

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Insecta Mundi

Center for Systematic Entomology, Gainesville,
Florida

4-29-2022

New species, synonymy, new records, and taxonomic notes in American Cerambycidae (Coleoptera)

Juan Pablo Botero

Antonio Santos-Silva

Follow this and additional works at: <https://digitalcommons.unl.edu/insectamundi>



Part of the [Ecology and Evolutionary Biology Commons](#), and the [Entomology Commons](#)

This Article is brought to you for free and open access by the Center for Systematic Entomology, Gainesville, Florida at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Insecta Mundi by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

A journal of world insect systematics

INSECTA MUNDI

0931

New species, synonymy, new records, and taxonomic notes
in American Cerambycidae (Coleoptera)

Juan Pablo Botero

Grupo de Sistemática Molecular, Laboratorio de Entomología, Pontificia Universidad Javeriana
Bogotá, Colombia

Antonio Santos-Silva

Museu de Zoologia, Universidade de São Paulo
São Paulo, SP, Brazil

Date of issue: April 29, 2022

Center for Systematic Entomology, Inc., Gainesville, FL

Botero JP, Santos-Silva AS. 2022. New species, synonymy, new records, and taxonomic notes in American Cerambycidae (Coleoptera). *Insecta Mundi* 0931: 1–22.

Published on April 29, 2022 by
Center for Systematic Entomology, Inc.
P.O. Box 141874
Gainesville, FL 32614-1874 USA
<http://centerforsystematicentomology.org/>

INSECTA MUNDI is a journal primarily devoted to insect systematics, but articles can be published on any non-marine arthropod. Topics considered for publication include systematics, taxonomy, nomenclature, checklists, faunal works, and natural history. *Insecta Mundi* will not consider works in the applied sciences (i.e. medical entomology, pest control research, etc.), and no longer publishes book reviews or editorials. *Insecta Mundi* publishes original research or discoveries in an inexpensive and timely manner, distributing them free via open access on the internet on the date of publication.

Insecta Mundi is referenced or abstracted by several sources, including the Zoological Record and CAB Abstracts. *Insecta Mundi* is published irregularly throughout the year, with completed manuscripts assigned an individual number. Manuscripts must be peer reviewed prior to submission, after which they are reviewed by the editorial board to ensure quality. One author of each submitted manuscript must be a current member of the Center for Systematic Entomology.

Guidelines and requirements for the preparation of manuscripts are available on the *Insecta Mundi* website at <http://centerforsystematicentomology.org/insectamundi/>

Chief Editor: David Plotkin, insectamundi@gmail.com
Assistant Editor: Paul E. Skelley, insectamundi@gmail.com
Layout Editor: Robert G. Forsyth
Editorial Board: Davide Dal Pos, Oliver Keller, M. J. Paulsen
Founding Editors: Ross H. Arnett, Jr., J. H. Frank, Virendra Gupta, John B. Heppner, Lionel A. Stange, Michael C. Thomas, Robert E. Woodruff
Review Editors: Listed on the *Insecta Mundi* webpage

Printed copies (ISSN 0749-6737) annually deposited in libraries

Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA
The Natural History Museum, London, UK
National Museum of Natural History, Smithsonian Institution, Washington, DC, USA
Zoological Institute of Russian Academy of Sciences, Saint-Petersburg, Russia

Electronic copies (Online ISSN 1942-1354) in PDF format

Archived digitally by Portico
Florida Virtual Campus: <http://purl.fcla.edu/fcla/insectamundi>
University of Nebraska-Lincoln, Digital Commons: <http://digitalcommons.unl.edu/insectamundi/>
Goethe-Universität, Frankfurt am Main: <http://nbn-resolving.de/urn/resolver.pl?urn:nbn:de:hebis:30:3-135240>

Copyright held by the author(s). This is an open access article distributed under the terms of the Creative Commons, Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited. <http://creativecommons.org/licenses/by-nc/3.0/>

New species, synonymy, new records, and taxonomic notes in American Cerambycidae (Coleoptera)

Juan Pablo Botero

Grupo de Sistemática Molecular, Laboratorio de Entomología, Pontificia Universidad Javeriana
Bogotá, Colombia

jp_bot@yahoo.com

https://orcid.org/0000-0002-5547-7987

Antonio Santos-Silva

Museu de Zoologia, Universidade de São Paulo
São Paulo, SP, Brazil

toncriss@uol.com.br

https://orcid.org/0000-0001-7128-1418

Abstract. *Cotyclytus parumnotatus* (Zajciw, 1963) (Coleoptera: Cerambycidae: Cerambycinae: Clytini) is revalidated and a **neotype is designated**. *Anatinomma* Bates, 1892 (Cerambycinae: Hesperophanini) is reported as a neuter gender and two species-group names are corrected: *A. brevicorne* Fisher, 1944 and *A. insulare* Chemsak and Linsley, 1964; the latter is newly recorded from Honduras. *Pachymerola vitticollis* Bates, 1892 (Cerambycinae: Hyboderini) is recorded for the first time in the Mexican state of Jalisco, and chromatic variation is reported. *Smodicum dinellii* Bruch, 1911 (Cerambycinae: Smodicini) is recorded from Bolivia; and *Corcovado bezarki* Martins and Galileo, 2008 (Lamiinae: Hemilophini) is recorded from Belize. *Parhippopsis* Breuning, 1973 (Lamiinae: Agapanthiini) is synonymized with *Rosalba* Thomson, 1864 (Lamiinae: Apomecynini) and *Rosalba columbiana* (Breuning, 1973) is a **new combination**. *Neocompsa flavoquadripunctata* Botero and Santos-Silva, **new species** (Cerambycinae: Neoibidionini), is described from Mexico (Jalisco); *Temnopsis spiculata* Botero and Santos-Silva, **new species** (Cerambycinae: Oemini) is described from Bolivia (Beni); *Trichohippopsis basilaris* Botero and Santos-Silva, **new species** (Lamiinae: Agapanthiini) and *Anobrium bicolor* Botero and Santos-Silva, **new species** (Lamiinae: Pteropliini) are described from French Guiana.

Key words. Longhorned beetles; Neotropical region; taxonomy.

ZooBank registration. urn:lsid:zoobank.org:pub:8722FCF5-3ACB-4CA5-93DD-9A7647163BD0

Introduction

This work was primarily based on material sent for identification by the late James E. Wappes from his private collection (now deposited at the FSCA – see acronym below) as well as other private collections and FSCA.

During the specimen identification process, we observed a series of problems that resulted in the revalidation of a species, with the need to designate a neotype, synonymy of a genus, new records, correction of species-group names, and description of four new species. Two subfamilies, Cerambycinae (six tribes) and Lamiinae (four tribes), are addressed in this work. The specimens are all from the Neotropical region, coming from several countries, from Mexico to southern South America.

Here we present some information regarding the tribe-level taxa in which we are describing new species:

1. Neoibidionina Martins and Galileo, 2007 includes 25 genera and 256 species (Tavakilian and Chevillotte 2021). *Neocompsa* Martins, 1965 is the second largest genus in the subtribe, with 61 species (Tavakilian and Chevillotte 2021), of which 23 occur in Mexico (Monné 2022a);
2. Oemina Lacordaire, 1868 has 85 genera distributed worldwide (Tavakilian and Chevillotte 2021). In the Neotropical region, there are 27 genera (*Metalloeme* Touroult, Dalens and Tavakilian 2010 was wrongly included in Methioidina Martins, 1997 by Monné 2022a). Currently, *Temnopsis* Audinet-Serville, 1834 includes 11 species distributed only in South America (Monné 2022a);
3. Accordingly to Tavakilian and Chevillotte (2021), Agapanthiini Mulsant, 1839, includes 80 genera distributed worldwide. Of these, 14 occur on the American continent (Monné 2022b). However, with the synonymy of *Parhippopsis* Breuning, 1973, this number is reduced to 13. *Trichohippopsis* Breuning, 1958 encompasses seven species known only from South America (Monné 2022b);

4. Pteropliini Thomson, 1860 includes 194 genera distributed worldwide (Tavakilian and Chevillotte 2021). Monné (2022b) recorded 16 genera present in the Neotropical region. *Anobrium* Belon, 1902, includes 10 species distributed only in South America (Monné 2022b). Despite the relatively small number of species, we have noticed that some specimens have been misidentified. Some of these incorrect identifications will be addressed in subsequent papers.

Materials and Methods

Photographs were taken in the MZSP with a Canon EOS Rebel T7i DSLR camera, Canon MP-E 65mm f/2.8 1–5× 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 species were identified using original descriptions, redescriptions, photographs of the holotypes, and comparisons with specimens of the MZSP collection.

The collection acronyms used in the text are as follows:

- AACP** Alain Audureau Private Collection, Saint-Gilles-Croix-de-Vie, France
ACMT James E. Wappes, American Coleoptera Museum Texas (currently deposited in the FSCA)
FSCA Florida State Collection of Arthropods, Gainesville, Florida, USA
FWSC Fred W. Skillman, Jr. collection, Phoenix, Arizona, USA
GTPC Gérard L. Tavakilian Private Collection, Paris, France
JLGC Jean Louis Giuglaris Collection, Roura, French Guiana
JPRC Jean-Philippe Roguet Collection, Nogent-sur-Marne, France
LGBC Larry G. Bezark collection, Sacramento, California, USA
MNRJ Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil
MZSP Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil
PHDC Pierrri-Henri Dalens Collection, Rémire-Montjoly, French Guiana
RFMC Roy F. Morris Collection, Lakeland, Florida, USA
SEAG Société entomologique Antilles-Guyane
SWLC Steven W. Lingafelter Collection, Hereford, Arizona, USA

Results

CERAMBYCINAE Latreille, 1802

CLYTINI Mulsant, 1839

Cotylytus parumnotatus (Zajciw, 1963), revalidated

(Fig. 1–4)

Neoclytus parumnotatus Zajciw 1963: 176; Di Iorio 1995: 339 (syn.); Julio et al. 2000: 19 (holotype); Monné and Monné 2016: 10 (holotype).

