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(Coleoptera, Cerambycidae, Cerambycinae)

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Two new Eburini from Mexico (Coleoptera, Cerambycidae, Cerambycinae)

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Abstract. Two new species of Eburini (Coleoptera, Cerambycidae, Cerambycinae) are described from Mexico (Guerrero): *Susuacanga boteroi*; and *Eburia (Eburia) girouxiae*. Both are included in previous keys.

Key Words. Key, Neotropical region, taxonomy

Introduction

Currently, *Susuacanga* Martins, 1997 includes 13 species distributed from southern United States of America to South America (Monné 2016). Ten species are recorded from Mexico: *Susuacanga blancaneaui* (Bates, 1880); *S. falli* (Linsley, 1940); *S. hatsueae* (Chemsak and Linsley, 1986); *S. marcelae* Botero, 2015; *S. opaca* (Chemsak and Linsley, 1973); *S. patruelis* (Bates, 1884); *S. poricollis* (Chemsak and Linsley, 1973); *S. rotundipennis* (Bates, 1884); *S. stigmatica* (Chevrolat, 1834); and *S. ulkei* (Bland, 1862). Noguera (2002) revised the species of *Eburia* Lacordaire, 1830 from North and Central America, considering *Susuacanga* among them, but without formalizing the synonymy. Botero (2014) revised *Susuacanga*, including 12 species in it.

Eburia (Eburia) is a large subgenus with 85 species distributed from the United States of America to South America, and 35 recorded in Mexico (Bezark 2016; Monné 2016). Here we are describing a new species from Mexico.

Materials and Methods

Photographs were taken with a Canon EOS Rebel T3i DSLR camera, Canon MP-E 65mm f/2.8 1-5X macro lens, controlled by Zerene Stacker AutoMontage software. Measurements of imagoes were taken in “mm” using a micrometer ocular Hensoldt/Wetzlar - Mess 10 in the Leica MZ6 stereomicroscope, also used in the study of the imago specimens.

The collection acronyms used in this study are as follows:

MNRJ – Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil

MZSP – Museum of Zoology, University of São Paulo, São Paulo, Brazil

Descriptions

Susuacanga boteroi Le Tirant and Santos-Silva, new species

(Fig. 1–4)

Holotype female. Color. Integument dark-brown, except for: four eburneous maculae on each elytron; yellowish apex of palpomeres. Pubescence and setae yellowish.

Head. Frons moderately finely, abundantly punctate between antennal tubercles and clypeus, punctures distinctly sparser, coarser, shallower toward longitudinal sulcus; longitudinal sulcus deep, gradually shallower toward tubercles between upper eye lobes; with deep, transverse sulcus close to clypeus; with short, moderately abundantly setae laterally interspersed with some long setae, glabrous inside longitudinal sulcus. Area between antennal tubercles and tubercles between upper eye lobes widely carinate (longitudinal sulcus inside this carina); lateral sides of carina moderately deeply sulcate; with band of moderately short setae laterally, connected with dense setae between eyes and antennal socket and pubescence behind upper eye lobes; lateral sides of carina with short, sparse setae. Area behind tubercle between upper eye lobes with semi-circular, deep sulcus. Vertex centrally smooth, opaque; moderately coarsely, shallowly, abundantly punctate laterally (including area behind upper eye lobes); smooth region glabrous; with wide band of pubescence from semi-circular sulcus to behind upper eye lobes (gradually narrower toward lateral side of head), interspersed with some long setae; remaining surface of vertex and area behind upper eye lobes with short, sparse setae. Area behind lower eye lobes with band of moderately sparse setae, gradually denser toward ventral side (this band completely surrounding the lobe and connected with that on frons). Submentum laterally separated from genae by longitudinal, deep sulcus; with wide, transverse carina centrally; coarsely, shallowly punctate (punctures partially confluent between carina and gula); anterior margin elevated, wide, smooth, glabrous; remaining with short, abundant setae interspersed with long, moderately abundant setae. Gena moderately finely, abundantly punctate, except for smooth area close to apex; with short, moderately abundant setae, except for glabrous area close to apex. Coronal suture distinct from transverse sulcus close to clypeus to about middle of antennal tubercles, gradually indistinct toward tubercles between eyes. Antennal tubercles obliquely, widely sulcate; coarsely, sparsely punctate outside of sulcus, moderately fine, abundantly punctate inside of sulcus; with short, moderately abundant setae inside of sulcus, sparsely outside of sulcus. Distance between upper eye lobes 0.35 times length of scape; distance between lower eye lobes in frontal view 0.90 times length of scape; distance between lower eye lobes in ventral view 2.9 times width of one lobe (also in ventral view). Antennae as long as 1.5 times elytral length (left antenna missing antennomeres IX–XI); reaching elytral apex at distal third of antennomere X; scape moderately coarsely, abundantly punctate on basal half, gradually sparser toward apex; inner side of antennomeres III–V with long, moderately abundant setae (shorter, sparser toward V); antennal formula based on length of antennomere III: scape = 0.88; pedicel = 0.20; IV = 0.82; V = 0.83; VI = 0.75; VII = 0.70; VIII = 0.66; IX = 0.60; X = 0.54; XI = 0.65.

