

## Burrower bugs described after the Cydnidae of the Western–Hemisphere catalogue 1960 (Hemiptera: Heteroptera: Cydnidae)

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### Abstract

An update to the catalogue of the Cydnidae (Hemiptera) of the Western Hemisphere (Froeschner 1960) is given. A total of 6 genera and 21 species are listed together with their synonyms. References are given for the original descriptions and the subsequent taxonomic position, the location of types, and the geographic distribution. A comprehensive bibliography is provided.

**Key words:** Cydnidae, updating, catalogue, Western Hemisphere, taxonomy, distribution

### Introduction

Cydnids, known popularly as “burrower bugs”, are usually black or brown, small to medium in size (2 to 20 mm), and live deep in the soil where they are root-feeders (Schaefer, 1988). Some are considered important pests of agricultural crops such as corn, potato, onion, sorghum, pastures, with as high as 100% loss in soybean crops having been recorded. Cydnidae show varying degrees of maternal care of eggs and early instars (Filippi-Sukamoto *et al.*, 1995; Kight, 1995, 1996, 1997; Tachikawa *et al.*, 1985).

Of all pentatomoid family-group taxa, the composition of the Cydnidae has probably been the most controversial over time (Grazia *et al.*, 2008). We follow the most recent classification of the family-groups in the Pentatomidea proposed by Grazia *et al.* (2008). In this classification, the Cydnidae appear as a monophyletic group and the Corimelaenidae is treated as a family. For this reason, we do not include *Corimelaena obscura* McPherson (1978) in this contribution.

Recent catalogs of Cydnidae species have been done for the old World, in the Palearctic region (Lis 1999, 2002, 2006), Australia (Cassis & Gross, 2002) and Iran (Ghahari *et al.*, 2009). The family includes approximately 110 genera and 600 species (Schuh & Slater, 1995) distributed worldwide. For the Western Hemisphere, Froeschner (1960) mentions 15 genera and 141 species. In this study, 21 species are added to those included in Froeschner (1960).

### Material and methods

This catalogue is based upon information taken from publications cited in the Zoological Records. All names, years of publications, page numbers, distribution, and information on type materials have been checked with the original literature. Data are provided on the correct scientific names, taxonomy, synonyms, distribution, and published references. The type material and abbreviation of the institution where it was deposited is also given.

**Abbreviations**

AMNH	American Museum of Natural History, New York, U.S.A.
BMNH	Natural History Museum, London, Great Britain.
CASC	California Academy of Sciences, U.S.A.
ENAJ	Escola Nacional de Agronomía, Universidade Rural, Rio de Janeiro, Brazil.
IBSP	Instituto Biológico São Paulo Coleção Entomológica Adolph Hempel, Brazil.
IEXA	Colección Entomológica del Instituto de Ecología, A.C., Mexico.
INBIO	Instituto nacional de biodiversidad, Santo Domingo Heredia, Costa Rica.
MNRJ	Museu Nacional, Río de Janeiro, Brazil.
MRCN	Museu Rio Grandense de Ciencias Naturais, Porto Alegre, Rio Grande do Sul, Brazil
UCBC	University of California Berkeley, U.S.A.
UNAM	Colección Nacional de Insectos, Instituto de Biología, Universidad Nacional Autónoma de México, Mexico.
USNM	Smithsonian National Museum of Natural History, Washington D. C., U.S.A.
UVGC	Universidad del Valle de Guatemala.
WSUC	The James Entomological Collection, Washington State University, Washington D. C., U.S.A.

**Family Cydnidae Billberg****Subfamily Amnestinae Hart****Genus *Amnestus* Dallas**

*Amnestus* Dallas, 1851:126. Type species: *Cydnus spinifrons* Say, monotypic.

***brailovskyi* Mayorga & Cervantes, 2005**

*Amnestus brailovskyi* Mayorga & Cervantes, 2005. J. New York Entomol. Soc. 113:159–161, 165–166.

Holotype: male (UNAM). MEXICO, Hidalgo, Zimapan. Paratypes: 6 males, 8 females (IEXA, UNAM). MEXICO, **Hidalgo**, Zimapan, Tasquillo.

***calakmulensis* Mayorga & Cervantes, 2005**

*Amnestus calakmulensis* Mayorga & Cervantes, 2005. J. New York Entomol. Soc. 113:166–167.

Holotype: male (UNAM). MEXICO, **Campeche**, Calakmul, Balamku. Paratypes: 7 males, 5 females (IEXA, UNAM). MEXICO, **Campeche**, Calakmul, Balamku.

***carinatus* Mayorga & Cervantes, 2005**

*Amnestus carinatus* Mayorga & Cervantes, 2005. J. New York Entomol. Soc. 113:167–168.

Holotype: male (UNAM). MEXICO, **Chiapas**, Reserva del Ocote. Paratypes: 5 males, 8 females (UNAM). MEXICO, **Chiapas**, Reserva del Ocote.

