




ARTICLE

Taxonomic notes, new species, and new records of Neotropical Cerambycidae (Coleoptera)

Antonio Santos-Silva¹ , Oscar Pérez-Flores² , and Juan Pablo Botero³ 

¹Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil, ²Laboratorio Nacional de Análisis y Síntesis Ecológica, Universidad Nacional Autónoma de México, Morelia, Mexico, and ³Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Bogotá, Colombia

Corresponding author: Juan Pablo Botero; Email: jp_bot@yahoo.com

(Received 10 January 2024; accepted 6 March 2024)

Abstract

Haplidus glabricollis Chemsak and Linsley, 1964 is synonymised with *Limernaena ochracea* (Fisher, 1927) (Coleoptera: Cerambycidae: Cerambycinae: Oemini). *Adetus scissicauda* (Bates, 1874) (Coleoptera: Cerambycidae: Lamiinae: Apomecynini) is reinstated, and *Adetus alboapicalis* Breuning, 1943 is proposed as a junior synonym. *Adetus salvadorensis* Franz, 1954 (Coleoptera: Cerambycidae: Lamiinae: Apomecynini) is redescribed and recorded from Oaxaca, Mexico. *Plistonax antonkozlovi* Santos-Silva *et al.*, 2020 (Coleoptera: Cerambycidae: Lamiinae: Acanthoderini) and *Hesychotypa danilevskyi* Nearn and Nascimento, 2019 (Coleoptera: Cerambycidae: Lamiinae: Onciderini) are recorded for the first time for the province of Bocas del Toro, Panama. *Dorcasta borealis* Breuning, 1940 (Coleoptera: Cerambycidae: Lamiinae: Apomecynini) is newly recorded from Mexico (Yucatán). The type locality of *Eupogonius longipilis* Bates, 1880 (Coleoptera: Cerambycidae: Lamiinae: Desmiphorini) is corroborated and new state record from Chiapas, Mexico, is reported. *Eupogonius vittipennis* Bates, 1885 is recorded for Campeche, Mexico. *Trichastylopsis skillmani* **new species** (Coleoptera: Cerambycidae: Lamiinae: Acanthocinini) is described from Jalisco and Michoacán, Mexico.

Introduction

Cerambycidae is among the largest families of Coleoptera. Currently, it includes more than 38 000 known species (Tavakilian and Chevillotte 2023). Of these, more than 12 000 species occur in the Americas (Bezark 2023; Tavakilian and Chevillotte 2023). The diversity of Cerambycidae in several countries of this continent is still little known or underestimated, as is evident from the large number of species described in recent decades (*e.g.*, Giesbert 1987; Martins and Galileo 1998; Monné and Monné 2008; Botero and Santos-Silva 2017; Pérez-Flores *et al.* 2023). Only a small number of Western Hemisphere species have their geographic distribution well known. The rest of the species are still being cataloged in order to have a better understanding of their distribution. Bezark (2023) and Monné (2023a, 2023b, 2023c), and Monné and Nearn (2023a, 2023b, 2023c, 2023d) keep this information compiled at least for the Americas. However, these data must be published to be integrated into these catalogs.

Herein, we propose some taxonomic changes, report new records, redescribe one species, and describe one new species in the subfamilies Cerambycinae and Lamiinae of the Neotropical Region.

Subject editor: Andrew Smith

ZooBank Registration number: urn:lsid:zoobank.org:pub:73FDA83C-DB7B-4247-9CDD-EE5CEA84D5B6

© The Author(s), 2024. Published by Cambridge University Press on behalf of Entomological Society of Canada.

Materials and methods

Photographs were taken at MZSP with a Canon EOS TD Mark II camera, Canon MP-E 65 mm f/2.8 1-5X macro lens (Canon Inc., Ota City, Tokyo, Japan), controlled by Zerene Stacker AutoMontage software (Zerene Systems; <https://zerenesystems.com/cms/stacker>). Measurements were taken in millimetres using an ocular Hensoldt/Wetzlar – Mess 10 in the Leica MZ6 stereomicroscope (Leica, Wetzlar, Germany), which was also used in the study of the specimens.

In examined material of known species, only specimens used to establish new records are listed; references on the known species are restricted to the original description and Monné (2023a, 2023b).

The collection acronyms used in the text are as follows:

AMNH – American Museum of Natural History, New York, New York, United States of America

CIUM – Colección de insectos de la Universidad de Morelos, Morelos, Mexico

CNIN – Colección Nacional de Insectos, Instituto de Biología, Universidad Nacional Autónoma de México, Mexico City, Mexico

DHCO – Daniel Heffern Collection, Houston, Texas, United States of America

FSCA – Florida State Collection of Arthropods, Gainesville, Florida, United States of America

FWSC – Frederick W. Skillman Collection, Phoenix, Arizona, United States of America

MZSP – Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil

SMFD – Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt-am-Main, Germany

Limernaea Thomson, 1878 (Cerambycinae: Oemini)

Sphagoeme Aurivillius 1893: 178; Martins *et al.* 2014: 601 (synonymy); Monné 2023a: 623 (catalogue)

Note: see full references in Monné (2023a) and Tavakilian and Chevillotte (2023).

Remarks. Martins (1997) redescribed *Sphagoeme* Aurivillius, 1893 and divided the species into two groups (translated): “The shape of the sides of the prothorax and the sexual punctation allow the species to be divided into two groups: Group I (*S. sahlbergi*) – presence of rounded gibbosity about middle, and sexual punctation on depressed areas, restricted to the sides of the prosternum; Group II (*S. ochracea*) – sides of prothorax uniformly rounded, and sexual punctation occupying the sides of the prosternum, sides of the prothorax, and sides of the pronotum.” He also commented about the mesotibiae (translated): “Mesotibiae cylindrical or with slight projection on posterior margin of apical third.” Martins (1997) included in Group I: *Sphagoeme nigricollis* Martins, 1973 (= *S. picta* Thomson, 1878); *S. aurivillii* Gounelle, 1909; *S. acuta* Martins and Galileo, 1994; *S. paraensis* Martins, 1977; and *S. sahlbergi* Aurivillius, 1893. In Group II, he included: *Sphagoeme lineata* Martins, 1981; *S. ochracea* Fisher, 1927; and *S. suturalis* Martins, 1977. Still according to Martins (1997), females of *S. suturalis* are exceptions in Group II because they have the lateral tubercles of the prothorax well marked. However, the use of this feature to separate the species into two groups is doubtful because the sides of the prothorax are somewhat variable in females of some species. For example, in females of *S. ochracea*, the sides of the prothorax may be distinctly rounded from anterolateral to posterolateral angles (Fig. 2A) or the central region may be distinctly angled (Fig. 2E).

Martins *et al.* (2014) synonymised *Sphagoeme* with *Limernaea* Thomson, 1878. Martins *et al.* (2014) also synonymised *Sphagoeme nigrotibialis* with *Limernaea picta* Thomson, 1878. Before Martins *et al.* (2014), *Limernaea* was included in Hesperophanini (see Martins and Galileo 2003) and *Sphagoeme* in Oemini (see Martins 1997). The argument was that, because the two species are synonymous and the redescription of *Sphagoeme* by Martins (1997) agrees perfectly with that of *Limernaea picta*, *Sphagoeme* was a junior synonym of *Limernaea*. We suspect that *Limernaea* species belong to two genera, but the feature separating them would be the shape of the mesotibiae and metatibiae: with distinct projection on dorsal surface of apical third (Figs. 1E, 2D), which includes the type species of *Sphagoeme*, *S. sahlbergi*; or without projection on the mesotibiae and metatibiae, which includes the type species of *Limernaea*, *S. picta* (Fig. 1A–C). However, a more detailed study would be



Figure 1. *Limernaea* species. **A–C**, *Limernaea picta* Thomson, 1878, female from Sinop, Mato Grosso, Brazil (MZSP 56289): **A**, dorsal habitus; **B**, ventral habitus; **C**, mesotibiae and metatibiae. **D–E**, *L. sahlbergi* (Aurivillius, 1893), female from Guanay, El Beni, Bolivia: **D**, dorsal habitus; **E**, ventral habitus.

needed to eventually reinstate *Sphagoeme*. Although not mentioned by Martins (1997), in the species with distinct projection on the mesotibiae, the metatibiae also have a slight projection on the dorsal surface of the apical third. The species with a projection on the mesotibiae and metatibiae are: *Limernaea acuta* (Martins and Galileo, 1994); *L. aurivillii* (Gounelle, 1909); *L. lineata* (Martins, 1981); *L. ochracea* (Fisher, 1927); *L. sahlbergi* (Aurivillius, 1893) (Fig. 1D–E); and *L. suturalis* (Martins, 1977). The species without projection on the mesotibiae and metatibiae are: *L. paraensis* (Martins, 1977); *L. picta*; and *L. premarginata* (Dalens and Touroult, 2014).

***Limernaea ochracea* Fisher, 1927**

(Figs. 2, 3)

Sphagoeme ochracea Fisher 1927: 23

Limernaea ochracea; Martins *et al.* 2014: 601 (new combination); Monné 2023a: 624 (catalogue)
Haplidus glabricollis Chemsak and Linsley 1964: 218; Monné 2023a: 435 (catalogue).

