



<http://dx.doi.org/10.11646/zootaxa.3647.2.7>

<http://zoobank.org/urn:lsid:zoobank.org:pub:773EA588-C38C-4454-B2DD-1E2034A60F2F>

Revision of *Gallerucida singularis* species group (Coleoptera: Chrysomelidae: Galerucinae)

CHI-FENG LEE¹ & JAN BEZDĚK²

¹Applied Zoology Division, Taiwan Agricultural Research Institute, Taichung 413, TAIWAN. E-mail: chifeng@tari.gov.tw

²Mendel University, Department of Zoology, Zemědělská 1, 613 00 Brno, Czech Republic. E-mail: bezdek@mendelu.cz

Abstract

The *Gallerucida singularis* species group is established. *Gallerucida gebieni* Weise, status restored and *G. haroldi* Weise, status restored are resurrected from synonymy with *G. singularis* Harold. Lectotypes are designated for *G. haroldi* and *G. tonkinensis* Laboissière. The species are differentiated mainly based on the structure of the endophallic sclerites.

Key words: leaf beetle, taxonomy, endophallic sclerites

Introduction

The genus *Gallerucida* Motschulsky, 1861 comprises of 85 species distributed in the Palearctic and Oriental Regions (Wilcox 1971, Beenen 2010, Bezděk unpublished data). *Gallerucida singularis* Harold, 1880, a widely distributed Oriental species, is distinguished from other members of the genus by the reddish-brown elytron with yellowish humerus and apical area as well as the black spots behind humerus and inside the yellowish apical area. Three species - *G. gebieni* Weise, 1922, *G. haroldi* Weise, 1912 and *G. tonkinensis* Laboissière, 1934 - which share these characters are treated as junior synonyms of *G. singularis* (Kimoto 1989a). However, some populations, such as those in Hong Kong and the Kinmen Island, regarded as *G. singularis*, show distinct differences from the typical coloration of this species (Aston 2009). The typical form of *G. singularis* has one black spot near humerus and three black spots on each elytron. The Hong Kong and the Kinmen populations, however, usually have two black spots each near humerus and apex of elytron (Fig. 7). Based on these differences, Kimoto (1967) removed *G. gebieni* from synonymy with *G. singularis* and transferred it to *Leptarthra* Baly. However, this species was treated again as a synonym of *G. singularis* by the same author (Kimoto 1989a). To clarify the taxonomic status of *G. singularis* and its synonyms, all available names are assessed here based on their respective types and additional material from various localities.

Material and methods

The aedeagus was softened by soaking in hot 10% KOH solution for 15–20 minutes and then washed thoroughly in water. The endophallic sclerites were pulled out through the dorsal opening of the aedeagus with fine forceps. Figures were generated using a Leica M165 stereomicroscope and Nikon ECLIPSE 50i microscope.

Specimens studied are distinctly labeled and deposited at the following institutions and personal collections: BMNH: Natural History Museum, London, United Kingdom; JBBC: Jan Bezděk collection, Brno, Czech Republic; JHRG: Johann Hebauer collection, Rain, Germany; MNHN: Muséum National d'Histoire Naturelle, Paris, France; MNHUB: Museum für Naturkunde, Leibniz-Institut für Evolutions- und Biodiversitätsforschung an der Humboldt-Universität zu Berlin, Berlin, Germany; NHRS: Naturhistoriska Riksmuseet, Stockholm, Sweden; NMNS, National Museum of Natural Science, Taichung, Taiwan; NMPC: National Museum, Praha, Czech