Remarks. Di Iorio (1995) synonymized *Neoclytus parumnotatus* with *N. stillatus*, and reported: “All the material from Argentina presents reddish integument, while the specimen from Bolivia is black except for its legs, antennae, labrum, and mandibles; on the other hand the bands of pronotum and elytra are similar in specimens from both countries. Colour differences are probably related with altitude (higher elevations corresponding to Bolivia), and the diurnal habits of *Neoclytus* species. This phenomenon also occurs in various Hymenoptera with similar distributions and habits (Fritz, pers. com.). Dark coloured integuments of Hymenoptera from high altitudes can absorb larger quantities of infrared radiation, thus activating the inset in a shorter time.” However, there are problems with the statement regarding integumental color. Although the only specimen from Bolivia examined by Di Iorio was from a location at 1020 m, at least two places he listed in Argentina correspond to high altitudes (Villa Nougés, 1276 m; Siambón, 1313 m). Furthermore, the holotype of *N. parumnotatus* was collected from a



Figures 1–8. *Cotyclytus* spp. **1–4)** *Cotyclytus parumnotatus* (Zajciw, 1963), neotype male: **1)** Dorsal habitus; **2)** Ventral habitus; **3)** Head and pronotum, frontal view; **4)** Head and pronotum, oblique view. **5–8)** *Cotyclytus stillatus* (Aurivillius, 1909), male from Bolivia: **5)** Dorsal habitus; **6)** Ventral habitus; **7)** Head and pronotum, frontal view; **8)** Head and pronotum, oblique view.

site at about 508 m altitude, and there are paratypes collected in places with much higher altitude: Villa Nougues and Villa Padre Monti (1020 m). Moreover, the holotype of *N. stillatus* was collected at about 252 m, which is not a high altitude, and is less elevated than the type locality of *N. parumnotatus*. We examined seven specimens from Bolivia, all of them collected at 400 or 450 m, and all of them agreeing with the holotype of *N. stillatus*. Furthermore, we have 4 specimens from Argentina, agreeing with the holotype of *N. parumnotatus*: 2 collected at 1638 m (Tucumán), and 2 collected at 1041 m (Catamarca). Accordingly, the arguments by Di Iorio (1994) to justify the synonymy are not valid.

We agree that the elytral maculae in both species are identical or nearly so (Fig. 1, 5). However, there are features of the prothorax allowing separating them: prothorax with dense yellow pubescent maculae dorsally, laterally, and ventrally in the specimens of *C. stillatus* (Fig. 5–8) from Bolivia (absent in the specimens of *C. parumnotatus* (Fig. 1–4) from Argentina); sides of the prothorax without crenulae centrally in the specimens of *C. stillatus* (Fig. 7–8) from Bolivia (present in the specimens of *C. parumnotatus* (Fig. 3–4) from Argentina); sides of the central longitudinal row of tubercles on the pronotum not or slightly longitudinally depressed in the specimens of *C. stillatus* (Fig. 7–8) from Bolivia (distinctly depressed in the specimens of *C. parumnotatus* (Fig. 3–4) from Argentina); sides of the pronotum with longitudinal row of small tubercles inconspicuous or nearly so in the specimens of *C. stillatus* (Fig. 7–8) from Bolivia (very distinct in the specimens of *C. parumnotatus* (Fig. 3–4) from Argentina).

As we did not find intermediate forms between the two species from Bolivia and Argentina, we believe that *C. stillatus* and *C. parumnotatus* are two closely related but different species. Therefore, we are revalidating *C. parumnotatus*. In addition to the specimens of *C. stillatus* listed below, a further 17 specimens from Bolivia, belonging to the LGBC, RFMC, SWLC, and FWSC collections, were examined by the collections' owners, who confirmed that they all have all the holotype characters and do not agree with the specimens from Argentina. These specimens are from places in Bolivia below and above 1000 m elevation (from about 500 m to almost 1800 m).

The holotype and the paratypes (3 males and 3 females) were destroyed during the fire in 2018 at the MNRJ. As *C. parumnotatus* is similar to *C. stillatus*, we consider it essential to designate a neotype for future comparisons. The neotype (Fig. 1–4) has the following labels:

1. Red (printed): Neotype / Neoclytus / parumnotatus / Zajciw, 1963 (added by us);
2. White (printed): ARGENTINA. Tucuman Prov. / 14 km S Tafi del Valle / ME Irwin: FD Parker / 1638 m; 26°57.10'S, 65°39.63'W / 23–15.X.03 Malaise;
3. White (printed): Cotylytus / parumnotatus / Zajciw, 1963 / S.-Silva and Botero det. 2021 (added by us).

Formerly, all the specimens of *C. parumnotatus* we examined belonged to the James E. Wappes collection (now deposited at FSCA). Kindly, Paul Skelley (FSCA) allowed the neotype to be deposited in the MNRJ.

Material examined. *Cotylytus parumnotatus* – ARGENTINA, TUCUMÁN: 14 km S Tafi del Valle, 1638 m, 26°57.10'S, 65°39.63'W, neotype male, 1 male, 23–25.X.2003, M.E. Irwin, F.D. Parker leg. (MNRJ, formerly FSCA). CATAMARCA: 9 km N La Merced, 1041 m, 28°06.43'S, 65°36.96'W, damp ravine with vegetation, 2 females, 24.X–12.XI.2003, M.E. Irwin, F.D. Parker leg. (FSCA; MZSP).

Cotylytus stillatus – BOLIVIA, COCHABAMBA: Region Chaparé, 400 m, 1 male, III.1948, no collector indicated, former Diringshofen (MZSP); 1 male, V.1949, no collector indicated, former Diringshofen (MZSP); 1 male, X.1950, Zischka leg. (MZSP); 2 males, V.1957, no collector indicated, former Diringshofen (MZSP); 450 m, 1 male, XI.1953, Prosen leg. (MZSP). LA PAZ: Uyapi, Guanay, 1 female, X–XI.1992, no collector indicated (MZSP).

HESPEROPHANINI Mulsant, 1839

Anatinomma Bates, 1892

Anatinomma Bates 1892: 150.

Remarks. Bates (1892) described *Anatinomma* to include his new species *A. alveolatum*. The second part of the generic name, the Greek word “ὄμμα” (ómma), means “eyes.” According to ICZN (1999: Article 30.1.2), “a genus-group name that is or ends in a Greek word transliterated into Latin without other changes, takes the gender given for that word in standard Greek dictionaries.” As “ómma” is neuter gender, two species-group names need to be corrected: *A. brevicornis* Fisher, 1944, becomes *A. brevicorne*; and *A. insularis* Chemsak and Linsley, 1964, becomes *A. insulare*.

Anatinomma insulare Chemsak and Linsley, 1964

(Fig. 9–10)

Anatinomma insularis Chemsak and Linsley 1964: 217; Chemsak et al. 1992: 32 (checklist); Monné 1993b: 11 (cat.); Monné and Giesbert 1994: 44 (checklist); Noguera and Chemsak 1996: 397 (checklist); Monné 2005: 264 (cat.); Monné and Hovore 2006: 77 (checklist); Lingafelter et al. 2014: 81 (holotype); Monné 2022a: 464 (cat.).

Remarks. Chemsak and Linsley (1964) described *Anatinomma insulare* based on two females from the Mexican island of Cozumel (Quintana Roo). The male is similar to the female, differing especially by the longer antennae,



Figures 9–13. Cerambycinae spp. 9–10) *Anatinomma insulare* Chemsak and Linsley, 1964, male: 9) Dorsal habitus; 10) Ventral habitus. 11–13) *Pachymerola vitticollis* Bates, 1892, females, dorsal habitus: 11) Specimen 1. 12) Specimen 2. 13) Specimen 2, pronotum.

which reach the middle of the elytra (basal quarter in females). Interestingly, the third specimen formally reported below was also found on an island.

Material examined. HONDURAS (**new country record**), ISLAS DE LA BAHIA: Roatán, West End, 85 m, 16°16'42"N, 86°35'30"W, 1 male, 28.VI.2002, B. Ratcliffe, M. Jameson, R. Cave, A. Smith, F. Ocampo, M. Paulsen leg. (FSCA).

HYBODERINI Linsley, 1940

Pachymerola vitticollis Bates, 1892

(Fig. 11–13)

Pachymerola vitticollis Bates 1892: 161; Aurivillius 1912: 335 (cat.); Blackwelder 1946: 580 (checklist); Giesbert 1987: 44; Chemsak et al. 1992: 56 (checklist); Giesbert 1993: 144 (key); Monné 1993c: 144 (cat.); Monné and Giesbert 1994: 85 (checklist); Noguera and Chemsak 1996: 400 (checklist); Monné 2005: 305 (cat.); Monné and Hovore 2006: 89 (checklist); Bezark 2019: 75 (distr.); Monné 2022a: 517 (cat.).

Bates (1892) described *P. vitticollis* based on a single specimen from Mexico (Guerrero). Bezark (2019) recorded the species from the Mexican state of Oaxaca. Giesbert (1993) provided a key to species of the genus, and separated *P. vitticollis* as follows: “Pronotum black, with a yellowish-grey pubescent vitta on each side of disk. Antennae of male about as long as body. Length 8.5 mm. Guerrero, Mexico,” leading to *P. vitticollis*; “Pronotum red, orange, or bicolored (rarely black), without pubescent vittae. Antennae of males distinctly shorter than body,” leading to the other species of the genus. However, the pronotum in *P. vitticollis* can be entirely black (Fig. 11) or bicolored, with a large central area reddish (Fig. 12–13). Even so, the key is still helpful because *P. vitticollis* is the only species of the genus with distinct lateral pubescent bands on the pronotum. The distal ventrites also can be entirely black, orangish, or dark reddish-brown.

Material examined. MEXICO, JALISCO (**new state record**): MX 80, 7 km N Autlán road to Microondas San Francisco, 3 males, 2 females, 27.VII.2011, Skillman and Turnbow leg. (2 males, 1 female, FWSC; 1 male, 1 female, MZSP).