New synonym

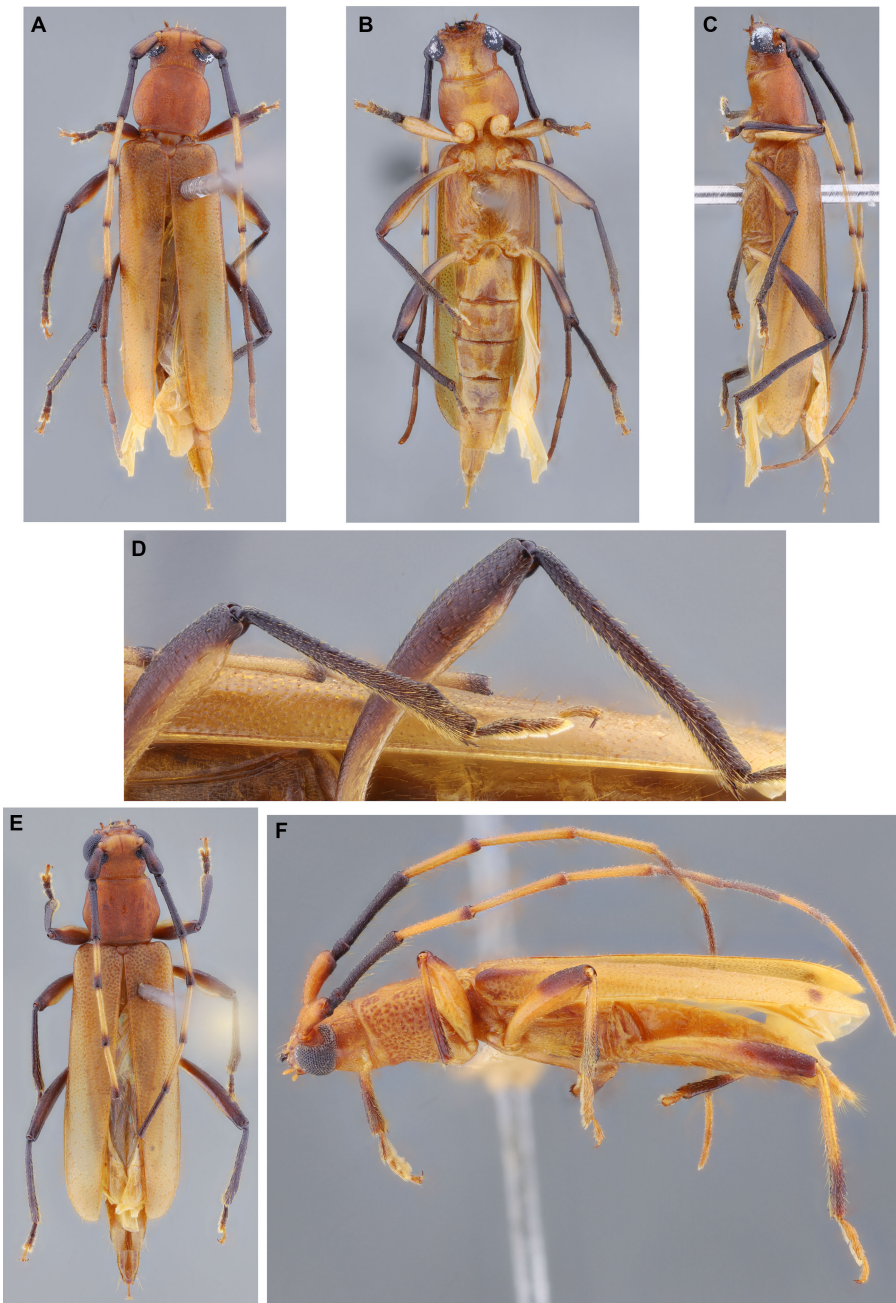


Figure 2. *Limernaea ochracea* (Fisher, 1927). **A–D**, Female from San Jacinto, Bolívar, Colombia: **A**, dorsal habitus; **B**, ventral habitus; **C**, lateral habitus; **D**, mesotibiae and metatibiae. **E**, Female from Usiacurí, Atlántico, Colombia, dorsal habitus. **F**, Male from near El Caño, Coclé, Panama, lateral habitus.

Remarks. *Sphagoeme ochracea* was described based on males and females from Panama and Colombia. *Sphagoeme* was originally included in *Oemini*. Martins *et al.* (2014) synonymised *Sphagoeme* with *Limernaea*. Currently, *L. ochracea* is known from Costa Rica, Panama, and Colombia (Bezark 2023; Monné 2023a; Tavakilian and Chevillotte 2023). Chemsak and Linsley (1964) described

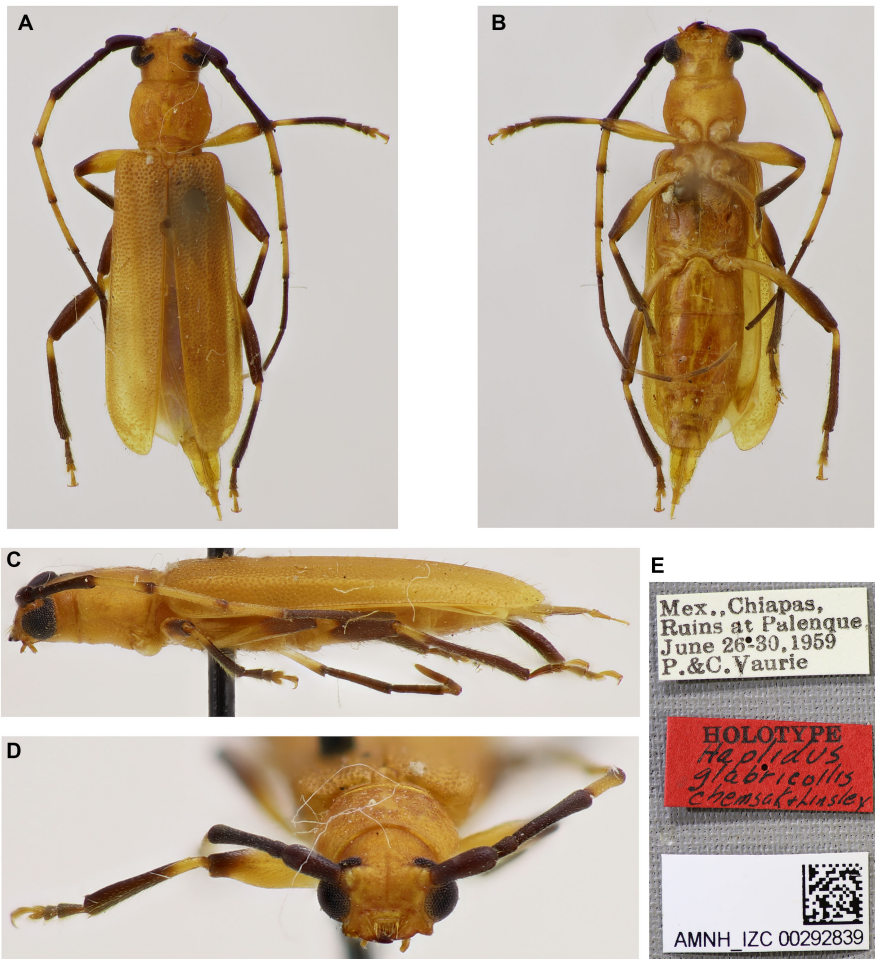


Figure 3. *Limernaea ochracea* (Fisher, 1927), holotype female of *Haplidus glabricollis* Chemsak and Linsley, 1964: **A**, dorsal habitus; **B**, ventral habitus; **C**, lateral habitus; **D**, head, frontal view; **E**, labels. Photographs by Corey Smith.

Haplidus glabricollis (Fig. 3) based on a single female from Mexico (Chiapas); *Haplidus* LeConte, 1873 is a genus of Hesperophanini, and the species remains known only by the holotype (Bezark 2023; Monné 2023a; Tavakilian and Chevillotte 2023). Comparison of the original descriptions, photographs of the holotypes, and specimens deposited at MZSP allow us to conclude that *Haplidus glabricollis* is a junior synonym of *Limernaea ochracea*.

The colour of some parts is variable (Figs. 2, 3) in *L. ochracea*: scape is variable, from orangish dorsally and black ventrally to entirely dark brown, black, or orangish, with only the apex of the ventral surface dark; mesofemora and metafemora dark only on apical third of dorsal surface, almost entirely dark dorsally, almost entirely dark dorsally and laterally, almost entirely dark dorsally, laterally, and parts of ventral surface; tibiae from entirely dark or with basal region orangish or orangish-brown, lighter area variable in length; and tarsi from entirely orangish to entirely dark.

