Zootaxa 3860 (6): 589–595
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3860.6.7
http://zoobank.org/urn:lsid:zoobank.org:pub:289F7AF8-B8BB-4D11-AEC9-3D1016B23A60

Veraphis yoshitomii sp. n. (Coleoptera, Staphylinidae, Scydmaeninae) from Japan

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Abstract

A new species of Eutheiini, *Veraphis yoshitomii* **sp. n.** is described from Shikoku, Japan. Diagnostic characters are discussed and key structures, including the aedeagus, are illustrated. The new species belongs to the *Veraphis japonicus* species group, which includes five species distributed in mountains of Japan and five possibly closely related ones in the sub-Himalayan China. The distribution of Japanese *Veraphis* is summarized and discussed.

Key words: Coleoptera, Staphylinidae, Scydmaeninae, Eutheiini, *Veraphis*, new species, East Palaearctic, Japan

Introduction

Of 20 species and subspecies of Palaearctic *Veraphis* Casey, 1897, one is known from Scandinavia, and all others inhabit Japan, China, Russian Far East, North Korea, Mongolia and Siberia (Jałoszyński 2013). Nine species are known from Japan and six from China (Jałoszyński 2009, 2012, 2013; Jałoszyński & Hoshina 2005) and are predominantly distributed in mountainous areas. Species belonging to *Veraphis*, as all Eutheiini, are rare and only *V. japonicus* (K. Sawada, 1962) is represented by a large number of specimens in collections (Jałoszyński & Hoshina 2005). This scarcity means that collecting these tiny beetles requires a lot of work. Even in areas where they have been recorded, finding additional specimens is extremely difficult. Species of *Veraphis* are usually collected by sifting leaf litter and rotten wood, but all known species are winged and they can be also collected using flight intercept traps.

The Palaearctic species of *Veraphis* were revised by Jałoszyński & Hoshina (2005), and later several new species from China and one from the Russian Far East were added (Jałoszyński 2009, 2012, 2013; Kurbatov 2006). Japanese representatives of this genus are especially interesting, as their known distributions extend from Shikoku to Hokkaido and comprise areas of different climate. However, as in China, most Japanese species seem to be associated with cool mountainous localities. Moreover, as is the case on the Chinese eastern rim of the Qinghai-Tibetan Plateau, a relatively large number of described species of the sister genera *Veraphis* and *Eutheia* Stephens, 1830 occur in Japan (Jałoszyński 2013, 2014; Jałoszyński & Hoshina 2005), which suggests that these areas are local centers of diversity for these elements of the regional forest litter fauna. *Eutheia* is predominantly a West Palaearctic genus and *Veraphis* is much more speciose in the eastern part of the region. Thus, study of these genera may shed light on the biogeography and evolution of the still poorly known tribe Eutheiini.

In the present paper a new species of *Veraphis* is described from Shikoku, Japan and the distribution of this genus in Japan is summarized.

Material and methods

An ethanol-preserved specimen was dissected and dry-mounted; the aedeagus and a fore leg were mounted in Canada balsam. Morphological terms are used after Jałoszyński & Hoshina (2005) and Jałoszyński (2014a). The measurements are as follows: the body length is a sum of lengths of the head, pronotum, elytra and pygidium measured separately; the length of head was measured from the anterior margin of clypeus to a hypothetical line

Accepted by J. Klimaszewski: 22 Aug. 2014; published: 10 Sept. 2014

relatively well-studied in terms of the composition and distribution of Eutheiini, while faunas of China, Russian Far East, Siberia and adjacent areas are known inadequately. Gradual progress has been made recently in the study of Eutheiini, including revisions of local faunas and descriptions of numerous new species, and phylogenetic hypotheses concerning the monophyly and relationships of this tribe within Scydmaeninae. However, relationships among species within the largest genera *Veraphis* and *Eutheia* are still unknown. The East Palaearctic, and especially Japanese and Chinese species seem very interesting from the evolutionary standpoint. They seem to be relics restricted to isolated mountainous areas, and their distributions are disjunct because of lowlands separating mountain ranges. All known species have long wings, they are occasionally collected by flight intercept traps, but their dispersal abilities remain unknown.

Acknowledgments

I thank Rafał Ruta (Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute, University of Wrocław, Poland) for donating the specimen used in my study and Hiroyuki Yoshitomi (Entomological Laboratory, Faculty of Agriculture, Ehime University, Japan) for providing additional ecological data.

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