Three new species of the genus *Austrophthiracarus* from New Zealand (Acari: Oribatida: Phthiracaridae)

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Abstract

Three new species of *Austrophthiracarus* (Oribatida: Phthiracaridae) from New Zealand are described: *Austrophthiracarus matuku* sp. nov. from the Bethells Matuku Reserve, Auckland, *Austrophthiracarus notoporosus* sp. nov. from the Tutoko Bench, Fiordland and *Austrophthiracarus karioi* sp. nov. from the Mt. Karioi, Waikato. Holotype specimens are deposited in the New Zealand Arthropod Collection, Landcare Research and paratypes are deposited in the Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences.

Key words: Soil mites, Oribatida, Phthiracaridae, *Austrophthiracarus*, new species, New Zealand

Introduction

The family Phthiracaridae (Oribatida) consists of nearly 800 described species in 10 genera and is the largest family of ptyctimous mites (Niedbała 1994, Subías 2013). This paper is one of a series of recent efforts to increase our understanding of the phthiracarid fauna in New Zealand. Liu & Zhang (2013a) added a new species of *Atropacarus* (*Atropacarus*), Liu & Zhang (2013b) added two new species of *Notophthiracarus*, Liu & Zhang (2013c & d) added three new species of *Austrophthiracarus*, and Liu & Zhang (2013e) added two new species of *Phrathicarus*. This paper describes three more new species of *Austrophthiracarus* from New Zealand.

Balogh and Mahunka (1978) proposed *Austrophthiracarus* with *A. radiatus* as type species. The members of this genus are mainly distinguished by median and lateral fields of prodorsum not fused; rostral setae inserted at distance from the end of rostrum; notogaster with 15 pairs of setae but often neotrichous; genital setae arranged in two rows, setae *g*₆ close to or even above *g*₄, at least setae *g*₆ and *g*₇ far away from paraxial region; adanal setae far away from paraxial margin, two setae (*a₉* and *a₈*) near the paraxial margin of ano-adanal plate; setae *d* on tibiae IV short, coupled with solenidions (Niedbała 1994). Prior to this study, 42 species of *Austrophthiracarus* were known in the Australian Region, of which only seven species have been found in New Zealand (Niedbała 2012, Liu & Zhang 2013c, d). The purpose of this paper is to provide detailed descriptions and illustrations of three new species of this genus from New Zealand. This brings the total number of New Zealand species of the genus *Austrophthiracarus* to 10.

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.
(5b) 17 pairs of notogastral setae present; (6b) two pairs of lyrifissures \( ia \) and \( im \) present; (7b) setae \( h \) of subcapitulum much longer than distance between them; (8b) ten genital setae present with formula \((5+5): 0\); (9b) setae \( v' \) on femora I absent.

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References