# INSECTA LINDI A Journal of World Insect Systematics

# 0609

Description of a new species of Ochraethes Chevrolat, 1860, redescription of *Plocaederus mirim* Martins and Monné, 2002, and new geographical records for *Plocaederus* Dejean, 1835 (Coleoptera, Cerambycidae, Cerambycinae)

> James E. Wappes American Coleoptera Museum 8734 Paisano Pass San Antonio, TX 78255-3523, USA

# Antonio Santos-Silva

Museu de Zoologia Universidade de São Paulo CP 188, 90001-970 São Paulo, SP, Brazil

# Juan Pablo Botero

Museu de Zoologia Universidade de São Paulo CP 188, 90001-970 São Paulo, SP, Brazil

Date of issue: February 16, 2018

James E. Wappes, Antonio Santos-Silva and Juan Pablo Botero Description of a new species of *Ochraethes* Chevrolat, 1860, redescription of *Plocaederus mirim* Martins and Monné, 2002, and new geographical records for *Plocaederus* Dejean, 1835 (Coleoptera, Cerambycidae, Cerambycinae) Insecta Mundi 0609: 1–8

ZooBank Registered: LSID: urn:lsid:zoobank.org:pub:224E0DBA-9E6F-4920-8E63-F2ECBF61B25B

#### Published in 2018 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

Head Layout Editor: Robert G. Forsyth

Editorial Board: J. H. Frank, M. J. Paulsen, Michael C. Thomas

 ${\bf Review\ Editors:}$  Listed on the Insecta Mundi webpage

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

CSIRO, Canberra, ACT, Australia Museu de Zoologia, São Paulo, Brazil Agriculture and Agrifood Canada, Ottawa, ON, Canada The Natural History Museum, London, UK Muzeum i Instytut Zoologii PAN, Warsaw, Poland National Taiwan University, Taipei, Taiwan California Academy of Sciences, San Francisco, CA, USA

Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA

Field Museum of Natural History, Chicago, IL, USA

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, CDROM ISSN 1942-1362) in PDF format

Printed CD or DVD mailed to all members at end of year. 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/

Layout Editor for this article: Robert G. Forsyth

Description of a new species of *Ochraethes* Chevrolat, 1860, redescription of *Plocaederus mirim* Martins and Monné, 2002, and new geographical records for *Plocaederus* Dejean, 1835 (Coleoptera, Cerambycidae, Cerambycinae)

# James E. Wappes

American Coleoptera Museum 8734 Paisano Pass San Antonio, TX 78255-3523, USA wappes@earthlink.net

# Antonio Santos-Silva

Museu de Zoologia Universidade de São Paulo CP 188, 90001-970 São Paulo, SP, Brazil toncriss@uol.com.br

#### Juan Pablo Botero

Museu de Zoologia Universidade de São Paulo CP 188, 90001-970 São Paulo, SP, Brazil jp\_bot@yahoo.com

**Abstract.** A new Mexican species of *Ochraethes* Chevrolat, 1860 (Coleoptera, Cerambycidae, Cerambycinae, Clytini) is described: *Ochraethes skillmani* Wappes, Santos-Silva and Botero. *Plocaederus mirim* Martins and Monné, 2002 (Cerambycini) is redescribed and its female is figured for the first time. New geographical records in *Plocaederus* Dejean, 1835 are also provided.

Key words. Cerambycini, Clytini, range extension, taxonomy.

# Introduction

Ochraethes was described by Chevrolat (1860) as a subgenus of Clytus Laicharting, 1784. He included 12 species in the group but did not designate a type species. Later, Thomson (1861) elevated Ochraethes to genus level and designated O. circuliferus (Chevrolat, 1860) as type species (now in synonymy with O. sommeri (Chevrolat, 1835)). Ochraethes is currently composed of 22 species, with one species, Ochraethes citrinus (Chevrolat, 1860) recorded for south Texas, in the United States, and others widely distributed in Mexico and Central America (Monné 2017). A new species of Ochraethes is described below.

*Plocaederus* was erected by Dejean (1835) for the species *P. plicatus* (Olivier, 1790), and at the same time he proposed seven additional names, but without descriptions to support them. Thus, Dejean's names were "nomina nuda" (and unavailable), which resulted in *P. plicatus* as the type species by monotypy.

