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Taxonomic contributions to Neotropical Lamiinae (Coleoptera: Cerambycidae) including a new genus, five new species and a new synonym

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Taxonomic contributions to Neotropical Lamiinae (Coleoptera: Cerambycidae) including a new genus, five new species and a new synonym

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Abstract. Five **new species** and one **new genus** in Neotropical Lamiinae (Coleoptera: Cerambycidae) are described: *Cotycicuiara lingafelteri* Wappes and Santos-Silva, from Panama (Acanthoderini); *Nesozineus morrisi* Wappes and Santos-Silva, from Bolivia (Acanthoderini); *Trichoanoreina panamensis* Wappes and Santos-Silva, from Panama (Acanthoderini); *Callisema skillmani* Wappes and Santos-Silva, from Bolivia (Calliini); *Rileyellus panamensis* Wappes and Santos-Silva, **new genus and species**, from Panama (Desmiphorini). *Callia pulchra* Melzer, 1930 is placed in synonymy with *Callia axillaris* (Dalman, 1823).

Key words. Acanthoderini, Calliini, Central America, Desmiphorini, Longhorned beetles, South America.

Introduction

The Lamiinae are the largest subfamily in number of described species/subspecies (with 5,291) among those (seven in total) currently listed for the family Cerambycidae in the Western Hemisphere (Bezark 2019). Most species are Neotropical, the region which in recent years has been a hotbed of activity for cerambycid taxonomists who are involved in describing new species. From the beginning of the 21st century, through the end of 2018, almost 1,200 new Lamiinae have been described. Additionally, during the same timeframe nearly another 990 species of Western Hemisphere cerambycids were described in the other subfamilies, thereby resulting in 2,185 species newly described in just 18 years of the 21st century. This has been accomplished by a myriad of authors as noted by Larry Bezark in the "Introduction" to his 2019 checklist: "Taxonomic interest in the family has been fairly consistent for the past century, but the description of new taxa has accelerated in recent decades thanks to the efforts of many excellent taxonomists." It is easy to concur with his statement as a search through applicable literature will find more than two dozen authors who are and regularly involved in publishing on Western Hemisphere Cerambycidae. Though, in addition to eager authors, credit with a huge part of this phenomenon is the impact of the "world wide web/internet age." Anyone with a computer (or smartphone), an internet connection and some basic knowledge can gain access to the cerambycid literature of the world. Add the communication capabilities also afforded by it, including the ability to almost instantaneously send high-resolution pictures; the ability to speed up the whole review, submission, and publication process; and the lack of page charges or other fees for publishing (available from some publications). As a result, the outlook for the accelerated rate of new cerambycid descriptions continues to be excellent.

Great examples of what has happened to species descriptions in this century include the Parandrinae, where 21 of 48 species (44%) in the subfamily have been described in that period. However, the tribe Xenofreini is the best example, as 47 of 52 known species (>90%) have been described this century, with about two-thirds either from French Guiana or Bolivia or both. The three tribes representing the five new species described herein are also good examples of author productivity in the 21st century, with Acanthoderini (180 of 1,200 species) at 15%, Calliini (52 of 162 species) at 32% and the Desmiphorini (130 of 520 species) at 25% of the species described.

Materials and Methods

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

The acronyms used in the text are as follows:

ACMT American Coleoptera Museum (James Wappes), San Antonio, Texas, USA
FSCA Florida State Collection of Arthropods, Gainesville, Florida, USA
MZSP Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil
RFMC Roy F. Morris Collection, Lakeland, Florida, USA
SWLC Steven W. Lingafelter Collection, Hereford, Arizona, USA
TAMU Texas A&M University Entomology Collection, College Station, Texas, USA

Results

LAMIINAE

ACANTHODERINI Thomson, 1860

***Cotycicuiara lingafelteri* Wappes and Santos-Silva, new species**
(Fig. 1–4)

Description. Male. Integument mostly black, with some areas dark brown; mouthparts, gulamentum and apex of abdominal ventrites I–IV dark reddish-brown; antennomeres III–IX dark brown; anterior area of anteclypeus and labrum dark yellowish-brown.

Head. Frons finely, abundantly punctate (punctures slightly coarser and more separated toward vertex), except very finely rugose central area close to clypeus; with pale-yellow pubescence not obscuring integument (light yellowish-brown depending on light intensity); with a few long, erect dark setae close to eyes. Vertex and area behind upper eye lobes finely, sparsely punctate; with yellow pubescence, denser close to upper eye lobes and behind upper eye lobes. Area behind lower eye lobes finely, sparsely punctate (punctures more abundant close to eye); with yellow pubescent band close to eye (widened near genae), glabrous on remaining surface. Genae finely rugose-punctate close to eye, smooth toward apex; with yellow pubescence close to eye, denser toward ventral surface, glabrous in smooth area; with a few long, erect dark setae. Gulamentum smooth, glabrous, except narrow anterior area with short, sparse yellowish-white setae. Postclypeus with sparse punctures on wide central area, distinctly coarser than on frons, smooth laterally; with sparse pale-yellow pubescence in wide central area, glabrous in smooth area; with long, erect, dark setae in wide central area. Labrum coarsely punctate close to anteclypeus, nearly smooth anteriorly; with sparse pale-yellow pubescence close to anteclypeus, absent in anterior area; with long, erect dark setae in transverse central area, and long, erect yellowish-brown setae on sides of anterior area; anterior margin with fringe of short pale-yellow setae. Distance between upper eye lobes 0.13 times length of scape (0.09 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.42 times length of scape (0.31 times distance between outer margins of eyes). Antennae (missing antennomere XI in both antennae) 1.85 times elytral length, reaching elytral apex at posterior quarter of antennomere VII. Scape slightly, gradually widened toward apex; finely, abundantly punctate; with yellow pubescence not obscuring integument; with a few long, erect dark setae on apex of ventral surface. Pedicel with pubescence and erect setae as on scape. Antennomeres III–IV with abundant yellow pubescence in anterior third, gradually shorter, sparser, yellowish-brown toward apex; with a few long, erect dark setae ventrally. Antennomeres V–X with short, sparse yellowish-brown pubescence. Antennal formula (ratio) based on length of antennomere III: scape = 0.81; pedicel = 0.19; IV = 0.93; V = 0.81; VI = 0.74; VII = 0.67; VIII = 0.60; IX = 0.57; X = 0.53.

Thorax. Prothorax transverse; sides with rounded projection anteriorly, large, nearly conical tubercle with blunt apex centrally, nearly parallel-sided posteriorly. Pronotum with wide transverse sulcus anteriorly and posteriorly, distinctly tumid in wide central area; with five slightly elevated gibbosities in tumid area, one on each side of anterior area, one on each side of posterior area, another more elongate centrally; with coarse punctures near anterior margin; with transverse row of coarse punctures near posterior margin (coarser than anterior ones); remaining surface with a few coarse punctures; with yellowish-brown pubescence not obscuring integument, denser in tumid area, especially laterally, except top of central gibbosity glabrous; with a few long, erect dark setae on and behind lateral tubercle of prothorax. Sides of prothorax with row of coarse punctures posteriorly, nearly smooth on remaining surface; with yellowish-brown pubescence not obscuring integument. Prosternum finely, sparsely punctate; with pale-yellow pubescence not obscuring integument, yellower laterally. Narrowest area of prosternal process 0.25 times width of procoxal cavity. Mesoventrite with pale-yellow pubescence centrally, yellowish-brown laterally. Mesepisternum and mesepimeron with dense yellowish-brown pubescence, with short white setae interspersed. Metepisternum with dense white pubescence, except narrow anterior area with yellowish-brown pubescence. Metaventrite with dense white pubescence close to metepisternum, widely projected toward middle of disk; anterior area close to side of mesocoxae with yellowish-brown pubescence; remaining surface with pale-yellow pubescence not obscuring integument (yellower in center of posterior area). Scutellum with yellowish-brown pubescence not obscuring integument, yellower near apex. **Elytra.** Humerus rounded, somewhat projected forward, nearly forming a tooth posteriorly; anterior quarter of dorsal surface slightly, longitudinally tumid; sides slightly, gradually narrowed from humeri to posterior third, then more strongly narrowed toward truncate, slightly oblique apex; coarsely, abundantly punctate in anterior half, nearly smooth in posterior half; with yellowish-brown pubescence not obscuring integument, except wide, dense white pubescent band about middle, from epipleural margin to suture, with anterior and posterior margins somewhat irregular from epipleural margin to middle of dorsal surface, then obliquely inclined backward toward suture, and oblique, somewhat sparse white pubescent band on dorsal surface of posterior quarter. **Legs.** With yellowish-brown pubescence not obscuring integument, partially absent on ventral surface of meso- and metafemora, bristling on tibiae, except mesotibiae with abundant brown setae on dorsal surface of posterior quarter. Pro- and mesocoxae distinctly more elevated than prosternal and mesoventral processes. Ventral surface of meso- and metatibiae scabrous; with moderately short, erect brownish setae interspersed. Protarsomere V longer than I–III together, distinctly widened toward apex; meso- and metatarsomeres V about as long as I–III together.

