Papéis Avulsos de Zoologia
Museu de Zoologia da Universidade de São Paulo

ARTICLE

Two new species and taxonomical and geographical notes on *Aegomorphus* Haldeman (Coleoptera, Cerambycidae, Lamiinae)

Daniel Heffern[1]; Antonio Santos-Silva[2,3] & Juan Pablo Botero[2,4]

[1] Independent researcher. Houston, TX, USA. ORCID: https://orcid.org/0000-0003-2263-6643. E-mail: titanusgiganteus@hotmail.com
[2] Universidade de São Paulo (USP), Museu de Zoologia (MZUSP). São Paulo, SP, Brasil.
[3] ORCID: https://orcid.org/0000-0001-7128-1418. E-mail: toncriss@uol.com.br
[4] ORCID: https://orcid.org/0000-0002-5547-7987. E-mail: jp_bot@yahoo.com

Abstract. *Acanthoderes crocostigma* Bates, 1880 is transferred to *Acakyra* Martins & Galileo, 1996. *Acanthoderes umbrata* Bates, 1885 is synonymized with *Acanthoderes purulensis* Bates, 1885. Variation of the elytral pubescent pattern in *Aegomorphus longitarsis* (Bates, 1880) is reported, and the species is recorded for the first time from Colombia (Boyacá) and Brazil (Amazonas). The variation of the elytral pubescent pattern in *Aegomorphus doctus* (Bates, 1880) is reported, and the species is recorded for the first time from the Mexican state of Jalisco. We comment on the type-locality of *Aegomorphus borrei* (Dugès, 1885). Two new species are described from Mexico (Jalisco): *Aegomorphus cunninghami* and *A. nogueirai*.

Keywords. Acanthoderini; Longhorned beetles; Mexico; Neotropical region; Taxonomy.

INTRODUCTION

Currently, *Aegomorphus* Haldeman, 1847 includes 91 species distributed from Canada to southern South America (Bezark, 2021). It is probable that some of those species, in fact, belong to other genera, as for example *Scythropopsis* Thomson, 1864. However, it is very probable that many species currently included in *Acanthoderes* (*Acanthoderes*) Audinet-Serville, 1835 belong to *Aegomorphus*. However, only the study of specimens of species not currently available to us may confirm our assumptions. The study of *Aegomorphus* is particularly difficult due to the great number of species and variations in pubescence pattern present in some species.

Here we transfer a species to *Acakyra* Martins & Galileo, 1996, propose the synonymy of a species, comment on the variation of the elytral pubescent pattern of two species, comment about the type-locality of a species, and describe two new species from Mexico.

MATERIAL AND METHODS

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

The collection acronyms used in the text are as follows: **CNIN** = Colección Nacional de Insectos, Instituto de Biología (UNAM), Mexico City, Mexico; **DHCO** = Daniel Heffern Collection, Houston, Texas, USA; **MZSP** = Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil.

RESULTS

Acakyra crocostigma (Bates, 1880), comb. nov. (Fig. 1A)

Acanthoderes crocostigma Bates, 1880a: 61; Lameere, 1883: 66 (cat.); Blackwelder, 1946: 610 (checklist).
Acanthoderes (*Psapharochrus*) *crocostigma;* Aurivillius, 1923: 386 (cat.); Gilmour, 1965: 614 (cat.); Monné & Giesbert, 1994: 230 (checklist); Monné, 1994: 60 (cat.).
Psapharochrus crocostigma; Monné, 2005: 203 (cat.).
Aegomorphus crocostigma; Santos-Silva *et al.*, 2020: 35; Monné, 2021: 250 (cat.).

Bates (1880a) described *Acanthoderes crocostigma* based on a single female from Ecuador and reported: "By the structure of the antennae, this species would belong to the genus

Pap. Avulsos Zool., 2022; v.62: e202262021
http://doi.org/10.11606/1807-0205/2022.62.021
http://www.revistas.usp.br/paz
http://www.scielo.br/paz
Edited by: Simone Policena Rosa
Received: 12/10/2021
Accepted: 16/02/2022
Published: 01/04/2022

ISSN On-Line: 1807-0205
ISSN Printed: 0031-1049
ISNI: 0000-0004-0384-1825
http://zoobank.org/59E966A5-8D77-4782-A949-3D4508D671F3

Scleronotus, but all the other characters of the insect are those of *Acanthoderes*."

Martins & Galileo (1996) described *Acakyra* to include their new species *A. iaguara,* from Colombia. The authors characterized *Acakyra* based especially on antennomere III tumid apically, without tuft of long setae, antennomere IV without modifications, the remaining antennomeres very short, and by the absence of dorsal carina on the elytra. Later, Martins & Galileo (2001) described *A. nigrofasciata* and *A. laterialba,* and Chemsak & Hovore (2002) described *A. ocellata ocellata,* and *A. ocellata onca.* The three later species (see photographs on Bezark, 2021) have a centrobasal crest and moderately distinct elytral carina. Therefore, the only reliable feature, allowing recognition of species of *Acakyra,* is the distinctly short length of antennomeres V-VII, a feature not present in *Aegomorphus.* As *Acanthoderes crocostigma* has these antennomeres distinctly short, the species is herein transferred to *Acakyra.* The general appearance of *A. crocostigma* is similar to that of *A. iaguara, A. ocellata ocellata* and *A. ocellata onca.*

***Aegomorphus purulensis* (Bates, 1885) (Fig. 1B-1E)**

Acanthoderes purulensis Bates, 1885: 379; Chemsak & Linsley, 1970: 406 (lect.); Chemsak *et al.,* 1992: 130 (cat.).
Acanthoderes (*Psapharochrus*) *purulensis;* Aurivillius, 1923: 387 (cat.); Blackwelder, 1946: 611 (checklist); Gilmour, 1965: 614 (cat.); Monné, 1994: 67 (cat.); Monné & Giesbert, 1994: 231 (checklist).
Psapharochrus purulensis; Monné, 2005: 211 (cat.); Hovore, 2006: 376 (distr.).
Aegomorphus purulensis; Santos-Silva *et al.,* 2020: 36.
Acanthoderes umbrata Bates, 1885: 379; Chemsak & Linsley, 1970: 406 (lect.); Chemsak *et al.,* 1992: 130 (cat.). **Syn. nov.**
Acanthoderes (*Psapharochrus*) *umbrata;* Aurivillius, 1923: 388 (cat.).
Psapharochrus umbrata; Turnbow *et al.,* 2003: 29 (distr.); Monné, 2005: 214 (cat.); Hovore, 2006: 376 (distr.).
Psapharochrus umbratus; Maes *et al.,* 2010: 375 (distr.).
Aegomorphus umbratus; Santos-Silva *et al.,* 2020: 36.

Bates (1885) described *Acanthoderes purulensis* as follows (translated): "Similar to *Acanthoderes lugens* [currently, *Scythropopsis lugens* (Thomson, 1865)]. Triangular-oblong, brownish black, grayish-white and brownish-gray pubescent; frons white; thorax dorsally with well-elevated compressed-conical carinae [tubercles], indented on apex; elytral apex narrowed, sinuous-truncate, outer angle slightly projected, dorsal carinae flexuous, elevated, and granulated toward base, the entire base and humeri sparsely granulated, with large oblique humeral macula and sutural area grayish-white or grayish, with small fuscous spots; posterior area of prosternal process and apex [base] subvertical, bituberculate; antennae black with white rings, antennomere III and IV together as long as V-IX. Length, 13.8-14.80 mm. From Guatemala, Purula [= Purulhá, Baja Verapaz] (Champion [leg.]). Three examples."

In the same work and page, Bates (1885) described *Acanthoderes umbrata* as follows (translated): "Similar to *A. lateralis.* Short, dark fulvous; with dark area on sides of thorax; elytra with dark areas, two oblique and very dentate bands (one laterally about middle, another apically), and small spots close to suture; dorsal tubercles of thorax compressed-conical, apex bituberculate; elytra triangular, apex truncate, with long spine on outer angle, dorsal carina very divergent toward base and elevated, multituberculate, base with sparse, nearly absent granules; antennae short, antennomeres III and IV together as long as V-IX; pro- and mesosternum [processes] vertical, bituberculate. Length, 10.60-14.85 mm. From Guatemala, Cerro Zunil [Volcán Zunil, Quezaltenango] (Champion leg.). Many examples."

