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A new genus and species of *Mirini* from Argentina (Hemiptera: Heteroptera: Miridae)

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Abstract

Mendozimiris chiquillanes is described as a new genus and species from Mendoza, Malargüe Department, Argentina.

Key words: *Mendozimiris chiquillanes*, new genus, new species, Heteroptera, Miridae, Mirini, Argentina, Mendoza

Introduction

The new genus *Mendozimiris* is described to accommodate a new species of the tribe Mirini (Hemiptera: Heteroptera: Miridae) from Mendoza, Malargüe Department, Argentina.

Material and methods

The types of the new species are deposited in the Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Buenos-Aires, Argentina (MACN), Instituto Argentino de Investigaciones de la Zonas Áridas (IADIZA), Facultad de Ciencias Naturales y Museo de La Plata (MLP), United States National Museum, Washington D.C., United States of America, and the Institut royal des Sciences naturelles de Belgique, Brussels, Belgium (ISNB).

The terminology concerning the genitalic structures partially follows Slater (1950), Davis (1955), Kelton (1955) and Stonedahl (1988) (see Carpintero & Chérot, 2008). Measurements are presented in millimetres.

Taxonomy

Mendozimiris Carpintero & Chérot, n. gen.

Diagnosis. Brownish to greyish yellow with red brown marbled *Phytocoris*-like patches. Frons rounded and narrowly striate with oblique, dark brown grooves. Vertex slightly sulcate medially, without carina. Eyes contiguous to pronotal collar. Labium reaching middle of abdomen. Pronotal disk roughly punctate, with superficial, shallow but relatively wide punctures. Pronotal collar and area of callosities obviously striate in males, narrowly striate in females. Humeral angles round, posterior margin of disk relatively straight, lateral margins strongly concave in females (a character state related to brachypterism), less concave in males. Scutellum elevated, laterally striate and practically impunctate. Mesoscutum uncovered. Dorsal pilosity sparse, with very short, prostrate, white setae (black on modified cuneus of female), practically glabrous in dorsal view at low magnification. Hemelytra roughly punctate with superficial, shallow but relatively wide punctures. Female

brachypterous, apical part of corium reduced, cuneus tilted, oval, ivory white, membrane limited to a translucent area.

Type species: *Mendozamiris chiquillanes* n. sp.

Etyymology. After “Mendoza”, the province from Argentina where the new genus was discovered and “*Miris*”, the type genus of the tribe.

Discussion. *Mendozamiris* differs from all genera of the *Phytocoris* complex (*Adphytocoris* Carvalho & Gomes, 1969, *Euphytocoris* Poppius, 1914, *Gracilamiris* Stonedahl & Henry, 1991, *Miridius* Fieber, 1858, *Neosapinnius* Wagner, 1960, *Phytocoridaea* Reuter, 1906, *Phytocoris* Fallén, 1814, *Phytocorisca* Carvalho & Fontes, 1972, *Sanluiza* Carvalho, 1992, and *Vissosamiris* Carvalho, 1987) by the dorsal punctation. *Mendozamiris* has a distinctly punctate pronotum and an elevated scutellum being relatively similar to *Incamiris* Carvalho & Ferreira, 1972. It is easily separated from this Peruvian genus by its narrow and shallow, reduced but obviously present hemelytral punctation (the hemelytra of *I. peruviansis* are smooth) and its less elongate habitus. *Mendozamiris* differs from *Derophthalma* Berg, 1883 by the elongated male habitus, the oblique (and not vertical) head and the notably anteriorly narrow pronotum. The mandibular plate of *Minasmiris* Carvalho, 1980 is visible in dorsal view and not visible in *Mendozamiris*. The eyes of *Perumiris* Carvalho, 1987 are not contiguous to the pronotal collar and are contiguous in *Mendozamiris*. *Perumiris* and *Quichuamiris cochabambensis* Carvalho, 1974 differ also by their more rounded, less elongated habitus. The females of *Stittocapsus* spp. are brachypterous, however the two genera differs by the habitus. The scutellum of *Stittocapsus* is not elevated; the dorsal punctation is narrower and less deep than in *Mendozamiris*, particularly on the pronotal disk and hemelytra, where the punctation is nevertheless slightly stronger (it is not the case in *Mendozamiris*). The dorsal pilosity of *Stittocapsus* is limited to prostate, white, silky setae and its vertex lacks a sulcus, whereas *Mendozamiris* has two different setae on the hemelytra and the vertex is sulcate.