Abdomen. Ventrites with pale-yellow pubescence partially obscuring integument, yellower close to apex of ventrites I–IV; sides of ventrites I–IV with white pubescent macula; ventrite V with long, erect, sparse dark setae interspersed. Posterior third of ventrite V slightly inclined toward truncate apex.

Dimensions in mm. Total length 12.80; prothoracic length 2.55; anterior prothoracic width 2.65; posterior prothoracic width 3.10; widest prothoracic width 3.60; humeral width 4.80; elytral length 9.25.

Type material. Holotype male from PANAMA, *Panama*: Cerro Campana, Sendero Cruz, 830-880 m, 08°41.163′N / 79°55.354′W, 06.VI.2017, S.W. Lingafelter col. (FSCA, formerly SWLC); two paratypes (1 male and 1 female), same data as holotype (SWLC).

Etymology. Named for Steven Lingafelter, a good friend and the collector of the holotype.

Remarks. *Cotycicuiara lingafelteri* sp. nov. is similar to *C. magnifica* Galileo and Martins, 2011 (see photographs at Bezark 2020), but differs by the tarsomeres V distinctly longer, and the posterior white pubescent band of elytra not dense. In *C. magnifica* the tarsomeres V are shorter than I–III together, and the posterior white pubescent band of the elytra is dense. It differs from *C. durantoni* Tavakilian and Néouze, 2013 (see photograph at Bezark 2020) by the posterior white pubescent macula narrower and barely distinct (wider and distinct in *C. durantoni*), pronotum without short white setae interspersed (present in *C. durantoni*), and tarsomeres V distinctly longer (shorter in *C. durantoni*). The new species also differs from *C. alternata* Martins and Galileo, 2008 by white elytral pubescent maculae not forming longitudinal bands (longitudinal pubescent bands present in *C. alternata*, more distinct in posterior area).

***Nesozineus morrisi* Wappes and Santos-Silva, new species**
(Fig. 5–8)

Description. Male. Frons light-brown centrally, orangish-brown laterally; antennal tubercles orangish-brown, narrowly brown on apex; vertex, area behind eyes, and genae reddish-brown; gulamentum mostly orangish-brown; mouthparts reddish-brown, slightly more yellowish-brown in some areas; postclypeus dark reddish-brown; anteclypeus and labrum orangish-brown; scape and pedicel orangish-brown, narrowly darkened on apex (scape irregularly slightly darkened in some areas); antennomeres III–IV orange, slightly darkened posteriorly; antennomere V light orange basally, gradually brown toward apex; remaining antennomeres light reddish-brown basally, gradually brown toward apex. Pronotum brown in wide central area, light orange anterocentrally, orangish-brown in posterior quarter. Sides of prothorax close to pronotum mostly brown, gradually orangish toward prosternum. Prosternum orange, slightly lighter toward prosternal process. Ventral surface of mesothorax reddish-brown, except light orange mesoventral process. Ventral surface of metathorax dark reddish-brown laterally, gradually light orange toward center. Elytra brown, slightly, irregularly darker in some areas, slightly, irregularly more orangish on others. Coxae and trochanters orange, darkened in posterior area of metacoxae; femoral peduncles pale-yellow basally, gradually orange on remaining surface; femoral clubs reddish-brown basally, gradually brown toward apex. Protibiae orange basally, gradually darker toward apex, especially ventrally; meso- and metatibiae orange basally including most of ventral surface, dark brown, irregularly maculated with orangish areas dorsally and laterally. Tarsi mostly dark brown. Abdominal ventrites I–IV orange in basal 3/4, dark brown in distal quarter; abdominal ventrite V orange brown, slightly darkened laterally and apically.

Head. Frons finely, densely, shallowly punctate; with yellowish-white pubescence not obscuring integument but distinctly denser close to eyes; with one long, erect brownish seta close to eye on each side. Vertex finely, sparsely punctate; with short, thick, abundant yellowish-white setae not obscuring integument, narrowly denser close to upper eye lobes. Area behind eyes finely, sparsely punctate, more so close to prothorax behind lower eye lobes; with yellowish-brown pubescence close to eye, glabrous close to prothorax behind lower eye lobe. Genae 0.55 times length of lower eye lobe; finely, transversely striate, smooth near apex; with sparse yellowish-white pubescence, except glabrous apical area. Gulamentum smooth, glabrous in wide posterior area, slightly transversely striate in narrow anterior area, with sparse yellowish-white setae close to anterior margin. Postclypeus with bristly white pubescence in wide central area, glabrous laterally; with one long, erect dark seta on each side of wide central area. Labrum with long white setae in posterior area, nearly glabrous anteriorly; with long, erect, sparse dark setae close to inclined anterior area; with fringe of yellowish setae on anterior margin. Distance between upper eye lobes 0.23 times length of scape (0.21 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.53 times length of scape (0.48 times distance between outer margins of eyes). Antennae 2.8 times elytral length, reaching elytral apex at basal quarter of antennomere VI. Scape gradually widened toward apex, but inner basal margin noticeably abrupt; with white pubescence not obscuring integument; pedicel and antennomeres with white pubescence not obscuring integument; antennomere III with a few short, erect brownish setae ventrally. Antennal formula (ratio) based on length of antennomere III: scape = 0.88; pedicel = 0.17; IV = 1.32; V = 1.18; VI = 1.00; VII = 0.95; VIII = 0.94; IX = 0.88; X = 0.85; XI = 0.85.

Thorax. Prothoracic sides distinctly widened close to anterolateral angles, gradually divergent to lateral tubercle, then abruptly narrowed toward posterolateral angles; lateral tubercle large, placed after middle, with nearly acute apex. Pronotum coarsely, abundantly punctate, punctures separated by more than puncture diameter, slightly closer to each other on sides of anterior third; with large, oblique gibbosity on each side of central area, starting about apex of anterior third, ending near lateral tubercle; another longitudinal gibbosity in center of posterior half, slightly less elevated than lateral ones; with yellowish-white pubescence not obscuring integument, nearly absent on central gibbosity, forming slightly distinct longitudinal band centrally, from anterior to posterior margin, centrally surrounding central gibbosity; with one long, erect dark seta laterally behind lateral tubercle. Sides of

prothorax coarsely, abundantly punctate (punctures coarser than on pronotum); with yellowish-white pubescence not obscuring integument. Prosternum minutely, densely punctate; with white pubescence partially obscuring integument, absent on narrow area on sides close to anterior constriction. Prosternal process with pubescence as on prosternum, bristling on posterior margin; narrowest area 0.26 times width of procoxal cavity. Ventral surface of meso- and metathorax with white pubescence not obscuring integument, distinctly sparser in center of mesoventrite; sides of mesoventral process convergent toward its posterior third, then abruptly widened forming distinct sideward projected tabs under mesocoxae, with posterior margin distinctly emarginated. Scutellum with short, sparse yellowish-white pubescence, absent centrally. **Elytra.** With oblique, slightly distinct wide carina from near humerus to suture in anterior fifth, together forming a triangular, slightly depressed area between them; another wide, oblique carina from humerus to posterior quarter, not reaching suture, becoming indistinct in its anterior third; coarsely, abundantly punctate in anterior half, gradually finer, sparser in posterior half (punctures separated by more than their diameter); with short yellowish-white pubescence not obscuring integument, slightly whiter in some irregular areas; apices individually rounded. **Legs.** Femora pedunculate-clavate; with white pubescence not obscuring integument. Tibiae somewhat abruptly widened in inner basal area, then nearly parallel-sided toward apex; protibiae with sparse white pubescence, except ventral surface with dense, nearly erect, thick dark-brown setae; mesotibiae with sparse white pubescence anteriorly, with abundant, short, thick, erect setae dorsally in posterior third, and ventrally in posterior 3/4 (setae gradually denser toward apex); metatibiae with sparse white pubescence basally, gradually more brownish toward apex, except ventral posterior 3/4 with short, erect, thick dark setae (gradually denser toward apex).

Abdomen. Ventrites with abundant white pubescence not obscuring integument; apex of ventrite V truncate.

Dimensions in mm. Total length 7.15; prothoracic length 1.25; anterior prothoracic width 1.55; posterior prothoracic width 1.60; widest prothoracic width (between apices of lateral tubercles) 2.10; humeral width 2.40; elytral length 5.15.

Type material. Holotype male from BOLIVIA, *Santa Cruz*: Refugio Los Volcanes, 3363′, 18-24.X.2014, Morris & Wappes col. (FSCA, formerly RFMC).

Etymology. Named for Roy Morris, a good friend and the collector of the holotype.

Remarks. The male holotype of *Nesozineus morrisi* n. sp. is similar to *N. apharus* Galileo & Martins, 1996 (Fig. 9–10), but differs as follows: pronotal and elytral punctures distinctly sparser (Fig. 5); metatibiae in male with distinct thick, erect setae ventrally (Fig. 6). In *N. apharus*, the pronotal and elytral punctures are distinctly denser (Fig. 9), and the metatibiae in male lack thick, erect setae ventrally (Fig. 10).