Reading the original descriptions, and seeing photographs of the types of both species, it is very difficult to understand why Bates (1885) did not compare the two species to each other. The only reliable difference is the shape of the outer elytral angle, which is distinctly spiniform in *A. umbrata* (Fig. 1D-1E), and not spiniform in *A. purulensis* (Fig. 1B-1C). However, we believe that this is only a specific variation. In fact, this type of variation also occurs in other species of the genus, as for example, in *Aegomorphus jaspideus* (Germar, 1823) (Fig. 1F-1I). Therefore, we synonymize *Acanthoderes umbrata* with *Acanthoderes purulensis.*

Given that *Acanthoderes purulensis* and *Acanthoderes umbrata* were described in the same work (Bates, 1885) and in this case the principle of priority does not apply, we, as first revisers, select the name *Acanthoderes purulensis* Bates, 1885 as the valid name.

The general appearance of this species is very similar to that of *Scythropopsis sallei* (Thomson, 1865), but it differs by the lateral tubercles of the pronotum at least slightly bifid apically (simple in *S. sallei*). It is possible that *Aegomorphus umbratus* belongs to *Scythropopsis* Thomson, 1864. However, without seeing the size of the ommatidia, it is not possible to be sure.

***Aegomorphus longitarsis* (Bates, 1880) (Fig. 2A-2B)**

Acanthoderes longitarsis Bates, 1880a: 58; Lameere, 1883: 62 (cat.); Blackwelder, 1946: 610 (checklist); Zajciw, 1969: 611 (distr.); 1970: 190.
Acanthoderes (*Psapharochrus*) *longitarsis;* Aurivillius, 1923: 386 (cat.); Gilmour, 1965: 614 (cat.); Monné, 1994: 64 (cat.); Monné & Giesbert, 1994: 231 (checklist).
Psapharochrus longitarsis; Monné, 2005: 207 (cat.); Audureau, 2017: 7 (distr.).
Aegomorphus longitarsis; Santos-Silva *et al.,* 2020: 35; Monné, 2021: 256 (cat.).

Bates (1880a) described *Acanthoderes longitarsis* based on a single male from Ecuador. The holotype, as well as other specimens, does not have irregular yellow maculae on the elytra (Fig. 2B), which is a common variation in the species (Fig. 2A). Currently, the species is known from Ecuador and Peru (Monné, 2021; Tavakilian & Chevillotte, 2021).

Material examined: COLOMBIA (**new country record**), *Boyacá:* Muzo, 2 females, VI.1923, H. Apolinar leg. (MZSP). PERU, Rio Huallaga, 2 females, II.1986, local collector (DHCO). *Junín:* Chanchamayo, 1 male, II.1933, E.G. Smyth leg. (DHCO); Satipo, 1 female, no date and collector indicated (MZSP). BRAZIL (**new country record**), *Amazonas:* Benjamin Constant, 1 female, X.1961, formerly Diringshofen collection (MZSP). *Pará:* Santarém, 1 male, 1921, no collector indicated (MZSP).

Aegomorphus doctus (Bates, 1880) (Fig. 2C-2F)

Acanthoderes doctus Bates, 1880b: 141.
Acanthoderes (*Psapharochrus*) *docta;* Aurivillius, 1923: 386 (cat.); Gilmour, 1965: 613 (cat.); Monné & Giesbert, 1994: 230 (checklist); Monné, 1994: 60 (cat.).
Acanthoderes docta; Lameere, 1883: 62 (cat.); Blackwelder, 1946: 610 (checklist); Chemsak *et al.,* 1992: 130 (cat.); Noguera & Chemsak, 1996: 406 (cat.).

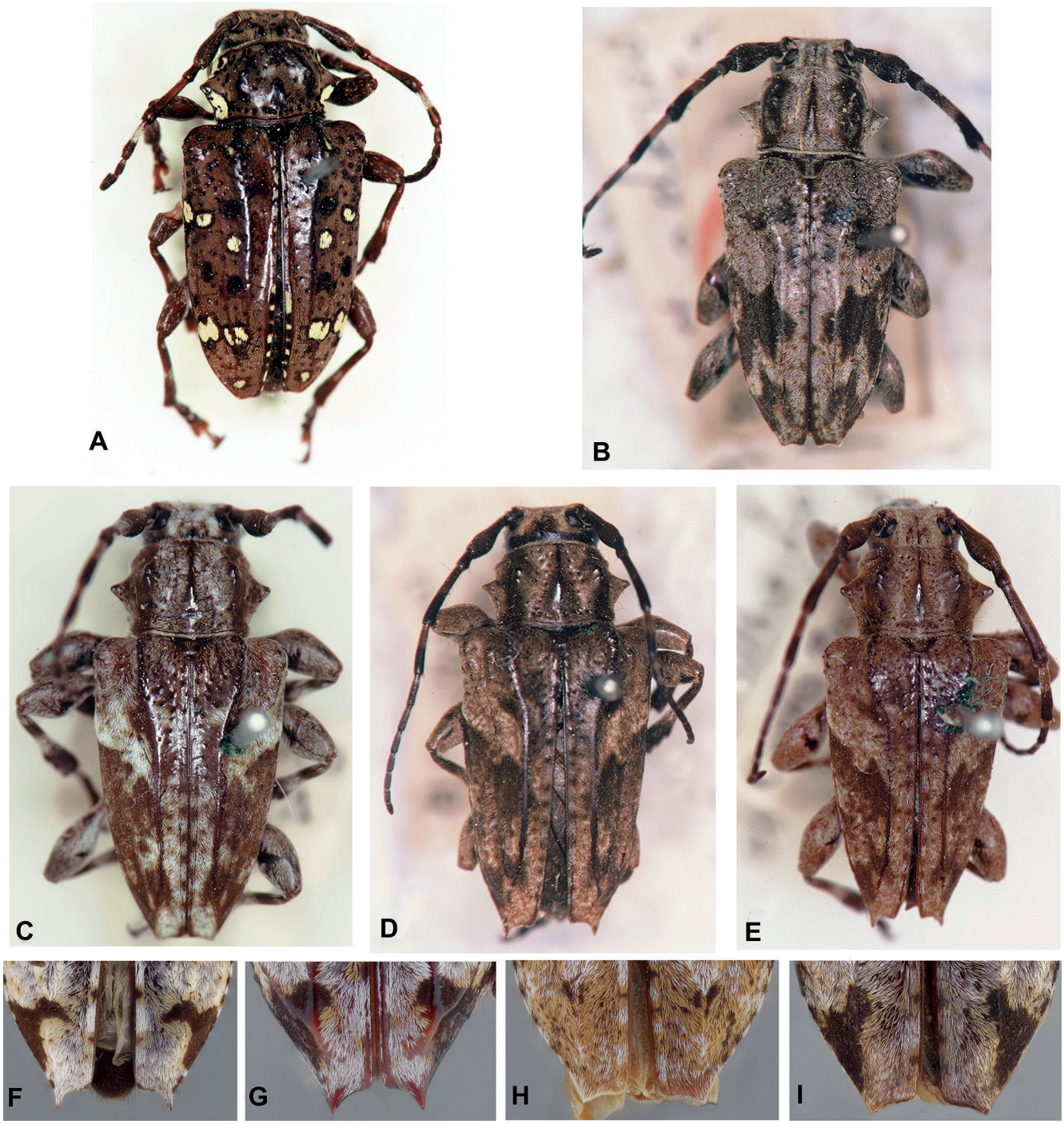

Figure 1. (A) *Acanthoderes crocostigma* Bates, 1880, holotype female, dorsal habitus. (B-C) *Acanthoderes purulensis* Bates, 1885: (B) Lecotype, dorsal habitus; (C) Paralectotype, dorsal habitus. (D-E) *Acanthoderes umbrata* Bates, 1885 (apparently, both are paralectotypes): (D) Specimen 1, dorsal habitus; (E) Specimen 2, dorsal habitus. (F-I) *Aegomorphus jaspideus* (Germar, 1823), elytral apex: (F) Female; (G) Male, specimen 1; (H) Male, specimen 2; (I) Male, specimen 3. Figs. A-E by Jesus Santiago Moure.

Psapharochrus doctus; Monné, 2005: 203 (cat.).
Aegomorphus doctus; Santos-Silva *et al.,* 2020: 35.

Bates (1880b) described *Acanthoderes doctus* based on a single female from Mexico (Oaxaca) as follows (translated): "Elongate, convex, dark gray, elytra black punctate, with grayish band before middle, M-shaped black band after middle, and A-shaped black band near apex; antennae and legs dark reddish, ringed with dark flesh-colored bands, those bands linear in the apical segments; frons wide, flat, expanded toward anterior region; vertex with two black macula; thorax with large tubercles laterally and dorsally (their apices very acute); sides of prothorax coarsely punctate until coxae; elytral apex short, transversely sinuous-truncate; elytra with obtuse carina, arched and elevated basally, punctures sparse, with black setae, basally tuberculate; mesoventral process bituberculate; legs with long setae. Length 18 mm. Female."