Thorax. Prothorax transverse, 1.4 times wider than long (including lateral tubercles); central lateral tubercle moderately large, with apex almost acute, upturned; tubercle-shaped close to anterior margin. Pronotum with transverse, moderately deep sulcus along smooth region close to distal margin; transversely, slightly sulcate on distal smooth region; with narrow, transverse sulcus near basal margin; basal area between transverse sulcus and punctate region laterally carinate; central region widely smooth on basal half, distinctly narrower on distal half; remaining surface very coarsely, confluent punctate (nearly all punctures with small tubercle inside); disc with short, sparse setae interspersed with long setae, except for: smooth central area on basal half glabrous; somewhat denser on basal quarter; pubescent laterally and on wide, transverse band at anterior third (centrally not fused). Lateral sides of prothorax finely, densely punctate under central tubercle, vermiculate close to procoxal cavity, coarsely, confluent punctate on remaining surface, except for transversely sulcate area close to anterior margin; pubescent, except for vermiculate area with short, moderately sparse setae. Prosternum widely, transversely sulcate on basal two-thirds; with narrow, moderately deep, transverse sulcus on anterior third; basal two-thirds moderately finely punctate-vermiculated, except for smooth anterior central area; basal third with short, sparse setae; region between transverse sulcus almost glabrous toward basal third, with narrow band with short setae close to anterior transverse sulcus. Prosternal process centrally 0.6 times width of procoxal cavity; with short setae, except for glabrous central region. Mesosternum with sparse setae centrally, slightly denser laterally. Mesosternal process without tubercle. Mesepisterna and mesepimera with short, abundant setae (not obscuring integument), slightly denser on mesepimera close to mesocoxal cavity. Metepisterna with short, abundant setae, slightly denser close to apex. Metasternum laterally finely, abundantly punctate, gradually smoother toward center; with short, abundant setae laterally, interspersed with moderately abundant long setae, gradually sparser toward center, that is almost glabrous. Scutellum with short, abundant setae, except for glabrous nar-

row band laterally and posteriorly. Elytra moderately coarsely, sparsely punctate on basal third, gradually finer, sparser toward apex (except on eburneous maculae); each puncture with small setae, except for some long setae on basal third close to suture; each elytron with two elongate, small eburneous macula on base (on right elytron of the holotype the innermost is distinctly shorter and not elevated, and there are two contiguous laterally), and centrally with two long eburneous maculae, with outermost twice longer than innermost and 2.4 times longer than antennomere III; apex truncate; outer angle spiny; sutural angle with triangularly projected. **Legs.** Apex of meso- and metafemora spiny (spine shorter than lateral width of femora).

Abdomen. Ventrites finely, densely punctate (less so centrally on I–IV, mainly on I); ventrites I–IV with short, abundant setae (denser laterally and on narrow distal band) interspersed with long setae; ventrite V with short, abundant setae throughout, with apex truncate (slightly, widely emarginate).

Dimensions (mm). Holotype female. Total length (including mandibles), 23.3; prothoracic length, 3.9; basal prothoracic width, 4.9; distal prothoracic width, 3.4; largest prothoracic width, 5.6; humeral width, 6.7; elytral length, 16.2.

Type material. Holotype female from MEXICO, *Guerrero*: Xalitla (590 m), 11.VIII.2010, Daniel Curoe col. (MZSP).

Etymology. This species is named for Juan Pablo Botero (MNRJ), for his contribution toward knowledge of Eburini.