***Mendozamiris chiquillanes* Carpintero & Chérot, n. sp.**

(Figs. 1–15)

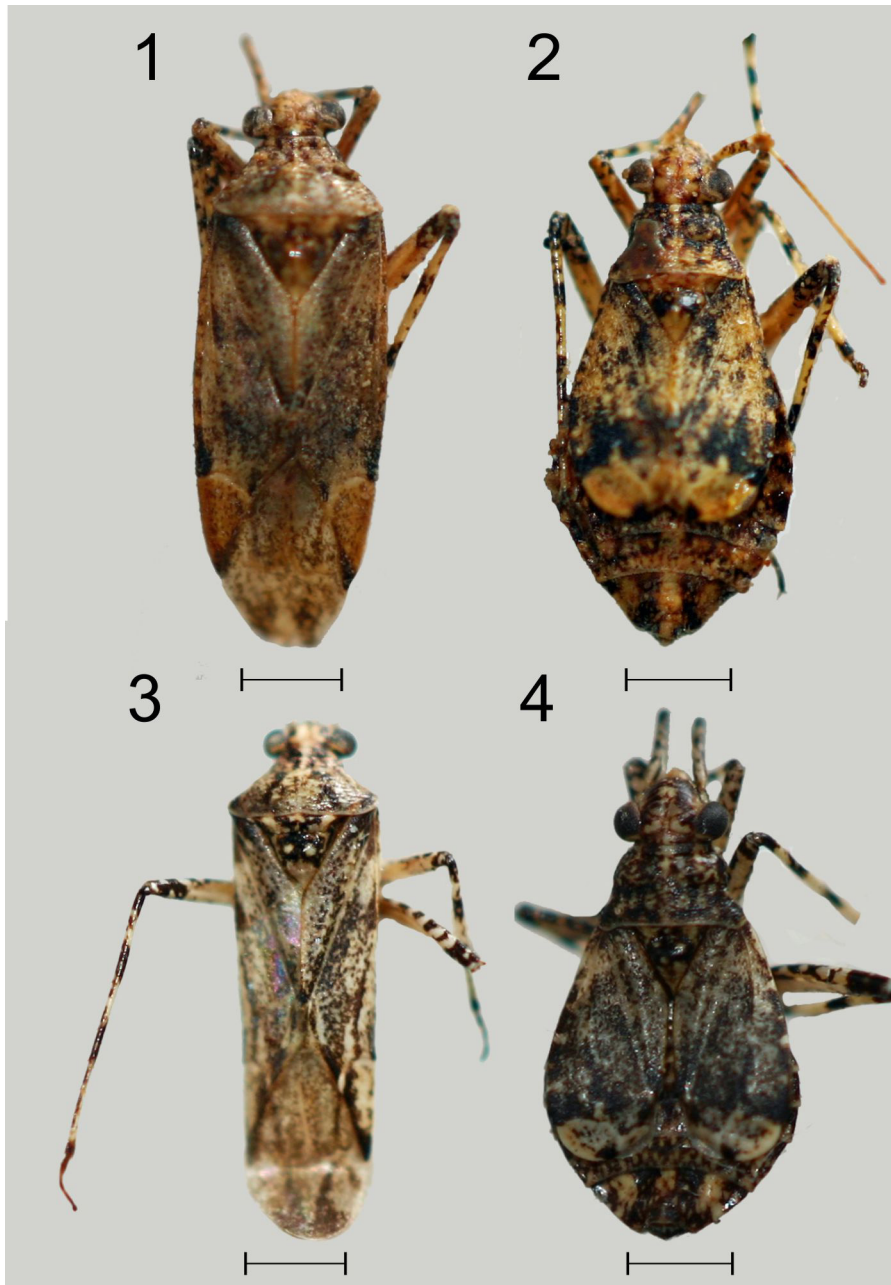
Holotype: ♂: ARGENTINA: Arg(entina): Mendoza RN 145, Malargüe D(epartemen)t, nr Portezuelo del Viento, 1580 m., 10.xii.2011 / 35°49.275'S, 70° 03.412' W. *Dellapé* leg. (IADIZA).

