Cyrtolophosis mucicola Stokes, 1885

Most likely ID: n.a.

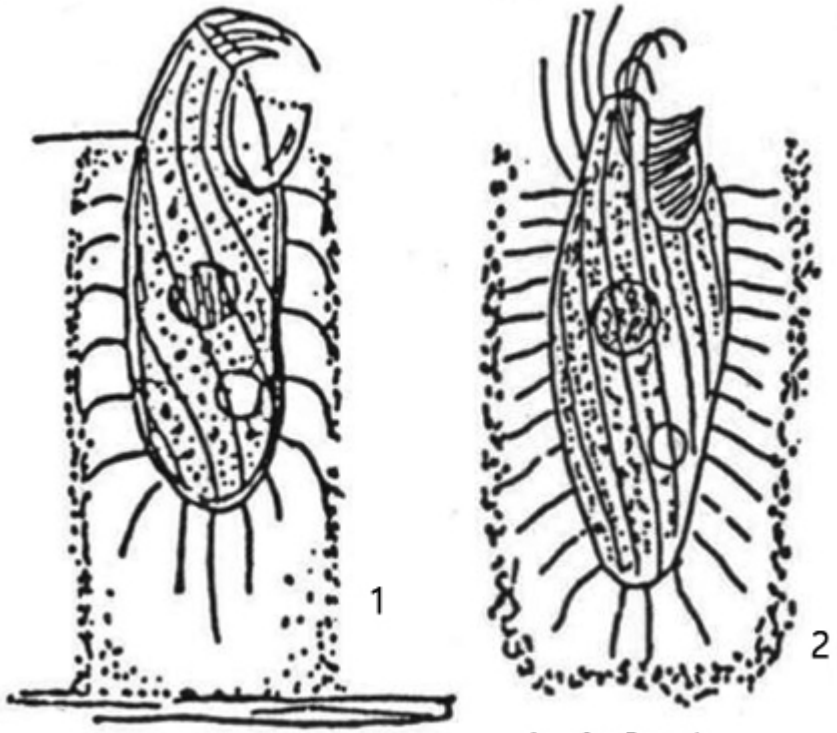
Synonym: n.a.

Sampling location: Simmelried, Bussenried, Mainau pond, Purren pond, Ulmisried

Phylogenetic tree: *Cyrtolophosis mucicola*

Diagnosis:

- body ovoid to pyriform
- live in short, gelatinous tubes (hard to see)
- length 18-39 µm
- oral apparatus anteriorly with 4 adoral membranelles
- uniformly ciliated, slightly spirally
- somatic cilia in pairs
- apical tuft of elongated cilia
- globular macronucleus central
- micronucleus enclosed in outer macronuclear envelope
- contractile vacuole in posterior third
- extrusomes inconspicuous, about 0.5 µm long rods



Cyrtolophosis mucicola

Cyrtolophosis mucicola is a very common ciliate that I find in many of my sampling sites. It likes to settle on the floating coverslip, but also on the vessel walls of old samples. The ciliate builds short, gelatinous tubes that can only be recognized by the adhering bacteria or detritus particles. Colonies of individuals often form.

Cyrtolophosis mucicola is a colpodid ciliate, which is why the somatic cilia are arranged in pairs (s. fig. 5 a). Apically there is a conspicuous tuft of elongated and curved cilia, which is typical for this species (s. fig. 2 f). The mouth opening is short and equipped with only 4 adoral membranelles. The contractile vacuole is located on the border to the posterior third (s. fig. 2 c). The spherical macronucleus lies centrally (s. fig. 2 e), whereby the micronucleus is difficult to recognize, it lies within a membrane which surrounds the macronucleus (s. fig. 5 b).

Cyrtolophosis mucicola can be confused with the similar species *Cyrtolophosis elongata*. However, the latter has a contractile vacuole, which is terminal.

Fig. 1: *Cyrtolophosis mucicola*. L = 30 µm. A specimen in its self-made gelatinious tube. The tube is only visible by the attached bacteria. Obj. 100 X.

