

Notas / Notes

First record of Cydnidae (Hemiptera: Heteroptera) from Easter Island, Chile

Catalina J. Vargas^{1,2}, Eduardo I. Faúndez^{1,*} & Mariom A. Carvajal¹

¹ Laboratorio de Entomología, Instituto de la Patagonia, Universidad de Magallanes, Punta Arenas, Chile. —
ORCID iD (CJV): <https://orcid.org/0000-0002-9399-941X> – ORCID iD (EF): <http://orcid.org/0000-0003-2596-2292> –
ORCID iD (MAC): <https://orcid.org/0000-0002-5389-6934>

² Biología Marina, Facultad de Ciencias, Universidad de Magallanes, Punta Arenas, Chile

* Corresponding autor: ed.faundez@gmail.com

ABSTRACT

A new record from insular Chile for the Neotropical and Andean cydnid *Melanaethus spinolae* (Signoret, 1864) is presented. Specifically, the new record comes from Easter Island, making *M. spinolae* the first burrower bug found in this Oceanic island. The possible causes of the range expansion of this taxon are commented.

Keywords: Pentatomoidea; Cydninae; faunistics.

RESUMEN

Primer registro de la familia Cydnidae (Hemiptera: Heteroptera) en Isla de Pascua, Chile

Se presenta un nuevo registro del cídrido andino y neotropical *Melanaethus spinolae* (Signoret, 1863) para Chile insular. El nuevo registro proviene específicamente de Isla de Pascua, convirtiendo a esta chinche en el primer cídrido para esta isla oceánica. Se comentan las posibles causas de la expansión de este taxón.

Palabras clave: Pentatomoidea; Cydninae; faunistics.

Recibido/Received: 13/04/2020; **Aceptado/Accepted:** 23/07/2020; **Publicado en línea/Published online:** 07/04/2021

Cómo citar este artículo/Citation: Vargas, C. J., Faúndez, E. I. & Carvajal, M. A. 2021. First record of Cydnidae (Hemiptera: Heteroptera) from Easter Island, Chile. *Graellsia*, 77(1): e120. <https://doi.org/10.3989/graellsia.2021.v77.277>

Copyright: © 2021 SAM & CSIC. This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International (CC BY 4.0) License.

Cydnidae, commonly known as burrower bugs, is a large family of heteropterans with more than 850 species classified in six subfamilies: Amaurocorinae, Amnestinae, Cephalocteinae, Cydninae, Garsauriinae and Sehirinae (Rider *et al.*, 2018).

Cydnines are usually recognized for their bright black coloration and size ranging from small to medium (Froeschner, 1960). Among cydnines, *Melanaethus* Uhler, 1876 is a New World genus which contains the smallest species of the subfamily, currently containing 18 species (Mayorga, 2002; Schwertner & Nardi, 2015).

Melanaethus spinolae (Signoret, 1864) was described from continental Chile (without any specific

location); however besides its description, no additional information was provided. Subsequently, it has been recorded from Panamá, Dominican Republic, British Guyana, Brazil, Paraguay and Argentina (Froeschner, 1960; Schwertner & Nardi, 2015; Coscarón, 2017). While *M. spinolae* is a widespread species, nothing is known about its biology or economic importance, as for many other South American Cydnidae (Schwertner & Nardi, 2015). The purpose of this contribution is to provide a new record of this species in Insular Chile.

Specimens were identified following Froeschner (1960) and Schwertner & Nardi (2015) and treated with Barber's solution to clean and manipulate. Photos were

taken with a digital camera Ricoh 550[®] adapted to a Celestron 44202[®] stereoscopic microscope. All material is deposited in the collection of the Instituto de la Patagonia, Universidad de Magallanes, Punta Arenas, Chile.

After the original description (Signoret, 1864), the only additional record for *M. spinolae* in Chile, from Valparaíso (Central Chile, 33.0472° S, 71.6127° W), was published by Reed (1898). Here we provide the first record from Oceanic Chile, from Easter Island:

MATERIAL EXAMINED (Fig. 1). Chile, Valparaíso Region, Hanga Roa, Easter Island, 27.1500° S, 109.4333° W, X-2016, floating in a pool, 2 ♀♀, F. Ramírez, Leg.

Easter Island, although belonging administratively to Valparaíso Region, is in the middle of the Pacific Ocean, 4254 km away from Continental Chile. This is the inhabited place in the world most isolated in the sea, but high touristic inflow may have facilitated the recent arrival of *M. spinolae* from Continental Chile (Fig. 2).

There are no previous records of burrower bugs from Easter Island (Campos & Peña, 1973). Thus *M. spinolae* becomes the first species of Cydnidae recorded in this area. Further surveying is needed to assess the establishment of this species in this remote environment.



Fig. 1.— Habitus of *Melanaethus spinolae* (Signoret, 1863) specimen from Hanga Roa.

Fig. 1.— Hábitus del ejemplar de *Melanaethus spinolae* (Signoret, 1863) de Hanga Roa.

References

Campos, L. & Peña, L. E. 1973. Los insectos de Isla de Pascua. *Revista Chilena de Entomología*, 7: 217–229.



Fig. 2.— Distribution of *Melanaethus spinolae* (Signoret, 1863) in Chile. Red square = known distribution, blue square = new record.

Fig. 2.— Distribución de *Melanaethus spinolae* (Signoret, 1863) en Chile. Cuadrado rojo = distribución conocida, cuadrado azul = nuevo registro.

- Coscarón, M. D. C., 2017. A catalogue of the Heteroptera (Hemiptera) or true bugs of Argentina. *Zootaxa*, 4295(1): 1–432. <https://doi.org/10.11646/zootaxa.4295.1.1>
- Froeschner, R. C., 1960. Cydnidae of the western hemisphere. *Proceedings of the United States National Museum*, 111(3430): 337–680. <https://doi.org/10.5479/si.00963801.111-3430.337>
- Mayorga, M. C. M., 2002. Revisión genérica de la familia Cydnidae (Hemiptera-Heteroptera) en México, con un listado de las especies conocidas. *Anales del Instituto de Biología. Serie Zoología*, 73(2): 157-192.
- Reed, E. C., 1898. Sinopsis de los Hemípteros de Chile. Primera parte: Heterópteros. *Revista Chilena de Historia Natural*, 2(10–11): 128–138.
- Rider, D. A., Schwertner, C. F., Vilímová, J., Rédei, D., Kment, P. & Thomas, D. B., 2018. Higher systematics of the Pentatomoidea. In: McPherson, J. E. (Ed.). *Invasive Stink Bugs and Related Species (Pentatomoidea): Biology, Higher Systematics, Semiochemistry, and Management*. CRC Press, Boca Raton: 125–201. <https://doi.org/10.1201/9781315371221>
- Schwertner, C. F. & Nardi, C., 2015. Burrower Bugs (Cydnidae). In: Panizzi, A. & Grazia, J. (eds). *True Bugs (Heteroptera) of the Neotropics*. Springer, Dordrecht: 639–680. https://doi.org/10.1007/978-94-017-9861-7_21
- Signoret, V., 1864. Révision des Hémiptères du Chili. *Annales de la Société entomologique de France, Série 4*, 3: 541–588.