Nesozineus morrisi can be included in the alternative of couplet "4" of Galileo and Martins (1996) (translated; modified):

4(3). Elytral pubescence more compact in four narrow, longitudinal bands on dorsal surface of basal two-thirds. Brazil (Rondônia, Alagoas, Sergipe, Bahia, Mato Grosso do Sul), Paraguay . . . . . ***N. lineolatus* Galileo and Martins, 1996**

— Elytral pubescence uniformly distributed . . . . . **4′**

4′(4). Pronotal and elytral punctures somewhat sparse (Fig. 5); metatibiae in male with thick, erect setae ventrally (Fig. 6). Bolivia . . . . . ***N. morrisi* new species**

— Pronotal and elytral punctures dense (Fig. 9); metatibiae in male lacking thick and erect setae ventrally (Fig. 10). Venezuela (Táchira), Bolivia (Santa Cruz), Brazil (Maranhão, Piauí) . . . . . ***N. apharus* Galileo and Martins, 1996**

Note on *N. apharus*: According to Galileo and Martins (1996) (translated): "2 paratype females, 22.V.1974, H. and A. Howden col. (MZSP, CMNH)." However, the paratype in the MZSP collection is a male.

***Trichoanoreina panamensis* Wappes and Santos-Silva, new species**
(Fig. 11–16)

Description. Male. Integument mostly dark-brown; mouthparts mostly dark reddish-brown, with palpi distinctly lighter; anteclypeus and labrum dark reddish-brown; basal half of antennomere III dark reddish-brown; basal half of antennomere IV reddish-brown; basal half of antennomere V orangish-brown; basal 2/3 of antennomere VI orange; almost entire basal half of antennomeres VII and X orange; basal half of antennomere VIII orange; basal quarter of antennomere IX orange; about basal 2/3 of antennomere XI orange; elytra almost black basally, slightly, gradually lighter toward apex; apex of abdominal ventrites I–IV narrowly yellowish.

Head. Frons densely micropunctate, with fine, sparse punctures interspersed; with yellowish-brown pubescence partially obscuring integument, with long, erect, sparse yellowish-white setae interspersed (darker depending on angle of light source, especially basally). Vertex finely, sparsely punctate; with yellowish-brown pubescence nearly obscuring integument, except glabrous narrow area along median groove. Area behind lower eye lobes with dense yellowish-brown pubescent band close to eye, glabrous close to prothorax, with long, erect yellowish-white setae close to eye. Genae 0.65 times length of lower eye lobe; densely micropunctate with fine punctures interspersed, with yellowish-brown pubescence partially obscuring integument, except nearly glabrous longitudinal band close to frons; with long, erect, sparse yellowish-white setae interspersed in pubescent area (darker depending on angle of light source, especially basally). Gulamentum glabrous, except narrow anterior area with yellowish-brown pubescence and a few long, erect yellowish-brown setae interspersed. Postclypeus with pubescence as on frons in wide central area close to it, distinctly sparser toward anteclypeus, glabrous laterally; with long, erect, sparse setae in area with sparse pubescence (brown basally, gradually pale-yellow toward apex). Labrum with posterior half coplanar with anteclypeus, inclined in anterior half; posterior half nearly glabrous; anterior half with yellowish-brown pubescence not obscuring integument, with long, erect setae interspersed (brown basally, yellowish toward apex). Distance between upper eye lobes 0.25 times length of scape (0.18 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.75 times length of scape (0.54 times distance between outer margins of eyes). Antennae 2.1 times elytral length, reaching elytral apex at base of posterior third of antennomere VII. Scape with yellowish-brown pubescence partially obscuring integument, with long, erect yellowish-white setae interspersed throughout, some of them darkened basally, lighter area appearing to be nearly white (depending on light intensity). Pedicel with short brownish pubescence not obscuring integument, with long, erect setae as on scape (nearly absent dorsally). Antennomeres with yellowish-white pubescence in light area, shorter, sparser, brownish in dark area; antennomere III with long, erect yellowish-white setae in light area (distinctly sparser dorsally), and long, erect brown setae on ventral surface of dark area; ventral surface of antennomeres IV–VII with long, erect yellowish-white setae in light area, brown in dark area (distinctly, gradually sparser toward VII); apex of antennomeres IV–IX each with one long, erect dark seta on dorsal apex. Antennal formula (ratio) based on length of antennomere III: scape = 0.67; pedicel = 0.14; IV = 0.78; V = 0.53; VI = 0.51; VII = 0.48; VIII = 0.47; IX = 0.46; X = 0.43; XI = 0.43.

Thorax. Prothorax distinctly transverse; lateral tubercle large, with apex distinctly rounded. Pronotum with large, elevated, somewhat transverse tubercle on each side of anterior half, and another slightly elevated central tubercle in posterior half; coarsely, somewhat sparsely punctate (punctures forming transverse row near anterior and posterior margins), absent on tubercles; with yellowish-brown pubescence partially obscuring integument, especially in anterior third, shorter, brownish, nearly absent on top of anterior tubercles, absent on top of posterior tubercle. Sides of prothorax coarsely, sparsely punctate; with yellowish-brown pubescence nearly obscuring integument. Prosternum with yellowish-brown pubescence laterally, partially obscuring integument, gradually transitioning to yellowish-white, slightly sparser toward central area. Prosternal process 0.7 times width of procoxal cavity; pubescence as in central area of prosternum. Sides of ventral surface of meso- and metathorax with yellowish-brown pubescence partially obscuring integument, gradually yellowish-white toward central area; with a few long, erect yellowish setae on sides of posterior area of metaventrite. Mesoventral process distinctly wider than mesocoxal cavity. Scutellum with brownish pubescence not obscuring integument laterally, yellowish-brown centrally and on posterior margin. **Elytra.** Sides distinctly, gradually narrowed toward

oblique apex; anterior fifth with slightly elevated, but distinct gibbosity in center of dorsal surface, covered with dense tuft of erect dark-brown setae, with distinctly longer, sparse dark brown setae interspersed; coarsely, somewhat sparsely punctate in anterior third, punctures gradually finer, sparser toward apex; posterior 2/3 of dorsal surface with wide, longitudinal carinae; base with dark yellowish-brown pubescence dorsally, not obscuring integument; area of basal tubercles with transverse brownish pubescent band, widened close to suture, distinctly not obscuring integument, fused with same type of pubescence in inclined anterior 2/3 (this latter area reaching sides of dorsal surface in about anterior third, slightly widened toward its dorsal apex); remaining surface of dorsal surface of anterior half with yellowish-brown pubescence partially obscuring integument, gradually yellowish-white toward suture; posterior half with mostly white pubescence partially obscuring integument, followed by irregular areas with pale-yellow pubescence interspersed, area closer to apex dominated by pale-yellow pubescence; with sparse long, erect brown setae dorsally and laterally in anterior third, paler-yellow on sides of posterior 2/3. **Legs.** Femora with yellowish-white pubescence partially obscuring integument, large areas with light yellowish-brown pubescence and long, erect yellowish-white setae interspersed (appearing whiter depending on light intensity). Pro- and mesotibiae with light yellowish-brown pubescence in anterior 2/3, brown in posterior third, except black pubescent tuft on base of dorsal sulcus of mesotibiae; with long, erect, somewhat abundant yellowish-white setae in anterior two-thirds (whiter depending on light intensity), dark-brown in posterior third. Metatibiae with light yellowish-brown pubescence, with long, erect yellowish-white setae interspersed in anterior 2/3, brownish in posterior third.

Abdomen. Ventrites with yellowish-white pubescence not obscuring integument, slightly yellower in posterior half of sides of I–IV, shorter, sparser, brownish in superior half of sides of I–IV; with long, erect, sparse yellowish-white setae laterally. Posterior margin of ventrite V slightly concave.

Dimensions in mm. Total length 6.30; prothoracic length 1.20; anterior prothoracic width 1.65; posterior prothoracic width 1.80; widest prothoracic width (between apices of lateral tubercles) 2.20; humeral width 2.65; elytral length 4.40.

Type material. Holotype male from PANAMA, *Panama*: Barro Colorado Island, 9°09′N / 79°51′W, 27.VIII.1997, Pickering-Windsor col. (FSCA, formerly ACMT).

Etymology. Named for the country (Panama) where it was collected.

