



A review of the genus *Epitrichius* Tagawa, with an analysis of the internal sac armature of the male genitalia (Coleoptera: Scarabaeidae: Cetoniinae)

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Abstract

This paper redefines the Oriental genus *Epitrichius* Tagawa (Coleoptera: Scarabaeidae: Cetoniinae: Trichiini) and gives descriptions and illustrations of *Epitrichius shinshuingensis*, a **new species** from Taiwan. The genus also includes other six species: *E. bowringii* (Thomson) **new combination**, *E. cupreipes* (Bourgoin) **new combination**, *E. elegans* (Kano), *E. fraterculus* (Moser) **new combination & new status**, *E. lagopus* (Fairmaire), and *E. versutus* (Krikken) **new combination**. The following species names are placed in synonymy with *E. bowringii*: *Trichius bifasciatus* (Moser) **new synonym** and *T. miyashitai* (Krajcik) **new synonym**. In addition, *E. fraterculus duporti* (Bourgoin) is placed in synonymy with *E. fraterculus*. Information on the specimen examination, distribution and known biology of all species is provided. A key to the species of the genus is included. The sclerotized armatures of the internal sac of the male genitalia of *Epitrichius* was examined and found to provide strong support to separate this genus from other Trichiini genera. This set of characters was also found to be reliable in identifying species in groups with variable parameres.

Key words: *Epitrichius*, Trichiini, new species, checklist, internal sac armature

Introduction

Tagawa (1941) proposed the genus *Epitrichius* for two trichiine beetles of Taiwan, *E. elegans* and *E. bifasciatus* (the latter species is not known to occur in Taiwan and may have been mislabeled or misidentified). These two species were previously placed in the genus *Trichius* Fabricius. The diagnostic characteristics proposed by Tagawa to separate *Epitrichius* from both *Trichius* and *Gnorimus* LePeletier & Audinet-Serville were the combination of body shape, markings on the elytra, the pygidial tubercles in females and the outer teeth of the foretibiae in males. However, the establishment of this new genus has gone virtually unnoticed for almost half a century.

The species that are proposed herein to be included in the genus *Epitrichius* correspond with Krikken (1972) who first treated those species as members of the *T. bifasciatus* species group of the genus *Trichius*. Moreover, Krikken (1984) stated that *Trichius* was the appropriate generic name for the taxa previously placed in *Lasiotrichius* Reitter and *Paratrichius* Janson in eastern and southeastern Asia and for the North American genus *Trichiotinus* Casey. Apparently, the genus *Epitrichius* was not known to Krikken and he assigned almost all described Palaearctic species into the genus *Trichius*, with the exception of those species in the genus *Gnorimus*. *Epitrichius* has not been mentioned in the literature since its generic establishment in 1941 until the Isida & Fujioka (1988) catalog. Here we have followed Tagawa's original concept and modified the generic limits by comparing the type species of *Trichius*, *T. fasciatus*, and its relatives in order to broadly