



<http://dx.doi.org/10.11646/zootaxa.4033.3.6>

<http://zoobank.org/urn:lsid:zoobank.org:pub:B1E87B55-67D8-49CA-B6C8-4FB74949A731>

The Tribe Anisoscelini (Hemiptera: Heteroptera, Coreidae) in Argentina

MARÍA DEL CARMEN COSCARÓN¹⁻³ & JOSÉ LUIS PALL¹⁻²⁻³

¹División Entomología, Facultad de Ciencias Naturales y Museo (FCN yM), Universidad Nacional de La Plata, Paseo del Bosque, CP 1900, La Plata, Argentina E-mail: mcoscaron@fcnym.unlp.edu.ar

²Facultad de Ciencias Exactas y Naturales, Universidad Nacional de La Pampa, Argentina, Uruguay 151 L6300CLB, Santa Rosa, La Pampa, Argentina. E-mail: pall.joseluis@gmail.com

³Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)

Abstract

Eight genera and 21 species of the tribe Anisoscelini (Coreidae, Coreinae) are recorded in Argentina: *Anisoscelis foliaceus* (Fabricius); *Coribergeria declivicollis* (Berg); *Dalmatomammurius vandoesburgi* (Brailovsky); *Holymeria hystrio* (Fabricius); *Leptoglossus chilensis* (Spinola); *L. cinctus* (Herrich-Schaeffer); *L. concolor* Walker; *L. crassicornis* (Dallas); *L. dentatus* Berg; *L. fasciatus* (Westwood); *L. gonagra* (Fabricius); *L. impictus* (Stål); *L. ingens* (Mayr); *L. neovexillatus* Allen; *L. quadricollis* (Westwood); *L. stigma* (Herbst); *L. vexillatus* (Stål); *L. zonatus* (Dallas); *Phthia lunata* (Fabricius); *Phthiacnemia picta* (Drury) and *Ugnius kermesinus* (Linnaeus). A key to genera belonging to the tribe is provided. *L. stigma* is recorded for the first time in Argentina with new locality records for La Rioja, Salta and San Juan.

Key words: genera, insecta, distribution, key, diagnosis

Introduction

The family Coreidae, commonly called “leaf-footed bugs” or “squash-bugs”, are heavy-bodied insects usually strongly elongate or broadly elliptical (Schuh & Slater 1995). The worldwide composition of this family numbers a total of 2569 species assigned to 439 genera (CoreoideaSF Team, 2015). Of these, 82 species have been mentioned in the literature as potentially or actually damaging for crops (Mitchell, 2000). Thus relatively few coreid species are considered economically important.

The Coreidae includes three subfamilies, i.e. Coreinae, Meropachydinae and Pseudophloeinae. Coreinae is worldwide in distribution with most species occurring in the tropics. Meropachydinae are mainly tropical except for one genus that extends into to the USA. The Pseudophloeinae is an Old World group, and only a few genera inhabit the Neotropical and Nearctic regions. The New World Coreidae were studied by Packauskas (1994), who published keys to three subfamilies (Coreinae, Meropachyinae and Pseudophloeinae), 15 tribes, and a checklist of previously published keys to genera and species. Packauskas (2010), in a New World catalogue of Coreidae, provided a summary of the classification of the group and an in-depth introduction to the literature.

Maes & Göellner-Scheiding (1993) mentioned that Coreidae attack oranges, guava, passion fruit, marrows, cotton, limes, melons, tomatoes, pumpkins, eggplants and pomegranates. Mitchell (2000) also mentioned legumes, rice, cassava, cucurbits, tomatoes, garden vegetables and various fruits and nut trees among the crops attacked by coreids worldwide. In the same paper (Mitchell, 2000) recorded a few species of Anisoscelini of minor economic importance in Brazil, Costa Rica, Cuba, Ecuador and Nicaragua.

The most comprehensive studies of the Coreidae in Argentina were by Pennington (1921, 1922) and Kormilev (1954). Coscarón (in press)—in a catalogue of the Heteroptera or true bugs of Argentina—mentioned a total of 48 genera and 125 species of Coreidae (with 8 genera and 21 species of Anisoscelini).

Knowledge on the South American fauna is poor, especially in relation to economically important taxa, and no comprehensive identification keys for the region have been published, except for the Acanthocerini by Pall and Coscarón (2012). Di Iorio (2004) compiled a catalogue of phytophagous insects, including Coreidae, and their host plants in Argentina.

Argentina (the geographical area considered in this paper) covers an area of 2,791,810 km² and is bordered by Uruguay, Brazil, Paraguay, Bolivia, and Chile. Approximately 75% of the country is covered by arid and semiarid areas, but rainforest is also present in some places, i.e. the Yungas and Paranaense regions.

This paper provides a key, diagnoses and geographical distribution for the Anisoscelini in Argentina.

Material and methods

Examined specimens belong to the collections of the Museo de Ciencias Naturales de La Plata (MLP), La Plata, Buenos Aires, Argentina (<http://www.fcnym.unlp.edu.ar/abamuse.html>) and (<http://heteroptera.myspecies.info/>, Coscarón *et al.* 2014). Only literature to the Argentinian fauna is included. The photographs were compared with material of the Naturhistoriska Riksmuseet in Stockholm, Sweden (<http://www.nrm.se/>) and the American Museum of Natural History in New York (<http://www.amnh.org/>).

DIVA-GIS 7.1.7 program (<http://www.diva-gis.org/>) was used for the creation of distribution maps. Photographs were taken using a Kodak Easy Share (12 megapixels) camera and a magnifying Wild M-Stereomicroscope.

Diagnoses of genera were taken from Allen (1969), Brailovsky (2009), Casini (1984) and Osuna (1984). All measurements are given in millimeters.

Key to the genera of Anisoscelini for Argentina

- 1a. Body with markings dorsally and ventrally, head usually with two or three thin longitudinal lines (Fig. 1); antennae generally cylindrical with flattened and foliaceous expansions (Figs. 2–3); distal pronotal segments usually expanded (Fig. 4); posterior legs with foliaceous expansions outer face of cylindrical tibia only, sometimes can cover entire tibia (Figs. 5–6); femora not armed with spines 2a
- 1b. Body without markings dorsally and ventrally, head without longitudinal lines (Fig. 4); antennae generally cylindrical without foliaceous expansions (Fig. 8); pronotal angles of pronotum not expanded (Fig. 9); femora armed with spines (Fig. 7) 4a
- 2a. Body color variable, hind tibia dilated on outer side only, posterior margin and lateral margin of pygophore not flared 3a
- 2b. Body color brown varying from pale to dark, hind tibia dilated on both sides, posterior margin and lateral margin of pygophore flared *Leptoglossus* Guérin-Ménéville (Figs. 16–22)
- 3a. Tibial external dilation approximately two times wider than the inner expansion extending over most of the tibia and gradually decreasing towards the apex, in some cases very thin, in this case the internal expansion of the pronotum is absent, without pronotal expansions on posterior margin, all antennal segments cylindrical *Anisoscelis* Latreille (Fig. 11)
- 3b. Tibial external dilatation narrow, usually extending almost the entire length of the tibia or limited to 2/3 basal segment of the tibia; posterior margin of pronotum with conspicuous expansions, antennal segments II and III expanded *Holhymenia* Le Peletier & Serville (Fig. 12)
- 4a. Head declivent from the antenniferous tubercles, obliquely truncated apex *Ugnius* Stål (Fig. 13)
- 4b. Head prominent and not declivent from the anteniferous tubercles 5a
- 5a. Femora ventral surface never dilated or with foliate tibiae *Dalmatomammurius* Brailovsky
- 5b. Femora ventrally dilated or with foliate tibiae 6a
- 6a. Pronotum with necklace, posterior angle of the scutellum spined, femora armed with spines arranged in two rows *Coribergia* Casini (Fig. 10)
- 6b. Pronotum lacking a neck, wider than long; scutellum not spined, femora unarmed 7a
- 7a. Anterolateral margins smooth; femora ventrally armed with denticles, dorsally smooth; hind femora gradually incrassate; metathoracic peritreme not bilobate; clavus and corium rather dull or scattered with metallic iridescence absent; posterior lobe of pronotal disk with low longitudinal carinae; abdominal sterna III–VI lateral to midline with rectangular yellowish to reddish orange maculae *Phthia* Stål (Fig. 14)
- 7b. Anterolateral borders dentate, teeth relatively stout and acute; femora ventrally armored with two subapical spines and one row of obtuse spines, dorsally almost smooth; hind femora gradually incrassate; metathoracic peritreme bilobate; clavus and corium rather dull or scattered with metallic iridescence; posterior lobe of pronotal disk not low longitudinal carinae *Phthiacnemis* Brailovsky (Fig. 15)

Tribe Anisoscelini

Diagnosis (After Brailovsky & Sánchez, 1983) Individuals of medium to large size and with hind tibiae dilated on both sides; head with well developed neck; tylus longer or equal in size to the juga, buccula short with "U or V"

shape; rostral segments I and II of equal size, IV longer than III; pronotum almost hexagonal, wider than long with prominent humeral edges; femora armed with two rows of spines aligned with each other, possibly with scattered tubercles or spines on hind femur; posterior tibia with foliaceous dilations on both sides; hamus of the rear wing slightly curved; male with two pairs of conjunctival appendages, the anterior spur of the seventh sternum, simple; female with or without anterior sternal spurs, dorsal apodeme the of first valvifer strongly crested at its posterior third.



