First record of *Epicadus taczanowski* (Roewer, 1951) (Araneae: Thomisidae) from Costa Rica

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Abstract: The widely distributed *Epicadus taczanowski* (Roewer, 1951) (Thomisidae: Stephanopinae) is formally reported from Costa Rica for the first time. This record, based on a single specimen found at Puerto Viejo de Talamanca, extends its known distribution range 110 Km north-west of the closest known recorded locality, in Panama.
Key words: Araneae, Thomisidae, spider, first record, geographic distribution, range extension, Neotropics, Mesoamerica.

Primer registro de *Epicadus taczanowski* (Roewer, 1951) (Araneae: Thomisidae) de Costa Rica
Resumen: Se reporta por primera vez de Costa Rica la ampliamente distribuida *Epicadus taczanowski* (Roewer, 1951) (Thomisidae: Stephanopinae). Este registro, basado en un único espécimen encontrado en Puerto Viejo de Talamanca, extiende su rango de distribución conocido 110 Km al noroeste de la localidad registrada más cercana, en Panamá.
Palabras clave: Araneae, Thomisidae, araña, primer registro, distribución geográfica, extensión de rango, Neotrópico, Mesoamérica.

Epicadus Simon 1895 comprises 11 Neotropical species (WSC, 2020) with conspicuous morphology characterized by its conical opisthosomal projections (Machado, Teixeira & Lise, 2018). The diversity of *Epicadus* species in Costa Rica is represented by *E. granulatus* Banks, 1909, *E. heterogaster* (Guérin, 1829) and *E. tigrinus* Machado, Teixeira & Lise, 2018 (WSC, 2020). However, Panama has 3 *Epicadus* species registered that have not been reported in Costa Rica until the date, so its ocurrence in the country could be expected. One of this probable species is *E. taczanowski* (Roewer, 1951).

Epicadus taczanowski presents a confounding taxonomic history. It was originally described in 1872 as *Thomisus rugosus* by Taczanowski and later, in 1880, Keyserling transferred this species into the genus *Stephanophis* F. O Pickard-Cambridge, 1869. Afterwards, Simon created the genus *Tobias* Simon, 1895 to place *T. rugosus* and other species. Subsequently, in 1951, Roewer proposed *Tobias taczanowski* to solve a homonymy problem with an African species described by Latreille in 1804. Recently, Machado, Teixeira & Lise (2017) tested a cladistic analysis of *Epicadus* based on morphological traits and recovered *Epicadus* as a senior synonym over *Tobias*, therefore *Epicadus taczanowski* emerged as a new combination.

The known records on the distribution of the species comprises specimens from French Guiana (Taczanowski, 1872; Machado *et al*., 2018), Peru (Keyserling, 1880), Panama (Keyserling, 1880; F. O Pickard-Cambridge, 1900; Machado *et al*., 2018), Brazil (Keyserling, 1880, Mello-Leitão, 1929, Machado *et al*., 2018), Haiti (Petrunkevitch, 1911) and Bolivia (Mello-Leitão, 1929).

In this article, we provide the first known specimen of *Epicadus taczanowski* from Costa Rica. This record was based on a single individual found during a field expedition in Puerto Viejo de Talamanca (9.6470 N, 82.7511 W, cartographic application WSG84) (08/VI/2019). This record extends the distribution of this species 110 Km northwest from Bugaba (Panama), the closest known recorded locality, and increases to four the number of species of the genus present in Costa Rica. Photographs of the spider (Fig. 1) and an update map of this species distribution (Fig. 2), are also added.

This study highlights the need for future field work to shed light on the very poorly known distribution of neotropical arthropods, of which *E. taczanowski* is just an example. It is especially striking that new records of species are frequently reported even for a small and deeply studied country as Costa Rica. This can give us an idea of what remains to be discovered in larger and less explored neotropical countries such as Colombia, Venezuela or Ecuador, where *E. taczanowski* has not been found but can be expected to occur. In addition, more phylogenetic and taxonomic studies are needed in order to have a better understanding of tropical arthropod diversity which in general is underestimated.

