



Diversity of True Bugs from the Rio Pilcomayo National Park, Formosa Province, Argentina

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Abstract

The study of the Heteroptera (Hemiptera) fauna of the Rio Pilcomayo National Park, resulted in an inventory composed of: Alydidae (3 spp.), Aradidae (1 sp.), Belostomatidae (4 spp.), Berytidae (1 sp.), Blissidae (4 spp.), Colobathristidae (1 sp.), Coreidae (4 spp.), Corixidae (3 spp.), Cydnidae (12 spp.), Cymidae (1 sp.), Gelastocoridae (1 sp.), Geocoridae (1 sp.), Gerridae (1 sp.), Hebridae (1 sp.), Largidae (3 spp.), Lygaeidae (6 spp.), Miridae (14 spp.), Pachygronthidae (3 spp.), Pachynomidae (1 sp.), Pentatomidae (3 spp.), Pyrrhocoridae (1 sp.), Reduviidae (10 spp.), Rhopalidae (9 spp.), Rhyparochromidae (20 spp.), Saldidae (1 sp.), Scutelleridae (2 spp.), Tingidae (1 sp.). These findings include three new records for the Argentinean fauna: *Niesthrea digna* Chopra (Rhopalidae), *Galgupha (Psestophleps) costomaculata* McAtee and Malloch, and *Dallasiellus alutaceus* Froeschner (Cydnidae); and 69 new records for Formosa Province.

Key words: Chaco Grasslands, Neotropics, Heteroptera, biodiversity

Introduction

The South American Grasslands subrealm includes three large subtropical grassland and savanna bioregions, covering most of the southern continent (One Earth 2023). The Chaco Grasslands covers 108,294,000 ha, mostly in Paraguay and northern Argentina, and it comprises several habitats, although savannas, characterized by an abundance of grasses, and thorn forests—or a transition of these two—predominate (Melo *et al.* 2024a).

The National Park Río Pilcomayo (Fig. 1) was created in 1951 to protect part of the Humid Chaco. It is located in the Pilcomayo Department of the Formosa Province (-25.06531 -58.13715) and it comprises 51,889 ha which protects a great diversity of aquatic, terrestrial and floodable environments, ranging from lagoons and estuaries, grasslands with Caranday palm trees (*Copernicia alba* Morong), patches of forest, and gallery forests that accompany the banks of rivers. This heterogeneity highlights the great value of the area for the conservation of the biodiversity present in the humid Chaco environments of Argentina. Many emblematic species are protected in the Park, such as the lapacho [*Tabebuia lapacho* (K.Schum.) Sandwith], the red quebracho [*Aspidosperma quebrachocolorado* Schltl.], and the guayacán [*Handroanthus guayacan* (Seem.) S.O. Grose], two species of yacaré [*Caiman* sp.], the black-headed monkey [*Ateles fusciceps* Gray], the tapir [*Tapirus terrestris* (Linnaeus)], the aguará guazú [*Chrysocyon brachyurus* Illiger], and the large anteater [*Myrmecophaga tridactyla* Linnaeus]; furthermore, more than 320 species of birds have been also recorded, many associated with the wetlands. This high diversity supported the establishment of the Park in 1992 as a Ramsar Site, which are wetlands recognized for being of great value, not only for the country or countries in which they are located but for humanity as a whole; and are included in the list of Ramsar Sites with the government's commitment to take the necessary measures to ensure that its ecological characteristics are maintained (Ramsar Convention of Wetlands 2024).

From the 1,337 native species recorded in the Park, it is evident that the known diversity of insects is scarce, as there are only 31 species registered in the Biodiversity Information System (SIB 2024) of the National Parks Administration, and only 18 species are true bugs.

The location of the Park at the border with Paraguay makes it a vulnerable place because of the illegal trade of cattle and hunting. Other main problem of the Park is the fire, both natural and intentional. The province of Formosa is the most affected by the fire in Argentina, with an observed notable increment during 2020 (Lizárraga 2021); this situation is remarkable if only the National Protected areas are compared, leading the list the Rio Pilcomayo National Park. Together with this, the extensive droughts produced by the climatic phenome of La Niña that have affected the region during the last years, presumably also affecting severely the populations of most taxa that inhabit the area.

In this contribution, we present an inventory of true bugs from the Rio Pilcomayo National Park, which was carried out mainly with the specific level identification of specimens from recent collecting trips to the area.

Materials and Methods

Three field trips were done to the Rio Pilcomayo National Park (Fig. 1), in December 2018, February 2022, and October 2023. Permits to collect material were provided by the National Parks Administration (IF-2019-108859233-APNDNC% AONAC). Most of the specimens were collected using sweeping and beating nets, and complementary collections were done by hand in the field and by visual inspection of light traps. Specimens were preserved in ethyl acetate, then mounted in the lab, and examined under stereomicroscope. To confirm the identification of some specimens, the genital capsule of males and genital segments of females were dissected and cleared with a saturated potassium hydroxide solution for observation; dissected genitalia were preserved in microvials with glycerin. The specimens are deposited in the Museo de La Plata, Buenos Aires, Argentina (MLP).

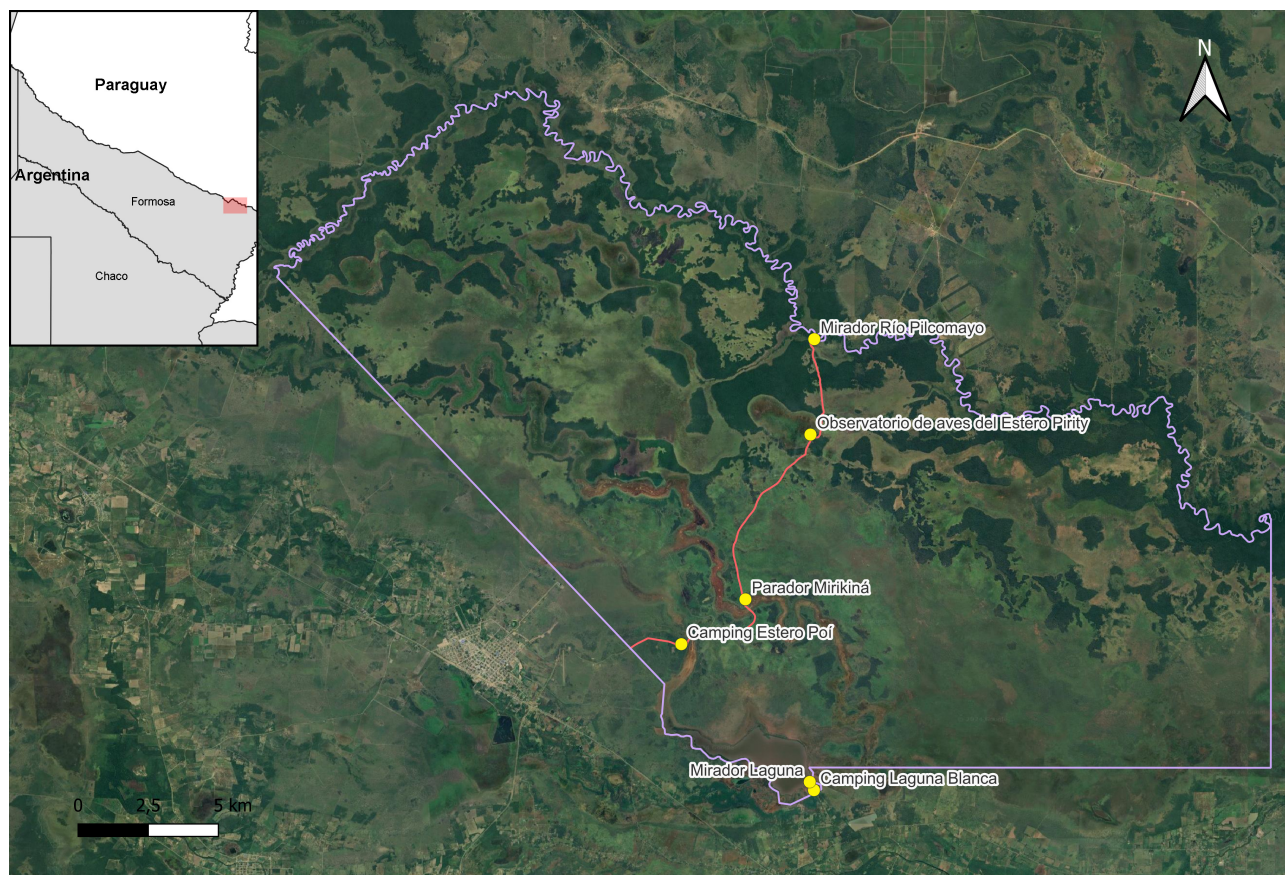


FIGURE 1. Map of the study area. Rio Pilcomayo National Park, Formosa, Argentina. Yellow dots indicate collection sites.

We also included records of species taken from the citizen science platform ArgentiNat (<https://www.argentinat.org/home>), after confident identification of the photographed specimens.

Each species in this inventory includes the link to the catalogs of Argentinean Heteroptera published in BiodAr (Cigliano *et al.* 2024): Melo *et al.* (2024b), Dellapé *et al.* (2024), and Melo and Dellapé (2024). These catalogs show the distribution of the species in Argentina, and other countries, hierarchical classification, synonyms, economic damage registered, notes and references.

Dorsal habitus of the specimens from selected species were captured using a Canon EOS Rebel T7i with a Professional Grade Raynox DCR 150 DSLR Objective Tube Lens and the appropriate objectives, mounted on a WeMacro's automatic focus stacking rail. Multiple focal planes were taken with Helicon Remote software and merged using Helicon Focus software. Image editing and plates composition were done in Corel Draw. Scale bars are indicated in all figures.

The organization of the species follows the classification proposed by Schuh and Weirauch (2020). New provincial or country records are indicated following the species name.

Results

Nepomorpha

Belostomatidae

***Belostoma bifoveolatum* (Spinola, 1852). First record from Formosa Province**

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21237.html>

Material studied. 1♂, 1♀, Laguna Blanca, 8/X/2023, t. de luz, Dellapé, P.M. col., Melo, M.C. det.; 1♂, 1♀, same data, Dellapé, P.M. col., Melo, M.C. det., MLP he-11246.