Martins and Monné (2002) revised the South American species of *Plocaederus*, described new species, and provided a key. Subsequently, Martins and Galileo (2010) described *P. dozieri*, known from Trinidad and Tobago. *Plocaederus* currently includes 17 species, 15 being distributed in South America, one, *P. yucatecus* (Chemsak and Noguera, 1997), in Mexico and Central America, and one, *P. dozieri* Martins and Galileo, 2010, in Trinidad and Tobago. *Plocaederus mirim* Martins and Monné, 2002, was described from a single male specimen. A re-description of the male and the first description of the female based on additional material are provided, as well as additional distribution records for members of the genus.

## **Materials and Methods**

Photographs were taken with a Canon EOS Rebel T3i 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 a measuring ocular Hensoldt/Wetzlar-Mess 10 in the Leica MZ6 stereomicroscope, also used in the study of the specimens.

The acronyms used in the text are as follows:

ACMT American Coleoptera Museum (James Wappes), San Antonio, Texas, USA

FSCA Florida State Collection of Arthropods, Gainesville, Florida, USA

FWSC Frederick W. Skillman Jr., Pearce, Arizona, USA

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

# **Taxonomy**

## Clytini

# Ochraethes skillmani Wappes, Santos-Silva and Botero, sp. nov. (Fig. 1–4)

**Description. Female.** Integument mostly black, shining; mouthparts dark reddish brown; tarsal claws dark reddish brown with dark brown areas; distal edge of abdominal ventrites I–IV with narrow yellowish-brown band.

**Head.** From finely, densely punctate except small, smooth, central area close to clypeus; with thick pale yellow (more whitish depending on angle of light source), setae on each side near clypeus (nearly disappears on left side, likely rubbed or abraded); with a few long, erect, fine yellowish-brown setae (yellower depending on angle of light source). Vertex finely, abundantly, partially confluently punctate except nearly smooth, sub-diamond shaped area between upper eye lobes; with thick pale yellow setae laterally (more whitish depending on angle of light source), denser between posterior margin of upper eye lobes and prothoracic margin, almost absent centrally; with a few long, erect, fine yellowish-brown setae. Area behind upper eye lobes with abundant, thick pale-yellow setae (more whitish depending on angle of light source); with a few long, erect, fine yellowish-brown setae close to eye. Area behind lower eye lobes with short, sparse, thick pale-yellow setae close to eye on area closer to upper eye lobe, gradually, finer, sparser, whitish toward ventral side; remaining surface nearly glabrous. Gena, close to lower eye lobes, minutely, abundantly punctate, smooth toward apex; with sparse, moderately thick yellowish white setae close to lower eye lobe, glabrous toward apex. Antennal tubercles, in frontal view, slightly elevated and acuminate at apex; finely, densely punctate, punctures gradually finer, sparser toward smooth narrow distal area; nearly glabrous. Median groove distinct from clypeus to area near prothoracic margin. Postclypeus finely, abundantly punctate on wide central area, smooth laterally; with a few thick, pale yellow setae, with long, erect, fine yellowish-brown setae interspersed laterally. Labrum coplanar with anteclypeus at basal half, inclined at distal half; minutely, moderately sparsely punctate; with long, erect, fine, sparse yellowish-brown setae laterally. Distance between upper eye lobes 1.17 times length of scape; in frontal view, distance between lower eye lobes 1.29 times length of scape. Antennae 0.81 times elytral length, apex slightly surpassing basal third of elytra. Scape, moderately coarsely, abundantly punctate, sparser toward apex; nearly glabrous dorsally, with fine, sparse yellowish setae laterally and ventrally. Pedicel and antennomeres III-X with long, erect, thick brown setae ventrally (especially toward inner side); antennomeres III-VIII with short, thick white setae (denser on V-VII); antennomeres IX-XI minutely yellowish-brown pubescent with fine, longer yellowish white setae interspersed. Antennomeres III-V elongate, slightly widened toward apex; antennomeres VI-VII strongly widened toward apex; antennomeres VIII-X sub-rectangular; antennomere XI wide, rounded at apex. Antennal formula (ratio) based on antennomere III: scape = 1.48; pedicel = 0.52; IV = 0.82; V = 0.87; VI = 0.87; VII = 0.87; VIII = 0.78; IX = 0.74; X = 0.65; XI = 1.04.

