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New species of *Neocompsa* and *Tropidion* from Bolivia (Coleoptera: Cerambycidae: Cerambycinae: Neoibidionini)

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Abstract. Two Neoibidionini from Bolivia are described as new: *Neocompsa schneppi* **sp. nov.** and *Tropidion nancyae* **sp. nov.** The new species are compared to closely related species and previous keys by Martins and Galileo (2007, 2009) are modified to include them. Illustrations of dorsal, ventral and lateral habitus, as well as head structures are included for both species. Comments are also included on color and pattern variation of each species.

Key Words. Neotropical Region, South America, taxonomy

Introduction

A new species of *Neocompsa* Martins, 1965 is described from a mountainous area (elevation 1,000 –1,500 m) in western Santa Cruz department. This makes it the sixth recorded species in the genus (58 described species, fourth largest in the Neoibidionini) found in Bolivia (Bezark 2016). Additionally, a new species of *Tropidion* Thomson, 1867 from the low hills northeast of Camiri, in southern Santa Cruz department, is described. This genus, the largest in the Neoibidionini with 76 species, is well represented in Bolivia with 33 species previously recorded (Bezark 2016). Both of the new species have been collected at night using combinations of ultraviolet (UV) and mercury vapor (MV) lights.

Materials and Methods

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

The collection acronyms used in this study are as follows:

ACMT	American Coleoptera Museum (James E. Wappes), San Antonio, Texas, USA;
FSCA	Florida State Collection of Arthropods, Gainesville, Florida, USA;
FWSC	Fred W. Skillman Collection, Pearce, Arizona, USA;
MNKM	Museo de Historia Natural, Noel Kempff Mercado, Santa Cruz de la Sierra, Bolivia;
MZSP	Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil;
RFMC	Roy F. Morris Collection, Lakeland, Florida, USA.

Neocompsa schneppi **sp. nov.**

(Fig. 1–5)

Description of Male Holotype. Integument reddish brown, some areas darker; antennomeres I–VI slightly darker than apical segments in some specimens; elytra dark reddish brown in basal one-third,

orangish brown on remaining surface, except for small yellowish spot surrounded with black near beginning of middle one-third; femoral club mostly dark brown (lighter on apex); abdominal ventrites dark brown, slightly lighter toward ventrite V. Pubescence and setae yellowish white.

Head. Frons finely, abundantly punctate except for small longitudinal smooth area in center close to clypeus; with short setae not obscuring integument, narrow area along coronal suture and smooth area close to clypeus glabrous. Antennal tubercles elevated near upper eye lobes; base with sculpture and setae as on frons, smooth, glabrous close to apex. Vertex microsculptured with fine, sparse punctures interspersed, area closer to prothorax with abundant small, transverse asperities; microsculptured region pubescent (not obscuring integument); area with asperities glabrous. Tempora with pubescence close to eye, not obscuring integument, with very long, erect setae interspersed (mainly behind lower eye lobes); pubescent area with coarse, sparse punctures; area closer to prothorax glabrous, somewhat smooth close to pubescent area, finely, abundantly punctate toward prothoracic margin. Coronal suture well-marked from clypeus to area between upper eye lobes. Genae finely, densely punctate, with short setae not obscuring integument, narrow smooth glabrous area close to apex. Gula smooth, glabrous. Submentum slightly elevated close to gula, transversely vermiculate-punctate; with short, sparse setae and long, erect setae interspersed. Area between submentum and lower eye lobes with short, moderately abundant setae. Postclypeus with short setae centrally, glabrous laterally, with a very long, erect seta in area bordering short setae. Anteclypeus with short, sparse setae basally, remaining surface glabrous. Labrum with short, sparse setae (denser close to apex); with a few long, erect setae laterally. Distance between upper eye lobes 0.45 times length of scape; distance between lower eye lobes in frontal view 0.75 times length of scape. Antennae 2.45 times elytral length, reaching elytral apex at base of antennomere VIII; scape, pedicel and antennomeres III–IV with long, erect, sparse setae dorsally; scape, pedicel and antennomeres III–VI with very long setae ventrally (gradually sparser from III to VI); antennomeres VII–X with few long, erect setae at apex (shorter from VII to X); antennal formula (ratio) based on antennomere III: scape = 0.51; pedicel = 0.15; IV = 0.71; V = 0.88; VI = 0.99; VII = 0.96; VIII = 0.87; IX = 0.79; X = 0.71; XI = 0.84.