***Belostoma dentatum* (Mayr, 1863)**

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21242.html>

Material studied. 2♂♂, Laguna Blanca, 8/X/2023, Minghetti, E. col., MLP he-9109/9810; 2♂♂, same data, Dellapé, P. col., Melo, M.C. det., MLP he-11211/11212.

***Belostoma micantulum* (Stål, 1860)**

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21251.html>

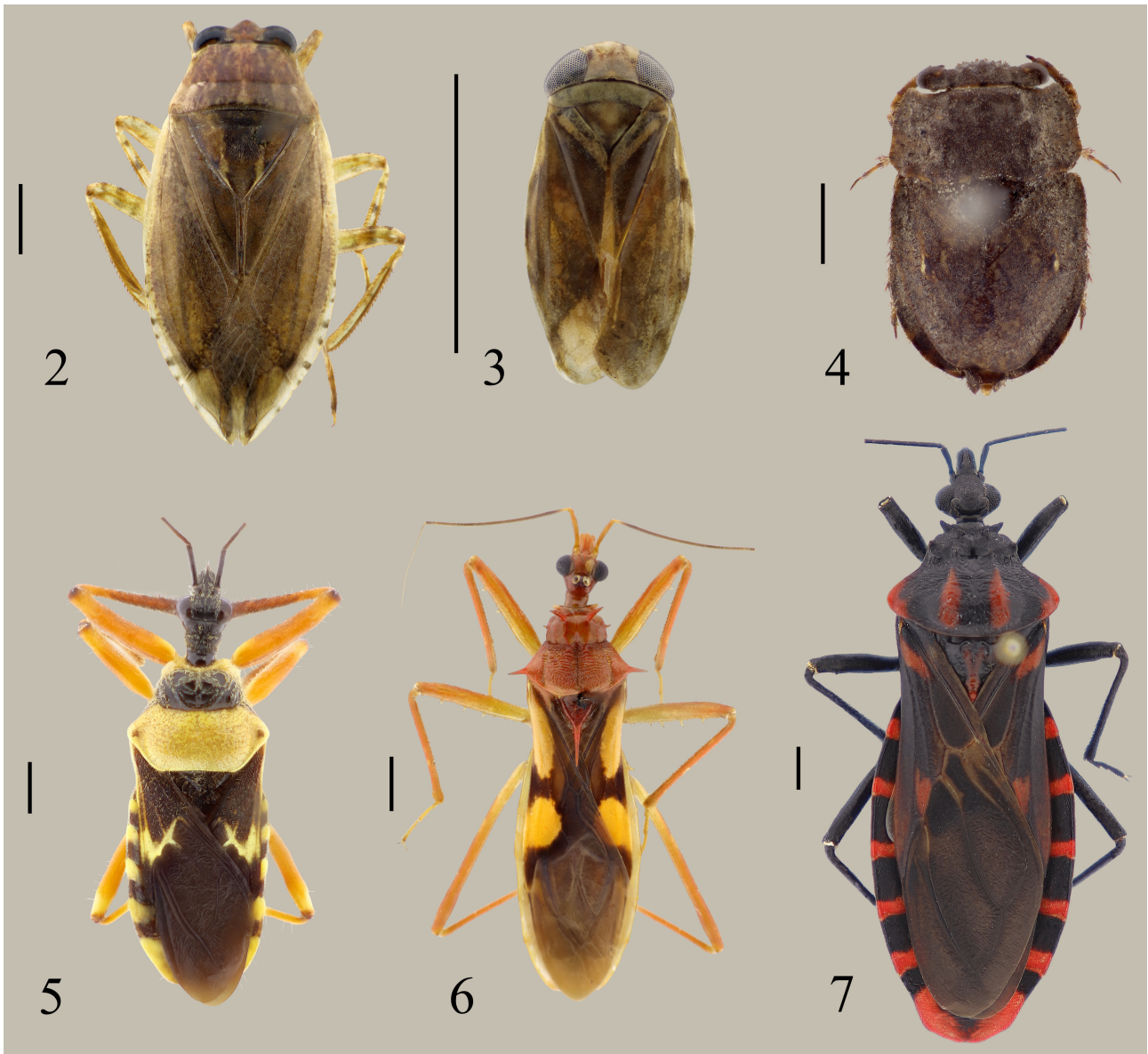
(Fig. 2)

Material studied. 1♀, Laguna Blanca, 15/II/2022, t. de luz, Dellapé, P. col., Melo, M.C. det., MLP he-19243; 4♂♂, same locality, 8/X/2023, T. de luz, Minghetti, E. col., Melo, M.C. det., MLP he-9793/9394, 9796/9797; 1♂, 5♀♀, same locality, 8/X/2023, t. de luz, Melo, M.C. col., Melo, M.C. det., MLP he-16238/16242; 1♀, same data, Dellapé, col., Melo, M.C. det., MLP he-11244; 1♂, same locality, 9/X/2023, Minghetti, E. col., Melo, M.C. det., MLP he-9795; 1♂, 1♀, same data, Dellapé, P. col., MLP he-13253/13254; 1♂, same data, Melo, M.C. col., Melo, M.C. det., MLP he-11245.

***Lethocerus annulipes* (Herrich-Schäffer, 1845)**

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21260.html>

Material studied. 1♀, Laguna Blanca, 9/X/2023, Melo, M.C. col., Melo, M.C. det.



FIGURES 2–7. Dorsal habitus of Nepomorpha and Reduviidae recorded from the Rio Pilcomayo National Park. 2, *Belostoma micantulum*. 3, *Tenagobia (Incertagobia) incerta*. 4, *Nerthra peruviana*. 5, *Apiomerus arnau arnau*. 6, *Zelurus transnominalis*. 7, *Panstrongylus megistus*. Scale bars: 2 mm.

Corixidae

Micronectinae

Tenagobia (Incertagobia) incerta Lundblad, 1928

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21451.html>

(Fig. 3)

Material studied. 1♀, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Melo, M.C. det., MLP he-16506.

Corixinae

Sigara (Tropocorixa) denseconscripta (Breddin, 1897)

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21325.html>

Material studied. 3♂♂, 3♀♀, -25.173665 -58.129756, 8/X/2023, t. de luz, Melo, M.C. col., Melo, M.C. det., MLP he-17128/17133; 1 ♀, same data, Minghetti, E. col., MLP he-17134; 3♂♂, 4♀♀, same locality, 9/X/2023, t. luz, Melo, M.C. col., Melo, M.C. det., MLP he-17121/17127; 2♂♂, 2♀♀, same data, Minghetti, E. col., MLP he-17136/17139; 1♀, same data, Dellapé col., Melo, M.C. det., MLP he-17140.

Sigara (Tropocorixa) platensis Bachmann, 1962

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21333.html>

Material studied. 1♂, 4♀♀, -25.173665 -58.129756, 8/X/2023, t. de luz, Melo, M.C. col., Melo, M.C. det., MLP he-16993/16997; 1♂, same data, Minghetti, E. col., MLP he-16998; 3♂♂, 4♀♀, same locality, 9/X/2023, Melo, M.C. col., Melo, M.C. det., MLP he-16977/16983; 3♀♀, same data, Minghetti, E. col., MLP he-16984/16986; 6♀♀, same data, Dellapé, P.M. col. Melo, M.C. det., MLP he-16987/16992.

Gelastocoridae

Nerthrinae

Nerthra peruviana (Montandon, 1905). First record from Formosa Province

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21298.html>

(Fig. 4)

Material studied. 1♀, Laguna Blanca, -25.1875 -58.170278, 84 m, 10-15/II/2022, pitfall trap en pastizal, M.C. Melo. det., MLP he-16479.

Gerromorpha

Gerridae

Rhagadotarsinae

Rheumatobates minutus flavidus Drake and Harris, 1942. First record from Formosa Province

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21578.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 15/II/2022, t. de luz., Moreira, F. det., MLP he-11056.

Hebridae

Lipogomphus lacuniferus Berg, 1879. First record from Formosa Province

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21773.html>

Material studied. 2♂♂, Laguna Blanca, -25.173665 -58.129756, 12/II/2022, t. de luz., Melo, M.C. det., MLP he-8741, 8742; 9♂♂, 15♀♀, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Melo, M.C. det., MLP he-10795, 16510/16523, 16525/16528, 16530/16534.

Leptopodomorpha

Saldidae

***Saldula coxalis* (Stål, 1872). First record from Formosa Province**

<https://biodar.unlp.edu.ar/gerro-nepo-lepto/es/info/21413.html>

Material studied. 1♀, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Melo, M.C. det., MLP he-10729.

Cimicomorpha

Reduvidae

Pachynomidae

***Aphelonotus simplus* (Uhler, 1894)**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/21433.html>

Material studied. 4♂♂, 10♀♀, -25.173665 -58.129756, 14/II/2022, t. de luz, Melo, Olivera, Cheli & Dellapé cols., Melo, M.C. det., MLP he-9328/9341; 1♂, 1♀, Laguna Blanca, 15/II/2022, t. de luz, Melo, M.C. col., Melo, M.C. det., MLP he-9342, 9343.

Reduviidae

Emesinae

Saicini

***Oncerotrachelus nasutus* (Bergroth, 1913). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/20474.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Melo, Olivera, Cheli & Dellapé cols., Melo, M.C. det., MLP he-16505.

Harpactorinae

***Apiomerus arnau arnau* Costa Lima, Campos Seabra and Hathaway, 1951**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22868.html>

(Fig. 5)

Material studied. 1♂, -25.1221585 -58.1791104, Dellapé & Melo cols., Melo, M.C. det., MLP he-16498.

***Graptocleptes sanguineiventris* (Stål, 1862a). First record from Formosa Province**

<https://www.biodar.unlp.edu.ar/cimicomorpha/es/info/20712.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 9/X/2023, Melo, M.C. col., Melo, M.C. det., MLP he-11251.