Remarks. *Susuacanga boteroi* sp. nov. is similar to *S. hatsueae* (Chemsak and Giesbert, 1986), but differs as follows (female): antennae shorter (surpassing elytral apex by about only one segment); pronotum distinctly less pubescent; elytra not pubescent; spine of outer apical angle of elytra short. In females of *S. hatsueae* the antennae surpass the elytral apex by about two segments, the pronotum is more pubescent, the elytra is distinctly pubescent, and the spine of the outer apical angle is notably long.

Susuacanga boteroi sp. nov. can be included in the alternative of couplet “6”, from Botero (2014):

- 6'(4). Elytra not pubescent. Mexico *S. boteroi* sp. nov.
 — Elytra distinctly pubescent 6
- 6(6'). External posterior eburneous callosities shorter than antennomere III, spines at elytral apices with the same length. Guatemala, Honduras *S. wappesi* (Noguera, 2002)
 — External posterior eburneous callosities longer than antennomere III, external spine at elytral apex longer than inner. Mexico (Jalisco, Michoacán, Guerrero, Oaxaca
 *S. hatsueae* (Chemsak and Giesbert, 1986)

***Eburia (Eburia) girouxae* Le Tirant and Santos-Silva, new species**

(Fig. 5–8, 10, 12)

Holotype male. Color. The following black: head, prothorax, ventral side of meso- and metathorax, wide longitudinal band on elytra, from base to near apex. The following dark-brown: parts of scape, pedicel, narrow ring on apex of antennomeres III–X; most of procoxae; inferior half of lateral sides, ventral side of distal third of femora; narrow band on dorsal and superior half of lateral sides of apex of femora; short area on ventral side of tibiae. The following reddish-brown (darker on some areas): parts of scape; most of antennomeres (gradually lighter toward distal antennomeres); most of elytra; trochanters; most of femora; lateral and dorsal sides of base of tibiae; most of meso- and metacoxae. Pubescence and setae yellowish.

Head. Frons finely, abundantly punctate, except for smooth central area close to clypeus; with deep depression laterally close to clypeus; glabrous on smooth central area and wide area surrounding antennal socket and projected toward clypeus, with dense pubescence on remaining surface (obscuring in-

tegument). Area between antennal tubercles and upper eye lobes finely, abundantly punctate on each side of coronal suture; with band of pubescence connected to that of frons and vertex, margined for subglabrous band followed by another pubescent band close to antennal tubercle. Vertex finely, abundantly punctate, except for smooth, narrow, triangular, central area; with dense pubescence, except for glabrous triangular area, two large, subrounded areas on each side, and subglabrous central area close to prothoracic margin. Central area between upper eye lobes with two small tubercles. Area behind upper eye lobes finely, densely punctate, densely pubescent. Area behind lower eye lobe with large, glabrous, smooth area on its basal third close to prothorax, projected toward center of pubescence behind upper eye lobe; remaining surface finely, abundantly punctate close to prothorax, smooth close to eye; with band with dense pubescence surrounding remaining area of lobe, connected to that involving upper eye lobe. Submentum coarsely, confluent punctate; with abundant, long, decumbent setae throughout. Gena finely, abundantly punctate; with short, sparse setae, except for dense band close to lower eye lobe and narrow band at apex. Coronal suture distinct from clypeus to near anterior margin of prothorax. Antennal tubercles obliquely, widely sulcate; finely, abundantly punctate; with band of pubescence inside of sulcus, connected to that close to eye, glabrous close to antennal socket, with sparse setae on remaining surface. Distance between upper eye lobes 0.50 times length of scape; distance between lower eye lobes in frontal view 0.95 times length of scape; distance between lower eye lobes in ventral view 2.3 times width of one lobe (also in ventral view). Antennae 1.7 times elytral length (right antenna missing antennomeres IX–XI); reaching elytral apex at distal quarter of antennomere IX; inner side of antennomeres III–VIII with long, moderately abundant setae (shorter, sparser toward VIII); antennal formula based on length of antennomere III: scape = 0.86; pedicel = 0.23; IV = 0.81; V = 0.98; VI = 1.01; VII = 1.01; VIII = 0.92; IX = 0.86; X = 0.80; XI = 0.95.

