

New genus of Pseudachorutinae (Collembola, Neanuridae)

Wanda Maria WEINER

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Abstract. *Minotaurella* gen. nov. is created and the description of the new species from Crete is given. *Anurida banyulensis* DENIS, 1947 is transferred in the new genus.

Key words: Collembola, Neanuridae, Pseudachorutinae, new genus, new species, Crete.

Wanda Maria WEINER, Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, Sławkowska 17, PL-31-016 Kraków, Poland.

e-mail: weiner@isez.pan.krakow.pl

So far, only a few genera (*Pseudachorutella* STACH, 1949, *Pseudachorutes* TULLBERG, 1871 and *Pratanurida* RUSEK, 1973) of Pseudachorutinae have been found in Crete (ELLIS 1976). In the sample coming from the environs of Rethymnon a new species is discovered. It has to belong to a new genus which shares some characters with the following genera: *Anurida* LABOULBÈNE, 1865; *Lanzhotia* RUSEK, 1985; *Micranurida* BÖRNER, 1901 and *Rusekella* DEHARVENG, 1982.

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Minotaurella gen. nov.

T y p e s p e c i e s. *Minotaurella isabellae* sp. n.

E t y m o l o g y. The genus is named after the mythological monster Minotaur.

D i a g n o s i s. Habitus as in Fig. 1; large head, strong antennae (placed closely together), abdomen VI rather narrow, body coarsely granulated, raised fields (tubercles) present. Antennal segments III and IV fused dorsally, ventral guard sensillum in sensory organ of antennal segment III S-shaped. Dorsoexternal microsensillum and subapical organite present, large apical vesicle simple, irregular and non-retractile. Eyes absent. Postantennal organ present. Maxilla with strong toothed capitulum and two serrated lamellae. Mandibula with 5-6 teeth. Labium with long seta L on very low papilla. Retinaculum absent, vestigial furca reduced to two very low tubercles, slightly marked, with 3-4 microchaetae each. Tibiotarsi with reduced number of setae (13, 13 and 12 in type species); setae T absent, seta M present.

D i s c u s s i o n. *Minotaurella* gen. nov. seems to belong to the group of following genera: *Anurida* LABOULBÈNE, 1865; *Lanzhotia* RUSEK, 1985; *Micranurida* BÖRNER, 1901 and *Rusekella* DEHARVENG, 1982; all characterized by the strong reduction of furca: only a furcal vestige with 1-4+1-4 microchaetae present (DEHARVENG 1982, FJELLBERG 1998, JORDANA et al. 1997, RUSEK 1985). Like *Lanzhotia* RUSEK, 1985 the new genus differs from all other genera by reduced

number of setae on tibiotarsi I, II, III (setae T absent in the new genus and *Lanzhotia* RUSEK, 1985; setae T present in the remaining three genera). *Minotaurella* gen. nov. shares the same type of maxillae with *Anurida* LABOULBÈNE, 1865; while in the three remaining genera the maxilla are simpler. Seta L is present on the labium in the new genus and in *Rusekella* DEHARVENG, 1982; absent in the three remaining genera.

Minotaurella isabellae sp. n.

T y p e m a t e r i a l. Holotype ♀ and paratype juvenile in the Institute of Systematics and Evolution of Animals, Kraków.

T y p e l o c a l i t y. Crete, Rethymnon, Atsipopoulo, soil overgrown with grasses between fig trees, 18.ix.1999; lgt. I. BALUCIŃSKA.

E t y m o l o g y. This species is cordially dedicated to Mrs. Izabella BALUCIŃSKA, who collected this material for me during her tourist trip to Crete.

D i a g n o s i s. Habitus as in Fig. 1; large head, strong antennae (placed closely together), abdomen VI rather narrow, body coarsely granulated, presence of raised fields (tubercles). Antennal segments III and IV fused dorsally; sensory organ of antennal segment III with long guard sensilla, ventral sensillum S-shaped, two internal sensilla very small and globular. Dorsoexternal microsensillum and subapical organite present, large apical vesicle simple, irregular and non-retractile. Eyes absent. Postantennal organ elliptical with 13-15 vesicles. Maxilla with strong toothed capitulum and two serrated lamellae. Mandibula with 5-6 teeth. Labium with long seta L on very low papilla. Retinaculum absent, vestigial furca reduced to two very low tubercles, slightly marked, with 3-4 (two in juvenile) microchaetae each. Thoracic tergum I with 4+4 setae. Tibiotarsi I, II, III with 13, 13 and 12 respectively; seta M present, all T-setae absent. Each even anal valve with two setae hr.

