus affinis* Eichhoff.**Barteria nigrimana***Cylindropalpus camerunus* (Schedl), *Cylindropalpus granulosus* (Schedl), *Doliopygus coelocephalus* (Schaufuss), *Doliopygus dubius* (Sampson), *Doliopygus retusus* Schedl, *Doliopygus tenuis* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Periommatius excisus* Strohmeyer, *Phrixosoma fuscovillosa* (Schedl), *Platypus hintzi* Schaufuss, *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).**Basjoo spp.***Hypothenemus eruditus* Westwood.**Bassia butyracea***Platypus verehuanus* (Beeson), *Scolytomimus assamensis* Schedl.**Bassia latifolia***Cryphalus scabricollis* Eichhoff, *Eccoptopterus spinosus* (Olivier), *Platypus uncinatus* Blandford, *Polygraphus anogeissi* Wood, *Scolytomimus assamensis* Schedl, *Scolytomimus mimusopsis* Wood, *Xyleborus perforans* (Wollaston), *Xyloctonus scolytoides* Eichhoff.**Bauhinia alba***Hypothenemus californicus* Hopkins, *Hypothenemus columbi* Hopkins, *Hypothenemus javanus* (Eggers).**Bauhinia grandiceps***Hypothenemus brunneus* (Hopkins), *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood.**Bauhinia krugii***Hypothenemus crudiae* (Panzer).**Bauhinia malabarica***Crossotarsus emorsus* Beeson.**Bauhinia purpurea***Hypothenemus eruditus* Westwood, *Xyleborus similis* Ferrari.**Bauhinia spp.***Crossotarsus externedentatus* (Fairmaire), *Crossotarsus squamulatus* Chapuis, *Hypothenemus eruditus* Westwood, *Xyleborus rugosipennis* Schedl, *Xylosandrus compactus* (Eichhoff), *Xylosandrus retusus* (Eichhoff).**Bauhinia tomentosa***Hypothenemus ater* (Eggers), *Hypothenemus bauhiniae* Schedl, *Hypothenemus eruditus* Westwood, *Hypothe-*

nemus javanus (Eggers), *Hypothenemus morio* (Eggers), *Hypothenemus mozambiquensis* Eggers, *Hypothenemus seriatus* (Eichhoff), *Miocryphalus attenuatus* (Eggers), *Scolytomimus assamensis* Schedl, *Xyleborus subasperulus* Eggers, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky).

Bauhinia variegata

Eucallacea andamanensis (Blandford), *Eucallacea fornicatus* (Eichhoff), *Hypothenemus setosus* (Eichhoff), *Xyleborus perforans* (Wollaston), *Xylosandrus discolor* (Blandford).

Beilschmiedia bancroftii

Platypus carbonescens (Beeson).

Beilschmiedia corbisieri

Doliopygus lebruni Schedl, *Doliopygus megatoma* Schedl, *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus criticus* (Schedl), *Perionnatus excisus* Strohmeyer, *Prennobiobius robustulus* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus africanus* Eggers, *Xyleborus ferrugineus* (Fabricius).

Beilschmiedia gilbertii

Chaetastus tuberculatus (Chapuis), *Cylindropalpus laudatus* (Schedl), *Perionnatus excisus* Strohmeyer, *Perionnatus longicollis* Chapuis, *Perionnatus subrobustus* Schedl, *Platypus beilschmiediae* Schedl, *Platypus hintzi* Schaufuss, *Platypus solutus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus consobrinus* Eggers, *Xyleborus volutus* (Fabricius).

Beilschmiedia louisii

Ambrosiodmus aegir (Eggers), *Cyclorhipidion agnaticeps* (Schedl), *Doliopygus bitalei* Schedl, *Doliopygus rhodesianus* (Schedl), *Mesoplattypus kitushi* Schedl, *Platypus orientalis* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus amanicus* Hagedorn, *Xyleborus principalis* Eichhoff.

Beilschmiedia obtusifolia

Xyleborus ipidia Schedl.

Beilschmiedia sikkimensis

Ambrosiodmus lantanae (Eggers), *Cyclorhipidion hirtum* (Hagedorn), *Diaprus spatulifer* Browne, *Eucallacea wallacci* (Blandford), *Platypus curtatus* Sampson, *Platypus lopluensis* Schedl.

***Beilschmiedia* spp.**

Ambrosiodmus eichhoffi (Schreiner), *Baiocis solominicus* Browne, *Prennobiobius cavipennis* Eichhoff, *Xylosandrus difficilis* (Eggers).

Belanophora glomerata

Chaetastus tuberculatus (Chapuis).

Belotia campbelli

Trischidias exigua Wood.

***Benzoin* spp.**

Phloeosinus pulchellus Blandford, *Scolytoplatypus mikado* Blandford, *Scolytoplatypus tycon* Blandford, *Xylosandrus mutilatus* (Blandford).

Benzoin thunbergii

Indocryphalus pubipennis (Blandford).

Berberis fremontii

Thysanoes berbericolens Wood.

Berberis nepalensis

Xyleborus mussooriensis Eggers.

***Berberis* spp.**

Corthybus punctatissimus (Zimmermann), *Xylosandrus brevis* (Eichhoff).

Berchemia scandens

Thysanoes berchemiae Blackman.

Berkheya spekeana

Rhopalopselion congouan (Schedl).

Berlinia acuminata

Cylindropalpus auricomans (Schaufuss), *Pityophthorus nposae* Schedl, *Platypus parallelus* (Fabricius), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus rothkirchi* Eggers, *Xyleborus volutus* (Fabricius).

Berlinia auriculata

Platypus hintzi Schaufuss.

Berlinia brieji

Platypus parallelus (Fabricius).

Berlinia confusa

Doliopygus berliniae Roberts, *Doliopygus caesalpiniae* Roberts.

Berlinia grandiflora

Pityophthorus nposae Schedl.

***Berlinia* spp.**

Doliopygus bitalei Schedl, *Doliopygus chapuisi* (Duvi-
vier), *Platypus hintzi* Schaufuss, *Platypus neosolidus*
Schedl, *Platypus parallelus* (Fabricius).

Berria amonilla

Hypothenemus brunneus (Hopkins), *Hypothenemus eruditus* Westwood.

Bersama abyssinica

Acanthotomicus tanganyikensis (Schedl).

***Bersama* spp.**

Chaetastus montanus Schedl, *Scolytoplatypus fasciatus*
Hagedorn.

Bertholletia excelsa

Hypothenemus obscurus (Fabricius).

Betonica officinalis

Thammurgus kaltenbachii (Baeh).

Betula grossa

Platypus calamus Blandford, *Platypus lewisi* Blandford.

Betula japonica

Xyleborinus alni (Niisima).

Betula lenta

Dryocoetes betulae Hopkins, *Trypodendron betulae*
Swaine.

Betula lutea

Dryocoetes betulae Hopkins, *Monarthrum mali* (Fitch),
Xyleborus ferrugineus (Fabricius).

Betula papyrifera

Dryocoetes betulae Hopkins, *Trypodendron betulae*
Swaine.

Betula platyphylla

Scolytus betulae Niisima.

Betula platyphylla japonica

Platypus lewisi Blandford, *Xyleborinus saxeseni* (Ratze-
burg).

Betula populifera

Pseudopityophthorus asperulus (LeConte).

Betula schmidtii

Xyleborus atratus Eichhoff.

***Betula* spp.**

Ambrosiodmus obliquus (LeConte), *Ambrosiodmus tachygraphus* (Zimmermann), *Ernoporicus fagi* (Fabri-
cius), *Hypothenemus erudiae* (Panzer), *Pseudopityoph-
thorus minutissimus* (Zimmermann), *Scolytus daluricus*
Chapuis, *Scolytus intricatus* (Ratzeburg), *Scolytus
ratzeburgi* Janson, *Taphrorychus betulae* Schedl, *Trypo-
dendron domesticum* (Linnaeus), *Trypodendron signatum*

- (Fabricius), *Xyleborus maiche* (Stark), *Xyleborus obesus* LeConte, *Xyleborus sayi* (Hopkins), *Xyleborus seriatus* Blandford, *Xyloterminus politus* (Say).
- Bidens pilosa**
Hypothenemus californicus Hopkins, *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus gossypii* (Hopkins).
- Bignonia spp.**
Hypothenemus crudiae (Panzer).
- Biota orientalis**
Ambrosiodmus rubricollis (Eichhoff), *Phloeosinus bicolor* (Brulle), *Phloeosinus hopehi* Schedl.
- Bischofia javanica**
Ambrosiodmus lecontei Hopkins, *Platypus biuncus* Blandford, *Platypus cavus* Strohmeier, *Xylosandrus crassiusculus* (Motschulsky).
- Bixa orellana**
Eucallacca fornicatus (Eichhoff), *Hypothenemus eruditus* Westwood, *Xyleborus mucronatus* Eggers, *Xylosandrus morigerus* (Blandford).
- Blacus fuscipennis**
Xyleborinus saxeseni (Ratzeburg).
- Blighia sapida**
Chaetastus tuberculatus (Chapuis), *Doliopygus brevis* (Strohmeier), *Doliopygus conradi* (Strohmeier), *Doliopygus dubius* (Sampson), *Doliopygus perbrevis* Schedl, *Doliopygus serratus* (Strohmeier), *Periommatatus grandis* Schedl, *Periommatatus longicollis* Chapuis, *Platypus schenkingi* (Strohmeier), *Triozastus marshalli* (Sampson), *Xyleborinus similans* (Eggers), *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers.
- Blighia spp.**
Prennobius cavipennis Eichhoff.
- Blighia unijugata**
Chaetastus tuberculatus (Chapuis).
- Blighia welwitschii**
Chaetastus tuberculatus (Chapuis), *Doliopygus divaricus* (Schedl), *Doliopygus erichsoni* (Chapuis), *Doliopygus jurioni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus unicornis* Schedl, *Periommatatus excisus* Strohmeier, *Periommatatus grandis* Schedl, *Periommatatus longicollis* Chapuis, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeier), *Triozastus banghaasi* (Schaufuss), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus volutus* (Fabricius).
- Bohea elatior**
Xyleborus ferrugineus (Fabricius), *Xyleborus perforans* (Wollaston).
- Bocconia frutescens**
Corthyoclon aztecum (Bright).
- Boehmeria scabra**
Hypothenemus californicus Hopkins, *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood.
- Boehmeria spp.**
Xylosandrus morigerus (Blandford).
- Boehmeria ulmifolia**
Microcorthyus demissus Wood, *Microcorthyus ocularis* Wood.
- Boieldieu spp.**
Hypothenemus eruditus Westwood.
- Bolboceranius bicolor**
Doliopygus megatoma Schedl, *Periommatatus similis* Strohmeier.
- Bombacopsis quinata**
Xyleborus affinis Eichhoff.
- Bombacopsis quintana**
Xyleborus ferrugineus (Fabricius).
- Bombax flammeum**
Platypus hintzi Schaufuss, *Platypus impressus* (Strohmeier), *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl.
- Bombax insigne**
Platypus quadrifissilis Schedl, *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.
- Bombax malabaricum**
Ambrosiodmus minor (Stebbing), *Cryphalus scabrifollis* Eichhoff, *Eucallacca interjectus* (Blandford), *Platypus cavus* Strohmeier, *Platypus cupulatus* Chapuis, *Platypus errans* (Sampson), *Platypus latifinis* Walker, *Platypus solidus* Walker, *Platypus uncinatus* Blandford, *Xyleborinus andrewesi* (Blandford), *Xyleborinus exiguus* (Walker), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus compactus* (Eichhoff).
- Bombax spp.**
Platypus indicus Strohmeier.
- Borassus flabellifer**
Coccotrypes carpophagus (Hornung), *Coccotrypes cyperi* (Beeson), *Coccotrypes variabilis* (Beeson), *Xyleborus affinis* Eichhoff.
- Borassus spp.**
Xyleborus affinis Eichhoff.
- Borrchia arborescens**
Pityophthorus borrichiae Wood.
- Borrchia frutescens**
Pityophthorus borrichiae Wood.
- Bosqueia angolensis**
Chaetastus montanus Schedl, *Chaetastus tuberculatus* (Chapuis), *Ctonoxylon bosqueiae* Schedl, *Diamerus impar* Chapuis, *Diamerus pinelioides* (Schaufuss), *Doliopygus bidentatus* (Strohmeier), *Doliopygus brevis* (Strohmeier), *Doliopygus chapuisi* (Duvivier), *Doliopygus coeloccephalus* (Schaufuss), *Doliopygus conradi* (Strohmeier), *Doliopygus erichsoni* (Chapuis), *Doliopygus exilis* (Chapuis), *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus punctiventris* Schedl, *Doliopygus serratus* (Strohmeier), *Doliopygus unicornis* Schedl, *Eccoptyterus spinosus* (Olivier), *Hylesinopsis confusus* (Eggers), *Hylesinopsis dubius* Eggers, *Hypothenemus arceae* (Hornung), *Mesoplatus kitushi* Schedl, *Periommatatus excisus* Strohmeier, *Periommatatus longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeier), *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl, *Rhopalopselion confusum* Eggers, *Triozastus banghaasi* (Schaufuss), *Triozastus caliginosus* Roberts, *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus principalis* Eichhoff, *Xyleborus scobinatus* Hagedorn, *Xyleborus volutus* (Fabricius).
- Bosqueia phoberos**
Chaetastus tuberculatus (Chapuis), *Doliopygus chapuisi* (Duvivier).
- Bosqueia spp.**
Ambrosiodmus albizzianus (Schedl), *Diamerus impar* Chapuis, *Dactylipalpus grouvellei* (Blandford).
- Boswellia serrata**
Carphoborus boswelliae (Stebbing), *Carphoborus latus*

- Wood, *Platypus uncinatus* Blandford. *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.
- Bouea macrophylla**
Crossotarsus squamulatus Chapuis. *Crossotarsus wal-lacei* (Thomson).
- Bouea spp.**
Platypus pseudocupulatus Schedl.
- Bourreria harenensis**
Dendrosinus bourreriae Schwarz.
- Brachychiton acerifolium**
Platypus subgranosus Schedl.
- Brachychiton populneum**
Platypus subgranosus Schedl.
- Brachystegia nigerica**
Doliopygus caesalpiniae Roberts. *Platypus hintzi* Schaufuss.
- Brachystegia spp.**
Ambrosiodmus cichhoffi (Schreiner), *Doliopygus interruptus* (Sampson), *Doliopygus mimicus* (Schedl), *Doliopygus spatiosus* (Schedl), *Premmobius cavipennis* Eichhoff.
- Brachystegia utilis**
Glostystus scydeli (Numberg), *Polygraphus zambianus* Beaver.
- Brackenridgea hookeri**
Crossotarsus squamulatus Chapuis. *Xylosandrus mancus* (Blandford).
- Bradfordi spp.**
Hypothenemus eruditus Westwood.
- Bramelia costaricensis**
Platypus coronatus Schedl.
- Breynia microphylla**
Eucallacea xanthopus (Eichhoff).
- Bridelia bridelifolia**
Cyclorhipidion agnaticeps (Schedl), *Xyleborus ruandae* Schedl.
- Bridelia retusa**
Eccoptopterus spinosus (Olivier), *Platypus uncinatus* Blandford.
- Bridelia sclereneuroides**
Hypothenemus tungamvansolus (Schedl), *Platypus hintzi* Schaufuss.
- Bridelia spp.**
Xylosandrus morigerus (Blandford).
- Bridela tomentosa**
Crossotarsus squamulatus Chapuis.
- Bridelia tulasneana**
Xyleborinus quadrispinosus (Eichhoff).
- Brillantaisia leonensis**
Dendrochilus robustus Schedl.
- Brillantaisia spp.**
Xyleborus ambaspennis Schedl, *Xyleborus clerodendronae* Schedl, *Xyleborus truncatulus* Schedl.
- Brosimum alicastrum**
Cladoctonus cubensis (Wood), *Phloeotribus setulosus* Eichhoff, *Pycnarthrum amersum* Wood.
- Brosimum spp.**
Phloeoborus scaber Erichson, *Phloeotribus biguttatus* Blandford, *Phloeotribus pilula* (Erichson), *Phloeotribus setulosus* Eichhoff, *Pycnarthrum brosimi* Wood, *Pycnarthrum subcarinatum* Wood, *Xyleborus affinis* Eichhoff.
- Broussonetia kazinoki**
Cryphalus exiguus Blandford.
- Brownea spp.**
Araptus hymenaeae (Eggers), *Araptus laevigatus* (Eggers), *Chramesus implitus* Wood, *Dryococtoides cristatus* (Fabricius), *Taurodemus bicornutus* (Wood), *Taurodemus splendidus* (Schaufuss), *Xyleborus volvulus* (Fabricius).
- Bruguiera gymorrhiza**
Coccotrypes fallax (Eggers), *Cryphalus boricensis* Schedl.
- Bruguiera parviflora**
Crossotarsus squamulatus Chapuis, *Platypus forficula* Chapuis, *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.
- Bumelia costaricensis**
Corthylus zelus Wood, *Monarthrum vittatum* (Blandford), *Platypus brevicornis* Wood, *Platypus eugestus* Wood, *Platypus eugestus* Wood.
- Buchanania arborescens**
Xyleborinus andrewesi (Blandford), *Xyleborus metacuculois* Eggers, *Xylosandrus crassiusculus* (Motschulsky).
- Buchanania lanzan**
Crossotarsus minax (Walker), *Cryphalus scabricollis* Eichhoff, *Xyleborinus andrewesi* (Blandford), *Xyleborus similis* Ferrari, *Xylosandrus gravidus* (Blandford), *Xylosandrus mancus* (Blandford).
- Buchanania latifolia**
Crossotarsus externedentatus (Fairmaire), *Platypus errans* (Sampson), *Platypus uncinatus* Blandford, *Xyleborus perforans* (Wollaston), *Xylosandrus mancus* (Blandford).
- Buchanania sessilifolia**
Crossotarsus schedli Browne, *Ficicis despectus* (Walker), *Xylosandrus crassiusculus* (Motschulsky).
- Buchanania spp.**
Crossotarsus externedentatus (Fairmaire), *Platypus jansonii* Chapuis, *Platypus negatus* Schedl, *Platypus solidus* Walker, *Xyleborinus andrewesi* (Blandford).
- Bucida buceras**
Hypothenemus crudiac (Panzer), *Hypothenemus eruditus* Westwood.
- Bucklandia populnea**
Coccotrypes nubilis (Blandford), *Diapus spatulifer* Browne.
- Buddleja spp.**
Xylosandrus compactus (Eichhoff).
- Budianana sessilifolia**
Hypothenemus javanus (Eggers).
- Buka limlia**
Crossotarsus bouvoulouiri Chapuis.
- Bumelia lanuginosa**
Cnesinus strigicollis LeConte.
- Bupleurum fruticosum**
Triotennus grangeri (Peyerimhoff).
- Bupleurum spinosum**
Triotennus grangeri (Peyerimhoff), *Triotennus lepincei* Balachowsky.
- Burkella spp.**
Diapus oosis Roberts, *Platypus vitensis* Roberts.
- Bursaria spinosa**
Cryphalus pilosellus Erichson.
- Bursera capallifera**
Schedlarium mexicanus Duges.
- Bursera instabilis**
Phloeoterus burserae Wood.
- Bursera microphylla**
Cactopinus desertus Bright, *Dendroterus striatus* (LeConte).

Bursera simarubra

Dendroterus eximius Wood, *Dendroterus defectus* Wood, *Dendroterus parilis* Wood, *Dendroterus resolutus* Wood, *Dendroterus sallaei* Blandford, *Dendroterus sodalis* Wood, *Schedlarius mexicanus* Duges, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus spathipennis* Eichhoff, *Xyleborus spinulosus* Blandford, *Xyleborus tunucensis* Hagedorn, *Xyleborus tolvulus* (Fabricius).

Bursera spp.

Cactopygus spinatus Wood, *Dendroterus cognatus* Wood, *Dendroterus decipiens* Wood, *Dendroterus fossifrons* Wood, *Dendroterus luteolus* (Schedl), *Dendroterus mexicanus* Blandford, *Dendroterus modicus* Wood, *Dendroterus sallaei* Blandford, *Hypothenemus crudiae* (Panzer), *Hypothenemus seriatus* (Eichhoff), *Microborus mexicanus* Wood, *Pityophthorus burserae* Wood, *Pityophthorus indigenus* Wood, *Pityophthorus nanus* Wood, *Pityophthorus nebulosus* Wood, *Xyleborus morulus* Blandford.

Bussea occidentalis

Cylindropalpus auricomans (Schanfuss), *Doliopygus brevis* (Strohmeyer), *Doliopygus conradi* (Strohmeyer), *Doliopygus mimicus* (Schedl), *Doliopygus nitidulus* Schedl, *Doliopygus opifex* (Sampson), *Doliopygus proximus* Schedl, *Doliopygus retusus* Schedl, *Hypothenemus concolor* Hagedorn, *Mesoplatypus ventricornis* Schedl, *Mesoplatypus venustus* Schedl, *Periommatatus longicollis* Chapuis, *Pityophthorus busseae* Schedl, *Pityophthorus suturalis* Eggers, *Premnobius sexspinosus* Eggers, *Stephanopodius ghanaensis* (Schedl), *Triozastus elongatus* Schedl, *Xyleborinus sharpae* (Hopkins).

Bussea spp.

Scolytplatypus occidentalis Browne.

Butea frondosa

Coccotrypes longior (Eggers), *Eucallacea andamanensis* (Blandford), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus manicus* (Blandford).

Butea monosperma

Crossotarsus externedentatus (Fairmaire), *Crossotarsus minax* (Walker), *Xyleborus fallax* Eichhoff, *Xyleborus similis* Ferrari, *Xylosandrus morigerus* (Blandford).

Butea spp.

Platypus solidus Walker.

Buxus macrocarpii

Scolytplatypus obtectus Schedl.

Buxus spp.

Scolytplatypus fasciatus Hagedorn.

Byronia sandwicensis

Xyleborus obliquus Sharp, *Xyleborus perforans* (Wollaston).

Byronina spp.

Xylosandrus compactus (Eichhoff).

Caesalpinia decapetala

Pityophthorus midlungensis Schedl, *Thamniurgus granulicollis* Schedl, *Xylocleptes sidanus* (Schedl).

Caesalpinia melanocarpa

Spermiophthorus caesalpiniae Blackman.

Caesalpinia pulcherrima

Hypothenemus eruditus Westwood.

Caesalpinia sappan

Hyorrhynchus lewisi Blandford.

Caesalpinia sopiaria

Cyrtogenius polyphagus (Schedl).

Cajanus cajon

Araptus hymenacae (Eggers), *Cyrtogenius midlungensis* (Schedl), *Hypothenemus brunneus* (Hopkins), *Hypothenemus californicus* Hopkins, *Hypothenemus eruditus* Westwood, *Hypothenemus gossypii* (Hopkins), *Hypothenemus seriatus* (Eichhoff).

Calamus caesius

Xylosandrus morigerus (Blandford).

Calamus spp.

Ambrosiodmus brunneipes (Eggers), *Eucallacea limatus* (Schedl), *Hypothenemus eruditus* Westwood, *Leptoxyleborus concisus* (Blandford), *Xyleborus scabri-collis* (Schedl), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus morigerus* (Blandford).

Caldeluvia spp.

Diapus nebulosus Roberts, *Diapus unispinus* Roberts.

Calliandra confusa

Hypothenemus opacus (Eichhoff), *Hypothenemus seriatus* (Eichhoff), *Micracis grandis* Schedl, *Thysanoes neotropicalis* Wood, *Tricolus senex* Schedl, *Xylosandrus zimmermanni* (Hopkins).

Calliandra houstoniana

Micracis festivus Wood.

Callicarpa spp.

Hypothenemus seriatus (Eichhoff), *Xylosandrus compactus* (Eichhoff).

Callitris articulata

Phloeosinus bicolor (Brulle).

Calodendrum capensis

Pityophthorus kenyae Schedl.

Calonciton tannifolium

Scolytognes knabi (Hopkins).

Caloncobia welwitschii

Cryptocarenum pygmaeus Schedl, *Doliopygus donisi* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus rapax* (Sampson), *Hypothenemus ater* (Eggers).

Calophyllum brasiliense antellatum

Araptus pallidus (Blackman).

Calophyllum chapelieri

Xyleborinus cupulatus (Schedl).

Calophyllum cuneifolium

Cryphalus vestitus Blandford.

Calophyllum inophyllum

Crossotarsus chalcographus Schedl, *Crossotarsus externedentatus* (Fairmaire), *Hypothenemus eruditus* Westwood, *Xyleborinus andreweesi* (Blandford), *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xylosandrus manicus* (Blandford).

Calophyllum spp.

Crossotarsus squamulatus Chapuis, *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Cylindropalpus sulcatus* Browne, *Diapus bispinus* Schedl, *Diapus nanus* Schedl, *Diapus nebulosus* Roberts, *Diapus papuanus* Schedl, *Diapus perpygmaeus* Roberts, *Hypocryphalus laevis* Browne, *Hypocryphalus tutuilaensis* Schedl, *Platypus platypoides* (Browne), *Platypus porcellus* Schedl, *Platypus westcoodi* Chapuis.

Calophyllum tetrapterum

Crossotarsus squamidatus Chapuis, *Diapus minutissimus* Schedl, *Platypus truncatus* Browne, *Xylosandrus crassiusculus* (Motschulsky).

Calophyllum citiense

Platypus citiensis Roberts.

Calophyllum walckeri

Arixyleborus seminitens (Blandford).

Calycopterus floribunda*Crossotarsus minax* (Walker).***Calycotome spinosa****Liparthrum genistae* (Anbe), *Phlocotribus rhododactylus* (Marsham).***Calycotome* spp.***Phlocotribus cristatus* (Fauvel), *Phlocotribus perfoliatus* (Wollaston).***Camellia japonica****Platypus severini* Blandford, *Xyleborus atratus* Eichhoff, *Xylosandrus brevis* (Eichhoff).***Camellia japonica rusticana****Scolytogenes camelliae* (Nobuchi).***Camellia susangua****Xylosandrus borealis* Nobuchi, *Xylosandrus brevis* (Eichhoff).***Camellia sinensis****Coccotrypes theae* Eggers, *Cryphalus vestitus* Blandford, *Eucallacea fornicatus* (Eichhoff), *Platypus lepichus* Chapuis, *Platypus uncinatus* Blandford, *Scolytomimus assamensis* Schedl, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford), *Xylosandrus morigerus* (Blandford).***Camellia* spp.***Xylosandrus mutilatus* (Blandford).***Camellia thea****Eucallacea fornicatus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus morigerus* (Blandford).***Camellia theifera****Coccotrypes theae* Eggers, *Xylosandrus morigerus* (Blandford).***Canoensia maxima****Xyleborus ficus* Eggers.***Campnosperma auriculata****Coccotrypes campnospermae* (Browne), *Coccotrypes cinnamomi* (Eggers), *Coccotrypes gedeanus* (Eggers), *Coccotrypes longior* (Eggers), *Coccotrypes marginatus* (Browne), *Coccotrypes medius* (Eggers), *Cryphalus tenuis* Schedl.***Campnosperma* spp.***Hypothenemus artocarpus* Browne, *Platypus hospes* Schedl, *Platypus jasoni* Chapuis, *Platypus solidus* Walker.***Cananga odorata****Crossotarsus mmiscechi* Chapuis, *Platypus biuncus* Blandford.***Canarium australasicum****Platypus queenslandi* Schedl.***Canarium boivini****Mitosoma crenulatum* Chapuis, *Xyleborus alluaudi* Schaufuss.***Canarium commune****Arxyleborus malayensis* (Schedl), *Cryphalus duplo-squamosus* Schedl, *Xyleborinus andrewesi* (Blandford), *Xyleborus affinis* Eichhoff.***Canarium euphyllum****Arxyleborus mediosextus* (Eggers), *Arxyleborus medius* (Eggers), *Bothinodroctonus setosus* Wood, *Coccotrypes vulgaris* (Eggers), *Coptodryas perparva* (Sampson), *Crossotarsus externedentatus* (Fairmaire), *Cryphalus scabricollis* Eichhoff, *Diapus quinquespinatus* Chapuis, *Eccoptyopterus spinosus* (Olivier), *Genyocerus diptercarpus* Browne, *Xyleborinus andrewesi* (Blandford), *Xyleborinus exiguus* (Walker), *Xyleborus bidentatus*(Motschulsky), *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.***Canarium indicum****Crossotarsus ventricornis* Schedl, *Platypus solidus* Walker.***Canarium littorale****Cnestus aterrimus* (Eggers), *Crossotarsus schedli* Browne, *Cyclorhipidion foersteri* (Hagedorn), *Cyclorhipidion pruinatum* (Blandford), *Hadrodemius globus* (Blandford), *Hypocryphalus malayensis* Schedl, *Xyleborinus perminutissimus* (Schedl).***Canarium patentiuercium****Cyclorhipidion pruinatum* (Blandford).***Canarium schweinfurthii****Acanthotomicus caclatus* (Schedl), *Ambrosiodmus tropicus* (Hagedorn), *Chaetastus tuberculatus* (Chapuis), *Diapus quinquespinatus* Chapuis, *Doliopygus conradi* (Strohmeyer), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus megaloma* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus staneri* Schedl, *Periommatius grandis* Schedl, *Periommatius longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus solutus* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius).***Canarium* spp.***Ambrosiodmus oratus* (Eggers), *Ambrosiodmus tropicus* (Hagedorn), *Coccotrypes gedeanus* (Eggers), *Coptoborus capucinus* (Schedl), *Cyclorhipidion cachani* (Schedl), *Cyclorhipidion foersteri* (Hagedorn), *Cyrtogenius grossopunctatus* (Schedl), *Diapus amblylaminatus* Roberts, *Diapus oomisis* Roberts, *Diapus pusillimus* Chapuis, *Eucallacea xanthopus* (Eichhoff), *Hypocryphalus striatus* Hopkins, *Leptoxyleborus concisus* (Blandford), *Mitosoma sexspinosum* Schedl, *Platypus bifidus* Schedl, *Platypus longicollis* Browne, *Platypus madagascariensis* Chapuis, *Platypus solidus* Walker, *Prennobius cavipennis* Eichhoff, *Prennobius cavipennis* Eggers, *Xyleborinus andrewesi* (Blandford), *Xyleborinus quadrispinosus* (Eichhoff), *Xyleborus alluaudi* Schaufuss, *Xyleborus canarii* Browne, *Xyleborus conradi* Hagedorn, *Xyleborus ipidia* Schedl, *Xyleborus kajangensis* Schedl, *Xyleborus multispinatus* Eggers, *Xyleborus posticegranulatus* Schedl, *Xyleborus tunggali* Schedl, *Xylosandrus corthyloides* (Schedl), *Xylosandrus crassiusculus* (Motschulsky).***Canarium strictum****Coccotrypes cardanomi* Schaufuss, *Coccotrypes cyperi* (Beeson), *Crossotarsus quadricaudatus* (Strohmeyer), *Platypus solidus* Walker, *Xyleborus perforans* (Wollaston).***Canarium vitense****Platypus vitensis* Roberts.***Canarium vulgare****Cyrtogenius brevior* (Eggers).***Canavalia marirendbergi****Chramesus pumilus* (Chapuis).***Canavalia* spp.***Chramesus punctatus* Wood, *Hypothenemus brunneus* (Hopkins), *Hypothenemus seriatus* (Eichhoff).***Canavalia villosa****Chramesus pumilus* (Chapuis), *Cryptocaremus heveae* (Hagedorn), *Cryptocaremus lepichus* Wood, *Cryptocaremus seriatus* Eggers, *Hypothenemus pheneriae* (Nord-

- linger), *Hypothenemus teretis* Wood, *Stegomerus chiriquensis* Wood, *Stegomerus pygmaeus* Wood.
- Caudiosperma holacobium**
Scolytogenes kuabi (Hopkins).
- Cauella spp.**
Cuesinus notateutonicus Schedl.
- Cannabris sativa**
Xylosandrus crassiusculus (Motschulsky).
- Canthium deverei**
Cylindropalpus laudatus (Schedl), *Doliopygus conradti* (Strohmeyer), *Prennobius quadrispinosus* Schedl, *Prennobius robustulus* (Schedl).
- Canthium didymum**
Cyclorhipidion foersteri (Hagedorn).
- Canthium oddoni**
Dryocoetoides cristatus (Fabricius), *Xyleborus piceus* (Motschulsky).
- Canthium spp.**
Ctonoxylon atrum Browne.
- Capparis bifolia**
Hypothenemus californicus Hopkins, *Hypothenemus gossypii* (Hopkins).
- Capparis nobilis**
Hypocryphalus nigrosetosus Schedl.
- Capsicum spp.**
Hypothenemus eruditus Westwood.
- Caragana spp.**
Scolytus schtjeyrewi Semenov.
- Carallia lucida**
Coccotrypes cyperi (Beeson).
- Carallia suffruticosa**
Platypus solidus Walker.
- Carallia spp.**
Platypus jansoni Chapuis.
- Carapa grandiflora**
Cylindropalpus granulatus (Schedl), *Doliopygus nitidulus* Schedl, *Pityophthorus togonus* Eggers, *Polygraphus dimorphus* Schedl, *Polygraphus granulatus* Eggers, *Polygraphus granulifer* Eggers, *Polygraphus kieuensis* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus albuaudi* Schaufuss, *Xyleborus ambaspennus* Schedl.
- Carapa guianensis**
Liparthrum carapae Wood.
- Carapa obovata**
Coccotrypes barbatus (Schedl), *Coccotrypes fallax* (Eggers).
- Carapa procer**
Chaetastus tuberculatus (Chapuis), *Cyrtogenius mayumbensis* (Schedl), *Doliopygus carapae* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus expletus* Schedl, *Doliopygus jurionii* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus unicornis* Schedl, *Hypothenemus ater* (Eggers), *Pityophthorus togonus* Eggers, *Polygraphus binotatus* Schedl, *Polygraphus kasukumbii* Schedl, *Prennobius sexspinus* Eggers, *Xyleborus affinis* Eichhoff, *Xyleborus piceus* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky).
- Carapa spp.**
Ambrosiodmus tropicus (Hagedorn), *Scolytoplatypus kieuensis* Schedl, *Scolytoplatypus mikado* Blandford, *Xyleborus bidentatus* (Motschulsky).
- Cardwellia sublimis**
Coptodryas eucalyptica (Schedl), *Xyleborus insulindicus* Eggers, *Xyleborus perforans* (Wollaston).
- Careya arborea**
Coccotrypes cyperi (Beeson), *Crossotarsus emorsus* Beeson, *Platypus errans* (Sampson), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus butanali* (Beeson).
- Cargotus urenus**
Coccotrypes dactyliperda (Fabricius).
- Carica papaya**
Crossotarsus externedentatus (Fairmaire), *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Xyleborus perforans* (Wollaston), *Xylosandrus crassiusculus* (Motschulsky).
- Carnegiea gigantea**
Cactopinus hubhardi Schwarz.
- Carpinus betulus**
Erioporicus fagi (Fabricius), *Erioporus shinanensis* Murayama, *Lymantor coryli* (Perris), *Scolytus azerbaijzhanicus* Michalski, *Scolytus jacobsoni* (Spessivtsev), *Scolytus scolytus* (Fabricius), *Scolytus tarshalovitchi* Michalski, *Taphrorychus villifrons* (Dufour), *Trypodendron domesticum* (Linnæus).
- Carpinus caroliniana**
Hypothenemus eruditus Westwood.
- Carpinus carpinoideus**
Xyleborus atratus Eichhoff.
- Carpinus cordata**
Cryphalus carpini Berger, *Dryocoetes carpini* Eggers, *Scolytus claviger* Blandford, *Scolytus pubescens* Stark.
- Carpinus japonica**
Platypus severini Blandford, *Scolytus claviger* Blandford.
- Carpinus laxiflora**
Crossotarsus niponicus Blandford, *Cryphalus carpini* Berger, *Cryphalus carpinitorus* Murayama, *Dryocoetes carpinitorus* Choo & Woo, *Platypus koryoensis* (Murayama), *Platypus solidus* Walker, *Scolytus claviger* Blandford, *Taphrorychus moestus* (Blandford), *Xyleborus octiesdentatus* Murayama, *Xylosandrus germanus* (Blandford), *Xylosandrus mutilatus* (Blandford).
- Carpinus spp.**
Corthylus punctatissimus (Zimmermann), *Pseudopityophthorus minutissimus* (Zimmermann), *Scolytoplatypus tycon* Blandford, *Scolytus carpini* (Ratzeburg), *Scolytus intricatus* (Ratzeburg), *Scolytus pygmaeus* (Fabricius), *Xylosandrus mutilatus* (Blandford).
- Carpinus tshonoskii**
Crossotarsus niponicus Blandford, *Euwallacea validus* (Eichhoff), *Xyleborus seriatus* Blandford.
- Carpinus turczaninowii**
Xyleborus dispar (Fabricius).
- Carpodinus subrepanda**
Ctonoxylon flavescens Hagedorn, *Pseudomicraxis bugekeae* (Schedl).
- Cartanopsis cuspidata**
Platypus calamus Blandford.
- Cartanopsis cuspidata sieboldii**
Platypus calamus Blandford.
- Carya alba**
Hypothenemus rotundicollis (Eichhoff).
- Carya arborea**
Crossotarsus squamulatus Chapuis.
- Carya glabra**
Hypothenemus rotundicollis (Eichhoff).
- Carya ovata**
Hypothenemus rotundicollis (Eichhoff).
- Carya spp.**
Ambrosiodmus dextexus (Wood), *Ambrosiodmus lecontei* Hopkins, *Ambrosiodmus obliquus* (LeConte),

Ambrosiodmus rubricollis (Eichhoff), *Ambrosiodmus tachygraphus* (Zimmermann), *Chramesus atkinsoni* Wood, *Chramesus hicoloriae* LeConte, *Cucisnus strigicollis* LeConte, *Hylocurus bicornis* (Blackman), *Hylocurus birodatus* Wood, *Hylocurus harnedi* (Blackman), *Hylocurus prolatus* Wood, *Hylocurus rudis* (LeConte), *Hylocurus spadix* Blackman, *Hylocurus torosus* Wood, *Hypothenemus crudiae* (Panzer), *Hypothenemus cruditus* Westwood, *Hypothenemus interstitialis* (Hopkins), *Hypothenemus seriatus* (Eichhoff), *Micracisella opacicollis* (LeConte), *Monarthrum fasciatum* (Say), *Platypus compositus* Say, *Pseudopityophthorus minutissimus* (Zimmermann), *Pseudothymanoecus dislocatus* (Blackman), *Scolytus quadrispinosus* Say, *Thysanocetes fimbriicornis* LeConte, *Thysanocetes lobdelli* Blackman, *Thysanocetes pallens* Wood, *Trischidioides atomus* (Hopkins), *Xyleborus celsus* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus sayi* (Hopkins), *Xylosandrus germanus* (Blandford), *Xylosterium politus* (Say).

Caryota spp.

Xylosandrus crassiusculus (Motschulsky).

Caryota urens

Eucallalcea fornicatus (Eichhoff).

Casearia congensis

Platypus internedius (Schedl), *Platypus orientalis* (Strohmeyer), *Platypus spinulosus* (Strohmeyer), *Xyleborus alluandi* Schaufuss, *Xyleborus picus* (Motschulsky).

Casearia glomerata

Eucallalcea silsagaricus (Eggers), *Eucallalcea velatus* (Sampson), *Eucallalcea wallacei* (Blandford).

Casearia spp.

Hylesinus caseariae Wood.

Casimiroa spp.

Xylosandrus compactus (Eichhoff).

Cassia alata

Eucallalcea fornicatus (Eichhoff).

Cassia didymobotrya

Xyleborus alluandi Schaufuss, *Xyleborus picus* (Motschulsky).

Cassia fistula

Crossotarsus externedentatus (Fairmaire), *Dryocoetoides cristatus* (Fabricius), *Dryocoetoides pseudosolitarium* (Eggers), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus nancus* (Blandford).

Cassia florida

Hypothenemus birmanus (Eichhoff).

Cassia glauca

Hypothenemus seriatus (Eichhoff).

Cassia grandis

Coccotrypes carpophagus (Homung).

Cassia javanica

Cryphalus capucinus Schedl, *Platypus genuiatus* Chapuis.

Cassia laevigata

Ambrosiodmus aegir (Eggers).

Cassia ludheimeriana

Chramesus mimosae Blackman.

Cassia multijuga

Xylosandrus compactus (Eichhoff), *Xylosandrus discolor* (Blandford), *Xylosandrus morigerus* (Blandford).

Cassia nodosa

Crossotarsus externedentatus (Fairmaire), *Hypothenemus crudiae* (Panzer).

Cassia parkii

Hypothenemus morio (Eggers).

Cassia siamea

Ambrosiodmus bostrichoides (Schedl), *Cyclorhipidion crucifer* (Hagedorn), *Doliopygus chapuisi* (Duvivier), *Doliopygus perminutissimus* (Schedl), *Eucallalcea fornicatus* (Eichhoff), *Hypothenemus biseriatus* (Eggers), *Hypothenemus cruditus* Westwood, *Hypothenemus milongensis* (Eggers), *Platypus compositus* Say, *Platypus pseudocupulatus* Schedl, *Premnobius corthyloides* Hagedorn, *Premnobius longus* Eggers, *Xyleborus affinis* Eichhoff, *Xyleborus alluandi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xyleborus picus* (Motschulsky), *Xyleborus volutus* (Fabricius), *Xylosandrus compactus* (Eichhoff), *Xylosandrus germanus* (Blandford).

Cassia spp.

Acanthotomicus euphorbiae (Schedl), *Crossotarsus externedentatus* (Fairmaire), *Doliopygus malkini* Schedl, *Hypothenemus glabripennis* (Hopkins), *Hypothenemus opacus* (Eichhoff), *Premnobius caripennis* Eichhoff, *Pseudothymanoecus concentratus* Wood, *Pseudoxylechinus rugatus* Wood & Huang, *Xyleborus horridus* Eichhoff, *Xylosandrus compactus* (Eichhoff).

Cassia tora

Xylosandrus compactus (Eichhoff).

Cassinae spp.

Lanurgus spathulatus Schedl, *Lanurgus xylographus* Schedl.

Cassipourea eliottii

Doliopygus ghesquierci (Schedl), *Platypus orientalis* (Strohmeyer).

Cassipourea gummiflua

Platypus sampsoni (Schedl).

Cassipourea spp.

Doliopygus nairobiensis (Schedl), *Platypus madagascariensis* Chapuis, *Platypus pennatus* Schedl, *Scolytoplatypus kivuensis* Schedl, *Xyleborinus aduncus* (Schedl), *Xyleborinus signatipennis* (Schedl), *Xylosandrus hirsutipennis* (Schedl).

Castanea argentea

Arixyleborus castaneae Schedl, *Baiocis perinimicus* (Schedl), *Coptodryas myristicae* (Schedl), *Crossotarsus nitidulus* (Schedl), *Crossotarsus terminatus* Chapuis, *Diapys quinquespinatus* Chapuis, *Hadrodemius globus* (Blandford), *Platypus fraternulus* Schedl, *Platypus sexporus* (Schedl), *Platypus tenuissimus* Schedl, *Xyleborus cancellatus* Eggers, *Xyleborus emarginatus* Eichhoff, *Xyleborus fallax* Eichhoff, *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus morigerus* (Blandford).

Castanea crenata

Ambrosiodmus apicalis (Blandford), *Ambrosiodmus rubricollis* (Eichhoff), *Crossotarsus niponicus* Blandford, *Eucallalcea validus* (Eichhoff), *Platypus calamus* Blandford, *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus ashuensis* Murayama, *Xyleborus ganshoensis* Murayama, *Xyleborus laetus* Niisima, *Xyleborus shionomisakiensis* Murayama, *Xyleborus volutus* (Fabricius), *Xylosandrus germanus* (Blandford).

Castanea dentata

Ambrosiodmus obliquus (LeConte), *Ambrosiodmus tachygraphus* (Zimmermann), *Corthylus columbianus* Hopkins, *Hylocurus rudis* (LeConte), *Hylocurus torosus* Wood, *Micracisella opacicollis* (LeConte), *Monarthrum fasciatum* (Say), *Pseudopityophthorus asperulus* (LeConte), *Pseudopityophthorus pubescens* Blackman, *Pseudothymanoecus lecontei* Blackman, *Trischidioides atomus* (Hopkins).

Castanea javanica

Baiocis perminicus (Schedl), *Diapus aculeatus* Blandford, *Diapys minor* Schedl, *Leptoxyleborus semi-granulatus* (Schedl), *Platypus sexporus* (Schedl), *Platypus strigillatus* Schedl, *Xylosandrus crassiusculus* (Motschulsky).

Castanea pubinervis

Neopteleobius scutulatus (Blandford), *Xyleborus volentis* (Fabricius).

Castanea pumila

Thysanocis lobdelli Blackman.

Castanea spp.

Amasa schliehi (Stebbing), *Ambrosiodmus rubricollis* (Eichhoff), *Hypothenemus eruditus* Westwood, *Platypus cylindrus* (Fabricius), *Xyleborus ferrugineus* (Fabricius), *Xyleborus pfeili* (Ratzeburg), *Xyleborus sayi* (Hopkins), *Xylosandrus mutilatus* (Blandford), *Xylosterinus politus* (Say).

Castanea tungurui

Arixyleborus minor (Eggers), *Diapys aculeatus* Blandford, *Platypus sexporus* (Schedl), *Xyleborinus andreweisi* (Blandford).

Castanea vesca

Platypus cylindrus (Fabricius), *Taplorrhynchus villifrons* (Drufour), *Xyleborus dryographus* (Ratzeburg), *Xyleborus monographus* (Fabricius).

Castanopsis acuminatissima

Arixyleborus sus (Schedl), *Crossotarsus chalcographus* Schedl, *Crossotarsus terminatus* Chapuis, *Diapys bispinus* Schedl, *Diapys nanus* Schedl, *Platypus apicatus* Schedl, *Platypus circulariceps* Schedl, *Platypus opacicauda* Browne, *Platypus sulcinodis* Schedl, *Webbia quadricinctus* Schedl.

Castanopsis cuspidata

Platypus quercivorus Murayama, *Xyleborus bispinus* Nobuchi, *Xyleborus japonicus* Nobuchi, *Xyleborus kaimochii* Nobuchi, *Xyleborus misatoensis* Nobuchi, *Xyleborus wakayamensis* Nobuchi.

Castanopsis cuspidata sieboldii

Ambrosiodmus lewisi (Blandford), *Platypus calamus* Blandford, *Platypus quercivorus* Murayama, *Xyleborus atratus* Eichhoff, *Xyleborus sciryorensis* Murayama.

Castanopsis fargesii

Scolytoplatypus superciliosus Tsai & Huang.

Castanopsis hystrix

Coccotrypes nubilis (Blandford), *Diapys quadrispinatus* Chapuis, *Diapys quinquespinatus* Chapuis, *Diapys spatulifer* Browne, *Indocryphalus internedius* (Sampson).

Castanopsis indica

Ambrosiodmus lewisi (Blandford), *Eucallacea interjectus* (Blandford).

Castanopsis kawakamii

Platypus taiheizanensis (Murayama).

Castanopsis megacarpa

Arixyleborus leprosulus Schedl.

Castanopsis spp.

Amasa schliehi (Stebbing), *Ambrosiodmus apicalis* (Blandford), *Arixyleborus canaliculatus* (Eggers), *Arixyleborus granifer* (Eichhoff), *Arixyleborus granulifer* (Eggers), *Coccotrypes longior* (Eggers), *Coccotrypes bicuspis* (Eggers), *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Cryphalus longior* Browne, *Cyclorhipidion agnatum* (Eggers), *Cyclorhipidion circumcisum* (Sampson), *Cyrtogenius gracillimus* Wood, *Diapys amblylaminatus* Roberts, *Diapys bilunatus* Schedl, *Diapys latespinis* Schedl, *Diapys nanodontus* Roberts, *Diapys nanus* Schedl, *Diapys neb-*

ulosus Roberts, *Diapys papuanus* Schedl, *Diapys perpygmaeus* Roberts, *Diapys pusillimus* Chapuis, *Diapys robustus* Schedl, *Diapys turgidus* Roberts, *Diapys unispinus* Roberts, *Hyleidius tuberculatus* (Browne), *Leptoxyleborus depressus* (Eggers), *Leptoxyleborus scabrior* (Schedl), *Platypus cognatus* Roberts, *Platypus decens* Sampson, *Platypus platypoides* (Browne), *Platypus pseudoepulatus* Schedl, *Platypus quercivorus* Murayama, *Platypus sepaloideus* Roberts, *Scolytogenus bicolor* (Browne), *Xyleborus armiger* Schedl, *Xyleborus arnipennis* Schedl, *Xyleborus brevicollis* Browne, *Xyleborus emarginatus* Eichhoff, *Xyleborus pelliculosus* Eichhoff, *Xyleborus perforans* (Wollaston), *Xyleborus seriatus* Blandford, *Xyleborus tunggali* Schedl, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford), *Xylosandrus germanus* (Blandford), *Xylosandrus morigerus* (Blandford).

Castanopsis sumatrana

Amasa schliehi (Stebbing), *Arixyleborus leprosulus* Schedl, *Arixyleborus suturalis* (Eggers), *Baiocis pernanulus* (Schedl), *Cnestus aterrimus* (Eggers), *Coptoborus longicauda* (Browne), *Coptodryas nugax* (Schedl), *Crossotarsus decliviornatus* (Schedl), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus longicollis* Browne, *Crossotarsus schedli* Browne, *Crossotarsus squamulatus* Chapuis, *Cyclorhipidion punctatopilosum* (Schedl), *Eccoptyterus limbus* Sampson, *Indocryphalus tropicus* (Browne), *Platypus dignus* Schedl, *Platypus pseudosolidus* Schedl, *Platypus quercinus* Schedl, *Xyleborinus andreweisi* (Blandford), *Xyleborus latus* Eggers.

Castanopsis tribuloides

Crossotarsus externedentatus (Fairmaire), *Diapys quinquespinatus* Chapuis, *Eucallacea bicolor* (Blandford), *Platypus caeus* Strohmeier, *Platypus decens* Sampson, *Platypus lepidus* Chapuis, *Platypus solidus* Walker, *Platypus uncinatus* Blandford, *Xyleborus fallax* Eichhoff, *Xyleborus perforans* (Wollaston).

Castanospermum australe

Xyleborus perforans (Wollaston), *Xyleborus similis* Ferrari.

Castanospermum spp.

Ambrosiodmus compressus (Lea), *Platypus biuncus* Blandford, *Xyleborinus andreweisi* (Blandford).

Castilloa costaricensis

Platypus hians Chapuis.

Castilloa elastica

Xyleborus affinis Eichhoff.

Castilloa spp.

Doliopygus brevis (Strohmeier), *Doliopygus tenuis* (Strohmeier).

Casuarina cunninghamii

Xyleborus perforans (Wollaston).

Casuarina equisetifolia

Crossotarsus externedentatus (Fairmaire), *Xylosandrus crassiusculus* (Motschulsky).

Casuarina oligoderes

Platypus heteromorphus Schedl, *Platypus incertus* Schedl.

Casuarina spp.

Diapys papuanus Schedl, *Hypothenemus melasomus* (Lea), *Platypus navarrodeandradei* Marelli, *Preunobius sexspinosus* Eggers.

Catha edulis

Strombophorus flavipubens Schedl.

Catostenma spp.

Platypus tiriosensis Reichardt.

Catleja spp.

Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).

Cayaponia ficifolia

Dendrocraniulus barbatus Schedl, *Dendrocraniulus tayuyaensis* Schedl.

Cayaponia microdonta

Dendrocraniulus consimilis Wood, *Dendrocraniulus costaricensis* Schedl, *Dendrocraniulus diversus* Wood, *Dendrocraniulus guatemalensis* (Hopkins), *Dendrocraniulus maurus* (Blandford), *Dendrocraniulus tardus* Schedl, *Dendrocraniulus vicinus* Wood, *Hypothenemus plumeriae* (Nordlinger).

Ceanothus integerrimus

Pseudothysanocs spinura Wood, *Stenoclyptus sulcatus* (Bruck).

Ceanothus spp.

Hyllocerus hirtellus (LeConte).

Cecropia peltata

Corthylus cecropii Wood, *Platypus dentatus* Dalman, *Scolytodes cecropiaevorus* Wood, *Scolytodes cecropii* (Schedl), *Scolytodes picus* (Blandford), *Tricolus cecropii* Wood, *Xyleborus affinis* Eichhoff.

Cecropia spp.

Araptus costaricensis (Schedl), *Chramesus cecropiae* Wood, *Corthyryclon tardum* Wood, *Corthylus nanus* Wood, *Corthylus strigilis* Wood, *Hypothenemus seriatus* (Eichhoff), *Hypothenemus setosus* (Eichhoff), *Hypothenemus suspectus* Wood, *Hypothenemus teretis* Wood, *Scolytodes acares* Wood, *Scolytodes anceps* Wood, *Scolytodes blandfordi* (Schedl), *Scolytodes cecropicolens* Wood, *Scolytodes chapuisi* Wood, *Scolytodes festus* Wood, *Scolytodes glabrescens* Wood, *Scolytodes jucundus* Wood, *Scolytodes maurus* (Blandford), *Scolytodes parvulus* Wood, *Scolytodes perditus* Wood, *Scolytodes suturalis* Wood, *Theoborus incultus* (Wood), *Tricolus intrusus* Wood, *Tricolus nodifer* Blandford, *Xyleborinus tribuloides* Wood, *Xyleborus spinulosus* Blandford.

Cedrela fissilis

Ambrosiodmus catharinensis (Eggers), *Monarthrum bicalliosum* (Schedl), *Platypus pulicaris* Chapuis, *Platypus quadrispinatus* Chapuis, *Tesserocerus guerini* Chapuis, *Tesserocerus insignis* (Saunders), *Xyleborinus gracilis* (Eichhoff), *Xyleborinus opimulus* (Schedl), *Xyleborinus setosus* (Eichhoff), *Xylosandrus retusus* (Eichhoff).

Cedrela mexicana

Ambrosiodmus dexexulus (Wood), *Ambrosiodmus hagedornii* (Iglesias), *Ambrosiodmus lecontei* Hopkins, *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Phloeotribus setulosus* Eichhoff, *Platypus chunsi* Wood, *Platypus hintzi* Schaufuss, *Pycnarthrum lucidum* Wood, *Scolytodes cedrelae* Wood, *Xyleborus colvulus* (Fabricius).

Cedrela odorata

Crossotarsus externedentatus (Fairmaire), *Doliopygus chapuisi* (Duvivier).

Cedrela serrata

Carchesiopygus psilanthurus (Beeson), *Crossotarsus musooriensis* Beeson, *Crossotarsus wilnoti* (Stebbing).

Cedrela spp.

Camptocerus auricomus Blandford, *Dendrocraniulus brasiliensis* (Schedl), *Mitosoma lobatum* Schedl, *Mitosoma obliquatum* Schedl, *Mitosoma obconiceps* Schedl, *Scolytodes swieteniae* (Blackman), *Xyleborus affinis*

Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus colvulus* (Fabricius), *Xylosandrus morigerus* (Blandford).

Cedrela toona

Platypus parallelus (Fabricius), *Platypus uncinatus* Blandford, *Xyleborus perforans* (Wollaston), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford).

Cedrela toona australis

Xyleborus perforans (Wollaston).

Cedrus amarga

Tesserocerus belti Sharp.

Cedrus atlantica

Hylurgops batnicus (Brisout), *Hylurgops bonvouloiri* (Chapuis).

Cedrus deodara

Crossotarsus coniferac Stebbing, *Crossotarsus fairmairi* Chapuis, *Crossotarsus wilnoti* (Stebbing), *Crypturgus beasoni* Eggers, *Crypturgus pusillus* (Gyllenhal), *Diapus quadrispinatus* Chapuis, *Diapus quinquespinatus* Chapuis, *Ips stebbingi* Strohmeyer, *Pityogenes scitus* Blandford, *Pityophthorus cedri* Wood, *Pityophthorus deodara* (Stebbing), *Polygraphus aterrimus* Strohmeyer, *Polygraphus major* Stebbing, *Polygraphus pini* Stebbing, *Scolytoplatypus raja* Blandford, *Scolytoplatypus siomio* Blandford, *Scolytus major* Stebbing.

Cedrus libani

Crypturgus pusillus (Gyllenhal), *Phloeosinus acatayi* Schedl.

Cedrus libanotica

Carphoborus minimus (Fabricius), *Crypturgus numidicus* Ferrari, *Ips robustus* (Knotek), *Phloeosinus acatayi* Schedl.

Cedrus spp.

Hylurgops glabratus (Zetterstedt), *Hylurgops palliatus* (Gyllenhal), *Scolytoplatypus fasciatus* Hagedorn, *Trypodendron lineatum* (Olivier).

Ceiba pentandra

Chaetastus tuberculatus (Chapuis), *Doliopygus serratus* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Platypus hintzi* Schaufuss, *Xylosandrus crassiusculus* (Motschulsky).

Ceiba spp.

Doliopygus dubius (Sampson), *Hypothenemus ceiba* Hopkins, *Scolytodes retifer* Wood.

Ceiba thomningii

Doliopygus conradti (Strohmeyer), *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Xyleborus ferrugineus* (Fabricius), *Xyleborus colvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Celtis adolfi-frederici

Doliopygus retusus Schedl, *Doliopygus serratus* (Strohmeyer), *Platypus internedius* (Schedl), *Trachyostus aterrimus* (Schaufuss).

Celtis africana

Strombophorus capensis Schedl.

Celtis brieji

Chaetastus tuberculatus (Chapuis), *Chaetastus camerunus* Schaufuss, *Doliopygus artespinatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus ghesquieri* (Schedl), *Doliopygus jurioni* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodestanus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus subdolus* Schedl, *Hypothenemus pubipennis* (Eggers), *Periommatius circularis* Schedl, *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Platy-*

pus hintzi Schaufuss, *Platypus intermedius* (Schedl), *Platypus solutus* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborinus spinipes* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus subtuberculatus* Eggers.

Celtis brownei

Doliopygus conradti (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Periommatatus grandis* Schedl, *Periommatatus longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky).

Celtis durandii

Chaetastus tuberculatus (Chapuis), *Strombophorus celtis* Schedl, *Xyleborus alluaudi* Schaufuss.

Celtis iguanae

Chramesus orinocensis Wood, *Chramesus subopacus* Schaeffer, *Hypothenemus brunneus* (Hopkins), *Micracis festicus* Wood, *Micracis suainei* Blackman, *Phloeotribus opimus* Wood, *Phloeotribus setulosus* Eichhoff, *Phloeotribus texanus* Schaeffer, *Pseudothysanoes subpilosus* (Wood).

Celtis kraussiana

Strombophorus celtis Schedl.

Celtis laevigata

Hylocurus parkinsoniae Blackman, *Hypothenemus brunneus* (Hopkins), *Hypothenemus eruditus* Westwood, *Phloeotribus texanus* Schaeffer.

Celtis luzonica

Xylosandrus crassiusculus (Motschulsky), *Xylosandrus ursulus* (Eggers).

Celtis mildbraedii

Ambrosiodmus opacithorax (Schedl), *Chaetastus tuberculatus* (Chapuis), *Cyclorhipidion crucipenne* (Schedl), *Doliopygus artespinnatus* (Schedl), *Doliopygus brevis* (Strohmeyer), *Doliopygus chapuisi* (Duvivier), *Doliopygus coelocephalus* (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus exilis* (Chapuis), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus minutissimus* (Schedl), *Doliopygus propinquus* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus subdolosus* Schedl, *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicoloris* Schedl, *Periommatatus excisus* Strohmeyer, *Periommatatus grandis* Schedl, *Periommatatus longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Platypus solutus* Schedl, *Premnobius ambitiosus* (Schaufuss), *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus consobrinus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Celtis mississippiensis

Hypothenemus eruditus Westwood.

Celtis occidentalis

Chramesus chapuisi LeConte, *Phloeotribus dentifrons* (Blackman), *Phloeotribus frontalis* (Olivier), *Scolytus muticus* Say.

Celtis pallida

Hylocurus langstoni Blackman, *Hypothenemus sparsus* Hopkins.

Celtis sinensis

Cryphalus exiguus Blandford, *Eucallacea validus* (Eichhoff).

Celtis soyauxii

Chaetastus tuberculatus (Chapuis), *Dactylipalpus camerunus* Hagedorn, *Doliopygus bidentatus* (Strohmeyer), *Doliopygus conradti* (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Doliopygus exilis* (Chapuis), *Doliopygus medius* Schedl, *Doliopygus serratus* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Mesoplatypus ventricornis* Schedl, *Mesoplatypus venustus* Schedl, *Periommatatus bispinus* Strohmeyer, *Periommatatus grandis* Schedl, *Periommatatus longicollis* Chapuis, *Platypus solutus* Schedl, *Premnobius ambitiosus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius).

Celtis spp.

Ambrosiodmus albizzianus (Schedl), *Ambrosiodmus eichloffii* (Schreiner), *Ambrosiodmus obliquus* (LeConte), *Chramesus chapuisi* LeConte, *Chramesus subopacus* Schaeffer, *Coptoborus usagarius* (Eggers), *Cyclorhipidion crucifer* (Hagedorn), *Cyclorhipidion crucipenne* (Schedl), *Cylindropalpus sulcatus* Brovne, *Diamerus impar* Chapuis, *Diaprus pusillimus* Chapuis, *Doliopygus coelocephalus* (Schaufuss), *Doliopygus mimicus* (Schedl), *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus unicus* (Schedl), *Hylocurus langstoni* Blackman, *Hylocurus torosus* Wood, *Phloeotribus dentifrons* (Blackman), *Periommatatus grandis* Schedl, *Platypus lesiniformis* Roberts, *Platypus solidus* Walker, *Premnobius caripennis* Eichhoff, *Premnobius sexspinosus* Eggers, *Pseudothysanoes lecontei* Blackman, *Scolytogenes onynganus* (Schedl), *Scolytoplatus kinuensis* Schedl, *Scolytus fagi* Walsh, *Thysanoes fimbriicornis* LeConte, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus spinipes* (Schedl), *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus dispar* (Fabricius), *Xyleborus pseudoambasius* Schedl.

Celtis wrightia

Crossotarsus javanus Beeson.

Celtis zenkerii

Ambrosiodmus camphorae (Hagedorn), *Chaetastus tuberculatus* (Chapuis), *Cyclorhipidion sulcipenne* (Eggers), *Cyclorhipidion teclae* (Schedl), *Doliopygus artespinnatus* (Schedl), *Doliopygus conradti* (Strohmeyer), *Periommatatus excisus* Strohmeyer, *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Rhopalopselion conjungens* Schedl, *Strombophorus ericinus* (Schaufuss), *Trachyostus aterrimus* (Schaufuss), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus consobrinus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xyleborus subtuberculatus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).

Centrosema plumieri

Hypothenemus eruditus Westwood, *Xylosandrus morigerus* (Blandford).

Cephalosphaera usambariensis

Doliopygus bidentatus (Strohmeyer), *Platypus hintzi* Schaufuss.

- Cerasus arium**
Platypus cylindrus (Fabricius).
- Ceratonia siliqua**
Platypus solidus Walker, *Taphrorhynchus ceratoniae* Peyerimhoff.
- Ceratonia spp.**
Araptus hymenacae (Eggers).
- Ceratopetalum succirubrum**
Platypus australis Chapuis.
- Cerbera manghas**
Scolytogenes granulatus (Wood).
- Cerbera odollum**
Platypus ritiensis Roberts.
- Cercidiphyllum japonicum**
Neopteleobius scutulatus (Blandford), *Platypus modestus* Blandford, *Xyleborus aquilus* Blandford.
- Cercidium microphyllum**
Chaetophloeus parkinsoniae (Blackman).
- Cercidium spp.**
Hyllocurus parkinsoniae Blackman.
- Cercis canadensis**
Hypothenemus cruditus Westwood, *Hypothenemus interstitialis* (Hopkins), *Hypothenemus rotundicollis* (Eichhoff), *Micracis suturalis* LeConte, *Micracis swainei* Blackman, *Pityophthorus lautus* Eichhoff.
- Cercis siliquastrum**
Carphoborus perrisi (Chapuis).
- Cercis spp.**
Ambrosiodinus rubricollis (Eichhoff), *Ambrosiodinus tachygraphus* (Zimmermann).
- Cercocarpus spp.**
Chaetophloeus heterodoxus (Casey), *Cortlylus punctatissimus* (Zimmermann).
- Cereus spp.**
Cactopinus cactophthorus Wood, *Cactopinus carinatus* Wood, *Cactopinus granulifer* Wood, *Cactopinus microcornis* Wood, *Cactopinus nasutus* Wood, *Cactopinus niger* Wood.
- Ceriops candolleana**
Coccotrypes fallax (Eggers).
- Cespedesia macrophylla**
Cnemionyx furcescens Wood, *Xyleborinus dirus* Wood, *Xyleborus affinis* Eichhoff.
- Cestrum scandens**
Chramesus bicolor Wood, *Scolytogenes parvatis* (Wood), *Stegomerus pygmaeus* Wood.
- Cestrum spp.**
Xylosandrus compactus (Eichhoff).
- Chaetacme spp.**
Doliopygus excavatus (Sampson).
- Chamaecyparis formosanus**
Phloeosinus arisanus Niisima.
- Chamaecyparis nootkatensis**
Phloeosinus cupressi Hopkins, *Phloeosinus keeni* Blackman, *Phloeosinus punctatus* LeConte, *Phloeosinus sequoiae* Hopkins.
- Chamaecyparis obtusa**
Cryphalus chamaecypariae Niisima, *Eucallacca validus* (Eichhoff), *Phloeosinus gifuensis* Murayama, *Phloeosinus nudis* Blandford, *Phloeosinus samohensis* Murayama, *Phloeosinus seriatus* Blandford, *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus aquilus* Blandford, *Xyleborus pfeili* (Ratzeburg), *Xylosandrus germanus* (Blandford).
- Chamaecyparis spp.**
Phloeosinus lewisi Chapuis, *Phloeosinus perlatus* Cha-
- puis, *Phloeosinus thujae* (Perris), *Xyleborus seriatus* Blandford.
- Chamaecyparis thyoides**
Phloeosinus dentatus (Say).
- Chamaedorea spp.**
Coccotrypes dactyliperda (Fabricius).
- Chamerops excelsa**
Coccotrypes dactyliperda (Fabricius).
- Chamerops gracilis**
Coccotrypes dactyliperda (Fabricius).
- Chamerops humilis**
Coccotrypes dactyliperda (Fabricius).
- Chamerops spp.**
Coccotrypes dactyliperda (Fabricius).
- Chaetocarpus echinocarpus**
Xyleborus parcellus Wood.
- Cheirodendron spp.**
Xyleborus hawaiiensis Perkins, *Xyleborus hiia* Samuelson, *Xyleborus kauaiensis* Perkins, *Xyleborus pele* Samuelson, *Xyleborus temetivicus* Beeson.
- Cheirodendron trigynum**
Xyleborus mauiensis Perkins, *Xyleborus molokaiensis* Perkins.
- Chenopodium ambrosioides**
Cryptocarenum seriatus Eggers.
- Chenopodium spp.**
Eucallacca xanthopus (Eichhoff), *Xyleborus principalis* Eichhoff.
- Chisocheton glomeratus**
Leptoxyleborus concisus (Blandford).
- Chlorocodon ichitei**
Mimioecurus congomus (Schedl).
- Chlorophora excelsa**
Chaetastus tuberculatus (Chapuis), *Cyclorhynchus crucipene* (Schedl), *Cylindropalpus laudatus* (Schedl), *Cyrtogenius chlorophorae* (Schedl), *Doliopygus conradi* (Strohmeyer), *Doliopygus erichsonii* (Chapuis), *Doliopygus ghesquierci* (Schedl), *Doliopygus lateralis* Schedl, *Doliopygus lebrunii* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Eucallacca fornicatus* (Eichhoff), *Hypothenemus biseriatus* (Eggers), *Perionnatus angustior* Schedl, *Perionnatus excisus* Strohmeyer, *Perionnatus grandis* Schedl, *Perionnatus nitidicollis* Strohmeyer, *Platypus hintzi* Schauffuss, *Platypus impressus* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Platypus parallelus* (Fabricius), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus consobrinus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piceus* (Motschulsky), *Xyleborus subtuberculatus* Eggers, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Chloroxylon suietenia**
Cnestus magnus Sampson, *Platypus solidus* Walker, *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford).
- Chomelia spp.**
Eucallacca xanthopus (Eichhoff), *Platypus orientalis* (Strohmeyer).
- Chrysalidocarpus spp.**
Coccotrypes carpophagus (Hornung).
- Chrysobalanus spp.**
Xylosandrus zimmermanni (Hopkins).

Chrysolepsis spp.

Monarthrum scutellare (LeConte).

Chrysophyllum africanum

Coccotrypes rotundicollis (Eggers), *Cylindropalpus interpositus* (Schedl), *Cylindropalpus pumilio* (Schedl), *Cylindropalpus pusillus* (Schedl), *Doliopygus bidentatus* (Strohmeyer), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus crichsoni* (Chapuis), *Doliopygus lebruni* Schedl, *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus subditicus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Periommatius grandis* Schedl, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus intermedius* (Schedl), *Platypus orientalis* (Strohmeyer), *Platypus spinulosus* (Strohmeyer), *Polygraphus ruandae* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ficus* Eggers.

Chrysophyllum albidum

Chaetastus tuberculatus (Chapuis), *Cylindropalpus auricomans* (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Periommatius grandis* Schedl, *Periommatius longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Xyloctonus quadricinctus* Schedl.

Chrysophyllum boivianum

Mitosoma accuratum Schaufuss, *Mitosoma excisum* Schaufuss, *Mitosoma obliquatum* Schedl, *Mitosoma paulianum* Schedl, *Platypus madagascariensis* Chapuis, *Xyleborinus diapiformis* (Schedl), *Xyleborinus forficuloides* (Schedl), *Xyleborinus spiculatus* (Schaufuss), *Xyleborinus spinosus* (Schaufuss), *Xyleborus alluaudi* Schaufuss, *Xyleborus antaisaka* Schedl.

Chrysophyllum lacourtianum

Cylindropalpus camerunus (Schedl), *Cylindropalpus interpositus* (Schedl), *Cylindropalpus pumilio* (Schedl), *Doliopygus citri* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus donisi* Schedl, *Doliopygus dubius* (Sampson), *Doliopygus fulgens* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus ater* (Eggers), *Periommatius excisus* Strohmeyer, *Platypus intermedius* (Schedl), *Trachyostus aterrinus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson).

Chrysophyllum ludovicianum

Dactylipalpus camerunus Hagedorn, *Hypothenemus biseriatus* (Eggers), *Xyleborus africanus* Eggers.

Chrysophyllum metallicum

Cylindropalpus affinis Strohmeyer.

Chrysophyllum natalensis

Cylindropalpus affinis Strohmeyer.

Chrysophyllum perpulchrum

Cylindropalpus affinis Strohmeyer, *Cylindropalpus pumilio* (Schedl), *Xyleborus ambasiusculus* Eggers.

Chrysophyllum pruniferum

Chaetastus tuberculatus (Chapuis), *Cylindropalpus interpositus* (Schedl), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus ghesquierei* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus maynei* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus unicornis* Schedl, *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Periommatius*

longicollis Chapuis, *Platypus hintzi* Schaufuss, *Platypus schenklingi* (Strohmeyer), *Trachyostus aterrinus* (Schaufuss), *Xyleborus affinis* Eichhoff, *Xyleborus multispinatus* Eggers, *Xyleborus coluteus* (Fabricius).

Chrysophyllum roxburghii

Coptodryas alpha (Beeson), *Coptodryas chrysophylli* (Eggers), *Coptodryas perparva* (Sampson), *Platypus forficula* Chapuis, *Platypus pseudocupulatus* Schedl.

Chrysophyllum spp.

Cylindropalpus auricomans (Schaufuss), *Cylindropalpus granulatus* (Schedl), *Cylindropalpus pertinax* (Schedl), *Dactylipalpus grouvellei* (Blandford), *Doliopygus retusus* Schedl, *Hypothenemus camerunus* (Eggers), *Prenobius cavipennis* Eichhoff, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyloctonus opacus* Schedl, *Xylosandrus crassiusculus* (Motschulsky).

Chrysophyllum subnudum

Xyleborus alluaudi Schaufuss.

Cicer arietinum

Araptus hymenaeae (Eggers).

Cillaeus contractus

Strombophorus vagans Schedl.

Cinchona calisaya

Eucallacea fornicatus (Eichhoff).

Cinchona ledgeriana

Ambrosiodmus aeger (Eggers), *Crossotarsus horii* Schedl, *Eccoptypterus spinosus* (Olivier), *Eucallacea xanthopus* (Eichhoff), *Hylesinopsis seriatus* (Eggers), *Rhopalopselion congoum* (Schedl), *Scolytotplatypus hova* Schaufuss, *Xyleborus principalis* Eichhoff, *Xyleborinus quadrispinosus* (Eichhoff).

Cinchona spp.

Arixyleborus tuberculatus (Eggers), *Cnestus aterrinus* (Eggers), *Cnestus bicornis* (Eggers), *Coptoborus usagaricus* (Eggers), *Eucallacea xanthopus* (Eichhoff), *Leptoxyleborus concisus* (Blandford), *Scolytotplatypus nitidus* Eggers, *Scolytotplatypus perminis* Schaufuss, *Xyleborinus andrewesi* (Blandford), *Xyleborinus collarti* (Eggers), *Xyleborus emarginatus* Eichhoff, *Xyleborus micronatus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus morigerus* (Blandford).

Cinchona succirubra

Ambrosiodmus camphorae (Hagedorn), *Platypus madagascariensis* Chapuis, *Scolytotplatypus hova* Schaufuss, *Xyleborinus aduncus* (Schedl), *Xyleborinus quadrispinosus* (Eichhoff), *Xyleborus malgasicus* Schedl.

Cinnamomum baileyianum

Xyleborus perforans (Wollaston).

Cinnamomum camphora

Ambrosiodmus lewisi (Blandford), *Arixyleborus camphorae* (Eggers), *Baiocis perinimicus* (Schedl), *Cnestus murayamai* Schedl, *Coptodryas izuensis* (Murayama), *Crossotarsus externedentatus* (Fairmaire), *Diapus minor* Schedl, *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Leptoxyleborus semigranulatus* (Schedl), *Phloeosinus camphoratus* Tsai & Yin, *Phloeosinus kumamotoensis* Murayama, *Phloeosinus machilus* (Schedl), *Phloeosinus seriatus* Blandford, *Platypus fraterculus* Schedl, *Platypus substriatus* (Schedl), *Platypus vethi* Strohmeyer, *Scolytotplatypus mikado* Blandford, *Taphrotrychus taradakensis* (Murayama), *Xyleborus atratus* Eichhoff, *Xyleborus clerodendronae* Schedl, *Xyleborus kumamotoensis* Murayama, *Xyleborus magnus* Niisima, *Xyleborus perforans* (Wollaston), *Xylosandrus compactus* (Eichhoff), *Xylosandrus*

- crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford), *Xylosandrus mutilatus* (Blandford).
- Cinnamomum cecicodaphne**
Crossotarsus cinnamomi Beeson, *Crossotarsus squamulatus* Chapuis, *Hadrodemius pseudocomans* (Eggers), *Xylosandrus gracilis* (Blandford).
- Cinnamomum impressinerveum**
Indocryphalus machili Wood.
- Cinnamomum iners**
Cnestus aterrimus (Eggers), *Crossotarsus squamulatus* Chapuis, *Crossotarsus terminatus* Chapuis, *Xyleborinus exiguus* (Walker), *Xylosandrus compactus* (Eichhoff).
- Cinnamomum japonicum**
Indocryphalus pubipennis (Blandford), *Xylosandrus brevis* (Eichhoff).
- Cinnamomum mairei**
Anasa amputatus (Blandford).
- Cinnamomum obtusifolium**
Ambrosiodinus lewisi (Blandford), *Sucus niisimai* (Eggers), *Xylosandrus subsimilis* (Eggers).
- Cinnamomum randiense**
Xyleborus atratus Eichhoff.
- Cinnamomum spp.**
Anasa amputatus (Blandford), *Ambrosiodinus rubricollis* (Eichhoff), *Crossotarsus reagentensis* Niisima & Murayama, *Crossotarsus squamulatus* Chapuis, *Eucallacea barbatus* (Hagedorn), *Eucallacea fornicatus* (Eichhoff), *Hadrodemius globus* (Blandford), *Platypus capito* Browne, *Platypus secretus* Sampson, *Platypus semigranosus* (Sampson), *Platypus solidus* Walker, *Platypus strenuus* Schedl, *Xyleborinus andrewesi* (Blandford), *Xyleborus adusticollis* (Motschulsky), *Xyleborus articylindrus* Schedl, *Xyleborus justus* Schedl, *Xyleborus pfeili* (Ratzeburg), *Xylosandrus arcuatus* (Sampson), *Xylosandrus ater* (Eggers), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus compactus* (Eichhoff).
- Cinnamomum zeylanicum**
Coccotrypes cinnamomi (Eggers), *Coccotrypes dactyliperda* (Fabricius), *Coptodryas nudipennis* (Schedl), *Xyleborinus andrewesi* (Blandford), *Xyleborinus subgranulatus* (Eggers), *Xyleborus perforans* (Wollaston), *Xylosandrus compactus* (Eichhoff), *Xylosandrus nudipennis* (Schedl).
- Cistanthera leplaei**
Cylindropalpus auricomans (Schaufuss), *Doliopygus serratus* (Strohmeyer), *Platypus intermedius* (Schedl), *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl.
- Cistanthera papyrifera**
Doliopygus conradti (Strohmeyer), *Xyleborus africanus* Eggers.
- Cistanthera spp.**
Doliopygus conradti (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Platypus parallelus* (Fabricius), *Polygraphus kasukumbii* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xylosandrus compactus* (Eichhoff).
- Citrus aurantifolia**
Hypothenemus columbi Hopkins, *Hypothenemus seriatus* (Eichhoff), *Theoborus ricini* (Eggers).
- Citrus aurantium**
Ambrosiodinus asperatus (Blandford), *Doliopygus citri* Schedl, *Eucallacea fornicatus* (Eichhoff), *Hypothenemus eruditus* Westwood, *Xyleborus affinis* Eichhoff.
- Citrus aurantium decumana**
Xyleborus perforans (Wollaston).
- Citrus decumana**
Hypothenemus eruditus Westwood.
- Citrus grandis**
Xyleborus affinis Eichhoff.
- Citrus maxima**
Xyleborus perforans (Wollaston).
- Citrus medica limonum**
Hypothenemus eruditus Westwood.
- Citrus sinensis**
Cladotenus interruptus (Eggers), *Xyleborus horridatus* Wood, *Xyleborus perforans* (Wollaston).
- Citrus spp.**
Ambrosiodinus obliquus (LeConte), *Crossotarsus bonconloivi* Chapuis, *Eucallacea fornicatus* (Eichhoff), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus erudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus pubipennis* (Eggers), *Sucus niisimai* (Eggers), *Xyleborus ferrugineus* (Fabricius), *Xyleborus neivai* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus spinulosus* Blandford, *Xylosandrus compactus* (Eichhoff).
- Cladrastris shikokiana**
Hylesinus costatus Blandford.
- Claoxylon polot**
Xylosandrus morigerus (Blandford).
- Clausena anisata**
Eucallacea xanthopus (Eichhoff).
- Cleistanthus polystachyus**
Phrixosoma fuscovillosa (Schedl).
- Cleistanthus spp.**
Doliopygus conradti (Strohmeyer), *Doliopygus lebruni* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus tenuis* (Strohmeyer), *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer).
- Cleistocalyx spp.**
Platypus yasuyasi Roberts.
- Cleistopholis glauca**
Coccotrypes subovalis Eggers.
- Cleistopholis patens**
Acanthotomicus sexdentatus (Eggers), *Chaetastus tuberculatus* (Chapuis), *Doliopygus conradti* (Strohmeyer), *Eccoptopterus spinosus* (Olivier), *Platypus hintzi* Schaufuss, *Triozastus marshalli* (Sampson), *Xylosandrus compactus* (Eichhoff).
- Cleistopholis spp.**
Premnobius caripennis Eichhoff.
- Clematis cirrhosa**
Xyloleptes biuncus Reitter.
- Clematis orientalis**
Taphronurgus exul (Reitter).
- Clematis simensis**
Thammurgus elegans Schedl, *Thammurgus granulicollis* Schedl, *Xyloleptes sidanus* (Schedl).
- Clematis spp.**
Chramesus incomptus Wood, *Dacnophthorus clematis* (Wood), *Dacnophthorus rullus* (Wood), *Hypothenemus brunneus* (Hopkins).
- Clematis vitalba**
Xyloleptes bispinus (Duftschmidt).
- Clerodendron colebrookianum**
Eucallacea fornicatus (Eichhoff).
- Clerodendron infortunatum**
Eucallacea fornicatus (Eichhoff), *Hadrodemius metacomans* (Eggers).
- Clerodendron spp.**
Eucallacea fornicatus (Eichhoff), *Platypus solutus*

- Schedl, *Xyleborus clerodendronae* Schedl, *Xylosandrus compactus* (Eichhoff).
- Clerodendron squamatum**
Hypothenemus erudiae (Panzer).
- Clerodendron villosum**
Cnestus aterrinus (Eggers).
- Clethra barbinervis**
Crossotarsus niponicus Blandford.
- Clethra hondurensis**
Corthylyus mexicanus Schedl, *Xyleborus affinis* Eichhoff.
- Cleyera japonica**
Eucallalcea validus (Eichhoff), *Platypus calamus* Blandford, *Xyleborus aquilus* Blandford, *Xyleborus atratus* Eichhoff, *Xyleborus seriatus* Blandford, *Xylosandrus germanus* (Blandford).
- Cleyera spp.**
Xyleborus octiesdentatus Murayama.
- Clidemia hirta**
Xylosandrus morigerus (Blandford).
- Clidemia spp.**
Xylosandrus compactus (Eichhoff).
- Clitandra spp.**
Xyleborinus gracilipennis (Schedl).
- Clitandra staudtii**
Ctonoxylon acuminatus Schedl, *Doliopygus expletus* Schedl, *Platypus orientalis* (Strohmeyer), *Polygraphus apicalis* Schedl, *Polygraphus majusculus* Schedl, *Polygraphus ruandae* Schedl.
- Clitoria ternatea**
Hypothenemus eruditus Westwood.
- Cloaxylon spp.**
Platypus longissimus Roberts.
- Clusia flava**
Phrixosoma clusiae Wood.
- Clusia spp.**
Ambrosiodmus ocellatus (Wood), *Corthylyus additus* Wood, *Corthylyus diligens* Wood, *Microborus aberrans* Wichmann, *Microborus lectus* Wood, *Monarthrum bicolor* (Ferrari), *Monarthrum lobatum* (Ferrari), *Monarthrum nevernanni* (Schedl), *Monarthrum vittatum* (Blandford), *Phloeotribus atavus* Wood, *Phloeotribus collaris* Chapuis, *Scolytodes canaliculus* Wood, *Scolytodes clusiaeolens* Wood, *Scolytodes clusiae* Wood, *Scolytodes clusiarum* Wood, *Scolytodes comitabilis* Wood, *Scolytodes crinalis* Wood, *Scolytodes fulmineus* Wood, *Scolytodes naevius* Wood, *Scolytodes onnateus* Wood, *Scolytodes praeceps* Wood, *Scolytodes proximus* Wood, *Scolytodes tardus* Wood.
- Clytastoma binatum**
Cnesinus setulosus Blandford.
- Coccoceras muticum**
Crossotarsus schudli Browne, *Crossotarsus squamulatus* Chapuis, *Platypus lunifer* Schedl.
- Coccoceras spp.**
Crossotarsus cincinnatus Chapuis.
- Coccoloba laurifolia**
Cnesinus strigicollis LeConte, *Hypothenemus eruditus* Westwood.
- Coccothrinax alta**
Hypothenemus seriatus (Eichhoff).
- Coccothrinax argentea**
Coccotrypes carpophagus (Hornung).
- Coccothrinax spp.**
Coccotrypes dactyliperda (Fabricius), *Coccotrypes distinctus* (Motschulsky).
- Cochlospermum gossypium**
Platypus uncinatus Blandford.
- Cocos australis**
Coccotrypes circumdatus Fonseca.
- Cocos nucifera**
Platypus jansoni Chapuis, *Platypus solidus* Walker, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xyleborus rotulus* (Fabricius), *Xylosandrus morigerus* (Blandford).
- Cocos plumosa**
Coccotrypes dactyliperda (Fabricius).
- Cocos romanzoffiana**
Coccotrypes dactyliperda (Fabricius).
- Cocos spp.**
Coccotrypes dactyliperda (Fabricius).
- Coelocaryon preussii**
Chaestatus tuberculatus (Chapuis), *Platypus parallelus* (Fabricius), *Xyleborus alluandi* Schauffuss, *Xylosandrus crassiusculus* (Motschulsky).
- Coelocaryon spp.**
Mesoplatypus tenuis Schedl, *Premnobius cavipennis* Eichhoff.
- Coelostegia griffithii**
Platypus cupulatus Chapuis.
- Coffea arabica**
Cnesinus adusticus Wood, *Cnesinus coffeae* Schedl, *Cnesinus gracilis* Blandford, *Cnesinus meris* Wood, *Cnesinus robei* Blackman, *Hylocurus elegans* Eichhoff, *Hypothenemus hampei* (Ferrari), *Hypothenemus opacus* (Eichhoff), *Monarthrum exornatum* (Schedl), *Phloeoborus punctatorugosus* Chapuis, *Xyleborus ferox* Blandford, *Xylosandrus compactus* (Eichhoff), *Xylosandrus discolor* (Blandford), *Xylosandrus morigerus* (Blandford).
- Coffea bukobensis**
Hypothenemus seriatus (Eichhoff), *Xylosandrus compactus* (Eichhoff).
- Coffea canephora**
Xylosandrus compactus (Eichhoff).
- Coffea canephora robusta**
Xylosandrus morigerus (Blandford).
- Coffea excelsa**
Xylosandrus morigerus (Blandford).
- Coffea hybrida**
Dryococtiops coffeae (Eggers), *Xylosandrus morigerus* (Blandford).
- Coffea laurentii**
Xylosandrus discolor (Blandford).
- Coffea liberica**
Coccotrypes confusus (Eggers), *Hypothenemus hampei* (Ferrari), *Xyleborus haberkorni* Eggers, *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).
- Coffea quillon**
Xylosandrus compactus (Eichhoff).
- Coffea robusta**
Cnestus bicornis (Eggers), *Cryptocarenum lepidus* Wood, *Dryocoetoides cristatus* (Fabricius), *Hypothenemus eruditus* Westwood, *Hypothenemus hampei* (Ferrari), *Taurodemus perebeae* (Ferrari), *Xylosandrus compactus* (Eichhoff), *Xylosandrus discolor* (Blandford), *Xylosandrus morigerus* (Blandford).
- Coffea spp.**
Ambrosiodmus aegir (Eggers), *Ambrosiodmus lecontei* Hopkins, *Hypothenemus eruditus* Westwood, *Hypothenemus grandis* Schedl, *Hypothenemus libericensis*

(Hopkins), *Hypothenemus multidentatus* (Hopkins), *Hypothenemus plumeriacae* (Nordlinger), *Hypothenemus solitarius* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus haberkorni* Eggers, *Xyleborus mucronatus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xyleborus volutus* (Fabricius), *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford), *Xylosandrus retusus* (Eichhoff).

Coffea stenophylla

Xylosandrus compactus (Eichhoff).

Cola acuminata

Doliopygus conradti (Strohmeyer), *Doliopygus serratus* (Strohmeyer), *Miocyphalus attenuatus* (Eggers), *Xylosandrus morigerus* (Blandford).

Cola caricifolia

Rhopalopselion thompsoni Schedl, *Tiarophorus intermedius* Schedl.

Cola chlamydantha

Doliopygus conradti (Strohmeyer), *Doliopygus medius* Schedl, *Hypothenemus eruditus* Westwood, *Periommatous excisus* Strohmeyer, *Platypus hintzi* Schaufuss, *Xyleborinus similans* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius).

Cola congolana

Doliopygus conradti (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus colae* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborus alluaudi* Schaufuss.

Cola diversifolia

Rhopalopselion atrum Eggers.

Cola gigantea

Doliopygus pseudoserratus Roberts, *Doliopygus punctiventris* Schedl, *Platypus hintzi* Schaufuss, *Trachyostus aterrimus* (Schaufuss).

Cola griseiflora

Doliopygus conradti (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus expletus* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus colae* (Schedl), *Hypothenemus eruditus* Westwood, *Hypothenemus pubipennis* (Eggers), *Hypothenemus socialis* (Schedl), *Platypus impressus* (Strohmeyer), *Xyleborus alluaudi* Schaufuss.

Cola nitida

Cylindropalpus auricomans (Schaufuss), *Doliopygus serratus* (Strohmeyer), *Miocyphalus attenuatus* (Eggers), *Periommatous excisus* Strohmeyer, *Xyleborus barunbuensis* Eggers, *Xylosandrus compactus* (Eichhoff).

Cola spp.

Araptus politus (Blandford), *Doliopygus propinquus* Schedl, *Doliopygus serratus* (Strohmeyer).

Coleus spp.

Eucallacea xanthopus (Eichhoff), *Xyleborinus forficuloides* (Schedl), *Xyleborinus forficulus* (Eggers).

Colophylum walkeri

Platypus furcatus Blandford.

Colutea arborescens

Phloeotribus brevicollis (Kolenati).

Colvillea racemosa

Platypus parallelus (Fabricius).

Colvillea spp.

Eucallacea fornicatus (Eichhoff).

Colydium elongatum

Xyleborinus saxeseni (Ratzeburg).

Colydium lineola

Xyleborinus saxeseni (Ratzeburg).

Combretodendron africanum

Cylindropalpus auricomans (Schaufuss), *Doliopygus lefevrei* Schedl, *Doliopygus retusus* Schedl, *Doliopygus semipilosus* (Schedl), *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus scobinatus* Hagedorn.

Combretodendron macrophyllum

Chaetastus persimilis (Schedl), *Chaetastus tuberculatus* (Chapuis), *Coccotrypes cylindricus* (Eggers), *Cylindropalpus granulatus* (Schedl), *Doliopygus divaricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus ghesquieri* (Schedl), *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus retusus* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus semipilosus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicomis* Schedl, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Platypus parallelus* (Fabricius), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volutus* (Fabricius).

Combretodendron spp.

Ambrosiodinus tropicus (Hagedorn), *Platypus hintzi* Schaufuss, *Prennobiobus cavipennis* Eichhoff.

Combretum gueinzii

Xyleborus ugandensis Schedl.

Combretum oblongum

Chaetastus tuberculatus (Chapuis), *Doliopygus coelocephalus* (Schaufuss), *Doliopygus erichsoni* (Chapuis), *Doliopygus galerus* (Schedl), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebrunii* Schedl, *Doliopygus pygmaeolus* Schedl, *Trachyostus schaufussi* (Strohmeyer).

Combretum paniculatum

Scolytoplatus armatus Eggers.

Combretum spp.

Doliopygus erichsoni (Chapuis), *Scolytus binodus* Wood.

Commidendron robustum

Xyleborinus aemulus (Wollaston).

Commiphora spp.

Mitosoma obconiceps Schedl, *Platypus madagascariensis* Chapuis.

Condalia obtusifolia

Chramesus subopacus Schaeffer, *Hylocurus parkinsoniae* Blackman, *Hypothenemus brunneus* (Hopkins), *Phloeotribus dentifrons* (Blackman), *Phloeotribus texanus* Schaeffer, *Pseudothysanoes heliura* Wood.

Condalia spp.

Chramesus subopacus Schaeffer, *Hypothenemus erectus* LeConte, *Hypothenemus sparsus* Hopkins.

Conocarpus erectus

Cnesinus setulosus Blandford, *Cryptocarenum seriatus* Eggers, *Hypothenemus javanus* (Eggers), *Micracisella nanula* (LeConte).

Conopharyngia durissima

Phrixosoma garciniae (Schedl), *Phrixosoma uniseriata* (Eggers), *Polygraphus tenuis* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky).

Conopharyngia holzkii

Xyloctonus niger Schedl.

Conopharyngia spp.

Chaetastus tuberculatus (Chapuis), *Platypus impressus* (Strohmeyer), *Xyleborinus collarti* (Eggers).

Conostegia oerstediana

Amphicramus fastigiatus Blandford, *Corthyocylon moridum* Wood, *Corthylocurus barbatus* (Blandford), *Corthylus concisus* Wood, *Microcorthylus demissus* Wood, *Microcorthylus ocularis* Wood, *Microcorthylus pumilus* Wood, *Monarthrum bidens* (Blandford), *Monarthrum pennatum* (Schedl), *Monarthrum proprium* Wood, *Taurodemus salvinii* (Blandford), *Xyleborus meritus* Wood, *Xyleborus squamulatus* Eichhoff.

Copaifera langsdorfi

Xyleborus parcellus Wood.

Copaifera spp.

Xyleborus spathipennis Eichhoff.

Coprosma spp.

Xylosandrus compactus (Eichhoff).

Cordia caffra

Lanurgus podocarpi Schedl.

Cordia dichotoma

Eucallaeza andamanensis (Blandford), *Xylosandrus mancus* (Blandford).

Cordia grandis

Coptodryas alpha (Beeson), *Eucallaeza andamanensis* (Blandford).

Cordia millenii

Chaetastus tuberculatus (Chapuis).

Cordia myxa

Xyleborus perforans (Wollaston), *Xylosandrus mancus* (Blandford).

Cordia senegalensis

Doliopygus bulbifer Schedl.

Cordia spp.

Coptoborus pseudotenius (Schedl), *Doliopygus excavatus* (Sampson), *Doliopygus nairobiensis* (Schedl), *Hypothenemus seriatus* (Eichhoff), *Theoborus micarius* (Wood), *Xylosandrus compactus* (Eichhoff).

Cordyline australis

Platypus apicalis (White).

Cordyline terminalis

Xyleborus ferrugineus (Fabricius), *Xyleborus perforans* (Wollaston), *Xyleborus rugatus* Blackburn.

Cornus controversa

Hyorrhynchus lewisi Blandford, *Pseudohyorrhynchus wadai* Murayama, *Sucus niisimai* (Eggers).

Cornus florida

Hypothenemus eruditus Westwood, *Xyleborinus saxensis* (Ratzeburg), *Xylosandrus germanus* (Blandford).

Cornus macrophylla

Scolytoplatypus minimus Hagedorn, *Scolytoplatypus raja* Blandford.

Cornus spp.

Ambrosiodmus rubricollis (Eichhoff), *Corthylus punctatissimus* (Zimmermann), *Hypothenemus eruditus* Westwood, *Scolytoplatypus daimio* Blandford, *Scolytoplatypus mikado* Blandford, *Xyleborus sayi* (Hopkins), *Xylosandrus mutilatus* (Blandford).

Cornus tartarica

Hypothenemus corni Kurenzov.

Corylus avellana

Dryocoetes alni (Georg), *Lymantor aceris* (Lindemann), *Lymantor coryli* (Perris).

Corylus mandshurica

Cryphalus mandschuricus Eggers, *Xyleborus maiche* (Stark).

Corylus spp.

Corthylus punctatissimus (Zimmermann), *Cryphalus mandschuricus* Eggers, *Scolytus laevis* Chapuis, *Tiarophorus scrutator* (Pandelle).

Cossia arabica

Coccotrypes cyperi (Beeson).

Cotoneaster microphylla

Scolytus abacensis Tsai & Yin, *Scolytus nitidus* Schedl.

Cotoneaster spp.

Scolytus mali (Bechstein), *Scolytus rugulosus* (Muller), *Thamurgus orientalis* Schedl.

Cotylelobium flavum

Genyocerus biporus (Schedl).

Cotynus cogyria

Chaetoptelcus vestitus (Mulsant & Rey).

Couma macrocarpa

Phelloterus anaxeus Wood, *Platypus nudatus* Wood, *Xyleborus adlographus* Eichhoff, *Xyleborus affinis* Eichhoff, *Xyleborus asper* Eggers, *Xyleborus ferrugineus* (Fabricius).

Cowania mexicana

Chaetophloeus heterodoxus (Casey).

Craibia ellioti

Rhopalopsclion conjungens Schedl.

Crassocephalum spp.

Eucallaeza xanthopus (Eichhoff).

Crataegus spp.

Cnesinus carinatus Wood, *Hypothenemus eruditus* (Panzer), *Hypothenemus eruditus* Westwood, *Scolytus mali* (Bechstein), *Scolytus rugulosus* (Muller), *Xyleborus dispar* (Fabricius).

Craterispermum spp.

Premnobius sexspinosus Eggers.

Cratoxylon arborescens

Crossotarsus squamulatus Chapuis, *Platypus westwoodi* Chapuis.

Cratylia floribunda

Premnobius cavipennis Eichhoff, *Xyleborinus reconditus* (Schedl), *Xyleborus spathipennis* Eichhoff, *Xylosandrus retusus* (Eichhoff).

Crossandra spp.

Doliopygus integratus Roberts.

Crossostylis biflora

Xyleborus ferrugineus (Fabricius).

Crotalaria anagyroides

Xylosandrus morigerus (Blandford).

Crotalaria saltiana

Hypothenemus eruditus Westwood.

Crotalaria spp.

Corthylus collaris Blandford, *Hypothenemus eruditus* Westwood, *Hypothenemus obscurus* (Fabricius), *Xyleborus ferrugineus* (Fabricius), *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Crotalaria striata

Eucallaeza fornicatus (Eichhoff).

Crotalaria usaramoensis

Xylosandrus morigerus (Blandford).

Crotalaria spp.

Chramesus marginatus Wood, *Taurodemus perebeae* (Ferrari), *Tricolus scitulus* Wood.

Croton argyratum

Crossotarsus wallacei (Thomson).

Croton gossypifolius

Cnesinus lecontei Blandford, *Microcorthylus concisus* Wood, *Phlocotribus setulosus* Eichhoff.

- Croton guianensis***
Phloeotribus nebulosus Wood, *Scolytodes rescutus* Wood.
- Croton haumauianus***
Chaetastus tuberculatus (Chapuis), *Doliopygus conradi* (Strohmeyer), *Doliopygus rapax* (Sampson), *Periommatatus grandis* Schedl, *Periommatatus longicollis* Chapuis, *Platypus impressus* (Strohmeyer), *Strombophorus vagans* Schedl, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus gracilipennis* (Schedl), *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky).
- Croton macrostachys***
Chaetastus montanus Schedl, *Chaetastus tuberculatus* (Chapuis), *Platypus spinulosus* (Strohmeyer).
- Croton megalocarpus***
Periommatatus grandis Schedl, *Platypus spinulosus* (Strohmeyer).
- Croton mubungo***
Doliopygus lefevrei Schedl.
- Croton pseudoniveus***
Chramesus exul Wood, *Hyllocurus crotonis* Wood.
- Croton* spp.**
Ambrosiodmus eichloffii (Schreiner), *Ambrosiodmus obliquus* (LeConte), *Amphicranus acus* Wood, *Chaetastus montanus* Schedl, *Chaetastus tuberculatus* (Chapuis), *Chramesus exul* Wood, *Cnesinus equitai* Wood, *Cnesinus lecontei* Blandford, *Corthylus abbreviatus* Eichhoff, *Doliopygus citri* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus unicus* (Schedl), *Hypothenemus eruditus* Westwood, *Monarthrum dimidiatum* (Ferrari), *Periommatatus grandis* Schedl, *Phloeotribus demessus* Blandford, *Pityophthorus crotonis* Wood, *Platypus cupulatus* Chapuis, *Platypus impressus* (Strohmeyer), *Platypus spinulosus* (Strohmeyer), *Scolytodes habilis* Wood, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xylosandrus compactus* (Eichhoff).
- Croton sylvaticus***
Doliopygus erichsoni (Chapuis).
- Cryptocarya ablato***
Platypus australis Chapuis.
- Cryptocarya chinensis***
Crossotarsus reuterensis Niisima & Murayama.
- Cryptocarya erythroxylon***
Cryphalus asperulus Schedl, *Cryphalus brimblecombei* Schedl.
- Cryptocarya* spp.**
Diapus elongatus Schedl, *Diapus nanodontus* Roberts, *Diapus nanus* Schedl, *Diapus nebulosus* Roberts, *Diapus perpygmaeus* Roberts, *Diapus pusillimus* Chapuis, *Diapus robustus* Schedl, *Hylesinus cordipennis* Lea, *Platypus echinatus* Roberts & Morimoto, *Platypus enormis* Schedl, *Platypus ramosissimus* Roberts & Morimoto, *Platypus ramulosus* Roberts & Morimoto, *Platypus sellaeformis* Roberts & Morimoto, *Platypus uniformis* Schedl, *Xyleborinus andreweesi* (Blandford), *Xylosandrus compactus* (Eichhoff).
- Cryptocarya wrighiana***
Crossotarsus bonvouloiri Chapuis, *Crossotarsus siva* Beeson, *Scolytoplatypus cutomoides* Blandford.
- Cryptocery* spp.**
Platypus australis Chapuis.
- Cryptolepis buchanani***
Scolytogenes darwini Eichhoff.
- Cryptomeria japonica***
Crossotarsus externodentatus (Fairmaire), *Cryphalus cryptomeriae* Niisima, *Diapus spatulifer* Browne, *Eucallacea validus* (Eichhoff), *Hypothenemus eruditus* Westwood, *Phlocosinus gifucensis* Murayama, *Phlocosinus lewisi* Chapuis, *Phlocosinus rudis* Blandford, *Phlocosinus samohensis* Murayama, *Platypus kusukusensis* Murayama, *Platypus lewisi* Blandford, *Platypus quercivorus* Murayama, *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus aquilus* Blandford, *Xyleborus seriatus* Blandford, *Xylosandrus mutilatus* (Blandford).
- Cryptomeria* spp.**
Phlocosinus perlatus Chapuis.
- Cryptophagus subvittatus***
Xyleborinus saxeseni (Ratzeburg).
- Ctenolophon grandifolius***
Platypus signatus Chapuis.
- Cucumis* spp.**
Eucallacea fornicatus (Eichhoff).
- Cucurbita digitata***
Dendrocranulus cucurbitae (LeConte).
- Cucurbita foetidissima***
Dendrocranulus cucurbitae (LeConte).
- Cucurbita pepo***
Dendrocranulus knausi (Hopkins).
- Cucurbita* spp.**
Dendrocranulus knausi (Hopkins), *Dendrocranulus limbellus* Wood, *Dendrocranulus modus* Wood.
- Cudrania jarauensis***
Eucallacea interjectus (Blandford).
- Cullenia excelsa***
Coccotrypes cardamomi Schaufuss, *Coccotrypes variabilis* (Beeson), *Platypus solidus* Walker.
- Cunninghamia lanceolata***
Ambrosiodmus rubricollis (Eichhoff), *Eucallacea validus* (Eichhoff), *Phlocosinus bicolor* (Brulle), *Phlocosinus perlatus* Chapuis, *Phlocosinus sinensis* Schedl.
- Cunninghamia sinensis***
Phlocosinus perlatus Chapuis, *Phlocosinus sinensis* Schedl.
- Cupania guatemalensis***
Bothrostermus foveatus (Blackman), *Hypothenemus trivialis* Wood, *Xylosandrus zimmermanni* (Hopkins).
- Cupressus arizonica***
Phlocosinus arizonicus Blackman, *Phlocosinus baumanni* Hopkins, *Phlocosinus cristatus* (LeConte), *Phlocosinus scopulorum neomexicanus* Blackman, *Phlocosinus spinosus* Blackman.
- Cupressus benthami***
Hypothenemus eruditus Westwood, *Phlocosinus baumanni* Hopkins, *Phlocosinus tacubayae* Hopkins.
- Cupressus forbesi***
Phlocosinus cristatus (LeConte), *Phlocosinus frontalis* Bruck.
- Cupressus guadeloupeusis***
Phlocosinus frontalis Bruck.
- Cupressus lindleyi***
Carphobius pilifer Wood, *Phlocosinus baumanni* Hopkins, *Phlocosinus tacubayae* Hopkins.
- Cupressus lusitanica***
Carphobius cupressi Wood, *Chaetastus montanus* Schedl, *Hypothenemus eruditus* Westwood, *Phlocosinus*

- baumanni* Hopkins, *Phloeosinus henschi* Reitter, *Phloeosinus tacubayae* Hopkins.
- Cupressus macnabiana**
Phloeosinus hoppingi Swaine.
- Cupressus macrocarpa**
Crossotarsus terminatus Chapuis, *Phloeosinus cristatus* (LeConte), *Phloeosinus cupressi* Hopkins, *Phloeosinus frontalis* Bruck, *Phloeosinus hoppingi* Swaine, *Phloeosinus sequoiae* Hopkins, *Platypus furcatus* Blandford.
- Cupressus sargentii**
Phloeosinus cupressi Hopkins, *Phloeosinus hoppingi* Swaine, *Phloeosinus sicainci* Bruck, *Phloeosinus variolatus* Bruck.
- Cupressus sempercirens**
Phloeosinus armatus Reitter.
- Cupressus spp.**
Hypothenemus eruditus Westwood, *Phloeosinus antenatus* Swaine, *Phloeosinus armatus* Reitter, *Phloeosinus bicolor* (Brulle), *Phloeosinus cupressi* Hopkins, *Phloeosinus deleoni* Blackman, *Phloeosinus henschi* Reitter, *Phloeosinus thujae* (Perris).
- Cupressus torulosa**
Phloeosinus jubatus Sampson.
- Cussonia chartacea**
Eucallacea xanthopus (Eichhoff).
- Cussonia longissima**
Xyleborus ferrugineus (Fabricius), *Xyleborus picus* (Motschulsky).
- Cussonia spp.**
Acanthotomicus octospinosus (Schedl).
- Cussonia vauziliana**
Eucallacea xanthopus (Eichhoff), *Mitosoma obtusum* Schedl, *Mitosoma vulpinum* Schedl.
- Cyathea spp.**
Eucallacea oparum (Beeson).
- Cyblastax donnell-smithii**
Cnemidophorus splendens (Wood).
- Cydonia oblonga**
Scolytus rugulosus (Muller).
- Cylicodiscus gabunensis**
Doliopygus brevis (Strohmeyer), *Doliopygus conradti* (Strohmeyer), *Doliopygus perbrevis* Schedl, *Platypus hintzi* Schaufuss, *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky).
- Cylicodiscus spp.**
Premnobius caripennis Eichhoff.
- Cynodon dactylon**
Hypothenemus eruditus Westwood, *Hypothenemus pubescens* Hopkins.
- Cynometra alexandrii**
Ambrosiodinus aegir (Eggers), *Cyclorhipidion cruceipenne* (Schedl), *Doliopygus artespinitus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus exilis* (Chapuis), *Doliopygus fulgens* Schedl, *Doliopygus intritus* (Schedl), *Doliopygus megatoma* Schedl, *Doliopygus notatus* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus morio* (Eggers), *Premnobius nodulosus* Hagedorn, *Rhopalopselion subseriatus* (Schedl), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff.
- Cynometra hankei**
Chaetastus tuberculatus (Chapuis), *Coccotrypes grandis* (Eggers), *Cosmoderes donisi* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus exilis* (Chapuis), *Doliopygus incilis* Schedl, *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus unicomis* Schedl, *Hypothenemus cynometrae* Schedl, *Hypothenemus donisi* (Schedl), *Hypothenemus eruditus* Westwood, *Periommatius circularis* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).
- Cynometra hemitomophylla**
Araptus laevigatus (Eggers), *Coccotrypes cyperi* (Beeson).
- Cynometra insularis**
Platypus citicensis Roberts.
- Cynometra oaxacana**
Pseudochramesus jaliscoensis Wood.
- Cynometra spp.**
Ambrosiodinus tropicus (Hagedorn), *Doliopygus excavatus* (Sampson), *Doliopygus intritus* (Schedl), *Doliopygus perbrevis* Schedl, *Doliopygus serratus* (Strohmeyer).
- Cyrtandra spp.**
Xyleborus mumfordi Beeson, *Xyleborus tenetiivus* Beeson.
- Cytisus alpinus**
Hylastinus fankhauseri Reitter.
- Cytisus biflorus**
Hylastinus obscurus (Marshall).
- Cytisus hirsutus**
Hylastinus obscurus (Marshall).
- Cytisus laburum**
Hylastinus fankhauseri Reitter, *Hylastinus obscurus* (Marshall).
- Cytisus nigricans**
Hylastinus obscurus (Marshall).
- Cytisus proliferus**
Liparthrum nigrescens Wollaston.
- Cytisus spp.**
Liparthrum genistae (Aube), *Phloeotribus perfoliatus* (Wollaston), *Phloeotribus rhododactylus* (Marshall).
- Cytisus triflorus**
Hylastinus fankhauseri Reitter, *Phloeotribus pycerimhoffi* (Eggers).
- Cytisus veldeni**
Phloeotribus hercegovinensis (Seitner).
- Dacrycarpus spp.**
Diapus nebulosus Roberts.
- Dacrydium elatum**
Platypus vittensis Roberts.
- Dacrydium spp.**
Xyleborus partitus Brown.
- Dacryodes deliciosa**
Cylindropalpus auricomans (Schaufuss).
- Dacryodes edulis**
Xyleborus subtuberculatus Eggers.
- Dacryodes excelsa**
Monarthrum praecustum (Eggers), *Platypus compositus* Say.
- Dacryodes klaineana**
Xyleborus alluaudi Schaufuss.
- Dacryodes pubescens**
Cyclorhipidion callosum (Schedl), *Cyclorhipidion*

- nsafukalae* (Schedl), *Cyclorhipidion praecursor* (Schedl), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus subtuberculatus* Eggers.
- Dacryodes rostrata**
Crossotarsus brownei Schedl, *Cyclorhipidion pruinosum* (Blandford), *Hypocryphalus malayensis* Schedl.
- Dacryodes spp.**
Ambrosiodinus lecontei Hopkins, *Cyclorhipidion pruinosum* (Blandford).
- Dacryodes yangambiensis**
Doliopygus fulgens Schedl, *Doliopygus ghesquieri* (Schedl), *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus opulentus* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Trachyostus aterrimus* (Schaufuss), *Xyleborus affinis* Eichhoff.
- Daemonorops spp.**
Ambrosiodinus brunneipes (Eggers), *Eucallacea limatus* (Schedl), *Leptoxyloborus concisus* (Blandford).
- Dalbergia assamensis**
Platypus secretus Sampson.
- Dalbergia assamica**
Eucallacea sibsagaricus (Eggers), *Platypus cavus* Strohmeyer, *Platypus indicus* Strohmeyer, *Xyleborus piccus* (Motschulsky).
- Dalbergia ecastophyllum**
Hypothenemus brunneus (Hopkins), *Hypothenemus crudiae* (Panzer).
- Dalbergia gastrophylum**
Hypothenemus birmannus (Eichhoff).
- Dalbergia hupeana**
Eucallacea validus (Eichhoff).
- Dalbergia latifolia**
Carchesiopygus multidentatus (Strohmeyer), *Crossotarsus fractus* Sampson, *Crossotarsus javanus* Beeson, *Crossotarsus minax* (Walker), *Ernoporus concentralis* (Eggers), *Platypus jansoni* Chapuis, *Platypus pseudocupulatus* Schedl, *Platypus solidus* Walker, *Platypus vethi* Strohmeyer, *Xyleborus haberkorni* Eggers, *Xyleborus perforans* (Wollaston), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus manicus* (Blandford), *Xylosandrus morigerus* (Blandford).
- Dalbergia paniculata**
Xyleborus perforans (Wollaston).
- Dalbergia pterocarpifolia**
Mitosoma lobatum Schedl, *Platypus madagascariensis* Chapuis, *Xyleborinus quadrispinosus* (Eichhoff), *Xyleborinus signatipennis* (Schedl), *Xyleborus antaisaka* Schedl, *Xyleborus gibber* Schedl, *Xyleborus sakalava* Schedl.
- Dalbergia sissoo**
Coccytrypes nubilis (Blandford), *Platypus solidus* Walker, *Xylosandrus crassiusculus* (Motschulsky).
- Dalbergia spp.**
Arixyleborus minor (Eggers), *Arixyleborus tuberculatus* (Eggers), *Dendrocranulus brasiliensis* (Schedl), *Eucallacea andamanensis* (Blandford), *Mitosoma obconiceps* Schedl, *Mitosoma obliquatum* Schedl, *Mitosoma obtusum* Schedl, *Xyleborus madagascariensis* Schaufuss.
- Dalea lasiostachya**
Chramesus marginatus Wood.
- Dalhousiea spp.**
Diamerus impar Chapuis.
- Dalium corbisieri**
Eucallacea granosus (Schedl).
- Daniellia klainei**
Cylindropalpus laudatus (Schedl), *Diapus quinque-spinatus* Chapuis, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volvulus* (Fabricius).
- Daniellia oliveri**
Ambrosiodinus cichhoffi (Schreiner), *Doliopygus aduncus* Schedl, *Doliopygus terebrans* Schedl, *Pityophthorus barbifer* Schedl, *Triozastus marshalli* (Sampson).
- Daphniphyllum glaucescens**
Hypothenemus amakusanus (Murayama), *Platypus calanus* Blandford.
- Daphniphyllum macropodium**
Xyleborus praecius Blandford, *Xyleborus volvulus* (Fabricius).
- Daphniphyllum teijsmanni**
Platypus calanus Blandford.
- Daphnopsis seibertii**
Araptus laevigatus (Eggers), *Hypothenemus plumeriae* (Nordlinger).
- Dehaasia euneata**
Xylosandrus ater (Eggers).
- Deinbollia spp.**
Chaetastus tuberculatus (Chapuis), *Triozastus caliginosus* Roberts, *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus albaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky).
- Delphinium consolida**
Thamniurgus delphinii (Rosenhauer).
- Delphinium spp.**
Thamniurgus delphinii (Rosenhauer).
- Dendrobium phalaenopsis**
Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).
- Dendrobium spp.**
Xyleborus perforans (Wollaston), *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).
- Dendrobium urvelli**
Xylosandrus morigerus (Blandford).
- Dendrobium veratrifolium**
Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).
- Dendropanax arboreum**
Xyleborus affinis Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volvulus* (Fabricius), *Xylosandrus laticeps* (Wood).
- Derris elliptica**
Hypothenemus cruditus Westwood.
- Derris microphylla**
Xylosandrus morigerus (Blandford).
- Derris robusta**
Eucallacea fornicatus (Eichhoff), *Hypothenemus cruditus* Westwood.
- Derris spp.**
Hypothenemus crudiae (Panzer).
- Desmodium cephalotes**
Eucallacea fornicatus (Eichhoff).
- Desmodium cogantii**
Chramesus marginatus Wood.
- Desmodium flemingia spp.**
Xylosandrus morigerus (Blandford).
- Desmodium ovalifolium**
Xylosandrus compactus (Eichhoff).

Desmoncus spp.*Xyleborus inaequalis* Schedl.**Desplatsia deweveri***Doliopygus coelocephalus* (Schaufuss), *Doliopygus erichsoni* (Chapuis), *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus rapax* (Sampson), *Periommatius grandis* Schedl, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schoutedeni* (Schedl).**Desplatsia subericarpa***Periommatius longicollis* Chapuis.**Dialanthera otoba***Xyleborus grossmanni* Schedl.**Dialium corbisieri***Ambrosiodmus ovatus* (Eggers), *Cosmoderes solitarius* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus exilis* (Chapuis), *Doliopygus lateralis* Schedl, *Doliopygus minimus* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus woltschei* Schedl, *Hypothenemus socialis* (Schedl), *Mesoplatypus ventricornis* Schedl, *Mesoplatypus venustus* Schedl, *Polygraphus afzeliae* Schedl, *Strombophorus dialiumi* Schedl, *Strombophorus lukengeae* Schedl, *Triozastus marshalli* (Sampson), *Xyleborinus gracilipennis* (Schedl), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus piceus* (Motschulsky), *Xyleborus volulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).**Dialium excelsum***Cylindropalpus laudatus* (Schedl), *Doliopygus coelocephalus* (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus lebruni* Schedl, *Doliopygus spectabilis* Schedl, *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Periommatius grandis* Schedl, *Platypus solutus* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson).**Dialium pachyphyllum***Doliopygus conradti* (Strohmeyer), *Doliopygus exilis* (Chapuis), *Doliopygus lateralis* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus tenuis* (Strohmeyer), *Hypothenemus biseriatus* (Eggers), *Platypus hintzi* Schaufuss, *Strombophorus lukengeae* Schedl, *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ficus* Eggers, *Xyleborus multipinatus* Eggers, *Xyleborus subtuberculatus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).**Dialium spp.***Acanthotomicus unicus* (Schedl), *Doliopygus angolensis* Schedl, *Doliopygus bilobatus* (Schedl), *Platypus cancellatus* Schedl, *Platypus puerulus* (Schedl), *Strombophorus lukengeae* Schedl, *Xyleborus fallax* Eichhoff.**Dialium tessmanui***Doliopygus medius* Schedl, *Periommatius longicollis* Chapuis, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius).**Dialium spp.***Hypothenemus camerinus* (Eggers).**Dichaetanthera cordifolia***Pityophthorus dorsalis*.**Dichapetalum spp.***Xyleborus truncatulus* Schedl.**Dichopetalum thomeri***Hypothenemus aethiops* (Schedl).**Dichopsis elliptica***Eucallacea andamanensis* (Blandford).**Dichopsis polyantha***Scolytomimus assanensis* Schedl.**Dictyosperma album***Coccotrypes dactyliperda* (Fabricius).**Didymeles spp.***Mitasoma sexspinosum* Schedl.**Dillenia pentagyna***Eucallacea andamanensis* (Blandford), *Xyleborinus andrewesi* (Blandford), *Xyleborus perforans* (Wollaston), *Xylosandrus butamali* (Beeson), *Xylosandrus crassiusculus* (Motschulsky).**Dillenia philippinensis***Xyleborus similis* Ferrari.**Dillenia retusa***Coccotrypes advena* Blandford, *Coccotrypes variabilis* (Beeson).**Dioclea megacarpa***Hypothenemus erudiae* (Panzer), *Hypothenemus plummeriae* (Nordlinger), *Stegomernus pygmaeus* Wood, *Theoborus ricini* (Eggers).**Diospyros alboflavescens***Platypus impressus* (Strohmeyer), *Platypus intermedius* (Schedl), *Trachyostus schaufussi* (Strohmeyer).**Diospyros crassiflora***Chaetastus persimilis* (Schedl), *Chaetastus tuberculatus* (Chapuis), *Cylindropalpus laudatus* (Schedl), *Platypus impressus* (Strohmeyer), *Trachyostus aterrimus* (Schaufuss), *Xyleborus affinis* Eichhoff.**Diospyros eriantha***Xyleborus atratus* Eichhoff.**Diospyros kaki***Ambrosiodmus rubricollis* (Eichhoff), *Cryphalus exiguus* Blandford, *Hypothenemus eruditus* Westwood, *Xyleborinus attenuatus* (Blandford), *Xyleborus kadoyamaensis* Murayama, *Xyleborus pfeili* (Ratzeburg), *Xylosandrus brevis* (Eichhoff), *Xylosandrus germanus* (Blandford).**Diospyros morrisiana***Xyleborus atratus* Eichhoff.**Diospyros oocarpa***Crossotarsus andamanus* Beeson, *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston).**Diospyros paniculata***Platypus latifinis* Walker, *Platypus uncinatus* Blandford, *Xyleborus perforans* (Wollaston).**Diospyros pseudo-ebenum***Platypus cavus* Strohmeyer, *Platypus hybridus* Schedl.**Diospyros pyrrocarpa***Platypus cordiger* Chapuis, *Xyleborus piceus* (Motschulsky).**Diospyros spp.***Ambrosiodmus eichhoffi* (Schreiner), *Ambrosiodmus rubricollis* (Eichhoff), *Arixyleborus medius* (Eggers), *Coccotrypes carpophagus* (Homung), *Crossotarsus squamulatus* Chapuis, *Doliopygus bitalei* Schedl, *Doliopygus convexus* Roberts, *Doliopygus dolosus* Schedl, *Mesoplatypus calabaricus* Roberts, *Platypus compositus* Say, *Platypus hirtus* Schedl, *Platypus hybridus* Schedl, *Platypus insularis* Strohmeyer, *Platypus secretus* Sampson, *Platypus volaticus* Schedl,

- Treptoplatypus circulicauda* Browne, *Xylosandrus compactus* (Eichhoff).
- Diospyros suareolens**
Chaetastus tuberculatus (Chapuis).
- Dipholis salicifolia**
Cnesinus strigicollis LeConte, *Cryptocarenum seriatus* Eggers, *Hypothenemus seriatus* (Eichhoff), *Hypothenemus squamosus* (Hopkins), *Micracisella nanula* (LeConte).
- Diphysa robinioidea**
Ambrosiodinus lecontei Hopkins, *Hypothenemus crudiae* (Panzer).
- Diplodiscus paniculatus**
Eucallacea quadraticollis (Eggers), *Platypus setaceus* Chapuis.
- Diploglottis australis**
Xylosandrus solidus (Eichhoff).
- Diplospora spp.**
Crossotarsus schedli Browne.
- Diprosora viridiflora**
Xyleborus atratus Eichhoff.
- Dipterocarpus alatus**
Cryphalus dipterocarpi Wood.
- Dipterocarpus baudii**
Arixyleborus suturalis (Eggers), *Coptodryas diversicolor* (Eggers), *Coptodryas nigax* (Schedl), *Coptodryas perparva* (Sampson), *Eccoptopterus limbatus* Sampson, *Eccoptopterus spinosus* (Olivier), *Leptoxyleborus concisus* (Blandford), *Platypus curtus* Chapuis, *Webbia dipterocarpi* Hopkins, *Xyleborus apiculatus* Schedl, *Xyleborus emarginatus* Eichhoff, *Xyleborus javanus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus pseudopilifer* Schedl, *Xyleborus sichus* Schedl, *Xylosandrus crassiusculus* (Motschulsky).
- Dipterocarpus borneensis**
Crossotarsus terminatus Chapuis, *Genyocerus serratus* (Schedl), *Platypus dignus* Schedl, *Platypus platypoides* (Browne), *Webbia bakoensis* Browne, *Webbia quattuordecimspinitus* Sampson, *Webbia suturalis* Brownie.
- Dipterocarpus cornutus**
Crossotarsus terminatus Chapuis, *Diapus quinquespinatus* Chapuis, *Genyocerus diaphanus* (Schedl), *Xyleborus inprocerus* Sampson, *Xylosandrus mediocris* (Schedl).
- Dipterocarpus crinitus**
Coccotrypes godeanus (Eggers), *Platypus curtus* Chapuis, *Xyleborus dolosus* Blandford.
- Dipterocarpus curmuk**
Xylosandrus mediocris (Schedl).
- Dipterocarpus grandiflorus**
Arixyleborus rugosipes Hopkins, *Coptodryas confusa* Hopkins, *Cyclorhynchus dipterocarpi* Hopkins, *Dryocoetius laevis* (Strohmeyer), *Hypocryphalus rotundus* Hopkins, *Platypus bifurcus* (Schedl), *Platypus spectabilis* Schedl, *Webbia dipterocarpi* Hopkins.
- Dipterocarpus hasseltii**
Diapus quinquespinatus Chapuis.
- Dipterocarpus indicus**
Platypus cordiger Chapuis, *Platypus diversipennis* Schedl, *Platypus obtusipennis* Schedl, *Xylosandrus butanalis* (Beeson).
- Dipterocarpus kerrii**
Coccotrypes nitidus (Eggers).
- Dipterocarpus kuustleri**
Cyclorhynchus agnatum (Eggers), *Platypus pseudo-*
- curtus* Schedl, *Leptoxyleborus concisus* (Blandford), *Xyleborinus perminutissimus* (Schedl), *Xylosandrus difficilis* (Eggers).
- Dipterocarpus obtusifolius**
Ambrosiodinus minor (Stebbing), *Platypus biflexuosus* Schedl, *Webbia bifornis* Browne, *Webbia cornutus* Schedl.
- Dipterocarpus pilosus**
Amasa rescaans (Eggers), *Arixyleborus mediosectus* (Eggers), *Carchesiopygus impariporus* (Beeson), *Coccotrypes barbatus* (Schedl), *Coccotrypes monoceros* (Beeson), *Coccotrypes papuanus* (Eggers), *Cryphalus dipterocarpi* Wood, *Diapus pendleburyi* Schedl, *Diapus quinquespinatus* Chapuis, *Genyocerus biporus* Schedl, *Genyocerus furtivus* (Sampson), *Platypus biflexuosus* Schedl, *Platypus curvus* Strohmeyer, *Platypus cupulatus* Chapuis, *Platypus indicus* Strohmeyer, *Platypus sceretus* Sampson, *Platypus solidus* Walker, *Platypus subdepressus* (Schedl), *Platypus uncinatus* Blandford, *Xyleborus shoreae* (Stebbing).
- Dipterocarpus polosapis**
Hypothenemus dipterocarpi Hopkins.
- Dipterocarpus serrata**
Diapus quinquespinatus Chapuis.
- Dipterocarpus spp.**
Arixyleborus dipterocarpi Browne, *Arixyleborus medius* (Eggers), *Cnestus suturalis* (Eggers), *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Genyocerus albipennis* Motschulsky, *Leptoxyleborus concisus* (Blandford), *Platypus bifurcus* (Schedl), *Platypus curtus* Chapuis, *Platypus dipterocarpi* Browne, *Platypus insulindicus* Schedl, *Platypus ovatus* Strohmeyer, *Platypus pseudocurtus* Schedl, *Platypus spinosus* Browne, *Schedlia sumatrana* (Hagedorn), *Scolytoplatypus parvus* Sampson, *Treptoplatypus circulicauda* Browne, *Webbia trigintispinitus* Sampson, *Xyleborus amphiceranoides* Hagedorn, *Xyleborus cavuloides* Browne, *Xyleborus fallax* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky).
- Dipterocarpus trinervis**
Coccotrypes cypri (Beeson).
- Dipterocarpus turbinatus**
Amasa rescaans (Eggers), *Arixyleborus mediosectus* (Eggers), *Crossotarsus andamanus* Beeson, *Eccoptopterus spinosus* (Olivier), *Genyocerus dipterocarpi* Browne, *Platypus cordiger* Chapuis, *Sphacrotrypes costatus* Wood, *Xyleborinus andrewesi* (Blandford), *Xyleborus bidentatus* (Motschulsky), *Xyleborus cognatus* Blandford, *Xyleborus najor* (Stebbing), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.
- Dipterocarpus vernicifluus**
Coccotrypes incognitus (Schedl).
- Dipterocarpus zeylanicus**
Arixyleborus granulifer (Eggers), *Arixyleborus mediosectus* (Eggers), *Coccotrypes longior* (Eggers), *Hypothenemus javanus* (Eggers), *Platypus shoreanus* (Beeson), *Webbia ceylonae* Schedl, *Xyleborinus exiguus* (Walker).
- Discoglyprema caloneura**
Platypus hintzi Schaufuss, *Platypus orientalis* (Strohmeyer), *Prennobilus nodulosus* Hagedorn, *Xyleborus affinis* Eichhoff, *Xyleborus alhauandi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky).
- Disholcopsis spp.**
Araptus nanulus Wood.

- Displodiscus paniculatus**
Platypus caliginosus Schedl.
- Dissotis grandiflora**
Hypothenemus grandis Schedl.
- Distemonanthus benthamianus**
Cylindropalpus auricomans (Schaufuss), *Doliopygus bilobatus* (Schedl), *Doliopygus dubius* (Sampson), *Platypus hintzi* Schaufuss, *Rhopalopselion thompsoni* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xylosandrus crassiusculus* (Motschulsky).
- Distemonanthus spp.**
Premnobius cavipennis Eichhoff.
- Distylium racemosum**
Platypus calamus Blandford, *Sphaerotrypes pila* Blandford.
- Ditoma crenata**
Xyleborinus saxseni (Ratzeburg).
- Dolichandrone stipulata**
Platypus cupulatus Chapuis, *Platypus solidus* Walker, *Xyleborinus birmanus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.
- Dolichos lablab**
Hypothenemus dolichocola Hopkins.
- Dombeya goetzenii**
Doliopygus lefevrei Schedl, *Platypus collinus* Browne.
- Dombeya mastersii**
Doliopygus bidentatus (Strohmeyer), *Rhopalopselion innaturus* (Schedl).
- Dombeya spp.**
Doliopygus nairobicus (Schedl), *Eucallacca xanthopus* (Eichhoff), *Platypus orientalis* (Strohmeyer), *Xyleborinus spiculatus* (Schaufuss), *Xyleborinus spinosus* (Schaufuss), *Xyleborus alluaudi* Schaufuss, *Xyleborus sakalava* Schedl.
- Doonia cordifolia**
Sphaerotrypes cristatus Wood.
- Doonia zeylanica**
Arixyleborus medius (Eggers), *Crossotarsus terminatus* Chapuis, *Platypus latifolius* Walker, *Platypus shoreanus* (Beeson), *Platypus ucinatus* Blandford, *Xylosandrus crassiusculus* (Motschulsky).
- Doryphora aromatica**
Platypus australis Chapuis.
- Doryalis spp.**
Hypothenemus grandis Schedl.
- Dracaena aurea**
Xyleborus ferrugineus (Fabricius), *Xyleborus perforans* (Wollaston).
- Dracondomerum spp.**
Arixyleborus cariniceps Schedl.
- Dracontomelon spp.**
Cnestus rotundatus Schedl, *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis.
- Dracaena drace**
Dactylotrypes longicollis (Wollaston).
- Dracaena spp.**
Mitosoma excision Schaufuss.
- Dracontomelium mangiferum**
Platypus micrurus Schedl.
- Dracontomelium spp.**
Crossotarsus mniszehi Chapuis, *Platypus solidus* Walker.
- Drimycarpus rasemosus**
Platypus lepidus Chapuis, *Platypus solidus* Walker, *Sphaerotrypes quadrituberculatus* Sampson.
- Drimys granatensis**
Scolytodes punilus Wood.
- Dryadodaphne spp.**
Hypocryphalus montanus Schedl.
- Dryobalanops aromatica**
Baiocis peruanulus (Schedl), *Coccotrypes gedeanus* (Eggers), *Cryptoxyleborus dryobalanopsis* Schedl, *Cyclorhipidion pruinosum* (Blandford), *Cyclorhipidion sistyrophorum* (Hagedorn), *Diapus pendleburyi* Schedl, *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Dryococtiops hirsutus* (Schedl), *Hypothenemus cucubus* (Schedl), *Hypothenemus javanicus* (Eggers), *Platypus bifurcus* (Schedl), *Platypus biuncus* Blandford, *Platypus curtus* Chapuis, *Platypus pseudocupulatus* Schedl, *Platypus pseudocurtus* Schedl, *Platypus transformis* Schedl, *Platypus vetulus* Schedl, *Platytarsulus declivis* Schedl, *Platytarsulus elongatus* Schedl, *Platytarsulus marshalli* Schedl, *Webbia quattuordecimspinus* Sampson, *Xyleborus amplexicauda* Hagedorn, *Xyleborus perforans* (Wollaston), *Xyleborus pseudopilifer* Schedl, *Xyleborus similis* Ferrari, *Xyleborus tunggali* Schedl, *Xylosandrus mancus* (Blandford).
- Dryobalanops camphora**
Platypus curtus Chapuis.
- Dryobalanops lanceolata**
Platypus lawasensis Browne.
- Dryobalanops oblongifolia**
Amasa schlichii (Stebbing), *Arixyleborus leprosus* Schedl, *Arixyleborus malayensis* (Schedl), *Arixyleborus minor* (Eggers), *Arixyleborus scabripennis* (Blandford), *Arixyleborus suturalis* (Eggers), *Coptodryas nugax* (Schedl), *Crossotarsus fractus* Sampson, *Crossotarsus schedli* Browne, *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Cyclorhipidion agnatum* (Eggers), *Genyocerus philippinensis* (Schedl), *Genyocerus serratus* (Schedl), *Hadrodemius globus* (Blandford), *Platypus bifidus* Schedl, *Platypus biuncus* Blandford, *Platypus cupulatus* Chapuis, *Platypus insulindicus* Schedl, *Platypus platypoides* (Browne), *Platypus pseudocupulatus* Schedl, *Platypus solidus* Walker, *Schedlia sumatrana* (Hagedorn), *Scolyto-platypus pusillus* Eggers, *Webbia simplex* (Browne), *Xyleborus approximatus* Schedl, *Xyleborus javanicus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus siclus* Schedl, *Xylosandrus ater* (Eggers), *Xylosandrus mancus* (Blandford), *Xylosandrus morigerus* (Blandford).
- Dryobalanops spp.**
Scolyto-platypus parvus Sampson.
- Dryodaphnae spp.**
Diapus elongatus Schedl, *Diapus robustus* Schedl, *Diapus turgidus* Roberts.
- Drypetes gossiceileri**
Ambrosiodinus ovatus (Eggers), *Chaetastus tuberculatus* (Chapuis), *Cylindropalpus laudatus* (Schedl), *Doliopygus citri* Schedl, *Doliopygus coclocephalus* (Schaufuss), *Doliopygus donisi* Schedl, *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Periommatatus excisus* Strohmeyer, *Periommatatus grandis* Schedl, *Periommatatus longicollis* Chapuis, *Periommatatus*

- substriatus* Strohmeier. *Platypus hintzi* Schaufuss. *Platypus intermedius* (Schedl). *Platypus orientalis* (Strohmeier). *Platypus solutus* Schedl. *Trachyostus aterrimus* (Schaufuss). *Trachyostus schaufussi* (Strohmeier). *Trioastus marshalli* (Sampson). *Xyleborinus sharpae* (Hopkins). *Xyleborus affinis* Eichhoff. *Xyleborus alluaudi* Schaufuss. *Xyleborus ferrugineus* (Fabricius). *Xyleborus piccus* (Motschulsky). *Xyleborus volutus* (Fabricius).
- Drypetes ituriensis**
Doliopygus lebrunii Schedl. *Doliopygus medius* Schedl. *Doliopygus occallescens* Schedl. *Platypus intermedius* (Schedl). *Platypus solutus* Schedl. *Xyleborus ferrugineus* (Fabricius). *Xyleborus piccus* (Motschulsky).
- Drypetes leoneisii**
Coptoborus usagarius (Eggers). *Cylindropalpus granulatus* (Schedl). *Cylindropalpus interpositus* (Schedl). *Doliopygus citri* Schedl. *Doliopygus conradti* (Strohmeier). *Doliopygus dolosus* Schedl. *Doliopygus crichsoni* (Chapuis). *Doliopygus jurioni* Schedl. *Doliopygus lebrunii* Schedl. *Doliopygus medius* Schedl. *Perionnatus longicollis* Chapuis. *Platypus impressus* (Strohmeier). *Platypus intermedius* (Schedl). *Platypus orientalis* (Strohmeier). *Platypus spinulosus* (Strohmeier). *Xyleborinus sharpae* (Hopkins). *Xyleborus affinis* Eichhoff. *Xyleborus alluaudi* Schaufuss. *Xyleborus ambasiusculus* Eggers. *Xyleborus elongatus* Eggers. *Xyleborus multispinatus* Eggers. *Xylosandrus crassiusculus* (Motschulsky).
- Drypetes louisii**
Doliopygus crichsoni (Chapuis). *Doliopygus rapax* (Sampson). *Platypus impressus* (Strohmeier). *Platypus intermedius* (Schedl). *Trachyostus aterrimus* (Schaufuss).
- Drypetes morocarpa**
Doliopygus conradti (Strohmeier). *Doliopygus dubius* (Sampson). *Doliopygus interjectus* Schedl. *Doliopygus lebrunii* Schedl. *Doliopygus medius* Schedl. *Perionnatus grandis* Schedl. *Perionnatus longicollis* Chapuis. *Platypus impressus* (Strohmeier). *Platypus intermedius* (Schedl). *Platypus orientalis* (Strohmeier). *Xyleborus affinis* Eichhoff.
- Drypetes sepiaria**
Hylesinus nilgirinus Eggers.
- Drypetes spinoso-dentata**
Eucallacea xanthopus (Eichhoff). *Platypus orientalis* (Strohmeier).
- Drypetes spp.**
Dactylipalpus grouvellei (Blandford). *Doliopygus lebrunii* Schedl. *Platypus conjunctus* Schedl. *Platypus intermedius* (Schedl). *Platypus spinulosus* (Strohmeier). *Prennobius cavipennis* Eichhoff. *Xyleborus piccus* (Motschulsky). *Xylosandrus compactus* (Eichhoff).
- Drypetes staudtii**
Chaetastus tuberculatus (Chapuis).
- Drypetes yambataense**
Xyleborus multispinatus Eggers.
- Duabanga someratioides**
Eucallacea bicolor (Blandford). *Platypus solidus* Walker.
- Dubautia laxa**
Xyleborus hauaicensis Perkins.
- Duboisia spp.**
Hypothenemus eruditus Westwood.
- Duboscia viridiflora**
Hypothenemus colae (Schedl). *Hypothenemus eruditus* Westwood. *Hypothenemus socialis* (Schedl).
- Dumoria spp.**
Prennobius cavipennis Eichhoff.
- Durio carinatus**
Platypus cupulatus Chapuis. *Platypus curtus* Chapuis.
- Durio griffithii**
Crossotarsus squamulatus Chapuis.
- Durio spp.**
Diapus quinquespinatus Chapuis. *Platypus cupulatus* Chapuis. *Platypus duriorcorus* Browne. *Platypus pseudocupulatus* Schedl. *Xyleborus perforans* (Wollaston).
- Durio zibethinus**
Diapus quinquespinatus Chapuis. *Platypus insulindicus* Schedl. *Xyleborus emarginatus* Eichhoff. *Xyleborus perforans* (Wollaston). *Xyleborus piccus* (Motschulsky). *Xyleborus similis* Ferrari.
- Dyera costulata**
Carehesiopygus wollastoni (Chapuis). *Diapus pusillimus* Chapuis. *Diapus quinquespinatus* Chapuis. *Hypothenemus javanus* (Eggers). *Platypus cupulatus* Chapuis. *Platypus dyerae* Browne. *Platypus vethi* Strohmeier. *Platypus westwoodi* Chapuis. *Xyleborus apertus* Schedl. *Xyleborus mucronatus* Eggers. *Xyleborus subemarginatus* Eggers.
- Dysoxylum amoeroides**
Hypothenemus eruditus Westwood. *Xyleborinus andrewesi* (Blandford).
- Dysoxylum binectariferum**
Crossotarsus boncoulouiri Chapuis. *Diapus quinquespinatus* Chapuis.
- Dysoxylum decandrum**
Xyleborus perforans (Wollaston). *Xyleborus piccus* (Motschulsky). *Xyleborus volutus* (Fabricius).
- Dysoxylum muelleri**
Xyleborus perforans (Wollaston).
- Dysoxylum pettigreianum**
Xyleborus perforans (Wollaston).
- Dysoxylum spp.**
Cryphalus vitensis Browne. *Cryphalus waplery* Eichhoff. *Diapus oomisis* Roberts. *Genyocerus puer* (Schedl). *Hadrodenuis globus* (Blandford). *Platypus alternantecostatus* (Schedl). *Platypus cavus* Strohmeier. *Platypus cordiger* Chapuis. *Platypus jansoni* Chapuis. *Platypus papuanus* Roberts. *Platypus parapetax* Roberts & Morimoto. *Platypus sulcinodis* Schedl. *Platypus vitensis* Roberts. *Platypus volaticus* Schedl. *Xyleborinus andrewesi* (Blandford).
- Echinocarpus dasycarpus**
Diapus spatulifer Browne. *Platypus falcatus* Strohmeier. *Xyleborus similis* Ferrari.
- Echinocystis macrocarpa**
Dendrocramulus cucurbitae (LeConte).
- Echinopanax spp.**
Dryocoetes padi Stark.
- Ehlersii spp.**
Hypothenemus eruditus Westwood.
- Ehretia acuminata**
Eucallacea sibsagaricus (Eggers). *Platypus cavus* Strohmeier. *Platypus huiiger* Motschulsky. *Platypus subdepressus* (Schedl). *Xyleborus shoreae* (Stebbing). *Xyleborus similis* Ferrari.
- Ekebergia capensis**
Hypocryphalus dubiosus Schedl.

Ekebergia rupeelliana

Chaetastus montanus Schedl, *Doliopygus nairobiensis* (Schedl), *Doliopygus serratus* (Strohmeyer).

Ekebergia spp.

Doliopygus serratus (Strohmeyer), *Platypus madagascariensis* Chapuis, *Scolytoplatypus eichelbaumi* Hagedorn, *Scolytoplatypus kicuensis* Schedl, *Triozastus marshalli* (Sampson), *Xyleborinus forficuloides* (Schedl), *Xyleborinus signatipennis* (Schedl).

Ekebergia suavis

Mitosoma sexspinosum Schedl, *Platypus madagascariensis* Chapuis, *Xyleborus alluaudi* Schaufuss.

Elaeagnus pungens

Hypothenemus seriatus (Eichhoff).

Elaeagnus pungens fruitlandi

Hypothenemus eruditus Westwood, *Hypothenemus javanus* (Eggers).

Elaeagnus spp.

Pseudoxylechinus variegatus Wood & Huang, *Scolytus jaroschewskii* Schevryew, *Scolytus schevyrewi* Semenov, *Trypophloeus klimeschii* Eggers.

Elaeis guineensis

Coccotrypes carpophagus (Hornung), *Coccotrypes congonus* Eggers, *Coccotrypes dactyliperda* (Fabricius), *Coccotrypes nigripes* Eggers, *Diapus quinquespinatus* Chapuis, *Doliopygus conradti* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Hypothenemus perhispidus* (Eggers), *Xyleborus perforans* (Wollaston), *Xyleborus piceus* (Motschulsky), *Xylosandrus compactus* (Eichhoff).

Elaeocarpus bifidus

Crossotarsus externedentatus (Fairmaire), *Xyleborus ferruginus* (Fabricius), *Xyleborus perforans* (Wollaston).

Elaeocarpus decipiens

Sucus niisimai (Eggers).

Elaeocarpus ferrugineus

Anasa versicolor (Sampson), *Leptoxyleborus depressus* (Eggers).

Elaeocarpus ganitrus

Platypus biuncus Blandford, *Platypus cupulatus* Chapuis.

Elaeocarpus grandis

Xyleborus perforans (Wollaston).

Elaeocarpus jackianus

Leptoxyleborus depressus (Eggers).

Elaeocarpus lanceaefolius

Platypus falcatus Strohmeyer.

Elaeocarpus oblongus

Coccotrypes cyperi (Beeson).

Elaeocarpus petiolatus

Anasa versicolor (Sampson), *Ambrosiodmus asperatus* (Blandford), *Arixyleborus suturalis* (Eggers), *Cnestus aterrimus* (Eggers), *Crossotarsus terminatus* Chapuis.

Elaeocarpus sericeus

Ambrosiodmus mahafali (Schedl), *Xylosandrus crassiusculus* (Motschulsky).

Elaeocarpus serratus

Platypus furcatus Blandford.

Elaeocarpus spp.

Anasa versicolor (Sampson), *Ambrosiodmus wilderi* (Beeson), *Coptodryas perparva* (Sampson), *Coptodryas quadricostata* (Schedl), *Cryphalus borneensis* Schedl, *Diapus bilunatus* Schedl, *Diapus elongatus* Schedl, *Diapus nanus* Schedl, *Diapus nebulosus* Roberts, *Diapus oomsis* Roberts, *Diapus unispineus* Roberts,

Mitosoma excisum Schaufuss, *Mitosoma paulinum* Schedl, *Mitosoma sexspinosum* Schedl, *Platypus semi-granosus* (Sampson), *Xyleborinus forficuloides* (Schedl), *Xyleborinus quadrispinosus* (Eichhoff), *Xyleborinus signatipennis* (Schedl), *Xyleborus alluaudi* Schaufuss, *Xyleborus antaisaka* Schedl, *Xyleborus insulindicus* Eggers, *Xyleborus madagascariensis* Schaufuss, *Xyleborus minutus* Blandford, *Xyleborus similis* Ferrari, *Xyleborus swezeyi* Beeson, *Xylosandrus crassiusculus* (Motschulsky).

Elaeocarpus tuberculatus

Coccotrypes cardamomi Schaufuss, *Xylosandrus crassiusculus* (Motschulsky).

Elaeodendron spp.

Hypocryphalus dubiosus Schedl.

Elaeophorbia drupifera

Cyrtogenius cribricollis Schedl.

Elateriospermum spp.

Coptodryas nudibrevis (Schedl).

Elateriospermum tapos

Coptodryas perparva (Sampson), *Crossotarsus brownei* Schedl, *Crossotarsus schedli* Browne, *Crossotarsus wallacii* (Thomson), *Cyrtogenius subacuminatus* (Schedl), *Diapus quinquespinatus* Chapuis, *Eccoptopterus spinosus* (Olivier), *Platypus insularis* Strohmeyer, *Platypus lepidus* Chapuis, *Platypus pseudocupulatus* Schedl, *Platypus puerulus* (Schedl), *Platypus solidus* Walker, *Xyleborus perforans* (Wollaston).

Ellettaria major

Coccotrypes cardamomi Schaufuss.

Elongatus spp.

Hypothenemus eruditus Westwood.

Embelia schimperii

Xylocleptes adeniae (Schedl).

Enantia chlorantha

Chaetastus tuberculatus (Chapuis), *Periommatius nitidicollis* Strohmeyer.

Enantia polycarpa

Xyleborus ambasiusculus Eggers.

Enantia spp.

Premnobius cavipennis Eichhoff.

Encelia californica

Chaetophilocus maclayi (Bruck).

Encelia farinosa

Chaetophilocus pruinosus (Blackman).

Endiandra palmerstonii

Ambrosiodmus compressus (Lea), *Coptodryas eucalyptica* (Schedl), *Xyleborus insulindicus* Eggers, *Xyleborus perforans* (Wollaston).

Endiandra spp.

Crossotarsus terminatus Chapuis, *Platypus loricae* (Schedl).

Endospermum macrophyllum

Crossotarsus externedentatus (Fairmaire), *Diapus quinquespinatus* Chapuis, *Platypus vitensis* Roberts.

Endospermum malaccense

Coptodryas diversicolor (Eggers), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus schedli* Browne, *Crossotarsus squamulatus* Chapuis, *Crossotarsus wallacii* (Thomson), *Diapus quinquespinatus* Chapuis, *Leptoxyleborus concisus* (Blandford), *Platypus bifurcus* (Schedl), *Platypus cupulatus* Chapuis, *Platypus curtus* Chapuis, *Platypus insularis* Strohmeyer, *Platypus lepidus* Chapuis, *Platypus parallelus* (Fabricius), *Platypus pseudocupulatus* Schedl, *Platypus signatus* Chapuis, *Platypus westwoodi* Chapuis, *Xyleborus perforans*

- (Wollaston). *Xyleborus piccus* (Motschulsky), *Xylosandrus morigerus* (Blandford).
- Endospermum medullulosum**
Platypus jansoni Chapuis.
- Endospermum spp.**
Diapus papuanus Schedl, *Xyleborus perforans* (Wollaston).
- Endriandra rubescens**
Platypus fraterculus Schedl.
- Engelhardtia spicata**
Crossotarsus bonvouloiri Chapuis, *Crossotarsus siva* Beeson, *Crossotarsus ursus* Schedl, *Scolytoplatypus parvus* Sampson, *Scolytoplatypus pubescens* Hagedorn, *Scolytoplatypus raja* Blandford.
- Entada gigas**
Araptus laevigatus (Eggers).
- Entadopsis abyssinica**
Doliopygus erichsoni (Chapuis), *Hypothenemus eruditus* Westwood, *Xyleborus affinis* Eichhoff.
- Entandrophragma angolense**
Chaetastus tuberculatus (Chapuis), *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus ghesquieri* (Schedl), *Doliopygus interjectus* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus megaloma* Schedl, *Doliopygus serratus* (Strohmeyer), *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus parallelus* (Fabricius), *Polygraphus bicolor* Eggers, *Prennobiobis scaxpinosus* Eggers, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky).
- Entandrophragma caudollei**
Chaetastus tuberculatus (Chapuis), *Doliopygus dubius* (Sampson), *Doliopygus ghesquieri* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Periommatius excisus* Strohmeyer, *Platypus schencklingi* (Strohmeyer), *Platypus solutus* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius).
- Entandrophragma cylindricum**
Chaetastus tuberculatus (Chapuis), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus nairobiensis* (Schedl), *Platypus hintzi* Schaufuss, *Platypus schencklingi* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xyleborus rotulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Entandrophragma excelsum**
Chaetastus montanus Schedl, *Chaetastus tuberculatus* (Chapuis), *Doliopygus bidentatus* (Strohmeyer), *Periommatius grandis* Schedl, *Prennobiobis mukunyah* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasicpennis* Schedl.
- Entandrophragma spp.**
Ambrosiodinus acgir (Eggers), *Ambrosiodinus obliquus* (LeConte), *Chaetastus tuberculatus* (Chapuis), *Doliopygus artespinnatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus ghesquieri* (Schedl), *Doliopygus lateralis* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus megaloma* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus stauri* Schedl, *Doliopygus spectabilis* Schedl, *Doliopygus tenuis* (Strohmeyer), *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Polygraphus granulatus* Eggers, *Polygraphus granulifer* Eggers, *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborus ferrugineus* (Fabricius).
- Entandrophragma utile**
Chaetastus tuberculatus (Chapuis), *Cylindropalpus auricomans* (Schaufuss), *Doliopygus brevis* (Strohmeyer), *Doliopygus chapuisi* (Duvivier), *Doliopygus coelocephalus* (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus nimicus* (Schedl), *Doliopygus perbrevis* Schedl, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky).
- Enterolobium cyclocarpum**
Eucallacca xanthopus (Eichhoff).
- Enterolobium saman**
Platypus cupulatus Chapuis.
- Enterolobium spp.**
Eucallacca fornicatus (Eichhoff), *Xyleborus rotulus* (Fabricius).
- Eperua falcata**
Platypus tiriensis Reichardt, *Xyleborus parcellus* Wood.
- Epicattleya spp.**
Xylosandrus compactus (Eichhoff).
- Epidendrum spp.**
Xylosandrus compactus (Eichhoff).
- Epischlia spp.**
Hypothenemus bezaziani Peyerimhoff.
- Eranthemum spp.**
Xylosandrus compactus (Eichhoff).
- Eriobotrya japonica**
Hypothenemus eruditus Westwood.
- Eriocoelum microspermum**
Dryococtoides cristatus (Fabricius).
- Eriocoelum spp.**
Doliopygus erichsoni (Chapuis).
- Erythrina abyssinica**
Eucallacca xanthopus (Eichhoff), *Platypus impressus* (Strohmeyer), *Platypus solutus* Schedl, *Xyleborus alluaudi* Schaufuss, *Xyleborus piccus* (Motschulsky), *Xyleborus principalis* Eichhoff.
- Erythrina burtii**
Eucallacca xanthopus (Eichhoff).
- Erythrina costaricensis**
Monarthrum fimbriaticorne (Blandford), *Theoborus theobromae* Hopkins, *Xyleborus affinis* Eichhoff, *Xyleborus morulus* Blandford, *Xyleborus posticus* Eichhoff.
- Erythrina cristagalli**
Araptus hostilis (Blackman).
- Erythrina indica**
Xyleborus perforans (Wollaston).
- Erythrina lithosperma**
Eucallacca fornicatus (Eichhoff), *Eucallacca xanthopus* (Eichhoff), *Scolytoplatypus lirsutus* Blackman, *Xyleborus perforans* (Wollaston), *Xyleborus piccus* (Motschulsky), *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus morigerus* (Blandford).
- Erythrina orientalis**
Eucallacca fornicatus (Eichhoff).

Erythrina peoppigiana*Xyleborus ferrugineus* (Fabricius).***Erythrina* spp.**

Araptus hymenaeae (Eggers), *Doliopygus erichsoni* (Chapuis), *Eucallalca fornicatus* (Eichhoff), *Eucallalca interjectus* (Blandford), *Eucallalca xanthopus* (Eichhoff), *Hypothenemus eruditus* Westwood, *Hypothenemus seriatus* (Eichhoff), *Platypus impressus* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Platypus pennatus* Schedl, *Platypus pseudocupulatus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alluandi* Schaufuss, *Xyleborus piccus* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky).

Erythrina cespertilio*Xyleborus similis* Ferrari.***Erythrocoeca* spp.**

Eucallalca xanthopus (Eichhoff), *Xyleborus alluandi* Schaufuss, *Xyleborus principalis* Eichhoff.

Erythrophleum guineense

Chaetastus tuberculatus (Chapuis), *Cylindropalpus laudatus* (Schedl), *Doliopygus artespinatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus dubius* (Sampson), *Doliopygus exilis* (Chapuis), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus maynei* Schedl, *Doliopygus medius* Schedl, *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Periommatius excisus* Strohmeyer, *Platypus hintzi* Schaufuss, *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus ambasiusculus* Eggers, *Xyleborus colvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Erythrophleum micranthum

Doliopygus dubius (Sampson), *Doliopygus exilis* (Chapuis), *Doliopygus tenuis* (Strohmeyer).

Erythrophleum* spp.Xyleborus affinis* Eichhoff.***Erythroxyloa noragranatense***

Cnestus bicornis (Eggers), *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Erythroxyloa sphaeranthrum*Cosmoderes niger* (Schedl).***Erythroxyloa* spp.**

Mitosoma obcomiceps Schedl, *Mitosoma obliquatum* Schedl.

Eschweileria corrugata

Monarthrum dimidiatum (Ferrari), *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius).

Eschweileria grata*Xyleborus affinis* Eichhoff.***Eschweileria sagotiana***

Platypus longulus Chapuis, *Platypus tiriosensis* Reichardt, *Xyleborus parcellus* Wood.

***Eschweileria* spp.**

Phelloterusanaxus Wood, *Phelloterus atrocis* Wood, *Phelloterus tersus* Wood, *Phloeotribus tetricus* Wood, *Phloeotribus venezuelensis* (Schedl), *Platypus filaris* Wood, *Platypus secus* Wood, *Pseudothysanoces subulatus* (Wood), *Tesserocraulus nevermanni* Schedl, *Xyleborus colvulus* (Fabricius).

Eschweileria subglandulosa*Dryocoetoides severus* Wood.***Eucalyptus acmenoides***

Hypothenemus melasomus (Lea), *Notoplatypus elongatus* Lea.

Eucalyptus bosistoana*Chaetastus tuberculatus* (Chapuis).***Eucalyptus botryoides****Chaetastus montanus* Schedl, *Xyleborus integer* Schedl.***Eucalyptus citriodora***

Ambrosiodmus neglectus (Schedl), *Chaetastus montanus* Schedl, *Crossotarsus externedentatus* (Fairmaire), *Doliopygus artespinatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus excavatus* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus unicornis* Schedl, *Platypus solutus* Schedl, *Xyleborinus forcipatus* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus perforans* (Wollaston), *Xyleborus principalis* Eichhoff, *Xyleborus colvulus* (Fabricius).

Eucalyptus deglupta

Eccoptopterus limbos Sampson, *Platypus associatus* Schedl, *Platypus pseudocupulatus* Schedl, *Xyleborinus exiguus* (Walker), *Xyleborus gorggae* Schedl, *Xyleborus perforans* (Wollaston).

Eucalyptus drepanophylla

Notoplatypus elongatus Lea, *Xyleborus perforans* (Wollaston).

Eucalyptus excelsa*Dryocoetoides pseudosolitarius* (Eggers).***Eucalyptus fastigata****Austroplatypus incompertus* (Schedl).***Eucalyptus gigantea****Austroplatypus incompertus* (Schedl).***Eucalyptus globulus***

Scolytplatypus darjeelingi Stebbing, *Xyleborus improbus* Sampson.

Eucalyptus grandis

Diapys quinquespinnatus Chapuis, *Platypus solidus* Walker, *Platypus streuatus* Schedl, *Xyleborus perforans* (Wollaston).

Eucalyptus intermedia*Xyleborus perforans* (Wollaston).***Eucalyptus laeropynea****Platypus incostatus* Schedl.***Eucalyptus maculata***

Crossotarsus externedentatus (Fairmaire), *Platypus subgranosus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus antaisaka* Schedl, *Xyleborus perforans* (Wollaston).

Eucalyptus microcoris*Ambrosiodmus albizzianus* (Schedl).***Eucalyptus obliqua****Austroplatypus incompertus* (Schedl).***Eucalyptus paniculata***

Crossotarsus externedentatus (Fairmaire), *Xyleborus affinis* Eichhoff, *Xyleborus antaisaka* Schedl, *Xyleborus squamulatus* Eichhoff.

Eucalyptus pilularis*Austroplatypus incompertus* (Schedl).***Eucalyptus robusta***

Mitosoma truncatipennis Schedl, *Platypus furcatus* Blandford, *Xyleborus antaisaka* Schedl, *Xyleborus ihuringi* Iglesias, *Xyleborus madagascariensis* Schaufuss, *Xyleborus sakalava* Schedl.

Eucalyptus rostrata*Platypus mutatus* Chapuis.

Eucalyptus saligna

Ambrosiodmus eichhoffi (Schreimer), *Chaetastus tuberculatus* (Chapuis), *Doliopygus artespinatus* (Schedl), *Doliopygus erichsoni* (Chapuis), *Platypus solutus* Schedl, *Xyleborus principalis* Eichhoff.

Eucalyptus seeana

Xyleborus perforans (Wollaston).

Eucalyptus siberiana

Anstroplatypus incompertus (Schedl).

Eucalyptus spp.

Amasa truncatus (Erichson), *Ambrosiodmus aegir* (Eggers), *Ambrosiodmus albizzianus* (Schedl), *Ambrosiodmus compressus* (Lea), *Ambrosiodmus innominatus* (Schedl), *Ambrosiodmus natalensis* (Schaufuss), *Ambrosiodmus obliquus* (LeConte), *Ambrosiodmus tropicus* (Hagedorn), *Crossotarsus fractus* Sampson, *Crossotarsus javanus* Beeson, *Diapus malgassicus* Schedl, *Doliopygus erichsoni* (Chapuis), *Doliopygus nairobiensis* (Schedl), *Dryocoetoides solitarinus* (Schedl), *Mitosoma obliquatum* Schedl, *Platypus navarrodeandradei* Marelli, *Platypus omnivorus* (Lea), *Prennobius catipennis* Eichhoff, *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xyleborus submolestus* Schedl, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus solidus* (Eichhoff).

Eucalyptus tereticornis

Xyleborus perforans (Wollaston).

Eucalyptus torrelliana

Coptodryas parva (Lea).

Eucalyptus trachyphloia

Hypothenemus birmanus (Eichhoff).

Euclea nataleusis

Lamurgus podocarpi Schedl.

Eugenia aequa

Dryocoetiops eugeniae (Schedl).

Eugenia arguta

Diapus pusillinus Chapuis, *Diapus quinquespinatus* Chapuis.

Eugenia aromatica

Amasa batoerradensis (Schedl), *Platypus caryophyllatus* Blandford.

Eugenia bernardii

Crossotarsus squamulatus Chapuis.

Eugenia buxifolia

Dendrosinus bourreriae Schwarz, *Hypothenemus birmanus* (Eichhoff), *Hypothenemus hirsutus* (Wood), *Hypothenemus scriatus* (Eichhoff).

Eugenia caryophyllata

Platypus caryophyllatus Schedl, *Xylosandrus cylindrotomicus* (Schedl).

Eugenia caryophylla

Xyleborus perforans (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky).

Eugenia cumini

Coccotrypes carpophagus (Hornung).

Eugenia formosa

Coccotrypes advena Blandford, *Coccotrypes cyperi* (Beeson), *Coccotrypes papuanus* (Eggers).

Eugenia glomerata

Platypus cupulatus Chapuis.

Eugenia grandis

Crossotarsus squamulatus Chapuis, *Crossotarsus wallacei* (Thomson).

Eugenia jambolana

Amasa eugeniae (Eggers), *Coccotrypes malgasicus* (Schedl), *Coccotrypes nubibus* (Blandford), *Coptodryas elegans* (Sampson), *Eucallacca bicolor* (Blandford), *Platypus cupulatus* Chapuis, *Platypus curtatus* Sampson, *Platypus errans* (Sampson), *Platypus eugeniae* Schedl, *Platypus latifinis* Walker, *Platypus madagascariensis* Chapuis, *Platypus uncinatus* Blandford, *Xyleborinus andreweesi* (Blandford), *Xyleborinus artes-triatus* (Eichhoff), *Xyleborinus forficuloides* (Schedl), *Xyleborinus reconditus* (Schedl), *Xyleborus haberkorui* Eggers, *Xyleborus jambolanaensis* Schedl, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky).

Eugenia lineata

Amasa circumcisulus (Schedl).

Eugenia malaccensis

Crossotarsus externedentatus (Fairmaire), *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston).

Eugenia polyautha

Xylosandrus morigerus (Blandford).

Eugenia quadribracteata

Cyclorhipidion agnatum (Eggers).

Eugenia similis

Coccotrypes advena Blandford.

Eugenia spp.

Amasa aspersus (Sampson), *Amasa opalescens* (Schedl), *Arixyleborus malayensis* (Schedl), *Arixyleborus scabripennis* (Blandford), *Arixyleborus suturalis* (Eggers), *Cenocephalus rugicollis* Schedl, *Coccotrypes cyperi* (Beeson), *Coptoborus bicolor* (Browne), *Coptoborus fragilis* (Browne), *Crossotarsus minax* (Walker), *Crossotarsus semicinctus* Schedl, *Crossotarsus terminatus* Chapuis, *Diapus papuanus* Schedl, *Eucallacca fomicatus* (Eichhoff), *Eucallacca laevis* (Eggers), *Eucallacca xanthopus* (Eichhoff), *Lamurgus cribrellus* Schedl, *Mitosoma sexspinosum* Schedl, *Platypus dignatus* Schedl, *Platypus lepidus* Chapuis, *Platypus longulus* Chapuis, *Platypus madagascariensis* Chapuis, *Platypus ovatus* Strohmeier, *Platypus westwoodi* Chapuis, *Scolytoplastypus parvus* Sampson, *Treptoplastypus trepanatus* (Chapuis), *Xyleborus adusticollis* (Motschulsky), *Xyleborus antaisaka* Schedl, *Xyleborus antanala* Schedl, *Xyleborus apertus* Schedl, *Xyleborus javanus* Eggers, *Xylosandrus compactus* (Eichhoff), *Xylosandrus omissus* (Schedl), *Xylosandrus oralis* (Schedl).

Eugenia subglauca

Xyleborinus andreweesi (Blandford).

Euougnus alatus

Crossotarsus niponicus Blandford.

Euougnus atropurpureus

Hypothenemus eruditus Westwood.

Euougnus spp.

Allermaporus euonymi Kurenzov, *Hypothenemus eruditus* Westwood.

Eupatorium daleoides

Pityophthorus hermosus Wood, *Pityophthorus morosus* Wood.

Eupatorium pallescens

Arixyleborus scabripennis (Blandford), *Cnestus nitidipennis* (Schedl), *Cnestus suturalis* (Eggers), *Hadrodemus globus* (Blandford), *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus morigerus* (Blandford).

Eupatorium spp.

Eucallacea barbatus (Schedl), *Scolytoplatypus nitidus* Eggers, *Xyleborus ciliatus* Eggers.

Eupatorium tapos

Xyleborus quadrispinosulus Eggers.

Eupatorium tjibeureum

Xylosandrus eupatorii (Eggers).

Euphorbia abyssinica

Triotemnus aethiopicus Eggers.

Euphorbia amygdaloides

Thamnuergus varipes Eichhoff.

Euphorbia antiquorum

Cryphalogenes euphorbiae Wood, *Cryphalogenes exiguus* Wood.

Euphorbia balsamifera

Aphanarthrum affine Wollaston, *Aphanarthrum bicinctum* Wollaston, *Aphanarthrum caescens* Wollaston, *Aphanarthrum monodi* Paulian & Villiers, *Liparthrum bicaudatum* Wollaston.

Euphorbia beaumierana

Aphanarthrum mairei Peyerimhoff, *Cisurgus occidentalis* Peyerimhoff, *Colcobothisr alluaudi* (Peyerimhoff), *Triotemnus longicollis* Peyerimhoff.

Euphorbia cactiformes

Cisurgus occidentalis Peyerimhoff.

Euphorbia canariensis

Aphanarthrum bicinctum Wollaston, *Aphanarthrum canariensis* Wollaston, *Aphanarthrum pygmaeum* Wollaston, *Cisurgus wollastoni* (Eichhoff), *Colcobothisr luridus* (Wollaston), *Triotemnus subretusus* Wollaston.

Euphorbia characias

Thamnuergus characiae Rosenhauer, *Thamnuergus varipes* Eichhoff.

Euphorbia dendroides

Aphanarthrum affine Wollaston, *Liparthrum inarmatum* Wollaston, *Thamnuergus euphorbiae* (Kuster).

Euphorbia dregei

Styracoptinus euphorbiae (Bright).

Euphorbia echinus

Aphanarthrum mairei Peyerimhoff, *Cisurgus occidentalis* Peyerimhoff, *Colcobothisr alluaudi* (Peyerimhoff), *Triotemnus longicollis* Peyerimhoff.

Euphorbia gerardiana

Thamnuergus euphorbiae (Kuster), *Thamnuergus varipes* Eichhoff.

Euphorbia handiensis

Aphanarthrum mairei Peyerimhoff, *Colcobothisr alluaudi* (Peyerimhoff).

Euphorbia megalallantica

Thamnuergus mairei Peyerimhoff.

Euphorbia mellifera

Aphanarthrum euphorbiae Wollaston.

Euphorbia nerifolia

Aphanarthrum indicum Wood.

Euphorbia obtusifolia

Aphanarthrum bicinctum Wollaston.

Euphorbia onoclada

Hypothenemus balachowskyi Menier, *Hypothenemus teleforti* (Menier).

Euphorbia piscatoria

Aphanarthrum bicolor Wollaston, *Aphanarthrum piscatorium* Wollaston, *Liparthrum inarmatum* Wollaston.

Euphorbia regis-jubae

Aphanarthrum affine Wollaston, *Aphanarthrum bicin-*

tum Wollaston, *Aphanarthrum bicolor* Wollaston, *Aphanarthrum caescens* Wollaston, *Aphanarthrum jubae* Wollaston, *Liparthrum bicaudatum* Wollaston, *Liparthrum lowei* Wollaston.

Euphorbia resinifera

Aphanarthrum saturatum Peyerimhoff, *Triotemnus longicollis* Peyerimhoff.

Euphorbia royleana

Aphanarthrum reticulatum Wood, *Aphanarthrum royaleanum* Wood, *Eucallacea interjectus* (Blandford).

Euphorbia spp.

Aphanarthrum armatum Wollaston, *Aphanarthrum glabrum* Wollaston, *Aphanarthrum piscatorium* Wollaston, *Aphanarthrum reticulatum* Wood, *Aphanarthrum royaleanum* Wood, *Aphanarthrum subglabrum* Israelson, *Aphanarthrum wollastoni* Israelson, *Colcobothisr gerneauxi* Menier, *Cyrtogenius africanus* Wood, *Cyrtogenius scotti* Eggers, *Liparthrum curtum* Wollaston, *Liparthrum lowei* Wollaston, *Triotemnus scrofa* (Schedl), *Triotemnus villiersi* Schedl.

Euphorbia stenoclada

Hypothenemus euphorbiae (Schedl), *Lamurgus euphorbiae* Schedl, *Lamurgus rugosipes* Schedl.

Euphorbia sudanica

Aphanarthrum duongi Villiers.

Euphorbia teke

Ambrosiodinus albizzianus (Schedl).

Euphorbia tirucalli

Acanthotomicus euphorbiae (Schedl), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus eruditus* Westwood.

Euphorbia tuckeyana

Aphanarthrum hesperidum Wollaston, *Liparthrum loweanum* Wollaston.

Euphorbia wulfenii

Thamnuergus sardus Eggers.

Euphorbia spp.

Xylosandrus compactus (Eichhoff).

Euptelea polyandra

Crossotarsus niponicus Blandford.

Euroschinus falcatus

Coptodryas eucalyptica (Schedl), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.

Eurya japonica

Baiois perinimicus (Schedl), *Eucallacea velatus* (Sampson), *Platypus tenuissimus* Schedl, *Sucus nissinai* (Eggers), *Xyleborus octiesdentatus* Murayama, *Xyleborus volvulus* (Fabricius).

Euryops athanasiae

Thamnuergus euryopsis Schedl.

Eusideroxylon zwageri

Platypus bimucus Blandford, *Platypus cupulatus* Chapuis, *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Euterpe globosa

Coccotrypes robustus Eichhoff.

Euterpe oleracea

Araptus lactigatus (Eggers).

Erodia fraxinifolia

Cyclorhipidion hirtum (Hagedorn), *Platypus falcatus* Strohmeier, *Scolytoplatypus pubescens* Hagedorn, *Xyleboris hagedornianus* Schedl.

Erodia latifolia

Xyleborus piccus (Motschulsky).

Erodia meliaeifolia

Xyleborus atratus Eichhoff.

Erodia rutaecarpu*Cryphalus exiguus* Blandford.***Erodia* spp.***Ambrosiodinus lewisi* (Blandford), *Crossotarsus paucidentatus* Roberts, *Crossotarsus rasilis* Roberts, *Hypothenemus parvulus* Brownie, *Platypus bajulus* Schedl, *Platypus jansoni* Chapuis, *Platypus juveneus* Schedl, *Platypus schysi* Chapuis, *Platypus solidus* Walker, *Scolytogenes papuanus* (Schedl).***Excoecaria agallocha****Cryphalus scabricollis* Eichhoff, *Xyleborus bidentatus* (Motschulsky), *Xyleborus cognatus* Blandford.***Excoecaria dallachyana****Scolytogenes atterimus* Wood, *Xyleborus similis* Ferrari.***Exogonium jalapa****Scolytogenes jalapae* (Letzner).***Eysenhardtia polyotucha****Chaetophloeus mexicanus* (Blackman).***Eysenhardtia* spp.***Chaetophloeus mexicanus* (Blackman).***Fagara angolense****Doliopygus chapuisi* (Duvivier), *Doliopygus excavatus* (Sampson), *Doliopygus serratus* (Strohmeyer).***Fagara capensis****Platypus sampsoni* (Schedl), *Xyleborinus acmulus* (Wollaston).***Fagara heitzi****Platypus hintzi* Schaufuss.***Fagara lemairei****Doliopygus expletus* Schedl, *Platypus orientalis* (Strohmeyer), *Xyleborus ferrugineus* (Fabricius).***Fagara macrophylla****Chaetastus tuberculatus* (Chapuis), *Doliopygus conradii* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus interjectus* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus unicornis* Schedl, *Periommatius grandis* Schedl, *Pityophthorus joveri* Schedl, *Platypus hintzi* Schaufuss, *Platypus impolitus* Roberts, *Platypus parallelus* (Fabricius), *Polygraphus tenuis* Schedl, *Premnobius nodulosus* Hagedorn, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus subtuberculatus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).***Fagara* spp.***Eucallacea xanthopus* (Eichhoff), *Leptoxyleborus concisus* (Blandford), *Periommatius longicollis* Chapuis, *Platypus orientalis* (Strohmeyer), *Premnobius capicennis* Eichhoff, *Xyleborus ananicus* Hagedorn, *Xyleborus ferrugineus* (Fabricius), *Xyleborus principalis* Eichhoff.***Fagaropsis angolensis****Chaetastus tuberculatus* (Chapuis).***Fagraea fragrans****Anasa versicolor* (Sampson), *Arixyleborus suturalis* (Eggers), *Xyleborus perforans* (Wollaston), *Xyleborus submarginatus* Eggers.***Fagraea gigantea****Crossotarsus wallacei* (Thomson), *Diapus quinque-spinatus* Chapuis, *Eucallacea fornicatus* (Eichhoff), *Leptoxyleborus concisus* (Blandford), *Platypus suffolienis* Sampson, *Xyleborus emarginatus* Eichhoff, *Xyleborus fallax* Eichhoff.***Fagus americana****Monarthrum mali* (Fitch).***Fagus crenata****Coccotrypes fagi* (Nobuchi), *Crossotarsus niponicus* Blandford, *Ernoporus shimaneensis* Murayama, *Indocryphalus pubipennis* (Blandford), *Platypus calamus* Blandford, *Platypus lewisi* Blandford, *Platypus modestus* Blandford, *Platypus severini* Blandford, *Taphrorhynchus pilosus* (Murayama), *Xyleborinus attenuatus* (Blandford), *Xyleborinus schaufussi* (Blandford), *Xyleborus atratus* Eichhoff, *Xyleborus seriatus* Blandford, *Xylosandrus nitilatus* (Blandford).***Fagus grandifolia****Cnesinus strigicollis* LeConte, *Dryocoetes betulae* Hopkins, *Hyllocurus rudis* (LeConte), *Hypothenemus interstitialis* (Hopkins), *Hypothenemus rotundicollis* (Eichhoff), *Pseudopityophthorus fagi* Blackman, *Scolytus fagi* Walsh, *Xyleborinus saxescni* (Ratzeburg), *Xyleborus ferrugineus* (Fabricius), *Xyleborus obesus* LeConte.***Fagus japonica****Crossotarsus niponicus* Blandford, *Hyorrhynchus lewisi* Blandford, *Platypus modestus* Blandford.***Fagus multinervis****Eucallacea validus* (Eichhoff), *Xyleborinus saxescni* (Ratzeburg), *Xylosandrus germanus* (Blandford).***Fagus orientalis****Dryocoetes abii* (Georg), *Ernoporicus fagi* (Fabricius), *Phloeotribus brevicollis* (Kolenati), *Platypus cylindrus* (Fabricius), *Taphrorhynchus bicolor* (Herbst), *Xyleborus monographus* (Fabricius).***Fagus* spp.***Ambrosiodinus tachygraphus* (Zimmermann), *Hylesinus toranio* (Danthione), *Platypus caticeps* Broun, *Platypus lewisi* Blandford, *Pseudopityophthorus minutissimus* (Zimmermann), *Scolytoplatypus daimio* Blandford, *Scolytoplatypus mikado* Blandford, *Scolytoplatypus shogun* Blandford, *Scolytoplatypus tycon* Blandford, *Scolytus carpini* (Ratzeburg), *Scolytus intricatus* (Ratzeburg), *Scolytus laevis* Chapuis, *Scolytus pygmaeus* (Fabricius), *Trypodendron domesticum* (Linnaeus), *Trypodendron signatum* (Fabricius), *Xyleborus dispar* (Fabricius), *Xyloterinus politus* (Say).***Fagus sylvatica****Ernoporicus fagi* (Fabricius), *Ernoporus tiliac* (Panzer), *Platypus cylindrus* (Fabricius), *Taphrorhynchus bicolor* (Herbst), *Taphrorhynchus hirtellus* Eichhoff, *Xyleborus pfeili* (Ratzeburg), *Xyleborus sayi* (Hopkins), *Xylosandrus germanus* (Blandford).***Fanchera* spp.***Eucallacea xanthopus* (Eichhoff).***Faurea saligna****Chaetastus montanus* Schedl, *Cyclorhipidion cruciforne* (Schedl), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Platypus intermedius* (Schedl), *Polygraphus granulifer* Eggers, *Polygraphus kicuensis* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss.***Ferdinandia adolphifederici****Doliopygus coelecephalus* (Schaufuss), *Doliopygus conradii* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus punctiventris* Schedl, *Doliopygus serratus* (Strohmeyer), *Trachyostus atterrinus* (Schaufuss), *Xyleborus affinis* Eichhoff, *Xyleborus volutus* (Fabricius).***Ferula* spp.***Cisurgus ferulae* Pfeffer.***Ficus ampelos****Xylosandrus morigerus* (Blandford).

Ficus aspera*Ficicis varians* Lea.***Ficus asperifolia****Chaetastus tuberculatus* (Chapuis), *Eccoptypterus spinosus* (Olivier), *Platypus hintzi* Schauffuss, *Platypus spinulosus* (Strohmeyer), *Trachyostus aterrimus* (Schauffuss).***Ficus asperrima****Platypus latifinis* Walker, *Xyleborus similis* Ferrari.***Ficus aurea****Cnemonyx ficus* (Schwarz), *Cryptocarenum seriatus* Eggers, *Hypothenemus birmanus* (Eichhoff), *Hypothenemus eruditus* Westwood, *Hypothenemus javanus* (Eggers).***Ficus benghalensis****Diamerus variegatus* Schedl.***Ficus benjaminia****Platypus curvus* Strohmeyer, *Platypus jansonii* Chapuis, *Xyleborus picus* (Motschulsky).***Ficus bracteata****Coccotrypes advena* Blandford, *Coccotrypes cinnamomi* (Eggers).***Ficus capensis****Cryphalus kicuensis* Schedl, *Doliopygus bidentatus* (Strohmeyer), *Doliopygus erichsonii* (Chapuis), *Doliopygus rhodesianus* (Schedl), *Eucallacea xanthopus* (Eichhoff), *Hylesinopsis confusus* (Eggers), *Hylesinopsis granulatus* (Lepesme), *Hypothenemus eruditus* Westwood, *Hypothenemus lefevrei* (Schedl), *Platypus impressus* (Strohmeyer), *Platypus solutus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus principalis* Eichhoff.***Ficus carica****Ambrosiodmus lewisi* (Blandford), *Aricerus eichhoffi* Blandford, *Cryphalus waplery* Eichhoff, *Ficicis varians* Lea, *Hadrodemius amorplus* (Eggers), *Hypoborus ficus* Erichson, *Hypothenemus eruditus* Westwood, *Liparthrum curtum* Wollaston.***Ficus chorocarpa****Xyleborinus artemcomans* (Schedl).***Ficus corylifolia****Xyleborus ferrugineus* (Fabricius).***Ficus cotinifolia****Phlocotribus setulosus* Eichhoff.***Ficus elastica****Diamerus fici* Blandford, *Platypus pseudocupulatus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus perforans* (Wollaston).***Ficus eriobotryoides****Chaetastus montanus* Schedl, *Platypus ficus* Roberts.***Ficus exasperata****Chaetastus tuberculatus* (Chapuis), *Diamerus imperfectus* Eggers, *Diapus quinquespinnatus* Chapuis, *Doliopygus brevis* (Strohmeyer), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus medius* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus serratus* (Strohmeyer), *Perionmatus excisus* Strohmeyer, *Perionmatus pseudomajor* Schedl, *Platypus hintzi* Schauffuss, *Platypus orientalis* (Strohmeyer), *Trachyostus schauffussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus eichhoffianus* Schedl, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xyleborus scobinatus* Hagedorn, *Xyleborus volcivulus* (Fabricius).***Ficus fistulosa****Scolytoplatypus nitidus* Eggers, *Xyleborus perforans* (Wollaston).***Ficus glabella****Diamerus minor* Eggers.***Ficus glabrata****Hylocurus disparilis* Wood.***Ficus glomerata****Coccotrypes cyperi* (Beeson), *Coccotrypes variabilis* (Beeson), *Cryphalus dorsalis* (Motschulsky), *Platypus curvus* Strohmeyer, *Platypus cupulatus* Chapuis, *Platypus lepidus* Chapuis, *Platypus uncinatus* Blandford, *Xyleborus perforans* (Wollaston).***Ficus hauli****Xylosandrus ursulus* (Eggers).***Ficus hispida****Eucallacea malloti* (Eggers).***Ficus infectoria****Platypus errans* (Sampson), *Xyleborus perforans* (Wollaston), *Xyleborus pumilus* Eggers.***Ficus laurifolia****Cladoctonus major* (Eggers).***Ficus macrophylla****Acanthotomicus australis* (Schedl), *Aricerus eichhoffi* Blandford.***Ficus macrosperma****Platypus ficus* Roberts.***Ficus mallatocarpa****Perionmatus grandis* Schedl.***Ficus melleri****Cryphalus pallidus* Eichhoff.***Ficus minahassae****Cryphalus densipilosus* Schedl, *Platypus luniger* Motschulsky, *Xyleborus affinis* Eichhoff.***Ficus mucoso****Hypothenemus eruditus* Westwood, *Xyleborus ficus* Eggers.***Ficus natalensis****Eccoptypterus spinosus* (Olivier), *Xyleborus madagascariensis* Schauffuss.***Ficus pilosa****Hypothenemus eruditus* Westwood.***Ficus polita****Hylesinopsis ficus* (Schedl), *Hylesinopsis joveri* (Schedl), *Hypothenemus pubipennis* (Eggers).***Ficus preussii****Doliopygus conradti* (Strohmeyer), *Platypus hintzi* Schauffuss.***Ficus religiosa****Coccotrypes vulgaris* (Eggers), *Diamerus variegatus* Schedl, *Dactylipalpus transversus* Chapuis, *Erniocladius corpulentus* (Sampson), *Xyleborinus artemstriatus* (Eichhoff), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.***Ficus roxburghii****Coccotrypes longior* (Eggers).***Ficus rubiginosa****Aricerus eichhoffi* Blandford.***Ficus rumphii****Cryphalus dorsalis* (Motschulsky), *Diamerus variegatus* Schedl.***Ficus seretii****Ambrosiodmus tropicus* (Hagedorn), *Xyleborus fallax* Eichhoff.***Ficus sorocoides****Ambrosiodmus triton* (Schauffuss), *Eucallacea xantho-*

pus (Eichhoff), *Mitosoma croulatum* Chapuis, *Mitosoma dispar* Schedl, *Mitosoma excisum* Schaufuss, *Platypus madagascariensis* Chapuis, *Xyleborinus spiculatus* (Schaufuss), *Xyleborinus spinosus* (Schaufuss), *Xyleborus alluaudi* Schaufuss, *Xyleborus sakalava* Schedl, *Xylosandrus compactus* (Eichhoff), *Xylosandrus hirsutipennis* (Schedl).

Ficus spp.

Acanthotomicus fici Browne, *Acanthotomicus kepongi* (Schedl), *Acanthotomicus perexiguus* (Blandford), *Ambrosiodinus declivispinatus* (Schedl), *Ambrosiodinus eichhoffi* (Schreiner), *Ambrosiodinus obliquus* (LeConte), *Araptus aztecus* (Wood), *Araptus consobrinus* Wood, *Araptus factus* Wood, *Araptus obsoletus* (Blandford), *Araptus speciosus* Wood, *Aricerus chapuisi* Blandford, *Aricerus eichhoffi* Blandford, *Arixyleborus scabripennis* (Blandford), *Baiocis inimicus* (Schedl), *Chaetastus tuberculatus* (Chapuis), *Cnemomyx evidens* Wood, *Cnesinus setulosus* Blandford, *Cnestus nitidus* (Schedl), *Coccotrypes gedeanus* (Eggers), *Coccotrypes medius* (Eggers), *Coccotrypes petioli* (Browne), *Corthylus abbreviatus* Eichhoff, *Corthylus additus* Wood, *Corthylus diligens* Wood, *Crossotarsus squamulatus* Chapuis, *Cryphalus exiguus* Blandford, *Cryphalus scabricollis* Eichhoff, *Cryphalus sylvicola* (Perkins), *Cryphalus waplery* Eichhoff, *Cyclorhupidium crucifer* (Hagedorn), *Diameris ater* Hagedorn, *Diameris curvifer* (Walker), *Diameris fici* Blandford, *Diameris impar* Chapuis, *Diameris pulverulentus* Gerstaecker, *Diameris variegatus* Schedl, *Diapus pusillimus* Chapuis, *Diapus spinifer* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus medius* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus spectabilis* Schedl, *Euwallacea fornicatus* (Eichhoff), *Euwallacea interjectus* (Blandford), *Euwallacea quadratocollis* (Eggers), *Ficicis despectus* (Walker), *Ficicis javanus* (Eggers), *Ficicis maculipennis* (Schedl), *Ficicis philippinensis* (Eggers), *Glostatus acaciae* (Schedl), *Gymnochilus consocius* (Blandford), *Gymnochilus minor* (Blandford), *Gymnochilus reitteri* Eichhoff, *Gymnochilus zonatus* Eichhoff, *Hylesinopsis fasciatus* (Hagedorn), *Hylesinopsis hirsutus* (Schedl), *Hylesinopsis saudiarabiae* (Schedl), *Hypoeryphalus peruvianus* (Schedl), *Hypothenemus brunneus* (Hopkins), *Hypothenemus columbi* Hopkins, *Hypothenemus crudiae* (Panzer), *Hypothenemus erectus* LeConte, *Hypothenemus cruditus* Westwood, *Hypothenemus interstitialis* (Hopkins), *Hypothenemus mahus* (Schedl), *Hypothenemus seriatus* (Eichhoff), *Hypothenemus trivialis* Wood, *Indocryphalus pubipennis* (Blandford), *Leptoxyleborus concisus* (Blandford), *Liparthrum americanum* Wood, *Liparthrum mexicanum* Wood, *Mesoplatypus kitushi* Schedl, *Mitosoma paulianum* Schedl, *Mitosoma sexspinosum* Schedl, *Monarthrum exornatum* (Schedl), *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Phloeoborus scaber* Erichson, *Phloeotribus fici* Wood, *Phloeotribus geminus* Wood, *Phloeotribus maurus* Wood, *Phloeotribus opimus* Wood, *Phloeotribus setulosus* Eichhoff, *Platypus deceptor* Wood, *Platypus formosanus* Nisina & Murayama, *Platypus gilweei* Roberts, *Platypus hintzi* Schaufuss, *Platypus indicus* Strohmeyer, *Platypus jansonii* Chapuis, *Platypus loratus* (Sampson), *Platypus negatus* Schedl, *Platypus nocuus* Schedl, *Platypus orientalis* (Strohmeyer), *Platypus pseudocupulatus* Schedl, *Platypus quadrispinis* Browne, *Platypus reichii* Chapuis, *Platypus solidus*

Walker, *Platypus tenellus* Schedl, *Platypus westwoodi* Chapuis, *Polygraphus kivuensis* Schedl, *Prennobius nukunyuai* (Schedl), *Prennobius sexspinosus* Eggers, *Pycnarthrum hispidum* (Ferrari), *Pycnarthrum reticulatum* Schedl, *Pycnarthrum setulosum* Waterhouse, *Scolytodes amoenus* Wood, *Scolytodes cubensis* (Schedl), *Scolytodes erinophilus* Wood, *Scolytodes exiguus* Wood, *Scolytodes factus* Wood, *Scolytodes ficicolens* Wood, *Scolytodes ficivorus* Wood, *Scolytodes genialis* Wood, *Scolytodes lepidus* Wood, *Scolytodes micidius* Wood, *Scolytodes pseudopiccus* Wood, *Scolytodes reticulatus* (Wood), *Scolytodes rugicollis* (Schedl), *Scolytodes schwarzi* (Hopkins), *Scolytodes tenuis* (Wood), *Scolytodes venustus* Wood, *Scolytoplastypus kivuensis* Schedl, *Scolytoplastypus pusillus* Eggers, *Trachyostus schaufussi* (Strohmeyer), *Tricolus simplicis* Wood, *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus amanicus* Hagedorn, *Xyleborus ambasi-pennis* Schedl, *Xyleborus ambasiusculus* Eggers, *Xyleborus barumbuensis* Eggers, *Xyleborus comparabilis* Schedl, *Xyleborus emarginatus* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus multi-spinatus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus piccus* (Motschulsky), *Xyleborus posticus* Eichhoff, *Xyleborus similis* Ferrari, *Xyleborus sparsipilosus* Eggers, *Xyleborus tenellus* Schedl, *Xyleborus truncatulus* Schedl, *Xyleborus rotulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus curtulus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Ficus stenocarpa

Ficis varians Lea, *Xyleborus perforans* (Wollaston).

Ficus thoningii

Cryphalus bellus Schedl, *Cryphalus pallidus* Eichhoff.

Ficus variegata

Xyleborinus andrewesi (Blandford).

Ficus vogelii

Periommatius grandis Schedl, *Periommatius longicollis* Chapuis, *Platypus glabratus* Roberts, *Platypus hintzi* Schaufuss.

Ficus wightiana

Cryphalus ficivorus Murayama, *Cryphalus furukawai* Murayama.

Ficus xylophylla

Coccotrypes cinnamomi (Eggers).

Ficus zenkeri

Doliopygus chapuisi (Duvivier), *Doliopygus serratus* (Strohmeyer).

Fissicalyx fendleri

Xyleborus ferrugineus (Fabricius).

Fissistigma elegans

Acacis malayanus Browne, *Cnestus aterrimus* (Eggers), *Coptodryas curvidentis* (Schedl), *Euwallacea fornicatus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Flacourtia spp.

Xylosandrus compactus (Eichhoff).

Flemingia strobilifera

Xylosandrus morigerus (Blandford).

Flindersia acuminata

Xyleborus insulindicus Eggers.

Flindersia bourjotiana

Xyleborus perforans (Wollaston).

Flindersia brayleyana

Coptodryas eucalyptica (Schedl), *Xyleborus perforans* (Wollaston).

Flindersia laevis*Xyleborus perforans* (Wollaston).**Flindersia pubescens***Peridryocoetes queenslandi* Schedl, *Platypus scalaris* Schedl, *Platypus semigranosus* (Sampson).**Flindersia schotiana***Xyleborus emarginatus* Eichhoff.**Flindersia spp.***Ambrosiodinus compressus* (Lea), *Hylesinus nilgirinus* Eggers, *Xylosandrus compactus* (Eichhoff).**Flourensia cernua***Chaetophloeus sulcatus* (Wood).**Foetida elusoides***Ambrosiodinus inominatus* (Schedl), *Mitosoma lobatum* Schedl, *Xyleborinus mitosomipennis* (Schedl).**Fordia spp.***Crossotarsus squamulatus* Chapuis, *Hadrodemius comans* (Sampson).**Franseria spp.***Pityophthorus franseriae* Wood, *Pityophthorus torridus* Wood.**Fraxinus americana***Hylesinus aculeatus* Say, *Hylesinus californicus* (Swaine), *Hylesinus criddlei* (Swaine), *Hylesinus fasciatus* LeConte, *Hylesinus pruinosus* Eichhoff.**Fraxinus anomala***Hylesinus mexicanus* (Wood).**Fraxinus chinensis***Ambrosiodinus rubricollis* (Eichhoff).**Fraxinus commemoralis***Platypus contaminatus* (Blandford).**Fraxinus excelsa***Hylesinus crenatus* (Fabricius).**Fraxinus excelsior***Hylesinus eos* Spessivtsev, *Hylesinus orni* Fuchs, *Hylesinus toranio* (Danthione), *Phloeotribus caucasicus* Reitter, *Pteleobius kraatzi* (Eichhoff), *Scolytus kirschi* Skalitzky, *Scolytus scolytus* (Fabricius).**Fraxinus excelsior hookeri***Hylesinus macmahoni* (Stebbing).**Fraxinus floribunda***Hylesinus macmahoni* (Stebbing).**Fraxinus japonica***Platypus calamus* Blandford.**Fraxinus lanuginosa***Platypus severini* Blandford.**Fraxinus lanuginosa serrata***Hylesinus cingulatus* Blandford, *Hylesinus laticollis* Blandford.**Fraxinus latifolia***Hylesinus californicus* (Swaine), *Hylesinus oregonus* (Blackman).**Fraxinus longiceps***Hylesinus cingulatus* Blandford.**Fraxinus mandshurica***Erioporicus spessivtzevi* Berger, *Hylesinus chodkovskiyi* Berger, *Hylesinus costatus* Blandford, *Hylesinus crenatus* (Fabricius), *Hylesinus eos* Spessivtsev, *Hylesinus lubarskii* Stark, *Hylesinus nobilis* Blandford, *Hylesinus pravdini* Stark, *Hylesinus shabliovskiyi* Kurenzov, *Procryphalus fraxini* (Berger), *Scolytus trispinosus* Strohmeyer, *Xyleborus dispar* (Fabricius), *Xyleborus maiche* (Stark).**Fraxinus mandshurica japonica***Crossotarsus niponicus* Blandford, *Hylesinus cingulatus* Blandford, *Hylesinus laticollis* Blandford.**Fraxinus ornus***Hylesinus orni* Fuchs, *Hylesinus toranio* (Danthione), *Phloeotribus muricatus* (Eggers).**Fraxinus oxyphylla***Hylesinus crenatus* (Fabricius), *Phloeotribus fraxini* (Eggers).**Fraxinus pennsylvanica***Hylesinus californicus* (Swaine), *Hylesinus criddlei* (Swaine).**Fraxinus rhynchophylla***Hylesinus cingulatus* Blandford, *Hylesinus laticollis* Blandford.**Fraxinus sieboldiana***Hylesinus costatus* Blandford, *Platypus contaminatus* (Blandford).**Fraxinus sogdiana***Hylesinus pritenkii* Sokanovskii.**Fraxinus spaethiana***Hylesinus laticollis* Blandford, *Platypus severini* Blandford.**Fraxinus spp.***Hylesinus aculeatus* Say, *Hylesinus botscharnikovi* Stark, *Hylesinus crenatus* (Fabricius), *Hylesinus guatemalensis* (Wood), *Hylesinus mandshuricus* Eggers, *Hylesinus tupolevi* Stark, *Hylesinus varius* (Fabricius), *Hylesinus wachli* Reitter, *Phloeotribus mayeti* (Guillebeau), *Platypus compositus* Say, *Platypus cylindrus* (Fabricius), *Scolytoplatypus daimio* Blandford, *Scolytoplatypus tycon* Blandford, *Scolytus japonicus* Chapuis, *Trypodendron domesticum* (Linnaeus), *Trypodendron signatum* (Fabricius), *Xyleborus dispar* (Fabricius), *Xyleborus sayi* (Hopkins), *Xylosandrus compactus* (Eichhoff), *Xylosandrus germanus* (Blandford), *Xylosterinus politus* (Say).**Fraxinus uhdei***Hylesinus aztecus* Wood.**Fraxinus velutina***Hylesinus californicus* (Swaine).**Fremontia californica***Pseudothysanoes hopkinsi* Blackman.**Freyinetia arborea***Coccotrypes dactyliperda* (Fabricius), *Xyleborus ignobilis* Perkins.**Freyinetia hombronii***Xylosandrus morigerus* (Blandford).**Freyinetia spp.***Xyleborus agamus* Perkins.**Fuchsia spp.***Xylosandrus morigerus* (Blandford).**Funtumia elastica***Ambrosiodinus agris* (Eggers), *Chaetastus tuberculatus* (Chapuis), *Cyclorhipidion crucipenne* (Schedl), *Doliopygus conradti* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Xyleborinus similans* (Eggers).**Funtumia latifolia***Doliopygus erichsoni* (Chapuis), *Periommatius grandis* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus piceus* (Motschulsky).**Galactia spiciformis***Hypothenemus brunneus* (Hopkins), *Hypothenemus californicus* Hopkins, *Hypothenemus eruditus* Westwood, *Hypothenemus seriatus* (Eichhoff), *Hypothenemus squamosus* (Hopkins).**Galbulinima belgraveana***Platypus dobnabae* Roberts & Morimoto.

Galbulimima spp.

Diapus elongatus Schedl, *Diapus oreogenus* Roberts, *Platypus cymbiformis* Roberts, *Platypus galbulimimae* Roberts & Morimoto, *Platypus gunicus* Roberts, *Platypus longissimus* Roberts, *Platypus noqpartibilis* Roberts.

Galimiera coffeoides

Xyleborinus collarti (Eggers).

Ganua spp.

Cryphalus nitens Browne.

Garcinia gnetoides

Doliopygus nigericensis Roberts.

Garcinia merguensis

Coccotrypes gedeanus (Eggers), *Coccotrypes tunggali* (Schedl), *Xyleborus bidentatus* (Motschulsky).

Garcinia myrtifolia

Platypus viticensis Roberts.

Garcinia polyantha

Chaetastus persimilis (Schedl), *Dactylipalpus parricida* Eggers, *Doliopygus artespianatus* (Schedl), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus serratus* (Strohmeyer), *Mesoplatypus kitushi* Schedl, *Periommatius longicollis* Chapuis, *Phrixosoma major* (Eggers), *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Polygraphus longipilis* Schedl, *Polygraphus sulcatus* Schedl, *Prennobiis hystrix* (Schedl), *Prennobiis nodulosus* Hagedorn, *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus ambasiusculus* Eggers, *Xyleborus scobinatus* Hagedorn, *Xylosandrus crassiusculus* (Motschulsky).

Garcinia punctata

Chaetastus tuberculatus (Chapuis), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus rapax* (Sampson), *Hypothenemus eruditus* Westwood, *Periommatius longicollis* Chapuis, *Phrixosoma garciniae* (Schedl), *Phrixosoma uniseriata* (Eggers), *Platypus internedius* (Schedl), *Polygraphus subsulcatus* Schedl, *Prennobiis mukunyae* (Schedl), *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus pilosellus* (Schedl), *Xyleborinus sharpae* (Hopkins), *Xyleborus katangensis* Eggers, *Xylosandrus crassiusculus* (Motschulsky).

Garcinia smeathmannii

Chaetastus montanus Schedl.

Garcinia spp.

Anasa schlichi (Stebbing), *Ambrosiodmus tropicus* (Hagedorn), *Baiocis nubilosus* Roberts & Morimoto, *Coptodryas nugax* (Schedl), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus nitidulus* (Schedl), *Cryphalus ater* Browne, *Diamerus impar* Chapuis, *Diamerus luteus* Hagedorn, *Diapus angustidontus* Roberts, *Diapus bispinus* Schedl, *Diapus nebulosus* Roberts, *Diapus oosis* Roberts, *Diapus papuanus* Schedl, *Diapus pusillinus* Chapuis, *Diapus turgidus* Roberts, *Hypocryphalus sandakanensis* (Schedl), *Peridryocoetes nitens* (Schedl), *Phrixosoma psaltes* (Hagedorn), *Platypus apicaloides* Schedl, *Platypus cupulatus* Chapuis, *Platypus gunicus* Roberts, *Platypus hamaticollis* Schedl, *Platypus itagai* Roberts & Morimoto, *Platypus psuedocupulatus* Schedl, *Polygraphus tenuis* Schedl, *Prennobiis caripennis* Eichhoff, *Scolytogenes gracilis* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborus brevipennis* Schedl, *Xyleborus colvulus* (Fabricius).

Garcinia verrucosa

Ambrosiodmus camphorae (Hagedorn), *Mitosoma*

lobatum Schedl, *Polygraphus creber* Schedl, *Xyleborinus cupulatus* (Schedl), *Xyleborinus forficuloides* (Schedl).

Gardenia spp.

Xyleborus nitens Browne.

Garuga floribunda

Platypus pectax Schedl.

Garuga pinnata

Crossotarsus externedentatus (Fairmaire), *Cryphalus scabriscollis* Eichhoff, *Eucallacca andamanensis* (Blandford), *Eucallacca interjectus* (Blandford), *Platypus solidus* Walker, *Xyleborinus andrevesi* (Blandford), *Xyleborus perforans* (Wollaston).

Garuga spp.

Platypus jansonii Chapuis, *Xyleborinus andrevesi* (Blandford).

Geumaroua panamensis

Xyleborus affinis Eichhoff.

Gaylussacia spp.

Corthylus punctatissimus (Zimmermann), *Xylosandrus crassiusculus* (Motschulsky).

Geijera salicifolia

Platypus solidus Walker.

Geniosporum paludosum

Eucallacca xanthopus (Eichhoff), *Hypothenemus grandis* Schedl, *Thammurgus granulicollis* Schedl, *Xylocleptes sidanus* (Schedl).

Genista horrida

Liparthrum genistae (Aube).

Genista numidica

Liparthrum genistae (Aube), *Phloeotribus peyerimhoffi* (Eggers).

Genista spp.

Phloeotribus cristatus (Fauvel), *Phloeotribus rhododactylus* (Marshall).

Ceranium spp.

Hypothenemus eruditus Westwood.

Germari spp.

Hypothenemus eruditus Westwood.

Gilbertiodendron dewevrei

Coccotrypes grandis (Eggers), *Doliopygus lebruni* Schedl, *Doliopygus tenuis* (Strohmeyer), *Hypothenemus biseriatus* (Eggers), *Hypothenemus macrolobii* (Eggers), *Hypothenemus socialis* (Schedl), *Trachyostus aterrimus* (Schaufuss), *Triozastus marshalli* (Sampson), *Xyleborus ambasiusculus* Eggers.

Gilbertiodendron spp.

Hypothenemus camerunus (Eggers).

Giricidia sepium

Hypothenemus brunneus (Hopkins).

Gironniera spp.

Crossotarsus wallacci (Thomson).

Girstoua jentiusiana

Platypus curtatus Sampson.

Gleditschia japonica

Neopteleobius scutellatus (Blandford).

Gleditschia spp.

Dryocoetoides pseudosolitaris (Eggers), *Xyleborus dispar* (Fabricius), *Xyleborus spinulosus* Blandford.

Gleditschia triacanthos

Hylocurus langstoni Blackman, *Thysanoes fimbriicornis* LeConte.

Gliricidia maculata

Xylosandrus crassiusculus (Motschulsky).

Gliricidia sepium

Eucallacea fornicatus (Eichhoff), *Xyleborus perforans* (Wollaston).

Glochidion spp.

Diapus papuanus Schedl, *Diapus quinquespinatus* Chapuis, *Diapus turgidus* Roberts, *Eucallacea xanthopus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Gluta elegans

Crossotarsus browni Schedl, *Cryphalus substriatus* Schedl.

Gluta rengas

Platypus biuncus Blandford.

Gluta spp.

Diapus quinquespinatus Chapuis.

Gluta tourfour

Xylosandrus crassiusculus (Motschulsky).

Gluta travancorica

Coccotrypes cyperi (Beeson), *Crossotarsus minus* (Walker), *Eccoptyterus spinosus* (Olivier), *Pityophthorus glutae* Wood, *Platypus cacus* Strohmeyer, *Xylosandrus crassiusculus* (Motschulsky).

Glycine max

Hypothenemus crudiae (Panzer).

Gmelina arborea

Anasa versicolor (Eichhoff), *Ambrosiodmus lantanae* (Eggers), *Coccotrypes salakensis* (Schedl), *Coptodrymus mus* (Eggers), *Eccoptyterus sagittarius* Schedl, *Eucallacea andamanensis* (Blandford), *Eucallacea fornicatus* (Eichhoff), *Eucallacea interjectus* (Blandford), *Eucallacea malloiti* (Eggers), *Eucallacea velatus* (Sampson), *Platypus insularis* Strohmeyer, *Platypus pseudocupulatus* Schedl, *Platypus solidus* Walker, *Platypus uncinatus* Blandford, *Premnobius ambitiosus* (Schauffuss), *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xyleborus piceus* (Motschulsky), *Xyleborus pseudopilifer* Schedl, *Xylosandrus difficilis* (Eggers), *Xylosandrus metagermanus* (Schedl).

Gomphia serrata

Xylosandrus manicus (Blandford).

Gonioma camassi

Xyleborinus acunulus (Wollaston).

Gonystylus bancanus

Platypus hamaticollis Schedl, *Platypus pseudocupulatus* Schedl, *Platypus signatus* Chapuis, *Platypus westwoodi* Chapuis, *Treptoplatypus trepanatus* (Chapuis).

Gonystylus confusus

Coccotrypes medius (Eggers).

Gonystylus punctatus

Platypus vitensis Roberts.

Gonystylus spp.

Genyocerus scyporus (Schedl), *Platypus magnus* Browne, *Platypus pseudocupulatus* Schedl, *Platypus westwoodi* Chapuis, *Xylosandrus ursulus* (Eggers).

Gordonia zeylanica

Crossotarsus terminatus Chapuis, *Platypus furcatus* Blandford.

Gossampinus heptaphylla

Xyleborus piceus (Motschulsky).

Gossweilerodendron balsamiferum

Chaetastus tuberculatus (Chapuis), *Cylindropalpus auricomans* (Schauffuss), *Cylindropalpus laudatus* (Schedl), *Doliopygus conradi* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus expletus* Schedl, *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl,

Doliopygus medius Schedl, *Doliopygus megatoma* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Perionomatus grandis* Schedl, *Platypus parallelus* (Fabricius), *Platypus schenklingi* (Strohmeyer), *Strombophorus erichsoni* (Schauffuss), *Trachyostus aterrimus* (Schauffuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus cichloffianus* Schedl, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Gossweilerodendron spp.

Ambrosiodmus cichloffii (Schreiner), *Ambrosiodmus obliquus* (LeConte), *Ambrosiodmus tropicus* (Hagedorn), *Diamerus impar* Chapuis.

Gossypiospermum praecox

Platypus pulchellus Chapuis.

Gossypium hirsutum

Ambrosiodmus cichloffii (Schreiner), *Ambrosiodmus tropicus* (Hagedorn), *Hypothenemus carbonarius* (Eggers), *Hypothenemus eruditus* Westwood, *Hypothenemus javanus* (Eggers), *Premnobius ambitiosus* (Schauffuss), *Premnobius circumspiniatus* Eggers, *Xyleborus affinis* Eichhoff, *Xyleborus africanus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus sub-tuberculatus* Eggers, *Xyleborus volvulus* (Fabricius).

Gossypium spp.

Hypothenemus eruditus Westwood, *Hypothenemus gossypii* (Hopkins), *Pseudothysanoes excavatus* (Wood), *Pseudothysanoes obesus* (Wood), *Xylosandrus compactus* (Eichhoff).

Gossypium tomentosum

Hypothenemus eruditus Westwood.

Gouania glandulosa

Eucallacea xanthopus (Eichhoff), *Xyleborinus spiculatus* (Schauffuss), *Xyleborinus spinosus* (Schauffuss), *Xyleborus alluaudi* Schauffuss, *Xyleborus madagascariensis* Schauffuss.

Gouldia spp.

Xylosandrus compactus (Eichhoff).

Graptophyllum spp.

Xylosandrus compactus (Eichhoff).

Grevillea pierrard

Ambrosiodmus albizzianus (Schedl).

Grevillea robusta

Ambrosiodmus albizzianus (Schedl), *Cryphalus asperulus* Schedl, *Cryphalus puberulus* Schedl, *Cryphalus subcompactus* Lea, *Diapus pusillinus* Chapuis, *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus excavatus* (Sampson), *Eucallacea fornicatus* (Eichhoff), *Platypus solutus* Schedl, *Xyleborus perforans* (Wollaston), *Xyleborus principalis* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford).

Grevillea spp.

Ambrosiodmus aegir (Eggers), *Ambrosiodmus obliquus* (LeConte), *Chaetastus montanus* Schedl, *Doliopygus citri* Schedl, *Doliopygus erichsoni* (Chapuis), *Scolytotplatypus fasciatus* Hagedorn, *Triozastus marshalli* (Sampson), *Xylosandrus brevis* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford).

Grewia asiatica

Hypothenemus brunneus (Hopkins), *Hypothenemus crudiae* (Panzer).

Grewia laerigata

Xylosandrus morigerus (Blandford).

Grewia latifolia

Hypothenemus eruditus Westwood, *Xylosandrus ater* (Eggers).

Grewia mildbraedii

Chaetastus tuberculatus (Chapuis), *Doliopygus expletus* Schedl, *Eucallacea xanthopus* (Eichhoff), *Perionnatus grandis* Schedl, *Platypus hintzi* Schaufuss, *Platypus solutus* Schedl, *Platypus spinulosus* (Strohmeyer), *Polygraphus dimorphus* Schedl, *Triozastus marshalli* (Sampson), *Xyleborus principalis* Eichhoff.

Grewia paniculata

Cnestus aterrimus (Eggers), *Xylosandrus manicus* (Blandford).

***Grewia* spp.**

Arxyleborus suturalis (Eggers), *Crossotarsus fractus* Sampson, *Crossotarsus inermis* Schedl, *Crossotarsus squamulatus* Chapuis, *Ecoptopterus limbis* Sampson, *Scolytoplattypus parvus* Sampson, *Xyleborus perforans* (Wollaston), *Xylosandrus manicus* (Blandford).

Grewia tiliaefolia

Coccotrypes nubilis (Blandford), *Eucallacea andamanensis* (Blandford), *Xyleborus perforans* (Wollaston).

Grewia tomentosa

Xyleborus javanus Eggers.

Grewia vestita

Coccotrypes nubilis (Blandford), *Xyleborus perforans* (Wollaston).

Guarea quara

Hypothenemus seriatus (Eichhoff).

***Guapira* spp.**

Dendrosinus mexicanus Wood.

Guarea cedrata

Chaetastus tuberculatus (Chapuis), *Cryphalus bellus* Schedl, *Cylindropalpus auricomans* (Schaufuss), *Cylindropalpus laudatus* (Schedl), *Doliopygus artespiniatus* (Schedl), *Doliopygus brevis* (Strohmeyer), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus juronii* Schedl, *Doliopygus lebrunii* Schedl, *Doliopygus medius* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicoloris* Schedl, *Eucallacea granosus* (Schedl), *Hypothenemus eruditus* Westwood, *Perionnatus excisus* Strohmeyer, *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Platypus solutus* Schedl, *Platypus spinulosus* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus althaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus subtuberculatus* Eggers, *Xyleborus colvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Guarea laurentii

Chaetastus tuberculatus (Chapuis), *Cylindropalpus auricomans* (Schaufuss), *Cylindropalpus laudatus* (Schedl), *Doliopygus citri* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus ditricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus lateralis* Schedl, *Doliopygus lebrunii* Schedl, *Doliopygus lecontei* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus proximus* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus spectabilis* Schedl, *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicoloris* Schedl, *Eucallacea xanthopus* (Eichhoff), *Micryphalus congonus* Eggers, *Perionnatus grandis* Schedl, *Platypus hintzi* Schaufuss,

Platypus impressus (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Platypus schencklingi* (Strohmeyer), *Platypus solutus* Schedl, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborinus similans* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus althaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xyleborus colvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

***Guarea* spp.**

Premnobius cavipennis Eichhoff.

Guarea thompsonii

Chaetastus tuberculatus (Chapuis), *Cylindropalpus laudatus* (Schedl), *Doliopygus coclocephalus* (Schaufuss), *Doliopygus ditricus* (Schedl), *Doliopygus erichsoni* (Chapuis), *Doliopygus lebrunii* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minutissimus* (Schedl), *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus staueri* Schedl, *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicoloris* Schedl, *Platypus hintzi* Schaufuss, *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus althaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xyleborus colvulus* (Fabricius).

Guarea trichiloides

Hypothenemus trinitatis (Hopkins), *Pycnarthrum fulgidum* Wood.

***Gutteria* spp.**

Coptoborus tolimanus (Eggers), *Hypothenemus bolivianus* (Eggers), *Taurodennus splendidus* (Schaufuss).

Gnazuma ulmifolia

Cnesinus punctatus Blandford, *Coptoborus catulus* (Blandford), *Microcortylus inermis* Wood.

***Guettarda* spp.**

Xyleborus biconicus Eggers.

Guercina abelana

Pseudothyasanoes guercinae (Schedl).

Guibourtia arnoldiana

Enucladius guibourtiae (Schedl), *Micryphalus guibourtiae* Schedl, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius).

***Guibourtia* spp.**

Doliopygus dentiventris Browne.

Guizotia schultzii

Eucallacea xanthopus (Eichhoff).

Gulbertiodendron deverei

Hypothenemus perlispidus (Eggers).

***Guttiferae* spp.**

Xyleborus vismiae Wood.

***Gymnarion* spp.**

Xyleborus affinis Eichhoff.

Gymnosporia luteola

Traglostus exornatus Schedl.

***Gymnosporia* spp.**

Platypus orientalis (Strohmeyer), *Scolytoplattypus fasciatus* Hagedorn, *Scolytoplattypus kizuenensis* Schedl.

Gynotroches ouillarisi

Xylosandrus morigerus (Blandford).

***Heasia* spp.**

Xylosandrus compactus (Eichhoff).

Hegeia abyssinica

Cyclorhipidion agnaticeps (Schedl), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus longipennis* (Eggers),

- Platypus impressus* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Xyleborus ruandae* Schedl.
- Hagenia** spp.
Acanthotomicus curvidens (Schedl), *Ambrosiodmus aegir* (Eggers), *Platypus orientalis* (Strohmeyer).
- Hakea sericea**
Carchesiopygus dentipennis Schedl, *Hypocryphalus moorei* Schedl.
- Hamamelis japonica**
Indocryphalus pubipennis (Blandford), *Xyleborinus attenuatus* (Blandford).
- Hamamelis** spp.
Hypothenemus eruditus Westwood, *Pityophthorus lautus* Eichhoff, *Pseudopityophthorus minutissimus* (Zimmermann), *Xylosandrus brevis* (Eichhoff).
- Hamamelis virginiana**
Hypothenemus eruditus Westwood, *Lymantor decipiens* (LeConte), *Micracisella opacicollis* (LeConte).
- Hannoa klaineana**
Ambrosiodmus opacithorax (Schedl), *Chaetastus tuberculatus* (Chapuis), *Cylindropalpus auricomans* (Schaufuss), *Doliopygus citri* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicoloris* Schedl, *Periommatous longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus internedius* (Schedl), *Platypus orientalis* (Strohmeyer), *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Haplolobus** spp.
Diapanus nanus Schedl.
- Hardwickia pinnata**
Coccotrypes cardamomi Schaufuss.
- Haronga pauciculata**
Acanthotomicus harongae (Schedl), *Acanthotomicus kivuensis* (Schedl), *Doliopygus conradti* (Strohmeyer), *Phrixosoma nigra* (Eggers), *Platypus orientalis* (Strohmeyer), *Xyleborinus collarti* (Eggers), *Xylosandrus crassiusculus* (Motschulsky).
- Harpullia pedicellaris**
Protoplatypus vetulus Wood.
- Harpullia** spp.
Ambrosiodmus incertus (Schedl), *Xyleborus venustus* Schedl.
- Harungana madagascariensis**
Hypothenemus plumeriae (Nordlinger), *Phrixosoma fuscovillosa* (Schedl), *Pseudomicracis harunganae* (Schedl), *Xylosandrus hirsutipennis* (Schedl).
- Heathi** spp.
Hypothenemus eruditus Westwood.
- Hechtia podantha**
Chramesus annectens (Wood).
- Hedera colchica**
Kissophagus novaki Reitter.
- Hedera helix**
Kissophagus lederae (Schmidt), *Kissophagus novaki* Reitter, *Kissophagus nuesslini* Reitter, *Scolytogenes indicus* Wood, *Scolytoplatypus siomio* Blandford.
- Hedera** spp.
Kissophagus erinatellus Wichmann.
- Helianthus** spp.
Hypothenemus eruditus Westwood.
- Helichrysum pandurctum**
Cyrtogenius mulungensis (Schedl).
- Heritiera fomes**
Coccotrypes litoralis (Beeson), *Coccotrypes salakensis* (Schedl), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus squamulatus* Chapuis, *Eucallalcea bicolor* (Blandford), *Platypus biuncus* Blandford, *Platypus uncinatus* Blandford, *Xyleborinus artestriatus* (Eichhoff), *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.
- Heritiera javanica**
Crossotarsus wallacei (Thomson), *Eccoptopterus limbus* Sampson, *Xyleborus tunggali* Schedl.
- Heritiera littoralis**
Xyleborus similis Ferrari.
- Heritiera** spp.
Scolytoplatypus parvus Sampson.
- Heritiera trifolia**
Crossotarsus vafer Schedl, *Platypus chevrolati* Chapuis, *Platypus pseudocupulatus* Schedl, *Platypus ustus* Schedl, *Treptoplatypus multiporus* Schedl, *Xyleborus cyclopus* Schedl.
- Hevea brasiliensis**
Ambrosiodmus obliquecaudata Motschulsky, *Chaetastus tuberculatus* (Chapuis), *Coptoborus pseudotenuis* (Schedl), *Coptoborus vespertorius* (Schedl), *Coptodryas corporaali* (Eggers), *Crossotarsus minax* (Walker), *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Doliopygus conradti* (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Eccoptopterus spinosus* (Olivier), *Eucallalcea andamanensis* (Blandford), *Eucallalcea comptus* (Sampson), *Eucallalcea fornicatus* (Eichhoff), *Eucallalcea interjectus* (Blandford), *Eucallalcea xanthopus* (Eichhoff), *Hypothenemus biseriatus* (Eggers), *Hypothenemus eruditus* Westwood, *Hypothenemus javanus* (Eggers), *Periommatous longicollis* Chapuis, *Platypus cupulatus* Chapuis, *Platypus hintzi* Schaufuss, *Platypus insularis* Strohmeyer, *Platypus jansoni* Chapuis, *Platypus lepidus* Chapuis, *Platypus liratus* Blandford, *Platypus parallelus* (Fabricius), *Platypus pseudocupulatus* Schedl, *Platypus quinquecostatus* Chapuis, *Platypus schysi* Chapuis, *Platypus signatus* Chapuis, *Platypus solidus* Walker, *Platypus westwoodi* Chapuis, *Premnobius quadrispinosus* Schedl, *Premnobius robustulus* (Schedl), *Tesserocerus dewalquei* Chapuis, *Theoborus ricini* (Eggers), *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus exiguus* (Walker), *Xyleborinus heveae* (Schedl), *Xyleborinus polyalthiae* (Schedl), *Xyleborinus similis* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambastusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus ficus* Eggers, *Xyleborus horridus* Eichhoff, *Xyleborus imbellis* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus piceus* (Motschulsky), *Xyleborus principalis* Eichhoff, *Xyleborus setulosus* Eggers, *Xyleborus similis* Ferrari, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford), *Xylosandrus morigerus* (Blandford).
- Hevea** spp.
Ambrosiodmus albizzianus (Schedl), *Coptodryas nuzax* (Schedl), *Crossotarsus javanus* Beeson, *Hypothenemus canerinus* (Eggers), *Hypothenemus eruditus* Westwood, *Platypus biuncus* Blandford, *Platypus cavus* Strohmeyer, *Platypus traqus* Schedl, *Premnobius catipennis* Eichhoff, *Xyleborus similis* Ferrari, *Xylosandrus discolor* (Blandford).