FIGURES 1–9. (1) Head with two or three thin longitudinal stripes, (2) antennae cylindrical; (3) antennae flattened, foliaceous (4) pronotum expanded, (5–6) tibia with foliaceous expansions (6) cylindrical tibia, (7) femora spined, (8) antennae cylindrical, (9) Pronotum not expanded.

Genus *Anisoscelis* Latreille, 1829

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457743>

1829 *Anisoscelis* Latreille, 197. Type species: *Lygaeus foliaceus* Fabricius, monotypic.

Diagnosis. (After Osuna, 1984) Body medium-sized. Head yellow ochre, dorsal surface darker, wider than long. Tylus and juga below the level of the antenniferous tubercles, antennal segments cylindrical, I shorter than twice the length of the head, II, III and IV thin and long. Pronotum inclined and dotted, anterolateral edges straight, humeral disc slightly high, shorter towards the posterolateral angles. Hind leg longer than forelegs, apex of femora armed with spines, posterior tibia with external expansion over almost the entire length of the tibia, sinuous, becoming thin towards the apex and concave internally. Corium brown, pronotum and scutellum may have metallic shine. Abdomen metallic green, dorsal areas in between segments brown. Pygophore subproctigeral sac, inner edge curved. Parameres curved, simple and elongated, distally spined. Spermatheca base thickened and bulb long.

***Anisoscelis foliaceus* (Fabricius, 1803)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:452039>

(Figs. 11, 22)

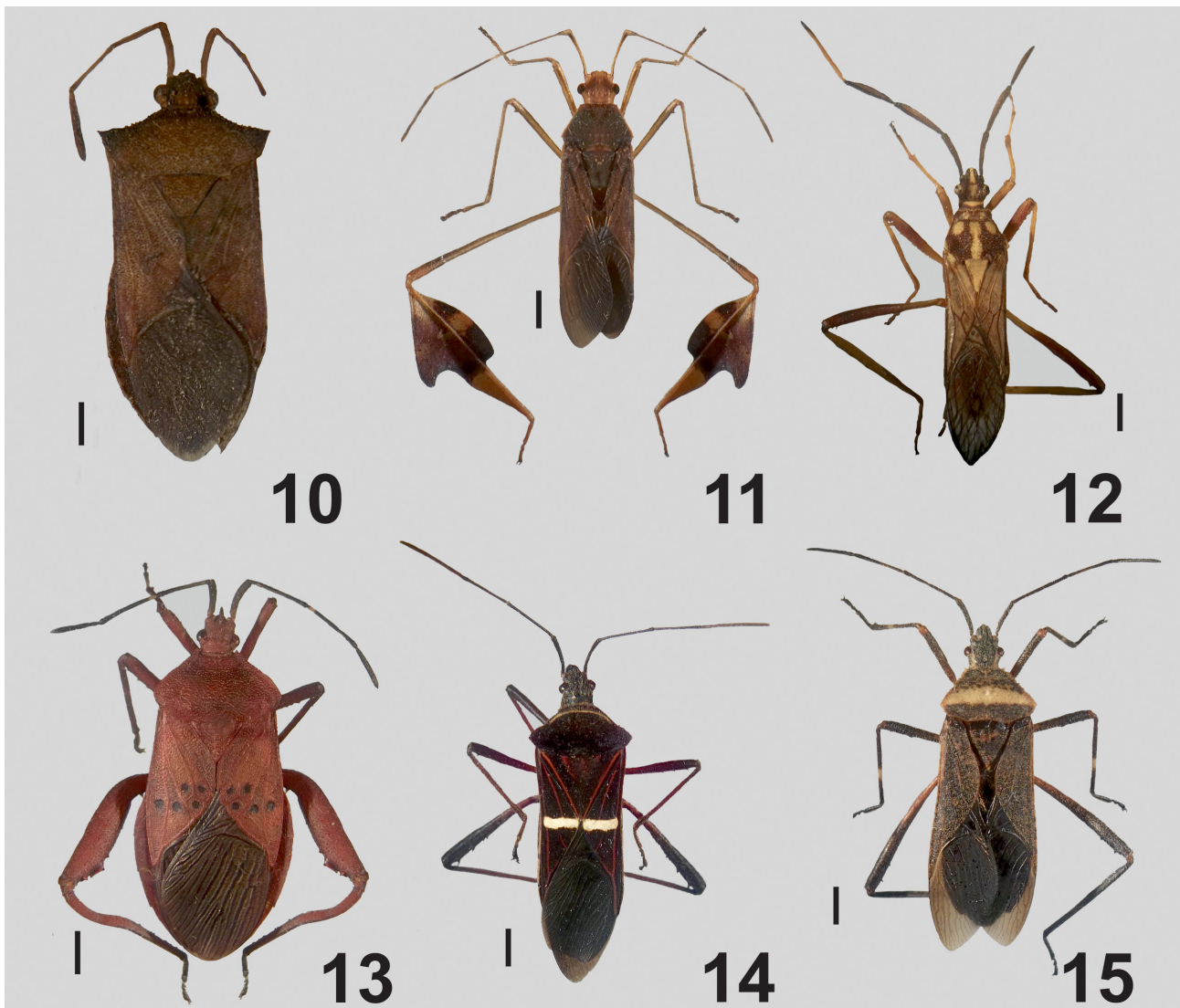
Lygaeus foliaceus Fabricius, 210.

1940 *Anisoscelis foliacea* Bosq, 401.

1979 *Anisoscelis foliaceus* Ueshima, 71.

Studied material. Argentina: 1♀ La Pampa: Gral. Pico (35° 38' 59.01" S 63° 45' 19.28" W); 1♀ 2♂ Misiones: San Ignacio (27° 15' 31.08" S 55° 32' 41.19" W).

Distribution. Argentina: Buenos Aires: Chacabuco; Entre Ríos: Paraná; La Pampa: Pico; Misiones. Association with plant according Di Iorio (2004) in Argentina: *Passiflora caerulea* L.



FIGURES 10–15. (10) *Coribergia* Casini, (11) *Anisoscelis* Latreille, (12) *Holhymenia* Lepeletier & Serville, (13) *Ugnius* Stål, (14) *Phthia* Stål, (15) *Phthiacnemia* Brailovsky.

Genus *Coribergia* Casini, 1984

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457578>

1984 *Coribergia* Casini, 5. Type species: *Anasa declivicollis* Berg 1892 - original designation.

Diagnosis. (After Casini, 1984) Body depressed. Postocular tubercles present, antenniferous tubercles separated from each other by *tylus* and *juga*, not presenting spines. *Tylus* and *juga* elongated, exceeding the insertion of the antennae. Antennae long, first segment robust and curved outward. Pronotum with lateral edges jagged, posterolateral angles ending in a strong spine. Scutellum with posterior angle terminated in spine. Hemelytra with punctures and veins in the corium. Femora thickened with a double row of spines on the ventral side. Parameres angled and sclerotized. Spermatheca bulb elongate and sclerotized.

***Coribergia declivicollis* (Berg, 1892)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457579>

(Fig. 10)

1892 *Anasa declivicollis* Berg, 153.—Lethierry & Severin 1894, 75.—Pennington 1920, 15.—Pennington 1922, 152.—Brailovsky 1989, 162.

1921 *Zicca declivicollis*: Pennington, 35.—Brailovsky 1985, 255.

1984 *Coribergia declivicollis*: Casini, 6.—Brailovsky 1989, 162.—Packauskas 2010, 47.

Studied material. Argentina: 1♀ Córdoba.

Distribution. Argentina: Córdoba: Cosquín; Corrientes: San Cosme, Santo Tomé; Entre Ríos: Villa Elisa; La Pampa; Mendoza; Misiones: Dos de Mayo, Loreto; San Luis; Santa Fé: Caraguatay; Santiago del Estero: Chaco de Santiago del Estero, La Palisa, edges of Río Salado a 25 km., at NW of Icano; Tucumán: La Soledad.

Genus *Dalatomammurius* Brailovsky 1982

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457612>

1982a *Dalatomammurius* Brailovsky, 278. Type species: *Dalatomammurius westcotti* Brailovsky, 1982—original designation.

Diagnosis. (After Brailovsky, 1990) Head long, prominent and not declivent, neck well differentiated, *tylus* elevated on *juga*, pronotal collar present and disc with distinct callosities, femora armed ventrally and never dilated or foliate tibiae absent. Sclerotized parameres. Spermathecal bulb oval and slightly coiled.

***Dalatomammurius vandoesburgi* (Brailovsky, 1982)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457615>

1982b *Collatia vandoesburgi* Brailovsky, 248.