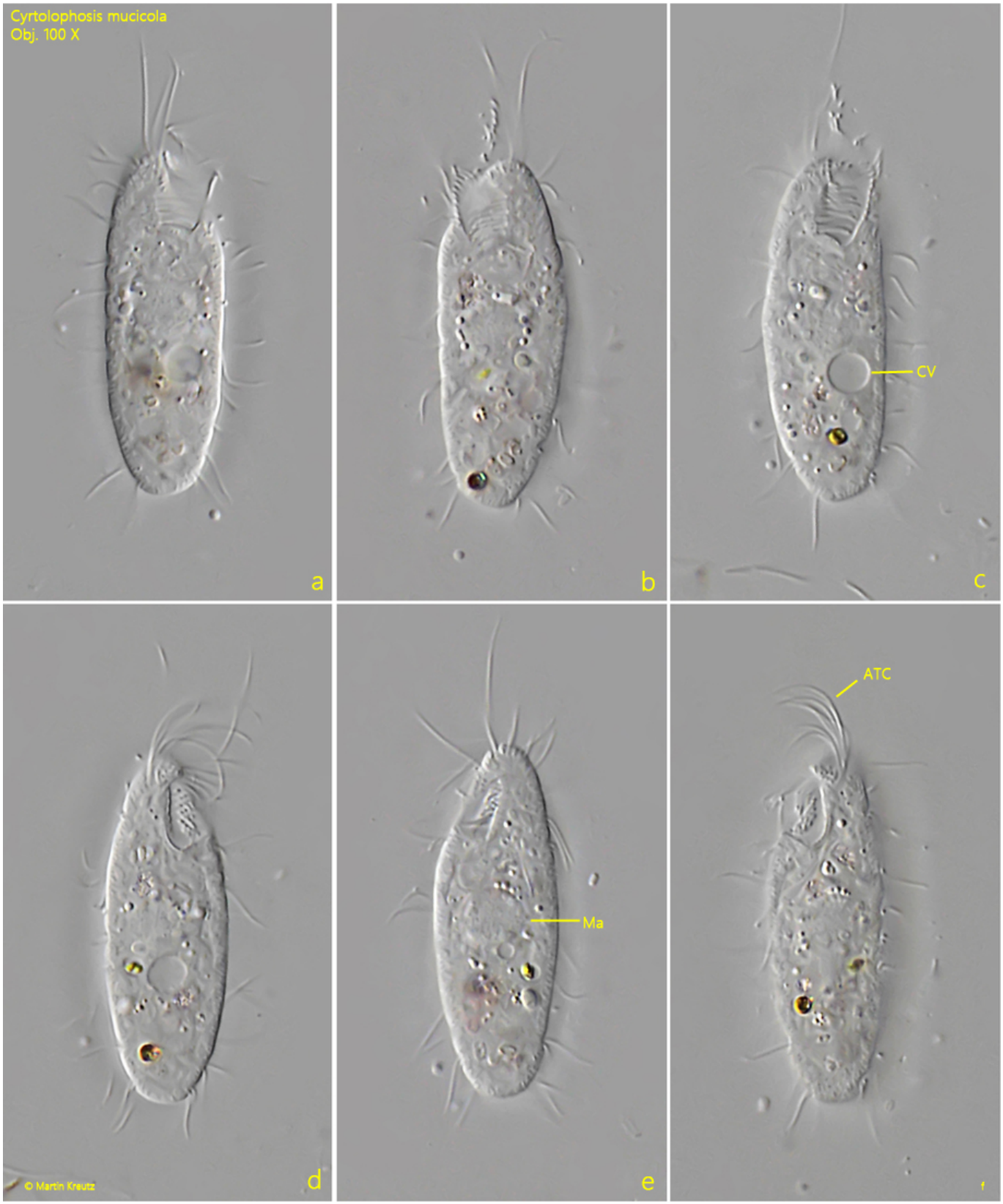


Fig. 2 a-f: *Cyrtolophosis mucicola*. L = 32 µm. Different focal planes of a stretched specimen. Note the apical tuft of cilia (ATC). CV = contractile vacuole, Ma = macronucleus. Obj. 100 X.

Fig. 3: *Cyrtolophosis mucicola*. L = 32 µm. A strongly contrasted image for visualization of the inconspicuous extrusomes (EX) beneath the pellicle with a length of about 0.5 µm. Obj. 100 X.

