

***Mylestoma pusillum* Kahl, 1931**

Most likely ID: n.a.

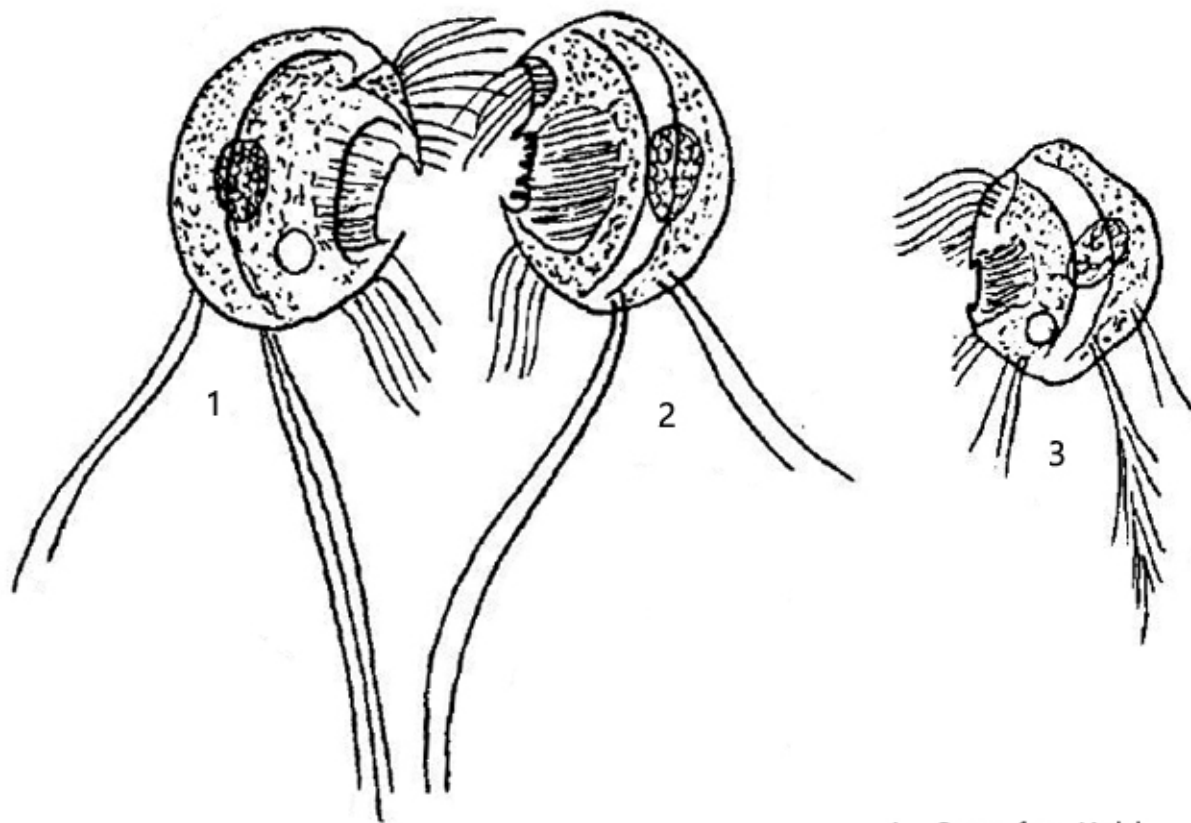
Synonym: n.a.

Sampling location: [Simmelried](#)

Phylogenetic tree: [Mylestoma pusillum](#)

Diagnosis:

- body oval, laterally flattened
- length 14–20 μm
- pellicle armour-like
- no posterior spines
- no frontal tooth
- no indentations at posterior end
- C-shaped longitudinal ridge on right side
- one long cirrus (2 or 3 cilia) at posterior end of left side
- two long dorsal cilia
- large peristome with prominent adoral zone of membranelles
- single macronucleus



1 - 3 = after Kahl

Mylestoma pusillum

The very small odontostomatid ciliate *Mylestoma pusillum* has been studied in more detail only by Kahl, who describes the species as “very rare”. One must assume that his description is based on the examination of a few specimens. I found *Mylestoma pusillum* exclusively in the mud of the [Simmelried](#). It appears there sporadically at longer intervals, but then in large numbers. I found populations so far in October 2008, June 2018, August 2018 and most recently in August 2019.