As usual in species of this genus, *Aegomorphus doctus* has a great morphological variation, which is possible to see by comparing a specimen from Mexico (Jalisco) (Fig. 2C), with the holotype (Fig. 2G), and a specimen photographed by Jesus Santiago Moure in the 1970s (Fig. 2H). Comparing those three specimens we can list the following variations:

1. Black longitudinal band on each side of the pronotum not reaching posterior margin (Fig. 2C) (or reaching, Fig. 2G-2H);
2. Small yellowish-white pubescent macula close to black longitudinal band on each side of the pronotum present (Fig. 2C) (absent, Fig. 2G-2H);
3. Large oblique pubescent band on anterior half of the elytra well-defined and grayish-white and not partially surrounded by yellow pubescence (Fig. 2G-2H) (fragmented, whitish, and partially surrounded by yellow pubescence, Fig. 1C);
4. Black pubescent macula close to superior margin of the oblique grayish-white pubescent band proportionally slender (Fig. 2G-2H) (proportionally wide, Fig. 2C);
5. Elytra with subtriangular black pubescent macula near scutellum (Fig. 2C) (almost absent, Fig. 2G-2H);
6. Elytra with narrow, inverted L-shaped white pubescent band on anterior third, surrounded by yellow pubescence (Fig. 2C) (absent, Fig. 2G-2H);
7. Zigzag black pubescent band of the holotype (M-shaped according to Bates) entire (Fig. 2G), fragmented (Fig. 2C), or V-shaped (Fig. 2H);
8. Inverted V-shaped black pubescent macula near apex of the elytra (A-shaped according to Bates) absent (Fig. 2H) or present (Fig. 2G), or fragmented (Fig. 2C);
9. Elytral carinae present but slightly distinct (Fig. 2C) or more distinct (Fig. 2G-2H).

Aegomorphus doctus can be recognized by the wide frons expanded toward clypeus, antennomeres V and VI biannulate on anterior half, and presence of zigzag black pubescent band after middle of the elytra. Currently, the species is known from Mexico (Oaxaca) (Monné, 2021; Tavakilian & Chevillotte, 2021).

Material examined: MEXICO, *Jalisco* (**new state record**): Sierra de Talpa, 1,490 m, 1 female, 19-20.VII.2010, G. Nogueira leg. (DHCO).

***Aegomorphus borrei* (Dugés, 1885)**

Acanthoderes borrei Dugès, 1885: 45; Bates, 1885: 380; Schaeffer, 1908: 345; Perkins & Swezey, 1924: 51 (hosts); Chemsak *et al.,* 1992: 130 (checklist); Noguera & Chemsak, 1996: 405 (cat.); Chemsak & Hovore, 2002: 8.
Acanthoderes (Psapharochrus) borrei; Aurivillius, 1923: 385 (cat.); Duffy, 1960: 215 (biol.).
Aegomorphus borrei; Noguera *et al.,* 2002: 625 (distr.).
Psapharochrus borrei; Monné, 2001: 47 (cat. hosts); 2005: 201 (cat.); Noguera *et al.,* 2007: 313 (distr.); MacRae *et al.,* 2012: 183; Noguera *et al.,* 2012: 622 (distr.); Vargas-Cardoso *et al.,* 2018: 96 (hosts).
Aegomorphus borrei; Santos-Silva *et al.,* 2020: 35; Monné, 2021: 247 (cat.).

Dugès (1885) described *Acanthoderes borrei* based on syntypes (immatures and imagoes), and Bates (1885) reported the species from "Mexico, Guanajuato (Dugès)." Guanajuato was the Mexican state where Eugenio Romain Delsescautz Dugès lived (Lameere 1885: CXC). However, although it is evident that the specimens were collected in Mexico, Dugès (1885) did not report the location or even the country. Monné (2021) reported the type locality as Mexico, without further details, but Tavakilian & Chevillotte (2021) reported Mexico, Guanajuato, Tupátaro.

According to Zaragoza-Caballero (1999) (translated): "On the death of Eugenio Dugès (1895), Manuel Villada fully rescued Dugès's collection and manuscripts for the National Museum of Natural History, located in Mexico City. The National Museum of Natural History with all its collections was part of the Office of Biological Studies, where the collection was not properly maintained and much of it was destroyed. The remains of the collections became part of the university heritage in July 1929, when university autonomy was decreed. The Institute of Biology, instituted on the same date as the university autonomy, rescued only 960 specimens of the old collection formed and classified by Dugès that included, according to this author, 745 new species…" Zaragoza-Caballero (1999) listed *Acanthoderes borrei,* but only as mentioned by Blackwelder (1946), and not as present at the "Colección Nacional de Insectos (CNIN) Instituto de Biología, UNAM." Therefore, probably the syntypes are part of the material destroyed. The type-locality of *A. borrei* can only be established by inference.

***Aegomorphus cunninghami* sp. nov. (Fig. 3A-3E)**

Description: Holotype male: Integument mostly dark brown, almost black; ventral mouthparts mostly reddish

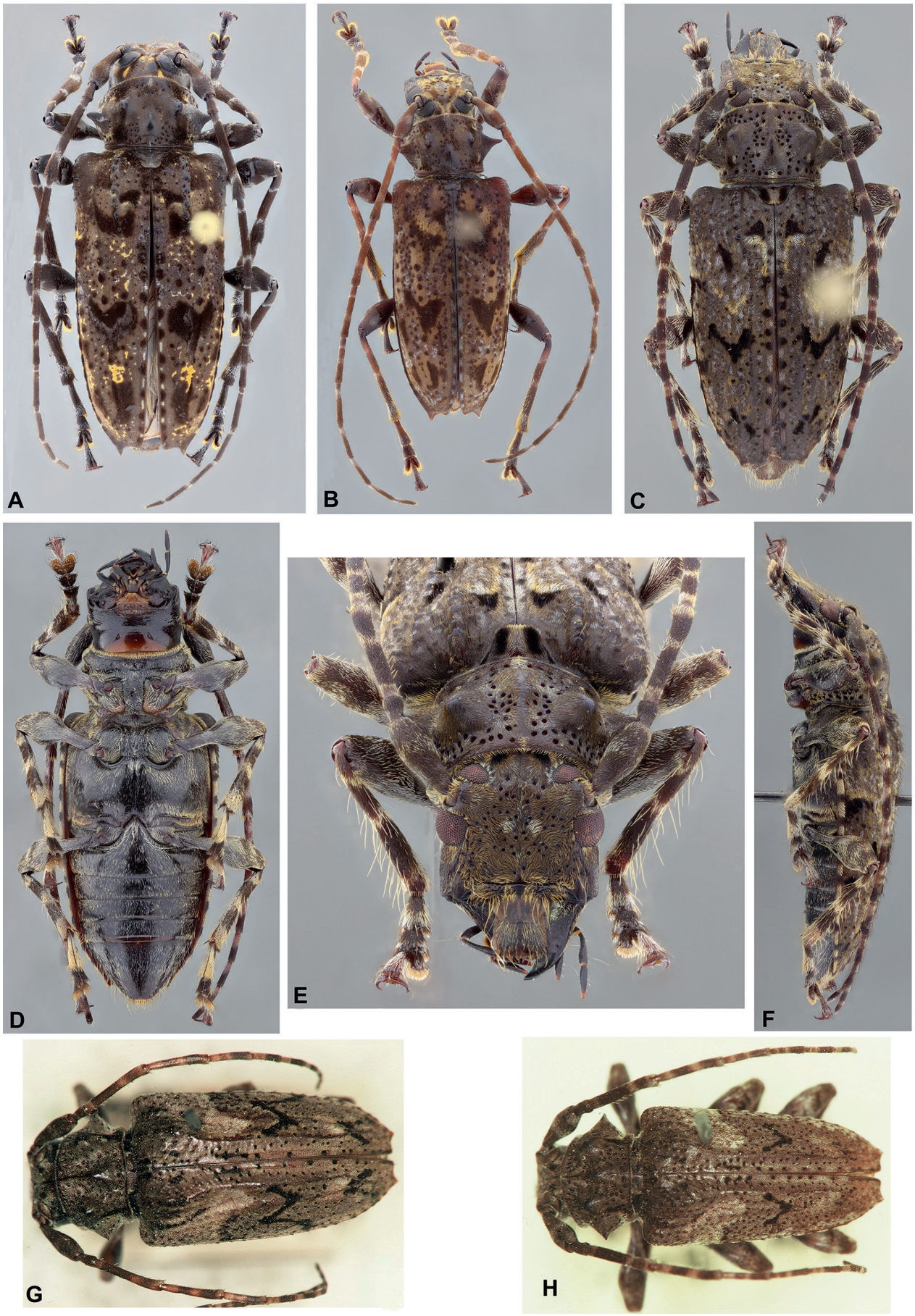

Figure 2. (A-B) *Aegomorphus longitarsis* (Bates, 1880), dorsal habitus, specimens from Peru: (A) Female; (B) Male. (C-F) *Aegomorphus doctus* (Bates, 1880), female: (C) Dorsal habitus; (D) Ventral habitus; (E) Head, frontal view; (F) Lateral habitus. (G) *Acanthoderes doctus* Bates, 1880, holotype female, dorsal habitus. (H) *Aegomorphus doctus,* dorsal habitus. Figs. G and H by Jesus Santiago Moure.