1990 *Dalatomammurius vandoesburgi*, Brailovsky, 345.

Distribution. Argentina: Misiones: Iguazú.

Genus *Holhymenia* Le Peletier and Serville, 1825

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457622>

1825 *Holhymenia* Le Peletier & Serville, 61. Type species: *Holhymenia latreillei* Le Peletier & Serville, monotypic.

Diagnosis. (After Osuna, 1984) Body with dorsal surface black or dark brown with yellow markings. Hemelytra with dark brown venation. Head with dorsal surface black or dark brown, usually with yellow spots; antennal segments I, II and III black, segment IV black distally. Head wider than long, depressed behind the ocelli, *tylus* and *juga* below the level of antenniferous tubercles, antennal segment I longer than head, segments II and III with expansions flattened anterior and posteriorly, labium length variable not reaching beyond the sternite V. Pronotum slightly inclined and strongly punctuated; sinuous lateral edges. Scutellum elongate with or without sparse

punctures. Antero-internal face of apical half of the femur armed with row of 2 to 6 spines, tibia with narrow external expansion restricted to their basal third. Pygophore subproctigenal sac compact, with entire margins, inner edge slightly curved. Paramere straight hook simple, curved postero-latero-dorsally. Spermatheca with the base strongly swollen, capitate terminal bulb.

***Holhymenia histrio* (Fabricius, 1803)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457651>

(Figs. 12, 23)

1803 *Alydus histrio* Fabricius, 248.

1892 *Holhymenia histrio*, Berg, 67.—Pennington 1920, 13.—Pennington 1921, 13.—Pennington 1922, 129.—Bosq 1937, 115.

Studied material. Argentina: Buenos Aires: 1 ♀ La Plata (34° 54' 36.10" S 57° 56' 02.54" W) **Argentina:** 4 ♀ 4 ♂ Misiones: Loreto (27° 18' 45.62" S 55° 31' 44.00" W).

Distribution. Argentina: Buenos Aires; Corrientes; Jujuy; Misiones; Salta; Tucumán.

Association with host plant according Di Iorio (2004) in Argentina: *Passiflora caerulea* L.

Genus *Leptoglossus* Guérin-Ménéville, 1831

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:452106>

1831 *Leptoglossus* Guérin-Ménéville, pl. XII, fig. 9. Type species: *Leptoglossus dilaticollis* Guérin-Ménéville, monotypic.

Diagnosis. (After Allen, 1969) Head porrect, longer than wide and usually shorter than length of pronotum, prolonged anterior to antenniferous tubercles, tylus slightly exceeding juga usually rounded, ocelli widely separated, distance between ocelli greater than distance from ocellus to eye; pronotum subhexagonal with anterior face declivent, humeral areas usually expanded, greatest width of pronotum across humeri, posterior margin concave, in front of it an unevenly raised transverse ridge, antennal segment I curved and thickest, usually subequal to length of head, at least longer than anteocular distance, segment I shortest, with segment II longer than III, segment IV equal to or longer than segment III; membrane slightly surpassing abdomen; all femora armed beneath with two rows of distally directed teeth, individual teeth gradually increasing in size, tuberculate laterally and above, tubercles more or less oriented in rows, hind femora swollen and usually thicker in male than females; hind tibiae dilated, outer dilation variable in size and shape, usually wider than interocular distance. The different lobes on the dorsal sac are indicated according to their position as proximal, medial, or distal. The dorso-lateral appendage is generally a well sclerotized flat appendage and basal to the dorsal sac. The aedeagus and the color patterns have been used to establish species groups.

***Leptoglossus chilensis* (Spinola, 1852)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:465074> <http://heteroptera.myspecies.info/taxonomy/term/2124>

(Figs. 16, 27, 28)

1852 *Anisoscelis chilensis* Spinola, 172.

1852 *Anisoscelis chilensis chilensis* Spinola, 174.

1892 *Leptoglossus concaviusculus* Berg, 70.—Pennington 1920, 13 Pennington, 1922: 134.—Coscarón 1998, 2.

1894 *Leptoglossus argentinus* Bergroth, 165. Synonymized by Brailovsky 2014, 151. 1920 *Leptoglossus chilensis*, Pennington, 13.—Viana & Williner 1972, 27.—Packauskas & Schaefer 2001, 252.

1969 *Leptoglossus chilensis chilensis*, Allen, 87.

1969 *Leptoglossus chilensis concaviusculus*, Allen, 90. Synonymized by Packauskas & Shaefer 2001, 252.

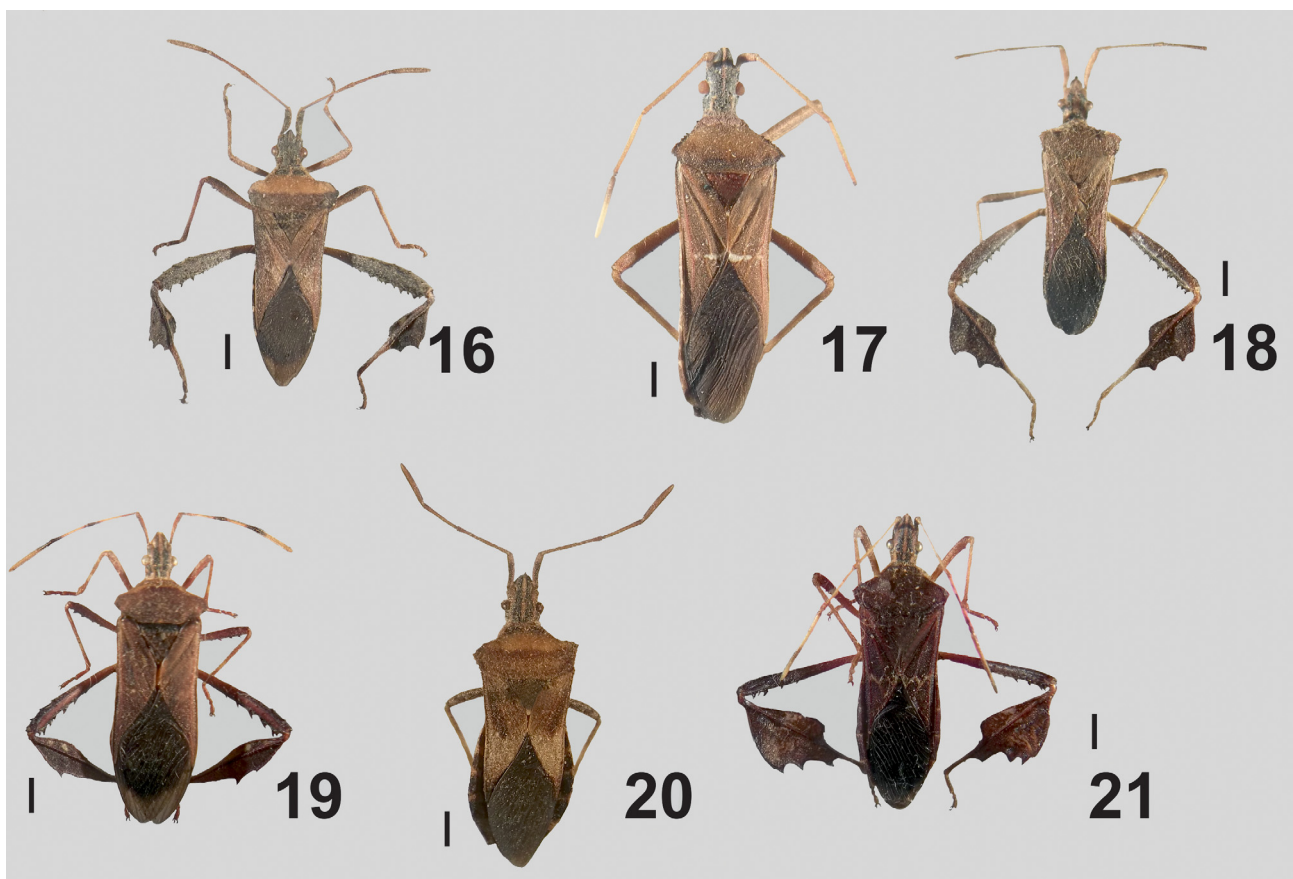
1969 *Leptoglossus chilensis chilensis*, Allen, 87.

Studied materials. Argentina: Buenos Aires: 1♂ Felipe Sola (38° 29' 29.92" S 62° 49' 00.80" W), 3♂ 1♀ La Plata (34° 54' 36.10" S 57° 56' 02.54" W) **Argentina:** 1♀ Catamarca: Los Ángeles (28° 29' 00.51" S 65° 59' 00.84" W) **Argentina:** Córdoba: 2♂ 5♀ Cabaña (31° 13' 00.01" S 64° 22' 00.00" W), 1♂ Alta Gracia (31° 39' 27.24" S 64° 26' 15.77" W) **Argentina:** Corrientes: 1♂ San Roque (28° 34' 27.64" S 58° 42' 31.95" W) **Argentina:** 3♂ 2♀ Formosa **Argentina:** 1♂ Jujuy **Argentina:** La Rioja: 1♂ Sañogasta (29° 18' 22.04" S 67° 36' 17.68" W) **Argentina:** Misiones: 1♂ 1♀ San Ignacio (27° 15' 31.08" S 55° 32' 41.19" W) **Argentina:** Río Negro: 1♀ 1♂ Nahuel Huapí (41° 07' 55.98" S 71° 18' 28.10" W) **Argentina:** Salta: 1♀ Tolombón (26° 11' 30.03" S 65° 56' 33.62" W) **Argentina:** 1♂ San Juan **Argentina:** 1♂ Santiago del Estero.