Thorax. Prothorax twice as long as wide. Pronotum coarsely, shallowly, sparsely punctate; long, erect seta emerges from each puncture; with pubescence partially obscuring integument except small glabrous area surrounding nearly all punctures, part of gibbosities and narrow band close to anterior margin (widened toward sides of prothorax); three tubercles near middle at anterior one-half (Fig. 5): central elongated, conically elevated forward, and one small, conical on each side of central tubercle, placed slightly ahead of conical projection of central tubercle. Sides of prothorax with pubescence, punctures and setae as on pronotum, except area close to anterior margin with short setae (not obscuring integument) intermixed with long, erect setae. Prosternum pubescent in basal one-half, pubescence gradually sparser toward apical one-quarter; basal one-half coarsely, sparsely punctate; apical one-quarter finely, sparsely punctate; area between basal one-half and apical one-quarter finely, transversely striate. Prosternal process with pubescence, not obscuring integument; distal area cordiform. Ventral side of meso- and metathorax with pubescence partially obscuring integument, interspersed with long, erect, sparse setae. Mesosternal process with flap projected on mesocoxae in distal area. Scutellum densely pubescent.

Elytra. Coarsely, abundantly punctate in basal one-half, gradually sparser, finer toward apex; pubescence not obscuring integument, interspersed with long, erect setae aligned in 4 rows (not well-aligned in basal and apical quarter); setigerous punctures surrounded by small, glabrous area; apex rounded.

Legs. Metatarsomere I slightly longer than II–III combined.

Abdomen. Pubescence not obscuring integument, interspersed with long, erect, sparse setae. Apex of ventrite V truncate, emarginated centrally.

Female Paratypes. Antennae 1.8 times elytral length, reaching elytral apex at apex of antennomere IX. Apex of ventrite V rounded.

Variation. Integument almost entirely dark brown; metasternum dark brown; yellowish spot on elytra variable in size and shape (sometimes calloused), but always small (sometimes, very short), surrounded by dark brown to black narrow to wide rim; elytra entirely dark brown; femora entirely dark brown; elytral apex from widely rounded to almost acute.

Dimensions in mm (holotype male/paratype males/paratype females). Total length 12.40/9.40–11.90/12.90–14.40; prothorax: length 2.80/2.10–2.80/2.80–2.90; anterior width 1.45/1.10–1.50/1.55–1.60; posterior width 1.40/1.10–1.50/1.60–1.70; humeral width 2.00/1.60–2.10/2.35–2.45; elytral length 6.95/5.75–7.20/8.30–9.20.

Type Material. Holotype male from BOLIVIA, *Santa Cruz*: Florida province (4 km N Bermejo; Refugio Los Volcanes; 18º06'S / 63º36'W; 1,000-1,200 meters), 06.XII.2015, Skillman, Wappes and Kuckartz col. (MNKM). Paratypes – BOLIVIA, *Santa Cruz*: 3 males, same data as holotype (2 FWSC, 1 ACMT); Los Negros, 1 male (MHNNKM, 7524), 04.XII.2007, F. A. Langer col. (MNKM); Florida province (4 km N Bermejo; Refugio Los Volcanes; 18º06'S / 63º36'W; 1,045-1,350 meters), 1 female, 17-24.X.2014, Wappes & Morris col. (ACMT); 1 male, 18-24.X.2014, Morris & Wappes col. (RFMC); 16 km NE Mairana (6,600'; 18º05'S / 63º54'W), 1 female, 11.XII.2011, Wappes, Bonaso & Sekerka col. (ACMT); 4-6 km S Pampegrande [*sic*, Pampa Grande] (4,600'), 2 females, 18-19.XI.2003, Wappes, Morris & Nearns col. (1ACMT, 1MZSP).

Etymology. Named for Kyle Schnepp, Biological Scientist, Division of Plant Industry, FSCA, in appreciation for his willing assistance to the authors on occasions too numerous to count.

