

## Scientific Note

# New records of Neotropical Pentatominae (Heteroptera: Pentatomidae)

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**Abstract.** The subfamily Pentatominae is the most diverse within Pentatomidae, with about 120 genera and 680 species recorded in the Neotropics. The genera *Euschistus* Dallas, 1851 and *Glyphepomis* Berg, 1891 and the species *Banasa dolabrata* Thomas, 1988, *B. peruana* Thomas, 1990, *B. testacea* Thomas, 1990, *Glyphepomis setigera* Kormilev & Pirán, 1952, and *Euschistus taurulus* Berg, 1878 are recorded for the first time in Paraguay; and two monotypic genera, *Berecynthus* Stål, 1862 and *Nocheta* Rolston, 1980, are recorded for the first time in Bolivia and Ecuador, respectively. These new records increase the known country level diversity of Pentatominae in the Neotropics.

**Keywords:** Hemiptera, stink bugs, distribution, Neotropics, South America.

Pentatomidae is one of the largest families within Heteroptera (Schuh & Weirauch 2020), and their members are known as stink bugs, producing disagreeable odor by means of scent glands (Panizzi et al. 2000). The subfamily Pentatominae is the most diverse and includes 660 genera and about 3500 species worldwide distributed (Schuh & Weirauch 2020). In the Neotropical Region, approximately 120 genera and about 680 species are recorded (Grazia et al. 2015). Pentatominae are phytophagous and many species are economically important as pests of cultivated crops around the world, causing damage mainly to Leguminosae and Gramineae crops in the Neotropics (Grazia et al. 1999; Panizzi et al. 2000).

In this work we show the geographic distribution of four genera and seven species of Pentatominae is extended. These new records increase the known country level diversity of the Neotropical stink bugs.

All examined specimens are deposited in the Entomological collections of the Museo de La Plata, Buenos Aires, Argentina (MLP), Museo Argentino de Ciencias Naturales, Buenos Aires, Argentina, (MACN), and Instituto Miguel Lillo, Tucumán, Argentina (IMLA). The images were taken with a stereomicroscope Nikon SMZ 745 coupled with a digital camera and stacked with the Zerene Stacker™ software.

### *Banasa dolabrata* Thomas, 1988 (Fig. 1A)

The genus *Banasa* Stål, 1860 is one of the most diverse of Pentatomidae, with 80 species occurring from southern Canada to Argentina (Thomas & Yonke 1990; Campos et al. 2010). The species *B. dolabrata* is distributed from Mexico, through Central America, Ecuador, Peru and Bolivia (Thomas & Yonke 1990). Here, this species is recorded for the first time from Paraguay. *Banasa dolabrata* is recognized by the presence of castaneous punctures on the propleura, and the dolabrate parameres of males (Thomas & Yonke 1990).

**Examined Material.** 1 female and 1 male: PARAGUAY, Caaguazú, XI-1958, without other data (MLP).

### *Banasa peruana* Thomas, 1990 (Fig. 1B)

*Banasa peruana* formerly known from Colombia, Ecuador, Peru, Bolivia and Brazil (Thomas & Yonke 1990) is here recorded from Paraguay. This species can be recognized by the lack of stigmatose spots on the pleura, the shape of the parameres in males and the emarginate gonocoxae in females (Thomas & Yonke 1990).

**Examined Material.** 1 female and 2 males: PARAGUAY, Caaguazú, XI-1958, without other data (MLP)

### *Banasa testacea* Thomas, 1990 (Fig. 1C)

This species formerly known from the cloud forest in Peru (Thomas & Yonke 1990), has its distribution extended here to the south, in Paraguay. *Banasa testacea* is recognized by the shape of the gonocoxae in females (Thomas & Yonke 1990).

**Examined Material.** 2 females: PARAGUAY, Caaguazú, XI-1958, without other data (MLP).

### *Berecynthus hastator* (Fabricius, 1798) (Fig. 1D)

The monotypic genus *Berecynthus* Stål, 1862 occurs in Mexico, Costa Rica, Panamá, Colombia, Venezuela, Suriname, Peru and Brazil (Maes 1994; Grazia & Hildebrand 1982; Grazia et al. 2015). The new record here expands the geographic distribution of this genus and species to Bolivia. *Berecynthus hastator* can be distinguished by the clypeus acute and longer than the mandibular plates, also acute, and separated from the clypeus by an incision, and by genitalic characters of both sexes (Grazia & Hildebrand 1982).

**Examined Material.** 1 male: BOLIVIA, Caranavi, without other data (MLP).

**Remarks.** This species was cited as *Berecynthus delirator* (Fabricius) by several authors, among them Grazia & Hildebrand (1982) and Maes (1994).

### *Euschistus taurulus* Berg, 1878 (Fig. 1E)

The genus *Euschistus* Dallas, 1851 includes 67 species restricted to the New World, from United States to Argentina and Uruguay (Grazia et al. 2015; Bianchi et al. 2017). *Euschistus taurulus* is broadly distributed in South America, from Venezuela, Brazil, Ecuador, Peru, and Bolivia, southward to Uruguay and Argentina (Dellapé et al. 2015; Grazia et al. 2017; Hickmann et al. 2019). This species is recorded for the first time from Paraguay. It can be recognized by the stout humeral angles produced anterolaterally; and by the structure of the genitalia of both sexes (Hickmann et al. 2019).

