



A review of the genus *Miridiba* Reitter (Coleoptera: Scarabaeidae: Melolonthinae) of Taiwan

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Abstract

The six *Miridiba* Reitter, 1902 species, including *Miridiba taoi* Li & Wang, **new species**, *Miridiba huesiotoi* Li & Yang, **new species**, and *Miridiba taipei* Wang & Li, **new species** from Taiwan are reviewed. A key for the identification of adults is provided. The following information is provided for each species: literature review, synonyms, diagnoses, data of material used, description or redescription, illustrations, distributional data, and remarks.

Key words: Scarabaeidae, Melolonthinae, *Miridiba*, new species, Taiwan

Introduction

The genus *Miridiba* Reitter, 1902 (Coleoptera: Scarabaeidae: Melolonthinae: Melolonthini) is widely distributed throughout the Oriental Region. Coca-Abia (2008) first revised the genus and 27 species were confirmed, excluding four unverified species that were not studied by author. Reitter (1902) proposed the genus as monotypic for the species *Rhizotrogus trichophorus* Fairmaire, 1891, mainly based on the number of antennomeres (9) and the transverse carina at the base of frons. Reitter (1902) also proposed the subgenus *Pledina* Reitter, 1902 of the genus *Holotrichia* Hope, 1837 to include *Holotrichia sinensis* Hope, 1842 and *H. castanea* Waterhouse, 1875. The major character of used to distinguish *Pledina* was the transverse carina, which is identical to *Miridiba* species. However, the taxonomic treatment by Reitter (1902) was ambiguous because he mainly separated *Pledina* from *Miridiba* by having 10 antennomeres and other minor characters (*e.g.*, vestige of elytral discal costae, carina on head, tuft of setae on lower side of tarsomeres, and spinose setae in inner edges of metatibia) but regarded one species, *H. castanea* (which has 9 antennomeres), as “abnormal” in *Pledina*. Although recent papers on *Miridiba* included *H. castanea* as a member of *Miridiba* (*e.g.*, Fujioka 2001; Keith 2005; Smetana & Král 2006; Coca-Abia 2008), but the generic placement of *H. sinensis* is still controversial. Considering that the basal antennomeres are not always reliable for phytophagous scarab generic diagnosis (*e.g.*, *Phyllophaga* Harris, 1827 and *Chalcasthenes* Arrow, 1937, *etc.*), we herein follow Nomura (1977) and treat *Pledina* as a subgenus of *Miridiba* in accordance with the shared characters of carina on head and protarsi and mesotarsi with a tuft of setae on apex of ventral tarsomeres 1–4 that commonly appeared in both groups.

The concept of the genus *Miridiba* has not been widely accepted probably due to its type species being dorsally covered with long, hair-like setae, an unique character not seen in any of the other related species. Arrow (1948) consecutively proposed two genera, *Neodontocnema* Arrow, 1948 and *Hippotrichia* Arrow, 1948, for inclusion of some species that were in *Holotrichia*. Chang (1964) was the first to note the presence of a carina on head in the above three genera, synonymized the latter two with *Holotrichia* and placed all species with carina in the subgenus *Pledina*. Alternatively, Chang (1964) erroneously gave priority to *Pledina* over *Miridiba* and then treated the latter as a junior synonym. Nomura (1977) corrected this mistake by reinstating *Miridiba* as a valid genus and transferred several species to this genus. As the third synonym of *Miridiba*, *Shangaia* Lucas, 1920 (a replacement name for