In my opinion, the drawings of *Mylestoma pusillum* by Kahl (s. drawings above) are quite different from the real shape, as he drew it very oval. However, in living specimens the posterior end appears truncated. But his exact description of the other characteristics allows a definite identification. The species has a C-shaped ridge on the right side (s. drawing 1, figs. 1 a and 3 a). On the left side there is a very prominent groove (s. drawing 2, figs. 2 a and 4 a) and 2-3 cilia at the posterior end, which can reach twice the body length (s. fig. 4 b). At the dorsal margin there are more, shorter cilia. According to my observations there seem to be 2-4 cilia. The oral opening with the adoral membranelles is very large in relation to the size of the ciliate (s. figs. 2 c and 3 c).

The species can be recognized already at smaller magnifications (< Obj. 40) by the very long cilia at the posterior end. *Mylestoma pusillum* has a trembling swimming style and drags these long cilia behind.

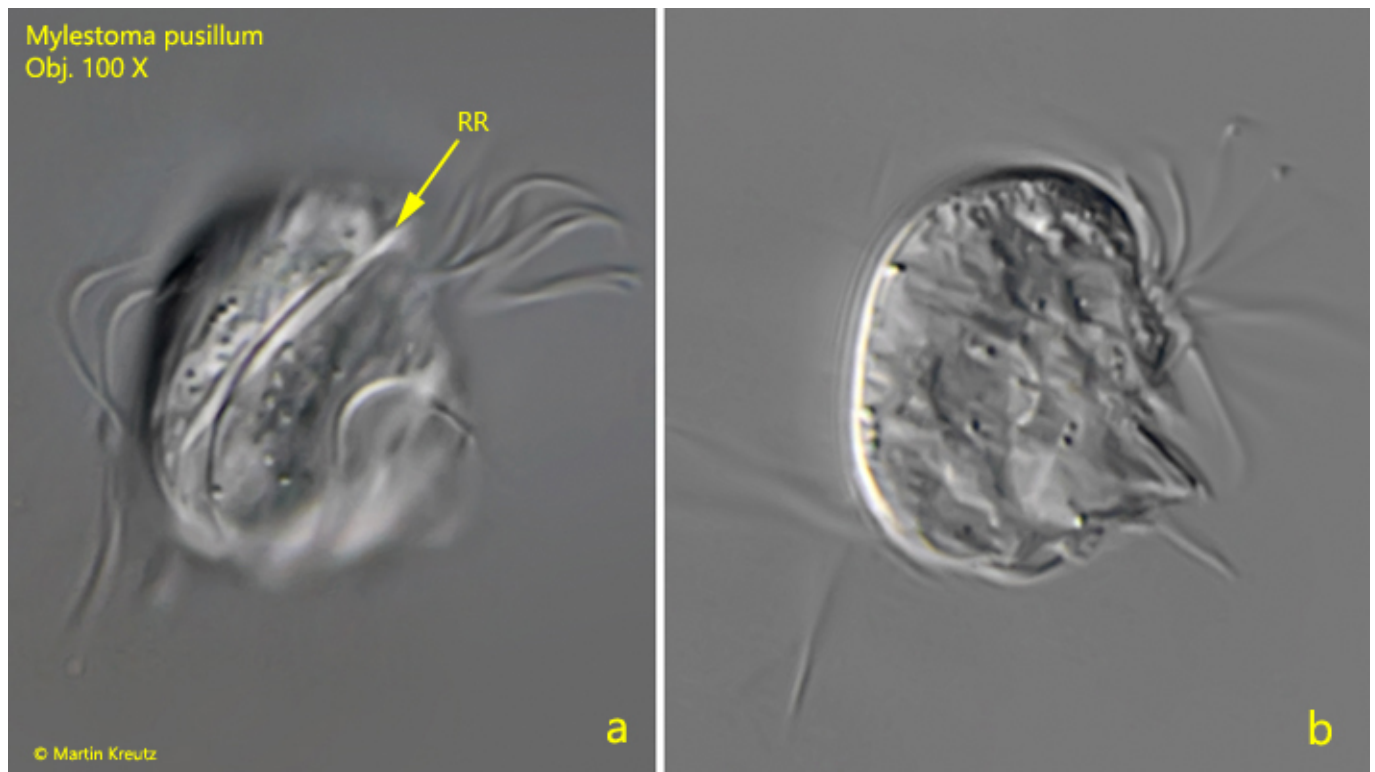


Fig. 1 a-b: *Mylestoma pusillum*. L = 15 μ m. Two focal planes from the right side of a slightly squashed specimen. Note the longitudinal ridge on the right side (RR). Obj. 100 X.