Distribution. Argentina: Buenos Aires: Cerro Cura Malal; Catamarca: Los Angeles, El Rodeo; Córdoba: Alta Gracia, Cabana, La Granja, Villa María; Chaco: Fontana, Puerto Tirol, Resistencia; Corrientes: Ituzaingó, Manantiales, Murucuyá, San Roque; Entre Ríos: Concordia, Isla los Cisnes, Paraná Delta, Toma de Agua; Formosa: Clorinda, Departamento Pilagá; Mendoza; Misiones: Iguazú, Pindapoy, San Ignacio, San Javier, San José; Neuquén; Río Negro: Bariloche, Correntoso, El Bolsón; Salta; San Juan: Metan, Tolombon; Santa Cruz; Santa Fé; Santiago del Estero: La Aurora, Río Salado.

Association with plant according Di Iorio (2004) in Argentina: *Buddleja globosa* Hope; *Nothofagus antarctica* (Forst. F.) Oerst. and *Solanum tuberosum* L.

Remarks. These are the first record of this species for San Juan.



FIGURES 16–21. *Leptoglossus* Guérin-Ménéville. (16) *L. chilensis* (Spinola), (17) *L. cinctus* (Herrich-Schaeffer), (18) *L. dentatus* Berg, (19) *L. gonagra* (Fabricius), (20) *L. impictus* (Stål), (21) *L. stigma* (Herbst).

***Leptoglossus cinctus* (Herrich-Schaeffer, 1836)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:465081>

(Figs. 17, 29)

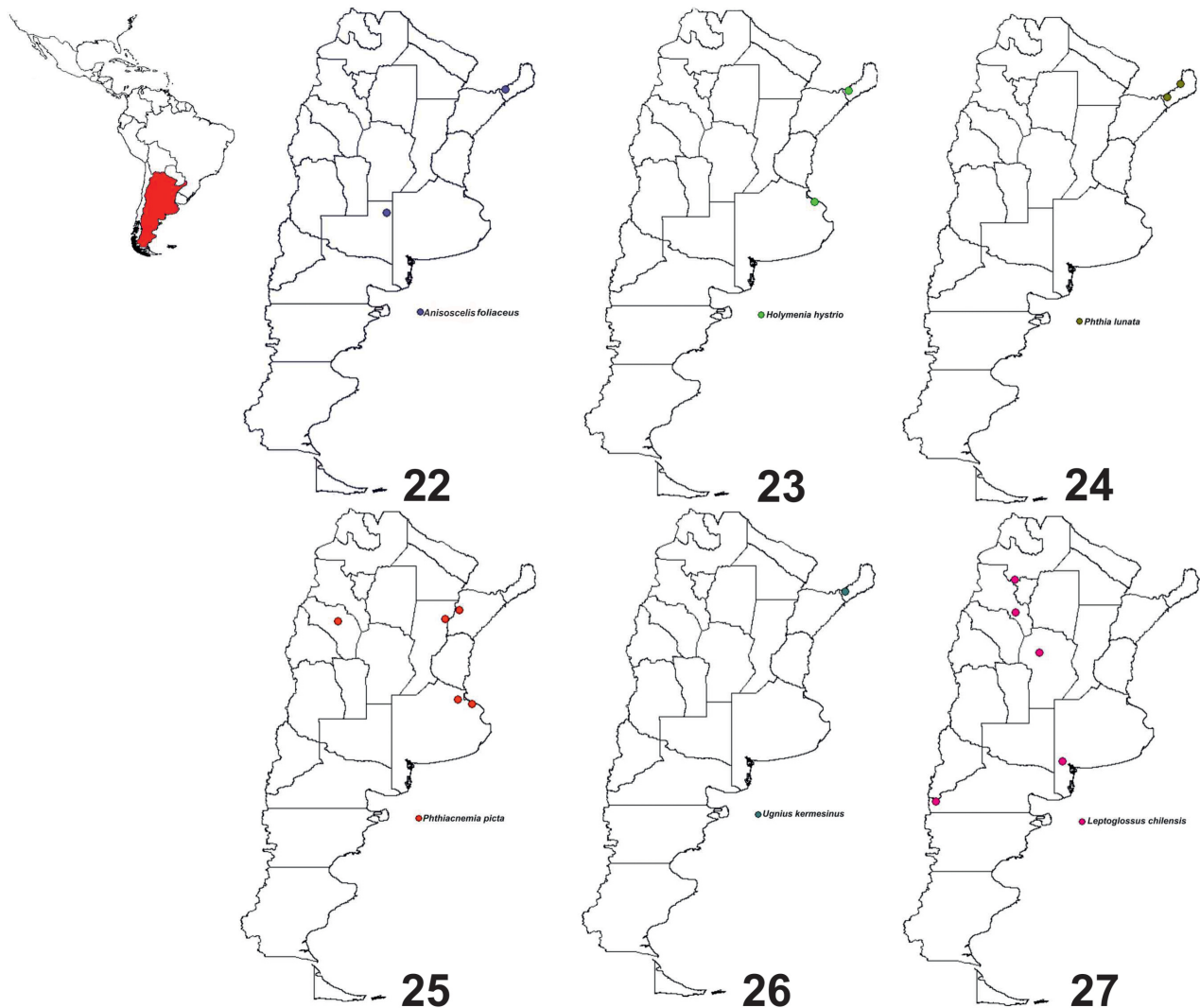
1836 *Anisoscelis cincta* Herrich-Schaeffer, 91.—Allen 1969, 61.

2001 *Leptoglossus cinctus*, Packauskas & Schaefer, 252.

Studied material. Argentina: Salta: 1♂ Ampascachi (25° 19' 59.69" S 65° 32' 02.32" W).

Distribution. Argentina: Misiones: Puerto Aguirre, Alto Paraná. Mendoza.

Remarks. This is the first record of this species for Salta.



FIGURES 22–27. Geographical distribution of Anisoscellini in Argentina: (22) *Anisoscelis foliaceus* (Fabricius), (23) *Holhymeria hystrio* (Fabricius), (24) *Phthia lunata* (Fabricius), (25) *Phthiacnemia picta* (Drury), (26) *Ugnius kermesinus* (Linnaeus), (27) *Leptoglossus chilensis* (Spinola).

***Leptoglossus concolor* (Walker, 1871)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457532>

1871 *Anisoscelis concolor* Walker, 128.

2009 *Leptoglossus concolor*; Olivo & Coscarón, 39.

Distribution. Argentina: Corrientes: Colonia Pellegrini.

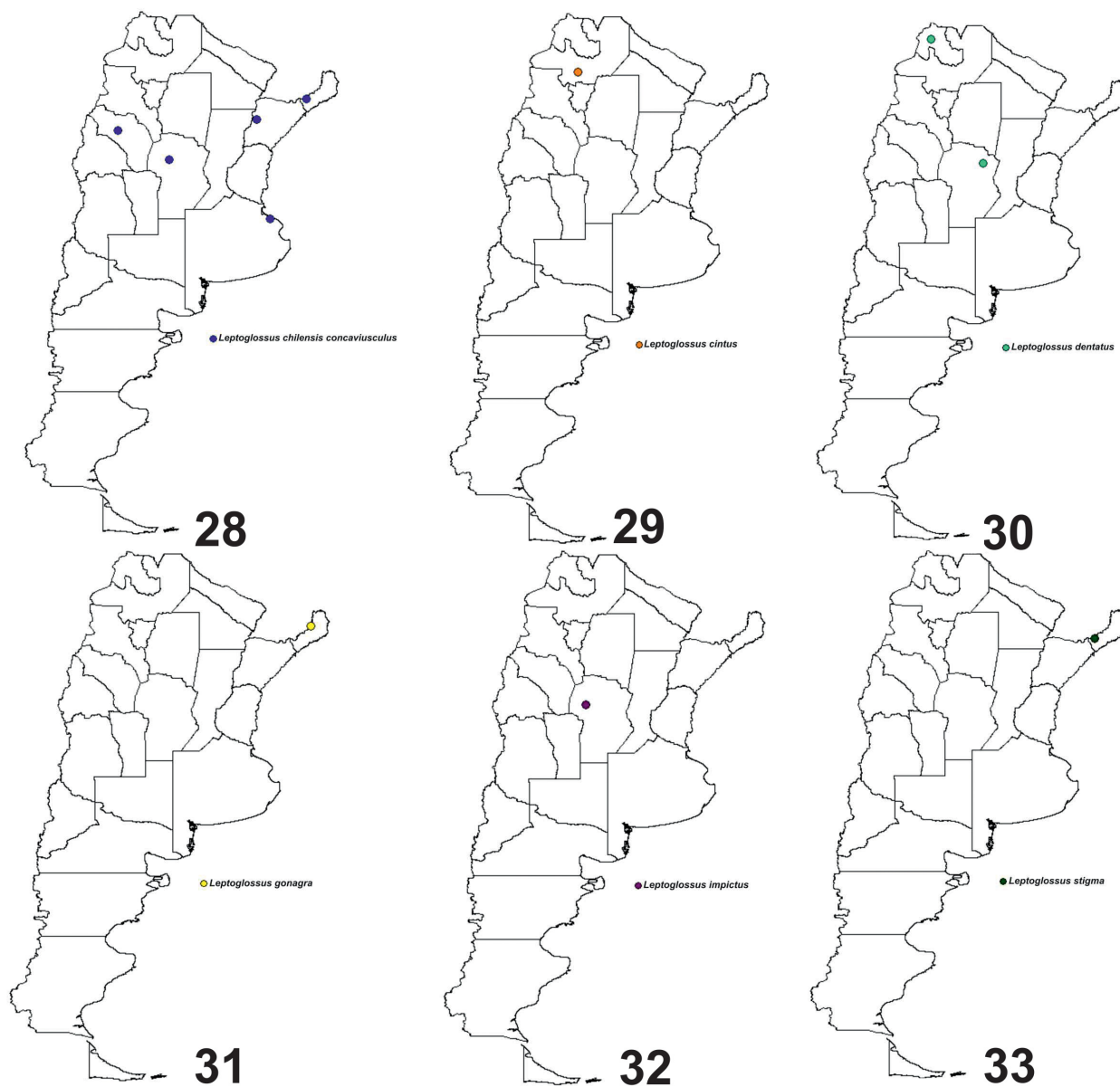
***Leptoglossus conspersus* Stål, 1870**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457473>