***Trichastyloopsis* Dillon, 1956 (Lamiinae: Acanthocinini)**

***Trichastyloopsis skillmani* Santos-Silva, Pérez-Flores, and Botero. New species**

(Fig. 4)

ZooBank Registration number: urn:lsid:zoobank.org:act:BD4E63C9-EF9A-47DC-8977-F4775C33644F

Description. *Holotype female*: Integument mostly dark brown, almost black on some areas; ventral mouthparts light brown, except brown mentum and palpomeres dark brown with light brown apex; anteclypeus brownish; labrum light brown on posterior third, yellowish brown on anterior 2/3; antennomere 3 with irregular brown areas; antennomere 4 with irregular brown areas on basal 2/3 and dark reddish-brown ring on apical third; antennomeres 5–10 reddish brown except dark brown dorsal macula on base, reaching sides on some antennomeres, and dark brown

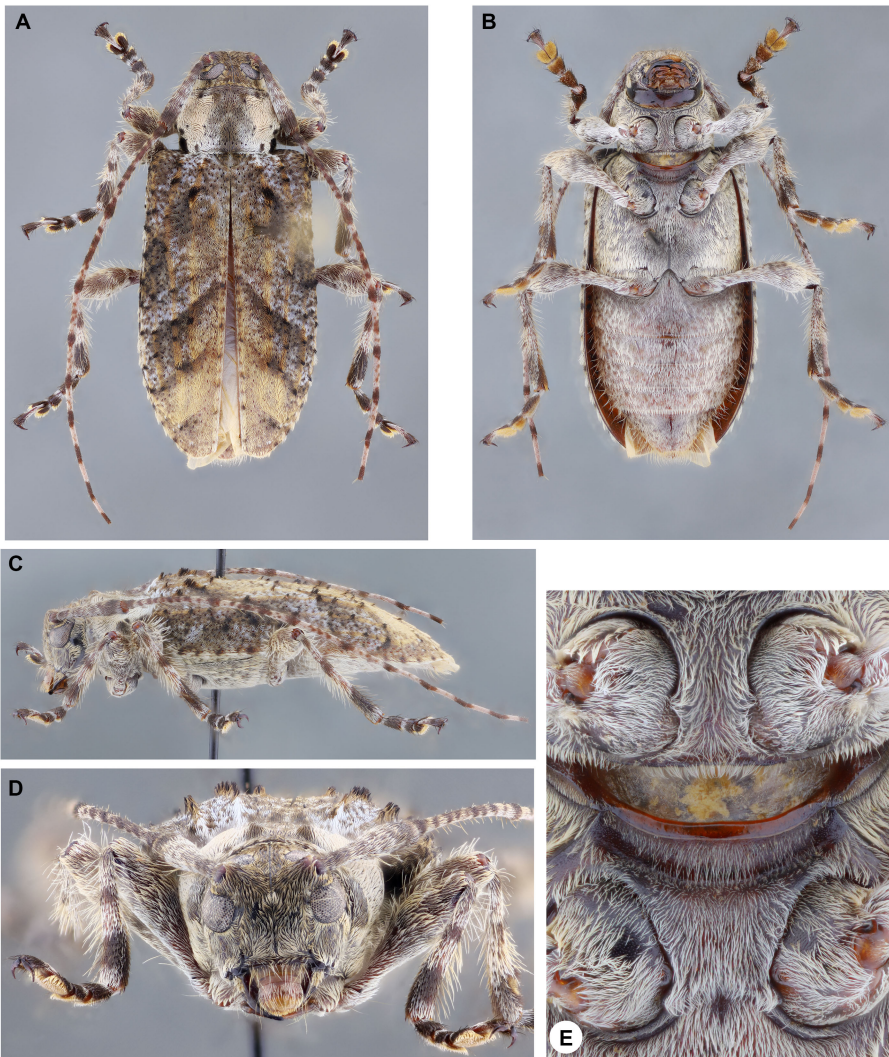


Figure 4. *Trichastyloopsis skillmani* new species, holotype female: **A**, dorsal habitus; **B**, ventral habitus; **C**, lateral habitus; **D**, head, frontal view; **E**, thoracic processes.

apex, light area gradually shorter towards antennomere 10 (missing antennomere 11). Apex of ventrites 1–4 brownish.

Head. Frons densely, finely punctate; with dense pale beige pubescence close to clypeus and eyes, gradually light brown with yellowish-white interspersed on remaining surface, except white pubescent macula centrally close to vertex; with one long, erect seta close to eyes, setae black basally, yellowish white on remaining surface; with sparse, short, erect yellowish-white setae interspersed. Area between antennal tubercles and eyes with dense yellow pubescence. Vertex with dense, both brown and yellowish-brown pubescence partially obscuring integument, except glabrous median groove and yellow pubescence close to eyes. Area behind upper eye lobes with abundant pubescence almost obscuring integument on some areas, pubescence pale yellow, except brownish pubescent macula after middle; with a few long, erect setae close to eye, setae black basally, yellowish white on remaining surface. Area behind lower eye lobes with dense pale-yellow pubescence, except glabrous area about middle. Genae 1.3 times longer than lower eye lobe; with abundant yellowish-white pubescence not obscuring integument, except dense pale-yellow pubescence close to eye, sparser yellowish-brown pubescence on centre of frontal region, and glabrous apex; with sparse, long, erect yellowish-white setae interspersed, some setae black basally. Antennal tubercles moderately elevated; with abundant pubescence partially obscuring integument, pubescence mostly beige frontally, mostly yellowish brown on remaining surface. Wide central area of postclypeus with abundant beige pubescence partially obscuring integument close to frons, sparser close to anteclypeus; with a few long, erect beige setae interspersed close to frons, and moderately abundant, long setae directed forwards close to anteclypeus, setae mostly yellowish white centrally, pale yellow laterally. Sides of postclypeus glabrous. Labrum with abundant white pubescence not obscuring integument on posterior third, glabrous on anterior third, except fringe of yellow setae on anterior margin; with long, erect pale-yellow setae directed forwards posteriorly close glabrous area, some setae black basally. Outer side of mandibles with dense pale-yellow pubescence on posterior third, with a few long, erect setae interspersed, setae black basally, pale yellow on remaining surface; remaining surface glabrous. Gulamentum smooth, glabrous, except fine, arched striae antero-centrally, and greyish-white pubescence not obscuring integument on intermaxillary process. Distance between upper eye lobes 0.21 times the distance between outer margins of eyes; in ventral view, distance between lower eye lobes 0.52 times the distance between outer margins of eyes; inner margin of upper eye lobes wide, rounded. Antennae (from base to apex of antennomere 10) 1.7 times the elytral length, reaching elytral apex at basal quarter of antennomere 8. Scape with dense yellowish-white pubescence centrally partially obscuring integument, pubescence whiter depending on light intensity, and abundant light brown pubescence not obscuring on basal and apical fifths, except apex of apical fifth with greyish-white pubescence, yellower on outer apex; with long, erect yellowish-white setae ventrally, and a few moderately long, erect yellowish-white setae dorsally. Pedicel mostly with abundant brown pubescence partially obscuring integument; with long, erect pale-yellow setae on posterior half of ventral surface. Antennomere 3 with abundant brown pubescence not obscuring integument and abundant, irregular white pubescent rings interspersed; with long, erect pale-yellow setae ventrally, and sparse, short, erect yellowish-white setae interspersed on remaining surface. Antennomeres 5–7 with dense white pubescence, with irregular light brownish pubescent maculae interspersed, except dark brown pubescent macula on dorsal base and abundant dark brown pubescence not obscuring integument on apical quarter; with sparse, long, erect pale-yellow setae ventrally and sparse, short, erect yellowish-white setae interspersed on remaining surface. Antennomeres 8–10 with dense white pubescence, except brown pubescence not obscuring integument basally, and abundant dark brown pubescence not obscuring integument on apical third; with a few long, erect pale-yellow setae on apex of ventral surface, and sparse, short, erect yellowish-white setae interspersed on remaining surface. Antennal formula (ratio) based on length of antennomere 3: scape = 0.71; pedicel = 0.11; antennomere 4 = 0.74; antennomere 5 = 0.60;

antennomere 6 = 0.50; antennomere 7 = 0.44; antennomere 8 = 0.44; antennomere 9 = 0.44; antennomere 10 = 0.40.

Thorax. Prothorax wider than long; with large, rounded tubercle about middle. Pronotum with five tubercles, one subconical on each side of anterior third, the most elevated, one small, slightly elevated, rounded, on each side just after middle, another large, subelliptical, slightly elevated, located centrally from about middle to posterior fifth; moderately abundantly and coarsely punctate; sides with dense pale-yellow pubescence except moderately large, dense black pubescent macula on each side close to posterior margin, one small, subrounded black pubescent macula on apex of lateral tubercle of prothorax, one subrounded black pubescent macula on each side near posterior margin of lateral tubercle of prothorax, another very small, rounded black pubescent macula on each side near central area of lateral tubercles of prothorax, one small, irregular brown pubescent macula on each side near posterior margin, and irregular black pubescent macula on each side near anterior margin; central region with abundant light brown pubescence not obscuring integument, except dense white pubescence on sides of this region, white pubescent area wider on posterior half and obliquely, somewhat fragmented projected towards centre, irregular yellowish-brown pubescent macula on each side of anterior quarter, and abundant white pubescence on each side close to anterior margin; with a few long, erect dark brown setae on sides of posterior third. Sides of prothorax with dense yellowish-white pubescence, pubescence appearing to be whiter depending on light intensity, except slightly sparser pubescence close to anterior margin, light brown pubescence under lateral tubercles. Prosternum with dense yellowish-white pubescence laterally, and abundant yellowish-grey pubescence not obscuring integument centrally. Prosternal process laterally projected under procoxae about middle; with abundant yellowish-grey pubescence not obscuring integument; narrowest area before and after central projection 0.55 times procoxal width. Ventral surface of mesothorax and metathorax with dense yellowish-white pubescence laterally and abundant white pubescence partially obscuring integument centrally, except wide central area of mesoventrite with yellowish-white pubescence centrally and glabrous laterally. Sides of mesoventral process convergent from base to near apex, then distinctly widened; apex concave; narrowest area 0.73 times mesocoxal width. Scutellum with dense white pubescence centrally, pubescent area gradually widened from base to apex, and abundant yellowish-brown pubescence not obscuring integument laterally. **Elytra.** Moderately abundantly, coarsely punctate, punctures coarsely on sides of dorsal surface, finer and sparser on posterior third; apex subrounded; with two centrobasal crests, innermost slightly longer, both carina shaped, with dense, short, erect tufts of both black and yellowish-brown setae, posterior tuft of innermost crest longer; remaining dorsal surface with sparse tufts of short, erect setae, some tufts only with black setae, some with both yellowish-brown and black setae; humeral carina slightly marked; dorsal surface with two longitudinal carinae slightly marked, starting on centrobasal crests, ending near elytral apex, fused on their apices; posterior half with three oblique, parallel-sided carinae, anterior carinae from humeral carina to suture, posterior carina less elevated, not reaching suture; with four longitudinal, narrow yellowish-brown pubescent bands, two along longitudinal carina almost reaching elytral base, innermost starting between inner centrobasal crest and suture, distinctly arched towards suture near its base, then following along suture, another starting on humerus apically fused to the bands on carinae; anterior oblique carinae with abundant light brown pubescence; dorsal area between base and second oblique carinae and anterior 4/5 of area between humeral carina and area close to epipleural margin with abundant pubescence partially obscuring integument, forming irregular areas with white, pale-yellow, light brown, and greyish-yellow pubescence; area between second and third oblique carinae with dense yellow pubescence obscuring integument; dorsal area between third oblique carina and apex and apical fifth of lateral area with abundant pale-yellow pubescence with white pubescent maculae interspersed, pale-yellow pubescence denser close to suture; epipleural margin with white pubescence with dark brown pubescent spots interspersed. **Legs.** Femoral peduncles and ventral surface of clubs with abundant white pubescence not obscuring integument,