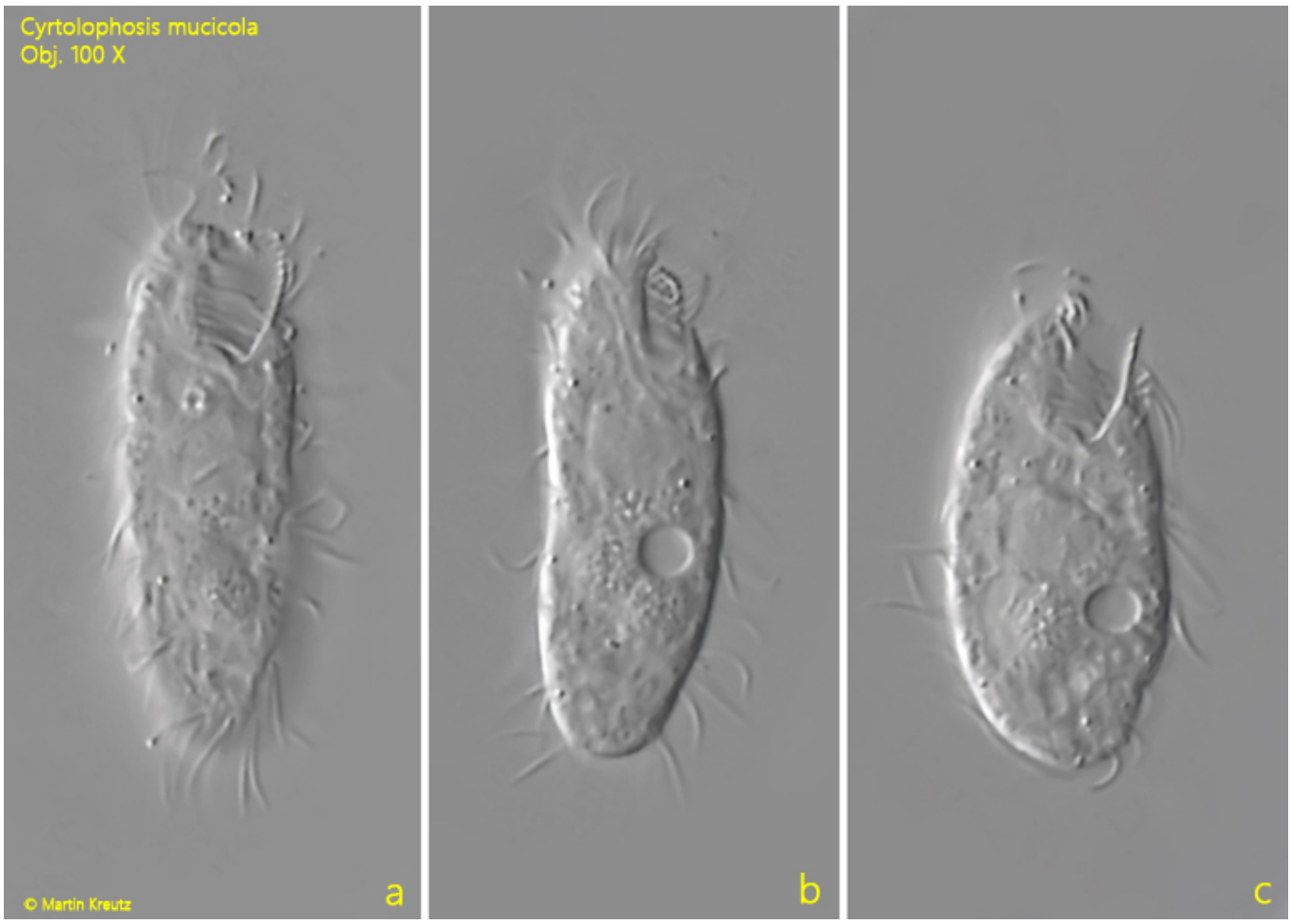


Fig. 4 a-c: *Cyrtolophosis mucicola*. L = 30 µm. A stretched (a) and contracted specimen (c) found in 2019. Obj. 100 X.

