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A new species of the genus *Micranurida* Börner, 1901 from Poland (Collembola: Neanuridae)

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Abstract. *Micranurida bescidica* n. sp. is described from Poland (Beskidy Mountains, Carpathians).

Key words: entomology, taxonomy, Collembola, Neanuridae, Pseudachorutinae, *Micranurida*, new species, Poland.

During faunistic investigations in the "Barnowiec" reserve in the Beskid Sądecki Mountains (Carpathians, S Poland), sponsored by University of Wrocław (grants 2020/W/IZ/2003, 1018/IZ/2003), a new species of the genus *Micranurida* Börner, 1901 was found. Its description is given below.

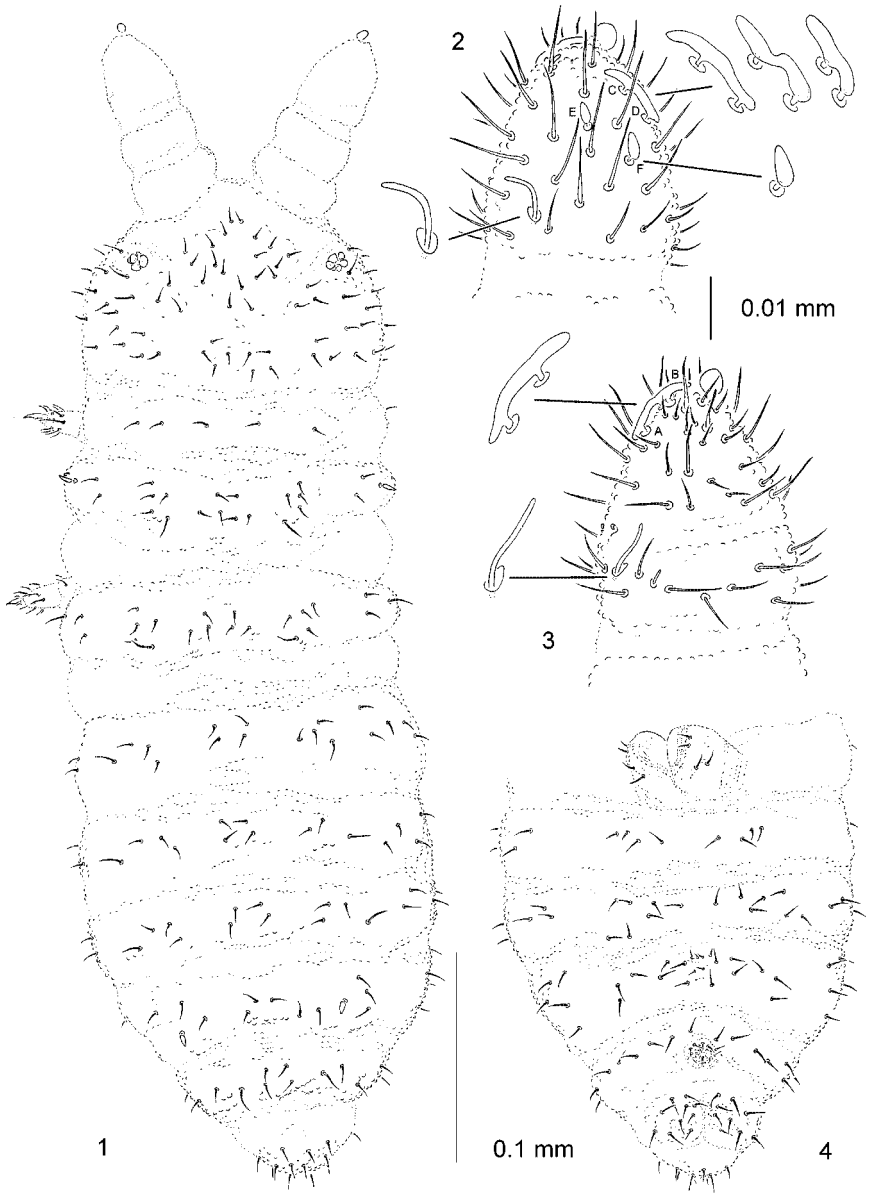
Micranurida bescidica n. sp.