Thorax. Prothorax transverse, 1.3 times wider than long (including lateral tubercles); central lateral tubercle large, acute toward apex; with rounded, large tubercle laterally, between central tubercle and anterior margin. Pronotum with two distinct, conical tubercles close to middle on each side of distal half, and two less conspicuous, large, subrounded, close to middle on each side of basal half; moderately coarsely, densely punctate, except for smooth area behind subrounded tubercles and on conical tubercles, and anterior quarter, where punctures are distinctly finer and sparser; with narrow, transverse sulcus close to basal margin; with arched, moderately deep sulcus between basal tubercles and narrow transverse sulcus; surface densely pubescent, interspersed with long setae, except for glabrous apex of conical tubercles and area behind basal tubercles, and large area behind conical tubercles, where pubescence is less dense. Lateral sides of prothorax moderately coarsely, sparsely punctate; with dense pubescence interspersed with sparse long setae, except for area close to anterior margin with sparse short setae, interspersed with long setae. Prosternum transversely depressed centrally; with dense pubescence on about basal third, slightly sparser on central third, distinct sparse on anterior third (central region of this area with transverse band of pubescence). Prosternal process narrowed centrally; narrowest area 0.24 times width of procoxal cavity. Ventral side of meso- and metathorax densely pubescent, except for glabrous, transverse area near to metacoxal cavities. Scutellum pubescent. Elytra coarsely punctate on basal half of longitudinal black band (mainly centrally), gradually sparser, finer toward apex of this region; remaining surface microsculptured, finer punctate, mainly toward apex; surface pubescent, except for sparse pubescence inside of black longitudinal band (slightly denser centrally); each elytron with two elongate eburneous maculae at about middle, with outermost about 1.3 times longer than innermost and antennomere III; apex truncate, with small projection at outer angle, with spine at sutural angle. **Legs.** Inner apex of meso- and metafemora with triangular projection (sub-spiniform).

Abdomen. Ventrites densely pubescent; apex of ventrite V truncate, slightly widely emarginate centrally.

Dimensions (mm). Holotype male. Total length (including mandibles), 21.6; prothoracic length, 3.9; basal prothoracic width, 3.9; distal prothoracic width, 3.3; largest prothoracic width, 5.1; humeral width, 5.5; elytral length, 15.5.

Type material. Holotype male from MEXICO, *Guerrero*: Xalitla (590 m), 11.VIII.2010, Daniel Curoe col. (MZSP).

Etymology. The species is named for Dr. Marjolaine Giroux, entomologist at the Montreal Insectarium.

Remarks. *Eburia (Eburia) girouxae* sp. nov. is similar to *E. (E.) perezii* Chemsak and Giesbert, 1986, but differs as follows: antennae about 1.2 times as long as body (Fig. 5–7); elytra without eburneous maculae on base (Fig. 5); meso- and metafemora with distinct brush of long and dense setae ventrally (Fig. 10), and without long spine at inner apex (Fig. 12);. In male of *E. (E.) perezii* (Fig. 9) the antennae is about 1.5 times as long as body, usually there are two eburneous maculae on the base of each elytron (sometimes only one), the meso- and metafemora have no brush of long setae ventrally (Fig. 11), and have a long spine at inner apex (Fig. 13).

According to Botero (2014): “In the tribe Eburini Blanchard, 1845 the presence of tubercle between the upper ocular lobes and the gula with a transverse sulcus is exclusive of the genera *Susuacanga* and *Styliceps* Lacordaire, 1869. *Susuacanga* differs from *Styliceps* by the pronotal surface with thick, deep punctures, or finely rugose, by the anterior margin of pronotum with no more than one transverse sulcus, and by the mesosternal process without a tubercle. In *Styliceps* the pronotal surface is very rugose, the anterior margin of pronotum has two transverse sulci and the mesosternal process has a tubercle. Besides the characteristics shared with *Styliceps*, *Susuacanga* differs from *Eburia* by its deeply punctured pronotal surface which is never present in *Eburia*.” However, although small, *Eburia (Eburia) girouxae* sp. nov. has the two tubercles between the upper eye lobes. Notwithstanding, the new species cannot be included in these genera, because other features do not agree with those present in *Susuacanga* and *Syliceps* as, for example, the coarse punctation on pronotum.