brown, with dark brown and yellowish-brown areas, and apex of maxillary palpomeres I-III and labial palpomeres I-II pale yellow or reddish, and apex of maxillary palpomere IV and labial palpomere III reddish brown. Meso- and metatibiae with dark reddish brown ring about middle and posterior fifth. Inferior region of sides of ventrites 2-4 and posterior half of 5 reddish brown; apex of ventrite 3 brown; apex of ventrite 4 dark reddish brown.

Head: Frons moderately coarsely, sparsely punctate throughout; central area close to clypeus with large, dense orangish-brown pubescent macula; with two small white pubescent macula superiorly on each side of median groove; central area with transverse, wide dark orangish-brown pubescent band not obscuring integument, sides of area close to clypeus and superior area with orangish-brown pubescence not obscuring integument, except narrow straw-colored pubescent band close to eyes; with a few long, erect brownish setae close to eyes. Area between antennal tubercles and anterior region between upper eye lobes with moderately coarse punctures, semielliptically aligned; sides of area between antennal tubercles with dense yellowish-brown pubescent band, becoming convergent toward anterior region between upper eye lobes; central area between antennal tubercles with abundant brownish pubescence not obscuring integument, except glabrous posterior area. Remaining surface of vertex and area behind upper eye lobes finely, abundantly punctate, except smooth area of median groove; with abundant dark brown pubescence partially obscuring integument, except glabrous area of median groove (this region widened toward prothoracic margin), and dense, reniform yellowish-brown pubescent macula behind upper eye lobes, and straw-colored pubescent band close to inferior region of upper eye lobes. Area behind lower eye lobes tumid, almost smooth close to eye, finely, abundantly punctate on remaining surface (punctures becoming transverse toward inferior area); tumid area with abundant straw-colored pubescence (this area widened toward inferior region), glabrous on remaining surface. Genae mostly minutely rugose-punctate; with dense orangish-brown pubescence close to eye, sparser, grayish-white on remaining surface, except glabrous area close to clypeus; with a few long, erect brownish setae close to eye. Widest central area of postclypeus with abundant, bristly orangish-brown pubescence, and long, erect, abundant setae of same color interspersed, especially on sides. Sides of postclypeus glabrous. Labrum coplanar with anteclypeus at posterior 3/4, inclined at anterior third; with grayish-white pubescence not obscuring integument on coplanar area, and long dark setae close to inclined area; inclined area with fringe of golden setae on anterior margin. Distance between upper eye lobes 0.25 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.56 times distance between outer margins of eyes. Antennae, at least, 1.7 times elytral length (missing most of antennomere XI of left antenna, and antennomeres X-XI of right antenna), reaching elytral apex at basal third of antennomere VIII. Scape piriform, longitudinally depressed on center of basal third of dorsal surface; with orangish-brown pubescence on dorsal surface of basal third, dark orangish-brown pubescence on remaining surface of dorsal and lateral surfaces, except yellowish-white pubescence on central area and apex; remaining surface with abundant grayish-white pubescence not obscuring integument. Pedicel with pale yellow pubescence on basal half of dorsal surface, brown pubescence on posterior half of dorsal surface and sides, and abundant whitish pubescence on remaining surface. Antennomeres III-IV with whitish pubescence basally and centrally on dorsal and lateral surfaces, dark yellowish-brown, less conspicuous on remaining surface of dorsal and lateral surfaces, except narrow yellowish pubescent band apically; ventral surface with dense grayish-white pubescence on anterior ⅔, dark yellowish-brown, less conspicuous on posterior third; antennomeres V-VI with dense grayish-white pubescence on basal half, except dark yellowish-brown pubescent macula on dorsal surface, and dark yellowish-brown pubescence on posterior half; antennomeres VII-X with dense grayish-white pubescence on basal half, yellowish-brown, slightly conspicuous on posterior half; pedicel and antennomeres III-VI with long, erect, sparse yellowish-brown setae ventrally (some setae brownish from IV). Antennal formula based on length of antennomere III: scape = 0.67; pedicel = 0.23; IV = 0.82; V = 0.64; VI = 0.58; VII = 0.50; VIII = 0.45; IX = 0.40; X = 0.28.

Thorax: Sides of prothorax with large, conical tubercle centrally. Pronotum with large, conical, elevated tubercle on each side of anterior half, and carina-shaped longitudinal tubercle centrally, from base to apex, widened on posterior half; coarsely punctate, except smooth tubercles, and a few finer punctures on lateral tubercles of prothorax and area between anterolateral tubercles and posterior quarter; central area with small white pubescent macula close to anterior and posterior margin (anterior macula distinctly smaller), dense orangish-brown pubescence surrounding tubercles, pubescence more pale yellow laterally, whitish on inferior region and apex of lateral tubercles of prothorax, brownish on tubercles, area between anterolateral tubercles and posterior margin, and base and part of posterior area of lateral tubercles of prothorax. Sides of prothorax coarsely, abundantly punctate; anterior half and superior region of posterior half with orangish-brown pubescence, and remaining surface with grayish-white pubescence. Ventral surface of thorax with abundant grayish-white pubescence not obscuring integument. Sides of prosternal process slightly sinuous; narrowest area 0.25 times procoxal width. Sides of mesoventral process sinuous, covering part of coxae, and apex emarginate. Scutellum with grayish-white pubescence basally and centrally (almost hourglass-shaped), and brownish, less conspicuous pubescence on remaining surface. **Elytra:** Not strongly narrowed toward posterior area, 4.2 times prothoracic length, exposing part of last abdominal segment, coarsely, sparsely punctate on basal third, punctures gradually finer, sparser toward apex; pubescence mostly orang-

ish-brown, irregularly interspersed with abundant, both brown and white pubescent areas (white pubescence forming oblique, wide, irregular band on sides of anterior third, and fragmented, irregular lines on posterior ⅔); with short, erect, sparse brownish setae throughout. **Legs:** Femora with abundant yellowish-brown pubescence not obscuring integument dorsally on basal ⅔, mostly brownish with whitish setae interspersed on posterior third; ventral surface with abundant grayish-white pubescence on peduncle, sparser on club (pubescence more yellowish-brown toward apex of pro- and mesofemora). Tibiae with three whitish pubescent rings, one near base, one about middle, another apically (apical ring not reaching ventral surface); remaining surface with brownish, slightly conspicuous pubescence, except posterior third of ventral surface and dorsal sulcus of mesotibiae with dense, bristly yellowish-brown pubescence; apex of meso- and metatibiae with fringe of thick yellowish-brown setae; with long, erect, sparse yellowish setae. Metatarsomere I as long as II-III together.

Abdomen: Ventrites with abundant yellowish-white pubescence not obscuring integument, except glabrous apex of ventrites 1-4; apex of ventrite 5 centrally concave.

Dimensions (mm) (holotype male): Total length, 17.30; prothoracic length, 2.70; anterior prothoracic width, 3.75; posterior prothoracic width, 3.65; maximum prothoracic width (between apices of lateral tubercles), 4.85; humeral width, 5.90; elytral length, 11.25.

Type material: Holotype male from MEXICO, *Jalisco:* Tuxcacuesco, 860 m, 19-22.VI.2013, R. Cunningham leg. (CNIN).

Etymology: This species is named after Richard Cunningham (Show Low, Arizona, U.S.A.) who collected the holotype.

