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Illustrated key for identification of the species included in the genus *Leptoglossus* (Hemiptera: Heteroptera: Coreidae: Coreinae: Anisoscelini), and descriptions of five new species and new synonyms

HARRY BRAILOVSKY
Instituto de Biología, Universidad Nacional Autónoma de México, apdo. postal 70153, México D. F. 04510.
E-mail: coreidae@ib.unam.mx

Abstract

Five new species of *Leptoglossus* are described: *L.caicosensis* from Turks and Caicos Island, *L. egeri* and *L. impensus* from Bolivia, *L. franckei* from Costa Rica, and *L. polychromus* from Ecuador, Cooperative Republic of Guiana (British Guiana), and French Guiana. *Leptoglossus argentinus* Bergroth is synonymized under *L. chilensis chilensis* (Spinola) and *Narnia anaticula* Brailovsky & Barrera under *Leptoglossus occidentalis* Heidemann. Dorsal view drawings and key to the 61 known species and 1 subspecies are included; a complete checklist, and the position of each species within the species-group defined herein, are given except for two species *L. macrophylus* Stål and *L. polychromus* sp.nov., that are *insertae-sedis*. The pronotal disk, hind legs, and male genital capsule of the new species here described are illustrated.

Key words: Heteroptera, Coreidae, *Leptoglossus*, new species, revisional key

Introduction

The genus *Leptoglossus* Guérin-Méneville is one of the most diverse and complex taxa of Anisoscelini in the Western Hemisphere and it includes 61 species and 1 subspecies which are widely distributed from southern Canada, throughout the United States, México, the Antilles, Central America, and South America, including Chile and Argentina. *Leptoglossus gonagra* (Fabricius) and *L. occidentalis* Heidemann are the only species of *Leptoglossus* that occur outside of the Western Hemisphere: *L. gonagra* has been recorded in Africa, Southeast Asia, the Pacific Islands, and Australia and *L. occidentalis* in all of Europe (Allen 1969, Brailovsky and Barrera 1998, 2004, Lis, Lis, and Gubernator 2008, Packauskas 2010, Cherot *et al.* 2013, and Gapon 2013). The last complete generic revision of the genus was given by Allen (1969), who described five new species and provided a key to the 37 species and one subspecies known at that time. Since then, 24 new species have been described (Brailovsky 1976, 1990; Alayo and Grillo 1977; Yonke 1981; Brailovsky and Barrera 1994, 1998; Brailovsky & Couturier, 2003, and Schaefer *et al.* 2008). Baranowski and Slater (1986) synonymized *L. australis* (Fabricius) with *L. gonagra* (Fabricius). Hernandez and Grillo (1993) described the males of *L. dearmasi* (Alayo & Grillo) and *L. venustus* (Alayo & Grillo). Packauskas and Schaefer (2001) summarized the historical background of the genus and discussed the treatment given by Osuna (1984). They proposed six species-groups treated in a dichotomous key, and gave a list of species included in these groups. However, they left out nine species that they were unable to examine and overlooked two other species, *L. cartagoensis* and *L. talamancanus* described by Brailovsky and Barrera (1998). Brailovsky and Barrera (2004) included seven of the nine species placed as *incertae sedis* by Packauskas and Schaefer and the two overlooked species in their corresponding species group; on the same paper six new species are described, and the following five species were left as *insertae sedis*: *L. dearmasi* Alayo and Grillo (1977), *L manausensis* Brailovsky and Barrera (2004), *L. nigropearlei* Yonke (1981), *L. usingeri* Yonke (1981), and *L. venustus* Alayo and Grillo (1977).

With this contribution, the current number of species known in *Leptoglossus* increases to 61, with one subspecies; the species *L. argentinus* Bergroth (1894) is synonymized under *L. chilensis chilensis* (Spinola, 1852);

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most of the species are placed into their corresponding species-group, including the previously cited *incertae sedis*. A key to all the known species as well as the corresponding species-group is provided. Each of two species: *L. macrophyllus* Stål (1870) and *L. polychromus* **sp. nov.**, run into two different groups.

Material and methods

The following abbreviations are used for the institutions cited here: American Museum of Natural History, New York, USA (AMNH); Natural History Museum, London, England (BMNH); California Academy of Sciences, Golden Gate Park, San Francisco, USA (CASC); Centro de Investigaciones Agropecuarias, Univesidad Central de las Villas, Cuba (CIAP); Essig Museum of Entomology, California Insect Survey, Berkeley, California, USA (CIS); Carnegie Museum of Natural History, Pittsburgh, Pennsylvania, USA (CMNH); California State Collection of Arthropods, Sacramento, California, USA (CDFA); Canadian National Collection, Ontario, Canada (CNC); Fort Hays State University, Department of Biological Sciences, Hays, Kansas, USA (FHSU); Florida State Collection of Arthropods, Gainesville, Florida, USA (FSCA); Instituto de Ecologia y Sistematica, La Habana, Cuba (IES); Instituto Nacional de Biodiversidad, Santo Domingo de Heredia, Costa Rica (INBIO); Instituto Nacional de Pesquisas da Amazonia, Manaus, Brazil (INPA); Instituto de Zoología Agrícola, Maracay, Venezuela (IZAV); Natural History Museum of Los Angeles County, Los Angeles, California, USA (LACM); Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires, Argentina (MABR); Museo Entomológico, León, Nicaragua (MELN); Museo de Historia Natural "Noel Kempff Mercado", Santa Cruz, Bolivia (MHNNKM); Museum National d'Histoire Naturelle, Paris, France (MNHN); Moravian Museum, Brno, Czech Republic MMDE); Museu de Zoologia da Universidade de Sao Paulo, Brazil (MZSP); Naturhistoriska Riksmuseet, Stockholm, Sweden (NHRS); National Museum, Kunratice, Praha, Czech Republic (NMPC); Pontificia Universidad Católica del Ecuador, Quito, Ecuador (PUCE); Nationaal Naturhistorische Museum, Leiden, Netherlands (RMNH); Texas A & M University, College Station, USA (TAMU); Bohart Museum of Entomology, University of California, Davis, USA (UCDC); Wilbur R. Enns Entomology Museum, University of Missouri, Columbia, Missouri, USA (UMRM); University of Minnesota, Insect Collection, Minnesota, USA (UMSP); Universidad Nacional Agraria, La Molina, Lima, Peru (UNALM); Instituto de Biología, Universidad Nacional Autónoma de México (UNAM); Smithsonian Institution, National Museum of Natural History, Washington, D. C., USA (USNM); Utah State University, Logan, Utah, USA (USUL); Universidad del Valle de Guatemala, Guatemala (UVG); Zoologisches Museum, Humboldt Universitat, Berlin, Germany (ZMHU); Zoologische Staatssammlung, München, Germany (ZSMC).

Leptoglossus caicosensis sp. nov.

(Figs. 4, 10, 14, 22)

Description. Holotype male. Dorsal color. Head black with three dark orange narrow stripes, one on middle line, other two close to eyes; antenniferous tubercles dark orange; antennal segment I shiny reddish orange, segments II and III dull reddish orange with wide submedial yellow ring, IV dull reddish orange with apical third dirty yellow suffused with pale brown marks; pronotum yellow with collar, calli, anterolateral margins, humeral area, and posterior margin pale chestnut orange; scutellum pale chestnut orange with apex pale yellow; clavus pale chestnut orange; corium pale chestnut orange with broad yellowish transverse fascia with anterior margin straight and posterior margin hemispherical; hemelytral membrane bronzy brown; connexival segments III to VI pale reddish brown with anterior third, posterior angle and upper border yellow, VII pale reddish brown with anterior and posterior third and upper border yellow; abdominal segments III to VI dark orange suffused with black irregular marks, VII dark brown with dark orange marks. Ventral color. Dark to pale yellowish orange, with numerous black discoidal spots; rostral segments yellow (apex of IV black); anterior and posterior lobe of metathoracic peritreme pale yellowish orange; coxae dark to pale yellow with dark brown spots; trochanters reddish orange with basal third pale yellow; femora reddish orange with dark spines; fore and middle tibiae reddish orange with yellow ring near middle third; hind tibiae dark yellow, punctures black, rib, and the external margin reddish orange and undilated portion yellow with apical third reddish orange; tarsi reddish orange. Structure. Head longer than wide,

shorter than maximum length of pronotum; tylus blunt, slightly exceeding juga and forming a rounded elevated ridge; antennal segment IV longest, III shortest, and II longer than I; rostrum reaching posterior border of metasternum; rostral segment I shorter than maximum length of antennal segment I; rostral segment I longest, III shortest, and II equal to IV. Thorax. Pronotum. Anterolateral borders entire; posterolateral borders serrate; humeral angles acute, expanded laterally; calli weakly raised; area between calli without tubercles (Fig. 4). Legs. Hind tibiae. Outer dilations phylliform, at least with two or three shallow emarginations, occupying 51% of maximum length of tibiae; inner dilations lanceolate, shorter than outer dilations, occupying 39% of maximum length of tibiae (Fig. 10). Genital capsule. Posteroventral edge with rounded and slightly bifid median notch; dorsal prongs absent (Fig. 14)

Integument. Body surface dull; dorsal surface sparsely clothed with short, decumbent to semidecumbent setae; calli sparsely clothed with some erect setae; head ventrally, pro-, meso-, and metasternum, and midline of abdominal sterna III to VII clothed with erect setae; antennal segment I densely clothed with semidecumbent setae, segments II and III sparsely clothed with short setae, not densely adpressed, and IV almost glabrous; femora, tibiae and tarsi densely clothed with large, erect, bristle-like setae; pronotum, clavus, and corium strongly punctate; head, collar, calli, scutellar disk, abdominal sterna, male genital capsule, and female genital plates almost impunctate.

Measurements (mm). Length head 2.35, width across eyes 1.90, interocular space 1.06, interocellar space 0.53, preocular distance 1.38; length antennal segments I, 2.43, II, 3.26, III, 2.14, IV, 3.36; length rostral segments I, 1.86, II, 1.79, III, 0.98, IV, 1.79. Length pronotum 3.11, width across humeral angles 5.16. Hind tibiae. Total length 6.84; length outer dilation 3.49; length inner dilation 2.73. Scutellar length 1.97, width 1.97. Total body length 15.25.

Female. Habitus and color similar to male holotype. Connexival segment VIII dark yellowish orange, IX with anterior half dark yellowish orange and posterior half pale brown; abdominal segments VIII and IX dark brown with lateral margins yellowish orange; genital plates pale yellowish orange, scattered with black discoidal spots. Rostral segment IV longer than II. Hind tibiae. Outer dilations phylliform occupying 55% of maximum length of tibiae; inner dilations lanceolate, occupying 40% of maximum length of tibiae.

Measurements (mm). Length head 2.52, width across eyes 2.05, interocular space 1.23, interocellar space 0.60, preocular distance 1.61; length antennal segments I, 2.66, II, 3.49, III, 2.26, IV, 3.57; length rostral segments I, 2.01, II, 1.82, III, 1.20, IV, 1.86. Length pronotum 3.72, width across humeral angles 6.61. Hind tibiae. Total length 7.60; length outer dilation 4.18; length inner dilation 3.04. Scutellar length 2.22, width 2.26. Total body length 17.95.

Variation. 1. Rostrum reaching posterior border of abdominal sternite II. 2. Antennal segment IV reddish orange with apex yellow. 3. Dorsal abdominal segments III to VI pale orange, VII orange suffused with pale brown marks.

Type material. Holotype, male, **B. W. I. Turks and Caicos Islands,** Grand Turk, VI-1957, leg. T. H. Farr (CASC). **Paratypes,** 1 male, 2 females, same data as holotype (CASC, UNAM).

Etymology. Named for its occurrence on Caicos Island.

Distribution. Turks and Caicos Islands.

Diagnosis. Externally this new species is similar to *L. balteatus* (Linnaeus) in having the humeral angles acuminate, the pronotal disk with contrasting yellowish areas, the anterolateral borders of pronotum smooth, the posterolateral borders serrate, and the transverse yellowish fascia on the corium always present. The distribution pattern of both species are restricted to the Antilles; *L. balteatus* is recorded from Bahamas, Cuba, Dominican Republic, Jamaica, Puerto Rico, and St. Thomas, and *L. caicosensis* **sp. nov.**, is restricted to Turks and Caicos islands.

In *L. balteatus* the yellowish transverse fascia on corium is always rectangular, with anterior and posterior borders straight and parallel, the posterior marginal area of pronotum yellow, and the outer dilations of hind tibiae longer occupying 63% of the maximum length (vs 51–55%). In *L. caicosensis* the yellowish transverse fascia on corium has the anterior border straight and posterior border hemispherical, and the posterior marginal area of pronotum chestnut orange.

***Leptoglossus egeri* sp. nov.**
(Figs. 1, 6, 11, 39)

Description. Holotype male. Dorsal color. Head dark reddish brown with three dark orange narrow stripes, one on midline including tylus, other two shorter, running between eye-ocelli until the posterior third of neck; antennal segment I dark reddish brown, with basal joint pale yellowish orange, and ventral surface dark orange, segment II dark orange with narrow dark reddish brown stripe running dorsally, III dark orange with posterior half dark reddish brown, and IV with anterior half dark reddish brown and posterior half pale yellow; pronotum dark reddish brown with calli and humeral areas black and posterior margin yellow; scutellar disk dark reddish with apex yellow; clavus and corium dark reddish with claval and corial veins, costal margin and apical margin yellow; hemelytral membrane bronzy brown; connexival segments dark reddish; dorsal abdominal segments black. Ventral color. Including rostral segments (apex of IV black), anterior and posterior lobe of metathoracic peritreme, and fore and middle legs pale yellowish orange with numerous black discoidal spots; mesosternum lateral to midline black; hind leg: coxae black with apical border yellowish orange, trochanters yellowish orange, femora yellowish orange with spines, tubercles and dorsal surface black, tibiae with outer dilations reddish brown and punctures black and inner dilations reddish brown with yellow mark near midline, undilated portion of tibiae and tarsi chestnut orange. Structure. Head longer than wide, shorter than maximum length of pronotum; tylus blunt, slightly exceeding juga; antennal segment IV longest, I shortest, and II longer than III; rostrum reaching posterior border of abdominal sternite II; rostral segment I shorter than maximum length of antennal segment I; rostral segment IV longest, III shortest, and I longer than II. Thorax. Pronotum wider than long; anterolateral and posterolateral borders serrate; humeral areas produced into long, gradually tapering projections; humeral angles acute; calli almost flat, slightly raised at midline; anterior lobe behind calli with low median fovea (Fig. 1); hind tibiae with outer dilations phylliform at least with two deep emarginations occupying 54 % of maximum length of tibiae; inner dilations lanceolate, shorter, occupying 43 % of maximum length of tibiae (Fig. 6). Genital capsule. Posteroventral edge obliquely straight with deep and wide open median concavity; dorsal prongs absent (Fig. 11).

Integument. Body surface dull; head, anterior lobe of pronotal disk including calli, anterolateral and posterolateral margins, scutellar disk, legs, pro-, meso-, and metasternum, midline of abdominal sterna III to VII, male genital capsule and antennal segments I to III densely clothed with large, erect, bristle–like setae; posterior lobe of pronotal disk, clavus, corium, thorax, and abdomen clothed with short decumbent to semidecumbent bristle-like setae; antennal segment IV with tiny short setae; pronotal disk, clavus and corium densely punctate; head, collar, calli, thorax, abdominal sterna, and male genital capsule almost impunctate; scutellar disk transversely striate and punctate.

Measurements (mm). Length head 3.22, width across eyes 2.35, interocular space 1.30, interocellar space 0.68, preocular distance 2.00; length antennal segments I, 3.65, II, 5.20, III, 3.72, IV, 5.70; length rostral segments I, 2.88, II, 2.60, III, 1.30, IV, 2.91. Length pronotum 4.27, width across humeral angles 8.98. Hind tibiae. Total length 12.00; length outer dilation 6.50; length inner dilation 5.25. Scutellar length 2.66, width 2.66. Total body length 21.87.

Female. Unknown.

Type material. Holotype, male, **Bolivia,** Region Chapare, Dept. Cochabamba, 400 m, 10-XII-1951, leg. Dirings (MZSP). **Paratype,** 1 male, **Bolivia,** Santa Cruz, 5 km SSE Buena Vista, Hotel Flora y Fauna, 440 m, 17°29.925'S–63°39.126'W, 10-22-X-2004, leg. J. E. Eger (UNAM).

Etymology. Dedicated to Joe E. Eger, distinguished American entomologist.

Distribution. Bolivia.

Diagnosis. *Leptoglossus egeri* **sp. nov.**, like *L. humeralis* Allen and *L. pallidivenosus* Allen and *L. rubrescens* (Walker) with thorax and abdominal sterna with numerous small black dots and without contrastating yellowish spots or yellowish stripes, the humeral areas expanded into large gradually tapering projections, with humeral angles acute, the corium without yellowish transverse fascia, and pronotum with anterolateral and posterolateral margins serrate. *Leptoglossus rubrescens* is segregated by having the abdominal sterna black with a median pale yellowish longitudinal fascia absent in the other species. In *L. humeralis* the rostrum reaching posterior border of abdominal sternite IV or middle third of V, and outer dilations of hind tibiae occupying 84 % of the maximum length of tibiae; in *L. egeri*, and *L. pallidivenosus* the rostrum reaching posterior border of metasternum or middle third of abdominal sternite III, and the outer dilations of hind tibiae occupying 72 % or less of the maximum length

of tibiae. The humeral areas in *L. egeri* are produced as broad lateral projections, the antennal segment IV has the basal half pale brown and apical half yellow, and connexivum almost entirely dark reddish; in *L. pallidivenosus* the humeral areas are not conspicuously broad and produced as medium sized laterad projections, the antennal segment IV has the basal half yellow and the apical half pale brown, and the connexivum are dark reddish with anterior third yellow.

***Leptoglossus franckei* sp. nov.**
(Figs. 2, 7, 13, 43)

Description. Holotype male. Dorsal color. Head black with three dark orange stripes, one on midline reaching apex of tylus, other two running between eye-ocelli and covering antenniferous tubercles; postocular area black; antennal segment I dark reddish brown with ventral surface dark orange, segment II orange with narrow dark reddish brown stripe on dorsal surface, segment III orange, and IV yellow with distal third pale brown and apex yellow; pronotum dark reddish orange with anterior border of collar, humeral areas, humeral angles, and posterior margin black; posterolateral borders and posterior border yellow; scutellum dark reddish orange with three pale reddish orange stripes, one on midline, other two covering lateral borders; apex dark yellow; clavus and corium dark reddish brown with claval and corial veins pale reddish orange; corial veins yellowish distally, forming a distinctive "H" pattern; hemelytral membrane bronzy brown; connexivum black, upper margin reddish orange and anterior third pale yellowish orange; dorsal abdominal segments black. Ventral color. Head and thorax pale yellowish orange with numerous black discoidal spots; midline of head, prosternum and mesosternum laterally black; rostral segments pale yellowish orange (apex of IV black); fore and middle legs pale yellowish orange with femoral spines black; hind leg with coxae black and inner surface yellowish orange, trochanters yellowish orange, femora dark reddish orange with dorsal surface and spines dark reddish brown, tibiae dark to pale reddish orange, undilated portion and tarsi pale yellowish orange; abdominal sterna pale orange; genital capsule pale orange with black discoidal spots. Structure. Head longer than wide, shorter than maximum length of pronotum; tylus blunt, slightly exceeding juga; antennal segment IV longest, III shortest, and II longer than I; rostrum reaching anterior third of abdominal sternite III; rostral segment IV longest, III shortest, and I longer than II. Thorax. Pronotum wider than long; anterolateral border entire, posterolateral border serrate; humeral areas medially produced on lateral projections; humeral angles subacute; calli uniformly elevated; raised area between calli with two small circular pits (Fig. 2); hind tibiae with outer dilations phylliform, at least with two deep emarginations occupying 64 % of maximum length of tibiae; inner dilations lanceolate, shorter, occupying 58 % of maximum length of tibiae (Fig. 7). Genital capsule. Posteroventral edge with straight "U" deep concavity at midline; prongs absent (Fig. 13).