Hexalobus africanus*Doliopygus brevis* (Strohmeyer).***Hexalobus crispiflorus****Platypus parallelus* (Fabricius).***Hibiscus macrophyllus****Eriocladus corpulentus* (Sampson), *Eucallacea xanthopus* (Eichhoff), *Margadillius minor* Schedl, *Xylosandrus mancus* (Blandford).***Hibiscus rosa-sinensis****Hypothenemus eruditus* Westwood.***Hibiscus* spp.***Margadillius parvulus* Eggers, *Platypus lepidus* Chapuis, *Platypus pseudocupulatus* Schedl, *Xylosandrus compactus* (Eichhoff).***Hibiscus syriacus****Erioporus caucasicus* (Lindemann), *Ernoporus tibiae* (Panzer).***Hibiscus tiliaceus****Cryphalus major* Stebbing, *Cryphalus neglectus* Schedl, *Hypocryphalus corpulentus* Schedl, *Hypothenemus dipteroearpi* Hopkins, *Ptilopodius marquesanus* Beeson, *Ptilopodius ramosus* Beeson, *Xyleborus ferrugineus* (Fabricius).***Hildegardia burteri****Chaetastus tuberculatus* (Chapuis).***Hippocratea* spp.***Hypothenemus eruditus* Westwood.***Hippomane mancinella****Cnemonyx opacus* Wood, *Cnemonyx splendens* (Wood).***Hirtella glandulosa****Dryococtoides pseudosolitaris* (Eggers).***Hirtella* spp.***Dryococtoides rusticus* Wood.***Hirtella triunda****Taurodemus bicornutus* (Wood).***Histiogaster carpio****Xyleborinus saxeseni* (Ratzeburg).***Hologarna arnotiana****Eucallacea andamanensis* (Blandford), *Xyleborus perforans* (Wollaston), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus terminatus* (Eggers).***Holoptelea grandis****Doliopygus medius* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus serratus* (Strohmeyer), *Xyleborus alluaudi* Schaufuss.***Holoptelea integrifolia****Platypus solidus* Walker.***Homalanthus* spp.***Leptoxyleborus concisus* (Blandford), *Xyleborus ferrugineus* (Fabricius).***Homalium foetidum****Xyleborus emarginatus* Eichhoff.***Homalium letestui****Chaetastus tuberculatus* (Chapuis).***Homalium planiflorum****Xyleborus antaisaka* Schedl.***Homalium* spp.***Coccotrypes rotundicollis* (Eggers), *Doliopygus conradi* (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Platypus hintzi* Schaufuss, *Platypus intermedius* (Schedl).***Hoepa beccariana****Webbia cornutus* Schedl, *Webbia duodecimspinatus* Schedl, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus mancus* (Blandford).***Hoepa ferrea****Arixyleborus scabripennis* (Blandford), *Coptodryas parvica* (Sampson), *Cryptoxyleborus nanus* Browne, *Eucallacea limatus* (Schedl), *Genyocerus serratus* (Schedl), *Hadrodemius comans* (Sampson), *Leptoxyleborus concisus* (Blandford), *Webbia bituberculatus* Browne, *Webbia cornutus* Schedl, *Webbia duodecimspinatus* Schedl, *Xyleborus minutus* Blandford, *Xyleborus pseudopilifer* Schedl, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus mancus* (Blandford).***Hoepa mengarawan****Platypus protenus* (Schedl).***Hoepa odorata****Arixyleborus medius* (Eggers), *Eccoptopterus limbis* Sampson, *Genyocerus biporus* (Schedl), *Genyocerus diaphanus* (Schedl), *Hadrodemius comans* (Sampson), *Platypus curtus* Chapuis, *Platypus shoreanus* (Beeson), *Webbia cornutus* Schedl, *Webbia trigintispinatus* Sampson, *Xylosandrus crassiusculus* (Motschulsky).***Hoepa parviflora****Ambrosiodmus lewisi* (Blandford), *Sphaerotrypes subtectus* Browne, *Xylosandrus compactus* (Eichhoff).***Hoepa* spp.***Cnestus suturalis* (Eggers), *Diapys quinquespinatus* Chapuis, *Genyocerus puer* (Schedl), *Platypus bifurcus* (Schedl), *Schedlia sumatrana* (Hagedorn), *Sphaerotrypes philippinensis* Strohmeyer, *Taphrodasus divinus* (Browne), *Webbia dipteroearpi* Hopkins, *Webbia quatuordecimspinatus* Sampson, *Webbia suturalis* Browne, *Xyleborinus perniutissimus* (Schedl), *Xyleborus amplexicauda* Hagedorn.***Hoepa wightiana****Eucallacea andamanensis* (Blandford), *Sphaerotrypes subtectus* Browne, *Xyleborus perforans* (Wollaston), *Xylosandrus crassiusculus* (Motschulsky).***Horsfieldia glabra****Crossotarsus horni* Schedl, *Diapys quinquespinatus* Chapuis, *Platypus bajulus* Schedl.***Horsfieldia irya****Platypus schysi* Chapuis.***Hoslundia opposita****Eucallacea xanthopus* (Eichhoff).***Hoslundia* spp.***Ambrosiodmus obliquus* (LeConte).***Hovea* spp.***Ambrosiodmus rubricollis* (Eichhoff).***Hovenia dulcis****Hypothenemus brunneus* (Hopkins).***Howea belmoreana****Coccotrypes dactyliperda* (Fabricius).***Hullettia dumosa****Xylosandrus mancus* (Blandford).***Humiristrum exselsum****Dryococtoides insculptus* Wood.***Hura polyandra****Cnemonyx equilinae* Wood.***Hydnocarpus* spp.***Xyleborus perforans* (Wollaston).***Hydnocarpus wightiana****Xyleborus perforans* (Wollaston).***Hydodendron gabunense****Chaetastus tuberculatus* (Chapuis), *Hypothenemus biseriatus* (Eggers), *Mesoplatypus venustus* Schedl, *Premnobius quadrispinosus* Schedl, *Xyleborus ferrugineus* (Fabricius).

Hymenaea courbaril

Araptus hymenaeae (Eggers), *Crossotarsus schwalli* Brownie, *Hypothenemus obscurus* (Fabricius).

Hymenocardia capensis

Lamurgus bicolor Schedl.

Hymenocardia uluoides

Doliopygus conradti (Strohmeyer), *Doliopygus notatus* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus submarginatus* Schedl, *Periommatius grandis* Schedl, *Xyleborus annectens* Schedl.

Hymenodictyon excelsum

Coptodryas recidens (Sampson), *Eucallacca interjectus* (Blandford), *Platypus secretus* Sampson, *Platypus suffodiens* Sampson, *Xyleborus pumilus* Eggers.

Hymenostegia afzelii

Doliopygus brevis (Strohmeyer), *Doliopygus conradti* (Strohmeyer), *Doliopygus exilis* (Chapuis), *Doliopygus opifex* (Sampson), *Doliopygus perbrevis* Schedl, *Doliopygus propinquus* Schedl, *Dryocoetoides cristatus* (Fabricius), *Periommatius longicollis* Chapuis, *Stephanopodius ghanaensis* (Schedl), *Trachyostus aterrimus* (Schauffuss), *Xyleborus alluaudi* Schaufuss.

***Hymenostegia* spp.**

Prennobilis cavipennis Eichhoff.

Hypericum lanceolatum

Cyclorhpidion agnaticeps (Schedl), *Pseudomicracis bugckae* (Schedl), *Xyleborus amanicus* Hagedorn, *Xyleborus integer* Schedl, *Xyleborus principalis* Eichhoff.

Hyphaene guineensis

Coccotrypes carpophagus (Hornung).

***Hyphaene* spp.**

Coccotrypes dactyliperda (Fabricius).

***Hyphorbe* spp.**

Coccotrypes dactyliperda (Fabricius).

***Hypodaphnis* spp.**

Periommatius excisus Strohmeyer.

***Hyracrepans* spp.**

Hypothenemus scriatus (Eichhoff).

***Ibuga* spp.**

Xyleborus amanicus Hagedorn.

Ichthyomethia communis

Ambrosiodmus lecontei Hopkins, *Hypothenemus brunneus* (Hopkins), *Hypothenemus columbi* Hopkins, *Hypothenemus eruditus* Westwood, *Hypothenemus squamosus* (Hopkins).

Icica altissima

Acanthotomicus bidentis Wood, *Acanthotomicus ocellaris* (Wood), *Xyleborinus celatus* Wood, *Xyleborus affinis* Eichhoff.

Ilex anomala

Xyleborinus saxenii (Ratzeburg), *Xyleborus ferrugineus* (Fabricius), *Xyleborus molokaiensis* Perkins, *Xyleborus obliquus* Sharp.

Ilex chinensis

Platypus calamus Blandford, *Platypus quercivorus* Murayama.

Ilex dipyrrena

Crossotarsus cinnamomi Beeson, *Scolytoplastypus euto-moides* Blandford.

Ilex macropoda

Coptodryas kirishimanus (Murayama).

Ilex mitis

Chaetastus montanus Schedl.

Ilex oldhami

Crossotarsus simplex Murayama, *Xyleborus osuniensis* Murayama.

***Ilex* spp.**

Ambrosiodmus apicalis (Blandford), *Ambrosiodmus rubricollis* (Eichhoff), *Cryphalus sylvicola* (Perkins), *Diapus nebulosus* Roberts, *Eucallacca validus* (Eichhoff), *Platypus calamus* Blandford, *Xyleborus dispar* (Fabricius), *Xylosandrus compactus* (Eichhoff).

Illicium religiosum

Platypus calamus Blandford, *Polygraphus magnus* Murayama, *Xyleborus octiesdentatus* Murayama, *Xyleborus ohtoensis* Nobuchi.

Indigofera arrecta

Hypothenemus grandis Schedl, *Xylosandrus compactus* (Eichhoff).

Indigofera galegoides

Hypothenemus eruditus Westwood.

***Indigofera* spp.**

Xylosandrus compactus (Eichhoff).

Indigofera suffruticosa

Xylosandrus compactus (Eichhoff).

Inga alba

Xyleborus volvulus (Fabricius).

Inga laurina

Monarthrum praecustum (Eggers), *Xyleborus affinis* Eichhoff.

Inga marginata

Xyleborus ferrugineus (Fabricius).

Inga paterno

Chramesus ritiosus Wood, *Chramesus xylophagus* Wood, *Hylocurus inaequalis* Wood, *Scolytus laetus* Wood, *Scolytus propinquus* Blandford.

***Inga* spp.**

Chramesus vastus Wood, *Cnesinus elegans* Blandford, *Corthylocurus mexicanus* (Schedl), *Corthylus ingaensis* (Schedl), *Corthylus insignis* Wood, *Corthylus serratus* Wood, *Corthylus robustus* Schedl, *Dryocoetoides capucinus* (Eichhoff), *Dryocoetoides monachus* (Blandford), *Dryocoetoides pilatus* Wood, *Dryocoetoides verrucosus* Wood, *Gnathotrupes bituberculatus* (Blandford), *Hylocurus elegans* Eichhoff, *Hylocurus simplex* Blandford, *Hylocurus verrucosus* Wood, *Hypothenemus erudiae* (Panzer), *Hypothenemus erectus* LeConte, *Hypothenemus opacus* (Eichhoff), *Hypothenemus solocis* Wood, *Hypothenemus suspectus* Wood, *Hypothenemus teretis* Wood, *Micracis lepidus* Wood, *Micracis swainei* Blackman, *Monarthrum notatum* Wood, *Monarthrum proprium* Wood, *Phloeoborus punctatorugosus* Chapuis, *Phloeotribus ingae* Wood, *Phloeotribus squamiger* Wood, *Platypus chiriquensis* Wood, *Scolytodes ingavorus* Wood, *Taurodenus bicornutus* (Wood), *Taurodenus varulus* (Wood), *Theoborus villosulus* (Blandford), *Xyleborinus celatus* Wood, *Xyleborus ferrugineus* (Fabricius), *Xyleborus squamulatus* Eichhoff, *Xylosandrus compactus* (Eichhoff), *Xylosandrus laticeps* (Wood).

Inga vera

Chramesus rotundatus (Chapuis), *Dryocoetoides pseudosolitaris* (Eggers), *Platypus dentatus* Dalman, *Platypus excisus* Chapuis, *Xyleborus affinis* Eichhoff.

Inocarpus edulis

Crossotarsus externedentatus (Fairmaire), *Xyleborus volvulus* (Fabricius).

***Inocarpus* spp.**

Crossotarsus externedentatus (Fairmaire), *Xylosandrus compactus* (Eichhoff).

Iponoea cathartica

Hypothenemus californicus Hopkins, *Hypothenemus*

- crulitus* Westwood, *Hypothenemus hirsutus* (Wood), *Hypothenemus seriatus* (Eichhoff).
- Ipomoea littoralis**
Hypothenemus californicus Hopkins.
- Ipomoea pres-caprae**
Cryptocarenum seriatus Eggers, *Scolytogenes knabi* (Hopkins).
- Ipomoea spp.**
Scolytogenes hirtus (Wood), *Scolytogenes rusticus* (Wood), *Scolytogenes truncis* (Wood).
- Ipomoea turpethum**
Scolytogenes aspericollis (Eichhoff).
- Irauma xanthophyllum**
Xyleborus xanthophyllum Schedl.
- Iringia gabouensis**
Chaetastus tuberculatus (Chapuis), *Cylindropalpus pumilio* (Schedl), *Platypus hintzi* Schaufuss, *Xyleborus affinis* Eichhoff.
- Iringia grandifolia**
Ambrosiodmus aegir (Eggers), *Doliopygus coeloccephalus* (Schaufuss), *Doliopygus lefevrei* Schedl, *Doliopygus serratus* (Strohmeyer), *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus volvulus* (Fabricius).
- Isoloma bruneelii**
Doliopygus erichsoni (Chapuis), *Doliopygus tenuis* (Strohmeyer), *Eucallacea xanthopus* (Eichhoff), *Periommatius similis* Strohmeyer, *Xyleborinus polyalthiae* (Schedl), *Xyleborus affinis* Eichhoff.
- Isoloma spp.**
Premnobius cavipennis Eichhoff.
- Isonandra polyantha**
Eucallacea bicolor (Blandford), *Scolytomimus assamensis* Schedl.
- Isonandra spp.**
Xyleborinus andrewesi (Blandford).
- Ira imbricata**
Hypothenemus californicus Hopkins, *Hypothenemus gossypii* (Hopkins).
- Ixonanthes reticulata**
Crossotarsus wallacei (Thomson), *Platypus cupulatus* Chapuis.
- Ixora parviflora**
Eucallacea andamanensis (Blandford).
- Jacaranda copaia**
Platypus dentatus Dalman, *Xyleborus semipunctatus* Eggers, *Xyleborus volvulus* (Fabricius).
- Jacaranda spp.**
Premnobius cavipennis Eichhoff, *Xylosandrus laticeps* (Wood).
- Jacksouia spp.**
Xyleborus perforans (Wollaston).
- Jacobiua spp.**
Xylosandrus compactus (Eichhoff).
- Jambosa malaccensis**
Crossotarsus externedentatus (Fairmaire).
- Jasminium abyssinicum**
Dendrochilus jasminiae Schedl.
- Jasminium spp.**
Xylosandrus compactus (Eichhoff).
- Jatropha cinerea**
Liparthrum albosetum Bright.
- Jatropha curcas**
Xyleborus perforans (Wollaston).
- Jatropha kebella**
Xyleborus perforans (Wollaston).
- Jatropha spathulata**
Dendroterus texanus Wood.
- Jatropha spp.**
Hypothenemus macrolobii (Eggers).
- Juglans californica**
Pityophthorus juglandis Blackman.
- Juglans cinerea**
Xyleborus ferrugineus (Fabricius).
- Juglans major**
Pityophthorus juglandis Blackman.
- Juglans mandshurica**
Cryphalus mandshuricus Eggers, *Hylesinus eos* Spesivtsev, *Xyleborus aequalis* (Reitter).
- Juglans mandshurica sieboldiana**
Platypus modestus Blandford.
- Juglans nigra**
Ambrosiodmus rubricollis (Eichhoff), *Hylesinus crenatus* (Fabricius), *Hypothenemus bezaziani* Peyerimhoff, *Hypothenemus crudiac* (Panzer), *Hypothenemus cruditus* Westwood, *Hypothenemus seriatus* (Eichhoff), *Pityophthorus juglandis* Blackman, *Pityophthorus lautus* Eichhoff, *Pseudothlysaenes lecontei* Blackman.
- Juglans regia**
Ambrosiodmus rubricollis (Eichhoff), *Coccotrypes nubilus* (Blandford), *Crossotarsus fairmairei* Chapuis, *Dryocoetes himalayensis* Strohmeyer, *Scolytus nitidus* Schedl, *Scolytus scolytus* (Fabricius), *Sphaerotrypes juglans* Tsai & Yin, *Trypodendron domesticum* (Linnaeus), *Xyleborinus artistriatus* (Eichhoff), *Xyleborinus subgranulatus* (Eggers), *Xylosandrus discolor* (Blandford).
- Juglans sieboldiana**
Cryphalus juglans Nüßina, *Hylesinus laticollis* Blandford.
- Juglans spp.**
Ambrosiodmus apicalis (Blandford), *Ambrosiodmus tachygraphus* (Zimmermann), *Hylesinus cingulatus* Blandford, *Hylesinus varius* (Fabricius), *Hypothenemus cruditus* Westwood, *Eucallacea validus* (Eichhoff), *Platypus quercuslandi* Schedl, *Scolytoplattypus tycon* Blandford, *Sphaerotrypes juglans* Krivolutskaya & Kupyanskaya, *Xyleborus ferrugineus* (Fabricius), *Xyleborus sayi* (Hopkins), *Xylosandrus germanus* (Blandford).
- Jubernardia brieji**
Cylindropalpus auricomans (Schaufuss), *Doliopygus divaricus* (Schedl).
- Jubernardia paniculata**
Glostatus multispinosus (Schedl), *Polygraphus zambianus* Beaver.
- Jubernardia seretii**
Chaetastus tuberculatus (Chapuis), *Cylindropalpus auricomans* (Schaufuss), *Cylindropalpus interpositus* (Schedl), *Doliopygus conjunctus* Schedl, *Doliopygus ghesquieri* (Schedl), *Doliopygus lefevrei* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus pygmaecolus* Schedl, *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicomis* Schedl, *Trachyostus aterrimus* (Schaufuss), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Juniperus chinensis**
Phloeosinus hopchi Schedl, *Phloeosinus rudis* Blandford, *Phloeosinus shensi* Tsai & Yin.

Juniperus communis*Phloeosinus turkestanicus* Semenov.***Juniperus deppeana****Carphobius arizonicus* Blackman, *Phloeosinus delconii* Blackman, *Phloeosinus furnissi* Blackman, *Phloeosinus hoferi* Blackman, *Phloeosinus scopulorum neomexicanus* Blackman, *Phloeosinus serratus* (LeConte), *Phloeosinus spinosus* Blackman.***Juniperus excelsa****Phloeosinus acatayi* Schedl.***Juniperus flaccida****Phloeosinus delconii* Blackman.***Juniperus monosperma****Phloeosinus furnissi* Blackman, *Phloeosinus scopulorum neomexicanus* Blackman, *Phloeosinus serratus* (LeConte).***Juniperus occidentalis****Phloeosinus hoppingi* Swaine, *Phloeosinus punctatus* LeConte, *Phloeosinus serratus* (LeConte), *Phloeosinus swainci* Bruck.***Juniperus osteosperma****Phloeosinus furnissi* Blackman, *Phloeosinus hoferi* Blackman, *Phloeosinus scopulorum neomexicanus* Blackman, *Phloeosinus serratus* (LeConte).***Juniperus procera****Glostatus acaciae* (Schedl).***Juniperus pseudosabina****Phloeosinus turkestanicus* Semenov.***Juniperus scopulorum****Phloeosinus hoferi* Blackman, *Phloeosinus hoppingi* Swaine, *Phloeosinus keeni* Blackman, *Phloeosinus scopulorum scopulorum* Swaine, *Phloeosinus serratus* (LeConte).***Juniperus* spp.***Phloeosinus bicolor* (Brulle), *Phloeosinus cristatus* (LeConte), *Phloeosinus delconii* Blackman, *Phloeosinus henschi* Reitter, *Phloeosinus palearis* Wood, *Phloeosinus perlatus* Chapuis, *Phloeosinus serratus* (LeConte), *Phloeosinus thujae* (Perris).***Juniperus virginiana****Phloeosinus dentatus* (Say).***Kairiballi* spp.***Xyleborus parcellus* Wood.***Kalmia latifolia****Xyleborus sayi* (Hopkins).***Kalopanax ricinifolium****Enioporius senucovi* (Kurenzov), *Platypus lewisi* Blandford, *Xyleborus orientalis* Eggers.***Kalopanax septenlobum****Crossotarsus niponicus* Blandford, *Platypus lewisi* Blandford, *Xyleborus seriatus* Blandford.***Kaya floribunda****Xylosandrus crassiusculus* (Motschulsky).***Khaya anthotheca****Cylindropalpus granulatus* (Schedl), *Doliopygus perbrevis* Schedl, *Rhopalopselion immaturus* (Schedl), *Xyleborus consobrinus* Eggers.***Khaya grandifolia****Chaetastus tuberculatus* (Chapuis), *Polygraphus coronatus* Eggers, *Xyleborus affinis* Eichhoff.***Khaya ivorensis****Chaetastus tuberculatus* (Chapuis), *Diapus quinque-spinatus* Chapuis, *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus anbasiusculus* Eggers, *Xyleborus ferrugineus**(Fabricius)*, *Xyleborus picens* (Motschulsky), *Xyleborus scobinatus* Hagedorn, *Xyleborus subtuberculatus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).***Khaya klainea****Platypus hintzi* Schaufuss.***Khaya nyasica****Euwallacea khayae* (Schedl).***Khaya senegalensis****Pityophthorus fallax* (Hagedorn), *Xylosandrus mancus* (Blandford).***Khaya* spp.***Ambrosiodinus eichhoffi* (Schreiner), *Chaetastus tuberculatus* (Chapuis), *Cyclorhupidion crucipenne* (Schedl), *Doliopygus artespiniatus* (Schedl), *Doliopygus perbrevis* Schedl, *Doliopygus unicoloris* Schedl, *Pityophthorus hintzi* Schedl, *Platypus hintzi* Schaufuss, *Polygraphus bicolor* Eggers, *Polygraphus granulatus* Eggers, *Polygraphus granlifer* Eggers, *Premnobius cavipennis* Eichhoff, *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus principalis* Eichhoff, *Xyleborus volutus* (Fabricius).***Kickxia arborea****Platypus signatus* Chapuis.***Kigelia lanceolata****Platypus solutus* Schedl, *Rhopalopselion congoum* (Schedl).***Klaineana* spp.***Ambrosiodinus eichhoffi* (Schreiner).***Klainedoxa gabonensis****Acanthotomicus sexdentatus* (Eggers), *Chaetastus tuberculatus* (Chapuis), *Coccotrypes rotundicollis* (Eggers), *Doliopygus artespiniatus* (Schedl), *Doliopygus bilobatus* (Schedl), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus punctiventris* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus spectabilis* Schedl, *Doliopygus unicoloris* Schedl, *Hypothenemus eruditus* Westwood, *Microrhynchus klainedoxae* Schedl, *Periommatatus excisus* Strohmeyer, *Periommatatus longicollis* Chapuis, *Pityophthorus africanus* Wood, *Pityophthorus africanus* Eggers, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus caudatus* Schedl, *Xyleborus clerodendronae* Schedl, *Xyleborus nitidulus* Eggers, *Xyleborus volutus* (Fabricius).***Klainedoxa gabonensis oblongifolia****Xylosandrus cylindrotomicus* (Schedl).***Klainedoxa* spp.***Premnobius cavipennis* Eichhoff.***Kleinhorvia hospita****Hadrodemius globus* (Blandford).***Knightia excelsa****Xyleborinus saxeseni* (Ratzeburg).***Koompassia excelsa****Arixyleborus granlifer* (Eggers), *Coptodryas diversicolor* (Eggers), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus inermis* Schedl, *Crossotarsus squamulatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Eccoptopterus limbus* Sampson, *Platypus curtus* Chapuis, *Platypus forficula* Chapuis, *Xyleborus emarginatus* Eichhoff, *Xyleborus fallax* Eichhoff.

Koompassia malaccensis

Ozopemon rugatus (Blandford). *Platypus forficula* Chapuis. *Platypus insularis* Strohmeyer. *Platypus signatus* Chapuis. *Platypus westwoodi* Chapuis. *Xyleborus apertus* Schedl. *Xyleborus fallax* Eichhoff. *Xyleborus perforans* (Wollaston). *Xyleborus picus* (Motschulsky). *Xyleborus volutus* (Fabricius).

Koompassia spp.

Arixyleborus granifer (Eichhoff).

Koordersiodendron pinnatum

Platypus lucasensis Browne.

Kopsia flavida

Platypus insulindicus Schedl. *Xyleborinus andrewesi* (Blandford). *Xyleborus adusticollis* (Motschulsky).

Kosteletzkya adoensis

Hypothenemus grandis Schedl.

Kotschya africana

Thammurgus granulicollis Schedl.

Kududarula spp.

Ambrosiodmus obliquecaudata Motschulsky.

Kydia calycina

Ernocladius corpulentus (Sampson). *Eucallacea interjectus* (Blandford). *Xyleborus fallax* Eichhoff. *Xyleborus perforans* (Wollaston). *Xyleborus similis* Ferrari.

Lactuca spp.

Hypothenemus grandis Schedl.

Lagenaria vulgaris

Cosmoderes monilicollis Eichhoff.

Lagerstroemia flos-reginae

Xylosandrus crassiusculus (Motschulsky).

Lagerstroemia hypoleuca

Crossotarsus terminatus Chapuis. *Xyleborus cognatus* Blandford.

Lagerstroemia lanceolata

Crossotarsus minax (Walker). *Sphaerotrypes globulus* Blandford.

Lagerstroemia parviflora

Crossotarsus externedentatus (Fairmaire). *Platypus cavus* Strohmeyer. *Sphaerotrypes globulus* Blandford. *Xyleborus perforans* (Wollaston).

Lagerstroemia speciosa

Xylosandrus crassiusculus (Motschulsky).

Lagunaria leucantha

Hypothenemus eruditus Westwood.

Lagunaria patersonia

Platypus norfolkensis Schedl.

Landera pulcherrime

Coccotrypes nubilus (Blandford).

Landolphia owariensis

Platypus intermedius (Schedl). *Platypus solutus* Schedl.

Landolphia robusta

Ctonoxylon flavescens Hagedorn.

Landolphia spp.

Scolytogenes sodalis (Schedl).

Lannea grandis

Coccotrypes nubilus (Blandford). *Crossotarsus externedentatus* (Fairmaire). *Platypus cupulatus* Chapuis. *Platypus latifinis* Walker. *Platypus lepidus* Chapuis. *Platypus secretus* Sampson. *Platypus solidus* Walker. *Xyleborinus andrewesi* (Blandford). *Xyleborinus artemis-triatus* (Eichhoff). *Xyleborus shorcae* (Stebbing). *Xylosandrus crassiusculus* (Motschulsky).

Lannea wehritschii

Doliopygus serratus (Strohmeyer). *Periommatius grandis* Schedl. *Platypus hintzi* Schaufuss. *Platypus parallelus*

(Fabricius). *Xyleborus affinis* Eichhoff. *Xyleborus ferrugineus* (Fabricius). *Xyleborus picus* (Motschulsky).

Lannea zenkeri

Platypus hintzi Schaufuss.

Lansium domesticum

Coptodryas nudipennis (Schedl). *Cyrtogenius brevior* (Eggers). *Xyleborinus andrewesi* (Blandford). *Xyleborus adusticollis* (Motschulsky). *Xylosandrus nudipennis* (Schedl).

Lansium spp.

Coptodryas elegans (Sampson).

Lantana salvifolia

Eucallacea xanthopus (Eichhoff). *Xyleborus principalis* Eichhoff.

Lantana spp.

Ambrosiodmus lantanae (Eggers). *Eucallacea formicatus* (Eichhoff). *Xylosandrus compactus* (Eichhoff). *Xylosandrus terminatus* (Eggers).

Laportea spp.

Platypus jansoni Chapuis. *Platypus solidus* Walker.

Larix americana

Hylurgops rugipennis pinifex Fitch.

Larix dahurica

Carphoborus cholodkovskyi Spessivtsev. *Cryphalus latus* Eggers. *Hylurgops spessivtzevi* Eggers. *Polygraphus proximus* Blandford.

Larix dahurica koreana

Dryocoetes infuscatus Murayama. *Polygraphus horyurensis* Murayama.

Larix europaea

Crypturus hispidulus Thomson. *Hylastes cunicularius* Erichson. *Orthotomicus laricis* (Fabricius). *Pityogenes irkutensis* Eggers. *Pityokteines curvidens* (Germar). *Pityokteines spinidens* (Reitter). *Pityophthorus buysoni* Reitter. *Pityophthorus glabratus* Eichhoff.

Larix gmelini

Cryphalus latus Eggers. *Cryphalus premayaensis* Murayama. *Polygraphus sachalinensis* Eggers.

Larix griffithiana

Trypodendron dorjitenzingi Schmutzenhofer.

Larix laricina

Carphoborus dunni Swaine. *Dendroctonus simplex* LeConte. *Dendroctonus valens* LeConte. *Pityophthorus consimilis* LeConte. *Pityophthorus opaculus* LeConte. *Polygraphus rufipennis* (Kirby). *Scolytus piccae* (Swaine).

Larix leptolepis

Cryphalus laricis Nüßima. *Dryocoetes karamatsu* Sawamoto. *Polygraphus kisoensis* Nüßima. *Xyleborus seriatus* Blandford.

Larix lyallii

Pityophthorus alpinensis G. Hopping. *Scolytus laricis* Blackman.

Larix occidentalis

Dendroctonus pseudotsugae Hopkins. *Scolytus laricis* Blackman. *Xylechinus montanus* Blackman.

Larix olgensis coreana

Trypodendron gaimaensis (Murayama).

Larix potanini

Polygraphus zhungdianensis Tsai & Yin.

Larix sibirica

Carphoborus teplouchovi Spessivtsev. *Pityophthorus lichtensteini* (Ratzeburg). *Pityophthorus micrographus* (Linnaeus). *Polygraphus poligraphus* (Linnaeus). *Polygraphus seriatus* Reitter. *Scolytus moravitzii* Semenov.

Larix spp.

Cryphalus asperatus (Gyllenhal), *Cryphalus latus* Eggers, *Dendroctonus micans* (Kugelann), *Dryocoetes affaber* (Mannerheim), *Dryocoetes autographus* (Ratzeburg), *Dryocoetes baikalicus* Reitter, *Dryocoetes pini* Nüßima, *Dryocoetes rugicollis* Eggers, *Gnathotrichus materiarius* (Fitch), *Hylastes nigrinus* (Mannerheim), *Hylurgops glabratus* (Zetterstedt), *Hylurgops palliatus* (Gyllenhal), *Ips acuminatus* (Gyllenhal), *Ips cembrae* (Heer), *Ips typographus* (Linnaeus), *Orthotomicus caelatus* (Eichhoff), *Orthotomicus suturalis* (Gyllenhal), *Pityogenes chalcographus* (Linnaeus), *Scolytus morawitzi* Semenov, *Xyleborinus saxseni* (Ratzeburg), *Xylechinus pilosus* (Ratzeburg).

Larrea tridentata

Chaetophloeus fasciatus (Blackman).

Lasiodiscus spp.

Ambrosiodmus albizzianus (Schedl).

Lauraceae spp.

Xyleborus piccus (Motschulsky).

Laurineae spp.

Platypus puerulus (Schedl).

Laurus alba

Thamurgus kaltenbachii (Bach).

Laurus camphora

Ambrosiodmus camphorae (Hagedorn).

Laurus canariensis

Liparthrum nigrescens Wollaston.

Laurus nobilis

Hypothenemus lustrix (Eggers), *Liparthrum colchicum* Semenov, *Liparthrum laurivorus* Schedl.

Lebrunia sushaie

Chaetastus montanus Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus scobinatus* Hagedorn.

Lecaniodiscus cupanioides

Doliopygus erichsoni (Chapuis), *Doliopygus medius* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Trachyostus schoutedeni* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky).

Lecaniodiscus spp.

Ambrosiodmus eichhoffi (Schreiner), *Prennobia cavipennis* Eichhoff.

Lecythis costaricensis

Phloeoborus punctatorugosus Chapuis.

Lecythis spp.

Phelloterus anaxeus Wood, *Platypus eversus* Wood, *Platypus nudatus* Wood, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius).

Leea crispa

Xylosandrus crassiusculus (Motschulsky).

Leea sambucina

Xylosandrus crassiusculus (Motschulsky).

Leea spp.

Xyleborinus andrewesi (Blandford).

Leonotis africana

Eucallalcea xanthopus (Eichhoff).

Leptoderris laurentii

Doliopygus conradti (Strohmeyer), *Xyleborus alluaudi* Schaufuss.

Leptolaena multiflora

Ambrosiodmus artegranulatus (Schedl), *Mitosoma lobatum* Schedl, *Mitosoma obtusum* Schedl, *Polygraphus amoenus* (Schaufuss), *Xyleborinus forficuloides* (Schedl).

Leptonychia bantangensis

Xyleborus bambuensis Eggers.

Leptospermum ericoides

Amasa truncatus (Erichson).

Leucaenia glauca

Crossotarsus externedentatus (Fairmaire), *Hypothenemus brunneus* (Hopkins), *Hypothenemus eruditus* Westwood, *Hypothenemus javanus* (Eggers), *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Leucaenia leucocephala

Eccoptopterus spinosus (Olivier).

Leucaenia pulverulenta

Chramesus mimosae Blackman, *Hylocurus atkinsoni* Wood.

Leucaenia spp.

Ambrosiodmus wilderi (Beeson), *Eucallalcea fornicatus* (Eichhoff), *Xyleborus sweczyi* Beeson, *Xylosandrus compactus* (Eichhoff).

Leucas spp.

Mimicurus congonus (Schedl).

Leucosceptrum canum

Eucallalcea velatus (Sampson), *Eucallalcea wallacei* (Blandford).

Lezjavai spp.

Hypothenemus eruditus Westwood.

Libocedrus decurrens

Phloeosinus antennatus Swaine, *Phloeosinus fulgens* Swaine, *Phloeosinus hoppingi* Swaine, *Phloeosinus punctatus* LeConte, *Phloeosinus sequoiae* Hopkins, *Phloeosinus vandykei* Swaine.

Licania spp.

Phelloterus anaxeus Wood, *Platypus exitialis* Wood, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius).

Ligustrum spp.

Ambrosiodmus rubricollis (Eichhoff), *Lanurgus barbatus* Eggers.

Limaciopsis loangensis

Doliopygus artespianus (Schedl).

Lindackeria dentata

Doliopygus bilobatus (Schedl), *Doliopygus conradti* (Strohmeyer).

Lindera benzoin

Xyleborus sayi (Hopkins).

Lindera erythrocarpa

Crossotarsus niponicus Blandford, *Platypus quercivorus* Murayama, *Xylosandrus germanus* (Blandford), *Xylosandrus mutilatus* (Blandford).

Lindera latifolia

Coptodryas recidens (Sampson), *Eucallalcea bicolor* (Blandford), *Xyleborus glabratus* Eichhoff.

Lindera pulcherrima

Diapus quadrispinatus Chapuis, *Diapus quinquespinatus* Chapuis, *Diapus spatulifer* Brownie, *Scolytogenes cyliconicus* (Schedl).

Lindera spp.

Ambrosiodmus obliquus (LeConte), *Scolytplatypus tycon* Blandford, *Xylosandrus brevis* (Eichhoff), *Xylosandrus mutilatus* (Blandford).

Lindera thunbergii

Crossotarsus simplex Murayama.

Lippia spp.

Ambrosiodmus aegir (Eggers).

- Lippia substrigosa**
Corthylus mexicanus Schedl.
- Liquidambar orientalis**
Platypus simulans Schedl.
- Liquidambar spp.**
Xylosandrus compactus (Eichhoff).
- Liquidambar styraciflua**
Cnesimus strigicollis LeConte, *Dryocoetes betulae* Hopkins, *Hypothenemus eruditus* Westwood, *Hypothenemus interstitialis* (Hopkins), *Hypothenemus scriatus* (Eichhoff), *Monarthrum fasciatum* (Say), *Monarthrum mali* (Fitch), *Pityophthorus liquidambarus* Blackman, *Pityophthorus molestus* Wood, *Xyleborus ferrugineus* (Fabricius).
- Liriodendron spp.**
Ambrosiodmus tachygraphus (Zimmermann), *Xyleborus dispar* (Fabricius), *Xyleborus obesus* LeConte.
- Liriodendron tulipifera**
Corthylus columbianus Hopkins, *Trischidias atomus* (Hopkins), *Xyleborus saji* (Hopkins), *Xylosandrus germanus* (Blandford).
- Liriosma singularis**
Prennobius cavipennis Eichhoff, *Taurodemus perebae* (Ferrari), *Xyleborinus reconditus* (Schedl), *Xyleborus rugosipennis* Schedl.
- Lithocarpus amygdalifolia**
Xyleborus atratus Eichhoff.
- Lithocarpus densiflorus**
Monarthrum scutellare (LeConte).
- Lithocarpus edulis**
Platypus quercitorius Murayama.
- Lithocarpus konishii**
Diapus formosanus Niisima & Murayama.
- Lithocarpus spp.**
Diapus latespinis Schedl, *Diapus nanus* Schedl, *Diapus perpygmaeus* Roberts, *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Diapus robustus* Schedl, *Platypus novaezelandensis* Roberts, *Xyleborus arniger* Schedl, *Xyleborus arnipennis* Schedl.
- Lithocarpus stipitata**
Xyleborus atratus Eichhoff.
- Lithocarpus ternaticupula**
Xyleborus atratus Eichhoff.
- Lithocarpus wallichianus**
Amasa schlichii (Stebbing), *Crossotarsus longicollis* Browne, *Crossotarsus squamulatus* Chapuis, *Cyclorhipidion punctatopilosum* (Schedl), *Platypus pseudocephalatus* Schedl, *Xylosandrus crassiusculus* (Motschulsky).
- Litsea anara**
Phloeocera bruchoides Schedl, *Xylosandrus pygmaeus* (Eggers).
- Litsea cassiuefolia**
Xylosandrus compactus (Eichhoff).
- Litsea dolichocarpa**
Xyleborus atratus Eichhoff.
- Litsea domarensis**
Hyledius nitidicollis (Motschulsky), *Platypus jansoni* Chapuis, *Sucus niisimai* (Eggers).
- Litsea elongata**
Diapus spatulifer Browne, *Scolytotplatypus pubescens* Hagedorn, *Scolytotplatypus raja* Blandford, *Xyleborus glabratus* Eichhoff.
- Litsea megacarpa**
Crossotarsus wallacci (Thomson), *Hadrodemus globus* (Blandford), *Platypus pseudocephalatus* Schedl, *Xylosandrus manicus* (Blandford).
- Litsea polyantha**
Coccotrypes myristicae (Roepke), *Platypus solidus* Walker, *Xyleborus perforans* (Wollaston).
- Litsea spp.**
Crossotarsus porcatus Roberts, *Diapus amblylaminatus* Roberts, *Diapus bilunatus* Schedl, *Diapus nebulosus* Roberts, *Diapus unispinus* Roberts, *Phloeocera bruchoides* Schedl, *Scolytotplatypus darjeelingi* Stebbing, *Xyleborus perforans* (Wollaston).
- Litsea umbrosa**
Xyleborus eggersi Beeson.
- Litsea zeylanica**
Ambrosiodmus asperatus (Blandford), *Platypus furcatus* Blandford.
- Livistona cochinchinensis**
Coccotrypes barbatus (Schedl), *Coccotrypes nitidus* (Eggers).
- Livistona jenkinsiana**
Platypus shillongensis Schedl.
- Livistona spp.**
Coccotrypes carpophagus (Hornung), *Coccotrypes dactyliperda* (Fabricius), *Xyleborus perforans* (Wollaston).
- Lobelia bequaertii**
Thamniurgus lobeliae Eggers.
- Lobelia gibberoa**
Cyrtogenius novoliae (Schedl), *Thamniurgus africanus* Eggers, *Thamniurgus zukualae* Scott.
- Lobelia spp.**
Thamniurgus africanus Eggers, *Thamniurgus punctatissimus* Eggers, *Xyleborus piceus* (Motschulsky).
- Lobelia telekii**
Thamniurgus lobeliae Eggers.
- Lobelia wollastonii**
Thamniurgus lobeliae Eggers.
- Lodoicea callipyge**
Xyleborus perforans (Wollaston).
- Lodoicea sechellarum**
Xyleborus ferrugineus (Fabricius), *Xyleborus perforans* (Wollaston).
- Lomatia hirsuta**
Xylechinus spathifer Schedl.
- Lonchocarpus capassa**
Liparthrum australis Schedl.
- Lonchocarpus castilloi**
Chramesus erenatus Wood, *Cuesimus strigicollis* LeConte.
- Lonchocarpus constrictus**
Chramesus vitiosus Wood.
- Lonchocarpus guatemalensis**
Chramesus vitiosus Wood.
- Lonchocarpus margaritensis**
Scolytus dimidiatus Chapuis, *Xyleborus ferrugineus* (Fabricius).
- Lonchocarpus sericeus**
Doliopygus brevis (Strohmeyer), *Doliopygus perbrevis* Schedl, *Platypus hüntzi* Schanfuss, *Tiarophorus intermedius* Schedl.
- Lonchocarpus spp.**
Chramesus periosus Wood, *Chramesus securus* Wood, *Hylesinopsis rhodesianus* (Eggers), *Pseudothysanococcus squameus* Wood, *Rhopalopselion lonchocarpae* (Schedl), *Scolytus dimidiatus* Chapuis, *Scolytus propinquus* Blandford, *Strombophorus interstitialis* Browne.
- Lonicera caprifolium**
Xylosandrus morigerus (Blandford).

Louicera spp.

Hypothenemus eruditus Westwood, *Xylosandrus discolor* (Blandford).

Lophira alata

Cylindropalpus auricomans (Schaufuss), *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Premnobius corthyloides* Hagedorn, *Xyleborus affinis* Eichhoff, *Xyleborus volvulus* (Fabricius).

Lophira proceru

Platypus parallelus (Fabricius), *Xyleborus affinis* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky).

Lophira spp.

Premnobius cavipennis Eichhoff.

Lophopetalum spp.

Ambrosiodmus sarawakensis (Eggers), *Baiocis pernanulus* (Schedl), *Platypus lingulatus* Roberts & Morimoto, *Platypus lophopetali* Browne, *Platypus pseudocupulatus* Schedl, *Platypus puerulus* (Schedl).

Loranthus spp.

Cyrtogenius polyphagus (Schedl), *Thammurgus granulicollis* Schedl, *Xylocleptes sidanus* (Schedl), *Xylosandrus abruptulus* (Schedl).

Loroa broenii

Chaetastus tuberculatus (Chapuis), *Doliopygus arteminatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus excavatus* (Sampson), *Xyleborus alluaudi* Schaufuss.

Loroa klaineana

Xyleborus affinis Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xylosandrus crassiusculus* (Motschulsky).

Loroa spp.

Doliopygus excavatus (Sampson), *Periommatius excisus* Strohmeier, *Periommatius longicollis* Chapuis.

Loroa trichilioides

Chaetastus tuberculatus (Chapuis), *Doliopygus arteminatus* (Schedl), *Doliopygus bitalei* Schedl, *Doliopygus coelocephalus* (Schaufuss), *Doliopygus conradti* (Strohmeier), *Doliopygus dubius* (Sampson), *Hypothenemus eruditus* Westwood, *Periommatius grandis* Schedl, *Platypus parallelus* (Fabricius), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus amanicus* Hagedorn, *Xyleborus principalis* Eichhoff, *Xyleborus sphenos* Sampson, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Lucuma malaccensis

Platypus loricatus (Sampson), *Platypus signatus* Chapuis, *Platypus westwoodi* Chapuis.

Luffa acutangula

Dendrocranulus cucurbitae (LeConte), *Dendrocranulus sobrinus* Wood.

Luffa aegyptiaca

Cosmoderes monilicollis Eichhoff.

Luffa spp.

Xylosandrus crassiusculus (Motschulsky).

Lupinus spp.

Chramesus editus (Bright).

Lysiloma bahamensis

Hypothenemus brunneus (Hopkins), *Hypothenemus hirsutus* (Wood), *Hypothenemus squamosus* (Hopkins).

Maba abyssinica

Xyleborus elongatus Eggers, *Xyleborus ugandaensis* Schedl.

Maba laurentii

Doliopygus citri Schedl, *Doliopygus conradti* (Strohmeier), *Doliopygus subdolosus* Schedl, *Doliopygus tenuis* (Strohmeier), *Mesoplattypus ustus* Schedl, *Platy-*

pus hintzi Schaufuss, *Xyleborus multispinatus* Eggers, *Xyleborus scobinatus* Hagedorn.

Maba sanduicensis

Crossotarsus externdentatus (Fairmaire).

Maba spp.

Glostatus acaciae (Schedl), *Scolytoplatypus fasciatus* Hagedorn, *Trachyostus aterrimus* (Schaufuss).

Macadamia indica

Coccotrypes cyperi (Beeson).

Macadamia spp.

Eucallacea fornicatus (Eichhoff), *Xylosandrus compactus* (Eichhoff).

Macaranga aleuritoides

Hypothenemus quadridentus Browne.

Macaranga andamanica

Diamerus curvifer (Walker).

Macaranga harteri

Periommatius grandis Schedl, *Periommatius longicollis* Chapuis, *Platypus orientalis* (Strohmeier).

Macaranga deutilata

Coccotrypes cyperi (Beeson), *Coccotrypes longior* (Eggers), *Coccotrypes nubilis* (Blandford), *Diamerus nigrisetosus* Eggers, *Eucallacea interjectus* (Blandford), *Eucallacea celatus* (Sampson), *Eucallacea wallacei* (Blandford), *Platypus lopchucensis* Schedl, *Scolytoplatypus raja* Blandford.

Macaranga gigantea

Coccotrypes cinnamomi (Eggers), *Coccotrypes medius* (Eggers).

Macaranga kilimandjarica

Crossotarsus externdentatus (Fairmaire).

Macaranga laucifolia

Chaetastus tuberculatus (Chapuis), *Cylindropalpus laudatus* (Schedl), *Doliopygus donisi* Schedl, *Doliopygus erichsoni* (Chapuis), *Doliopygus lateralis* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus minor* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Hypothenemus eruditus* Westwood, *Periommatius excisus* Strohmeier, *Periommatius subrobustus* Schedl, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeier), *Platypus picinus* Schedl, *Platypus schenklingi* (Strohmeier), *Platypus spinulosus* (Strohmeier), *Trachyostus schaufussi* (Strohmeier), *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volvulus* (Fabricius).

Macaranga monandra

Xylosandrus crassiusculus (Motschulsky).

Macaranga neonilbraediana

Eucallacea xanthopus (Eichhoff).

Macaranga schweinfurthii

Chaetastus tuberculatus (Chapuis).

Macaranga spinosa

Platypus minutissimus Schedl, *Xyleborinus sharpae* (Hopkins).

Macaranga spp.

Anasa versicolor (Sampson), *Chaetastus montanus* Schedl, *Crossotarsus terminatus* Chapuis, *Cyclorhipidion bicinctum* (Schedl), *Diapus bilobatus* Schedl, *Diapus papuanus* Schedl, *Diapus nebulosus* Roberts, *Diapus turgidus* Roberts, *Doliopygus bidentatus* (Strohmeier), *Doliopygus bilobatus* (Schedl), *Doliopygus lateralis* Schedl, *Doliopygus retusus* Schedl, *Platypus capitilunatus* Roberts & Morimoto, *Platypus collinus* Browne, *Platypus jansonii* Chapuis, *Platypus opacideclivis* Schedl, *Platypus picinus* Schedl, *Platypus solidus* Walker, *Prem-*

- nobius cavipennis* Eichhoff, *Prennobius sexspinosus* Eggers, *Scolytoplatypus mikado* Blandford, *Scolytoplatypus occidentalis* Browne, *Scolytoplatypus truncatus* Browne, *Triozastus marshalli* (Sampson), *Xyleborinus gracilipennis* (Schedl), *Xyleborinus quadrispinosus* (Eichhoff), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborinus similans* (Eggers), *Xyleborus truncatus* Schedl, *Xylosandrus difficilis* (Eggers), *Xylosandrus morigerus* (Blandford).
- Machilus edulis**
Diapus spatulifer Browne.
- Machilus japonica**
Platypus calannus Blandford, *Scolytus aratus* Blandford, *Xyleborus machili* Niisima.
- Machilus longipaniculata**
Crossotarsus reingetensis Niisima & Murayama, *Xyleborus atratus* Eichhoff.
- Machilus macrautha**
Coccotrypes cinnamomi (Eggers), *Coccotrypes variabilis* (Beeson), *Platypus circumdentatus* Strohmeyer.
- Machilus odoratissima**
Crossotarsus externedentatus (Fairmaire), *Crossotarsus machili* Beeson, *Diapus quadrispinatus* Chapuis, *Diapus quinquespinatus* Chapuis, *Eucwallacea velatus* (Sampson), *Indocryptophalus machili* Wood, *Phloeosinus machilus* (Schedl), *Phloeosinus squamulatus* Chapuis, *Platypus curtatus* Sampson, *Platypus falcatus* Strohmeyer, *Scolytoplatypus minimus* Hagedorn, *Scolytoplatypus raja* Blandford, *Xyleborus improbus* Sampson, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford).
- Machilus spp.**
Amasa amputatus (Blandford), *Ambrosiodmus apicalis* (Blandford), *Ambrosiodmus rubricollis* (Eichhoff), *Diapus spatulifer* Browne, *Eucwallacea interjectus* (Blandford), *Eucwallacea validus* (Eichhoff), *Hadrodemius amorplus* (Eggers), *Hadrodemius artecomans* (Schedl), *Scolytoplatypus mikado* Blandford, *Scolytoplatypus tycon* Blandford, *Xyleborus aquilus* Blandford, *Xyleborus kumamotoensis* Murayama, *Xyleborus pfeili* (Ratzeburg), *Xylosandrus germanus* (Blandford).
- Machilus thumbergii**
Cnestus murayamai Schedl, *Crossotarsus niponicus* Blandford, *Dryocoetips coffeae* (Eggers), *Indocryptophalus pubipennis* (Blandford), *Phloeosinus pulchellus* Blandford, *Platypus calannus* Blandford, *Platypus contaminatus* (Blandford), *Sucus niisimai* (Eggers), *Taphrozyelus taradakensis* (Murayama), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus atratus* Eichhoff, *Xyleborus volvulus* (Fabricius), *Xylosandrus brevis* (Eichhoff), *Xylosandrus discolor* (Blandford), *Xylosandrus mutilatus* (Blandford).
- Maclura pomifera**
Hypothenemus scriatus (Eichhoff), *Liparthrum squamosum* (Blackman).
- Macphersonia madagascariensis**
Mitosoma excisum Schaufuss, *Xyleborinus spiculatus* (Schaufuss), *Xyleborus alluaudi* Schaufuss.
- Macrolobium heudelotii**
Ambrosiodmus tropicus (Hagedorn), *Cyclorhipidion cachani* (Schedl), *Cylindropalpus auricomans* (Schaufuss), *Doliopygus serratus* (Strohmeyer), *Xyleborinus similans* (Eggers), *Xyleborus ambasiusculus* Eggers, *Xyleborus subtuberculatus* Eggers.
- Macrolobium macrophyllum**
Cylindropalpus auricomans (Schaufuss), *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus rothkirchi* Eggers, *Xylosandrus crassiusculus* (Motschulsky).
- Macrolobium spp.**
Ambrosiodmus tropicus (Hagedorn), *Coptoborus usagarius* (Eggers), *Hypothenemus macrolobii* (Eggers), *Prennobius cavipennis* Eichhoff, *Prennobius quadrispinosus* Schedl, *Prennobius sexspinosus* Eggers, *Xyleborinus sharpa* (Hopkins), *Xyleborus ambasiusculus* Eggers, *Xyleborus conradi* Hagedorn, *Xyleborus multispinatus* Eggers, *Xyleborus subtuberculatus* Eggers, *Xylosandrus corthylodes* (Schedl), *Xylosandrus crassiusculus* (Motschulsky).
- Madhuca spp.**
Amasa striatotruncatus (Schedl), *Crossotarsus externedentatus* (Fairmaire).
- Madrilus edulis**
Xyleborus lineatus Eggers.
- Maesa lanceolata**
Eucwallacea xanthopus (Eichhoff).
- Maesa rufescens**
Chaetastus montanus Schedl, *Doliopygus artespinatus* (Schedl), *Doliopygus bidentatus* (Strohmeyer), *Eucwallacea xanthopus* (Eichhoff), *Platypus impressus* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Theoborus ricini* (Eggers), *Xyleborus alluaudi* Schaufuss, *Xyleborus principalis* Eichhoff.
- Maesa spp.**
Chaetastus montanus Schedl, *Eucwallacea malloti* (Eggers), *Scolytoplatypus kicuensis* Schedl, *Xyleborus ruandae* Schedl.
- Maesa tenera**
Xylosandrus brevis (Eichhoff).
- Maesobotrya spp.**
Scolytoplatypus kicuensis Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus africanus* Eggers, *Xyleborus alluaudi* Schaufuss.
- Maesopsis eminii**
Ambrosiodmus albizzianus (Schedl), *Coptoborus usagarius* (Eggers), *Cyclorhipidion crucipenne* (Schedl), *Doliopygus conradi* (Strohmeyer), *Doliopygus retusus* Schedl, *Doliopygus serratus* (Strohmeyer), *Periommatius excisus* Strohmeyer, *Periommatius subrobustus* Schedl, *Platypus hintzi* Schaufuss, *Scolytoplatypus africanus* Eggers, *Xyleborus affinis* Eichhoff, *Xyleborus volvulus* (Fabricius).
- Maesopsis spp.**
Prennobius cavipennis Eichhoff.
- Magnolia cathartii**
Platypus errans (Sampson).
- Magnolia foetida**
Hypothenemus eruditus Westwood.
- Magnolia glauca**
Cnesinus strigicollis LeConte, *Hypothenemus eruditus* Westwood.
- Magnolia grandiflora**
Platypus compositus Say.
- Magnolia obovata**
Crossotarsus niponicus Blandford, *Eucwallacea validus* (Eichhoff), *Xyleborinus attenuatus* (Blandford).
- Magnolia spp.**
Hypothenemus erudiae (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus interstitialis* (Hopkins), *Scolytoplatypus shoguen* Blandford.
- Magnolia virginiana**
Hypothenemus eruditus Westwood.

Malacantha spp.

Chaetastus montanus Schedl, *Doliopygus bidentatus* (Strohmeyer).

Malaisia scandens

Cryphalus waplery Eichhoff.

Mallotus albus

Carchesiopygus impariporus (Beeson), *Hadrolemius pseudocomanus* (Eggers), *Platypus solidus* Walker, *Webbia trigintispinatus* Sampson.

Mallotus japonicus

Eucallacea validus (Eichhoff), *Platypus calamus* Blandford, *Xyleborus aquilus* Blandford, *Xyleborus seriatus* Blandford, *Xyleborus volutus* (Fabricius).

Mallotus philippinensis

Coccotrypes nubilis (Blandford), *Eucallacea bicolor* (Blandford), *Eucallacea malloti* (Eggers), *Xyleborinus artestriatus* (Eichhoff), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.

Mallotus ricinoides

Cryphalus malloti Schedl, *Scolytplatypus pusillus* Eggers.

Mallotus roxburghianus

Crossotarsus nachili Beeson.

Mallotus spp.

Xyleborinus andrewesi (Blandford).

Malus formosana

Xyleborus atratus Eichhoff.

Malus punila

Ambrosiodmus apicalis (Blandford), *Scolytus uratus* Blandford, *Xylosandrus crassiusculus* (Motschulsky).

Malus sieboldii

Xyleborus montanus Niisima.

Malus spp.

Corthylus mexicanus Schedl, *Hypothenemus eruditus* Westwood, *Scolytus lacris* Chapuis, *Scolytus mali* (Bechstein), *Scolytus pomi* Yin & Huang, *Scolytus rugulosus* (Müller), *Scolytus semenoti* (Spessivtsev), *Scolytus tadzhikistanicus* Stark, *Tiarophorus scrutator* (Pandelle), *Xyleborinus saxesci* (Ratzeburg).

Malus sylvestris

Xylosandrus pseudosolidus (Schedl).

Malvastrum spp.

Hypothenemus californicus Hopkins, *Xylosandrus compactus* (Eichhoff).

Mammea africana

Doliopygus coeloccephalus (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus erichsonii* (Chapuis), *Doliopygus expletus* Schedl, *Doliopygus ghesquieri* (Schedl), *Doliopygus lateralis* Schedl, *Doliopygus lebrunii* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus propinquus* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Perionnatus excisus* Strohmeyer, *Perionnatus longicollis* Chapuis, *Platypus solutus* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus volutus* (Fabricius).

Mammea americana

Coccotrypes cyperi (Beeson).

Mammea spp.

Ambrosiodmus eichhoffi (Schreiner).

Mangifera caesia

Xyleborinus andrewesi (Blandford).

Mangifera foetida

Xyleborus emarginatus Eichhoff.

Mangifera indica

Ambrosiodmus diversipennis (Schedl), *Ambrosiodmus*

fraterculus (Schaufuss), *Ambrosiodmus hagedorni* (Iglesias), *Coccotrypes confusus* (Eggers), *Coccotrypes cyperi* (Beeson), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus minax* (Walker), *Cryptocarenum seriatus* Eggers, *Cyclorhupidion mangoense* (Schedl), *Diamerus mangiferae* Brownie, *Diamerus nigrisctosus* Eggers, *Diapus quinquespinatus* Chapuis, *Eccooptoterpis spinosus* (Olivier), *Eucallacea interjectus* (Blandford), *Eucallacea xanthopus* (Eichhoff), *Ficicis despectus* (Walker), *Hypocryphalus mangiferae* (Stebbing), *Hypothenemus birnanus* (Eichhoff), *Hypothenemus californicus* Hopkins, *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus gossypii* (Hopkins), *Hypothenemus javanus* (Eggers), *Hypothenemus mangovorius* Schedl, *Hypothenemus morio* (Eggers), *Hypothenemus seriatus* (Eichhoff), *Hypothenemus setosus* (Eichhoff), *Platypus jansoni* Chapuis, *Platypus latifinis* Walker, *Platypus solidus* Walker, *Premnobius ambitiosus* (Schaufuss), *Xyleborinus andrewesi* (Blandford), *Xyleborinus artestriatus* (Eichhoff), *Xyleborinus forficuloides* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus biconicus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus haberkorni* Eggers, *Xyleborus metacuculus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xyleborus spinulosus* Blandford, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford), *Xylosandrus mancus* (Blandford), *Xylosandrus pseudosolidus* (Schedl).

Mangifera minor

Platypus jansoni Chapuis.

Mangifera odorata

Hypocryphalus mangiferae (Stebbing), *Xyleborus metacuculus* Eggers, *Xylosandrus compactus* (Eichhoff).

Mangifera spp.

Crossotarsus browni Schedl, *Diapus nanus* Schedl, *Diapus pusillimus* Chapuis, *Eucallacea fornicatus* (Eichhoff), *Platypus ovatus* Strohmeyer, *Platypus pseudocupulatus* Schedl, *Premnobius catipennis* Eichhoff.

Manihot glaziovii

Xyleborus affinis Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piceus* (Motschulsky).

Manihot utilissima

Hypothenemus bahianiae Schedl, *Platypus parallelus* (Fabricius), *Xyleborus ferrugineus* (Fabricius).

Manikara hexandra

Scolytomimus rectus Wood.

Manikara kauki

Coccotrypes carpophagus (Homung).

Maniltoa spp.

Crossotarsus miszcechi Chapuis, *Platypus misoolensis* Brownie, *Platypus titiensis* Roberts.

Mansonia altissima

Doliopygus nairobiensis (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piceus* (Motschulsky).

Manuglieta insignis

Dactylipalpus transversus Chapuis.

Marcgravia spp.

Premnobius catipennis Eichhoff, *Xyleborinus gracilis* (Eichhoff), *Xyleborus parcellus* Wood, *Xyleborus rugosipennis* Schedl.

Marumia muscosa

Crossotarsus terminatus Chapuis, *Platypus fraterculus* Schedl, *Xylosandrus morigerus* (Blandford).

Mauloutchia spp.

Mitosoma octospinosum Schedl, *Mitosoma suspicax* Schedl, *Sauroptilius sauropterus* (Schedl).

Mauria glauca

Pityophthorus debilis Wood.

Maytenus acuminatus

Lamurgus gracilis Schedl, *Lamurgus spatulatus* Schedl.

Maytenis spp.

Scolytplatypus fasciatus Hagedorn.

Medicago satira

Hylastinus obscurus (Marshall).

Melaleuca leucadendron

Xyleborus perforans (Wollaston).

Melaleuca spp.

Xylosandrus compactus (Eichhoff).

Melanorrhoea curtisii

Crossotarsus brownei Schedl, *Xyleborus haberkornii* Eggers.

Melanorrhoea spp.

Arixyleborus scabripennis (Blandford), *Crossotarsus squamulatus* Chapuis, *Hadrodemius comans* (Sampson), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus nanus* (Blandford).

Melanorrhoea usitata

Polygraphus thitisi Wood, *Polygraphus vexator* (Browne).

Melanthera brownii

Cyrtogenius polyphagus (Schedl), *Xylocleptes sidanus* (Schedl).

Melastoma malabathricum

Eucallalcea fornicatus (Eichhoff).

Melastoma spp.

Xyleborinus saxeseni (Ratzeburg), *Xylosandrus compactus* (Eichhoff).

Melia azedarach

Crossotarsus rengetensis Niisima & Murayama, *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).

Melia spp.

Cnestus suturalis (Eggers), *Xylosandrus compactus* (Eichhoff).

Melia azedarach japonica

Ambrosiodmus rubricollis (Eichhoff).

Melicocca bijugata

Xyleborus ferrugineus (Fabricius), *Xyleborus volulus* (Fabricius), *Xylosandrus laticeps* (Wood).

Melicoccus spp.

Xylosandrus compactus (Eichhoff).

Melicope neurococca

Ficicis varians Lea.

Melilotus spp.

Hylastinus obscurus (Marshall).

Meliosma cuneifolia

Xylosandrus brevis (Eichhoff).

Meliosma myriantha

Platypus calamus Blandford.

Meliosma simplicifolia

Platypus cavus Strohmeyer, *Platypus indicus* Strohmeyer, *Platypus luniger* Motschulsky, *Platypus secretus* Sampson.

Melochia odorata

Xyleborus immersus Schedl.

Melochia spp.

Xylosandrus compactus (Eichhoff).

Melochia umbellata

Xylosandrus crassiusculus (Motschulsky).

Melodorum fulgens

Ernoporus melodori (Hopkins).

Memocylon spp.

Coptodryas nugax (Schedl).

Menispermum spp.

Araptus trepidus Wood.

Meriania spp.

Scolytodes serenus Wood.

Mesogordonia spp.

Xyleborinus quadrispinosus (Eichhoff), *Xyleborus submolestus* Schedl.

Mespilodaphne spp.

Cyclorhpidion scalptor (Schedl), *Mitosoma paulianum* Schedl.

Mespilus germanica

Scolytus amygdali Guerin-Meneville.

Mespilus spp.

Scolytus rugulosus (Muller).

Mesua ferrea

Carchesiopygus impariporus (Beeson), *Coccotrypes monoceros* (Beeson), *Coccotrypes papuanus* (Eggers), *Crossotarsus bonvouloiri* Chapuis, *Crossotarsus schedli* Browne, *Cryphalus scabrifollis* Eichhoff, *Dactylpalpus transversus* Chapuis, *Hadrodemius metacomans* (Eggers), *Platypus cavus* Strohmeyer, *Platypus errans* (Sampson), *Xyleborinus andrewesi* (Blandford), *Xyleborus fallax* Eichhoff, *Xyleborus mucronatulus* Eggers, *Xylosandrus mesua* (Eggers).

Mesua myriocarpa

Ambrosiodmus lewisi (Blandford).

Metopium toxiferum

Cryptocarenum seriatus Eggers, *Hypothenemus hirsutus* (Wood), *Pityophthorus concentralis* Eichhoff.

Metrosideros collina polymorpha

Xyleborinus saxeseni (Ratzeburg), *Xyleborus similininus* Perkins.

Metrosideros excelsa

Anasa truncatus (Erichson).

Michelia champaca

Ambrosiodmus lantanae (Eggers), *Coptodryas mus* (Eggers), *Cyclorhpidion hirtum* (Hagedorn).

Michelia excelsa

Diapus spatulifer Browne.

Michelia nilagirica

Platypus furcatus Blandford.

Michelia oblonga

Platypus cavus Strohmeyer.

Miconia caudata

Corthylus rubricollis Blandford, *Monarthrum carinulum* Wood, *Theoborus pristis* (Wood).

Miconia dodecandra

Corthylocyclon aztecum (Bright).

Miconia globuliflora

Corthylus collaris Blandford, *Corthylus serratus* Wood, *Corthylus strigilis* Wood, *Corthylus trueis* Wood, *Scolytodes pumilus* Wood, *Xyleborus affinis* Eichhoff.

Miconia pubescens

Monarthrum pennatum (Schedl), *Monarthrum proximum* Wood.

Miconia schlechtendalii

Corthylus sentus Wood, *Micracis lignicolus* Wood.

Miconia spp.

Corthylocyclon aztecum (Bright), *Corthylocurus barbatus* (Blandford), *Corthylocurus mexicanus* (Schedl), *Corthylus comatus* Blandford, *Corthylus retusus* Wood, *Dryocoetoides capucinus* (Eichhoff), *Hypothenemus*

erectus LeConte, *Hypothenemus interstitialis* (Hopkins), *Micracis swainci* Blackman, *Microcorthyus demissus* Wood, *Monarthrum hoegei* (Blandford), *Scolytodes immanis* Wood, *Taurodemus perebeae* (Ferrari), *Tricolus aciculatus* Wood, *Tricolus ovicollis* Blandford, *Xyleborus meritus* Wood.

Microcos coriacea

Doliopygus conradti (Strohmeyer), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Premnobius quadrispinosus* Schedl, *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky).

Microcos pinnatifida

Cylindropalpus granulatus (Schedl), *Doliopygus conradti* (Strohmeyer), *Doliopygus jurioni* Schedl, *Doliopygus interjectus* Schedl, *Doliopygus medius* Schedl, *Doliopygus subditivus* (Schedl), *Hypothenemus eruditus* Westwood, *Hypothenemus macrolabii* (Eggers), *Premnobius nodulosus* Hagedorn, *Xyleborinus gracilipennis* (Schedl), *Xyleborus tenellus* Schedl, *Xyleborus xylotripes* Schedl, *Xylosandrus crassiusculus* (Motschulsky).

Microcos spp.

Diapus turgidus Roberts.

Microdesmis puberula

Cylindropalpus pumilio (Schedl), *Cylindropalpus pusillus* (Schedl), *Doliopygus citri* Schedl, *Doliopygus dubius* (Sampson), *Doliopygus jurioni* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff.

Microglossa volubilis

Cyrtogenius movoliae (Schedl), *Hypothenemus atterrimulus* Wood.

Micromeles spp.

Dryocoetes padi Stark, *Platypus volaticus* Schedl.

Mikania scandens

Dendrochilus mikaniae Schedl.

Mildbraediendron excelsum

Chaetastus tuberculatus (Chapuis), *Doliopygus perbrevis* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alhuaudi* Schaufuss.

Millettia atropurpurea

Platypus indicus Strohmeyer.

Millettia dehiscens

Platypus bimucus Blandford, *Platypus jansoni* Chapuis, *Platypus pseudocupulatus* Schedl.

Millettia drastica

Doliopygus conradti (Strohmeyer), *Hypothenemus eruditus* Westwood.

Millettia duchesnei

Doliopygus serratus (Strohmeyer), *Strombophorus crenatus* Hagedorn, *Strombophorus millettiae* Schedl, *Strombophorus vagans* Schedl.

Millettia ferruginea

Cyrtogenius millettiae (Schedl), *Cyrtogenius nuhngensis* (Schedl), *Euwallacea xanthopus* (Eichhoff), *Hypothenemus lefevrei* (Schedl), *Platypus impressus* (Strohmeyer), *Xyleborinus collarti* (Eggers), *Xyleborus alhuaudi* Schaufuss, *Xyleborus piceus* (Motschulsky), *Xyleborus principalis* Eichhoff.

Millettia hylobia

Rhopalopselion congonum (Schedl).

Millettia laurentii

Hypothenemus eruditus Westwood.

Millettia megasperma

Scolytogenes tricolor (Lea).

Millettia pendula

Platypus lepidus Chapuis.

Millettia spp.

Acanthotomicus biconicus (Schedl), *Doliopygus falsificus* (Schedl), *Tiarophorus capucinus* Schedl, *Xyleborus multispinatus* Eggers.

Millettia sutherlandi

Doliopygus erichsoni (Chapuis).

Millettia thomngii

Doliopygus bulbifer Schedl.

Mimosa ervendbergii

Chramesus unicoloris Wood.

Mimosa spp.

Chaetophloeus andinus Wood, *Chramesus mimosae* Blackman, *Hylocurus parkinsoniae* Blackman, *Hypothenemus brunneus* (Hopkins), *Hypothenemus dolosus* Wood, *Hypothenemus erectus* LeConte, *Hypothenemus interstitialis* (Hopkins), *Hypothenemus opacus* (Eichhoff), *Hypothenemus rotundicollis* (Eichhoff), *Micracisella namula* (LeConte), *Micracisella opacithorax* (Schedl), *Monarthrum fasciatum* (Say), *Pseudothymanoes acaciae* (Blackman), *Theoborus coartatus* (Sampson), *Thysanoes inornatus* Wood, *Thysanoes texanus* Blackman.

Mimusops africana

Xyleborus volvulus (Fabricius).

Mimusops caffra

Xyloctonus scolytoides Eichhoff.

Mimusops djave

Platypus parallelus (Fabricius).

Mimusops elengi

Scolytomimus mimusops Wood.

Mimusops heckelii

Chaetastus tuberculatus (Chapuis), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piceus* (Motschulsky), *Xyleborus volvulus* (Fabricius).

Mimusops littoralis

Scolytomimus pusillus (Eggers), *Xyleborus bidentatus* (Motschulsky), *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.

Mimusops spp.

Xyleborus ferrugineus (Fabricius).

Mitragyna spp.

Ambrosiodmus eichhoffi (Schreiner), *Chaetastus tuberculatus* (Chapuis), *Doliopygus dubius* (Sampson), *Periommatius excisus* Strohmeyer, *Periommatius subrobustus* Schedl, *Pityophthorus hintzi* Schedl, *Platypus hintzi* Schaufuss, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius).

Mitragyna stipulosa

Chaetastus diversifrons Browne, *Platypus hintzi* Schaufuss, *Xyleborus affinis* Eichhoff, *Xyleborus piceus* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky).

Mitrastemon spp.

Coccotrypes barbatus (Schedl).

Moerua spp.

Ambrosiodmus signiceps (Schedl).

Monodora myristica

Chaetastus tuberculatus (Chapuis), *Hypothenemus pubipennis* (Eggers), *Mesoplatypus venustus* Schedl, *Xyleborus alhuaudi* Schaufuss.

Monotes kerstingii*Doliopygus terebrans* Schedl.**Morinda citrifolia***Xyleborus perforans* (Wollaston).**Morinda lucida***Chaetastus tuberculatus* (Chapuis), *Doliopygus conradti* (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Doliopygus lefevrei* Schedl., *Xyleborus affinis* Eichhoff, *Xyleborus subtuberculatus* Eggers.**Moringa oleifera***Hypothenemus eruditus* Westwood.**Moringa pterygosperma***Scolytogenes indicus* Wood.**Morisonia americana***Cucinus setulosus* Blandford.**Morus acidosa***Xyleborus atratus* Eichhoff.**Morus alba***Ambrosiodmus rubricollis* (Eichhoff), *Chramesus setosus* Wood, *Cryphalus exiguus* Blandford, *Ficicis varians* Lea, *Phloeotribus frontalis* (Olivier), *Thysanoes fimbriicornis* LeConte, *Trypodendron domesticum* (Linnaeus), *Xyleborus atratus* Eichhoff.**Morus bombycis***Cryphalus exiguus* Blandford, *Xyleborus atratus* Eichhoff.**Morus lactea***Chaetastus tuberculatus* (Chapuis), *Hylesinopsis dubius* Eggers, *Xyleborus piccus* (Motschulsky).**Morus mesozygia***Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Hylesinopsis dubius* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus colculus* (Fabricius).**Morus mexozygia***Doliopygus brevis* (Strohmeyer), *Doliopygus perbrevis* Schedl., *Platypus hintzi* Schaufuss, *Xyleborus alluaudi* Schaufuss.**Morus rubra***Hylocurus langstoni* Blackman, *Hypothenemus columbi* Hopkins, *Hypothenemus crudiac* (Panzer), *Hypothenemus interstitialis* (Hopkins), *Phloeotribus frontalis* (Olivier).**Morus spp.***Ambrosiodmus rubricollis* (Eichhoff), *Doliopygus rapax* (Sampson), *Hypothenemus eruditus* Westwood, *Premnobius catipennis* Eichhoff, *Trachyostus aterrimus* (Schaufuss), *Xyleborus alluaudi* Schaufuss, *Xyleborus atratus* Eichhoff, *Xyleborus praeceus* Blandford, *Xylosandrus germanus* (Blandford).**Motandra guineensis***Acanthotomicus biconicus* (Schedl).**Mucuna andreana***Araptus politus* (Blandford).**Mucuna fauccetti***Araptus politus* (Blandford).**Mucuna spp.***Araptus mucunae* (Blackman).**Muelenbeckia tamnifolia***Stegomerus montanus* Wood.**Muntingia calabura***Xylosandrus compactus* (Eichhoff).**Muonnia spp.***Hypothenemus seriatus* (Eichhoff).**Murraya koenigii***Crossotarsus externedentatus* (Fairmaire), *Xylosandrus crassiusculus* (Motschulsky).**Murraya paniculata***Xylebomis perforans* (Wollaston).**Murraya spp.***Xylosandrus compactus* (Eichhoff).**Musa basjoo***Hypothenemus eruditus* Westwood.**Musanga cecropioides***Cryphalus bellus* Schedl., *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus serratus* (Strohmeyer), *Eucallalcea pandae* (Schedl), *Hypothenemus biseriatus* (Eggers), *Hypothenemus eruditus* Westwood, *Periommatius longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Polygraphus musangae* (Schedl), *Premnobius quadrispinosus* Schedl., *Serratus similis* (Eggers), *Xyleborinus gracilipennis* (Schedl), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus caudatus* Schedl., *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xyleborus subtuberculatus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).**Musanga spp.***Ambrosiodmus eichhoffi* (Schreiner).**Myrianthus arboreus***Doliopygus donisi* Schedl., *Doliopygus lefevrei* Schedl., *Doliopygus unicornis* Schedl., *Periommatius excisus* Strohmeyer, *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xylosandrus crassiusculus* (Motschulsky).**Myrianthus holstii***Xyleborus alluaudi* Schaufuss, *Xyleborus clerodendronae* Schedl.**Myrianthus spp.***Ambrosiodmus tropicus* (Hagedorn), *Premnobius catipennis* Eichhoff, *Xyleborus ambastusculus* Eggers.**Myrica faya***Xyleborinus savescii* (Ratzeburg).**Myrica pubescens***Araptus nigrellus* Wood, *Corthylus granulifer* Wood, *Corthylus rubricollis* Blandford, *Corthylus strigilis* Wood, *Xyleborus meritus* Wood.**Myrica salicifolia***Doliopygus erichsoni* (Chapuis), *Eucallalcea xanthopus* (Eichhoff), *Hypothenemus lefevrei* (Schedl), *Xyleborus principalis* Eichhoff.**Myrica spp.***Hylocurus hirtellus* (LeConte), *Xylosandrus germanus* (Blandford).**Myristica andamanica***Crossotarsus andamanus* Beeson, *Eucallalcea bicolor* (Blandford), *Xyleborinus andrewesi* (Blandford), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.**Myristica castaneaeefolia***Crossotarsus externedentatus* (Fairmaire), *Platypus vittensis* Roberts, *Xyleborus perforans* (Wollaston).**Myristica cinnamomea***Coccotrypes variabilis* (Beeson).**Myristica dactyloides***Arxyleborus granulifer* (Eggers), *Coccotrypes longior* (Eggers), *Coccotrypes salakensis* (Schedl), *Coccotrypes vulgaris* (Eggers), *Cryphalus nigricans* Schedl., *Hyledius ceylonicus* (Schedl), *Hyledius concinnulus* (Walker), *Hyledius regalis* (Wood).**Myristica fragrans***Amasa batoerradensis* (Schedl), *Arxyleborus malayensis* (Schedl), *Coccotrypes myristicae* (Roepke),

- Coccotrypes priesneri* Schedl, *Coptodryas myristicac* (Schedl), *Coptodryas mugax* (Schedl), *Hypocryphalus sumatranus* (Schedl), *Hypothenemus obscurus* (Fabricius), *Hyledius nitidicollis* (Motschulsky), *Platypus webberi* Schedl, *Xyleborus fulculus* Schedl, *Xyleborus setulosus* Eggers.
- Myristica furfuracae***
Coriaceophilus xyloctonoides Schedl, *Hypocryphalus granulatus* Schedl, *Hyledius cribratus* (Blandford).
- Myristica indica***
Xyleborinus andrewesi (Blandford).
- Myristica longifolia***
Hadrodemius pseudoconans (Eggers), *Hyledius jiri* (Wood).
- Myristica philippinensis***
Dactylipalpus transersus Chapuis, *Hyledius cribratus* (Blandford), *Hyledius nitidicollis* (Motschulsky).
- Myristica* spp.**
Coccotrypes barbatus (Schedl), *Coccotrypes tapatapaoanus* (Schedl), *Crossotarsus longicornis* (Schedl), *Dianerus granifer* Browne, *Diapus amblylaminatus* Roberts, *Diapus latespinis* Schedl, *Diapus nebulosus* Roberts, *Diapus oosis* Roberts, *Diapus papuanus* Schedl, *Hypocryphalus basilirtus* (Beeson), *Hypothenemus eruditus* Westwood, *Hyledius imitans* (Eggers), *Platypus bifidus* Schedl, *Platypus imberbis* Roberts, *Platypus negatus* Schedl, *Platypus nemorosus* Roberts, *Platypus papulosus* Roberts, *Platypus patens* Roberts, *Platypus schysi* Chapuis, *Xylosandrus crassiusculus* (Motschulsky).
- Myrmidone* spp.**
Hypothenemus eruditus Westwood.
- Myroxylon toluiferum***
Xyleborus affinis Eichhoff.
- Myrsine* spp.**
Xyleborinus saxeseni (Ratzeburg), *Xylosandrus compactus* (Eichhoff).
- Myrtaceae* spp.**
Platypus madagascariensis Chapuis.
- Napoleona imperialis***
Doliopygus conradti (Strohmeyer), *Doliopygus serratus* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Periommatius substriatus* Strohmeyer, *Platypus hintzi* Schaufuss, *Premnobius perspinidens* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus colculus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Napoleona* spp.**
Ambrosiodmus eichloffi (Schreiner), *Premnobius cavipennis* Eichhoff.
- Nauclea diderichii***
Chaetastus tuberculatus (Chapuis), *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus picus* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky).
- Nauclea excelsa***
Platypus cavius Strohmeyer.
- Nauclea orientalis***
Coptodryas eucalyptica (Schedl).
- Nauclea sessilifolia***
Platypus solidus Walker, *Platypus suffodiens* Sampson.
- Nauclea* spp.**
Platypus solidus Walker, *Platypus subtruncatus* Browne, *Platypus uncatus* Browne, *Premnobius cavipennis* Eichhoff.
- Nectandra angustifolia***
Xylosandrus compactus (Eichhoff).
- Nectandra* spp.**
Amphieramus terebella Blandford, *Araptus rufopalliatu* Eichhoff, *Cnesinus bicostatus* Schedl, *Cnesinus intermedius* Schedl, *Cnesinus teretis* Wood, *Corthylyus additus* Wood, *Corthylyus cirritus* Wood, *Corthylyus convexifrons* Wood, *Cryptocarenum brevicollis* Eggers, *Gnathotrupes colaphus* Wood, *Gnathotrupes nectandrae* Wood, *Hylocurus flagellatus* Wood, *Hypothenemus opacus* (Eichhoff), *Microcorthylyus contractus* Wood, *Microcorthylyus diversus* Wood, *Microcorthylyus umbratus* Wood, *Monarthrum lobatum* (Ferrari), *Platypus deceptor* Wood, *Platypus secus* Wood, *Scolytodes decorus* Wood, *Sternobothrus bicaudatus* (Blandford), *Sternobothrus sculpturatus* (Blandford), *Taurodemius bicornutus* (Wood), *Xylosandrus retusus* (Eichhoff).
- Nesia altissima***
Xyleborus cancellatus Eggers.
- Nemosoma elongatum***
Xyleborinus saxeseni (Ratzeburg).
- Neobuxbaumia mezealensis***
Cactopinus burjosi Wood.
- Neodypsis baroni***
Polygraphus amoenus (Schaufuss), *Xyleborinus forficuloides* (Schedl), *Xyleborus sakalava* Schedl, *Xylosandrus crassiusculus* (Motschulsky).
- Neonauclea* spp.**
Diapus perygmaeus Roberts, *Diapus quinquespinitus* Chapuis, *Platypus aolai* Browne, *Platypus solomonicus* Browne.
- Neotina boursii***
Xyleborinus forficuloides (Schedl).
- Neowashingtonia robusta***
Coccotrypes carpophagus (Hornung).
- Nephelium lappaceum***
Xylosandrus manicus (Blandford).
- Nephelium lichi***
Coccotrypes advena Blandford, *Coccotrypes confusus* (Eggers), *Coccotrypes papuanus* (Eggers), *Euwallacea fornicatus* (Eichhoff), *Hypothenemus birmanus* (Eichhoff).
- Nephelium longana***
Anasa beesoni (Eggers).
- Nephelium* spp.**
Anasa striatotruncatus (Schedl), *Arixyleborus suturalis* (Eggers), *Baioeis pernanulus* (Schedl), *Coccotrypes rhizophorae* (Hopkins), *Coptodryas diversicolor* (Eggers), *Crossotarsus nitidulus* (Schedl), *Platypus puerulus* (Schedl), *Xyleborinus pomelianus* (Schedl).
- Nerium oleander***
Araptus dubiosus (Schedl), *Araptus oleanderi* (Schedl).
- Nerium* spp.**
Microborus lautus Wood.
- Nesogordonia papaverifera***
Xyleborus affinis Eichhoff.
- Nesogordonia* spp.**
Polygraphus kasukumbii Schedl.
- Newtonia buchananii***
Platypus intermedius (Schedl).

Nicotiana tabacum*Xyleborus spinulosus* Blandford.**Nipa spp.***Leptoxyleborus concisus* (Blandford).**Noleua spp.***Chramesus annexens* (Wood), *Corthylyus nolenae* Wood.**Nothofagus carrii***Platypus capito* Browne, *Platypus gracilior* Browne.**Nothofagus cunuaughammii***Platypus subgranosus* Schedl.**Nothofagus dombeyi***Gnathotrupes caliculus* (Schedl), *Gnathotrupes cirratus* Schedl, *Gnathotrupes impressus* (Schedl), *Gnathotrupes longipennis* (Blanchard), *Gnathotrupes longinseculus* (Schedl), *Gnathotrupes nanulus* (Schedl), *Gnathotrupes naumannii* (Schedl), *Gnathotrupes nothofagi* (Schedl), *Gnathotrupes pauciconvexus* Schedl, *Gnathotrupes pauciconvexus* Schedl, *Gnathotrupes pustulatus* Schedl, *Gnathotrupes similis* Schedl, *Gnathotrupes solidus* Schedl, *Gnathotrupes vafer* (Schedl), *Gnathotrupes velatus* Schedl, *Phlocotribus nahueliacae* (Schedl).**Nothofagus grandis***Diapus kuperi* Roberts.**Nothofagus obliqua***Sinophloeus porteri* Brethes.**Nothofagus pullei***Diapus pusillinus* Chapuis, *Diapus spinifer* Schedl, *Platypus celsus* Roberts, *Platypus inversus* Roberts, *Platypus longicalcaratus* Roberts, *Platypus nothofagus* Roberts, *Platypus petaloideus* Roberts, *Platypus runcinatus* Roberts.**Nothofagus pumilio***Xylechinus maculatus* Schedl.**Nothofagus spp.***Crossotarsus coxalis* Schedl, *Crossotarsus dentatus* Browne, *Cryphalus nothofagi* Browne, *Diapus nebulosus* Roberts, *Diapus robustus* Schedl, *Diapus spinifer* Schedl, *Diapus unispinus* Roberts, *Hypothenemus incernis* Browne, *Platypus denticollis* Browne, *Platypus margaritaceus* Roberts & Morimoto, *Platypus panduriformis* Roberts, *Platypus petalinus* Roberts & Morimoto, *Platypus praececlens* Schedl, *Scolytogenes papuanus* (Schedl).**Nothopanax spp.***Eucallaea fornicatus* (Eichhoff), *Hypothenemus eruditus* Westwood.**Nuxia conferta***Cyclorhipidion guineense* (Eggers).**Nyssa aquatica***Hypothenemus eruditus* Westwood, *Xylosandrus germanus* (Blandford).**Nyssa javanica***Platypus cavus* Strohmeyer, *Platypus drescheri* Schedl, *Platypus tenuissimus* Schedl.**Nyssa sessiliflora***Diapus spatulifer* Browne, *Eucallaea bicolor* (Blandford), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.**Nyssa spp.***Monarthrum fasciatum* (Say), *Monarthrum mali* (Fitch), *Xyleborus ferrugineus* (Fabricius), *Xyleborus sayi* (Hopkins).**Nyssa sylvatica***Hypothenemus eruditus* Westwood.**Obscurus spp.***Hypothenemus eruditus* Westwood.**Ochanostachys amentacea***Crossotarsus squamulatus* Chapuis, *Crossotarsus wallacci* (Thomson), *Xyleborus perforans* (Wollaston), *Xyleborus colvulus* (Fabricius).**Ochua arborea***Lamurgus capensis* Schedl.**Ochrocarpos spp.***Hypothenemus muticus* (Schedl), *Polygraphus aequalis* Schedl, *Polygraphus acquatus* Schedl, *Polygraphus amoenus* (Schaufuss).**Ochroma lagopus***Eucallaea fornicatus* (Eichhoff), *Xylosandrus morigerus* (Blandford).**Ochroma spp.***Ambrosiodmus hagedorni* (Iglesias), *Corthylyus comatus* Blandford, *Corthylyus strigilis* Wood, *Hypothenemus javanus* (Eggers), *Hypothenemus opacus* (Eichhoff), *Hypothenemus seriatus* (Eichhoff), *Hypothenemus trivialis* Wood, *Monarthrum consimile* (Blandford), *Phlocotribus vesculus* Wood, *Platypus chiriquensis* Wood, *Sampsonius dampfi* Schedl, *Taurodennus perbeae* (Ferrari), *Theoborus theobromae* Hopkins, *Xyleborinus bicornutulus* (Wood), *Xyleborus carabicus* Eggers, *Xyleborus ferox* Blandford, *Xyleborus ferrugineus* (Fabricius), *Xyleborus spinulosus* Blandford.**Ochroma velutina***Scolytodes ochromae* Wood.**Ochthocosmus africanus***Doliopygus artespinatus* (Schedl), *Doliopygus bijunctipinae* Roberts, *Doliopygus citri* Schedl, *Doliopygus conralti* (Strohmeyer), *Doliopygus costatus* Schedl, *Doliopygus ghesquieri* (Schedl), *Doliopygus interjectus* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minutissimus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus spectabilis* Schedl, *Doliopygus tenuis* (Strohmeyer), *Platypus hintzi* Schaufuss, *Platypus intermedius* (Schedl), *Platypus rufescens* (Strohmeyer), *Platypus schenklingsi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus multispinatus* Eggers, *Xyleborus rothkirchi* Eggers, *Xyleborus subtuberculatus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).**Ocotea bullata***Xyleborinus acmulus* (Wollaston).**Ocotea catesbyana***Hypothenemus birmanus* (Eichhoff), *Hypothenemus brunneus* (Hopkins), *Hypothenemus dissimilis* (Zimmermann), *Hypothenemus interstitialis* (Hopkins), *Hypothenemus javanus* (Eggers), *Hypothenemus seriatus* (Eichhoff), *Xylosandrus zimmermanni* (Hopkins).**Ocotea guianensis***Taurodennus splendidus* (Schaufuss).**Ocotea laevis***Xyleborus sartor* Schedl.**Ocotea laevis***Platypus madagascariensis* Chapuis.**Ocotea puberula***Microcorthylyus suggrandis* Schedl.**Ocotea racemosa***Xyleborus sakalava* Schedl.**Ocotea rodiaei***Platypus longulus* Chapuis.

Ocotea spp.

Ambrosiodinus innominatus (Schedl), *Chaetastus montanus* Schedl, *Mitosoma excisum* Schanfuss, *Mitosoma obliquatum* Schedl, *Pagiocerus frontalis* (Fabricius), *Premmobius cavipennis* Eichhoff.

Ocotea usambarensis

Chaetastus montanus Schedl, *Chortastus orientalis* Schedl, *Doliopygus bidentatus* (Strohmeyer).

Octomeles sumatrana

Crossotarsus semirictus Schedl, *Platypus jansoni* Chapuis, *Platypus solidus* Walker, *Xyleborus emarginatus* Eichhoff.

Odina fraxinifolia

Platypus darjeelingensis Schedl.

Odina wodier

Bothinodroctonus indicus Wood, *Coccotrypes nubilus* (Blandford), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus squamulatus* Chapuis, *Cryphalus scaberricollis* Eichhoff, *Eucallacea fornicatus* (Eichhoff), *Eucallacea interjectus* (Blandford), *Genyocerus furtivus* (Sampson), *Platypus secretus* Sampson, *Platypus solidus* Walker, *Polygraphus anogeissi* Wood, *Xyleborinus andrewesi* (Blandford), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.

Olea africana

Lanurgus oleae Schedl, *Lanurgus xylographus* Schedl.

Olea ambrensis

Platypus madagascariensis Chapuis, *Xyleborinus aduncus* (Schedl), *Xyleborinus quadrispinis* (Schedl), *Xyleborinus spiculatus* (Schanfuss).

Olea capensis

Lanurgus oleaeformis Schedl, *Lanurgus spathulatus* Schedl, *Lanurgus xylographus* Schedl, *Xyleborinus aemulus* (Wollaston).

Olea cuspidata

Hylesinus cingulatus Blandford, *Hylesinus macmahoni* (Stebbing).

Olea europaea

Carphoborus perrisi (Chapuis), *Chaetoptelius vestitus* (Mulsant & Rey), *Coccotrypes dactyliperda* (Fabricius), *Hylesinus californicus* (Swaine), *Hylesinus toranio* (Danthione), *Phloeotribus brevicollis* (Kolenati), *Phloeotribus maroccanus* (Guillebeau), *Phloeotribus scarabaeoides* (Bernard), *Scolytus pygmaeus* (Fabricius), *Xylosandrus compactus* (Eichhoff).

Olea hochstetteri

Chaetastus diversifrons Browne, *Chaetastus montanus* Schedl, *Ctonoxylon griseum* Schedl, *Ctonoxylon hamatum* Schedl, *Cyclorhipidion agnaticeps* (Schedl), *Lanurgus oleae* Schedl.

Olea laurifolia

Lanurgus oleaeformis Schedl, *Platypus sampsoni* (Schedl).

Olea spp.

Ambrosiodinus cichhoffi (Schreiner), *Hylesinus varius* (Fabricius), *Tiarophorus gardneri* Schedl.

Olea welwitschii

Chaetastus montanus Schedl, *Ctonoxylon hamatum* Schedl, *Ctonoxylon spathifer* Schedl.

Olmeca recta

Chramesus tibialis Wood.

Olmiediella spp.

Xylosandrus compactus (Eichhoff).

Oncostemum spp.

Xyleborinus signatipennis (Schedl).

Ongoeka gore

Chaetastus tuberculatus (Chapuis), *Doliopygus arteminatus* (Schedl), *Doliopygus conradti* (Strohmeyer), *Doliopygus divaricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus lateralis* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Eucallacea xanthopus* (Eichhoff), *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Periommatius longicollis* Chapuis, *Platypus hintzi* Schanfuss, *Platypus orientalis* (Strohmeyer), *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl, *Trachyostus schoutedeni* (Strohmeyer), *Xyleborus alhuandi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Ononis natrix

Hylastinus obscurus (Marshall).

Opuntia spp.

Aphauarthrum indicum Wood.

Orbiguya oleifera

Coccotrypes cyperi (Beeson).

Oreodoxa spp.

Coccotrypes dactyliperda (Fabricius).

Oreopanax capitatum

Bothrostermus foveatus (Blackman), *Cnesinus denotatus* Wood, *Cnesinus porcatus* Blandford.

Oreopanax nubigenum

Cnathotrichus omissus Wood, *Pityophthorus timidulus* Wood, *Scolytodes irazuensis* Wood, *Scolytodes punctiferus* Wood, *Xylechinus atarus* Wood.

Oreopanax spp.

Cnesinus porcatus Blandford, *Corthylus mexicanus* Schedl, *Xylechinus marmoratus* Blandford, *Xylechinus tessellatus* Blandford.

Oreopanax xalapense

Corthyeyelon aztecum (Bright), *Scolytodes irazuensis* Wood, *Scolytodes venustus* Wood, *Xylechinus fuliginosus* Blandford, *Xylechinus marmoratus* Blandford, *Xylechinus mexicanus* Wood.

Oricia suaveolens

Xyleborus alhuandi Schaufuss.

Origanum vulgare

Thamurgus kaltenbachi (Bach).

Ormosia formosana

Xyleborus atratus Eichhoff.

Ormosia hosiei

Xylosandrus mutilatus (Blandford).

Osbeckia aspera

Sucus niisimai (Eggers), *Xylosandrus mesuae* (Eggers).

Osmanthus fragrans

Xylosandrus mutilatus (Blandford).

Osmanthus spp.

Xylosandrus compactus (Eichhoff).

Ostodes paniculata

Platypus secretus Sampson.

Ostrya virginica

Pseudopityophthorus asperulus (LeConte), *Pseudothythos lecontei* Blackman.

Ostrya carpinifolia

Corthylus punctatissimus (Zimmermann), *Scolytus carpinii* (Ratzeburg).

Ostyra spp.

Scolytus intricatus (Ratzeburg), *Tiarophorus scrutator* (Pandelle).

Ougeinia dalbergioides

Hypothenemus eruditus Westwood, *Xylechinus ougeniae* Wood, *Xylosandrus crassiusculus* (Motschulsky).

Oxyanthus speciosus

Chaetastus montanus Schedl, *Xyleborus alluaudi* Schaufuss.

Oxytigma manni

Doliopygus pseudoserratus Roberts, *Mesoplatypus venustus* Schedl.

Oxytigma msoo

Periommatius nitidicollis Strohmeyer.

Oxytigma oxyphyllum

Chaetastus tuberculatus (Chapuis), *Coccotrypes rotundicollis* (Eggers), *Cylindropalpus laudatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus citri* Schedl, *Doliopygus clarus* (Schedl), *Doliopygus conradti* (Strohmeyer), *Doliopygus divaricus* (Schedl), *Doliopygus donisi* Schedl, *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus retusus* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus subditicus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Periommatius longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Platypus parallelus* (Fabricius), *Platypus schenklingi* (Strohmeyer), *Platypus solutus* Schedl, *Premnobius quadrispinosus* Schedl, *Strombophorus ericius* (Schaufuss), *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus annectens* Schedl, *Xyleborus colvulus* (Fabricius).

Pachylobus spp.

Premnobius cavipennis Eichhoff.

Pachycereus pectenaboriginum

Cactopinus mexicanus Wood.

Pachycereus spp.

Cactopinus atkinsoni Wood.

Pachyelasma spp.

Coccotrypes rotundicollis (Eggers), *Premnobius cavipennis* Eichhoff.

Pachyelasma tessmanii

Doliopygus conradti (Strohmeyer), *Doliopygus subditicus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Platypus hintzi* Schaufuss, *Premnobius longus* Eggers.

Pachylobus pubescens=Dacryodes buetneri

Acanthotomicus pachylobius (Schedl).

Pachylobus deliciosus

Coccotrypes confusus (Eggers), *Ctonoxylon spathifer* Schedl, *Cyclorhipidion cachani* (Schedl), *Cylindropalpus auricomans* (Schaufuss), *Euwallacea pandae* (Schedl), *Platypus schenklingi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Pachylobus spp.

Xyleborus alluaudi Schaufuss, *Xyleborus piceus* (Motschulsky).

Pachypodanthium staudtii

Xyleborus colvulus (Fabricius).

Pachystela laurentii

Cylindropalpus granulatus (Schedl), *Cylindropalpus interpositus* (Schedl), *Doliopygus bidentatus* (Strohmeyer), *Doliopygus dolosus* Schedl, *Premnobius mikuniyae* (Schedl), *Xyleborinus sharpae* (Hopkins), *Xyleborus ambaspicatus* Schedl, *Xyleborus comparabilis* Schedl.

Pachystela spp.

Ambrosiodmus aegir (Eggers).

Pachytrope dimepate

Euwallacea xanthopus (Eichhoff), *Platypus madagascariensis* Chapuis, *Xyleborinus quadrispinis* (Schedl), *Xyleborus alluaudi* Schaufuss, *Xylosandrus crassiusculus* (Motschulsky).

Pachytrope obovata

Platypus madagascariensis Chapuis.

Padus asiatica

Cryphalus scopiger Berger.

Padus maaki

Dryocoetes padi Stark.

Padus pubescens

Cryphalus scopiger Berger.

Pajanelia longifolia

Euwallacea fornicatus (Eichhoff).

Palaquium elliptica

Crossotarsus quadricaudatus (Strohmeyer), *Xyleborinus andrewesi* (Blandford).

Palaquium gutta

Arixyleborus scabripennis (Blandford), *Hyledius cribratus* (Blandford), *Xyleborus adusticollis* (Motschulsky), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus mancus* (Blandford).

Palaquium hornei

Platypus citiensis Roberts.

Palaquium maingayi

Arixyleborus leprosus Schedl, *Arixyleborus minor* (Eggers), *Arixyleborus suturalis* (Eggers), *Crossotarsus externedentatus* (Fairmaire), *Liparthrum palaquius* (Schedl), *Scolytomimus pusillus* (Eggers).

Palaquium pseudorostratum

Scolytomimus assamensis Schedl.

Palaquium spp.

Crossotarsus squamulatus Chapuis, *Platypus bifurcus* (Schedl), *Platypus cupulatus* Chapuis, *Platypus hirtellus* Schedl, *Platypus solidus* Walker, *Platypus westwoodi* Chapuis, *Webbia cylindricus* Schedl, *Webbia sara-wakensis* Schedl, *Xyleborus apertus* Schedl, *Xyleborus emarginatus* Eichhoff, *Xyleborus major* (Stebbing).

Palaquium stellatum

Amasa forcicollis (Browne), *Amasa versicolor* (Sampson), *Arixyleborus grandis* (Schedl), *Coptoborus bicolor* (Browne), *Coptoborus fragilis* (Browne), *Crossotarsus fractus* Sampson, *Hypocryphalus cylindrus* (Browne), *Scolytomimus pusillus* (Eggers), *Webbia costulatus* Schedl, *Xyleborinus andrewesi* (Blandford), *Xylosandrus ater* (Eggers).

Palisandra rouge

Ambrosiodmus artemiculatus (Schedl).

Palmetia pinnata

Scolytomimus philippinensis (Eggers).

Panax spp.

Platypus semigranosus (Sampson), *Xyleborinus spiculatus* (Schauffuss), *Xyleborus sakalava* Schedl.

Pancovia harmsiana

Chaetastus tuberculatus (Chapuis), *Doliopygus divaricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus jurionii* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus unicornis* Schedl, *Hypothenemus eruditus* Westwood, *Hypothenemus solitarius* (Schedl), *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Periommatius substratus* Strohmeyer, *Platypus hintzi* Schauffuss, *Platypus orientalis* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xyleborus volculus* (Fabricius).

Pancovia laurentii

Doliopygus conradti (Strohmeyer), *Doliopygus divaricus* (Schedl), *Doliopygus jurionii* Schedl, *Doliopygus medius* Schedl, *Doliopygus tenuis* (Strohmeyer), *Eucallacea pandae* (Schedl), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus concolor* Hagedorn, *Periommatius substratus* Strohmeyer, *Platypus orientalis* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piccus* (Motschulsky), *Xyleborus rothkirchi* Eggers, *Xylosandrus crassiusculus* (Motschulsky).

Panda oleosa

Cylindropalpus laudatus (Schedl), *Doliopygus brevis* (Strohmeyer), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus erichsonii* (Chapuis), *Doliopygus expletus* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus opifex* (Sampson), *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus subditicus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Eucallacea pandae* (Schedl), *Periommatius excisus* Strohmeyer, *Platypus hintzi* Schauffuss, *Platypus impressus* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Platypus schenklingi* (Strohmeyer), *Premnobius mukunyae* (Schedl), *Premnobius nodulosus* Hagedorn, *Scolytoplastypus neglectus* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus ficus* Eggers, *Xyleborus subtuberculatus* Eggers, *Xyleborus volculus* (Fabricius).

Panda spp.

Premnobius capitensis Eichhoff, *Scolytoplastypus kieuensis* Schedl.

Pandanus spp.

Ptilopodius dubiosus Wood.

Pangium spp.

Crossotarsus mniszcei Chapuis.

Pausinystalia spp.

Periommatius mkusii Strohmeyer.

Parabaena sagittata

Eucallacea andamanensis (Blandford).

Parabenzoin praecox

Phloeosinus pulchellus Blandford, *Sucus niisimai* (Eggers), *Xylosandrus brevis* (Eichhoff), *Xylosandrus mutilatus* (Blandford).

Parabenzoin spp.

Scolytoplastypus tycon Blandford.

Paraberlina bifoliolata

Chaetastus striatus Brownie.

Paramacrolobium coeruleum

Doliopygus ghesquieri (Schedl), *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus retusus* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus subditicus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus volculus* (Fabricius).

Parartocarpus spp.

Xyleborus amplicranoides Hagedorn, *Xyleborus apertus* Schedl.

Parashorea lucida

Crossotarsus wallacei (Thomson), *Geujocerus diaphanus* (Schedl), *Geujocerus serratus* (Schedl), *Platypus bifurcus* (Schedl), *Platypus curtus* Chapuis.

Parashorea malaanan

Platypus bifurcus (Schedl).

Parashorea plicata

Sphaerotyphes quadrituberculatus Sampson.

Parashorea spp.

Geujocerus abdominalis (Schedl), *Platypus bifurcus* (Schedl).

Parashorea stellata

Geujocerus biporus (Schedl).

Parashorea tomentella

Platypus sandakanensis Brownie.

Parathesis serrulata

Corthylus mexicanus Schedl.

Parinarium curatellifolium

Doliopygus chapuisi (Duvivier), *Doliopygus intritus* (Schedl).

Parinarium excelsum

Dryocoetoides indolatus Wood, *Taurodemus flavipes* (Fabricius), *Taurodemus splendidus* (Schauffuss).

Parinarium glabra

Platypus internedius (Schedl), *Platypus spinulosus* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus principalis* Eichhoff.

Parinarium griffithianum

Crossotarsus incernis Schedl, *Crossotarsus squamulatus* Chapuis, *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Xyleborus latus* Eggers.

Parinarium holstii

Doliopygus conradti (Strohmeyer), *Doliopygus donisi* Schedl, *Doliopygus erichsonii* (Chapuis), *Doliopygus tenuis* (Strohmeyer), *Mesoplatypus kitushi* Schedl, *Mesoplatypus quinquecinctus* (Schedl), *Pityophthorus togonus* Eggers, *Platypus hintzi* Schauffuss, *Platypus orientalis* (Strohmeyer), *Platypus rufescens* (Strohmeyer), *Platypus schenklingi* (Strohmeyer), *Xyleborus ambasiensis* Schedl, *Xyleborus parinarie* Schedl.

Parinarium insularum

Platypus citiensis Roberts.

Parinarium kerstingii

Doliopygus interjectus Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xylosandrus crassiusculus* (Motschulsky).

Parinariium mobota

Diapus quinquespinatus Chapuis.

Parinariium spp.

Ambrosiodinus sarawakensis (Eggers), *Hypocryphalus striatus* Hopkins, *Leptoxyleborus concisus* (Blandford), *Ozopemon parinari* Hopkins, *Premnobius quadrispinosus* Schedl, *Premnobius robustulus* (Schedl).

Parinariium tenuifolium

Doliopygus lefferrei Schedl, *Doliopygus rapax* (Sampson).

Parishia insignis

Xyleborus cognatus Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.

Paritricia excelsa

Taurodemus varians (Fabricius).

Parkia bicolor

Chaetastus tuberculatus (Chapuis), *Doliopygus erichsoni* (Chapuis), *Doliopygus expletus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Parkia biglobosa

Triozastus marshalli (Sampson).

Parkia filicoidea

Chaetastus tuberculatus (Chapuis), *Doliopygus chapuisi* (Duvivier).

Parkia oliveri

Doliopygus tenuis (Strohmeyer), *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl, *Xyleborus volutus* (Fabricius).

Parkia speciosa

Arixyleborus tuberculatus (Eggers), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus incernis* Schedl, *Crossotarsus schedli* Browne, *Crossotarsus squamulatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Platypus cupulatus* Chapuis, *Platypus insulindicus* Schedl, *Platypus jansonii* Chapuis, *Platypus lepidus* Chapuis, *Platypus pseudocupulatus* Schedl, *Xyleborinus andrewesi* (Blandford), *Xyleborinus exiguus* (Walker), *Xyleborus affinis* Eichhoff, *Xyleborus haberkorui* Eggers, *Xyleborus perforans* (Wollaston).

Parkia spp.

Doliopygus perminutissimus (Schedl), *Scolytoplastypus occidentalis* Browne.

Parkinsonia aculeata

Amphicranus fastigiatus Blandford, *Monarthrum fimbriaticorne* (Blandford).

Parmentiera edulis

Hypothenemus eruditus Westwood, *Hypothenemus gossypii* (Hopkins).

Paropsia schiebeuiana

Doliopygus conradti (Strohmeyer), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Dryococtoides cristatus* (Fabricius), *Eucallacea pandae* (Schedl), *Hypothenemus biseriatus* (Eggers), *Hypothenemus criticus* (Schedl), *Hypothenemus eruditus* Westwood, *Platypus hintzi* Schaufuss, *Premnobius longus* Eggers, *Premnobius marginatus* Eggers, *Trachyostus schaufussi* (Strohmeyer).

Parrottia jacquemontiana

Scolytoplastypus siomio Blandford.

Parthenium argentatum

Pityophthorus mexicanus Blackman.

Parthenocissus quinquefolia

Hypothenemus squamosus (Hopkins).

Partocarpus spp.

Eucallacea arctaeae (Schedl).

Pasania uspericupula

Crossotarsus chalcographus Schedl, *Crossotarsus terminatus* Chapuis.

Pasania cuspidata

Crossotarsus emancipatus Murayama, *Crossotarsus rengetensis* Niisima & Murayama, *Xyleborus atratus* Eichhoff, *Xyleborus exesus* Blandford, *Xyleborus nagaoensis* Murayama.

Pasania glabra

Platypus quercivorus Murayama.

Pasania oocarpa

Crossotarsus squamulatus Chapuis.

Pasania spp.

Amasa schlichii (Stebbing), *Amasa versicolor* (Sampson), *Crossotarsus squamulatus* Chapuis, *Cyclorhipidion circumcissum* (Sampson), *Diapus quinquespinatus* Chapuis, *Leptoxyleborus concisus* (Blandford), *Platypus biuncus* Blandford, *Platypus pseudosolidus* Schedl, *Platypus semiernis* Schedl, *Webbia piscecauda* Browne.

Pasania sundaca

Arixyleborus scabripennis (Blandford), *Coptodryas diversicolor* (Eggers), *Crossotarsus longicollis* Browne, *Crossotarsus terminatus* Chapuis, *Cyclorhipidion punctatopilosum* (Schedl), *Diapus quinquespinatus* Chapuis, *Leptoxyleborus concisus* (Blandford), *Platypus convexicauda* Schedl, *Platypus pasanae* Schedl, *Platypus platypoides* (Browne), *Xyleborus ciliatiformis* Schedl, *Xyleborus latus* Eggers.

Pascoria spp.

Hypothenemus ater (Eggers).

Paspalum vaginatum

Hypothenemus californicus Hopkins, *Hypothenemus eruditus* Westwood, *Hypothenemus pubescens* Hopkins.

Passiflora latifolia

Hypothenemus erudiae (Panzer), *Hypothenemus eruditus* Westwood.

Passiflora mollissima

Chramesus bispinus Wood.

Passiflora multiflora

Hypothenemus eruditus Westwood.

Passiflora spp.

Xylosandrus compactus (Eichhoff).

Passing spp.

Xyleborus separandus Schedl.

Paullinia pinnata

Hypothenemus grandis Schedl.

Pausinystalia macroceras

Triozastus caliginosus Roberts.

Pavonia rutshuruensis

Doliopygus erichsoni (Chapuis).

Payena spp.

Crossotarsus wallacei (Thomson).

Pedialanthus macrocarpus

Araptus attenuatus Wood.

Pegauum parmala

Thammurgus brylinskiji Reitter.

Pelargonium hortorum

Amasa amputatus (Blandford).

Pelea spp.

Xyleborus oahuensis Perkins, *Xylosandrus compactus* (Eichhoff).

Pellacalyx saccardianus

Xyleborus similis Ferrari.

Peltogyne spp.

Monarthrum parvum (Eggers).

Peltophorum pterocarpum*Xyleborinus gracilipennis* (Schedl).**Penarahan spp.***Platypus granosus* Browne.**Pentaclethra eetveldeana***Cylindropalpus camerunus* (Schedl), *Hylesinopsis horridus* (Eggers), *Hypothenemus eruditus* Westwood, *Periommatius longicollis* Chapuis, *Pityophthorus congonus* Eggers.**Pentaclethra macrophylla***Coptoborus usagaricus* (Eggers), *Diapus quinquespinatus* Chapuis, *Doliopygus bilobatus* (Schedl), *Doliopygus conradti* (Strohmeyer), *Doliopygus donisi* Schedl, *Doliopygus exilis* (Chapuis), *Doliopygus gracilior* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus notatus* Schedl, *Doliopygus propinquus* Schedl, *Dryocoetoides cristatus* (Fabricius), *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus submarginatus* Schedl, *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus ater* (Eggers), *Hypothenemus biseriatus* (Eggers), *Hypothenemus concolor* Hagedorn, *Hypothenemus eruditus* Westwood, *Pityophthorus pentaclethrae* Schedl, *Platypus parallelus* (Fabricius), *Platypus spinulosus* (Strohmeyer), *Premnobius mukunyeae* (Schedl), *Premnobius nodulosus* Hagedorn, *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus ambasiusculus* Eggers, *Xyleborus ficus* Eggers, *Xyleborus multispinatus* Eggers, *Xyleborus pentaclethrae* Schedl, *Xyleborus principalis* Eichhoff, *Xyleborus rothkirehii* Eggers, *Xyleborus scobinatus* Hagedorn, *Xyleborus subgranosus* Schedl, *Xyleborus subtuberculatus* Eggers, *Xyleborus volutus* (Fabricius).**Pentaclethra spp.***Ambrosiodmus tropicus* (Hagedorn).**Pentacme contorta***Sphaerotrypes quadrituberculatus* Sampson.**Pentacme maris***Cryptoxyleborus subnaccus* Schedl.**Pentacme spp.***Platypus bifurcus* (Schedl).**Pentacme suavis***Coptodryas perparva* (Sampson), *Cryptoxyleborus turbineus* (Sampson), *Diapus pendleburyi* Schedl, *Diapus quinquespinatus* Chapuis, *Sphaerotrypes pentacme* Wood, *Sphaerotrypes quadrituberculatus* Sampson.**Pentadesma butyracea***Coccotrypes rotundicollis* (Eggers).**Pentadesma lebrunii***Chaetastus montanus* Schedl, *Coptoborus usagaricus* (Eggers), *Doliopygus erichsoni* (Chapuis), *Platypus solutus* Schedl, *Polygraphus longipilis* Schedl, *Polygraphus tenuipennis* Schedl, *Xyleborinus similans* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus ambasi-pennis* Schedl, *Xyleborus principalis* Eichhoff, *Xyleborus splenos* Sampson, *Xyleborus truncatulus* Schedl.**Pentaspadon spp.***Xyleborus apertus* Schedl.**Peptadenia perivillei***Xyleborinus signatipennis* (Schedl).**Peraphyllum ramosissimum***Chaetophloeus heterodoxus* (Casey).**Perebea integrifolia***Taurodemus perbeae* (Ferrari).**Pericopsis elata***Platypus assamelaec*.**Periploca graeca***Liparthrum arnoldi* Semenov.**Perrottetia sandwicensis***Xyleborinus saxeseni* (Ratzeburg).**Perrottetia spp.***Xyleborus ferrugineus* (Fabricius), *Xylosandrus compactus* (Eichhoff).**Persea americana***Ambrosiodmus aegir* (Eggers), *Araptus mendicus* Wood, *Araptus placetulus* Wood, *Araptus schwarzi* (Blackman), *Cnesinus carinatus* Wood, *Cnesinus costulatus* Blandford, *Cnesinus electinus* Wood, *Cnesinus gracilis* Blandford, *Cnesinus myelitis* Wood, *Cnesinus prominulus* Wood, *Cnesinus pullus* Blandford, *Cnesinus punctatus* Blandford, *Coccotrypes cyperi* (Beeson), *Corthylocorus aguacatensis* (Schedl), *Corthylus flagellifer* Blandford, *Corthylus papulans* Eichhoff, *Corthylus sanguineus* Schedl, *Crossotarsus externedentatus* (Fairmaire), *Cryptocarenus diadematus* Eggers, *Doliopygus erichsoni* (Chapuis), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus eruditus* Westwood, *Hypothenemus gossypii* (Hopkins), *Hypothenemus seriatus* (Eichhoff), *Pagiocerus frontalis* (Fabricius), *Phloeocleptus obscurus* Wood, *Platypus madagascariensis* Chapuis, *Platypus solutus* Schedl, *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus aplanatideclivis* Schedl, *Xyleborus perforans* (Wollaston).**Persea borbonia***Ambrosiodmus lecontei* Hopkins, *Cryptocarenus seriatus* Eggers, *Hypothenemus birmanus* (Eichhoff), *Hypothenemus interstitialis* (Hopkins), *Hypothenemus javanus* (Eggers), *Hypothenemus seriatus* (Eichhoff).**Persea gratissima***Coccotrypes dactyliperda* (Fabricius), *Crossotarsus externedentatus* (Fairmaire), *Eucallacea fornicatus* (Eichhoff), *Pityophthorus kivuensis* Schedl, *Platypus biuncus* Blandford, *Platypus cupulatus* Chapuis, *Platypus insulindicus* Schedl, *Xyleborus affinis* Eichhoff, *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).**Persea indica***Hypothenemus longipennis* (Eggers), *Xylosandrus compactus* (Eichhoff).**Persea pittieri***Araptus schwarzi* (Blackman).**Persea popenoi***Monarthrum subgranulatum* Wood.**Persea spp.***Ambrosiodmus obliquus* (LeConte), *Chramesus atkinsoni* Wood, *Eucallacea fornicatus* (Eichhoff), *Pagiocerus frontalis* (Fabricius), *Phloeocleptus ardis* Wood, *Phloeocleptus atkinsoni* Wood, *Phloeocleptus cristatus* Wood, *Phloeocleptus spicatus* Wood, *Pseudothysanoes perseae* Wood, *Xylosandrus compactus* (Eichhoff).**Perymanium grande***Pityophthorus hermosus* Wood.**Petraea volubilis***Eucallacea fornicatus* (Eichhoff).**Phalocarpus septentrionalis***Hypothenemus birmanus* (Eichhoff), *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood.**Phaseolus lunatus***Hypothenemus eruditus* Westwood.

Phaseolus spp.

Chranemus pumilus (Chapuis).

Phellodendron amurense

Crossotarsus niponicus Blandford, *Eucallacea validus* (Eichhoff), *Xyleborus aequalis* (Reitter), *Xyleborus maiche* (Stark), *Xylechinus bergeri* Spessivtzev.

Phellodendron sachalinensis

Eidophelus imitans Eichhoff.

Phellodendron spp.

Scolytoplatypus tycon Blandford.

Phialodiscus bancoensis

Pityophthorus joveri Schedl.

Phialodiscus plurijugatus

Platypus orientalis (Strohmeyer).

Philibertella clausa

Hypothenemus eruditus Westwood, *Hypothenemus seriatius* (Eichhoff).

Phoebe attenuata

Platypus errans (Sampson).

Phoebe hainesiana

Coccotrypes vulgaris (Eggers).

Phoebe lanceolata

Ambrosiodinus lewisi (Blandford), *Phloeosinus phoebe* Wood, *Xyleborus rufobrunneus* Eggers, *Xyleborus shoreae* (Stebbing), *Xylosandrus crassiusculus* (Motschulsky).

Phoebe mexicana

Amphicranus collaris Blandford, *Amphicranus melanura* (Blandford), *Corthylus collaris* Blandford, *Corthylus comatus* Blandford, *Corthylus panamensis* Blandford, *Corthylus retusifera* Wood, *Corthylus retusus* Wood, *Corthylus serratus* Wood, *Corthylus strigilis* Wood, *Monarthrum carinatum* Wood, *Platypus simpliciformis* Wood, *Scolytodes phoebeae* Wood, *Scolytodes piceus* (Blandford), *Tricolus naevus* Wood, *Tricolus ovicollis* Blandford, *Tricolus scitulus* Wood, *Xyleborus meritus* Wood, *Xyleborus prolatus* Wood.

Phoenix canariensis

Coccotrypes dactyliperda (Fabricius), *Dactylotrypes longicollis* (Wollaston).

Phoenix dactylifera

Coccotrypes carpophagus (Homung), *Coccotrypes dactyliperda* (Fabricius), *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston).

Phoenix paludosa

Leptoxyleborus concisus (Blandford).

Phoenix reclinata

Coccotrypes dactyliperda (Fabricius), *Platypus impressus* (Strohmeyer).

Phoenix rupicola

Coccotrypes dactyliperda (Fabricius).

Phoenix spp.

Coccotrypes dactyliperda (Fabricius), *Coccotrypes distinctus* (Motschulsky).

Phoenix sylvestris

Coccotrypes dactyliperda (Fabricius).

Phoradendron bolleanum

Pseudothysanoes funebris Wood.

Phoradendron flavescens

Pseudothysanoes leechii Wood, *Pseudothysanoes phoradendri* Blackman.

Phoradendron longifolium

Pseudothysanoes funereus Wood.

Phoradendron robinsonii

Pseudothysanoes viscidus Wood.

Phoradendron robustissimum

Chaetophloeus phoradendri Wood, *Pseudothysanoes furvus* Wood, *Pseudothysanoes viscidus* Wood.

Phoradendron spp.

Chaetophloeus confinis Wood, *Chaetophloeus phoradendri* Wood, *Chaetophloeus struthanthii* Wood, *Chranemus priscus* Wood, *Hypothenemus solocis* Wood, *Hypothenemus squamosus* (Hopkins), *Pseudothysanoes amassius* Wood, *Pseudothysanoes bullatus* Wood, *Pseudothysanoes fimbriatus* Wood, *Pseudothysanoes furvatus* Wood, *Pseudothysanoes furvescens* Wood, *Pseudothysanoes graniticus* Wood, *Pseudothysanoes peviculus* Wood, *Pseudothysanoes tenellus* Wood, *Pseudothysanoes verdicus* Wood, *Pseudothysanoes verticillus* Wood, *Xylosandrus curtulus* (Eichhoff).

Photinia japonica

Eucallacea formicatus (Eichhoff).

Phragmites communis

Hypothenemus eruditus Westwood.

Phyllanthus discoideus

Doliopygus dubius (Sampson), *Doliopygus lefevrei* Schedl, *Doliopygus serratus* (Strohmeyer).

Phyllanthus emblica

Xyleborinus artestriatus (Eichhoff).

Phyllanthus flexuosus

Indocryphalus pubipennis (Blandford).

Phyllanthus guineensis

Eucallacea xanthopus (Eichhoff).

Phyllanthus spp.

Hypothenemus grandis Schedl.

Phyllocladus hypophylla

Phloeosinus phyllocladus Bright.

Phyllocladus spp.

Diapus bilunatus Schedl, *Diapus elongatus* Schedl, *Diapus nanus* Schedl, *Diapus nebulosus* Roberts.

Phyllostachys spp.

Scolytoplatypus mikado Blandford.

Phytelephas macrocarpa

Coccotrypes cyperi (Beeson), *Coccotrypes dactyliperda* (Fabricius).

Phytolacca spp.

Eucallacea xanthopus (Eichhoff).

Phytophthora cambivora

Platypus cylindrus (Fabricius), *Xyleborus dryographus* (Ratzeburg).

Piarna spp.

Platypus biuncus Blandford.

Picea abies

Pityophthorus micrographus (Linnaeus), *Pityophthorus tragardii* Spessivtzev.

Picea ajanensis

Crypturgus tuberosus Niisima, *Hylastes brunneus* Erichson, *Hylastes plumbeus* Blandford, *Orthotomicus starki* Spessivtzev, *Pityogenes foreolatus* Eggers, *Pityogenes scirvidensis* Murayama, *Pityophthorus jucundus* Blandford, *Pityophthorus sichotensis* Kirenzov, *Tomiscus puellus* (Reitter).

Picea asperata

Cryphalus myalopiceus Tsai & Li, *Cryphalus saltuarius* Weise, *Hylurgops eusulcatus* Tsai & Huang, *Polygraphus angustus* Tsai & Yin, *Polygraphus squameus* Yin & Huang, *Polygraphus szecmaensis* Tsai & Yin, *Polygraphus Zhungliensis* Tsai & Yin, *Scolytus sinopiceus* Tsai, *Xyleborinus saevus* (Ratzeburg).

Picea chihuahuana

Pityophthorus bassetti Blackman, *Pseudothysanoc conferrae* (Wood).

Picea engelmannii

Carphoborus carri Swaine, *Carphoborus intermedius* Wood, *Carphoborus piceae* Wood, *Carphoborus sansoni* Swaine, *Cryphalus ruficollis* Hopkins, *Crypturgus borealis* Swaine, *Dolurgus pumilus* (Mannerheim), *Dryocoetes caryi* Hopkins, *Dryocoetes confusus* Swaine, *Gnathotrichus denticulatus* Blackman, *Gnathotrichus retusus* (LeConte), *Hylastes macer* LeConte, *Hylurgops reticulatus* Wood, *Hylurgops rugipennis rugipennis* (Mannerheim), *Hylurgops subcostulatus subcostulatus* (Mannerheim), *Ips borealis swainei* Hopping, R., *Ips borealis lanieri* Wood, *Ips hunteri* Swaine, *Ips perturbatus* (Eichhoff), *Ips pilifrons pilifrons*, *Ips pilifrons utahensis* Wood, *Ips pilifrons sulcifrons* Wood, *Ips tridens engelmanni* Swaine, *Phloeotribus lecontei* Schedl, *Pityokteines lasiocarpi* (Swaine), *Pityophthorus aquilus* Blackman, *Pityophthorus bassetti* Blackman, *Pityophthorus carinulatus* Swaine, *Pityophthorus murrayanae* Blackman, *Pityophthorus nitidulus* (Mannerheim), *Pityophthorus nitidus* Swaine, *Pityophthorus occidentalis* Blackman, *Pityophthorus opaculus* LeConte, *Pityophthorus pseudotsugae* Swaine, *Pityophthorus recens* Bright, *Pityophthorus tuberculatus* Eichhoff, *Polygraphus convexifrons* Wood, *Polygraphus hoppingi* Swaine, *Polygraphus rufipennis* (Kirby), *Scierus annectens* LeConte, *Scierus pubescens* Swaine, *Scolytus opacus* Blackman, *Trypodendron rufitaris* (Kirby), *Xylechinus montanus* Blackman.

Picea excelsa

Carphoborus rossicus Semenov, *Carphoborus teplouchovi* Spessivtsev, *Cryphalus asperatus* (Gyllenhal), *Cryphalus piceae* (Ratzeburg), *Cryphalus piceus* Eggers, *Cryphalus saltuarinus* Weise, *Dendroctonus micans* (Kugelann), *Hylastes angustatus* (Herbst), *Hylastes brunneus* Erichson, *Hylastes cunicularius* Erichson, *Hylastes plumbeus* Blandford, *Hylurgops glabratus* (Zetterstedt), *Hylurgops inouyei* Nobuchi, *Hylurgops palliatus* (Gyllenhal), *Ips amitinus* (Eichhoff), *Ips duplicatus* (Sahlberg), *Orthotomicus starki* Spessivtsev, *Phloeotribus spinulosus* (Rey), *Pityogenes saalasi* Eggers, *Pityophthorus arakii* (Sawamoto), *Pityophthorus exculptus* (Ratzeburg), *Pityophthorus micrographus* (Linnaeus), *Pityophthorus morosovi* Spessivtsev, *Pityophthorus ptyographus* (Ratzeburg), *Pityophthorus tragardhi* Spessivtsev, *Trypodendron laeae* Eggers.

Picea glauca

Carphoborus andersoni Swaine, *Carphoborus carri* Swaine, *Carphoborus sansoni* Swaine, *Cryphalus ruficollis* Hopkins, *Crypturgus borealis* Swaine, *Dendroctonus punctatus* LeConte, *Dryocoetes caryi* Hopkins, *Dryocoetes granicollis* (LeConte), *Ips borealis borealis* Swaine, *Ips borealis thomasi* Hopping, G., *Ips borealis lanieri* Wood, *Ips perturbatus* (Eichhoff), *Ips tridens tridens*, *Ips tridens engelmanni* Swaine, *Phloeosinus pini* Swaine, *Phloeotribus piceae* Swaine, *Pityophthorus balsameus* Blackman, *Pityophthorus bassetti* Blackman, *Pityophthorus biovalis* Blackman, *Pityophthorus cariniceps* LeConte, *Pityophthorus cascoensis* Blackman, *Pityophthorus concavus* Blackman, *Pityophthorus consimilis* LeConte, *Pityophthorus dentifrons* Blackman, *Pityophthorus intextus* Swaine, *Pityophthorus murrayanae* Blackman, *Pityophthorus nitidulus* (Mannerheim), *Pityophthorus nitidus* Swaine,

Pityophthorus opaculus LeConte, *Pityophthorus recens* Bright, *Polygraphus convexifrons* Wood, *Polygraphus rufipennis* (Kirby), *Scierus annectens* LeConte, *Xylechinus americanus* Blackman.

Picea glehnii

Cryphalus piceae (Ratzeburg), *Cryphalus piceus* Eggers, *Crypturgus tuberosus* Niisima, *Hylurgops inouyei* Nobuchi, *Polygraphus gracilis* Niisima, *Xyleborus septentrionalis* Niisima.

Picea jezoensis

Cryphalus jezoensis Inouye & Nobuchi, *Cryphalus laticis* Niisima, *Cryphalus nipponensis* Inouye & Nobuchi, *Cryphalus piceae* (Ratzeburg), *Cryphalus piceus* Eggers, *Cryphalus sichotensis* Kurenzov, *Crypturgus tuberosus* Niisima, *Dryocoetes niijimai* Nobuchi, *Hylastes cunicularius* Erichson, *Hylastes plumbeus* Blandford, *Hylurgops glabratus* (Zetterstedt), *Hylurgops inouyei* Nobuchi, *Hylurgops interstitialis* (Chapuis), *Hylurgops longipilus* (Reitter), *Hylurgops spessivtzevi* Eggers, *Hylurgops interstitialis* (Chapuis), *Hylurgops palliatus* (Gyllenhal), *Ips duplicatus* (Sahlberg), *Pityogenes forcolatus* Eggers, *Pityogenes scirindensis* Murayama, *Polygraphus gracilis* Niisima, *Polygraphus proximus* Blandford, *Polygraphus sachalinensis* Eggers, *Polygraphus squamulatus* Niisima, *Tomiscus puellus* (Reitter), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus septentrionalis* Niisima.

Picea koraiensis

Carphoborus taivensis Murayama, *Carphoborus teplouchovi* Spessivtsev, *Crypturgus tuberosus* Niisima, *Hylurgops glabratus* (Zetterstedt), *Pityophthorus morosovi* Spessivtsev, *Pityophthorus pini* Kurenzov, *Polygraphus proximus* Blandford, *Polygraphus sachalinensis* Eggers.

Picea likiangensis

Polygraphus jumanicus Sokanovskii.

Picea mariana

Crypturgus alutaceus Schwarz, *Pityophthorus biovalis* Blackman, *Pityophthorus briscoei* Blackman, *Pityophthorus nitidus* Swaine.

Picea microsperma

Hylurgops palliatus (Gyllenhal).

Picea morinda

Crossotarsus conferrae Stebbing, *Cryphalus major* Stebbing, *Dryocoetes indicus* Stebbing, *Ips stebbingi* Strohmeier, *Pityogenes spessivtzevi* Lebedev, *Polygraphus major* Stebbing, *Polygraphus pini* Stebbing, *Scolytoplatypus raja* Blandford, *Scolytoplatypus siomio* Blandford.

Picea morrisonicola

Polygraphus taiwanensis Schedl.

Picea obovata

Carphoborus teplouchovi Spessivtsev, *Cryphalus piceus* Eggers, *Cryphalus saltuarinus* Weise, *Hylastes brunneus* Erichson, *Hylastes cunicularius* Erichson, *Hylastes plumbeus* Blandford, *Hylurgops glabratus* (Zetterstedt), *Hylurgops spessivtzevi* Eggers, *Ips duplicatus* (Sahlberg), *Orthotomicus starki* Spessivtsev, *Pityogenes rudnei* Sokanovskii, *Pityogenes saalasi* Eggers, *Pityogenes scirindensis* Murayama, *Pityophthorus flavimaculatus* Murayama, *Pityophthorus lapponicus* Stark, *Pityophthorus lichtensteini* (Ratzeburg), *Pityophthorus micrographus* (Linnaeus), *Pityophthorus morosovi* Spessivtsev, *Pityophthorus pini* Kurenzov, *Pityophthorus tragardhi* Spessivtsev, *Polygraphus sachalinensis* Eggers.

Picea omorika

Pityophthorus micrographus (Linnaeus), *Pityophthorus pityographus* (Ratzeburg).

Picea orientalis

Cryphalus saltuarius Weise, *Pityophthorus pityographus* (Ratzeburg).

Picea pungens

Carphoborus brevisetosus Wood, *Carphoborus sansoni* Swaine, *Ips hunteri* Swaine, *Ips pilifrons sulcifrons* Wood, *Phloeotribus lecontei* Schedl, *Pityokteines ornatus* (Swaine), *Pityophthorus bassetti* Blackman, *Pityophthorus carinulatus* Swaine, *Pityophthorus murrayanae* Blackman, *Pityophthorus occidentalis* Blackman, *Pityophthorus opaculus* LeConte, *Pityophthorus ornatus* Blackman, *Pityophthorus tuberculatus* Eichhoff, *Polygraphus rufipennis* (Kirby).

Picea rubens

Carphoborus carri Swaine, *Carphoborus dumii* Swaine, *Cryphalus rubentis* Hopkins, *Cryphalus ruficollis* Hopkins, *Crypturgus borealis* Blackman, *Dendroctonus punctatus* LeConte, *Dryocoetes caryi* Hopkins, *Pityophthorus angustus* Blackman, *Pityophthorus biovalis* Blackman, *Pityophthorus brisocci* Blackman, *Pityophthorus dentifrons* Blackman, *Polygraphus rufipennis* (Kirby), *Xylechinus americanus* Blackman.

Picea schrenkiana

Ips hauseri Reitter, *Pityogenes spessivtzevi* Lebedev, *Pityophthorus kirgiscus* Pjatnitskii, *Pityophthorus parfentievi* Pjatnitskii, *Pityophthorus schrenkianae* Pjatnitskii.

Picea sitchensis

Cryphalus pubescens Hopkins, *Dendroctonus punctatus* LeConte, *Dolurgus pumilus* (Mannerheim), *Hylurgops reticulatus* Wood, *Hylurgops rugipennis rugipennis* (Mannerheim), *Ips concinnus* (Mannerheim), *Ips plastographus maritimus* Lanier, *Ips tridens tridens*, *Ips tridens engelmanni* Swaine, *Pityophthorus nitidulus* (Mannerheim), *Pseudohylesinus sitchensis* Swaine.

Picea spinulosa

Trypodendron dorjitenzingi Schmutzenhofer.

Picea spp.

Carphoborus sansoni Swaine, *Cryphalus latus* Eggers, *Crypturgus cinereus* (Herbst), *Crypturgus hispidulus* Thomson, *Crypturgus pusillus* (Gyllenhal), *Crossotarsus piccae* Stebbing, *Dendroctonus rufipennis* Kirby, *Dendroctonus valens* LeConte, *Dryocoetes affaber* (Mannerheim), *Dryocoetes autographus* (Ratzeburg), *Dryocoetes fornosanus* Nobuchi, *Dryocoetes hectographus* Reitter, *Dryocoetes pinii* Niisima, *Dryocoetes rugicollis* Eggers, *Gnathotrichus materiarius* (Fitch), *Hylastes angusticollis* Eggers, *Hylastes ater* (Paykull), *Hylastes nigrinus* (Mannerheim), *Hylastes opacus* Erichson, *Hylurgops imitator* (Reitter), *Hylurgops porosus* (LeConte), *Hylurgops rugipennis pinifex* Fitch, *Hylurgops subcostulatus subcostulatus* (Mannerheim), *Hypothenemus interstitialis* (Hopkins), *Ips acuminatus* (Gyllenhal), *Ips orientalis* Wood & Yin, *Ips sexdentatus* (Boemer), *Ips typographus* (Linnaeus), *Orthotomicus caclatus* (Eichhoff), *Orthotomicus laricus* (Fabricius), *Orthotomicus proximus* (Eichhoff), *Orthotomicus suturalis* (Gyllenhal), *Pityogenes bidentatus* (Herbst), *Pityogenes chalcographus* (Linnaeus), *Pityogenes quadridens* (Hartig), *Pityokteines curvidens* (Germar), *Pityophthorus balsameus* Blackman, *Pityophthorus carinatus carinatus* Bright, *Pityophthorus consimilis* LeConte, *Pityophthorus lautus* Eichhoff,

Pityophthorus puberulus (LeConte), *Pityophthorus pulicarius* (Zimmermann), *Platypus xylographus* Schedl, *Polygraphus jezoensis* Niisima, *Polygraphus kisoensis* Niisima, *Polygraphus poligraphus* (Linnaeus), *Polygraphus rufipennis* (Kirby), *Polygraphus subopacus* Thomson, *Scolytoplatypus tycon* Blandford, *Scolytus piccae* (Swaine), *Tomicus minor* (Hartig), *Tomicus piniperda* (Linnaeus), *Trypodendron lineatum* (Olivier), *Xyleborinus saxeseni* (Ratzeburg), *Xylechinus montanus* Blackman, *Xylechinus pilosus* (Ratzeburg), *Xyloterinus politus* (Say).

Pimeleodendron spp.

Platypus advena Schedl, *Platypus fulgidus* Browne.

Pinus albicaulis

Dendroctonus ponderosae Hopkins, *Ips latidens* (LeConte), *Ips montanus* (Eichhoff), *Pityogenes fossifrons* (LeConte), *Pityophthorus absonus* Blackman, *Pityophthorus aquilus* Blackman, *Pityophthorus confertus* Swaine, *Pityophthorus confinis* LeConte, *Pityophthorus murrayanae* Blackman, *Pityophthorus toralis* Wood.

Pinus aristata

Carphoborus declivis Wood, *Conophthorus ponderosae* Hopkins, *Pityophthorus absonus* Blackman, *Pityophthorus aquilus* Blackman, *Pityophthorus boycei* Swaine, *Pityophthorus crassus* Blackman, *Pityophthorus jeffreyi* Blackman, *Pityophthorus mormon* Bright, *Pityophthorus tuberculatus* Eichhoff, *Pityophthorus venustus* Blackman.

Pinus armandii

Cryphalus chidingensis Tsai & Li, *Cryphalus lipingensis* Tsai & Li, *Cryphalus pseudochinlingensis* Tsai & Li, *Dendroctonus armandi* Tsai & Li, *Hylastes techangensis* Tsai & Huang, *Hylurgops junanicus* Sokanovskii, *Hylurgops longipilus* (Reitter), *Hylurgops major* Eggers, *Polygraphus junanicus* Sokanovskii, *Polygraphus sinensis* Eggers, *Polygraphus squameus* Yin & Huang, *Polygraphus verrucifrons* Tsai & Yin, *Polygraphus zhangdianensis* Tsai & Yin, *Tomicus pilifer* (Spessivtsev), *Xyleborinus saxeseni* (Ratzeburg).

Pinus attenuata

Hylurgops porosus (LeConte), *Hylurgops reticulatus* Wood, *Hylurgops rugipennis rugipennis* (Mannerheim), *Ips mexicanus* (Hopkins), *Ips paraconfusus* Lanier, *Pityokteines ornatus* (Swaine), *Pityophthorus californicus* Bright, *Pityophthorus carueli* Swaine, *Pityophthorus tuberculatus* Eichhoff.

Pinus ayacahuite

Dendroctonus adjunctus Blandford, *Dendroctonus approximatus* Dietz, *Dendroctonus mexicanus* Hopkins, *Hylurgops planirostris* (Chapuis), *Pityoborus secundus* Blackman, *Pityophthorus abstrusus* Bright, *Pityophthorus annectens* LeConte, *Pityophthorus brevis* Blackman, *Pityophthorus crassus* Blackman, *Pityophthorus cristatus* Wood, *Pityophthorus cuspidatus* Blackman, *Pityophthorus delicatus* Wood, *Pityophthorus discretus* Wood, *Pityophthorus festus* Wood, *Pityophthorus glabratus* (Schedl), *Pityophthorus impexus* Bright, *Pityophthorus montivagus* Bright, *Pityophthorus nigricans* Blandford, *Pityophthorus scabridus* Schedl, *Pityophthorus solus* Blackman.

Pinus balfouriana

Dendroctonus ponderosae Hopkins, *Hylurgops rugipennis pinifex* Fitch, *Ips montanus* (Eichhoff), *Pityogenes fossifrons* (LeConte), *Pityophthorus absonus* Blackman.

Pinus banksiana

Conophthorus resinosa Hopkins, *Cryphalus fulvus* Niisima, *Dendroctonus murrayanae* Hopkins, *Ips perroti* Swaine, *Ips pilifrons thatcheri* Wood, *Ips pini* (Say), *Phloeosinus pini* Swaine, *Pityogenes plagiatus* (LeConte), *Pityophthorus balsameus* Blackman, *Pityophthorus brisocci* Blackman, *Pityophthorus cariniceps* LeConte, *Pityophthorus cavatus* Bright, *Pityophthorus concavus* Blackman, *Pityophthorus consimilis* LeConte, *Pityophthorus dentifrons* Blackman, *Pityophthorus puberulus* (LeConte), *Pityophthorus pulchellus* Eichhoff, *Trypodendron rufitarsis* (Kirby), *Trypodendron scabricollis* (LeConte).

Pinus brutia

Pityogenes pennidens (Reitter).

Pinus caurariensis

Crypturgus concolor (Wollaston), *Hylastes lowei* Paiva, *Ips nobilis* (Wollaston).

Pinus caribaea

Pityoborus hondurensis Wood, *Pityophthorus annectens* LeConte, *Pityophthorus ocellus* Bright, *Pityophthorus pulicarius* (Zimmermann), *Pityophthorus scabridus* Schedl, *Xyleborinus sharpae* (Hopkins).

Pinus cembra

Hylurgops glabratus (Zetterstedt), *Pityogenes conjunctus* Reitter, *Pityophthorus lichtensteini* (Ratzeburg).

Pinus cembroides

Carphoborus convexifrons Wood, *Carphoborus pini-colens* Wood, *Conophthorus edulis* Hopkins, *Ips hoppingi* Lanier, *Pityophthorus arcanus* Bright, *Pityophthorus barberi* Blackman, *Pityophthorus confertus* Swaine, *Pityophthorus crassus* Blackman, *Pityophthorus deletus* LeConte, *Pityophthorus keeni* (Blackman), *Pityophthorus lecontei* Bright, *Pityophthorus leiophyllae* Blackman, *Pityophthorus modicus* Blackman, *Pityophthorus schuarcz* Blackman, *Pityophthorus subopacus* Blackman, *Pityophthorus tuberculatus* Eichhoff, *Pityophthorus zonalis* Bright, *Pityotrichus barbatus* (Blackman).

Pinus chiapensis

Gnathotrichus perniciosus Wood.

Pinus chihuahuana

Platypus pini Hopkins.

Pinus clausa

Carphoborus bicornis Wood.

Pinus contorta

Carphoborus declivis Wood, *Carphoborus intermedius* Wood, *Carphoborus ponderosae* Swaine, *Conophthorus ponderosae* Hopkins, *Crypturgus borealis* Swaine, *Dendroctonus murrayanae* Hopkins, *Dendroctonus ponderosae* Hopkins, *Dolurgus pumilus* (Mannerheim), *Gnathotrichus retusus* (LeConte), *Hylastes longicollis* Swaine, *Hylurgops porosus* (LeConte), *Hylurgops reticulatus* Wood, *Hylurgops rugipennis rugipennis* (Mannerheim), *Hylurgops rugipennis pinifex* Fitch, *Hylurgops subcostulatus subcostulatus* (Mannerheim), *Ips emarginatus* (LeConte), *Ips latidens* (LeConte), *Ips pini* (Say), *Ips plastographus maritimus* Lanier, *Phloeosinus antennatus* Swaine, *Pityogenes knechtli* Swaine, *Pityokteines ornatus* (Swaine), *Pityophthorus absomus* Blackman, *Pityophthorus aquilus* Blackman, *Pityophthorus boycei* Swaine, *Pityophthorus carinatus monticolae* Bright, *Pityophthorus carinulatus* Swaine, *Pityophthorus confertus* Swaine, *Pityophthorus confinis* LeConte, *Pityophthorus crassus* Blackman, *Pityophthorus digestus* (LeConte), *Pityophthorus fuscus* Black-

man, *Pityophthorus indigus* Wood, *Pityophthorus morrison* Bright, *Pityophthorus murrayanae* Blackman, *Pityophthorus nitidulus* (Mannerheim), *Pityophthorus occidentalis* Blackman, *Pityophthorus scalptor* Blackman, *Pityophthorus toralis* Wood, *Pityophthorus tuberculatus* Eichhoff, *Pityophthorus venustus* Blackman, *Pseudohylesinus pini* Wood, *Sciurus annectens* LeConte, *Trypodendron rufitarsis* (Kirby), *Xyleborus intrusus* Blandford.

Pinus cooperi

Gnathotrichus nitidifrons Hopkins, *Ips mexicanus* (Hopkins), *Pityophthorus crassus* Blackman, *Pityophthorus rubidus* Wood, *Pityophthorus thomasi* Bright.

Pinus coulteri

Dendroctonus brevicornis LeConte, *Dendroctonus ponderosae* Hopkins, *Ips paraconfusus* Lanier, *Pityophthorus carmeli* Swaine, *Pityophthorus confinis* LeConte, *Pityophthorus electus* Blackman, *Pityophthorus scalptor* Blackman, *Pityophthorus tuberculatus* Eichhoff, *Pityophthorus venustus* Blackman, *Xyleborus intrusus* Blandford.

Pinus culminicola

Pityophthorus crassus Blackman, *Pityophthorus culminicola* Bright, *Pityophthorus megas* Bright, *Pityophthorus tinnialis* Bright.

Pinus deusiflora

Ambrosiodmus rubricollis (Eichhoff), *Cryphalus fulvus* Niisima, *Cryphalus jeholensis* Murayama, *Cryphalus laricis* Niisima, *Cryphalus piccae* (Ratzeburg), *Cryphalus oblongus* Niisima, *Dryocoetes uniseriatus* Eggers, *Eucallacca validus* (Eichhoff), *Hylastes parallelus* Chapuis, *Hylastes plumbeus* Blandford, *Hylurgops interstitialis* (Chapuis), *Orthotomicus multidentatus* (Murayama), *Orthotomicus tosaensis* (Murayama), *Pityophthorus jucundus* Blandford, *Polygraphus kisoensis* Niisima, *Xyleborus aquilus* Blandford, *Xyleborus atratus* Eichhoff, *Xyleborus festivus* Eichhoff, *Xyleborus septentrionalis* Niisima.

Pinus discolor

Conophthorus edulis Hopkins.

Pinus douglasiana

Conophthorus ponderosae Hopkins.

Pinus durangensis

Conophthorus ponderosae Hopkins, *Dendroctonus rhizophagus* Thomas & Bright, *Hylastes gracilis* LeConte, *Hylurgops incomptus* (Blandford), *Ips mexicanus* (Hopkins), *Pityophthorus crassus* Blackman, *Pityophthorus festus* Wood.

Pinus echinata

Carphoborus bifurcus Eichhoff, *Conophthorus echinatae* Wood, *Crypturgus alutaceus* Schwarz, *Crypturgus borealis* Swaine, *Dendroctonus frontalis* Zimmermann, *Dendroctonus terebrans* (Olivier), *Gnathotrichus materiarius* (Fitch), *Pityogenes meridianus* Blackman, *Pityogenes plagiatus* (LeConte), *Pityophthorus confusus* Blandford, *Pityophthorus pulicarius* (Zimmermann), *Pityophthorus pullus* (Zimmermann), *Trypodendron scabricollis* (LeConte), *Xyleborus pubescens* Zimmermann.

Pinus edulis

Carphoborus convexifrons Wood, *Carphoborus pini-colens* Wood, *Conophthorus edulis* Hopkins, *Dendroctonus ponderosae* Hopkins, *Hylastes fulgidus* Blackman, *Hylastes gracilis* LeConte, *Ips confusus* (LeConte), *Ips latidens* (LeConte), *Pityokteines ornatus* (Swaine), *Pityophthorus annectens* LeConte, *Pityophthorus barberi* Blackman, *Pityophthorus blandus* Black-

man, *Pityophthorus brevis* Blackman, *Pityophthorus confertus* Swaine, *Pityophthorus crassus* Blackman, *Pityophthorus deletus* LeConte, *Pityophthorus keeni* (Blackman), *Pityophthorus lecontei* Bright, *Pityophthorus modicus* Blackman, *Pityophthorus punctifrons* Bright, *Pityophthorus schwarzi* Blackman, *Pityophthorus solus* Blackman, *Pityophthorus tuberculatus* Eichhoff, *Pityophthorus woodi* Bright, *Pityotrichus barbatus* (Blackman).

Pinus eliottii

Ambrosiodmus catharinensis (Eggers), *Ambrosiodmus hagedornii* (Iglesias), *Carphoborus bifurcus* Eichhoff, *Dendroctonus terebrans* (Olivier), *Hylastes exilis* Chapuis, *Pityophthorus annectens* LeConte, *Pityophthorus anticus* Schedl, *Pityophthorus concentricus* Eichhoff, *Pityophthorus confusus* Blandford, *Pityophthorus pinacornus* Bright, *Thicoborus villosulus* (Blandford), *Xyleborinus gracilis* (Eichhoff), *Xyleborinus linearicollis* (Schedl), *Xyleborinus schoenherri* (Schedl), *Xyleborinus adelographus* Eichhoff.

Pinus engelmannii

Carphoborus pinicolens Wood, *Conophthorus apacheae* Hopkins, *Dendroctonus approximatus* Dietz, *Dendroctonus frontalis* Zimmermann, *Dendroctonus rhizophagus* Thomas & Bright, *Hylurgops incomptus* (Blandford), *Pityophthorus annectens* LeConte, *Pityophthorus crassus* Blackman, *Pityophthorus cristatus* Wood, *Pityophthorus intentus* Bright, *Pityophthorus rubidus* Wood, *Pityophthorus scluwerdfegeri* (Schedl), *Pityophthorus seguis* Blackman.

Pinus excelsa

Crossotarsus fairmairei Chapuis, *Cryphalus major* Stebbing, *Cryphalus strohmeyeri* Stebbing, *Dryocoetes indicus* Stebbing, *Hylastes brunneus* Erichson, *Ips stebbingi* Strohmeyer, *Pityogenes scitus* Blandford, *Pityogenes spessitseti* Lebedev, *Pityophthorus deodara* (Stebbing), *Polygraphus pini* Stebbing, *Scolytus major* Stebbing.

Pinus flexilis

Carphoborus pinicolens Wood, *Conophthorus ponderosae* Hopkins, *Dendroctonus ponderosae* Hopkins, *Gnathotrichus retusus* (LeConte), *Hylurgops porosus* (LeConte), *Hylurgops rugipennis pinifex* Fitch, *Ips latidens* (LeConte), *Ips woodi* Thatchler, *Pityogenes fossifrons* (LeConte), *Pityophthorus absomus* Blackman, *Pityophthorus acutus* Blackman, *Pityophthorus amplus* (Blackman), *Pityophthorus aquilus* Blackman, *Pityophthorus boycei* Swaine, *Pityophthorus confertus* Swaine, *Pityophthorus crassus* Blackman, *Pityophthorus deletus* LeConte, *Pityophthorus grandis* Blackman, *Pityophthorus mormon* Bright, *Pityophthorus murrayanae* Blackman, *Pityophthorus occidentalis* Blackman, *Pityophthorus pinguis* (Blackman), *Pityophthorus toralis* Wood, *Pityophthorus tuberculatus* Eichhoff, *Pityotrichus hesperius* Bright.

Pinus gerardiana

Carphoborus zhohi (Stebbing), *Ips stebbingi* Strohmeyer, *Pityogenes scitus* Blandford, *Pityogenes spessitseti* Lebedev, *Pityophthorus chilgoza* Wood, *Polygraphus major* Stebbing, *Polygraphus trenchii* Stebbing.

Pinus glabra

Dendroctonus frontalis Zimmermann.

Pinus greggii

Carphoborus costatus Wichmann, *Pityophthorus crassus* Blackman, *Pityophthorus pellitus* Schedl, *Pityophthorus schwarzi* Blackman, *Pityophthorus solus* Blackman.

Pinus griffithii

Carphoborus costatus Wichmann, *Polygraphus aterinus* Strohmeyer, *Polygraphus major* Stebbing, *Polygraphus scotus* Schedl, *Polygraphus squameus* Yin & Huang, *Polygraphus zhungdianensis* Tsai & Yin, *Trypodendron dorjitenzingi* Schmutzenhofer.

Pinus halepensis

Carphoborus boumairei Brisout, *Carphoborus marani* Pfeffer, *Carphoborus pini* Eichhoff, *Crypturgus mediterraneus* Eichhoff, *Crypturgus numidicus* Ferrari, *Hylastes linearis* Erichson, *Hylurgus micklitzii* Wachtl, *Ips erosus* (Wollaston), *Orthotomicus proximus* (Eichhoff), *Pityogenes calcaratus* (Eichhoff), *Pityogenes porifrons* Eggers, *Pityophthorus pubescens* (Marshall).

Pinus hartwegii

Dendroctonus adjunctus Blandford, *Dendroctonus approximatus* Dietz, *Ips mexicanus* (Hopkins), *Pityogenes mexicanus* Wood, *Pityophthorus blandulus* Schedl, *Pityophthorus cortezi* Bright, *Pityophthorus crassus* Blackman, *Pityophthorus furuissi* Bright, *Pityophthorus pubifrons* Bright, *Pityophthorus solus* Blackman, *Pseudothysanoes pini* Wood.

Pinus heldreichii

Pityophthorus balcanicus Pfeffer, *Pityophthorus henscheli* Seitner, *Pityophthorus pityographus* (Ratzeburg).

Pinus hondurensis

Xyleborus affinis Eichhoff.

Pinus insularis

Ambrosiodmus camphorae (Hagedorn), *Ambrosiodmus inominatus* (Schedl), *Ambrosiodmus triton* (Schaufuss), *Coccotrypes reticulatus* (Schedl), *Cryphalus malloti* Schedl, *Cryphalus sylvicola* (Perkins), *Cyrtogenus luteus* (Blandford), *Diaprus vulgassicus* Schedl, *Hylastes techangensis* Tsai & Huang, *Mitosoma excisum* Schaufuss, *Mitosoma onconiceps* Schedl, *Mitosoma obliquatum* Schedl, *Platypus piniperla* Schedl, *Platypus tenellus* Schedl, *Polygraphus junnanicus* Sokanovskii, *Polygraphus szemaocensis* Tsai & Yin, *Scolytoplatypus pusillus* Eggers, *Tomicus brevipilosus* (Eggers), *Xyleborinus spinifer* (Eggers), *Xyleborus antaisaka* Schedl, *Xyleborus madagascariensis* Schaufuss, *Xyleborus pinicola* Eggers, *Xyleborus sakalava* Schedl, *Xyleborus submolestus* Schedl, *Xylosandrus crassiusculus* (Motschulsky).

Pinus jeffreyi

Cactopinus pini Blackman, *Carphoborus simplex* LeConte, *Conophthorus ponderosae* Hopkins, *Dendroctonus jeffreyi* Hopkins, *Dendroctonus ponderosae* Hopkins, *Gnathotrichus retusus* (LeConte), *Hylurgops porosus* (LeConte), *Hylurgops reticulatus* Wood, *Hylurgops subcostuatus subcostulatus* (Mannerheim), *Ips emarginatus* (LeConte), *Ips latidens* (LeConte), *Ips paraconfusus* Lanier, *Ips pilifrons thatcheri* Wood, *Ips pini* (Say), *Pityogenes carinulatus* (LeConte), *Pityoketeines ornatus* (Swaine), *Pityophthorus confertus* Swaine, *Pityophthorus confinis* LeConte, *Pityophthorus digestus* (LeConte), *Pityophthorus clectus* Blackman, *Pityophthorus jeffreyi* Blackman, *Pityophthorus scapitor* Blackman, *Pityophthorus tuberculatus* Eichhoff, *Pityophthorus venustus* Blackman, *Trypodendron rufitarsis* (Kirby), *Xyleborus ferrugineus* (Fabricius), *Xyleborus intrusus* Blandford.

Pinus koraiensis

Cryphalus fulvus Niisima, *Cryphalus laricis* Niisima, *Cryphalus picus* Eggers, *Dryocoetes baikalicus* Reitter, *Dryocoetes infuscatus* Murayama, *Hylastes brunneus* Erichson, *Hylastes cunicularius* Erichson, *Hylastes*

plumbeus Blandford, *Hylurgops interstitialis* (Chapuis), *Hylurgops longipilus* (Reitter), *Hylurgops spessirtsevi* Eggers, *Hylurgops transbaicalicus* Eggers, *Pityogenes foveolatus* Eggers, *Pityogenes irkutensis* Eggers, *Pityophthorus lapponicus* Stark, *Pityophthorus pini* Kirenzov, *Polygraphus sachalinensis* Eggers, *Scolytus moravici* Semenov, *Tomicus brevipilosus* (Eggers), *Tomicus pilifer* (Spessirtsev), *Tomicus puellus* (Reitter), *Xyleborinus saxeseni* (Ratzeburg).

Pinus lambertiana

Cactopinus koebelii Blackman, *Carphoborus pinicolens* Wood, *Conophthorus ponderosae* Hopkins, *Cryphalus pubescens* Hopkins, *Dendroctonus ponderosae* Hopkins, *Gnathotrichus retusus* (LeConte), *Hylurgops rugipennis* (Mammerheim), *Ips latidens* (LeConte), *Ips paraconfusus* Lanier, *Pityophthorus confinis* LeConte, *Pityophthorus dolus* Wood, *Pityophthorus pseudotsugae* Swaine.

Pinus laevis

Dendroctonus mexicanus Hopkins, *Pityophthorus amnecens* LeConte, *Pityophthorus cuspidatus* Blackman, *Pityophthorus durus* Blackman, *Pityophthorus lepidus* Bright, *Pityophthorus miniatus* Bright, *Pityophthorus nocturnus* Schedl, *Pityophthorus obtusipennis* Blandford, *Pityophthorus pellitus* Schedl, *Pityophthorus solatus* Wood, *Pityophthorus solus* Blackman.

Pinus leiophylla

Carphoborus convexifrons Wood, *Carphoborus pinicolens* Wood, *Conophthorus conicolens* Wood, *Conophthorus ponderosae* Hopkins, *Dendroctonus adjunctus* Blandford, *Dendroctonus approximatus* Dietz, *Dendroctonus mexicanus* Hopkins, *Dendroctonus parallelocollis* Chapuis, *Gnathotrichus delongi* Blackman, *Gnathotrichus nitidifrons* Hopkins, *Gnathotrichus perniciosus* Wood, *Gnathotrichus sulcatus* (LeConte), *Hylurgops incomptus* (Blandford), *Hylurgops planirostris* (Chapuis), *Hylurgops subcostulatus alternans* (Chapuis), *Ips mexicanus* (Hopkins), *Ipsoborus secundus* Blackman, *Pityophthorus aciculatus* Bright, *Pityophthorus acutus* Blackman, *Pityophthorus amnecens* LeConte, *Pityophthorus barberi* Blackman, *Pityophthorus clarus* Blackman, *Pityophthorus crassus* Blackman, *Pityophthorus cristatus* Wood, *Pityophthorus delicatus* Wood, *Pityophthorus durus* Blackman, *Pityophthorus festus* Wood, *Pityophthorus grandis* Blackman, *Pityophthorus intentus* Bright, *Pityophthorus leiophyllae* Blackman, *Pityophthorus obtusipennis* Blandford, *Pityophthorus perotei* Blackman, *Pityophthorus rubidus* Wood, *Pityophthorus schwarzi* Blackman, *Pityophthorus solus* Blackman, *Pityophthorus spadix* Blackman, *Pityophthorus subopacus* Blackman, *Pityophthorus venustus* Blackman, *Platypus pini* Hopkins, *Xyleborus intrusus* Blandford.

Pinus leucodermis

Crypturgus numidicus Ferrari, *Ips robustus* (Knotek), *Pityogenes bistridentatus* (Eichhoff).

Pinus luchuensis

Orthotomicus kuniyoshii Nobuchi, *Xyleborus atratus* Eichhoff.

Pinus lumholtzii

Carphoborus mexicanus Bright, *Pityophthorus crassus* Blackman, *Pityophthorus cristatus* Wood, *Pityophthorus cuspidatus* Blackman, *Pityophthorus rubidus* Wood, *Pityophthorus schwarzi* Blackman.

Pinus massoniana

Cryphalus massonianus Tsai & Li, *Cyrtogenius luteus*

(Blandford), *Eucallacca interjectus* (Blandford), *Eucallacca validus* (Eichhoff), *Hylurgops longipilus* (Reitter), *Hylurgops major* Eggers, *Xyleborus aquilus* Blandford, *Xyleborus pinicola* Eggers.

Pinus maximowiczii

Cryphalus furukawai Murayama, *Xyleborus niticus* Blandford.

Pinus merkusii

Platypus biflexuosus Schedl, *Platypus curvus* Strohmeyer, *Polygraphus sumatranus* Schedl, *Xyleborus pselli* (Ratzeburg).

Pinus mexicana

Xyleborus intrusus Blandford.

Pinus michoacana

Conophthorus michoacanae Wood, *Pityophthorus confusus* Blandford, *Pityophthorus durus* Blackman, *Pityophthorus pellitus* Schedl, *Pityophthorus subopacus* Blackman.

Pinus monophylla

Cactopinus koebelii Blackman, *Cactopinus pini* Blackman, *Carphoborus frontalis* Wood, *Carphoborus pinicolens* Wood, *Conophthorus monophyllae* Hopkins, *Dendroctonus ponderosae* Hopkins, *Hylastes gracilis* LeConte, *Ips confusus* (LeConte), *Pityophthorus arcannus* Bright, *Pityophthorus blandus* Blackman, *Pityophthorus confinis* LeConte, *Pityophthorus delectus* LeConte, *Pityophthorus grandis* Blackman, *Pityophthorus keenii* (Blackman), *Pityophthorus modicus* Blackman, *Pityophthorus punctifrons* Bright, *Pityophthorus tuberculatus* Eichhoff.

Pinus montana

Cryphalus piceus Eggers, *Hylurgops glabratus* (Zetterstedt), *Pityogenes conjunctus* Reitter.

Pinus montezumae

Conophthorus ponderosae Hopkins, *Dendroctonus adjunctus* Blandford, *Dendroctonus approximatus* Dietz, *Dendroctonus mexicanus* Hopkins, *Dendroctonus parallelocollis* Chapuis, *Gnathotrichus delongi* Blackman, *Gnathotrichus nitidifrons* Hopkins, *Gnathotrichus perniciosus* Wood, *Gnathotrichus sulcatus* (LeConte), *Hylastes gracilis* LeConte, *Hylastes retifer* Wood, *Ips bonansea* (Hopkins), *Ips mexicanus* (Hopkins), *Pityophthorus arceuthobii* Wood, *Pityophthorus crassus* Blackman, *Pityophthorus dispar* Bright, *Pityophthorus micans* Bright, *Pityophthorus montezumae* Bright, *Pityophthorus pellitus* Schedl, *Pityophthorus scabridus* Schedl, *Pityophthorus schwarzi* Blackman, *Pityophthorus solus* Blackman, *Pityophthorus subopacus* Blackman, *Pseudothysanoes pini* Wood.

Pinus monticola

Conophthorus ponderosae Hopkins, *Dendroctonus ponderosae* Hopkins, *Hylastes longicollis* Swaine, *Hylurgops reticulatus* Wood, *Hylurgops rugipennis rugipennis* (Mammerheim), *Ips emarginatus* (LeConte), *Ips latidens* (LeConte), *Ips montanus* (Eichhoff), *Pityogenes fossifrons* (LeConte), *Pityophthorus absonus* Blackman, *Pityophthorus boycei* Swaine, *Pityophthorus confertus* Swaine, *Pityophthorus venustus* Blackman, *Pityophthorus toralis* Wood, *Scolytus monticolae* (Swaine), *Trypodendron rufitarsis* (Kirby).

Pinus mugo

Hylurgops glabratus (Zetterstedt), *Pityophthorus glabratus* Eichhoff, *Pityophthorus henscheli* Seitner, *Pityophthorus knoteki* Reitter, *Pityophthorus pubescens* (Marshall).

Pinus mugo rotundata

Pityophthorus glabratus Eichhoff.

Pinus muricata

Doburgus pumilus (Mannerheim), *Hylurgops reticulatus* Wood, *Hylurgops rugipennis rugipennis* (Mannerheim), *Ips mexicanus* (Hopkins), *Ips plagiographus maritimus* Lanier, *Pityophthorus carmeli* Swaine, *Pityophthorus nitidulus* (Mannerheim), *Pityophthorus setosus* Blackman, *Pseudohylesinus pini* Wood.

Pinus niger

Pityogenes trepanatus (Nordlinger).

Pinus nigra

Cryphalus joholeensis Murayama, *Orthotomicus pini-rora* Schedl, *Pityogenes bistridentatus* (Eichhoff), *Pityogenes conjunctus* Reitter, *Pityophthorus balcanicus* Pfeffer, *Pityophthorus buyssoni* Reitter, *Pityophthorus carniolicus* Wichmann, *Pityophthorus glabratus* Eichhoff, *Pityophthorus lichtensteini* (Ratzeburg), *Pityophthorus pubescens* (Marsham).

Pinus nigra mauretanicus

Pityophthorus mauretanicus Peyerimhoff.

Pinus nigricans

Ips mannsfeldi (Wachtl).

Pinus obovata

Carphoborus rossicus Semenov.

Pinus occidentalis

Ambrosiodmus lecontei Hopkins, *Hypothenemus eruditus* Westwood, *Pityophthorus antillicus* Bright, *Pityophthorus pinavorus* Bright.

Pinus ochotereuai

Ambrosiodmus funebris (Schedl), *Pityophthorus attenuatus* Blackman, *Pityophthorus blandulus* Schedl, *Pityophthorus confusus* Blandford, *Pityophthorus dispar* Bright, *Pityophthorus glabratus* (Schedl), *Platypus pini* Hopkins.

Pinus oocarpa

Araptus sobrinus Wood, *Dendroctonus frontalis* Zimmermann, *Dendroctonus mexicanus* Hopkins, *Dendroctonus parvicollis* Chapuis, *Gnathotrichus perniciosus* Wood, *Pityoborus frontalis* Wood, *Pityoborus hondurensis* Wood, *Pityoborus secundus* Blackman, *Pityophthorus blandulus* Schedl, *Pityophthorus cacuminatus* Blandford, *Pityophthorus confusus* Blandford, *Pityophthorus crassus* Blackman, *Pityophthorus delicatus* Wood, *Pityophthorus festus* Wood, *Pityophthorus euterpes* Bright, *Pityophthorus miniatus* Bright, *Pityophthorus nocturnus* Schedl, *Pityophthorus ocellus* Bright, *Pityophthorus pellitus* Schedl, *Pityophthorus scabridus* Schedl, *Pityophthorus schwerdtfegeri* (Schedl), *Pityophthorus solus* Blackman, *Xyleborus affinis* Eichhoff, *Xyleborus voluculus* (Fabricius).

Pinus palustris

Crypturgus alutaceus Schwarz, *Dendroctonus frontalis* Zimmermann, *Dendroctonus terebrans* (Olivier), *Hylastes exilis* Chapuis, *Pityophthorus annectens* LeConte, *Pityophthorus confusus* Blandford, *Pityophthorus pulchellus* Eichhoff, *Pityophthorus pulicarius* (Zimmermann), *Pityophthorus pullus* (Zimmermann), *Xyleborus ferrugineus* (Fabricius), *Xyleborus pubescens* Zimmermann.

Pinus parviflora

Eucallacea validus (Eichhoff), *Hylurgops interstitialis* (Chapuis), *Tomicus brevipilosus* (Eggers).

Pinus patula

Hylurgops longipennis (Blandford), *Hylurgops planirostris* (Chapuis), *Mitosoma excisum* Schauffuss, *Pityophthorus ciliatus* Blackman, *Pityophthorus crassus*

Blackman, *Pityophthorus montivagus* Bright, *Pityophthorus scabridus* Schedl, *Xyleborus spinulosus* Blandford.

Pinus peuce

Pityophthorus knoteki Reitter, *Pityophthorus lichtensteini* (Ratzeburg), *Pityophthorus pityographus* (Ratzeburg).

Pinus pinaster

Carphoborus honnairci Brisout, *Crypturgus mediterraneus* Eichhoff, *Crypturgus numidicus* Ferrari, *Hylastes angustatus* (Herbst), *Hylastes linearis* Erichson, *Ips crosus* (Wollaston), *Pityogenes calcaratus* (Eichhoff), *Pityogenes porifrons* Eggers, *Pityophthorus pubescens* (Marsham).

Pinus pinca

Pityogenes pennidens (Reitter), *Pityophthorus pubescens* (Marsham).

Pinus pithyusa

Crypturgus numidicus Ferrari.

Pinus ponderosa

Carphoborus costatus Wichmann, *Carphoborus perplexus* Wood, *Carphoborus pinicolens* Wood, *Carphoborus ponderosae* Swaine, *Carphoborus simplex* LeConte, *Conophthorus ponderosae* Hopkins, *Crypturgus borealis* Swaine, *Dendroctonus adjunctus* Blandford, *Dendroctonus approximatus* Dietz, *Dendroctonus brevicornis* LeConte, *Dendroctonus frontalis* Zimmermann, *Dendroctonus jeffreyi* Hopkins, *Dendroctonus mexicanus* Hopkins, *Dendroctonus ponderosae* Hopkins, *Gnathotrichus denticulatus* Blackman, *Gnathotrichus initalus* Wood, *Gnathotrichus materiarius* (Fitch), *Gnathotrichus retusus* (LeConte), *Gnathotrichus sulcatus* (LeConte), *Hylastes fulgidus* Blackman, *Hylastes gracilis* LeConte, *Hylastes longicollis* Swaine, *Hylastes macer* LeConte, *Hylastes nigricans* (Mannerheim), *Hylurgops porosus* (LeConte), *Hylurgops reticulatus* Wood, *Hylurgops subcostulatus subcostulatus* (Mannerheim), *Hylurgops subcostulatus alternans* (Chapuis), *Ips bonansea* (Hopkins), *Ips emarginatus* (LeConte), *Ips knausi* Swaine, *Ips latidens* (LeConte), *Ips lecontei* Swaine, *Ips paracoensis* Lanier, *Ips pilifrons thatcheri* Wood, *Ips pini* (Say), *Pityoborus secundus* Blackman, *Pityogenes carinulatus* (LeConte), *Pityokteines ornatus* (Swaine), *Pityophthorus acutus* Blackman, *Pityophthorus amplus* (Blackman), *Pityophthorus annectens* LeConte, *Pityophthorus aquilus* Blackman, *Pityophthorus arcanus* Bright, *Pityophthorus barberi* Blackman, *Pityophthorus blandus* Blackman, *Pityophthorus boycei* Swaine, *Pityophthorus brevis* Blackman, *Pityophthorus clarus* Blackman, *Pityophthorus comosus* Blackman, *Pityophthorus confertus* Swaine, *Pityophthorus confinis* LeConte, *Pityophthorus crassus* Blackman, *Pityophthorus cuspidatus* Blackman, *Pityophthorus deletus* LeConte, *Pityophthorus digestus* (LeConte), *Pityophthorus dolus* Wood, *Pityophthorus electus* Blackman, *Pityophthorus grandis* Blackman, *Pityophthorus immanis* Blackman, *Pityophthorus insulatus* Blackman, *Pityophthorus ingens* Blackman, *Pityophthorus intentus* Bright, *Pityophthorus jeffreyi* Blackman, *Pityophthorus lecontei* Bright, *Pityophthorus leechi* Wood, *Pityophthorus levis* Wood, *Pityophthorus murrayanae* Blackman, *Pityophthorus rubidus* Wood, *Pityophthorus scalptor* Blackman, *Pityophthorus scalptus* Bright, *Pityophthorus schwarzi* Blackman, *Pityophthorus schwerdtfegeri* (Schedl), *Pityophthorus serratus* Swaine, *Pityophthorus tuberculatus* Eichhoff, *Pityophthorus venustus* Blackman, *Pityophthorus zonalis* Bright, *Pityotrichus barbatus* (Blackman), *Platypus*

pini Hopkins, *Trypodendron rufitarsis* (Kirby), *Xyleborus intrusus* Blandford.

Pinus pringlei

Pityophthorus durus Blackman, *Pityophthorus glabratus* (Schedl).

Pinus pseudostrobus

Corthylus mexicanus Schedl, *Dendroctonus adjunctus* Blandford, *Dendroctonus mexicanus* Hopkins, *Dendroctonus vitei* Wood, *Gnathotrichus perniciosus* Wood, *Gnathotrichus sulcatus* (LeConte), *Hylurgops incomptus* (Blandford), *Hylurgops planirostris* (Chapuis), *Ips bonansea* (Hopkins), *Ips lecontei* Swaine, *Ips mexicanus* (Hopkins), *Pityoborus hirtellus* Wood, *Pityoborus scundus* Blackman, *Pityophthorus aciculatus* Bright, *Pityophthorus delicatus* Wood, *Pityophthorus diglyphus* Blandford, *Pityophthorus glabratus* (Schedl), *Pityophthorus minutus* Bright, *Pityophthorus nocturnus* Schedl, *Pityophthorus pellitus* Schedl, *Pityophthorus scabridus* Schedl, *Pityophthorus schuerdtfegeri* (Schedl), *Pityophthorus spadix* Blackman, *Platypus pini* Hopkins.

Pinus pumila

Crypturgus tuberosus Niisima, *Hylurgops spessitzevi* Eggers, *Pityogenes foveolatus* Eggers, *Pityogenes japonicus* Nobuchi, *Polygraphus kisoensis* Niisima, *Polygraphus meakanensis* Niisima.

Pinus quadrifolia

Pityophthorus punctifrons Bright.

Pinus radiata

Carphoborus radiatae Swaine, *Conophthorus radiatae* Hopkins, *Dolurgus pumilus* (Mannerheim), *Gnathotrichus retusus* (LeConte), *Hylurgops porosus* (LeConte), *Hylurgops reticulatus* Wood, *Hylurgops rugipennis rugipennis* (Mannerheim), *Ips mexicanus* (Hopkins), *Ips plastographus maritimus* Lanier, *Pityophthorus californicus* Bright, *Pityophthorus carmeli* Swaine, *Pityophthorus murrayanae* Blackman, *Pityophthorus nitidulus* (Mannerheim), *Pityophthorus pubescens* (Marsham), *Pityophthorus setosus* Blackman, *Pityophthorus trepidus* Bright.

Pinus resinosa

Conophthorus resinosa Hopkins, *Hylurgops rugipennis pinifex* Fitch, *Ips perroti* Swaine, *Pityogenes plagiatus* (LeConte), *Pityophthorus amectens* LeConte, *Pityophthorus balsameus* Blackman, *Pityophthorus cariniceps* LeConte, *Pityophthorus cavatus* Bright, *Pityophthorus concavus* Blackman, *Pityophthorus consimilis* LeConte, *Pityophthorus intextus* Swaine, *Pityophthorus nitidus* Swaine, *Pityophthorus puberulus* (LeConte), *Pityophthorus pulchellus* Eichhoff, *Pityophthorus pulicarius* (Zimmermann), *Pityophthorus ramiiperda* Swaine, *Trypodendron scabricollis* (LeConte).

Pinus rigida

Cryphalus fulvus Niisima, *Dendroctonus frontalis* Zimmermann, *Dendroctonus terebrans* (Olivier), *Pityophthorus consimilis* LeConte, *Pityophthorus pulchellus* Eichhoff, *Pityophthorus pulicarius* (Zimmermann), *Xyleborinus saxeseni* (Ratzeburg).

Pinus roxburghii

Carphoborus costatus Wichmann, *Coccotrypes nubilis* (Blandford), *Crossotarsus wilnoti* (Stebbing), *Cryphalus major* Stebbing, *Hylurgus indicus* Wood, *Ips longifolia* (Stebbing), *Liparthrum longifolia* (Stebbing), *Pityogenes scitus* Blandford, *Pityogenes spessitzevi* Lebedev, *Pityophthorus deodara* (Stebbing), *Platypus bififormis* Chapuis, *Polygraphus aterrimus* Strohmeier, *Polygraphus difficilis* Wood, *Polygraphus longifolia*

Stebbing, *Polygraphus setosus* Schedl, *Platypus bififormis* Chapuis.

Pinus rudis

Dendroctonus adjunctus Blandford, *Dendroctonus approximatus* Dietz, *Dendroctonus mexicanus* Hopkins, *Pityophthorus blanchulus* Schedl, *Pityophthorus glabratus* (Schedl), *Pityophthorus nigricans* Blandford, *Pityophthorus pellitus* Schedl, *Pityophthorus scabridus* Schedl, *Platypus pini* Hopkins, *Xyleborus intrusus* Blandford.

Pinus sabiniana

Carphoborus simplex LeConte, *Ips spinifer* (Eichhoff), *Pityophthorus confinis* LeConte, *Pityophthorus modicus* Blackman, *Pityophthorus novellus* Blackman, *Pityophthorus tuberculatus* Eichhoff.

Pinus serotina

Dendroctonus terebrans (Olivier).

Pinus siberica

Pityophthorus lapponicus Stark.

***Pinus* spp.**

Ambrosiodmus apicalis (Blandford), *Ambrosiodmus fraterculus* (Schaufuss), *Ambrosiodmus rusticus* (Wood), *Carphoborus bifurcus* Eichhoff, *Carphoborus minimus* (Fabricius), *Carphoborus pinicolens* Wood, *Coccotrypes cinnamomi* (Eggers), *Coccotrypes medius* (Eggers), *Conophthorus coniperda* (Schwarz), *Conophthorus mexicanus* Wood, *Conophthorus resinosa* Hopkins, *Crypturgus cinereus* (Herbst), *Crypturgus hispidulus* Thomson, *Crypturgus pusillus* (Gyllenhal), *Dendroctonus brevicornis* LeConte, *Dendroctonus micans* (Kugelann), *Dendroctonus parallelocollis* Chapuis, *Dendroctonus valens* LeConte, *Dryocoetes affaber* (Mannerheim), *Dryocoetes autographus* (Ratzeburg), *Dryocoetes hectographus* Reitter, *Dryocoetes pini* Niisima, *Dryocoetes rugicollis* Eggers, *Gnathotrichus deleoni* Blackman, *Gnathotrichus denticulatus* Blackman, *Gnathotrichus imitans* Wood, *Gnathotrichus perniciosus* Wood, *Gnathotrichus sulcatus* (LeConte), *Hylastes asperatus* Wood, *Hylastes ater* (Paykull), *Hylastes attenuatus* Erichson, *Hylastes exilis* Chapuis, *Hylastes flohri* (Eggers), *Hylastes fulgidus* Blackman, *Hylastes gracilis* LeConte, *Hylastes linearis* Erichson, *Hylastes macer* LeConte, *Hylastes mexicanus* Wood, *Hylastes niger* Wood, *Hylastes nigrimus* (Mannerheim), *Hylastes opacus* Erichson, *Hylastes parallelus* Chapuis, *Hylastes porculus* Erichson, *Hylastes salebrosus* Eichhoff, *Hylastes tenuis* Eichhoff, *Hylocurus beckeri* Heqvist, *Hylocurus rivalis* Wood, *Hylurgops glabratus* (Zetterstedt), *Hylurgops imitator* (Reitter), *Hylurgops incomptus* (Blandford), *Hylurgops interstitialis* (Chapuis), *Hylurgops longipennis* (Blandford), *Hylurgops palliatus* (Gyllenhal), *Hylurgops planirostris* (Chapuis), *Hylurgops porosus* (LeConte), *Hylurgops subcostuatus subcostulatus* (Mannerheim), *Hylurgops subcostulatus alternans* (Chapuis), *Hylurgus ligniperda* (Fabricius), *Hypothenemus eruditus* Westwood, *Hypothenemus seriatus* (Eichhoff), *Ips acuminatus* (Gyllenhal), *Ips amitinus* (Eichhoff), *Ips avulsus* (Eichhoff), *Ips bonansea* (Hopkins), *Ips calligraphus* (Germer), *Ips cembrae* (Heer), *Ips confusus* (LeConte), *Ips emarginatus* (LeConte), *Ips grandicollis* (Eichhoff), *Ips integer* (Eichhoff), *Ips sexdentatus* (Boerner), *Ips typographus* (Linnaeus), *Monarthrum fasciatum* (Say), *Orthotomicus caelatus* (Eichhoff), *Orthotomicus laticus* (Fabricius), *Orthotomicus longicollis* (Gyllenhal), *Orthotomicus proximus* (Eichhoff), *Orthotomicus suturalis* (Gyllenhal), *Pityoborus comatus* (Zimmermann), *Pityoborus fron-*

talis Wood, *Pityoborus hirtellus* Wood, *Pityoborus rubentis* Wood, *Pityoborus secundus* Blackman, *Pityoborus relictinus* Wood, *Pityogenes bidentatus* (Herbst), *Pityogenes carinulatus* (LeConte), *Pityogenes chalcographus* (Linnaeus), *Pityogenes irkutensis* Eggers, *Pityogenes quadriculus* (Hartig), *Pityokteines curvidens* (Germar), *Pityophthorus abstrusus* Bright, *Pityophthorus annectens* LeConte, *Pityophthorus aztecus* Bright, *Pityophthorus cacuminatus* Blandford, *Pityophthorus chalcocensis* Hopkins, *Pityophthorus ciliatus* Blackman, *Pityophthorus consimilis* LeConte, *Pityophthorus cristatus* Wood, *Pityophthorus decliviscostus* Bright, *Pityophthorus deleani* (Blackman), *Pityophthorus delicatus* Wood, *Pityophthorus discretus* Wood, *Pityophthorus durus* Blackman, *Pityophthorus exculptus* (Ratzeburg), *Pityophthorus festus* Wood, *Pityophthorus impexus* Bright, *Pityophthorus ineditus* Bright, *Pityophthorus ingens* Blackman, *Pityophthorus jeffreyi* Blackman, *Pityophthorus laticeps* Bright, *Pityophthorus leiophyllae* Blackman, *Pityophthorus lepidus* Bright, *Pityophthorus litos* Bright, *Pityophthorus minus* Bright, *Pityophthorus nitidus* Swaine, *Pityophthorus obtusipennis* Blandford, *Pityophthorus ornatus* Blackman, *Pityophthorus pellitus* Schedl, *Pityophthorus pullus* (Zimmermann), *Pityophthorus ridis* Blackman, *Pityophthorus sapineus* Bright, *Pityophthorus separatus* Bright, *Pityophthorus solatus* Wood, *Pityophthorus solers* Blackman, *Pityophthorus solus* Blackman, *Pityophthorus spadix* Blackman, *Pityophthorus subopacus* Blackman, *Pityophthorus subsimilis* Schedl, *Pityophthorus vespertinus* Bright, *Platypus flavicornis* (Fabricius), *Platypus madagascariensis* Chapuis, *Platypus pini* Hopkins, *Platypus xylographus* Schedl, *Polygraphus horjurenensis* Murayama, *Polygraphus polygraphus* (Linnaeus), *Polygraphus proximus* Blandford, *Polygraphus subopacus* Thomson, *Polygraphus szemaocensis* Tsai & Yin, *Polygraphus verrucifrons* Tsai & Yin, *Scolytoplatypus tycon* Blandford, *Tomicus destruens* (Wollaston), *Tomicus minor* (Hartig), *Tomicus piniperda* (Linnaeus), *Trischidium atomus* (Hopkins), *Xyleborinus saxoseni* (Ratzeburg), *Xyleborus atratus* Eichhoff, *Xyleborus dispar* (Fabricius), *Xyleborus curygraphus* (Ratzeburg), *Xyleborus pinivorus* Brownie, *Xyleborus pubescens* Zimmermann, *Xyleborus seriatus* Blandford, *Xylosandrus germanus* (Blandford), *Xylosterium politus* (Say).

Pinus strobiformis

Conophthorus ponderosae Hopkins, *Dendroctonus ponderosae* Hopkins, *Dendroctonus terebrans* (Olivier), *Gnathotrichus denticulatus* Blackman, *Ips woodi* Thatcher, *Pityogenes fossifrons* (LeConte), *Pityophthorus acutus* Blackman, *Pityophthorus amplus* (Blackman), *Pityophthorus brevicornatus* Bright, *Pityophthorus brevis* Blackman, *Pityophthorus citrus* Bright, *Pityophthorus confertus* Swaine, *Pityophthorus confinis* LeConte, *Pityophthorus crassus* Blackman, *Pityophthorus cuspidatus* Blackman, *Pityophthorus deletus* LeConte, *Pityophthorus durus* Blackman, *Pityophthorus immanis* Blackman, *Pityophthorus infundatus* Blackman, *Pityophthorus intentus* Bright, *Pityophthorus nigricans* Blandford, *Pityophthorus pinguis* (Blackman), *Pityophthorus scognis* Blackman, *Pityophthorus tuberculatus* Eichhoff, *Pityophthorus venustus* Blackman, *Pityotrichus hesperis* Bright.

Pinus strobus

Conophthorus coniperda (Schwarz), *Dendroctonus frontalis* Zimmermann, *Dendroctonus nurrayanae*

Hopkins, *Dendroctonus terebrans* (Olivier), *Gnathotrichus materiarius* (Fitch), *Hylurgops inouyei* Nobuchi, *Hylurgops rugipennis* pinifex Fitch, *Ips latidens* (LeConte), *Ips pilifrons thatcheri* Wood, *Ips pini* (Say), *Pityogenes hopkinsi* Swaine, *Pityophthorus angustus* Blackman, *Pityophthorus balsameus* Blackman, *Pityophthorus biovalis* Blackman, *Pityophthorus briscoei* Blackman, *Pityophthorus carinatus carinatus* Bright, *Pityophthorus cariniceps* LeConte, *Pityophthorus consimilis* LeConte, *Pityophthorus dentifrons* Blackman, *Pityophthorus laudis* Eichhoff, *Pityophthorus nitidus* Swaine, *Pityophthorus puberulus* (LeConte), *Pityophthorus pulchellus* Eichhoff, *Pityophthorus pulicarius* (Zimmermann), *Pityophthorus pullus* (Zimmermann), *Pityophthorus ramiperda* Swaine, *Polygraphus rufipennis* (Kirby).

Pinus strobus chiapensis

Pityophthorus nocturnus Schedl, *Pityophthorus obtusipennis* Blandford, *Pityophthorus subsimilis* Schedl.

Pinus sylvestris

Carphoborus cholodkovskiy Spessivtsev, *Carphoborus jurinskii* Eggers, *Cryphalus laricis* Nüßima, *Hylastes angustatus* (Herbst), *Hylastes brunicus* Erichson, *Hylastes cunicularius* Erichson, *Hylurgops glabratus* (Zetterstedt), *Hylurgops inouyei* Nobuchi, *Ips duplicatus* (Sahlberg), *Ips mannsfeldi* (Wachtl), *Ips robustus* (Knotek), *Pityogenes calcaratus* (Eichhoff), *Pityogenes conjunctus* Reitter, *Pityogenes irkutensis* Eggers, *Pityogenes trepanatus* (Nordlinger), *Pityophthorus buyssoni* Reitter, *Pityophthorus carniolicus* Wichmann, *Pityophthorus glabratus* Eichhoff, *Pityophthorus lichtensteini* (Ratzeburg), *Pityophthorus opaculus* LeConte, *Pityophthorus puberulus* (LeConte), *Pityophthorus pubescens* (Marshall), *Pityophthorus pulicarius* (Zimmermann), *Polygraphus seriatus* Reitter, *Xyleborus klinganensis* Murayama.

Pinus tabulaeformis

Cryphalus jeholensis Murayama, *Cryphalus pseudochinlingensis* Tsai & Li, *Cryphalus pseudotabulaeformis* Tsai & Li, *Cryphalus tabulaeformis* Tsai & Li, *Hylastes techangensis* Tsai & Huang, *Hylurgops junianicus* Sokanovskii, *Hylurgops longipilus* (Reitter), *Hylurgops major* Eggers, *Pityophthorus seiryuenis* Murayama, *Polygraphus junianicus* Sokanovskii, *Polygraphus sinensis* Eggers, *Polygraphus squameus* Yin & Huang, *Polygraphus szemaocensis* Tsai & Yin, *Polygraphus verrucifrons* Tsai & Yin, *Tomicus pilifer* (Spessivtsev), *Xyleborus emarginatus* Eichhoff.

Pinus tabulaeformis mukdensis

Cryphalus fulvus Nüßima.

Pinus taeda

Carphoborus bifureus Eichhoff, *Crypturgus alutaceus* Schwarz, *Dendroctonus frontalis* Zimmermann, *Dendroctonus terebrans* (Olivier), *Gnathotrichus materiarius* (Fitch), *Hylastes exilis* Chapuis, *Hypothenemus crudiae* (Pauper), *Pityogenes meridianus* Blackman, *Pityophthorus annectens* LeConte, *Pityophthorus confusus* Blandford, *Pityophthorus consimilis* LeConte, *Pityophthorus pulicarius* (Zimmermann), *Pityophthorus pullus* (Zimmermann), *Trypodendron scabricollis* (LeConte), *Xyleborus ferrugineus* (Fabricius).

Pinus taicaiensis

Encallacea validus (Eichhoff).

Pinus tenuifolia

Dendroctonus adjunctus Blandford, *Dendroctonus mexicanus* Hopkins, *Dendroctonus parallelocollis* Chapuis, *Hyllocurus clarki* Wood, *Pityophthorus delicatus*

- Wood, *Pityophthorus festus* Wood, *Pityophthorus nocturnus* Schedl, *Pityophthorus pellitus* Schedl, *Pityophthorus subsimilis* Schedl, *Xyleborus affinis* Eichhoff.
- Pinus teocote***
Conophthorus teocotum Wood, *Dendroctonus approximatus* Dietz, *Dendroctonus mexicanus* Hopkins, *Dendroctonus vitei* Wood, *Pityophthorus crassus* Blackman, *Pityophthorus leiophyllae* Blackman, *Pityophthorus perotei* Blackman, *Pityophthorus schwarzi* Blackman.
- Pinus thunbergiana***
Cryphalus fulvus Nisima, *Cryphalus furukawai* Murayama, *Cryphalus jeholensis* Murayama, *Cryphalus laricus* Nisima, *Eucallacca validus* (Eichhoff), *Orthotomicus nankinensis* Kirrenzov & Kononov, *Orthotomicus tosaensis* (Murayama), *Pityophthorus jucudus* Blandford.
- Pinus torreyana***
Pityophthorus carmeli Swaine.
- Pinus tuberculata***
Dolargus pumilus (Mannerheim).
- Pinus virginiana***
Carphoborus bicornis Wood, *Carphoborus bifurcus* Eichhoff, *Dendroctonus frontalis* Zimmermann, *Hylurgops rugipennis pinifex* Fitch, *Pityogenes plagiatus* (LeConte), *Pityophthorus cariniceps* LeConte, *Pityophthorus consimilis* LeConte, *Pityophthorus pulchellus* Eichhoff, *Pityophthorus pulicarius* (Zimmermann).
- Pinus washoensis***
Conophthorus ponderosae Hopkins, *Pityophthorus digestus* (LeConte).
- Pinus yunnanensis***
Cryphalus szechuanensis Tsai & Li, *Hylastes techangensis* Tsai & Huang, *Hylurgops major* Eggers, *Ips chinensis* Kurenzov & Kononov, *Polygraphus jumanicus* Sokanovskii, *Polygraphus szemaocensis* Tsai & Yin, *Polygraphus ferrucifrons* Tsai & Yin, *Xyleborus emarginatus* Eichhoff.
- Piper guahameuse***
Cryphalus sylvicola (Perkins).
- Piper* spp.**
Cnestus suturalis (Eggers), *Corthylus cirritus* Wood, *Corthylus comosus* Wood, *Hadroctenus globus* (Blandford), *Xyleborus haberkornii* Eggers.
- Piptadenia africana***
Chaetastus tuberculatus (Chapuis), *Doliopygus chapuisi* (Duxivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus exilis* (Chapuis), *Doliopygus eximius* Schedl, *Doliopygus expletus* Schedl, *Doliopygus ghesquieri* (Schedl), *Doliopygus gracilior* Schedl, *Doliopygus lateralis* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus perminutissimus* (Schedl), *Doliopygus propinquus* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus spectabilis* Schedl, *Doliopygus subdolosus* Schedl, *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Hypothenemus ater* (Eggers), *Hypothenemus biseriatus* (Eggers), *Perionnatus longicollis* Chapuis, *Platypus orientalis* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus subtuberculatus* Eggers, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Piptadenia b Buchananii***
Cryptocorus spinipennis Schedl, *Doliopygus exilis* (Chapuis).
- Piptadenia percillei***
Xyleborus alluaudi Schaufuss, *Xyleborus malgasicus* Schedl.
- Piptadenia* spp.**
Mesoplatus quinquecinctus (Schedl), *Pseudochramesis semibrunnus* (Eggers).
- Piptadeniastrum africanum***
Chaetastus montanus Schedl, *Doliopygus opifex* (Sampson), *Doliopygus perminutissimus* (Schedl), *Doliopygus propinquus* Schedl, *Perionnatus grandis* Schedl, *Triozastus banghaasi* (Schaufuss), *Triozastus caliginosus* Roberts, *Triozastus elongatus* Schedl, *Triozastus pilosus* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus barumbucensis* Eggers, *Xylosandrus crassiusculus* (Motschulsky).
- Piptadeniastrum* spp.**
Prennobius cavipennis Eichhoff.
- Pipturus albidus***
Xyleborus ferrugineus (Fabricius), *Xyleborus hawaiiensis* Perkins, *Xyleborus perforans* (Wollaston).
- Pipturus* spp.**
Xyleborinus saxeseni (Ratzeburg), *Xylosandrus compactus* (Eichhoff), *Xylosandrus morigerus* (Blandford).
- Piscidia piscipala***
Cnemouyx vagabundus (Wood).
- Pisonia* spp.**
Xyleborus ferrugineus (Fabricius).
- Pisonia umbellifera***
Xyleborus ferrugineus (Fabricius).
- Pistacia atlantica***
Chaetoptelius vestitus (Mulsant & Rey).
- Pistacia integerrima***
Chaetoptelius vestitus (Mulsant & Rey).
- Pistacia leutiscus***
Chaetoptelius vestitus (Mulsant & Rey), *Phloeotribus scarabacoides* (Bernard).
- Pistacia* spp.**
Carphoborus perrisi (Chapuis), *Phloeotribus mayeti* (Guillebean).
- Pistacia terebenthus***
Chaetoptelius vestitus (Mulsant & Rey).
- Pistacia vera***
Chaetoptelius vestitus (Mulsant & Rey).
- Pithecolobium bubalinum***
Cyclorhpidion foersteri (Hagedorn).
- Pithecolobium dulce***
Xyleborus perforans (Wollaston).
- Pithecolobium guadeloupense***
Cryptocorus seriatus Eggers, *Hypothenemus hirsutus* (Wood), *Hypothenemus seriatus* (Eichhoff), *Micracisella nanula* (LeConte).
- Pithecolobium lobatum***
Xyleborinus andrewesi (Blandford), *Xyleborus setulosus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).
- Pithecolobium pinnatum***
Xyleborus asper Eggers, *Xyleborus ferrugineus* (Fabricius).
- Pithecolobium saman***
Ambrosiodinus pithecolobius (Schedl), *Platypus suffodiens* Sampson.
- Pithecolobium splendens***
Crossotarsus externudentatus (Fairmaire).

Pithecolobium spp.

Crossotarsus squamulatus Chapuis, *Crossotarsus terminatus* Chapuis, *Cyclorhipidion pruinosum* (Blandford), *Platypus lepidus* Chapuis, *Platypus pseudocupulatus* Schedl, *Xylosandrus compactus* (Eichhoff).

Pithecelobium unguis-cati

Hypothenemus hirsutus (Wood), *Hypothenemus squamosus* (Hopkins).

Pittosporum resiniferum

Cryphalus resiniferi Schedl.

Pittosporum spathicalyx

Eucallacea xanthopus (Eichhoff).

Pittosporum spp.

Ambrosiodinus compressus (Lea), *Cyrtogenius dimorphus* (Schedl), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus seriatus* (Eichhoff), *Mitosoma excisum* Schaufuss, *Xyleborinus quadrispinus* (Schedl), *Xyleborinus spiculatus* (Schaufuss), *Xyleborinus spinosus* (Schaufuss), *Xyleborus alluaudi* Schaufuss, *Xylosandrus compactus* (Eichhoff).

Pittosporum tobira

Cryphalus biosinensis (Murayama).

Pittosporum viridiflorum

Chaetastus montanus Schedl, *Triozastus caliginosus* Roberts.

Plagioclypeus spp.

Crossotarsus nitens Chapuis, *Platypus madagascariensis* Chapuis, *Prennobius catipennis* Eichhoff.

Planchonella laurifolia

Platypus semigranulosus (Sampson).

Planchonella pohlmaniana

Xyleborus perforans (Wollaston), *Xyleborus volvulus* (Fabricius).

Planchonella samoensis

Cryphalus samoensis Beeson, *Diapus pusillinus* Chapuis, *Diapus quinquespinatus* Chapuis, *Platypus tetracerus* Beeson, *Xyleborus longicollis* Browne.

Planchonella sandwicensis

Xyleborus lanaiensis Perkins.

Planchonella spp.

Diapus elongatus Schedl, *Diapus nebulosus* Roberts, *Diapus papuanus* Schedl, *Diapus perpygmaeus* Roberts, *Diapus quinquespinatus* Chapuis, *Diapus turgidus* Roberts, *Platypus ambiguus* Roberts, *Platypus aspicius* Roberts & Morimoto, *Platypus glochideus* Roberts & Morimoto, *Platypus jansoni* Chapuis.

Planchonia andamanica

Xyleborus cognatus Blandford, *Xyleborus similis* Ferrari.

Planchonia spp.

Xyleborus similis Ferrari.

Planera aquatica

Hylocurus floridensis Atkinson.

Platanus acerifolia

Hypothenemus eruditus Westwood.

Platanus occidentales

Corthylius columbianus Hopkins.

Platanus spp.

Xyleborus dispar (Fabricius).

Plathymenia reticulata

Xyleborus rugosipennis Schedl.

Platycarya spp.

Xylosandrus mutilatus (Blandford).

Platycladus orientalis

Phloeosinus thujae (Perris).

Plectocomia elongata

Xyleborus inaequalis Schedl.

Plectronia spp.

Xyleborus cancellatus Eggers.

Pleiocarpa micrantha

Scolytogenes pleiocarpae (Schedl).

Pleiocarpa tubicina

Hypothenemus perhispidus (Eggers), *Platypus intermedius* (Schedl), *Scolytogenes pleiocarpae* (Schedl), *Xyleborus alluaudi* Schaufuss, *Xyleborus principalis* Eichhoff.

Pleioegynum spp.

Ambrosiodinus lecontei Hopkins.

Pleomele aurea

Xyleborus rugatus Blackburn.

Plerandra grayi

Scolytogenes fijianus (Schedl).

Plochodion spp.

Xyleborinus longus (Eggers).

Plumeria rubra

Scolytodes plumeriae Wood, *Scolytodes plumericolens* Wood, *Scolytodes veustus* Wood.

Plumeria spp.

Scolytopsis laticollis Wood.

Podocarpus falcata

Lanurgus spathulatus Schedl, *Traglostus brevisetosus* Schedl, *Xyleborinus acmulus* (Wollaston).

Podocarpus imbricata

Platypus bajulus Schedl, *Platypus cavus* Strohmeier, *Platypus vethi* Strohmeier, *Scolytoplatypus nitidus* Eggers.

Podocarpus indicus

Coccotrypes cinnamomi (Eggers), *Coccotrypes medius* (Eggers).

Podocarpus latifolia

Ambrosiodinus eichhoffi (Schreiner), *Hypocryphalus caplandicus* Schedl, *Lanurgus oleaeformis* Schedl.

Podocarpus nageia

Phloeosinus osumiensis Murayama.

Podocarpus oleifolia

Corthylius simplex Wood, *Monarthrum nevermanni* (Schedl), *Phlocotribus atavus* Wood.

Podocarpus raspiglossii

Araptus impensus (Wood), *Platypus secus* Wood.

Podocarpus spp.

Acanthotomicus curvidens (Schedl), *Coccotrypes leverii* Browne, *Crossotarsus coxalis* Schedl, *Diapus elongatus* Schedl, *Diapus papuanus* Schedl, *Diapus spinifer* Schedl, *Doliopygus bidentatus* (Strohmeier), *Lanurgus podocarpi* Schedl, *Phloeosinus kinabaluensis* Bright, *Phloeosinus podocarpi* Browne, *Platypus fastuosus* Schedl, *Platypus orientalis* (Strohmeier), *Platypus semiopacus* Strohmeier, *Platypus uniformis* Schedl, *Scolytodes gemmaeus* Wood, *Scolytoplatypus kiuensis* Schedl, *Treptoplatypus multiporus* Schedl.

Poinciana elata

Ambrosiodinus lewisi (Blandford), *Eucallacea interjectus* (Blandford), *Platypus indicus* Strohmeier, *Xyleborinus andrewesi* (Blandford).

Poinciana regia

Coccotrypes confusus (Eggers), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus crudiae* (Panzer), *Hypothenemus liberiensis* (Hopkins), *Hypothenemus melasonus* (Lea), *Micracis burgosi* Wood, *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston).

Poinsettia heterophylla

Hypothenemus brunneus (Hopkins), *Hypothenemus gossypii* (Hopkins).

Polyalthia simiarum

Coccotrypes carpophagus (Hornung).

***Polyalthia* spp.**

Crossotarsus mniszechi Chapuis, *Platypus jansoni* Chapuis, *Platypus selysi* Chapuis.

Polyalthia suaveolens

Chaetastus tuberculatus (Chapuis), *Cylindropalpus laudatus* (Schedl), *Doliopygus divaricus* (Schedl), *Doliopygus donisi* Schedl, *Doliopygus dubius* (Sampson), *Doliopygus ericksoni* (Chapuis), *Doliopygus expletus* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Hypothenemus macrolobii* (Eggers), *Hypothenemus socialis* (Schedl), *Perionnatus excisus* Strohmeyer, *Perionnatus grandis* Schedl, *Perionnatus longicollis* Chapuis, *Perionnatus substriatus* Strohmeyer, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus internedius* (Schedl), *Platypus orientalis* (Strohmeyer), *Platypus picinus* Schedl, *Platypus quadricornis* Schedl, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Xyleborinus polyalthiae* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xyleborus scobinatus* Hagedorn, *Xyleborus volvulus* (Fabricius).

Polygonum tomentosum

Hypothenemus grandis Schedl.

***Polyosma* spp.**

Platypus cupulatus Chapuis, *Platypus geminatus* Chapuis.

Polypodium lycopodioides

Hypothenemus eruditus Westwood, *Hypothenemus perhispidus* (Eggers).

***Polyporus* spp.**

Ambrosiodmus natalensis (Schaufuss).

Polyseias fulva

Chaetastus montanus Schedl, *Chaetastus tuberculatus* (Chapuis), *Platypus inpolitus* Roberts, *Xyleborus alluaudi* Schaufuss.

Polyseias kikuyuensis

Chaetastus montanus Schedl, *Chaetastus tuberculatus* (Chapuis), *Doliopygus bidentatus* (Strohmeyer), *Doliopygus citri* Schedl, *Platypus orientalis* (Strohmeyer), *Tiarophorus gardneri* Schedl.

***Polyseias* spp.**

Chaetastus montanus Schedl, *Doliopygus citri* Schedl, *Doliopygus nairobiensis* (Schedl), *Doliopygus rapax* (Sampson).

Pometia macrocarpa

Platypus protenus (Schedl).

Pometia pinnata

Crossotarsus mniszechi Chapuis, *Crossotarsus wallacei* (Thomson), *Platypus cavus* Strohmeyer, *Platypus jansoni* Chapuis, *Xyleborinus andrewesi* (Blandford), *Xyleborus perforans* (Wollaston), *Xyleborus perplexus* Schedl, *Xylosandrus ater* (Eggers), *Xylosandrus mancus* (Blandford).

***Pometia* spp.**

Baioeis peramulus (Schedl), *Crossotarsus inaequidens* Browne, *Crossotarsus nakazawai* Browne, *Diapus perpygmaeus* Roberts, *Diapus pusillimus* Chapuis, *Diapus*

quincuspinnatus Chapuis, *Platypus abruptifer* Wood, *Platypus granulatus* Browne, *Platypus insulindicus* Schedl, *Platypus juvencus* Schedl, *Platypus lepidus* Chapuis, *Platypus matoae* Browne, *Platypus pseudocupulatus* Schedl, *Xyleborinus andrewesi* (Blandford), *Xyleborinus pomelianus* (Schedl).

Pometia tomentosa

Crossotarsus javanus Beeson, *Platypus signatus* Chapuis.

Pongamia glabra

Phlocoditica curtus (Eggers).

***Popocia* spp.**

Ctonoxylon kivuensis Schedl.

Populus acuminata

Trypophloeus populi Hopkins.

Populus alba

Scolytus kirschi Skalitzky, *Trypophloeus granulatus* (Ratzeburg).

Populus angustifolia

Trypophloeus populi Hopkins.

Populus ciliata

Crossotarsus wilmot (Stebbing).

Populus deltoides

Eucallacea validus (Eichhoff), *Hypothenemus sciriatius* (Eichhoff), *Trypodendron retusum* (LeConte).

Populus diversifolia

Trypophloeus klimeschi Eggers.

Populus glandulosa

Eucallacea validus (Eichhoff).

Populus grandidentata

Trypodendron retusum (LeConte).

Populus nigra

Scolytus scolytus (Fabricius).

Populus pruinosa

Trypophloeus klimeschi Eggers.

Populus pyramidalis

Trypophloeus binodulus (Ratzeburg), *Trypophloeus granulatus* (Ratzeburg).

Populus sieboldii

Xyleborus volvulus (Fabricius).

***Populus* spp.**

Ambrosiodmus apicalis (Blandford), *Ambrosiodmus lewisi* (Blandford), *Ambrosiodmus rubricollis* (Eichhoff), *Eucallacea fornicata* (Eichhoff), *Eucallacea interjecta* (Blandford), *Hyllocurus hirtellus* (LeConte), *Micracis swainei* Blackman, *Platypus falcatus* Strohmeyer, *Scolytoplatus tycon* Blandford, *Trypodendron signatum* (Fabricius), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus emarginatus* Eichhoff, *Xyleborus pfeili* (Ratzeburg), *Xylosandrus crassiusculus* (Motschulsky).

Populus suaveolens

Trypophloeus klimeschi Eggers.

Populus tremula

Trypophloeus binodulus (Ratzeburg), *Trypophloeus granulatus* (Ratzeburg), *Trypophloeus kurenzovi* Nunnberg, *Trypophloeus palmi* Hansen, *Trypophloeus tremulae* Stark, *Xyleborus pfeili* (Ratzeburg).

Populus tremuloides

Procrisphalus mucronatus (LeConte), *Trypodendron retusum* (LeConte), *Trypophloeus populi* Hopkins, *Trypophloeus thatcheri* (Wood), *Xyleborus obesus* LeConte.

Populus trichocarpa

Gnathotrichus retusus (LeConte), *Trypophloeus populi* Hopkins, *Trypophloeus thatcheri* (Wood).

Potakowskia tacaco

Dendrocranulus declivis Schedl. *Dendrocranulus vicinus* Wood.

Poupartia caffra

Ambrosiodinus sakoae (Schedl).

Pourouma aspera

Gnathotripes terbratus (Wood).

Pouteria anibaefolia

Platypus pouteriae Wood. *Platypus sicarius* Wood. *Xyleborus affinis* Eichhoff. *Xyleborus ferrugineus* (Fabricius).

Pouteria campechana

Chaetophloeus pouteriae Wood.

Pouteria egregia

Platypus applanatus Wood. *Xyleborus affinis* Eichhoff. *Xyleborus rotulus* (Fabricius).

Pouteria guianensis

Platypus chuciculus Wood. *Platypus occipitis* Wood. *Xyleborus rotulus* (Fabricius).

Pouteria malaccensis

Crossotarsus squamulatus Chapuis. *Platypus loricatus* (Saunders). *Platypus pseudocupulatus* Schedl. *Platypus signatus* Chapuis. *Platypus westwoodi* Chapuis.

Pouteria spp.

Dryocoetoides rusticus Wood. *Dryocoetoides severus* (Schedl). *Hypothenemus bolivianus* (Eggers). *Platypus pouteriae* Wood. *Premnobius cavipennis* Eichhoff. *Sampsonius expulsus* Wood. *Taurodenus ebensis* (Wood). *Taurodenus splendidus* (Schaufuss). *Xyleborinus reconditus* (Schedl). *Xyleborus commixtus* Blandford. *Xyleborus parcellus* Wood.

Poeceria exitialis

Platypus exitialis Wood.

Pritchardia pacifica

Coccotrypes dactyliperda (Fabricius).

Pritchardia thurstoni

Coccotrypes carpophagus (Hornimg).

Pronia copalifer

Coccotrypes cyperi (Beeson).

Prosopis chilensis

Hypothenemus rugifer (Schedl).

Prosopis glandulosa

Pseudothysanoes turboici Wood.

Prosopis juliflora

Thysanoes texanus Blackman.

Prosopis nudiflora

Xylosandrus compactus (Eichhoff).

Prosopsis pallida

Xyleborinus saxeseni (Ratzeburg).

Prosopis spp.

Chaetophloeus fasciatus (Blackman). *Hypothenemus erectus* LeConte. *Hypothenemus interstitialis* (Hopkins). *Hypothenemus rotundicollis* (Eichhoff). *Micracisella nanula* (LeConte). *Micracisella opacithorax* (Schedl). *Xylosandrus compactus* (Eichhoff).

Protea spp.

Thamniurgus grandicollis Schedl.

Protium copal

Gnatholeptus semiernis (Nimberg).

Protium macgregorii

Platypus solidus Walker.

Protium nervosum

Taurodenus ebensis (Wood). *Taurodenus varulus* (Wood). *Xyleborinus celatus* Wood.

Protium spp.

Amphicranus micans Wood. *Campocercus acneipennis*

(Fabricius). *Campocercus auricomus* Blandford. *Campocercus niger* (Fabricius). *Cnemonyx exiguus* (Blandford). *Cnemonyx proticorus* Wood. *Coptoborus usagarius* (Eggers). *Cryphalus nitidipennis* Browne. *Cryptocarenum lepidus* Wood. *Cryptocarenum pilosus* Eggers. *Gnatholeptus panamensis* Blackman. *Gnatholeptus shannoni* (Blackman). *Hypothenemus bolivianus* (Eggers). *Hypothenemus opacus* (Eichhoff). *Microborus linatus* Wood. *Pericryphalus sobrinus* Wood. *Pityophthorus sparsepilosus* (Schedl). *Pityophthorus subcristatus* Schedl. *Platypus tristis* Roberts. *Premnobius cavipennis* Eichhoff. *Taurodenus bicornutus* (Wood). *Taurodenus flavipes* (Fabricius). *Xyleborus biuncus* Browne. *Xyleborus ferrugineus* (Fabricius). *Xyleborus protii* Browne.

Protium tenuifolium

Campocercus rectus Wood. *Xylosandrus laticeps* (Wood).

Protorkus spp.

Platypus madagascariensis Chapuis.

Pruus americana

Phloeotribus liminaris (Harris).

Pruus angustifolia

Phloeotribus liminaris (Harris).

Pruus apetala

Xyleborus lactus Niisima.

Pruus armeniaca

Cryphalus malus Niisima. *Scolytoplatypus minimus* Hagedorn. *Scolytus nitidus* Schedl. *Xyleborinus saxeseni* (Ratzeburg).

Pruus avium

Polygraphus grandiclava Thomson.

Pruus cerasa

Polygraphus grandiclava Thomson.

Pruus communis

Phloeotribus pruni Wood.

Pruus davidiana

Ambrosiodinus rubricollis (Eichhoff).

Pruus domestica

Hypothenemus birmanus (Eichhoff). *Phloeotribus porteri* Bruch. *Scolytoplatypus fasciatus* Hagedorn.

Pruus donarium spontanea

Xyleborus atratus Eichhoff.

Pruus grayana

Xylechinus gummeus (Murayama).

Pruus jamusakura

Coccotrypes uaidaijimensis (Murayama). *Crossotarsus simplex* Murayama.

Pruus maximowiczii

Dryocoetes cerasi Eggers.

Pruus nune

Cryphalus malus Niisima.

Pruus nepalensis

Diapus quadrispinatus Chapuis. *Diapus quinque-spinatus* Chapuis. *Diapus spatulifer* Browne. *Scolytoplatypus darjeelingi* Stebbing. *Scolytoplatypus pubescens* Hagedorn. *Scolytoplatypus raja* Blandford.

Pruus padus

Cryphalus scopiger Berger. *Lymantor acris* (Lindemann). *Lymantor coryli* (Perris). *Polygraphus grandiclava* Thomson. *Scolytoplatypus siomio* Blandford. *Xylechinus padus* Wood.

Pruus parviflora

Tomicus multisetosus (Murayama).