Remarks: The general appearance of *Aegomorphus cunninghami* **sp. nov.,** resembles several species currently included in *Aegomorphus, Acanthoderes* (*Acanthoderes*) Audinet-Serville, 1835, and *Scythropopsis,* especially due to the elytral pubescence. It differs from males of *A. chamelae* Chemsak & Giesbert, 1986 (see photographs of the on Bezark, 2021), by the antennomeres III and IV slender and longer (shorter and thicker in males of *A. chamelae*), prothorax proportionally smaller, shorter than basal width of the elytron (proportionally larger, about as long as basal width of the elytron in males of *A. chamelae*), and absence of large white pubescent band on posterior quarter of the elytra (present in *A. chamelae*). The new species differs from *A. maccartyi* (Chemsak & Hovore, 2002) (see photographs of the on Bezark, 2021), by the elytral setae on the ventral surface of the antennae and tibiae sparser and shorter (more abundant and longer in *A. maccartyi*), elytral erect setae sparser (moderately abundant in *A. maccartyi*), and by the prothorax proportionally smaller (larger in males of *A. maccartyi*). It differs from *A. quadrigibbus* (Say, 1831), by the distance between upper eye lobes shorter (Fig. 3E) (wider in *A. quadrigibbus* – Fig. 3G), and by the lower eye lobes distinctly larger (Fig. 3D) (smaller in *A. quadrigibbus* – Fig. 3H). *Aegomorphus cunninghami* differs from *A. ramirezi* (Chemsak & Hovore, 2002) (see photographs on Bezark, 2021), by the slender body shape (Fig. 3A) (stouter in *A. ramirezi*), and by the distance between upper eye lobes smaller (Fig. 3E) (wider in *A. ramirezi* – Fig. 3J). It can be separated from *A. penrosei* (Chemsak & Hovore, 2002) (see photographs on Bezark, 2021), by the slender body shape (Fig. 3A) (stouter in *A. penrosei*), and absence of moderately large black macula on posterior third of the elytra (present in *A. penrosei*). It differs from *A. robustus* Santos-Silva, Botero & Wappes, 2020 (see photographs on Bezark, 2021), by the slender body shape (Fig. 3A) (stouter in *A. robustus*), by the distance between upper eye lobes smaller (Fig. 3E) (wider in *A. robustus* – Fig. 3K), and larger lower eye lobes (Fig. 3D) (smaller in *A. robustus* – Fig. 3K). The new species differs from *A. albosignus* (Chemsak & Noguera, 1993) (see photographs on Bezark, 2021), especially by the body (Fig. 3A) slender (stouter in *A. albosignus*), distance between upper eye lobes shorter (Fig. 3E) (wider in *A. albosignus* – Fig. 3F), and absence of large area with white pubescence on the elytra (present in *A. albosignus*). It can be separated from *A. circumflexus* (Jacquelin du Val, 1857), especially by the lower eye lobes distinctly larger (Fig. 3D) (smaller in *A. circumflexus* – Fig. 3I). From *A. borrei* (Dugès, 1885) it differs by the absence of large continuous area with white pubescence (present in *A. borrei*). The new species also resembles some species currently placed in *Acanthoderes* (*Acanthoderes*) (see photographs on Bezark, 2021), which probably belong to *Aegomorphus* or *Scythropopsis: A.* (*A.*) *albifrons* Chemsak & Hovore, 2002; *A.* (*A.*) *aliciae* Chemsak & Hovore, 2002; *A.* (*A.*) *bicolor* Chemsak & Hovore, 2002; *A.* (*A.*) *ferruginea* Chemsak & Hovore, 2002; *A.* (*A.*) *giesberti* Chemsak & Hovore, 2002; and *A.* (*A.*) *hondurae* Chemsak & Hovore, 2002. However, the new species differs from all of them by the body slender, and by the distance between upper eye lobes smaller.

***Aegomorphus nogueirai* sp. nov. (Fig. 4A-4G)**

Description: Holotype male (Fig. 4A-4D): Integument mostly dark brown, almost black; ventral mouthparts mostly reddish brown, palpomeres black with reddish brown apex; parts of anteclypeus and anterior area of labrum reddish brown; scape and pedicel dark brown; antennomere III brown on basal ⅓, dark brown on apical third; antennomere IV dark reddish brown on basal ⅓, dark brown on apical third; antennomeres V-XI orangish brown on basal half, dark brown on apical half. Central area of mesoventral process and posterior area of metathorax dark reddish brown. Elytra dark brown (more brown on posterior half) with black areas interspersed, especially: arched band on dorsal surface of basal quarter; wide, oblique, irregular band dorsally, starting about middle and following toward suture on posterior third; ir-

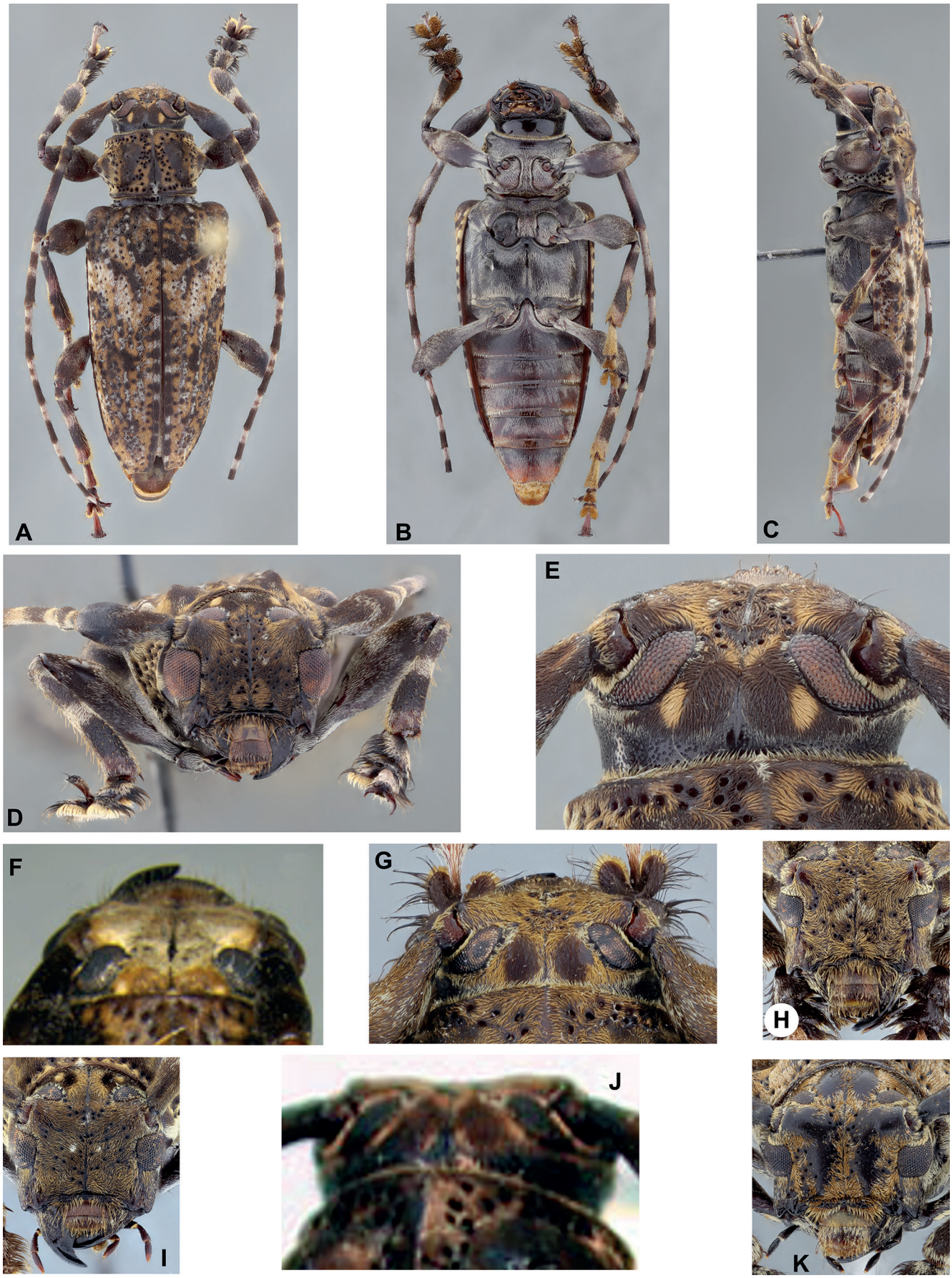

Figure 3. (A-E) *Aegomorphus cunninghami* **sp. nov.,** holotype male: (A) Dorsal habitus; (B) Ventral habitus; (C) Lateral habitus; (D) Head, frontal view; (E) Head, dorsal view. (F) *Aegomorphus albosignus* (Chemsak & Noguera, 1993), holotype male, head, dorsal view. (G-H) *Aegomorphus quadrigibbus* (Say, 1831), male: (G) Head, dorsal view; (H) Head, frontal view. (I) *Aegomorphus circumflexus* (Jacquelin du Val, 1857), male, head, frontal view. (J) *Aegomorphus ramirezi* (Chemsak & Hovore, 2002), paratype male, head, dorsal view. (K) *Aegomorphus robustus* Santos-Silva, Botero & Wappes, 2020, holotype male, head, frontal view. Figure 3J by Larry G. Bezark.

regular macula on the beginning side of the apical third, three small, irregular macula on posterior fifth, and area surrounding nearly all punctures. Femoral club dark reddish brown. Tibiae with three dark reddish brown rings, one basally, one about middle, another before apex. Meso- and metatarsomere I reddish brown with apex dark brown. Apex of ventrite 5 orangish brown.

