



The millipede family Diplomaragnidae in Taiwan, with descriptions of nine new species (Diplopoda, Chordeumatida)

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Abstract

Diplomaragnidae are currently represented in Taiwan by twelve species in two genera. Nine species are described here as new to science: *Tokyosoma serratum* **sp. nov.**, *Tokyosoma taroko* **sp. nov.**, *Tokyosoma fanfan* **sp. nov.**, *Tokyosoma lobatum* **sp. nov.**, *Tokyosoma bifurcatum* **sp. nov.**, *Tokyosoma breviprocesum* **sp. nov.**, *Tokyosoma distinctum* **sp. nov.**, *Tokyosoma spinifer* **sp. nov.**, and *Tokyosoma cornutum* **sp. nov.** Two older species remain dubious as elements of the Taiwanese fauna. Eleven diplomaragnids seem to be endemic to Taiwan. The following new combination is proposed: *Diplomaragna australis* Shear, 1999 = *Tokyosoma australe* (Shear, 1999), **comb. nov.** A key is given to all Diplomaragnidae presently known from Taiwan, and the distributions of Taiwanese *Tokyosoma* species are mapped and discussed. The distinguishing characters of the genus *Tokyosoma*, as well as variation in *T. australe* are discussed.

Key words: Millipede, diplomaragnid, new species, taxonomy, key, Taiwan

Introduction

The Diplomaragnidae Attems, 1907 is a large diplopod family ranging from slightly west of the Ural Mountains in the west, across the entire Asian part of Russia, to Mongolia, Japan, Korea and Taiwan in the East. At present, this family encompasses 12 genera and 69 species (Shear 1990, 1999; Mikhailjova 2000, 2005, 2008; Mikhailjova & Korsós 2003; Mikhailjova & Lim 2008; Mikhailjova *et al.* 2000; Mikhailjova *et al.* 2008). Verhoeff (1936) was apparently the first to report a diplomaragnid from Taiwan, described very poorly as the new species *Syntelopodeuma formosanum* Verhoeff, 1936. Then Wang (1958) recorded *Syntelopodeuma gracilipes* (Verhoeff, 1914) in “Ali San, Taiwan, a species originally described from Hokkaido, Japan, thus clearly suggesting this record to be erroneous.

These two species were included in the subsequent checklists of the millipede fauna of Japan (Takakuwa 1954) and China (Wang & Mauriès 1996), as well as in reviews of the family Diplomaragnidae (Shear 1990; Mikhailjova 2000). Shear (1999) described another new species from Taiwan, *Diplomaragna australis* Shear, 1999, and revised what remained of Verhoeff’s type material of *Syntelopodeuma formosanum*. These three species have hitherto represented the only diplomaragnids formally reported from Taiwan (Korsós 2004), yet the records of two of them remain dubious.

The present paper summarizes the fauna of Diplomaragnidae of Taiwan, providing descriptions of nine new species, as well as taxonomic notes on, a review of, and a key to, the genera and species of this family occurring on this island. In addition, the distributions of the Taiwanese *Tokyosoma* species are mapped and discussed.