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New records of water mites (Acari: Hydrachnidia) from Tasmania, with descriptions of three new species

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Abstract

Three new water mite (Acari: Hydrachnidia) species are described from Tasmania, *Tasmanobates separatus* **sp. nov.**, *Procorticacarus karanovici* **sp. nov.** and *Guineaxonopsis tasmanica* **sp. nov.** The material was collected in 2008 during a biological survey by Tom and Ivana Karanović (Hobart, Tasmania) from surface and interstitial waters of Tasmania. Moreover, a detailed description of *Litarachna* cf. *amnicola* Cook, 1986 is given.

Keywords: Acari, new species, Tasmania, Australia

Introduction

The first study on the water mites from Tasmania was published by Lundblad (1947), followed later on by Szalay (1953). The most extensive study on water mites from Tasmania is conducted by Cook (1986). He reported 102 species for Tasmania from 55 collection localities. Harvey (1998a) summarized all data on Australian water mites. He listed 124 species for Tasmania, but as *Pontarachna ottoi* Harvey, 1998 is only known from Queensland (Harvey 1998b), the actual number should be 123. Since Harvey's publication, three species of the genus *Arrenurus* and two species of the genus *Hydrodroma* were published from Tasmania by Smit (1999) and Pesic & Smit (2007a, b), respectively.

The present study is based on material collected in September 2008 by Tom and Ivana Karanović (Hobart, Tasmania) from surface and interstitial waters of Tasmania (13 specimens from five collecting localities). Four species are identified (with 11 specimens in total; two specimens of water mites of the subfamily Notoaturinae will be subject of another paper), three of them are new for science. Descriptions of these interesting new species are given in this paper.

Materials and methods

Water mites were collected by hand netting, and sorted in the laboratory under a stereo microscope. Specimens were preserved in 95% ethanol and dissected as described elsewhere (e.g. Gerecke *et al.* 2006). The holotypes of the new species are deposited in the Tasmanian Museum and Art Gallery (TMAG). Additional material is lodged in the Museum of Natural History of Podgorica, Montenegro (MNHP).

All measurements are given in µm. The following abbreviations are used: asl = above sea level, L = length, %L = relative length (given as % of total L), I/II/III/IV-Leg-1–6 = first to sixth segments of leg I/II/III/IV, P-1 to P-5 = palp segments 1 to 5, W = width.

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