mesofemoral and metafemoral peduncles with small, irregular glabrous areas interspersed; dorsal and lateral surfaces of clubs with abundant pubescence not obscuring integument, forming irregular areas with light brown, yellowish-brown, and yellowish-white pubescence; with moderately abundant, long, erect yellowish-white setae on dorsal surface of peduncles and entire clubs. Tibiae with dense white pubescence, except light brown pubescent macula dorsally near base, moderately narrow light brown pubescent arch before middle, covering dorsal and lateral surfaces, wide dark brown pubescent arch on posterior third, covering dorsal and inner lateral surface, and dense, bristly dark yellowish-brown pubescent ventrally on apical third, bristly pubescence lighter close to apex; with abundant, long, erect pale-yellow setae, sparser on apical quarter; dorsal surface of apical third of mesotibiae and metatibiae with short, erect, thick dark brown setae, more abundant on mesotibiae. Base of tarsomeres 1–3 and 5 with dense white pubescence and remaining surface with abundant dark brown pubescence not obscuring integument; tarsomere 4 with abundant dark brown pubescence not obscuring integument; dark pubescent area on tarsomeres 1–3 and 5 with moderately long, erect dark brown setae; metatarsomere 1 about as long as metatarsomeres 2–3 together.

Abdomen. Ventrites with dense white pubescence, pubescence denser, slightly paler yellow laterally; with moderately abundant, long, erect white setae interspersed laterally. Ventrite 5 longitudinally sulcate on centre of anterior half; apex slightly concave.

Dimensions. *Holotype female* and *paratype female*: total length, 13.50–13.10 mm; prothoracic length, 2.20–2.25 mm; anterior prothoracic width, 2.65–2.80 mm; posterior prothoracic width, 3.15–3.20 mm; maximum prothoracic width, 3.55–3.75 mm; humeral width, 5.15–5.35 mm; elytral length, 10.00–9.60 mm.

Type material. *Holotype female* from MEXICO, Jalisco: Autlán de la Grana, Microondas San Francisco, 3.vii.2018, J.F. Limón and F. Skillman (FSCA). *Paratype female* from MEXICO, Michoacán: MX37, 98 km S Nueva Italia, 13.vii.2006, Skillman and Hildebrandt (FWSC, formerly FSCA).

Etymology. The new species is dedicated to Frederick W. Skillman, who sent the specimens of the new species for study.

Remarks. *Trichastylopsis skillmani* is similar to *T. albida* (LeConte, 1852) (Fig. 5) but differs as follows: lower eye lobes shorter than genae; pronotum with black pubescent maculae on sides close to posterior margin; pronotal punctures sparser; elytra with two oblique light brown pubescent bands on posterior half; prosternal process narrower, narrowest areas slightly wider than half of procoxal width; and erect setae on femora and tibiae distinctly more abundant. In *T. albida*, the lower eye lobes are as long as genae, pronotum has no black pubescent macula on the sides close to the posterior margin, pronotal punctures are denser, elytra without two oblique pale brown pubescent bands on the posterior half, prosternal process wider with the narrowest areas distinctly wider than half the procoxal width, and the erect setae on femora and tibiae sparser.

***Plistonax* Thomson, 1864 (Lamiinae: Acanthoderini)**

***Plistonax antonkozlovi* Santos-Silva et al., 2020 (Fig. 6A)**

Plistonax antonkozlovi Santos-Silva et al. 2020: 547

Remarks. This species was described based on a single male from Panama (Ngöbe-Buglé). The female is similar to male, differing just by the generic features: shorter antennae, protarsi without long setae laterally, and ventrite 5 longer.

Material examined. PANAMA, Bocas del Toro (new province record): Fortuna Cabins, 8.7814° N, 82.1909° W, ultraviolet light light, 1 female, 23–30.v.2022, E.G. Riley (FWSC); 1 male, 5–11.ix.221, B.T. Raber (DHCO).

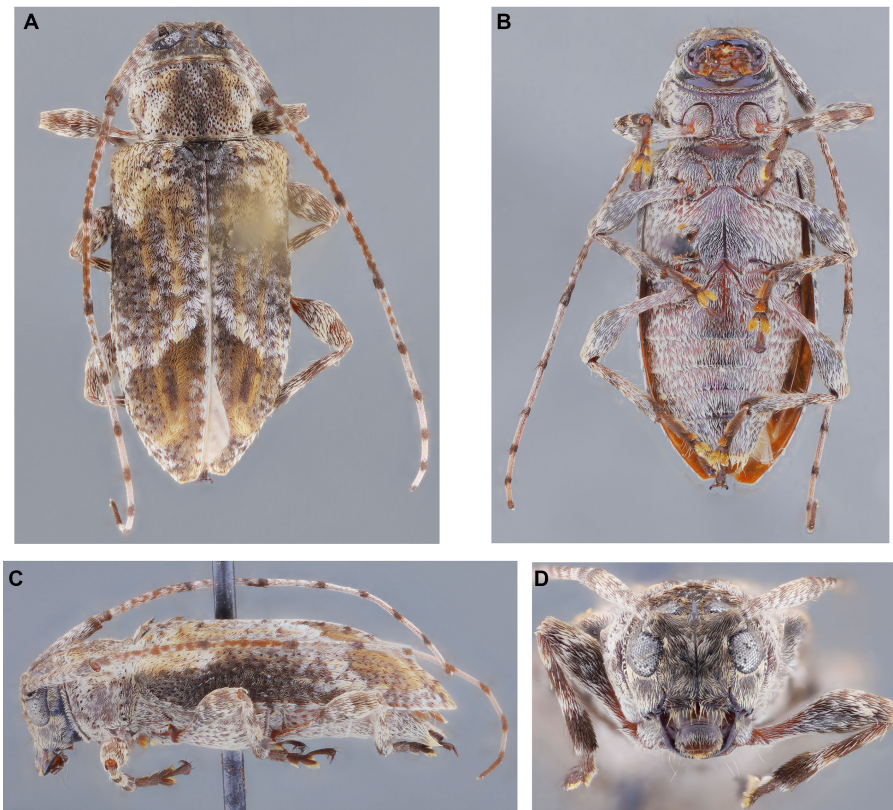


Figure 5. *Trichastylopsis albida* (LeConte, 1852), female from Coconino, Arizona, United States of America: **A**, dorsal habitus; **B**, ventral habitus; **C**, lateral habitus; **D**, head, frontal view.

***Adetus* LeConte, 1852 (Lamiinae: Apomecynini)**

***Adetus scissicauda* (Bates, 1874), reinstated (Fig. 6B)**

Tautoclines scissicauda Bates 1874: 225

Adetus scissicauda; Bates 1880: 107; Breuning 1960: 179 (catalogue, synonymy)

Adetus alboapicalis Breuning 1943: 37; Monné 2023b: 428 (catalogue). **New synonym**

Remarks. Bates (1874) described *A. scissicauda* based on a single specimen from Nicaragua. Breuning (1960) synonymised *A. scissicauda* with *A. costicollis* Bates, 1872. Breuning (1971) confirmed the synonymy but did not explain why he considered them as synonyms. However, the description of *A. scissicauda* does not suggest they are the same species. For example, Bates (1872) reported that the prothorax in *A. costicollis* is narrowed anteriorly [*“thorace antice angustato”*], whereas Bates (1874) indicated that the thorax is not narrowed anteriorly [*“capite thoraceque (antice haud attenuato) . . .”*] The general appearances of the holotype of *A. scissicauda* (Fig. 6B) and of the lectotype of *A. costicollis* (Fig. 6C) also do not allow considering them as belonging to the same species. Therefore, we believe that Breuning (1960, 1971) did not examine the type specimens when establishing the synonymy. Additionally, the elytral pubescence is different in these two species, especially that on the apical region, and *A. costicollis* has a distinct white pubescent spot just after middle of the elytra, which is absent in *A. scissicauda*. Furthermore, the elytral apex in *A. scissicauda* is obliquely truncate, and it is narrowly rounded in *A. costicollis*. Therefore, we are reinstating *A. scissicauda*. Breuning (1943) described *A. alboapicalis* based on a single specimen from Venezuela. Breuning (1971) separated *A. alboapicalis* (Fig. 6D) from

