

***Microthorax pusillus* Engelmann, 1862**

Most likely ID: n.a.

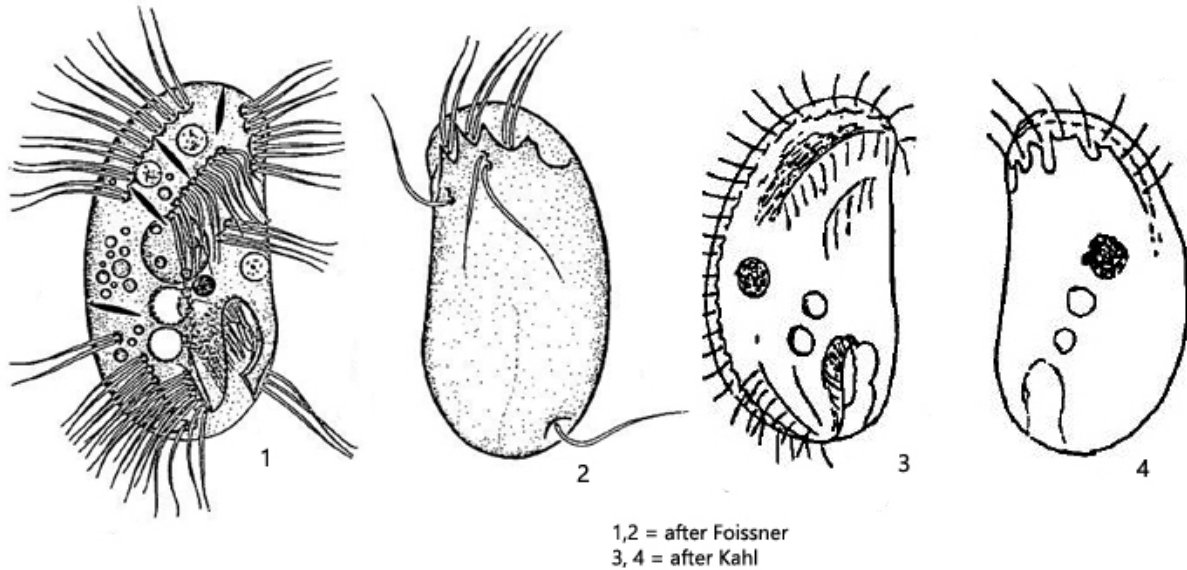
Synonym: n. a.

Sampling location: [Ulmisried](#), [Simmelried](#)

Phylogenetic tree: [Microthorax pusillus](#)

Diagnosis:

- shape semicircular, ventral margin slightly concave, dorsal convex
- flattened laterally
- length 20–35 µm
- right side flat, left side with 2 anterior and 3 small teeth
- right side with 3 rows of cilia interrupted in middle
- three short praeoral rows of cilia
- macronucleus spherical in mid-body
- one spherical micronucleus
- contractile vacuole above mouth opening
- extrusomes spindle-shaped, ejected extrusomes anchor-shaped
- oral apparatus at posterior end of cell



Microthorax pusillus

Microthorax pusillus is a very common ciliate in my sites [Ulmsried](#) and [Simmelried](#). There I find this ciliate in the mud or between decomposing plant masses. In my populations some specimens with 40 μm length were about 10 % larger than given by Kahl and Foissner (s. fig. 3 a-b). Although the ciliate is quite small, it is easily recognized by the bean-shaped body and the mouth opening located at the posterior end. On the right side of the body there are 3 rows of cilia, which are interrupted in the middle of the body (s. fig. 4a). Each cilium in these rows originates in a separate depression in the pellicle, creating a typical chain pattern.

Microthorax pusillus feeds on bacteria but also on purple bacteria. Since the [Simmelried](#) is rich in purple bacteria, I have found several times specimens here, which obviously fed preferentially on purple bacteria (s. figs. 3 a-b and 4 a-b). Thus the specimens also appeared intensely pink at low magnification. At high magnifications, partially decomposed purple bacteria were then visible in the cytoplasm due to the ongoing digestion process.