Pruus persica

Cryphalus malus Niisima. *Hypothenemus crudiae*

- (Panzer). *Hypothenemus eruditus* Westwood, *Hypothenemus seriatus* (Eichhoff), *Phloeotribus destructor* Wood, *Phloeotribus discrepans* Blandford, *Phloeotribus liminaris* (Harris), *Phloeotribus pruni* Wood, *Scolytus pomi* Yin & Huang, *Xylosandrus crassiusculus* (Motschulsky).
- Prunus pseudo-cerasus***
Cryphalus malus Niisima.
- Prunus salasii***
Ambrosiodinus natalensis (Schaufuss), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus grandis* Schedl.
- Prunus salicina***
Cryphalus malus Niisima.
- Prunus sargentii***
Cryphalus malus Niisima.
- Prunus serotina***
Hypothenemus eruditus Westwood, *Liparthrum pruni* Wood, *Phloeotribus destructor* Wood, *Phloeotribus liminaris* (Harris), *Phloeotribus perniciosus* Wood, *Phloeotribus pruni* Wood, *Xyleborinus saxeseni* (Ratzeburg).
- Prunus serrulata spontanea***
Eucallacea validus (Eichhoff).
- Prunus sphaerocarpa***
Acorthylus pruni (Wood), *Platypus calamus* Blandford, *Platypus deceptor* Wood, *Platypus deplanatus* Wood.
- Prunus* spp.**
Ambrosiodinus apicalis (Blandford), *Ambrosiodinus lewisi* (Blandford), *Ambrosiodinus rubricollis* (Eichhoff), *Chaetophloeus heterodoxus* (Casey), *Coccotrypes naidaijiniensis* (Murayama), *Glochinoscerus gemellus* Blandford, *Hypothenemus eruditus* Westwood, *Monarthrum fasciatum* (Say), *Phloeotribus destructor* Wood, *Phloeotribus pruni* Wood, *Platypus calamus* Blandford, *Platypus cylindrus* (Fabricius), *Platypus quereivorus* Murayama, *Platypus severini* Blandford, *Polygraphus parvulus* Murayama, *Polygraphus ssiiori* Niisima, *Scolytoplatypus mikado* Blandford, *Scolytus amygdali* Guerin-Meneville, *Scolytus aratus* Blandford, *Scolytus ansifer* Eichhoff, *Scolytus gretschkini* Sokanovskii, *Scolytus japonicus* Chapuis, *Scolytus kirschi* Skalitzky, *Scolytus mali* (Bechstein), *Scolytus pygmaeus* (Fabricius), *Scolytus rugulosus* (Muller), *Scolytus scheygrewi* Semenov, *Trypodendron domesticum* (Linnaeus), *Xyleborinus attenuatus* (Blandford), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus praevius* Blandford, *Xyleborus seriatus* Blandford, *Xylosandrus germanus* (Blandford), *Xylosandrus pseudosolidus* (Schedl).
- Prunus ssiiori***
Platypus calamus Blandford, *Polygraphus shariensis* Niisima.
- Prunus tomentosa***
Scolytus pomi Yin & Huang.
- Prunus triloba***
Cryphalus pruni Eggers.
- Prunus virginiana***
Phloeotribus pruni Wood.
- Prunus vulgaris***
Phloeotribus pruni Wood.
- Prunus yedoensis***
Xyleborus atratus Eichhoff.
- Pseudoeugenia* spp.**
Platypus hamatulus Schedl.
- Pseudomorus brunoniiana***
Ficicis varians Lea.
- Pseudoolmedia laevigata***
Dryocoetoides severus Wood, *Taurodenus splendidus* (Schaufuss), *Taurodenus varians* (Fabricius), *Xyleborinus reconditus* (Schedl).
- Pseudoolmedia* spp.**
Phloeotribus minor Wood.
- Pseudospondias microcarpa***
Chaetastus tuberculatus (Chapuis), *Platypus hintzi* Schaufuss, *Scolytoplatypus africanus* Eggers, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius).
- Pseudospondias* spp.**
Trachyostus aterrimus (Schaufuss).
- Pseudotsuga douglasii***
Cryphalus asperatus (Gyllenhal).
- Pseudotsuga flahuati***
Hylastes asperatus Wood, *Hylastes gracilis* LeConte.
- Pseudotsuga macrocarpa***
Carphoborus blaisdelli Swaine, *Dendroctonus pseudotsugae* Hopkins, *Pseudohylesinus nebulosus serratus* Bruck, *Scolytus oregoni* Blackman.
- Pseudotsuga menziesii***
Carphoborus pseudotsugae Wood, *Carphoborus vandykei* Bruck, *Cryphalus pubescens* Hopkins, *Cryphalus ruficollis* Hopkins, *Dendroctonus pseudotsugae* Hopkins, *Dryocoetes autographus* (Ratzeburg), *Dryocoetes cristatus* Inouye & Nobuchi, *Gnathotrichus retusus* (LeConte), *Gnathotrichus sulcatus* (LeConte), *Hylastes ater* (Paykull), *Hylastes nigrius* (Mannerheim), *Hylastes ruber* Swaine, *Hylurgops reticulatus* Wood, *Hylurgops subcylindrus rugipennis* (Mannerheim), *Hylurgops rugipennis subcostulatus* (Mannerheim), *Phloeosinus antunatus* Swaine, *Phloeotribus lecontei* Schedl, *Pityokteines elegans* Swaine, *Pityokteines lasiocarpi* (Swaine), *Pityophthorus arcuatus* Bright, *Pityophthorus intentus* Bright, *Pityophthorus malleatus* Bright, *Pityophthorus opaculus* LeConte, *Pityophthorus orarius* Bright, *Pityophthorus pseudotsugae* Swaine, *Pityophthorus solers* Blackman, *Pityophthorus speculum* Bright, *Platypus apicalis* (White), *Platypus wilsoni* Swaine, *Pseudohylesinus nebulosus nebulosus* (LeConte), *Pseudohylesinus sericeus* (Mannerheim), *Pseudothysanoes conferae* (Wood), *Scierus annectens* LeConte, *Scolytus hermosus* Wood, *Scolytus monticola* (Swaine), *Scolytus oregoni* Blackman, *Scolytus reflexus* Blackman, *Scolytus inispinosus* LeConte, *Scolytus virgatus* Bright, *Xyleborus intrusus* Blandford.
- Pseudotsuga* spp.**
Trypodendron lineatum (Olivier).
- Psidium guajava***
Diaprus formosanus Niisima & Murayama, *Eucallacea fornicatus* (Eichhoff), *Eucallacea xanthopus* (Eichhoff), *Phloeoborus punctatorugosus* Chapuis, *Pityophthorus robai* (Blackman), *Platypus flectus* Niisima & Murayama, *Platypus nijimai* Murayama, *Scolytogenes samoanus* (Browne), *Taurodenus perebae* (Ferrari), *Xyleborus affinis* Eichhoff, *Xyleborus subtuberculatus* Eggers.
- Psittacanthus schiedeanus***
Chaetophloeus struthanthi Wood, *Cnesimus uoguerae* Atkinson, *Corthylus senticosus* Wood.
- Psittacanthus* spp.**
Corthylus senticosus Wood, *Hypothenemus indigens* Wood, *Pseudothysanoes plumalis* Wood, *Pseudothysanoes tenellus* Wood.
- Psychotia* spp.**
Xyleborinus quadrispinosus (Eichhoff), *Xyleborus alluaudi* Schaufuss, *Xylosandrus hirsutipennis* (Schedl).

Psychotia viridiflora*Platypus signatus* Chapuis.***Ptelea trifoliata****Phloeotribus scabrifollis* (Hopkins).***Pteleopsis hylodendron****Chaetastus tuberculatus* (Chapuis), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Dryocoetoides cristatus* (Fabricius), *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl.***Pteridium aquilinum****Coccotrypes cardamomi* Schaufuss, *Coccotrypes pterydophlytae* (Schedl).***Pternandra coerulescens****Anasa versicolor* (Sampson).***Pterocarpus angoleusis****Doliopygus conradti* (Strohmeyer), *Doliopygus crinitus* (Chapuis), *Doliopygus subserratus* Browne.***Pterocarpus dalbergioides****Crossotarsus andamanus* Beeson, *Platypus cupulatus* Chapuis, *Platypus solidus* Walker, *Platypus verchunatus* (Beeson), *Xyleborinus exiguus* (Walker), *Xyleborus bidentatus* (Motschulsky), *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus pfeili* (Ratzeburg), *Xyleborus similis* Ferrari.***Pterocarpus indicus****Crossotarsus externedentatus* (Fairmaire), *Eucallacea limatus* (Schedl), *Hypocoryphalus perminutus* (Schedl), *Platypus insularis* Strohmeyer, *Xyleborus granulipes* Schedl, *Xyleborus similis* Ferrari.***Pterocarpus marsupium****Ambrosiodinus dilingensis* (Eggers), *Crossotarsus minax* (Walker), *Ernoporus concentricus* (Eggers), *Eucallacea andamanensis* (Blandford), *Eucallacea interjectus* (Blandford), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.***Pterocarpus mildbraedii****Chaetastus tuberculatus* (Chapuis), *Doliopygus pseudoserratus* Roberts, *Trachyostus aterrimus* (Schaufuss).***Pterocarpus osun****Mesoplatypus tenuis* Schedl.***Pterocarpus soyauxii****Ambrosiodinus oratus* (Eggers), *Chaetastus tuberculatus* (Chapuis), *Cylindropalpus pertinax* (Schedl), *Doliopygus coelocephalus* (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus ghesquieri* (Schedl), *Doliopygus interjectus* Schedl, *Doliopygus lebrunii* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus maynei* Schedl, *Doliopygus opulentus* Schedl, *Doliopygus semipilosus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Hypothenemus eruditus* Westwood, *Prennobius longus* Eggers, *Prennobius robustulus* (Schedl), *Prennobius scapinosus* Eggers, *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus alhuandi* Schaufuss, *Xyleborus caudatus* Schedl, *Xyleborus ferrugineus* (Fabricius), *Xyleborus rotulus* (Fabricius).***Pterocarpus* spp.***Ambrosiodinus natalensis* (Schaufuss), *Ernoporus armatus* (Browne), *Ernoporus tuberculatus* (Browne), *Leptoxyleborus concisus* (Blandford), *Platypus triplurus* Browne.***Pterocarpus stenoptera****Sphaerotrypes juglausi* Tsai & Yin.***Pterocarpus tinctorius****Cylindropalpus laudatus* (Schedl), *Doliopygus per-**brevis* Schedl, *Hypothenemus pubipennis* (Eggers), *Hypothenemus solitarius* (Schedl), *Platypus parallelus* (Fabricius), *Xyleborus affinis* Eichhoff, *Xyleborus ficus* Eggers.***Pterocarya rhoifolia****Crossotarsus niponicus* Blandford, *Scolytogenes fujisanus* (Nobuchi).***Pterocymbium beccarii****Crossotarsus subpellucidus* Lea, *Eucallacea barbatus* (Hagedorn), *Eucallacea wallacei* (Blandford), *Platypus pallidus* Chapuis, *Platypus parallelus* (Fabricius), *Platypus solidus* Walker, *Platypus subgranosus* Schedl, *Platypus ustus* Schedl, *Xyleborus emarginatus* Eichhoff, *Xyleborus similis* Ferrari.***Pterocymbium cinctorinum****Platypus quadrifissilis* Schedl.***Pterocymbium* spp.***Crossotarsus wallacei* (Thomson), *Diapus pusillinus* Chapuis, *Hyledius cribratus* (Blandford), *Platypus jausoni* Chapuis.***Pteromalus bimaculatus****Xyleborinus saxeseni* (Ratzeburg).***Pterospermum acerifolium****Platypus solidus* Walker, *Xyleborus perforans* (Wollaston), *Xylosandrus discolor* (Blandford).***Pterospermum heyneanum****Coccotrypes longior* (Eggers).***Pterospermum* spp.***Xyleborinus andrewesi* (Blandford).***Pterygopodium oxyphyllum****Doliopygus donisti* Schedl.***Pterygota bequaertii****Chaetastus tuberculatus* (Chapuis), *Doliopygus jurioni* Schedl, *Doliopygus lateralis* Schedl, *Doliopygus lateralis* Schedl, *Doliopygus lebrunii* Schedl, *Doliopygus medius* Schedl, *Doliopygus punctiventris* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus unicoloris* Schedl, *Platypus hintzi* Schaufuss, *Platypus intermedius* (Schedl), *Strombophorus vagans* Schedl, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus rotulus* (Fabricius).***Pterygota macrocarpa****Cylindropalpus auricomans* (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus medius* Schedl, *Doliopygus mimicus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Platypus hintzi* Schaufuss, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius).***Pterygota* spp.***Platypus obliquetruncatus* Schedl, *Prennobius caripennis* spp.***Ptychosperma* spp.***Coccotrypes dactyliperla* (Fabricius).***Pueraria thumbergiana****Ambrosiodinus lewisi* (Blandford).***Punica granatum****Eucallacea xanthopus* (Eichhoff), *Platypus solutus* Schedl, *Xyleborus piccus* (Motschulsky).***Punica* spp.***Xyleborus dispar* (Fabricius).***Purshia mexicana****Chaetophiloeus heterodoxus* (Casey).***Pycanthus angoleusis****Chaetastus persimilis* (Schedl), *Chaetastus tuberculatus* (Chapuis), *Doliopygus bilobatus* (Schedl), *Doliopygus*

- conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus interjectus* Schedl, *Doliopygus lefevrei* Schedl, *Eucallacca granosus* (Schedl), *Mesoplatypus venustus* Schedl, *Periommatatus excisus* Strohmeyer, *Periommatatus grandis* Schedl, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus orientalis* (Strohmeyer), *Platypus parallelus* (Fabricius), *Platypus picinus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus nitidulus* Eggers, *Xyleborus picus* (Motschulsky), *Xyleborus subtuberculatus* Eggers, *Xyleborus volukulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Pycanthus kombo**
Chaetastus persimilis (Schedl), *Chaetastus tuberculatus* (Chapuis), *Doliopygus conradti* (Strohmeyer), *Doliopygus serratus* (Strohmeyer), *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xyleborus volukulus* (Fabricius).
- Pycanthus marchalianus**
Xyleborus ferrugineus (Fabricius).
- Pycanthus spp.**
Ambrosiodmus eichhoffi (Schreiner).
- Pycnostachys coerulea**
Eucallacca xanthopus (Eichhoff), *Rhopalopselion congonum* (Schedl).
- Pygeum africanum**
Chaetastus diversifrons Browne, *Chaetastus montanus* Schedl, *Cylindropalpus laudatus* (Schedl), *Hylesinopsis fasciatus* (Hagedorn), *Sphaerotrypes pygeumi* Schedl, *Triozastus marshalli* (Sampson).
- Pygeum parviflorum**
Diapus quinquespinatus Chapuis.
- Pyrus betulae-folia**
Sphaerotrypes pyri Tsai & Yin.
- Pyrus communis**
Cnesinus strigicollis LeConte.
- Pyrus lanata**
Dryocoetes himalayensis Strohmeyer, *Scolytoplatypus siomio* Blandford.
- Pyrus malus**
Chaetophloeus heterodoxus (Casey), *Cryphalus malus* Nüßima, *Hypothenemus africanus* (Hopkins), *Hypothenemus crudidae* (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus malus* (Schedl), *Lymanator coryli* (Perris), *Scolytus nitidus* Schedl.
- Pyrus spp.**
Hypothenemus eruditus Westwood, *Scolytoplatypus daimio* Blandford, *Scolytus japonicus* Chapuis, *Scolytus mali* (Bechstein), *Scolytus rugulosus* (Müller), *Xylosandrus germanus* (Blandford), *Xyleborus dispar* (Fabricius).
- Pyrus ussuriensis**
Scolytus jacobsoni (Spessivtsev).
- Qualea ingens**
Dryocoetoides flavus (Fabricius), *Taurodemus perebeae* (Ferrari), *Xyleborinus reconditus* (Schedl), *Xyleborus spinulosus* Blandford.
- Qualea wittrockii**
Hypothenemus plumieriae (Nordlinger), *Sampsonius dampfi* Schedl.
- Quercus acuta**
Ambrosiodmus rubricollis (Eichhoff), *Coptodryas kirishimanus* (Murayama), *Platypus calamus* Blandford, *Platypus lewisi* Blandford, *Platypus quercivorus* Murayama, *Scolytogenes initalis* Eichhoff, *Sphaerotrypes pila* Blandford.
- Quercus acutissima**
Platypus koryoensis (Murayama), *Platypus lewisi* Blandford, *Platypus quercivorus* Murayama, *Scolytogenes initalis* Eichhoff, *Sphaerotrypes pila* Blandford.
- Quercus afares**
Taphrotrychus villifrons (Dufour).
- Quercus agrifolia**
Gnathotrichus pilosus (LeConte), *Monarthrum dentigerum* (LeConte), *Monarthrum scutellare* (LeConte), *Pseudopityophthorus agrifoliae* Blackman, *Pseudopityophthorus pubipennis* (LeConte).
- Quercus alba**
Corthylihus columbianus Hopkins, *Micracisella opacicollis* (LeConte), *Monarthrum fasciatum* (Say), *Pseudopityophthorus pubescens* Blackman, *Xyleborus ferrugineus* (Fabricius).
- Quercus aliena**
Platypus koryoensis (Murayama), *Platypus lewisi* Blandford.
- Quercus borealis**
Pseudopityophthorus pubescens Blackman, *Xyleborus ferrugineus* (Fabricius).
- Quercus cerris**
Ernoporicus fagi (Fabricius), *Taphrotrychus hirtellus* Eichhoff.
- Quercus coccinea**
Xyleborus ferrugineus (Fabricius).
- Quercus costaricensis**
Monarthrum pseudoscutellare (Schedl).
- Quercus crispula**
Platypus calamus Blandford.
- Quercus dentata**
Taphrotrychus hewetti (Stebbing).
- Quercus digitata**
Monarthrum fasciatum (Say).
- Quercus dilatata**
Diapus aculeatus Blandford, *Diapus molossus* Chapuis, *Diapus spatulifer* Browne, *Platypus sexualis* Beeson, *Sphaerotrypes querci* Stebbing.
- Quercus emoryi**
Pseudopityophthorus opacicollis Blackman, *Pseudothysanoes sedulus* Blackman.
- Quercus fagifolia**
Diapus quinquespinatus Chapuis.
- Quercus falcata**
Micracisella opacicollis (LeConte), *Xyleborus ferrugineus* (Fabricius).
- Quercus gambellii**
Pseudothysanoes sedulus Blackman.
- Quercus garrayana**
Pseudopityophthorus pubipennis (LeConte).
- Quercus gilliana**
Scolytus querci Yin & Huang.
- Quercus gilva**
Amasa calamooides (Murayama), *Diapus spatulifer* Browne, *Platypus calamus* Blandford, *Platypus kiushuensis* Murayama, *Platypus lewisi* Blandford, *Platypus quercivorus* Murayama, *Platypus severini* Blandford.
- Quercus glauca**
Coptodryas kirishimana (Murayama), *Crossotarsus flavomaculatus* Strohmeyer, *Eucallacca velatus* (Samp-

- son), *Platypus calamus* Blandford. *Platypus quercivorus* Murayama.
- Quercus grisea**
Pseudopityophthorus rucaparii Blackman.
- Quercus grosseserrata**
Eucallacea validus (Eichhoff).
- Quercus hondai**
Platypus calamus Blandford.
- Quercus hondurensis**
Monarthrum quercuum Wood. *Pseudopityophthorus granulifer* Wood. *Pseudopityophthorus pruinusos* (Eichhoff).
- Quercus humboldtii**
Cnesinus deperditus Wood, *Cnesinus fulgidus* Wood, *Phloeotribus remorsus* Wood. *Pseudopityophthorus colombianus* Wood.
- Quercus hypoleucoides**
Corthylius petilus Wood, *Monarthrum huachucae* Wood, *Pseudopityophthorus granulatus* Blackman. *Pseudopityophthorus pruinusos* (Eichhoff). *Pseudopityophthorus yacapaii* Blackman.
- Quercus ilex**
Taphrorychus minor Eggers.
- Quercus incana**
Carethesiopygus lobocanthus Schedl, *Crossotarsus fairmairei* Chapuis, *Crossotarsus uilmoti* (Stebbing), *Diapus aculeatus* Blandford, *Diapus quadrispinatus* Chapuis, *Diapus quinquespinatus* Chapuis, *Platypus abruptus* Sampson, *Polygraphus querci* Wood, *Scolytroplatypus pubescens* Hagedorn, *Sphaerotrypes querci* Stebbing.
- Quercus jordanae**
Xyleborus rufus Schedl.
- Quercus kelloggii**
Monarthrum scutellare (LeConte), *Pseudopityophthorus agrifoliae* Blackman, *Pseudopityophthorus pubipennis* (LeConte).
- Quercus lamellosa**
Ambrosiodmus apicalis (Blandford), *Arixyleborus moestus* (Eggers), *Diapus minor* Schedl, *Diapus molossus* Chapuis, *Diapus quadrispinatus* Chapuis, *Diapus quinquespinatus* Chapuis, *Diapus spatulifer* Browne, *Indoeryphalus intermedius* (Sampson), *Platypus curtatus* Sampson, *Platypus falcatus* Strohmeyer, *Platypus lewisi* Blandford, *Platypus quadriporus* (Beeson), *Pseudoxylechinus indicus* Wood, *Scolyto-platypus darjeelingi* Stebbing, *Xyleborus improbus* Sampson, *Xyleborus inarmatus* Eggers, *Xylechinus darjeelingensis* Schedl.
- Quercus lanuginosa**
Taphrorychus hewetti (Stebbing).
- Quercus lineata**
Platypus quadriporus (Beeson).
- Quercus marylandica**
Pseudopityophthorus pruinusos (Eichhoff), *Trischidias atomus* (Hopkins).
- Quercus mirbeckii**
Taphrorychus villifrons (Dufour).
- Quercus mongolica**
Platypus quercivorus Murayama, *Xyleborus atratus* Eichhoff, *Xyleborus laetus* Niisima, *Xyleborus punctulatus* Kurenzov, *Xyleborus starki* Numberg.
- Quercus mongolica grosseserrata**
Crossotarsus niponicus Blandford, *Platypus calamus* Blandford, *Platypus lewisi* Blandford, *Platypus modestus* Blandford, *Platypus quercivorus* Murayama, *Xyleborus aquilus* Blandford.
- Quercus myrsinaefolia**
Acanthotomicus spinosus Blandford, *Ambrosiodmus rubricollis* (Eichhoff), *Crossotarsus niponicus* Blandford, *Platypus calamus* Blandford, *Platypus quercivorus* Murayama, *Sphaerotrypes pila* Blandford, *Xyleborus japonicus* Nobuchi, *Xyleborus nameranus* Murayama, *Xylosandrus compactus* (Eichhoff).
- Quercus nigra**
Pseudopityophthorus asperulus (LeConte), *Pseudopityophthorus pruinusos* (Eichhoff).
- Quercus pedunculata**
Taphrorychus villifrons (Dufour).
- Quercus phellos**
Xyleborus ferrugineus (Fabricius).
- Quercus phillyraeoides**
Xyleborus nisatoensis Nobuchi, *Xyleborus wakayamensis* Nobuchi.
- Quercus pubescens**
Taphrorychus villifrons (Dufour).
- Quercus robur**
Platypus mutatus Chapuis, *Taphrorychus villifrons* (Dufour).
- Quercus rubra**
Monarthrum fasciatum (Say), *Monarthrum mali* (Fitch), *Pseudopityophthorus asperulus* (LeConte), *Pseudopityophthorus pubescens* Blackman.
- Quercus salicina**
Crossotarsus niponicus Blandford, *Platypus calamus* Blandford, *Platypus quercivorus* Murayama.
- Quercus sapotaefolia**
Micracis lignicolus Wood, *Pseudopityophthorus granulifer* Wood.
- Quercus semicarpifolia**
Crossotarsus fairmairei Chapuis, *Diapus aculeatus* Blandford, *Diapus molossus* Chapuis, *Genyocerus furticus* (Sampson), *Scolytus querci* Yin & Huang, *Sphaerotrypes querci* Stebbing, *Taphrorychus hewetti* (Stebbing).
- Quercus serrata**
Diapus quinquespinatus Chapuis, *Platypus calamus* Blandford, *Platypus koryoensis* (Murayama), *Platypus lewisi* Blandford, *Platypus quercivorus* Murayama, *Xyleborus atratus* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky).
- Quercus sessilifolia**
Platypus calamus Blandford, *Platypus quercivorus* Murayama.
- Quercus sopataefolia**
Pseudopityophthorus pruinusos (Eichhoff).
- Quercus spicata**
Coccotrypes papuanus (Eggers).
- Quercus spp.**
Anasa schlichii (Stebbing), *Ambrosiodmus apicalis* (Blandford), *Ambrosiodmus devexus* (Schedl), *Ambrosiodmus ferus* (Wood), *Ambrosiodmus funebris* (Schedl), *Ambrosiodmus lewisi* (Blandford), *Ambrosiodmus rubricollis* (Eichhoff), *Anaphicranus rameus* Wood, *Anaphicranus splendens* Wood, *Chramesus dentatus* Schaeffer, *Cnesinus elegantis* Wood, *Cnesinus gibbulus* Wood, *Cnesinus porcatus* Blandford, *Cnesinus strigicollis* LeConte, *Corthylyclon aztecum* (Bright), *Corthylylus minutus* Bright, *Corthylylus petilus* Wood, *Crossotarsus fractus* Sampson, *Crossotarsus horni* Schedl, *Crossotarsus oligodontus* Roberts, *Crossotarsus simplex* Murayama, *Crossotarsus terminatus* Chapuis, *Cryphalus felis* Wood, *Cyclorhipidion circumcissum*

(Sampson), *Cyclorhpidion subobtusum* (Schedl), *Diapys pendleburyi* Schedl, *Dryocoetius coffeae* (Eggers), *Eucallacea xanthopa* (Eichhoff), *Glochinoecerus gemellus* Blandford, *Gnathotrichus dentatus* Wood, *Gnathotrichus nigrifrons* Wood, *Gnathotrichus obscurus* Wood, *Gnathotrichus pilosus* (LeConte), *Gnathotrichus primus* (Bright), *Gnathotrupes bituberculatus* (Blandford), *Hadrodemius amorphus* (Eggers), *Hylesinus crenatus* (Fabricius), *Hylesinus varius* (Fabricius), *Hylocurus femineus* Wood, *Hylocurus hirtellus* (LeConte), *Hylocurus incomptus* Wood, *Hylocurus longipennis* Wood, *Hylocurus parkinsoniae* Blackman, *Hypothenemus birmanus* (Eichhoff), *Hypothenemus columbi* Hopkins, *Hypothenemus erudiae* (Panzer), *Hypothenemus dissimilis* (Zimmermann), *Hypothenemus eruditus* Westwood, *Hypothenemus interstitialis* (Hopkins), *Hypothenemus rotundicollis* (Eichhoff), *Hypothenemus seriatus* (Eichhoff), *Leptoxyleborus concisus* (Blandford), *Lymantor coryli* (Perris), *Micracis amplius* Wood, *Micracis evanescens* Wood, *Micracis incertus* Wood, *Micracis lignator* Blackman, *Micracisella adnata* Wood, *Micracisella knullii* (Blackman), *Micracisella mimetica* Wood, *Micracisella nanula* (LeConte), *Micracisella scitula* Wood, *Microcorthyus vicinus* Wood, *Monarthrum aberrans* Schedl, *Monarthrum bicavum* Wood, *Monarthrum cordatum* (Blandford), *Monarthrum cordaticum* Wood, *Monarthrum dentigerum* (LeConte), *Monarthrum desum* (Wood), *Monarthrum fasciatum* (Say), *Monarthrum gnarum* (Schedl), *Monarthrum laterale* (Eichhoff), *Monarthrum luctuosum* (Blandford), *Monarthrum morsum* Wood, *Monarthrum netzerianii* (Schedl), *Monarthrum pseudoscutellare* (Schedl), *Monarthrum quercicolens* Wood, *Monarthrum quercivorum* Schedl, *Monarthrum quercus* (Wood), *Monarthrum quercuum* Wood, *Monarthrum scrobiceps* (Eichhoff), *Monarthrum sulcatum* (Blandford), *Monarthrum validum* (Ferrari), *Monarthrum vittatum* (Blandford), *Phloeosinus pulchellus* Blandford, *Phloeotribus quercinus* Wood, *Pityophthorus conspectus* Wood, *Pityophthorus guatemalensis* Blandford, *Pityophthorus lautus* Eichhoff, *Pityophthorus medialis* Wood, *Pityophthorus melanurus* Wood, *Pityophthorus parilis* Wood, *Pityophthorus quercinus* Wood, *Pityophthorus scitulus* Wood, *Platypus annexus* Wood, *Platypus cugestus* Wood, *Platypus formosanus* Niisima & Murayama, *Platypus connexus* Wood, *Platypus convexicauda* Schedl, *Platypus cylindrus* (Fabricius), *Platypus jansoni* Chapuis, *Platypus kiusuensis* Murayama, *Platypus nardicus* Blandford, *Platypus otiosus* Schedl, *Platypus platypoides* (Browne), *Platypus quadridentatus* (Olivier), *Platypus quercus* Wood, *Platypus querci* Browne, *Platypus quercicola* Schedl, *Platypus quercivorus* Murayama, *Pseudopityophthorus agrifoliae* Blackman, *Pseudopityophthorus asperulus* (LeConte), *Pseudopityophthorus comosus* Bright, *Pseudopityophthorus declivis* Wood, *Pseudopityophthorus denticulus* Wood, *Pseudopityophthorus festivus* Wood, *Pseudopityophthorus granulatus* Blackman, *Pseudopityophthorus hondurensis* Wood, *Pseudopityophthorus limbatus* Eggers, *Pseudopityophthorus minutissimus* (Zimmermann), *Pseudopityophthorus opacicollis* Blackman, *Pseudopityophthorus peregrinus* Wood & Yin, *Pseudopityophthorus pruinosis* (Eichhoff), *Pseudopityophthorus singularis* Wood, *Pseudopityophthorus squamosus* Bright, *Pseudopityophthorus tenuis* Wood, *Pseudopityophthorus virilis* Wood, *Pseudopityophthorus yacapaï* Blackman, *Pseudo-*

thysanoes brunneus Wood, *Pseudothysanoes costatus* Wood, *Pseudothysanoes lecontei* Blackman, *Pseudothysanoes quercicolens* Wood, *Pseudothysanoes quercivorus* (Wood), *Pseudothysanoes quercivorus* Wood, *Pseudothysanoes securus* Wood, *Pseudothysanoes scitulus* Blackman, *Schedlia vulpinus* (Schedl), *Scolytodes anabilis* Wood, *Scolytodes radiatus* Wood, *Scolytoplatypus daimio* Blandford, *Scolytoplatypus mikado* Blandford, *Scolytoplatypus raja* Blandford, *Scolytoplatypus sionio* Blandford, *Scolytoplatypus tycon* Blandford, *Scolytus intricatus* (Ratzeburg), *Scolytus laevis* Chapuis, *Scolytus pygmaeus* (Fabricius), *Scolytus scolytus* (Fabricius), *Scolytus sulcifrons* Rey, *Sphaerotrypes yunnanensis* Tsai & Yin, *Tesseroecerus alternans* Schedl, *Tesseroecerus schmutzhoferi* Schedl, *Thysanoes adonis* Wood, *Thysanoes berchemiae* Blackman, *Thysanoes fimbriicornis* LeConte, *Thysanoes lobdelli* Blackman, *Thysanoes pallens* Wood, *Thysanoes subsulcatus* Wood, *Thysanoes xylophagus* Blackman, *Tiarophorus scrutator* (Pandelle), *Trypodendron domesticum* (Linnaeus), *Webbia piscecauda* Browne, *Xyleborinus aenulus* (Wollaston), *Xyleborinus attenuatus* (Blandford), *Xyleborinus exiguus* (Walker), *Xyleborinus gracilicornis* (Schedl), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus adusticollis* (Motschulsky), *Xyleborus affinis* Eichhoff, *Xyleborus armipennis* Schedl, *Xyleborus emarginatus* Eichhoff, *Xyleborus eurgraphus* (Ratzeburg), *Xyleborus exesus* Blandford, *Xyleborus kumamotoensis* Murayama, *Xyleborus monographus* (Fabricius), *Xyleborus obesus* LeConte, *Xyleborus olnoi* Browne, *Xyleborus okinosuensis* Murayama, *Xyleborus onoharacensis* Murayama, *Xyleborus perforans* (Wollaston), *Xyleborus pfeili* (Ratzeburg), *Xyleborus quercicola* Eggers, *Xyleborus scirporensis* Murayama, *Xyleborus seriatus* Blandford, *Xyleborus xylographus* (Say), *Xylosandrus brevis* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus germanus* (Blandford), *Xylosandrus manicus* (Blandford), *Xyloterinus politus* (Say).

Quercus stenophylla

Ambrosiodinus lewisii (Blandford), *Platypus calamus* Blandford, *Xyleborinus attenuatus* (Blandford), *Xyleborinus saxeseni* (Ratzeburg), *Xyleborus kojimai* Murayama, *Xyleborus pelliculosus* Eichhoff, *Xyleborus volutus* (Fabricius).

Quercus texana

Hypothenemus eruditus Westwood.

Quercus tomentocaulis

Platypus longius Wood.

Quercus tomentosicupula

Xyleborus atratus Eichhoff.

Quercus velutina

Hylocurus rudis (LeConte), *Pseudopityophthorus asperulus* (LeConte).

Quercus virginiana

Araptus nanulus Wood.

Quercus williamsii

Micracis lignicolus Wood.

Quercus wislizenii

Pseudopityophthorus agrifoliae Blackman.

Quercus wrayi

Cyclorhpidion punctatopilosum (Schedl), *Platypus quercinus* Schedl.

Quintinia spp.

Crossotarsus caliginosus Roberts, *Margadillius magnus* Browne.

Quisqualis indica

Hypothenemus californicus Hopkins, *Hypothenemus crudiae* (Panzer), *Hypothenemus cruditus* Westwood.

Radlkofera spp.

Doliopygus bitalei Schedl, *Doliopygus omissus* Schedl, *Eucallalcea xanthopus* (Eichhoff), *Platypus intermedius* (Schedl), *Platypus orientalis* (Strohmeyer), *Xyleborus althaudi* Schaufuss, *Xyleborus amanicus* Hagedorn, *Xyleborus principalis* Eichhoff.

Randia acuminata

Cylindropalpus granulosis (Schedl).

Randia anisophylla

Anasa versicolor (Sampson), *Ambrosiodinus rubricollis* (Eichhoff), *Leptoxyloborus concisus* (Blandford).

Randia congolana

Doliopygus serratus (Strohmeyer), *Hypothenemus perhispidus* (Eggers), *Micropyphalus nitidus* (Schedl), *Xyleborus althaudi* Schaufuss, *Xylosandrus crassiusculus* (Motschulsky).

Randia spp.

Pseudothyssanoes truncatus Wood, *Pseudothyssanoes vesculus* Wood, *Xyleborinus andrewesi* (Blandford).

Randia uliginosa

Eucallalcea andamanensis (Blandford).

Rapanea guyanensis

Cortlylus mexicanus Schedl.

Rapanea melanophloeos

Xyleborinus acmulus (Wollaston).

Rapanea rhododendroides

Chaetastus montanus Schedl.

Rauwolfia caffra

Eucallalcea xanthopus (Eichhoff), *Premnobius minor* Eggers.

Rauwolfia inebrians

Rhopalopselion immaturus (Schedl).

Rauwolfia vomitoria

Triozastus caliginosus Roberts.

Rarensara percillei

Platypus madagascariensis Chapuis, *Mitosoma odonticeps* Schedl.

Rarensara polyneura

Mitosoma odonticeps Schedl.

Rarensara spp.

Eucallalcea xanthopus (Eichhoff), *Hypothenemus abruptus* (Schedl), *Mitosoma obconiceps* Schedl, *Mitosoma truncatipennis* Schedl, *Xyleborinus mitosomipennis* (Schedl), *Xyleborus madagascariensis* Schaufuss, *Xyleborus sakalava* Schedl, *Xylosandrus mancus* (Blandford).

Ravenala madagascariensis

Mitosoma odonticeps Schedl.

Rengas spp.

Platypus perbrevis Browne.

Retama bovei

Phlocotribus pycrinloffii (Eggers).

Retama sphaerocarpa

Liparthrum genistae (Aube), *Phlocotribus rhododactylus* (Marshall).

Retama spp.

Phlocotribus cristatus (Fauvel), *Phlocotribus maroccanus* (Guillebeau).

Reynoldsia tahitensis

Xyleborus munfordi Beeson.

Reynosia septentrionalis

Hypothenemus hirsutus (Wood).

Rhacoma crossopetalum

Cryptocarenum scriatus Eggers.

Rhannus betulaeefolia

Chramesus setosus Wood.

Rhannus capreaefolia

Chramesus chapuisi LeConte.

Rhannus cathartica

Lymanator coryli (Perris).

Rhannus frangula

Lymanator coryli (Perris).

Rhannus lanceolata

Hypothenemus dissimilis (Zimmermann), *Hypothenemus rotundicollis* (Eichhoff).

Rhannus spp.

Hylocurus hirtellus (LeConte), *Hypothenemus scriatus* (Eichhoff), *Hypothenemus sparsus* Hopkins.

Rheedia edulis

Camptocerus auricomus Blandford, *Micracis carinulus* Wood, *Microborus boops* Blandford, *Phrixosoma minor* Wood, *Phrixosoma rude* Blandford, *Pityophthorus galeritus* Wood, *Pityophthorus strictus* Wood.

Rheedia madruno

Phrixosoma crebra Wood, *Phrixosoma frustrata* Wood, *Phrixosoma obesa* Blackman, *Phrixosoma viriosa* Wood, *Taurodemus bicornutus* (Wood), *Xyleborus schildi* Schedl.

Rheedia spp.

Hypothenemus javanus (Eggers).

Rhizophora apiculata

Crossotarsus externedentatus (Fairmaire), *Platypus pseudocupulatus* Schedl, *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston).

Rhizophora mangle

Coccotrypes rhizophorae (Hopkins), *Hypothenemus birmanus* (Eichhoff), *Hypothenemus crudiae* (Panzer), *Hypothenemus cruditus* Westwood, *Hypothenemus javanus* (Eggers), *Micracisella nanula* (LeConte), *Thyssanoes pallens* Wood, *Trischidias atomus* (Hopkins), *Trischidias minutissima* Wood, *Xyleborus productus* Hagedorn.

Rhizophora mucronata

Coccotrypes litoralis (Beeson), *Coccotrypes rhizophorae* (Hopkins), *Ernoporus incrimis* (Schedl), *Platypus forficula* Chapuis, *Platypus insularis* Strohmeyer, *Xyleborus bidentatus* (Motschulsky), *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus sinilis* Ferrari.

Rhizophora spp.

Coccotrypes fallax (Eggers), *Cryphalus negrosensis* Browne, *Premnobius cavipennis* Eichhoff, *Xylosandrus compactus* (Eichhoff).

Rhodannia trinervia

Anasa versicolor (Sampson), *Arixyleborus scabripennis* (Blandford), *Eccoopterus limbus* Sampson, *Hadrodemus comans* (Sampson), *Xyleborus approximatus* Schedl, *Xyleborus minutus* Blandford.

Rhodobaena bakeriana

Mitosoma obconiceps Schedl, *Mitosoma obliquatum* Schedl, *Mitosoma paulianum* Schedl.

Rhododendron spp.

Cortlylus punctatissimus (Zimmermann), *Hypothenemus interstitialis* (Hopkins).

Rhoicissus erythrodes

Eucallalcea xanthopus (Eichhoff), *Xyleborus principalis* Eichhoff.

Rhus ambigua*Xyleborus seriatus* Blandford.***Rhus aromatica****Hypothenemus distinctus* Wood, *Pityophthorus hyllocuroides* Wood.***Rhus chinensis****Xylosandrus discolor* (Blandford), *Xylosandrus germanus* (Blandford).***Rhus diversilobata****Cactopinus rhois* Blackman.***Rhus glabra****Hypothenemus seriatus* (Eichhoff).***Rhus integrifolia****Chaetophloeus hystrix* (LeConte), *Chaetophloeus penicillatus* (Bruck).***Rhus lancea****Hypothenemus malus* (Schedl), *Lanurgus rhusi* Schedl.***Rhus laurina****Chaetophloeus hystrix* (LeConte), *Stenochlytus sulcatus* (Bruck).***Rhus microphylla****Chaetophloeus penicillatus* (Bruck).***Rhus mucronata****Xyleborinus aemulus* (Wollaston).***Rhus orata****Chaetophloeus hystrix* (LeConte), *Chaetophloeus penicillatus* (Bruck).***Rhus radicans****Pityophthorus lautus* Eichhoff.***Rhus* spp.***Acanthotomicus bidentatus* (Schedl), *Ambrosiodmus rubricollis* (Eichhoff), *Ambrosiodmus tachygraphus* (Zimmermann), *Chaetophloeus lasius* Wood, *Chaetophloeus sulcatus* (Wood), *Corthylocurus mexicanus* (Schedl), *Glostatus acaciae* (Schedl), *Hylesinopsis confusus* (Eggers), *Hyllocurus hirtellus* (LeConte), *Hypothenemus interstitialis* (Hopkins), *Micracisella nigrella* Wood, *Pityophthorus debilis* Wood, *Platypus solutus* Schedl, *Polygraphus natalensis* Eggers, *Thysanoes inornatus* Wood, *Xyleborinus saxseni* (Ratzeburg).***Rhus succedanea****Sueus niisimai* (Eggers).***Rhus sylvestris****Ambrosiodmus lewisi* (Blandford), *Lymantor kabei* Murayama.***Rhus taitensis****Platypus solidus* Walker, *Xyleborus viaticus* Schedl.***Rhus toxicodendron****Pityophthorus erinalis* Blackman, *Trischidias atomus* (Hopkins).***Rhus toxicodendron radicans****Cryphalus rhusi* Niisima.***Rhus trichocarpa****Indocryphalus pubipennis* (Blandford).***Rhus trilobata****Cactopinus rhois* Blackman, *Chaetophloeus penicillatus* (Bruck), *Pityophthorus virilis* Blackman.***Rhus typhina****Lymantor decipiens* (LeConte), *Pityophthorus lautus* Eichhoff, *Pityophthorus scriptor* Blackman.***Rhus vernix****Pityophthorus erinalis* Blackman.***Rhus villosa****Platypus solutus* Schedl.***Ribes* spp.***Chaetophloeus heterodoxus* (Casey).***Ricinodendron africanum****Chaetastus tuberculatus* (Chapuis), *Doliopygus lefevrei* Schedl, *Platypus hintzi* Schauffuss, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus alluaudi* Schauffuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volvulus* (Fabricius).***Ricinodendron heudelotii****Ambrosiodmus ovatus* (Eggers), *Chaetastus tuberculatus* (Chapuis), *Coccotrypes rotundicollis* (Eggers), *Doliopygus conradi* (Strohmeyer), *Doliopygus interjectus* Schedl, *Doliopygus medius* Schedl, *Doliopygus serratus* (Strohmeyer), *Eucallacea pandae* (Schedl), *Hypothenemus eruditus* Westwood, *Periommatius excisus* Strohmeyer, *Platypus hintzi* Schauffuss, *Platypus impressus* (Strohmeyer), *Platypus picinus* Schedl, *Platypus solutus* Schedl, *Prennobius nodulosus* Hagedorn, *Trachyostus aterrimus* (Schauffuss), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schauffuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus piceus* (Motschulsky), *Xyleborus subtuberculatus* Eggers, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).***Ricinus communis****Acanthotomicus tanganyikaensis* (Schedl), *Eucallacea fornicatus* (Eichhoff), *Eucallacea xanthopus* (Eichhoff), *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Pityophthorus kivuensis* Schedl, *Theoborus ricini* (Eggers), *Xyleborus principalis* Eichhoff, *Xyleborus volvulus* (Fabricius).***Ricinus* spp.***Eucallacea fornicatus* (Eichhoff).***Rinorea* spp.***Dactylipalpus grouvellei* (Blandford).***Rinorea icelchitschii****Doliopygus subditivus* (Schedl), *Xyleborus piceus* (Motschulsky).***Ritchiea apprealiana****Eucallacea xanthopus* (Eichhoff), *Xyleborus ambipennis* Schedl, *Xyleborus principalis* Eichhoff.***Robinia neomexicana****Chramesus asperatus* Schaeffer.***Robinia pseudacacia****Eucallacea fornicatus* (Eichhoff), *Hypothenemus eruditus* Westwood, *Trischidias atomus* (Hopkins), *Trypodendron domesticum* (Linnaeus).***Robinia* spp.***Chramesus chapuisi* LeConte, *Hylesinus varius* (Fabricius), *Hyllocurus ruber* Wood, *Hypothenemus eruditus* Westwood.***Rollinia orethopetula****Coccotrypes carpophagus* (Hornung).***Rollinia* spp.***Xylosandrus compactus* (Eichhoff).***Rosa* spp.***Cnesinus elegans* Blandford, *Xyleborus dispar* (Fabricius).***Roupala complicata****Araptus vinnulus* Wood.***Roupala* spp.***Araptus furvescens* Wood, *Araptus furvus* Wood.***Rubus* spp.***Cnesinus elegans* Blandford, *Cnesinus fulgens* Wood, *Cnesinus lucaris* Wood, *Corthylocurus mexicanus* (Schedl), *Corthyus additus* Wood, *Cryphalus balanopselaphus* Eggers, *Hypothenemus erectus* LeConte.

- Micracisella nitidula* Wood, *Tricholus aciculatus* Wood, *Xylosandrus compactus* (Eichhoff).
- Rudaea amazonica**
Xyleborus spinulosus Blandford.
- Rumex spp.**
Cyrtogenius nubungensis (Schedl).
- Sabal bermudana**
Coccotrypes dactyliperda (Fabricius).
- Sabal palmetto**
Coccotrypes carpophagus (Hornung).
- Sabia parviflora**
Hypothenemus seriatus (Eichhoff).
- Sabina chinensis**
Phloeosinus hopeii Schedl, *Phloeosinus perlatus* Chapuis, *Phloeosinus stensii* Tsai & Yin.
- Saccharum officinarum**
Xyleborus affinis Eichhoff, *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky).
- Saccharum spontaneum**
Hypothenemus bahianae Schedl, *Hypothenemus eruditus* Westwood, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus perforans* (Wollaston), *Xyleborus volutus* (Fabricius).
- Sacoglathia procera**
Phelloterus anaxeus Wood, *Platypus nudatus* Wood, *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius).
- Sacoglathia spp.**
Phelloterus atrocis Wood.
- Sagraea elliptica**
Crossotarsus andamanus Beeson.
- Sagraea laurina**
Xylosandrus crassiusculus (Motschulsky).
- Sahaje jahara**
Sphacrotrypes bengalensis Wood.
- Salacia erecta**
Mimiocurus kikusaе (Schedl), *Mimiocurus rugicollis* (Schedl).
- Salix babylonica**
Hypothenemus californicus Hopkins.
- Salix caprea**
Trypophloeus binodulus (Ratzeburg).
- Salix fragilis**
Trypophloeus binodulus (Ratzeburg).
- Salix guatemalensis**
Corthylus papulans Eichhoff, *Micracis grandis* Schedl.
- Salix nigra**
Trischlidius atomus (Hopkins).
- Salix sachalinensis**
Trypophloeus dejerti Stark.
- Salix scouleriana**
Procrpyphalus utahensis Hopkins, *Trypophloeus striatulus* (Mannerheim).
- Salix silesiaca**
Trypophloeus rybinskii Reitter.
- Salix spp.**
Ambrosiodinus levisi (Blandford), *Corthylus mexicanus* Schedl, *Cryphalus exiguus* Blandford, *Hylocurus hirtellus* (LeConte), *Hylocurus microcoris* Wood, *Hypothenemus columbi* Hopkins, *Hypothenemus seriatus* (Eichhoff), *Lymnator alaskanus* Wood, *Lymnator decipiens* (LeConte), *Micracis carinulatus* Wood, *Micracis detentus* Wood, *Micracis scauwei* Blackman, *Micracis tribulatus* Wood, *Micracisella knulli* (Blackman), *Microcorthylus vicinus* Wood, *Procrpyphalus utahensis* Hopkins, *Scolytus scheryzevi* Semenov, *Scolytus scolytus* (Fabricius), *Taphrorhynchus machnoeskii* (Sokanovskii), *Trypophloeus binodulus* (Ratzeburg), *Trypophloeus uiger* Stark, *Trypophloeus salicis* Hopkins.
- Salix tetrasperma**
Scolytoplatypus minimus Hagedorn, *Xyleborus haberkorni* Eggers.
- Salmalia insignis**
Eucallacea andamanensis (Blandford), *Eucallacea interjectus* (Blandford), *Platypus indicus* Strohmeier, *Platypus quadrifissilis* Schedl, *Xyleborus cognatus* Blandford.
- Salmalia malabarica**
Ambrosiodinus minor (Stebbing), *Crossotarsus minax* (Walker), *Eucallacea andamanensis* (Blandford), *Eucallacea fornicatus* (Eichhoff), *Eucallacea interjectus* (Blandford), *Platypus cavus* Strohmeier, *Platypus indicus* Strohmeier, *Platypus latifinis* Walker, *Platypus solidus* Walker, *Platypus uncinatus* Blandford.
- Samanea saman**
Doliopygus chapuisi (Duvivier), *Hypothenemus eruditus* Westwood, *Platypus suffodiens* Sampson, *Xyleborus perforans* (Wollaston), *Xyleborinus andrewesi* (Blandford), *Xyleborinus exiguus* (Walker), *Xyleborus spinulosus* Blandford.
- Samanea spp.**
Eucallacea fornicatus (Eichhoff), *Xylosandrus compactus* (Eichhoff).
- Sambucus canadensis**
Hypothenemus eruditus Westwood, *Xylosandrus compactus* (Eichhoff).
- Sambucus chinensis**
Xylosandrus crassiusculus (Motschulsky).
- Sambucus javanica**
Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).
- Sambucus spp.**
Pityophthorus coronarius Blackman, *Pityophthorus exquisitus* (Blackman), *Pityophthorus pudicus* Blackman, *Pityophthorus sambuci* Blackman, *Xylosandrus compactus* (Eichhoff).
- Sandoricum spp.**
Xylosandrus crassiusculus (Motschulsky).
- Santalum album**
Xyleborus similis Ferrari.
- Santalum spp.**
Ficicis despectus (Walker), *Xylosandrus compactus* (Eichhoff).
- Santiria griffithii**
Crossotarsus terminatus Chapuis, *Cyclorhipidion foersteri* (Hagedorn), *Cyclorhipidion pruinosum* (Blandford).
- Santiria spp.**
Crossotarsus cliens (Schedl).
- Santiria trimera**
Chaetastus montanus Schedl, *Doliopygus santiriae* Roberts, *Platypus santiriae* Roberts, *Triozastus caliginosus* Roberts.
- Sapindus oahuensis**
Xyleborus lanaiensis Perkins.
- Sapium baccatum**
Platypus lunatipennis Schedl, *Platypus westwoodii* Chapuis.
- Sapium biloculare**
Cnemomyx confinis (Wood).

Sapium ellipticum*Xyleborus scobinatus* Hagedorn.***Sapium eugeniaefolium****Crossotarsus bonvouloiri* Chapuis, *Eucallacea andamanensis* (Blandford), *Eucallacea sibsagaricus* (Eggers), *Eucallacea tristis* (Eggers), *Eucallacea wallacei* (Blandford), *Xyleborinus subgranulatus* (Eggers).***Sapium guineense****Xyleborus voltrulus* (Fabricius).***Sapium mannianum****Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus serratus* (Strohmeyer), *Pityophthorus kivuensis* Schedl, *Platypus solutus* Schedl, *Xyleborus affinis* Eichhoff, *Xyleborus principalis* Eichhoff.***Sapium* spp.***Chaetastus tuberculatus* (Chapuis).***Sapium thelocarpum****Scolytodes pumilus* Wood.***Sapota gonocarpa****Dendrocraniulus brasiliensis* (Schedl).***Saraca indica****Cryptocarenum diadematus* Eggers.***Saraca* spp.***Eucallacea andamanensis* (Blandford), *Leptoxyloborus concisus* (Blandford), *Platypus pseudocupulatus* Schedl.***Sarcocephalus cordatus****Diapys quinquespinnatus* Chapuis, *Eucallacea interjectus* (Blandford), *Platypus lepidus* Chapuis, *Xyleborus emarginatus* Eichhoff, *Xyleborus fisheri* Hagedorn, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.***Sarcocephalus* spp.***Platypus bajulus* Schedl, *Premnobius caripennis* Eichhoff, *Premnobius scaspinosus* Eggers, *Xyleborus alhuaudi* Schaufuss, *Xyleborus nitidulus* Eggers.***Sarcocephalus trillesii****Cylindropalpus laudatus* (Schedl), *Doliopygus conradi* (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebrunii* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Hypothenemus eruditus* Westwood, *Periommatas longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus colvulus* (Fabricius).***Sarcostemma clausum****Araptus dentifrons* Wood.***Sarothammus scoparius****Phloeotribus rhododactylus* (Marshall).***Sassafras albidum****Xyleborus sayi* (Hopkins).***Sassafras* spp.***Corthylus punctatissimus* (Zimmermann).***Saurauia pentapetala****Hadrodemus comans* (Sampson).***Scaevola frutescens****Scolytogenes nubilus* (Wood).***Scaphium affine****Crossotarsus wallacei* (Thomson), *Eucallacea fornicatus* (Eichhoff), *Platypus geminatus* Chapuis, *Platypus insularis* Strohmeyer, *Platypus quadrifissilis* Schedl.***Scaphium* spp.***Anasa striatotruncatus* (Schedl), *Coptodryas mugax* (Schedl), *Crossotarsus terminatus* Chapuis, *Cyclorhi-**pidion agnatum* (Eggers), *Leptoxyloborus concisus* (Blandford), *Platypus westwoodi* Chapuis.***Schefflera aromatica****Cryphalus tenuis* Schedl.***Schefflera manni****Triozastus caliginosus* Roberts.***Schima cordatus****Platypus vethi* Strohmeyer.***Schima noronhae****Crossotarsus edentatus* Beeson, *Platypus biuncus* Blandford, *Platypus curvus* Strohmeyer, *Platypus signatus* Chapuis, *Platypus solidus* Walker.***Schima* spp.***Ambrosiodmus apicalis* (Blandford), *Xyleborus seriatus* Blandford.***Schima superba****Ambrosiodmus rubricollis* (Eichhoff), *Xyleborus pfeili* (Ratzeburg), *Xylosandrus discolor* (Blandford).***Schima wallichii****Platypus curvus* Strohmeyer, *Platypus indicus* Strohmeyer, *Platypus solidus* Walker, *Xyleborus schoreae* (Stebbing).***Schinus* spp.***Eucallacea fornicatus* (Eichhoff), *Xylosandrus compactus* (Eichhoff).***Schizobium excelsum****Chaetastus tuberculatus* (Chapuis).***Schizobium* spp.***Xyleborus affinis* Eichhoff.***Schizomeria* spp.***Platypus concentriporus* Roberts, *Platypus valdephlebis* Roberts.***Schleichera oleosa****Diapys molossus* Chapuis, *Eucallacea andamanensis* (Blandford), *Eucallacea fornicatus* (Eichhoff), *Platypus solidus* Walker, *Xylosandrus morigeris* (Blandford).***Schleichera trijuga****Hypothenemus crudiae* (Panzer), *Platypus solidus* Walker, *Xyleborus perforans* (Wollaston).***Schotia latifolia****Xyleborinus acmulus* (Wollaston).***Schoutenia accrescens****Anasa versicolor* (Sampson), *Crossotarsus squannulatus* Chapuis, *Crossotarsus wallacei* (Thomson).***Schoutenia mastersii****Crossotarsus siporamus* Schedl.***Schoutenia ovata****Hypothenemus eruditus* Westwood.***Sclerocarya biffra****Ambrosiodmus eichhoffi* (Schreiner).***Sclerocarya birrea****Xyleborinus sclerocaryae* (Schedl).***Sclerocarya cuffra****Xyleborinus sclerocaryae* (Schedl).***Sclerocarya* spp.***Ambrosiodmus eichhoffi* (Schreiner).***Sclerosperma mannii****Coccotrypes congenus* Eggers, *Coccotrypes nigripes* Eggers.***Scolopia brownii****Platypus subgranosus* Schedl.***Scorodocarpus borneensis****Cnestus aterrimus* (Eggers).***Scorodophloeus zenkeri****Chaetastus tuberculatus* (Chapuis), *Cylindropalpus affinis* Strohmeyer, *Cylindropalpus auricomans* (Schau-

- fuss), *Cylindropalpus granulosus* (Schedl), *Cylindropalpus laudatus* (Schedl), *Dactylipalpus camerunus* Hagedorn, *Doliopygus chapuisi* (Duvivier), *Doliopygus citri* Schedl, *Doliopygus conradi* (Strohmeyer), *Doliopygus donisi* Schedl, *Doliopygus divaricus* (Schedl), *Doliopygus donisi* Schedl, *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus ghesquieri* (Schedl), *Doliopygus lateralis* Schedl, *Doliopygus lateralis* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus maynei* Schedl, *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus notatus* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus punctiventris* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus submarginatus* Schedl, *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Hypothenemus cruditus* Westwood, *Periommatatus excisus* Strohmeyer, *Periommatatus grandis* Schedl, *Periommatatus inermis* Strohmeyer, *Periommatatus longicollis* Chapuis, *Periommatatus similis* Strohmeyer, *Periommatatus subrobustus* Schedl, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus intermedius* (Schedl), *Platypus orientalis* (Strohmeyer), *Platypus picinus* Schedl, *Trachyostus aterrinus* (Schaufuss), *Trachyostus decellei* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Trachyostus tomentosus* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborinus polyalthiae* (Schedl), *Xyleborinus similans* (Eggers), *Xyleborinus spinipes* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus katangensis* Eggers, *Xyleborus picus* (Motschulsky), *Xyleborus ustus* Schedl, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Scottellia coriacea**
Doliopygus obduensis Roberts.
- Scutia connersonii**
Hypothenemus scutiae (Schedl).
- Scutia myrtina**
Hypothenemus marshalli (Eggers), *Hypothenemus morigerus* (Schedl).
- Seaforthia spp.**
Coccotrypes dactyliperla (Fabricius).
- Sechium edule**
Cnesinus degener Wood, *Dendrocranulus declivis* Schedl, *Dendrocranulus gracilis* Wood, *Dendrocranulus limus* Wood, *Dendrocranulus mexicanus* Wood, *Dendrocranulus tardulus* Wood.
- Semecarpus anacardium**
Crossotarsus externedentatus (Fairmaire), *Xyleborinus artestriatus* (Eichhoff).
- Semecarpus curtisii**
Coccotrypes cinnamomi (Eggers).
- Semecarpus gardneri**
Amasa versicolor (Sampson), *Crossotarsus minax* (Walker), *Crossotarsus terminatus* Chapuis.
- Semecarpus heterophylla**
Platypus bimucus Blandford, *Platypus solidus* Walker.
- Semecarpus merrillana**
Xyleborus similis Ferrari.
- Semecarpus spp.**
Diapys quinquespinatus Chapuis.
- Senecio erechthitoides**
Xyleborinus forficuloides (Schedl).
- Senecio erioneuron**
Mimioecurus ruwenzoriensis (Schedl).
- Senecio spp.**
Pityophthorus paulus Wood, *Thammurgus senecionis* Schedl, *Thammurgus wittei* Eggers.
- Sequoia gigantea**
Phlocosinus punctatus LeConte.
- Sequoia semperirens**
Cryphalus pubescens Hopkins, *Phlocosinus cupressi* Hopkins, *Phlocosinus punctatus* LeConte, *Phlocosinus sequoiae* Hopkins.
- Sequoia spp.**
Phlocosinus bicolor (Brulle), *Phlocosinus thujae* (Perris).
- Sericolea spp.**
Diapys bilunatus Schedl.
- Serjania mexicana**
Cnesinus setulosus Blandford, *Stegomerus vulgaris* Wood.
- Serjania racemosa**
Hypothenemus crudiae (Panzer), *Micracisella serjaniae* Wood.
- Serjania spp.**
Bothrostermus foveatus (Blackman), *Bothrostermus hirsutus* Wood, *Bothrostermus truncatus* Eichhoff, *Cnesinus degener* Wood, *Cnesinus elegans* Blandford, *Cnesinus gracilis* Blandford, *Cnesinus retifer* Wood, *Cnesinus squamosus* Wood, *Corthylocorus debilis* Wood, *Cryptocarcus diadematus* Eggers, *Cryptocarcus lepidus* Wood, *Eupagiocerus ater* Eggers, *Hypothenemus brunneus* (Hopkins), *Hypothenemus columbi* Hopkins, *Hypothenemus erectus* LeConte, *Hypothenemus indigenus* Wood, *Hypothenemus interstitialis* (Hopkins), *Hypothenemus plumeriae* (Nordlinger), *Hypothenemus seriatus* (Eichhoff), *Hypothenemus solocis* Wood, *Hypothenemus squamosus* (Hopkins), *Hypothenemus teretis* Wood, *Hypothenemus trivialis* Wood, *Mecopeplus zetecki* Blackman, *Micracisella divaricata* Wood, *Micracisella similis* Wood, *Micracisella squamatula* Wood, *Micracisella striata* Wood, *Micracisella vescula* Wood, *Microcorthyus minimus* Schedl, *Scolytogenes knabi* (Hopkins), *Stegomerus mexicanus* Wood, *Stegomerus vulgaris* Wood, *Tricolus badius* Wood, *Xylosandrus curtulus* (Eichhoff).
- Serjania triquetra**
Phlococtribus optimus Wood, *Stegomerus vulgaris* Wood.
- Sesbania spp.**
Euwallacea xanthopus (Eichhoff), *Xyleborus alluaudi* Schaufuss, *Xyleborus principalis* Eichhoff.
- Seyara spp.**
Platypus agnatus Schedl.
- Shiia sieboldii**
Xyleborus pelliculosus Eichhoff, *Xyleborus volvulus* (Fabricius).
- Shiia spp.**
Leptoxyleborus concisus (Blandford).
- Shorea acuminata**
Cnesinus aterrinus (Eggers), *Dendroplatypus impar* (Schedl), *Dryococtops nitidus* (Schedl), *Xyleborus bidentatus* (Motschulsky), *Xyleborus volvulus* (Fabricius).
- Shorea assamica**
Diapys quinquespinatus Chapuis, *Euwallacea andamanensis* (Blandford), *Euwallacea interjectus* (Blandford), *Genyocerus diaphanus* (Schedl), *Platypus bisignatus* Schedl, *Platypus shoreanus* (Beeson), *Sphaerocotrypes sicalikensis* Stebbing, *Xyleborus perforans* (Wollaston).

Shorea balanocaroides

Arixyleborus minor (Eggers), *Arixyleborus suturalis* (Eggers), *Webbia quattuordecimspinitus* Sampson, *Xyleborus ciliatiformis* Schedl, *Xyleborus latus* Eggers.

Shorea bentongensis

Diapus quinquespinatus Chapuis, *Platypus bifurcus* (Schedl), *Platypus curtus* Chapuis, *Platypus lunifer* Schedl.

Shorea bracteolata

Cnestus bicornis (Eggers), *Cyclorhipidion agnatum* (Eggers), *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Genyocerus quadriporus* (Schedl), *Genyocerus serratus* (Schedl), *Hadrodemius comans* (Sampson), *Platypus bifurcus* (Schedl), *Platypus insularis* Strohmeyer, *Platypus shoreanus* (Beeson), *Webbia bicornis* (Schedl), *Xyleborus perforans* (Wollaston), *Xylosandrus ater* (Eggers), *Xylosandrus gravidus* (Blandford), *Xylosandrus mancus* (Blandford).

Shorea curtisii

Anasa versicolor (Sampson), *Coptodryas confusa* (Hopkins), *Coptodryas nugax* (Schedl), *Coptodryas perparva* (Sampson), *Cryptoxyleborus subnaevus* Schedl, *Dendroplatypus impar* (Schedl), *Webbia bituberculatus* Browne, *Webbia duodecimspinitus* Schedl, *Xyleborus minutus* Blandford, *Xylosandrus crassiusculus* (Motschulsky).

Shorea dasphylla

Dendroplatypus impar (Schedl), *Platypus bifurcus* (Schedl), *Xylosandrus mediocris* (Schedl).

Shorea exima

Taphrodasus percorthylus (Schedl).

Shorea faguetiana

Baiocis angusticeps (Schedl), *Diapus quinquespinatus* Chapuis, *Platypus curtus* Chapuis, *Platypus pseudocurtus* Schedl, *Platytarsulus elongatus* Schedl.

Shorea guiso

Platypus cupulatus Chapuis, *Platypus insularis* Strohmeyer, *Xylosandrus crassiusculus* (Motschulsky).

Shorea gysbertsiana

Cryphalus rugosus (Schedl), *Cryptoxyleborus opacicaudulus* Schedl, *Ptilopodius squamosus* Schedl, *Xyleborinus micrographus* (Schedl).

Shorea hypochra

Genyocerus diaphanus (Schedl).

Shorea kunstleri

Diapus pusillimus Chapuis, *Diapus quinquespinatus* Chapuis.

Shorea laevis

Baiocis pasohensis (Schedl), *Genyocerus exilis* (Schedl), *Genyocerus serratus* (Schedl), *Xyleborus triangi* Schedl.

Shorea lepidota

Dendroplatypus impar (Schedl).

Shorea leprosula

Anasa versicolor (Sampson), *Anasa striatotruncatus* (Schedl), *Arixyleborus granulifer* (Eggers), *Arixyleborus leprosuloides* Schedl, *Arixyleborus minor* (Eggers), *Arixyleborus scabripennis* (Blandford), *Arixyleborus suturalis* (Eggers), *Baiocis pernamulus* (Schedl), *Cnestus bicornis* (Eggers), *Coccotrypes suberibrosus* (Blandford), *Coptodryas abbreviata* (Schedl), *Coptodryas corporaali* (Eggers), *Coptodryas curvidentis* (Schedl), *Coptodryas nugax* (Schedl), *Coptodryas undulata* (Sampson), *Crossotarsus brownei* Schedl, *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus squamulatus* Chapuis, *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Cryptoxyleborus confusus* Browne, *Cryptoxyleborus opacicaudulus* Schedl,

Cyclorhipidion agnatum (Eggers), *Cyclorhipidion armaticeps* (Schedl), *Cyclorhipidion foersteri* (Hagedorn), *Dendroplatypus impar* (Schedl), *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Eccoptyopterus gracilipes* (Eichhoff), *Eccoptyopterus limbos* Sampson, *Eccoptyopterus spinosus* (Olivier), *Eucallacea xanthopus* (Eichhoff), *Ficicis javanus* (Eggers), *Genyocerus biporus* (Schedl), *Genyocerus diaphanus* (Schedl), *Genyocerus laticollis* (Browne), *Genyocerus philippinensis* (Schedl), *Genyocerus serratus* (Schedl), *Hadrodemius comans* (Sampson), *Hypothenemus cuculus* (Schedl), *Hypothenemus eruditus* Westwood, *Leptoxyleborus concisus* (Blandford), *Platypus bifurcus* (Schedl), *Platypus bilopennis* Schedl, *Platypus cupulatus* Chapuis, *Platypus curtus* Chapuis, *Platypus forficula* Chapuis, *Platypus fraterculus* Schedl, *Platypus hybridus* Schedl, *Platypus impressifrons* Schedl, *Platypus insulindicus* Schedl, *Platypus lepidus* Chapuis, *Platypus pseudocurtus* Schedl, *Platypus quadrifissilis* Schedl, *Platypus solidus* Walker, *Schedia sumatranus* (Hagedorn), *Sphaerotrypes minutus* Browne, *Taphrodasus percorthylus* (Schedl), *Webbia bifornis* Browne, *Webbia cornutus* Schedl, *Webbia cylindricus* Schedl, *Xyleborinus andrewesi* (Blandford), *Xyleborus apertus* Schedl, *Xyleborus approximatus* Schedl, *Xyleborus emarginatus* Eichhoff, *Xyleborus javanus* Eggers, *Xyleborus kajanensis* Schedl, *Xyleborus latus* Eggers, *Xyleborus major* (Stebbing), *Xyleborus perforans* (Wollaston), *Xyleborus semistriatus* Schedl, *Xylosandrus ater* (Eggers), *Xylosandrus difficilis* (Eggers), *Xylosandrus mancus* (Blandford), *Xylosandrus morigerus* (Blandford).

Shorea macroptera

Anasa versicolor (Sampson), *Arixyleborus suturalis* (Eggers), *Coptodryas nugax* (Schedl), *Coptodryas perparva* (Sampson), *Cryptoxyleborus opacicaudulus* Schedl, *Cyclorhipidion agnatum* (Eggers), *Dendroplatypus impar* (Schedl), *Genyocerus serratus* (Schedl), *Hypothenemus eruditus* Westwood, *Ptilopodius shoreae* Schedl, *Webbia cornutus* Schedl, *Webbia cylindricus* Schedl, *Webbia micrographus* (Schedl), *Xyleborus approximatus* Schedl, *Xyleborus macropterus* Schedl, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus difficilis* (Eggers), *Xylosandrus mancus* (Blandford).

Shorea materialis

Xyleborus perforans (Wollaston).

Shorea maxcelliana

Coptodryas perparva (Sampson), *Crossotarsus squamulatus* Chapuis, *Genyocerus diaphanus* (Schedl), *Genyocerus philippinensis* (Schedl), *Genyocerus serratus* (Schedl), *Hadrodemius comans* (Sampson), *Platypus cupulatus* Chapuis, *Platypus pseudocupulatus* Schedl, *Webbia bituberculatus* Browne, *Webbia duodecimspinitus* Schedl, *Webbia suturalis* Browne, *Xyleborus cylindromorphus* Eggers, *Xyleborus haberkorni* Eggers, *Xyleborus punilus* Eggers, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus mancus* (Blandford).

Shorea multiflora

Coptodryas confusa Hopkins.

Shorea uegrosensis

Platypus bifurcus (Schedl).

Shorea ovalis

Anasa versicolor (Sampson), *Arixyleborus granulifer* (Eggers), *Arixyleborus scabripennis* (Blandford), *Cnestus bicornis* (Eggers), *Crossotarsus externedentatus* (Fairmaire), *Dendroplatypus impar* (Schedl),

Leptoxyleborus concisus (Blandford), *Platypus cupulatus* Chapuis, *Xyleborinus andrevesi* (Blandford), *Xyleborus macropterus* Schedl, *Xylosandrus difficilis* (Eggers).

Shorea ovata

Coptodryas perparva (Sampson), *Cryptoxyleborus opacicaudulus* Schedl, *Platypus balanocarpi* Schedl, *Xyleborus haberkorni* Eggers, *Xylosandrus maucus* (Blandford).

Shorea pauciflora

Ptilopodius squamosus Schedl.

Shorea parrifolia

Anasa versicolor (Sampson), *Arixyleborus scabripennis* (Blandford), *Coptodryas confusa* Hopkins, *Coptodryas quadricostata* (Schedl), *Crossotarsus terminatus* Chapuis, *Cryptoxyleborus nanus* Browne, *Cyclorhipidion sexspiniatum* (Schedl), *Dendroplatypus impar* (Schedl), *Diapus quinquespinatus* Chapuis, *Genyocerus biporus* (Schedl), *Genyocerus quadriporus* (Schedl), *Platypus balanocarpi* Schedl, *Platypus bifurcus* (Schedl), *Platypus bilobipennis* Schedl, *Platypus curtus* Chapuis, *Platypus pseudocupulatus* Schedl, *Ptilopodius squamosus* Schedl, *Sphaerotrypes rufopalliatu* Schedl, *Webbia obtusispinosus* Schedl, *Xyleborus javanus* Eggers, *Xyleborus persimilis* Eggers.

Shorea pauciflora

Dendroplatypus impar (Schedl), *Platypus bilobipennis* Schedl, *Platypus curtus* Chapuis, *Platypus pseudocupulatus* Schedl.

Shorea platycarpa

Cryptoxyleborus subnaevus Schedl, *Dendroplatypus impar* (Schedl).

Shorea robusta

Anasa schlichii (Stebbing), *Ambrosiodmus minor* (Stebbing), *Coccotrypes carpophagus* (Hornung), *Coccotrypes mibilis* (Blandford), *Coptodryas elegans* (Sampson), *Coptodryas perparva* (Sampson), *Coptodryas recidens* (Sampson), *Coptodryas undulata* (Sampson), *Crossotarsus bouvoulouiri* Chapuis, *Crossotarsus externedentatus* (Fairmaire), *Cryptoxyleborus turbinus* (Sampson), *Diapus quinquespinatus* Chapuis, *Eccoptopterus spinosus* (Olivier), *Eucallacea andamanensis* (Blandford), *Eucallacea aplanata* (Wichmann), *Eucallacea bicolor* (Blandford), *Eucallacea interjectus* (Blandford), *Genyocerus furtivus* (Sampson), *Platypus curvus* Strohmeier, *Platypus cupulatus* Chapuis, *Platypus curtatus* Sampson, *Platypus curtus* Chapuis, *Platypus perrisi* Chapuis, *Platypus solidus* Walker, *Sphaerotrypes globulus* Blandford, *Sphaerotrypes sivalikensis* Stebbing, *Webbia pabo* Sampson, *Xyleborinus andrevesi* (Blandford), *Xyleborinus artestriatus* (Eichhoff), *Xyleborus glabratus* Eichhoff, *Xyleborus haberkorni* Eggers, *Xyleborus major* (Stebbing), *Xyleborus mucronatulus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus mesuae* (Eggers).

Shorea rugosa

Cyclorhipidion kelantanum (Schedl), *Xyleborus perforans* (Wollaston), *Xyleborus persimilis* Eggers.

Shorea scabrida

Cyclorhipidion tuberculosissimum (Eggers).

Shorea scutulata

Ambrosiodmus lantanae (Eggers), *Xyleborus latecari-natus* Schedl.

Shorea sericea

Platypus curtus Chapuis, *Xyleborus macropterus* Schedl.

Shorea sideroxylon

Cryphalus substriatus Schedl.

Shorea singkawang

Dendroplatypus impar (Schedl), *Diapus pusillimus* Chapuis, *Platypus bifurcus* (Schedl), *Platypus shorcanus* (Beeson).

Shorea spp.

Anasa schlichii (Stebbing), *Ambrosiodmus restrictus* (Schedl), *Arixyleborus medius* (Eggers), *Arixyleborus okadae* Browne, *Arixyleborus rugosipes* Hopkins, *Arixyleborus scabripennis* (Blandford), *Cnestus suturalis* (Eggers), *Coccotrypes gedeanus* (Eggers), *Coptodryas alpha* (Beeson), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus schedli* Browne, *Crossotarsus squamulatus* Chapuis, *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Cryptoxyleborus naevus* Schedl, *Cryptoxyleborus nanus* Browne, *Cryptoxyleborus shoreae* Browne, *Cryptoxyleborus subnaevus* Schedl, *Cyclorhipidion agnatum* (Eggers), *Diapus pusillimus* Chapuis, *Diapus quinquespinatus* Chapuis, *Eccoptopterus sagittarius* Schedl, *Eucallacea fornicatus* (Eichhoff), *Genyocerus serratus* (Schedl), *Genyocerus sexporus* (Schedl), *Genyocerus shoreae* Browne, *Hadrodemus comans* (Sampson), *Leptoxyleborus concisus* (Blandford), *Leptoxyleborus puer* (Eggers), *Leptoxyleborus scabrior* (Schedl), *Platypus agnatus* Schedl, *Platypus arduus* (Schedl), *Platypus bicaudatus* Browne, *Platypus bifurcus* (Schedl), *Platypus cupulatus* Chapuis, *Platypus curtus* Chapuis, *Platypus decens* Sampson, *Platypus emarginatus* Browne, *Platypus franciae* Browne, *Platypus histrix* (Schedl), *Platypus longicollis* Browne, *Platypus octospinosus* Browne, *Platypus pseudocupulatus* Schedl, *Platypus punilus* Browne, *Platypus subtruncatus* Browne, *Platypus suzukii* Browne, *Platypus transformis* Schedl, *Platypus uncinatus* Blandford, *Scolytoplatypus parvus* Sampson, *Sphaerotrypes incernis* Browne, *Webbia bakoensis* Browne, *Webbia cylindricus* Schedl, *Webbia dasyurus* Browne, *Webbia dipterocarpi* Hopkins, *Webbia multidentatus* Browne, *Webbia platypoides* Eggers, *Webbia quattuordecimspiniatus* Sampson, *Webbia simplex* (Browne), *Xyleborus abscissus* Browne, *Xyleborus amphicranoides* Hagedorn, *Xyleborus dolosus* Blandford, *Xyleborus excavatus* Schedl, *Xyleborus fallax* Eichhoff, *Xyleborus granurus* Browne, *Xyleborus amplexicauda* Hagedorn, *Xyleborus decumanus* Schedl, *Xyleborus javanus* Eggers, *Xyleborus latus* Eggers, *Xyleborus minutus* Blandford, *Xyleborus nigrescens* Browne, *Xyleborus obiensis* Browne, *Xyleborus perforans* (Wollaston), *Xyleborus pseudopilifer* Schedl, *Xyleborus pseudocylindricus* Eggers, *Xyleborus shoreae* (Stebbing), *Xyleborus sichus* Schedl, *Xyleborus trispinatus* Browne, *Xyleborus tuberculosus* Browne, *Xyleborus tunggali* Schedl, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus difficilis* (Eggers), *Xylosandrus maucus* (Blandford).

Shorea sumatraua

Cnestus bicornis (Eggers), *Xyleborinus perminutissimus* (Schedl), *Xyleborus javanus* Eggers, *Xylosandrus ater* (Eggers), *Xylosandrus compactus* (Eichhoff), *Xylosandrus maucus* (Blandford).

Shorea tahura

Diapys tahurae Stebbing, *Genyocerus furtivus* (Sampson), *Xyleborinus andrewesi* (Blandford).

Shorea teysmanniana

Dendroplatypus inpar (Schedl).

Shorea uliginosa

Arixyleborus scabripennis (Blandford), *Cyclorhupidion agnatum* (Eggers), *Dendroplatypus inpar* (Schedl), *Leptoxyleborus depressus* (Eggers), *Platypus cupulatus* Chapuis, *Platypus curtus* Chapuis, *Tetroplatypus trepanatus* (Chapuis), *Xyleborus apertus* Schedl, *Xyleborus perforans* (Wollaston).

Sicydium tannifolium

Dendrocraniulus consimilis Wood.

Sida rhombifolia

Hypothenemus erudiae (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus gossypii* (Hopkins), *Hypothenemus seriatus* (Eichhoff), *Thamnurgus gramlicollis* Schedl, *Xyloctetes sidanus* (Schedl).

Sideroxylon inerme

Xyloctonus maculatus Schedl.

Sideroxylon longepetiolatum

Scolytomimus andamanensis Wood.

Sideroxylon macranthum

Eucallucea bicolor (Blandford), *Xyleborus piccus* (Motschulsky), *Xyleborus similis* Ferrari.

Sideroxylon sandwicensis

Crossotarsus externudentatus (Fairmaire).

Sideroxylon spp.

Chaetastus montanus Schedl.

Simaruba amara

Xyleborus ferrugineus (Fabricius).

Sindora siamensis

Acacasis trahax (Sampson).

Sindora spp.

Diapys quinquespinatus Chapuis, *Platypus forficula* Chapuis, *Platypus sindorae* Browne.

Siparuna guianensis

Pericoryphalus sobrinus Wood.

Siparuna nicaraguensis

Corthyocyclon aztecum (Bright), *Corthyocyclon tardum* Wood, *Corthylyus procerus* Bright, *Corthylyus serratus* Wood, *Corthylyus villifer* Wood, *Microcorthylyus inermis* Wood, *Microcorthylyus ocellaris* Wood, *Tricholus inornatus* Wood, *Tricholus senex* Schedl.

Sloanea forbesii

Platypus jansoni Chapuis, *Platypus solidus* Walker.

Sloanea multiflora

Xyleborinus intersetosus (Blandford), *Xyleborus affinis* Eichhoff, *Xyleborus geayi* Hagedorn.

Sloanea spp.

Diapys pusillimus Chapuis, *Xyleborus parcellus* Wood.

Sloetia elongata

Crossotarsus externudentatus (Fairmaire), *Cryphalus substriatus* Schedl, *Hypocryphalus perminimus* (Schedl), *Leptoxyleborus concisus* (Blandford).

Smilax aspera

Chaetoptelius vestitus (Mulsant & Rey).

Smilax china

Cryphalus jeholensis Murayama, *Xylosandrus brevis* (Eichhoff).

Smilax spp.

Chramesus exilis Wood, *Cucinus strigicollis* LeConte, *Hypothenemus erudiae* (Panzer), *Hypothenemus eruditus* Westwood.

Smithia thymodora

Eucallucea xanthopus (Eichhoff).

Solanum aculeastrum

Coptoborus usagarius (Eggers), *Cyrtogenius milungensis* (Schedl), *Eucallucea xanthopus* (Eichhoff), *Xyleborinus collarti* (Eggers), *Xyleborus piccus* (Motschulsky), *Xyleborus principalis* Eichhoff.

Solanum flamigni

Eucallucea xanthopus (Eichhoff).

Solanum spp.

Eucallucea xanthopus (Eichhoff), *Xylosandrus compactus* (Eichhoff).

Solanum torcum

Corthylyus comatus Blandford, *Corthylyus retusus* Wood.

Soumeratia apelata

Platypus maritimus Schedl, *Xyleborus bidentatus* (Motschulsky).

Sophora japonica

Ambrosiodmus rubricollis (Eichhoff), *Hypothenemus eruditus* Westwood, *Xylosandrus discolor* (Blandford).

Sorbus ahufolia

Xyleborus dispar (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Sorbus aucuparia

Pteleobius kruatzi (Eichhoff).

Sorbus commixta

Cryphalus malus Niisima, *Polygraphus nigriclytris* Niisima, *Scolytus ellipticus* Murayama.

Sorbus spp.

Scolytus mali (Bechstein), *Scolytus rugulosus* (Müller), *Trypodendron domesticum* (Linnaeus).

Sorghum saccharatum

Hypothenemus eruditus Westwood.

Sorindeia lemairei

Doliopygus conradi (Strohmeyer), *Polygraphus tropicus* Eggers, *Xyleborus affinis* Eichhoff, *Xyleborus solutus* Schedl, *Xylosandrus crassiusculus* (Motschulsky).

Sorocea illicifolia

Prennobiobius cavipennis Eichhoff.

Spartium junceum

Liparthrum genistae (Anbe), *Phloeotribus cristatus* (Favet), *Phloeotribus pseudocristatus* (Pfeffer), *Phloeotribus rhododactylus* (Marshall), *Phloeotribus sharpi* (Guillebeau).

Spartium scoparium

Hylastinus obscurus (Marshall).

Spartocystus nubigenus

Liparthrum curtum Wollaston.

Spathodea campanulata

Doliopygus erichsoni (Chapuis), *Microcryphalus attenuatus* (Eggers).

Sphaeracula fasciculata

Pseudothysanoes bartoni Bruck.

Spherostenon spp.

Diapys elongatus Schedl, *Diapys turgidus* Roberts.

Spirostachys africana

Styrcoptinus murex (Blandford).

Spirostachys spp.

Scolytogenes spirostachius (Schedl).

Spondianthus preusii

Chaetastus tuberculatus (Chapuis), *Diapys quinquespinatus* Chapuis, *Doliopygus dubius* (Sampson), *Hypothenemus morio* (Eggers), *Xyleborus ferrugineus* (Fabricius).

Spondias dulcis

Xyleborus ferrugineus (Fabricius).

Spondias mangifera

Coccotrypes longior (Eggers), *Crossotarsus minax* (Walker), *Diapus quinquespinatus* Chapuis, *Eucallacea interjectus* (Blandford), *Platypus forficula* Chapuis, *Platypus indicus* Strohmeyer, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.

Spondias monibii

Acanthotomicus analogus (Wood), *Acanthotomicus fortis* (Wood), *Acanthotomicus ipsiformis* Wood, *Acanthotomicus mimicus* (Schedl), *Corthylocurus aguacatenensis* (Schedl), *Corthylys papulans* Eichhoff, *Doliopygus serratus* (Strohmeyer), *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Styphlosoma granulatum* Blandford, *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus morulus* Blandford, *Xyleborus picus* (Motschulsky), *Xylosandrus laticeps* (Wood).

Spondias purpurea

Corthylocurus barbatus (Blandford), *Corthylys concisus* Wood, *Corthylys papulans* Eichhoff, *Microcorthylys parvulus* Ferrari, *Monarthrum bifoveatum* Wood, *Monarthrum fimbriaticorne* (Blandford), *Monarthrum lobatum* (Ferrari), *Monarthrum robustum* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus ferrugineus* (Fabricius), *Xyleborus posticus* Eichhoff.

***Spondias* spp.**

Crossotarsus externedentatus (Fairmaire), *Eucallacea fornicatus* (Eichhoff), *Platypus jansonii* Chapuis, *Platypus negatus* Schedl, *Xylosandrus compactus* (Eichhoff).

Stachys sylvatica

Thammurgus kaltenbachii (Bach).

***Stachytarpheta* spp.**

Xylosandrus compactus (Eichhoff).

Staphylea trifolia

Phlocotribus scabricollis (Hopkins).

Staudtia gabonensis

Chortastus minimus Hagedorn, *Coccotrypes rotundicollis* (Eggers).

Staudtia stipitata

Chaetastus persimilis (Schedl), *Chaetastus tuberculatus* (Chapuis), *Chortastus camerunus* Schaufuss, *Chortastus medius* Eggers, *Chortastus minimus* Hagedorn, *Cylindropalpus laudatus* (Schedl), *Doliopygus artemisatus* (Schedl), *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus divaricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus ghesquieri* (Schedl), *Doliopygus interjectus* Schedl, *Doliopygus lebruni* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus megaloma* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicornis* Schedl, *Doliopygus woltschei* Schedl, *Hypothenemus cruditus* Westwood, *Periommatatus excisus* Strohmeyer, *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Platypus solutus* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Xyleborinus gracilipennis* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus nitidulus* Eggers, *Xyleborus rothkirchli* Eggers, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Stephegyne diversifolia

Ptilopodius stephegyinis Hopkins, *Xyleborus bidentatus* (Motschulsky).

Sterculia alata

Ambrosiodmus finereus (Lea), *Eucallacea interjectus* (Blandford), *Xyleborinus andrewesi* (Blandford), *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus picus* (Motschulsky).

Sterculia bequaertii

Chaetastus tuberculatus (Chapuis), *Cylindropalpus laudatus* (Schedl), *Doliopygus expletus* Schedl, *Doliopygus ghesquieri* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus unicornis* Schedl, *Periommatatus longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus picus* (Motschulsky).

Sterculia campanulata

Eucallacea interjectus (Blandford), *Platypus jansonii* Chapuis, *Platypus solidus* Walker, *Xyleborus cognatus* Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus pfeili* (Ratzeburg), *Xyleborus punilus* Eggers, *Xyleborus similis* Ferrari.

Sterculia colorata

Eucallacea sibsagaricus (Eggers), *Eucallacea tristis* (Eggers), *Eucallacea wallacei* (Blandford), *Xylosandrus crassiusculus* (Motschulsky).

Sterculia dawei

Chaetastus tuberculatus (Chapuis).

Sterculia foetida

Platypus forficula Chapuis, *Platypus jansonii* Chapuis, *Platypus pseudocupulatus* Schedl.

Sterculia macrophylla

Crossotarsus inermis Schedl, *Crossotarsus schedli* Browne, *Eucallacea xanthopus* (Eichhoff), *Ficicis despectus* (Walker), *Hypothenemus javanus* (Eggers), *Platypus lepidus* Chapuis, *Platypus pseudocupulatus* Schedl, *Platypus signatus* Chapuis, *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky).

Sterculia oblonga

Chaetastus tuberculatus (Chapuis), *Cylindropalpus auricomans* (Schaufuss), *Diapus quinquespinatus* Chapuis, *Doliopygus expletus* Schedl, *Doliopygus rapax* (Sampson), *Periommatatus pseudomajor* Schedl, *Platypus orientalis* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus ambasiusculus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).

Sterculia ornata

Crossotarsus emorsus Beeson, *Eucallacea interjectus* (Blandford), *Platypus secretus* Sampson, *Xyleborus perforans* (Wollaston).

Sterculia pruriens

Hypothenemus teretis Wood.

Sterculia quinqueloba

Doliopygus serratus (Strohmeyer), *Doliopygus unicornis* Schedl, *Periommatatus excisus* Strohmeyer, *Polygraphus bicolor* Eggers, *Xyleborus affinis* Eichhoff, *Xyleborus ambasiusculus* Eggers, *Xyleborus principalis* Eichhoff, *Xyleborus volutus* (Fabricius).

Sterculia rhinopetala

Cylindropalpus auricomans (Schaufuss), *Doliopygus brevis* (Strohmeyer), *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus malkini* Schedl, *Doliopygus pseudoserratus* Roberts, *Doliopygus tenuis* (Strohmeyer), *Periommatatus excisus* Strohmeyer, *Periommatatus longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Trachyostus aterrimus* (Schaufuss), *Trioastus banghaasi* (Schaufuss), *Xyleborinus similans*

(Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus barinbiensis* Eggers.

***Sterculia* spp.**

Ambrosiodinus tropicus (Hagedorn), *Arixyleborus medius* (Eggers), *Diapus nanodontus* Roberts, *Diapus nanus* Schedl, *Diapus papuanus* Schedl, *Diapus pusillimus* Chapuis, *Dryocoetoides cristatus* (Fabricius), *Eucallacea fornicatus* (Eichhoff), *Hypothecenus eruditus* Westwood, *Platypus jansonii* Chapuis, *Platypus verehnutus* (Beeson), *Premnobius cavipennis* Eichhoff, *Scolytopalpus occidentalis* Browne, *Xyleborus piceus* (Motschulsky).

Sterculia tragacantha

Doliopygus conradti (Strohmeyer), *Xyleborus alluaudi* Schaufuss, *Xyleborus piceus* (Motschulsky).

Sterculia urceolata

Platypus signatus Chapuis.

Sterculia villosa

Eucallacea interjectus (Blandford), *Platypus quadri-fissilis* Schedl, *Platypus solidus* Walker, *Xyleborus perforans* (Wollaston), *Xyleborus punilus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).

Stereospermum chelenoides

Platypus solidus Walker.

Stereospermum neuranthum

Leptoxyleborus sordicauda (Motschulsky).

***Stereospermum* spp.**

Leptoxyleborus sordicauda (Motschulsky).

Stereospermum suaveolens

Scolytogenes indicus Wood.

***Storckiella* spp.**

Cryphalus striatus Browne.

***Straussia* spp.**

Xyleborus ferrugineus (Fabricius), *Xyleborus perforans* (Wollaston).

Streblus elongatus

Hadrodemus comans (Sampson).

Strombosia glaucescens

Chaetastus persimilis (Schedl), *Chaetastus tuberculatus* (Chapuis), *Cylindropalpus laudatus* (Schedl), *Doliopygus brevis* (Strohmeyer), *Doliopygus citri* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus ghesquierei* (Schedl), *Doliopygus lateralis* Schedl, *Doliopygus lebrunii* Schedl, *Doliopygus medius* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus propinquus* Schedl, *Doliopygus semipilosus* (Schedl), *Periommatous excisus* Strohmeyer, *Periommatous grandis* Schedl, *Periommatous longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus intermedius* (Schedl), *Platypus parallelus* (Fabricius), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Strombosia grandifolia

Ambrosiodinus oratus (Eggers), *Chaetastus tuberculatus* (Chapuis), *Doliopygus lecomtei* Schedl, *Doliopygus maynei* Schedl, *Doliopygus proximus* Schedl, *Xylocleptes sidanus* (Schedl).

Strombosia javanica

Anasa versicolor (Sampson), *Coptodryas nugax* (Schedl).

Strombosia pustulata

Chaetastus tuberculatus (Chapuis), *Ctonoxylon spathi-*

fer Schedl, *Doliopygus guineensis* Roberts, *Doliopygus interjectus* Schedl, *Periommatous abruptus* Numberg, *Triozastus banghaasi* (Schaufuss), *Triozastus elongatus* Schedl, *Xyleborus ambasiusculus* Eggers.

Strombosia scheffleri

Dactylipalpus grouvellei (Blandford), *Doliopygus bicentatus* (Strohmeyer), *Doliopygus bilobatus* (Schedl), *Doliopygus citri* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus divaricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus lebrunii* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus maynei* Schedl, *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus proximus* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus unicornis* Schedl, *Platypus impressus* (Strohmeyer), *Platypus spinulosus* (Strohmeyer), *Thamurgus granulicollis* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Xyleborus ferrugineus* (Fabricius).

***Strombosia* spp.**

Ambrosiodinus obliquus (LeConte), *Premnobius nodulosus* Hagedorn, *Tiarophorus decellei* Browne, *Triozastus caliginosus* Roberts.

Strombosia tetrandra

Cylindropalpus interpositus (Schedl), *Doliopygus citri* Schedl.

***Strombosioopsis* spp.**

Ambrosiodinus tropicus (Hagedorn).

Strombosioopsis tetrandra

Chaetastus tuberculatus (Chapuis), *Cylindropalpus auricomans* (Schaufuss), *Dendrochilus strombosioopsis* Schedl, *Doliopygus conradti* (Strohmeyer), *Doliopygus divaricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus ghesquierei* (Schedl), *Doliopygus lebrunii* Schedl, *Doliopygus lefevrei* Schedl, *Doliopygus megatoma* Schedl, *Doliopygus minor* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus strombosioopsis* Schedl, *Doliopygus spectabilis* Schedl, *Eucallacea xanthopus* (Eichhoff), *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus intermedius* (Schedl), *Platypus orientalis* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus piceus* (Motschulsky), *Xyleborus strombosioopsis* Schedl, *Xylosandrus crassiusculus* (Motschulsky).

Struthanthus depeeanus

Chaetophloeus struthanthi Wood.

***Struthanthus* spp.**

Cnesinus elegans Blandford, *Cryptocarenum spatulatus* Wood.

Struthanthus venetus

Chaetophloeus struthanthi Wood, *Micracisella monadis* Wood, *Pseudothythanoes vallatus* Wood.

Strychmos decussata

Scolytogenes grobleri (Schedl).

Strychmos nux-tomica

Eucallacea andamanensis (Blandford).

***Strychmos* spp.**

Premnobius cavipennis Eichhoff.

Stuartia monodelpha

Platypus calamus Blandford, *Xyleborus atratus* Eichhoff.

Styrax benzoin

Coccotrypes variabilis (Beeson), *Coptodryas recidens* (Sampson), *Crossotarsus fractus* Sampson, *Crossotarsus schedli* Browne, *Crossotarsus wallacei* (Thomson),

- Hypothenemus glabripennis* (Hopkins), *Hypothenemus styrax* (Schedl), *Platypus cupulatus* Chapuis, *Platypus pseudocupulatus* Schedl, *Platypus solidus* Walker, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus mancus* (Blandford).
- Styrax formosanus**
Platypus flectus Nisima & Murayama, *Platypus formosanus* Nisima & Murayama.
- Styrax japonicum**
Crossotarsus niponicus Blandford, *Platypus calannus* Blandford, *Trypodendron pulchellus* (Murayama), *Xyleborus aquilus* Blandford, *Xyleborus atratus* Eichhoff, *Xylosandrus germanus* (Blandford), *Xylosandrus mutilatus* (Blandford).
- Styrax obassia**
Xylosandrus borealis Nobuchi, *Xylosandrus brevis* (Eichhoff).
- Sussonia** spp.
Lanurgus podocarpi Schedl.
- Scietenia macrophylla**
Anasa versicolor (Sampson), *Arixyleborus suturalis* (Eggers), *Cnestus aterrimus* (Eggers), *Cnestus bicornioides* (Schedl), *Coccotrypes cyperi* (Beeson), *Coptodryas nugax* (Schedl), *Crossotarsus externidentatus* (Fairmaire), *Crossotarsus fractus* Sampson, *Crossotarsus minax* (Walker), *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacei* (Thomson), *Eccoptypterus limbatus* Sampson, *Eccoptypterus sagittarius* Schedl, *Eccoptypterus spinosus* (Olivier), *Hadrodemius comans* (Sampson), *Hadrodemius globus* (Blandford), *Hypothenemus birmanus* (Eichhoff), *Hypothenemus eruditus* Westwood, *Hypothenemus glabripennis* (Hopkins), *Platypus carus* Strohmeyer, *Platypus gerstaeckeri* Chapuis, *Platypus platypoides* (Browne), *Xyleborus approximatus* Schedl, *Xyleborus ferrugineus* (Fabricius), *Xyleborus haberkorni* Eggers, *Xyleborus jatanus* Eggers, *Xyleborus quadrispinosulus* Eggers, *Xyleborus volcuis* (Fabricius), *Xylosandrus ater* (Eggers), *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford), *Xylosandrus gravidus* (Blandford), *Xylosandrus mancus* (Blandford), *Xylosandrus morigerus* (Blandford), *Xylosandrus mutilatus* (Blandford), *Xylosandrus terminatus* (Eggers).
- Scietenia mahagoni**
Arixyleborus malayensis (Schedl), *Cnestus suturalis* (Eggers), *Eucallacea quadriceollis* (Eggers), *Scolytopypterus cutonoides* Blandford, *Xyleborus affinis* Eichhoff, *Xyleborus haberkorni* Eggers, *Xyleborus metacuculus* Eggers, *Xylosandrus compactus* (Eichhoff), *Xylosandrus discolor* (Blandford), *Xylosandrus gravidus* (Blandford), *Xylosandrus mancus* (Blandford), *Xylosandrus morigerus* (Blandford).
- Scietenia** spp.
Cnestus magnus Sampson, *Coccotrypes variabilis* (Beeson), *Corthyus minutissimus* Schedl, *Hypothenemus dolosus* Wood, *Scolytodes guyanaensis* (Schedl), *Scolytodes spadix* (Blackman), *Scolytodes scieteniae* (Blackman), *Theoborus ricini* (Eggers), *Xylosandrus compactus* (Eichhoff).
- Scintonia floribunda**
Coccotrypes cyperi (Beeson), *Coccotrypes variabilis* (Beeson), *Coccotrypes vulgaris* (Eggers), *Coptodryas perparca* (Sampson), *Platypus cupulatus* Chapuis, *Platypus curtus* Chapuis, *Platypus ovatus* Strohmeyer, *Platypus solidus* Walker, *Xyleborus fallax* Eichhoff.
- Scintonia specifera**
Eccoptypterus limbatus Sampson, *Platypus ovatus* Strohmeyer, *Xylosandrus crassiusculus* (Motschulsky).
- Syagrus welleium**
Coccotrypes dactyliperda (Fabricius).
- Syderoxylo** spp.
Mitosoma odonticeps Schedl.
- Syningtonia populnea**
Diapus spatulifer Browne, *Eucallacea andamanensis* (Blandford).
- Symphonia clusoides**
Polygraphus amoemus (Schauffuss).
- Symphonia globulifera**
Dactylipalpus grouvellei (Blandford), *Eucallacea xanthopus* (Eichhoff), *Phrixosoma minor* Wood, *Phrixosoma obesa* Blackman, *Polygraphus majusculus* Schedl.
- Symphonia** spp.
Diapus malgassicus Schedl, *Mitosoma lobatum* Schedl, *Mitosoma obliquatum* Schedl, *Mitosoma obtusum* Schedl, *Mitosoma paulianum* Schedl, *Platypus madagascariensis* Chapuis, *Xyleborus sakalava* Schedl.
- Symphonia urophylla**
Polygraphus creber Schedl.
- Symplocos loha**
Ambrosiodmus asperatus (Blandford), *Xylosandrus arcuatus* (Sampson).
- Symplocos myrtacea**
Platypus calannus Blandford.
- Symplocos prunifolia**
Xyleborus volcuis (Fabricius).
- Symplocos** spp.
Ambrosiodmus apicalis (Blandford), *Diamerus curvifer* (Walker), *Leptoxyleborus punctatissimus* (Eichhoff), *Platypus signatus* Chapuis, *Xyleborus cancellatus* Eggers, *Xyleborus emarginatus* Eichhoff, *Xyleborus perforans* (Wollaston), *Xyleborus piceus* (Motschulsky).
- Symplocos theaeolia**
Crossotarsus nuchli Beeson, *Cyclorhipidion hirtum* (Hagedorn), *Diapus spatulifer* Browne, *Eucallacea andamanensis* (Blandford), *Eucallacea wallacei* (Blandford), *Indocryphalus intermedius* (Sampson), *Platypus darjeelingensis* Schedl, *Scolytopypterus darjeelingi* Stebbing, *Scolytopypterus raja* Blandford, *Xyleborus eggersi* Beeson, *Xyleborus graveleyi* Wichmann, *Xyleborus hagedornianus* Schedl, *Xyleborus lineatus* Eggers.
- Synsarpia** spp.
Xylosandrus compactus (Eichhoff).
- Synsepalum dulcificum**
Doliopygus medius Schedl, *Perionomatus longicollis* Chapuis, *Xyleborus affinis* Eichhoff.
- Synsepalum longecuneatum**
Cylindropalpus interpositus (Schedl), *Cylindropalpus pumilio* (Schedl), *Doliopygus minor* Schedl, *Hypothenemus concolor* Hagedorn, *Xyleborus affinis* Eichhoff, *Xyleborus albaudi* Schaufuss.
- Synsepalum** spp.
Ambrosiodmus tropicus (Hagedorn), *Cylindropalpus granulatus* (Schedl), *Premnobius caripennis* Eichhoff.
- Synsepalum subcordatum**
Chaetastus tuberculatus (Chapuis), *Cylindropalpus pertinax* (Schedl), *Cylindropalpus pusillus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus crichsoni* (Chapuis), *Doliopygus leferrei* Schedl, *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditus* (Schedl), *Doliopygus tenuis*

- (Strohmeyer), *Doliopygus unicornis* Schedl, *Hypothenemus macrolabii* (Eggers), *Hypothenemus solitarius* (Schedl), *Periommatius excisus* Strohmeyer, *Periommatius substriatus* Strohmeyer, *Phrixosoma psaltes* (Hagedorn), *Platypus hintzi* Schanfuss, *Platypus orientalis* (Strohmeyer), *Platypus solutus* Schedl, *Trachyostus schanfussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborus alluandi* Schanfuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus annectens* Schedl, *Xyleborus ferrugineus* (Fabricius), *Xyleborus multispinatus* Eggers, *Xyleborus principalis* Eichhoff, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Syringa robusta**
Dryocoetes padi Stark.
- Syringa spp.**
Hylesinus toranio (Danthione).
- Syringa vulgaris**
Hylesinus crenatus (Fabricius), *Lymanitor coryli* (Perris).
- Syzygium congolense**
Xyleborinus collarti (Eggers), *Xyleborus tenellus* Schedl.
- Syzygium cordatum**
Chaetastus montanus Schedl.
- Syzygium cumini**
Platypus solidus Walker, *Xyleborus shoreae* (Stebbing), *Xylosandrus crassiusculus* (Motschulsky).
- Syzygium effusum**
Platypus yasiyasi Roberts.
- Syzygium guineensis**
Chaetastus montanus Schedl, *Rhopalopselion congonum* (Schedl).
- Syzygium parvifolium**
Doliopygus erichsoni (Chapuis), *Doliopygus occallescens* Schedl.
- Syzygium spp.**
Baioeis annularis (Schedl), *Coptodryas vafra* (Schedl), *Crossotarsus coxalis* Schedl, *Dendrochilus setifer* (Schedl), *Diapus kuperi* Roberts, *Diapus nebulosus* Roberts, *Diapus papuanus* Schedl, *Diapus pusillimus* Chapuis, *Diapus robustus* Schedl, *Diapus spinifer* Schedl, *Diapus turgidus* Roberts, *Glostatus carinifer* Schedl, *Mesoplatypus kitushi* Schedl, *Mesoplatypus quinquecinctus* (Schedl), *Mimioecurus setifer* (Schedl), *Platypus evanidlinervius* Roberts & Morimoto, *Platypus giluweii* Roberts, *Platypus gongyloides* Roberts & Morimoto, *Platypus muricatus* Roberts, *Platypus partibilis* Roberts & Morimoto, *Platypus praeteritus* Schedl, *Platypus umbrinus* Roberts, *Platypus uniformis* Schedl, *Scolytoplastypus kivuensis* Schedl, *Xyleborinus syzygii* (Schedl).
- Syzygium stuadtii**
Cyclorhupidion guineense (Eggers).
- Tabebuia donell-smithii**
Xyleborus affinis Eichhoff.
- Tabebuia spp.**
Bothrosternus hirsutus Wood, *Chramesus parvus* Wood, *Dryocoetoides monachus* (Blandford), *Platypus filaris* Wood, *Xylosandrus compactus* (Eichhoff).
- Talauma gioi**
Platypus solidus Walker.
- Talauma hodgsoni**
Platypus cavus Strohmeyer, *Platypus indicus* Strohmeyer.
- Tamarindus indica**
Hypothenemus glabripennis (Hopkins), *Hypothenemus javanus* (Eggers), *Hypothenemus obscurus* (Fabricius).
- Tamarindus spp.**
Eucallacea fornicatus (Eichhoff).
- Tamarix octandra**
Thanurgus brylinskiji Reitter.
- Tamarix spp.**
Trypophloeus klimeschi Eggers.
- Taonabo japonica**
Crossotarsus rengetensis Niisima & Murayama.
- Tapirira marchandii**
Platypus longulus Chapuis.
- Tarema incerta**
Xylosandrus morigerus (Blandford).
- Tarrietia utilis**
Doliopygus bidiscoplanus Roberts, *Doliopygus serratus* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alluandi* Schanfuss, *Xyleborus ferrugineus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).
- Taxodium distichum**
Phloeosinus taxodii taxodii Blackman, *Xylosandrus germanus* (Blandford).
- Taxodium mucronatum**
Phloeosinus taxodii taxodii Wood.
- Taxodium spp.**
Xyleborus affinis Eichhoff.
- Taxus baccata**
Hylastes ater (Paykull), *Scolytoplastypus siomio* Blandford.
- Taxus spp.**
Phloeosinus perlatus Chapuis.
- Teclea nobilis**
Ambrosiodmus albizzianus (Schedl), *Cyclorhupidion tecleae* (Schedl).
- Teclea spp.**
Trachyostus schanfussi (Strohmeyer), *Xyleborus alluandi* Schanfuss.
- Tecoma ipe**
Xyleborus affinis Eichhoff.
- Tectona grandis**
Ambrosiodmus minor (Stebbing), *Chaetastus tuberculatus* (Chapuis), *Coccotrypes variabilis* (Beeson), *Crossotarsus emorsus* Beeson, *Crossotarsus minax* (Walker), *Crossotarsus squamulatus* Chapuis, *Diamerus minor* Eggers, *Diapus quinquespinatus* Chapuis, *Eccoptycterus spinosus* (Olivier), *Eucallacea andamanensis* (Blandford), *Eucallacea destruens* (Blandford), *Eucallacea fornicatus* (Eichhoff), *Eucallacea interjectus* (Blandford), *Eucallacea velatus* (Sampson), *Hypothenemus eruditus* Westwood, *Hypothenemus gossypii* (Hopkins), *Hypothenemus seriatus* (Eichhoff), *Leptoxyleborus concisus* (Blandford), *Leptoxyleborus sordicauda* (Motschulsky), *Platypus cupulatus* Chapuis, *Platypus errans* (Sampson), *Platypus jansoni* Chapuis, *Platypus lepidus* Chapuis, *Platypus solidus* Walker, *Xyleborinus andrewesi* (Blandford), *Xyleborus fallax* Eichhoff, *Xyleborus haberkorni* Eggers, *Xyleborus hagedornianus* Schedl, *Xyleborus perforans* (Wollaston), *Xyleborus piccus* (Motschulsky), *Xyleborus similis* Ferrari, *Xylosandrus butamali* (Beeson), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus gravidus* (Blandford), *Xylosandrus manicus* (Blandford), *Xylosandrus morigerus* (Blandford), *Xylosandrus subsimilis* (Eggers).

Tectona spp.

Hypothenemus cruditus Westwood, *Platypus bimucus* Blandford, *Platypus carus* Strohmeier, *Platypus jansoni* Chapuis.

Tenstromia spp.

Diapus bilunatus Schedl.

Tephrosia candida

Eucallacea fornicatus (Eichhoff), *Xylosandrus discolor* (Blandford).

Tephrosia maxima

Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).

Tephrosia spp.

Hypothenemus cruditus Westwood, *Xyleborus principalis* Eichhoff, *Xylosandrus morigerus* (Blandford).

Tephrosia vogelii

Cyrtogenius milletiae (Schedl), *Eucallacea fornicatus* (Eichhoff), *Eucallacea xanthiopus* (Eichhoff), *Xyleborus alluaudi* Schaufuss, *Xyleborus piccus* (Motschulsky), *Xyleborus principalis* Eichhoff, *Xylosandrus morigerus* (Blandford).

Terminalia amazonia

Xyleborus affinis Eichhoff, *Xyleborus volvulus* (Fabricius).

Terminalia arjuna

Crossotarsus minax (Walker), *Sphaerotrypes globulus* Blandford.

Terminalia bellerica

Crossotarsus bonvouloiri Chapuis, *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus minax* (Walker), *Diapus quinquespinatus* Chapuis, *Eccoptopterus spinosus* (Olivier), *Eucallacea andamanensis* (Blandford), *Eucallacea bicolor* (Blandford), *Eucallacea interjectus* (Blandford), *Platypus cupulatus* Chapuis, *Platypus latifinis* Walker, *Platypus pseudocupulatus* Schedl, *Platypus secretus* Sampson, *Platypus solidus* Walker, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.

Terminalia bialata

Arixyleborus medius (Eggers), *Coccotrypes salakenis* (Schedl), *Coptodryas redicens* (Sampson), *Diapus quinquespinatus* Chapuis, *Eucallacea bicolor* (Blandford), *Leptoxyleborus concisus* (Blandford), *Xyleborinus andrewesi* (Blandford), *Xyleborinus exiguus* (Walker), *Xyleborus bidentatus* (Motschulsky), *Xyleborus perforans* (Wollaston), *Xyleborus pfeili* (Ratzeburg), *Xyleborus similis* Ferrari.

Terminalia brassii

Diapus pusillimus Chapuis, *Platypus jansoni* Chapuis, *Platypus shoreanus* (Beeson).

Terminalia catappa

Eucallacea fornicatus (Eichhoff), *Platypus carus* Strohmeier, *Platypus cupulatus* Chapuis.

Terminalia chebula

Leptoxyleborus sordicauda (Motschulsky), *Xyleborus perforans* (Wollaston).

Terminalia citrina

Xyleborus perforans (Wollaston).

Terminalia complanata

Crossotarsus minusculus Chapuis, *Platypus dibrachiatu* Roberts, *Platypus fenestrallatus* Roberts, *Platypus gabensis* Schedl, *Platypus paralleliventrus* Roberts.

Terminalia conferta

Xyleborus piccus (Motschulsky).

Terminalia edulis

Coptoborus terminaliae Hopkins, *Cyclorhupidion terminaliae* Hopkins, *Xyleborus affinis* Eichhoff.

Terminalia guianensis

Scolytopsis orinocanus Wood.

Terminalia ivorensis

Acanthotomicus subinimicus (Schedl), *Chaetastus tuberculatus* (Chapuis), *Doliopygus brevis* (Strohmeier), *Doliopygus chapuisi* (Duvivier), *Doliopygus dubius* (Sampson), *Doliopygus serratus* (Strohmeier), *Periommatu excisus* Strohmeier, *Periommatu substriatus* Strohmeier, *Platypus hintzi* Schaufuss, *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus conradti* Hagedorn, *Xyleborus cichhoffianus* Schedl, *Xyleborus piccus* (Motschulsky), *Xyleborus rothkirchi* Eggers, *Xyleborus subtuberculatus* Eggers, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Terminalia manii

Diapus quinquespinatus Chapuis, *Platypus verchinatus* (Beeson), *Xyleborus perforans* (Wollaston).

Terminalia mantaly

Ambrosiodmus mahafali (Schedl).

Terminalia myriocarpa

Ambrosiodmus lewisi (Blandford), *Ambrosiodmus minor* (Stebbing), *Ambrosiodmus rubricollis* (Eichhoff), *Cnestus suturalis* (Eggers), *Coccotrypes cypri* (Beeson), *Coccotrypes papuanus* (Eggers), *Coccotrypes vulgaris* (Eggers), *Eucallacea interjectus* (Blandford), *Eucallacea velatus* (Sampson), *Hadrodemus metacomans* (Eggers), *Hadrodemus pseudocomans* (Eggers), *Platypus errans* (Sampson), *Xyleborinus subgranulatus* (Eggers), *Xyleborus huberkorni* Eggers, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford), *Xylosandrus subsimilis* (Eggers).

Terminalia paniculata

Crossotarsus minax (Walker), *Platypus latifinis* Walker, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.

Terminalia proceru

Eucallacea bicolor (Blandford), *Leptoxyleborus concisus* (Blandford), *Xyleborinus andrewesi* (Blandford), *Xyleborus perforans* (Wollaston), *Xylosandrus discolor* (Blandford).

Terminalia sepicana

Platypus solidus Walker.

Terminalia spp.

Ambrosiodmus hagedorni (Iglesias), *Ambrosiodmus lecontei* Hopkins, *Ambrosiodmus tropicus* (Hagedorn), *Amphicranus micans* Wood, *Crossotarsus andamanus* Beeson, *Cryphalus terminaliae* Browne, *Cyrtogenius prepartus* Browne, *Diapus turgidus* Roberts, *Eidophilus borneensis* Browne, *Eucallacea interjectus* (Blandford), *Margadillius fulvus* Browne, *Margadillius terminaliae* Browne, *Mitrosoma excisum* Schaufuss, *Platypus madagascariensis* Chapuis, *Platypus parvus* Browne, *Platypus uncinatus* Blandford, *Premnobius cavipennis* Eichhoff, *Taurodemus sharpi sharpi* (Blandford), *Theoborus ricini* (Eggers), *Xyleborinus gracilis* (Eichhoff), *Xyleborus cognatus* Blandford, *Xyleborus glabratus* Browne, *Xyleborus pumilus* Eggers, *Xyleborus shoreae* (Stebbing), *Xyleborus spinulosus* Blandford, *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus discolor* (Blandford).

Terminalia superba

Chaetastus tuberculatus (Chapuis), *Cylindropalpus*

auricomans (Schaufuss), *Cylindropalpus camerunus* (Schedl), *Diapys quinquepunctatus* Chapuis, *Doliopygus brevis* (Strohmeyer), *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus divaricus* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus exilis* (Chapuis), *Doliopygus medius* Schedl, *Doliopygus minimus* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus punctiventris* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Dryocoetoides cristatus* (Fabricius), *Eccoptycterus spinosus* (Olivier), *Hypothenemus concolor* Hagedorn, *Periommatius angustior* Schedl, *Periommatius excisus* Strohmeyer, *Periommatius longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus parallelus* (Fabricius), *Platypus picinus* Schedl, *Premnobius quadrispinosus* Schedl, *Platypus rufescens* (Strohmeyer), *Platypus solutus* Schedl, *Platypus spinulosus* (Strohmeyer), *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufussi* (Strohmeyer), *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins), *Xyleborinus similans* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus scobinatus* Hagedorn, *Xyleborus subasperulus* Eggers, *Xyleborus subtuberculatus* Eggers, *Xyleborinus sharpae* (Hopkins), *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Terminalia tomentosa

Coccotrypes longior (Eggers), *Coccotrypes mibilis* (Blandford), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus minax* (Walker), *Dianemus nigristetosus* Eggers, *Euwallacea andamanensis* (Blandford), *Sphaerotrypes globulus* Blandford, *Platypus forficula* Chapuis, *Platypus solidus* Walker, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus butanali* (Beeson), *Xylosandrus crassiusculus* (Motschulsky).

Ternstroemia gymnanthera

Xyleborus atratus Eichhoff.

Ternstroemia japonica

Platypus calamus Blandford.

Tessmannia africana

Doliopygus chapuisi (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus ghesquieri* (Schedl), *Doliopygus lebruni* Schedl, *Doliopygus spectabilis* Schedl, *Xylosandrus crassiusculus* (Motschulsky).

Tessmannia anomala

Doliopygus conradti (Strohmeyer), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky).

Tessmannia claessensii

Doliopygus staneri Schedl.

Tessmannia spp.

Premnobius capitipennis Eichhoff.

Tetradenia konishii

Crossotarsus rengetensis Niisima & Murayama.

Tetrameles nudiflora

Euwallacea andamanensis (Blandford), *Euwallacea interjectus* (Blandford), *Platypus cactus* Strohmeyer, *Platypus curtatus* Sampson, *Platypus indicus* Strohmeyer, *Platypus solidus* Walker, *Xyleborus similis* Ferrari.

Tetraplasandra spp.

Xyleborus ferrugineus (Fabricius), *Xyleborus hawaiiensis* Perkins.

Tetrapleura tetraptera

Chaetastus tuberculatus (Chapuis), *Cylindropalpus auricomans* (Schaufuss), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus erichsoni* (Chapuis), *Doliopygus exilis* (Chapuis), *Doliopygus perbrevis* Schedl, *Doliopygus rapax* (Sampson), *Doliopygus serratus* (Strohmeyer), *Doliopygus subditivus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Doliopygus unicoloris* Schedl, *Hypothenemus biseriatus* (Eggers), *Platypus hintzi* Schaufuss, *Platypus parallelus* (Fabricius), *Theoborus ricini* (Eggers), *Trachyostus schoutedeni* (Schedl), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus volvulus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Tetrorchidium didymestemon

Platypus spinulosus (Strohmeyer).

Teucrium pseudoscorodonia

Thammurgus delphinii (Rosenhauer).

Teucrium scorodonia

Thammurgus kaltenbachi (Bach).

Thalia geniculata

Xyleborus ferrugineus (Fabricius), *Xyleborus ficus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).

Thea japonica

Sphaerotrypes pila Blandford.

Thea sinensis

Platypus biuncus Blandford, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky), *Xylosandrus morigerus* (Blandford).

Theobroma cacao

Ambrosiodmus hagedorni (Iglesias), *Amphicranus argutus* Wood, *Amphicranus elegans* Eichhoff, *Amphicranus fulgidus* Wood, *Amphicranus spectabilis* (Wood), *Amphicranus spectus* Wood, *Amphicranus theobroma* Sampson, *Araptus columbianus* (Schedl), *Coccotrypes carpophagus* (Hornung), *Coccotrypes cyperi* (Beeson), *Coptoborus pseudotenuis* (Schedl), *Coptoborus tolimanus* (Eggers), *Coptoborus vespatorius* (Schedl), *Coptodryas nugax* (Schedl), *Corthyllocurus tuberculifer* (Eggers), *Corthylus collaris* Blandford, *Corthylus concisus* Wood, *Corthylus papulans* Eichhoff, *Corthylus pygmaeus* Wood, *Corthylus sobrinus* Wood, *Corthylus theobromae* Nunberg, *Crossotarsus minax* (Walker), *Crossotarsus cafer* Schedl, *Cryphalus theobromae* Nunberg, *Cyclorhpidion popondetae* (Browne), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus gracilior* Schedl, *Doliopygus kakaocensis* Schedl, *Doliopygus lefevri* Schedl, *Dryocoetoides cristatus* (Fabricius), *Dryocoetoides flavus* (Fabricius), *Euwallacea destrucens* (Blandford), *Euwallacea fornicatus* (Eichhoff), *Euwallacea interjectus* (Blandford), *Hypothenemus ater* (Eggers), *Hypothenemus atratus* (Schedl), *Hypothenemus concolor* Hagedorn, *Hypothenemus criticus* (Schedl), *Hypothenemus crudiae* (Panzer), *Hypothenemus cruditus* Westwood, *Hypothenemus grandis* Schedl, *Hypothenemus intricatus* (Schedl), *Hypothenemus liberiensis* (Hopkins), *Hypothenemus morio* (Eggers), *Hypothenemus obscurus* (Fabricius), *Hypothenemus perlispidus* (Eggers), *Hypothenemus pupipennis* (Eggers), *Hypothenemus seriatus* (Eichhoff), *Hypothenemus setosus* (Eichhoff), *Hypothenemus solitarius* (Schedl), *Hypothenemus suspectus* Wood, *Hypothenemus teretis* Wood, *Microrhynchus attenuatus* (Eggers), *Monarthrum corculum* Wood, *Monarthrum fimbriaticorne* (Blandford), *Platypus deyrollei* Chapuis, *Platy-*

- pns hintzi* Schaufuss, *Platypus jansonii* Chapuis, *Platypus parallelus* (Fabricius), *Pseudothysanoes atomus* Wood, *Sampsonius dampfi* Schedl, *Scolytogenes samoanus* (Browne), *Taurodenus ebenus* (Wood), *Taurodenus pandulus* (Wood), *Taurodenus perebeae* (Ferrari), *Taurodenus sharpi sharpi* (Blandford), *Taurodenus splendidus* (Schaufuss), *Taurodenus varians* (Fabricius), *Theoborus coartatus* (Sampson), *Theoborus ricini* (Eggers), *Theoborus theobromae* Hopkins, *Theoborus villosulus* (Blandford), *Tricolus saundersi* Wood, *Xyleborinus andreacei* (Blandford), *Xyleborinus bicornatulus* (Wood), *Xyleborinus gracilis* (Eichhoff), *Xyleborinus intersetosus* (Blandford), *Xyleborinus protinus* (Wood), *Xyleborinus reconditus* (Schedl), *Xyleborinus subsulcatus* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus africanus* Eggers, *Xyleborus asper* Eggers, *Xyleborus barinbuensis* Eggers, *Xyleborus car-aibicus* Eggers, *Xyleborus commixtus* Blandford, *Xyleborus ferox* Blandford, *Xyleborus ferrugineus* (Fabricius), *Xyleborus ficus* Eggers, *Xyleborus haberkorni* Eggers, *Xyleborus horridatus* Wood, *Xyleborus lacunatus* Wood, *Xyleborus macer* Blandford, *Xyleborus multispinatus* Eggers, *Xyleborus parallelocollis* Eggers, *Xyleborus parallelus* Eggers, *Xyleborus perforans* (Wollaston), *Xyleborus posticus* Eichhoff, *Xyleborus quadrispinosulus* Eggers, *Xyleborus squamulatus* Eichhoff, *Xyleborus subsasperulus* Eggers, *Xyleborus volvulus* (Fabricius), *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschnlsky), *Xylosandrus discolor* (Blandford), *Xylosandrus laticeps* (Wood), *Xylosandrus manicus* (Blandford), *Xylosandrus morigerus* (Blandford), *Xylosandrus ursinus* (Hagedorn).
- Theobroma silvestre**
Hypocryphalus obscurus Hopkins.
- Theobroma spp.**
Xyleborus similis Ferrari, *Xylosandrus compactus* (Eichhoff).
- Thespesia populnea**
Erucoladus corpulentus (Sampson), *Eucallacca andamanensis* (Blandford), *Hypothenemus eruditus* Westwood, *Hypothenemus seriatus* (Eichhoff).
- Thevetia nereifolia**
Hypothenemus eruditus Westwood.
- Thevetia ovata**
Liparthrum thevetiae Wood.
- Thevetia spp.**
Liparthrum cracentis Wood, *Pityophthorus costabilis* Wood, *Pityophthorus costatulus* Wood.
- Thrinax argentia**
Coccotrypes carpophagus (Hornung).
- Thujopsis dolabrata**
Phloeosinus gifuensis Murayama, *Phloeosinus lewisi* Chapuis, *Phloeosinus rudis* Blandford, *Phloeosinus sannohensis* Murayama, *Xyleborinus saxseni* (Ratzeburg).
- Thujopsis spp.**
Phloeosinus perlatus Chapuis.
- Thunbergia grandiflora**
Emcallacca velatus (Sampson).
- Thuja japonica**
Phloeosinus rudis Blandford.
- Thuja occidentalis**
Hypothenemus eruditus Westwood, *Phloeosinus canadensis* Swaine, *Phloeosinus dentatus* (Say), *Phloeosinus punctatus* LeConte.
- Thuja orientalis**
Phloeosinus hopchi Schedl.
- Thuja plicata**
Phloeosinus cupressi Hopkins, *Phloeosinus punctatus* LeConte, *Phloeosinus sequoiae* Hopkins.
- Thuja spp.**
Phloeosinus bicolor (Brulle), *Phloeosinus cristatus* (LeConte), *Phloeosinus henschli* Reitter, *Phloeosinus thujae* (Perris).
- Thuja standishii**
Xyleborus seriatus Blandford.
- Tieghmella hecklii**
Doliopygus bidiscoplanus Roberts.
- Tilia americana**
Pseudothysanoes rigidus (LeConte).
- Tilia amurensis**
Ernoporus tiliae (Panzer), *Eucallacca validus* (Eichhoff), *Scolytus koltzei* Reitter, *Xyleborinus alni* (Niisima).
- Tilia cienserrata**
Pseudothysanoes multispinatus Wood.
- Tilia cordata**
Ernoporus tiliae (Panzer), *Pseudoxylechinus tiliae* (Niisima).
- Tilia cordata japonica**
Crossotarsus niponicus Blandford, *Platypus scverini* Blandford, *Hypothenemus sapporocensis* (Niisima), *Xyleborus seriatus* Blandford.
- Tilia intermedia**
Ernoporus caucasicus (Lindemann), *Ernoporus tiliae* (Panzer), *Hylastinus tiliae* Semenov.
- Tilia mandshurica**
Scolytus koltzei Reitter.
- Tilia parvifolia**
Ernoporus caucasicus (Lindemann), *Ernoporus tiliae* (Panzer), *Hylastinus tiliae* Semenov.
- Tilia rubra**
Ernoporus caucasicus (Lindemann).
- Tilia spp.**
Hylesinus crenatus (Fabricius), *Monarthrum mali* (Fitch), *Scolytus laevis* Chapuis, *Trypodendron signatum* (Fabricius), *Xyleborinus saxseni* (Ratzeburg), *Xyleborus sayi* (Hopkins).
- Tilia tomentosa**
Ernoporus caucasicus (Lindemann).
- Tiliacora acuminata**
Miniocurus beasoni Wood.
- Tococa formicaria**
Xyleborus parcellus Wood.
- Toddalia asiatica**
Eucallacca xanthopus (Eichhoff), *Xyleborus principalis* Eichhoff.
- Toonia calantas**
Xyleborus haddeni Schedl.
- Toonia sinensis**
Leptoxyleborus concisus (Blandford), *Xyleborus haberkorni* Eggers, *Xyleborus piccus* (Motschnlsky).
- Toonia spp.**
Xylosandrus compactus (Eichhoff).
- Toonia sureni**
Xylosandrus manicus (Blandford).
- Torrubia longifolia**
Dendrosinus bourrerieae Schwarz, *Hypothenemus squamosus* (Hopkins).
- Toullicia pulvinata**
Xyleborus affinis Eichhoff, *Xyleborus asper* Eggers.
- Tovomita guianensis**
Hypothenemus opaeus (Eichhoff).

Toxicodendron spp.

Hypothenemus erectus LeConte, *Hypothenemus indigenus* Wood, *Pityophthorus cornipus* Wood, *Pityophthorus detentus* Wood.

Toxicodendron trichocarpum

Eidophelus initans Eichhoff.

Toxoxylon pomiferum

Cnestus strigicollis LeConte.

Trachelospermum asiaticum

Scolytogenes scolytomimoides (Nobuchi).

Trachylobium narrucosum

Hypothenemus seriatus (Eichhoff).

Trachylobium verrucosum

Triozastus banghaasi (Schaufuss), *Triozastus marshalli* (Sampson).

Treccia africana

Chaetastus tuberculatus (Chapuis), *Doliopygus coclocephalus* (Schaufuss), *Doliopygus serratus* (Strohmeyer), *Hylesinopsis dubius* Eggers, *Doliopygus erichsoni* (Chapuis), *Pityophthorus trecciae* Schedl, *Trachyostus schaufussi* (Strohmeyer), *Trachyostus schoutedeni* (Schedl), *Xyleborus alluaudi* Schaufuss.

Trema floridana

Hypothenemus birmanus (Eichhoff), *Hypothenemus brunneus* (Hopkins), *Hypothenemus eruditus* Westwood, *Hypothenemus javanus* (Eggers), *Hypothenemus seriatus* (Eichhoff).

Trema guineense

Ambrosiodmus aegir (Eggers), *Cyclorhipidion crucipenne* (Schedl), *Doliopygus perbrevis* Schedl, *Hypothenemus biseriatus* (Eggers), *Hypothenemus pubipennis* (Eggers), *Platypus hintzi* Schaufuss, *Platypus spinulosus* (Strohmeyer), *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus consobrinus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus multi-spinatus* Eggers.

Trema orientalis

Ambrosiodmus artemgranulatus (Schedl), *Ambrosiodmus mahafali* (Schedl), *Doliopygus erichsoni* (Chapuis), *Eucallalcea xanthopus* (Eichhoff), *Pityophthorus kivuensis* Schedl, *Platypus jansonii* Chapuis, *Xyleborinus quadrispinus* (Schedl), *Xyleborinus spiculatus* (Schaufuss), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus antaisaka* Schedl, *Xyleborus ferrugineus* (Fabricius), *Xyleborus principalis* Eichhoff, *Xyleborus subtuberculatus* Eggers, *Xylosandrus morigerus* (Blandford).

Tricalysia viridiflora

Xyleborus kumamotoensis Murayama.

Trichilia arborea

Hypothenemus seriatus (Eichhoff), *Micracis swainei* Blackman.

Trichilia gilgiana

Coccotrypes cylindricus (Eggers), *Doliopygus dubius* (Sampson), *Doliopygus serratus* (Strohmeyer), *Platypus parallelus* (Fabricius), *Triozastus marshalli* (Sampson).

Trichilia heudelotii

Cylindropalpus auricomans (Schaufuss), *Doliopygus brevis* (Strohmeyer), *Doliopygus conradi* (Strohmeyer), *Doliopygus erichsoni* (Chapuis), *Doliopygus interjectus* Schedl, *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus serratus* (Strohmeyer), *Periommatus grandis* Schedl, *Periommatus longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Triozastus banghaasi* (Schaufuss), *Triozastus marshalli* (Sampson),

Xyleborinus collarti (Eggers), *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Trichilia lunata

Cylindropalpus pertinax (Schedl), *Doliopygus coclocephalus* (Schaufuss), *Doliopygus conradi* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus interjectus* Schedl, *Platypus hintzi* Schaufuss, *Premnobius quadrispinosus* Schedl, *Scolytoplatypus eichelbanni* Hagedorn, *Triozastus banghaasi* (Schaufuss), *Xyleborus affinis* Eichhoff.

Trichilia prieureama

Doliopygus conradi (Strohmeyer), *Doliopygus ghesquieri* (Schedl), *Doliopygus interjectus* Schedl, *Doliopygus subditivus* (Schedl), *Hypothenemus eruditus* Westwood, *Triozastus elongatus* Schedl, *Xyleborinus sharpae* (Hopkins), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Trichilia propinqua

Cnemidomyx vestitus (Eggers), *Xyleborus affinis* Eichhoff.

Trichilia rubescens

Chaetastus tuberculatus (Chapuis), *Doliopygus citri* Schedl, *Doliopygus conradi* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus lefevrei* Schedl, *Doliopygus serratus* (Strohmeyer), *Doliopygus trichiliae* Schedl, *Triozastus banghaasi* (Schaufuss), *Triozastus marshalli* (Sampson), *Xyleborinus sharpae* (Hopkins).

Trichilia spp.

Dactylipalpus camerunus Hagedorn, *Doliopygus alternans* (Strohmeyer), *Doliopygus conradi* (Strohmeyer), *Doliopygus interjectus* Schedl, *Doliopygus obuduensis* Roberts, *Doliopygus serratus* (Strohmeyer), *Mitosoma obliquatum* Schedl, *Mitosoma odonticeps* Schedl, *Mitosoma truncatepennis* Schedl, *Platypus parallelus* (Fabricius), *Premnobius cavipennis* Eichhoff, *Scolytoplatypus occidentalis* Brownie, *Xyleborinus diversus* (Schedl), *Xyleborinus gracilipennis* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus clerodendronae* Schedl, *Xyleborus subtuberculatus* Eggers, *Xyleborus volutus* (Fabricius).

Trichilia velwitschii

Trachyostus schaufussi (Strohmeyer).

Trichoscypha arborea

Cyclorhipidion daosi (Schedl).

Trichoscypha spp.

Doliopygus chapuisi (Duvivier), *Doliopygus serratus* (Strohmeyer), *Platypus parallelus* (Fabricius).

Tricocodendron acuminatum

Mitosoma excisum Schaufuss, *Mitosoma paulianum* Schedl, *Xyleborinus spiculatus* (Schaufuss).

Tridesmostemon claessensii

Chaetastus persimilis (Schedl), *Cylindropalpus granulatus* (Schedl), *Cylindropalpus pertinax* (Schedl), *Doliopygus dubius* (Sampson), *Doliopygus semipilosus* (Schedl), *Doliopygus tenuis* (Strohmeyer), *Hypothenemus criticus* (Schedl), *Hypothenemus eruditus* Westwood, *Mesoplatypus crinaceus* Schedl, *Platypus impressus* (Strohmeyer), *Premnobius quadrispinosus* Schedl, *Triozastus marshalli* (Sampson), *Xyleborus affinis* Eichhoff, *Xyleborus volutus* (Fabricius).

Tridesmostemon spp.

Premnobius cavipennis Eichhoff.

Trifolium pratense

Hylastinus obscurus (Marshall).

Triopteris jamaicensis*Hypothecenus cruditus* Westwood.**Triplochiton scleroxylo**

Ambrosiodinus neglectus (Schedl), *Chaetastus tuberculatus* (Chapuis), *Ctenoxylon flavescens* Hagedorn, *Cylindropalpus auricomans* (Schaufuss), *Cylindropalpus camerianus* (Schedl), *Cylindropalpus pumilio* (Schedl), *Cyrtogenius cribripennis* Schedl, *Diamerus imperfectus* Eggers, *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus interjectus* Schedl, *Doliopygus medius* Schedl, *Doliopygus notatus* Schedl, *Doliopygus opifex* (Sampson), *Doliopygus serratus* (Strohmeyer), *Dryococtoides cristatus* (Fabricius), *Hypothecenus cruditus* Westwood, *Hypothecenus pubipennis* (Eggers), *Leptoxyleborus scabrior* (Schedl), *Periommatius excisus* Strohmeyer, *Periommatius grandis* Schedl, *Periommatius longicollis* Chapuis, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus parallelus* (Fabricius), *Polygraphus coronatus* Eggers, *Scolytogenes braderi* (Browne), *Trachyostus ghanaensis* Schedl, *Triozastus banghaasi* (Schaufuss), *Xyleborinus diversus* (Schedl), *Xyleborinus similans* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiusculus* Eggers, *Xyleborus eichhoffianus* Schedl, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xyleborus pseudoambasius* Schedl, *Xyleborus subtuberculatus* Eggers, *Xyleborus volutus* (Fabricius), *Xylosandrus crassiusculus* (Motschulsky).

Triplochiton spp.*Premnobius catipennis* Eichhoff.**Tristania spp.***Anasa opalescens* (Schedl), *Xylosandrus compactus* (Eichhoff).**Tristania whiteana***Xyleborus haberkornii* Eggers, *Xylosandrus mancus* (Blandford).**Triumfetta spp.***Ambrosiodinus ovatus* (Eggers), *Hypothecenus grandis* Schedl.**Trochis racemosa***Xyleborus naeae* Blandford.**Tsuga chinensis***Sphaerotrypes magnus* Tsai & Yin, *Sphaerotrypes tsugae* Tsai & Yin.**Tsuga diversifolia***Dryocoetes brevipilosus* Murayama.**Tsuga heterophylla**

Dendroctonus pseudotsugae Hopkins, *Dryocoetes autographus* (Ratzeburg), *Gnathotrichus retusus* (LeConte), *Gnathotrichus sulcatus* (LeConte), *Hylurgops reticulatus* Wood, *Phloeosinus punctatus* LeConte, *Pityophthorus pseudotsugae* Swaine, *Platypus wilsoni* Swaine, *Pseudohylesinus granulatus* (LeConte), *Pseudohylesinus nebulosus nebulosus* (LeConte), *Pseudohylesinus sericeus* (Mannerheim), *Pseudohylesinus tsugae* Swaine.

Tsuga mertensiana*Pseudohylesinus dispar dispar* Blackman, *Pseudohylesinus tsugae* Swaine.**Tsuga sieboldii***Crossotarsus niponicus* Blandford, *Eucallalcea validus* (Eichhoff).**Tsuga spp.***Cryphalus taiwanus* Schedl, *Gnathotrichus materiarius* (Fitch), *Hylastes nigrinus* (Mannerheim), *Scolytus**tsugae* (Swaine), *Xyleborus dispar* (Fabricius), *Xyleborus scriatus* Blandford, *Xyloterinus politus* (Say).**Tsuga yunnanensis***Xyleborinus saxeseni* (Ratzeburg).**Tulasneana spp.***Eucallalcea xanthopus* (Eichhoff).**Turpinia latifolia***Eucallalcea destrucis* (Blandford).**Turpinia nepalensis***Coccotrypes nubilis* (Blandford), *Xyleborus eggersi* Beeson.**Turpinia pomifera***Anasa nobilis* (Eggers), *Hadrodemius globus* (Blandford), *Xyleborus cancellatus* Eggers, *Xyleborus fallax* Eichhoff, *Xyleborus haberkornii* Eggers.**Turpinia spp.***Eucallalcea andamanensis* (Blandford).**Turraeanthus africana**

Chaetastus tuberculatus (Chapuis), *Coptoborus forficatus* (Schedl), *Cyclorhipidion crucifer* (Hagedorn), *Doliopygus chapuisi* (Duvivier), *Doliopygus conradti* (Strohmeyer), *Doliopygus dubius* (Sampson), *Doliopygus ghesquieri* (Schedl), *Doliopygus interjectus* Schedl, *Doliopygus medius* Schedl, *Doliopygus rhodesianus* (Schedl), *Doliopygus serratus* (Strohmeyer), *Doliopygus wolschei* Schedl, *Dryococtoides cristatus* (Fabricius), *Hypothecenus cruditus* Westwood, *Periommatius excisus* Strohmeyer, *Platypus hintzi* Schaufuss, *Platypus impressus* (Strohmeyer), *Platypus rimulosus* Schedl, *Platypus spinulosus* (Strohmeyer), *Polygraphus granulifer* Eggers, *Premnobius mukunyeae* (Schedl), *Premnobius nodulosus* Hagedorn, *Premnobius quadrispinosus* Schedl, *Xyleborinus collarti* (Eggers), *Xyleborinus sharpae* (Hopkins), *Xyleborinus similans* (Eggers), *Xyleborus affinis* Eichhoff, *Xyleborus africanus* Eggers, *Xyleborus alluaudi* Schaufuss, *Xyleborus ambasiipennis* Schedl, *Xyleborus ambasiusculus* Eggers, *Xyleborus ferrugineus* (Fabricius), *Xyleborus picus* (Motschulsky), *Xyleborus tenellus* Schedl, *Xyleborus turraeanthus* Schedl, *Xylosandrus compactus* (Eichhoff), *Xylosandrus crassiusculus* (Motschulsky).

Turraeanthus spp.*Ambrosiodinus eichhoffi* (Schreiner), *Premnobius catipennis* Eichhoff.**Turraeanthus vignei***Doliopygus nairobiensis* (Schedl), *Xyleborus affinis* Eichhoff, *Xyleborus alluaudi* Schaufuss, *Xyleborus picus* (Motschulsky).**Uapaca spp.***Mitosoma obliquatum* Schedl, *Platypus madagascariensis* Chapuis, *Xyleborinus dentellus* (Schedl).**Ulex europaeus***Hylastinus obscurus* (Marshall), *Phloeotribus rhododactylus* (Marshall).**Ulmus americana***Hylocurus rudis* (LeConte).**Ulmus campestris***Hylesinus elatus* Niisima, *Hyorrhynchus lewisi* Blandford, *Pteleobius kraatzii* (Eichhoff), *Pteleobius vittatus* (Fabricius), *Scolytus chikisanii* Niisima, *Scolytus frontalis* Blandford.**Ulmus carpinifolia***Scolytus chikisanii* Niisima, *Scolytus ecksteini* Butovitch, *Scolytus jaroschewskii* Scheyrew, *Scolytus centrosus* Scheyrew, *Scolytus zaitzevi* Butovitch.

Ulmus effusa

Pteleobius kraatzii (Eichhoff), *Pteleobius vittatus* (Fabricius).

Ulmus japonica

Hylesinus elatus Niisima, *Neopteleobius scutulatus* (Blandford), *Scolytus butovitschii* Stark, *Scolytus chikisanii* Niisima, *Scolytus jacobsoni* (Spessivtsev), *Scolytus pubescens* Stark, *Scolytus semenovi* (Spessivtsev), *Trypodendron signatum* (Fabricius), *Xyleborus atratus* Eichhoff.

Ulmus laciniata

Scolytus chikisanii Niisima, *Scolytus jacobsoni* (Spessivtsev), *Scolytus semenovi* (Spessivtsev).

Ulmus laevis

Scolytus kozikowskii Michalski.

Ulmus lanceifolia

Scolytus chelogaster Schedl, *Scolytus squamosus* Yin & Huang.

Ulmus montana

Ernoporiscus caucasicus (Lindemann), *Pteleobius kraatzii* (Eichhoff), *Pteleobius vittatus* (Fabricius).

Ulmus propinqua

Scolytus butovitschii Stark, *Scolytus jacobsoni* (Spessivtsev), *Scolytus pubescens* Stark, *Scolytus semenovi* (Spessivtsev), *Scolytus ventrosus* Scheyvrew.

Ulmus pumila

Eucallacea validus (Eichhoff), *Hypothenemus modestus* (Murayama), *Pseudothysanoes mongolica* (Sokanovskii), *Scolytus butovitschii* Stark, *Scolytus parviclaviger* Yin & Huang, *Sphaerotrypes ulmi* Tsai & Yin.

Ulmus rubra

Trischidioides atomus (Hopkins).

***Ulmus* spp.**

Ambrosiodermus apicalis (Blandford), *Corthylus columbianus* Hopkins, *Corthylus punctatissimus* (Zimmermann), *Hylocurus langstoni* Blackman, *Hylurgopinus rufipes* (Eichhoff), *Hypothenemus eruditus* Westwood, *Pteleobius kraatzii* (Eichhoff), *Scolytus aratus* Blandford, *Scolytus ensifer* Eichhoff, *Scolytus japonicus* Chapuis, *Scolytus kirschi* Skalitzky, *Scolytus laevis* Chapuis, *Scolytus mali* (Bechstein), *Scolytus multistriatus* (Marsham), *Scolytus pygmaeus* (Fabricius), *Scolytus scheyvrewi* Semenov, *Scolytus scolytus* (Fabricius), *Scolytus sulcifrons* Rey, *Scolytus trispinosus* Strohmeier, *Taphrorychus vilifrons* (Dufour), *Thysanoes berchemiae* Blackman, *Xyleborus atratus* Eichhoff, *Xyleborus eurygraphus* (Ratzeburg), *Xyleborus maiche* (Stark), *Xyleborus pfeili* (Ratzeburg), *Xylosandrus germanus* (Blandford), *Xylosterinus politus* (Say).

Ulmus wallichiana

Scolytus kashmirensis Schedl.

***Umbellularia* spp.**

Hylocurus hirtellus (LeConte).

Uniola paniculata

Hypothenemus californicus Hopkins.

Urena lobata

Hypothenemus eruditus Westwood.

***Urena* spp.**

Hypothenemus eruditus Westwood, *Hypothenemus seriatus* (Eichhoff).

***Ureia* spp.**

Xyleborinus saxeseni (Ratzeburg).

Urophyllum lyallii

Xyleborus albuandi Schaufuss, *Xylosandrus hirsutipennis* (Schedl).

***Urostigma* spp.**

Cryphalus walkeri (Blandford).

Usambara occidentalis

Peruophorus brevicollis (Strohmeier).

Vaccinium consanguineum

Corthycyclon aztecum (Bright), *Corthycyclon tardum* Wood, *Corthylus subserratus* Wood.

***Vaccinium* spp.**

Corthylus punctatissimus (Zimmermann).

Vachellia farnesiana

Hypothenemus brunneus (Hopkins).

Valeriana scandens

Cnestus adustus Schedl.

Valleris haynii

Scolytogenes indicus Wood.

Vanda coerulea

Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).

***Vanda* spp.**

Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).

Vanda teres

Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).

Vanda tricolor

Xylosandrus compactus (Eichhoff), *Xylosandrus morigerus* (Blandford).

Vateria copalifera

Sphaerotrypes cristatus Wood, *Xylosandrus manicus* (Blandford).

Vateria indica

Coccotrypes advena Blandford, *Coccotrypes cardamomi* Schaufuss, *Coccotrypes cyperi* (Beeson), *Coccotrypes variabilis* (Beeson), *Coccotrypes vateriae* (Beeson), *Crossotarsus quadricaudatus* (Strohmeier), *Eucallacea andamanensis* (Blandford), *Genyocerus furtivus* (Sampson), *Platypus latifinis* Walker, *Platypus suffodiens* Sampson, *Xylosandrus butamali* (Beeson), *Xylosandrus crassiusculus* (Motschulsky).

Vatica heteroptera

Xylosandrus crassiusculus (Motschulsky).

Vatica lanceaefolia

Ambrosiodermus lewisi (Blandford), *Arixyleborus malayensis* (Schedl), *Carchesiopygus assamensis* (Beeson), *Carchesiopygus wollastoni* (Chapuis), *Coptodryas alpha* (Beeson), *Crossotarsus bonvouloiri* Chapuis, *Diaprus quinquespinatus* Chapuis, *Eucallacea tristic* (Eggers), *Genyocerus furtivus* (Sampson), *Platypus cavius* Strohmeier, *Platypus curtatus* Sampson, *Platypus decens* Sampson, *Platypus lepidus* Chapuis, *Platypus uncinatus* Blandford, *Sphaerotrypes vaticanus* Beeson, *Xyleborinus subgranulatus* (Eggers), *Xyleborus shoreae* (Stebbing), *Xyleborus similis* Ferrari, *Xylosandrus gravidus* (Blandford).

***Vatica* spp.**

Acacis borneensis Brownie, *Cnestus suturalis* (Eggers), *Coptodryas bella* (Sampson), *Coptodryas confusa* Hopkins, *Coptodryas obtusicollis* (Schedl), *Coptodryas perparva* (Sampson), *Cyclorhpidion punctillicolle* (Schedl), *Cyrtogenius vaticae* (Nunberg), *Genyocerus biporus* (Schedl), *Genyocerus decemspinatus* (Schedl), *Genyocerus exilis* (Schedl), *Genyocerus serratus* (Schedl), *Leptoxyleborus scabrior* (Schedl), *Ozopemon obanus* Hagedorn, *Platypus artemisoides* Schedl, *Platypus granifer* Schedl, *Platypus minacior* Schedl, *Platypus sericans* Schedl.

- Sphaerotrypes biseriatus* Schedl, *Sphaerotrypes minutus* Browne, *Webbia bakoensis* Browne, *Webbia seriata* (Browne), *Webbia trepanicauda* (Eggers), *Xyleborus macropterus* Schedl, *Xyleborus muasi* Browne, *Xyleborus pseudopilifer* Schedl.
- Vatica stapfianna**
Platypus cupulatus Chapuis.
- Vareua spp.**
Platypus runcinatus Roberts.
- Vepris stolzii**
Doliopygus lefevrei Schedl, *Periommatius excisus* Strohmeyer.
- Vepris undulata**
Xyleborinus aemulus (Wollaston).
- Verbena spp.**
Hypothenemus californicus Hopkins.
- Verbesina agricultorum**
Cnesinus annectens Wood, *Hypothenemus erectus* LeConte.
- Verbesina laciniata**
Hypothenemus eruditus Westwood.
- Vernonia amygdalina**
Eucallacea xanthopus (Eichhoff), *Xyleborus alhuandi* Schaufuss, *Xyleborus piccus* (Motschulsky).
- Vernonia appendiculata**
Eucallacea xanthopus (Eichhoff), *Pityophthorus madagascariensis* Schedl.
- Vernonia arborea**
Platypus carus Stroymeyer, *Xyleborus affinis* Eichhoff, *Xylosandrus crassiusculus* (Motschulsky).
- Vernonia auriculifera**
Thammurgus africanus Eggers.
- Vernonia conferta**
Doliopygus erichsoni (Chapuis), *Doliopygus lateralis* Schedl, *Doliopygus medius* Schedl, *Doliopygus minor* Schedl, *Doliopygus perbrevis* Schedl, *Doliopygus rhodesianus* (Schedl), *Eucallacea pandae* (Schedl), *Platypus hintzi* Schaufuss, *Platypus orientalis* (Strohmeyer), *Trachyostus schaufussi* (Strohmeyer), *Xyleborus affinis* Eichhoff, *Xyleborus alhuandi* Schaufuss, *Xyleborus ferrugineus* (Fabricius), *Xyleborus solutus* Schedl, *Xyleborus subtuberculatus* Eggers, *Xylosandrus crassiusculus* (Motschulsky).
- Vernonia lasiopus**
Ambrosiodmus aegir (Eggers).
- Vernonia spp.**
Doliopygus brevis (Strohmeyer), *Doliopygus conradi* (Strohmeyer), *Doliopygus perbrevis* Schedl, *Platypus madagascariensis* Chapuis, *Xyleborinus quadrispinosus* (Eichhoff), *Xyleborus bezanozani* Schedl, *Xyleborus principalis* Eichhoff, *Xylosandrus hirsutipennis* (Schedl).
- Veronica arboreseens**
Xyleborus adusticollis (Motschulsky).
- Vernonia spp.**
Ambrosiodmus tropicus (Hagedorn), *Hypothenemus grandis* Schedl.
- Viburnum betuloides**
Corthylus punctatissimus (Zimmermann).
- Viburnum dilatatum**
Cryphalus viburni Stark.
- Viburnum spp.**
Xylosandrus brevis (Eichhoff).
- Vigna sinensis**
Hypothenemus eruditus Westwood.
- Villebrunnea spp.**
Xylosandrus morigerus (Blandford).
- Vinea spp.**
Xylosandrus compactus (Eichhoff).
- Virecta multiflora**
Hypothenemus grandis Schedl, *Thammurgus grandicollis* Schedl.
- Virgilia capensis**
Platypus sampsoni (Schedl), *Xyleborinus aemulus* (Wollaston).
- Virgilia oroboides**
Hypocryphalus caplandicus Schedl.
- Virola spp.**
Cnemonyx insignis Wood, *Cnemonyx maculicornis* (Blandford), *Scolytodes declivistriatus* Schedl.
- Virola surinamensis**
Xyleborus grossmanni Schedl.
- Virola warburgii**
Xyleborus asper Eggers, *Xyleborus sparsipilosus* Eggers.
- Viscum album**
Liparthrum bartschti Muhl.
- Vismia cayennensis**
Cnesinus reticulus Wood.
- Vismia guianensis**
Cnemonyx panamensis (Blandford), *Hypothenemus trivialis* Wood, *Scolytodes cedrelae* Wood, *Tesserocerus belti* Sharp, *Xyleborinus intersetosus* (Blandford), *Xyleborus visniae* Wood.
- Vismia spp.**
Amphicraus terebella Blandford, *Cnemonyx minusculus* (Blandford), *Cnemonyx cismiocolens* Wood, *Cnesinus lucaris* Wood, *Corthylus abbreviatus* Eichhoff, *Corthylus additus* Wood, *Hypothenemus erectus* LeConte, *Hypothenemus interstitialis* (Hopkins), *Hypothenemus squamosus* (Hopkins), *Sampsonius dampfi* Schedl, *Taurodenus godmani* (Blandford), *Taurodenus sanguinicollis* (Blandford), *Xyleborus ferrugineus* (Fabricius), *Xyleborus volutus* (Fabricius).
- Vitex altissima**
Eucallacea andamanensis (Blandford), *Xylosandrus crassiusculus* (Motschulsky).
- Vitex congolensis**
Doliopygus lefevrei Schedl, *Doliopygus rapax* (Sampson).
- Vitex euneata**
Pernophorus abhorrens Eggers.
- Vitex hildebrandii**
Doliopygus chapuisi (Duvivier).
- Vitex negundo**
Ambrosiodmus rubricollis (Eichhoff).
- Vitex peduncularis**
Eccoapterus spinosus (Olivier), *Eucallacea andamanensis* (Blandford), *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari.
- Vitex pubescens**
Cnestus aterrimus (Eggers), *Hypothenemus eruditus* Westwood, *Xyleborus approximatus* Schedl, *Xyleborus haberkorni* Eggers, *Xylosandrus ater* (Eggers), *Xylosandrus manicus* (Blandford), *Xylosandrus pygmaeus* (Eggers).
- Vitex spp.**
Ambrosiodmus triton (Schaufuss), *Crossotarsus muszelski* Chapuis, *Xyleborus perforans* (Wollaston), *Xyleborus similis* Ferrari, *Xylosandrus compactus* (Eichhoff).
- Vitex wehlichschii**
Doliopygus medius Schedl.

Vitis discolor*Xyleborus piccus* (Motschulsky).**Vitis spp.***Ambrosiodmus apicalis* (Blandford), *Cucinus elegans* Blandford, *Cryphalus felis* Wood, *Cryptocaremus heveae* (Hagedorn), *Hypothenemus birmanus* (Eichhoff), *Hypothenemus dissimilis* (Zimmermann), *Hypothenemus interstitialis* (Hopkins), *Hypothenemus jarmanus* (Eggers), *Hypothenemus ritis* Browne, *Micracisella nanula* (LeConte), *Premnobius catipennis* Eichhoff, *Xylosandrus compactus* (Eichhoff), *Xylosandrus germanus* (Blandford), *Xylosandrus morigerus* (Blandford).**Vitis vinifera***Hypothenemus eruditus* Westwood, *Xylosandrus discolor* (Blandford).**Walsura robusta***Xyleborus perforans* (Wollaston).**Warburgia ugandensis***Doliopygus nairobiensis* (Schedl).**Washingtonia filifera***Coccotrypes carpophagus* (Hornung), *Coccotrypes dactyliperda* (Fabricius).**Washingtonia sonorae***Coccotrypes dactyliperda* (Fabricius).**Webbia spp.***Hypothenemus eruditus* Westwood.**Weigela hortensis***Xylosandrus brevis* (Eichhoff).**Weinmannia spp.***Xyleborinus cupulatus* (Schedl), *Xyleborinus forficuloides* (Schedl).**Wendlandia bicuspidata***Liparthrum brincki* (Schedl).**Wendlandia tinctoria***Scolytoplatypus minimus* Hagedorn.**Werklia insignis***Corthylus rubricollis* Blandford, *Corthylus serratus* Wood, *Corthylus strigilis* Wood, *Tricolus naevus* Wood.**Whitfordiodendron pubescens***Amasa versicolor* (Sampson), *Coptodryas nugax* (Schedl), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus schedli* Browne, *Crossotarsus squamulatus* Chapuis, *Crossotarsus terminatus* Chapuis, *Crossotarsus wallacci* (Thomson), *Eucallacea fornicatus* (Eichhoff), *Eucallacea limatus* (Schedl), *Eucallacea xanthopus* (Eichhoff), *Platypus insulindicus* Schedl.**Widdringtonia juniperoides***Lanurgus widdringtoniae* Schedl.**Wikstroemia spp.***Xylosandrus compactus* (Eichhoff).**Wistaria floribunda***Hypothenemus kraunhiiae* (Murayama), *Scolytogenes badius* (Nobuchi), *Xyleborus kraunhiiae* Niisima.**Wistaria sinensis***Hypothenemus eruditus* Westwood.**Wistaria spp.***Chramesus wisteriae* Wood, *Hypothenemus erudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus seriatius* (Eichhoff).**Wormia ferruginea***Scolytogenes crenatus* (Sampson).**Wormina triquetra***Crossotarsus minax* (Walker), *Crossotarsus terminatus* Chapuis.**Wrightia tinctoria***Eucallacea andamanensis* (Blandford), *Xylosandrus crassiusculus* (Motschulsky).**Wrightia tomentosa***Platypus errans* (Sampson), *Platypus infuscatus* Browne.**Xanthomyrtus spp.***Diapus nebulosus* Roberts, *Platypus bipyramidus* Roberts & Morimoto, *Platypus caelestis* Roberts & Morimoto, *Platypus cicatricosus* Roberts.**Xanthophyllum affine***Crossotarsus terminatus* Chapuis, *Xylosandrus crassiusculus* (Motschulsky).**Xanthophyllum curtisii***Eucallacea limatus* (Schedl).**Xanthophyllum glaucum***Platypus lepidus* Chapuis.**Xanthophyllum ostrandum***Platypus australis* Chapuis.**Xanthophyllum papuanum***Baioeis unispinosus* Roberts, *Platypus acquilaterus* Roberts, *Platypus daedalus* Roberts, *Platypus evanidus* Roberts, *Platypus hebetatus* Roberts, *Platypus nudiusculus* Roberts, *Platypus pectinatus* Roberts, *Platypus ternus* Roberts, *Platypus turiformis* Roberts & Morimoto, *Platypus vaginervis* Roberts, *Platypus watutensis* Roberts.**Xanthophyllum spp.***Ambrosiodmus sarawakensis* (Eggers), *Coptodryas nugax* (Schedl), *Crossotarsus externedentatus* (Fairmaire), *Crossotarsus schedli* Browne, *Cyrtogenius glaber* (Schedl), *Diapus bispinus* Schedl, *Diapus namus* Schedl, *Diapus perpygmaeus* Roberts, *Diapus pusillimus* Chapuis, *Eccoptopterus spinosus* (Olivier), *Eucallacea andamanensis* (Blandford), *Eucallacea limatus* (Schedl), *Leptoxyleborus concisus* (Blandford), *Leptoxyleborus punctatissimus* (Eichhoff), *Hyledius xanthophylli* (Browne), *Platypus fraterculus* Schedl, *Platypus jansoni* Chapuis, *Platypus nivalis* Sampson, *Platypus praepositus* Schedl, *Platypus pseudocupulatus* Schedl, *Platypus triangulatus* Browne, *Xyleborus adusticollis* (Motschulsky), *Xyleborus fallax* Eichhoff, *Xyleborus javanus* Eggers, *Xylosandrus assequens* Schedl, *Xylosandrus difficilis* (Eggers).**Xanthostemon pubescens***Xyleborus perforans* (Wollaston).**Xeiopia spp.***Cryptocaremus lepidus* Wood.**Xerospermum intermedium***Anasa beesonii* (Eggers).**Xerospermum spp.***Crossotarsus schedli* Browne, *Crossotarsus siporanus* Schedl, *Cyclorhizidion sisyrinchiorum* (Hagedorn), *Platypus protenus* (Schedl), *Xyleborinus pomelianus* (Schedl).**Xylia dolabriformis***Coccotrypes cyperi* (Beeson), *Crossotarsus emorsus* Beeson, *Eucallacea velatus* (Sampson), *Platypus cupulatus* Chapuis, *Platypus signatus* Chapuis, *Xyleborus birmanus* Eggers, *Xyleborus fallax* Eichhoff.**Xylia xylocarpa***Crossotarsus bonvouloiri* Chapuis, *Crossotarsus minax* (Walker), *Eucallacea andamanensis* (Blandford), *Eucallacea fornicatus* (Eichhoff), *Eucallacea interjectus* (Blandford), *Eucallacea velatus* (Sampson), *Leptoxyleborus concisus* (Blandford), *Leptoxyleborus*

- sordicauda* (Motschulsky), *Platypus signatus* Chapuis, *Xyleborus fallax* Eichhoff.
- Xylocarpus gangeticus**
Crossotarsus minusculus Chapuis, *Xyleborus bidentatus* (Motschulsky).
- Xylocarpus graucatum**
Platypus biuncus Blandford, *Xyleborus bidentatus* (Motschulsky).
- Xylopiia aethiopica**
Doliopygus lefevrei Schedl, *Hypothenemus eruditus* Westwood, *Periommatius substratus* Strohmeier, *Platypus hintzi* Schaufuss, *Platypus schenklingi* (Strohmeier), *Xyleborus annexens* Schedl.
- Xylopiia caudata**
Baiois angustipennis (Schedl), *Platypus pseudocupulatus* Schedl.
- Xylopiia cordata**
Platypus pseudocupulatus Schedl, *Platypus puerulus* (Schedl), *Platypus westwoodi* Chapuis.
- Xylopiia hypolampa**
Platypus parallelus (Fabricius).
- Xylopiia sericea**
Dryocoetoides flavus (Fabricius).
- Xylopiia spp.**
Doliopygus conradti (Strohmeier), *Periommatius angustior* Schedl, *Periommatius arcticircularis* Schedl, *Platypus hintzi* Schaufuss, *Platypus watutensis* Roberts, *Platypus xanthopus* Schedl, *Premnobius cavipennis* Eichhoff.
- Xylopiia vullotii**
Coccotrypes suboratis Eggers.
- Xylopiia villosa**
Cylindropalpus laudatus (Schedl), *Periommatius bispinus* Strohmeier, *Periommatius grandis* Schedl, *Platypus hintzi* Schaufuss, *Trachyostus aterrimus* (Schaufuss), *Trachyostus schaufuss* (Strohmeier), *Xyleborus ferrugineus* (Fabricius).
- Xylosma hawaiiense**
Xyleborinus saxeseni (Ratzeburg), *Xyleborus scabratus* Schedl.
- Xylosma monospora**
Cryphalus nyalubombeae Schedl, *Doliopygus erichsoni* (Chapuis), *Lanurgus olcaeformis* Schedl, *Xyleborinus acmulus* (Wollaston).
- Xylosma suaveolens**
Xyleborus perforans (Wollaston).
- Yucca spp.**
Cactopinus depressus Bright, *Hypothenemus crudiae* (Panzer), *Hypothenemus eruditus* Westwood, *Hypothenemus seriatus* (Eichhoff), *Pseudothysanoes frondicolens* Wood, *Pseudothysanoes yuccae* (Wood), *Pseudothysanoes yuccavorus* Wood.
- Zanthoxylum fluvum**
Ambrosiodinus lecontei Hopkins.
- Zanthoxylum rhetsum**
Euwallacea andamanensis (Blandford).
- Zea mays**
Hypothenemus californicus Hopkins, *Pagiocerus frontalis* (Fabricius).
- Zelkora carpinifolia**
Scolytus ensifer Eichhoff.
- Zelkora formosana**
Xyleborus taiwanensis Browne.
- Zelkora serrata**
Coccotrypes naitaijinensis (Murayama), *Crossotarsus niponicus* Blandford, *Euwallacea validus* (Eichhoff), *Indocryphalus pubipennis* (Blandford), *Neoptelcobius scutulatus* (Blandford).
- Zelkora spp.**
Scolytoplatypus tycon Blandford.
- Zexmenia spp.**
Pityophthorus diligens.
- Zhauna golungensis**
Xyleborus alluaudi Schaufuss.
- Zhauna spp.**
Xyleborus alluaudi Schaufuss.
- Ziziphus jujuba**
Anasa amputatus (Blandford), *Xylosandrus germanus* (Blandford).
- Zygia spp.**
Amphicranus spectus Wood.

Bibliography Supplement

The following bibliography is a supplement to Wood & Bright (1987: 1–685) and lists only that literature missed by the original volume or published since 1987. While the original intent was to cite the names of all species of Scolytidae and Platypodidae mentioned in this literature, copies of many items could not be found (these are marked by an asterisk [*]) and several others were unintentionally overlooked by indexers for reasons unknown to us.

A

- ABGRALL, JEAN FRANÇOIS. 1986. Utilisation de pheromones artificielles contre *Ips typographus* [Utilization of artificial pheromones against *Ips typographus*]. English and Russian summaries. Eppo Bulletin 16(4): 633–637. (bv cn).
- ABGRALL, JEAN FRANÇOIS, AND DANIEL P. SCHVESTER. 1987. Observations sur le piégeage de *Ips typographus* L. apres chablis [Observations on the trapping of *Ips typographus* L.]. English summary. Revue Forestiere Francaise 39: 359–377. (cn).
- ABRAHAO, J., AND O. WEGMULLER. 1974. Criacao do insecto *Hypocryphalus mangiferae* em culturas puras de *Ceratocestis frimbriata*. Revista Sociedade Brasileira de Fitopatologia 3: 31–32. (ec).
- ADLUNG, KARL GUNTHER, P. SCHICKE, AND J. O'SVATH. 1986. Analysis of an investigation on the control of the spruce bark beetle (*Ips typographus* L.) by means of pheromones: 1. Planning and evaluation of the individual trial [In German, English summary]. Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz 93: 462–478. (bv cn).
- AHERN, F. J. 1985. The effects of bark beetle stress on the foliar spectral reflectance of lodgepole pine. International Journal of Remote Sensing 9: 1451–1465. (cn).
- AISAGBONNI, C. I. 1988. Pest incidence in marketed date palm fruits in Dutse, Kano State, Nigeria. Date Palm Journal 6: 287–298. (cn).
- AITKEN-SOUC, P. 1985. Quelques maladies et pestes cancrantes du cafeier. Feuille d'Extension 59. 5 p. (cn).
- AKERS, R. PATRICK. 1989. Counterturns initiated by decrease in rate of increase of concentration. Possible mechanism of chemotaxis by walking female *Ips paraconfusus* bark beetles. Journal of Chemical Ecology 15: 183–208. (bv).
- AKERS, R. PATRICK, AND DAVID LEE WOOD. 1989a. Olfactory orientation responses by walking female *Ips paraconfusus* bark beetles I. Chemotaxis assay. Journal of Chemical Ecology 15: 3–24. (bv).
- _____. 1989b. Olfactory orientation responses by walking female *Ips paraconfusus* bark beetles II. In an anemotaxis assay. Journal of Chemical Ecology 15: 1147–1159. (bv).
- AKSENTEV, S. I., AND L. N. UCHASTNOVA. 1986. Problem of the symbiosis of xylophagous beetles and ambrosia fungi [In Russian, English summary]. Nauchnye Doklady Vyshehei Shkoly, Biologicheskije nauki, Moscow 5: 8–22. (ay ec).
- ALBERT, A. M., AND HERMANN BOGENSCHULTZ. 1987. Die Bedeutung nicht aqualer Arthropoden-Verteilung bei Untersuchungen zur Belastbarkeit von Ökosystemen [The importance of unequal arthropod distribution in investigations of the tolerance of ecosystems]. English summary. Deutschen Gesellschaft für Allgemeine und Angewandte Entomologie, Mitteilungen 5: 77–81. (hb).
- ALBUQUERQUE LEAO, MOACIR DE. 1941. O expurgo pelas ondas-curtas. Sociedade Brasileira de Agronomia, Rio de Janeiro, Revista 4: 319–325. (cn).
- *ALDEN. 1930. [*Scolytus rugulosus*]. Georgia State Board of Entomology, Atlanta, Bulletin 71: 31. ().
- *ALDERMAN, GIBBINGS, AND RUMSEY. 1913. [*Phloeosinus liminaris*, *Scolytus rugulosus*]. West Virginia Circular 7: 30, 35. ().
- *ALEKSEEV, A. V. 1957. K nachozdeniu korozjeda roda *Thammurgus* Eichh. v Kurskoj oblasti. Ucenye zapiski Orechovo-Zujevskij pedagogiceskij institut 5: 159–163. ().
- ALEXANDER, K. N. A. 1988. Some records of *Xyloterus signatus* (L.) (Coleoptera: Scolytidae). Entomologist's Gazette 39: 326. (ds).
- ALLARD, C. B., AND D. MOORE. 1989. *Heterorhabditis* sp. nematodes as control agents for coffee berry borer *Hypothenemus hampei* Scolytidae. Journal of Invertebrate Pathology 54: 45–48. (ec cn).
- ALLEN, ANTHONY A. 1952. Coleoptera at Khole Park, Sevenoaks, Kent. Entomologists Record 64: 224–228. (ds).
- _____. 1955a. *Platypus parallelus* (F.) Col., Scolytidae) again captured at light in S.E. London. Entomologist's Monthly Magazine 121: 141. (ds).
- _____. 1955b. The earliest British capture of *Scolytus laevis* Chapuis (Col., Scolytidae). Entomologist's Monthly Magazine 121: 198. (ds).
- _____. 1989. [Note to D. Nash]. Entomologist's Record and Journal of Variation 101: 152. (ds).
- ALLSOPE, P. G. 1987. *Hypothenemus californicus* Hopkins (Coleoptera: Scolytidae) recorded from Australia. Australian Entomological Society, Journal 26: 322. (ds).
- AMMAN, GENE DOYLE. 1985a. A test of lodgepole pine hazard rating methods for mountain pine beetle infestation in southeastern Idaho. Pages 186–200 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings, Canada Department of the Environment, Forestry Service and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1983. 240 p. (ec hb).
- _____. 1985b. The beetle: behavior, biology, and life cycle. Pages 2–7 in M. D. McGregor and D. M. Cole, Integrating management strategies for the mountain pine beetle with multiple-resource management of lodgepole pine. United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, Ogden, Utah, General Technical Report INT-174. (bv hb).
- _____. 1985a. Lodgepole pine selection by mountain pine beetle in relation to growth and vigor following thinning. Pages 197–213 in T. L. Payne and H. Saarenmaa,

- Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv cn).
- _____. 1958b. Mountain pine beetle (*Dendroctonus ponderosae* Hopkins) infestations in relation to growth and vigor of lodgepole pine (*Pinus contorta* Douglas) following thinning. International Congress of Entomology. Proceedings 15: 414. (cn).
- _____. 1959a. Proceedings: Symposium on the management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah. General Technical Report INT-262. 119 p. (bv cn ec hb).
- _____. 1959b. Why partial cutting in lodgepole pine stands reduces losses to mountain pine beetle. Pages 45–59 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah. General Technical Report INT-262. 119 p. (cn).
- AMMAN, GENE DOYLE, AND JOHN A. ANHOLD. 1959. Preliminary evaluation of hazard and risk rating variables for mountain pine beetle infestations in lodgepole pine stands. Pages 22–27 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah. General Technical Report INT-262. 119 p. (cn).
- AMMAN, GENE DOYLE, EUGENE D. LESSARD, LYNN A. RASMUSSEN, AND CURTIS G. O'NEIL. 1955. Lodgepole pine vigor, regeneration, and infestation by mountain pine beetle following partial cutting on the Shoshone National Forest, Wyoming. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah. Research Paper INT-396. 8 p. (cn).
- AMMAN, GENE DOYLE, AND MARK D. MCGREGOR. 1955. Assessing stand hazard and risk hazard rating and predicting tree loss in managed stands. Pages 29–30 in M. D. McGregor and D. M. Cole, Integrating management strategies for the mountain pine beetle with multiple-resource management of lodgepole pine. United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, Ogden, Utah. General Technical Report INT-174. (cn).
- AMMAN, GENE DOYLE, MARK D. MCGREGOR, AND ROBERT E. DOLPH, JR. 1955. Mountain pine beetle. United States Department of Agriculture, Forest Service, Forest Insect and Disease Leaflet 2. 11 p. (cn ec hb).
- AMMAN, GENE DOYLE, MARK D. MCGREGOR, RICHARD FRANKLIN SCHMITZ, AND R. D. OAKES. 1955. Susceptibility of lodgepole pine to infestation by mountain pine beetles following partial cutting of stands. Canadian Journal of Forest Research 15: 655–695. (cn).
- AMMAN, GENE DOYLE, AND JUDITH E. PASEK. 1956. Mountain pine beetle in ponderosa pine: effects of phloem thickness and egg gallery density. United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, Ogden, Utah. Research Paper INT-367. 7 p. (ec hb).
- AMMAN, GENE DOYLE, AND LASZLO SAFRANYIK. 1955. Insects of lodgepole pine: impacts and control. Pages 107–124 in D. M. Baumgartner, R. G. Krebill, J. T. Arnott, and G. F. Weetman, Symposium proceedings, Washington State University, Cooperative Extension Service. (cn).
- AMMAN, GENE DOYLE, AND RICHARD FRANKLIN SCHMITZ. 1955. Mountain pine beetle-lodgepole pine interactions and strategies for reducing tree losses. *Ambio* 17: 62–65. (cn).
- AMMAN, GENE DOYLE, RALPH W. THIER, MARK D. MCGREGOR, AND RICHARD FRANKLIN SCHMITZ. 1959. Efficacy of verbenone in reducing lodgepole pine infestation by mountain pine beetles in Idaho. Canadian Journal of Forest Research 19: 60–64. (cn).
- ANDERBRANT, OLLE. 1955. Dispersal of reemerged spruce bark beetles, *Ips typographus* (Coleoptera, Scolytidae): a mark-recapture experiment. *Journal of Applied Entomology* 99: 21–25. (bv hb).
- _____. 1956. A model for the temperature and density dependent reemergence of the bark beetle *Ips typographus*. *Entomologia Experimentalis et Applicata* 40: 51–55. (ec hb).
- _____. 1955a. Reproductive strategies in *Ips typographus*. International Congress of Entomology. Proceedings 15: 409. (hb).
- _____. 1955b. Survival of parent and brood adult bark beetles, *Ips typographus*, in relation to size, lipid content and reemergence or emergence day. *Physiological Entomology* 13: 121–129. (ay hb).
- _____. 1955c. Reproduction and competition in the spruce bark beetle *Ips typographus*. Dissertation (published), Department of Ecology, Lund University, Sweden. 106 p. (ec hb).
- _____. 1959. Reemergence and second brood in the bark beetle *Ips typographus*. *Holarctic Ecology* 12: 494–500. (hb).
- ANDERBRANT, OLLE, AND J. LOFQVIST. 1955. Relation between first and second brood production in the bark beetle *Ips typographus*. *Oikos* 53: 357–365. (hb).
- ANDERBRANT, OLLE, AND FREDRIK SCHLYTER. 1957a. Differences in morphology and sexual size dimorphism between the Dutch elm disease vectors *Scolytus laevis* and *Scolytus scolytus* (Col., Scol.). *Zeitschrift für Angewandte Entomologie* 103: 375–386. (ay).
- _____. 1957b. Ecology of the Dutch elm disease vectors *Scolytus laevis* and *Scolytus scolytus* (Coleoptera: Scolytidae) in southern Sweden. *Journal of Applied Ecology* 24: 539–550. (bv ec).
- _____. 1959. Causes and effects of individual quality in bark beetles. *Holarctic Ecology* 12: 485–493.
- ANDERBRANT, OLLE, FREDRIK SCHLYTER, AND G. BIRGERSSON. 1955. Interspecific competition affecting parents and offspring in the bark beetle *Ips typographus*. *Oikos* 45: 89–98. (bv ec hb).
- ANDERBRANT, OLLE, FREDRIK SCHLYTER, AND J. LOFQVIST. 1955a. Dynamics of tree attack in the bark beetle *Ips typographus* under semi-epidemic conditions. International Congress of Entomology. Proceedings 15: 412. (bv hb).
- _____. 1955b. Dynamics of tree attack in the bark beetle *Ips typographus* under semi-epidemic conditions. Pages 35–51 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv hb).
- ANDERSON, W. C., R. W. GULDIN, AND J. M. VASIEVICH. 1955. Risk assessments of investments in loblolly pine plantations threatened by bark beetles. Pages 325–334 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest

- Service, Southern Forest Experiment Station, New Orleans, Louisiana. General Technical Report SO-56. 353 p. (cn).
- _____. 1987. Assessing the risk of insect attack in plantation investments. *Journal of Forestry* 85: 46-47. (cn).
- ANDREEV, E. A. 1958. Fauna and ecology of *Proctolaelaps* Acetosejidae mites found in galleries made by bark beetles in Moscow Oblast Russian SFSR, USSR [In Russian]. *Biologicheski nauki*. Moscow 10: 34-37. (ec).
- ° ANDREWS, A. W. 1923. The Coleoptera of the Shiras Expedition to Whitefish Point, Chippewa County, Michigan. *Papers of the Michigan Academy of Science* 1: 293-390. ().
- ANDREWS, MARK W., GEORGE L. BARNES, AND KEN PINKSTON. 19S.. Dutch elm disease and its control. Oklahoma State University Cooperative Extension Service, Pest Management Series, Extension Facts No. 7602. 4 p. (cn).
- ANDRYSZAK, N. A., B. STAFFAN LINDGREN, and P. L. PAYNE. 1987. Electrophysiological responses by *Trypodendron lineatum* (Ol.) (Coleoptera, Scolytidae) from western Canada and Germany to lineatin and isomers of alpha-pinene. *Journal of Applied Entomology* 103: 23-25. (ay).
- ANGUS, R. B. 1964. Some northern Scottish Coleoptera. *Entomologist's Monthly Magazine* 100: 172-182. (ds).
- _____. 1965a. Further Coleoptera from Cumberland, Westmorland and northern part of Lancashire. *Entomologist's Monthly Magazine* 101: 4-8. (ds).
- _____. 1965b. Further notes on northern Scottish Coleoptera. *Entomologist's Monthly Magazine* 101: 9-12. (ds).
- _____. 1965c. Some new records of Coleoptera from Pembrokeshire. *Entomologist's Monthly Magazine* 101: 12-13. (ds).
- ANHOLD, JOHN A. 1986a. Biological evaluation of mountain pine beetle infestation: Grey's River Road, Bridger-Teton National Forest. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report R4-S6-9. (cn).
- _____. 1986b. Biological evaluation of Douglas-fir beetle: Davis Hill, Buffalo Road, Bridger-Teton National Forest, 1985. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report 86-12. 5 p. (cn).
- _____. 1986c. Mountain pine beetle pheromone trapping, Roosevelt Ranger District, Ashley National Forest, 1985. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report R4-S6-11. 4 p. (cn).
- _____. 1986d. MPB campground spray evaluation: Wasatch-Cache and Ashley National Forests. United States Department of Agriculture, Forest Service, Biological Evaluation Report 86-14. 7 p. (cn).
- _____. 1986e. Spruce beetle survey in Big Cottonwood Canyon, Salt Lake Ranger District, Wasatch-Cache National Forest, 1985. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report R4-S6-16. 7 p. (cn).
- _____. 1987. Biological evaluation of spruce beetle populations, Big Cottonwood Canyon, Salt Lake Ranger District, Wasatch-Cache National Forest 1987. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report R4-S7-6. 4 p. (cn).
- _____. 1988. Evaluation of preventive treatment for mountain pine beetle in high-value stands of lodgepole pine. United States Department of Agriculture, Forest Service, Intermountain Region (Ogden, Utah), Forest Pest Management Report R4-S8-3. 5 p. (cn).
- ANHOLD, JOHN A., AND MICHAEL J. JENKINS. 1987. Potential mountain pine beetle (Coleoptera: Scolytidae) attack of lodgepole pines as described by stand density index. *Environmental Entomology* 16: 735-742. (cn).
- ANONYMOUS. 1896c. *Bostrichus dispar* bei Munster in Spalierbäumen. *Munster Westfälischen Provinzial-Vereins für Wissen-Schaft und Kunst. Jahresbericht, Zool.-Botan. Sekt.* 1896: 28. (cn).
- _____. 1907. United States Department of Agriculture, yearbook, 1906. Washington, D.C. 720 p. (cn).
- ° _____. 1920b. Nursery and orchard insect pests [*Scolytus rugulosus*]. Missouri Agricultural Experiment Station, Columbia, Bulletin 176. 35 p. ().
- _____. 1930j. Ulmensterben. *Ulmensplintkafer und Schutzzimpfung*. *Entomologische Zeitschrift* 44: 231. (cn).
- ° _____. 1944c. [*Aricercus fici* (=eichloffii)]. *Agricultural Gazette, New South Wales [Australia]* 55(1): 21-22. ().
- ° _____. 1951h. [*Scolytus rugulosus*]. Washington State Agriculture Extension Bulletin 419 (revised): 30. ().
- _____. 1956p. Southwest bug damage tops \$12 million. *Timberman* 58: 110. (cn).
- ° _____. 1964z. A special edition of pine stem boring insects [In Japanese]. *Shinrin Boeki Nyusu [Forest Protection News]* 13(15). ().
- _____. 1967w. Parasitic wasp. *Chemical and Engineering News*, April 24: 14. (ec).
- _____. 1970w. Forest insect conditions in the United States, 1969. United States Department of Agriculture, Forest Service, Washington, D.C. 39 p. (cn).
- _____. 1971v. The population dynamics of the southern pine beetle in east Texas: the epidemic 1958-1968. Southern Forest Research Institute, Progress Report July/August 1971: 13-15. (hb).
- _____. 1971z. Spruce beetle attacks trees baited with frontaline. Southern Forest Research Institute, Progress Report July/August 1971: 16. (bv).
- _____. 1971aa. Control alternatives using frontalure: sticky traps. Southern Forest Research Institute, Progress Report Sept./Oct. 1971: 17-19. (bv cn).
- _____. 1971ab. Frontalure-cacodylic acid tested for control of southern pine beetle on the eastern shore of Virginia. Southern Forest Research Institute, Progress Report Sept./Oct. 1971: 20. (cn).
- _____. 1971ac. Grandipisol: attractant for the southern five-spined engraver (*Ips grandicollis*) isolated and identified. Southern Forest Research Institute, Progress Report Jan./Feb. 1971: 2-3. (bv).
- _____. 1971ad. Winter control of the southern pine beetle with frontalure. Southern Forest Research Institute, Progress Report Jan./Feb. 1971: 4. (cn).
- _____. 1971ae. The population dynamics of the southern pine beetle in east Texas: seasonal population trends. Southern Forest Research Institute, Progress Report Nov./Dec. 1971: 22-24. (hb).
- _____. 1971af. A new compound that inhibits southern pine beetle response to attractants. Southern Forest Research Institute, Progress Report May/June 1971: 9-10. (bv).
- _____. 1971ag. Douglure: a powerful tool in manipulating the Douglas-fir beetle. Southern Forest Research

- Institute, Progress Report May/June 1971: 11–12. (cn).
- _____. 1971ah. Forest insect and disease conditions in the United States, 1970. United States Department of Agriculture, Forest Service, Washington, D.C. 44 p. (cn).
- _____. 1972u. The attractant of the six-spined engraver beetle, *Ips calligraphus*, isolated and identified. Southern Forest Research Institute, Progress Report Mar./Apr. 1972: 6. (bv).
- _____. 1972v. The cybernetics of pheromone production in the engraver beetles. Southern Forest Research Institute, Progress Report Mar./April 1972: 7–8. (bv).
- _____. 1972w. Trans-verbenol: a pheromone common to many bark beetle species? Southern Forest Research Institute, Progress Report Mar./April 1972: 5. (bv).
- _____. 1972x. The Cadillac beetle, *Platypus flavicornis*. Southern Forest Research Institute, Progress Report May/June 1972: 10–11. (cn).
- _____. 1972y. Dendroctol, a new weapon against the Douglas-fir beetle. Southern Forest Research Institute, Progress Report May/June 1972: 11–12. (cn).
- _____. 1972z. Forest insect and disease conditions in the United States, 1972. United States Department of Agriculture, Forest Service, Washington, D.C. O-506-654. 72 p. (cn).
- _____. 1973r. Geographical distribution and physiological differences among *Dendroctonus frontalis* populations. Southern Forest Research Institute, Progress Report Mar./April 1973: 6–5. (ay ds).
- _____. 1975v. Biological evaluation: Groundhog Park and Albert Park, Del Norte Ranger District, Rio Grande National Forest. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, State and Private Forestry, Biological Evaluation R2-75-9. 1 p. (cn).
- _____. 1975w. Spruce evaluation: Dolores Ranger District, San Juan National Forest. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, State and Private Forestry, Biological Evaluation R2-75-11. 2 p. (cn).
- _____. 1975x. Spruce beetle biological evaluation in the "Greenhorn Sale Area," Pike and San Isabel National Forests. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, State and Private Forestry, Biological Evaluation R2-75-13. 1 p. (cn).
- _____. 1975y. Biological evaluation of Douglas-fir beetle near Douglas Pass. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, State and Private Forestry, Biological Evaluation R2-75-15. 1 p. (cn).
- _____. 1975z. Biological evaluation of spruce beetle near the Workman and Fernwood Sales, Rio Grande National Forests. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, State and Private Forestry, Biological Evaluation R2-75-18. 2 p. (cn).
- _____. 1975aa. Biological evaluation: mountain pine beetle infestation, Cassia Division, Twin Falls Ranger District, Sawtooth National Forest. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah. 7 p. (cn).
- _____. 1975ab. Barkbilleskader i skogbruket. Norges Offentlige Utredninger. Universitetsforlaget, Oslo. NOU 1975: 20. 33 p. (cn).
- _____. 1976q. Biological evaluation: mountain pine beetle, Cassia Division, Twin Falls Ranger District, Sawtooth National Forest. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah. 3 p. (cn).
- _____. 1976ad. Insect and disease conditions of pinyon pine and Utah juniper in Mesa Verde National Park, Colorado. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, State and Private Forestry, Biological Evaluation R2-78-4. (cn).
- _____. 1976ae. Mexicans observe work on southern pine beetle. United States Department of Agriculture, Southern Pine Beetle Research and Applications Program, Pineville, Louisiana, News Release. (ms).
- _____. 1979ab. Forest insect and disease conditions in Alaska, 1977. United States Department of Agriculture, Forest Service, Alaska Region, Juneau, Alaska, Series R10-31. 11 p. (cn).
- _____. 1979ac. Forest insect and disease conditions in Alaska, 1978. United States Department of Agriculture, Forest Service, Alaska Region, Juneau, Alaska, Report 62. 35 p. (cn).
- _____. 1980x. Forest insect and disease conditions in Alaska, 1979. United States Department of Agriculture, Forest Service, Alaska Region, Juneau, Alaska, Report 115. 17 p. (cn).
- _____. 1980y. Kisatchie National Forest initiates southern pine beetle hazard rating. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, Pineville, Louisiana, Southern Pine Beetle News, February 17: 1. (cn).
- _____. 1980z. Cooperative magazine warns of southern pine beetle crisis. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, Pineville, Louisiana, Southern Pine Beetle News, August, 23: 4. (cn ms).
- _____. 1980aa. Computer will help determine profit in SPB-killed timber. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, Pineville, Louisiana, Southern Pine Beetle News, August, 23: 3. (cn).
- _____. 1981w. Forest insect and disease conditions in Alaska, 1980. United States Department of Agriculture, Forest Service, Alaska Region, Juneau, Alaska, Report 146. 17 p. (cn).
- _____. 1982m. New report details toxicant studies performed under ESPBRAP. Pest Management News 32: 1-2. (cn).
- _____. 1982n. South Carolina southern pine beetle outbreak collapses. Pest Management News 32: 1. (cn).
- _____. 1983h. The Forest Pest Control Section: twenty years of progress in forest protection. Texas Forest News 62(fall): 12-15. (cn).
- _____. 1983i. Forest insect and disease conditions in Alaska, 1981-82. United States Department of Agriculture, Forest Service, Alaska Region, Juneau, Alaska, Report 173. 24 p. (cn).
- _____. 1983j. IPM of southern pine forests. Pest Management News 40: 1-8. (cn).
- _____. 1983k. Twenty years of progress in forest protection. Texas Forest News 62: 12-15. (cn).
- _____. 1984h. Texas forest pest report 1982-1983. Texas Forest Service Publication 136. 31 p. (cn).
- _____. 1984i. Forest insect and disease conditions in Alaska in 1983. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska, State and Private Forestry, Report R-10. 25 p. (cn).
- _____. 1984j. Forest protection. Pages 72-97 in Wattle

- Research Institute, Pietermaritzburg, South Africa, Annual Report. (cn ec hb).
- _____. 1954k. Annual report 1953. Maine Forest Service, Entomological Division, Augusta, Maine. (cn).
- _____. 1955a. Amendments to the movement of spruce wood order. Page 32 in Sixty-fifth annual report and accounts of the Forestry Commission for the year ended 31 March 1955, together with the Comptroller and Auditor-General's report of the accounts. London, United Kingdom. (cn).
- _____. 1955b. Breeding *Rhizophagus grandis*. Page 35 in Sixty-fifth annual report and accounts of the Forestry Commission for the year ended 31 March 1955, together with the Comptroller and Auditor-General's report on the accounts. London, United Kingdom. (ec hb).
- _____. 1955c. *Dendroctonus micans*. Pages 36–37 in Sixty-fifth annual report and accounts of the Forestry Commission for the year ended 31 March 1955 together with the Comptroller and Auditor-General's report on the accounts. London, United Kingdom. (cn ec).
- _____. 1955d. Pheromone traps for exotic bark beetles. Page 37 in Sixty-fifth annual report and accounts of the Forestry Commission for the year ended 31 March 1955, together with the Comptroller and Auditor-General's report on the accounts. London, United Kingdom. (cn).
- _____. 1955e. Cocoa. Parliamentary Paper, Parliament of Fiji, No. 62. (cn).
- _____. 1955f. Department of Entomology. Pages 114–141 in Biennial report of the Waite Agricultural Institute, South Australia, 1954–1955, Glen Osmond, South Australia. (cn ec).
- _____. 1955g. Entomology/Nematology. Pages 91–123 in Thirty-eight annual detailed technical report 1954–1955, Chikmagalar, India, Central Coffee Research Institute. (cn).
- _____. 1955h. Forest insect and disease conditions in Alaska. Region 10, 1954 Report. Journal of Applied Entomology 149: 1–26. (cn).
- _____. 1955i. Forest pest conditions in California, 1954. California Forest Pest Control Action Council, California Department of Forestry, Sacramento, California. 26 p. (cn).
- _____. 1955j. Forest protection. Pages 69–79 in Institute for Commercial Forest Research, University of Natal, Pietermaritzburg, South Africa, Annual Report 1955. (cn ec hb).
- _____. 1955k. Insects and diseases of trees in the South. United States Department of Agriculture, Forest Service, Southern Region, Atlanta, Georgia, General Report RS–GR-5. 98 p. (cn hb ms).
- _____. 1955m. *Dendroctonus micans*. Pages 18–19 in Sixty-fifth annual report and accounts of the Forestry Commission for the year ended 31 March 1955, together with the Comptroller and Auditor-General report on the accounts. London, United Kingdom. (cn).
- _____. 1955n. *Ips grandicollis* in Queensland pine plantations. Queensland Department of Forestry, Information Sheet 17. 2 p. (cn).
- _____. 1955p. The bark beetles: killers of pine and spruce. PestTopics No. 1, British Columbia Ministry of Forests, Pest Management, Protection Branch. 2 p. (cn ms).
- _____. 1956a. Outbreak of *Dendroctonus micans*, the great spruce beetle. Plant Health Information Sheet 10, Forestry Commission, United Kingdom. 1 p. (cn).
- _____. 1956b. Forest pest conditions in California, 1955. California Forest Pest Control Action Council, California Department of Forestry, Sacramento, California. 24 p. (cn).
- _____. 1956c. Entomology. Pages 41–44 in Report on forest research, Forestry Commission, London, United Kingdom. (cn).
- _____. 1956d. Outbreak of *Dendroctonus micans*, the great spruce bark beetle. Progress report. Plant Health Information Sheet 9, Forestry Commission, United Kingdom. 4 p. (cn).
- _____. 1956e. Semiochemical baits integrated into pine management program. IPM Practitioner 8: 8. (cn).
- _____. 1956f. Mountain pine beetle control program 1950–1956, a success story. Alberta Forestry, Lands and Wildlife, Forest Service Publication 1/143. 12 p. (cn ms).
- _____. 1957a. *Dendroctonus micans*, the great spruce beetle. General control strategy. Plant Health Information Sheet 11, Forestry Commission, United Kingdom. (cn).
- _____. 1957b. Entomology/Nematology. Pages 90–212 in Coffee Board Research Department, India, Thirty-ninth Annual Report 1955–1956. (cn hb).
- _____. 1957c. Entomology. Pages 49–54 in Report on forest research, Forestry Commission, London, United Kingdom. (cn).
- _____. 1957d. Forest pest conditions report for the Northeastern Area, 1956. United States Department of Agriculture, Forest Service, Northeastern Area, Broomall, Pennsylvania. Forest Pest Management Report NA-FR-34. 35 p. (cn).
- _____. 1957e. Forest pest conditions in California, 1956. California Forest Pest Council, California Department of Forestry, Sacramento, California. 28 p. (cn).
- _____. 1957f. Rx for SPB: Cut! Cut! Cut! The American Tree Farmer 6: 13. (cn ms).
- _____. 1957g. Final environmental impact statement for the suppression of the southern pine beetle, Southern Region. Volume 1: Chapters I–VI; Volume 2: Chapter VII; Volume 3: Appendices. United States Department of Agriculture, Forest Service, Southern Region, Atlanta, Georgia, Management Bulletin RS–MB2. (cn).
- _____. 1957h. Regional Research Station. Kalpetta, Kerala. Plant Protection. Pages 197–199 in Coffee Board Research Department, India. (ec).
- _____. 1957i. Mountain pine beetle trapping with the Lindgren funnel trap. Phero Tech Technical Bulletin. 2 p. (cn).
- _____. 1957j. Le grand bostryche, le stenographe *Ips sexdentatus* [The pine engraver beetle, *Ips sexdentatus*]. Informations-Foret 1. 5 p. (cn hb).
- _____. 1957k. Bark beetles: a threat to our forests. British Columbia Ministry of Forests and Lands. [Unpaginated]. 20 p. (cn ms).
- _____. 1957m. Forest and shade tree insect and disease conditions for Maine: a summary of the 1956 situation. Insect and Disease Management Division, summary report 1. Maine Forest Service, Augusta, Maine. 22 p. (cn).
- _____. 1957n. Mountain pine beetle: a menace to pine forests. PestTopics No. 24. British Columbia Ministry of Forests, Pest Management, Protection Branch. 4 p. (cn).
- _____. 1958a. *Dendroctonus micans*, the great spruce bark

- beetle. General control strategy. Plant Health Information Sheet 12, Forestry Commission, United Kingdom. 2 p. (cn).
- 1955b. Forest pest conditions in California, 1957. California Forest Pest Council, California Department of Forestry, Sacramento, California. 25 p. (cn).
- 1955c. Biological evaluation of a mountain pine beetle infestation on the Sawtooth National Recreation Area, Idaho, 1957. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah. Forest Pest Management Report 55-04. 8 p. (cn).
- 1955d. Forest insect and disease conditions in Alaska, 1955. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska. Forest Pest Management Report R10-55-C. 16 p. (cn).
- 1955e. Montana forest pest conditions and program highlights 1955. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana. Forest Pest Management Report 59-2. 21 p. (cn).
- 1955f. TSF [Texas Forest Service] grid hazard. Southern pine beetle fact sheet number 43. United States Department of Agriculture, Forest Service, Protection Report RS-PR9. 2 p. (cn).
- 1955g. Entomology. Pages 44-48 in Report on forest research. Forestry Commission, London. United Kingdom. (cn).
- 1955h. *Dendroctonus micans*. Pages 36-37 in Sixty-seventh annual report and accounts 1956-1957. Forestry Commission, Edinburgh. United Kingdom. (cn).
- 1955i. Pheromone traps for exotic bark beetles. Page 37 in Sixty-seventh annual report and accounts 1956-1957. Forestry Commission, Edinburgh, United Kingdom. (cn).
- 1955j. Insect control. Sixty-seventh annual report and accounts 1956-1957. Forestry Commission, Edinburgh, United Kingdom. (cn).
- 1955k. Ecology and control of *Dendroctonus* bark beetles. Report on the International Symposium, Borzhomy, Georgia, USSR, 22-27 September 1957. (cn ec).
- 1955m. Southern pine beetle demonstration areas. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, Pineville, Louisiana. SPB Update. 4 p. (cn).
- 1955n. Southern pine beetle Fact Sheet number 43: TFS [Texas Forest Service] grid hazard. United States Department of Agriculture, Forest Service, Forest Pest Management, Protection Report RS-PR9. 2 p. (cn).
- 1955p. Texas court case. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, Pineville, Louisiana. SPB Update. August. (ms).
- 1955q. Southern pine beetle outlook for 1955. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, Pineville, Louisiana. SPB Update. August. (cn).
- 1959a. *Dendroctonus micans*, the great spruce bark beetle. General control strategy. Plant Health Information Sheet 13, Forestry Commission, United Kingdom. 2 p. (cn).
- 1959b. Forest insect and disease conditions in Ontario, summer 1959. Government of Canada, Forestry Service, Ontario Region, Survey Bulletin. 27 p. (cn).
- 1959c. *Hypothenemus hampei* Ferrari. CAB International Institute of Entomology, Distribution Maps of Pests 170 (revised). 3 p. (ds).
- 195.a. Identification and control of three Front Range insects. Colorado State Forest Service, Colorado State University, Fort Collins, Circular 121-0155. 2 p. [Undated, issued about 1956]. (cn).
- 195.b. Dutch elm disease in Colorado. Colorado State Forest Service and Colorado State University Extension Service, Circular. 6 p. [Undated, issued about 1956]. (cn).
- °ANTHON, EDWARD W. 1949b. [*Scolytus rugulosus*]. Washington State Horticulture Association, Proceedings 45: 205-206. ().
- °ANTHON, EDWARD W., ET AL. 1950. [*Scolytus rugulosus*]. Washington State Agriculture Extension Bulletin-49: 23-24. ().
- ANTROBIUS, W. L., J. E. TAYLOR, AND S. KOHLER. 1959. Montana forest pest conditions and program highlights. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, and Montana Department of State Lands and Forests, Division Report 90-2. 8 p. (cn).
- APPLEJOHN, M. J. 1965. Status of insects in the Swastika district. Pages E35-42 in Annual district reports of the Forest Insect and Disease Survey, Ontario, 1964. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- ARNETT, ROSS HAROLD, JR. 1968. The beetles of the United States: a manual for identification. American Entomological Institute, Ann Arbor, Michigan. 1112 p. (reprinted 1971). (tx).
- ARNO, STEPHEN F., AND R. J. HOFF. 1959. Silvics of whitebark pine (*Pinus albicaulis*). United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah. Research Paper INT-253. 11 p. (cn).
- ARNOLD, DON C., AND STEVEN R. JIRACEK. 1952. Beetles of Oklahoma pines, Oklahoma State University Agricultural Experiment Station, MP-113. 16 p. (cn).
- ASCENCIO CERDA, VICTOR E., AND B. E. SERRATO B. 1954a. Evaluación de cinco insecticidas organofosforados para el combate de *Dendroctonus mexicanus* Hopks. en el área de explotación forestal de Atenquique. Jal. [Evaluation of five organophosphorus insecticides against *Dendroctonus mexicanus* in the forest of Atenquique, Jalisco]. Ciencia Forestal 9: 42-64. (cn).
- 1954b. Evaluación de Gusation-M20 (Azinphos Metil) y lindano contra el *Dendroctonus mexicanus* Hopks. en el área de explotación forestal de Atenquique. Jal. [Evaluation of gusathion M-20 (Azinphos methyl) and lindane for controlling *Dendroctonus mexicanus* in the forest of Atenquique, Jalisco]. Ciencia Forestal 9: 3-22. (cn).
- ASHIRU, MISILU O., AND ROBERT IMRE GARA. 1951. Towards an improved fat extraction technique in the Douglas-fir beetle, *Dendroctonus pseudotsugae* Hopk. West African Science Association, Journal 26: 29-39. (ay ms).
- ASHWORTH, ALLAN CHARLES, AND A. M. CVANCARA. 1953. Paleogeology of the southern part of the Lake Agassiz basin. Pages 135-156 in J. T. Teller and Lee Clayton, Glacial Lake Agassiz. Geological Society of Canada. Special Paper 26. (ds).
- ASHWORTH, ALLAN CHARLES, AND J. W. HOGANSON. 1957. Coleoptera bioassociations along an elevational gradient in the Lake Region of southern Chile, and comments on the postglacial development of the

- fama. Entomological Society of America, Annals 50: 865–895. (ds).
- °ATKINSON, GEORGE FRANCIS. 1959. [*Scolytus rugulosus*]. South Carolina Agricultural Experiment Station, n. s., Bulletin 4: 79–80. (.)
- ATKINSON, THOMAS HARRIS. 1989a. New species and notes on Mexican Hylesininae (Coleoptera: Scolytidae). *Insecta Mundi* 3: 57–64. (ds tx).
- _____. 1989b. New synonymy, new species, and notes on Scolytidae (Coleoptera) from southeastern United States. *Coleopterists Bulletin* 43: 325–337. (ds tx).
- _____. 1989c. The species of *Platypus* of Florida (Coleoptera: Platypodidae). Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Entomology Circular 321. 4 p. (ds hb tx).
- ATKINSON, THOMAS HARRIS, AND ARMANDO EQUIHUA MARTINEZ. 1985a. Lista comentada de lost coleopteros Scolytidae y Platypodidae del Valle de Mexico. *Folia Entomologica Mexicana* 65: 63–108. (ds hb).
- _____. 1985b. Notes on biology and distribution of Mexican and Central American Scolytidae (Coleoptera). I. Hylesininae, Scolytinae except Cryphalini and Corthylini. *Coleopterists Bulletin* 39: 227–235. (ds hb).
- _____. 1985c. Notes on biology and distribution of Mexican and Central American Scolytidae (Coleoptera). II. Scolytinae: Cryphalini and Corthylini. *Coleopterists Bulletin* 39: 355–363. (ds hb).
- _____. 1986a. Biology of bark and ambrosia beetles (Coleoptera: Scolytidae and Platypodidae) of a tropical rain forest in southeastern Mexico with an annotated checklist of species. *Entomological Society of America, Annals* 79: 414–423. (ds hb).
- _____. 1986b. Biology of the Scolytidae and Platypodidae (Coleoptera) in a tropical deciduous forest at Chamela, Jalisco, Mexico. *Florida Entomologist* 69: 303–310. (ds hb).
- _____. 1985. Notas sobre la biología de Scolytidae y Platypodidae (Coleoptera) de Mexico y Centroamérica. *Folia Entomologica Mexicana* 76: 83–105. (ds hb).
- ATKINSON, THOMAS HARRIS, JOHN L. FOLTZ, AND M. D. CONNOR. 1988. Flight patterns of phloem- and wood-boring Coleoptera (Scolytidae, Platypodidae, Curculionidae, Buprestidae, Cerambycidae) in a north Florida slash pine plantation. *Environmental Entomology* 17: 259–265. (bv hb).
- ATKINSON, THOMAS HARRIS, JOHN L. FOLTZ, AND ROBERT CLEVELAND WILKINSON. 1988. *Xyleborus crassiusculus* (Motschulsky): an Asian ambrosia beetle recently introduced into Florida (Coleoptera: Scolytidae). Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Entomology Circular 310. (cn).
- ATKINSON, THOMAS HARRIS, EDGAR MARTINEZ-FERNANDEZ, EDUARDO SAUCEDO-CESPEDES, AND ARMANDO BURGOS-SOLORIO. 1986. Scolytidae y Platypodidae (Coleoptera) asociados a selva baja y comunidades derivadas en el estado de Morelos, Mexico. *Folia Entomologica Mexicana* 69: 41–82. (ds hb).
- ATKINSON, THOMAS HARRIS, R. J. RABAGLIA, AND DONALD EDWARD BRIGHT, JR. 1990. Newly detected exotic species of *Xyleborus* (Coleoptera: Scolytidae) with a revised key to species in eastern North America. *Canadian Entomologist* 122: 93–104. (ds tx).
- ATKINSON, THOMAS HARRIS, R. J. RABAGLIA, S. B. PECK, AND J. L. FOLTZ. 1991. New records of Scolytidae and Platypodidae (Coleoptera) from the United States and the Bahamas. *Coleopterists Bulletin* 45: 152–164. (ds hb).
- ATKINSON, THOMAS HARRIS, EDUARDO SAUCEDO-CESPEDES, EDGAR MARTINEZ-FERNANDEZ, AND ARMANDO BURGOS-SOLORIO. 1986. Coleopteros Scolytidae y Platypodidae asociados con las comunidades vegetales de clima templado y frío en el estado de Morelos, Mexico. *Acta Zoologica Mexicana, nueva serie*, 17: 1–58. (ds hb).
- °ATUAHENE, S. K. N. 1970. The economic effect of insect pests on the timber industry in Ghana. Forest Product Research Institute, Ghana, Technical Newsletter 4: 4–5. (.)
- AULLO, MANUEL. 1918. [*Hylastes ater*]. Boletín de la R. Sociedad Espanola de Entomología, Saragossa 1: 163–171. (ds).
- AUSTARA, OYSTEIN, ERIKKI ANNILA, BRODER BEJER-PETERSEN, AND BENGT EHNSTROM. 1983. Insect pests in the forest of the Nordic countries 1977–1981. *Fauna Norvegica Series B* 31(D): 5–15. (cn ds).
- AUSTARA, OYSTEIN, ALF BAKKE, AND F. MIDTGAARD. 1986. Response in *Ips typographus* to logging waste odors and synthetic pheromones. *Journal of Applied Entomology* 10: 194–195. (bv).
- AUSTARA, OYSTEIN AND F. MIDTGAARD. 1986. On the longevity of *Ips typographus* L. adults. *Journal of Agricultural Entomology* 102: 106–111. (hb).
- AXENTJEV, S. I. 1987. New genus and species of shot-hole borers from Tadzhikistan (Coleoptera, Scolytidae). Pages 150–151 in A. G. Kirejtschuk, Systematics and geographical distribution of Coleoptera [In Russian]. USSR Academy of Science, Proceedings of the Zoological Institute, Leningrad. 161 p. (tx).
- AYER, W. A., L. M. BROWNE, M. C. FENG, H. ORSZANSKA, AND M. SAFFEDI-GHOMI. 1986. The chemistry of the blue stain fungi: Part I. Some metabolites of *Ceratocystis* species associated with mountain pine beetle infected lodgepole pine. *Canadian Journal of Chemistry* 64: 904–909. (ec).

B

- BAADER, E. J. 1989. Comparative studies on semiochemicals in *Pityogenes* spp. (Coleoptera: Scolytidae) and their potential usage in pest management systems [In German, English summary]. *Journal of Applied Entomology* 107: 1–31. (bv cn).
- BACCETTI, BACCIO, ANNA G. BURRINI, ANNA MAGNANO, AND LUIGI MAGNANO. 1985. Spermatozoi e sistematica dei Curculionioidei. Pages 155–161 in *Atti XIV Congresso Nazionale Italiano di Entomologia*, Palermo. 918 p. (ay).
- BAEKSTROM, P., Ü. JACOBSSON, T. NORIN, AND C. R. UNELIUS. 1988. Synthesis and characterization of all four isomers of methyl 2,4-decadienoate for an investigation of the pheromone components of *Pityogenes chalcographus*. *Tetrahedron* 44: 2541–2545. (bv ms).
- BAERT, L. L. A., AND J. P. MAELFAIT. 1977. Contribution to the knowledge of the arachno- and entomofauna of different wood habitats. Part II. Influence of the micro-relief upon epedalic Coleoptera. *Societe Royale Belge d'Entomologie, Bulletin et Annales* 113: 101–110. (ec).
- BAISIER, M., AND J. C. GREGOIRE. 1985. Factors influencing oviposition in *Rhizophagus grandis* (Coleoptera: Rhizophagidae), specific predator of the bark beetle *Deudroctonus micans* (Coleoptera: Scolytidae).