NEOIBIDIONINI Monné, 2012

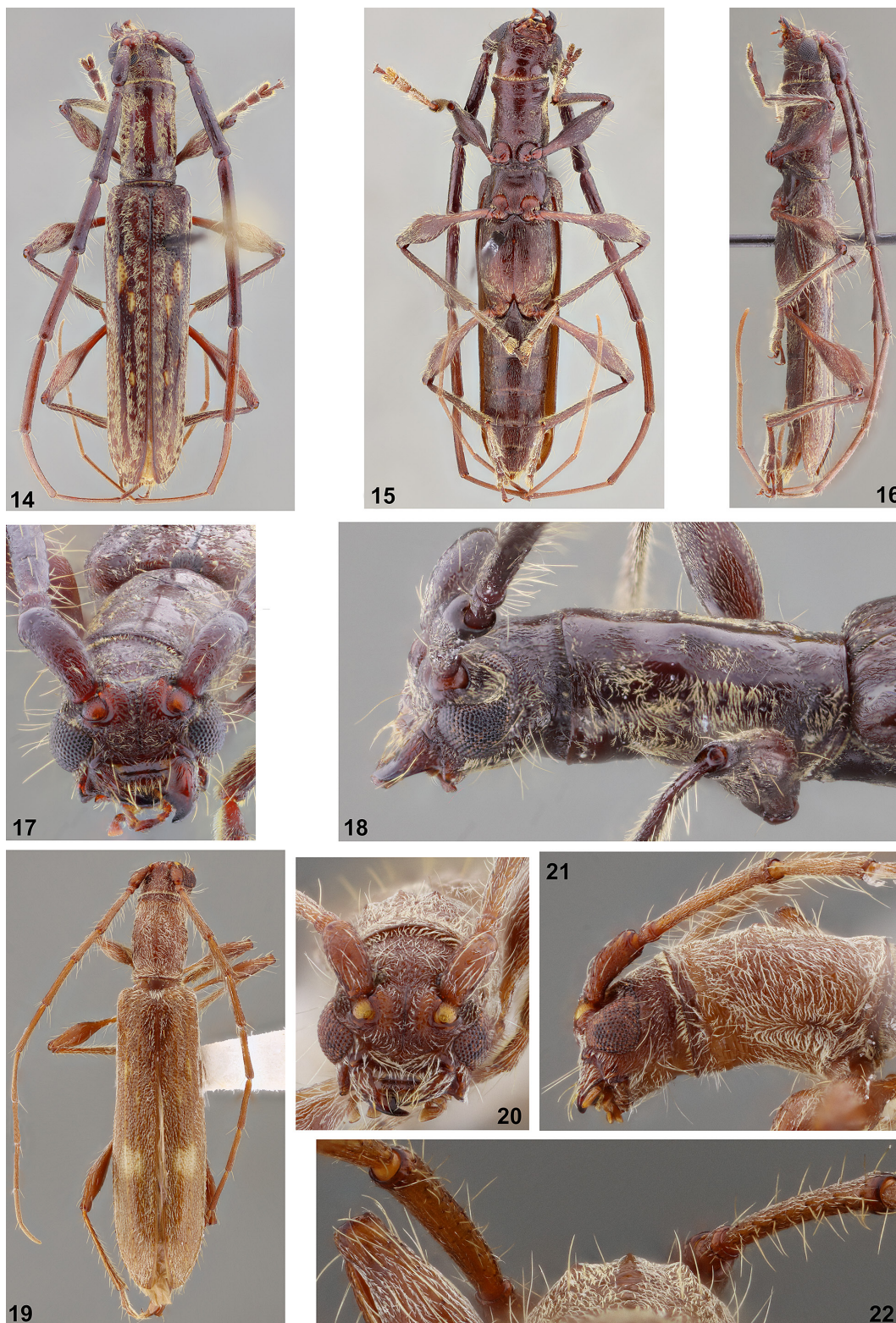
COMPSINA Martins and Galileo, 2007

Neocompsa flavoquadripunctata Botero and Santos-Silva, new species

(Fig. 14–18)

Description. Holotype male. Integument mostly dark brown; ventral mouthparts dark reddish-brown; antennomeres VI–XI reddish-brown, gradually lighter toward XI; elytra with some areas dark reddish-brown, and each elytron with four yellowish-brown maculae dorsally, two on anterior half, the outermost larger, two on posterior half, the outermost smaller and slight conspicuous; coxae, trochanters, and femoral peduncles mostly reddish-brown; sides of tibiae longitudinally reddish-brown.

Head. Frons abundantly rugose-punctate; with straw-colored pubescence not obscuring integument. Antennal tubercles elevated, with apex subacute; rugose-punctate, except smooth area close to antennal base; pubescence as on frons, except glabrous smooth area. Area between antennal tubercles and upper eye lobes coarsely rugose-punctate; with dense yellowish-brown pubescence laterally, sparse, paler centrally, and a few long, erect yellowish-brown setae interspersed laterally; remaining surface of vertex rugose-punctate laterally, with abundant yellowish-brown pubescence not obscuring integument, and subsmooth, glabrous centrally (except a few short, decumbent pale yellowish-brown setae toward eyes). Area behind upper eye lobes with sculpturing and pubescence as on sides of posterior region of vertex. Area behind lower eye lobes tumid, coarsely rugose-punctate close to eye, subsmooth close to prothorax; with sparse yellowish-brown pubescence and long, erect setae of same color interspersed on tumid areas, almost glabrous close to prothorax. Area between eyes and antennal tubercles with dense yellowish-brown pubescence. Genae finely, densely punctate close to eye, smooth toward apex; with abundant yellowish-brown pubescence close to eyes, pubescence sparser close to clypeus,



Figures 14–22. *Neocompsa* spp. 14–18) *Neocompsa flavoquadripunctata* Botero and Santos-Silva, sp. nov., holotype male: 14) Dorsal habitus; 15) Ventral habitus; 16) Lateral habitus; 17) Head, frontal view; 18) Prothorax, lateral view. 19–22) *Neocompsa dysthymia* Martins, 1970, female from Mexico (Nuevo Leon): 19) Dorsal habitus; 20) Head, frontal view; 21) Prothorax, lateral view; 22) Pronotal tubercles.

glabrous on smooth area; with a few long, erect yellowish-brown setae interspersed on pubescent region. Wide central area of postclypeus transversely carinate centrally, finely striate-punctate; with sparse straw-colored pubescence, and one long, erect yellowish-brown seta on each side; sides of postclypeus smooth and glabrous. Labrum coplanar with anteclypeus at posterior third, inclined, concave on anterior $\frac{2}{3}$; with sparse, both short and long, yellowish-brown setae on posterior third, except tuft of long, erect yellowish-brown setae on each side of region close to inclined area; anterior $\frac{2}{3}$ with abundant, bristly golden setae. Gulamentum smooth, glabrous on posterior half; transversely striate-punctate, with sparse yellowish-brown pubescence, and long, erect setae of same color interspersed on anterior half (pubescence distinctly denser close to anterior margin). Upper eye lobes with four rows of ommatidia; distance between upper eye lobes 0.32 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 2.6 times elytral length, reaching elytral apex at apical third of antennomere VII. Scape finely punctate except smooth apex of dorsal surface; with sparse yellowish-brown pubescence, slightly denser basally, except glabrous smooth area; with a few long, erect yellowish-brown setae interspersed. Pedicel with yellowish-brown pubescence not obscuring integument, and long, erect yellowish-brown setae interspersed throughout. Antennomeres III–VI somewhat flattened, widened, longitudinally carinate dorsally and ventrally; antennomeres VII–XI cylindrical; antennomeres III–VI with sparse yellowish-brown pubescence, short, erect yellowish setae interspersed dorsally, and long, erect yellowish setae interspersed ventrally and apically (erect setae on ventral surface gradually shorter and sparser toward VI); antennomeres VII–XI with abundant yellowish-brown pubescence not obscuring integument, and short, erect setae of same color apically. Antennal formula based on length of antennomere III: scape = 0.49; pedicel = 0.14; IV = 0.84; V = 1.02; VI = 1.08; VII = 1.03; VIII = 0.95; IX = 0.81; X = 0.76; XI = 0.87.

Thorax. Prothorax distinctly longer than wide; in lateral view not arched. Pronotum longitudinally smooth centrally and laterally from anterior to posterior quarter (smooth central area wider than lateral ones); anterolateral tubercles very small; area between smooth regions slightly depressed, finely, densely punctate; area between smooth lateral regions and sides of prothorax finely, abundantly punctate, with coarse, sparse punctures interspersed; anterior and posterior quarters finely, sparsely punctate, punctures slightly more abundant laterally; area surrounding smooth regions with dense yellowish-brown pubescence (more golden depending on light intensity), and long, erect setae of same color interspersed; anterior sixth and center of posterior quarter with sparse yellowish-brown pubescence. Sides of prothorax coarsely, sparsely punctate, except transversely striate area close to anterior margin (this area gradually widened toward prosternum); with dense nearly golden pubescence, distinctly sparser close to anterior margin, and long, erect setae of same color interspersed. Prosternum finely, sparsely punctate on posterior half, transversely striate on anterior half; with sparse yellowish-brown pubescence on posterior half, almost glabrous on anterior half. Prosternal process finely, densely punctate, except smooth sides of apex; narrowest area 0.15 times procoxal width. Mesoventrite transversely depressed centrally; with yellowish-brown pubescence not obscuring integument, sparser centrally; mesanepisternum with yellowish-brown pubescence not obscuring integument on anterocentral area, glabrous on remaining surface; mesepimeron with abundant yellowish-brown pubescence not obscuring integument. Metanepisternum and sides of metaventrite with abundant yellowish-brown pubescence not obscuring integument; pubescence gradually less abundant toward glabrous area of metathoracic discrimen; with long, erect yellowish-brown setae interspersed on metaventrite. Scutellum with abundant yellowish-brown pubescence not obscuring integument. **Elytra.** Coarsely, somewhat abundant punctate on anterior third, punctures gradually finer and sparse toward apex; sides of dorsal surface longitudinally carinate from anterior fifth to near apex, and slightly longitudinally carinate between innermost yellowish-brown maculae; with dense straw-colored pubescence, except glabrous longitudinal carinae, sparse pubescence on area between dorsally carinae, and sparse pubescence on longitudinal area on inclined region, from about middle to near apex; with long, erect yellowish-brown setae interspersed; apex slightly obliquely truncate, with sutural angle slightly projected. **Legs.** Femora with abundant straw-colored pubescence, sparser on peduncles, partially obscuring integument on femoral clubs, and long, erect setae of same color interspersed; sides of apex of femoral clubs not longitudinally carinate. Protibiae with sparse pale yellowish-brown pubescence dorsally and superior region of sides, and dense, bristly pale yellowish-brown pubescence on inferior region of sides and ventrally, and long, erect pale yellowish-brown setae interspersed throughout. Meso- and metatibiae with sparse pale yellowish-brown pubescence dorsally and laterally, and bristly pale yellowish-brown

pubescence ventrally; with long, erect pale yellowish-brown setae interspersed throughout, especially dorsally and laterally. Metatarsomere I slightly longer than II–III together.

Abdomen. Ventrites with abundant pale yellowish-brown pubescence not obscuring integument, except glabrous apex of ventrites 1–4, and long, erect, sparse setae of same color interspersed. Apex of ventrite 5 subrounded.

Dimensions (mm). Total length, 14.20; prothoracic length, 3.05; anterior prothoracic width, 1.65; posterior and maximum prothoracic width, 1.75; humeral width, 2.55; elytral length, 9.35.

Type material. Holotype male from MEXICO, JALISCO: 7 km N Autlán de Navarro, Microondas de San Francisco, 4.VII.2018, Skillman and Limon leg (FSCA, formerly FWSC).

Etymology. The specific name “*flavoquadripunctata*” refers to the four yellowish-brown maculae present on each elytron.

