

Genus	Vol. 17(4): 471-476	Wrocław, 28 XII 2006
-------	---------------------	----------------------

Endonura carpatica, a new species from Poland (Collembola: Neanuridae: Neanurinae)

ADRIAN SMOLIS

Zoological Institute, Wrocław University, Przybyszewskiego 63/77, 51-148 Wrocław, Poland,
e-mail: adek@biol.uni.wroc.pl

ABSTRACT. *Endonura carpatica* n. sp. is described from Poland (Bieszczady and Beskid Niski Mountains, Carpathians).

Key words: entomology, taxonomy, new species, Poland, Collembola, Neanurinae, *Endonura*.

During faunistic investigations in the eastern part of Polish Carpathians (Bieszczady Mts and Beskid Niski Mts), sponsored by University of Wrocław (grants 2020/W/IZ/2004-5), a new species of the genus *Endonura* CASSAGNAU, 1979 was found. Its description is given below.

TERMINOLOGY

The terminology and layout of the tables used in this paper follow DEHARVENG (1983), DEHARVENG & WEINER (1984) and GREENSLADE & DEHARVENG (1990).

Abbreviations used: General morphology: abd. – abdomen, ant. – antenna, Cx – coxa, Fe – femur, Scx2 – subcoxa 2, T – tibiotarsus, th. – thorax, Tr – trochanter, VT – ventral tube. Groups of chaetae: Ag – antegenital, An – anal lobes, Fu – furcal, Ve – ventroexternal, Vi – ventrointernal, Vl – ventrolateral. Tubercles: Af – antenno-frontal, Cl – clypeal, De – dorsoexternal, Di – dorsointernal, Dl – dorsolateral, L – lateral, Oc – ocular, So – subocular. Types of chaetae: Ml – long macrochaeta, Mc – short macrochaeta, me – mesochaeta, mi – microchaeta, ms – s-microchaeta, S – or s – chaeta sensalis or sensillum, or –

organite of antenna IV, i – ordinary chaeta on ant. IV, mou – cylindrical sensilla on ant. IV (“soies mousses”), x – labial papilla x.

***Endonura carpatica* n. sp.**

ETYMOLOGY

Named after its terra typica, Carpathians.

DIAGNOSIS

The new species is the most similar to *E. tatricola* (STACH, 1951) described from the Tatra Mountains (Poland) and reported from many localities in the Polish and Slovakian Carpathians (STACH 1951; NOSEK 1964, 1969; WEINER 1973, 1981; SMOLIS 2002; SKARŻYŃSKI & SMOLIS 2006; SMOLIS & SKARŻYŃSKI 2006). *E. carpatica* n. sp. can be easily separated from the mentioned species with the following characters: absence of chaetae C, L2 and So2 on head (in *E. tatricola* present), chaeta L4 on head connected with tubercle (L+So) (in *E. tatricola* chaeta L4 free), furca rudimentary without microchaetae (in *E. tatricola* present) and tubercle L on Abd. IV without free chaetae (in *E. tatricola* one chaeta free).

DESCRIPTION

Habitus typical of the genus (Fig. 1). Body length (without antennae) 0.58–1.81 mm. Colour of the body white. Eyes absent.

Types of dorsal ordinary chaetae: macrochaetae Ml and Mc thin, narrowly sheathed, feebly serrated and not pointed (Figs 2, 7, 11); mesochaetae thin and pointed.

Head. Buccal cone rather long. Labrum chaetotaxy 4/2, 4, Chaetotaxy of labium as in Fig. 6 and Tab. 1. Maxilla styliform, mandible thin and tridentate (Fig. 3). Chaetotaxy of antennae as in Fig. 4 and Tab. 1. Apical vesicle distinct, simple. S-chaetae subequal, long and moderately thickened. Chaetotaxy of head as in Figs 2, 6, 8–9 and Tab. 1. Chaetae O, C, E absent, chaeta D free or within tubercle Cl (Figs 8–9). Tubercle (L+So) with 8 chaetae (chaetae L2 and So2 absent). Chaeta A shorter than B.

Thorax, abdomen, legs. Chaetotaxy of th. and abd. as in Figs 1, 5, 10–11 and Tab. 1. Tubercles Di on th. I not differentiated (Fig. 1). Tubercles L on abd. III and IV with 3 and 6 chaetae respectively (Fig. 19). Furcal rudimentary without microchaetae (Fig. 5). Cryptopygy absent (Fig. 1). Chaetotaxy of legs as in Tab. 1. Claw untoothed.

