



<https://www.biodiversitylibrary.org/>

Fauna hawaiiensis;

Cambridge, Eng., The University press, 1913.

<https://www.biodiversitylibrary.org/bibliography/58534>

v.2:pt.3 (1900): <https://www.biodiversitylibrary.org/item/119873>

Page(s): Page 173, Page 174, Page 175, Page 176, Page 177, Page 178, Page 179, Page 180, Page 181, Page 182

Holding Institution: University of Michigan (archive.org)

Sponsored by: University of Michigan

Generated 10 July 2018 7:34 AM

<https://www.biodiversitylibrary.org/pdf4/080493300119873>

This page intentionally left blank.

ANOTHEORUS Blackburn.

(1) *Anotheorus montanus* Blackburn.

Anotheorus montanus Blackb., Ent. Mo. Mag. xiv. p. 5.

HAB. Oahu mountains, on *Acacia koa*.

(2) *Anotheorus ignavus* Blackburn.

Anotheorus ignavus Blackb., *op. cit.* xvii. p. 201.

HAB. Maui, Haleakala (4000—5000 ft.); var. on Lanai; rare. This species approaches very closely to the preceding, and both vary in the shape of the thorax, and it is doubtful whether they are distinct. The Maui examples are most variable, and a single specimen from Lanai agrees better with these than with the Oahuan form.

(3) *Anotheorus robustus*, sp. nov.

Nigroaeneus, robustus, antennis tarsisque plus minusve testaceis. Rostrum subtilissime punctatum. Pronotum antice angustatum, plerumque nitidum, elytris multo angustius. Elytra lata, striata, striis confertim punctatis, interstitiis creberrime punctulatis. Long. (rostr. incl.) 6—8.5 mm. Lat. (exempli minim.) 3 mm. (Plate VIII. fig. 27.)

Although this species, of which I have examined 80, or more, examples, varies greatly in size, and sometimes in sculpture, its great size distinguishes it at once, the smallest examples being of about twice the bulk of either of the preceding.

HAB. Kauai mountains; common.

Fam. SCOLYTIDAE.

The Scolytidae are represented by twenty-six species, three only being at present known to inhabit other countries, although some of the others will no doubt ultimately be found to be likewise of foreign origin. Only three genera are represented, *Xyleborus* with 19 species being the most extensive and important. There are six species of *Hypothenemus* known, and one of *Crossotarsus*. The latter, *C. externedentatus*, is already known to occur elsewhere, as also is the *Hypothenemus eruditus*, and one of

Xyleborus (*X. confusus*). The greater number of the species of *Xyleborus* and *Hypothenemus* are true forest insects and are no doubt peculiar to the islands. Owing to the extreme sexual differences exhibited by the species of *Xyleborus* it is impossible in most cases to unite the sexes from a mere inspection of the specimens, so that it is probable that some of the males described will prove to belong really to females described under another name, and therefore the species will be less numerous than they appear to be. So far as is at present known most of the species of this genus are restricted each one to a single island, and of those with a wider distribution some I suspect are not truly indigenous—*X. immaturus* for example—and will prove to have been imported by man. The species assigned to *Hypothenemus* are at present very imperfectly known, and would appear to be rare insects, and it is doubtful whether, excluding *H. eruditus*, they are true members of that genus. It may be remarked that in addition to the species here enumerated a small Scolytid has been recently imported into the islands, and is said to be very injurious to certain fruit-trees in some localities, but I neglected to collect or examine this insect.

Tribe TOMICINI.

XYLEBORUS Eichh.

(1) *Xyleborus molokaiensis*, sp. nov.

Elongatus, cylindricus, piceo-niger, setis aureis elongatis postice sparsim vestitus. Elytra subopaca, sat distincte seriatim punctata, parte declivi juxta suturam utrinque tuberculis minutissimis 2 vel 3, lineariter dispositis, munita. ♀. Long. 4.25 mm.

Distinguished by its large size and dull elytra, which bear on the apical declivous portion two or three very minute tubercles on each side of and near to the suture, and placed nearly in a line with one another. From the base of each of these tubercles springs a long fine golden seta. Exterior to each of these series of tubercles may often be detected one or two other excessively minute ones on either wing-case, and the general surface of this posterior portion of the elytra under a very strong lens is minutely asperulous.

HAB. Molokai, above 4000 ft. In the wet decaying wood of *Cheirodendron*.

(2) *Xyleborus kauaiensis*, sp. nov.

X. molokaiensi magnitudine et forma simillimus, elytrorum parte postica declivi similariter tuberculis munita, sed colore testaceo vel rufo-testaceo, elytris sat evidenter nitentibus distinguendus. ♀. Long. 4 mm.