***ficus* Mayorga & Cervantes, 2001**

*Amnestus ficus* Mayorga & Cervantes, 2001. J. New York Entomol. Soc. 109:394–399.

Holotype: male (UNAM) MEXICO, **Veracruz**, Actopan, Estación Biológica La Mancha. Paratypes: 1 male, 1 female in each one of the following institutions (AMNH, BMNH, CASC, UCBC, UNAM, USNM); MEXICO, **Veracruz**, Actopan, Estación Biológica La Mancha; 48 males, 58 females, 557 nymphs (IEXA) MEXICO, **Chiapas**, **Guerrero**, **San Luis Potosí**, **Veracruz**.

*lenkoi* Froeschner, 1975

*Amnestus lenkoi* Froeschner, 1975. J. Kansas Ent. Soc. 48:105, 106–107.  
Holotype: male (IBSP) BRAZIL, **São Paulo**, Barueri.

*henryi* Mayorga & Cervantes, 2009

*Amnestus henryi* Mayorga & Cervantes, 2009. Zootaxa 2311:22–25.  
Holotype: male (NMNH) GUATEMALA, **Alta Verapaz**, Lanquin, Cueva Lanquin. Paratypes: 1 males, 5 females (UNAM, NMNH) GUATEMALA, **Alta Verapaz**, Lanquin, Cueva Lanquin.

*obscurus* Mayorga & Cervantes, 2005

*Amnestus obscurus* Mayorga & Cervantes, 2005. J. New York Entomol. Soc. 113:168–169.  
Holotype: male (UNAM) MEXICO, **Veracruz**, San Andrés Tuxtlas. Paratypes: 3 males (IEXA, UNAM) MEXICO, **Veracruz**, San Andrés Tuxtlas.

*pequinus* Froeschner, 1975

*Amnestus pequinus* Froeschner, 1975. J. Kansas Ent. Soc. 48:106, 107–108.  
Holotype: male (IBSP) BRAZIL, **São Paulo**, Barueri.

*rugosus* Mayorga & Cervantes, 2005

*Amnestus rugosus* Mayorga & Cervantes, 2005. J. New York Entomol. Soc. 113:169–170.  
Holotype: male (UNAM) MEXICO, **Chiapas**, Tenejapa. Paratypes: 15 males, 14 females (IEXA, UNAM,) MEXICO, **Chiapas**, Tenejapa, Ojo de Yashanal.

*sinuosus* Mayorga & Cervantes, 2005

*Amnestus sinuosus* Mayorga & Cervantes, 2005. J. New York Entomol. Soc. 113:170–171.  
Holotype: male (UNAM) MEXICO, **Veracruz**, San Andrés Tuxtla. Paratypes: 25 males, 28 females ( BMNH, IEXA, USNM) MEXICO, **Veracruz**, San Andrés Tuxtla.

*zacki* Mayorga & Cervantes, 2009

*Amnestus zacki* Mayorga & Cervantes, 2009. Zootaxa 2311:20–21.  
Holotype: male (WSUC) GUATEMALA, **Suchitepequez**, Finca los Tarrales: 14°31.37'N 91°08.17'W. Paratypes: 29 males, 33 females (IEXA, UNAM, UVGC). GUATEMALA, **Suchitepequez**, Finca los Tarrales. PARAGUAY, **Caaguazú**, Pastoreo; Asunción.

## Genus *Lattinestus* Eger

*Lattinestus* Eger, 2008:940, 942–943. Type species: *Lattinestus andersoni* Eger, original designation.

*amplus* Eger, 2008

*Lattinestus amplus* Eger, 2008. Proc. Entomol. Soc. Wash. 110(4):943–945.  
Holotype: female (INBIO) COSTA RICA, **San Jose**, Ojo de Agua.

*andersoni* Eger, 2008

*Lattinestus andersoni* Eger, 2008. Proc. Entomol. Soc. Wash. 110(4):943, 945–946.  
Holotype: female (USNM) ECUADOR, **Pichincha**, NW Quito.

*coleopterus* Eger, 2008

*Lattinestus coleopterus* Eger, 2008. Proc. Entomol. Soc. Wash. 110(4):942–943, 946.  
Holotype: MALE (UNAM) MEXICO, **Chiapas**, Tenejapa.

## Subfamily Cydninae Billberg

### Genus *Dallasiellus* Berg

*Stenocoris* Signoret, 1880:60, preoccupied. Type species: *Aethus longulus* Dallas, original designation.  
*Dallasia* Bergroth, 1891:235, preoccupied. Proposed as a new name for preoccupied *Stenocoris* Signoret.  
*Dallasiellus* Berg, 1901:281. Proposed as a new name for preoccupied *Dallasia* Bergroth.

*leurus* Froeschner, 1975

*Dallasiellus (Dallasiellus) leurus* Froeschner, 1975 J. Kansas Ent. Soc. 48:109–110.  
Holotype: male (IBSP) BRAZIL, **São Paulo**, Barueri.

