

Article

## New Zealand species of *Oribotritia* (Acari: Oribatida: Oribotritiidae): descriptions of two new species and a key to eight species

DONG LIU<sup>1</sup> & ZHI-QIANG ZHANG<sup>2,3</sup>

<sup>1</sup> Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun 130102, P. R. China.  
Email: liudong@neigae.ac.cn

<sup>2</sup> Landcare Research, 231 Morrin Road, Auckland, New Zealand.

<sup>3</sup> Corresponding author. E-mail: zhangz@landcareresearch.co.nz

### Abstract

The genus *Oribotritia* (Acari: Oribatida: Oribotritiidae) was represented in New Zealand by six species prior to this work. In this paper, three species of *Oribotritia* from New Zealand are described, including two new species, *Oribotritia mangamuka* **sp. nov.** and *Oribotritia bilaminae* **sp. nov.**, and a known species with some variation. A key to all known species of *Oribotritia* in New Zealand is also provided.

**Key words:** Soil mites, Oribatida, Oribotritiidae, *Oribotritia*, new species, key, New Zealand

### Introduction

The Oribotritiidae is a family of nine genera and 184 species of ptyctimous mites (Subías 2012). *Oribotritia* is its type genus, but it has a complicated history. Berlese (1883) proposed the genus *Tritia*. Unfortunately, this generic name was preoccupied by *Tritia* Risso, 1826, which was proposed by Risso for a genus in the molluscan family Alectrionidae. Therefore, Jacot (1924) used “*Oribotritia*” as a replacement name for *Tritia* Berlese, 1883 and designated *Hoplophora decumana* Koch, 1836 as the type species. Michael (1898) was convinced that this type species was misidentified and indicated that it should be *Phthiracarus berlesei* Michael, 1898. Michael’s view was subsequently accepted by other authors (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. Märkel (1964) designated a lectotype female from this series. From then on, the dispute about the type species of this genus was finally settled.

Mites of *Oribotritia* are characterized by a prodorsum with one or two pairs of lateral carinae, bothridial squamae situated above the bothridia, posterior median apodeme absent, interlamellar and rostral setae in median position, lamellar setae situated near bothridia, notogaster with 14 pairs of setae, openings of opisthosomal glands and five pairs of lyrifissures present, genitoaggenital and anoanal sutures well developed, infracapitulum of stenarthrous type, palpal setation: 0-(2-4)-0-(2-3)-9(1), tarsi heterotridactylous. The genus has a nearly cosmopolitan distribution except the Antarctic Region. Till the end of 2012, 85 valid species of this genus were reported (Subías 2012), and among these, six species were known from New Zealand (Niedbala 1993, 2000, 2006; Niedbala & Colloff, 1997). During the first author’s visit to Landcare Research in Auckland in April 2012, we