**Examined Material.** 1 male: PARAGUAY, San Estanislao, I-1946, Bridarolli col. (MACN).

### *Glyphepomis setigera* Kormilev & Pirán, 1952 (Fig. 1F)

The genus *Glyphepomis* Berg, 1891 is exclusively South American and has seven species distributed in Brazil, Uruguay, and Argentina (Bianchi et al. 2016). Among them, *G. setigera* is also known from these three countries (Dellapé et al. 2015; Grazia et al. 2015). Here,

both *Glypheapomis* and *G. setigera* are recorded for the first time from Paraguay. This species is recognized by its setose body surface (Kormilev & Pirán 1952; Bianchi et al. 2016).

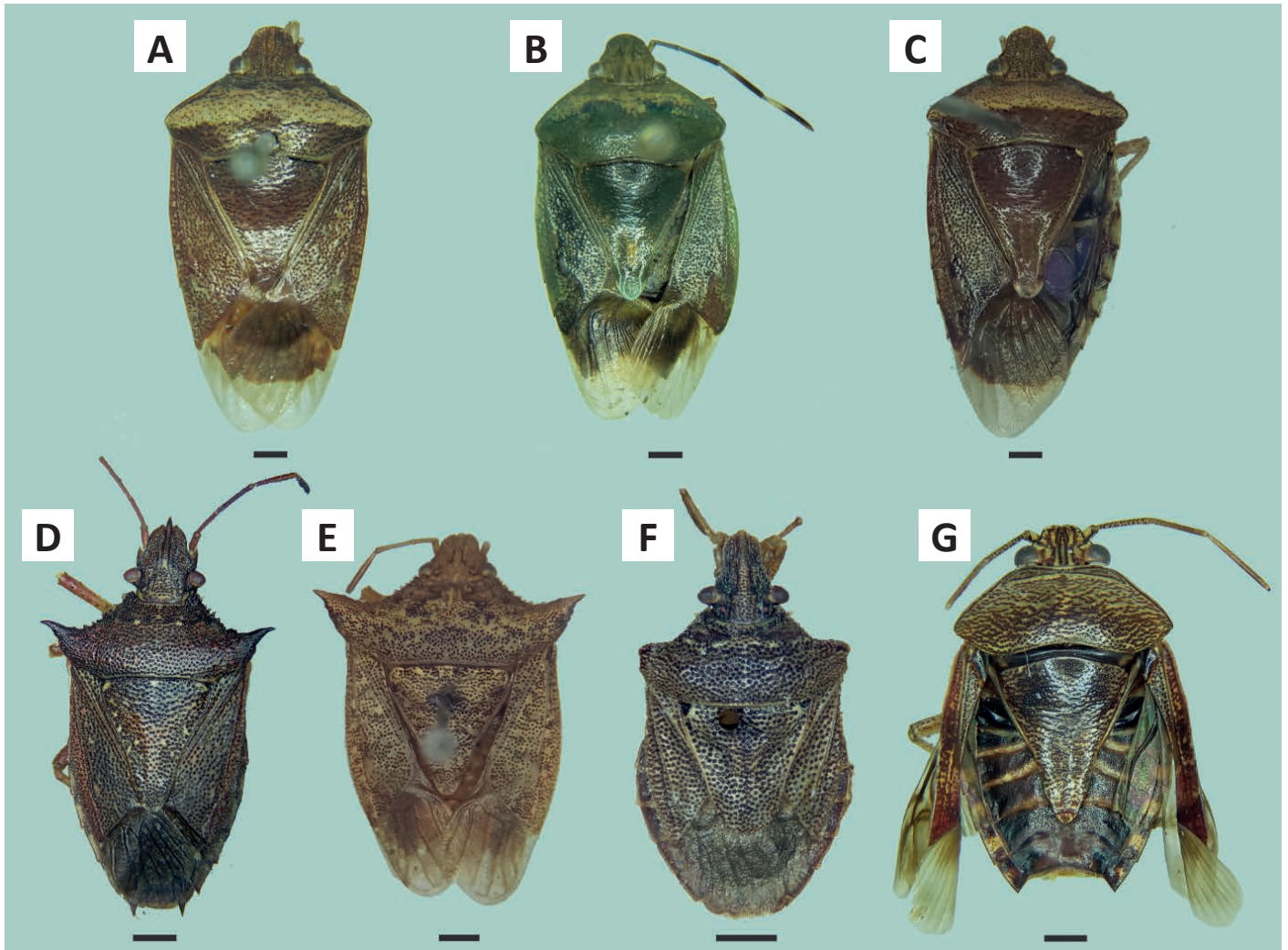
**Examined Material.** 1 female and 1 male: PARAGUAY, San Pedro, Carumbé, I/1971, R. Golbach col. (IMLA).

#### *Nocheta adda* Rolston, 1980 (Fig. 1G)

Rolston et al. (1980) described the monotypic genus *Nocheta* Rolston, 1980 based on a male from the Brazilian Amazon. Later, Grazia (1989) provided a detailed description of the male and female genitalia

of *N. adda* from Suriname specimens. Recently da Silva et al. (2018) recorded it from the Brazilian states of Pará and Acre. Here, both *Nocheta* and *N. adda* are recorded for the first time from Ecuador. *Nocheta adda* is distinguished by the body stramineous, with dark castaneous to black punctures and markings, the pattern of punctures on head, pronotum and scutellum, and by the narrow pale callus on pronotum along posterior margins of cicatrices (Rolston et al. 1980).

**Examined Material.** 1 male: ECUADOR, Orellana, Estación de Biodiversidad Tiputini, 29-II-2002, light trap, M.C. Coscarón col. (MLP).



**Figure 1** A-G. Dorsal habitus of Pentatominae. A, *Banasa dolabrata* (female); B, *Banasa peruana* (male); C, *Banasa testacea* (female); D, *Bercynthus hastator* (male); E, *Euschistus taurulus* (male); F, *Glypheapomis setigera* (female); G, *Nocheta adda* (male). Scale bar: 1 mm.

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