Phymatinae

Phymata (Phymatispa) fortificata (Herrich-Schäffer, 1844)

Material studied. 1♂, -25.1210739 -58.1835931, 12/XII/2018, Dellapé & Melo cols., MLP he-16497.

Note. This species is divided into seven subspecies (Froeschner and Kormilev 1989), the differential characters are ambiguous and we consider that the species needs a thorough revision, and so we prefer to keep the identification to specific level.

Reduviinae

Leogorrus litura (Fabricius, 1787)

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/20001.html>

Material studied. 1♂, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Melo, M.C. det., MLP he-10820.

Zelurus transnominalis Lent and Wygodzinsky, 1947

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/20472.html>

(Fig. 6)

Material studied. 2♂♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Melo, Olivera, Cheli & Dellapé cols., Melo, M.C. det., MLP he-16485/16486.

Stenopodinae

Pnohirmus violentus Stål, 1859a. First record from Formosa Province

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/20487.html>

Material studied. 1♂, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Melo, M.C. det., MLP he-16508.

Triatominae

Triatomini

Panstrongylus geniculatus (Latreille, 1811)

<https://www.biodar.unlp.edu.ar/cimicomorpha/es/info/20492.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 9/X/2023, Melo, M.C. col., Melo, M.C. det., MLP he-11247.

Panstrongylus megistus (Burmeister, 1835). First record from Formosa Province

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/20493.html>

(Fig. 7)

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 8/X/2023, t. de luz, Melo, M.C. col., Melo, M.C. det., MLP he-16231.

Vesciinae

***Pessoia argentina* Wygodzinsky, 1943. First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/20505.html>

Material studied. 1 ♀, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Melo, M.C. det., MLP he-10814.

Miroidea

Miridae

Bryocorinae

Dicyphini

***Campyloneuropsis cincticornis* (Stål, 1860). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/21122.html>

Material studied. 1 ♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022 Melo, Olivera, Cheli & Dellapé cols., Minghetti, E. det., MLP he-15186.

Eccritotarsini

***Spartacus entrerrianus* Carvalho and Carpintero, 1986. First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/21201.html>

Material studied. 2 ♂♂, Laguna Blanca, -25.173665 -58.129756, 8-9/X/2023, T. Luz, Minghetti, E. col., Minghetti, E. det., MLP he-16349/16350; 2 ♂♂, same locality, 9/X/2023, T. Luz, Minghetti, E. col., Minghetti, E. det., MLP he-16351, 16352; 2 ♂♂, 1 indetermined sex, same data, P. Dellapé col., Minghetti, E. det., MLP he-16353/16355; 2 ♂♂, Mirador, -25.0151792 -58.1306691, 9/X/2023, P. Dellapé col., Minghetti, E. det., MLP he-15452, 15453.

Deraeocorinae

Deraeocorini

***Diplozona collaris* Van Duzee, 1915. First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/21906.html>

(Fig. 8)

Material studied. 1 ♀, Laguna Blanca, -25.173665 -58.129756, 8/X/2023, T. Luz, Melo, M.C. col., MLP he-16396; 1 ♀, same locality, 9/X/2023, T. Luz, Dellapé, P. col., Minghetti, E. det., MLP he-16397.

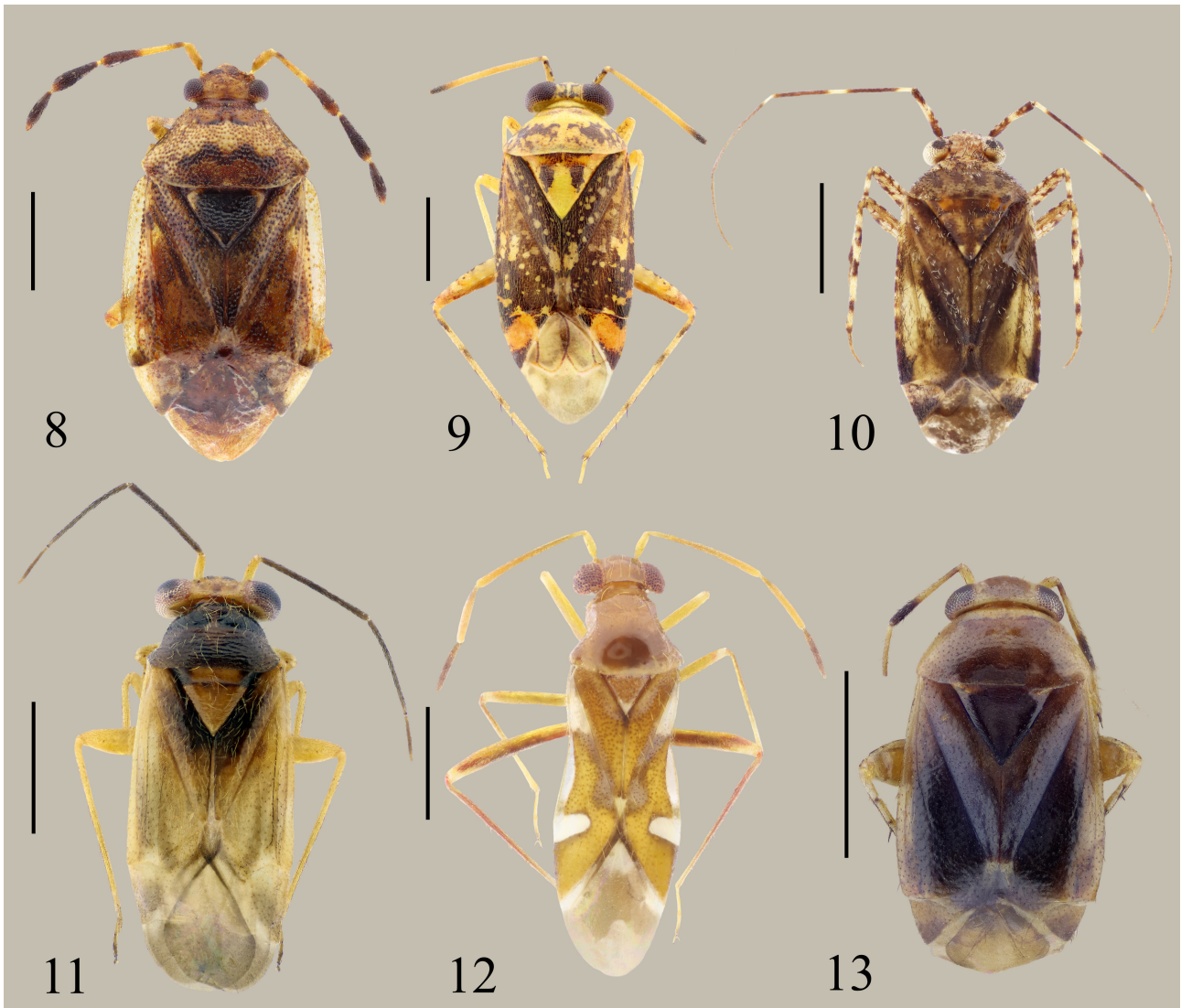
Mirinae

Mirini

***Dagbertus bahianus* Carvalho, 1975. First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22427.html>

(Fig. 9)



FIGURES 8–13. Dorsal habitus of Miridae recorded from the Rio Pilcomayo National Park. 8, *Diplozona collaris*. 9, *Dagbertus bahianus*. 10, *Phytocoris chaquensis*. 11, *Hadronemella tucumana*. 12, *Laemocoridea dispersa*. 13, *Rhinacloa basalis*. Scale bars: 1 mm.

Material studied. 2♂♂, 1♀, Laguna Blanca, -25.173665 -58.129756, 8/X/2022, T. Luz, Minghetti, E. col., Minghetti, E. det., MLP he-16424/16426; 1♂, same data, Melo, M.C. col., Minghetti, E. det., MLP he-16430; 3♂♂, same locality, 9/X/2022, T. Luz, Melo, M.C. col., Minghetti, E. det., MLP he-16427/16429; 1♂, same data, Minghetti, E. col., Minghetti, E. det., MLP he-16431.

***Phytocoris chaquensis* Carpintero and Chérot, 2008. First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22817.html>

(Fig. 10)

Material studied. 1♀, Estero Poi (Entrada), -25.123055, -58.193182, 12/II/2022, Melo, Olivera, Cheli & Dellapé cols., Minghetti, E. det., MLP he-16437.

***Polymerus testaceipes* (Stål, 1860). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22510.html>

Material studied. 2♂♂, Laguna Blanca, -25.173665 -58.129756, 9/X/2022, T. Luz, Melo, M.C. col., Minghetti, E. det., MLP he-16398, 16399; 1♀, same locality, 14/II/2022, -25.173665 -58.129756, Melo, Olivera, Cheli & Dellapé cols., T. Luz, Minghetti, E. det., MLP he-16401; 1♂, same locality, 13/II/2022, T. de luz, Minghetti, E. det., MLP he-16400.

***Taylorilygus apicalis* (Fieber, 1861). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22536.html>

Material studied. 1♀, Mirador, -25.0151792 -58.1306691, 9/X/2023, Minghetti, E. col., Minghetti, E. det., MLP he-16383; 1♂, same data, Melo, M.C. col., Minghetti, E. det., MLP he-16382; 1♀, Laguna Blanca, -25.0480576 -58.1271621, 9/X/2023, Melo, M.C. col., Minghetti, E. det., MLP he-16381.

Resthenini

***Carpinteroa notabilis* (Carvalho and Fontes, 1968). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22582.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, T. de luz, Minghetti, E. det., MLP he-16363.

***Nanniresthenia golbachi* Carvalho and Carpintero, 1991. First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22626.html>

Material studied. 5♂♂, 3♀♀, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, T. de luz, Minghetti, E. det., MLP he-16370/16377; 1♂, 1♀, same locality, 14/II/2022, Melo, Olivera, Cheli & Dellapé cols., T. de luz., Minghetti, E. det., MLP he-16368, 16369; 1♀, same locality, 15/II/2022, T. de luz, Minghetti, E. det., MLP he-16378.