Thorax, Prothorax slightly wider than long, somewhat rounded laterally. Pronotum moderately finely reticulate-punctate; with thick, pale yellow setae close to base laterally and distal margin (more yellowishbrown depending on angle of light source); with thick, pale yellow pubescence on sides of central area (sparser than on basal and distal areas); remaining surface nearly glabrous except some areas with minute, decumbent whitish setae and a few long, erect, fine yellowish-brown setae interspersed. Sides of prothorax with sculpturing as on pronotum; with wide, pale yellow pubescent band close to basal margin (fused with lateral pubescence on pronotum), sparse, pale yellow pubescent band at about center of distal half, also fused with that on central side of pronotum, and narrow, pale yellow pubescent band close to distal margin, fused with that on pronotum; remaining surface nearly glabrous. Prosternum with white pubescence not obscuring integument. Center of mesoventrite and mesoventral process nearly glabrous; sides of mesoventrite with dense, pale vellow pubescence; mesanepisternum and mesepimeron with dense, pale yellow pubescence, sparse to nearly absent and some areas glabrous. Metanepisternum and sides of metaventrite with dense, pale yellow pubescence, gradually sparser, whiter toward central area; metaventrite with long, erect, sparse, fine yellowish white setae centrally. Scutellum finely, moderately sparsely punctate; glabrous except sparse, thick white setae close to margins. Elytra. Finely, densely punctate throughout; with thick, abundant, decumbent yellowish-brown setae (more pale yellow depending on angle of light source) with similar white setae interspersed, except on circum-scutellar area with a few thick, decumbent white setae, and transverse, wide band after middle, with sparser setae from near epipleura to near suture; with fine, long, erect yellowish white setae throughout (more yellow depending on angle of light source); apex truncate. Legs. Femora with decumbent yellowish white setae not obscuring integument, setae distinctly sparser on outer side. Tibiae with yellowish-white setae, gradually bristly toward apex, setae distinctly sparser on outer-side. Metatarsomere I 1.2 times longer than II-III together.

**Abdomen.** Ventrites with dense, pale yellow pubescence laterally, gradually sparser, whiter toward center. Apex of ventrite V slightly rounded.

Dimensions in mm (holotype female). Total length, 9.60; prothoracic length, 1.95; basal prothoracic width, 1.80; distal prothoracic width, 1.65; widest prothoracic width, 2.10; humeral width, 2.90; elytral length, 6.60.

**Type material.** Holotype female: MEXICO, *Oaxaca*: MX 175 (Portillo del Rayo, on flowers), 20.X.2005, F. Skillman & B. Eya col. (FSCA; formerly in FWSC).

**Etymology.** Named for Fred Skillman, one of the collectors of the holotype.

**Remarks.** Among the species of *Ochraethes*, *O. skillmani* sp. nov. is most similar to *O. brevicornis* (Chevrolat, 1860) (Fig. 5), but differs as follows: body stout; pronotum with sparser pubescence centrally; elytra without contrasting pubescent band along suture, but with a sparsely pubescent transverse band at base of posterior third. In *O. brevicornis* (Fig. 5), the body is slender; the pronotum is distinctly pubescent throughout; the elytra have a contrasting pubescent band along suture, but lack a sparsely pubescent transverse band.

#### Cerambycini

# *Plocaederus mirim* Martins and Monné, 2002 (Fig. 6–15)

**Redescription**. **Male** (Fig. 6–14). Integument mostly black; mouthparts yellowish-brown, yellower at apex of basal palpomeres; antennae increasingly reddish brown toward distal segments; elytra orange brown with humerus and along epipleural margins darker; tibiae gradually darker brown toward apex; tarsomeres brown.

**Head.** Frontal plate of frons moderately coarsely, confluently punctate, more so along central area; remaining surface finely rugose-punctate with low, rounded carina laterally from antennal tubercles to clypeus (widened toward clypeus); with minute, sparse grayish white setae, sparser on frontal plate.

