



## On the presence of Thaumastocoridae (Hemiptera: Heteroptera) in Easter Island

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**ABSTRACT.** The presence of true bug family Thaumastocoridae is recorded and discussed for the first time from the Oceanic Easter Island, Chile; with the species *Thaumastocoris peregrinus* Carpintero & Dellapé, 2006. Specimens were collected on *Eucalyptus* sp. Comments on the status of the invasion are provided.

**KEYWORDS.** Cimicomorpha. Faunistics. Hemiptera. New record.

### Sobre la presencia de Thaumastocoridae (Hemiptera: Heteroptera) en Rapa Nui

**RESUMEN.** Se registra y discute por primera vez en la familia Thaumastocoridae en la isla oceánica Rapa Nui, Chile, con la especie *Thaumastocoris peregrinus* Carpintero & Dellapé, 2006; los ejemplares fueron colectados en *Eucalyptus* sp. Se comenta el estado de la invasión en la isla.

**PALABRAS CLAVE.** Cimicomorpha. Faunística. Hemiptera. Nuevo registro.

Thaumastocoridae is a small family of Heteropterans that currently comprises 19 species classified in six genera (Henry, 2017). Thaumastocorids are characterized by their small size ranging from 2 to 4.6 mm, strongly anteriorly produced mandibular plates and grossly asymmetrical male genitalia (Schuh & Slater, 1995). Within this family, the nominate genus is the most diverse, containing 14 species (Noack et al., 2011), mostly distributed in Australia.

*Thaumastocoris peregrinus* Carpintero & Dellapé, 2006 (Fig. 1), commonly known as bronze bug, is the only invasive species of this genus. Its distribution currently includes Australia (where it is native), America, Europe, Africa, Middle East and Hawaii (Novoselsky & Freidberg, 2016; Polhemus et al., 2021), and it is considered an important pest on *Eucalyptus* spp. (Nadel & Noack, 2012).

Easter Island is an oceanic island with an area of nearly 180 km<sup>2</sup>, located 3700 km from the coast of Chile in South America; which belongs administratively to the Chilean Valparaíso Region (Faúndez et al., 2023). Insect fauna of Easter Island is relatively poor, and several of its species are introduced (Campos & Peña, 1973). The purpose of this contribution is to report the first occurrence of *T. peregrinus* on Easter Island.



Figure 1. *Thaumastocoris peregrinus*, male from Easter Island, habitus.

Material examined: Easter Island, Kahu Mahau, -2 7.134418, -109.420757 (3km N of Hanga Roa), 28-V-2024, J. Salinas-Torres leg., 2 females, 1 male (aggregations of juvenile and adults observed in situ). Deposited in the collection of the Centro Internacional Cabo de Hornos (CHIC), Punta Arenas, Chile.



**Figure 2.** Distribution of *Thaumastocoris peregrinus* on Easter Island (blue square).

For identification we follow Carpintero & Dellapé (2006) and Noack et al. (2012). Specimens were observed under a Nikon SMZ-2T stereoscope and genitalia was clarified in a saturated KOH solution for 1 hour at 70 °C.

This is the first record of the family Thaumastocoridae in Easter Island (Fig. 2). Up to this date, only seven species of Heteroptera have been identified from the island and only the seaskater *Halobates sericeus* (Eschscholtz, 1822) can be considered native to the area, with no terrestrial heteropterans considered to be native (Olalquiaga, 1946; Campos & Peña, 1973; Vargas et al. 2021; Faúndez et al. 2023). *Thaumastocoris peregrinus* can be easily differentiated from the other Heteroptera in the island by its unique three-lobed shaped head with mandibular plates extending and contiguous beyond the clypeus. This species has been cited from continental Chile by Ide et al. (2011) from Metropolitan and Valparaíso Regions. Therefore, it is possible that specimens arrived to the Island from continental Chile because of the exchange of goods and tourism occurring constantly. On Easter Island *Eucalyptus* L'Hér. (Myrtaceae) species have been introduced since the early 19<sup>th</sup> century, becoming a common and important source material in the island (Volosky, 1954). The species seems to be well established and has been observed since 2020 (J. Salinas-Torres pers. obs.); however, there is no current assessment of damage to the trees. Finally, although models have predicted further expansions of this species (Montemayor et al. 2014), far oceanic islands have not been considered. However, the recent record of this species in Hawaii (Polhemus et al., 2021) and the record here provided

show the need of surveillance for *T. peregrinus* across the Pacific Islands.

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