Remarks. *Neocompsa schneppi* is similar to *N. muira* Martins and Galileo, 2014, also known from Bolivia but differing as follows: Antennae in male 2.4 times elytral length; antennae in female 1.8 times elytral length; pronotum with three distinct conical tubercles; elytral yellowish macula small. In *N. muira*: antennae in male 2.8 times elytral length; antennae in female 1.95 times elytral length; pronotum with one single tubercle, not conical anteriorly; elytral yellowish macula large (see Bezark 2016). It differs from *N. mimosa* Martins, 1971 by the pronotum with three tubercles (with one single tubercle, not conical anteriorly), and by the elytra without glabrous areas surrounding setigerous punctures.

Neocompsa schneppi is included in the alternative of couplet 12 of Martins and Galileo (2009) (translated; modified):

12(9). Pronotum with two small, acute anterolateral tubercles. ..... **12'**
– Pronotal tubercles, if present, not acute. **13**

12'(12). At least some antennomeres **bicolorous (lighter in color apically than distally)**; each elytron with two yellowish spots. West Indies, Venezuela. ..... ***N. cylindricollis* (Fabricius, 1798)**

– Antennomeres uniformly reddish brown or occasionally uniformly colored but slightly lighter on distal segments; each elytron with a single yellowish spot. Bolivia. ..... ***N. schneppi* sp. nov.**

***Tropidion nancyae* sp. nov.**
(Fig. 6–12)

Description of Male Holotype. Integument dark brown; head dorsally black, mandibles and nearly distal one-half of femora black; mouthparts reddish brown; head mostly reddish brown ventrally; base of scape and pedicel dark brown, remaining surface orangish brown; antennomeres III–XI orangish brown, slightly lighter toward antennomere XI; elytra light orangish brown except dark brown pattern on basal one-half creating large elliptical orangish-brown macula; elytral suture dark brown with small apical area of elytra black; most of profemora peduncle dark brown, with remaining surface orangish brown; peduncle of meso- and metafemora mostly reddish brown, with remaining surface of femora orangish brown; tibiae with small dark brown area on base, orangish brown on remaining surface; tarsi orangish brown; abdominal ventrites reddish brown. Pubescence and setae yellowish white (more yellowish or more whitish depending on angle of light source).

Head. Frons close to clypeus finely, transversely striate and glabrous except for smooth central area, finely, confluently punctate near antennal tubercles; punctate region with pubescence not obscuring integument. Area between antennal tubercles and upper eye lobes striate-punctate (smooth between upper eye lobes centrally), with pubescence sparser than on frons (glabrous centrally); remaining surface of vertex finely, densely punctate with sparse pubescence laterally (with long, erect setae interspersed close to eyes), smooth, glabrous centrally. Antennal tubercles finely, sparsely punctate, with sparse pubescence. Tempora finely, densely punctate behind upper eye lobes, almost smooth from this region to about middle of lower eye lobes, finely, abundantly punctate close to prothoracic margin, finely, smoothly punctate on area close to distal one-half of lower eye lobes; with long, erect, sparse setae close to lower eye lobes. Coronal suture distinct from clypeus to between upper eye lobes and prothoracic margin. Genae finely, sparsely punctate, with pubescence denser close to eye. Gula smooth, glabrous. Submentum finely, transversely vermiculate-punctate; with sparse pubescence interspersed with long, erect setae. Postclypeus with sparse pubescence and only long, erect setae laterally. Distance between upper eye lobes 0.35 times length of scape; distance between lower eye lobes in frontal view 0.65 times length of scape. Antennae 3.1 times elytral length, reaching elytral apex at distal one-fifth of antennomere VI; scape, pedicel and antennomeres III–VI with long setae ventrally close to inner side (gradually sparser from III to VI); antennomeres VII–X with a few long, erect setae at apex (shorter from VII to X); antennal formula (ratio) based on antennomere III: scape = 0.52; pedicel = 0.19; IV = 1.00; V = 1.12; VI = 1.14; VII = 1.07; VIII = 1.07; IX = 0.93; X = 0.90; XI = 1.35.

