University of Nebraska - Lincoln DigitalCommons@University of Nebraska - Lincoln

Insecta Mundi

Center for Systematic Entomology, Gainesville, Florida

2015

Two new species of *Corimbion* Martins from Bolivia (Coleoptera: Cerambycidae: Cerambycinae: Neoibidionini)

Antonio Santos-Silva Universidade de São Paulo, toncriss@uol.com.br

Maria Helena M. Galileo *Researcher of CNPq*, galileomh@yahoo.com

James E. Wappes American Coleoptera Museum, San Antonio, TX, wappes@earthlink.net

Follow this and additional works at: http://digitalcommons.unl.edu/insectamundi
Part of the Ecology and Evolutionary Biology Commons, and the Entomology Commons

Santos-Silva, Antonio; Galileo, Maria Helena M.; and Wappes, James E., "Two new species of *Corimbion* Martins from Bolivia (Coleoptera: Cerambycidae: Cerambycinae: Neoibidionini)" (2015). *Insecta Mundi*. 963. http://digitalcommons.unl.edu/insectamundi/963

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.

INSECTA MUNDI A Journal of World Insect Systematics

0454

Two new species of *Corimbion* Martins from Bolivia (Coleoptera: Cerambycidae: Cerambycinae: Neoibidionini)

> Antonio Santos-Silva Museu de Zoologia Universidade de São Paulo São Paulo, SP, Brazil

Maria Helena M. Galileo

PPG Biologia Animal Departamento de Zoologia Universidade Federal do Rio Grande do Sul Porto Alegre, RS, Brazil

> James E. Wappes American Coleoptera Museum 8734 Paisano Pass San Antonio, Texas, U.S.A.

Date of Issue: December 18, 2015

Antonio Santos-Silva, Maria Helena M. Galileo, and James E. Wappes Two new species of *Corimbion* Martins from Bolivia (Coleoptera: Cerambycidae: Cerambycinae: Neoibidionini) Insecta Mundi 0454: 1–7

ZooBank Registered: urn:lsid:zoobank.org:pub:A5867F04-C60F-449A-9CAE-46300352F389

Published in 2015 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, CAB Abstracts, etc. **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.

Chief Editor: Paul E. Skelley, e-mail: insectamundi@gmail.com Assistant Editor: David Plotkin, e-mail: insectamundi@gmail.com Head Layout Editor: Eugenio H. Nearns Editorial Board: J. H. Frank, M. J. Paulsen, Michael C. Thomas Review Editors: Listed on the Insecta Mundi webpage

Manuscript Preparation Guidelines and Submission Requirements available on the Insecta Mundi webpage at: http://centerforsystematicentomology.org/insectamundi/

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: Michael C. Thomas

Two new species of *Corimbion* Martins from Bolivia (Coleoptera: Cerambycidae: Cerambycinae: Neoibidionini)

Antonio Santos-Silva Museu de Zoologia Universidade de São Paulo São Paulo, SP, Brazil toncriss@uol.com.br

Maria Helena M. Galileo PPG Biologia Animal Departamento de Zoologia Universidade Federal do Rio Grande do Sul Porto Alegre, RS, Brazil galileomh@yahoo.com

James E. Wappes American Coleoptera Museum 8734 Paisano Pass San Antonio, Texas, U.S.A. wappes@earthlink.net

Abstract. Two new species of *Corimbion* Martins, 1970 are described from Bolivia: *Corimbion kuckartzi* and *Corimbion ledezmae*. A previous key to the South American species of *Corimbion* (Martins 2009) is herein modified to include the new species. Dorsal, ventral and lateral habitus illustrations, as well as variation in color and dorsal pattern for *C. kuckartzi*, are also presented.

Resumen. Dos nuevas especies de *Corimbion* Martins, 1970 son descritas de Bolivia: *Corimbion kuckartzi* y *Corimbion ledezmae*. Una clave anterior para las especies sudamericanas de *Corimbion* (Martins 2009) es modificada para la inclusión de las dos nuevas especies. Son presentadas ilustraciones del habitus dorsal, ventral y lateral, así como la variación en el color y patrón dorsal para *C. kuckartzi*.

Key Words. Neotropical region, South America, species key, taxonomy.

Introduction

Currently, *Corimbion* Martins, 1970 encompasses eight species, seven distributed in South America and *C. martinsi* Giesbert, 1998 occurring in Central America (Monné 2015). *Corimbion nigroapicatum* Martins, 1970 until now has been the only species recorded in the genus from Bolivia.

