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Catalogue of the primary types of Cerylonidae, Endomychidae and Latridiidae (Coleoptera: Cucujoidea) deposited in the National Museum of Natural History, with additional notes and clarification of the status of several types

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Abstract

A checklist with critical data is provided for all primary types (n = 48) of the families Cerylonidae, Endomychidae and Latridiidae deposited in the National Museum of Natural History. Of those, 43 holotypes, 3 lectotypes, and 2 neotypes are represented. This tally includes a lectotype for *Geoendomychus punctatus* Arrow (1926) and neotype for *Rhymbomicrus stephani* Pakaluk (1987), both newly designated to promote nomenclatural stability. Fifteen species have at least one paratype, paralectotype, or authoritatively identified non-type specimen associated with the holotype. Type specimens were compared to the original species descriptions to confirm their status, verbatim label data were recorded, and barcode labels were added. In addition to cataloguing the types, notes were made where discrepancies exist between the data labels pinned with the types and the data published with the original species descriptions.

Key words: Cerylonidae, Endomychidae, Latridiidae, USNM types, catalogue

Introduction

The United States National Entomological Collection, housed in the Smithsonian Institution's National Museum of Natural History (USNM) is one of the largest and most important collections in the world, with over 30 million insect specimens and 90,000 primary types. Of those, approximately 7 million specimens (23%) are beetles, including nearly 12,000 primary types (13%). Recent efforts to document the types housed in the USNM collections have provided the opportunity for Smithsonian and USDA-based curators to bring in outside taxonomic contractors to accomplish the monumental task of verifying the status of putative types, searching for additional, undocumented types, databasing label data, generating PDF copies of original species descriptions and photographing the types and their labels.

In addition to the primary types found in the general Coleoptera type holdings (which now includes portions of the Hatch collection), additional types of two of the three families (Cerylonidae, Endomychidae) were located in the Casey collection. The Casey collection was bequeathed to the USNM and transported there shortly after Casey's death in 1925. At that time, the collection consisted of 116,738 specimens and more than 9,200 types (Buchanan 1935). To this day, the Casey collection is kept separate from the remaining holdings in compliance with the original terms of acquisition, and should be examined whenever a catalogue of any beetle family is compiled. Compounding the problem of locating all primary types, species in a number of families were considered part of other families during Casey's time so knowing their historical placement is important in locating them in Casey's collection.

Methods

To document the primary types of the Coleoptera families Cerylonidae, Endomychidae and Latridiidae (= Corticariidae), types were located, their label data recorded, and specimens photographed. In addition, USNM types and their respective USNM assigned type numbers were compared to the original species descriptions to determine whether or not the specimens were, in fact, the primary types. In cases where discrepancies were found between the original species descriptions and the type specimens, additional comments and notes are provided to help clarify the situation and provide a proper solution.

Although we acknowledge that Corticariidae Curtis, 1829, is the oldest available family-group name for the minute brown scavenger beetles, we have chosen to follow prevailing usage rather than priority for this catalogue by using the more common junior synonym Latridiidae Erichson, 1842. The alternative spelling Lathridiidae Erichson has been used almost exclusively since its proposition. However, this family-level name was based on a misspelling of the type genus *Latridius* Herbst, 1793. This error and its subsequent emendation are discussed in Pakaluk *et al.* (1994).

Multiple images were taken using a JVC camera mounted on a Wild Photomakroskop M 400 dissecting microscope and Archimed digital imaging software. Image layers were montaged using Helicon Focus 4.03 and then resized and combined into figure plates using Adobe Photoshop. Dorsal, lateral and ventral habitus images were produced for all specimens, except for the holotype of *Philothermus kingsolveri* Ślipiński, 1982, which was mounted on a paper card such that the ventral surface is concealed. Data labels accompanying each specimen were photographed using a Canon EOS 10D digital camera mounted on an adjustable photo stand.

Entries for primary types are catalogued alphabetically using the original binomial. Each entry includes the verbatim label data associated with the primary type (labels separated by a single "/"), sex (if known), USNM type and barcode numbers, and the valid name and current combination. Paratypes and non-type material residing in the general holdings are listed only for species where the primary type is also housed at the USNM. To the extent possible, additional notes explaining discrepancies in the type status, type numbers, presence of dissected genitalia, condition of the specimen, etc. have been included. Current subfamilial placement is listed in brackets for all species. Species names preceded by a "*" in the list indicate that the type is located in the Casey collection, not in the main Coleoptera type collection.

Because of a change in museum policy during the mid- to late-1980s regarding the requirement of USNM type numbers (namely that they would no longer be mandatory for types being deposited in the USNM), the types of *Metophthalmus septemstriatus* Hatch, *Xenomycetes laversi* Hatch, *Acinaces humeralis* Tomaszewska and *Acinaces nataliae* Tomaszewska, which were accessioned after that period, lack USNM type numbers. Unfortunately, as is the case with many older type specimens, the data labels are often very simple and uninformative making confirmation of the type difficult. To rectify this problem, each specimen was affixed with a unique USNM barcode label prior to return to their respective collections.

Results

At present, the USNM collection, including specimens housed in the Casey collection, has 8 types for Cerylonidae, 37 types for Endomychidae and 3 types for Latridiidae (= Corticariidae) for a total of 48 primary types for these families. Of those, there are 43 holotypes (often just labeled "Type"), 3 lectotypes, and 2 neotypes. Thirty-four (72%) of those types can be attributed to just two coleopterists: T.L. Casey and H.F. Strohecker. The accession of the Hatch collection added 2 more types to the USNM holdings. J. Pakaluk, the former USDA curator responsible for Endomychidae, and K.W. Tomaszewska, an endomychid specialist from the Museum and Institute of Zoology, Warsaw, each added another two. The remaining types are attributed to a handful of different workers, each contributing only one species to the inventory for these three families. Thirty of the 48 species with primary types deposited in the USNM are represented solely by the holotype, while the remaining 18 are known to have paratypes, paralectotypes or non-type specimens deposited in the general USNM holdings for their respective families.

List of types

CERYLONIDAE

*Botrodus estriatus Casey, 1890: 320. [Murmidiinae]

Holotype (Fig. 1): Columbus 10.7 Texas/CASEY bequest 1925/TYPE USNM 48836/Botrodus estriatus Cas.

Sex: Unknown. **USNM Type No.**: 48836. **Barcode No.**: USNM ENT 00678059. **Valid name and current combination:** *Botrodus estriatus* Casey, 1890.

*Cerylon californicum Casey, 1890: 316. [Ceryloninae]

Holotype (Fig. 2): Cal./CASEY bequest 1925/TYPE USNM 48834/californicum.
Sex: Unknown. USNM Type No.: 48834. Barcode No.: USNM ENT 0678050.
Paratypes: 3 total—2 bearing same data as holotype, 1 with collection label stating "Siskoyou Co. CAL".
Valid name and current combination: *Cerylon californicum* Casey, 1890.

*Cerylon clypeale Casey, 1897: 635. [Ceryloninae]

Holotype (Fig. 3): Ks./CASEY bequest 1925/TYPE USNM 48833/clypeale.
Sex: Unknown. USNM Type No.: 48833. Barcode No.: USNM ENT 00678054.
Paratypes: 1 bearing same data as holotype.
Valid name and current combination: *Cerylon clypeale* Casey, 1897.

*Cerylon sticticum Casey, 1897: 636. [Ceryloninae]

Holotype (Fig. 4): Iowa City, Ia Wickham./CASEY bequest 1925/TYPE USNM 48832/sticticum.
Sex: Unknown. USNM Type No.: 48832. Barcode No.: USNM ENT 00678046.
Valid name and current combination: *Cerylon sticticum* Casey, 1897.

*Cerylon sylvaticum Casey, 1897: 635. [Ceryloninae]
Holotype (Fig. 5): Id./CASEY bequest 1925/TYPE USNM 48831/sylvaticum.
Sex: Unknown. USNM Type No.: 48831. Barcode No.: USNM ENT 00678047.
Paratypes: 2 bearing collection labels of "Cal."
Valid name and current combination: Cerylon sylvaticum Casey, 1897.

*Lapethus discretus Casey, 1890: 318. [Ceryloninae]

Holotype (Fig. 6): Cal/CASEY bequest 1925/TYPE USNM 48835/Lapethus discretus Cas.
Sex: Unknown. USNM Type No.: 48835. Barcode No.: USNM ENT 00678040.
Paratypes: 1 with same data as holotype.
Valid name and current combination: *Mychocerus discretus* (Casey), 1890.

Philothermus kingsolveri Ślipiński, 1982: 43. [Ceryloninae]
Holotype (Fig. 7): Guade-loupe/From HPLoding 1935/HOLOTYPE/Type No 100851 U S N M/ Philothermus kingsolveri sp. n. Det.S.Slipiński 1980.
Sex: Unknown. USNM Type No.: 100851. Barcode No.: USNM ENT 00678064.
Valid name and current combination: Philothermus kingsolveri Ślipiński, 1982.
Notes: Specimen is mounted on a card so all ventral structures are concealed.

Suakokoia striata Sen Gupta & Crowson, 1973: 428. [Ceryloninae]
Holotype (Fig. 8): LIBERIA Suakoko 4 Apr 52 Blickenstaff/Suakokoia striata Det. T. Sen Gupta/Type/ HOLOTYPE Suakokoia striata Gupta & Crowson/Type No 104164 U S N M.
Sex: Female. USNM Type No.: 104164. Barcode No.: USNM ENT 00678055
Valid name and current combination: Suakokoia striata Sen Gupta & Crowson, 1973.

ENDOMYCHIDAE

Acinaces humeralis Tomaszewska, 2007: 250. [Lycoperdininae]
Holotype (Fig. 9): Peru Satipo X, 1942 Paprzycki/Holotype ♂ Acinaces humeralis n.sp. det. W. Tomaszewska 2007.
Sex: Male. USNM Type No.: N/A. Barcode No.: USNM ENT 00223362.
Valid name and current combination: Acinaces humeralis Tomaszewska, 2007.

Acinaces nataliae Tomaszewska, 2007: 250. [Lycoperdininae]
Holotype (Fig. 10): PERU: Dpt. Ayacucho La Mar, Santa Rosa, 640m 19-25--IX--1976 Robert Gordon/ Holotype ♂ Acinaces nataliae n.sp. det. W. Tomaszewska 2007.
Sex: Male. USNM Type No.: N/A. Barcode No.: USNM ENT 00223361.
Valid name and current combination: Acinaces nataliae Tomaszewska, 2007.

Amphisternus bakeri Strohecker, 1957: 281. [Lycoperdininae]

Holotype (Fig. 11): Sandakan Borneo Baker/Type No. 64340 U.S.N.M./Amphisternus bakeri \Im Strohecker Holo-TYPE.

Sex: Male. USNM Type No.: 64340. Barcode No.: USNM ENT 00678095.

Valid name and current combination: Cacodaemon bakeri (Strohecker), 1957.

Notes: Aedeagus mounted on a paper point below the type. The USNM type number on the label with the specimen does not match the one published with the original species description (63446). The USNM type accession log book shows both numbers were assigned, but the manuscript number has no data associated with it (the entry in the log book was left blank).

Amphisternus mastophorus Strohecker, 1957: 282. [Lycoperdininae]

Holotype (Fig. 12): Sandakan Borneo Baker/9638/Amphisternus perhamatus Hlly/Type No. 64341 U.S.N.M./Amphisternus mastophorus Strohecker Holo-TYPE.