Integument. Body surface dull. Head, pronotal disk including the calli, scutellar disk, legs, middle third of thorax, and middle third of abdominal sterna clothed with erect, silvery pubescence; clavus, and corium clothed with short sized bristle-like setae; antennal segment I densely clothed with long, erect, silvery bristle-like setae, segments II and III sparsely clothed with short, erect, silvery bristle-like setae, IV with tiny setae; head, collar, calli, scutellar disk, thorax, abdominal sterna and genital capsule almost impunctate; pronotal disk, clavus, and corium densely punctate.

Variation. 1, rostrum reaching middle third of abdominal sternite II.

Measurements (mm). Length head 2.91, width across eyes 2.29, interocular space 1.17, interocellar space 0.56, preocular distance 1.74; length antennal segments I, 3.10, II, 4.89, III, 3.03, IV, 5.27; length rostral segments I, 2.70, II, 2.66, III, 0.95, IV, 2.90. Length pronotum 3.90, width across humeral angles 6.69. Hind tibiae. Total length 9.80; length outer dilation 6.30; length inner dilation 5.70. Scutellar length 2.35, width, 2.48. Total body length 18.80.

Female. Unknown.

Type material. Holotype, male, **Costa Rica,** Prov. Puntarenas, Peninsula de Osa, Rancho Quemado, 200 m, 21-III-7-IV-1992, leg. F. Quesada (INBIO). **Paratypes.** 1 male, **Costa Rica,** Prov. Puntarenas, Peninsula de Osa, Rancho Quemado, 200 m, IV-1992, leg. K. Flores (UNAM). 1 male, **Costa Rica,** Prov. Puntarenas, P. N. Corcovado, Est. Sirena, 0–100 m, III-1992, leg. G. Fonseca (INBIO).

Etymology. Dedicated to Oscar Federico Francke Ballve, distinguished Mexican arachnologist.

Distribution. Costa Rica.

Diagnosis. This new species is related to *L. arenalensis* Brailovsky & Barrera, *L. brevirostris* Barber and *L. quadricollis* (Westwood) by having the thorax and abdomen with numerous, small, black dots, without yellowish maculae or yellowish stripes; dorsal abdominal segments black without median pale yellow longitudinal fascia; yellowish transverse fascia on corium irregular or absent; rostrum short, reaching anterior third of abdominal sternite II or III; rostral segment IV shorter than maximum length of antennal segment I; pronotal disk without contrasting yellowish areas; anterolateral margins of pronotum entire; and outer dilations of hind tibiae phylliform, occupying less than 70 % of maximum length of tibiae. In *L. brevirostris* and *L. quadricollis* the rostral segment IV is entirely black, in *L. arenalensis* and *L. franckei* **sp. nov.,** pale chestnut orange with apex black. *Leptoglossus franckei* is segregated by having the corium chestnut orange with veins yellowish distally, forming a distinctive "H" pattern, the posterolateral borders and posterior border of pronotum pale yellow, the total length of antennal segment I longer than 3.00 mm, and the total body length longer than 18.00 mm. In *L. arenalensis* the corium is entirely pale reddish brown, the posterolateral borders and posterior border of pronotum dark reddish brown (sometimes suffused with dark orange), the total length of antennal segment I shorter than 2.50 mm, and the total body length less than 17.00 mm.

***Leptoglossus impensus* sp. nov.**
(Figs. 3, 8, 12, 50)

Description. Holotype male. Dorsal color. Head black with three narrow dark orange stripes, one on midline, other two between eye-ocelli and extending from antenniferous tubercles until posterior third of neck; antennal segment I pale reddish orange with short black stripe located dorsally and almost reaching anterior third of segment; segments II and III pale reddish orange, IV pale yellowish orange; pronotal disk with a yellowish rectangular transverse band not reaching lateral margins; collar, calli, humeral areas, and posterior margin chestnut orange to dark reddish brown; scutellum black with apex yellow; clavus yellow with punctures pale reddish brown; corium yellow with costal margin, apical margin, corial veins and posterior third pale reddish orange; yellowish transverse fascia on corium irregular, difficult to see and not reaching costal margin; hemelytral membrane bronzy brown; connexival segments III to VI pale reddish brown with anterior margin yellow, and VII pale reddish brown with anterior and posterior third yellow; dorsal abdominal segments black; intersegmental area V–VI yellow. Ventral color. Pale yellowish orange with numerous black discoidal spots; midline of head black; rostral segments yellow (apex of IV black); fore and middle coxae yellow with brown marks, hind coxae black with yellow longitudinal stripe; trochantes yellow; fore and middle femora pale reddish orange with black spines; hind femora pale reddish orange with spines and posterior half of dorsal surface black; fore and middle tibiae pale yellowish orange; hind tibiae with outer dilations dark reddish brown, inner dilations dark reddish brown with pale yellow irregular marks, undilated portion dark yellowish orange; tarsi yellowish orange. Structure. Head longer than wide, shorter than maximum length of pronotum; tylus blunt, slightly exceeding juga; antennal segment I shorter or subequal to III, IV longest, II longer than III; rostrum reaching anterior third of abdominal sternite III; rostral segment I shorter than maximum length of antennal segment I; rostral segment I longest, III shortest, and II longer than IV. Thorax. Pronotum wider than long; anterolateral borders entire; posterolateral borders serrate; humeral angles broadly expanded, subacute; calli uniformly elevated; raised area between calli with two small circular pits; anterior lobe behind calli with low median fovea (Fig. 3). Hind tibiae: Outer dilations phylliform, at least with two deep emarginations, occupying 58 % of maximum length of tibiae; inner dilations shorter, lanceolate, occupying 43 % of maximum length of tibiae (Fig. 8). Genital capsule. Posteroventral edge deeply concave, straight at midline; prongs absent (Fig. 12).

Integument. Body surface dull. Head, anterior lobe of pronotal disk including the calli, thorax, legs, and abdominal sterna densely clothed with erect, silvery pubescence; posterior lobe of pronotal disk, clavus, and corium sparsely clothed with short bristle-like setae; antennal segment I densely clothed with long, erect, silvery bristle-like setae, segments II and III sparsely clothed with short, erect, bristle-like setae, IV with tiny setae; pronotal disk, clavus and corium strongly punctate; scutellar disk transversely striate and scattered punctate; collar, calli, thorax, abdominal sterna, male genital capsule and female genital plates almost impunctate.

Measurements (mm). Length head 2.41, width across eyes 2.10, interocular space 1.17, interocellar space 0.63, preocular distance 1.49; length antennal segments I, 2.35, II, 3.16, III, 2.41, IV, 4.03; length rostral segments I,

2.23, II, 2.17, III, 1.24, IV, 2.01. Length pronotum 3.10, width across humeral angles 5.14. Hind tibiae. Total length 8.10; length outer dilation 4.70; length inner dilation 3.50. Scutellar length 1.98, width 1.98. Total body length 15.90.

Female. Habitus and color similar to male holotype. Clavus and corium entirely yellow. Hind tibiae: Outer dilations phylliform, at least with two deep emarginations, occupying 66 % of maximum length of tibiae; inner dialtions shorter, lanceolate, occupying 48 % of maximum length of tibiae.

Measurements (mm). Length head 2.85, width across eyes 2.41, interocular space 1.30, interocellar space 0.68, preocular distance 1.67; length antennal segments I, 2.79, II, 4.27, III, 2.79, IV, 4.53; length rostral segments I, 2.66, II, 2.38, III, 1.33, IV, 2.13. Length pronotum 3.96, width across humeral angles 7.14. Hind tibiae. Total length 10.00; length outer dilation 6.60; length inner dilation 4.81. Scutellar length 2.72, width 2.84. Total body length 19.80.

Variation. 1, yellowish transverse fascia on corium irregular, clearly present and not reaches costal margins. 2, corium reddish orange, punctures dark reddish brown, and corial veins and posterior third of apical margin yellow. 3, corium reddish orange, punctures dark reddish brown, and corial veins and endocorium mostly yellow.

Type material. Holotype, male, **Bolivia,** Chulumani, Sur Yungas, I-1948, leg. Williner (MABR). **Paratypes,** 2 males, **3** females, **Bolivia,** Chulumani, Sur Yungas, I-1948, leg. Bridarolli (MABR, UNAM).

Etymology. From the Latin, *impensus*, for large, referring to the stature of the insect.

Distribution. Bolivia.

Diagnosis. Related to *L. jacquelinae* Brailovsky by having the thorax and abdominal sterna with numerous small black dots, without contrasting yellowish spots or yellowsih stripes, anterolateral borders of pronotum entire, dorsal abdominal segments without median pale yellowish longitudinal fascia, hind tibiae with outer dilations phylliform occupying 58 % or less of maximum length of tibiae, pronotum with strongly contrasting yellowish areas, and antennal segment I bicolorous, pale reddish orange with short and difficult to see black stripe located dorsally and almost reaching the anterior third of segment. In *L. jacquelinae* recorded from Mexico the clavus is dark brown with vein yellow, antennal segment II robust, shorter than 3.90, hind tibiae with outer dilations scarsely expanded, occupying 50 to 55 % of the maximum length of tibiae and calli black. *Leptoglossus impensus* **sp. nov.**, described from Bolivia, has the clavus entirely yellow, antennal segment II slender, longer than 4.30, hind tibiae with outer dilations conspicuously expanded, occupying 58 to 62 % of maximum length of tibiae and calli dark reddish brown to pale chestnut orange.

Leptoglossus polychromus sp. nov.

(Figs. 5, 9, 15, 67)

Description. Holotype male. Dorsal color. Head black with three dark orange narrow stripes, one on middle line, other two shorter, running between eye-ocelli up posterior third of neck; antennal segment I yellowish orange with outer face reddish brown, segments II and III yellowish orange and IV yellowish orange scattered with pale brown irregular marks; pronotum dark reddish brown with humeral areas and posterior margin black; scutellum, clavus, and corium dark reddish brown with claval and corial veins black; hemelytral membrane bronzy brown; connexivum light reddish brown with anterior angle dark yellow; dorsal abdominal segments black, with scars IV–V and V–VI pale yellow. Ventral color. Head dark orange with broad longitudinal stripe black, running through midline; rostral segment I reddish brown, II to IV dark chestnut orange (apex of IV black); prosternum black; mesosternum with two broad longtudinal stripes black, running lateral to midline; metasternum pale reddish orange; acetabulae with apical margin black; anterior and posterior lobe of metathoracic peritreme dark yellow; coxae black with apical margin pale yellowish orange; trochanters pale yellowish orange; fore and middle femora yellowish orange with black spines; hind femora yellowish orange with spines and posterior half of dorsal surface black; fore and middle tibiae yellowish orange; hind tibiae with outer and inner dilations dark reddish brown, undilated portion yellowish orange; tarsi yellowish orange; abdominal sterna and genital capsule pale reddish orange; intersegmental border of sterna V–VI and middle third of sternite VII black. Structure. Head longer than wide, shorter than maximum length of pronotum; tylus blunt, slightly exceeding juga, with tiny subapical tubercle difficult to see in dorsal view; antennal segment I shortest, II longest, and IV longer than III; rostrum reaching posterior border of abdominal sternite III; rostral segment I equal to maximum length of antennal segment I; rostral

segment I longest, III shortest, and IV longer than II. Thorax. Pronotum. Anterolateral borders entire; posterolateral borders serrate; humeral angles broadly expanded, subacute; calli uniformly elevated; raised area between calli with two small circular pits; anterior lobe behind calli with low median fovea (Fig. 5). Legs. Hind tibiae. Outer dilations phylliform, at least with three deep emarginations, occupying 44 % of maximum length of tibiae; inner dilations lanceolate, shorter, occupying 52 % of maximum length of tibiae (Fig. 9). Genital capsule. Posteroventral edge obliquely straigth, with deep mesial concavity (Fig. 15).

Integument. Body surface subshining, sparsely clothed with short decumbent to semidecumbent setae; calli almost glabrous; antennal segments I to III with erect, short bristle-like setae, not densely adpressed, segment IV almost glabrous; femora, tibiae, and tarsi densely clothed with large bristle-like setae; posterior lobe of pronotum, clavus and corium strongly punctate; scutellar disk transversely striate and scattered punctate; head, anterior lobe of pronotum, thorax, abdominal sterna, male genital capsule, and female genital plates almost impunctate.

Measurements (mm). Length head 2.35, width across eyes 1.98, interocular space 0.99, interocellar space 0.43, preocular distance 1.25; length antennal segments I, 2.35, II, 3.90, III, 2.79, IV, 3.84, length rostral segments I, 2.33, II, 2.01, III, 1.36, IV, 2.07. Length pronotum 2.79, width across humeral angles 4.27. Hind tibiae. Total length 8.70; length outer dilation 3.90; length inner dilation 3.60. Scutellar length 1.98, width 1.61. Total body length 14.68.

Female. Habitus and color similar to male holotype. Head dark orange with juga, ocellar tubercle and two broad longitudinal stripes black; antennal segments I to III yellowish orange, IV lighter; pronotum, scutellum, clavus and corium dark reddish brown with claval and corial veins, and apical corial margin light reddish tan; middle third of collar black; pro-, meso-, and metathorax reddish orange; connexival segments VIII and IX black with upper margin dark orange; dorsal abdominal segments black; genital plates reddish orange. Rostral segment II longer than IV. Hind tibiae. Outer dilations phylliform occupying 54% of maximum length of tibiae; inner dilations lanceolate, occupying 52% of maximum length of tibiae. Genital plates. Abdominal sternite VII with plica and fissura; plica wide, rectangular; gonocoxae I triangular, large, in caudal view closed; paratergite VIII subtriangular with visible spiracle; paratergite IX squarish, larger than paratergite VIII.

Measurements (mm). Length head 2.10, width across eyes 1.92, interocular space 0.99, interocellar space 0.48, preocular distance 1.24; length antennal segments I, 1.98, II, 3.47, III, 2.54, IV, 3.65; length rostral segments I, 2.20, II, 1.92, III, 0.96, IV, 1.81. Length pronotum 2.97, width across humeral angles 4.65. Hind tibiae. Total length 7.10; length outer dilation 3.90; length inner dilation 3.70. Scutellar length 1.94, width 1.73. Total body length 14.30.

Variation. 1, antennal segment I entirely yellowish orange. 2, antennal segment IV reddish orange to yellowish orange. 2, head ventrally black with yellowish orange stripe lateral to midline. 4, pronotum dark reddish with humeral areas and posterior margin black, and four yellow ovoid to rounded spots, two on the anterior lobe, and two on posterior margin and lateral to midline. 5, pronotum dark reddish with humeral areas and posterior margin black, without yellow marks. 6, anterolateral margins of pronotum dark yellowish orange to dark chestnut orange. 7, anterior and posterior metathoracic peritreme pale yellow. 8, propleura with or withtout contrasting yellowish orange maculae. 9, anterior third of pro-acetabulae with two, and meso-, and meta-acetabulae with one contrasting yellowish orange maculae. 10, transverse yellowish fascia on corium absent or present on the last condition irregular or rectangular with anterior and posterior borders straight and not reaches the costal margin. 11, clavus and corium black with claval and corial veins, and posterior third of corium including the posterior margin dark reddish orange. 12, abdominal sterna black with pleural margins, abdominal sternite VII (except the midline), paratergite VIII and IX, and external face of gonocoxae I reddish.

Type material. Holotype, male, **Ecuador,** Napo Province, Res. Ethnica Waorami, 1 km S Onkone Gare Camp, Trans. Ent. 220m, 00°39'10''S–76°26'00''W, 3-X-1996, leg. T. L. Erwin *et al.* (USNM). **Paratypes,** 1 male, 2 females, **Ecuador,** Napo Province, Res. Ethnica Waorami, 1 km S Onkone Gare Camp, Trans. Ent. 220m, 00°39'10''S-76°26'00''W, 29-VI-1994, 3-X-1996, T. L. Erwin *et al.* (UNAM, USNM). 1 female, **Ecuador,** Napo Province, Yasuni National Park, Yasuni Research Station, 00°38'S-76°36'W, 3-20-XI-1998, T. Pape & B. Viklund (NHRS). 1 male, **Ecuador,** Napo, Misahualli, nr. Tena, 6-19-X-2001, leg. C. Brammer (USUL). 1 male, **Cooperative Republic of Guiana (British Guiana),** Kartabo, 7-VIII-1922, leg. M. D. Haviland (BMNH). 1 male, **French Guiana,** 33 km SE Roura, on Kaw Rd (mv. light), 227 m, 04°34.135'N-052°11.150'W, 16-17-IV-2007, leg. D. G. Hall & J. E. Eger (UNAM). 1 male, 1 female, **French Guiana,** Mount Baruol, Bar, 400 m (luminating trap), 2-III-2013, leg. S. Brule (UNAM).

Biology. The material collected with insecticidal fogging of mostly bare green leaves, some with covering of lichenous or bryophtic plants in terre firme forest. Lot 1732, Trans. T-8 and Lot 757 at 6 x-trans (59m mark prof.maxus).

Etymology. From the Latin word, *polychromus*, in reference to the high variation in color of this species.

Distribution. Ecuador, Cooperative Republic of Guiana (British Guiana) and French Guiana.

Diagnosis. The position of *L. polychromus* **sp. nov.**, among the various groups proposed to unite the different species that belong in the genus *Leptoglossus* is uncertain. This species has considerable chromatic variation, which is reflected in the beginning of the dichotomous key; this species can key in either of the coupletts 6 and 6'. In the first condition (couplet 6) the pronotum lacks yellowish spots and the pronotal disk is entirely dark reddish brown or almost entirely yellow, contrasting with the remainder of the pronotum; in the second option (couplet 6') the pronotum has four small yellowish spots, two on anterior disk and two on posterior marginal area (some fusion may occur) or pronotum with two large yellowish spots on anterior disk or on posterior border. If the pronotal disk lacks yellowish spots, this species is included in the *cinctus* species group in which the clavus and corium are dark brown with veins concolorous or at most shiny red to black but never pale yellow, and pronotal disk without yellowish transverse fascia. The *cinctus* species group is represented by four known species: *L. cinctus* (Herrich-Schaeffer), *L. crassicornis* (Dallas), *L. fasciatus* (Westwood), and *L. katiae* Schaefer & Packauskas. In *L. crassicornis* and *L. katiae* the outer dilations of hind tibiae are lancelolae, narrow, and entire, without emarginations, in the other species included *L. polychromus* **sp. nov.**, the outer dilations are phylliform. The pronotal disk of *L. cinctus* and *L. fasciatus* are almost entirely yellow, contrasting with remainder on pronotum and hemelytra, the anterolateral margins of pronotum are serrate, and the thorax has one or two yellowish maculae absent in *L. polychromus* in which the anterolateral margins of pronotum are entire and the pronotal disk reddish brown with humeral areas and posterior margin black. If the specimen has two or four yellowish spots on the pronotal disk, then the couplet 7' will be used and the species will belong to the *harpagon* species group which includ seven species, *L. dialeptos* Brailovsky & Barrera, *L. fasciolatus* (Stål), *L. flavosignatus* Blöte, *L. harpagon* (Fabricius), *L. manausensis* Brailovsky & Barrera, *L. sabanensis* Brailovsky & Barrera, and *L. tetranotatus* Brailovsky and Barrera. In this group, *L. polychromus* is related to *L. flavosignatus* and *L. tetranotatus* by having the head, pronotum and femora without blue-green iridescence, the posterior border of pronotum not entirely yellowish, the antennal segment I unicolorous, entirely chestnut orange, and outer dilations of hind tibiae expanded. *Leptoglossus polychromus* is distinguished from the latter by having the thorax shiny reddish brown without orange or pale yellowish contrasting spots clearly present on the other species. However, in *L. polychromus* specimens from different populations and even from the same population both have and lack yellowish spots and key in separate couplets; therefore this is found twice in the dichotomus key.