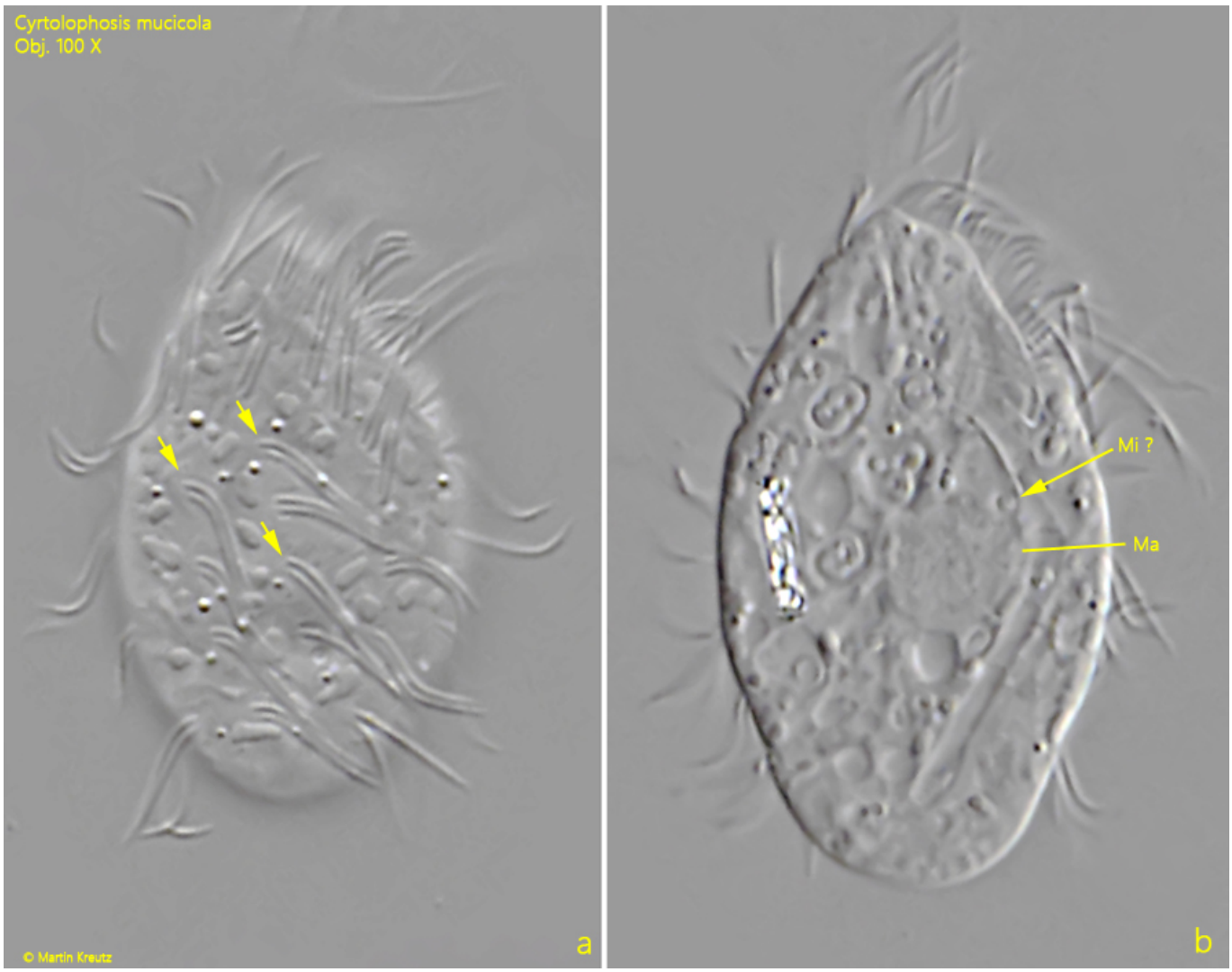


Fig. 5 a-b: *Cyrtolophosis mucicola*. Focal plane on the paired cilia of the somatic ciliation (arrows) and on the macronucleus (Ma) in a strongly squashed specimen. Mi ? = propably the micronucleus. Obj. 100 X.