Orthotylinae

Orthotylini

***Hadronemella argentina* (Carvalho and Wallerstein, 1978). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22370.html>

Material studied. 1♀, -25.0480576 -58.1271621, 9/X/2023, Melo, M.C. col., Minghetti, E. det., MLP he-16404.

***Hadronemella tucumana* Carvalho, 1984. First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22376.html>

(Fig. 11)

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 15/II/2022, T. de luz, Melo, M.C. col., Minghetti, E. det., MLP he-16417; 1♂, same locality, 14/II/2022, Melo, Olivera, Cheli & Dellapé cols., T. de luz.,

Minghetti, E. det., MLP he-16415; 1♂, same locality, 14/II/2022, Melo, Olivera, Cheli & Dellapé cols., Minghetti, E. det., MLP he-16416

***Laemocoridea dispersa* (Carvalho, 1944)**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22329.html>
(Fig. 12)

Material studied. 1♂, Mirador, -25.0151792 -58.1306691, 9/X/2023, Melo, M.C. col., Minghetti, E. det., MLP he-16408; 1 undetermined sex, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, Melo, Olivera, Cheli & Dellapé cols., Minghetti, E. det., T. Luz, MLP he-16409.

Phylinae

Phylini

***Rhinacloa basalis* (Reuter, 1907). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22103.html>
(Fig. 13)

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 8/X/2023, T. Luz, Melo, M.C. col., Minghetti, E. det., MLP he-17146.

***Tythus neotropicalis* (Carvalho, 1954). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/22292.html>

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, T. de Luz, Melo, Olivera, Cheli & Dellapé cols., Minghetti, E. det., MLP he-16414.

Tingidae

Tinginae

Tingini

***Teleonemia carmelana* (Berg, 1892). First record from Formosa Province**

<https://biodar.unlp.edu.ar/cimicomorpha/es/info/20296.html>

Material studied. 1♂, Estero Poi, -25.060222 -58.139167, 82 m, 10/II/2022, Olivera, L. col., Melo, M.C. det., MLP he-16507.

Pentatomomorpha

Aradoidea: Aradidae

***Aradus penningtoni* (Drake, 1942)**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/21717.html>

Material studied. 1♂, 13/II/2022, Melo, M.C. col., Melo, M.C. det., MLP he-8691.

Coreoidea

Alydidae

Micrelytrinae

Micrelytrini

Cydamus picticeps (Stål, 1859b)

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/21859.html>

Material studied. 1♂, -25.11739 -58.1835931, 12/XII/2018, Dellapé & Melo cols., Melo, M.C. det., MLP he-8212.

Neomegalotomus parvus (Westwood, 1842)

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/21841.html>

Material studied. 1♀, -25.0858430 -58.1566929, 11/XII/2018, Dellapé & Melo cols., Melo, M.C. det., MLP he-8424.

Leptocorisini

Stenocoris (Stenocoris) schaeferi Montemayor and Dellapé, 2011

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/21848.html>

Material studied. 1♀, -25.1210739 -58.1835931, 12/XII/2018, Dellapé & Melo cols., Melo, M.C. det., MLP he-8373.

Coreidae

Coreinae

Acanthocerini

Lybindus dichrous Stål, 1859c. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22763.html>

(Fig. 14)

Material studied. 2♂♂, -25.0406056 -58.1263044, 9/X/2023, on Caraguatá, Dellapé, P. col., Olivera, L. det., MLP he-17572/17573.

Hydarini

Maduranoides chemsaki Brailovsky, 1988

<https://biodar.unlp.edu.ar/pentatomomorpha/en/info/20591.html>

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, M.C. Melo col., MLP he-7581; 2♂♂, 2♀♀, same locality, T. de luz, Melo, Olivera, Cheli & Dellapé cols., MLP he-7582-7585; 1♂, Estero Poi, -25.118833 -58.170139, 14/II/2022, L. Olivera col., L. Olivera det., MLP he-7580.

Hypselonotini

Acidomeria sordida (Berg, 1878). First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20596.html>

(Fig. 15)

Material studied. 1♀, -25.0406056 -58.1263044, 9/X/2023, on Caraguatá, Dellapé, P. col., Olivera, L. det., MLP he-17571.

Catorhintha divergens Barber, 1926

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20611.html>

(Fig. 16)

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 9/X/2023, light trap, Dellapé, P. col., Olivera, L. det., MLP he-17574.

Rhopalidae

Rhopalinae

Harmostini

Harmostes (Harmostes) serratus (Fabricius, 1775)

<https://biodar.unlp.edu.ar/pentatomomorpha/en/info/20020.html>

Material studied. 2♂♂, Estero Poi, -25.060222 -58.139167, 82 m, 10/II/2022, Olivera, L. col., Melo, M.C. det., MLP he-16494/16495; 1♀, Estero Poi, -25.118833 -58.170139, 14/II/2022, Melo, M.C. col., Melo, M.C. det., MLP he-16493; 1♀, -25.0480576 -58.127621, 9/X/2023, Melo, M.C. det., MLP he-11452.

Niesthreini

Niesthrea digna Chopra, 1973. First record from Argentina

(Fig. 17)

Material studied. 1♂, -25.122185 -58.1791104, Dellapé & Melo col., MLP he-16496.

Note: This species have been recorded from Brazil, Colombia and Venezuela (Melo and Henry 2019).

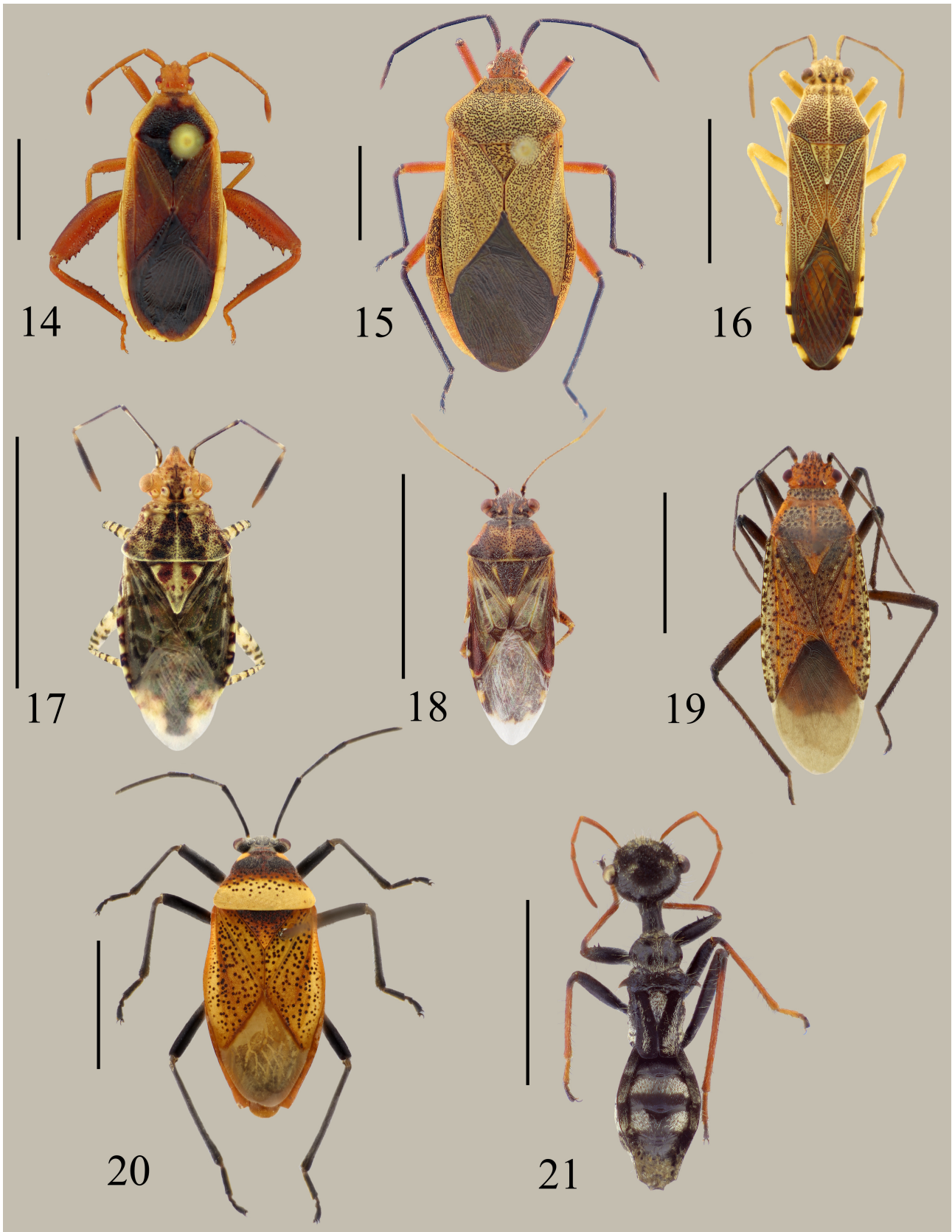
Niesthrea pictipes (Stål, 1859b)

<https://biodar.unlp.edu.ar/pentatomomorpha/en/info/20008.html>

Material studied. 1♂, 4♀♀, -25.0858430 -58.1566929, 11/XII/2018, Dellapé & Melo cols., Melo, M.C. det., MLP he-16294/19298; 2♂♂, Laguna Blanca, -25.173665 -58.129756, 12/II/2022, Dellapé, P. col., Melo, M.C. det., MLP he-16488/16489; 2♂♂, Estero Poi, -25.123055 -58.193182, 12/II/2022, Melo, Olivera, Cheli & Dellapé cols., Melo, M.C. det., MLP he-16491/16492.

Niesthrea similis Chopra, 1973. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20009.html>



FIGURES 14–21. Dorsal habitus of Coreoidea and Pyrrhocoroidea recorded from the Rio Pilcomayo National Park. 14, *Lybindus dichrous*. 15, *Acidomeria sordida*. 16, *Catorhintha divergens*. 17, *Niesthrea digna*. 18, *Liorrhysus hyalinus*. 19, *Jadera choprai*. 20, *Largus trochanterus*. 21, *Thaumastaneis montandoni*. Scale bars: 5 mm.

