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A CATALOG OF THE COLEOPTERA OF AMERICA NORTH OF MEXICO

FAMILY: PLATYPODIDAE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURE HANDBOOK NUMBER 529-141

PREPARED BY SCIENCE AND EDUCATION ADMINISTRATION

FAMILIES OF COLEOPTERA IN AMERICA NORTH OF MEXICO

Fascicle [1]	Family	Year issued
1	Cupesidae	
2	Micromalthidae	
3	Carabidae	
4	Rhysodidae	
5	Amphizoidae	
6	Haliplidae	
8	Noteridae	
9	Dytiscidae	
10	Gyrinidae	
13	Sphaeriidae	
14	Hydroscaphidae	
15	Hydraenidae	
16	Hydrophilidae	
17	Georyssidae	
18	Sphaeritidae	
20	Histeridae	
21	Ptiliidae	
22	Limulodidae	
23	Dasyceridae	
24	Micropeplidae	
25	Leptinidae	
26	Leiodidae	
27	Scydmaenidae	
28	Silphidae	
29	Scaphidiidae	
30	Staphylinidae	
31	Pselaphidae	
32	Lucanidae	
33	Passalidae	
34	Scarabaeidae	
35	Eucinetidae	
36	Helodidae	
37	Clambidae	
38	Dascillidae	
39	Rhipiceridae	
40	Byrrhidae	
41	Psephenidae	
42	Brachypsectridae	
43	Artematopidae	
44	Ptilodactylidae	
45	Chelonariidae	
46	Callirhipidae	
47	Heteroceridae	1978
48	Limnichidae	
49	Dryopidae	
50	Elmidae	
51	Buprestidae	
52	Cebrionidae	
53	Elateridae	
54	Throscidae	
55	Cerophytidae	
56	Perothopidae	
57	Eucnemidae	
58	Telegeusidae	
61	Phengodidae	
62	Lampyridae	
63	Cantharidae	
64	Lycidae	
65	Derodontidae	
66	Nosodendridae	
67	Dermestidae	
69	Ptinidae	
70	Anobiidae	
71	Bostrichidae	
72	Lyctidae	
74	Trogositidae	
76	Cleridae	
78	Melyridae	
79	Lymexylidae	
81	Sphindidae	
82	Nitidulidae	
83	Rhizophagidae	
86	Cucujidae	
90	Cryptophagidae	
92	Languriidae	
93	Erotylidae	
94	Phalacridae	
95	Cerylonidae	
96	Corylophidae	
97	Coccinellidae	
98	Endomychidae	
100	Lathridiidae	
102	Biphyllidae	
103	Byturidae	
104	Mycetophagidae	
105	Ciidae	
107	Prostomidae	
109	Colydiidae	
110	Monommatidae	
111	Cephaloidae	
112	Zopheridae	
115	Tenebrionidae	
116	Alleculidae	
117	Lagriidae	
118	Salpingidae	
119	Mycteridae	
120	Pyrochroidae	
121	Othniidae	
122	Inopeplidae	
123	Oedemeridae	
124	Melandryidae	
125	Mordellidae	
126	Rhipiphoridae	
127	Meloidae	
128	Anthicidae	
129	Pedilidae	
130	Euglenidae	
131	Cerambycidae	
132	Bruchidae	
133	Chrysomelidae	
134	Nemonychidae	
135	Anthribidae	
138	Allocorynidae	
140	Brentidae	
141	Platypodidae	1979
142	Scolytidae	
143	Curculionidae	
144	Stylopidae	
145	Fossil Coleoptera	

[1] Missing numbers are those assigned in the computer program to families not found in the United States and Canada.

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A CATALOG OF THE COLEOPTERA OF AMERICA NORTH OF MEXICO

FAMILY: PLATYPODIDAE

BY
STEPHEN L. WOOD
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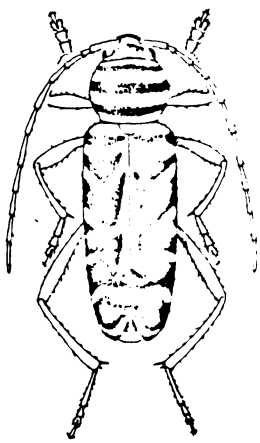

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURE HANDBOOK NUMBER 529-141

PREPARED BY SCIENCE AND EDUCATION ADMINISTRATION

FOREWORD

For the user of scientific names, an up-to-date taxonomic catalog providing currently accepted names and pertinent bibliographic and distributional data is an indispensable tool. Although taxonomic literature is constantly changing to reflect current work, the traditional published taxonomic catalog remains static with updating left to the individual user until it is revised. Production of catalogs in the past has been laborious with long printing delays resulting in data that are obsolete before being published. However, the computer now provides the capability of storing, updating, and retrieving taxonomic data; rapid publication through computer-driven type-setting machinery; and a greater degree of currentness and flexibility.