Sex: Male. USNM Type No.: 64341. Barcode No.: USNM ENT 00678096.

Valid name and current combination: Cacodaemon mastophorus (Strohecker), 1957.

Notes: Aedeagus mounted on a paper point below the type. A putative hymenopteran parasitoid is pointmounted in the unit tray with the type. The USNM type number on the label with the type does not match the one published with the original species description (63448). The USNM type accession log book shows both numbers were assigned, but the manuscript number has no data associated with it (the entry in the log book was left blank).

Amphisternus nigrellus Strohecker, 1957: 282. [Lycoperdininae]

Holotype (Fig. 13): Sandakan Borneo Baker/9632/Type No. 64342 U.S.N.M./Amphisternus nigrellus \bigcirc Strohecker Holo-TYPE.

Sex: Female. USNM Type No.: 64342. Barcode No.: USNM ENT 00678097.

Valid name and current combination: Cacodaemon nigrellus (Strohecker), 1957.

Notes: The USNM type number on the label with the specimen does not match the one published with the original species description (63447). The USNM type accession log book shows both numbers were assigned, but the manuscript number has no data associated with it (the entry in the log book was left blank).

Anamorphus pusillus LeConte, 1878: 445. [Anamorphinae]

Lectotype (Fig. 14): Enterprise 24-6 Fla/CollHubbard &Schwarz/LECTOTYPE Anamorphus pusillus Leconte by Strohecker/Collected in 1876 from 'hammocks'-dense hardwood & Palmetto forests from Schwarz, 1878, p. 353 - T.P. Nuhn 2006.

Sex: Unknown. USNM Type No.: N/A. Barcode No.: USNM ENT 00678098.

Paralectotypes: 1 with same collection label data as the lectotype.

Valid name and current combination: Anamorphus pusillus LeConte, 1878.

Notes: Specimen does not have a USNM type number. Paralectotype is housed in the general collection. Lectotype and paralectotype designated by Strohecker (1981).

Anidrytus pardalinus Strohecker, 1943: 388. [Epipocinae]

Holotype (Fig. 15): COSTA RICA F Nevermann 28 IV.26/HAMBURGFARM REVENTAZON EBENE LIMON/an Debusah nachts trocknem Holz/Type No. 55888 U S N M/Anidrytus 3° pardalinus Type Strohecker.

Sex: Male. USNM Type No.: 55888. Barcode No.: USNM ENT 00678099.

Valid name and current combination: Anidrytus pardalinus Strohecker, 1943.

Notes: Aedeagus mounted on paper point below the type. There was one non-type specimen in the same unit tray bearing the following label data: "COSTA RICA F. Nevermann 2.IV.30/HAMBURGFARM REVENTAZON EBENE LIMON/an trocknem Holz nachts". It was moved to the general USNM collection.

*Aphorista ovipennis Casey, 1916: 144. [Lycoperdininae]

Holotype (Fig. 16): Bayfld, Wis Wickham./ CASEY bequest 1925/TYPE USNM 48776/ovipennis Csy. Sex: Male. USNM Type No.: 48776. Barcode No.: USNM ENT 00678042.

Valid name and current combination: Aphorista vittata (Fabricius), 1787.

Notes: Type accompanied by a non-type specimen bearing a collection label stating "Penn." The non-type specimen remains housed with the type specimen in Casey's collection.

Beccaria denticornis Strohecker, 1943: 382. [Lycoperdininae]

Holotype (Fig. 17): Island Samar Baker/Type/Type No. 55879 U S N M/Beccaria denticornis Strohecker.
Sex: Unknown. USNM Type No.: 55879. Barcode No.: USNM ENT 00678091.
Valid name and current combination: *Beccariola philippinica* Arrow, 1920.

Beccaria septemguttata Strohecker, 1943: 381. [Lycoperdininae]

Holotype (Fig. 18): Surigao Mindanao Baker/Type/Type No. 55878 U S N M/Beccaria vii-guttata Strohecker.

Sex: Unknown. **USNM Type No.**: 55878. **Barcode No.**: USNM ENT 00678092. **Valid name and current combination:** *Beccariola philippinica* Arrow, 1920.

Endomychus flavus Strohecker, 1943: 390. [Endomychinae]

Holotype (Fig. 19): Szechuen CHINA DCGraham/near Mupin Jul.1-3 '29/Type/Type No. 55890 U S N M/Endomychus flavus Strohecker.

Sex: Female. **USNM Type No.**: 55890. **Barcode No.**: USNM ENT 00678093. **Valid name and current combination:** *Endomychus flavus* Strohecker, 1943. **Notes:** Genitalia preserved in microvial pinned under holotype.

Engonius angustefasciatus Pic, 1940: 11. [Lycoperdininae]

Neotype (Fig. 20): Szechuen China DC Graham/ShinKalSi 4400ft alt. Aug. 1922/ luteomaculatus dt. Strohecker/Engonius luteomaculatus Pic det. Strohecker/Sinocymbachus angustefasciatus (Pic) det.H.F.Strohecker/Engonius 🖒 angustefasciatus Pic Neo-TYPE Strohecker.

Sex: Male. USNM Type No.: 70771. Barcode No.: USNM ENT 00678094.

Valid name and current combination: Sinocymbachus angustefasciatus (Pic), 1940.

Notes: Aedeagus mounted on a card pinned under the holotype. Lacks a specific USNM type label. The USNM type number is written on the back of the red neotype label. Fate of the original Pic holotype is unknown. Neotype designated by Strohecker & Chujo (1970).

Engonius excisipes Strohecker, 1943: 383. [Lycoperdininae]

Holotype (Fig. 21): SzechuenChina DCGraham 8.10.34/SiGiPin China t6-7000Alt/ Type/Type No. 55881 U S N M/Engonius ♂ excisipes Strohecker.
Sex: Male. USNM Type No.: 55881. Barcode No.: USNM ENT 00678085.
Valid name and current combination: *Sinocymbachus excisipes* (Strohecker), 1943.

Notes: Aedeagus is mounted on a second pin in the unit tray with the type.

*Epipocus simplicipes Casey, 1916: 146. [Epipocinae]

Holotype (Fig. 22): Mex/CASEY bequest 1925/TYPE USNM 48778/simplicipes Csy.
Sex: Male. USNM Type No.: 48778. Barcode No.: USNM ENT 00678044.
Valid name and current combination: *Epipocus tibialis* (Chevrolat), 1834.

Eumorphus purpureus Strohecker, 1968: 89. [Lycoperdininae]

Holotype (Fig. 23): PALAWAN PHILIPPINES/W Robinson bequest1929/U S N M Type No 69218/ Eumorphus ♂ purpureus Strohecker Holo-TYPE.

Sex: Male. USNM Type No.: 69218. Barcode No.: USNM ENT 00678086.

Valid name and current combination: Eumorphus purpureus Strohecker, 1968.

Notes: Aedeagus mounted on a card pinned below the type specimen.

*Eupsilobius politus Casey, 1895: 454. [Eupsilobiinae]

Holotype (Fig. 24): DryTortugasFla ne 7-13,Wickha/CASEY bequest 1925/TYPE USNM 48837/ Eupsilobius politus Csy.

Sex: Unknown. USNM Type No.: 48837. Barcode No.: USNM ENT 00678035.

Valid name and current combination: *Eidoreus politus* (Casey), 1895.

Notes: Holotype is damaged and missing the left elytron, as noted by Casey in the original description. Originally housed with the types of Colydiidae. At one time, *Eupsilobius* was classified within Colydiidae (Ceryloninae), but is now placed within a subfamily of Endomychidae (Eupsilobiinae). This type is still located in the Casey collection but has now been placed with the other Endomychidae types.

Geoendomychus punctatus Arrow, 1926: 251. [Anamorphinae]

Lectotype (here designated to promote nomenclatural stability) (Fig. 25): Gunung Singgalang (Sumatra's Westkust) 1000 M. 1925 leg. E. Jacobson./[blank red label]/Cotype No. 51769 U.S.N.M./TypeNo. 64345 U.S.N.M./Geoendomychus punctatus Arr. det.G.J.Arrow Co-type!

Sex: Unknown. USNM Type No.: 51769. Barcode No.: USNM ENT 00678087.

Valid name and current combination: Geoendomychus punctatus Arrow, 1926.

Notes: Originally assigned USNM "co-type" number 51769. Subsequent to that, assigned a second USNM type number (64345). In the absence of evidence to the contrary, the first type number assigned has priority.

Heliobletus philippinensis Strohecker, 1943: 384. [Stenotarsinae]

Holotype (Fig. 26): Zamboanga Mindanao Baker/Type/TypeNo 55882 U S N M/ Heliobletus philippinensis Strohecker.

Sex: Male. USNM Type No.: 55882. Barcode No.: USNM ENT 00678088.

Valid name and current combination: Tragoscelis philippinensis (Strohecker), 1943.

Lycoperdinella subcaeca Champion, 1913: 115. [Merophysiinae]

Holotype (Fig. 27): Livingston 6.5 Guat/Barber& SchwarzColl/TypeNo. 21530 U.S.N.M./Lycoperdinella subcaeca Ch. type.

Sex: Unknown. USNM Type No.: 21530. Barcode No.: USNM ENT 00678089.

Valid name and current combination: Lycoperdinella subcaeca Champion, 1913.

Notes: Originally housed with the types of Latridiidae (= Corticariidae). At one time, *Lycoperdinella* was classified within Latridiidae (Holoparamecinae), but is now placed within a subfamily of Endomychidae (Merophysiinae). This type is still located in the Casey collection but has now been placed with the other Endomychidae types.

Milichius impressicollis Strohecker, 1943: 389. [Endomychinae]

Holotype (Fig. 28): Mt.Makiling Luzon,Baker/Type/TypeNo 55889 U S N M/Milichius impressicollis Strohecker.

Sex: Unknown. USNM Type No.: 55889. Barcode No.: USNM ENT 00678080.

Valid name and current combination: Meilichius impressicollis (Strohecker), 1943.

Notes: *Milichius* (used by Gemminger & Harold 1876) is a misspelling of *Meilichius* Gerstaecker. Strohecker's use of the incorrectly transliterated name was an error acknowledged in a subsequent publication by Strohecker (1944).

Mycetina cyanescens Strohecker, 1943: 382. [Lycoperdininae]

Holotype (Fig. 29): Szechuen CHINA DCGraham/nrTatsienin July1-8, 1923 8400-12000 ft/Type/ TypeNo 55880 U S N M/Mycetina ♀ cyanescens Strohecker.

Sex: Female. USNM Type No.: 55880. Barcode No.: USNM ENT 00678081.

Valid name and current combination: Mycetina cyanescens Strohecker, 1943.

Parasymbius macrocerus Strohecker, 1943: 390. [Anamorphinae]

Holotype (Fig. 30): Mt.Makiling Luzon,Baker/Type/TypeNo 55891 U S N M/ Parasymbius macrocerus Strohecker.

Sex: Male. USNM Type No.: 55891. Barcode No.: USNM ENT 00678082. Valid name and current combination: *Parasymbius macrocerus* Strohecker, 1943.

Rhymbomicrus caseyi Pakaluk, 1987: 458. [Anamorphinae]

Holotype (Fig. 31): OKLAHOMA : LATIMER CO. DEC. 1981 K. STEPHAN/ HOLOTYPE Rhymbomicrus caseyi J.Pakaluk/Type No 104162 U S N M/Rhymbomicrus caseyi Pakaluk det. J. Pakaluk 1986.

