

New Oribatids from Australia (Oribatei)

By

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Abstract. Five new species collected in various parts of Australia are described: *Pseudotocepheus coarctatus*, *Pedrocortesella propinqua*, *P. temperata*, *P. dispersa* and *P. queenslandica* spp. n. The taxonomic status of the genera *Pedrocortesella* HAMMER, 1958, *Pedrocortesella* HAMMER, 1961 and *Phereliodes* GRANDJEAN, 1931 are discussed.

Pseudotocepheus coarctatus sp. n.

(Fig. 1A–F)

Length: 631–861 μm ; breadth: 258–386 μm .

Prodorsum: Costulae somewhat arcuate. Sensillus medium long, slightly fusiform, smooth. Setae *in* short, fine; setae *le* arcuate inwards, smooth, setae *ro* medium long, convergent. There is a triangular window in the rostral region. Extrabothrydial region granulate.

Notogaster: Shoulder region constricted, with two great teeth, each opposite to the bothrydium. Ten pairs of arcuate notogastral setae. Notogastral setae on the apical half unilaterally ciliated.

Ventral side: 3 pairs of genital, 1 pair of aggenital, 2 pairs of anal, 3 pairs of adanal setae. Setae *ad*₃ in preanal position, setae *p*₂ on the niveau of the anterior margin of anal plates. Pori *iad* on the same level as setae *p*₂, very short and ap-anal.

Material examined: Australia, N.S.W., Nightcap Ra., 760 m, 6. V. 1973, subtropical rainforest, leaf litter and soil, leg.: I. NAUMANN; 1 holotype, 2 paratypes.

Remarks: The constricted shoulder region is unique in the genus *Pseudotocepheus* BALOGH, 1960.

Pedrocortesella HAMMER, 1961

In 1958 HAMMER set up a new genus by the name *Pedrocortesella*. In the description of the generotype, *P. mirabilis* HAMMER 1958, she mentions 2 pairs of anal setae, in Figure 41 *c* she presents on the one side 3 and the other one 2 anal setae. In her work on the New Zealand oribatids she draws and describes the *Pedrocortesella* species with 3, the *Pedrocortesella* ones with 2 pairs of anal setae.

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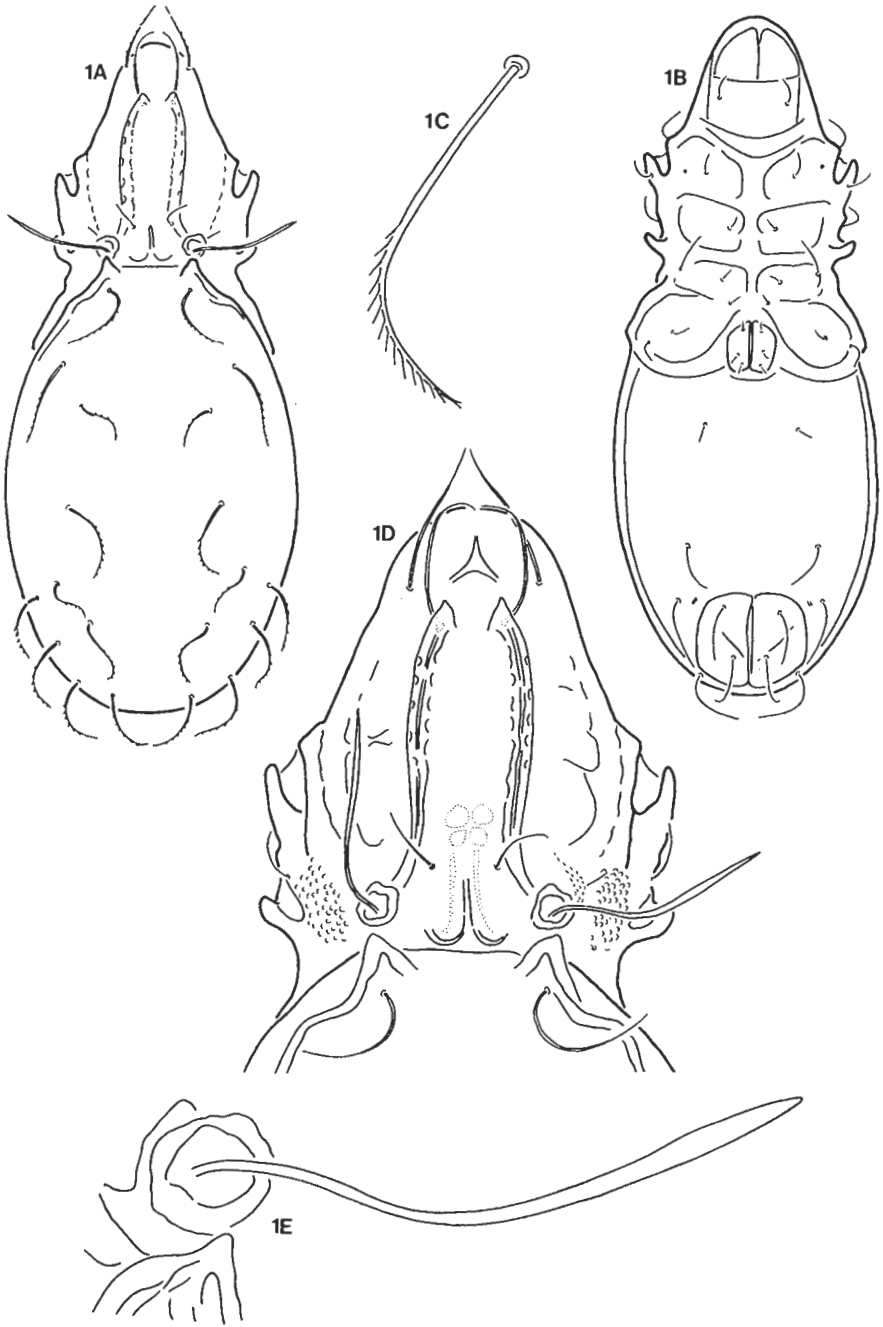