Remarks. *Neocompsa flavoquadripunctata* new species resembles *N. dysthymia* Martins, 1970 by the anterior half of the elytra with two yellowish-brown maculae, and presence of yellowish-brown maculae on posterior half of the elytra. Although *N. dysthymia* remains formally known only by females (Fig. 19–22; see also photographs of the holotype on Bezark (2022) and CNC (2020)), the new species cannot be the male of this species due to the following differences (this type of sexual dimorphism is not present in the other species of the genus): pronotum with distinctly glabrous longitudinal areas; anterolateral tubercles of the pronotum almost absent (Fig. 18); anterocentral region of the pronotum without tubercle; in lateral view, pronotum not arched (Fig. 18); elytral punctures sparser (Fig. 14); elytral pubescence denser and forming longitudinal bands (Fig. 14); and elytra with two yellowish-brown maculae on posterior half of the elytra (Fig. 14). In *N. dysthymia*, the pronotum has a narrow glabrous longitudinal area only centrally (almost absent in the holotype), anterolateral angles of the pronotum elevated and conical (Fig. 20, 22), anterocentral region of the pronotum with distinct carina-shaped tubercle (Fig. 20, 22), in lateral view, pronotum arched (Fig. 21), elytral punctures distinctly denser (Fig. 19); elytral pubescence sparser and not forming longitudinal bands (Fig. 19), and the elytra with one large yellowish-brown macula on posterior half (Fig. 19). García-Morales et al. (2014) reported *N. dysthymia* for the Mexican state of Tamaulipas. However, the sex of the specimens was not mentioned.

OEMINI Lacordaire, 1868

Temnopsis spiculata Botero and Santos-Silva, new species

(Fig. 23–28)

Description. Holotype male. Frons, postclypeus, vertex, and mandibles black, except base of mandibles, apex of antennal tubercles, and area of vertex close to prothorax dark reddish-brown; anterior area of anteclypeus and mostly of labrum yellowish-brown; sides of head brownish close to eye lobes and between them, dark reddish-brown on remaining area behind upper eye lobes, and gradually orangish-brown on remaining area behind lower eye lobes; ventral surface brownish close to eyes, orangish-brown on remaining surface; scape, pedicel, and antennomeres III–VI black; antennomeres VII–X dark brown, slightly lighter toward X (missing antennomere XI). Prothorax mostly orangish, orangish-brown on posterior quarter and narrow area close to anterior margin. Ventral surface of meso- and metathorax brown, darker on some areas, except mesanepisternum mostly orangish-brown. Elytra dark brown, blackish on basal quarter of sutural area. Procoxae yellowish-brown except brownish apex; mesocoxae mostly blackish; metacoxae mostly brown. Femora dark brown on basal $\frac{2}{3}$ of dorsal and lateral surface, black on remaining surface. Tibiae black. Tarsomeres I–II black; tarsomeres III and V dark brown basally, gradually lighter toward apex; tarsomere IV dark brown. Ventral surface of abdomen orangish-brown, with some irregular brownish areas interspersed.

Head. Frons rugose-punctate; with short, suberect, sparse yellowish-brown setae. Area between antennal tubercles concave, somewhat longitudinally rugose-punctate; with a few short yellowish-brown setae; remaining surface of vertex rugose-punctate, less so close to prothorax; with a few short yellowish-brown setae. Area behind upper eye lobes finely, somewhat rugose-punctate, almost glabrous; area between eye lobes with moderately abundant yellowish-brown pubescence; area behind lower eye lobes mostly transversely striate-punctate, with sparse, erect yellowish-brown setae close to eye, gradually longer toward ventral surface, almost glabrous



Figures 23–32. *Temnopsis* spp. 23–28) *T. spiculata* Botero and Santos-Silva, sp. nov., holotype male: 23) Dorsal habitus; 24) Ventral habitus; 25) Lateral habitus; 26) Antennomeres III–V; 27) Head, frontal view; 28) Prosternal process. 29–30) *T. rubricollis* Martins, Galileo and Limeira-de-Oliveira, 2009, holotype male: 29) Dorsal habitus; 30) Ventral habitus. 31–32) *T. fuscipennis* Martins, 1978, male (MZSP 49216) from Brazil (Pará, Ulianópolis): 31) Dorsal habitus; 32) Lateral habitus.

on remaining surface. Gulamentum longitudinally sulcate centrally on posterior half; smooth, glabrous on posterior half, glabrous anterior half, except a few short yellowish-white setae on sides, and sparse yellowish-white pubescence and long, erect setae of same color interspersed close to anterior margin. Antennal tubercles with sculpturing and setae as on frons, except smooth and glabrous apex. Wide central area of postclypeus moderately coarsely punctate; with a few short, erect yellowish-brown setae, slightly longer and more abundant laterally; sides of postclypeus smooth, glabrous. Labrum concave, coplanar with anteclypeus at posterior quarter, inclined on anterior $\frac{3}{4}$; with long, erect, sparse yellowish-brown setae, slightly longer laterally. Median groove well-marked from clypeus to near prothorax. Lower eye lobes with short, erect, sparse yellowish-white setae; distance between upper eye lobes 0.28 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.54 times distance between outer margins of eyes. Antennae 2.65 times elytral length (from base of scape to apex of antennomere X), reaching elytral apex near apex of antennomere V. Scape scabrous dorsally and laterally (Fig. 27), except smooth apex, and with distinct, short, spiniform projections ventrally; with short, bristly, sparse yellowish-white setae throughout. Pedicel finely punctate, with short, sparse, bristly yellowish-white setae. Antennomeres III–V rugose-punctate, with moderately long spiniform projections ventrally (Fig. 26), gradually shorter and sparser toward V; with bristly, yellowish-brown setae not obscuring integument, and long, erect setae of same color interspersed ventrally. Antennomere VI with pubescence and erect setae as on V, but with minute, sparse asperities ventrally; antennomeres VII–X with abundant yellowish-brown pubescence not obscuring integument, and long, erect setae of same color ventrally (erect setae gradually shorter toward X). Antennal formula based on length of antennomere III: scape = 0.61; pedicel = 0.07; IV = 1.19; V = 1.27; VI = 1.04; VII = 0.78; VIII = 0.64; IX = 0.59; X = 0.53.

Thorax. Prothorax slightly wider than long, strongly constricted posteriorly; sides slightly rounded, divergent from anterolateral angles to lateral tubercles, which are slightly marked and placed slightly after middle, convergent from this point to posterior constriction. Pronotum transversely sulcate close to anterior and posterior margins, sulci widened centrally; longitudinally sulcate centrally between transverse sulci; finely, shallowly, moderately abundantly punctate; with short, decumbent yellowish-white setae distinctly not obscuring integument, slightly more abundant centrally and laterally; sides of orangish area slightly opaque. Sides of prothorax opaque close to pronotum on anterior half, gradually entirely opaque on posterior half, shining on remaining surface; finely, shallowly punctate on opaque region, transversely striate-punctate on shining region; with short, decumbent, sparse yellowish-white setae. Prosternum finely, shallowly, sparsely punctate; with both short and decumbent and long and erect yellowish setae not obscuring integument. Prosternal process laminiform, placed at the same level of prosternum. Ventral surface of meso- and metathorax with abundant yellowish pubescence not obscuring integument (more yellowish-brown laterally), except glabrous posterior $\frac{2}{3}$ of central area of metaventrite. Mesoventral process laminiform, placed at same level as mesoventrite. Scutellum glabrous. **Elytra.** Finely, abundantly punctate; with abundant light yellowish-brown pubescence not obscuring integument; apex subrounded. **Legs.** Femora with yellowish-brown pubescence not obscuring integument, denser on basal $\frac{2}{3}$ of dorsal surface and basal half of lateral surfaces. Tibiae finely, abundantly, transversely striate; with abundant, bristly dark brown pubescence not obscuring integument, denser, slightly longer ventrally on posterior third. Metatarsomere I twice length II–III together.

Abdomen. Ventrites with abundant yellowish-white pubescence not obscuring integument, gradually more yellowish-brown toward ventrite 5, except glabrous apex of ventrites 1–4.

Dimensions (mm) (Holotype male/paratype male). Total length, 13.75/12.35; prothoracic length, 2.30/2.15; anterior prothoracic width, 1.85/1.65; posterior prothoracic width, 1.95/1.75; maximum prothoracic width, 2.60/2.40; humeral width, 2.80/2.40; elytral length, 9.10/8.00.

Type material. Holotype male from BOLIVIA, BENI: Vaca Diez, Santa Maria area, 9–11.II.2013, Wappes and Bonaso leg. (FSCA, formerly ACMT). Paratype male, same data as holotype (MZSP); 11°05.5'S, 65°57.9'W, 3 specimens, beating, 10.II.2013, Lingafelter, Wappes and Garzon leg. (SWLC). The holotype and the paratype from MZSP have an additional label with conflicting information: "14 km SE Riberalta, 11°05'S, 65°58'W, Lingafelter and Garzon."

Etymology. Latin, "*spiculata*," referring to the spicules of the basal antennomeres, distinctly longer than in other species in the genus.

Remarks. *Temnopsis spiculata* **new species** is similar to *T. rubricollis* Martins, Galileo and Limeira-de-Oliveira, 2009 (Fig. 29–30), but differs as follows: distance between upper eye lobes 1.5 times width of one upper lobe; antennae longer, reaching elytral apex near apex of antennomere V; scape with spicules ventrally; spicules of the antennomeres III–V longer (Fig. 26); elytral pubescence more abundant (Fig. 23); and prosternal process at the same level of the prosternum (Fig. 28). In *T. rubricollis* (male), the distance between upper eye lobes is equal to width of one upper lobe, antennae shorter, reaching the elytral apex at middle of antennomere VI, scape without spicules ventrally, spicules of the antennomeres III–V shorter (Fig. 29), elytral pubescence sparser (Fig. 29), and prosternal process at the same level of the prosternum only basally (Fig. 30). It is also slightly similar to *T. fuscipennis* Martins, 1978 (Fig. 31–32), but differs by the elytra unicolorous (bicolored in *T. fuscipennis*), spicules of basal flagellomeres longer (shorter in *T. fuscipennis*), antennomere V not narrowed apically (narrowed in *T. fuscipennis*), and distal antennomeres slightly lighter than basal ones (strongly lighter in *T. fuscipennis*).

SMODICINI Lacordaire, 1868

Smodicum dinellii Bruch, 1911

(Fig. 33)

Smodicum dinellii Bruch 1911: 172; 1912: 203 (cat.); Aurivillius 1912: 12 (cat.); Blackwelder 1946: 558 (checklist); Prosen 1947: 318 (distr.); Martins 1975: 336 (syn.); Monné 1993a: 2 (cat.); Monné and Giesbert 1994: 25 (checklist); Martins and Galileo 2002: 21, 26; Bachmann and Di Iorio 2002: 67 (types); Monné 2005: 539 (cat.); Galileo et al. 2011: 9, 20; Barros et al. 2020: 19 (distr.); Monné 2022a: 904 (cat.).

Smodicum missionum Bruch 1911: 174; 1912: 203 (cat.); Aurivillius 1912: 12 (cat.); Blackwelder 1946: 558 (checklist); Bachmann and Di Iorio 2002: 73 (type).