- Mededelingen van de Faculteit Landbouwwetenschappen. Rijksuniversiteit Gent 53: 1159–1167. (ec).
- BAISIER, M., J. C. GREGOIRE, K. DELINTE, AND O. BONNARD. 1955. The role of spruce monoterpene derivatives as oviposition stimuli for *Rhizophagus grandis*, a predator of the bark beetle *Dendroctonus micans*. Pages 359–365 in W. J. Mattson, J. Leveux, and C. Bernard-Dagan (eds.), Mechanisms of woody plant defenses against insects: search for pattern. Springer, Berlin. xiv + 416 p. (ec).
- BAKER, BRUCE HOWARD, BRUCE B. HOSTETLER, AND THOMAS A. LAURENT. 1975. Forest insect and disease conditions in Alaska, 1974. United States Department of Agriculture, Forest Service, Alaska Region, Juneau, Alaska. 13 p. (cn).
- BAKER, BRUCE HOWARD, AND THOMAS A. LAURENT. 1974. Note on dead and dying larch in Alaska. Pages 6–7 in J. F. Chancellor and H. B. Toko, Forest insect and disease conditions in the United States, 1973. United States Department of Agriculture, Forest Service, Washington, D.C. 55 p. (cn).
- BAKER, G. T., AND T. EVAN NEBEKER. 1986. Sensory receptors on the ovipositor of *Thanasimus dubius* (F.) (Coleoptera: Cleridae). Societe Entomologique de France. Annales 22: 49–52. (ec).
- BAKER, PETER S. 1989. A sampling plan for a control project against the coffee berry borer (*Hypothenemus hampei*) in Mexico. Tropical Pest Management 35: 169–172. (cn).
- BAKER, PETER S., J. F. BARRERA, AND J. E. VALENZUELA. 1989. The distribution of the coffee berry borer *Hypothenemus hampei* in southern Mexico: a survey for a biocontrol project. Tropical Pest Management 35: 163–165. (cn).
- BAKKE, Alf. 1985a. Deploying pheromone-baited traps for monitoring *Ips typographus* populations. Journal of Applied Entomology 99: 33–39. (cn).
- _____. 1985b. Methods and effects of suppressing bark beetle populations. Pages 169–174 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO Conference proceedings, Canada Department of the Environment, Forestry Service, and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1983. 239 p. (cn).
- _____. 1987. Repression of *Ips typographus* infestation in stored logs by semiochemicals. Scandinavian Journal of Forest Research 2: 179–185. (bv cn).
- _____. 1985a. Potential use of semiochemicals for integrated control of bark beetles in Europe. Pages 257–261 in T. L. Payne and H. Saaremaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn).
- _____. 1985b. Potential use of semiochemicals for integrated control of bark beetles in Europe. International Congress of Entomology, Proceedings 15: 415. (cn).
- _____. 1989. The recent *Ips typographus* outbreak in Norway: experiences from a control program. Holarctic Ecology 12: 151–519. (cn).
- BAKKE, Alf AND R. LIE. 1989. Mass trapping. Pages 67–87 in A. R. Jutsum and R. F. S. Gordon, Insect pheromones in plant protection. John Wiley and Sons, New York. (bv).
- BAKKE, Alf, TORFINN SÆTHIER, AND OYSTEIN AUSTARA. 1989. Response by *Ips typographus* to pheromone dispensers stored for 5 years. Scandinavian Journal of Forest Research 4: 393–394. (bv).
- BAKKE, Alf, TORFINN SÆTHIER, AND TORSTEIN KVAMME. 1983. Mass trapping of the spruce bark beetle *Ips typographus*: pheromone and trap technology. Meddelelser fra Norsk Institutt for Skogforskning 38: 35. (cn).
- BAKKE, Alf AND JEAN PIERRE VITE. 1987. Methylbutynol no efficient replacement for the natural pheromone component in *Ips typographus*. Naturwissenschaften 74: 292–293. (bv).
- BAKKE, JAN M., J. KRANE, AND T. SKJETNE. 1989. Confirmations of bark beetle pheromones: the importance of the medium. Acta Chemica Scandinavica 43: 777–782. (bv ms).
- BALAKRISHNAN, M. M., P. K. VINODKUMAR, AND C. B. PRAKASAN. 1989. Impact of the predator *Eupelmus* sp. (Hymenoptera: Eupelmidae) on the incidence of *Xylosandrus compactus*. Journal of Coffee Research 19: 88–90. (ec).
- BALAZI, STANISLAW, JACEK MICHALSKI, AND E. RATAJCZAK. 1987. Materiały do znajomości wrogów naturalnych *Ips acuminatus* Gyll. (Coleoptera: Scolytidae) [Contribution to the knowledge of the natural enemies of *Ips acuminatus* Gyll.]. Polskie Pismo Entomologiczne 57: 735–745. (ec).
- *BALDWIN, C. H. 1916. [*Scolytus rugulosus*]. Page 131 in Eighth annual report of the Indiana State Entomologist. ().
- BALICK, M. J., D. C. FURTH, AND G. COOPER-DIVER. 1978. Biochemical and evolutionary aspects of arthropod predation on ferns. Oecologia (Berlin) 35: 55–89. (bv ec).
- BAITENSWEILER, WERNER. 1985. "Waldsterben": forest pests and air pollution. Journal of Applied Entomology 99: 77–85. (ec).
- BANERJEE, BARUNDEB. 1983. Arthropoda accumulation on tea in young and old habitats. Ecological Entomology 8: 117–123. (ec).
- BANGSHOLT, F. 1975. Fjerde tillæg til "Fortegnelse over Danmarks biller" (Coleoptera). Entomologiske Meddelelser 43: 65–96. (ds).
- *BARBER, H. S. 1919. [*Pagiocerus rimosus* (=frontalis)]. Entomological Society of Washington, Proceedings. 21: 59. ().
- BARBOSA, PEDRO, AND MICHAEL R. WAGNER. 1989. Introduction to forest and shade tree insects. Academic Press, San Diego, California. xi + 639 p. (cn ec hb).
- BARGER, JACK H., AND WILLIAM N. CANNON, JR. 1987. Response of smaller European elm bark beetles to pruning wounds on American elm. Journal of Arboriculture 13: 102–104. (bv).
- BARR, BARBARA A., D. L. HANSON, AND C. S. KOEHLER. 1978. Red turpentine beetle: a pest of pines. Division of Agricultural Sciences, University of California, Berkeley. Leaflet 21055. 4 p. (cn hb).
- BARRICOLI, J. A. F., LELAND CHANDLER, AND N. F. LOPES. 1985. Rosposta fisiologica do feijoeiro (*Phaseolus vulgaris* L.) ao forate a suas consequencias entomologicas. III. Efeito sobre as pragas e producao da cultura, no plantio da "seca" [Physiological response of *Phaseolus vulgaris* to phorate and the entomological consequences] [English summary]. Revista Ceres 35: 370–387. (cn).
- BARRY, PATRICK J. 1985. Biological evaluation of southern pine beetle infestations on the Tyger and Enoree Ranger Districts, Simter National Forest, South Carolina. United States Department of Agriculture,

- Forest Service, Southern Region, Atlanta, Georgia, Forest Pest Management Report 85-1-22. (cn).
- °BARTIL, AGNAR. 1902. Grantoken, Dens Aarsager og Forbyggelse. Det Kongelige Selskab for Norge vel, Kristiania (=Oslo). 6S p. ().
- BARTINDALE, G. C., AND G. R. BARTINDALE. 1948. Coleoptera of the Macclesfield district. *Entomologist's Monthly Magazine* 84: 130-138. (ds).
- BARTOS, DALE L. 1985a. Microclimate as a factor in lodgepole pine (*Pinus contorta* Douglas) stands and tree selection by mountain pine beetles (*Dendroctonus ponderosae* Hopkins). Pages 215-230 in T. L. Payne and H. Saarenmaa (eds.), Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv ec).
- _____. 1985b. Microclimate as a factor in lodgepole pine (*Pinus contorta* Douglas) stand and tree selection by mountain pine beetles (*Dendroctonus ponderosae* Hopkins). International Congress of Entomology, Proceedings 18: 414. (bv ec).
- BARTOS, DALE L., AND GENE DOYLE AMMAN. 1989. Microclimate: an alternative to tree vigor as a basis for mountain pine beetle infestations. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, Research Paper INT-400. 10 p. (ec).
- BARTOS, DALE L., AND K. B. DOWNING. 1985. Development of an expert system for endemic populations of mountain pine beetle in lodgepole pine forests. Pages 232-233 in Proceedings: International symposium on advanced technology in natural resources management. Resource Technology 88, Fort Collins, Colorado, 20-23 June 1985. American Society for Photogrammetry and Remote Sensing, Falls Church, Virginia. (cn).
- _____. 1989. Evolution of a research prototype expert system for endemic populations of mountain pine beetle in lodgepole pine forests. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, Research Note INT-390. 8 p. (cn).
- BASHAM, JACK TUCKER. 1959. Studies in forest pathology: XX, investigations of the pathological deterioration in killed balsam fir. *Canadian Journal of Botany* 37: 292-326. (cn).
- _____. 1956. Biological factors influencing stem deterioration rates and salvage planning in balsam fir killed after defoliation by spruce budworm. *Canadian Journal of Forest Research* 16: 1217-1229. (cn).
- BATRA, LEKH RAJ. 1985. Ambrosia beetles and their associated fungi: research trends and techniques. *Indiana Academy of Science, Proceedings, Plant Science* 94: 137-148. (ec).
- BATRA, LEKH RAJ, S. W. T. BATRA, AND TOSHIHO NAKASHIMA. 1986. Some techniques to study ambrosia beetles and their associated fungi. *Hokkaido Musashi Women's Junior College, Memoirs* 18: 73-94. (ec ms).
- BATTISTI, A. 1985. *Dendroctonus micans* (Kugelann) in Italia (Coleoptera: Scolytidae). *Frustula Entomologica* 7-8: 631-637. (ay cn ec ds).
- BATTISTI, A., R. MENARDI, AND G. SALA. 1986. Sulla presenza del coleottero scoltid *Dendroctonus micans* Kugelann in boschi di abete rosso del Veneto [On the presence of the scolytid beetle *Dendroctonus micans* Kugelann in Norway spruce woods in the Venice district] [English summary]. *Italia Forestale e Montana* 41: 197-203. (cn ec hb).
- BAYLIS, N. T. 1986. Observations of damage of a secondary nature following a wild fire at the Otterford State Forest. *South African Forestry Journal* 137: 36-37. (cn).
- °BEACH 1899. [*Scolytus rugulosus*]. New York State Agricultural Experiment Station, Bulletin 170: 318-445. ().
- BEAVER, ROGER A. 1954. The biology of the ambrosia beetle, *Sucus nissimai* (Eggers) Col.: Scolytidae, in Fiji. *Entomologist's Monthly Magazine* 120: 99-102. (hb).
- _____. 1986. The taxonomy, mycangia and biology of *Hypothenemus curtipes* (Schedl), the first known cryphaline ambrosia beetle (Coleoptera: Scolytidae). *Entomologica Scandinavica* 17: 131-135. (ec hb ds tx).
- _____. 1987a. Biological studies on bark beetles of the Seychelles (Col., Scolytidae). *Journal of Applied Entomology* 104: 11-23. (cn ds hb).
- _____. 1987b. The bark and ambrosia beetles (Coleoptera: Scolytidae and Platypodidae) of Tonga. *New Zealand Entomologist* 9: 64-70. (cn hb ds tx).
- _____. 1985a. Biological studies on ambrosia beetles of the Seychelles (Col., Scolytidae and Platypodidae). *Journal of Applied Entomology* 105: 62-73. (bv cn hb).
- _____. 1985b. Patterns of bark and ambrosia beetles in tropical forests. International Congress of Entomology, Proceedings 18: 410. (hb).
- _____. 1989a. Bark and ambrosia beetles (Coleoptera: Scolytidae) newly recorded from Fiji, and their potential economic importance. *South Pacific Journal of Natural Science* 9: 1-7. (ds).
- _____. 1989b. Insect-fungus relationships in the bark and ambrosia beetles. Pages 121-143 in N. Wilding, N. M. Collins, P. M. Hammond, and J. F. Webber (eds.), *Insect-fungus interactions*. Academic Press, London. xvi + 344 p. (ec).
- _____. 1990a. New records and new species of bark and ambrosia beetles from Thailand (Coleoptera: Scolytidae and Platypodidae). *Deutsche Entomologische Zeitschrift, Neue Folge*, 37: 279-284. (ds tx).
- _____. 1990b. The bark and ambrosia beetles of Kiribati, South Pacific (Col., Scolytidae and Platypodidae). *Entomologist's Monthly Magazine* 126: 149-151. (ds tx).
- _____. 1991. New synonymy and taxonomic changes in Pacific Scolytidae (Coleoptera). *Naturhistorisches Museum Wien, Annalen* 92: 87-97. (tx).
- BEAVER, ROGER A., AND K. LOYTTYNEMI. 1985a. Bark and ambrosia beetles (Coleoptera: Scolytidae) of Zambia. *Revue de Zoologie Africaine* 99: 63-85. (hb ds tx).
- _____. 1985b. The platypodid ambrosia beetles of Zambia (Coleoptera: Platypodidae). *Revue de Zoologie Africaine* 99: 113-134. (hb ds tx).
- _____. 1989. Further observations on the bark and ambrosia beetles of Zambia (Coleoptera: Scolytidae and Platypodidae). *Revue Zoologie Africaine* 103: 285-290. (ds tx).
- BEAVER, ROGER A., AND P. A. MADDISON. 1990. The bark and ambrosia beetles of the Cook Islands and Niue (Coleoptera: Scolytidae and Platypodidae). *Journal of Natural History* 24: 1365-1375. (ds tx).
- °BECK, GUNTHER. 1856. Coleoptera, Scolytidae. Pages 626-627 in M. A. Becker (ed.), *Fauna von Hertenstein in Niederosterreich. II. Teil II. Halbband*. ().
- °BECKER. 1913. [*Scolytus rugulosus*]. *Arkansas Horticultural Society, Proceedings* 1912-1913: 29. ().
- BECKLEY, PAUL R. 1989. Case history: application of risk assessment, Flathead National Forest. Pages 34-36

- in G. D. Amman, Management of lodgepole pine to minimize losses to the mountain pine beetle: symposium proceedings. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- BEDARD, WILLIAM DELLES, JR., K. Q. LINDAHL, JR., PAUL E. TILDON, AND DAVID LEE WOOD 1985. Behavior of the western pine beetle during host colonization. *Journal of Chemical Ecology* 11: 1249–1262. (bv).
- BEESON, CYRIL FREDERICK CHERRINGTON. 1934. The role of insects in dying off of sal. *Indian Forester* 1934: 539–543. (bh).
- *BEGEMANN, H. 1927c. [*Xyleborus compactus*]. *Archiv f. v. d. Koffectur* 1: 273. ().
- BEGLEY, MICHAEL J., AND J. F. GROVE. 1955. Metabolic products of *Phomopsis oblonga*. Part 1: 3 5A 6,7,8,9,9A 9B octahydro-7 9B-dimethylnaphtho-1 2-C-furan-1-311-one oblongide. *Journal of the Chemical Society Perkin, Transactions I*: 861–864. (bv ms).
- *BEJER-PETERSEN, BRODER. 1959. An der ventes staerkere angreb af *Hylesinus micans*? *Borstlig Budstikke* 19(22): 87–88. ().
- _____. 1955a. *Dendroctonus micans* in Denmark. Pages 2–19 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of the European Communities and the University Libre de Bruxelles, Bruxelles, Belgium, Proceedings of seminar, 3–4 October 1954. 141 p. (ec).
- _____. 1955b. Sitkagran og "micans." [English summary]. *Dansk Skooforenings Tidsskrift* 73: 37–42. (ec).
- *BEKMAN. 1929. [*Pagiocerus zae (=frontalis)*]. *Izv. prikl. Ent.* 4(1): 151–166. ().
- BELANGER, ROGER P. 1989. Silviculture, a remedy for southern pine beetle problems. Society of American Foresters National Convention, Proceedings 1985: 157–191. (cn).
- BELANGER, ROGER P., J. F. GODBEE, T. MILLER, AND R. S. WEBB. 1983. Salvage cutting in southern pine forests in South Carolina, Georgia, and Alabama. United States Department of Agriculture, Forest Service, SE-24: 352–356. (cn).
- BELANGER, ROGER P., ROY L. HEDDEN, AND MICHAEL R. LENNARTZ. 1985. Potential impact of the southern pine beetle on red-cockaded woodpecker colonies in the Georgia Piedmont. *Southern Journal of Applied Forestry* 12: 194–199. (ec).
- BELANGER, ROGER P., ROY L. HEDDEN, AND FRANK H. TAITER. 1986. Managing Piedmont forests to reduce losses from the littleleaf disease-southern pine beetle complex. United States Department of Agriculture, Forest Service, Cooperative State Research Service, Integrated Pest Management Handbook, Agriculture Handbook 649. 19 p. (cn ec).
- BENNET, E. M., AND TERRY A. TATTAR. 1985. Bluestain fungi and insect vector interaction in Japanese black and Scots pine mortality. *Arboricultural Journal* 12: 237–247. (ec).
- BENOIT, PAUL. 1985. Nomenclatura insectorum canadensium. Noms d'insectes au Canada. Insect names in Canada. Government of Canada, Canadian Forestry Service, Laurentian Forest Research Centre, Sainte-Foy, Quebec. 299 p. (tx).
- _____. 1986. Nomenclatura insectorum canadensium. Noms d'insectes au Canada. Insect names in Canada. Supplementum. Government of Canada, Forestry Service, Laurentian Forest Research Centre, Sainte-Foy, Quebec. 114 p. (tx).
- BENOIT, PAUL AND R. BLAIS. 1984. Pertes de bois causes par le dendroctone du maleze. *Phytoprotection* 65: 89. (bv cn).
- BENOIT, PAUL, GASTON LAFLAMME, G. BONNEAU, AND R. PICHIER. 1982. Insectes et maladies des arbres Quebec, 1981. *Forest Conservation* 45(10): 1–19. (cn).
- _____. 1983. Insectes et maladies des arbres Quebec, 1982. *Forest Conservation* 49(10): 1–23. (cn).
- *BENTZ, BARBARA J. 1984. Phenetic and phylogenetic relationships among *Dendroctonus* (Coleoptera: Scolytidae) bark beetles. Unpublished thesis, University of Idaho, Moscow, Idaho. 109 p. ().
- BENTZ, BARBARA J., C. K. LISTER, JOHN M. SCHMID, S. A. MATA, L. A. RASMUSSEN, AND D. HANEMAN. 1989. Does verbenone reduce mountain pine beetle attacks in susceptible stands of ponderosa pine? United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado, Research Note RM-495. 4 p. (cn).
- BENZ, GEORG. 1955a. *Cryphalus abietis* (Ratz.) and *Ips typographus* (L.) new for Turkey, and a note on the tree killing capacity of *Pityophthorus pityographus* (Ratz.). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 58: 275. (cn ds).
- _____. 1955b. *Dendroctonus micans* in Turkey: the situation today. Pages 43–47 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of the European Communities and the Universite Libre de Bruxelles, Belgium, Proceedings of seminar, 3–4 October 1954. 141 p. (ec).
- BENZ, GEORG, P. BOVEY, AND P. JUNOD. 1986. On the specific attraction of the males of the six-toothed spruce bark beetle, *Pityogenes chalcographus* (L.) to a mixture of synthetic pheromones of the eight-toothed spruce bark beetle, *Ips typographus* (L.) (Coleoptera, Scolytidae). *Experientia* (Basel) 42: 325–326. (bv).
- BERGDAIL, DALE R. 1982. Occurrence of the pinewood nematode in eastern larch. Pages 47–55 in J. E. Appleby and R. B. Malek, Proceedings of the 1982 national pinewilt workshop, Rosemont, Illinois. (bv cn).
- BERGDAIL, DALE R., D. L. K. SMELTZER, AND S. S. HALIK. 1984. Components of a conifer wilt disease complex in the northeastern states [abstract]. Proceedings of the joint U.S.-Japan pine wilt disease seminar, Honolulu, Hawaii. (cn).
- _____. 1986. Components of a conifer wilt disease complex in the northeastern United States. Pages 152–157 in V. Dropkin, The resistance mechanisms of pines against pine wilt disease, 7–11 May 1984, Honolulu, Hawaii. Japan Society for the Promotion of Science. (ec).
- BERISFORD, CHARLES WAYNE, AND U. EUGENE BRADY. 1986. Field evaluation of fenitrothion for post-attack control of the southern pine beetle. *Journal of Entomological Science* 21: 139–141. (cn).
- BERISFORD, CHARLES WAYNE, U. EUGENE BRADY, CARL WARREN FATZINGER, AND B. H. EBEL. 1986. Evaluation of a repellent for prevention of attacks by three species of southern pine bark beetles (Coleoptera: Scolytidae). *Journal of Entomological Science* 21: 316–318. (cn).
- BERISFORD, CHARLES WAYNE, AND DONALD L. DAHLSTEN

1989. Biological control of *Ips grandicollis* (Eichhoff) (Coleoptera: Scolytidae) in Australia, a preliminary evaluation. Pages 81–93 in D. L. Kullavy and M. C. Miller, Potential for biological control of *Dendroctonus* and *Ips* bark beetles. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (cn ec).
- BERRISFORD, CHARLES WAYNE, G. L. DEBARR, AND THOMAS LEE PAYNE. 1955. Utilization of pheromones in forest pest management in insects and diseases of southern forests. Pages 92–96 in R. A. Cover and J. P. Jones, Insects and diseases in southern forests. 34th annual symposium proceedings. Louisiana Agricultural Experiment Station, Baton Rouge, Louisiana. (bv cn).
- BERRISFORD, CHARLES WAYNE, R. F. MIZELL III, L. H. KUDON, AND K. D. WARE. 1985. Line intersect sampling techniques for estimating *Ips typographus* in bagging residue. Pages 13–25 in S. J. Branham and R. C. Thatcher, Integrated pest management research symposium: the proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana. General Technical Report SO-56. 353 p. (cn ms).
- BERRISFORD, CHARLES WAYNE, AND THOMAS LEE PAYNE. 1985a. Regional variation: a potential factor in the integration of behavioral chemicals into southern pine beetle management. Pages 275–282 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv cn).
- _____. 1985b. Regional variation: a potential factor in the integration of behavioral chemicals into southern pine beetle management. International Congress of Entomology, Proceedings 15: 415. (bv cn).
- BERRIOS, C., JUAN M. MENENDEZ, AND M. RODRIGUEZ. 1957. Presencia del genero *Ips* (Coleoptera, Scolytidae) sobre nuevas especies de pinos en el norte de la provincia de Matanzas [Presence of *Ips* on new species of pines in the north of Matanzas Province] [English summary]. Revista Forestal Baracoa 17: 113–115. (cn ds).
- ° BERRY, P., AND M. VAQUERO. 1957. Lista de insectos clasificados de El Salvador. Boletín Técnico 21: 9–50. (.)
- BERRYMAN, ALAN ANDREW. 1967. Entomological considerations in logging managed forests. Pages 73–110 in R. W. Bruce, Logging managed forests. Washington State University Press, Pullman. (cn ec).
- ° _____. 1984. Threshold theory and its application to pest population management. Pages 9–57 in Pest and pathogen control: strategic, tactical and policy models. International Series on Applied Systems Analysis. 13. (.)
- _____. 1987. The theory and classification of outbreaks. Pages 3–30 in P. Barbosa and J. C. Schultz, Insect outbreaks. Academic Press, San Diego, California. xiv + 578 p. (cn ec).
- _____. 1985a. Dynamics of forest insect populations: patterns, causes, implications. Plenum Press, New York. xx + 603 p. (bv cn ec lb).
- _____. 1985b. Pests and the stability of forest ecosystems. Northwestern Environmental Journal 4: 351–355. (cn ec).
- _____. 1989. Adaptive pathways in scolytid-fungus associations. Pages 145–159 in N. Wilding, N. M. Collins, P. M. Hammond, and J. F. Webber, Insect-fungus interactions. Academic Press, London. xvi + 344 p. (ec).
- BERRYMAN, ALAN ANDREW, B. DENNIS, KENNETH FRANCIS RAFFA, AND NILS CHR. STENSETH. 1985. Evolution of optimal group attack, with particular reference to bark beetles (Coleoptera: Scolytidae). Ecology 66: 898–903. (bv).
- BERRYMAN, ALAN ANDREW, AND GEORGE T. FERRELL. 1988. The fir engraver beetle in western states. Pages 555–577 in A. A. Berryman, Dynamics of forest insect populations: patterns, causes, implications. Plenum Press, New York. xx + 603 p. (bv cn ec).
- BERRYMAN, ALAN ANDREW, KENNETH FRANCIS RAFFA, J. A. MILLSTEIN, AND NILS CHR. STENSETH. 1989. Interaction dynamics of bark beetle aggregation and conifer defense rates. Oikos 56: 256–263. (ec tx).
- BERRYMAN, ALAN ANDREW, AND RONALD WILLIAM STARK. 1985a. Assessing the risk of stand destruction by pests. Pages 163–169 in D. M. Baumgartner, R. G. Krebil, J. T. Armott, and G. F. Weetman, Lodgepole pine: the species and its management. Cooperative Extension Service, Washington State University, Pullman. (cn ec).
- _____. 1985b. Assessing the risk of forest insect outbreaks. Journal of Applied Entomology 99: 199–205. (cn).
- BERRYMAN, ALAN ANDREW, AND NILS CHR. STENSETH. 1989. A theoretical basis for understanding and managing biological populations with particular reference to the spruce bark beetle. Holarctic Ecology 12: 357–394. (cn).
- BERRYMAN, ALAN ANDREW, NILS CHR. STENSETH, AND A. S. ISAEV. 1987. Natural regulation of herbivorous forest insect populations. Oecologia (Berlin) 71: 174–184. (cn lb).
- BETREM, JOHAN GEORGE. 1936. Insectenbestrijding. Bergcultures, Batavia 10: 196–201. (cn).
- ° BEUTENMULLER, W. 1951. Bibliographical catalogue of the described transformations of North American Coleoptera. New York Microscopical Society 7: 1–52. (.)
- BEVAN, DERMOT. 1987. Forest insects: a guide to insects feeding on trees in Britain. Forestry Commission, Handbook 1. (cn lb tx).
- BHAT, P. K. 1987. A review of entomological research in coffee with reference to major insect pests. Journal of Coffee Research 17: 77–79. (cn).
- BHAT, S. S., AND K. SREEDHARAN. 1985. Association of *Anbrosiella xylebori* Brader, with the shot-hole beetle *Xyleborus compactus* Eichhoff, a pest of Robusta coffee. Journal of Coffee Research 15: 54–57. (ec).
- ° BICKHARDT HEINRICH. 1911a. Book review: Prof. J. Roubal, Die Coleopterenfauna von Litauen. Entomologische Blätter 7: 71. (.)
- ° _____. 1911b. Book review: Dr. Max Wolff, Die Borkenkäfer, ihre Schaden um ihre Bekämpfung. Entomologische Blätter 7: 70–71. (.)
- ° _____. 1911c. Verzeichnis der Spezialisten für Coleopteren. Entomologische Blätter 7: 25–44. (.)
- BIGGER, M. 1985. The insect pests of forest plantation trees in Solomon Islands [Scolytidae, p. 115–132]. Solomon Islands Forest Record No. 4. Overseas Development Natural Resources Institute, Kent, United Kingdom. 190 p. (ec).
- BILLINGS, RONALD FORREST. 1983a. Southern pine beetle in Honduras: new approach to an old problem. Texas Forest News 62: 2–5. (cn lb).
- _____. 1983b. SPB [southern pine beetle]: twenty years of

- progress in forest protection. *Texas Forest News* 62: 12–15. (cn).
- _____. 1954d. SPB [southern pine beetle] control in wilderness areas of Texas. *Texas Forest News* 63: 12–13. (cn).
- _____. 1955a. Implementing forest pest management: the forester's role. Pages 111–119 in R. A. Goyer and J. P. Jones, *Insects and diseases of southern forests*. 34th Annual Forestry Symposium, Louisiana State University, Baton Rouge, Louisiana. 135 p. (cn).
- _____. 1955b. Southern pine bark beetle and associated insects: effects of rapidly-released host volatiles on response to aggregation pheromones. *Journal of Applied Entomology* 99: 453–491. (bv ec).
- _____. 1956a. Coping with forest insect pests in southern wilderness areas, with emphasis on the southern pine beetle. Pages 120–125 in D. L. Kuhlavy and R. N. Conner (eds.), *Wilderness and natural areas in the eastern United States: a management challenge*. Symposium proceedings, Stephen F. Austin University, Nacogdoches, Texas, 13–15 May 1955. 416 p. (cn).
- _____. 1956b. Forest pests and control programs in Mexico. *Texas Forest News* 65(summer): 14–16. (cn).
- _____. 1956c. Southern pine beetle demonstration project: final synopsis. *Texas Forest News* 65(spring): 8–9. (cn).
- _____. 1957. Southern pine beetle inhibitor: a promising new approach to direct control. *Texas Forest News* 66(2): 7–9. (cn).
- _____. 1955a. Forecasting southern pine beetle infestation trends with pheromone traps. Pages 295–306 in T. L. Payne and H. Saaremaa (eds.), *Integrated control of scolytid beetles*. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv cn).
- _____. 1955b. Forecasting southern pine beetle infestation trends with pheromone traps. *International Congress of Entomology, Proceedings* 18: 415. (bv cn ec).
- _____. 1955c. Forestry in the Dominican Republic revisited. *Texas Forest News* 67(3): 16–18. (cn ds).
- _____. 1955d. Tornado-damaged pines are easy targets for pine bark beetle attack. *Texas Forestry* 29(1): 2. (cn).
- _____. 1959. SPB [southern pine beetle] update. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, Pineville, Louisiana. 4 p. (cn).
- BILLINGS, RONALD FORREST, AND CHARLES MELROSE BRYANT 1953a. New approach developed to forecast SPB [southern pine beetle] outbreaks. *Texas Forestry* 24(5): 1. (cn).
- BILLINGS, RONALD FORREST, CHARLES MELROSE BRYANT, HERBERT A. PASE III, K. A. WILSON, AND C. WALKER 1955. Southern pine beetle technology transfer in Texas. Pages 55–63 in G. D. Hertel, S. J. Branham, and K. M. Swain, Sr., *Technology transfer in integrated forest pest management in the South*. United States Department of Agriculture, Forest Service, General Technical Report SE-34. 77 p. (cn hb).
- BILLINGS, RONALD FORREST, CHARLES MELROSE BRYANT, AND K. H. WILSON 1955. Development, implementation, and validation of a large area hazard- and risk-rating system for southern pine beetle. Pages 226–232 in S. J. Branham and R. C. Thatcher, *Integrated pest management research symposium: the proceedings*. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn).
- BILLINGS, RONALD FORREST, AND RICHARD A. GOYER 1957. New approaches to control southern pine beetle. *Forest Farmer* 99: 453–491. (cn).
- BILLINGS, RONALD FORREST, EDWARD H. HOLSTEN, AND ANDRUS EGLITIS 1972. Insects associated with *Pinus radiata* D. Don in Chile. *Turrialba* 22: 105–109. (ec ds).
- BILLINGS, RONALD FORREST, AND FORREST E. VARNER 1986. Why control southern pine beetle infestations in wilderness areas?: the Four Notch and Huntsville State Park experiences. Pages 129–134 in D. L. Kuhlavy and R. N. Conner, *Wilderness and natural areas in the eastern United States: a management challenge*. Symposium proceedings, 13–15 May 1955. Stephen F. Austin University, Nacogdoches, Texas. 416 p. (cn).
- BILLINGS, RONALD FORREST, AND JAMES D. WARD 1954. How to conduct a southern pine beetle aerial detection survey. *Texas Forest Service Circular* 267. 19 p. (cn).
- BING, J. W. 1955. Seasonal abundance and distribution of insects associated with *Ips grandicollis* in Nacogdoches County, Texas. Unpublished thesis, Stephen F. Austin University, Nacogdoches, Texas. 111 p. (cn ec).
- BIRGERSSON, GORAN 1955. The semiochemical system of *Ips typographus*: quantitative variation in production and release, and behavioural activity. [Unpublished?] dissertation, University of Goteborg, Sweden. (bv).
- _____. 1959. Host tree resistance influencing pheromone production of *Ips typographus* (Coleoptera: Scolytidae). *Holarctic Ecology* 12: 451–456. (bv ec).
- BIRGERSSON, GORAN, AND GUNNAR BERGSTROM 1959. Volatiles released from individual spruce bark beetle entrance holes: quantitative variations during the first week of attack. *Journal of Chemical Ecology* 15: 2465–2484. (bv).
- BIRGERSSON, GORAN, AND A. LEUFVEN 1955. The influence of host response to *Ips typographus* and fungal attack on production of semiochemicals. *Insect Biochemistry* 15: 761–770. (bv cn).
- BIRGERSSON, GORAN, F. SCHULTER, G. BERGSTRO, AND J. LOFQVIST 1955. Individual variation in aggregation pheromone content of the bark beetle, *Ips typographus*. *Journal of Chemical Ecology* 14: 1737–1760. (bv).
- BISTROM, OLOF, AND R. VAISANEN 1955. Ancient-forest invertebrates of the Pyhan-Hakki National Park in central Finland. *Acta Zoologica Fennica* 185: 1–69. (ds).
- BLACKMAN, MAULSBY WILLETT 1940c. [Book review]. *Entomological Society of Washington, Proceedings* 42: 46–47. (ms).
- BLACKWELL, MEREDITH J., ROBERT BRIDGES, JOHN CONRAD MOSER, AND THELMA J. PERRY 1956. Hypophoretic dispersal of a *Ptyxidiophora* anamorph. *Science* 232: 993–995. (ec).
- BLACKWELL, MEREDITH, JOHN CONRAD MOSER, AND J. WISNIEWSKI 1959. Ascospores of *Ptyxidiophora* on mites associated with beetles in trees and wood. *Mycological Record* 92(3): p. ? (ec).
- BLACKWELL, MEREDITH, THELMA J. PERRY, J. ROBERT BRIDGES, AND JOHN CONRAD MOSER 1956. A new species of *Ptyxidiophora* and its thaxteriella anamorph. *Mycologia* 78: 605–612. (ec).
- BLAIR, K. G. 1940. A note on *Xyleborus sampsoni* Donisth.

- (Col., Scolytidae). *Entomologist's Monthly Magazine* 76: 40. (tx).
- BLAKE, E. A., MICHAEL R. WAGNER, AND THOMAS W. KOEBER. 1956. Insects destructive to ponderosa [pine]. Pages 238-242 in R. C. Shearer (ed.), *Conifer tree seed in the inland Mountain West: symposium proceedings, 5-6 August 1955, Missoula, Montana*. United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station (Ogden, Utah), General Technical Report. (cn).
- _____. 1959. Relative effect of seed and cone insects on ponderosa pine in northern Arizona. *Journal of Economic Entomology* 52: 1691-1694. (cn).
- BLANCHÉ, C. A., JOHN DEAVOURS HODGES, AND T. EVAN NEBEKER. 1955. Changes in bark beetle susceptibility indicators in a lightning-struck loblolly pine. *Canadian Journal of Forest Research* 15: 397-399. (cn).
- BLANCHÉ, C. A., JOHN DEAVOURS HODGES, T. EVAN NEBEKER, AND D. M. MOEHRING. 1953. Southern pine beetle: the host dimension. *Mississippi Agriculture and Forestry Experiment Station. Bulletin* 917. 29 p. (ec).
- BLANCHÉ, C. A., T. EVAN NEBEKER, JOHN DEAVOURS HODGES, B. L. KARR, AND J. J. SCHMITT. 1955. Effect of thinning damage on bark beetle susceptibility indicators in loblolly pine. Pages 471-479 in E. Shoulders, *Third Biennial Southern Silvicultural Research Conference: proceedings, 7-8 November 1954, Atlanta, Georgia*. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station (Research Triangle Park, North Carolina), General Technical Report SO-54. (cn).
- °BLEASDELL, G. G. 1937. The Rhynchophora of Iowa. *Iowa State College Journal of Science* 11: 404-445. (.)
- BLINOVA, S. L. 1971. Investigations of crop and forest insect pest nematodes in the USSR. *International Congress of Entomology, Proceedings* 13: 55. (ec).
- BOCHER, JENS. 1955. The Coleoptera of Greenland. *Meddelelser om Gronland, Bioscience* 26: 1-100. (ds).
- BOEIM, H. 1958. Bark beetle slot traps. Page 437 in *Communications of the Federal Biological Institute for Agriculture and Forestry, Berlin-Dahlem, No. 245. Forty-sixth German Plant Protection Convention*. Paul Parey, Berlin. xvii + 524 p. (cn).
- °BOGDANOVA, D. A. 1954. O roli nasekomych-kislofagov v lesnykh soobstcestvach Sibiri. Pages 5-10 in *Nasekomye v ekosistemach lesnoj zony Sibiri, Izdatelstvo universiteta*. (.)
- _____. 1956. Trunk pests of pine in a fire-damaged forest of the upper Obregion [In Russian, English summary]. *Biologicheskikh Nauk* 3: 71-76. (cn).
- _____. 1957. Pine xylophages in the area of industrial pollution [In Russian]. *Ekologiya* 1957: 87-89. (ec).
- _____. 1955. Complexes of xylophagous insects in pine cultures contaminated by root fungus [In Russian, English summary]. *Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR* 3: 25-28. (ec).
- BOLLENBACHER, B., AND K. E. GIBSON. 1956. Mountain pine beetle: a land manager's perspective. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Forest Pest Management Report 6-15. 5 p. (cn).
- BOMBOSCH, SIEGFRIED. 1957. Eine neue Moglichkeit zum einsatz von Borkenkaferpheromonen? [A new possibility for the use of bark beetle pheromones?] [English summary]. *Journal of Applied Entomology* 103: 360-363. (bv cn).
- _____. 1958a. A new possibility to use bark beetle pheromones? *International Congress of Entomology, Proceedings* 18: 415. (cn).
- _____. 1958b. Some considerations on the use of bark beetle pheromones. Pages 263-265 in T. L. Payne and H. Saarenmaa, *Integrated control of scolytid bark beetles*. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv).
- BOMBOSCH, SIEGFRIED, I. ENGLER, H. GOSSENAUER, AND B. IIFERMANN. 1955. Uber die Rolle von Pheroprax bei der Desiedlung der Fichte durch den Buchdrucker (*Ips typographus* L.) [In German, English summary]. *Journal of Applied Entomology* 100: 455-463. (bv).
- BOMBOSCH, SIEGFRIED, AND M. JOHANN. 1955. Notes on the host selection of *Ips typographus*. Pages 43-51 in L. Safran'ik, *The role of the host in the population dynamics of forest insects*. IUFRO conference proceedings, Canada Department of the Environment, Canadian Forestry Service and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1953. 240 p. (bv).
- BORDEN, JOHN HARVEY. 1955. Aggregation pheromones. Pages 257-285 in G. A. Kerkut and L. I. Gilbert, *Comprehensive insect physiology, biochemistry, and pharmacology*. Pergamon Press, Oxford. (bv).
- _____. 1955. The striped ambrosia beetle. Pages 579-596 in A. A. Berryman, *Dynamics of forest insect populations: patterns, causes, implications*. Plenum Press, New York. xx + 603 p. (bv cn ec hb).
- _____. 1959. Semiochemicals and bark beetle populations: exploitation of natural phenomena by pest management strategists. *Holarctic Ecology* 12: 501-510. (bv).
- BORDEN, JOHN HARVEY, L. J. CHONG, AND D. J. BERGVINSON. 1955. Assessment of two pine oil treatments to protect stands of lodgepole pine from attack by the mountain pine beetle. *Entomological Society of British Columbia, Journal* 55: 28-33. (cn).
- BORDEN, JOHN HARVEY, L. J. CHONG, AND T. E. LACEY. 1956. Pre-logging baiting with semiochemicals for the mountain pine beetle, *Dendroctonus ponderosae*, in high hazard stands of lodgepole pine. *Forestry Chronicle* 62: 20-23. (cn).
- BORDEN, JOHN HARVEY, L. J. CHONG, AND B. S. LINDGREN. 1990. Redundancy in the semiochemical message required to induce attack on lodgepole pines by the mountain pine beetle, *Dendroctonus ponderosae* Hopkins (Coleoptera: Scolytidae). *Canadian Entomologist* 122: 769-777. (bv).
- BORDEN, JOHN HARVEY, D. W. A. HUNT, D. R. MILLER, AND K. N. SLESSOR. 1956. Orientation in forest Coleoptera: an uncertain outcome of responses by individual beetles to variable stimuli. Pages 97-109 in T. L. Payne, M. C. Birch, and C. E. J. Kennedy, *Mechanisms in insect olfaction*. Clarendon Press, Oxford. 349 p. (bv).
- BORDEN, JOHN HARVEY, AND T. E. LACEY. 1955. Semiochemical-based manipulation of the mountain pine beetle, *Dendroctonus ponderosae* Hopkins: a component of lodgepole pine silviculture in the Merritt timber supply area of British Columbia. *Journal of Applied Entomology* 99: 139-145. (bv cn).
- BORDEN, JOHN HARVEY, AND B. STAFFAN LINDGREN. 1958a. The role of semiochemicals in IPM of the mountain pine beetle. Pages 247-255 in T. L. Payne and H. Saarenmaa, *Integrated control of scolytid bark bee-*

- ties. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv cn).
- _____. 1955b. The role of semiochemicals in integrated pest management of the mountain pine beetle (Coleoptera: Scolytidae). International Congress of Entomology, Proceedings 15: 414. (bv cn).
- BORDEN, JOHN HARVEY, A. M. PIERCE, H. D. PIERCE, JR., J. L. CHONG, A. J. STOCK, AND A. C. OEHLISCHLAGER. 1957. Semiochemicals produced by western balsam bark beetle, *Dryocoetes confusus* Swaine (Coleoptera: Scolytidae). Journal of Chemical Ecology 13: 823-836. (bv).
- BORDEN, JOHN HARVEY, LEE C. RYKER, L. J. CHONG, H. D. PIERCE, JR., B. D. JOHNSTON, AND A. C. OEHLISCHLAGER. 1957. Response of the mountain pine beetle, *Dendroctonus ponderosae* Hopkins (Coleoptera: Scolytidae), to five semiochemicals in British Columbia lodgepole pine forests. Canadian Journal of Forest Research 17: 118-128. (bv).
- BORGES, P. A., AND A. R. M. SERRANO. 1959. New records of the coleopterous fauna (Insecta, Coleoptera) from the Azores. Boletim do Museu Municipal do Funchal 41, Art. 209. 24 p. (ds).
- BORSODI, D., T. GAL AND S. KISS. 1955. A betuzoszu (*Ips typographus* L.) elleni vedekezes aggregacios feromonnal. Novevnyedlem 21: 219. (bv).
- *BOSQ, JUAN M. 1934. [*Platypus phicatus*]. Boletín del Ministerio de Agricultura, Argentina 36(4): 335. ().
- BOUCEK, ZDENEK. 1950. A revision of the genus *Monacon* Waterston (Hymenoptera: Chalcidoidea: Perilampinae), parasites of ambrosia beetles (Coleoptera: Platypodidae). Bulletin of Entomological Research 70: 73-96. (ec).
- BOUHOT, L., F. LIEUTIER, AND D. DEBOUZIE. 1958a. Colonization dynamics of *Tomicus piniperda* L. and *Ips sexdentatus* Boern. (Coleoptera: Scolytidae) on Scots pine. International Congress of Entomology, Proceedings 18: 439. (bv).
- _____. 1958b. Spatial and temporal distribution of attacks by *Tomicus piniperda* L. and *Ips sexdentatus* Boern. (Coleoptera, Scolytidae) on *Pinus sylvestris*. Journal of Applied Entomology 106: 356-371. (bv).
- *BOURNE, A. I., AND WALTHAM WHITCOMB. 1937. Department of Entomology, Pages 46-57 in Annual report, 1936. Massachusetts Agricultural Experiment Station, Bulletin 339. ().
- BOUSEFIELD, WAYNE E., R. EDER, AND DAYLE BENNETT. 1955. Users' guide and documentation for insect and disease survey. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Forest Pest Management Report 85-19. 19 p. (cn).
- BOUSEFIELD, WAYNE E., S. K. HAGLE, AND S. KOHLER. 1955. Montana forest pest conditions and program highlights, 1957. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Timber, Cooperative Forestry and Pest Management Report 85-2. 15 p. (cn).
- BOUTZ, GARY E., J. W. BREWER, AND J. N. BISHOP. 1985. Capture patterns of *Scolytus multistriatus* (Marsh.) (Col., Scolytidae) attracted to a pheromone-baited trap. Journal of Applied Entomology 99: 366-370. (bv cn).
- *BOWDITCH, F. C. 1896. List of Mt. Washington Coleoptera. Supplement to Psyche, II. 11 p. ().
- BOWERS, W. W., AND JOHN HARVEY BORDEN. 1990. Evidence for a male-produced aggregation pheromone in the four-eyed spruce bark beetle, *Polygraphus rufipennis* (Kirby) (Col., Scolytidae). Journal of Applied Entomology 111: 292-299. (bv).
- BOWERS, W. W., JOHN HARVEY BORDEN, AND G. GRIES. 1985. Aggregation pheromone of the four-eyed spruce bark beetle, *Polygraphus rufipennis* Kirby (Coleoptera: Scolytidae). International Congress of Entomology, Proceedings 18: 430.
- *BOYD, W. M. 1945. [*Scolytus rugulosus*]. New Jersey Department of Agriculture, Circular 355: 131-135. ().
- BRAND, J. M., AND F. SCOTT. 1985. Enzymatic stereospecificity and bark beetle pheromones. Fort Hare Papers 5(1): 52-54, 70. (bv ms).
- BRANHAM, SUSAN J., AND ROBERT CLIFFORD THATCHER. 1985. Integrated pest management symposium: proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 353 p. (cn ec).
- BRANHAM, SUSAN J., ROBERT CLIFFORD THATCHER, GARLAND N. MASON, AND GERRARD D. HERTEL. 1985. Integrated pest management in the South: highlights of a 5-year program. United States Department of Agriculture, Forest Service, Agriculture Information Bulletin 491. 19 p. (cn ms).
- *BRAUN, RUDOLF. 1948. Erfahrungen aus der Borkenkäfer bekämpfung im Schwarzkieferngebiet. Österreich Forst und Holzwirtschaft 3: 66-65. ().
- BRAUNER, K. 1955. Der Kupferstecher: Ein winziger, aber gefährlicher Forestschädling. Allgemeine Forstzeitung 12: 255-259. (cn).
- BREWER, S. D., R. A. BECK, AND RICHARD A. ROEFER. 1985. Observations of the gallery habits of *Trypodendron retusum* (Coleoptera: Scolytidae) infesting aspen in central Michigan. Great Lakes Entomologist 21: 5-8. (hb).
- BREWER, WAYNE. 1978. Dutch elm disease: elm bark beetles and insects that weaken elms. Colorado State University Extension Service, Service in Action No. 5.506. 2 p. (cn).
- BRIDGES, JOHN ROBERT. 1985. Relationship of symbiotic fungi to southern pine beetle population trends. Pages 127-135 in S. J. Branham and R. C. Thatcher, Integrated pest management research symposium: proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 353 p. (ec).
- _____. 1987a. Effects of terpenoid compounds on growth of symbiotic fungi associated with southern pine beetle. Phytopathology 77: 83-85. (ec).
- _____. 1987b. Prevalence of *Unikaryon minutim* (Microsporidia: Nosematidae) infection in outbreak populations of the southern pine beetle (Coleoptera: Scolytidae). Journal of Invertebrate Pathology 49: 334-335. (ec).
- BRIDGES, JOHN ROBERT, AND JOHN CONRAD MOSER. 1986. Relationship of phoretic mites (Acari: Tarsenemidae) to the bluestaining fungus, *Ceratocystis minor*, in trees infested by southern pine beetle (Coleoptera: Scolytidae). Environmental Entomology 15: 951-953. (ec).
- BRIDGES, JOHN ROBERT, W. A. NETTLETON, AND M. D. CONNER. 1985. Southern pine beetle (Coleoptera: Scolytidae) infestations without the bluestain fungus, *Ceratocystis minor*. Journal of Economic Entomology 78: 325-327. (ec).
- BRIDGES, JOHN ROBERT, AND THELMA J. PERRY. 1987. *Ceratocystiopsis ranaculosus* sp. n. associated with

- the southern pine beetle. *Mycologia* 79: 630–633. (cc).
- BRIDGES, JOHN ROBERT, W. T. THOENY, AND A. E. TIARKS. 1985a. Techniques for studying bark beetle dispersal. Pages 307–319 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (hb ms).
- _____. 1985b. Techniques for studying bark beetle dispersal. International Congress of Entomology, Proceedings 15: 416. (hb ms).
- BRIGHT, DONALD EDWARD, JR. 1985a. New species and records of North American *Pityophthorus* (Coleoptera: Scolytidae), Part IV: the scriptor group. *Great Basin Naturalist* 45: 467–475. (tx).
- _____. 1985b. New species and records of North American *Pityophthorus* (Coleoptera: Scolytidae), Part V: the juglandis group. *Great Basin Naturalist* 45: 476–482. (tx).
- _____. 1985c. Studies on West Indian Scolytidae (Coleoptera), 3: checklist of Scolytidae of the West Indies with descriptions of new species and taxonomic notes. *Entomologischen Arbeiten aus dem Museum G. Frey* 33–34: 169–188. (tx).
- _____. 1986a. New species and new records of North American *Pityophthorus* (Coleoptera: Scolytidae), Part VI: the lautus group. *Great Basin Naturalist* 46: 641–645. (tx).
- _____. 1986b. New species and new records of North American *Pityophthorus* (Coleoptera: Scolytidae), Part VII. *Great Basin Naturalist* 46: 679–684. (tx).
- _____. 1987a. A review of the Scolytidae (Coleoptera) of the Azores with description of a new species of *Phloeosinus*. *Bocagiana* 107, 5 p. (ds tx).
- _____. 1987b. Notes on the occurrence of *Xyleborinus gracilis* (Eichhoff) in the United States (Coleoptera: Scolytidae). *Coleopterists Bulletin* 41: 335. (ds).
- _____. 1988a. Use of the aedeagus in the systematics of the Scolytidae (Coleoptera), with phylogenetic implications. International Congress of Entomology, Proceedings 15: 409. (av tx).
- _____. 1988b. *Xylosandrus germanus* (Blandford), an ambrosia beetle new to Canada. Pages 93–94 in M. J. Sarazin, The Canadian agriculture insect pest review 66. 117 p. (ds).
- _____. 1989. Two new species of *Phloeosinus* Chapuis from Mount Kinabalu, Borneo, with taxonomic notes (Coleoptera: Scolytidae). *Coleopterists Bulletin* 43: 79–82. (tx).
- _____. 1990. A new species of *Liparthrum* from Borneo with notes on its generic placement (Coleoptera: Scolytidae). *Coleopterists Bulletin* 44: 885–888. (tx).
- _____. 1991a. Platypodidae (Curculionoidea). Page 616 in F. W. Stehr, Immature insects, Volume 2. Kendall Hunt, Dubuque, Iowa. 975 p. (hb tx).
- _____. 1991b. Scolytidae (Curculionoidea). Pages 613–616 in F. W. Stehr, Immature insects, Volume 2. Kendall Hunt, Dubuque, Iowa. 975 p. (hb tx).
- _____. 1991c. Studies in Xyleborini 2: review of the genus *Sampsonius* Eggers (Coleoptera: Scolytidae). *Studies on Neotropical Fauna and Environment* 26: 11–25. (ds tx).
- BRIGHT, DONALD EDWARD, JR. AND ROBERT E. SKIDMORE. 1991. Two new records of Scolytidae (Coleoptera) from Canada. *Coleopterists Bulletin* 45: 368. (ds).
- BROWN, K. W. 1961. Entomological studies from a high tower in Mpanga Forest, Uganda. XI. Observations on Coleoptera. Royal Entomological Society of London, Transactions 113: 353–355. (hb).
- BROWN, M. W., T. EVAN NEBECKER, AND C. R. HONEA. 1987. Thinning increases loblolly pine vigor and resistance to bark beetles. *Southern Journal of Applied Forestry* 11: 25–31. (cn).
- BROWN, WILLIAMSON JAMES. 1930. Coleoptera of the north slope of the Gulf of the St. Lawrence. *Canadian Entomologist* 62: 239–246. (ds).
- BROWNE, FRANCIS GEORGE. 1986a. Bark beetles and ambrosia beetles (Coleoptera, Scolytidae and Platypodidae) intercepted at Japanese ports, with descriptions of new species, XIII. *Kontyo* 54: 89–99. (ds tx).
- _____. 1986b. Bark beetles and ambrosia beetles (Coleoptera, Scolytidae and Platypodidae) intercepted at Japanese ports, with descriptions of new species, XIII. *Kontyo* 54: 333–343. (ds tx).
- _____. 1986c. Bark beetles and ambrosia beetles (Coleoptera, Scolytidae and Platypodidae) intercepted at Japanese ports, with descriptions of new species, XV. *Kontyo* 54: 661–671. (ds tx).
- BRUN, L. O., V. GAUDICHON, AND C. MARCILLAUD. 1989. Provisional method for detecting endosulfan resistance in coffee berry borer *Hypothenemus hampei* (Coleoptera, Scolytidae). *FAO Plant Protection Bulletin* 37: 125–129. (av cn).
- BRUN, L. O., C. MARCILLAUD, V. GAUDICHON, AND D. M. SUCKLING. 1989. Endosulfan resistance in *Hypothenemus hampei* (Coleoptera: Scolytidae) in New Caledonia. *Journal of Economic Entomology* 82: 1311–1316. (cn).
- BRUNSON. 1929. [Note on *Scolytus rugulosus*]. *Southern Cultivator* 87: 11, 15. (cn).
- BRYANT, C. H. 1985. Hazard rating systems and southern pine beetle prevention in Texas. Pages 480–484 in E. Shoulders (ed.), Third Biennial Southern Silvicultural Research Conference: proceedings, 7–8 November 1984, Atlanta, Georgia. United States Department of Agriculture, Forest Service, Southeastern Forest Experiment Station (Research Triangle Park, North Carolina). General Technical Report SO-54. (cn).
- BRYANT, C. H., H. A. PASE III, AND RONALD FORREST BILLINGS. 1982. Microcomputer aids southern pine beetle management in Texas. Pages 121–124 in Microcomputers: a new tool for foresters. Conference proceedings, 18–20 May 1982, Purdue University. Society of American Foresters, Publication 82-05. (cn).
- BUCK, F. D. 1952. Some coleopterous records from Hampstead Heath. *Entomological Gazette* 3: 101–103. (ds).
- _____. 1955b. A provisional list of the Coleoptera of Epping Forest. *Entomologist's Monthly Magazine* 91: 174–192. (ds).
- BUTH, P. N. 1989. Six new Danish roundworms (Nematoda) found in the gut of tree- and fungus-dwelling beetles. *Flora and Fauna* 95: 61–64. (cc).
- °BUISMANN, CHRISTINE J. 1930. The Dutch elm disease [abstract]. *Phytopathology* 20: 111–112. ().
- °_____. 1932d. Das grosse Ulmensterben. *Deutsche Forst. Zeit.* 47: 141–142. ().
- °_____. 1932e. De olmen of iepenziekte. *Antwerpen: Drukkerij K. Dirix van Riet, Muizenstrat* 19: 1–15. ().
- °_____. 1932f. Verslag van de fytopathologische onderzoekingen over de iepenziekte verricht in het Laboratorium "Willie Commeln Scholten."

- gedurende 1931. Tijdschrift over Plantenziekten 35: 17-36. ().
- °. 1933c. De iepenziekte. Tijdschrift der Nederlandsche Heidemaatschappij 45: 219-237. ().
- °. 1933d. Proeven over waterverdupping bij bladeren van verschillende iepensoorten. Tijdschrift over Plantenziekten 39: 35-41. ().
- °. 1934b. De iepenziekte in America. Nederlandsche Boschbouw Tijdschrift 7: 439-440. ().
- °. 1934c. The area of distribution of the *Ceratostomella* (*Graphium*) elm disease. Mededeelingen van het phytopathologisch Laboratorium "Willie Commelin Scholten," Baarn 13: 35-46. ().
- °. 1935a. Het iepenziekte probleem in Italie. Nederlandsche Boschbouw-Tijdschrift 8: 179-180. ().
- °. 1935b. Over de iepenziekte buiten Nederland. Natuur en techniek, 7 July. ().
- °. 1935c. Verslag over de onderzoekingen betreffende de iepenziekte, verricht in het Phytopathologisch Laboratorium "Willie Commelin Scholten" de Baarn, gedurende 1934. Tijdschrift over Plantenziekten 41(5): 104-120. ().
- °. 1936b. Stand van de iepenziekte in Amerika volgens de procedees van de Ile Shade Tree Conference (August 1935) 9: 77-80. ().
- °. 1936c. Verlag van de onderzoekingen over de iepenziekte, verricht in het Phytopathologisch Laboratorium Willie Commelin Scholten de Baarn, dedurende 1935. Tijdschrift over Plantenziekten 42: 21-44. ().
- ° BUISMANN, CHRISTINE J., JOHANNA WESTERDIJK AND S. G. A. DOORENBOS. 1932. Wat kunnen de nederlandse boomkweekers doen in verband met de iepenziekte? Tijdschrift over Plantenziekten 35: 37-40. ().
- BURKE, HORACE R., AND DONALD MORGAN ANDERSON. 1976. Systematics of larvae and pupae of American Curculionoidea: status report, historical review and bibliography. Southeastern Entomologist 1: 56-73. (tx ms).
- BURKHART, H. E., H. L. HANEY, JR., J. D. NEWBERRY, W. A. LEUSCHNER, C. L. MORRIS, AND D. D. REED. 1986. Evaluation of thinning for reduction of losses from southern pine beetle attack in loblolly pine stands. Southern Journal of Applied Forestry 10: 105-108. (cn).
- BURKS, BERNARD DEWITT. 1973. North American species of *Calosota* Curtis (Hymenoptera: Encelminidae). Washington Academy of Science, Journal 63: 26-31. (ec).
- BURREN, A. G., L. MAGNANO, A. R. MAGNANO, C. SCALA, AND B. BACCETTI. 1986. Spermatozoa and phylogeny in Curculionoidea superfamily. Pages 69-73 in M. Cresti and R. Dallai (eds.), Biology of reproduction and cell motility in plants and animals. (ay tx).
- °. 1988. Spermatozoa and phylogeny of Curculionoidea (Coleoptera). International Journal of Insect Morphology and Embryology 17: 1-50. (ay tx).
- BUSH, P. B., J. W. TAYLOR, C. K. MCMAHON, AND D. G. NEARY. 1987. Residues of lindane and chlorpyrifos in firewood and woodsmoke. Journal of Entomological Science 22: 131-139. (cn).
- BYCILAWSKA, S. 1983. Występowanie wazniejszych kambio-1 Ksylofagow sosny w drzewostanach uszkodzonych przez Huragany. Sylwan 127: 45-52. (ec).
- BYERS, GEORGE WILLIAM AND JAY B. KARREN. 1968. Catalogue of the types in the Snow Entomological Museum, Part VI (Coleoptera). University of Kansas Science Bulletin 48: 1-20. (tx).
- BYERS, JOHN ALLEN. 1957. Interactions of pheromone component odor plumes of western pine beetle. Journal of Chemical Ecology 13: 2143-2153. (bv).
- °. 1958a. Novel diffusion-dilution method for release of semiochemicals: testing pheromone component ratios on western pine beetle. Journal of Chemical Ecology 14: 199-212. (bv ms).
- °. 1958b. Upwind flight orientation to pheromone in western pine beetle tested with rotating windvane traps. Journal of Chemical Ecology 14: 189-195. (bv).
- °. 1958c. Host tree susceptibility, suitability, and unsuitability recognized by some European bark beetles. International Congress of Entomology, Proceedings 18: 429. (bv).
- °. 1989a. Behavioral mechanisms involved in reducing competition in bark beetles. Holarctic Ecology 12: 446-476. (bv ec).
- °. 1989b. Chemical ecology and bark beetles. Experimentia (Basel) 45: 271-283. (bv ec).
- BYERS, JOHN ALLEN, O. ANDERBRANT AND J. LOFQVIST. 1959. Effective attraction radius: a method for comparing species attractants and determining densities of flying insects. Journal of Chemical Ecology 15: 749-766. (bv ec).
- BYERS, JOHN ALLEN, GORAN BIRGERSSON, J. LOFQVIST, AND GUNNAR BERGSTROM. 1955. Synergistic pheromones and monoterpenes enable aggregation and host recognition by a bark beetle. Naturwissenschaften 75: 153-155. (bv).
- BYERS, JOHN ALLEN, H. E. HOGBERG, C. R. UNELIUS, GORAN BIRGERSSON, AND J. LOFQVIST. 1959. Structure-activity studies on aggregation pheromone components of *Pityogenes chalcographus* (Coleoptera: Scolytidae): all stereoisomers of chalcogran and methyl-2-4-decadienoate. Journal of Chemical Ecology 15: 655-696. (bv).
- BYERS, JOHN ALLEN, B. S. LANNE, AND J. LOFQVIST. 1959. Host tree unsuitability recognized by pine shoot beetles in flight. Experimentia (Basel) 45: 489-492. (bv).
- BYERS, JOHN ALLEN, B. S. LANNE, J. LOFQVIST, F. SCHULTER, AND GUNNAR BERGSTROM. 1955. Olfactory recognition of host-tree susceptibility by pine shoot beetles. Naturwissenschaften 72: 324-326. (bv).
- BYERS, JOHN ALLEN, AND J. LOFQVIST. 1959. Flight initiation and survival in the bark beetle *Ips typographus* (Coleoptera: Scolytidae) during the spring dispersal. Holarctic Ecology 12(4): 432-440. (hb).
- BYKOV, A. A. 1957. Characteristics of the reproduction of bark beetles in pine plantations [In Russian]. Zashchita Rastenii, Moscow 3: 35. (hb).
- BYLER, JAMES W., WAYNE E. BOUSFIELD, AND S. KUHLER. 1986. Montana forest pest conditions and program highlights, 1985. United States Department of Agriculture, Forest Service, Northern Region (Missoula, Montana), Cooperative Forestry and Pest Management Report 86-2, 19 p. (cn).

C

- CAHILL, DONN B. 1967. Bark beetle evaluation, Bighorn National Forest. United States Department of Agriculture, Forest Service, Washington, D.C. [1967?]. 3 p. (cn).
- CALL, RICHARD J. 1959. Case history: Northern Region Forest Service Eastside Zone-Mountain pine beetle considerations. Pages 41-42 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest

- Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 199 p. (cn).
- CALTRELL, R. M. 1969. Annual district report: Grande Prairie-Peace River District, 1968. Pages 55–63 in Annual reports of the Forest Insect and Disease Survey: Alberta-Northwest Territories-Yukon Region, 1968. Canada Department of Fisheries and Forestry, Canadian Forest Service, Forest Research Laboratory (Calgary, Alberta), Information Report A-X-22. (cn).
- _____. 1970. Annual district report: Grande Prairie-Peace River District, 1969. Pages 36–42 in Annual reports of the Forest Insect and Disease Survey: Alberta-Northwest Territories-Yukon Region, 1969. Canada Department of Fisheries and Forestry, Canadian Forestry Service, Forest Research Laboratory (Calgary, Alberta), Information Report A-X-30. (cn).
- CAMBI, G. 1915. Il "punternoio" e il "fleotripide" dell'olivo (*Phloeotribus scarabaeoides* e *Phloeotribus oleae*) nel chianti. *Revista di Agricoltura* 38: 601. (ec).
- CAMERON, DAWN. 1989. Biological evaluation of spruce beetle populations, Curtis Creek Area, Ogden RD, Wasatch-Cache NF, United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report R4-S9-3. 3 p. (cn).
- CAMERON, M., AND A. C. GATTO. 1907. A list of the Coleoptera of the Maltese Islands. *Entomological Society of London, Transactions* 55: 383–403. (ds).
- CAMERON, R. SCOTT. 1987a. Southern pine bark beetles in the urban environment. *Journal of Arboriculture* 13: 145–151. (bv cn).
- _____. 1987b. Southern pine bark beetles in the urban environment. Texas Forest Service, Circular 274. 7 p. (cn).
- CAMERON, R. SCOTT, AND RONALD FORREST BILLINGS. 1988. Southern pine beetle: factors associated with spot occurrence and spread in young plantations. *Southern Journal of Applied Forestry* 12: 208–214. (ec).
- CANE, JAMES H., MOLLY WILDORF STOCK, DAVID LEE WOOD, AND S. J. GAST. 1990. Phylogenetic relationships of *Ips* bark beetles (Coleoptera: Scolytidae): electrophoretic and morphometric analysis of the *grandicollis* group. *Biochemical Systematics and Ecology* 18: 359–368. (ay tx).
- CANE, JAMES H., AND DAVID LEE WOOD. 1988. Phylogenetic divergence of semiochemical communications of *Ips* pine bark beetles (Coleoptera: Scolytidae). *International Congress of Entomology, Proceedings* 18: 409. (bv tx).
- CANNON, WILLIAM N., JR. 1955. Gallery construction and oviposition of *Scolytus multistriatus* (Coleoptera: Scolytidae) in relation to temperature and adult density. *Environmental Entomology* 15: 641–643. (bv ec bb).
- CANNON, WILLIAM N., JR., JACK H. BARGER, AND L. L. GROTH. 1955. Seasonal detection of visible Dutch elm disease symptoms. *Journal of Arboriculture* 11: 233–235. (cn).
- CANNON, WILLIAM N., JR., JACK H. BARGER, AND DAVID P. WORLEY. 1950. Dutch elm disease control: performance and cost. United States Department of Agriculture, Forest Service, Northeastern Forest Experiment Station, Research Paper NE-457. 8 p. (cn).
- _____. 1952. Dutch elm disease control: economics of girdling diseased elms to improve sanitation performance. *Journal of Arboriculture* 8: 129–135. (ec).
- CAPEK, MIROSLAV. 1957. Lumcikovite (Hymenoptera: Braconidae) ako parazitoidy podkornych a drevo-kaznych skodeov duba - vektorov tracheomykoz [The braconids as parasitoids of oak bark-mining and wood-boring insects—carriers of tracheomycoses] [English summary]. *Biologia (Bratislava)* 41: 535–542. (ec).
- *CAPPELLI, M., AND L. MASUTTI. 1965. Note preliminari sul deperimento dell'abete rosso nella stazione di Foresta (Merano). Gruppo giornalistico dell'edagricole Bologna, XVI, 5: 29–49. ().
- CARLE, PIERRE R., AND DANIEL SCHWESTER. 1975. Perspectives d'avenir du pin maritime en provence. *Revue Forestiere Francaise* 27: 339–350. (cn ec).
- _____. 1983. Pyrethroids and integrated pest control against xylophagous forest insects. Pages 113–118 of volume 2 in International conference on integrated plant protection: proceedings, 4–9 July 1983, Budapest. (cn).
- CARPENTER, STEVEN E. 1985. *Ambrodiscus*, a new genus of inoperculate discomycetes from ambrosia beetle galleries. *Mycologia* 80: 320–323. (ec).
- CARPENTER, STEVEN E., MARK E. HARMON, ELAINE R. INGHAM, RICK G. KELSEY, JOHN D. LATTIN, AND TIMOTHY D. SCHOWALTER. 1988. Early patterns of heterotroph activity in conifer logs. *Royal Society of Edinburgh* 94S: 33–43. (ec).
- *CEIANU, I. 1966. Observatii asupra formarii entomofaunei in culturile forestiere noi din zona de Cimpie. Pages 267–287 in *Ministerul Invatamintului, Cercetari de Ecologie Animala*. ().
- CEREZKE, HERBERT F. 1989. Mountain pine beetle aggregation semiochemical use in Alberta and Saskatchewan, 1983–1987. Pages 108–113 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (bv cn).
- CEREZKE, HERBERT F., AND F. J. EMOND. 1989. Forest insect and disease conditions in Alberta, Saskatchewan, Manitoba, and the Northwest Territories in 1987. Government of Canada, Forestry Service, Northern Forestry Centre, Edmonton, Alberta, Information Report NOR-X-300. 25 p. (cn).
- CHAMPION, GEORGE CHARLES. 1917. *Pediacus depressus* Herbst, a species frequenting pines in the working district [*Hylastes ater*, *Hylastes palliatus*, *Myelophilus piniperda*, *Tomicus laricis*]. *Entomologists' Monthly Magazine* 53: 173–174. (ec).
- CHAN, H. T., U. RAZANI, AND F. E. PUTZ. 1984. A preliminary study on planting of *Rhizophora* species in an avicennia forest at the Matang mangroves. Pages 340–345 in S. Soemodihardjo et al., *Ekosistem Mangrove: seminar proceedings*. Jakarta, Indonesia: Lembaga Ilmu Pengetahuan Indonesia. (cn).
- *CHANDLER, STEWART C. 1913. [*Scolytus rugulosus*]. Missouri State Board of Agriculture, Special Bulletin 57. 53 p. ().
- * _____. 1950. [*Phloeotribus liminaris*, *Scolytus rugulosus*]. Illinois Natural History Survey, Circular 43: 18–19. ().
- CHANDRA, AVINASHI, AND S. I. AHMAD. 1955. Review of current status of taxonomy of the family Scolytidae in India. *Indian Forester* 111: 622–629. (tx).
- CHAPIN, JOAN B., AND A. D. OLIVER. 1986. New records for

- Xylosandrus* and *Xyleborus* species (Coleoptera: Scolytidae). Entomological Society of Washington, Proceedings 55: 650-653. (ds).
- *CHIARABAS, CONSTANTIN. 1980. Etude ecophysologique des Scolytidae parasites des coniferes. I. Les Scolytidae spécifique de *Cedrus atlantica* [Physiological study of scolytid pests of conifers. I. Host-specific Scolytidae of *Cedrus atlantica*]. Recherche Forestieres au Maroc, Annales 20: 205-267. (.)
- _____. 1956. Selection de la plante-hôte par les Scolytidae et mecanismes d'installation des insectes (attraction primaire et attraction secondaire) [Selection of the host-plant by Scolytidae and installation mechanisms (primary and secondary attraction)]. Societe Entomologique de France 91: 137-162. (bv).
- CHAUDHRY, GHULAM ULLAH, M. ISMAIL CHAUDHRY, AND NASRULLAH KHAN MALIK. 1970. Survey of insect fauna of Pakistan. Vol. 2. Biological Science Research Division, Forest Entomology Branch, Pakistan Forest Institute, Peshawar. 205 p. (cn ds).
- CHEN, N. M., AND JOHN HARVEY BORDEN. 1959. Adverse effect of fenoxycarb on reproduction by the California five-spined ips, *Ips paraconfusus* Lanier (Coleoptera: Scolytidae). Canadian Entomologist 121: 1059-1065. (ec hb).
- CHEN, N. M., JOHN HARVEY BORDEN, AND H. D. PIERCE, JR. 1955. Effect of juvenile hormone analog fenoxycarb on pheromone production by *Ips paraconfusus* (Coleoptera: Scolytidae). Journal of Chemical Ecology 14: 1057-1095. (bv).
- CHENG, J. D. 1959. Streamflow changes after clear-cut logging of a pine beetle infested watershed in southern British Columbia, Canada. Water Resources Research 25: 449-456. (cn ec).
- CHENICLET, C., C. BERNARD-DAGAN, AND G. PAULY. 1955. Terpene biosynthesis under pathological conditions. Pages 117-130 in W. J. Mattson, N. Levien, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York. xiv + 416 p. (cn).
- CHENIER, J. V. R., AND B. J. R. PHILLOGENE. 1959a. Evaluation of three trap designs for the capture of conifer-feeding beetles and other forest Coleoptera. Canadian Entomologist 121: 159-167. (cn ms).
- _____. 1959b. Field responses of certain forest Coleoptera to conifer monoterpenes and ethanol. Journal of Chemical Ecology 15: 1729-1745. (bv).
- *CHITTENDEN, FRANK HURLBUT. 1905. [*Scolytus rugulosus*]. United States Department of Agriculture, Yearbook 1905: 346-347, fig. 85. (.)
- CHONG, J. MICHAEL, AND EDUARDO K. MAR. 1959. Enantioselective syntheses of *endo*- and *exo*-brevicomins via alpha-alkoxystannanes. Tetrahedron 45: 7709-7716. (bv ms).
- CHOO, HO YUL, H. K. KAYA, AND P. SHEA. 1959. *Parasitylenchus orthotomici* new species (Tylenchida: Allantonematidae) from *Orthotomicus angulatus* (Coleoptera: Scolytidae) with note on parasitism. Korean Journal of Applied Entomology 25: 1-3. (ec).
- CHOO, HO YUL, H. K. KAYA, P. SHEA, AND E. M. NOFFSINGER. 1957. Ecological study of nematode parasitism in *Ips* beetles from California and Idaho. Journal of Nematology 19: 495-502. (ec).
- CHOO, HO YUL, AND K. S. WOO. 1955. A list of Korean bark and ambrosia beetles, and their host plants. Korean Journal of Plant Protection 24: 163-167. (ds).
- _____. 1959a. Four new species of Scolytidae (Coleoptera) from Korea. Korean Journal of Applied Entomology 25: 57-60. (tx).
- _____. 1959b. Supplementary notes on the bark and ambrosia beetles of Korea. Korean Journal of Applied Entomology 25: 4-9. (ds).
- CHOO, HO YUL, K. S. WOO, AND AKIRA NOBUCHI. 1955a. Classification of Korean bark and ambrosia beetles by their galleries [In Korean, English summary]. Korean Journal of Applied Entomology 27: 131-137. (hb ds).
- _____. 1955b. Key to the subfamilies, tribes and genera of Korean Platypodidae and Scolytidae (Coleoptera) [In Korean, English summary]. Korean Journal of Applied Entomology 27: 135-143. (tx).
- CHOO, HO YUL, K. S. WOO, AND C. D. PARK. 1955. Scolytid beetles, including two unrecorded species attracted to an attractant. Korean Journal of Applied Entomology 27: 190-193. (bv ds).
- *CHORBADZHIVO, P. 1926c. [*Scolytus rugulosus*]. Rapp. Ann. Sta. Agron. Etat Sofia, Sofia 1926: 175-241. (.)
- CHOW, YIEN S., Y. CHEN, R. S. TSAI, AND Y. W. MENG. 1955. Cross attractions of the pine beetle pheromone in Taiwan. Institute of Zoology, Academia Sinica, Bulletin 27(1): 67-72. (bv).
- CHRISTIANSEN, ERIK. 1954. Bartraernes forsvar mot barkbilleangrep [In Norwegian]. Naturen 1954(2): 43-48. (cn ec).
- _____. 1955a. *Ceratocystis polonica* inoculated in Norway spruce: blue-staining in relation to inoculum density, sesimosis and tree growth. European Journal of Forest Pathology 15: 160-167. (cn ec).
- _____. 1955b. *Ips/Ceratocystis*-infection of Norway spruce: what is a deadly dosage? Journal of Applied Entomology 99: 6-11. (bv cn ec).
- _____. 1955. Influence of Norway spruce trees against the Eurasian spruce bark beetle, *Ips typographus*, and its symbiotic fungi. International Congress of Entomology. Proceedings 15: 439. (ec).
- _____. 1959. Bark beetles and air pollution. Meddelelser fra det Norsk Institutt for Skogforskning 42: 101-107. (ec).
- CHRISTIANSEN, ERIK, AND ALF BAKKE. 1955a. The spruce bark beetle of Eurasia. Pages 479-503 in A. A. Berryman, Dynamics of forest insect populations: patterns, causes, implications. Plenum Press, New York. xx + 603 p. (bv cn ec).
- _____. 1955b. Granbarkbiller. Hva nyere forskning har laert oss [The spruce bark beetle *Ips typographus*: a review of our present knowledge] [In Norwegian, English summary]. Norsk Institutt for Skogforskning, Rapport 4. 21 p. (bv cn ec).
- CHRISTIANSEN, ERIK, AND ANDERS ERICSSON. 1956. Starch reserves in *Picea abies* in relation to defense reaction against a bark beetle transmitted blue-stain fungus, *Ceratocystis polonica*. Canadian Journal of Forest Research 16: 78-83. (ec).
- CHRISTIANSEN, ERIK, RICHARD H. WARING, AND ALAN ANDREW BERRYMAN. 1957. Resistance of conifers to bark beetle attack: searching for general relationships. Forest Ecology and Management 22: 98-106. (cn ec).
- CHU, YAU-L AND MEI-LIN HSIAO. 1951. A tentative bibliography of Formosan Coleoptera (1967-1980) [Scolytidae-Platypodidae, p. 86-89]. Pathologist and Entomologist, N. T. U. [Taiwan]. (ds).
- CHURCHER, J. JOSEPH. 1955. Detection of spruce beetle (*Dendroctonus rufipennis*) infestation using aerial photographs. Forestry Abstracts 46: 635. (cn).

- CIBRIAN TOVAR, DAVID, B. II, EBEL, HARRY O. YATES, III, AND J. JULIO MENDEZ MONTIEL. 1956. Insectes de conos y semillas de los coníferas de Mexico [Cone and seed insects of Mexican conifers]. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station (Research Triangle Park, North Carolina), General Technical Report. 110 p. (cn ds hb).
- CIESLA, WILLIAM M. 1985. Pine bark beetles: a new pest management challenge for Chilean foresters. *Journal of Forestry* 56: 27-31. (cn ds).
- CIESLA, WILLIAM M., MARK D. MCGREGOR, AND H. E. MEYER. 1971. Status of bark beetle infestations near Blue Mountain, Missoula District, Lolo National Forest, Montana. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Report 71-6. 4 p. (cn).
- CIESLA, WILLIAM M., AND OSVALDO RAMIREZ GREZ. 1955. *Hylurgus ligniperla* (Fabricius) (Coleoptera: Scolytidae) [In Spanish]. Protección Fitosanitaria Forestal, Corporación Nacional Forestal. Folleto de Divulgación Año 5, Santiago, Chile, No. 15. 7 p. (cn hb).
- CLARKE, L. J., AND G. C. CAREW. 1954b. Forecast of forest insect and disease conditions in Newfoundland and Labrador in 1954. Woody Points. Government of Canada Forestry Service, Newfoundland Forestry Centre, St. Johns, Newfoundland 13(4): 1-4. (cn).
- _____. 1955. Forest insect and disease conditions in Newfoundland and Labrador in 1954. Government of Canada. Canadian Forestry Service, Newfoundland Forestry Centre, St. Johns, Newfoundland, Information Report N-X-229. 31 p. (cn).
- _____. 1956. Forest insect and disease conditions in Newfoundland and Labrador in 1955. Government of Canada. Forestry Service, Newfoundland Forestry Centre, St. Johns, Newfoundland, Information Report N-X-21. 33 p. (cn).
- _____. 1957. Forest insect and disease conditions in Newfoundland and Labrador in 1956. Government of Canada. Forestry Service, Newfoundland Forestry Centre, St. Johns, Newfoundland, Information Report N-X-259. 36 p. (cn).
- _____. 1958. Forest insect and disease conditions in Newfoundland and Labrador in 1957. Government of Canada. Canadian Forestry Service, Newfoundland Forestry Centre, St. Johns, Newfoundland, Information Report N-X-265. 37 p. (cn).
- CLAYDON, N., J. F. GROVE, AND M. POPE. 1955. Elm bark beetle boring and feeding deterrents from *Phomopsis oblonga*. *Phytochemistry* 24: 937-943. (cn ec).
- COBB, FIELDS W., JR. 1955. *Leptographium wageneri*, cause of black-stain root disease: a review of its discovery, occurrence and biology with emphasis on pinyon and ponderosa pine. Pages 41-62 in T. C. Harrington and F. W. Cobb, Jr. (eds.), *Leptographium* root diseases on conifers. American Phytopathological Society Press, St. Paul, Minnesota. (ec).
- COBOS SUAREZ, J. M., AND E. MARTIN BERNAL. 1957. Metodos para la determinación del periodo de vuelo de los coleopteros escolitidos. *Información Técnica Económica Agraria* [Spain] 75: 65-72. (hb).
- COHEN, T., AND J. MATZ. 1957. Method of synthesizing brevicomin and using same in beetle control. U.S. Patent-4695554. 22 September 1957. Official Gazetteer, U.S. Patent Trademark Office 1054(4): 2045. (cn ms).
- COLE, DENNIS M. 1959. Preventive strategies for lodgepole pine/mountain pine beetle problems: opportunities with immature stands. Pages 64-69 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- °COLE, DENNIS M., AND MARK D. MCGREGOR. 1955. Stand culture/bark beetle relationships of immature tree stands in the inland Mountain West. Pages 275-285 in *Future forests of the Mountain West: a stand culture symposium*. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report 243 p. ().
- COLE, WALTER ECKLE, GENE DOYLE AMMAN, AND CHESTER E. JENSEN. 1955. Mountain pine beetle dynamics in lodgepole pine forests. Part III. Sampling and modeling of mountain pine beetle populations. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-155. 46 p. (cn).
- COLE, WALTER ECKLE, AND MARK D. MCGREGOR. 1955. Reducing or preventing mountain pine beetle outbreaks in lodgepole pine stands by selective cutting. Pages 175-186 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings, Canada Department of the Environment, Forestry Service, and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1953. 239 p. (cn).
- COLLING, GENE F. 1955. Stalking a forest killer. United States Department of Agriculture, Forest Service, Intermountain Research Station and Northern Region, Ogden, Utah. Video tape, color, three-quarter or half inch. 19 minutes. (cn).
- °COLLINGE. 1915. [*Hylastes ater*]. *Journal of the Board of Agriculture*, London 22(5): 789-791. ().
- COLLINS, DONALD LEWIS. 1935. Feeding habits of *Scolytus multistriatus* Marsham with reference to Dutch elm disease. *Journal of Economic Entomology* 31: 196-200. (hb).
- °COLPI, C., AND L. MASUTTI. 1954. Reperti sull'entomofauna epigea di popolamenti di *Abies viridis* (Chaix) D. C. nel parco naturale di Paneveggio-Pale di S. Martino (Dolomiti Trentine). *Studi Trentini di Scienze Naturali, Acta Biologica*. Trento 61: 197-237. ().
- COOK, STEPHEN P., AND FRED PAUL HAIN. 1955a. Comparison of loblolly and shortleaf pine bolts as hosts of the southern pine beetle, *Dendroctonus frontalis* Zimmerman (Coleoptera: Scolytidae). *Environmental Entomology* 14: 332-335. (bv hb).
- _____. 1955b. Qualitative examination of the hypersensitive response of loblolly pine, *Pinus taeda* L., inoculated with two fungal associates of the southern pine beetle, *Dendroctonus frontalis* Zimmerman (Coleoptera: Scolytidae). *Environmental Entomology* 14: 396-400. (cn ec).
- _____. 1956. Defensive mechanisms of loblolly pine and shortleaf pine against attack by southern pine beetle, *Dendroctonus frontalis* Zimmerman, and its fungal associate, *Ceratocystis minor* (Hedgecock) Hunt. *Journal of Chemical Ecology* 12: 1397-1406. (ec).
- _____. 1957a. Four parameters of the wound response of loblolly and shortleaf pines to inoculation with the blue-staining fungus associated with the southern pine beetle. *Canadian Journal of Botany* 65: 2403-2409. (ec).

- _____. 1957b. Susceptibility of trees to southern pine beetle, *Dendroctonus frontalis* (Coleoptera: Scolytidae). *Environmental Entomology* 16: 9–14. (ec).
- _____. 1958a. Resistance mechanisms of loblolly and shortleaf pines to southern pine beetle attack. Pages 295–304 in W. J. Mattson, J. Levieux, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York. xiv + 416 p. (ec).
- _____. 1958b. Toxicity of host monoterpenes to *Dendroctonus frontalis* and *Ips typographus* (Coleoptera: Scolytidae). *Journal of Entomological Science* 23: 287–292. (cn).
- _____. 1958c. Wound responses of loblolly and shortleaf pines attacked or reattacked by *Dendroctonus frontalis* Zimmermann (Coleoptera: Scolytidae) or its fungal associate, *Ceratocystis minor* (Hedgecock) Hunt. *Canadian Journal of Forest Research* 18: 33–37. (cn ec).
- _____. 1959. Within-tree population parameters of *Dendroctonus frontalis* (Coleoptera: Scolytidae) in nylon mesh-enclosed *Pinus chinata*. *Environmental Entomology* 18: 1025–1031. (hb).
- COOK, STEPHEN P., FRED PAUL HAIN, AND P. B. NAPPEN. 1956. Seasonality of the hypersensitive response by loblolly and shortleaf pines to inoculation with a fungal associate of the southern pine beetle (Coleoptera: Scolytidae). *Journal of Entomological Science* 21: 283–285. (ec).
- COPP, R., D. BRUSS, T. SCHWARTZ, B. P. MUNDY, AND K. LIPKOWITZ. 1957. Studies on bicyclic ketals: a tandem oxymercuration-solvolmercuration approach to natural products. American Chemical Society, Abstracts of Papers. 193. (ms).
- CORREA LOPEZ, ALFONSO DE JESUS. 1959. Genitales de las especies Mexicanas del genero *Ips* DeGeer (Coleoptera: Scolytidae) como una herramienta en la identificacion. Published thesis, Colegio de Postgraduados, Institucion de Enseñanza e Investigacion en Ciencias Agricolas, Centro de Entomologia y Acarologia, Chapingo, Mexico. 65 p. (ay tx).
- *CORY, EARNEST NEAL. 1923. [*Scolytus rugulosus*]. Maryland State Agricultural Society, Report 6: 160 (1921–1922). ().
- COSTA, TANIA C. S. VILLACORTA, AND A. VILLACORTA. 1959. Modelo acumulativo para *Hypothenemus hampei* (Ferrari, 1867) (Coleoptera: Scolytidae) com base em suas exigencias termicas [A summation model for *Hypothenemus hampei* based on its thermal unit requirements]. *Anais de Sociedade Entologica do Brasil* 18(supplement): 91–99. (ec hb).
- COSTA LIMA ANGELO MOREIRA DA. 1962. Insectos do Brasil. Vol. 12: Hymenopteros, Part 2. Escola Nacional de Agronomia, Serie didatica No. 14, Servico Graficoll. B. G. E., Rio de Janeiro. 393 p., 141 figs. (ec).
- *COTTA. 1919. [*Hylastes ater*]. L'Italia Agricola, Piacenza 5(1–3): 10–16, 70–80. ().
- COUDROY, J. P. 1981a. Caracteristiques comparees des systemes de ponts des trois especes de *Pityokteines* Fuchs (Coleopteres, Scolytides) en Vallee d'Ossau (Pyrenees Atlantiques): *P. curvidens* Gernar, *P. spinidens* Reitter et *P. vorontzovi* Jacobson. Documents d'Ecologie Pyreneenne 2: 45–57. (hb).
- _____. 1981b. Contribution a l'etude ecologique et biocenotique des insectes xylophages du sapin (*Abies alba*) en Vallee d'Ossau, Pyrenees Atlantiques. Documents d'Ecologie Pyreneenne 2: 75–78. ().
- _____. 1952. La biocenose des insectes xylophages du pin a crachets (*Pinus uncinata* Ram) dans la reserve du Neouvielle (H. P.) et le massif du Pic d'Anie (P. A.). *Acta Biologica Montana* 2/3: 77–86. ().
- _____. 1954. Enchaînement biocenotique des insectes xylophages du sapin (*Abies alba* L.) en Vallee d'Ossau: descriptions des deux premiers groupes d'especes. Documents d'Ecologie Pyreneenne 3/4: 97–100. ().
- COULSON, ROBERT N., GENE DOYLE AMMAN, DONALD L. DAHLSTEN, C. J. DEMARS, JR. AND F. M. STEPHEN. 1955. Forest-bark beetle interactions: bark beetle population dynamics. Pages 61–80 in W. E. Waters, R. W. Stark, and D. L. Wood, Integrated pest management in pine-bark beetle ecosystems. John Wiley & Sons, New York. 256 p. (cn ec).
- COULSON, ROBERT N., R. O. FLAMM, PAUL E. PULLEY, THOMAS LEE PAYNE, E. J. RYKIEL, AND T. L. WAGNER. 1956. Response of the southern pine bark beetle guild (Coleoptera: Scolytidae) to host disturbance. *Environmental Entomology* 15: 850–858. (bv).
- COULSON, ROBERT N., R. O. FLAMM, T. L. WAGNER, E. J. RYKIEL, P. S. H. SHARPE, THOMAS LEE PAYNE, AND S. K. LYN. 1955. Population dynamics of initiation and growth of southern pine beetle infestations. Pages 136–153 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report (SO-56. 383 p. (cn hb).
- COULSON, ROBERT N., L. A. GRAHAM, AND C. N. LOVELADY. 1958a. Intelligent geographic information system for predicting the distribution, abundance, and location of southern pine beetle infestations in forest landscapes. Pages 283–294 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn).
- _____. 1958b. Intelligent geographic information system for predicting bark beetle infestations. *International Congress of Entomology, Proceedings* 18: 415. (cn).
- COULSON, ROBERT N., M. C. SAUNDERS, D. K. LOH, E. L. OLIVERIA, D. DRUMMOND, P. J. BARRY, AND K. M. SWAN. 1989. Knowledge system environment for integrated pest management in forest landscapes: the southern pine beetle (Coleoptera: Scolytidae). *Entomological Society of America, Bulletin* 35(2): 26–32. (cn).
- COULSON, ROBERT N., M. C. SAUNDERS, K. D. LOH, E. J. RYKIEL, THOMAS LEE PAYNE, PAUL E. PULLEY, AND L. C. HU. 1955. A decision support system for the southern pine beetle. Pages 35–46 in R. A. Goyer and J. P. Jones, Insects and diseases of southern forests. 34th annual forestry symposium, Division of Continuing Education, Louisiana State University, Baton Rouge, Louisiana. (cn).
- COULSON, ROBERT N., M. C. SAUNDERS, THOMAS LEE PAYNE, R. O. FLAMM, T. L. WAGNER, P. B. HENNIER, AND E. J. RYKIEL. 1955. A conceptual model of the role of lightning in the epidemiology of the southern pine beetle. Pages 136–146 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings, Canada Department of the Environment, Canadian Forestry Service and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada. September 1953. 240 p. (ec).
- COULSON, ROBERT N., AND J. A. WITTER. 1954. Forest ento-

- mology: ecology and management. John Wiley & Sons, New York. x + 669 p. (cn hb).
- COULSON, ROBERT N., et al. 1989. An overview of the TAMBEETLE model of *Dendroctonus frontalis* population dynamics. *Holarctic Ecology* 12: 445–450. (hb cn).
- COVASSI, MARCO. 1983. Sulla presenza dello *Scolytus kirschi* Skal. an *Ulmus carpinifolia* Gled in Toscana (Coleoptera: Scolytidae). Pages 135–136 in *Atti XII Congresso Nazionale Italiano de Entomologia*, Roma, 5–9 Novembre 1980. Volume II. Accademia Nazionale Italiana de Entomologia, Roma. (ds).
- *COVASSI, MARCO, AND L. MASUTTI. 1978. Aperçu sur les principaux problèmes posés par les insectes forestiers en Italie. Estratto da *Annali dell' Istituto sperimentale per la Zoologia Agraria* 6(1978–1979): 27–32. ().
- * _____. 1980. Generalità sull' entomofauna degli olmi, con particolare riguardo ai coleotteri scoltidi vettori della grafiosi. Estratto da *Informatore Fitopatologico* 1(30): 19–26. ().
- CRANSHAW, WHITNEY S., AND DAVID LEATHERMAN. 198.. Ips beetles: characteristics and control. Colorado State University Cooperative Extension Service, Service in Action [Circular] No. 5.555. (cn).
- CRESSAP, VERNON L. M. 1977. Mountain pine beetle: Salida and San Carlos Ranger Districts, Pike and San Isabel National Forests, Colorado. United States Department of Agriculture, Forest Service, Rocky Mountain Region (Lakewood, Colorado), Biological Evaluation R2–77–7. 3 p. (cn).
- CROOKSTON, NICHOLAS LEE II, AND RONALD WILLIAM STARK. 1985. Forest-bark beetle interactions: stand dynamics and prognoses. Pages 81–103 in W. E. Waters, R. W. Stark, and D. L. Wood, *Integrated pest management in pine-bark beetle ecosystems*. John Wiley & Sons, New York. 256 p. (cn ec).
- CROSBY, DAVID, AND DONALD J. CURTIS. 1970. Forest insect and disease conditions in Alaska during 1969. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska. 15 p. (cn).
- CROSS, EARLE ALBRIGHT, AND JOHN CONRAD MOSER. 1975. A new dimorphic species of *Pyemotes* and a key to previously described forms (Acarina: Tarsone-moidea). *Entomological Society of America, Annals* 68: 723–732. (ec).
- CROSS, EARLE ALBRIGHT, JOHN CONRAD MOSER, AND G. RACK. 1951. Some new forms of *Pyemotes* (Acari: Pyemotidae) from forest insects, with remarks on polymorphism. *International Journal of Acarology* 7: 179–196. (ec).
- CROTCH, GEORGE ROBERT 1863. A catalog of British Coleoptera [Scolytidae, p. 18]. Cambridge University Press, [printed by] C. J. Clay. (ds).
- CROWSON, ROY ALBERT 1957. A second Scottish locality for *Scolytus intricatus* Ratzeburg (Col., Scolytidae). *Entomologist's Monthly Magazine* 123: 126. (ds).
- CROWSON, ROY ALBERT, AND F. A. HUNTER 1964. Some Coleoptera associated with old trees in Grimsthorpe Park, Lincs. *Entomologist's Monthly Magazine* 100: 198–200. (ds).
- and M. C. Miller, Potential for biological control of *Dendroctonus* and *Ips* bark beetles. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (cn).
- DALE, JOHN W., AND G. DE NITTO. 1986. Tree mortality associated with a high water table. Oak Knoll Ranger District, Klamath National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report S6–14. (ec).
- DALE, JOHN W., AND J. KLIEJUNAS. 1986. Mountain pine beetle activity in three stands of lodgepole pine near Truckee, California. United States Department of Agriculture, Forest Service, Pacific Southwest Region (San Francisco, California), Forest Pest Management Report S6–9. (cn).
- * DAMIANO. 1963. [*Hylesinus oliviperda* (=toranio)]. *Rivista de Agricoltura Subtropicale e Tropicale*, Firenze 57: 455. ().
- DANKS, HUGH V., AND R. G. FOOTITT. 1989. Insects of the boreal zone of Canada. *Canadian Entomologist* 121: 625–690. (ds).
- * DANTHIONE. 1888. *Byrrhus toranio*. Page 270 in [J. Et. ?] Bernard, *Memoir pour servir a l'Histoire Naturelle de l'olivier*, sec. II: Des insectes qui vivent sur l'olivier. *Memoir pour servir a l'Histoire Naturelle de la Provence* 6: 271–272. ().
- * DAS, A. K., M. K. DEVROY, AND B. MITRA. 1988. Insect borers of mangroves in the Bay Islands. *Andaman Science Association, Journal* 4: 32–38. ().
- DAVID, C. T., D. A. TILLES, AND DAVID LEE WOOD. 1979. Factors associated with tree failure of giant sequoia: entomological aspects. Page 239 in *Proceedings: First conference on scientific research in national parks*. (cn ec).
- DAVIDSON, RALPH HOWARD, AND W. F. LYON. 1957. *Insect pests of farm, garden, and orchard*. Edition 5. J. Riley & Sons, New York. xiii + 640 p. (cn hb).
- DAVIDSON, W. F. 1961. Notes on Cumberland and Westmorland Coleoptera. *Entomologist's Monthly Magazine* 97: 15–21. (ds).
- * DAVIS. 1937. [*Scolytus rugulosus*]. *Indiana Academy of Science, Proceedings* 46: 230–239 (1936). ().
- * _____. 1947. [*Scolytus rugulosus*]. *Indiana Academy of Science, Proceedings* 56: 150. ().
- DAVIS, MERRILL S., AND W. B. WHITE. 1959. A tool for assessing the impact of mountain pine beetle and related management strategies. Pages 37–40 in G. D. Amman, *Management of lodgepole pine to minimize losses to the mountain pine beetle: symposium proceedings*. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- * DEAN, GEORGE ADAMS. 1918. [*Scolytus rugulosus*]. *Kansas State Horticultural Society, Transactions* 34: 197. ().
- * _____. 1922. [*Scolytus rugulosus*]. *Kansas State Horticultural Society, Biennial Report* 36: 181. ().
- * DEAN, GEORGE ADAMS, AND LEONARD MARION PEARS. 1913. [*Phloeotribus lininaris*]. *Kansas Agric. Educ.* 1: 2, 76. ().
- DEANGELIS, J. D., JOHN DEAVOURS HODGES, AND T. EVAN NEBECKER. 1986. Phenolic metabolites of *Ceratocystis minor* from laboratory cultures and their effects on transpiration in loblolly pine seedlings. *Canadian Journal of Botany* 64: 151–155. (ec).
- DEANGELIS, J. D., T. EVAN NEBECKER, AND JOHN DEAVOURS

D

DAHLSTEN, DONALD L., AND M. C. WHITMORE. 1959. Potential for biological control of *Dendroctonus* and *Ips* bark beetles: the case for and against the biological control of bark beetles. Pages 3–19 in D. L. Kulhavy

- HODGES. 1956. Influence of tree age and growth rate on the radial resin duct system in loblolly pine. *Canadian Journal of Botany* 64: 1046-1049. (bv).
- DEARBORN, R. G., AND D. A. STARK. 1956. Forest and shade tree insect and disease conditions for Maine: summary issue for the 1955 season. Maine Department of Conservation, Forest Service, Entomology Laboratory Report (Augusta, Maine) 55-18. 16 p. (cn).
- DEBARR, G. L., AND L. R. BARBER. 1955. Use of prescribed burning to control the white pine cone beetle, *Conophthorus coniperda* (Schwarz) (Coleoptera: Scolytidae) in an eastern white pine seed orchard. International Congress of Entomology, Proceedings 15: 439. (cn).
- DECAZY, B., AND H. OCHOA. 1955. Eficacia de la aplicacion de un insecticida a bajo volumen sobre la broca del cafe *Hypothenemus hampei* Ferr. [Effectiveness of low-volume insecticide application on the coffee berry borer] [English summary]. *Boletin de Promecafe* 40: 6-10. (cn).
- DEDEK, W., AND J. PAPE. 1955. Integrated pest control in forest management: combined use of pheromones and insecticides for attracting and killing the bark beetle *Ips typographus* L. Studies with ^{32}P -labelled methamidophos in the ascending sap of spruce. *Forest Ecology and Management* 26: 47-61. (cn).
- DEDEK, W., J. PAPE, F. GRIMMER, AND H. J. KORNER. 1955. Integrated pest control in forest management: combined use of pheromones and insecticides for attracting and killing the bark beetle *Ips typographus*. II. Effects of methamidophos treatment following bark penetration into the ascending sap of pheromone-baited spruce. *Forest Ecology and Management* 26: 63-76. (cn).
- DEJONG, MART C. M., AND P. GRIPMA. 1956. Competition between larvae of *Ips typographus*. *Entomologia Experimentalis et Applicata* 41: 121-133. (ec hb).
- DEJONG, MART C. M., AND HANNU SAARENMAA. 1955. A mechanistic simulation model for the movement and competition of bark beetle larvae (Coleoptera, Scolytidae). *Ecological Modelling* 27: 109-135. (ec).
- DEJONG, MART C. M., AND M. W. SABELIS. 1955. How bark beetles avoid interference with squatters: an essay for colonization by *Ips typographus*. *Oikos* 51: 88-96. (ec).
- *DELGUERCIO, GIACOMO. 1913. Nuova contribuzione alla conoscenza dei nemici dell'olivo. V. Osservazioni preliminari intorno ai costumi dell'Lesino dell'olivo (*Hylesinus oleiperda*). *Redia* 9: 70-74. ().
- * _____. 1939. [*Hylesinus oleiperda* (=toranio)]. *Redia Firenze* [Florence] 51 [page or volume number? An obvious error in this citation exists; vol. 25 was published in 1939]. ().
- DELL, T. R., JACQUELINE L. ROBERTSON, AND MICHAEL I. HAWERTY. 1953. Estimate of cumulative change of state with the Weibull function. *Entomological Society of America, Bulletin* 29(4): 35-40. (ec).
- DELOBEL, ALEX. 1992. Les cossettes de manioc, un important reservoir d'insectes des denrees stockees en Afrique central. *Revue de Zoologie Africaine* 106: 17-25. (ec ds).
- DEMAKOV, YU. P. 1955. Accuracy requirements in counting pine bark beetles [In Russian, English summary]. *Lesnoe Khozyaistvo* 3: 35-38. (hb).
- DEMARS, CLARENCE JOHN, JR., DONALD L. DAHLSTEN, N. X. SHARPBACK, AND D. L. ROWNEY. 1956. Tree utilization and density of attacking and emerging populations of the western pine beetle (Coleoptera: Scolytidae) and its natural enemies, Bass Lake, California 1970-1971. *Canadian Entomologist* 118: 551-900. (bv ec hb).
- DEMARS, CLARENCE JOHN, JR., GEORGE T. FERRELL, AND W. J. OSTROSINA. 1955. Host-insect/disease interactions in drought-stressed white fir stands at Lake Tahoe, California. Pages 135-146 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv ec).
- DENITTO, GREGG. 1954. Preliminary evaluation of the pest situation at the Zephyr Cove Special Use Area, Lake Tahoe Basin Management Unit, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 54-36. (cn).
- DENITTO, GREGG, AND J. W. DALE. 1952a. An evaluation of insect and disease conditions at recreation areas of the Little Grass Valley Reservoir, La Porte Ranger District, Plumas National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 52-31. (cn).
- _____. 1952b. An evaluation of the Illinois Sale Area, La Porte Ranger District, Plumas National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 52-26. (cn).
- DENITTO, GREGG, AND J. PIERCE. 1951. An evaluation of existing and potential forest disease and insect problems in the Catavee and Kinnikinnick Campgrounds, Pineridge Ranger District, Sierra National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 51-15. (cn).
- _____. 1953. An evaluation of conifer mortality on the San Bernardino National Forest between May 1951 and May 1952. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 53-35. (cn).
- _____. 1955. Biological evaluation of pests at Los Prietos Ranger Station and oak dieback, Santa Barbara Rd., Los Padres National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 55-33. (cn).
- DENITTO, GREGG, AND D. SCHULTZ. 1952a. Evaluation of the level and causes of tree mortality on the Dome Timber Sale, Cannell Meadow Ranger District, Sequoia National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 52-47. (cn).
- _____. 1952b. Evaluation of the Ridge 2 Sale, Tule River District, Sequoia National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 52-41. (cn).
- DENITTO, GREGG, AND J. WENZ. 1953. Biological evaluation of the Crane Valley, Denver Church, and Little Denver Church Campgrounds, Bass Lake Ranger District, Sierra National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 53-15. (cn).

- DESLARZES, K., C. LE NEDIC, AND D. CHERIX. 1957. Efficiency and selectivity of bark beetle *Ips typographus* traps in terms of their color and kind of forest area. *Societe Vaudoise des Sciences Naturelles, Bulletin* 78: 349-362. (cn).
- DEVADAS, V. C., KANDASAMI, N., MURALEEDHARAN, K. V. S. N., RAO, K. G., UDAYBIHANU, AND R. VARATHARAJAN. 1959. Mid-cycle chemical control of *Xyleborus formicatus* Eichhoff (Scolytidae: Coleoptera), the shot-hole borer of tea. *Journal of Plantation Crops* 16(supplement): 179-183. (cn).
- DEVADARIANI, T. G. 1973. Two new species of nematodes from the beetle *Taphrorychus bicolor* Herbst from the eastern Georgian SSR [In Georgian, Russian and English summaries]. *Soobshch. Akad. Nauk Gruz. SSR* 70: 213-216. (ec).
- DEYRUP, MARK A. 1951. Deadwood decomposers. *Natural History* (3): 84-91. (ec ms).
- _____. 1957. *Trischidias exigua* Wood, new to the United States, with notes on the biology of the genus (Coleoptera: Scolytidae). *Coleopterist Bulletin* 41: 339-343. (hb ds).
- _____. 1955. Scolytid diversity: key to biological riddles (Coleoptera: Scolytidae). *International Congress of Entomology, Proceedings* 18: 410. (hb).
- DEYRUP, MARK A., AND THOMAS HARRIS ATKINSON. 1957a. Comparative biology of temperate and subtropical bark and ambrosia beetles (Coleoptera: Scolytidae, Platypodidae) in Indiana and Florida. *Great Lakes Entomologist* 20: 59-66. (bv hb).
- _____. 1957b. New distribution records of Scolytidae from Indiana and Florida. *Great Lakes Entomologist* 20: 67-68. (ds).
- °DICKASON, ELVIS ARNIE, AND RAY THOMAS EVERLY. 1955. [*Hylastinus obscurus*]. *Oregon State Extension Bulletin* 749: 13-14. ().
- DICKENS, JOSEPH CLIFTON, AND THOMAS LEE PAYNE. 1955. Chemical messengers and insect behavior. Pages 201-230 in N. B. Mandova. *Handbook of natural pesticides: methods. Volume 1: Theory, practice and detection.* CRC Press, Boca Raton, Florida. (bv ec).
- DICKENS, JOSEPH CLIFTON, THOMAS LEE PAYNE, LEE C. RYKER, AND JULIUS ALEXANDER RUDINSKY. 1955. Multiple acceptors for pheromonal enantiomers on single olfactory cells in the Douglas-fir beetle, *Dendroctonus pseudotsugae* Hopk. (Coleoptera: Scolytidae). *Journal of Chemical Ecology* 11: 1359-1370. (av bv).
- DIMITRI, L. 1955. Einsatz biotechnischer Verfahren zur Populationsenkung der Borkenkäfer. *Allgemeine Forstzeitschrift* 12: 254-256. (cn).
- DIMITRI, L., E. KONIG, E. NIEMEYER, AND O. VAUPEL. 1956. Der Dreifallenstern: eine möglichkeit zur steigerung der effektivität von Borkenkäferfallen [The "Three-trap star": a possibility of increasing the effectiveness of bark beetle traps]. *Forst- und Holzwirt* 41: 171-173. (cn).
- DIX, MARY ELLEN, AND DAVID LEATHERMAN. 1955. Insect management in windbreaks. *Agriculture, Ecosystems and Environment* 22/23: 513-537. (cn).
- DIX, MARY ELLEN, JUDITH E. PASEK, MARK O. HARRELL, AND FREDERICK P. BANENDALE. 1956. Common insect pests of trees in the Great Plains [Scolytidae, p. 15, 25-26]. *Great Plains Agricultural Council Publication No. 119, and Nebraska Cooperative Extension Service EC 86-154S.* 44 p. (cn hb).
- °DIXON. 1913. [*Scolytus rugulosus*]. *Texas Department of Agriculture Bulletin* 32: 136. ().
- DIXON, E. A., N. IBRAHIM, H. WIESER, H. F. CEREZKE, AND A. WHITEHEAD. 1955a. Interaction of bark beetles with pheromone mimics. *American Chemical Society (Abstracts)* 3(1). (bv).
- _____. 1955b. On the complementarity of electroantennogram signals and tree baiting and trapping catches for a series of bicyclic ketal pheromone analogs. *American Chemical Society (Abstracts)* 3(1). (bv).
- DIXON, E. A., N. IBRAHIM, H. WIESER, D. R. CRUMP, F. X. WEBSTER, AND G. D. PRESTWIGI. 1955. Isolation and identification of the metabolic products from mountain pine beetle exposed to exo-brevicomin, frontalin and analogs of these. *American Chemical Society (Abstracts)* 3(1). (bv).
- DIXON, WAYNE N. 1953. Clonal specificity of *Ips, Pityophthorus* spp. (Coleoptera: Scolytidae) in a slash pine seed orchard. *Florida Entomologist* 66: 514-517. (bv).
- °DOMINIK, J. 1965. Z doswiadczen nad moziliwością zerowania owadów w drewnie cisia (*Taxus baccata* L.) [Experiments on the possibility of insects feeding in the wood of yew]. *Sylvan* 6: 55-60. ().
- DONISTHORPE, HORACE ST JOHN KELLY HERBERT. 1931. An annotated list of the additions to the British coleopterous fauna, made since the publication of the supplementary volume (VI) of Fowler's *Coleoptera of the British Islands.* *Entomologist's Monthly Magazine* 67: 119-126, 164-175. (ds).
- _____. 1932. A second capture of *Aulonium trisulcatum* Geoff. in Windsor forest. *Entomologist's Monthly Magazine* 68: 14. (ec).
- ° _____. 1939. A preliminary list of the Coleoptera of Windsor Forest. *Nathaniel Lloyd & Co., Ltd., Blackfriars.* 124 p. ().
- DOVER, S. 1954. The main insects of pistacio in Israel [In Hebrew]. Pages 11-39 in *Proceedings: Third symposium of pistacio growers in Israel.* Sede Boger, 6 August 1954. Ben-Gurion University of the Negev. The Blaustein International Center for Desert Studies, Israel. (cn).
- DOWDING, P. 1954. The evolution of insect-fungus relationships in the primary invasion of forest timber. In A. D. M. Rayner and D. W. H. Walton. *Invertebrate-microbial interactions.* *British Mycological Symposium* 6. Cambridge University Press. (ec).
- DOZIER, H. L. 1915. An annotated list of Gainesville, Florida, Coleoptera. *Entomological News* 29: 370-374. (ds).
- DRACZYNSKA, B., C. CAGARA, A. SIEWINSKI, A. RYMIKIEWICZ, A. ZABZA, AND A. LEUFYEN. 1955. Biotransformation of pinenes. XVII. Transformation of alpha- and beta-pinenes by means of *Armillariella mellea* (honey fungus), a parasite of woodlands. *Journal of Basin Microbiology* 25: 487-492. (ms).
- DRANE, A. B. 1955. A second Northants. Locality for *Emoporus caucasicus* Lindemann (Col., Scolytidae) and notes on some other beetles. *Entomologist's Monthly Magazine* 121: 107. (ds).
- DROOZ, ARNOLD T. 1955. Insects of eastern forests. *United States Department of Agriculture, Forest Service.* *Miscellaneous Publication* 1426. 608 p. (cn ec hb).
- DUFFY, EVELYN ARTHUR JOSEPH. 1945. The coleopterous fauna of the Hants-Surrey border. *Entomologist's Monthly Magazine* 51: 169-179. (ds).
- DU, J. W. 1957. Chemical communication in the bark beetle [In Chinese. English summary]. *Chinese Journal of Biological Control* 3(2): 91-95. (bv).
- DU MERLE, P. 1955. Studies of forest insect pests in southern

- France. Revue Forestiere Francaise (Nancy) 40: 297-301. (cn).
- DUBBEL, VOLKER. 1955. Untersuchungen zum Einsatz von Lockstoff: Fallen gegen den Gestreiften Nutzholzborkenkafer *Trypodendron lineatum* Oliv. Published dissertation, Forstl. Fak. Univ. Freiburg. (bv).
- DUBBEL, VOLKER, K. KERCK, M. SOHRT AND S. MANGOLD. 1955. Influence of trap color on the efficiency of bark beetle pheromone traps. Journal of Applied Entomology 99: 59-64. (cn).
- DUBBEL, VOLKER, O. VAUPEL AND L. DEMITRI. 1955. Untersuchungen zur Wirksamkeit und Okologischen Vertraglichkeit von Borkenkafer fallen. Holz-Zentralblatt 111: 357-359. (cn).
- DUELLI, P., M. STUDER AND W. NAF. 1956. Der Borkenkaferflug ausserhalb des Waldes [The flight of bark beetles outside forest areas] [English summary]. Journal of Applied Entomology 102: 139-145. (bv cn lb).
- DUNCAN, B. 1957. An illustrated guide to the identification and distribution of the species of *Dendroctonus* Erichson (Coleoptera: Scolytidae) in British Columbia. Entomological Society of British Columbia, Journal 54: 101-112. (ds tx).
- DUNN, J. P., T. W. KIMMERER AND G. L. NORDIN. 1956. Attraction of the twolined chestnut borer, *Agrilus bilineatus* (Weber) (Coleoptera: Buprestidae) and associated borers to volatiles of stressed white oak. Canadian Entomologist 118: 503-509. (bv cn).
- DWINELL, L. D. 1955. Distribution of pine wood nematode in southern pine beetle-killed loblolly pines colonized by pine sawyers. Phytopathology 78: 1555. (cc).
- DYER, E. D. A., AND P. M. HALL. 1953. Effect of high density frontal baiting on attack distribution of *Dendroctonus rufipennis* in spruce plots. Entomological Society of British Columbia, Journal 80: 14-19. (bv).
- ## E
- °EASTHAM. 1915. [*Scolytus rugulosus*]. Entomological Society of British Columbia, Victoria, Proceedings 7: 15-21. ().
- ECKSTEIN, KARL. 1939d. Das Bohrmehl des Waldgartners, *Myelophilus piniperda* L. Arbeiten der physiologische und angewandte entomologie aus Berlin-Dahlem 6: 32-41. (hb).
- EDMONDS, R. L., AND A. EGLITIS. 1959. The role of the Douglas-fir beetle and wood borers in the decomposition of and nutrient release from Douglas-fir logs. Canadian Journal of Forest Research 19: 853-859. (cn).
- °EDSON, LEWIS J. 1967. An annotated and illustrated key to the species of the genus *Scolytus* (Coleoptera, Scolytidae) attacking coniferous trees of the Nearctic region. Unpublished thesis, Humboldt State College, California. ().
- EDWARDS, B. M. 1952. Operational control of the Douglas-fir beetle. Potlatch Corporation, Wood Products, Western Division, Forestry Research Report RR-52-2. 7 p. (cn).
- EGGER, ALFRED. 1974b. Zur Biologie von *Hylastinus fankhouseri* Reitt. Centralblatt fur das Gesamte Forestwesen 91: 65-74. (hb).
- _____. 1957. Pheroprax-Versuche gegen den Buchdrucker (*Ips typographus* L.) 1975-1981 [Pheroprax trials against the spruce bark beetle *Ips typographus* 1975-1981] [English summary]. Centralblatt fur das Gesamte Forestwesen 104: 157-190. (cn).
- °EGGERS, HANS. 1925. Kulturschadliche Borkenkafer des indischen Archipels. Entomologischen Berichten 121-144: 54-55. ().
- EGLITIS, ANDRIS. 1955. Permanent plots for monitoring population trends of the spruce beetle in Glacier Bay National Park. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska, State and Private Forestry, Report R181 (Technical Report R10-85-1). (cn).
- _____. 1956. Spruce beetle in Glacier Bay National Park, 1955 update. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska, State and Private Forestry, Biological Evaluation R10-86-1. 17 p. (cn).
- _____. 1957. Spruce beetle in Glacier Bay National Park, 1956 update. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska, State and Private Forestry, Forest Pest Management Report R10-87-4. 13 p. (cn).
- _____. 1955a. Effects of high water on vegetation during glacial closure of Russell Fjord in 1957. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska, State and Private Forestry, Forest Pest Management Report R10-55-4. 10 p. (cn).
- _____. 1955b. Spruce mortality in Yakutat Forelands, 1957. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska, State and Private Forestry, Biological Evaluation R10-55-2. 9 p. (cn).
- EGLITIS, ANDRIS AND PAUL E. HENNON. 1955. Effects of high water on vegetation during glacial closure of Russell Fjord in 1957. United States Department of Agriculture, Forest Service, Alaska Region (Anchorage, Alaska), Biological Evaluation R10-55-4. 10 p. (cn).
- EIINSTROM, BENGT. 1955. Insektsskador i svenska skogar sedan 1970 [Insect damage in Swedish forests since 1970] [English summary]. Sveriges Skogvardsforbunds Tidskrift 2: 11-18. (cn).
- EIBER, T. 1959. Popular literature on *Ips pini* in Minnesota. Minnesota Department of Natural Resources. (cn ms).
- EIDMANN, HUBERTUS H. 1955a. Silviculture and insect problems. Journal of Applied Entomology 99: 105-112. (cn).
- _____. 1955b. Skogsinsekter-problem och forskning [Forest insect problems and research in Sweden] [English summary]. Sveriges Skogvardsforbunds Tidskrift 2: 3-5. (cn).
- _____. 1955c. Control and monitoring the spruce bark beetle *Ips typographus* in Sweden using pheromones. Pages 205-221 in Biological and biotechnical control of forest pests: symposium proceedings, Tabor. (cn).
- _____. 1955d. Niceni a signalizace kurovce *Ips typographus* ve svedsku s ponioci feromonit. Pages 132-138 in Biological and biotechnical control of forest pests: symposium proceedings, Tabor. (cn).
- _____. 1957a. Der Befall von Scolytiden und Cerambyciden an Stammabschnitten fremlandischer Konifern in Schweden [Infestation of logs of exotic conifers in Sweden by scolytids and cerambycids] [English summary]. Journal of Applied Entomology 103: 275-283. (bv cn).
- _____. 1957b. Attractants and deterrents of natural origin for the suppression of bark beetle attacks. Pages 56-62 in Proceedings: European seminar on wood production and harvesting. Bologna. Vol. 3. (cn).

- EIDMANN, HUBERTUS H., P. BAECKSTROM, S. HARDING, T. NORIN, J. VRKOC, AND J. WESLIEN. 1957. Methylbutanol effectively replaces methylbutenol, a pheromone component of *Ips typographus* (L.) (Coleoptera: Scolytidae). *Journal of Chemical Ecology* 13: 1555-1560. (bv).
- EIDMANN, HUBERTUS H., AND GORAN BIRGERSSON. 1955. Semiochemicals in the East Himalaya spruce bark beetle. *Anzeiger für Schadlingskunde Pflanzen- und Umweltschutz* 61: 147-148. (bv).
- °EIDMANN, HUBERTUS H., AND T. INGESTAD. 1963. Ernährungsstand, Zuwachs und Insektenbefall in einer Kiefernkultur. *Studia forestalia suecica*, Stockholm 12: 1-22. ().
- EIDMANN, HUBERTUS H., AND A. KLINGSTROM. 1976. Skadegore i skogen. Svampar-Insekter-Ryggradsdjur. Lts forlag: Centraltryckeriet AB, Borås. 288 p. (cn hb).
- EIDMANN, HUBERTUS H., J. WESLIEN, S. HARDING, P. BAECKSTROM, T. NORIN, AND J. VRKOC. 1956. A compound replacing a natural pheromone component of the spruce bark beetle. *Naturwissenschaften* 73: 629-630. (bv).
- EIDMANN, HUBERTUS H., N. WIERSMA. 1959. Development and reproduction in the East Himalaya spruce bark beetle. *Journal of Applied Entomology* 107: 411-417. (hb).
- EISENHOUR, D. R. 1959. Untersuchungen zur Entwicklung der ökologischen Stabilität vor Eichenbeständen im nordöstlichen Harzvorland [Investigation towards improving the ecological stability of oak stands in the northeastern foothills of the Harz Mountains] [In German, English summary]. *Beiträge für die forstwirtschaft* 23: 55-62. (cc).
- °ELDRIDGE, R. H. 1953. Introduced pine bark beetles in New South Wales. *Forest Protection Series*, Forestry Commission of New South Wales 5: 1-3. ().
- ELFYNG, B., AND BO LANGSTROM. 1954. Kronskadegorelse och tillvaxreaktion i ett margborreskadat bestånd [Crown damage and growth response in a pine stand attacked by *Tomicus piniperda*]. *Sveriges Skogsvarvsförbunds Tidskrift*, nr. 1. (cn).
- °ELGSTRAND. 1921. [*Hylastes ater*]. Skogen, Stockholm 1921: 225-229. ().
- ELGUETA D., MARIO, AND D. JACKSON S. 1957. Nombre actual de las especies de Curculionidae (Insecta: Coleoptera) tratadas en le obra de Gay. *Revista Chilena de Entomología* 15: 71-78. (tx).
- ELIAS, SCOTT A. 1982d. Holocene insect fossils from two sites at Ennadai Lake, Keewatin, Northwest Territories, Canada. *Quaternary Research* 17: 371-390. (ds).
- _____. 1985. Paleoenvironmental interpretations of Holocene insect fossil assemblages from four high-altitude sites in the Front Range, Colorado, USA. *Revue de Paleobiologie* 5: 31-45. (ds).
- ELIAS, SCOTT A., S. K. SHORT, AND P. V. CLARK. 1956. Paleoenvironmental interpretations of the Late Holocene, Rocky Mountain National Park, Colorado, USA. *Revue de Paleobiologie* 5: 127-142. (ds).
- ELLIOTT, H. J., R. BASHFORD, S. CANDY, AND G. A. KILE. 1955. The role of the ambrosia beetle, *Platypus subgranosus* Schedl, as an indicator of infection of myrtle, *Nothofagus cunninghamii* (Hook.) Gerst., by the pathogenic fungus, *Chalara australis* Walker and Kile, in Tasmanian rainforest. *International Congress of Entomology, Proceedings* 15: 430. (cc).
- ELLIOTT, H. J., G. A. KILE, S. G. CANDY, AND D. A. RATKOWSKY. 1957. The incidence and spatial pattern of *Nothofagus cunninghamii* (Hook.) Gerst. attacked by *Platypus subgranosus* Schedl in Tasmania's cool temperate rainforest. *Australian Journal of Ecology* 12: 125-138. (bv ec).
- ELLIOTT, H. J., G. A. KILE, AND J. L. MADDEN. 1952a. Ambrosia beetle attack on myrtle. Pages 67-73 in *Symposium: Tasmanian rainforests, recent research results, November 1952*. Organized by: Forest Ecology Research Fund. (cn ec).
- ELLIOTT, H. J., AND D. W. DELITTLE. 19... Insect pests of trees and timber in Tasmania. Forestry Commission, Tasmania. (cn hb).
- ELMAGRABY, SALAH E., H. A. DEVINE, S. D. DILLERY, AND J. E. DE STEIGUER. 1957. Optimal partitioning of a seasonal distribution. Pages 476-484 in P. E. Dress and R. C. Field, *Systems analysis in forest resources: symposium proceedings, 1955*, Society of American Foresters, Georgia Center for Continuing Education, Athens, Georgia. 555 p. (cn hb).
- EMOND, F. J. 1969. Annual district report: West-Central District, 1968. Pages 33-34 in *Annual District Reports of the Forest Insect and Disease Survey, Alberta-Northwest Territories-Yukon Region, 1965*. Canada Department of Fisheries and Forestry, Canadian Forestry Service, Forest Research Laboratory, Calgary, Alberta. Information Report A-X-22. (cn).
- ENDRODI SEBO. 1956. The families of Anthribidae, Nemonychidae, Atelabidae, Curculionidae and Scolytidae of the Rhyngophora in the Kiskunsag National Park (Coleoptera). Pages 197-215 in S. Mahunka (ed.), *Natural history of the national parks of Hungary*, vol. 4. The fauna of Kiskunsag National Park, vol. 1. Akademiai Kiado, Budapest, Hungary. 490 p. (ds).
- EQUIHUA MARTINEZ, ARMANDO. 1955. Nuevos registros de localidades y huéspedes de Coleopteros Platypodidae Americanos. *Folia Entomologica Mexicana* 66: 143-144. (ds).
- _____. 1955. Coleopteros Scolytidae atraídos a trampas NTP-50 en el área norte de la Reserva de la Biosfera "sain Ka'an", Quintana Roo, Mexico. *Folia Entomologica Mexicana* 74: 179-180. (cn).
- EQUIHUA MARTINEZ, ARMANDO, AND THOMAS HARRIS ATKINSON. 1956. Annotated checklist of bark and ambrosia beetles (Coleoptera: Scolytidae and Platypodidae) associated with a tropical deciduous forest at Chamela, Jalisco, Mexico. *Florida Entomologist* 69: 619-635. (ds ec hb).
- _____. 1957. Catalogo de Platypodidae (Coleoptera) de Norte y Centroamerica [Catalogue of the Platypodidae (Coleoptera) of North and Central America] [English summary]. *Folia Entomologica Mexicana* 75: 5-31. (ds tx).
- ERICSSON, A., C. HELLOVIST, BO LANGSTROM, S. LARSSON, AND O. TENOW. 1955. Effects on growth of simulated and induced shoot pruning by *Tomicus piniperda* as related to carbohydrate and nitrogen dynamics in Scots pine. *Journal of Applied Ecology* 22: 105-124. (bv).
- ESTRADA VALENCIA, ANTONIO, AND THOMAS HARRIS ATKINSON. 1955. Scolytidae y Platypodidae (Coleoptera) de Escarcega, Campeche, Mexico. *Biogeografía, biología, importancia económica y una lista comentada de especies* [English summary]. *Anales Instituto de Biología UNAM* 55. Series Zoológica 1: 199-220. (cn ds).
- EVANS, DAVID. 1950. Important insects: British Columbia

- coastal forests. Canada Department of Agriculture, Forest Insect Investigations, Division of Entomology, Forest Insect Survey, Annual Report 1949: 107. (cn ds).
- _____. 1955. Annotated checklist of insects associated with Garry oak in British Columbia. Government of Canada, Canadian Forestry Service, Pacific Forestry Centre, Victoria, British Columbia, Information Report BC-X-262. 36 p. (ds).
- EVANS, G. O. 1955. A revision of the British Aceosejinæ (Acarina: Mesostigmata). Zoological Society of London, Proceedings 131: 177-229. (ec).
- EVANS, HUGH F. 1955. Great spruce bark beetle, *Dendroctonus micans*: an exotic pest new to Britain. Antenna 9: 117-121. (cn).
- _____. 1957. Biological control of *Dendroctonus micans* in the USSR. Entopath News 89: 5-7. (ec).
- EVANS, HUGH F., AND C. J. KING. 1959. Biological control of *Dendroctonus micans* (Coleoptera: Scolytidae): British experience of rearing and release of *Rhizophagus grandis* (Coleoptera: Rhizophagidae). Pages 109-125 in D. L. Kullhavy and M. C. Miller, Potential for biological control of *Dendroctonus* and *Ips* bark beetles. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (cn ec).
- EVANS, HUGH F., C. J. KING, AND D. WAINHOUSE. 1955. *Dendroctonus micans* in the United Kingdom. The results of two years experience in survey and control. Pages 20-34 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of European Communities and Université Libre de Bruxelles, Belgium, Proceedings of Seminar, 3-4 October 1954. 141 p. (cn).
- EVEARAERTS, C., J. C. GREGOIRE, AND J. MERLIN. 1955. The toxicity of Norway spruce monoterpenes to two bark beetle species and their associates. Pages 335-344 in W. J. Mattson, J. Levieux, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York. xiv + 416 p. (cn).
- ## F
- *FAGEL, G., AND H. GUILLEAUME. 1935. [*Hylesinus oleiperda* (=toranio)]. Societe Entomologique de Belgique, Bulletin et Annales 75: 335. ().
- *FALL, HENRY CLINTON. 1901. List of the Coleoptera of southern California, with notes on habits and distribution and descriptions of new species. Occasional Papers of the California Academy of Sciences 5: 1-252. ().
- FANG, S. Y., C. S. WANG, AND D. F. CHH. 1954. Trapping experiment with *Ips* pheromone in Funing Natural Conservation Area in Heilongjian Province. Northeastern Forestry Institute (China), Journal 12: 43-47. (cn).
- FANKHAUSER, F., JR. 1894. Oberforster Wilhelm Eichhoff. Schweizerische Zeitschrift für das Forstwesen 1894: 67-69. (ms).
- FARGO, WALTER SCOTT, TERRENCE L. WAGNER, AND ROBERT N. COULSON. 1955. Factors influencing the growth of multiple-tree infestations of *Dendroctonus frontalis*. Researches on Population Ecology 27: 25-35. (cn).
- FAIZINGER, CARL WARREN. 1955a. Attraction of the black turpentine beetle (Coleoptera: Scolytidae) and other forest Coleoptera to turpentine-baited traps. Environmental Entomology 14: 765-775. (cn hb).
- _____. 1955b. Turpentine-baited traps capture black turpentine beetles and other forest Coleoptera but do not prevent attacks on pines. Pages 26-33 in S. J. Branham and R. C. Thatcher, Integrated pest management research: symposium proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station (New Orleans, Louisiana), General Technical Report SO-56. 353 p. (cn).
- FAIZINGER, CARL WARREN, B. D. SIEGFRIED, ROBERT CLEVELAND WILKINSON, AND J. L. NATION. 1957. Trans-verbenol, turpentine, and ethanol as trap baits for the black turpentine beetle, *Dendroctonus terebrans*, and other forest Coleoptera in north Florida. Journal of Entomological Science 22: 201-209. (bv cn).
- FAULDS, W. 1955. Improved techniques for the laboratory rearing of *Thanatus formicarius*. New Zealand Journal of Forest Science 15: 157-190. (cn).
- _____. 1959. *Hylastes ater* (Paykull), black pine bark beetle and *Hylurgus ligniperda* (Fabricius), golden haired bark beetle (Coleoptera: Scolytidae). Pages 271-275 in P. J. Cameron, R. L. Hill, J. Bain, and W. P. Thomas, A review of biological control of invertebrate pests and weeds in New Zealand 1874-1957. Technical Communication (Commonwealth Institute of Biological Control), Wallingford, Oxon, United Kingdom. (cn ec).
- FELDMAN, R. M., T. L. WAGNER, G. L. CURRY, ROBERT N. COULSON, AND PETER J. H. SHARPE. 1955. A methodology for biophysical modeling using TAMBEETLE as an example. Pages 195-201 in S. J. Branham and R. C. Thatcher, Integrated pest management research: symposium proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 353 p. (cn ms).
- *FELT, EPHRAIM PORTER. 1906. [*Hylurgops glabratus* (=rugipennis pinifex)]. New York State Museum, Memoir 5(2): 649, 665-666, fig. 194. ().
- *FERNALD, HENRY TORSEY. 1921. Applied entomology, an introductory textbook of insects in their relations to man. Edition 1. McGraw-Hill, New York. [1926?]. ().
- FERREIRA, GODOFRICO W. S. 1955. Desenvolvimento de *Tomicus minor* (L.) em arvores derrubadas pelo vento e em toros em estaleiro em pinhal bravo (Coleoptera: Scolytidae). Sociedade Portuguesa de Entomologia 1955(suplemento 1): 285-290. (cn).
- FERREIRA, J. M. S., AND J. P. MORIN. 1955. Ocorrência de *Xyleborus ferrugineus* (Fabricius, 1801) e *Xyleborus affinis* (Eichhoff, 1867) (Coleoptera: Scolytidae) sobre coqueiro no estado de Sergipe. Anais da Sociedade Entomologica do Brasil 14: 327-330. (cn hb ds).
- FERREIRA, MARIA CORTINA. 1963. Catalogo dos Coleopteros de Mocambique [Scolytidae, p. 664-674; Platypodiidae, p. 675-679]. Revista de Entomologia de Mocambique 6: 533-1008. (ds).
- _____. 1955a. Impacte dos predadores da classe insecta nos escolidideos do pinheiro bravo. Sociedade Portuguesa de Entomologia, Boletim 4(suplemento 1): 107-114. (ec).
- _____. 1955b. Sobre a presença de *Tomicus minor* (Hartig) em Portugal continental (Coleoptera: Scolytidae). Sociedade Portuguesa de Entomologia, Boletim 4(suplemento 1): 281-283. (ds).
- _____. 1956. Investigação a hilesina do pinheiro [*Tomicus*

- piniperda*). Gazeta das Aldeias 1986(Dezembro): 10-11. (cn hb).
- _____. 1987. Pragas relacionadas com o fogo em resinosas: o gorgulho do pinheiro. Floresta 5(Novembro-Dezembro): 22-23. (cn hb).
- _____. 1985a. Pragas do pinheiro bravo. Tecnologias Agrarias 1(1): 12-13. (cn hb).
- _____. 1985b. Impacto dos incendios nas pragas subcorticais em pinhal. Tecnologias Agrarias 1: 13-14. (cn hb).
- _____. 1989. Contribution to the bioecological study of *Phloeosinus aubei* Perris (Coleoptera, Scolytidae) [In French]. International Congress of Coleopterology, Abstracts 1989: 46. (ay lv ec).
- FERREIRA, MARIA CORINTA AND GODOBICO W. S. FERREIRA. 1985a. Impacto do bostrico e da hilesina em pinheiro bravo, em Portugal Continental (Scolytidae: Coleoptera). Sociedade Portuguesa de Entomologia, Boletim 4(suplemento 1): 91-106 (cn).
- _____. 1985b. Contribuicao para o estudo da hibernacao dos escolitideos do pinheiro bravo em Portugal Continental (Coleoptera). Sociedade Portuguesa de Entomologia, Boletim 4(suplemento 1): 115-122. (cn hb).
- _____. 1985c. Identificacao e bioecologia dos escolitideos associados com o pinheiro bravo em Portugal Continental. Estacao Florestal Nacional, Curso de pragas florestais integrado na Proteccao da Floresta contra pragas. 15 p. (cn).
- _____. 1986a. Importancia da causa das arvores nas biocenoses das essencias florestais. Boletim Agricola, ser. 2, 38: 5-6. (cn).
- _____. 1986b. Pragas do pinheiro bravo em Portugal: escolitideos [Pests of maritime pine in Portugal: scolytids] [English summary]. Boletim Agricola 36(Janeiro-Marco): 1-4. (cn hb).
- _____. 1986c. Ravageurs rapportes avec le feu dans les peuplements de *Pinus pinaster*. Reuniao luso-francesa em Marvao, Secco de Incendios florestais. 5 p. (cn).
- _____. 1986d. Pragas relacionadas com incendios em pinhal bravo. Congresso Florestal Nacional [Portugal], Comunicacoes 1: 169-172. (cn).
- _____. 1986e. Scolytids associated with fires in *Pinus pinaster* forests. OEPP/EEPO Bulletin 16: 507. (cn).
- _____. 1986f. Pragas do pinheiro bravo em Portugal: escolitideos. Buletin Agricola, ser. 2, 36: 1-4. (cn).
- _____. 1987a. Ataques de insectos relacionados com praticas silvcolas: o genero *Hylastes* Erichson. Boletim Agricola, ser. 2, 43: 5-6. (cn).
- _____. 1987b. Escolitideos vectores de fungos em pinhal bravo. Boletim do Instituto dos Productos Florestais, Resinosos 56: 35-36. (cn).
- _____. 1987c. Impacto do fogo nos escolitideos associados com o pinheiro bravo (*Pinus pinaster* Ait.). Floresta 4-5: 12-14. (cn).
- _____. 1988a. Pragas do pinheiro manso. Pages 1-24. pl. I-XI in Encontro sobre pinheiro manso. Alaracer do Sal, 25 e 26 Nov. 1988. Sociedade Portuguesa de Ciencias Florestais. (cn).
- _____. 1988b. Impacto do fogo nos escolitideos associados com o pinheiro bravo. Pages 1-7 in Simposio sobre: a floresta e o ordenamento do espaco de montanha. Vila Real, Maio de 1988. Sociedade Portuguesa de Ciencias Florestais. (cn).
- _____. 1988c. Ataques de insectos relacionados com praticas de silvicultura. Floresta 2: 20-21. (cn).
- _____. 1988d. Desequilibrios causados pelos incendios florestais nas populacoes de insectos. Symposium: Jornadas scientificas sobre incendios florestais, 23 a 25 de Novembro de 1988. Universidade de Coimbra, Coimbra, Portugal. 7 p. (cn).
- _____. 1989a. Investugacao: pragas do sobreiro, *Platypus cylindrus* F. (Coleoptera, Platypodidae). Gazeta das Aldeias 2956(Marco 1989): 29-30. (cn).
- _____. 1989b. *Platypus cylindrus* F. (Coleoptera, Platypodidae), plaga de *Quercus suber* L. [In Spanish, English summary]. Boletin de Sanidad Vegetal, Plagas 15: 301-306. (ay cn ds).
- _____. 1989c. Succession of bark beetles and wood-borers (Coleoptera) infesting *Pinus pinaster* in Portugal. International Congress of Coleopterology, Abstracts 1989: 47. (ec hb).
- _____. 1990a. Pages 30-31, 49-75 in Pragas das resinosas: Guia de Campo. Ministerio da Agricultura, Pescas e Alimentacao, Direccao-Geral de Planeamento & Agricultura, Lisboa. Serie Divulgacao, No. 3. 105 p. (cn hb ds).
- _____. 1990b. Pages 45-53, 63-65 in Pragas dos viveiros florestais, das plantacoes e da regeneracao natural: Guia de Campo. Ministerio da Agricultura, Pescas e Alimentacao, Direccao-Geral de Planeamento & Agricultura, Lisboa, Serie Divulgacao, No. 4. 132 p. (cn hb ds).
- _____. 1991. *Scolytus* spp. Pages 100-113 in Pragas das Folhosas: Guia de Campo. Ministerio da Agricultura, Pescas e Alimentacao, Direccao-Geral de Planeamento & Agricultura, Lisboa. Serie Divulgacao, No. 5. 192 p. (hb ds tv).
- FERRELL, GEORGE THOMAS. 1986a. Fir engraver. United States Department of Agriculture, Forest Service, Insect and Disease Leaflet 13. 8 p. (cn hb ds).
- _____. 1986b. Using indicator plants to assess susceptibility of California red fir and white fir to the fir engraver beetle. United States Department of Agriculture, Forest Service, Pacific Southwest Forest and Range Experiment Station (Berkeley, California), Research Note PSW-385. 5 p. (cn).
- _____. 1988. Wound-induced oleoresins of *Abies concolor*: is it part of host resistance to the fir engraver *Scolytus ventralis*? Pages 305-312 in W. J. Mattson, J. Levieux, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York. xiv + 416 p. (cn).
- FERRELL, GEORGE THOMAS, C. J. DE MARS, JR., C. B. WILLIAMS, JR. AND W. J. OTROSINA. 1988. Fir engraver outbreaks and tree mortality related to forest site and stand characteristics. Northwest Environmental Journal 4: 334-335. (bv cn).
- FERRELL, GEORGE THOMAS, W. J. OTROSINA AND C. J. DE MARS, JR. 1988. White fir characteristics associated with wound response to *Trichosporium symbioticum* fungal symbiont of the fir engraver beetle. Phytopathology 78: 1533. (ec).
- FIEDLER, CARL E. 1989. Utilization opportunities for reducing mountain pine beetle damage in lodgepole pine. Pages 70-74 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- FILIP, G. M., E. CHRISTIANSEN AND C. A. PARKS. 1989. Secondary resin production increases with vigor of *Abies grandis* inoculated with *Trichosporium symbioticum* in northeastern Oregon. United States Department

- of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station, Portland, Oregon, Research Note PNW-459, 10 p. (ec).
- FLAMM, RICHARD O., S. P. COOK, TERENCE L. WAGNER, PAUL E. PULLEY, AND ROBERT N. COULSON. 1957. Reemergence and emergence of *Ips avulsus* and *Ips calligraphus* (Coleoptera: Scolytidae). *Environmental Entomology* 16: 569-576. (ec hb).
- FLAMM, RICHARD O., AND ROBERT N. COULSON. 1958. Traumatized hosts: their influence on the population dynamics of the southern pine bark beetle guild. Pages 345-355 in W. J. Mattson, J. Levieux, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York. xiv + 416 p. (hb).
- FLAMM, RICHARD O., ROBERT N. COULSON, P. BECKLEY, PAUL E. PULLEY, AND TERENCE L. WAGNER. 1959. Maintenance of a phloem-inhabiting guild. *Environmental Entomology* 18: 351-357. (ec).
- FLAMM, RICHARD O., ROBERT N. COULSON, AND THOMAS LEE PAYNE. 1955. The southern pine beetle. Pages 531-553 in A. A. Berryman, Dynamics of forest insect populations: pattern, causes, implications. Plenum Press, New York. xx + 603 p. (bv cn ec).
- FLAMM, RICHARD O., TERENCE L. WAGNER, S. P. COOK, PAUL E. PULLEY, ROBERT N. COULSON, AND T. M. MCARDLE. 1957. Host colonization by cohabiting *Dendroctonus frontalis*, *Ips avulsus*, and *I. calligraphus* (Coleoptera: Scolytidae). *Environmental Entomology* 16: 390-399. (ec).
- FLECHTMANN, CARLOS A. H. 1955. On the biology of *Ameroseius dendrovagus* (Acari, Mesostigmata, Ameroseiidae). *Revista Brasileira de Zoologia* 2: 397-399. (ec).
- FLECHTMANN, CARLOS H. W., AND C. A. H. FLECHTMANN. 1955. A new species of *Ameroseius* (Acari: Mesostigmata, Ameroseiidae) from Brasil. *Revista Brasileira de Zoologia* 2: 393-396. (ec).
- FLORES L., JAIME, AND DONALD EDWARD BRIGIT, JR. 1957. A new species of *Conophthorus* from Mexico: descriptions and biological notes (Coleoptera: Scolytidae). *Coleopterists Bulletin* 41: 181-184. (hb tx).
- *FOLSOM JUSTUS WATSON. 1909b. [*Ilylastinus obscurus*]. Pages 92-96 in *Illinois State Entomologist*, Report 25. ().
- FOLTZ, JOHN L., J. A. CORNEIL AND R. M. REICH. 1955. Procedures for sampling six-spined *Ips* populations in slash pine. Pages 6-12 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn ms).
- FORBES, R. S., G. R. UNDERWOOD, D. C. EIDT, F. G. MUMING, AND W. J. CARROLL. 1955. Pages 9-21 in Atlantic provinces, forest insect survey. Canada Department of Forestry, Forest Entomology and Pathology Branch, Forest Insect and Disease Survey, Annual Report 1955. (cn).
- *FORD, L. B. 1956a. Attack dynamics of the spruce beetle, *Dendroctonus rufipennis* (Kirby), in south-central Alaska. Unpublished dissertation, University of Washington, Seattle. 171 p. ().
- _____. 1956b. Attack dynamics of the spruce bark beetle, *Dendroctonus rufipennis* (Kirby), in south-central Alaska. *Dissertation Abstracts International (Science & Engineering)* 47: 1350. (bv).
- FORNAL, A. B., JASKULSKA, AND A. KOLK. 1956. Evaluation of the effectiveness of catching the lineate bark beetle *Trypodendron lineatum* Ol. in traps with synthetic aggregation pheromone [In Polish]. *Sylvan* 130: 41-52. (bv cn).
- FORSSE, ERIK. 1957. Flight duration of *Ips typographus* L.: insensitivity to nematode infection. *Journal of Applied Entomology* 104: 326-328. (ec hb).
- _____. 1959. Migration in bark beetles with special reference to the spruce bark beetle *Ips typographus*. Published dissertation, Sveriges Lantbruksuniversitet, Uppsala. (hb).
- FORSSE, ERIK, AND CH. SOLBRECK. 1955. Migration in the bark beetle *Ips typographus* L.: duration, timing and height of flight. *Journal of Applied Entomology* 100: 47-57. (hb).
- FORSTER, H. W. 1949. *Ips sexdentatus* Boerner (Col., Scolytidae) in Surrey. *Entomologist's Monthly Magazine* 55: 153. (ds).
- FOSTER, H. R. 1961. Status of insects in the Lake Erie District. Pages 106-123 in Annual district report of the forest biology rangers of Ontario, 1960. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- _____. 1962. Status of insects in the Lake Erie District. Pages 113-134 in Annual district report of the Forest Insect and Disease Survey Ontario, 1961. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- _____. 1963. Status of insects and tree diseases in the northern forest region. Pages E1-S in Annual district reports of the Forest Insect and Disease Survey Ontario, 1962. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- _____. 1964. Status of insects and tree diseases in the northern forest region. Pages E1-9 in Annual district reports of the Forest Insect and Disease Survey Ontario, 1963. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- *FOX, J. W. 1959. The role of vectored fungi in the biology of *Ips* species. Unpublished dissertation, University of California, Berkeley. 107 p. ().
- FOX, J. W., AND DAVID LEE WOOD. 1955. Some roles of associated fungi in the life history of the bark beetle, *Ips paraconfusus* (Coleoptera: Scolytidae). *International Congress of Entomology*, Proceedings 18: 439. (ec hb).
- FOX, J. W., DAVID LEE WOOD, AND JAMES H. CANE. 1955. Incipient premating barriers to reproductive isolation in two sibling *Ips* species (Coleoptera: Scolytidae) from southern California: miscegenation persists. *International Congress of Entomology*, Proceedings 18: 429. (hb).
- FRANCKE, WITTKO. 1955. Identification and synthesis of new pheromones. *Agriculture, Ecosystems and Environment* 21: 21-30. (bv ms).
- FRANCKE, WITTKO, J. BARTELS, H. SCHMUTZENHOFER, U. KOHNLE, AND JEAN PIERRE VITE. 1955. The odor-bouquet of *Ips schmutzenhoferi* Holschuh (Col.: Scol.). *Zeitschrift für Naturforschung, C (Biosciences)* 43: 955-960. (bv).
- FRANCKE, WITTKO, M. L. PAN, J. BARTELS, W. A. KONIG, JEAN PIERRE VITE, S. KRAWIELITZKI, AND U. KOHNLE. 1956. The odour bouquet of three pine engraver beetles (*Ips* spp.). *Journal of Applied Entomology* 101: 453-461. (bv).
- FRANCKE, WITTKO, M. L. PAN, W. A. KOENIG, K. MORI, P.

- PAUPOOMCHAREON, H., HEUER, AND JEAN PIERRE VITE. 1957. Identification of "pityol" and "grandisol" as pheromone components of the bark beetle, *Pityophthorus pityographus*. *Naturwissenschaften* 74: 343-345. (bv).
- FRANSEN, JACOBUS JOHAN. 1933. De kleine iepenspintkever *Scolytus (Eccoptogaster) multistriatus* Mrsh. als verbreider der iepenziekte. *Monistrieke Bestuuder- en Bestrijding van de Iepenziekte*, Mededeeling 13: 35-43. (cn).
- *FRANZ, H. 1974. Die Nordost-Alpen im Spiegel ihrer Landtierwelt, Band IV [Scolytidae, p. 660-680]. Universitätsverlag Wagner, Innsbruck-München. 707 p. ().
- FREDERICKS, S. E., AND M. J. JENKINS. 1955. Douglas-fir beetle (*Dendroctonus pseudotsugae* Hopkins, Coleoptera: Scolytidae) brood production on Douglas-fir defoliated by western spruce budworm (*Choristoneura occidentalis* Freeman, Lepidoptera: Tortricidae) in Logan Canyon, Utah. *Great Basin Naturalist* 45: 348-351. (hb).
- FRENCH, JOHN RICHARD JOSEPH, PETER J. ROBINSON, AND GEORGE MINKO. 1952. Gamma irradiating elm billets reduces their attractiveness to the smaller elm bark beetle, *Scolytus multistriatus* (Marshall). *Zeitschrift für Angewandte Entomologie* 94: 175-179. (cn ec).
- FRENCH, JOHN RICHARD JOSEPH, PETER J. ROBINSON, GEORGE MINKO, AND PETER J. PAHL. 1954. Response of the European elm bark beetle, *Scolytus multistriatus*, to host bacterial isolates. *Journal of Chemical Ecology* 10: 1133-1149. (ec).
- FROST, C. A. 1912. Collecting Coleoptera in a Maine sawmill yard. *Canadian Entomologist* 44: 304-308. (ds).
- FRY, J. M. 1989. Natural enemy databank 1987. A catalog of natural enemies of arthropods derived from records in the CIBC Natural Enemy Databank. CAB International Institute of Biological Control, CAB International, Wallingford, Oxon. 155 p. (ec).
- FU, HUI-EN, BIAO WU, AND XUE-CHENG NING. 1954. A preliminary experiment on attraction with pheromone of bark beetles. *Kunhong Zhishi [Insect Knowledge]* 21: 213-215. (bv).
- FU, W. J., Y. T. QI, H. G. QIU, B. J. SHEN, AND X. D. WU. 1955. Studies on the aggregation pheromone of *Ips subclongatus*. I. Characteristics of aggregation behaviour and the extraction of active materials [In Chinese, English summary]. *Contributions from Shanghai Institute of Entomology* 8: 61-66. (bv).
- FUCHS, ANTON GILBERT. 1906. Nachtrag zur ersten Veröffentlichung über die Borkenkäfer Karntens. *Naturwissenschaftliche Zeitschrift für Land- und Forstwirtschaft* 4: 291-301. (hb).
- *_____. 1931. Die Genera: 1. *Rhabditolainus* Fuchs, 2. *Neodiplogaster* Cobb, 3. *Tylenchodon* Fuchs. *Zentralblatt für das gesamte Forstwesen* 57: 177-194. ().
- FUCHS, M. G., AND JOHN HARVEY BORDEN. 1955. Pre-emergence insecticide applications for control of the mountain pine beetle *Dendroctonus ponderosae* (Coleoptera: Scolytidae). *Entomological Society of British Columbia, Journal* 52: 25-28. (cn).
- FUIHRER, ERWIN. 1985. Air pollution and the incidence of forest insect problems. *Journal of Applied Entomology* 99: 371-377. (ec).
- FULLER, LLOYD R., AND D. W. JOHNSON. 1955. Evaluation of a survey technique to detect mortality caused by root diseases and bark beetles on the San Juan National Forest, 1952. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, Biological Evaluation R2-S5-1. 8 p. (cn).
- *FURNISS, MALCOLM MACFARLANE, AND R. CAMPOS BOLANOS. 1954. Comparative adult anatomy of sympatric populations of *Dendroctonus rhizophagus* Thomas & Bright and *Dendroctonus valens* LeConte in Chihuahua, Mexico. Pages 97-105 in *Proceedings 2nd simposio nacional sobre parasitologia forestal*, 17-20 Febrero 1952, Cuernavaca, Mexico. ().
- FURNISS, MALCOLM MACFARLANE, AND J. B. JOHNSON. 1957. List of Idaho Scolytidae (Coleoptera) and notes on new records. *Great Basin Naturalist* 47: 375-382. (hb ds).
- _____. 1959. Description of the gallery and larva of *Dendroctonus punctatus* LeConte (Coleoptera: Scolytidae). *Canadian Entomologist* 121: 757-762. (hb tx).
- FURNISS, MALCOLM MACFARLANE, H. SOLHEIM, AND E. CHRISTIANSEN. 1955. Mechanism of transmission of the pathogenic blue-stain fungus, *Ophiostoma polonicum*, by *Ips typographus* in Norway spruce. *International Congress of Entomology, Proceedings* 18: 430. (ec).
- FURNISS, MALCOLM MACFARLANE, J. Y. WOO, MARK A. DEYRUP, AND THOMAS HARRIS ATKINSON. 1957. Prothoracic mycangium on pine-infesting *Pityoborus* spp. (Coleoptera: Scolytidae). *Entomological Society of America, Annals* 50: 692-696. (ay ec).
- FURUTA, KIMITO. 1959. A comparison of endemic and epidemic populations of the spruce beetle (*Ips typographus japonicus* Niisima) (Coleoptera: Scolytidae) in wind damaged forest in Hokkaido. *Journal of Applied Entomology* 107: 259-295. (bv ec).
- FURUTA, KIMITO, HIDEKI MORI, YUKIO TERASAKI, AND IKUO TAKAHASHI. 1956. An experiment for the control of *Ips typographus japonicus* Niisima (Coleoptera: Scolytidae) using pheromone traps [In Japanese]. *Japanese Forestry Society* 65(2): 75-77. (lv cn).
- FURUTA, KIMITO, IKUO TAKAHASHI, SYOICHI ANDO, AND MAKOTO INOUE. 1955. Reproduction and mass trapping of *Ips typographus japonicus* Niisima (Coleoptera: Scolytidae) in wind damaged forest in Hokkaido. *Bulletin of the Tokyo University Forests* 74: 39-65. (cn).

G

- GABEEV, V. N., AND E. V. GNAT. 1956. Silvicultural and physiological characteristics of trees damaged by *Dendroctonus* [In Russian, English summary]. *Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR* 3: 24-25. (cn).
- *GADEK, K. 1950. Die Entomofauna der Weisstanne (*Abies alba* Mill.) in den polnischen Mittelgebirge (Gory Swietokrzyskie). *Acta Musei Reginaehradecensis S. A Supplementum*: 35-45. ().
- *_____. 1957. Analiza szkodliwych czynnikow ksztaltujacych stan zagrozenia drzewostanow Babiogorskiego Parku Narodowego [The analysis of harmful factors influencing the degree of danger of tree stands in the Babia Gora National Park]. *Ochrona przyrody* 45: 210-235. ().
- GAFFDIKE, R. 1959. Book review: S. L. Wood and D. E. Bright, Jr., 1957. A catalog of Scolytidae and Platypodidae (Coleoptera), Part 1: Bibliography. *Coleopterists Bulletin* 43: 120. (ds tx ms).

- GAL, T., S. KISS, O. BORSODI AND A. ELEKES. 1955. Integrált vedekezes a betűzész (*Ips typographus* L.) ellen [Integrated protection against the typographer (*Ips typographus* L.)]. *Novenyvedelm* 21: 457-490 (en ec).
- GALVAO, JOSE MARTINS DE MIRA. 1956. Novo processo de luta contra o caruncho da oliveira. Direccao Geral dos Servicos Agricolas, Brigada Tecnica da XIV Regiao-Beja, Folha de Divulgacao No. 48, Serie III, No. 10, 14 p. (en).
- GAMBIEL, HERVE A., REN G. GATES, MARGARET K. CAFFEY, MOQUIN AND TIMOTHY D. PAINE. 1955. Variation in the chemistry of loblolly pine in relation to the infection by the blue-stain fungus. Pages 177-185 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56, 383 p. (en ec).
- GANGLBAUER, LUDWIG. 1882. Beiträge zur Kenntnis der Coleopteren-Fauna des Erzherzogthumes Osterreich. *Wiener Entomologische Zeitung* 1: 118-120. (ds).
- GARA, ROBERT IRE. 1955. Interactions between fires, fungi, mountain pine beetles, and lodgepole pine in south-central Oregon. *Northwest Environmental Journal* 4: 355-358. (ec).
- GARA, ROBERT IRE, J. K. AGEE, W. R. LITTKE, AND D. R. GEISLER. 1956. Fire wounds and beetle scars. *Journal of Forestry* 54: 47-50. (en).
- GARA, ROBERT IRE, W. R. LITTKE, J. K. AGEE, D. R. GEISLER, J. D. STUART AND C. H. DRIVER. 1955. Influence of fires, fungi and mountain pine beetle on development of a lodgepole pine forest in south-central Oregon. Pages 153-162 in D. M. Baumgartner et al., Lodgepole pine: the species and its management. Symposium proceedings. Cooperative Extension, Washington State University, Pullman, Washington. (en).
- GARRWAY, ERIC. 1956. The biology of *Ips calligraphus* and *Ips grandicollis* (Coleoptera: Scolytidae) in Jamaica. *Canadian Entomologist* 118: 113-121. (hb ds).
- *GASPAR, C., AND C. VERSTRAETEN. 1972. Recherches sur l'ecosysteme foret. Serie C: Le chenae a Galeobdolon et a Ovalis de Mesnil-Eglise (Ferage). Contribution 26. Biocenose des coleopteres. Bulletin Societe Royale Scientifique Liege 41: 227-249. ().
- GAST, SANDRA J., MALCOLM MAC FARLANE FURNISS, JAMES B. JOHNSON, AND MICHAEL A. IVIE. 1959. List of Montana Scolytidae (Coleoptera) and notes on new records. *Great Basin Naturalist* 49: 351-356. (ds).
- GAST, SANDRA J., MOLLY WILFORD STOCK AND MALCOLM MAC FARLANE FURNISS. 1955. A demonstration of host attraction in *Ips pini* (Say) (Coleoptera: Scolytidae) in Idaho. International Congress of Entomology, Proceedings 18: 429. (bv).
- *GATES, D. E., AND L. L. PETERS. 1962. Insects in Kansas. Kansas State University Extension Service B-94. ().
- GAUTHREAU, E. J. 1970. Annual district report: MacKenzie District, 1969. Pages 43-52 in Annual district reports of the Forest Insect and Disease Survey: Alberta-Northwest Territories-Yukon Region, 1969. Canada Department of Fisheries and Forestry, Canadian Forestry Service, Forest Research Laboratory, Calgary, Alberta, Information Report A-X-30. (en).
- GAWALIS, V. M., AND B. YU YAKATIS. 1957. Application of reduced doses of attractant for catching bark beetles (*Ips typographus* L.) [In Russian, English summary]. *Khemorestsepsiya Nasekomykh* 9: 115-117. (bv en).
- GEHRKEN, UNN. 1955. Physiology of diapause in the adult bark beetle, *Ips acuminatus* Gyll., studied in relation to cold hardiness. *Journal of Insect Physiology* 31: 909-916. (ay ec hb).
- _____. 1959. Supercooling and thermal hysteresis in the adult bark beetle *Ips acuminatus* Gyll. *Journal of Insect Physiology* 35: 347-352. (ay hb).
- GEISTHARDT, M. 1956. Ergänzende Meldungen zur kaferfauna der kapverdische Inseln (Coleoptera) [Scolytidae, p. 78-79]. *Courier Forschungs-Institut Senckenberg* 91: 69-80. (ds).
- _____. 1955. Tabellarische übersicht zur Verbreitung der Coleoptern aus dem Capverdischen Inseln [Scolytidae, p. 199-200]. *Courier Forschungs-Institut Senckenberg* 105: 193-210. (ds).
- GEMMA, J. N., S. S. WASTL AND G. C. HARTMAN. 1955. Antagonism of entomogenous fungal extract to the Dutch elm disease fungus, *Ceratocystis ulmi*. *New York Entomological Society, Journal* 93: 1109-1112. (ec).
- GENTRY, J. W. 1955. Beetle pest conditions. *Coleopterists Bulletin* 9: 25. (ds).
- GIBB, K. S., AND J. M. FISHER. 1956. Co-ordination of the life-cycle of *Contortylecnus grandicollis* (Nematoda: Allantonematidae) with that of its host *Ips grandicollis* (Scolytidae). *Nematologica* 32: 222-233.
- GIBBS, JOHN N., H. M. HEYBROEK, AND FRANCIS W. HOLMES. 1972. Aggressive strain of *Ceratocystis ulmi* in Britain. *Nature [London]* 236(5342): 121-122. (ec).
- GIBSON, KENNETH E. 1955a. Permanent mountain pine beetle population trend plots: an update 1955. United States Department of Agriculture, Forest Service, Northern Region (Missoula, Montana), Forest Pest Management Report 55-14, 8 p. (hb).
- _____. 1955b. Will trap trees reduce spruce beetle populations? Pages 42-43 in Thirty-sixth annual Western Forest Insect Work Conference: proceedings, 4-7 March 1955. Boulder Colorado, Canada Department of Environment, Canadian Forestry Service, Northern Forest Research Centre, Edmonton, Alberta, 54 p. (en).
- _____. 1955a. Partial cutting of lodgepole pine stands to reduce tree losses to mountain pine beetle. *Northwest Environmental Journal* 4: 337-338. (en).
- _____. 1955b. Permanent mountain pine beetle population trend plots. *Northwest Environmental Journal* 4: 336-337. (en hb).
- _____. 1959a. Mountain pine beetle status—western United States. Pages 4-5 in G. D. Amman, Management of lodgepole pine to minimize losses to the mountain pine beetle: symposium proceedings. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262, 119 p. (en).
- _____. 1959b. Partial cutting (sanitation thinning) to reduce mountain pine beetle-caused mortality. Pages 45-47 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262, 119 p. (en).
- GIBSON, KENNETH E., AND D. D. BENNETT. 1955. Carbaryl prevents attacks on lodgepole pine by the mountain pine beetle. *Journal of Forestry* 83: 109-112. (en).
- GIBSON, KENNETH E., W. E. BOUSFIELD, SANDRA J. GAST AND

- R. D. OAKES. 1985. Status and predicted trend of mountain pine beetle infestations in upper Yak River and Sullivan Creek drainages. Three Rivers and Rexford Ranger Districts. Kootenai National Forest, 1985. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana. Timber, Cooperative Forestry and Pest Management Report. 75 p. (cn).
- GIBSON, KENNETH E., AND D. J. DOOLING. 1985. Status of insects and diseases on USA eastside national forest lands and adjoining state and private lands, 1984. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana. Forest Pest Management Report 55-16. 6 p. (cn).
- GIBSON, KENNETH E., S. K. HAGLE, AND S. KOHLER. 1987. Montana forest pest conditions and program highlights, 1986. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana. Cooperative Forestry and Pest Management Report 57-2. 29 p. (cn).
- GIBSON, KENNETH E., R. L. JAMES, ROBERT LADD LIVINGSTON, ET AL. 1984. Idaho forest pest conditions and program summary, 1983. United States Department of Agriculture, Forest Service, Northern and Intermountain Regions and Idaho Department of Lands, Coeur d'Alene, Idaho, Report 54-I. 40 p. (cn).
- GIBSON, KENNETH E., MARK D. MCGREGOR, AND GENE DOYLE ANMIAN. 1985. Demonstration of the effectiveness of basal area cutting to reduce tree killing by the mountain pine beetle in ponderosa pine on Crow and Northern Cheyenne Indian Reservations, Montana 1984. Establishment Report. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Forest Pest Management Report 55-8. 9 p. (cn).
- GIBSON, KENNETH E., MARK D. MCGREGOR, AND R. D. OAKES. 1985. Mountain pine beetle infestation in ponderosa pine on Crow/ Northern Cheyenne Indian Reservations, Montana, 1984. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Forest Pest Management Report 55-9. 16 p. (cn).
- GIBSON, KENNETH E., AND R. D. OAKES. 1987. Mountain pine beetle status report, Northern Region, 1986. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Forest Pest Management Report 57-7. 57 p. (cn).
- GIL SANCHEZ, LUIS A. 1982. Escolítidos parasitos de coníferas de la provincia de Madrid. Ser. Forestal de Medio Ambiente y contra incendios. Dip. provincial de Madrid. [Internal document] 57 p. (cn).
- _____. 1984. Los Hylesininae Ibericos parasitos de coníferas (Col., Scolytidae). An. INIA, Ser. Forestal 5: 167-199. (cc ds).
- GIL SANCHEZ, LUIS A., AND JUAN A. PJARÉS ALONSO. 1986. Los escolítidos de las coníferas en la península ibérica. Monografías INIA N-53. Madrid. 194 p. (cn).
- GIL SANCHEZ, LUIS A., JUAN A. PJARÉS ALONSO, AND MANUEL G. DE VIEDMA. 1985. Estudios acerca de la atracción primaria en Scolytidae (Coleoptera) parasitos de coníferas. Boletín de la Estación Central de Ecología 14(27): 107-125. (bv cn).
- GILES, D. R. 1986a. Harvesting and processing beetle-killed pine. Pages 15-17 in R. W. Nielson, Harvesting and processing of beetle-killed timber. Proceedings of a symposium. Special publication, Forintek Canada Corp. SP-26. 53 p. (cn).
- _____. 1986b. Salvage and storage of beetle-killed timber. Pages 10-14 in R. W. Nielson, Harvesting and processing of beetle-killed timber. Proceedings of a symposium. Special publication, Forintek Canada Corp. SP-26. 53 p. (cn).
- GILLESPIES, COSTA. 1958. Second contribution to the coleopterous fauna of the Azores. *Bocagiana* 118. 6 p. (ds).
- * GILLETTE, CLARENCE PRESTON, AND G. LIST. 1920. [*Scolytus rugulosus*]. Page 21 in Colorado State Entomologist, Circular 28. 64 p. ().
- GIRLING, M. A., AND J. GREIG. 1955. A first fossil record of *Scolytus scolytus*, elm bark beetle. Its occurrence in elm decline deposits from London, England and the implications for Neolithic elm disease. *Journal of the Archaeological Society* 12: 347-352. (ds).
- * GLADITSCH, SIEGFRIED. 1976. Weitere kalerstoffunde für sudwest-Deutschland mit je einem erstfund für Mitteleuropa und Deutschland. 9. Beitrag zur Faunistik der sudwestdeutschen Coleopteren. *Beitr. naturk. Forsch. SudwDtl.* 35: 149-167. ().
- GLOWACKA, B., M. WAJLAND, AND W. MILCZYŃSKI. 1955. Możliwości przyspieszenia terminu chemicznych zabiegów zabezpieczających nie korowane drewno sosnowe przed cetyncem większym [Possibilities of earlier control treatment for the protection of unbarked Scots pine timber against the large pine-shoot beetle]. *Sylvan* 132: 62-69. (cn).
- GNANAPARAN, R., V. V. SUDHENDRAKUMAR, AND K. S. NAIR. 1985. Protection of cashew wood in storage against wood borers. *Material und Organismen* 20: 65-74. (cn).
- GOBBI, GIOVANNI. 1959. Coleotterofauna xilofaga del pino loricato (*Pinus leucodermis*) sul Massiccio del Pollino (Coleoptera) [The beetle fauna of *Pinus leucodermis* from the massif of Mont Pollino] [English summary]. *Bollettino Associazione Romana di Entomologia* 43: 55-62 (1958). (ds).
- * GOGOLA, E. 1982. Roczna doba tazby jedli z aspektu prevencie proti jedlovym podkornikom (Scolytidae) [Season of silver fir cutting from the aspect of the prevention against silver fir bark beetle]. Pages 25-31 in International Scientific Conference, 7-9 September 1982, VSLD Zvolen. ().
- _____. 1985a. *Platypus oxyurus*, new record (Coleoptera, Platypodidae): a new faunal species in Central Europe and its occurrence in Slovakia. *Biologia (Bratislava)* 40: 149-152. (ds).
- * _____. 1985b. Vyvoj kornika jedloveho (*Cryphalus piccae* Ratz., Col., Scol.) v laboratornych a prirodnych podmienkach [Development of *Cryphalus piccae* under laboratory and natural conditions]. *Acta Facultatis Forestalis, Zvolen* 27: 105-116. ().
- * _____. 1985c. Zintenzivnit ochranu jedle proti podkornikom. *Les* 41: 17-20. ().
- * _____. 1986. Jadrohloh jedlovy (*Platypus oxyurus* Duf.), nový drevokazný škodca jedle na Slovensku [*Platypus oxyurus*, a new ligniperdous pest of fir in Slovakia]. *Lesnícky časopis, Bratislava* 32: 17-24. ().
- GOHEEN, D. J., FIELDS WHITE COBB, JR., DAVID LEE WOOD, AND D. L. ROWNEY. 1985. Visitation frequencies of some insect species on *Ceratocystis wagneri* infected and apparently healthy ponderosa pines. *Canadian Entomologist* 117: 1535-1543. (bv ec).
- GOLDHAMMER, D. S. 1985. Reproduction in the southern pine beetle, *Dendroctonus frontalis* (Coleoptera: Scolytidae): the symbiotic fungi component. *Kansas Entomological Society, Journal* 61: 361. (ec hb).
- GOLDHAMMER, D. S., F. M. STEPHEN, AND TIMOTHY D. PAINE

1959. Average radial growth rate and chlamydospore production of *Ceratocystis minor*, *Ceratocystis minor* var. *barrasii* and SJB 122 in culture. Canadian Journal of Botany 67: 3495–3505. (ec).
- GONZALES, M. D. 1955. Ciclo de vida y hábitos de la broca del fruto del caféto *Hypothenemus hampei* Ferr. 1956. en El Salvador [Life cycle and habits of the coffee berry borer in 1956 in El Salvador] [English summary]. Boletín de Promecafe 40: 11. (hb).
- GOPE, B., AND S. K. ROY. 1956. Shade tree pest survey in the Dooars. Two and a Bud 33(1–2): 26–27. (cn ds).
- GORJACEVA, V. I., AND G. I. ANDREEVA. 1961. Himicheskaya bor'ba s koroedami tipografom dvojnikom na mestah ih zimovka [Chemical control of *Ips typographus* and *I. duplicatus* in their overwintering grounds]. Lesn. Z., Arhangel 4: 162–164. (cn).
- CORSUCH, C. S., AND J. KOVACH. 1956. Ambrosia beetles: problem or symptom? Pages 91–93 in E. I. Zenn, Stone fruit tree decline workshop: proceedings. United States Department of Agriculture, Agricultural Research Service. (cn).
- *GOSSARD, H. A. 1905. [*Scolytus rugulosus*]. Page 51 in Ohio Agricultural Experiment Station, Bulletin 195. ().
- *GOSSARD, H. A., AND WALTON 1922. [*Scolytus rugulosus*]. Ohio Agricultural Experiment Station, Wooster, Bulletin 357: 83–126. ().
- GOULD, F. 1953. Book review: Review of bark beetles in North American conifers. Science 220: 705–709. (ms).
- GOULDING, HEATHER A., D. J. HALL, K. F. RAFFA, AND A. J. MARTIN. 1955. Wisconsin woodlands: identifying and managing pine pests in Wisconsin. Cooperative Extension Service, University of Wisconsin. Madison. (cn ms).
- GOYER, RICHARD ALBRIGHT, G. L. LENHARD, T. EVAN NEBEKER, AND J. J. SCHMITT 1955. Distinguishing immatures of insect associates of southern pine bark beetles. Pages 1–19 in Integrated pest management handbook. United States Department of Agriculture, Forest Service, Cooperative State Research Service, Washington, D.C. Agriculture Handbook 641. (ec).
- GOZIS, MAURICE PERROT DES. 1856. Recherche de l'espece typique de quelques anciens genres. Rectifications synonymiques et notes diverses [cited in Weise, Deutsche Entomologische Zeitschrift 31: 350–352 (1857)]. Montlucon, Impr. Herbin. 36 p. (cn).
- GRAHAM, DAVID A., AND G. MILLER 1959. Canada/ U.S. mountain pine beetle/ lodgepole pine program 1951–1959. Pages 1–3 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- *GRASER, K. 1965. Ein Fund von *Nyctoderus* (= *Trypodendron*) *domesticus* L. (Col.). Entomologische Berichten 1965: 38–39. ().
- GRASSE, P. P. 1949. Traite de Zoologie [Famille des Ipsidae Reitter 1906, pages 955–958; Famille des Chapsuisidae Blandford 1895, page 985; Famille des Platypodidae Chapuis 1865, p. 955]. IX: 771–1077. (tx).
- GRAY, D. R., AND JOHN HARVEY BORDEN. 1955. Ambrosia beetle attack on logs before and after processing through a dryland sorting area. Forestry Chronicle 61: 299–302. (cn).
- _____. 1959. Containment and concentration of mountain pine beetle (Coleoptera: Scolytidae) infestations with semiochemicals validation by sampling of baited and surrounding zones. Journal of Economic Entomology 52: 1399–1405. (bv cn).
- *GREEN, EDWARD ERNEST 1916. [*Phloeotribus puncticollis* (= *setulosus*)]. Pages 605–636 in Third International Congress of Tropical Agriculture: proceedings, London. ().
- GREGOIRE, JEAN CLAUDE 1955a. *Dendroctonus micans* in Belgium: the situation today. Pages 45–62 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of European Communities and Université Libre de Bruxelles, Belgium, Proceedings of seminar, 3–4 October 1954. 141 p. (cn).
- _____. 1955b. Host colonization strategies in *Dendroctonus*: larval gregariousness or mass attack by adults? Pages 147–154 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings. Canada Department of the Environment, Canadian Forest Service and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1953. 240 p. (bv hb).
- _____. 1955. The greater European spruce beetle. Pages 455–478 in A. A. Berryman, Dynamics of forest insect populations: patterns, causes, implications. Plenum Press, New York. xx + 603 p. (bv cn ec hb).
- GREGOIRE, JEAN CLAUDE, M. BAISIER, J. MERLIN, AND Y. NACCACHE. 1959. Interactions between *Rhizophagus grandis* (Coleoptera: Rhizophagidae) and *Dendroctonus micans* (Coleoptera: Scolytidae) in the field and the laboratory: their application for the biological control of *D. micans* in France. Pages 95–105 in D. L. Kulhavy and M. C. Miller, Potential for biological control of *Dendroctonus* and *Ips* bark beetles. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (cn ec).
- GREGOIRE, JEAN CLAUDE, AND J. MERLIN 1955. *Dendroctonus micans*: the evolution of a brood system. Pages 80–86 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of European Communities and Université Libre de Bruxelles, Belgium, Proceedings of seminar, 3–4 October 1954. 141 p. (bv hb).
- GREGOIRE, JEAN CLAUDE, J. MERLIN, R. JAFFUEL, PH. DENIS, P. LAFONT, AND DANIEL SCHIVESTER. 1956. Elevage a petite et moyenne echelle du predateur *Rhizophagus grandis* Gyll. en vue de la lutte biologique contra *Dendroctonus micans* Kug. [Small-scale and medium-scale rearing of the pest *Rhizophagus grandis* Gyll. for biological control of *Dendroctonus micans* Kug.]. Revue Forestiere Francaise (Nancy) 35: 457–464. (cn).
- GREGOIRE, JEAN CLAUDE, J. MERLIN, J. M. PASTEELS, R. JAFFUEL, G. VOULAND, AND DANIEL SCHIVESTER. 1955a. Biocontrol of *Dendroctonus micans* by *Rhizophagus grandis* Gyll. (Col., Rhizophagidae) in the Massif Central (France): a first appraisal of the mass-rearing and release methods. Journal of Applied Entomology 99: 182–190. (cn ec).
- _____. 1955b. Mass-rearings and releases of *Rhizophagus grandis* in Lozere. Pages 122–125 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of European Communities and the University Libre de Bruxelles,

- Bruxelles, Proceedings of seminar, 3-4 October 1954. 141 p. (ec).
- GREGOIRE, JEAN CLAUDE, AND J. M. PASTEELS. 1954. Biological control of bark beetles: (*Dendroctonus micans*). Commission of European Communities and Université Libre de Bruxelles, Belgium, Proceedings of seminar, 3-4 October 1954. 141 p. (bv ec).
- GRIES, GERHARD. 1955. Zur Frage der Dispersion des Buchdruckers (*Ips typographus* L.). Journal of Applied Entomology 99: 12-20. (ay bv hb).
- _____. 1956. Zur Bedeutung des Reifungsfrasses für die Dispersion des Kupferstechers, *Pityogenes chalcographus* L. (Coleoptera: Scolytidae) [On the importance of maturation feeding for the dispersal of the engraver beetle, *Pityogenes chalcographus*] [English summary]. Journal of Applied Entomology 73: 267-279. (ec hb).
- GRIES, GERHARD, A. LEUFVENS, J. P. LAFONTAINE, H. D. PIERCE, JR., JOHN HARVEY BORDEN, D. VANDERWEL, AND A. C. OEIHELNSCHLAGER. 1990. New metabolites of alpha-pinene produced by the mountain pine beetle, *Dendroctonus ponderosae* (Coleoptera: Scolytidae). Insect Biochemistry 20: 365-371. (ay bv).
- GRIES, GERHARD, D. R. MILLER, M. J. SMIRLE, AND J. H. BORDEN. 1955. New semiochemicals in the pine engraver, *Ips pini* (Say) (Coleoptera: Scolytidae). International Congress of Entomology, Proceedings 15: 429. (bv).
- GRIES, GERHARD, R. NOLTE, AND W. SANDERS. 1959. Computer simulated host selection in *Ips typographus*. Entomologia Experimentalis et Applicata 53: 211-217. (cn ec).
- GRIES, GERARD, H. D. PIERCE, JR., B. S. LINDGREN, AND JOHN HARVEY BORDEN. New techniques for capturing and analyzing semiochemicals for scolytid beetles (Coleoptera: Scolytidae). Journal of Economic Entomology 51: 1715-1720. (bv ms).
- GRIJPMAN, PETER. 1955. *Dendroctonus micans* (Kug.) in the Netherlands: the situation today. Pages 35-42 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of European Communities and the Université Libre de Bruxelles, Belgium, Proceedings of seminar, 3-4 October 1954. 141 p. (cn).
- GRIJPMAN, PETER, AND W. SCHURING. 1984a. De ontwikkeling van de bastkevers, *Ips typographus*, *Ips cembrae* en *Pityogenes chalcographus* in niet-marktwaardig dunningshout. Nederlands Bosbouw tijdschrift 56: 159-164. (cn hb).
- _____. 1984b. Vergelijking van twee insecticide-lokstof combinaties op vangstammen voor bestrijding van de letterzetter (*Ips typographus*) [Comparison of two insecticide-pheromone combinations on trap trees for the control of the spruce bark beetle]. Nederlands Bosbouw tijdschrift 56: 295-302. (bv cn).
- GRILLO, H., AND M. ALVAREZ. 1954. Resultados parciales en la determinación de la entomofauna de la empresa de cítricos "Victoria de Giron" [Partial results of the survey of the entomofauna at the citrus enterprise "Victoria de Giron"] [English summary]. Centro Agrícola 11: 123-124. (cn).
- GRISDALE, D. G. 1962. Status of insects and tree diseases in the northern forest region. Pages 304-316 in Annual district reports of the Forest Insect and Disease Survey Ontario, 1962. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- GRITSCH, J. W. 1957. Control of bark beetles using baits. Pflanzenschutz 40: 3-4. (cn).
- °GROHMANN. 1913. [*Hylastes cunicularius*]. Tharandter Forstliches Jahrbuch, Berlin 64(4): 325-361. (.)
- GROOT, PETER DE. 1986. Cone and twig beetles (Coleoptera: Scolytidae) of the genus *Conophthorus*: an annotated bibliography. Canada Department of the Environment, Forestry Service, Forest Pest Management Institute, Information Report FPM-X-76. 36 p. (cn ms).
- GROOTAERT, P., G. HAGHEBAERT, AND M. POLLET. 1957. Some *Madetera* (Diptera: Dolichopodidae) associated with Scolytidae (Coleoptera) from elms. Société Royale Belge d'Entomologie, Bulletin & Annales 123: 350-352. (ec).
- GROSSMAN, JOEL. 1955. ESA '57 IPM highlights, Part 6. The IPM Practitioner 10(11-12): 7-10. (bv).
- GROVE, JOHN F. 1955. Metabolic products of *Phomopsis oblonga*. Part 2, Phomopsolide A and B, tiglic esters of two 6-substituted 5,6-Dihydro-5-hydroxypyran-2-ones. Journal of the Chemical Society, Transactions 4: 865-870. (ms).
- GRUENWALD, M. 1956. Ecological segregation of bark beetles (Coleoptera, Scolytidae) of spruce. Journal of Applied Entomology 101: 176-187. (ec).
- GUANGJING, M. 1959. Air pollution and forest decline in China. Pages 51-54 in J. B. Bucher and I. Bucher-Wallin, Air pollution and forest decline. Fourteenth International Meeting for Specialists in Air Pollution Effects on Forest Ecosystems, Interlaken, Switzerland. 192 p. (ec).
- GUSTEVA, L. A. 1952. The interaction of wood-decomposing insects with microorganisms [In Russian]. Pages 56-67 in A. S. Isaev, Konsortivnye Svyazi Dereva I Dendrofilnykh Nasekomykh. Novosibirsk, USSR [Canada Department of Environment, Translation OOENV TR-2274. 1953]. (cn ec).

H

- HAACK, ROBERT A. 1955. Voltinism and diurnal emergence-flight patterns of *Ips calligraphus* (Coleoptera: Scolytidae) in Florida. Florida Entomologist 68(4): 658-677. (ec hb).
- HAACK, ROBERT A., DANIEL M. BENJAMIN, AND KEVIN D. HAACK. 1953. Buprestidae, Cerambycidae, and Scolytidae associated with successive stages of *Agrilus bilineatus* (Coleoptera: Buprestidae) infestation of oaks in Wisconsin. Great Lakes Entomologist 16(2): 47-55. (ec).
- HAACK, ROBERT A., RONALD FORREST BILLINGS, AND ANDREAS M. RICHTER. 1959. Life history parameters of bark beetles (Coleoptera: Scolytidae) attacking West Indian pine in the Dominican Republic. Florida Entomologist 72: 591-603. (bv ec hb).
- HAACK, ROBERT A., JOHN L. FOLTZ, AND ROBERT CLEVELAND WILKINSON. 1954. Longevity and fecundity of *Ips calligraphus* (Coleoptera: Scolytidae) in relation to slash pine phloem thickness. Entomological Society of America, Annals 77: 657-662. (hb).
- _____. 1955. Effects of temperature and slash pine phloem thickness on *Ips calligraphus* life processes. Pages 102-113 in S. J. Branham and R. C. Thatcher, Integrated pest management research symposium: the proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana. General Technical Report SO-56. 353 p. (ec).

- HAACK, ROBERT A., AND W. J. MATTSO. 1959. They nibbled while the forests burned. *Natural History* (January): 56-57. (ms).
- HAACK, ROBERT A., AND FRANK SLANSKY, JR. 1957. Nutritional ecology of wood-feeding Coleoptera, Lepidoptera, and Hymenoptera. Pages 449-486 in F. Slansky, Jr. and J. G. Rodriguez. *Nutritional ecology of insects, mites, and spiders*. John Wiley, New York. (ay ec).
- HAACK, ROBERT A., AND ROBERT CLEVELAND WILKINSON. 1957. Phoresy by *Dendrochernes pseudoscorpions* on Cerambycidae (Coleoptera) and Aulacidae (Hymenoptera) in Florida. *American Midland Naturalist* 117: 369-373. (ec).
- HAACK, ROBERT A., ROBERT CLEVELAND WILKINSON, JOHN L. FOLTZ. 1957. Plasticity in life-history traits of the bark beetle *Ips calligraphus* as influenced by phloem thickness. *Oecologia* (Berlin) 72: 32-38. (hb).
- HAACK, ROBERT A., ROBERT CLEVELAND WILKINSON, JOHN L. FOLTZ, AND JEFFRY A. CORNELL. 1957. Spatial attack pattern, reproduction, and brood development of *Ips calligraphus* (Coleoptera: Scolytidae) in relation to slash pine phloem thickness: a field study. *Environmental Entomology* 16: 425-436. (bv hb).
- HAANSTAD, J. D., AND D. M. MORRIS. 1955. Microbial symbiotes of the ambrosia beetle *Xyloterinus politus*. *Microbial Ecology* 11: 267-276. (ec).
- HABERMANN, M., AND SCHOPF. 1957. Untersuchungen zu Laborzucht, Jungkaferschupf und Adultfrass von *Scolytus intricatus* (Ratz.) (Col., Scolytidae) [Studies on laboratory rearing, emergence of young adults and feeding by adults of *Scolytus intricatus*] [English summary]. *Journal of Applied Entomology* 104: 519-525. (bv hb).
- _____. 1955. Freilanduntersuchungen zu Flugaktivität, Adultfrass und Bruterfolg von *Scolytus intricatus* (Ratz.) (Col., Scolytidae) [Field studies on the flight activity, adult feeding and brood success of *Scolytus intricatus*] [English summary]. *Journal of Applied Entomology* 106: 252-261. (hb).
- HAESSELBARTH, ERASMUS. 1955. Determination list of entomophagous insects 10. International Union for Biological Sciences, International Organization for Biological Control of Noxious Animals and Plants, West Palaearctic Regional Section, 61 p. (ec).
- HAGLE, SUSAN K., S. TUNNOCK, K. E. GIBSON, AND C. J. GILLIGAN. 1957. Field guide to diseases and insect pests of Idaho and Montana forests. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, State and Private Forestry, 123 p. (cn hb).
- HAIGHT, R. G., J. D. BRODIE, AND W. G. DAHMS. 1955. A dynamic programming algorithm for optimization of lodgepole pine management. *Forest Science* 31: 321-330. (cn).
- HAIN, FRED P., AND A. BEN ALYA. 1955. Interactions of the southern pine beetle with competitor species and meteorological factors. Pages 114-126 in S. J. Branham and R. C. Thatcher. *Symposium proceedings: Integrated pest management research*. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (ec).
- HAIN, FRED P., AND S. P. COOK. 1955a. Host resistance and its utility for controlling southern pine beetle in North Carolina. Pages 77-83 in T. L. Payne and H. Saarenmaa. *Integrated control of scolytid bark beetles*. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn).
- _____. 1955b. Host resistance and its utility for controlling southern pine beetle in North Carolina. *International Congress of Entomology, Proceedings* 15: 413. (cn).
- HAIN, FRED P., S. P. COOK, P. A. MATSON, AND K. C. WILSON. 1955. Factors contributing to southern pine beetle host resistance. Pages 154-160 in S. J. Branham and R. C. Thatcher. *Symposium proceedings: Integrated pest management research*. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (ec).
- HAJEK, ANN E., AND DONALD L. DAHLSTEN. 1955a. Factors influencing the mortality of *Scolytus multistriatus* (Coleoptera: Scolytidae) in elm branches in California. *Canadian Entomologist* 117: 819-828. (bv ec).
- _____. 1955b. Insect and mite associates of *Scolytus multistriatus* (Coleoptera: Scolytidae) in California. *Canadian Entomologist* 117: 409-421. (ec).
- HALL, P. M. 1956. Mountain pine beetle symposium: proceedings, 16-18 April 1955, Smithers, British Columbia. British Columbia Ministry of Forests, Pest Management Report 7. 155 p. (cn ec hb).
- _____. 1959. The use of mountain pine beetle aggregation semio-chemicals in British Columbia. Pages 101-107 in G. D. Amman. *Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle*. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (bv cn).
- HALL, RALPH CORBIN. 1952. Uses of remote sensing in forest pest damage appraisal. Proceedings of a seminar held 5 May 1951, Edmonton, Alberta. Government of Canada, Canadian Forestry Service, Northern Forestry Centre, Edmonton, Alberta, Information Report NOR-X-235. viii + 60 p. (cn).
- HALPERIN, J. 1954. The elm bark beetle [*Scolytus multistriatus*] and its control [In Hebrew]. *Can Vanof* 40: 120-124. (cn).
- _____. 1955. The main insect pests of pistacio in Israel [In Hebrew]. Pages 11-39 in S. Dover. *Third symposium of pistacio growers in Israel: proceedings*, 5 June 1954. Sede Boqer. Ben-Gurion University of the Negev, The Blaustein International Center for Desert Studies, Sede Boqer. (cn ec).
- _____. 1956a. The elm bark beetle *Scolytus kirschi* and its control in Israel. *EPPO Bulletin* 16: 593-595 (cn ec ds).
- _____. 1956b. Braconidae (Hymenoptera) associated with forest and ornamental trees and shrubs in Israel. *Phytoparasitica* 14: 119-135. (ec).
- _____. 1957. Practical application of research results on insect pests of ornamental and forest trees in Israel [Abstract of lecture: Third Israeli Convention of Agricultural Entomology, Bet Dagan, 9 April 1957]. *Phytoparasitica* 15: 151. (cn ec).
- HAMEL, DENNIS R. 1959. Registration status of bark beetle semiochemicals. Pages 118-119 in G. D. Amman. *Management of lodgepole pine to minimize the losses to the mountain pine beetle: symposium proceedings*. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).

- HAMILTON, JOHN 1891. Notes on Coleoptera, No. 7. Canadian Entomologist 23: 60–65. (hb ds).
- HAMILTON, W. DOUGLAS 1967. Extraordinary sex ratios. Science 156: 477–488. (lb).
- _____. 1979. Wingless and fighting males in fig wasps and other insects. Pages 167–220 in M. S. Blum and N. A. Blum. Sexual selection and reproductive competition in insects. Academic Press, New York. 463 p. (hb).
- HAMILTON, W. DOUGLAS, PAWEŁ SVHIRA, AND CARLTON S. KOEHLER 1988. Pine tree deaths by bark beetles. University of California, Cooperative Extension, Division of Agriculture and Natural Resources Leaflet 7069. 2 p. (cn).
- HANISCH, Meg A., H. DANIEL BROWN, AND EDWARD A. BROWN 1983. Dutch elm disease management guide. United States Department of Agriculture, Forest Service, and Extension Service. Bulletin 1. 23 p. (cn).
- HANSEN, E. M., D. J. GOHEEN, P. F. HESSBURG, J. J. WITCOSKY, AND T. D. SCHWALTER 1988. Biology and management of black-stain root disease in Douglas-fir. Pages 63–80 in T. C. Harrington and F. W. Cobb, Jr., Leptographium root diseases in conifers. American Phytopathological Society, St. Paul, Minnesota. vii + 149 p. (ec).
- HANSEN, T. E. 1986. Hibernation physiology of *Polygraphus poligraphus* larvae [In Russian, English summary]. Metsanduslikud uurimused, Estonian SSR 21: 103–113. (ay lb).
- HARD, JOHN S. 1985. Spruce beetles attack slowly growing spruce. Forest Science 31: 839–850. (cn).
- _____. 1987. Vulnerability of white spruce with slowly expanding lower boles on dry cold sites to early seasonal attack by spruce beetles in south-central Alaska. Canadian Journal of Forest Research 17: 428–435. (bv ec).
- _____. 1989. Sequence of trees attacked by spruce beetles in a mature even-aged spruce stand in south-central Alaska. Northwest Science 63: 5–12. (bv ec).
- HARD, JOHN S., AND EDWARD H. HOLSTEN 1985. Managing white and Lutz spruce stands in south-central Alaska for increased resistance to spruce beetle. United States Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station, Portland, Oregon. General Technical Report PNW-188. ii + 21 p. (cn ec).
- ° HARDE, K. W. 1981. Der Kosmos-Kaferfuhrer. Kosmos Verlag, Stuttgart. ().
- ° _____. 1984. A field guide in colour to beetles. Edited and with additional introductory material by P. M. Hammond. Octopus Books, London. 334 p. ().
- HARDING, SUSANNE, E. B. LAPIS, AND BRODER BEJER-PETERSEN 1986. Observations on the activity and development of *Pityogenes chalcographus* L. (Col., Scolytidae) in stands of Norway spruce in Denmark. Journal of Applied Entomology 102: 237–244. (ec).
- HARDING, SUSANNE, AND H. P. RAVN 1985. Seasonal activity of *Ips typographus* L. (Col., Scolytidae) in Denmark. Journal of Applied Entomology 99: 123–131. (hb).
- ° HARRINGTON, THOMAS CHARLES 1980. Release of airborne basiospores from the pouch fungus *Cryptoporus volvatus*. Mycologia 72: 926–936. ().
- HARRINGTON, THOMAS CHARLES, FIELDS WHITE COBB, JR., AND J. LOWNSBERY 1985. Activity of *Hylastes nigrinus* a vector of *Verticicladiella wagneri*, in thinned stands of Douglas-fir. Canadian Journal of Forest Research 15: 519–523. (ec hb).
- HARRINGTON, WILLIAM HAGUE 1894. An entomological trip to Copper Cliff, Ont. Canadian Entomologist 26: 9–16. (ds).
- HARRIS, JOHN W. E. 1960b. The balsam woolly aphid, *Adelges piceae* (Ratz.), in British Columbia. Canada Department of Agriculture, Research Branch. Bi-monthly Progress Report 16(2): 3–4. (cn).
- _____. 1971. Aerial photography (35 mm): aid to forest pest surveys. Canada Department of Fisheries and Environment, Canadian Forestry Service, Bi-monthly Research Notes 27: 20. (cn ms).
- _____. 1972. High-level photography for insect damage surveillance in British Columbia. First Canadian Symposium on Remote Sensing, Ottawa 1971: 145–148. (cn).
- _____. 1974a. ERTS imagery and small-scale photography in modern forest management. British Columbia Lands Service. Survey and Mapping Branch, Victoria. Users Handbook B.C. ERTS-1: 26–27. (cn ms).
- _____. 1974b. Small scale imagery in forest pest surveys in British Columbia. Canadian Surveyor 28: 155–161. (cn ms).
- HARRIS, JOHN W. E., A. F. DAWSON, AND R. G. BROWN 1979. Detection des chablis, foyers potentiels d'infestation des scolytides, au moyen de techniques simples de photographie aeriennne. Canada Department of Fisheries and Forestry, Service des forets, Revue bimensuelle de recherches 35: 9–10. (cn ms).
- HARRIS, S. A. 1985. Beetles blanket woodlands. Louisiana Conservation 37: 28–29. (cn ms).
- HART, DENNIS 1984. Economic analysis of treating a root disease-bark beetle complex, the cause of tree mortality on McCloud Flats, Shasta-Trinity National Forests. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 84–10. (cn).
- HASTINGS, F. L., U. E. BRADY, AND A. S. JONES 1989. Lindane and fenitrothion reduce soil and litter mesofauna on Piedmont and Appalachian sites. Environmental Entomology 18: 245–250. (cn).
- HATCH, MELVILLE HARRISON 1939. List of the Coleoptera taken by Mr. George P. Engelhardt in Alaska in 1938. Brooklyn Entomological Society, Bulletin 34: 45–50. (ds).
- _____. 1941. A second supplement to the indices to the keys to and local lists of Nearctic Coleoptera. New York Entomological Society, Journal 49: 21–42. (tx ms).
- HAVERTY, MICHAEL I., AND PATRICK J. SHEA 1985. Protection of blister rust-resistant western white pine cones from insect damage with permethrin and fenvalerate. Pages 246–250 in Conifer tree seed in the inland Mountain West: symposium proceedings, 5–6 August 1985, Missoula, Montana. Society of American Foresters 55–10. (cn).
- HAVERTY, MICHAEL I., PATRICK J. SHEA, AND RICHARD W. HALL 1985. Effective residual life of carbaryl for protecting ponderosa pine from attack by the western pine beetle (Coleoptera: Scolytidae). Journal of Economic Entomology 78: 197–199. (cn).
- HAVERTY, MICHAEL I., PATRICK J. SHEA, AND LAWRENCE E. STIPE 1988. Protection of disease resistant western white pine seed from insect damage. Western Journal of Applied Forestry 3: 18–20. (cn).
- HAWBOLDT, L. S. 1948. Forest insects of the season. Pages 35–81 in Nova Scotia Department of Lands and Forests, Report. Forest Entomology. (cn).
- HAWKSWORTH, FRANK C. 1985. Insect-dwarf mistletoe asso-

- ciations. Pages 49–50 in Thirty-sixth annual Western Forest Insect Work Conference: proceedings, Boulder, Colorado, 4–7 March 1955. Canada Department of Environment, Canadian Forestry Service, Northern Forest Research Centre, Edmonton, Alberta. 54 p. (bv cn).
- *HAY, AND WOOTEN. 1955. [*Scolytus rugulosus*]. United States Department of Agriculture, Forest Service, Central States Forest Experiment Station, Technical Paper 14S: 6–9, 11–12. (.)
- HAYES, A. J., AND D. R. PARIHAR. 1957. Some observations on the breeding biology of *Scolytus scolytus* (Coleoptera: Scolytidae), a vector of Dutch elm disease in Scotland. *Arboricultural Journal* 11: 333–344. (hb).
- HE, L. F., Y. P. LI, AND W. J. FU. 1955. Method for sexing live beetles of *Ips subelongatus* (Coleoptera: Scolytidae). Contributions from Shanghai Institute of Entomology 8: 73–76. (ay).
- *HEADLEE, THOMAS J. 1915. [*Scolytus rugulosus*]. Pages 631–695 in New Jersey Agricultural Experiment Station, New Brunswick, Report for 1914. (.)
- HEDDEN, ROY L. 1953. Evaluation of loblolly pine thinning regimes for reduction of losses from southern pine beetle attack. United States Department of Agriculture, Forest Service, Southeastern Forest Experiment Station (Research Triangle Park, North Carolina), General Technical Report SE-24: 371–375. (cn).
- _____. 1955. Simulation of southern pine beetle-associated timber loss using CLEMBEETLE. Pages 288–291 in S. J. Branham and R. C. Thatcher, Integrated pest management research symposium: the proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn).
- HEDDEN, ROY L., AND ROGER P. BELANGER. 1955. Predicting susceptibility to southern pine beetle attack in Coastal Plain, Piedmont and Southern Appalachians. Pages 232–238 in S. J. Branham and R. C. Thatcher, Integrated pest management research: symposium proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 353 p. (ec).
- HEDDEN, ROY L., AND P. L. LORIO, JR. 1955. Rating stand susceptibility to southern pine beetle attack on national forests in the Gulf Coastal Plain. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, Research Paper SO-221. 5 p. (cn).
- HEDDEN, ROY L., AND T. EVAN NEBEKER. 1954. Integrated forest pest management in pine stands (0–5 years): insects. Pages 39–53 in S. J. Branham and G. D. Hertel, Integrated forest pest management: symposium proceedings, Athens, Georgia. [Publisher?]. (cn).
- HELIOVAARA, KARI, AND ARJA LILJA. 1959. Sinistajasienet ja kaarnakuoriaiset Pohjois-Euroopassa [Blue stain fungi and the bark beetles in northern Europe] [In Finnish, English summary]. *Luonnon Tutkija* 93: 136–143. (ec).
- HELIOVAARA, KARI, AND K. PUUKKO. 1956. Note on *Ips acuminatus* (Coleoptera) on the south coast of Finland. *Notulae Entomologicae* 66: 179. (ds)
- HELLAND, INGE S., O. ANDERBRANT, AND J. M. HOFF. 1959. Modelling bark beetle flight: a review. *Holarctic Ecology* 12: 427–431. (cn hb).
- HELLQVIST, C. 1954. Produktion av större margborre i tallstubbar [Production of *Tomicus piniperda* in pine stump]. *Sveriges Skogsvårdsförbunds Tidskrift*, nr. 1. (cn hb).
- HELLRIGL, K. 1955. Über Borkenkäfer (Col., Scolytidae) in Zweigen der Zirbe (*Pinus cembra*) in Südtirol [Observations on bark beetles in branches of *Pinus cembra* in south Tyrol]. *Anzeiger für Schadlingskunde Pflanzen- und Umweltschutz* 5S: 108–110. (ec).
- HELLRIGL, K., AND W. SCHWENKE. 1955. Begleitinsekten in Buchdrucker-Pheromonfallen in Südtirol [Accompanying insects in *Ips typographus* pheromone traps in south Tyrol]. *Anzeiger für Schadlingskunde Pflanzen- und Umweltschutz* 5S: 47–50. (ec).
- HENSHAW, SAMUEL. 1855. List of Coleoptera of America, north of Mexico. American Entomological Society, George B. Cresson, Philadelphia. 4 + 161 p. (ds).
- HEQVIST, KARL JOHAN. 1969. Notes on Cerocephalini with descriptions of new genera and species (Hymenoptera: Chalcidoidea, Pteromalidae). *Entomological Society of Washington, Proceedings* 71: 449–467. (ec).
- HERBAUT, C., K. LACHICER-SILLOU, J. Y. LE GALJO, AND M. EL-IDRISSI-EL AAMMARI. 1957. Etude du cycle biologique de *Phloeotribus scarabaeoides* Bernard (Coleoptera, Scolytidae) dans la région de Marrakech [A study of the biological cycle of *Phloeotribus scarabaeoides* in the Marrakesh region] [English summary]. *Bulletin de l'Institut Scientifique, Université Mohammed* 11: 187–192. (hb).
- *HERBERT, FRANK B. 1919. [*Phloeosinus* spp.]. *Journal of Economic Entomology* 12: 337. (.)
- _____. 1920b. [*Phloeosinus cristatus*]. United States Department of Agriculture, Bulletin 535. 22 p. (.)
- HERGER, P. 1955a. Zur Insektenfauna der Umgebung des Brisen-Haldgrates, 1200–2400 m, Kanton Nidwalden. VII, Coleoptera 3: Scolytidae und Curculionidae. *Entomologische Berichte, Luzern* 13: 93–95. (ds).
- _____. 1955b. Zur Insektenfauna der Umgebung der Vogelwarte Sempach, Kanton Luzern. XV, Coleoptera 3: Cerambycidae, Chrysomelidae, Scolytidae und Nachträge. *Entomologische Berichte Luzern* 13: 77–80. (ds).
- _____. 1955c. Zur Insektenfauna von Pilatus-Kulm, 2060 m, Kanton Nidwalden. VIII, Coleoptera 3: Scolytidae und Curculionidae. *Entomologische Berichte Luzern* 13: 91–92. (ds).
- HERITAGE, STEWART S., COLLINS, AND H. F. EVANS. 1959. A survey of damage by *Hyllobius abietis* and *Hylastes* spp. in Britain. Pages 36–42 in R. I. Alfaro and S. C. Glover, Insects affecting reforestation: biology and damage. Government of Canada, Department of Forestry, Pacific Forestry Centre, Victoria, British Columbia. 256 p. (cn).
- HERTEL, GERARD D., SUSAN J. BRANHAM, AND KENNETH M. SWAIN, SR. 1955. Technology transfer in integrated forest pest management in the South. United States Department of Agriculture, Forest Service, Southeastern Forest Experiment Station (Research Triangle Park, North Carolina), General Technical Report SE-34. 77 p. (cn).
- HESJEDAL, K., AND T. EDLAND. 1958. Angrep av lauvtrebarkbille i frukthagen [Attack of the deciduous tree bark beetle in fruit orchards] [In Norwegian, English summary]. *Gartneryrket* 7S: 115–117. (cn ec hb).

- HEWITT, C. G. 1915. Report of the Dominion Entomologist for the year ending March 31, 1915. Canada Department of Agriculture, Ottawa, Ontario. (cn).
- *HEYDEN, LUCAS FRIEDRICH JULIUS DOMINICUS VON. 1884. Beitrag zur Coleopterenfauna der Insel Askold und anderer Theile des Amurgebietes. Deutsche Entomologische Zeitschrift 28: 273-300. (.)
- HICKS, ROY R., JR., JACK E. COSTER, AND GARLAND N. MASON. 1957. Forest insect hazard rating. Journal of Forestry 55: 20-25. (cn).
- HIGHLEY, L., AND T. A. TATTAR. 1955. *Leptographus tercbrautis* and black turpentine beetles associated with blue stain and mortality of black and Scots pines on Cape Cod, Massachusetts. Plant Disease 69: 525-530. (ec).
- _____. 1957. Patterns of bluestain discoloration and associated organisms in Japanese black and Scots pines on Cape Cod, Massachusetts. Arboricultural Journal 11: 105-113. (ec).
- HILBURN, D. J., AND R. D. GORDON. 1959. Coleoptera of Bermuda. Florida Entomologist 72: 673-692. (ds).
- HILL, DENNIS S. 1957. Agricultural insect pests of temperate regions and their control. Cambridge University Press, Cambridge. 659 p. (cn ds hb).
- *HINKLEY, ALDEN DEXTER. 1963. Trophic records of some insects, mites, and ticks in Fiji. Department of Agriculture, Fiji, Bulletin 45. 116 p. (.)
- *HINTON, HOWARD EVEREST. 1951. Biology of insect eggs. Pergamon Press. 1125 p. (.)
- HINTZE-PODUEAL, C., AND A. DRUSCHKE. 1955. Untersuchungen zur Besiedlungsdichte und Parasitierung des kleinen bunten eschenbastkafers *Lepersimus varius* (F.) [Investigations on the population density and parasitic infestation of *Lepersimus varius*] [English summary]. Mitteilungen der Schweizerischen Entomologischen Gesellschaft 61: 241-245. (ec hb).
- HIRSCHMANN, WERNER, AND W. RUHM. 1983. Ein "Haustier" des Buchdruckers? Acarologie 30: 22-23. (ec).
- HO, Y. C., H. K. KAYA, AND P. SHEA. 1959. *Parasytlenchus orthotomici* sp. n. (Tylenchia: Allantonematidae) from *Orthotomicus angulatus* (Coleoptera: Scolytidae), with notes on parasitism. Korean Journal of Applied Entomology 28: 1-3. (ec).
- *HO, Y. C., AND S. W. KUN. 1959. Supplementary notes on the bark and ambrosia beetles of Korea. Korean Journal of Applied Entomology 28: 4-9. (.)
- HOBBS, A. J. 1955. Effects of air-photo scale on early detection of mountain pine beetle infestations. Forestry Abstracts 46: 636-637. (cn).
- HOBSON, K. R., I. KUBO, AND DAVID LEE WOOD. 1955. Host colonization behavior of the red turpentine beetle *Dendroctonus valens*. International Congress of Entomology, Proceedings 15: 439. (bv).
- *HOCHMUT, R. 1952. La proteccion contra las plagas y enfermedades forestales en Cuba. Silvaeicultura Tropica et Subtropica 9: 95-111. (.)
- *HOCHMUT, R., AND V. NOVAK. 1955. Moznosti aktivizace nekterych kalamitnich hnyzich skudcu imisnim zatzenim lesnich porostu. Lesnictvi 34(LX1), (1): 93-96. (.)
- HODGES, GARY V. 1955. The High Country Project. Pages 26-28 in Thirty-sixth annual Western Forest Insect Work Conference: proceedings, 4-7 March 1955, Boulder, Colorado. Canada Department of Environment, Canadian Forestry Service, Northern Forest Research Centre, Edmonton, Alberta. 54 p. (cn).
- HODGES, JOHN DEAVOURS, T. EVAN NEBEKER, C. A. BLANCHE, R. HONEA, T. H. FISHER, AND T. P. SCHULTZ. 1959. Southern pine beetle-microorganisms-host interactions: influence of compounds produced by *Ceratocystis minor*. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-74: 567-572. (ec).
- HODGES, JOHN DEAVOURS, T. EVAN NEBEKER, J. D. DEANGELIS, AND C. A. BLANCHE. 1955. Host/beetle interactions: influence of associated microorganisms, tree disturbance, and host vigor. Pages 161-168 in S. J. Branham and R. C. Thatcher. Integrated pest management research: symposium proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station (New Orleans, Louisiana), General Technical Report SO-56. 383 p. (ec).
- HODGES, JOHN DEAVOURS, T. EVAN NEBEKER, J. D. DEANGELIS, B. L. KARR, AND C. A. BLANCHE. 1955. Host resistance and mortality: a hypothesis based on the southern pine beetle-microorganism-host interactions. Entomological Society of America 31: 31-35. (cn ec).
- HODGKINSON, ROBERT SIDNEY. 1956. Use of trap trees for spruce beetle management in British Columbia, 1979-1984: a review with recommendations. British Columbia Ministry of Forests, Pest Management Report 5. 39 p. (cn).
- HOEBEKE, E. RICHARD. 1959. *Pityogenes bidentatus* (Herbst), a European bark beetle new to North America (Coleoptera: Scolytidae). New York Entomological Society, Journal 97: 305-308. (ds).
- *HOERNER. 1929. [*Phloeotribus liminaris*]. Maryland Agricultural Experiment Station, Bulletin 310: 449-465. (.)
- HOFACKER, THOMAS H., ROBERT C. LOOMIS, AND R. T. GILSTRAP. 1955. Forest insect and disease conditions in the United States, 1957. United States Department of Agriculture, Forest Service, Forest Pest Management, Washington, D.C. 102 p. (cn).
- HOFACKER, THOMAS H., ROBERT C. LOOMIS, AND SUSAN M. TUCKER. 1957. Forest insect and disease conditions in the United States, 1956. United States Department of Agriculture, Forest Service, Forest Pest Management, Washington, D.C. 94 p. (cn).
- HOFACKER, THOMAS H., ROBERT C. LOOMIS, AND A. J. WORRAL. 1959. Forest insect and disease conditions in the United States, 1955. United States Department of Agriculture, Forest Service, Forest Pest Management, Washington, D.C. 102 p. (cn).
- HOFFARD, WILLIAM H. 1955. Southern pine beetle. A would-be manager of southern forests. Pages 32-37 in R. C. Loomis, and Thomas H. Hofacker, What else is growing in our forests? Insect and disease conditions in the United States 1979-1983. United States Department of Agriculture, Forest Service, Forest Pest Management, Washington, D.C., General Technical Report WO-46. 93 p. (cn).
- HOFFMAN, J., A. KEYSOR, A. KNAPP, AND J. WEATHERBY. 1957. Forest insect and disease conditions, Intermountain Region. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report. 22 p. (cn).
- _____. 1958. Forest insect and disease conditions, Intermountain Region, 1957. United States Department of Agriculture, Forest Service, Forest Pest Management, Intermountain Region, Ogden, Utah. 20 p. (cn).
- HOFFMANN, ADOLPHE. 1952a. Repertoire analytique des

- especies animales nuisibles aux cultures en France (Metropole et Departements d'outre-mer) avant present d'interessantes particularites en 1950. *Annales des Epiphyties* 1: 103-109. (cn ds).
- HOGBERG, H. E., E. HEDENSTROM, R. ISAKSSON, AND A. B. WASSGREN. 1957. Preparation of the four stereoisomers of chalcogran, pheromone components of *Pityogenes chalcographus* and of both enantiomers of gamma-caprolactone, pheromone component of *Trogoderma granarium*. *Acta Chemica Scandinavica, B (Organic Chemistry and Biochemistry)* 41: 694-697. (bv ms).
- *HOGUE, C. L., AND S. E. MILLER. 1980. Entomofauna of Cocos Island, Costa Rica (including Arachnida and other terrestrial Arthropoda): first progress report on studies. 37 p. (.)
- HOLMES, FRANCIS WILLIAM. 1956. Recorded Dutch elm disease distribution in North America as of 1955. *Plant Disease Reporter* 40(4): 351-353. (cn).
- _____. 1973. Preliminary research report on chemical treatments for Dutch elm disease. University of Massachusetts, Shade Tree Laboratories. Photocopied report dated 10 August 1973. 2 p. (cn).
- _____. 1974. Benlate and Dutch elm disease. *Trees* 1974(April-June): 28-29. (cn).
- _____. 1976a. Benomyl phosphate and Dutch elm disease. H. University of Massachusetts, Shade Tree Laboratories. Report issued with a reprint copy of *Phytopathology* 62: 939-940 [1972]. 4 p. (cn).
- _____. 1976b. Benomyl phosphate and the Dutch elm disease. III. Pages 17-19 in 31st annual conference of Dutch elm disease; proceedings, Waltham, Massachusetts. (cn).
- _____. 1976c. Benomyl phosphate versus "Benlate" benomyl in elms already afflicted with Dutch elm disease. *American Phytopathological Society, Proceedings* 3: 266. (cn).
- _____. 1976d. The American elm fights back. *Horticulture Magazine* 1976(January): 72-75. (cn).
- _____. 1980. Bark beetles, *Ceratocystis ulmi*, and Dutch elm disease. Pages 133-147 in *Vectors of plant pathogens*. Academic Press. (cn).
- _____. 1980. Dutch elm disease. Northeastern States Extension Plant Pathologists [Undated circular issued about 1950]. 1 p. (cn).
- HOLSTEN, EDWARD H. 1981. Spruce beetle: Chugach National Forest and adjacent lands. United States Department of Agriculture, Forest Service, State and Private Forestry, Alaska Region, Anchorage, Alaska. Biological Evaluation R10-81-1. 15 p. (cn).
- _____. 1990. Spruce beetle activity in Alaska: 1920-1989. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska, Forest Pest Management Report R10-90-18. 28 p. (cn).
- HOLSTEN, EDWARD H., A. EGLIUS, AND THOMAS A. LAURENT. 1981. Alaska Region. Pages 65-71 in H. D. Brown and P. W. Orr, *Forest insect and disease conditions in the United States, 1979*. United States Department of Agriculture, Forest Service, Washington, D.C., General Technical Report WO-20. 91 p. (cn).
- HOLSTEN, EDWARD H., P. E. HENNON, AND RICHARD ALLEN WERNER. 1985. Insects and diseases of Alaskan forests. United States Department of Agriculture, Forest Service, Alaska Region, Report 151. Juneau, Alaska. 217 p. (cn).
- HOLSTEN, EDWARD H., AND RICHARD ALLEN WERNER. 1985a. Evaluation of a controlled release formulation of methylcyclohexenone (MCH) in preventing spruce beetle attacks in Alaska. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska. State and Private Forestry, Report R10-9. 9 p. (cn).
- _____. 1985b. Evaluation of a controlled release formulation of methylcyclohexenone (MCH) in preventing spruce beetle attacks in Alaska. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska. State and Private Forestry, Report R10-12. 9 p. (cn).
- _____. 1987. Engraver beetles in Alaska forests. United States Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, Oregon, undated circular. GPO 795-322. 6 p. (cn).
- HOLSTEN, EDWARD H., K. P. ZOGAS, R. L. WOLFE, AND RICHARD ALLEN WERNER. 1979. Resurrection Creek spruce beetle infestation: a three year interim report. United States Department of Agriculture, Forest Service, Alaska Region, Anchorage, Alaska, State and Private Forestry, Report. (cn).
- HOLTHUIS, L. B. 1976. Comment on the proposed use of the plenary powers to conserve the generic name *Phloeotribus* Latreille, 1804. *Bulletin of Zoological Nomenclature* 32: 208-208. (tx).
- *HOLZEL, EMIL. 1936. II. Nachtrag zum Verzeichnis der bisher in Karnten beobachteten Kafer. *Carinthia* 11, 126: 47-56. (.)
- HOLZSCHUH, CAROLUS. 1977. Bemerkenswerte Kaferfunde in Osterreich II. *Koleopterologische Rundschau* 53: 27-69. (ds).
- * _____. 1983. Bemerkenswerte Kaferfunde in Osterreich III [Important beetle finds in Austria]. *Mitteilungen der Forestlichen Bundesversuchsanstalt-Wien, Osterreichischer Agrarverlag*, 1141 Wien, FBVA, 148 (Scolytidae): 77: 51. (.)
- _____. 1985. Eine neue Art der Gattung *Ips* aus Bhutan (Coleoptera, Scolytidae) [A new species of the genus *Ips* from Bhutan] [English summary]. *Entomologica Basiliensia* 12: 481-485. (tx).
- HONEA, C. R., T. EVAN NEBEKER, AND J. D. DEANGELIS. 1987. Selection of southern pine beetle hazard rating system for Mississippi. Pages 544-549 in E. P. Jones, Jr., 4th biennial Southern Silviculture Research Conference: proceedings. United States Department of Agriculture, Forest Service, General Technical Report SE-42. (cn).
- HONEA, C. R., T. EVAN NEBEKER, AND T. J. STRAKA. 1987. Economic evaluation of seven southern pine beetle hazard rating systems. *Journal of Environmental Management* 24: 259-266. (cn).
- HOPKINS, ANDREW DELMAR. 1906d. Insect enemies of forest reproduction. United States Department of Agriculture, Yearbook 1905: 249-256. (cn).
- _____. 1921. Contributions toward a monograph of the scolytid beetles. Contents and Index. United States Department of Agriculture, Technical Bulletin series 17: 233-247. (cn ms).
- *HORN, GEORGE HENRY. 1872. *Coleoptera*. Pages 352-392 in Preliminary Report of the United States Geological Survey of Wyoming. (.)
- _____. 1894. The Coleoptera of Baja California. *California Academy of Science, Proceedings*, second series, 4: 302-449. (ds).
- HORNVEIT, RICHARD. 1985. Resistance of *Picea abies* to *Ips typographus* tree response to monthly inoculations with *Ophiostoma polonicum*, a beetle transmitted blue-stain fungus. *Scandinavian Journal of Forest Research* 3: 107-114. (ec).

- HOSKING, GORDON P. 1954. Forestry pest problems of the South Pacific: the price of progress. *New Zealand Journal of Forestry* 29: 185-192. (cn).
- _____. 1959. Beech forest health implications for management. *New Zealand Journal of Forest Science* 19: 290-293. (cn).
- HOSKING, GORDON P., AND D. J. KERSHAW. 1955. Red beech death in the Maniwa Valley, South Island, New Zealand. *New Zealand Journal of Botany* 23: 201-211. (cn).
- HOSTETTLER, BRUCE B., P. A. RUSIL AND T. A. LAURENT. 1976. Forest insect and disease conditions in Alaska, 1975. United States Department of Agriculture, Forest Service, Alaska Region (Juneau, Alaska). 12 p. (cn).
- HOUGHTON, C. O. 1905. A list of Coleoptera taken on the summit of Mt. Seward, N. Y. *Entomological News* 16: 50-51. (ds).
- HOULE, C., G. C. HARTMANN AND S. S. WASTI. 1957. Ineffectivity of eight species of entomogenous fungi to the larvae of the elm bark beetle, *Scolytus multistriatus* (Marshall). *New York Entomological Society, Journal* 95: 14-18. (ec).
- *HOWARD, LELAND OSSIAN. 1898. [*Hylastinus trifolii* (=obscurus)]. United States Department of Agriculture, Yearbook for 1897. ().
- HUBER, MR. AND E. T. WILLIAMS. 1953. Biological evaluation of pine bark beetles on the Andrew Pickens Ranger District, Sumter National Forest. United States Department of Agriculture, Forest Service, Southern Region, Atlanta, Georgia. Forest Pest Management Report 83-1-6. (cn).
- HUHTA VEIKKO, R. HYNONEN, P. KAASALAINEN, A. KOSKENNIEMI, J. MUONA, I. MAKELA, M. SULANDER AND P. VILKAMAA. 1956. Soil fauna of Finnish coniferous forests. *Annales Zoologici Fennici* 23: 345-360. (ds).
- HUNT, D. W. A. 1956. Absence of fatty acid germination inhibitors for conidia of *Beauveria bassiana* on the integument of the bark beetle *Dendroctonus ponderosae* (Coleoptera: Scolytidae). *Canadian Entomologist* 118: 837-838. (ec).
- HUNT, D. W. A., AND JOHN HARVEY BORDEN. 1955. Response of mountain pine beetle, *Dendroctonus ponderosae* Hopkins, and pine engraver, *Ips pini* (Say), to ipsdienol in southwestern British Columbia. *Journal of Chemical Ecology* 14: 277-293. (bv).
- _____. 1959. Terpene alcohol pheromone production by *Dendroctonus ponderosae* and *Ips paraconfusus* (Coleoptera: Scolytidae) in the absence of readily culturable microorganisms. *Journal of Chemical Ecology* 15: 1433-1464. (bv).
- HUNT, D. W. A., JOHN HARVEY BORDEN, B. S. LINDGREN, AND G. GRIES. 1959. The role of autoxidation of alpha-pinene in the production of pheromones of *Dendroctonus ponderosae* (Coleoptera: Scolytidae). *Canadian Journal of Forest Research* 19: 1275-1282. (bv).
- HUNT, D. W. A., JOHN HARVEY BORDEN, H. D. PIERCE, JR., K. N. SLESSOR, G. G. S. KING, AND E. K. CZYZEWSKA. 1956. Sex-specific production of ipsdienol and myrcenol by *Dendroctonus ponderosae* (Coleoptera: Scolytidae) exposed to myrcene vapours. *Journal of Chemical Ecology* 12: 1579-1586. (bv).
- HUNT, D. W. A., AND MICHAEL J. SMIRLE. 1955. Partial inhibition of pheromone production in *Dendroctonus ponderosae* (Coleoptera: Scolytidae) by polysubstrate monooxygenase inhibitors. *Journal of Chemical Ecology* 14: 529-536. (bv).
- HUNT, F. A. 1955. Wildlife issues in national forests. Pages 101-125 in W. J. Chandler, Audubon Wildlife Report 1955/1959. Academic Press, San Diego, California. xviii + 517 p. (ms).
- HUNT, R. S., AND D. J. MORRISON. 1956. Black-stain root disease on lodgepole pine in British Columbia. *Canadian Journal of Forest Research* 16: 996-999. (ec).
- HUNT, R. S., AND G. O. POINAR. 1971. Culture of a *Parasitorhabditis* sp. (Rhabditida: Protorhabditinae) on a fungus. *Nematologia* 17: 321-322. (ec).
- HUNTER, PRESTON EUGENE, R. M. T. ROSARIO AND JOHN CONRAD MOSER. 1959. Two new species of *Ereynetes* (Acari: Prostigmata, Ereynetidae) associated with bark beetles. *Journal of Entomological Science* 24: 16-20. (ec).
- HURFORD, A. W. 1952b. Save the elms program increasingly effective. *Connecticut Woodlands* 17: 5. (cn ms).
- HURST, G. D., AND D. S. MATTESON. 1986. Chiral quaternary centers via boronic esters. *American Chemical Society (Abstracts)* 192. (bv ms).

I

- IACOBAEUS, H., AND A. LINDELOW. 1955. Insekter i obarkade contorta stammar. *Sveriges Skogsvardsforbunds Tidskrift* 55-2: 43-45. (cn).
- *IENISTEA, M. AL. 1933. Contributiuni noi la fauna coleopteleror Romaniei. *Buletinul Societatii Studentilor in Stinte Naturale* 4: 50-62. ().
- *ISAAC. 1934. [*Scolytus rugulosus*]. Pages 161-166 in Institute of Agricultural Research, Pusa. Science Report, Dclhi, for 1932-1933. ().
- ISHIKUBO, SHIGERU. 1962. Physiological and ecological studies on the pine bark beetles. *Bulletin of the Faculty of Education, University of Kagoshima, Japan* 14: 26-81. (ay ec).
- ISRAELSON, GUNNAR. 1955. Notes on the coleopterous fauna of the Azores, with description of new species of *Atheta* Thomson (Coleoptera). *Boletim do Museu Municipal do Funchal [Madeira]* 37(165): 5-19. (ds).
- _____. 1990a. Further notes on the coleopterous fauna of the Azores, with speculations on its origin. *Bocagiana, Museum Municipal do Funchal [Madeira]* 135: 1-8. (ds).
- _____. 1990b. Key to the Macaronesian Hypoborini, with description of two new species (Coleoptera, Scolytidae). *Bocagiana, Museum Municipal do Funchal [Madeira]* 137: 1-11. (tx).
- ISRAELSON, GUNNAR, ANTONIO MACHADO, PEDRO OROMI, AND THURE PALM. 1952. Novedades para la fauna Coleopterologica de las Islas Canarias [Scolytidae, p. 133]. *Vieraea [Tenerife]* 11: 109-134. (ds).
- ISTRATE, GEORGE I. 1950. Date biometrice si raportul numeric al sexelor la *Dendroctonus micans* Kug. (Coleoptera, Scolytidae) in moldisurile din nordul Romaniei [In Romanian, French summary]. *Muzeul de Stiinte Naturii Bacau, Studii si Comunicari* 10-12: 59-65 (1977-1979). (hb).
- IVES, W. G. H., AND H. R. WONG. 1955. Tree and shrub insects of the prairie provinces. Government of Canada, Forestry Service, Northern Forestry Centre, Edmonton, Alberta. Information Report NOR-X-292. 327 p. (cn hb).

J

- JACKSON, G. G. 1962. Status of insects in the Kenora District. Pages 444-457 in Annual District Reports of the Forest Insect and Disease Survey Ontario, 1961. Canada Department of Agriculture, Forest Biology Division, Sault Ste Marie, Ontario. (cn).