Remarks. Júlio and Monné (2005) defined *Trichoanoreina* as follows (translated; summarized): "Body surface entirely covered by decumbent pubescence. Genae, inner side of antennae, elytra and legs with long, erect setae. Lower eye lobes approximately 1.5 times as long as gena; upper eye lobes distant from each other by twice length of one lobe in male, 4.0 times in female. Antennae 11-segmented, surpassing elytral apex in male, only reaching elytral apex in female. Prothorax wider than long; with row of punctures anteriorly and posteriorly; sides with slight protuberance. Central area of pronotum flattened. Metaventrite with U-shaped elevation anteriorly (central area of "U" depressed). Elytra flat, slightly sloped distally, apex nearly straight. Legs in male stouter; femora clavate; profemora not pedunculate." Although the specimen figured in Bezark (2020) is a male of *Trichoanoreina albomaculata* Júlio and Monné, 2005 (following the original description – length of antennae), it cannot be the holotype because the specimen is distinctly different from the photograph of the holotype in the original description. Furthermore, the description of the distance between upper eye lobes in both males are distinctly wider than twice length of one lobe (the distance is approximately 4.0 times the width of one lobe, as reported to be in female). Also, although not reported, the basal area of the elytra has a gibbosity, the lateral projection of the prothorax cannot be defined as a "slight protuberance", and the elytral apex is sinuous, with outer angle slightly projected. The new species differs from *T. albomaculata* Júlio and Monné, 2005 by the upper eye lobes distinctly wider and closer to each other (distinctly more distant from each other and narrower in *T. albomaculata*); central area of pronotum not distinctly flattened centrally (flattened in *T. albomaculata*); elytra without contrasting white macula on sides of middle (present in *T. albomaculata*); basal gibbosity of elytra with dense erect setae (absent in *T. albomaculata*); and elytral apex oblique, lacking projection at outer angle (present in *T. albomaculata*). The new species also differs from *T. albomaculata* (Fig. 17–21) by the shape of the metaventral process, which is not U-shaped. The pronotal shape of *Trichoanoreina panamensis* n. sp. resembles that of many *Oreodera* Audinet-Serville, 1835 species, but the presence of abundant erect setae separates it from the species of that genus.

CALLIINI

Callia axillaris (Dalman, 1823)

(Fig. 22–29)

Lamia axillaris Dalman 1823: 69; Germar 1823: 485.

Callia axillaris Germar 1839: 330; Newman 1840: 14; Lacordaire 1872: 908; Gemminger 1873: 3214 (cat.); Zikán and Zikán 1944: 43, 45 (distr., hosts); Blackwelder 1946: 626 (checklist); Gilmour 1965: 647 (cat.); Silva et al. 1968: 400 (hosts); Zajciw 1972: 70 (distr.); Galileo and Martins 1991: 260 (key); Monné and Giesbert 1992: 253 (syn.); Monné and Giesbert 1994: 296 (checklist); Monné 1995: 92 (cat.); Galileo and Martins 2002: 52 (key); Monné 2002: 3 (cat.; hosts); 2005: 317 (cat.); Monné and Hovore 2006: 230 (checklist); Monné et al. 2010: 247 (distr.); Monné et al. 2012: 56 (distr.); Monné et al. 2016: 23 (distr.); Monné 2019: 452 (cat.).

Callia (*Callia*) *axillaris* Bates 1885: 423; Aurivillius 1923: 600 (cat.); Zajciw 1958a: 58; Duffy 1960: 281 (biol.); Gilmour 1965: 647 (cat.).

Callia flavofemorata Laporte 1840: 486; Redtenbacher 1868: 185 (distr.); Lacordaire 1872: 908; Gemminger 1873: 3214 (cat.); Blackwelder 1946: 626 (checklist); Galileo and Martins 1991: 260 (key).

Callia (*Callia*) *flavofemorata* Aurivillius 1923: 600 (cat.); Zajciw 1958a: 58; 1958b: 21 (distr.).

Callia pulchra Melzer 1930: 206; Bosq 1943: 111 (distr.); Blackwelder 1946: 626 (checklist); Zikán and Wygodzinsky 1948: 50 (type); Buck 1959: 609 (distr.); Viana 1972: 405 (distr.); Penz-Reis and Meyer 1991: 87 (types); Galileo and Martins 1991: 260; Di Iorio 1994: 19 (hosts); Monné and Giesbert 1994: 297 (checklist); Monné 1995: 94 (cat.); González and Di Iorio 1997: 170, 173 (hosts); Monné 2002: 4 (cat. hosts); Galileo and Martins 2002: 51 (key); Di Iorio 2004: 65 (hosts); Monné 2005: 319 (cat.); Monné and Hovore 2006: 230 (checklist); Wappes et al. 2006: 42 (distr.); Wappes et al. 2013: 10 (distr.); Monné et al. 2017: 60 (lectotype); Monné 2019: 456 (cat.). **New synonym.**

Callia (*Callia*) *pulchra* Zajciw 1958a: 57; Zajciw and Ruffinelli 1962: 84 (distr.); Gilmour 1965: 647 (cat.).

Dalman (1823) described *Lamia axillaris* based on a single specimen (Fig. 22) from Brazil (no further details). In the same year, Germar (1823) described the same species with the same name. However, according to Germar (1839) (translated): "643 [sic]. *Lamia axillaris*, Callia. Mr. Dalmann [sic] described it under the same name."

Laporte (1840) described *Callia flavofemorata* (Fig. 23) from Brazil (no further details). Monné and Giesbert (1992) synonymized it with *Callia axillaris* (Dalman, 1823). Later, Melzer (1930) described *Callia pulchra* (Fig. 27–29) based on males and females from Brazil (Paraná and Santa Catarina).

Currently, *Callia axillaris* is known from Brazil (Bahia, Espírito Santo, Rio de Janeiro), and *Callia pulchra* from Brazil (Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul), Bolivia (Santa Cruz, Tarija), Paraguay, Argentina (Tucumán, Misiones, Corrientes), Uruguay (Monné 2019). Redtenbacher (1868) was the first who reported a more detailed locality in Brazil for *C. flavofemorata* (Rio de Janeiro), and Zajciw (1958b) first provided a locality for *C. axillaris* (Rio de Janeiro).

Examination of the photographs of the types of *Lamia axillaris* (Fig. 22), *Callia flavofemorata* (Fig. 23), and *Callia pulchra* (Fig. 27–29), as well as series of specimens from Brazil, Paraguay and Bolivia, reveal a wide variation in coloration. Although this variation is most dramatic dorsally, the color of the femora is also variable, from entirely dark to reddish-brown with dark apex, and the ventral surface of the body may be metallic-blue (with or without violaceous reflections) or slightly more grayish. Accordingly, as no other morphological differences were found, *C. pulchra* is synonymized with *C. axillaris*.

Material examined. BOLIVIA, Bolivia, *Santa Cruz*: Tarij. Dept., 30 km N Villamontes, 20°52′S / 63°22′W, 3 males, 2 females, 8–10.XII.2012, Wappes, Bonaso, Skillman col. (ACMT); G. Chaco Prv, 2 km SW Villamontes, 5 males, 1 female, 12–16.XII.2011, Wappes, Lingafelter, Morris & Woodley col. (ACMT); 22 km W Villamontes, 21°14′42″S / 63°34′52″W, 515 m, 2 males, 1 female, 7–9.XII.2012, Wappes, Bonaso, Skillman col. (ACMT); 20 km Camiri, Road to Eyti, 1250 m, 19°52′S / 63°29′W, 2 males, 1 female, 5–10.XII.2012, Wappes, Bonaso, Skillman col. (ACMT); 20 km Camiri, Road to Eyti, 1250 m, 19°52′S / 63°29′W, 1 female, 26.XI.2013, Wappes & Skillman col. (ACMT); 20 km Camiri, 6–8 km E Hwy 9, 1250 m, 19°52′S / 63°29′W, 6 males, 7 females, 5–10.XII.2012, Wappes, Bonaso, Skillman col. (ACMT). *La Paz*: Guanay, 1 male, XI.1992, no collector indicated (MZSP). BRAZIL, *Bahia*: Entre Rios, 1 male, no other data (MZSP). *Minas Gerais*: Conquista, 1 female, 30.X.1988, Diorna col. (MZSP). *Rio de Janeiro*: Rio de

Janeiro (Corcovado), 1 female, 19.XI.1956, Zajciw col. (MZSP); 1 male, 9.X.1958, Zajciw col. (MZSP); 1 female, XII.1961, M. Alvarenga col. (MZSP); 1 male, X.1965, M. Alvarenga col. (MZSP); Estrada Rio São Paulo - Km 47, 1 male, 24.X.1942, Baela col. (MZSP). *São Paulo*: Marília, 1 female, XI.1945, no collector indicated (MZSP). *Paraná*: Rio Negro, holotype male, 22.XII.1924, Franciscanos col. (MZSP); Ponta Grossa, paratype female, III.1920, Richter col. (MZSP); 1 female, I.1939, Camargo col. (MZSP); Ponta Grossa, Guaraúna, 1 male, 5.XII.1938, Camargo col. (MZSP); Assai, 1 male, XII.1941, Hatschbach col. (MZSP); Guarapuava, 1 male, 2 females, II.1959, Schneider col. (MZSP). *Santa Catarina*: São Bento, paratype female, XI.1925, A. Maller col. (MZSP); Rio Vermelho, II.1950, formerly Dirings collection (MZSP). PARAGUAY, Guairá: Villa Rica, 1 male, 28.X.1923, no collector indicated (MZSP).

***Callisema skillmani* Wappes and Santos-Silva, new species**
(Fig. 30–34)

Description. Male. Integument mostly dark brown, almost black; antennomeres somewhat dark reddish-brown anteriorly, gradually brown toward apex; femora dark reddish-brown, with apex darkened; tibiae dark reddish-brown, with base darkened; apices of abdominal ventrites I–IV reddish-brown.