HAB. Kauai, Halemanu and above Waimea (4000 ft.). Four examples taken.

(3) *Xyleborus mauiensis*, sp. nov.

Angustus, elongatus, cylindricus, niger, antennis pedibusque testaceis. Elytra vix nitida, seriatim punctata, puncturatione minus distincta, subobsoleta, postice setis pallidis pluribus vestita, parte declivi suturam juxta tuberculis 4 vel 5 minutissimis, lineariter dispositis, utrinque munita, et ubique minutissime sat distincte asperula. ♀. Long. 3.2—3.5 mm.

Closely allied to *X. molokaiensis* but much smaller and narrower, and with the posterior declivous portion of the elytra with more numerous setae. This area has also the appearance of being covered with rows of longitudinal and very minute asperities, apparently due to the mode in which the punctures are impressed. The tubercles are very minute, and form a row on each side near the suture, in each of which rows 3 to 5 tubercles can be distinguished on careful examination. The better developed ones are usually those in the middle of the series. On either side exterior to these rows other very obscure and minute tubercles may be sometimes distinguished.

HAB. Maui, Haleakala (5000 ft.). On *Cheirodendron*.

(4) *Xyleborus hawaiiensis*, sp. nov.

Niger, antennis pedibus testaceis, haud nitidus, *X. mauiensi* cognatissimus. Elytra opaca, subobsolete seriatim punctata, parte declivi suturam juxta tuberculis minutissimis 2 vel 3 lineatim utrinque armata, pilis brevioribus parum conspicue vestita, vix asperula. ♀. Long. 3 mm.

Apparently slightly less elongate than *X. mauiensis*, but extremely similar to it in nearly all respects. It may be distinguished from that species by the decidedly less hairy apical surface of the elytra, the hairs being less evident than those on the dorsal, and the general surface of the declivous portion is moreover not distinctly covered with very minute asperities.

HAB. Hawaii, Hilo (2000 ft.); four examples taken.

(5) *Xyleborus truncatus* Sharp.

Xyleborus truncatus Sharp, Tr. Dublin Soc. III. 1885, p. 192.

The elytra of this species are evidently shining, and it is smaller than any of the preceding. I have seen only two examples besides the types, and they are both darker than the latter, but otherwise nearly identical.

HAB. Oahu (Blackburn). Lanai, Hawaii, in the Kona district; one from each locality.

Obs. The five species enumerated above are extremely closely allied, and almost agree together in the character of the tubercles on the apical portion of the elytra, but so far as I can decide on the scanty material examined, the various forms are readily

distinguished by the characters given. It may be noted that four of the species apparently are limited in range to one or other of the islands, while the fifth has been taken on three different islands. Of this group of species I have further seen three examples, which appear to belong to none of the forms described above, nor yet do they agree together themselves, but the material is quite insufficient for deciding as to the specific value of the characters they exhibit.

(6) *Xyleborus obliquus* Sharp.

Xyleborus obliquus Sharp, Tr. Dublin Soc. III. 1885, p. 192.

HAB. Oahu and Hawaii (Blackburn); I have not met with this species.

(7) *Xyleborus lanaiensis*, sp. nov.

Nigricans, parum nitidus, elongatus, cylindricus, antennis pedibusque testaceis. Elytra subtiliter minus distincte punctata, postice sat abrupte declivia, parte declivi utrinque suturam juxta tuberculis 2 fortioribus lineatim munita, et subdepressa. ♀. Long. 3.6 mm.

Readily known from any of the preceding by the stronger development of the four tubercles of the posterior declivous portion of the elytra, these tubercles being placed two in a line on each side of and near to the suture, the upper pair near the commencement of the declivity, the others near the apex. From the base of each posteriorly springs a long fine seta, directed downwards and backwards. Outwardly to these larger tubercles there are on each wing-case one or two considerably smaller ones.

HAB. Lanai 2000 ft., January 1894. Three or four examples taken.

(8) *Xyleborus simillimus*, sp. nov.

Praecedenti (*X. lanaiensis*) simillimus et cognatissimus, parte declivi elytrorum eodem modo armata. Elytra subnitida, distinctius et minus subtiliter punctata, tuberculis 2 superioribus setas breviores ferentibus. ♀. Long. 3.4 mm.

Extremely like *X. lanaiensis*, but the elytra are somewhat striate, and the punctures are decidedly larger and more distinct, the surface somewhat shining. Apical armature much as in *X. lanaiensis*, the four larger tubercles being well-developed and there are a minute pair anterior to the upper pair of these, but these may be more or less evident in the preceding species also. The setae which spring from the base of the anterior pair of the larger tubercles are evidently less developed than those in the same position on *X. lanaiensis*.