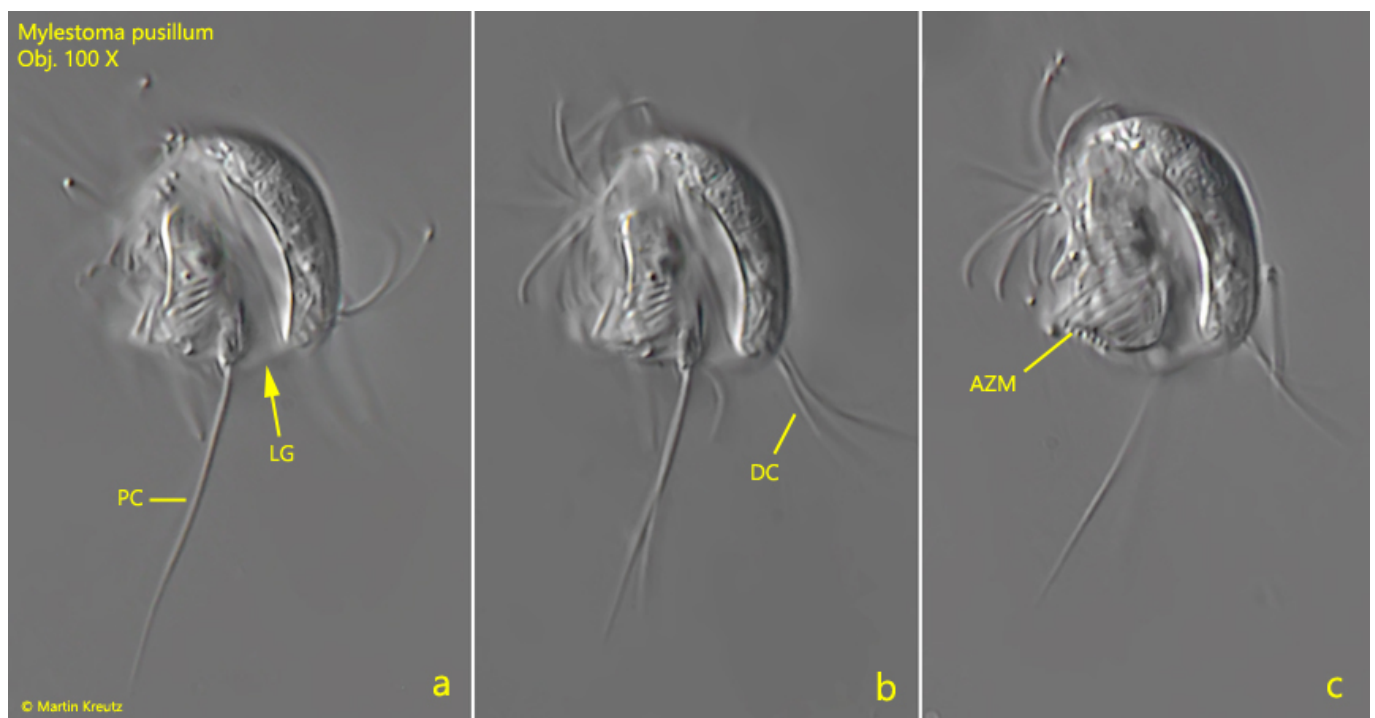


Fig. 2 a-c: *Mylestoma pusillum*. L = 15 μ m. Three focal planes from the left side of

a slightly squashed specimen. Note the longitudinal groove (LG), the long posterior cilia (PC) and two long dorsal cilia (DC). AZM = adoral zone of membranelles. Obj. 100 X.