Comments

Leptoglossus chilensis chilensis (Spinola)

(Fig. 24)

Anisoscelis chilensis Spinola, 1852: 172.
Leptoglossus argentinus Bergroth, 1894: 165. **nov. syn.**

The original description by Bergroth (1894) is extensive but does not include relevant diagnostic characters other than indicating that the ventral surface of the body lacks discoidal spots and the total length of the body is less than 12 mm. Comparing all the information available, the fact that the type of *Leptoglossus argentinus* is apparently lost, and taking into account all the species of *Leptoglossus* reported from Argentina, I consider that this species is really *L. chilensis* (Spinola, 1852), a very variable species originally described from Chile, later reported from Argentina, and subsequently split into two forms which later were raised to subspecific rank. *Leptoglossus chilensis* is characterized by small individuals less than 13 mm in total length, and the pronotal disk may have or not a transverse broad, dark yellow band. Allen (1969) in his revision of the genus *Leptoglossus* corroborates the proposal made by Pennington (1922) with respect to the genus in Argentina; nevertheless neither one made a taxonomic decision about the validity of *L. argentinus*. Packauskas (2010), in his catalog of American coreids, lists *L. argentinus* as a valid species without additional comments. In the present revision, *L. argentinus* is formally synonymized under *L. chilensis chilensis* (Spinola).

Leptoglossus macrophyllus Stål
(Fig. 59)

Leptoglossus macrophyllus Stål, 1870: 162

The position of *L. macrophyllus* Stål (similar to *L. polychromus* here described) is uncertain because this species exhibits considerable chromatic variation and can be included in the couplet 22 (*phyllopus* species group) if it has a yellowish transverse fascia on corium always present and rectangular, with anterior and posterior margins straight and parallel, or in couplet 22' (*stigma* species group) in which the yellowish transverse fascia on corium is irregular (zig-zag) and runs to couplet 38'. In both conditions this species is distinguished by the outer dilations of hind tibiae very long extending for 85-95% length of tibiae, and inner dilations much shorter occupying 55-70% length of outer dilations, the antennal segments II and III are entirely black or dark orange with apical third black, and the anterior pronotal disk without or with yellowish transverse rectangular band not reaching lateral margins.

Leptoglossus occidentalis Heidemann
(Fig. 63)

Leptoglossus occidentalis Heidemann, 1919: 196-197.
Narnia anaticula Brailovsky & Barrera, 2013: 286–289. **nov. syn.**

During the revision of the genus *Leptoglossus* two specimens which shared structural characters with the genus *Narnia*, were set aside. That led Brailovsky & Barrera (2013) to review the genus *Narnia*, describing a new species named *N. anaticula*, splitting the genus into two natural groups of species, and including a dichotomous key for the identification of the known species. Morphologically this species resembled *Leptoglossus occidentalis* Heidemann, differing in being smaller, less than 16 mm., and especially because it was collected on *Opuntia* sp. (Cactacea). *Leptoglossus occidentalis* live on conifers and its size usually exceeds 18 mm.

After its publication my colleagues Richard Packauskas (FHSU), and Petr Kment (NMPC) suggested that it could be *L. occidentalis*, a species with a wide distribution in Canada, U. S. A. and northern Mexico and which in recent years has colonized extensive areas in Europe.

Re-evaluating the characters above and comparing them with the extensive collection of *L. occidentalis* deposited at UNAM, I accept the critical observations offered and formally synonymize *N. anaticula* under *Leptoglossus occidentalis.*

Key to the known species of *Leptoglossus*

1. Thoracic pleura with at least two, usually more strongly contrasting yellowish maculae, or yellowish stripes, or yellowish maculate fascia, or venter widely yellow to shiny orange or dark to shiny reddish brown; thoracic and abdominal sterna without numerous black discoidal dots 2
- Thoracic pleura orange or pale yellowish or dark reddish brown, without strongly contrasting yellowish markings; thoracic and abdominal sterna with or without numerous small black dots 19
2. Clavus and corium dark brown with strongly contrasting pale yellow or ochraceous veins (*lineosus* species grroup) 3
- Clavus and corium dark brown to dark reddish brown with veins concolorous, or at most shiny red or black, but never pale yellow or ochraceous 5
3. Humeral angles conspicuously acute, raised, and expanded laterally; pronotal disk lack or with narrow yellowish to reddish orange transverse fascia. 4
- Humeral angles acute, but not expanded laterally; pronotal disk with wide yellow or yellowish orange transverse fascia, some times covering the middle third of the disk (Fig.72). . . . . *L. subauratus* Distant
4. Antennal segment I black; antennal segments II and III bicolored; posterolateral margins of the pronotum smooth; pronotal disk with narrow yellowish to reddish-orange transverse stripe (Fig. 57) . . . . . *L. lineosus* (Stål)
- Antennal segments I to III dark to pale ochraceous; posterolateral margins of the pronotum dentate; pronotal disk lack yellow to reddish-orange transverse fascia (Fig. 73) . . . . . *L. talamancanus* Brailovsky & Barrera
5. Pronotal disk with narrow, arcuate, pale yellowish transverse fascia; thoracic pleura with 10 to 12 pale yellowish to orange maculae on each side; abdominal sterna with six to seven complete or maculate longitudinal fascia; hind tibiae with outer dilation extending for 85–90% the maximal length of tibiae (*gonagra* species group) (Fig. 45). . . . . *L. gonagra* (Fabricius)

- Pronotal disk lack a narrow yellowish transverse fascia, usually unicolorous or with black or yellow or orange discoidal spots; thoracic pleura lack or never with more than six yellowish maculae of each side; abdominal sterna without longitudinal fascia; hind tibiae with outer dilation shorter, extending for at most 70% of the maximal length of tibiae. 6

6. Pronotum without yellowish spots; pronotal disk entirely dark reddish brown or pale reddish orange or almost entirely yellow and contrasting with remainder of pronotum and hemelytra; anterolateral margins of pronotum serrate or entire (*cinctus* species group) 7

- Pronotum with four small yellowish spots, two on anterior disk and two on posterior marginal area (some fusion may occur) or pronotum with two large yellowish spots on anterior disk or on posterior border, with or without posterior border yellow; anterolateral margins of pronotum entire, without serrations or teeths (*harpagon* species group) 12

7. Pronotal disk pale reddish orange, with calli and short longitudinal stripe at midline black; anterior half of corium black, and posterior half pale yellowish- orange; antennal segment III black with yellow ring near basal third; antennal segment IV black with apex yellow (Fig. 76) . . . . . *L. venustus* Alayo y Grillo

- Other combination of characters 8

8. Total body length less than 13 mm; rostrum reaching abdominal sternite VI; anterolateral margins of pronotum entire (Fig.55) . . . . . *L. katiae* Schaefer & Packauskas

- Total body length more than 14 mm; rostrum reaching no further than abdominal sternite V; anterolateral margins of pronotum serrate 9

9. Hind tibiae with outer dilations lanceolate, narrow and entire, without prominent teeths or emarginations, its width 1.0 to 1.5 times width of inner dilations; length of antennal segment IV 1.0 to 1.2 times the length of III (Fig. 32). . . . . *L. crassicornis* (Dallas)

- Hind tibiae with outer dilations wider with one or two emarginations, its width 1.8 to 2.0 times width of inner dilations; length of antennal segment IV 1.2 to 1.8 times length of III 10

10. Thoracic pleura with single yellow maculae occupying almost entire ventral third of each pleuron; outer tibial dilation occupying approximately 65% length of hind tibiae (Fig. 26). . . . . *L. cinctus* (Herrich-Schaeffer)

- Thoracic pleura without single yellow maculae occupying almost entire ventral third of each pleuron; outer tibial dilations occupying almost 55% length of hind tibiae. 11

11. Pro- and mesopleura with two small yellowish maculae, metapleuron with one (maculae about size of an eye or less) (Fig. 40) . . . . . *L. fasciatus* (Westwood)

- Pro-, meso- and metapleura shiny to dark reddish orange without yellowish maculae (Fig. 67). . . . . .*L. polychromus* **sp. nov.** (in part)

12. Head, pronotum and femora black with blue-green iridescens; antennal segments II and III black or dark brown with blue-green iridescence. 13

- Head, pronotum and femora not black and without blue-green iridescence; antennal segments II and III shiny orange to shiny chestnut orange 15

13. Hind tibiae dilation very small, almost obsolete and restricted to basal third (Fig. 41) . . . . . *L. fasciolatus* (Stål)

- Hind tibiae dilation conspicuously expanded 14

14. Thorax and abdominal sterna almost entirely shiny orange; anterior pronotal disk with wide transverse yellowish to orange band; outer hind tibiae dilation with at least one deep emargination (Fig. 47). . . . . *L. harpagon* (Fabricius)

- Thorax and abodminal sterna black with blue green iridescence (eventually with some shiny orange discoidal spots); anterior pronotal disk with two small yellowish spots lateral to middle line; outer hind tibiae dilation without emarginations (Fig. 36) . . . . . *L. dialeptos* Brailovsky & Barrera

15. Pronotum with two large yellowish spots on anterior disk and posterior border entirely yellow (Fig. 60) . . . . . *L. manausensis* Brailovsky & Barrera

- Pronotum with four small yellowish spots, two an anterior disk and two on posterior marginal area. 16

16. Antennal segment I bicolored, outer face black, inner face shiny orange; outer hind tibiae dilation barely phylliform, not expanded (Fig.70).. . . . . *L. sabanensis* Brailovsky & Barrera

- Antennal segment I entirely chestnut orange; outer hind tibiae dilation expanded. 17

17. Humeral angles laterally expanded; thoracic pleura without strongly contrasting orange to yellowish maculae (Fig. 67). . . . . *L. polychromus.* **sp. nov.** (in part)

- Humeral angles obtuse or barely subacute, but never laterally expanded; thoracic pleura with contrasting orange to yellowish maculae 18

18. Anterior pair of yellow to orange pronotal discoidal spots small, separated by a distance greater than 3.4 than width of each spot; male genital capsule with rectangular median notch (Fig. 74). . . . . *L. tetranotatus* Brailovsky & Barrera

- Anterior pair of yellow to orange discoidal spots large, close to one another, and separated by a distance less than 1.5 the width of each spot; male genital capsule with rounded median notch (Fig. 42). . . . . *L. flavosignatus* Blöte

19. Dorsal abdominal segments with a median pale yellow longitudinal fascia; hind tibiae always lanceolate, with or without short spines on the external border of each dilations; anterolateral borders of pronotum always dentate (*dilaticollis* group) 20

- Dorsal abdominal segments without median pale yellow longitudinal fascia; hind tibiae usually phylliform; anterolateral borders of pronotum dentate or smooth 22

20. Corium with a straight yellowish transverse fascia; width across humeri 5.5 to 6 times width across anterior pronotal margin; large species, length 26–39 mm; pronotum with humeral area produced as large, broadly rounded anteriorly curving processes (Fig. 38). . . . . *L. dilaticollis* Guerin

- Corium without a yellowish transverse fascia; width across humeri at most 5 times width across anterior pronotal margin; smaller species, less than 24 mm; pronotum with humeral area broadly rounded or expanded into large gradually tapering projections, with humeral angles acute. 21

21. Humeral area broadly rounded with humeral angles blunt, non-acute (Fig. 44) . . . . . *L. fulvicornis* (Westwood)
- Humeral area expanded into large gradually tapering projection with humeral angles acute (Fig. 69) . . *L. rubrescens* (Walker)
22. Yellowish transverse fascia on corium always present, rectangular, with anterior and posterior margins straight and parallel (*phyllopus* species group) 23
- Yellowish transverse fascia on corium irregular (zig-zag), or with anterior margin straight and posterior margin not straight or fascia absent 27
23. All marginal areas of pronotum continuously and widely yellowish; thorax and abdominal sterna usually pale yellow without numerous black discoidal dots (Fig. 19) . . . . . .*L. ashmeadi* Heidemann
- At most only the posterior marginal area of pronotum yellowish; thorax and abdominal sterna dark reddish brown with numerous small black dots 24
24. Posterior marginal area of pronotum yellow; pronotal disk with contrasting yellow marks; antennal segments II and III orange with apical third dark reddish; humeral angles acuminate, acute and obliquely ascending (Fig. 20). . . . *L. balteatus* (Linnaeus)
- Posterior marginal area of pronotum black to reddish brown; pronotal disk with or without yellow marks; antennal segments II and III entirely black or orange with apical third black; humeral angles subacute or acute, expanded or broadly expanded or rounded 25
25. Hind tibiae with outer dilations very long extending for 85–95% length of tibiae and inner dilations much shorter occupying 55–70% length of outer dilations; anterior pronotal disk with or without yellowish transverse rectangular band; humeral angles expanded, subacute; antennal segments II and III entirely black or dark orange with apical third black (Fig. 59) . . . . . *L. macrophyllus* Stål (in part)
- Hind tibiae with outer dilations shorter occupying 78% or less length of tibiae and inner dilations only slightly shorter than outer dilations; anterior pronotal disk concolorous, rarely with a yellowish areas, if present diffused and dull; antennal segments II and III entirely yellow to orange or dark to pale orange with apical third black 26
26. Connexival segments black; antennal segments II and III dark to pale orange with apical third black; humeral angles broadly expanded, subacuminate and obliquely ascending (Fig. 23). . . . . .*L. cartagoensis* Brailovsky & Barrera
- Connexival segments dark reddish with anterior margin yellow; antennal segments II and III entirely yellow to orange; humeral angles rounded, subacute, slightly exposed (Fig. 66) . . . . . *L. phyllopus* (Linnaeus)
27. Pronotum with anterolateral and posterolateral margins serrate or dentate 28
- Pronotum with anterolateral margins entire; posterolateral margins serrate, dentate, or entire 38
28. Pronotum black to dark brown with wide pale yellowish white band on disk, or only with the humeral areas pale yellowish white; pronotal disk with numerous medium black discoidal dots over the pale yellowish white area (*alatus* species group) 29
- Pronotum black to dark brown, unicolorous, or with dark yellowish band, or only with posterior border dark yellow; pronotal disk without or with small to medium black discoidal dots (*chilensis* species group). 31
29. Clavus and corium dark with strongly contrasting pale yellowish veins; humeral areas produced as large broadly rounded lateral projections; corium with two large yellowish discoidal spots (Fig. 17). . . . . *L. alatus* (Walker)
- Clavus and corium without contrasting pale yellowish veins; corium without yellowish discoidal spots 30
30. Humeral angles extending laterad, acute or subacute; clavus and corium dark reddish brown; total body length 16.48 to 20.16 (Fig. 75). . . . . .*L. usingeri* Yonke
- Humeral angles broadly rounded, obtuse, non-acute; clavus and corium pale reddish brown to pale orange; total body length 19.36 to 21.44 (Fig. 62). . . . . *L. nigropearlei* Yonke
31. Pronotum with humeral areas produced as broad, long to medium, and tapering laterad projections obliquely ascending; humeral angles conspicuously acute to subacute; total body length longer than 19.00 32
- Pronotum with humeral areas broadly rounded, almost vertically ascending; humeral angles acute to subacute and not conspicuosuly expanded; total body length shorter than 16.00. 34
32. Rostrum reaching posterior border of abdominal sternite IV or middle third of V; hind tibiae with outer dilations phylliform, occupying 84% the length of hind tibiae (Fig. 49) . . . . . .*L. humeralis* Allen
- Rostrum reaching posterior border of metasternum or middle third of abdominal sternite III; hind tibiae with outer dilations phylliform, occupying 70% the length of hind tibiae 33
33. Pronotum with humeral areas produced as broad, long, lateral projections; humeral angles acute, directed backward; antennal segment IV with basal half pale brown and apical half yellow (Fig. 39) . . . . . *L. egeri* **sp. nov.**
- Pronotum with humeral areas not conspicuously broad, produced as medium sized laterad projections; humeral angles acute, directed laterad; antennal segment IV with basal half yellow and apical half pale brown (Fig. 65). . . . . *L. pallidivenosus* Allen
34. Entire length of anterolateral pronotal margins with well developed teeth; a single rounded black spot (about the size of an eye) on mesopleuron; abdominal terga dark with lateral areas largely yellow (Fig. 35). . . . . *L. dentatus* Berg
- Anterior half of pronotal anterolateral margins entire, only posterior half serrate; mesopleuron without large black discoidal spot at most with small black spots (about the size of an ocellus); abdominal terga without yellow areas 35
35. Male genital capsule with prominent dorsal prongs; anterior half of corium with conspicuosly less pubescence than posterior half, this pubescence very dense on veins; hind tibiae with width of outer dilations equal to or greater than width of head (Fig. 51) . . . . . *L. impictipennis* (Stål)
- Male genital capsule without dorsal prongs; pubescence evenly distributed over clavus and corium, if pubescence more dense on posterior half of corium then hind tibiae with width of outer dilations subequal to interocular distance 36
36. Wider more robust species, total body length less than 2.5 times width across humeri; dorsal surface of male hind femora with 15–20 prominent tubercles; posterior lobe of pronotal disk pale yellowish orange, without black discoidal spots (Fig. 52) . . . . . .*L. impictus* (Stål)

- Narrower more elongate species, total body length greater than 2.5 times width across humeri; dorsal surface of male hind femora with at most 10 prominent tubercles; posterior lobe of pronotal disk reddish brown with or without black discoidal spots. 37

37. Posterior lobe of pronotum with numerous small black discoidal spots; hind tibiae with outer dilations narrower and shorter occupying 62–71% the length of hind tibiae (Fig. 24) . . . . . *L. chilensis chilensis* (Spinola)
- Posterior lobe of pronotum without black discoidal spots; hind tibiae with outer dilations wider and longer, occupying 71–80% the length of hind tibiae (Fig. 25) . . . . . *L. chilensis concaviusculus* Berg

38. Hind tibial dilations lanceolate, without deep emarginations along outer margins 39
- Hind tibial dilations conspicuously phylliform with at least one (usually more) deep emarginations (*stigma* species group). 45

39. Tylus extending beyond juga as a porrect spine which is as long as, or longer than length of an eye; broad irregular transverse fascia on corium (*clypealis species group)* (Fig. 27) . . . . . *L. clypealis* Heidemann
- Tylus rounded or pointed apically, but never spinosely produced; transverse fascia on corium narrow, confined to veins or absent. 40

40. Anterolateral margins of pronotum straight along the entire length 41
- Anterolateral margins of pronotum with anterior lobe straight and posterior lobe rounded and slightly exposed. 42

41. Rostrum shorter, reaching at most posterior third of abdominal sternite III; antennal segment IV shorter than 3.90 mm; hind tibial dilations clearly expanded, width of outer dilation 1.34–1.44 mm, width of inner dilation 0.74–0.84 mm (Fig. 58) . . . . . *L. lonchoides* Allen
- Rostrum longer, reaching middle third of abdominal sternite IV or anterior third of sternite VI; antennal segment IV longer than 4.30 mm; width of outer dilation less than 0.65 mm, width of inner dilation less than 0.38 mm (Fig. 48) . . . . . *L. hesperus* Brailovsky & Couturier

42. Hind tibiae with outer dilations conspicuosly longer than inner, occupying 85% or more of maximal length of hind tibiae (Fig. 31) . . . . . *L. corculus* (Say)
- Inner and outer tibial dilations nearly equal length, occupying less than 70% of maximal length of hind tibiae 43

43. Antennal segment I entirely chestnut orange or shiny orange; pronotal disk with short decumbent setae; outer dilations of hind tibiae wider than inner dilations 44
- Antennal segment I bicolorous, chestnut orange with inner black longitudinal stripe; pronotal disk densely clothed with long erect setae; outer dilations of hind tibiae weakly wider than inner dilations (Fig. 63) . . . . . *L. occidentalis* Heidemann

44. Antennal segment I thickest, robust with inner surface densely setosus; dorsal surface of hind femora chestnut orange; pronotal disk without yellow trapeziform mark (Fig. 33). . . . . *L. crestalis* Brailovsky & Barrera
- Antennal segment I slender with inner surface not densely setosus; dorsal surface of hind femora black to dark reddish brown; pronotal disk with contrasting wide yellowish trapeziform mark (Fig. 34) . . . . . *L. dearmasi* Alayo & Grillo

45. Hind tibiae with outer dilations very long extending for 85–95% length of tibiae and inner dilations much shorter occupying 55–70% length of outer dilations 46
- Hind tibiae with outer dilations shorter occupying 80% or less length of tibiae and inner dilations only slightly shorter than outer dilations 47

46. Anterior portion of pronotal disk with a yellowish rectangular transverse band not reaching lateral margins; dorsum light reddish brown (Fig. 59). . . . . *L. macrophylus* Stål (in part)
- Pronotal disk unicolorous or the entire anterior half of pronotum before humeral area yellow and reaching lateral margins; dorsum black to dark reddish brown (Fig. 53) . . . . . *L. ingens* (Mayr)