Paratypes: 8 ♂, 8 ♀: same data as for holotype (including FC n°s 6216-6219) (MACN, MLP, IADI); 12 ♂ 18 ♀, same data, but collected by T. Henry, on *Adesmia volkmanni* (Fabaceae) (USNM); 1 ♂: Arg(entina): Mendoza, RP 186, Malargüe Dept, SE Pt Gentile, Prov. Res. El Payén, 1950 m., 11.xii.2011, *Dellapé* leg. / 35° 57.026'S, 69° 24.783'W. (FC n° 6220); 1 ♀: Arg(entina): Mendoza, RP 186, Malargüe Dept, near Pt Gentile, Pr. Res. El Payén, 1900 m., 11.xii.2011, *Dellapé* leg. / 35° 55.768'S, 69° 25.655'W. (FC n° 6221). 1 ♀: Arg(entina): Mendoza, RP 220, Malargüe Dept, 14km W El Sosneado, 1900 m., 9.xii.2011, *Dellapé* leg. / 34° 57.338'S, 69° 41.551'W. (MACN); 1 ♂ 4 ♀ same data, but collected by T. Henry, on *Fabiana denudata patagonica* (Asteraceae) (USNM); 1 ♂: Arg(entina): Mendoza, RP 220, San Rafael Dept, Western El Sosneado, 2050m, 9.xii.2011, T. Henry / 34° 54.449' S–69° 50. 167' W, on *Anarthrophyllum rigidum* (Asteraceae) (USNM); 1 ♀: Arg(entina): Mendoza, RN 40, Malargüe Dept., 55km South of Malargüe, 1700m, 10.xii.2011, T. Henry / 35° 08.625' S – 69° 40.757' W, on an Asteraceae. (USNM); 2 ♂ 5 ♀: Arg(entina): Mendoza, RP 186, Malargüe Dept., 30km SE | with RN 40, (SE Pto. Carapacho, Res. Prov. Laguna de Llananelo), 1950m, 11.xii.2011, T. Henry / 35° 50.564' S – 69° 30.325' W, on *Fabiana denudata patagonica* (USNM).

Diagnosis. As in generic diagnosis.

Description (Male). Measurements from paratype FC n° 6216 preserved to ISNB. Total length (dorsal view, from apex of tylus to apex of hemelytra): 5.5, total width of hemelytra: 2.05, eyes width: 0.35, vertex width: 0.45, length of antennal segment I: 1.0, II: 2.1, III: ~1.15, IV: ~0.80, pronotal length (in middle, including the collar): 0.9, pronotal width (between the humeral angles): 1.8, scutellum length (in middle, including mesoscutum): 0.95, scutellum width: 0.85, cuneus length (outer margin): 1.1, cuneus width: 0.7.