Area between antennal tubercles distinctly depressed centrally along median groove, tumid laterally; tumid area finely, abundantly punctate, with minute, sparse grayish white setae. Area between upper eye lobes carina-shaped centrally, forming gibbosity toward antennal tubercles, but flattened toward distal margins, confluently punctate close to eyes; with minute, sparse grayish white setae close to eyes. Remaining surface of vertex close to eyes nearly smooth, finely rugose toward prothoracic margin; rugose area with minute, sparse grayish white setae. Area behind upper eye lobes finely rugose-punctate; area behind lower eye lobes finely, transversely striate, with fine punctures interspersed, except smooth area close to eye; entire surface nearly glabrous. Genae finely, abundantly punctate toward dorsal surface, coarser toward ventral side, smooth near apex; with minute, sparse grayish white setae. Postclypeus finely, abundantly punctate on wide central area (less so centrally), smooth laterally; with minute, sparse grayish white setae, with long, erect yellowish setae interspersed laterally. Labrum coplanar with anteclypeus at basal half, inclined at distal half; finely, sparsely punctate on basal half; with a few minute grayish white setae interspersed with long, thick, erect yellowish setae on basal area, with fringe of yellowish setae distally. Antennal tubercles smooth, glabrous, except frontal surface finely punctate and minute, sparse grayish white setae basally. Median groove distinct only between antennal tubercles and upper eye lobes. Distance between upper eye lobes 0.14 times length of scape; in frontal view, distance between lower eve lobes 0.83 times length of scape. Antennae 2.5 times elvtral length, reaching elytral apex at basal area of antennomere VIII. Scape coarsely, densely punctate, except smooth distal area, with distinct, narrow, transverse cicatrix near apex (Fig. 11); with minute, sparse yellowish white setae. Antennomere III slightly widened distally (apex nodose), sensorial area occupying small distal area; antennomeres IV-X slightly expanded distally (more so in IV), with outer apex angular, obtusely in IV, acutely from V; sensorial area of antennomere IV occupying distal fourth; sensorial area of antennomere V occupying distal half; sensorial area of remaining antennomeres complete from base to apex. Antennal formula (ratio) based on antennomere III: scape = 0.61; pedicel = 0.15; IV = 0.69; V = 0.93; VI = 0.88; VII = 0.91; VIII = 0.85; IX = 0.85; X = 0.86; XI = 1.27.

Thorax. Prothorax 1.1 times wider than long (including lateral tubercles); lateral tubercle placed at about middle, apex blunt; sides irregular, slightly convergent from lateral tubercle toward distal constriction, parallel-sided from base to lateral tubercle. Pronotum coarsely, transversely striate except for narrow band adjacent to basal and distal margins; finely, abundantly punctate; with minute, sparse grayish white setae throughout, slightly denser basally. Sides of prothorax rugose-punctate on wide central area, nearly smooth on basal and distal areas; with minute, sparse grayish white setae. Prosternum with two transverse sulci, one at about middle, another near distal area; area between procoxal cavities and middle sulci finely, abundantly punctate; area between sulci and between distal sulci and distal margin finely rugosely-punctate; with sparse white pubescence not obscuring integument. Distal area of prosternal process forming distinct rounded tubercle. Ventral side of meso- and metathorax with white pubescence not obscuring integument. Mesoventral process deeply emarginate at apex, not tuberculate dorsally. Scutellum with white pubescence not obscuring integument. Elytra. Coarsely, densely punctate, gradually finer toward apex; apex obliquely truncate, unarmed; with white pubescence not obscuring integument. Legs. Femora densely punctate, distinctly coarser on profemora; with white pubescence not obscuring integument; pro- and mesofemora fusiform; metafemora subcylindrical. Tibiae with yellowish white pubescence not obscuring integument on basal half, gradually with longer, brownish yellow, dense pubescence toward apex of ventral side.

**Abdomen.** Ventrites finely, abundantly punctate; with white pubescence not obscuring integument; apex of ventrite V sub-truncate.

**Description. Female** (Fig. 15). It differs from males by the shorter antennae (1.3 times elytral length, reaching elytral apex at basal third of antennomere IX).

Dimensions in mm (holotype male/ males/ females). Total length, 11.20/14.10-15.20/13.20; prothoracic length, 2.40/3.00-3.25/2.80; basal prothoracic width, 2.30/2.85-3.00/2.50; distal prothoracic width, 2.05/2.50-2.75/2.30; widest prothoracic width (between apices of lateral tubercles), 2.80/3.45-3.70/3.10; humeral width, 3.00/3.80-4.05/3.55; elytral length, 6.90/8.80-9.45/7.75.

Material examined. BRAZIL, Amazonas (Rio Urubu, Rodovia AM010, Km 246), holotype male, 12–14.

