Microthorax pusillus Engelmann, 1862

Most likely ID: n.a.

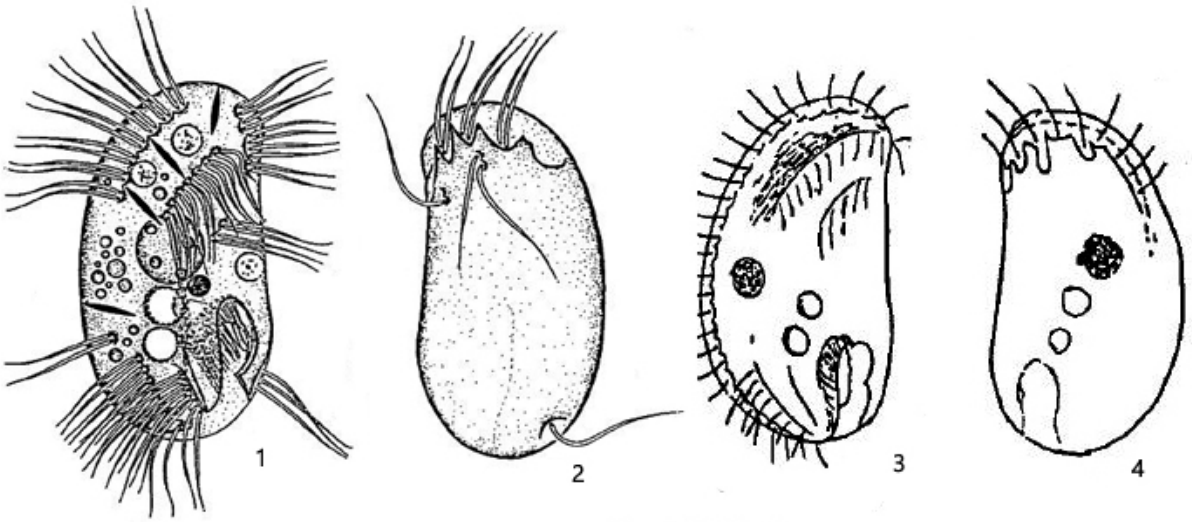
Synonym: n. a.