Sex: Male. USNM Type No.: 104162. Barcode No.: USNM ENT 00678083.

Paratypes: 1 with collection label stating "Ks.".

Valid name and current combination: Rhymbomicrus caseyi Pakaluk, 1987.

Notes: Genitalia mounted in a microvial and pinned under the holotype. Although the paratype is from the Casey collection (based on the original species description), it was found in the general endomychid holdings. It has now been returned to the Casey collection.

Rhymbomicrus stephani Pakaluk, 1987: 460. [Anamorphinae]

Neotype (here designated to promote nomenclatural stability) (Fig. 32): OKLAHOMA : LATIMER CO. VIII-85 KARL STEPHAN/IN FLIGHT-TRAP/HOLOTYPE Rhymbomicrus stephani J. Pakaluk/Type No 104163 U S N M/Rhymbomicrus stephani Pakaluk det. J. Pakaluk 1986.

Sex: Male. USNM Type No.: 104163. Barcode No.: USNM ENT 00678084.

Valid name and current combination: Rhymbomicrus stephani Pakaluk, 1987.

Notes: Genitalia mounted in a microvial and pinned under the specimen. The neotype label data do not agree with the label data published with the species description, despite being deposited in the USNM type collection by the author himself during his term as curator. We take this action as indicative that the holotype was lost or destroyed before it could be placed in the type collection and that one of the paratypes was substituted in its place. The specimen label is consistent with a paratype that was reportedly deposited in KSCC, the private collection of the original collector of this species, K. Stephan. However, no corresponding specimen could be found among the remaining paratypes in the Stephan collection, now housed in the Texas A&M insect collection (E. Riley pers. comm.). Therefore, we conclude that this specimen must be the missing paratype. No additional specimens were located in the general holdings of the USNM. Since the holotype is missing, along with the 2 paratypes with identical label data as the holotype, we felt it necessary to designate a neotype to serve as the primary, name-bearing type for the species, and have selected the specimen above, erroneously labeled as the holotype but identified by the author as this species, to serve as the neotype. The original species diagnosis and key (Pakaluk 1987) provide characteristics which differentiate this species from congeneric taxa.

Saula lobatipes Strohecker, 1943: 384. [Stenotarsinae]

Holotype (Fig. 33): Cuernos Mts. Negros, Baker/Type/TypeNo 55883 U S N M/Saula $\stackrel{?}{\supset}$ lobatipes det. Strohecker.

Sex: Male. USNM Type No.: 55883. Barcode No.: USNM ENT 00678075.

Paratypes: 1 allotype with same collection label as holotype.

Valid name and current combination: Saula lobatipes Strohecker, 1943.

Notes: Saula luzonica Strohecker, 1951 is considered a junior synonym of this species (Strohecker 1958b).

Stenotarsus atripennis Strohecker, 1943: 386. [Stenotarsinae]
Holotype (Fig. 34): MA-AO CENTRAL OCC. NEGROS/1/2/28/LIGHT/Type/TypeNo 55885 U S N M/ Stenotarsus atripennis Strohecker.
Sex: Male. USNM Type No.: 55885. Barcode No.: USNM ENT 00678077.
Valid name and current combination: Stenotarsus atripennis Strohecker, 1943.

Stenotarsus flavomaculatus Strohecker, 1943: 387. [Stenotarsinae]

Holotype (Fig. 35): Cuernos Mts. Negros, Baker/Type/TypeNo 55886 U S N M/ Stenotarsus flavomaculatus Strohecker.

Sex: Male. USNM Type No.: 55886. Barcode No.: USNM ENT 00678078.

Valid name and current combination: Stenotarsus flavomaculatus Strohecker, 1943.

Stenotarsus flavoscapularis Strohecker, 1943: 388. [Stenotarsinae]

Holotype (Fig. 36): Dapitan Mindanao Baker/Type/TypeNo 55887 U S N M/ Stenotarsus flavoscapularis Strohecker.

Sex: Male. USNM Type No.: 55887. Barcode No.: USNM ENT 00678079.

Paratypes: 1 paratype with the same collection label data as the holotype.

Valid name and current combination: Stenotarsus flavoscapularis Strohecker, 1943.

Notes: In addition to the paratype, there were 5 non-type specimens housed with the holotype. Four of these specimens have the same collection label data as the holotype (1 of which has an additional label bearing simply the number "13223"). The remaining specimen has the following collection data: "Lamao, Luzon III-VI.11 PI / CV Piper Collector". The paratype and non-type specimens have been moved to the general USNM collection.

Stenotarsus monrovius Strohecker, 1943: 386. [Stenotarsinae]

Holotype (Fig. 37): MtCoffee Liberia Apr 1894/Collection OFCook/Type/TypeNo 55884 U S N M/ Stenotarsus monrovius Strohecker.

Sex: Male. USNM Type No.: 55884. Barcode No.: USNM ENT 00678066.

Valid name and current combination: Stenotarsus monrovius Strohecker, 1943.

Stenotarsus politus Strohecker, 1958a: 108. [Stenotarsinae]

Holotype (Fig. 38): KOROR I., Palau Islds.; limestone ridge S.of inlet 22 Jan. 1948 / Pacific Sci.Board Ent.Surv.of Micronesia H.S.Dybas leg./TypeNo 63445 U S N M/ Stenotarsus politus Strohecker Holo-TYPE.

Sex: Male. USNM Type No.: 63445. Barcode No.: USNM ENT 00678067.

Valid name and current combination: Stenotarsus politus Strohecker, 1958a.

Notes: There is an additional specimen in the unit tray with the holotype that is also labeled as a holotype with a USNM type number (61598) and bearing the following label data: "KOROR I., Palau Islds.;limestone ridge S.of inlet 17 Jan. 1948/beating vegetation/Pacific Sci.Board Ent.Surv.of Micronesia H.S.Dybas leg./ Type No. 61598 U.S.N.M./Stenotarsus politus \bigcirc Strohecker Type". In addition, there is a note in the box stating the following: "#61598 was lost temporarily. Meantime #63445 was designated by Strohecker. #63445 has no standing as holotype. JMK [=John M. Kingsolver] Jan 4/66". An examination of the original species description and the USNM type accession log books shows the note included in the box to be incorrect. The label data and type number published with the species description match the holotype (#63445) listed above. The data associated with the erroneously labeled type match a series of 8 paratypes, the location of which was not given and is unknown. Thus, the note was folded in half, indicating that its contents had been evaluated and subsequently dismissed as erroneous. A new note and citation of this checklist will be added upon publication. The secondary "holotype" specimen (USNM type no. 61598) was left in the unit tray, however, to preserve the history of the specimens. It has no formal standing as a type.

*Stenotarsus solidus Casey, 1916: 144. [Stenotarsinae]
Holotype (Fig. 39): SouthernPines 1-1C N.C/CASEY bequest 1925/TYPE USNM 48777/solidus Csy.
Sex: Unknown. USNM Type No.: 48777. Barcode No.: USNM ENT 00678028.
Valid name and current combination: Stenotarsus hispidus (Herbst), 1799.

*Symbiotes lacustris Casey, 1916: 141. [Anamorphinae]

Holotype (Fig. 40): DET MICH/CASEY bequest 1925/TYPE USNM 48772/lacustris Csy.
Sex: Female. USNM Type No.: 48772. Barcode No.: USNM ENT 00678036.
Valid name and current combination: Symbiotes duryi Blatchley, 1910.
Notes: Unit tray in which this specimen is housed in the Casey collection is incorrectly labeled "Rhymbus lacustris Casey, 1916".

*Symbiotes montanus Casey, 1916: 140. [Anamorphinae]

Lectotype (Fig. 41): Denv. Col./CASEY bequest 1925/TYPE USNM 48773/Symbiotes montanus Csy/ Lectotype Symbiotes $\stackrel{\circ}{\supset}$ montanus Casey.

Sex: Male. USNM Type No.: 48773. Barcode No.: USNM ENT 00678037.

Paralectotypes: 8 in all—3 with same label as lectotype, 2 with collection labels stating "L", 3 paralectotypes with collection labels stating "Vessel near Key West".

Valid name and current combination: Symbiotes gibberosus (Lucas), 1846.

Notes: Unit tray in which this specimen is housed in the Casey collection is incorrectly labeled "*Rhymbus montanus* Casey, 1916". Lectotype and paralectotypes designated by Strohecker (1981).

*Symbiotes oblongus Casey, 1916: 142. [Anamorphinae]

Holotype (Fig. 42): Penn/CASEY bequest 1925/TYPE USNM 48774/oblongus Csy.

Sex: Male. USNM Type No.: 48774. Barcode No.: USNM ENT 00678026.

Valid name and current combination: Symbiotes duryi Blatchley, 1910.

Notes: Unit tray in which this specimen is housed in the Casey collection is incorrectly labeled "*Rhymbus oblongus* Casey, 1916".

*Symbiotes pilosus Casey, 1916: 143. [Anamorphinae]

Holotype (Fig. 43): N.Y/CASEY bequest 1925/TYPE USNM 48775/pilosus Csy.

Sex: Female. USNM Type No.: 48775. Barcode No.: USNM ENT 00678027.

Valid name and current combination: Symbiotes duryi Blatchley, 1910.

Notes: Unit tray in which this specimen is housed in the Casey collection is incorrectly labeled "*Rhymbus pilosus* Casey, 1916".

Trochoideus coeloantennatus Strohecker, 1943: 391. [Pleganophorinae]

Holotype (Fig. 44): Argentina coll. G.L. Harrington/El Quemado Jujuy III-V-26/TypeNo 55892 U S N M/ Trochoideus ♂ coelo-antennatus Type Strohecker.

Sex: Male. USNM Type No.: 55892. Barcode No.: USNM ENT 00678069.

Paratypes: 2 in all—1 allotype and 1 paratype, both with the same collection label data as the holotype. **Valid name and current combination:** *Trochoideus coeloantennatus* Strohecker, 1943.

Notes: In addition to the paratypes, there was 1 non-type specimen housed with the holotype and bearing the following collection label data: "on Brazil Nuts Brazil IX.4'40 N.Y. 86893". The 2 paratypes and single non-type specimen have been moved to the general USNM collection.

Xenomycetes laversi Hatch, 1962: 237. [Xenomycetinae]

Holotype (Fig. 45): Seattle, WASH. IV-12-1938 C.H.Lavers/TYPE ♂ Xenomycetes laversi 1958-M. Hatch.

Sex: Male. USNM Type No.: N/A. Barcode No.: USNM ENT 00678063.

Valid name and current combination: Xenomycetes laversi Hatch, 1962.

Notes: Genitalia mounted in a microvial and pinned under the holotype. As discussed previously, this specimen was accessioned with the Hatch Collection, after the decision to no longer require USNM type numbers so it does not have one.

LATRIDIIDAE (= CORTICARIIDAE)

Cartodere quadrifoveolata Fall, 1899: 136. [Latridiinae]
Holotype (Fig. 46): Los Gatos Cal/CollHubbard &Schwarz/HCFall det./TYPE/Type No. 4448 U.S.N.M./ Cartodere 4-foveolata Fall.
Sex: Unknown. USNM Type No.: 4448. Barcode No.: USNM ENT 00678056.
Valid name and current combination: Akalyptoishion quadrifoveolata (Fall), 1899.