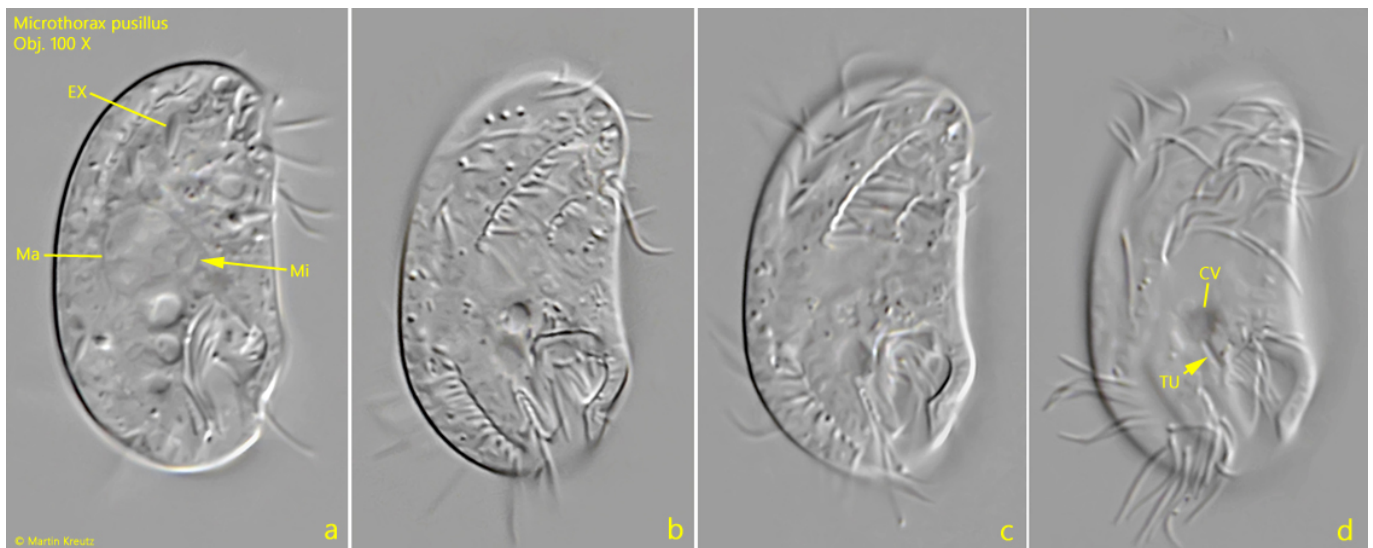


Fig. 1 a-d: *Microthorax pusillus*. L = 28 μ m. Different focal planes of a freely swimming specimen from right. Note the short tube (TU) between the contractile vacuole (CV) and the oral apparatus. EX = extrusomes, Ma = macronucleus, Mi = micronucleus. Obj. 100 X.