HAB. Hawaii, above Hilo (1800 ft.); two examples taken.

(9) *Xyleborus oahuensis*, sp. nov.

Nigricans, antennis pedibusque testaceis, spp. duabus praecedentibus simillimus, sed paullo major. Elytra subtilissime sed subdistincte punctata, subnitida, parte declivi depressiuscula, tuberculis 6 sat distinctis, setas longas ferentibus, armata, horum 4 anterioribus curvatim dispositis. ♀. Long. vix 4 mm.

Very like the preceding two species, having four well-developed tubercles similarly disposed on the posterior portion of the elytra, two in a line on one side and two so placed on the other side of and near to the suture. Behind the anterior tubercles on either wing-case towards the side there is another distinct tubercle, these two and the anterior pair being placed in a curve. These sublateral tubercles are well-developed but smaller than the anterior and about equal to the posterior pair in size. From the base of each of the tubercles posteriorly a long fine seta rises. There are no evident smaller tubercles in this species.

HAB. Oahu. A single example was taken in the northern part of the Koolau range, at an elevation of about 1000 ft.

(10) *Xyleborus dubiosus*, sp. nov.

Castaneus, subnitidus, pedibus antennisque testaceis. Elytra subtilissime seriatim punctata, parte declivi minus abrupta, tuberculis 2 minus fortibus lineariter dispositis utrinque juxta suturam armata, necnon latera versus utrinque tuberculis aliis minutioribus 2 vel 3 lineariter dispositis munita, setis brevioribus. ♀. Long. 3.5 mm.

The single example above characterized is a very obscure species. The four larger tubercles of the posterior declivous portion of the elytra are less strong than those of the several preceding species, yet more so than those of the series ending with *X. truncatus*. In front of the anterior pair of these there is a third pair smaller and ill-developed, and in a line with the others. They are situated close to the suture just at the beginning of the posterior declivity, and in the unique example are placed quite obliquely and not opposite the one to the other. Besides this series there is a second one of about three minute tubercles on each wing-case towards the side.

HAB. Maui. A single example was taken in the Iao valley in 1894.

(11) *Xyleborus confusus* Eichhoff.

Xyleborus confusus Eichhoff, Ratio, Descr. emend. Tomicinorum (1879).

Xyleborus insularis Sharp, Tr. Dublin Soc. III. 1885, p. 193.

HAB. Oahu and Kauai (Blackburn); Oahu (both ranges), Maui, Kauai, Hawaii. At elevations from 1500—4000 ft. above sea-level. We are indebted to Mr W. F. H. Blandford for the identification of this species.

(12) *Xyleborus rugatus* Blackb.

Xyleborus rugatus Blackburn, Tr. Dublin Soc. III. (1885), p. 192.

HAB. Oahu. A single specimen taken. (Blackburn.)

(13) *Xyleborus frigidus* Blackb.

Xyleborus frigidus Blackburn, Tr. Dublin Soc. III. 1885, p. 193.

HAB. Maui. A single specimen taken on Haleakala, 4000 ft. (Blackburn.)

(14) *Xyleborus immaturus* Blackb.

Xyleborus immaturus Blackburn, Tr. Dublin Soc. III. 1885, p. 193.

I have taken what is probably the ♂ of this insect. It is testaceous or rufotestaceous in colour, but otherwise bears no resemblance to the ♀. Form short and robust, the whole insect hardly twice as long as wide, longitudinally convex. Thorax very narrowly rounded, or somewhat pointed, in front, of ovate form, truncate at the base. The sculpture is very feeble, and there is none of the coarse rugosity in front such as is seen in the ♀, and the clothing there consists of shortish and inconspicuous hairs. Elytra short, rather longer than wide in dorsal aspect, rather distinctly substriate, the striae finely punctured. There are no evident tubercles on their posterior portion. Length hardly 2 mm.

HAB. Oahu and Hawaii (Blackburn); Hawaii in various localities.

(15) *Xyleborus agamus*, sp. nov.

♂ castaneus, parum elongatus, tibiis omnibus plus minus obscuratis, tarsis pallidis. Pronotum magnum, antice acuminatum, ruguloso-punctatum, anterius et latera versus pilis longis vestitum, lateribus sat fortiter rotundatis. Elytra parce pilosa, desuper visa longiora quam latiora, haudquaquam striata, obscure confuse punctata, lateribus subcompressis. ♂. Long. 2 mm.