Metophthalmus septemstriatus Hatch, 1962: 114. [Latridiinae]

Holotype (Fig. 47): McMinnvilleOre 27/X/1939 KM & DM Fender/TYPE Metophthalmus septemstriatus 1957-M. Hatch.

Sex: Unknown. USNM Type No.: N/A. Barcode No.: USNM ENT 00678057.

Valid name and current combination: Metophthalmus septemstriatus Hatch, 1962.

Notes: As discussed previously, as this is a Hatch type, its accession came after the decision to no longer require USNM type numbers so it does not have one.

Stephostethus bilobatus Walkley, 1952: 230. [Latridiinae]

Holotype (Fig. 48): Eureka 7.6 Cal/HSBarber Collector/Type No. 61309 U.S.N.M./Stephostethus bilobatus det Wlkl type Wlkl.

Sex: Male. USNM Type No.: 61309. Barcode No.: USNM ENT 00678058.

Valid name and current combination: Stephostethus bilobatus Walkley, 1952.

Notes: Walkley's description states that there should be 20 paratypes of this species in the USNM. We were able to find 19 of these in the curated portion of the general collection.

Discussion

Not surprisingly, as with many large museums that are making efforts to catalogue and digitize their collection holdings to make them accessible to a wider audience via the World Wide Web, the Coleoptera collection of the USNM has its own share of problems associated with identifying and confirming the status of type specimens housed there. An inventory of the type specimens of the three relatively small families presented herein resulted in the discovery of a variety of problems which have now been addressed and are summarized below:

Fourteen additional type specimens were found for Cerylonidae (6 types) and Endomychidae (8 types) in the Casey Collection, housed separately from the Coleoptera type collection and general holdings.

The types of *Lycoperdinella subcaeca* Champion, 1913 (Coleoptera type collection) and *Eupsilobius politus* Casey, 1916 (Casey collection) were both found to be associated with the wrong families. In the case of the former, it was found in the Latridiidae (= Corticariidae), but it is now in the subfamily Merophysiinae of Endomychidae. In the case of the latter, it was located in the Cerylonidae, but it is now in the subfamily Eupsilobiinae of Endomychidae (albeit synonymyzed under the genus *Eidoreus*). Although they were correctly placed at the time of their original descriptions, current and future workers would have had difficulty locating them. Therefore, they have been moved to match their current subfamilial and familial placement within each respective type collection.

Unit trays in the Casey Collection containing the type specimens of *Symbiotes lacustris*, *S. montanus*, *S. oblongus* and *S. pilosus* are all incorrectly labeled under the genus *Rhymbus*. These species have never been formally associated with *Rhymbus*, and the original species descriptions of Casey (1916) clearly show that they were classified as species of *Symbiotes*. All are now synonyms of other *Symbiotes* species. In all cases, the unit tray header labels were left unmodified to preserve the historical integrity of the collection, but a note has been added to alert future workers to this discrepancy.

The holotypes of *Amphisternus bakeri*, *A. mastophorus* and *A. nigrellus* all have two different USNM type numbers associated with them, i.e., those which are on type labels pinned with the specimens and those published with the original species descriptions. Review of the USNM type accession book showed the entries for the earlier set of numbers (those ultimately published but not associated with the specimens) were blank. Therefore, we conclude that those listed with complete data in the accession book and those found on the specimens are the true USNM type numbers.

Because of a change in museum policy during the mid- to late-1980s regarding the requirement of USNM type numbers (namely that they would no longer be mandatory for types being deposited in the USNM), the Hatch types of *Metophthalmus septemstriatus* and *Xenomycetes laversi*, which were accessioned after that period, lack USNM type numbers. In fact, they had no globally unique number to help future workers verify that they are indeed the holotypes for their respective species. The addition of USNM barcode labels and numbers rectifies this problem.

An older version of the USNM type database had no record of the lectotype and paralectotype of *Anamorphus pusillus* as being housed in the USNM, although the curatorial staff was aware of its presence in the collection and the designation and deposition of the specimens was published in the literature (Strohecker 1981).

The lectotype of *Geoendomychus punctatus* had two USNM type numbers assigned to it. Review of the USNM type accession log book showed both numbers correctly associated with *G punctatus* and both as "co-type" (i.e., no change in type status with the assignment of the second number). In this case, we choose to follow the strict priority of the earliest type number associated with the specimen. Therefore, the USNM type number 51769 is the correct, valid type number for this specimen.

Two holotypes, each with their own respective USNM type numbers, i.e., 61598 and 63445, were discovered for *Stenotarsus politus*. A note in the unit tray indicated that the previously numbered type had been lost. However, the latter number matches the type number published with the species description, and the data on that specimen better match the data reported for the holotype. The data associated with the earlier number matches a series of paratypes of known depository. We therefore concluded that the previous number is invalid and that specimen actually has no standing as the holotype. The specimen bearing the USNM type number 63445 is the true type.

Except as indicated above, all paratypes and non-type specimens have been removed from the Coleoptera type collection and moved to the general collection, per the USNM policy on primary types. Paratypes and non-type materials in the Casey collection have been left in their original locations per the conditions of acquisition, and one paratype (*Rhymbomicrus caseyi*) from Casey's collection that was housed in the general collection.

A USNM specimen labeled as the holotype of *Rhymbomicrus stephani* was discovered to be a paratype that was supposedly deposited in the Stephan collection in the Texas A&M insect collection. Since the holotype could not be located in the Stephan collection, the USNM type collection or the USNM general holdings, the paratype erroneously labeled by the author of the species as the holotype was designated as a neotype to promote nomenclatural stability by providing a name-bearing primary type for the species.

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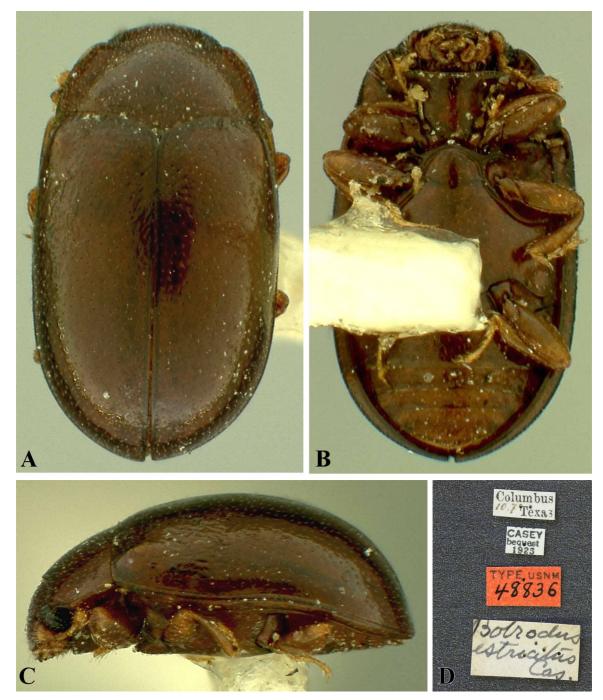


FIGURE 1. Holotype of *Botrodus estriatus* Casey, 1890: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.3 mm.



FIGURE 2. Holotype of *Cerylon californicum* Casey, 1890: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 3.0 mm.

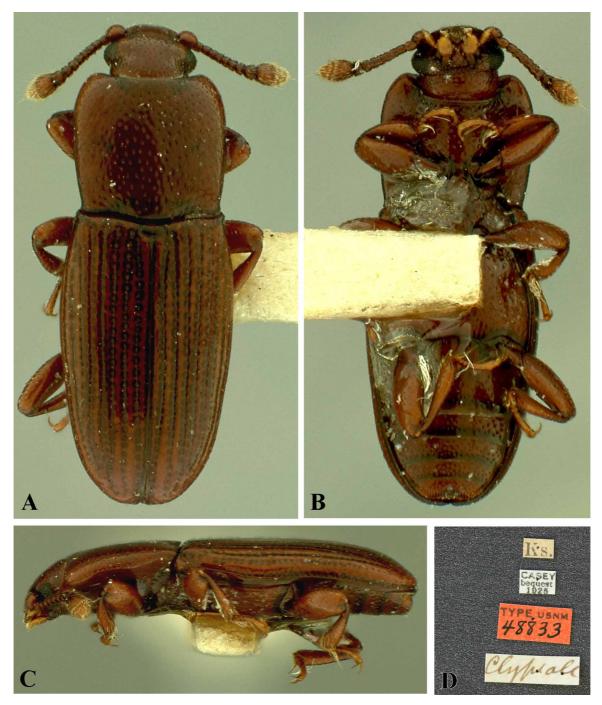


FIGURE 3. Holotype of *Cerylon clypeale* Casey, 1897: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 2.4 mm.

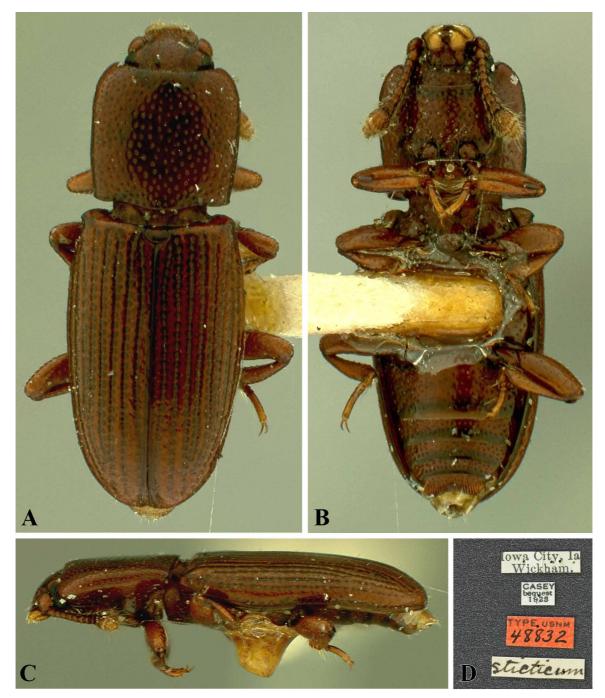


FIGURE 4. Holotype of *Cerylon sticticum* Casey, 1897: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 2.5 mm.

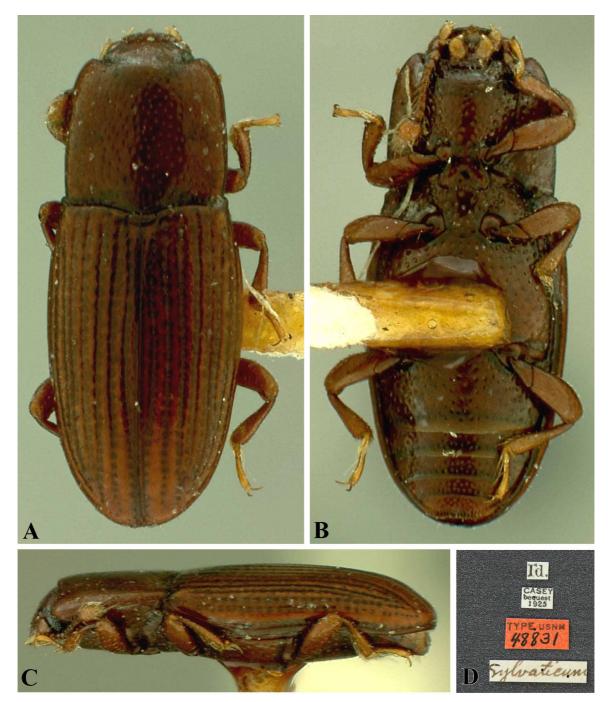


FIGURE 5. Holotype of *Cerylon sylvaticum* Casey, 1897: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 2.0 mm.