Thorax. Prothorax 1.4 times longer than wide. Pronotum finely, sparsely punctate, slightly more dense in basal one-fifth; with five tubercles, largest placed at center of longitudinal axis of basal one-half (near middle of pronotum), one on each side at distal one-third, another on each side at basal one-third; short, sparse setae (denser close to basal margin) intermixed with long, erect setae. Sides of prothorax with sculpture and setae as on pronotum, except area closer to anterior margin, which is almost glabrous and without distinct punctures. Prosternum finely, sparsely punctate close to procoxal cavities, transversely striate toward anterior margin (mainly centrally); with U-shaped band of pubescence in basal one-half; remaining surface with short, sparse setae. Prosternal process pubescent. Mesosternum and mesosternal process with sparse pubescence. Mesepimera, mesepisterna, metepisterna and metasternum pubescent (pubescence sparser on center of metasternum). Scutellum densely pubescent.

Elytra. Not translucent, coarsely, abundantly punctate; nearly all punctures with minute setae; with long, erect setae aligned in 5 rows; apex obliquely truncate, widely, slightly emarginate between outer and sutural angles; outer angle slightly projected.

Legs. Femora with sparse pubescence interspersed with long, erect setae. Metatarsomere I 0.8 of II–III combined.

Abdomen. Ventrites pubescent laterally, gradually distinctly sparser toward center, intermixed with long, erect, sparse setae; length of ventrite V 3.0 times width of its base; apex of ventrite V truncate.

Female Paratypes. Antennae 2.2 times elytral length, reaching elytral apex at basal one-fourth of antennomere VIII. Length of ventrite V 1.5 times width of its base; apex of ventrite V slightly rounded.

Variation. Elliptical macula on elytra projected toward humerus and outer margin; elytral suture reddish brown; elytral apex orangish brown or darkened only on lateral spine; peduncle of profemora partially orangish brown; femora orangish brown except for black apical region; abdominal ventrites brown; elytra partially translucent on sides of distal half.

Dimensions in mm (holotype male/paratype females). Total length 9.20/8.20–9.30; prothorax: length 2.00/1.70–1.95; anterior width 1.30/1.15–1.25; posterior width 1.35/1.15–1.30; humeral width 1.95/1.70–1.90; elytral length 5.95/5.30–6.05.

Type Material. Holotype male (MNKM), 1 paratype male (ACMT) and 4 paratype females (2 ACMT, 1 FWSC, 1 MZSP) from BOLIVIA, *Santa Cruz*: 20 km N Camiri (Road to Eyti; 1250 m; 6-8 km E Hwy 9; 19º52'S / 63º29'W), 5, 6, 10.XII.2012, Wappes, Bonaso and Skillman col.

Etymology. Named in appreciation of Nancy Croley, Administrative Secretary, Division of Plant Industry (FSCA), for sharing her expertise of all things FSCA and providing assistance to the first author during numerous visits to the FSCA over more years than we care to mention.

Remarks. *Tropidion nancyae* has a similar elytral pattern to *T. buriti* Martins and Galileo, 2012 (although more clearly marked), but differs as follows (female): antennae 2.2 times elytral length; scape slightly narrower at base (Fig. 12); elytra 3.1 times pronotal length; in *T. buriti* (Fig. 13–15) the antennae are 1.7 times elytral length, the scape (Fig. 13, 15) is clearly wider at base, and the elytra are 3.4 times pronotal length. Additionally, the dark elytral pattern in the new species is consistently much more distinct than in the holotype of *T. buriti*, and the elytra are not translucent (partially translucent in one paratype female). It is not possible to know if the holotype female of *T. buriti* is a teneral specimen; however, other morphological differences allow easy separation of the two species.

Tropidion nancyae can be included in the alternative of couplet 12 of Martins and Galileo (2007) (translated; modified):

12(9). Each elytron with a single elliptical macula in basal half, not reaching suture or outer margin (sometimes the entire anterior one-half is blackish). ..... **12'**
– Each elytron with light central band in addition to the elliptical macula in basal one-half. . **13**

12'(12). Antennae slightly longer than body (female); femoral club slender (see Bezark 2016). Brazil (Espírito Santo). ..... ***T. batesi* Martins, 1968**
– Antennae clearly longer than body (female); femoral club large and wide (Fig. 12). Bolivia. .... ***T. nancyae* sp. nov.**