Bruch (1911) described *S. dinellii* from Argentina (Tucumán) and, in the same work, *S. missionum* from Argentina (Misiones). Martins (1975) synonymized the latter with *S. dinellii*. Currently, the species is known from Brazil (Bahia, Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul), Paraguay and Argentina (Salta, Tucumán, Santiago del Estero, Misiones) (Monné 2022a).

Material examined. BOLIVIA (**new country record**), SANTA CRUZ: Dpt. Potr. Del Guendá, Reserva Natural, aka Snake Farm, 400 m, 17°40'15"S, 63°27'26"W, 1 male, 1 female, 23–30.X.2013, Wappes and Kuckartz leg. (FSCA); 1 female, 13–17.X.2014, Wappes and Morris leg. (FSCA).

LAMIINAE Latreille, 1825

AGAPANTHIINI Mulsant, 1839

Trichohippopsis basilaris Botero and Santos-Silva, new species

(Fig. 34–37)

Description. Holotype male. Integument mostly black; anteclypeus and anterior region of labrum dark reddish-brown; ventral mouthparts dark reddish-brown, except palpi reddish-brown with apex light yellowish-brown; mesoventrite, most of prosternal process, mesoventral process, metanepisternum, metaventrite, scutellum, base of procoxae, most of mesocoxae, base of metacoxae, and trochanters reddish-brown; anterior quarter of elytra orangish-brown.

Head. Frons finely, moderately abundantly punctate; with abundant grayish-white pubescence not obscuring integument; with long, erect, sparse dark brown setae close to eyes. Antennal tubercles elevated; sculpturing and pubescence as on frons, except smooth and glabrous apex; with erect, moderately short brownish setae on inner surface. Vertex and area behind upper eye lobes moderately coarsely and abundantly punctate; with abundant grayish-white pubescence not obscuring integument, and a few long, erect brownish setae interspersed close to upper eye lobes. Area behind lower eye lobes tumid on wide area close to eye; coarsely, moderately abundantly punctate on tumid area, except smooth area close to inferior area of eye, coarsely, densely punctate on superior area close to prothorax, gradually sparsely punctate toward inferior region close to prothorax; with moderately sparse grayish-white pubescence on tumid area, except glabrous smooth area, with sparse



Figures 33–37. Cerambycidae spp. **33)** *Smodicum dinellii* Bruch, 1911, female, dorsal habitus. **34–37)** *Trichopropsis basilaris* Botero and Santos-Silva, sp. nov., holotype male. **34)** Dorsal habitus; **35)** Lateral habitus. **36)** Ventral habitus. **37)** Head, frontal view.

grayish-white pubescence on superior area close to prothorax, glabrous toward inferior region close to prothorax. Genae transversely striate centrally, with a few fine punctures close to eye, smooth on apical region; with a few short, erect, thick yellowish-brown setae on striate area, glabrous on remaining surface, except grayish-white pubescence not obscuring integument close to clypeus. Gulae smooth, glabrous, except narrow anterior region with long, erect, sparse dark brown setae. Wide central area of postclypeus with abundant grayish-white pubescence not obscuring integument; sides of postclypeus smooth, glabrous. Labrum coplanar with anteclypeus at posterior half, inclined at anterior half; finely, moderately abundantly punctate on posterior half, smooth on anterior half; with long, erect, moderately abundant yellowish-brown setae on posterior half, and fringe of short yellowish-brown setae on anterior margin. Distance between upper eye lobes 0.35 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.47 times distance between outer margins of eyes. Antennae 1.7 times elytral length, reaching elytral apex at apex of antennomere IX. Scape coarsely, abundantly punctate; with bristly brownish pubescence not obscuring integument. Pedicel with abundant brownish pubescence not obscuring integument. Antennomere III with abundant dark brown pubescence, not obscuring integument, denser and bristly ventrally; with long, erect, sparse dark brown setae dorsally, and very long, erect dark brown setae on posterior third of ventral surface. Antennomeres IV–XI with abundant dark brown pubescence not obscuring integument, long, erect, dark brown setae dorsally and laterally, and very long dark brown setae ventrally. Antennal formula based on length of antennomere III: scape = 0.79; pedicel = 0.18; IV = 0.87; V = 0.75; VI = 0.68; VII = 0.65; VIII = 0.62; IX = 0.56; X = 0.53; XI = 0.65.

Thorax. Prothorax cylindrical, longer than wide; anterior constriction feebly marked; posterior constriction distinct. Pronotum coarsely, abundantly punctate, except smooth longitudinal central area, from just before middle to posterior quarter; with abundant grayish-white pubescence not obscuring integument, except glabrous smooth area. Sides of prothorax coarsely, abundantly punctate, except area close to anterior margin with sparser punctures (this area gradually widened toward prosternum); with abundant grayish-white pubescence not obscuring integument, sparser on area close to anterior margin. Prosternum coarsely, abundantly punctate, except narrow area close to anterior margin with sparser punctures; with grayish-white pubescence not obscuring integument. Prosternal process very narrow in basal half, subtriangularly expanded in posterior half; with abundant grayish-white pubescence not obscuring integument. Ventral surface of meso- and metathorax coarsely, abundantly punctate; with grayish-white pubescence not obscuring integument. Mesovenal process slightly narrowed centrally; narrowest area 0.26 times mesocoxae. Scutellum finely, sparsely, shallowly punctate; with dense yellowish-white pubescence laterally, sparse on wide central area. **Elytra.** Coarsely, abundantly punctate throughout; with yellowish-white pubescence not obscuring integument on orangish-brown area, and grayish-white pubescence not obscuring integument on black area; sides and apical area of black region with suberect dark brown setae interspersed. **Legs.** Femora with grayish-white pubescence not obscuring integument, bristly, more yellowish-white ventrally. Protibiae with yellowish-white pubescence not obscuring integument, bristly ventrally, except apical half of ventral surface with dense dark brown pubescence; apical third with short, erect, thick black setae interspersed. Basal half of mesotibiae and basal $\frac{2}{3}$ of metatibiae with yellowish-white pubescence not obscuring integument, bristly ventrally, and remaining surface of dorsal and lateral surfaces with dark brown pubescence, and remaining surface of ventral surface with bristly, dense yellowish-brown pubescence; apical half of dorsal surface with short, erect, thick black setae interspersed, more abundant on metatibiae. Metatarsomere I shorter than II–III together.

Abdomen. Ventrites coarsely, abundantly punctate; with grayish-white pubescence not obscuring integument, and long, erect, sparse dark brown setae interspersed, erect setae more abundant on ventrite 5.

Dimensions (mm). Total length, 8.40; prothoracic length, 1.40; anterior prothoracic width, 1.10; posterior prothoracic width, 1.05; maximum prothoracic width, 1.40; humeral width, 1.45; elytral length, 5.85.

Type material. Holotype male from FRENCH GUIANA: Amazone Nature Lodge, 4°33.36'N, 52°1.24'W, 980', MV lights, Montague de Kaw, 1–12.IX.2018, Wappes and Morris leg. (FSCA, formerly ACMT).

Etymology. Latin “*basilaris*” (at the base), referring to the orangish anterior area of the elytra; a unique characteristic among the species of the genus.

Remarks. *Trichohippopsis basilaris* new species differs from all of the other species of the genus by the entirely orangish-brown anterior area of the elytra. It is similar to *T. vestita* Martins and Galileo, 2013 and *T. suturalis*

Martins and Carvalho, 1983 by the shape of the antennomeres, but differs by the absence of the longitudinal pubescent band on the center of the pronotum and sutural area of the elytra (both present in these species), and the scutellum not entirely pubescent (entirely pubescent in these species).

APOMECCYNINI Thomson, 1860

Rosalba Thomson, 1864

(Fig. 38)

Rosalba Thomson 1864: 108.

Aletretia Bates 1866: 34.

Apyratuca Galileo and Martins 2006: 13.

Parhippopsis Breuning 1973: 653. **New synonym.**

Breuning (1973) described *Parhippopsis* in Agapanthiini to include his new species *P. columbiana*, which was described based on a single specimen from Colombia (Valle del Cauca). The differences between Agapanthiini and Apomeccynini, as for other tribes, are not very clear. However, with a few exceptions such as *Helvina* Thomson, 1864, which is probably placed in the wrong tribe, in Apomeccynini the frons is not strongly oblique (strongly oblique in Agapanthiini). All the features reported by Breuning (1973) regarding *Parhippopsis* are present in *Rosalba*. Therefore, *Parhippopsis* is considered a junior synonym of *Rosalba*.

Comparing *Parhippopsis columbiana* (Fig. 38) with *Rosalba stenodesma* Joly et al., 2018 (see photographs on Bezark 2022), they are very similar dorsally. However, as antennomere V has a basal white pubescent ring in the former (absent in *R. stenodesma*), and the two outermost longitudinal yellowish pubescent bands on the dorsal surface of the elytra ending at the same level (outermost distinctly surpassing apex of the innermost in *R. stenodesma*), we are keeping them as different species. Only the study of specimens from the same area of the holotype of *P. columbiana* can clarify whether or not they are of the same species. With the synonymy between *Rosalba* and *Parhippopsis*, we have a new combination: *Rosalba columbiana* (Breuning, 1973).

HEMILOPHINI Thomson, 1868

Corcovado bezarki Martins and Galileo, 2008

(Fig. 39)

Corcovado bezarki Martins and Galileo 2008: 550; Bezark 2013: 53 (holotype); Monné 2022b: 775 (cat.).

Corcovado bezarki was described based on two males and one female from Costa Rica (Guanacaste). The specimen examined expands the known geographical distribution of the species to northern Central America.

Material examined. BELIZE (**new country record**), ORANGE WALK: Dist. Rio Bravo Cons. Area, Well Trail near “Texas Camp,” 1 female, 11–18.VII.1996, P.W. Kovarik leg. (FSCA).