Etymology

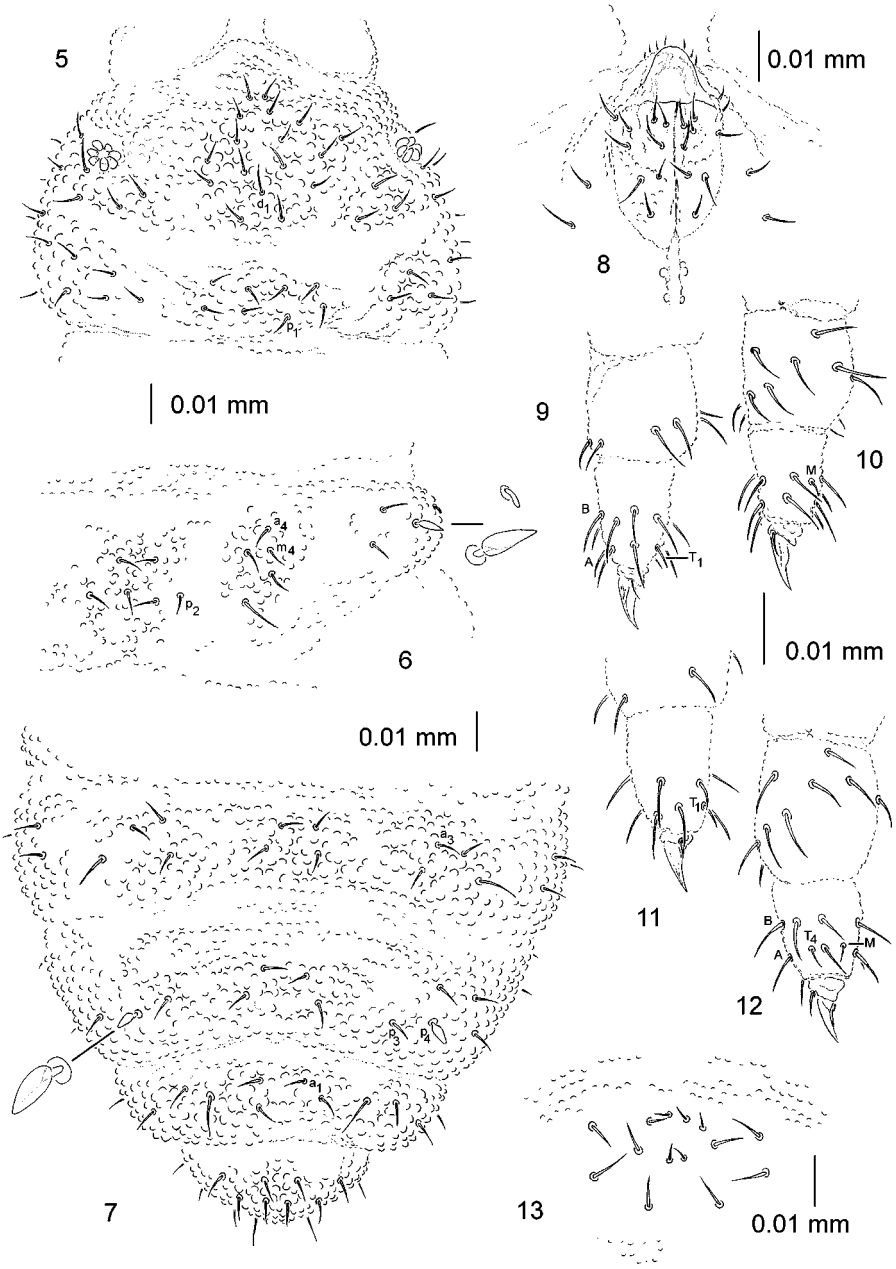
Named after its terra typica, the Beskidy Mountains in Poland.

Diagnosis

M. bescidica n. sp. belongs to the group of blind species characterised by short and thick lateral sensilla on mesonotum and sensilla p_4 on abdominal tergum IV. It is a unique species, well distinguished from all its relatives by fused sensilla A and B, C, and D on antennal segment IV. It is related to *Micranurida sensillata*



1-4. *Micranurida bescidica* n. sp.: 1 – habitus, (2-3) – antennal segments III-IV of left antenna: 2 – dorsal view, 3 – ventral view, 4 – chaetotaxy of abdominal sterna I-VI



5-13. *Micranurida bescidica* n. sp.: 5 – dorsal chaetotaxy and granulation of head, 6 – chaetotaxy and granulation of thoracic tergum II, 7 – chaetotaxy and granulation of abdominal terga III-VI, 8 – labium, (9-10) – tibiotarsus I and femur I with claw: 9 – dorsolateral view, 10 – ventrolateral view, (11-12) – tibiotarsus III and femur III with claw: 11 – dorsal view, 12 – ventral view, 13 – furca rudimentary

(GISIN, 1953) and *Micranurida spirillifera* HAMMER, 1953 (=*endroedi* DUNGER, 1974) sensu FJELLBERG 1998 from which it differs in many characters summarised in Table.

DESCRIPTION

Habitus typical of the genus *Micranurida* BÖRNER, 1901 (Fig. 1). Body length (without antennae) 0.4-0.55 mm (holotype: 0.48 mm). Colour of the body white. Granulation rather homogenous as in Figs 5-7. 4-6 granules between chaetae p_1 on abdominal tergum V (Fig. 7).