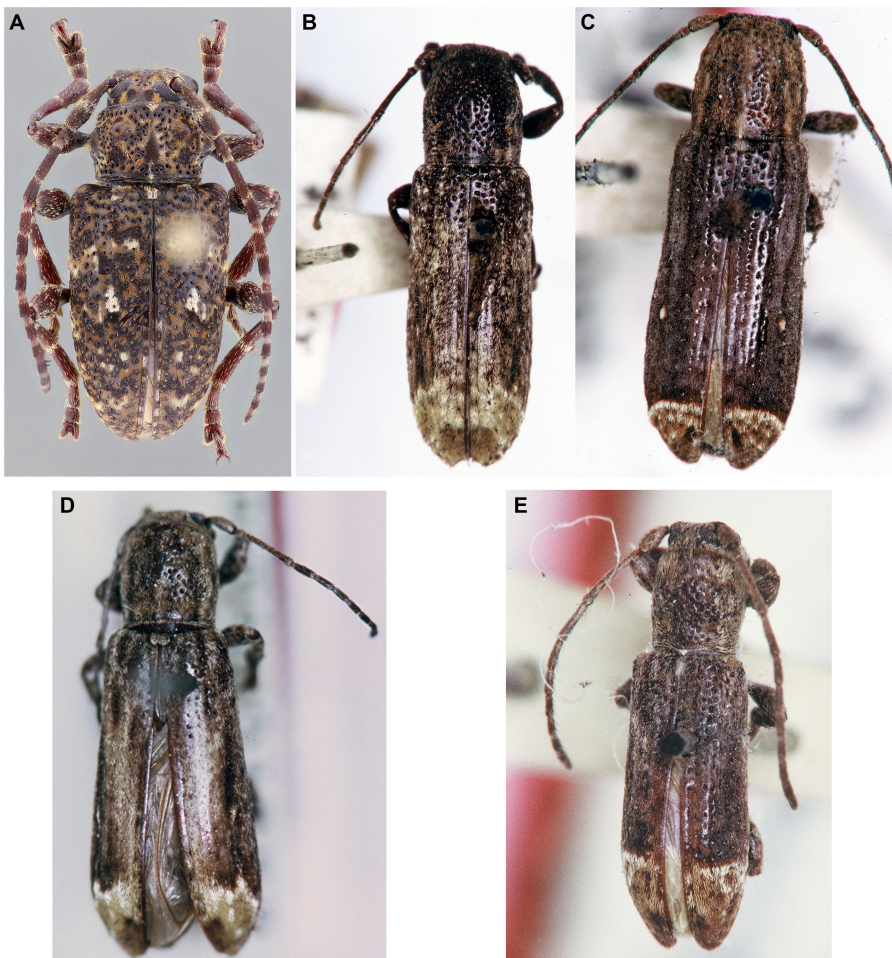


Figure 6. **A**, *Plistonax antonkozlovi* Santos-Silva, Nascimento, and Silva Júnior, 2020, female, dorsal habitus. **B**, *Adetus scissicauda* (Bates 1874), holotype, dorsal habitus. **C**, *Adetus costicollis* Bates, 1872, lectotype, dorsal habitus. **D**, *Adetus alboapicalis* Breuning, 1943, holotype, dorsal habitus. **E**, *Adetus griseicauda* (Bates 1872), lectotype, dorsal habitus. Figures 6B–D by Jesus Santiago Moure.

A. costicollis as follows (translated): “Elytra notched apically,” leading to *A. alboapicalis*; and “Elytra rounded apically,” leading to *A. costicollis*. Breuning (1960, 1971) incorrectly interpreted the elytral apex in *A. scissicauda* based on a confused description by Bates (1874), who affirmed that it was obtusely rounded, and strongly emarginate near the suture [“*apice ipso obtuse rotundato, juxta suturam conjunctim fortiter emarginato*”]. In fact, the elytral apex in the holotype of *A. scissicauda* is identical to that in the holotype of *A. alboapicalis*. As the general appearance, including the pronotal and elytral pubescence, is similar in both holotypes, we consider *A. alboapicalis* to be a junior synonym of *A. scissicauda*. *Adetus scissicauda* is similar to *A. griseicauda* (Bates, 1872) (Fig. 6E) but differs in having sparser pronotal punctures (partially confluent in *A. griseicauda*), elytra with punctures not aligned (punctures aligned in *A. griseicauda*), and the elytral apex obliquely truncate (narrowly rounded in *A. griseicauda*).

Adetus scissicauda is known from Mexico (Guerrero), Nicaragua, Panama, and Venezuela (Bezark 2023; Monné 2023b; Tavakilian and Chevillotte 2023).

***Adetus salvadorensis* Franz, 1954**

(Figs. 7, 8)

Redescription. *Male* (Fig. 7A–D). Integument mostly dark brown; palpomeres brown with yellowish-brown apex.

Head. Frons densely, coarsely punctate; with abundant pale-yellow pubescence partially obscuring integument, and short, erect white setae interspersed on the area between antennal tubercles and upper eye lobes with sculpturing, pubescence, and erect setae as on frons; area between eyes and prothorax sparsely, coarsely punctate anteriorly, smooth close to prothorax; with dense pale-yellow pubescence obscuring integument, except glabrous median groove, with decumbent white setae interspersed, pubescence shorter and thicker than on frons, and white setae forming irregular white maculae anteriorly. Area behind eyes with pubescence as on posterior region of vertex, pubescence gradually slender and longer towards ventral surface. Genae with abundant pale-yellow pubescence partially obscuring integument, and moderately abundant, decumbent white setae interspersed. Antennal tubercles slightly elevated; with sculpturing, pubescence, and setae as on frons, except smooth apex. Postclypeus with abundant, both pale-yellow and white pubescence partially obscuring integument, except sides partially glabrous; with a few long, erect yellowish-brown setae on each side of wide central area. Labrum with moderately abundant, yellowish-white pubescence not obscuring integument on posterior quarter; remaining surface with moderately abundant yellowish-white pubescence not obscuring integument, except

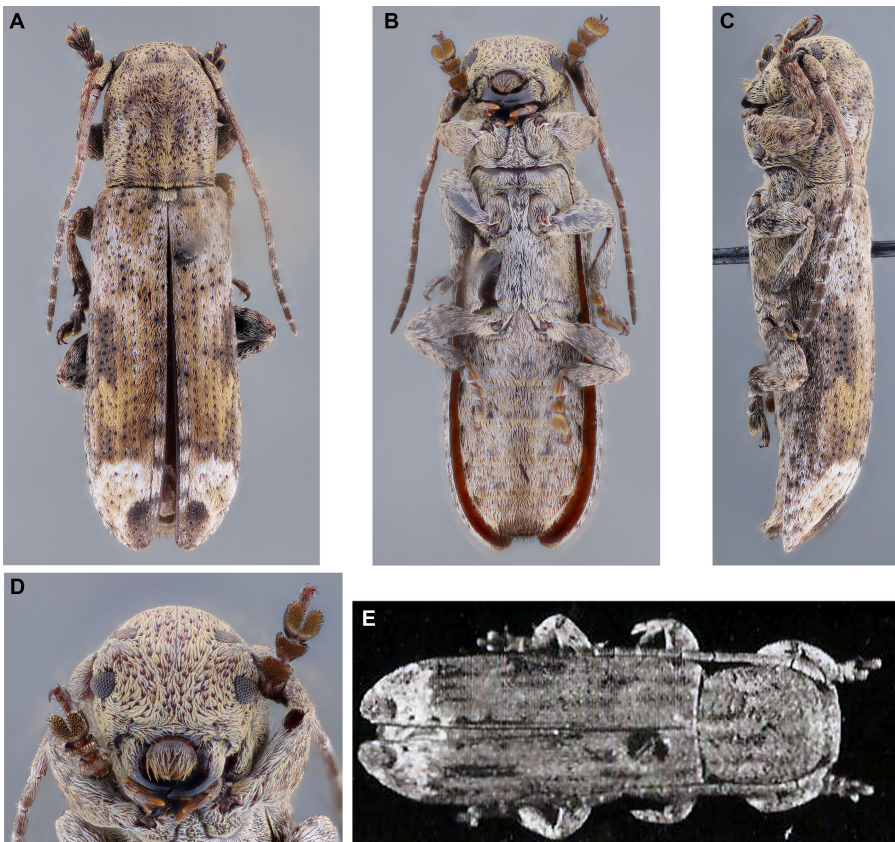


Figure 7. *Adetus salvadorensis* Franz, 1954. **A–D**, Male from Mexico (Oaxaca): **A**, dorsal habitus; **B**, ventral habitus; **C**, lateral habitus; **D**, head, frontal view. **E**, *Adetus salvadorensis*, holotype, from Franz (1954).