1866 *Theognis vexillatus* [misidentification] Mayr, 101.

1870 *Leptoglossus conspersus*: Stål, 163.
2004 *Leptoglossus conspersa* [sic]: Di Iorio, 240.

Distribution. Argentina: Corrientes: Buenos Aires.



FIGURES 28–33. Geographical distribution of Anisoscelini in Argentina: (28) *Leptoglossus chilensis* (Spinola), (29) *Leptoglossus cinctus* (Herrich-Schaeffer), (30) *Leptoglossus dentatus* Berg, (31) *Leptoglossus gonagra* (Fabricius), (32) *Leptoglossus impictus* (Stål), (33) *Leptoglossus stigma* (Herbst).

***Leptoglossus crassicornis* (Dallas, 1852)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:465082>

1852 *Anisoscelis crassicornis* Dallas, 454.

1969 *Leptoglossus crassicornis*, Allen, 66.—Viana & Williner 1972, 27.—Packauskas & Schaefer 2001, 252.

Distribution. Argentina: Catamarca: Andalgalá, Mualtin; Córdoba: El Sauce; Formosa: Campo del Cielo; La Rioja: Chilecito; Mendoza; Santiago del Estero: Río Salado.

Association with plant according Di Iorio (2004) in Argentina: *Harrisia pomanensis* (Web.) Britton & Rose; *Opuntia chakensis* Speg.; *Opuntia discolor* Britt. et Rose; *Opuntia pampeana* Speg.; *Opuntia paraguayensis* Schum; *Opuntia quimilo* Schum; *Opuntia retrosa* Speg.; *Opuntia vulgaris* Speg. and *Tephrocactus articulatus* (Pfeiffer. Ex Otto) Backbd.

***Leptoglossus dentatus* Berg, 1892**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:465075> <http://heteroptera.myspecies.info/taxonomy/term/2127>

(Figs. 18, 30)

1892 *Leptoglossus dentatus* Berg, 68.—Pennington 1920, 13.—Pennington 1922, 130.—Bosq 1937, 115.—Allen 1969, 96.—Viana & Williner 1972, 27.—Coscarón 1998, 2.—Packauskas & Schaefer 2001, 253.

Studied material. Argentina: Córdoba: 1♂ Mar Chiquita (30° 48' 16.52" S 62° 53' 01.05" W) **Argentina:** 1♀ 2♂ Chaco **Argentina:** Jujuy: 1♀ Manantiales (22° 39' 23.64" S 68° 31' 02.29" W) **Argentina:** 1♀ La Rioja **Argentina:** 1♀ 1♂ Santiago del Estero.

Distribution. Argentina: Buenos Aires: La Plata; Chaco: Asila, Colonia Benitez, Corzuela, Las Brenas; Córdoba: El Sauce; Formosa: Paso Angelito; Jujuy: La Pampa; Misiones; Salta: Tablillas; San Luis: Concarán; Santa Fé; Santiago del Estero: Río Salado; Tucumán: Güemes.

Association with plant according Di Iorio (2004) in Argentina: *Prunus domestica* L.; *Prunus persica* (L.) Batsch.

Remarks. These is the first record of this species for La Rioja.

***Leptoglossus fasciatus* (Westwood, 1842)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:465083>

1842 *Anisoscelis fasciata* Westwood, 17.

1878 *Leptoglossus fasciatus*, Berg, 89.—Pennington 1920, 13.—Pennington 1922, 133.—Bosq 1940, 402.—Viana & Williner 1978, 74.—Packauskas & Schaefer 2001, 252.

Distribution. Argentina: Buenos Aires; Catamarca; Chaco; Córdoba: Carlos Paz, San Javier; Formosa; Jujuy; La Pampa; La Rioja; Mendoza; Misiones; Neuquén; Salta; San Juan; San Luis; Santa Fé; Santiago del Estero; Tucumán.

Associated to a plant according Di Iorio (2004) in Argentina: *Bacharis* sp.; Cactaceae.

***Leptoglossus gonagra* (Fabricius, 1775)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:452108>

(Figs. 19, 31)

1775 *Cimex gonagra* Fabricius, 708.—Allen 1969, 85.

1878 *Leptoglossus gonagra*, Berg, 88.—Pennington 1920, 13.—Pennington 1922, 133.—Bosq 1937, 116.—Bosq 1940, 403.—Hayward 1960, 31.

Studied material. Argentina: 1♀ 2♂ Misiones: El Dorado (26° 23' 55.74" S 54° 37' 48.39" W); **Argentina:** 1♀ Santiago del Estero.

Distribution. Argentina: Buenos Aires; Chaco; Córdoba; Formosa; Jujuy; La Pampa; Misiones: El Dorado; Corpus; Cerro Azul; Salta; San Luis; Santa Fé; Santiago del Estero; Tucumán.

Associated to a plant according Di Iorio (2004) in Argentina: *Cucumis melo* L.; *Cucumis maxima* Duch.

***Leptoglossus impictus* (Stål, 1860)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:465079>

(Figs. 20, 32)

1860 *Anisoscelis impicta* Stål, 233.

1878 *Leptoglossus impictus* Berg, 87.—Pennington 1920, 13.—Pennington 1922, 132.—Bosq 1937, 116.—Bosq 1940, 403.—Torres 1950, 15.—Quintanilla *et al.* 1968, 31.—Allen 1969, 9.—Viana & Williner 1972, 27.—Quintanilla *et al.* 1976, 118.—Rizzo 1976, 39.—Quintanilla *et al.* 1981, 148.

Studied material. Argentina: Córdoba: 1♀ Tanti (31° 20' 14.70" S 64° 35' 57.74" W) **Argentina:** 1♀ Rio Negro **Argentina:** 1♀ Santa Fé.

Distribution. Argentina: Buenos Aires: Baradero, Carmen de Patagones, La Plata; Catamarca; Chaco; Córdoba: El Sauce; Corrientes: Departamento Curuzú Cuatiá, Departamento Paso de los Libres, Departamento Saladas; Entre Ríos: Departamento Concordia, Departamento Paraná; Formosa; Jujuy; La Pampa; La Rioja; Mendoza: Tupungato; Misiones: Departamento Belgrano, Departamento El dorado, Departamento San Ignacio; Neuquén: Piedra Pintada; Río Negro: Allen, Río Colorado, Chanquín, Fernandez Oro, Huergo, Viedma; San Juan: Jachal; San Luis: Estancia Don Roberto; Santa Fé; Santiago del Estero: Río Salado; Salta; Tucumán.

Associated to a plant according Di Iorio (2004) in Argentina: *Beta vulgaris* L. var. *cycla*; *Cichorium intybus* L.; *Citrullus vulgaris* Schr.; *Daucus carota* L.; *Grabowskia duplicate* Arn.; *Helianthus annuus* L.; *Lycopersicon esculentum* Miller; *Malus sylvestris* Mill.; *Medicago sativa* L.; *Nicotiana tabacum* L.; *Phaseolus vulgaris* L.; *Prunus persica* (L.) Batsch.; *Pyrus communis* L.; *Solanum melongena* L. and *Solanum tuberosum* L.

***Leptoglossus ingens* (Mayr, 1865)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457551>

1865 *Theognis ingens* Mayr, 434.