Fig. 1. *Pseudotocepheus coarctatus* sp. n. A: dorsal side; B: ventral side; C: notogastral seta; D: prodorsum; E: sensillus

In 1931 GRANDJEAN ranked the species *Licneremaeus wehncke* WILLMANN, 1930 in a new genus by the name of *Phereliodes* GRANDJEAN, 1931. In 1965 he redescribed the species. From the redescription it is evident that *Pedrocortesella* HAMMER, 1958 is a junior synonym of *Phereliodes* GRANDJEAN, 1931. The identity is particularly certain on the basis of genital and anal setae, of the enantiophysis on the prodorsum and of the general habitus of the species.

All new species being described here belong to the genus *Pedrocortesella* HAMMER, 1961. The *Pedrocortesella* species are rather similar to one another, and it seems probable that, mainly in the subtropical and tropical regions of the earth, there are living many undescribed species. In his material from Australia the author could distinguish 4 species up to now, all of them are new for science. It seems interesting that none of them could be identified with the 5 New Zealand species. The species can be distinguished from each other mainly on the basis of the sensillus, of the type of the notogastral sculpture and of the number and position of the posteromarginal setae.

Pedrocortesella propinqua sp. n.

(Fig. 2A–D)

Length: 533 μm , breadth: 295 μm .

Prodorsum: Sensillus long, slightly fusiform, aciculate. Prodorsum foveolated, foveolae different in size. Setae *in* rod-like, small but well visible; setae *le* and *ro* setiform, fairly long.

Notogaster: Foveolated, the foveolae of different size and well separated; the mean distance between the foveolae equal to the half diameter of foveolae. 5 pairs of posteromarginal setae: 1 pair erectile.

Ventral side: The epimeral region with smaller and greater foveolae. Apodemata evanescent. 7 pairs of genital, 1 pair of aggenital, 2 pairs of anal, 3 pairs of adanal setae. Setae *ad*₁ in postanal, *ad*₂ and *ad*₃ in adanal position. Genital and anal plates near each other: the distance is shorter than the length of the genital plates. Ventral plate foveolated: foveolae have different size. Genital and anal plate foveolated.

Material examined: Australia, N.S.W., Barrington Tops, 1520 m, near Salisbury, 10. II. 1965, temperate rain forest, from *Nothofagus moorei* leaf litter, leg.: G.B. Monteith; holotype 1 exemplar.