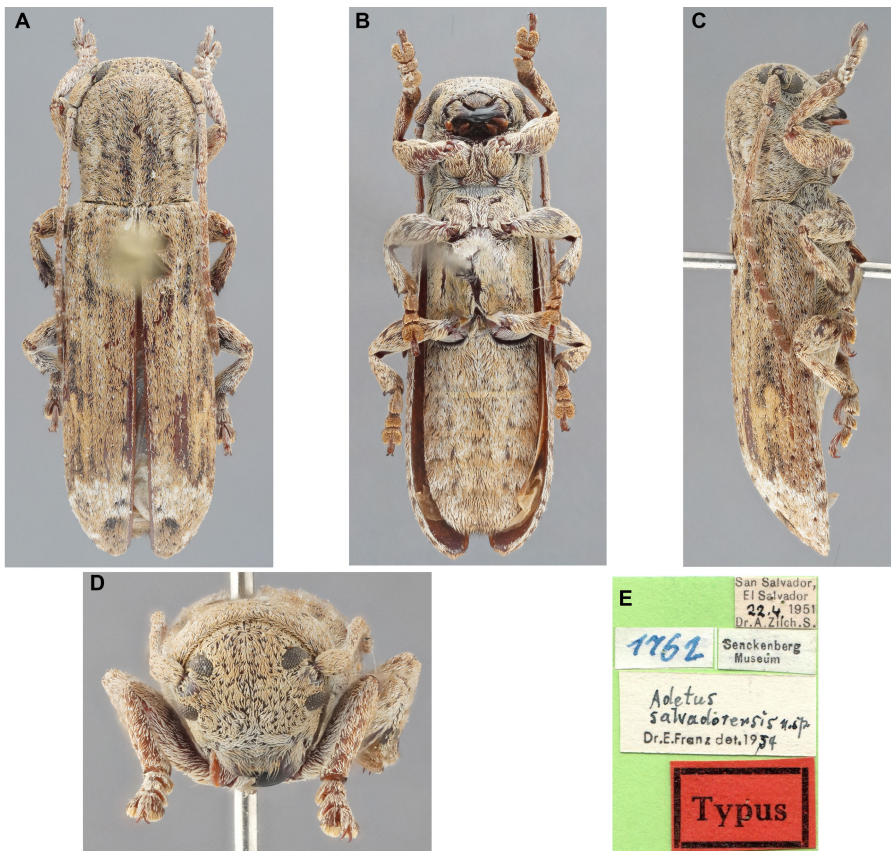


Figure 8. *Adetus salvadorensis* Franz, 1954, holotype: **A**, dorsal habitus; **B**, ventral habitus; **C**, lateral habitus; **D**, head, frontal view; **E**, labels. Photographs by Laura Marrero Palma (SMFD).

apex with fringe of short, yellowish-brown setae, and long, erect yellowish-brown setae interspersed, erect setae more abundant laterally. Outer side and dorsal surface of basal third of mandibles with dense pale-yellow pubescence and short, decumbent white setae interspersed; remaining surface glabrous. Distance between upper eye lobes 0.46 times the distance between outer margins of eyes; in ventral view, distance between lower eye lobes 0.70 times the distance between outer margins of eyes; inner margin of upper eye lobes wide, rounded. Antennae 0.8 times elytral length, almost reaching middle of elytra. Scape with dense pale-yellow pubescence dorsally, with decumbent white setae interspersed, and slightly sparser pale-yellow pubescence on remaining surface, except inner surface with abundant white pubescence. Pedicel with abundant, both pale-yellow and white pubescence partially obscuring integument; with long, erect yellowish-brown setae interspersed ventrally. Antennomere 3 with abundant light yellowish-brown pubescence dorsally, with decumbent white setae interspersed, and abundant white pubescence not obscuring integument on remaining surface; with long, erect yellowish-brown setae interspersed ventrally. Antennomere 4 with abundant yellowish-brown pubescence dorsally, with decumbent white setae interspersed, and abundant white pubescence on remaining surface, except abundant light brown pubescence not obscuring integument on part of posterior half of ventral surface; with sparse, long, erect yellowish-brown setae interspersed ventrally. Antennomeres 5–8 with dense white pubescent ring basally and apically, sparse white pubescence dorsally and laterally, and abundant light brown pubescence not obscuring integument on remaining ventral

surface; with a few long, erect dark setae interspersed ventrally. Antennomeres 9–10 with dense white pubescent ring basally and apically, and abundant brown pubescence not obscuring integument on remaining surface; with a few long, erect dark setae interspersed ventrally. Antennomere 11 with abundant brown pubescence not obscuring integument, except apex with short, bristly white setae. Antennal formula (ratio) based on length of antennomere 3: scape = 0.50; pedicel = 0.14; antennomere 4 = 0.47; antennomere 5 = 0.37; antennomere 6 = 0.35; antennomere 7 = 0.32; antennomere 8 = 0.32; antennomere 9 = 0.29; antennomere 10 = 0.26; antennomere 11 = 0.29.

Thorax. Prothorax slightly longer than wide; sides gradually, slightly rounded widened on anterior quarter, subparallel sides on remaining surface. Pronotum inclined from anterior to posterior margin; with slightly elevated longitudinal carina centrally; abundantly, coarsely punctate, punctures partially confluent close to posterior half of longitudinal carina; with abundant pale-yellow pubescence partially obscuring integument, pubescence more yellowish brown centrally, and decumbent white setae interspersed, white setae denser on sides of central region. Sides of prothorax abundantly, coarsely punctate; with abundant, both pale-yellow and white pubescence partially obscuring integument. Sides of prosternum with abundant, both pale yellow and with pubescence partially obscuring integument; central region with sparse white pubescence. Prosternal process gradually widened from base to apical forth, then strongly widened; with abundant pubescence not obscuring integument, pubescence partially pale yellow centrally, white on remaining surface. Mesoventrite with abundant white pubescence not obscuring integument on anterior region, except pale-yellow pubescence close abrupt inclined area and sides; area close to sides of procoxal cavities with abundant, both pale-yellow and white pubescence not obscuring integument. Mesanepisterna, mesepimera, metanepisterna, and sides of metaventrite with dense, both pale-yellow and white pubescence; central region of metaventrite with abundant white pubescence partially obscuring integument, with pale-yellow pubescence interspersed, except glabrous metathoracic discrimen. Mesoventral process with abundant white pubescence not obscuring integument and a few decumbent pale-yellow setae interspersed. Scutellum with abundant, both yellow and white pubescence partially obscuring integument.

Elytra. Coarsely, abundantly punctate, punctures sparser, finer on posterior quarter, aligned on inner region of dorsal surface between anterior and posterior quarters, with area between punctures slightly elevated; anterior 3/4 of dorsal surface with dense yellowish-brown pubescence, sparser close to posterior quarter, and abundant white pubescence interspersed on anterior third, then sparser towards middle, and forming dashed band close to suture between middle and posterior quarter, except large macula with sparser dark yellowish-brown pubescence on sides of middle; sides with abundant, both dark yellowish-brown and white pubescence not obscuring integument from base to apex, white pubescence sparser on wide central region and denser on posterior quarter; posterior quarter of dorsal surface with dense, somewhat comma-shaped, white, pubescent macula, except centre with large pale-yellow pubescent macula; dorsal area between comma-shaped macula and suture with abundant yellowish-brown pubescence not obscuring integument, pubescence distinctly darker anterocentrally.

Legs. Femora with abundant, both pale-yellow and white pubescence not obscuring integument, pale-yellow pubescence more abundant on profemora, except metafemoral club partially with dark yellowish-brown pubescence on inner surface. Tibiae with abundant, both pale-yellow and white pubescence partially obscuring integument, except dark pubescence on apical third of ventral surface; apical third of dorsal surface of mesotibiae and metatibiae with fringe of short, erect dark brown setae, denser on mesotibiae; metatibiae distinctly widened towards apex than protibiae and mesotibiae. Dorsal surface of tarsomeres with both dark brown and white pubescence not obscuring integument; metatarsomere 1 distinctly shorter than metatarsomeres 2–3 together.

Abdomen. Ventrites with dense, both light yellowish-brown and white pubescence; apex of ventrite 5 truncate.

Dimensions. Total length, 10.95 mm; prothoracic length, 2.60 mm; anterior prothoracic width, 2.05 mm; posterior prothoracic width, 2.30 mm; maximum prothoracic width, 2.45 mm; humeral width, 2.85 mm; elytral length, 7.95 mm.

Material examined. MEXICO (**new country record**), *Oaxaca*: MX190, 16 km E Tapanatepec [San Pedro Tapanatepec], flowering tree daylight, 1 male, 13.vi.2009, Skillman and Hildebrandt (FWSC).

Remarks. As with other species of *Adetus*, *A. salvadorensis* presents a certain degree of variation in the distribution of pubescence and in the colour of pubescence in some areas. In the specimen from Mexico, the white pubescence is more distinct on the anterior half of elytra (distinctly sparser in the holotype), the dark pubescent area on sides of elytra is conspicuous (almost absent on dorsal middle of elytra and absent laterally in the holotype). Additionally, the mesoventral process is slightly longer than in the holotype (Fig. 8), but we consider this small difference to be intraspecific variation because this also occurs in other species of the genus. The photograph of the holotype in the original description (Fig. 7E) suggests that there is a black area on each side close to the posterior margin of the pronotum. However, this dark area does not exist, indicating a problem with the photograph in the original description. It is worth mentioning that Franz (1954) did not describe the existence of this dark area.

Currently, the species is known from El Salvador, Guatemala, Honduras, and Panama (Bezark 2023; Monné 2023b; Tavakilian and Chevillotte 2023).

***Dorcasta* Pascoe, 1858 (Lamiinae: Apomecynini)**

***Dorcasta borealis* Breuning, 1940 (Fig. 10D)**

Dorcasta borealis Breuning 1940: 207; Monné 2023b: 462 (catalogue)

Remarks. This species was described based on a single specimen from Nicaragua. Currently, it is known from Nicaragua and Costa Rica (Bezark 2023; Monné 2023b; Tavakilian and Chevillotte 2023).

Material examined. MEXICO (**new country record**), *Yucatán*: MX180 (libre) 2 km W Chemax, 1 male, 20.vi.2009, Skillman and Hildebrandt (FWSC).