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

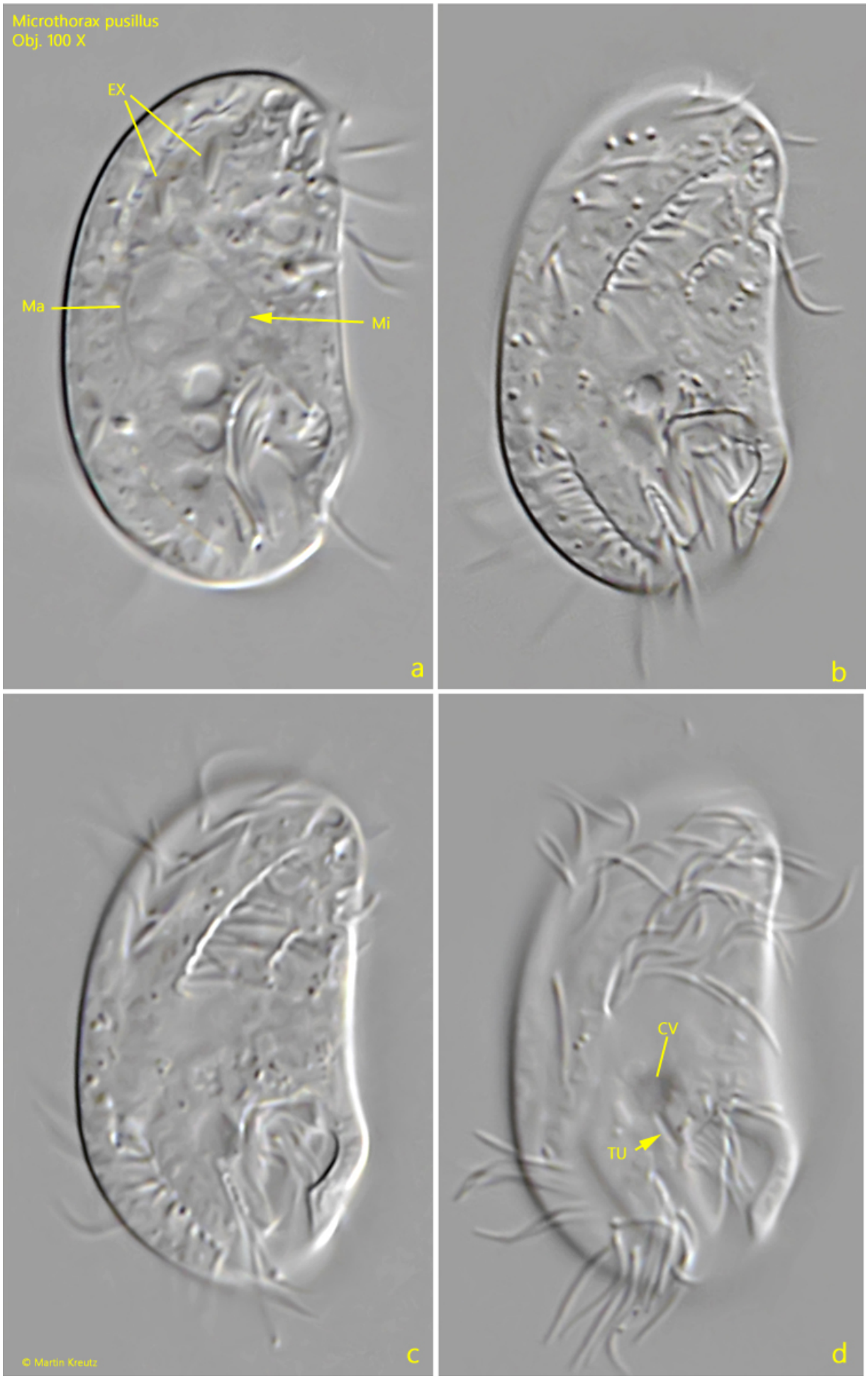

Microthorax pusillus
Obj. 100 X
EX
Ma
Mi
a
b
CV
TU
c
d
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Fig. 1 a-d: *Microthorax pusillus*. L = 28 µm. Different focal planes of a freely swimming specimen from right. Note the short tube (TU) between the contractile vacuole (CV) and the oral apparatus.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