*rugosus* Mayorga & Cervantes, 2006

*Dallasiellus (Dallasiellus) rugosus* Mayorga & Cervantes, 2006. Rev. Mexicana de Biodiv. 77:209–210.  
Holotype: female (IEXA) MEXICO, **Veracruz**, Actopan, La Mancha. Paratypes: 52 females (BMNH, IEXA, UNAM, USNM) MEXICO, **Veracruz**, Actopan, La Mancha.

### Genus *Melanaethus* Uhler

*Melanaethus* Uhler, 1876:280. Type species: *Melanaethus elongatus* Uhler, preoccupied, renamed *Geotomus parvulus* Signoret, which is a junior synonym of *Aethus subglaber* Walker, monotypic.

*dunensis* Mayorga & Cervantes, 2006

*Melanaethus dunensis* Mayorga & Cervantes, 2006. Rev. Mexicana de Biodiv. 77:211–212.  
Holotype: male (IEXA) MEXICO, **Veracruz**, Actopan. Paratypes: 3 males, 4 females (IEXA, UNAM,)

*wolcotti* Froeschner & Maldonado, 1992

*Melanaethus wolcotti* Froeschner & Maldonado, 1992. J. Agric. Univ. Puerto Rico 76:177–180.  
Holotype: male (USNM) PUERTO RICO, Toa Baja. Paratypes: 4 males, 1 female (USNM) PUERTO RICO, Toa Baja.

### Genus *Microporus* Uhler

*Microporus* Uhler, 1872 :394. Type species: *Microporus obliquus* Uhler, monotypic.

*shiromai* Froeschner, 1976

*Microporus shiromai* Froeschner, 1976. Proc. Hawaiian Ent. Soc. 22:232–234.

Holotype: male (USNM) USA, **Hawaii**, Oahu. Paratypes: 53 males, 91 females (USNM) USA, **Hawaii**, Oahu.

### Genus *Pangaeus* Stål

*Pangaeus* Stål, 1862: 95. Type species: *Aethus margo* Dallas, preoccupied, a junior synonym of *Cimex aethiops* Fabricius, preoccupied, must take the name *Cydnus serripes* Westwood, designated by Van Duzee 1916, 3.

*serripes* (Westwood, 1837)

*Cimex aethiops* Fabricius, 1787:296

*Pangaeus (Pangaeus) serripes* preoccupied, designated by Rider 1998:449

### Subfamily Cephalocteinae Mulsant & Rey

#### Genus *Atarsocoris* Becker

*Atarsocoris* Becker, 1967:315–316. Type species: *Scaptocoris giselleae* Carvalho, original designation.

[*giselleae* Carvalho, 1952]

*Scaptocoris giselleae* Carvalho, 1952. Bol. Mus. Nac. Rio Janeiro 110:1–3.

Holotype: male (MNRJ) BRAZIL, **Rio de Janeiro**, Sernambetiba. Paratypes: 1 male, 1 female (MNRJ) BRAZIL, **Rio de Janeiro**, Sernambetiba.

*Atarsocoris macroptera* Becker, 1967. Arq. Zool. S. Paulo 15:319–322. Synonymy by Grazia et al., 2004:511.

Holotype: male (MRCN) BRAZIL, **Santa Catarina**, Mórro das Pedras. Paratypes: five males, 12 females (MGAP, MRCN) BRAZIL, **Rio Grande do Sul**, Osorio, Torres.

#### Genus *Scaptocoris* Perty

*Scaptocoris* Perty, 1830:165. Type species: *Scaptocoris castanea* Perty, monotypic.

*buckupi* Becker 1967

*Scaptocoris buckupi* Becker 1967. Arq. Zool. S. Paulo 15:309–312.

Holotype: male (MRCN) BRAZIL, **Rio Grande do Sul**, Parecy Novo. Paratypes: 1 male, 4 females (ENAJ, MNRJ, MRCN) BRAZIL, **Rio Grande do Sul**, Parecy Novo; **São Paulo**, Quatá.

*carvalhoi* Becker 1967

*Scaptocoris carvalhoi* Becker 1967. Arq. Zool. S. Paulo 15:312–315.

Holotype: male (MRCN) BRAZIL, **Bahia**, Municipio Antas. Paratypes: 3 males, 6 females (MCNZ, MNRJ) BRAZIL, **Bahia**, Municipio Antas.

*Atarsocoris brachiariae* Becker, 1996 An. Soc. Entomol. Brazil 25, 96–102. Synonymy by Grazia et al., 2004:511.

Holotype: male (MZSP) BRAZIL, **Mato Grosso**, Dom Aquino. Paratypes: 30 males, 43 females (MCNZ, MNRJ, USNM) BRAZIL, **Mato Grosso**, Dom Aquino, Rondonópolis.

## Acknowledgements

To Dr. T. J. Henry, U.S. Department of Agriculture, Systematic Entomology Laboratory, Washington D.C., for access to the Zoological Record and to Dr. D. Rider for the suggestions and critical reading of the manuscript. This work was supported by the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)

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