Stentor muelleri (Ehrenberg, 1831)

Most likely ID: n.a.

Synonym: n.a.

Sampling location: <u>Ulmisried</u>, <u>Purren pond</u>, <u>Mainau pond</u>, <u>Bussenried</u>, <u>Bündtlisried</u>, <u>Pond</u> <u>of the waste disposal company Constance</u>, <u>Simmelried</u>

Phylogenetic tree: <u>Stentor muelleri</u>

Diagnosis:

- body elongated trumpet-shaped, contracted obovoid to club-shaped
- appears yellowish or brownish, no symbiotic algae
- length up to 3000 µm (of elongated specimens)
- adoral membranelle running in clockwise to oral funnel
- attached with thigmotactic cilia to the substrate
- sometimes in a hyaline case
- macronucleus moniliform of about 10-20 spherical parts
- 10-17 spherical micronuclei adjacent to the nodules of the macronucleus
- contractile vacuole on left wall of oral funnel



Stentor muelleri is one of the most common ciliates. I find it in practically all my sampling sites. It is easily recognizable by its mostly yellow-brown color and the moniliform macronucleus, which can be seen even in unsquashed specimens (s. fig. 4). The two other *Stentor* species with a moniliform macronucleus are *Stentor coeruleus* (colored blue or blue-green) and <u>Stentor polymorphus</u> (green due to symbiotic algae).

If a few specimens of *Stentor muelleri* are placed under a coverslip with a high layer thickness, they stretch out completely after a short time at most. The specimens in my population were between $1000 - 1600 \mu m$ long when fully elongated.



Fig. 1: Stentor muelleri. L = 1100-1350 μ m. Some specimen settled in a detritus flake. Obj. 4 X.



Fig. 2 a-b: *Stentor muelleri*. $L = 1450-1560 \mu m$. Two fully elongated specimens. Note the hyaline case (HC) of the specimens, only visible by attached particles and algae. Obj. 10 X.



Fig. 3 a-b: Stentor muelleri. L = 1060 μ m. A further specimen in a hyaline case (HC) visible by attached bacteria. Obj. 10 X.



Fig. 4: Stentor muelleri. $L = 1060 \mu m$. The anterior half of the specimen as shown in fig. 3 a-b. Note the nodules of the moniliform macronucleus. Obj. 20 X.



Fig. 5: *Stentor muelleri*. The nodules of the moniliform macronucleus (Ma) with the adjacent micronuclei (Mi) in a strongly squashed specimen. Obj. 100 X.