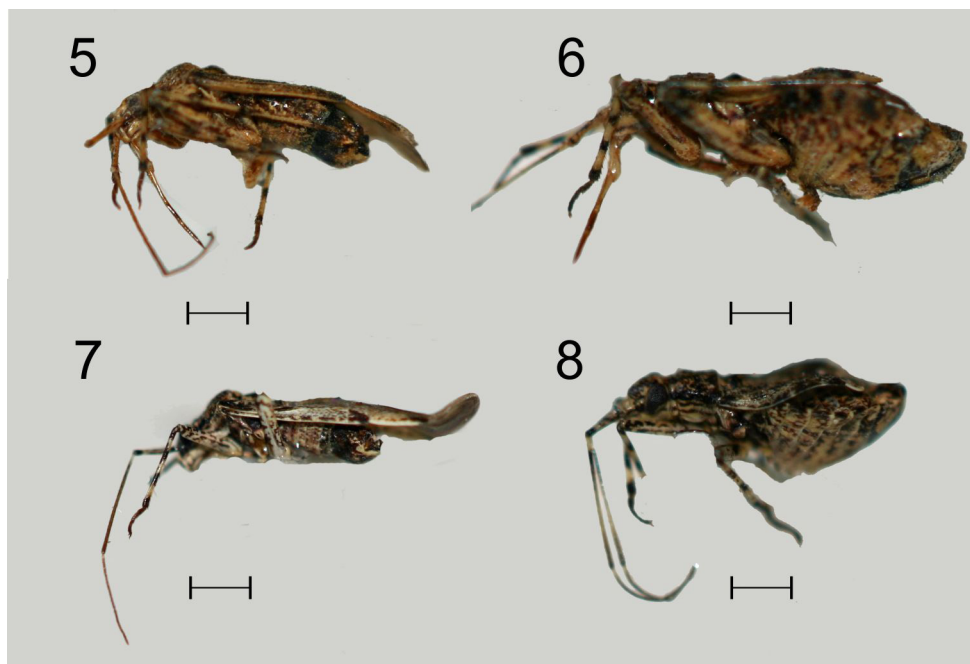
Head practically glabrous. Clypeus yellowish, sometimes with red brown to orange submedial stripes. Mandibular and maxillary plates yellowish with brown patches, devoid of tubercle. Frons yellowish, rounded, obliquely striate, grooves narrow, shallow, yellowish to red brown. Vertex slightly sulcate medially, not carinate, yellowish to whitish. Eyes contiguous to pronotal collar, yellowish with grey ommatidia and short, erect setae. First



FIGURES 1–4. *Mendezamiris* n. gen. *chiquillanes* n. sp. Habitus in dorsal view. 1–2. Male and female paratypes from Portezuelo del Viento (FC n°s 6216–6217). 3–4. Male and a female paratype from El Payén (FC n°s 6220–6221). Scales = 1 mm.

antennal segment thick, yellowish with red to dark brown elongated marks and white, stiff, erect setae. Second antennal segment narrower than first, cylindrical, brownish (sometimes with a yellow basal ring), with some elongate, erect, white setae (three times the wide of segment) and very short, semierect to prostrate, white setae. Third and fourth segments dark brown, with similar pilosity. Labium yellowish brown to apically dark brown. *Thorax*. Pronotal collar yellow, narrowly striate transversally, not punctate, submedially with two red brown M-like stripes, laterally with two other black stripes, continuing on pronotal lateral sides, reaching beyond posterior margin of callosities. Pronotal callosities rounded, not punctate, medially separated by a transversally striate area, reaching pronotal lateral margins, with sparse, very short, prostrate white setae. Pronotal disk slightly shining, roughly punctate, punctures superficial, shallow but relatively wide, yellowish with dark red brown patches and sparse, short, suberect setae. Mesoscutum uncovered, yellowish with small red brown spots. Scutellum rounded, medially elevated, height in lateral view superior or practically equal to height of posterior margin of pronotal disk, surface not punctate, narrowly striate laterally, yellowish with a pair of lateral dark brown stripes and several wide

red brown patches submedially. Meso- and metapleura yellow to red brown and dark brown to black, evaporatory area yellow slightly tinged with orange dorsally. *Legs*. Femora and tibiae yellowish with dark red brown stripes and rings, metafemora with suberect to erect setae, metatibia with erect to suberect white spines and short, prostrate to suberect setae. Tarsal segments dark brown, claw red brown. *Hemelytra* yellowish roughly punctate, with superficial, shallow, relatively narrow punctures. Clavus and corium with numerous small brown spots and with very short, relatively stiff, prostrate or semi erected, white and black setae, exocorium with wider red brown patches. Cuneus relatively elongate, yellow tinged with orange to red, apex red brown to red, with the same pilosity as hemelytra. Membrane elongate, yellowish with red brown spots and patches, veins yellow. Abdomen yellowish with variable red brown stripes on each pleura, connexivium dark brown.



