



Review of *Apoplophora* (Acari: Oribatida: Mesoplophoridae), with the description of a new species from China

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Abstract

The oribatid mite genus *Apoplophora* Aoki, 1980 (Mesoplophoridae) is reviewed, and a checklist and key to all known species are provided. Three species of *Apoplophora* including a new species, *Apoplophora dentata* **sp. nov.** from Tibet, and a newly recorded species from China, *Apoplophora heterotricha* Mahunka, 1987, are identified, and their morphological descriptions and illustrations are also given.

Key words: Oribatida, Mesoplophoridae, *Apoplophora*, soil mites, new species, new record, China

Introduction

The oribatid mite genus *Apoplophora* is a small genus occurring in Oriental and Australian regions. At present, the genus is represented by 14 valid species worldwide.

Aoki (1980) proposed the genus *Apoplophora* for the type-species, *Apoplophora remota* from Japan, and he also included *Mesoplophora discreta* in this genus. Niedbała (1984) regarded *A. remota* as a junior synonym of *M. pantotrema*, hence *Mesoplophora pantotrema* Berlese, 1913 is the type-species of *Apoplophora*.

Mesoplophora pantotrema and *M. discreta* were described by Berlese (1913) as new species from Java. Grandjean (1933) treated *M. discreta* as a junior synonym of *M. pantotrema*, and considered that the type specimen of *M. pantotrema* was a tritonymph of *M. discreta*. Hammen (1959) and Niedbała (1993) agreed with Grandjean's view. However, Aoki (1980) did not accept these opinions, and considered that further studies (*i.e.* by rearing) are necessary to ascertain the validity of the species. Hammer (1979) redescribed *M. pantotrema*, and reported two new species from Java, *M. leviseta* and *M. rostrorugosa*, which were transferred to *Apoplophora* by Mahunka (1987), but subsequently Mahunka (1991) reversed his combination of *A. leviseta* back to *Mesoplophora*. Niedbała (1984) revised the genus *Apoplophora* and regarded *M. rostrorugosa* and *A. remota* as synonymous with *A. pantotrema* (Berlese). In the same paper, he proposed the family Apoplophoridae. On the basis of cladistic analysis of Hypochthonioidea, Norton (1984) regarded *Apoplophora* as a genus of Mesoplophoridae. Niedbała (2001) analysed the features of this genus and discussed their taxonomic signification.

Mahunka (1985, 1987, 1988, 1991) described eleven new species of this genus: *M. indica* and *M. striata* from South India, which were transferred to *Apoplophora* by himself in 1987; *A. heterotricha*, *A. lineata*, *A. spinosa*, *A. ornatissima*, *A. cristata*, *A. jaccoudi*, *A. malaya*, *A. marcuardi* and *A. trisetata* from Malaysia. Also, Niedbała (1998, 2000, 2004) described seven new species of *Apoplophora*: *A. solomonensis* from Solomon Islands; *A. ornata* from Indonesia; *A. phalerata* from India and Indonesia; and *A. kapiti*, *A. sarawaki*, *A.*