Antennae only slightly shorter than head (Fig. 1). Antennal segment I with 7 chaetae, antennal segment II with 9-11 chaetae. Antennal segments III and IV fused dorsally. Antennal III-organ with two small internal sensilla and two equal, cylindrical, slightly curved guard sensilla (Figs 2, 3). Ventral microsensillum on antennal segment III present. Antennal segment IV with erect large simple apical vesicle, small subapical organite, microsensillum and 6 sensilla. Chaeta i absent. Sensilla A, B, C, D large, hammer-shaped, E and F smaller, drop-like (Fig. 2). Sensilla A and B, C and D fused together as in Figs 2, 3. Ventral chaetotaxy of antennal segment IV as in Fig. 3.

Eyes absent. Postantennal organ circular, composed of 5-7 simple vesicles (Figs 1, 5).

Labium without sensory papillae (Fig. 8). Labrum with 2, 3, 5 chaetae, prelabrals 2. Mandibles and maxillae as in *Micranurida pygmaea* BÖRNER, 1901.

Dorsal chaetotaxy as in Figs 1, 5-7. Body chaetae short and fine, smooth, acuminate. Chaeta a_0 on head absent, unpaired chaeta d_1 and chaetae p_1 present. Chaetae a_2 on thoracic terga II-III absent, a_4, m_4 and p_2 present (chaetae a_4 in

Table. Morphological differences between *M. bescidica* n. sp., *M. sensillata* and *M. spirillifera*. Data on the two latter species after DUNGER (1974), SKARŻYŃSKI (1990) and FJELLBERG (1985, 1998). Abbreviations: ant. IV – antennal segment IV, AOIII – antennal III-organ, PAO – postantennal organ, th. II-III – thoracic terga II-III, abd. I-VI – abdominal terga I-VI.

Characters	*M. bescidica* n. sp.	*M. sensillata*	*M. spirillifera*
Number of sensilla on ant. IV	6	5 (sensillum E absent)	6
Chaeta i on ant. IV	absent	present	present
Number of vesicles and shape of PAO	5-7, circular	9-14, oval	7-9, circular
Shape of ventral guard sensillum in AOIII	slightly curved	strongly S-shaped	strongly S-shaped
Localisation of two small sensilla in AOIII	both between guard sensilla	one between guard sensilla, the second outside	both between guard sensilla
Number of cheatae d_1 on head	1	2	1
Chaetae p_1 on head	present	present	absent
Chaetae m_4 on th. II-III	present	absent	absent
Chaetae p_2 on th. II-III	present	present	absent
Chaetae a_3 on abd. I-III	present	absent	absent
Chaetae p_3 on abd. IV	present	absent	absent
Chaetae a_1 on abd. V	present	present	absent
Number of chaetae on tibiotarsi I-III	14, 14, 14	12, 12, 11	17, 17, 16

forward position). Chaetae a_3 on abdominal terga I-III usually present. Chaetae p_3 on abdominal tergum IV present. Chaetae a_2 on abdominal tergum V absent. Sensillar formula of the body 022/11111. Lateral sensilla on mesonotum and sensilla p_4 on abdominal tergum IV short and thick, other sensilla long and thin (Figs 1, 6, 7). Thoracic sterna without chaetae, ventral tube with 4+4 chaetae. Ventral chaetotaxy of abdominal sterna I-VI as in Fig. 4. 6 microchaetae on furca rudimentary (Figs 4, 13).

Tibiotarsi I, II with 14 chaetae each (chaetae T_{2-4}, A_3 and A_6 absent, T_1 in one row with chaetae A, Figs 9, 10). Tibiotarsus III with 14 chaetae (chaetae T_{2-3}, A_3, A_6 and B_7 absent, T_1 and T_4 in one row with chaetae A, Figs 11, 12). Femora I, II, III with 11, 11, 10 chaetae respectively (Figs 9-12). Trochanters with 5 chaetae each. Coxae I, II, III with 3, 6, 7 chaetae respectively. Subcoxae I, II, III with 1, 2, 2 chaetae respectively. Claws without inner tooth. Empodial appendage absent.

TYPES

Holotype: male on slide, rotten wood in a hollow of a beech, beech forest (*Luzulo-Fagetum*) at an altitude 900 m a. s. l., "Barnowiec" reserve near Nowy Sącz (Beskid Sądecki Mountains, Carpathians, S Poland), 9. 05. 2003, leg. A. SMOLIS, D. SKARŻYŃSKI; paratypes: 3 females and 2 males on slides, same data as holotype (type material preserved in the collection of the Department of Biodiversity and Evolutionary Taxonomy, Wrocław University, Poland).

REMARKS

The fused sensilla on antennal segment IV observed in *M. bescidica* n. sp. (two pairs of sensilla fused together in the following arrangement: apex A + basis B and apex D + basis C) are a unique feature within Collembola. Similar character was detected in two species of the genus *Chirolavia* DEHARVENG, 1991. However, members of this genus have only one pair of sensilla fused together at their apex (DEHARVENG 1991).

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