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Wankeliella bescidica, a new species from Poland (Collembola: Onychiuridae: Tullbergiinae)

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ABSTRACT. *Wankeliella bescidica* n. sp. from Poland (Beskid Niski Mountains) is described and illustrated.

Key words: entomology, taxonomy, Collembola, Onychiuridae, Tullbergiinae, *Wankeliella*, new species, Poland.

During faunistic investigations in the „Przełom Jasiołki” reserve (Beskid Niski Mountains, Polish Carpathians) financed by the University of Wrocław (project number 2020/W/IZ/2002-2003), a new species of the genus *Wankeliella* RUSEK, 1975 was found. Its description is given below.

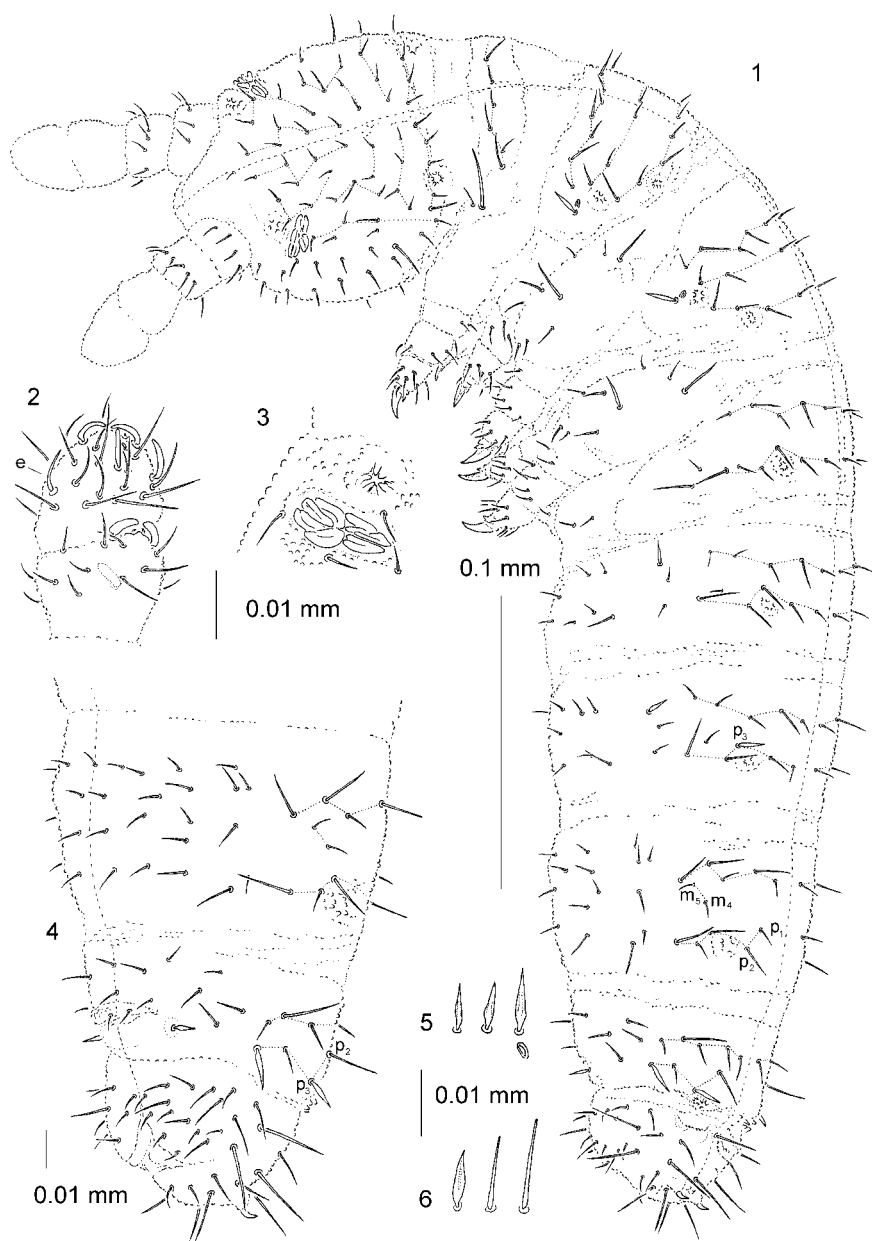
Wankeliella bescidica n. sp.

