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Review of *Oribotritia* (Acari, Oribatida, Oribotritiidae) with a world checklist and description of a new species from China

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Abstract

The oribatid mite genus *Oribotritia* Jacot, 1924 (Oribotritiidae) is reviewed. A new species of *Oribotritia* collected from litter in Hunchun, China, *Oribotritia hunchunensis* sp. nov., is described and figured. Four species, *Oribotritia angusta* Mahunka, 1982, *Oribotritia asiatica* Hammer, 1977, *Oribotritia chichijimensis* Aoki, 1980, *Oribotritia gigas* Bayoumi & Mahunka, 1979, are redescribed based on Chinese specimens. *Oribotritia nepalensis* Niedbala, 2000 is considered as a new junior subjective synonym of *Oribotritia gigas* Bayoumi & Mahunka, 1979. A comprehensive, fully annotated and referenced checklist of all known species and a key to known Chinese species of this genus are provided to facilitate to the further research.

Key words: Soil mites, ptyctimous mites, Oribatida, Oribotritiidae, *Oribotritia*, new species, new synonym, checklist, China

Introduction

As type genus of the family Oribotritiidae, *Oribotritia* has a complicated history. Berlese (1883) proposed the genus *Tritia* which was preoccupied by *Tritia* Risso, 1826 (a genus in the molluscan family Alectrionidae). Jacot (1924) proposed *Oribotritia* as a replacement name for *Tritia* Berlese, 1883 and still used *Hoplophora decumana* C. L. Koch, 1836 as the type species. Michael (1898) was convinced that this type was misidentified and indicated that it should be *Phthiracarus berlesei* Michael, 1898. His view was supported by following authors (e.g. van der Hammen 1959, Märkel 1964). However, this was further complicated by the fact that the presumed type specimen of *P. berlesei* could not be found in Berlese's "Acarotheca Italica" (Märkel 1964, p. 29, citing van der Hammen). Fortunately, some *P. berlesei* specimens from Berlese's "Acarotheca Italica" were preserved in the Rijksmuseum van Natuurlijke Historie, Leiden. So Märkel (1964) designated a lectotype female from this series for this genus.

Oribotritia species collectively have a nearly cosmopolitan distribution except for their absence in the Antarctic region. According to my tally, 90 valid species and one subspecies have been reported prior to this work. While studying the long-term oribatid collections of Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences and National Zoological Museum of China, Institute of Zoology, Chinese Academy of Sciences, we identified five species of *Oribotritia*, including a new species. Some remarks on features are provided based on these Chinese materials. *Oribotritia nepalensis* Niedbala, 2000 is considered as a new junior subjective synonym of *Oribotritia gigas* Bayoumi & Mahunka, 1979. In addition, a comprehensive, annotated and informative fully referenced world checklist of *Oribotritia* species and a key to known Chinese species are provided to facilitate to the further research, because the existing world checklists are either incomplete or lacking references (e.g. Subías 2004), and comprehensive data is scattered through multiple publications.

Material and methods

Measurements and descriptions are based on specimens mounted in temporary cavity slides that were studied using a light microscope equipped with a drawing attachment.