Head. Frons coarsely, abundantly punctate; with white pubescent band close to eyes, with a few pale-yellow setae interspersed, and sparse pale-yellow pubescence, with white setae interspersed on remaining surface; with a few long, erect dark setae close to eyes, and short erect, sparse dark setae on remaining surface. Area between antennal tubercles and upper eye lobes with sculpturing as on frons; with yellowish-brown pubescence and white pubescence interspersed; with long, erect dark setae between antennal tubercles. Remaining surface of vertex and area behind upper eye lobes finely, sparsely punctate; pubescence as in area between upper eye lobes, except an area close to prothoracic margin glabrous. Area behind lower eye lobes coarsely rugose close to eye, nearly smooth close to prothoracic margin; with dense pale-yellow pubescent band close to eye, pubescence much sparser in remaining punctate area, glabrous close to prothorax. Antennal tubercles coarsely, abundantly punctate basally, punctures gradually finer toward apex; with white pubescence close to eyes, yellowish-brown on remaining surface, with long, erect dark setae interspersed. Genae finely, abundantly punctate in wide area close to eye, smooth on apex; with yellowish-white pubescence close to eye toward clypeus, denser, pale-yellow toward ventral surface, except glabrous smooth area; with a few long, erect dark setae close to eye. Postclypeus coarsely, sparsely punctate in wide central area, smooth laterally; with sparse white pubescence in wide central area, with long, erect dark setae interspersed, glabrous laterally. Labrum with sparse white pubescence posteriorly, with long, erect dark setae interspersed, glabrous anteriorly, with fringe of nearly golden setae on anterior margin. Distance between upper eye lobes 0.18 times length of scape (0.12 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.64 times length of scape (0.43 times distance between outer margins of eyes). Antennae 1.45 times elytral length, reaching elytral apex at apex of antennomere X. Scape with apical cicatrix well marked; finely, densely, confluently punctate; with yellowish-brown pubescence dorsally and in superior area of sides, white ventrally and inferior area of sides; with a few long, erect dark setae. Pedicel with white pubescence anteriorly, yellowish-brown on remaining surface. Antennomeres with white pubescence on base of dorsal surface, in about basal 2/3 of ventral surface of antennomeres III–IV, basal half of ventral surface of V–VII, basal third of ventral surface of VIII–X, and basal quarter of ventral surface of XI; remaining surface of antennomeres with yellowish-brown pubescence not obscuring integument; antennomeres III–VIII with a few long, erect dark setae ventrally. Antennal formula (ratio) based on length of antennomere III: scape = 0.93; pedicel = 0.17; IV = 0.93; V = 0.80; VI = 0.73; VII = 0.67; VIII = 0.60; IX = 0.57; X = 0.47; XI = 0.38.

Thorax. Prothorax slightly wider than long; sides with small, conical tubercle about middle. Pronotum coarsely, abundantly punctate; with yellowish-brown pubescence not obscuring integument, with white pubescence interspersed; with long, erect, sparse dark setae interspersed. Sides of prothorax with sculpturing and pubescence as on pronotum (pubescence slightly denser close to prosternum). Prosternum slightly rugose-punctate; with yellowish-brown pubescence laterally, yellowish-white, not obscuring integument on remaining surface (yellowish-white pubescence slightly denser laterally and in

narrow central area close to prosternal process). Prosternal process distinctly narrowed centrally; with yellowish-white pubescence partially obscuring integument. Ventral surface of meso- and metathorax with yellowish-brown and white pubescence mixed, denser laterally, except mesoventral process with yellowish-white pubescence. Mesoventral process vertically sloped anteriorly, with slightly distinct central tubercle close to anterior margin. Scutellum with yellowish-brown and white pubescence mixed. **Elytra.** Coarsely, abundantly punctate in basal third, punctures gradually finer, sparser toward apex; apex individually rounded (almost obliquely truncate); with yellowish-brown pubescence partially obscuring integument in some areas, with white pubescence interspersed; with long, erect dark setae throughout. **Legs.** Femora and tibiae with white and yellowish-brown pubescence mixed (posterior third of dorsal surface of mesotibiae with abundant erect brown setae), with long, erect dark setae interspersed (distinctly more abundant on tibiae). Tarsi mostly with white pubescence.

Abdomen. Ventrites finely, densely, shallowly punctate (general appearance somewhat finely rugose), except smooth apices of ventrites I–IV; sides with moderately dense white and yellowish-brown pubescence mixed, gradually sparser, yellowish-white toward central area, with long, erect brown setae interspersed. Posterior margin of ventrite V slightly concave centrally.

Dimensions in mm. Total length 9.40; prothoracic length 1.75; anterior prothoracic width 1.55; posterior prothoracic width 1.70; widest prothoracic width (between apices of lateral tubercles) 2.10; humeral width 2.60; elytral length 6.45.

Type material. Holotype male from BOLIVIA, *Santa Cruz*: Potrerillo del Guendá (Snake Farm, 17°40′S / 63°27′W, 370–400 m), 14–16 X.2011, Wappes and Skillman col. (FSCA, formerly ACMT).

Etymology. Named for Fred Skillman, a good friend and one of the collectors of the holotype.

Remarks. This new species is included in *Callisema* Martins and Galileo, 1990. It is also closely related to *Graminea* Thomson, 1864, as both genera share having the tubercle of the mesoventral process almost indistinct. However, they differ by the new species having the anterior margin of the mesoventral process vertical (Fig. 34), whereas in most *Graminea* the anterior margin is gradually sloping (strongly or slightly oblique). An exception in *Graminea* is *G. annulata* Galileo and Martins, 1990, where the anterior margin of the mesoventral process is almost vertical. However, it differs from *C. skillmani* by the dorsal surface of the mesoventral process being somewhat concave and lacking tubercles (with slightly distinct central tubercle close to anterior margin in *C. skillmani*).

Callisema skillmani **new species** is also similar to *C. elongata* Galileo and Martins, 1992, but differs by the elytra being shorter than four times prothoracic length and by lacking irregular glabrous areas. In *C. elongata* (see photograph of the holotype at Bezark 2020), the elytra are about 4.2 times the prothoracic length and have irregular glabrous areas clearly visible.

DESMIPHORINI

Rileyellus Wappes and Santos-Silva, new genus

(Fig. 35–38)

Type species. *Rileyellus panamensis* Wappes and Santos-Silva, here designated.

Etymology. Named to recognize Edward G. Riley (TAMU), entomology researcher and author, who has been the collector of several new cerambycid species from Panama, including this one. Latin "-ellus", used to form a diminutive of a noun. Masculine gender.

Description. Head not retractile, not prolonged behind eyes; frons transverse; antennal tubercles slightly elevated, distant from each other. Eyes not divided, coarsely faceted; distance between upper eye lobes larger than twice length of one lobe; lower eye lobes longer than gena. Antennae 11-segmented, distinctly longer than body; scape somewhat sinuous, gradually widened from base to about posterior quarter, then narrowed, lacking apical cicatrix, reaching about middle of prothoracic length; antennomeres filiform; antennomere III sinuous. Prothorax transverse; sides with large, conical tubercle. Pronotum with transverse crest about center. Procoxal cavities open laterally and posteriorly. Mesoventral process

lacking tubercle. Mesocoxal cavities open laterally. Elytra with tuberculate centrobasal crest, lacking longitudinal carina, and with oblique/arched crests; outer apical angle rounded; with long, erect setae. Femora slightly pedunculate-clavate. Ventral surface of protibiae excavated on base of posterior third. Metatarsomere I slightly shorter than II–III together.

Remarks. *Rileyellus* **new genus** is similar to *Monnetyra* Galileo and Martins, 2006, in the presence of a crest on the pronotum and elytra. However, it cannot be included in this genus because the prothorax has large lateral tubercles, which are absent in *Monnetyra*, and the mesotrochanters are not projected as a spine at apex (projected in *Monnetyra*). The general appearance is also similar to that of *Blabia* Thomson, 1864, but differs by the presence of a distinct transverse crest on pronotum (absent in *Blabia*) and by the outer apical angle of the elytra being rounded (often spinose in *Blabia*, but never rounded). Additionally, the scape in *Blabia* is typically not somewhat sinuous (except in *B. banga* Galileo and Martins, 1998, which is likely generically misplaced).

***Rileyellus panamensis* Wappes and Santos-Silva, new species**
(Fig. 35–38)

Description. Male. Head mostly dark brown; mouthparts reddish-brown, with palpomeres yellowish-brown (apex pale-yellow); scape and pedicel dark brown; antennomeres III–XI brown, slightly lighter toward distal segments, especially in basal area. Pronotum, sides of prothorax, and sides of prosternum dark brown to dark reddish-brown (depending on light intensity), with apex of pronotal tubercles black; remaining surface of prosternum reddish-brown, with margins of procoxae and prosternal process nearly black. Ventral surface of meso- and metathorax dark reddish-brown, with margins and metathoracic discrimen dark brown, almost black. Elytra dark reddish-brown basally, gradually nearly orangish-brown toward apex, with area of tubercles nearly black. Legs reddish-brown, with base of tibiae narrowly black. Basal abdominal ventrites dark reddish-brown and remaining segments gradually nearly orangish-brown, with anterior margin of I black, and apex of I–IV yellowish-brown.