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 8/X/2023, Melo, M.C. col., Melo, M.C. det., MLP he-16309.

***Niesthrea vincentii* (Westwood, 1842)**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20010.html>

Material studied. 1♂, 2♀♀, -25.1210739 -58.1835931, 12/XII/2018, Dellapé & Melo cols., Melo, M.C. det., MLP he-16299/16301.

Rhopalini

***Liorrhysus hyalinus* (Fabricius, 1794). First record from Formosa Province**

<https://www.biodar.unlp.edu.ar/pentatomomorpha/es/info/20003.html>

(Fig. 18)

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 9/X/2023, Melo, M.C. col., Melo, M.C. det., MLP he-13252.

Serinethinae

***Jadera choprai* Göllner-Scheiding, 1979. First record from Formosa Province**

<https://www.biodar.unlp.edu.ar/pentatomomorpha/es/info/20033.html>

(Fig. 19)

Material studied. 1♂, 1♀, Laguna Blanca, -25.173665 -58.129756, 9/X/2023, Melo, M.C. col., Melo, M.C. det., MLP he-11239, 11240; 1♀, -25.173665 -58.129756, 14/II/2022, Melo, Olivera, Cheli & Dellapé cols., Melo, M.C. det., MLP he-16315; 1♂, 1♀, Laguna Blanca, -25.173665 -58.129756, 9/X/2029, t. de luz, Dellapé, P. col., Melo, M.C. det., MLP he-16313, 16314.

***Jadera coturnix* (Burmeister, 1835). First record from Formosa Province**

<https://www.biodar.unlp.edu.ar/pentatomomorpha/es/info/20034.html>

Material studied. 2♂♂, Laguna Blanca, -25.173665 -58.129756, 9/X/2023, Melo, M.C. col., Melo, M.C. det., MLP he-11248, 11249.

***Jadera sanguinolenta* (Fabricius, 1775). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20039.html>

Material studied. 2♀♀, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Cheli, Dellapé, Melo & Olivera cols., Melo, M.C. det., MLP he-16499/16500.

Pyrrhocoroidea

Largidae

Larginae

Largini

Largus fasciatus Blanchard, 1843. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20042.html>

Observation. <https://www.argentinat.org/observations/107529762>

Largus trochanterus Signoret, 1862. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/en/info/20047.html>

(Fig. 20)

Material studied. 1♂, Estero Poi, -25.122055 -58.193182, 12/II/2022, Melo, Olivera, Cheli & Dellapé cols., Melo, M.C. det., MLP he-16487.

Thaumastaneis montandoni Kirkaldy and Edwards, 1902. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20052.html>

(Fig. 21)

Material studied. 1♂, Mirador, -25.0151792 -58.1306691, 9/X/2023, P. Dellapé col.; 1♂, same data, Melo, M.C. col., Melo, M.C. det., MLP he-16196.

Pyrrhocoridae

Dysdercus chaquensis Freiberg, 1948. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20054.html>

Material studied. 2♀♀, same locality, 8/X/2023, Minghetti, E. col., Melo, M.C. det., MLP he-11237, 11238; 4♂♂, 1♀, 8/X/2023, Dellapé, P.M. col., Melo, M.C. det., MLP he-13247/13251; 1♂, 1♀, Laguna Blanca, -25,173665 -58,129756, 9/X/2023, Melo, M.C. col., Melo, M.C. det., MLP he-11235, 11236.

Pentatomoidea

Cydnidae

Amnestinae

Amnestus pusio (Stål, 1860). First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22693.html>

Material studied. 5♂♂, 13♀♀, Laguna Blanca, 25°10'25,19"S-58°7'47,12"W, 14/II/2022, t. de luz, Cheli, G., Dellapé, P., Melo, C., Olivera, L. cols., Amaru, J. det., MLP he-17457/17474; 1♂, Laguna Blanca, -25.173665 -58.129756, 15/II/2022, t. de luz, Melo, M.C. col., Amaru, J. det., MLP he-17476; 1♂, same data, 13/II/2022, T. de Luz, Amaru, J. det., MLP he-17475.

Cydninae

Cyrtomenus mirabilis (Perty, 1830). First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/en/info/22699.html>

(Fig. 22)

Material studied. 26♂♂, 30♀♀, Laguna Blanca, 25°10'25,19"S-58°7'47,12"W, 14/II/2022, t. de luz, Cheli, G., Dellapé, P., Melo, C., Olivera, L. cols., Amaru, J. det., MLP he-17147/17166, 17174/17179, 17259/17288; 7♂♂, 9♀♀, same data, 13/II/2022, Amaru, J. det., MLP he-17167/17173, 17289/17297; 6♂♂, 14♀♀, same locality, 8/X/2023, t. de luz, Minghetti, E. col., Amaru, J. det., MLP he-17216/17221, 17389/17399, 17387, 17401/17402.

***Cyrtomenus emarginatus* Stål, 1862a. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22698.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 8/X/2023, t. de luz, Minghetti, E. col., Melo, M.C. det., MLP he-17058; 1♂, same locality, 9/X/2023, t. de luz, Minghetti, E. col., Amaru, J. det., MLP he-17057.

***Dallasiellus alutaceus* Froeschner, 1960. First record from Argentina**

(Fig. 23)

Material studied. 1♀, Laguna Blanca, 25°10'25,19"S-58°7'47,12"W, 14/II/2022, t. de luz, Cheli, G., Dellapé, P., Melo, C., Olivera, L. cols., Amaru, J. det., MLP he-17067; 1♀, same data, Dellapé, P. col., MLP he-17068; 1♀, Laguna Blanca, -25.173665 -58.129756, 8/X/2023, Melo, M.C. col., Amaru, J. det., MLP he-17064; 1♀, same data, Minghetti, E. col., Amaru, J. det. MLP he-17065; 1♂, 3♀♀, same locality, 9/X/2023, t. de luz, Dellapé, P. col., Amaru, J. det., MLP he-17059/17062; 1♀, same data, Melo, M.C. col., Amaru, J. det., MLP he-17063.

Note. Reported from Bolivia, Brazil, and Colombia (Avendaño *et al.* 2017).

***Melanaethus spinolae* (Signoret, 1863). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22713.html>

Material studied. 23♀♀, Laguna Blanca, 25°10'25,19"S-58°7'47,12"W, 14/II/2022, t. de luz, Cheli, G., Dellapé, P., Melo, C., Olivera, L. cols., Amaru, J. det., MLP he-17477/17499; 1♀, Laguna Blanca, -25.173665 -58.129756, 15/II/2022, t. de luz, Melo, M.C. col., Amaru, J. det. MLP he-17500; 1♀, same data, Dellapé, P. col., Amaru, J. det., MLP he-17510; 10♀♀, same data, 13/II/2022, t. de Luz, Amaru, J. det., MLP he-17501/17509.

***Pangaeus xanthopus* Signoret, 1882. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22721.html>

(Fig. 24)

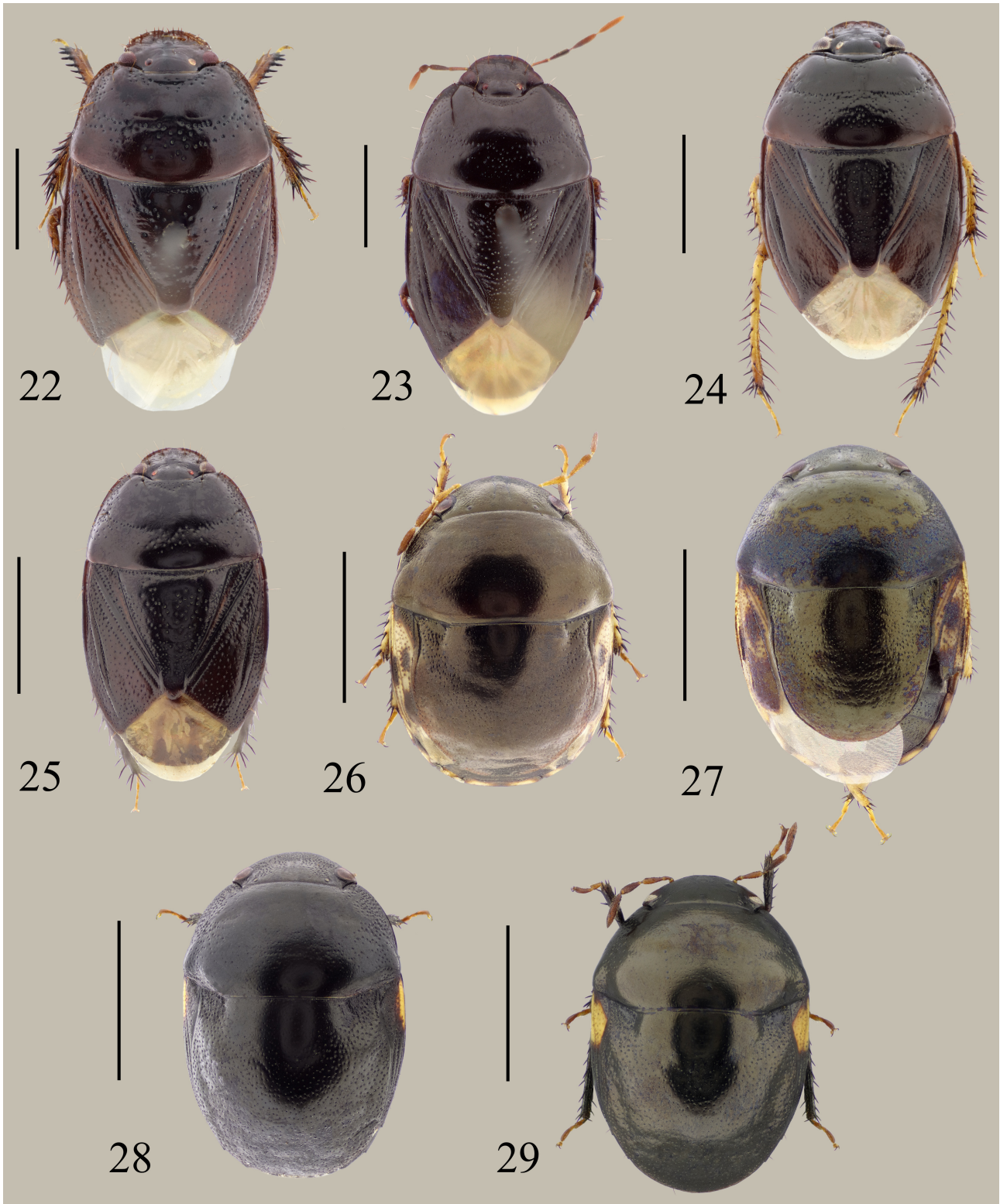
Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de Luz, Amaru, J. det., MLP he-17051; 1♂, 25 10'25,19"S-58 7'47,12"W, 13/II/2022, t. de luz, Cheli, G., Dellapé, P., Melo, C., Olivera, L. cols., Amaru, J. det., MLP he-17055; 1♂, same locality, 8/X/2023, t. de luz, Melo, M.C. Col., Amaru, J. det., MLP he-17054; 1♀, same locality, 9/X/2023, t. de luz, Melo, M.C. col., Amaru, J. det., MLP he-17050; 1♀, same data, Dellapé, P. col., Amaru, J. det., MLP he-17049.