All 119 fascicles in this catalog of the beetles of America north of Mexico are produced by an original suite of computer programs, designed and written during a pilot project involving personnel of the Systematic Entomology Laboratory and the Communications and Data Services Division, Science and Education Administration.

The published data are stored on computer tape, are updated periodically to reflect taxonomic progress in this family, and are available in a data base for computer searching.

T. W. Edminster, Deputy Director
Agricultural Research
Science and Education Administration

PREFACE

The Coleoptera, or beetles, are represented in the world by about 220,000 described species, of which about 24,000 occur in the United States and Canada. A comprehensive taxonomic catalog of beetles for this area has not been available except the series of world-based "Coleopterorum Catalogus" volumes (1909–present, Junk, Berlin). The Leng "Catalogue of the Coleoptera of America North of Mexico" (J. D. Sherman, Jr., Mt. Vernon, NY), which was published in 1920 with supplements to the end of 1947, is a checklist. However, it has served professional and amateur alike for nearly 60 years as the principal source of scientific names of beetles. Since 1947, many new taxa have been described and many changes in status and nomenclature have appeared in numerous scattered publications, but little effort has been made to summarize these changes.

This catalog will supplant the Leng catalog and supply additional essential information. It is produced by an original suite of storage, retrieval, and printing programs written especially for automated taxonomic catalogs.

The catalog for each family is published as a separate fascicle with its introductory text, bibliography, and index. Each family is numbered as listed, but the order of issuance of fascicles is not necessarily in numerical sequence. The publishing of separate fascicles makes data available shortly after they are assembled. Computer tapes for each fascicle are maintained for updating and necessary reprinting.

The information on each family is the responsibility of the respective author or authors. The editors modify it only to correct obvious errors and to make it conform to the requirements of the computer programs.

No original proposal for a new name, taxon, status, or classification is given, such data having been previously published, but new host and distributional data are often listed. The rules of "The International Code of Zoological Nomenclature" are followed.

The geographic scope of this catalog includes the continental United States, Canada, Alaska, Greenland, and the associated continental islands. Names of taxa found only in other regions are excluded. If the range of a species extends outside these geographic limits, this fact is indicated. Inside the back cover is a map of the 12 faunal regions based on historical and faunal criteria to simplify distribution recordings. Two-letter Postal Service style abbreviations are used for States and Provinces, and faunal regions are indicated in each distribution record by a diagonal line between groups of abbreviations.

It is not the purpose of this catalog to present a complete scheme of higher classification within the order. The familial makeup is somewhat intermediate between that of R. H. Arnett in "The Beetles of the United States" (1960–62, Catholic University Press, Washington, DC) and that of R. A. Crowson in "The Natural Classification of the Families of Coleoptera" (1967, Biddles Ltd., Guildford, England). Modifications of these two systems are largely those advocated by J. F. Lawrence based in part on suggestions by taxonomic specialists for certain families.

Generic groups and higher categories within the family are arranged phylogenetically as indicated by the author of the particular fascicle, and species group names with their respective synonyms are arranged alphabetically.

Names referable to incertae sedis and nomen dubium are listed separately at the end of the nearest applicable taxon with notations as to their status.

Each available name is followed by its author, date proposed, and page number referring to the complete bibliographic citation containing the original description. Following each generic name are

the type-species and method of its designation, necessary explanatory notes, and pertinent references on immature stages, taxonomy, redescription, ecology, and keys. After the specific name entry are the original genus (if different from the present placement), type-locality, geographical distribution by State, Province, and broad extralimital units, explanatory notes, pertinent references to immature stages, taxonomy, redescription, and ecology, depository of type-specimen and its sex, and hosts.