47. Pronotum dark without strongly contrasting yellowish and dark areas (specimens of *L. quadricollis* and *L. jacquelinae* may have the anterior lobe or the entire pronotal disk yellow). 48
- Pronotum with strongly contrasting yellowish and dark areas. 57

48. Labium short, reaching posterior margin of metasternum or anterior third of abdominal sternite II; rostral segment IV shorter than antennal segment I. 49
- Labium longer, usually extending well onto abdomen, at least reaching anterior or middle third of of abdominal sternite III; rostral segment IV longer than antennal segment I. 52

49. Rostal segment IV pale chestnut orange with apex black. 50
- Rostral segment IV black 51

50. Corium chestnut orange with veins yellowish distally, forming a distinctive “H” pattern; posterolateral and posterior border of pronotum pale yellow; antennal segment I longer than 3.00 mm; total body length longer than 18.00 mm (Fig. 43). . . . . *L. franckei* **sp. nov.**
- Corium entirely pale reddish brown; posterolateral and posterior border of pronotum pale reddish brown (sometimes suffused with dark orange); antennal segment I shorter than 2.50 mm; total body length shorter than 17.00 mm (Fig. 18) . . . . . *L. arenalensis* Brailovsky & Barrera

51. Yellowish transverse fascia on corium present and irregular (Zig-Zag) (occasionally very faint); tibial dilations short occupying 70% or less length of hind tibiae (Fig. 21) . . . . . *L. brevirostris* Barber
- Yellowish transverse fascia on corium absent; tibial dilations longer, occupying 75–80% length of hind tibiae (Fig. 68) . . . . . *L. quadricollis* (Westwood)

52. Posterolateral margins of pronotum entire; antennal segment I usually unicolorous; yellowish transverse fascia on corium absent or reduced to a short oblique mark on medial veins 53
- Posterolateral margins of pronotum serrate; antennal segment I bicolored with a paler inner marginal area; yellowish transverse fascia on corium complete or absent. 54

53. Yellowish transverse fascia on corium reduced to a short oblique mark on medial veins; outer dilations of hind tibiae with two deep emarginations and two short and stout expansions; inner dilations of hind tibiae shorter than outer dilations (Fig. 64) . . . . . *L. oppositus* (Say)

- Yellowish transverse fascia on corium absent; outer dilations of hind tibiae multiphylliform with five deep emarginations and six elongate proyections; inner and outer dilations of nearly equal length Fig. 37) . . . . . *L. digitiformis* Brailovsky

54. Corial veins pale yellow and contrasting with the pale reddish brown surface; yellowish transverse fascia on corium absent; fore and middle tibiae pale orange with basal and medial ring yellow; antennal segment II robust, shorter than 3.90 (Fig. 54) . . . . . *L. jacquelinae* Brailovsky (in part)

- Corial veins unicolorous with the surface, never pale yellow; yellowish transverse fascia on corium complete (rarely entirely absent); fore and middle tibiae pale yellowish orange with basal third darker; antennal segment II slender, longer than 4.30. 55

55. Pronotal calli with a rough surface texture, numerous dark thick hairs interspersed with pale hairs on anterior pronotal disk; male genital capsule with a rectangular median notch, without dorsal prongs (Fig. 28) . . . . . *L. concolor* (Walker)

- Pronotal calli smooth, pale pilose hairs on anterior pronotal disk; male genital capsule with a rounded median notch, with or without dorsal prongs. 56

56. Male genital capsule with dorsal prongs; rostrum longer, reaching the middle third of IV to the anterior third of abdominal sternite V; outer dilation of hind tibiae conspicuously wide (3.16 ♂, 3.30 ♀); antennal segments II and III slender; antennal segment IV longer than 6.20 (Fig.71). . . . . *L. stigma* (Herbst)

- Male genital capsule without dorsal prongs; rostrum short, reaching anterior or posterior third of abdominal sternite III; outer dilation of hind tibiae barely expanded (1.48 ♂, 1.44 ♀); antennal segments II and III robust; antennal segment IV shorter than 3.40 (Fig. 16). . . . . *L. absconditus* Brailovsky & Barrera

57. Antennal segment I unicolorous 58

- Antennal segment I bicolorous (reddish brown to black longitudinal stripe sometimes hard to see and only reaches basal third of the segment) 60

58. Antennal segments I and II pale orange 59

- Antennal segments I and II entirely black to dark brown (Fig. 30) . . . . . *L. conspersus* (Stål)

59. Rostrum reaching anterior third of abdominal sternite VII; humeral areas not expanded; humeral angles subacute; corium with yellowish white transverse fascia irregular (Fig. 56) . . . . . *L. lambayaquinus* Brailovsky & Barrera

- Rostrum shorter, reaching posterior border of metasternum; humeral areas expanded laterally; humeral angles acute; yellow transverse fascia on corium wide, with anterior margin straight and posterior margin rounded (Fig. 22). . . . . *L. caicosensis* **sp. nov.**

60. Clavus reddish brown to dark brown; antennal segment II with medial portion entirely pale orange and the remaining areas dark; anterior portion of pronotal disk with two distinctly round yellowish spots, or posterior pronotal disk and the area behind humeri pale yellow 62

- Clavus entirely pale yellow or dark brown with the claval vein pale yellow; antennal segment II entirely orange or with short black stripe located dorsally and extending at the anterior third of the segment; anterior portion of pronotal disk with a yellowish rectangular transverse band not reaching lateral margins 61

61. Clavus entirely yellow; antennal segment II slender, longer than 4.30 mm (Fig. 50) . . . . . *L. impensus* **sp. nov.**

- Clavus dark brown with claval vein yellow; antennal segment II robust, shorter than 3.90 (Fig. 54) . . . . . *L. jacquelinae* Brailovsky (in part)

62. Posterior lobe of pronotum with yellowish contrasting areas 63

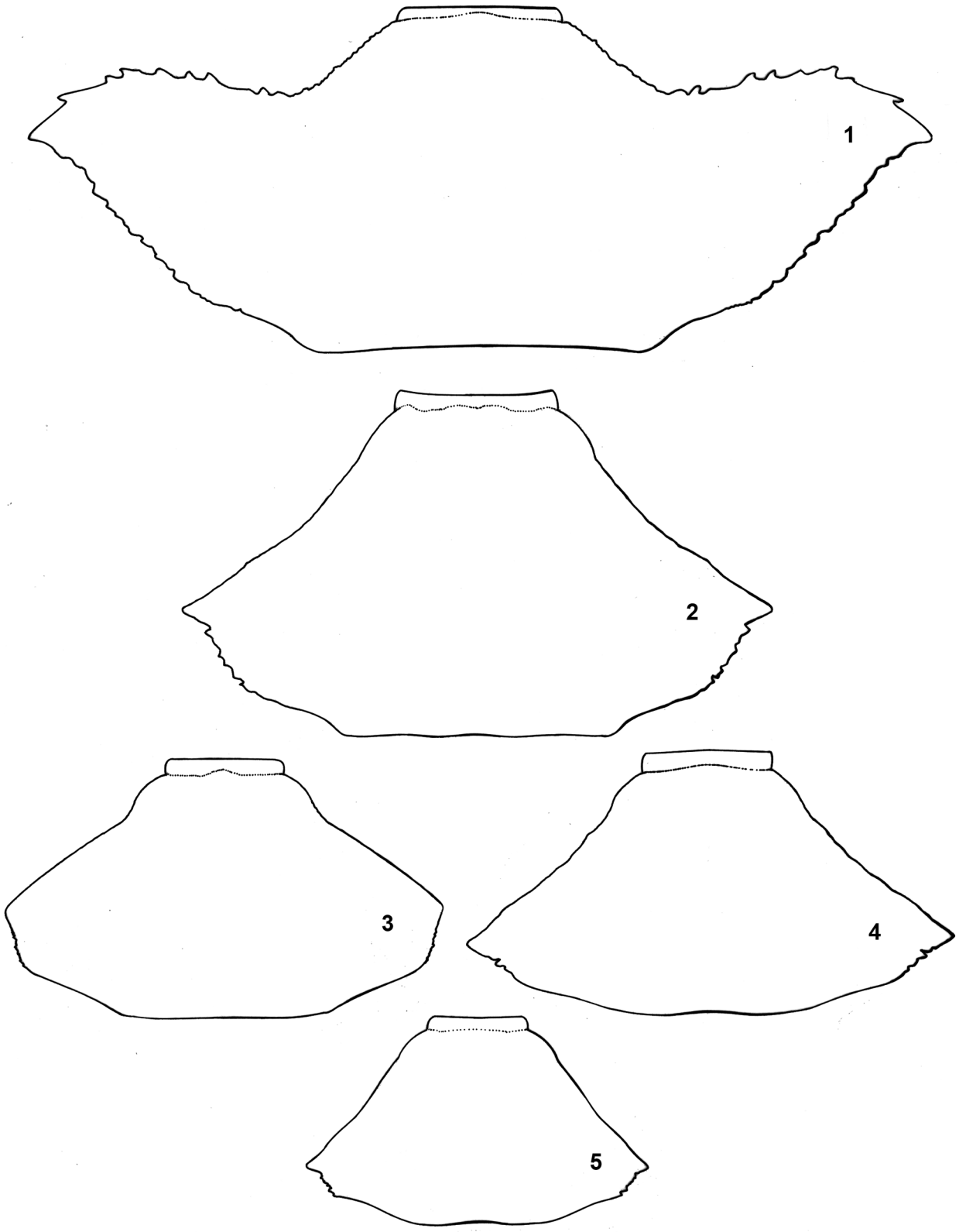
- Posterior lobe of pronotum concolorous without pale areas 64

63. Posterior lobe of pronotal disk with a yellowish rectangular transverse band not reaching lateral margins (Fig. 29) . . . . . *L. confussus* Alayo & Grillo

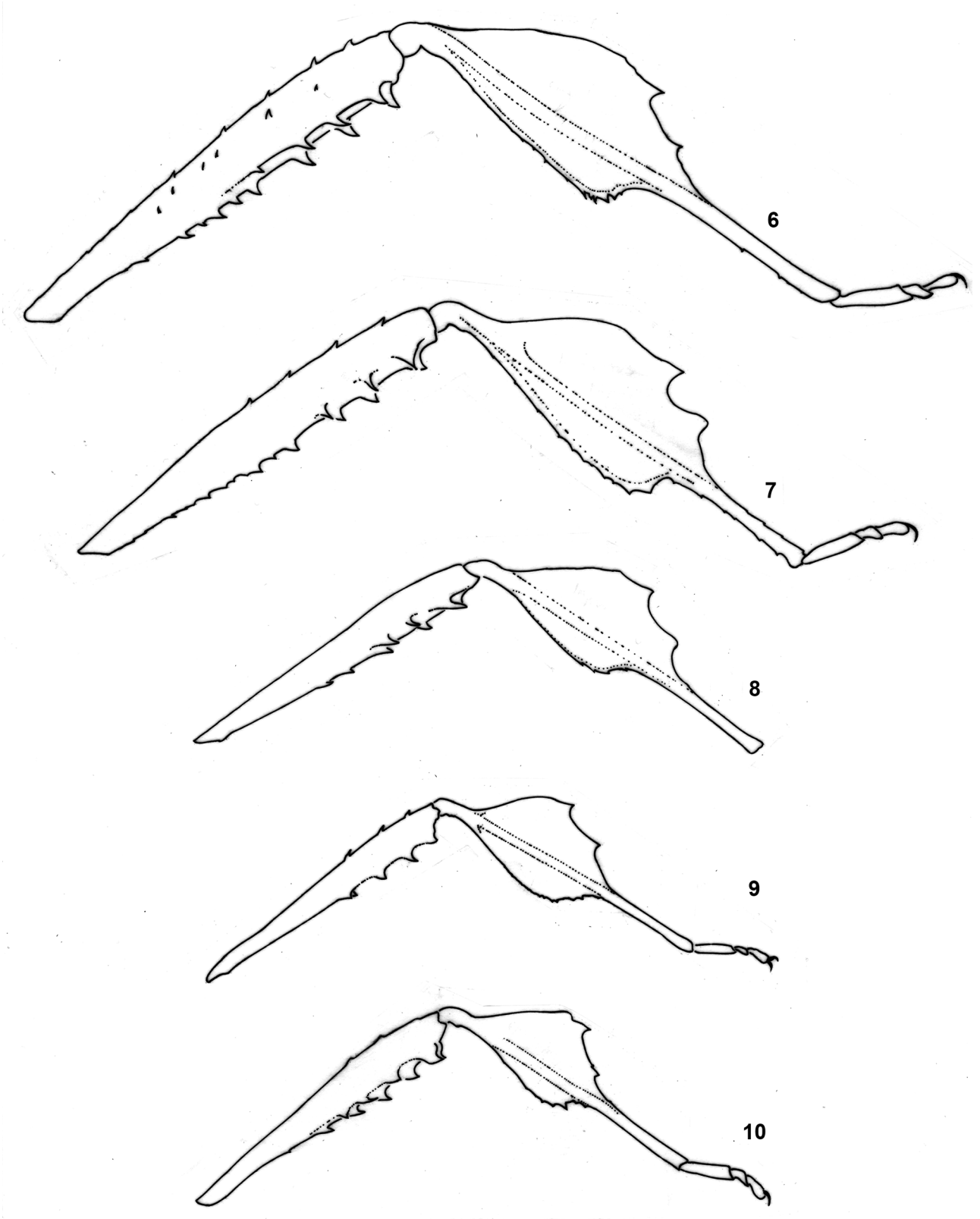
- Posterior lobe of pronotal disk only with posterior margin yellowish and strongly contrasting with adjacent darker areas (Fig. 46) . . . . . *L. grenadensis* Allen

64. Yellowish transverse fascia on corium absent, if present narrow, confined to veins; smaller, less robust species, body length less than 18.00; left median lobe on dorsal sac of aedeagus long, without a secondary lobe (Fig. 61) . . . . *L. neovexillatus* Allen

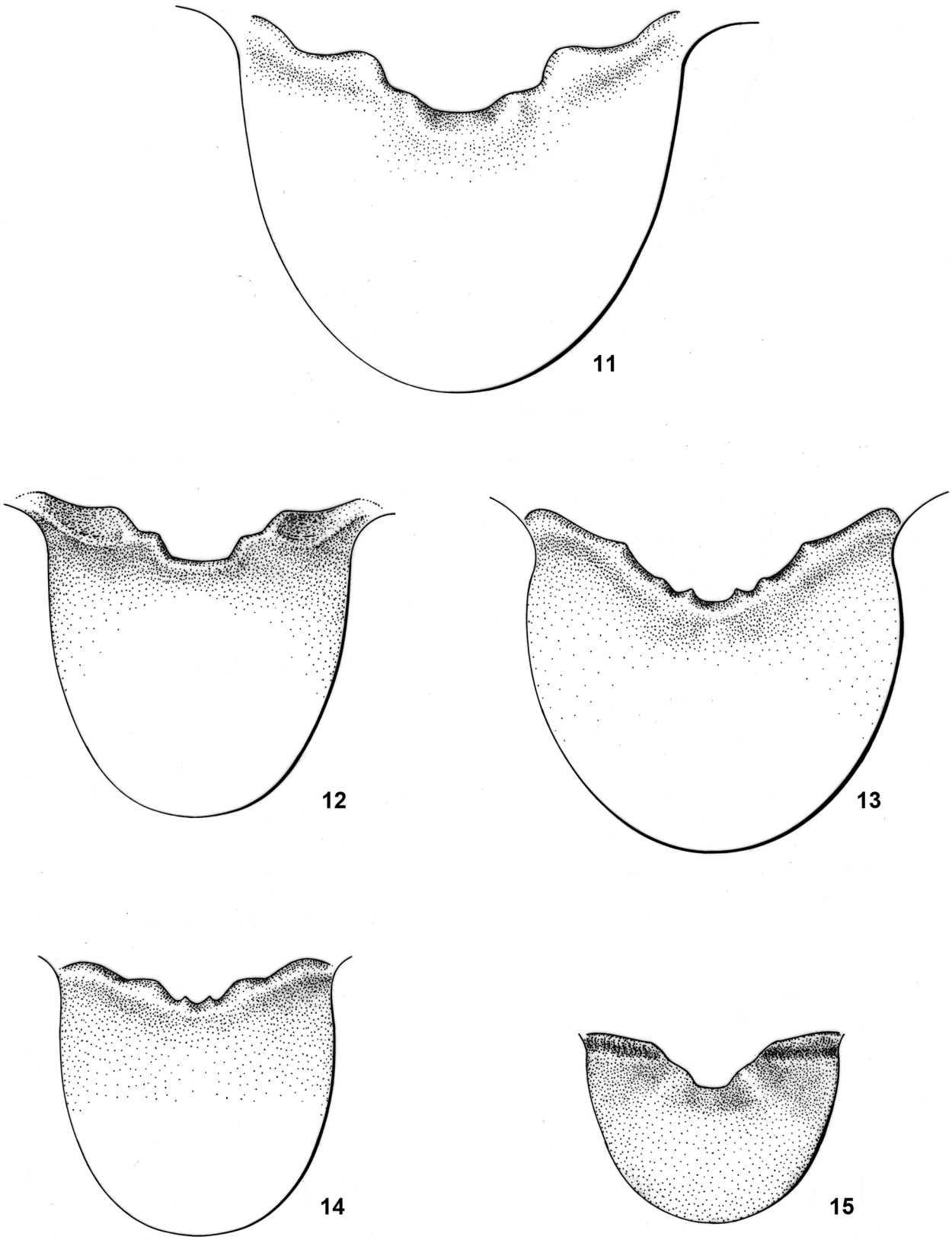
- Yellowish transverse fascia rarely absent, usually wide, on both corium and veins; larger, robust species, body length longer than 20.00; left median lobe on dorsal sac of aedeagus blunt and with long secondary lobe (Fig. 77) . . . . . *L. zonatus* (Dallas)



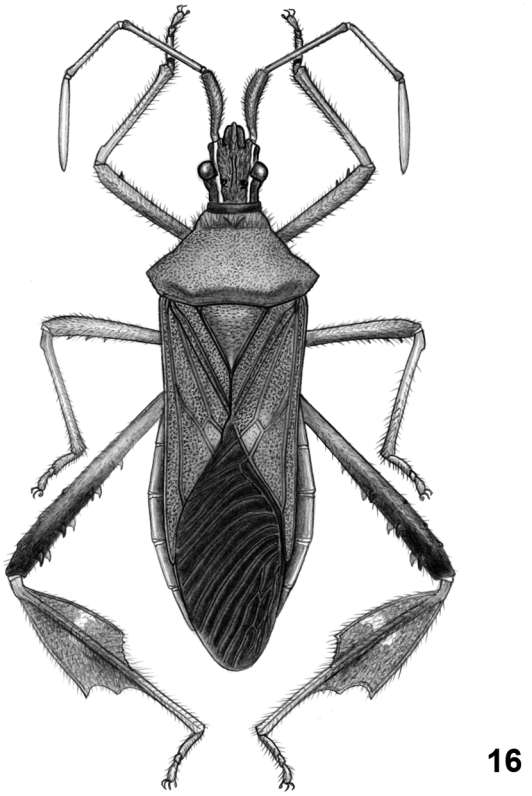
FIGURES 1–5. Pronotum of *Leptoglossus* spp. 1, *L. egeri* **sp. nov.** 2, *L. franckei* **sp. nov.** 3, *L. impensus* **sp. nov.** 4, *L. caicosensis* **sp. nov.** 5, *L. polychromus* **sp. nov.**