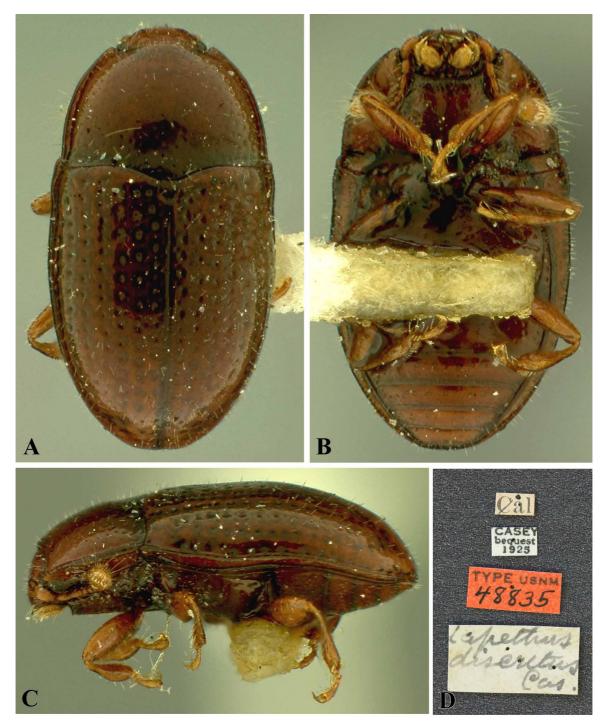


FIGURE 6. Holotype of *Lapethus discretus* Casey, 1890 (*=Mychocerus discretus* (Casey), 1890): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.9 mm.



FIGURE 7. Holotype of *Philothermus kingsolveri* Ślipiński, 1982: A) Dorsal habitus; B) Lateral habitus; C) Specimen labels. Length = 2.8 mm.

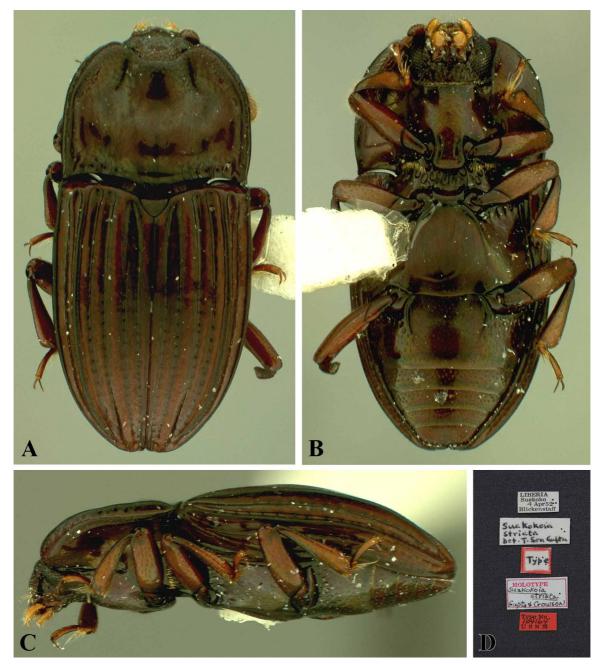


FIGURE 8. Holotype of *Suakokoia striata* Sen Gupta & Crowson, 1973: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 3.0 mm.



FIGURE 9. Holotype of *Acinaces humeralis* Tomaszewska, 2007 (Habitus views courtesy of M. Metz.): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 4.7 mm.



FIGURE 10. Holotype of *Acinaces nataliae* Tomaszewska, 2007 (Habitus views courtesy of M. Metz.): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 5.2 mm.



FIGURE 11. Holotype of *Amphisternus bakeri* Strohecker, 1957 (*=Cacodaemon bakeri* (Strohecker), 1957): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 7.6 mm.



FIGURE 12. Holotype of *Amphisternus mastophorus* Strohecker, 1957 (*=Cacodaemon mastophorus* (Strohecker), 1957): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 10.2 mm.



FIGURE 13. Holotype of *Amphisternus nigrellus* Strohecker, 1957 (*=Cacodaemon nigrellus* (Strohecker), 1957): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 8.3 mm.

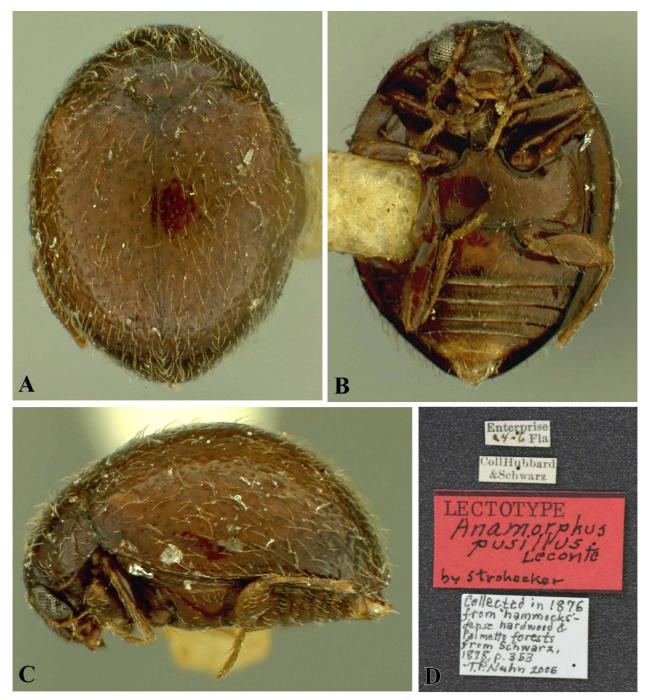


FIGURE 14. Lectotype of *Anamorphus pusillus* LeConte, 1878: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.2 mm.



FIGURE 15. Holotype of *Anidrytus pardalinus* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 8.0 mm.

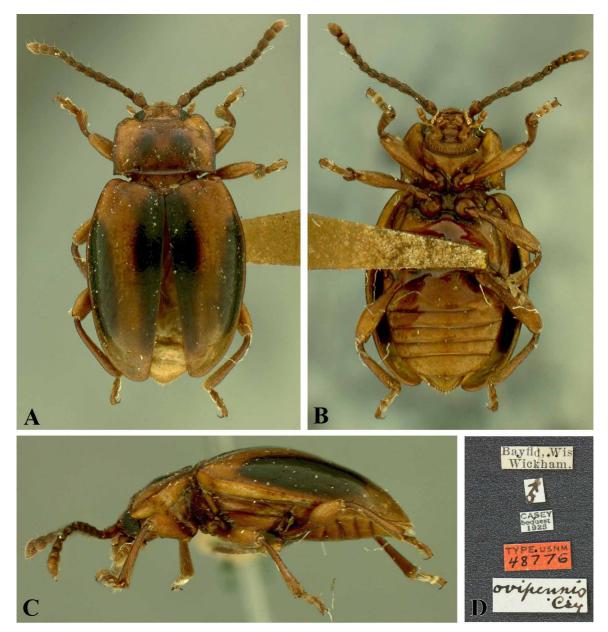


FIGURE 16. Holotype of *Aphorista ovipennis* Casey, 1916 (*=Aphorista vittata* (Fabricius), 1787): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 4.0 mm.



FIGURE 17. Holotype of *Beccaria denticornis* Strohecker, 1943 (*=Beccariola philippinica* Arrow, 1920): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 4.5 mm.

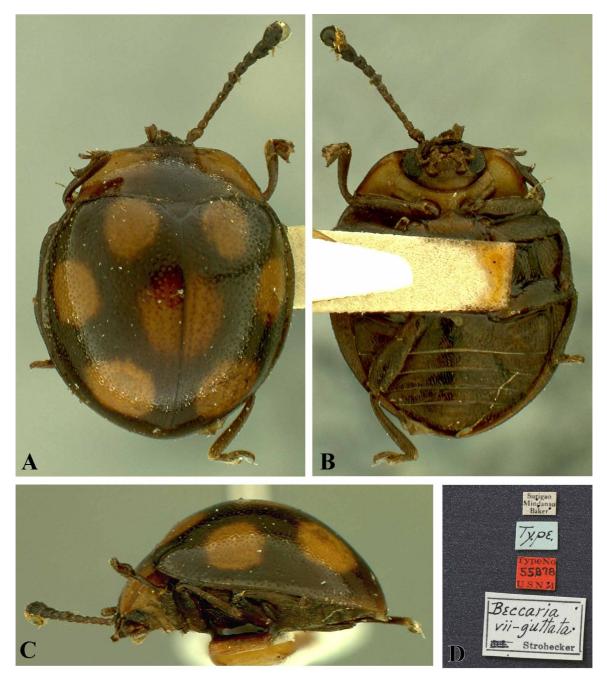


FIGURE 18. Holotype of *Beccaria septemguttata* Strohecker, 1943 (*=Beccariola philippinica* Arrow, 1920): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 3.5 mm.

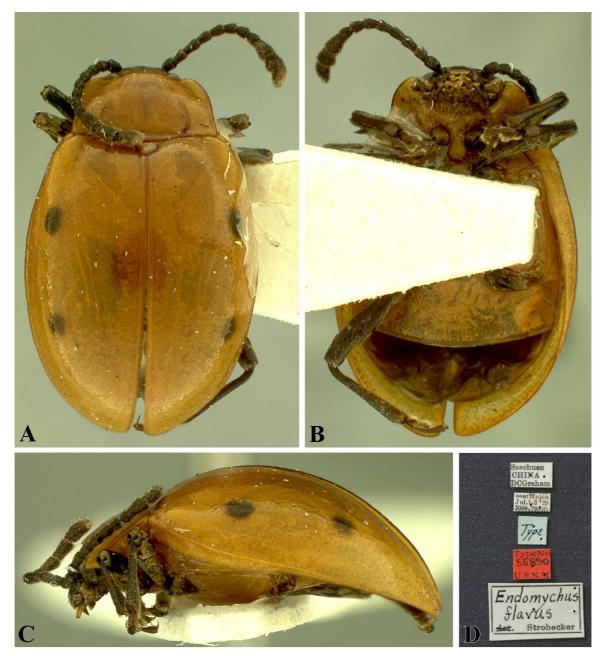


FIGURE 19. Holotype of *Endomychus flavus* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 4.5 mm.



FIGURE 20. Neotype of *Engonius angustefasciatus* Pic, 1940 (=*Sinocymbachus angustefasciatus* (Pic), 1940): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 10.0 mm.



FIGURE 21. Holotype of *Engonius excisipes* Strohecker, 1943 (=*Sinocymbachus excisipes* (Strohecker), 1943): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 9.75 mm.

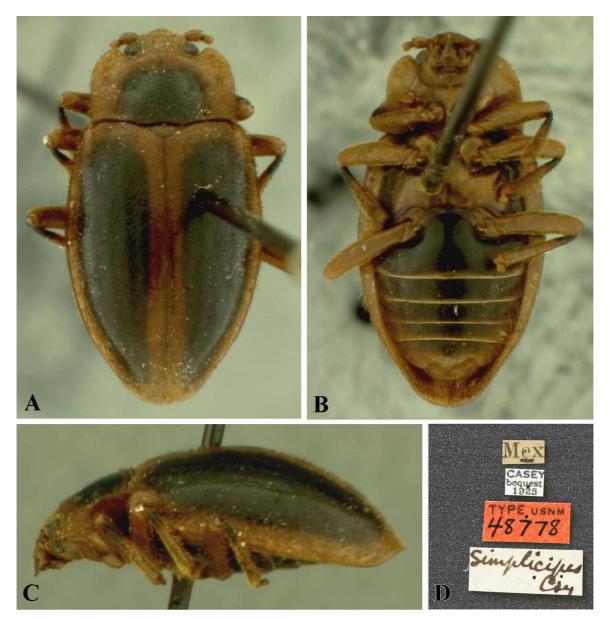


FIGURE 22. Holotype of *Epipocus simplicipes* Casey, 1916 (*Epipocus tibialis* (Chevrolat), 1834): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 7.0 mm.