TYPES

Holotype: adult male on slide, litter in a beech forest (*Dentario glandulosae-Fagetum*), valley of small stream, ca. 1000 m a. s. l., N slope of the summit Mała Rawka in Bieszczadzki National Park (Bieszczady Mts., Carpathians, SE Poland), 18.05.2000, leg A. Smolis; paratypes: 1 male and 4 juveniles on slides, rotten

wood in a beech forest (*Dentario glandulosae-Fagetum*), valley of the Bystry stream, ca. 900 m a. s. l., NE slope of the summit Mała Rawka in Bieszczadzki National Park (Bieszczady Mts., Carpathians, SE Poland), 02.10.2004, leg. A. Smolis. Other material: juvenile on slide, same data as holotype; adult female on slide, soil, Na Wierzychowinie cave, top of the Cergowa Mountain, Cergowa reserve near Dukla, ca. 600 m a. s. l. (Beskid Niski Mts. Carpathians, SE Poland), 14.05.2002, leg. A. Smolis & D. Skarżyński (material is preserved at the Department of Biodiversity and Evolutionary Taxonomy, Wrocław University, Poland).

Table 1. Chaetotaxy of *Endonura carpatica* n. sp.

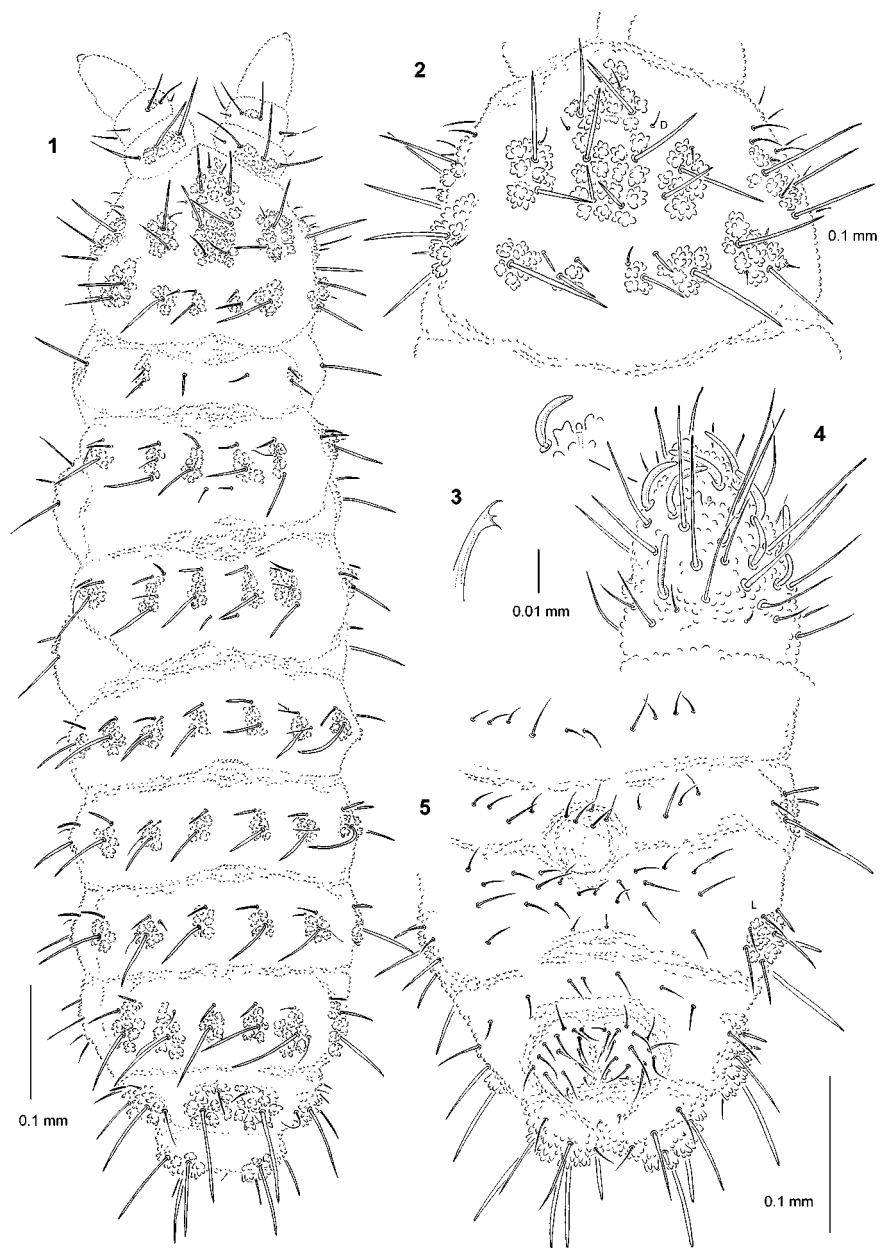
a) Cephalic chaetotaxy

Tubercle	Number of chaetae	Types of chaetae	Names of chaetae
Cl	4	MI Mc	F G
Af	6	MI Mc me	B A D
Oc	3	MI Mc me	Ocm Ocp Oca
Di	2	Mc me	Di1 Di2
De	2	MI me	De1 De2
DI	6	MI Mc me	DI1,DI5 DI3 DI2,DI4,DI6
(L+So)	8	MI me	L1,L4,So1 L3,So3-6

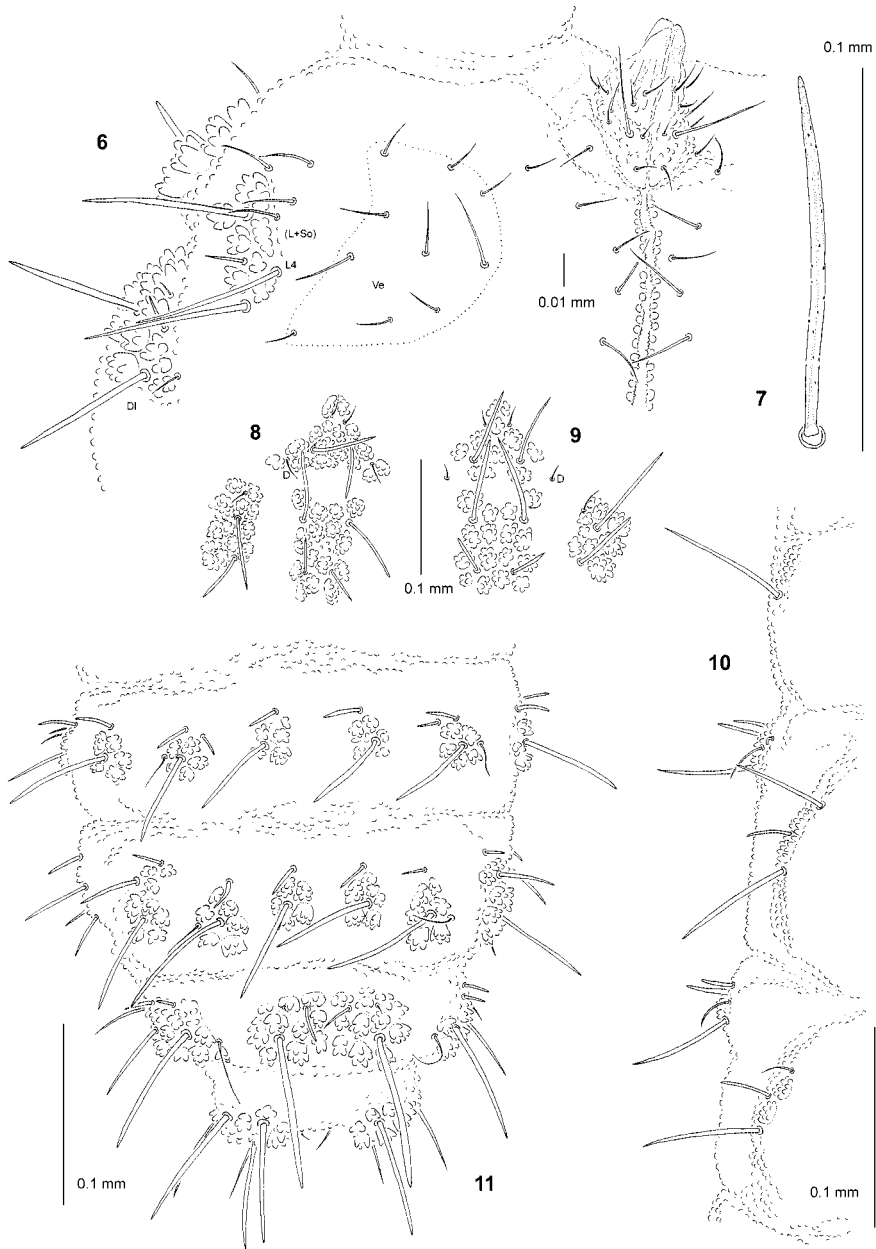
Number of other cephalic chaetae: Vi, 6; Ve, 11; labrum, 4/2, 4; labium, 11, 0x; ant. I, 7; ant.II, 11; ant. III, 18+5s; ant. IV, 8S+i +or+12mou.

