

ELŻBIETA DUMNICKA

Enchytraeus dominicae sp. n. — nowy gatunek rodziny
Enchytraeidae (*Oligochaeta*) z Polski

Enchytraeus dominicae sp. n. — a new species of
Enchytraeidae (*Oligochaeta*) from Poland

Wpłynęło 22 marca 1976 r.

Abstract — A new species of the genus *Enchytraeus* Henle, closely related to *E. minutus* Niel. et Christ. and *E. norvegicus* Abrahamsen was described from Poland.

It was during the author's trips to the Kraków—Częstochowa Upland that a new species of the genus *Enchytraeus* Henle was found, hence the name *Enchytraeus dominicae* sp.n.

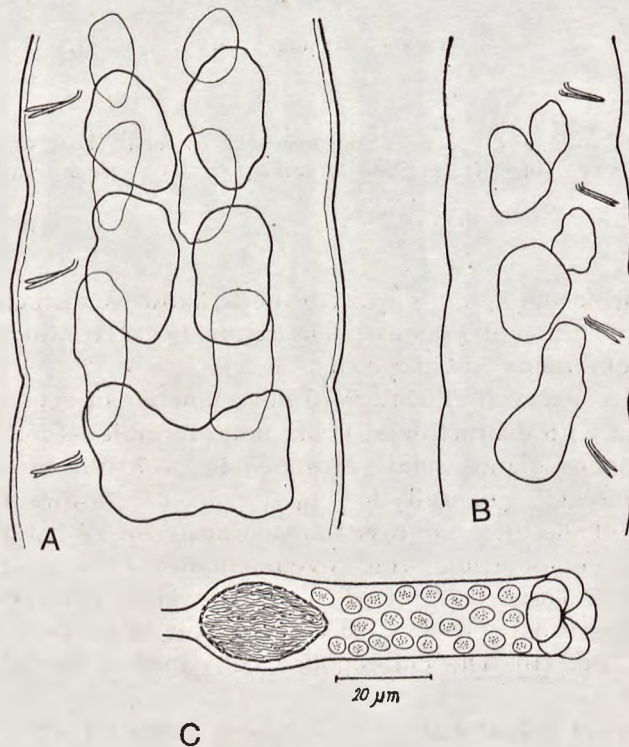
Length of conserved animal: 5—6 mm. Number of segments: 24—31. Setae straight with distinct ental hook. Setal formula as follows: 2—2.3 : 3—3. Cutaneous glands small, arranged in 5—7 transverse rows. On clitellum gland cells generally arranged in irregular rows (fig. 1A). The anterior end of the brain concave and the posterior end slightly rounded or truncated. Peptonefridia well developed, stout, and ending near dissepiment IV/V. Three pairs of primary and three pairs of secondary septal glands present (figs 2A, B). The last pair of primary glands unite middorsally (fig. 1B). The chloragogen cells form a dense layer from segment VI.

Sperm funnel cylindrical or oval-shaped, about 1.5 times longer than wide, with an indistinct collar (fig. 1C). Sperm duct coiled, penial bulb small and compact. Seminal vesicle present in XI and occupying a small part of this segment (fig. 1C). 3—5 eggs were observed at a time. The ampulla of spermatheca a little wider than the ectal duct and tapering

entaly. The ectal duct covered with small glands and with glands around the ectal orifice (fig. 2C). Its length corresponding to 1/2 the length of segment V. Spermatheca communicate with the oesophagus.

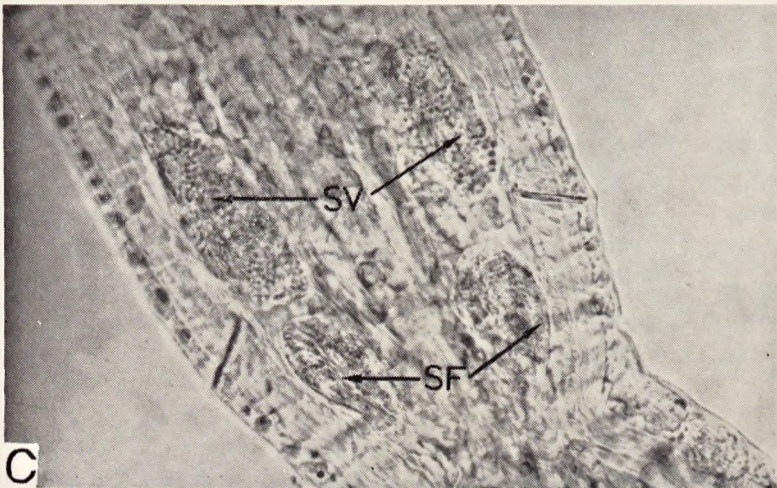
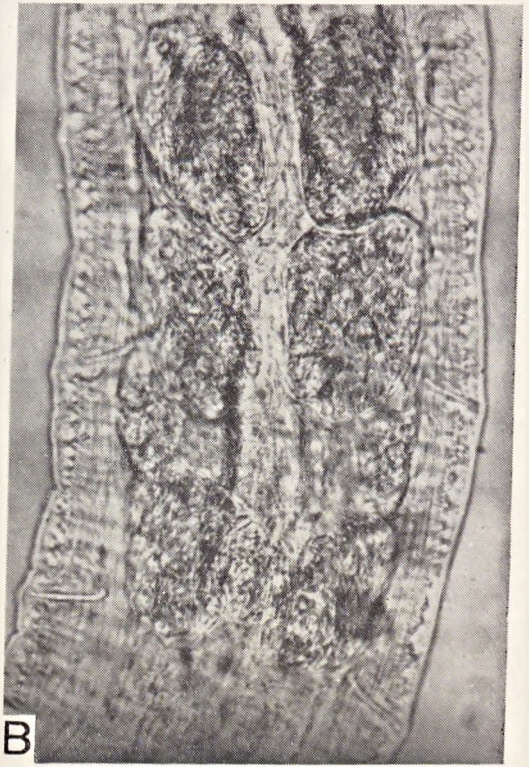
DISCUSSION