FIGURE 23. Holotype of *Eumorphus purpureus* Strohecker, 1968: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 11.3 mm.

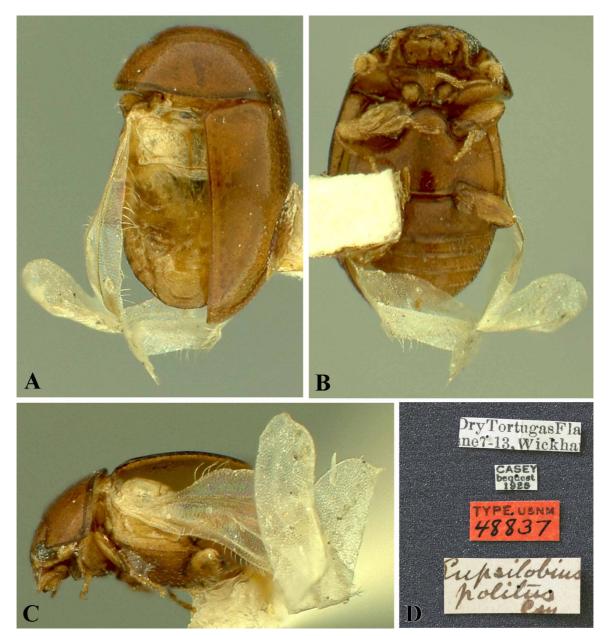


FIGURE 24. Holotype of *Eupsilobius politus* Casey, 1895 (*=Eidoreus politus* (Casey), 1895): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 0.6 mm.

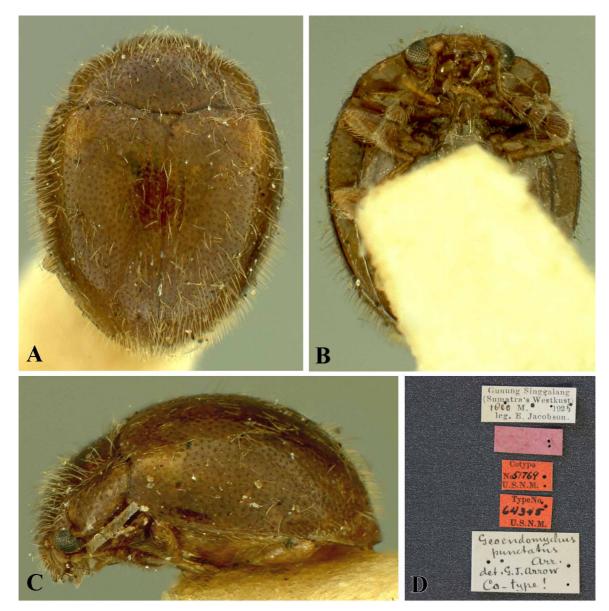


FIGURE 25. Lectotype of *Geoendomychus punctatus* Arrow, 1926: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.0 mm.

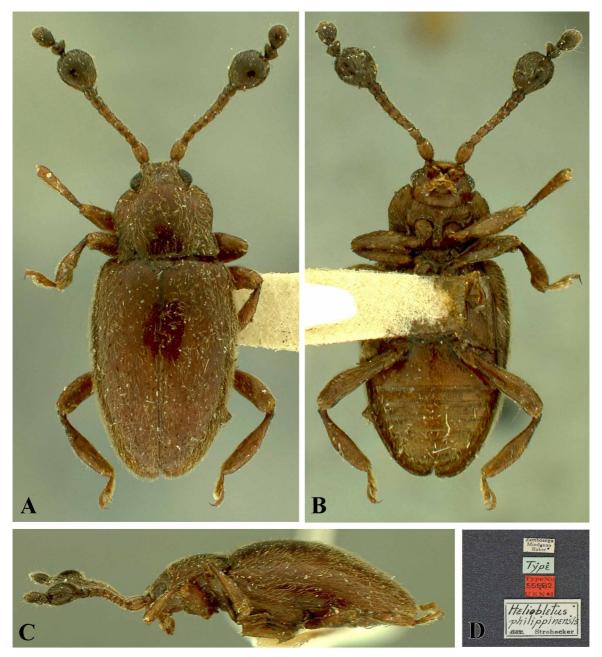


FIGURE 26. Holotype of *Heliobletus philippinensis* Strohecker, 1943 (*=Tragoscelis philippinensis* (Strohecker), 1943): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 3.6 mm.

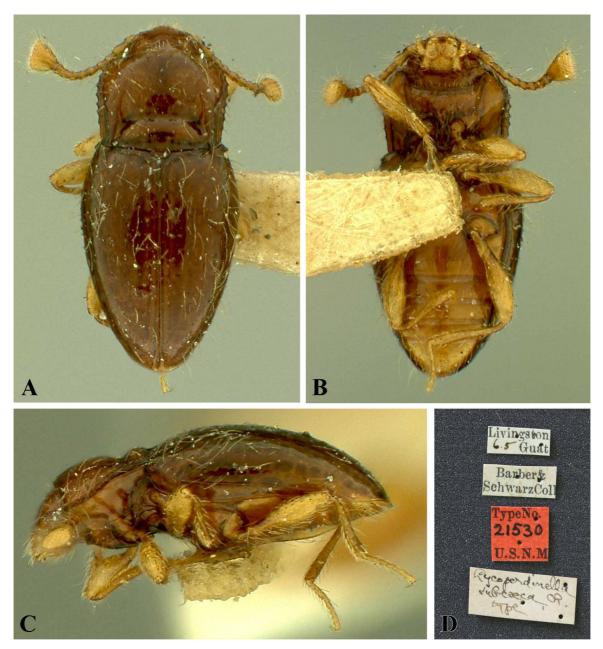


FIGURE 27. Holotype of *Lycoperdinella subcaeca* Champion, 1913: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.3 mm.

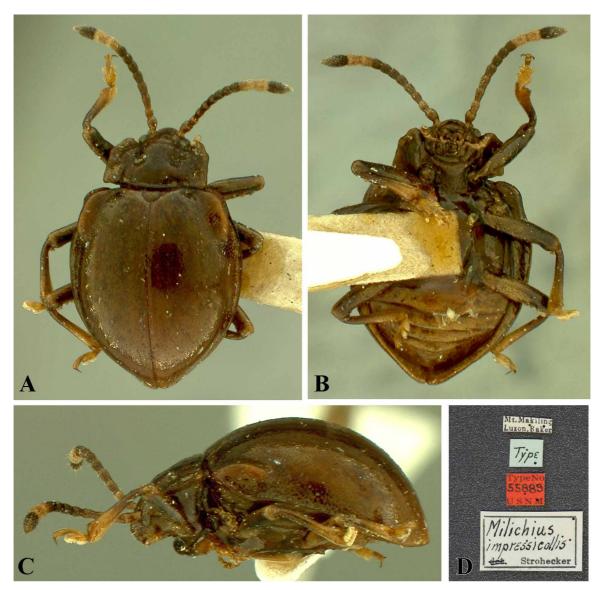


FIGURE 28. Holotype of *Milichius impressicollis* Strohecker, 1943 (*=Meilichius impressicollis* (Strohecker), 1943): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 3.8 mm.

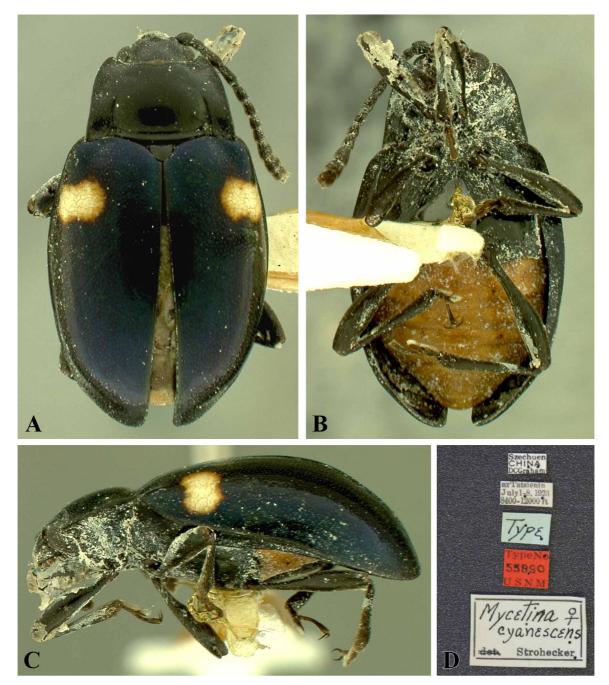


FIGURE 29. Holotype of *Mycetina cyanescens* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 4.8 mm.

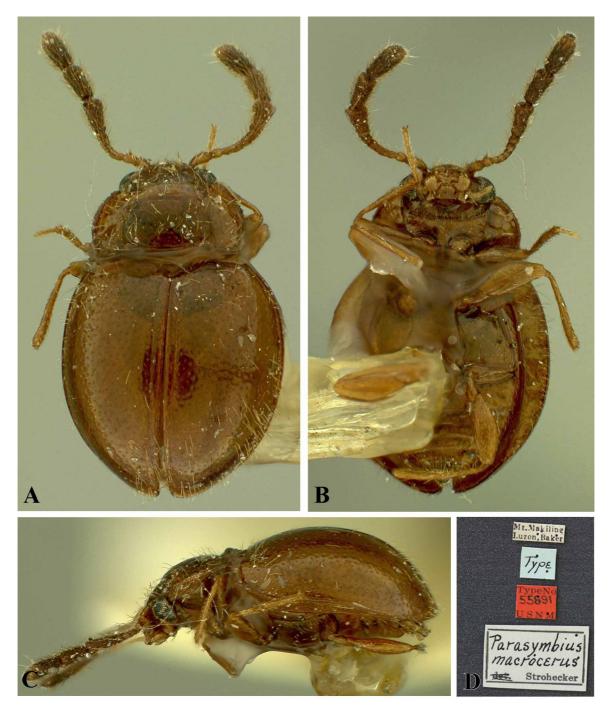


FIGURE 30. Holotype of *Parasymbius macrocerus* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.5 mm.