Remarks: There are two *Pedrocortesella* species having slightly fusiform, long sensillus, 5 pairs of posteromarginal setae and foveolate or areolate notogaster: *Pedrocortesella pulchra* HAMMER, 1961 (Peru) and *P. gymnonotus* HAMMER, 1966 (New Zealand), but the structure of foveolae and areolae of these species are highly different (see Fig. 59 in HAMMER, 1966 and Fig. 30 in HAMMER, 1961!)

Pedrocortesella temperata sp. n.

(Fig. 3A–D)

Length: 636–697 μm ; breadth: 353–377 μm .

Prodorsum: Sensillus long, slightly fusiform, apical half densely ciliate. Prodorsum foveolated: foveolae nearer to each other than those of *P. propinqua*. Setae rod-like, short, setae *le* and *ro* setiform, fairly long. In the interlamellar region there are two evanescent, short chitinous crests.

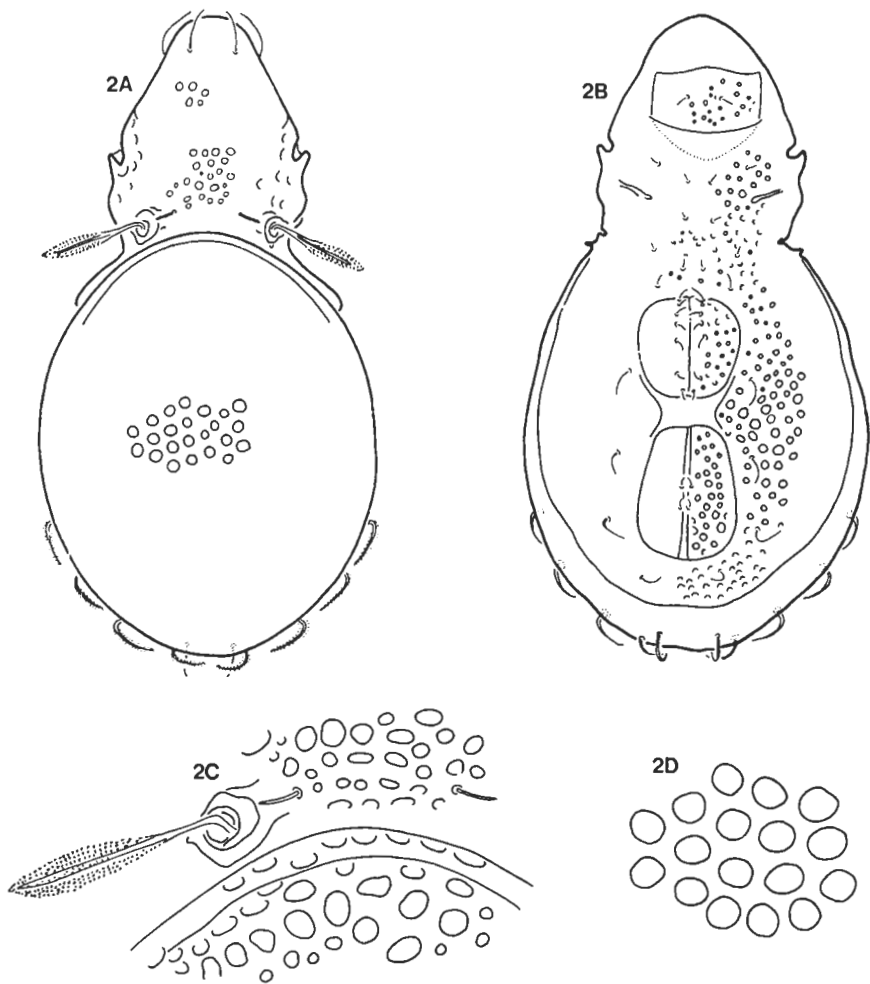


Fig. 2. *Pedrocortesella propinqua* sp. n. A: dorsal side; B: ventral side; C: sensillus; D: sculpture of notogastral area

Notogaster: Foveolated; the foveolae have different size and are close to each other, by greater amplification they remind of the cellular structure. The foveolae of the marginal region are smaller. 3 pairs of visible posteromarginal steac: two pairs posteriorly near each other.

Ventral side: 7 pairs of genital, 1 pair of aggenital, 2 pairs of anal, 3 pairs of adanal setae. The 4th pair of genital setae are outside of the longitudinal row of genital setae. Genital plates not foveolated.

Material examined: Australia, N.S.W., Barrington Tops, 1520 m, near Salisbury, 10. II. 1965, temperate rain forest, from *Nothofagus moorei* leaf litter; leg. B.B. MONTEITH; 1 holotype, 10 paratypes.

