



The millipede genus *Anoplodesmus* Pocock, 1895, recorded in Taiwan for the first time, with descriptions of two new species (Diplopoda: Polydesmida: Paradoxosomatidae: Sulciferini)

CHAO-CHUN CHEN¹, S. I. GOLOVATCH², E. V. MIKHALJOVA³ & HSEUH-WEN CHANG^{1,4}

¹Department of Biological Sciences, National Sun Yat-Sen University, 70 Lien-Hai Rd., Kaohsiung 804, Taiwan, ROC.

E-mail: ccchen.taiwan@msa.hinet.net; hwchang@mail.nsysu.edu.tw

²Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Leninsky pr. 33. Moscow 119071, Russia.

E-mail: sgolovatch@yandex.ru

³Institute of Biology and Soil Science, Far Eastern Branch, Russian Academy of Sciences, Prospekt Stoletiya Vladivostoka 159, Vladivostok 690022, Russia. E-mail: mikhailjova@biosoil.ru

⁴Correspondence author. E-mail: hwchang@mail.nsysu.edu.tw

Abstract

The large, South and Southeast Asian millipede genus *Anoplodesmus* is rediagnosed and here reported from Taiwan for the first time, with two new, apparently northeasternmost species involved: *A. spiniger* **sp. nov.** and *A. aspinosus* **sp. nov.** Both of these congeners differ from each other primarily in several details of gonopod structure. “Takao”, the type locality of *Geniculodesmus inexpectatus* (Attems, 1944), is here rectified as actually being the same as Kaohsiung, Taiwan, not “Mount Takao, Hachiouji-shi, Tokyo Prefecture, Japan”.

Key words: Millipede, *Anoplodesmus*, *Geniculodesmus inexpectatus*, systematics, new species, Taiwan

Introduction

The millipede tribe Sulciferini in the fauna of Taiwan has recently been reviewed and shown to be represented by five species in five genera. None of the genera are endemic to the island, but two of the species are: *Kronopolites formosanus* (Verhoeff 1939) and *Cawjeekelia kanoi* (Takakuwa 1943) (Chen *et al.* 2006). The present contribution refines this picture by adding another sulciferine genus, *Anoplodesmus* Pocock, 1895, and two new species to the Taiwanese list.

Anoplodesmus is currently among the largest genera in Paradoxosomatidae, which in turn is one of the largest families of the entire class Diplopoda, with nearly 200 genera involved. Golovatch (1993) and Mršić (1996) suggested, but only Golovatch (2000) formalized, the synonymy of *Paranedyopus* Carl, 1932, with *Anoplodesmus*, thus bringing the diversity of this genus to more than 30 species or subspecies ranging from southern and northern India and Sri Lanka in the West, through the Himalaya, Myanmar and Sumatra, to mainland Malaysia and mainland Thailand in the East. Most of these species can easily be attributed to their erstwhile nominal genera (referred to in quotation marks). Thus, “*Anoplodesmus*” s. str. probably represents a less advanced stage and largely encompasses the species with rather evident paraterga and particularly simple gonopods. In contrast, most of the species of “*Paranedyopus*” seem to be far more advanced, with strongly reduced, vestigial to totally missing paraterga, often with conspicuous sternal cones in both sexes and with ventral brushes on some male tibiae and tarsi, as well as highly complex/elaborate gonopods (Golovatch 1993). The distribution of both of these nominal species complexes fails to show any meaningful patterns, with simpler or more complex gonopod-bearing congeners occurring more or less randomly across almost any part of the generic range. Interestingly, both of the new *Anoplodesmus* from Taiwan represent the