The form of the thorax is much like that of the ♂ assigned to *X. immaturus*, but its sculpture and clothing are very different, as also is the colour of the entire insect. The elytra are different in form and sculpture, having no trace of striation, and the punctures are very feeble and indistinct.

HAB. Lanai. Two examples were taken at an elevation of 3000 ft. in Jan. 1894.

(16) *Xyleborus exsectus*, sp. nov.

Nigricans, elytrorum basi nonnunquam rufescente, pedibus antennisque rufescentibus vel testaceis. Pronotum suboblongum, antice sat profunde excisum, et in processum latum, cujus apex truncatus, productum, lateribus pilis vestitis. Elytra leviter striata, striis subtiliter punctatis, setis parce vestita, parte declivi haud tuberculata. ♂. Long. 3.2 mm.

HAB. Maui. Three examples taken on Haleakala (5000 ft.). One of these is of a testaceous colour and is no doubt immature.

(17) *Xyleborus vulcanus*, sp. nov.

♂ nigricans, elytris thoracisque basi subpiceis, pedibus testaceis, oblongus. Pronotum parum distincte sculpturatum, elytris vix latius, lateribus parallelis, setis elongatis aureis parce vestitis, anterieus excisum, et in processum triangularem productum. Elytra sat elongata, rugulosa, vix evidenter punctata, parte declivi tuberculo minutissimo suturam versus utrinque munita. ♂. Long. 2.5 mm.

Much smaller than the preceding species, and very distinct by the pointed process of the pronotum. The posterior declivous portion of the elytra is somewhat abrupt, and on its upper portion on either side of the suture an excessively minute tubercle can be seen, each of which is furnished with a longish seta at its base, while some even more minute and hardly visible tubercles are placed in a transverse line with these.

HAB. Hawaii. A single example taken at Kilauea.

(18) *Xyleborus littoralis*, sp. nov.

♂ castaneus, pronoto plus minus nigricante, pedibus testaceis, oblongus. Species prima facie *X. vulcano* simillima, sed major, et minus angusta, pronoto antice fere similariter producto. Elytra substriata, grossius distincte seriatim punctata, parte declivi juxta suturam utrinque tuberculis minutissimis 2 vel 3 lineariter dispositis, aliisque paucis vel minutioribus et obscuris, munita. ♂. Long. 3 mm.

Easily distinguished from *X. vulcanus* by the substriate and somewhat coarsely punctured elytra, and the more numerous and rather more developed tubercles of the posterior truncation. These tubercles form two series on each side, those nearest the suture, though very minute, being fairly distinct, those external and subparallel to these are very minute and obscure.

HAB. A single example taken at sea level on Molokai, July 1893.

(19) *Xyleborus ignobilis*, sp. nov.

Nigricans, thorace nonnunquam obscure testaceo vel piceo, antennis pedibusque testaceis. Pronotum fere ad basim rugulosum, antice setis pallidis vestitum, lateribus rotundatis haudquaquam parallelis. Elytra plus minus obsolete seriatim punctata, setis pallidis brevibus, lineariter dispositis, vestita, postice haud abrupte declivia, parte declivi tuberculis nullis munita, nec impressa. Long. 2.7 mm.

This insect bears little resemblance to any other Hawaiian species of the genus, the elytra being simply rounded off behind and not at all abrupt, nor tuberculated, but sculptured as on the dorsal surface. The prothorax becomes gradually less rough from the front margin backwards, but it is more or less asperulous or rugulose to very near the basal margin, near which the rugulosities have a somewhat concentric arrangement.

HAB. Hawaii. Three examples taken, each in a different locality, two on the windward and one on the lee side of the island (2000 ft.).

HYPOTHENEMUS Westw.

(1) *Hypothenemus eruditus* Westw.

Hypothenemus eruditus Westwood, Tr. Ent. Soc. London, I. p. 34; Sharp, *op. cit.* 1879, p. 102.

HAB. Oahu; Honolulu (Blackburn).

(2) *Hypothenemus maculicollis* Sharp.

Hypothenemus maculicollis Sharp, Tr. Ent. Soc. London, 1879, Pt. I. p. 101.

HAB. Oahu; mountains near Honolulu (Blackburn). I did not collect this species.

(3) *Hypothenemus griseus* Blackb.

Hypothenemus griseus Blackburn, Tr. Dublin Soc. III. 1885, p. 194.

HAB. Oahu; a single specimen taken on the plains near Honolulu (Blackburn).

(4) *Hypothenemus sylvicola*, sp. nov.

