

NOTA / NOTE

New record of *Trochiscocoris hemipterus* (Jakovlev, 1879) in the Iberian Peninsula (Heteroptera: Pentatomidae).Marcos Roca-Cusachs¹, Ángeles Vázquez² & Marta Goula¹

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Abstract: The first record of the shield bug species *Trochiscocoris hemipterus* (Jakovlev, 1879) (Heteroptera: Pentatomidae) in the province of Madrid (Spain) is provided. With this finding, the distribution of the species within the Iberian Peninsula is enlarged westwards.

Key words: Hemiptera, Pentatomidae, Strachiini, *Trochiscocoris hemipterus*, Distribution, Faunistics, True bug, Spain, Madrid, Sierra de Guadarrama National Park.

Resumen: Nueva cita de *Trochiscocoris hemipterus* (Jakovlev, 1879) en la Península Ibérica (Heteroptera: Pentatomidae). Se aporta la primera cita para la especie de chinche *Trochiscocoris hemipterus* (Jakovlev, 1879) (Heteroptera: Pentatomidae) en la provincia de Madrid (España). Con este hallazgo, la distribución de la especie dentro de la Península Ibérica se amplía hacia el oeste.

Palabras clave: Hemiptera, Pentatomidae, Strachiini, *Trochiscocoris hemipterus*, Distribución, Faunística, chinche, España, Madrid, Parque Nacional de la Sierra de Guadarrama.

Recibido: 20 de julio de 2017
Aceptado: 4 de agosto de 2017

Publicado on-line: 11 de septiembre de 2017

Introduction

Trochiscocoris Reuter, 1890 is a rare and poorly known genus throughout its distribution range. It belongs to the tribe Strachiini Stål, 1872 and currently has two species already described: *T. rotundatus* Horváth, 1895, located in the eastern Mediterranean basin until Georgia, and *T. hemipterus* (Jakovlev, 1879) (Baena & Matocq, 1994). There are two subspecies of *T. rotundatus* described and two varieties of *T. hemipterus* (Assanova y Kerzhner, 1969); however, none of those taxa under species level were recognized by Derjanschi & Péricart (2005).

The genus *Trochiscocoris* can be easily distinguished among other members of the tribe, and even among all the other Pentatomidae species from the Iberian fauna due to the fact that *Trochiscocoris* species are micropterous (Baena & Matocq, 1994).

The genus appears to be originated in the region of Asia Minor, where the two species described are present. From this area it has probably expanded towards Central Asia and along both shores of the Mediterranean (Baena & Matocq, 1994).

The species *T. hemipterus* (Jakovlev, 1879) is known from southwestern of Europe (Spain), North Africa (Morocco), the Caucasus (Russia and Armenia), Anatolia (Turkey), and in Asia (Azerbaijan and India). In Spain, it has been reported from the northeastern provinces of Huesca, Teruel and Castellón, and Almería and Córdoba in the south (Baena & Matocq, 1994; Derjanschi & Péricart, 2005; Rider, 2006; Aukema et al., 2013; Roca-Cusachs & Goula, 2017). This disjunctive distribution has been

already found in other steppic true bug species like the borrower bug *Ochetostethus perepelovi* Kerzhner, 1976 (Gapon & Baena, 2005).

The biology of *T. hemipterus* is poorly known. In Huesca the species was found at 1000 m.a.s.l., on the Brassicaceae *Hormatophylla spinosa*. Other plant species are *Camphorosma lessingi* (Salsolaceae), *Peganum harmala* (Zygophyllaceae) and *Zerna tectorum* (Poaceae), all of them reported from Armenia (Derjanschi & Péricart, 2005).

In this work, we enlarge the distribution of the species in the Iberian Peninsula, with a new locality within the recently declared Sierra de Guadarrama National Park. This information permits to fill the gap between the two former Iberian reports, made more than 25 years ago.

Material and methods

Pictures of the habitus were made stacking between 40 and 60 photographs taken using a Leica DFC450 camera coupled to a Leica MZ160A binocular stereoscope. Combination and image processing were made with the Helicon Focus 6.2.2 image-stacking and processing free software.

Material examined: 1 Female (Fig. 1), Finca Los Batanes, Rascafría, Parque Nacional de la Sierra de Guadarrama, Madrid, Spain. 1100 m.a.s.l. 40°53'16.1"N 3°52'57.7"W. 26 May 2017. Copro-pitfall trap baited with cow dung. 2 legs kept in pure ethanol at -20°C. All material Roca-Cusachs det. and deposited at Roca-Cusachs Collection.



Fig. 1.- Habitus of *Trochiscocoris hemipterus*. a.- Dorsal view. b.- Ventral view.

Results

The specimen was captured in a pit-fall trap prepared for coprophagous insects at the Sierra de Guadarrama National Park during the field trip within tuition in the Master on Zoology from the Universidad Complutense de Madrid. Due to its apterism, the species lives on the ground and can not be

dispersed by flying. To get into the trap was probably an incidental event, although the attractive effect of bait may not be underestimated.

The locality where the individual was found is located in the Holarctic realm, Guadarramense district and medium Supramediterranean bioclimatic floor. Mean annual temperature varies from 8° to 13°C, minimum mean temperature in the coolest months varies between -4° and -1 °C, and the maximum between 2° and 9°C. The termicity index is between 60 and 120 (Peinado Lorca & Rivas Martínez, 1987). The landscape is composed by meadows and mixed forests of *Pinus sylvestris*, *Quercus pirenaica* and *Q. ilex* (Fernández-González, 1991) (Fig. 2).



Fig. 2. - Habitat in Finca de Los Batanes (Rascafría, Madrid).

Usually, protected areas are defined according to their natural values in relationship with vegetation, vertebrates and certain selected groups of invertebrates (Lepidoptera and Coleoptera are among the most considered). Our report contributes to validate the natural interest and value of the Sierra de Guadarrama National Park in the basis of a very uncommon true bug species. Thus, the list of biota groups monitored in protected areas needs to be enlarged, as good findings may come from

any of them. Of course staff in the Parks can not be specialized in every group, but appropriate collaborative frame with scientific institutions or even by means of citizen science may give a hand in the knowledge of biota within each area (Amano *et al.*, 2016; Chandler *et al.*, 2016).

Acknowledgements

The authors would like to thank both teachers and students from the Master of Zoology for allowing M. Roca-Cusachs to participate in the fieldtrip during his short-term visit to the Faculty of Biology of the Universidad Complutense de Madrid. In addition, the authors would like to thank also the editors for their constructive comments on the final manuscript.

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