

Notes brèves

ON THE SYSTEMATIC POSITION OF *MONONCHUS BATHYBIUS* MICOLETZKY, 1913 (MONONCHINA : NEMATODA)

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In 1913 Micoletzky described a new species of mononchs, *Mononchus bathybius*, on the basis of one juvenile collected in the bottom mud of Atter Lake, Austria, at a depth of 107 m. He gave no illustrations. The description stressed the similarity to *M. gerlachei* de Man, 1904, the chief difference being the stomatal armature : a subventral tooth near the base of the mouth cavity, and several smaller teeth, the position of which was not indicated. In 1914 he gave a more detailed description with illustrations. The position of the tooth was now given as subdorsal; however, if Figures 26 a and 26 b were drawn from the same side (and this must be the case since the specimen is mounted on a thick glass slide so that it can be studied from one side only, and the head outline as given in Figure 26 a agrees with the outline as it is now, in a slightly flattened state) then the tooth is on the ventral side. Because of the presence of one basal tooth Cobb (1916) brought the species to the subgenus *Iotonchus* Cobb, 1916, raised to generic rank by Pennak (1953). Mulvey (1963) considered *M. bathybius* species inquirenda, because it was described from one juvenile. It should be noted that the genus *Iotonchus* is characterized by the presence of a single, dorsal tooth.

De Coninck (1930) mentioned a specimen from Belgium, but he gave no description nor illustrations.

The holotype is present in Micoletzky's collection. Dr. G. Hartwich, Berlin, had the kindness to lend it to me. The slide is numbered 9 139 and bears the legend :

Table 1

Dimensions of *Mononchus bathybius*

	Micoletzky, 1913	Own measurements
L	0.83 mm	0.91 mm
a	25.6	22
b	3.3	3.4
c	7.85	6.8
c'	—	4.2
Tail length	106 μm^*	134 μm

* Computed.

"Attersee, 107 M tief, August 1912" (left label); "Nematodes, *Mononchus bathybius* mihi, juv." (right label). The specimen is somewhat flattened, but otherwise in fair condition. Dimensions see Table 1.

Figure 1 is a reproduction of Micoletzky's drawing 26 a, Figure 2 shows the head end as observed by me.

The specimen is moulting, which was not recognized by Micoletzky : he regarded the old wall as the inner layer, the new one as the outer layer of the stoma wall.

The old walls are just beginning to be ejected. The distance between old and new walls is small anteriorly, becoming greater posteriorly; this accounts for Micoletzky's statement that the thickness of the walls increases considerably posteriorly. The old stoma has a length of about 22 μm , the new one of 26 μm . The big tooth ("zg" in Micoletzky's illustration) is merely a protrusion of the stoma bottom. Just under the dotted line leading from "zg" to the "tooth" a tooth was drawn on the outer wall and thus not recognized as a tooth. The same holds for the tooth just under the lower dotted line from "zk". The organ marked "po" is no more visible. In reality there is one distinct dorsal tooth on the old wall (the upper "zk"), directed anteriorly; on the new walls there are three teeth of about the same size, in horizontal position : one is the lower "zk", one lies under the lower dotted line from "zk", one under the dotted line from "zg". Due to flattening of the specimen one subventral tooth stands apart from the other three, which might explain Micoletzky's description (one subventral tooth and several other, smaller teeth). The basal plates of both the old and the new stoma are no more visible. The nature of the cardia cannot be determined any more, but the stomatal armature and the broad flat base of the cavity indicates that it must be tuberculate (only the genus *Prionchuloides* Mulvey, 1963 has a rather flat stoma base and a non-tuberculate cardia, but the stomatal armature is quite different). The cuticle on the tail shows fine but fairly distinct transverse striae. A terminal canal and aperture are present, so we may assume that there are caudal glands too.