Head. Frons finely, abundantly punctate; with yellowish-brown pubescence partially obscuring integument, with minute, thick yellowish-brown seta emerging from some punctures, and a few long, erect yellowish-brown setae close to eyes. Vertex and area behind eyes with sculpturing and pubescence as on frons, including minute short seta within some punctures (pubescence sparser close to prothorax, denser close to upper eye lobes); with a few long, erect yellowish-brown setae close to upper eye lobes. Genae 0.65 times length of inner margin of lower eye lobe; finely, sparsely punctate; with yellowish-brown pubescence, sparser than on frons, with minute, thick yellowish-brown seta within punctures. Antennal segments finely, abundantly punctate (punctures finer than on frons); pubescence as on frons, with minute, thick seta emerging from basal punctures. Gulamentum glabrous close to prothorax, with yellowish-white pubescence anteriorly. Postclypeus with sculpturing and pubescence as on frons in wide central area (nearly lacking minute thick setae), smooth and glabrous laterally; with a few long, erect yellowish-brown setae on sides of wide central area. Labrum finely rugose-punctate posteriorly, finely punctate anteriorly; with long, erect, sparse pale setae. Distance between upper eye lobes 0.36 times length of scape (0.32 times distance between outer margins of eyes); in frontal view, distance between lower eye lobes 0.68 times length of scape (0.61 times distance between outer margins of eyes). Antennae 2.5 times elytral length, reaching elytral apex near apex of antennomere VI. Scape with yellowish-brown pubescence nearly obscuring integument (more pale-yellow depending on light intensity). Pedicel, anterior 3/4 of antennomere III, and anterior half of antennomere IV with pubescence as on scape, and posterior quarter of III and posterior half of IV with shorter, brownish pubescence not obscuring integument except apex of III with yellowish-brown pubescence (darker than in anterior area). Remaining antennomeres with narrow pale-yellow pubescent ring basally, with slightly conspicuous brownish pubescence on remaining surface. Antennomeres III–IV with a few long, erect dark setae ventrally. Antennal formula (ratio) based on length of antennomere III: scape = 0.87; pedicel = 0.15; IV = 0.92; V = 0.67; VI = 0.64; VII = 0.59; VIII = 0.57; IX = 0.54; X = 0.52; XI = 0.64.

Thorax. Prothorax with small, blunt tubercle near posterolateral angles (with one long, erect dark seta emerging from each one). Transverse crest of pronotum connecting lateral tubercles of prothorax, with

some tubercles on its top (tubercles flattened anteroposteriorly); with two small, blunt tubercles on each side of area between crest and posterior margin; coarsely, abundantly punctate; with yellowish-brown pubescence not obscuring integument, denser from anterior margin to crest, especially closer to crest, except glabrous apices of tubercles; with a minute, thick yellowish-brown seta within each puncture. Sides of prothorax with sculpturing as on pronotum; pubescence similar to pronotum (including minute setae), but denser close to posterior margin. Prosternum with sculpturing and pubescence similar to sides of prothorax (including minute setae), but punctures and pubescence sparser centrally. Prosternal process with dense yellowish-brown pubescence centrally, glabrous close to margins; narrowest area 0.27 times width of procoxa. Mesoventrite coarsely, abundantly punctate; with yellowish-brown pubescence not obscuring integument, distinctly denser close to mesepisternum. Mesepisternum and mesepimeron coarsely, abundantly punctate; with yellowish-brown pubescence not obscuring integument, and minute, thick yellowish-brown seta with punctures. Metepisternum and sides of metaventrite coarsely, abundantly punctate, with yellowish-brown pubescence obscuring integument, but exposing punctures, and minute, thick yellowish-brown setae within punctures; remaining surface of metaventrite coarsely, abundantly punctate, with sparse yellowish-brown pubescence, and minute, thick yellowish-brown seta within some punctures. Scutellum with dense yellowish pubescence. **Elytra.** Humerus with short, blunt tubercle on apex; sides with some small, blunt tubercles from humerus to near apex (more distinct in anterior quarter); centrobasal crest moderately elevated, with one to two small, blunt tubercles in its anterior area, and one elevated, acute tubercle near its apex (posterior margin of this tubercle dentate); with a few small, blunt tubercles on sides of anterobasal crest; dorsal surface with arched crest about apex of anterior third (somewhat fused with the line formed by the lateral small tubercles), reaching suture, with two tubercles on top of its side (outermost more elevated and acute, innermost blunt); posterior half with two oblique, irregularly tuberculate crests, more distal slightly more distinct, but much less than that in anterior half; coarsely, abundantly punctate in anterior third, punctures sparser toward apex; apex truncate; basal area with dense yellowish-brown pubescence and a minute, thick yellowish-brown seta within each puncture; remaining surface with pale-yellow pubescence not obscuring integument, distinctly denser close to anterior margin of crests, especially that in anterior half; nearly all tubercles with long, erect dark seta emerging from them. **Legs.** With yellowish-brown pubescence partially obscuring integument, obscuring on basal 2/3 of tibiae; tibiae with short, erect, sparse dark setae; excavated ventral area of protibia with bristly, dense brownish setae; posterior third of dorsal surface of mesotibiae with bristly, nearly golden setae.

Abdomen. Ventrites coarsely, abundantly punctate (punctures gradually shallower toward V); with pale-yellow pubescence partially obscuring integument laterally, but exposing punctures; with minute, thick pale-yellow seta within each puncture; with a few long, erect pale-yellow setae interspersed. Apex of ventrite V truncate (slightly concave centrally).

Dimensions in mm. Total length 9.4; prothoracic length 2.2; anterior prothoracic width 1.9; posterior prothoracic width 2.3; widest prothoracic width (between apices of lateral tubercles) 3.1; humeral width 3.3; elytral length 6.7.

Type material. Holotype male from PANAMA, *Panama*: Nusagandi area, I.K.U.S.A. Igar (trail), 20.V.1993, E. Riley col. (TAMU).

Etymology. Named for the country (Panama) where it was collected.