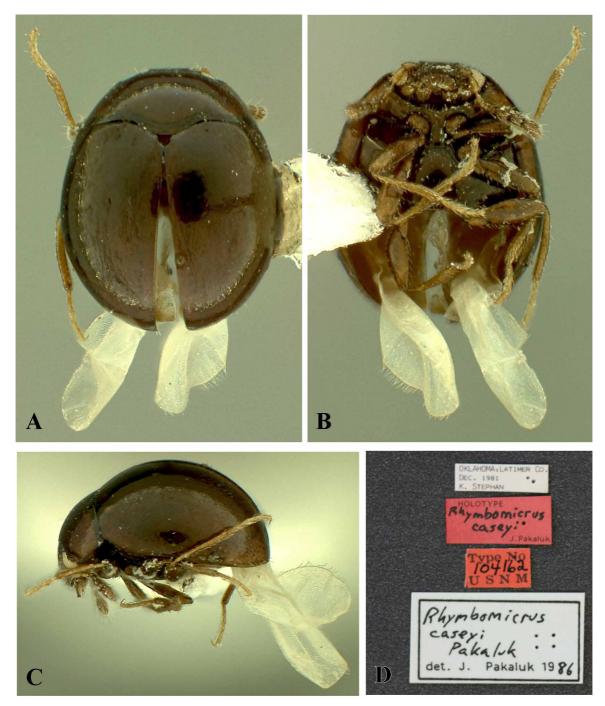


FIGURE 31. Holotype of *Rhymbomicrus caseyi* Pakaluk, 1987: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.1 mm.

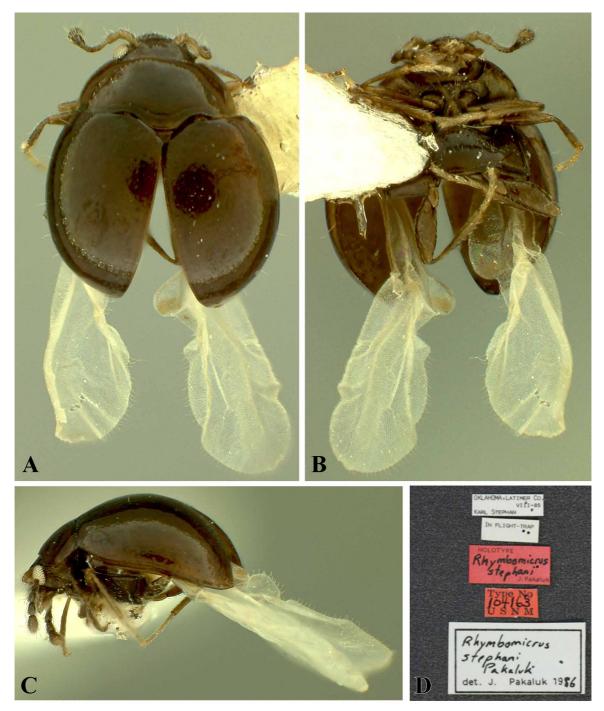


FIGURE 32. Neotype of *Rhymbomicrus stephani* Pakaluk, 1987: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.2 mm.



FIGURE 33. Holotype of *Saula lobatipes* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 2.5 mm.

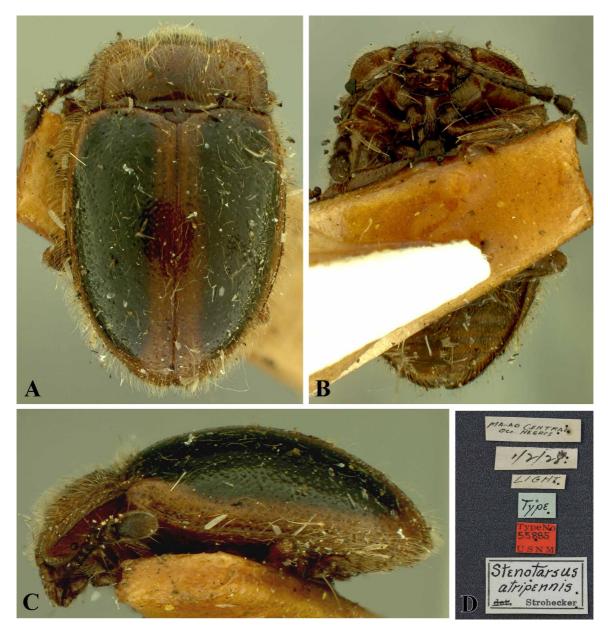


FIGURE 34. Holotype of *Stenotarsus atripennis* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 3.0 mm.



FIGURE 35. Holotype of *Stenotarsus flavomaculatus* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 2.5 mm.

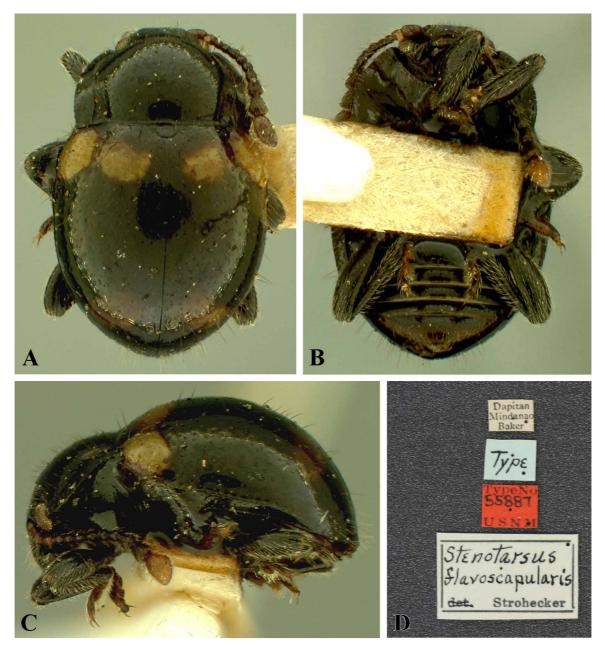


FIGURE 36. Holotype of *Stenotarsus flavoscapularis* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 2.0 mm.

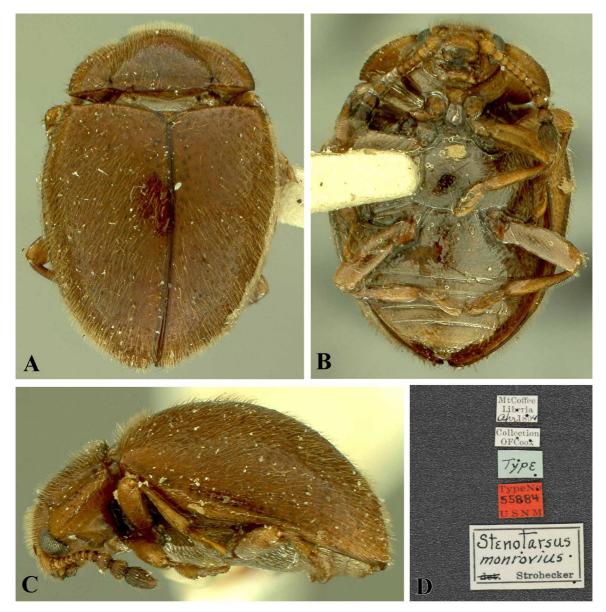


FIGURE 37. Holotype of *Stenotarsus monrovius* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 3.0 mm.

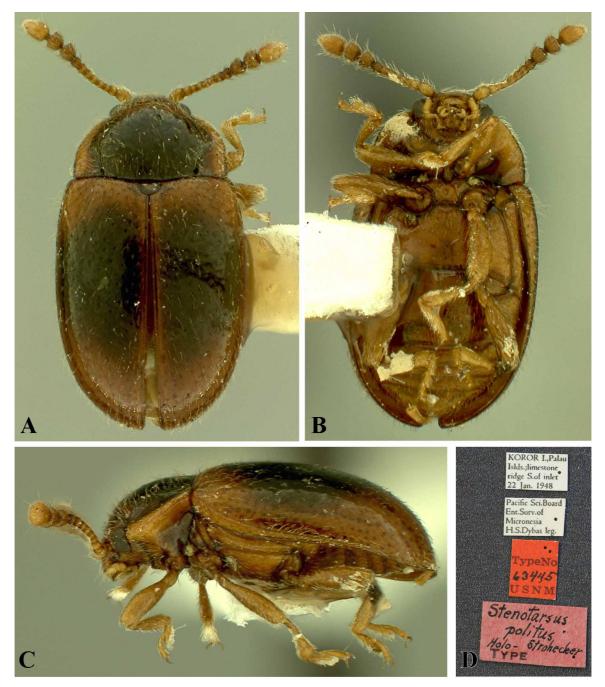


FIGURE 38. Holotype of *Stenotarsus politus* Strohecker, 1958: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 2.5 mm.

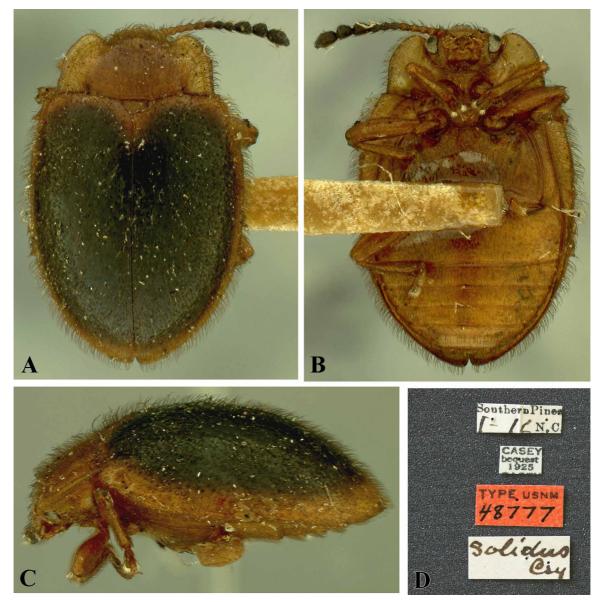


FIGURE 39. Holotype of *Stenotarsus solidus* Casey, 1916 (=*Stenotarsus hispidus* (Herbst), 1799): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 4.2 mm.

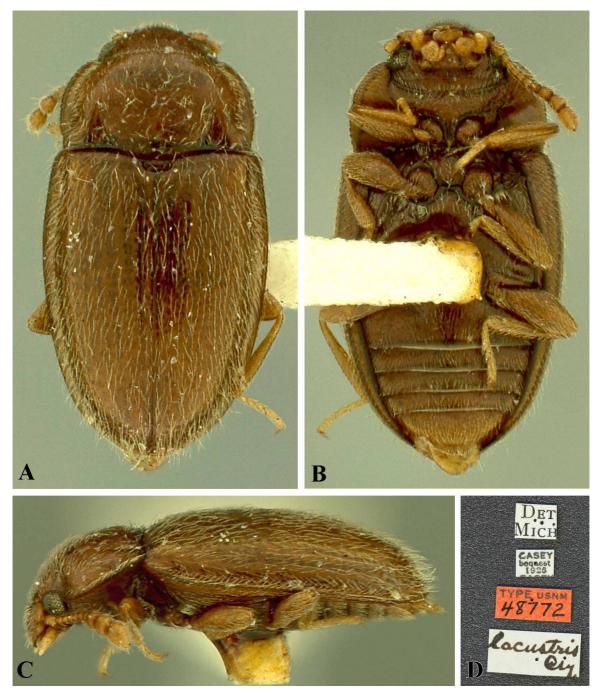


FIGURE 40. Holotype of *Symbiotes lacustris* Casey, 1916 (*=Symbiotes duryi* Blatchley, 1910): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.8 mm.