***Tominotus inconspicuous* Froeschner, 1960. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/en/info/22725.html>

(Fig. 25)

Material studied. 2♀♀, Laguna Blanca, -25.173665 -56.129756, 13/II/2022, t. de Luz, Amaru, J. det., MLP he-17083, 17089; 1♂, 4♀♀, Laguna Blanca, 25°10'25,19"S-58°7'47,12"W, 14/II/2022, t. de luz, Cheli, G., Dellapé, P., Melo, C., Olivera, L. cols., MLP he-17120, 17069/17072.



FIGURES 22–29. Dorsal habitus of Cydnidae recorded from the Rio Pilcomayo National Park. 22, *Cyrtomenus mirabilis*. 23, *Dallasiellus alutaceus*. 24, *Pangaeus xanthopus*. 25, *Tominotus inconspicuus*. 26, *Galgupha (Gyrocnemis) concava*. 27, *Galgupha (G.) triconcava*. 28, *Galgupha (Psestophleps) costomaculata*. 29, *Galgupha (P.) neobisignata*. Scale bars: 2 mm.

Thyreocorinae

Corimelaenini

***Galgupha (Gyrocnemis) concava* McAtee and Malloch, 1928. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20867.html>

(Fig. 26)

Material studied. 1♀, Estero Poi, -25.060222 -58.139167, 10/II/2022, Olivera, L. col., Amaru, J. det., MLP he-17017.

***Galgupha (Gyrocnemis) triconcava* McAtee and Malloch, 1933. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20880.html>

(Fig. 27)

Material studied. 1♂, Estero Poi sobre río Pilcomayo, -25.019010 -58.117548, 14/II/2022, Dellapé, P. col., Amaru, J. det., MLP he-17576.

***Galgupha (Nothocoris) terminalis* (Walker, 1867a)**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20891.html>

Material studied. 1♀, Estero Poi sobre río Pilcomayo, -25.019010 -58.117548, 14/II/2022, Dellapé, P. col., Amaru, J. det., MLP he-17016.

***Galgupha (Psestophleps) costomaculata* McAtee and Malloch, 1933. First record from Argentina**

(Fig. 28)

Material studied. 1♀, Estero Poi sobre río Pilcomayo, -25.019010 -58.117548, 14/II/2022, Dellapé, P. Col., Amaru, J. det., MLP he-17048; 3♂♂, Mirador, -25.0151792 -58.1306691, 9/X/2023, Minghetti, E. col., Amaru, J. det. MLP he-17040/17042; 4♂♂, same data, Melo, M.C. col., Amaru, J. det. MLP he-17043/17046; 1♂, same data, Dellapé, P. col, Amaru, J. det., MLP he-17047.

Note. Reported only from Paraguay and Brazil (McAtee and Malloch 1933), this is the first record from Argentina.

***Galgupha (Psestophleps) neobisignata* McAtee and Malloch, 1933. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20898.html>

(Fig. 29)

Material studied. 10♂♂, 5♀♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, t. de luz, Melo, M. C., Amaru, J. det., MLP he-17000/17014; 1♂, Estero Poi sobre Río Pilcomayo, -25.01901 -58.117548, 14/II/2022, Dellapé, P. col, Amaru, J. det., MLP he-17015.

Pentatomidae

Pentatominae

Carpocorini

***Diceraeus melacanthus* Dallas, 1851**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22026.html>

Material studied. 1♂, 2♀♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, t. de luz, Melo, Olivera, Cheli & Dellapé cols., Castro-Huertas, V. det., MLP he-16468/16469, 16471; 1♂, Estero Poi, -25.060222 -58.139167, 82 m, 10/II/2022, Olivera col., Castro-Huertas, V. det., MLP he-16470.

***Oebalus poecilus* (Dallas, 1851). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22073.html>

Material studied. 1♂, 1♀, Laguna Blanca, -25.173665 -58.129756, 8/X/2023, t. de luz, Melo, M.C. col., Castro-Huertas, V. det., MLP he-16473/16474; 1♀, same locality, 9/X/2023, t de luz, Dellapé, P. col., Castro-Huertas, V. det., MLP he-16475.

Nezarini

***Cyptocephala cogitabunda* Berg, 1883. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22217.html>

Material studied. 1♂, 2♀♀, Estero Poi, -25.118833 -58.170139, 14/II/2022, Olivera, L. col., Castro-Huertas, V. det., MLP he-16477/16478; 1♀, Laguna Blanca, -25.173665 -58.129756, 9/X/2023, t. de luz, Minghetti, E. col., Castro-Huertas, V. det., MLP he-16476.

Scutelleridae

Pachycorinae

***Camirus brevilinea* (Walker, 1867b). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22744.html>

Material studied. 1♂, 1♀, Laguna Blanca, -25.173665 -58.129756, 12/II/2022, Dellapé col., Castro-Huertas, V. det., MLP he-8738, 8740.

***Chelycoris scitulus* (Walker, 1867b)**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20940.html>

Material studied. 2♂♂, 2♀♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, Melo, M.C. col., Castro-Huertas, V. det., MLP he-8734/8737; 1♂, 1♀, same data, Melo, Olivera, Cheli & Dellapé cols., Castro-Huertas, V. det., MLP he-8732, 8733; 4♂♂ 1♀, Estero Poi, -25.118833 -58.170139, 14/II/2022, Melo, M.C. col., Castro-Huertas, V. det., MLP he-8725/8728, 8730; 1♂, 1♀, same data, Olivera, L. col., Castro-Huertas, V. det., MLP he-8729, 8731.

Lygaeoidea

Berytidae

Metacanthini

***Jalysus sobrinus* Stål, 1862b. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20067.html>

Material studied. 1♂, 2♀♀, -25.1210739 -58.1835931, 12/XII/2018, Dellapé & Melo cols., Dellapé, P.M. det., MLP he-2194, 2195/2196.

Blissidae

***Ischnodemus formosus* Dellapé and Melo, 2022**

<https://biodar.unlp.edu.ar/pentatomomorpha/en/info/22674.html>

Material studied. 1♂, 1♀, 25.571°S 58.322°W, 11-XII-2018, Dellapé & Melo cols., MLP he-10569, 10570; 1♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, Melo col., MLP he-6694; 1♀, Estero Poi, -25.118833 -58.170139, 14/II/2022, L. Olivera col., Dellapé, P.M. & Melo, M.C. det., MLP he-6695.

***Ischnodemus oblongus* (Fabricius, 1803)**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20096.html>

Material studied. 1♂, Estero Poi, Mirador, -25.0151792 -58.1306691, 9/X/2023, E. Minghetti col., Dellapé, P.M. & Melo, M.C. det., MLP he-14687, 14688.

***Ischnodemus paramoides* Slater and Wilcox, 1969**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20086.html>

Material studied. 1♀, Estero Poi, mirador del Rio, 25.015°S 58.130°W, 24/II/2022, Dellapé, P.M. col., MLP he-6724; 1♀, Estero Poi, Mirador, -25.0151792 -58.1306691, 9/X/2023, E. Minghetti col., Dellapé, P.M. & Melo, M.C. det., MLP he-14774; 1♀, same data, Melo, M.C. col., MLP he-16194.

***Ischnodemus severus* Slater and Wilcox, 1969. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20089.html>

(Fig. 30)

Material studied. 1♂, Estero Poi, Mirador, -25.0151792 -58.1306691, 9/X/2023, E. Minghetti col., Dellapé, P.M. & Melo, M.C. det., MLP he-9935.