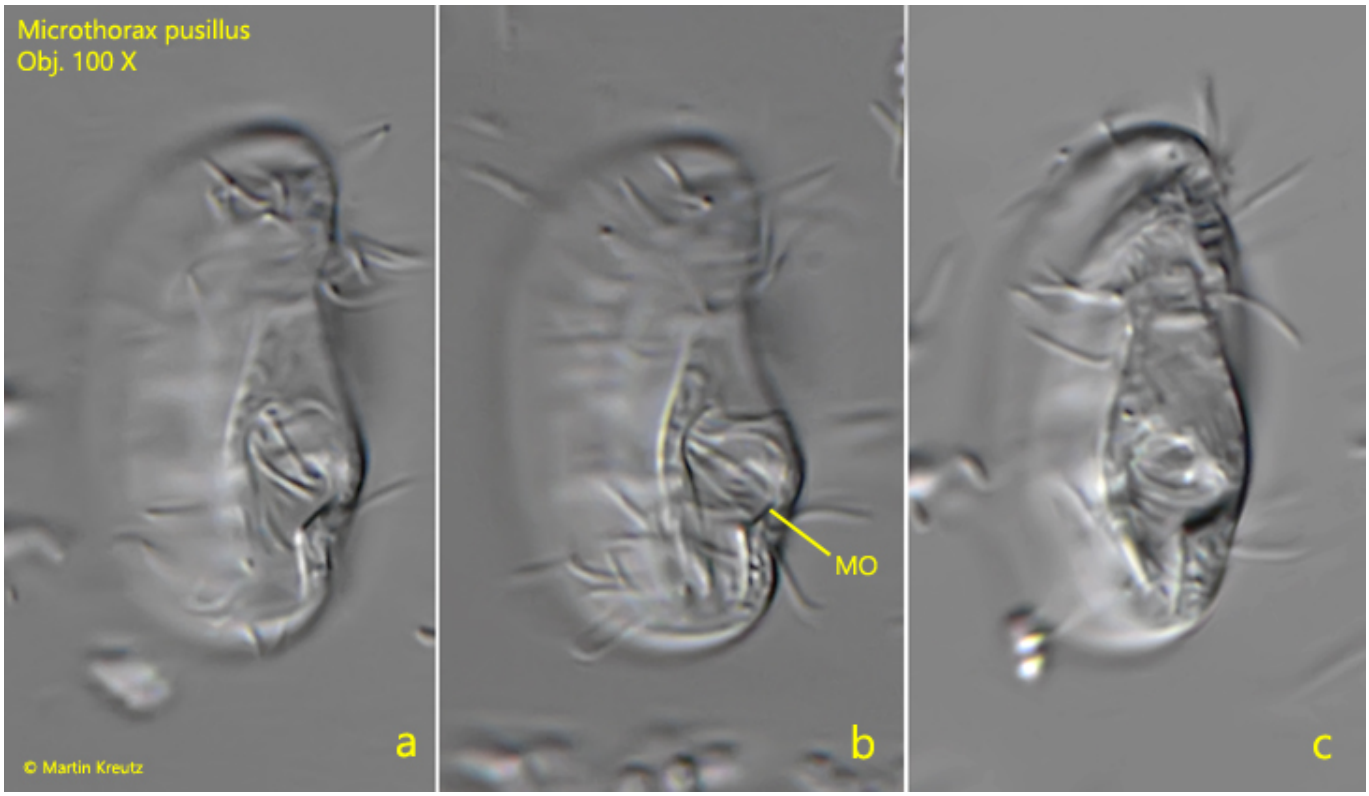

Fig. 2 a-c: *Microthorax pusillus*. L = 25 µm. Three focal planes of the mouth opening (MO). Obj. 100 X.

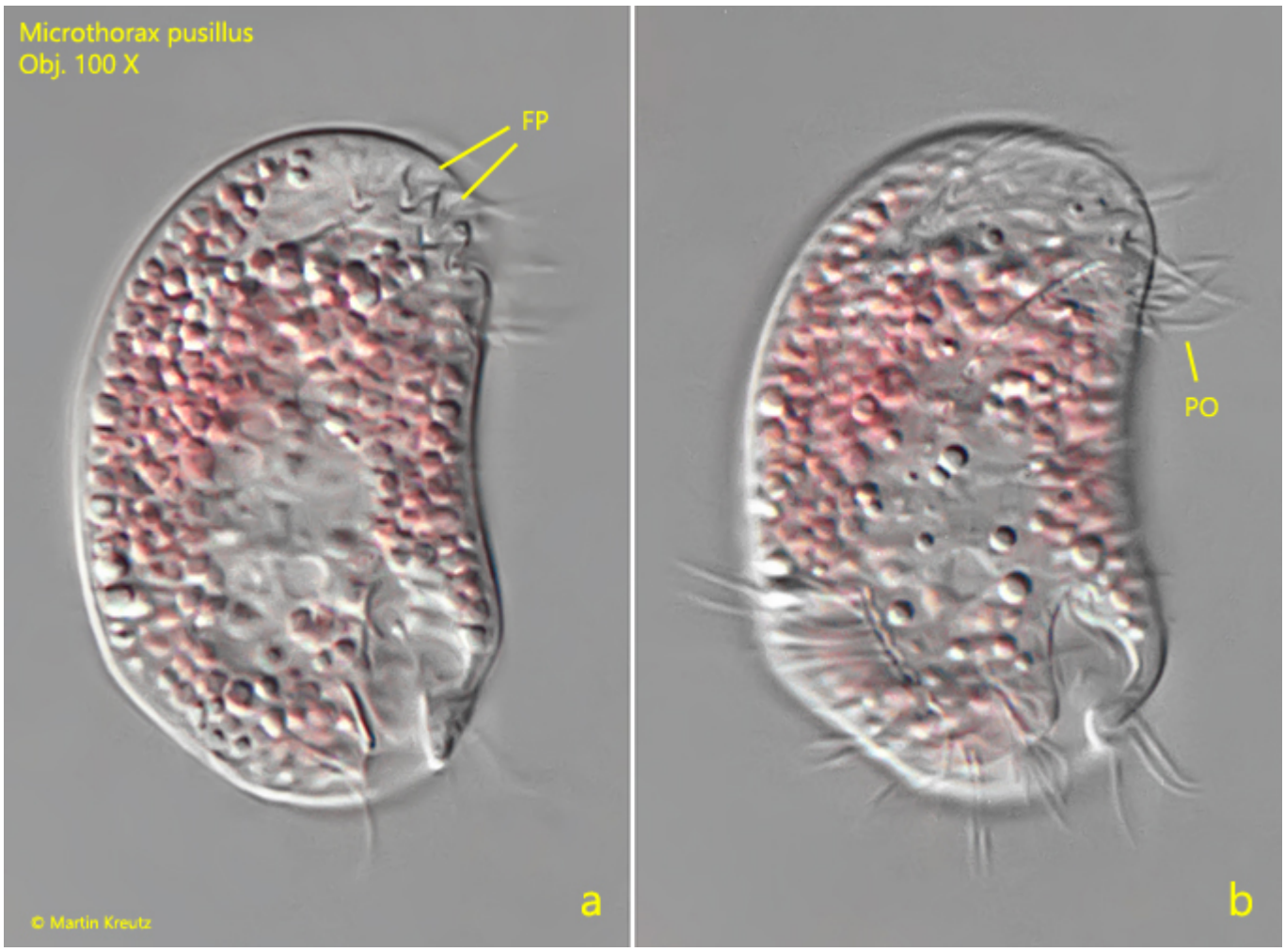

Fig. 3 a-b: *Microthorax pusillus*. L = 40 µm. Two focal planes of the right side of a specimen that fed on rhodobacteria found in March 2003. FP = furrows of praeoral cilia rows, PO = praeoral cilia. Obj. 100 X.