In addition to the list under the map of faunal regions (inside back cover), the following abbreviations are used in this catalog:

Abbreviations, General

Amer. Bor.—America Borealis
Amer. Sept.—America Septentrionalis
Autom.—Automatic
C. Amer.—Central America
Co.—County
Cosmop.—Cosmopolitan
Design.—Designated
F.—Female
Holarc.—Holarctic
Isl.—Island
M.—Male
Mex.—Mexico
Monot.—Monotypy
Mus.—Museum
N. Amer.—North America
Orig. des.—Original designation
Preocc.—Preoccupied
S. Amer.—South America
Sp.—Species
Subseq. monot.—Subsequent monotypy
Subsp.—Subspecies
Taut.—Tautonymy
Univ.—University
USA—United States of America
Var.—Variety
W. Ind.—West Indies

Museums in the Continental United States and Canada [1]

AMNH—American Museum of Natural History, New York
ANSP—Academy of Natural Sciences, Philadelphia, PA
BYUC—Brigham Young University, Provo, UT
CASC—California Academy of Sciences, San Francisco
CISC—University of California, Berkeley
CNCI—Canadian National Collections, Ottawa
CSLB—Long Beach State College, CA
CUIC—Cornell University, Ithaca, NY
CWOB—C. W. O'Brien Collection, Tallahassee, FL
DHKC—D. H. Kistner Collection, Chico State College, CA
ELSC—E. L. Sleeper Collection, Long Beach State College, CA
FMNH—Field Museum of Natural History, Chicago, IL
FSCA—Florida State Collection, Gainesville
HAHC—H. & A. Howden Collection, Ottawa, Canada
ICCM—Carnegie Museum, Pittsburgh, PA
INHS—Illinois Natural History Survey, Urbana
JGEC—J. G. Edwards Collection, San Jose, CA
KMFC—K. M. Fender Collection, McMinnville, OR
KSUC—Kansas State University, Manhattan
LACM—Los Angeles County Museum, CA
LSUC—Louisiana State University, Baton Rouge
MCZC—Museum of Comparative Zoology, Harvard University, Cambridge, MA
MSUC—Michigan State University, East Lansing
NCSM—North Carolina State University, Raleigh
NYSM—New York State Museum, Albany
OSEC—Oklahoma State University, Stillwater
OSUC—Ohio State University, Columbus
OSUO—Oregon State University, Corvallis

[1] Abbreviations for U.S. and Canadian museums abridged from Arnett, R. H., Jr., and Samuelson, G. A., 1969, "Directory of Coleoptera Collections of North America (Canada Through Panama)," Cushing-Malloy, Ann Arbor, MI, 123 pp.

PMNH—Peabody Museum, Yale University, New Haven, CT
PSUC—Pennsylvania State Museum, University Park
PURC—Purdue University, West Lafayette, IN
RUIC—Rutgers University, New Brunswick, NJ
SEMC—Snow Museum, University of Kansas, Lawrence
SJSC—San Jose State College, CA
SLWC—S. L. Wood Collection, Provo, UT
SMSH—Stovall Collection, University of Oklahoma, Norman
TAMU—Texas A. & M. University, College Station
UCDC—University of California, Davis
UMMZ—University of Michigan, Ann Arbor
UMRM—University of Missouri, Columbia
USNM—U.S. National Museum of Natural History, Washington, DC
WSUC—Washington State University, Pullman

Museums in Foreign Countries

BMNH—British Museum (Natural History), London
BPBM—Bernice P. Bishop Museum, Honolulu
GUHC—Glasgow University, Hunterian College, Scotland
HMOX—Hope Museum, Oxford, England
HNHM—Hungarian Natural History Museum, Budapest
IPZE—Institut Pflanzenschutzforschung Zweigstelle, Eberswalde, East Germany
IRSB—Institut Royal Sciences Belgique, Brussels
MFNB—Museum für Naturkunde (Humboldt), Berlin
MGFT—Museum G. Frey, Tutzing, Munich, West Germany
MHNL—Museum d'Histoire Naturelle, Lyon, France
MNHP—Museum National d'Histoire Naturelle, Paris
MNSL—Museum of Natural Sciences, Leipzig, East Germany
MZBS—Museum Zoologia, Barcelona, Spain
NHRS—Naturhistoriske Riksmuseet, Stockholm
NMPC—Narodni Museum, Prague, Czechoslovakia
SCUT—Spinola College, University of Turin, Italy
SMTD—Staatliches Museum für Tierkunde, Dresden, East Germany
UNAM—Universidad Nacional Autonoma, Mexico City
UZMC—University Zoological Museum, Copenhagen, Denmark
UZMH—University Zoological Museum, Helsinki, Finland
ZMAS—Zoological Museum, Academy of Sciences, Leningrad
ZMPA—Zoological Museum, Polish Academy of Sciences, Warsaw
ZMUL—Zoological Museum, University of Lund, Sweden
ZMUM—Zoological Museum, University of Moscow
ZSBS—Zoologische Sammlung Bayerischen Staates, Munich, West Germany