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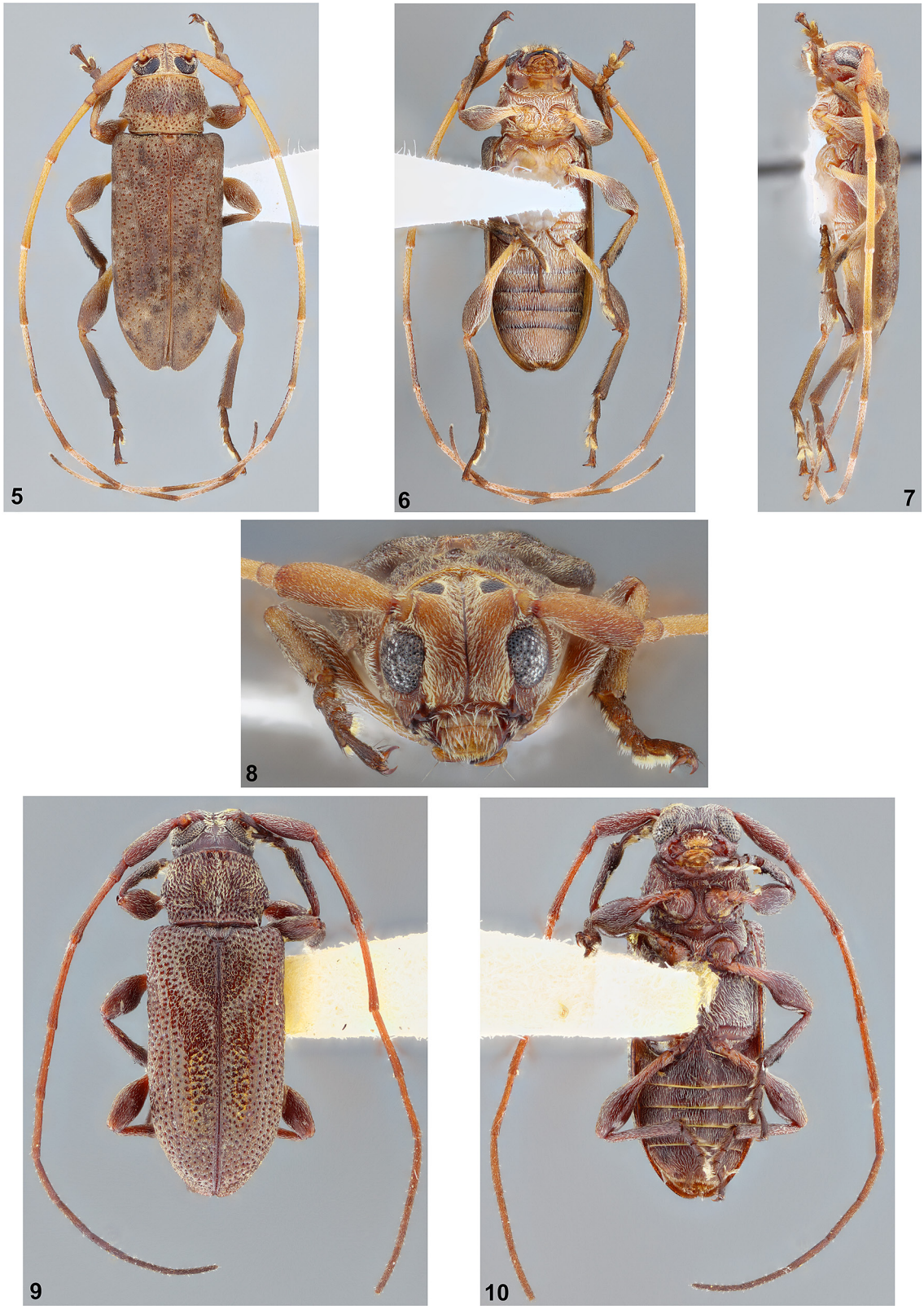
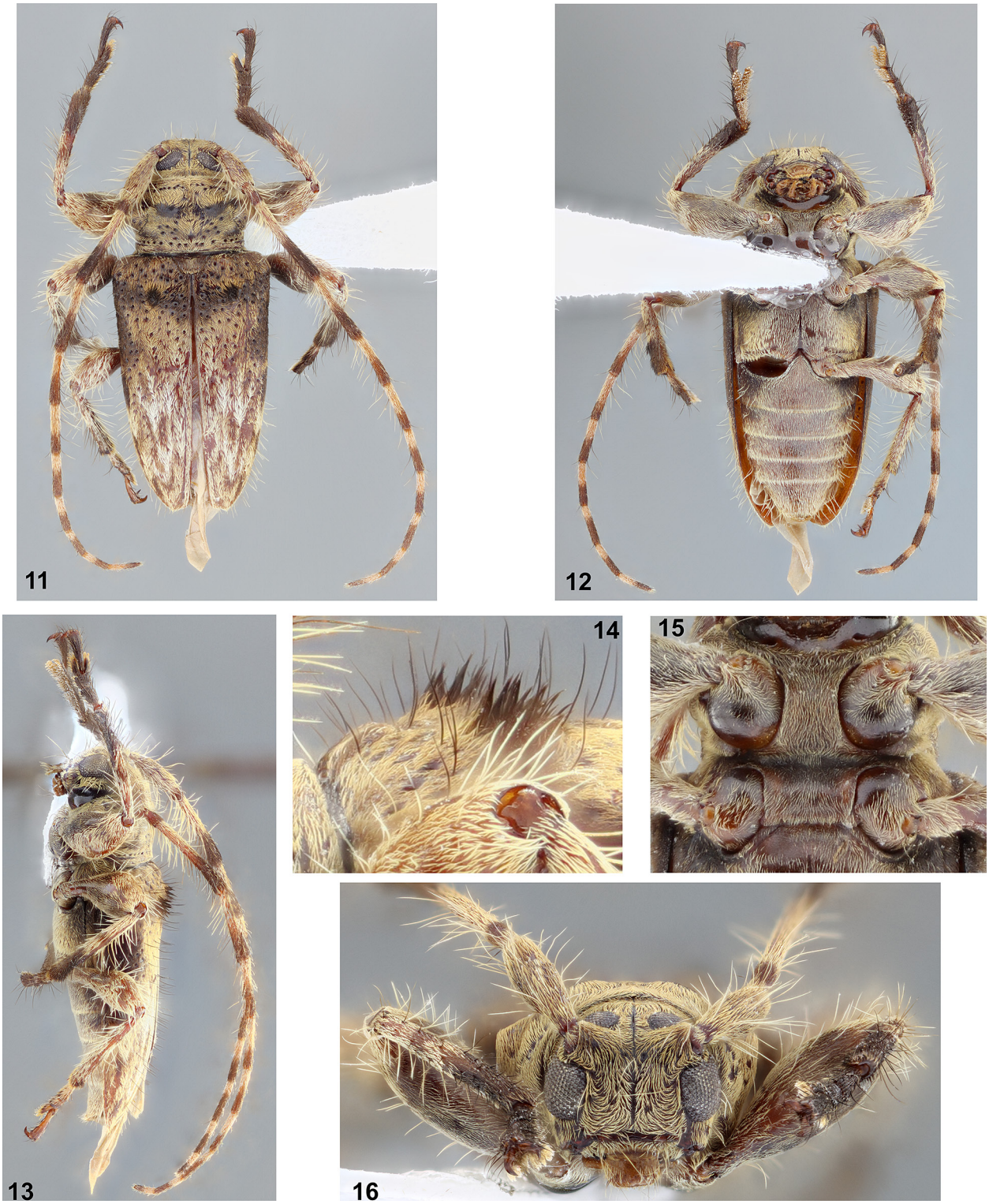
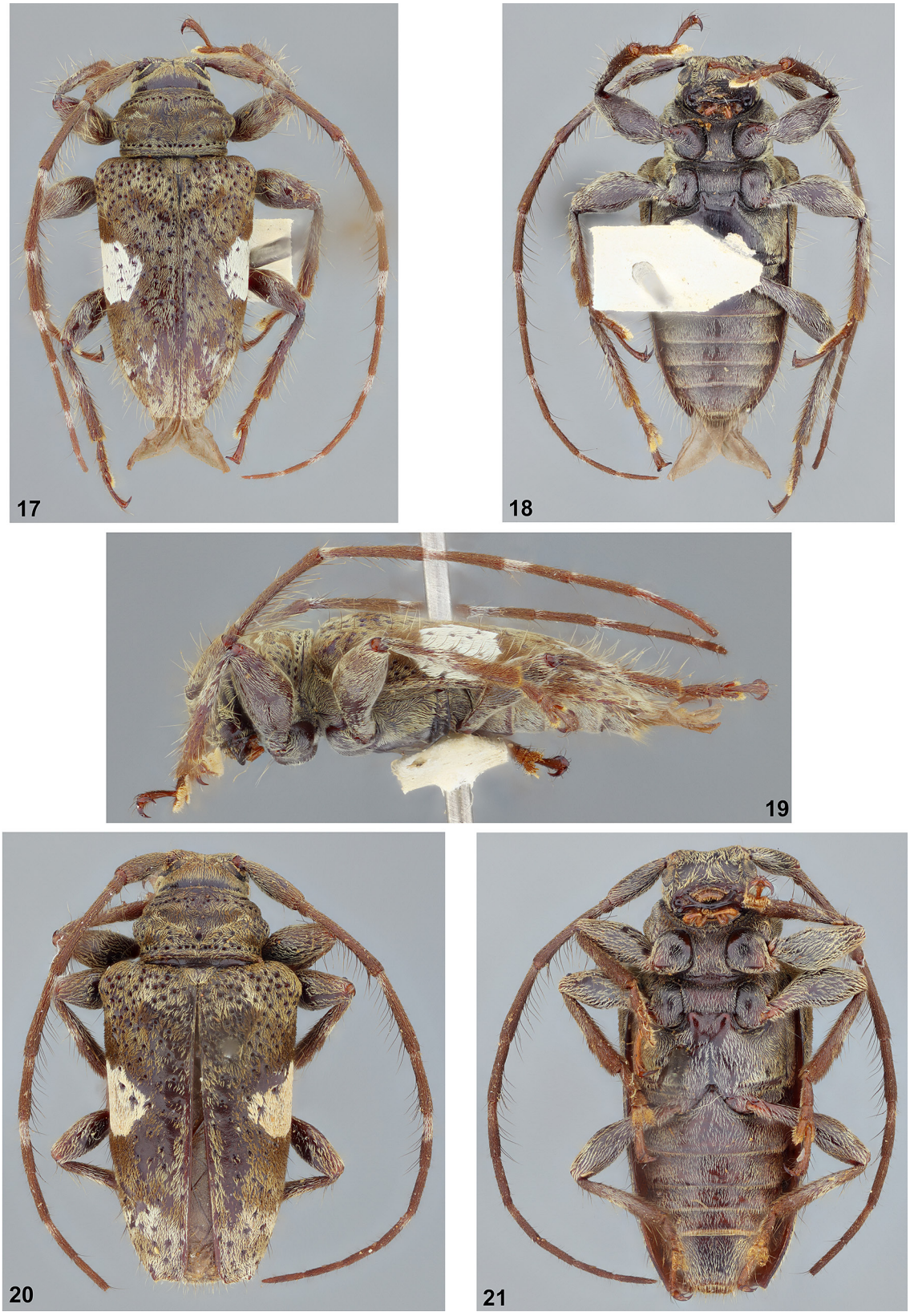
Figures 1–4. *Cotycicuiara lingafelteri*, holotype male. **1)** Dorsal habitus. **2)** Ventral habitus. **3)** Lateral habitus. **4)** Head, frontal view.