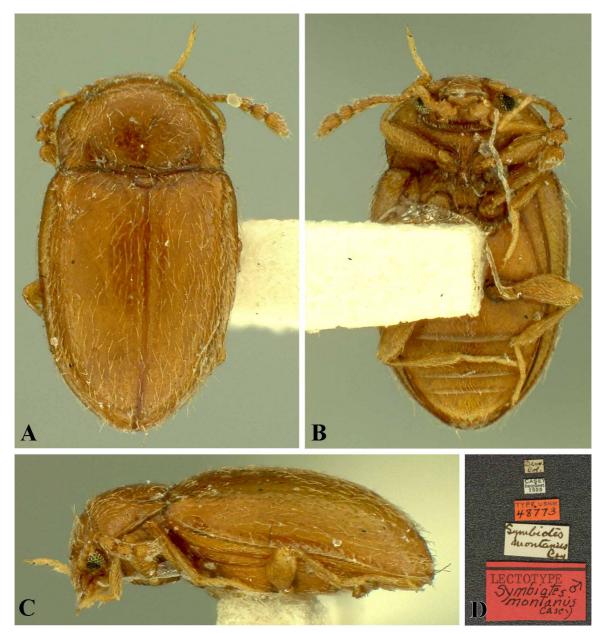


FIGURE 41. Lectotype of *Symbiotes montanus* Casey, 1916 (=*Symbiotes gibberosus* (Lucas), 1846): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.6 mm.

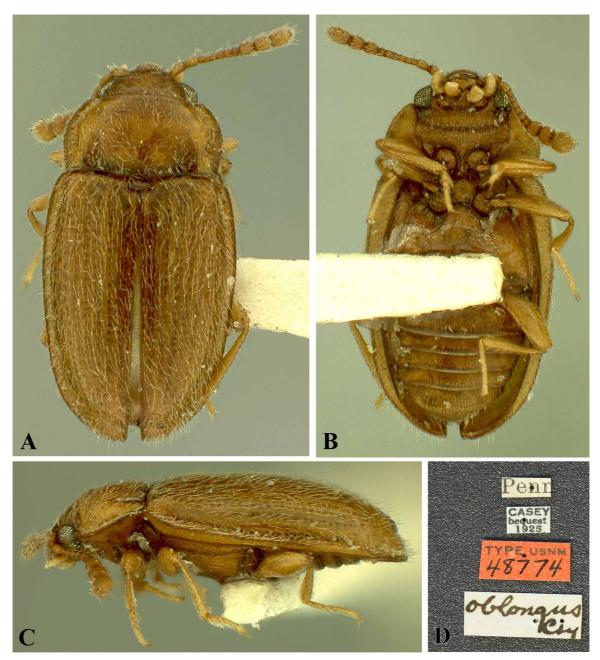


FIGURE 42. Holotype of *Symbiotes oblongus* Casey, 1916 (*=Symbiotes duryi* Blatchley, 1910): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.9 mm.

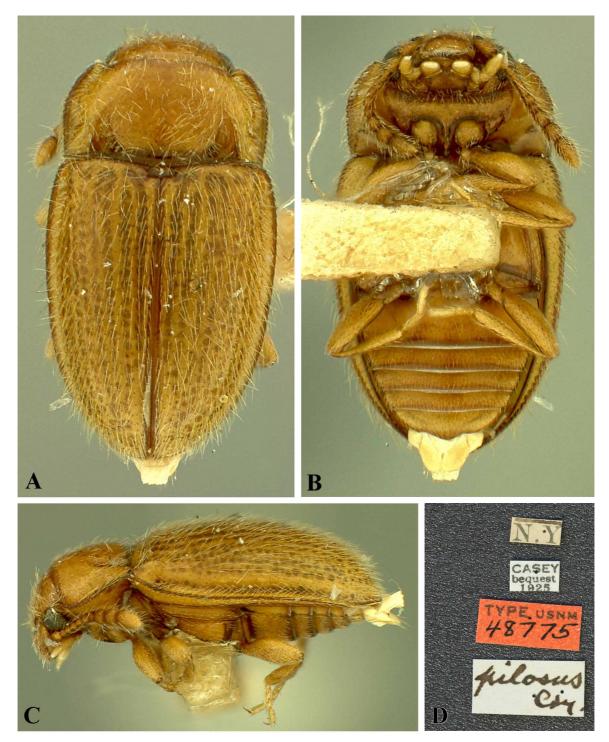


FIGURE 43. Holotype of *Symbiotes pilosus* Casey, 1916 (=*Symbiotes duryi* Blatchley, 1910): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.7 mm.

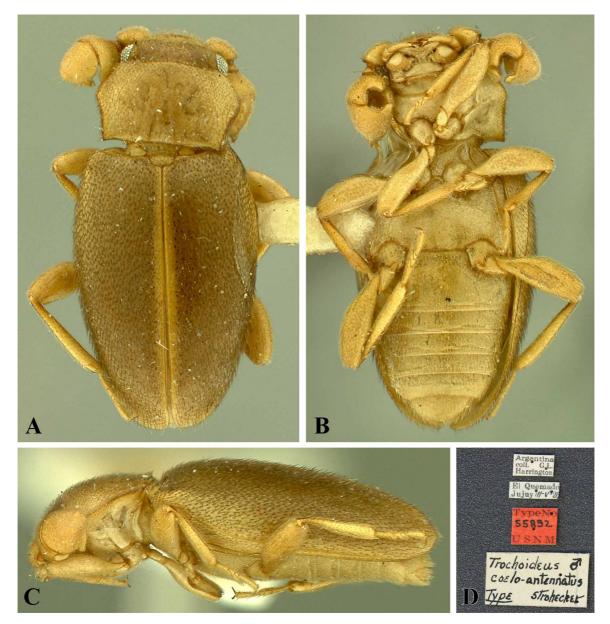


FIGURE 44. Holotype of *Trochoideus coeloantennatus* Strohecker, 1943: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 3.0 mm.

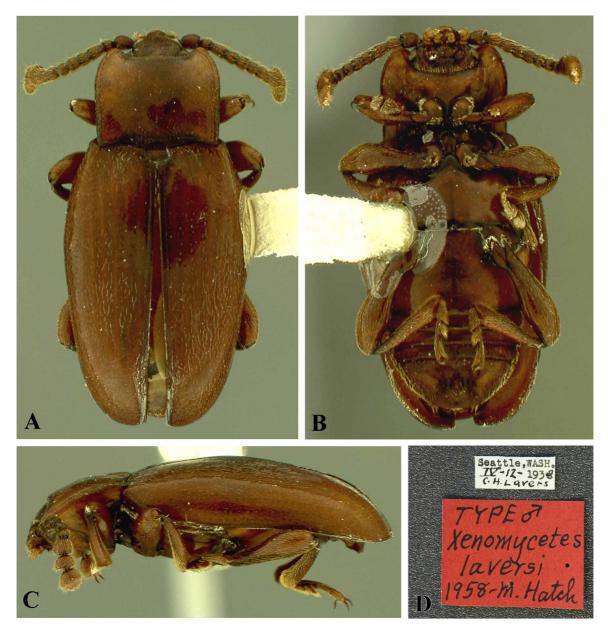


FIGURE 45. Holotype of *Xenomycetes laversi* Hatch, 1962: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 4.7 mm.

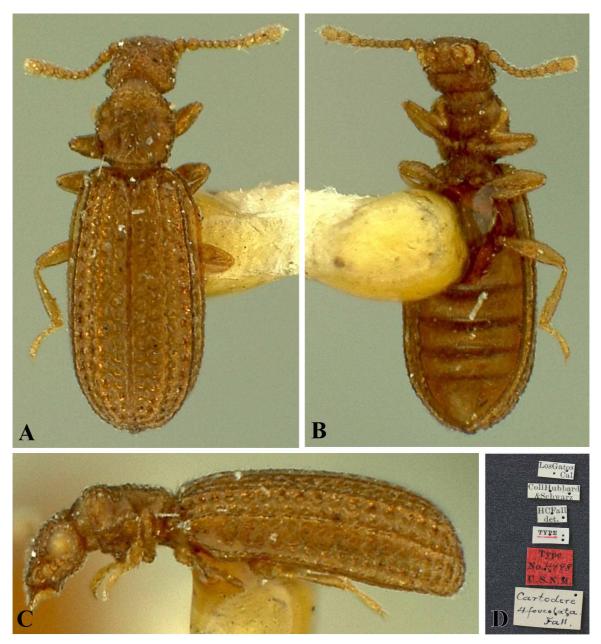


FIGURE 46. Holotype of *Cartodere quadrifoveolata* Fall, 1899 (*=Akalyptoishion quadrifoveolata* (Fall), 1899): A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.0 mm.

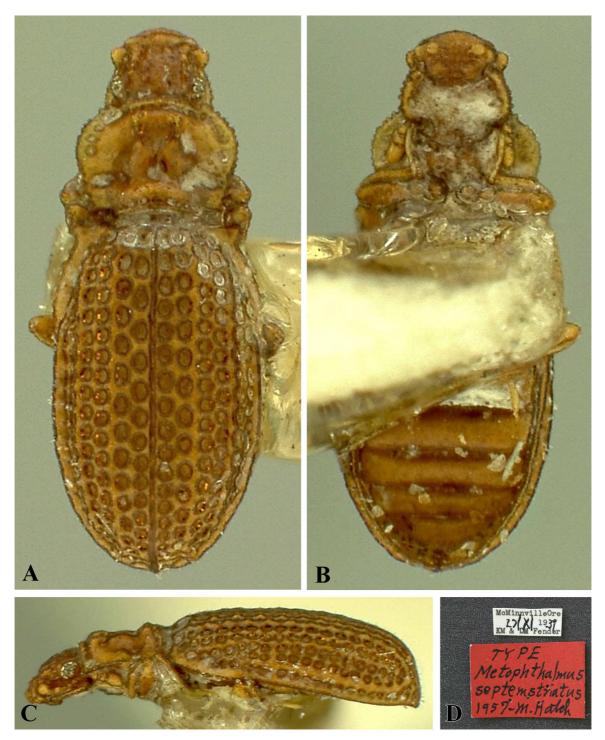


FIGURE 47. Holotype of *Metophthalmus septemstriatus* Hatch, 1962: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.4 mm.

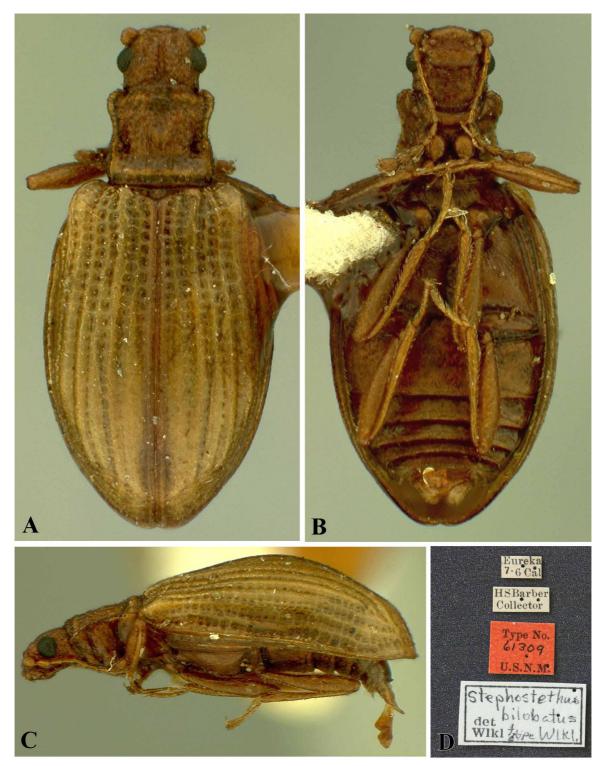


FIGURE 48. Holotype of *Stephostethus bilobatus* Walkley, 1952: A) Dorsal habitus; B) Ventral habitus; C) Lateral habitus; D) Specimen labels. Length = 1.5 mm.