Material and Methods

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

The collection acronyms used in this study are as follows:

- ACMT American Coleoptera Museum (James E. Wappes), San Antonio, Texas, USA;
- FWSC Fred W. Skillman collection, Pearce, Arizona, USA;
- MNKM Museo de Historia Natural, Noel Kempff Mercado, Santa Cruz de la Sierra, Bolivia;
- MZSP Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil.

Key to South American species of Corimbion (modified from Martins, 2009)

1.	Elytral apices emarginate, with outer angle unarmed
2(1).	Elytra with basal and dorsal regions pale, similarly colored, pronotum much darker than elytra. Bolivia
3(2).	Elytra dark reddish with small apical region black (see photograph of holotype at Bezark 2015); pronotum without pubescence. Venezuela <i>C. caliginosum</i> Martins Elytra with anterior and posterior halves separated by light-colored transverse band with additional elongate light-colored spot, placed centrally, in anterior half of each elytron
4(3). —	Scape piriform, with dorsal depression on basal half (Fig. 11); distal half of elytra dark brown. Bolivia
5(1). —	 Head (at least on frons) and scape dark, pronotum and basal 4/5 of elytra from orange to reddish orange, with distal 1/5, including apices, black
6(5). —	Pedicel, antennomeres III-IV, apices of femora and tibia black; each elytron with three rows of piliferous punctures. Bolivia
7(5).	Scape darker than other antennomeres, basal half of elytra with dark band along suture; distal half of elytra without transverse, dark central band. Brazil (Bahia to Paraná)
_	Scape and remaining antennomeres similarly colored; basal half of elytra without dark band along suture; distal half of elytra with wide, transverse, dark central band. Venezuela

Corimbion kuckartzi Santos-Silva, Galileo and Wappes, new species (Fig. 1–7)

Diagnosis. Corimbion kuckartzi is similar to C. vulgare Martins, 1970, but differs as follows: typically, each elytron with a clearly evident heavy single brown fascia on basal half, less commonly the fascia is reduced to a thin line or small dark spots, and outer angle of each elytron acute but not spined. In C. vulgare the elytral color pattern is also variable, but at least has a wide, dark band on distal half, and the outer angle of each elytron distinctly spined. From C. supremum Martins, 1970 it also differs by the outer angle of each elytron lacking a spine (spined in C. supremum), and by the brown fascia on elytra not extending along suture to base or prolonged along suture to apex (in C. supremum the fascia extends to the base and is prolonged to apex (see photographs of paratypes at Bezark 2015).

Description. Holotype male (Fig. 1-4). The following brown (with some areas more reddish or darker): head; scape; prothorax (except base of prosternum centrally); mesosternum (except for central region close to mesosternal process); metasternum (except for central area close to metacoxae); inverted V-

shaped fascia (includes both elytrons) on basal 1/2 of elytra, includes suture but not lateral margins; distal 1/3 of mesofemoral club; metafemoral club and abdominal ventrites. The following reddish brown: base of prosternum centrally; area of mesosternum close to mesosternal process; mesosternal process. The following yellowish to reddish brown: pedicel; antennomeres III–XI (distinctly yellowish toward distal segments); profemora; most of mesofemora; peduncle of metafemora; tibiae; tarsi; central area of metasternum close to metacoxae. Remaining surface area of elytra yellowish brown.

Head. Frons densely, confluently, finely punctate; with sparse, very short, yellowish setae centrally, distinctly denser close to base of antennal tubercles and eyes. Area between antennal tubercles with sculpture and setae as on central area of frons. Area between apex of antennal tubercles and prothorax smooth centrally, abundantly finely punctate laterally; with sparse short yellowish setae interspersed by scattered long setae on punctate area. Area behind upper eye lobes abundantly finely punctate on wide, oblique band from apex of lobe to margin of prothorax; remaining surface smooth; with moderately abundant short yellowish setae on punctate area, remaining region glabrous. Area behind lower eye lobes tumid, smooth close to eye, sparsely finely punctate on remaining surface; with very sparse short yellowish setae. Genae abundantly finely punctate close to eye, smooth close to apex; with sparse short setae on punctate region. Submentum abundantly transversely striate, with fine punctures interspersed; with sparse short yellowish setae interspersed by longer setae. Antennal tubercles toward apex acute, in frontal view horn-shaped; abundantly finely punctate at base, gradually sparser toward apex; with sparse short yellowish setae. Longitudinal sulcus distinct from clypeus to posterior level of antennal tubercles. Distance between upper eye lobes 0.55 times length of scape; in frontal view, distance between lower eye lobes 0.85 times length of scape. Antennae 2.9 times elytral length; reaching elytral apex at basal 1/4 of antennomere VII. Scape abundantly finely punctate on basal 1/2, gradually sparser toward apex; with narrow but distinct longitudinal sulcus on basal 1/3 of dorsal surface; with sparse short yellowish setae interspersed with long setae. Antennomere III-IV wide; remaining antennomeres gradually narrower distally; antennomeres III-IV with sparse long vellowish setae on inner side ventrally; antennal formula based on antennomere III: scape = 0.52; pedicel = 0.18; IV = 0.77; V = 0.96; VI = 1.02; VII = 1.12; VIII = 0.91; IX = 0.83; X = 0.67; XI = 0.94.