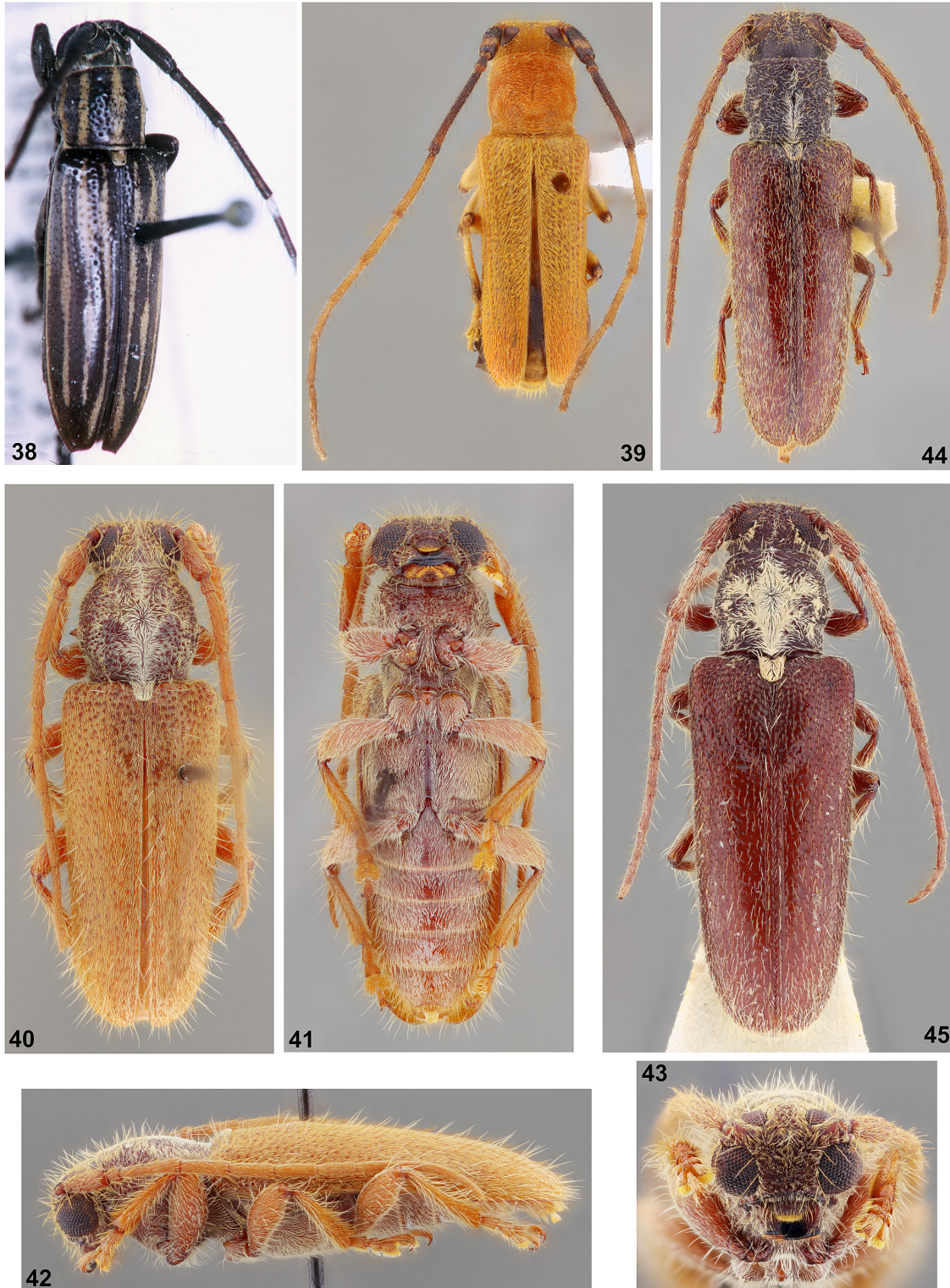
PTEROPLIINI Thomson, 1860

Anobrium bicolor Botero and Santos-Silva, new species

(Fig. 40–43)

Anobrium leuconotum; Morvan and Roguet 2013: 35, fig. 72.

Description. Holotype male. Head capsule, pronotum, sides of prothorax dark brown; antennae, femora (except reddish-brown basal area), tibiae, and tarsi orangish-brown; ventral surface of prothorax dark brown on margins, dark reddish-brown on anterior half of prosternum, mostly reddish-brown on remaining surface; ventral surface of mesothorax dark reddish-brown, except light reddish-brown base of mesoventral process; ventral surface of mesothorax dark reddish-brown, except dark brown central area of metaventricle; scutellum dark reddish-brown; elytra orangish-brown, except brownish triangular circum-scutellar region; ventrites reddish-brown, dark on ventrite 1, gradually lighter toward ventrite 5.



Figures 38–45. Lamiinae spp. **38)** *Rosalba columbiana* Breuning, 1973), holotype, by Jesus Santiago Moure. **39)** *Corcovado bezarki* Martins and Galileo, 2008, female, dorsal habitus. **40–43)** *Anobrium bicolor* Botero and Santos-Silva, sp. nov., holotype male: **40)** Dorsal habitus; **41)** Ventral habitus; **42)** Lateral habitus; **43)** Head, frontal view. **44)** *Anobrium luridum* (Breuning, 1940), female (MZSP 49217) from Brazil (Espírito Santo), dorsal habitus. **45)** *Anobrium leuconotum* Galileo and Martins, 2002, holotype male (MZSP 49858), dorsal habitus.

Head. Frons finely, abundantly punctate with coarse punctures interspersed; with abundant yellowish-brown pubescence on superior half not obscuring integument, pubescence distinctly sparser on inferior half, except yellowish-white pubescent band close to eyes; with long, erect yellowish-brown setae close to eyes, a few long, erect whitish setae on wide central area close to antennal tubercles, and a few moderately long, erect yellowish-white setae on remaining surface. Vertex and area behind upper eye lobes coarsely, moderately abundantly punctate; with dense yellowish-brown pubescence laterally, yellowish-white centrally (this latter pubescent area widened toward prothorax); with long, erect yellowish-white setae interspersed throughout. Area behind lower eye lobes with dense yellowish-white pubescence obscuring integument, a few long, erect yellowish-brown setae close to eye, and long, erect, sparse yellowish-white setae interspersed on remaining surface. Genae with abundant yellowish-white pubescence close to eye, glabrous on remaining surface. Gulamentum glabrous, except anterior region with a few long, erect yellowish-brown setae. Wide central area of postclypeus with abundant yellowish-white pubescence not obscuring integument, sparser and whiter close to frons, and long, erect yellowish-brown setae interspersed; sides of postclypeus glabrous. Labrum convex, coplanar with anteclypeus on posterior quarter, gradually inclined on anterior $\frac{3}{4}$; finely, moderately abundantly punctate; with sparse yellowish-white pubescence on posterior $\frac{3}{4}$, and long, erect yellowish-brown setae interspersed throughout, erect setae more abundant on anterior half; anterior margin with dense fringe of golden setae. Distance between upper eye lobes 0.28 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.39 times distance between outer margins of eyes. Antennae 1.2 times elytral length, reaching posterior fifth of elytra. Scape, pedicel, and flagellomeres with abundant yellowish-brown pubescence not obscuring integument, and long, erect setae of same color interspersed, longer and more abundant ventrally, especially on antennomeres III–V. Antennal formula based on length of antennomere III: scape = 0.83; pedicel = 0.23; IV = 0.73; V = 0.67; VI = 0.63; VII = 0.60; VIII = 0.53; IX = 0.50; X = 0.47; XI = 0.50.

Thorax. Prothorax slightly wider than long; sides rounded, with distinct conical tubercle centrally. Pronotum slightly triangularly depressed on anterocentral region; coarsely, abundantly punctate, with minute, abundant punctures interspersed; center with longitudinal, dense yellowish-white pubescent band, gradually narrowed on anterior third, rhombus-shaped centrally, laterally expanded on beginning of posterior third, and subparallel-sided on posterior fifth; sides with slightly arched yellowish-brown pubescent band, fused with rhombus-shaped yellowish-white pubescence; remaining surface between central and lateral pubescent bands with sparse, both yellowish-white and yellowish-brown pubescence; with long, erect, sparse yellowish-white setae throughout. Sides of prothorax coarsely, abundantly punctate; with abundant light yellowish-brown pubescence not obscuring integument, and long, erect setae of same color interspersed. Prosternum finely punctate on posterior $\frac{3}{4}$, punctures distinctly denser centrally, and coarse punctures interspersed; anterior quarter striate-punctate; sides with dense light yellowish-brown pubescence, this area gradually widened toward procoxal cavity, with moderately abundant yellowish-white pubescence on wide central area close to procoxal cavities, moderately abundant whitish pubescence on remaining central area of posterior $\frac{3}{4}$, and sparse yellowish-white pubescence on remaining surface, except glabrous narrow area close to anterior margin; with long, erect, sparse, both yellowish-white and light yellowish-brown setae interspersed. Prosternal process with abundant yellowish-white pubescence not obscuring integument on anterior half, shorter, distinctly sparser on posterior half; with long, erect, both yellowish-white and light yellowish-brown setae interspersed; narrowest area 0.4 times procoxal width. Mesoventrite with sparse yellowish-white pubescence, except glabrous longitudinal central area, and light yellowish-brown pubescence laterally and close to mesocoxal cavities; with long, erect yellowish-white setae interspersed. Mesanepisternum and mesepimeron with dense yellowish-brown pubescence partially obscuring integument. Mesoventral process with central tubercle on base; with abundant yellowish-white pubescence partially obscuring integument on posterior $\frac{3}{4}$, except glabrous tubercle; with long, erect yellowish-white setae interspersed laterally. Metanepisternum and sides of metaventrite with dense yellowish-brown pubescence partially obscuring integument; central area of metaventrite with abundant yellowish-white pubescence not obscuring integument, except glabrous narrow area close to metathoracic discrimen; with long, erect yellowish setae interspersed. Scutellum with dense yellowish-white pubescence obscuring integument, pubescence slightly yellower basally. **Elytra.** Coarsely, moderately deeply and abundantly punctate on basal third, punctures slightly finer, shallower, sparser toward apex; with dense yellowish-brown pubescence partially obscuring integument, not obscuring punctures, and long, erect yellowish-white setae interspersed, and long, suberect yellowish-brown setae interspersed. **Legs.** Coxae

with abundant yellowish-white pubescence not obscuring integument, and long, erect setae of same color interspersed. Femora with abundant yellowish-white pubescence not obscuring integument on anterior half, light yellowish-brown on posterior quarter, pubescence distinctly bristly and more abundant ventrally; with long, erect yellowish-white setae interspersed. Protibiae with sparse yellowish-white pubescence not obscuring integument dorsally and laterally, and dense, bristly yellowish-brown pubescence ventrally, gradually longer and denser toward apex; with long, erect light yellowish-brown setae interspersed dorsally and laterally. Mesotibiae with sparse light yellowish-brown pubescence, except dense, bristly yellowish-brown pubescence on posterior $\frac{3}{4}$ of dorsal surface and posterior quarter of dorsal surface; with long, erect yellowish-white setae interspersed. Metatibia with light yellowish-brown pubescence not obscuring integument, denser and bristly on posterior third of ventral surface, and abundant, bristly yellowish-brown pubescence on apex; with long, erect yellowish-white setae interspersed. Metatarsomere I shorter than II–III together.

Abdomen. Ventrites with abundant yellowish-white pubescence not obscuring integument, and long, erect setae of same color interspersed, more abundant laterally. Apex of ventrite 5 concave.

Dimensions (mm). Total length, 10.30; prothoracic length, 2.30; anterior prothoracic width, 1.70; posterior prothoracic width, 1.95; maximum prothoracic width, 2.80; humeral width, 3.10; elytral length, 7.10. Only the holotype was measured.

