

## First record of *Cassida seraphina* Ménétries, 1836 from Bulgaria (Insecta: Coleoptera: Chrysomelidae)

DIMITAR BOEVSKI<sup>1</sup>, DILIAN GEORGIEV<sup>2</sup>

<sup>1</sup>Botevgrad, Bulgaria, [exonie@gmail.com](mailto:exonie@gmail.com)

<sup>2</sup>Department of Ecology and Environmental Conservation, University of Plovdiv, Tsar Assen Street 24, 4000 Plovdiv, Bulgaria, [diliangeorgiev@gmail.com](mailto:diliangeorgiev@gmail.com)

**Abstract.** The leaf beetle *Cassida seraphina* Ménétries, 1836 is recorded for the first time from central Bulgaria based on photographic evidence. The published distribution so far is reviewed.

**Key words:** *Cassida seraphina*, first record, Bulgaria.

### Introduction

The chrysomelid fauna of Bulgaria is relatively well studied. The first comprehensive synthesis on the subject is the two-volume monograph about the leaf beetles of Bulgaria of the series *Fauna Bulgarica* (Gruev & Tomov 1984, 1986). Since then, numerous additions have been made, which led to the release of *A Distributional Atlas and Catalogue of the Leaf Beetles of Bulgaria* (Gruev & Tomov 2007).

*Cassida seraphina* is not listed for Bulgaria in the aforementioned catalogue, nor in any of the literature known to the authors. The known distribution of the species according to *Catalogue of Palaearctic Coleoptera* (Borowiec & Sekerka 2010) is Armenia, Greece, Kazakhstan, Russia (South European Territory), Turkey (European and Asian part). Since then, Iran has been added to its distribution (Samin 2018) with an additional locality in (Borowiec & Ghahari 2021). A more detailed distribution in Turkey is provided in (Ekiz *et al.* 2013).

*Cassida seraphina* is included in the subgenus *Alledoya* Hincks, 1950 of genus *Cassida* Linnaeus, 1758. The name and the concept of the subgenus went through several changes which are detailed in (Borowiec & Cho 2011). The current consensus is that the subgenus forms a natural grouping consisting of two species – *Cassida seraphina* and *Cassida hablitziae* Motschulsky, 1838 which have similar distributions (Borowiec & Cho 2011, Özdikmen & Bal 2019). Both species are very distinct from the rest of the local fauna, which allows for identification based on photos. Features of the subgenus *Alledoya* useful for quick identification in the field among cassidines of the local fauna include: predominantly dark color (brown or black) with semitransparent spots on the pronotum and laterally on the elytra, body quite convex dorsally, elytra with very irregular surface of pronounced ridges with numerous pits forming between them, pronotum much narrower than the elytra and with rounded corners. *C. seraphina* differs from *C. hablitziae* most notably by its rusty-brown base color, which is black in the latter species. More detailed diagnosis and keys are provided in (Özdikmen & Bal 2019).

### Materials and Methods

Several photographs of a single specimen were taken by the second author and posted as an observation at the citizen science platform iNaturalist. They went unnoticed and unidentified for some time until the first author came across the observation and identified it as *Cassida seraphina*. The unique color pattern and morphology of the species make its identification by photo quite reliable.

### Results and Discussion

*Cassida seraphina* is recorded from the backyard of a private house in the village of Hrishteni, Stara Zagora Province, Bulgaria at coordinates 42.4536°, 25.7050° and 230 meters altitude. It was found on the plant *Beta vulgaris* Linnaeus which is a known host plant for the species (Kismali & Sassi 1994).

This is by far the most northern record of the species for the Balkans. And since the locality is in central Bulgaria, it is probably not a recent arrival and may have a wider distribution in Bulgaria.



**Fig. 1.** *Cassida seraphina* photographed at Hrishteni village, near Stara Zagora city, Bulgaria by Dilian Georgiev. On the left – on its host plant *Beta vulgaris*.

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