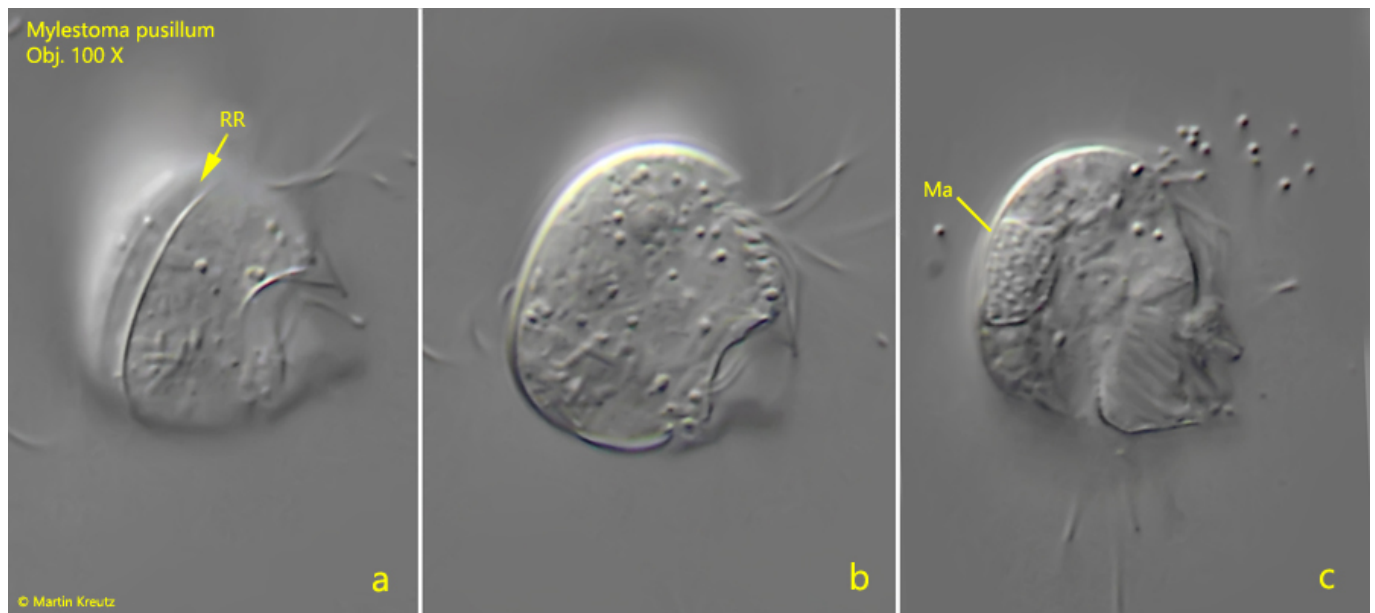


Fig. 3 a-c: *Mylestoma pusillum*. L = 16 μ m. Three focal planes from the right side of a second specimen. RR = longitudinal ridge, Ma = macronucleus. Obj. 100 X.

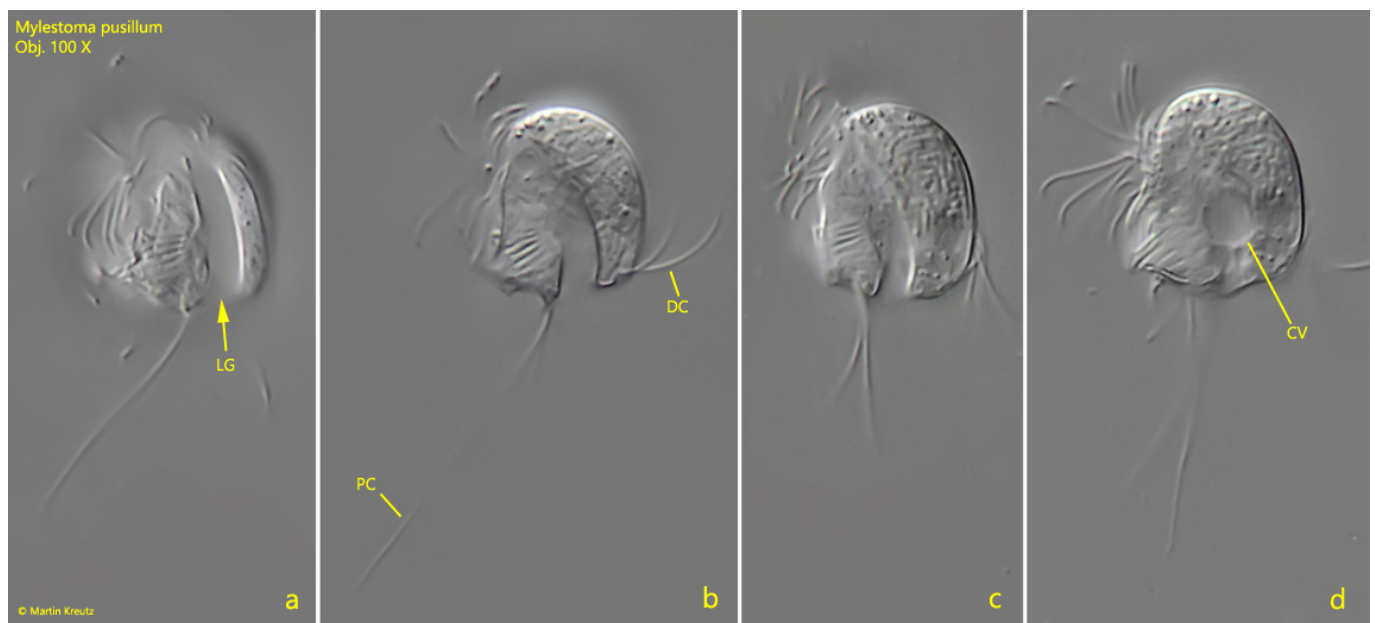


Fig. 4 a-d: *Mylestoma pusillum*. L = 15 μ m. Four focal planes from the left side of a second specimen. CV = contractile vacuole, DC = dorsal cilia, LG = longitudinal groove, PC = posterior cilia. Obj. 100 X.