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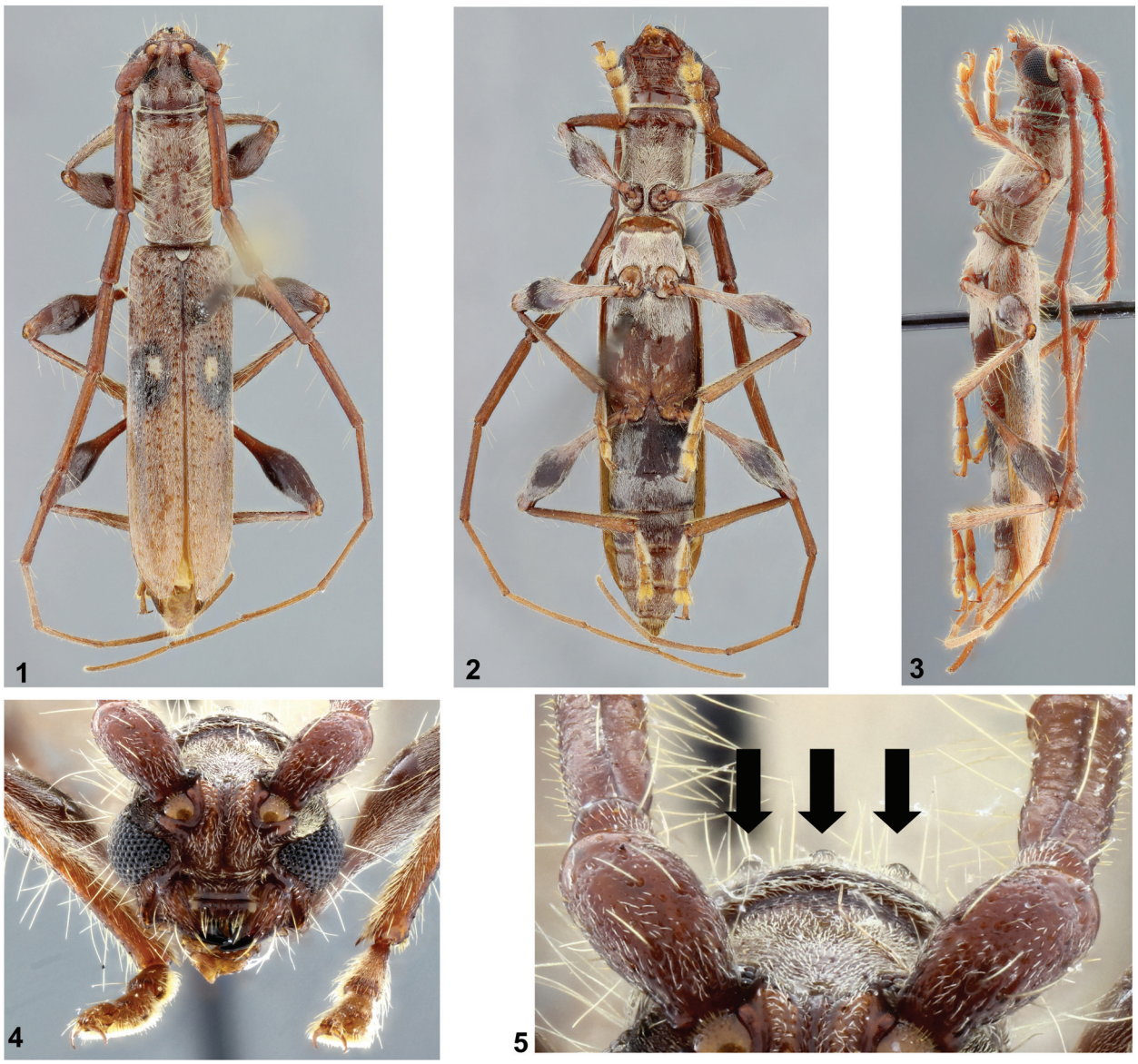
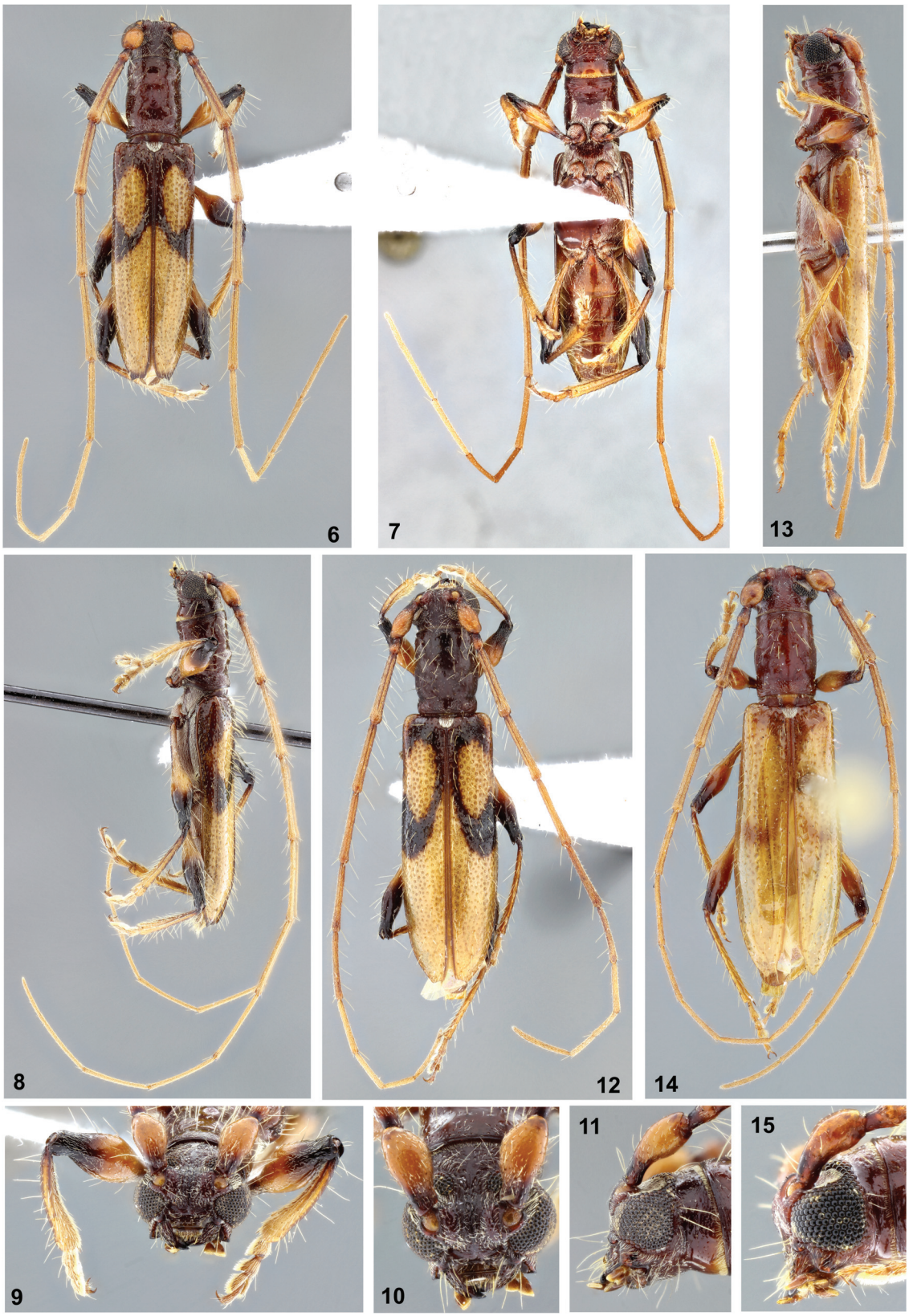


Figures 1–5. *Neocompsa schneppi* sp. nov. holotype male. **1)** Dorsal habitus. **2)** Ventral habitus. **3)** Lateral habitus. **4)** Head, frontal view. **5)** Pronotal tubercles.



Figures 6–15. 6–12. *Tropidion nancyae* sp. nov. holotype male: **6)** Dorsal habitus. **7)** Ventral habitus. **8)** Lateral habitus. **9)** Head, frontal view. **10)** Head, oblique view. **11)** Head, lateral view. **12)** Dorsal habitus, paratype female. **13–15.** *Tropidion buriti*, holotype female: **13)** Lateral habitus. **14)** Dorsal habitus. **15)** Head, lateral view.