***Eupogonius* LeConte, 1852 (Lamiinae: Desmiphorini)**

***Eupogonius longipilis* Bates, 1880 (Figs. 9, 10A–C)**

Eupogonius longipilis Bates 1880: 117; Monné 2023b: 623

Remarks. When Bates (1880) described *E. longipilis*, he did not indicate the type locality. Bates (1885) reported, “The localities of this species were accidentally omitted; the species was described from a Guatemalan example. *Hab.* Mexico, Jalapa, Paso del Macho (*Höge*), Playa Vicente (*Sallé*); Guatemala, San Jerónimo [= San Jerónimo], Chacoj (*Champion*).” The first sentence in Bates (1885) about *E. longipilis* also includes an error: in the first clause, he said that “The localities of this species were,” but then he stated that there was only one specimen from Guatemala. Therefore, the species was described based on a holotype. However, Monné (2023b) and Tavakilian and Chevillotte (2023) reported that the species was described based on syntypes. Monné (2023b) reported only that the syntypes were from Guatemala. Tavakilian and Chevillotte (2023) reported that the syntypes were from Guatemala, Baja Verapaz, San Jerónimo and were collected by G.C. Champion. We do not know if Gérard L. Tavakilian saw the holotype at the BMNH. Even if there were syntypes and not only a holotype, it would not be possible to say that they were all from San Jerónimo. This is because Bates (1885) recorded two different places in Guatemala. According to Selander and Vaurie (1962): “San Jerónimo = San Jerónimo, Baja Verapaz, Guatemala. Town in the highlands about 10 km southeast of Salama: 15°08', 90°11'. This locality is listed erroneously at least once in the ‘Biologia’ for México”; “Chacoj, Alta Verapaz, Guatemala. Settlement (formerly called La Hamaca) on the Rio Polochic just west of La Tinta;

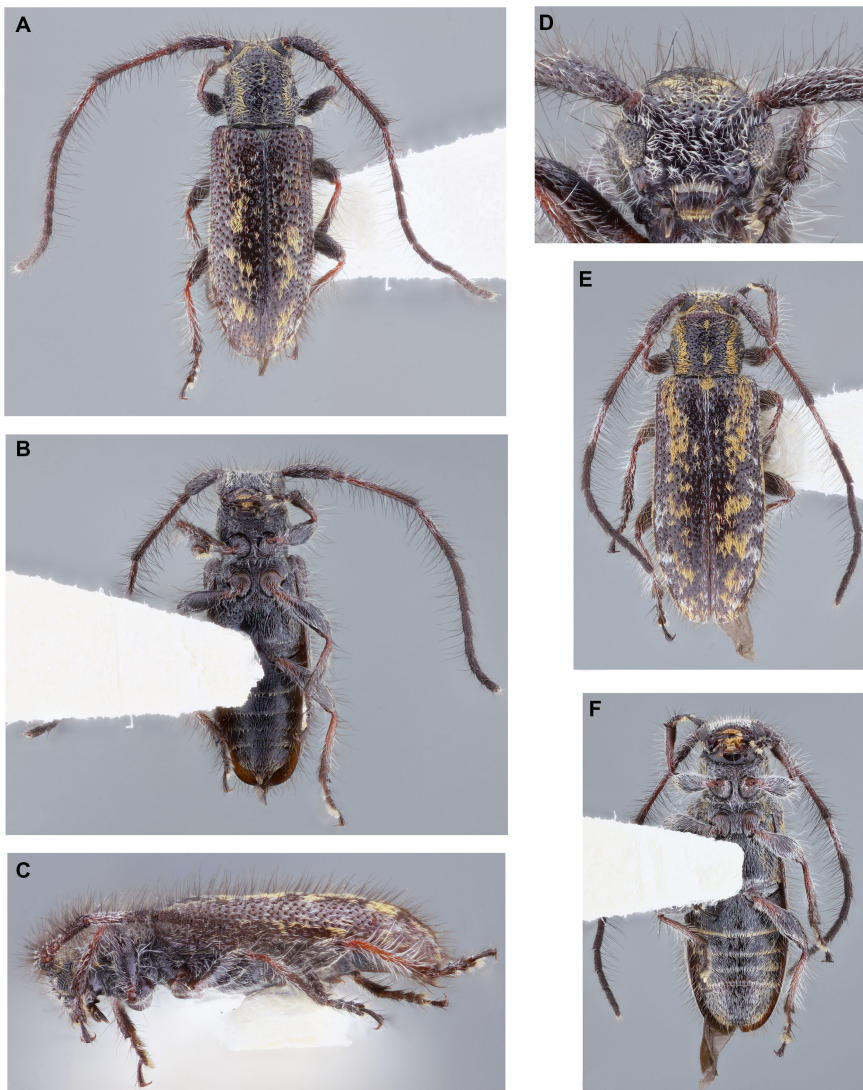


Figure 9. *Eupogonius longipilis* Bates, 1885. **A–D**, Male: **A**, dorsal habitus; **B**, ventral habitus; **C**, lateral habitus; **D**, head, frontal view. **E–F**, Female: **E**, dorsal habitus; **F**, ventral habitus.

shown on “Biologia” Map 8 at about 15° 19′ N, 89° 56′ W.” Fortunately, Keita Matsumoto (Natural History Museum, London, United Kingdom) sent us photographs of the holotype (Fig. 10A) and its labels (Fig. 10B). Based on those, we now can affirm that the type locality is San Jerónimo in the Guatemalan state of Baja Verapaz.

Currently, *E. longipilis* is known from Mexico (Veracruz), Guatemala, Honduras, and Panama (Bezark 2023; Monné 2023b; Tavakilian and Chevillotte 2023).

Material examined. MEXICO, *Chiapas* (**new state record**): MX190, 5 km S of Ososingo [*sic*, Ocosingo], 1 male, 1 female, 8.vi.2009, Skillman and Hildebrandt (FWSC); Ocozocoautla, 3 km W Laguna Bélgica, 16° 53′ 31.5″ N, 93° 27′ 09.5″ W, 956 m, atraído a la luz, 1 male, 4-vi-2005., V.H. Toledo (CIUM).

***Eupogonius vittipennis* Bates, 1885**

(Fig. 10C)

Eupogonius vittipennis Bates 1885: 353; Monné 2023b: 627 (catalogue)

Remarks. This species was described based on syntypes from Guatemala (Alta Verapaz). Currently, it is known from Guatemala, Honduras, Nicaragua, Costa Rica, and Panama (Bezark 2023; Monné 2023b; Tavakilian and Chevillotte 2023).

Material examined. MEXICO (new country record), Campeche, Microondas El Cuyo, 1 female, 19-vi-1989, A. Cadena, L. Cervantes (CNIN); Escarcega, El Tormento, 1 male, 1 female, 18-vi-89, L. Cervantes, A. Cadena (CNIN)



Figure 10. Lamiinae species. **A–B**, *Eupogonius longipilis* Bates, 1885, holotype: **A**, dorsal habitus; **B**, labels. **C**, *Eupogonius vittipennis* Bates, 1885, female from Mexico (Campeche), dorsal habitus. **D**, *Dorcasta borealis* Breuning, 1940, male from Mexico (Yucatán), dorsal habitus. **E–F**, *Hesyhotypa danilevskyi* Nearn and Nascimento, 2019, female from Panama (Bocas del Toro): **E**, dorsal habitus; **F**, ventral habitus.

Hesychotypa* Thomson, 1868 (Lamiinae: Onciderini)**Hesychotypa danilevskyi* Nearn and Nascimento, 2019 (Fig. 10E–F)**

Hesychotypa danilevskyi Nearn and Nascimento 2019: 2; Monné 2023b: 844 (catalogue)

Remarks. This species was described based on a single male from Panama (Bezark 2023; Monné 2023b; Tavakilian and Chevillotte 2023). The female differs from male by the scape slender, and ventrite 5 longitudinally sulcate centrally on basal 2/3, depressed on apical third, and centrally emarginate on apex.

Material examined. PANAMA, *Bocas del Toro* (new province record): Fortuna Cabins, 8.7814° N, 82.1909° W, ultraviolet light, 1 female, 23–30.v.2022, E.G. Riley (FWSC).

Acknowledgements. Our sincere thanks to Lee Herman and Corey Smith (AMNH) for the photographs of the holotype of *Haplidus glabricollis*; to Max Barclay and Keita Matsumoto (Natural History Museum, London, United Kingdom) for the photographs of the holotype of *Eupogonius longipilis*; to Laura Marrero Palma and Dr. Marianna Simões (Forschungsinstitut und Naturmuseum Senckenberg) for the photographs of the holotype of *Adetus salvadorensis*; and to Larry G. Bezark (California, United States of America) for sharing with us information and comments on his specimens of *A. scissicauda* and *A. alboapicalis*. Special thanks to Frederick W. Skillman (FWSC) for sending specimens for study and identification.