FIGURES 5–8. *Mendozamiris* n. gen. *chiquillanes* n. sp. Habitus in lateral view. 5–6. Male and female paratypes from Portezuelo del Viento (FC n°s 6216-6217). 7–8. Male and a female paratypes from El Payén (FC n°s 6220-6221). Scales = 1 mm.

Genitalia. Left paramere (Fig. 9) sickle-like, devoid of secondary or tertiary lobes and apophysis, sensory lobe bearing some short setae. Right paramere (Fig. 10) stout, posteriorly translucent, primary apophysis hooked. Endophallus (Fig. 11) devoid of ACH and true spiculum, including two toothed sclerites, one elongated and slightly curved (Pa1), other helicoid (Pa2, detail in Fig. 12). *Ductus seminis* (Ds) wide and elongated. Secondary gonopore (G2) wide, devoid of sclerite.

Description (Female). Measurements from paratype FC n° 6217 preserved to ISNB. Total length (dorsal view): 5.5, total width of hemelytra: 2.3, eyes width: 0.25, vertex width: 0.5, length of antennal segment I: 1.0, II: 2.0, III: lost, IV: lost, pronotal length (in middle, including the collar): 0.75, pronotal width (between the humeral angles): 1.5, scutellum length (in middle, including mesoscutum): 0.75, scutellum width: 0.70, cuneus length (maximal length of the oval): 0.65, cuneus width: 0.5.

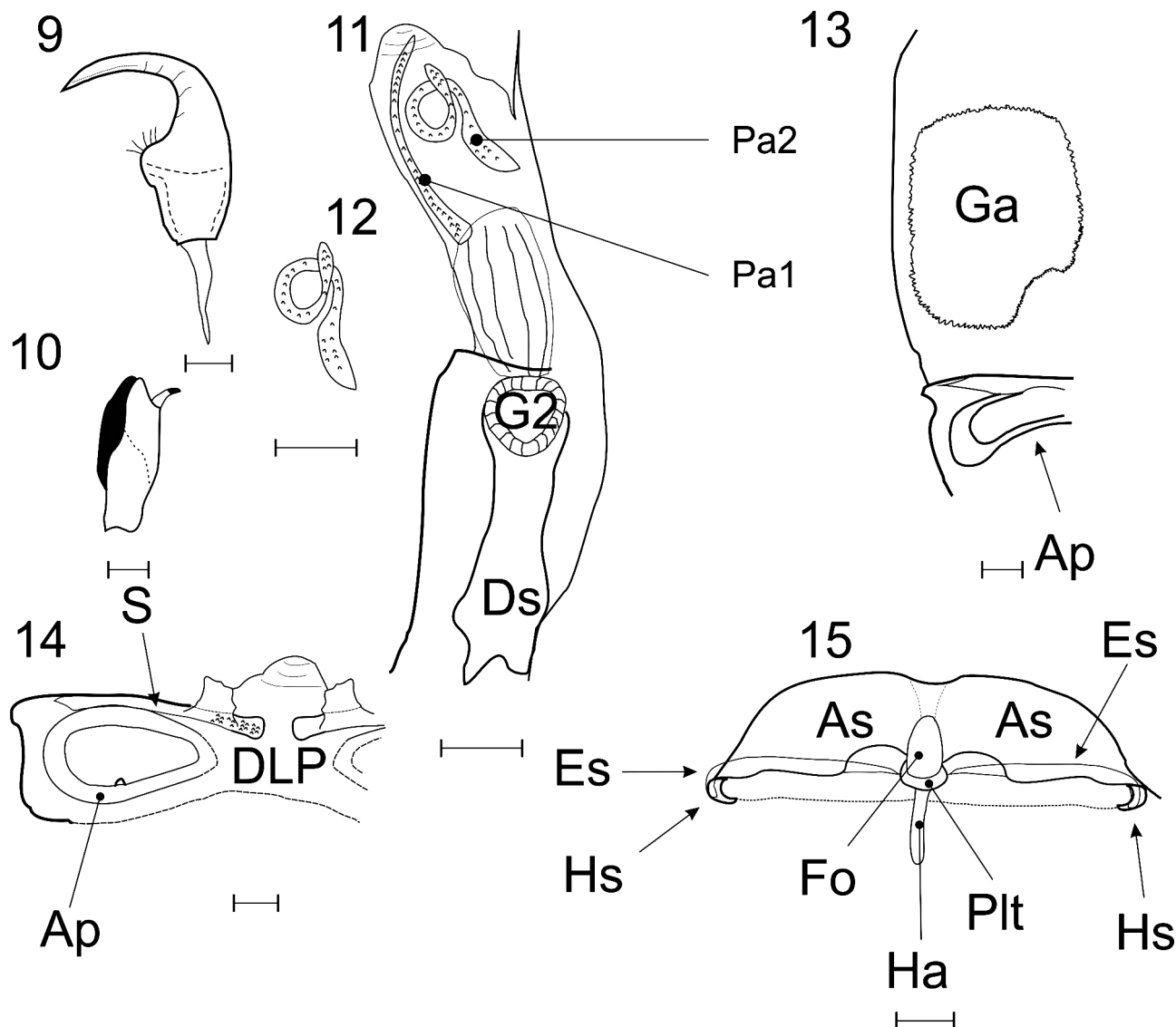
Similar to male but slightly smaller (except for total length and total width), darker and brachypterous, grooves of frons red brown to dark brown, pronotum bell-shaped, lateral margins strongly concave, callosities rounded, pronotal disk and hemelytra with wider dark brown patches, exocorium strongly convex. Cuneus tilted, oval, ivory white (except apex red brown), membrane reduced to a translucent area.