D e s c r i p t i o n. Holotype (female) length 0.50 mm, paratype (juvenile) length 0.38 mm. Colour in alcohol white. Whole body coarsely granulated, raised fields (tubercles) present.

Habitus as in Fig. 1; large head, strong antennae (placed closely together), abdomen VI rather narrow. Antennae shorter than head (about 3/4 of the length of head). Antennal segment I with 6 setae, antennal segment II with 11 setae. Antennae III and IV fused dorsally, ventral separation well marked. Sensory organ of antennal segment III consisting of two small globular internal sensilla, two long subcylindrical guard sensilla (ventral sensillum S-shaped) and four guard setae between them; ventral microsensillum present. Antennal segment IV with rather long ordinary setae, with 6 thick curved sensilla with distinct heel; dorsoexternal microsensillum present, truncated subapical organite present; large apical vesicle simple, irregular and non-retractile, ventral side with few blunt setae (Figs 2 and 3).

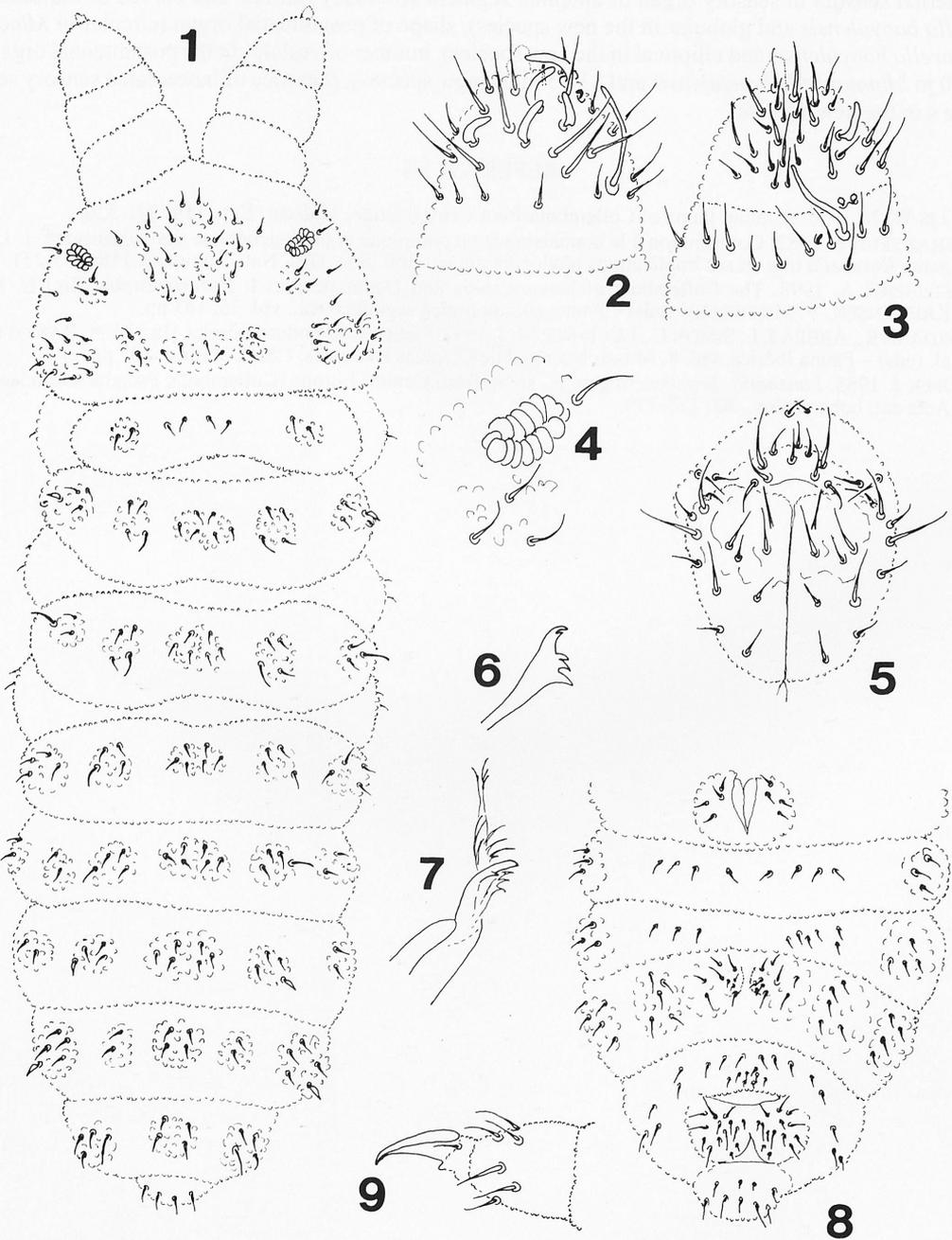
Postantennal organ elliptical (Fig. 4) with 13-15 vesicles. Eyes absent. Buccal cone short. Mandible with 5-6 teeth with three strong basal ones (Fig. 6). Maxilla with two serrated lamellae, ventral lamella two times longer than capitulum. Capitulum with strong apical tooth and one additional tooth, almost at the half of its length. (Fig. 7). Labral chaetotaxy: 4(3)/534. Labium with seta L on low papilla (Fig. 5).