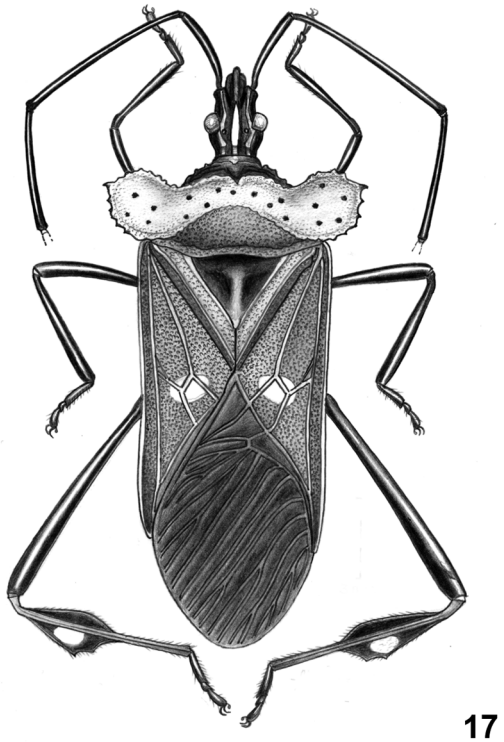


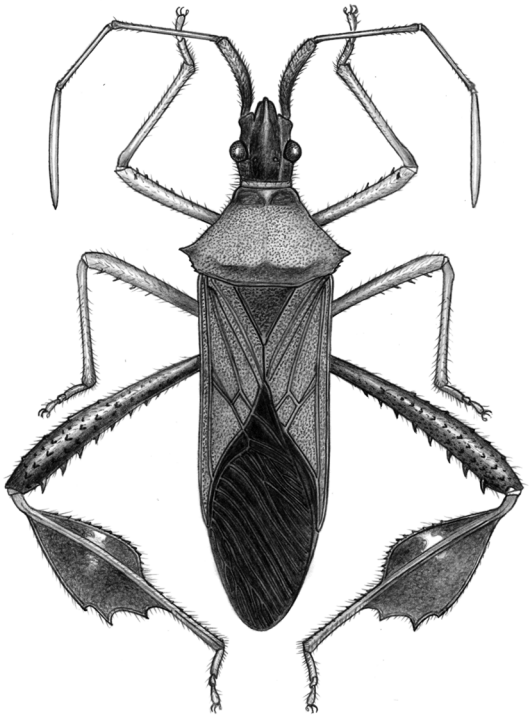
FIGURES 6–10. Hind leg of *Leptoglossus* spp. 6, *L. egeri* **sp. nov.** 7, *L. franckei* **sp. nov.** 8, *L. impensus* **sp. nov.** 9, *L. polychromus* **sp. nov.** 10, *L. caicosensis* **sp. nov.**

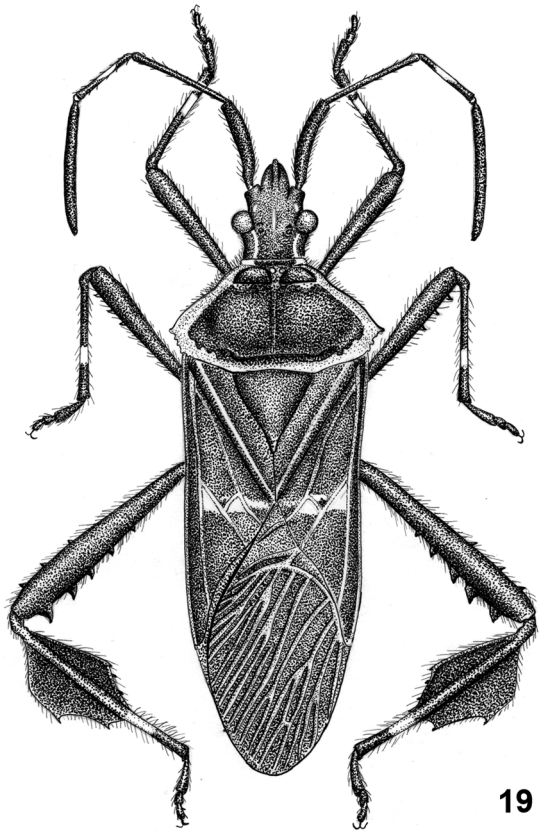


FIGURES 11–15. Male genital capasule of *Leptoglossus* spp.11, *L. egeri* **sp. nov.** 12, *L. impensus* **sp. nov.** 13, *L. franckei* **sp. nov.** 14, *L. caicosensis* **sp. nov.** 15, *L. polychromus* **sp. nov.**

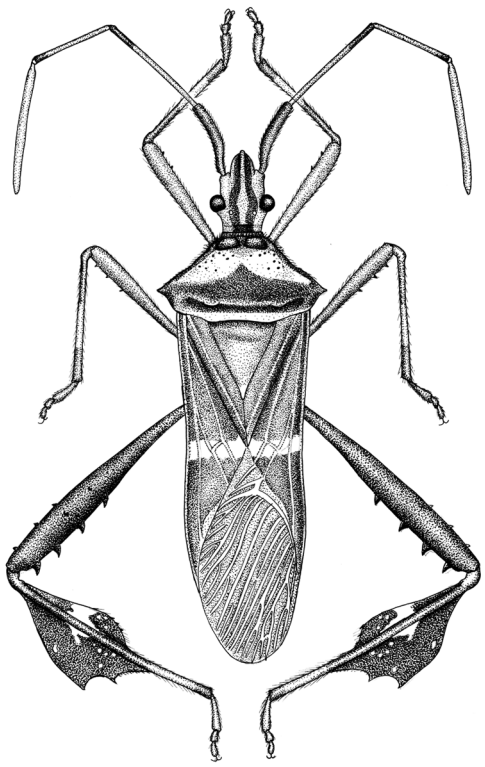








FIGURES 16–19. Dorsal view of *Leptoglossus* spp. 16, *L. absconditus* Brailovsky & Barrera (female). 17, *L. alatus* (Walker) (female). 18, *L. arenalensis* Brailovsky & Barrera (male). 19, *L. ashmeadi* Heidemann (female).



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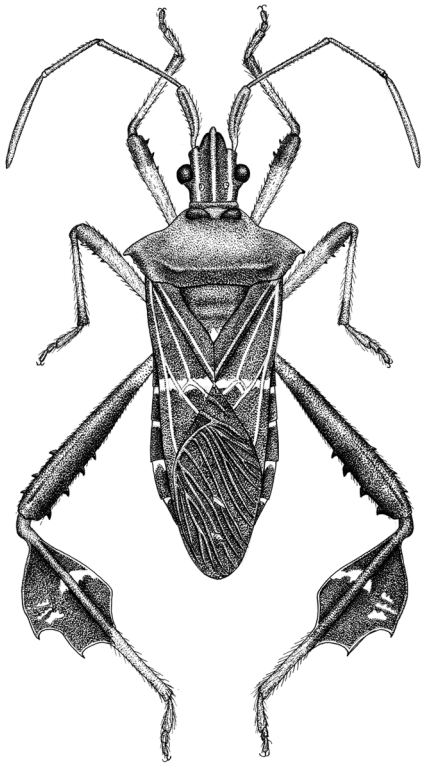

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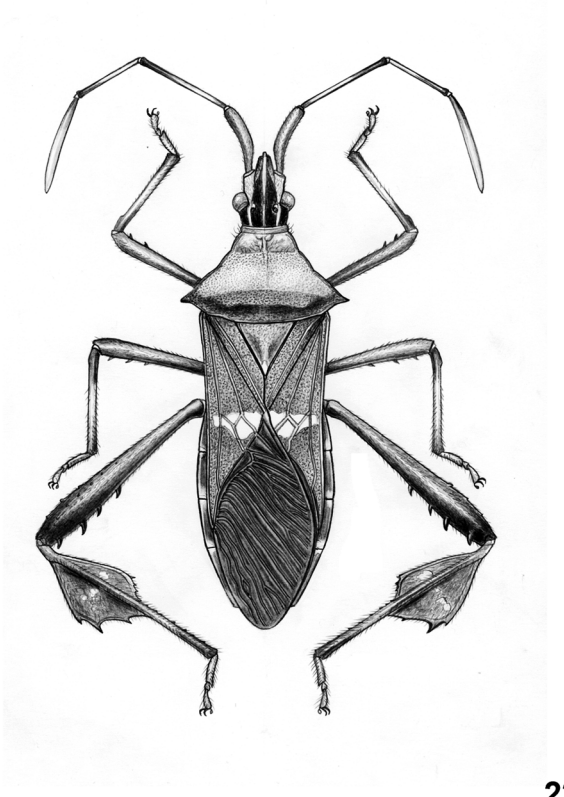

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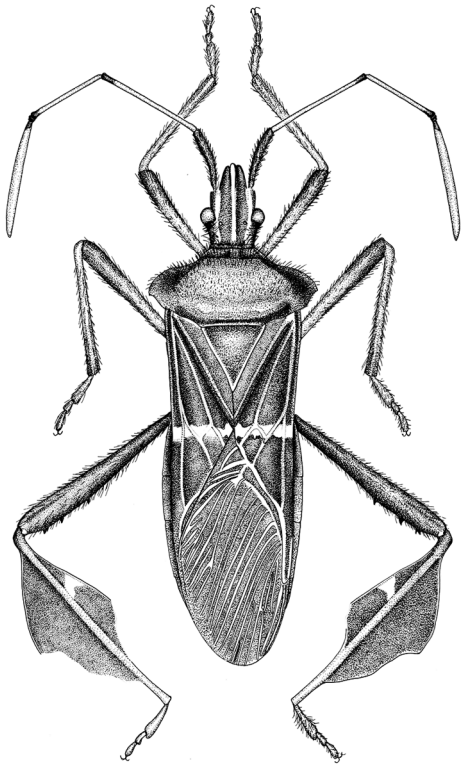

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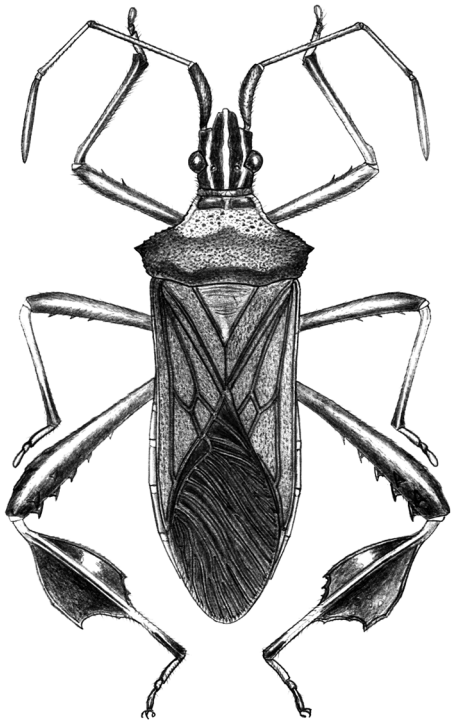
FIGURES 20–23. Dorsal view of *Leptoglossus* spp. 20, *L. balteatus* (Linnaeus) (male). 21, *L. brevirostris* Barber (male). 22, *L. caicosensis* Brailovsky & Barrera (male). 23, *L. cartagoensis* Brailovsky & Barrera (female).



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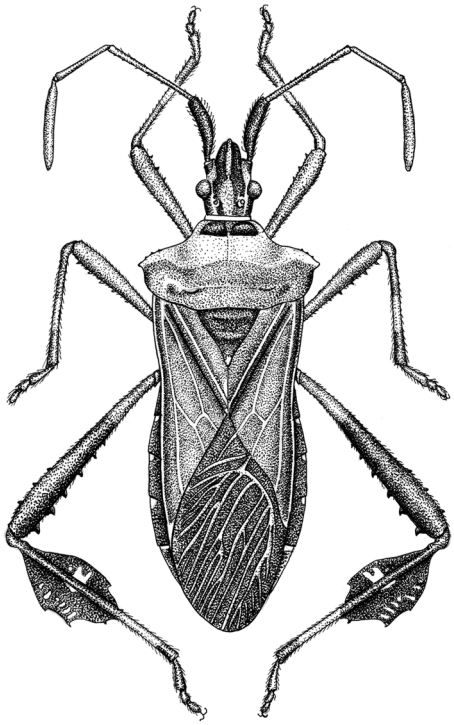

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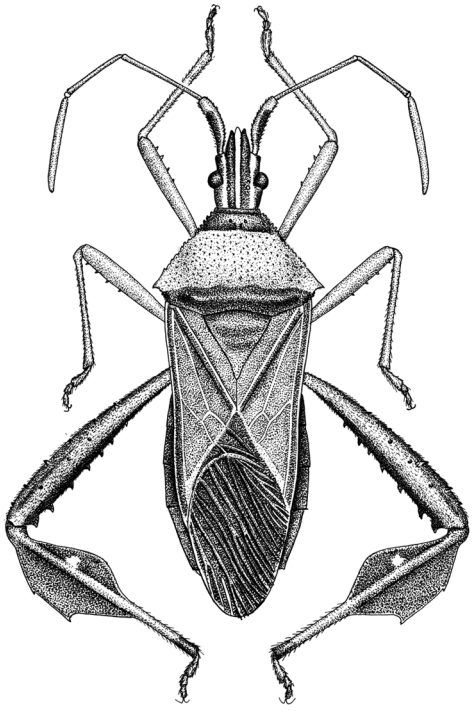

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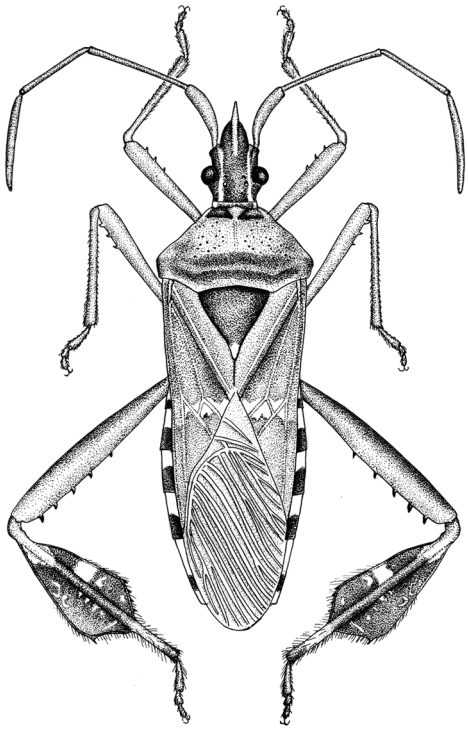

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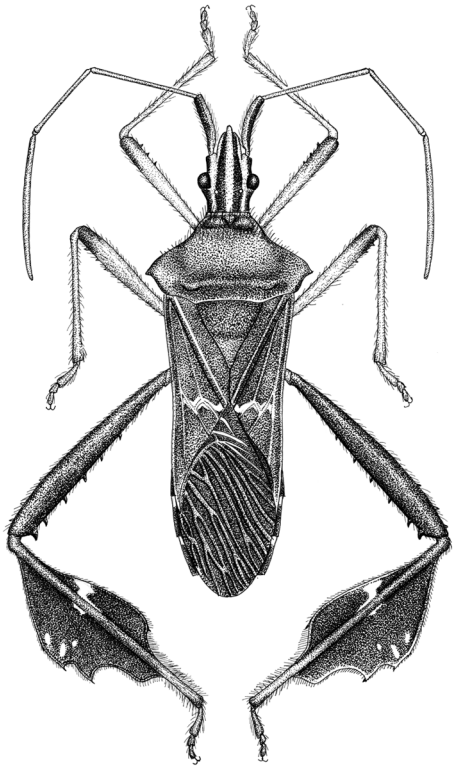
FIGURES 24–27. Dorsal view of *Leptoglossus* spp. 24, *L. chilensis chilensis* (Spinola) (female). 25, *L. chilensis concaviusculus* Berg (female). 26, *L. cinctus* (Herrich-Schaeffer) (female). 27, *L. clypealis* Heidemann (male).



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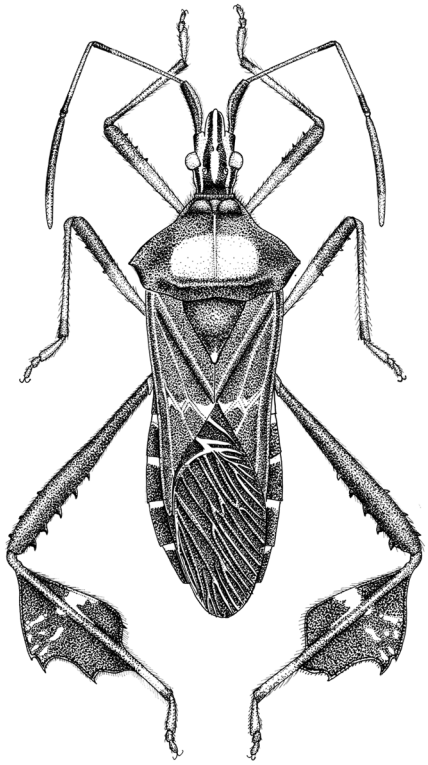

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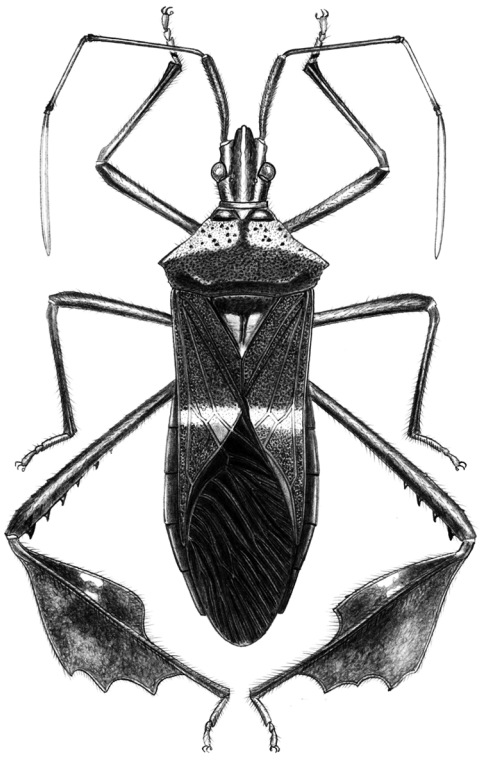

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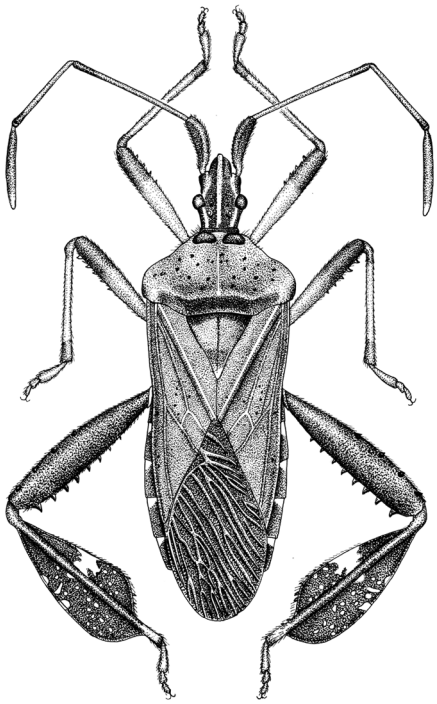

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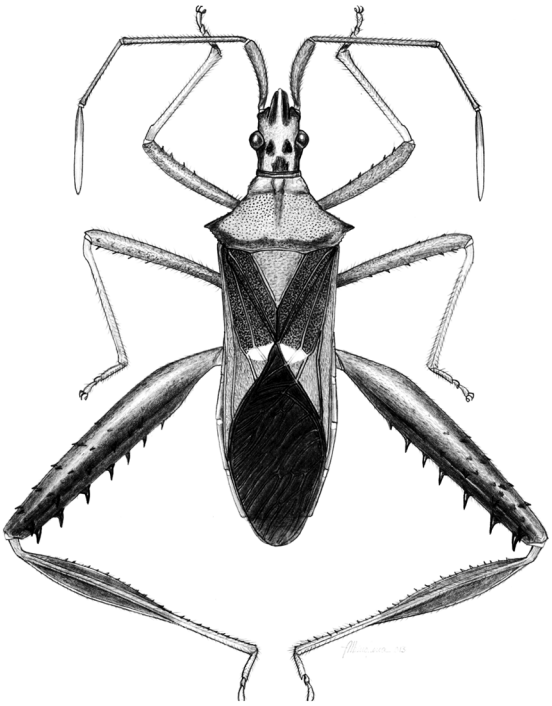
FIGURES 28–31. Dorsal view of *Leptoglossus* spp. 28, *L concolor* (Walker) (male). 29, *L. confusus* Alayo & Grillo (female). 30, *L. conspersus* Stål (female). 31, *L. corculus* (Say) (male).