ACKNOWLEDGMENTS

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We thank the following members of the Communications and Data Services Division, SEA: Sandra Strauss and Marianne Kingston for designing and writing the computer programs, and Margaret Seldin for developing the editing system.

J. M. Kingsolver, editor in chief
Systematic Entomology Laboratory, Science and Education Administration
Washington, DC

CONTENTS

Family PLATYPODIDAE

By Stephen L. Wood

These monogamous beetles infest the dying wood of unthrifty, broken, or recently cut trees. The male bores an entrance tunnel through the bark and a short distance into the wood. When a female approaches the entrance hole and identifies herself through tactile or audible means, the male backs out of the tunnel to admit her. Ordinarily mating occurs when the male is on the surface of the bark and the female has the tip of her abdomen protruding from the tunnel. The male then follows the female into the tunnel. After the female has innoculated the gallery walls with spores of the ambrosial fungus she extends the brood tunnel and deposits eggs in the tunnel. The male removes the frass resulting from her activity and guards the entrance hole. The larvae develop in the parental galleries where they feed upon spores of the ambrosial fungus. In many species the mature larvae construct individual pupation chambers as short branches of the parental tunnel. Young adults emerge from the parental entrance hole. One to several generations are produced each year. More than 95 percent of the 1000 known species occur only in tropical areas. A majority of the species are attracted to light.

Subfamily PLATYPODINAE

Tribe PLATYPODINI

Genus PLATYPUS Herbst

Platypus Herbst, 1793: 128. Type-species: *Bostrichus cylindrus* Fabricius (monot.).

Cylindra Illiger, 1825: 87. Type-species: *Cylindra platypus* Illiger (monot.) = *cylindrus* (Fabricius).

Stenoplatypus Strohmeyer, 1914: 35. Type-species: Not yet designated.

Platypinus Schedl, 1939: 397. Type-species: Not yet designated.

Platyscapus Schedl, 1939: 397 (preoccupied Hustache, 1921). Type-species: Not yet designated.

Platyscapulus Schedl, 1957: 125 (replacement name *Platyscapus* Schedl). Type-species: Not yet designated.

Costaroplatus Nunberg, 1963: 109. Type-species: *Costaroplatus shenefelti* Nunberg (monot.).

abietis Wood, 1958: 39. UT: Oak Creek Canyon, Millard Co.; UT/ AZ NM.

HOST: *Abies concolor.*

compositus Say, 1824: 324. MO; MO IL/ NY DE WV VA/ TX/ LA MS AL GA SC NC FL/ Mex., C.Amer., S.Amer., Old World.

tremiferus Chapuis, 1865: 174 (lectotype not designated). LA, TX.

perfossus Chapuis, 1865: 176. LA.

rudifrons Chapuis, 1865: 176. Mex: Teapa, Tabasco.

rugosus Chapuis, 1865: 176 (lectotype not designated). LA, TX.

subcavifrons Chapuis, 1865: 177. Brazil: Rio de Janeiro.

diegensis Schaufuss, 1897: 222. Madagascar.

foraminosus Schedl, 1933: 400. Brazil: Rio de Janeiro.

HOST: Hardwood trees.

flavicornis (Fabricius), 1776: 211 (*Bostrichus*). AMER. BOR.; NJ VA/ LA MS AL GA SC FL.