VII.1982, Penny, Arias & Adams col, "Armadilla de luz negra) (INPA). FRENCH GUIANA: Road to Kaw (pk 31), 2 males, 1 female, 23–25. VIII.1995, J. E. Wappes col. (1 male, 1 female, ACMT; 1 male, MZSP).

**Remarks.** The two males from French Guiana have the antennae 2.5 times longer than elytra and the scape is slightly longer than twice its distal width. In the holotype male (Fig. 6–9), the antennae are 2.2 times longer than elytra and the scape is shorter than twice its distal width. However, as no other differences were found between the three males examined, these small differences may simply be the result of the smaller size of the holotype. As the original description of *P. mirim* was based on a single small male, we are re-describing the male, based on the two larger males from French Guiana, as well as detailing the only reliable difference found between the sexes.

# **New Geographical Records**

## Plocaederus confusus Martins and Monné, 2002

Geographical distribution. Brazil (Ceará, Alagoas, Sergipe, Mato Grosso, Goiás, Maranhão, Mato Grosso do Sul, Bahia, Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Paraná) and Bolivia (Santa Cruz). A new Brazilian state record from Piauí is added.

**Specimens examined.** Brazil, *Piauí*: Piracuruca (P.N. de Sete Cidades, Posto do ICMBio, 4°05′57″S, 41°42′34″W), female, 11–14.XII.2012, F. Limeira-de-Oliveira, J.S. Pinto Júnior col. (MZSP).

#### Plocaederus inconstans (Gounelle, 1913)

Geographical distribution. Brazil (Santa Catarina, Rio Grande do Sul), Paraguay, Argentina (Santiago del Estero, Chaco, Misiones, Entre Ríos), and Uruguay. A new state record from Parana (Brazil) is added.

**Specimens examined.** Brazil, *Parana*: Rolandia, female, X.1953, no collector indicated (MZSP); female, XII.1953, Dirings col. (MZSP).

#### Plocaederus rusticus (Gounelle, 1909)

**Geographical distribution.** Brazil (Amazonas, Mato Grosso, Goiás), French Guiana, and Bolivia (Santa Cruz). New state records from Mato Grosso do Sul and São Paulo (Brazil) are added.

Specimens examined. Brazil, *Mato Grosso do Sul*: Selvíria (Unesp farm, 20°22′57″S, 51°24′41″W), male, 5.X.2013, Leonel, F.L.L. col (MZSP); *São Paulo*: Luiz Antonio (Estação Ecológica Jatai, 21°36′47″S, 47°43′43″W, "Mata Ciliar"), female, VIII.2007, Lara & Perioto col. (MZSP); female, IX.2007, Lara & Perioto col. (MZSP).

# Acknowledgments

Special thanks to Fred Skillman for providing the specimen of the new *Ochraethes* for study. The presubmission reviews by Robert Androw, Pittsburgh, PA and Don Thomas, Weslaco, TX did much to improve the manuscript and are very much appreciated by the authors.

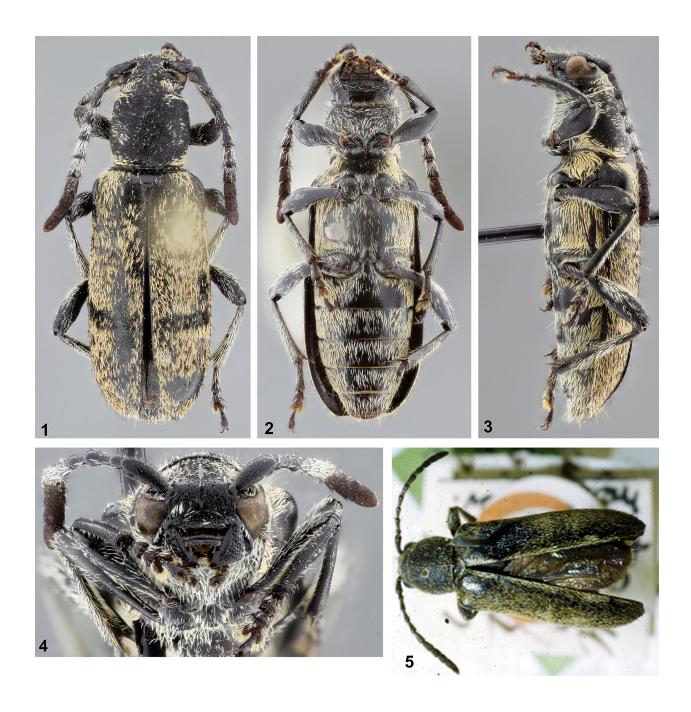
# **Literature Cited**

**Bezark, L. G. 2017.** A photographic catalog of the Cerambycidae of the New World. Available at https://apps2.cdfa.ca.gov/publicApps/plant/bycidDB/wsearch.asp?w=n. (Last accessed November 2017.)