ETYMOLOGY

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

DIAGNOSIS

The new species is similar to *Wankeliella peterseni* RUSEK, 1975 described from Denmark (RUSEK 1975) but differs from it in the following characters: vesicles in PAO with longitudinal depression or slightly divided into two branches, V-shaped (*W. peterseni* - distinctly V-shaped), sensilla on thoracic terga II-III and abdominal pleurae II-III distinctly thickened, spindle-like (*W. peterseni* - slightly



1-6. *Wankeliella bescidica* n. sp.: 1 - habitus and dorsal chaetotaxy, 2 - dorsal chaetotaxy of antennal segments III-IV (right antenna), 3 - postantennal organ and pseudocellus, 4 - ventro-lateral chaetotaxy of abdominal segments IV-VI, 5 - sensilla on abdominal pleurae II, III, sensillum and microsensillum on thoracic tergum II (from left to right), 6 - sensillum p_3 on abdominal tergum III, sensilla p_3 and p_5 on abdominal tergum IV (from left to right).

thickened), microchaetae p_1 on abdominal tergum IV placed in front of macrochaetae p_2 (*W. peterseni* - macrochaetae p_1 placed in one row with microchaetae p_2), chaetae m_4 and m_5 on abdominal tergum IV present (*W. peterseni* - only one m chaeta present), sensilla p_3 on abdominal tergum V long ($p_3/p_2 > 1/2$) (*W. peterseni* - short, p_3/p_2 ca. $1/3$), sensilla on abdominal sternum V behind the genital plate spindle-like (*W. peterseni* - thin and setaceous).

DESCRIPTION

Habitus typical of the genus *Wankeliella*. Body length (without antennae) 0.44 - 0.45 mm. Colour of the body white. Granulation fine and uniform.

Antennae shorter than head. Antennal segment IV with very small globular subapical vesicle, two subapical sensory rods f and g, four thickened sensilla a-d and thin slender sensillum e (Fig. 2). Antennal organ III consists of two thick large curved sensory clubs and two very small sensory rods. Ventral side of antennal segment III with thick sensory club (Fig. 2). Antennal segments I and II with 7 and 11 chaetae respectively.

Postantennal organ 2.2 times longer than the nearest pseudocellus, with 6-7 vesicles in two parallel rows. Vesicles slightly divided into two branches (V-shaped) or not divided but with longitudinal depression (Fig. 3).

Mouth parts typical of the genus, labium of the *Mesaphorura*-type (FJELLBERG 1998).

Pseudocellar formula: 11/022/11111. The arrangement of pseudocelli as in Fig. 1. Pseudocelli circular, star-like (type I, *Mesaphorura*-type) (WEINER & NAJT 1991).

Chaetae differentiated into macro- and microchaetae (macrochaetae two times longer than microchaetae). Dorsal side of the head with unpaired medial chaeta v_0 . Dorsal chaetotaxy (Fig. 1) has the following formula:

	thorax			abdomen				
rows	I	II	III	I	II	III	IV	V
a	-	5	5	5	5	5	5	5
m	4	3	3	1	1	1	2	-
p	-	4	4	5	5	5	5	4
pl	2	3	3	2	3	3	6	1

Thoracic terga II-III with thickened spindle-like sensilla and oval microsensilla (Figs 1, 5). Sensilla on abdominal pleurae II-III also thickened spindle-like (Figs 1, 5). Abdominal tergum IV with microchaetae p_1 placed in front of macrochaetae p_2 (Fig. 1) and two chaetae in m-row (m_4 , m_5). Abdominal tergum V with long spindle-like sensilla p_3 and p_5 (Figs 1, 4). Abdominal tergum VI with two crescentic ridges in anterior part and two small anal spines on low papillae (Fig. 1).

Ventral tube with 4+4 distal chaetae and 2+2 chaetae in basal part.

Abdominal sternum V with a pair of spindle-like sensilla behind the genital plate (encircled in Fig. 4). Anal lobes with chaetae l_2 , and without l_8 .

Tibiotarsi with 11 chaetae each. The arrangement of tibiotarsal chaetae as in *Mesaphorura* (FJELLBERG 1991). Clavate tibiotarsal chaetae absent.

Claws without teeth. Empodial appendage short (1/4-1/3 of inner edge of claw)

TYPE MATERIAL

Holotype: adult female on slide, soil under stone, mountain sycamore maple forest (*Phyllitido-Aceretum*), ca. 400 m a. s. l., north slope of the summit Ostra in the „Przełom Jasiołki” reserve near village Tylawa (Beskid Niski Mountains, Carpathians, SE Poland), 12. 05. 2001, leg. A. SMOLIS, D. SKARŻYŃSKI; paratype: adult female on slide, the same data as holotype, 10. 05. 2003, leg. A. SMOLIS, D. SKARŻYŃSKI. Type material is preserved in the collection of the Department of Biodiversity and Evolutionary Taxonomy, Wrocław University, Poland.

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