Euplotes patella

(Müller, 1773) Ehrenberg, 1831

Most likely ID: n.a.

Synonym: n.a.

Sampling location: Simmelried. Purren pond, Bussenried, Pond of the convent Hegne, Pond of the waste disposal company Constance, Mühlweiher Litzelstetten, Hagstaffel pond

Phylogenetic tree: *Euplotes patella*

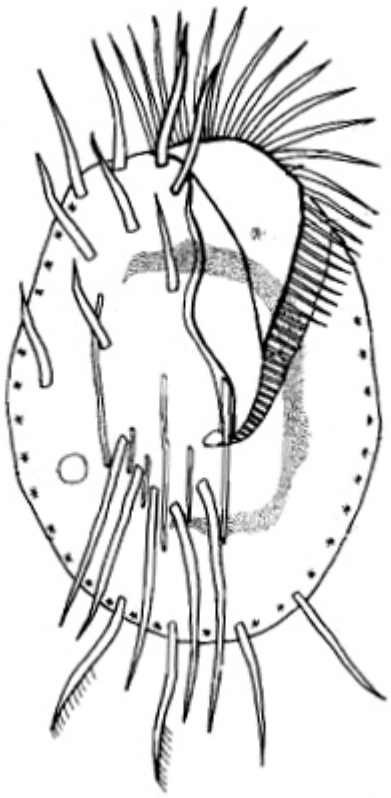
Diagnosis:

- body broadly ellipsoid, dorso-ventrally flattened
- pellicle hyaline, rigid
- length 90–120 µm

- oral apparatus wide open, adoral zone reaches 70 % body length

- ventral side with 6 frontal cirri, 2 frontoventral cirri, 5 transverse cirri, 1 buccal cirrus, 2 left marginal cirri, 2 caudal cirri

- macronucleus C-shaped
- one spherical micronucleus, clearly separeted from macronucleus
- one contractile vacuole on right side below cell equator
- dorsal side with weak ribs, 9 rows of short cilia



Euplotes patella

Euplotes patella is one of the most common hypotriche ciliates. I find it in almost all of sampling sites. It is best observed on the floating coverslip, where it likes to settle.

The specimens in my population of *Euplotes patella* were mostly around 100 µm long. The ventral ciliature of *Euplotes patella* is not quite as complicated as that of other hypotriche ciliates. Thus the left marginal row of cirri is reduced to 2 cirri. There are also only two caudal cirri and 2 frontoventral cirri (s. fig. 3 a). The oral apparatus is wide open. The adoral zone can reach up to 70 % of the body length. The macronucleus is C-shaped with a clearly separated micronucleus. The contractile vacuole is located on the right side of the body below the cell equator.

The species within the genus *Euplotes* are difficult to distinguish from *Euplotes patella*. The two species *Euplotes affinis* and *Euplotes moebiusi* are significantly smaller than 100 µm. *Euplotes eurystomus* is clearly larger than 140 µm and the adoral zone is S-shaped. Finally, *Euplotes aediculatus* is larger than 100 µm and has an adoral zone that extends over the left margin of the body.

