

NOTA / NOTE

First record of *Platygaster robiniae* Buhl & Duso, 2008
(Hymenoptera: Platygastridae) in PortugalFrancisco A. López-Núñez^{1, 2}

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Abstract: A record of *Platygaster robiniae* Buhl & Duso, 2008 (Hymenoptera: Platygastridae) in Portugal, parasitoid of *Obolodiplosis robiniae* (Haldeman, 1847) (Diptera: Cecidomyiidae), is reported for the first time. The known distribution in the Iberian Peninsula is summarized, and photos of the puparium and adult are provided.

Key words: Hymenoptera, Platygastridae, *Platygaster robiniae*, first record, faunistics, Portugal.

Resumen: Primer registro de *Platygaster robiniae* Buhl & Duso, 2008 (Hymenoptera: Platygastridae) en Portugal.

Se presenta por primera vez el registro en Portugal de *Platygaster robiniae* Buhl & Duso, 2008 (Hymenoptera: Platygastridae), parasitoide de *Obolodiplosis robiniae* (Haldeman, 1847) (Diptera: Cecidomyiidae). Se resume la distribución conocida en la Península Ibérica y se proporcionan fotos del pupario y del adulto.

Palabras clave: Hymenoptera, Platygastridae, *Platygaster robiniae*, primer registro, faunística, Portugal.

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Platygaster robiniae Buhl & Duso, 2008 (Hymenoptera: Platygastridae) is one of the main parasitoid species for the North American gall midge *Obolodiplosis robiniae* (Haldeman, 1847) (Diptera: Cecidomyiidae) in *Robinia pseudoacacia* L. (Fabaceae). This wasp is a multivoltine and obligate gregarious endoparasitoid, with multiple generations arising from the end of July to October, each with a short development time of about 28 days. The larvae of *P. robiniae* are white, changing to dark grey as the parasitoid develops. Additionally, the number of larvae reported from *P. robiniae* in each parasitized host is variable, ranging from 3 to 28, depending on the size of the parasitized larvae of *O. robiniae*. The full development process of this parasitoid can be observed through the translucent skin of the parasitized larvae (Ilea *et al.*, 2023).

Platygaster robiniae has most likely been introduced together in Europe with its host, the gall midge *O. robiniae*, being reported in several countries. However, information about the distribution of *P. robiniae* in the Iberian Peninsula is limited. Despite the widespread distribution of *O. robiniae* in the Iberian Peninsula, *P. robiniae* was only reported from Cádiz, in southern Spain in 2019 and 2020 (Sánchez-García & Pérez-Gómez, 2020). To date there have been no records in Portugal (Fig. 1)

On 02-VII-2024, two galls of *O. robiniae* were collected from a small stand of *R. pseudoacacia* located in a littoral pine forest (Fig. 2). These galls were maintained in laboratory conditions in plastic jars until the emergence of their inhabitants. From the rearing of these galls, 12 specimens of *P. robiniae* emerged in 07-VIII-2024 (Figs. 3-5). Reared wasps were stored in 70% ethanol for further identification following Buhl & Duso (2008). All collected specimens are stored in the author's collection.

With this note, the alien Portuguese fauna checklist is increased, expanding the distribution range of *P. robiniae* to the central littoral of Portugal. Although this finding is restricted to the central region of Portugal (Beira Litoral), it is possible that the area of distribution of *P. robiniae* in Portugal extends to the north (Minho and Douro Litoral), to the south-central Portugal (Estremadura and Ribatejo) or to inner Portuguese regions, overlapping with the distribution of *O. robiniae* and with the host-plant *R. pseudoacacia* (Marchante *et al.*, 2014).

Material examined

Portugal: Beira Litoral, Coimbra, Seixo, 40.5009266667, -8.7640983333, 14 m, 12 specimens emerged 07-VIII-2024, ex. *Obolodiplosis robiniae* on *Robinia pseudoacacia*, Fco. A. López-Núñez, leg. & det.

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Fig. 1. - Iberian distribution of *Platygaster robiniae* Buhl & Duso, 2008, with the known provinces/districts in grey, the previously known locations as white circles, and the new Portuguese record as green diamond.