In the key by Noguera (2002), the new species of *Eburia* herein described could be included in the alternative of couplet 19:

- 19(1). Procoxal cavities laterally rounded or with only a small median furrow **20**
 — Procoxal cavities angulate externally **19'**
- 19'(19). Elytra with two short eburneous maculae at about midlength and without longitudinal area exposing integument ***E. (E.) fuliginea (Bates, 1872)***
 — Elytra with two elongate eburneous maculate at about midlength and with longitudinal area exposing integument ***Eburia (Eburia) girouxae* sp. nov.**

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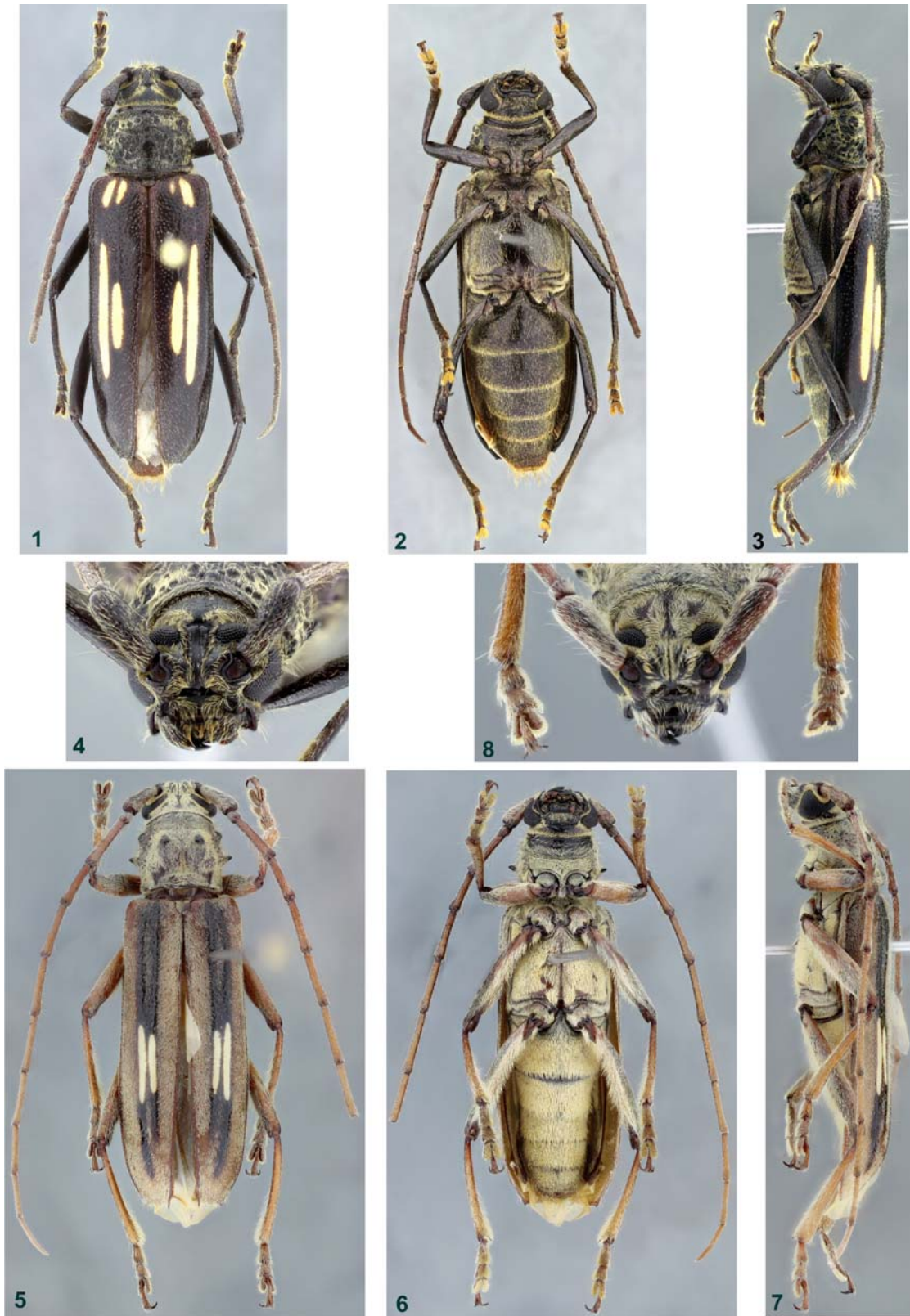
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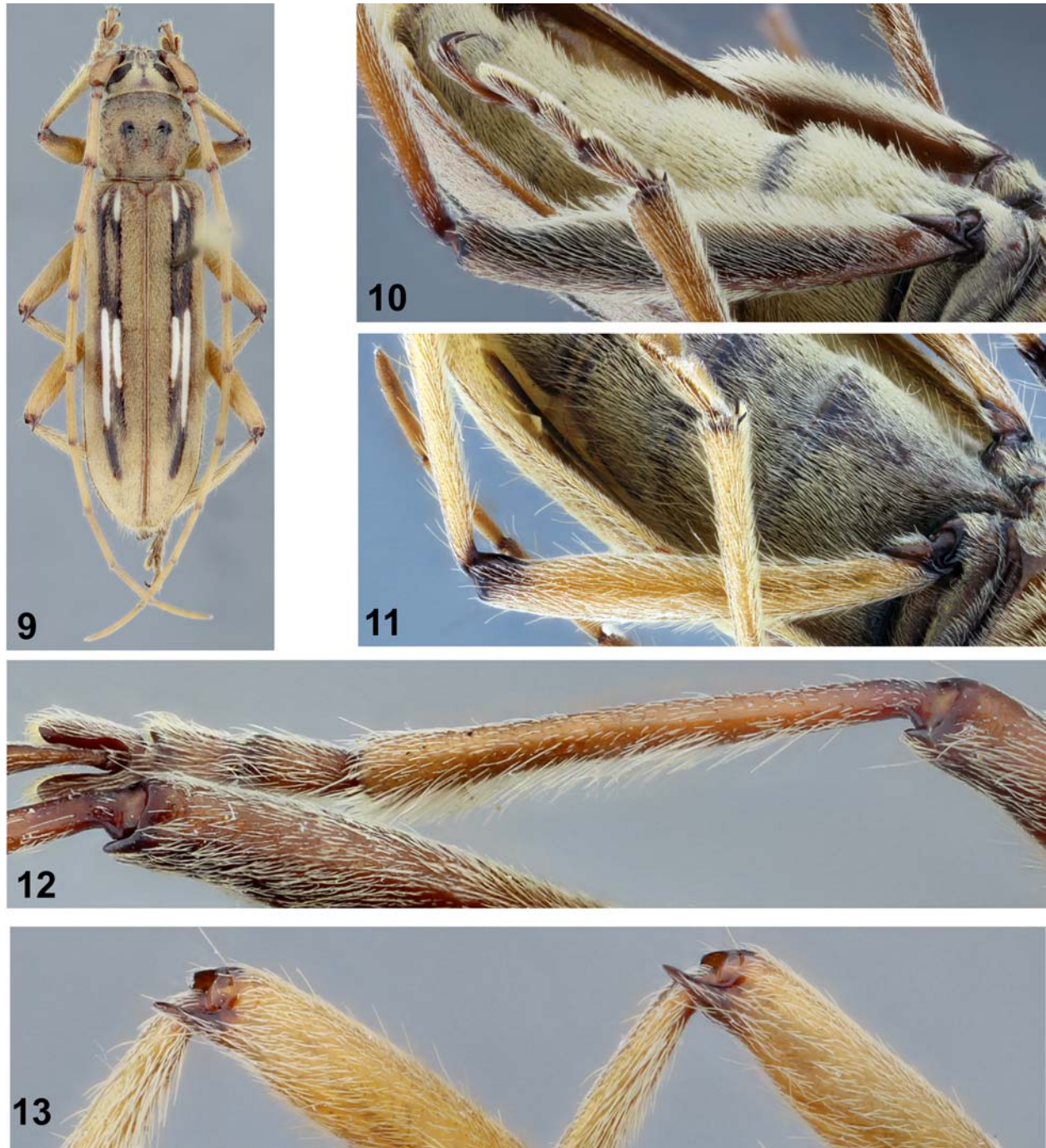
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Figures 1–8. 1–4) *Susuacanga boteroi* sp. nov., holotype female: 1) Dorsal habitus; 2) Ventral habitus; 3) Lateral habitus; 4) Head, frontal view. 5–8) *Eburia (Eburia) girouxae* sp. nov., holotype male: 5) Dorsal habitus; 6) Ventral habitus; 7) Lateral habitus; 8) Head, frontal view.



Figures 9–13. **9)** *Eburia (Eburia) perezii*, male, dorsal view. **10–11)** Detail of ventral side of metafemora: **10)** *Eburia (E.) girouxae* sp. nov., holotype male; **11)** *Eburia (E.) perezii*, male. **12–13)** Detail of apex of meso- and metafemora: **12)** *Eburia (E.) girouxae* sp. nov., holotype male; **13)** *Eburia (E.) perezii*, male.