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The water mite family Hygrobatidae Koch in Australia. The genera *Aspidiobatella* Cook, *Australorivacarus* Viets, *Gondwanabates* Imamura and *Rhynchaustrobates* Cook (Acari: Hydrachnidia)

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Abstract

The following eight new species are described from Australia: *Gondwanabates crassipalpis*, *G. flavus*, *G. spatulifer*, *Rhynchaustrobates bipartitus*, *R. sclerosus*, *R. trususae*, *R. uniscutatus* and *R. victorianus*. Numerous new records are given of the following hygrobatid genera in Australia: *Aspidiobatella* Cook, 1986, *Australoricacarus* K.O. Viets, 1978, *Gondwanabates* Imamura, 1984 and *Rhynchaustrobates* Cook, 1986. The males of *Aspidiobatella smola* Cook and *Gondwanabates hopkinsi* Imamura and the female of *Gondwanabates crassipes* Cook are described for the first time.

Key words: Systematics, new species, water mites, Hygrobatidae, Australia

Introduction

This is the second paper of a series on hygrobatid water mites from Australia, the first one dealing with the genus *Procorticacarus* (Smit 2015). Hygrobatidae are a widespread and dominant family of water mites in Australia, especially in streams. Currently, the following 19 genera are known from Australia: *Aspidiobatella* Cook, 1986, *Aspidiobates* Lundblad, 1941, *Australiobates* Lundblad, 1941, *Australorivacarus* K.O. Viets, 1978, *Caenobates* K.O. Viets, 1978, *Coaustraliobates* Cook, 1974, *Cookabates* Harvey 1988, *Declinobates* K.O. Viets, 1984, *Dropursa* Cook, 1986, *Gondwanabates* Imamura, 1984, *Groonabates* Cook, 1986, *Hygrobates* Koch, 1837, *Ioannibates* Smit, 2009, *Kallimobates* K.O. Viets, 1978, *Procorticacarus* K.O. Viets, 1978, *Pseudoaustraliobates* Smit, 2009, *Rhynchaustrobates* Cook, 1986, *Tasmanobates* Cook, 1986 and *Tobelobates* Cook, 1986 (Cook 1986, Harvey 1998, Smit 2009b).

In this paper the following genera are treated: *Aspidiobatella*, *Australorivacarus*, *Gondwanabates* and *Rhynchaustrobates*. Remaining hygrobatid genera (e.g. *Australiobates*, *Coaustraliobates*, *Hygrobates*) will be published in a separate paper(s).

Material and methods

Unless stated otherwise, all material has been collected by the author. All non-type material is lodged in the Netherlands Biodiversity Centre, Leiden. Numbers are given as males/females/deutonymphs. The following abbreviations have been used: PI-PV = palp segment 1–5; Cxgl4 = coxoglandularium 4; Vgl–2 = ventroglandularium 2; I-leg-4–6 = fourth–sixth segments of first leg; H = height, asl = above sea level; NP = National Park; AMS = Australian Museum, Sydney; NMV = Museum Victoria, Melbourne; NTM = Museum and Art Gallery of the Northern Territory, Darwin; QM = Queensland Museum, Brisbane; RMNH = Naturalis Biodiversity Center, Leiden. Measurements of paratypes are given in brackets. All measurements are in μm , measurements of palp and leg segments are of the dorsal margins. Coordinates were obtained with a GPS. When no measurements were made or were not possible, coordinates are derived sometimes from Google Earth (given as degrees, minutes and seconds).