1969 *Leptoglossus ingens*, Allen, 104.—Packauskas & Schaefer 2001, 253.

Distribution. Argentina.

***Leptoglossus phyllopus* (Linnaeus, 1767)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457521>

1767 *Cimex phyllopus* Linnaeus, 731.

2004 *Leptoglossus phyllopus*: Di Iorio, 242.

Distribution. Argentina.

***Leptoglossus neovexillatus* Allen, 1969**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457460> <http://heteroptera.myspecies.info/taxonomy/term/2143>

1969 *Leptoglossus neovexillatus* Allen, 113.—Coscarón 1998, 3.—Packauskas & Schaefer 2001, 253.

Distribution. Argentina: Buenos Aires; Chaco; Corrientes: Santo Tomé; Chaco; Jujuy; Misiones: San Ignacio; Salta: Güemes, Las Cañas; Tucumán: estación Experimental de Agricultura.

***Leptoglossus quadricollis* (Westwood, 1842)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457434> <http://heteroptera.myspecies.info/taxonomy/term/2137>

1842 *Anisoscelis quadricollis* Westwood, 17.

1892 *Leptoglossus impressicollis* Berg, 69.—Pennington 1920, 13.—Pennington 1922, 134.—Coscarón 1998, 3.

2001 *Leptoglossus quadricollis* Packauskas & Schaefer, 253.

Distribution. Argentina: Corrientes.

***Leptoglossus stigma* (Herbst, 1784)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457543>

(Figs. 21, 33)

1784 *Cimex stigma* Herbst, 258.

Studied material. Argentina: Misiones: 3♀ 1♂ San Ignacio (27° 15' 31.08" S 55° 32' 41.19" W).

Remarks. These are the first records of this species for Argentina

***Leptoglossus zonatus* (Dallas, 1852)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457536>

1852 *Anisoscelis zonatus* Dallas, 452.

1855 *Anisoscelis vexillatus* Stål, 185.

1920 *Leptoglossus vexillatus*, Pennington, 13.—Pennington 1922, 130

2001 *Leptoglossus zonatus*, Packauskas & Schaefer, 253.

Distribution. Argentina. Buenos Aires; Chaco; Corrientes; Entre Ríos; Formosa; Jujuy; Misiones; Salta; Santa Fé; Tucumán.

Genus *Phthia* Stål, 1862

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457658>

1862 *Phthia* Stål, 294. Type species: *Cimex lunatus* Fabricius, designated by Van Duzee 1916, 11.

Diagnosis. (After Brailovsky, 2009) Head usually longer than wide; *tylus* in lateral view slightly higher than *juga*; antennal segment I thicker than following segments, cylindrical, weakly curved outward, distally thickened above upper half, longer than head; segments II and III slender, cylindrical, segment IV fusiform; antennal segment IV longest, segment I usually shortest, segment II longer than III. Pronotum wider than long; anterolateral borders obliquely straight, smooth; humeral angles thick at base, tapering into short or large acute to subacute spine, slightly raised and pointing outward; posterolateral borders barely sinuate, outer third dentate, inner third smooth; posterior border straight to weakly convex, smooth. Scutellum variable in length, wider than long or longer than wide. Fore and middle femora ventrally armed with two subapical spines and one row of obtuse denticles, dorsally smooth; hind femora gradually incrassate (less so in female), ventrally armed with two subapical spines and two rows of large and stout spines, dorsally smooth; fore and middle tibiae slender, unarmed, sulcate; male hind tibiae slender, sulcate and ventrally armed with two irregular rows of stout spines; female hind tibiae slender, sulcate and unarmed. Abdominal sterna with medial furrow. Posteroventral edge of genital capsule slightly concave, bearing two broad spines on either side of midline, lateral angles quadrate. Abdominal sternite VII with fissure short, covering one third of length of sternite; plica quadrate, apically straight; Gonocoxa I subtriangular, inner margin close, upper and outer rounded and continuous. Posteroventral edge of genital capsule gently concave, bearing two broad spines on either side of midline, lateral angles quadrate. Female genitalia. Abdominal sternite VII with fissure short, covering one third of length of sternite; plica quadrate, apically straight; gonocoxae I subtriangular, inner margin close, upper and outer margins rounded and continuous.

***Phthia lunata* (Fabricius, 1787)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457666>

(Figs. 14, 24)

1787 *Cimex lunatus* Fabricius, 289.

1920 *Phthia lunata*, Pennington, 13.

Studied material. Argentina: Misiones: 5♀ 1♂ Eldorado (26° 23' 55.74'' S 54° 37' 48.39'' S); 2♂ Loreto (27° 18' 45.62'' S 55° 31' 44.00'' W).

Distribution. Argentina: Misiones: Departamento Belgrano, Departamento Caingúas.

Associated to a plant according Di Iorio (2004) in Argentina: *Cichorium intybus* L. and *Glycine max* (L.) Merrill.

Genus *Phthiacnemia* Brailovsky, 2009

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457388>

2009 *Phthiacnemia* Brailovsky, 60. Type species: *Cimex picta* Drury, 1770: 107

Diagnosis. (After Brailovsky, 2009) Head usually longer than wide; *tylus* in lateral view higher than *juga*; antennal segment I thicker than following segments, cylindrical, weakly curved outward, thickened gradually from base to apex, longer than head; antennal segments II and III slender, cylindrical, segment IV fusiform; segment IV usually longest, segment I shortest, segment II longer than III. Thorax: pronotum wider than long; anterolateral borders obliquely straight, dentate, teeth relatively stout and acute; humeral angles obtuse, truncate or gently subacute; posterolateral borders straight, smooth; posterior border straight to weakly concave, smooth. Scutellum longer than wide. Legs: Male: Fore and middle femora ventrally armed with two subapical spines and one row of obtuse spines, dorsally almost smooth; hind femur gradually incrassate, armed with two subapical spines and two rows of large and stout spines, dorsal surface densely tuberculate; fore and middle tibiae slender, unarmed, sulcate; hind tibiae robust, sulcate, ventral face armed with two rows of irregular and stout spines, dorsal face with one row of small tubercles or spines. Female: Fore femur ventrally armed with two short, subapical spines; middle femur ventrally armed with two short subapical spines, and one row of 2–3 short denticles; hind femur gradually incrassate (less than in males), ventrally with two subapical spines and one row of 3–4 narrow spines; tibiae. Male genitalia. Posteroventral edge of genital capsule with deep median notch, entire posterior edge gradually produced over curvature of capsule, with lateral angles acutely projected. Female genitalia. Abdominal sternite VII with sulcus short, covering one third of length of sternite; plica quadrate, apically straight; gonocoxae I subtriangular, inner margin open, upper and outer margins rounded and continuous, in lateral view slightly convex.

***Phthiacnemia picta* (Drury, 1773)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457389>

(Figs. 15, 25)

1773 *Cimex pictus* Drury, 107.

1878b *Phthia picta*, Berg, 129.—Pennington 1920, 13.—Pennington 1922, 136.—Bosq 1937, 117.—Bosq 1940, 403.—Hayward 1960, 31.—Quintanilla *et al.* 1968, 31.—Quintanilla *et al.*, 1976, 119.—Rizzo 1976, 33.—Quintanilla *et al.* 1981, 149.—Packauskas & Schaefer 2001, 254.

1978 *Phthia picta* Viana & Williner, 74.

2009 *Phthiacnemia picta*, Brailovsky, 60.

Studied material. Argentina: Buenos Aires: 3♀4♂ La Plata (34° 54' 36.10'' S 57° 56' 02.54'' W), 2♀ José C. Paz (34° 30' 55.35'' S 58° 45' 58.87'' W), 2♀ Villa del Parque (34° 36' 05.52'' S 58° 28' 57.96'' W); **Argentina:** Córdoba: 3♀ Cabaña (31° 13' 00.01'' S 64° 22' 00.00'' W); **Argentina:** Corrientes: 1♀2♂ San Roque (28° 34' 28.34'' S 58° 42' 33.27'' W); **Argentina:** Chaco: 3♀ Resistencia (27° 27' 06.89'' S 58° 59' 11.82'' W); **Argentina:** La Rioja: 1♂ La Torre (29° 24' 05.82'' S 66° 50' 52.78'' W); **Argentina:** 1♂ Misiones; **Argentina:** 1♀ Río Negro;

Argentina: 1♀2♂ San Luis; **Argentina:** Santa Fé: 1♀ Reconquista (29° 08' 37.72''S 59° 38' 39.48''W); **Argentina:** 2♀1♂ Santiago del Estero.