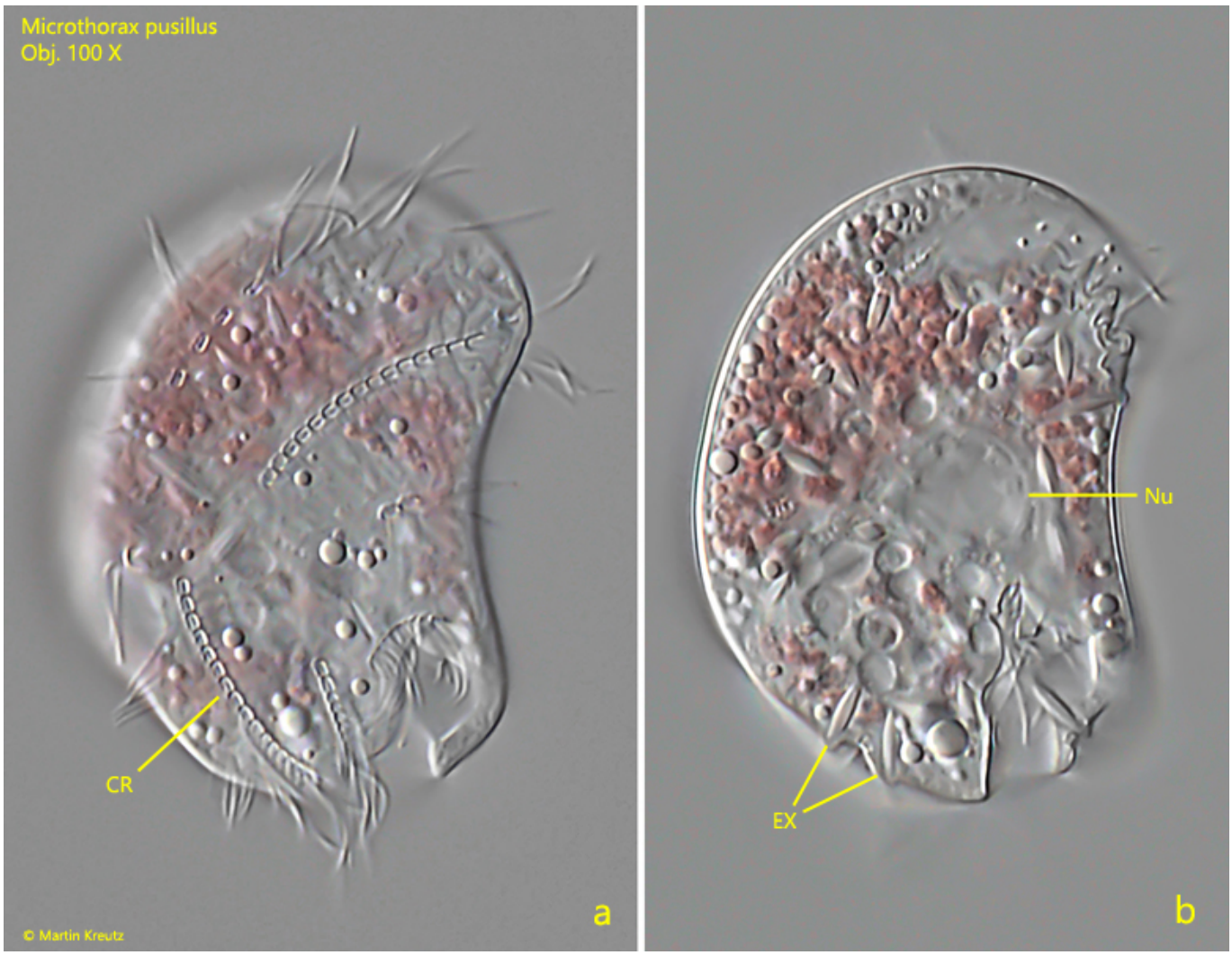

Fig. 4 a-b: *Microthorax pusillus*. L = 38 µm. Two focal planes of the right side of a second specimen that fed on rhodobacteria found in June 2022. CR = interrupted cilia rows of right side, EX = extrusomes, Nu = nucleus. Obj. 100 X.