HOST: *Pinus* spp.

parallelus (Fabricius), 1801: 384 (*Bostrichus*). BRITISH GUIANA: Essequibo; CA/ TX/ FL/ Mex., C.Amer., S.Amer., W.Ind., Old World.

linearis Stephens, 1835: 419. England: Sydenham.
poeyi Guerin-Meneville, 1838: 183. Cuba.
subcostatus Jacquelin-Duval, 1857: 238. Cuba.
dejeani Chapuis, 1865: 186 (lectotype not designated). Brazil and Guyanne.
marseuli Chapuis, 1865: 188. Brazil: Santa Catarina.
proximus Chapuis, 1865: 188. Brazil.
compressus Chapuis, 1865: 191. Venezuela: Caracas.
regularis Chapuis, 1865: 192. Brazil.
rugulosus Chapuis, 1865: 192 (lectotype not designated). Mex: Toxpam and Teapa.
reticulatus Chapuis, 1865: 194. Mex: Teapa, Tabasco.
rotundatus Chapuis, 1865: 195. Mex: Izabal.
kraatzi Chapuis, 1865: 196 (lectotype not designated). Colombia and Brazil.
lebasi Chapuis, 1865: 197. Colombia: Carthagene.
emarginatus Chapuis, 1865: 199. Mex: Toxpam.
punctulatus Chapuis, 1865: 199. TX.
subaequalis Chapuis, 1865: 200. Colombia.
wesmaeli Chapuis, 1865: 201. Argentina: Buenos Aires.
oblongus Chapuis, 1865: 203. Venezuela: Cumana.
difficilis Chapuis, 1865: 204 (lectotype not designated). Brazil and Guyanne.
praevius Chapuis, 1865: 205. Colombia.
maeklini Chapuis, 1865: 207 (lectotype not designated). Colombia and Brazil.
erichsoni Chapuis, 1865: 211. W. Ind: St. Thomas Isl.
laevicollis Chapuis, 1865: 212. W. Ind: Guadeloupe Isl.
congoanus Duvivier, 1891: 363 (lectotype not designated). Congo: Matadi and Ibembo.
triquetrus Brethes, 1909: 226. Argentina: Chaco.
mattai Brethes, 1919: 26. Brazil: Manaos.

HOST: Hardwood trees.

pini Hopkins, 1905: 71. MEX: Chalco; AZ NM/ Mex., C.Amer.

quadridens Schedl, 1937: 38 (lectotype not designated). MEX: Sierra de Durango and Camelas, Durango.

TYPE DEPOSITORY: Synt: Berl. Mus., Schedl.
HOST: *Pinus* spp.

quadridentatus (Olivier), 1795: 5 (*Scolytus*). AMER. SEPT.; WV VA/ TX/ LA MS AL TN GA.

blanchardi Chapuis, 1865: 185. TX.
disciporus Chapuis, 1865: 219. TN.

HOST: *Quercus* spp.

wilsoni Swaine, 1916: 98. BC: Campbell River; BC WA OR ID/ CA.

HOST: Coniferous trees.

BIBLIOGRAPHY

Brethes, J.
1909 Dos neuvos *Platypus* (Col.) argentinos. Anales Museo Nacional de Buenos Aires (1908), ser. 3, vol. 10, pp. 225-227, illus.

Brethes, J.
1919 Quelques insectes de Manaos, avec description d'un *Platypus* (Col.) et d'un *Neomesostenus* (Hym.) nouveaux. Revista Chileana de Historia Natural, vol. 23, pp. 26-28.

Chapuis, F.
1865 Monographie des platypides. Dessain, Liege, 344 pp., illus.

Duvivier, A.
1891 Melanges entomologiques. Annales de la Societe Entomologique de Belge, vol. 35, pp. 361-368.

Fabricius, J. C.
1776 Genera insectorum. Chilonii, 14 pp. and 310 pp.

Fabricius, J. C.
1801 Systema eleutheratorum secundum ordines, genera, species: adiectis synonym is, locis, observationibus, descriptionibus. Bibliopolii Academici, Kiliae, vol. 2, 687 pp. and 77 pp.

Guerin-Meneville, F. E.
1838 Iconographie du regne animal de G. Cuvier, ou representation d'apres nature de l'une des especes les plus remarquables et souvent non encore figurees, de chaque genre d'animaux. Insectes. Paris., vol. 3, 576 pp.

Herbst, J. F. W.
1793 Natursystem aller bekannten in- und auslandischen Insecten, als eine fortsetzung der von Buffonschen Naturgeschichte. Der Kafer, V. Berlin, Pauli, vol. 5, 392 pp., illus.

Hopkins, A. D.
1905 Preprint of: Notes on some Mexican Scolytidae, with descriptions of some new species. Proceedings of the Entomological Society of Washington (1906), vol. 7, pp. 71-81.