Distribution. Argentina: Buenos Aires; Catamarca; Chaco; Corrientes: Departamento Bella Vista, Departamento Capital, Departamento Curuzú Cuatiá, Departamento Empedrado, Departamento Esquina, Departamento Goya, Departamento Lavalle, Departamento San Luis del Palmar, Departamento San Marín, Departamento San Miguel, Departamento San Roque, Departamento Santo Tomé; Córdoba: Caimán, Carlos Paz; Entre Ríos: Departamento Colón, Departamento Concepción del Uruguay, Departamento Concordia, Departamento Diamante, Departamento Federación, Departamento Gualeguay, Departamento La Paz, Departamento Paraná, Departamento Tala, Departamento Villagay; Formosa; Jujuy; La Pampa; La Rioja; Mendoza; Misiones: Departamento Além, Departamento Apóstoles, Departamento Belgrano, Departamento Caingúas, Departamento Candelaria, Departamento Capital, Departamento Concepción de la Sierra, Departamento Eldorado, Departamento Iguazú, Departamento Montecarlo, Departamento San Javier, Departamento San Martín; Neuquén; Salta; San Juan; San Luis; Santa Fé; Santiago del Estero; Tucumán

Associated to a plant according Di Iorio (2004) in Argentina: *Bastardiopsis densiflora* (Hook. et Arn.) Hassl.; *Bidens pilosa* L.; *Capsicum annum* L.; *Cestrum corymbosum* Schlecht.; *Citrullus vulgaris* Schr.; *Citrus medica* L.; *Cucumis melo* L.; *Cucurbita maxima* Duch.; *Glycine max* (L.) Merrill; *Gossypium hirsutum* L.; *Ilex paraguayensis* St. Hil; *Ipomoea batatas* (L.) Lam.; *Ipomoea cairica* (L.) Sweet; *Lycopersicon esculentum* Miller; *Nicotiana tabacum* L.; *Oryza sativa* L.; *Passiflora coerulea* L.; *Phaseolus vulgaris* L.; *Physalis peruviana* (L.); *Physalis viscosa* L.; *Salpichroa organifolia* (Lam.); *Solanum melongena* L.; *Solanum paniculatum* L.; *Solanum sisymbriifolium* Lam.; *Solanum tuberosum* L.; *Thea sinensis* L.; *Trifolium repens* L.; *Vernonia tweediana* Bak.; *Vicia faba* L. and *Vigna sinensis* (L.) Savi.

Genus *Ugnius* Stål, 1860

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457558>

1860 *Ugnius* Stål, 452. Type species: *Cimex kermesinus* Linnaeus 1758, 450, monotypic.

Diagnosis. (After Stål, 1860) Body depressed. Head, eyes partially recessed into head, antenniferous tubercles apex obliquely truncated. Antennae short, thin; segment II shortest, III longer than II. Rostrum narrow. Thorax with anterior angles acute. Legs of moderate size, femora spined.

***Ugnius kermesinus* (Linnaeus, 1758)**

<http://lsid.speciesfile.org/urn:lsid:coreoidea.speciesfile.org:TaxonName:457559>

(Figs. 13, 26)

1758 *Cimex kermesinus* Linnaeus, 450.

1920 *Ugnius kermessinus*, Pennington, 14.—Pennington 1922, 145.

Studied material. Argentina: Misiones: 3♂ 1♀ San Ignacio (27° 15' 31.08'' S 55° 32' 41.19'' W).

Distribution. Argentina: Jujuy; Misiones; Salta; Tucumán.

Acknowledgments

We thank Dr. Miguel Griffin (University of La Plata, Argentina) for the critical reading of the manuscript. This study was supported by Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET) and the Agencia Nacional de Investigaciones Científicas y Técnicas from Argentina.

References

- Allen, R.C. (1969) A revision of the genus *Leptoglossus* Guérin (Hemiptera: Coreidae). *Entomologica americana*, 45, 35–140.
- Berg, C. (1878) Hemiptera Argentina: Ensayo de una monografía de los Hemipteros Heteropteros y Homopteros de la República Argentina. *Anales de la Sociedad Científica Argentina*, 6, 23–36, 82–89, 129–141, 179–192, 223–233, 261–284 pp.
- Berg, C. (1892) Nova Hemiptera faunarum argentinae et uruguayensis. *Anales de la Sociedad Científica Argentina*, 33, 112 pp.
- Bergroth E. (1894) Liste de quelques Hémiptères de La Plata. *Revue d'Entomologie*, Caën, 13, 164–167.
- Bosq, J.M. (1937) Lista preliminar de los Hemípteros (Heteropteros), especialmente relacionados con la agricultura nacional. *Revista de la Sociedad Entomológica Argentina*, 9, 111–134.
- Bosq, J.M. (1940) Lista preliminar de los Hemípteros (Heteropteros), especialmente relacionados con la agricultura nacional (continuación). *Revista de la Sociedad Entomológica Argentina*, 10, 399–417.
- Brailovsky, H. (1982a) Hemiptera-Heteroptera de México XXIV. Nuevos registros de la tribu Mictini y descripción de un nuevo género y dos nuevas especies (Coreidae). *Anales del Instituto de Biología de la Universidad Autónoma de México, serie zoología*, 52, 277–288.
- Brailovsky, H. (1982b) Una nueva especie de *Collatia* Stål (Hemiptera-Heteroptera-Coreidae-Coreini) de Bolivia. *Anales del Instituto de Biología de la Universidad Autónoma de México, serie zoología*, 52, 247–252.
- Brailovsky, H. (1985) Revisión del género *Anasa* Amyot & Serville (Hemiptera-Heteroptera-Coreidae-Coreinae-Coreini). *Monografía. Instituto Biología Universidad Nacional Autónoma México*, 2, 1–266.
- Brailovsky, H. (1989) Nuevos arreglos tribales dentro de la familia Coreidae y descripción de dos especies nuevas Sudamericanas (Hemiptera-Heteroptera). *Anales de Instituto de Biología Universidad Nacional Autónoma de México, Serie Zoología*, 59, 159–180.
- Brailovsky, H. (1990) Nuevos arreglos nomenclatoriales y descripción de dos especies nuevas del género *Dalmatomammurius* Brailovsky (Hemiptera- Heteroptera- Coreidae- Leptoscelidini). *Anales Instituto Biología Universidad Autónoma de México, Serie Zoología*, 61, 343–355.
- Brailovsky, H. (2009) Revision of the *Phthia* generic complex with a description of four new genera (Hemiptera: Heteroptera: Coreidae: Coreinae: Leptoscelini). *Acta Entomologica Musei Nationalis Pragae*, Volume 49 (1), pp. 59–74.
- Brailovsky, H. (2014) Illustrated key for identification of the species included in the genus *Leptoglossus* (Hemiptera: Heteroptera: Coreidae: Coreinae: Anisoscellini), and descriptions of five new species and new synonyms. *Zootaxa* 3794 (1), 143–178.
<http://dx.doi.org/10.11646/zootaxa.3794.1.7>
- Brailovsky, H. & Sánchez, C. (1983) Hemiptera-Heteroptera de México XXIX. Revisión de la familia Coreidae Leach. Parte 4. Tribu Anisosceldini Amyot-Serville. *Anales del Instituto de Biología, Universidad Autónoma de México*, 53 (1), 219–275.
- Casini, C. (1984) Descripción de un nuevo género de la familia Coreidae y algunas consideraciones sobre el género *Mamurius* (sic) (Hemiptera). *Boletín de la Sociedad Zoológica del Uruguay*, 2, 5–11.
- CoreoideaSF Team (2015). Coreoidea Species File Online. Version 5.0/5.0. Available from: <http://Coreoidea.SpeciesFile.org> (accessed 3 August 2015)
- Coscarón, M.C. (1998) Los ejemplares tipo de Coreoidea (Heteroptera) depositados en la colección del museo de La Plata, Argentina: 1–5.
- Coscarón, M.C. Coreidae (in press) *In: Catalogue of the Heteroptera or true bugs of Argentina. Zootaxa*.
- Coscarón, M.C., Diez F., Basset C. & Lopez N. (2014) Heteroptera. A web resource for Heteroptera types from Museum of La Plata. Available from: <http://heteroptera.myspecies.info/> (Accessed 21 Oct. 2015)
- Dallas, W.S. (1852) *List of the specimens of Hemipterous insects in the collection of the British Museum. Part II*. Taylor & Francis, London, pp. 369–592.
- Di Iorio, O.R. (2004) Hemiptera: Coreidae *In: Cordo, H.A, Logarzo, G, Braun, K. & Di Iorio, O. (Eds.), "Catálogo de Insectos Fitófagos de Argentina y sus Plantas", Sociedad Entomológica Argentina Ediciones. Buenos Aires, Argentina, 235–244 pp.*
- Dolling, W.R. (1991) *The Hemiptera*. Oxford University Press, London, 274 pp.
- Drury, D. (1770–1782) Illustrations of natural history, wherein are exhibited upwards of two hundred and forty figures of exotic insects, according to their different genera. B. White, London, I: i–xxvii, 1–130, plates 1–50.
- Fabricius, J.C. (1775) *Systema Entomologiae, Sistens Insectorum Classes, Ordines, Genera, Species, Adjectis synonymis, locis, descriptionibus, observationibus*. . xxxii + 832 pages. Flensburgi et Lipsiae, Korte. Xxvii + 832 pages.
- Fabricius, J.C. (1787) Classis VII: Rhyngota. *In Mantissa Insectorum Sistens Eorum Species Nuper Detectus: Adjectis Synonymis, Observationibus, Descriptionibus, Emendationibus*, II, Kiel. Christ. Gottl. Proft, Hafniae, pages 260–320.
- Fabricius, J.C. (1803) *Systema Rhyngotorum Secundum Ordines, Genera, Species, Adjectis Synonymis, Locis, Observationibus, descriptionibus*. Reichard, Brunsvigae, i–x+335 pp.
- Guérin-Ménéville, F.E. (1831). *In: Duperrey, L.I. (Ed.), Voyage autour du monde execute par ordre du Roi sur la corvette de sa Majeste la Coquille pendant les années 1822, 1823, 1824, 1825. Vol. 2. Paris, plates X–XII*.
- Hayward, K.J. (1960) Insectos Tucumanos perjudiciales. *Revista industrial y agrícola de Tucumán*, 42, 3–144. (1958).
- Herbst, J.F.W. (1784). *Kurze Einleitung zur Kenntniss der Insektenfur Ungeubte und Anfanger*. Volume 6, plates 1–48, Lange, Berlin
- Herrich-Schaeffer, G.A.W. (1836) *Die Wanzenartigen Insekten*. Volumes 3–9. C.H. Zeh'schen, Nurnberg. 3, 35–114.
- Kormilev, N. (1954) Notas sobre Coreidae Neotropicales II; (Hemiptera) Mericorinae de la Argentina y países limítrofes. *Revista Ecuatoriana de Entomología y Parasitología*, 2, 153–185.

