

## A Review of the Genus *Hexachaetoniella* Paschoal in Australia (Acarina: Cryptostigmata: Pedrocortesellidae)

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ABSTRACT. The paper reviews the genus *Hexachaetoniella* Paschoal in Australia and a rediagnosis is given for the genus. One new combination is established: *H. dispersa* (*Pedrocortesella*) (P. Balogh, 1985), and the species is redescribed. Three new species are described: *H. bunya* n.sp., *H. contigua* n.sp. and *H. norfolkensis* n.sp. A key is given for the 5 species, including the type species *H. sexpilosa* (Hammer) from New Zealand. *Pedrocortesella japonica* Aoki & Suzuki, assigned by Paschoal (1987) to *Hexachaetoniella*, is regarded as *incertae sedis*.

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Australian plateremaeoid mites have been reviewed by Hunt & Lee (1995) and Hunt (1996a). With recognition of the importance of arboreal mites in Australian forest ecosystems (Walter, 1995), a significant oribatid component is starting to be identified, including the plateremaeoid genus *Hexachaetoniella* Paschoal. Other predominantly arboreal plateremaeoids, such as *Novazelandiella* Paschoal, are the subject of a further paper (Hunt, 1996b).

The genus *Hexachaetoniella* was erected by Paschoal (1987) as part of his extensive revision of the Plateremaeoidea. The genus was based largely on two characters displayed by the type species, *H. sexpilosa* (Hammer), and by *H. japonica* (Aoki & Suzuki): six pairs of notogastral setae and the arrangement of the genital setae in a straight file near the inner margin of the genital valve. Six pairs of setae, however, seem to have arisen independently in several *Pedrocortesella* species (P. Balogh, 1985; Eguaras *et al.*, 1990; Hunt

& Lee, 1995; Hunt, 1996a), while species with 5 pairs of notogastral setae can have genital setae arranged in either a straight or arcuate file (Hunt & Lee, 1995; Hunt, 1996a).

Re-examination of *H. sexpilosa* and comparison with *Pedrocortesella dispersa* P. Balogh and three new species from Australia have enabled a redefinition of the genus based on the following diagnostic characters: placement of the “sixth” seta (seta *lm*) mesad of fissura *im*, and the presence of a raised integumental mound in the centre of most notogastral foveae. *Hexachaetoniella japonica* does not share these characters and its generic placement is uncertain.

*Hexachaetoniella* is known only from Australia, Norfolk Island and New Zealand. It is placed in the family Pedrocortesellidae Paschoal on the basis of the lack of enantiophyses on the prodorsum, two pairs of anal setae, and the dorsal placement of notogastral setae *p2* and *p3* (Hunt, 1996a).