- JACOBSON, MARTIN, AND STANLEY A. HALL. 1967. Attractants produced by one sex to lure both sexes (assembling scents). Pages 49-? in *Insect sex attractants*. Interscience Publishers, John Wiley & Sons, Inc., New York, London, Sydney. (bv).
- JACTEL, H., AND F. LIEUTIER. 1957. Effects of attack density on fecundity of the Scots pine beetle *Ips sexdentatus* Born. (Col.: Scolytidae). *Journal of Applied Entomology* 104: 190-204. (bv).
- JAGER, D. 1955. Borkenkäferberwahrung mit Hubschrauber. *Allgemeine Forstzeitschrift* 5: 91. (cn).
- JAKAITIS, B. J., AND V. GAVELIS. 1957. Question of perfecting barrier traps for attraction of the bark beetle *Ips typographus* L. [In Russian]. *Khemoretseptsiya Nasekomykh* 9: 118-122. (cn).
- JAMES, ROBERT L., S. TUNAOCK, ROBERT LADD LIVINGSTON, J. W. SCHWANDT, D. P. BECKMAN, AND K. A. KNAPP. 1955. Idaho forest pest conditions and program summary, 1954. United States Department of Agriculture, Forest Service, Northern and Intermountain Regions and Idaho Department of Lands, Coeur d'Alene, Idaho, Report 55-1. 35 p. (cn).
- *JANCARIK, V., MILO KNIZEK, J. LISKA, J. PAREZ, V. PICHOVA, AND M. SVECOVA. 1991. Zhodnoceni vyskytu lesnich skodlivych cinitelu a jejich ocekavany stav v roce 1991 [Evaluation of occurrence of forest harmful factors and prognosis of their occurrence in 1991]. *Lesnicka prace* 5. ().
- *JANCARIK, V., M. SROT, J. PAREZ, P. ZAHRADNIK, AND MILO KNIZEK. 1990. Analyza stavu skodlivych cinitelu lesnich drevin a prognoza jejich vyskytu v roce 1990 [Analysis of forest harmful factors and prognosis of their occurrence in 1990]. *Lesnicka prace* 5. 9 p. ().
- JANIN, J. L., AND F. LIEUTIER. 1955. Existence de fécondations précoces dans le cycle biologique de *Tomicus piniperda* L. (Coleoptera, Scolytidae) en forêt d'Orléans [The existence of early mating in the life cycle of *Tomicus piniperda* in the forest of Orléans] [English summary]. *Agronomie S(2)*: 169-172. (hb).
- JANSONS, V. 1963. Status of insects in the Geraldton District. Pages F26-33 in *Annual district reports of the Forest Insect and Disease Survey Ontario, 1962*. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- _____. 1964. Status of insects in the Geraldton District. Pages F15-24 in *Annual District Reports of the Forest Insect and Disease Survey Ontario, 1962*. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- JENNINGS, DANIEL T., AND HERBERT ALLEN PASE III. 1956. Spiders preying on *Dendroctonus frontalis* (Coleoptera: Scolytidae). *Entomological News* 97: 227-229. (ec).
- JOHANN, M. 1956a. Zur Anlockung des Buchdruckers (*Ips typographus* L.). I. Die Lockwirkung natürlichen Brutmaterials [Attraction of the engraver beetle (*Ips typographus*)]. I. The attractant effect of natural breeding material [English summary]. *Journal of Applied Entomology* 101: 332-342. (bv).
- _____. 1956b. Zur Anlockung des Buchdruckers (*Ips typographus* L.). II. Möglichkeiten der integration Natürlich en Brutmaterials in die Bekämpfung mit Pheromon [Attraction of the engraver beetle (*Ips typographus*)]. II. Possibilities of the integration of natural breeding materials into control by pheromones [English summary]. *Journal of Applied Entomology* 102: 115-123. (cn).
- *JOHANNSEN. 1913. [*Hyphogopinus rufipes*]. Maine Agricultural Experiment Station. 15 p. ().
- JOHNSEY, RICHARD LEE. 1954. Bark beetles of interior Douglas-fir/grand fir forest type. Pages 103-107 in D. M. Baumgartner and R. Mitchell, *Silvicultural management strategies for pests of the interior Douglas-fir and grand fir forest types: proceedings of a symposium*. Cooperative Extension, Washington State University, Pullman, Washington. (cn hb).
- *JOHNSON, CHARLES WILLISON. 1900. [*Scolytus rugulosus*]. Page 393 in *New York Agricultural Experiment Station, Bulletin* 195. ().
- JOHNSON, DAVID W., AND C. G. O'NEIL. 1956. Forest pest conditions in the Rocky Mountain Region for 1955. United States Department of Agriculture, Forest Service, Timber, Forest Pest, and Cooperative Forestry Management (Denver, Colorado). 48 p. (cn).
- JOHNSON, M. A., AND R. CROTEAU. 1957. Biochemistry of conifer resistance to bark beetles and their fungal symbionts. Pages 76-92 in G. Fuller and W. D. Nes, *Ecology and metabolism of plant lipids*. American Chemical Society Symposium Series 325. vii + 374 p. (ec).
- JOHNSON, WARREN T., AND HOWARD H. LYON. 1955. *Insects that feed on trees and shrubs*. Edition 2. Comstock Publishing Associates, Cornell University Press, Ithaca, New York and London. 556 p. (cn).
- JOLY, R. 1976b. Les insectes ennemis des pins. Volume 2. Ecole nationale du Genie Rural, des eaux et des Forêts: Centre de Nancy. Unpaginated. (hb).
- JONG, M. C. M. DE, AND P. GRIJPSMA. 1956. Competition between larvae of *Ips typographus*. *Entomologia Experimentalis et Applicata* 41: 121-133. (ec).
- JONG, M. C. M. DE, AND M. W. SABELIS. 1959. How bark beetles avoid interference with squatters: a correction. *Oikos* 54: 125. (hb).
- JOY, NORMAN H. 1909. Three new British Coleoptera. *Entomologist's Monthly Magazine* 45: 268-269. (ds).
- *JULIASOVA, G., AND P. HRUBIK. 1975. Priciny usychania borievok (*Juniperus* sp.) na Slovensku [Causes of drying up of junipers in Slovakia]. *Lesnictvi* 21(XLVIII), 11: 1019-1029. ().

K

- KAARIK, AINO. 1975. Skydda skogen och virket! Insekter och blånad. *Skogen* 62: 727. (ms).
- KADYROV, A. KH. 1955. K faune korjedov (Coleoptera, Scolytidae) drevnykh porod jugozapachovo Tadzhikistana [On the fauna of scolytids (Coleoptera, Scolytidae) of tree species of south-western Tadzhikistan] [In Russian, English summary]. *Entomologicheskoe Obozrenie* 67: 42-47. Translation in *Ent. Revue* 68 (1): 47-61. (ds).
- *_____. 1959a. Bark beetles (Coleoptera, Scolytidae) in central Asia USSR. *Izv. Akad. Nauk Tadzh. SSR Otd. Biol. Nauk* 2: 23-27. ().
- _____. 1959b. On the bark beetles (Coleoptera, Scolytidae) of southwestern Tajikistan [In Russian, English summary]. *Entomologicheskoe Obozrenie* 68(1): 12-18. Translation in *Ent. Revue*. (ds).
- KALIDIS, D. S. 1955. Dry periods and secondary dying and bark beetle epidemics in forests of Greece [In Greek, English summary]. Publication, Ergasterio Ulorikes, *Timema Dasologias Kai Fusikou Periballontos, Aristoteleio Panepistemio Thessalonikes* 2. 16 p. (cn ds).
- KALIDIS, D. S., AND S. MARKALAS. 1955. Durreperioden in

- Zusammenhang mit sekundärem Absterben und Massenvermehrungen rindenbittender Insekten in den Wäldern Griechenlands [Dry periods and secondary dying and bark beetle epidemics in forests of Greece [In German. English summary]. *Anzeiger für Schadlingskunde Pflanzen- und Umweltschutz* 61: 25–30. (cn ds).
- *KAKULIYA, G. A. 1963a. A new species of nematode, *Tylaphelenchus paramonovi* Kakulia n. sp. [In Russian]. *Doklady Akademii Nauk Gruzinskoi SSR* 32: 649–654. ().
- ° _____. 1963b. A new species of nematode of the four-striped engraver, *Cryptophelenchus quadridens* n. sp. [In Russian]. *Doklady Akademii Nauk Gruzinskoi SSR* 31: 433–435. ().
- _____. 1967. A new species of nematode, *Contortylenchus proximus* sp. n. from *Orthotomicus proximus* Eichhoff [In Russian]. *Doklady Akademii Nauk Gruzinskoi SSR* 45: 459–460. (ec).
- KAKULIYA, G. A., AND S. L. LAZAREVSKAYA. 1965. *Ectaphelenchus piniperdae* sp. n., a new nematode of the larger pine shoot beetle [In Russian]. *Trudy Gel'mintol. Lab. Akademii Nauk SSR* 15: 54–56. (ec).
- KALISZEWSKI, MAREK J., EARLE ALBRIGHT CROSS, JOHN CONRAD MOSER, AND T. W. PHILLIPS. 1955. Systematic position, biology, and ecology of *Scolytomotes hockeyi* n. sp., n. gen., n. tribe (Acari: Dolichoeyboidea): a new parasitoid of bark beetles (Scolytidae). *International Congress of Entomology, Proceedings* 15: 435. (ec).
- *KALSHOVEN, LOUIS GEORGE EDMUND. 1926c. Primaire aantasting van houtige gewassen door *Xyleborus* soorten. *Algemeen Landbouweekblad* 11: 172–178. ().
- KAMP, HANS J. 1979. Erwähnenswerte Scolytiden-Funde aus Deutschland. *Entomologische Blätter für Biologie und Systematik der Käfer* 74: 183. (ds).
- KAPLAN, M., AND T. MOKRZYCKI. 1955. A contribution to the knowledge of the occurrence of the pine shoot beetles *Tomicus minor* and *T. piniperda* in Scots pine thickets in Niedzwizady Forest District [In Polish, English and Russian summaries]. *Sylvan* 132(6): 35–39. (cn).
- KARASEVICZ, D., AND W. MERRILL. 1956. Volume of stain and decay not related to ambrosia beetle attack in oaks killed following gypsy moth defoliation. *Annual meeting of the American Phytopathological Society (Northeastern Division)*, 6–8 November 1955, 76: 654. (ec).
- KARG, W. 1955. Eine neue Raubmilbenart der Gattung *Proctolaelaps* Berrlese 1923 (Acarina, Parasitiformes) am Grossen Oberbaumspintkafer (*Scolytus [Eccoptogaster] mali* Bechst.). [A new predatory mite species of the genus *Proctolaelaps* Berlese 1923 on the great fruit bark beetle [English summary]. *Archiv für Phytopathologie und Pflanzenschutz* 24: 515–517. (ec).
- KARPINSKI, C., JR., ROY L. HEDDEN, ROGER P. BELANGER, AND T. S. PRICE. 1954. Guidelines for managing pine bark beetles in Georgia. *Georgia Forestry Commission*. 61 p. (cn).
- *KARPINSKI, J. J. 1937. Korniki zebrane w Parku Narodowym na Czarnohorze w lecie 1937 r. [Ipides recoltés dans le Parc National de Czarnohora durant l'été 1937]. [Source?]. 1 p. ().
- KATTYAR, K. H., AND V. SHARMA. 1957. Influence of bark thickness on the host preference of hymenopterous parasites of bark beetles. *Indian Society of Desert Technology, Transactions* 12: 121–122. (ec).
- KATOVICH, S. A., AND R. J. LAWIGNE. 1956. The applicability of available hazard rating systems for mountain pine beetle in lodgepole pine stands of southwestern Wyoming. *Canadian Journal of Forest Research* 16(2): 222–225. (cn).
- KEILBACH, ROLF. 1952. Bibliographie und Liste der Arten tierischer Einschlüsse in fossilen Harzen sowie ihrer Aufbewahrungsorte. *Deutsche Entomologische Zeitschrift, new series*, 29: 129–256. (ds ms).
- *KELER, STEFAN. 1926. [*Ips crosus*]. *International Congress of Entomology, Proceedings* 3: 169–170. ().
- KELLEHER, JAMES S. 1956. The Canadian Agriculture Insect Pest Review, Volume 62, 1954. *Canada Department of Agriculture, Research Branch, Ottawa, Ontario*. 107 p. (cn ds).
- KELLEY, WAYNE. 1956. Managing southern forests to reduce southern pine beetle impacts: long and short-term strategies and research needs. *United States Department of Agriculture, Forest Service, Southern Region, Atlanta, Georgia*. 37 p. (cn).
- KELLEY, WAYNE, ROGER P. BELANGER, MICHAEL D. CONNER, TOMMY R. DELL, J. E. DE STEIGUER, ROSS KESTER, ROBERT N. KITCHENS, PETER L. LORIO, JR., AND KENNETH M. SWAIN. 1956a. Long-term strategies and research needs for managing southern forests to reduce southern pine beetle impacts. *United States Department of Agriculture, Forest Service, Atlanta, Georgia*. 37 p.
- _____. 1956b. Short-term strategies for managing southern forests to reduce southern pine beetle impacts. *United States Department of Agriculture, Forest Service, Atlanta, Georgia*. 32 p. (cn).
- KENNY, P. T. M., S. Y. TAMURA, A. FREDENHAGEN, Y. NAYA, K. NAKANISHI, K. NISHIJAMA, M. SUGIURA, H. KITA, AND H. KOMURA. 1959. Symbiotic micro-organisms of insects: a potential new source for biologically active substances. *Pesticide Science* 27: 117–131. (cn ec).
- KESKINALEMDAR, E., S. ALKAN, AND Y. AKSU. 1957. Artvin iliinde *Ips typographus* (L.) (Coleoptera, Scolytidae) 'un biyolojisi ve mucadelsi uzerinde calismalar [Studies on the biology and control of *Ips typographus* in Artvin Province] [In Turkish, English summary]. *Türkiye I. Entomoloji Kongresi Bildirileri*, 13–16 Ekim 1957, Ege, Universitesi, Bornova, Izmir. Bornova/Izmir, Turkey; Ege Universitesi Ataturk Kultur Merkezi 1957: 737–742. (cn hb).
- KEYSOR, ANN M. 1956a. Evaluation of pest conditions, Kaler and Dodds Hollows, Vernal Ranger District, Ashley National Forest. *United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report* 56–2. 4 p. (cn).
- _____. 1956b. Evaluation of pest conditions, North Fork Provo River and Broadhead Meadows, Kamas Ranger District, Wasatch National Forest. *United States Department of Agriculture, Forest Service, Intermountain Region (Ogden, Utah), Forest Pest Management Report* R4–56–7. 4 p. (cn).
- _____. 1956c. Evaluations of pest conditions, Old Lilly Lake Burn, Evanston Ranger District, Ashley National Forest. *United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report* 56–3. 3 p. (cn).
- KFIR, R. 1956. Releases of natural enemies against the pine bark beetle *Orthotomicus crosus* (Wollaston) in

- South Africa. Entomological Society of Southern Africa, Journal 49: 391-392. (cn ec).
- KHALAF, K. T. 1980. Micromorphology of beetle elytra, using simple replicas. Florida Entomologist 63: 307-340. (av).
- KIELCZEWSKI, BOHDAN, AND S. SENICZAK. 1966. The problem of predation of bark beetle eggs by mites. Ekologia Polska B, 12: 161-163 [Translation, United States Department of Commerce, National Technical Information Service, Springfield, Virginia]. (ec).
- KIESEL, KLAUS. 1955. Bibliographie der neueren Borkenkäferliteratur unter besonderer Berücksichtigung der Aggregationspheromone. Freiburger Waldschutzabhandlungen, Vol. 7. 279 p. (bv ms).
- KILE, G. A. 1957. Lack of a direct role for *Platypus subgranosus* (Coleoptera) in the dissemination of *Chalara australis*, the cause of a vascular disease of *Nothofagus cunninghamii*. XIV International Botanical Congress (Abstracts) 15: 405. (ec).
- KILE, G. A., AND M. F. HALL. 1955. Assessment of *Platypus subgranosus* as a vector of *Chalara australis*, causal agent of a vascular disease of *Nothofagus cunninghamii*. New Zealand Journal of Forest Science 15: 166-186. (ec).
- KILE, G. A., AND J. WALKER. 1957. *Chalara australis* sp. nov. (Hyphomycetes): a vascular pathogen of *Nothofagus cunninghamii* (Fagaceae) in Australia and its relationship to other *Chalara* species. Australian Journal of Botany 35: 1-32. (ec).
- KING, C. J., AND H. F. EVANS. 1955. The rearing of *Rhizophagus grandis* and its release against *Dendroctonus micans* in the United Kingdom. Pages 57-97 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of European Communities and Université Libre de Bruxelles, Belgium. Proceedings of seminar, 3-4 October 1954. 141 p. (ec ms).
- KINN, DONALD N. 1956a. Incidence of the pinewood nematode in a southern pine beetle infestation in central Louisiana. Journal of Entomological Science 21: 114-117. (ec).
- . 1956b. Studies of the flight capabilities of *Dendroctonus frontalis* and *Ips calligraphus*: preliminary findings using tethered beetles. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, Research Note SO-324. 3 p. (bv hb).
- KINN, DONALD N., AND C. DEISTER. 1957. Pinewood nematode: decontamination of North American wood chips for pulp and paper research in Europe. Tappi Journal 70(5): 131-132. (ec).
- KINN, DONALD N., AND L. M. ROTON. 1959. Rearing the sixspined ips (Coleoptera: Scolytidae) free of mite associates. Entomological Society of America, Annals 52: 60-63 (hb ms).
- KINUURA, H., AND K. KANAMITSU. 1955. Scolytidae and their host trees in central Japan. International Congress of Entomology, Proceedings 15: 440. (ds).
- KINZER, H. GRANT, AND J. M. REEVES. 1955. Chemical treatments for brood control and suppression of *Dendroctonus adjunctus* attacks on ponderosa pine. Southwestern Entomologist 10: 244-252. (cn).
- KIRCHHOFF, J. F., AND E. FUJIRER. 1955. Häufigkeit und Verbreitung von *Malamocha scolyti* Purrini bei *Dryocoetes autographus* in einigen Gebieten Nord- und Nordwest-deutschlands [Abundance and distribution of *Malamocha scolyti* Purrini in *Dryocoetes autographus* in some areas of north and north-west Germany] [English summary]. Forstwissenschaftliches Centralblatt 104: 373-380. (ec).
- KIRK, VERNON MILES, AND E. U. BLUBAUGH, JR. 1975. A list of the beetles of South Dakota. South Dakota State University Agricultural Experiment Station, Technical Bulletin 42. 139 p. (ds).
- KIRKENDALL, LAWRENCE RICHARD. 1958. Evolution of scolytid gallery systems. International Congress of Entomology, Proceedings 15: 409. (hb tx).
- . 1959. Within-harem competition among *Ips* females, an overlooked component of density-dependent larval mortality. Holarctic Ecology 12: 477-487. (ec).
- KIRKENDALL, LAWRENCE RICHARD, AND N. C. STENSETH. 1959. Population dynamics of bark beetles with special reference to *Ips typographus*: contributions of applied bark beetle studies to basic research in ecology and population biology. Holarctic Ecology 12: 526-527. (hb).
- KIRSTEN, J. F. 1955. Sable Forest Entomology Unit. Plant Protection News, South Africa No. 11(3). (ms).
- *KLAGES, H. G. 1901. Supplement to Dr. John Hamilton's list of the Coleoptera of southwestern Pennsylvania. Annals of the Carnegie Museum 1: 265-294. ().
- *KLAUSNITZER, B., AND G. FÖRSTER. 1976. Zur Kenntnis der Parasiten und Epititen des Bruchdruckers *Ips typographus* L. (Col., Scol.). Entomologische Berichten 1976: 11-43. ().
- KLEIN, E. 1955. Lebendbefall durch den Nutzholzborkenkäfer. Allgemeine Forstzeitschrift 12: 264. (cn).
- KLIEJUNAS, JOHN. 1955. A biological evaluation of black stain root disease and associated pests in Timber Mountain Area, Doublehead Ranger District, Modoc National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 85-22. (cn).
- KLIEJUNAS, JOHN, AND J. PIERCE. 1956. A biological evaluation of proposed recreation sites at Sourgrass and Middle Fork, Stanislaus National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 56-5. (cn).
- KLIMETZEK, D., E. J. BAADER, AND W. HELBIG. 1951b. Die Eignung von Lockstoff-Fallen zur Überwachung der Ulmensplintkäfer. Mitteilungen der Deutschen Gesellschaft für Angewandte Entomologie 2: 311-313. (bv cn).
- KLIMETZEK, D., J. BARTELS, AND W. FRANCKE. 1959. The pheromone system of the elm bark beetle *Pterobius vittatus* F. (Coleoptera: Scolytidae). Journal of Applied Entomology 107: 515-523. (bv).
- KLIMETZEK, D., J. KOHLER, S. KROHN, AND W. FRANCKE. 1959. Das Pheromon-System des Waldreben-Borkenkäfers *Xylocleptes bispinus* Duft. (Col., Scolytidae) [The pheromone system of the Clematis bark beetle] [English summary]. Journal of Applied Entomology 107: 304-309. (bv).
- KLIMETZEK, D., J. KOHLER, JEAN PIERRE VITE, AND U. KOHNLE. 1956. Dosage response to ethanol mediates host selection by "secondary" bark beetles. Naturwissenschaften 73: 270-272. (bv).
- KLIMETZEK, D., AND JEAN PIERRE VITE. 1956. Die Wirkung insektenbuertiger Duftstoffe auf das Aggregationsverhalten des mediterranen Kiefernborckenkäfers *Orthotomicus erosus* [The role of insect produced attractants on the aggregation behaviour of the Mediterranean pine engraver beetle

- Orthotomicus erosus* [English summary]. Journal of Applied Entomology 101: 239–243. (bv).
- _____. 1989. Die tierischen Schädlinge der Fichte. In H. Schmidt-Vogt, Die Fichte, Vol. 2, Part 2. Parey, Hamburg, Berlin. (cn).
- ° KLIMSCH, E. 1899. Die Käferwelt der Umgebung Klagenfurts, besonders jene der Satnitz. Carinthia II, 89: 136–152. ().
- KLIPSTEIN, E. L. 1985. Rassendifferenzierung beim Kupferstecher. Allgemeine Forstzeitschrift 12: 263. (ay).
- _____. 1986a. Cytologie und Spermapolyploidie bei *Pityogenes chalcographus* L. (Col., Scolytidae) [Cytology and spermapolyploidy in *Pityogenes chalcographus*] [English summary]. Journal of Applied Entomology 102: 285–295. (ay).
- _____. 1986b. Intraspezifische differenzierung in der Epidemiologie und Ökologie von *Pityogenes chalcographus* L. Bastardierung [Intraspecific differentiation in epidemiology and ecology of *Pityogenes chalcographus* with regard to hybridization] [English summary]. Anzeiger für Schädlingkunde Pflanzen- und Umweltschutz 59: 131–135. (ay hb).
- ° KLOET, G. S., AND W. D. HINCKS. 1945. A check list of British insects. Kloet & Hincks, Stockport. 477 p. ().
- KNAPP, ANDREW K. 1985. Forest insect and disease conditions: Intermountain Region 1984. United States Department of Agriculture, Forest Service, State and Private Forestry, Intermountain Region, Ogden, Utah. 23 p. (cn).
- KNAPP, ANDREW K., J. C. WEATHERBY, J. T. HOFFMAN, V. KALVE, AND L. LA MADELINE. 1989. Forest insect and disease conditions: Intermountain Region 1988. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah. 31 p. (cn).
- _____. 1990. Forest insect and disease conditions: Intermountain Region. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah. 38 p. (cn).
- KNAUER, K. H. 1989. An administrative perspective on North American bark beetles and biological control opportunities. Pages 231–236 in D. L. Kulhavy and M. C. Miller, Potential for biological control of *Dendroctonus* and *Ips* bark beetles. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (cn ms).
- KNEIFF, FRITZ. 1939. Schlechtes Wachstum der Sitkfichte. Mitteilungen der Deutschen Dendrologischen Gesellschaft 52: 170. (cn hb).
- KNIZEK, MILOS. 1983. Faunistic records from Czechoslovakia: Coleoptera, Scolytidae, *Pityogenes trepanatus* (Nord.). Acta Entomologica Bohemoslovaca 80: 399. (ds).
- _____. 1988. Faunistic records from Czechoslovakia: Coleoptera, Scolytidae, *Xyleborus ahni* Nisima. Acta Entomologica Bohemoslovaca 85: 396. (ds).
- _____. 1989. K životnímu jubileu Professora Antonína Pfeffer. Lesnická Práce 1989: 45–46. (ms).
- _____. 1991. Book review: Antonín Pfeffer, Kurovcoviti (Scolytidae) a Jadrólodoviti (Platypodidae). Acta Entomologica Bohemoslovaca 88: 376. (tx ms).
- KNOWLTON, GEORGE FRANKLIN. 1931. Notes on Utah Coleoptera. Florida Entomologist 15: 10. (ds).
- KNOWLTON, GEORGE FRANKLIN, AND G. P. TAYLOR. 1952. Beetles—Coleoptera: records and notes, largely from Utah. Utah Agricultural Experiment Station, Mimeograph Series 359: 1–32. (ds).
- KO, J. H., AND K. MORIMOTO. 1985. Loss of tree vigor and the role of boring insects in red pine stands heavily infested by the pine needle gall midge in Korea. Esakia 23: 151–155. (cn).
- KOBAYASHI, FUJIO. 1978. Pine bark beetle problem in Japan, referring to the discovery of the pine wood nematode, *Bursaphelenchus lignicola* (Mamiya & Kiyohara). Anzeiger für Schädlingkunde, Pflanzenschutz, Umweltschutz 51: 76–79. (cn).
- KOEHLER, CARLTON SMITH, R. H. HUNT, D. FROEHLICH, AND J. GEIGER. 1988. Protecting trees when building on forested land. University of California, Division of Agriculture and Natural Resources, Cooperative Extension Leaflet 21345. 11 p. (cn ms).
- KOEHLER, CARLTON SMITH, J. J. MCKELVEY, JR., W. L. ROELOFS, II, H. SHOREY, ROBERT MILTON SILVERSTEIN, AND DAVID LEE WOOD. 1977. Advancing toward operational behavior-modifying chemicals. Pages 395–400 in H. H. Shorey and J. J. McKelvey, Jr., Chemical control of insect behavior: theory and application. John Wiley & Sons, New York. (bv cn).
- KOEHLER, U. 1986. Problems of infesting standing trees by *Blastophagus piniperda* [In German, English summary]. Anzeiger für Schädlingkunde Pflanzen- und Umweltschutz 59: 145–147. (cn).
- KOEBER, THOMAS. 1985. Plantation insect problems. Page 51 in Thirty-sixth annual Western Forest Insect Work Conference: proceedings, 4–7 March 1985, Boulder, Colorado. Canada Department of Environment, Canadian Forestry Service, Northern Forest Research Centre, Edmonton, Alberta. 54 p. (cn ec).
- KOHLER, STEVE, O. J. DOOLING, AND W. E. BOUSFIELD. 1985. Montana forest pest conditions and program highlights, 1984. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Cooperative Forestry and Pest Management Report 85–2. 23 p. (cn).
- KOHNLE, U. 1984. Beziehungen zwischender Austrocknung von Fangbäumen und ihrer Attraktivität für Fichtenborkenkäfer. Allgemeine Forst- und Jagdzeitung 155: 270–274. (bv cn).
- ° _____. 1985a. Untersuchungen über die Pheromonsysteme sekundärer Borkenkäfer (Col., Scolytidae). Unpublished dissertation, University of Freiburg, Bertoldstr., Germany. ().
- _____. 1985b. Untersuchungen über die Pheromonsysteme sekundärer Borkenkäfer (Col., Scolytidae). Journal of Applied Entomology 100: 197–218. (bv hb).
- KOHNLE, U., W. FRANCKE, AND ALF BAKKE. 1985. *Polygraphus poligraphus* (L.): response to enantiomers of beetle specific terpene alcohols and a bicyclic ketal. Journal of Applied Entomology 100: 5–8. (bv).
- KOHNLE, U., S. KOPP, AND W. FRANCKE. 1986. Inhibition of the attractant pheromone response in *Ips acuminatus* (Gyll.) by *Ips sexdentatus* (Boerner) (Coleoptera, Scolytidae). Journal of Applied Entomology 101: 316–319. (bv).
- KOHNLE, U., M. MUSSONG, V. DUBBEL, AND W. FRANCKE. 1987. Acetophenone in the aggregation of the beech bark beetle *Taphrorychus bicolor* (Col., Scolytidae). Journal of Applied Entomology 103: 249–252. (bv).
- KOHNLE, U., HEINRICH SCHMUTZENHOFFER, J. BARELS, AND W. FRANCKE. 1988. Oxygenated terpenes in the chemical communication system of the bark beetle, *Ips schmutzenhoferi* (Col., Scolytidae), a species

- recently described for the southeastern Himalaya. *Journal of Applied Entomology* 106: 46-51. (bv).
- KOHNLE U., JEAN PIERRE VITE, C. ERBACHER, J. BARTELS, AND W. FRANCKE. 1988. Aggregation response of European engraver beetles of the genus *Ips* mediated by terpenoid pheromones. *Entomologia Experimentalis et Applicata* 49: 43-54. (bv).
- KOLBE, W. 1957a. Anmerkungen zur Arthropodenfauna im Staatswald Burgholz unter besonderer Berücksichtigung der Borkenkäfer (Scolytidae) [Remarks on the arthropod fauna of the Burgholz State Forest with particular reference to bark beetles] [English summary]. *Decheniana* 104: 73-75. (cn ds).
- _____. 1957b. Der Einfluss von NA-PCP auf die Arthropodenfauna in Staatswald Burgholz in Solingen unter besonderer Berücksichtigung der Coleopteren [The influence of NA-PCP on the arthropod fauna in the Burgholz State Forest in Solingen with particular reference to the Coleoptera] [English summary]. *Deutschen Gesellschaft für Allgemeine und Angewandte Entomologie, Mitteilungen* 5: 82-86. (cn ec).
- *KOLOMIETS, N. G. 1981. Interaction between the European spruce bark beetle (*Dendroctonus micans* Kugel., Col., Scol.) and Scots pine (*Pinus sylvestris* L.) in western Siberia [abstract]. The role of insect-plant relationships in the population dynamics of forest pests. UFIRO/MAB meeting, 24-28 August 1981, Irkutsk, USSR, 65: 28. ().
- *KOLUBAJIV, SERGEJ. 1962. Výsledky chovu entomofagu (cizopasníku a dravců) lmyzích škůdců, hlavně lesních, získané v období 1934-1955. *Rozpravy Československé akademie věd* 72(6): 1-73. ().
- KONDO, EDWARD S., AND B. II. MOODY. 1957. Forest insect and disease conditions in Canada, 1956. Government of Canada, Forestry Service, Forest Insect and Disease Survey, Ottawa, Ontario. 128 p. (cn).
- KONDO, EDWARD S., AND R. G. TAYLOR. 1954. Forest insect and disease conditions in Canada, 1953. Canada Department of Environment, Forestry Service, Forest Insect and Disease Survey, Ottawa, Ontario. 73 p. (cn).
- _____. 1955. Forest insect and disease conditions in Canada 1954. Government of Canada, Forestry Service, Forest Insect and Disease Survey, Ottawa, Ontario. 76 p. (cn).
- _____. 1956. Forest insect and disease conditions in Canada, 1955. Government of Canada, Forestry Service, Forest Insect and Disease Survey, Ottawa, Ontario. 107 p. (cn).
- KONGKATHIP, N., B. KONGKATHIP AND R. SOOKKHO. 1987. A short efficient synthesis of (plus or minus) frontalin and its analogue. *Journal of the Science Society of Thailand* 13: 239-242. (bv ms).
- KONIG, H. ERWIN. 1984. Aus der Forschungsarbeit der Abt. Waldschutz. *Mitteilungen der Forstlichen Versuchs- und Forschungsanstalt Baden-Württemberg* 108: 133-150. (cn).
- _____. 1988. Mass-trapping of *Trypodendron lineatum* Ol. (Col., Scolytidae): effect of infestation of cut timber temporarily left in the forest. *Journal of Applied Entomology* 106: 262-265. (bv cn).
- KONIG, H. ERWIN, AND WOLFRAM BERWIG. 1986. Kalk statt insektizide gegen gestreiften nutzholzborckenkafer? *Allgemein Forstzeitung* 41: 326-327. (cn).
- _____. 1987. Kalkspritzung als vorsorge gegen nutzholzborckenkaferbefall nicht bewahrt [Lime spraying not successful in protecting timber against bark beetle attack] [English summary]. *Allgemein Forstzeitung* 41: 354-355. (cn).
- KONOPKA, JOSEF, E. SOBOCKY, AND M. CAPEK. 1987. Poskodzovanie Lesov SSR a jeho prognoza do roku 2000 [Damage to forests of the Slovak SR and forecasts up to year 2000] [In Slovak, English summary]. *Lesnícky Časopis* 33: 49-61. (cn).
- KOPPONEN, M., AND M. NUORTeva. 1973. Über subfossile Waldinsekten aus dem Moor Pålonsno in Südfinnland. *Acta Entomologica Fennica* 29: 1-54. (ds).
- KORENCHENKO, E. A. 1957a. *Cryptaphlenchus diversispicularis* n. sp. (Thylenchida, Aphelenchoididae), a new nematode of the bark beetle, *Ips subelongatus* (Coleoptera, Ipsidae) [In Russian, English summary]. *Parazitologiya* 21: 73-75. (ec).
- _____. 1957b. *Parasitylenchus klimenkorum* n. sp. (Nematoda, Allantonematidae), a parasite of *Orthotomicus laricis* (Coleoptera, Ipsidae) [In Russian, English summary]. *Parazitologiya* 21: 567-576. (ec).
- KOROLEV, S. G. 1959. The morphology of the larvae of *Platypus* Herbst beetles (Coleoptera: Platypodidae) in connection with the characteristics of their ecology [In Russian]. *Entomologicheskoe Obozrenie* 68: 353-360. Translation in *Ent. Revue*, (ay tx).
- *KOVACEVIC, ZELJKO. 1928. [*Scolytus rugulosus*]. Verhandlungen der Deutschen Gesellschaft für Angewandte Entomology 7: 33-41. ().
- *KOVACH, JOSEPH. 1956a. Life cycle, seasonal distribution and tree responses to scolytid beetles in South Carolina peach orchards. Unpublished dissertation, Clemson University, Clemson, South Carolina. 88 p. ().
- _____. 1956b. Life cycle, seasonal distribution and tree responses to scolytid beetles in South Carolina peach orchards. *Dissertation Abstracts International* 47(5-B): 1845. (bv cn hb).
- KOVACH, JOSEPH, AND CLYDE S. GORSUCH. 1955. Survey of ambrosia beetle species infesting South Carolina peach orchards and a taxonomic key for the most common species. *Journal of Agricultural Entomology* 2: 235-247. (cn hb).
- KOVACIC, DAVID ALLEN, M. I. DYER, AND A. T. CRINGAN. 1985. Understory biomass in ponderosa pine following mountain pine beetle infestation. *Forest Ecology and Management* 13: 53-68. (cn).
- KOWAL, ROMUALD JOSEPH, AND BERNARD II. EBEL. 1972. Insects attacking forest trees in the South. *Forest Farmer, Manual Edition* 31(7): 24-30. (cn).
- KOZLOV, V. I. 1966. On the biology of elongata bark beetle (*Ips elongatus* Motsch.) in the larch forests of the lower Angara region [In Russian]. Pages 74-76 in A. I. Cherepanov, The fauna and ecology of Arthropoda from Siberia. Academy of Sciences of the USSR, Siberian Branch, Novosibirsk. (hb).
- KRISTIN, ANTON. 1956. Some results in the research of pheromone preparations on *Ips typographus* and notes to their selective effect [In Slovak]. *Správa Slovenskej zoologickej spoločnosti pri SAV, Bratislava* 12: 195-201. (bv cn).
- KRISTIN, ANTON, AND FERDINAND BENDA. 1986. Trapping of non-target Coleoptera species in pheromone traps to *Ips typographus* [In Slovak]. *Prace Slov. entomol. spol. SAV, Bratislava* 6: 118-127. (bv ec).
- KRISTIN, ANTON, STEFAN VARKONDA, LUDOVIT KURUC, AND FERDINAND BENDA. 1985. The new findings in development of new pheromone preparations against the spruce bark beetle *Ips typographus* L. and notes to their selective effect. Pages 242-259 in Conference

- on biological and biotechnological control of forest pests in Tabor: proceedings. Forestry and Game Management Research Institute Jiloviste, Strmady. (bv cn).
- KRIVOSHEINA, N. P., AND B. M. MAMAEV 1986. Regional complexes of trunk insects of fir [In Russian, English summary]. *Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, Biologicheskikh Nauk* (2): 97-103. (ds).
- KRIVOSHEINA, N. P., AND T. B. TOKGAEV 1985. The formation of complexes of trunk insects on irrigated lands in the foothills of the Kopet-Dag [In Russian, English summary]. *Izvestiya Akademii Nauk Turkmenskoi SSR, Biologicheskikh Nauk* 5: 34-39. (cn).
- *KROL, ALFRED. 1982. Szkodniki wtorne sosny wejmutki (*Pinus strobus* L.) na wybranej powierzchni lesnego zakladu doswiadczonego w Krynicy [Secondary pests of *Pinus strobus* L. on a sample area of the Krynica forest experimental station]. *Lesnictwo, Z.* 14, 172: 91-99. ().
- KROL, ALFRED, AND ALF BAKKE 1955. Effect of distance between the pheromone traps on the effectiveness of the spruce bark beetle *Ips typographus* aggregation. *Acta Agrar Silvestria Ser Silvestris* 24: 21-30. (bv).
- _____. 1955. Comparison of trap trees and pheromone loaded pipe traps in attracting *Ips typographus* L. (Col., Scolytidae). *Canadian Entomologist* 56: 437-445. (bv cn).
- KROL, ALFRED, DANIEL KUBISZ, JERZY R. STARZYK, AND MACIEJ WITRYLAK 1987. Badania nad przwabianiem drwalnika paskowanego, *Trypodendron lineatum* Ol., Col., Scolytidae, do rurowych pulapek feromonowych w lesnym zakladzie doswiadczalnym w Krynicy, beskid sadecki [Studies on introduction of ambrosia beetle, *Trypodendron lineatum* to pheromone pipe-traps in the Forest Experiment Station in Krynica] [In Polish, English summary]. *Zeszyty Naukowe Akademii Rolniczej Im. Hugona Kollataja w Krakowie, Sesja Naukowa* 17: 151-172. (bv cn).
- KROMBEIN, KARL VON VORSE, PAUL D. HURD, JR., D. R. SMITH, AND BARNARD DEWITT BURKS 1979. *Catalog of Hymenoptera in America North of Mexico*. Smithsonian Institution, Washington D.C. 2735 p. (ec).
- KUBO, ISAO, S. KOMATSU, T. IWAGAWA, AND DAVID LEE WOOD. 1986. Analytical and preparative separation of bark beetle pheromones by high performance liquid chromatography. *Journal of Chromatography* 363: 309-314. (bv ms).
- KUDON, LOUIS HARRY, AND CHARLES WAYNE BERISFORD 1955. Host preference behavior of insect parasites in the presence of southern pine beetle and one or more *Ips* species. Pages 74-86 in S. J. Branham and R. C. Thatcher, *Integrated pest management research: symposium proceedings*. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (ec).
- KUDRHALT, U., M. PANIKE, AND K. WUST 1988. Wood destroying beetles: an updated literature survey. Bundesanstalt für Materialforschung und -Prüfung (BAM). Dokumentation Biologische Materialprüfung Series. 314 p. (ms).
- KULHAVY, DAVID LUMIR. 1986. Forest protection. Pages 114-145 in D. L. Kulhavy and R. N. Conner, *Wilderness and natural areas in the eastern United States: a management challenge*. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. (cn).
- KULHAVY, DAVID LUMIR, R. A. GOYER, J. W. BING, AND M. A. RILEY 1989. *Ips* spp. natural enemy relationships in the Gulf Coast states. Pages 157-167 in D. L. Kulhavy and M. C. Miller, *Potential for biological control of *Dendroctonus* and *Ips* bark beetles*. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (ec).
- KULHAVY, DAVID LUMIR, AND MITCHELL C. MILLER 1989. Potential for biological control of *Dendroctonus* and *Ips* bark beetles. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, School of Forestry, Nacogdoches, Texas. 255 p. (cn ec).
- KULHAVY, DAVID LUMIR, J. H. MITCHELL, AND R. N. CONNER 1985a. The southern pine beetle and the red-cockaded woodpecker: potential for interaction. *International Congress of Entomology, Proceedings* 15: 416. (cn ec).
- _____. 1985b. The southern pine beetle and the red-cockaded woodpecker: potential for interaction. Pages 337-343 in T. L. Payne and H. Saarenmaa, *Integrated control of scolytid bark beetles*. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn ec).
- KURENZOV, ALEKSEI IVANOVICH 1963b. Entomological fauna of Kamchitka and the Bering arc problem in zoogeography. Pages 113-119 in J. L. Gressitt, *Pacific basin biogeography: a symposium*. Pacific Science Congress, Honolulu, Hawaii, 1961. Bishop Museum Press 10. 563 p. (ds tx).
- KVAMME, TORSTEIN 1955. New records of Norwegian Coleoptera II: species new to the fauna and notes on some little known species. *Fauna Norvegia* 32: 49-51. (ec ds).
- _____. 1955. *Trypodendron piccum* Strand (Col., Scolytidae): flight period and response to synthetic pheromones. *Fauna Norvegia* 35: 65-70. (hb).
- KVAMME, TORSTEIN, AND RUNE AXELSON 1953. Sphecidae (Hym., Aculeata) recorded from bark beetle pipe traps and some faunal notes from south Norway. *Fauna Norvegia, ser. B*, 30: 57-59. (ec).

L

- LACHANCE, DENIS, P. BENOIT, B. BONNEAU, AND GASTON LAFLAMME 1981. Insectes et maladies des arbres Quebec, 1980. *Forest Conservation* 47(9): 9. (cn).
- LACHANCE, DENIS, P. BENOIT, GASTON LAFLAMME, B. BONNEAU, AND R. PICHER 1984. Insectes et maladies des arbres Quebec, 1983. *Forest Conservation* 50(10): 7. (cn).
- LACHANCE, M. W., AND D. G. PFEIFFER 1959. Seasonal occurrences of wood boring beetles in Virginia commercial vineyards. *Hortscience* 24: 223. (cn ec).
- LANDIN, BENGT OLOF 1953. *Insekter i farg*. Almqvist and Wiksell, Stockholm. (hb ms).
- LANGEWALD, J. 1989. Ein Beitrag zur Habitatselektion des Ameisenbuntkafers, *Thanasimus formicarius* L. (Col., Cleridae) [Studies on the habitat selection of the bark beetle predator *Thanasimus formicarius*] [English summary]. *Anzeiger für Schädlingkunde Pflanzen- und Umweltschutz* 62: 85-90. (ec).
- LANGOR, DAVID WILLIAM 1984. Flight ability of re-emerging eastern larch beetles, *Dendroctonus simplex*

- LeConte (Coleoptera: Scolytidae), following egg gallery formation and oviposition in tamarack, *Larix laricina* (Du Roi) K. Koch, in Newfoundland [Abstract]. Entomological Society of Alberta, 32nd annual meeting; proceedings. Mount Royal College, Calgary Alberta. 52 p. (bv hb).
- _____. 1955. Ecology of the eastern larch beetle, *Dendroctonus simplex* LeConte (Coleoptera: Scolytidae), in Newfoundland. Unpublished thesis, University of Newfoundland, St. Johns, Newfoundland. xvi + 197 p. (bv ec hb).
- _____. 1957. Flight muscle changes in the eastern larch beetle, *Dendroctonus simplex* LeConte (Coleoptera: Scolytidae). Coleopterists Bulletin 41: 351–357. (ay).
- _____. 1958. Host effects on the population genetics and dynamics of the mountain pine beetle, *Dendroctonus ponderosae* Hopkins (Coleoptera: Scolytidae). International Congress of Entomology, Proceedings 18: 431. (ay hb).
- _____. 1959. Host effects on the phenology, development, and mortality of field populations of the mountain pine beetle, *Dendroctonus ponderosae* Hopkins (Coleoptera: Scolytidae). Canadian Entomologist 12: 149–157. (bv ec hb).
- _____. 1991. Arthropods and nematodes co-occurring with eastern larch beetle, *Dendroctonus simplex* (Col., Scolytidae) in Newfoundland. Entomophaga 36: 303–313. (ec).
- LANGOR, DAVID WILLIAM, AND ARTHUR G. RASKE. 1957a. Emergence, host attack, and overwintering behaviour of the eastern larch beetle, *Dendroctonus simplex* LeConte (Coleoptera: Scolytidae), in Newfoundland. Canadian Entomologist 119: 975–983 (bv hb).
- _____. 1957b. Reproduction and development of the eastern larch beetle, *Dendroctonus simplex* LeConte (Coleoptera: Scolytidae), in Newfoundland. Canadian Entomologist 119: 985–992. (hb).
- _____. 1958a. Annotated bibliography of the eastern larch beetle, *Dendroctonus simplex* LeConte (Coleoptera: Scolytidae). Government of Canada, Canadian Forestry Service, Newfoundland Forestry Centre, St. Johns, Newfoundland, Information Report N-X-266. 38 p. (ms).
- _____. 1958b. Mortality factors and life tables of the eastern larch beetle, *Dendroctonus simplex* (Coleoptera: Scolytidae) in Newfoundland. Environmental Entomology 17: 959–963. (ec).
- _____. 1959a. A history of the eastern larch beetle *Dendroctonus simplex* (Coleoptera: Scolytidae) in North America. Great Lakes Entomologist 22: 139–154. (cn).
- _____. 1959b. The eastern larch beetle, another threat to our forests (Coleoptera: Scolytidae). Forestry Chronicle 1959(August): 276–279. (cn).
- LANGOR, DAVID WILLIAM, AND JOHN R. SPENSE. 1991. Host effect on allozyme and morphological variation of the mountain pine beetle, *Dendroctonus ponderosae* Hopkins (Coleoptera: Scolytidae). Canadian Entomologist 123: 395–410. (ay ec).
- LANGSTROM, BO E. 1956. Attack density and brood production of *Tomiscus piniperda* in thinned *Pinus sylvestris* stems as related to felling date and latitude in Sweden. Scandinavian Journal of Forest Research 1: 351–357. (bv hb).
- LANGSTROM, BO E., AND C. HELLQVIST. 1955. *Pinus contorta* as a potential host for *Tomiscus piniperda* L. and *Tomiscus minor* (Hart.) (Col., Scolytidae) in Sweden. Journal of Applied Entomology 99: 174–181. (bv ec hb).
- _____. 1958a. Scots pine resistance against *Tomiscus piniperda* as related to tree vitality and attack density. Pages 121–133 in T. L. Payne and H. Saarenmaa. Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn ec).
- _____. 1958b. Scots pine resistance against *Tomiscus piniperda* as related to tree vitality and attack density. International Congress of Entomology, Proceedings 18: 413. (cn ec).
- LANIER, GERALD NORMAN. 1951. Larch beetle (*Dendroctonus simplex*). Page 3 in Forest insect and disease problems for New York state, 1950–51. Committee on insects and diseases, New York section, Syracuse, New York. (cn).
- _____. 1957a. Discovery of type material of some of Eichhoff's North American species of *Ips* and *Orthotomicus* (Coleoptera: Scolytidae). Coleopterists Bulletin 41: 107–110. (tx).
- _____. 1957b. The validity of *Ips crabricollis* (Eichh.) (Coleoptera: Scolytidae) as distinct from *I. grandicollis* (Eichh.) and occurrence of both species in Central America. Canadian Entomologist 119: 179–187. (ay tx).
- _____. 1959. Trap trees for control of Dutch elm disease. Journal of Arboriculture 15: 105–111. (ec).
- LANIER, GERALD NORMAN, J. P. HENDRICH, AND J. E. FLORES. 1958a. Biosystematics of the *Dendroctonus frontalis* (Coleoptera: Scolytidae) complex. Entomological Society of America, Annals 81: 403–418. (ay ds tx).
- _____. 1958b. Biosystematics of the *Dendroctonus frontalis* complex. International Congress of Entomology, Proceedings 18: 409. (ay tx).
- LANIER, GERALD NORMAN, AND A. H. JONES. 1955. Trap trees for elm beetles: augmentation with pheromone baits and chlorpyrifos. Journal of Chemical Ecology 11: 11–20. (bv cn).
- LANIER, GERALD NORMAN, AND LAWRENCE RICHARD KIRKENDALL. 1956. Karyology of pseudogamous *Ips* bark beetles. Hereditas 105: 87–96. (ay).
- LANIER, GERALD NORMAN, D. C. SCHUBERT, AND P. D. MANION. 1958. Dutch elm disease and elm yellows in central New York. Out of the frying pan into the fire. Plant Disease 72: 189–194. (ec).
- LANIER, GERALD NORMAN, S. A. TEALE, AND J. A. PAJARES. 1991. Biosystematics of the genus *Ips* (Coleoptera: Scolytidae) in North America: review of *Ips calligraphus* group. Canadian Entomologist 123: 1103–1124. (ay ds tx).
- LANNE, B. S., P. IVARSSON, P. JOHNSON, G. BERGSTROM, AND A. B. WASSGREN. 1989. Biosynthesis of 2-methyl-3-buten-2-ol, a pheromone component of *Ips typographus* (Coleoptera: Scolytidae). Insect Biochemistry 19: 163–168. (bv ms).
- LANNE, B. S., F. SCHLYTER, J. A. BYERS, J. LOFQVIST, A. LEUFVEN, G. BERGSTROM, J. N. C. VAN DER PERS, R. UNELIUS, P. BAECKSTROM, AND T. 1957. Differences in attraction to semiochemicals present in sympatric pine shoot beetles, *Tomiscus minor* and *T. piniperda*. Journal of Chemical Ecology 13: 1045–1067. (bv).
- LANZ, W., AND J. BAESKOW. 1956. Bekämpfung des Kuperstechers durch Hackschneitzung von Fichtenschwamholz [Control of *Pityogenes chalcographus* by chipping of small-diameter Norway spruce wood] [English summary]. Forst- und Holzwirt 41: 178–182. (cn).

- LAPIS, E. B. 1955. Geographical and altitudinal distribution of the six-spined engraver beetle (*Ips calligraphus* Germar, Coleoptera: Scolytidae) in the Philippines. *Sylvatrop* 10: 211-217. (c-hb).
- LAPIS, E. B., AND H. O. SAN VALENTIN 1982. Protection of *Rhizophora mucronata* Lam. seedlings against *Pocillips fallax* Eggers (Coleoptera: Scolytidae) by cultural methods. *Sylvatrop* 7: 171-176. (cn).
- LARA, R. R. 1966. El combate directo de *Dendroctonus frontalis* Zimm. por derribo, descortezamiento y quema de la corteza de las arboles infestados. *Bosques* 3: 5-11. (c-hb).
- LAUT, JOHN G. 1955. Operational use of mountain pine beetle pheromones. Page 15 in *Thirty-sixth annual Western Forest Insect Work Conference, Proceedings, 4-7 March 1955*, Boulder, Colorado. Canada Department of Environment, Forestry Service, Northern Forest Research Centre, Edmonton, Alberta. 54 p. (bv cn).
- LAUT, JOHN G., LAWRENCE B. HELLBURG, DAVID A. LEATHERMAN, MICHAEL E. SCHOMAKER AND KATE NISHIJIMA. 1978. Colorado forest insect and disease conditions, 1977. Colorado State Forest Service, Insect and Disease Division, Colorado State University, Fort Collins. 74 p. (cn).
- LAUT, JOHN G., MICHAEL E. SCHOMAKER TERESA M. STIEGER, AND JOHN METZLER. 1979. Dutch elm disease: a bibliography (revised). Colorado State Forest Service, Colorado State University, Fort Collins. 165 p. (unpaginated). (ms).
- LAUT, JOHN G., AND THERESA M. STIEGER. 1980. Dutch elm disease: a bibliography, addendum 1979. Colorado State Forest Service, Colorado State University, Fort Collins. 26 p. (unpaginated). (ms).
- _____. 1981. Dutch elm disease: a bibliography, addendum 1980. Colorado State Forest Service, Colorado State University, Fort Collins. 30 p. (unpaginated). (ms).
- LAYTON, C. R. 1966. Annual district report: Peace River District, 1965. Pages 87-98 in *Annual district reports of the Forest Insect and Disease Survey Alberta, 1965*. Canada Department of Forestry, Forestry Service, Forest Research Laboratory, Calgary, Alberta, Information Report A-X-1. (cn).
- _____. 1967. Annual district report: Lac La Biche District, 1966. Pages 62-72 in *Annual district reports of the Forest Insect and Disease Survey Alberta-Northwest Territories-Yukon region, 1966*. Canada Department of Forestry, Forestry Service, Forest Research Laboratory, Calgary, Alberta, Information Report A-X-6. (cn).
- _____. 1969. Annual district report: Northwest District, 1968. Pages 45-54 in *Annual district reports of the Forest Insect and Disease Survey, Alberta-Northwest Territories-Yukon region, 1968*. Canada Department of Fisheries and Forestry, Forestry Service, Forest Research Laboratory, Calgary, Alberta, Information Report A-X-22. (cn).
- _____. 1970. Annual district report: Northwest District, 1969. Pages 30-35 in *Annual district reports of the Forest Insect and Disease Survey Alberta-Northwest Territories-Yukon region, 1969*. Canada Department of Fisheries and Forestry, Forestry Service, Forest Research Laboratory, Calgary, Alberta, Information Report A-X-30. (cn).
- LEATHERMAN, DAVID A. 1984. The mountain pine beetle. Colorado State Forest Service, Colorado State University, Fort Collins, [Circular, undated, ca 1984], No. 4. 2 p. (cn).
- LEATHERMAN, DAVID A., AND WHITNEY S. CRENSHAW. 1986. Firewood and house log insects in Colorado. Colorado State University Cooperative Extension Service, Service in Action, [Circular] No. 5.563. 2 p. (cn).
- LEATHERMAN, DAVID A., HEIDI E. MCNUITY MICHAEL E. SCHOMAKER AND DENNIS L. LYNCH. 1986. Aspen: a guide to common problems in Colorado. Colorado State Forest Service, Colorado State University, Fort Collins. 35 p. (cn).
- *LEBARON, WILLIAM. 1874. Outlines in entomology. Part first. Including the order Coleoptera. Fourth annual report on the Noxious and Beneficial Insects of the State of Illinois. ().
- LECUONA, R. E., P. M. FERNANDES, S. B. AIXES, AND E. BLEICHER. 1986. Patogenicidade de *Metarhizium anisopliae* (Metsch.) Sorok., a broca-do-café, *Hypothenemus hampei* (Ferrari, 1867) (Coleoptera: Scolytidae) [Pathogenicity of *Metarhizium anisopliae* to the coffee berry borer, *Hypothenemus hampei*] [In Portuguese, English summary]. *Anais da Sociedade Entomologica do Brasil* 15(supl.): 21-27. (ec).
- LEE, K. S. 1989. Geographic information systems (GIS) use in forest pest management. A simulated study on mountain pine beetle infestations [In Korean]. Korean Forestry Society, Journal 75: 168-176. (cn).
- LEE, Y. JIM, E. T. OSWALD, AND J. W. E. HARRIS. 1974. A preliminary evaluation of ERTS imagery for forest land management in British Columbia. Pages 87-101 in *Second Canadian symposium on remote sensing, 29 April-1 May*. University of Guelph, Guelph, Ontario. (cn ms).
- LEECH, HUGH BORDIN. 1973. [Book review]. *Pan-Pacific Entomologist* 49: 282-283. (ms).
- *LEEFMANS, SALOMON. 1928b. Takkenboek als hessenboek. *Bergcultures* 2: 924-925. ().
- LEGOWSKI, D. 1987. Obserwacje zmian opadu cętny na terenie nadlesnictwa Niedzwiaży w latach 1977-1983 [Observations on twig fall in Niedzwiaży Forest District in 1977-83] [In Russian, English summary]. *Sylvan* 131(9): 39-47. (cn).
- LELUAN, MONIQUE, G. LELUAN, AND CONSTANTIN CHARARAS. 1987. Caracteristiques physiologiques de l'arbrehote et installation de differents insectes secondaires (Scolytidae et Cerambycidae) [Physiological characteristics of host trees and establishment of various secondary insects (Scolytidae and Cerambycidae)] [English summary]. *Comptes Rendus de l'Academie des Sciences, III (Sciences de la Vie)* 305: 423-426. (bv).
- LEMPERIERE, G., AND D. BAILLEY. 1986. Limousin: observation sur les manifestations du dendroctone de l'Epicea [Comments on the outbreaks of spruce bark beetle in Limousin]. *Forets de France* 290: 18-22. (hv cn hb).
- LEMPERIERE, G., ET AL. 1989. Infestation des peuplements de *Picea* par *Dendroctonus micans* Kug. (Coleoptera: Scolytidae) en Limousin (France) et essais de lutte biologique avec le predateur *Rhizophagus grandis* Gyll. (Coleoptera: Rhizophagidae) [Infestation of *Picea* population by *Dendroctonus micans* in Limousin, France and attempts at biological control with the predator *Rhizophagus grandis*] [English subtitle]. *Le Naturalist Canadien* 115: 235-243. (cn hb).
- *LENG, CHARLES WILLIAM, AND WILLIAM THOMPSON DAVIS. 1924. List of the Coleoptera of Staten Island, New

- York. Staten Island Institute of Arts and Sciences, Proceedings 2: 1-52. ().
- LENGERKEN, HANNS GERHARD VON. 1954. Die Brutfürsorge und Brutplageinstinkte der Käfer. Zweite Auflage. Akademische Verlagsgesellschaft Geest & Portig K.-G., Leipzig. (hb).
- LEON, J., AND NIRY BARRIO. 1957. Influencia de las fases lunares en la atracción de arboles trampas para a escolitidos del genero *Ips* en pinares de Baracoa [Influence of the phases of the moon in the attraction of trap trees for scolytids of the genus *Ips* in pine forests of Baracoa] [English summary]. *Revista Forestal Baracoa* 17: 45-56. (bv).
- °LEONTOVYČ, R., J. PATOCKA, AND J. GREK. 1957. Vyskyt a význam hromadného hmytia dubov vo svete a na Slovensku [Occurrence and importance of mass decay of oak in the world and in Slovakia]. *Vedecke práce Vyskumného ústavu lesného hospodárstva vo Zvolene* 1957: 15-32. ().
- °LESNE, PIERRE. 1917. [*Scolytus rugulosus*]. *Journal de l'Agriculture Pratique*, Paris 30: 222-224. ().
- LESSARD, EUGENE D. 1955a. High country integrated pest management project: post suppression evaluation 1955. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, Timber, Forest Pest and Cooperative Forestry Management, Biological Evaluation R2-55-4. 17 p. + appendix. (cn).
- _____. 1955b. Root diseases and bark beetles. Page 16 in Thirty-sixth annual Western Forest Insect Work Conference, Proceedings, 4-7 March 1955, Boulder, Colorado. Canada Department of Environment, Canadian Forestry Service, Northern Forest Research Centre, Edmonton, Alberta. 54 p. (cn ec).
- _____. 1959. Mountain pine beetle population manipulation strategies: past suppression practices. Pages 51-52 in G. D. Amman, Management of lodgepole pine to minimize losses to the mountain pine beetle: symposium proceedings. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- LESSARD, EUGENE D., MFG. HANSEN, AND MARY LU EILERS. 1956. Annotated bibliography: mountain pine beetle, *Dendroctonus ponderosae* Hopkins (Coleoptera: Scolytidae). United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, Timber, Forest Pest and Cooperative Forestry Management, Technical Report R2-35. 158 p. (cn ms).
- LESSARD, EUGENE D., D. W. JOHNSON, T. E. HINDS, AND W. H. HOPKINS. 1955. Association of *Amillaria* root disease with mountain pine beetle infestations on the Black Hills National Forest, South Dakota. United States Department of Agriculture, Forest Service, Forest Pest Management, Methods Application Group, Fort Collins, Colorado, Report 55-4. 6 p. + appendix. (cn).
- LEUFVEN, ANDERS, G. BERGSTROM, AND E. FALSEN. 1955. Oxygenated monoterpenes produced by yeasts isolated from *Ips typographus* (Coleoptera: Scolytidae) and grown in phloem medium. *Journal of Chemical Ecology* 14: 353-362. (ec).
- LEUFVEN, ANDERS, AND G. BERGERSSON. 1957. Quantitative variation of different monoterpenes around galleries of *Ips typographus* (Coleoptera: Scolytidae) attacking Norway spruce. *Canadian Journal of Botany* 65: 1035-1044. (bv cn).
- LEUFVEN, ANDERS, AND L. NEHLS. 1956. Quantification of different yeasts associated with the bark beetle, *Ips typographus*, during its attack on a spruce tree. *Microbial Ecology* 12: 237-243. (ec).
- LEUNIS, JOHANNES. 1856. Synopsis der Thierkunde, ein handbuch für höhere Lehranstalten. Zweiter Band [Scolytidae, p. 178-183]. Hahn'sche Buchhandlung, Hannover. (cn hb).
- LEUSCHNER, WILLIAM A., AND P. BERCK. 1955a. Decision analysis. Pages 177-189 in W. E. Waters, R. W. Stark, and D. L. Wood, Integrated pest management in pine-bark beetle ecosystems. John Wiley & Sons, New York. xvii + 256 p. (cn).
- _____. 1955b. Impacts on forest uses and values. Pages 105-120 in W. E. Waters, R. W. Stark, and D. L. Wood, Integrated pest management in pine-bark beetle ecosystems. John Wiley & Sons, New York. xvii + 256 p. (cn).
- °LEVER, R. J. A. W. 1935. Entomological notes, 3. Timber-boring beetles. *Fiji Agriculture Journal* 9: 15, 18. ().
- °_____. 1942. Entomological notes, 1. A shot-hole borer attacking rubber trees. *Fiji Agriculture Journal* 13: 24. ().
- LEVIEUX, JEAN, H. JACTEL, AND FRANCOIS LIEUTIER. 1955. Etude préliminaire de la variabilité de la pression de seve de clones de Pin sylvestre dans le centre de la France [Preliminary study of the sap pressure variability between several clones of Scots pine in the center of France] [English summary]. *Annales des Sciences Forestières* 45: 341-355. (cn).
- LEVIEUX, JEAN, FRANCOIS LIEUTIER, AND A. DELPLANQUE. 1955a. Les scolytes ravageurs de l'épicéa [Scolytid pests of Norway spruce] [English summary]. *Revue Forestière Française (Nancy)* 37: 347-355. (cn ec hb).
- _____. 1955b. Les scolytes ragageurs du pin sylvestre [Scolytid pests of Scots pine] [English summary]. *Revue Forestière Française (Nancy)* 37: 431-440. (cn hb).
- LEVIEUX, JEAN, FRANCOIS LIEUTIER, JOHN CONRAD MOSER, AND T. J. PERRY. 1959. Transportation of phytopathogenic fungi by the bark beetle *Ips sexdentatus* Boerner and associated mites. *Journal of Applied Entomology* 108: 1-11. (ec).
- LEWIS, K. J., AND S. A. ALEXANDER. 1956. Insects associated with the transmission of *Verticicladiella procera*. *Canadian Journal of Forest Research* 16(6): 1330-1333. (ec).
- LEXON, BERT R. 1939. An experiment in the use of sodium arsenite in the thinning ponderosa pine. *Journal of Forestry* 37: 259-262. (cn).
- LI KUAN SHENG. 1959. Scolytidae species on *Pinus armandii* and the preliminary biology observation of *Dendroctonus* sp. [In Chinese]. Report of preliminary studies on forest insect pests. 234 p. (hb).
- LI KUAN SHENG, SHI QUAN CHANG, AND AO HENG YI. 1954. Shaanxi forest tree diseases and insects, pictorial monograph, Volume 2 [In Chinese]. Shaanxi Province Peoples Publication House, Xian. 344 p. (hb ds).
- LI KUAN SHENG, DANG XINDE, AND SHI QUAN CHANG. 1977. Shaanxi forest tree diseases and insects, pictorial monograph, Volume 1 [In Chinese]. Shaanxi Province Peoples Publication House, Xian. 218 p. (hb ds).
- LI KUAN SHENG, AND J. ZHOU. 1950. Forest insects in China [In Chinese]. Chinese Forestry Press. 218 p. (ec hb).
- LIBBEY, L. M., LEE C. RYKER, AND K. L. YANDELL. 1955. Laboratory and field studies of volatiles released by *Dendroctonus ponderosae* Hopkins (Coleoptera:

- Scolytidae). *Journal of Applied Entomology* 100: 381–392. (bv).
- *LICHTENSTEIN, JEAN L., AND FRANCOIS PICARD. 1920. [*Scolytus rugulosus*]. Societe Entomologique de France, Paris, Bulletin 1920: 54–55. ().
- LIEBHOLD, ANDREW M., P. BERCK, N. A. WILLIAMS, AND DAVID LEE WOOD. 1985. Estimating and valuing western pine beetle impacts. *Forest Science* 32: 325–335. (cn).
- LIEUTIER, FRANCOIS. 1985. Influence de nematodes parasites sur l'hémolymphe des adultes d'*Ips sexdentatus* Boern. (Coleoptera: Scolytidae) [Influence of parasitic nematodes on the hemolymph of *Ips sexdentatus* Boern.] [English summary]. *Ann. Parasitol. Hom. Comp.* 60(2): 195–204. (ay ec).
- LIEUTIER, FRANCOIS, AND ALAN ANDREW BERRYMAN. 1985a. Elicitation of defensive reactions in conifers. Pages 313–320 in W. J. Mattson, J. Leveux, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York. xiv + 416 p. (ec).
- _____. 1985b. Preliminary histological investigations of the defense reactions of three pines to *Ceratocystis clavigera* and two chemical elicitors. *Canadian Journal of Forest Research* 15: 1243–1247. (ec).
- LIEUTIER, FRANCOIS, C. CHENICLET, AND J. GARCIA. 1989. Comparison of the defense reactions of *Pinus pinaster* and *Pinus sylvestris* to attacks by two bark beetles (Coleoptera: Scolytidae) and their associated fungi. *Environmental Entomology* 18: 228–234. (ec).
- LIEUTIER, FRANCOIS, T. FAURE, AND J. GARCIA. 1988. Attacks by scolytids and dieback of the Scots pine in the Provence Cote d'Azur region France. *Revue Forestiere Francaise (Nancy)* 40: 224–232. (cn ec).
- LIEUTIER, FRANCOIS, AND G. T. FERRELL. 1985a. Relationships between indexes of tree vigour and the induced defense reaction of Scots pine to a fungus associated with *Ips sexdentatus* (Coleoptera: Scolytidae). *International Congress of Entomology, Proceedings* 15: 430. (ec).
- _____. 1985b. Relationships between indexes of tree vigour and the induced defense reaction of Scots pine to a fungus associated with *Ips sexdentatus* Boern. (Coleoptera: Scolytidae). Pages 163–178 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (ec hb).
- *LIEUTIER, FRANCOIS, R. HAM, M. C. HAM, AND J. GARCIA. 1986. Une methode de marquage individuel des coleopteres scolytides pour les etudes de laboratoire [A method of marking individual scolytid beetles for laboratory studies] [English summary]. *Agronomie* 6: 773–776. ().
- LIEUTIER, FRANCOIS, M. JASTRABSKY, AND P. BONNAFE. 1985a. Modifications of the hemolymph and ovarian protein pattern induced by parasitic nematodes in *Ips sexdentatus* (Coleoptera: Scolytidae) [In French, English summary]. *Ann. Parasitol. Hom. Comp.* 60(6): 715–726. (ay ec).
- _____. 1985b. Variations of the proteinograms of the hemolymph, ovaries and fat body during the adult life of *Ips sexdentatus* (Coleoptera: Scolytidae) [In French, English summary]. *Bull. Soc. Zool. France* 109(3): 279–300. (ay ec).
- LIEUTIER, FRANCOIS, AND JEAN LEVIEUX. 1985. Les relations coniferes-scolytides: importance et perspectives de recherches [The extent of bark beetle/conifer interactions and proposed research] [English summary]. *Annales des Sciences Forestieres* 42: 359–370. (cn).
- LIEUTIER, FRANCOIS, AND A. YART. 1989. Temperature preference of the fungi associated with *Ips sexdentatus* Boern. and *Tomicus piniperda* L. (Coleoptera: Scolytidae) [In French]. *Annales des Sciences Forestieres* 46: 411–415. (ec).
- LIEUTIER, FRANCOIS, A. YART, J. GARCIA, M. C. HAM, M. MORELET, AND JEAN LEVIEUX. 1989. Champignons phytopathogenes associes a deux coleopteres Scolytidae du pin sylvestre (*Pinus sylvestris* L.) et etude preliminaire de leur agressivite envers l'hoite [English summary]. *Annales des Sciences Forestieres* 46: 210–216. (ec).
- LIEUTIER, FRANCOIS, A. YART, J. GARCIA, B. POUPINEL, AND JEAN LEVIEUX. 1988. Do fungi influence the establishment of bark beetles in Scots pine? Pages 321–334 in W. J. Mattson, J. Leveux, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York. xiv + 416 p. (ec).
- LIII, M. P., AND F. M. STEPHEN. 1983. Use of computer simulation models to predict expected tree mortality and monetary loss from SPB spots: a research update. United States Department of Agriculture, Forest Service, Southern Region, Atlanta, Georgia, Forest Pest Management Report SPB fact sheet 26. 2 p. (cn).
- LINDELOW, AKE, AND R. AXELSSON. 1985. Svarta bastborrarforbisedda skadegorare i skogsplanteringar. *Skogen* 2–85: 43–44. (ec).
- LINDELOW, AKE, AND H. IACOBÆUS. 1985. Insekter i obarkade contortastammar [Insects found in unbarked stems of lodgepole pine] [In Swedish, English summary]. *Sveriges Skogvardsforbunds Tidskrift* 2: 43–45. (cn).
- LINDELOW, AKE, AND J. WESLIEN. 1986. Sex-specific emergence of *Ips typographus* L. (Coleoptera: Scolytidae) and flight behavior in response to pheromone sources following hibernation. *Canadian Entomologist* 118: 59–67. (bv hb).
- LINDGREN, B. STAFFAN. 1986. *Trypodendron lineatum* (Coleoptera: Scolytidae) breeding in big leaf maple, *Acer macrophyllum*. *Entomological Society of British Columbia, Journal* 83: 44. (ds).
- _____. 1985. Application of semiochemicals for management of *Dendroctonus* bark beetles. *Northwest Environmental Journal* 4: 327–328. (cn).
- _____. 1990. Ambrosia beetles: semiochemical technology offers potential management tool. *Journal of Forestry* 1990 (February): 8–11. (cn ms).
- LINDGREN, B. STAFFAN, AND JOHN HARVEY BORDEN. 1989. Semiochemicals of the mountain pine beetle (*Dendroctonus ponderosae* Hopkins). Pages 83–85 in G. D. Amman, Management of lodgepole pine to minimize losses to the mountain pine beetle: symposium proceedings. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (bv cn).
- LINDGREN, B. STAFFAN, JOHN HARVEY BORDEN, G. H. CUSHION, L. J. CHONG, AND C. J. HIGGINS. 1989. Reduction of mountain pine beetle (Coleoptera: Scolytidae) attacks by verbenone in lodgepole pine stands in British Columbia. *Canadian Journal of Forest Research* 19: 65–68. (cn).
- LINDGREN, B. STAFFAN, MARK D. MCGREGOR, ROBERT D. OAKES, AND HUBERT E. MEYER. 1988. Effects of

- MCH and baited Lindgren traps on Douglas-fir beetle attacks on felled trees. *Journal of Applied Entomology* 105: 289-294. (bv cn).
- _____. 1989. Suppression of spruce beetle attacks by MIIC released from bubble caps. *Western Journal of Applied Forestry* 4(2): 49-52. (bv cn).
- LINDSTROM M., T. NORIN, G. BERGERSSON, AND F. SCHYTER. 1989. Variation of enantiomeric composition of alpha pinene in Norway spruce and its influence on the production of verbenol isomers by *Ips typographus* in the field. *Journal of Chemical Ecology* 15: 541-548. (bv).
- LINNANE, JAMES P. 1985. Biological evaluation—spruce beetle-population trend and tree losses. Fort Apache Indian Reservation, Arizona. United States Department of Agriculture, Forest Service, Southwestern Region, Albuquerque, New Mexico, Forest Pest Management Report R3-55-5. 31 p. (cn lb).
- *LINSLEY 1944. [*Pagiocerus* spp.]. *Hilgardia* 16(4): 202. ().
- LINTON, D. A., AND LASZLO SAFRANYIK. 1988. The spruce beetle, *Dendroctonus rufipennis* (Kirby): an annotated bibliography 1857-1987. Government of Canada, Canadian Forestry Service, Pacific Forestry Centre, Victoria, British Columbia, Information Report BC-X-298. 39 p. (ms).
- LINTON, D. A., LASZLO SAFRANYIK, AND R. BETTS. 1987. Field techniques for rearing and marking mountain pine beetle for use in dispersal studies. *Entomological Society of British Columbia, Journal* 84: 53-57. (cn hb).
- *LISKA, J., MILOS KNIZEK, AND P. KAPITOLA. 1989. Vazne ohrozeni blatkovych prostu na raselinisti Zofinka v jiznich Cechach [Heavy damage of *Pinus rotundata* on the Zofinka peat-hog in southern Bohemia]. *Ziva* 6: 247-248. ().
- *LISKA, J., P. ZAHRADNIK, V. PICHOVA, AND MILOS KNEZEK. 1991. Zhodnoceni ochrany lesa proti hmyzim skudcum v CSFRve srovnani s ostatnimi staty [Evaluation of forest protection against insect pests in Czechoslovakia compared to other countries]. Pages 1-8 in *Sbornik konference, Ekologicka ochrana lesu-Prachaticke, 4-5 September 1991, Spolana*. ().
- LISTER, C. KENDALL, AND J. G. LAUT. 1957. MPB pheromone trials in Colorado, 1955. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, Timber, Forest Pest and Cooperative Forestry Management, Technical Report R2-40. 8 p. (bv cn).
- LIU, Y. B., AND J. A. MCLEAN. 1989. Field evaluation of responses of *Gnathotrichus sulcatus* and *Gnathotrichus rictus* (Coleoptera: Scolytidae) to semi-chemicals. *Journal of Economic Entomology* 82: 1657-1690. (bv).
- LIU, Z. F., B. Y. ZHAO, S. F. ZHAO, M. L. SHENG, Q. H. ZHANG, Z. Q. CUI, D. CHU, Y. J. SUN, S. B. XU, AND X. D. ZHANG. 1989. A report on monitoring stem borers in burned areas in Daxinganling Mountain [In Chinese]. *Forest Science and Technology* 2: 12-15. (cn).
- LIVESEY, F. 1966. Status of insects in the Tweed District. Pages A22-31 in *Annual district reports of the Forest Insect and Disease Survey Ontario, 1965*. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- LIVINGSTON, ROBERT LADD. 1957a. Evaluation of Douglas-fir beetle infestations, Pend Oreille Lake Supervisory Area, October 1957. Idaho Department of Lands (Coeur d'Alene, Idaho), Report 87-15. 4 p. (cn).
- _____. 1957b. Evaluation of pine engraver, western pine beetle, and western spruce budworm on the southwest Idaho Supervisory Area, March 1957. Idaho Department of Lands, Coeur d'Alene, Idaho, Report 87-4. 8 p. (cn).
- _____. 1959. Detection and survey methods. Page 21 in G. D. Amman, Management of lodgepole pine to minimize losses to the mountain pine beetle: symposium proceedings. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- *LIVINGSTON, ROBERT LADD, AND J. W. SCHWANDT. 1987. Evaluation of bark beetle and root rot activity in the Mad Dog Timber Sale, Priest Lake Supervisory Area, May 1987. Idaho Department of Lands, Coeur d'Alene, Report 87-6. 5 p. ().
- LIVINGSTON, ROBERT LADD, J. W. SCHWANDT, D. P. BECKMAN, S. GUST, ET AL. 1988. Idaho forest pest conditions and program summary, 1987. United States Department of Agriculture, Forest Service, Northern and Intermountain Regions and Idaho Department of Lands (Coeur d'Alene, Idaho), Report 88-1. 28 p. (cn).
- LODING, H. P. 1945. Catalogue of the beetles of Alabama. Geological Survey of Alabama. Monograph 11. 172 p. (ds).
- LOGAN, J. A., AND GENE DOYLE AMMAN. 1986. A distribution model for egg development in mountain pine beetle. *Canadian Entomologist* 118: 361-372. (ec).
- LOOMIS, ROBERT C., AND T. H. HOFACKER. 1981. Forest insect and disease conditions in the United States, 1980. United States Department of Agriculture, Forest Service, Report, Washington, D.C. 36 p. (cn).
- LOOMIS, ROBERT C., T. H. HOFACKER, AND S. M. TUCKER. 1985. Forest insect and disease conditions in the United States 1984. United States Department of Agriculture, Forest Service, Washington, D.C., vi + 90 p. (cn).
- _____. 1986. Forest insect and disease conditions in the United States 1985. United States Department of Agriculture, Forest Service, Forest Pest Management, Washington, D.C. 95 p. (cn).
- LORIO, PETER LEONCE, JR. 1986. Growth-differentiation balance: a basis for understanding southern pine beetle-tree interactions. *Annales Entomologici Fennici* 14: 259-273. (cn).
- _____. 1988. Growth differentiation-balance relationships in pines affect their resistance to bark beetles (Coleoptera: Scolytidae). Pages 73-92 in W. J. Mattson, J. Leveux, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York, xiv + 416 p. (ec).
- LORIO, PETER LEONCE, JR., AND SUSAN J. BRANHAM. 1988. Where'd the beetle go? *Forests and People* 36(3): 18-20, 36-37. (cn ms).
- *LORIO, PETER LEONCE, JR. AND J. D. HODGES. 1985. Theories of interactions among bark beetles, associated microorganisms, and host trees. Pages 485-492 in United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-54. ().
- LORIO, PETER LEONCE, JR., AND ROBERT A. SOMMERS. 1985. Potential use of soil maps to estimate southern pine beetle risk. Pages 239-245 in S. J. Branham and R. C. Thatcher, Integrated pest management research symposium: the proceedings. United States Department of Agriculture, Forest Service, South-

- ern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn).
- _____. 1956. Evidence of competition for photosynthates between growth processes and oleoresin synthesis in *Pinus taeda* L. Pages 301–306 in R. J. Luxmoore, J. J. Landsberg, and M. R. Kaufmann, Coupling of carbon, water and nutrient interactions in woody plant soil systems. *Tree Physiology* 2(1–3). (cn).
- LOSEKIBUC, R. C. 1955. Befall von Buchenaltholzern durch den Laubnutzholzborkenkafer [Attack on old beech trees by *Trypodendron domesticum*] [English summary]. *Allgemeine Forstzeitschrift* 34: 942–943. (bv cn).
- ° LOYTTYNIEMI, KARL. 1950a. A preliminary annotated list of pine insects in Zambia. Division of Forest Research, Zambia. *Research Note* 26. 13 p. ().
- ° _____. 1950b. A preliminary study of insects attacking freshly cut logs of some exotic plantation tree species in Zambia. Division of Forest Research, Zambia. *Research Note* 27. 17 p. ().
- ° _____. 1950c. A preliminary annotated list of Eucalyptus insects in Zambia. Division of Forest Research, Zambia. *Research Note* 28. 19 p. ().
- LOYTTYNIEMI, KARL, ROGER A. BEWER, AND R. LOYTTYNIEMI. 1955. Annual flight patterns of timber insects on Miombo woodland in Zambia. *Platypodidae* (Coleoptera). *Annales Entomologici Fennici* 51: 27–29. (bv hb).
- LOYTTYNIEMI, KARL, K. HELIOVAARA, AND S. REPO. 1955a. No evidence of a population pheromone in *Tomicus piniperda* (Coleoptera, Scolytidae): a field experiment. *Annales Entomologici Fennici* 54: 93–95. (bv).
- _____. 1955b. Pine turpentine strongly attracts *Hylastes brunneus* (Coleoptera, Scolytidae). *Annales Entomologici Fennici* 54: 145–148. (bv).
- LUCIET, WILHELM H. 1957. Die Kafer Mitteleuropas. *Katalog. Goecke and Evers, Krefeld*. 342 p. (ds tx).
- LUIK, A. 1956. Temperature as the principal exogenous regulator of winter dormancy in xylophages [In Russian, English summary]. *Metsanduslikud uurimused, Estonian SSR* 21: 98–102. (ec hb).
- LUKASHIYVA, N. V. 1956. Successional changes in the complex of xylophilous Diptera on pine [In Russian]. *Trudy Vsesoyuznogo Entomologicheskogo Obschestva* 65: 89–92. (ec).
- LUNDBERG, STIG. 1974. Skalbaggar funna i Messaureområdet, Lule lappmark (Coleoptera) [Beetles found in the Messaure area, Lule Lapmark (Coleoptera)] [In Swedish, English summary]. *Entomologisk Tidskrift* 95: 85–94. (ds).
- _____. 1979. Fangst av skalbaggar med hjalp av fönsterfallor [Catching beetles with windowtraps (Coleoptera)] [In Swedish, English summary]. *Entomologisk Tidskrift* 100: 29–32. (ds).
- _____. 1980. För Norrbotten nya skalbaggar under tiarsperioden 1969–75 [Beetles new to the province of Norrbotten during the years 1969–75] [In Swedish, English summary]. *Entomologisk Tidskrift* 101: 147–150. (ds).
- _____. 1981. Gotska Sandons skalbaggsfauna: nytillskott och intressanta arter [The beetle fauna of Gotska Sandon: new findings and interesting species] [In Swedish, English summary]. *Entomologisk Tidskrift* 102: 147–154. (ds).
- _____. 1985a. *Catalogus Coleopterorum Sueciae 1986: rattelser och tillägg*. *Entomologisk Tidskrift* 109: 81–85. (ds tx).
- _____. 1985b. Nagra intressanta skalbaggsfynd i till Norrbotten importerat barrvirke [Some interesting records of beetles in coniferous timber imported into Norrbotten] [In Swedish, English summary]. *Entomologisk Tidskrift* 109: 49–50. (ds).
- LUNDHOLM, BENGT. 1959. Pest control and science foundations. *Holarctic Ecology* 12: 354–356. (ms).
- LUO, LU-SI. 1974. A preliminary report on the life cycle and control methods of *Sphaerotrypes coimbatorensis* Stebbing. *Kunchong Zhishi* 1: 32–33. (cn).
- _____. 1984. Study on the damage of the camphor *Xyleborus (X. interjectus)* Blandford and its control. *Kunchong Zhishi* 21: 166–167. (cn).
- LUTYK, P. 1954. Żerzy cetyncia wiekszego (*Tomicus Myelophilus piniperda* L.) w pedach świerka i jodły [Feeding of *Tomicus piniperda* and shoots of Norway spruce and silver fir]. *Sylvan* 128(3): 65–68. (bv ec).
- _____. 1955. Występowanie i liczebność generacji siostrzanej cetyncia wiekszego (*Tomicus piniperda* L.) w Polsce [Occurrence and size of a sister generation of the pine shoot beetle *Tomicus piniperda* in Poland] [In Polish, English and Russian summaries]. *Sylvan* 132(10): 53–60. (hb).
- LYONS, L. A. 1957b. Insects affecting seed production in red pine II: *Diorctria disclusa* Heinrich, *D. abietella* (D. & S.), and *D. cambicola* Dyar (Lepidoptera: Phycitidae). *Canadian Entomologist* 89: 70–79. (cn ec).

M

- MACELJSKI, M. 1954. Biotelmicki insekticidi s posebnim osvrtom na feromone [Biotechnical insecticides with particular emphasis on pheromones]. *Poljoprivredna Znanstvena Smotra* 67: 609–620. (cn).
- MACGILLIVRAY, A., AND C. O. HOUGHTON. 1902. A list of insects taken in the Adirondack Mountains. *New York, I. Entomological News* 13: 247–253. (ds).
- MACLAUCHLAN, L. E., JOHN HARVEY BORDEN, M. R. CACKETTE, AND J. M. D'URIA. 1957. A rapid multisample technique for detection of trace elements in trees by energy-dispersive x-ray fluorescence spectroscopy. *Canadian Journal of Forest Research* 17: 1124–1130. (ms).
- MACLAUCHLAN, L. E., JOHN HARVEY BORDEN, AND J. M. D'URIA. 1955. Distribution of arsenic in lodgepole pines treated with MSMA. *Western Journal of Applied Forestry* 3: 37–40. (cn).
- MACLAUCHLAN, L. E., JOHN HARVEY BORDEN, J. M. D'URIA, AND L. A. WHEELER. 1955. Distribution of arsenic in MSMA-treated lodgepole pines infested by the mountain pine beetle, *Dendroctonus ponderosae* (Coleoptera: Scolytidae), and its relationship to beetle mortality. *Journal of Economic Entomology* 81: 274–280. (cn).
- MADDEN, JOHN LEO, H. D. PIERCE, JR., JOHN HARVEY BORDEN, AND A. BUTTERFIELD. 1955. Sites of production and occurrence of volatiles in Douglas-fir beetle, *Dendroctonus pseudotsugae* Hopkins. *Journal of Chemical Ecology* 14: 1305–1317. (bv).
- MAGAS, LASZLO P. 1977b. Eastern larch beetle: another Maritime forest enemy. *Canada Department of Environment, Canadian Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Pith to Peridern* 11(7): 28. (cn).
- _____. 1979. Forest pest conditions in the Maritimes in 1978 with an outlook for 1979. Pages 7–9 in *Canada*

- Department of Environment, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Information Report M-X-98. 34 p. (cn).
- _____. 1952b. Maritimes region. Pages 17–25 in Annual report of the Forest Insect and Disease Survey, 1975. Canada Department of Environment, Forestry Service, Ottawa, Ontario. (cn).
- _____. 1954b. Important forest pests of larch in the Maritimes. Government of Canada, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Technical Note 98. 4 p. (cn).
- _____. 1955. Forest pest conditions in the Maritimes in 1954. Government of Canada, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Information Report M-X-154. 49 p. (cn).
- _____. 1956a. A synopsis of forest pest conditions in the Maritimes in 1956. Government of Canada, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Technical Note 172. 4 p. (cn).
- _____. 1956b. Forest pest conditions in the Maritimes in 1955. Government of Canada, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Information Report M-X-159. 55 p. (cn).
- _____. 1957. Forest pest conditions in the Maritimes in 1956. Government of Canada, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Information Report M-X-161. 67 p. (cn).
- _____. 1958. Forest pest conditions in the Maritimes in 1957. Government of Canada, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Information Report M-X-166. 109 p. (cn).
- _____. 1959. Forest pest conditions in the Maritimes in 1958. Forestry Canada, Maritimes Forest Research Centre, Fredricton, New Brunswick, Information Report M-X-174. 76 p. (cn).
- MAHLER, VIGGO. 1957. Sjette tillæg til Fortegnelse over Danmarks biller (Coleoptera) [Sixth supplement to the list of Danish Coleoptera] [In Danish, English summary]. *Entomologiske Meddelelser* 54: 181–235. (ds).
- MAITI, P. K., AND NIVEDITA SAHA. 1956. Contributions to the knowledge of the bark and timber beetles (Scolytidae: Coleoptera) of the Andaman and Nicobar Islands. Records of the Zoological Survey of India, Miscellaneous Publication. Occasional Paper 86. 152 p. (ds tx).
- _____. 1957. Indian species of the genus *Arixyleborus* Hopkins (Scolytidae: Coleoptera). *Bulletin of the Zoological Survey of India* 8: 1–12. (ds tx).
- _____. 1958. Descriptions of three new species of the genus *Hyorrhynchus* Blandford (Coleoptera, Scolytidae). *Proceedings of the Zoological Society (Calcutta, India)* 41: 41–51. (tx).
- MAJZLAN, OTO, I. RYCHLIK, M. HOLECOVA, AND T. KOZISEK. 1957. Beetles of the Abrod State Nature Reserve [In Czech, English summary]. *Ochrana Pírody* 5: 177–201. (ds).
- MAKSYMOWIC, MILOS. 1956a. Laboratorijska ispitivanja parazita potkornjaka bresta [Laboratory investigations on the parasites of elm bark beetles] [In Serbo-Croatian, English summary]. *Zastita Bilja* 37: 5–20. (ec).
- °MAKSYMOW, J. K. 1977. Trockenheit 1976 und Borkenkäfersituation im Frühjahr 1977. *Schweizerischen Zeitschrift für Forstwesen* 128: 154–160. (i).
- _____. 1957. Erstmaliger Massenbefall des Schwarzen Nutzholzborkenkäfer *Xylosandrus germanus* Blandf., in der Schweiz. [First mass attack of *Xylosandrus germanus* in Switzerland] [French, Italian, English summaries]. *Schweizerische Zeitschrift für Forstwesen* 138(3): 215–227. (bv cn ec).
- MALKOV, KONSTANTIN. 1905. Die schädlichsten Insekten und Pflanzenkrankheiten, welche an den Kulturpflanzen in Bulgarien während des Jahres 1903 geschädigt haben. *Pflanzenkrankheiten* 15: 50–53. (cn).
- °MAMAIEV. 1929. [*Hylastes ater*]. *Izv. sibirsk. kraev. Stantz. Rast.* 3(6): 134–142. (i).
- MAMAIEV, YU. B. 1956. Foci of xylophages [In Russian]. *Zashchita Rastenii Moscow* 9: 31. (bv).
- MANKINS, J. V. 1980. El barrenador de la corteza de las coníferas de Centroamérica, género *Ips* [The bark beetles of Central American conifers, genus *Ips*] [English summary]. *Nota Técnica, Escuela Nacional de Ciencias Forestales, Honduras* No. 2. 4 p., 10 figs. (cn hb).
- MANKOVSKA, B. 1957. The content of Pb and Cd in the developmental stages of important oak pests (Coleoptera). *Biologia* 42: 565–569. (ec).
- MANOJLOVIC, B. 1956b. Prilog proučavanju napada potkornjaka bresta sa posebnim osvrtom na značaj malog brestovog potkornjaka *Scolytus multistriatus* Marsh. (Coleoptera, Scolytidae) [Contribution of the study of attack of elm by bark beetles with particular reference to the smaller elm bark beetle *Scolytus multistriatus*] [In Serbo-Croatian, English summary]. *Zastita Bilja* 37: 297–310. (bv hb).
- _____. 1956c. Prilog proučavanju razvika malog brestovog potkornjaka *Scolytus multistriatus* Marsh. (Coleoptera, Scolytidae) [Contribution to study of the development of *Scolytus multistriatus*]. *Zastita Bilja* 37: 251–270. (ec hb).
- MANSINGH, AJAI AND L. F. RHODES. 1955. Residual toxicity of various insecticidal formulations to the coffee berry borer, *Hypothenemus hampei* Ferrari (Scolytidae: Coleoptera). *Insect Science and Its Application* 6: 209–212. (cn).
- MANVILLE, J. F., L. H. MCMULLEN, AND K. J. REIMER. 1988. Impact and role of monosodium methanearsonate on attack and progeny production by the Douglas-fir beetle (Coleoptera: Scolytidae) in lethal trap trees. *Journal of Economic Entomology* 8: 1691–1697. (cn hb).
- MARKOV, V. A. 1955. The great spruce bark beetle in the forests of the Ryazan region [In Russian]. *Lesnoe Khozjaistvo* 9: 59–60. (cn).
- MARTIN, E., AND JOSE M. COBOS. 1956. Graves ataques de perforadores en los abetares de Anso (Huesca) [Serious attacks by borers in the fir plantations of Anso (Huesca)] [English summary]. *Boletín de Sanidad Vegetal, Plagas [Spain]* 12: 297–298. (cn).
- MARTINAT, P. J. 1987. The role of climatic variation and weather in forest insect outbreaks. Pages 241–268 in P. Barbosa and J. C. Schultz, *Insect outbreaks*. Academic Press, San Diego, California. xiv + 578 p. (ec).
- MARTINEAU, RENE. 1955. Insectes nuisibles des forêts de l'est du Canada. Marcel Broquet, LaPrairie, Quebec. 283 p. (cn hb).
- MASON, CARLAND N., PETER L. LORIO, JR., ROGER P. BELANGER, AND W. L. NETTLETON. 1955. Rating the susceptibility of stands to southern pine beetle attack.

- United States Department of Agriculture, Forest Service, Cooperative State Research Service, Washington, D.C., Agriculture Handbook 645. 31 p. (cn).
- MASUTTI, LUIGI. 1968b. Coleotteri Scolitidi dei pini d'altitudine in alcuni biotopi delle alpi e sul Massiccio del M. Pollino. *Archivio Botanico e Biografico Italiano* 44: 213-223. (ec ds).
- _____. 1977. Vicissitudini di insetti e di piante nella storia recente delle biocenosi terrestri [Insect and plant vicissitudes in the recent history of terrestrial biocenoses]. Gruppo geomalatico edagaricole, Il montanaro d'Italia-Monti e boschi 27(3): 37-44. (.)
- MATHEW, G. 1955. Some coleopteran predators associated with timber beetles in Kerala (India). *Entomol* 10(2): 179-181. (ec).
- _____. 1956. Insects associated with forest plantations of *Gmelina arborea* Roxb. in Kerala, India. *Indian Journal of Forestry* 9: 308-312. (ds).
- _____. 1957. Insect borers of commercially important stored timber in the state of Kerala, India. *Journal of Stored Products Research* 23: 185-190. (ds).
- MATSON, PAMELA A., F. P. HAIN, AND W. MAWBY. 1957. Indices of tree susceptibility to bark beetles vary with silviculture treatment in a loblolly pine plantation. *Forest Ecology and Management* 22: 107-115. (cn).
- MATTESON, DONALD S., K. M. SADIU, AND M. L. PETERSON. 1956. Chirally selective synthesis via pinanediol boronic esters: insect pheromones, diols, and an amino alcohol. *Journal of the American Chemical Society* 108: 810-819. (ms).
- MATTSON, WILLIAM JOHN. 1956. Competition for food between two principal cone insects of red pine. *Pinus resinosa*. *Environmental Entomology* 15: 88-92. (ec).
- MATTSON, WILLIAM JOHN, AND ROBERT A. HAACK. 1957. The role of drought stress in provoking outbreaks of phytophagous insects. Pages 365-407 in P. Barbosa and J. C. Schultz. *Insect outbreaks*. Academic Press, San Diego, California. xiv + 578 p. (cn ec).
- MATUASHVILI S. I., G. A. TSILOSI, I. V. PALWANDISHVILI, AND T. SH. IMNADZE. 1974. Effect of some crysalliferous entomopathogenic microorganisms on the European spruce beetle (*Dendroctonus micans* Kugel.) [In Russian, Armenian]. *Biol. Zh. Armenia* 1974: 60-64. (ec).
- MAWBY, WILLIAM DAVID, AND FRED P. HAIN. 1955a. Evaluation of procedures for estimating within-spot populations of *Dendroctonus frontalis* (Coleoptera: Scolytidae) during a collapsing epidemic. *Canadian Entomologist* 117: 1083-1091. (cn).
- _____. 1955b. The large-scale prediction of southern pine beetle populations. Pages 53-55 in S. J. Branham and R. C. Thatcher. *Integrated pest management research symposium: the proceedings*. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn).
- MAWBY, WILLIAM DAVID, FRED P. HAIN, AND C. A. DOGGETT. 1959. Endemic and epidemic populations of southern pine beetle: implications of the two-phase model for forest management. *Forest Science* 35: 1075-1087. (hb cn).
- MAY, CURTIS, AND W. L. BAKER. 1952. Insects and spread of forest-tree diseases. Pages 677-682 in A. Stefferud, *Insects*. United States Department of Agriculture, Washington, D.C. Yearbook 1952. xviii + 780 p. (cn ms).
- MAZUR, SLAWOMIR. 1955. Umagi o wystepowaniu niektrych chrzaszczy podkorowych w zerowiskach cetynica wiekszego (*Tomicus piniperdis* L.) [Remarks on the occurrence of some subcortical beetles in the breeding sites of *Tomicus piniperda*] [In Polish, English summary]. *Sylvan* 129(8): 35-42. (ec).
- MAZZONE, HORACE M., AND JOHN WILLIAM PEACOCK. 1955. Prospects for control of Dutch elm disease: biological considerations. *Journal of Arboriculture* 11: 285-292. (cn).
- MBONDJI, P. M. 1959. Etude epidemiologique d'*Hypothenemus hampei* (Coleoptera: Scolytidae), ravageur des baies du cafeier, dans deux regions du Cameroun [Epidemiological study of *Hypothenemus hampei* a pest of coffee berries in 2 regions of Cameroun] [English subtitle]. *Le Naturaliste Canadien* 115: 245-249. (ec cn).
- MCCAIN, ARTHUR H., C. S. KOEHLER, AND S. A. TJOSSVOLD. 1957. Pitch canker threatens California pines. *California Agriculture* 41(11-12): 22-23. (ec).
- MCCLURE, H. E. 1943. Further notes on aero-plankton of Kentucky. *Entomological News* 54: 37-45. (hb).
- MCDONALD, L., B. MANLY, J. LOCKWOOD, AND J. LOGAN. 1959. Estimation and analysis of insect populations. *Lecture Notes in Statistics* 55. 492 p. (cn hb).
- MCGREGOR, MARK D. 1955. Mountain pine beetle. The conflict between people and the beetle. Pages 16-23 in R. C. Loomis, S. Tucker, and T. H. Hofacker. *What else is growing in our forests? Insect and disease conditions in the United States 1979-1983*. United States Department of Agriculture, Forest Service, Forest Pest Management, Washington, D.C., General Technical Report WO-46. 93 p. (cn hb).
- _____. 1955. The place of partial cutting lodgepole pine in integrated management of mountain pine beetle. *International Congress of Entomology, Proceedings* 18: 414. (cn).
- MCGREGOR, MARK D., GENE DOYLE AMMAN, RICHARD FREDERICK SCHMITZ, AND ROBERT D. OAKES. 1957. Partial cutting lodgepole pine stands to reduce losses to the mountain pine beetle. *Canadian Journal of Forest Research* 17: 1234-1239. (cn).
- MCGREGOR, MARK D., W. E. BOUSFIELD, R. L. JAMES, AND R. G. EDER. 1956. Biological evaluation of the Bridger-Derby, Deer Creek and Iron Mountain Management Units, Big Timber Ranger District, Gallatin National Forest, Montana. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Forest Pest Management Report 85-15. 13 p. (cn).
- MCGREGOR, MARK D., AND DENNIS M. COLE. Integrating management strategies for the mountain pine beetle with multiple-resource management of lodgepole pine forests. United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, Ogden, Utah, General Technical Report INT-174. 68 p. (cn ec).
- MCGREGOR, MARK D., KENNETH E. GIBSON, SCOTT TUNNOCK, LAWRENCE E. STIPE, H. E. MEYER, AND ROBERT D. OAKES. 1955. Status of mountain pine beetle infestations, Northern Region 1954. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Forest Pest Management Report 85-25. 57 p. (cn).
- MCGREGOR, MARK D., AND MITCHELL C. MILLER. 1959. Cross-attraction surveys for insect enemies of southern pine beetle. Pages 201-212 in D. L. Kulhavy and M. C. Miller. *Potential for biological control of *Dendroctonus* and *Ips* bark beetles*. Center for Applied Studies, School of Forestry, Stephen F.

- Austin State University, Nacogdoches, Texas. 255 p. (bv cc).
- MCGREGOR, MARK D., ROBERT D. OAKES, AND H. E. MEYER. 1955. Evaluation of Douglas-fir mortality from Douglas-fir beetle from 1952 through 1954 following 3 methyl-2-cyclohexan-1-one application. United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana. Forest Pest Management Report 55-7. 19 p. (cn).
- MCGREGOR, MARK D., B. STEELE, P. SHEA, AND W. BOUSFIELD. 1989. Baiting and cutting to manage mountain pine beetle infestations. Pages 89-100 in G. D. Amman. Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- MCGUFFIN, W. C., AND ROBERT WILLIAM REID. 1951. Alberta and Rocky Mountain National Parks. Canada Department of Agriculture, Science Service, Division of Forest Biology, Forest Insect and Disease Survey, Annual Report 1950: 96-105 (cn).
- *MCLAINE, LEONARD S. 1936. [*Hylesinus fraxini* (=varius)]. Journal of Economic Entomology 29: 768. (l).
- *_____. 1937. Entomology in relation to industry. Journal of Economic Entomology 30: 6. (l).
- MCLEAN, JOHN ALEXANDER. 1955. Ambrosia beetles: a multi-million dollar degrade problem of saw logs in coastal British Columbia. Forestry Chronicle 61: 295-298. (cn).
- _____. 1955. Ambrosia beetles in the forests of the Northwest. Northwest Environmental Journal 4: 324-327. (bv cn lb).
- MCLEAN, JOHN ALEXANDER, ALF BAKKE, AND HANS NIEMAYER. 1957. An evaluation of three traps and two lures for the ambrosia beetle *Trypodendron lineatum* (Oliv.) (Coleoptera: Scolytidae) in Canada, Norway and West Germany. Canadian Entomologist 119: 273-280. (cn).
- MCLEAN, JOHN ALEXANDER, AND EVELINE STORKINK. 1955a. Challenges in implementing ambrosia beetle pest management programs in British Columbia. Pages 179-187 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic Institute and State University, Blacksburg, Virginia. 355 p. (cn).
- _____. 1955b. Challenges in implementing ambrosia beetle pest management problems in British Columbia. International Congress of Entomology, Proceedings 15: 413. (cn).
- MCLEAN, JOHN ALEXANDER, AND J. TUYTEL. 1955. Marking forest insects: evaluation of two systems for the systematic introduction of mbitidium into Douglas-fir trees. Canadian Journal of Forest Research 15: 19-23. (ms).
- MC MULLEN, LESLIE HOWARD, AND LASZLO SAFRANYIK. 1955. Some effects of pine oil on mountain pine beetle (Coleoptera: Scolytidae) at different population levels. Entomological Society of British Columbia, Journal 52: 29-30. (bv cn).
- MC MULLEN, LESLIE HOWARD, LASZLO SAFRANYIK, AND D. A. LINTON. 1986. Suppression of mountain pine beetle infestations in lodgepole pine forests. Government of Canada, Canadian Forestry Service, Pacific Forestry Centre, Victoria, British Columbia, Information Report BC-X-276. 20 p. (cn).
- MC MULLEN, LESLIE HOWARD, LASZLO SAFRANYIK, D. A. LINTON, AND R. BETTS. 1988. Survival of self-marked mountain pine beetles emerged from logs dusted with fluorescent powder. Entomological Society of British Columbia, Journal 55: 25-25. (lb ms).
- MEDUNA, J. 1986. Faunistic records from Czechoslovakia: Hymenoptera, Pteromalidae. Acta Entomologica Bohemoslovaca 83: 232. (cc).
- MEISNER, J., M. WEISSENBERG, D. BLUMBERG, AND K. R. S. ASCHER. 1955. Date palm fruit stone extracts as phagostimulants for the adult date stone beetle, *Coccotrypes dactyliperds* F. (Coleoptera: Scolytidae). Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz 92: 305-309. (ay).
- MELVILLE, R. V. 1979. *Xyleborus* Eichhoff, 1864 (Col., Scol.) conserved under the plenary powers, Opinion 1146. Bulletin of Zoological Nomenclature 36: 151-153. (tx).
- MENDEL, ZVI. 1955. Predation of *Orthotomicus erosus* (Col., Scolytidae) by the Syrian woodpecker *Picoides syriacus*, Aves, Picidae. Journal of Applied Entomology 100: 355-360. (cc).
- _____. 1956a. Comparison between two methods for the determination of the hymenopterous parasitoid complex of bark beetles (Scolytidae). Journal of Applied Entomology 101: 275-282. (cc ms).
- _____. 1956b. Discovery of the southern pine beetle, *Dendroctonus frontalis*, in Israel. Phytoparasitica 14: 319-320. (ds).
- _____. 1956c. Hymenopterous parasitoids of bark beetles (Scolytidae) in Israel: host relation, host plant, abundance and seasonal history. Entomophaga 31: 113-125. (cc).
- _____. 1956d. Hymenopterous parasitoids of bark beetles (Scolytidae) in Israel: relationships between host and parasitoid size, and sex ratio. Entomophaga 31: 127-137. (cc).
- _____. 1957. Major pests of man-made forests in Israel: origin, biology, damage and control. Phytoparasitica 15: 131-137. (cn lb).
- _____. 1958a. Attraction of *Orthotomicus erosus* and *Pityogenes calcaratus* to a synthetic aggregation pheromone of *Ips typographus*. Phytoparasitica 16: 109-117. (bv).
- _____. 1958b. Effects of food, temperature, and breeding conditions on the life span of adults of three cohabiting bark beetles (Scolytidae) parasitoids (Hymenoptera). Environmental Entomology 17: 293-298. (cc).
- _____. 1958c. The relation of bast scale and bark beetle outbreaks to management of pine plantations in Israel. Pages 329-336 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn cc).
- _____. 1958d. The relation of bast scale and bark beetle outbreaks to management of pine plantations in Israel. International Congress of Entomology, Proceedings 15: 416. (cn cc).
- MENDEL, ZVI, Y. GOLAN, Z. MADAR, AND Z. SOLET. 1983. Insect pests and diseases of cypress in Israel [In Hebrew, English summary]. La-Yaaran 33: 37-41. (cn).
- MENDEL, ZVI, AND E. GUREVITZ. 1985. Hymenopterous parasitoids of the almond bark beetles in Israel. Alon Hanotea 39: 1057-1060. (cc).
- MENDEL, ZVI, Z. MADAR, AND Y. GOLAN. 1983. Chemical control of pine bark beetles (preliminary trials). La-Yaaran 33: 41-43. (cn).
- _____. 1985. Comparison of the seasonal occurrence and

- behavior of seven pine bark beetles (Coleoptera: Scolytidae) in Israel. *Phytoparasitica* 13: 21–32. (bv hb).
- MENDEL, ZVI, H. PODDLER, AND H. LIVNE. 1989. Establishment sequence and seasonal development of *Anthonium ruficorne* Olivier (Coleoptera: Colydiidae), a predator of bark beetles in pine plantations in Israel. *Acta Oecologica, Oecologia Applicata* 10: 103–114. (ec).
- MERCER, CHRISTOPHER W. L. 1952. Studies on the forest insects of Sarawak. A terminal report, Vols. I and II. Forest Department of Sarawak, Kuching, Sarawak. vii + 290 p. (cn ds).
- MERCER, CHRISTOPHER W. L., D. LEWIS, AND HWEL ROBERTS. 1986. A trial in Labu TRP [timber rights purchase] to test the effectiveness of three insecticides against ambrosia beetle attack in logs. *Klinkii* 3: 25–39. (cn).
- °MERCET. 1926. [*Pityogenes quadridens*]. *Revista de Fitopatologia, Madrid* 1926: 40–47. ().
- MERLIN, J., JEAN CLAUDE GREGOIRE, M. BAISIER, AND J. M. PASTEELS. 1955. Some new data on the biology of *Rhizophagus grandis* (Coleoptera: Rhizophagidae). Pages 107–121 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of European Communities and Université Libre de Bruxelles, Belgium, Proceedings of seminar, 3–4 October 1954. 141 p. (ec).
- MERLIN, J., C. PARMENTIER, AND JEAN CLAUDE GREGOIRE. 1956. The feeding habits of *Rhizophagus dispar* (Col., Rhizophagidae), an associate of bark beetles. *Mededeelingen van de Faculteit Landbouwwetenschappen, Rijksuniversiteit Gent* 51: 915–923. (ec).
- MERRILL, LAURA D., DAVID LEE WOOD, AND JAMES H. CANE. 1955. Hybridization barriers in Group IX *Ips*: *I. hoppingi* Lanier and *I. confusus* (LeConte) (Coleoptera: Scolytidae). *International Congress of Entomology, Proceedings* 15: 430. (hb).
- MICHAELS, P. J., D. E. SAPPINGTON, AND P. J. STENGER. 1955. Objective prediction of climate-related changes in the distribution of southern pine beetle. Pages 41–52 in S. J. Branham and R. C. Thatcher, Integrated pest management research symposium: the proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (ec).
- _____. 1956. SPBCMP, a program to assess the likelihood of major changes in the distribution of the southern pine beetle. *Southern Journal of Applied Forestry* 10: 155–161. (ec ms).
- MICHAELS, P. J., P. J. STENGER, AND D. E. SAPPINGTON. 1956. Modeling changes in the epidemic range of southern pine beetle using temperature and objective moisture indicators. *Theor. Appl. Clim.* 37: 39–50. (ec ms).
- MICHALSKI JACEK. 1955. On the occurrence and significance of nematodes (Nematoda) in the galleries of *Tomicus piniperda* L. (Coleoptera, Scolytidae). *Bull. Soc. Amis Sci. Lett. Poznan, ser. B, Sci. Biol.* 26: 129–137. (ec).
- MICHALSKI JACEK, AND E. RATAJCZAK. 1959. *Komiki* (Coleoptera: Scolytidae) wraz z towarzyszącą im fauną w Gorach Świętokrzyskich [Bark beetles along with their accompanying fauna in the Świętokrzyskie Mountains, Poland] [In Polish, English summary]. *Fragmenta Faunistica* 32: 279–315. (ec).
- °MIKKOLA, M., G. D. PIERCE, K. LOYTYNIEMI, AND A. C. MUBITA. 1979. Late stock-scion incompatibility in *Pinus merkusii* de Vries in Zambia. *Commonwealth Forestry Review* 55: 207–209. ().
- MILES, BRUCE R. 1957. Tragedy of the Four Notch. *American Forests* 93(3–4): 26–29, 76. (cn).
- MILLAR, J. G., C. H. ZHAO, GERALD NORMAN LANIER, D. P. O'CALLAHAN, M. GRIGGS, J. R. WEST, AND ROBERT MILTON SILVERSTEIN. 1956. Components of moribund American elm trees as attractants to elm bark beetles, *Hylurgopinus rufipes* and *Scolytus multistriatus*. *Journal of Chemical Ecology* 12: 583–605. (bv).
- °MILLER, D., AND A. F. CLARK. 1935b. [*Hylastes ater*]. *Bulletin of Entomological Research* 26: 149–154. ().
- MILLER, DANIEL R., AND JOHN HARVEY BORDEN. 1955. Life history and biology of *Ips latidens* (LeConte) (Coleoptera: Scolytidae). *Canadian Entomologist* 117: 559–571. (cn ec hb).
- _____. 1990. Beta-phellandrene: kairomone for pine engraver, *Ips pini* (Say) (Coleoptera: Scolytidae). *Journal of Chemical Ecology* 16: 2519–2531. (bv).
- MILLER, DANIEL R., JOHN HARVEY BORDEN, AND K. N. SLESSOR. 1959. Inter- and intrapopulation variation of the pheromone, ipsdienol produced by male pine engravers, *Ips pini* (Say) (Coleoptera: Scolytidae). *Journal of Chemical Ecology* 15: 233–247. (bv).
- MILLER, DANIEL R., J. L. MADDEN, AND JOHN HARVEY BORDEN. 1956. Primary attraction of *Ips latidens* (LeConte) and *Hylastes gracilis* LeConte (Coleoptera: Scolytidae) to high-girdled lodgepole pine, *Pinus contorta* var. *latifolia* Engelmann. *Canadian Entomologist* 115: 85–85. (bv).
- MILLER, L. KEITH, AND RICHARD ALLEN WERNER. 1957. Cold-hardiness of adult and larval spruce beetles *Dendroctonus rufipennis* (Kirby) in interior Alaska. *Canadian Journal of Zoology* 65: 2927–2930. (hb).
- MILLER, MITCHEL C. 1955. The effect of *Monochamus titillator* (F.) (Col., Cerambycidae) foraging on the emergence of *Ips calligraphus* (Germ.) (Col., Scolytidae) insect associates. *Journal of Applied Entomology* 100: 159–197. (ec).
- _____. 1956a. Survival of within-tree *Ips calligraphus* (Col.: Scolytidae): effect of insect associates. *Entomophaga* 31: 39–45. (ec).
- _____. 1956b. Within-tree effects of bark beetle insect associates on the emergence of *Ips calligraphus* (Coleoptera: Scolytidae). *Environmental Entomology* 15: 1104–1105. (ec).
- MILLER, MITCHEL C., JOHN CONRAD MOSER, AND DONALD N. KINN. 1955. More information on bark beetle alternatives. *IPM Practitioner* 7(11–12): 14. (ec).
- MILLER, MITCHEL C., JOHN CONRAD MOSER, MARK D. MCGREGOR, JEAN CLAUDE GREGOIRE, M. BAISIER, DONALD L. DAHLSTEN, AND RICHARD ALLEN WERNER. 1957. Potential for biological control of native North American *Dendroctonus* beetles (Coleoptera: Scolytidae). *Entomological Society of America, Annals* 50: 417–425. (cn ec).
- MILLER, MITCHEL C., ET AL. 1959. Responses of insect associates of allied species to *Dendroctonus* and *Ips* bark beetles. In D. L. Kulhavy and M. C. Miller, Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (bv ec).
- MILLER, NORMAN CECIL EGERTON. 1941. Insects associated with cocoa *Theobromus cacao* in Malaya. *Bulletin of Entomological Research* 32: 1–15. (cn).
- MILLER, RANDALL F., W. D. FITZGERALD, AND D. N. BUIHAY

1957. Fossil Coleoptera from the postglacial spruce-pine transition period near Minesing Swamp, Ontario, Canada. *Canadian Journal of Earth Sciences* 24: 2099–2103. (ds).
- MILLER, RANDALL F., ALAN V. MORGAN AND S. R. HICOCK. 1955. Pre-washon fossil Coleoptera of Fraser age from the Fraser Lowland British Columbia. *Canadian Journal of Earth Sciences* 22: 498–505. (ds).
- MILLER, RANDALL H., AND ALAN ANDREW BERRYMAN. 1956. Carbohydrate allocation and mountain pine beetle attack in girdled lodgepole pines. *Canadian Journal of Forest Research* 16: 1036–1040. (bv).
- MILLER, RANDALL H., ALAN ANDREW BERRYMAN, AND C. A. RYAN. 1956. Biotic elicitors of defense reactions in lodgepole pine. *Phytochemistry* 25: 611–612. (cn).
- MILLER, RANDALL H., II, STUART WHITNEY, AND ALAN ANDREW BERRYMAN. 1956. Effects of induced translocation stress and bark beetle attack *Dendroctonus ponderosae* on heat pulse velocity and the dynamic wound response of lodgepole pine *Pinus contorta* var. *latifolia*. *Canadian Journal of Botany* 64: 2669–2674. (bv cn).
- MILLER-WEEKS, MARGARET. 1955. Forest pest conditions report for the Northeastern Area, 1954. United States Department of Agriculture, Forest Service, Northeastern Area (Broomall, Pennsylvania). Forest Pest Management Report NA-FR-32. 22 p. (cn).
- MILLIGAN, ROBERT H., C. O. OSBORNE, AND G. YTSA. 1955. Evidence for an aggregation pheromone in *Platypus gracilis* Broun (Col., Platypodidae). *Journal of Applied Entomology* 106: 20–24. (bv).
- MILLIGAN, ROBERT H., AND G. YTSA. 1955. Pheromone dissemination by male *Platypus apicalis* White and *P. gracilis* Broun (Col., Platypodidae). *Journal of Applied Entomology* 106: 113–115. (bv).
- MILLS, J. R. 1955. Host location: an important consideration in the use of exotic natural enemies for the biocontrol of native scolytids. *International Congress of Entomology, Proceedings* 18: 416. (cn ec).
- MILLS, NICHOLAS J. 1955. Some observation on the role of predation in the natural regulation of *Ips typographus* populations. *Journal of Applied Entomology* 99: 209–215. (ec).
- _____. 1956. A preliminary analysis of the dynamics of within tree populations of *Ips typographus* (L.) (Coleoptera: Scolytidae). *Journal of Applied Entomology* 102: 402–416. (ec lb).
- MILLS, NICHOLAS J., AND K. KRUGER. 1955. Host location: an important factor in the use of exotic natural enemies for the biocontrol of native scolytids. Pages 321–325 in T. L. Payne and H. Saaremaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn ec).
- MILLS, NICHOLAS J., AND J. SCHLUP. 1959. The natural enemies of *Ips typographus* in central Europe: impact and potential use in biological control. Pages 131–146 in D. L. Kuhlavy and M. C. Miller. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255. (cn ec).
- *MIRZOIAN, S. A. 1977. Dendrofilnye nasekomye lesov i parkov Armenii. Nauchno-issledovatel'skij institut zascity rastenij MSCH Armjanskoj SSR, Izdatelstvo Ajastan, Jerevan 1977: 27–43, 166–181, 346–357 (etc.?). ().
- MITCHELL, RUSSEL G. 1959. Mixed host strategies for mountain pine beetle control in Oregon. Pages 60–63 in G. D. Amman. Management of lodgepole pine to minimize losses to the mountain pine beetle: symposium proceedings. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- MITCHELL, RUSSEL G., R. E. MARTIN, AND J. STUART. 1953. Catfaces on lodgepole pine: fire scars or strip kills by the mountain pine beetle? *Journal of Forestry* 51: 598–601. (cn).
- MIZELL, RUSSELL F., T. EVAN NEBEKER, AND JAMES L. FRAZIER. 1981. A new electro-optical activity monitor for determining locomotor activity of *Thanasimus dubius* (F.) in the laboratory. *Georgia Entomological Society, Journal* 16: 479–484. (ec).
- MOCETTINI, PHILIP J., JR. AND D. B. CAHILL. 1959. Evaluation of spruce beetle population trends on the Payette National Forest, Idaho. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report 89-2. 12 p. (cn).
- *MOECK, HENRY ADOLF. 1967. Electron microscopic studies of antennal sensilla in the ambrosia beetle *Trypodendron lineatum* (Olivier) (Scolytidae). Unpublished thesis, University of British Columbia. 91 p. (av).
- *_____. 1975. Host selection behavior of bark beetles (Coleoptera: Scolytidae) attacking *Pinus ponderosa*, with special emphasis on the western pine beetle, *Dendroctonus brevicornis* LeC. Unpublished dissertation, University of California, Berkeley. 62 p. ().
- _____. 1955. A bucket emergence trap for corticolous insects. *Canadian Entomologist* 120: 855–865. (cn ms).
- MOECK, HENRY ADOLF, LASZLO SAFRANYIK, CLARENCE S. SIMMONS, AND CAROL M. LAWKO. 1955. *Ips tridens* (Coleoptera: Scolytidae) attracted by ipsdienol plus cis-verbenol. *Canadian Entomologist* 117: 955–960. (bv).
- MOHR, P., AND C. TAMM. 1957. Synthesis of endo-1,3-dimethyl-2,9-dioxabicyclo-3,3,1-nonane. *Tetrahedron Letters* 28: 395–396. (bv ms).
- MOLLER, W. J., AND J. E. DEVAY. 1968. Insect transmission of *Ceratocystis fimbriata* in deciduous fruit orchards. *Phytopathology* 58: 1499–1505. (ec).
- *MONCAYO, E. R. 1958. Plagas del cacao en los departamentos de Santander y Antiquia, Colombia. Pages 261–269 in Septima Conferencia Interamericana de Cacao, Palmeira, Colombia. ().
- *MONTGOMERY, B. E., AND J. M. AMOS. 1941. Contributions to a list of the Coleoptera of the Clark County State Forest. *Indiana Academy of Science, Proceedings* 50: 251–255. ().
- *MONTROUZIER, P. 1861. Essai sur la faune entomologique de la Nouvelle Calédonie et des Iles des Pins, Art. Lifu, etc. *Société Entomologique de France, Annales*, ser. 3, 5: 229–308, ser. 4, 1: 265–306. ().
- MOODY, B. H. 1955. Forest insect and disease conditions in Canada 1957. Government of Canada, Forestry Service, Forest Insect and Disease Survey, Ottawa, Ontario. 92 p. (cn).
- MOODY, B. H., AND H. F. CEREZKE. 1955. Forest insect and disease conditions in Alberta, Saskatchewan, Manitoba and the Northwest Territories in 1954 and predictions for 1955. Government of Canada, Canadian Forestry Service, Northern Forestry Centre (Edmonton, Alberta), Information Report NOR-X-269. 21 p. (cn).
- MOODY, B. H., P. SINGH, AND L. J. CLARKE. 1952. Newfound-

- land Region. Pages 7–16 in Annual report of the Forest Insect and Disease Survey, 1978. Canada Department of Environment, Canadian Forestry Service, Ottawa, Ontario. (cn).
- MORAAL, L. G. 1957. Aantastingen door insecten en mijten op bomen en struiken in 1956. *Nederlands Bosbouw tijdschrift* 59: 373–381. (cn).
- _____. 1958. Aantastingen van insecten en mijten in bossen en natuurgebieden in 1957. *Nederlands Bosbouw tijdschrift* 60: 352–360. (cn).
- MORGAN, ALAN V. 1958a. *Polygraphus convexifrons* Wood (Coleoptera: Scolytidae): a range extension to Ungava Bay, Quebec, Canada. *Coleopterists Bulletin* 42: 69–72. (ds).
- _____. 1958b. Zoogeography and migration of scolytid species during the last 125,000 years in North America. *International Congress of Entomology, Proceedings* 18: 411. (ds).
- °MORGAN, ANNE 1973. Late Pleistocene environmental changes indicated by fossil insect faunas of the English midlands. *Boreas* 2: 173–212. ().
- MORGAN, ANNE, ALAN V. MORGAN, AND S. A. ELLIS. 1955. Holocene insects and paleoecology of the Au Sable River, Michigan. *Ecology* 66: 1817–1828. (ds).
- MORGAN, F. D. 1959. Forty years of *Sirex noctilio* and *Ips grandicollis* in Australia. *New Zealand Journal of Forest Science* 19: 198–209. (cn).
- MORI, KENJI AND Y. IGARASHI 1955. Pheromone synthesis CIV. Synthesis of the enantiomers of alpha phellandren-5-ol (p mentha-1 5-dien-5-ol): a monoterpene from bark beetles. *Liebigs Annalen der Chemie* (1): 93–96. (bv ms).
- MORI, KENJI, M. KUIHARA, AND M. SUZUKI 1959. Stereoselective synthesis of (1R,3R,5S)-1,3-Dimethyl-2,9-dioxabicyclo[3.3.1]nonane. *Chem. Pharm. Bull.* [Tokyo] 37: 1078–1079. (bv ms).
- MORI, KENJI, AND J. J. OGOCIE 1955. An enzyme-mediated synthesis of both enantiomers of seudenol and 1-methyl-2-cyclohexen-1-ol, the aggregation pheromones of *Dendroctonus pseudotsugae*. *Liebigs Annalen der Chemie* 9: 903–905. (bv ms).
- MORI, KENJI, AND P. PUAPOOMCHARON. 1957. Conversion of the enantiomers of sulcatol 6 methyl-5-hepten-2-ol to the enantiomers of pityol trans-2-1 hydroxy-1-methylethyl-5-methyltetrahydrofuran, a male-specific attractant of the bark beetle *Pityophthorus pityographus*. *Liebigs Annalen der Chemie* 3: 271–272. (bv ms).
- _____. 1955. Pheromone synthesis CVI. Synthesis of all of the four stereoisomers of tetrahydro-2 2 6-trimethyl-2h-pyran-3-ol: a volatile compound from the elm bark beetle *Pteleobius vittatus*. *Liebigs Annalen der Chemie* (2): 175–177. (bv ms).
- _____. 1959. Pheromone synthesis CXVII. Conversion of the enantiomers of sulcatol to the enantiomers of CIS pityol, a volatile compound from the elm bark beetle *Pteleobius vittatus*. *Liebigs Annalen der Chemie* 12: 1261–1262. (bv ms).
- MORI, KENJI AND Y. B. SEU 1955. A new synthesis of levo-alpha multistriatin, the pheromone of the smaller European elm bark beetle [*Scolytus multistriatus*]. *Tetrahedron* 44: 1035–1035. (bv ms).
- MORIMOTO, KATSURA 1955. Some observations on the classification of the subfamilies of Curculionidae. *International Congress of Entomology, Proceedings* 18: 40. (tx).
- MORITZ, B., AND E. FUHRER 1955. Rindenhaltstoffe der Fichte (*Picea abies*): Analysen an Borkenkäferlangbaumen [Phloem contents of *Picea abies*: analyses on bark beetle trap trees] [English summary]. *Journal of Applied Entomology* 105: 502–509. (ec).
- MORON, M. A., J. F. CAMAL, AND O. CANUL 1956. Analisis de la entomofauna necrofila de la area norte de la reserva "Sian Ka'an," Quintana Roo, Mexico [Analysis of the necrophilous entomofauna of the northern area of the biosphere reserve "Sian Ka'an," Quintana Roo, Mexico] [English summary]. *Folia Entomologica Mexicana* 69: 83–95. (cn ms).
- MORRISON, DUNCAN J., AND RICHARD S. HUNT 1955. Black-stain root diseases on lodgepole pine in British Columbia, Canada. *Phytopathology* 75: 1295. (ec).
- MOSER, JOHN CONRAD 1975. Biosystematics of the straw itch mite with special reference to nomenclature and dermatology. *Royal Entomological Society of London, Transactions* 127(2): 185–191. (ec).
- _____. 1985. Use of sporothecae by phoretic *Tarsonemus* mites to transport ascospores of coniferous bluestain fungi. *Br. [British?] Mycological Society, Transactions* 84: 750–753. (cn ec).
- _____. 1959a. An exotic predator for the biological control of the black turpentine beetle. *Entomological Society of America, Symposium*. (ec).
- _____. 1959b. Inoculative release of an exotic predator for the biological control of the black turpentine beetle. Pages 189–200 in D. L. Kulhavy and M. C. Miller, Potential for biological control of *Dendroctonus* and *Ips* bark beetles. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (cn ec).
- MOSER, JOHN CONRAD, AND SUSAN J. BRANHAM 1985. Bugs that eat bugs: biological control research offers hope for southern pine bark beetle management. *Forest Farmer* 47(3): 17–20. (cn).
- MOSER, JOHN CONRAD, AND JOHN ROBERT BRIDGES 1956. *Tarsonemus* (Acarina: Tarsonemidae) mites phoretic on the southern pine beetle (Coleoptera: Scolytidae): attachment sites and numbers of bluestain (Ascomycetes: Ophiostomataceae) ascospores carried. *Entomological Society of Washington, Proceedings* 55: 297–299. (ec).
- MOSER, JOHN CONRAD, HUBERTUS H. EIDMANN, AND J. R. REGNANDER 1959. The mites associated with *Ips typographus* in Sweden. *Annales Entomologici Fennici* 55: 23–27. (ec).
- MOSER, JOHN CONRAD, THELMA J. PERRY, AND HALVOR SOLHEIM 1959. Ascospores hypophoretic on mites associated with *Ips typographus*. *Mycological Research* 93: 513–517. (ec).
- MOSER, JOHN CONRAD, ROBERT A. SOMMERS, PETER L. LORIO, JR., JOHN ROBERT BRIDGES, AND JEFFREY J. WITCOSKY 1957. Southern pine beetles attack felled green timber. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana. Research Note SO-342. 7 p. (bv).
- MOSER, JOHN CONRAD, AND WILLIAM A. THOMPSON 1956. Temperature thresholds related to flight of *Dendroctonus frontalis* Zimm. (Col., Scolytidae). *Agronomie* 6: 905–910. (ec).
- MUESEBECK, CARL, FREDERICK WILLIAM, KARL VON VORSE, KROMBEIN, AND H. K. THOMAS 1951. Hymenoptera of America north of Mexico, synoptic catalog, United States Department of Agriculture, Monograph 2. 1420 p. (ec).
- MOULSON, D. C. 1955. The development of a climbing tree delimeter/debarker. *Forest Engineering Research*

- Institute of Canada, Technical Note TN-51. 17 p. (cn ms).
- MOUSSION, G. 1955. Que faire contre le depérissement des thuyas cause par les insectes xylophages? [What can be done against thuya wilt caused by wood-eating insects?]. *Phytoma* 40: 61-64. (cn).
- MOZOLEVSKAYA, EKATERINA G. 1955. The density of a population of bark beetles and its informative significance [In Russian, English summary]. *Zoologicheskii Zhurnal* 64: 1334-1341. (cn hb).
- MOZOLEVSKAYA, EKATERINA G., N. V. KRYLOVA, N. K. BELOVA, AND I. N. OSIPOV. 1957. The ecology of bark beetle transmitters of Dutch elm disease. *Zashchita Rastenii Moscow* 7: 37-40. (cc hb).
- MURACEK, ZDENEK. 1955. Elektrodynamická aplikace chemických přípravků vochrane lesu [Electrodynamic application of chemical preparations in forest protection] [In Czech, English, Russian summaries]. *Lesnictví [Prague]* 31(7): 629-640. (cn ms).
- MURAI, YUKIO, T. SUGIMURA, H. WATANABE, AND K. WAKAMORI. 1957. Extraction of areas infested by pine bark beetles using Landsat MSS data. *Photogrammetric Engineering and Remote Sensing* 53: 77-81. (cn).
- *MULLER-THURGAU, H., A. OSTERWALDER, AND OTTO SCHNEIDER-ORELLI. 1917. [*Scolytus rugulosus*]. *Landwirtschafthl. Jahrbuch der Schweiz* 1917: 416-426. ().
- MULOCK, PETER, AND ERIK CHRISTIANSEN. 1986. The threshold of successful attack by *Ips typographus* on *Picea abies*: a field experiment. *Forest Ecology and Management* 14: 125-132. (bv cn).
- MULSANT, MARTIEL ETIENNE, AND CLAUDIUS REY. 1852. Description d'une espece nouvelle de Coleoptere du genre *Bostrichus*. *Academie des sciences, belles-lettres et arts de Lyon, Classe de sciences, serie 2*, 2: 205-206. (tx).
- MUNOZ, HERNANDEZ, R. 1955. Muestreo en lineas para determinar la poblacion de broca (*Hypothenemus hampei* Ferr.) y metodologia para calcular el nivel de dano economico [Field sampling to determine populations of *Hypothenemus hampei* and a method for calculating economic damage levels] [English summary]. *Boletin de Promocafe* 35: 4-14. (cn ms).
- MURALEEDHARAN, N. 1953. *Entomology. Annual Report, Tea Scientific Department, United Planter's Association of Southern India* 56: 86-106. (cn hb).
- _____. 1954. *Entomology. Annual Report, Tea Scientific Department, United Planter's Association of Southern India* 57: 72-91. (cn hb).
- _____. 1956. The shot-hole borer of tea: its biology, ecology and control. *United Planter's Association of Southern India. Handbook of Tea Culture, series 19*. 4 p., 3 figs. (cn hb).
- _____. 1957. Entomological research in tea in southern India. *Journal of Coffee Research* 17: 80-83. (cn).
- MURALEEDHARAN, N., AND B. RADHAKRISHNAN. 1959. Recent studies on tea pest management in south India. *United Planters' Association of Southern India, Bulletin* 43: 16-29. (cn).
- MURALEEDHARAN, N., R. SELVASUNDARAM, AND B. RADHAKRISHNAN. 1955. Natural enemies of certain tea pests occurring in southern India. *Insect Science and its Application* 9: 647-654. (cc).
- *MURAYAMA, JOZO J. 1947. [*Hyurgops palliatus*]. *Kontyu* 16(1): 27. ().
- MURTHIA, P. A., AND R. COZENS. 1955. Color infra-red photo interpretation and ground surveys to evaluate spruce beetle attack. *Canadian Journal of Remote Sensing* 11: 177-187. (cn).
- MURTHIA, P. A., AND R. J. WIART. 1957. PC-based digital image analysis for mountain pine beetle green attack: preliminary results. *Canadian Journal of Remote Sensing* 13: 92-95. (cn).
- _____. 1959. Cluster analysis of pine crown foliage patterns aid identification of mountain pine beetle current-attack. *Photogrammetric Engineering and Remote Sensing* 55: 83-86. (cn).
- MUSSCHIE, G., B. GARBOUS, V. BAUTERS, AND A. PANIS. 1957. Etude preliminaire du peuplement d'Hymenopteres de l'olivier dans le nord-ouest de la Tunisie [Preliminary study of the population of Hymenoptera on olive trees in the north-west of Tunisia] [English summary]. *Mededelingen van de Faculteit Landbouwwetenschappen, Rijksuniversiteit Gent* 52: 303-309. (cn).
- MUSTAPARTA, HANNA, AND T. J. ALMAAS. 1959. How does the olfactory system in insects discriminate between odors of own and related species? *Fauna Norvegica* 36: 81-86. (bv).
- MUSTAPARTA, HANNA, B. A. TOMMERAS, AND GERALD NORMAN LANIER. 1955. Pheromone receptor cell specificity in interpopulational hybrids of *Ips pini* (Coleoptera: Scolytidae). *Journal of Chemical Ecology* 11: 999-1000. (ay bv).

N

- *NAKANE, TAKEHIRO. 1963. A list of Coleoptera from the Shiretoko Peninsula, Hokkaido, Japan (Insectal. Sci. Rep. Kyoto Pref. Univ. (Nat. Sci. & Liv. Sci.), ser. A, 3(5): 237-245. ().
- NAKASHIMA, TOSHIO. 1950. Sexual division of labor in reproductive behavior, especially the transmission of mutualistic fungi by ambrosia beetles [abstract]. *International Congress of Entomology, Proceedings* 16(9S-1.6): 285. (bv).
- _____. 1959. Observations on the ambrosia fungus, *Ambrosiella* sp., growing in the gallery of *Scolytoplatypus shogun* (Coleoptera: Scolytidae) and on the concurrent damage of wood tissue. *Faculty of Agriculture, Hokkaido University, Journal* 64: 99-105. (cc).
- NAKASHIMA, TOSHIO, CHIE GOTO, AND TOSHIHIKO IIZUKA. 1957. The primary and auxiliary ambrosia fungi isolated from the ambrosia beetles, *Scolytoplatypus shogun* Blandford (Coleoptera: Scolytidae) and *Crossotarsus niponicus* Blandford (Coleoptera: Platypodidae). *Faculty of Agriculture, Hokkaido University, Journal* 63: 185-208. (cc).
- NAKASHIMA, TOSHIO, T. OTOMO, Y. KATO, AND TOSHIHIKO IIZUKA. 1958. Scanning electron microscope observations on the ambrosia fungi growing in the galleries where the larvae of ambrosia beetles are growing. *International Congress of Entomology, Proceedings* 18: 410. (cc).
- NAKATA, T., S. NAGAO, S. TAKAO, T. TANAKA, AND T. OISHI. 1955. Stereoselective synthesis of 1 R 3 R 5 S-1 3 dimethyl-2 9-dioxabicyclo-3.3.1-nonane. *Tetrahedron Letters* 26: 73-74. (ms).
- NAKAYAMA, K., AND P. S. TERRA. 1956. Atratividade de substancias e de ramos de cacauero sobre *Xyloandrus morigerus* (Blandford, 1894) (Coleoptera, Scolytidae) [Attraction of *Xyloandrus morigerus* to different substances and branches of cacao plants]. *Revista Theobroma* 16: 155-160. (bv).

- NASH, DAVID R. 1959. Notes on British *Orthotomicus* (Col.: Scolytidae) including *suturalis* Gyllenhal new to Wiltshire. *Entomologist's Record and Journal of Variation* 10: 151-152. (ds).
- ° NAVARRO DE ANDRADE, EDMUNDO 1917. [*Hylesinus oleiperda* (=toronio)]. *Boletino de Agricultura Tecnica y Economica*, Madrid 7(78): 554-563. (.)
- NEBEKER, T. EVAN 1985. Influence of forestry practices on bark beetle populations: a perspective. Pages 52-59 in *Thirty-fourth annual Forestry Symposium*, Division of Continuing Education, Louisiana State University, Baton Rouge. (hb).
- NEBEKER, T. EVAN AND ROY L. HEDDEN 1984. Integrated forest pest management in pine stands (6+ yrs.): insects. Pages 116-125 in S. J. Branham and G. D. Hertel, *Symposium proceedings: Integrated pest management*. Athens, Georgia. (cn).
- NEBEKER, T. EVAN AND JOHN DEAVOURS HODGES 1985. Thinning and harvesting practices to minimize site and stand disturbance and susceptibility to bark beetle and disease attacks. Pages 263-271 in S. J. Branham and R. C. Thatcher, *Symposium proceedings: Integrated pest management research*. United States Department of Agriculture, Forest Service, General Technical Report SO-56. (cn).
- NEBEKER, T. EVAN, JOHN DEAVOURS HODGES, ROBERT K. KARR AND DAVID M. MOEHRING 1985. Thinning practices in southern pines with pest management recommendations. United States Department of Agriculture, Forest Service, Technical Bulletin 1703: 3-36. (cn).
- NEBEKER, T. EVAN, JOHN DEAVOURS HODGES, C. R. HONEA AND C. A. BLANCHIE 1988. Preformed defensive system in loblolly pine: variability and impact on management practices. Pages 147-162 in T. L. Payne and H. Saarenmaa, *Integrated control of scolytid bark beetles*. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv ec).
- NEBEKER, T. EVAN, D. R. HOUSTON, AND JOHN DEAVOURS HODGES 1986. Forest pests: influence of forest management practices on pest population dynamics and forest productivity. Pages 101-112 in T. C. Hennessey, P. M. Dougherty, S. V. Kossuth, and J. D. Johnson, *Stress physiology and forest productivity*. Martinus-Nijhoff Publishers. (cn).
- NEBEKER, T. EVAN, RUSSELL F. MIZELL III, AND NORMAN J. BEDWELL 1984. Management of bark beetle populations. Impact of manipulating predator cues and other control tactics. Pages 23-33 in W. Y. Garner and J. Harvey, *Chemical and biological control agents in forestry*. American Chemical Society Symposium Series 238, Seattle, Washington, 20-25 March 1983. (cn).
- NEBEKER, T. EVAN, G. C. PURSER AND RUSSELL F. MIZELL III 1980. Collection and maintenance of *Thanasimus dubius* (F.) for biological and behavioral studies. *Georgia Entomological Society, Journal* 15: 406-412. (cc).
- NECHILEBA, ALOIS 1928c. Response to K. E. Schedl comments on: Verkummern und Verderben von Brutten forstschadlicher Insekten. *Anzeiger fur Schadlingsskunde* 4(8): 111.
- NEE, LUDOVIC 1989. Quantification de l'intensite des attaques d'*Ips typographus* L. sur *Picea abies* Karst. [Quantification of the intensity of the attacks of *Ips typographus* on the Norway spruce]. *Journal of Applied Entomology* 107: 296-303. (cn).
- NEE, LUDOVIC AND R. JANSSENS 1986. Influence de divers types de pieges et de facteurs environnementaux sur les captures d'ipides forestiers [The influence of different types of traps and environmental factors on the captures of forest ips]. *Mededelingen van de Faculteit Landbouwwetenschappen, Rijksuniversiteit Gent* 51(3a): 907-913. (cn ec).
- NEGRU, STEPHAN 1970. Noi plante-gazda ale Scolitidelor (Col., Scolytidae) din Romania [New plant hosts for Romanian Scolytidae]. *Comm. Zool.* 1970: 151-160. (ds).
- ° _____. 1971. Scolitidi (Coleoptera, Scolytidae) della del futura bacino d'accumilazione 'Portile de Filer.' *Travaux de Museum d'Histoire Naturelle Grigore Antipa, Bucharest* 11: 175-189. (.)
- NEIVA, ARTHUR A., AND ROSARIO AVERNA-SACCA 1927. Os entomofagos cryptogamicos na broca do cafeeiro (*Stephanoderes hampei* Ferr.) encontrados em S. Paulo. [Source journal not copied by loaning library] 1927[or later]: 10-24, 195-213. (cn ec).
- ° NELSON 1931. [*Hylastes ater*]. Department of Scientific and Industrial Research, New Zealand. *Annual Report* 1930: 1. (.)
- NETTLETON, W. A., M. D. CONNOR AND G. W. RYAN 1985. Evaluation and application of the TAMBEETLE and Arkansas southern pine beetle spot growth models in the Gulf Coastal Plain. Pages 202-205 in S. J. Branham and R. C. Thatcher, *Symposium proceedings: Integrated pest management research*. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana. General Technical Report SO-56. 353 p. (cn).
- NEUMANN, FREDERICK G. 1987. Introduced bark beetles on exotic trees in Australia with special reference to infestations of *Ips grandicollis* in pine plantations. *Australian Forestry* 50: 166-178. (cn ec hb).
- NEUMANN, FREDERICK G., AND GEORGE MINKO 1985a. Aspects of the biology, survey and control of the introduced smaller European elm bark beetle, *Scolytus multistriatus*, a potential carrier of Dutch elm disease in Victoria. [Australia] Department of Conservation, Forests and Lands, State Forests and Lands Service, Research Branch Report 250. 21 p. (hb ds).
- _____. 1985b. Studies on the introduced smaller European elm bark beetle, *Scolytus multistriatus*, a potential vector of Dutch elm disease in Victoria. *Australian Forestry* 48: 116-126. (hb).
- NEUMANN, FREDERICK G., AND J. MOREY 1984. Studies on the introduced bark beetle *Ips grandicollis* (Eichhoff) in Victorian Radiata pine populations. *Australian Forest Research* 14: 283-300. (hb).
- NEVES, N., F. MONIZ, N. D. AZEVEDO, M. C. FERREIRA AND G. W. S. FERREIRA 1986. Present phytosanitary situations of Portuguese forests. European and Mediterranean Plant Protection Organization, *Bulletin* 16: 505-508. (cn).
- NEWELL, R. 1977. Forest insect and disease highlights. Canada Department of Fisheries and Environment, Canadian Forestry Service, Maritimes Forestry Research Centre, Fredricton, New Brunswick, *Pith to Periderm* 11(2): 11. (cn).
- _____. 1978. Forest insect and disease highlights. Canada Department of Fisheries and Environment, Canadian Forestry Service, Maritimes Forestry Research Centre, Fredricton, New Brunswick, *Pith to Periderm* 12(1): 3. (cn).
- ° NICHOLLS 1923. [*Acacis abundans*]. Tasmania Depart-

- ment of Agriculture and Stock, Report 1922-1923: 15-17. ().
- NIELSON, R. W. 1986. Harvesting and processing of beetle-killed timber. Proceedings: seminar sponsored by Forintek Canada Corporation and Cofi, Northern Interior Lumber Sector, 10 May 1985. Prince George, British Columbia. Special publication, Forintek Canada Corp. SP-26. 53 p. (cn).
- NIELSON, R. W., AND J. F. G. MACKAY. 1986. Sorting of dry and green lodgepole pine before kiln drying. Pages 31-34 in R. W. Nielson, Harvesting and processing of beetle-killed timber. Proceedings: seminar sponsored by Forintek Canada Corporation and Cofi, Northern Interior Lumber Sector, 10 May 1985. Prince George, British Columbia. Special Publication, Forintek Canada Corp. SP-26. 53 p. (cn).
- °NIEMEYER, HANS. 1979. Die Entwicklung der Borkenkäferpopulationen nach 1972 und ihre Bekämpfung. Pages 5-37 in W. Altenkirch et al., Aus dem Walde, Dokumentation der Sturmkatastrophe vom 13 November 1972. Part V. Mitteilungen aus der Niedersächsischen Landesforstverwaltung 31. 190 p. ().
- _____. 1955a. Field response of *Ips typographus* L. (Col., Scolytidae) to different trap structures and white versus black flight barriers. Journal of Applied Entomology 99: 44-51. (cn).
- _____. 1955b. Freilandbeobachtungen zum Anflugverhalten und zur visuellen Orientierung des Buchdruckers (*Ips typographus* L.) an Pheromonfallen [Field studies on flight behaviour and visual orientation of *Ips typographus* in relation to pheromone traps] [English summary]. Forst- und Holzwirt 40: 85-92. (bv).
- _____. 1955c. Test und Effektivität von Borkenbefallen [Testing and effectiveness of bark beetle traps] [English summary]. Forst- und Holzwirt 40: 32-40. (cn).
- NIGAM, PRAKASH CHANDRA. 1975. Chemical insecticides. Pages 5-24 in M. L. Prebble, Aerial control of forest insects in Canada. Canada Department of the Environment, Canadian Forestry Service, Ottawa, Catalog No. Fo-23/19/1975. (cn).
- NIHOUL, P., LUDOVIC NEE AND L. WATERKEYN. 1959. Variabilité inter- et intra-individuelle de quelques caractéristiques anatomiques de l'écorce de l'épicéa commun (*Picea abies* [L.] Karsten) en Ardenne belge. Annales des Sciences Forestières 46: 85-95. (cn).
- NILSSON, A. C. 1957. Nyetablering av en grandbillefauna I det nordligste Norge som følge av innplantning av gran [Colonization by a spruce beetle fauna in northernmost Norway following planting of spruce] [In Norwegian, English summary]. Entomologiske Meddelelser 55: 169-170. (hb).
- NOBUCHI, AKIRA. 1979c. Treatment of *Xyleborus* species attacks with boric acid on pressure treated timber [In Japanese]. [Source journal?] No. 15: 11-13. (cn).
- °_____. 1979d. Bark and ambrosia beetles collected by Dr. Kintaro Baba (Col., Scol. and Platyp.). Studies on Scolytidae XVI. [Source?]: 115-121. ().
- _____. 1980d. Ambrosia beetles injurious to bed logs of Shiitake mushroom (I). Forest Pests 29(5, No. 335): 51-57. (cn ds).
- _____. 1980e. Ambrosia beetles injurious to bed logs of Shiitake mushroom (II). Forest Pests 29(6, No. 339): 109-115. (cn ds).
- _____. 1980f. Bark beetles in imported timber I [In Japanese]. [Source journal?] No. 66. 75 p. (cn).
- _____. 1980g. Bark beetles in imported timber II [In Japanese]. [Source journal?] No. 67. (cn).
- _____. 1980h. Studies on Scolytidae, XIX: Formosan Platypodidae and Scolytidae collected by Dr. Yan-I Chin (Coleoptera). Japan Coleopterological Society, Osaka 34: 93-97. (ds).
- _____. 1982. Bostrichidae and Scolytidae (Coleoptera) from Minami-Iwojima Island. Pages 357-359 in Nature Conservation Bureau, Environment Agency of Japan, December. (ds).
- _____. 1985a. The Platypodidae (Coleoptera) of the Philippines. Japan Agriculture Research Quarterly 15: 327-330. (ds tx).
- _____. 1985b. Check-list of Coleoptera of Japan: Platypodidae. Coleopterists Association of Japan 29: 1-3. (ds tx).
- _____. 1985c. Check-list of Coleoptera of Japan: Scolytidae. Coleopterists Association of Japan 30: 1-32. (ds tx).
- NOBUCHI, AKIRA AND MASASHI KAMOCHI. 1955. Bark and ambrosia beetle fauna (Coleoptera: Platypodidae and Scolytidae) in Wakayama Prefecture [Japan]. Kinokuni 27: 1-11. (ds).
- NOGUERA-MARTINEZ, FILIPE A., AND THOMAS HARRIS ATKINSON. 1990. Biogeography and biology of bark and ambrosia beetles (Coleoptera: Scolytidae and Platypodidae) of a mesic montane forest in Mexico, with an annotated checklist of species. Entomological Society of America, Annals 53: 453-466. (hb ds).
- NOHIRA, T., AND S. OGAWA. 1956. Scolytidae (Coleoptera) collected by chemical traps for Matsukimushi [In Japanese]. Japanese Forestry Society, Journal 65: 249-250. (ds).
- NORD, JOHN C. 1971. Soft maple + CTB [Columbian timber beetle] = soft maple (WHND) [worm holes no defect] = dollars? Southern Timberman 1971 (December 15): 140-142. (cn ms).
- NORD, JOHN C., ALICE S. JONES AND FELTON L. HASTINGS. 1955. Field tests of insecticides for control of black turpentine beetle. Pages 272-280 in S. J. Branham and R. C. Thatcher, Integrated pest management research symposium: the proceedings. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn).
- NORDANSTIC, G. 1976. Granbarkborrens ekonomiska betydelse. Pages 13-14 in Skogsskydd [In Swedish]. Sveriges Skogsvårdsförbund. (cn).
- °NORMAND, H. 1937. [*Hylesinus fraxini* (=varius)]. Societe d'Histoire Naturelle de Afrique Nord 25: 265. ().
- NORRIS, DALE MELVIN. 1957. Electrochemistry of phytochemicals as repellents or antifeedants to insects. Pages 147-152 in V. Labeyrie, G. Fabres, and D. Lachaise, Insect-plants. Sixth International Symposium on Insect-Plant Relationships, Proceedings. Series Entomologica 41. 549 p. (ay cn).
- NOSEK, JOSEF. 1952b. K biocenologii fauny kurovcu v Beskydech [Contribution a la biocenologie de la faune d'ipides des les Beskydes]. Praha, Československa Akademie vfed. 1(15): 95-100. (cc ds).
- NOTMAN, II. 1920. Coleoptera collected at Windsor, Broome Co., New York, 26 May to 5 June 1918, with notes and descriptions. New York Entomological Society, Journal 28: 178-194. (ds).
- °NOVAK, VLADIMIR. 1965. Ochrana neodkorneného suroveho dreva proti lmyzu a boj proti kirovcum. Metodiky pro zavadeni vysledku vyzkumu do praxe. Ustav

vedecké technických informací. Ustředí zemědělského a potravinářského výzkumu 1: 1–27, 1 pl. ().

°. 1971. Moderní prostředky ochrany lesů boji se škodlivými biotickými činiteli. Pages 225–234 in Sborník konference VULHM Lesy a lesní hospodářství v rozvoji současné společnosti. Praha 28–29 September 1971. ().

NOVAK, VLADIMIR, AND P. ZAHRADNIK. 1988. The results of the use of Linoprax pheromone preparation to reduce the population of lineate bark beetle *Xyloterus lineatus* Ol. [In Czech]. Lesnictví (Prague) 34: 499–512. (cn).

O

°OCETE, R., E. OCETE R., AND A. PEREZ. 1986. Contribucion al estudio de la perforacion de galerias del "barenillo del olivo" (*Phloeotribus scarabaeoides* Bem.) (Coleoptera, Scolytidae) en Dos Hermanas (Seville) [Contribution to the study of the perforation of galleries by *Phloeotribus scarabaeoides* in Dos Hermanas (Seville)] [English summary]. Boletim da Sociedade Portuguesa de Entomologia supplement 1: 153–160. ().

OCHOA M., H., AND B. DECAZY. 1987. Efecto biologico de aplicacion de plaguicida a bajo volumen sobre broca del fruto del cafe *Hypothenemus hampei* Ferr. (Estudio preliminar) [Biological effect of low volume application of pesticide on *Hypothenemus hampei*, preliminary studies] [English summary]. Revista Cafetalera 27S: 21–28. (cn).

OCHOA M., H., B. DECAZY, AND R. LOTODE. 1988. Estudio de un metodo de muestreo para determinar el indice de compate de la broca del fruto del cafe *Hypothenemus hampei* [A study of a sampling method to determine the control index for the coffee berry borer] [English summary]. Revista Cafetalera 287: 16–25. (cn).

OCHOA M., H., ET AL. 1989. *Hypothenemus hampei* Ferr., en funcion de diferentes porcentajes de infestacion [Determination of crop loss due to *Hypothenemus hampei* as a function of different percentages of infestation] [English subtitle]. Revista Cafetalera 303: 23–27. (cn).

O'CONNOR, BARRY M., AND JOHN CONRAD MOSER. 1985. Phylogenetic relationships of the Algophagidae (Acari: Astigmata), with descriptions of a new subfamily, genus, and species. Entomological Society of America, Annals 78: 783–789. (ec).

O'CONNOR, J. P., T. G. WINTER, AND J. A. GOOD. 1991. A review of Irish Scolytidae (Insecta: Coleoptera). Irish Naturalists Journal 23: 389–428. (ds).

O'DONNELL, B. P., THOMAS LEE PAYNE, AND K. D. WALSH. 1986. Effect of pine oil on landing and attack by the southern pine beetle (Coleoptera: Scolytidae). Journal of Entomological Science 21: 319–321. (bv cn).

OEHLSCHLAGER A. C., AND B. D. JOHNSTON. 1987. Synthesis of the enantiomers of endobrevicomin. Journal of Organic Chemistry 52: 940–944. (bv ms).

OEHLSCHLAGER A. C., C. G. S. KING, H. D. PIERCE, JR., A. M. PIERCE, K. N. SLESSOR, J. G. MILLAR, AND JOHN HARVEY BORDEN. 1987. Chirality of Macrolidae pheromones of grain beetles in the genera *Oryzaephilus* and *Cryptolestes* and its implications for species specificity. Journal of Chemical Ecology 13(6): 1543–1554. (ec ms).

OEHLSCHLAGER A. C., A. M. PIERCE, H. D. PIERCE, JR., AND JOHN HARVEY BORDEN. Chemical communication in

cucujid grain beetles. Journal of Chemical Ecology 14(11): 2071–2095. (bv ec).

OEHLSCHLAGER A. C., AND D. VANDERSEL. 1987. Biosynthesis of pheromones in Coleoptera. American Chemical Society (Abstract) 194: Agro 36. (bv ms).

OHMART, CLIFFORD P. 1982. Insects associated with *Pinus radiata* throughout the world: an annotated bibliography. [Australia] Commonwealth Scientific and Industrial Research Organization, Division of Forest Research, Canberra, Division Report 9. 79 p. (ds ms).

°. 1989. Why are there so few tree-killing bark beetles associated with angiosperms? Oikos 54: 242–245. (tx ms).

OHNESORGE, BERNHART. 1953. Der Einfluss von Geruchs- und Geschmacksstoffen auf die Wahl der Frasspflanzen beim grossen braunen Russelkafer *Hylobius abietis* L. Beitrage zur Entomologie 3: 437–467. (ec).

OHNO, SHIZUO. 1989. Studies on Scolytidae and Platypodidae (Coleoptera) found on imported logs at Japanese ports. I: keys to the subfamilies, tribes and genera. Research Bulletin of the Plant Protection Service Japan 25: 7–22. (tx).

OHNO, SHIZUO, K. YONEYAMA, AND H. NAKAZAWA. 1982a. The Scolytidae and Platypodidae (Coleoptera) from Celebes, found in logs at Nagoya port. Research Reports, Nagoya Plant Protection Station [Journal title in Japanese] 25: 3–6. (ds).

°. 1982b. The Scolytidae and Platypodidae (Coleoptera) from Sumatra and Mentawai Islands, found in logs at Nagoya port. Research Reports, Nagoya Plant Protection Station [Journal title in Japanese] 25: 7–12. (ds).

°. 1987a. The Scolytidae and Platypodidae (Coleoptera) from Philippines, found in logs at Nagoya port. Research Bulletin of the Plant Protection Service Japan 23: 87–91. (ds).

°. 1987b. The Scolytidae and Platypodidae (Coleoptera) from Moluccas Islands, found in logs at Nagoya port. Research Bulletin of the Plant Protection Service Japan 23: 93–97. (ds).

OHNO, SHIZUO, K. YOSHIOKA, N. UCHIDA, K. YONEYAMA, AND K. TSUKAMOTO. 1989. The Scolytidae and Platypodidae (Coleoptera) from Bismark Archipelago found in logs at Nagoya port Japan. Research Bulletin of the Plant Protection Service Japan 25: 59–69. (ds).

OHNO, SHIZUO, K. YOSHIOKA, K. YONEYAMA, AND H. NAKAZAWA. 1988a. The Scolytidae and Platypodidae (Coleoptera) from Solomon Islands, found in logs at Nagoya port. I. Research Bulletin of the Plant Protection Service Japan 24: 91–95. (ds).

°. 1988b. The Scolytidae and Platypodidae (Coleoptera) from Solomon Islands, found in logs at Nagoya port, II. Research Bulletin of the Plant Protection Service Japan 24: 97–99. (ds).

°OKOLOW, CZESLAW. 19... Badania entomologiczne w Bialowieckim i Kampinoskim parku narodowym (stan, potrzeby) [Entomological investigations in national parks: Bialowieza and Kampinos (present state, needs)]. Entomologia a gospodarka narodowa 19...: 19–36. ().

°. 1968. Cykl rozwojowy jesiaka czarnego, *Hylesinus crenatus* Fabr. (Col., Scol.) [Life cycle of the large ash bark beetle, *Hylesinus crenatus*]. Polskie pismo entomologiczne, Wroclaw 38: 627–630. ().

°. 1980. *Polygraphus punctifrons* Thomson, eine interessante, boreale Borkenkaferart. Ein Beitrag zur

- Biologie und Ökologie. Acta Musei Reginaehradecensis S. A Supplementum 1950: 75-76. (.)
- OKUDA HIROSHI AND S. SUZUKI 1955. Efficacy and persistence of fenitrothion for prevention of the larch ips, *Ips cembrae* (Heer) (Coleoptera: Scolytidae) [In Japanese, English summary]. Japanese Journal of Applied Entomology and Zoology 29(4): 326-329. (cn).
- O'NEIL CURTIS G. 1956. Mountain pine beetle in state, county, and private lands on Casper/Muddy Mountain, Wyoming. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, State and Private Forestry, Biological Evaluation R2-55-9. 5 p. (cn).
- _____. 1955. Mountain pine beetle on Laramie Peak, Medicine Bow National Forests, Wyoming. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado. Biological Evaluation R2-55-3. 19 p. (cn).
- O'NEIL CURTIS G., AND M. SHARON. 1955. Forest pest conditions in the Rocky Mountain Region 1957. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, Timber, Forest Pest and Cooperative Forestry Management, Technical Report. 33 p. (cn).
- OPANASENKO, F. I., AND A. P. KONONENKO. 1966. Specific composition and ecological peculiarities of trunk pests inhabiting the fir in north-eastern Alta [In Russian]. Pages 53-56 in A. I. Cherepanov, The fauna and ecology of Arthropoda from Siberia. USSR Academy of Sciences, Siberian Branch, Novosibirsk. (hb).
- OPPERMANN, T. A. 1955. Rinden- und Holzbrutende Insekten an Immissionsgeschädigten Fichten und Kiefern [Bark and wood insect pests of pollution-damaged spruce and pine] [English summary]. Holz-Zentralblatt 111(14): 213-217. (cn).
- ORMEROD, ELEANOR ANNE. 1890. [*Xyleborus dispar*, p. 330-334]. Manual of injurious insects. (.)
- OTROSINA W. J., AND G. T. FERRELL. 1959. Effects of water stress on white fir wound response to *Trichosporium symbioticum* fungal symbiont of the fir engraver beetle. Phytopathology 79: 1164. (ec).
- OTSUKA T., S. J. SEYBOLD, DAVID LEE WOOD, AND I. KUBO. 1955. Optical resolution of ipsdienol and ipsenol, aggregation pheromones of bark beetles *Ips* spp. American Chemical Society (Abstract) 196:Orgn 386. (bv ms).
- OTT, H. J. 1959. Ökologische Untersuchungen zur Bedeutung von Windwurfflächen für die Insektenfauna, Teil I. Waldhygiene 17: 193-247. (cn ec).
- OTTO, H. J. 1955. Sykiculture according to site conditions as a method of forest protection. Journal of Applied Entomology 99: 190-195. (cn ec).
- OTVOS, IMRE S. 1977. Observations on the food of three forest-dwelling lizards in California. Herpetological Review 8: 6-7. (ec).
- OTVOS, IMRE S., RONALD WILLIAM STARK. 1955. Arthropod food of some forest-inhabiting birds. Canadian Entomologist 117: 971-990. (ec).
- OVERHULSER, D. L. 1956. Southwest Oregon forest insect pests. Pages 29-34 in O. T. Helgeson, Forest pest management in southwest Oregon. Forest Research Laboratory, Oregon State University, Corvallis, Oregon. (cn).
- OWEN, DONALD R. 1956. Annual Southwestern Region pest conditions report, 1955. United States Department of Agriculture, Forest Service, Southwestern Region, Albuquerque, New Mexico, Forest Pest Management Report R3-56-4. 17 p. (cn).
- OWEN, DONALD R., K. Q. LINDAHL, JR., DAVID LEE WOOD, AND J. PARMETER. 1957. Pathogenicity of fungi isolated from *Dendroctonus valens*, *D. brevicornis*, and *D. ponderosae* to ponderosa pine seedlings. Phytopathology 77: 631-636. (ec).

P

- PAGE, MARION MICHAEL I. HAVERTY, AND CHARLES E. RICCI-MOND. 1955. Residual activity of carbaryl protected lodgepole pine against mountain pine beetle, Dillon, Colorado, 1952 and 1953. United States Department of Agriculture, Forest Service, Pacific Southwest Forest and Range Experiment Station, Berkeley, California, Research Note PSW-375. 4 p. (cn).
- PAGE, P. C. B., C. M. RAYNER, AND I. O. SUTHERLAND. 1956. Stereospecific synthesis of exo- and endo-1,3-dimethyl-2,9-dioxabicyclo-3,3,1-nonane. Tetrahedron Letters 27(30): 3535-3535. (bv ms).
- PAINE, TIMOTHY D., C. A. BLANCHIE, T. EVAN NEBEKER, FREDERICK M. STEPHEN. 1955. Composition of loblolly pine resin defenses: comparison of induced lesion and sapwood resin. Canadian Journal of Forest Research 17: 1202-1206. (cn ec).
- PAINE, TIMOTHY D., R. G. CATES, AND FREDERICK M. STEPHEN. 1955. Moisture stress, tree suitability, and southern pine beetle population dynamics. International Congress of Entomology, Proceedings 18: 413. (ec hb).
- PAINE, TIMOTHY D., AND FREDERICK M. STEPHEN. 1957a. Fungi associated with the southern pine beetle: avoidance of induced defense response in loblolly pine. Oecologia [Berlin] 74: 377-379. (ec).
- _____. 1957b. Influence of tree stress and site quality on the induced defense system of loblolly pine. Canadian Journal of Forest Research 17: 569-571. (ec).
- _____. 1957c. Response of loblolly pine to different inoculum doses of *Ceratocystis minor*, a blue-stain fungus associated with *Dendroctonus frontalis*. Canadian Journal of Botany 65: 2093-2095. (ec).
- _____. 1957d. The relationship of tree and crown class to the induced-plant defenses of loblolly pine. Canadian Journal of Botany 65: 2090-2092. (ec).
- _____. 1955. Induced defenses of loblolly pine, *Pinus taeda*: potential impact on *Dendroctonus frontalis* within-tree mortality. Entomologia Experimentalis et Applicata 46: 39-46. (ec).
- PAINE, TIMOTHY D., FREDERICK M. STEPHEN, AND R. G. CATES. 1955. Induced defenses against *Dendroctonus frontalis* and associated fungi: variation in loblolly pine resistance. Pages 169-176 in S. J. Bramham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana. General Technical Report SO-56. 383 p. (cn).
- _____. 1955a. Moisture stress, tree suitability, and southern pine beetle population dynamics. Pages 85-103 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (ec hb).
- _____. 1955b. Phenology of an induced response in loblolly pine following inoculation of fungi associated with the southern pine beetle. Canadian Journal of Forest Research 18: 1556-1562. (cn ec).

- PAINÉ, TIMOTHY D., FREDERICK M. STEPHEN, AND G. N. MASON. 1955. A risk model integrating stand hazard and southern pine beetle population level. Pages 201–212 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings, Canada Department of the Environment, Forestry Service and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1953. 240 p. (cn).
- PAINÉ, TIMOTHY D., FREDERICK M. STEPHEN, G. W. WALLIS, AND J. F. YOUNG. 1955. Seasonal variation in host tree defense to the southern pine beetle. *Arkansas Farm Research* 34: 5. (cn).
- PAIVA, MARIA ROSA AND K. KIESEL. 1955a. Field response of *Trypodendron* spp. (Col., Scolytidae) to different concentrations of lineatin and alph-pinene. *Journal of Applied Entomology* 99: 442–448. (bv).
- _____. 1955b. Lineatin biosynthesis and interspecific communication in *Trypodendron* spp. (Col., Scolytidae). *Mitteilungen der Deutschen Gesellschaft für Allgemeine und Angewandte Entomologie* 4(4–6): 402–405. (bv).
- PAIVA, MARIA ROSA, M. F. PESSOA, AND JEAN PIERRE VITE. 1955. Reduction in the pheromone attractant response of *Orthotomicus erosus* (Woll.) and *Ips sexdentatus* Boern. (Col., Scolytidae). *Journal of Applied Entomology* 106: 198–200. (bv).
- PAIVA, MARIA ROSA AND JEAN PIERRE VITE. 1954. As feromonas de agregacao no controlo de Scolytidae: algumas implicacoes ecologicas [The aggregation pheromones in the control of Scolytidae: some ecological implications] [English summary]. *Boletim da Sociedade Portuguesa de Entomologia* 11, 20: 225–235. (bv cn).
- *PAJARES ALONSO, JUAN A. 1957. Contribucion al conocimiento de los escolitidos vectores de la grafiosis en la peninsula iberica. Unpublished dissertation, Universidad Politecnica de Madrid, Spain. 242 p. ().
- PAJARES ALONSO, JUAN A., AND M. J. AREVALO. 1957. Proteccion de los olmos contra los insectos vectores de la grafiosis [Protection of elms against vectors of Dutch elm disease] [English summary]. *Boletim de Sanidad Vegetal, Plagas* 13(3): 311–325. (cn).
- PAJARES ALONSO, JUAN A., AND LUIS GIL. 1955. La grafiosis de los olmos. Ministerio de Agricultura, Pesca y Alimentacion, Publicaciones de Extension Agraria, Hojas Divulgadoras 19. 24 p. (cn).
- *PALM, THURE WILHELM. 1965. [*Hylesinus oleiperda* (= *toranio*)]. *Opuscula Entomologica* 30: 167. ().
- _____. 1956. Skalbaggstudier pa Stenshvid. *Entomologisk Tidskrift* 107: 53–55. (ds).
- PARIKHAR, D. R., AND A. J. HAYES. 1957. Biology of *Scolytus laevis* Chapuis (Coleoptera: Scolytidae), a vector of Dutch elm disease in Scotland. *Scottish Forestry* 41: 185–196. (hb).
- PARK, J. D., AND B. H. BYUN. 1955. Trapping the overwintering pine bark beetle, *Tomicus piniperda* L. (Coleoptera: Scolytidae), by turpentine [In Japanese, English captions and tables]. *Research Reports of the Forestry Research Institute (Seoul)* 36: 126–129. (cn).
- PARMETER, JOHN R., JR., GAREY W. SLAUGHTER, M. M. CHEN, DAVID LEE WOOD, AND H. A. STUBBS. 1959. Single and mixed inoculations of ponderosa pine with fungal associates of *Dendroctonus* sp. *Phytopathology* 79: 768–772. (ec).
- PATOCKA, JAN. 1955. Biology and forestry importance of *Scolytus intricatus* Ratz. (Coleoptera: Scolytidae) [In Slovak]. *Zpravy lesnického výskumu, Zvolen* 3: 17–21. (cn hb).
- PATOCKA, JAN, AND J. NOVOTNY. 1957. Ucast hmyzu na hromadnom hynuti dubov na Slovensku [Share of insects in the mass decay of oak in Slovakia]. *Vedecke prace Vyskumneho ustavu lesneho hospodarstva vo Zvolene* 36: 59–90. (cn ec).
- *PAWLOWSKI JERZY. 1972. The beetles (Coleoptera) of Babia Gora Mountain [Polish western Carpathians]. *Acta Zoologica Cracoviensia* 12: 19–251. ().
- *PAX, FERDINAND. 1921. [*Hylastes angustatus*]. *Jahresheft des Vereins für Schlesische Insektenkunde zu Breslau, Breslau* 1921: 44–56. ().
- PAYNE, THOMAS LEE. 1970. Sex communication between insects. Pages 57–64 in *Texas Agricultural Experiment Station Conference, Proceedings*. (bv hb).
- _____. 1980a. Behavioral chemicals in bark beetle manipulation [abstract]. *Joint Congress, European Chemoreception Research Organization and International Symposium on Olfaction and Taste, Netherlands*. (bv).
- _____. 1980b. Influence of inhibitors on southern pine beetle behavior [abstract]. *Biology and behavior of bark and ambrosia beetles: symposium proceedings, International Congress of Entomology, Proceedings* 16: 284. (bv).
- _____. 1980c. Pheromonal control of *Dendroctonus frontalis* and its application to pest management [abstract]. *Symposium proceedings: Pheromonal control of insect behavior and its application to pest management, International Congress of Entomology, Proceedings* 16: 222. (bv cn).
- _____. 1986a. Olfactory basis of insect enemies of allied species. *Symposium proceedings: Potential for biological control of *Dendroctonus* and *Ips* bark beetles, Entomological Society of America*. (bv cn).
- _____. 1986b. Olfaction and vision in host finding by a bark beetle. Pages 111–116 in T. L. Payne, M. C. Birch, and C. E. J. Kennedy, *Mechanisms in insect olfaction*. Clarendon Press, Oxford. xvi + 364 p. (bv).
- _____. 1955. Pheromone plus cut and leave for southern pine beetle suppression. *International Congress of Entomology, Proceedings* 18: 415. (bv cn).
- PAYNE, THOMAS LEE, N. A. ANDRYSZAK, H. WIESER, E. A. DIXON, N. IBRAHIM, AND J. COERS. 1955. Antennal olfactory and behavioral response of southern pine beetle, *Dendroctonus frontalis*, to analogs of its aggregation pheromone frontalin. *Journal of Chemical Ecology* 14: 1217–1226. (bv).
- PAYNE, THOMAS LEE, AND RONALD FORREST BILLINGS. 1955. Effect of pheromone plus tree cutting on suppression of southern pine beetle infestations. Pages 267–273 in T. L. Payne and H. Saarenmaa, *Integrated control of scolytid bark beetles*. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv cn).
- _____. 1959. Evaluation of (s)-verbenone applications for suppressing southern pine beetle (Coleoptera: Scolytidae) infestations. *Journal of Economic Entomology* 52: 1702–1705. (cn).
- PAYNE, THOMAS LEE, RONALD FORREST BILLINGS, J. D. DELORME, N. A. ANDRYSZAK, J. BARTELS, W. FRANCKE, AND JEAN PIERRE VITE. 1957. Kairomonal-pheromonal system in the black turpentine beetle, *Dendroctonus terebrans* (Ol.). *Journal of Applied Entomology* 103: 15–22. (bv).
- PAYNE, THOMAS LEE, MARTIN C. BIRCH, AND C. E. J. KENNEDY

1956. Mechanisms in insect olfaction. Clarendon Press, Oxford. xvi + 364 p. (bv).
- PAYNE, THOMAS LEE, JACK E. COSTER, AND J. V. RICHIERSON. 1984. Insect predator-prey coevolution via enantiomeric specificity in a kairomone-pheromone system. *Journal of Chemical Ecology* 10: 457-492. (bv ec).
- PAYNE, THOMAS LEE, AND ROBERT N. COULSON. 1985. Role of visual and olfactory stimuli in host selection and aggregation behavior by *Dendroctonus frontalis*. Pages 73-82 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings, Canada Department of the Environment, Canadian Forestry Service, and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1983. 240 p. (bv).
- PAYNE, THOMAS LEE, L. H. KUDON, CHARLES W. BERISFORD, P. P. O'DONNELL, AND KIERON D. WALSH. 1985. Effects of frontalure in suppressing southern pine beetle spot growth under endemic and epidemic population levels. Pages 251-257 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (bv cn).
- PAYNE, THOMAS LEE, L. H. KUDON, KIERON D. WALSH, AND CHARLES W. BERISFORD. 1985. Influence of infestation density on suppression of *D. frontalis* infestations with attractant. *Journal of Applied Entomology* 99: 39-43. (bv cn).
- PAYNE, THOMAS LEE, AND J. V. RICHIERSON. 1985. Pheromone-mediated competitive replacement between two bark beetle populations: influence of infestation suppression. *Journal of Applied Entomology* 99: 131-135. (bv ec).
- PAYNE, THOMAS LEE, AND II. SAARENMAA. 1988. Integrated control of scolytid bark beetles. IUFRO Working Party and the XVII International Congress of Entomology Symposium, Vancouver, British Columbia, Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn).
- PAYTON, I. J. 1989. Fungal (*Sporothrix*) induced mortality of Kamahū (*Weinmannia racemosa*) after attack by pin-hole borer (*Platypus* spp.). *New Zealand Journal of Botany* 27: 359-365. (ec).
- PEACOCK, JOHN WILLIAM, ROY A. CUTHBERT, AND GERALD NORMAN LANIER. 1981. Deployment of traps in a barrier strategy to reduce populations of the European elm bark beetle, and the incidence of Dutch elm disease. Pages 155-174 in E. R. Mitchell, Management of insect pests with semiochemicals. Concepts and practice. Plenum Press, New York. 514 p. (bv cn).
- PECK, OSWALD. 1963. A catalogue of the Nearctic Chalcidoidea (Insecta: Hymenoptera). *Canadian Entomologist*, Supplement 30. 1092 p. (ec).
- PECK, STEWART B., JARMILA KUKALOVA-PECK, AND C. BORDON A. 1989. Beetles (Coleoptera) of an oil-bird cave: Cueva del Guacharo, Venezuela. *Coleopterists Bulletin* 43: 151-156. (hb).
- PEDROSA-MACEDO, JOSE HENRIQUE. 1985. Insect pests and their control in pine plantations in Brazil. Pages 149-161 in Protection of forests in the tropics: noxious insects to pine and eucalyptus plantations in the tropics. Universidade Federal do Parana, Curitiba, Brazil. (cn ds).
- PEDROSA-MACEDO, JOSE HENRIQUE, AND J. SCHONHERR. 1985. Manual dos Scolytidae nos reflorestamentos Brasileiros [Manual of the Scolytidae in reforested areas in Brazil] [English summary]. Universidade Federal do Parana, Curitiba, Parana, Brazil. vi + 69 + 11 p. (ds tx).
- PERFECTO, I. 1988. Variation in attack rates among sub-populations of *Coccotrypes carpophagus* utilizing *Eutrepe globosa* seeds at three locations in Puerto Rico. *Tropical Ecology* 29: 114-120. (bv cn).
- PERICART, J., AND J. HALPERIN. 1989. The Anthocoridae of Israel (Heteroptera). *Phytoparasitica* 17: 91-99. (ec).
- PERROUD, B. P. 1864. *Bostrichus Boieldieu*. Page 155 in B. P. Perroud and X. Montrouzier, Essai sur la faune entomologique de Kanala (Nouvelle-Caledonie) et description de quelques especes nouvelles on peu connue. Societe Linneenne de Lyon, Annales, ser. 2, 11: 46-257. (tx).
- PERSON, II. L. 1940. The clerid *Enoclerus lecontei* (Woll.) as a factor in the control of the western pine beetle. *Journal of Forestry* 38: 390-396. (ec).
- PERUSQUIA ORTIZ, JUSTINA. 1982. Insectos asociados a los descortezadores *Dendroctonus* spp. de los pinos [English summary]. Secretaria de Agricultura y Recursos Hidraulicos, Subsecretaria Forestal y de la Fauna, Instituto Nacional de Investigaciones Forestales, Mexico, D.F., Boletin Technico 83. 33 p. (cn ec).
- PETRENKO, E. S. 1966. The ipidofauna of felling areas in the pine forest of Krasnojarsk Angara region [In Russian]. Pages 77-80 in A. I. Cherepanov, The fauna and ecology of Arthropoda from Siberia. USSR Academy of Sciences, Siberian Branch. Novosibirsk. (hb).
- PETTY, T. M., AND C. C. SHAW. 1986. Isolation of *Fomitopsis pinicola* from in-flight bark beetles (Coleoptera, Scolytidae). *Canadian Journal of Botany* 64: 1507-1509. (ec).
- °PETTIT 1899. [*Scolytus rugulosus*]. Michigan Agricultural Experiment Station, Bulletin 125(175): 363-365. ().
- _____. 1904. [*Scolytus rugulosus*]. Michigan Agricultural Experiment Station, Bulletin 24: 34, 53-55, 59, fig. 53. ().
- PETTY, J. 1967. Annual district report: Grande Prairie, Slave Lake district, 1966. Pages 73-82 in District reports of the Forest Insect and Disease Survey, Alberta-Northwest Territories-Yukon region, 1966. Canadian Department of Forestry and Rural Development, Forestry Research Laboratory, Calgary, Alberta, Information Report A-X-6. (cn).
- PFEFFER, ANTONIN. 1947e. Urcovaci tabulky nejdlezejsich hmyzich skuceu, zijicich na nasich drevinach. Zvlastni otisk z Male encyclopedie lesnicivi, dil I., oddil V. Nakladem vlastnim. Tiskem kniltiskarny Bohumil Novotny, Pisek. 28 p. (ds tx).
- °_____. 1948. [*Pityogenes quadridens*]. *Entomologicke Listy, Folia Entomologica, Brno* 9(1-4): 116. ().
- °_____. 1971. Hmyz jako bioindikator [Insekten als Bioindikatoren]. Bioindicators of landscape deterioration, Praha 1971: 83-85. ().
- °_____. 1976. Insekten als Indikatoren von Veränderungen in der Bestandzusammensetzung der Sudbohmischen Moore (Einleitung, Problematik, Sudbohmische Spire, Okologische Grundlagen, Methodik, Zusammenfassung der Ergebnisse Schlussfolgerung). *Quaestiones Geobiologicae* 16: 74-98. ().
- °_____. 1977. Famistic records from Czechoslovakia. Col., Scol., *Trypophloeus spiculatus*, *T. granulatus*, *T.*

- rybinski*. Acta Entomologica Bohemoslovaca 74: 207. (.)
- _____. 1975. Wirkungen von Luftverunreinigungen auf die freilebende Tierwelt. Schweizerischen Zeitschrift für Forstwesen 129: 362–367. (ec).
- _____. 1980. Insektenfauna der Hochgebirgswälder Mitteleuropas. Acta Musei Reginahradensis S. A. Supplementum 1980: 77–80. (ec).
- _____. 1984. Synopsis der gattung *Hylastinus* Bedel (Col., Scolytidae). Acta Entomologica Jugoslavica 20: 9–13. (ds tx).
- _____. 1985a. Sexualdimorphismus der Arten der Gattung *Carphoborus* Eichhoff und taxonomische Bemerkungen zu den einzelnen Arten (Coleoptera: Scolytidae) [Sexual dimorphism of species of the genus *Carphoborus* Eichhoff and taxonomic notes on the individual species] [English summary]. Acta Entomologica Bohemoslovaca 82: 468–475. (ay ds tx).
- _____. 1985b. Zur taxonomischen Stellung der Gattung *Saliciphilus* Sokanovsky (Coleoptera, Scolytidae) [The taxonomic position of the genus *Saliciphilus*] [English summary]. Acta Entomologica Bohemoslovaca 82: 138–142. (tx).
- _____. 1987. *Taphrocoetes* gen. n. und die Heterogenität der Gattung *Taphrorhynchus* Eichhoff (Coleoptera, Scolytidae) [*Taphrocoetes* gen. n. and heterogeneity of the genus *Taphrorhynchus*] [English summary]. Acta Entomologica Bohemoslovaca 84: 22–26. (tx).
- _____. 1989a. Kurovcoviti Scolytidae a jadrolhodoviti Platypodidae. Ceskoslovenska Akademie Veg, Praha. 137 p. (ds tx).
- _____. 1989b. Taxonomischer Status einiger Arten der Gattung *Xyloterus* Erichson (Coleoptera, Scolytidae) [The taxonomic position of some species of the genus *Xyloterus*] [English summary]. Acta Entomologica Bohemoslovaca 86: 129–136. (ds tx).
- _____. 1991. The taxonomic position of genus *Taphromurgus* (Coleoptera, Scolytidae). Acta Entomologica Bohemoslovaca 88: 211–214. (tx).
- _____. 1992. Nomenclatural note on *Crypturgus mediterraneus* (Coleoptera, Scolytidae). Acta Entomologica Bohemoslovaca 89: 69–70. (tx).
- PFEFFER, ANTONIN, AND MILOS KNIZEK. 1989. Problematika kurovcu introdukovanych do Europy. Lesnicke Prace 1989: 311–312. (cn ds).
- PFEFFER, ANTONIN, AND VACLAV ZUMR. 1983. Communities of Coleoptera on the silver fir (*Abies alba*). Acta Entomologica Bohemoslovaca 80: 401–412. (ec).
- PFEFFER, DOUGLAS G. 1985. Ambrosia beetles in Virginia vineyards. Virginia Journal of Science 36: 91. (cn ec).
- PHILLIPS, T. W. 1988. Chemical signals and male strategies in Scolytidae. International Congress of Entomology. Proceedings 18: 430. (bv).
- PHILLIPS, T. W., THOMAS HARRIS ATKINSON, AND JOHN L. FOLTZ. 1989. Pheromone-based aggregation in *Orthotomicus caelatus* Eichhoff (Coleoptera: Scolytidae). Canadian Entomologist 121: 933–940. (bv).
- PHILLIPS, T. W., J. L. NATION, ROBERT CLEVELAND WILKINSON, AND JOHN L. FOLTZ. 1989. Secondary attraction and field activity of beetle-produced volatiles in *Dendroctonus terebrans*. Journal of Chemical Ecology 15: 1513–1534. (bv).
- PHILLIPS, T. W., A. J. WILKENING, THOMAS HARRIS ATKINSON, J. L. NATION, ROBERT CLEVELAND WILKINSON, AND JOHN L. FOLTZ. 1988. Synergism of turpentine and ethanol as attractants for certain pine-infesting beetles (Coleoptera). Environmental Entomology 17: 456–462. (bv).
- °PHILLIPSEN, W. J., AND M. E. ASCERNO. 1980. Native elm bark beetle control. Minnesota Tree Line Journal 27: 2 p. (.)
- PHILLIPSEN, W. J., M. E. ASCERNO, AND V. R. LANDWEHR. 1986. Colonization, emergence, and survival of *Hylurgopinus rufipes* and *Scolytus multistriatus* (Coleoptera: Scolytidae) in insecticide-treated elm wood. Journal of Economic Entomology 79: 1349–1350. (cn).
- °PIC, MAURICE. 1915. Notes diverses, descriptions et diagnostics. L'Echange. Revue Limennne 31(362): 1 [etc.?]. (.)
- PIERCE, A. M., AND H. D. PIERCE, JR. 1955. Beetle attractant: U. S. Patent 4,560,551. Official Gazetteer. United States Patent Trademark Office 106(4): 1682. (cn ms).
- PIERCE, H. D., JR., J. E. CONN, A. C. OEJLSCHLAGER, AND JOHN HARVEY BORDEN. 1987. Monoterpene metabolism in female mountain pine beetles, *Dendroctonus ponderosae* Hopkins, attacking ponderosa pine. Journal of Chemical Ecology 13: 1455–1480. (ay bv).
- PIERCE, JOHN, AND J. KLIEJUNAS. 1981. Biological evaluation of conifer mortality on the proposed Smith Salvage Sale, Klamath National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 51–25. (cn).
- PIGNAL, M. C., CONSTANTIN CHARARAS, AND M. BOURGEAY-CAUSSE. 1987. Isolement et etude de levures du tractus digestif d'*Ips sexdentatus*, Coleoptere parasite des coniferes [Isolation and study of yeasts from the digestive tract of *Ips sexdentatus*, a beetle pest of conifers] [English summary]. Comptes Rendus de l'Academie des Sciences, III (Sciences de la Vie) 304(17): 449–452. (ay).
- _____. 1988. Yeasts from *Ips sexdentatus* (Scolytidae): enzymatic activity and vitamin excretion. Mycopathologia 103: 43–48. (ec).
- PILECKIS, S. 1986. Idomioji entomologija. Vilnius Mokslas. 240 p. (ms).
- PILNY, JERRY J., AND ALAN V. MORGAN. 1987. Paleontology and paleoecology of a possible Sanganonian site near Innerkip, Ontario. Quaternary Research 28: 157–174. (ds).
- PILNY, JERRY J., ALAN V. MORGAN, AND ANNE MORGAN. 1987. Paleoclimatic implications of a Late Wisconsinan insect assemblage from Rostock, southwestern Ontario. Canadian Journal of Earth Sciences 24: 617–630. (ds).
- PINKSTON, KEN, RAY D. EIKENBARY, AND DON ARNOLD. 198.. Shade tree borers. Oklahoma State University Cooperative Extension Service, Extension Facts No. 7315. 6 p. (cn).
- PIOU, D., AND FRANCOIS LIEUTIER. 1989. Symptomatological observations and possible roles of *Ophiostoma minus* Hedge. (Ascomycetes: Ophiostomatales) and *Tomicus piniperda* L. (Coleoptera: Scolytidae) in the dieback of Scots pine in the Orleans forest France [In French]. Annales des Sciences Forestieres 46: 39–54. (ec).
- PLANK, M. E., T. A. SNELGROVE, AND T. D. FAHEY. 1986. Volume and value recovery from live and dead lodgepole pine. Pages 27–30 in R. W. Nielson, Symposium proceedings: Harvesting and processing of beetle-killed timber. Special publication, Forintek Canada Corp. SP-26. 53 p. (cn).
- PLAZA, ESPERANZA. 1983. Los representantes espanoles de las tribus Crypturgini y Pityophthorini (Col., Scolytidae). Eos 59: 223–241. (ds tx).

- POHL-APPEL, G., AND K. RENNER. 1957. Coleopterologische analyse des inhaltes von Borkenkäfer-Pheromonfallen im raum Bielefeld [Coleopterological analysis of the content of bark beetle pheromone traps in the Bielefeld area] [In German, English summary]. *Decheniana* 140: 79-86. (cc).
- POPP, M. P., ROBERT CLEVELAND WILKINSON, E. J. JOKELA, R. B. HARDING, AND T. W. PHILLIPS. 1989. Effects of slash pine phloem nutrition on reproductive performance of *Ips calligraphus* (Coleoptera: Scolytidae). *Environmental Entomology* 18: 795-799. (hb).
- POWELL, JOHN M. 1964. The mountain pine beetle, *Dendroctonus ponderosae* Hopk. (d) bioclimatic studies. Page 117 in Canada Department of Forestry, Forest Entomology and Pathology Branch, Annual Report for 1964. (cc).
- _____. 1971. The arthropod fauna collected from the command blister rust, *Cronartium comandrae*, on lodgepole pine in Alberta. *Canadian Entomologist* 103: 908-918. (cc).
- POWELL, W. 1980. A revised checklist of forest Coleoptera in the reference collection at the Forestry Research Institute of Malawi. *Forestry Research Institute of Malawi, Forestry Research Record* 59. 32 p. (tx).
- PRICE, TERRY S. 1957. Pine bark beetles in urban areas. Georgia Forestry Commission, Macon, Georgia. (cn).
- _____. 1958a. A guide to common forest pests in Georgia. Georgia Forestry Commission 3-1-235, November 1958. 40 p. (cn tx).
- _____. 1958b. Pine bark beetles in urban areas. Georgia Forestry Commission, undated circular [ca 1958]. 5 p. (cn).
- PRICE, TERRY S., AND COLEMAN DOGGETT. 1952. A history of southern pine beetle outbreaks in the southeastern United States; revised. Georgia Forestry Commission 1952(April): 1-35. (cn).
- PRICE, TERRY S., AND KERRY G. THOMAS. 1952. Little bug—big trouble. *TOPS* 1952(December): 4-5, 20, 22. (cn).
- *PRIHODA, A. 1952. Z bionomie kurovce *Lymantor coryli* Perr. Ochrana prirody. Praha 4: 126. ().
- *_____. 1964. Kurovec *Limantor aceris* Lindemann a houba *Diaporthe fibrosa* (Pers.) Fuckel v Cechach [Le scolytid *Lymantor aceris* et le champignon *Diaporthe fibrosa* en Boheme]. *Sbornik Vysoke skoly semedelske v Praze* 1964: 373-377. ().
- *_____. 1982. Hubove nakazy jasenov po napadnuti lykokazon jasenovym *Hylesinus fraxini* (Panzer) [Fungal infections of ash trees after attack by the common ash bark beetle *Hylesinus fraxini*]. *Lesnický časopis*, Bratislava 28: 19-27. ().
- PRIOR, C. 1956. Sudden death of cocoa in Papua New Guinea associated with *Phytophthora palmivora* cankers invaded by bark beetles. *Annals of Applied Biology* 109: 535-543. (cc).
- PRONOS, JOHN, AND J. W. DALE. 1951. Biological evaluation at Bull Meadow Timber Sale on the Goosenest Ranger District, Klamath National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 81-4. (cn).
- PRONOS, JOHN, J. W. DALE, AND J. E. BORRECCO. 1951. Evaluation of pests on the Mt. Pinos Ranger District, Los Padres National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 81-17. (cn).
- PRONOS, JOHN, AND D. SCHULTZ. 1954a. An evaluation of pest conditions in Rancheria Campground, Pineridge Ranger District, Sierra National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 84-05. (cn).
- _____. 1954b. An evaluation of pests in Buck Meadow Campground, Kings River Ranger District, Sierra National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 84-04. (cn).
- *PORTMAN, R. W., AND MANIS. 1954. [*Ilyastinus obscurus*, *Scolytus rugulosus*]. Idaho Agricultural Extension Bulletin 216: 16, 51-52. ().
- PROVANCHER, L. 1878. Additions and corrections a la faune Coleopterologique de la province de Quebec, part 2. C. Darveau, Quebec. 18 p. (ds).
- *PRUFFER. 1948. [*Crypturgus cinereus*]. *Torun. Stud. Soc. Torunensis, Sec. E (Zool.)* (1)2: 23. ().
- PULLEY, PAUL E. 1979. Accuracy and precision of the topological mapping procedure for estimating within-tree populations of bark beetles. *Research in Population Ecology* 21: 43-52. (cn ms).
- PULLEY, PAUL E., R. O. FLAMM, AND ROBERT N. COULSON. 1955. Estimating *Dendroctonus frontalis* (Coleoptera: Scolytidae) daily infestation dynamics. *Researches on Population Ecology* 30: 193-214. (cn cc hb).
- PURRINI, KURTESH. 1955. On disease agents of insect pests of wild palms and forests in Tanzania. *Journal of Applied Entomology* 99: 237-240. (cc).
- PURRINI, KURTESH, AND J. WEISER. 1955. Ultrastructural study of the microsporidian *Chytridiopsis typographi* (Chytridiopsida: Microspora) infecting the bark beetle *Ips typographus* (Scolytidae: Coleoptera) with new data on spore dimorphism. *Journal of Invertebrate Pathology* 45: 66-74. (cc).

Q

- QIU, DE-XUN, AND HUO SHAO-TANG. 1958. The preliminary observation on the habit of *Ips typographus* (Linnaeus) [In Chinese]. *Kunhong Zhishi* 4: 264-268. (hb).
- QIU, H. G., W. J. FU, Y. T. QI, L. F. HE, AND X. D. LING. 1958. Studies on the aggregation pheromone of *Ips subelongatus*, II: the relationship between aggregation behaviour and its host plant tree [In Chinese, English summary]. *Contributions from Shanghai Institute of Entomology* 5: 67-72. (bv).
- *QUAINANCE, ALTUS LACY. 1899. [*Scolytus rugulosus*]. United States Department of Agriculture, Division of Entomology, n. s., Bulletin 20: 56-59. ().
- *_____. 1901. [*Scolytus rugulosus*]. Maryland Agricultural Experiment Station, Report 1901: 103, fig. 20. ().
- *_____. 1905. [*Scolytus rugulosus*]. United States Department of Agriculture, Yearbook 1905: 346. ().
- *QUAINANCE, ALTUS LACY, AND EDOUARD HORACE SIEGLER. 1918a. [*Scolytus rugulosus*]. United States Department of Agriculture, Farmers Bulletin 908: 89. ().
- *_____. 1918b. [*Scolytus rugulosus*]. United States Department of Agriculture, Farmers Bulletin 1270: 66. ().

R

- RABAGLIA, ROBERT JOSEPH. 1954. Aspects of the chemical ecology of twig-crotch feeding by *Scolytus multi-striatus* (Coleoptera: Scolytidae). Unpublished dis-

- sertation, State University of New York, Syracuse. 102 p. (ec hb).
- RABASSE, J. M. 1979. Les insectes ravageurs des cypres en France. Pages 217–222 in V. Grasso and P. Raddi, Seminario: Il cypressso malattie e difesa. Communita Economica Europea, Direzione Generale dell'Agricoltura, Agimed Sottogruppo Fitopatologie Mediterranea. (cn).
- RADIHAKRISHNAN, S., P. K. RAMALAL, AND P. K. BHAT. 1957. Methodology to estimate yield loss in coffee due to insect pests. *Journal of Coffee Research* 17: 90–93. (cn ms).
- RAFFA, KENNETH FRANCIS. 1955a. Host orientation behavior of *Dendroctonus ponderosae*: integration of token stimuli host and defenses. Pages 369–390 in W. J. Mattson, J. Levieux, and C. Bernard-Dagan, Mechanisms of woody plant defenses against insects: search for pattern. Springer, New York. xiv + 416 p. (bv).
- _____. 1955b. The mountain pine beetle in western North America. Pages 505–530 in A. A. Berryman, Dynamics of forest insect populations: patterns, causes, implications. Plenum Press, New York. xx + 603 p. (bv cn ec).
- _____. 1959. Genetic engineering of trees to enhance resistance to insects. *Bioscience* 39: 524–534. (cn).
- RAFFA, KENNETH FRANCIS, AND ALAN ANDREW BERRYMAN. 1956. A mechanistic computer model of mountain pine beetle populations interacting with lodgepole pine stands and its implications for forest managers. *Forest Science* 32: 789–805. (cn hb).
- _____. 1957. Interacting selective pressures in conifer-bark beetle systems: a basis for reciprocal adaptations? *American Naturalist* 129(2): 234–263. (bv ec).
- RAFFA, KENNETH FRANCIS, ALAN ANDREW BERRYMAN, J. SIMASKO, W. TEAL, AND B. L. WONG. 1955. Effects of grand fir monoterpenes on the fir engraver *Scolytus ventralis* (Coleoptera: Scolytidae), and its symbiotic fungus. *Environmental Entomology* 14: 552–556. (ec cn).
- RAFFA, KENNETH FRANCIS, AND K. D. KLEFZIG. 1959. Chiral escape of bark beetles from predators responding to a bark beetle pheromone. *Oecologia [Berlin]* 80: 566–569. (bv).
- RAFFA, KENNETH FRANCIS, AND EUGENE B. SMALLEY. 1955a. Host resistance to invasion by lower stem and root infesting insects of pine: response to controlled inoculations with the fungal associate *Leptographium terebrantis*. *Canadian Journal of Forest Research* 18(6): 675–681. (ec).
- _____. 1955b. Response of red and jack pines to inoculation with microbial associates of the pine engraver, *Ips pini* (Coleoptera: Scolytidae). *Canadian Journal of Forest Research* 18: 551–556. (ec).
- _____. 1955c. Seasonal and long-term responses of host trees to microbial associates of the pine engraver *Ips pini*. *Canadian Journal of Forest Research* 18: 1624–1634. (cn ec).
- RAIMO, BERNARD J. 1955. A ponderosa pine complex: *Choristoneura lambertiana*, *Neophasia menapia* (F. & F.), *Zelleria hainbachii* (Busck), *Pityophthorus aquilus* Blackman on the San Juan National Forest and adjacent lands. United States Department of Agriculture, Forest Service, Rocky Mountain Region, Lakewood, Colorado, Timber, Forest Pest and Cooperative Forestry Management, Biological Evaluation R2–55–5. 10 p. (cn).
- RAISANEN, HANNU, L. LAINE, I. KERO, AND T. KALEVA. 1956. Alustavia tutkimustuloksia hyonteis- ja sienituhoista pystykarstiuissa maimikoissa [Preliminary study on insect and fungal damage in pruned Scots pine stands] [In Finnish, English summary]. *Folia Forestalia* 663. 18 p. (cn hb).
- *RAKKE. 1960. [*Hylobius palliatus*]. Meddelelser fra det Norske Skogforsoksvesen, Vollebakk. 1960: 315. ().
- RAMESH, P. K. 1957. Observations on crop loss in robusta coffee due to mealybug and shot-hole borers. *Journal of Coffee Research* 17: 94–95. (cn).
- RAMISCH, H. 1956. Zur Wirtsfundung von *Trypodendron domesticum* und *Trypodendron lineatum* (Coleoptera: Scolytidae) [Host finding in *Trypodendron domesticum* and *Trypodendron lineatum*] [English summary]. *Journal of Applied Entomology* 73: 159–197. (bv hb).
- RAMISCH, H., AND S. BOMBOSCH. 1956. Ein Beitrag zur Brutbaumerkennung von *Trypodendron lineatum* (Ol.) und *Trypodendron domesticum* (L.) [A contribution to breeding-site recognition by *Trypodendron lineatum* and *Trypodendron domesticum*] [English summary]. *Journal of Applied Entomology* 102: 422–431. (bv hb).
- RANASINGHE, M. A. S. K., AND R. L. WICKREMASINGHE. 1955. Use of acetates to induce host resistance to *Xyleborus fornicatus* (Coleoptera: Scolytidae) attacking tea. Pages 251–256 in Proceedings: British Crop Protection Conference: pests and diseases. British Crop Protection Council, London. (cn ec).
- *RANDUSKA, P. 1951. Aktivizacia podkornikov v porastach poskodenyh poziarom v SPR Kysel, CIJKO Slovensky raj. Autoreferat., Vysoka skola lesnicka a drevarska Zvolen, Lesnicka fakulta. 23 p. ().
- RANE, K. K., AND T. A. TATTAR. 1957. Pathogenicity of blue-stain fungi associated with *Dendroctonus terebrans*. *Plant Disease* 71: 579–583. (ec).
- *RAPP, OTTO. 1910. Zur Coleopterologischen Sammelreise nach Karnten. *Entomologische Blätter* 6: 75–81. ().
- RAPPAPORT, NANCY G., AND DAVID LEE WOOD. 1955a. Host relationships in the Douglas-fir twig mining beetle, *Pityophthorus orarius* Bright (Coleoptera: Scolytidae), in a northern California seed orchard. In G. E. Miller, Proceedings of the Third IUFRO Seed and Cone Insects Working Conference, 26–29 June 1955. Victoria, British Columbia (cn hb).
- _____. 1955b. *Pityophthorus orarius* Bright (Coleoptera: Scolytidae) in a Douglas-fir seed orchard: effect of clonal source and cone crop on rate of attack. *International Congress of Entomology, Proceedings* 18: 431. (bv).
- RASKE, ARTHUR G., J. D. ROWE, AND H. O. SCHOOLEY. 1975. Preliminary report on an outbreak of the eastern larch beetle in Newfoundland. Government of Canada, Forestry Service, Newfoundland Forest Research Centre, St. John's, Newfoundland. File report: (unpublished) study 1–2. 22 p.
- RASMUSSEN, LYNX A. 1957. Mountain pine beetle selection of dwarf mistletoe and comandra blister rust infected lodgepole pine. United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, Ogden, Utah, Research Note INT-367. 3 p. (bv).
- RAUCH, P. A., B. EWING, DAVID LEE WOOD, AND WILLIAM DELLES BEDARD, JR. 1905. The information system for research and project management. Pages 420–428 in C. B. Huffaker, New technology in pest control. John Wiley & Sons, New York. (cn).
- RAUF, A., D. M. BENJAMIN, AND R. A. CECICH. 1955. Insects

- affecting seed production of jack pine and life tables of conelet and cone mortality in Wisconsin. *Forest Science* 31(2): 271-281. (cn).
- RAWN, HANS PETER. 1955. Expansion of the populations of *Ips typographus* (L.) (Coleoptera, Scolytidae) and their local dispersal following gale disaster in Denmark. *Journal of Applied Entomology* 99: 26-33. (bv cn ec).
- REDFERN, DEREK B. 1959. The roles of the bark beetle *Ips cembrae*, the woodwasp *Urocerus gigas* and associated fungi in dieback and death of larches. Pages 195-204 in N. Wilding, N. M. Collins, P. M. Hammond, and J. F. Bebbler. Insect-fungus interactions. Academic Press, London. xiv + 344 p. (ec).
- REDFERN, DEREK B., JOHN T. STOKLEY, II, STEELE, AND DAVID W. WINTER. 1957. Dieback and death of larch caused by *Ceratocystis laricicola* sp. nov. following attack by *Ips cembrae*. *Plant Pathology* 36: 467-480. (ec).
- REDLICH, HARTMUT, W. BURNS, W. FRANCKE, V. SCHURIG, THOMAS LEE PAYNE, JEAN PIERRE VITE. 1957. Chiral building units from carbohydrates. 13. Identification of the absolute configuration of endo-brevicommin from *Dendroctonus frontalis* and synthesis of both enantiomers from D-Ribose. *Tetrahedron* 43: 2029-2034. (ms).
- REED, A. N. F., AND J. W. HANOVER. 1955. Chemical factors in bark beetle preference among Douglas-fir and western larch. *American Chemical Society* (abstracts) No. 190. (bv).
- REED, A. N. F., J. W. HANOVER, AND MALCOLM MACFARLANE FURNISS. 1956. Douglas-fir and western larch: chemical and physical properties in relation to Douglas-fir bark beetle attack. *Tree Physiology* 1(3): 277-287. (bv).
- REED, W. J., AND D. ERRICO. 1957. Techniques for assessing the effects of pest hazards on longrun timber supply. *Canadian Journal of Forest Research* 17: 1455-1465. (cn ms).
- REID, J. C., AND A. MANSINGH. 1955. Economic losses due to *Hypothenemus hampei* Ferr. during processing of coffee berries in Jamaica. *Tropical Pest Management* 31: 55-59. (cn).
- *REN, Z., AND X. DANG. 1959. The preliminary report on investigation and control of bark beetles attacking *Pinus armandii* [In Chinese]. Report of preliminary studies on forest insect pests. 234 p. ().
- *REN, Z., AND J. ZHOU. 1962. The outbreak reason and role of scolytids on *Pinus armandii* [In Chinese, Russian summary]. Shaanxi Province Forestry Society, Proceedings of annual forestry scientific meeting 1962: 1-19. ().
- *REN, Z., ET AL. 1965. The annual summary on integrated control of scolytids on *Pinus armandii*: a corpus of forestry scientific study references in Shaanxi Province [In Chinese]. Peoples Press of Shaanxi 1965: 157-164. ().
- RENWICK, JOHN ALAN ALEXANDER. 1958. Comparative mechanisms of host selection by insects attacking pine trees and crucifers. Pages 303-316 in K. C. Spencer. Chemical mediation of coevolution. Academic Press, San Diego. (bv).
- RIHODES, LLEWELLYN F., AND A. MANSINGH. 1956. Distribution of the coffee berry borer *Hypothenemus hampei* Ferr. in Jamaica and an assessment of the chemical control programme (1979-1952). *Insect Science and Its Application* 7: 505-510. (cn).
- RICHMOND, CHARLES E. 1955. Effectiveness of two pine oils for protecting lodgepole pine from attack by mountain pine beetle (Coleoptera: Scolytidae). *Canadian Entomologist* 117: 1445-1446. (cn).
- *RIEDL, HELMUT WOLFGANG. 1973. Aspects of the feeding behavior of *Scolytus multistriatus*, the primary vector of Dutch elm disease, and a critical evaluation of present chemical control measures. Unpublished dissertation, Michigan State University, East Lansing. 195 p. ().
- *RILEY, CHARLES VALENTINE, AND LELAND OSSIAN HOWARD. 1891. [*Scolytus rugulosus*]. *Insect Life* 3: 295. ().
- RILEY, M. A., AND RICHARD ALBRIGHT COYER. 1956. Impact of beneficial insects on *Ips* spp. (Coleoptera: Scolytidae) bark beetles in felled loblolly and slash pines in Louisiana. *Environmental Entomology* 15: 1220-1224. (ec).
- _____. 1958. Seasonal abundance of beneficial insects and *Ips* spp. engraver beetles (Coleoptera: Scolytidae) in felled loblolly and slash pines in Louisiana. *Journal of Entomological Science* 23: 357-365. (ec).
- *RINGS, ROY W. 1956. [*Phloeotribus liminaris*, *Scolytus rugulosus*]. Ohio State University, Bulletin 765: 44-45. ().
- RIO MORA, ADOLFO A. DEL. 1954. Insectos que afectan la producción de semilla en las especies de pinos de la Meseta Tarasca, Michoacan [Insects that affect seed production of the pine species of La Meseta Tarasca, Michoacan]. Secretaria de Agricultura y Recursos Hidraulicos, Instituto Nacional de Investigaciones Forestales, Proyecto de Protección Forestal del Centro de Investigaciones Forestales de Occidente, INIF, SF-SARH, Mexico, D. F. Boletín Técnico 97. 38 p. (ec hb).
- _____. 1955. Clave para la determinación de algunas especies de *Pityophthorus* (Coleoptera: Scolytidae) en pinos de la Meseta Tarasca, Michoacan [Identification key for some species of *Pityophthorus* on pines on La Meseta Tarasca] [English summary]. Secretaria de Agricultura y Recursos Hidraulicos, Instituto Nacional de Investigaciones Forestales, Mexico, Boletín Técnico 125. 18 p. (ds tx).
- RISBERG, BIRGER. 1955. Uppskattning av granbarkborreskad i Vaermland 1971-1982 genom korrigering och komplettering av tidigare flyginventeringsresultat [Estimation of *Ips typographus* damage in Vaermland 1971-1982 by correcting and supplementing earlier results]. Sveriges Skogvardsforbunds Tidskrift 2: 21-32. (cn).
- RIITZENGRUBER, O., AND E. FUJIBER. 1956. Isoenzymanalyse verschiedener Populationen von *Pityogenes chalcographus* L. (Coleoptera, Scolytidae): I. Methoden-anpassung, Enzympolymorphismus [Isoenzyme analysis of various populations of *Pityogenes chalcographus*: I. Adaptation of methods, enzyme polymorphism] [English summary]. *Journal of Applied Entomology* 101: 187-194. (ay ms).
- ROBERTS, J. H., F. P. HAIN, AND L. B. NUNNALLY. 1957. Genetic structure of southern pine beetle populations. *Forest Science* 33: 52-69. (ay).
- ROBERTS, HYWELL. 1956. New Platypodidae (Coleoptera) from the rain forests of Papua New Guinea. *Esakia* 24: 37-58. (tx).
- _____. 1957. Forest insect pests of Papua New Guinea: 2. pin-hole borers (shot hole borers) attacks on logs, lumber and living trees. *Harvest* 12: 91-96. (cn hb).

- _____. 1959. New *Crossotarsus* from Papua New Guinea (Platypodidae: Coleoptera). *Koleopterologische Rundschau* 59: 87-94. (tx).
- _____. 1992. Diapodini of Papua New Guinea (Platypodidae). In press [a Bishop Museum journal]. (tx).
- ROBERTS, HYWELL, AND K. MORIMOTO. 1957. New Platypodidae (Coleoptera) from the mountain forests of Papua New Guinea. *Esakia* 25: 161-181. (tx).
- ROBERTSON, F. DALE. 1957. Record of decision, USDA Forest Service, Suppression of the southern pine beetle: final environmental impact statement: deciding official, F. Dale Robertson. United States Department of Agriculture, Forest Service, Southern Region, Atlanta, Georgia. (en).
- ROBERTSON, J. L. 1953. [Book review]. *Entomological Society of America, Bulletin* 29(2): 71. (ms).
- ROBINSON, M. N., JEAN CLAUDE GREGOIRE, AND L. DE VAS. 1955. A method of sexing live *Dendroctonus micans*. Pages 63-67 in J. C. Gregoire and J. M. Pasteels, *Biological control of bark beetles (Dendroctonus micans)*. Commission of European Communities and Universite Libre de Bruxelles, Belgium, Proceedings of seminar, 3-4 October 1954. 141 p. (ay ms).
- RODOVALHO, BENTO DE TOLEDO. 1925b. Defendendo o cafe o repasse. *Rural, Revista da Sociedade Rural Brasileira* 6(59): 188-192. (en).
- RODRIGUES MACHADO BENASSI, V. L., AND E. BERTI F. 1959. (Coleoptera, Scolytidae) in Espirito Santo State. Nota sobre a ocorrencia de *Cephalonomia* sp. (Hymenoptera, Bethyidae) parasitando a broca-do-cafe, *Hypothenemus hampei* (Ferrari, 1867) (Coleoptera, Scolytidae) no estado do Espirito Santo [Note on the occurrence of *Cephalonomia* sp. parasitizing the coffee berry borer, *Hypothenemus hampei*] [English subtitle]. *Revista de Agricultura (Piracicaba)* 64: 105-106. (ec).
- ROEDIGER, K. J. 1955. Ubervachung des Kupferstechers mit Chatcoprax [Monitoring the spruce wood engraver with chalcoprax] [English summary]. *Gesunde Pflanzen* 40: 192-193. (en hb).
- ROEFER, RICHARD A. 1955. Interaction between the ambrosia beetle *Corthylihus punctatissimus* and its mutualistic fungi. *International Congress of Entomology, Proceedings* 18: 410. (ec).
- ROEFER, RICHARD A., B. J. PALIK, D. V. ZESTOS, P. G. HESCH, AND C. D. LARSEN. 1957. Observations of the habits of *Corthylihus punctatissimus* (Coleoptera: Scolytidae) infesting maple saplings in central Michigan. *Great Lakes Entomologist* 20: 173-176. (en hb).
- ROEFER, RICHARD A., D. V. ZESTOS, B. J. PALIK, AND LAWRENCE RICHARD KIRKENDALL. 1957. Distribution and host plants of *Corthylihus punctatissimus* (Coleoptera: Scolytidae) in the lower peninsula of Michigan. *Great Lakes Entomologist* 20: 69-70. (ds).
- ROGERS, TERRANCE J., AND P. F. HESSBURG. 1955. Annual southwestern region pest conditions report, 1954. United States Department of Agriculture, Forest Service, Southwestern Region, Albuquerque, New Mexico, Forest Pest Management Report R3-85-9. 15 p. (en).
- ROGERS, TERRANCE J., AND H. M. MAFFEI. 1957. Annual southwestern region pest conditions report 1956. United States Department of Agriculture, Forest Service, Southwestern Region, Albuquerque, New Mexico, Forest Pest Management Report R3-87-4. 14 p. (en).
- _____. 1958. Annual southwest region pest conditions report, 1957. United States Department of Agriculture, Forest Service, Southwestern Region, Albuquerque, New Mexico, Forest Pest Management Report R3-88-2. 15 p. (en).
- ROMERO CASADO, J. 1955. *Gossyparia ulmi* Geoffroy (Homoptera: Eriococcidae) una causa mas de debilitamiento de los olmos. Estudio morfologico y bionomico [*Gossyparia ulmi*, one more cause of weakening the elms: studies on morphology and bionomics]. *Boletin del Servicio de Defensa Contra Plagas e Inspeccion Fitopatologica* 11(1): 45-55. (en).
- ROMME, W. H., D. H. KNIGHT, AND J. B. YAVITT. 1956. Mountain pine beetle outbreaks in the Rocky Mountains: regulators of primary productivity. *American Naturalist* 127: 484-494. (ec).
- *ROSENFELD. 1910. [*Scolytus rugulosus*]. *Journal of Economic Entomology* 3: 215. ().
- ROTON, LARY M. 1957. Promising treatment for southern pine beetles. *American Papermaker* (October): 30-32. (en).
- _____. 1959. Bark beetle treatment: U. S. Patent 4,524,665. *Official Gazetteer, United States Patent Trademark Office* 110(4): 2602. (en ms).
- *ROUBAL, JAN. 1940. Coleoptera v pude karpatskeho smiseného lesa. Quae Coleoptera in himno saltuum carpathicorum vivunt? *Vestnik C. Zool. Spolec. Prave* 8: 97-130. ().
- ROY, D. N., J. R. PURDY, P. A. PERUMAL, AND J. K. GRACE. 1955. Effect of application equipment on the distribution of chlorpyrifos applied for Dutch elm disease vector control. *Entomological Society of Ontario, Proceedings* 119: 63-65. (en).
- RUHM, WALTER. 1956. Zwei im Xylem der Araukarie, *Araucaria araucana* (Mol.) Koch brutende Xylomyetophage und koprophage Borkenkaferarten (Col.: Scolytidae) [English summary]. *Entomologische Mittellungen aus dem Zoologischen Museum Hamburg* 8(128): 265-280. (bv ec hb).
- RUMANN, J. 1956. Kalkschutz gegen Nutzholzborkenkafer [Use of lime for protection against *Xyloterus lineatus*]. *Holz-Zentralblatt* 112(47): 661-662. (en).
- RUSH, PETER A. 1956. Forest pest conditions report for the Northeastern Area, 1955. United States Department of Agriculture, Forest Service, Northeastern Area (Broomall, Pennsylvania), Forest Pest Management Report NA-FR-33. 35 p. (en).
- RUSH, PETER A., T. A. LAURENT, L. C. YARGER, AND R. K. LAWRENCE. 1977. Forest insect and disease conditions in Alaska, 1976. United States Department of Agriculture, Forest Service, Alaska Region, Juneau, Alaska. 12 p. (en).
- *RUTHERFORD, A. 1914d. Some insect pests of 1913 [*Xyleborus compactus*]. *Ceylon Department of Agriculture, Bulletin* 15: 2. 7. ().
- RUTLEDGE, D. N., CONSTANTIN CHARARAS, AND C. J. DUCUZE. 1955. Investigating the hypothesis of primary attraction in conifer-specific Scolytidae using a chemometrical approach. Pages 391-409 in W. J. Mattson, J. Leveux, and C. Bernard-Dagen, *Mechanisms of woody plant defenses against insects: search for patterns*. Springer, New York. xiv + 416 p. (bv).
- RYKER, LEE C. 1955. Acoustic studies of *Dendroctonus* bark beetles. *Florida Entomologist* 71: 447-461. (bv).
- RYKIEL, E. J., JR., ROBERT N. COUSLON, P. J. II, SHARPE, T. F. H. ALLEN, AND R. O. FLAMM. 1955. Disturbance propagation by bark beetles as an episodic landscape phenomenon. *Landscape Ecology* 1: 129-140. (en).