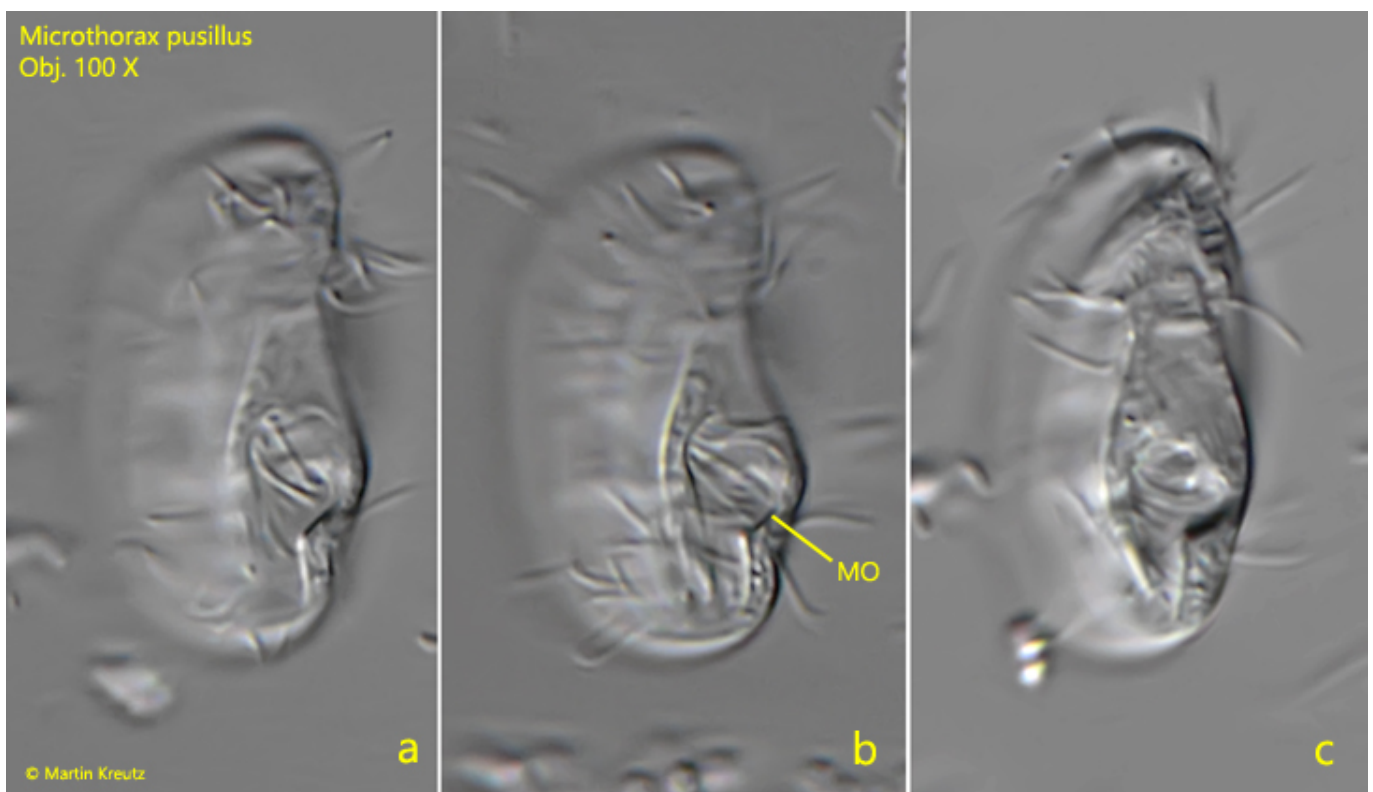


Fig. 2 a-c: *Microthorax pusillus*. L = 25 μ m. Three focal planes of the mouth opening (MO). Obj. 100 X.

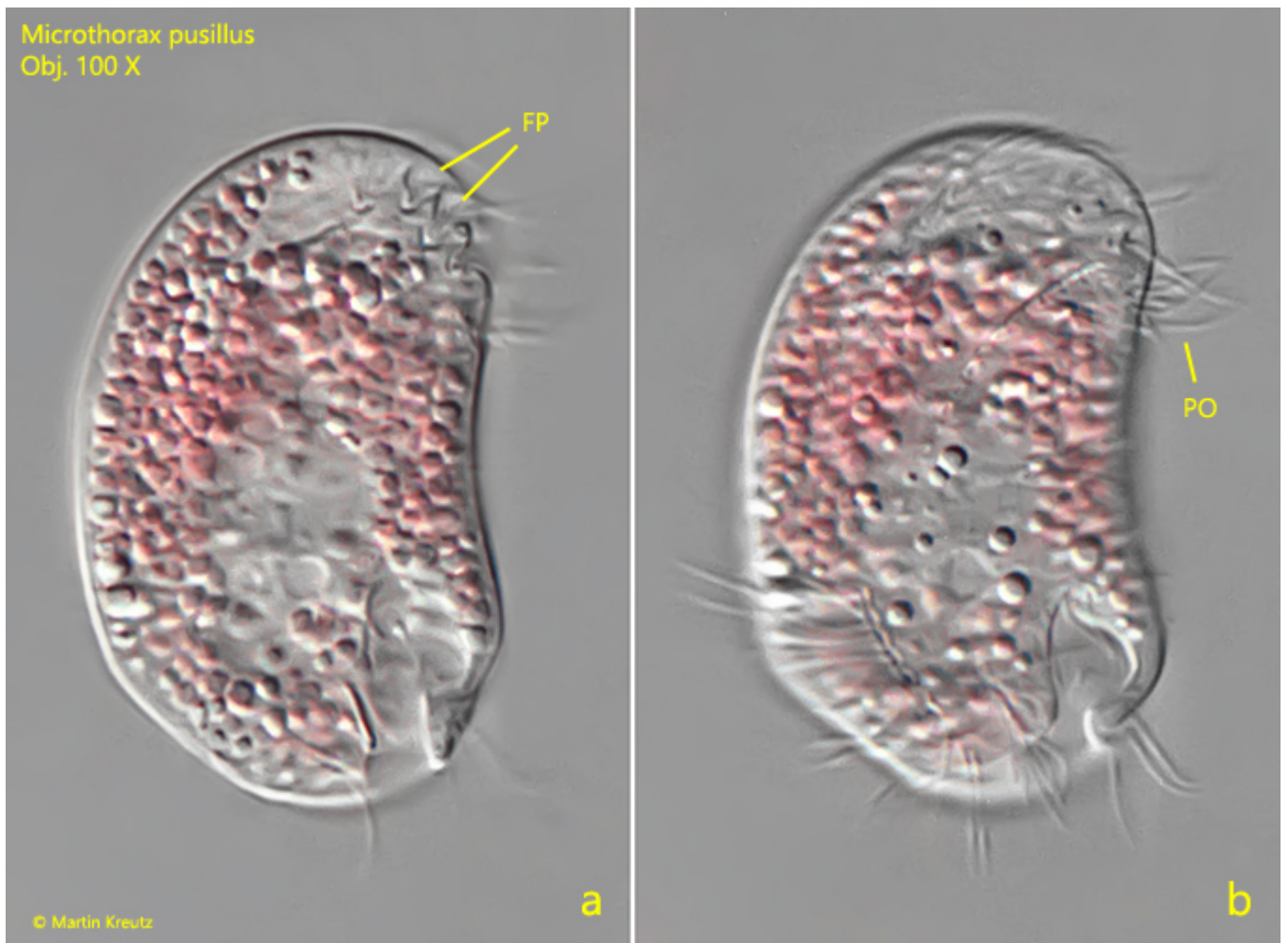


Fig. 3 a-b: *Microthorax pusillus*. L = 40 μ m. Two focal planes of the right side of a specimen that fed on purple bacteria found in March 2003. FP = furrows of praeoral cilia rows, PO = praeoral cilia. Obj. 100 X.