Type material. Holotype male from FRENCH GUIANA: Kaw rd., pk 39, 20.VIII.1995, J.E. Wappes leg. (FSCA, formerly ACMT). Paratypes – FRENCH GUIANA: Amazone Nature Lodge, Kaw Rd. 6, 04°33.579'N, 52°12.433'W, 977', MV light, 1 male, 1–12.IX.2018, Morris and Wappes leg. (RFMC); 1 female, 19–31.VII.2019, Morris and Wappes leg. (RFMC); rte de Kaw PK37, battage (branch threshing), 1 male, 2 females, 23.IX.1996, J.L. Giuglaris leg. (JLGC); piste Bélizon PK3 D PK 8.5, UV, 1 male, 16.XII.2002, J.L. Giuglaris leg. (JLGC); rte Apatou pk24, UV, 1 female, 11.XZII.2008, F. Beneluz leg. (JLGC); rte Apatou pk25+5, UV, 1 male, 20.XII.2012, J.L. Giuglaris leg. (JLGC); Mt des chevaux, UV automatic, 1 male, 1 female, 15.XII.2020, SEAG leg. (JLGC); Nancibo, piège interception, 1 female, VII.2018, local collector (AACP); 1 male, IX.2018, local collector (AACP); Montagne de Kaw, pk 37.5 (piste), 1 female, 22.VIII.2005, J.P. Roguet leg. (JPRC); Montagne des Chevaux, Roura (4.74146°N 52.42702°W), 1 specimen 11.IX.2011, bait trap, SEAG leg. (PHDC); 1 specimen, 02.X.2011, automatic light trap, SEAG leg. (PHDC); 1 specimen 17.VI.2012, automatic light trap, SEAG leg. (PHDC); 1 specimen, 01.VII.2012, automatic light trap, SEAG leg. (PHDC); 1 specimen, 08.VII.2012, automatic light trap, SEAG leg. (PHDC); 2 specimens, 16.VII.2012, automatic light trap, SEAG leg. (PHDC); 1 specimen, 29.VII.2012, automatic light trap, SEAG leg. (PHDC); 1 specimen, 04.VIII.2012, flight interception trap, SEAG leg. (PHDC); 1 specimen, 26.VIII.2012, automatic light trap, SEAG leg. (PHDC); 1 specimen, 17.IX.2012, automatic light trap, SEAG leg. (PHDC); 1 specimen, 23.IX.2012, automatic light trap, SEAG leg. (PHDC); 1 specimen, 14.X.2012, automatic light trap, SEAG leg. (PHDC); 1 specimen, 22.V.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 06.VII.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 13.VII.2013, automatic light trap, SEAG leg. (PHDC); 2 specimens, 03.VIII.2013, automatic light trap, SEAG leg. (PHDC); 2 specimens, 10.VIII.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 10.VIII.2013, flight interception trap, SEAG leg. (PHDC); 3 specimens, 17.VIII.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 31.VIII.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 14.IX.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 26.X.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 03.XI.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 23.XI.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 14.XII.2013, automatic light trap, SEAG leg. (PHDC); 1 specimen, 28.VI.2014, automatic light trap, SEAG leg. (PHDC); 2 specimens, 05.VII.2014, automatic light trap, SEAG leg. (PHDC); 4 specimens, 19.VII.2014, automatic light trap, SEAG leg. (PHDC); 2 specimens, 26.VII.2014, automatic light trap, SEAG leg. (PHDC); 1 specimen, 02.VIII.2014, automatic light trap, SEAG leg. (PHDC); 2 specimens, 15.VIII.2014, automatic light trap, SEAG leg. (PHDC); 4 specimens, 21.VIII.2014, automatic light trap, SEAG leg. (PHDC); 1 specimen, 30.VIII.2014, automatic light trap, SEAG leg. (PHDC); 2 specimens, 06.IX.2014, automatic light trap, SEAG leg. (PHDC); 1 specimen, 13.IX.2014, automatic light trap, SEAG leg. (PHDC); 1 specimen, 20.IX.2014, automatic light trap, SEAG leg. (PHDC); 1 specimen, 15.XI.2014, automatic light trap, SEAG leg. (PHDC); 1 specimen, 11.IV.2015, automatic light trap, SEAG leg. (PHDC); 1 female, 09.V.2015, automatic light trap, SEAG leg. (PHDC); 1 female, 01.VIII.2015, automatic light trap, SEAG leg. (PHDC); 3 specimens, 08.VIII.2015, automatic light trap, SEAG

leg. (PHDC); 7 specimens, 22.VIII.2015, automatic light trap, SEAG leg. (PHDC); 2 specimens, 28.VIII.2015, automatic light trap, SEAG leg. (PHDC); 1 specimen, 12.IX.2015, automatic light trap, SEAG leg. (PHDC); 1 specimen, 19.IX.2015, automatic light trap, SEAG leg. (PHDC); 2 specimens, 10.X.2015, automatic light trap, SEAG leg. (PHDC); 2 specimens, 17.X.2015, automatic light trap, SEAG leg. (PHDC); 1 specimen, 24.X.2015, automatic light trap, SEAG leg. (PHDC); 1 specimen, 18.VI.2016, automatic light trap, SEAG leg. (PHDC); 3 specimens, 09.VII.2016, automatic light trap, SEAG leg. (PHDC); 2 specimens, 16.VII.2016, automatic light trap, SEAG leg. (PHDC); 2 specimens, 23.VII.2016, automatic light trap, SEAG leg. (PHDC); 1 specimen, 30.VII.2016, Malaise trap, SEAG leg. (PHDC); 2 specimens, 06.VIII.2016, automatic light trap, SEAG leg. (PHDC); 1 specimen, 06.VIII.2016, Malaise trap, SEAG leg. (PHDC); 2 specimens, 13.VIII.2016, automatic light trap, SEAG leg. (PHDC); 2 specimens, 20.VIII.2016, automatic light trap, SEAG leg. (PHDC); 2 specimens, 27.VIII.2016, automatic light trap, SEAG leg. (PHDC); 3 specimens, 03.IX.2016, automatic light trap, SEAG leg. (PHDC); 1 specimen, 17.VI.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 15.VII.2017, automatic light trap, SEAG leg. (PHDC); 5 specimens, 22.VII.2017, automatic light trap, SEAG leg. (PHDC); 4 specimens, 29.VII.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 05.VIII.2017, automatic light trap, SEAG leg. (PHDC); 4 specimens, 12.VIII.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 12.VIII.2017, Malaise trap, SEAG leg. (PHDC); 1 specimen, 19.VIII.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 26.VIII.2017, automatic light trap, SEAG leg. (PHDC); 2 specimens, 02.IX.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 23.IX.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 30.IX.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 14.X.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 21.X.2017, automatic light trap, SEAG leg. (PHDC); 1 specimen, 24.III.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 19.V.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 19.V.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 09.VI.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 23.VI.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 30.VI.2018, automatic light trap, SEAG leg. (PHDC); 2 specimens, 07.VII.2018, automatic light trap, SEAG leg. (PHDC); 3 specimens, 14.VII.2018, automatic light trap, SEAG leg. (PHDC); 2 specimens, 21.VII.2018, automatic light trap, SEAG leg. (PHDC); 3 specimens, 04.VIII.2018, automatic light trap, SEAG leg. (PHDC); 7 specimens, 08.VIII.2018, automatic light trap, SEAG leg. (PHDC); 9 specimens, 18.VIII.2018, automatic light trap, SEAG leg. (PHDC); 2 specimens, 25.VIII.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 01.IX.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 08.IX.2018, automatic light trap, SEAG leg. (PHDC); 3 specimens, 22.IX.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 29.IX.2018, automatic light trap, SEAG leg. (PHDC); 2 specimens, 13.X.2018, automatic light trap, SEAG leg. (PHDC); 2 specimens, 20.X.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 27.X.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 17.XI.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 24.XI.2018, automatic light trap, SEAG leg. (PHDC); 1 specimen, 22.VI.2019, automatic light trap, SEAG leg. (PHDC); 1 specimen, 29.VI.2019, automatic light trap, SEAG leg. (PHDC); 4 specimens, 13.VII.2019, automatic light trap, SEAG leg. (PHDC); 2 specimens, 27.VII.2019, automatic light trap, SEAG leg. (PHDC); 1 specimen, 10.VIII.2019, automatic light trap, SEAG leg. (PHDC); 3 specimens, 17.VIII.2019, automatic light trap, SEAG leg. (PHDC); 1 specimen, 24.VIII.2019, automatic light trap, SEAG leg. (PHDC); 4 specimens, 31.VIII.2019, automatic light trap, SEAG leg. (PHDC); 7 specimens, 07.IX.2019, automatic light trap, SEAG leg. (PHDC); 1 specimen, 12.X.2019, automatic light trap, SEAG leg. (PHDC); 1 specimen, 19.X.2019, automatic light trap, SEAG leg. (PHDC); 2 specimens, 26.X.2019, automatic light trap, SEAG leg. (PHDC); Orapu RN2 pk65, Roura (4.49754°N 52.34740°W), 1 specimen, 27.VIII.2016, Malaise trap, SEAG leg. (PHDC); Mont Mahury, Rémire-Montjoly (4.87618°N 52.24772°W), 1 specimen 17.XII.2017, Malaise trap, SEAG leg. (PHDC); Piste de Kaw, pk 34, “piégeage lumineux,” 1 female, 28.VII.1984, S. Boucher leg. (GTPC); 1 male, 29.VIII.1984, S. Boucher leg. (GTPC); 1 male, 22.VI.1985, J.-M. Vassal leg. (GTPC); pk 40, “piégeage lumineux,” 1 female, 1.VIII.1986, S. Doumain leg. (GTPC); Montagne des Singes, pk 7, “battage,” 1 male, 21.III.1984, G. Tavakilian leg. (GTPC); Sinnamary, “battage,” 1 female, P. Laroche leg. (GTPC); 1 female, 26.VII.1982, P. Laroche leg. (GTPC).

Etymology. Latin, “bicolor” (two-colored); allusive to the contrasting color of the pronotum and elytra.

Remarks. *Anobrium bicolor* new species is similar to *A. leuconotum* Galileo and Martins, 2002 (Fig. 45), and has been confused with it. However, they differ as follows: elytra slightly shorter than three times prothoracic length;

pubescence on vertex and elytra distinctly denser (Fig. 40); lateral tubercles of the prothorax conical and not apically directed backward; and mesoventral process with distinct central tubercle. In *A. leuconotum*, the elytra are proportionally longer, slightly longer than 3.5 times prothoracic length, the pubescence on the vertex and elytra are noticeably sparser (Fig. 45), the lateral tubercles of the prothorax are spiniform and apically directed backward, and the mesoventral process has no tubercle. *Anobrium bicolor* is also similar to *A. luridum* (Breuning, 1940) (Fig. 44), but differs by the elytral pubescence distinctly denser, and the elytra proportionally shorter (about 3.5 times prothoracic length in *A. luridum*).