The presence of three replacement teeth shows that the specimen does not belong in *Iotonchus*. There are

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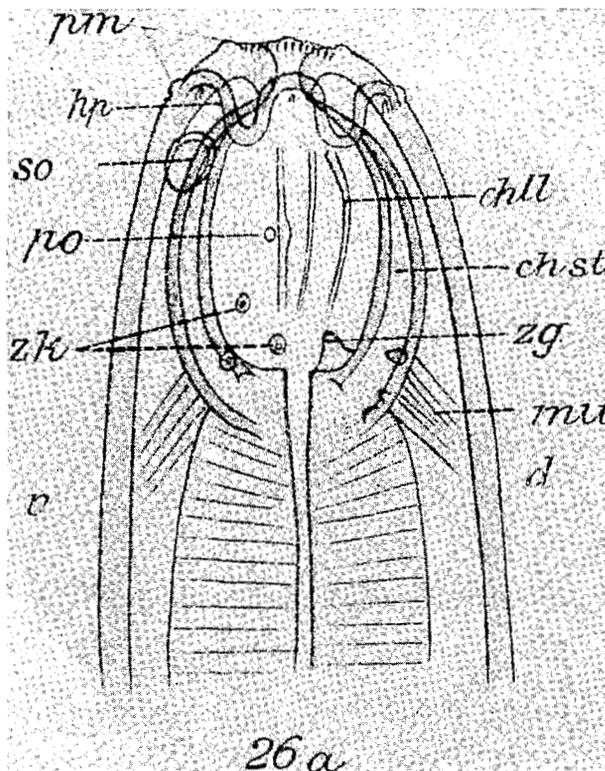


Fig. 1. *Anatonchus bathybius*. Head end. From Micoletzky, 1914 (by courtesy of Gustav Fischer Publishers).

two genera in which younger juvenile stages have one tooth, older ones three, viz. *Miconchus* and *Anatonchus*. Of the genus *Miconchus* only one species is known from Europe, viz. *M. studeri* (Steiner, 1914). In this species the J1 and J2 have only one tooth (Khan & Coomans, 1981). The J2, however, has a much shorter (59-65 μm) and differently shaped tail than *bathybius*. With regard to *Anatonchus*, in *A. amiciae* the J1 is known to possess only a dorsal tooth (Coomans & Lima, 1965). Mulvey (1961) reported the presence of three teeth (directed anteriorly) in the J1 of *A. tridentatus*; from the J2 on the teeth are retrorse. My findings do not agree with those of Mulvey. I found that the J1 in *A. tridentatus* (specimens from soil and from bottom mud of ditches) has also only one (dorsal) tooth, pointing forward. The J2 has three teeth, more or less horizontally directed. From the J3 on the teeth are retrorse. Since there are differences in measurements between Mulvey's and my specimens (see Tab. 2) I suppose that Mulvey's single J1 was really a J2, his single J2 possibly a J3.

Therefore I consider *M. bathybius* a member of the genus *Anatonchus*.

The dimensions of *A. bathybius* agree wholly with those of the J1 of *A. tridentatus*. Moreover in all juvenile stages of the latter species the tail cuticle is distinctly

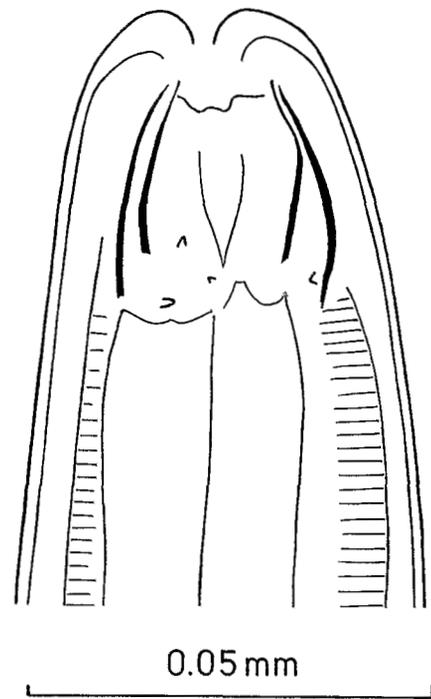


Fig. 2. *Anatonchus bathybius*. Holotype juvenile, head end.

transversely striated. I therefore provisionally synonymize *A. bathybius* (Micoletzky, 1913) with *A. tridentatus* (de Man, 1876). Should new collections at the type locality show that *A. tridentatus* occurs there, then the synonymy can be considered proven.