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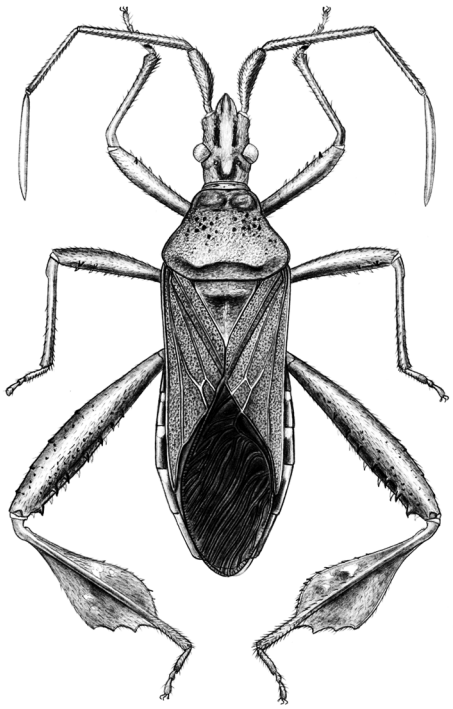

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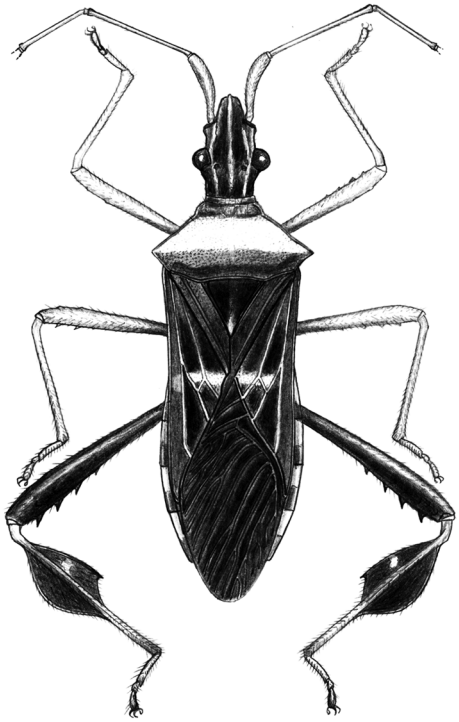

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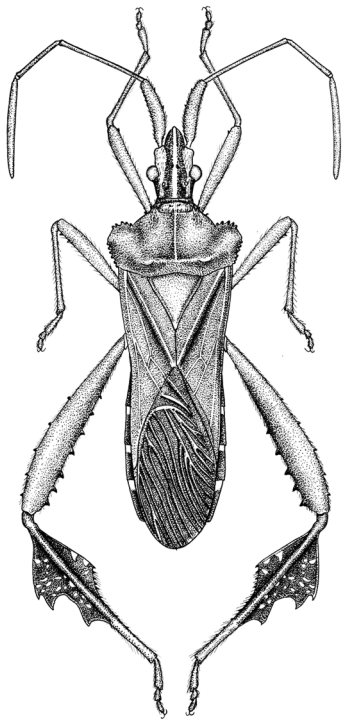

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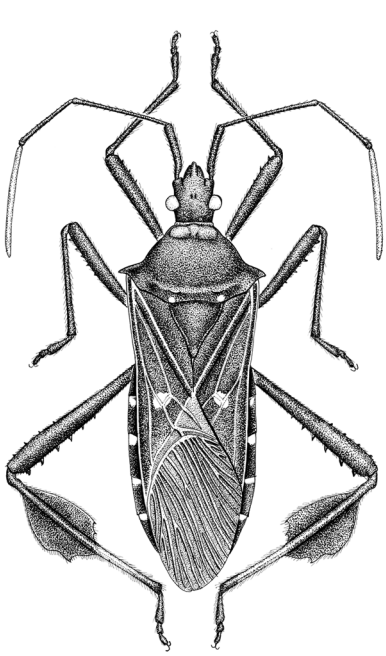
FIGURES 32–35. Dorsal view of *Leptoglossus* spp. 32, *L crassicornis* (Dallas) (male). 33, *L. crestalis* Brailovsky & Barrera (male). 34, *L. dearmasi* Alayo & Grillo (female). 35, *L. dentatus* Berg (male).



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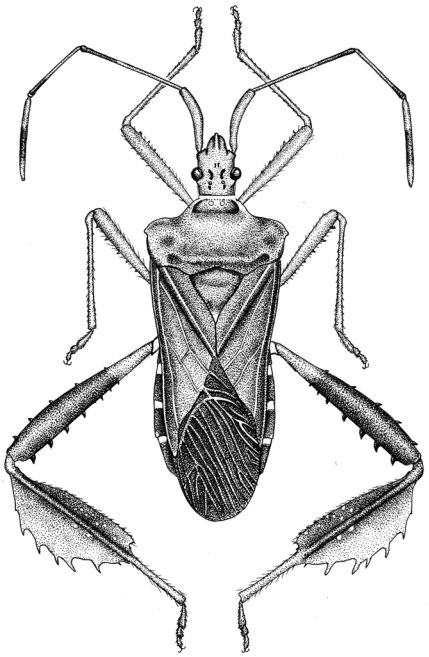

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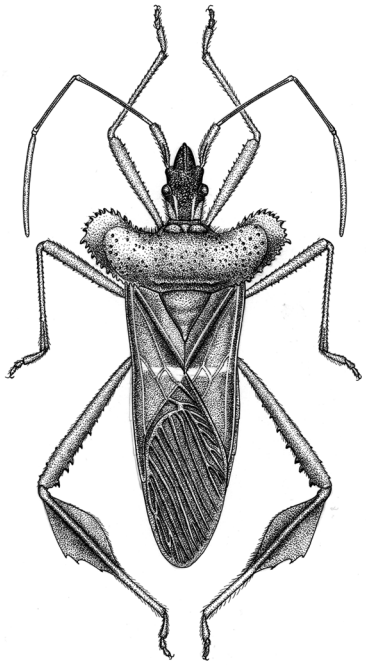

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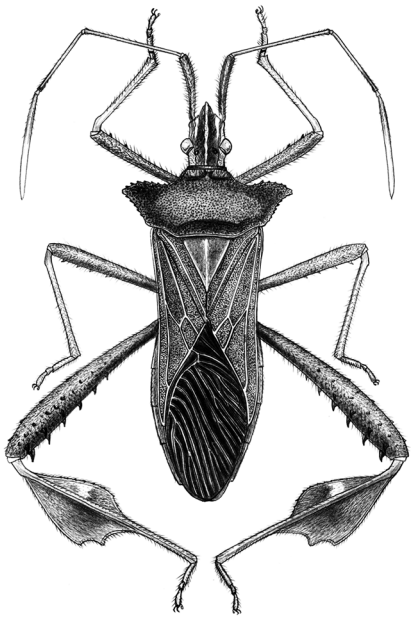

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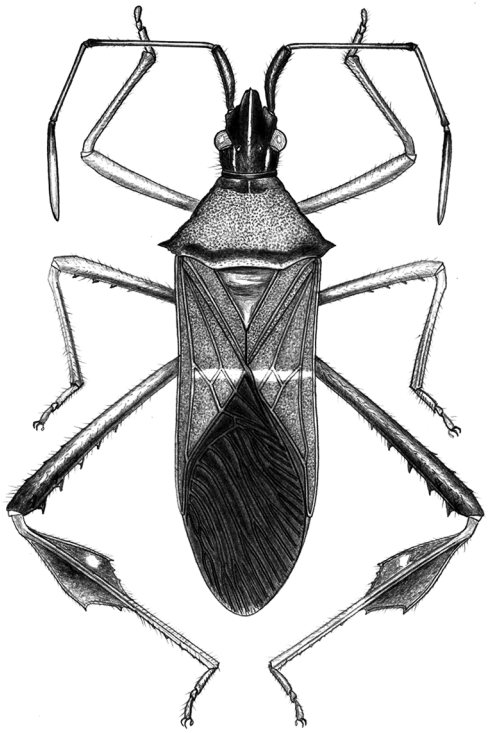
FIGURES 36–39. Dorsal view of *Leptoglossus* spp. 36, *L dialeptus* Brailovsky & Barrera (female). 37, *L. digitiformis* Brailovsky & Barrera (female). 38, *L. dilaticollis* Guérin-Méneville (female). 39, *L. egeri* **sp. nov.** (male).



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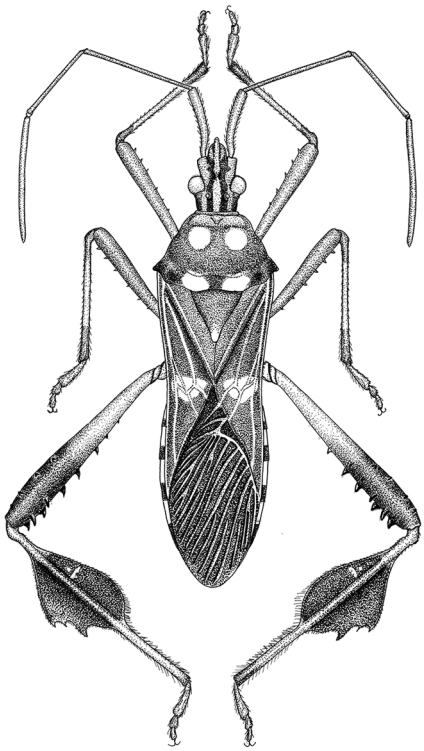

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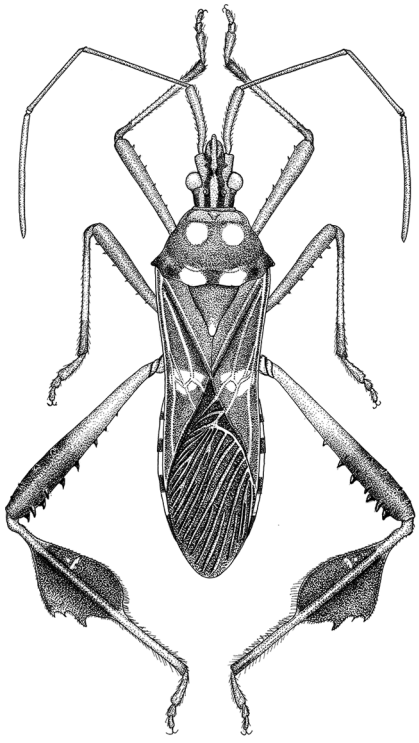

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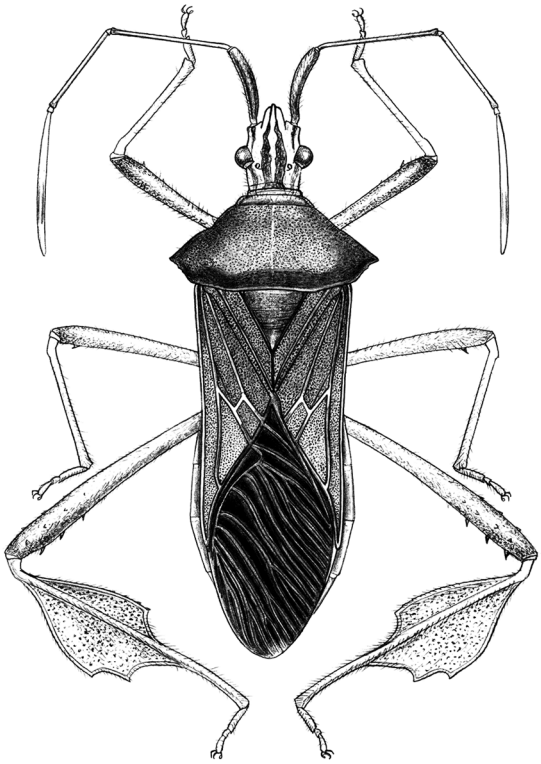

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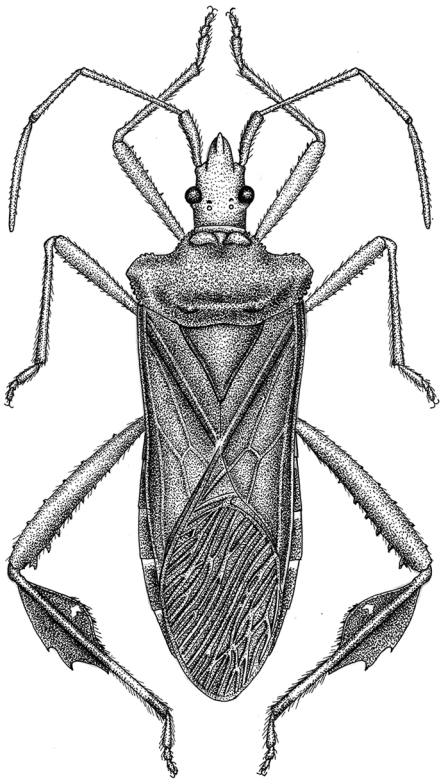
FIGURES 40–43. Dorsal view of *Leptoglossus* spp. 40, *L fasciatus* (Westwood) (female). 41, *L. fasciolatus* (Stål) (male). 42, *L. flavosignatus* Blöte (male). 43, *L. frankei* **sp. nov.** (male).



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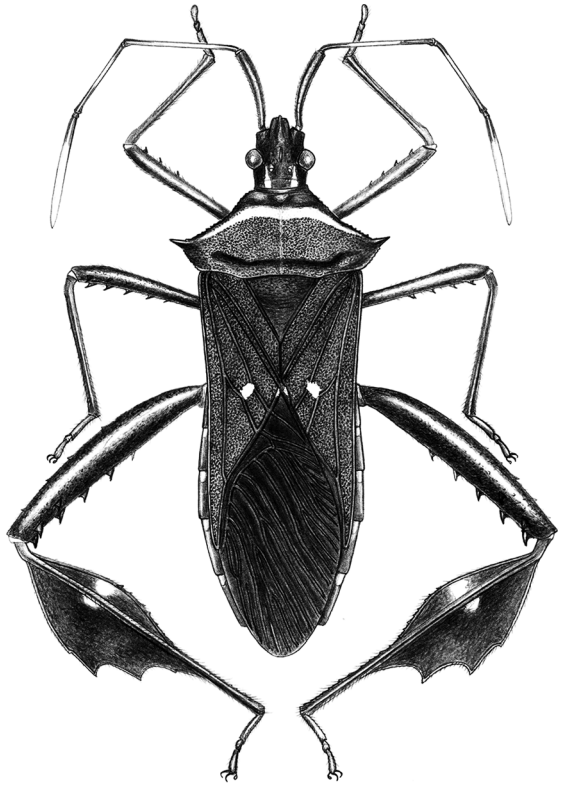

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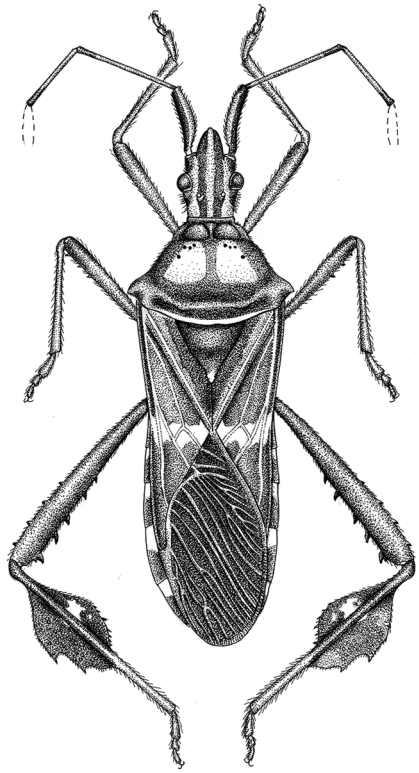

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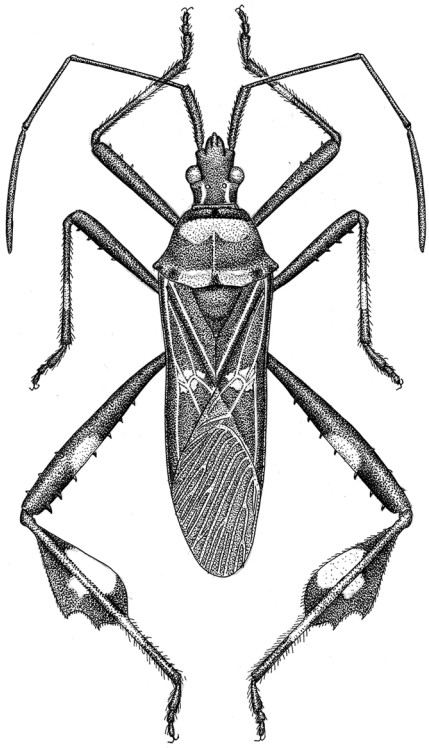
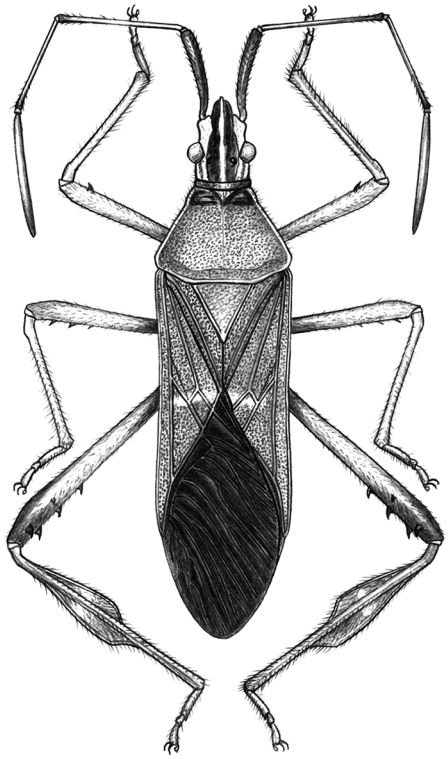


47

FIGURES 44–47. Dorsal view of *Leptoglossus* spp. 44, *L. fulvicornis* (Westwood) (female). 45, *L. gonagra* (Fabricius) (male). 46, *L. grenadensis* Allen (female). 47, *L. harpagon* (Fabricius) (female).