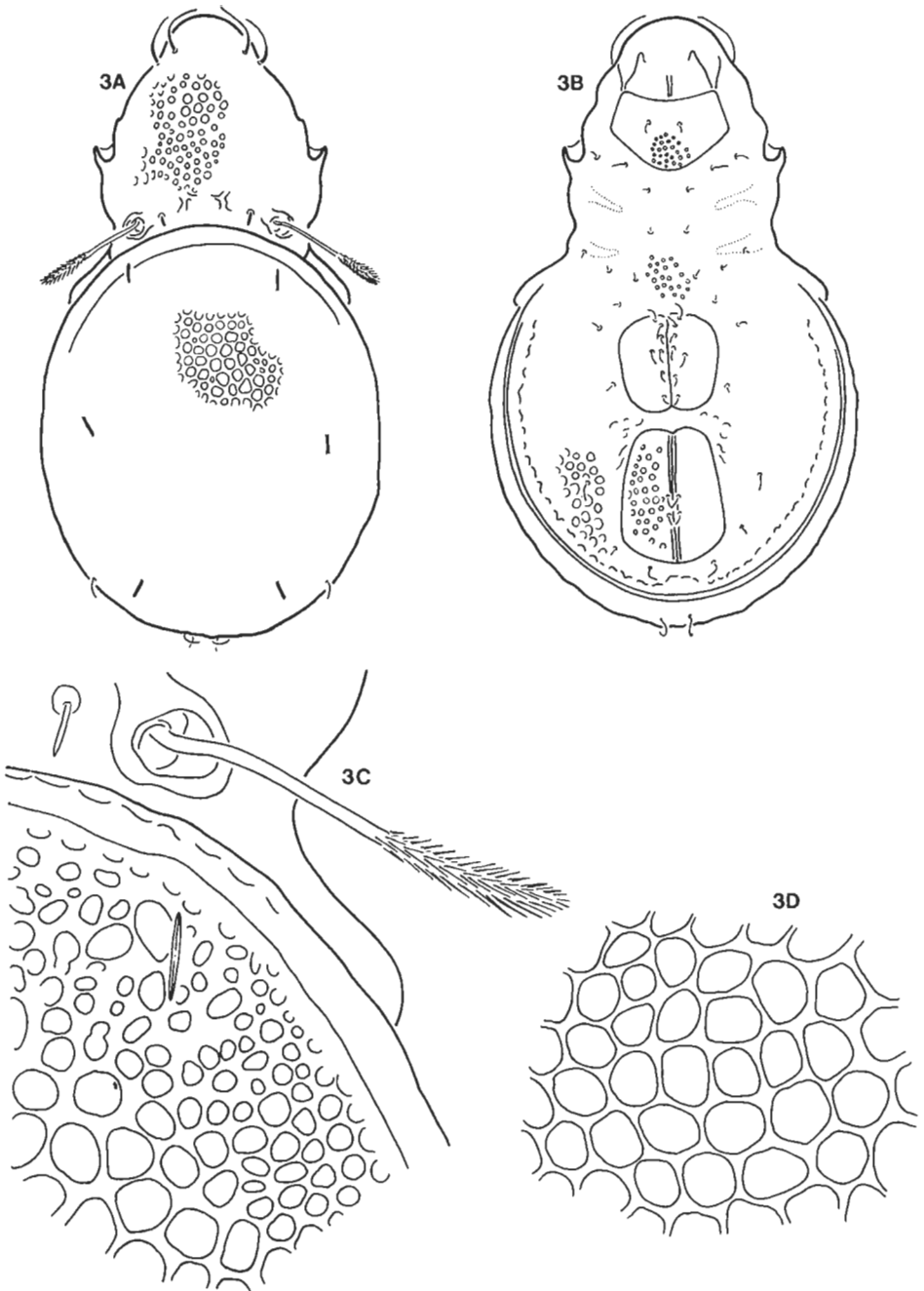


Fig. 3. *Pedrocortesella temperata* sp. n. A: dorsal side; B: ventral side; C: sensillar region; D: sculpture of notogastral area

Remarks: Only three *Pedrocortesella* species have long, slightly fusiform sensillus combined with greater close to other lying foveolae: *P. pulchra* HAMMER, 1961 (Peru), *P. africana* PLETZEN, 1963 (Africa), *P. parva* PLETZEN, 1963 (Africa); yet these species have a granulated polygonate structure on the notogaster.

