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A Review of the Genus *Pedrocortesella* Hammer in Australia (Acarina: Cryptostigmata: Pedrocortesellidae)

GLENN S. HUNT

Division of Invertebrate Zoology, Australian Museum, 6 College Street, Sydney NSW 2000, Australia

ABSTRACT. The paper reviews the genus *Pedrocortesella* Hammer in Australia and a rediagnosis is given for the genus. *Pedrocortesella propinqua* P. Balogh and *P. temperata* P. Balogh are redescribed and adults of 17 new species are described: *P. anica, P. augusta, P. bannisteri, P. bithongabela, P. callitarsus, P. calmorum, P. conundrum, P. enigma, P. gunjina, P. hangayi, P. impedita, P. kanangra, P. leei, P. nortoni, P. obesa, P. subula*, and *P. truncata. Pedrocortesella conundrum* and *P. kanangra* are regarded as *incertae sedis*. *Acupedicellus* Hunt & Lee, 1995 becomes a junior synonym of *Pedrocortesella* and a new combination is established for its type species: *Pedrocortesella cornuta* (Hunt & Lee, 1995). *Pedrocortesella dispersa* P. Balogh and *P. queenslandica* P. Balogh are assigned to different genera in other papers. A key is given to adults of the 22 Australian *Pedrocortesella* species currently recognised. Characters of systematic value are examined. Five possible species groups are discussed. The World distribution of the genus is briefly discussed and relevant literature cited.

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The mite superfamily Plateremaeoidea (*sensu* Marshall *et al.* (1987) is an important component of the oribatid fauna of Australian soils and arboreal habitats (Hunt, 1994; Hunt & Lee, 1995; Walter, 1995). *Pedrocortesella* Hammer is currently the most speciose genus in the superfamily in Australia. The other species-rich plateremaeoid genus, *Pheroliodes* Grandjean, will be reviewed elsewhere (Hunt, 1996a), as will some less species-rich, largely arboreal taxa (Hunt, 1996b; 1996c).

Species in the genus have an essentially Gondwanan distribution with extensions into Japan and the eastern Palearctic. Four species have been described from South America (Hammer, 1961; Fernandez, 1990; Eguaras *et al.*, 1990) including the type species *Pedrocortesella pulchra* Hammer; one from New Zealand (Hammer, 1966; Paschoal, 1987b); two from New Guinea (J. Balogh, 1968; 1970); four from Africa (Pletzen, 1963; J. Balogh, 1966; P. Balogh, 1985), four from Japan (Aoki, 1984; Aoki & Suzuki, 1970; Hunt, 1996b) and eight from the eastern Palearctic (J. Balogh & Mahunka, 1965; Aoki, 1974; Golosova, 1980; Grishina, 1981; Ryabinin, 1986). This list includes species originally placed in *Pedrocortesia* Hammer (J. Balogh & Mahunka, 1965; J. Balogh, 1966; 1970; Aoki, 1974; 1984; Grishina, 1981; Ryabinin, 1986) but probably belonging in *Pedrocortesella* or at least closely allied taxa (Paschoal, 1987a regards many as *incertae sedis*).

In other papers in this series, *Pedrocortesella dispersa* P. Balogh is placed in *Hexachaetoniella* Paschoal (Hunt, 1996b) and *P. queenslandica* P. Balogh is placed in combination with a new genus, *Labiogena* (described in this volume; see Hunt, 1996c).

Aside from an Eocene fossil record possibly of the genus (O'Dowd *et al.*, 1991), 22 *Pedrocortesella* species from Australia are recognised in this work, doubling the number of species in the genus. It is probable, however, that many new species remain to be discovered in other biogeographical regions, particularly if drier habitats are sampled more intensively.