Thorax. Prothorax 1.65 times longer than wide; with distinct constrictions after basal 1/6 and before anterior 1/5. Pronotum with moderately distinct longitudinal gibbosity on each side of anterior 1/2, and distinct, carina-shaped tubercle centrally; with white pubescence not obscuring surface, more distinct (depending on angle of light source) on some areas, distinctly sparse on three longitudinal regions: one centrally and one on each side; with sparse, very coarse shallow punctures, each puncture bearing a long seta. Sides of prothorax with white pubescence. Prosternum with wide band of white pubescence on each side of basal 1/2; anterior 1/2 transversely striate laterally in basal region, remaining surface nearly smooth; areas outside of pubescent bands with very sparse short white setae. Prosternal process with horizontal surface distinctly narrowed toward apex; narrowest area about 1/4 as wide as basal width of profemoral peduncle. Mesosternum finely pubescent. Metepisterna with moderately dense white pubescence gradually becoming sparser toward center. Scutellum with dense white pubescence. Elytra abundantly coarsely, very shallowly punctate throughout, sparsely interspersed with moderately fine punctures, each puncture bearing a long seta; apex shallowly emarginate.

Abdomen. Ventrites I–IV with whitish pubescence, slightly denser laterally, sparsely interspersed with long setae. Ventrite V with whitish pubescence throughout; apex slightly rounded and broadly truncate.

Legs. Femora with whitish pubescence dorsally and laterally, sparsely interspersed with long setae, glabrous ventrally.

Female (Fig. 5-7). Primarily differs from male by shorter antennae: 2.1 times elytral length, reaching apex at distal third of antennomere VIII.

Variation. Primarily in integument color or reduced elytral pattern with inverted V-shaped fascia on elytra absent or greatly reduced (sometimes only a small oblique macula or spots remain); scape from yellowish brown to brown; antennomeres entirely yellowish; frons distinctly reddish brown; metasternum mostly yellowish brown; mesofemoral club mostly brown, almost entirely yellowish brown, or en-

tirely yellowish; part of metafemoral peduncle and entire club brown; head and prothorax almost entirely reddish brown; abdominal ventrites reddish brown (sometimes with base of ventrite I yellowish brown).

Dimensions (mm). Holotype male/ paratype males (2) / paratype females (4). Total length (including mandibles) 10.20/7.60-11.30/9.53-13.50; prothoracic length 2.30/1.65-2.45/1.95-2.55; anterior prothoracic width 1.30/0.90-1.35/1.20-1.58; basal prothoracic width 1.35/0.95-1.40/1.13-1.58; humeral width 2.00/1.45-2.20/1.73-2.32; elytral length 6.10/5.00-7.10/6.30-9.00.

Type material. Holotype male from BOLIVIA, *Santa Cruz*: 4 km N Bermejo (Refugio los Volcanes; 18°06'S / 63°36'W; 1045-1350 m), 11-17.XII.2012, Wappes & Skillman col. (MNKM). Paratypes (6) – male, same data as holotype (ACMT); male, same data as holotype except for 4-9.XII.2013 (MZSP); 2 females, same data as holotype except for 31.X-3.XI.2013, and Wappes & Kuckartz col. (ACMT, MZSP); *Santa Cruz*, 20 km N Camiri (Rd. to Eyti, 1,250 m, 6-8 km E Hwy 9, 19°52'S / 63°29'W), 2 females, 5,6,10.X.2012, Wappes, Bonaso, Skillman col. (ACMT, FWSC).

Etymology. We are pleased to name this new species for Kenneth Paul Kuckartz, one of the collectors of specimens in the type series as well as a long-time friend and collecting partner of the third author.