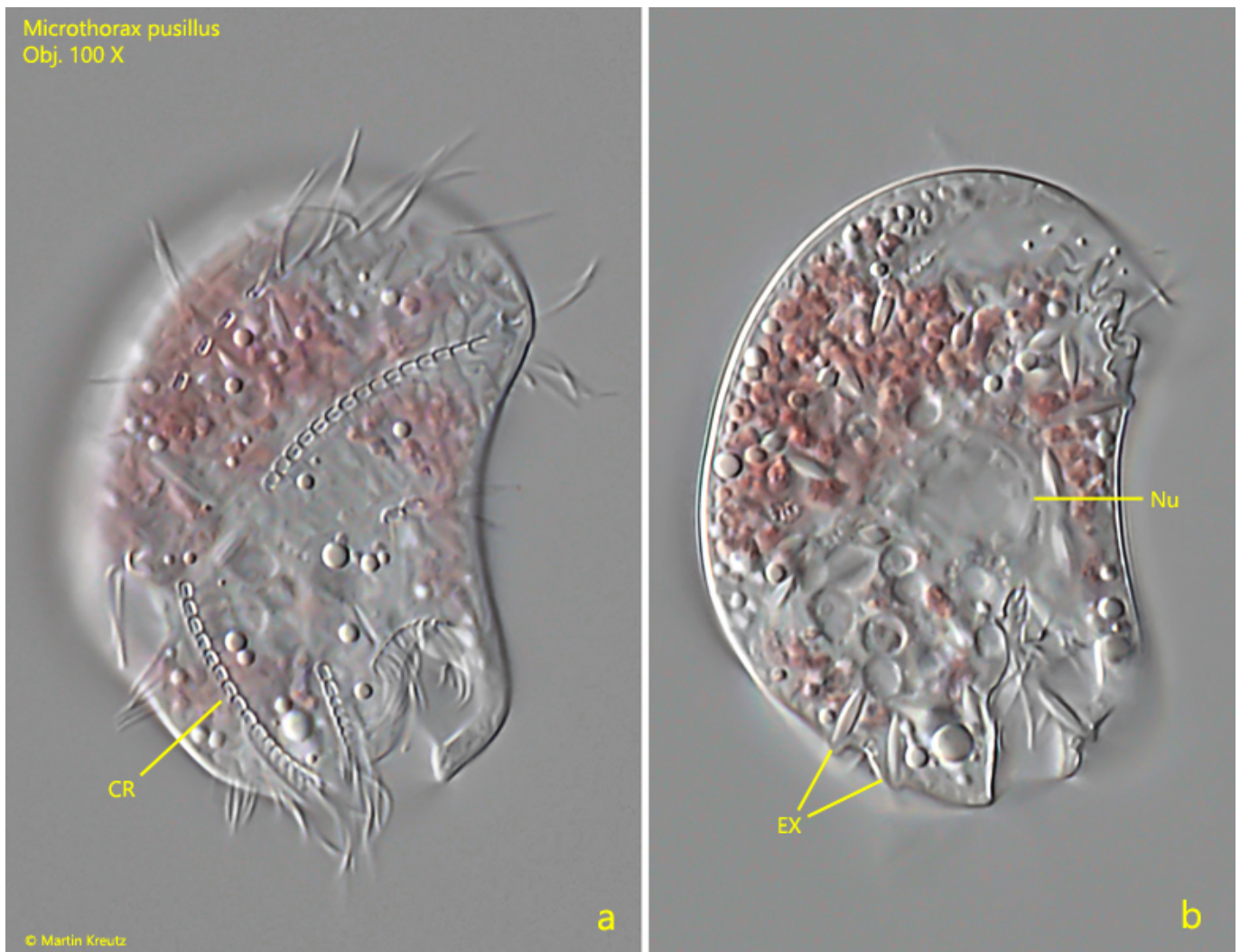


Fig. 4 a-b: *Microthorax pusillus*. L = 38 μ m. Two focal planes of the right side of a second specimen that fed on purple bacteria found in June 2022. CR = interrupted cilia rows of right side, EX = extrusomes, Nu = nucleus. Obj. 100 X.