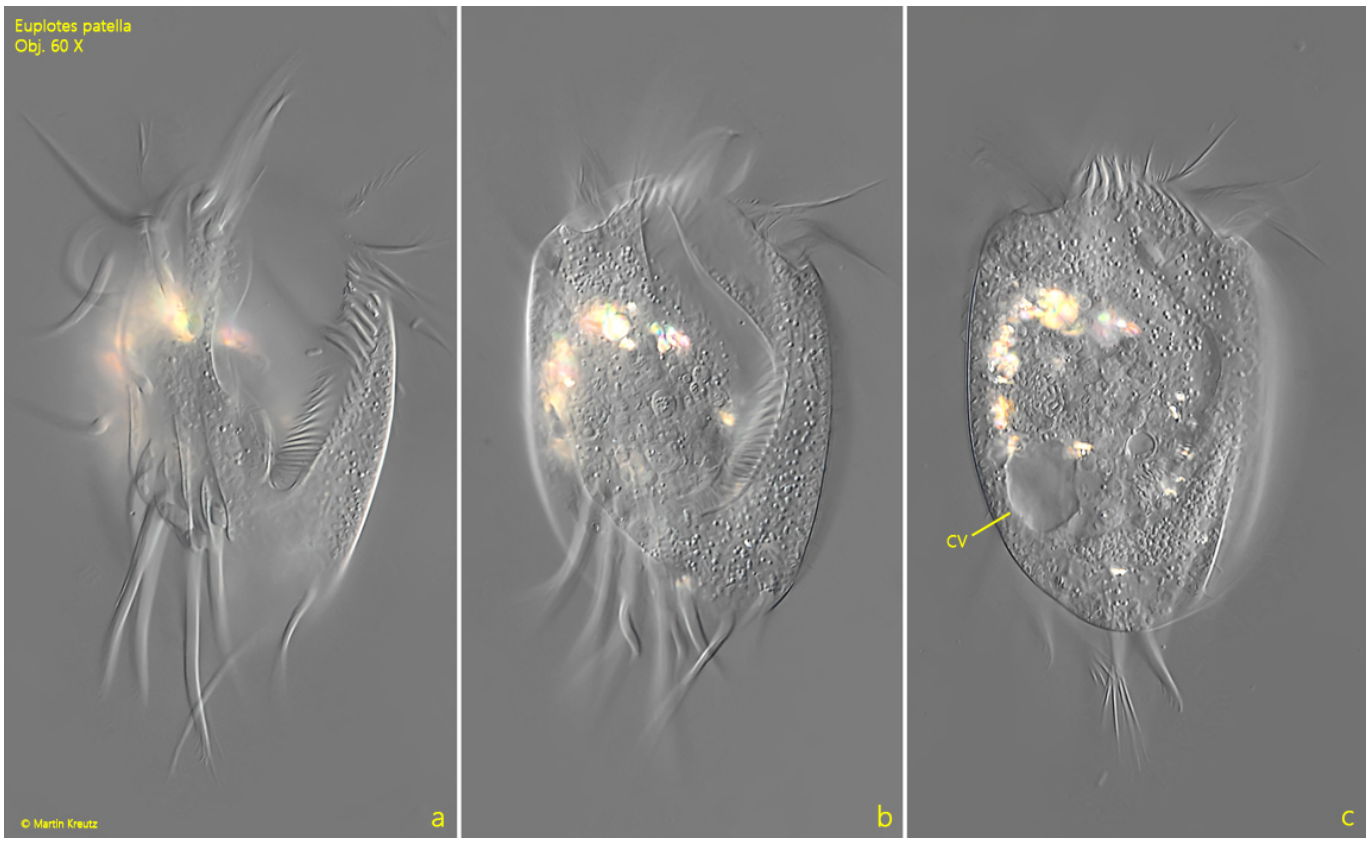


Fig. 1 a-c: *Euplotes patella*. L = 88 µm. A freely swimming specimen from ventral. CV = contractile vacuole. Obj. 60 X.