Illiger, J. C. W.
1825 *In* C. E. Duftschmid, Fauna Austriaca. Oder Beschreibung osterreichischen Insecten, fur angehende Freunde der entomologie. Linz, vol. 3, 289 pp.

Jacquelin-DuVal, P. N. C.
1857 Coleoptera. *In* M. Ramon de la Sagra, Histoire physique, politique et naturelle de l'Ile de Cuba. Animaux articules, insectes. Paris, vol. 7, 868 pp. illus.
Illustrations in folio.

Nunberg, M.
1963 Zur Kenntnis der Scolytidae- und Platypodidae-Fauna aus Costa Rica. Transactions of the Wisconsin Academy of Sciences, Arts and Letters, vol. 52, pp. 97-110, illus.

Olivier, A. G.
1795 Entomologie, ou histoire naturelle des Insectes, avec leurs caracteres generiques et specifiques, leur description, leur synonymie, et leur figure enluminee. Coleopteres. Lanneau, Paris, tome 4, no. 78, 14 pp.

Say, T.
1824 Descriptions of coleopterous insects collected in the late expedition to the Rocky Mountains, performed by order of Mr. Calhoun, Secretary of War, under the command of Major Long. Journal of the Academy of Natural Sciences of Philadelphia, vol. 3, pt. 2, pp. 239-282, 298-331, 403-462.

Schaufuss, C. F. C.
1897 Beitrag zur Kaferfauna Madagascars, III. Missions scientifiques de M. Ch. Alluaud aux iles Sechelles (1892) et a Diego-Suarez, Madagascar (1893). Scolytidae et Platypodidae. Tijdschrift voor Entomologie, vol. 40, pp. 209-225.

Schedl, K. E.
1933 Descriptions of a few new species of American Platypodidae in the British Museum of Natural History. Annals and Magazine of Natural History, ser. 10, vol. 12, pp. 396-403.

Schedl, K. E.
1937 Platypodidae des Berliner Zoologischen Museums. Entomologische Blatter, vol. 33, pp. 33-44.

Schedl, K. E.
1939 Die Einteilung und geographische Verbreitung der Platypodidae. 56. Beitrag zur Morphologie und Systematik der Scolytidae und Platypodidae. Verhandlungen. VII. Internationaler Kongress fur Entomologie, vol. 1, pp. 377-410, illus.

Schedl, K. E.
1957 Scolytoidea nouveaux du Congo Belge. II. Annales du Musee Royal du Congo Belge Tervuren (Belgique), ser. 8, vol. 56, pp. 1-162, illus.

Stephens, J. F.
1832-1835 Illustrations of British entomology; or a synopsis of indigenous insects: containing their generic and specific distinctions; with an account of their metamorphoses, times of appearance, localities, food and economy, as far as practicable. Coleoptera. Mandibulata, London, vol. 5, pp. 1-447.

Strohmeyer, H.
1914 Genera insectorum, Coleoptera, fam. Platypodidae, fasc. 163. Brussels, 55 pp., illus.