Table 2
Dimensions of juveniles of *Anatonchus tridentatus*

	J1		J2		J3	
	Mulvey	own	Mulvey	own	Mulvey	own
n	1	3	1	7	1	10
L (mm)	0.83	0.77-0.99	1.4	1.06-1.17	1.6	1.49-1.82
stoma	27 μm	19-22 μm	32 μm	22-26 μm	39 μm	30-37 μm

ACKNOWLEDGMENTS

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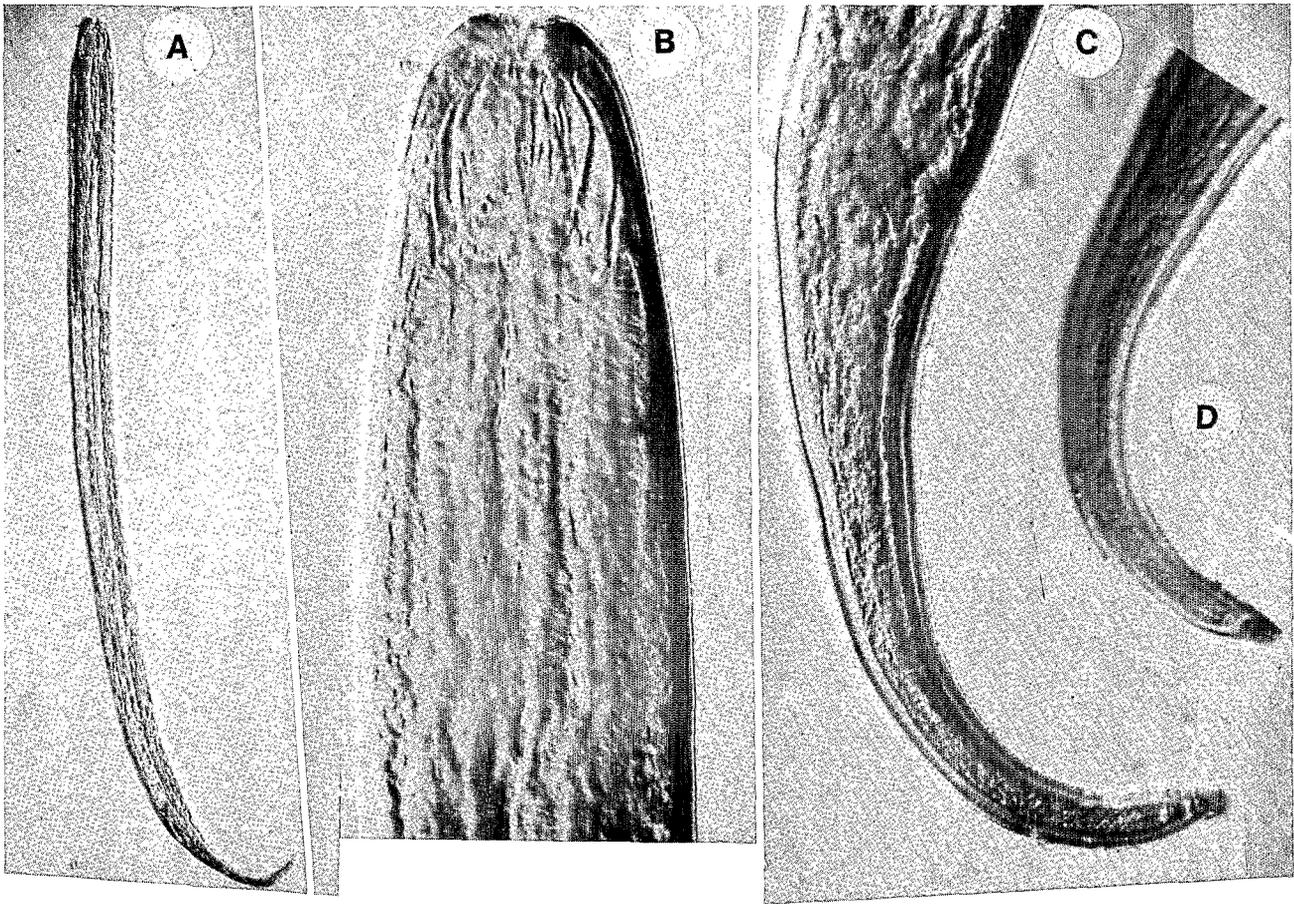


Fig. 3. *Anatonchus bathybius*. Holotype juvenile. A : Whole animal; B : Head end; C : Tail, focused on middle to show annulation; D : Tail, focused on terminus.

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