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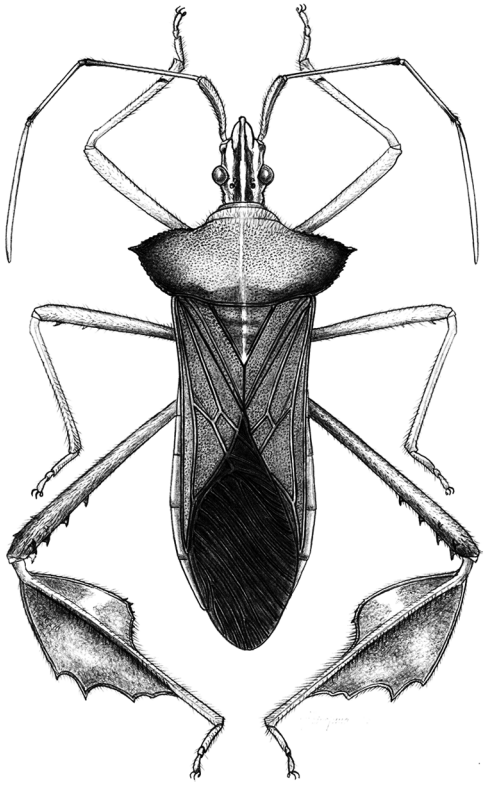

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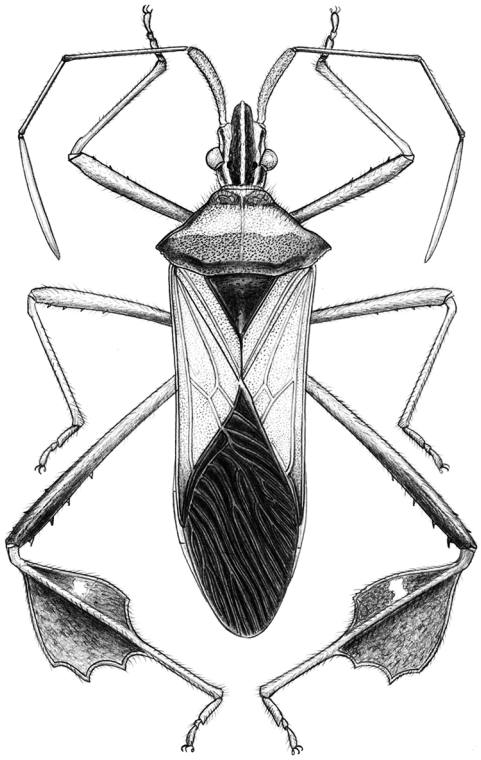

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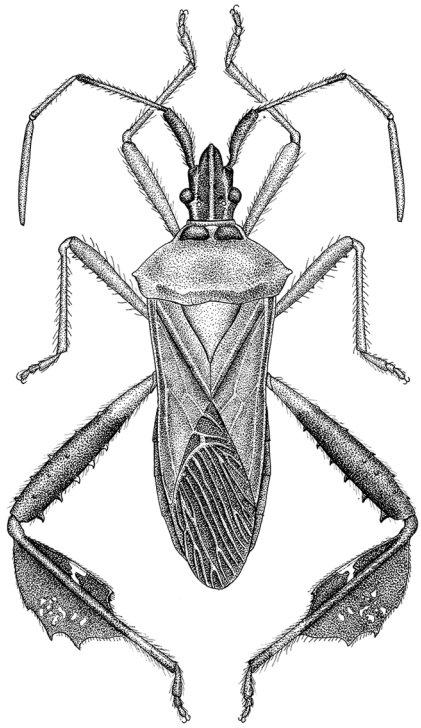
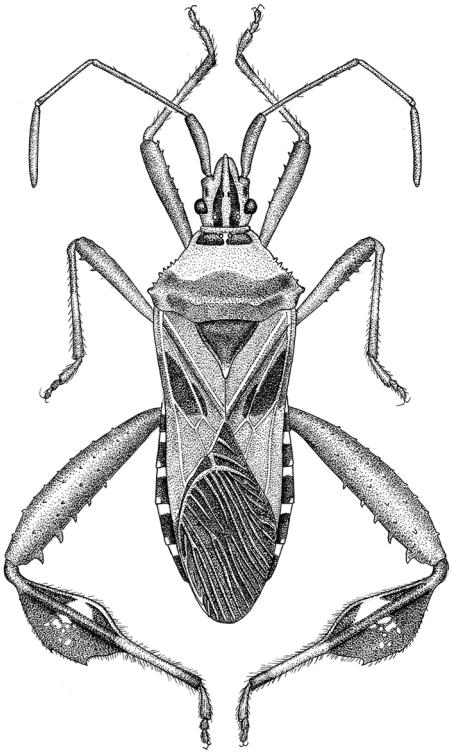


51

FIGURES 48–51. Dorsal view of *Leptoglossus* spp. 48, *L. hesperus* Brailovsky & Couturier (male). 49, *L. humeralis* Allen (female). 50, *L. impensus* **sp. nov.** (male). 51, *L. impictipennis* Stål (male).



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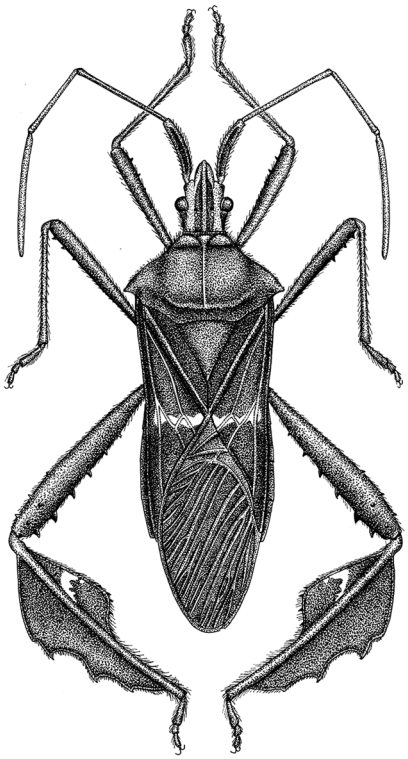

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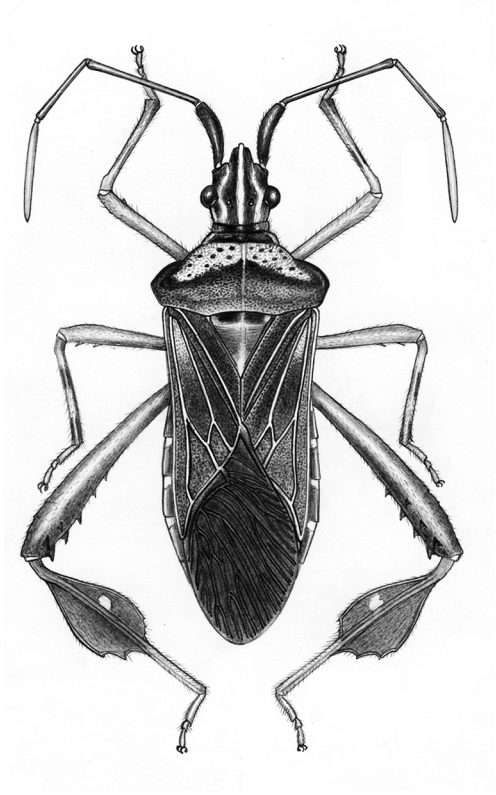

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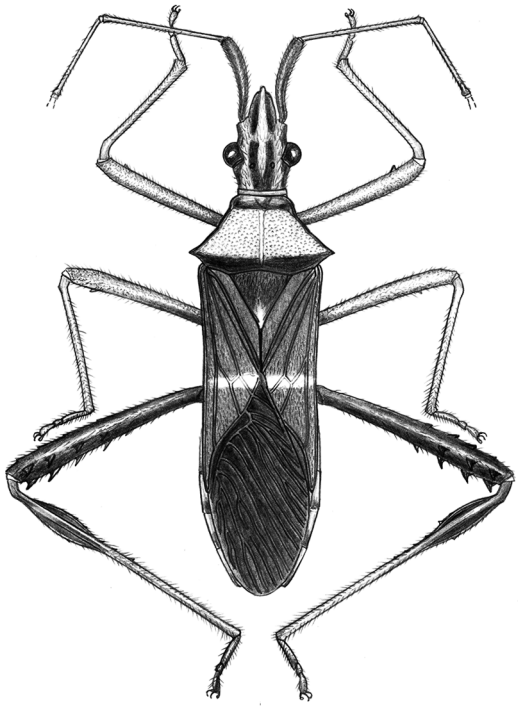

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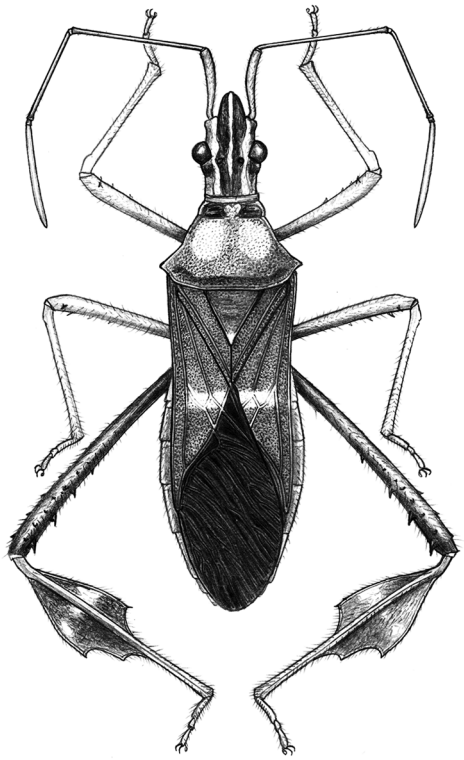
FIGURES 52–55. Dorsal view of *Leptoglossus* spp. 52, *L. impictus* (Stål) (male). 53, *L. ingens* (Mayr) (male). 54, *L. jacquelinae* Brailovsky (female). 55, *L. katiae* Schaefer & Packauskas (male).



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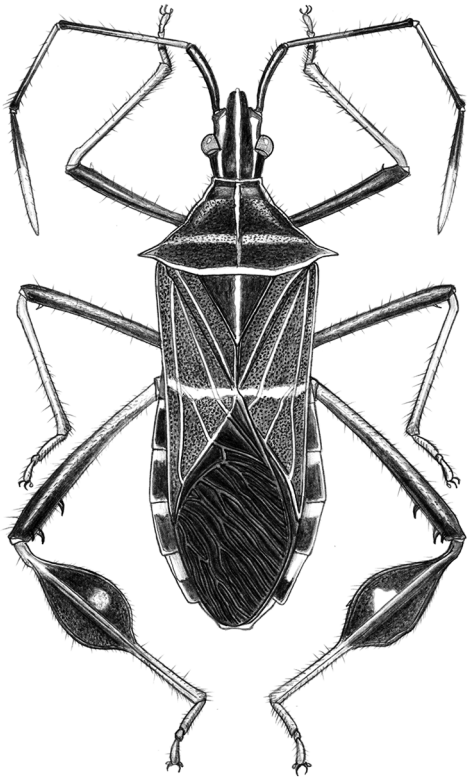

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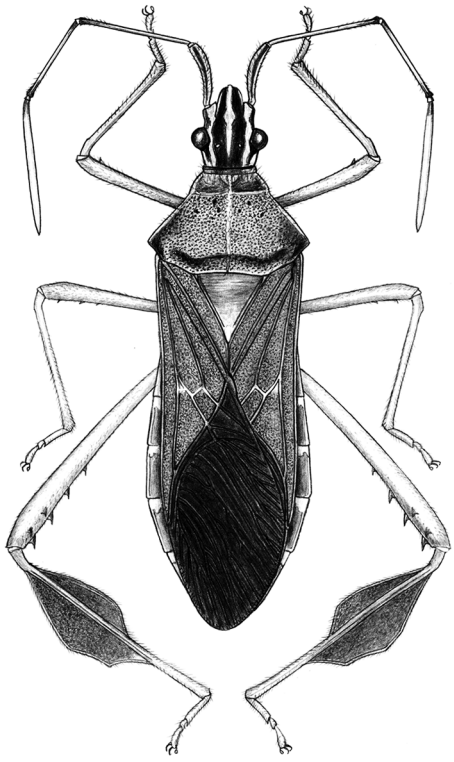

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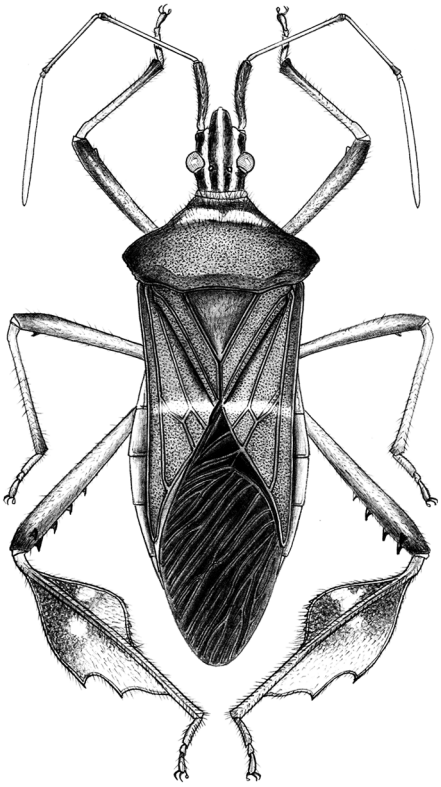

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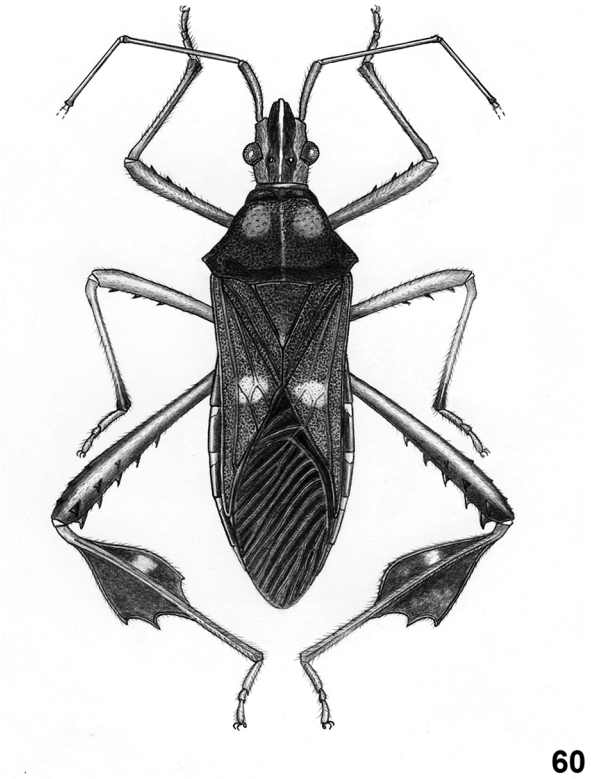
FIGURES 56–59. Dorsal view of *Leptoglossus* spp. 56, *L. lambayaquinus* Brailovsky & Barrera (female). 57, *L. lineosus* (Stål) (female). 58, *L. lonchoides* Allen (female). 59, *L. macrophyllus* Stål (female).



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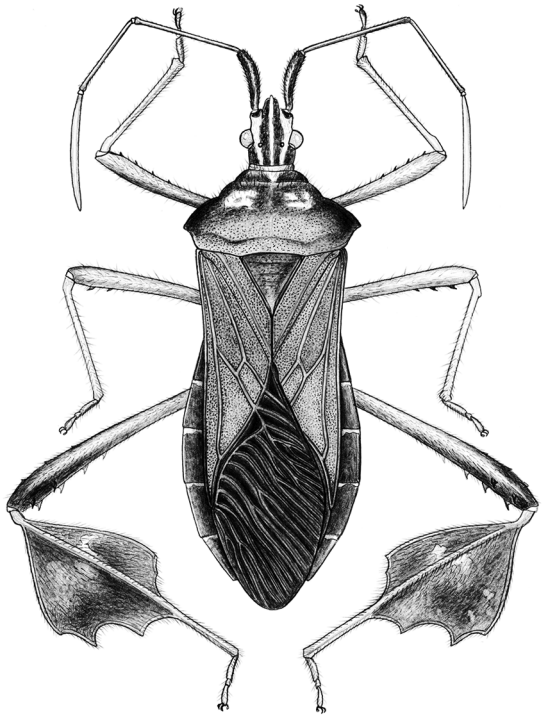

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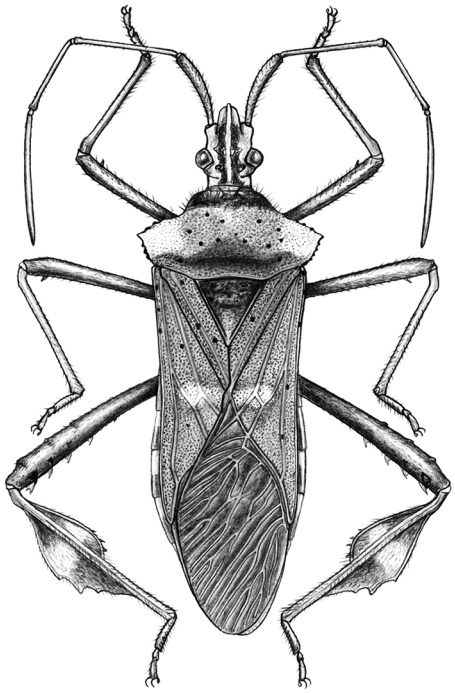

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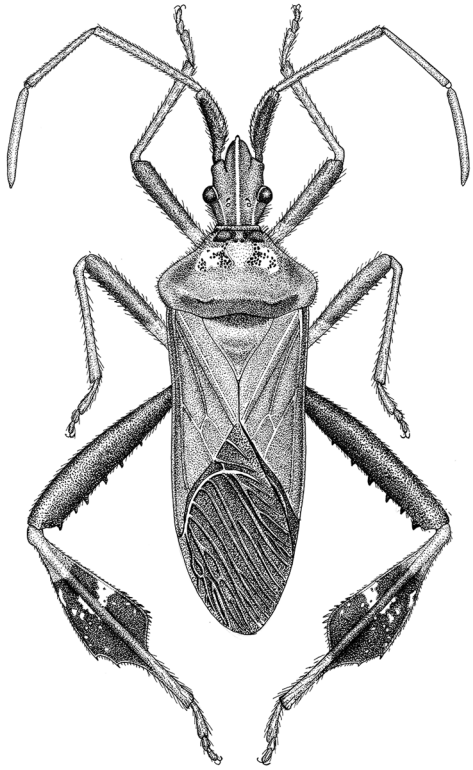

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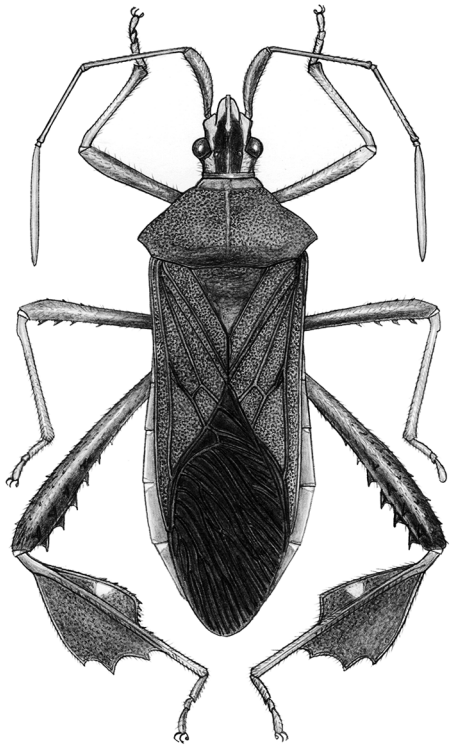
FIGURES 60–63. Dorsal view of *Leptoglossus* spp. 60, *L. manausensis* Brailovsky & Barrera (female). 61, *L. neovexillatus* Allen (female). 62, *L. nigropearlei* Yonke (female). 63, *L. occidentalis* Heidemann (male).