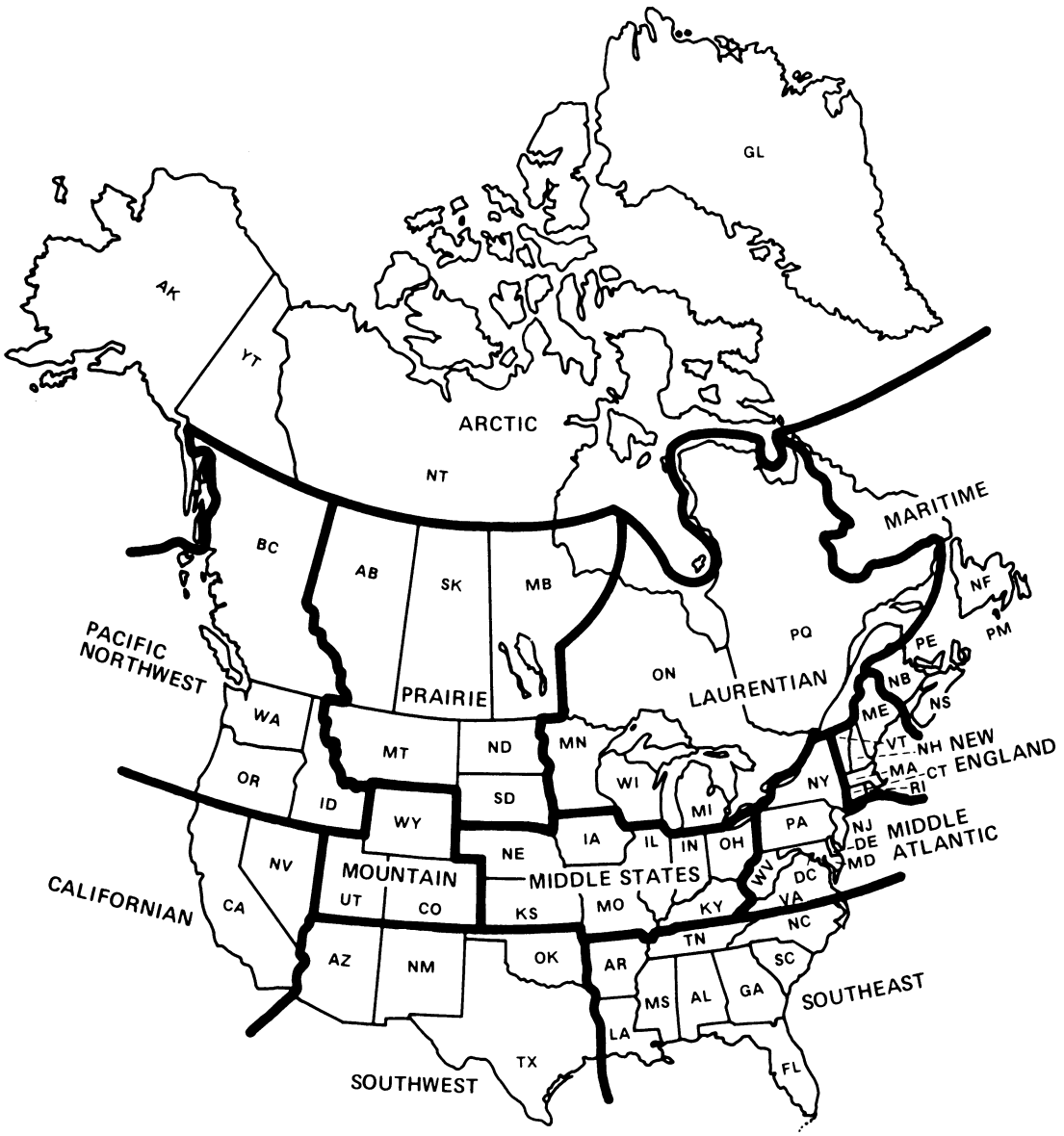
Swaine, J. M.
1916 *Platypus wilsoni*—a new species of *Platypus* from British Columbia (Platypodidae: Coleoptera). The Canadian Entomologist, vol. 48, pp. 97-100, illus.

Wood, S. L.
1958 Some virtually unknown North American Platypodidae (Coleoptera). The Great Basin Naturalist, vol. 18, pp. 37-40, illus.

INDEX

Names are indexed as follows:
CAPITALS: All names for taxa above the generic level;
Boldface: Valid generic and subgeneric names;
Roman: Valid specific and subspecific names;
Italic: All invalid names such as synonyms, nomina nuda, and extra-limital taxa even though valid.

Parentheses around an author's name indicate that the specific name has been transferred from its original genus. The generic name following the author's name indicates the present placement of the species. Synonyms of species-group names are listed with the original spelling.



AB Alberta
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AL Alabama
AR Arkansas
AZ Arizona
BC British Columbia
CA California
CO Colorado
CT Connecticut
DC District of Columbia
DE Delaware
FL Florida
GA Georgia
GL Greenland
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ID Idaho
IL Illinois
IN Indiana
KS Kansas
KY Kentucky
LA Louisiana
MA Massachusetts
MB Manitoba
MD Maryland
ME Maine
MI Michigan
MN Minnesota
MO Missouri
MS Mississippi
MT Montana
NB New Brunswick
NC North Carolina
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NE Nebraska
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NH New Hampshire
NJ New Jersey
NM New Mexico
NS Nova Scotia
NT Northwest Territories
NV Nevada
NY New York
OH Ohio
OK Oklahoma
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PA Pennsylvania
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PQ Quebec
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