b) Postcephalic chaetotaxy.

Terga					Legs				
	Di	De	DI	L	Scx2	Cx	Tr	Fe	T
th. I	1	2	1	-	-	3	6	13	19
th. II	3	2+s	3+s+ms	3	2	7	6	12	19
th. III	3	3+s	3+s	3	2	8	6	11	18
					Sterna				
abd. I	2	3+s	2	3	VT: 4				
abd. II	2	3+s	2	3	Ve: 5 Ve1- present				
abd. III	2	3+s	2	3	Ve: 4-5			Fu: 4-5me 0 mi	
abd. IV	2	2+s	3	6	Ve: 8			VI:4	
abd. V	(3+3)	5+s			Ag: 3			VI:1	
abd. VI	7				Ve: 12-13			An: 2 mi	



1-5. *Endonura carpatica* n. sp.: 1 – habitus and dorsal chaetotaxy, 2 – dorsal chaetotaxy of head, 3 – mandible, 4 – dorsal chaetotaxy of antennal segments III-IV (left antenna), 5 – ventral chaetotaxy of abd. II-VI



6-11. *Endonura carpatica* n. sp.: 6 – ventral chaetotaxy of head, 7 – chaeta DiI of abd. V, 8 – central area on head of specimen from Beskid Niski Mts., 9 – central area on head of specimen from Bieszczady Mts., 10 – lateral chaetotaxy of thorax, 11 – dorsal chaetotaxy of abd. III-VI

REFERENCES

- DEHARVENG, L., 1983. Morphologie évolutive des Collemboles Neanurinae en particulier de la lignée Neanurinae. Trav. Lab. Ecobiol. Arthr. Edaph., Toulouse **4** (2): 1–63.
- DEHARVENG, L., WEINER, W. M., 1984. Collemboles de Corée du Nord III - Morulinae et Neanurinae. Trav. Lab. Ecobiol. Arthr. Edaph., Toulouse **4** (4): 1–61.
- GREENSLADE, P., DEHARVENG, L., 1990. Australian species of the genus *Australonura* (Collembola, Neanuridae). Invertebr. Taxon., **3**: 565–593.
- NOSEK, J., 1964. Some records of Protura and Collembola from the Carpathian mountains. Čas. čes. Spol. Entomol., **61**: 7-18.
- , 1969. The investigation on the Apterygotan fauna of the Low Tatras. Acta Univ. Carol. Biol., Praha **5/6**: 349-528.
- SKARŻYŃSKI, D., SMOLIS, A., 2006. Skoczogonki (*Collembola*) rezerwatu “Śrubita” w Beskidzie Żywieckim. Parki nar. Rez. Przyr. **25**(2): 41-50.
- SMOLIS, A., 2002. Neanurinae (Collembola, Neanuridae) Polski. Phd Thesis, University of Wrocław, 162 pp.
- SMOLIS, A., SKARŻYŃSKI, D., 2006. Springtails of the “Baranowiec” reserve in the Beskid Sądecki Mountains (Polish Carpathians). Proc. State Nat. Hist Mus. Lviv, **22**: 69-77.
- STACH, J., 1951. The Apterygotan fauna of Poland in relation to the World fauna of this group of insects. Family Bilobidae. Acta monog. Mus. Hist. Nat. Cracovie, **1951**: 1-87.
- WEINER, W. M., 1973. Une nouvelle espèce du genre *Neanurella* CASS. des Pieniny (Carpathes, Pologne), Collembola, Neanuridae. Bull. Acad. pol. Sci. Cl. II, Sér. Sci. biol., Warszawa, **21**: 531-534.
- , 1981. *Collembola* of the Pieniny National park in Poland. Acta. zool. cracov., **25**, 18: 417-500.