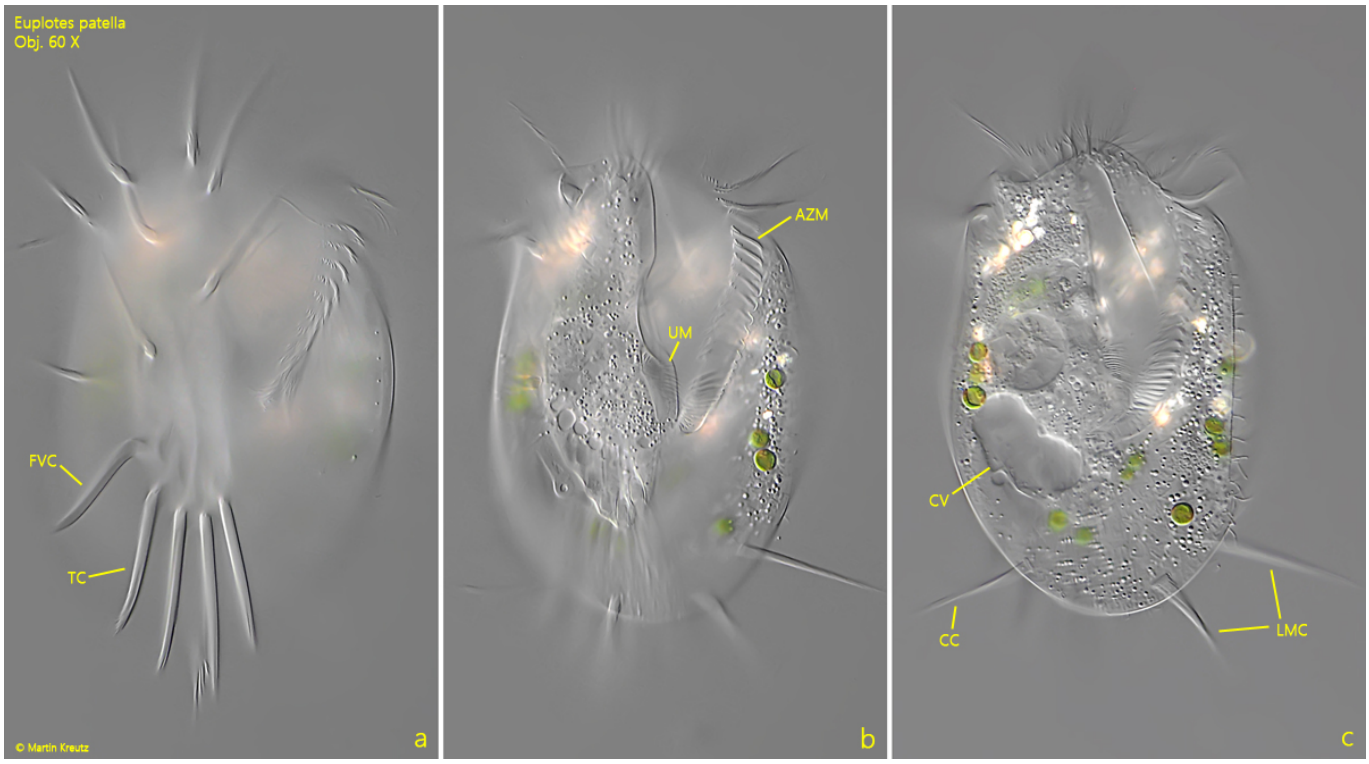


Fig. 2 a-c: *Euplotes patella*. L = 96 µm. A specimen crawling on a floating coverslip from ventral. AMZ = adoral zone of membranelles, CC = one of the two caudal cirri, CV = contractile vacuole, FVC = one of the two frontoventral cirri, LMC = left

marginal cirri, TC = transverse cirri, UM = undulating membrane. Obj. 60 X.



Fig. 3: *Euplotes patella*. L = 96 µm. The same specimen as shown in fig. 2 a-c with focal on the micronucleus (Mi) clearly separated from the macronucleus (Ma). Only parts of the C-shaped macronucleus are in the plane of focus. Obj. 60 X.