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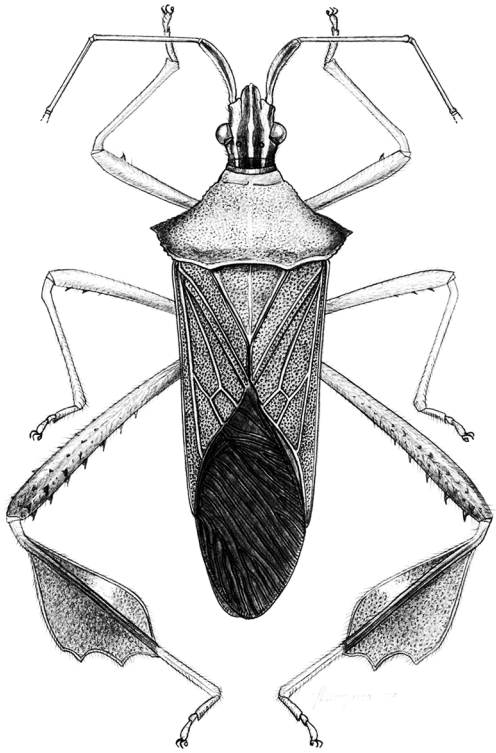

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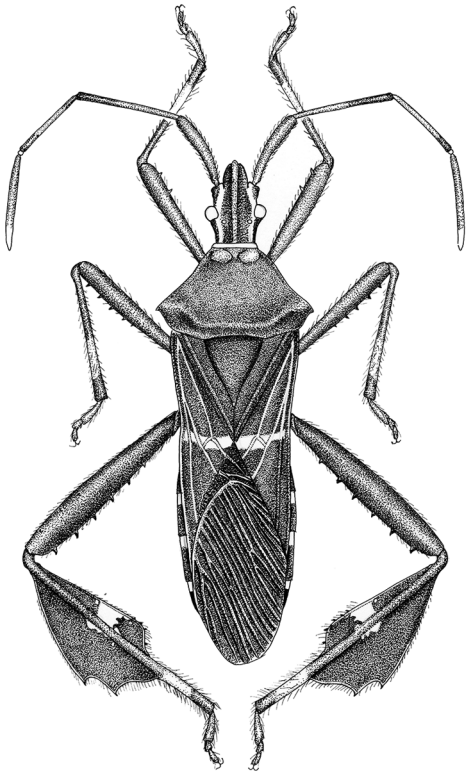

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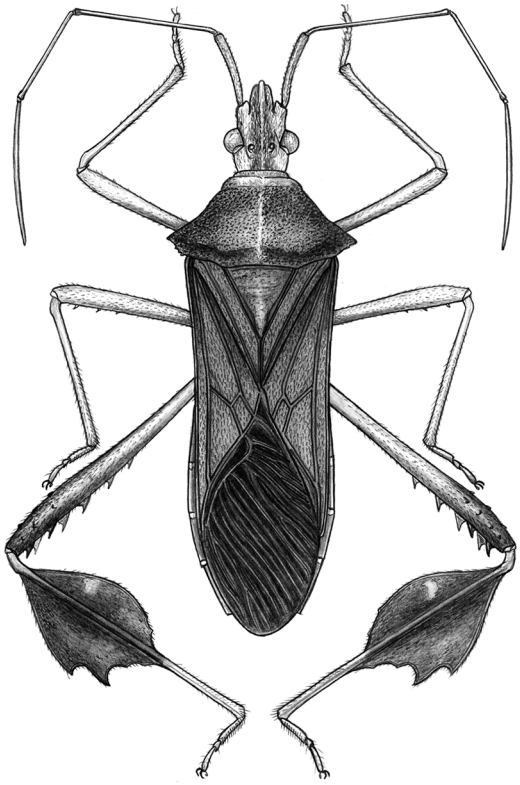
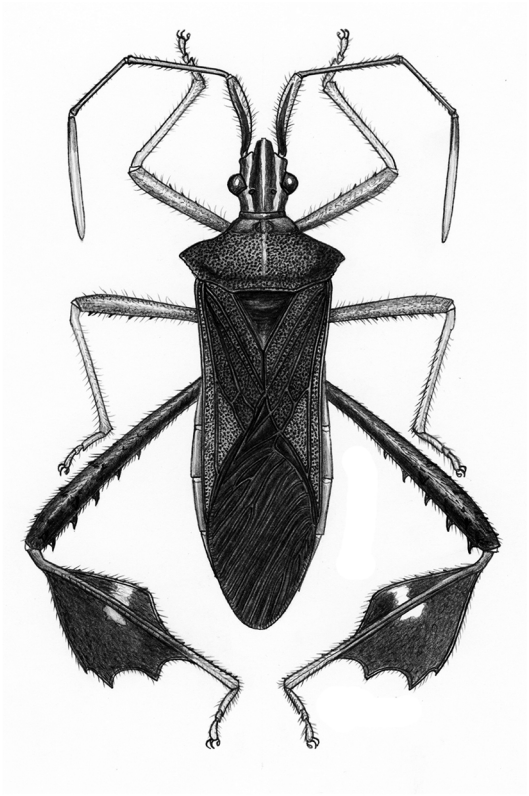


67

FIGURES 64–67. Dorsal view of *Leptoglossus* spp. 64, *L. oppositus* (Say) (female). 65, *L. pallidivenosus* Allen (male). 66, *L. phyllopus* (Linnaeus) (male). 67, *L. polychromus* **sp. nov.** (female).



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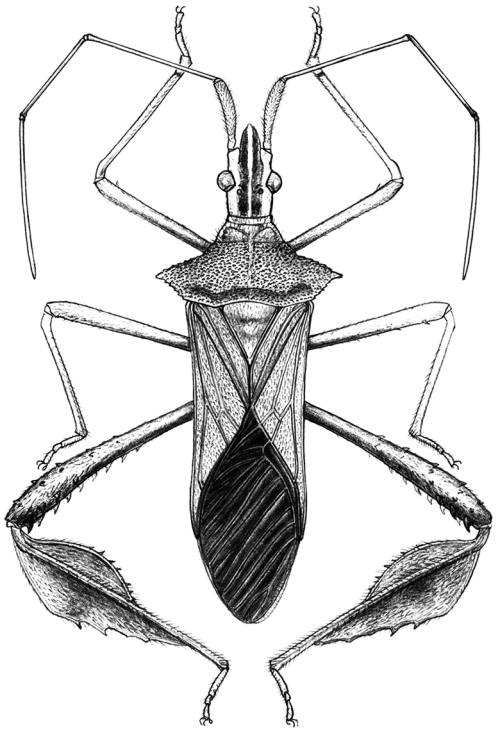

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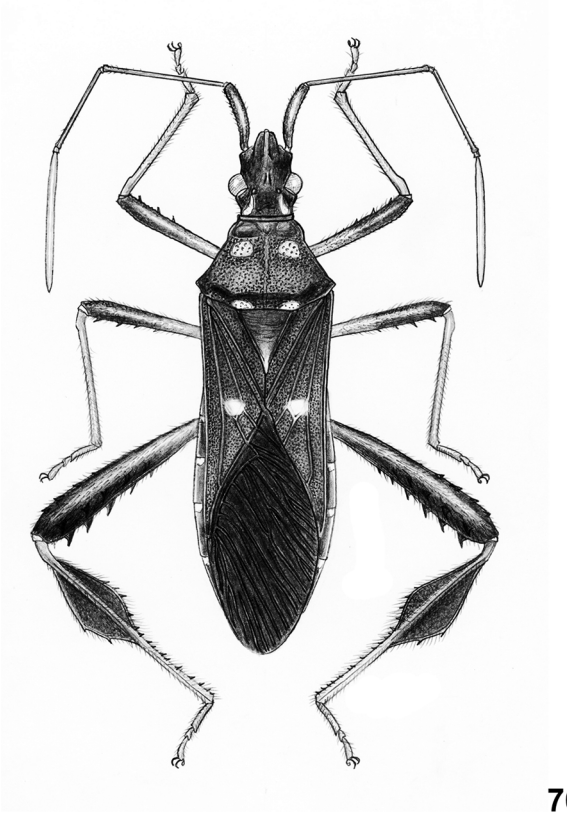

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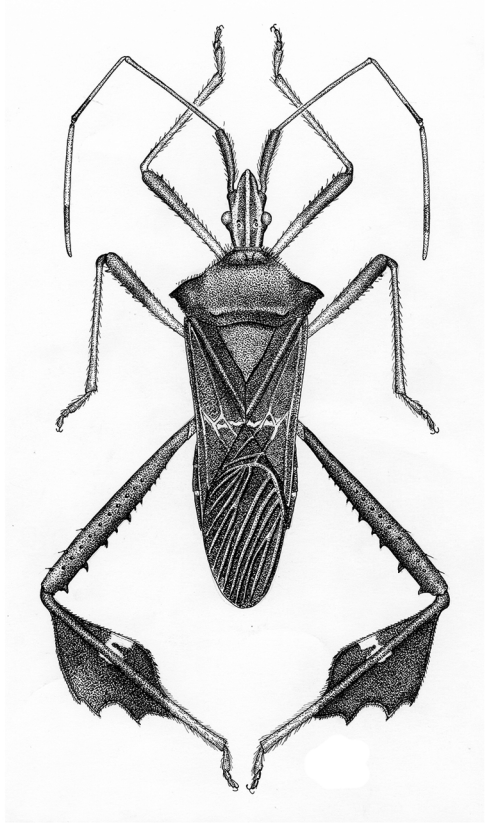
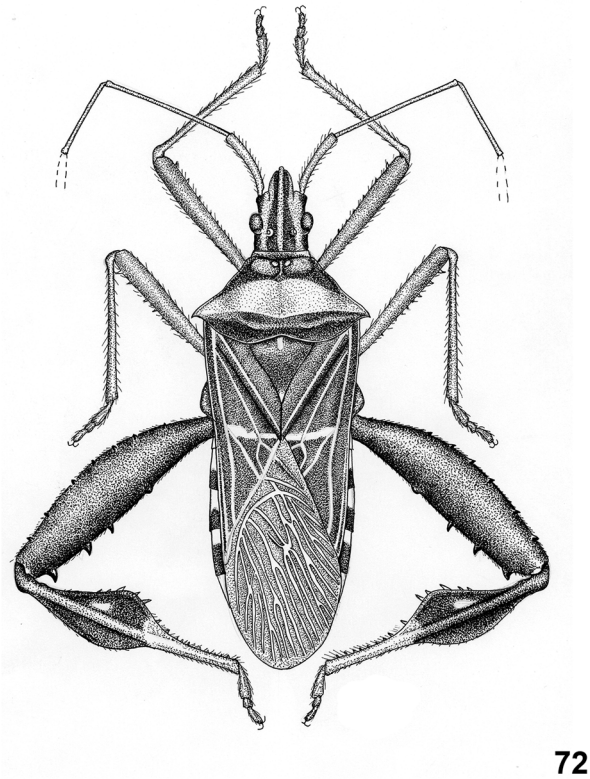


71

FIGURES 68–71. Dorsal view of *Leptoglossus* spp. 68, *L. quadricollis* (Westwood) (male). 69, *L. rubrescens* (Walker) (male). 70, *L. sabanensis* Brailovsky & Barrera (male). 71, *L. stigma* (Herbst) (male).



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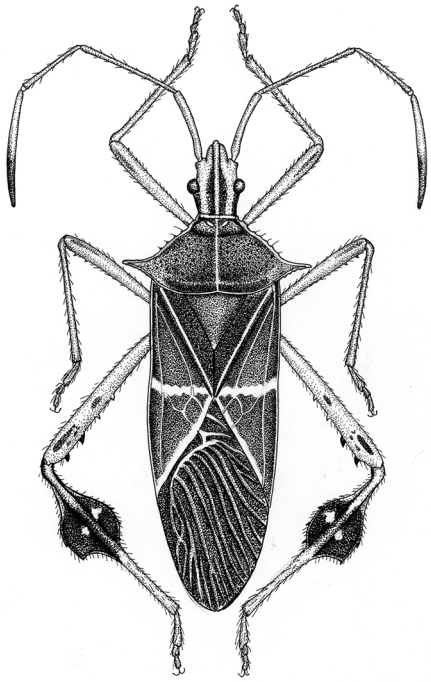

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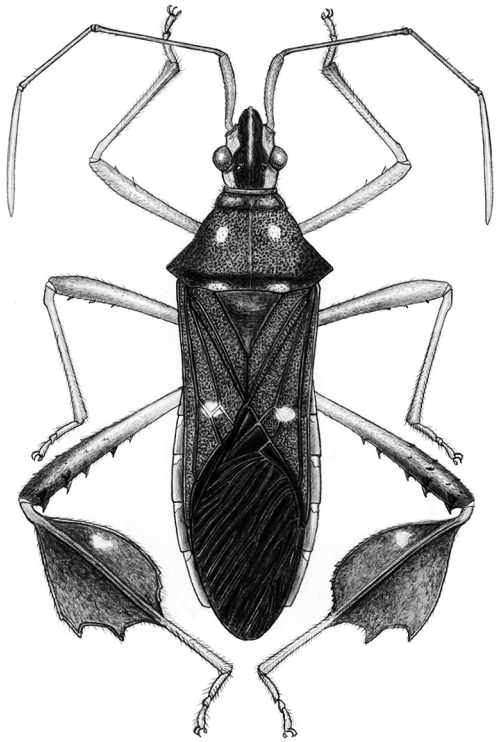

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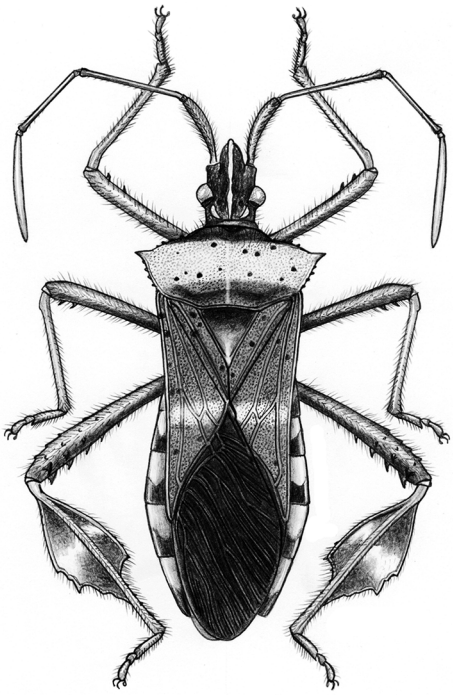
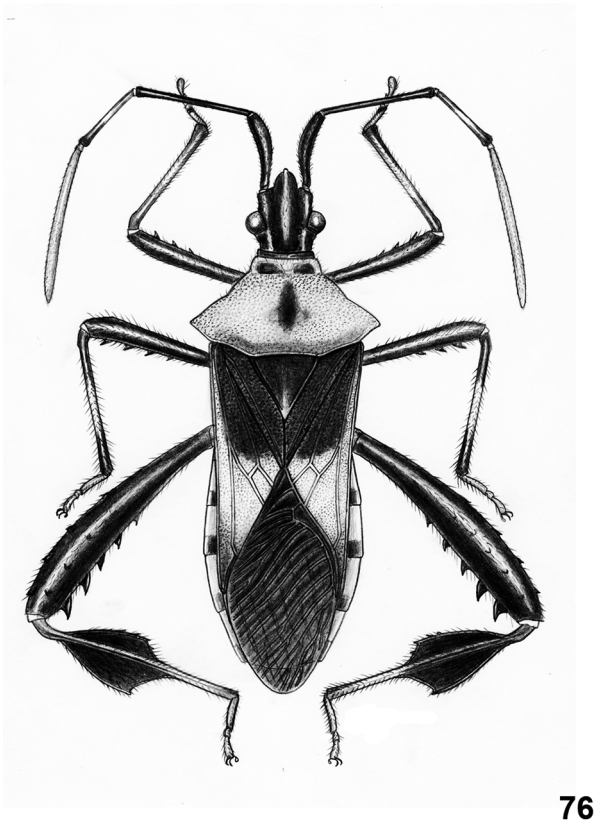
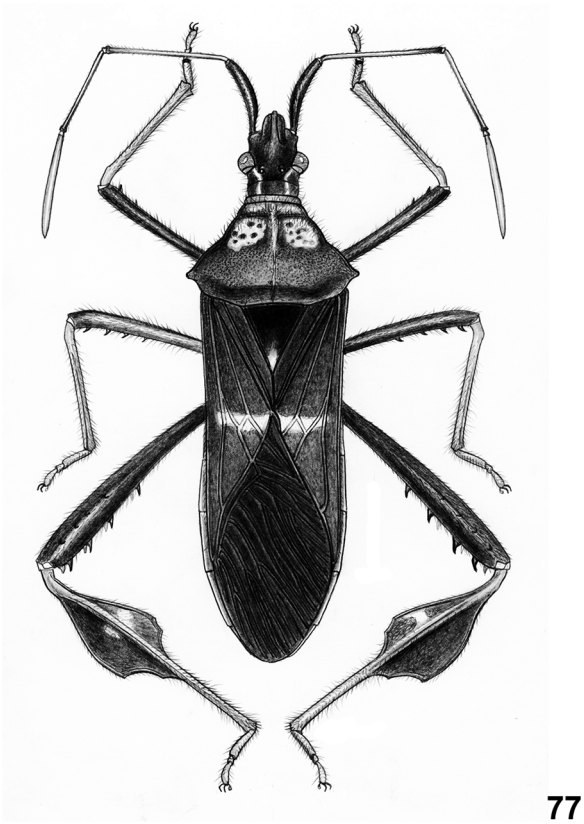


75

FIGURES 72–75. Dorsal view of *Leptoglossus* spp. 72, *L. subauratus* Distant (male). 73, *L. talamancanus* Brailovsky & Barrera (female). 74, *L. tetranotatus* Brailovsky & Barrera (female). 75, *L. usingeri* Yonke (male).





FIGURES 76–77. Dorsal view of *Leptoglossus* spp. 76, *L. venustus* Alayo & Grillo (female). 77, *L. zonatus* (Dallas) (male).

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Check list of the known species of *Leptoglossus*

absconditus Brailovsky & Barerra 2004
alatus (Walker) 1871
arenalensis Brailovsky & Barrera 2004
ashmeadi Heidemann 1909
balteatus (Linnaeus) 1771
brevirostris Barber 1918
caicosensis sp. nov
cartagoensis Brailovsky & Barrera 1998
chilensis chilensis (Spinola) 1852
    L. argentinus Bergroth1894 nov. syn.
chilensis concaviusculus Berg 1892
cinctus (Herrich-Schaeffer) 1836
clypealis Heidemann 1910
concolor (Walker) 1871
confusus Alayo & Grillo 1977
conspersus Stål 1870
corculus (Say) 1832
crassicornis (Dallas) 1852
crestalis Brailovsky & Barrera 2004
dearmasi Alayo & Grillo 1977
dentatus Berg 1892
dialeptos Brailovsky & Barrera 1994
digitiformis Brailovsky 1990

dilaticollis Guérin-Méneville 1831
egeri **sp. nov.**
fasciatus (Westwood) 1842
fasciolatus (Stål) 1862
flavosignatus Blöte 1936
franckei **sp. nov.**
fulvicornis Westwood) 1842
gonagra (Fabricius) 1775
grenadensis Allen 1969
harpagon (Fabricius) 1775
hesperus Brailovsky & Couturier 2004
humeralis Allen 1969
impensus **sp. nov.**
impictipennis Stål 1870
impictus (Stål) 1859
ingens (Mayr) 1865
jacquelinae Brailovsky 1976
katiae Schaefer & Packauskas 2008
lambayaquinus Brailovsky & Barrera 2004
lineosus (Stål) 1962
lonchoides Allen 1969
macrophyllus Stål 1870
manausensis Brailovsky & Barrera 2004
neovexillatus Allen 1969
nigropearlei Yonke 1981
occidentalis Heidemann 1910
oppositus (Say) 1832
pallidivenosus Allen 1969
phyllopus (Linnaeus) 1767
polychromus **sp. nov.**
quadricollis (Westwood) 1842
rubrescens (Walker) 1871
sabanensis Brailovsky & Barrera 2004
stigma (Herbst) 1784
subauratus Distant 1881
talamancanus Brailovsky & Barrera 1998
tetranotatus Brailovsky & Barrera 2004
usingeri Yonke 1981
venustus Alayo & Grillo 1977
zonatus (Dallas) 1852

Species groups and species currently included

***Alatus* species group**
alatus (Walker)
nigropearlei Yonke
usingeri Yonke

***Chilensis* species group**
chilensis chilensis (Spinola)
chilensis concaviusculus Berg
dentatus Berg
egeri **sp. nov.**
humeralis Allen
impictipennis (Stål)
impictus (Stål)
pallidovenosus Allen

***Cinctus* species group**
cinctus (Herrich-Schaeffer)
crasssicornis (Dallas)
fasciatus (Westwood)
katiae Schaefer & Packauskas

polychromus **sp. nov.**
venustus Alayo & Grillo

***Clypealis* species group**
clypealis Heidemann
corculus (Say)
crestalis Brailovsky & Barrera
dearmasi Alayo & Grillo
hesperus Brailovsky & Couturier
lonchoides Allen
occidentalis Heidemann

***Dilaticollis* species group**
dilaticollis Guérin-Méneville
fulvicornis (Westwood)
rubrescens (Walker)

***Gonagra* species group**
gonagra (Fabricius)

***Harpagon* species Group**
dialeptos Brailovsky & Barrera
fasciolatus (Stål)
flavosignatus Blöte
harpagon (Fabricius)
manausensis Brailovsky & Barrera
polychromus **sp. nov.**
sabanensis Brailovsky & Barrera
tetranotatus Brailovsky & Barrera

***Lineosus* species group**
lineosus (Stål)

subauratus Distant
talamancanus Brailovsky & Barrera

***Phyllopus* species group**
ashmeadi Heidemann
balteatus (Linnaeus)
cartagoensis Brailovsky & Barrera
macrophyllus Stål
phyllopus (Linnaeus)

***Stigma* species group**
absconditus Brailovsky & Barrera
arenalensis Brailovsky & Barrera
brevirostris Barber
caicosensis **sp. nov.**
confusus Alayo & Grillo
concolor (Walker)
conspersus (Stål)
digitiformis Brailovsky
franckei **sp. nov.**
grenadensis Allen
impensus **sp. nov.**
ingens (Mayr)
jacquelinae Brailovsky
lambayaquinus Brailovsky & Barrera
macrophyllus Stål
neovexillatus Allen
oppositus (Say)
quadricollis (Westwood)
stigma (Herbst)
zonatus (Dallas)