The genus *Enchytraeus* Henle was divided into two groups distinguished by the shape and size of the seminal vesicle. The described species belongs to the group with a small seminal vesicle together with *Enchytraeus buchholzi* Vejd., *E. norvegicus* Abrahamson, *E. minutus* Niel. et Christ., *E. mariae* Kasprzak, and *E. bulbosus* Niel. et Christ. (Nielsen, Christensen 1959, 1961, 1963). The main feature which distinguishes the new species is the shape and number of septal glands. Besides this *E. dominicae* sp.n. differ from *E. bulbosus* in



Ryc. 2. *Enchytraeus dominicae* sp.n. A — gruczoły septalne — strona grzbietowa, B — gruczoły septalne — strona boczna, C — zbiorniczek nasienny.

Fig. 2. *Enchytraeus dominicae* sp.n. A — Septal glands — dorsal view, B — Septal glands — lateral view, C — Spermatheca.



Ryc. 1. *Enchytraeus dominicae* sp. n. A — gruczoły skórne na siodelku; B — gruczoły septalne — strona grzbietowa; C — XII—XII segment: SF — lejki nasienne, SV — pęcherzyki nasienne. (Fot. W. Huk)

Fig. 1. *Enchytraeus dominicae* sp. n. A — clitellar glands; B — septal glands from dorsal side; C — XI—XII segments: SF — sperm funnels, SV — seminal vesicles (Phot. W. Huk)

having a small penial bulb and in presence of glands along the ectal duct of the spermatheca. *E. mariae* (Kasprzak 1972) has only the glands around the ectal orifice of the spermatheca, another setal formula, and the anterior end of the brain convex. *E. buchholzi* has a short ectal duct of the spermatheca and long, well-formed ampulla, whereas in *E. dominicae* sp.n. it is the reverse. The structure of the genital organs of *E. minutus*, *E. norvegicus* (Abrahamsen 1969), and *E. dominicae* sp.n. are very similar, though a small difference can be seen in the transition between the ectal duct and ampulla of the spermatheca. In *E. minutus* the ectal duct turns suddenly into the ampulla, in *E. dominicae* sp.n. it turns gently, while in *E. norvegicus* ampulla is indistinct.

Locality: Jaskinia Nietoperza (Bat's Cave) at Jerzmanowice (south part of Kraków—Częstochowa Upland), 447 m a.s.l. January 18, 1976. Leg. E. Dumnicka.

Clay covered with a thin layer of humus, strongly saturated with water, about 20 m from the entrance.

Holotype and 5 paratypes are kept in the Laboratory of Water Biology of the Polish Academy of Sciences in Kraków.

The author wishes to thank Dr. K. Kasprzak for his valuable remarks during the preparation of this paper.

STRESZCZENIE

W pracy opisano nowy gatunek z rodziny *Enchytraeidae* — *Enchytraeus dominicae* sp. n. znaleziony w jaskini Nietoperzowej koło Jerzmanowic (pd część Wyżyny Krakowsko-Częstochowskiej).

Najbardziej charakterystycznymi cechami opisanego gatunku są:

1. 3 pary pierwszorzędowych i 3 pary drugorzędowych gruczołów septalnych. Ostatnia para gruczołów pierwszorzędowych jest połączona w linii środkowej grzbietu.
2. Pęcherzyk nasienny niewielki, zajmuje małą część segmentu XI.
3. Ampuła spermateki trochę szersza niż przewód zewnętrzny i zwężająca się ku końcowi wewnętrznemu. Przewód zewnętrzny pokryty małymi gruczołami, posiada też gruczoły wokół ujścia zewnętrznego.

Struktura narządów rozrodczych *E. minutus*, *E. norvegicus* i *E. dominicae* sp.n. jest bardzo podobna, aczkolwiek zanotowano małą różnicę w przejściu między przewodem zewnętrznym a ampułą spermateki. U *E. minutus* przewód zewnętrzny przechodzi gwałtownie w ampułę, u *E. dominicae* sp.n. przechodzi powoli, a u *E. norvegicus* ampuła nie jest wyodrębniona.

Główną cechą wyróżniającą nowy gatunek jest kształt i liczba gruczołów septalnych.

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