Dorsal chaetotaxy as in Fig. 1, with very short ordinary setae, with sensory setae *s* of two types: longer than ordinary setae and short lanceolated sensory setae *s* on thoracic tergite II and abdominal tergites III and IV. Sensillar formula per half tergum: 022/11111. Setae slightly displaced by the presence of tubercles. Head with setae *d*0, *d*2-5, *s*d 1-5, *oc*1-3 and *c*3, *p*1-3 present. Thoracic tergum I with 4+4 setae. Abdominal terga I-IV with seta *p*3 present and seta *s* = seta *p*4. Thoracic sterna without setae. Ventral chaetotaxy as in Fig. 8 (with some asymmetries); ventral tube with 4+4 setae.

Retinaculum absent, vestigial furca reduced to two very low tubercles, slightly marked, with 3-4 (two in juvenile) microchaetae each. Each even anal valve with two setae hr.

Tibiotarsi I, II and III with 13, 13 and 12 setae respectively, without setae T1-4, A4-5; seta M present, seta B7 absent on tibiotarsus III. Femora I, II and III with 11, 11 and 10 setae, trochanters I,

II and III with 5, 5, 5 setae, coxae I, II and III with 3, 8 (7 in juvenile) and 7 (6 in juvenile) setae, subcoxae "2" I, II and III with 0, 2 (1 in juvenile) and 2 (1 in juvenile) setae, subcoxae "1" I, II and III with 1, 2 and 2 setae respectively. Claw without inner tooth. Empodial appendage absent (Fig. 9).



Figs 1-9. *Minotaurella isabellae* sp. n. 1 – dorsal chaetotaxy; 2 – antennal segment III and IV (dorsally); 3 – antennal segment III (ventrally); 4 – postantennal organ with setae oc; 5 – labrum and labium; 6 – mandible; 7 – maxillum; 8 – ventral chaetotaxy of abdominal segments I-VI; 9 – tibiotarsus I with claw.

D i s c u s s i o n. The new species is closest to *Minotaurella banyulensis* (DENIS, 1947) comb. nov. These species share the following characters: same type of maxilla, presence of tubercles on the body, the same type of sensory organ of antennal segment III. They differ by: number of sensilla on antennal organ III (five in *Minotaurella banyulensis* and six in the new species), shape of internal sensilla in sensory organ of antennal segment III (subcylindrical and curved in *Minotaurella banyulensis* and globular in the new species), shape of postantennal organ (circular in *Minotaurella banyulensis* and elliptical in the new species), number of vesicles in the postantennal organ (10 in *Minotaurella banyulensis* and 13-15 in the new species), presence of lanceolated sensory setae in the new species.

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