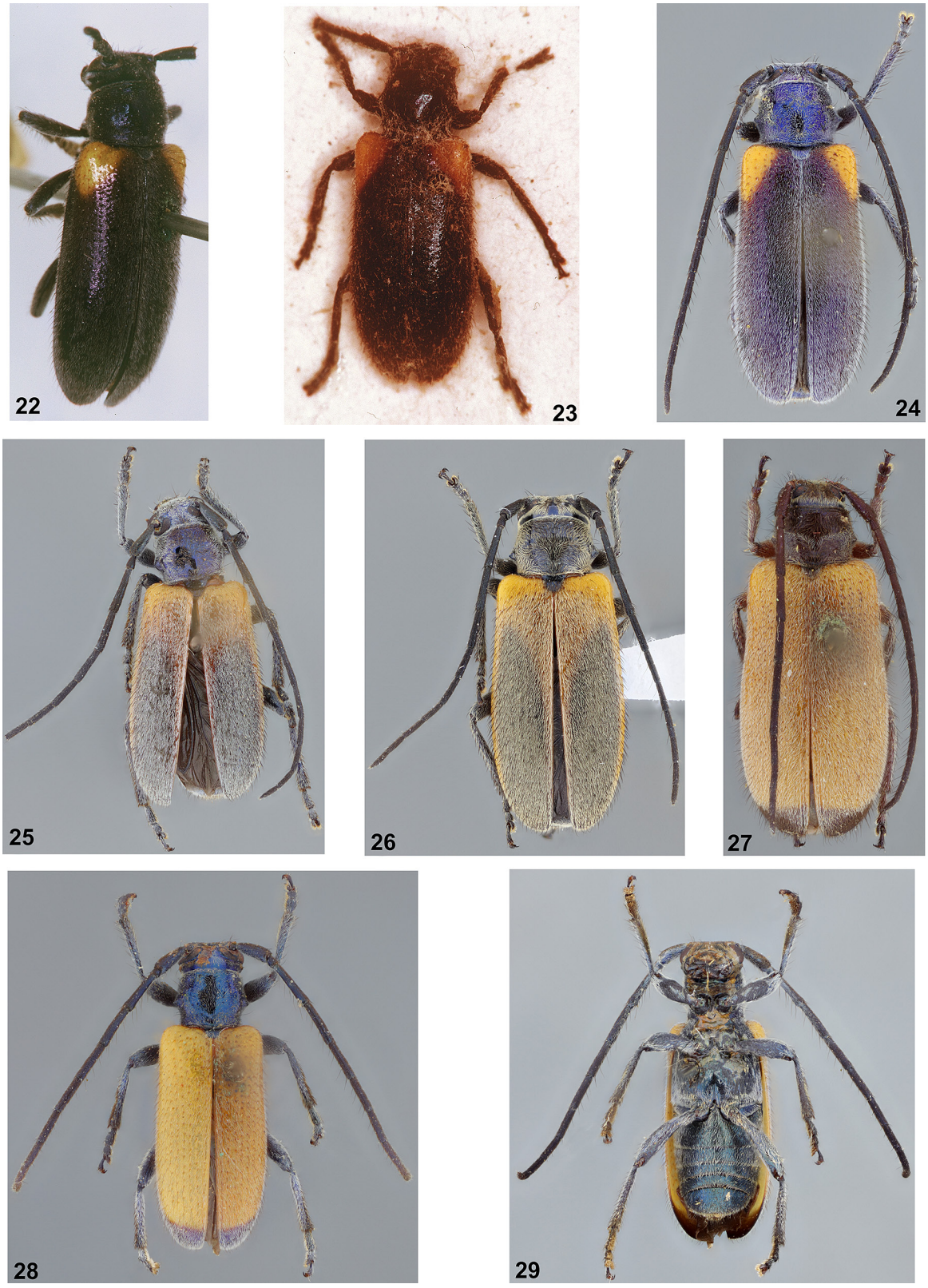
Figures 5–10. *Nesozineus* spp. **5–8)** *Nesozineus morrisi,* holotype male. **5)** Dorsal habitus. **6)** Ventral habitus. **7)** Lateral habitus. **8)** Head, frontal view. **9–10)** *Nesozineus apharus*, paratype male. **9)** Dorsal habitus. **10)** Ventral habitus.



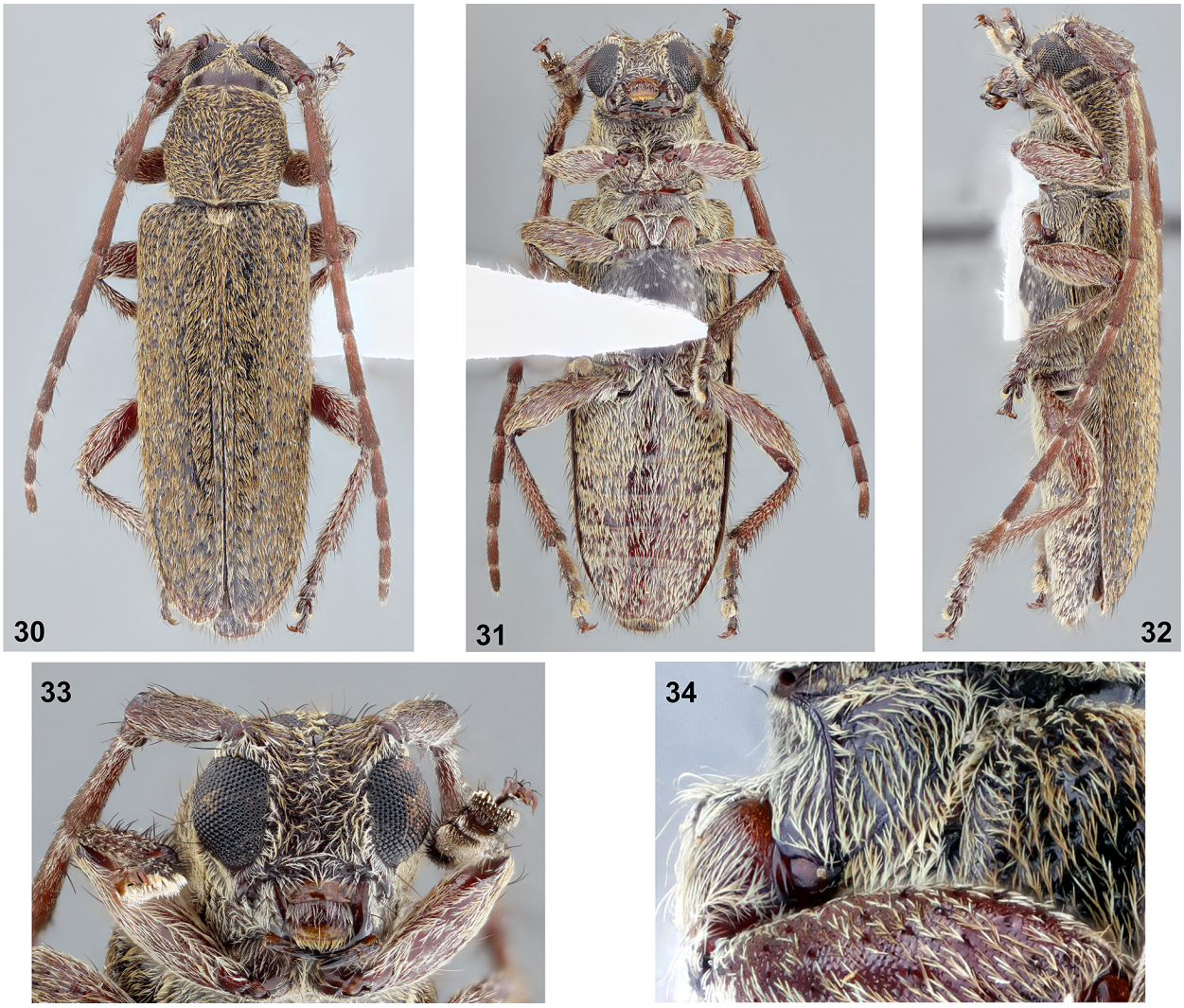
Figures 11–16. *Trichoanoreina panamensis*, holotype male. **11)** Dorsal habitus. **12)** Ventral habitus. **13)** Lateral habitus. **14)** Elytral base, lateral view. **15)** Prosternal process, meso- and metaventral processes. **16)** Head, frontal view.



Figures 17–21. *Trichoanoreina albomaculata*. **17–19)** Male. **17)** Dorsal habitus. **18)** Ventral habitus. **19)** Lateral habitus. **20–21)** Female. **20)** Dorsal habitus. **21)** Ventral habitus.



Figures 22–29. *Callia axillaris*. **22)** Holotype of *Lamia axillaris*. **23)** Holotype of *Callia flavofemorata*. **24)** Female from Brazil (Rio de Janeiro). **25)** Male from Paraguay. **26)** Female from Bolivia. **27)** *Callia pulchra*, paratype female. **28)** *Callia pulchra*, holotype male, dorsal habitus. **29)** *Callia pulchra*, holotype male, ventral habitus.



Figures 30–34. *Callisema skillmani*, holotype male. **30)** Dorsal habitus. **31)** Ventral habitus. **32)** Lateral habitus. **33)** Head, frontal view. **34)** Mesothorax, lateral view.

Figures 35–38. *Rileyellus panamensis*, holotype male. **35)** Dorsal habitus. **36)** Ventral habitus. **37)** Lateral habitus. **38)** Head, frontal view.