References

- Aurivillius, C. 1893. Neue oder wenig bekannte Coleoptera Longicornia [New or little-known Coleoptera Longicornia]. 4. Entomologisk Tidskrift, **14**: 177–186.
- Bates, H.W. 1872. On the longicorn Coleoptera of Chontales, Nicaragua. The Transactions of the Entomological Society of London, **1872**: 163–238.
- Bates, H.W. 1874. Supplement to the longicorn Coleoptera of Chontales, Nicaragua. The Transactions of the Entomological Society of London, **1874**: 219–235.
- Bates, H.W. 1880. Longicornia. In *Biologia Centrali-Americana, Insecta, Coleoptera*. Edited by F.D. Godman and O. Salvin. Taylor and Francis, London, United Kingdom. Pp. 17–152.
- Bates, H.W. 1885. Supplement. In *Biologia Centrali-Americana, Insecta, Coleoptera*. Volume 5. Edited by F.D. Godman and O. Salvin. Taylor and Francis, London, United Kingdom. Pp. 249–436.
- Bezark, L.G. 2023. New World Cerambycidae catalog [online]. Available from <http://bezbycids.com/byciddb/wdefault.asp?w=n> [accessed 10 January 2024].
- Botero, J.P. and Santos-Silva, A. 2017. Four new species, taxonomic, and nomenclatural notes in *Hammatoderus* Gemminger & Harold, 1873 (Coleoptera, Cerambycidae, Lamiinae). *Zootaxa*, **4231**: 377–397.
- Breuning, S. 1940. Novae species Cerambycidarum. IX. *Folia Zoologica et Hydrobiologica*, **10**: 115–214.
- Breuning, S. 1943. Novae species Cerambycidarum. XII. *Folia Zoologica et Hydrobiologica*, **12**: 12–66.
- Breuning, S. 1960. Catalogue des lamiines du monde (Col., Cerambycidae) [Catalogue of lamiines of the world (Col., Cerambycidae)]. *Museum G. Frey, Tutzing bei München*, **3**: 109–182.
- Breuning, S. 1971. Révision des espèces américaines de la tribue des Apomecynini Lac. (Coleoptera, Cerambycidae) [Revision of the American species of the Apomecynini Lac tribe. (Coleoptera, Cerambycidae)]. *Entomologische Abhandlungen aus dem Staatliches Museum für Tierkunde*, **37**: 209–335.
- Chemsak, J.A. and Linsley, E.G. 1964. Descriptions and records of Hesperophanini, with keys to the species of *Anatinomma* and *Amphelictus* (Coleoptera, Cerambycidae). *Journal of the Kansas Entomological Society*, **37**: 216–226.

- Dalens, P.H. and Touroult, J. 2014. New taxa and new records of Oemini Lacordaire, 1868 and Ectenessini Martins, 1998 from French Guiana (Coleoptera, Cerambycidae, Cerambycinae). *Insecta Mundi*, **359**: 1–12.
- Fisher, W.S. 1927. A new cerambycid beetle from Colombia and Central America (Coleoptera). *Proceedings of the Entomological Society of Washington*, **29**: 23–24.
- Franz, E. 1954. Cerambycidae (Ins., Col.) aus El Salvador [Cerambycidae (Ins., Col.) from El Salvador]. *Senckenbergiana*, **34**: 213–229.
- Giesbert, E.F. 1987. The tribe Pachypezini (Coleoptera: Cerambycidae): first Central American records, with a new species of *Pachypeza* from Panama. *The Coleopterists Bulletin*, **41**: 315–318.
- Gounelle, E. 1909. Liste des cérambycides de la région de Jatahy, Etat de Goyaz, Brésil [List of cerambycids from the Jatahy region, Goyaz State, Brazil]. *Annales de la Société Entomologique de France*, **77**: 587–688.
- LeConte, J.L. 1852. An attempt to classify the longicorn Coleoptera of the part of America, north of Mexico. *Journal of the Academy of Natural Sciences of Philadelphia*, **2**: 139–178.
- Martins, U.R. 1973. Notas sôbre Cerambycidae (Coleoptera), VIII [Notes on Cerambycidae (Coleoptera), VIII]. *Papéis Avulsos de Zoologia, São Paulo*, **26**: 201–213.
- Martins, U.R. 1981. Revisão do gênero *Atenizus*; os gêneros *Tessaropa* e *Methia* na América do Sul e descrição de novas taxa em Methiini (Coleoptera, Cerambycidae) [Review of the genus *Atenizus*; of genera *Tessaropa* and *Mete* in South America; and description of new taxa by Methiini (Coleoptera, Cerambycidae)]. *Revista Brasileira de Entomologia*, **25**: 9–17.
- Martins, U.R. 1997. Tribo Oemini. In *Cerambycidae Sul-Americanos (Coleoptera)* [South American Cerambycidae (Coleoptera)]. *Taxonomia*. Volume 1. *Edited by* U.R. Martins. Sociedade Brasileira de Entomologia, São Paulo, Brazil. Pp. 3–155.
- Martins, U.R. and Galileo, M.H.M. 1994. Descrições de novas espécies, chaves para identificação e notas sobre os gêneros *Sphagoeme* Aurivillius, *Aleiphaquilon* Martins e *Gigantotrichoderes* Tippmann (Coleoptera, Cerambycidae, Cerambycinae) [Descriptions of new species, keys for identification and notes on the genera *Sphagoema* Aurivillius, *Aleiphaquilon* Martins and *Gigantotrichoderes* Tippmann (Coleoptera, Cerambycidae, Cerambycinae)]. *Revista Brasileira de Zoologia*, **11**: 683–690.
- Martins, U.R. and Galileo, M.H.M. 1998. Revisão da tribo Aerenicini Lacordaire, 1872 (Coleoptera, Cerambycidae, Lamiinae) [Revision of the tribe Aerenicini Lacordaire, 1872 (Coleoptera, Cerambycidae, Lamiinae)]. *Arquivos de Zoologia, Museu de Zoologia da Universidade de São Paulo*, **35**: 1–13.
- Martins, U.R. and Galileo, M.H.M. 2003. Tribo Oabriini. In *Cerambycidae Sul-americanos (Coleoptera)* *Taxonomia*. Volume 6. *Edited by* U.R. Martins. Sociedade Brasileira de Entomologia, Curitiba, Brazil. Pp. 1–28.
- Martins, U.R., Santos-Silva, A., Galileo, M.H.M., and Limeira-de-Oliveira, F. 2014. Cerambycidae (Coleoptera) from the state of Maranhão, Brazil. IV: new genus, new species, new synonym, new records. *Zoologia*, **31**: 599–620.
- Monné, M.A. 2023a. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part I. Subfamily Cerambycinae [online]. Available from https://cerambycids.com/catalog/Monne_Jun2024_NeotropicalCat_part_I.pdf [accessed 10 January 2024].
- Monné, M.A. 2023b. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part II. Subfamily Lamiinae [online]. Available from https://cerambycids.com/catalog/Monne_Jun2024_NeotropicalCat_part_II.pdf [accessed 10 January 2024].
- Monné, M.A. 2023c. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part III. Subfamilies Lepturinae, Necydalinae, Parandrinae, Prioninae, Spondylidinae, Anoplodermatinae and families Oxypeltidae, Vesperidae and Disteniidae [online]. Available from https://cerambycids.com/catalog/Monne_Jun2024_NeotropicalCat_part_III.pdf [accessed 10 January 2024].

- Monné, M.A. and Nearn, E.H. 2023a. Catalogue of the Cerambycidae (Coleoptera) of Canada and United States of America. Part I. Subfamilies Parandrinae, Prioninae and Spondylidinae [online]. Available from https://cerambycids.com/catalog/Monne&Nearn_Jan2024_NearcticCat_part_I.pdf [accessed 10 January 2024].
- Monné, M.A. and Nearn, E.H. 2023b. Catalogue of the Cerambycidae (Coleoptera) of Canada and United States of America. Part II. Subfamilies Lepturinae and Nelydalinae [online]. Available from https://cerambycids.com/catalog/Monne&Nearn_Jan2024_NearcticCat_part_II.pdf [accessed 10 January 2024].
- Monné, M.A. and Nearn, E.H. 2023c. Catalogue of the Cerambycidae (Coleoptera) of Canada and United States of America. Part III. Subfamily Cerambycinae [online]. Available from https://cerambycids.com/catalog/Monne&Nearn_Jan2024_NearcticCat_part_III.pdf [accessed 10 January 2024].
- Monné, M.A. and Nearn, E.H. 2023d. Catalogue of the Cerambycidae (Coleoptera) of Canada and United States of America. Part IV. Subfamily Lamiinae [online]. Available from https://cerambycids.com/catalog/Monne&Nearn_Jan2024_NearcticCat_part_IV.pdf [accessed 10 January 2024].
- Monné, M.L. and Monné, M.A. 2008. Description of a new genus and species of the tribe Parmenini, with nomenclatural notes (Coleoptera: Cerambycidae). *Zootaxa*, **1858**: 64–68.
- Nearn, E.H. and Nascimento, E.H.L. 2019. A new genus and seven new species of Onciderini Thomson, 1860 (Coleoptera: Cerambycidae: Lamiinae) from Central and South America. *Insecta Mundi*, **688**: 1–16.
- Pérez-Flores, O., Arriaga-Varela, E., Navarrete-Heredia, J.L., and Santos-Silva, A. 2023. Description of one new genus and two new species of Apomecynini (Cerambycidae: Lamiinae) from Mexico. *Acta Entomologica Musei Nationalis Pragae*, **63**: 341–347.
- Santos-Silva, A., Nascimento, F.E.L., and Silva Júnior, J.O. 2020. Description of two new Acanthoderini, and description of the male of *Oreodera advena* Martins & Galileo (Coleoptera, Cerambycidae, Lamiinae). *Zootaxa*, **490**: 540–550.
- Selander, B.S. and Vaurie, P. 1962. A gazetteer to accompany the “Insecta” volumes of the “Biologia Centrali-Americana.” *American Museum Novitates*, **2099**: 1–70.
- Tavakilian, G.L. and Chevillotte, H. 2023. Titan: base de données internationales sur les Cerambycidae ou Longicornes [Titan: international database on Cerambycidae or longicorns; online]. Available from <http://titan.gbif.fr> [accessed 10 January 2024].
- Thomson, J. 1878. Typi cerambycidarum Musei Thomsoniani [Cerambycidae types at the Thomson Museum]. (2e. mémoire). *Revue et Magasin de Zoologie*, **6**: 1–33.