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# New species of the oribatid mite genus *Phyllhermannia* Berlese, 1916 (Acari, Oribatida, Hermanniidae) from wet forests in south-eastern Australia show a high diversity of morphologically-similar, short-range endemics

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**New species of the oribatid mite genus *Phyllhermannia* Berlese, 1916 (Acari, Oribatida, Hermanniidae) from wet forests in south-eastern Australia show a high diversity of morphologically-similar, short-range endemics**

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## Abstract

This paper contains descriptions of sixteen new species of *Phyllhermannia* from temperate rainforest and wet sclerophyll forest in the Australian Capital Territory (*P. namadjiensis* **sp. nov**.), New South Wales (*P. bandabanda* **sp. nov.**, *P. colini* **sp. nov.** and *P. tanjili* **sp. nov.**), Tasmania (*Phyllhermannia acalepha* **sp. nov.**, *P. craticula* **sp. nov.**, *P. lemannae* **sp. nov.**, *P. luxtoni* **sp. nov.** and *P. strigosa* **sp. nov.**) and Victoria (*P. croajingolongensis* **sp. nov.**, *P. errinundrae* **sp. nov.**, *P. gigas* **sp. nov.**, *P. hunti* **sp. nov.**, *P. leei* **sp. nov.** and *P. leonilae* **sp. nov.** and *P. sauli* **sp. nov**.). A partial supplementary description and new distribution record is given for *P. eusetosa* Lee, 1985 from South Australia. *Phyllhermannia dentata glabra* Hammer, 1962 is elevated to specific status. *Hermannia macronychus* Trägårdh, 1907 and *H. fungifer* Mahunka 1988 are recombined to *Phyllhermannia*. A new diagnosis of *Phyllhermannia* is given and immature stages are described for the first time. Three species-groups are tentatively recognised: Acalepha, confined to Tasmania, Colini, found in the Australian Capital Territory, Victoria and New South Wales and Eusetosa, found in Victoria and South Australia.

**Key words:** Taxonomy, morphology, systematics, species-groups, biogeography, distribution, setal ontogeny

## Introduction

The Hermannidae Sellnick, 1928 has a pivotal position in the morphological organisation and evolution of the oribatid mites. They are members of the cohort Nothrina and are on the phylogenetic interface between the so-called 'lower' (macropyline) and 'higher' (brachypyline) oribatid mites. Woas (2002) considered the organisation of the Hermanniidae is 'strongly anticipating that of the higher Oribatida.' *Hermannia* Nicolet, 1855 is indicated as the sister group of the Astigmata in a molecular phylogeny of the Acariformes, and a clade of Astigmata + Hermanniidae as the sister group of the rest of the Nothrina + Brachypylina (Dabert *et al*., 2010). The molecular phylogeny of Domes et al. (2007) also places *Hermannia* as basal to Nothrina + Brachypylina.