Minus elongatus, cylindricus, pallide testaceus, capite et pronoto plus minusve infuscatis. Pronotum subtilissime granulato-sculpturatum, parte anteriore asperata, opacum, parce pubescens. Elytra pallida, setis pallidis vestita, subtilissime vix evidenter punctata, haud evidenter striata. Long. 1.5 mm.

In colour this species must greatly resemble *H. griseus* Blk., but that species has the elytra deeply striate. In some examples the asperities of the prothorax are but few, in others they are much closer and more numerous, and I suspect that the difference is sexual. The sculpture otherwise is excessively feeble and consists of a very dense and excessively minute granulation or puncturation, not definitely distinguishable even with a very strong lens. The clothing of the elytra consists of short pale setae, which in certain aspects appear to have a linear arrangement, and also of some longer fine hairs, which are particularly noticeable at the sides about the apex.

HAB. Lanai, 2000 ft. several examples.—Kauai, 4000 ft., one example taken. The latter has the thorax entirely pale and concolorous with the elytra.

(5) *Hypothenemus insularis*, sp. nov.

Cylindricus, angustulus, sat elongatus, niger, antennarum basi pedibusque rufotestaceis. Pronotum anterius fortiter asperulum et parce setosum, posterius opacum, subtilissime granulatum (an punctulatum?). Elytra setis brevibus griseis conspicue vestita, sat elongata (circa bis longiora quam basi latiora), evidenter punctata. Long. 1—1.4 mm.

Allied to *H. ruficeps*, but very different in superficial appearance, owing to its entirely black colour. The punctures on the elytra are not so very fine, but they are ill-defined. Apparently they are more or less serially arranged, but not in the definite manner seen in the last species, in fact the puncturation appears somewhat rugose.

HAB. Kauai. Two examples were taken at Makaweli, above 2000 ft.

(6) *Hypothenemus ruficeps*, sp. nov.

Cylindricus, sat elongatus, capite et pronoto rufescentibus, elytris nigris. Pronotum anterius sat fortiter asperulum, postice opacum et parum distincte sculpturatum, parce pubescens. Elytra nitida, setis brevibus griseis sat conspicue (postice saltem) vestita, subobsolete striata, striis subgrosse punctatis. Long. 1.5 mm.

Distinct by the red head and prothorax, and black elytra. The punctures on the latter are somewhat coarse but not very definite, and are placed in subobsolete striae. The short whitish setae are dense and conspicuous on the posterior portion of the elytra, less so in front, but they have been partly abraded on this part.

HAB. Oahu; Kaala, Waianae range (2000 ft.); one example taken.

Tribe *PLATYPINI*.*CROSSOTARSUS* Chapuis.(1) *Crossotarsus externedentatus* Fairm.

Crossotarsus externedentatus Fairmaire, Rev. Zool. 1850, p. 51.

HAB. Oahu; Honolulu (Blackburn).—I cut a pair of this species out of a hard trunk of *Acacia koa*, at an elevation of 1000 ft. in the northern part of the Koolau range.

Fam. ANTHRIBIDAE.

The Anthribidae are very poorly represented in the islands, only three species having occurred. Two of these species are at present not known from elsewhere, and one of them constitutes a peculiar genus, but there is little doubt that all are foreign insects, and will ultimately be found in other countries.

ARAEOCERUS Schönherr.(1) *Araeocerus fasciculatus* De Geer.

Curculio fasciculatus De Geer, Ins. v. 276, t. 16, fig. 2.

HAB. Abundant all over the islands in the mountains. The large number of constant varieties in markings, as well as the great variation in size of this species is remarkable.

(2) *Araeocerus constans*, sp. nov.

A. fasciculato simillimus sed statura majore, totus dense griseo-pubescens, haud variegatus, tarsis anterioribus ♂ robustioribus, et tarsis ♀ longioribus distinguendus. Long. circa 5 mm.

Very closely allied to *A. fasciculatus*, but larger than the larger examples of that species, not varying much in size, and uniformly covered with dense grey pubescence. In colour the integument is blackish and reddish fuscous, the antennae towards the base and the tibiae are more or less red. When the pubescence is removed, the pronotum is seen to be dull and very densely punctured, and the elytra bear each about ten rows of very distinct and regular punctures, the interstices having a dense shallow and very minute rugulose puncturation. Both sexes may be distinguished structurally from *A. fasciculatus* by the thicker anterior tarsi, so that the ♂ of the latter rather resembles the ♀ of the former, and these parts are longer in the ♀ of *A. constans*.

HAB. Hawaii, Kona; on the coast; found in the flowers of the white poppy.