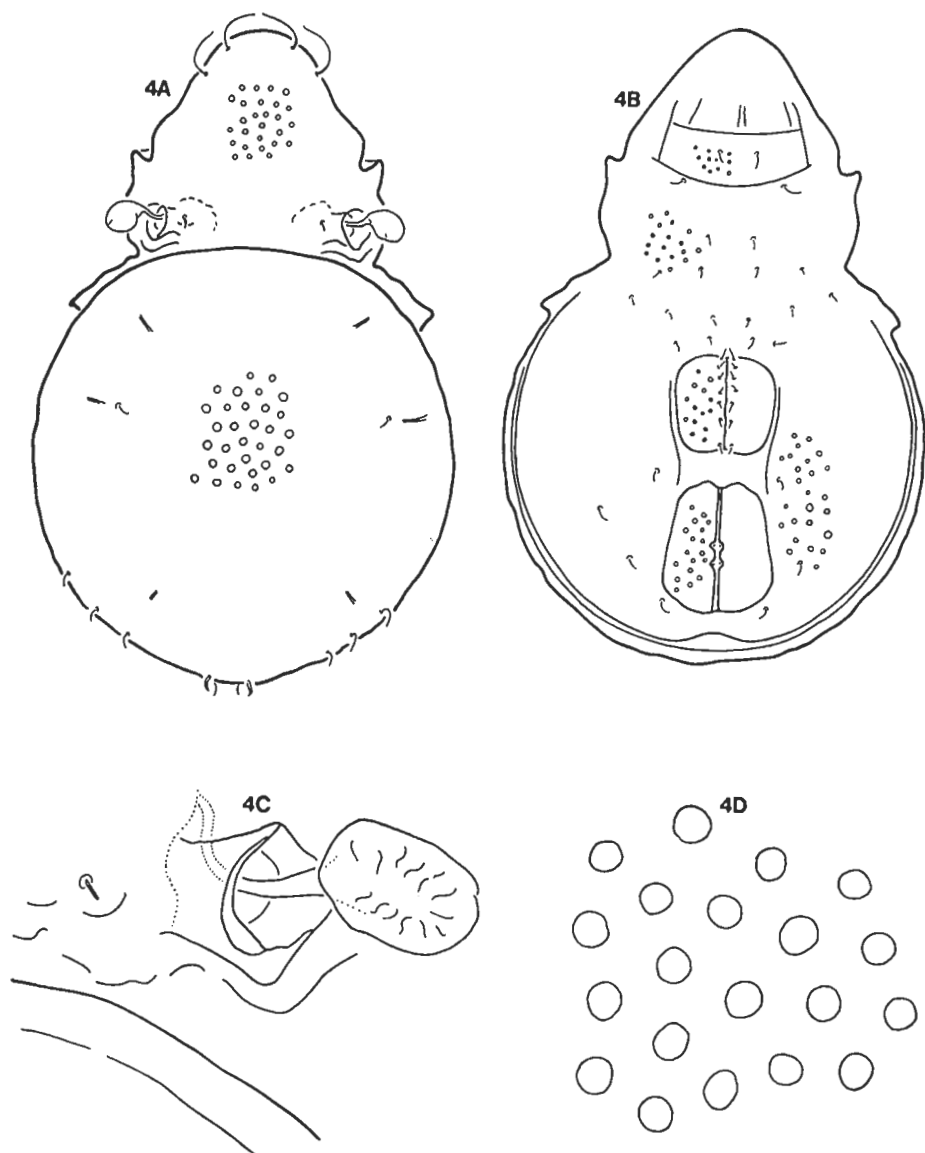


Fig. 4. *Pedrocortesella dispersa* sp. n. A: dorsal side; B: ventral side; C: sensillar region; D: sculpture of notogastral area