- Lepeletier, A.L.M. & Serville, J.G.A. (1825) [Articles on Hemiptera] In: G.A. Olivier (Ed.) *Encyclopédie méthodique*. volume 10, 833 pages.
- Latreille, P.A. (1829) Suite et fin des insectes. In: Cuvier, M.B. (Ed.), *Reigne animal distribué d'après son organisation, pour servir de base a l'histoire naturelle des animaux et d'introduction a l'anatomie comparée*. Vol. 5. nouvelle edition. Deterville, Paris. I–xiv, 1–556 pp.
- Lethierry, L. & Severin, G. (1894) *Catalogue general des Hemiptères. Tome II. Héteroptyères*. F. Hayes, Imprimeur de l'Académie Royale de Belgique, Brussels, 277 pp.
- Linnaeus, C. (1758) Hemiptera. In: *Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis*. Editio decima, reformata. Laurentii Salvii, Holmiae, 1, 434–457.
- Linnaeus, C. (1767) Hemiptera. *Systemae naturae per regne tria naturae secundum classes, ordines, genera, species cum characteristibus, differentiis, synonymis, locis*. Editio duodecima, reformata. L. Salvii, Stockholm, 1, 687–743.
- Maës, J.M. & Göellner-Scheiding, U. (1993) Catálogo de los Coreoidea (Heteroptera) de Nicaragua. *Revista Nicaraguense de Entomología*, 25, 1–19 pp.
- Mayr, G. (1865) Diagnosen neuer Hemipteren II. *Verhandlungen der Kaiserlich-königlichen Zoologisch-botanischen Geselleschaft in Wien*, 15, 429–446.
- Mayr, G.L. (1866) Hemiptera. *Reise der Österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859 unter den Befehlen des Commodore B. von Wüllerstorff-Urbair*. Zoologischer Theil. II. Abteilung 1. Wien, Karl Gerold's Sohn, 204 pp.
- Mitchell, P.L. (2000) Leaf-footed Bugs (Coreidae). In: Schaefer, C.W. & Panizzi, A.R. (Eds.) *Heteroptera of Economic Importance*. CRC Press LLC, 337–403.
- Olivo, V.I. & Coscarón, M.C. (2009) Additional records of Heteroptera (Hemiptera) from Argentina. *Zootaxa* 2311, 38–48 ISSN 1175–5334 (online edition)
- Osuna, E. (1984) Monografía de la Tribu Anisoscelini (Hemiptera, Heteroptera, Coreidae) I. Revisión Genérica. *Boletín de Entomología Venezolana*. N.S. 3 (5–8) 77–148 pp.
- Packauskas, R.J. (1994) Key to the Subfamilies and Tribes of the New World Coreidae (Hemiptera), with a Checklist of Published Keys to Genera and Species. *Proceedings of the Entomological Society of Washington*, 96, 44–53.
- Packauskas, R.J. & Schaefer, C.W. (2001) Clarification of some taxonomic problems in Anisoscelini and Leptoscelini (Hemiptera: Coreidae: Coreinae). *Proceedings of Entomological Society of Washington*, 103, 249–256.
- Packauskas, R. (2010) *Catalog of the Coreidae, or Leaf-Footed Bugs, of the New World*. Fort Hays Studies, Fourth Series, Number 5, 270 pp.
- Pall, J.L. & Coscarón, M.C. (2012) The Rhopalidae (Hemiptera: Heteroptera) of Argentina, *Journal of Natural History*, 46, 23–24, 1441–1465.
<http://dx.doi.org/10.1080/00222933.2012.673643>
- Pennington, M.S. (1920) Lista de los Hemipteros Heteropteros de la República Argentina. Primera parte. Pentamoidea-Coroidea, Buenos Aires, 1–16.
- Pennington, M.S. (1921) Notas sobre Coreidos Argentinos. *Physis*, Buenos Aires, 5, 28–39.
- Pennington, M.S. (1922) Notas sobre Coreidos argentinos (conclusión). *Physis*, Buenos Aires, 5, 125–170.
- Quintanilla, R.H., Margheritis, A.E. & Rizzo, H.F. (1968) Catálogo de Hemipteros hallados en la provincia de Entre Ríos (Argentina). *Revista de la Facultad de Agronomía y Veterinaria de Buenos Aires*, 47, 29–38.
- Quintanilla, R.H., Margheritis, A.E. & Rizzo, H.F. (1976) Catálogo de hemipteros hallados en la provincia de Corrientes (Argentina). *Revista de la Sociedad Entomológica Argentina*, 35, 115–133.
- Quintanilla, R.H., Rizzo, H.F. & Nuñez, A.S. (1981) Catálogo preliminar de hemipteros hallados en la provincia de Misiones (Argentina). *Revista de la Facultad de Agronomía*, 2, 145–161.
- Rizzo, H.F. (1976) *Hemipteros de interés agrícola. Chinchas perjudiciales y chinches benéficas para los cultivos*. Editorial Hemisferio Sur, Buenos Aires, 69 pp.
- Schuh, R.T. & Slater, J.A. (1995) *True Bugs of the World (Hemiptera: Heteroptera), Classification and Natural History*. Cornell University Press, Ithaca and London. 366 p. (Pages i–xiii, 1–336, frontispiece).
- Spinola, M. (1852) [Insects]. In: Gay, C., (Ed.), *Historia física y política de Chile, Zoología*. 7, pp. 1–471.
- Stål, C. (1855) Nya Hemiptera. *Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar*, 12, 181–192.
- Stål, C. (1860) Till kändedom om Coreida. *Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar*, 16, 449–475.
- Stål, C. (1862) Hemiptera mexicana enumeravit species-que novas descripsit. *Stettin Entomologische Zeitung (Entomologische Zeitung Herausgegeben von dem Entomologischen Vereine zu Stettin)*, 23, 81–118, 273–281, 289–325, 437–462.
- Stål, C. (1870) Enumeratio Hemipterorum: Bidrag till en företeckning öfver alla Hittills kända Hemiptera, jemte systematiska meddelanden. Parts I–V. *Kongliga Svenska Vetenskaps - Akademiens Handlingar*, 1870, Part I, 9, 1–232; 1872, Part II, 10, 1–159; 1873, Part III, 11, 1–163; 1874a, Part IV, 12, 1–186; 1876, Part V, 14, 1–162.
- Ueshima, N. (1979) *Hemiptera II: Heteroptera*. Gebrüder Borntraeger, Berlin (Animal cytogenetics, Vol. 3: Insecta, 6).
- Van Duzee, E.P. (1916) *Check List of the Hemiptera (Excluding the Aphididae, Aleyrodidae and Coccidae) of America North of Mexico*. New York Entomological Society, New York, 110 pp.
- Viana, M.J. & Williner, G.J. (1972) Evaluación de la fauna entomológica y aracnológica de las provincias cuyanas. Primera comunicación. *Acta Scientifica, serie entomología*, 5, 1–29.
- Viana, M.J. & Williner, G.J. (1978) Evaluación de la fauna entomológica y aracnológica de las provincias centrales y cuyanas (cuarta comunicación). *Acta Scientifica, Serie Entomología*, 11, 1–77.
- Walker, F. (1871) *Catalogue of the Specimens of Hemiptera Heteroptera in the Collection of the British Museum*. 8 parts. London: British Museum; 1871, Part 4, 1–211 pp.
- Westwood, J.O. (1842) [Descriptions of new species] In: Hope, F.W., *Catalogue of Hemiptera in the Collection of the Rev. Hope, F.W., with Short Latin Descriptions of the New Species*. 2, 1–26.