Head: Frons coarsely, abundantly punctate; with abundant yellowish-brown pubescence not obscuring integument, except narrow grayish-white pubescence close to eyes and sparse whitish pubescence centrally on superior area; with a few long, erect yellowish-brown setae close to eyes. Area between antennal tubercles and sides of area between upper eye lobes coarsely punctate; central area between upper eye lobes smooth; area between upper eye lobes abruptly depressed close to area between antennal tubercles, then gradually inclined upward toward posterior region; with abundant yellowish-brown pubescence not obscuring integument between antennal tubercles, paler, denser, obscuring integument between upper eye lobes, except glabrous central region between these two areas. Remaining surface of vertex and area behind upper eye lobes finely, abundantly punctate, punctures absent on part of central area of vertex, partially confluent behind upper eye lobes; vertex with large, elliptical, dark brown pubescent macula on each side of middle, bordered on inner side by whitish-yellow pubescence, and dense yellowish-brown pubescence on outer side, yellowish-brown pubescence forming narrow pubescent band behind and near eyes; central area of vertex and area close to prothorax behind eyes almost glabrous. Area behind lower eye lobes finely rugose-punctate superiorly and inferiorly close to eye, almost smooth on remaining surface; area close to eye with yellowish-brown pubescence not obscuring integument, this pubescent area distinctly widened inferiorly, glabrous on remaining surface; with long, erect yellowish-white setae interspersed close to eye. Genae finely, sparsely punctate, except smooth apex; with narrow, moderately dense yellowish-brown pubescence close to eye, sparse yellowish-white pubescence on remaining surface, except glabrous apex, and long, erect, sparse yellowish-white setae interspersed. Antennal tubercles with yellowish-brown pubescence not obscuring integument, almost absent apically, and yellowish-white pubescence interspersed. Widest central area of postclypeus with bristly yellowish-brown pubescence, almost absent on some areas, and long, erect yellowish setae interspersed. Sides of postclypeus glabrous. Labrum coplanar with anteclypeus at posterior half, inclined at anterior half; with moderately sparse yellowish-white pubescence on posterior half, and long, erect setae of same color close to inclined area; inclined area almost glabrous, with fringe of golden setae on anterior margin. Distance between upper eye lobes 0.30 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.55 times distance between outer margins of eyes. Antennae 1.9 times elytral length, reaching elytral apex at posterior third of antennomere VII. Scape piriform, longitudinally depressed on center of basal third of dorsal surface; dorsally with abundant yellowish-brown pubescence, whitish pubescence interspersed centrally, and brownish pubescence interspersed posteriorly, except apex with narrow yellowish-white pubescence; remaining surface mostly with yellowish-white pubescence not obscuring integument, and long, erect yellowish-white setae interspersed ventrally. Pedicel with yellowish-white pubescence not obscuring integument, except brownish pubescence on posterior half of dorsal surface, and long, erect yellowish-white setae interspersed ventrally. Antennomere III with yellowish-white pubescent ring basally, brownish pubescence distinctly not obscuring integument on remaining surface, except nearly glabrous apex, wide central area with short, decumbent whitish setae interspersed (whitish setae almost forming central ring); ventral surface with long, erect, yellowish-white setae. Antennomere IV with whitish pubescent on basal half, except brownish pubescence dorsally on central area, and brownish pubescence on posterior half; ventral surface with long, erect yellowish-white setae. Antennomeres V-XI with whitish pubescence on basal half, brownish on posterior half; with short, erect, yellowish-white setae interspersed dorsally, and long, erect yellowish-white setae interspersed ventrally on V-X (erect setae gradually shorter toward XI, and some setae brownish from VIII). Antennal formula based on length of antennomere III: scape = 0.65; pedicel = 0.24; IV = 0.88; V = 0.64; VI = 0.54; VII = 0.50; VIII = 0.44; IX = 0.39; X = 0.33; XI = 0.29.

Thorax: Sides of prothorax with large, conical tubercle centrally. Pronotum with large, conical tubercle on each side about middle (apex blunt), and carina-shaped longitudinal tubercle centrally, from anterior margin to near posterior margin, widened posteriorly; coarsely, abundantly punctate, except smooth tubercles, and sparser punctures on lateral tubercles of prothorax; with minute white pubescent macula centrally close to anterior margin, longitudinal white pubescent band centrally close to posterior margin; remaining surface with abundant yellowish-brown pubescence not obscuring integument, sparser on some areas, denser on others, except glabrous apex of lateral tubercles of pronotum. Sides of prothorax tumid close to anterior margin; coarsely, abundantly punctate, except smooth tumid area; with abundant yellowish-brown pubescence not obscuring integument. Ventral surface of thorax with yellowish pubescence not obscuring integument, slightly denser on some areas, except almost glabrous central area of mesoventrite, and glabrous central area of metaventrite. Sides of prosternal process slightly sinuous, abruptly, strongly widened posteriorly; narrowest area 0.55 times procoxal width. Mesoventral process (Fig. 4E) 0.85 times mesocoxal width, central area slightly longitudinally elevated, not strongly concave close to mesoventrite. Scutellum with yellowish-white pubescence basally and centrally, brownish on remaining surface. **Elytra:** Not strongly narrowed toward posterior area, 3.8 times prothoracic length, not exposing abdomen; coarsely, abundantly punctate on basal