S

- SAARENMAA, HANNU. 1953. Modeling the spatial pattern and interspecific competition in *Tomicus piniperda* (Coleoptera, Scolytidae). *Communications Instituti Forestalis Fenniae* 118, 40 p. (en ec).
- _____. 1955a. The role of temperature in the population dynamics of *Tomicus piniperda* (L.) (Col., Scolytidae) in northern conditions. *Journal of Applied Entomology* 99: 224-236. (ec lb).
- _____. 1955b. Within-tree population dynamics models for integrated management of *Tomicus piniperda* (Coleoptera, Scolytidae). *Communications Instituti Forestalis Fenniae* 128, 56 p. (en ec lb).
- _____. 1957. Tuhohyonteisten ja sinistymän esiintyminen myrskyn kaatamissa puissa Lapissa 1953-56 [Insect attack and blue stain in windthrown trees in Lapland in 1953-56] [In Finnish, English summary]. *Folia Forestalia [Helsinki]* 696, 15 p. (bv ec).
- _____. 1955a. Attack and reproduction of bark beetles in windthrown pine in northern Finland. Pages 69-75 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, 355 p. (bv lb).
- _____. 1955b. Attack and reproduction of bark beetles in wind-blown pine in northern Finland. International Congress of Entomology, Proceedings 18: 412. (bv).
- _____. 1959. A model for the timing of swarming of *Tomicus piniperda* (Coleoptera: Scolytidae). *Holarctic Ecology* 12: 441-444. (hb).
- SAFRANYIK, LASZLO. 1955a. Infestation incidence and mortality in white spruce stands by *Dendroctonus rufipennis* Kirby (Coleoptera, Scolytidae) in central British Columbia. *Journal of Applied Entomology* 99: 86-93. (en).
- _____. 1955b. The role of the host in the population dynamics of forest insects. IUFRO conference proceedings. Government of Canada, Forestry Service and United States Department of Agriculture, Forest Service, 240 p. (bv ec lb).
- _____. 1955c. The relationship between density of emerged *Dendroctonus ponderosae* (Coleoptera: Scolytidae) and density of exit holes in lodgepole pine. *Canadian Entomologist* 117: 267-275. (hb).
- _____. 1955a. Estimating attack and brood totals and densities of the mountain pine beetle in individual lodgepole pine trees. *Canadian Entomologist* 120: 323-331. (en ms).
- _____. 1955b. The population biology of the spruce beetle in western Canada and implications for management. Pages 3-23 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia, 355 p. (en lb).
- _____. 1955c. The role of population biology in development of management guidelines to reduce losses from the spruce beetle *Dendroctonus rufipennis* in western Canada. International Congress of Entomology, Proceedings 18: 412. (en).
- _____. 1959b. Mountain pine beetle: biology overview. Pages 9-13 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262, 119 p. (bv ec lb).
- SAFRANYIK, LASZLO, AND D. A. LINTON. 1955. Influence of competition on size, brood production and sex ratio in spruce beetles (Coleoptera: Scolytidae). *Entomological Society of British Columbia, Journal* 82: 52-56. (ec lb).
- _____. 1957a. Line intersect sampling for the density and bark area of logging residue susceptible to the spruce beetle, *Dendroctonus rufipennis* (Kirby). Government of Canada, Canadian Forestry Service, Pacific Forestry Centre, Victoria, British Columbia, Information Report BC-X-295, 10 p. (en).
- _____. 1957b. Patterns of landing of spruce beetles, *Dendroctonus rufipennis* (Coleoptera: Scolytidae), on baited lethal trap trees. *Entomological Society of British Columbia, Journal* 84: 21-32. (ec lb).
- _____. 1955. Distribution of attacks on spruce stumps by the spruce beetle, *Dendroctonus rufipennis* (Kirby) (Coleoptera: Scolytidae), and effects on the length of egg galleries. *Canadian Entomologist* 120: 85-94. (bv lb).
- SAFRANYIK, LASZLO, R. SILVERSIDES, L. H. McMULLEN, AND D. A. LINTON. 1959. An empirical approach to modeling the local dispersal of the mountain pine beetle (*Dendroctonus ponderosae* Hopk.) (Col., Scolytidae) in relation to source of attraction, wind direction and speed. *Journal of Applied Entomology* 108: 495-511. (bv lb).
- SAFRANYIK, LASZLO, AND H. S. WHITNEY. 1955. Development and survival of asexually reared mountain pine beetles, *Dendroctonus ponderosae* (Coleoptera: Scolytidae), at constant temperatures. *Canadian Entomologist* 117: 185-192. (ec lb).
- SAHA, NIVEDITA, AND P. K. MATHI. 1954. On a collection of scolytid beetles (Scolytidae: Coleoptera) from Sikkim, India. *Record of the Zoological Survey of India* 81(3-4): 1-5. (ds).
- _____. 1957. Description of hitherto unknown males of three species of scolytid beetles (Scolytidae: Coleoptera) from India. *Bulletin of the Zoological Survey of India* 8(1-3): 71-76. (ds tn).
- SAHOTA, T. S., AND S. H. FARRIS. 1950. Inhibition of flight muscle degeneration by precocene II in the spruce bark beetle, *Dendroctonus rufipennis* (Kirby) (Coleoptera: Scolytidae). *Canadian Journal of Zoology* 58: 378-381. (ay).
- SAHOTA, T. S., AND F. G. PEET. 1955a. Changes in the quality of scolytid populations: their determination and relation to scolytid outbreaks. Pages 25-33 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia, 355 p. (hb).
- _____. 1955c. Computer-assisted measurement and analysis of chromatin distribution for determining quality differences among bark beetle (Scolytid) populations. Pages 171-180 in In paths from a viewpoint: the Wellington festschrift on insect ecology. *Memoir of the Entomological Society of Canada* 146. (en ec).
- SAHOTA, T. S., F. G. PEET AND I. IBRAHIM. 1957. Manipulations of egg-gallery length to vary brood density in spruce beetle *Dendroctonus rufipennis* (Coleoptera: Scolytidae): effects on brood survival and quality. *Entomological Society of British Columbia* 84: 59-63. (hb).
- SAJAN, R. J. 1951. Results of forest insect and disease surveys in the eastern region of Ontario, 1950. Page 12 in Canada Department of Environment, Forestry Service, Great Lakes Forest Research Centre, Sault Ste. Marie, Ontario. (en).
- SALAZAR, M. A. 1952. Historia del *Dendroctonus frontalis* Zimm. en Honduras (Coleoptera: Scolytidae). Pages

- 222–232 in *Actas de las IV Jornadas de Reforestación, Corporación Hondureña de Desarrollo Forestal, Tegucigalpa, Honduras*. (en).
- SALDARRIAGA VELEZ, A. 1985. El *Pagiocerus frontalis* (F.), plaga del maíz almacendo: biología hábitos y notas ecológicas [*Pagiocerus frontalis*, a pest of stored maize: biology, behavior and ecological notes] [English summary]. *Revista Colombiana de Entomología* 10(3–4): 9–14. (ay bv lb).
- SALOM, SCOTT M., AND JOHN ALEXANDER MCLEAN. 1985. Semiochemicals for capturing the ambrosia beetle, *Trypodendron lineatum*, in multiple-funnel traps in British Columbia. *Entomological Society of British Columbia, Journal* 85: 34–39. (bv en).
- _____. 1989. Influence of wind on the spring flight of *Trypodendron lineatum* (Olivier) (Coleoptera: Scolytidae) in a second-growth coniferous forest. *Canadian Entomologist* 121: 109–119. (ec lb).
- SAMSON, P. R. 1984. The biology of *Roptrocercus xylophagorum* (Hym., Torymidae), with a note on its taxonomic status. *Entomophaga* 29: 287–298. (ec).
- SAMSON, P. R., AND J. SMIBERT. 1986. Preliminary studies on the efficacy and establishment of *Roptrocercus xylophagorum* (Hym., Torymidae), a parasitoid of *Ips grandicollis* (Col., Scolytidae), in Australia. *Entomophaga* 31: 173–182. (ec).
- SANCHEZ, LUIS A. GIL, AND JUAN A. PJARES ALONSO. 1986. Los escolitidos de las coníferas en la península ibérica. Instituto Nacional de Investigaciones Agrarias, Madrid, Spain. 194 p. (en ds).
- SANDERS, W. 1987a. Ein Beitrag zur habitatwahl der nutzholzborkenkäfer *Trypodendron lineatum* und *T. domesticum* [A contribution to the habitat selection of the ambrosia beetles *Trypodendron lineatum* and *T. domesticum*] [English summary]. *Anzeiger für Schädlingkunde Pflanzen- und Umweltschutz* 60: 65–67. (lb).
- _____. 1987b. Untersuchungen über die aktivitätsdichte des buckdrückers *Ips typographus* in laubwäldern und in offener landschaft. [Studies on the activity of the engraver beetle *Ips typographus* in deciduous forests and in the open field] [English summary]. *Journal of Applied Entomology* 103: 240–249. (lb).
- * SANDERSON. 1912. [*Scolytus rugulosus*]. *Insect pests*, edition 1: 544. ().
- * _____. 1921. [*Phloeocotribus liminaris*, *Scolytus rugulosus*]. *Insect pests*, edition 2: 477, 582. ().
- * _____. 1931. [*Scolytus rugulosus*]. *Insect pests*, edition 3: 300–302. ().
- SANTIS, L. DE, AND A. E. C. DE SUREDA. 1986. Una subfamilia de Chalcidoideos nueva para la Republica Argentina (Insecta, Hymenoptera) [A subfamily of Chalcidoidea new for Argentina] [English summary]. *Revista de Investigación, Centro de Investigaciones para la Regulación de Poblaciones de Organismos Nocivos, Argentina* 4(1–4): 63–66. (ec).
- SARTWELL, CHARLES, JR. 1970. *Ips pini* attack density in ponderosa pine slash as related to felling date in eastern Washington. United States Department of Agriculture, Forest Service, Research Note PNW-131, Portland, Oregon. 8 p. (en ec).
- _____. 1985. Thinning *Pinus ponderosa* for silvicultural control of *Dendroctonus ponderosae* (Coleoptera: Scolytidae). *International Congress of Entomology, Proceedings* 18: 441. (en).
- SASAKAWA MITSUHIRO, AND Y. KAWAGUCHI. 1987. Initial attack of the minute pine bark beetle, *Cryphalus fulvus* Niisima (Coleoptera: Scolytidae). *Scientific Reports of the Kyoto Prefectural University, Agriculture* 39: 12–19. (bv).
- SASAKAWA, MITSUHIRO, AND Y. YOSHIYASU. 1983. Stridulatory organs of the Japanese pine bark beetles (Coleoptera: Scolytidae). *Kontyu* 51: 493–501. (ay).
- SAUNDERS, M. C., P. K. LOH, ROBERT N. COULSON, E. J. RYKIEL, THOMAS LEE PAYNE, P. E. PULLEY AND L. C. HU. 1985. Development and implementation of the southern pine beetle decision support system. Pages 335–364 in S. J. Bramham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (en).
- * SAUVARD, D. 1988. Capacités de multiplication de *Tomicus piniperda* L. (Coleoptera: Scolytidae) selon la densité d'attaque et diverse caractéristiques de l'arbre [Multiplication capacity of *Tomicus piniperda* according to the density of attack and various characteristics of the tree] [English summary]. Unpublished dissertation, University of Orleans, Orleans, France. 85 p. ().
- _____. 1989. Capacités de multiplication de *Tomicus piniperda* L. (Col., Scolytidae): 1. effets de la densité d'attaque [Reproductive capacity of *Tomicus piniperda*: 1. effects of attack density] [English summary]. *Journal of Applied Entomology* 105: 164–181. (ec lb).
- SAUVARD, D., FRANCOIS LIEUTHER AND JEAN LETEUX. 1987. Repartition spatiale et dispersion de *Tomicus piniperda* L. (Coleoptera: Scolytidae) en forêt d'Orleans, France [English summary]. *Annales des Sciences Forestières* 44: 417–434. (lb).
- _____. 1988. L'Hylesine du pin (*Tomicus piniperda* L.) en forêt d'Orleans: repartition-degats-lutte [*Tomicus piniperda* in the forest of Orleans, France: distribution, damage, control]. *Revue Forestiere Francaise* 40: 13–19. (en).
- SCHLAUFF, M. E. 1955. The species of *Entedon* in America north of Mexico (Hymenoptera: Eulophidae). *New York Entomological Society, Journal* 96: 30–62. (ec).
- * SCHEDEL, KARL EDUARD. 1949. Nachtrag zur Gesamtliteratur der Borkenkäfer (Ipidae und Platypodidae) von Kleine 1939. *Zentralblatt für das Gesamtgebiet der Entomologie* 3: 63–107. ().
- * SCHIERFELTZ, OTTO, AND ALBERT WINKLER. 1930. [*Hylurgops sylvaticus*]. *Tierwelt Mitteilungen* 1930: 26, 256. ().
- SCHMITSCHIEK, ERVIN. 1939d. Über Forstschadlingssauftreten in der Türkei. *International Congress of Entomology, Proceedings* 7: 2104–2131. (en).
- SCHILUP, J. 1987. Untersuchungen zur populationsdynamik von *Ips typographus* L. und zur Biologie seines häufigsten Praedatoren *Thanosinus formicarius* L. Unpublished dissertation, University of Bern, Switzerland. (ec lb).
- SCHILTER, FREDRIK. 1955. Attack density regulation in *Ips typographus*: natural mechanisms and manipulation for management. *International Congress of Entomology, Proceedings* 18: 412. (bv en).
- SCHILTER, FREDRIK, AND O. ANDERBRANT. 1957. Dutch elm disease (*Ceratocystis ulmi*) and elm bark beetles (*Scolytus* spp.) in Malmö 1955: distribution, phenology and practical measures in an integrated control program. *Naxtskyddsnotiser* 51: 2–10. (en lb ds).
- _____. 1955. Pheromone production and response governing attack dynamics in *Ips typographus*. *Internation-*

- tional Congress of Entomology, Proceedings 18: 409. (bv).
- _____. 1959. Mass attack on trees by *Ips typographus* induced by sex-specific pheromone: a model of attack dynamics. *Holarctic Ecology* 12: 415–426. (bv).
- SCHLYTER, FREDRIK, O. ANDERBRANT, G. LINDQVIST, AND A. JANSSON. 1957. Almsjuka (*Ceratocystis ulmi*) och almsplintborrar (*Scolytus* spp.) in Malmo 1955: forekomst, fenologi och praktiska atgarder inom ett integrerat kontrollprogram [Dutch elm disease (*Ceratocystis ulmi*) and elm bark beetles (*Scolytus* spp.) in Malmo 1955: distribution, phenology and practical measures in an integrated control program] [In Swedish, English summary]. *Vaxtskyddsnotiser* 51: 2–10. (ec).
- SCHLYTER, FREDRIK, AND GÖRAN BIRGERSSON. 1959. Individual variation in bark beetle and moth pheromones: a comparison and an evolutionary background. *Holarctic Ecology* 12(4): 457–465. (bv).
- SCHLYTER, FREDRIK, GÖRAN BIRGERSSON, J. A. BYERS, J. LOFQVIST, AND G. BERGSTROM. 1957. Field response of spruce bark beetle, *Ips typographus*, to aggregation pheromone candidates. *Journal of Chemical Ecology* 13: 701–716. (bv).
- SCHLYTER, FREDRIK, GÖRAN BIRGERSSON, AND A. LEUFVEN. 1959. Inhibition of attraction to aggregation pheromone by verbenone and ipsenol: density regulation mechanisms in bark beetle *Ips typographus*. *Journal of Chemical Ecology* 15: 2263–2277. (bv).
- SCHLYTER, FREDRIK, J. A. BYERS, AND J. LOFQVIST. 1957. Attraction to pheromone sources of different quantity, quality, and spacing: density-regulation mechanisms in bark beetle *Ips typographus*. *Journal of Chemical Ecology* 13: 1503–1523. (bv).
- SCHLYTER, FREDRIK, J. A. BYERS, J. LOFQVIST, A. LEUFVEN, AND GÖRAN BIRGERSSON. 1955. Reduction of attack density of the bark beetles *Ips typographus* and *Tomicus piniperda* on host bark by verbenone inhibition of attraction to pheromone and host kairomone. Pages 53–65 in T. L. Payne and H. Saaremaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv).
- SCHLYTER, FREDRIK, AND J. LOFQVIST. 1956. Response of walking spruce bark beetles *Ips typographus* to pheromone produced in different attack phases. *Entomologia Experimentalis et Applicata* 41: 219–230. (bv).
- SCHLYTER, FREDRIK, J. LOFQVIST, AND J. A. BYERS. 1957. Behavioural sequence in the attraction of the bark beetle *Ips typographus* to pheromone sources. *Physiological Entomology* 12: 185–196. (bv).
- SCHMID, JOHN MICHAEL. 1957. Partial cutting in MPB [mountain pine beetle]-susceptible pine stands: will it work and for how long? United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado, General Technical Report RM-149: 243–245. (cn).
- SCHMID, JOHN MICHAEL, S. A. MATA, AND R. D. AVERILL. 1959. Containment of small infestations of the mountain pine beetle in ponderosa pine. United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado, Research Note RM-493. 4 p. (cn).
- SCHMID, JOHN MICHAEL, S. A. MATA, AND WILLIAM FRANCIS MCCAMBRIDGE. 1955. Natural falling of beetle-killed ponderosa pine. United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado, Research Note RM-454. 3 p. (cn).
- SCHMID, JOHN MICHAEL, J. C. MITCHELL, AND S. A. MATA. 1956. Ponderosa pine conelet and cone mortality in central Arizona. *Great Basin Naturalist* 46: 445–448. (cn).
- SCHMITT, JEFFREY J., T. EVAN NEBEKER, C. A. BLANCIE, AND JOHN DEAVOURS HODGES. 1955. Physical properties and monoterpane composition of xylem oleoresin along the bole of *Pinus taeda* in relation to southern pine beetle attack distribution. *Canadian Journal of Botany* 66: 156–160. (bv).
- SCHMITZ, RICHARD FRANKLIN. 1955a. Understanding scolytid problems in lodgepole pine forests: the need for an integrated approach. Pages 231–245 in T. L. Payne and H. Saaremaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (bv cn ee hb).
- _____. 1955b. Understanding scolytid problems in lodgepole pine forests: the need for an integrated approach. *International Congress of Entomology, Proceedings* 18: 414. (bv cn ee hb).
- _____. 1959. Efficacy of verbenone for preventing infestation of high-value lodgepole pine stands by the mountain pine beetle. Pages 75–80 in G. D. Amman, *Proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle: symposium proceedings*. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- SCHMITZ, RICHARD FRANKLIN, MARK D. MCGREGOR, GENE DOYLE AMMAN, AND ROBERT D. OAKES. 1959. Effect of partial cutting treatments of lodgepole pine stands on the abundance and behavior of living mountain pine beetles. *Canadian Journal of Forest Research* 19: 566–574. (cn ee hb).
- °SCHMUTZENHOFER, HEINRICH. 1955a. Insektenspuren an Berindetem Nadelholz [Signs of insect damage in unbarked softwood]. *Osterreichische Agrarverlag*, Wien, Austria. 166 p. ().
- _____. 1955b. The use of pheromones for insect pest control methods, part II: aggregation pheromones. Pages 209–213 in *Protection of forests in the tropics: noxious insects to pine and eucalypt plantations in the tropics*. *Protecao de Universidade Federal do Parana, Curitiba [Brazil]*. (bv cn).
- _____. 1955a. Mass outbreaks of *Ips* bark beetles in Bhutan and the revision of the genus *Ips* DeGeer for the Himalayan region. Pages 345–355 in T. L. Payne and H. Saaremaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (ay cn hb tx).
- _____. 1955b. Mass outbreaks of *Ips* bark beetles in Bhutan and the revision of the genus *Ips* for the Himalayan region. *International Congress of Entomology, Proceedings* 18: 416. (ay cn hb tx).
- _____. 1955c. Zum Nachweis der Gattung *Trypodendron* im Himalaja (Coleoptera, Scolytidae). *Entomologica Basiliensia* 12: 487–490. (tx).
- SCHNEIDER, ISOLDE A. 1965c. Frau Professor Dr. Helene Francke-Grosman zum 65. Geburtstag. *Journal of Applied Entomology* 55: 301–303. (ms).
- _____. 1955a. A new locality in northwestern Germany for *Cnathotrichus materiarius* (Coleoptera: Scolytidae) introduced from North America. *Neue Entomol. Nachr.* 17: 39–42. (ds).

- _____. 1955b. *Gnathotrichus materiarius* Fitch (Col., Scolytidae) in Pheromonfallen von *Ips cembrae* (Heer) (Col., Scolytidae), ein neuer Fundort für NW-Deutschland. Anzeiger für Schadlingskunde Pflanzen- und Umweltschutz 58: 50-51. (ds).
- _____. 1957. Verbreitung, Pilzübertragung und Brutsystem des Ambrosiakäfers *Xyleborus affinis* im Vergleich mit *X. mascarensis* (Coleoptera: Scolytidae) [Distribution, fungus transfer and brood system of the ambrosia beetle *Xyleborus affinis* in comparison with *X. mascarensis* (Coleoptera: Scolytidae)] [English summary]. Entomologia Generalis 12: 267-275. (ec hb ds).
- °SCHOENHERR, J. 1955. Systematic review on Neotropical bark beetles. Contribuição a taxonomia e ecologia dos escolítidos do Brasil. In Proteção de florestas nos trópicos: insectos nocivos ao plantio de *Pinus* e *Eucalyptus* nos trópicos. Universidade Federal do Paraná, Curitiba [Brazil]. (.)
- °SCHOOL, 1922. [*Scolytus rugulosus*]. Texas Department of Agriculture, Bulletin 72: 76. (.)
- SCHOMAKER, MICHAEL L. 1951. Colorado forest pest index. Colorado State Forest Service, Insect and Disease Division, Colorado State University, Fort Collins. 57 p. (cm).
- SCHOPF, A. 1955. Zum Einfluss der Photoperiode auf die Entwicklung und Kalteresistenz des Buchdruckers, *Ips typographus* L. (Col., Scolytidae). Anzeiger für Schadlingskunde Pflanzen- und Umweltschutz 58: 73-75. (bv hb).
- _____. 1959. Die Wirkung der Photoperiode auf die Induktion der Imaginaldiapause von *Ips typographus* (L.) (Col., Scolytidae) [The effect of photoperiod on the induction of the imaginal diapause of *Ips typographus* (L.)] [English summary]. Journal of Applied Entomology 107: 275-288. (ec hb).
- SCHOPF, R. 1957. Zur Frage der Bedeutung von Tieren als Vektoren pflanzenpathogener Mikroorganismen in Wirtschaftswäldern [On the importance of animals as vectors of plant pathogenic microorganisms in forest ecosystems] [English, French summaries]. Allgemeine Forst- und Jagdzeitung 158: 7-11. (ec).
- °SCHOYEN, THOB HIORTH. 1914. [*Hylastes ater*]. Tidskrift for Skogbruk, Kristiania 1914: 448-449. (.)
- SCHREIBER, LAWRENCE R., EDWARD E. CONWAY AND JOHN W. PEACOCK. 1956. Aggressiveness, competitiveness and stability of tolerance of benzimidazole-tolerant strains of *Ceratocystis ulmi*. Plant Disease 70: 154-158. (ec).
- SCHREIBER, LAWRENCE R., AND JOHN W. PEACOCK. 1975. Dutch elm disease and its control. United States Department of Agriculture, Forest Service, Agriculture Information Bulletin 193. 14 p. (revised 1979). (cn).
- °_____. 1955. Competitiveness of benzimidazole-tolerant and sensitive strain of *Ceratocystis ulmi* [abstract]. Phytopathology 75: 130S. (cn).
- SCHROEDER, LEIF MARTIN. 1957. Attraction of the bark beetle *Tomicus piniperda* to Scots pine trees in relation to tree vigor and attack density. Entomologia Experimentalis et Applicata 44: 53-58. (bv cn).
- _____. 1958a. Attraction of the bark beetle *Tomicus piniperda* and some other bark- and wood-living beetles to the host volatiles of alpha-pinene and ethanol. Entomologia Experimentalis et Applicata 46: 203-210. (bv).
- _____. 1958b. Host finding and colonization in the bark beetle *Tomicus piniperda* (L.) (Coleoptera: Scolytidae). International Congress of Entomology, Proceedings 18: 441. (bv).
- °_____. 1958c. Host recognition in *Tomicus piniperda* (Coleoptera: Scolytidae) and other bark beetles attacking Scots pine. Published dissertation, Swedish University of Agricultural Science, Sweden. Printed at SLU, Uppsala. ISBN 91-576-3363-0. 29 p. (.)
- SCHRODER, LEIF MARTIN AND HUBERTUS H. EIDMANN. 1956. The effects of pure and blended atmospheric gases on the survival of three bark beetle species. Journal of Applied Entomology 101: 353-359. (ec).
- _____. 1957. Gallery initiation by *Tomicus piniperda* (Coleoptera: Scolytidae) on Scots pine trees baited with host volatiles. Journal of Chemical Ecology 13: 1591-1599. (bv).
- SCHRODER, LEIF MARTIN AND A. LINDELOW. 1959. Attraction of scolytids and associated beetles by different absolute amounts and proportions of alpha pinene and ethanol. Journal of Chemical Ecology 15: 807-818. (bv).
- SCHRODER, LEIF MARTIN AND B. RISBERG. 1959. Establishment of a new brood in *Tomicus piniperda* L. (Coleoptera, Scolytidae) after a second hibernation. Journal of Applied Entomology 108: 27-34. (hb).
- SCHUBERT, C. 1955. Die Aktivitätsdynamik der peroxidase (EC 1.11.1.7) aus dem Kupferstecher (*Pityogenes chalcographus*) (Coleoptera, Scolytidae) und dem Bast der Europäischen Fichte (*Picea abies* [L.] Karsten) [Changes in peroxidase activity in the bark beetle *Pityogenes chalcographus* and the phloem of European spruce]. Zoologischer Anzeiger 221: 355-367. (ay).
- SCHULP, J. 1957. Untersuchungen zur Populationsdynamik von *Ips typographus* L. und zur Biologie seines häufigsten Praedatoren *Thanasimus formicarius* L. Unpublished dissertation, University of Bern, Switzerland. (hb ec).
- SCHULIZ, DAVID E., AND J. ALLISON. 1951. A biological evaluation of existing and potential forest insect and disease problems in Council Camp, Lobo-oso Group Camp, and smog-thinning study plots, San Bernardino National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 51-15. (cn).
- _____. 1952. Tree mortality on the Cleveland National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 52-12. (cn).
- SCHULIZ, DAVID E., AND WILLIAM DELLES BEDARD. 1957. California five-spined Ips. United States Department of Agriculture, Forest Service, Insect and Disease Leaflet 102. 8 p. (bv cn hb).
- SCHULIZ, DAVID E., G. DENITTO, AND J. ALLISON. 1951. Biological evaluation of the Upper Boulder Sale, Greenville Ranger District, Plumas National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 51-23. (cn).
- SCHULIZ, DAVID E., AND J. KLIEJUNAS. 1951. Evaluation of true fir twig mortality on the Gooseneck Ranger District, Klamath National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 51-34. (cn).
- _____. 1953. Evaluation of Medicine Lake Campgrounds,

- Doublehead Ranger District, Modoc National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report S3-34. (cn).
- _____. 1954. Evaluation of mortality in Sugar Pine Reservoir Campground, Foresthill Ranger District, Tahoe National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report S4-06. (cn).
- SCHULTZ, DAVID E., AND J. PRONOS. 1982. Evaluation of Jeffrey pine mortality at Mineral King, Sequoia Kings Canyon National Parks. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report S2-34. (cn).
- SCHULTZ, DAVID E., AND B. ROETTGERING. 1984. A biological evaluation of lodgepole pine mortality in Parks Creek Drainage, Mt. Shasta Ranger District, Shasta-Trinity National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report S4-26. (cn).
- *SCHULTZE, W. 1915. A catalogue of Philippine Coleoptera. Department of the Interior, Bureau of Science, Manila 7: 1-198. ().
- SCHURIG, V., U. LEYFER, AND U. KOHNLE. 1955. Enantiomer composition and absolute configuration of terpenine-4-ol from the bark beetle *Polygraphus poligraphus*. *Naturwissenschaften* 72(4): 211 p. (bv ms).
- SCHURING, W. 1951. Aantastingen door insecten en mijten op bomen en struiken in 1950. *Nederlands Bosbouw Tijdschrift* 53: 173-183. (cn).
- _____. 1952. Aantastingen door insecten en mijten op bomen en struiken in 1951. *Nederlands Bosbouw-tijdschrift* 54: 124-133. (cn).
- _____. 1953. Aantastingen door insecten en mijten op bomen en struiken in 1952. *Nederlands Bosbouw-tijdschrift* 55: 124-133 [?]. (cn).
- _____. 1954. Aantastingen door insecten en mijten op bomen en struiken in 1953. *Nederlands Bosbouw-tijdschrift* 56: 186-195. (cn).
- _____. 1955. Aantastingen door insecten en mijten op bomen en struiken in 1954. *Nederlands Bosbouw-tijdschrift* 57: 367-374. (cn).
- _____. 1956. Aantastingen door insecten en mijten op bomen en struiken in 1955. *Nederlands Bosbouw-tijdschrift* 58: 363-369. (cn).
- SCHIVESTER, DANIEL. 1951b. Methodes de lutte contre les scolytides des arbres fruitiers. *Revue de Zoologie Agricole et Appliquee* 1951(2e trimestre, nos. 4-6): 3-7. (cn).
- _____. 1953. Sur le cycle evolutif de *Xyleborus saxosus* Ratz. (Coleoptera, Scolytidae). *Revue de Zoologie Agricole et Appliquee* 1953 (4e trimestre, nos. 10-12): 1-2 (unpaginated). (cn).
- _____. 1970. Desarrollos recientes en el conocimiento de los insectos devastadores del pino maritimo en zona Mediterranea Francesa. *Boletin del Servicio de Plagas Forestales* 13(26): 173-180. (cn).
- _____. 1955. Les insectes et la foret francaise. *Revue Forestiere Francaise* (Nancy) 37(special issue): 45-64. (cn).
- _____. 1956. Problemes entomologiques forestiers en zone mediterraneenne francaise. *European and Mediter-ranean Plant Protection Organization, Bulletin* 16: 603-612. (cn).
- SCHWANDT, JOHN W., ROBERT LADD LIVINGSTON, D. P. BECKMAN R. L. JAMES, S. TUNNOCK, AND K. A. KNAPP. 1986. Idaho forest pest conditions and program summary. 1985. United States Department of Agriculture, Forest Service, Northern and Intermountain Regions and Idaho Department of Lands, Coeur d'Alene, Idaho, Report S6-1. 25 p. (cn).
- SCHWARZ, MARIE BEATRICE. 1924. *Botrytis stephanoderis* n. sp. Bally und *Botrytis bassiana* Bals. *Bulletin du Jardin botanique de Buitenzorg* 3(6): 68-69. (cc).
- SCHWENKE, WOLFGANG. 1955. Beziehungen zwischen tierischen Schadlingen und Baumkrankungen [Relationships between animal pests and tree diseases]. *Forstwissenschaftliches Centralblatt* 104: 220-225. (cn).
- SCHWERDTFFGER, FRITZ. 1951. *Die Waldkrankheiten*. Edition 4 [Scolytidae, p. 152-197]. Paul Parey, Berlin. 486 p., 242 figs. (bv ds hb).
- SCHWERT, DONALD P., T. W. ANDERSON, ANNE MORGAN, ALAN V. MORGAN, AND P. F. KARROWS. 1955. Changes in late Quaternary vegetation and insect communities in southwestern Ontario. *Quaternary Research* 23: 205-226. (ds).
- SCHWERT, DONALD P., AND ALAN V. MORGAN. 1905. Palaeoenvironmental implications of a late glacial insect assemblage from northwestern New York. *Quaternary Research* 13: 93-110. (ds).
- SEDLACZEK, WALTER. 1904. Review of: Keller, Untersuchungen über der Höhenverbreitung forstschadlicher Tiere in der Schweiz. *Zentralblatt für das Forstwesen* 30: 357-360. (ms).
- SEKENDIZ, O. A. 1957. *Pityokteines curvidens* (Germ.) (Coleoptera, Scolytidae) in dogu karadeniz orman-larinda, dogu goknari (*Abies normanniana* Stev. Spach) uzer undeki zararları ve biyolojisi [On the damage and biology of *Pityokteines curvidens* on Nordmann fir *Abies nordmanniana* in the eastern Black Sea forest region] [In Turkish, English summary]. *Türkiye 1. Entomoloji Kongresi Bildirileri*, 13-16 Ekim 1957. Ege Üniversitesi, Norniova, Izmir. Bornova/Izmir, Turkey. Ege Üniversitesi Atatürk Kultur Merkezi 1957: 209-218. (cn ec hb).
- *SELANDER, J. 1956. Seasonal life history and economic importance of the major timber beetles of the Zambian teak forest. Pages 257-301 in C. D. Pierce, The Zambezi teak forests. 1st International Conference on the Teak Forests of Southern Africa, proceedings. Livingstone, Zambia, 18-24 March 1954. Forest Department, Ndola, Zambia. ().
- SELLENSCHLO, U. 1956. Beifänge in Borkenkafer-Pheromonfallen [Non-target captures in bark beetle pheromone traps] [English summary]. *Mitteilungen der Deutschen Gesellschaft für Allgemeine und Angewandte Entomologie* 6: 371-372. (cc).
- *SELM, E. 1957. The Hylesiniinae of Turkey. *Istanbul Üniversitesi Orman Fakültesi Dergisi*, seri A, 37(1): 67-88. ().
- SEN-SARMA, P. K., AND M. L. THAKUR. 1956. Insect pests of Dipterocarpaceae and their management in India. *Indian Journal of Forestry* 9: 29-50. (cn).
- SEREZ, M. 1957. Verwendung des Aggregationspheromonen-preparatis "Ipslure" gegen den Mediteranen Kiefernborckenkafer, *Ips* (*Orthotomicus crosus* (Woll.) (Col., Scolytidae) [Use of the aggregation-pheromone preparation "Ipslure" against the Mediterranean pine bark beetle *Ips crosus*]. *Anzei-*

- ger für Schadlingskunde Pflanzen- und Umweltschutz 60: 4-95. (cn).
- SEREZ, M., AND J. SCHONHERR. 1985. Bekämpfung von *Ips sexdentatus* (Boem.) (Col., Scolytidae) mit synthetischem Lockstoff Ipslure [Mass trapping of *Ips sexdentatus* with the synthetic pheromone Ipslure]. Journal of Applied Entomology 100: 24-26. (bv).
- *SERRANO, A. R. M. 1982. Contribuição para o conhecimento do povoamento, distribuição e origem dos coleópteros do Arquipélago dos Açores (Insecta, Coleoptera). Boletim Museu Municipal Funchal 34(147): 67-104. (.)
- SEU, Y. B., AND KENJI MORI. 1986. A new synthesis of (-)-exobrevicomin. Agricultural and Biological Chemistry 50: 2923-2924. (bv ms).
- SEYBOLD, STEVEN J., J. E. MILSTEAD, T. OHTSUKA, I. KUBO, AND DAVID L. WOOD. 1985. The isolation and identification of the aggregation pheromone of *Ips lecontei* Swaine. International Congress of Entomology, Proceedings 1S: 441. (bv).
- SHAMOUN, S. F., AND M. P. LEVI. 1955. A chemical and microscopic study of decayed earlywood and latewood of loblolly pine killed by the southern pine beetle (*Dendroctonus frontalis*). Wood and Fiber Science 17: 22-28. (cn ms).
- SHARON, MIKE, AND C. G. O'NEIL. 1985. Forest pest conditions in the Rocky Mountain Region for 1984. United States Forest Service, Rocky Mountain Region, Timber, Forest Pest and Cooperative Forestry Management, Denver, Colorado, 36 p. (cn).
- SHARP, DAVID. 1870. [Title?]. Entomologist's Monthly Magazine 6: 256. (tx).
- SHARPE, PETER J. H., R. J. NEWTON, AND R. D. SPENCE. 1986. Forest pests: the role of phloem osmotic adjustment in the defensive response of conifers to bark beetle attack. Pages 113-132 in T. C. Hemessey et al., Forestry sciences: stress physiology and forest productivity. Martinus Nijhoff, Dordrecht, Netherlands. viii + 239 p. (cn).
- SHARPE, PETER J. H., AND HSIN-JI WU. 1955. A preliminary model of host susceptibility to bark beetle attack. Pages 108-127 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings. Canada Department of the Environment, Forestry Service and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September, 1983. 240 p. (cn).
- SHARPE, PETER J. H., HSIN-JI WU, R. G. GATES, AND J. D. GOESCHL. 1985. Energetics of pine defense systems to bark beetle attack. Pages 206-224 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn).
- SHATILOV, O. A. 1985. The biology of little known species of bark beetles (Coleoptera, Ipsidae) of the Altai [In Russian, English summary]. Pages 54-57 in A. I. Cherepanov, Sistematika i biologiya chlenistonogikh i gel'mintov. (hb).
- SHAVLASHVILI, I. A., AND D. G. ZHARKOV. 1985. Effects of ecological factors on the interaction between populations of *Dendroctonus micans* and *Ips typographus* (Coleoptera: Scolytidae). Pages 227-232 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings. Canada Department of the Environment, Canadian Forestry Service and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1983. 240 p. (ec).
- SHAW, CHARLES G. III, ANDRIS EGLIŠIS, THOMAS H. LAURENT, AND PAUL E. HENNON. 1985. Decline and mortality of *Chamaecyparis nootkatensis* in southern Alaska, a problem of long duration but unknown cause. Plant Disease 69: 13-17. (cn).
- SHAW, M. R. 1959. *Cosmophorus cembrae* Ruschika, new to Britain (Hymenoptera: Braconidae: Euphorinae). Entomologist's Gazette 40: 241-243. (ec).
- SHAW, S. R. 1988. Euphorine phylogeny: the evolution of diversity in host-utilization by parasitoid wasps (Hymenoptera: Braconidae). Ecological Entomology 13: 323-335. (ec).
- SHCHERBAK, G. I. 1985. Contribution to the study of the Dendrolaelapinae of North America (Multi-dendrolaelaps, Rhodacaridae, Gamasina) [In Russian, English summary]. Vestnik Zoologii 5: 25-36. (ec).
- SHEA, KEITH R. 1985. Integrated forest pest management in the South. Pages 3-4 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn).
- SHEA, PATRICK J. 1989. Use of chemicals to protect trees from mountain pine beetle attack. Pages 114-117 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- SHEA, PATRICK J., MICHAEL I. HAWERTY, AND GARY E. DATERMAN. 1986. Impact of insects and methodology for monitoring insects in western white pine seed orchards. Pages 147-153 in Second conference of the cone and seed insects: proceedings. 3-5 September 1986, Briancon. International Union of Forestry Research Organizations. (cn ms).
- SHEA, PATRICK J., AND MARK D. MCGREGOR. 1987. A new formulation and reduced rates of carbaryl for protecting lodgepole pine from mountain pine beetle attack. Western Journal of Applied Forestry 2: 114-116. (cn).
- *SHERMAN. 1903. [*Scolytus rugulosus*]. North Carolina Agricultural Experiment Station, Bulletin 186: 5-6. 10, 21. (.)
- SHERMAN, JOHN D., JR. 1910. A list of Labrador Coleoptera. New York Entomological Society, Journal 18: 173-197. (ds).
- SHORE, TERRY L. 1985. Ambrosia beetles. Canada Department of Environment, Canadian Forestry Service, Pacific Forest Research Centre, Victoria, British Columbia. Pest Leaflet FPL 72. 4 p. (cn ec hb).
- SHORE, TERRY L., PAULA A. BOUDEVYN, ELEANOR R. GARDNER, AND ALAN J. THOMSON. 1989. A preliminary evaluation of hazard rating systems for the mountain pine beetle in lodgepole pine stands in British Columbia. Pages 28-33 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- SHORE, TERRY L., AND JOHN ALEXANDER McLEAN. 1985. A

- survey for the ambrosia beetles *Trypodendron lineatum* and *Cnathotrichus retusus* (Coleoptera: Scolytidae) in a sawmill using pheromone-baited traps. Canadian Entomologist 117: 49-55. (bv cn).
- _____. 1958. The use of mark-recapture to evaluate a pheromone-based mass trapping program for ambrosia beetles in a sawmill. Canadian Journal of Forest Research 18: 1113-1117. (cn).
- SHORE, TERRY L., JOHN ALEXANDER McLEAN, AND J. C. ZANUNCIO 1957. Reproduction and survival of the ambrosia beetle *Trypodendron lineatum* (Oliv.) (Coleoptera: Scolytidae) in Douglas-fir and western hemlock logs. Canadian Entomologist 119: 131-139. (ec hb).
- SHRIMPTON, D. MALCOLM AND A. J. THOMPSON 1955. Relationship between phloem thickness and lodgepole pine growth characteristics. Canadian Journal of Forest Research 15: 1004-1008. (ec).
- SIEBER, ROBERT AND G. BENZ 1985. The diapause of the birch engraver, *Scolytus ratzeburgi* Janson (Col., Scolytidae), its termination by chilling, and manipulation with ecdysterone. Mitteilungen der Schweizerischen Entomologischen Gesellschaft 58: 193-195. (ec hb).
- SIEBOLD, CARL THEODOR ERNST VON. 1849. Über Leon Dufour's Beitrag zur Käfer-Fauna der Pyrenäen. Stettiner Entomologische Zeitung 10: 306-311. (ds).
- SIEGFRIED, BLAIR D., CARL WARREN FAIZINGER, ROBERT CLEVELAND WILKINSON, JR. AND JAMES L. NATION. 1986. In-flight responses of the black turpentine beetle (Coleoptera: Scolytidae) to individual monoterpenes, turpentine, and paraquat-treated slash pines. Environmental Entomology 15: 710-714. (bv).
- *SIERPINSKY, Z. 1950. Tannenschadlinge im Święty Krzyż-Gebirge in Polen. Acte Musei Rigniaebradecensis S. A. Supplementum 1950: 254-256. ().
- SILVERSTEIN, ROBERT MILTON 1985. Chiral semiochemicals. Pages 121-140 in T. E. Acree and D. M. Soderlund, Semiochemistry: flavors and pheromones. Proceedings of the American Chemical Society Symposium, August 1983. Washington, D.C. (bv ms).
- *SIMANDL, JIRI AND ZDENEK KLETECKA 1957. Community of xylophagous beetles (Coleoptera) on *Sarothamnus scoparius* in Czechoslovakia. Acta Entomologica Bohemoslovaca 84: 321-329. ().
- *SIMIONESCU, ADAM 1957. Protecția rasinoaselor împotriva daunătorilor de tulpina [Protection of resinous forests against stem insect pests] [In Romanian, English summary]. Bucuresti, Editura Ceres. 397 p. ().
- *SINADSKII, JU. V. 1958. Pests of the eastern clematis in the woods of the Amu-Darya floodlands. Bulletin M.o.v.a ist. prirody, otd. biologii 63: 143-144. ().
- SINGH, PRITAM, B. H. MOODY, AND L. J. CLARKE 1982. Newfoundland Region. Pages 11-15 in Annual Report of the Forest Insect and Disease Survey, 1979. Canada Department of Environment, Forestry Service, Ottawa, Ontario. (cn).
- *SINREICH, A. 1967. Fannistische Untersuchungen (Arthropoden und Mollusken) an einem Edelkastanienstandort am südlichen Rand der Thermalpen. Mitt. forstl. Bundesversuchsanstalt Wien 76: 33-57. ().
- SJODIN, K., L. M. SCHROEDER, H. H. EIDMANN, T. NORIN, AND S. WOLD. 1959. Attack rates of scolytids and composition of volatile wood constituents in healthy and mechanically weakened pine trees. Scandinavian Journal of Forest Research 4: 379-392. (bv).
- SKATTEBOL, L., AND Y. STENSTROM 1955. Synthesis of racemic lineatin: an aggregation pheromone component of *Trypodendron lineatum*. Acta Chem. Scand., Ser. B, Org. Chem. Biochem. 39: 291-304. (bv ms).
- SKELLY, JOHN M., ET AL. 1988. Diagnosing injury to eastern forest trees. A manual for identifying damage caused by air pollution, pathogens, insects, and abiotic stresses. United States Department of Agriculture, Forest Service, Atlanta, Georgia, and Pennsylvania State University, University Park. 122 p. (cn hb ms).
- SKIDMORE, P., AND C. JOHNSON 1965. A preliminary list of the Coleoptera of Merioneth, North Wales. Entomologist Gazette 20: 139-225. (ds).
- SLANKIS, A. I. 1967b. A new species of nematode, *Aphelenchoides macromicurus* sp. n. (Tylenchida), from the bark beetle, *Ips typographus* L. [In Russian]. Mater. nauk. confer. bse. obshch. Gel'mintol. Moscow 5: 279-282. (ec).
- _____. 1974. Four new species of Sphaerulariidae from Ipidae (Col.) [In Russian, English summary]. Parazitologiya 8: 57-62. (ec).
- SLANSKY, F., JR. AND ROBERT A. HAACK 1986. Age-specific flight behavior in relation to body weight and lipid content of *Ips calligraphus* reared in slash pine bolts with thick or thin inner bark (phloem). Entomologia Experimentalis et Applicata 40: 197-207. (ay bv).
- SLESSOR, KEITH N., G. G. S. KING, D. R. MILLER, M. L. WINSTON, AND T. L. CUTFORTH 1985. Determination of chirality of alcohol or latent alcohol semiochemicals in individual insects. Journal of Chemical Ecology 11: 1659-1667. (ms).
- SLOSSEN, ANNIE TRUMBULL 1895. Additional list of insects taken in alpine region of Mt. Washington. Entomological News 6: 4-7. (ds).
- _____. 1906. Additional list of insects taken in alpine region of Mt. Washington. Entomological News 17: 323-326. (ds).
- SMILEY, ROBERT L., AND JOHN CONRAD MOSER. 1954. Notes and a key to separate normal and heteromorphic males of *Pycnotes giganticus* Cross, Moser, & Rack and *P. dimorphus* Cross & Moser (Acrid: Pycnotidae). International Journal of Acarology 10: 11-14. (ec).
- _____. 1985. A new species, key to females, and distribution records for *Heterotarsonemus* (Acrid: Tarsonemidae). International Journal of Acarology 11: 247-253. (ec).
- *SMITH, 1921. [*Xyleborus perforans*]. Virgin Islands Agricultural Experiment Station, St. Croix. Bulletin 2. 23 p. ().
- SMITH, ANTHONY H., AND JOHN O. JOHNSON. 1955. Forest conditions in the state of New Mexico. Pages 11-14 in T. J. Rogers and P. F. Hessburg, Annual Southwestern Region Pest Conditions Report, 1954. United States Department of Agriculture, Forest Service, Southwestern Region, Albuquerque, New Mexico. Forest Pest Management Report R-3-85-9. 18 p. (cn).
- SMITH, D. P. 1987. Final environmental impact statement for the suppression of the southern pine beetle, Southern Region. United States Department of Agriculture, Forest Service, Southern Region, Management Bulletin R-S-MIB2. (cn).
- SMITH, I. M. 1985. Pests and disease problems in European forests. FAO Plant Protection Bulletin 33: 159-164. (cn).
- SMITH, MICHAEL T., R. BUSCH, THOMAS LEE PAYNE, AND J. C. DICKENS 1988. Antennal olfactory responsiveness of three sympatric *Ips* species (*Ips avulsus* [Eichhoff], *Ips calligraphus* [Germar], *Ips grandicollis*

- [Eichhoff]), to intra- and interspecific behavioral chemicals. *Journal of Chemical Ecology* 14: 1289–1304. (ay hv).
- SMITH, RICHARD HARRISON. 1977. Book review: The insects and arachnids of Canada, Part 2: the bark beetles of Canada and Alaska, Coleoptera: Scolytidae. Entomological Society of America, Bulletin 23: 148. (ds tx ms).
- _____. 1956. Trapping western pine beetles with baited toxic trees. United States Department of Agriculture, Forest Service, Pacific Southwest Forest Experiment Station, Berkeley, California, Research Note PSW-382. 9 p. (cn).
- SMITH, RICHARD S., JR., AND J. W. DALE. 1981. Biological evaluation of white fir mortality in Horton and Dotta canyons, Plumas National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 81–21. (cn).
- SMITH, RICHARD S., JR., J. PIERCE, D. SCHULTZ, AND J. PRONOS. 1984. Biological evaluation of North Grove and Squaw Hollow campgrounds in Calaveras Big Tree State Park. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 84–07. (cn).
- SMITH, RICHARD S., JR., AND B. ROETTERING. 1982. A biological evaluation of three years of pest-caused tree mortality on the San Bernardino National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report 82–4. (cn).
- *SNAPP. 1925. [*Scolytus rugulosus*]. United States Department of Agriculture, Farmers Bulletin 1557: 27–28. [Revised 1936]. ().
- ° _____. 1941. [*Scolytus rugulosus*]. United States Department of Agriculture, Farmers Bulletin 1861: 17–19. [Revised 1954]. ().
- SNOW, G. A., W. H. HOFFARD, C. E. CORDELL, AND A. G. KAIS. 1989. Pest management in longleaf pine stands. Pages 128–134 in Symposium proceedings: Management of longleaf pine. 4–6 April 1989, Long Beach, Mississippi. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-75. (cn).
- *SOLBRECK, C. 1985. Insect migration strategies and population dynamics. Pages 641–662 in M. A. Rankin, D. Checkley, J. Cullen, C. Kitting, and P. Thomas, Migration mechanisms and adaptive significance. Contributions to Marine Science 68. ().
- SOLJHEIM, HALVOR. 1986. Species of Ophiostomataceae isolated from *Picea abies* infested by the bark beetle *Ips typographus*. *Nordic Journal of Botany* 6: 199–207. (ec).
- SOLOMON, JAMES D. 1985. Using hardwood lumber with insect, fungus, and bird defects as character-marked woods. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, Research Paper SO-226. 11 p. (cn).
- SOLOMON, JAMES D., FRANCIS I. MCCracken, ROBERT L. ANDERSON, ROBERT LEWIS, JR., FORREST L. OLIVERIA, THEODORE H. FILER, AND PATRICK J. BARRY. 1957. Oak pests: a guide to major insects, diseases, air pollution and chemical injury. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, Protection Report RS-PR7. 70 p. (cn).
- SOLOMON, JAMES D., AND J. A. PAYNE. 1986. A guide to the insect borers, primers, and girdlers of pecan and hickory. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station (New Orleans, Louisiana), General Technical Report SO-64. 31 p. (cn hb).
- *SOVER, LONNE L., AND GARY EDWARD DATERMAN. 1986. Use of behavioral chemicals in western U. S. forests. In I. Chaudry and C. Thies, Proceedings: 13th international symposium on controlled release of bioactive materials. 3–6 August 1986, Norfolk, Virginia. The Controlled Release Society, Lincolnshire, Illinois. ().
- SPEERS, CHARLES F. 1956. Radioisotopes in forest insect studies. Association of Southern Agricultural Workers, Proceedings 53: 130. (cn).
- SPRECHER VON BERNEGG, ANDREAS. 1960. Tropische und subtropische Weltwirtschaftspflanzen ihre Geschichte, kultur und volkswirtschaftliche Bedeutung, Teil III. Genusspflanzen, Band 2. Ferdinand Enke, Stuttgart. (cn).
- STAACK, J. 1985. Vom Fangbaum zur fälle: Geschichtliche Entwicklung der Borkenkäferbekämpfung [From trap tree to (pheromone) trap: the historical development of bark beetle control]. *Forst- und Holzwirt* 40: 27–31. (cn).
- STADNITSKII, G. V. 1956. Xylophagous insects in forest ecological systems [In Russian]. *Zashchita Rastenii* Moscow 12: 18–20. (hv).
- STAINES, C. L., JR. 1982. Distributional records of Platypodidae (Coleoptera) in Maryland. *Entomological Society of Washington, Proceedings* 84: 858–859. (ds).
- STAMBULL, M. 1988. The problem of coffee insect pests in Tanzania. *Taro Newsletter* 3(2): 10–14. (cn).
- STARK, RONALD WILLIAM, AND ALAN ANDREW BERRYMAN. 1971. Techniques for sampling western pine beetle populations and estimating the efficiency of natural control factors. Pages 191–206 in C. P. Patil, E. C. Pielou, and E. E. Waters, *Statistical ecology*, vol. 2. Pennsylvania State University Press, State College. (cn ms).
- STARK, RONALD WILLIAM, AND WILLIAM E. WATERS. 1985. Concept and structure of a forest pest management system. Pages 49–60 in W. E. Waters, R. W. Stark, and D. L. Wood, *Integrated pest management in pine-bark beetle ecosystems*. John Wiley & Sons, New York. xvii + 256 p. (cn).
- STARK, RONALD WILLIAM, WILLIAM E. WATERS, AND DAVID LEE WOOD. 1985. Summary. Pages 191–201 in W. E. Waters, R. W. Stark, and D. L. Wood, *Integrated pest management in pine bark beetle ecosystems*. John Wiley & Sons, New York. (cn).
- *STARNES. 1899. [*Scolytus rugulosus*]. Georgia Agricultural Experiment Station Bulletin 42: 225–229 (1898). ().
- ° _____. 1904. [*Scolytus rugulosus*]. Georgia Agricultural Experiment Station, Bulletin 67: 253–254. ().
- *STARZK, JERZY R. 1974. Charakterystyka szkodliwej entomofauny lesnej rezerwatu Lipowka w Puszczy Niepolomickiej [Characteristics of the noxious forest entomofauna of the Reserve Lipowka in the Niepolomice Forest near Krakow]. *Acta Zoologica Cracoviensia, Krakow* 19: 237–252. ().
- _____. 1976. Obwczyn-*Steuostola dubia* (Laich) (Col., Cerambycidae) - w polsce, jego morfologia i biologia [Scolytidae - p. 206]. *Folia Forestalia Polonica, ser. A*, 22: 197–205. (ec).

- _____. 1977. Morphology, biology and life history of *Carilia* (= *Neogaurotes* Pod.) *virginica* (L.) (Col., Cerambycidae) [cites *Ips typographus*, *Pityophthorus pityographus*, *Polygraphus poligraphus*, *Dryocoetes autographus*]. *Zeitschrift für Angewandte Entomologie* 53: 269–251. (ec).
- _____. 1955. Badania nad bionomią i znaczeniem gospodarczym rzemlika plamistego, *Saperda scalaris* (L.) (Col., Cerambycidae) w Puszczy Niepolomickiej koło Krakowa [Scolytidae, p. 452]. *Polskie Pismo Entomologiczne* 58: 465–487. (ec).
- STARZYK, JERZY R., ALFRED KRÓL, DANIEL KUBISK, MACIEJ WITRYLAK, AND MALGORZATA OSSOWSKA. 1957. Wykorzystanie substancji feromonowych do zwalczania gatunków z rodzaju drwabnik (*Trypodendron* Steph.) w lasach górskich. *Sylvan* 131: 71–81. (ec).
- STARZYK, JERZY R., AND JOANNA KULACZEK. 1955. Studies on the infestation of boles and branches of *Abies alba* Mill. with cambio- and xylophagous insects at the Forest Experimental Station in Krynica (Beskid Sadecki Mts.). Pages 153–164 in IVth symposium on the protection of forest ecosystems. Warsaw Agricultural University. (ec).
- STARZYK, JERZY R., AND M. LESSAER. 1978. Studies on the distribution, morphology and biology of *Tetrops starki* Chev. (Col., Cerambycidae) [Scolytidae, p. 45]. *Zeitschrift für Angewandte Entomologie* 56: 35–46. (ec).
- STARZYK, JERZY R., AND MARIAN J. LUSZCZAK. 1952. Owady floemokambio- i ksylofagiczne spalowanych drzew iglastych i liściastych na wybranych powierzchniach w lesnym zakładzie doświadczalnym w krynicy. *Acta Agraria et Silvestria* 21: 99–119. (ec).
- STARZYK, JERZY R., AND ADAM SEK. 1953. Zgrupowania i zespoły owadów w pniakach świerkowych na wybranych powierzchniach w lesnym zakładzie doświadczalnym w krynicy (beskid sadecki). *Acta Agraria et Silvestria* 22: 71–86. (ec).
- STARZYK, JERZY R., AND MARIA SIEMEK. 1957. Zgrupowania i zespoły owadów kambio- i ksylofagicznych na strażalich i galeziach świerków II/III klasy wieku w lesnym zakładzie doświadczalnym w krynicy. *Zeszyty Naukowe Akademii Rolniczej Im. H. Kollataja w Krakowie*, No. 213: 103–119. (ec).
- STARZYK, JERZY R., AND KRYSZYNA STARZYK. 1951. Owady kambiofagiczne, kambio-ksylofagiczne i ksylofagiczne w drzewostanach Puszczy Niepolomickiej. *Studia Ośrodka Dokumentacji Fizjograficznej* 9: 255–290. (ec).
- STARZYK, JERZY R., AND MAREK STYCZYŃSKI. 1954. Owady kambio- i ksylofagiczne w tyczkownikach i drógwinach jodecwych lesnego zakładu doświadczalnego w krynicy/beskid sadecki/. *Zeszyty Naukowe Akademii Rolniczej Im. H. Kollataja w Krakowie*, No. 154: 103–112. (ec).
- STARZYK, JERZY R., AND ZBIGNIEW WITKOWSKI. 1951. Changes of the parameters describing the cambio- and xylophagous insect communities during the secondary succession of the oak-hornbeam association of the Niepolomice Forest near Krakow. *Zeitschrift für Angewandte Entomologie* 91: 525–533. (ec).
- _____. 1953. Z miary zgrupowań owadów kambio- i ksylofagicznych towarzyszących sukcesji wtórnej lasu w gradach Puszczy Niepolomickiej [In Polish, English summary]. *Zakład Ochrony Przyrody i Zasobów Naturalnych Polskiej Akademii Nauk*, ser. A., 27: 101–115. (ec).
- STARZYK, JERZY R., MACIEJ WITRYLAK, DANIEL KUBISK, TADEUSZ KAZMIERZAK, MARIAN LUSZCZAK, PRZESYSŁAW SZAWLKO, AND MALGORZATA OSSOWSKA. 1957. Effect of severity of thinnings on the mortality of trees and occurrence of cambio- and xylophagous insects in the mountain forest stands composed of *Abies alba* Mill. and *Picea abies* (L.) Karst. Pages 179–189. IV symposium on the protection of forest ecosystems, Warsaw Agricultural University. (ec).
- STARZYK, JERZY R., AND GRZEGORZ WOJCIK. 1955. Badania nad owadami kambio- i ksylofagicznymi jodły i świerka w różnych fazach rozwojowych drzewostanu w lesnym zakładzie doświadczalnym krynicy [In Polish, English summary]. *Zeszyty Naukowe Akademii Rolniczej Im. H. Kollataja w Krakowie*, No. 197: 119–132. (cn).
- STAUBLI, A., AND H. HON. 1955. Les ennemis de nos vergers. Une nouvelle serie de 5 planches en couleur [The enemies of our orchards: a new series of 5 color plates]. *Revue Suisse de Viticulture, d'Arboriculture et d'Horticulture* 20: 347–354, 359–366. (cn).
- STEIGUER, J. E. DE, AND R. L. HEDDEN. 1955. Effects of aerial detection schedules on the age of southern pine beetle infestations. *Forest Science* 34: 229–235. (cn).
- STEIGUER, J. E. DE, R. L. HEDDEN, AND J. M. PYE. 1957. Optimal level of expenditure to control the southern pine beetle. United States Department of Agriculture, Forest Service, Southeastern Forest Experiment Station (Triangle Park, North Carolina), Research Paper SE-263. 30 p. (cn).
- STEJSKAL, J. V. 1920. Další příspěvek ku výzkumu broučkové fauny Radhošte. Klub Přírodovědecký v Prostějově. *Vestník* 1919: 19–21. (ds).
- STENSETH, NILS CHRISTIAN. 1959a. A model for the conquest of a tree by bark beetles. *Holarctic Ecology* 12: 405–414. (cn lb).
- _____. 1959b. A simple population model for bark beetles providing general guidelines for the application of aggregation and anti-aggregation pheromones. *Holarctic Ecology* 12: 395–407. (bv cn).
- STENSETH, NILS CHRISTIAN, AND LAWRENCE RICHARD KIRKENDALL. 1959. Population dynamics of bark beetles with special reference to *Ips typographus*. *Holarctic Ecology* 12(4): 352–353. (bb).
- STEPHEN, FREDERICK M., AND M. P. LIH. 1955. A *Dendroctonus frontalis* infestation growth model: organization, refinement, and utilization. Pages 156–194 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 353 p. (cn).
- STEPHEN, FREDERICK M., M. P. LIH, TIMOTHY D. PAINE, AND G. W. WALLIS. 1955a. Influence of tree resistance on southern pine beetle population dynamics. International Congress of Entomology. *Proceedings* 15: 413. (cn lb).
- _____. 1955b. Using acute stress to modify tree resistance: impact on within-tree southern pine beetle populations. Pages 105–119 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn ec).
- STEPHEN, FREDERICK M., M. P. LIH, AND G. W. WALLIS. 1955. Southern pine beetle IPM. *Arkansas Farm Research* 37: 5. (cn).
- STEPHEN, FREDERICK M., AND TIMOTHY D. PAINE. 1955a. Conceptual model of infestation probability based

- on bark beetle abundance and host tree susceptibility: an addendum. *Environmental Entomology* 14:iv. (ms).
- _____. 1985b. Seasonal patterns of host tree resistance to fungal associates of the southern pine beetle. *Journal of Applied Entomology* 99: 113-122. (cn ec).
- STEPHEN, FREDERICK M., TIMOTHY D. PAINE, AND M. P. LIH. 1985. Mechanisms of tree resistance to bark beetles: synthesis and applications. Pages 69-82 in 34th Annual Forestry Symposium, Division of Continuing Education, Louisiana State University, Baton Rouge, Louisiana. (ec).
- STIPE, LAWRENCE E., R. L. JAMES, ROBERT LADD LIVINGSTON, ET AL. 1987. Idaho forest pest conditions and program summary, 1986. United States Department of Agriculture, Forest Service, Northern and Intermountain Regions and Idaho Department of Lands, Coeur d'Alene, Idaho, Report 87-1. 32 p. (cn).
- STOCK, A. J., JOHN HARVEY BORDEN, T. L. PRATT, H. D. PIERCE, JR. AND B. D. JOHNSTON. 1990. Entobrevicomin: an antiaggregation pheromone for the western balsam bark beetle, *Dryocoetes confusus* Swaine (Coleoptera: Scolytidae). *Canadian Entomologist* 122: 935-940. (bv hb).
- STOCK, A. J., AND R. A. GORLEY. 1989. Observations on a trial of broadcast burning to control an infestation of the mountain pine beetle *Dendroctonus ponderosae*. *Canadian Entomologist* 121: 521-523. (cn).
- STOCK, MOLLY WILFORD, JEAN CLAUDE GREGOIRE, AND MALCOLM MACFARLANE FURNISS. 1987. Electrophoretic comparison of European *Dendroctonus micans* and ten North American *Dendroctonus* species (Coleoptera: Scolytidae). *Pan-Pacific Entomologist* 63: 353-357. (av).
- STONE, C. 1955. A new species of *Proctolaelaps* (Acari: Ascidae) from New South Wales, Australia. *Acarologia* 29: 319-327. (ec).
- STONE, C., AND J. A. SIMPSON. 1987. Influence of *Ips grandicollis* on the incidence and spread of bluestain fungi in *Pinus elliottii* billets in north-eastern New South Wales. *Australian Forestry* 50: 86-94. (ec).
- STRESSMANN, ERWIN, H. HANNEMANN, B. KLAUSNITZER AND K. SENGLAUB. 1989. Exkursionsfauna für die Gebiete der DDR und der BRD. Band 2/1 Wirbellose. Teil 1. Insekten, 8 Auflage [Scolytidae and Platypodidae, p. 350-357]. Volk und Wissen Volkseigener, Berlin. 504 p. (hb ds tv).
- *STRICKLAND. 1916. [*Scolytus rugulosus*]. New York Department of Agriculture, Bulletin 79: 1099. ().
- *STRITTMATTER, M. 1985. Versuche zur Isolierung des Populationslockstoffes von *Cryphalus piceae* (Ratz.). Unpublished thesis, University of Freiburg. ().
- STRJCEK, J. 1988. Faunistic records from Czechoslovakia. Hymenoptera. *Acta Entomologica Bohemoslovaca* 55: 475-477. (ec).
- STROBEL, GARY A., AND F. SUGAWARA. 1986. The pathogenicity of *Ceratocystis monia* to lodgepole pine. *Canadian Journal of Botany* 64: 113-116. (ec).
- *STROHMAYER, HEINRICH. 1911i. [*Platypus cylindrus*]. Montevideo. *Anales del Museo Nacional*, ser. 2, 1(3): 55-55. ().
- STRONGMAN, D. B. 1987. A method for rearing *Dendroctonus ponderosae* Hopk. (Coleoptera: Scolytidae) from eggs to pupae on host tissue with or without a fungal complement. *Canadian Entomologist* 119: 207-208. (ec hb).
- STURGEON, KAREEN BARBARA, AND JEFFERY B. MITTON. 1986a. Allozyme and morphological differentiation of mountain pine beetles *Dendroctonus ponderosae* Hopkins (Coleoptera: Scolytidae) associated with host tree. *Evolution* 40(2): 290-302. (ay tv).
- _____. 1986b. Biochemical diversity of ponderosa pine and predation by bark beetles (Coleoptera: Scolytidae). *Journal of Economic Entomology* 79: 1064-1065. (cn).
- STURGEON, KAREEN BARBARA, AND J. L. ROBERTSON. 1985. Microsomal polysubstrate monooxygenase activity in western and mountain pine beetles (Coleoptera: Scolytidae). *Entomological Society of America, Annals* 75: 1-4. (ay).
- SUKARTANA, P. 1988. The possibility of rearing ambrosia beetles on artificial diets. *Malaysian Forester* 48: 347-352. (hb).
- *SUKHOVOLISKII, V. G. 1981. Tree-xylophage interaction and dielectric properties of tree tissues [abstract]. The role of insect-plant relationship in the population dynamics of forest pests, IUFRO/MAB Meeting, 24-25 August 1981, Irkutsk, USSR 57: 47. ().
- _____. 1982. A change in the dielectric properties of the tissues of a tree affected by insects [In Russian]. Pages 41-56 in A. S. Isaev, *Konsortivnye svyazi dereva i dendrofilnykh nasekomykh*. Novosibirsk, USSR, Nauka, Siberian Section, Translation, Canada Department of Environment, OOENV TR-2255 (1983). 28 p. (ec).
- *SUKOVATOVA, L. M., L. S. MILOVIDOVA AND K. S. TRUBACHENA. 1987. Detecting the entomopathogenic fungus *Cordyceps militaris* Fr. Lk. in the southern Ob River area in Tomsk Oblast Russian SFSR USSR [In Russian]. *Mikol Fitopatol* 21: 528-529. ().
- SULISTYOWATI, E. 1986. Masalah hama bubuk buah kopi, *Hypothenemus hampei* Ferr. (Coleoptera, Scolytidae) dan usaha pengendaliannya [The problem of the coffee berry borer, *Hypothenemus hampei*, and its control] [In Hindi, English summary]. *Pelita Perkebunan* 2: 10-18. (cn hb).
- SUMER, S. 1987. The distribution of cypress (*Cupressus* L.) in Turkey and the current status of its pests and diseases, especially cypress canker disease. *Istanbul Üniversitesi Orman Fakültesi Dergisi*, ser. A, 37: 46-66. (cn).
- *SUMMERS, S. V. 1874. Catalogue of the Coleoptera from the region of Lake Pontchartrain, La. Buffalo Society of Natural Science, Bulletin 2: 78-99. ().
- SUSUT, J. P. 1967. Annual district report: Peace River District, 1966. Pages 83-91 in Annual district reports of the Forest Insect and Disease Survey for Alberta-Northwest Territories-Yukon region, 1966. Canada Department of Forestry and Rural Development, Canadian Forestry Service, Forest Research Laboratory, Calgary, Alberta, Information Report A-X-6. (cn).
- _____. 1969. Annual district report: Yukon Territory, 1968. Pages 79-86 in Annual district reports of the Forest Insect and Disease Survey, Alberta-Northwest Territories-Yukon region, 1968. Canada Department of Fisheries and Forestry, Forest Research Laboratory, Calgary, Alberta, Information Report A-X-22. (cn).
- SVTHRA, PAVEL. 1987. Suitability of elm firewood to bark beetle attack stored under polyethylene sheeting. *Journal of Arboriculture* 13: 164-166. (bv hb).
- _____. 1988. To dig or not to dig the red turpentine beetle from infested pines. *Grower Points* 25(5): 2-3. (cn ms).
- _____. 1989. How to protect drought stressed pine from red

- turpentine beetle attacks, without lindane. *Grower Points* 25(5): 3-4. (cn).
- *SWAINE, JAMES MALCOLM. 1917b. [*Ips radiatae*]. *Canadian Entomologist* 49: 356. ().
- . 1919c. The Entomological Branch: the balsam injury in Quebec and its control. *Agricultural Gazette of Canada* 6: 227-233. (cn ec).
- *SWARUP, G., AND RAJAN. 1955. Mechanism of insect control by nematodes. Pages 49-59, 254-258 in R. K. Bhan- tor, S. Verma, and S. I. Farooqi. Non-insect pests and predators. Impact of non-insect pests and predators on food production and environment: symposium proceedings. New Delhi, India. ().
- SWEDENBORG, P. D., R. L. JONES, M. E. ASCERNO, AND V. R. LANDWEHR. 1955. *Hylurgopinus rufipes* (Eichhoff) (Coleoptera: Scolytidae): attraction to broodwood, host colonization behavior, and seasonal activity in central Minnesota. *Canadian Entomologist* 120: 1041-1050. (bv hb).
- SWEDENBORG, P. D., R. L. JONES, AND LEE C. RYKER. 1959. Stridulation and associated behavior of the native elm bark beetle *Hylurgopinus rufipes* Eichhoff (Coleoptera: Scolytidae). *Canadian Entomologist* 121: 245-252. (bv).
- SWINGLE, ROGER ULASSES. 1950. Report on the Dutch elm disease. *Arborists' News* 15(10): 113-114. (cn).
- SYED, AKBAR, AND KENNETH GRAHAM. 1957. Response of the mountain pine beetles, *Dendroctonus ponderosae* Hopkins, to ethanol in a laboratory olfactometer. *Canadian Entomologist* 119: 459-490. (bv).
- SYME, PAUL D., AND K. L. NYSTROM. 1955. Insects and mites associated with Ontario forests: classification, common names, main hosts, and importance. Canada Department of Forestry, Forestry Service, Great Lakes Forestry Centre, Sault Ste. Marie, Ontario, Information Report 0-X-392. 131 p. (cn ds tx).
- SYMONS, THOMAS BADDELEY. 1904. Entomological notes for the year in Maryland. United States Department of Agriculture, Division of Entomology, Bulletin 46. (cn).
- SZONTAGI, P. 1955. Fitofag rovárook szerepe a kocsánytalan tolgaj pusztulásában [The role of phytophagous insects in the decay of sessile oak] [English title]. *Novenyvedelem* 21(5): 219. (cn).
- ## T
- TABASHNIK, BRUCE E., W. J. MATSON, AND J. R. MILLER. 1955. Host acceptance behavior of the red pine cone beetle (*Conophthorus resinosae*). *Entomologia Experimentalis et Applicata* 37: 3-7. (bv).
- TAHA, HANDY A., AND FREDERIK M. STEPHEN. 1954. Modeling with imperfect data: a case study simulating a biological system. *Simulation* 42: 109-115. (cn).
- TAIT, SUSAN M., CHARLES G. SHAW III, AND ANDRIS EGLITIS. 1955. Occurrence of insect and disease pests on young-growth Sitka spruce and western hemlock in southeastern Alaska. Pacific Northwest Forest and Range Experiment Station, Portland, Oregon, Research Note PNW-433. 16 p. (cn).
- TAKAHASHI, K. 1959. Flight activity of insects sampled with a truck trap. IV: flight activity of Curculionidae (Coleoptera). *Japanese Journal of Entomology* 57: 402-405. (hb).
- *TALBERT, THOMAS JESSE. 1946. [*Phloeotribus liminaris*]. *Gen. Hort.* 1946: 190. ().
- TANDON, P. L., AND A. VERGHESE. 1957. New insect pests of certain fruit crops. *Indian Journal of Horticulture* 44(1-2): 121-122. (cn).
- *TANG, Z. T., Z. W. JUN, Z. J. ZHOU, C. H. WANG, AND S. Z. LI. 1955. Some tropical hardwood destroying insects and their control methods [In Chinese, English summary]. *Journal of Nanjing Institute of Forestry* 1: 35-43. ().
- TEALE, S. A., AND GERALD NORMAN LANIER. 1955. Seasonality of pheromone specificity in *Ips pini* (Coleoptera: Scolytidae). *International Congress of Entomology, Proceedings* 18: 429. (bv).
- TEILLON, H. BRENTON, BARBARA S. BURNS, AND RONALD S. KELLEY. 1951. Forest insect and disease conditions in Vermont, calendar year 1951. *Forestry, Parks, and Recreation, Montpelier, Vermont*. (cn).
- . 1952. Forest insect and disease conditions in Vermont, calendar year 1952. *Forestry, Parks, and Recreation, Montpelier, Vermont*. (cn).
- . 1953. Forest insect and disease conditions in Vermont, calendar year 1953. *Forestry, Parks, and Recreation, Montpelier, Vermont*. (cn).
- . 1956. Forest insect and disease conditions in Vermont, calendar year 1956. Department of Forests, Parks, and Recreation, Montpelier, Vermont. 40 p. (cn).
- TEILLON, H. BRENTON, RONALD S. KELLEY, AND E. E. KEENAN. 1979. Forest insect and disease conditions in Vermont, calendar year 1979. *Forestry, Parks, and Recreation, Montpelier, Vermont*. (cn).
- TEILLON, H. BRENTON, RONALD S. KELLEY, AND B. D. SCHULTZ. 1950. Forest insect and disease conditions in Vermont, calendar year 1950. *Forestry, Parks, and Recreation, Montpelier, Vermont*. (cn).
- TENKOCOVA, I., AND J. MITUCHI. 1957. Nematodes new for the fauna of the Czechoslovak Socialist Republic with the affinity to scolytids (Coleoptera: Scolytidae). *Helminthologia* 24: 281-291. (ec).
- TERASAKI, YUKIO, NABIKI YOSHIDA, KENJI FUKUYAMA, AND KIMITO FURUTA. 1957. Response of *Larix leptolepis* to inoculated *Ips cembrae* [In Japanese]. *Tokyo Daigaku Nogakuba Enshurin Hokoku* [Bulletin of the Tokyo University Forests] 77: 19-30. (cn).
- TERRA, PAULO S. 1957. Guia para identificacao de escolitideos (Coleoptera, Scolytidae) associados ao cacaneiro (*Theobroma cacao* L.) no sul da Bahia [Guide for the identification of the ambrosia beetles (Coleoptera, Scolytidae) associated with the cacao tree in the south of Bahia]. *Revista Theobroma* 17: 17-30. (cs tx).
- *THALENHORST, W. 1979. Ablauf der Borkenkafer-Kalamitat in Naturwaldreservaten (NWR). Pages 35-47 in *Aus dem Walde, 1979, Dokumentation der Sturmkatastrophie vom 13 November 1972. Part V. Mitteilungen aus der Niederschsischen Landesforstverwaltung* 31. 190 p. ().
- THAPA, R. S., AND PRATAP SINGH. 1956. Large-scale mortality of deodar tree by the bark borer, *Scolytus major* Stebbing (Scolytidae, Coleoptera) in Kulu Forest Division, Himachal Pradesh. *Indian Forester* 112: 392-398. (cn ec hb).
- THATCHER, ROBERT CLIFFORD, AND M. P. CONNOR. 1955. Identification and biology of southern pine bark beetles. United States Department of Agriculture, Forest Service, Agricultural Handbook 634. 14 p. (bv hb).
- THATCHER, ROBERT CLIFFORD, GARLAND N. MASON, AND GERARD D. HERTEL. 1955. Integrated pest management in the South: an overview. Pages 364-375 in S.

- J. Granham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 353 p. (cn).
- THIRUGNANASUNTHARAN, K. 1957. The use of insecticides in tea. *Tea Bulletin* 7: 19-26. (cn).
- THIRUGNANASUNTHARAN, K., AND I. C. R. JAYACHANDRAN. 1959. Recent observations on resistance and susceptibility of tea clones to the shot-hole borer beetle, *Xyleborus fornicatus* Eichl. (Coleoptera: Scolytidae). *Sri Lanka Journal of Tea Science* 58: 50-55. (cn).
- THOMAS, P. R. 1956. Infestation by pine and spruce bark beetles in British Columbia and its effect on kraft and mechanical pulping. Pages 35-47 in R. W. Nielson, Harvesting and processing of beetle-killed timber. Proceedings of a symposium. Special publication, Forintek Canada Corporation SP-26. 53 p. (cn).
- THOMAS, FERRI L., AND J. K. AGEY. 1956. Prescribed fire effects on mixed conifer forest structure at Crater Lake Oregon. *Canadian Journal of Forest Research* 16: 1052-1057. (bv).
- THOMPSON, WILLIAM A. 1955. SPB-Microbeetles: a simulation system for evaluating economic performance of management alternatives for stands attacked by southern pine beetles. Pages 292-299 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 353. (cn).
- THOMPSON, WILLIAM A., AND JOHN CONRAD MOSER. 1956. Temperature thresholds related to flight of *Dendroctonus frontalis* Zimm. (Col.: Scolytidae). *Agronomie* 6: 905-910. (ec hb).
- THOMSON, A. J., LASZLO SAFRANYIK, D. MALCOLM SHIMPTON, AND H. S. WHITNEY. 1955. A theory of mountain pine beetle population response to weather-induced changes in host resistance. Pages 128-135 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings, Canada Department of the Environment, Forestry Service and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September 1953. 240 p. (ec hb).
- THOMSON, M. J. 1964. 1964. Status of insects in the Fort Frances district. Pages G36-42 in Annual district reports of the Forest Insect and Disease Survey Ontario, 1963. Canada Department of Agriculture, Forest Biology Division, Sault Ste Marie, Ontario. (cn).
- TILDEN, PAUL E. 1955. Remedial treatment of lodgepole pine infested with mountain pine beetle: efficacy of three insecticides. United States Department of Agriculture, Forest Service, Pacific Southwest Forest Experiment Station, Berkeley, California, Research Note PSW-374. 4 p. (cn).
- TILDEN, PAUL E., WILLIAM DELLES BEDARD, JR. 1955. Field response of *Dendroctonus brevicomis* to exobrevicomin, frontalin and myrcene released at two proportions and three levels. *Journal of Chemical Ecology* 11: 757-766. (bv).
- _____. 1955. Effect of verbenone on response of *Dendroctonus brevicomis* to exo-brevicomin, frontalin, and myrcene. *Journal of Chemical Ecology* 14: 113-122. (bv).
- TILDEN, PAUL E., WILLIAM DELLES BEDARD, JR., DAVID LEE WOOD, AND LLOYD E. BROWNE. 1957. Interruption of response of *Dendroctonus brevicomis* to attractive pheromone by release of pheromone at several rates and spacings. *Journal of Chemical Ecology* 13: 55-97. (bv).
- TITUS, F. A. 1957. Pests that changed the forests of Funday National Park. Government of Canada, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Information Report M-X-165. 33 p. (cn).
- TITUS, F. A., O. A. MEKLE, AND K. J. HARRISON. 1955. Scientific and common names of insects and mites of interest in the Maritime Provinces. Canada Department of Environment, Forestry Service, Maritimes Forest Research Centre, Fredricton, New Brunswick, Information Report M-X-155. 130 p. (tx).
- TKACZ, BORYS M. 1956. Evaluation of pest conditions: Indian Creek Recreation Lands, Carson City District, Bureau of Land Management. United States Department of Agriculture, Forest Service, Intermountain Region, Ogden, Utah, Forest Pest Management Report R4-56-S. 6 p. (cn).
- TKACZ, BORYS, AND RICHARD FREDERICK SCHMITZ. 1956. Association of an endemic mountain pine beetle population with lodgepole infected by *Armillaria* root disease in Utah. United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, Ogden, Utah, Research Note INT-353. 7 p. (ec).
- TOMALAK, MAREK, H. E. WELCH, AND T. D. GALLOWAY. 1955. Interaction of parasitic nematode *Parasitaphelenchus oldhami* (Nematoda: Aphelenchoididae) and a bacterium in Dutch elm disease vector *Hylurgopinus rufipes* (Coleoptera: Scolytidae). *Journal of Invertebrate Pathology* 52: 301-308. (ec).
- _____. 1959a. Effect of crowding on *Sulphuretylenchus* spp. (Nematoda: Allantonematidae) in the hemocoel of their bark beetle hosts (Coleoptera: Scolytidae). *Canadian Entomologist* 121: 821-822. (ec).
- _____. 1959b. Nematode parasites of bark beetles (Scolytidae) in southern Manitoba, with descriptions of three new species of *Sulphuretylenchus* Ruhm (Nematoda: Allantonematidae). *Canadian Journal of Zoology* 67: 2497-2505. (ec).
- _____. 1959c. Pathology of *Aphelenchoides pityokteini* (Nematoda: Aphelenchidae) in the malpighian tubules of *Pityokteines sparsus* (Coleoptera: Scolytidae). *Journal of Invertebrate Pathology* 53: 140-141. (ec).
- _____. 1959d. Parasitism of *Parasitorhabditis obtusa* and *Parasitorhabditis autographi* (Nematoda: Rhabditidae) in the digestive tract of their bark beetle (Coleoptera: Scolytidae) hosts. *Journal of Invertebrate Pathology* 53: 57-63. (ec).
- TOMMERAS, B. A. 1955. Specialization of the olfactory receptor cells in the bark beetle *Ips typographus* and its predator *Thanasimus fornicarius* to bark beetle pheromones and host tree volatiles. *Journal of Comparative Physiology, A (Sensory, Neural, and Behavioral Physiology)*, 157(3). (ay).
- _____. 1957. Olfaction in bark beetle communities: interspecific interactions in regulation of colonization density, predator-prey relationship and host attrac-

- tion. Unpublished dissertation, University of Trondheim, Norway, 79 p. (.)
- _____. 1988. The clerid beetle, *Thanosinus formicarius*, is attracted to the pheromone of the ambrosia beetle, *Trypodendron lineatum*. *Experimentia* [Basel] 44: 536-537. (ec).
- _____. 1989. Host selection by odorous compounds from host and non-host trees in bark beetles. *Fauna Norvegica* 36: 75-80. (bv ms).
- TOMMERAS, B. A., S. MADSEN, AND H. MUSTAPARTA. 1989. Concentration dependent influence of ex-brevicomin on the pheromone attraction of the bark beetle *Ips typographus* L. (Coleoptera, Scolytidae). *Journal of Applied Entomology* 105: 24-26. (bv).
- TOMMERAS, B. A., AND H. MUSTAPARTA. 1987. Chemoreception of host volatiles in the bark beetle *Ips typographus*. *Journal of Comparative Physiology, A* (Sensory, Neural, and Behavioral Physiology) 161: 705-710. (bv).
- _____. 1989. Single cell responses of pheromones, host and non-host volatiles in the ambrosia beetle *Trypodendron lineatum*. *Entomologia Experimentalis et Applicata* 52: 141-148. (bv).
- TOMMERAS, B. A., H. MUSTAPARTA, O. GEDARAAS, AND T. ANTHONSEN. 1987. Single cell responses combined with gas chromatographical separation of host volatiles in bark beetles [abstract]. *Chemical Senses* 12: 193-194. (ay bv).
- TOMMERAS, B. A., H. MUSTAPARTA, AND JEAN CLAUDE GREGOIRE. 1985a. Electrophysiological recordings from olfactory receptor cells in *Dendroctonus micans* and *Rhizophagus grandis*. *Pages 95-106 in* J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles: *Dendroctonus micans*. Commission of European Communities and Universite Libre de Bruxelles, Belgium, Proceedings of seminar, 3-4 October 1984. 141 p. (ay).
- _____. 1985b. Electrophysiological recordings from olfactory receptor cells in *Dendroctonus micans* and *Rhizophagus grandis*. *Pages 98-106 in* R. Gilles, Animals and environmental stress. Pergamon Press. (ay bv).
- TOTANI, K., AND T. SUGIMOTO. 1957. Studies on the relationship of the interspecies of the genus *Xyleborus* Eichhoff (Coleoptera, Scolytidae) by the proventriculus [In Japanese, English summary]. *Research Bulletin of the Plant Protection Service, Japan* 23: 39-43. (ay).
- TOTH, JOZSEF. 1985. Kartetele es eletmodja magyarorszagon [Damage and habits of *Ips sexdentatus* Boer. in Hungary] [English title]. *Novenyvedelem* 21: 97-100. (cn hb).
- *TOWNSEND, CHARLES HENRY TYLER. 1928. The contribution to a knowledge of the coleopterous fauna of the lower Rio Grande Valley in Texas and Tamaulipas, with biological notes and special reference to geographical distribution. *Texas Academy of Science, Transactions* 5: 51-101. (.)
- TRAUBOTH, V. 1985. Der Einsatz von Fensterfallen zur Ermittlung des Flugrhythmus vom Buchdrucker *Ips typographus* im Jahr 1983 [Use of window traps to determine the night activity pattern of *Ips typographus* in 1983]. *Beiträge für die Forstwirtschaft* 19: 42-44. (cn hb).
- TREAT, A. E. 1971. [Book review]. *New York Entomological Society, Journal* 79: 235. (ms).
- TREILAN, I. R., G. L. KAD, AND S. GUPTA. 1986. A new synthesis of racemic frontalin, the pheromone of *Dendroctonus* bark beetles. *Indian Journal of Chemistry* 25B: 1243-1244. (bv cn).
- TRIESELMANN, R. A. 1963. Status of insects in the Gogama district. *Pages D41-55 in* Annual district reports of the Forest Insect and Disease Survey Ontario, 1962. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- TRIGGIANI, O. 1984. *Tomicus (Blastophagus) piniperda* (Coleoptera, Scolytidae, Hylesiniinae): biologia, danni e controllo nel litorale Ionico [*Tomicus piniperda*: biology, damage and control on the Ionic Coast]. *Entomologica* 19: 5-21. (cn ec hb).
- TRINNELL, J. R. 1962. Status of insects in the Gogama district. *Pages 266-283 in* Annual district reports of the Forest Insect and Disease Survey Ontario, 1961. Canada Department of Agriculture, Forest Biology Division, Sault Ste. Marie, Ontario. (cn).
- TRIPLEHORN, CHARLES A. 1990. Review of the genus *Corticus* (Coleoptera: Tenebrionidae) of America north of Mexico. *Entomological Society of America, Annals* 83(3): 277-656. (ec).
- TRIPLEHORN, CHARLES A., AND JOHN CONRAD MOSER. 1970. Two new species of *Corticus* from Mexico and Honduras (Coleoptera: Tenebrionidae). *Coleopterists Bulletin* 24: 47-50. (cn).
- TRIPP, H. A., AND J. K. ROBINS. 1968a. Annual report of the Forest Insect and Disease Survey: Alberta-Northwest Territories-Yukon region, 1967. Canada Department of Forestry, Forest Research Laboratory, Calgary, Alberta, Information Report. (cn).
- TROFIMOV, V. N., AND V. A. LIPATKIN. 1986. Variability of stem insect communities [In Russian]. *Lesovedenie* 1986(1): 51-57. (hb).
- *TROOP. 1894. [*Scolytus rugulosus*]. *Indiana Agricultural Experiment Station, Bulletin* 53: 126-130. (.)
- TROSTLE, GALEN E. 1986. Distinguishing mated and unmated mountain pine beetles in alcohol-preserved specimens. *United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, Ogden, Utah, Research Note INT-356*. 3 p. (ay).
- TSUNEDA, A., S. MURAKAMI, K. NISHIMURA, AND M. MIYAJI. 1986. Pleomorphism and conidiogenesis in *Rhinoctadiella atrovirens* isolated from beetle galleries. *Canadian Journal of Botany* 64: 1112-1119. (ec).
- TUBBS, P. K. 1986. Opinion 1408. *Hypocryphalus mangiferac* (Stebbing, 1914) given nomenclatural precedence over *Cryphalus inops* Eichhoff, 1872, and *Hypothenemus griseus* Blackburn, 1855 (Insecta, Coleoptera). *Bulletin of Zoological Nomenclature* 43: 245-246. (tx).
- *TULLGREN. 1916. [*Hylastes opacus*, *Pityogenes quadridens*, *Scolytus rugulosus*]. *Medd. från Centralanstalten för Jorsbruksforsk.*, No. 152, *Entomologiska Avdelningen* No. 27: 104. (.)
- TUMLINSON, J. H. 1985. Beetles: pheromonal chemists par excellence. *Pages 367-380 in* P. A. Hedlin, Bioregulators for pest control. American Chemical Society, Washington, D.C. (bv).
- TUNNOCK, SCOTT, O. J., DOOLING, AND S. KOHLER. 1984. Montana forest pest conditions and program highlights, 1983. *United States Department of Agriculture, Forest Service, Northern Region, Missoula, Montana, Cooperative Forestry and Pest Management Report* 84-2. 31 p. (cn).
- TUNSET, K., A. C. NILSEN, AND J. ANDERSON. 1988. A new trap design for primary attraction of bark beetles and

- bark weevils (Col., Scolytidae and Curculionidae). *Journal of Applied Entomology* 106: 266-269. (cn).
- TURNBOW, ROBERT HAROLD, JR., ROBERT N. COULSON, L. HU, AND RONALD FORREST BILLINGS. 1982. Procedural guide for using the interactive version of the TAMBEETLE model of southern pine beetle population and spot dynamics. Texas Agricultural Experiment Station MP-1518. 24 p. (cn ms).
- *TWIGG. 1911. [*Phloeotribus liminaris*]. *Kansas Horticultural Society* 1911: 319-320. (.)

U

- UCHASTNOVA, L. N. 1955. The complex of fungi associated with the galleries of *Platypus cylindriciformis* (Coleoptera: Platypodidae) and *Xyleborus monographus* (Coleoptera: Scolytidae). *Biologicheski nauki, Moscow* 2: 47-50. (ec).
- _____. 1958. Some data on the mycetangia of bark and ambrosia beetles. *Biologicheski nauki S*: 38-41. (ay ec).
- ULRICH, ANTON. 1954b. Ein Grossversuch der Fichtenborckenkaferbekämpfung mit Hexa-Nebel. Pages 491-496 in Wellenstein. Forstschutzstelle Sudwest, Ringingen. 496 p. (cn).
- *ULTEE, A. J. 1930. Verslag over 1929 [*Xyleborus compactus* biology]. Mededeelingen van het Proefstation Malang 75: 28. (.)
- *_____. 1931a. Verslag over 1930 [*Xyleborus compactus* biology]. Mededeelingen van het Proefstation Malang 80: 17. (.)
- *_____. 1931b. [*Xyleborus compactus*]. *Bergcultures* 5: 915. (.)
- *_____. 1931c. [*Xyleborus compactus*]. *Bergcultures* 5: 1090-1100. (.)
- *URBAN, J. 1986. Skodlivy vyskyt lykohuba zmitelno na jasanech oslabenych nedostatkem vody. *Lesnicka prace, Praha* 1986: 354-361. (.)

V

- *VAJDA Z. 1974. Nauka o Zastiti summa. Skol. knjiga, Zagreb [Yugoslavia]. (.)
- *_____. 1974. Uzročnici susenja slavonskih suma. Pages 221-235 in Jug. Ak. zn. i um.: Zb. o stotoj obl. sum. Jugoist. Slavonije, Zagreb [Yugoslavia]. (.)
- *VALENTA, V. T. 1981. Interrelations of pine and spruce xylophages with the food objects [abstract]. The role of insect-plant relationship in the population dynamics of forest pests, IUFRO/MAB meeting, 24-28 August 1981, Irkutsk, USSR 90: 11. (.)
- *VALTEROVA, I., B. KALINOVA, MILOS KNIZEK, A. SVATOS, AND J. VRKOC. 1990. Main components of the aggregation pheromone of the Cuban bark beetle *Ips interstitialis* [abstract]. Conference on Insect Chemical Ecology, 12-18 August 1990, Tabor, Czechoslovakia 1990: 42. (.)
- VAN DEN BURG, JAMES H. 1989. Silvicultural strategies to minimize mountain pine beetle losses: an overview. Pages 43-44 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- *VAN DER GOOT, P. 1934. [*Xyleborus compactus*]. Mededeelingen van het Institute voor Plantenziekten 83: 39-69. (.)
- *_____. 1935. [*Xyleborus compactus*]. Mededeelingen van

- het Institute voor Plantenziekten 84: 36-51, 66-67, 71-84. (.)
- VANDERWEL, DESIREE, AND A. C. OEHLISCHLAGER. 1957. Biosynthesis of pheromones and endocrine regulation of pheromone production in Coleoptera. Pages 175-215 in G. D. Prestwich and G. L. Blomquist. *Pheromone biochemistry*. Academic Press, Orlando, Florida. 565 p. (bv ms).
- VANDERWEL, DESIREE, A. C. OEHLISCHLAGER, S. M. SINGH, S. RAMASWAMY, T. CUTFORTH, H. D. PIERCE, JR., AND JOHN HARVEY BORDEN. 1955. Biosynthesis of pheromones by selected species of grain and bark beetles. *Chemical Congress of North America [abstracts]* 3(1):Agro 1. (bv ms).
- *VAN DINE, D. L. 1913a. [*Xyleborus* spp.]. Puerto Rico Sugar Producer's Association Experiment Station, Rio Piedras, Puerto Rico, *Bulletin* 5: 25-46. (.)
- *_____. 1913b. [*Xyleborus* spp.]. *Journal of Economic Entomology* 6: 251-257. (.)
- *VAN DYKE, EDWIN COOPER. 1953. The Coleoptera of the Galapagos Islands. *Occasional Papers of the California Academy of Science* 22: 1-181. (.)
- VAN SICKLE, G. ALLEN. 1959. Status of mountain pine beetle in western Canada. Pages 6-8 in G. D. Amman, Symposium proceedings: Management of lodgepole pine to minimize losses to the mountain pine beetle. United States Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah, General Technical Report INT-262. 119 p. (cn).
- VASECHKO, G. I. 1955. The problems that need to be solved for improvement of bark beetle control. *Journal of Applied Entomology* 106: 1-12. (cn).
- VASIEVICI, J. M., AND WILLIAM A. THOMPSON. 1955. I-T-E-M-s: an integrated method to project southern pine stand development. Pages 300-327 in S. J. Bramham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana, General Technical Report SO-56. 383 p. (cn).
- VASSILAIA-ALEXOPOULOU, P., P. A. MOURIKIS, AND C. T. BUCHELOS. 1986. *Coccotrypes dactyliperda* Fabr. a new species in the Greek fauna. *Annales de l'Institute Phytopathologique Benaki* 15: 87-89. (ay ds).
- VAUPEL, O., L. DIMITRI, E. KONIG, AND W. BERWIG. 1956. Zur Optimierung des Falleneinsatzes bei Buchdrucker und Gestreiftem Nutzholzborkenkafer [Optimization of the use of traps against *Ips typographus* and *Trypodendron lineatum*]. *Allgemeine Forstzeitschrift* 23: 572-574. (cn).
- VAZQUEZ, L. L. 1988. *Ambrosiodmus lecontei* Hopkins (Coleoptera: Scolytidae) como perforador del tallo del caféto [*Ambrosiodmus lecontei*, a coffee stem borer] [English summary]. *Revista de Protección Vegetal* 3: 271-272. (cn ds).
- VAZQUEZ, L. L., AND S. MONTEAGUDO. 1988. *Xylosandrus compactus* (Coleoptera, Scolytidae): nuevo insecto danino para el caféto en Cuba [*Xylosandrus compactus*: new coffee pest in Cuba] [English summary]. *Revista de Protección Vegetal* 3: 67-73. (cn ds).
- VEITCH, R. 1923. Minor pests of sugarcane in Fiji. *Agricultural Report, Colonial Sugar Refining Company, Limited, Sydney*, No. 7. 30 p. (cn).
- VERDCOURT, B. 1952. Further records of Bedfordshire Coleoptera. *Entomologist's Monthly Magazine* 58: 73-80. (ds).

- VIERECK, H. L. 1925. New genera and species of Ichneumonidae in the Canadian National Collection. *Canadian Entomologist* 57: 71-78. (ec).
- VILLA CASTELLO, J. 1955. Enemigos naturales y organismos asociados al descortezador de pinos *Dendroctonus adjunctus* Blandford en el Navado de Colima [Natural enemies and organisms associated with the pine bark beetle *Dendroctonus adjunctus* in Nevado de Colima, Mexico]. Instituto Nacional de Investigaciones, Boletín Técnico 121. 22 p. (ec).
- VILLACORTA, A. 1955. Dieta meridica para criaçao de sucessivys geracoes de *Hypothenemus hampei* (Ferrari, 1867) (Coleoptera: Scolytidae). Anais da Sociedade Entomologica do Brasil 14: 315-319. (hb).
- VILLAIN, L. 1955. Concentraciones letales de insecticidas sobre la broca *Hypothenemus hampei* Ferr. 1867 [Lethal concentrations of insecticides on the coffee berry borer *Hypothenemus hampei*] [English summary]. Boletín de Promecafe 40: 11. (cn).
- VINODKUMAR, P. K., M. M. BALAKRISHNAN, AND T. S. GOVINDARAJAN. 1956. *Eupelms* sp. (Hymenoptera: Eupelmidae), a new predator of *Xylosandrus compactus*. *Journal of Coffee Research* 16: 35-37. (ec).
- VITE, JEAN PIERRE. 1979b. Borkenkäfer-lockstoff: mit falle oder fangbaum gegen den buchdrucker? Forstliche Mitteilungen 32: 115. (bv).
- _____. 1979c. Mitt lockstoff-fallen gegen Nutzholzborkenkäfer. *Holz-Zentralblatt* 105: 1507-1509. (bv).
- _____. 1957. Das Borkenkäferproblem aus der sicht der Pheromoneinsatzes [The bark beetle problem from the standpoint of pheromone application] [English summary]. *Forstarchiv* 58: 239-243. (bv cn).
- _____. 1955a. Current issues in the pest management of scolytid bark beetles. Pages 1-2 in T. L. Payne and H. Saarenmaa, Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn).
- _____. 1955b. Current issues in the pest management of scolytid bark beetles. *International Congress of Entomology, Proceedings* 18: 412. (cn).
- _____. 1959a. Compositions for combating bark beetles. U.S. Patent 4539383, 13 June 1959. Official Gazetteer, U.S. Patent Trademark Office 1103(2): 1262. (cn).
- _____. 1959b. The European struggle to control *Ips typographus*: past, present, and future. *Holarctic Ecology* 12: 520-525. (cn).
- VITE, JEAN PIERRE, RONALD FORREST BILLINGS, C. W. WARE, AND K. MORI. 1955. Southern pine beetle: enhancement or inhibition of aggregation response mediated by enantiomers of *endo*-brevicomine. *Naturwissenschaften* 72: 99-100. (bv).
- VITE, JEAN PIERRE, ROBERT IMRE GARA, AND H. D. VON SCHELLER. 1955. Southern pine beetle: enhancement or inhibition of aggregation response mediated by entiomers of *endo*-brevicomine. *Naturwissenschaften* 72: 99. (bv).
- VITE, JEAN PIERRE, L. B. GERKEN, AND GERALD NORMAN LANIER. 1976. Ulmensplintkäfer: Anlockversuche mit synthetische pheromone im Overhaintal. *Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz* 83: 166-171. (bv).
- VITE, JEAN PIERRE, AND P. SAUERWEIN. 1979. Zum einsetzung von lockstoff-fallen gegen borkenkäfer. *Gesunde Pflanzen* 31: 217-223. (bv).
- VOGEL, W. R. 1956. Zur Schwermetallbelastung der Borkenkäfer [Heavy metal contamination of bark beetles] [English summary]. *Entomologia Experimentalis et Applicata* 42: 259-269. (ay).
- _____. 1955. Die Belastung von Arthropoden mit Blei und Cadmium in unterschiedlich schadstoffexponierten Waldgebieten [The lead and cadmium burdens of arthropods in forest areas with different levels of exposure to pollutants] [English summary]. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 61: 205-216. (ay).
- VOGLER, DETLEV, AND J. DALE. 1952. Biological evaluation of tree mortality at Fort Bidwell Indian Reservation. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report S2-23. (cn).
- VOGLER, DETLEV, AND D. SCHULZ. 1955. A biological evaluation of pest conditions at Sierra Summit Ski area, Pineridge Ranger District, Sierra National Forest. United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California, Forest Pest Management Report S5-21. (cn).
- VOLTZ, H. A. 1955. Monoterpenes governing host selection in the bark beetles *Hylurgops palliatus* and *Tomicus piniperda*. *Entomologia Experimentalis et Applicata* 47: 31-35. (bv).
- VOOLMA, K. K. 1956. Entomophages of *Dendroctonus micans* in Estonia [In Russian, English summary]. *Metsanduslikund nurimused, Estonian SSR* 21: 89-97. (ec).
- *VORMAND, H. 1935. Contribution au catalogue des Coléoptères de la Tunisie. *Bull. Soc. Hist. Natur. Afr. Nord* 29: 481-515. ().
- VORONTSOV, A. I. 1955. Ways of development of forest entomology [In Russian]. *Zashchita Rastenii Moscow* 7: 23-24. (cn).
- VORONTSOV, A. I., ET AL. 1957. Protection of urban plantings. *Zashchita Rastenii Moscow* 7: 30-40. (cn).
- VOULAND, G., M. GIRAUD, AND DANIEL CHEVSTER. 1955. La periode tenerale et l'envol chez *Dendroctonus micans* Kug. (Coleoptera, Scolytidae). Pages 68-79 in J. C. Gregoire and J. M. Pasteels, Biological control of bark beetles (*Dendroctonus micans*). Commission of European Communities and Universite Libre de Bruxelles, Belgium, Proceedings of seminar, 3-4 October 1954. 141 p. (hb).
- VULNEC, KEVINA, AND R. A. DAVIS. 1954. Coleoptera types in the Charles Dury collection of the Cincinnati Museum of Natural History [Ohio, USA]. *Coleopterists Bulletin* 38: 232-239. (tx).
- VYPLEL, G. 1955. Untersuchungen zur Fortpflanzungs-Physiologie des Kupferstechers. *Allgemeine Forstzeitschrift* 12: 262-263. (ay).

W

- WAGNER, ERNST. 1954c. Entstehung und Verlauf der Borkenkäferplage 1945-1951 in Rheinland-Pfalz. Pages 165-177 in Forstschutzstelle Sudwest, Ringingen. 496 p. (cn).
- _____. 1954d. Beiträge zur Erforschung für die forstliche Praxis wichtiger Zusammenhänge der Borkenkäferkatastrophe 1945-1949 im Bad. Forstbezirk St. Blasien. Pages 191-224 in Forstschutzstelle Sudwest, Ringingen. 496 p. (cn ec).
- WAGNER, MICHAEL R., STEPHEN K. N. ATUAHENE, AND JOSEPH R. COBBINAH. 1955. Fauna of West Africa: forest insects of Ghana. [Date and publisher not indicated

- on reprint, possibly 1987 or 1988. This might be a preliminary draft of: Forest Entomology in West Tropical Africa: Forest Insects of Ghana, 1991, Series Entomologica 47, 210 p.] Chapters 4-6: 93-225. (cn ds).
- WAGNER, TERENCE L., W. S. FARGO, R. O. FLAMM, ROBERT N. COULSON, AND P. E. PULLEY 1987. Development and mortality of *Ips calligraphus* (Coleoptera: Scolytidae) at constant temperatures. Environmental Entomology 16: 484-496. (cc hb).
- WAGNER, TERENCE L., R. O. FLAMM, AND ROBERT N. COULSON 1985. Strategies for cohabitation among the southern pine bark beetle species: comparisons of life-process biologies. Pages 87-101 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana. General Technical Report SO-56. 383 p. (bv cc hb).
- _____. 1986. A temperature-dependent model of reemergence of *Ips calligraphus* (Coleoptera: Scolytidae). Canadian Entomologist 118: 901-911. (ec).
- WAGNER, TERENCE L., R. O. FLAMM, P. B. HENNIER, W. WU, AND ROBERT N. COULSON 1985. A temperature-dependent model of reemergence of *Ips avulsus* (Coleoptera: Scolytidae). Environmental Entomology 17: 192-198. (ec).
- WAGNER, TERENCE L., R. O. FLAMM, H. I. WU, W. S. FARGO, AND ROBERT N. COULSON 1987. Temperature-dependent model of life cycle development of *Ips calligraphus* (Coleoptera: Scolytidae). Environmental Entomology 16: 497-502. (cc hb).
- WAGNER, TERENCE L., P. B. HENNIER, R. O. FLAMM, AND ROBERT N. COULSON 1985. Development and mortality of *Ips avulsus* (Coleoptera: Scolytidae) at constant temperatures. Environmental Entomology 17: 181-191. (cc hb).
- WALL, R. E. 1988. Deterioration of severely defoliated balsam fir in relation to stand age, spacing and foliar protection. Canadian Journal of Forest Research 18: 490-497. (ec).
- WALSER, D. C. 1986. Processing dead timber into veneer and plywood. Pages 20-26 in R. W. Nielson, Harvesting and processing of beetle-killed timber. Proceedings of a symposium. Special publication, Forintek Canada Corp. SP-26. 53 p. (cn).
- WANG, CHANG-SHAN. 1981. A study of the Korean bark beetle (*Blastophagus ptilifer* Spess.) [In Chinese]. Kunchong Zhishi 18: 165-167. (hb).
- *WANKA, THEODOR V. 1920. [*Hylastinus obscurus*]. Entomologische Blätter 16: 202-213. ().
- *WARBURTON. 1917. [*Scolytus rugulosus*]. Royal Agricultural Society of England, London, Journal 78: 209-219. ().
- WARD, J. D., C. W. DULL, G. W. RYAN, AND M. C. REMON. 1985. Estimating southern pine beetle caused timber losses over extensive areas. Pages 34-40 in S. J. Branham and R. C. Thatcher, Symposium proceedings: Integrated pest management research. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana. General Technical Report SO-56. 383 p. (cn).
- WARREN, G. R. 1987. Sapwood decay systems of spruce budworm killed balsam fir in Newfoundland, Canada. Canadian Journal of Plant Pathology 9: 286-287. (ec).
- *WATERHOUSE, CHARLES OWEN 1874. Notice of a small collection of Coleoptera from Jamaica, with descriptions of new species from the West Indies. Entomological Society of London, Transactions 26: 303-311. ().
- *_____. 1854. On the coleopterous insects collected by Mr. H. O. Forbes in the Timor-Lout Islands. Zoological Society of London, Proceedings 1854: 213-218. ().
- WATERS, WILLIAM E. 1985a. Monitoring bark beetle populations and beetle-caused damage. Pages 141-175 in W. E. Waters, R. W. Stark, and D. L. Wood. Integrated pest management in pine-bark beetle ecosystems. John Wiley & Sons, New York. xvii + 256 p. (cn).
- _____. 1985b. The pine-bark beetle ecosystem: a pest management challenge. Pages 1-48 in W. E. Waters, R. W. Stark, and D. L. Wood. Integrated pest management in pine-bark beetle ecosystems. John Wiley & Sons, New York. xvii + 256 p. (cn cc hb).
- _____. 1985c. Workshop II: population and impact assessment. Discussion group C. Quantifying impacts on the other forest resources. Pages 255-261 in C. Sanders, R. W. Stark, E. J. Mullins, and J. Murphy, Recent advances in spruce budworm research. Minister of Supply and Services, Ottawa, Ontario. (cn).
- _____. 1986. A comprehensive approach to monitoring in management systems for forest pests. Forest Ecology and Management 15: 3-21. (cn).
- WATERS, WILLIAM E., AND ELLIS B. COWLING 1976. Integrated forest pest management: a silvicultural necessity. Pages 149-177 in J. L. Apple and R. F. Smith. Integrated pest management. Plenum Publishing Corporation, New York. (cn).
- WATERS, WILLIAM E., AND ROBERT W. GRAEBNER 1986. Sampling aerial photographs for estimation of pest-caused tree mortality. Western Journal of Applied Forestry 1: 84-89. (cn).
- WATERS, WILLIAM E., AND RONALD WILLIAM STARK 1980. Forest pest management: concept and reality. Annual Review of Entomology 25: 479-509. (cn).
- WATERS, WILLIAM E., RONALD WILLIAM STARK, AND DAVID LEE WOOD. 1985. Integrated pest management in pine-bark beetle ecosystems. John Wiley & Sons, New York. 304 p. (cn).
- WAUTHIOZ, V. 1952. La lutte contre l'Hylobe est entree dans sa phase decisive. Societe Royale Forestiere de Belgique, Bulletin 59: 1-14. (ec).
- WAWRZYNSKI, ROBERT P., ANDREW D. KAHN, WHITNEY S. CRANSHAW, AND DAVID A. LEATHERMAN 1986. Insect pests of Colorado trees. Colorado State University Cooperative Extension Service, Bulletin 506a. 60 p. (cn).
- WEBBER, JOAN F. 1988. Impact of D-factor mycoviruses on infection by the elm pathogen *Ophiostoma ulmi*. Phytopathology 78(12, part 1): 1593. (ec).
- WEBBER, JOAN F., C. M. BRASIER, AND A. G. MITCHELL 1988. The role of the saprophytic phase in Dutch elm disease. Pages 298-313 in G. F. Pegg, and P. G. Ayres, Fungal infection of plants. Cambridge University Press, Cambridge, England. xiii + 428 p. (ec).
- WEBBER, JOAN F., AND J. N. GIBBS 1989. Insect dissemination of fungal pathogens of trees. Pages 161-193 in N. Wilding, N. M. Collins, P. M. Hammond, and J. F. Webber, Insect-fungus interactions. Academic Press, London. xvi + 344 p. (ec).
- WEBER, BARBARA CATHERINE. 1984. The short- and long-term effects of insect attacks on trees. Pages 17-20 in M. M. Harris and A. M. Spearing, Research in forest productivity, use, and pest control. United States Department of Agriculture, Forest Service,

- Northeastern Station, General Technical Report NE-90. (cn).
- WEBER, BARBARA CATHERINE, AND JOHN EDWIN MCPHERSON. 1985. Relation between attack by *Xylosandrus germanus* (Coleoptera: Scolytidae) and disease symptoms in black walnut. Canadian Entomologist 117: 1275-1277. (bv ec).
- _____. 1991. Seasonal flight patterns of Scolytidae (Coleoptera) in black walnut plantations in North Carolina and Illinois. Coleopterists Bulletin 45: 45-56. (hb ds).
- WEBER, H. C. 1942. Division of Forestry. Pages 64-97 in Statistical report for biennium ending June 30, 1942. Minnesota Department of Conservation. (cn).
- *WEBSTER, FRANCIS MARION. 1893a. [*Hylastinus obscurus*]. Indiana Academy of Science, Proceedings 1893: 84. ().
- _____. 1893b. [*Hylastinus obscurus*]. Ohio Agricultural Experiment Station, Bulletin 51: 120. ().
- _____. 1893c. [*Phloeotribus liminaris*]. Canadian Entomologist 25: 111. ().
- _____. 1894. [*Hylastinus obscurus*]. Ohio Agricultural Experiment Station. Annual Report 1894: 31. ().
- _____. 1895. [*Hylastinus obscurus*, *Scolytus rugulosus*]. Ohio Agricultural Experiment Station, Bulletin 68: 23-25, 31-33, figs. 3-6. ().
- _____. 1899. [*Scolytus rugulosus*]. Ohio Farmer 1899(25 May): 449. ().
- WEGENSTEINER, R., E. LORBEER, AND E. FUEHRER. 1899. Additional attraction of *Pityogenes chalcographus* L. (Coleoptera, Scolytidae) to chalcoprax-baited traps with spruce branches. Journal of Applied Entomology 105: 250-259. (bv).
- WEI, HOU-JIAN. 1959. Methods for observing habits of bark beetles inside their host tree [In Chinese]. Kunchong Zhishi 5: 237-238. (hb ms).
- _____. 1960. Methods for observing habits of *Blastophagus piniperda* Linnaeus inside the bark of trees [In Chinese]. Kunchong Zhishi 6: 117-118, 131. (hb ms).
- WEIR, H. J., AND W. D. BIGGS. 1974. Forest insect and disease conditions in the southwest survey region, 1973. Canada Department of Fisheries and Forestry, Forestry Service, Great Lakes Forestry Research Centre, Sault Ste. Marie, Ontario, Information Report O-X-194. 26 p. (cn).
- WEIR, H. J., M. J. THOMSON, D. C. CONSTABLE AND C. G. JONES. 1986. A review of important forest insect and disease problems in the Kirkland district of Ontario, 1950-1980. Canada Department of Environment, Forestry Service, Great Lakes Forest Research Centre, Sault Ste. Marie, Ontario, Miscellaneous Report 34. 133 p. (cn).
- *WEISS, HARRY B. 1915. [*Scolytus rugulosus*]. Canadian Entomologist 47: 165-166. ().
- WELCH, D. S., G. W. HERRICK, AND R. W. CURTIS. 1934. The Dutch elm disease. Cornell University Extension Service, Bulletin 290. 19 p. (cn).
- WELCH, R. COLIN. 1965b. The Coleoptera of Monks Wood National Nature Reserve, Huntingdonshire, first supplement, 1965. Entomologist's Gazette 19: 9-20. (ds).
- _____. 1968c. Some Coleoptera from Loch Lomond National Nature Reserve. Entomologist's Monthly Magazine 104: 119-122. (ds).
- _____. 1970. The Coleoptera of Monks Wood National Nature Reserve, Huntingdonshire, second supplement, 1966-1968. Entomologist's Gazette 21: 133-141. (ds).
- _____. 1980. The Coleoptera of Monks Wood National Nature Reserve, Cambridgeshire (Vice County), fifth supplement, 1974-1979. Entomologist's Gazette 31: 263-273. (ds).
- _____. 1983. Coleoptera in the Inner Hebrides. Royal Society of Edinburgh, Proceedings S3B: 505-529. ().
- _____. 1987. *Xyleborus saxosus* (Ratz.) (Col., Scolytidae) attracted to blue ear in forest of Dean, Gloucestershire. Entomologist's Monthly Magazine 123: 161. (bv).
- WENZ, JOHN. 1984. Posttreatment evaluation: Jeffrey pine beetle suppression project, South Shore Recreation Complex, Lake Tahoe Basin Management Unit, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California. Forest Pest Management Report S4-02. (cn).
- _____. 1985. Evaluation of bark beetle conditions in the Glenbrook Burn, Lake Tahoe Basin Management Unit, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California. Forest Pest Management Report S5-19. (cn).
- WENZ, JOHN, AND G. DENITTO. 1983. Evaluation of pest conditions in the Kiva/Taylor Creek Visitor Center Recreation Areas on the Lake Tahoe Basin Management Unit, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California. Forest Pest Management Report S3-06. (cn).
- WENZ, JOHN, AND J. PRONOS. 1983. An evaluation of insect and disease conditions in mixed conifer stands underburned for fuels reduction on the Quincy Ranger District, Plumas National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California. Forest Pest Management Report S3-02. (cn).
- WENZ, JOHN, AND R. S. SMITH, JR. 1983. An evaluation of the Jackass Insect Salvage Sale Area, Truckee Ranger District, Tahoe National Forest, United States Department of Agriculture, Forest Service, Pacific Southwest Region, San Francisco, California. Forest Pest Management Report S3-04. (cn).
- WERNER, RICHARD ALLEN. 1986a. The eastern larch beetle in Alaska. United States Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station, Portland, Oregon. Research Paper PNW-357. ii + 13 p. (bv hb).
- _____. 1986b. Association of plants and phytophagous insects in taiga forest ecosystems. Pages 205-212 in K. Van Cleve, F. S. Chapin III, P. W. Flanagan, et al., Forest ecosystems in the Alaskan taiga: a synthesis of structure and function. Springer, New York. (cn ec).
- _____. 1985a. Recommendations for suppression of an *Ips perturbatus* outbreak in interior Alaska using integrated control. Pages 189-195 in T. L. Payne and H. Saarenmaa. Integrated control of scolytid bark beetles. Virginia Polytechnic and State University, Blacksburg, Virginia. 355 p. (cn).
- _____. 1985b. Suppression of an *Ips perturbatus* outbreak in interior Alaska using integrated control. International Congress of Entomology, Proceedings 18: 414. (cn).
- WERNER, RICHARD ALLEN, JOHN S. HARD, AND EDWARD H. HOLSTEN. 1985. The development of management strategies to reduce the impact of the spruce beetle in south-central Alaska. Northwest Environmental Journal 4: 319-358. (cn).

- WERNER, RICHARD ALLEN, FELTON L. HASTINGS, EDWARD H. HOLSTEN, AND ALICE S. JONES. 1986. Carbaryl and lindane protect white spruce from attack by spruce beetles (Coleoptera: Scolytidae) for three growing seasons. *Journal of Economic Entomology* 79: 1121–1124. (cn).
- WERNER, RICHARD ALLEN, AND EDWARD H. HOLSTEN. 1985a. Effect of phloem temperature on development of spruce beetles in Alaska. Pages 155–163 in L. Safranyik, The role of the host in the population dynamics of forest insects. IUFRO conference proceedings, Canada Department of the Environment, Forestry Service, and United States Department of Agriculture, Forest Service, Banff, Alberta, Canada, September, 1983. 240 p. (cc lib).
- . 1985b. Factors influencing generation times of spruce beetles in Alaska. *Canadian Journal of Forest Research* 15: 438–443. (cc lib).
- WERNER, RICHARD ALLEN, EDWARD H. HOLSTEN, AND FELTON L. HASTINGS. 1986. Evaluation of pine oil for protecting white spruce from spruce beetle (Coleoptera: Scolytidae) attack. *Entomological Society of British Columbia, Journal* 83: 3–5. (cn).
- WESLIEN, JAN. 1989. The role of trapping in population management of the spruce bark beetle *Ips typographus* L. Dissertation, Swedish University of Agricultural Sciences, Uppsala. 95 p. (cn).
- WESLIEN, JAN, ERIKK ANNILA, ALF BAKKE, BRODER BEJER PETERSEN, HUBERTUS H. EIDMANN, K. NARVESTAD, A. NIKULA, AND H. P. RAVN. 1989. Estimating risks for spruce bark beetle [*Ips typographus* (L.)] damage using pheromone-baited traps and trees. *Scandinavian Journal of Forest Research* 4: 87–98. (cn).
- WESLIEN, JAN, AND H. BYLUND. 1988. The number and sex of spruce bark beetles *Ips typographus* L. caught in pheromone traps as related to flight season trap type and pheromone release. *Journal of Applied Entomology* 106: 458–493. (bv cn lib).
- WESLIEN, JAN, AND A. LINDELOW. 1989. Trapping a local population of spruce bark beetles *Ips typographus* (L.): population size and origin of trapped beetles. *Holarctic Ecology* 12: 511–514. (cn lib).
- WESTCOTT, C. 1970. The gardener's bugbook. Doubleday & Co., Inc., Garden City, New York. 625 p. (cn).
- WEITSTEIN, OTTO. 1959. Die Lebensgemeinschaft an einem Birkenstamm. *Entomologisches Nachrichtenblatt Osterreichischer und Schweizer Entomologen* 11: 42–59. (cc).
- WHITEHEAD, ARMAND TOYN. 1986. Electroantennogram responses by mountain pine beetles, *Dendroctonus ponderosae* Hopkins, exposed to selected semiochemicals. *Journal of Chemical Ecology* 12: 1603–1621. (ay bv).
- WHITEHEAD, ARMAND TOYN, D. T. SCOTT, RICHARD FRANKLIN SCHMITZ, AND KENJ MORI. 1989. Electroantennogram responses by mountain pine beetles, *Dendroctonus ponderosae* Hopkins, exposed to selected chiral semiochemicals. *Journal of Chemical Ecology* 15: 2089–2100. (ay bv).
- *WHITEHEAD, W. E. 1932. The morphology of the head-capsule of some coleopterous larvae. *Canadian Journal of Research* 6: 227–252. ().
- WHITESSELL, J. K., AND C. M. BUCHANAN. 1986. Synthesis of (-)- and (+)-frontalin. *Journal of Organic Chemistry* 51(26): 5443–5445. (bv cn).
- WHITNEY, HARVEY S., R. J. BANDONI, AND F. OBERWINKLER. 1987. *Entomocorticium dendroctoni* gen. et sp. nov. (Basidiomycotina), a possible nutritional symbiote of the mountain pine beetle in lodgepole pine in British Columbia. *Canadian Journal of Botany* 65: 95–102. (cc).
- WHITNEY, HARVEY S., AND M. M. Z. KHARADLY. 1984. Some results on low-level microwave treatment of the mountain pine beetle and the darkling beetle. *IEEE Transactions Microwave Theory Technology* 32: 798–803. (cc).
- WHITTLE, K., AND DONALD MORGAN ANDERSON. 1987. Pests not known to occur in the United States or of limited distribution. European spruce beetle. United States Department of Agriculture, Animal and Plant Health Inspection Service (Hyattsville, Maryland). 12 p. (cn ds tx).
- *WICHMANN, HEINRICH E. 1916b. [*Kissophagus orinacellus*, *Scolytus pygmaeus*]. *Zeitschrift für Pflanzenkrankheiten* 26: 432–433. ().
- *WICKHAM, HENRY FREDERICK. 1893. Report on an entomological reconnaissance of southern Alaska and adjacent portions of British Columbia. Laboratory of Natural History, State University of Iowa, Bulletin 2(3): 202–233. ().
- *———. 1909. A list of the Coleoptera of Iowa. Laboratory of Natural History, State University of Iowa, Bulletin 6(1): 1–40. ().
- *WICKMAN, BOYD E. 1990. The battle against bark beetles in Crater Lake National Park, 1925–1934. United States Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, Oregon. General Technical Report GTR-259. 40 p. ().
- *WILANSKY. 1920. [*Phloeotribus piceae* (=lecontei), *Hylesinus oleiperda* (=californicus)]. California State Department of Agriculture, Monthly Bulletin 9: 339–340. ().
- WILKEN, C. 1864. Zur Fauna des Oberharzes. *Berliner Entomologische Zeitschrift* 5: 369–373. (ds).
- WILKINSON, D. S. 1935. On some braconids (Hym.). *Stylops: a Journal of Taxonomic Entomology* 4: 71–72. (cc).
- WILKINSON, ROBERT CLEVELAND, AND ROBERT A. HAACK. 1989. Within-tree distribution of pine bark beetles (Coleoptera: Scolytidae) in Honduras. *Ceiba* 28: 115–133. (cc ds).
- *WILLE, JOHANNES E. 1943. [*Pagiocerus rimosus* (=frontalis)]. *Estac. Expt. Agric. de Molina, Lima, Peru*. 1943: 364–366. ().
- WILLIAMS, J. O. 1988. Occurrence of *Xyleborus ferrugineus* (Fabr.) (Coleoptera: Scolytidae) on yam tubers in Nigeria. *Insect Science and its Application* 9: 41–42. (cn).
- WILLIAMS, LONNIE H. 1985. Wood-inhabiting insects and their control: producer and user viewpoints. Pages 67–76 in Wood protection techniques and the use of treated wood in construction. United States Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, Louisiana. Proceedings 47255. (cn).
- WILLIAMS, NANCY E., J. A. WESTGATE, D. D. WILLIAMS, ANNE MORGAN, AND ALAN V. MORGAN. 1981. Invertebrate fossils (Insecta: Trichoptera, Diptera, Coleoptera) from the Pleistocene Scarborough Formation at Toronto, Ontario, and their paleoenvironmental significance. *Quaternary Research* 16: 146–166. (ds).
- WILLIAMS, T. M., C. A. GERSHAM, R. L. HEDDEN, AND E. R. BLOOD. 1989. Impact of southern pine beetle infestation on nutrient retention mechanisms in loblolly pine. United States Department of Agriculture, Forest Service, Southern Forest Experiment Sta-

- tion, New Orleans, Louisiana. General Technical Report SO-74: 465-472. (cn).
- *WILLISON 1937. [*Scolytus rugulosus*]. Canadian Journal of Research, Section C, 15: 331. ().
- WILSON, HARLEY FROST 1915. Orchard insect pests and methods of control. Pacific Horticultural Correspondence School, Portland, Oregon. Meade Press, Orenco, Oregon. (cn hb).
- WILSON, LOUIS F. 1962. Insect damage to field-piled pulpwood in northern Minnesota. Journal of Economic Entomology 55: 510-516. (cn).
- WINGFIELD, M. J., L. A. STRAUSS, AND G. D. TRIBE 1955. Fungi associated with three pine bark beetles in South Africa. Phytopathology 75: 133S. (ec).
- WINGFIELD, M. J., P. S. VAN WYK, AND P. W. J. VAN WYK 1959. Conidial development in the anamorph of *Ophiostoma cucullatum*. Mycological Research 93: 91-95. (ec).
- WINKLER, ALBERT 1932. Catalogus Coleopterorum regionis palaeartica [Scolytidae by K. E. Schedl, p. 1633-1647]. Wien, Austria. 13 parts in 4 volumes. (ds).
- WINTER, T. G. 1955. Is *Ips typographus* (Linnaeus) (Coleoptera: Scolytidae) a British insect? Entomologist's Gazette 36: 153-160. (ds).
- WINTER, T. G., AND D. A. BURDEKIN 1987. The poem and the pest. Quarterly Journal of Forestry 51: 234-238. (ms).
- WISNIEWSKI, JERZY 1950. Zwei neue mit *Proctolaelaps xyloteri* Sams. (Mesostigmata, Blattisociidae) verwandte Proctolaelaps-Arten aus Polen. Acarologia 21: 3-8. (ec).
- WISNIEWSKI, JERZY, AND JACEK MICHALSKI 1953. Gangsystematik der parasitiformes, Teil 432. Studium einer neuen *Dendrolaelaps*-Art aus Sibirien. Acarologie 30: 101-103. (ec).
- WITANACHHI, JAYANTHI P. 1986. Response of *Ips grandicollis* (Eichhoff) adults (Coleoptera: Scolytidae) to sites in bark initiated by others of the same species. Australian Entomological Society, Journal 25: 41-46. (bv).
- WITCOSKY, J. J. 1959. Root beetles, stand disturbance, and management of black-stain root disease in plantations of Douglas-fir. Pages 55-70 in R. I. Alfaro and S. G. Glover, Insects affecting reforestation: biology and damage. Government of Canada, Canadian Forestry Service, Pacific and Yukon Region, Victoria, British Columbia. (cn ec).
- WITCOSKY, J. J., AND EVERETTE HANSEN 1985. Root-colonizing insects recovered from Douglas-fir in various stages of decline due to black-stain root disease. Phytopathology 75: 399-402. (ec).
- WITCOSKY, J. J., TIMOTHY D. SCHOWALTER, AND EVERETTE M. HANSEN 1986a. *Hylastes nigrinus* (Coleoptera: Scolytidae), *Pissodes fasciatus*, and *Stereoninus carinatus* (Coleoptera: Curculionidae) as vectors of black-stain root disease of Douglas-fir. Environmental Entomology 15: 1090-1095. (ec).
- _____. 1986b. The influence of time of precommercial thinning on the colonization of Douglas-fir by three species of root-colonizing insects. Canadian Journal of Forest Research 16: 745-749. (bv).
- _____. 1987. Host-derived attractants for the beetles *Hylastes nigrinus* (Coleoptera: Scolytidae) and *Stereoninus carinatus* (Coleoptera: Curculionidae). Environmental Entomology 16: 1310-1313. (bv).
- *WOLCOTT, GEORGE N. 1933. [*Scolytus rugulosus* parasites]. Economic Entomology of West Indies 1933: 201-202. ().
- _____. 1945. The insects of Puerto Rico. Journal of Agriculture of the University of Puerto Rico 32: 1-975. (ds).
- WOLFF, MAX 1927. Unsere Kafer. Ullstein, Berlin. (ds).
- WOLLASTON, THOMAS VERNON 1860b. On additions to the Madeira Coleoptera [Scolytidae, p. 110]. Annals and Magazine of Natural History (316: 100-111. (ds tx).
- _____. 1861. Certain coleopterous insects from the island of Ascension [Scolytidae, p. 303-304]. Annals and Magazine of Natural History (317: 299-304. (ds tx).
- _____. 1871. On additions to the Atlantic Coleoptera [Scolytidae, p. 262-264]. Entomological Society of London, Transactions 19: 203-314. (ds tx).
- _____. 1877. Coleoptera Sanctae-Helenae [Scolytidae, p. 79-81]. Van Voorst, London. xxv + 256 p. (ds tx).
- WOOD, COLIN S., AND G. A. VAN SICKLE 1987. Forest insect and disease conditions: British Columbia & Yukon 1986. Government of Canada, Forestry Service, Pacific Forestry Centre, Victoria, British Columbia, Information Report BC-X-257. 35 p. (cn).
- _____. 1989. Forest insect and disease conditions: British Columbia & Yukon 1988. Government of Canada, Forestry Service, Pacific Forestry Centre, Victoria, British Columbia, Information Report BC-X-306. 33 p. (cn).
- WOOD, COLIN S., G. A. VAN SICKLE, AND L. M. HUMBLE 1987. Forest insect and disease conditions: British Columbia & Yukon 1987. Government of Canada, Forestry Service, Pacific Forestry Centre, Victoria, British Columbia, Information Report BC-X-296. 40 p. (cn).
- WOOD, COLIN S., G. A. VAN SICKLE, AND T. L. SHORE 1985. Forest insect and disease conditions: British Columbia & Yukon 1984. Government of Canada, Forestry Service, Pacific Forestry Centre, Victoria, British Columbia, Information Report BC-X-259. 32 p. (cn).
- WOOD, DAVID LEE 1978. Status of behavior-modifying chemicals (IMC) in forest insect management. Pages 66-73 in Proceedings of the 29th Annual Western Forest Insect Work Conference. Durango, Colorado, 7-8 March 1978. (bv cn).
- _____. 1979a. Attraction—Coleoptera: Disruption—Coleoptera. Pages 21-32, 91-96 in W. L. Roelofs, Establishing efficacy of sex attractants and disruptants for insect control. Entomological Society of America, Miscellaneous Publication. (bv cn).
- _____. 1979b. The use of microbial agents and unconventional chemicals in forest pest management. Pages 25-33 in R. D. Gail, The Pinchot Institute for Conservation Studies/ Proceedings for Integrated Pest Management Colloquium. United States Department of Agriculture, Forest Service, Technical Report WO-14. (bv cn ec).
- _____. 1981. Obituary: Julius A. Rudinsky, 1917-1980. Entomological Society of America, Bulletin 27: 292-293. (ms).
- _____. 1984a. Book review: M. C. Birch and K. F. Haynes, Insect pheromones (Studies in Biology No. 147, Edward Arnold, Limited, London and Baltimore, 1982. 58 p.). Journal of Chemical Ecology 10: 189-191. (bv ms).
- _____. 1984b. Book review: J. B. Mitton and K. B. Sturgeon, Bark beetles in North American conifers: a system for the study of evolutionary biology (University of Texas Press, Austin, 527 p.). Quarterly Review of Biology 59: 197-198. (ms).
- _____. 1985. Forest health management for the future: insect problems of coniferous forests. Society of

- American Foresters, Proceedings 1958: 114–120. (cn ms).
- WOOD, DAVID LEE, R. PATRICK AKERS, DONALD R. OWEN, AND JOHN R. PARMETER, JR. 1986. The behavior of bark beetles colonizing ponderosa pine. Pages 91–103 in B. E. Juniper and T. R. E. Southwood. *Insects and the plant surface*. Edward Arnold, Limited, London. (bv ec).
- WOOD, DAVID LEE, JOHN H. PARMETER, JR., AND DONALD L. DAHLSTEN. 1988. Interrelationships among *Dendroctonus* and *Ips* bark beetles, their vectored fungi and host physiology. International Congress of Entomology, Proceedings 18: 410. (ec).
- WOOD, DAVID LEE, AND P. A. RAUCH. 1980. Approach to research and forest management for the western pine beetle: principal research results. Pages 429–442 in C. B. Huffaker, *New technology of pest control*. John Wiley & Sons, New York. (cn).
- WOOD, DAVID LEE, RONALD WILLIAM STARK, WILLIAM E. WATERS, WILLIAM DELLES BEDARD, JR., AND FIELDS WHITE COBB, JR. 1985. Treatment tactics and strategies. Pages 121–139 in W. E. Waters, R. W. Stark, and D. L. Wood, *Integrated pest management in pine-bark beetle ecosystems*. John Wiley & Sons, New York. xvii + 256 p. (cn).
- WOOD, DAVID LEE, ROBERT MILTON SILVERSTEIN, AND MINORU NAKIJIMA. 1970. Control of insect behavior by natural products. Academic Press, New York. (cn).
- WOOD, STEPHEN LANE. 1961e. An alternative proposal to the suggested validation of *Myelophilus* Eichhoff, 1878 (Insecta: Coleoptera). *Bulletin of Zoological Nomenclature* 18: 319–321. (tx).
- _____. 1972i. Family Platypodidae. Page 394 in M. H. Hatch, *The beetles of the Pacific Northwest, Part 5*. University of Washington, Publications in Biology No. 16. 662 p. (ds tx).
- _____. 1984e. New synonymy and new species of American bark beetles (Coleoptera: Scolytidae), part X. *Great Basin Naturalist* 44: 113–119. (tx).
- _____. 1985. New synonymy and new species of bark beetles (Coleoptera: Scolytidae). *Great Basin Naturalist* 45: 266–275. (tx).
- _____. 1986a. A reclassification of the genera of Scolytidae (Coleoptera). *Great Basin Naturalist Memoirs* 10: 126 p. (tx).
- _____. 1986b. New *Pseudoxylechinus* (Coleoptera: Scolytidae) from India. *Great Basin Naturalist* 43: 468. (tx).
- _____. 1986c. New synonymy and new species of American bark beetles (Coleoptera: Scolytidae), part XI. *Great Basin Naturalist* 46: 265–273. (tx).
- _____. 1987. Six new Scolytidae (Coleoptera) from Mexico. *Great Basin Naturalist* 47: 547–550. (tx).
- _____. 1988a. Nomenclatural changes and new species of Scolytidae (Coleoptera). *Great Basin Naturalist* 48: 31–38. (tx).
- _____. 1988b. Nomenclatural changes and new species of Scolytidae (Coleoptera), part II. *Great Basin Naturalist* 48: 188–195. (tx).
- _____. 1988c. Nomenclatural changes and new species of Scolytidae (Coleoptera), part III. *Great Basin Naturalist* 48: 196–201. (tx).
- _____. 1988d. Systematic position of the Scolytidae and Platypodidae (Coleoptera). International Congress of Entomology, Proceedings 18: 40. (tx).
- _____. 1988e. Recent advances in knowledge of the distribution and classification of the Scolytidae (Coleoptera). International Congress of Entomology, Proceedings 18: 410. (tx).
- _____. 1989. Nomenclatural changes and new species of Scolytidae (Coleoptera), part IV. *Great Basin Naturalist* 49: 167–185. (tx).
- _____. 1992a. Nomenclatural changes and new species of Platypodidae and Scolytidae (Coleoptera), part II. *Great Basin Naturalist* 52: 78–88. (tx).
- _____. 1992b. Nomenclatural changes in Scolytidae and Platypodidae (Coleoptera). *Great Basin Naturalist* 52: 89–92. (tx).
- _____. ex1993. Revision of the genera of Platypodidae (Coleoptera). *Great Basin Naturalist* 53:(in review).
- WOOD, STEPHEN LANE, AND DONALD EDWARD BRIGHT, JR. 1987. A catalog of Scolytidae and Platypodidae (Coleoptera), part 1: bibliography. *Great Basin Naturalist Memoirs* 11. 685 p. (ms).
- WOOD, STEPHEN LANE, AND FU-SHENG HUANG. 1986. New genus of Scolytidae (Coleoptera) from Asia. *Great Basin Naturalist* 46: 465–467. (tx).
- WOOD, STEPHEN LANE, GEORGE C. STEVENS, AND HUMBERTO J. LEZAMA. 1991a. Los Scolytidae de Costa Rica: clave de generos y de la subfamilia Hylesinae (Coleoptera). *Revista de Biología Tropical* 39: 125–148. (ds tx).
- _____. 1991b. Scolytidae (Coleoptera) de Costa Rica II. Clave para la subfamilia Scolytinae, tribus: Scolytini, Ctenophorini, Micracini, Ipini, Dryocoetini, Xyleborini y Cryphalini. *Revista de Biología Tropical* 39: 279–306. (ds tx).
- WOOD, STEPHEN LANE, AND HUI-FEN YIN. 1986. Relict occurrence of three "American" Scolytidae (Coleoptera) in Asia. *Great Basin Naturalist* 46: 461–464. (tx).
- WOODSON, GEORGE. 1985. Utilization of beetle-killed southern pine. United States Department of Agriculture, Forest Service, Forest Pest Management (Washington, D.C.), General Technical Report WO-47. 27 p. (cn).
- *WORNDE, A. 1950. Die kafer von Nordtirol. Pages 376–383 in *Universitätsverlag Wagner, Innsbruck-München*. ().
- WORRALL, J. J., AND T. C. HARRINGTON. 1988. Etiology of canopy gaps in spruce-fir forests at Crawford Notch, New Hampshire. *Canadian Journal of Forest Research* 18: 1463–1469. (cn).
- WITTEWAAL, J. 1964. *Volksleesboek over schadelijke en nuttige insecten*. Hoitsma, Groningen. (cn hb).
- WULF, A. 1985. Zur Umweltverträglichkeit von Borkenkäferbekämpfungsmitteln [Environmental compatibility of bark beetle control agents]. *Allgemeine Forstzeitschrift* 12: 265–266. (cn).

X

- *XAMBEU, VINCENT. 1908. Faune Entomologique des Pyrenées-orientales, supplement aux Hemipteres-Homopteres du Catalogue de la Faune des Environs de Ria [Scolytidae, p. 96–97]. *L'Echange*. ().

Y

- YADAV, J. S., V. VIDYASAGAR, AND P. S. REDDY. 1986. Enantiospecific synthesis of dextro exo-brevicomin from D-xylose. *Carbohydrate Research* 156: 236–240. (bv ms).
- *YAGDYEV, A. 1987. Pests of ornamental plants in towns of the Turkmen SSR USSR [In Russian]. [Source?] 1: 47–50. ().
- *YAKAITIS, B. YU. 1985. Nine species of Coleoptera new to the Lithuanian SSR, found in 1979–1984 [In Rus-

- sian, English summary]. Pages 14–18 in V. Ionaitis and V. Petrauskas. ().
- YAKUITIS, B. YU. AND V. M. GAVYALIS. 1985. The stationing of barrier traps with attractive substances for the regulation of numbers of the engraver beetle [In Russian, English summary]. *Acta Entomologica Lituania* 5: 53–57. (cn).
- _____. 1987. On the question of the improvement of barrier traps for the attraction of bark beetles (*Ips typographus* L.) [In Russian, English summary]. *Khemoretseptsiya Nasekomykh* 9: 118–122. (cn).
- YAMAOKA, Y., R. H. SWANSON, AND Y. HIRATSUKA. 1987. Inoculation experiments of lodgepole pine with four blue-stain fungi associated with mountain pine beetle monitored by a heat pulse velocity VPH instrument. *Canadian Journal of Plant Pathology* 9(3): 257. (ec).
- YANG, J., AND L. JI. 1989b. Amount of Masson pine pests in acid rain area. *Journal of Ecology* 5: 54–55. (cn ec).
- YANG, ZHONGQI. 1987. A preliminary survey of parasitic wasps of *Dendroctonus armandi* Tsai & Li (Coleoptera, Scolytidae) in Qinling Mountains with description of three new species and a new Chinese record (Hymenoptera: Pteromalidae). *Entomotaxonomia* 9(3): 175–184. (ec).
- _____. 1989a. A new species of *Ropalophorus* Curtis (Hymenoptera: Braconidae) parasitizing *Polygraphus poligraphus* adult (Coleoptera: Scolytidae) with a key to the new species of the genus [In Chinese, English summary]. *Entomotaxonomia* 11(1–2): 91–96. (ec).
- _____. 1989b. One new species and other pteromalids parasitizing bark beetles in Shaanxi, China (Hymenoptera, Chalcidoidea, Pteromalidae). *Entomotaxonomia* 11(1–2): 101–103. (ec).
- _____. 1989c. *Dendroctonus armandi* Tsai & Li (Coleoptera: Scolytidae) in China: its natural enemies and their potential as biological control agents. Pages 147–156 in D. L. Kuhlavy and M. C. Miller, Potential for biological control of *Dendroctonus* and *Ips* bark beetles. Center for Applied Studies, School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas. 255 p. (cn ec hb).
- *YANOVSKII, V. M. 1980. K faune lesnykh nasekomykh Mongolii [On the fauna of forest insects of Mongolia]. *Nasekomye Mongolii*, Nauka, Leningrad 7: 17–27. ().
- ° _____. 1982. Vozdejstvie entomofagov na dinamiku chislennosti korojedov. Ctenia pamjati Nikolaja Alexandrovici Cholodkovskovo, Nauka, Leningrad 1982: 25–53. ().
- _____. 1986. Natural enemies of bark beetles [In Russian, English summary]. *Zashchita Rastenii Moscow* 1986: 26–29. (ec).
- _____. 1989. Forest Coleoptera of the west part of the zone of Kansk-Achinsk fuel energetic complex (Krasnoyarsk Territory) [In Russian]. *Entomologicheskoe Obozrenie* 68: 57–67. (ds).
- YANOVSKII, V. M., AND D. TEGSIZHARGAL. 1985. Bark beetles (Coleoptera, Scolytidae) of the Mongolian People's Republic [In Russian]. Pages 404–417 in *Insects of Mongolia*. Number 9. Academy of Sciences of the USSR, Zoological Institute. 576 p. (ds).
- YIN, HUI-FEN. 1983a. A brief account on the study of symbiotic relationship of *Xyleborus* spp. with fungi [In Chinese]. *Forest Pest and Disease* 1983(2): 26–30. (ec).
- _____. 1983b. Some quarantine problems of exotic scolytids in the imported wood [In Chinese]. *Forest Pest and Disease* 1983(1): 36–38, 42. (cn).
- YIN, HUI-FEN, HUANG FU-SHENG, AND LI ZHAO-LIN. 1984. Coleoptera: Scolytidae [In Chinese]. *Economic Insect Fauna of China*, Fasc. 29. Science Press, Beijing. 205 p. (hb ds tx).
- YOSHIDA, N., Y. AKITA, C. KOIZUMI, AND K. FUKUYAMA. 1986. Field test of pheromone trap for *Ips typographus* in the windthrown forest caused by a typhoon. Annual Report, Hokkaido Branch, Forestry and Forest Products Research Institute (Sapporo) 1985: 54–55. (bv cn).
- YOSHIKAWA, K. 1987a. A study of the subcortical insect community in pine trees, II: vertical distribution. *Applied Entomology and Zoology* 22: 195–206. (ec).
- _____. 1987b. A study of the subcortical insect community in pine trees, III: species correlation. *Applied Entomology and Zoology* 22: 207–215. (ec).
- YOSHIKAWA, K., H. TAKEDA, K. SONE, AND E. I. SHIBATA. 1986. A study of the subcortical insect community in pine trees, I: oviposition and emergence periods of each species. *Applied Entomology and Zoology* 21: 255–265. (bv ec hb).
- YOUNG, CAMERON. 1985. Coming of age in the Flathead: how the British Columbia Forest Service contended with the mountain pine beetle infestation of southeastern British Columbia 1976–1986. British Columbia Ministry of Forests, Pest Management Report No. 10. 31 p. (cn).
- YTSMA, G. 1986. Inducing attack by male *Platypus* (Col., Platypodidae) on wood billets in the laboratory. *Journal of Applied Entomology* 102: 210–212. (bv ms).
- _____. 1988a. Pheromone traps for pinhole borer management. What's new in forest research, No. 165. Forest Research Institute, Minister of Forestry, New Zealand. 4 p. (bv cn).
- _____. 1988b. Stridulation in *Platypus apicalis*, *P. caviceps*, and *P. gracilis* (Col., Platypodidae). *Journal of Applied Entomology* 105: 256–261. (bv hb).
- _____. 1989. Colonization of southern beech by *Platypus caviceps* (Coleoptera: Platypodidae). *Journal of Chemical Ecology* 15: 1171–1176. (bv cn ec).
- YU, C. M., AND Q. H. ZHANG. 1988. Biological activity and excretion law of aggregation pheromone of larch bark beetle [In Chinese, English summary]. *Journal of Northeast Forestry University*. China 16: 1–7. (bv).
- *YUNAR, K. H. 1986. Species composition of Hymenopteran parasites of bark beetles on conifers in Estonia [In Russian, English summary]. *Metsanduslikus Uurimused*, Estonian SSR 21: 79–85. ().

Z

- ZACH, PETER. 1991. Anwendung von Photoektoren beim Studium der kambio- und xylophagen Coleopteren. Anzeiger für Schädlingkunde, Pflanzenschutz, Umweltschutz 64: 34–37. (ec ms).
- *ZAHRADNIK, P., AND MILOŠ KNIZEK. 1990. Bronci ve feromonových lapacích na kůrovce (Scolytidae) [Käfer (Col.), die in pheromonefallen für Borkenkäfer (Scolytidae) getroffen]. *Sbornik referatů, III. colloquium coleopterologicum 1990*, Smlava, Zelená Ruda 1990: 33–36. ().
- *ZAHRADNIK, P., MILOŠ KNIZEK, P. KAPITOLA, A. RODZIEWICZ, AND A. KOLK. 1990. Porovnání účinnosti používaných typu feromonových odparníků k lapaní lykozrouta smrkového (*Ips typographus*) [Comparison of effects of pheromones which are used in catching of

- the bark beetle *Ips typographus*]. Zpravy lesnickeho vyzkumu 4: 23–27. (.)
- ° _____. 1991. Porovnaní odchytových vlastností nových typu feromonových lapací na lýkozrona smrkového (*Ips typographus* L.) [Comparison of catching characteristics of a new type of pheromone traps for *Ips typographus*]. Zpravy lesnickeho vyzkumu 1: 7–15. (.)
- ZAKLAMA, S. F., A. M. AWADALLAH, AND F. F. ABDALLAH 1979. Chemical control of the shot-hole borer, *Scolytus amygdali* Guér., on almond trees. Entomological Society of Egypt, Bulletin 11: 187–192. (cn).
- ° ZESCHL F., AND O. REINECKE. 1881. List of the Coleoptera observed and collected in the vicinity of Buffalo. Buffalo Society of Natural Science, Bulletin 4: 2–15. (.)
- ZHAD, J. N., AND B. CAO. 1987. Bionomics and control of *Phloeosinus perlatus* Chapuis [In Chinese, English summary]. Insect Knowledge 24(4): 227–230. (cn hb).
- ZHANG, LU-HONG, YU CHENG-MING, AND TAN GU-ZHONG. 1985. A discussion on the control of some bark beetle species infesting forests in Dailing, northeast. Kunchong Zhiishi 4(1): 27–30. (cn).
- ZHAO, KU-JIE, SHENG FENG-JU, AND HUJI MAIMATI. 1984. A preliminary study on *Scolytus rugulosus* Ratzeburg. Kunchong Zhiishi 21(1): 27–31. (cn).
- ZHONG, H., AND TIMOTHY D. SCHOWALTER. 1989. Conifer bole utilization by wood-boring beetles in western Oregon. Canadian Journal of Forest Research 19: 943–947. (ec).
- ° ZHOU, JIA-XI. 1963. The recent investigation of control of Scolytidae species on *Pinus armandii* by forest management measure [In Chinese]. A corpus of forestry scientific study references in Shaanxi Province. Peoples Press of Shaanxi 1963: 1–9. (.)
- _____. 1983. Explanation on scolytids' damage frequently found in northwest of China [In Chinese]. Kunchong Zhiishi 20(3): 134–136. (cn).
- ZIEGLER, K. 1985. Unerwünschte Beifänge in Weissen Borkenkäferfallen [Undesired trapping of non-target species in white bark beetle traps]. Allgemeine Forstzeitung 12: 256–257. (cn).
- ° ZIVOJINOVIC, SVETISLAV 1950b. La faune des insectes du Domaine Forestier de Majdanpek. Academie Serbe des Sciences, Monographies. T. CLX. Institut d'Ecologie et de Biogeographie 2: 1–262. (.)
- ZOLUBUS, P. I. 1987. On the flight of spruce bark beetles to a source of chemical attractants [In Russian, English summary]. Khimoretseptsiya Nasekomykh 9: 78–83. (bv).
- ° ZORRILLA, M. A. 19... Especies del Genero *Ips* (Col., Scol.); descortezadores de pinos en Cuba. [Source? (manuscript 57 p.)]. (.)
- ZOTOVA, S. L. 1987. Trapping the bark beetles *Ips typographus* and *Ips duplicatus* with pheromone traps [In Russian]. Lesnoe Khozyaistvo 12: 57–58. (bv).
- ° ZOUFAL, V. 1910. Ein Ausflug auf Mostarsko-blato am 6 September 1909. Entomologische Blätter 6: 53–56. (.)
- ° ZUMR, VAČLAV. 1980. Prostorové rozmišteni v rozsahu kmene, rojeni a letová aktivita hlavních druhů kurovců na smrku ztepilém (*Picea excelsa* L.). Československá akademie. 25 p. (.)
- ° _____. 1984. Prostorové rozmišteni kurovců (Coleoptera, Scolytidae) na smrku ztepilém (*Picea excelsa* Link) a jejich indiference podle lesních vegetačních stupňů [Spatial distribution of bark beetles in Norway spruce and their indifference]. Lesnictví [Prague] 30: 509–522. (.)
- _____. 1985a. Atraktivita přípravku linoprax pro dřevokazce carkovaneho. *Trypodendron lineatum* (Ol.) (Coleoptera, Scolytidae) [Attractiveness of Linoprax pheromone for the lineate bark beetle *Trypodendron lineatum*]. Lesnictví [Prague] 31: 97–108. (bv).
- _____. 1985b. Společenstvo broků (Coleoptera) v chodbach kurovců (Scolytidae) na smrku ztepilém (*Picea excelsa* Link.) v jižních Čechách [Communities of beetles in the feeding sites of bark beetles on Norway spruce in South Bohemia]. Sborník Jihočeského muzea v Českých Budejovicích, Přírodní vědy 25: 45–48. (ec).
- ° _____. 1985c. Biologie a ekologie lýkozrouta smrkového (*Ips typographus*) a ochrana proti nemu. Studie CSAV, Academia, Praha, vol. 17. 124 p. (.)
- ° _____. 1986a. Podkorní společenstvo broků (Coleoptera) na smrku ztepilém *Picea excelsa* Link [The community of bark-inhabiting beetles (Coleoptera) on Norway spruce] [In Czech, with English, Russian, German summaries]. Lesnictví [Prague] 32: 67–79. (.)
- _____. 1986b. Reakce přirozených hmyzích nepřátel lýkozrouta smrkového, *Ips typographus* (L.) (Coleoptera, Scolytidae), na feromon pheroprax [Reaction of insect natural enemies of the engraver beetle *Ips typographus* to the pheromone pheroprax] [In Czech, with English, Russian, German summaries]. Lesnictví [Prague] 32: 431–444. (ec).
- _____. 1987a. K ekologii mene známého lýkohuba haluzkoveho *Phthorophloeus spinulosus* Rey 1853 (Coleoptera, Scolytidae) na smrku ztepilém (*Picea excelsa* Link.) [On the ecology of the little known bark beetle *Phthorophloeus spinulosus* on Norway spruce] [In Russian, English summary]. Sborník Jihočeského Muzea v Českých Budejovicích, Přírodní Vědy 27: 17–28. (hb).
- _____. 1987b. Omezení gradací lýkozrouta smrkového *Ips typographus* (L.) (Coleoptera, Scolytidae), pomocí feromonových lapací [Reduction of outbreaks of the engraver beetle *Ips typographus* using pheromone traps] [In Czech, English summary]. Lesnictví [Prague] 33: 49–64. (cn).
- _____. 1988. Účinnost agregací feromonu Chalcoprax proti lýkozroutu lesklemu, *Pityogenes chalcographus* (L.), (Col., Scol.) [The effectiveness of the aggregation pheromone Chalcoprax in the control of spruce wood engraver *Pityogenes chalcographus* L. (Coleoptera, Scolytidae)]. Lesnictví [Prague] 34: 459–498. (bv cn).
- _____. 1989. Attractiveness of the terpene alpha pinene to the large pine shoot beetle *Blastophagus piniiperda* L. (Coleoptera, Scolytidae). Journal of Applied Entomology 107: 141–144. (bv).
- ZUMB, VAČLAV AND M. LANDA. 1985. Mit Pheromon-fallen Gegen Borkenkäfer in den Fichtenbeständen von Grätzen [Use of pheromone traps for bark beetle control in spruce stands in the Novohradského mountains]. Allgemeine Forstzeitung 96: 204–205. (bv cn).
- ZUMR, VAČLAV, V. NEMEC, AND P. STARY 1985. Seasonal changes in the nutrient content in bodies of *Ips typographus* L. (Col., Scolytidae). Journal of Applied Entomology 100: 464–465. (av).
- ° ZUMR, VAČLAV AND J. SIMANDL. 1985. Vyskyt dřevníka *Xyleborus cryptographus* Ratzeburg 1839 (Col., Scol.) na Blatensku [Occurrence of *Xyleborus cryptographus* near Blatná. Sbor. Jihočes. Muz. v Čes. Budejovicích, Přír. vědy 25: 32. (.)

*ZVIEREZOMB-ZUBOVSKY AND ROSTOFF. 1918. [*Hylesinus oleiperda* (=toranio), *Phloeotribus caucasicus*, *Ptleobius kraatzi*, *Scolytus rugulosus*]. Don Province Bureau for Control of Agricultural Pests. Report for 1917. 36 p. ().

ZWOLINSKI, J. B., AND C. J. GELDENHUYS. 1955. Insect damage to timbers from the indigenous forests: preliminary results. South African Forestry Journal 146: 7-11. (cn).

Addendum

Nine and one-half years have passed since this catalog was started. During those years significant world events have occurred, some of which have impacted the catalog. Several nations have ceased to exist, while other new ones have come into existence. The consequent changes in names or in new spellings of old names have been of concern. While we have attempted to incorporate many of those changes into the catalog, others have not been included. For example, the recent fragmentation of the former Soviet Union (USSR) into independent republics was not included. We have, however, included most, if not all, of the name changes among African nations. In 1957 it was announced by the news media that French Guiana was to become independent and would be named "Cayenne." On the strength of that announcement, we used the name Cayenne throughout the catalog. Unfortunately, the official change in name has not yet occurred.

The basic text of the catalog, including most notes, but excluding "References," was prepared by SLW. Notes prepared by DEB bear his initials. About half of the host records for Platypodidae and about one-third of those for Xyleborini came from DEB. While most of the literature citations listed under References, published from 1758 to 1959, came from SLW, his files also cover literature to 1972 or 1973 in reasonable detail and are included, as were other incidental references to 1991. Approximately two-thirds of the citations listed under References, published from 1960 to 1991, came from DEB except in *Dendroctonus*, *Ips*, Xyleborini, and Platypodidae, where the percentage of his contributions was substantially higher.

The funds needed for publication of Part 2 of the catalog, both volumes 2A and 2B, came from four sources. Approximately 57 percent came from funds conserved from grants of the U.S. sponsors (USDA and NSF), 34 percent from Canada, 2 percent from Brigham Young University, and 7 percent from S. L. Wood. The Canadian portion of publication support for Part 2 of this catalog was funded by Forestry Canada and the British Columbia Ministry of Forests under the Canada-British Columbia Partnership Agreement on Forest Resource Development: FRDA II (1991-1995). Dr. R. Asselin, Director, CLBRR, Agriculture Canada; Dr. L. Carlson, Deputy Director, Forestry Canada; and Mr. A. Shortreid, Forestry Technology Transfer Officer, Forestry Canada, arranged for and expedited the Canadian funds used for publication.

We regret the spelling error on p. 7 in the Introduction of the name of Derrick Bells.

Family Platypodidae Index

This index includes all Latin names used in this catalog for Platypodidae. Family-group names (family, subfamily, tribe) and names applied below the rank of subspecies (including aberrations, variations, nomen nudums) are given in regular type. Valid names of genera and species are in bold type. The names of synonyms of genera and species, subgeneric names, and subspecific names are given in italics. The names of fossil species are preceded by an asterisk (*). Fossil species are given at the beginning of the index and are also listed alphabetically with other names.

- ° *cylindricus* Burmeister, *Platypus* 1130
- ° *hurdi* Schedl, *Cenocephalus* 1109
- ° *maravignae* Guerin-Menville, *Platypus* 1157
- ° *quadrilobus* Schedl, *Cenocephalus* 1109
- ° *rhinoceroide* (Schawaller), (*Mitosoma*),
Cenocephalus 1109
- ° *succinicaptus* Schedl, *Cenocephalus* 1110
- abbreviatus* (Chapuis), (*Platypus*),
Neotrachyostus 1213
- abbreviatus* (Strohmeyer), (*Crossotarsus*),
Doliopygus 1223
- abditulus* (Wood), (*Platypus*), *Platyscapulus* 1214
- abditus* (Schedl), (*Platypus*), (*Platyscapulus*) 1214
- abdominales* Schedl, *Doliopygus* 1223
- abdominalis* (Schedl), (*Diacavus*), *Genyocerus* 1093
- abdominalis* (Schedl), (*Platypus*),
Neotrachyostus 1213
- abdominalis* Schedl, *Crossotarsus* (= *majusculus*) 1202
- abietis* Wood, *Platypus* 1114
- abnormis* Schedl, *Platypus* 1114
- abruptifer* Wood, *Platypus* 1114
- abruptulus* Browne, *Platypus* 1114
- abruptus* Browne, *Platypus* (= *abruptifer*) 1114
- abruptus* Nunberg, *Periomnatus* 1102
- abruptus* Sampson, *Platypus* 1114
- acanthurus* (Beeson), (*Crossotarsus*),
Carchesiopygus 1209
- accuratum* Schaufuss, *Mitosoma* 1110
- acetabuliformis* Roberts, *Platypus* 1114
- aculeatus* Blandford, *Diapus* 1088
- aculeatus javanus* Murayama, *Diapus*
(= *aculeatus*) 1088
- acutespinatus* Nunberg, *Doliopygus* 1223
- acuticornifer* Wood, *Platypus* 1114
- acuticornis* Schedl, *Platypus* 1114
- acuticornis* Schedl, *Platypus* (= *acuticornifer*) 1114
- acutidens* (Blandford), (*Platypus*),
Neotrachyostus 1213
- acutidentatus* Murayama, *Platypus* 1114
- adnexus* Schedl, *Platypus* 1114
- aduncus* Chapuis, *Platypus* 1114
- aduncus* Schedl, *Doliopygus* 1223
- adurus* Beeson, *Crossotarsus* 1195
- adustipennis* Motschulsky, *Genyocerus* 1203
- advena* Schedl, *Platypus* 1115
- aequalicinctus* Schedl, *Platypus* 1115
- aequalidentatus* Schedl, *Doliopygus* 1223
- aequalis* Schedl, *Platypus* 1115
- aequaliter* Roberts, *Platypus* 1115
- affinis* Guerin-Menville, *Tesserocerus* (= *retusus*) 1100
- affinis* Strohmeyer, *Cylindropalpus* 1217
- africanus* Strohmeyer, *Cylindropalpus*
(= *auricomans*) 1218
- afzeliae* Browne, *Platypus* 1115
- agathis* Browne, *Platypus* 1115
- agilis* Dejean, (*Damicerus*), *Tesserocerus*
(= *insignis*) 1099
- agnatus* Schedl, *Platypus* 1115
- albipennis* Motschulsky, *Genyocerus* 1093
- albipennis* Strohmeyer, (*Diapus*), *Genyocerus*
(= *strohmeyeri*) 1096
- algius* Schedl, *Platypus* 1115
- alienus* Schedl, *Platypus* 1115
- alternans* (Strohmeyer), (*Crossotarsus*),
Doliopygus 1223
- alternans* Chapuis, *Platypus* 1115
- alternantecostatus* (Schedl), (*Platyscapus*),
Platypus 1115
- alternantes* Schedl, *Carchesiopygus* 1209
- alternantes* Schedl, *Tesserocerus* 1098
- ambiguus* Roberts, *Platypus* 1115
- amblylaminatus* Roberts, *Diapus* 1088
- ampliatum* Schedl, *Mitosoma* 1110
- anaticeps* (Schedl), (*Platypus*), *Baiocis* 1216
- anaticeps* Schedl, *Platypus* 1115
- andamanus* Beeson, *Crossotarsus* 1195
- andrevesi* Strohmeyer, *Platypus* 1115
- angolensis* Schedl, *Doliopygus* 1224
- anguis* Browne, *Platypus* 1115
- angustatulus* Wood, *Platypus* 1116
- angustatus* Chapuis, *Platypus* 1116
- angustatus* Strohmeyer, (*Crossotarsus*), *Platypus*
(= *orientalis*) 1162
- angusticeps* (Schedl), (*Platypus*), *Baiocis* 1216
- angusticollis* Schedl, *Platypus* 1116
- angustidontis* Roberts, *Diapus* 1055
- angustiformis* (Schedl), (*Platypus*), *Baiocis* 1216
- angustiformis* Schedl, *Periomnatus* (= *longicollis*) 1105
- angustior* Schedl, *Periomnatus* 1102
- angustior* Schedl, *Platypus* 1116
- angustioris* Schedl, *Platypus* 1116
- angustipennis* (Schedl), (*Platypus*), *Baiocis* 1216
- angustulus* (Schedl), (*Platypus*), *Baiocis* 1216

<i>angustus</i> Schedl, <i>Periommatius</i> (= <i>longicollis</i>)	1104	<i>astutus</i> Schedl, <i>Platypus</i>	1115
<i>annexus</i> Wood, <i>Platypus</i>	1116	<i>ater</i> (Strohmeyer), (<i>Platypus</i>), <i>Trachyostus</i>	1211
<i>annosus</i> Wood, <i>Protolylastes</i>	1054	<i>ater</i> Browne, <i>Doliopygus</i>	1224
<i>annularis</i> Schedl, (<i>Platypus</i>), <i>Baiocis</i>	1216	<i>ater</i> Schedl, <i>Platypus</i> (= <i>impressus</i>)	1147
<i>anomalus</i> Schedl, <i>Platypus</i>	1116	<i>aterrimus</i> (Schaufuss), (<i>Platypus</i>), <i>Trachyostus</i>	1211
<i>anoplus</i> Schedl, <i>Platypus</i>	1116	<i>aterrimus minor</i> Roberts, <i>Trachyostus</i> (= <i>aterrimus</i>)	1211
anthocephali Beeson, <i>Platypus</i> (= <i>anthocephali</i>)	1116	atkinsoni Beeson, (<i>Diacatus</i>), <i>Genyocerus</i> (= sp.?)	1093
<i>anthocephali</i> Schedl, <i>Platypus</i>	1116	<i>atrans</i> Roberts, <i>Platypus</i>	1115
<i>antongilis</i> Schedl, <i>Trachyostus</i>	1211	<i>attentus</i> Schedl, <i>Platypus</i>	1115
<i>aolai</i> Browne, <i>Platypus</i>	1116	<i>abei</i> Chapuis, <i>Tesserocherus</i> (= <i>dewalquei</i>)	1095
<i>apertulus</i> Schedl, <i>Platypus</i>	1116	<i>aureipilus</i> Roberts, <i>Crossotarsus</i>	1195
<i>apertus</i> Chapuis, <i>Platypus</i> (= <i>hians</i>)	1145	<i>auricomans</i> (Schaufuss), (<i>Platypus</i>), <i>Cylindropalpus</i>	1218
<i>apertus</i> Schedl, (<i>Diapus</i>), <i>Platypus</i>	1116	<i>auricularis</i> Chapuis, <i>Platypus</i>	1118
<i>apicalis</i> (White), (<i>Crossotarsus</i>), <i>Platypus</i>	1116	<i>auritus</i> Chapuis, <i>Platypus</i>	1118
<i>apicaloides</i> Schedl, <i>Platypus</i>	1117	<i>australis</i> Chapuis, <i>Platypus</i>	1115
<i>apicatus</i> Schedl, (<i>Platypus</i>)	1117	<i>Austroplatypus</i> Browne (= <i>Platypus</i>)	1113
<i>apicatus</i> Schedl, <i>Platypus</i>	1117	<i>Baiocis</i> Browne	1216
<i>aplanatus</i> Schedl, <i>Platypus</i> (= <i>applanatus</i>)	1117	<i>bajulus</i> Schedl, <i>Platypus</i>	1119
<i>appendicinus</i> Schedl, <i>Mesoplatypus</i>	1221	<i>bajulus sumatranus</i> Schedl, <i>Platypus</i> (= <i>bajulus</i>)	1119
appendiculus Dejean, <i>Tesserocherus</i> (= <i>dewalquei</i>)	1095	balanocarpus Beeson, <i>Platypus</i> (= <i>balanocarpus</i> Schedl)	1119
<i>applanatus</i> Wood, <i>Platypus</i>	1117	<i>balanocarpus</i> Schedl, <i>Platypus</i>	1119
<i>applanatus</i> Wood, <i>Platypus</i>	1117	<i>banghaasi</i> (Schaufuss), (<i>Crossotarsus</i>), <i>Triozastus</i>	1220
<i>araucariae</i> Schedl, <i>Platypus</i>	1117	<i>banghaasi banghaasi</i> (Schaufuss), <i>Triozastus</i> (= <i>banghaasi</i>)	1220
<i>arcuatus</i> Schedl, <i>Platypus</i>	1117	<i>barbatulus</i> Schedl, <i>Platypus</i>	1119
<i>arduus</i> (Schedl), (<i>Platyscapus</i>), <i>Platypus</i>	1117	<i>barbatus</i> Chapuis, <i>Crossotarsus</i>	1196
<i>areolatus</i> Chapuis, <i>Platypus</i>	1117	<i>barbosai</i> Schedl, <i>Platypus</i>	1119
<i>arisannensis</i> Murayama, <i>Platypus</i>	1117	<i>basilewskyi</i> Nunberg, <i>Periommatius</i>	1102
armaticeps Beeson, <i>Platypus</i> (= <i>armaticeps</i> Schedl)	1117	<i>batesi</i> Chapuis, <i>Platypus</i>	1119
<i>armaticeps</i> Schedl, <i>Platypus</i>	1117	<i>beaveri</i> Browne, <i>Platypus</i>	1119
<i>armatus</i> Chapuis, <i>Platypus</i>	1117	beesoni Sampson, (<i>Mesoplatypus</i>), <i>Platypus</i> (= <i>biflexuosus</i>)	1120
<i>armipemis</i> Lea, <i>Crossotarsus</i>	1195	<i>beilschmiediae</i> Schedl, <i>Platypus</i>	1119
<i>arrogans</i> Schedl, <i>Platypus</i>	1115	<i>bellus</i> Schedl, <i>Platypus</i>	1119
<i>arrowi</i> (Schedl), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1224	<i>belti</i> Sharp, <i>Tesserocherus</i>	1095
<i>artecarinatus</i> Schedl, <i>Platypus</i>	1115	<i>benevolus</i> Beeson, <i>Crossotarsus</i>	1196
<i>artecarus</i> Schedl, <i>Platypus</i> (= <i>pseudocupulatus</i>)	1172	<i>berliniae</i> Roberts, <i>Doliopygus</i>	1224
<i>artecircularis</i> Schedl, <i>Periommatius</i>	1102	<i>bicallosus</i> Schedl, <i>Periommatius</i>	1102
<i>artecostatus</i> (Schedl), (<i>Platyscapus</i>), <i>Platypus</i>	1115	<i>bicarinulatus</i> Schedl, <i>Platypus</i>	1119
<i>artecurtus</i> Schedl, <i>Platypus</i> (= <i>curtus</i>)	1130	<i>bicaudatus</i> Schedl, <i>Platypus</i>	1119
<i>artesolidus</i> Schedl, <i>Platypus</i>	1115	<i>bicaudatus</i> Browne, <i>Platypus</i>	1120
<i>artespinnatus</i> (Schedl), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1224	<i>biceps</i> Beeson, <i>Crossotarsus</i> (= <i>horni</i>)	1201
<i>artestrigatus</i> Nunberg, <i>Periommatius</i>	1102	<i>bicolor</i> Montrouzier, <i>Platypus</i>	1120
<i>artetrunctatus</i> Schedl, <i>Platypus</i>	1115	<i>biconcavus</i> Schedl, <i>Crossotarsus</i>	1196
<i>aruensis</i> Beeson, <i>Crossotarsus</i>	1195	<i>biconicus</i> Schedl, <i>Platyarsulus</i>	1097
<i>Asetus</i> Nunberg, (= <i>Periommatius</i>)	1102	<i>bicorniger</i> Schedl, <i>Platypus</i>	1120
<i>asperatus</i> Schedl, <i>Platypus</i>	1115	bicomis Beeson, <i>Platypus</i> (= <i>insulindicus</i>)	1149
<i>aspicis</i> Roberts & Morimoto, <i>Platypus</i>	1115	<i>bicornis</i> Nunberg, <i>Platypus</i>	1120
<i>assamelae</i> Browne, <i>Platypus</i>	1115	<i>bicornis</i> Schedl, <i>Platypus</i> (= <i>insulindicus</i>)	1149
<i>assamensis</i> (Beeson), (<i>Crossotarsus</i>), <i>Carchesiopygus</i>	1210	<i>bicornutus</i> Nunberg, <i>Platypus</i> (= <i>insulindicus</i>)	1149
<i>assamensis</i> Beeson, <i>Genyocerus</i> (= <i>diaphanus</i>)	1094	<i>bideus</i> Schedl, <i>Platypus</i>	1120
<i>assamensis</i> Browne, (<i>Diacarus</i>), <i>Genyocerus</i> (= <i>diaphanus</i>)	1094	bidentatus Dejean, <i>Platypus</i> (= <i>flavicornis</i>)	1139
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<i>associatus</i> Schedl, <i>Platypus</i>	1115		

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- bidentatus posticalis* Schedl, *Doliopygus*
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- bidiscoplanus* Roberts, *Doliopygus* 1224
- bifidus* Schedl, *Platypus* 1120
- biflexuosus* Schedl, *Platypus* 1120
- biformis* Chapuis, *Platypus* 1120
- bifrons* Chapuis, *Platypus* (= *cordiger*) 1128
- bifrons* Schedl, *Periommatius* 1102
- bifurcus* (Schedl), (*Crossotarsus*), *Platypus* 1120
- bifurcus* Schedl, *Triozastus* (= *banghaasi*) 1220
- bifurcus mutilus* Schedl, (*Crossotarsus*), *Platypus*
 (= *shoreanus*) 1151
- bigranulatus* Schedl, *Platypus* 1121
- bilamatus* Guerin-Meneville, *Tesserocerus*
 (= *insignis*) 1100
- bilamatus* Schedl, *Platypus* 1121
- bijunctispinae* Roberts, *Doliopygus* 1225
- bilobatus* (Schedl), (*Crossotarsus*), *Doliopygus* 1225
- bilobatus* Nunberg, *Mesoplatypus* 1221
- bilobatus* Strohmeyer, *Platypus* 1121
- bilobipennis* Schedl, *Platypus* 1121
- bilobus* (Schedl), (*Platypus*), *Tesserocerus* 1098
- bilunatus* Schedl, *Diapus* 1088
- bimaculata* Duftschmidt, (*Cylindra*), *Platypus*
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- biporus* Beeson, *Genyocerus* (= *biporus*) 1093
- biporus* Blandford, *Platypus* 1121
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- bisignatus* Schedl, *Platypus* 1121
- bispinatus* Browne, *Platypus* 1121
- bispinus* Schedl, *Diapus* 1088
- bispinus* Strohmeyer, *Periommatius* 1103
- bistriatus* Browne, *Platypus* (= *deflectus*) 1134
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- bituberculatus* Nunberg, *Mesoplatypus*
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- bituberculatus* Schedl, (*Crossotarsus*), *Doliopygus*
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- bituberculatus* Schedl, *Platypus* (= *bigranulatus*) 1121
- bituberculifer* Wood, *Platypus* (= *bigranulatus*) 1121
- biuncus* Blandford, *Platypus* 1121
- blanchardi* Chapuis, *Platypus* (= *quadridentatus*) 1174
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- bonvouloiri* Chapuis, *Crossotarsus* 1196
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- borneensis* Browne, *Platypus* 1122
- borneensis* Schedl, *Platyarsulus* 1097
- bothrocephalus* (Strohmeyer), (*Crossotarsus*),
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- brasiliensis* Evers, *Tesserocerus* 1095
- brasiliensis* Nunberg, *Platypus* 1122
- brevestrigatus* Nunberg, *Periommatius*
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- brevicaudatus* Nunberg, *Platypus* 1122
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- brevidens* Browne, *Crossotarsus* 1196
- brevidens* Browne, *Triozastus* 1220
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- brevis* Browne, *Platypus* 1122
- brevis interstitialis* Schedl, *Doliopygus* (= *rapax*) 1237
- brevispinatus* Nunberg, *Periommatius* (= *bispinus*) 1103
- breviusculus* Schedl, *Doliopygus* (= *rapax*) 1237
- brochus* Beeson, *Diapus* (= *spatulifer*) 1092
- brownei* Beaver, *Triozastus* 1220
- brownei* Schedl, *Crossotarsus* 1196
- brownei* Schedl, *Diapus* 1089
- brownei* Schedl, *Platypus* 1122
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- bugiriensis* Nunberg, *Doliopygus* (= *chapuisi*) 1226
- bulbifer* Schedl, *Doliopygus* 1225
- bulbiventris* Schedl, *Doliopygus* 1226
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- cachani* Schedl, *Mesoplatypus* (= *quinqueinectus*) 1222
- caelestis* Roberts & Morimoto, *Platypus* 1122
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- calamus fukiensis* Schedl, *Platypus* (= *calamus*) 1123
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- caliculus* Chapuis, *Platypus* (= *luniger*) 1156
- caligatus* Schedl, *Platypus* 1123
- caliginosus* Roberts, *Crossotarsus* 1196
- caliginosus* Roberts, *Cylindropalpus* 1218
- caliginosus* Roberts, *Doliopygus* (= *artespيناتus*) 1224
- caliginosus* Roberts, *Triozastus* 1220
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 (= *caliginosus*) 1220
- caliginosus* Schedl, *Platypus* 1123
- calix* Schedl, (*Platypus*), *Platyscapulus*
 (= *costellatus*) 1215
- cambodianus* Schedl, *Platypus* (= *piniperda*) 1170
- camerunus* (Schedl), (*Platyscapus*),
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- camerunus* Strohmeyer, *Periommatius*
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- camerunus angustiformis* Schedl, *Periommatius*
 (= *longicollis*) 1105
- camerunus brevestrigatus* Nunberg, *Periommatius*
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- capillatus* Sampson, *Diapus* (= *molossus*) 1090
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<i>capito</i> Browne, <i>Platypus</i>	1123	<i>cluniculus</i> Wood, <i>Platypus</i>	1125
<i>carupae</i> Schedl, <i>Doliopygus</i>	1226	<i>clunis</i> Wood, <i>Platypus</i>	1125
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<i>carbonescens</i> (Beeson), (<i>Crossotarsus</i>), <i>Platypus</i>	1123	<i>Coccephalonus</i> Schedl (= <i>Mitosoma</i>)	1110
<i>Carchesiopygus</i> Schedl	1209	<i>coelocephalus</i> (Schanfuss), <i>Doliopygus</i>	1227
<i>carduus</i> Schedl, <i>Platypus</i>	1123	<i>cognatus</i> Roberts, <i>Platypus</i>	1125
<i>carinatus</i> Schedl, <i>Trachyostus</i>	1211	<i>coleopteratus</i> (Schedl), (<i>Crossotarsus</i>), <i>Platypus</i>	1125
<i>carinifer</i> Schedl, <i>Platypus</i>	1123	<i>collaris</i> Schedl, <i>Platypus</i>	1125
<i>carinifrons</i> Schedl, <i>Platypus</i>	1123	<i>collatatus</i> Schedl, <i>Platypus</i>	1125
<i>carinulatus</i> (Chapuis), (<i>Platypus</i>), <i>Platyscapulus</i>	1214	<i>collaticius</i> Schedl, <i>Periommatius</i>	1103
<i>caryophyllatus</i> Schedl, <i>Platypus</i>	1123	<i>collinus</i> Browne, <i>Platypus</i>	1125
<i>castaneus</i> Broun, <i>Platypus</i> (= <i>apicalis</i>)	1117	<i>comalis</i> Roberts, <i>Platypus</i> (= <i>acetabuliformis</i>)	1114
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<i>castigatus</i> (Schedl), (<i>Crossotarsus</i>), <i>Platypus</i>	1124	<i>comoreanus</i> Schedl, <i>Platypus</i>	1125
<i>caudatus</i> Motschulsky, <i>Platypus</i> (= <i>solidus</i>)	1183	<i>compactus</i> (Schedl), (<i>Diacavus</i>), <i>Genyocerus</i>	1093
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<i>celsus</i> Roberts, <i>Platypus</i>	1124	<i>compressus</i> Chapuis, <i>Platypus</i> (= <i>parallelus</i>)	1166
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<i>Cenocephalus</i> Chapuis	1109	<i>concarus</i> (Chapuis), (<i>Platypus</i>), <i>Neotrachyostus</i>	1213
<i>Chaetastus</i> Nunberg	1107	<i>concentriporus</i> Roberts, <i>Platypus</i>	1127
<i>chalographus</i> Schedl, <i>Crossotarsus</i>	1196	<i>conciliatus</i> Schedl, <i>Platypus</i>	1127
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<i>chapuisi</i> Blandford, <i>Crossotarsus</i> (= <i>concinus</i>)	1197	<i>concinus</i> Blandford, <i>Crossotarsus</i>	1197
<i>chapuisi</i> Schedl, <i>Tesserocerus</i>	1098	<i>confusus</i> Roberts, <i>Doliopygus</i> (= <i>dubius</i>) ¹	1229
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<i>chapuisi nitidiventris</i> Schedl, <i>Doliopygus</i> (= <i>chapuisi</i>)	1226	<i>congoanus</i> Nunberg, <i>Periommatius</i>	1103
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<i>chevolati</i> Chapuis, <i>Platypus</i>	1124	<i>connexus</i> Wood, <i>Platypus</i>	1127
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<i>eicatricosus</i> Roberts, <i>Platypus</i>	1125	<i>contaminatus</i> (Blandford), (<i>Crossotarsus</i>), <i>Platypus</i>	1127
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<i>citri</i> Schedl, <i>Doliopygus</i>	1226	Coptonotus Chapuis	1084
<i>clarkei</i> Browne, <i>Platypus</i>	1125	<i>cordatus</i> Motschulsky, <i>Platypus</i> (= <i>solidus</i>)	1183
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<i>grayi</i> Schedl, <i>Platypus</i>	1144	<i>imberbis</i> Roberts, <i>Platypus</i>	1147
<i>grayi</i> <i>immersus</i> Schedl, <i>Platypus</i> (= <i>grayi</i>)	1144	imitator Schedl, <i>Platypus</i> (= <i>shoreanus</i>)	1151
<i>gregalis</i> Schedl, <i>Platypus</i>	1144	<i>imitatrix</i> Schedl, <i>Platypus</i>	1147
<i>gressitti</i> Schedl, <i>Crossotarsus</i>	1200	<i>imitatrix</i> Schedl, <i>Baiocis</i>	1216
<i>grevilleae</i> Lea, (<i>Crossotarsus</i>), <i>Diapus</i> (= <i>pusillimus</i>)	1091	<i>immersus</i> Schedl, <i>Platypus</i> (= <i>grayi</i>)	1144
<i>grumosus</i> Roberts & Morimoto, <i>Platypus</i>	1144	<i>immunis</i> Schedl, <i>Platypus</i>	1147
<i>guadeloupensis</i> Schedl, <i>Platypus</i>	1144	<i>impar</i> (Schedl), (<i>Crossotarsus</i>), <i>Dendroplatypus</i>	1240
<i>guerini</i> Chapuis, <i>Tesserocerus</i>	1099	<i>impar</i> Schedl, <i>Scolytotarsus</i>	1055
<i>guerini</i> <i>montanus</i> Schedl, <i>Tesserocerus</i> (= <i>pusillimus</i>)	1099	<i>imparidens</i> Browne, <i>Platypus</i>	1147
<i>guineensis</i> Roberts, <i>Doliopygus</i>	1230	<i>impariporus</i> (Beeson), (<i>Crossotarsus</i>), <i>Carchesiopygus</i>	1210
<i>gunicus</i> Roberts, <i>Platypus</i>	1144	<i>imparispinosus</i> Roberts, <i>Mesoplatypus</i>	1222
<i>gumiensis</i> Roberts, <i>Platypus</i>	1144	<i>impolitus</i> Roberts, <i>Platypus</i>	1147
<i>haagi</i> Chapuis, <i>Platypus</i>	1144	<i>imporcatus</i> Blandford, <i>Platypus</i>	1147
<i>hamaticeps</i> Schedl, <i>Platypus</i>	1144	<i>impressifrons</i> Schedl, <i>Platypus</i>	1147
<i>hamaticollis</i> Schedl, <i>Platypus</i>	1144	<i>impressus</i> (Strohmeyer), (<i>Crossotarsus</i>), <i>Platypus</i>	1147
<i>hamatipennis</i> Schedl, <i>Platypus</i>	1144	<i>impressus</i> Janson, <i>Diapus</i> (= <i>molossus</i>)	1059
<i>hamatulus</i> Schedl, <i>Platypus</i>	1144	<i>impressus</i> <i>ater</i> Schedl, <i>Platypus</i> (= <i>impressus</i>)	1147
<i>hamatus</i> (Nunberg), <i>Mitosoma</i>	1110	<i>inaccessus</i> Schedl, <i>Platypus</i>	1145
<i>hamatus</i> Blandford, <i>Platypus</i>	1144	<i>inaequidens</i> Browne, <i>Crossotarsus</i>	1201
<i>hardeniensis</i> Nunberg, <i>Triozastus</i> (= <i>banghaasi</i>)	1220	<i>incertus</i> Schedl, <i>Platypus</i>	1145
<i>hardenbergi</i> Sampson, (<i>Crossotarsus</i>), <i>Doliopygus</i> (= <i>erinitus</i>)	1228	<i>incilis</i> Schedl, <i>Doliopygus</i>	1231
<i>hartwegi</i> Schedl, <i>Doliopygus</i>	1231	<i>incisus</i> (Sampson), (<i>Crossotarsus</i>), <i>Baiocis</i>	1216
<i>hashimotoi</i> Browne, <i>Platypus</i>	1145	<i>incognitus</i> Schedl, <i>Platypus</i>	1145
<i>hastatus</i> (Schedl), (<i>Platypus</i>), <i>Crossotarsus</i>	1200	<i>incompertus</i> Schedl, <i>Platypus</i>	1145
<i>hastulifer</i> Schedl, <i>Platypus</i>	1145	<i>inconstans</i> Schedl, <i>Platypus</i>	1145
<i>haticollis</i> Browne, <i>Genyocerus</i> (= <i>laticollis</i>)	1094	<i>incostatus</i> Schedl, <i>Platypus</i>	1145
<i>hebetatus</i> Roberts, <i>Platypus</i>	1145	<i>indicus</i> Strohmeyer, <i>Platypus</i>	1148
<i>hebridensis</i> Beeson, <i>Crossotarsus</i>	1200	<i>indomitus</i> Chapuis, <i>Crossotarsus</i>	1201
<i>heritierae</i> Stebbing, (<i>Diapus</i>), <i>Crossotarsus</i> (= <i>externedentatus</i>)	1199	<i>inermis</i> Guerin-Meneville, <i>Tesserocerus</i>	1099
<i>heterodoxus</i> Schedl, <i>Platypus</i>	1145	<i>inermis</i> Sampson, <i>Platypus</i>	1145
<i>heteromorphus</i> Schedl, <i>Platypus</i> (= <i>incertus</i>)	1145	<i>inermis</i> Schedl, <i>Crossotarsus</i>	1201
<i>hians</i> Chapuis, <i>Platypus</i>	1145	<i>inermis</i> Strohmeyer, <i>Periommatus</i>	1104
<i>himalayensis</i> Beeson, <i>Diapus</i> (= sp.?)	1058	<i>infuscatus</i> Browne, <i>Platypus</i>	1145
<i>hinchuachani</i> Schedl, <i>Platypus</i>	1145	<i>inimicus</i> (Schedl), (<i>Crossotarsus</i>), <i>Baiocis</i>	1216
<i>hintzi</i> Schaufuss, <i>Platypus</i>	1145	<i>inimicus</i> Bromm, <i>Platypus</i> (= <i>gracilis</i>)	1143
<i>hippocrepicus</i> Roberts, <i>Platypus</i>	1146	<i>inornatus</i> Chapuis, <i>Crossotarsus</i> (= <i>minusculus</i>)	1202
<i>hirtellus</i> Schedl, <i>Platypus</i>	1146	<i>insculptus</i> Schedl, <i>Platypus</i>	1145
		<i>insidiosus</i> Schedl, <i>Platypus</i>	1149
		<i>insignatus</i> Schedl, <i>Platypus</i>	1149
		<i>insignis</i> (Saunders), (<i>Platypus</i>), <i>Tesserocerus</i>	1099
		<i>insiticus</i> Schedl, <i>Doliopygus</i>	1231
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integratus Roberts, *Doliopygus* 1231
interjectus Schedl, *Doliopygus* 1231
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interpositus Schedl, *Doliopygus* (= *citri*) 1226
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irregularis Schedl, *Platypus* 1150
irrepertus Schedl, *Platypus* 1150
irruptus Schedl, *Platypus* 1150
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jansoni Chapuis, *Platypus* 1150
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javanus Browne, *Platypus* 1150
javanus Murayama, *Diapus* (= *aculeatus*?) 1088
javanus Strohmeier, *Spathidicerus* 1101
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kakaoensis Schedl, *Doliopygus* 1231
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kanarensis Beeson, *Platypus* (= *uncinatus*) 1190
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laevicollis Chapuis, *Platypus* (= *parallelus*) 1167
laevigatus Chapuis, *Crossotarsus* 1201
laevis Browne, *Platypus* 1151
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lalolaensis Nunberg, *Cenocephalus* 1109
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lateconcarus Schedl, *Platypus* 1152
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latelunatus Beeson, (*Crossotarsus*), *Platypus*
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latespinis Schedl, *Diapus* 1059
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<i>lobatus</i> (Chapuis), (<i>Platypus</i>), <i>Neotrachyostus</i>	1213	<i>mamiensis</i> Browne, <i>Platypus</i>	1156
<i>lobatus</i> (Schedl), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1232	<i>manipularis</i> Schedl, <i>Platypus</i> (= <i>equadorensis</i>)	1137
<i>lobatus</i> Brown, <i>Platypus</i> (= <i>caviceps</i>)	1124	<i>manus</i> (Schedl), (<i>Platypus</i>), <i>Platyscapulus</i>	1215
<i>lomaensis</i> Roberts, <i>Platypus</i> (= <i>orientalis</i>)	1163	° <i>maravignae</i> Guerin-Meneville, <i>Platypus</i>	1157
<i>longicaudatus</i> Numberg, <i>Platypus</i> (= <i>micrurus</i>)	1157	<i>marcidus</i> Blandford, <i>Platypus</i>	1157
<i>longicalcaratus</i> Roberts, <i>Platypus</i>	1154	<i>margaritaceus</i> Roberts & Morimoto, <i>Platypus</i>	1157
<i>longicollis</i> Browne, <i>Crossotarsus</i>	1202	<i>marginatus</i> Chapuis, <i>Platypus</i>	1157
<i>longicollis</i> Browne, <i>Platypus</i>	1154	maritimus Beeson, <i>Platypus</i> (= <i>maritimus</i> Schedl)	1157
<i>longicollis</i> Chapuis, <i>Periommatius</i>	1104	<i>maritimus</i> Schedl, <i>Platypus</i>	1157
<i>longicornis</i> (Schedl), (<i>Platypus</i>), <i>Crossotarsus</i>	1202	<i>marseuli</i> Chapuis, <i>Platypus</i> (= <i>parallelus</i>)	1166
<i>longicornis</i> Browne, <i>Platypus</i> (= <i>acuticornifer</i>)	1114	<i>marshalli</i> (Sampson), (<i>Crossotarsus</i>), <i>Triozastus</i>	1220
<i>longior</i> Wood, <i>Platypus</i>	1154	<i>marshalli</i> Schedl, <i>Platytarsulus</i>	1097
<i>longipennis</i> Montrouzier, <i>Platypus</i>	1154	<i>matoae</i> Browne, <i>Platypus</i>	1157
longispinus Beeson, <i>Diapus</i> (= <i>pendleburyi</i>)	1090	<i>mattai</i> Brethes, <i>Platypus</i> (= <i>parallelus</i>)	1168
<i>longissimus</i> Roberts, <i>Platypus</i>	1154	<i>maximus</i> Browne, <i>Cylindropalpus</i>	1219
<i>longius</i> Wood, <i>Platypus</i>	1154	<i>maynei</i> Schedl, <i>Doliopygus</i>	1232
<i>longulus</i> Chapuis, <i>Platypus</i>	1154	Mecopelmini Wood	1086
<i>longus</i> Numberg, <i>Periommatius</i>	1105	Mecopelmus Blackman	1086
lopchuenensis Beeson, <i>Platypus</i> (= <i>lopchuenensis</i> Schedl)	1155	<i>medius</i> Schedl, <i>Doliopygus</i>	1232
<i>lopchuenensis</i> Schedl, <i>Platypus</i>	1154	<i>medius</i> Schedl, <i>Trachyostus</i> (= <i>schaufussi</i>)	1212
<i>lophopetali</i> Browne, <i>Platypus</i>	1155	<i>megatoma</i> Schedl, <i>Doliopygus</i>	1232
<i>loriae</i> (Schedl), (<i>Crossotarsus</i>), <i>Platypus</i>	1155	<i>megatoma</i> vexator Schedl, <i>Doliopygus</i> (= <i>megatoma</i>)	1233
<i>loricatus</i> (Sampson), (<i>Crossotarsus</i>), <i>Platypus</i>	1155	melanocephalus Dejean, (<i>Damicerus</i>), <i>Tesseroerus</i> (= <i>insignis</i>)	1099
<i>lucaris</i> Schedl, <i>Platypus</i>	1155	<i>melanurus</i> Chapuis, <i>Platypus</i> (= <i>pulicaris</i>)	1173
<i>lucasi</i> Chapuis, <i>Platypus</i>	1155	Mesoplatypus Strohmeier	1221
<i>luebensis</i> Numberg, <i>Periommatius</i>	1105	<i>Mesopygus</i> Numberg (= <i>Doliopygus</i>)	1223
<i>luederwaldti</i> Schedl, (<i>Platypus</i>), <i>Platyscapulus</i> (= <i>costellatus</i>)	1215	<i>mexicanus</i> Duges, (<i>Chapuisia</i>), <i>Schedlaris</i>	1057
<i>lumatellus</i> Browne, <i>Platypus</i>	1155	<i>micrographus</i> Schedl, <i>Platypus</i>	1157
<i>lunatipennis</i> Schedl, <i>Platypus</i>	1155	<i>microlunatus</i> Browne, <i>Platypus</i>	1157
<i>lunatulus</i> Browne, <i>Platypus</i> (= <i>tayabasi</i>)	1157	<i>micrurus</i> Schedl, <i>Platypus</i>	1157
<i>lunifer</i> Browne, <i>Platypus</i> (= <i>tayabasi</i>)	1157	<i>mimicus</i> (Schedl), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1233
<i>lunifer</i> Schedl, <i>Platypus</i>	1155	<i>minacior</i> Schedl, <i>Platypus</i>	1157
<i>luniger</i> Motschulsky, <i>Platypus</i>	1155	<i>minax</i> (Walker), (<i>Platypus</i>), <i>Crossotarsus</i>	1202
<i>luridus</i> Chapuis, <i>Platypus</i>	1156	<i>minimus</i> Schedl, <i>Doliopygus</i>	1233
<i>luzonicus</i> Schedl, <i>Platypus</i>	1156	minor Beeson, <i>Diapus</i> (= <i>minor</i> Schedl)	1059
<i>macer</i> Browne, <i>Platypus</i>	1156	<i>minor</i> Browne, <i>Platypus</i>	1157
<i>machili</i> Beeson, <i>Crossotarsus</i>	1202	<i>minor</i> Roberts, <i>Trachyostus</i> (= <i>aterrimus</i>)	1211
<i>macroporus</i> Chapuis, <i>Platypus</i>	1156	<i>minor</i> Sampson, <i>Crossotarsus</i> (= <i>squamulatus</i>)	1207
<i>maculatus</i> Schaufuss, (<i>Crossotarsus</i>), <i>Doliopygus</i> (= <i>chapuisi</i>)	1226	<i>minor</i> Schedl, <i>Cenoccephalus</i> (= <i>pulehellus</i>)	1109
<i>maculatus</i> Schedl, <i>Scoliotarsus</i>	1085	<i>minor</i> Schedl, <i>Diapus</i>	1059
<i>madagascariensis</i> Chapuis, <i>Platypus</i>	1156	<i>minor</i> Schedl, <i>Doliopygus</i>	1233
<i>macklini</i> Chapuis, <i>Platypus</i> (= <i>parallelus</i>)	1167	<i>minor</i> Schedl, <i>Trachyostus</i> (= <i>sclaufussi</i>)	1212
<i>magnus</i> Browne, <i>Platypus</i>	1156	<i>minusculus</i> Chapuis, <i>Crossotarsus</i>	1202
major Sampson, <i>Platypus</i> (= <i>vethi</i>)	1192	<i>minusculus</i> Schedl, <i>Platypus</i>	1157
<i>major</i> Strohmeier, <i>Periommatius</i>	1105	<i>minusculus grandis</i> Schedl, <i>Crossotarsus</i> (= <i>minusculus</i>)	1202
<i>major</i> Schedl, <i>Trachyostus</i> (= <i>schaufussi</i>)	1212	<i>minusculus novaguineensis</i> Roberts, <i>Crossotarsus</i> (= <i>minusculus</i>)	1203
<i>majusculus</i> Sampson, <i>Crossotarsus</i>	1202	<i>minutissimus</i> (Schedl), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1233
<i>malacanthae</i> Roberts, <i>Platypus</i> (= <i>impressus</i>)	1147	<i>minutissimus</i> Schedl, <i>Diapus</i>	1059
<i>malaisei</i> Schedl, <i>Platypus</i>	1156	<i>minutissimus</i> Schedl, <i>Platypus</i>	1157
<i>malayensis</i> Schedl, <i>Platypus</i> (= <i>vethi</i>)	1192	<i>minutus</i> Numberg, <i>Periommatius</i>	1105
<i>malgassicus</i> Schedl, <i>Diapus</i>	1059	<i>minutus</i> Roberts, <i>Platypus</i> (= <i>orientalis</i>)	1163
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<i>prolongatus</i> Schedl, <i>Doliopygus</i>	1236	<i>pusillus</i> Schedl 1957, (<i>Platyscapulus</i>), <i>Cylindropalpus</i> (= <i>pusillus</i> 1952)	1219
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<i>proximus</i> Schedl, <i>Doliopygus</i>	1236	<i>quadricornis</i> Schedl, <i>Platypus</i>	1174
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<i>pseudocupulatus</i> Schedl, <i>Platypus</i>	1172	<i>quadricuspidatus</i> Schedl, <i>Platypus</i> (= <i>trispinosus</i>)	1189
<i>pseudocupulatus arcevacus</i> Schedl, <i>Platypus</i> (= <i>pseudocupulatus</i>)	1172	<i>quadridens</i> Browne, (<i>Diacavus</i>), <i>Genyocerus</i> (= <i>philippinensis</i>)	1095
<i>pseudocupulatus sundensis</i> Schedl, <i>Platypus</i> (= <i>pseudocupulatus</i>)	1172	<i>quadridens</i> Schedl, <i>Platypus</i> (= <i>pini</i>)	1170
<i>pseudocurtus</i> Schedl, <i>Platypus</i>	1172	<i>quadridens</i> Schedl, <i>Tesserocerus</i>	1100
<i>pseudodignatus</i> Schedl, <i>Platypus</i>	1172	<i>quadridentatus</i> (Olivier), (<i>Scolytus</i>), <i>Platypus</i>	1174
<i>pseudogracilis</i> Nunberg, <i>Periommatius</i>	1106	<i>quadrifissilis</i> Schedl, <i>Platypus</i>	1174
<i>pseudolongulus</i> Schedl, <i>Platypus</i>	1172	<i>quadrifoveolatus</i> (Schedl), (<i>Diacavus</i>), <i>Genyocerus</i>	1095
<i>pseudomajor</i> Schedl, <i>Periommatius</i>	1106	<i>quadrilobus</i> (Blandford), (<i>Platypus</i>), <i>Neotrachyostus</i>	1214
<i>pseudoniponicus</i> Sampson, <i>Crossotarsus</i> (= <i>ursus</i>)	1208	° <i>quadrilobus</i> Schedl, <i>Cenocephalus</i>	1109
<i>pseudoopacus</i> Schedl, <i>Platypus</i> (= <i>froggatti</i>)	1141	<i>quadrirotatus</i> Schedl, <i>Platypus</i>	1174
<i>pseudoplicatus</i> Schedl, <i>Platypus</i>	1172	<i>quadriporus</i> (Becson), (<i>Crossotarsus</i>), <i>Platypus</i>	1175
<i>pseudoporus</i> Schedl, <i>Platypus</i>	1173	<i>quadriporus</i> (Schedl), (<i>Diacavus</i>), <i>Genyocerus</i>	1095
<i>pseudoselysi</i> Schedl, <i>Platypus</i>	1173	<i>quadriporus</i> Schedl, <i>Treptoplatypus</i>	1195
<i>pseudoserratus</i> Roberts, <i>Doliopygus</i>	1236	<i>quadrispinatus</i> Chapuis, <i>Diapus</i>	1091
<i>pseudoseverini</i> Nunberg, <i>Periommatius</i>	1106	<i>quadrispinatus</i> Chapuis, <i>Platypus</i>	1175
<i>pseudosindorae</i> Browne, <i>Platypus</i>	1173	<i>quadrispinis</i> Browne, <i>Mesoplatypus</i>	1222
<i>pseudosolidus</i> Schedl, <i>Platypus</i>	1173	<i>quadrispinis</i> Browne, <i>Platypus</i>	1175
<i>pseudoterninatus</i> Schedl, <i>Platypus</i>	1173	<i>quadrispinosus</i> Schedl, <i>Diapus</i>	1091
<i>psilicnethurus</i> (Beeson), (<i>Crossotarsus</i>), <i>Car-</i> <i>chiopygus</i>	1210	<i>quaesitus</i> Schedl, <i>Platypus</i>	1175
<i>ptochoides</i> Schedl, <i>Platypus</i>	1173	<i>queenlandi</i> Schedl, <i>Platypus</i>	1175
<i>puer</i> (Schedl), (<i>Diapus</i>), <i>Genyocerus</i>	1095	<i>querceus</i> Wood, <i>Platypus</i>	1175
<i>puer fergussoni</i> Roberts, <i>Genyocerus</i> (= <i>puer</i>)	1095	<i>querci</i> Browne, <i>Platypus</i>	1175
<i>puer puer</i> (Schedl), (<i>Diapus</i>), <i>Genyocerus</i> (= <i>puer</i>)	1095	<i>quercicola</i> Schedl, <i>Platypus</i>	1175
<i>puerulus</i> (Schedl), (<i>Crossotarsus</i>), <i>Platypus</i>	1173	<i>quercinus</i> Schedl, <i>Platypus</i>	1175
<i>puerulus parvulus</i> Schedl, (<i>Crossotarsus</i>), <i>Platypus</i> (= <i>puerulus</i>)	1173	<i>quercivorus</i> Murayama, <i>Platypus</i>	1175
<i>pulchellus</i> (Chapuis), (<i>Platypus</i>), <i>Platyscapulus</i>	1215	<i>quinquecinctus</i> (Schedl), (<i>Doliopygus</i>), <i>Mesoplatypus</i>	1222
<i>pulchellus</i> Schedl, <i>Cenocephalus</i>	1109	<i>quinquecinctus cachani</i> Schedl, (<i>Doliopygus</i>), <i>Mesoplatypus</i> (= <i>quinquecinctus</i>)	1222
<i>pulchellus minor</i> Schedl, <i>Cenocephalus</i> (= <i>pulchellus</i>)	1109	<i>quinquecostatus</i> Chapuis, <i>Platypus</i>	1175
<i>pulcher</i> (Chapuis), (<i>Platypus</i>), <i>Platyscapulus</i>	1215	<i>quinquespinatus</i> Chapuis, <i>Diapus</i>	1091
<i>pulicaris</i> Chapuis, <i>Platypus</i>	1173	<i>quinquespinatus</i> Nunberg, <i>Periommatius</i>	1106
<i>pulcinatus</i> Roberts & Morimoto, <i>Platypus</i>	1173	<i>ramali</i> Schedl, <i>Platypus</i>	1176
<i>pumilio</i> (Schedl), (<i>Platyscapus</i>), <i>Cylindropalpus</i>	1219	<i>ramosissimus</i> Roberts & Morimoto, <i>Platypus</i>	1176
<i>pumilus</i> Browne, <i>Platypus</i>	1174	<i>ramulosus</i> Roberts & Morimoto, <i>Platypus</i>	1176
<i>punctatus</i> Strohmeyer, <i>Trachyostus</i> (= <i>nobilis</i>)	1212		
<i>punctiventris</i> Schedl, <i>Doliopygus</i>	1236		
<i>punctulatus</i> Chapuis, <i>Platypus</i> (= <i>parallelus</i>)	1167		

<i>rapax</i> (Sampson), <i>Doliopygus</i>	1236	<i>saltatorinus</i> (Schedl), (<i>Platypus</i>), <i>Crossotarsus</i>	1205
<i>rasilis</i> Roberts, <i>Crossotarsus</i>	1205	<i>salvini</i> Blandford, <i>Platypus</i>	1177
<i>rasilis</i> Schedl, <i>Platypus</i>	1176	<i>sampsoni</i> Browne, <i>Crossotarsus</i> (= <i>trachypennis</i>)	1205
<i>rastellus</i> Beeson, <i>Crossotarsus</i>	1205	<i>sampsoni</i> (Schedl), (<i>Stenoplatypus</i>), <i>Platypus</i>	1177
<i>ratzeburgi</i> Chapuis, <i>Platypus</i>	1176	<i>sandakanensis</i> Browne, <i>Platypus</i>	1175
<i>raucus</i> Schedl, <i>Platypus</i>	1176	<i>sandakanus</i> Beeson, (<i>Crossotarsus</i>), <i>Platypus</i> (= <i>subdepressus</i>)	1185
<i>rectangulatus</i> Sampson, <i>Platypus</i> (= <i>uncinatus</i>)	1191	<i>sautacruzensis</i> Mutchler, <i>Platypus</i>	1175
<i>refertus</i> Schedl, <i>Platypus</i> (= <i>orientalis</i>)	1162	<i>santiriae</i> Roberts, <i>Doliopygus</i>	1237
<i>refertus lomaensis</i> Roberts, <i>Platypus</i> (= <i>orientalis</i>)	1163	<i>santiriae</i> Roberts, <i>Platypus</i>	1175
<i>refertus montanus</i> Schedl, <i>Platypus</i> (= <i>orientalis</i>)	1163	<i>saravakensis</i> (Schedl), <i>Platypus</i>	1175
<i>refertus togelii</i> Roberts, <i>Platypus</i> (= <i>orientalis</i>)	1163	<i>saundersi</i> Chapuis, <i>Crossotarsus</i> (= <i>externedentatus</i>)	1199
<i>refractus</i> Roberts & Morimoto, <i>Platypus</i>	1176	<i>saundersi submontanus</i> Beeson, <i>Crossotarsus</i> (= <i>externedentatus</i>)	1199
<i>regularis</i> Chapuis, <i>Platypus</i> (= <i>parallelus</i>)	1166	<i>saundersi usambaricensis</i> Strohmeier, <i>Crossotarsus</i> (= <i>externedentatus</i>)	1199
<i>regularis</i> Schedl, <i>Doliopygus</i>	1237	<i>sauteri</i> (Strohmeier), (<i>Crossotarsus</i>), <i>Crossotarsinulus</i>	1210
<i>reichei</i> Chapuis, <i>Platypus</i>	1176	<i>scalaris</i> Schedl, <i>Platypus</i>	1175
<i>rengetensis</i> Niisima & Murayama, <i>Crossotarsus</i>	1205	<i>scalptor</i> Schedl, <i>Platypus</i>	1175
<i>reticulatus</i> Chapuis, <i>Platypus</i> (= <i>parallellus</i>)	1166	<i>schaufussi</i> (Strohmeier), (<i>Platypus</i>), <i>Trachyostus</i>	1212
<i>retusipennis</i> Schedl, <i>Platypus</i>	1176	<i>schaufussi major</i> Schedl, <i>Trachyostus</i> (= <i>schaufussi</i>)	1212
<i>retusulus</i> Schedl, <i>Platypus</i>	1176	<i>schaufussi medius</i> Schedl, <i>Trachyostus</i> (= <i>schaufussi</i>)	1212
<i>retusus</i> Guerin-Meneville, <i>Tesserocerus</i>	1100	<i>schaufussi minor</i> Schedl, <i>Trachyostus</i> (= <i>schaufussi</i>)	1212
<i>retusus</i> Schedl, <i>Doliopygus</i>	1237	<i>schaumi</i> Chapuis, <i>Platypus</i> (= <i>pulcaris</i>)	1173
<i>retusus</i> Strohmeier, <i>Platypus</i>	1176	Schedlarini Wood	1057
° <i>rhinoceroide</i> (Schawaller), (<i>Mitosoma</i>), <i>Cenocephalus</i>	1109	Schedlarius Wood	1057
<i>rhizophorae</i> Roberts, <i>Doliopygus</i> (= <i>dubius</i>)	1229	<i>schedli</i> Browne, <i>Crossotarsus</i>	1205
<i>rhodesianus</i> (Schedl), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1237	<i>schedli</i> Wood, <i>Platypus</i> (= <i>tiroisensis</i>)	1155
<i>rimulosus</i> Schedl, <i>Platypus</i>	1176	<i>schenklingi</i> (Strohmeier), (<i>Crossotarsus</i>), <i>Platypus</i>	1175
<i>roberti</i> Chapuis, <i>Platypus</i>	1176	<i>schmidt</i> Chapuis, <i>Platypus</i>	1175
<i>robertsi</i> Nunberg, <i>Periomnatus</i>	1106	<i>schmutzenhoferi</i> Schedl, <i>Tesserocerus</i>	1100
<i>robustum</i> Schedl, <i>Cenocephalus</i> (= <i>robustus</i>)	1109	<i>schoutedeni</i> (Sampson), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1237
<i>robustum</i> Schaufuss, <i>Mitosoma</i>	1111	<i>schoutedeni</i> (Schedl), (<i>Platypus</i>), <i>Trachyostus</i>	1212
<i>robustus</i> Browne, <i>Doliopygus</i>	1237	<i>schultzeanus</i> Schedl, <i>Platypus</i>	1175
<i>robustus</i> Chapuis, <i>Platypus</i>	1177	<i>schultzei</i> Schedl, (<i>Crossotarsus</i>), <i>Platypus</i> (= <i>schultzeanus</i>)	1175
<i>robustus</i> Schedl, <i>Cenocephalus</i>	1109	<i>schultzei</i> Strohmeier, <i>Platypus</i> (= <i>luniger</i>)	1156
<i>robustus</i> Schedl, <i>Diapus</i>	1092	Scolytotarsus Schedl	1055
<i>robustus</i> Schedl, (<i>Symmerus</i>), <i>Chaetastus</i> (= <i>tuberculatus</i>)	1105	<i>scorpius</i> (Schedl), (<i>Platypus</i>), <i>Crossotarsus</i>	1205
<i>roppai</i> Schedl, <i>Platypus</i>	1177	<i>scrobicularis</i> Roberts, <i>Platypus</i>	1175
<i>rostratus</i> Beeson, <i>Diapus</i> (= sp.?)	1055	<i>Scutopygus</i> Nunberg (= <i>Doliopygus</i>)	1223
<i>rotundatus</i> Chapuis, <i>Platypus</i> (= <i>parallelus</i>)	1166	<i>secretus</i> Sampson, <i>Platypus</i>	1175
<i>rotundicauda</i> Motschulsky, <i>Platypus</i>	1177	<i>secus</i> Wood, <i>Platypus</i>	1179
<i>rudifrons</i> Chapuis, <i>Platypus</i> (= <i>compositus</i>)	1127	<i>sedulus</i> Schedl, <i>Crossotarsus</i> (= <i>terminatus</i>)	1205
<i>rudis</i> Chapuis, <i>Platypus</i> (= <i>solidus</i>)	1154	<i>segnis</i> Chapuis, <i>Platypus</i>	1179
<i>rudis</i> Chapuis, <i>Tesserocerus</i>	1100	<i>scyllaeformis</i> Roberts & Morimoto, <i>Platypus</i>	1179
<i>rufescens</i> (Strohmeier), (<i>Crossotarsus</i>), <i>Platypus</i>	1177	<i>selysi</i> Chapuis, <i>Platypus</i>	1179
<i>rufescens parinariae</i> Schedl, <i>Platypus</i> (= <i>rufescens</i>)	1177	<i>semicarinatus</i> Schedl, <i>Platypus</i>	1179
<i>rufobrunneus</i> Schedl, <i>Platypus</i>	1177	<i>semicinctus</i> Schedl, <i>Crossotarsus</i>	1205
<i>rugicollis</i> Schedl, <i>Cenocephalus</i>	1109	<i>semiernis</i> Schedl, <i>Platypus</i>	1179
<i>rugosifrons</i> Schedl, <i>Platypus</i>	1177		
<i>rugosum</i> Schaufuss, <i>Mitosoma</i>	1111		
<i>rugosus</i> Chapuis, <i>Platypus</i> (= <i>compositus</i>)	1127		
<i>rugulosus</i> Chapuis, <i>Platypus</i> (= <i>parallellus</i>)	1166		
<i>runcinatus</i> Roberts, <i>Platypus</i>	1177		
<i>sabroni</i> Schedl, <i>Platypus</i> (= <i>pallidus</i>)	1164		
<i>sallei</i> Chapuis, <i>Platypus</i>	1177		
<i>saltator</i> Schedl, <i>Crossotarsus</i>	1205		

<i>semigranosus</i> (Sampson), (<i>Crossotarsus</i>), <i>Platypus</i>	1179	<i>sira</i> Beeson, <i>Crossotarsus</i>	1206
<i>seminitratu</i> s Nunberg, <i>Doliopygus</i> (= <i>aequalidentatus</i>)	1223	<i>sobrinus</i> Schedl, <i>Platypus</i>	1182
<i>seminitens</i> (Schedl), (<i>Platypus</i>), <i>Baiocis</i>	1217	<i>sobcitatulus</i> Schedl, <i>Platypus</i>	1182
<i>semipacus</i> Strohmeier, <i>Platypus</i>	1179	<i>solidulus</i> Browne, <i>Platypus</i>	1182
<i>semipilosus</i> (Schedl), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1237	<i>solidus</i> Schedl, <i>Doliopygus</i> (= <i>perbrevis</i>)	1235
<i>semisulcatus</i> Schedl, <i>Platypus</i>	1180	<i>solidus</i> Walker, <i>Platypus</i>	1182
<i>senexus</i> Wood, <i>Platypus</i>	1180	<i>solidus exilis</i> Chapuis, <i>Platypus</i> (= <i>solidus</i>)	1183
<i>seni</i> Beeson, <i>Platypus</i> (= <i>hybridus</i>)	1147	<i>solidus obtusus</i> Chapuis, <i>Platypus</i> (= <i>solidus</i>)	1183
<i>sepaloides</i> Roberts, <i>Platypus</i>	1180	<i>solidus rudis</i> Chapuis, <i>Platypus</i> (= <i>solidus</i>)	1184
<i>sequius</i> Schedl, <i>Platypus</i>	1180	<i>solomonicus</i> Browne, <i>Baiocis</i>	1217
<i>sericans</i> Schedl, <i>Platypus</i>	1180	<i>solomonicus</i> Browne, <i>Platypus</i>	1184
<i>serratulus</i> (Browne), (<i>Platypus</i>), <i>Crossotarsus</i>	1205	<i>solutus</i> Schedl, <i>Platypus</i>	1184
<i>serratulus</i> Schedl, <i>Doliopygus</i>	1238	<i>Spathicranuloides</i> Schedl	1210
<i>serratus</i> (Schedl), (<i>Diapus</i>), <i>Genyocerus</i>	1095	<i>Spathidicerus</i> Chapuis	1101
<i>serratus</i> (Strohmeier), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1238	<i>spathulifer</i> Beeson, <i>Diapus</i> (= <i>spatulifer</i>)	1092
<i>setaceus</i> Chapuis, <i>Platypus</i>	1180	<i>spatiosus</i> (Schedl), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1238
<i>Setantus</i> Nunberg, <i>Periommatu</i> s	1102	<i>spatulifer</i> Browne, <i>Diapus</i>	1092
<i>severini</i> Blandford, <i>Platypus</i>	1180	<i>spectabilis</i> Schedl, <i>Doliopygus</i>	1238
<i>severini</i> Strohmeier, <i>Periommatu</i> s	1106	<i>spectabilis</i> Schedl, <i>Platypus</i>	1184
<i>sexcostatus</i> Chapuis, <i>Platypus</i>	1180	<i>spectrum</i> Schedl, <i>Crossotarsus</i>	1206
<i>sexfenestratus</i> Beeson, (<i>Crossotarsus</i>), <i>Platypus</i> (= <i>quercivorus</i>)	1175	<i>spectus</i> Wood, <i>Platypus</i>	1184
<i>sexforaminatus</i> Beeson, <i>Platypus</i> (= <i>sexporus</i>)	1180	<i>spiculatus</i> Browne, <i>Platypus</i>	1184
<i>sexporus</i> (Schedl), (<i>Diacarus</i>), <i>Genyocerus</i>	1095	<i>spinatus</i> Browne, <i>Diapus</i>	1092
<i>sexporus</i> (Schedl), (<i>Crossotarsus</i>), <i>Platypus</i>	1180	<i>spinax</i> Blandford, <i>Tesserocerus</i>	1100
<i>sexspinosum</i> Schedl, <i>Mitosoma</i>	1111	<i>spinidens</i> (Strohmeier), (<i>Crossotarsus</i>), <i>Doliopygus</i>	1238
<i>sexualis</i> (Beeson), (<i>Crossotarsus</i>), <i>Platypus</i>	1180	<i>spinifer</i> (Sampson), (<i>Platypus</i>), <i>Crossotarsus</i>	1206
<i>seydeli</i> (Nunberg), (<i>Stenoplatypus</i>), <i>Platypus</i>	1181	<i>spinifer</i> Schedl, <i>Diapus</i>	1092
<i>shenefelti</i> (Nunberg), (<i>Crossotarsus</i>), <i>Platyscapulus</i>	1215	<i>spinipennis</i> Schedl, <i>Crossotarsus</i>	1206
<i>shillongensis</i> Beeson, <i>Platypus</i> (= <i>shillongensis</i> Schedl)	1181	<i>spiniventris</i> Schedl, <i>Platypus</i>	1184
<i>shillongensis</i> Schedl, <i>Platypus</i>	1181	<i>spinolae</i> Chapuis, <i>Tesserocerus</i>	1101
<i>shoreae</i> Browne, <i>Genyocerus</i>	1095	<i>spinosus</i> Browne, <i>Platypus</i>	1184
<i>shoreanus</i> (Beeson), (<i>Crossotarsus</i>), <i>Platypus</i>	1181	<i>spinulosus</i> (Strohmeier), (<i>Stenoplatypus</i>), <i>Platypus</i>	1184
<i>shoreanus tersus</i> Schedl, <i>Platypus</i> (= <i>shoreanus</i>)	1181	<i>spinulosus montivagus</i> Roberts, <i>Platypus</i> (= <i>spinulosus</i>)	1184
<i>sicarius</i> Wood, <i>Platypus</i>	1181	<i>spretus</i> Schedl, <i>Platypus</i> (= <i>rethi</i>)	1192
<i>signatus</i> Chapuis, <i>Platypus</i>	1181	<i>springi</i> (Chapuis), (<i>Platypus</i>), <i>Neotrachyostus</i>	1214
<i>signatus</i> Strohmeier, <i>Periommatu</i> s	1106	<i>squameus</i> Schedl, <i>Platypus</i>	1184
<i>similis</i> (Nunberg), (<i>Stenoplatypus</i>), <i>Platypus</i>	1181	<i>squamifer</i> Schedl, <i>Platypus</i>	1185
<i>similis</i> Nunberg, <i>Trachyostus</i>	1212	<i>squamulatus</i> Chapuis, <i>Crossotarsus</i>	1206
<i>similis</i> Strohmeier, <i>Periommatu</i> s	1106	<i>squamulatus squamuloides</i> Beeson, <i>Crossotarsus</i> (= <i>squamulatus</i>)	1207
<i>simillimus</i> Nunberg, <i>Periommatu</i> s (= <i>angustior</i>)	1102	<i>squamulatus sundri</i> Beeson, <i>Crossotarsus</i> (= <i>squamulatus</i>)	1207
<i>simplex</i> Murayama, <i>Crossotarsus</i>	1205	<i>squamuloides</i> Beeson, <i>Crossotarsus</i> (= <i>squamulatus</i>)	1207
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Family Scolytidae Index

This index includes all Latin names used in this catalog for Scolytidae. Family-group names (family, subfamily, tribe) and names applied below the rank of subspecies (including aberrations, variations, nomen nudums) are given in regular type. Valid names of genera and species are in bold type. The names of synonyms of genera and species, subgeneric names, and subspecific names are given in italics. The names are listed in alphabetical order by the computer; however, the user must realize that the computer reads parentheses () as a letter of the alphabet preceding the letter "a." The names of fossil species are preceded by an asterisk (*). Fossil species are given at the beginning of the index and are also listed alphabetically with other names.