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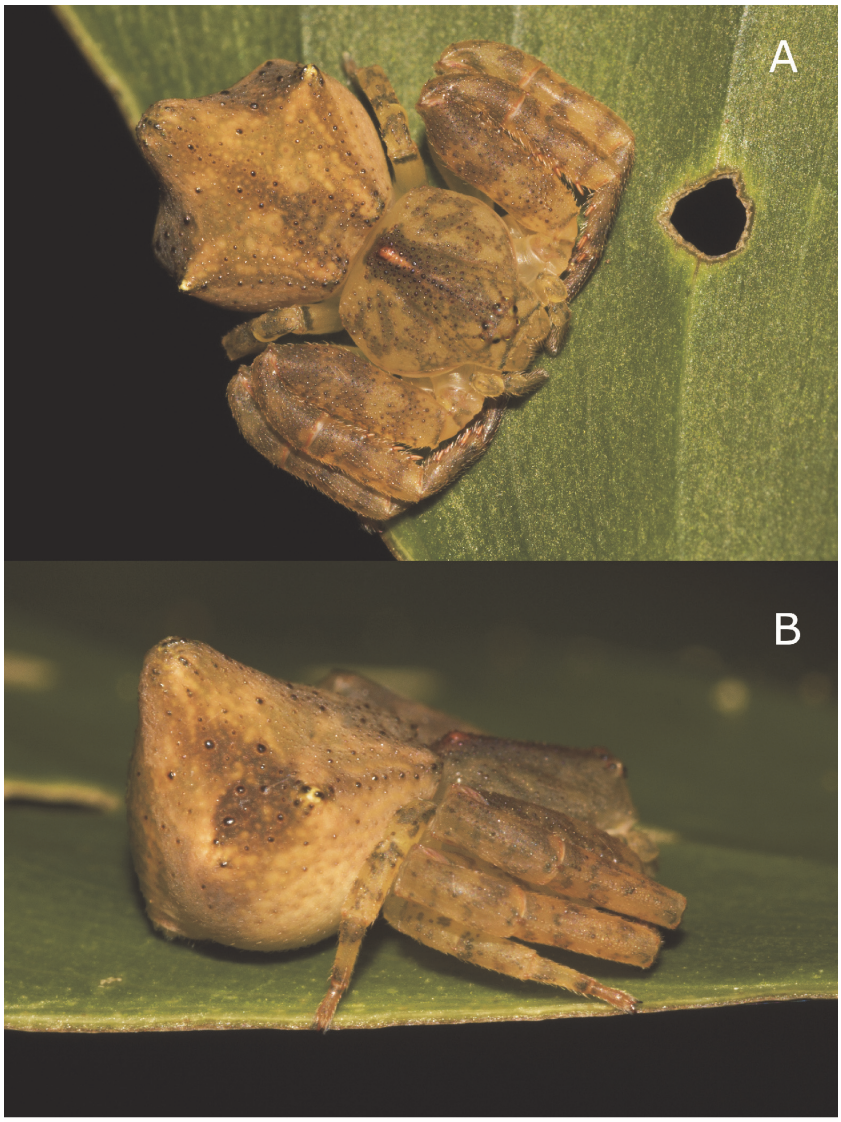


Fig. 1. *Epicadus taczanowski* from Puerto Viejo de Talamanca, Costa Rica. **A**: dorsal view; **B**: lateral view.

Fig.1. *Epicadus taczanowski* de Puerto Viejo de Talamanca, Costa Rica. **A**: vista dorsal; **B**: vista lateral.

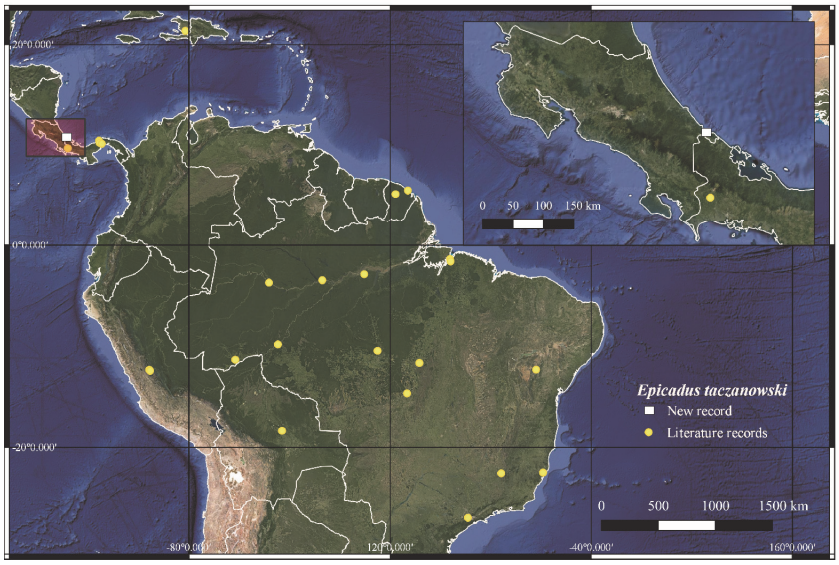


Fig. 2. Map of Central and South America showing the known localities for *Epicadus taczanowski*.

Fig. 2. Mapa de América Central y América del Sud mostrando las localidades conocidas para *Epicadus taczanowski*.