Corimbion ledezmae Santos-Silva, Galileo and Wappes, new species

(Fig. 8–11)

Diagnosis. *Corimbion ledezmae* is similar to *C. balteum* Martins, 1970, but differs as follows: Scape pyriform with distinct depression dorsally on basal half; antennae dark; elytra with distal area darkbrown; femora slender. In *C. balteum* the scape is slender and lacks a dorsal depression on basal half, the antennae are distinctly light, the distal area of the elytra are reddish brown, and the femora are thicker.

Description. Holotype female. Integument primarily reddish to dark brown with the following dark brown: head; scape; nearly anterior 1/2 of prothorax; narrow margin bordering oblique light band, border surrounding elongate light-colored fascia on basal half; distal 1/3 of elytra after oblique light band; abdominal ventrites; tibiae. The following reddish brown: antennomeres III–XI (distal three segments somewhat lighter); nearly basal 1/2 of prothorax; mesosternum; mesepisterna; mesepimera; metasternum; metepisterna; elytra from oblique light band to base and humerus (outside of dark brown edge bordering lighter colored fascia); femora. The following whitish yellow: oblique band on distal 1/2 of each elytron extending from lateral margin to suture and an elongate fascia located centrally on basal 1/2.

Head. Frons with large depression on each side; abundantly finely striate-punctate from clypeus to near base of antennal tubercles, except for moderately finely punctate, somewhat depressed lateral area under antennal tubercles; with sparse short yellowish white setae close to eyes and under antennal sockets. Area between antennal tubercles abundantly, moderately finely punctate, except for smooth longitudinal sulcus. Area between antennal tubercles to about middle of vertex microsculptured, glabrous on subtriangular region (narrowed toward center of vertex); sides of latter abundantly, moderately finely punctate, with sparse short setae interspersed with scattered long setae; remaining surface of vertex finely vermiculate, with sparse short setae. Area behind upper eye lobes moderately finely punctate close to eyes, somewhat vermiculate toward margin of prothorax from apex to about middle; remaining surface shining, smooth; punctate area with sparse short setae and close to eye a few long setae; smooth area shining and glabrous. Area behind lower eye lobes smooth, shining and glabrous, except for tumid, moderately finely punctate region close to eye, also with sparse short setae and some longer setae close to eye. Genae abundantly moderately finely punctate, with sparse short setae on 1/2 closest to eye, remaining surface smooth and shining glabrous. Submentum with numerous transverse carinae; with sparse short setae and a few long setae laterally. Antennal tubercles toward apex acute, in frontal view horn-shaped; sparsely moderately finely punctate; with sparse, very short setae. Longitudinal sulcus distinct from clypeus to level of upper eye lobes (distinctly deeper between antennal tubercles). Distance between upper eye lobes 0.50 times length of scape; in frontal view, distance between lower eye lobes 0.75 times length of scape. Antennae 2.1 times elytral length; reaching elytral apex at distal 1/3 of antennomere

VIII. Scape abundantly moderately finely punctate at base, punctures gradually sparser toward apex; dorsal surface with large, distinct depression on basal 1/2; with sparse short setae and a few long setae interspersed. Antennomeres gradually slimmer from III to XI; antennomeres III–VI with sparse long yellowish setae on inner side ventrally (sparser from III to VI); antennal formula based on antennomere III: scape = 0.59; pedicel = 0.21; IV = 0.64; V = 0.90; VI = 0.93; VII = 0.88; VIII = 0.81; IX = 0.78; X = 0.71; XI = 0.83.

Thorax. Prothorax 1.6 times longer than wide; with distinct constriction after basal 1/6; tumid near anterior margin laterally. Pronotum with distinct conical tubercle centrally; sparsely, very finely punctate; basal 1/6 pubescent; remaining surface with sparse, very short and long setae intermixed. Sides of prothorax almost glabrous anteriorly, pubescent on remaining surface (this area widely expanded centrally, reaching sides of prosternum). Prosternum shining, with very sparse short setae, except laterally on basal 3/4 and close to procoxal cavities. Prosternal process longitudinally carinate. Mesosternum finely pubescent. Metepisterna with moderately dense white pubescence. Sides of metasternum with moderately dense white pubescence by glue). Scutellum with dense white pubescence. Elytra with sparse, moderately fine setose punctures subaligned in rows on distal 2/3; apex obliquely truncate, with outer angle moderately spiniform.

Abdomen. Ventrites I–IV with fine whitish pubescence, slightly denser laterally, with sparse long setae intermixed, except for glabrous region on distal center of ventrites I–II. Ventrite V with fine whitish pubescence except center of base subglabrous; with sparse long fine setae in distal region and bearing one long, thick seta near apex; apex slightly rounded.