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<i>amitinus</i> (Eichhoff), (<i>Tomiscus</i>), <i>Ips</i>	459	<i>andersoni</i> Wood, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>seriatus</i>)	943
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<i>amoenus</i> Schedl, <i>Xyleborus</i> (= <i>asper</i>)	713	<i>andriani</i> (Schedl), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	698
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<i>amphicranoides parvior</i> Browne, <i>Xyleborus</i> (= <i>amphicranoides</i>)	711	<i>angulatus</i> (Eichhoff), (<i>Tomiscus</i>), <i>Orthotomicus</i>	467
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<i>Amphicranus</i> Erichson	1045	<i>angulatus</i> Schedl, (<i>Xyleboricus</i>), <i>Arixyleborus</i> (= <i>mediosectus</i>)	668
<i>amplexicauda</i> Hagedorn, <i>Xyleborus</i>	711	<i>angustatus</i> Schedl, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>perminutissimus</i>)	809
<i>ampliatus</i> Eggers, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>birmanus</i>)	910	<i>angustatus</i> (Herbst), (<i>Bostrichus</i>), <i>Hylastes</i>	44
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<i>amplinis</i> Wood, <i>Micrasis</i>	431	<i>angusticollis</i> Eggers, <i>Hylastes</i>	45
<i>amplipennis</i> Hopkins, <i>Hypothenemus</i> (= <i>columbi</i>)	913	<i>angusticollis</i> Schedl, <i>Polygraphus</i>	285
<i>amplipennis</i> Schedl, <i>Cuesinus</i>	205	<i>angustior</i> (Eggers), (<i>Cryphalus</i>), <i>Hypocryphalus</i>	868
<i>amplus</i> (Blackman), (<i>Xyleborus</i>), <i>Pityophthorus</i>	980	<i>angustior</i> Eggers, <i>Camptocerus</i>	318
<i>amplus</i> Wood, <i>Phloeotribus</i>	218	<i>angustior</i> Eggers, <i>Xyleborus</i>	711
<i>amplus</i> Wood, <i>Tricolus</i>	1042	<i>angustus</i> Blackman, <i>Pityophthorus</i>	980
<i>amputatus</i> (Blandford), (<i>Xyleborus</i>), <i>Anasa</i>	682	<i>angustus</i> Tsai & Yin, <i>Polygraphus</i>	285
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<i>analogus</i> LeConte, (<i>Hylurgus</i>), <i>Tomiscus</i> (= <i>piniperda</i>)	136	<i>anneetens</i> (Wood), (<i>Prochramesus</i>), <i>Chramesus</i>	263
<i>analogus</i> Schedl, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>intersectosus</i>)	808	<i>anneetens</i> LeConte, <i>Pityophthorus</i>	980
<i>anatolicus</i> Eggers, (<i>Eccoptogaster</i>), <i>Scolytus</i> (= <i>amygdali</i>)	323	<i>anneetens</i> LeConte, <i>Sciurus</i>	29
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<i>Anaxyleborus</i> Wood (= <i>Anasa</i>)	681	<i>anneetens</i> Wood, <i>Cuesinus</i>	205
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<i>argentinensis</i> Schedl, <i>Chramesus</i>	263	<i>artelongus</i> Schedl, (<i>Xyleborus</i>), <i>Premmobius</i> (= <i>longus</i>)	653
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<i>aries</i> Schedl, <i>Xyleborus</i>	713	<i>artocarpi</i> (Browne), (<i>Ips</i>), <i>Acanthotomicus</i>	475
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<i>arisamus</i> Nüsima, <i>Phlocosinus</i>	240	<i>artocarpus</i> (Schedl), (<i>Ericryphalus</i>), <i>Cryphalus</i>	573
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<i>armatus</i> Reitter, <i>Phlocosinus</i>	240	<i>asper</i> (Broun), (<i>Tomiscus</i>), <i>Hypocryphalus</i>	565
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<i>armatus</i> Schedl, <i>Amphicranus</i> (= <i>propugnatus</i>)	1045	<i>asper</i> Eggers, <i>Xyleborus</i>	713
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<i>artegranulatus</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	671		
<i>artegrapha</i> (Schedl), (<i>Xyleborus</i>), <i>Coptodryas</i>	523		
<i>artehybridus</i> Schedl, (<i>Xyleborus</i>), <i>Eucallalcea</i> (= <i>xanthopus</i>)	697		

- aspericollis* (Beeson), (*Thamnurgides*),
Coccotrypes 593
- aspericollis* (Eichhoff), (*Lepicerus*), *Scolytogenes* 859
- aspericollis* (LeConte), (*Hylesinus*), *Alniphagus* 73
- aspericollis* Eggers, *Pseudodiamerus* 194
- aspericollis* Schedl, *Chramesus* 263
- aspericollis* Strohmeier, *Phlocoborus* 98
- aspericollis* Wollaston, (*Cryphalus*), *Hypothenemus*
 (= *eruditus*) 920
- asperipennis* Eggers, (*Xyleborus*), *Eucallacea*
 (= *velatus*) 695
- asperipunctatus* Eggers, *Xyleborus* 713
- asperrimus* Schedl, *Xyleborus* 713
- aspersus* (Sampson), (*Xyleborus*), *Amasa* 682
- asperulus* (Eggers), (*Xyleborus*), *Dryococtoides* 656
- asperulus* (LeConte), (*Cryphalus*),
Pseudopityophthorus 972
- asperulus* Eggers, *Phloeotribus* 219
- asperulus* Eichhoff, (*Stephanoderes*), *Hypothenemus*
 (= *obscurus*) 937
- asperulus* LeConte, (*Micracis*), *Micracisella*
 (= *opacicollis*) 431
- asperulus* Schedl, *Chramesus* 263
- asperulus* Schedl, *Cryphalus* 876
- assamensis* Eggers, (*Xyleborus*), *Eucallacea*
 (= *velatus*) 695
- assamensis* Schedl, *Scolytominus* 839
- assamensis* Stebbing, (*Tomius*), *Xyleborus*
 (= *shoreae*) 772
- assamensis* Stebbing, *Sphaerotrypes*
 (= *siualikensis*) 201
- assequens* Schedl, (*Pterocyclon*), *Monarthrum*
 (= *ingens*) 1057
- assequens* Schedl, *Xylosandrus* 787
- assiduus* (Schedl), (*Xyleborus*), *Coptoborus* 662
- ° *assimilis* (Schedl), (*Phlocosinites*), *Phlocosinus* 241
- assimilis* Boheman, *Scolytus* (= *rugulosus*) 369
- assimilis* Eggers, *Xyleborus* 713
- assimilis* Schedl, *Glostatus* 835
- assitus* Wood, *Pityophthorus* 982
- associatus* Schedl, *Xyleborus* 713
- astutus* Schedl, *Xyleborus* 713
- atakorae* (Schedl), (*Rhopalopselion*), *Hylesinopsis* 93
- atava* (Schedl), (*Xyleborus*), *Coptodryas* 823
- atavus* Wood, *Cnesinus* 205
- atavus* Wood, *Phloeotribus* 219
- ater* (Eggers), (*Negrilus*), *Scolytogenes* 859
- ater* (Eggers), (*Prionosceles*), *Scolytodes* 388
- ater* (Eggers), (*Stephanoderes*), *Hypothenemus* 908
- ater* (Eggers), (*Xyleborus*), *Xylosandrus* 787
- ater* (Nunberg), (*Trypographus*), *Hylesinopsis* 93
- ater* (Paykull), (*Bostrichus*), *Hylastes* 45
- ater* Browne, *Cryphalus* 876
- ater* Eggers, (*Hylucrosoma*), *Scolytodes*
 (= *aterrimus*) 388
- ater* Eggers, (*Thamnurgides*), *Coccotrypes*
 (= *barbatus*) 593
- ater* Eggers, *Carphoborus* (= *minimus*) 306
- ater* Eggers, *Dendrosinus* 236
- ater* Eggers, *Dryocoetes* 572
- ater* Eggers, *Eupagiocerus* 214
- ater* Eggers, *Ozopemon* 589
- ater* Fabricius, (*Bostrichus*), *Pityogenes*
 (= *bidentatus*) 441
- ater* Hagedorn, *Diamerus* 194
- ater* Nobuchi, *Eruoporicus* 849
- ater* Nunberg, *Cryphalominus* 835
- ater* Schedl, (*Cryphalophilus*), *Scolytogenes*
 (= *uncatus*) 866
- ater* Schedl, *Cnesinus* 205
- ater* Schedl, *Corthylus* (= *letzneri*) 1074
- ater* Schedl, *Xyloleptes* 547
- ° *aterites* Schedl, *Hylastes* 49
- aterrimus* Wood, *Hypothenemus* 908
- aterrimus* (Eggers), (*Xyleborus*), *Cnestus* 801
- aterrimus* (Schedl), (*Stephanoderes*),
Hypothenemus 908
- aterrimus* Eggers, *Camptocerus* 318
- aterrimus* Eggers, *Hylastes* (= *brunneus*) 51
- aterrimus* Eggers, *Pityophthorus* 982
- aterrimus* Schedl, (*Lepiceroidea*), *Hypothenemus*
 (= *aterrimus*) 908
- aterrimus* Schedl, (*Pocillips*), *Coccotrypes*
 (= *nitidus*) 607
- aterrimus* Strohmeier, *Polygraphus* 285
- aterrimus* Wood, *Scolytodes* 388
- atkinsoni* Bright, *Pityophthorus* 982
- atkinsoni* Wood, *Cactopinus* 435
- atkinsoni* Wood, *Chramesus* 264
- atkinsoni* Wood, *Hylucurus* 422
- atkinsoni* Wood, *Phloeocleptus* 421
- atlanticus* Bright, *Chaetophloeus* 271
- atlanticus* Schedl, *Phloeotribus* (= *setulosus*) 233
- atoma* (Hopkins), (*Hypothenemus*), *Trischidias* 947
- atomarius* Chapuis, *Hylesinus* 75
- atomus* (Wood), (*Eidophelus*), *Hemicryphalus* 867
- atomus* LeConte, *Crypturgus* (= *pusillus*) 628
- atomus* Wood, *Pityophthorus* 982
- atomus* Wood, *Pseudothysanoes* 412
- atratus* LeConte, *Pityophthorus* (= *nitidulus*) 1015
- atratus* (Blandford), (*Loganius*), *Cnemomyx* 313
- atratus* (Blandford), (*Prionosceles*), *Scolytodes* 388
- atratus* (Schedl), (*Stephanoderes*), *Hypothenemus* 909
- atratus* Browne, (*Mimips*), *Acanthotomicus*
 (= *euphorbiae*) 480
- atratus* Chapuis, *Scolytus* 324
- atratus* Eichhoff, *Xyleborus* 713
- atratus atratus* (Blandford), (*Prionosceles*),
Scolytodes (= *atratus*) 388
- atratus panamensis* (Wood), (*Prionosceles*),
Scolytodes (= *atratus*) 389
- atrocis* Wood, *Cladotomus* 238
- atrocis* Wood, *Cnesinus* 205
- atrocis* Wood, *Phelloterus* 971
- atrodetrivis* Wood, *Cnesinus* (= *adustus*) 205

<i>atrotibialis</i> (Eggers), (<i>Prionosecles</i>), <i>Scolytodes</i>	359	<i>babai</i> Murayama, <i>Cryphalus</i>	876
<i>atrum</i> Browne, <i>Ctonoxylon</i>	836	<i>baculum</i> Beeson, <i>Xyleborus</i>	714
<i>atrum</i> Eggers, <i>Rhopalopselion</i>	96	<i>badius</i> (Nobuchi), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	859
<i>attenuatus</i> (Blandford), (<i>Xyleborus</i>), <i>Xyleborinus</i>	805	<i>badius</i> Eichhoff, <i>Xyleborus</i> (= <i>volvulus</i>)	782
<i>attenuatus</i> (Eggers), (<i>Stephanoderes</i>), <i>Miocryphalus</i>	410	<i>badius</i> Schedl, <i>Chramesus</i>	264
<i>attenuatus</i> Blackman, <i>Pityophthorus</i>	982	<i>badius</i> Wood, <i>Tricolus</i>	1043
<i>attenuatus</i> Erichson, <i>Hylastes</i>	49	<i>baguenai</i> (Schedl), (<i>Afrochramesus</i>), <i>Chortastus</i>	311
<i>attenuatus</i> Motschulsky, (<i>Phloeotrogus</i>), <i>Leptoxyleborus</i> (= <i>sordicauda</i>)	660	<i>baicalicus</i> Eggers, <i>Pityogenes</i> (= <i>conjunctus</i>)	451
<i>attenuatus</i> Nobuchi, (<i>Pseudocosmoderes</i>), <i>Cosmoderes</i> (= <i>monilicollis</i>)	901	<i>baikalicus</i> Reitter, <i>Dryocoetes</i>	579
<i>attenuatus</i> Wood, <i>Araptus</i>	953	<i>baikiae</i> Schedl, <i>Xylocleptes</i>	547
<i>atticus</i> Eggers, <i>Crypturgus</i> (= <i>cinereus</i>)	623	<i>bakeri</i> (Eggers), (<i>Stephanoderes</i>), <i>Hypocryphalus</i>	868
<i>attritus</i> Peyerimhoff, <i>Carphoborus</i> (= <i>pinii</i>)	308	<i>bakeri</i> (Sampson), (<i>Hylesinus</i>), <i>Ficicis</i>	90
<i>aubei</i> Perris, (<i>Hylesinus</i>), <i>Phloeosinus</i> (= <i>bicolor</i>)	242	<i>bakeri</i> Hopkins, <i>Coccotrypes</i> (= <i>carpophagus</i>)	596
<i>auctor</i> Blackman, <i>Pityophthorus</i> (= <i>leiophyllae</i>)	1007	<i>bakoensis</i> Browne, <i>Webbia</i>	829
<i>augustae</i> Eggers, <i>Ozopemon</i>	589	<i>balachowskyi</i> Menier, <i>Hypothenemus</i>	909
<i>aulmanni</i> Hagedorn, (<i>Cryphalus</i>), <i>Hypothenemus</i> (= <i>seriatus</i>)	941	<i>balanocarpi</i> Nunberg, <i>Xyleborus</i> (= <i>persinilis</i>)	762
<i>auratum</i> Hagedorn, <i>Ctonoxylon</i>	837	<i>balanopselaphus</i> Eggers, <i>Cryphalus</i>	576
<i>auratus</i> Eggers, <i>Eccoapterus</i> (= <i>limbus</i>)	820	<i>balbalanus</i> Eggers, <i>Xyleborus</i>	714
<i>auratus</i> Eggers, <i>Xyleborus</i> (= <i>squamulosus</i>)	821	<i>balcanicus</i> Eggers, <i>Scolytus</i> (= <i>carpini</i>)	327
<i>auricomus</i> Blandford, <i>Camptocerus</i>	319	<i>balcanicus</i> Pfeffer, <i>Pityophthorus</i>	982
<i>aurilegulus</i> Schaufuss, <i>Xyleborus</i>	714	<i>balgensis</i> Murayama, <i>Carphoborus</i> (= <i>minimus</i>)	307
<i>aurilentus</i> Bright, <i>Pityophthorus</i> (= <i>murrayanae</i>)	1014	<i>baloghi</i> (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	909
<i>australis</i> (Schedl), (<i>Dryocoetes</i>), <i>Dryocoetiops</i>	587	<i>baloghi</i> Schedl, <i>Scolytomimus</i>	839
<i>australis</i> (Schedl), (<i>Ips</i>), <i>Acanthotomicus</i>	479	<i>balsameus</i> Blackman, <i>Pityophthorus</i>	982
<i>australis</i> (Schedl), (<i>Lepicerinus</i>), <i>Scolytogenes</i>	859	<i>balsameus</i> Hopkins, <i>Cryphalus</i> (= <i>ruficollis</i>)	891
<i>australis</i> Blackman, <i>Pityophthorus</i> (= <i>tuberculatus</i>)	1032	<i>balsameus</i> LeConte, (<i>Tomicus</i>), <i>Pityokteines</i> (= <i>sparsus</i>)	464
<i>australis</i> Schedl, <i>Liparthrum</i>	275	<i>balteatus</i> Blandford, <i>Amphieramus</i>	1046
<i>australis</i> Schedl, <i>Pachycotes</i>	187	<i>baluchistani</i> Schedl, <i>Scolytus</i> (= <i>rugulosus</i>)	370
<i>australis</i> Schedl, <i>Phloeosinus</i>	241	<i>bambesanus</i> Eggers, (<i>Pocilips</i>), <i>Coccotrypes</i> (= <i>sannio</i>)	612
<i>australis</i> Schedl, <i>Phloeotribus</i> (= <i>pilula</i>)	227	<i>bambesanus</i> Eggers, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>arecae</i>)	908
<i>australis</i> Schedl, <i>Xyleborus</i>	714	<i>bambesanus</i> Eggers, <i>Xyleborus</i>	714
<i>australis</i> Schedl, <i>Xylechinus</i>	115	<i>bambusae</i> Beeson, (<i>Thammurgides</i>), <i>Coccotrypes</i> (= <i>barbatus</i>)	593
<i>australis</i> Schedl, <i>Zygophloeus</i>	271	<i>bambusae</i> Browne, <i>Hypothenemus</i>	909
<i>austriacus</i> (Guillebeau), (<i>Phloeophthorus</i>), <i>Phloeotribus</i> (= <i>rhododactylus</i>)	230	<i>bambusae</i> Browne, <i>Ptilopodius</i>	899
<i>austriacus</i> Wachtl, (<i>Tomicus</i>), <i>Pityogenes</i> (= <i>trepanatus</i>)	459	<i>bananensis</i> Eggers, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>javanus</i>)	932
<i>autographus</i> (Ratzeburg), (<i>Bostrichus</i>), <i>Dryocoetes</i>	572	<i>bangensis</i> (Eggers), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	859
<i>autographus sachalinensis</i> Sokanovskii, <i>Dryocoetes</i> (= <i>autographus</i>)	578	<i>bangensis</i> Eggers, <i>Sphaerotrypes</i>	198
<i>avarus</i> Wood, <i>Xylechinus</i>	115	<i>banjocwangi</i> Schedl, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>mutilatus</i>)	799
<i>avulsus</i> (Eichhoff), (<i>Tomicus</i>), <i>Ips</i>	491	<i>banksiae</i> (Schedl), (<i>Xyleborus</i>), <i>Amasa</i>	682
<i>azerbaidzhanicus</i> Michalski, <i>Scolytus</i>	324	<i>banksianae</i> McPherson, <i>Conophthorus</i> (= <i>resinosae</i>)	967
<i>aztecum</i> (Bright), (<i>Corthylus</i>), <i>Corthycyclon</i>	1067	<i>banosus</i> (Eggers), (<i>Hoplites</i>), <i>Cladoctonus</i>	238
<i>aztecus</i> (Wood), (<i>Sphenoceros</i>), <i>Araptus</i>	953	<i>banosus</i> (Hagedorn), (<i>Hexacolus</i>), <i>Scolytodes</i>	389
<i>aztecus</i> Bright, <i>Pityophthorus</i>	982	<i>baphiae</i> (Schedl), (<i>Glochicopterus</i>), <i>Hylesinopsis</i>	93
<i>aztecus</i> Wood, <i>Dendroctonus</i> (= <i>parallelocollis</i>)	159	<i>barbatogramosus</i> Schedl, <i>Xyleborus</i> (= <i>setulosus</i>)	771
<i>aztecus</i> Wood, <i>Hylesinus</i>	75	<i>barbatoides</i> Schedl, <i>Xyleborus</i>	714
<i>aztecus</i> Wood, <i>Scolytus</i>	324	<i>barbatomorphus</i> (Schedl), (<i>Xyleborus</i>), <i>Euwallacca</i>	686
<i>abadjanidis</i> Eggers, <i>Liparthrum</i> (= <i>arnoldi</i>)	275	<i>barbatulus</i> (Schedl), (<i>Xyleborus</i>), <i>Euwallacca</i>	686
<i>babai</i> (Murayama), (<i>Thammurgus</i>), <i>Coccotrypes</i>	593	<i>barbatus</i> (Blackman), (<i>Pityophilus</i>), <i>Pityotrichus</i>	970

- barbatus* (Blandford), (*Brachyspartus*),
Corthylocurus 1065
- barbatus* (Eggers), (*Mimulus*), *Cnemomyx* 314
- barbatus* (Hagedorn), (*Xyleborus*), *Euwallacea* 686
- barbatus* (Schedl), (*Thammurgides*), *Coccotrypes* 593
- barbatus* Eggers, *Chramesus* (= *dentatus*) 265
- barbatus* Eggers, *Lamurgus* 408
- barbatus* Hagedorn, *Sphaerotrypes* 198
- barbatus* Schedl, (*Ceratolepis*), *Cnemomyx*
 (= *errans*) 314
- barbatus* Schedl, *Dendrocranulus* 550
- barbatus* Schedl, *Scolytus* 325
- barberi* Blackman, *Pityophthorus* 983
- barberi* Blackman, *Pseudothysanoes* (= *sedulus*) 417
- barberi* Hopkins, *Dendroctonus* (= *brevicornis*) 143
- barbeyi* Strohmeier, *Crypturgus* (= *numidicus*) 625
- barbieri* Schedl, *Cryptoxyleborus* 828
- barbifer* (Schedl), (*Gnathotrichus*),
Gnathotrupes 1039
- barbifer* Schedl, *Pityophthorus* 983
- barinensis* Wood, *Scolytus* 325
- bartoni* Bruck, *Pseudothysanoes* 412
- bartschti* Muhl, *Liparthrum* 275
- barumbuensis* Eggers, *Xyleborus* 714
- barumbucensis mendosus* Schedl, *Xyleborus*
 (= *barumbuensis*) 714
- basalis* Schedl, *Xyleborus* 714
- basihirtus* (Beeson), (*Cryphalus*), *Hypocryphalus* 868
- basilaris* (Wood), (*Cryphalomorphus*),
Scolytogenes 859
- basjoo* Niisima, (*Cryphalus*), *Hypothenemus*
 (= *eruditus*) 921
- bassetti* Blackman, *Pityophthorus* 983
- bassiae* Beeson, *Polygraphus* (= *anogeissi*) 285
- bassiae* Schedl, *Scolytominus* (= *assamensis*) 839
- bassiavorus* Hopkins, *Coccotrypes* (= *dactyliperda*) 601
- basutoae* Schedl, *Polygraphus* 285
- batnensis* (Brisout), (*Hylastes*), *Hylurgops* 30
- batoensis* Eggers, *Diamerus* 195
- batoensis* Eggers, *Xyleborus* 714
- batoerradensis* (Schedl), (*Pseudoxyleborus*),
Amasa 682
- bauhaniae* Schedl, *Hypothenemus* (= *areccae*) 908
- bauhaniae* (Schedl), (*Stylotentus*), *Hypothenemus* 909
- baumanni* Hopkins, *Phloeosinus* 241
- beameri* Wood, *Hypothenemus* (= *gossypii*) 926
- beaveri* (Browne), (*Xyleborus*), *Xyleborinus* 805
- beaveri* Wood, *Cnesinus* 206
- beckeri* Bright, *Xyleborus* 714
- beckeri* Heqvist, *Hyllocurus* 422
- beckeri* Thatcher, *Dendroctonus* (= *valens*) 186
- beesoni* (Eggers), (*Pseudoxyleborus*), *Amasa* 682
- beesoni* Eggers, *Crypturgus* 620
- beesoni* Wood, *Mimicurus* 949
- bella* (Sampson), (*Xyleborus*), *Coptodryas* 823
- bellus* (Schedl), (*Cryptocleptes*), *Pseudothysanoes* 412
- bellus* Blackman, *Pityophthorus* (= *confusus*) 990
- bellus* Schedl, *Cryphalus* 876
- belokanicus* Stark, *Scolytus* 325
- belti* Blandford, *Amphicranus* 1046
- belti* Blandford, *Phlocoborus* 98
- bengalensis* Stebbing, (*Dryocoetes*), *Xylosandrus*
 (= *crassiusculus*) 792
- bengalensis* Wood, *Sphaerotrypes* 198
- benguetensis* (Schedl), (*Xyleborus*), *Euwallacea* 687
- benguetus* Blackman, *Scolytoplatypus*
 (= *papuanaus*) 405
- berbericolens* Wood, *Thysanoes* 419
- berchemiae* Blackman, *Thysanoes* 419
- bereszinae* Stark, *Trypophloeus* (= *binodulus*) 844
- bergeri* Spessivtsev, *Xylechinus* 115
- berchemiae* Blackman, *Thysanoes* (= *berchemiae*) 419
- betsileo* Schedl, *Xyleborus* 714
- betulae* Hopkins, *Dryocoetes* 579
- betulae* Niisima, *Scolytus* 325
- betulae* Schedl, *Taphrorychus* 557
- betulae* Swaine, *Trypodendron* 632
- bezanozao* Schedl, *Xyleborus* 714
- bezaziani* Peyerimhoff, *Hypothenemus* 909
- bialowiczensis* Karpinski, *Pityogenes* (= *irkutensis*) 453
- bibractensis* Balachowsky, *Pityophthorus*
 (= *pityographus*) 1021
- bicallosum* (Schedl), (*Pterocyclon*), *Monarthrum* 1051
- bicallosus* Eggers, *Scolytus* (= *mali*) 344
- bicariniatus* (Nobuchi), (*Taenioglyptes*),
Cryphalus 876
- bicaudatum* Wollaston, *Liparthrum* 276
- bicaudatus* (Blandford), (*Bothrostermus*),
Sternobothrus 216
- bicaudatus* (Eggers), (*Ips*), *Acanthotomicus* 479
- bicavum* Wood, *Monarthrum* 1051
- bicinctulus* Schedl, *Xyleborus* (= *biconicus*) 715
- bicinctum* (Schedl), (*Xyleborus*), *Cyclorhipidion* 698
- bicinctum* Wollaston, *Aphanarthrum* 616
- bicinctum obsitum* Wollaston, *Aphanarthrum*
 (= *bicinctum*) 617
- bicinctum vestitum* Wollaston, *Aphanarthrum*
 (= *bicinctum*) 617
- bicinctus* Schedl, *Bothinodroctonus* 310
- bicinctus* Schedl, *Cnesinus* 206
- bicinctus* Schedl, *Hypothenemus* 909
- bicinctus* Schedl, *Scolytus* 325
- bicinctus* Schedl, *Xyleborus* (= *biconicus*) 715
- bicolor* (Blandford), (*Xyleborus*), *Euwallacea* 687
- bicolor* (Browne), (*Cryphalomorphus*),
Cryphalus 876
- bicolor* (Browne), (*Streptocranus*), *Coptoborus* 662
- bicolor* (Brulle), (*Hylesinus*), *Phloeosinus* 241
- bicolor* (Eggers), (*Hexacolus*), *Scolytodes* 389
- bicolor* (Eggers), (*Lepersinus*), *Hylesinus* 76
- bicolor* (Ferrari), (*Corthylus*), *Monarthrum* 1051
- bicolor* (Herbst), (*Bostrichus*), *Taphrorychus* 557
- bicolor* Dejean, (*Bostrichus*), *Pityogenes*
 (= *chalcographus*) 446

<i>bicolor</i> Eggers, (<i>Problechilus</i>), <i>Gymnochilus</i> (= <i>reitteri</i>)	357	<i>bidentatus</i> (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	479
<i>bicolor</i> Eggers, <i>Cnesinus</i>	206	<i>bidentatus</i> Browne, <i>Hypocryphalus</i>	865
<i>bicolor</i> Eggers, <i>Cortylus</i> (= <i>emarginatus</i>)	1073	<i>bidentatus</i> Schedl, <i>Hylocurus</i>	423
<i>bicolor</i> Eggers, <i>Hypothenemus</i> (= <i>eruditus</i>)	923	<i>bidentatus</i> <i>carniolica</i> Fuchs, <i>Pityogenes</i> (= <i>bidentatus</i>)	442
<i>bicolor</i> Eggers, <i>Microborus</i>	353	<i>bidentis</i> Wood, <i>Acanthotomicus</i>	479
<i>bicolor</i> Eggers, <i>Microcorthylus</i>	1065	<i>bifidus</i> Bright, <i>Monarthrum</i> (= <i>querneum</i>)	1062
<i>bicolor</i> Eggers, <i>Polygraphus</i>	285	<i>bifidus</i> Schedl, <i>Tricolus</i>	1043
<i>bicolor</i> Eggers, <i>Scolytodes</i> (= <i>eggersi</i>)	391	<i>biformis</i> Browne, <i>Webbia</i>	830
<i>bicolor</i> Eggers, <i>Scolytus</i>	325	<i>bifoveatum</i> Wood, <i>Monarthrum</i>	1051
<i>bicolor</i> Eggers, <i>Sphaerotrypes</i>	198	<i>bifureus</i> Eichhoff, <i>Carphoborus</i>	302
<i>bicolor</i> Philippi, <i>Hylesinus</i>	76	<i>bifureus</i> Schedl, <i>Cortylus</i>	1070
<i>bicolor</i> Sampson, <i>Coccotrypes</i>	593	<i>biguttatus</i> Blandford, <i>Phloeotribus</i>	219
<i>bicolor</i> Schedl, <i>Dryocoetius</i>	557	<i>bimaculatus</i> (Eggers), (<i>Hapalogenius</i>), <i>Rhopalopselion</i>	96
<i>bicolor</i> Schedl, <i>Hypothenemus</i> (= <i>eruditus</i>)	924	<i>bimaculatus</i> (Eggers), (<i>Xyleborus</i>), <i>Cnestus</i>	802
<i>bicolor</i> Schedl, <i>Lanurgus</i>	405	<i>bimaculatus</i> (Schedl), (<i>Lepersinus</i>), <i>Chaetoptelius</i>	103
<i>bicolor</i> Sokanovskii, <i>Polygraphus</i> (= <i>poligraphus</i>)	295	<i>bimarginatus</i> Eggers, <i>Xyloctonus</i>	840
<i>bicolor</i> Strohmeier, <i>Cyrtogenius</i>	563	<i>binodatus</i> Wood, <i>Hylocurus</i>	423
<i>bicolor</i> Wollaston, <i>Aphanarthrum</i>	617	<i>binodosus</i> Nunberg, <i>Premnobius</i> (= <i>corthyloides</i>)	653
<i>bicolor</i> Wood, <i>Chramesus</i>	264	<i>binodulus</i> (Ratzburg), (<i>Bostrichus</i>), <i>Trypophlocus</i>	843
<i>bicolor</i> Wood, <i>Monarthrum</i> (= <i>bicoloratum</i>)	1051	<i>binodus</i> Reitter, <i>Kissophagus</i> (= <i>nozaki</i>)	69
<i>bicolor</i> Wood, <i>Scolytominus</i>	839	<i>binodus</i> Wood, <i>Scolytus</i>	325
<i>bicolor</i> Wood, <i>Tricolus</i>	1042	<i>binotatus</i> Schedl, <i>Polygraphus</i>	285
<i>bicolor</i> <i>siculus</i> Eggers, <i>Taphrorychus</i> (= <i>bicolor</i>)	557	<i>biographus</i> LeConte, <i>Xyleborus</i> (= <i>celsus</i>)	718
<i>bicolor</i> <i>unimodus</i> Beeson, (<i>Xyleborus</i>), <i>Eucwallacea</i> (= <i>bicolor</i>)	687	<i>biorbis</i> Blackman, (<i>Micracis</i>), <i>Hylocurus</i> (= <i>rudis</i>)	427
<i>bicoloratum</i> Wood, <i>Monarthrum</i>	1051	<i>biovalis</i> Blackman, <i>Pityophthorus</i>	983
<i>biconcarus</i> Blackman, <i>Hylocurus</i>	423	<i>bipunctatus</i> Eichhoff, <i>Amphicranus</i>	1046
<i>biconicus</i> (Schedl), (<i>Myeloborus</i>), <i>Acanthotomicus</i>	479	<i>birmanus</i> (Eggers), (<i>Phloeosinus</i>), <i>Hyledius</i>	259
<i>biconicus</i> Eggers, <i>Xyleborus</i>	714	<i>birmanus</i> (Eichhoff), (<i>Triarcomerus</i>), <i>Hypothenemus</i>	909
<i>bicornatulus</i> (Wood), (<i>Xyleborus</i>), <i>Xyleborinus</i>	806	<i>birmanus</i> Eggers, (<i>Cryphalus</i>), <i>Coriacephilus</i> (= <i>coriaceus</i>)	854
<i>bicornioides</i> (Schedl), (<i>Xyleborus</i>), <i>Cnestus</i>	802	<i>birmanus</i> Eggers, <i>Coccotrypes</i>	593
<i>bicornis</i> (Eggers), (<i>Xyleborus</i>), <i>Cnestus</i>	802	<i>birmanus</i> Eggers, <i>Hyorrhynchus</i>	191
<i>bicornis</i> (Schedl), (<i>Xyleborus</i>), <i>Webbia</i>	830	<i>birmanus</i> Eggers, <i>Xyleborus</i>	716
<i>bicornis</i> Browne, (<i>Hyloperus</i>), <i>Cryptocurus</i> (= <i>spinipennis</i>)	72	<i>birosimensis</i> (Murayama), (<i>Ernocryphalus</i>), <i>Cryphalus</i>	877
<i>bicornis</i> Wood, <i>Acacacis</i>	193	<i>biseriatus</i> (Eggers), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	910
<i>bicornis</i> Wood, <i>Carphoborus</i>	302	<i>biseriatus</i> Browne, <i>Dactylipalpus</i>	101
<i>bicornis</i> (Blackman), (<i>Micracis</i>), <i>Hylocurus</i>	423	<i>biseriatus</i> Eggers, <i>Chortastus</i> (= <i>minimus</i>)	311
<i>bicornis</i> Wood, <i>Cnesinus</i>	206	<i>biseriatus</i> Eggers, <i>Cortylus</i> (= <i>luridus</i>)	1074
<i>bicornutus</i> (Wood), (<i>Xyleborus</i>), <i>Taurodemus</i>	785	<i>biseriatus</i> Schedl, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>curtulus</i>)	793
<i>bicostatus</i> (Sampson), (<i>Xyleborus</i>), <i>Anasa</i>	682	<i>biseriatus</i> Schedl, <i>Sphaerotrypes</i>	198
<i>bicostatus</i> Schedl, <i>Cnesinus</i>	206	<i>biseriatus</i> Schedl, <i>Xyloctonus</i>	840
<i>bicristatus</i> Chapuis, <i>Carphoborus</i> (= <i>bifurcus</i>)	303	<i>bisetosus</i> Schedl, (<i>Brachlyspartus</i>), <i>Monarthrum</i> (= <i>egeum</i>)	1054
<i>bicuspis</i> (Eggers), (<i>Xyleborus</i>), <i>Coptoborus</i>	662	<i>bismarcensis</i> Browne, (<i>Xyleborus</i>), <i>Coptodryas</i> (= <i>libra</i>)	825
<i>bicuspis</i> Reitter, <i>Xylocleptes</i>	547	<i>bispinatus</i> Eichhoff, <i>Xyleborus</i> (= <i>ferrugineus</i>)	739
<i>bidens</i> (Blandford), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1051	<i>bispinatus</i> Schedl, <i>Cnesinus</i>	206
<i>bidens</i> (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	479	<i>bispinosulus</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	671
<i>bidens</i> Browne, <i>Hypothenemus</i>	909	<i>bispinosus</i> (Eggers), (<i>Ips</i>), <i>Acanthotomicus</i>	479
<i>bidens</i> Fabricius, (<i>Bostrichus</i>), <i>Pityogenes</i> (= <i>bidentatus</i>)	441		
<i>bidens</i> Wood, (<i>Mimips</i>), <i>Acanthotomicus</i> (= <i>bidentis</i>)	479		
<i>bidentatum</i> Wood, <i>Monarthrum</i>	1051		
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<i>borneensis</i> Schedl, <i>Acanthotomicus</i>	479	<i>brasiliensis</i> Schedl, (<i>Hexacolus</i>), <i>Scolytodes</i> (= <i>brasilianus</i>)	359
<i>borneensis</i> Schedl, <i>Arixyleborus</i> (= <i>granifer</i>)	666	<i>brasiliensis</i> Schedl, <i>Cryphalus</i>	577
<i>borneensis</i> Schedl, <i>Cryphalus</i>	577	<i>brasiliensis</i> Schedl, <i>Dryocoetes</i> (= <i>autographus</i>)	575
<i>borneensis</i> Schedl, <i>Cyrtogenius</i>	563	<i>brasiliensis</i> Schedl, <i>Phrixosoma</i>	189
<i>Boroxyton</i> Hopkins (= <i>Xyleborus</i>)	704	<i>brasiliensis</i> Schedl, <i>Pityophthorus</i> (= <i>dimorphus</i>)	996
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<i>Bostrichus</i> , part (= <i>Scolytidae</i>)	28	<i>brevicollis</i> (Kolenati), (<i>Hylesinus</i>), <i>Phlocotribus</i>	219
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<i>Bothrosternoides</i> Schedl	194	<i>brevicomis</i> LeConte, <i>Dendroctonus</i>	138
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<i>boycei</i> Swaine, <i>Pityophthorus</i>	954	<i>brevior</i> (Eggers), [<i>brevius</i>], (<i>Xyleborus</i>), <i>Cyclorhipitton</i>	698
<i>Brachydendrulus</i> Schedl (= <i>Araptus</i>)	952	<i>brevior</i> Eggers, (<i>Pocillips</i>), <i>Coccotrypes</i> (= <i>vulgaris</i>)	614
<i>Brachyspartus</i> Ferrari	1065	<i>brevior</i> Schedl, <i>Hypocryphalus</i>	868
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<i>bradfordi</i> Hopkins, <i>Hypothenemus</i> (= <i>eruditus</i>)	922	<i>brevipennis</i> Kurenzov, <i>Scolytus</i> (= <i>aratus</i>)	324
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<i>brasiliensis</i> (Schedl), (<i>Breviophthorus</i>), <i>Pityophthorus</i>	954	<i>brevipilosus</i> Beeson, (<i>Thammurgides</i>), <i>Coccotrypes</i> (= <i>nubilus</i>)	608
<i>brasiliensis</i> (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	479	<i>brevipilosus</i> Eggers, (<i>Xyleborus</i>), <i>Coptodryas</i> (= <i>myristicae</i>)	825
<i>brasiliensis</i> (Schedl), (<i>Miocryphalus</i>), <i>Cryptocarenum</i>	902	<i>brevipilosus</i> Eggers, <i>Coccotrypes</i> (= <i>surinamensis</i>)	613
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<i>brasiliensis</i> (Schedl), (<i>Phthorophloeus</i>), <i>Phlocotribus</i>	219	<i>brevipilosus</i> Murayama, <i>Taphrorychus</i> (= <i>pilosus</i>)	560
<i>brasiliensis</i> (Schedl), (<i>Pseudohylesinus</i>), <i>Xylechinossomus</i>	105	<i>brevipilosus</i> Schedl, <i>Cryphalus</i>	577
<i>brasiliensis</i> (Schedl), (<i>Stephanopodius</i>), <i>Styphlosoma</i>	950	<i>brevis</i> (Eggers), (<i>Problechilus</i>), <i>Gymnochilus</i>	356
<i>brasiliensis</i> (Schedl), (<i>Xylocleptes</i>), <i>Dendrocranulus</i>	550	<i>brevis</i> (Eggers), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	911
<i>brasiliensis</i> Eggers, (<i>Xyleborus</i>), <i>Ambrosiodinus</i> (= <i>obliquus</i>)	678	<i>brevis</i> (Eichhoff), (<i>Xyleborus</i>), <i>Xylosandrus</i>	787
<i>brasiliensis</i> Eggers, <i>Amphicranus</i>	1046	<i>brevis</i> Blackman, <i>Pityophthorus</i>	984
<i>brasiliensis</i> Eggers, <i>Scolytopsis</i>	320	<i>brevis</i> Browne, (<i>Ptilopodius</i>), <i>Cryphalus</i> (= <i>tetricus</i>)	897
<i>brasiliensis</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>crudiae</i>)	915	<i>brevis</i> Eggers, <i>Bothrostermus</i>	215
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<i>catifrons</i> Mannerheim, (<i>Bostrichus</i>), <i>Trypodendron</i> (= <i>lineatum</i>)	643	ceylonicus (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	860
<i>catifrons</i> Nunberg, (<i>Mimips</i>), <i>Acanthotomicus</i> (= <i>biconicus</i>)	479	ceylonicus (Schedl), (<i>Phloecosinus</i>), <i>Hyletidus</i>	259
carifrons Nunberg, <i>Cortlylus</i>	1070	ceylonicus (Schedl), (<i>Ptilopodius</i>), <i>Ernoporus</i>	850
caripennis (Schedl), (<i>Styracopterus</i>), <i>Styracoptinus</i>	281	<i>ceylonicus</i> Schedl, <i>Coccotrypes</i> (= <i>carpophagus</i>)	596
caripennis Eichhoff, <i>Premnobius</i>	651	Chaetophloeus LeConte	271
<i>caripennis spinosus</i> Hagedorn, <i>Premnobius</i> (= <i>ambitosus</i>)	651	<i>Chaetophorus</i> Fuchs (= <i>Chaetoptelius</i>)	103
caruloides Browne, <i>Xyleborus</i>	717	Chaetoptelius Fuchs	103
carulus Browne, <i>Xyleborus</i>	717	<i>chagnoni</i> Swaine, <i>Ips</i> (= <i>grandicollis</i>)	508
<i>cacus</i> LeConte, (<i>Cryphalus</i>), <i>Monarthrum</i> (= <i>scutellare</i>)	1062	chalconensis Hopkins, <i>Pityophthorus</i>	988
<i>ceanothi</i> Blackman, <i>Stenoclyptus</i> (= <i>sulcatus</i>)	419	<i>chalconensis</i> Hopkins, <i>Pityophthorus</i> (= <i>chalconensis</i>)	988
cecropiae Wood, <i>Chramesus</i>	264	<i>Chalcohyus</i> Blackman (= <i>Pseudothysanoes</i>)	411
cecropiavorus Wood, <i>Scolytodes</i>	390	chamaecipariae Niisima, <i>Cryphalus</i>	878
<i>cecropiavorus acuminatus</i> Wood, <i>Scolytodes</i> (= <i>cecropiavorus</i>)	390	<i>chamberlini</i> Blackman, <i>Phloecosinus</i> (= <i>punctatus</i>)	252
<i>cecropiavorus cecropiavorus</i> Wood, <i>Scolytodes</i> (= <i>cecropiavorus</i>)	390	<i>chamberlini</i> Swaine, <i>Ips</i> (= <i>coucinnus</i>)	500
<i>cecropiavorus punctifer</i> Wood, <i>Scolytodes</i> (= <i>cecropiavorus</i>)	390	championi (Blandford), (<i>Eulytocerus</i>), <i>Phloeotribus</i>	219
cecropicoleus Wood, <i>Scolytodes</i>	390	chapini (Blackman), (<i>Renocis</i>), <i>Chaetophloeus</i>	271
cecropii (Schedl), (<i>Hexacolus</i>), <i>Scolytodes</i>	390	<i>chapuisi</i> Blandford, (<i>Phloeophthorus</i>), <i>Phloeotribus</i> (= <i>spinulosus</i>)	234
cecropii Wood, <i>Corthyus</i>	1070	chapuisi Blandford, <i>Aricerus</i>	217
cecropii Wood, <i>Tricolus</i>	1043	chapuisi Kirsch, <i>Monarthrum</i>	1052
cedrelae Wood, <i>Scolytodes</i>	390	chapuisi LeConte, <i>Chramesus</i>	264
<i>cedri</i> Beeson, <i>Pityophthorus</i> (= <i>cedri</i> Wood)	987	chapuisi Wood, <i>Scolytodes</i>	390
cedri Brisout, <i>Phloecosinus</i>	244	<i>chapuisii</i> Eichhoff, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>dissimilis</i>)	917
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		charpentierae Schedl, <i>Camptocerus</i>	319
		chelogaster Schedl, <i>Scolytus</i>	327
		cherenus Eggers, <i>Dianerus</i>	195
		<i>chiapensis</i> Bright, <i>Pityophthorus</i> (= <i>nigriceus</i>)	1015

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- chikisanii** Niisima, *Scolytus* 327
- chilensis** (Schedl), (*Conophthoracranulus*), *Araptus* 954
- chilgoza* Beeson, *Pityophthorus* (= **chilgoza** Wood) 958
- chilgoza** Wood, *Pityophthorus* 958
- chiliensis** (Numberg), (*Squamosinus*), *Xylechinus* 115
- chilibui* Schedl, (*Xyleborus*), *Coptodryas* 235
- Chilodendron* Schedl (= *Hylesinopsis*) 92
- Chiloxylon** Schedl 557
- chimbui** (Schedl), (*Pocilips*), *Coccotrypes* 597
- chimbui** (Schedl), (*Xyleborus*), *Coptodryas* 523
- chimbui* Schedl, (*Xyleborus*), *Coptodryas* (= **rosseli**) 527
- chimbui* Schedl, (*Xyleborus*), *Coptodryas*
(=**chimbui**) 523
- chinensis** Kurenzov & Kononov, *Ips* 500
- chinlingensis** Tsai & Li, *Cryphalus* 578
- chir* Beeson, *Hylurgus* (= **indicus**) 119
- chir* Beeson, *Pityophthorus* (= **deodara**) 994
- chiricahua* Blackman, *Phloeosinus* (= **cristatus**) 245
- chirindaensis** (Schedl), (*Dryocoetes*), *Cyrtogenius* 564
- chiriquensis** (Blandford), *Acanthotomicus* 450
- chiriquensis* Eggers, *Pagiocerus* (= **frontalis**) 214
- chiriquensis** Wood, *Stegomerus* 852
- chlorophorae** (Schedl), (*Dryocoetes*), *Cyrtogenius* 564
- chloropus* Duftschmid, *Hylastes* (= **ater**) 49
- chloroticus* Dejean, *Ips* (= **calligraphus**) 494
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- cholodkovskiji** Spessivtsev, *Carphoborus* 304
- Chondronoderes* Schedl (= *Hypothenemus*) 905
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- Chramesus** LeConte 262
- chrysophylli** (Eggers), (*Xyleborus*), *Coptodryas* 523
- chujoi** Schedl, *Xyleborus* 718
- cicatricosus** (Blandford), *Dactylipalpus* 101
- cicatricosus** (Schedl), (*Lepicerinus*), *Scolytogenes* 860
- ciliaris* Rey, *Scolytus* (= **scolytus**) 371
- ciliatipennis** Schedl, *Miocryphalus* 410
- ciliatipes** Blandford, *Cryphalus* 575
- ciliatiformis** Schedl, *Xyleborus* 718
- ciliatum* Eggers, *Liparthrum* (= **curtum**) 276
- ciliatus** (Hagedorn), (*Pocilips*), *Acanthotomicus* 450
- ciliatus** Blackman, *Pityophthorus* 955
- ciliatus** Eggers, *Xyleborus* 718
- ciliatus* Schedl, *Gnathotrupes* (= **longiusculus**) 1041
- cinchonae* Schedl, (*Hapalogenius*), *Hylesinopsis*
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- cinchonae* Veen, *Xyleborus* (= **emarginatus**) 733
- cincinatum** (Eichhoff), (*Trypocranus*),
Monarthrum 1052
- cincinatus** (Blandford), (*Pityophthorus*),
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- cincinatus** Bright, *Corthyllocurus* 1065
- cinctipennis* Schedl, (*Xyleborus*), *Xyleborinus*
(=**saxeseni**) 816
- cinctipes** Schedl, *Xyleborus* 718
- cinctus* Chapuis, *Camptocerus* (= **suturalis**) 320
- cinerascens** Fairmaire, *Diamerus* 195
- cinereotestaceus** (Motschulsky), (*Hypoborus*),
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- cinereus** (Herbst), (*Bostrichus*), *Crypturgus* 621
- cinereus* Herbst, (*Bostrichus*), *Eruoporus* (= **tiliae**) 557
- cinereus* Swaine, (*Leperisinus*), *Hylesinus*
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- cinnamomi* Tsai & Yin, *Phloeosinus* (= **machilus**) 249
- circulicauda* Browne, (*Xyleborus*), *Amasa*
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- circumcinctus** Schedl, *Premnobius* 652
- circumcisulus** (Schedl), (*Xyleborus*), *Amasa* 652
- circumcisum** (Sampson), (*Xyleborus*),
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- circumcisus** Schedl, *Webbia* 830
- circumdatus** Fonseca, *Coccotrypes* 597
- circudentatus* Schedl, (*Xyleborus*), *Premnobius*
(=**circumspinatus**) 652
- circumspinatus** Eggers, *Premnobius* 652
- circumspinosus** Schedl, *Xyleborus* 718
- cirratus* Nunberg, (*Loganius*), *Cnemomyx*
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- cirratus** Schedl, *Gnathotrupes* 1040
- cirritus** Wood, *Corthylus* 1070
- cirrus* Schedl, *Corthylus* (= **flagellifer**) 1073
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- Cisurgus** Reitter 630
- citri* Beeson, (*Xyleborus*), *Ambrosiodmus*
(=**asperatus**) 671
- citri* Ebeling, *Hypothenemus* (= **eruditus**) 924
- citrus* Blackman, *Pityophthorus* (= **annectens**) 950
- Cladoborus* Sawamoto (= *Pityophthorus*) 977
- Cladoctonus** Strohmeier 237
- Cladoctoporus* Schedl (= *Triotenus*) 540
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- clarus** Blackman, *Pityophthorus* 955
- clarus* Wood, *Eupagiocerus* (= **dentipes**) 214
- clavatus** Schedl, *Pachycotes* 157
- claviger** Blandford, *Scolytus* 325
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- clerodendronae morosus* Schedl, *Xyleborus*
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- clivus** Bright, *Pityophthorus* 955
- cloudcrofti* Swaine, *Ips* (= **grandicollis**) 509
- clunicus* Hopkins, *Conophthorus* (= **coniperda**) 964
- clusiacolens** Wood, *Scolytodes* 390
- clusiae** Wood, *Phrixosoma* 159
- clusiae** Wood, *Scolytodes* 390
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<i>coadunatus</i> Marsham, (<i>Ips</i>), <i>Pteleobius</i> (= <i>rittatus</i>)	72	<i>commixtus</i> Blackman, (<i>Renocis</i>), <i>Chaetophloeus</i> (= <i>heterodoxus</i>)	272
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coacotrypanoides (Schedl), (<i>Lepicerinus</i>), <i>Scolytogenes</i>	860	communis (Schaufuss), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	860
Coccotrypes Eichhoff	591	<i>communis</i> Schaufuss, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>eruditus</i>)	921
<i>coccotrypoides</i> Eggers, (<i>Xyleborus</i>), <i>Theoborus</i> (= <i>villosulus</i>)	662	comosus Blackman, <i>Pityophthorus</i>	955
<i>coficicola</i> Campos Novaes, (<i>Xyleborus</i>), <i>Hypothenemus</i> (= <i>hampei</i>)	930	comosus Bright, <i>Hypothenemus</i>	913
coffae (Eggers), (<i>Dryocoetes</i>), <i>Dryocoetiops</i>	557	comosus Bright, <i>Pseudopityophthorus</i>	972
<i>coffae</i> Hagedorn, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>hampei</i>)	930	comosus Wood, <i>Corthylus</i>	1072
coffae Schedl, <i>Cnesinus</i>	206	compactus (Eichhoff), (<i>Xyleborus</i>), <i>Xylosandrus</i>	788
<i>coffae</i> Wurth, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>morigerus</i>)	795	compactus Lea, <i>Cryphalus</i>	875
coffeiceus (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	672	comparabilis Schedl, <i>Xyleborus</i>	719
<i>coffeivorus</i> Weele, (<i>Xyleborus</i>), <i>Hypothenemus</i> (= <i>hampei</i>)	930	compressicornis (Fabricius), (<i>Bostrichus</i>), <i>Corthylus</i>	1072
<i>cognatus</i> Blackman, <i>Cnesinus</i> (= <i>setulosus</i>)	211	compressus (Lea), (<i>Xyloperthia</i>), <i>Ambrosiodmus</i>	672
<i>cognatus</i> Blackman, <i>Pityophthorus</i> (= <i>cariniceps</i>)	956	comptus (Sampson), (<i>Xyleborus</i>), <i>Eucallacca</i>	657
<i>cognatus</i> Blandford, <i>Xyleborus</i>	719	<i>comptus</i> Blackman, <i>Pityophthorus</i> (= <i>confertus</i>)	990
<i>cognatus</i> Wood, <i>Dendroterus</i>	950	concarifrons (Schedl), (<i>Xylocleptes</i>), <i>Thamurgus</i>	542
<i>coimbatorensis</i> Stebbing, <i>Sphaerotrypes</i>	199	concaus Blackman, <i>Pityophthorus</i>	955
colae (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	912	concaus Bright, <i>Corthylus</i>	1072
colaphus Wood, <i>Gnathotrypes</i>	1040	centralis (Schedl), (<i>Cryphalophilus</i>), <i>Scolytogenes</i>	860
colchicum Semenov, <i>Liparthrum</i>	276	centralis (Schedl), (<i>Neodryocoetes</i>), <i>Araptus</i>	954
Coleobothrus Enderlein	615	centralis Eggers, <i>Erioporus</i>	555
collaris (Schedl), (<i>Pocilips</i>), <i>Coccotrypes</i>	597	centralis Eichhoff, <i>Pityophthorus</i>	959
collaris Blandford, <i>Amphicranus</i>	1046	centralis Hopkins, <i>Trypophloeus</i> (= <i>salicis</i>)	847
collaris Blandford, <i>Corthylus</i>	1070	centralis Schedl, (<i>Ctenyophthorus</i>), <i>Araptus</i> (= <i>confluens</i>)	954
collaris Chapuis, <i>Phloeotribus</i>	219	centralis Schedl, <i>Margadillius</i>	595
collaris Eggers, (<i>Xyleborus</i>), <i>Eccoopterus</i> (= <i>gracilipes</i>)	820	centralis Wood, <i>Pseudothysanoes</i>	413
collaris Schedl, <i>Pityophthorus</i>	955	concentus Wood, <i>Xyleborus</i>	719
collarti (Eggers), (<i>Xyleborinus</i>), <i>Xyleborinus</i>	806	concinulus (Walker), (<i>Hylurgus</i>), <i>Hyledius</i>	259
collinus Bright, <i>Pityophthorus</i> (= <i>toralis</i>)	1031	concinus (Mannerheim), (<i>Bostrichus</i>), <i>Ips</i>	500
collis Niisima, <i>Xyleborus</i>	719	<i>concinus</i> Beeson, (<i>Xyleborus</i>), <i>Coptodryas</i> (= <i>elegans</i>)	824
colombianus (Blackman), (<i>Cryptocleptes</i>), <i>Pseudothysanoes</i>	412	concinus Wood, <i>Pityophthorus</i>	959
colombianus Wood, <i>Cnesinus</i>	206	concisus (Blandford), (<i>Xyleborus</i>), <i>Leptoxyleborus</i>	659
colombianus Wood, <i>Pseudopityophthorus</i>	972	concisus (Wood), (<i>Paracorthylus</i>), <i>Metacorthylus</i>	1064
<i>coloradensis</i> Wood, <i>Cryphalus</i> (= <i>ruficollis</i>)	892	concisus Wood, <i>Corthylus</i>	1072
colossus (Blandford), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	672	concisus Wood, <i>Microcorthylus</i>	1065
columbi Hopkins, <i>Hypothenemus</i>	912	concitatus (Schedl), (<i>Xyleborus</i>), <i>Amasa</i>	682
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columbianus (Schedl), (<i>Neopityophthorus</i>), <i>Araptus</i>	954	concolor Hagedorn, <i>Hypothenemus</i>	913
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columbianus Schedl, <i>Corthylus</i> (= <i>letzneri</i>)	1074	conditus Wood, <i>Araptus</i>	954
columbianus Schedl, <i>Dendrocranius</i>	550	conditus Wood, <i>Dendrocranius</i>	550
comans (Sampson), (<i>Xyleborus</i>), <i>Hadrodemius</i>	819	confertus (Schedl), (<i>Pocilips</i>), <i>Coccotrypes</i>	597
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- confinis* Eggers, (*Xyleborus*), *Eucallacca*
(=*callacei*) 695
- confinis* LeConte, *Pityophthorus* 990
- confinis* Wood, *Chaetophloeus* 271
- confinis* Wood, *Dendrocranius* 551
- confinis* Wood, *Dendroterus* (= *mexicanus*) 951
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- conformis* Koll, *Xyleborus* (= *ferrugineus*) 736
- contractus* Bright, *Pityophthorus* 990
- confragosus* (Sampson), (*Cryphalomorphus*),
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- confusa* Hopkins, *Coptodryas* 823
- Confusoscolytus* Tsai & Huang (= *Scolytus*) 322
- confusum* Eggers, *Rhopalopselion* 96
- confusus* (Eggers), (*Hylcucrosoma*), *Scolytodes* 390
- confusus* (Eggers), (*Kissophagus*), *Hylesinopsis* 93
- confusus* (Eggers), (*Poecilips*), *Coccotrypes* 597
- confusus* (Eggers), (*Stephanoderes*),
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- confusus* (LeConte), (*Tomicus*), *Ips* 500
- confusus* Blandford, *Pityophthorus* 990
- confusus* Bright, *Pityophthorus* (= *toralis*) 1031
- confusus* Browne, *Cryptoxyleborus* 828
- confusus* Eggers, (*Eccoptogaster*), *Scolytus*
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- confusus* Eggers, *Polygraphus* 286
- confusus* Eichhoff, *Xyleborus* (= *ferrugineus*) 738
- confusus* Hopkins, *Margadillius* 899
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- congouus* (Eggers), (*Mimips*), *Acanthotomicus* 480
- congouus* (Schedl), (*Brachydendrus*),
Mimiocirus 949
- congouus* Eggers, (*Poecilips*), *Coccotrypes*
(= *rotundicollis*) 610
- congouus* Eggers, *Coccotrypes* 597
- congouus* Eggers, *Micocryphalus* 410
- congouus* Eggers, *Pityophthorus* 991
- congouus* Eggers, *Polygraphus* 286
- congouus* Eggers, *Sphaerotrypes* 199
- congouus* Hagedorn, (*Stephanoderes*),
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- congouus* Hagedorn, (*Xyleborus*), *Ambrosiodmus*
(= *eichhoffi*) 673
- congouus* Hagedorn, *Xylocleptes* 549
- congouus* Nunberg, *Catenophorus* 237
- congouus* Schedl, *Caridroctonus* 283
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- congruens* (Schedl), (*Mimips*), *Acanthotomicus* 480
- congruens* Schedl, *Xyleborus* 719
- conicolens* Wood, *Conophthorus* 963
- conidens* Browne, *Scolytus* 328
- conidens* Eggers, *Xyleborus* 720
- conifer* (Hagedorn), (*Xyleborus*), *Sampsonius* 655
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- Conophthorus* Hopkins 963
- conradti* Hagedorn, *Xyleborus* 720
- conradti* Schedl, *Ctonoxylon* 537
- conscriptus* Bright, *Pityophthorus* 991
- consentaneus* Blandford, *Gnathotriclus* 1034
- consimile* (Blandford), (*Pterocyclus*),
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- consimilis* (Eggers), (*Xyleborus*), *Ambrosiodmus* 672
- consimilis* LeConte, *Pityophthorus* 991
- consimilis* Wood, *Corthylus* 1072
- consimilis* Wood, *Dendrocranius* 551
- consobrinus* (Eichhoff), *Gnathotrypes* 1040
- consobrinus* Blandford, *Cosmoderes* 901
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- consobrinus* Wood, *Araptus* 954
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- conspiciens* Schedl, (*Xyleborus*), *Coccotrypes*
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- constrictus* Schedl, (*Cryphalus*), *Hypocryphalus*
(= *perminimus*) 871
- constrictus* Schedl, *Gnathotrypes* (= *longipennis*) 1041
- constrictus* Schedl, *Hypocryphalus* (= *perminimus*) 871
- constrictus* Wood, *Scolytodes* 391
- consularis* (Schedl), (*Xyleborus*), *Amasa* 682
- continentalis* Eggers, *Xyleborus* 720
- contortae* Hopkins, *Conophthorus* (= *ponderosae*) 965
- contortus* Schedl, *Phloeotribus* 219
- contractus* (Chapuis), (*Hylastes*), *Xylechinosomus* 105
- contractus* Chapuis, *Phloeotribus* 220
- contractus* Schedl, *Cladotomus* 235
- contractus* Wood, *Microcorthylus* 1065
- contractus* Wood, *Scolytodes* 391
- contrarius* Wood, *Pseudothysanoes* 413
- controversae* Murayama, (*Sphaerotrypes*), *Sueus*
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- conversum* Wood, *Monarthrum* 1053
- convexa* Bright, *Schedlia* 822
- convexicauda* Eggers, *Corthylus* 1072
- convexicauda* Eggers, *Xyleborus* 720
- convexifrons* Hopkins, *Deudroctonus* (= *adjunctus*) 137
- convexifrons* Wood, *Carphoborus* 304

<i>convexifrons</i> Wood, <i>Cortlylus</i>	1072	<i>corpulentus</i> Schedl, <i>Hypocryphalus</i>	568
<i>convexifrons</i> Wood, <i>Polygraphus</i>	286	<i>corpulentus sundri</i> Schedl, (<i>Margadilius</i>), <i>Ernocladius</i> (= <i>corpulentus</i>)	557
<i>convexus</i> (Schedl), (<i>Afronicracis</i>), <i>Micocryphalus</i>	410	<i>corrugatum</i> (Schedl), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	698
<i>convexus</i> Bright, <i>Pseudopityophthorus</i> (= <i>pruinus</i>)	975	<i>corrugatus</i> (Schedl), (<i>Stephanorhopalus</i>), <i>Scolytogenes</i>	860
<i>convexus</i> Schedl, <i>Scolytus</i>	328	<i>corrugatus</i> Swaine, <i>Crypturgus</i> (= <i>borealis</i>)	620
<i>cooki</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>hampei</i>)	930	<i>corruptus</i> (Schedl), (<i>Xyleborus</i>), <i>Prennobiis</i>	653
<i>Coptoborus</i> Hopkins	662	<i>corruptus</i> Schedl, (<i>Xyleborus</i>), <i>Coptoborus</i> (= <i>adjunctus</i>)	662
<i>Coptodryas</i> Hopkins	822	<i>corruptus</i> Wood, <i>Pityophthorus</i>	992
<i>Coptodryas</i> Schedl (= <i>Cnemomyx</i>)	313	<i>corsicum</i> Eichhoff, <i>Liparthrum</i> (= <i>mori</i>)	279
<i>Coptogaster</i> Illiger (= <i>Scolytus</i>)	321	<i>corsicus</i> Eggers, (<i>Myelophilus</i>), <i>Tomicus</i> (= <i>minor</i>)	127
<i>Coptosomus</i> Schedl (= <i>Cnemomyx</i>)	313	<i>corsicus</i> Eggers, <i>Crypturgus</i> (= <i>cinereus</i>)	623
<i>coracinus</i> Wood, <i>Cucisinus</i>	206	<i>corsicus</i> Eggers, <i>Trypophloeus</i> (= <i>rybinskii</i>)	546
<i>coracinus</i> Wood, <i>Pseudothysanoes</i>	413	<i>corsicus</i> Guillebeau, (<i>Phlocophthorus</i>), <i>Phlocotribus</i> (= <i>pubifrons</i>)	227
<i>corculum</i> Wood, <i>Monarthrum</i>	1053	<i>corsicus</i> Guillebeau, <i>Phlocotribus</i> (= <i>cristatus</i>)	220
<i>cordatum</i> (Blandford), (<i>Pterocydon</i>), <i>Monarthrum</i>	1053	<i>cortezi</i> Bright, <i>Pityophthorus</i>	992
<i>cordatus</i> (Bright), (<i>Tricolus</i>), <i>Amphicranus</i>	1046	<i>Cortheloderes</i> Schedl (= <i>Cortlylus</i> , = <i>gracilis</i>)	1074
<i>cordatus</i> Hagedorn, <i>Strombophorus</i>	202	Corthyicydon Schedl	1067
<i>cordatus</i> Hagedorn, <i>Xyleborus</i> (= <i>emarginatus</i>)	733	<i>Cortlyli</i> LeConte (= <i>Cortlylini</i>)	949, 1034
<i>corditicum</i> Wood, <i>Monarthrum</i>	1053	<i>Cortlyliidae</i> LeConte (= <i>Cortlylini</i>)	949
<i>cordipennis</i> Lea, <i>Hylesinus</i>	77	<i>cortlyliiformis</i> Schedl, (<i>Gnathotrichus</i>), <i>Gnathotrupes</i> (= <i>longipennis</i>)	1041
Coriacephilus Schedl	553	<i>Cortlylina</i> LeConte, part (= <i>Cortlylini</i>)	1034
<i>coriaceus</i> (Eichhoff), (<i>Stephanoderes</i>), <i>Coriacephilus</i>	854	<i>Cortlylinae</i> LeConte (= <i>Cortlylini</i>)	949
<i>coriaceus</i> Schedl, (<i>Erioschidias</i>), <i>Cosmoderes</i> (= <i>monilicollis</i>)	901	<i>Cortlylini</i> LeConte	949
<i>corni</i> Kurenzov, <i>Hypothenemus</i>	913	Corthylocurus Wood	1065
<i>corniculatulus</i> Schedl, (<i>Xyleborus</i>), <i>Coptoborus</i> (= <i>respatorius</i>)	665	<i>corthyloides</i> (Schedl), (<i>Xyleborus</i>), <i>Xylosandrus</i>	790
<i>corniculatus</i> Schedl, (<i>Xyleborus</i>), <i>Coptoborus</i> (= <i>respatorius</i>)	665	<i>corthyloides</i> Eichhoff, <i>Gnathotrichus</i> (= <i>materiaris</i>)	1036
<i>corniger</i> Wood, <i>Chramcesus</i>	264	<i>corthyloides</i> Hagedorn, <i>Prennobiis</i>	653
<i>cornivorus</i> Murayama, <i>Xyleborus</i>	720	<i>corthyloides</i> Schedl, (<i>Gnathotrichus</i>), <i>Gnathotrupes</i> (= <i>longipennis</i>)	1041
<i>cornutum</i> Eggers, <i>Ctonoxylon</i>	837	<i>Cortylomimus</i> Ferrari (= <i>Monarthrum</i>)	1050
<i>cornutus</i> Axentjev, <i>Cynanchophagus</i>	1083	<i>Cortylomimus</i> Schedl (= <i>Cortlylus</i>)	1069
<i>cornutus</i> Schaufuss, <i>Xyleborus</i>	720	Cortlylus Erichson	1069
<i>cornutus</i> Schedl, <i>Webbia</i>	830	<i>corticalis</i> Eichhoff, <i>Pityophthorus</i>	992
<i>cornutus</i> Wood, <i>Cucisinus</i>	207	<i>corticinus</i> Wood, <i>Hylurdretonus</i>	186
<i>coronarius</i> Blackman, <i>Pityophthorus</i>	992	<i>corticiperda</i> Erichson, <i>Hylastes</i> (= <i>linearis</i>)	56
<i>coronatus</i> (Chapuis), (<i>Phlocosinus</i>), <i>Chaetophloeus</i>	271	<i>corticus</i> Beeson, (<i>Thammurgides</i>), <i>Coccotrypes</i> (= <i>nubilus</i>)	608
<i>coronatus</i> Eggers, <i>Cortlylus</i>	1072	<i>corumbensis</i> (Eggers), (<i>Hoplites</i>), <i>Cladoctonus</i>	238
<i>coronatus</i> Eggers, <i>Polygraphus</i>	286	<i>corumbensis</i> Eggers, <i>Chramcesus</i>	264
<i>coronatus</i> Eggers, <i>Taphrorhynchus</i>	559	<i>coryli</i> (Perris), (<i>Tomicus</i>), <i>Lymantor</i>	555
<i>coronatus</i> Eichhoff, <i>Xyleborus</i> (= <i>spathipennis</i>)	774	coryli Stark, <i>Cryphalus</i>	878, 884
<i>coronatus</i> Wood, <i>Cryptocarenum</i> (= <i>brevicollis</i>)	902	<i>Cosmocorynus</i> Ferrari (= <i>Monarthrum</i>)	1050
<i>corporaali</i> (Eggers), (<i>Xyleborus</i>), <i>Coptodryas</i>	823	Cosmoderes Eichhoff	900
<i>corpulentus</i> (Sampson), (<i>Cryphalus</i>), <i>Ernocladius</i>	857	<i>cosmoderoides</i> Murayama, <i>Hypothenemus</i>	913
<i>corpulentus</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	860	<i>costabilis</i> Wood, <i>Pityophthorus</i>	992
<i>corpulentus</i> (Schedl), (<i>Erioschidias</i>), <i>Cosmoderes</i>	901	<i>costabilis</i> Wood, <i>Scolytodes</i>	391
<i>corpulentus</i> (Schedl), (<i>Neodryocoetes</i>), <i>Araptus</i>	954	<i>costalimai</i> Blackman, <i>Pityophthorus</i>	992
<i>corpulentus</i> Browne, <i>Coccotrypes</i>	598	<i>costalimai</i> Numberg, (<i>Ernophloeus</i>), <i>Hypothenemus</i> (= <i>eruditus</i>)	926
<i>corpulentus</i> Eggers, <i>Xyleborus</i>	720	<i>costalimai</i> Schedl, <i>Dendrocramulus</i>	551
° <i>corpulentus</i> Schedl, <i>Hylurgops</i>	30	<i>costaricensis</i> (Schedl), (<i>Microcortlylus</i>), <i>Corthylocurus</i>	1069

- costaricensis* (Schedl), (*Neodryocoetes*), *Araptus* . . . 954
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cristatus (LeConte), (*Hylesinus*), *Phloeosinus* . . . 244
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<i>cristatus</i> Schedl, <i>Chramesus</i> (= <i>spinosus</i>)	269	Crypturgidae LeConte (=Crypturgini)	615
<i>cristatus</i> Wood, <i>Carphodicticus</i>	437	Crypturginae LeConte (=Crypturgini)	615
<i>cristatus</i> Wood, <i>Phloeocleptus</i>	421	Crypturgini LeConte	615
<i>cristatus</i> Wood, <i>Pityophthorus</i>	992	Crypturgina LeConte (=Crypturgini)	615
<i>cristatus</i> Wood, <i>Scolytus</i>	328	Crypturgus Erichson	620
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<i>criticus</i> Eichhoff, <i>Hylastes</i> (= <i>tenuus</i>)	63	Ctenophorini Chapuis	383
<i>criticus</i> Schedl, <i>Xyleborus</i> (= <i>perforans</i>)	762	Ctenophorus Chapuis (= <i>Scolytodes</i>)	387
<i>crotonis</i> Wood, <i>Hyllocurus</i>	423	Ctenyophthorus Schedl (= <i>Pityophthorus</i>)	977
<i>crotonis</i> Wood, <i>Pityophthorus</i>	992	Ctonocryphus Schedl (= <i>Glostatus</i>)	835
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Cryphali Lindemann (=Cryphalini)	842	<i>cubensis</i> Schedl, <i>Pityophthorus</i> (= <i>pulicarius</i>)	1024
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Cryphalina Lindemann (=Cryphalini)	842	<i>cucullatus</i> Blandford, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>brevis</i>)	788
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<i>Cryphalomimetus</i> Brownie (= <i>Stephanopodius</i>)	853	cuneipennis Schedl, <i>Xyleborus</i>	722
<i>Cryphalomimus</i> Brownie (= <i>Stephanopodius</i>)	853	cuneolosus (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	806
Cryphalominus Eggers	835	cuneolus (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	916
<i>Cryphalomorphus</i> Schaufuss (= <i>Scolytogenes</i>)	858	cuneolus Eggers, <i>Xyleborus</i>	722
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<i>Cryphalophilus</i> Schedl (= <i>Scolytodes</i>)	858	cupressi Hopkins, <i>Phloeosinus</i>	245
<i>Cryphalops</i> Reitter (= <i>Ernoporus</i>)	854	cupressi Wood, <i>Carphobius</i>	311
Cryphalus Erichson	872	cupulatus (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	806
Cryphyophthorus Schedl	274	curiosus Bright, <i>Corthyus</i>	1072
<i>Cryptarthrum</i> Blandford (= <i>Cryphalus</i>)	872	curtidentis Schedl, <i>Xyleborus</i>	722
Cryptocareus Eggers	902	curtipennis (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	916
<i>Cryptocleptes</i> Blackman, <i>Pseudothysanoes</i>	411	<i>curtuloides</i> Eggers, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>curtulus</i>)	793
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<i>declivis</i> Wood, <i>Carphoborus</i>	305	<i>Dendroterus</i> Blandford	950
<i>declivis</i> Wood, <i>Pseudopityophthorus</i>	972	<i>Dendrotrupes</i> Broun	106
<i>declivisetosus</i> Bright, <i>Pityophthorus</i>	993	<i>Dendrotrypanum</i> Schedl (= <i>Indocryphalus</i>)	648
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<i>declivistriatus</i> Schedl, <i>Scolytodes</i>	391	<i>denotatus</i> Wood, <i>Cnesinus</i>	207
<i>decolor</i> Boieldieu, (<i>Tomicus</i>), <i>Xyleborinus</i> (= <i>saxeseni</i>)	514	<i>densatus</i> Schedl, <i>Xyleborus</i>	723
<i>decorulus</i> Wood, <i>Araptus</i>	955	<i>densepilosus</i> Schedl, <i>Cryphalus</i>	878
<i>decorus</i> (Bright), (<i>Neodryocoetes</i>), <i>Araptus</i>	955	<i>densepilosus</i> Schedl, <i>Hypocryphalus</i>	868
<i>decorus</i> Schedl, (<i>Xyleborus</i>), <i>Webbia</i> (= <i>micrographus</i>)	531	<i>densepunctatus</i> Schedl, <i>Xylocleptes</i>	549
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<i>decorus</i> Wood, <i>Araptus</i> (= <i>decorulus</i>)	955	<i>densicornis</i> Schedl, <i>Xyleborus</i>	723
<i>decorus</i> Wood, <i>Scolytodes</i>	391	<i>dentatulum</i> Wood, <i>Monarthrum</i>	1053
<i>decretus</i> Eichhoff, (<i>Tomicus</i>), <i>Orthotomicus</i> (= <i>caelatus</i>)	465	<i>dentatulus</i> Browne, <i>Xyleborus</i>	723
<i>decumans</i> Schedl, <i>Xyleborus</i>	723	<i>dentatum</i> (Eggers), (<i>Amphicranus</i>), <i>Monarthrum</i>	1053
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<i>defectus</i> Wood, <i>Dendroterus</i>	951	<i>dentatum</i> Eggers, <i>Monarthrum</i> (= <i>dentatulum</i>)	1053
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<i>degener</i> Wood, <i>Pityophthorus</i>	993	<i>dentatus</i> Eggers, <i>Webbia</i>	530
<i>dejevi</i> Eggers, <i>Trypophloeus</i> (= <i>dejevi</i> Stark)	544	<i>dentatus</i> Schaeffer, <i>Chramesus</i>	264
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<i>deleoni</i> Blackman, <i>Gnathotrichus</i>	1034	<i>dentatus</i> Wood, <i>Gnathotrichus</i>	1034
<i>deleoni</i> Blackman, <i>Phloeosinus</i>	245	<i>dentellus</i> (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	806
<i>deleoni</i> Bright, <i>Pityophthorus</i> (= <i>californicus</i>)	986	<i>dentibarbis</i> Schedl, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>forficuloides</i>)	807
<i>deletus</i> LeConte, <i>Pityophthorus</i>	993	<i>denticollis</i> Schedl, <i>Hyllocurus</i>	423
<i>delicatum</i> (Schedl), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	699	<i>denticulatum</i> Wood, <i>Monarthrum</i>	1053
<i>delicatus</i> (Schedl), (<i>Paraglostatus</i>), <i>Glostatus</i>	535	<i>denticulatus</i> (Wichmann), (<i>Trigonogenius</i>), <i>Pityophthorus</i>	994
<i>delicatus</i> Schedl, <i>Hypothenemus</i>	916	<i>denticulatus</i> Blackman, <i>Gnathotrichus</i>	1035
<i>delicatus</i> Wood, <i>Araptus</i>	955	<i>denticulatus</i> Browne, <i>Webbia</i>	530
<i>delicatus</i> Wood, <i>Pityophthorus</i>	994	<i>denticulatus</i> Eggers, (<i>Pityophthorus</i>), <i>Araptus</i> (= <i>eggersianus</i>)	956
<i>delphinii</i> (Rosenhauer), (<i>Bostrichus</i>), <i>Thamurgus</i>	542	<i>denticulatus</i> Sturm, <i>Orthotomicus</i> (= <i>laricis</i>)	469
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<i>demissus</i> Blandford, <i>Phloeotribus</i>	220	<i>denticulosus</i> Sokanovskii, <i>Hylesinus</i> (= <i>tupolevi</i>)	85
<i>demissus</i> Blackman, <i>Pityophthorus</i> (= <i>absonus</i>)	978	<i>denticulus</i> (Eggers), (<i>Ips</i>), <i>Acanthotomicus</i>	480
<i>demissus</i> Wood, <i>Chramesus</i>	264	<i>denticulus</i> Motschulsky, (<i>Anodius</i>), <i>Xyleborus</i> (= <i>perforans</i>)	761
<i>demissus</i> Wood, <i>Microcorthylus</i>	1065	<i>denticulus</i> Wood, <i>Pseudopityophthorus</i>	973
<i>demissus</i> Wood, <i>Xyleborus</i>	723	<i>dentifrons</i> (Blackman), (<i>Phthorophloeus</i>), <i>Phloeotribus</i>	221
<i>Dendriops</i> Schedl (= <i>Cosmoderes</i>)	900	<i>dentifrons</i> Blackman, <i>Pityophthorus</i>	994
<i>Dendrochilus</i> Schedl	435	<i>dentifrons</i> Wood, <i>Araptus</i>	955
<i>Dendrocranulus</i> Schedl	550	<i>dentiger</i> LeConte, <i>Monarthrum</i> (= <i>dentigerum</i>)	1053
<i>Dendroctonides</i> Nusslin (= <i>Tomiciini</i>)	103	<i>dentigerum</i> (LeConte), (<i>Cryphalus</i>), <i>Monarthrum</i>	1053
<i>Dendroctonus</i> Erichson	136	<i>dentigerum</i> Schedl, <i>Ctonoxylon</i>	837
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<i>dipteroearpi</i> (Hopkins), <i>Cyclorhupidion</i>	699	<i>diversepilosus</i> (Eggers), (<i>Xyleborus</i>), <i>Xylosandrus</i>	794
<i>dipteroearpi</i> Beeson, <i>Cryphalus</i> (= <i>dipteroearpi</i>)	575	<i>diversicauda</i> Browne, <i>Webbia</i>	531
<i>dipteroearpi</i> Beeson, (<i>Thamniurgides</i>), <i>Coccotrypes</i> (= <i>barbatus</i>)	593	<i>diversicolor</i> (Eggers), (<i>Xyleborus</i>), <i>Coptodryas</i>	524
<i>dipteroearpi</i> Browne, <i>Arixyleborus</i>	666	<i>diversicolor</i> Browne, <i>Cryphalus</i>	579
<i>dipteroearpi</i> Hopkins, (<i>Ozopemon</i>), <i>Dryocoetiops</i> (= <i>laevis</i>)	555	<i>diversicolor</i> Eggers, (<i>Ozopemon</i>), <i>Dryocoetiops</i> (= <i>laevis</i>)	555
<i>dipteroearpi</i> Hopkins, <i>Hypothenemus</i>	916	<i>diversipennis</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	673
<i>dipteroearpi</i> Hopkins, <i>Webbia</i>	530	<i>diversus</i> (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	806
<i>dipteroearpi</i> Wood, <i>Cryphalus</i>	575	<i>diversus</i> Bright, <i>Pityophthorus</i>	996
<i>dirus</i> Wood, <i>Xyleborinus</i>	506	<i>diversus</i> Wood, <i>Dendroceramus</i>	551
<i>discedens</i> (Eggers), (<i>Hexacolus</i>), <i>Scolytodes</i>	391	<i>diversus</i> Wood, <i>Microcorthylus</i>	1065
<i>discedens</i> Eggers, <i>Scolytodes</i> (= <i>discriminatus</i>)	391	<i>dividuus</i> Schedl, <i>Cuesinus</i>	207
<i>discedens</i> Schedl, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>erectus</i>)	915	<i>divisus</i> (Browne), (<i>Webbia</i>), <i>Taphrodasus</i>	525
<i>discifer</i> Eichhoff, <i>Hylocurus</i>	424	<i>djuguensis</i> Eggers, <i>Pityophthorus</i>	996
<i>discoideus</i> Blandford, <i>Corthylus</i>	1073	<i>docta</i> (Schedl), (<i>Xyleborus</i>), <i>Coptodryas</i>	524
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<i>discrepans</i> Blandford, <i>Phloeotribus</i>	221	<i>dohrni</i> Wollaston, (<i>Tomicus</i>), <i>Xyleborinus</i> (= <i>saxeseui</i>)	514
<i>discrepans</i> Schedl, <i>Hypocryphalus</i>	569	<i>doliaris</i> (Schedl), (<i>Xyleborus</i>), <i>Amasa</i>	683
<i>discrepans</i> Schedl, <i>Xyleborus</i>	724	<i>dolichocola</i> Hopkins, <i>Hypothenemus</i>	917
<i>discretus</i> Eggers, <i>Xyleborus</i>	725	<i>dolosus</i> Blandford, <i>Xyleborus</i>	730
<i>discretus</i> Eichhoff, <i>Cryphalus</i> (= <i>scabricollis</i>)	593	<i>dolosus</i> Wood, <i>Hypothenemus</i>	917
<i>discretus</i> Wood, <i>Cuesinus</i>	207	<i>Dolurgocleptes</i> Schedl	540
<i>discretus</i> Wood, <i>Pityophthorus</i>	996	<i>Dolurgus</i> Eichhoff	615
<i>discriminatus</i> Wood, <i>Scolytodes</i>	391	<i>dolus</i> Schedl, <i>Hylesinus</i>	79
<i>dislocatus</i> (Blackman), (<i>Cryptocleptes</i>), <i>Pseudohysanocs</i>	413	<i>dolus</i> Wood, <i>Pityophthorus</i>	996
<i>dispar</i> (Eggers), (<i>Stephanoderes</i>), <i>Stephanopodius</i>	553	<i>domesticum</i> (Linnaeus), (<i>Dermestes</i>), <i>Trypodendron</i>	633
<i>dispar</i> (Fabricius), (<i>Apatе</i>), <i>Xyleborus</i>	725	<i>donaticus</i> Wood, <i>Corthylus</i>	1073
<i>dispar</i> (Schedl), (<i>Cryphalops</i>), <i>Enoporus</i>	555	<i>donisi</i> (Schedl), (<i>Eriocryphalus</i>), <i>Hypothenemus</i>	917
<i>dispar</i> (Schedl), (<i>Micracidendron</i>), <i>Saurotosis</i>	419	<i>donisi</i> (Schedl), (<i>Erioschidias</i>), <i>Cosmoderes</i>	901
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<i>dispar</i> Bright, <i>Pityophthorus</i>	996	<i>donisthorpei</i> Schedl, <i>Xyleborus</i> (= <i>dryographus</i>)	732
<i>dispar</i> <i>dispar</i> Blackman, <i>Pseudohylesinus</i> (= <i>dispar</i>)	109	<i>dorjitenzingi</i> Schmutzenhofer, <i>Trypodendron</i>	635
<i>dispar</i> <i>pullatus</i> Blackman, <i>Pseudohylesinus</i> (= <i>dispar</i>)	109	<i>dorsalis</i> (Motschulsky), (<i>Hypoborus</i>), <i>Cryphalus</i>	579
<i>dispar</i> <i>rugulosus</i> Eggers, <i>Xyleborus</i> (= <i>dispar</i>)	730	<i>dorsalis</i> Schedl, <i>Pityophthorus</i>	997
<i>disparilis</i> Wood, <i>Chramesus</i>	265	<i>dorsalis</i> Schedl, <i>Xyleborus</i>	730
<i>disparilis</i> Wood, <i>Hylocurus</i>	424	<i>dorsosignatus</i> (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	917
<i>dissidens</i> Wood, <i>Hylocurus</i>	424	<i>dorsosulcatus</i> Beeson, <i>Xyleborus</i>	730
<i>dissidens</i> Wood, <i>Xyleborus</i> (= <i>titubanter</i>)	779	<i>dossuarius</i> Eggers, <i>Xyleborus</i>	730
<i>dissimilis</i> (Eggers), (<i>Xyleboricus</i>), <i>Arixyleborus</i>	666	<i>draconis</i> Enderlein, <i>Dactylotrypes</i> (= <i>longicollis</i>)	554
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<i>dissimilis</i> Hagedorn, <i>Diamerus</i> (= <i>curvifer</i>)	195	<i>drescheri</i> Eggers, <i>Hyorrhynchus</i> (= <i>lewisi</i>)	192
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<i>dissimilis</i> Wood, <i>Hylocurus</i>	424	<i>dryobalanopsis</i> Schedl, <i>Cryptoxyleborus</i>	525
<i>dissimulatus</i> Wood, <i>Xyleborus</i>	730	<i>Dryocoetes</i> Eichhoff	569
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<i>eichelbaumi</i> Hagedorn, <i>Scolytoplatus</i>	402	<i>elongatulus</i> Wood, <i>Cyrtogenius</i>	564
<i>eichhoffi</i> (Schreiner), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	673	<i>elongatum</i> (Eggers), (<i>Aphanarthrum</i>), <i>Deropria</i>	620
<i>eichhoffi</i> Blandford, <i>Aricerus</i>	217	<i>elongatum</i> Eggers, <i>Liparthrum</i> (= <i>mori</i>)	278
<i>eichhoffi</i> Eggers, <i>Amphicranus</i>	1046	<i>elongatus</i> (Eggers), (<i>Dendurgus</i>), <i>Coccotrypes</i>	602
<i>eichhoffi</i> Eggers, <i>Hylastinus</i> (= <i>obscurus</i>)	65	<i>elongatus</i> (Eggers), (<i>Erioschidias</i>), <i>Cosmoderes</i>	901
<i>eichhoffi</i> Ferrari, <i>Dryocoetes</i>	582	<i>elongatus</i> (Eggers), (<i>Pelicerus</i>), <i>Cyrtogenius</i>	565
<i>eichhoffi</i> Hopkins, <i>Dryocoetes</i> (<i>betulae</i>)	579	<i>elongatus</i> (Schedl), (<i>Hylesinus</i>), <i>Ficicis</i>	91
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<i>eichhoffi</i> Schedl, <i>Corthylus</i>	1073	<i>elongatus</i> (Schedl), (<i>Thammophthorus</i>), <i>Araptus</i>	956
<i>eichhoffianus</i> Schedl, <i>Xyleborus</i>	732	<i>elongatus</i> Chapuis, <i>Phloeoborus</i> (= <i>rudis</i>)	100
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<i>Eidophelus</i> Eichhoff	867	<i>elongatus</i> Eggers, (<i>Hylocurosoma</i>), <i>Scolytodes</i> (= <i>elongatissimus</i>)	392
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<i>elacocarp</i> Beeson, <i>Coccotrypes</i> (= <i>dactyliperda</i>)	602	<i>elongatus</i> Eggers, <i>Xyleborus</i>	733
<i>elaphas</i> (Eichhoff), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	917	<i>elongatus</i> Herbst, (<i>Bostrichus</i>), <i>Hylurgus</i> (= <i>ligniperda</i>)	121
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<i>electinus</i> Wood, <i>Cnesinus</i>	207	<i>elongatus</i> Schedl, (<i>Eidophelus</i>), <i>Cyrtogenius</i> (= <i>elongatulus</i>)	564
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<i>elegans</i> Schedl, <i>Thammurgus</i>	543	<i>emarginatus</i> Eggers, <i>Corthylus</i>	1073
<i>elegans</i> Swaine, <i>Pityokteines</i>	462	<i>emarginatus</i> Eggers, <i>Xyloctonus</i> (= <i>scolytoides</i>)	841
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<i>elegans</i> Wichmann, (<i>Pseudothammurgus</i>), <i>Tiarophorus</i> (= <i>normandi</i>)	540	<i>emarginatus</i> Hopkins, <i>Coptoborus</i> (= <i>respatorius</i>)	665
<i>elegantis</i> Wood, <i>Cnesinus</i>	208	<i>emarginatus</i> Schedl, <i>Hypothenemus</i> (= <i>obscurus</i>)	937
<i>elegantulus</i> Schedl, <i>Amphicranus</i>	1047	<i>emarginatus</i> Wichmann, (<i>Eccoptogaster</i>), <i>Scolytus</i> (= <i>scheryrewi</i>)	371
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ericus (Schaufuss), (*Diamerus*), *Hylestinopsis* 94
ericus (Schaufuss), (*Diamerus*), *Strombophorus* 203
Erieryphalus Hopkins (= *Cryphalus*) 872
erinacea (Eggers), (*Xyleborus*), *Coptodryas* 824
erinacellus Wichmann, *Kissophagus* 68
erinaceus Schedl, *Chramesus* 265
erinaceus Schedl, *Phloeotribus* 221
Erineophilus Hopkins (= *Scolytodes*) 388
erineophilus Wood, *Scolytodes* 392
Erinosinus Blackman (= *Liparthrum*) 274
Erioschidius Schedl (= *Cosmoderes*) 900
Ernocladius Wood 857
Ernocryphalus Murayama (= *Cryphalus*) 872
Ernophloeus Nunberg (= *Hypothenemus*) 905
Ernopocerus Balachowsky (= *Ernioporicus*) 848
Ernoporicus Berger 848
Ernoporides Hopkins (= *Scolytogenes*) 858
Ernoporinae Nusslin (= *Cryphalini*) 842
Ernoporus Thomson 854
erosus (Wollaston), (*Tomicus*), *Ips* 504
erosus Schedl, *Phloeotribus* 221
erosus melanurus Reitter, *Ips* (= *robustus*) 522
errans (Blandford), (*Ceratolepis*), *Cnemonyx* 314
errans Blandford, *Hylocurus* 424
erraticum Schedl, *Cryphalus* 879
erraticus Schedl, *Pityophthorus* 997
eruditus (Schedl), (*Neopityophthorus*), *Araptus* 956
eruditus Westwood, *Hypothenemus* 919
erythrinae Eggers, (*Stephanoderes*), *Hypothenemus*
(= *eruditus*) 924
erythrinae Hopkins, *Margadillius* 899
esau Gredler, *Hylesinus* (= *toruio*) 85
espinosai Brethes, *Pityophthorus* 997
Estenoborus Reitter (= *Carphoborus*) 302
esuriens Blandford, *Scolytus* 330
Ethadopselaphus Blandford (= *Dactylipalpus*) 100
eucalyptica (Schedl), (*Xyleborus*), *Coptodryas* 824
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eugeniae (Schedl), (*Dryocoetes*), *Dryocoetops* 587
Eulepiops Schedl (= *Cyrtogenus*) 562
Eulytocyclus Blandford (= *Phloeotribus*) 218
eumerum (Schedl), (*Pterocyclon*), *Monarthrum* 1054
euonymi Kurenzov, *Allerнопorus* 852
Eupugiocerus Blandford 214
eupatorii (Eggers), (*Xyleborus*), *Xylosandrus* 794
euphorbiae (Bright), (*Afrotrypetus*),
Styracoptinus 281
euphorbiae (Kuster), (*Bostrichus*), *Thammurgus* 543
euphorbiae (Schedl), (*Mimips*), *Acanthotomicus* 480
euphorbiae (Schedl), (*Stephanoderes*),
Hypothenemus 925
euphorbiae Schedl, *Lamurgus* 408
euphorbiae Wollaston, *Aphanarthrum* 618
euphorbiae Wood, *Cnemonyx* 315
euphorbiae Wood, *Cryphalogenes* 857
cupolyphagus Beeson, *Hypothenemus* (= *arecae*) 907
Eupteroxylon Eggers (= *Monarthrum*) 1050
Euptilius Schedl (= *Ernoporus*) 854
Eurydactylus Hagedorn (= *Eccoptyopterus*) 819
eurygraphus (Ratzeburg), (*Bostrichus*),
Xyleborus 733
euryopsis Schedl, *Thammurgus* 543
eurypterus Schedl, *Chramesus* 265
eusulcatus Tsai & Huang, *Hylurgops* 31
euterpes Bright, *Pityophthorus* 997
eutomoides Blandford, *Scolytoplastypus* 402
Euwallacea Hopkins 685
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(= *eruditus*) 923
exactus (Schedl), (*Xyleborus*), *Amasa* 683
exaratus Blandford, *Xyleborus* 734
exasperatus Schedl, *Coccotrypes* (= *carpophagus*) 597
excaratus (Eggers), (*Anchonocerus*),
Monarthrum 1054
* *excaratus* (Hagedorn), (*Xyleborus*),
Xyleborinus 806
excaratus (Schedl), (*Mimips*), *Acanthotomicus* 480
excaratus (Wood), (*Cryptuloceptus*),
Pseudothysanoc 413
excaratus Schedl, *Coccotrypes* 602
excarus Schedl, *Xyleborus* 734
excellens (Schedl), (*Cryphalomorphus*),
Scolytogenes 861
excellens Schedl, *Pityophthorus* 997
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exesus Blandford, *Xyleborus* 734
exesus Say, (*Bostrichus*), *Ips* (= *calligraphus*) 496
exigialis Wood, *Araptus* 956
exigua Wood, *Trischidius* 947
exiguus (Blandford), (*Loganius*), *Cnemonyx* 315
exiguus (Browne), (*Euptilius*), *Ernoporus* 855
exiguus (Walker), (*Bostrichus*), *Xyleborinus* 806
exiguus Blackman, *Pityophthorus* (= *opaculus*) 1018

<i>exiguus</i> Blandford, <i>Cryphalus</i>	579	<i>fallax</i> Eggers, (<i>Mimips</i>), <i>Acanthotomicus</i>	
<i>exiguus</i> Wood, <i>Cortylus</i>	1073	(= <i>quadrituberculatus</i>)	453
<i>exiguus</i> Wood, <i>Cryphalogenes</i>	557	<i>fallax</i> Eggers, <i>Ips</i> (= <i>cembrae</i>)	499
<i>exiguus</i> Wood, <i>Scolytodes</i>	392	fallax Eichhoff, <i>Xyleborus</i>	735
<i>exile</i> Eichhoff, (<i>Pterocyclon</i>), <i>Microcortylus</i>		<i>fallax</i> Hagedorn, (<i>Meringopalpus</i>), <i>Gymnochilus</i>	
(= <i>parvulus</i>)	1066	(= <i>zonatus</i>)	357
<i>exilis</i> (Wood), (<i>Loganius</i>), <i>Cnemonyx</i>	315	<i>fallax</i> Wichmann, <i>Hylurgops</i> (= <i>batuensis</i>)	30
<i>exilis</i> Chapuis, <i>Hylastes</i>	53	fallaxoides Schedl, <i>Xyleborus</i>	735
<i>exilis</i> Schedl, (<i>Xyleborus</i>), <i>Coptoborus</i>		falsus Schedl, <i>Xyleborus</i>	735
(= <i>pseudotenuis</i>)	664	familiaris (Schedl), (<i>Xyleborus</i>), <i>Prennobius</i>	653
<i>exilis</i> Swaine, <i>Pityophthorus</i> (= <i>murrayanae</i>)	1014	faukhaueri Reitter, <i>Hylastinus</i>	64
<i>exilis</i> Wood, <i>Chramesus</i>	265	farinosus Blandford, <i>Hypothenemus</i> (= <i>birmanus</i>)	910
<i>exilis</i> Wood, <i>Micracis</i>	432	fasciatum (Say), (<i>Bostrichus</i>), <i>Monarthrum</i>	1055
<i>eximius</i> (Schedl), (<i>Erichsidias</i>), <i>Ernioporicus</i>	850	fasciatus (Blackman), (<i>Renocis</i>), <i>Chaetophloeus</i>	272
<i>eximius</i> (Schedl), (<i>Ips</i>), <i>Acanthotomicus</i>	480	fasciatus (Hagedorn), (<i>Kissophagus</i>), <i>Hylesinopsis</i>	94
<i>eximius</i> Schedl, <i>Hypothenemus</i>	925	<i>fasciatus</i> Fabricius, (<i>Hylesinus</i>), <i>Campyocerus</i>	
<i>eximius</i> Schedl, <i>Pityophthorus</i>	997	(= <i>suturalis</i>)	320
<i>eximius</i> Schedl, <i>Xyleborus</i>	734	fasciatus Hagedorn, <i>Scolytoplatypus</i>	403
<i>eximius</i> Wood, <i>Dendroterus</i>	951	fasciatus LeConte, <i>Hylesinus</i>	80
<i>eximius</i> Wood, <i>Scolytodes</i>	392	<i>fasciatus</i> Reitter, <i>Scolytus</i> (= <i>kirschi</i>)	337
<i>exornatum</i> (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1055	fastigatus Schedl, <i>Xyleborus</i>	735
<i>exornatus</i> Schedl, <i>Traglostus</i>	410	fastigiatu Blandford, <i>Amphicranus</i>	1047
<i>expers</i> (Blandford), (<i>Hypothenemus</i>), <i>Scolytogenes</i>	861	fastigiorum Wood, <i>Monarthrum</i>	1056
explicitus Wood, <i>Pityophthorus</i>	995	fastigi (Wood), (<i>Loganius</i>), <i>Cnemonyx</i>	315
expressus Schedl, <i>Sphaerotrypes</i>	199	<i>fauveli</i> Reitter, <i>Scolytus</i> (= <i>rugulosus</i>)	369
expulsus Wood, <i>Sampsonius</i>	656	<i>fejferi</i> Keler, (<i>Ips</i>), <i>Orthotomicus</i> (= <i>proximus</i>)	475
exquisitus (Blackman), (<i>Neodryocoetes</i>),		<i>felis</i> Beeson, <i>Cryphalus</i> (= <i>felis</i> Wood)	550
<i>Pityophthorus</i>	995	felis Wood, <i>Cryphalus</i>	550
exsculpta (Eggers), (<i>Xyleborus</i>), <i>Coptodryas</i>	824	felix (Schedl), (<i>Xyleborus</i>), <i>Prennobius</i>	653
exsculptus (Ratzeburg), <i>Pityophthorus</i>	995	femineus Wood, <i>Hylocurus</i>	424
exsectus Perkins, <i>Xyleborus</i>	735	<i>femoratus</i> Eggers, <i>Xyleborus</i> (= <i>spathipennis</i>)	774
exsectus Schedl, <i>Pityophthorus</i>	999	fenestratum Eggers, <i>Monarthrum</i>	1056
extensa (Schedl), (<i>Xyleborus</i>), <i>Coptodryas</i>	824	<i>fennicus</i> Eggers, <i>Pityophthorus</i> (= <i>micrographus</i>)	1012
externidentatus Schedl, <i>Hypothenemus</i>	926	fenoris Wood, <i>Tricholus</i>	1043
° extractus Scudder, <i>Hylesinus</i>	80	ferinus (Schedl), (<i>Xyleborus</i>), <i>Xylosandrus</i>	794
exul (Reitter), (<i>Thamnurgus</i>), <i>Taphronurgus</i>	546	ferox Blandford, <i>Xyleborus</i>	735
exul Wood, <i>Chramesus</i>	265	ferarii (Blandford), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1056
exutus (Wood), (<i>Xyleborus</i>), <i>Coptoborus</i>	663	ferreirai (Schedl), (<i>Styracopterus</i>), <i>Styracoptinus</i>	251
<i>fabricii</i> Schedl, (<i>Xyleborus</i>), <i>Ambrosiodmus</i>		ferrugineus (Fabricius), (<i>Bostrichus</i>), <i>Xyleborus</i>	735
(= <i>apicalis</i>)	671	<i>ferrugineus</i> Boheman, (<i>Bostrichus</i>), <i>Xyleborus</i>	
facetus (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	673	(= <i>similis</i>)	773
facetus Wood, <i>Araptus</i>	956	<i>ferrugineus</i> Hopkins, (<i>Stephanoderes</i>),	
facetus Wood, <i>Scolytodes</i>	392	<i>Hypothenemus</i> (= <i>multidentatus</i>)	936
facialis Schedl, <i>Scolytus</i>	331	<i>ferrugineus</i> Hopkins, <i>Hypothenemus</i> (= <i>eruditus</i>)	923
° facilis Heer, <i>Hylesinus</i>	80	ferulae Pfeffer, <i>Cisurgus</i>	630
fagi (Fabricius), (<i>Apat</i>), <i>Ernioporicus</i>	850	ferus (Wood), (<i>Ambrosiosmus</i>), <i>Ambrosiodmus</i>	673
fagi (Nobuchi), (<i>Poccilips</i>), <i>Coccotrypes</i>	603	festivum Schedl, <i>Ctonoxylon</i>	837
fagi Blackman, <i>Pseudopityophthorus</i>	973	festivus Eichhoff, <i>Xyleborus</i>	739
fagi Walsh, <i>Scolytus</i>	330	festivus Schedl, <i>Cyrtogenius</i>	565
falcarius Schedl, <i>Xyleborus</i>	735	festivus Wood, <i>Micracis</i>	432
fallaciosus (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	450	festivus Wood, <i>Pseudopityophthorus</i>	973
fallaciosus Schedl, (<i>Xyleborus</i>), <i>Coptoborus</i>		festus Wood, <i>Pityophthorus</i>	999
(= <i>usagarius</i>)	665	festus Wood, <i>Scolytodes</i>	392
fallax (Eggers), (<i>Poccilips</i>), <i>Coccotrypes</i>	603	fici Blandford, <i>Diamerus</i>	195
fallax (Hagedorn), (<i>Trigonogenius</i>), <i>Pityophthorus</i>	999	<i>fici</i> Beeson, (<i>Ericryphalus</i>), <i>Cryphalus</i>	
fallax Costa Lima, (<i>Stephanoderes</i>), <i>Hypothenemus</i>		(= <i>scabricollis</i>)	893
(= <i>crudiae</i>)	915	fici Browne, <i>Acanthotomicus</i>	481

- fici* Lea, *Aricerus* (= *eichhoffi*) 217
- fici* Browne, *Hypocryphalus* 869
- fici* Wood, *Phlocotribus* 221
- fici* Wood, *Pycnarthrum* (= *reticulatum*) 355
- Ficicis* Lea 90
- ficolens* Wood, *Scolytodes* 392
- Ficiphagus* Murayama (= *Ficicis*) 90
- ficivorus* Murayama, *Cryphalus* 550
- ficivorus* Wood, *Scolytodes* 392
- ficus* (Schedl), (*Kissophagus*), *Hylesinopsis* 94
- ficus* (Schwarz), (*Loganius*), *Cnemomyx* 315
- ficus* Beeson, *Cryphalus* (= *scabricollis*) 593
- ficus* Eggers, *Xyleborus* 740
- ficus* Erickson, *Hypoborus* 280
- ficus* Hopkins, (*Stephanoderes*), *Hypothenemus*
(= *seriatus*) 942
- fiebrigi* Hopkins, (*Stephanoderes*), *Hypothenemus*
(= *seriatus*) 942
- figuratus* Schedl, *Xyleborus* 740
- fijianus* (Schedl), (*Lepicerinus*), *Scolytogenes* 561
- fijianus* (Schedl), (*Ozopomon*), *Cyrtogenius* 565
- fijianus* (Schedl), (*Pocillips*), *Coccotrypes* 603
- fijianus* (Schedl), (*Xyleborus*), *Xylosandrus* 794
- fijianus* Schedl, (*Stephanopodius*), *Hypothenemus*
(= *dorsosignatus*) 917
- filiformis* (Schedl), (*Xyleborus*), *Eucallacea* 685
- filliformis* Blandford, *Amphicranus* 1047
- filum* (Reitter), (*Crypturgus*), *Cisurgus* 630
- filum* Schedl, *Dendrochilus* 435
- fimbriaticorne* (Blandford), (*Pterocyclon*),
Monarthrum 1056
- fimbriatus* (Schedl), (*Gnathotrichus*),
Gnathotrupes 1040
- fimbriatus* Wood, *Pseudothysanoes* 413
- fimbricornis* LeConte, *Thysanoes* 420
- fiori* Eggers, (*Hylastinus*), *Pagiocerus* (= *frontalis*) 213
- fischeri* Hagedorn, *Xyleborus* 740
- fiskei* Blackman, *Scolytus* (= *unispinosus*) 350
- fitchi* Hopkins, *Xyleborus* (= *intrusus*) 745
- fixasi* Blackman, (*Myeloborus*), *Pityophthorus*
(= *ramiperda*) 1025
- flabellifer* Sampson, *Cryphalus* (= *scabricollis*) 593
- flagellatus* Wood, *Hylocurus* 425
- flagellifer* Blandford, *Corthylus* 1073
- flaglerensis* Blackman, *Hylocurus* 425
- flavescens* Hagedorn, *Ctonoxylon* 537
- flavescens* Hopkins, (*Stephanoderes*), *Hypothenemus*
(= *interstitialis*) 931
- flavescens* usambaricum Eggers, *Ctonoxylon*
(= *flavescens*) 537
- flavicollis* Enderlein, *Coleobothrus* (= *luridus*) 616
- flavicollis* Hopkins, (*Stephanoderes*), *Hypothenemus*
(= *eruditus*) 923
- flavicornis* (Blandford), (*Dryocoetes*),
Dryocoetiops 557
- flavicornis* (Chapuis), (*Loganius*), *Cnemomyx* 315
- flavicornis* Chevrolat, *Scolytus* (= *multistriatus*) 353
- flavicornis* Lindberg, *Hylastes* (= *linearis*) 56
- flavimaculatus* Murayama, *Pityophthorus* 999
- flavipennis* Krausse, *Tomicus* (= *minor*) 123
- flavipennis* Schedl, *Xyleborus* 740
- flavipes* (Fabricius), (*Bostrichus*), *Taurodemus* 755
- flavipes* Hopkins, *Hypothenemus* 923
- flavipes* Panzer, *Hylurgus* (= *ligniperda*) 121
- flavipubeus* Schedl, *Strombophorus* 203
- flavopannus* Huang & Yin, *Hyorrhynchus* 192
- flavopilosus* Schedl, *Cnesinus* (= *setulosus*) 211
- flavopilosus* Schedl, *Xyleborus* 740
- flavosquamosus* Hopkins, *Hypothenemus*
(= *eruditus*) 922
- flavus* (Fabricius), (*Hylesinus*), *Dryocoetoides* 657
- flavus* Hopkins, *Hypothenemus* 926
- flavus* Krausse, *Tomicus* (= *minor*) 123
- flavus* Stephens, (*Tomicus*), *Xyleborus*
(= *dryographus*) 732
- fletcheri* Hopkins, *Dendroctonus* (= *rufipennis*) 173
- fleutiauxi* Blandford, *Xyleborus* (= *subcostatus*) 776
- flexilis* Hopkins, *Conophthorus* (= *ponderosae*) 966
- flexicostatus* Schedl, (*Xyleborus*), *Coptodryas*
(= *elegans*) 524
- flocosus* Hagedorn, *Dactylipalpus* 102
- flohri* (Eggers), (*Hylurgops*), *Hylastes* 54
- flohri* (Schedl), (*Pterocyclon*), *Monarthrum* 1056
- flohri* Schedl, *Xyleborus* (= *horridus*) 743
- floridensis* Atkinson, *Hylocurus* 425
- floridensis* Blackman, (*Tachyderes*), *Cryptocareus*
(= *seriatus*) 904
- floridensis* Hopkins, (*Ernoporides*), *Scolytogenes*
(= *knabi*) 563
- floridensis* Hopkins, (*Stephanoderes*), *Hypothenemus*
(= *seriatus*) 942
- floridensis* Hopkins, (*Xylocleptes*), *Dendrocramulus*
(= *carbonarius*) 550
- floridensis* Hopkins, (*Xyleborus*), *Xyleborinus*
(= *saxeseni*) 515
- floridensis* Schedl, *Coccotrypes* (= *distinctus*) 602
- foederatus* Schedl, *Xyleborus* 740
- foersteri* (Hagedorn), (*Xyleborus*), *Cyclorhupidion* 699
- foratus* Wood, *Cnesinus* 205
- foratus* Wood, *Pityophthorus* (= *comosus*) 955
- forcipatus* (Schedl), (*Xyleborus*), *Xyleborinus* 507
- forcicatus* (Schedl), (*Xyleborus*), *Coptoborus* 663
- forciculoides* (Schedl), (*Xyleborus*), *Xyleborinus* 507
- forciculoides* dentibaris Schedl, (*Xyleborus*),
Xyleborinus (= *forciculoides*) 507
- forciculoides* pinguis Schedl, (*Xyleborus*), *Xyleborinus*
(= *forciculoides*) 507
- forciculus* (Eggers), (*Xyleborus*), *Xyleborinus* 507
- formosae* Wood, *Xyleborus* 740
- formosanus* (Schedl), (*Orosiotes*), *Cyrtogenius* 565
- formosanus* (Schedl), (*Xylechinus*),
Phlocosinopsioides 239
- formosanus* Browne, *Ptilopodius* 599
- formosanus* Browne, *Xyleborus* (= *formosae*) 740
- formosanus* Eggers, *Scolytus* (= *frontalis*) 331

<i>formosanus</i> Eggers, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>mancus</i>)	797	<i>frontalis</i> Schedl. <i>Lanurgus</i>	405
<i>formosanus</i> Nobuchi, <i>Dryocoetes</i>	552	<i>frontalis</i> Kurenzox, <i>Polygraphus</i> (= <i>sachalinensis</i>)	295
<i>formosanus</i> Schedl, <i>Cryphalus</i>	550	<i>frontalis</i> Wood, <i>Araptus</i>	956
<i>formosanus</i> Schedl, <i>Hypocryphalus</i>	569	<i>frontalis</i> Wood, <i>Cnesinus</i>	205
<i>formosus</i> Bright, <i>Pityophthorus</i>	999	<i>frontalis</i> Wood, <i>Carphoborus</i>	305
fornicator Eggers, (<i>Xyleborus</i>), <i>Eucallacca</i> (= <i>fornicatus</i>)	690	<i>frontalis</i> Wood, <i>Pityoborus</i>	965
<i>fornicatus</i> (Eichhoff), (<i>Xyleborus</i>), <i>Eucallacca</i>	655	<i>frontalis</i> Wood, <i>Tricolus</i>	1043
<i>fortis</i> (Wood), (<i>Mimips</i>), <i>Acanthotomicus</i>	451	<i>frontalis</i> Zimmermann, <i>Dendroctonus</i>	143
<i>fortis</i> Blackman, <i>Pityophthorus</i> (= <i>virilis</i>)	1033	<i>frontis</i> Wood, <i>Araptus</i>	956
<i>fossifrons</i> (LeConte), (<i>Pityophthorus</i>), <i>Pityogenes</i>	451	<i>frontoglabratus</i> (Schedl), (<i>Hexacolus</i>), <i>Scolytodes</i>	392
<i>fossifrons</i> Wood, <i>Araptus</i>	956	<i>frugalis</i> Wood, <i>Araptus</i>	956
<i>fossifrons</i> Wood, <i>Dendroctonus</i>	950	<i>frustrata</i> Wood, <i>Phrixosoma</i>	159
<i>fonqueti</i> (Schedl), <i>Cyclorhpidion</i>	699	<i>fryi</i> Blandford, <i>Amphicranus</i>	1047
<i>foreatus</i> (Blackman), (<i>Cnesinus</i>), <i>Bothrosterus</i>	215	<i>fuchsi</i> Reitter, <i>Scolytus</i> (= <i>scolytus</i>)	376
<i>foreicollis</i> (Browne), (<i>Xyleborus</i>), <i>Amasa</i>	683	<i>fugax</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	561
<i>foreifrons</i> (Schedl), (<i>Thammophthorus</i>), <i>Araptus</i>	956	<i>fugax</i> Schedl, <i>Cryphalus</i>	550
<i>foreolatus</i> Eggers, <i>Pityogenes</i>	451	<i>fuljanus</i> (Nobuchi), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	561
<i>fragilis</i> (Browne), (<i>Streptocranus</i>), <i>Coptoborus</i>	663	<i>fulkensis</i> Eggers, <i>Tomicus</i> (= <i>brevipilosus</i>)	123
<i>fragosus</i> Schedl, (<i>Xyleborus</i>), <i>Coptodryas</i> (= <i>nugax</i>)	526	<i>fulkiensis</i> Eggers, <i>Xyleborus</i>	740
<i>frankei</i> Wichmann, <i>Scolytus</i> (= <i>schetyrewi</i>)	371	<i>fulgens</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	561
<i>franseriae</i> Wood, <i>Pityophthorus</i>	999	<i>fulgens</i> (Schedl), (<i>Pocilips</i>), <i>Coccotrypes</i>	603
<i>fraseri</i> Hopkins, <i>Cryphalus</i> (= <i>ruficollis</i>)	591	<i>fulgens</i> (Schedl), (<i>Xyleborus</i>), <i>Amasa</i>	683
<i>fraterculus</i> (Schaufuss), <i>Ambrosiodmus</i>	674	<i>fulgens</i> Schedl, <i>Monarthrum</i>	1056
<i>fraterculus</i> Blandford, (<i>Xyleborus</i>), <i>Eucallacca</i> (= <i>xanthopus</i>)	696	<i>fulgens</i> Schedl, <i>Pityophthorus</i>	999
<i>fraxini</i> (Bergcr), (<i>Ernoporus</i>), <i>Procryphalus</i>	545	<i>fulgens</i> Swaine, <i>Phloeosinus</i>	247
<i>fraxini</i> (Eggers), (<i>Phloeophthorus</i>), <i>Phloeotribus</i>	221	<i>fulgens</i> Wood, <i>Cnesinus</i>	205
<i>fraxini</i> Panzer, (<i>Bostrichus</i>), <i>Hylesinus</i> (= <i>varius</i>)	56	<i>fulgidum</i> Wood, <i>Pycnarthrum</i>	354
<i>fraxini</i> Stark, <i>Scolytus</i> (= <i>japonicus</i>)	335	<i>fulgidus</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	561
<i>fraxinoides</i> Beeson, <i>Hylesinus</i> (= <i>macmahoni</i>)	51	<i>fulgidus</i> Blackman, <i>Hylastes</i>	54
<i>fraxinoides</i> Schedl, (<i>Lepersinus</i>), <i>Hylesinus</i> (= <i>macmahoni</i>)	51	<i>fulgidus</i> Wood, <i>Amphicranus</i>	1047
<i>freiburgi</i> Schedl, <i>Xylechinus</i>	115	<i>fulgidus</i> Wood, <i>Cnesinus</i>	205
<i>frenatus</i> (Schedl), (<i>Thammophthorus</i>), <i>Araptus</i>	956	<i>fulgidus</i> Wood, <i>Dendrocramulus</i>	551
<i>freyi</i> Schedl, (<i>Problochelus</i>), <i>Gymnochilus</i> (= <i>zonatus</i>)	357	<i>fuliginosus</i> (Eggers), (<i>Xyleborus</i>), <i>Arixyleborus</i>	666
<i>freyi</i> Schedl, <i>Phlocoborus</i>	99	<i>fuliginosus</i> Blandford, <i>Cryphalus</i>	550
<i>frigidus</i> (Schedl), (<i>Orosiotes</i>), <i>Cyrtogenius</i>	565	<i>fuliginosus</i> Blandford, <i>Xylechinus</i>	115
<i>frigidus</i> Blackburn, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>saxseni</i>)	514	<i>fulmineus</i> Wood, <i>Cryphalus</i>	550
<i>froggatti</i> Numberg, <i>Hypocryphalus</i> (= <i>permiuimus</i>)	571	<i>fulmineus</i> Wood, <i>Scolytodes</i>	392
<i>frondicolens</i> Wood, <i>Pseudothysanoes</i>	413	<i>fulvipennis</i> (Nobuchi), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	561
<i>frontale</i> Eggers, <i>Liparthrum</i> (= <i>curtum</i>)	276	<i>fulvipennis</i> Niisima, <i>Polygraphus</i>	256
<i>frontalis</i> (Fabricius), (<i>Bostrichus</i>), <i>Pagiocerus</i>	213	<i>fulvulus</i> Schedl, <i>Xyleborus</i>	740
<i>frontalis</i> (Olivier), (<i>Scolytus</i>), <i>Phloeotribus</i>	221	<i>fulvus</i> (Murayama), (<i>Xyleborus</i>), <i>Eucallacca</i>	690
<i>frontalis</i> (Schedl), (<i>Breviophthorus</i>), <i>Pityophthorus</i>	999	<i>fulvus</i> Browne, <i>Margadillius</i>	599
<i>frontalis</i> (Schedl), (<i>Gnathotrichus</i>), <i>Gnathotrupes</i>	1040	<i>fulvus</i> Niisima, <i>Cryphalus</i>	550
<i>frontalis</i> (Wood), (<i>Erioschidias</i>), <i>Cosmoderes</i>	901	<i>fulvus</i> Schedl, <i>Xyleborus</i> (= <i>fulvulus</i>)	740
<i>frontalis</i> Blandford, <i>Scolytus</i>	331	<i>fumiatus</i> DeGeer, <i>Tomicus</i> (= <i>piniperda</i>)	125
<i>frontalis</i> Bruck, <i>Phloeosinus</i>	247	<i>funebri</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	674
<i>frontalis</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>brunneus</i>)	911	<i>funebri</i> Wood, <i>Pseudothysanoes</i>	413
<i>frontalis</i> Schedl, (<i>Gnathocranus</i>), <i>Araptus</i> (= <i>frontis</i>)	956	<i>funereus</i> (Lea), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	674
		<i>funereus</i> Wood, <i>Pseudothysanoes</i>	414
		<i>funerium</i> Wood, <i>Pycnarthrum</i>	354
		<i>funestus</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	674
		<i>fungicola</i> Eggers, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>arecae</i>)	907

- furcatus* Marsham, (*Ips*), *Pteleobius* (= *vittatus*) 72
furnissi Blackman, *Phlocosinus* 247
furnissi Blackman, *Pseudohylesinus* (= *nobilis*) 112
furnissi Bright, *Pityophthorus* 999
furukawai Murayama, *Cryphalus* 880
furratus Wood, *Pseudothysanoes* 414
furratus Wood, *Araptus* 957
furrescens Wood, *Cnemonyx* 315
furrescens Wood, *Pseudothysanoes* 414
furrum Wood, *Corthyzyclon* 1067
furrus (Sampson), (*Dryocoetes*), *Coccotrypes* 603
furrus Wood, *Araptus* 957
furrus Wood, *Phloeotribus* 222
furrus Wood, *Pseudothysanoes* 414
fuscatus Eichhoff, *Xyleborus* (= *ferrugineus*) 737
fuscatus Stephens, (*Hylurgus*), *Hylastinus*
 (= *obscurus*) 67
fuscicollis (Eichhoff), (*Stephanoderes*),
Hypothenemus 926
fuscicollis Hagedorn, *Ozopemon* 589
fuscipennis (Chapuis), (*Phloeotribus*), *Hylesinopsis* 94
fuscipennis Krausse, *Tomicus* (= *minor*) 123
fuscipilosus (Eggers), (*Xyleborus*), *Amasa* 683
fusciseriatus Eggers, *Xyleborus* (= *spimulosus*) 775
fuscobrunneus Eichhoff, *Xyleborus* (= *affinis*) 708
fuscovillosa (Schedl), (*Bothryperus*), *Phrixosoma* 189
fuscum Hagedorn, *Ctonoxylon* (= *camerunum*) 837
fuscus Blackman, (*Renocis*), *Chaetophloeus*
 (= *heterodoxus*) 272
fuscus Blackman, *Pityophthorus* 999
fuscus Blandford, *Corthylus* 1074
fuscus Duftschmidt, (*Hylesinus*), *Hylurgops*
 (= *palliatius*) 35
fuscus Eggers, (*Xyleborus*), *Hadrodemius* (= *globus*) 519
fuscus Marsham, (*Ips*), *Taphrorychus* (= *bicolor*) 558
fushimensis Murayama, (*Hylurgops*), *Hylastes*
 (= *plumbeus*) 60
fuyugei Schedl, *Xyleborus* 740
gaimaensis (Murayama), (*Xyloterus*),
Trypodendron 635
galeatus (Blandford), (*Xyleborus*), *Euwallacea* 690
galeatus (Eggers), (*Steganoeranus*), *Amphicranus*
 (= *eichhoffi*) 1047
galeritus Eichhoff, *Cnemonyx* 315
galeritus Wood, *Pityophthorus* 999
gallicus Eggers, *Kissophagus* (= *hederae*) 65
galoanus (Browne), (*Xyleborus*), *Euwallacea* 690
gambetti Blackman, *Pseudothysanoes* (= *sedulus*) 417
ganshoensis Murayama, *Xyleborus* 740
garambaensis Nunberg, *Cryphalus* 881
garciae Schedl, (*Stephanoderes*), *Hypothenemus*
 (= *stigosus*) 945
garcinae (Schedl), (*Bothryperus*), *Phrixosoma* 189
gardneri Schedl, *Tiarophorus* 539
garrulus Schedl, *Cnesinus* 208
gaujoni Fairmaire, *Phloeoborus* 99
gaunersdorferi Reitter, *Crypturgus* (= *pusillus*) 628
geayi Hagedorn, *Xyleborus* 740
gedeanus (Eggers), (*Thanurgidae*), *Coccotrypes* 603
gedeanus (Schedl), (*Xyleboricus*), *Arixyleborus* 666
gemellus Blandford, *Glochiuocerus* 1064
geminatus (Hagedorn), (*Xyleborus*), *Amasa* 683
geminatus Zetterstedt, (*Bostrichus*), *Ips*
 (= *acuminatus*) 489
geminus Wood, *Phloeotribus* 222
genealis Wood, *Araptus* 957
 Genera Incertae Sedis 1082
genialis Wood, *Scolytodes* (= *gennaeus*) 392
genialis Wood, *Scolytodes* 392
genistae (Aube), (*Hypoborus*), *Liparthrum* 277
gennaeus Wood, *Scolytodes* 392
gentilis (Schedl), (*Xyleborus*), *Coptoborus* 663
gentilis Schedl, (*Pityophthorus*), *Gnatholeptus*
 (= *shannoni*) 970
geoffroi Goetze, (*Dernestes*), *Scolytus* (= *scolytus*) 374
georgi Knotek, *Liparthrum* (= *genistae*) 277
georgiae Hopkins, (*Stephanoderes*), *Hypothenemus*
 (= *seriatus*) 941
georgiae Hopkins, *Trischidius* 947
gergeri Eggers, (*Hylastes*), *Hylurgops* (= *batnensis*) 30
germanus (Blandford), (*Xyleborus*), *Xylosandrus* 795
germanus Bright, *Pityophthorus* 1000
germari Eichhoff, (*Stephanoderes*), *Hypothenemus*
 (= *eruditus*) 921
germeauxi Menier, *Coloboathrus* 616
geschwindi Seitner, (*Phloeophthorus*), *Phloeotribus*
 (= *cristatus*) 220
gezei Lepesme, *Xyleborus* 741
ghanaensis (Schedl), (*Cryphalomorphus*),
Scolytogenes 861
ghanaensis (Schedl), (*Hypocryphalus*),
Stephanopodius 853
ghanaensis Schedl, *Hypothenemus* (= *fuscicollis*) 926
ghanaensis Schedl, *Pityophthorus* 1000
ghesquierei Eggers, *Coccotrypes* 603
gibber (Schedl), (*Pterocyclon*), *Monarthrum* 1056
gibber Blackman, *Chramesus* (= *asperatus*) 263
gibber Schedl, *Xyleborus* 741
gibbosus Wood, *Cnesinus* 208
gibbulus Wood, *Cnesinus* 208
gibbus (Chapuis), (*Cnemophilus*), *Cnesinus* 208
gibbus Fabricius, (*Hylesinus*), *Camptocerus*
 (= *aeneipennis*) 318
gifensis Murayama, *Phlocosinus* (= *gifuensis*) 247
gifuensis Murayama, *Phlocosinus* 247
giganteus (Schedl), (*Micracis*), *Hylocurus* 425
giganteus Schedl, *Cryphalus* 881
giganteus Schedl, *Ozopemon* 589
giganteus Schedl, *Stephanopodius* 853
gigas Schedl, *Cryphalus* 881
gillerforsi Bright, *Phlocosinus* 247
gilvipes Blandford, (*Xyleborus*), *Ambrosiodmus*
 (= *obliquus*) 677
glabellus Schedl, (*Stephanoderes*), *Hypothenemus*
 (= *hampei*) 930

<i>glaber</i> (Eggers), (<i>Loganius</i>), <i>Cnemomyx</i>	316	<i>Glostatus</i> Schedl	835
<i>glaber</i> (Eichhoff), (<i>Hexacolus</i>), <i>Scolytodes</i>	392	<i>glutae</i> Wood, <i>Pityophthorus</i>	1001
<i>glaber</i> (Schedl), (<i>Eulepiops</i>), <i>Cyrtogenius</i>	565	<i>Glyptoderes</i> Eichhoff, <i>Trypophloeus</i>	842
<i>glaber</i> (Schedl), (<i>Problechilus</i>), <i>Gymnochilus</i>	386	<i>gnarum</i> (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1056
<i>glaber</i> Eggers, (<i>Xyleborus</i>), <i>Amasa</i> (= <i>schlichii</i>)	684	Gnatharus Wood & Yin	1050
<i>glaber</i> Eggers, <i>Scolytodes</i> (= <i>glaberrimus</i>)	393	<i>Gnathoborus</i> Schedl (= <i>Araptus</i>)	953
<i>glaber</i> Eggers, <i>Scolytoplatypus</i>	403	<i>Gnathocortus</i> Schedl (= <i>Gnathotrupes</i>)	1039
<i>glaber</i> Wood, (<i>Prionosecles</i>), <i>Scolytodes</i> (= <i>glabrescens</i>)	392	<i>Gnathocranus</i> Schedl (= <i>Araptus</i>)	953
<i>glaberrimus</i> Schedl, (<i>Xyleborus</i>), <i>Cnestus</i> (= <i>aterrimus</i>)	802	<i>Gnathoglochinus</i> Schedl (= <i>Gnathotrupes</i>)	1039
glaberrimus Wood, <i>Scolytodes</i>	392	Gnatholeptus Blackman	970
<i>glabrinus</i> Bright, <i>Corthylus</i> (= <i>mexicanus</i>)	1075	<i>Gnathomimus</i> Schedl (= <i>Gnathotrupes</i>)	1039
<i>glabratellus</i> Schedl, <i>Hypothenemus</i> (= <i>eruditus</i>)	925	<i>Gnathophorus</i> Schedl (= <i>Pityophthorus</i>)	977
<i>glabratulus</i> (Schedl), (<i>Ctenyophthorus</i>), <i>Pityophthorus</i>	1000	<i>Gnathophthorus</i> Wood (= <i>Pityophthorus</i>)	977
<i>glabratulus</i> (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	926	<i>Gnathotrichina</i> Balachowsky, part (= <i>Corthylina</i>)	1034
<i>glabratulus</i> Browne, <i>Xyleborus</i>	741	<i>Gnathotrichoides</i> Blackman (= <i>Gnathotrichus</i>)	1034
<i>glabratus</i> (Ferrari), (<i>Corthylus</i>), <i>Microcorthylus</i>	1065	Gnathotrichus Eichhoff	1034
<i>glabratus</i> (Schedl), (<i>Hexacolus</i>), <i>Scolytodes</i>	393	° <i>gnathotrichus</i> Schedl, <i>Taphramites</i>	1052
<i>glabratus</i> (Schedl), (<i>Loganius</i>), <i>Cnemomyx</i>	316	Gnathotrupes Schedl	1039
<i>glabratus</i> (Zetterstedt), (<i>Hylurgus</i>), <i>Hylurgops</i>	31	<i>Gnathotrypianus</i> Wood (= <i>Gnathotrupes</i>)	1039
<i>glabratus</i> Eichhoff, <i>Pityophthorus</i>	1000	godmani (Blandford), (<i>Xyleborus</i>), <i>Taurodennus</i>	785
<i>glabratus</i> Eichhoff, <i>Xyleborus</i>	741	golbachii Schedl, <i>Scolytus</i>	331
<i>glabratus</i> Schedl, <i>Hylecops</i>	237	<i>goliathoides</i> Murayama, (<i>Phlocosinus</i>), <i>Ficicis</i> (= <i>despectus</i>)	91
<i>glabratus</i> Schedl, <i>Hypocryphalus</i>	869	goloanus (Browne), (<i>Xyleborus</i>), <i>Eucwallacea</i>	690
<i>glabratus</i> Schedl, <i>Hypothenemus</i> (= <i>eruditus</i>)	925	golotjankoi Pjatnitzky, <i>Orthotomicus</i>	469
glabrellus (Schedl), (<i>Hexacolus</i>), <i>Scolytodes</i>	393	<i>goniomma</i> Enderlein, <i>Aphanarthrum</i> (= <i>mairei</i>)	619
glabrescens Wood, <i>Scolytodes</i>	392	gorggae Schedl, <i>Xyleborus</i>	741
<i>glabricollis</i> Schedl, <i>Araptus</i> (= <i>confinis</i>)	954	gorontalosis (Schedl), (<i>Xyleborus</i>), <i>Coptodryas</i>	824
glabriculum (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1056	gossypii (Hopkins), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	926
glabrifrons (Blandford), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1056	<i>gracile</i> Eichhoff, (<i>Pterocyclon</i>), <i>Monarthrum</i> (= <i>fasciatum</i>)	1056
glabripennis (Hopkins), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	926	gracilens Wood, <i>Araptus</i>	957
<i>glabripennis</i> Schedl, (<i>Xyleborus</i>), <i>Cnestus</i> (= <i>aterrimus</i>)	802	gracilens Wood, <i>Cnemomyx</i>	316
glabrum Wollaston, <i>Aphanarthrum</i>	618	gracilentum (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1056
<i>glabrum nudum</i> Israelson, <i>Aphanarthrum</i> (= <i>glabrum</i>)	618	gracilentus (Schedl), (<i>Neodryocoetes</i>), <i>Araptus</i>	957
<i>glandis</i> Beeson, (<i>Thammurgides</i>), <i>Coccotrypes</i> (= <i>papuanus</i>)	608	gracilicornis (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	807
glaucus (Sampson), (<i>Xyleborus</i>), <i>Amasa</i>	683	<i>gracilicornum</i> Schedl, (<i>Pterocyclon</i>), <i>Monarthrum</i> (= <i>exornatum</i>)	1055
globosus (Eggers), (<i>Trogloglatica</i>), <i>Acacis</i>	193	gracilior (Schedl), (<i>Apoglostatus</i>), <i>Glostatus</i>	835
globosus (Eichhoff), (<i>Hylesinus</i>), <i>Dendrosinus</i>	237	gracilior (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1056
<i>globosus</i> Hagedorn, (<i>Hapalogenius</i>), <i>Hylesinopsis</i> (= <i>fuscipennis</i>)	94	gracilior Browne, <i>Cryptoxyleborus</i>	828
globosus Hagedorn, <i>Chramesus</i>	265	gracilipennis (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	807
globosus Strohmeyer, <i>Glochiphorus</i>	271	gracilipennis Schedl, <i>Tricolus</i>	1043
globulus Blandford, <i>Sphaerotrypes</i>	199	gracilipes (Eichhoff), (<i>Platydyctylus</i>), <i>Eccoptyopterus</i>	820
globulus Stebbing, (<i>Chramesus</i>), <i>Sphaerotrypes</i> (= <i>querci</i>)	201	gracilis (Eichhoff), (<i>Xyleborus</i>), <i>Xyleborinus</i>	808
globus (Blandford), (<i>Xyleborus</i>), <i>Hadrodennus</i>	519	gracilis (Schedl), (<i>Corthylomimus</i> , <i>Cortheloderes</i>), <i>Corthylus</i>	1074
<i>Glochicopterus</i> Schedl (= <i>Hylesinopsis</i>)	92	gracilis (Schedl), (<i>Lepicerinus</i>), <i>Scolytogenes</i>	861
Glochinerus Blandford	1064	gracilis (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	481
Glochiphorus Strohmeyer	271	gracilis (Schedl), (<i>Neodryocoetes</i>), <i>Araptus</i>	957
		gracilis (Schedl), (<i>Ozodendron</i>), <i>Cyrtogenius</i>	565
		gracilis (Schedl), (<i>Phacrylus</i>), <i>Acorthylus</i>	853
		<i>gracilis</i> Blackman, <i>Pseudopityophthorus</i> (= <i>asperulus</i>)	972
		gracilis Blandford, <i>Cnesinus</i>	208

- gracilis* Browne, *Cyrtogenius* (= *gracillimus*) 565
- gracilis* Browne, *Eidophelus* 867
- gracilis* Browne, *Webbia* 831
- gracilis* Eggers, (*Stephanoderes*), *Hypothenemus*
(= *eruditus*) 924
- gracilis* Eggers, *Amphicranus* 1047
- gracilis* Eggers, *Tricolus* 1043
- gracilis* Eichhoff, *Pycnarthrum* (= *hispidum*) 385
- gracilis* LeConte, *Hylastes* 54
- gracilis* Niisima, *Polygraphus* 286
- gracilis* Schedl, *Lamurgus* 408
- gracilis* Schedl, *Scolytodes* 393
- gracilis* Swaine, *Pityophthorus* (= *murrayanae*) 1014
- gracilis* Wood, *Chramesus* 265
- gracilis* Wood, *Dendrocranius* 551
- gracillimus* Wood, *Cyrtogenius* 565
- granatus* Schedl, *Xyleborus* 741
- grande* Schedl, *Rhopalopselion* 96
- grandiclava* Thomson, *Polygraphus* 286
- grandiclavatus* Eggers, *Microcorthyus* 1066
- grandicollis* (Eichhoff), (*Tomicus*), *Ips* 506
- grandicollis* Swaine, *Hylurgops* (= *incomptus*) 34
- grandidentatus* Schedl, *Scolytoplatypus*
(= *eichelbaumi*) 402
- grandis* (Beeson), (*Pellicerus*), *Cyrtogenius* 565
- grandis* (Eggers), (*Poccilips*), *Coccotrypes* 604
- grandis* (Erichson), (*Phlocotrupes*), *Phloeoborus* 99
- grandis* (Schedl), (*Hexacolus*), *Scolytodes* 393
- grandis* (Schedl), (*Neodryocoetes*), *Araptus* 957
- grandis* (Schedl), (*Xyleboricus*), *Arixyleborus* 666
- grandis* Blackman, *Pityophthorus* 1001
- grandis* Browne, *Acanthotomicus* 481
- grandis* Chamberlin, *Cryphalus* (= *ruficollis*) 892
- grandis* Eichhoff, *Xyleborus* 741
- grandis* Kureuzov, *Scolytus* (= *trispinosus*) 378
- grandis* Nunberg, *Polygraphus* 287
- grandis* Schedl, (*Cryphalomorphus*), *Hypothenemus*
(= *ingens*) 931
- grandis* Schedl, *Cnesinus* 209
- grandis* Schedl, *Cryphalomimus* 835
- grandis* Schedl, *Hypothenemus* 926
- grandis* Schedl, *Micracis* 432
- grandis* Schedl, *Scolytodes* (= *eximius*) 392
- grandis* Schedl, *Sphaerotrypes* 199
- grandis* Schedl, *Trypophloeus* 844
- grandis* Swaine, *Pseudohylesinus* (= *sericeus*) 112
- granigeri* (Peyerimhoff), (*Lymantor*), *Triotenuis* 541
- graniceps* (Eichhoff), (*Dryocoetes*), *Coccotrypes* 604
- graniceps* Eichhoff, *Coccotrypes* (= *graniceps*) 604
- granicollis* (LeConte), (*Xyleborus*), *Dryocoetes* 582
- granicollis* Eichhoff, (*Phlocophthorus*), *Phlocotribus*
(= *frontalis*) 222
- granifer* (Eichhoff), (*Xyleborus*), *Arixyleborus* 666
- granifer* borneensis Schedl, *Arixyleborus*
(= *granifer*) 666
- granifer* Browne, *Diamerus* 195
- graniger* Eichhoff, (*Dendroctonus*), *Phloeosinus*
(= *dentatus*) 246
- graniger* Schedl, *Xyleborus* 741
- granistriatus* (Schedl), (*Orosiotes*), *Cyrtogenius* 565
- granistriatus* Eggers, (*Xyleborus*), *Arixyleborus*
(= *imitator*) 667
- graniticus* Wood, *Pseudothysanocs* 414
- granosus* (Schedl), (*Xyleborus*), *Euwallacea* 690
- granosus* Chapuis, *Hylastes* (= *porculus*) 61
- granosus* Eichhoff, *Phloeoborus* 99
- granosus* Schedl, *Phloeosinus* 247
- granularis* Schedl, *Xyleborus* (= *rolulus*) 783
- granulatum* Blandford, *Styphlosoma* 950
- granulatum* Bright, *Monarthrum* 1056
- granulatum* Eggers, *Trypodendron* (= *lineatum*) 643
- granulatus* (Eggers), (*Pagiocerus*), *Chramesus* 265
- granulatus* (Ferrari), (*Xylocleptes*),
Acanthotomicus 481
- granulatus* (LeConte), (*Hylastes*),
Pseudohylesinus 110
- granulatus* (Lepesme), (*Kissophagus*),
Hylesinopsis 94
- granulatus* (Ratzeburg), (*Bostrichus*),
Trypophloeus 844
- ° *granulatus* (Schedl), (*Hyleserites*), *Hylurgops* 33
- granulatus* (Wood), (*Cryphalomorphus*),
Scolytogenes 862
- granulatus* Blackman, *Pseudopityophthorus* 973
- granulatus* Bruck, *Phloeosinus* (= *frontalis*) 247
- granulatus* Eggers, *Diamerus* 195
- granulatus* Eggers, *Hylastinus* (= *obscurus*) 65
- granulatus* Eggers, *Hyorrhynchus* (= *leicisi*) 192
- granulatus* Eggers, *Phloeoborus* 99
- granulatus* Eggers, *Polygraphus* 287
- granulatus* Niisima, *Polygraphus* (= *japonicus*) 288
- granulatus* Schedl, (*Neodryocoetes*), *Araptus*
(= *tenellus*) 962
- granulatus* Schedl, *Corthyus* 1074
- granulatus* Schedl, *Hypocryphalus* 869
- granulatus* Schedl, *Ozopemon* 589
- granulatus* Swaine, *Pityophthorus* (= *consimilis*) 991
- granulatus* Wood, *Cactopinus* 435
- granulicauda* (Eggers), (*Xyleborus*),
Dryocoetoides 657
- granulicauda* Schedl, *Arixyleborus* 666
- granulicauda* Schedl, (*Poccilips*),
Coccotrypes (= sp.?) 591
- granulicauda* Schedl, *Pityophthorus* (= *terebrans*) 1031
- granulicauda* Schedl, *Polygraphus* 288
- granulicollis* (Schedl), (*Neodiamerus*), *Acacacis* 193
- granulicollis* Schedl, (*Dendriops*), *Cosmoderes*
(= *monilicollis*) 901
- granulicollis* Schedl, *Thammurgus* 543
- granulifer* (Beeson), (*Pellicerus*), *Cyrtogenius* 565
- granulifer* (Eggers), (*Xyleborus*), *Arixyleborus* 666
- granulifer* Eggers, *Polygraphus* 288
- granulifer* Eggers, *Strombophorus* 203

<i>granulifer</i> Motschulsky, (<i>Hylesinus</i>), <i>Ficicis</i> (= <i>despectus</i>)	90	<i>grouvellei</i> (Blandford), (<i>Ethadopselaphus</i>), <i>Dactylipalpus</i>	102
<i>granulifer</i> Reitter, <i>Scolytus</i> (= <i>jaroschewskii</i>)	336	<i>grouvellei</i> Blandford, <i>Amphicranus</i>	1047
<i>granulifer</i> Wood, <i>Cactopinus</i>	435	<i>guadeloupanus</i> Wood, <i>Araptus</i>	957
<i>granulifer</i> Wood, <i>Corthylus</i>	1074	<i>guadeloupenis</i> Eggers, <i>Cuesinus</i>	209
<i>granulifer</i> Wood, <i>Pseudopityophthorus</i>	973	<i>guadeloupenis</i> Numberg, (<i>Pityophthorus</i>), <i>Araptus</i> (= <i>eggersianus</i>)	956
<i>granulifer</i> Wood, <i>Thysanoes</i>	420	<i>guadeloupenis</i> Schedl, (<i>Brachydendrus</i>), <i>Araptus</i> (= <i>guadeloupanus</i>)	957
<i>granulipennis</i> (Schedl), (<i>Neodryocoetes</i>), <i>Araptus</i>	957	<i>guadeloupenis</i> Schedl, (<i>Neodryocoetes</i>), <i>Araptus</i> (= <i>laevigatus</i>)	958
<i>granulipennis</i> Eggers, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>andamanensis</i>)	686	<i>guadeloupenis</i> Schedl, <i>Hypothenemus</i> (= <i>plumeriae</i>)	939
<i>granulipennis</i> Schedl, <i>Chramesus</i>	266	<i>guanaguatensis</i> Duges, <i>Xyleborus</i> (= <i>rolulus</i>)	782
<i>granulipennis</i> Schedl, <i>Phloeosinus</i>	247	<i>guatemalensis</i> (Hopkins), (<i>Xylocleptes</i>), <i>Dendrocranulus</i>	551
<i>granulipennis</i> Schedl, <i>Pityophthorus</i> (= <i>terebrans</i>)	1031	<i>guatemalensis</i> (Wood), (<i>Lepersinus</i>), <i>Hylesinus</i>	50
<i>granulipennis</i> Schedl, <i>Pityophthorus</i>	1001	<i>guatemalensis</i> Blandford, <i>Pityophthorus</i>	1001
<i>granulipennis</i> Schedl, <i>Xylocleptes</i>	549	<i>guatemalensis</i> Hopkins, (<i>Ambrosiodmus</i>), <i>Ambrosiodmus</i> (= <i>hagedorni</i>)	674
<i>granulipes</i> Schedl, <i>Xyleborus</i>	741	<i>guatemalensis</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>crudiae</i>)	915
<i>granulosus</i> (Schedl), (<i>Breviophthorus</i>), <i>Pityophthorus</i>	1001	<i>guatemalensis</i> Hopkins, <i>Dryocoetoides</i> (= <i>capucinus</i>)	657
<i>granulosus</i> Schedl, <i>Xyleborus</i> (= <i>partitus</i>)	758	<i>guayanensis</i> Eggers, <i>Corthylus</i> (= <i>papulans</i>)	1076
<i>grauurus</i> Browne, <i>Xyleborus</i>	741	<i>guayanensis</i> Eggers, <i>Phlocoborus</i>	99
<i>graphus</i> Duftschmidt, <i>Hylastes</i> (= <i>angustatus</i>)	44	<i>guayanensis</i> Eggers, <i>Xyleborus</i> (= <i>tunucensis</i>)	779
<i>gratiosus</i> Schedl, <i>Xyleborus</i>	741	<i>guevinae</i> (Schedl), (<i>Bostrichips</i>), <i>Pseudothysanoes</i>	414
<i>gratus</i> Schedl, <i>Xyleborus</i>	741	<i>guianae</i> Blackman, (<i>Neodryocoetes</i>), <i>Araptus</i> (= <i>hymenaeae</i>)	955
<i>gravelyi</i> Wichmann, <i>Xyleborus</i>	741	<i>guitoutiae</i> (Schedl), (<i>Miocryphalus</i>), <i>Ernocladius</i>	857
<i>gravidus</i> (Blandford), (<i>Dryocoetes</i>), <i>Ozopemon</i>	589	<i>guildi</i> Blackman, <i>Ips</i> (= <i>latidens</i>)	511
<i>gravidus</i> (Blandford), (<i>Xyleborus</i>), <i>Xylosandrus</i>	796	<i>guillebeui</i> Reitter, (<i>Phloeophthorus</i>), <i>Phloeotribus</i> (= <i>pubifrons</i>)	228
<i>grayi</i> Schedl, <i>Cryphalus</i> (= <i>tetricus</i>)	897	<i>guineensis</i> (Eggers), (<i>Xyleborus</i>), <i>Cyclorhupidion</i>	699
<i>grenudensis</i> Hopkins, <i>Xyleborus</i> (= <i>rolulus</i>)	783	<i>guineensis</i> Hagedorn, (<i>Hyphaeni</i>), <i>Coccotrypes</i> (= sp.?)	591
<i>gretschkini</i> Sokanovskii, <i>Scolytus</i>	331	<i>gummensis</i> (Murayama), (<i>Pruniphagus</i>), <i>Xylechinus</i>	116
<i>Gretschkinia</i> Sokanovskii (= <i>Pseudothysanoes</i>)	411	<i>gundlachi</i> Eggers, (<i>Xyleborus</i>), <i>Ambrosiodmus</i> (= <i>lecontei</i>)	675
<i>griseopubescens</i> Schedl, <i>Diamerus</i>	195	<i>gunneri</i> Schedl, <i>Pityophthorus</i>	1001
<i>griseum</i> Schedl, <i>Ctonoxylon</i>	837	<i>guttifer</i> (Schedl), (<i>Xyleboricus</i>), <i>Arixyleborus</i>	667
<i>griseus</i> Blackburn, (<i>Hypothenemus</i>), <i>Hypoeryphalus</i> (= <i>mangiferae</i>)	870	<i>guyanaensis</i> (Schedl), <i>Scolytodes</i>	393
<i>griseus</i> Eggers, <i>Polygraphus</i> (= <i>poligraphus</i>)	295	Gymnochilus Eichhoff	386
<i>griseus</i> Marsham, (<i>Ips</i>), <i>Hylesinus</i> (= <i>varius</i>)	56	<i>haagi</i> Eichhoff, (<i>Dendroctonus</i>), <i>Phloeosinus</i> (= <i>dentatus</i>)	246
<i>griseus</i> Swaine, <i>Pseudohylesinus</i> (= <i>nebulosus nebulosus</i>)	110	<i>haberkorni</i> Eggers, <i>Xyleborus</i>	741
<i>griseopuberulus</i> Schedl, <i>Coccotrypes</i> (= <i>carpophagus</i>)	597	<i>habilis</i> Wood, <i>Scolytodes</i>	393
<i>grobleri</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	862	<i>haddeni</i> Schedl, <i>Xyleborus</i>	742
<i>grobleri</i> Schedl, <i>Miocryphalus</i>	411	Hadrodemius Wood	818
<i>grossepunctatus</i> (Schedl), (<i>Policerus</i>), <i>Cyrtogenius</i>	565	<i>haemorrhoidalis</i> Marsham, (<i>Ips</i>), <i>Hylesinus</i> (= <i>varius</i>)	89
<i>grossepunctatus</i> Browne, (<i>Cryphalomorphus</i>), <i>Scolytogenes</i> (= <i>puncticollis</i>)	865	<i>haemorrhous</i> Schmidberger, <i>Scolytus</i> (= <i>rugulosus</i>)	369
<i>grossepunctatus</i> Eggers, <i>Ozopemon</i>	589	<i>haesitus</i> Schedl, <i>Xyleborus</i>	742
<i>grossepunctatus</i> Schedl, <i>Thaumurgus</i>	543	<i>hagedorni</i> (Iglesias), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	674
<i>grossmanni</i> Schedl, <i>Xyleborus</i>	741	<i>hagedorni</i> (Schedl), (<i>Prionosceles</i>), <i>Scolytodes</i>	393
<i>grossopunctatus</i> Schedl, (<i>Xyleborus</i>), <i>Coccotrypes</i> (= <i>gedeanus</i>)	603	<i>hagedorni</i> (Schedl), (<i>Pterocyclou</i>), <i>Monarthrum</i>	1057
<i>grossopunctatus</i> Schedl, <i>Dendrocranulus</i> (= <i>macilentus</i>)	552		
<i>grossus</i> Chapuis, <i>Phlocoborus</i>	99		
<i>grothi</i> Hagedorn, (<i>Cryphalus</i>), <i>Trypophloeus</i> (= <i>binodulus</i>)	844		

- hagedorni* Eggers, (*Coccotrypes*), *Cryphalus*
(=*walkeri*) 89S
- hagedorni* Eggers, *Sphaerotrypes* 199
- hagedorni* Stebbing, *Xyleborus* (= *hagedornianus*) 742
- hagedornianus* Schedl, *Xyleborus* 742
- Hagedornus* Lucas (= *Pityophthorus*) 976
- halli* Schedl, *Xyleborus* 742
- Halystus** Schedl 2S3
- hamamelidis* Blackman, *Pityophthorus* (= *latus*) 1006
- hamamelidis* Hopkins, *Hypothenemus* (= *eruditus*) 922
- hamatum* Schedl, *Ctenoxylon* 83S
- hamatus* Hagedorn, *Scolytoplatypus* (= *eutomoides*) 403
- hamatus* LeConte, (*Xyleborus*), *Pityogenes*
(=*carinulatus*) 445
- hampei* (Ferrari), (*Cryphalus*), *Hypothenemus* 927
- Hapalogenius* Hagedorn (= *Rhopalopselion*) 96
- Hapalophloeus* Schedl (= *Hylesinopsis*) 92
- harnedi* (Blackman), (*Micracis*), *Hylocurus* 425
- harongae* (Schedl), (*Ips*), *Acanthotomicus* 451
- harringtoni* (Blackman), (*Tachyderes*),
Cryptocarenum 903
- harringtoni* Blackman, *Phloeotribus* 222
- harringtoni* Blackman, *Pseudochramesus* 262
- harunganae* (Schedl), (*Micracis*), *Pseudomicracis* 429
- hashimotoi* Browne, *Xyleborus* 742
- hastatum* (Schedl), (*Xyleborus*), *Cyclorhipidion* 700
- hatanakai* Browne, *Xyleborus* 742
- hatanakai* Browne, *Webbia* 831
- hattori* Kono, *Cryphalus* (= *piceae*) 5S5
- hauseri* Reitter, *Ips* 509
- hawaiiensis* Perkins, *Xyleborus* 742
- hawaiiensis* Schedl, (*Stephanoderes*), *Hypothenemus*
(=*seriatus*) 943
- heathi* Hopkins, *Hypothenemus* (= *eruditus*) 923
- hebes* Schedl, *Phloeotribus* 222
- hectographus* Reitter, *Dryocoetes* 5S2
- hederae* (Schmidt), (*Hylesinus*), *Kissophagus* 6S
- helferi* Eggers, *Sphaerotrypes* 199
- helferi* Villa, (*Hylurgus*), *Hylurgops* (= *palliatus*) 3S
- heliura* Wood, *Pseudothysanoes* 414
- helopioides* Schedl, *Cryphalus* 8S1
- helveticus* Guillebeau, (*Phloeophthorus*), *Phloeotribus*
(=*cristatus*) 220
- hemibitali* Schedl, (*Xyleborus*), *Coptoborus*
(=*usagarius*) 665
- Hemicyphalus* Schedl 866
- Hemihylesinus* Schedl (= *Hylesinopsis*) 92
- hendrickxi* Schedl, (*Streptocranus*), *Coptoborus*
(=*usagarius*) 664
- henscheli* Knotek, *Hylesinus* (= *varius*) 59
- henscheli* Reitter, *Carphoborus* (= *bonnairei*) 303
- henscheli* Seitner, *Pityophthorus* 1001
- henschi* Reitter, *Phloeosinus* 247
- henshawi* Hopkins, (*Eriocryphalus*), *Cryphalus*
(=*sylicicola*) 596
- herbellae* Strohmeyer, *Pityogenes* (= *bistridentatus*) 444
- herbertfranzi* (Schedl), (*Gnathotrichus*),
Gnathotrypes 1040
- hercegovinensis* (Seitner), (*Phloeophthorus*),
Phloeotribus 222
- hercegovinensis* Eggers, *Phloeosinus* (= *bicolor*) 243
- hermosus* Wood, *Pityophthorus* 1002
- hermosus* Wood, *Scolytus* 331
- herrarai* Hopkins, *Pityophthorus* (= *chalcensis*) 9S5
- hesperidum* Wollaston, *Aphanarthron* 61S
- hesperius* Bright, *Pityophthorus* (= *concurus*) 9S9
- hesperius* Bright, *Pityotrichus* 970
- Heteroborips* Reitter (= *Xyleborus*) 704
- heterodon* Wachtl, (*Tomicus*), *Pityokteinus*
(=*spinidens*) 466
- heterodoxus* (Casey), (*Renocis*), *Chaetophloeus* 272
- heterolepsis* Costa Lima, *Hypothenemus*
(=*arecae*) 907
- heveae** (Hagedorn), (*Stephanoderes*),
Cryptocarenum 903
- heveae** (Schedl), (*Xyleborus*), *Xyleborinus* 80S
- hewetti** (Stebbing), (*Dryocoetes*), *Taphrorhynchus* 559
- Hexacolidae Chapuis (= *Ctenophorini*) 3S3
- Hexacolides Chapuis (= *Ctenophorini*) 3S3
- Hexacolinae Chapuis (= *Ctenophorini*) 3S3
- Hexacolini Chapuis 3S3
- Hexacolinus* Schedl (= *Scolytodes*) 3S5
- Hexacolus* Eichhoff (= *Scolytodes*) 3S7
- heydeni* Eichhoff, (*Tomicus*), *Ips* (= *acuminatus*) 4S9
- hicoriae** LeConte, *Chramesus* 266
- hidalgoensis* Blackman, *Pityophthorus*
(=*nocturnus*) 1016
- hiika** Samuelson, *Xyleborus* 742
- himalabetis* Beeson, *Hylastes* (= *brunneus*) 50
- himalayensis* Beeson, (*Thamurgides*), *Coccotrypes*
(=*nubilus*) 60S
- himalayensis* Eggers, *Ambrosiodmus* (= *minor*) 676
- himalayensis* Stebbing, *Hylastes* (= *Curculionidae*) 43
- himalayensis* Stebbing, (*Cryphalus*), *Pityophthorus*
(=*deodara*) 995
- himalayensis* Stebbing, *Polygraphus* (= *longifolia*) 2S9
- himalayensis* Stebbing, *Scolytoplatypus* (= *raja*) 406
- himalayensis** Strohmeyer, *Dryocoetes* 5S3
- hintzi** Schedl, *Pityophthorus* 1002
- hirsutipennis* (Schedl), (*Xyleborus*), *Xylosandrus* 796
- hirsutulus** Schedl, *Arixyleborus* 667
- hirsutum* Hagedorn, *Ctenoxylon* (= *flavescens*) 837
- hirsutus** (Nobuchi), (*Taenioglyptes*), *Cryphalus* 5S1
- hirsutus** (Schedl), (*Dryocoetes*), *Dryocoetiops* 5S7
- hirsutus** (Schedl), (*Trypographus*), *Hylesinopsis* 94
- hirsutus** (Wood), (*Stephanoderes*), *Hypothenemus* 930
- hirsutus** Blackman, *Scolytoplatypus* 403
- hirsutus* Bright, *Pseudopityophthorus* (= *tenuis*) 976
- hirsutus* Eichhoff, (*Tomicus*), *Ips* (= *concinuus*) 500
- hirsutus* Lea, (*Xylopertha*), *Xyleborus*
(=*perforans*) 761
- hirsutus** Schedl, *Abiiphagus* 73
- hirsutus* Schedl, *Dendrosinus* (= *ater*) 236

<i>hirsutus</i> Schedl. <i>Glostatus</i>	555	<i>hopeae</i> Browne, <i>Xyleborus</i>	742
<i>hirsutus</i> Schedl. <i>Xylechinomomus</i>	105	<i>hopehi</i> Schedl. <i>Phloeosinus</i>	248
<i>hirsutus</i> Wood, <i>Bothrosternus</i>	215	<i>hopkinsi</i> Beeson, <i>Xyleborus</i> (= <i>ferrugineus</i>)	739
<i>hirsutus</i> Wood, <i>Scolytodes</i>	393	<i>hopkinsi</i> Blackman, <i>Pityophthorus</i> (= <i>digestus</i>)	995
<i>hirtellum</i> Schedl. <i>Ctonoxylon</i>	535	<i>hopkinsi</i> Blackman, <i>Pseudothysanoes</i>	414
<i>hirtellus</i> (LeConte), (<i>Micracis</i>), <i>Hyllocurus</i>	425	<i>hopkinsi</i> Browne, <i>Hypothenemus</i> (= <i>multidentatus</i>)	936
<i>hirtellus</i> Eichhoff, <i>Taphrorhynchus</i>	559	<i>hopkinsi</i> Swaine, <i>Pityogenes</i>	452
<i>hirtellus</i> Schedl. <i>Cyrtogenius</i>	565	<i>Hoplites</i> Eggers (= <i>Cladoctonus</i>)	238
<i>hirtellus</i> Schedl. <i>Phlocotribus</i>	222	<i>Hoplitoutus</i> Wood (= <i>Cladoctonus</i>)	238
<i>hirtellus</i> Schedl. (<i>Xyleborus</i>), <i>Theoborus</i> (= <i>theobromae</i>)	661	<i>Hoplitophthorus</i> Wood (= <i>Cladoctonus</i>)	238
<i>hirtellus</i> Wood, <i>Pityoborus</i>	968	<i>hoppingi</i> Lanier, <i>Ips</i>	509
<i>hirticeps</i> LeConte, <i>Pityophthorus</i> (= <i>pulehellus</i>)	1023	<i>hoppingi</i> Swaine, <i>Phloeosinus</i>	248
<i>hirtipennis</i> (Eggers), (<i>Xyleborus</i>), <i>Arixyleborus</i>	667	<i>hoppingi</i> Swaine, <i>Polygraphus</i>	288
<i>hirtipennis</i> Schedl. <i>Campocerus</i> (= <i>suturalis</i>)	320	<i>hornus</i> (Schedl), (<i>Eidophelus</i>), <i>Cyrtogenius</i>	565
<i>hirtipennis</i> Schedl. <i>Hypothenemus</i>	930	<i>horridatus</i> Wood, <i>Xyleborus</i>	742
<i>hirtipes</i> Schedl. <i>Xyleborus</i>	742	<i>horridicus</i> Wood, <i>Xyleborus</i>	743
<i>hirtum</i> (Hagedorn), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	700	<i>horridulus</i> Browne, <i>Xyleborus</i>	743
<i>hirtuosus</i> Beeson, (<i>Xyleborus</i>), <i>Cyclorhipidion</i> (= <i>hirtum</i>)	700	<i>horridus</i> (Eggers), (<i>Hylesinus</i>), <i>Hylesinopsis</i>	94
<i>hirtus</i> (Eggers), (<i>Dryocoetes</i>), <i>Cyrtogenius</i>	565	<i>horridus</i> Eichhoff, <i>Cryphalus</i>	851
<i>hirtus</i> (Wood), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	862	<i>horridus</i> Eichhoff, <i>Xyleborus</i>	743
<i>hirtus</i> Wood, <i>Phlocotribus</i>	222	<i>horridus</i> Graham, <i>Cryphalus</i> (= <i>theobromae</i>)	897
<i>hispaniolum</i> Bright, <i>Liparthrum</i>	277	<i>horyurensis</i> Murayama, <i>Polygraphus</i>	288
<i>hispaniolus</i> Bright, <i>Pityophthorus</i>	1002	<i>hostilis</i> (Blackman), (<i>Neodryocoetes</i>), <i>Araptus</i>	957
<i>hispidulus</i> Eggers, <i>Phlocotribus</i>	222	<i>hostilis</i> Wood, <i>Microcorthyus</i>	1066
<i>hispidulus</i> LeConte, (<i>Cryphalus</i>), <i>Hypothenemus</i> (= <i>crudiae</i>)	914	<i>hova</i> Schaufuss, <i>Scolytoplatypus</i>	403
<i>hispidulus</i> Thomson, <i>Crypturgus</i>	624	<i>hova</i> Schedl. <i>Xyleborus</i>	743
<i>hispidum</i> (Ferrari), (<i>Hypoborus</i>), <i>Pycnarthrum</i>	354	<i>howardi</i> Hopkins, <i>Xyleborus</i> (= <i>intrusus</i>)	745
<i>hispidus</i> (Eggers), (<i>Metalylesinus</i>), <i>Hylesinopsis</i>	94	<i>howdenae</i> Bright, <i>Xyleborus</i>	743
<i>hispidus</i> (Klug), (<i>Hylesinus</i>), <i>Diamerus</i>	196	<i>howdeni</i> Bright, <i>Chaetophloeus</i>	272
<i>hispidus</i> Eggers, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>areccae</i>)	907	<i>huachucae</i> Blackman, <i>Pseudothysanoes</i>	414
<i>hispidus</i> Eggers, <i>Cuesinus</i>	209	<i>huachucae</i> Wood, <i>Monarthrum</i>	1057
<i>hispidus</i> Eggers, <i>Kissophagus</i> (= <i>hederae</i>)	68	<i>huangi</i> (Browne), (<i>Xyleborus</i>), <i>Coptodryas</i>	824
<i>hispidus</i> Eggers, <i>Pseudopityophthorus</i>	973	<i>huapiae</i> (Schedl), (<i>Phthorophloeus</i>), <i>Phlocotribus</i>	222
<i>hispidus</i> Eggers, <i>Strombophorus</i>	203	<i>hubbardi</i> Blackman, (<i>Neodryocoetes</i>), <i>Araptus</i> (= <i>politus</i>)	961
<i>hitcaeca</i> Beeson, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>crudiae</i>)	915	<i>hubbardi</i> Blackman, <i>Pityophthorus</i> (= <i>infulatus</i>)	1003
<i>hobohmi</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	861	<i>hubbardi</i> Hopkins, <i>Coccotrypes</i> (= <i>carpophagus</i>)	596
<i>hoegei</i> (Blandford), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1057	<i>hubbardi</i> Hopkins, <i>Xyleborus</i> (= <i>colvulus</i>)	783
<i>hoferi</i> Blackman, (<i>Leperisinus</i>), <i>Hylesinus</i> (= <i>californicus</i>)	76	<i>hubbardi</i> Schwarz, (<i>Bothrosternus</i>), <i>Pagiocerus</i> (= <i>frontalis</i>)	213
<i>hoferi</i> Blackman, <i>Phloeosinus</i>	248	<i>hubbardi</i> Schwarz, <i>Cactopinus</i>	435
<i>holdhausi</i> Wichmann, <i>Trypophloeus</i> (= <i>alni</i>)	842	<i>hudsonicus</i> LeConte, <i>Ips</i> (= <i>perturbatus</i>)	516
<i>Holonthogaster</i> Gemminger & Harold (= <i>Hyledius</i>)	259	<i>huelnetanus</i> Schedl, <i>Dendrocraulus</i> (= <i>maurus</i>)	552
<i>holtzi</i> Eggers, (<i>Xyleborus</i>), <i>Ambrosiodinus</i> (= <i>aegir</i>)	670	<i>humilis</i> (Blanchard), (<i>Hylastes</i>), <i>Xylechinomomus</i>	105
<i>holtzi</i> Strohmeier, <i>Thamurgus</i> (= <i>delphinii</i>)	543	<i>humilis</i> Blackman, (<i>Neodryocoetes</i>), <i>Araptus</i> (= <i>hymenaeae</i>)	958
<i>Homarus</i> Broun (= <i>Chaetoptelius</i>)	103	<i>humauensis</i> Browne, <i>Xyleborus</i>	743
<i>Homocoryphalus</i> Lindemann (= <i>Hypothenemus</i>)	904	<i>hunteri</i> Swaine, <i>Ips</i>	509
<i>hondurensis</i> Wood, <i>Micracisella</i>	430	<i>hyaspistis</i> Schedl. <i>Tiarophorus</i>	539
<i>hondurensis</i> Wood, <i>Pityoborus</i>	968	<i>hybridus</i> Blandford, <i>Amphicranus</i>	1047
<i>hondurensis</i> Wood, <i>Pseudopityophthorus</i>	973	<i>hybridus</i> Eggers, (<i>Xyleborus</i>), <i>Eucallucea</i> (= <i>xanthopus</i>)	696
<i>hoodi</i> Blackman, (<i>Neodryocoetes</i>), <i>Araptus</i> (= <i>hymenaeae</i>)	958	° <i>hydropicus</i> (Wickham), (<i>Apidocephalus</i>), <i>Hylesinus</i>	80
		<i>Hylastes</i> Erichson	43
		<i>Hylastes</i> LeConte (= <i>Hylastini</i>)	29

<i>Hylastides</i> LeConte (=Hylastini)	29	<i>Hypoborina</i> Nusslin (=Hypoborini)	271
<i>Hylastini</i> LeConte	29	<i>Hypoborinae</i> Nusslin (=Hypoborini)	271
<i>Hylastinoides</i> LeConte (=Hylesinini)	64	<i>Hypoborini</i> Nusslin	271
<i>Hylastinoides</i> Spessivitzev (=Alniaphagus)	73	<i>Hypoborus</i> Erichson	279
<i>Hylastinus</i> Bedel	64	<i>Hypocryphalus</i> Hopkins	868
<i>Hylastites</i> Hagedorn (=Hylurgops)	30	<i>Hypopityophthorus</i> Bright (=Pityophthorus)	977
<i>Hyledius</i> Sampson	259	<i>Hypothenemus</i> Westwood	904
<i>Hyleops</i> Schedl	237	<i>Hypothenoides</i> Hopkins (=Scolytogenes)	558
<i>Hylescierites</i> Schedl (=Hylurgops)	30	<i>hystricoides</i> Browne, Xyleborus	743
<i>Hylesinae</i> Erichson (=Hylesininae)	25	<i>hystrix</i> (Eggers), (Adiaeretus), Hypothenemus	931
<i>Hylesinen</i> Erichson (=Hylesininae)	25	<i>hystrix</i> (LeConte), (Hylesinus), Chaetophloeus	273
<i>Hylesini</i> Erichson (=Hylesinae, Hylesini)	25, 64	<i>hystrix</i> (Schedl), (Xyleborus), Prcmuobius	653
<i>Hylesinidae</i> Erichson (=Hylesininae)	25	<i>hystrix</i> Abeille de Perrin, Cisurgus (=wollastini)	631
<i>Hylesinoides</i> Erichson (=Hylesininae)	25	<i>hystrix</i> Wood, Phloeotribus	222
<i>hylesiniformis</i> (Schedl), (Ptilopodius),		iconographus Dejean, (Bostrichus), <i>Ips</i>	
<i>Cryphlophthorus</i>	274	(= <i>acuminatus</i>)	455
<i>Hylesinina</i> Erichson (=Hylesininae)	25	<i>idahoensis</i> Hopkins, <i>Procryphalus</i> (=mucronatus)	545
<i>Hylesininae</i> Erichson	25	<i>idoneus</i> Blackman, <i>Pityophthorus</i> (=digestus)	995
<i>Hylesinini</i> Erichson	25, 64	<i>ignobilis</i> Perkins, Xyleborus	743
<i>Hylesinites</i> Germar (=Hylurgops)	29	<i>ignotus</i> (Schedl), (Micracis), Pseudomicracis	429
<i>hylesinopsis</i> (Schedl), (Cryphalomorphus),		<i>ignotus</i> Bright, <i>Tricolus</i> (=perdilignis)	1044
<i>Scolytogenes</i>	862	<i>ignotus</i> Schedl, Pityophthorus	1002
<i>Hylesinopsis</i> Eggers	92	<i>iheringi</i> Iglesias, Xyleborus	743
<i>Hylesinosoma</i> Lea (=Aricerus)	217	<i>ikelaensis</i> Nunberg, Pityophthorus	1002
<i>Hylesinus</i> Erichson (=Hylesininae)	25	<i>illepidus</i> Schedl, (Xyleborus), <i>Ambrosiodmus</i>	
<i>Hylesinus</i> Fabricius	74	(= <i>obliquus</i>)	675
<i>Hyllocuri</i> Eichhoff (=Micracini)	408	<i>illustris</i> (Schedl), (Xyleborus), Euwallacea	690
<i>Hyllocuridae</i> Eichhoff (=Micracini)	408	<i>imbellis</i> Blandford, Xyleborus	743
<i>Hyllocurinae</i> Eichhoff (=Micracini)	408	<i>inbricorius</i> Eichhoff, <i>Phloeosinus</i> (=asper)	95
<i>hylocuroides</i> Wood, Pityophthorus	1002	<i>imitans</i> (Eggers), (Phloeosinus), Hyledius	260
<i>Hylocurosoma</i> Eggers (=Scolytodes)	358	<i>imitans</i> (Eggers), (Prionosceles), Scolytodes	393
<i>Hyllocurus</i> Eichhoff	422	<i>imitans</i> (Eggers), (Trigonogenius), Pityophthorus	1002
<i>Hylonius</i> Nunberg (=Xylocleptes)	547	<i>imitans</i> Eggers, (Pocillips), <i>Coccotrypes</i>	
<i>Hyloperus</i> Browne (=Cryptococcus)	72	(= <i>ghesquieri</i>)	603
<i>Hylurdretonus</i> Schedl	186	<i>imitans</i> Eggers, Dactylipalpus	102
<i>Hylurgidae</i> LeConte (=Tomicini)	103	<i>imitans</i> Eggers, (Xyleborus), <i>Euwallacea</i> (=piceus)	693
<i>Hylurgides</i> LeConte (=Tomicini)	103	<i>imitans</i> Eggers, <i>Microborus</i> (=aberrans)	383
<i>Hylurgini</i> LeConte (=Tomicini)	103	<i>imitans</i> Eggers, <i>Sphaerotrypes</i> (=pila)	200
<i>Hylurgina</i> LeConte (=Tomicini)	103	<i>imitans</i> Eichhoff, Eidophelus	567
<i>hylurgoides</i> (Schedl), (Coptodryas), Cnemomyx	316	<i>imitans</i> Schedl, Hypocryphalus	869
<i>hylurgoides</i> Schedl, Chramesus	266	<i>imitans</i> Wood, Gnathotrichus	1035
<i>Hylurgonotus</i> Schedl	186	<i>imitator</i> (Eggers), (Webbia), Arixyleborus	667
<i>Hylurgopina</i> Balachowsky (=Hylastini)	29	<i>imitator</i> (Reitter), (Hylastes), Hylurgops	33
<i>Hylurgopinus</i> Swaine	106	<i>imitator</i> Schedl, (Xyleborus), <i>Dryocoetoides</i>	
<i>Hylurgops</i> LeConte	29	(= <i>asperulus</i>)	656
<i>hylurgulus</i> (Eggers), (Phloeosinus), Hyledius	260	<i>imitator</i> Sokanovskii, <i>Alniaphagus</i> (=alni)	73
<i>Hylurgulus</i> Eggers (=Hyledius)	257	<i>imitatrix</i> (Schedl), (Erioschidias), Cosmoderes	901
<i>hylurgulus</i> Schedl, Phloeotribus	222	<i>imitatrix</i> (Schedl), (Neodryocoetes), Araptus	955
<i>Hylurgus</i> Latreille	119	<i>immanis</i> Blackman, Pityophthorus	1002
<i>hymenaeae</i> (Eggers), (Neodryocoetes), Araptus	957	<i>immanis</i> Wood, Scolytodes	393
<i>Hyorrhynchinae</i> Hopkins (=Hyorrhynchini)	191	<i>immaturus</i> (Schedl), (Hapalogenius),	
<i>Hyorrhynchini</i> Hopkins	191	<i>Rhopalopselion</i>	96
<i>Hyorrhynchus</i> Blandford	191	<i>immaturus</i> Blackburn, <i>Xyleborus</i> (=perforans)	761
<i>Hypaspistes</i> Hagedorn (=Tiarophorus)	539	* <i>immaturus</i> Schedl, Taphrorhynchus	559
<i>Hypertensus</i> Hagedorn (=Araptus)	952	<i>immersus</i> Schedl, Xyleborus	743
<i>Hypphaene</i> Hagedorn (=Coccotrypes)	591	<i>immitatrix</i> Schedl, Xyleborus	743
		<i>immitus</i> Bright, <i>Pityoborus</i> (=secundus)	969

<i>immune</i> Eggers, <i>Rhopalopselion</i>	97	<i>incomptus</i> (Wood), (<i>Eidophelus</i>), <i>Hemicryphalus</i>	567
<i>immunis</i> Nunberg, <i>Xylocleptes</i> (= <i>brounei</i>)	549	<i>incomptus</i> Wood, <i>Chramesus</i>	266
<i>immunitis</i> (Browne), (<i>Minips</i>), <i>Acanthotomicus</i>	451	<i>incomptus</i> Wood, <i>Hylocurus</i>	425
<i>impar</i> (Schedl), (<i>Hylesinus</i>), <i>Chaetoptelius</i>	103	<i>inconstans</i> Schedl, <i>Xyleborus</i>	744
<i>impar</i> Chapuis, <i>Diamerus</i>	196	<i>inconueniens</i> Schedl, <i>Xyleborus</i> (= <i>sparsipilosus</i>)	774
<i>impar</i> Eggers, <i>Xyleborus</i>	743	<i>incidtus</i> (Wood), (<i>Xyleborus</i>), <i>Theoborus</i>	661
<i>impar</i> Schedl, <i>Cyrtogenius</i>	566	<i>incurvus</i> Eggers, (<i>Xyleborus</i>), <i>Leptoxyloborus</i> (= <i>concisus</i>)	659
<i>impar</i> Schedl, <i>Hylocurus</i>	425	<i>indefessus</i> Bright, <i>Pityophthorus</i>	1003
<i>impar nanus</i> Hagedorn, <i>Diamerus</i> (= <i>impar</i>)	196	<i>indicum</i> Wood, <i>Aphanarthrum</i>	615
<i>impeus</i> (Wood), (<i>Thamnopterus</i>), <i>Araptus</i>	955	<i>indicus</i> Beeson, <i>Scolytogenes</i>	562
<i>imperfectus</i> Eggers, <i>Diamerus</i>	196	<i>indicus</i> Eggers, (<i>Thamurgides</i>), <i>Coccotrypes</i> (= <i>cyperi</i>)	595
<i>imperialis</i> (Schedl), (<i>Pseudochramesus</i>), <i>Xylechinus</i>	116	<i>indicus</i> Eichhoff, <i>Cryphalus</i> (= <i>dorsalis</i>)	579
<i>imperialis</i> Eichhoff, <i>Hylesinus</i> (= <i>aculeatus</i>)	75	<i>indicus</i> Eichhoff (= <i>Xyleborus</i>), <i>Euwallacea</i> (= <i>piceus</i>)	692
<i>impexus</i> Bright, <i>Pityophthorus</i>	1002	<i>indicus</i> Schedl, <i>Xylocleptes</i>	549
<i>impexus</i> Schedl, <i>Xyleborus</i>	743	<i>indicus</i> Stebbing, <i>Cryphalus</i> (= <i>strohmeyeri</i>)	595
<i>impolitus</i> Wood, <i>Chramesus</i>	266	<i>indicus</i> Stebbing, <i>Dryocoetes</i>	583
<i>imporcatus</i> Wood, <i>Chramesus</i>	266	<i>indicus</i> Wood, <i>Bothinodroctonus</i>	310
<i>impressifrons</i> Hopkins, (<i>Hypothencenus</i>), <i>Trischidius</i> (= <i>atomus</i>)	947	<i>indicus</i> Wood, <i>Hylurgus</i>	119
° <i>impressum</i> Scudder, <i>Trypodendron</i>	635	<i>indicus</i> Wood, <i>Pseudoxylechinus</i>	114
<i>impressus</i> (Schedl), (<i>Gnathoglochinus</i>), <i>Gnathotripes</i>	1040	<i>indicus</i> Wood, <i>Scolytogenes</i>	562
<i>impressus</i> (Wood), (<i>Loganius</i>), <i>Cnemomyx</i>	316	<i>indicus subcoriaceus</i> Eggers, (<i>Xyleborus</i>), <i>Euwallacea</i> (= <i>piceus</i>)	693
<i>impressus</i> Eggers, <i>Coccotrypes</i>	604	<i>indigenus</i> (Schedl), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	700
<i>impressus</i> Eichhoff, <i>Xyleborus</i> (= <i>ferrugineus</i>)	735	<i>indigenus</i> Wood, <i>Hypothencenus</i>	931
<i>impressus</i> Rey, <i>Phloeosinus</i> (= <i>thujae</i>)	255	<i>indigenus</i> Wood, <i>Pityophthorus</i>	1003
<i>impressus</i> Schedl, (<i>Gnathotrichus</i>), <i>Gnathotripes</i> (= <i>bituberculosis</i>)	1039	<i>indigenus</i> Wood, <i>Pityophthorus</i> (= <i>indigus</i>)	1003
<i>impressus</i> Wood, <i>Scolytodes</i>	393	<i>indigenus</i> Wollaston, (<i>Hylesinus</i>), <i>Chaetoptelius</i> (= <i>vestitus</i>)	104
<i>improbis</i> Sampson, <i>Xyleborus</i>	744	<i>indigus</i> Wood, <i>Pityophthorus</i>	1003
<i>improcerus</i> Sampson, <i>Xyleborus</i>	744	<i>indocorus</i> Schedl, (<i>Xyleborus</i>), <i>Euwallacea</i> (= <i>wallacei</i>)	695
<i>improvidus</i> Schedl, <i>Xyleborus</i>	744	<i>Indocryphalus</i> Eggers	645
<i>inaequalis</i> Schedl, <i>Xyleborus</i>	744	<i>indolatus</i> Wood, <i>Dryocoetoides</i>	655
<i>inaequalis</i> Wood, <i>Hylocurus</i>	425	<i>indonesianus</i> Browne, <i>Xyleborus</i>	744
<i>inaequidens</i> Schedl, <i>Pityophthorus</i>	1003	<i>industrius</i> Sampson, (<i>Xyleborus</i>), <i>Premnobius</i> (= <i>caripennis</i>)	652
<i>inaequipunctatus</i> Butovitsch, <i>Scolytus</i> (= <i>pygmaeus</i>)	355	<i>ineditus</i> Bright, <i>Pityophthorus</i>	1003
<i>inaffectatus</i> (Schedl), (<i>Xyleborus</i>), <i>Dryocoetoides</i>	655	<i>inermis</i> (Schedl), (<i>Stephanorhopalus</i>), <i>Eruoporus</i>	855
<i>inaffectus</i> Wood, <i>Tricolus</i>	1043	<i>inermis</i> Browne, <i>Cyrtogenius</i>	566
<i>inarmatum</i> Wollaston, <i>Liparthrum</i>	277	<i>inermis</i> Browne, <i>Hypothencenus</i>	931
<i>inarmatus</i> Eggers, <i>Xyleborus</i>	744	<i>inermis</i> Browne, <i>Sphaerotrypes</i>	199
<i>inceptis</i> Wood, <i>Pityophthorus</i> (= <i>exquisitus</i>)	995	<i>inermis</i> Eggers, <i>Diamerus</i>	196
<i>incertus</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	674	<i>inermis</i> Eichhoff, <i>Xyleborus</i> (= <i>xylographus</i>)	784
<i>incertus</i> Schedl, <i>Xyleborus</i> (= <i>rugosipennis</i>)	769	<i>inermis</i> Nunberg, <i>Phloeosinus</i> (= <i>henschii</i>)	245
<i>incertus</i> Wood, <i>Micracis</i>	432	<i>inermis</i> Wood, <i>Microcorthyus</i>	1066
<i>incisus</i> Schedl, <i>Tricolus</i>	1043	<i>infans</i> Eichhoff, <i>Pityophthorus</i> (= <i>puberulus</i>)	1022
<i>inclinans</i> (Schedl), (<i>Ips</i>), <i>Acanthotomicus</i>	451	<i>infans</i> Hagedorn, (<i>Xyleborus</i>), <i>Coccotrypes</i> (= <i>subcristosus</i>)	612
<i>incognitus</i> (Schedl), (<i>Poccilips</i>), <i>Coccotrypes</i>	604	<i>inferior</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	675
<i>incognitus</i> (Schedl), (<i>Stephanoderes</i>), <i>Hypothencenus</i>	931	<i>infidelis</i> Wood, <i>Camptocerus</i>	319
<i>incognitus</i> Eggers, <i>Scolytus</i>	331	<i>infimus</i> Schedl, <i>Cryphalus</i>	851
<i>incommodus</i> (Blandford), (<i>Pityophthorus</i>), <i>Araptus</i>	955	<i>infimus</i> Schedl, <i>Pityophthorus</i>	1003
<i>incompositus</i> (Blandford), (<i>Pityophthorus</i>), <i>Araptus</i>	955	<i>infradentatum</i> Wood, <i>Monarthrum</i>	1057
<i>incomptus</i> (Blandford), (<i>Hylastes</i>), <i>Hylurgops</i>	33	<i>infucatus</i> Eichhoff, (<i>Tomicus</i>), <i>Ips</i> (= <i>duplicatus</i>)	503

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infuscatus Murayama, *Dryocoetes* 583
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ingensis (Schedl), (*Metacorthylus*), *Corthylus* 1074
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inops Eichhoff, (*Cryphalus*), *Hypocryphalus*
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inops Wood, *Pityophthorus* 1003
inornatum Wood, *Pyenarthrum* 385
inornatus Wood, *Thysanoes* 420
inornatus Wood, *Tricolus* 1043
inouyei Nobuchi, *Hylurgops* 34
inquietus Blackman, *Pityophthorus* (= *deletus*) 994
insculptus Wood, *Dryocoetoides* 655
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insignatum Wood, *Monarthrum* 1057
insignis Browne, *Hypothenemus* 931
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insignis Eichhoff, (*Xyleborus*), *Taurodemus*
 (= *varians*) 756
insignis Wood, *Cnemomyx* 316
insignis Wood, *Corthylus* 1074
insinuatus Wood, *Araptus* (= *deyrollei*) 955
insitivus Schedl, *Xyleborus* 744
insolitum (Schedl), (*Pterocyclon*), *Monarthrum* 1057
insolitus Bright, (*Xyleborus*), *Xyleborinus*
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<i>kumamotoensis</i> (Niisima), (<i>Orosiotes</i>), <i>Cyrtogenius</i>	566	<i>landolphiae</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	863
<i>kuuala</i> Strohmeyer, <i>Scolytoplatypus</i> (= <i>siomio</i>)	407	<i>Landolphianus</i> Schedl (= <i>Lamurgus</i>)	405
<i>kuuyoshii</i> Nobuchi, (<i>Ips</i>), <i>Orthotomicus</i>	469	<i>langstoni</i> Blackman, <i>Hylocurus</i>	426
<i>kurenzovi</i> Nunberg, <i>Trypophloeus</i>	545	<i>lauguidus</i> Eichhoff, <i>Pityophthorus</i>	1006
<i>kurenzovi</i> Schedl, <i>Trypophloeus</i> (= <i>kurenzovi</i>)	546	<i>lanieri</i> Wood, <i>Ips</i> (= <i>borealis</i>)	494
<i>kurenzovi</i> Stark, <i>Cryphalus</i>	582	<i>lantanae</i> (Eggers), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	675
<i>kurilensis</i> Krivolutskaya, <i>Cryphalus</i>	582	<i>Lauurgus</i> Eggers	405
<i>kuscheli</i> Schedl, <i>Coccotrypes</i>	604	<i>lapponicus</i> Stark, <i>Pityophthorus</i>	1006
<i>kuscheli</i> Schedl, <i>Pachycotes</i>	157	<i>largipennis</i> Toledo Piza Junior, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>crudiae</i>)	915
<i>kuscheli</i> Schedl, <i>Pityophthorus</i>	1005	<i>laricis</i> (Fabricius), (<i>Bostrichus</i>), <i>Orthotomicus</i>	469
<i>kushkensis</i> Sokanovskii, <i>Carphoborus</i> (= <i>perrisi</i>)	305	<i>laricis</i> Blackman, <i>Scolytus</i>	340
<i>kyotoensis</i> Nobuchi, <i>Cryphalus</i>	582	<i>laricis</i> Niisima, <i>Cryphalus</i>	583
<i>labialus</i> Schedl, <i>Scolytus</i> (= <i>thoracicus</i>)	375	<i>lasiocarpus</i> (Swaine), (<i>Orthotomicus</i>), <i>Pityokteines</i>	463
<i>laboulbenei</i> Decaux, <i>Coccotrypes</i> (= <i>dactyliperda</i>)	601	<i>lasius</i> Wood, <i>Chaetophloeus</i>	273
<i>laciniatus</i> Hagedorn, <i>Xyleborus</i>	747	<i>lassus</i> Wood, <i>Microcorthyus</i>	1066
<i>lacordairei</i> (Chapuis), (<i>Bothrostermus</i>), <i>Sternobothrus</i>	216	<i>latecarinatus</i> Schedl, <i>Xyleborus</i>	747
<i>lacuatus</i> Wood, <i>Xyleborus</i>	747	<i>latecavatus</i> Eggers, <i>Xyleborus</i> (= <i>amphieranoides</i>)	711
<i>laetus</i> Niisima, <i>Xyleborus</i>	747	<i>latecompressus</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	675
<i>laetus</i> Schedl, <i>Cnesinus</i>	209	<i>latecornis</i> Schedl, <i>Xyleborus</i>	747
<i>laetus</i> Wood, <i>Pityophthorus</i>	1005	<i>lateclevis</i> Schedl, (<i>Ips</i>), <i>Acanthotomicus</i> (= <i>sumatranus</i>)	454
<i>laetus</i> Wood, <i>Scolytus</i>	339	<i>laterale</i> (Eichhoff), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1057
<i>laeve</i> Eggers, <i>Trypodendron</i>	635	<i>lateralis</i> Swaine, <i>Pityophthorus</i> (= <i>concentralis</i>)	959
<i>laevicollis</i> (Eggers), (<i>Problechilus</i>), <i>Gymnochilus</i>	386	<i>latetruncatus</i> (Schedl), (<i>Xyleborus</i>), <i>Amasa</i>	653
<i>laevicollis</i> (Schedl), (<i>Pocillips</i>), <i>Coccotrypes</i>	604	<i>laticaudatus</i> (Eggers), (<i>Xyleborus</i>), <i>Amasa</i>	653
<i>laevicollis</i> Schedl, <i>Cnesinus</i> (= <i>dividuus</i>)	207	<i>latieeps</i> (Wood), (<i>Xyleborus</i>), <i>Xylosandrus</i>	796
<i>laevicarpus</i> Wood, <i>Scolytodes</i>	394	<i>latieeps</i> Bright, <i>Pityophthorus</i>	1006
<i>laevifrons</i> Michalski, <i>Scolytus</i> (= <i>schevyreivi</i>)	370	<i>laticollis</i> (Browne), (<i>Pocillips</i>), <i>Coccotrypes</i>	604
<i>laevigatulus</i> Wood, <i>Scolytodes</i>	394		
<i>laevigatum</i> (Eichhoff), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1057		
<i>laevigatus</i> (Blandford), (<i>Hypothenemus</i>), <i>Cryptocarenum</i>	903		

<i>laticollis</i> Blandford, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>artestriatus</i>)	805	<i>Leiparthrum</i> Wollaston (= <i>Liparthrum</i>)	275
<i>laticollis</i> Blandford , <i>Hylesinus</i>	80	<i>lenis</i> Blackman, (<i>Neodryocoetes</i>), <i>Araptus</i> (= <i>schedli</i>)	961
<i>laticollis</i> Browne , <i>Cryphalus</i>	853	<i>lenis</i> Wood , <i>Pityophthorus</i>	1007
<i>laticollis</i> Browne , <i>Hypocryphalus</i>	869	<i>lenis</i> Wood, <i>Taurodennus</i> (= <i>sharpi</i>)	786
<i>laticollis</i> Eggers, <i>Polygraphus</i> (= <i>proximus</i>)	296	<i>lenkoranus</i> Eggers, <i>Scolytus</i> (= <i>intricatus</i>)	334
<i>laticollis</i> Swaine, <i>Ips</i> (= <i>pini</i>)	521	<i>lenkoranus</i> Reitter , <i>Taphrorhynchus</i>	559
<i>laticollis</i> Wollaston, <i>Aphanarthrum</i> (= <i>pygmaeum</i>)	619	<i>leonhardi</i> Eggers, <i>Dryocoetes</i> (= <i>alni</i>)	572
<i>laticollis</i> Wood , <i>Scolytopsis</i>	320	<i>leonii</i> Eggers, (<i>Eccoptogaster</i>), <i>Scolytus</i> (= <i>sulcifrons</i>)	378
<i>latidens</i> (LeConte) , (<i>Tomicus</i>), <i>Ips</i>	510	<i>Lepersinus</i> Reitter (= <i>Hylesinus</i>)	74
<i>laticor</i> Eggers, (<i>Pocellips</i>), <i>Coccotrypes</i> (= <i>rotundicollis</i>)	610	<i>Lepicerinus</i> Hinton (= <i>Scolytogenes</i>)	858
<i>laticor</i> Eggers, <i>Ficicis</i> (= <i>despectus</i>)	90	<i>Lepiceroides</i> Schedl (= <i>Hypothenemus</i>)	905
<i>laticor</i> Eggers, <i>Premnobius</i> (= <i>caripennis</i>)	652	<i>Lepicerus</i> Eichhoff (= <i>Scolytogenes</i>)	858
<i>latipennis</i> Schedl , <i>Xyleborus</i>	747	<i>lepidus</i> (Wichmann) , (<i>Pityogenes</i>), <i>Acanthotomicus</i>	482
<i>latipilis</i> Schedl , <i>Camptocerus</i>	319	<i>lepidus</i> Bright , <i>Pityophthorus</i>	1007
<i>latisulcatus</i> (Eggers) , (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	675	<i>lepidus</i> Bright , <i>Xyleborus</i>	748
<i>lativentris</i> Schedl , <i>Xyleborus</i>	747	<i>lepidus</i> Wood , <i>Araptus</i>	958
<i>latum</i> (Schedl) , (<i>Cosmocorymus</i>), <i>Monarthrum</i>	1058	<i>lepidus</i> Wood , <i>Cryptocarenum</i>	903
<i>latus</i> Beeson, <i>Carphoborus</i> (= <i>latus</i> Wood)	305	<i>lepidus</i> Wood , <i>Micracis</i>	432
<i>latus</i> Eggers , <i>Cryphalus</i>	883	<i>lepidus</i> Wood , <i>Scolytodes</i>	394
<i>latus</i> Eggers, (<i>Phloeosinus</i>), <i>Hyledius</i> (= <i>nitidicollis</i>)	260	<i>lepineyi</i> Balachowsky , <i>Triotennus</i>	540
<i>latus</i> Eggers , <i>Ozopemon</i>	589	<i>Lepisomus</i> Kirby (= <i>Polygraphus</i>)	283
<i>latus</i> Eggers, <i>Polygraphus</i> (= <i>bicolor</i>)	285	<i>lepocrinus</i> Tsai & Li , <i>Cryphalus</i>	853
<i>latus</i> Eggers , <i>Strombophorus</i>	203	<i>leprieuri</i> (Perris) , (<i>Dryocoetes</i>), <i>Hypothenemus</i>	933
<i>latus</i> Eggers , <i>Xyleborus</i>	747	<i>leprosulus</i> (Browne) , (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	863
<i>latus</i> Eggers , <i>Xyloctonus</i>	840	<i>leprosulus</i> Browne , <i>Cryphalus</i>	883
<i>latus</i> Lepesme, <i>Thammurgus</i> (= <i>lobeliae</i>)	544	<i>leprosulus</i> Schedl, (<i>Xyleborus</i>), <i>Coptodryas</i> (= <i>undulata</i>)	827
<i>latus</i> Wichmann, (<i>Phloeophthorus</i>), <i>Phlocotribus</i> (= <i>cristatus</i>)	220	<i>leprosulus</i> Schedl , <i>Araxyleborus</i>	667
<i>latus</i> Wood , <i>Carphoborus</i>	305	<i>leprosus</i> Browne , <i>Glostatus</i>	536
<i>laudatus</i> Wood , <i>Araptus</i>	958	<i>Leptoxyleborus</i> Wood	659
<i>laurivorus</i> Schedl , <i>Liparthrum</i>	277	<i>leptus</i> (Bright) , (<i>Neodryocoetes</i>), <i>Araptus</i>	958
<i>lautus</i> Eichhoff , <i>Pityophthorus</i>	1006	<i>lesnei</i> (Eggers) , (<i>Hapalogenius</i>), <i>Rhopalopselion</i>	97
<i>lautus</i> Wood , <i>Microbomis</i>	353	<i>lesnei</i> Hagedorn , <i>Amphicranus</i>	1047
<i>leui</i> (Schedl) , (<i>Xylechinus</i>), <i>Phloeosinopsioides</i>	239	<i>Letznerella</i> Reitter (= <i>Scolytogenes</i>)	858
<i>lebronneci</i> Beeson, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>crudiae</i>)	915	<i>letzneri</i> Ferrari , <i>Corthybus</i>	1074
<i>lecontei</i> Blackman , <i>Pseudothysanoes</i>	414	<i>leverensis</i> Browne , <i>Xyleborus</i>	748
<i>lecontei</i> Blandford , <i>Cnesinus</i>	209	<i>leveri</i> Browne , <i>Coccotrypes</i>	605
<i>lecontei</i> Bright , <i>Pityophthorus</i>	1006	<i>levis</i> Blackman, (<i>Hexacolus</i>), <i>Scolytodes</i> (= <i>chapuisi</i>)	390
<i>lecontei</i> Chapuis, (<i>Rhopalopleurus</i>), <i>Chramesus</i> (= <i>hicoloriae</i>)	266	<i>levis</i> Wood , <i>Phlocotribus</i>	223
<i>lecontei</i> Hopkins , <i>Ambrosiodmus</i>	675	<i>levis</i> Wood , <i>Pityophthorus</i>	1007
<i>lecontei</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>crudiae</i>)	915	<i>lewckianus</i> Eggers, (<i>Xyleborus</i>), <i>Ambrosiodmus</i> (= <i>lewisi</i>)	676
<i>lecontei</i> Schedl , <i>Phlocotribus</i>	223	<i>lewisi</i> (Blandford) , (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	675
<i>lecontei</i> Swaine, <i>Hylurgops</i> (= <i>porosus</i>)	39	<i>lewisi</i> Blandford , <i>Hyporrhynchus</i>	192
<i>lecontei</i> Swaine , <i>Ips</i>	511	<i>lewisi</i> Chapuis , <i>Phloeosinus</i>	249
<i>lecontei</i> Swaine, <i>Pityogenes</i> (= <i>plagiatus</i>)	455	<i>lezjavai</i> Pjatnitsky, <i>Hypothenemus</i> (= <i>eruditus</i>)	924
<i>lectus</i> Wood , <i>Microborus</i>	354	<i>libani</i> Balachowsky , <i>Phloeosinus</i> (= <i>cedri</i>)	244
<i>lederi</i> Reitter, (<i>Cryphalus</i>), <i>Ernoporus</i> (= <i>tiliae</i>)	857	<i>liberiensis</i> (Hopkins) , (<i>Stephanoderes</i>), <i>Hypothenemus</i>	933
<i>leechi</i> Wood , <i>Pityophthorus</i>	1007	<i>liberiensis</i> Hopkins, <i>Coccotrypes</i> (= <i>carpophagus</i>)	596
<i>leechi</i> Wood , <i>Pseudothysanoes</i>	414	<i>libidus</i> Wood , <i>Scolytodes</i>	394
<i>lefevrei</i> (Browne) , (<i>Mimips</i>), <i>Acanthotomicus</i>	481	<i>libra</i> (Eggers) , (<i>Xyleborus</i>), <i>Coptodryas</i>	825
<i>lefevrei</i> (Schedl) , (<i>Stephanoderes</i>), <i>Hypothenemus</i>	933		
<i>leiophyllae</i> Blackman , <i>Pityophthorus</i>	1007		

<i>librocedri</i> Swaine, <i>Xyleborinus</i> (= <i>saxensei</i>)	815	<i>liquidambarae</i> Wood, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>seriatus</i>)	943
<i>lichensteini</i> (Ratzeburg), (<i>Bostrichus</i>), <i>Pityophthorus</i>	1007	<i>liquidambaris</i> Hopkins, <i>Dryocoetes</i> (= <i>betulae</i>)	579
<i>lifuanus</i> Fauvel, <i>Hylastes</i>	55	<i>liquidambarus</i> Blackman, <i>Pityophthorus</i>	1009
<i>lignator</i> Blackman, <i>Micracis</i>	432	<i>liratus</i> (Wood), (<i>Loganius</i>), <i>Cnemomyx</i>	316
<i>lignicolus</i> Wood, <i>Micracis</i>	433	<i>Lissoclastus</i> Schauffuss (= <i>Diamerus</i>)	194
<i>ligniperda</i> (Fabricius), (<i>Bostrichus</i>), <i>Hylurgus</i>	119	<i>litoralis</i> (Beeson), (<i>Thammurgides</i>), <i>Coccotrypes</i>	605
<i>lignivorus</i> Browne, <i>Diamerus</i>	196	<i>litos</i> Bright, <i>Pityophthorus</i>	1009
<i>lignographus</i> Schedl, <i>Xyleborus</i>	748	<i>litseae</i> Browne, (<i>Diamerides</i>), <i>Phloeocranus</i> (= <i>bruchoides</i>)	236
<i>likiangensis</i> Tsai & Huang, <i>Hylurgops</i> (= <i>longipilus</i>)	35	<i>littoralis</i> Perkins, <i>Xyleborus</i>	748
<i>likiangensis</i> Tsai & Yin, <i>Polygraphus</i> (= <i>rudis</i>)	297	<i>lobatum</i> (Ferrari), (<i>Corthylus</i>), <i>Monarthrum</i>	1058
<i>lima</i> Eggers, <i>Dendrosinus</i> (= <i>bourreriae</i>)	237	<i>lobatus</i> Eggers, <i>Sternobothrus</i>	216
<i>limatus</i> (Schedl), (<i>Xyleborus</i>), <i>Eucallacca</i>	691	<i>lobdelli</i> Blackman, <i>Thysanoes</i>	420
<i>limatus</i> Wood, <i>Dendrocranus</i>	552	<i>lobeliae</i> Eggers, <i>Thammurgus</i>	544
<i>limatus</i> Wood, <i>Microborus</i>	384	<i>loebli</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	676
<i>limatus</i> Wood, <i>Pityophthorus</i> (= <i>ornatus</i>)	1018	<i>loebli</i> Schedl, (<i>Poccilips</i>), <i>Dryocoetiops</i> (= <i>laeris</i>)	588
<i>limax</i> (Schedl), (<i>Sphenoceros</i>), <i>Araptus</i>	959	<i>loevendali</i> Eggers, (<i>Eccoptogaster</i>), <i>Scolytus</i> (= <i>laeris</i>)	340
<i>limbatus</i> (Blandford), (<i>Dryocoetes</i>), <i>Dendrocranus</i>	552	<i>Loganius</i> Chapuis (= <i>Cnemomyx</i>)	313
<i>limbatus</i> (Eggers), (<i>Hylucurosoma</i>), <i>Scolytodes</i>	394	<i>lomatiae</i> Schedl, (<i>Pteleobius</i>), <i>Xylechinus</i> (= <i>spathifer</i>)	115
<i>limbatus</i> Eggers, <i>Pseudopityophthorus</i>	973	<i>lonchocarpeae</i> (Schedl), (<i>Hapalogenius</i>), <i>Rhopalopselion</i>	97
<i>limbatus</i> Eggers, <i>Sphaerotrypes</i>	200	<i>longehirtus</i> Nunberg, (<i>Xyleborus</i>), <i>Eucallacca</i> (= <i>xanthopus</i>)	697
<i>limbatus</i> Fabricius, <i>Trypodendron</i> (= <i>domesticum</i>)	635	<i>longicauda</i> (Browne), (<i>Streptocranus</i>), <i>Coptoborus</i>	663
<i>limbellus</i> Wood, <i>Dendrocranus</i>	552	<i>longicollis</i> (Blandford), (<i>Loganius</i>), <i>Cnemomyx</i>	316
<i>limbus</i> Sampson, <i>Eccoptopterus</i>	820	<i>longicollis</i> (Eggers), (<i>Hexacolus</i>), <i>Scolytodes</i>	394
<i>liminaris</i> (Harris), (<i>Tomicus</i>), <i>Phloeotribus</i>	223	<i>longicollis</i> (Eggers), (<i>Thammurgides</i>), <i>Coccotrypes</i>	605
<i>limitaris</i> Wood, <i>Dendrocranus</i>	552	<i>longicollis</i> (Gyllenhal), (<i>Bostrichus</i>), <i>Orthotomicus</i>	472
<i>limulum</i> Wood, <i>Monarthrum</i>	1058	<i>longicollis</i> (Schedl), (<i>Gnathotrichus</i>), <i>Gnathotrupes</i>	1040
<i>limus</i> Wood, <i>Dendrocranus</i>	552	<i>longicollis</i> (Wollaston), (<i>Xyloterus</i>), <i>Dactylotrypes</i>	554
<i>linderac</i> Hopkins, (<i>Ambrosiodmus</i>), <i>Ambrosiodmus</i> (= <i>obliquus</i>)	677	<i>longicollis</i> Browne, <i>Xyleborus</i>	748
<i>linearicollis</i> (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	508	<i>longicollis</i> Eggers, <i>Cnesinus</i>	209
<i>linearis</i> (Schedl), (<i>Thammophthorus</i>), <i>Araptus</i>	959	<i>longicollis</i> Eggers, <i>Dryocoetes</i> (= <i>autographus</i>)	578
<i>linearis</i> Eggers, (<i>Poccilips</i>), <i>Coccotrypes</i> (= <i>longior</i>)	605	<i>longicollis</i> Peyerimhoff, <i>Trietemius</i>	541
<i>linearis</i> Eggers, <i>Dendrocranus</i> (sp.?)	550	<i>longicollis</i> Schedl, (<i>Neodryocoetes</i>), <i>Araptus</i> (= <i>araujiae</i>)	953
<i>linearis</i> Erichson, <i>Hylastes</i>	55	<i>longicollis</i> Swaine, <i>Hylastes</i>	56
<i>linearis</i> Schedl, <i>Xyleborus</i> (= <i>dryographus</i>)	732	<i>longideclivis</i> Wood, <i>Xyleborus</i> (= <i>deplanatus</i>)	724
<i>lineatiformis</i> Hopkins, <i>Hypothenemus</i> (= <i>eruditus</i>)	922	<i>longidens</i> Eggers, <i>Xyleborus</i>	748
<i>lineatopunctatus</i> (Eggers), (<i>Xyleborus</i>), <i>Cyrtogenius</i>	566	<i>longidens</i> Swaine, <i>Ips</i> (= <i>latidens</i>)	511
<i>lineatum</i> (Olivier), (<i>Bostrichus</i>), <i>Trypodendron</i>	636	<i>longifolia</i> (Stebbing), (<i>Cryphalus</i>), <i>Liparthrum</i>	278
<i>lineatus</i> (Eggers), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	934	<i>longifolia</i> (Stebbing), (<i>Tomicus</i>), <i>Ips</i>	511
<i>lineatus</i> Eggers, <i>Phloeotribus</i>	224	<i>longifolia</i> Stebbing, <i>Polygraphus</i>	289
<i>lineatus</i> Eggers, <i>Xyleborus</i>	748	<i>longifoliae</i> Stebbing, (<i>Hylastes</i>) (= <i>Curculionidae</i>)	43
° <i>lineatus</i> Foster, <i>Hylesinus</i>	81	<i>longior</i> (Eggers), (<i>Poccilips</i>), <i>Coccotrypes</i>	605
<i>lineatus</i> Kurenzov, <i>Scolytus</i> (= <i>ratzeburgi</i>)	364	<i>longior</i> Browne, <i>Cryphalus</i>	883
<i>lineellus</i> Endrodi, <i>Trypodendron</i> (= <i>lineatum</i>)	636	<i>longipennis</i> (Blanchard), (<i>Tomicus</i>), <i>Gnathotrupes</i>	1040
<i>lineigera</i> Guillebeau, (<i>Phloeophthorus</i>), <i>Phloeotribus</i> (= <i>pubifrons</i>)	227	<i>longipennis</i> (Blandford), (<i>Hylastes</i>), <i>Hylurgops</i>	34
<i>lineigera</i> Guillebeau, <i>Phloeotribus</i> (= <i>cristatus</i>)	220	<i>longipennis</i> (Browne), (<i>Taenioglyptes</i>), <i>Cryphalus</i>	883
<i>linnacurii</i> Schedl, <i>Xylecleptes</i>	549		
<i>Liparthrum</i> Wollaston	274		
<i>lipingensis</i> Tsai & Li, <i>Cryphalus</i>	883		
<i>lipperti</i> Henschel, (<i>Tomicus</i>), <i>Pityogenes</i> (= <i>calcaratus</i>)	444		

- longipennis* (Eggers), (*Cryphalomorphus*),
Scolytogenes 863
- longipennis* (Eggers), (*Stephanoderes*),
Hypothenemus 934
- longipennis* Browne, *Cyrtogenius* 566
- longipennis* Eggers, *Scolytodes* 394
- longipennis* Eggers, *Xyleborus* 748
- ° *longipennis* Wickham, *Xyleborites* 1052
- longipennis* Wood, *Hylocurus* 426
- longipes* Israelson, *Aphanarthrum* (= *canariense*) 617
- longipilis* Browne, *Hypocryphalus* 869
- longipilis* Schedl, *Hypothenemus* 934
- longipilis* Schedl, *Polygraphus* 289
- longipilis* Schedl, *Traglostus* 410
- longipilosus* Schedl, *Scolytus* (= *submarginatus*) 377
- longipilum* Eggers, *Ctonoxylon* 838
- longipilus* (Reitter), (*Hylastes*), *Hylurgops* 34
- longipilus* Eggers, *Phloeotribus* 224
- longipilus* Eggers, *Xyleborus* 748
- longipilus* Schedl, *Cryphalus* 883
- longipilus* Schedl, *Pityophthorus* 1009
- longipilus* Schedl, *Thamnurgus* 544
- longisetosus* (Nobuchi), (*Taenioglyphes*),
Cryphalus 883
- longispinis* (Browne), (*Xyleborus*), *Coptoborus* 663
- longius* (Eggers), (*Xyleborus longior*),
Cyclorhipidion 700
- longiusculus* (Schedl), (*Gnathotriclus*),
Gnathotripes 1041
- longula* Nunberg, *Micracis* 433
- longulum* Eichhoff, (*Pterocyclon*), *Monarthrum*
(= *mali*) 1059
- longulus* (Schedl), (*Xyleborus*), *Xyleborinus* 808
- longulus* Kolenati, *Hylurgus* (= *ligniperda*) 121
- longulus* Sokanovskii, *Pityophthorus*
(= *micrographus*) 1012
- longus* (Eggers), (*Ernoporus*), *Ernoporicus* 851
- longus* (Eggers), (*Xyleborus*), *Xyleborinus* 808
- longus* (Schedl), (*Anchonocerus*), *Monarthrum* 1058
- longus* Eggers, *Premnobius* 653
- longus* LeConte, *Hylastes* (= *gracilis*) 54
- longus* Nunberg, *Microcryphalus* 411
- lopehuensis* Beeson, *Eucallacea* (= *interjectus*) 690
- loranthus* Schedl, *Margadillius* 899
- loricatus* (Schedl), (*Xyleborus*), *Eucallacea* 690
- loiceanum* Wollaston, *Liparthrum* 278
- loicei* Paiva, *Hylastes* 56
- lowei* Wollaston, *Liparthrum* 278
- lubarskii* Stark, *Hylesinus* 51
- lubricus* Schedl, *Xyleborus* 748
- lucaris* Wood, *Cucsinus* 209
- lucasi* Hopkins, (*Stephanoderes*), *Hypothenemus*
(= *seriatus*) 942
- lucidum* Wood, *Pycnarthrum* 385
- lucidum* Wood, *Botrostermus* 215
- luctuosum* (Blandford), (*Pterocyclon*),
Monarthrum 1058
- luctuosus* (Eggers), (*Xyleborus*), *Eucallacea* 691
- luedericaldi* Eggers, *Pagiocerus* 214
- lugubris* (Eggers), (*Xyleborus*), *Eucallacea* 692
- lukengeae* Schedl, *Strombophorus* 203
- lunulatus* Eggers, *Phloeoborus* 99
- luridus* (Wollaston), (*Aphanarthrum*),
Coleobothrus 616
- luridus* Blandford, *Corthylus* 1074
- luridus annulicollis* Enderlein, *Coleobothrus*
(= *luridus*) 616
- luridus flavicollis* Enderlein, *Coleobothrus*
(= *luridus*) 616
- lustratus* Wood, *Corthylus* 1074
- luteolus* (Schedl), (*Plesiophthorus*), *Dendrocterus* 951
- luteus* (Blandford), (*Dryocoetes*), *Cyrtogenius* 566
- luteus* Hagedorn, *Dianerus* 196
- lutens* Schedl, *Xyleborus* 748
- luzonicus* (Schedl), (*Dryocoetes*), *Coccotrypes* 605
- luzonicus* Eggers, (*Xyleborus*), *Xylosandrus*
(= *morigerus*) 799
- luzonicus* Eggers, *Scolytplatypus* (= *papuanus*) 405
- Lymantor Lovendal* 554
- macellus* Wood, *Amphicranus* 1047
- macer* (Bright), (*Neodycoetes*), *Araptus* 959
- macer* Blandford, *Xyleborus* 748
- macer* LeConte, *Hylastes* 56
- macgregori* Blackman, *Scolytplatypus*
(= *papuanus*) 405
- machili* Niisima, *Xyleborus* 749
- machili* Wood, *Indocryphalus* 648
- machilus* (Schedl), (*Hylesinus*), *Phlocosinus* 249
- machnorskii* (Sokanovskii), (*Hypothenemus*),
Taphrotychus 559
- macilentus* (Blandford), (*Dryocoetes*),
Dendrocranulus 552
- maclayi* (Bruck), (*Pseudocryphalus*),
Chaetophloeus 273
- macmahoni* (Stebbing), (*Sphaerotrypes*),
Hylesinus 81
- macrocerus* Eichhoff, *Corthylus* 1074
- macrocornis* Wood, *Chramesus* 267
- Macrocryphalus* Nobuchi (= *Hypothenemus*) 905
- macrographus* Eichhoff, *Pityophthorus*
(= *exsculptus*) 998
- macrolobii* (Eggers), (*Stephanoderes*),
Hypothenemus 934
- macropterus* Schedl, *Xyleborus* 749
- maculatum* (Schedl), (*Hapalogenius*),
Rhopalopselion 97
- maculatus* Beeson, *Scolytomimus* 839
- maculatus* Browne, *Cucetus* 802
- maculatus* Browne, *Hypocryphalus*
(= *sandakanensis*) 872
- maculatus* Nunberg, *Scolytplatypus* (= *fasciatus*) 403
- maculatus* Schedl, *Xyleclinus* 116
- maculatus* Schedl, *Xyloctonus* 840
- maculicollis* Sharp, *Hypothenemus* (= *birmanus*) 910