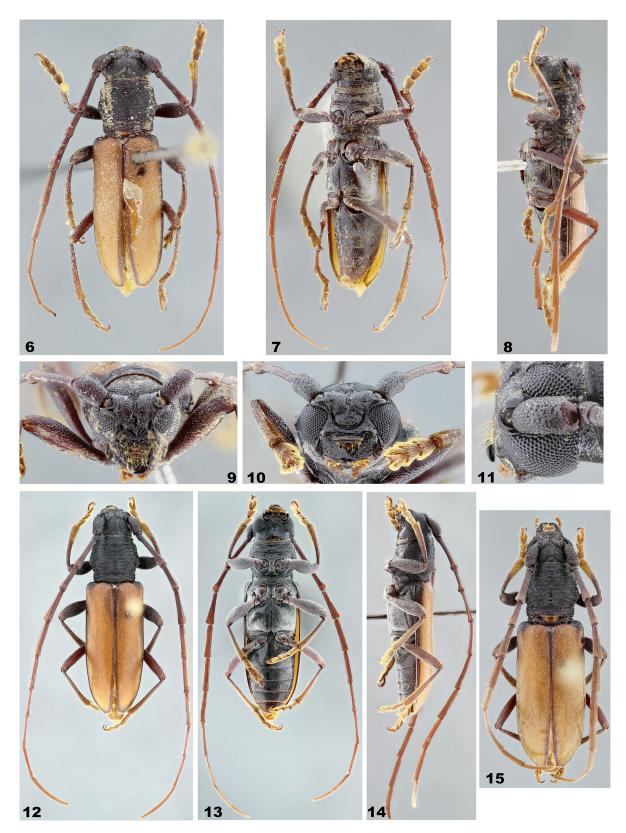
Chevrolat, L. A. 1860. Description d'espèces de *Clytus* propres au Mexique. Annales de la Société Entomologique de France 3(8): 451–504.

- **Dejean, P. F. M. A. 1835**. Livraison 4. p. 257–360. *In*: P. M. F. A. Dejean. Catalogue des coléoptères de la collection de M. le Comte Dejean. Méquignon-Marvis; Paris. 443 p.
- Martins, U. R., and M. H. M. Galileo. 2010. Novo registro e novas espécies de Cerambycinae (Coleoptera, Cerambycidae) de Trinidad and Tobago e da Venezuela. Revista Brasileira de Entomologia 54(4): 565–570.
- Martins, U. R., and M. A. Monné. 2002. Tribo Cerambycini, p. 145–248. *In*: U. R. Martins (org.). Cerambycidae Sul-Americanos (Coleoptera). Taxonomia. v. 4. Sociedade Brasileira de Entomologia; São Paulo. iv + 265 p.
- Monné, M. A. 2017. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical region. Part I. Subfamily Cerambycinae. (Available at http://cerambyxcat.com/. Last accessed November 12, 2017.)
- **Thomson, J. 1861.** Tribu. Cerambycitae. p. 129–396. *In*: J. Thomson. Essai d'une classification de la famille des cérambycides et matériaux pour servir a une monographie de cette famille. Chez l'auteur et au Bureau du Trésorier de la Société entomologique de France; Paris. 396 p.

Received December 2, 2017; accepted January 21, 2018. Review editor Michael L. Ferro.



Figures 1–5. Ochraethes spp. 1–4, Ochraethes skillmani sp. nov., holotype female. 1) Dorsal habitus. 2) Ventral habitus. 3) Lateral habitus. 4) Head, frontal view. 5) Ochraethes brevicornis, holotype female, dorsal habitus (from Bezark 2017).



Figures 6–15. *Plocaederus mirim*. 6–9, holotype male. 6) Dorsal habitus. 7) Ventral habitus. 8) Lateral habitus. 9) Head, frontal view. 10–14, Male. 10) Head, frontal view. 11) Scape showing apical cicatrix. 12) Dorsal habitus. 13) Ventral habitus. 14) Lateral habitus. 15) Female, dorsal habitus.