Genitalia. Anterior sac wide, with a pair of glands (Fig. 13, Ga). Parieto-vaginal rings (Fig. 14, Ap) wide, totally separated, margins slightly convex to practically straight. Dorso labiate plate (DLP) reinforced anteriorly by a complex sclerite (S). Dorsal wall membranous. Posterior wall (Fig. 15) classical, with A structures or inter-ramal sclerites (AS) slightly curved ventrally, elongated E structures or inter-ramal lobes (ES) reaching the dorsal structure, small H structures or lateral lobes (HS). The B structure including an oval foot or sigmoide process (Fo), an elongated hat (Ha) and rounded dorsal structure or plate (Plt).

Etymology. The specific name derived from an indigenous people of the region of Cuyo, Argentina, the Huarpes or Warpes. The Huarpes Chiquillanes, also called "huarpes algarroberos" were a group distributed in the south of Mendoza Province, where the collecting site of this species, the department Malargüe, is located.

Biology. Unknown. Collected between 1580m and 2050m elevation. The collection sites belong to the Andean region and Central Patagonian subregion (Morrone 2001). The species was collected on the typical patagonian shrubs: *Adesmia volkmanni* (Fabaceae), *Fabiana denudata patagonica* (Asteraceae), *Anarthrophyllum rigidum* (Asteraceae) and on an undetermined Asteraceae.

Discussion. *Mendozamiris chiquillanes* can be easily recognized by its habitus and male genitalia. Specimens of both sexes from different localities have relatively dramatic chromatic variation (compare figures 1–3 and 2–4).



FIGURES 9–15. *Mendozamiris* n. gen. *chiquillanes* n. sp. Genital structures. 9. Left paramere. 10. Right paramere. 11. Endophallus. Ds: *ductus seminis*, G2: secondary gonopore, Pa1 and 2: toothed sclerites. 12. toothed sclerite Pa2. 13. Left part of anterior sac in dorsal view. Ga: gland, Ap: parieto-vaginal ring. 14. Left parieto-vaginal ring (Ap). DLP: dorso-labiate plate, S: sclerite. 15. Posterior wall. As: A structures, Es: E structures, Fo: foot, Ha: hat, Hs: H structures, Plt: plate. Scales = 0.1 mm.

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