<i>maculicornis</i> (Blandford), (<i>Ceratolepis</i>), <i>Cnemonyx</i>	316	<i>major</i> Stebbing, <i>Polygraphus</i>	289
<i>maculipennis</i> (Schedl), (<i>Hylesinus</i>), (<i>Ficicis</i>)	91	<i>major</i> Stebbing, <i>Scolytus</i>	340
<i>maculosus</i> Blackman <i>Pseudohylesinus</i>	110	<i>major</i> Strohmeyer, <i>Cyrtogenius</i>	566
<i>maculosus</i> Kirby, (<i>Ips</i>), (<i>Pteleobius</i> (= <i>vittatus</i>))	70	<i>major</i> Strohmeyer, <i>Ozopemon</i>	589
<i>madagascariensis</i> (Schedl), (<i>Euptilius</i>), <i>Cosmoderes</i>	901	<i>majus</i> (Eggers), (<i>Trypodendron</i>), (<i>Indocryphalus</i>)	648
<i>madagascariensis</i> (Schedl), (<i>Micracis</i>), <i>Pseudomicracis</i>	429	<i>majus</i> Wood, <i>Scolytodes</i>	394
<i>madagascariensis</i> Schaufuss, <i>Xyleborus</i>	749	<i>majusculus</i> Schedl, <i>Polygraphus</i>	290
<i>madagascariensis</i> Schedl, (<i>Eriocryphalus</i>), <i>Hypothenemus</i> (= <i>douisi</i>)	917	<i>majusculus</i> Schedl, <i>Xyleborus</i>	749
<i>madagascariensis</i> Schedl, <i>Cyrtogenius</i>	566	<i>malaccensis</i> (Schedl), (<i>Dryocoetes</i>), (<i>Dryocoetiops</i>)	588
<i>madagascariensis</i> Schedl, <i>Hypothenemus</i>	934	<i>malaisi</i> Eggers, (<i>Indocryphalus</i> (= <i>intermedius</i>))	648
<i>madagascariensis</i> Schedl, <i>Pityodendron</i>	970	<i>malayanus</i> Browne, <i>Acacacis</i>	193
<i>madagascariensis</i> Schedl, <i>Pityophthorus</i>	1009	<i>malayensis</i> (Schedl), (<i>Dryocoetes</i>), (<i>Cyrtogenius</i>)	566
<i>madagascariensis</i> Schedl, <i>Ptilopodius</i>	900	<i>malayensis</i> (Schedl), (<i>Lepiceriodes</i>), <i>Hypothenemus</i>	934
<i>madagascariensis</i> Schedl, <i>Scolytoplatypus</i> (= <i>peruirus</i>)	406	<i>malayensis</i> (Schedl), (<i>Xyleboricus</i>), (<i>Arixyleborus</i>)	667
<i>magna</i> Blackman, <i>Plurixosoma</i>	189	<i>malayensis</i> Browne, <i>Xyleborus</i>	749
<i>magnificus</i> Wood, <i>Xyleborus</i>	749	<i>malayensis</i> Schedl, <i>Bothrosteruoides</i>	194
<i>magnispinatus</i> Beaver, <i>Xyleborus</i>	749	<i>malayensis</i> Schedl, (<i>Phloeosinus</i>), (<i>Hyledius</i>) (= <i>cribratus</i>)	260
<i>magnus</i> (Eggers), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	934	<i>malayensis</i> Schedl, <i>Hypocryphalus</i>	869
<i>magnus</i> Beeson, <i>Coccotrypes</i>	605	<i>malgasicus</i> (Schedl), (<i>Poccilips</i>), (<i>Coccotrypes</i>)	605
<i>magnus</i> Browne, <i>Arixyleborus</i>	667	<i>malgasicus</i> Schedl, <i>Xyleborus</i>	749
<i>magnus</i> Browne, <i>Margadillius</i>	899	<i>malgassicus</i> Schedl, (<i>Dobrygoecleptes</i>)	540
<i>magnus</i> Murayama, <i>Polygraphus</i> (= <i>proximus</i>)	296	<i>mali</i> (Bechstein), (<i>Bostrichus</i>), (<i>Scolytus</i>)	341
<i>magnus</i> Niisima, <i>Xyleborus</i>	749	<i>mali</i> (Fitch), (<i>Tomicus</i>), (<i>Monarthrum</i>)	1058
<i>magnus</i> Sampson, <i>Cnestus</i>	802	<i>mali</i> Hopkins, <i>Hypothenemus</i> (= <i>eruditus</i>)	922
<i>magnus</i> Tsai & Yin, <i>Sphaerotrypes</i>	200	<i>malleatus</i> Bright, <i>Pityophthorus</i>	1009
<i>magnus</i> Wood, <i>Pseudohylesinus</i>	110	<i>malloti</i> (Eggers), (<i>Xyleborus</i>), (<i>Eucallacea</i>)	692
<i>mahafali</i> (Schedl), (<i>Xyleborus</i>), (<i>Ambrosiodmus</i>)	676	<i>malloti</i> Schedl, <i>Cryphalus</i>	884
<i>maiche</i> (Stark), (<i>Anisandrus</i>), (<i>Xyleborus</i>)	749	<i>mallyi</i> (Hopkins), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	934
<i>maiche</i> Eggers, <i>Xyleborus</i> (= <i>maiche</i> Stark)	749	<i>malus</i> (Schedl), (<i>Stephanoderes</i>), (<i>Hypothenemus</i>)	934
mailleri Eggers, <i>Scolytus</i> (= <i>amygdali</i>)	323	<i>malus</i> Niisima, <i>Cryphalus</i>	884
<i>mainensis</i> Blackman, <i>Cryphalus</i> (= <i>ruficollis</i>)	892	<i>mamilliae</i> Wood, (<i>Phloeographus</i>), (<i>Halystus</i>) (= <i>namibiae</i>)	283
<i>mairei</i> Peyerimhoff, <i>Aphanarthrum</i>	619	<i>mamibillae</i> (Browne), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	676
<i>mairei</i> Peyerimhoff, <i>Thamnuergus</i>	544	<i>mamillatus</i> Chapuis, <i>Phloeobonus</i>	99
<i>major</i> (Eggers), (<i>Bothryperus</i>), (<i>Plurixosoma</i>)	189	<i>mancus</i> (Blandford), (<i>Xyleborus</i>), (<i>Xylosandrus</i>)	796
<i>major</i> (Eggers), (<i>Hoplites</i>), (<i>Cladoctonus</i>)	239	<i>mancus</i> Wood, <i>Pseudothyssanoes</i>	414
<i>major</i> (Eggers), (<i>Loganius</i>), (<i>Camptocerus</i>)	319	<i>mancus</i> fornosanus Eggers, (<i>Xyleborus</i>), (<i>Xylosandrus</i>) (= <i>mancus</i>)	797
<i>major</i> (Eggers), (<i>Prionosceles</i>), (<i>Scolytodes</i>)	394	<i>mandibulare</i> Wollaston, <i>Liparthrum</i>	278
<i>major</i> (Schedl), (<i>Mimips</i>), (<i>Acanthotomicus</i>)	482	<i>mandibularis</i> Blackman, <i>Gnatholeptus</i> (= <i>shannoni</i>)	970
<i>major</i> (Stebbing), (<i>Phloeosinus</i>), (<i>Xyleborus</i>)	749	<i>mandibularis</i> Bright, <i>Chaetophloeus</i>	273
<i>major</i> Browne, <i>Cryptoxyleborus</i>	828	<i>mandibularis</i> Schedl, <i>Pityophthorus</i>	1009
<i>major</i> Browne, <i>Hypothenemus</i>	934	<i>mandibularis</i> Schedl, <i>Thamnuergus</i>	545
<i>major</i> Eggers, (<i>Blastophagus</i>), (<i>Tomicus</i>) (= <i>piniperda</i>)	136	<i>mandibularis</i> Wood, <i>Pseudothyssanoes</i>	415
<i>major</i> Eggers, (<i>Nigrinus</i>), (<i>Scolytogeus</i>) (= <i>larvicini</i>)	861	<i>mandli</i> Eggers, (<i>Eccoptogaster</i>), (<i>Scolytus</i>) (= <i>japonicus</i>)	335
<i>major</i> Eggers, <i>Hylurgops</i>	35	<i>mandschuricus</i> Eggers, <i>Cryphalus</i>	884
<i>major</i> Eggers, <i>Scolytodes</i> (= <i>majus</i>)	394	<i>mandschuricus</i> Schedl, <i>Scolytus</i> (= <i>chikisanii</i>)	327
<i>major</i> Schedl, <i>Dendrocranus</i>	552	<i>mandshuricus</i> Eggers, <i>Hylesinus</i>	81
<i>major</i> Schedl, <i>Pagiocerus</i>	214	<i>mandarcetanus</i> Beeson, <i>Hypothenemus</i> (= <i>dipteroearpi</i>)	916
<i>major</i> Schedl, <i>Strombophorus</i>	203	<i>maugiferae</i> (Stebbing), (<i>Cryphalus</i>), <i>Hypocryphalus</i>	869
<i>major</i> Stebbing, <i>Cryphalus</i>	884		
<i>major</i> Stebbing, <i>Phloeotribus</i>	224		

- mangiferae* Brown, *Diamerus* 196
mangiferae Eggers, *Hypocryphalus*
 (= *mangiferae* Stebbing) 570
manghissensis Lezhava, *Scolytus* (= *rugulosus*) 370
mangoense (Schedl), (*Xyleborus*), *Cyclohrupidion* 700
mangovoror Schedl, *Hypothenemus* 934
maniensis Browne, *Xyleborus* 750
manni Blackman, *Phloeotribus* (= *pilula*) 227
manni Blackman, *Pseudochraenus* 262
mannsfeldi (Wachtl), (*Tomicus*), *Ips* 512
marani Pfeffer, *Carphoborus* 305
marcidum (Schedl), (*Pterocyclon*), *Monarthrum* 1059
marcidus (Schedl), (*Xyleborus*), *Xyleborinus* 808
margadilaonis Hopkins, *Margadillius* 899
***Margadillius* Hopkins** 898
marginatulus Schedl, (*Xyleborus*), *Premnobius*
 (= *marginatus*) 653
marginatus (Browne), (*Poecilips*), *Coccotrypes* 606
marginatus (Hagedorn), (*Xestips*), *Xyloceptes* 549
marginatus Chapuis, *Scolytus* 344
marginatus Duftschmidt, (*Hylesinus*), *Hylurgops*
 (= *palliatus*) 38
marginatus Eggers, *Arixyleborus* (= *malayensis*) 667
marginatus Eggers, (*Xyleborus*), *Leptoxyleborus*
 (= *concisus*) 659
marginatus Eggers, *Phloeotribus* 224
marginatus Eggers, *Premnobius* 653
marginatus Wood, *Chraenus* 267
marginatus Wood, *Scolytodes* 394
marginecollis Eggers, *Cnesinus* 209
marginecollis Schedl, *Xyleborus* 750
maritimus Lanier, *Ips* (= *plastographus*) 521
maritimus Reitter, *Hylurgus* (= *ligniperda*) 119
maritimus Stark, *Pityophthorus* (= *pityographus*) 1021
markangensis Tsai & Li, *Cryphalus* 884
marmoratus Blandford, *Xylechinus* 116
marmoratus Strohmeier, *Dactylipalpus*
 (= *cicatricosus*) 101
maroantsetrae Schedl, *Pityophthorus* 1009
maroccanus (Guillebeau), (*Phloeophthorus*),
Phloeotribus 224
maronicus (Eggers), (*Xyleborus*), *Dryocoetoides* 658
marovoayi Schedl, *Hypothenemus* (= *seriatus*) 943
marquesanus Beeson, *Ptilopodius* 900
marshalli (Eggers), (*Stephanoderes*),
Hypothenemus 934
marshami Rye, (*Tomicus*), *Dryocoetes* (= *alni*) 572
martiniquensis Eggers, *Hypothenemus* (= *arecae*) 908
marylandicae Hopkins, (*Hypothenemus*), *Trischidias*
 (= *atomus*) 947
mascareniformis Eggers, *Xyleborus* 750
mascarenensis Eichhoff, *Xyleborus* (= *affinis*) 708
mascarenis Hagedorn, (*Xyleborus*), *Xylosandrus*
 (= *crassiusculus*) 792
masoni Beeson, (*Thanurgidae*), *Coccotrypes*
 (= *myristicae*) 607
massonianus Tsai & Li, *Cryphalus* 884
matangi Sampson, *Diamerus* 197
materiaris (Fitch), (*Tomicus*), *Guathotrichus* 1035
mateui (Schedl), (*Stephanoderes*), *Hypothenemus* 934
mauiensis Perkins, *Xyleborus* 750
mauiensis Schedl, *Hypothenemus* (= *eruditus*) 925
maulei Roubal, *Crypturgus* (= *pusillus*) 629
maura Balachowsky, *Phlososinus* (= *cedri*) 244
mauretanicus Peyerimhoff, *Pityophthorus* 1009
mauritanus (Schedl), (*Cryphalomorphus*),
Scolytogenes 863
mauritanus Browne, (*Poecilips*), *Coccotrypes*
 (= *uubilus*) 608
mauritanus Menier, *Xyloctonus* 840
maurus (Blandford), (*Dryocoetes*),
Dendrocranulus 552
maurus (Blandford), (*Prionosceles*), *Scolytodes* 394
maurus Eggers, *Cisurgus* 630
maurus Wood, *Phloeotribus* 224
mayeti (Guillebeau), (*Phloeophthorus*),
Phloeotribus 224
mayeti Guillebeau, *Phloeotribus* (= *eristatus*) 220
mayumbensis (Schedl), (*Dryocoetes*),
Cyrtogenius 566
mayumbensis Eggers, *Hypothenemus* (= *arecae*) 906
meakanensis Niisima, *Polygraphus* 290
meccdanus Reitter, *Taphrorychus* (= *hirtellus*) 559
medialis Wood, *Araptus* 959
medialis Wood, *Pityophthorus* 1009
medialis Wood, *Scolytodes* 394
mediocris (Schedl), (*Xyleborus*), *Xylosandrus* 797
mediosectus (Eggers), (*Xyleboricus*),
Arixyleborus 667
mediterraneus (Eggers), (*Dryocoetes*),
Tiarophorus 540
mediterraneus Eggers, (*Eccoptogaster*), *Scolytus*
 (= *rugulosus*) 369
mediterraneus Eichhoff, *Crypturgus* 624
medius (Eggers), (*Mimips*), *Acanthotomicus* 482
medius (Eggers), (*Poecilips*), *Coccotrypes* 606
medius (Eggers), (*Prionosceles*), *Scolytodes* 395
medius (Eggers), (*Webbia*), *Arixyleborus* 668
medius Eggers, *Chortastus* 311
medius Eggers, *Scolytodes* (= *medialis*) 395
medius Wood, *Hyloterus* 426
megas Bright, *Pityophthorus* 1009
mekoi Schedl, *Cryphalus* (= *wapleri*) 898
melaenus Eichhoff, *Dryocoetes* 584
melanarius (Schedl), (*Cosmoderes*),
Hypothenemus 935
melanarius Schedl, (*Xyleborus*), *Ambrosiodnus*
 (= *obliquus*) 678
melanocranis Beeson, *Xyleborus* (= *lineatus*) 748
melanocephalus (Blandford), (*Hexacohus*),
Scolytodes 395
melanocephalus Fabricius, (*Bostrichus*), *Hylesinus*
 (= *varius*) 86
melanotus Beeson, *Polygraphus* (= *aterrimus*) 285
melanura (Blandford), (*Pterocyclon*),
Amphicranus 1047

<i>melanurus</i> Reitter, <i>Ips</i> (= robustus)	522	<i>mexicanus</i> Eggers, (<i>Neodryocoetes</i>), <i>Araptus</i>	
<i>melanurus</i> Wood, <i>Pityophthorus</i>	1009	(= politus)	961
<i>melas</i> (Eggers), (<i>Xyleborus</i>), <i>Coptoborus</i>	663	<i>mexicanus</i> Eggers, (<i>Renocis</i>), <i>Chaetophloeus</i>	
<i>melasomus</i> (Lea), (<i>Cryphalus</i>), <i>Hypothenemus</i>	935	(= mexicanus Blackman)	273
<i>melli</i> Schedl, (<i>Xyleborus</i>), <i>Hadrodemius</i>		<i>mexicanus</i> Eggers, (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	
(= amorphus)	515	(= obliquus)	675
<i>melodori</i> (Hopkins), (<i>Stephanorhopalus</i>),		<i>mexicanus</i> Eggers, <i>Microcorthyus</i>	1066
<i>Eruoporus</i>	555	<i>mexicanus</i> Hopkins, <i>Dendroctonus</i>	153
<i>mendicus</i> (Wood), (<i>Cryptoleceptes</i>),		<i>mexicanus</i> Lacordaire, <i>Phloeotribus</i> (=sp.?)	218
<i>Pseudothyanoes</i>	415	<i>mexicanus</i> Nunberg, <i>Cnesinus</i> (= blackmani)	206
<i>mendicus</i> Wood, <i>Araptus</i>	959	<i>mexicanus</i> Schedl, (<i>Breviophthorus</i>), <i>Araptus</i>	
<i>mendosus</i> Schedl, <i>Xyleborus</i> (= barumbuensis)	714	(= dentifrons)	955
<i>mendosus</i> Wood, <i>Pityophthorus</i>	1009	<i>mexicanus</i> Schedl, (<i>Ctenyophthorus</i>), <i>Araptus</i>	
<i>menoni</i> Browne, <i>Scolytominus</i> (= pusillus)	539	(= tenellus)	962
<i>merionale</i> Endrodi, <i>Trypodendron</i> (= lineatum)	636	<i>mexicanus</i> Schedl, <i>Chranesius</i> (= pumilus)	268
<i>meridensis</i> Wood, <i>Liparthrum</i>	278	<i>mexicanus</i> Schedl, <i>Corthylyus</i>	1075
<i>meridensis</i> Wood, <i>Xyleborus</i> (= mutabilis)	754	<i>mexicanus</i> Schedl, <i>Micracis</i> (= swainei)	434
<i>meridianus</i> Blackman, <i>Micracis</i> (= suturalis)	433	<i>mexicanus</i> Wood, <i>Cactopinus</i>	436
<i>meridianus</i> Blackman, <i>Pityogenes</i>	454	<i>mexicanus</i> Wood, <i>Conophthorus</i>	964
<i>meridionale</i> Eggers, <i>Trypodendron</i> (= lineatum)	643	<i>mexicanus</i> Wood, <i>Dendrocranulus</i>	552
<i>meridionalis</i> (Nobuchi), (<i>Taenioglyptes</i>),		<i>mexicanus</i> Wood, <i>Dendrosinus</i>	237
<i>Cryphalus</i>	554	<i>mexicanus</i> Wood, <i>Hylastes</i>	57
<i>Meringopalpus</i> Hagedorn (= Gymnochilus)	356	<i>mexicanus</i> Wood, <i>Microborus</i>	354
<i>merinjaki</i> Sampson, <i>Diamerus</i>	197	<i>mexicanus</i> Wood, <i>Pityogenes</i>	454
<i>meris</i> Wood, <i>Cnesinus</i>	209	<i>mexicanus</i> Wood, <i>Stegomerus</i>	552
<i>meritus</i> Wood, <i>Xyleborus</i>	750	<i>mexicanus</i> Wood, <i>Thysanoes</i>	420
<i>meritensis</i> Nunberg, <i>Xyloleptes</i> (= marginatus)	549	<i>mexicanus</i> Wood, <i>Xylechinus</i>	116
<i>mesembria</i> Bright, <i>Pityophthorus</i>	1009	<i>micaceus</i> Wood, <i>Araptus</i>	959
<i>mesoleiulus</i> Schedl, <i>Xyleborus</i>	750	<i>micaceus</i> Wood, <i>Hylocurus</i>	426
<i>mesoleius</i> Schedl, <i>Hypothenemus</i> (= eruditus)	925	<i>micacirrus</i> Wood, <i>Corthylyus</i>	1075
<i>Mesoscolytus</i> Broun	515	<i>micans</i> (Eggers), (<i>Stephanoderes</i>), <i>Scolytogenes</i>	563
<i>mesuae</i> (Eggers), (<i>Xyleborus</i>), <i>Xylosandrus</i>	797	<i>micans</i> (Kugclann), (<i>Bostrichus</i>), <i>Dendroctonus</i>	154
<i>metacomans</i> (Eggers), (<i>Xyleborus</i>), <i>Hadrodemius</i>	519	<i>micans</i> Bright, <i>Pityophthorus</i>	1010
<i>Metacorthylyus</i> Blandford	1064	<i>micans</i> Wood, <i>Amphicranus</i>	1045
<i>metacrucifer</i> Browne, (<i>Xyleborus</i>), <i>Cyclorhipidion</i>		<i>micans</i> Wood, <i>Pseudopityophthorus</i> (= limbatus)	973
(= crucipenne)	699	<i>micarius</i> (Wood), (<i>Xyleborus</i>), <i>Theoborus</i>	661
<i>metacuneolus</i> Eggers, <i>Xyleborus</i>	750	<i>michoacanae</i> Wood, <i>Conophthorus</i>	964
<i>metagermanus</i> (Schedl), (<i>Xyleborus</i>), <i>Xylosandrus</i>	797	<i>micidus</i> Wood, <i>Scolytodes</i>	395
<i>Metahylastes</i> Eggers (= Cyrtogenius)	562	<i>micklitzii</i> Wachtl, <i>Hylurgus</i>	122
<i>Metahylesinus</i> Eggers (= Hylesinopsis)	92	<i>Micracidae</i> LeConte (= Micracini)	405
<i>metanepotulus</i> (Eggers), (<i>Xyleborus</i>), <i>Euwallacca</i>	692	<i>Micracidendron</i> Schedl (= Mimioecurus)	949
<i>methneri</i> Eggers, <i>Ctonoxylon</i>	535	<i>Micracides</i> LeConte (= Micracini)	405
<i>menseli</i> Reitter, <i>Xyleborus</i>	750	<i>Micracinae</i> LeConte (= Micracini)	405
<i>mexicanum</i> Wood, <i>Liparthrum</i>	275	<i>Micracini</i> LeConte	405
<i>mexicanus</i> (Blackman), (<i>Renocis</i>), <i>Chaetophloeus</i>	273	<i>Micraciops</i> Schedl (= Lanurgus)	405
<i>mexicanus</i> (Hopkins), (<i>Tomicus</i>), <i>Ips</i>	512	Micracis LeConte	431
<i>mexicanus</i> (Schedl), (<i>Brachyspartus</i>),		Micracisella Blackman	429
<i>Corthylocurus</i>	1069	<i>Micracisoides</i> Blackman (= Hylocurus)	422
<i>mexicanus</i> (Wood), (<i>Leperisinus</i>), <i>Hylesinus</i>	81	Microborus Blandford	353
<i>mexicanus</i> Blackman, <i>Pityophthorus</i>	1010	<i>microcornis</i> Wood, <i>Cactopinus</i>	436
<i>mexicanus</i> Blackman, <i>Pseudohylesinus</i>		<i>microcornis</i> Wood, <i>Hylocurus</i>	426
(= variegatus)	114	Microcorthylyus Ferrari	1065
<i>mexicanus</i> Blandford, <i>Dendroterus</i>	951	<i>micrographus</i> (Linnaeus), (<i>Dermestes</i>),	
<i>mexicanus</i> Bright, <i>Carphoborus</i>	305	<i>Pityophthorus</i>	1010
<i>mexicanus</i> Bright, <i>Sampsonius</i>	656	<i>micrographus</i> (Schedl), (<i>Cryptographus</i>),	
<i>mexicanus</i> Eggers, (<i>Amphicranus</i>), <i>Monarthrum</i>		<i>Webbia</i>	831
(= validum)	1063	<i>micrographus</i> (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	509

- micrographus* Schedl. (*Breviophthorus*),
Pityophthorus (= *micrograptinus*) 1012
- micrographus curtulus* Sokanovskii, *Pityophthorus*
 (= *micrographus*) 1010
- micrographus longulus* Sokanovskii, *Pityophthorus*
 (= *micrographus*) 1010
- micrographus sibiricus* Stark, *Pityophthorus*
 (= *micrographus*) 1010
- micrograptinus** Wood, *Pityophthorus* 1012
- Microperus* Wood (= *Coptodryas*) 522
- micropilosus** Wood, *Araptus* 959
- microporosus** Wood, *Chramesus* 267
- mikado** Blandford, *Scolytoplatypus* 404
- mikaniae** Schedl, *Dendrochilus* 438
- mikuniyamensis** (Murayama), (*Pseudopocellips*),
Taphrorychus 560
- miles** (LeConte), (*Cryphalus*), *Hypothenemus* 935
- militaris** Eggers, *Polygraphus* 290
- millettiae** (Schedl), (*Dryocoetes*), *Cyrtogenius* 566
- millettiae** Schedl, *Strombophorus* 204
- mimetica** Wood, *Micraeisella* 430
- mimicus** (Schedl), (*Mimips*), *Acanthotomicus* 452
- mimicus* Schedl, *Cryphalus* (= *scabricollis*) 593
- mimicus* Schedl, (*Cryphalus*), *Hypocryphalus*
 (= *mangiferae*) 570
- Mimidendrulus* Schedl (= *Cyrtogenius*) 562
- Mimiocurus** Schedl 949
- Mimiophthorus* Schedl (= *Mimiocurus*) 949
- Mimips* Eggers (= *Acanthotomicus*) 475
- mimosae** (Schedl), (*Xyleborus*), *Xyleborinus* 809
- mimosae** Blackman, *Chramesus* 267
- minus** Schedl, *Xyleborus* (= *multispinatus*) 754
- minusopsis** Wood, *Scolytominus* 539
- minax** Schedl, *Cnesinus* 209
- mindanaensis** Eggers, *Xyleborus* 750
- mindoroensis* Schedl, *Cyrtogenius* (= *bretior*) 563
- mindoroensis** Schedl, *Hypocryphalus* 570
- miniatus** Bright, *Pityophthorus* 1012
- minimus** (Fabricius), (*Hylesinus*), *Carphoborus* 305
- minimus** (Schedl), (*Pocellips*), *Coccotrypes* 606
- minimus** Eggers, *Cryphalus* 554
- minimus** Hagedorn, *Chortastus* 311
- minimus** Hagedorn, *Scolytoplatypus* 404
- minimus** Schedl, *Microcorthyus* 1066
- minimus** Schedl, *Xyleborus* 750
- minimus** Schedl, *Xylechinus* 105
- minimus* Stebbing, (*Polygraphus*), *Crypturgus*
 (= *pusillus*) 629
- minimus** Wood, *Chaetophloeus* 273
- minimus** Wood, *Corthyus* 1075
- minitropis** Wood, *Cnesinus* 209
- minor** (Blackman), (*Cryptocleptes*),
Pseudothysanoes 415
- minor** (Blandford), (*Problechilus*), *Gymnochilus* 357
- minor** (Eggers), (*Adiaeretus*), *Hypothenemus* 935
- minor** (Eggers), (*Anchonocerus*), *Ampligranus* 1045
- minor** (Eggers), (*Negritus*), *Scolytogenes* 563
- minor** (Eggers), (*Pelicerus*), *Cyrtogenius* 566
- minor** (Eggers), (*Prionosceles*), *Scolytodes* 395
- minor** (Eggers), (*Xyleboricus*), *Arixyleborus* 665
- minor** (Hartig), (*Dendroctonus*), *Tomicus* 123
- minor** (Schedl), (*Landolphianus*), *Lamurgus* 405
- minor** (Stebbing), (*Phlocosinus*), *Ambrosiodmus* 676
- minor* Browne, *Webbia* (= *biformis*) 530
- minor* Eggers, (*Cryphalomorphus*), *Scolytogenes*
 (= *eggersi*) 561
- minor* Eggers, (*Dendrugus*), *Coccotrypes*
 (= *advena*) 592
- minor** Eggers, *Chramesus* 267
- minor** Eggers, *Craniodicticus* 437
- minor** Eggers, *Diamerus* 197
- minor* Eggers, *Dryocoetes* (= *villosus*) 557
- minor** Eggers, *Prennobius* 653
- minor** Eggers, *Strombophorus* 204
- minor** Eggers, *Taphrorychus* 560
- minor** Eggers, *Xylechinus* 116
- minor* Lindemann, *Polygraphus* (= *subopacus*) 301
- minor** Schedl, *Acacacis* 193
- minor** Schedl, *Cnemomyx* 316
- minor** Schedl, *Hypocryphalus* 570
- minor** Schedl, *Margadillius* 599
- minor* Stebbing, *Polygraphus* (= *pini*) 291
- minor* Stebbing, *Scolytus* (= *major*) 340
- minor* Swaine, *Xyleborus* (= *sayi*) 770
- minor** Wood, *Cnesinus* 209
- minor* Wood, *Hylocurus* (= *elegans*) 424
- minor** Wood, *Pachycotes* 187
- minor** Wood, *Phloeotribus* 225
- minor** Wood, *Phrixosoma* 159
- minor* robustus Schedl, *Cyrtogenius* (= *minor*) 566
- minulus** (Wood), (*Cryptocleptes*),
Pseudothysanoes 415
- minulus* Eggers, *Cnemomyx* (= *barbatus*) 314
- Minulus* Eggers (= *Cnemomyx*) 313
- minulus** Wood, *Chramesus* 267
- minus** Bright, *Pityophthorus* 1012
- minusculus** (Blandford), (*Loganius*), *Cnemomyx* 317
- minusculus* Eggers, (*Xyleborus*), *Coptodryas*
 (= *recidens*) 527
- minusculus** Schedl, *Cnesinus* 209
- minusculus* Schedl, *Polygraphus* (= *occidentalis*) 291
- minutalis** Wood, *Pityophthorus* 1012
- minutissima** Wood, *Trischidias* 947
- minutissimum** (Schedl), (*Pterocyclon*),
Monarthrum 1059
- minutissimus** (Schedl), (*Brachydendrulus*),
Araptus 959
- minutissimus** (Schedl), (*Dryocoetes*),
Peridryocoetes 561
- minutissimus** (Schedl), (*Pocellips*), *Coccotrypes* 606
- minutissimus** (Zimmermann), (*Crypturgus*),
Pseudopityophthorus 973
- minutissimus* Eggers, (*Xyleborus*), *Coptodryas*
 (= *recidens*) 527

<i>minutissimus</i> Schedl, (<i>Cryphalomorphus</i>), <i>Scolytogenes</i> (= knabi)	863	<i>mjoebergi</i> (Schedl), (<i>Pocillips</i>), <i>Coccotrypes</i>	606
<i>minutissimus</i> Schedl, (<i>Hexacolinus</i>), <i>Scolytodes</i> (= minutissimus)	395	<i>mkulumusius</i> (Eggers), (<i>Stephanoderes</i>), <i>Stephanopodius</i>	853
<i>minutissimus</i> Schedl, (<i>Hexacolus</i>), <i>Scolytodes</i> (= minutus)	395	<i>mkulanusius</i> Hagedorn, <i>Xyleborus</i> (= amanicus)	710
minutissimus Schedl, <i>Corthylus</i>	1075	modestus (Murayama), (<i>Cryphalus</i>), <i>Hypothenemus</i>	935
minutissimus Schedl, <i>Eidophelus</i>	867	<i>modestus</i> Murayama, <i>Hylurgops</i> (= spessirtseri)	41
<i>minutissimus</i> Schedl, <i>Hypothenemus</i> (= pubescens)	939	modicus Blackman, <i>Pityophthorus</i>	1012
minutissimus Schedl, <i>Lamurgus</i>	409	modicus Wood, <i>Dendroctonus</i>	951
<i>minutissimus</i> Schedl, <i>Microcorthylus</i> (= minimus)	1066	modus Wood, <i>Dendrocramulus</i>	553
minutissimus Schedl, <i>Polygraphus</i>	290	moestus (Blandford), (<i>Dryocoetes</i>), <i>Taphrorhynchus</i>	560
minutissimus Schedl, <i>Ptilopodius</i>	900	moestus (Eggers), (<i>Xyleborus</i>), <i>Arixyleborus</i>	668
minutissimus Schedl, <i>Scolytodes</i>	395	<i>molhogani</i> Sampson, <i>Scolytodes</i> (= guyanaensis)	393
minutissimus Schedl, <i>Strombophorus</i>	204	molestulus (Wood), (<i>Xyleborus</i>), <i>Theoborus</i>	661
minutissimus Schedl, <i>Tricolus</i>	1044	molestus Wood, <i>Pityophthorus</i>	1013
<i>minutus</i> Schedl, <i>Hypothenemus</i> (= eruditus)	925	<i>mollis</i> Blackman, <i>Pityophthorus</i> (= infulatus)	1003
minutum (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1059	mollis Schedl, <i>Cryphalus</i>	855
minutus (Swaine), (<i>Dryocoetes</i>), <i>Pityokteines</i>	463	molokaiensis Perkins, <i>Xyleborus</i>	751
<i>minutus</i> Blackman, <i>Hylastes</i> (= tenuis)	63	moluccanus Browne, <i>Xyleborus</i>	751
minutus Blandford, <i>Eidophelus</i>	867	<i>monacensis</i> Fuchs, <i>Pityogenes</i> (= irkutensis)	453
<i>minutus</i> Blandford, <i>Phloeosinus</i> (= lewisi)	249	<i>monacensis</i> bialowiezensis Karpinski, <i>Pityogenes</i> (= irkutensis)	453
minutus Blandford, <i>Xyleborus</i>	750	monachus (Blandford), (<i>Xyleborus</i>), <i>Dryocoetoides</i>	655
minutus Bright, <i>Corthylus</i>	1075	monadis Wood, <i>Micracisella</i>	430
minutus Browne, <i>Hypocryphalus</i>	571	Monarthrum Kirsch	1050
minutus Browne, <i>Sphacrotrypes</i>	200	<i>Monebius</i> Hopkins (= Pycnarthrum)	384
<i>minutus</i> Butovitschi, <i>Scolytus</i> (= pygmaeus)	358	mongolica (Sokanovskii), (<i>Gretschkinia</i>), <i>Pseudothysanoes</i>	415
<i>minutus</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= seriatus)	942	monilicollis Eichhoff, <i>Cosmoderes</i>	901
minutus Hopkins, <i>Margadillius</i>	899	monoceros (Beeson), (<i>Thammurgides</i>), <i>Coccotrypes</i>	606
<i>minutus</i> Panzer, (<i>Bostrichus</i>), <i>Hylesinus</i> (= varius)	86	monodi Paulian & Villiers, <i>Aphanarthrum</i>	619
<i>minutus</i> Schedl, (<i>Cryphalus</i>), <i>Hypothenemus</i> (= eruditus)	925	monographus (Fabricius), (<i>Bostrichus</i>), <i>Xyleborus</i>	751
minutus Schedl, <i>Coccotrypes</i>	606	<i>monophyllae</i> Blackman, <i>Pityophthorus</i> (= deletus)	994
minutus Schedl, <i>Pityophthorus</i>	1012	monophyllae Hopkins, <i>Conophthorus</i>	965
<i>minutus</i> Swaine, <i>Phloeosinus</i> (= swainei)	256	<i>montana</i> Kurenzov, <i>Scolytus</i> (= jacobsoni)	334
minutus Wood, <i>Scolytodes</i>	395	montanum Eggers, <i>Ctonoxylon</i>	838
Miocryphalus Schedl	410	montanus (Bright), (<i>Neodryocoetes</i>), <i>Araptus</i>	959
mirabilis (Schedl), (<i>Streptocranus</i>), <i>Coptoborus</i>	663	montanus (Eichhoff), (<i>Tomiscus</i>), <i>Ips</i>	513
mirabilis Nunberg, <i>Corthylus</i>	1075	montanus (Schedl), (<i>Micracidendron</i>), <i>Mimicoccus</i>	949
mirandus Wood, <i>Amphicranus</i>	1048	montanus Blackman, <i>Xylechinus</i>	116
mirandus Wood, <i>Stegomerus</i>	852	<i>montanus</i> Bright, <i>Pseudopityophthorus</i> (= hondurensis)	973
mirus (Wood), (<i>Cryptuloleptes</i>), <i>Pseudothysanoes</i>	415	<i>montanus</i> Eggers, (<i>Pocillips</i>), <i>Coccotrypes</i> (= vulgaris)	614
misatoensis Nobuchi, <i>Xyleborus</i>	751	<i>montanus</i> Fuchs, <i>Ips</i> (= amitinus)	491
miser Blandford, <i>Polygraphus</i>	290	montanus Niisima, <i>Xyleborus</i>	753
<i>mississippiensis</i> Blackman, (<i>Phthorophloeus</i>), <i>Phloeotribus</i> (= liminaris)	224	montanus Nobuchi, <i>Cryphalus</i>	855
mitosomiformis (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	809	montanus Schedl, <i>Hypocryphalus</i>	871
mitosomipennis (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	809	<i>montanus</i> Schedl, <i>Mimicoccus</i> (= monticulus)	949
<i>mitosomus</i> Schedl, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= spinosus)	817	montanus Schedl, <i>Polygraphus</i>	290
<i>mixtecus</i> Bright, <i>Phloeotribus</i> (= armatus)	219	<i>montanus</i> Schedl, <i>Xyleborus</i> (= tenellus)	778
mixtus (Schedl), (<i>Xyleborus</i>), <i>Amasa</i>	683	montanus Wood, <i>Stegomerus</i>	852
miyalopicus Tsai & Li, <i>Cryphalus</i>	884	montezumae Bright, <i>Pityophthorus</i>	1013
miyazakiensis Murayama, <i>Xyleborus</i>	751	monticolae (Swaine), (<i>Eccoptogaster</i>), <i>Scolytus</i>	345

- monticolae* Bright, *Pityophthorus* (= *carinatus*) 956
monticolae Hopkins, *Conophthorus* (= *ponderosae*) 966
monticolae Hopkins, *Dendroctonus* (= *ponderosae*) 165
monticolus Schedl, (*Xyleborus*), *Coptoborus*
 (= *usagaricus*) 664
monticulus Wood, *Mimiciocurus* 949
montivagus Bright, *Pityophthorus* 1013
moorei Schedl, *Hypocryphalus* 571
moravtzi Semenov, *Scolytus* 345
moreirai Eggers, *Coccotrypes* (= *dactyliperda*) 601
mori (Aube), (*Hypoborus*), *Liparthrum* 278
morigerus (Blandford), (*Xyleborus*), *Xylosandrus* 797
morigerus (Schedl), (*Stephanoderes*),
Hypothenemus 935
morigerus Wood, *Araptus* 959
morinda Stebbing, *Cryphalus* (= *major*) 884
morio (Eggers), (*Stephanoderes*), *Hypothenemus* 935
morio (Eggers), (*Xyleborus*), *Arxyleborus* 668
morio (Schedl), (*Loganius*), *Camptocerus* 319
moriperda Hopkins, (*Phlocophthorus*), *Phlocotribus*
 (= *frontalis*) 222
moritzi Ferrari, *Brachyspartus* 1068
moritzi Schedl, (*Pterocyclon*), *Monarthrum*
 (= *dimidiatum*) 1054
Morizus Ferrari (= *Corthylus*) 1069
mormon Bright, *Pityophthorus* 1013
morokensis (Eggers), (*Dendrugus*), *Coccotrypes* 606
morosovi Spessivtsev, *Pityophthorus* 1013
mososus Schedl, *Hypothenemus* 935
mososus Schedl, *Xyleborus* (= *clerodendronae*) 719
mososus Wood, *Pityophthorus* 1013
mostatti Hagedorn, (*Xyleborus*), *Xylosandrus*
 (= *compactus*) 789
morsum Wood, *Monarthrum* 1059
morulum Wood, *Corthycyclon* 1068
morulus (Schedl), (*Hexacolus*), *Scolytodes* 395
morulus Blandford, *Xyleborus* 753
moschatae Schaufuss, (*Stephanoderes*),
Hypothenemus (= *obscurus*) 937
moseri Eggers, *Sphaerotrypes* 200
moroliae (Schedl), (*Minidendrulus*), *Cyrtogenius* 566
moroliae Schedl, *Strombophorus* 204
mozambiqueensis Eggers, *Hypothenemus* 935
mpangae Browne, *Xyleborus* 753
mpossae Schedl, *Pityophthorus* 1013
muasi Browne, *Xyleborus* 753
mucronatoides Schedl, *Xyleborus* 753
mucronatulus Eggers, *Xyleborus* 753
mucronatus (LeConte), (*Cryphalus*),
Procryphalus 848
mucronatus (Wood), (*Cryptoloeptus*),
Pseudothysanoces 415
mucronatus Blandford, *Craniodicticus* 437
mucronatus Eggers, *Webbia* 831
mucronatus Eggers, *Xyleborus* 753
mucronatus Wood, *Amphicraus* 1048
mucronifer Wollaston, (*Cryphalus*), *Hypothenemus*
 (= *crudiae*) 914
mueunae (Blackman), (*Neodryocoetes*), *Araptus* 959
mukunyeae (Schedl), (*Xyleborus*), *Premnobius* 654
mulongensis (Eggers), (*Stephanoderes*),
Hypothenemus 935
multidentatulus (Schedl), (*Stephanoderes*),
Hypothenemus 935
multidentatus (Hopkins), (*Stephanoderes*),
Hypothenemus 936
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<i>nigropilosus</i> Eggers, <i>Xyleborus</i>	755	<i>nitidulus</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>seriatus</i>)	943
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<i>niijimai</i> Nobuchi, <i>Dryocoetes</i>	584	<i>nitidus</i> (Hagedorn), (<i>Lepicrus</i>), <i>Cyrtogenius</i>	567
<i>niisimai</i> (Eggers), (<i>Hyorrhynchus</i>), <i>Sucus</i>	191	<i>nitidus</i> (Schedl), (<i>Dryocoetes</i>), <i>Dryocoetiops</i>	588
<i>niligrinus</i> Eggers, <i>Hylesinus</i>	52	<i>nitidus</i> (Schedl), (<i>Eidophelus</i>), <i>Micocryphalus</i>	411
<i>nimifrons</i> Wood, <i>Cnathotrichus</i>	1036	<i>nitidus</i> (Schedl), (<i>Xyleborus</i>), <i>Cnestus</i>	503
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<i>nitellus</i> (Schedl), (<i>Hexacolus</i>), <i>Scolytodes</i>	395	<i>nitidus</i> Eggers, <i>Cnesinus</i>	210
<i>nitellus</i> Browne, <i>Pityophthorus</i>	1015	<i>nitidus</i> Eggers, <i>Ips</i>	514
<i>nitellus</i> Browne, <i>Xyleborus</i>	755	<i>nitidus</i> Eggers, <i>Pagiocerus</i> (= <i>frontalis</i>)	214
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<i>nitens</i> (Schedl), (<i>Hexacolus</i>), <i>Scolytodes</i>	396	<i>nitidus</i> Eggers, <i>Scolytoplatypus</i>	405
<i>nitens</i> (Schedl), (<i>Ozodendron</i>), <i>Peridryocoetes</i>	561	<i>nitidus</i> Schedl, (<i>Ptilopodius</i>), <i>Eidophelus</i> (= <i>imitans</i>)	867
<i>nitens</i> Browne, <i>Cnestus</i> (= <i>aterrimus</i>)	802	<i>nitidus</i> Schedl, <i>Scolytus</i>	354
<i>nitens</i> Browne, <i>Cryphalus</i>	855	<i>nitidus</i> Swaine, <i>Hylastes</i> (= <i>gracilis</i>)	55
<i>nitens</i> Browne, <i>Xyleborus</i>	755	<i>nitidus</i> Swaine, <i>Phlocosinus</i> (= <i>cupressi</i>)	245
<i>nitens</i> Wood, <i>Cnemomyx</i> (= <i>atratus</i>)	314	<i>nitidus</i> Swaine, <i>Pityophthorus</i>	1016
<i>nitidicollis</i> (Eggers), (<i>Plathorophloeus</i>), <i>Phloeotribus</i>	225	<i>nitidus</i> Swaine, <i>Trypophloeus</i> (= <i>striatulus</i>)	847
<i>nitidicollis</i> (Motschulsky), (<i>Olonthogaster</i>), <i>Hyleidius</i>	260	<i>nitidus orientalis</i> Eggers, <i>Cyrtogenius</i> (= <i>nitidus</i>)	567
<i>nitidicollis</i> (Reitter), (<i>Dryocoetes</i>), <i>Tiarophorus</i>	540	<i>nobilis</i> (Eggers), (<i>Pseudoxyleborus</i>), <i>Amasa</i>	683
<i>nitidicollis</i> Chapuis, <i>Phlocoborus</i> (= <i>punctatorugosus</i>)	100	<i>nobilis</i> (Wollaston), (<i>Tomicus</i>), <i>Ips</i>	514
<i>nitidicollis</i> Eggers, <i>Scolytoplatypus</i>	405	<i>nobilis</i> Blandford, <i>Hylesinus</i>	52
<i>nitidicollis</i> Hagedorn, (<i>Xyleborus</i>), <i>Dryocoetoides</i> (= <i>granulicauda</i>)	657	<i>nobilis</i> Swaine, <i>Pseudohylesinus</i>	111
<i>nitidicollis</i> Schedl, <i>Hypocryphalus</i>	871	<i>nobuchii</i> Schedl, (<i>Cryphalomorphus</i>), <i>Scolytogenes</i> (= <i>punctatulus</i>)	865
<i>nitidifrons</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>multidentatus</i>)	936	<i>nobuchii</i> Choo & Woo, <i>Polygraphus</i>	291
<i>nitidifrons</i> Hopkins, <i>Cnathotrichus</i>	1036	<i>nocturnus</i> Schedl, <i>Pityophthorus</i>	1016
<i>nitidiloides</i> (Schedl), (<i>Xyleborus</i>), <i>Cnestus</i>	803	<i>nodatus</i> Wood, <i>Scolytus</i>	354
<i>nitidior</i> (Eggers), (<i>Xyleborus</i>), <i>Amasa</i>	683	<i>nodicornis</i> Wichmann, (<i>Eccoptogaster</i>), <i>Scolytus</i> (= <i>nodulus</i>)	355
<i>nitidipennis</i> (Schedl), (<i>Breviophthorus</i>), <i>Pityophthorus</i>	1015	<i>nodifer</i> Blandford, <i>Tricolus</i>	1044
<i>nitidipennis</i> (Schedl), (<i>Neodryocoetes</i>), <i>Araptus</i>	960	<i>nodifer</i> Reitter, <i>Scolytus</i> (= <i>multistriatus</i>)	353
<i>nitidipennis</i> (Schedl), (<i>Xyleborus</i>), <i>Cnestus</i>	803	<i>nodosum</i> Eggers, <i>Ctonoxylon</i>	838
<i>nitidipennis</i> Browne, <i>Cryphalus</i>	855	<i>nodulosus</i> (Eggers), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	677
<i>nitidipennis</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>seriatus</i>)	942	<i>nodulosus</i> Hagedorn, <i>Premnobius</i>	654
<i>nitidipennis</i> Roubal, <i>Xyleborus</i> (= <i>monographus</i>)	751	<i>nodulus</i> (Wichmann), (<i>Eccoptogaster</i>), <i>Scolytus</i>	355
<i>nitidipennis</i> Schedl, (<i>Pocellips</i>), <i>Coccotrypes</i> (= <i>longior</i>)	605	<i>nodulus</i> Wood, <i>Hyllocurus</i>	426
<i>nitidissimus</i> (Eggers), (<i>Hexacolus</i>), <i>Scolytodes</i>	396	<i>noguerae</i> Atkinson, <i>Cnesinus</i>	210
<i>nitidula</i> Wood, <i>Micracisella</i>	430	<i>uolena</i> Wood, <i>Corthylus</i>	1075
<i>nitidulus</i> (Mannerheim), <i>Pityophthorus</i>	1015	<i>Nomebius</i> Navas (= <i>Pycnarthrum</i>)	384
<i>nitidulus</i> (Schedl), (<i>Neodryocoetes</i>), <i>Araptus</i>	960	<i>nonseptis</i> Schedl, (<i>Phlocosinus</i>), <i>Cladoctonus</i> (= <i>banosus</i>)	238
<i>nitidulus</i> Chapuis, <i>Scolytus</i> (= <i>mali</i>)	344	<i>norfolkensis</i> Schedl, <i>Xyleborus</i>	755
<i>nitidulus</i> Eggers, <i>Xyleborus</i>	755	<i>norimasanus</i> (Murayama), (<i>Dryocoetes</i>), <i>Coccotrypes</i>	607
		<i>normandi</i> (Eggers), (<i>Thammurgus</i>), <i>Tiarophorus</i>	540
		<i>noysi</i> Schedl, <i>Xyleborus</i>	755

- notatum* Wood, *Monarthrum* 1059
notatus (Eggers), (*Hexacolus*), *Scolytodes* 396
notatus Eggers, (*Poccilips*), *Coccotrypes*
 (= *vulgaris*) 614
notatus Eggers, *Xyleborus* (= *ferrugineus*) 739
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Gnathotrypes 1042
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noragraudensis Eggers, *Xyleborus* 755
noragineanus Schedl, *Xyleborus* (= *similis*) 773
noraki Reitter, *Kissophagus* 69
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Araptus 960
norateutonicus (Schedl), (*Phthorophloeus*),
Phlocotribus 225
norateutonicus (Schedl), (*Ptilopodius*),
Hypothenemus 936
norateutonicus Schedl, (*Problechilus*), *Gymnochilus*
 (= *concius*) 356
norateutonicus Schedl, *Cucinus* 210
norateutonicus Schedl, *Pityophthorus* 1017
norateutonicus Schedl, *Scolytus* 355
norateutonicus Schedl, *Xyleborus* (= *posticus*) 765
novellus Blackman, *Pityophthorus* 1017
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norus Bright, *Xyleborus* (= *howdenae*) 743
noxius Ratzeburg, (*Eccoptogaster*), *Scolytus*
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noxius Sampson, (*Xyleborus*), *Euwallacea*
 (= *andamanensis*) 656
nsafukalae (Schedl), (*Xyleborus*), *Cyclorhipidion* 700
nubilus (Blandford), (*Dryocoetes*), *Coccotrypes* 607
nubilus (Wood), (*Cryphalomorphus*), *Scolytogenes* 864
nubilus Blackman, (*Ceratolepis*), *Cnemonyx*
 (= *ficus*) 315
nubilus Blandford, *Phlocotribus* 225
nubilus Samuelson, *Xyleborus* 755
nuciferus Schedl, (*Poccilips*), *Coccotrypes*
 (= *advena*) 593
nudibrevis (Schedl), (*Xyleborus*), *Coptodryas* 825
nudifrons Motschulsky, (*Phlocosinus*), *Hyledius*
 (= *concinulus*) 259
nudipennis (Schedl), (*Xyleborus*), *Coptodryas* 825
nudipennis Schedl, *Corthylus* 1075
nudiusculus Schedl, *Corthylus* (= *flagellifer*) 1073
nudum (Schedl), (*Pterocyclon*), *Monarthrum* 1059
nudum Israelson, *Aphanarthrum* (= *glabrum*) 618
nudus (Nunberg), (*Xyleborus*), *Cnestus* 803
nudus (Schedl), (*Thamnopterus*), *Araptus* 960
nudus Nunberg, *Strombophorus* (= *crenatus*) 203
nudus Schedl, *Corthylus* 1076
nudus Swaine, *Pityophthorus* (= *consimilis*) 991
nuesslini Reitter, *Kissophagus* 69
nugalis Wood, *Pityophthorus* 1017
nugax (Schedl), (*Xyleborus*), *Coptodryas* 826
numidicus Brisout, *Scolytus* 355
numidicus Eichhoff, *Cryphalus* 885
numidicus Ferrari, *Crypturgus* 625
numidicus abbreviatus Eggers, *Crypturgus*
 (= *numidicus*) 625
nunbergi Michalski, *Scolytus* 355
nuperus Bright, *Xyleborus* 755
nutans (Schedl), (*Xyleborus*), *Cyclorhipidion* 700
nuuanus Schedl, *Xyleborus* (= *rugatus*) 769
nyalubombeae Schedl, *Cryphalus* 886
nyssae Hopkins, *Xyleborus* (= *ferrugineus*) 739
oahuensis Perkins, *Xyleborus* 756
oahuensis Samuelson, *Xyleborus* (= *scabratus*) 770
oahuensis Schedl, *Hypothenemus* (= *arecae*) 908
oaxacaensis Bright, *Monarthrum* (= *hoegei*) 1057
obanus Hagedorn, *Ozopenon* 559
obelus Wood, *Scolytus* 355
obesa Blackman, *Phrixosoma* 190
obesum (Schedl), (*Pterocyclon*), *Monarthrum* 1059
obesus (Hopkins), (*Dacryphalus*), *Hypocryphalus* 871
obesus (Schedl), (*Micraciops*), *Lanurgus* 409
obesus (Wood), (*Cryptulocleptus*),
Pseudothysanocs 415
obesus Browne, *Hyorrhynchus* 192
obesus Hopkins, (*Stephanoderes*), *Hypothenemus*
 (= *jaranus*) 932
obesus Kirsch 1875, *Phlocotribus* (= *pilula*) 227
obesus LeConte, *Xyleborus* 756
obesus Mannerheim, (*Hylurgus*), *Dendroctonus*
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obesus Swaine, *Pseudohylesinus* (= *tsugae*) 113
obesus Wood, *Araptus* 960
obesus Wood, *Scolytodes* 396
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obliquecaudata Motschulsky (*Phlocotrogus*),
Ambrosiodmus 677
obliquecaudatum Schedl, (*Pterocyclon*),
Monarthrum (= *scutellare*) 1062
obliquesectum (Eggers), (*Xyleborus*),
Cyclorhipidion 700
obliquum (Schedl), (*Pterocyclon*), *Monarthrum* 1060
obliquus (LeConte) (*Pityophthorus*),
Ambrosiodmus 677
obliquus Hopkins, (*Stephanoderes*), *Hypothenemus*
 (= *interstitialis*) 932
obliquus Chapuis, *Phlocotribus* (= *pilula*) 227
obliquus Schedl, *Corthylus* 1076
obliquus Schedl, *Cryphalus* (= *sylvicola*) 596
obliquus Sharp, *Xyleborus* 756
oblitus Perris, (*Tomicus*), *Orthotomicus*
 (= *longicollis*) 473
oblongus (Eggers), (*Hexacolus*), *Scolytodes* 396
oblongus (Eggers), (*Pseudophlocotribus*),
Hylesinopsis 95
oblongus (Nobuchii), (*Macrocryphalus*),
Hypothenemus 936
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<i>oblongus</i> Eggers, (<i>Poecilips</i>), <i>Coccotrypes</i> (= <i>longior</i>)	605	<i>occidentalis</i> Blackman, <i>Pityophthorus</i>	1017
<i>oblongus</i> Niisima, <i>Cryphalus</i>	586	<i>occidentalis</i> Browne, <i>Scolytoptatypus</i>	405
<i>oblongus</i> Schedl, <i>Xyleborus</i>	757	<i>occidentalis</i> Eggers, <i>Camptocerus</i>	319
<i>obmixus</i> Schedl, (<i>Gnathotrichus</i>), <i>Gnathotrypes</i> (= <i>longipennis</i>)	1041	<i>occidentalis</i> Hopkins, <i>Gnathotrichus</i> (= <i>retusus</i>)	1037
<i>obscura</i> Schedl 1962, <i>Pseudodiamerus</i> (= <i>obscurus</i>)	194	<i>occidentalis</i> Peyerimhoff, <i>Cisurgus</i>	630
<i>obscura</i> Schedl 1963, <i>Pseudodiamerus</i> (= <i>obscurus</i>)	194	<i>occidentalis</i> Schedl, (<i>Mimiophthorus</i>), <i>Mimioecurus</i> (= <i>kikusuae</i>)	949
<i>obscuriceps</i> Schedl, <i>Hypothenemus</i> (= <i>eruditus</i>)	925	<i>occidentalis</i> Schedl, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>arecae</i>)	908
<i>obscurus</i> (Eggers), (<i>Neodryocoetes</i>), <i>Araptus</i>	960	<i>occidentalis</i> Schedl, <i>Polygraphus</i>	291
<i>obscurus</i> (Fabricius), (<i>Hylesinus</i>), <i>Hypothenemus</i>	936	<i>occidentalis</i> Schedl, <i>Strombophorus</i>	204
<i>obscurus</i> (Marshall), (<i>Ips</i>), <i>Hylastinus</i>	64	<i>occidentalis minusculus</i> Schedl, <i>Polygraphus</i> (= <i>occidentalis</i>)	291
<i>obscurus</i> (Wood), (<i>Hexacolus</i>), <i>Scolytodes</i>	396	<i>occlusus</i> Bright, <i>Pityophthorus</i>	1017
<i>obscurus</i> Chapuis, <i>Hylastes</i> (= <i>plumbeus</i>)	60	<i>ocellata</i> Wood, <i>Micracisella</i>	430
<i>obscurus</i> Eggers, <i>Bifonus</i>	1052	<i>ocellatus</i> (Wood), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	678
<i>obscurus</i> Eggers, <i>Microcorthyus</i>	1066	<i>ochromae</i> Wood, <i>Scolytodes</i>	396
<i>obscurus</i> Eggers, <i>Pernophorus</i>	202	<i>octiesdentatus</i> Murayama, <i>Xyleborus</i>	757
<i>obscurus</i> Eggers, <i>Pseudodiamerus</i>	194	<i>octodecimspinosus</i> Sampson, <i>Webbia</i> (= <i>diptercarpi</i>)	830
<i>obscurus</i> Eggers, <i>Xylechinus</i>	116	<i>octodentatus</i> (Schedl), (<i>Pterocyclonoides</i>), <i>Tricolus</i>	1044
<i>obscurus</i> Eichhoff, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>setosus</i>)	944	<i>octodentatus</i> Browne, <i>Acanthotomicus</i>	482
<i>obscurus</i> Ferrari, (<i>Cryphalus</i>), <i>Hypothenemus</i> (= <i>eruditus</i>)	920	<i>octodentatus</i> Paykull, (<i>Bostrichus</i>), <i>Ips</i> (= <i>typographus</i>)	538
<i>obscurus</i> Hopkins, <i>Hypocryphalus</i>	571	<i>octospinosus</i> (Eggers), (<i>Xyleborus</i>), <i>Xyleborinus</i>	809
<i>obscurus</i> Rey, <i>Coccotrypes</i> (= <i>dactyliperda</i>)	600	<i>octospinosus</i> (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	482
<i>obscurus</i> Schedl, (<i>Xyleborus</i>), <i>Webbia</i> (= <i>similis</i>)	832	<i>octospinosus</i> Nunberg, <i>Scolytoptatypus</i> (= <i>eichelbaumi</i>)	402
<i>obscurus</i> Wood, <i>Gnathotrichus</i>	1036	<i>ocularis</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	864
<i>obscurus</i> Wood, <i>Phloeocleptus</i>	421	<i>ocularis</i> (Wood), (<i>Mimips</i>), <i>Acanthotomicus</i>	482
<i>obsitum</i> Wollaston, <i>Aphanarthrum</i> (= <i>bicinctum</i>)	617	<i>ocularis</i> Blandford, <i>Cnesinus</i>	210
<i>obsoletus</i> (Blandford), (<i>Pityophthorus</i>), <i>Araptus</i>	960	<i>ocularis</i> Wood, <i>Microcorthyus</i>	1066
<i>obstipus</i> Schedl, <i>Xyleborus</i>	757	<i>oculatus</i> Wood, <i>Corthyus</i>	1076
<i>obtectus</i> Schedl, <i>Scolytoptatypus</i>	405	<i>ohausi</i> Hagedorn, <i>Xyleborus</i> (= <i>princeps</i>)	765
<i>obtrusus</i> Sampson, <i>Xyleborus</i> (= <i>tanuceusis</i>)	779	<i>ohmoi</i> Browne, <i>Xyleborus</i>	757
<i>obtusatus</i> Schedl, <i>Xyleborus</i>	757	<i>ohnoensis</i> Nobuchi, <i>Xyleborus</i>	757
<i>obtusicollis</i> (Schedl), (<i>Poecilips</i>), <i>Coccotrypes</i>	608	<i>okadai</i> Browne, <i>Arixyleborus</i>	668
<i>obtusicollis</i> (Schedl), (<i>Xyleborus</i>), <i>Coptodryas</i>	826	<i>okinosenensis</i> Murayama, <i>Xyleborus</i>	757
<i>obtusicornis</i> Schedl, <i>Sampsonius</i>	656	<i>okounneensis</i> Schedl, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>crassiusculus</i>)	792
<i>obtusipennis</i> Blandford, <i>Pityophthorus</i>	1017	<i>oleae</i> Fabricius, (<i>Bostrichus</i>), <i>Phloeotribus</i> (= <i>scarabaeoides</i>)	231
<i>obtusipennis</i> Eggers, <i>Xyleborus</i> (= <i>ferrugineus</i>)	736	<i>oleae</i> Schedl, <i>Lamurgus</i>	409
<i>obtusipennis</i> Schedl, <i>Hylcoerus</i>	426	<i>oleaeformis</i> Schedl, <i>Lamurgus</i>	409
<i>obtusipennis</i> Schedl, <i>Webbia</i>	831	<i>oleanderi</i> (Schedl), (<i>Neodryocoetes</i>), <i>Araptus</i>	960
<i>obtusispinosus</i> Schedl, <i>Webbia</i>	831	<i>oleiperda</i> Fabricius, (<i>Bostrichus</i>), <i>Hylesinus</i> (= <i>toranio</i>)	83
<i>obtusitruncatus</i> (Schedl), (<i>Xyleborus</i>), <i>Dryocoetoides</i>	658	<i>oleiphilus</i> DelCnercio, <i>Phloeotribus</i> (= <i>scarabaeoides</i>)	232
<i>obtusum</i> (Eggers), (<i>Anchouocerus</i>), <i>Monarthrum</i>	1060	<i>olireirai</i> Schedl, <i>Corthyus</i>	1076
<i>obtusum</i> Eggers, <i>Trypodendron</i> (= <i>signatum</i>)	648	<i>oliverai</i> Schedl, <i>Pityophthorus</i>	1017
<i>obtusus</i> Eggers, (<i>Xyleborus</i>), <i>Cyclorhpidion</i> (= <i>circumcisum</i>)	698	<i>Olonthogaster</i> Motschulsky (= <i>Hyledius</i>)	259
<i>obtusus</i> Eggers, <i>Diamerus</i>	197	<i>ominosus</i> Schedl, <i>Xyleborus</i> (= <i>amanicus</i>)	710
<i>obtusus</i> Eggers, <i>Pityogenes</i> (= <i>bidentatus</i>)	442	<i>omissum</i> (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1060
<i>obtusus</i> Schaufuss, <i>Pityophthorus</i>	1017	<i>omissus</i> (Schedl), (<i>Xyleborus</i>), <i>Xylosandrus</i>	799
<i>obtusus</i> Schedl, (<i>Corthyus</i>), <i>Brachyspartus</i> (= <i>moritzi</i>)	1068		
<i>occidentalis</i> (Schedl), (<i>Hapalogenius</i>), <i>Rhopalopsclion</i>	97		
<i>occidentalis</i> Bedel, <i>Phloeotribus</i> (= <i>scarabaeoides</i>)	230		

- omissus* Eichhoff, (*Tomicus*), *Orthotomicus*
(=*proximus*) 475
- omissus** Schedl, *Coccotrypes* 605
- omissus** Wood, *Gnathotrichus* 1036
- ommateus** Wood, *Scolytodes* 396
- oneratus** Schedl, *Xyleborus* 757
- onerosus** (Schedl), (*Ips*), *Acanthotomicus* 452
- onerosus** Schedl, *Xyleborus* (= *nascareuiformis*) 750
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- Onthotomicus* Ferrari (= *Orthotomicus*) 467
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- opacicaudulus** Schedl, *Cryptoxyleborus* 825
- opacicollis** (Eggers), (*Loganius*), *Camptocerus* 319
- opacicollis** (Eggers), (*Prionosceles*), *Scolytodes* 396
- opacicollis** (LeConte), (*Micracis*), *Micracisella* 430
- opacicollis** Blackman, *Pseudopityophthorus* 974
- opacicollis** Eggers, *Chramesus* 267
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- opacicollis** Eggers, *Scolytoplatypus* 405
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- opacifrons* Hopkins, (*Stephanoderes*), *Hypothenemus*
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- opacifrons* Reitter, *Pityogenes* (= *calcaratus*) 445
- opacifrons* Schedl, (*Pterocyclon*), *Monarthrum*
(=*omissum*) 1060
- opacifrons* Schedl, *Amphicranus* (= *melanura*) 1047
- opacipennis* Hopkins, (*Stephanoderes*),
Hypothenemus (= *interstitialis*) 932
- opacithorax** (Schedl), (*Micracis*), *Micracisella* 431
- opacithorax** (Schedl), (*Xyleborus*), *Ambrosiodinus* 675
- opacithorax* Schedl, *Phloeoborus* (= *scaber*) 101
- opaculus* LeConte, (*Hylesinus*), *Hylurgopinus*
(=*rufipes*) 109
- opaculus** LeConte, *Pityophthorus* 1017
- opaculus** Schedl, *Sternobothrus* 216
- opacus** (Eichhoff), (*Stephanoderes*),
Hypothenemus 937
- opacus** (Schedl), (*Cryphalomorphus*),
Scolytogenes 864
- opacus** Blackman, *Scolytus* 355
- opacus* Broun, (*Acrantus*), *Chaetoptelius*
(=*mnudulus*) 103
- opacus** Eggers, *Diamerus* 197
- opacus** Erichson, *Hylastes* 57
- opacus** Schedl, *Hypocryphalus* (= *mangiferae*) 570
- opacus** Schedl, *Pseudochramesus* 262
- opacus** Schedl, *Xyloctonus* 840
- opacus** Wood, *Cnemomyx* 317
- opacus** Wood, *Scolytodes* 396
- opalescens** (Schedl), (*Xyleborus*), *Amasa* 653
- oparanus** (Beeson), (*Xyleborus*), *Eucallacea* 692
- operosus** Schedl, *Xyleborus* 757
- opienensis* Tsai & Li, *Cryphalus* (= *sinoabietis*) 895
- opinatum** (Schedl), (*Xyleborus*), *Cyclorhpidion* 700
- opinulus** (Schedl), (*Xyleborus*), *Xyleborinus* 809
- opinus** (Wood), (*Xyleborus*), *Ambrosiodinus* 675
- opinus* Blackman, *Pityophthorus* (= *carinulatus*) 956
- opinus** Wood, (*Acrantus*), *Chaetoptelius* 103
- opinus** Wood, *Phloeotribus* 225
- opinus** Wood, *Scolytodes* 396
- optatus** (Schedl), (*Xyleborus*), *Ambrosiodinus* 675
- opuleutus** Schedl, *Xyleborus* 757
- oralis** (Schedl), (*Xyleborus*), *Xylosandrus* 799
- orarius** Bright, *Pityophthorus* 1015
- orbatus* Blandford, (*Xyleborus*), *Xylosandrus*
(=*germanus*) 796
- orbicaudatus** (Eggers), (*Xyleborus*), *Amasa* 654
- orbicularis** Schedl, *Webbia* 831
- orbiculatus** (Eggers), (*Xyleboricus*), *Arixyleborus* 668
- orbiculatus** (Schedl), (*Xyleborus*), *Xylosandrus* 500
- orbis* Browne, (*Xyleborus*), *Dryocoetops* (= *laevis*) 555
- oregoui** Blackman, *Scolytus* 355
- oregonis* Eichhoff, (*Tomicus*), *Ips* (= *pini*) 520
- oregonus** (Blackman), (*Leperisinus*), *Hylesinus* 82
- orientale** Schedl, *Rhopalopschion* 97
- orientalis** (Eggers), (*Metahylesinus*), *Hylesinopsis* 95
- orientalis** (Eggers), (*Ozophagus*), *Polygraphus* 291
- orientalis** (Schedl), (*Mimiophthorus*),
Mimioecurus 949
- orientalis** Eggers, *Camptocerus* 320
- orientalis** Eggers, *Cryphalus* 586
- orientalis* Eggers, (*Plicerus*), *Cyrtogenius*
(=*nitidus*) 567
- orientalis** Eggers, *Dactylipalpus* 102
- orientalis** Eggers, *Prennobius* 654
- orientalis* Eggers, (*Eccoctogaster*), *Scolytus*
(=*multistriatus*) 353
- orientalis** Eggers, *Xyleborus* 757
- orientalis* Krivolutskaya, (*Blastophagus*), *Tomicus*
(=*puellus*) 136
- orientalis* Kurenzov, *Dryocoetes* (= *infuscatus*) 553
- orientalis* Schedl, (*Cryphalomorphus*), *Scolytogenes*
(=*braderi*) 859
- orientalis** Schedl, *Aphanarthrum* 619
- orientalis** Schedl, *Cardoctonus* 253
- orientalis** Schedl, *Chortastus* 312
- orientalis** Schedl, *Thamniurgus* 545
- orientalis** Wood & Yin, *Ips* 514
- orientalis aceris* Kurenzov, *Xyleborus* (= *orientalis*) 757
- orientalis kalopanacie* Kurenzov, *Xyleborus*
(=*orientalis*) 757
- orientalis pilosiusculus* Kurenzov, *Dryocoetes*
(=*infuscatus*) 554
- orinocanus** Wood, *Scolytopsis* 320
- orinocensis** Wood, *Chramesus* 267
- ornatus** (Swaine), (*Orthotomicus*), *Pityokteinus* 463
- ornatus** Blackman, *Pityophthorus* 1015
- orni** Fuchs, *Hylesinus* 52
- Orosiotes* Niisima (= *Cyrtogenius*) 562
- Orthaspistes* Hagedorn (= *Tiarophorus*) 539

<i>Orthotomicus Ferrari</i>	467	<i>pallidus</i> Eichhoff, <i>Cryphalus</i>	856
<i>Orthotomicus</i> Wood (= <i>Pityokteines</i>)	459	<i>pallidus</i> Escalera, <i>Tomiscus</i> (= <i>pini</i>)	125
<i>ostriacolens</i> Bright, <i>Pityophthorus</i>	1018	<i>pallidus</i> Hopkins, <i>Hypothenemus</i> (= <i>plumeriae</i>)	938
<i>osumiensis</i> Murayama, <i>Phloecosinus</i>	249	<i>pallidus</i> Schedl, <i>Microcorthyus</i>	1066
<i>osumiensis</i> Murayama, <i>Xyleborus</i>	758	<i>pallipes</i> Sturm, <i>Ips</i> (= <i>pini</i>)	517
<i>ougeniae</i> Wood, <i>Xylechinus</i>	116	<i>palmarum</i> Eggers, <i>Coccotrypes</i>	608
<i>ovalicollis</i> Eggers, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>wallacei</i>)	695	<i>palmeri</i> Hopkins, <i>Coptoborus</i>	664
<i>ovalicollis</i> Schedl, <i>Hypocryphalus</i>	571	<i>palmi</i> Hansen, <i>Trypophloeus</i>	846
<i>oralis</i> (Eggers), (<i>Hexacolus</i>), <i>Scolytodes</i>	396	<i>palmicola</i> Hornung, (<i>Bostrichus</i>), <i>Coccotrypes</i> (= <i>dactyliperda</i>)	601
<i>oralis</i> Eggers, (<i>Phloeophthorus</i>), <i>Phlocotribus</i> (= <i>cristatus</i>)	220	<i>pampasae</i> Schedl, <i>Pityophthorus</i>	1018
<i>oralis</i> Schedl, <i>Chramesus</i>	267	<i>panamensis</i> (Blandford), (<i>Loganius</i>), <i>Cnemomyx</i>	317
<i>oratus</i> (Eggers), (<i>Dryotonus</i>), <i>Phlocotribus</i>	225	<i>panamensis</i> Blackman, <i>Chramesus</i> (= <i>pumilus</i>)	268
<i>oratus</i> (Eggers), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	678	<i>panamensis</i> Blackman, <i>Cnesinus</i> (= <i>setulosus</i>)	211
<i>oratus</i> Chapuis, <i>Phlocoborus</i> (= <i>asper</i>)	98	<i>panamensis</i> Blackman, <i>Gnatholeptus</i>	970
<i>oratus</i> Wood, <i>Micraxis</i>	433	<i>panamensis</i> Blandford, <i>Corthyus</i>	1076
<i>oricollis</i> Blandford, <i>Tricolus</i>	1044	<i>panamensis</i> Wood, <i>Scolytodes</i> (= <i>atratus</i>)	389
<i>oxyurus</i> Schedl, <i>Cryptoxyleborus</i>	829	<i>pandae</i> (Schedl), (<i>Xyleborus</i>), <i>Eucallacea</i>	692
<i>Ozodendron</i> Schedl 1957 (= <i>Cyrtogenius</i>)	562	<i>pandulus</i> (Wood), (<i>Xyleborus</i>), <i>Taurodemus</i>	785
<i>Ozodendron</i> Schedl 1964 (= <i>Cyrtogenius</i>)	562	<i>pannuceus</i> Wood, <i>Scolytodes</i>	396
Ozopemon Hagedorn	588	<i>papatrae</i> Schedl, <i>Xyleborus</i>	758
<i>Ozophagus</i> Eggers (= <i>Polygraphus</i>)	254	<i>papuae</i> Wood, <i>Cyrtogenius</i>	567
<i>pabo</i> Sampson, <i>Webbia</i>	831	<i>papuanus</i> (Eggers), (<i>Dendrugus</i>), <i>Coccotrypes</i>	608
Pachycotes Sharp	187	<i>papuanus</i> (Eggers), (<i>Dryocoetes</i>), <i>Cyrtogenius</i>	567
<i>pachylobius</i> (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	482	<i>papuanus</i> (Schedl) 1974, (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	864
<i>Pachynoderes</i> Schedl (= <i>Hypothenemus</i>)	905	<i>papuanus</i> (Schedl), (<i>Margadillius</i>), <i>Eruoporus</i>	855
<i>pacificus</i> (Beeson), (<i>Hylesinus</i>), <i>Ficicis</i>	91	<i>papuanus</i> (Schedl), (<i>Phloecosinus</i>), <i>Hyledius</i>	261
<i>pacificus</i> (Schedl), (<i>Lepicerinus</i>), <i>Scolytogenes</i>	864	<i>papuanus</i> Blandford, <i>Xyleborus</i>	758
<i>pacificus</i> Beeson, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>birmanus</i>)	910	<i>papuanus</i> Brown, (<i>Euptilius</i>), <i>Eruoporus</i> (= <i>antennarius</i>)	854
<i>pacificus</i> Bright, <i>Phlocotribus</i>	225	<i>papuanus</i> Eggers, (<i>Pelicerus</i>), <i>Cyrtogenius</i> (= <i>papuae</i>)	567
<i>pacificus</i> Nunberg, <i>Xyleborus</i> (= <i>vulcanus</i>)	783	<i>papuanus</i> Eggers, <i>Hylesinus</i> (= <i>cordipennis</i>)	77
<i>pacificus</i> Schedl, <i>Ptilopodius</i>	900	<i>papuanus</i> Eggers, <i>Ozopemon</i>	590
<i>pacificus</i> Wood, <i>Phloecosinus</i>	249	<i>papuanus</i> Eggers, <i>Scolytoplatypus</i>	405
<i>padi</i> Krivolutskaya, <i>Cryphalus</i> (= <i>scopiger</i>)	894	<i>papuanus</i> Schedl 1979, (<i>Cryphalomorphus</i>), <i>Scolytogenes</i> (= <i>paradoxus</i>)	864
<i>padi</i> Stark, <i>Dryocoetes</i>	584	<i>papuanus</i> Schedl, (<i>Xylechinus</i>), <i>Phloecosinopsioides</i> (= <i>triseriatus</i>)	239
<i>padus</i> Beeson, (<i>Alniaphagus</i>), <i>Xylechinus</i> (= <i>padus</i>)	117	<i>papuanus</i> Schedl, (<i>Xylocryptus</i>), <i>Scolytogenes</i> (= <i>papuensis</i>)	864
<i>padus</i> Wood, <i>Xylechinus</i>	117	<i>papuanus</i> Schedl, <i>Cosmoderes</i>	902
<i>paganus</i> Eichhoff, <i>Cryphalus</i>	886	<i>papuanus</i> Schedl, <i>Cryphalus</i> (= <i>tetricus</i>)	897
Pagiocerus Eichhoff	213	<i>papuanus</i> Schedl, (<i>Eidophelus</i>), <i>Cyrtogenius</i> (= <i>papuensis</i>)	567
<i>palaquius</i> (Schedl), (<i>Phlocochilus</i>), <i>Liparthrum</i>	279	<i>papuanus</i> Schedl, <i>Scolytus</i> (= <i>multistriatus</i>)	353
<i>palatus</i> Wood, <i>Xyleborus</i>	758	<i>papuensis</i> Wood, <i>Cyrtogenius</i>	567
<i>palauensis</i> (Wood), (<i>Phlocotrypetus</i>), <i>Liparthrum</i>	279	<i>papuensis</i> Wood, <i>Scolytogenes</i>	864
<i>palawanus</i> Eggers, <i>Sphacotrypes</i>	200	<i>papulaus</i> Eichhoff, <i>Corthyus</i>	1076
<i>palawanus</i> Schedl, <i>Cryphalus</i>	886	<i>paraconfusa</i> Lanier, <i>Ips</i>	514
<i>palearis</i> Wood, <i>Phloecosinus</i>	250	<i>paraconfusa</i> Bright, Schedl, <i>Chedlia</i>	822
<i>paleatus</i> Blandford, <i>Cnesinus</i>	210	<i>Paracorthyus</i> Wood (= <i>Mctacorthyus</i>)	1064
<i>palembangensis</i> Schedl, <i>Xyleborus</i> (= <i>quadrispinosulus</i>)	768	<i>paradoxus</i> (Schedl), (<i>Xyleborus</i>), <i>Dryocoetoides</i>	658
<i>pallens</i> Wood, <i>Thysanoes</i>	420	<i>paradoxus</i> Schedl, <i>Hypothenemus</i>	938
<i>palliatus</i> (Gyllenhal), (<i>Hylesinus</i>), <i>Hylurgops</i>	35	<i>paradoxus</i> Wood, <i>Scolytogenes</i>	864
<i>pallidipennis</i> (Eggers), (<i>Xyleborus</i>), <i>Cnestus</i>	803	<i>Paraglostatus</i> Schedl (= <i>Glostatus</i>)	835
<i>pallidipennis</i> Murayama, (<i>Tosaxyleborus</i>), <i>Cnestus</i> (= <i>murayamai</i>)	802		
<i>pallidum</i> (Chapuis), (<i>Nemobius</i>), <i>Pycnarthrum</i>	385		
<i>pallidus</i> (Blackman), (<i>Neodryocoetes</i>), <i>Araptus</i>	960		

- paraguayensis* Eggers, *Dendrosinus* 237
- paraguayensis* Hopkins, (*Stephanoderes*),
Hypothenemus (=erudiae) 915
- paraguayensis* Schedl, (*Xyleborus*), *Xyleborinus*
(=*saxeseni*) 815
- paraguayensis* Schedl, *Cucsinus* 210
- parallelocollis* Chapuis, *Dendroctonus* 155
- parallelocollis* Eggers, *Xyleborus* 755
- parallelocollis* Eichhoff, *Crypturgus (=pusillus)* 625
- parallelus* (Hopkins), (*Stephanoderes*),
Hypothenemus 935
- parallelus* (Schedl), (*Hexacolus*), *Scolytodes* 397
- parallelus* Chapuis, *Hylastes* 59
- parallelus* Eggers, *Xyleborus* 755
- parallelus* Schedl, *Dendrocranus*
(=*guatemalensis*) 552
- paranae* (Schedl), (*Brachydendrulus*), *Araptus* 960
- Parasphaerotrypes* Murayama (= *Sucus*) 191
- Paraxyleborus* Hoffmann (= *Gnathotrichus*) 1034
- parcellus* Wood, *Xyleborus* 755
- parcius* (Schedl), (*Ips*), *Acanthotomicus* 482
- parcius* Schedl, *Hypothenemus (=eruditus)* 925
- parcus* Wood, *Chramesus* 267
- pardous* Eggers, *Xyleborus* 755
- parfentievi* Pjatnitskii, *Pityophthorus* 1015
- parilis* Schedl, *Hypothenemus (=eruditus)* 925
- parilis* Wood, *Amphicranus* 1045
- parilis* Wood, *Dendroterus* 951
- parilis* Wood, *Pityophthorus* 1015
- parinarie* Schedl, *Xyleborus* 755
- parinarii* (Browne), (*Ozodendron*), *Cyrtogenius* 567
- parinarii* Hopkins, *Ozopemon* 590
- parkinsoniae* (Blackman), (*Renocis*),
Chaetophlocus 273
- parkinsoniae* Blackman, *Hylocurus* 426
- parricida* Eggers, *Dactylipalpus* 102
- parsus* Wood, *Tricolus* 1044
- partilis* Wood, *Tricolus* 1044
- partitus* Browne, *Xyleborus* 755
- parva* (Lea), (*Xylopertha*), *Coptodryas* 526
- parva* Blackman, *Phrixosoma* 190
- parvatis* (Wood), (*Cryphalomorphus*),
Scolytogenes 864
- parviclaviger* Yin & Huang, *Scolytus* 356
- parvicornis* Wood, *Cucsinus* 210
- parvidentatus* Schedl, *Scolytoplastypus*
(=*eichelbaumi*) 402
- parvior* Browne, *Xyleborus* (= *amphicranoides*) 711
- parvipunctatus* Eggers, *Xyleborus* 755
- parvispinosus* Schedl, *Xyleborus*
(=*quadrspinosulus*) 765
- parvispinosus* Palembangensis Schedl, *Xyleborus*
(=*quadrspinosulus*) 765
- parvulus* Blandford, *Corthylius* 1077
- parvulus* Browne, *Hypothenemus* 935
- parvulus* Eggers, *Margadillius* 599
- parvulus* Eichhoff, *Xyleborus* (= *similis*) 773
- parvulus* Ferrari, *Microcorthylius* 1066
- parvulus* Murayama, *Polygraphus* 291
- parvulus* Nisima, *Cryphalus* 556
- parvulus* Wood, *Scolytodes* 397
- parvum* (Eggers), (*Anchococcus*), *Monarthrum* 1060
- parvus* (Eggers), (*Hylocurosoma*), *Scolytodes* 397
- parvus* (Hopkins), (*Hypothenoides*), *Scolytogenes* 564
- parvus* (Nunberg), (*Loganius*), *Cnemonyx* 317
- parvus* Beeson, (*Thamnurgides*), *Coccostrypes*
(=*nubilus*) 607
- parvus* Blackman, (*Tachyderes*), *Cryptocarenum*
(=*hercae*) 903
- parvus* Blackman, *Hylastes* (= *tenuis*) 63
- parvus* Browne, *Cryphalus* 556
- parvus* Browne, *Cyrtogenius* 567
- parvus* Eggers, *Diamerus* 197
- parvus* Eggers, *Hylurgops* (= *palliatius*) 35
- parvus* Eichhoff, *Xyleborus* (= *affinis*) 705
- parvus* Hopkins, *Hypothenemus (=eruditus)* 922
- parvus* Sampson, *Coccostrypes* 609
- parvus* Sampson, *Scolytoplastypus* 405
- parvus* Wood, *Phloeocleptus* 422
- passerini* Keremidiev, *Phloeosinus* (=sp.?) 239
- patchi* Blackman, *Pityophthorus* (= *balsameus*) 953
- paucegranulatus* Eggers, *Scolytoplastypus* 405
- pauciconcavus* Schedl, *Gnathotrupes* 1042
- paucus* Wood, *Ambrosiodinus* 675
- pauliani* (Lepesme), (*Kissophagus*), *Hylesinopsis* 95
- paulus* Wood, *Pityophthorus* 1019
- pauper* Endrodi, *Trypodendron* (= *lineatum*) 636
- paykulli* Duftschmidt, (*Hylesinus*), *Hylurgops*
(=*glabratus*) 33
- peccanis* Hopkins, (*Stephanoderes*), *Hypothenemus*
(=*seriatus*) 943
- peccanus* Hopkins, (*Xyleborus*), *Xyleborinus*
(=*saxeseni*) 815
- pectinicornis* Balachowsky, *Phloeotribus*
(=*cristatus*) 220
- pedella* (Schedl), (*Xyleborus*), *Coptodryas* 826
- pegani* Eggers, *Thamnurgus* 545
- peguensis* Eggers, (*Xyleborus*), *Leptoxyleborus*
(=*concisus*) 659
- pele* Samuelson, *Xyleborus* 755
- pelicerinus* Schedl, (*Hexacolus*), *Scolytodes*
(=*notatus*) 396
- Pelicerus* Eggers (= *Cyrtogenius*) 562
- peliciformis* (Schedl), (*Xyleborus*), *Peridryocoetes* 562
- pelicipennis* (Schedl), (*Hexacolus*), *Scolytodes* 397
- peliofi* Beaver, *Dryococtiops* 555
- pelliculosum* Hagedorn, *Cyclorhipidion* 701
- pelliculosus* Eichhoff, *Xyleborus* 755
- pellitus* (Schedl), (*Erioschidias*), *Cosmoderes* 902
- pellitus* Schedl, (*Hylesinus*), *Ficicis* (= *pacificus*) 91
- pellitus* Schedl, *Ambrosiodinus* (= *lewisi*) 676
- pellitus* Schedl, *Pityophthorus* 1019
- peltatus* Wood, *Tricolus* 1044
- penangensis* (Schedl), (*Phloeosinus*), *Hyledius* 261

<i>penangensis</i> Brownie, (<i>Streptocranus</i>), <i>Coptoborus</i> (= <i>capucinulus</i>)	663	<i>perfacilis</i> Eggers, <i>Ozopemon</i>	590
<i>penicillatum</i> (Eichhoff), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1060	<i>perfoliatus</i> (Wollaston), (<i>Phloeophthorus</i>), <i>Phlocotribus</i>	225
<i>penicillatus</i> (Bruck), (<i>Renocis</i>), <i>Chaetophlocus</i>	273	<i>perforans</i> (Wollaston), (<i>Tomicus</i>), <i>Xyleborus</i>	759
<i>penicillatus</i> (Hagedorn), (<i>Xyleborus</i>), <i>Taphrodasus</i>	525	<i>perfosus</i> Beeson, <i>Pityogenes</i> (= <i>spessirtseri</i>)	455
<i>penicillatus</i> Reitter, <i>Scolytus</i> (= <i>intricatus</i>)	334	<i>perhispidus</i> (Eggers), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	935
<i>penicillus</i> Schedl, <i>Scolytus</i> (= <i>propinguus</i>)	357	<i>Peridryocoetes</i> Schedl (= <i>Peridryocoetes</i> Wood)	561
<i>peniculus</i> Wood, <i>Chramesus</i>	267	<i>Peridryocoetes</i> Wood	561
<i>peniculus</i> Wood, <i>Pseudothysanoes</i>	415	<i>Periocryphalus</i> Wood	947
<i>pennatum</i> (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1060	<i>periosus</i> Wood, <i>Chramesus</i>	267
<i>pennatus</i> (Schedl), (<i>Micracis</i>), <i>Pseudomicracis</i>	429	<i>peritus</i> Blandford, <i>Hypothenemus</i> (= <i>birmanus</i>)	910
<i>pennatus</i> Schedl, <i>Microcryphalus</i>	411	<i>perkinsi</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>birmanus</i>)	910
<i>pennatus</i> Schedl, <i>Sampsonius</i>	656	<i>perlaetus</i> Schedl, (<i>Xyleborus</i>), <i>Cyclorhipidion</i> (= <i>pelliculosum</i>)	701
<i>pennidens</i> (Reitter), (<i>Tomicus</i>), <i>Pityogenes</i>	454	<i>perlaetus</i> Schedl, <i>Polygraphus</i>	291
<i>pentaclethrae</i> Schedl, <i>Pityophthorus</i>	1019	<i>perlatus</i> Chapuis, <i>Phlocosinus</i>	250
<i>pentaclethrae</i> Schedl, <i>Xyleborus</i>	759	<i>perlongus</i> Eggers, <i>Xyleborus</i>	762
<i>pentacme</i> Wood, <i>Sphaerotrypes</i>	200	<i>permagnus</i> (Eggers), (<i>Prionosceles</i>), <i>Scolytodes</i>	397
<i>perakensis</i> (Schedl), (<i>Dryocoetes</i>), <i>Cyrtogenius</i>	567	<i>permarginatus</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	675
<i>perakensis</i> Schedl, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>wallacei</i>)	695	<i>perminimus</i> (Schedl), (<i>Cryphalus</i>), <i>Hypocryphalus</i>	571
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- pullus* Wood, *Periocryphalus* 948
- pulvereus* Blackman, *Pseudopityophthorus*
 (= *pruinus*) 975
- pulverulentus* Eichhoff, (*Stephanoderes*),
Hypothenemus (= *seriatus*) 941
- pulverulentus* Gerstaecker, *Diamerus* 197
- pumilio* (Eichhoff), (*Pterocyclon*), *Monarthrum* 1061
- pumilio* Eggers, *Tricolus* 1044
- pumilio* Eichhoff, *Dryocoetes* 584
- pumilionides* (Schedl), (*Cryphalomorphus*),
Scolytogenes 865
- pumilus* (Chapuis), (*Rhopalopleurus*), *Chramesus* 268
- pumilus* (Mannerheim), (*Hylastes*), *Dolurgus* 615
- pumilus* (Wood), (*Cryphalomorphus*),
Scolytogenes 865
- pumilus* (Wood), (*Cryptuloceptus*),
Pseudothysanoes 416
- pumilus* Eggers, (*Loganius*), *Cnemomyx* (= *exiguus*) 315

- pumilus* Eggers, *Cnesinus* 211
pumilus Eggers, *Xyleborus* 767
pumilus Wood, *Corthylus* 1077
pumilus Wood, *Dendrocranulus* 553
pumilus Wood, *Microcorthyus* 1067
pumilus Wood, *Phloeosinusoides* 239
pumilus Wood, *Scolytodes* 395
punctatissimus (Eichhoff), (*Xyleborus*),
Leptoxyloborus 660
punctatissimus (Schedl), (*Neodryocoetes*),
Araptus 961
punctatissimus (Zimmermann), (*Crypturgus*),
Corthylus 1077
punctatissimus Eggers, *Thamurgus* 545
punctatopilosum (Schedl), (*Xyleborus*),
Cyclorhipidion 702
punctatorugosus (Schedl), (*Micraeis*), *Hylcurus* 427
punctatorugosus Chapuis, *Phlocoborus* 99
punctatostriatus Schedl, *Cryphalus* 890
punctatulus Nobuchi, *Scolytogenes* 865
punctatum (Eggers), (*Xyleborus*),
(*Cyclorhipidion*) 702
punctatus (Eggers), (*Thamurgides*), *Coccotrypes* 609
punctatus (Eggers), (*Kissophagus*), *Hylesinopsis* 95
punctatus (Eggers), (*Hylucurosoma*), *Scolytodes* 395
punctatus (Schedl), (*Cryphalomorphus*),
Scolytogenes 865
punctatus (Schedl), (*Phlocotrupes*), *Phlocoborus* 100
punctatus Blandford, *Cnesinus* 211
punctatus Browne, *Cryphalus* 890
punctatus Browne, *Xylocleptes* (= *brownei*) 549
punctatus Eggers, (*Pocilips*), *Coccotrypes*
(= *salakensis*) 611
punctatus Eggers, (*Stephanoderes*), *Hypothenemus*
(= *haumpei*) 930
punctatus Eggers, *Corthylus* 1078
punctatus Eggers, *Pagiocerus* 214
punctatus Eggers, *Pityophthorus* 1025
punctatus Hopkins, (*Xylocleptes*), *Dendrocranulus*
(= *ecurbitae*) 551
punctatus LeConte, *Dendroctonus* 173
punctatus LeConte, *Phloeosinus* 251
punctatus Muller, *Scolytus* (= *scolytus*) 374
punctatus Nobuchi, (*Cryphalomorphus*),
Scolytogenes (= *punctatulus*) 865
punctatus Ratzeburg, (*Eccoptogaster*), *Scolytus*
(= *rugulosus*) 369
punctatus Wood, *Chramesus* 268
punctatus Wood, *Phloeocleptus* 422
puncticollis (Schedl), (*Lepicerinus*), *Scolytogenes* 865
puncticollis Blandford, *Dendrosinus* 237
puncticollis Blandford, *Scolytopsis* 321
puncticollis Chapuis, *Phloeotribus* (= *setulosus*) 232
puncticollis Eggers, *Diamerus* 197
puncticollis Hopkins, (*Stephanoderes*),
Hypothenemus (= *erectus*) 918
puncticollis LeConte, *Pityophthorus* (= *nitidulus*) 1015
punctifer Wood, *Scolytodes* (= *cecropiavorus*) 390
punctifer Wood, *Scolytodes* (= *punctiferus*) 395
punctiferus Wood, *Scolytodes* 395
punctifrons (Blandford), (*Pterocyclon*),
Monarthrum 1061
punctifrons Bright, *Pityophthorus* 1025
punctifrons Hopkins, *Hypothenemus* (= *eruditus*) 923
punctifrons Schedl, *Cryptocareus* 903
punctifrons Thomson, *Polygraphus* (= *poligraphus*) 295
punctiger (Schedl), (*Neodryocoetes*),
Pityophthorus 1025
punctilicolle (Schedl), (*Xyleborus*),
Cyclorhipidion 702
punctipennis (Schedl), (*Xyleborus*), *Coptodryas* 826
punctipennis Eggers, (*Thamurgides*), *Coccotrypes*
(= *rhizophorae*) 610
punctipennis Eggers, *Xyloctonus* 840
punctipennis Hopkins, *Hypothenemus* (= *eruditus*) 923
punctipennis Hopkins, *Trypophloeus* (= *striatulus*) 847
punctipennis LeConte, (*Xyleborus*), *Orthotomicus*
(= *caelatus*) 469
punctipennis Schedl, *Cryphalus* 890
punctipennis Schedl, *Miocryphalus* 411
punctulatus Eggers, *Coccotrypes* (= *carpophagus*) 596
punctulatus Eggers, *Cryphalus* (= *kurenzovi*) 852
punctulatus Kurenzov, *Xyleborus* 767
punctulatus Schedl, (*Xyleborus*), *Cnestus* (= *nudus*) 803
pupillatus Eggers, *Hylastes* (= *bruneus*) 50
pupillatus Eggers, *Phlocoborus* (= *bodei*) 98
pusillimus Schedl, *Cryphalus* 890
pusillimus Wood, *Scolytodes* 395
pusillus (Eggers), (*Hylucurosoma*), *Scolytodes* 395
pusillus (Eggers), (*Neoxyloctonus*), *Scolytomimus* 839
pusillus (Eggers), (*Webbia*), *Arixyleborus* 668
pusillus (Gerstaecker), (*Hylesinus*), *Rhopalopsclion* 97
pusillus (Gyllenhal), (*Bostrichus*), *Crypturgus* 625
pusillus (Schedl), (*Xyleborus*), *Xylosandrus* 800
pusillus Blackman, *Hylastes* (= *tenuis*) 63
pusillus Eggers, *Corthylus* 1078
pusillus Eggers, *Dryocoetes* 554
pusillus Eggers, *Hypothenemus* (= *eruditus*) 923
pusillus Eggers, *Scolytoplattypus* 406
pusillus Eggers, *Strombophorus* 204
pusillus Harris, (*Tomicus*), *Pseudopityophthorus*
(= *minutissimus*) 974
pusillus Schedl, *Cnesinus* 211
pusillus Schedl, *Cryphalus* 890
pusillus Wollaston, (*Aphamarthrum*), *Cisurgus*
(= *wollastoni*) 630
pusillus Wood, *Microcorthyus* 1067
pusillus Wood, *Pityophthorus* (= *attenuatus*) 982
pusio Eggers, *Xyleborus* 767
pusio LeConte, *Pityophthorus* (= *pulchellus*) 1024
pustulatus Schedl, *Gnathotrupes* 1042
putonii Eichhoff, (*Hylesinus*), *Pteleobius* (= *kraatzii*) 70
putputensis Browne, *Xyleborus* 767
Pyenarthrum Eichhoff 384
pygeumi Schedl, *Sphaerotrypes* 200

<i>pygmaeolus</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	865	<i>quadrioculata</i> (Eggers), (<i>Neohylesinus</i>), <i>Phrixosoma</i>	190
<i>pygmaeolus</i> Schedl, <i>Pityophthorus</i>	1025	<i>quadrioculatus</i> (Hagedorn), (<i>Spongotarsus</i>), <i>Polygraphus</i>	296
<i>Pygmaeoscolytus</i> Butovitsch (= <i>Scolytus</i>)	322	<i>quadrioculatus</i> Browne, <i>Scolytomimus</i> (= <i>assamensis</i>)	839
<i>pygmaeum</i> Eggers, <i>Ctonoxylon</i>	838	<i>quadriporus</i> Beaver, <i>Cryptoxyleborus</i>	829
<i>pygmaeum</i> Wollaston <i>Aphanarthrum</i>	619	<i>quadrisignatus</i> Schedl, <i>Xyleborus</i>	768
<i>pygmaeum laticollis</i> Wollaston, <i>Aphanarthrum</i> (= <i>pygmaeum</i>)	619	<i>quadrispinatus</i> Schedl, <i>Pityophthorus</i>	1025
<i>pygmaeus</i> (Eggers), (<i>Peliceris</i>), <i>Dendrographus</i>	561	<i>quadrispinis</i> (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	810
<i>pygmaeus</i> (Eggers), (<i>Xyleborus</i>), <i>Xylosandrus</i>	800	<i>quadrispinosulus</i> Eggers, <i>Xyleborus</i>	768
<i>pygmaeus</i> (Fabricius), (<i>Bostrichus</i>), <i>Scolytus</i>	358	<i>quadrispinosus</i> (Eggers), (<i>Xylocleptes</i>), <i>Acanthotomicus</i>	483
<i>pygmaeus</i> Eggers, <i>Polygraphus</i> (= <i>coronatus</i>)	286	<i>quadrispinosus</i> (Eichhoff), (<i>Xyleborus</i>), <i>Xyleborinus</i>	810
<i>pygmaeus</i> Eichhoff, <i>Coccotrypes</i> (= <i>carpophagus</i>)	595	<i>quadrispinosus</i> Blackman, <i>Hylocurus</i>	427
<i>pygmaeus</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>eruditus</i>)	923	<i>quadrispinosus</i> Eggers, <i>Sampsonius</i>	656
<i>pygmaeus</i> Schedl, <i>Cryptocarenum</i>	903	<i>quadrispinosus</i> Say, <i>Scolytus</i>	359
<i>pygmaeus</i> Schedl, <i>Lanurgus</i>	409	<i>quadrispinosus</i> Schedl, <i>Prennobius</i>	654
<i>pygmaeus</i> Schedl, <i>Micraris</i> (= <i>sicaiuei</i>)	434	<i>quadrisulcatus</i> Strohmeier, <i>Dryocoetes</i>	584
<i>pygmaeus</i> Schedl, <i>Pityophthorus</i> (= <i>opaculus</i>)	1018	<i>quadrituberculatus</i> (Schedl), (<i>Isophthorus</i>), <i>Acanthotomicus</i>	483
<i>pygmaeus</i> Wood, <i>Corthylus</i>	1078	<i>quadrituberculatus</i> (Schedl), (<i>Metahylesinus</i>), <i>Hylesinopsis</i>	95
<i>pygmaeus</i> Wood, <i>Stegomerus</i>	852	<i>quadrituberculatus</i> Sampson, <i>Sphaerotrypes</i>	200
<i>pyri</i> Peck, (<i>Scolytus</i>), <i>Xyleborus</i> (= <i>dispar</i>)	729	<i>quadrituberculatus</i> Schedl, (<i>Gnathotrichus</i>), <i>Gnathotrupes</i> (= <i>longipennis</i>)	1041
<i>pyri</i> Ratzeburg, (<i>Eccoptogaster</i>), <i>Scolytus</i> (= <i>mali</i>)	343	<i>quadrituberculatus</i> Schedl, <i>Margadillius</i>	899
<i>pyri</i> Tsai & Yin, <i>Sphaerotrypes</i>	200	<i>quaesitus</i> Schedl, <i>Cnesinus</i>	211
<i>quadraticolle</i> Eichhoff, <i>Pycnarthrum</i> (= <i>hispidum</i>)	355	<i>quasimodo</i> Browne, <i>Xyleborus</i>	768
<i>quadraticollis</i> (Eggers), (<i>Xyleborus</i>), <i>Eucallacea</i>	693	<i>quattuordecimcostatus</i> Schedl, <i>Webbia</i> (= <i>quattuordecimspinatus</i>)	832
<i>quadratoollis</i> Chapuis, <i>Dactylipalpus</i> (= <i>transversus</i>)	102	<i>quattuordecimspinatus</i> Sampson, <i>Webbia</i>	832
<i>quadratus</i> Blandford, <i>Xyleborus</i>	767	<i>quattuordecimspinatus</i> Schedl, <i>Webbia</i> (= <i>quattuordecimspinatus</i> Sampson)	832
<i>quadricinctus</i> Schedl, <i>Webbia</i>	832	<i>queenlandi</i> (Schedl), (<i>Erioschidias</i>), <i>Cosmoderes</i>	902
<i>quadricinctus</i> Schedl, <i>Xyloctonus</i>	841	<i>queenlandi</i> (Schedl), (<i>Pocillips</i>), <i>Coccotrypes</i>	609
<i>quadricostata</i> (Schedl), (<i>Xyleborus</i>), <i>Coptodryas</i>	826	<i>queenlandi</i> Schedl, <i>Peridryocoetes</i>	562
<i>quadricuspe</i> (Schedl), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	702	<i>querri</i> Stebbing, <i>Sphaerotrypes</i>	201
<i>quadridens</i> (Browne), (<i>Hypothenemus</i>), <i>Scolytogenes</i>	865	<i>querri</i> Wood, <i>Polygraphus</i> (= <i>kaimochii</i>)	289
<i>quadridens</i> (Eichhoff), (<i>Pterocydon</i>), <i>Monarthrum</i>	1061	<i>quercicola</i> Eggers, <i>Xyleborus</i>	768
<i>quadridens</i> (Hartig), (<i>Bostrichus</i>), <i>Pityogenes</i>	455	<i>quercicoleus</i> Wood, <i>Monarthrum</i>	1061
<i>quadridens</i> (Schedl), (<i>Cryphalops</i>), <i>Erioporus</i>	855	<i>quercicolens</i> Wood, <i>Pseudothysanocis</i>	416
<i>quadridens</i> (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	483	<i>quercinus</i> (Wood), (<i>Cryptocleptes</i>), <i>Pseudothysanocis</i>	416
<i>quadridens</i> Blackman, <i>Canptocerus</i>	320	<i>quercinus</i> Wood, <i>Phloeotribus</i>	228
<i>quadridens</i> Eggers, <i>Prennobius</i>	654	<i>quercinus</i> Wood, <i>Pityophthorus</i>	1025
<i>quadridens</i> Eggers, <i>Xyleborus</i> (= <i>bidentatus</i>)	715	<i>querciperda</i> Schwarz, (<i>Pityophthorus</i>), <i>Pseudopityophthorus</i> (= <i>pruinosis</i>)	975
<i>quadrideus</i> Pjatnitskii, <i>Orthotomicus</i> (= <i>gorojankoi</i>)	469	<i>quercivorum</i> Schedl, <i>Monarthrum</i>	1061
<i>quadridens</i> Schedl, <i>Xyloctonus</i>	840	<i>quercium</i> (Wood), (<i>Amphicranus</i>), <i>Monarthrum</i>	1061
<i>quadridens</i> Wood, <i>Chramesus</i>	268	<i>quercus</i> Eichhoff, (<i>Xylocterus</i>), <i>Trypodendron</i> (= <i>signatum</i>)	647
<i>quadridens</i> Wood, <i>Scolytomimus</i>	840	<i>quercus</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>rotundicollis</i>)	940
<i>quadridentatum</i> (Eggers), (<i>Anchonocerus</i>), <i>Monarthrum</i>	1061	<i>quercus</i> Hopkins, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>saxenii</i>)	815
<i>quadridentatus</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>interstitialis</i>)	932		
<i>quadridentatus</i> Schedl, (<i>Xyleborus</i>), <i>Prennobius</i> (= <i>quadridens</i>)	654		
<i>quadridentatus</i> Sturm, (<i>Bostrichus</i>), <i>Ips</i> (= <i>acuminatus</i>)	485		
<i>quadrimaculatus</i> Schedl, <i>Amphicranus</i>	1048		

- quercus* Kurenzov, *Xyleborus* (=starki) 776
querneum Wood, *Monarthrum* 1061
querneus Wood, *Pseudothlysanoes* 416
quinquedecatum Adams, (*Bostrichus*), *Trypodendron*
 (=signatum) 647
radiatae Hopkins, *Conophthorus* 966
radiatae Hopkins, (*Tomicus*), *Ips* (=mexicanus) 513
radiatae Swaine, *Carphoborus* 309
radiatus Wood, *Scolytodes* 398
radulosus Blandford, *Phloeoborus* (=cristatus) 95
ragusae Reitter, *Cisurgus* 630
raja Blandford, *Scolytplatypus* 406
rallus (Wood), (*Gnathophthorus*), *Dacnophthorus* 969
rameus Schedl, (*Xyleborus*), *Eucallacca* (=bicolor) 687
rameus Wood, *Amphicranus* 1048
ramicola Reitter, *Dryocoetes* 595
ramiperda Swaine, *Pityophthorus* 1025
ramosus Beeson, *Ptilopodius* 900
ramosus Bright, *Pityoborus* (=secundus) 969
ramulorum Perris, *Pityophthorus* (=pubescens) 1022
ramulorum Schedl, (*Xyleborus*), *Xylosandrus*
 (=cylindrotomicus) 793
ranasinghei Wood, *Sphaerotrypes* 201
rapandus Schedl, *Xyleborus* 768
rapanus Beeson, *Xyleborus* (=adamsoni) 705
rasilis Schedl, *Amphicranus* 1048
ratamae Blackman, *Thysanoes* (=texanus) 421
ratzeburgi Ferrari, (*Cryphalus*), *Eruoporus*
 (=tiliae) 557
ratzeburgi Janson, *Scolytus* 361
ratzeburgi Kolenati, (*Bostrichus*), *Xyleborus*
 (=dispar) 729
raucus (Schedl), (*Xyleborus*), *Ambrosiodmus* 679
reburrus Bright, *Corthylus* (=umiseptis) 1081
recarus Wood, *Cnemomyx* 317
recarus Wood, *Pseudothlysanoes* 416
recens Bright, *Pityophthorus* 1026
recidens (Sampson), (*Xyleborus*), *Coptodryas* 827
reconditus (Schedl), (*Xyleborus*), *Xyleborinus* 810
rectangulus Ferrari, (*Tomicus*), *Ips* (=erosus) 505
recticollis (Schedl), (*Poccilips*), *Coccotrypes* 609
rectus LeConte, (*Tomicus*), *Ips* (=pinii) 521
rectus Schedl, *Hyloterus* (=brasiliensis) 423
rectus Wood, *Camptocerus* 320
rectus Wood, *Scolytominus* 840
recurtus Browne, (*Streptocranus*), *Coptoborus*
 (=bicuspis) 662
redikorzei Berger, *Cryphalus* 890
reditus Wood, *Dendrocranulus* 553
redtenbacheri Ferrari, *Corthylus* 1078
refertus Wood, *Araptus* 961
reflexus Blackman, *Scolytus* 364
reflexus Browne, *Hypocryphalus* 871
regalis (Wood), (*Olonthogaster*), *Hyleidius* 261
 ° *regimontanus* (Hagedorn), (*Phloeosinites*),
Phlocosinus 252
regius (Schedl), (*Lepersinus*), *Hylesinus* 83
regius Hagedorn, *Ozopemon* 590
regularis (Schedl), (*Poccilips*), *Coccotrypes* 609
regularis Blackman, *Pityophthorus* 1026
 ° *rehi* (Hagedorn), (*Phloeosinites*), *Phlocosinus* 252
reimoseri Schedl, *Pycnarthrum* (=hispidum) 385
reitteri Eichhoff, *Gymnochilus* 387
remorsus Wood, *Phloeotribus* 228
Renocis Casey (=Chaetophilocus) 271
repositus Schedl, *Xyleborus* 768
resecans (Eggers), (*Xyleborus*), *Amasa* 684
resectus (Eggers), (*Xyleborus*), *Amasa* 684
resiniferae Peyerimhoff, *Cisurgus* 630
resiniferi Schedl, *Cryphalus* 890
resiuosae Hopkins, *Conophthorus* 967
 ° *resinosus* Schedl, *Xyleborus* 768
resolutus Wood, *Dendroterus* 951
restrictus (Schedl), (*Xyleborus*), *Ambrosiodmus* 679
retamae Perris, (*Hylesinus*), *Phloeotribus*
 (=rhododactylus) 229
reticulatum Schedl, *Pycnarthrum* 385
reticulatum Wood, *Aphanarthrum* 619
reticulatus (Wood), (*Hexacolus*), *Scolytodes* 398
reticulatus Bright, *Sampsonius* 656
reticulatus Chapuis, *Cnesinus* 211
reticulatus Wood, *Hylurgops* 40
reticulus Wood, *Cnesinus* 211
retifer Wood, *Cnesinus* 211
retifer Wood, *Hylastes* 61
retifer Wood, *Scolytodes* 398
reticentriculus Tsai & Yin, *Polygraphus* (=rudis) 297
retirus Schedl, (*Xyleborus*), *Xyleborinus*
 (=saxeseui) 815
retusicollis Zimmermann, *Xyleborus*
 (=ferrugineus) 738
retusifer Wood, *Corthylus* 1078
retusiformis Schedl, (*Xyleborus*), *Xylosandrus*
 (=ater) 787
retusipennis Blandford, *Glochinoecerus* 1064
retusipennis Blandford, *Hyloterus* 427
retusum (LeConte), (*Xyloterus*), *Trypodendron* 644
retusus (Eichhoff), (*Xyleborus*), *Xylosandrus* 800
retusus (LeConte), (*Cryphalus*), *Gnathotrichus* 1037
retusus Eichhoff, *Amphicranus* 1048
retusus Olivier, (*Scolytus*), *Xyloctepes* (=bispinus) 548
retusus Wood, *Corthylus* 1078
reunionis Schedl, *Xyleborus* 768
revocabile (Schedl), (*Xyleborus*), *Cyclorhipidion* 702
rhizophagae Thomas & Bright, *Dendroctonus* 173
rhizophorae (Hopkins), (*Spermatoplex*),
Coccotrypes 609
rhizophorae Eggers, (*Dendrugus*), *Coccotrypes*
 (=rhizophorae) 609
rhodesianus (Eggers), (*Pseudophloeotribus*),
Hylesinopsis 95
rhodesianus (Eggers), (*Xyleborus*),
Ambrosiodmus 679
rhododactylus (Marshall), (*Ips*), *Phloeotribus* 228

<i>rhododactylus</i> Ratzeburg, (<i>Hylesinus</i>), <i>Phlocotribus</i> (= <i>spinulosus</i>)	234	<i>robustus</i> Schedl. <i>Corthylus</i>	1079
<i>rhois</i> Blackman, <i>Cactopinus</i>	436	<i>robustus</i> Schedl. <i>Dendrochilus</i>	438
<i>rhois</i> Blackman, <i>Stenoclyptus</i> (= <i>sulcatus</i>)	419	<i>robustus</i> Schedl. <i>Hylocurus</i>	426
<i>rhois</i> Swaine, <i>Pityophthorus</i> (= <i>lautus</i>)	1006	<i>robustus</i> Schedl. <i>Micracis</i> (= <i>sucainei</i>)	434
<i>rhois acerini</i> Blackman, <i>Pityophthorus</i> (= <i>latus</i>)	1006	<i>robustus</i> Schedl. (<i>Xyleborus</i>), <i>Ambrosiodinus</i> (= <i>funereus</i>)	674
<i>rhois hamamelidis</i> Blackman, <i>Pityophthorus</i> (= <i>lautus</i>)	1006	<i>rodgeri</i> Beeson, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>bicolor</i>)	687
<i>rhois sucainei</i> Blackman, <i>Pityophthorus</i> (= <i>lautus</i>)	1006	<i>rodgeri priratus</i> Beeson, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>bicolor</i>)	687
<i>Rhopalocryphus</i> Nunberg (= <i>Glostatus</i>)	835	<i>roeri</i> Schedl. <i>Xylechinus</i>	118
<i>Rhopalopleurus</i> Chapuis (= <i>Chramesus</i>)	262	<i>rollinae</i> Hopkins, <i>Coccotrypes</i> (= <i>carpophagus</i>)	596
Rhopalopselion Hagedorn	96	<i>roppae</i> Schedl. <i>Pityophthorus</i>	1026
<i>rhusi</i> Nüßima, <i>Cryphalus</i>	890	<i>rosseli</i> (Schedl), (<i>Taphroterus</i>), <i>Miniocurus</i>	950
<i>rhusi</i> Schedl. <i>Lanurgus</i>	409	<i>rosseli</i> (Schedl), (<i>Xyleborus</i>), <i>Coptodryas</i>	827
<i>ribbentropi</i> Stebbing, (<i>Tomicus</i>), <i>Ips</i> (= <i>stebbingi</i>)	526	<i>rossicus</i> Eggers, <i>Pityophthorus</i>	1026
<i>ricini</i> (Eggers), (<i>Xyleborus</i>), <i>Theoborus</i>	661	<i>rossicus</i> Semenov, <i>Carphoborus</i>	309
<i>riehli</i> Eichhoff, <i>Xyleborus</i> (= <i>bidentatus</i>)	715	<i>rostratus</i> Schedl. <i>Cnestus</i>	803
<i>rigidus</i> (LeConte), (<i>Cryphalus</i>), <i>Pseudothysanoes</i>	416	<i>rothkirchi</i> Eggers, <i>Xyleborus</i>	768
<i>rileyi</i> Hopkins, <i>Xyleborus</i> (= <i>volvulus</i>)	783	<i>rotroi</i> Peyerimhoff, <i>Hypothenemus</i> (= <i>eruditus</i>)	923
<i>rimosus</i> Eichhoff, <i>Pagiocerus</i> (= <i>frontalis</i>)	213	<i>rotundatus</i> (Chapuis), (<i>Rhopalopleurus</i>), <i>Chramesus</i>	268
<i>rimskii</i> Kurenzov, <i>Scolytus</i> (= <i>jacobsoni</i>)	334	<i>rotundatus</i> Schedl. <i>Cnestus</i>	803
<i>rimulosus</i> Schedl. <i>Xyleborus</i>	768	<i>rotundicollis</i> (Eggers), (<i>Pocillips</i>), <i>Coccotrypes</i>	610
<i>ritchiei</i> Sampson, (<i>Hypothenemus</i>), <i>Scolytogenes</i> (= <i>knabi</i>)	863	<i>rotundicollis</i> (Eichhoff), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	939
<i>ritsemae</i> (Eichhoff), (<i>Acanthlurus</i>), <i>Diamerus</i>	197	<i>rotundicollis</i> Browne, <i>Xyleborus</i>	768
<i>rivalis</i> Wood, <i>Hylocurus</i>	427	<i>rotundicollis</i> Eggers, <i>Dryocoetes</i>	585
<i>robai</i> (Blackman), (<i>Pityophthoroidea</i>), <i>Pityophthorus</i>	1026	<i>rotundicollis</i> Reitter, <i>Hylastes</i> (= <i>cunicularius</i>)	53
<i>robai</i> Blackman, <i>Cnesinus</i>	211	<i>rotundus</i> Hopkins, <i>Hypocryphalus</i>	871
<i>robertsi</i> (Browne), (<i>Minips</i>), <i>Acanthotomicus</i>	483	<i>roubali</i> Pfeffer, <i>Taphrocyclus</i> (= <i>cillifrons</i>)	560
<i>robertsi</i> Browne, <i>Xyleborus</i> (= <i>barumbuensis</i>)	714	<i>royaleanum</i> Wood, <i>Aphanarthrum</i>	619
<i>robinae</i> Hopkins, (<i>Hypothenemus</i>), <i>Trischlidias</i> (= <i>atomus</i>)	947	<i>ruandae</i> (Schedl), (<i>Erioschidias</i>), <i>Cosmoderes</i>	902
<i>robustipennis</i> Schedl. <i>Xyleborus</i>	768	<i>ruandae</i> Schedl. <i>Polygraphus</i>	296
<i>robustus</i> (Schedl), (<i>Xyleborus</i>), <i>Premnobius</i>	654	<i>ruandae</i> Schedl. <i>Xyleborus</i>	768
<i>robustus</i> Wood, <i>Coccotrypes</i>	610	<i>rubentis</i> Hopkins, <i>Cryphalus</i>	891
<i>robustum</i> (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1062	<i>rubentis</i> Wood, <i>Pityoborus</i>	968
<i>robustus</i> (Eggers), (<i>Hylesinus</i>), <i>Ficicis</i>	92	<i>ruber</i> (Eichhoff), (<i>Xyleborus</i>), <i>Taurodemus</i>	785
<i>robustus</i> (Knotek), (<i>Tomicus</i>), <i>Ips</i>	522	<i>ruber</i> Swaine, <i>Hylastes</i>	61
<i>robustus</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	865	<i>ruber</i> Wood, <i>Hylocurus</i>	427
<i>robustus</i> (Schedl), (<i>Mimidendrus</i>), <i>Xylocleptes</i>	549	<i>rubescens</i> Krausse, <i>Tomicus</i> (= <i>piniperda</i>)	128
<i>robustus</i> (Schedl), (<i>Phacrylus</i>), <i>Acorthylus</i>	853	<i>rubicundulus</i> Swaine, <i>Phlocosinus</i> (= <i>punctatus</i>)	251
* <i>robustus</i> (Schedl), (<i>Phlocosiutes</i>), <i>Phlocosinus</i>	252	<i>rubidus</i> Beeson, (<i>Thanurgides</i>), <i>Coccotrypes</i> (= <i>papuanus</i>)	608
<i>robustus</i> (Schedl), (<i>Thamnophthorus</i>), <i>Araptus</i>	961	<i>rubidus</i> Wood, <i>Pityophthorus</i>	1026
<i>robustus</i> Blackman, <i>Hypothenemus</i> (= <i>seriatus</i>)	943	<i>rubricollis</i> (Eichhoff), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	679
<i>robustus</i> Blackman, <i>Scolytus</i>	364	<i>rubricollis</i> Blandford, <i>Corthylus</i>	1079
<i>robustus</i> Eggers, <i>Thamnurgus</i>	545	<i>rubripennis</i> Reitter, <i>Tomicus</i> (= <i>piniperda</i>)	128
<i>robustus</i> Eichhoff, <i>Coccotrypes</i>	610	<i>rubripes</i> (Eggers), (<i>Pityophthorus</i>), <i>Dendrocranulus</i>	553
<i>robustus</i> Eichhoff, <i>Cryphalus</i>	891	<i>rubripes</i> Eggers, <i>Polygraphus</i> (= <i>jezoensis</i>)	288
<i>robustus</i> Pfeffer, (<i>Pityophthorus</i>) (= <i>lichtensteini</i>)	1007	<i>rude</i> Blandford, <i>Plurixosoma</i>	190
<i>robustus</i> Schedl. <i>Cladoctonus</i> (= sp.?)	238	<i>rudis</i> (LeConte), (<i>Micracis</i>), <i>Hylocurus</i>	427
<i>robustus</i> Schedl. <i>Coccotrypes</i> (= <i>robustus</i>)	610	<i>rudis</i> Blackman, <i>Pityophthorus</i>	1026
<i>robustus</i> Schedl. (<i>Pelicerus</i>), <i>Cyrtogenus</i> (= <i>minor</i>)	566	<i>rudis</i> Blandford, <i>Phlocosinus</i>	252
<i>robustus</i> Schedl. (<i>Trogloditica</i>), <i>Hylesinus</i> (= <i>nilgrinus</i>)	82		
<i>robustus</i> Schedl. <i>Chramesus</i>	268		

<i>rudis</i> Eggers, (<i>Xyleborus</i>), <i>Euwallacea</i> (= <i>xanthopus</i>)	696	<i>rugicollis</i> (Blandford), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	680
rudis Eggers, <i>Polygraphus</i>	297	rugicollis (Eggers), (<i>Orosiotes</i>), <i>Cyrtogenius</i>	568
<i>rudis</i> Eichhoff, <i>Phloeotribus</i> (= <i>setulosus</i>)	232	rugicollis (Eggers), (<i>Thamniurgides</i>), <i>Coccotrypes</i>	611
rudis Erichson, <i>Phloeoborus</i>	100	rugicollis (Schedl), (<i>Hexacohus</i>), <i>Scolytodes</i>	398
rudis Wood, <i>Dendrocranulus</i>	553	rugicollis (Schedl), (<i>Mimiodendrus</i>), <i>Mimioecurus</i>	950
<i>rudis likiangensis</i> Tsai & Yin, <i>Polygraphus</i> (= rudis)	297	<i>rugicollis</i> Browne, (<i>Mimiodendrus</i>), <i>Cyrtogenius</i> (= <i>ruginosus</i>)	568
<i>rudis retiventriculus</i> Tsai & Yin, <i>Polygraphus</i> (= rudis)	297	rugicollis Eggers, <i>Dryocoetes</i>	555
rudueri Sokanovskii, <i>Pityogenes</i>	457	<i>rugicollis</i> Schedl, <i>Hyldius</i> (=sp.?)	259
<i>rufescens</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>obscurus</i>)	937	<i>rugicollis</i> Swaine, <i>Pityophthorus</i> (= <i>tuberculatus</i>)	1032
<i>rufescens</i> Stephens, (<i>Hylurgus</i>), <i>Hylurgops</i> (= <i>palliatus</i>)	38	rugifer (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	940
<i>ruficauda</i> Eggers, <i>Scolytopylytus</i> (= <i>parvus</i>)	405	<i>rugifer</i> Schedl, (<i>Pachynoderes</i>), <i>Hypothenemus</i> (= <i>ruginosus</i>)	940
ruficeps Perkins, <i>Hypothenemus</i>	940	ruginosus Wood, <i>Cyrtogenius</i>	565
ruficollis (Fabricius), (<i>Bostrichus</i>), <i>Tricolus</i>	1045	ruginosus Wood, <i>Hypothenemus</i>	940
ruficollis Hopkins, <i>Cryphalus</i>	891	rugipennis (Mannerheim), (<i>Hylastes</i>), <i>Hylurgops</i>	40
ruficollis Hopkins, <i>Cryphalus</i>	891	rugipennis (Schedl), (<i>Carpophloeus</i>), <i>Cyrtogenius</i>	565
ruficollis Wood, <i>Stenoclytus</i>	419	<i>rugipennis</i> Eggers, <i>Phloeoborus</i> (= rudis)	100
<i>ruficollis coloradensis</i> Wood, <i>Cryphalus</i> (= <i>ruficollis</i>)	892	<i>rugipennis</i> Schedl, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>artestriatus</i>)	805
rufipennis (Kirby), (<i>Apate</i>), <i>Polygraphus</i>	297	<i>rugipennis</i> pinifex (Fitch), (<i>Hylastes</i>), <i>Hylurgops</i> (= <i>rugipennis</i>)	40
<i>rufipennis</i> Brancsik, <i>Scolytus</i> (= <i>amygdali</i>)	323	<i>rugipennis</i> <i>rugipennis</i> (Mannerheim), <i>Hylurgops</i> (= <i>rugipennis</i>)	40
rufipennis Kirby, <i>Dendroctonus</i>	173	rugosipennis Schedl, <i>Xyleborus</i>	769
rufipes (Eichhoff), (<i>Hylastes</i>), <i>Hylurgopinus</i>	106	<i>rugosipennis</i> incertus Schedl, <i>Xyleborus</i>	769
rufipes Eggers, <i>Xyleborus</i>	768	rugosipes Hopkins, <i>Arixyleborus</i>	665
<i>rufipes</i> Eichhoff, (<i>Anchocercus</i>), <i>Monarthrum</i> (= <i>ingens</i>)	1057	rugosipes Schedl, <i>Lauragus</i>	409
rufitarsis (Kirby), (<i>Apate</i>), <i>Trypodendron</i>	645	* rugosissimus Cockerell, <i>Cryphalites</i>	1082
<i>rufithorax</i> Eichhoff, (<i>Xyleborus</i>), <i>Dryocoetoides</i> (= <i>capucinus</i>)	657	rugosus (Schedl), (<i>Erieryphalus</i>), <i>Cryphalus</i>	892
<i>rufithorax nigricollis</i> Hagedorn, (<i>Xyleborus</i>), <i>Dryocoetoides</i> (= <i>granulicauda</i>)	657	rugosus Eggers, <i>Xyleborus</i> (= <i>alluaudi</i>)	710
rufithorax Wood, <i>Tricolus</i>	1045	rugosus Schedl, <i>Ptilopodius</i>	900
rufobrunneus Eggers, <i>Xyleborus</i>	769	rugosus Swaine, <i>Phloeosinus</i> (= <i>serratus</i>)	254
<i>rufobrunneus dihingensis</i> Eggers, <i>Xyleborus</i> (= <i>rufobrunneus</i>)	769	<i>ruguloides</i> Sokanovskii, <i>Scolytus</i> (= <i>kirschi</i>)	336
rufoniger (Schedl), (<i>Xyleborus</i>), <i>Euwallacea</i>	693	<i>Ruguloscolytus</i> Butovitsch (= <i>Scolytus</i>)	321
rufonitidum (Schedl), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	702	rugulosus (Eggers), (<i>Loganius</i>), <i>Cnemionyx</i>	317
rufonitidus Schedl, <i>Sternobothrus</i>	216	rugulosus (Muller), (<i>Bostrichus</i>), <i>Scolytus</i>	364
rufopalliatus Eichhoff, <i>Araptus</i>	961	rugulosus (Schedl), (<i>Mimiodendrus</i>), <i>Xyloleptes</i>	550
<i>rufopalliatus</i> Hopkins, <i>Hypothenemus</i> (= <i>columbi</i>)	913	rugulosus Eggers, <i>Dryocoetes</i> (= <i>ussuriensis</i>)	586
rufopallidus Schedl, <i>Sphaerotrypes</i>	201	rugulosus Eggers, (<i>Pocclipis</i>), <i>Coccotrypes</i> (= <i>rotundicollis</i>)	610
rufopicus Eggers, <i>Xyleborus</i> (= <i>ferrugineus</i>)	739	rugulosus Eggers, <i>Phloeotribus</i>	230
rufopilosus Eggers, <i>Corthylus</i>	1079	rugulosus Eggers, <i>Scolytodes</i>	399
rufopilosus Schedl, <i>Cryphalus</i>	892	rugulosus Eggers, <i>Xyleborus</i> (= <i>dispar</i>)	730
<i>rufostriatus</i> Sokanovskii, <i>Scolytus</i> (= <i>jaroschewskii</i>)	336	rugulosus <i>baluchistani</i> Schedl, <i>Scolytus</i> (= <i>rugulosus</i>)	370
rufotestaceus Schedl, <i>Microcorthylus</i>	1067	rugulosus <i>internedius</i> Sokanovskii, <i>Scolytus</i> (= <i>rugulosus</i>)	370
rufulus Schedl, <i>Chiloxylon</i>	587	rugulosus <i>samarkandicus</i> Butovitsch, <i>Scolytus</i> (= <i>rugulosus</i>)	370
rufus (Eggers), (<i>Spongotarsus</i>), <i>Polygraphus</i>	298	rugulosus <i>sanctaluciaae</i> Hoffmann, <i>Scolytus</i> (= <i>rugulosus</i>)	370
rufus (Schedl), (<i>Hapalogenius</i>), <i>Rhopalopselion</i>	97	rugulosus <i>similis</i> Butovitsch, <i>Scolytus</i> (= <i>rugulosus</i>)	370
rufus Marsham, (<i>Ips</i>), <i>Hylurgops</i> (= <i>palliatus</i>)	38	<i>runseyi</i> Hopkins, <i>Hypothenemus</i> (= <i>eruditus</i>)	922
rufus Schedl, <i>Xyleborus</i>	769	russulus (Schedl), (<i>Xyleborus</i>), <i>Euwallacea</i>	693
rugatus (Blandford), (<i>Dryocoetes</i>), <i>Ozopemon</i>	590	russus Swaine, <i>Phloeosinus</i> (= <i>vandykei</i>)	258
rugatus Blackburn, <i>Xyleborus</i>	769		
rugatus Blandford, <i>Phloeoborus</i> (= <i>asper</i>)	98		
rugatus Wood & Huang, <i>Pseudoxylechinus</i>	114		

<i>rusti</i> Blackman, <i>Phlocosinus</i> (= <i>punctatus</i>)	252	<i>sampsoni</i> Nunberg, <i>Webbia</i> (= <i>quattuordecinspinatus</i>)	832
<i>rusticus</i> (Wood), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	865	<i>sampsoni</i> Stebbing, <i>Pityophthorus</i> (= <i>deodara</i>)	995
<i>rusticus</i> (Wood), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	650	Sampsonius Eggers	655
<i>rusticus</i> Wood, <i>Dryocoetoides</i>	655	<i>sanctaluciae</i> Hoffmann, <i>Scolytus</i> (= <i>rugulosus</i>)	370
<i>rutschuruensis</i> Eggers, <i>Coccotrypes</i>	611	<i>sandakanensis</i> (Schedl), (<i>Cryphalus</i>), <i>Hypocryphalus</i>	572
<i>ruencenziensis</i> (Schedl), (<i>Mimiophthorus</i>), <i>Mimiocurus</i>	950	<i>sandragotoensis</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	680
rybinskii Reitter, <i>Trypophloeus</i>	846	<i>sanguineus</i> Schedl, <i>Corthylus</i>	1079
<i>rybinskii salicis</i> Stark, <i>Trypophloeus</i> (= <i>rybinskii</i>)	847	<i>sanguinicollis</i> (Blandford), (<i>Xyleborus</i>), <i>Taurodenus</i>	786
<i>saalasi</i> Eggers, <i>Pityogenes</i>	457	<i>sannio</i> (Schauaufus), (<i>Poccilips</i>), <i>Coccotrypes</i>	611
<i>saalasi niger</i> Sokanovskii, <i>Pityogenes</i> (= <i>saalasi</i>)	457	<i>sannohensis</i> Murayama, <i>Phlocosinus</i>	253
<i>sabahensis</i> Bright, <i>Liparthrum</i>	279	<i>sansoni</i> Swaine, <i>Carphoborus</i>	309
<i>sabinianae</i> Hopping, (<i>Orthotomicus</i>), <i>Ips</i> (= <i>spinifer</i>)	526	<i>sapineus</i> Bright, <i>Pityophthorus</i>	1026
<i>sacchari</i> Hopkins, <i>Hypothenemus</i> (= <i>eruditus</i>)	922	<i>sapporoensis</i> (Niisima), (<i>Cryphalus</i>), <i>Hypothenemus</i>	940
<i>sacchari</i> Hopkins, <i>Xyleborus</i> (= <i>affinis</i>)	709	<i>sapporoensis</i> Eggers, <i>Polygraphus</i> (= <i>poligraphus</i>)	292, 295
<i>sachalinensis</i> Eggers, <i>Polygraphus</i>	295	<i>sarawakensis</i> (Eggers), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	650
<i>sachalinensis</i> Krivolutskaia, <i>Pityophthorus</i>	1026	<i>sarawakensis</i> (Schedl), (<i>Dryocoetes</i>), <i>Cyrtogenius</i>	568
<i>sachalinensis</i> Michalski, <i>Scolytus</i> (= <i>esuriens</i>)	330	<i>sarawakensis</i> Schedl, <i>Cryphalus</i>	893
<i>sachalinensis</i> Sokanovskii, <i>Dryocoetes</i> (= <i>autographus</i>)	575	<i>sarawakensis</i> Schedl, <i>Webbia</i>	832
<i>sachalinensis frontalis</i> Kurenzov, <i>Polygraphus</i> (= <i>sachalinensis</i>)	299	<i>sardus</i> Eggers, <i>Thammurgus</i>	545
<i>sachtleni</i> Schedl, <i>Xylechinus</i>	105	<i>sardus</i> Strohmeier, <i>Dryocoetes</i> (= <i>villosus</i>)	557
<i>saginata</i> Mannerheim, <i>Polygraphus</i> (= <i>rufipeunis</i>)	295	<i>sartor</i> Schedl, <i>Xyleborus</i>	769
<i>sagittarius</i> Schedl, <i>Eccoptyterus</i>	520	<i>sassaensis</i> (Eggers), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	940
<i>sahlbergi</i> Eggers, (<i>Eccoptyogaster</i>), <i>Scolytus</i> (= <i>ratzeburgi</i>)	363	<i>satoi</i> Schedl, <i>Xyleborus</i>	769
<i>sakalava</i> Schedl, <i>Xyleborus</i>	769	<i>saturatum</i> Peyerimhoff, <i>Aphanarthrum</i>	619
<i>sakoae</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	650	<i>saudiarabiae</i> (Schedl), (<i>Chilodendron</i>), <i>Hylesinopsis</i>	95
<i>salakenis</i> (Schedl), (<i>Poccilips</i>), <i>Coccotrypes</i>	611	<i>saundersi</i> Wood, <i>Tricolus</i>	1045
<i>salebrosus</i> Eichhoff, <i>Hylastes</i>	61	<i>sauropteroides</i> Schedl, (<i>Xyleborus</i>), <i>Sauroptilus</i> (= <i>sauropterus</i>)	971
<i>Saliciphilus</i> Sokanovskii (= <i>Taphrorhynchus</i>)	556	<i>sauropterus</i> (Schedl), (<i>Xyleborus</i>), <i>Sauroptilus</i>	971
<i>salicis</i> Hopkins, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>seriatus</i>)	942	<i>Sauroptilus</i> Browne	971
<i>salicis</i> Hopkins, <i>Procryphalus</i> (= <i>utahensis</i>)	848	<i>Saurotocis</i> Wood	419
<i>salicis</i> Hopkins, <i>Trypophloeus</i>	847	<i>sawadai</i> Nobuchi & Takahashi, <i>Cryphalus</i>	893
<i>salicis</i> Stark, <i>Trypophloeus</i> (= <i>rybinskii</i>)	847	<i>saxeseni</i> (Ratzeburg), (<i>Bostrichus</i>), <i>Xyleborinus</i>	810
<i>sallaei</i> Blandford, <i>Dendroterus</i>	952	<i>sayi</i> (Hopkins), (<i>Anisandrus</i>), <i>Xyleborus</i>	769
<i>saltoni</i> Blackman, <i>Gnathotrichus</i> (= <i>pilosus</i>)	1037	<i>scaber</i> Erichson, <i>Phlocoborus</i>	100
<i>saltuarius</i> Weise, <i>Cryphalus</i>	892	<i>scaber</i> Marsham, (<i>Ips</i>), <i>Hylesinus</i> (= <i>toranio</i>)	85
<i>salvini</i> (Blandford), (<i>Xyleborus</i>), <i>Taurodenus</i>	785	<i>scaber</i> Schedl, <i>Xyleborus</i>	770
<i>samarkandicus</i> Butovitsch, <i>Scolytus</i> (= <i>rugulosus</i>)	370	<i>scaber</i> Swaine, <i>Hylastes</i> (= <i>porculus</i>)	61
<i>sambesianus</i> Eggers, <i>Hypothenemus</i>	940	<i>scabiosus</i> Blandford, <i>Xylechinus</i>	118
<i>sambuci</i> Blackman, <i>Pityophthorus</i>	1026	<i>scabratus</i> Blandford, <i>Phlocotribus</i>	230
<i>samoanus</i> (Browne), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	865	<i>scabratus</i> Schedl, <i>Xyleborus</i>	770
<i>samoanus</i> (Eggers), (<i>Dryocoetes</i>), <i>Cyrtogenius</i>	568	<i>scabricollis</i> (Hopkins), (<i>Phlocophthorus</i>), <i>Phlocotribus</i>	230
<i>samoanus</i> Schedl, (<i>Hylesinus</i>), <i>Ficicis</i> (= <i>despectus</i>)	91	<i>scabricollis</i> (LeConte), (<i>Xyloterus</i>), <i>Trypodendron</i>	645
<i>samoanus</i> Schedl, <i>Eidopilus</i>	867	<i>scabricollis</i> (Schedl), (<i>Ozopenon</i>), <i>Xyleborus</i>	770
<i>samoensis</i> Beeson, <i>Cryphalus</i>	893	<i>scabricollis</i> Browne, <i>Cyrtogenius</i>	568
<i>samoensis</i> Beeson, (<i>Xyleborus</i>), <i>Eucallacca</i> (= <i>piceus</i>)	693	<i>scabricollis</i> Eichhoff, <i>Cryphalus</i>	893
<i>sampsoni</i> Donisthorpe, <i>Xyleborus</i> (= <i>dryographus</i>)	732		
<i>sampsoni</i> Eggers, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>mutilatus</i>)	799		

- scabridus* Schedl, (*Xyleborus*), *Ambrosiodinus*
(=*aegir*) 670
- scabridus** Schedl, *Pityophthorus* 1026
- scabrifrons* St., (*Hylesinus*), *Hylastes*
(=*cunicularius*) 51
- scabrior** (Schedl), (*Xyleborus*), *Leptoxyleborus* 660
- scabrior* Schedl, (*Xyleborus*), *Ambrosiodinus*
(=*neglectus*) 677
- scabripennis** (Blandford), (*Xyleborus*),
Arxyleborus 669
- scabripennis** Schedl, *Cryphalus* 594
- scabripennis* Zimmermann, *Hylastes* (= *salebrosus*) 62
- scalaris** (Schedl), (*Xyleborus*), *Ambrosiodinus* 680
- scaliger* Hagedorn, (*Loganius*), *Cnemomyx*
(=*flavicornis*) 315
- sculptor** (Schedl), (*Xyleborus*), *Cyclorhipidion* 702
- sculptor** Blackman, *Pityophthorus* 1026
- sculptor** Schedl, *Polygraphus* 299
- scalptus** Bright, *Pityophthorus* 1027
- scandinarius** Lekander, *Hylastes* 62
- scapulare** (Schedl), (*Xyleborus*), *Cyclorhipidion* 702
- scarabaeoides** (Bernard), (*Scolytus*), *Phloeotribus* 230
- schablioviskii* Stark, *Lymantria* (= *aceris*) 554
- schaufussi** (Blandford), (*Xyleborus*), *Xyleborinus* 516
- schaufussi** Blandford, *Amphicranus* 1045
- schaufussi** Schedl, *Corthylus* 1079
- schedli** (Blackman), (*Neodryocotes*), *Araptus* 961
- schedli* Bright, *Monarthrum* (= *minutissimum*) 1059
- schedli** Browne, *Hypothenemus* 940
- schedli* Eggers, *Xyleborus* (= *ferrugineus*) 739
- schedli* Wood, *Cnemomyx* (= *errans*) 314
- schedli** Wood, *Dendrocranus* 553
- Schedlia** Browne 822
- ° **schellucieni** (Hagedorn), (*Hylastites*), *Hylurgops* 41
- schenklingi** Hagedorn, *Chortastus* 312
- schevyreii** Semenov, *Scolytus* 370
- schildi** Schedl, *Xyleborus* 770
- schimitscheki** Eggers, *Taphrorychus* 560
- schizolobius* Schedl, (*Xyleborus*), *Dryocoetoides*
(=*pseudosolitarius*) 655
- schliehi** (Stebbing), (*Xyleborus*), *Amasa* 654
- schmutzenhoferi* Holtzschuh, *Ips* (= *stebbingi*) 527
- schoenbachi** Kirsch, *Phloeotribus* 232
- schoenherri** (Schedl), (*Xyleborus*), *Xyleborinus* 516
- schoenherri** Schedl, *Cucinus* 211
- schoutedeni** Eggers, *Xyleborus* 770
- schreineri* Eggers, (*Xyleborus*), *Xyleborinus*
(=*sharpae*) 516
- schreineri* Eichhoff, (*Cryphalus*), *Ernoporicus*
(=*caucasicus*) 549
- schrenkianae** Pjatnitskii, *Pityophthorus* 1026
- schultzei** (Schedl), (*Dryocoetes*), *Dryocoetops* 555
- schultzei* Schedl, (*Xyleborus*), *Euwallacea*
(=*fornicatus*) 690
- schumensis* Eggers, *Phloeosinus* (= *bicolor*) 243
- schwarzii** (Blackman), (*Thamniophthorus*), *Araptus* 961
- schwarzii** (Hopkins), (*Erineophilus*), *Scolytodes* 399
- schwarzii** Blackman, *Hyllocurus* 425
- schwarzii** Blackman, *Pityophthorus* 1027
- schwarzii* Hopkins, (*Cosmoderes*), *Hypothenemus*
(=*eruditus*) 922
- schwarzii* Hopkins, *Xyleborus* (= *rolulus*) 753
- schwerdtfegeri** (Schedl), (*Conophthorus*),
Pityophthorus 1027
- Scierus** LeConte 29
- scitula** Wood, *Micracisella* 431
- scitulus** Wood, *Hyllocurus* 425
- scitulus** Wood, *Pityophthorus* 1027
- scitulus** Wood, *Tricolus* 1045
- scitus** Blandford, *Pityogenes* 457
- sclerocaryae** (Schedl), (*Xyleborus*), *Xyleborinus* 516
- scobinatus** Hagedorn, *Xyleborus* 770
- scobinosus* Eichhoff, *Hylastes* (= *salebrosus*) 61
- scobipennis* Chapuis, (*Hylesinus*), *Ficicis*
(=*despectus*) 90
- scolytulus* Sulzer, *Scolytus* (= *scolytus*) 374
- Scolytidae Latreille 25
- Scolytidae verae (= *Scolytini*) 313
- Scolytidarii Latreille (= *Scolytidae*) 25
- Scolytides Latreille (= *Scolytini*) 313
- Scolytinae Latreille 313
- Scolytini Latreille 313
- Scolytocheilus* Reitter (= *Scolytus*) 321
- scolytoceptes* Schedl (= *Scolytomimus*) 535
- Scolytodes** Ferrari 357
- Scolytogenes** Eichhoff 555
- scolytoides** Eichhoff, *Xyloctonus* 541
- scolytomimoides** (Nobuchi), (*Cryphalomorphus*),
Scolytogenes 865
- Scolytomimus** Blandford 535
- Scolytoplatypi* Blandford (= *Scolytoplatypodini*) 401
- Scolytoplatypidae* Blandford (= *Scolytoplatypodini*) 401
- Scolytoplatypini* Blandford (= *Scolytoplatypodini*) 401
- Scolytoplatypodidae* Blandford
(= *Scolytoplatypodini*) 401
- Scolytoplatypodinae* Blandford
(= *Scolytoplatypodini*) 401
- Scolytoplatypodini* Blandford (= *Scolytoplatypodini*) 401
- Scolytoplatypus** Schaufuss 401
- Scolytopsis** Blandford 320
- scolytus** (Fabricius), (*Bostricrus*), *Scolytus* 371
- Scolytus** Geoffroy 25, 321
- scopiger** Berger, *Cryphalus* 594
- scopulorum* Hopkins, *Xyleborus* (= *intrusus*) 745
- scopulorum* Hopkins, *Conophthorus*
(=*ponderosae*) 965
- scopulorum** Swaine, *Phloeosinus* 253
- scopulorum* *neomexicanus* Blackman, *Phloeosinus*
(=*scopulorum*) 253
- scopulorum* *scopulorum* Swaine, *Phloeosinus*
(=*scopulorum*) 253
- scorpium** (Schedl), (*Xyleborus*), *Cyclorhipidion* 702
- scotti** Eggers, *Cyrtogenius* 565
- scriba* Gozis, *Cryphalus* (= *saltuarius*) 593

<i>scriptor</i> Blackman, <i>Pityophthorus</i>	1027	<i>semipallens</i> (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1062
<i>scroceipes</i> (Eichhoff), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1062	<i>semipilosus</i> Eggers, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>collarti</i>)	806
<i>scrofa</i> (Schedl), (<i>Cladoctoporus</i>), <i>Trietennus</i>	541	<i>semipolitus</i> Schedl, <i>Xyleborus</i>	771
<i>scrutator</i> (Pandelle), (<i>Thammurgus</i>), <i>Tiarophorus</i>	540	<i>semipunctatus</i> Eggers, <i>Xyleborus</i>	771
<i>sculptilis</i> (Schedl), (<i>Poccilips</i>), <i>Coccotrypes</i>	611	<i>semipunctatus</i> Wood, <i>Scolytodes</i>	399
<i>sculptilis</i> (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	816	<i>semirostris</i> Hopping, <i>Ips</i> (= <i>tridens engelmanni</i>)	528
<i>sculpturatus</i> (Blandford), (<i>Bothrosternus</i>), <i>Sternobothrus</i>	216	<i>semirudis</i> Blandford, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>xanthopus</i>)	696
<i>sculpturatus</i> Eichhoff, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>rotundicollis</i>)	940	<i>semirufus</i> Reitter, <i>Thammurgus</i>	545
<i>scutellare</i> (LeConte), (<i>Corthylus</i>), <i>Monarthrum</i>	1062	<i>semirufus</i> Schedl, (<i>Xyleborus</i>), <i>Ambrosiodmus</i> (= <i>obliquecaudata</i>)	677
<i>scutiae</i> (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	940	<i>semistriatus</i> Schedl, <i>Xyleborus</i>	771
<i>scutulatus</i> (Blandford), (<i>Hylesinus</i>), <i>Neopteleobius</i>	72	<i>semitruncatus</i> Schedl, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>cyliandrotonicus</i>)	793
<i>sechelti</i> Swaine, <i>Dryocoetes</i>	585	<i>senchaleus</i> Beeson, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>andamaueusis</i>)	686
<i>sechii</i> Nunberg, <i>Dendrocranulus</i>	553	<i>senecionis</i> Schedl, <i>Thammurgus</i>	545
<i>secundus</i> Blackman, <i>Pityoborus</i>	968	<i>senegambiensis</i> (Schedl), (<i>Hapalogenius</i>), <i>Hylesinopsis</i>	95
<i>securigerus</i> (Blackman), (<i>Chalcolypus</i>), <i>Pseudothysanoes</i>	417	<i>senex</i> Schedl, <i>Tricolus</i>	1045
<i>securus</i> (Schedl), (<i>Erieryphalus</i>), <i>Cryphalus</i>	894	<i>senex</i> Wichmann, <i>Pityophthorus</i> (= <i>buyssoni</i>)	985
<i>securus</i> Wood, <i>Chramesus</i>	268	<i>sensarmai</i> Maiti & Saha, <i>Hyorrhynchus</i>	192
<i>securus</i> Wood, <i>Dendrocranulus</i>	553	<i>senticosus</i> Wood, <i>Corthylus</i>	1079
<i>securus</i> Wood, <i>Pseudothysanoes</i>	417	<i>sentosus</i> (Eichhoff), (<i>Xyleborus</i>), <i>Xyleborinus</i>	816
<i>secus</i> Wood, <i>Chramesus</i>	268	<i>sentosus</i> Wood, <i>Corthylus</i>	1079
<i>secus</i> Wood, <i>Hylocurus</i>	428	<i>sentus</i> Wood, (<i>Hoplitophthorus</i>), <i>Cladoctonus</i> (= <i>interruptus</i>)	239
<i>secutus</i> Wood, <i>Hylesinopsis</i>	95	<i>sentus</i> Wood, <i>Corthylus</i>	1079
<i>sedlaceki</i> (Schedl), (<i>Ozodendron</i>), <i>Cyrtogenius</i>	568	<i>sentus</i> Wood, <i>Micracis</i>	433
<i>sedulus</i> Blackman, <i>Pseudothysanoes</i>	417	<i>seoulensis</i> Choo & Woo, <i>Hypothenemus</i>	940
<i>segnis</i> Blackman, <i>Pityophthorus</i>	1027	<i>separandus</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	866
<i>seirindensis</i> Murayama, <i>Pityogenes</i>	458	<i>separandus</i> Schedl, <i>Xyleborus</i>	771
<i>seiryorensis</i> Murayama, <i>Xyleborus</i>	770	<i>separatus</i> Bright, <i>Pityophthorus</i>	1028
<i>seiryuensis</i> Murayama, <i>Pityophthorus</i>	1028	<i>sepicola</i> Lovendal, <i>Lymantor</i> (= <i>coryli</i>)	556
<i>sejugatus</i> Schedl, (<i>Xyleborus</i>), <i>Leptoxyleborus</i> (= <i>depressus</i>)	660	<i>septentrionalis</i> Eggers, <i>Hylastes</i> (= <i>plumbeus</i>)	60
<i>sejugatus</i> Schedl, <i>Cryphalus</i>	894	<i>septentrionalis</i> Niisima, <i>Xyleborus</i>	771
<i>seinenori</i> (Kurenzov), (<i>Eocryphalus</i>), <i>Eruoporicus</i>	851	<i>septentrionis</i> Mannerheim, (<i>Bostrichus</i>), <i>Dryocoetes</i> (= <i>autographus</i>)	577
<i>seinenori</i> (Spessivtsev), (<i>Eccoptogaster</i>), <i>Scolytus</i>	376	<i>sequoiae</i> Hopkins, <i>Phloeosinus</i>	253
<i>semibrunneus</i> (Eggers), (<i>Chramesus</i>), <i>Pseudochramesus</i>	262	<i>sercinus</i> Eggers, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>xanthopus</i>)	696
<i>semicarinatus</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	680	<i>serenus</i> Wood, <i>Scolytodes</i>	399
<i>semicastaneus</i> Mannerheim, (<i>Bostrichus</i>), <i>Dryocoetes</i> (= <i>autographus</i>)	578	<i>seriata</i> (Brown), (<i>Pseudowebbia</i>), <i>Webbia</i>	832
<i>semicircularis</i> Schedl, <i>Xyleborus</i> (= <i>emarginatus</i>)	733	<i>seriatus</i> (Eggers), (<i>Pseudophloeotribus</i>), <i>Hylesinopsis</i>	95
<i>semicostatus</i> (Schedl), (<i>Xyleborus</i>), <i>Dryocoetoides</i>	658	<i>seriatus</i> (Eichhoff), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	940
<i>semiernis</i> (Nunberg), (<i>Pityophthorus</i>), <i>Gnatholeptus</i>	970	<i>seriatus</i> Blandford, <i>Phloeosinus</i>	254
<i>semiernis</i> Schedl, <i>Xyleborus</i>	771	<i>seriatus</i> Blandford, <i>Xyleborus</i>	771
<i>semigranostus</i> Blandford, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>crassiusculus</i>)	792	<i>seriatus</i> Eggers, <i>Camptocerus</i>	320
<i>semigranulatus</i> (Schedl), (<i>Dryocoetes</i>), <i>Dryocoetiops</i>	588	<i>seriatus</i> Eggers, <i>Cryptocarenum</i>	904
<i>semigranulatus</i> (Schedl), (<i>Xyleborus</i>), <i>Leptoxyleborus</i>	660	<i>seriatus</i> LeConte, (<i>Pityophthorus</i>), <i>Pityoborus</i> (= <i>comatus</i>)	968
<i>seminitens</i> (Blandford), (<i>Xyleborus</i>), <i>Arixyleborus</i>	669	<i>seriatus</i> Reitter, <i>Polygraphus</i>	299
<i>semiopacus</i> Eichhoff, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>crassiusculus</i>)	791		

- sericeus* (Mannerheim), (*Hylurgus*),
Pseudohylesinus 112
- sericeus* (Schedl), (*Eriosclidias*), *Cosmoderes* 902
- sericeus* Chapuis, *Phloeoborus* (= *scaber*) 100
- sericeus* Marsham, *Ptelcobius* (= *rittatus*) 72
- sericeus* Motschulsky, (*Hylesinus*), *Cryphalus*
 (= *dorsalis*) 579
- serjaniae* Wood, *Micracisella* 431
- Serrastus* Nunberg 283
- serratus* (LeConte), (*Hylesinus*), *Phlocosinus* 254
- serratus* Bruck, *Pseudohylesinus* (= *nebulosus*) 111
- serratus* Eggers, *Phloeotribus* 232
- serratus* Fabricius, (*Bostrichus*), *Taurodennus*
 (= *varians*) 786
- serratus* Panzer, (*Bostrichus*), *Erioporus* (= *fagi*) 851
- serratus* Swaine, *Pityophthorus* 1028
- serratus* Swaine, *Xyleborus* (= *obesus*) 756
- serratus* Wood, *Corthylus* 1079
- serratus* Wood, *Eupagiocerus* (= *ater*) 214
- serrifer* (Hagedorn), (*Chortastus*), *Serrastus* 283
- serrifer* Wichmann, *Phlocosinus* (= *thujae*) 258
- serrulatus* Eggers, *Corthylus* 1079
- setifer* (Schedl), (*Mimips*), *Mimioecurus* 950
- setifer* (Wood), (*Cryphalomorphus*), *Scolytogenes* 866
- setifer* Browne, *Pityophthorus* 1028
- setifer* Eggers, *Ctonoxylon* 838
- setifer* Schedl, *Pseudochramesus* 262
- setiger* Schedl, *Chramesus* 269
- setistriatus* (Lea), (*Cryphalus*), *Cosmoderes* 902
- setosus* (Blandford), (*Hexacolus*), *Scolytodes* 399
- setosus* (Eggers), (*Kissophagus*), *Phloeoditica* 236
- setosus* (Eichhoff), (*Hypoborus*), *Hypothenemus* 943
- setosus* Beeson, *Polygraphus* (= *setosus*) 299
- setosus* Beeson, (*Thammurgides*), *Coccotrypes*
 (= *advena*) 592
- setosus* Blackman, *Pityophthorus* 1028
- setosus* Bruck, *Phlocosinus* 255
- setosus* Eggers, *Cnesinus* 211
- setosus* Schedl, *Polygraphus* 299
- setosus* Schedl, *Scolytoplatypus* (= *papuanus*) 405
- setosus* Wood, *Bothinodroctonus* 310
- setosus* Wood, *Cactopinus* 436
- setosus* Wood, *Chramesus* 269
- setulosum* Waterhouse, *Pycnarthrum* 356
- setulosus* (Eggers), (*Loganius*), *Cuemonyx* 317
- setulosus* Blandford, *Cnesinus* 211
- setulosus* Eggers, *Microborus* (= *aberrans*) 353
- setulosus* Eggers, *Xyleborus* 771
- setulosus* Eichhoff, *Phloeotribus* 232
- setulosus* Schedl, *Strombophorus* 204
- seulensis* Murayama, *Scolytus* (= *schevrewi*) 371
- severus* Bright, *Pityoborus* (= *frontalis*) 968
- severus* Wood, *Dryocoetoides* 658
- sexdentatum* Eggers, (*Anchonocerus*), *Monarthrum*
 (= *sexdentulum*) 1062
- sexdentatum* Eggers, *Monarthrum* 1062
- sexdentatus* (Boerner), (*Dermestes*), *Ips* 522
- sexdentatus* (Eggers), (*Mimips*), *Acanthotomicus* 453
- sexdentatus* (Eggers), (*Xyleborus*), *Ambrosiodmus* 680
- sexdentatus* Eggers, *Sampsonius* 656
- sexdentatus* Olivier, (*Scolytus*), *Pityogenes*
 (= *chalcographus*) 450
- sexdentatus junnanicus* Sokanovskii, *Ips*
 (= *sexdentatus*) 526
- sexdentulum* Wood, *Monarthrum* 1062
- sexnotatus* (Schedl), (*Xyleborus*), *Prennobius* 655
- sexspinatum* (Schedl), (*Xyleborus*),
Cyclorhpidion 702
- sexspinosus* (Schedl), (*Ips*), *Acanthotomicus* 453
- ° *sexspinosus* (Schedl), (*Phlocosinities*),
Phlocosinus 255
- sexspinosus* Eggers, *Prennobius* 655
- sexspinosus* Motschulsky, *Eccoptopterus*
 (= *spinosus*) 821
- sexspinosus pluridentatus* Schedl, *Eccoptopterus*
 (= *multispinosus*) 820
- sextuberculatus* Eggers, *Pityophthorus* 1028
- sextuberculatus* Schedl, (*Gnathotrichus*),
Gnathotrupes (= *longipennis*) 1041
- sextuberculatus* Schedl, *Xyleborus* 771
- seydeli* (Nunberg), (*Rhopalocryphus*), *Glostatus* 836
- seydeli* (Schedl), (*Mimips*), *Acanthotomicus* 483
- shabliovskiyi* Kurenzov, *Hylesinus* 83
- shanhaiensis* Yin & Huang, *Scolytus* 376
- shamoni* (Blackman), (*Pityophthorus*),
Gnatholeptus 970
- shanorum* Beeson, (*Thammurgides*), *Coccotrypes*
 (= *rhizophorae*) 610
- shariensis* Niisima, *Polygraphus* 299
- sharpae* (Hopkins), (*Xyleborus*), *Xyleborinus* 816
- sharpi* (Blandford), (*Xyleborus*), *Taurodennus* 786
- sharpi* (Guillebeau), (*Phloeophthorus*),
Phloeotribus 233
- sharpi* Guillebeau, *Phloeotribus* (= *cristatus*) 220
- sharpi lenis* (Wood), *Taurodennus* (= *sharpi*) 786
- sharpi sharpi* Blandford, *Taurodennus* (= *sharpi*) 786
- shensi* Tsai & Yin, *Phlocosinus* 255
- shepardi* Blackman, *Pityophthorus* (= *intextus*) 1004
- shikisanii*, *Scolytus* (= *chikisanii*) 327
- shimanensis* Murayama, *Erioporus* 855
- shinanoensis* Yono, *Ips* (= *cembrae*) 499
- shionomisakiensis* Murayama, *Xyleborus* 771
- shiva Maiti & Saha*, *Hyorrhynchus* 192
- shiva Maiti & Saha*, *Xyleborus* 772
- shogun* Blandford, *Scolytoplatypus* 406
- shoreae* (Stebbing), (*Tomicus*), *Xyleborus* 772
- shoreae* Browne, *Cryptoxyleborus* 829
- shoreae* Schedl, *Ptilopodius* 900
- shoshone* Hopkins, *Dendroctonus* (= *murayamae*) 158
- shotoensis* Murayama, *Phlocosinus* (= *rudis*) 252
- sibiricus* Eggers, (*Eccoptogaster*), *Scolytus*
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- sibiricus* Stark, *Pityophthorus* (= *micrographus*) 1012
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<i>sichotensis</i> Kurenzov, <i>Cryphalus</i>	594	<i>similis</i> Eggers, <i>Phlocosinus</i>	255
<i>sichotensis</i> Kurenzov, <i>Pityophthorus</i>	1028	<i>similis</i> Eggers, <i>Xyleborus</i> (= <i>rufobrunneus</i>)	769
<i>siclus</i> Schedl, <i>Xyleborus</i>	772	<i>similis</i> Eichhoff, <i>Pityophthorus</i>	1025
<i>sicula</i> DelGuercio, (<i>Comesiella</i>), <i>Phlocotribus</i> (= <i>pubifrons</i>)	228	<i>similis</i> Ferrari, <i>Xyleborus</i>	772
<i>siculus</i> Eggers, <i>Scolytus</i> (= <i>koenigi</i>)	338	<i>similis</i> Hagedorn, <i>Dactylipalpus</i> (= <i>grouellei</i>)	102
<i>siculus</i> Eggers, <i>Taphrorhynchus</i> (= <i>bicolor</i>)	555	<i>similis</i> Hopkins, <i>Hypothenemus</i> (= <i>sparsus</i>)	945
<i>siculus</i> Eggers, <i>Thamnuergus</i>	546	<i>similis</i> LeConte, <i>Dendroctonus</i> (= <i>rufipennis</i>)	177
<i>siculus</i> Ferrari, <i>Hypoborus</i> (= <i>ficus</i>)	281	<i>similis</i> Nunberg, <i>Cladotomus</i>	239
<i>sidanus</i> (Schedl), (<i>Dryocoetes</i>), <i>Xylocleptes</i> <i>sidneyanus</i> (Nordlinger), (<i>Bostrichus</i>), <i>Cryphalus</i>	550	<i>similis</i> Schedl, <i>Gnathotrupes</i>	1042
<i>sierraleonensis</i> Eggers, (<i>Poecilips</i>), <i>Coccotrypes</i> (= <i>confusus</i>)	597	<i>similis</i> Wood, <i>Micracisella</i>	431
<i>sierrensis</i> Bright, <i>Pityophthorus</i>	1028	<i>simillimus</i> Perkins, <i>Xyleborus</i>	774
<i>siginiis</i> Hagedorn, <i>Eucallacca</i> (= <i>xanthopus</i>)	696	<i>simillimus</i> Schedl, <i>Corthylus</i>	1079
<i>signatifrons</i> (Schedl), (<i>Brachyspartus</i>), <i>Corthylocurus</i>	1069	<i>simmeli</i> Eggers, (<i>Eccoctogaster</i>), <i>Scolytus</i> (= <i>intricatus</i>)	334
<i>signatifrons</i> Browne, <i>Pityophthorus</i>	1028	<i>simoni</i> (Reitter), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	944
<i>signatipennis</i> (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	816	<i>simplex</i> (Browne), (<i>Cryptoxyleborus</i>), <i>Webbia</i>	833
<i>signatipennis</i> Schedl, <i>Chramesus</i>	269	<i>simplex</i> (Schedl), (<i>Eriocryphalus</i>), <i>Cryphalus</i>	894
<i>signatum</i> (Fabricius), (<i>Apate</i>), <i>Trypodendron</i>	646	<i>simplex</i> (Schedl), (<i>Mimips</i>), <i>Acanthotomicus</i>	483
<i>signatus</i> Ferrari, (<i>Corthylus</i>), <i>Monarthrum</i> (= <i>bicolor</i>)	1051	<i>simplex</i> Blandford, <i>Hylocurus</i>	428
<i>signatus</i> Schedl, (<i>Xyleborus</i>), <i>Ambrosiodmus</i> (= <i>funereus</i>)	674	<i>simplex</i> LeConte, <i>Carphoborus</i>	309
<i>signatus</i> Strohmeier, <i>Phlocoborus</i>	101	<i>simplex</i> LeConte, <i>Dendroctonus</i>	180
<i>signiceps</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	680	<i>simplex</i> Rey, <i>Hylastes</i> (= <i>opacus</i>)	59
<i>signifer</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodmus</i>	680	<i>simplex</i> Schedl, <i>Hylocurus</i> (= <i>brasilienensis</i>)	423
<i>silraiae</i> Schedl, <i>Cyrtogenius</i>	568	<i>simplex</i> Wollaston, <i>Aphanarthrum</i> (= <i>canescens</i>)	617
<i>silvanus</i> Schedl, <i>Cryphalus</i>	894	<i>simplex</i> Wood, <i>Corthylus</i>	1079
<i>silvaticus</i> Bright, <i>Scolytus</i> (= <i>hermosus</i>)	331	<i>simplex</i> Wood, <i>Phlocotribus</i>	233
<i>silvestris</i> Beeson, <i>Coccotrypes</i> (= <i>longior</i>)	605	<i>simplex</i> Wood, <i>Pseudotlysanoes</i>	417
<i>silvestris</i> Beeson, <i>Xyleborus</i> (= <i>volvulus</i>)	783	<i>simplicidens</i> Wood, <i>Phlocotribus</i>	233
<i>similans</i> (Eggers), (<i>Xyleborus</i>), <i>Xyleborinus</i>	816	<i>simplicis</i> Wood, <i>Chramesus</i>	269
<i>similaris</i> Schedl, (<i>Cryphalomorplus</i>), <i>Scolytogenes</i> (= <i>onyanganus</i>)	864	<i>simplicis</i> Wood, <i>Tricolus</i>	1045
<i>similaris</i> Schedl, <i>Xyleborus</i> (= <i>malgasicus</i>)	750	<i>simulatus</i> Bright, <i>Xyleborus</i>	774
<i>simile</i> Eggers, <i>Pyenarthrum</i> (= <i>kleinei</i>)	355	<i>siendorae</i> Browne, <i>Acanthotomicus</i>	483
<i>simile</i> Eichhoff, (<i>Pterocyclon</i>), <i>Monarthrum</i> (= <i>fasciatum</i>)	1055	<i>sinense</i> (Eggers), (<i>Trypodendron</i>), <i>Indocryphalus</i>	649
<i>similis</i> (Eggers), (<i>Chortastus</i>), <i>Serrastus</i>	283	<i>sinensis</i> Eggers, <i>Polygraphus</i>	299
<i>similis</i> (Eggers), (<i>Dendruergus</i>), <i>Coccotrypes</i>	612	<i>sinensis</i> Eggers, <i>Scolytus</i> (= <i>schevyrewi</i>)	370
<i>similis</i> (Eggers), (<i>Loganius</i>), <i>Cucumonyx</i>	317	<i>siuensis</i> Eggers, <i>Xyleborus</i>	774
<i>similis</i> (Eggers), (<i>Prionosceles</i>), <i>Scolytodes</i>	399	<i>siuensis</i> Schedl, <i>Phlocosinus</i>	255
<i>similis</i> (Eggers), (<i>Stephanoderes</i>), <i>Cryphalus</i>	894	<i>sinensis</i> Tsai & Huang, <i>Scolytoplatypus</i> (= <i>mikado</i>)	404
<i>similis</i> (Eggers), (<i>Xyleboricus</i>), <i>Webbia</i>	832	<i>sinensis</i> Wood & Huang, <i>Pseudoxylechinus</i>	114
<i>similis</i> Blackman, <i>Cnesinus</i> (= <i>costulatus</i>)	207	<i>singalangicus</i> Eggers, <i>Ozopemon</i> (= <i>theklae</i>)	590
<i>similis</i> Blackman, <i>Pseudohylesinus</i> (= <i>tsugae</i>)	114	<i>singularis</i> Bright, <i>Pityophthorus</i> (= <i>blandus</i>)	983
<i>similis</i> Butovitsch, <i>Scolytus</i> (= <i>rugulosus</i>)	370	<i>singularis</i> Wood, <i>Hylocurus</i>	428
<i>similis</i> Eggers, (<i>Hylesinus</i>), <i>Ficicis</i> (= <i>despectus</i>)	91	<i>singularis</i> Wood, <i>Pseudopityophthorus</i>	976
<i>similis</i> Eggers, (<i>Nigrites</i>), <i>Scolytogenes</i> (= <i>darvini</i>)	861	<i>sinoabietis</i> Tsai & Li, <i>Cryphalus</i>	895
<i>similis</i> Eggers, (<i>Trigonogenius</i>), <i>Pityophthorus</i> (= <i>eggersi</i>)	997	<i>sinoabietis opienensis</i> Tsai & Li, <i>Cryphalus</i> (= <i>sinoabietis</i>)	895
<i>similis</i> Eggers, <i>Dryocoetes</i> (= <i>alni</i>)	572	<i>sinopae</i> Schedl, <i>Pityophthorus</i>	1028
<i>similis</i> Eggers, <i>Ozopemon</i>	590	<i>Sinophloeus</i> Brethes	105
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- sobrinus* Wood, *Perioeryphalus* 945
- sobrinus* Wood, *Pityophthorus* 1025
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<i>spicatus</i> Browne, <i>Xyleborus</i>	775	(= <i>claphus</i>)	915
<i>spicatus</i> Wood, <i>Phlococeptus</i>	422	<i>spinus</i> Hagedorn, <i>Premnobius</i> (= <i>ambitosus</i>)	651
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spinifer (Eggers), (<i>Xyleborus</i>), <i>Xyleborinus</i>	517	squamatilis (Schedl), (<i>Xyleborus</i>), <i>Webbia</i>	833
spinifer (Eichhoff), (<i>Tomicus</i>), <i>Ips</i>	526	squamatula Wood, <i>Micracisella</i>	431
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- subsulcatus* Browne, *Lamurgus* 409
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- subsulcatus* Schedl, *Coccotrypes* 613
- subsulcatus* Schedl, *Corthylus* 1050
- subsulcatus* Schedl, *Polygraphus* 301
- subsulcatus* Wood, *Thysanoes* 421
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- sulcatus* (Eggers), (*Metalylesinus*), *Hylesinopsis* 95
- sulcatus* (Eggers), (*Xyleborus*), *Ambrosiodinus* 650
- sulcatus* (LeConte), (*Cryphalus*), *Gnathotrichus* 1035
- sulcatus* (Nunberg), (*Neodryocoetes*), *Araptus* 962
- sulcatus* (Schedl), (*Eidophelus*), *Cyrtogenius* 569
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- sulcatus* Schedl, *Polygraphus* 301
- sulcatus* Schedl, *Xylechinus* 119
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torneutes Blandford, *Amphicranus* 1050
torosus Wood, *Hyllocurus* 428
torquatus Eichhoff, *Xyleborus* (= *rolulus*) 781
torreyanae Swaine, *Pityophthorus* (= *carmeli*) 987
torridus Wood, *Pityophthorus* 1031
tortuosus (Schedl), (*Xyleborus*), *Ambrosiodmus* 681
torulus Wood, *Scolytus* 378
torus Wood, *Micracis* 434
tosaensis (Murayama), (*Ips*), *Orthotomicus* 478
Tasaxyleborus Murayama (= *Cnestus*) 801
toxicodendri Hopkins, (*Hypothenemus*), *Trischidias*
(= *atoma*) 947
Toxophorus Eggers (= *Toxophthorus*) 1082
Toxophthorus Wood 1082
tragardhi Spessivtsev, *Pityophthorus* 1031
Traglostus Schedl 410
trahax (Sampson), (*Troglostica*), *Acacacis* 194
transatlanticus Eggers, (*Stephanoderes*),
Hypothenemus (= *plumeriae*) 939
transbaicalicus Eggers, *Hylurgops* 42
transcaspicus Eggers, (*Eccoctogaster*), *Scolytus*
(= *schevgyreici*) 371
transcaspicus Semenov, *Phloeosinus* (= *bicolor*) 243
transitus Schedl, *Cnesinus* 212
transitus Schedl, *Xyleborus* 779
transversalis Blandford, *Dendrosinus* 237
transversalis Eggers, *Scolytus* 378
transversarius Schedl, *Phloeosinus* 258
transversum Blandford, *Pycnarthrum* (= *hispidum*) 385
transversus Chapuis, *Dactylipalpus* 102
transversus Chapuis, *Phloeotribus* 235
transversus Eichhoff, *Corthylus* 1080
trapezicollis (Schedl), (*Xyleborus*), *Eucallacea* 694
treeuliae Schedl, *Pityophthorus* 1032
treddli (Reitter), (*Cryphalus*), *Hypothenemus* 946
treddli Reitter, *Trypophloeus* (= *granulatus*) 845
tremulae Stark, *Trypophloeus* 847
trenchi Stebbing, *Polygraphus* 301
trepanatus (Nordlinger), (*Bostrichus*), *Pityogenes* 458
trepanatus Wichmann, (*Pteleobius*), *Neopteleobius*
(= *scutulatus*) 72
trepanicauda (Eggers), (*Xyleborus*), *Webbia* 833
trepidus Bright, *Pityophthorus* 1032
trepidus Wood, *Araptus* 962
tresmariae (Schedl), (*Hyllocurus*), *Phloeocleptus* 422
trexori Beeson, *Coccytrypes* (= *carpophagus*) 596
triangi Schedl, *Xyleborus* 779
triangularis (Schedl), (*Xyleborus*), *Cnestus* 803
triangularis Schedl, *Hypocryphalus* 872
triangularis Wood, *Cnesinus* 212
triarmatus Eggers, (*Eccoctogaster*), *Scolytus*
(= *scolytus*) 376
triarmatus Schedl, *Tricholus* (= *nodifer*) 1044
Triarmocerus Eichhoff (= *Hypothenemus*) 905
tribulatus Wood, *Micracis* 434
tribulatus Wood, *Xyleborus* 779
tribuloides Wood, *Xyleborinus* 818
tribulosus Wood, *Xyleborinus* 818
tricolor (Lea), (*Cryphalus*), *Scolytogenes* 866
tricolor (Schedl), (*Acrantus*), *Chaetoptelius*
(= *versicolor*) 104
tricolor (Schedl), (*Leperisinus*), *Chaetoptelius* 103
Tricolus Blandford 1042
tridens (Mannerheim), (*Bostrichus*), *Ips* 527
tridens (Schedl), (*Mimips*), *Acanthotomicus* 484
tridens eugelmanni Swaine, *Ips* (= *tridens*) 528
tridens tridens, *Ips* (= *tridens*) 527
tridentatum (Schedl), (*Cosmocorynus*),
Monarthrum 1063
tridentatus (Schedl), (*Mimips*), *Acanthotomicus* 484
tridentatus Eggers, *Ips* (= *robustus*) 522
tridentatus Hopkins, (*Stephanoderes*),
Hypothenemus (= *sparsus*) 945
trifasciatus Schedl, (*Cosmocorynus*), *Monarthrum*
(= *laterale*) 1057
trifolii Muller, (*Dermestes*), *Hylastinus* (= *obscurus*) 66
trigintispinatus Sampson, *Webbia* 833
Trigonogenius Hagedorn (= *Pityophthorus*) 976
trimaeculatus Schedl, (*Problechilus*), *Gymnochilus*
(= *consocius*) 386
trinidadensis Schedl, *Xyleborus* (= *carabicus*) 717
trinitatis (Hopkins), (*Stephanoderes*),
Hypothenemus 946
trionatus Eichhoff, *Scolytus* (= *multistriatus*) 345
Triotennus Wollaston 540
Trischidias Hopkins 946
triseriatus Schedl, (*Phloeosinopsis*),
Phloeosinopsioides 239
trispinatus Browne, *Xyleborus* 779
trispinatus Schedl, *Hyllocurus* 428
trispinosus Eggers, *Scolytodes* 400
trispinosus Strohmeier, *Scolytus* 378
tristriculus Ferrari, (*Dryocoetes*), *Taplororychus*
(= *bicolor*) 557
tristiculus Wood, *Xyleborus* 779
tristis (Eggers), (*Xyleborus*), *Eucallacea* 694
tristis (Eichhoff), (*Stephanoderes*),
Hypothenemus 946
tristis Blandford, *Hylesinus* (= *costatus*) 77
tritici Hopkins, *Hypothenemus* (= *californicus*) 912
triton (Schaufuss), *Ambrosiodmus* 681

<i>trivialis</i> Wood, <i>Hypothenemus</i>	946	<i>tuberculatus</i> (Chapuis), (<i>Rhopalopleurus</i>), <i>Chramescus</i>	270
<i>Trogoditica</i> Sanjpson (= <i>Acacacis</i>)	193	<i>tuberculatus</i> (Eggers), (<i>Dryotomus</i>), <i>Phlocotribus</i>	235
<i>trolaki</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	681	<i>tuberculatus</i> (Eggers), (<i>Hylurgus</i>), <i>Hylurgonotus</i>	187
<i>tropicalis</i> Wood, <i>Pseudopityophthorus</i> (= <i>pruinosis</i>)	975	<i>tuberculatus</i> (Eggers), (<i>Ips</i>), <i>Acanthotomicus</i>	484
<i>tropicus</i> (Browne), (<i>Trypodendron</i>), <i>Indocryphalus</i>	649	<i>tuberculatus</i> (Eggers), (<i>Xyleboricus</i>), <i>Arixyleborus</i>	669
<i>tropicus</i> (Hagedorn), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	681	<i>tuberculatus</i> (Schedl), (<i>Eidophelus</i>), <i>Cyrtogenius</i>	569
<i>tropicus</i> (Schedl), (<i>Orthotomicus</i>), <i>Acanthotomicus</i>	454	<i>tuberculatus</i> Bright, (<i>Neodryocoetes</i>), <i>Araptus</i> (= <i>macer</i>)	959
<i>tropicus</i> Eggers, <i>Polygraphus</i>	301	<i>tuberculatus</i> Bright, <i>Carphoborus</i> (= <i>pimicolens</i>)	308
<i>tropicus</i> Eichhoff, <i>Coccotrypes</i> (= <i>dactyliperda</i>)	601	<i>tuberculatus</i> Eggers, <i>Corthylus</i>	1050
<i>trucis</i> (Wood), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	866	<i>tuberculatus</i> Eggers, <i>Hylurgops</i>	43
<i>trucis</i> Wood, <i>Corthylus</i>	1050	<i>tuberculatus</i> Eggers, <i>Phlocotribus</i> (= <i>demessus</i>)	220
<i>truncatellus</i> (Schedl), (<i>Xyleborus</i>), <i>Dryocoetoides</i>	655	<i>tuberculatus</i> Eggers, <i>Sternobothrus</i>	216
<i>truncatellus</i> Schedl, (<i>Xyleborus</i>), <i>Xylosandrus</i> (= <i>cylindrotomicus</i>)	793	<i>tuberculatus</i> Eichhoff, <i>Pityophthorus</i>	1032
<i>truncaticaula</i> Browne, <i>Xyleborus</i>	779	<i>tuberculatus</i> Hagedorn, <i>Diamerus</i> (= <i>pimelioides</i>)	197
<i>truncatiferus</i> (Schedl), (<i>Xyleborus</i>), <i>Amasa</i>	685	<i>tuberculatus</i> Motschulsky, (<i>Anodius</i>), <i>Xyleborus</i> (= <i>perforans</i>)	761
<i>truncatiformis</i> (Eggers), (<i>Xyleborus</i>), <i>Amasa</i>	655	<i>tuberculatus</i> Schedl, (<i>Mimips</i>), <i>Acanthotomicus</i> (= <i>tuberculifer</i>)	454
<i>truncatipennis</i> (Schedl), (<i>Xyleborus</i>), <i>Xyleborinus</i>	818	<i>tuberculatus</i> Schedl, <i>Cladotomus</i>	239
<i>truncatorus</i> Schedl, <i>Amphicranus</i>	1050	<i>tuberculatus</i> Schedl, <i>Cryphalus</i>	897
<i>truncatulus</i> Schedl, <i>Xyleborus</i>	779	° <i>tuberculatus</i> Schedl, <i>Hylurgops</i> (= <i>tuberculifer</i>)	43
<i>truncatus</i> (Erichson), (<i>Tomicus</i>), <i>Amasa</i>	655	<i>tuberculatus</i> Strohmeyer, <i>Ozopemou</i>	590
<i>truncatus</i> Bright, <i>Pseudopityophthorus</i> (= <i>declivis</i>)	972	<i>tuberculatus</i> Wollaston, <i>Aphanarthrum</i> (= <i>jubae</i>)	619
<i>truncatus</i> Browne, <i>Scolytopytypus</i>	407	<i>tuberculatus</i> Wood, <i>Thysanoes</i>	421
<i>truncatus</i> Eichhoff, <i>Bothrosternus</i>	215	<i>tuberculifer</i> (Eggers), (<i>Brachyspartus</i>), <i>Corthylocurus</i>	1069
<i>truncatus</i> Sharp, <i>Xyleborus</i> (= <i>rulcanus</i>)	783	<i>tuberculifer</i> (Eggers), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	703
<i>truncatus</i> Stebbing, (<i>Acanthotomicus</i>), <i>Amasa</i> (= <i>schlichii</i>)	684	° <i>tuberculifer</i> (Schedl), (<i>Phlocosinus</i>), <i>Phlocosinus</i>	258
<i>truncatus</i> Wood, <i>Corthylus</i>	1050	<i>tuberculifer</i> Schedl, <i>Cyrtogenius</i>	569
<i>truncatus</i> Wood, <i>Micracis</i> (= <i>lignator</i>)	433	<i>tuberculifer</i> Wood, <i>Acanthotomicus</i>	454
<i>truncatus</i> Wood, <i>Pseudothysanoes</i>	418	° <i>tuberculifer</i> Wood, <i>Hylurgops</i>	43
<i>trunculus</i> Bright, <i>Pityophthorus</i>	1032	<i>tuberculosisissimum</i> (Eggers), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	703
<i>trunculus</i> Wood, <i>Corthylus</i>	1050	<i>tuberculosis</i> (Browne), (<i>Phlocosinus</i>), <i>Hyledius</i>	261
<i>trux</i> (Schedl), (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	681	<i>tuberculosis</i> Browne, <i>Xyleborus</i>	779
<i>trux</i> Schedl, <i>Arixyleborus</i>	669	<i>tuberculosis</i> Hagedorn, <i>Hypothenemus</i> (= <i>eruditus</i>)	921
<i>trypanaeoides</i> Wollaston, (<i>Tomicus</i>), <i>Xyleborus</i> (= <i>ferugineus</i>)	737	<i>tuberculosis</i> Herbst, (<i>Bostrichus</i>), <i>Xyleborus</i> (= <i>monographus</i>)	753
<i>trypanoides</i> Beeson, <i>Cryphalus</i>	897	<i>tuberopectus</i> Huang & Yin, <i>Hyorhynchus</i>	192
<i>Trypanophellos</i> Bright (= <i>Liparthrum</i>)	274	<i>tuberosus</i> (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	946
<i>trypanus</i> Sampson, <i>Cryphalus</i>	897	<i>tuberosus</i> Niisima, <i>Crypturgus</i>	629
<i>Trypocranus</i> Eichhoff (= <i>Monarthrum</i>)	1050	<i>Tabuloscolytus</i> Bntovitsch (= <i>Scolytus</i>)	321
<i>Trypodendrina</i> Tredl (= <i>Xyloterini</i>)	632	<i>tuleanus</i> Hagedorn, <i>Corthylus</i>	1050
<i>Trypodendrinae</i> Tredl (= <i>Xyloterini</i>)	632	<i>tumidulus</i> Blandford, <i>Chramescus</i> (= <i>pumilus</i>)	268
<i>Trypodendron</i> Stephens	632	<i>tumidulus</i> Wood, <i>Pseudothysanoes</i>	418
<i>Trypographus</i> Schedl (= <i>Hylesinopsis</i>)	92	<i>tumidus</i> (Schedl), (<i>Xyleborus</i>), <i>Eucallacca</i>	694
<i>Trypophloeinae</i> Nusslin (= <i>Cryphalini</i>)	842	<i>tumidus</i> Blackman, <i>Pityophthorus</i>	1032
<i>Trypophloeus</i> Fairmaire	842	<i>tumucensis</i> Hagedorn, <i>Xyleborus</i>	779
<i>tsugae</i> (Swaine), (<i>Eccoptogaster</i>), <i>Scolytus</i>	378	<i>tungamucansolus</i> (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	946
<i>tsugae</i> Swaine, <i>Pseudohylesinus</i>	113	<i>tunggali</i> (Schedl), (<i>Pocellips</i>), <i>Coccotrypes</i>	613
<i>tsugae</i> Swaine, <i>Xyleborinus</i> (= <i>saxseni</i>)	815		
<i>tsugae</i> Tsai & Yin, <i>Sphaerotrypes</i>	201		
<i>tsukubanus</i> Murayama, <i>Xyleborus</i>	779		
<i>tuberculatum</i> Wollaston, <i>Aphanarthrum</i> (= <i>jubae</i>)	618		
<i>tuberculatus</i> (Browne), (<i>Euptilius</i>), <i>Ernoporus</i>	857		

- tunggali* Schedl, *Xyleborus* 780
- tupolevi* Eggers, (*Leperisinus*), *Hylesinus*
(=*tupolevi*) 85
- tupolevi* Stark, *Hylesinus* 85
- tupolevi denticulosus* Sokanovskii, *Hylesinus*
(=*tupolevi*) 85
- turbiculus* Schedl, *Pityophthorus* 1032
- turbinatum* Schedl, (*Pterocyclon*), *Monarthrum*
(=*fimbriaticorne*) 1056
- turbinatus* Maiti & Saba, *Webbia* 833
- turbineus* (Sampson), (*Xyleborus*),
Cryptoxyleborus 829
- turgidus* (Schedl), (*Xyleborus*), *Ambrosiodmus* 681
- turkestanicus* Scmcenov, *Phloeosinus* 255
- turnboui* Wood, *Pseudothysanoes* 418
- turraeanthus* Schedl, *Xyleborus* 780
- tutuilaensis* Schedl, *Hypocryphalus* 872
- tutuilaensis* Beeson, (*Thamurgides*), *Coccotrypes*
(=*advena*) 592
- tutulus* Bright, *Pityophthorus* 1032
- tycon* Blandford, *Scolytoplatypus* 407
- typographus* (Linnaeus), (*Dermestes*), *Ips* 528
- typographus japonicus* Niisima, *Ips*
(=*typographus*) 535
- uapouensis* (Beeson), (*Ericryphalus*), *Cryphalus* 897
- uchimappensis* Murayama, *Polygraphus*
(=*japonicus*) 288
- ugandae* Schedl, *Polygraphus* 301
- ugandaensis* Schedl, *Xyleborus* 780
- ugandensis* Nunberg, *Thamurgus* (= *senecionis*) 546
- ulmi* Redtenbacher, *Scolytus* (= *multistriatus*) 353
- ulmi* Tsai & Yin, *Sphaerotrypes* 202
- umbraticus* (Schedl), (*Neodryocoetes*), *Araptus* 962
- umbratulus* (Schedl), (*Xyleborus*), *Anasa* 685
- umbratum* (Eggers), (*Xyleborus*), *Cyclorhpidion* 703
- umbratus* (Schedl), (*Mimiopterus*), *Mimiocturus* 950
- umbratus* Schedl, (*Conophthoeranulus*),
Dendroterus (= *mexicanus*) 951
- umbratus* Wood, *Microcorthyus* 1067
- umbrinum* (Blandford), (*Pterocyclon*),
Monarthrum 1063
- uncatus* (Schedl), (*Cryphalophilus*), *Scolytogenes* 866
- uncatus* Schedl, *Xyleborus* 780
- uncinatus* (Eichhoff), (*Xylocleptes*),
Dendrocranulus 553
- uncinatus* Wood, (*Mimips*), *Acanthotomicus*
(=*granulatus*) 481
- unctus* Wood, *Dactylipalpus* (= *niger*) 102
- uncus* (Schedl), (*Ips*), *Acanthotomicus* 484
- undatus* (Schedl), (*Xyleborus*), *Xyleborinus* 818
- undulata* (Sampson), (*Xyleborus*), *Coptodryas* 827
- unicolor* Eichhoff, (*Xyloterus*), *Xyloterinus*
(=*politus*) 650
- unicolor* Hopkins, (*Stephanoderes*), *Hypothenemus*
(=*eruditus*) 923
- unicornis* Nobuchi, *Hyorthynchus* 192
- unicornis* Wood, *Chramesus* 270
- unicornis* Wood, *Micracis* 434
- unicus* (Schedl), (*Eidophelus*), *Cyrtogenius* 569
- unidentatus* Bright, *Tricholus* 1045
- unidentatus* Fabricius, (*Bostrichus*), *Taurodemus*
(=*varians*) 786
- unifasciatum* (Schedl), (*Cosmocorymus*),
Monarthrum 1063
- uniformis* (Schedl), (*Mimips*), *Acanthotomicus* 484
- uniformis* Endrodi, *Hylesinus* (= *varius*) 86
- uniformis* Schedl, *Xylechinus* 119
- uniformis* Wood & Huang, *Pseudoxylechinus* 114
- unimodus* (Schedl), (*Cryptocleptes*),
Pseudothysanoes 415
- unimodus* Beeson, (*Xyleborus*), *Eucallacca*
(=*bicolor*) 687
- unipunctatus* (Blandford), (*Hexacolus*),
Scolytodes 400
- uniseptis* Schedl, *Corthyus* 1080
- uniseriata* (Eggers), (*Bothryperus*), *Phrixosoma* 190
- uniseriatum* Schedl, *Ctonoxylon* 835
- uniseriatum* Schedl, *Pycnarthrum* 386
- uniseriatus* (Schedl), (*Mimiopterus*),
Mimiocturus 950
- uniseriatus* Eggers, (*Stephanoderes*), *Hypothenemus*
(=*crudiae*) 915
- uniseriatus* Eggers, (*Thamurgides*), *Coccotrypes*
(=*duplophilus*) 602
- uniseriatus* Eggers, (*Xyleborus*), *Anasa* (= *schliehi*) 684
- uniseriatus* Eggers, *Coccotrypes* 613
- uniseriatus* Eggers, *Dryocoetes* 586
- uniseriatus* Eggers, *Ozopemon* 590
- uniseriatus* Eggers, *Phloeotribus* 235
- uniseriatus* Schedl, *Camptocerus* (= *major*) 319
- unispinosus* LeConte, *Scolytus* 379
- unispinosus* Schevyrew, *Scolytus* (= *jaroschewskii*) 336
- upoluensis* (Schedl), (*Xyleborus*), *Ambrosiodmus* 681
- upoluensis* Schedl, *Cryphalus* 897
- Urdugraphus* Beeson (= *Polygraphus*) 284
- urichi* Sampson, (*Xyleborus*), *Dryocoetoides*
(=*cristatus*) 657
- ursa* (Eggers), (*Xyleborus*), *Xylosandrus* 801
- ursinus* (Hagedorn), (*Xyleborus*), *Xylosandrus* 801
- ursulus* (Eggers), (*Xyleborus*), *Xylosandrus* 801
- ursus* Eggers, (*Xyleborus*), *Hadrodemius* (= *globus*) 819
- ursus* Schedl, *Amphicranus* 1050
- ursus* Sokanovskii, *Dryocoetes* (= *baikalicus*) 579
- ursus fuscus* Eggers, (*Xyleborus*), *Hadrodemius*
(=*globus*) 819
- usagicus* (Eggers), (*Neocryphalus*), *Scolytogenes* 866
- usagicus* (Eggers), (*Xyleborus*), *Coptoborus* 664
- usagicus hembbitalei* Schedl, (*Xyleborus*),
Coptoborus (= *usagicus*) 665
- usagicus subadjunctus* Schedl, (*Xyleborus*),
Coptoborus (= *usagicus*) 664
- usambaricum* Eggers, *Ctonoxylon* (= *flavescens*) 837
- usambaricum* Schedl, *Stephanopodius* 853
- usambaricum* Schedl, *Xylocleptes* 550
- usitata* (Schedl), (*Xyleborus*), *Schedlia* 852

<i>ussuriensis</i> Berger & Kholodkovskii, <i>Scolytoplatus</i> (= <i>tycon</i>)	407	<i>varians</i> Lea, <i>Ficicis</i>	92
<i>ussuriensis</i> Eggers, <i>Cryphalus</i> (= <i>kurenzoti</i>)	552	<i>varians</i> Schedl, <i>Pityophthorus</i> (= <i>nitidus</i>)	1016
<i>ussuriensis</i> Eggers, <i>Dryocoetes</i>	586	<i>varicus</i> Schedl, <i>Arixyleborus</i> (= <i>sus</i>)	669
<i>ussuriensis</i> Kurenzov, <i>Scolytus</i> (= <i>japonicus</i>)	335	<i>variegatus</i> (Blandford), (<i>Hylastes</i>), <i>Pseudohylesinus</i>	114
<i>ussuriensis</i> Reitter, <i>Ips</i>	538	<i>variegatus</i> (Chapuis), (<i>Phloeosinus</i>), <i>Xylechinus</i>	119
<i>ussuriensis</i> Schedl, <i>Polygraphus</i> (= <i>proximus</i>)	296	<i>variegatus</i> (Eggers), (<i>Pseudophloeotribus</i>), <i>Hylesinopsis</i>	96
<i>ussuriensis</i> <i>rigulosus</i> Eggers, <i>Dryocoetes</i> (= <i>ussuriensis</i>)	586	<i>variegatus</i> Beeson, <i>Diamerus</i> (= <i>variegatus</i>)	195
<i>usticus</i> Wood, <i>Xyleborus</i> (= <i>discretus</i>)	725	<i>variegatus</i> Eggers, <i>Chramesus</i>	270
<i>ustulatus</i> Hagedorn, <i>Xyleborus</i> (= <i>alluaudi</i>)	709	<i>variegatus</i> Eggers, <i>Sphaerotrypes</i>	202
<i>ustum</i> Schedl, <i>Corthyocyclon</i>	1065	<i>variegatus</i> Eggers, <i>Strombophorus</i> (= <i>ericicus</i>)	203
<i>ustus</i> Schedl, <i>Xyleborus</i>	780	<i>variegatus</i> Schedl, <i>Diamerus</i>	195
<i>usurpatus</i> Wood, <i>Sampsonius</i>	656	<i>variegatus</i> Wood & Huang, <i>Pseudoxylechinus</i>	114
<i>utahensis</i> Hopkins, <i>Procryphalus</i>	848	<i>variipennis</i> (Schedl), (<i>Xyleborus</i>), <i>Cyrtogenius</i>	569
<i>utahensis</i> Swaine, <i>Phloeosinus</i> (= <i>serratus</i>)	254	<i>variolatus</i> Bruck, <i>Phloeosinus</i>	259
<i>utahensis</i> Wood, (<i>Ips</i>) (= <i>pilifrons</i>)	517	<i>variolosus</i> Perris, <i>Hylastes</i> (= <i>linearis</i>)	56
<i>uter</i> Eggers, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>birmanus</i>)	910	<i>variolosus</i> Schedl, <i>Cryphalus</i>	897
<i>uter</i> Schedl, <i>Scolytoplatus</i>	407	<i>varipes</i> Eichhoff, <i>Thammurgus</i>	546
<i>uytenboogaarti</i> Eggers, <i>Dactylotrypes</i> (= <i>longicollis</i>)	554	<i>varius</i> (Fabricius), (<i>Bostrichus</i>), <i>Hylesinus</i>	85
<i>vachelliae</i> Blackman, <i>Thysanoes</i> (= <i>texanus</i>)	421	<i>varius</i> (Schedl), (<i>Cryphalomorphus</i>), <i>Scolytogenes</i>	866
<i>vafer</i> (Schedl), (<i>Gnathotrichus</i>), <i>Gnathotrupes</i>	1042	<i>varius</i> Schedl, (<i>Problechilus</i>), <i>Gymnochilus</i> (= <i>minor</i>)	357
<i>vafer</i> Blandford, <i>Hypothenemus</i> (= <i>arecae</i>)	907	<i>varius</i> Wood, <i>Chramesus</i>	270
<i>rafra</i> (Schedl), (<i>Xyleborus</i>), <i>Coptodryus</i>	827	<i>varius</i> Wood, <i>Scolytodes</i>	400
<i>vagabundus</i> (Schedl), (<i>Cosmocorynus</i>), <i>Amphiceranus</i>	1050	<i>varshalovitchi</i> Michalski, <i>Scolytus</i>	380
<i>vagabundus</i> (Wood), (<i>Loganius</i>), <i>Cnemomyx</i>	318	<i>varulus</i> (Wood), (<i>Xyleborus</i>), <i>Taurodemus</i>	787
<i>vagabundus</i> Blandford, <i>Hylecurus</i>	428	<i>vaspatorius</i> Hagedorn, <i>Ambrosiodinus</i> (= <i>desectus</i>)	672
<i>vagabundus</i> Schedl, <i>Xyleborus</i> (= <i>rolulus</i>)	783	<i>vastans</i> Chapuis, <i>Hylastes</i> (= <i>gracilis</i>)	54
<i>vagens</i> (Schedl), (<i>Xyleborus</i>), <i>Cyclorhipidion</i>	704	<i>vastus</i> Wood, <i>Chramesus</i>	270
<i>vagens</i> Eggers, (<i>Phloeosinus</i>), <i>Hyledius</i> (= <i>nitidicollis</i>)	260	<i>vastus</i> Wood, <i>Eupagiocerus</i>	214
<i>vagens</i> Schedl, <i>Strombophorus</i>	204	<i>vateriae</i> (Beeson), (<i>Thammurgides</i>), <i>Coccotrypes</i>	614
<i>valdicianus</i> (Eggers), (<i>Xylechinus</i>), <i>Xylechinomonus</i>	105	<i>vaticae</i> (Numberg), (<i>Taphroborus</i>), <i>Cyrtogenius</i>	569
<i>valens</i> LeConte, <i>Dendroctonus</i>	183	<i>vegrandis</i> Bright, <i>Pityophthorus</i>	1032
<i>valens</i> Sampson, <i>Hypothenemus</i> (= <i>birmanus</i>)	910	<i>velatus</i> (Sampson), (<i>Xyleborus</i>), <i>Euwallacea</i>	694
<i>validicornis</i> Schedl, (<i>Xyleborus</i>), <i>Xyleborinus</i> (= <i>artelineatus</i>)	805	<i>velatus</i> Schedl, <i>Gnathotrupes</i>	1042
<i>validus</i> (Eichhoff), (<i>Xyleborus</i>), <i>Euwallacea</i>	694	<i>velutinus</i> (Wood), (<i>Paracorthyus</i>), <i>Metacorthyus</i>	1065
<i>validus</i> Blandford, <i>Hypothenemus</i> (= <i>erectus</i>)	918	<i>velutinus</i> Wood, <i>Dryocoetoides</i>	659
<i>validus</i> <i>valens</i> Sampson, <i>Hypothenemus</i> (= <i>birmanus</i>)	910	<i>velutinus</i> Wood, <i>Pityoborus</i>	969
<i>vallatus</i> Wood, <i>Pseudothysanoes</i>	418	<i>venezuelensis</i> (Schedl), (<i>Phloeophthorus</i>), <i>Phloeotribus</i>	235
<i>vallidum</i> (Ferrari), (<i>Corthyus</i>), <i>Monarthrum</i>	1063	<i>venezuelensis</i> Schedl, <i>Pityophthorus</i>	1033
<i>vancouveri</i> Swaine, <i>Ips</i> (= <i>montanus</i>)	513	<i>ventralis</i> LeConte, <i>Scolytus</i>	380
<i>vandykei</i> Bruck, <i>Carphoborus</i>	310	<i>ventralis</i> Sharp, <i>Pachycotes</i> (= <i>peregrinus</i>)	157
<i>vandykei</i> Swaine, <i>Phloeosinus</i>	258	<i>ventrosus</i> Scheyvrew, <i>Scolytus</i>	382
<i>vauryaue</i> Brownie, <i>Xyleborus</i>	780	<i>venturina</i> Hopkins, (<i>Xyloleptes</i>), <i>Dendrocranus</i> (= <i>cucurbitae</i>)	551
<i>variabilis</i> (Beeson), (<i>Thammurgides</i>), <i>Coccotrypes</i>	614	<i>venustus</i> Schedl, <i>Xyleborus</i>	780
<i>variabilis</i> (Brownie), (<i>Mimips</i>), <i>Acanthotomicus</i>	484	<i>venustus</i> Wood, <i>Scolytodes</i>	400
<i>variabilis</i> Schedl, <i>Xyleborus</i> (= <i>carabicus</i>)	717	<i>venustus</i> Blackman, <i>Pityophthorus</i>	1033
<i>variabilis</i> Sokanovskii, <i>Scolytus</i> (= <i>scolytus</i>)	371	<i>venustus</i> Schedl, (<i>Thylyroos</i>), <i>Corthyus</i>	1081
<i>variabilis</i> Wood, <i>Chramesus</i>	270	<i>venustus</i> Schedl, <i>Ptilopodius</i>	900
<i>varians</i> (Fabricius), (<i>Bostrichus</i>), <i>Taurodemus</i>	786	<i>venustus</i> Wood, <i>Scolytodes</i>	400
		<i>verax</i> Schedl, (<i>Xyleborus</i>), <i>Amasa</i> (= <i>schlichii</i>)	684
		<i>verdicus</i> Wood, <i>Pseudothysanoes</i>	418
		<i>vernaculum</i> (Schedl), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1064

- vernaculus* (Schedl), (*Brachyspartus*),
Corthylocurus 1069
- vernaculus* Schedl, *Xyleborus* 750
- verrucifrons* Tsai & Yin, *Polygraphus* 301
- rerrucosus* Wood, *Dryocoetoides* 659
- rerrucosus* Wood, *Hyllocurus* 428
- versicolor* (Sampson), (*Xyleborus*), *Amasa* 685
- versicolor* Wood, *Chaetoptelius* 104
- verticillus* Wood, *Pseudothysanoes* 418
- rescula* Wood, *Micracisella* 431
- resculus* Wood, *Araptus* 962
- resculus* Wood, *Hypothenemus* 946
- resculus* Wood, *Phloeotribus* 235
- resculus* Wood, *Pityophthorus* 1033
- resculus* Wood, *Pseudothysanoes* 418
- resculus* Wood, *Scolytodes* 400
- rescus* Wood, *Microcorthyus* 1067
- vespatorius* (Schedl), (*Xyleborus*), *Coptoborus* 665
- vespatorius* Hagedorn, *Ambrosiodinus* (= *desectus*) 672
- vespertinus* Bright, *Pityophthorus* 1033
- vestigator* (Schedl), (*Xyleborus*), *Cryptoxyleborus* 829
- vestitum* Wollaston, *Aphanarthrum* (= *bicinctum*) 617
- vestitus* (Eggers), (*Loganius*), *Cnemomyx* 318
- vestitus* (Eggers), (*Problechilus*), *Scolytodes* 400
- vestitus* (Mulsant & Rey), (*Hylesinus*),
Chaetoptelius 104
- vestitus* Blandford, *Cryphalus* 897
- vestitus* Brown, *Dendrotropes* (= *costiceps*) 106
- vestitus* Eggers, *Cnesinus* 212
- vestitus* Eggers, *Phloeotribus* 235
- vestitus* Schedl, *Xyleborus* (= *adusticollis*) 706
- rexans* (Schedl), (*Xyleborus*), *Dryocoetoides* 659
- rexator* (Browne), (*Spongotarsus*), *Polygraphus* 302
- rexator* Reitter, *Scolytus* (= *koltzei*) 338
- rexator* Schedl, *Cnesinus* 212
- rianai* Schedl, (*Conophthoracranulus*),
Spermophthorus (= *apuleiae*) 971
- rianai* Schedl, *Cnemomyx* (= *floricornis*) 315
- rianai* Schedl, *Hyllocurus* 428
- rianai* Schedl, *Hypothenemus* (= *eruditus*) 925
- rianai* Schedl, *Pseudochramesus* 262
- riaticus* Schedl, *Xyleborus* 780
- riburni* Eggers, *Cryphalus* (= *riburni* Stark) 898
- riburni* Stark, *Cryphalus* 897
- vicarius* Beeson, (*Thammurgides*), *Corcortrypes*
(= *advena*) 593
- vicarius* Eichhoff, *Xyleborus* (= *pfeili*) 763
- vicinalis* Wood, *Dendrocraunulus* 554
- vicinum* (Schedl), (*Pterocyclus*), *Monarthrum* 1064
- vicinus* (Eggers), (*Prionosecles*), *Scolytodes* 400
- vicinus* Comolli, (*Hylesinus*), *Kissophagus*
(= *hederae*) 68
- vicinus* Eichhoff, *Xyleborus* 780
- vicinus* LeConte, (*Xyleborus*), *Orthotomicus*
(= *caelatus*) 469
- vicinus* Wood, *Dendrocraunulus* 554
- vicinus* Wood, *Microcorthyus* 1067
- victoris* Mulsant & Rey, (*Bostrichus*), *Dryocoetes*
(= *autographus*) 578
- viduus* Eichhoff, *Xyleborus* 750
- vietnamensis* Schedl, *Polygraphus* 302
- vigilans* (Schedl), (*Xyleborus*), *Cyclorhipidion* 704
- vilis* (Blandford), (*Phloeosinus*), *Hyleidius* 261
- villiersi* (Lepesme), (*Thammurgus*), *Dendrochilus* 435
- villiersi* Schedl, *Triotennus* 541
- villifer* Wood, *Corthyus* 1081
- villifrons* (Dufour), (*Bostrichus*), *Taphrorhynchus* 560
- villifrons* Wood, *Hyllocurus* 429
- villosulus* (Blandford), (*Xyleborus*), *Theoborus* 661
- villosulus* Lacordaire, *Phloeotribus* (= sp.?) 215
- villosus* (Fabricius), (*Bostrichus*), *Dryocoetes* 586
- villosus* Eggers, *Corthyus* 1080
- villosus* Herbst, *Dryocoetes* (= *autographus*) 576
- villosus* Ratzeburg, (*Bostrichus*), *Xyleborus*
(= *cryptographus*) 722
- villosus* Schedl, (*Xyleborus*), *Theoborus*
(= *villosulus*) 662
- villosus* Schedl, *Pachycotes* 185
- villosus minor* Eggers, *Dryocoetes* (= *villosus*) 586
- villosus starhoni* Reitter, *Dryocoetes* (= *villosus*) 586
- villus* Bright, *Corthyus* 1081
- viminalis* Bright, *Pityophthorus* 1033
- vinealis* Bright, (*Neodryocoetes*), *Araptus*
(= *tabogae*) 962
- vinealis* Wood, *Chramesus* 270
- vinealis* Wood, *Dendrocraunulus* 554
- vinulus* Wood, *Araptus* 963
- vinogradovi* (Semenov), (*Phloeophthorus*),
Phloeotribus (= *rhododactylus*) 230
- virentis* Hopkins, (*Stephanoderes*), *Hypothenemus*
(= *seriatus*) 942
- virgatus* Bright, *Scolytus* 352
- virginianae* Hopkins, *Conophthorus* (= *resenosae*) 967
- virilis* Blackman, *Pityophthorus* 1033
- virilis* Wood, *Pseudopityophthorus* 976
- viriosa* Wood, *Phrixosoma* 190
- virtus* Schedl, *Pityophthorus* 1033
- viruensis* Browne, *Xyleborus* 780
- viscicolens* Wood, *Pseudothysanoes* 418
- viscivorus* Wood, *Pseudothysanoes* 418
- rismiocolens* Wood, *Cnemomyx* 318
- rismiae* Eggers, (*Loganius*), *Cnemomyx*
(= *minusculus*) 317
- rismiae* Wood, *Xyleborus* 780
- Vitaderes* Beeson (= *Cosmoderes*) 901
- ritei* Wood, *Dendroctonus* 156
- ritiensis* Browne, *Cryphalus* 897
- ritiosus* Schedl, *Xyleborus* (= *adelographus*) 706
- ritiosus* Wood, *Chramesus* 270
- ritis* Browne, *Hypothenemus* 946
- ritatum* (Blandford), (*Pterocyclus*), *Monarthrum* 1064
- rittatus* (Fabricius), (*Bostrichus*), *Pteleobius* 70
- rittatus* Eggers, *Strambophorus* 204
- rittatus* Schedl, *Xylechinus* 119

<i>rittifrons</i> Blandford, <i>Dendrosinus</i>	237	<i>woodi</i> Schedl. (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	
<i>rittiger</i> Eichhoff, <i>Trypodendron</i> (= <i>lineatum</i>)	643	(= <i>devexulus</i>)	673
<i>ritulus</i> Wood, <i>Micracis</i>	434	<i>woodi</i> Thatcher, <i>Ips</i>	538
<i>roarotrae</i> (Schedl), (<i>Xyleborus</i>), <i>Eucallacea</i>	695	° <i>worthini</i> Scudder, (<i>Polygraphus</i>), not <i>Scolytidae</i>	284
<i>rolastos</i> (Schedl), (<i>Thamnoptorus</i>), <i>Araptus</i>	963	<i>xalapae</i> Atkinson, <i>Chramesus</i>	270
<i>rolcanus</i> Wood, <i>Scolytodes</i>	400	<i>xalapae</i> Wood, <i>Pseudopityophthorus</i>	976
<i>rolustus</i> Eggers, <i>Dendrocraulus</i> (=sp?)	550	<i>xalapensis</i> Wood, <i>Monarthrum</i>	1064
<i>rolulum</i> (Eichhoff), (<i>Pterocyclon</i>), <i>Monarthrum</i>	1064	<i>xanthophloae</i> (Schedl), (<i>Stephanoderes</i>), <i>Hypothenemus</i>	946
<i>rolulus</i> (Fabricius), (<i>Bostrichus</i>), <i>Xyleborus</i>	750	<i>xanthophloae</i> Schedl, <i>Lanurgus</i>	409
<i>rolulus</i> Schedl, <i>Pityophthorus</i>	1033	<i>xanthophylli</i> (Browne), (<i>Phloeosinus</i>), <i>Hyleidius</i>	261
<i>rorontzowi</i> (Jacobson), (<i>Tomicus</i>), <i>Pityoketes</i>	466	<i>xanthophyllus</i> Schedl, <i>Xyleborus</i>	783
<i>ryrdaghi</i> (Nunberg), (<i>Apoglostatus</i>), <i>Glostatus</i>	836	<i>xanthopus</i> (Eichhoff), (<i>Xyleborus</i>), <i>Eucallacea</i>	695
<i>ryrdaghi</i> Nunberg, <i>Pityophthorus</i>	1033	<i>xanthopus</i> Dejean, (<i>Bostrichus</i>), <i>Eucallacea</i> (= <i>xanthopus</i> Eichhoff)	696
<i>rulcanus</i> Perkins, <i>Xyleborus</i>	783	<i>xaverti</i> Reitter, <i>Polygraphus</i> (= <i>subopacus</i>)	300
<i>vulgaris</i> (Eggers), (<i>Dendrognus</i>), <i>Coccotrypes</i>	614	<i>Xelyborus</i> Schedl (= <i>Webbia</i>)	829
<i>vulgaris</i> Schauffuss, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>seriatus</i>)	941	<i>Xenophthorus</i> Wood & Yin (= <i>Pseudopityophthorus</i>)	971
<i>vulgaris</i> Wood, <i>Stegomerus</i>	852	<i>Xestips</i> Hagedorn (= <i>Xylocleptes</i>)	547
<i>culpina</i> (Schedl), (<i>Xyleborus</i>), <i>Schedlia</i>	822	<i>Xylebori</i> LeConte (= <i>Xyleborini</i>)	651
<i>waechtli</i> Reitter, <i>Hylesinus</i>	89	<i>Xyleboricus</i> Eggers (= <i>Arixyleborus</i>)	665
<i>wadai</i> Murayama, <i>Pseudohyorrhynchus</i>	192	<i>Xyleboridae</i> LeConte (= <i>Xyleborini</i>)	651
<i>wakayamensis</i> Nobuchi, <i>Xyleborus</i>	353	<i>Xyleborinae</i> LeConte (= <i>Xyleborini</i>)	651
<i>walkeri</i> (Blandford), (<i>Cryptarthrum</i>), <i>Cryphalus</i>	898	<i>Xyleborina</i> LeConte (= <i>Xyleborini</i>)	651
<i>wallacei</i> (Blandford), (<i>Hylesinus</i>), <i>Ficicis</i>	92	<i>Xyleborini</i> Leconte	651
<i>wallacei</i> (Blandford), (<i>Xyleborus</i>), <i>Eucallacea</i>	695	<i>Xyleborinus</i> Reitter	803
<i>wallacei</i> <i>indocorus</i> Schedl, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>wallacei</i>)	695	<i>Xyleborrips</i> Reitter (= <i>Xyleborus</i>)	704
<i>wapleri</i> Eichhoff, <i>Cryphalus</i>	898	<i>Xyleborites</i> Wickham	1082
<i>waringi</i> Curtis, (<i>Bostrichus</i>), <i>Trypodendron</i> (= <i>signatum</i>)	647	<i>Xyleborus</i> Eichhoff	704
<i>watsoni</i> Schedl, <i>Pityophthorus</i> (= <i>murrayanae</i>)	1014	<i>Xylechinides</i> Nusslin (= <i>Tomicini</i>)	103
<i>webbi</i> Blackman, <i>Hylastes</i> (= <i>porculus</i>)	61	<i>Xylechinites</i> Hagedorn	1082
<i>webbi</i> Hopkins, <i>Hypothenemus</i> (= <i>eruditus</i>)	922	<i>Xylechinops</i> Browne (= <i>Xylechinus</i>)	114
<i>webbi</i> Hopkins, <i>Xyleborus</i> (= <i>subcostatus</i>)	776	<i>Xylechinus</i> Schedl	104
<i>Webbia</i> Hopkins	829	<i>Xylechinus</i> Chapuis	114
<i>Webbinae</i> Hopkins (= <i>Xyleborini</i>)	651	<i>Xylochilus</i> Schedl (= <i>Dendroterus</i>)	950
<i>whitfordiendrus</i> Schedl, (<i>Xyleborus</i>), <i>Eucallacea</i> (= <i>fornicatus</i>)	690	<i>Xylocleptes</i> Ferrari	547
<i>whitteni</i> Beeson, <i>Xyleborus</i> (= <i>perforans</i>)	761	<i>xylocracllus</i> Schedl, (<i>Xyleborus</i>), <i>Premnobius</i> (= <i>cavipennis</i>)	652
<i>wickhami</i> Blackman, <i>Scolytus</i> (= <i>reflexus</i>)	364	<i>Xylocryptus</i> Schedl (= <i>Scolytogenus</i>)	858
<i>wickhami</i> Hopkins, <i>Dendroctonus</i> (= <i>rufipennis</i>)	173	<i>Xyloctonidae</i> Eichhoff (= <i>Xyloctonini</i>)	835
<i>widdringtoniae</i> Schedl , <i>Lanurgus</i>	409	<i>Xyloctoninae</i> Eichhoff (= <i>Xyloctonini</i>)	835
<i>wieslanderi</i> Swaine, <i>Ips</i> (= <i>mexicanus</i>)	512	<i>Xyloctonini</i> Eichhoff	835
<i>wilderi</i> (Beeson) , (<i>Xyleborus</i>), <i>Ambrosiodinus</i>	681	<i>xyloctonoides</i> Schedl , <i>Coriacephilus</i>	854
<i>willei</i> Schedl , <i>Phloeotribus</i>	235	<i>xyloctoniae</i> (Schedl) , (<i>Ctonocryphus</i>), <i>Glostatus</i>	836
<i>winkleri</i> (Reitter) , (<i>Stephanoderes</i>), <i>Hypothenemus</i>	946	<i>Xyloctonus</i> Eichhoff	840
<i>wisteriae</i> Wood , <i>Chramesus</i>	270	<i>Xylogopinus</i> Schedl (= <i>Hylurdretonus</i>)	186
<i>wittei</i> Eggers , <i>Thamurgus</i>	546	<i>xylographus</i> (Say) , (<i>Bostrichus</i>), <i>Xyleborus</i>	783
° <i>wolffi</i> (Schedl) , (<i>Phloeosinities</i>), <i>Phloeosinus</i>	259	<i>xylographus</i> Sahlberg, (<i>Bostrichus</i>), <i>Pityogenes</i> (= <i>chalcographus</i>)	451
<i>wollastoni</i> (Eichhoff) , (<i>Crypturgus</i>), <i>Cisurgus</i>	630	<i>xylographus</i> Schedl , <i>Lanurgus</i>	409
<i>wollastoni</i> Israelson , <i>Aphanarthrum</i>	620	<i>xylophagus</i> Blackman , <i>Thysanoes</i>	421
<i>woodi</i> Bright , <i>Phloeosinus</i> (= <i>hoppingi</i>)	248	<i>xylophagus</i> Wood , <i>Chramesus</i>	270
<i>woodi</i> Bright , <i>Pityophthorus</i>	1033	<i>Xylosandrus</i> Reitter	787
<i>woodi</i> Browne , <i>Scolytominus</i>	840	<i>Xyloteri</i> Lindemann (= <i>Xyloterini</i>)	632
		<i>Xyloteridae</i> Lindemann (= <i>Xyloterini</i>)	632
		<i>Xyloterinae</i> Lindemann (= <i>Xyloterini</i>)	632
		<i>Xyloterini</i> Lindemann	632

<i>Xyloterina</i> Lindemann (=Xyloterini)	632	<i>zapotecus</i> Bright, <i>Cnesinus</i> (= <i>elegantis</i>)	208
<i>Xyloterinus</i> Swaine	649	<i>zeae</i> Eggers, <i>Pagiocerus</i> (= <i>frontalis</i>)	214
Xyloterioidea Lindemann (=Xyloterini)	632	<i>zeae</i> Schedl, (<i>Stephanoderes</i>), <i>Hypothenemus</i> (= <i>californicus</i>)	912
<i>xyloteroides</i> Eggers, <i>Xyleborus</i>	785	<i>zealandicus</i> Wood, <i>Dendrotrapes</i>	106
<i>Xyloterus</i> Erichson, <i>Trypodendron</i>	632	<i>zelus</i> Wood, <i>Corthylyus</i>	1081
<i>xylotrapes</i> (Eichhoff), (<i>Pityophthorus</i>), <i>Araptus</i>	963	<i>zeteki</i> Blackman, <i>Pityophthorus</i> (= <i>subcristatus</i>)	1030
<i>xylotrapes</i> Schedl, <i>Xyleborus</i>	785	<i>zexmenicora</i> Bright, <i>Pityophthorus</i>	1033
<i>yablonianus</i> Murayama, <i>Scolytus</i>	352	<i>zeylanicus</i> Wood, <i>Acacasis</i>	194
<i>yakushimanus</i> (Murayama), (<i>Xyleborus</i>), <i>Arixyleborus</i>	669	<i>zhobi</i> (Stebbing), (<i>Phlocosinus</i>), <i>Carphoborus</i>	310
<i>yamaguchii</i> Inouye & Nobuchi, <i>Cryphalus</i>	595	<i>zhungdianensis</i> Tsai & Yin, <i>Polygraphus</i>	302
<i>yasamatsui</i> Nobuchi, <i>Pseudohylesinus</i> (= <i>sericeus</i>)	113	<i>zicsii</i> (Schedl), (<i>Xyleborus</i>), <i>Eucallacea</i>	697
<i>yavapaii</i> Blackman, <i>Pseudopityophthorus</i>	976	<i>zimmermani</i> Schedl, <i>Cryphalus</i>	595
<i>yohoensis</i> Swaine, <i>Ips</i> (= <i>tridens engelmanni</i>)	525	<i>zimmermani</i> Schedl, <i>Ptilopodius</i> (= <i>marquesanus</i>)	900
<i>yuccae</i> (Wood), (<i>Cryptocleptes</i>), <i>Pseudothysanoes</i>	415	<i>zimmermanni</i> (Hopkins), (<i>Anisandrus</i>), <i>Xylosandrus</i>	501
<i>yuccarorus</i> Wood, <i>Pseudothysanoes</i>	419	<i>zimmermanni</i> Wickham, (<i>Phloeotribus</i>) <i>Curenlionidae</i>	215
<i>yukonis</i> Fall, <i>Hylastes</i> (= <i>nigrinus</i>)	57	<i>zonalis</i> Bright, <i>Pityophthorus</i>	1033
<i>yunnanensis</i> Tsai & Yin, <i>Sphaerotrypes</i>	202	<i>zonatus</i> Eichhoff, <i>Gymnochilus</i>	357
<i>zuchvatkini</i> (Krivolutskaia), (<i>Eocryphalus</i>), <i>Ernoporicus</i>	552	<i>zukevalae</i> Scott, <i>Thamurgus</i>	546
<i>zaitzevi</i> Butovitsch, <i>Scolytus</i>	382	<i>Zyghophloeus</i> Schedl	271
<i>zambianus</i> Beaver, <i>Polygraphus</i>	302		