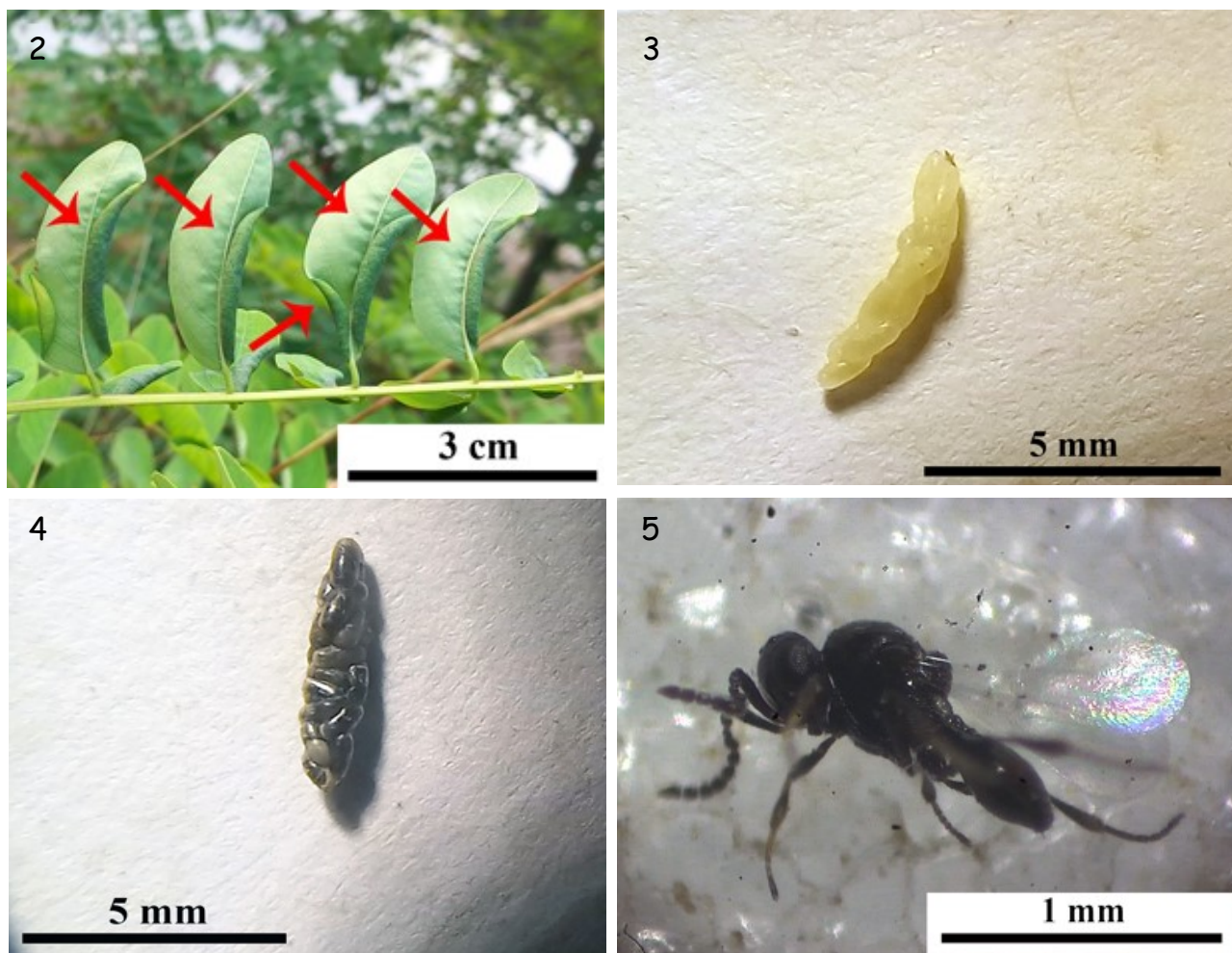


Fig. 2.- Galls of *Obolodiplosis robiniae* (Haldeman, 1847) in *P. robiniae* leaflets (red arrows). Fig. 3.- Parasitized larva of *O. robiniae*. Fig. 4.- Puparium of *O. robiniae*. Fig. 5.- Emerged adult of *P. robiniae* from *O. robiniae*.