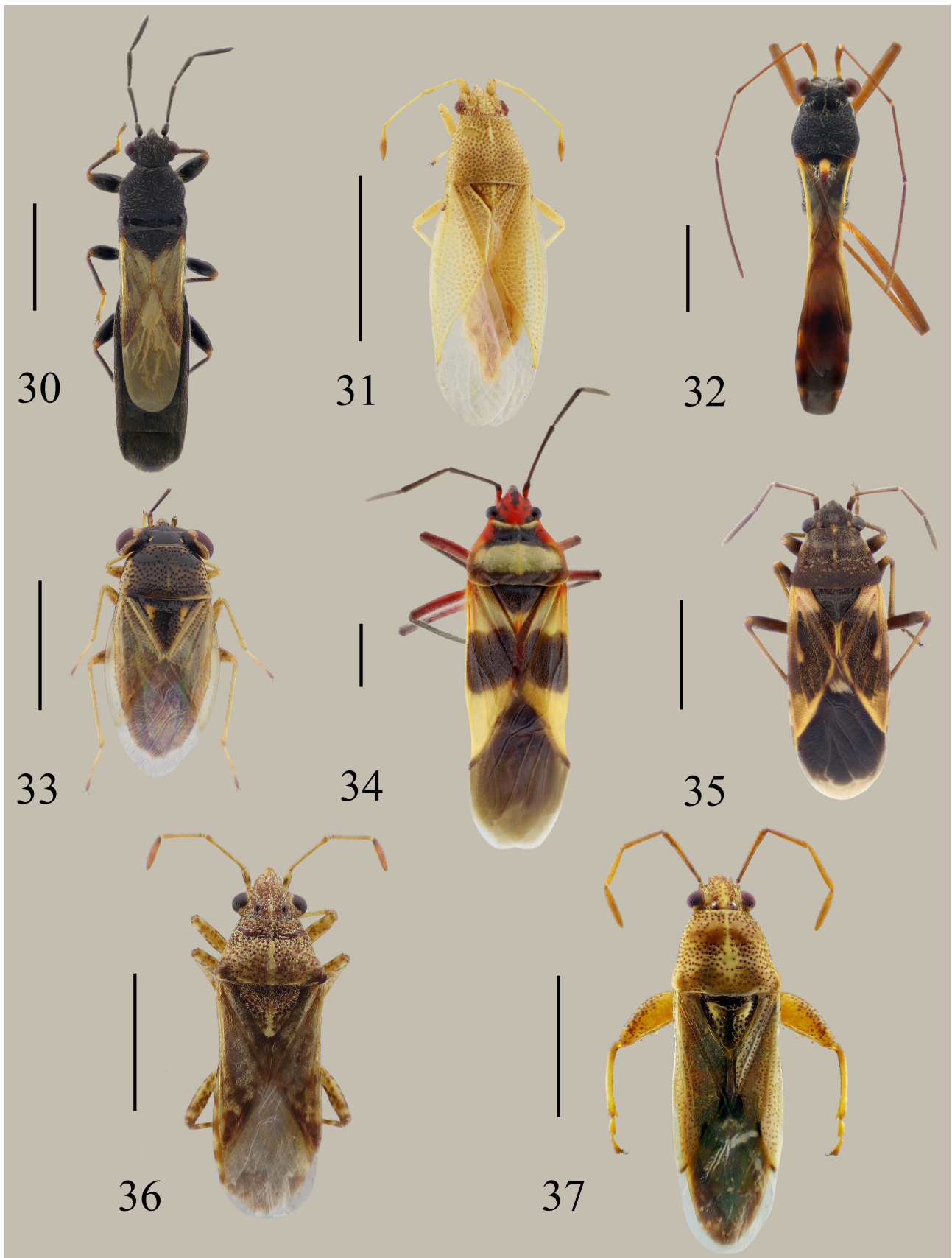
Cymidae

***Cymodema breviceps* (Stål, 1874). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20108.html>

(Fig. 31)

Material studied. 3♀♀, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Dellapé, P.M. det., MLP he-7127/7129.



FIGURES 30–37. Dorsal habitus of Lygaeoidea recorded from the Rio Pilcomayo National Park. 30, *Ischnodemus severus*. 31, *Cymodema breviceps*. 32, *Trichocentrus gibbosus*. 33, *Geocoris callosulus*. 34, *Oncopeltus unifasciatellus*. 35, *Ochrimnus cincipennis*. 36, *Neortholomus jamaicensis*. 37, *Oedancala kormilevi*. Scale bars: 2 mm.

Colobathristidae

Trichocentrus gibbosus Horváth, 1904

<https://www.biodar.unlp.edu.ar/pentatomomorpha/es/info/20105.html>

(Fig. 32)

Material studied. 2♂♂, 1 nymph, -25.1210739 -58.1835931, 12/XII/2018, Dellapé col., Dellapé, P.M. det., MLP he-6889/6891; 1♂, Mirador, -25.0151792 -58.1303391, 9/X/2023, Melo, M.C. col., Dellapé, P.M. det., MLP he-16197.

Geocoridae

Geocoris callosulus Berg, 1878. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20109.html>

(Fig. 33)

Material studied. 1♀, Estero Poi, -25.060222 -58.139167, 11/II/2022, Melo col., Dellapé & Melo det., MLP he-7400.

Lygaeidae

Lygaeinae

Oncopeltus unifasciatellus Slater, 1964. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20134.html>

(Fig. 34)

Material studied. 2♂♂, 2♀♀, -25.1221585 -58.1791104, 2018, Dellapé & Melo cols., Dellapé, P.M. det., MLP he-865/868.

Oxygranulobaphus willinki Brailovsky, 1982. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20136.html>

Material studied. 3♂♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & Dellapé cols., Dellapé, P.M. det., MLP he-14851/14853; 1♂, 2♀♀, same data, 14/II/2022, Dellapé, P.M. det., MLP he-14829/14831; 2♂♂, 4♀♀, same locality, 15/II/2022, t. de luz, Dellapé, P. col., MLP he-14815/14821; 1♂, 1♀, same data, Melo, M.C. col., Dellapé, P.M. det., MLP he-14848, 14849; 1♂, 5♀♀, same data, 15/II/2022, Dellapé, P.M. det., MLP he-14843/14847, 14850.

Torvochrinnus poeyi (Guérin-Méneville, 1838)

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20129.html>

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, t. de luz, 9/X/2023, Dellapé, P.M. col., Dellapé, P.M. det., MLP he-14662.

Ochrinnus cinctipennis (Stål, 1860). First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20126.html>

(Fig. 35)

Material studied. 1♂, Mirador, -25.0151792 -58.1306691, 9/X/2023, Dellapé, P. col., MLP he-16503; 1♀, -25.0480576 -58.1271621, 9/X/2023, Dellapé, P. col., Dellapé, P.M. det., MLP he-14640.

Orsillinae

Nysiini

Nysius simulans Stål, 1859b

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20149.html>

Material studied. 1♂, 25°10'25.19"S 58°4'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & Dellapé cols., Dellapé, P.M. det., MLP he-8744.

Neortholomus jamaicensis (Dallas, 1852)

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20140.html>

(Fig. 36)

Material studied. 1♂, 1♀, Estero Poi, -25.060222 -58.139167, 82 m, 10/II/2022, Olivera, L. col., Dellapé, P.M. det., MLP he-14878, 14879.

Pachygronthidae

Teracriinae

Oedancala kormilevi Slater, 1955. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20158.html>

(Fig. 37)

Material studied. 1♀, -25.1210739 -58.1835931, 12/XII/2018, Dellapé & Melo cols., Dellapé, P.M. det., MLP he-9319.

Oedancala meridionalis Stål, 1874

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20159.html>

Material studied. 1♂, 3♀♀, -25.1221585 -58.1791104, 2018, Dellapé & Melo cols., Dellapé, P.M. det., MLP he-9376/9378; 1♀, -25.1210739 -58.1835931, 12/XII/2018, Dellapé & Melo cols., Dellapé, P.M. det., MLP he-9379; 7♂♂, 8♀♀, Laguna Blanca, -25.0480576 -58.127621, 9/X/2023, Melo, M.C. col., Dellapé, P.M. det., MLP he-16316/16332; 1♀, -25.173665 -58.129756, 9/X/2023, Dellapé, P. col., Dellapé, P.M. det., MLP he-16333.

Phlegyas patruelis Berg, 1883. First record from Formosa Province

<https://www.biodar.unlp.edu.ar/pentatomomorpha/es/info/20163.html>

Material studied. 1♂, 1♀, -25.0858430 -58.1566929, 11/XII/2018, Dellapé & Melo cols., Dellapé, P.M. det., MLP he-9256, 9257; 2♂♂, -25.1210739 -58.1835931, 12/XII/2018, Dellapé & Melo cols., Dellapé, P.M. det., MLP he-9258, 9259.

Rhyparochromidae

Rhyparochrominae

Lethaeini

***Bubaces enatus* Brailovsky, 1981. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20168.html>

(Fig. 38)

Material studied. 2♂♂, 2♀♀, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Dellapé, P.M. det., MLP he-9551/9554.

***Cistalia alboannulata* (Stål, 1860)**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20171.html>

Material studied. 1♂, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Melo, M.C. det., MLP he-10783.

***Cryphula affinis* (Distant, 1901)**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20174.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & Dellapé cols., Dellapé, P.M. det., MLP he-9935; 1♀, same data, 14/II/2022, Dellapé, P.M. det., MLP he-9933; 1♂, same data, 15/II/2022, Melo, M.C. det., MLP he-9936.

***Lipostemmata major* Ashlock, 1970**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20177.html>

(Fig. 39)

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz; Melo, L. Olivera, G. Cheli & P. Dellapé cols., Dellapé, P.M. det., MLP he-9979; 1♀, same data, 14/II/2022, Dellapé, P.M. det., MLP he-9996; 1♀, same locality, 15/II/2022, t. de luz, Dellapé, P. col., MLP he-9990; 1♀, same locality, 9/X/2023, T. de luz, Melo, M.C. col., Dellapé, P.M. det., MLP he-14719.

***Lipostemmata scutellata* Ashlock, 1970**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20178.html>

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & Dellapé cols., Melo, M.C. det., MLP he-11089.

***Neopetissius perplexus* O'Donnell, 2001. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20179.html>

(Fig. 40)

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Dellapé, P.M. det., MLP he-11100; 1♀, same locality, 8/X/2023, t. de luz, Dellapé, P.M. col., Dellapé, P.M. det., MLP he-16502; 2♀♀, same

locality, 9/X/2023, Minghetti, E. col., Dellapé, P.M. det., MLP he-14705, 14706; 1♂, 2♀♀, 9/X/2023, Melo, M.C. col., Dellapé, P.M. det., MLP he-14701/14703; 1♂, same data, Dellapé, P. col., Dellapé, P.M. det., MLP he-14704.

***Valtissius distinctus* (Distant, 1901)**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20182.html>
(Fig. 41)

Material studied. 2♂♂, 2♀♀, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Dellapé, P.M. det., MLP he-11493/11496; 5♀♀, same data, 14/II/2022, Dellapé, P.M. det., MLP he-11497/11501.

Myodochini

***Baranowskiobius bimaculatus* Dellapé, Melo, and Henry, 2016**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20229.html>

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 9/X/2023, t. de luz, Minghetti, E. col., Dellapé, P.M. det., MLP he-14646.