Legs. Profemora with whitish pubescence on dorsal and distal sides of club (with a few long setae dorsally); remaining surface subglabrous. Meso- and metafemora with whitish pubescence interspersed with sparse long setae, except distal 1/2 of ventral surface of club subglabrous.

Dimensions (mm). Holotype female. Total length (including mandibles) 11.60; prothoracic length 2.50; anterior prothoracic width 1.50; basal prothoracic width 1.45; humeral width 2.25; elytral length 7.10.

Type material. Holotype female from BOLIVIA, *Santa Cruz*: 4 km N Bermejo (Refugio los Volcanes; 18°06'S / 63°36'W; 1045-1350 m), 11-17.XII.2012, Wappes & Skillman col. (MNKM).

Etymology. This species is named to honor Julieta Ledezma Arias, Chief of Entomology, MNKM. For the last 15 years, Julieta has been instrumental in helping make it possible to conduct a Cerambycidae survey in Bolivia. A survey which has discovered hundreds of species new to science, in turn described by participating or cooperating taxonomists, with holotypes of the new species deposited in the MNKM as tribute to the fascinating biological diversity of Bolivia.

Acknowledgments

We thank the collectors who provided specimens used in this paper, including Antonio Bonaso, Kenneth Kuckartz and Fred Skillman. Special thanks to Paul Skelley and Kyle Schnepp, Florida State Collection of Arthropods, who kindly assisted with some of the photographs used herein and provided other editorial or production assistance. We also greatly appreciate John Leavengood, USDA, McAllen, Texas and Don Thomas, USDA, Weslaco, Texas, who carefully reviewed this paper and made helpful suggestions to improve it, and Juan Pablo Botero, Rio de Janeiro, Brazil for reviewing the "Resumen". Lastly, the second author thanks CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) for supporting her research.

Literature Cited

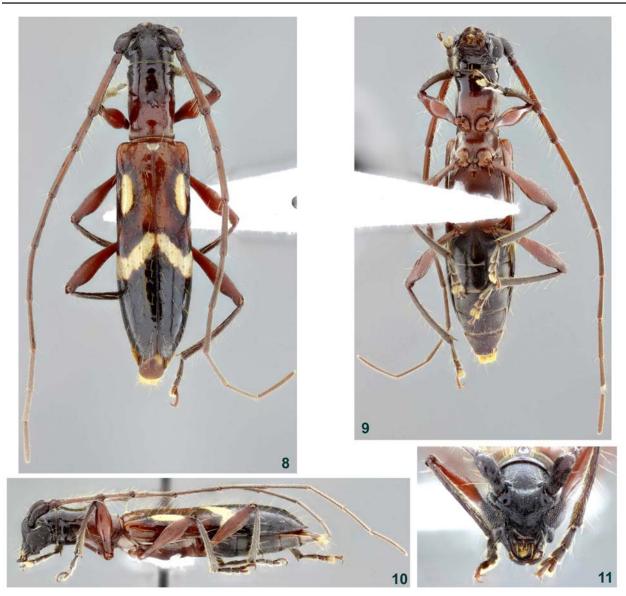
Bezark, L. G. 2015. A photographic catalog of the Cerambycidae of the New World. (Available at ~ https://apps2.cdfa.ca.gov/publicApps/plant/bycidDB/wsearch.asp?w=n. Last accessed October 2015.)

- Martins, U. R. 2009. Tribo Ibidionini. Subtribo Compsina, p. 1–199. In: Martins, U.R. (org.). Cerambycidae Sul-Americanos (Coleoptera). Taxonomia. Sociedade Brasileira de Entomologia; Curitiba, Volume X. 373 p.
- Monné, M. A. 2015. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part I. Subfamily Cerambycinae. (Available at ~ http://www.cerambyxcat.com/. Last accessed October 2015.)

Received November 1, 2015; Accepted November 4, 2015. Review Editor Jiri Zidek.



Figures 1–7. Adult *Corimbion kuckartzi*, **1-4**) Holotype male: **1**) Dorsal habitus. **2**) Ventral habitus. **3**) Lateral habitus. **4**) Head, frontal view. **5–7**) Paratype females: dorsal habitus showing variation in color and elytral pattern.



Figures 8–11. Adult *Corimbion ledezmae*, holotype female: 8) Dorsal habitus. 9) Ventral habitus. 10) Lateral habitus. 11) Head, frontal view.