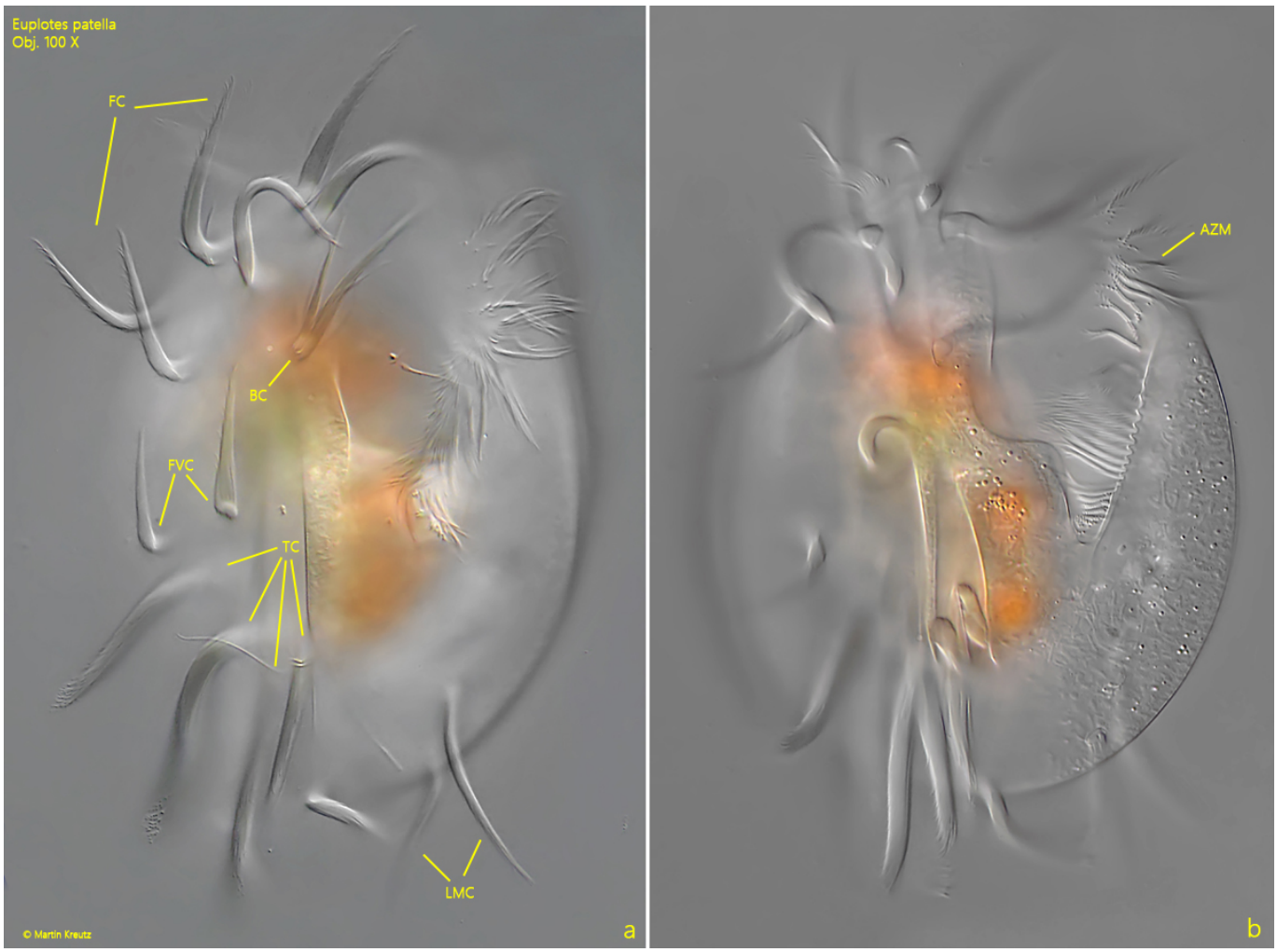


Fig. 4 a-b: *Euplotes patella*. L = 110 µm. Two focal plane of the ventral ciliature. AMZ = adoral zone of membranelles, BC = buccal cirrus, CC = one of the two caudal cirri, FC = frontal cirri, FVC = frontoventral cirri, LMC = left marginal cirri, TC = transverse cirri. Obj. 100 X.



Fig. 5: *Euplotes patella*. The C-shaped macronucleus (arrows) in a squashed specimen. Mi ? = probably the micronucleus. Obj. 100 X.