

The widely distributed Asiatic digger wasp, *Cerceris storozhenkoi* sp. nov., is a distinct species from the Western Palaearctic *C. hortivaga* Kohl, 1880 (Hymenoptera: Crabronidae)

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Abstract

Based on morphological differences and geographical isolation, the species *Cerceris hortivaga* Kohl, 1880 has been split into two: the Western Palaearctic *C. hortivaga* and the Eastern Palaearctic *C. storozhenkoi* Mokrousov & Proshchalykin, **sp. nov.** *C. hortivaga* is newly recorded from Russia and Moldova.

Key words: taxonomy, new species, Spheciformes, Philanthinae

Introduction

The genus *Cerceris* Latreille, 1802 is the largest in the family Crabronidae, including almost 900 species. It is well represented on every continent and many large islands (Pulawski 2025). The Palaearctic fauna comprises almost 270 species; however, the fauna of the Central and Eastern Palaearctic regions remains poorly understood. Females of *Cerceris* usually nest in firm, bare soil, often in aggregations. Different species groups use varied prey, including Coleoptera of many families and Hymenoptera, particularly bees of the family Halictidae.

Until now, the species *Cerceris hortivaga* Kohl was considered to have a trans-Palaearctic range. However, extensive research shows that this range is clearly divided into Western and Eastern Palaearctic parts, separated by a large geographical hiatus. A careful morphological comparison allowed us to distinguish *C. storozhenkoi* **sp. nov.** as a separate species in the Eastern Palaearctic.

Material and methods

This paper is based on the materials, preserved in the Zoological Institute, Russian Academy of Sciences (St. Petersburg, Russia) [ZISP], Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far East Branch of the Russian Academy of Sciences (Russia, Vladivostok, reg. number 2797657) [FSCV] and M.V. Mokrousov personal collection (Nizhny Novgorod, Russia) [MMPC].

Photographs were taken with a combination of digital camera Canon EOS M200 and Carl Zeiss Stemi 508 stereomicroscope (Figs 1, 2, 6), Olympus CX33RTFS2 (Figs 25–30) and Olympus SZX16 stereomicroscope (other figures). Final images represent a composite of several photographs taken at different focal planes and combined using Helicon Focus 7.6.1. All images were post-processed for contrast and brightness using Adobe® Photoshop® v. CC 2017 (×64).

Morphological terminology generally follows Hymenoptera Anatomy Ontology Portal (2025) and Bohart and Menke (1976): e.g., we have used the abbreviations F—flagellomere; S—metasomal sternum; T—metasomal

is yellow, the femur is black, the tibia is predominantly black with an inner yellow stripe and the tarsi are darkened (the basitarsus sometimes has an inner narrow yellow stripe).

Somewhat later, O. Radoszkowski (1890: 231) reported this species from Korea. Identifying the Eastern Palearctic specimens as *Cerceris hortivaga* Kohl was logical since their colouration and morphology are very similar to those of European specimens. The obvious lack of material meant that it was not possible to judge the distribution.

All subsequent indications of *Cerceris hortivaga* Kohl in East Asia (see below) were based on Radoszkowski's identification and have not been revised.

Extensive material has now been accumulated that demonstrates a significant geographical gap between the western and eastern parts of the *Cerceris hortivaga* auct. range. This has raised doubts about the homogeneity of this species. Subsequent studies of ranges and thorough morphological analysis have enabled us to conclude that *Cerceris hortivaga* auct. is a composite taxon.

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