Acknowledgments

We express our sincere thanks to the following people who sent specimens for study and/or provided information on specimens from your collections: Larry G. Bezark (LGBC), Roy F. Morris (RFMC), Frederick W. Skillman (FWSC), Steven W. Lingafelter (SWLC), Paul Skelley (FSCA), Jean-Philippe Roguet (JPRC), Alain Audureau (AACP), Jean Louis Giuglaris (JLGC), Gérard L. Tavakilian (GTPC), and Pierri-Henri Dalens (PHDC). We also thank Paul Skelley (FSCA) for donating the neotype of *Neoclytus parumnotatus* to the MNRJ entomological collection, and Taxonline Project (Projeto Taxonline—Rede Paranaense de Coleções Biológicas) for sending some slides 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). Special thanks to Larry G. Bezark and Steven W. Lingafelter for reviewing the manuscript.

Literature Cited

- Aurivillius C. 1912.** Cerambycidae: Cerambycinae. In: Junk W, Schenkling S (eds.). *Coleopterorum Catalogus*, pars 39. W. Junk; Berlin. 574 p.
- Bachmann AO, Di Iorio O. 2002.** Types and related specimens of Cerambycidae and Disteniidae (Coleoptera) from the Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Buenos Aires, Argentina. *Revista del Museo Argentino de Ciencias Naturales Bernardino Rivadavia* 4(1): 55–93.
- Barros RC, Fonseca MG, Jardim MT, Vendramini VE, Damiani BCB, Julio CEA. 2020.** Species of Cerambycidae (Insecta, Coleoptera, Cerambycidae) from east Paraná State (Brazil), with new geographic records. *Zootaxa* 4845(1): 1–25.
- Bates HW. 1866.** Contributions to an insect fauna of the Amazon Valley. Coleoptera: Longicornes. *The Annals and Magazine of Natural History* (3)17: 31–42.
- Bates HW. 1892.** Additions to the Longicornia of Mexico and Central America, with remarks on some of the previously recorded species. *The Transactions of the Entomological Society of London* 1892: 143–183.
- Bezark LG. 2013.** Distributional records and updates to type repositories for some New World Cerambycidae (Coleoptera, Cerambycidae). *Les Cahiers Magellanes* 11: 39–58.
- Bezark LG. 2019.** Synonymy and distribution records for Neotropical Cerambycidae (Coleoptera, Cerambycidae). *Les Cahiers Magellanes (NS)* 35: 73–80.
- Bezark LG. 2022.** A photographic Catalog of the Cerambycidae of the World. *New World Cerambycidae Catalog*. Available at <http://bezbycids.com/byciddb/wdefault.asp?w=n/> (Last accessed 13 January 2022.)
- Blackwelder RE. 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.
- Breuning S. 1973.** Lamières nouveaux ou peu connus du Muséum de Paris (Col., Cerambycidae). *Annales de la Société Entomologique de France (n.s.)* 9(3): 647–665.
- Bruch C. 1911.** Longicórnios argentinos nuevos o poco conocidos. II. *Revista del Museo de La Plata* 18: 164–178.
- Bruch C. 1912.** Catálogo sistemático de los Coleópteros de la República Argentina. Pars VIII. Familia Cerambycidae. *Revista del Museo de La Plata* 18: 179–226.
- Chemsak JA, Linsley EG. 1964.** Descriptions and records of Hesperophanini, with keys to the species of *Anatinomma* and *Amphelictus* (Coleoptera, Cerambycidae). *Journal of the Kansas Entomological Society* 37(3): 216–226.
- Chemsak JA, Linsley EG, Noguera FA. 1992.** Listados faunísticos de México. II. Los Cerambycidae y Disteniidae de Norteamérica, Centroamérica y las Indias Occidentales (Coleoptera). Universidad Nacional Autónoma; Mexico City. 204 p.
- CNC (Canadian National Collection). 2020.** Taxon search. Available at <https://www.cnc.agr.gc.ca/taxonomy/TaxonSearch.php/> (Last accessed 13 January 2022.)

- Di Iorio O. 1995.** The genus *Neoclytus* Thomson, 1860 (Coleoptera, Cerambycidae, Clytini) in Argentina. *Insecta Mundi* 9(3–4): 335–346.
- Galileo MHM, Martins UR. 2006.** Novos táxons de Apomecynini (Coleoptera, Cerambycidae, Lamiinae). *Papéis Avulsos de Zoologia* 46(2): 11–19.
- Galileo MHM, Martins UR, Moyses E. 2011.** Cerambycidae Sul-Americanos (Coleoptera). Suplemento 3. Museu de Ciências Naturais da Fundação Zoobotânica do RS; Porto Alegre. 101 p.
- García Morales LJ, García Jiménez J, Toledo VH, Cantú Ayala CM. 2015.** Lista anotada preliminar de los Cerambycidae (Coleoptera) de Tamaulipas, México. p. 97–119. In: Correa Sandoval A, Horta Veja JV, García Jiménez J, Barrientos Lozano L (eds.). *Biodiversidade Tamaulipeca*. Volume 2(2). Instituto Tecnológico de Ciudad Victoria; Ciudad Victoria. 276 p.
- Giesbert EF. 1987.** The genus *Pachymerola* Bates (Coleoptera: Cerambycidae). *The Pan-Pacific Entomologist* 63(1): 43–47.
- Giesbert EF. 1993.** New species of Cerambycinae (Coleoptera: Cerambycidae) from Guatemala and Chiapas, Mexico. *The Coleopterists Bulletin* 47(2): 137–149.
- ICZN (International Commission on Zoological Nomenclature). 1999.** *International Code of Zoological Nomenclature*; London. xxx + 306 p.
- Julio CEA, Giorgi JA, Monné MA. 2000.** Os tipos primários de Cerambycidae (Coleoptera) da coleção do Museu Nacional - Rio de Janeiro. *Publicações Avulsas do Museu Nacional* 84: 1–54.
- Lingafelter SW, Nearn EH, Tavakilian GL, Monné MA, Biondi M. 2014.** Longhorned woodboring beetles (Coleoptera, Cerambycidae and Disteniidae) primary types of the Smithsonian Institution. Smithsonian Institution Scholarly Press; Washington DC. 390 p.
- Martins UR. 1975.** A taxonomic revision of the world Smodicini (Coleoptera, Cerambycidae). *Arquivos de Zoologia* 26(4): 319–359.
- Martins UR, Galileo MHM. 2002.** Tribo Smodicini, p. 9–35. In: Martins UR (Org.), *Cerambycidae Sul-americanos* (Coleoptera), *Taxonomia*. Volume 4. Sociedade Brasileira de Entomologia; São Paulo. 265 p.
- Martins UR, Galileo MHM. 2008.** Novos táxons e novo registro em Hemilophini (Coleoptera: Cerambycidae: Lamiinae). *Revista Brasileira de Zoologia* 25(3): 547–554.
- Monné MA. 1993a.** Catalogue of the Cerambycidae (Coleoptera) of the Western Hemisphere. Part I. Subfamily Cerambycinae: Tribes Erlandiini, Smodicini, Oemini, Methiini, Xystrocerini, Dodecosini, Opsimini, Achrysonini and Pleiarthrocerini. Sociedade Brasileira de Entomologia; São Paulo. 76 p.
- Monné MA. 1993b.** Catalogue of the Cerambycidae (Coleoptera) of the Western Hemisphere. Part IV. Subfamily Cerambycinae: Tribe Elaphidionini. Sociedade Brasileira de Entomologia; São Paulo. 129 p.
- Monné MA. 1993c.** Catalogue of the Cerambycidae (Coleoptera) of the Western Hemisphere. Part VI. Subfamily Cerambycinae: Tribes Eligmodermiini, Callidiopini, Curiini, Graciliini, Obriini, Hyboderini, Eumichthini, Phlyctaenodini, Holopterini, Stenoderini, Pseudocephalini and Bimiini. Sociedade Brasileira de Entomologia; São Paulo. 47 p.
- Monné MA. 2005.** Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part I. Subfamily Cerambycinae. *Zootaxa* 946: 1–765.
- Monné MA. 2022a.** Catalogue of the Cerambycidae (Coleoptera) of the Neotropical region. Part II. Subfamily Cerambycinae. Available at <https://cerambycids.com/catalog/> (Last accessed 16 February 2022.)
- Monné MA. 2022b.** Catalogue of the Cerambycidae (Coleoptera) of the Neotropical region. Part II. Subfamily Lamiinae. Available at <https://cerambycids.com/catalog/> (Last accessed 16 February 2022.)
- Monné MA, Giesbert EF. 1994.** Checklist of the Cerambycidae and Disteniidae (Coleoptera) of the Western Hemisphere. Wolfsgarden Books; Burbank. 409 p.
- Monné MA, Hovore FT. 2006.** A Checklist of the Cerambycidae, or longhorned wood-boring beetles, of the Western Hemisphere. Rancho Dominguez; Bio Quip Publications. 393 p.
- Monné MA, Monné ML. 2016.** Checklist of Cerambycidae (Coleoptera) primary types of the Museu Nacional, Rio de Janeiro, Brazil, with a brief history of the collection. *Zootaxa* 4110(1): 1–90.
- Morvan O, Roguet J-P. 2013.** Inventaire des Cerambycidae de Guyane (Coleoptera), II. Supplement au Bulletin de liaison d'ACOREP 7: 3–44.
- Noguera FA, Chemsak JA. 1996.** Cerambycidae (Coleoptera). p. 381–409. In: Llorente Bousquets JE (ed.). *Biodiversidad taxonomía, y biogeografía de artrópodos de México: Hacia una síntesis de su conocimiento*. Volumen I. Universidad Nacional Autónoma de México; Mexico City. 660 p.
- Prosen AF. 1947.** Cerambycoidea de Santiago del Estero. *Revista de la Sociedad Entomológica Argentina* 13: 315–334.
- Tavakilian G, Chevillotte H. 2020.** Titan: base de données internationales sur les Cerambycidae ou Longicornes. Version 3.0. Available at <http://titan.gbif.fr/>. (Last accessed March 2022.)
- Thomson J. 1864.** *Systema cerambycidarum ou exposé de tous les genres compris dans la famille des cérambycides et familles limitrophes*. H. Dessain; Liège. 352 p.

Zajciw D. 1963. Novos longicórneos neotrópicos da tribo Clytini (Col., Cerambycidae, Cerambycinae). *Revista Brasileira de Biologia* 23(2): 171–179.

Received February 16, 2022; accepted April 10, 2022.

Review editor Oliver Keller.