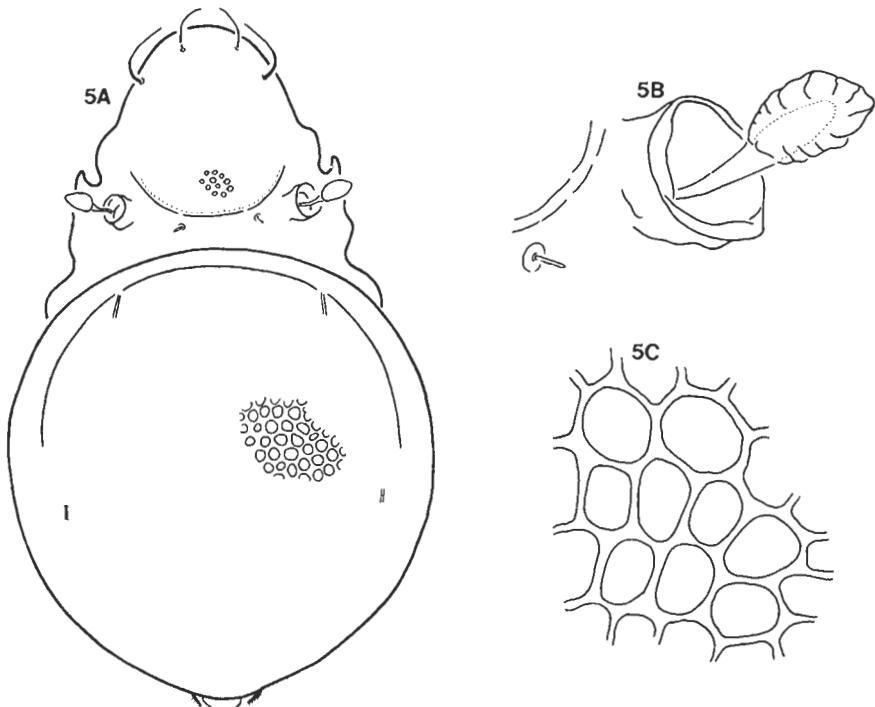


Fig. 5. *Pedrocortesella queenslandica* sp. n. A: dorsal side; B: sensillus; C: sculpture of notogastral area

Pedrocortesella dispersa sp. n.

(Fig. 4A–D)

Length: 533 μm ; breadth: 361 μm .

Prodorsum: Sensillus short, capitate with short stalk. Prodorsum foveolated; the mean distance between the foveolae longer than their diameter. Setae *in* rod-like, very small.

Notogaster: With scattered foveolae. The mean distance between the foveolae longer than the diameter of foveolae. 6 pairs of visible notogastral setae: 1 pair near to pori *ip*, 5 pairs in posteromarginal position; two pairs out of five near each other, posteromarginal.

Ventral side: Apodemata evanescent. Epimeral and ventral region; anal and genital plates with scattered foveolae. 7 pairs of very small genital, 1 pair of short aggenital setae; 2 pairs of anal alveoli (anal setae evanescent!), 3 pairs of short adanal setae.

Material examined: Australia, Queensland, Bulburin State Forest, 600 m, subtropical rain forest, from leaf litter, leg.: B.B. MONTEITH; 1 holotype.

Remarks: Several *Pedrocortesella* species have short, capitate sensillus: *P. pulchra* HAMMER, 1961 (Peru), *P. monticola* nom. nov. pro *P. africana* J. BALOGH, 1966 nec *P. africana* PLETZEN, 1963, *P. cryptonotus* HAMMER, 1966 (New Zealand), *P. microclava* HAMMER, 1966 (New Zealand); but all these have no scattered foveolae on the notogaster.

Pedrocortesella queenslandica sp. n.

(Fig. 5A–C)

Length: 636 μm ; breadth: 410 μm .

Prodorsum: Sensillus short, capitate, with thin and short stalk. Prodorsum foveolated; foveolae near close to each other, by greater amplification they remind of the cellular structure (as on *P. temperata* sp. n.!).

Notogaster: Foveolated; the foveolae are close to each other (cellular structure!). 2 pairs of visible posteromarginal setae near each other.

Ventral side: Similar to *P. dispersa* sp. n. 7 pairs of genital, 1 pair of aggenital, 2 pairs of anal, 3 pairs of adanal setae.

Material examined: Australia, Queensland, Bulburin State Forest, 600 m, subtropical rain forest, ex leaf litter, leg.: B.B. MONTEITH; 1 holotype.

Remarks: The *Pedrocortesella* species with short, capitate sensillus (*P. africana*, *cryptonotus*, *microclava*) have either more than two pairs of posteromarginal setae or are quite different in notogastral sculpture.