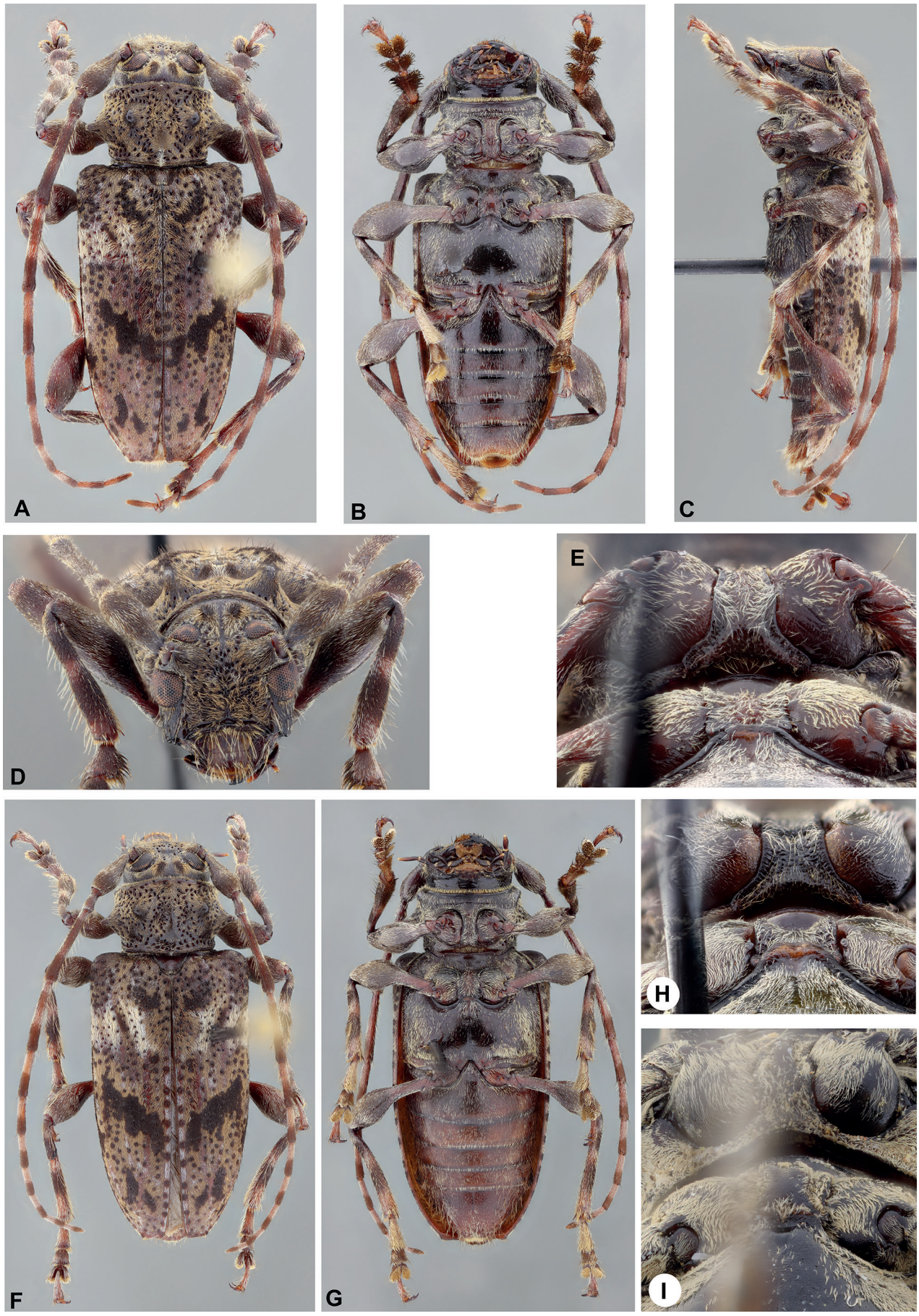

Figure 4. (A-D) *Aegomorphus nogueirai* **sp. nov.,** holotype male: (A) Dorsal habitus; (B) Ventral habitus; (C) Lateral habitus; (D) Head, frontal view. (E-G) *Aegomorphus nogueirai,* paratype female: (E) Mesoventral process; (F) Dorsal habitus; (G) Ventral habitus. (H) *Aegomorphus maccartyi* (Chemsak & Hovore, 2002), female, mesoventral process. (I) *Aegomorphus robustus* Santos-Silva, Botero & Wappes, 2020, paratype male, mesoventral process.

half, punctures gradually sparser on posterior half; apex truncate, slightly concave centrally; pubescence mostly yellowish-brown, except: dark brown pubescence on large black areas; transverse, dense whitish pubescent band on sides of anterior third, slightly surpassing middle of dorsal surface, not reaching epipleural margin, and with oblique dark brown pubescent band inserted on anterior margin of its dorsal surface; and sparse white pubescent spots throughout; with moderately long and abundant, erect brownish setae throughout. **Legs:** Femora with yellowish-brown pubescence and whitish pubescence interspersed, especially on club. Tibiae with yellowish-white pubescent ring basally, centrally, and apically; ventral surface of posterior third with bristly yellowish-brown pubescence; dorsal sulcus of mesotibiae with thick, short, erect yellowish-brown and dark brown setae; with long, erect yellowish-white setae, especially dorsally and laterally. Metatarsomere I slightly longer than II-III together.

Abdomen: Ventrites with grayish-white pubescence not obscuring integument, sparser on central area of ventrite 1, glabrous on apex of 1-4, with fringe of whitish setae close to glabrous area, and long, erect yellowish-white setae interspersed laterally on 1-5; apex of ventrite 5 widely concave.

Female (Fig. 4E-4G): Antennae shorter, 1.5 times elytral length, reaching elytral apex at middle of antennomere IX. Ventrite 5 with black longitudinal sulcus on center of basal half; apex distinctly narrower than in male, centrally emarginate.

Dimensions (mm) (holotype male/paratype female): Total length, 11.85/13.10; prothoracic length, 2.20/2.35; anterior prothoracic width, 2.95/3.30; posterior prothoracic width, 2.90/3.00; maximum prothoracic width (between apices of lateral tubercles), 3.95/4.35; humeral width, 4.50/5.00; elytral length, 8.25/9.30.

Type material: Holotype male from MEXICO, *Jalisco:* Mixtlan, 1,842 m, 22.VII.2012, G. Nogueira leg. (CNIN). Paratype female same data as holotype (DHCO).

Etymology: This species is named after Guillermo Nogueira (Zapopan, Jalisco, Mexico) who collected the holotype.

Remarks: By the pronotal punctation somewhat abundant and elytra not distinctly narrowed toward apex, *Aegomorphus nogueirai* **sp. nov.,** is similar to *A. antonkozlovi* Santos-Silva, Nascimento & Silva-Junior, 2020, *A. arizonicus* Linsley & Chemsak, 1984, *A. chamelae* Chemsak & Giesbert, 1986, *A. galapagoensis williamsi* (Linsley & Chemsak, 1966), *A. galapagoensis galapagoensis* (Linell, 1898), *A. galapagoensis vonhageni* (Mutchler, 1938), *A. maccartyi* (Chemsak & Hovore, 2002), *A. piperatus* (Gahan, 1892), and *A. wappesi* (Galileo, Martins & Santos-Silva, 2015) (see photographs on Bezark, 2021). It differs from *A. antonkozlovi* by the distance between upper eye lobes distinctly wider than width of one lobe (about as wide as one lobe in *A. antonkozlovi*), pronotal pubescence mostly yellowish-brown (mostly whitish in *A. antonkozlovi*), and different elytral pubescent pattern; from *A. arizonicus* by the antennomeres V and VI without central pubescent ring (present in *A. arizonicus*), distance between upper eye lobes about as wide as maximum width of the scape (distinctly wider than maximum width of the scape in *A. arizonicus*), and different elytral pubescent pattern; from *A. chamelae* by the antennomere III distinctly longer than prothoracic length in male (about as long in male of *A. chamelae*), and different elytral pubescent pattern; from *A. galapagoensis williamsi, A. galapagoensis galapagoensis,* and *A. galapagoensis vonhageni* by the different elytral pubescent pattern, with central dark band descending from sides to suture (ascending from sides to suture in the three subspecies of *A. galapagoensis*); from *A. maccartyi* by the distance between upper eye lobes about as wide as maximum width of the scape in both sexes (distinctly wider than maximum width of the scape in *A. maccartyi*), anterior area of the mesoventral process not distinctly concave (Fig. 4E) (distinctly concave in *A. maccartyi* – Fig. 4H), and different elytral pubescent pattern; from *A. piperatus* by the elytral punctation distinctly sparser (denser in *A. piperatus*), and different elytral pubescent pattern; finally, it differs from *A. wappesi* by the pubescence on head and pronotum sparser and mostly darker (denser and lighter in *A. wappesi*), and different elytral pubescent pattern. The general appearance is also slightly similar to that of *A. robustus* Santos-Silva, Botero & Wappes, 2020, but differs by the distance between upper eye lobes about as wide as maximum diameter of the scape (distinctly wider in *A. robustus*), and by the central area of the mesoventral process slightly longitudinally elevated (Fig. 4E) (distinctly elevated in *A. robustus* – Fig. 4I).

AUTHORS' CONTRIBUTIONS: The three authors contributed equally: **DH, ASS, JPB:** Conceptualization, Investigation, Methodology, Visualization, Writing – review & editing; except **ASS:** Writing – original draft, Photographs. All authors actively participated in the discussion of the results; they reviewed and approved the final version of the paper.

CONFLICTS OF INTEREST: Authors declare there are no conflicts of interest.

FUNDING INFORMATION: This project did not use any external financial support.

ACKNOWLEDGMENTS: The first author wishes to thank Richard Cunningham (Arizona, U.S.A.) and Guillermo Nogueira (Jalisco, Mexico) for providing specimens for study. We also extend our appreciation to the Taxonline Project (Projeto Taxonline – Rede Paranaense de Coleções Biológicas) for sending photographs of some type material used in this work, which belong to the Coleção de Imagens de material-tipo J.S. Moure (CITIMOURE) of the entomological collection Pe. J.S. (DZUP).

REFERENCES

Audureau, A. 2017. Notes sur quelques Lamiaires nouveaux ou peu connus. (Coleoptera, Cerambycidae, Lamiinae). *Les Cahiers Magellanes,* 27: 1-9.

Aurivillius, C. 1923. Cerambycidae: Lamiinae II. *In:* Schenkling S. (Ed.). *Coleopterorum Catalogus, auspiciis et auxilio W. Junk, pars 74.* Berlin, W. Junk. p. 323-704.

Bates, H.W. 1880a. New species of *Acanthoderes* (Coleoptera, Longicornia, family Lamiidae). *The Entomologist's Monthly Magazine,* 17: 58-61.

Bates, H.W. 1880b. *Biologia Centrali-Americana, Insecta, Coleoptera.* London. v. 5, p. 17-152.

Bates, H.W. 1885. *Biologia Centrali-Americana, Insecta, Coleoptera, suppl. to Longicornia.* London. v. 5, p. 249-436.