***Erlacda argentinensis* Dellapé and Melo, 2004. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20194.html>
(Fig. 42)

Material studied. 1♀, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., Melo, M.C. det., MLP he-11779.

***Froeschneria multispina* (Stål, 1874). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20195.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Dellapé, P.M. det., MLP he-11831.

***Neopamera albocincta* (Barber, 1953). First record from Formosa Province**

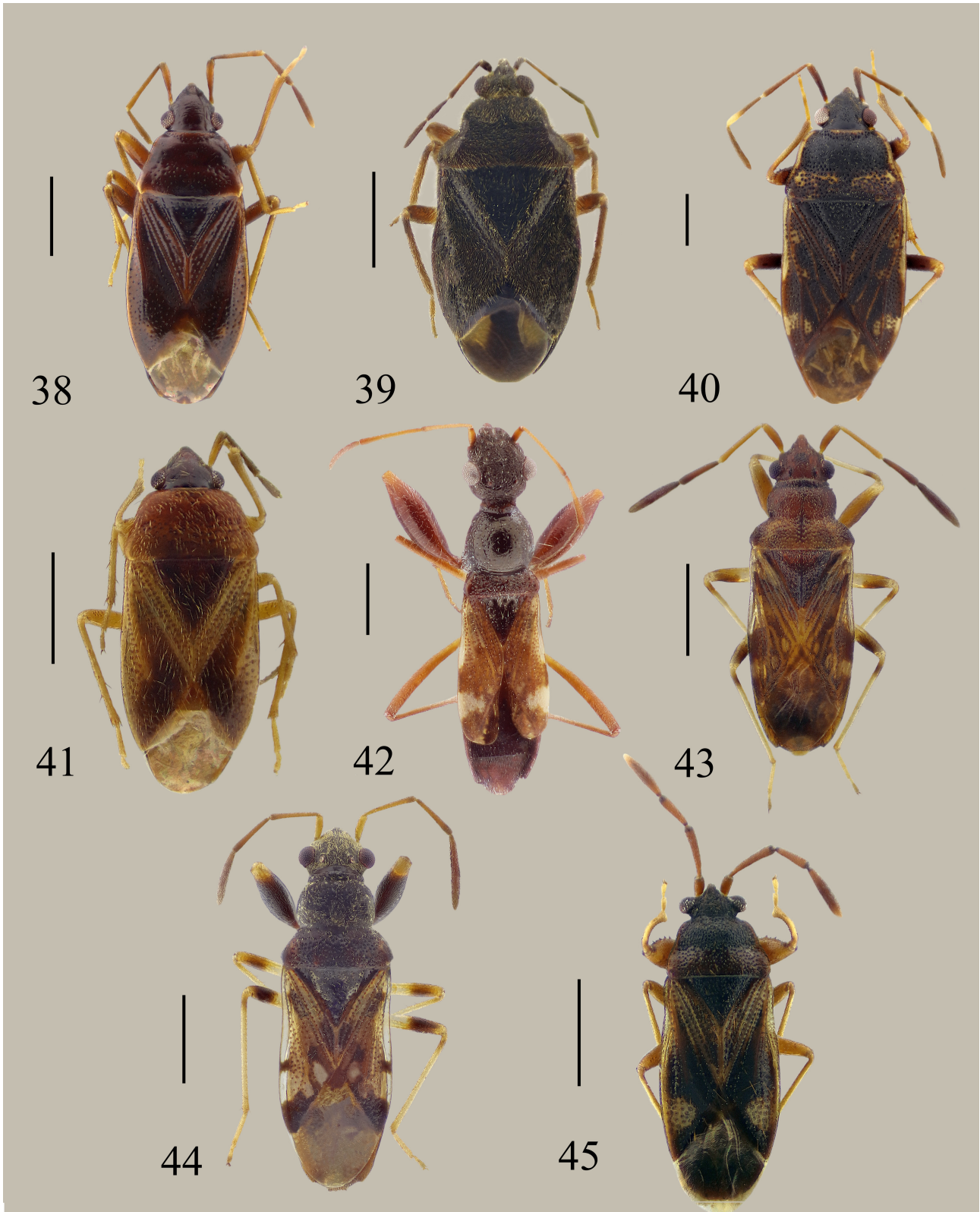
<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20198.html>

Material studied. 7♂♂, 7♀♀, Laguna Blanca, 25°10'25.19"S 58°7'47.12"W, t. luz, G. Cheli, P. Dellapé, C. Melo & L. Olivera cols., MLP he-14312/12325; 5♂♂, 5♀♀, same data, 15/II/2022, Dellapé, P.M. det., MLP he-12048/12052, 12436/12440.

***Neopamera bilobata* (Say, 1832). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20199.html>

Material studied. 1♂, 2♀♀, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, M.C. Melo, L. Olivera, G. Cheli & P. Dellapé cols., MLP he-12349/12350, 12356; 2♂♂, 2♀♀, same data, 14/II/2022, Dellapé, P.M. det., MLP he-12351/12354.



FIGURES 38–45. Dorsal habitus of Lygaeoidea recorded from the Rio Pilcomayo National Park. 38, *Bubaces enatus*. 39, *Lipostemmata major*. 40, *Neopetissius perplexus*. 41, *Valtissius distinctus*. 42, *Erlacda argentinensis*. 43, *Prytanes formosus*. 44, *Pseudopachybrachius concepcioni*. 45, *Tempyra biguttula*. Scale bars: 1 mm.

***Paromius procerulus* (Berg, 1892). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20206.html>

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Dellapé, P.M. det., MLP he-12919.

***Prytanes foedus* (Stål, 1860). First record from Formosa Province**

<https://www.biodar.unlp.edu.ar/pentatomomorpha/es/info/22745.html>

Material studied. 2♂♂, 4♀♀, Laguna Blanca, 15/II/2022, Dellapé, P.M. & Melo, M.C. det., MLP he-13356/13361; 1♂, same locality, 9/X/2023, Melo, M.C. col., Dellapé, P.M. det., MLP he-14636.

***Prytanes formosus* (Distant, 1882). First record from Formosa Province**

<https://www.biodar.unlp.edu.ar/pentatomomorpha/es/info/22740.html>

(Fig. 43)

Material studied. 12♂♂, 3♀♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, t. de luz, Melo, L. Olivera, G. Cheli & P. Dellapé cols., MLP he-13833/13847; 1♀, same locality, 9/X/2023, t. de luz, Dellapé, P. col., MLP he-14635.

***Prytanoides prorrectus* Dellapé and Melo, 2024**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/22761.html>

Material studied. 1♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, Melo, Olivera, Cheli & Dellapé cols., T. de luz, MLP he-10708.

***Pseudopachybrachius concepcioni* Zheng and Slater, 1984. First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20209.html>

(Fig. 44)

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 8/X/2023, t. de luz, Minghetti, E. col., Dellapé, P.M. det., MLP he-13807.

***Pseudopachybrachius vinctus* (Say, 1832). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20208.html>

Material studied. 1♂, Mirador, -25.0151792 -58.1306891, 9/X/2023, Dellapé, P. col., Dellapé, P.M. det., MLP he-16504; 1♀, Laguna Blanca, -25.173665 -58.129756, 14/II/2022, t de luz, Melo, Olivera, Cheli & Dellapé cols., Dellapé, P.M. det., MLP he-14027.

***Pseudoparomius linearis* (Stål, 1874). First record from Formosa Province**

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20210.html>

Material studied. 1♀, Laguna Blanca, 25°10'25,19"S 58°7'47,12"W, 14/II/2022, t. de luz, M.C. Melo, L. Olivera, G. Cheli & P. Dellapé cols., Dellapé, P.M. det., MLP he-20100.

Udeocorini

Tempyra biguttula Stål, 1874. First record from Formosa Province

<https://biodar.unlp.edu.ar/pentatomomorpha/es/info/20220.html>

(Fig. 45)

Material studied. 1♂, Laguna Blanca, -25.173665 -58.129756, 13/II/2022, t. de luz, Dellapé, P.M. det., MLP he-14851.

Discussion

The study of the diversity of true bugs in the Rio Pilcomayo National Park resulted in an inventory of 112 species belonging to 27 families. Additionally, one undescribed genus and species of Deraeocorini (Miridae), one new species of *Horcias* (Mirinae: Mirini), and one of *Ischnodemus* (Blissidae) were found; and one species of Notonectidae and two species of Edessinae (Pentatomidae) were not possible to identify confidently, and were excluded from the inventory.

Three species constitute first records from Argentina, and 69 species from Formosa Province. This last number is remarkably high considering that from this northern province 266 species have been recorded (Melo *et al.* 2024b, Dellapé *et al.* 2024, Melo and Dellapé 2024) increasing this number by 26% to 338 species.

In Argentina, the Humid Chaco includes four protected areas: Río Pilcomayo National Park, Chaco National Park, Laguna El Palmar National Park, and the Natural Reserve Colonia Benítez. Among them, only the diversity of true bugs from the P.N. Chaco have been studied (Melo *et al.* 2011). The comparison from both inventories results in only 14.49 % similarity of species, and among these two inventories 182 species from Humid Chaco are recorded. It should be noted that this low similarity is partly due to the fact that not exactly the same families were inventoried and that the sampling efforts were different in each study. Moreover, if we expand the data to the Argentinean protected areas from the Chaco Grasslands, including both Humid and Dry Chaco the number of species recorded from protected areas increase to 226 (Dellapé *et al.* 2016, Dellapé and Melo 2022, Melo *et al.* 2011, Melo and Dellapé 2022, Melo *et al.* 2024a). In these studies, 90 new specific level records to the Chaco Province and 13 new specific level records to Argentina were reported, and some of the collected specimens were assigned to new species that were subsequently described (Dellapé *et al.* 2016, Dellapé and Melo 2022). This shows the incomplete knowledge about the true bug diversity in the region, and the taxonomic work that needs to be done in order to have a better knowledge of the diversity of true bugs in the Chaco Grasslands.

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