Bezark, L.G. 2021. A photographic Catalog of the Cerambycidae of the World. New World Cerambycidae Catalog. Available: http://bezbycids.com/byciddb/wdefault.asp?w=n. Access: 15/08/2021.

Blackwelder, R.E. 1946. Checklist of the coleopterous insects of Mexico, Central America, the West Indies and South America. Part 4. *Bulletin of the United States National Museum,* 185: 551-763.

Chemsak, J.A. & Hovore, F.T. 2002. New Mexican and Central American species of Acanthoderini with notes on others, Part II (continued). (Coleoptera, Cerambycidae, Lamiinae). *Les Cahiers Magellanes,* 16: 1-26.

Chemsak, J.A. & Linsley, E.G. 1970. Additional designations of lectotypes of Neotropical Cerambycidae in the collections of the British Museum (Natural History) (Coleoptera). *Journal of the Kansas Entomological Society,* 43(4): 404-417.

Chemsak, J.A.; Linsley E.G. & Noguera, F.A. 1992. *Listados faunísticos de México. II. Los Cerambycidae y Disteniidae de Norteamérica, Centroamérica y las Indias Occidentales (Coleoptera).* Mexico, Universidad Nacional Autónoma de Mexico. 204p.

Duffy, E.A.J. 1960. *A monograph of the immature stages of Neotropical timber beetles (Cerambycidae).* London, British Museum (Natural History). vii + 327p.

Dugès, E. 1885. Métamorphoses de l'*Acanthoderes borrei* Dugés. *Annales de la Société Entomologique de Belgique,* 29(2): 45-49.

Gilmour, E.F. 1965. Catalogue des Lamiaires du Monde (Col., Cerambycidae). *Museum G. Frey, Tutzing bei München,* 8: 559-655.

Hovore, F.T. 2006. The Cerambycidae (Coleoptera) of Guatemala, pp. 363-378. *In:* Cano, E. (Ed.). *Biodiversidad de Guatemala. Vol. 1.* Guatemala, Universidad del Valle de Guatemala. i-vi + 674p.

Lameere, A.A. 1883. Liste des cérambycides, décrits postérieurement au catalogue de Munich. *Annales de la Société Entomologique de Belgique,* 26: 1-78.

Lameere, A.A. 1885. Liste des membres de la Société Entomologique de Belgique. *Bulletin de la Société Entomologique de Belgique,* 1885: I-CCIII.

MacRae, T.C.; Bezark, L.G. & Swift, I. 2012. Notes on distribution and host plants of Cerambycidae (Coleoptera) from southern Mexico. *The Pan-Pacific Entomologist,* 88(2): 173-187.

Maes, J.-M.; Berghe, E.; Dauber, D.; Audureau, A.; Nearns, E.; Skillman, F.; Heffern, D. & Monné, M.A. 2010. Catalogo ilustrado de los Cerambycidae (Coleoptera) de Nicaragua. Parte IV – Lamiinae – Disteniinae. *Revista Nicaraguense de Entomologia,* 70 (Suplemento 1-4): 1-879.

Martins, U.R. & Galileo, M.H.M. 1996. Descrições e notas sobre Cerambycidae (Coleoptera) sul-americanos. *Revista Brasileira de Zoologia,* 13(2): 291-311.

Martins, U.R. & Galileo, M.H.M. 2001. Duas espécies novas do gênero *Acakyra* Martins & Galileo, 1996 (Coleoptera, Cerambycidae, Lamiinae, Acanthoderini). *Revista Brasileira de Entomologia,* 45(2): 103-105.

Monné, M.A. 1994. *Catalogue of the Cerambycidae (Coleoptera) of the Western Hemisphere. Part XVII. Subfamily Lamiinae: Tribes Anisocerini, Polyrhaphidini, Xenofreini, Acrocinini and Acanthoderini.* São Paulo, Sociedade Brasileira de Entomologia. 110p.

Monné, M.A. 2001. Catalogue of the Neotropical Cerambycidae (Coleoptera) with known host plant – Part III: Subfamily Lamiinae, Tribes Acanthocinini to Apomecynini. *Publicações Avulsas do Museu Nacional,* 92: 1-94.

Monné, M.A. 2005. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part II. Subfamily Lamiinae. *Zootaxa,* 1023: 1-759.

Monné, M.A. 2021. *Catalogue of the Cerambycidae (Coleoptera) of the Neotropical region.* Part I. Subfamily Cerambycinae. Available: https://cerambycids.com/catalog. Access: 15/08/2021.

Monné, M.A. & Giesbert, E.F. 1994. *Checklist of the Cerambycidae and Disteniidae (Coleoptera) of the Western Hemisphere.* Burbank, Wolfsgarden Books. 409p.

Noguera, F.A. & Chemsak, J.A. 1996. Cerambycidae (Coleoptera). *In:* Llorente Bousquets, J.E. (Ed.). *Biodiversidad taxonomía, y biogeografía de artrópodos de México: Hacia una síntesis de su conocimiento.* Volumen I. Mexico, Universidad Nacional Autónoma de México. p. 381-409.

Noguera, F.A.; Chemsak, J.A.; Zaragoza-Caballero, S.; Rodriguez-Palafox, A.; Ramírez-García, E.; González-Soriano, E. & Ayala, R. 2007. A faunal study of Cerambycidae (Coleoptera) from one region with tropical dry forest in México: San Buenaventura, Jalisco. *The Pan-Pacific Entomologist,* 83(4): 296-314.

Noguera, F.A.; Zaragoza-Caballero, S.; Chemsak, J.A.; Rodriguez-Palafox, A.; Ramírez, E.; González-Soriano, E. & Ayala, A. 2002. Diversity of the family Cerambycidae (Coleoptera) of the Tropical Dry Forest of Mexico, I. Sierra de Huautla, Morelos. *Annals of the Entomological Society of America,* 95(5): 617-627.

Noguera, F.A.; Zaragoza-Caballero, S.; Rodríguez-Palafox, A.; González-Soriano, E.; Ramírez-García, E.; Ayala, R. & Ortega-Huerta, M.A. 2012. Cerambícidos (Coleoptera, Cerambycidae) del bosque tropical caducifolio en Santiago Dominguillo, Oaxaca, México. *Revista Mexicana de Biodiversidad,* 83: 611-622.

Perkins, R.C. & Swezey, O.H. 1924. The introduction into Hawaii of insects that attack *Lantana*. *Bulletin of the Experimental Station of the Hawaiian Sugar Planters' Association, Entomology series,* 16: 1-83.

Santos-Silva, A.; Botero, J.P. & Wappes, J. 2020. Neotropical Acanthoderini (Coleoptera, Cerambycidae, Lamiinae): Synonymies and new status in some genera, new species, transferences and new distributional records. *Papéis Avulsos de Zoologia,* 60(6): 1-40. https://www.revistas.usp.br/paz/article/view/161625.

Schaeffer, C.F.A. 1908. List of the longicorn Coleoptera collected on the Museum expeditions to Brownsville, Texas and the Huachuca Mts., Arizona, with descriptions of new genera and species and notes on known species. *Science Bulletin of the Museum of the Brooklyn Institute of Arts and Sciences,* 1(12): 325-352.

Tavakilian, G.L. & Chevillotte, H. 2021. *Titan: base de données internationales sur les Cerambycidae ou Longicornes.* Version 3.0. Available: http://titan.gbif.fr. Access: 20/08/2021.

Turnbow, R.H.; Cave, R.D. & Thomas, M.C. 2003. A list of the Cerambycidae of Honduras, with additions of previously unrecorded species. *Ceiba,* Honduras, 44(1): 1-43.

Vargas-Cardoso, O.R.; Corona-López, A.M.; López-Martínez, V.; Flores-Palacios, A.; Figueroa-Brito, R. & Toledo-Hernández, V.H. 2018. New host records of Cerambycidae (Coleoptera) from central Mexico. *Pan-Pacific Entomologist,* 94(2): 91-102.

Zajciw, D. 1969. Distribuição geográfica do gênero *"Acanthoderes"* Serville, 1835 (Coleoptera, Cerambycidae, Lamiinae). *Revista Brasileira de Biologia,* 29(4): 607-614.

Zajciw, D. 1970. Contribuição para o estudo das espécies do gênero *Acanthoderes* Serv. 1835 (Coleoptera, Cerambycidae, Lamiinae). *Atas da Sociedade de Biologia,* 13(5-6): 187-190.

Zaragoza-Caballero, S. 1999. Eugenio Dugès: un precursor de la entomología en México. *Dugesiana,* 6(2): 1-26.

Published with the financial support of the "Programa de Apoio às Publicações Científicas Periódicas da USP"