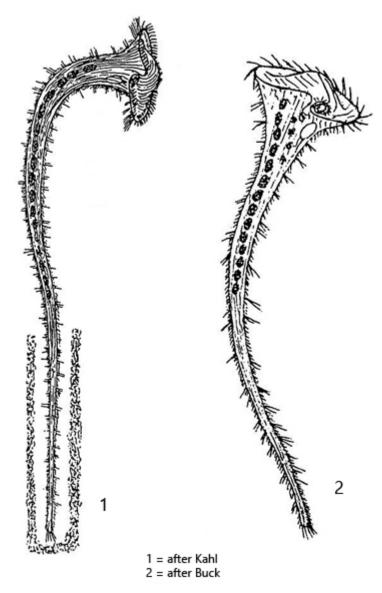
Stentor muelleri (Ehrenberg, 1831)

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 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
\bullet length up to 3000 μm (of elongated specimens)
adoral membranelle running in clockwise to oral funnel
attached with thigmotactic cilia to the substrate

- ullet macronucleus moniliform of about 10-20 spherical parts
- \bullet 10–17 spherical micronuclei adjacent to the nodules of the macronucleus
- contractile vacuole on left wall of oral funnel

• sometimes in a hyaline case



Stentor muelleri

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 bluegreen) and *Stentor polymorphus* (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 µm long when fully elongated.



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

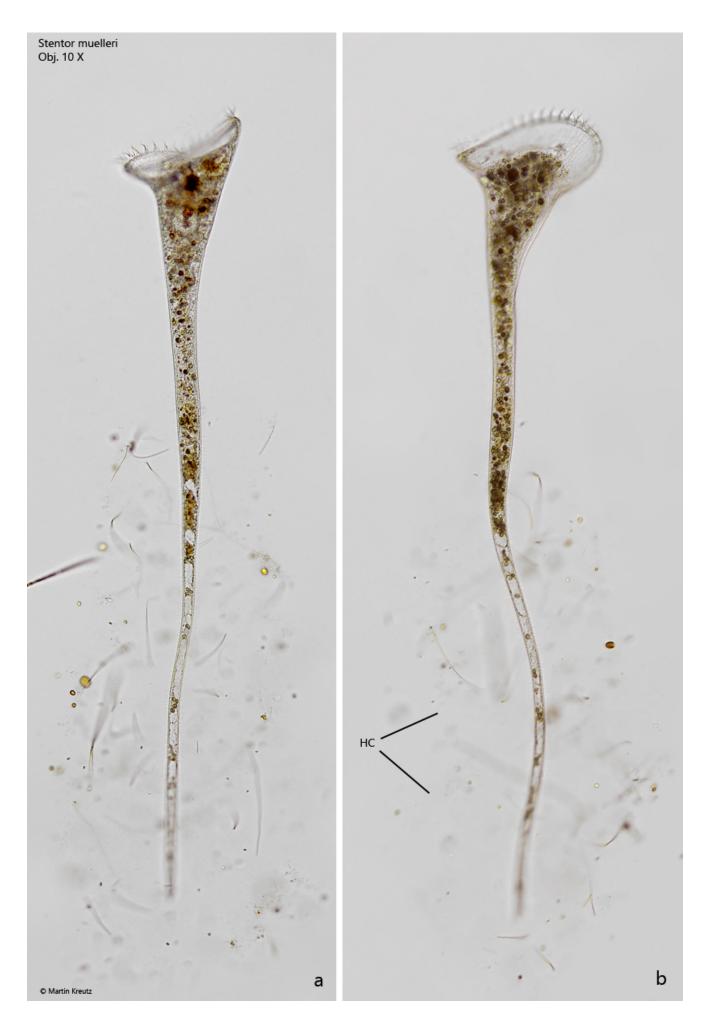


Fig. 2 a-b: Stentor muelleri. $L = 1450-1560 \mu m$. Two fully elongated specimens. Note the hyaline case (HC) of the specimens, only visible by attached particles and algae. Obj. 10 X.

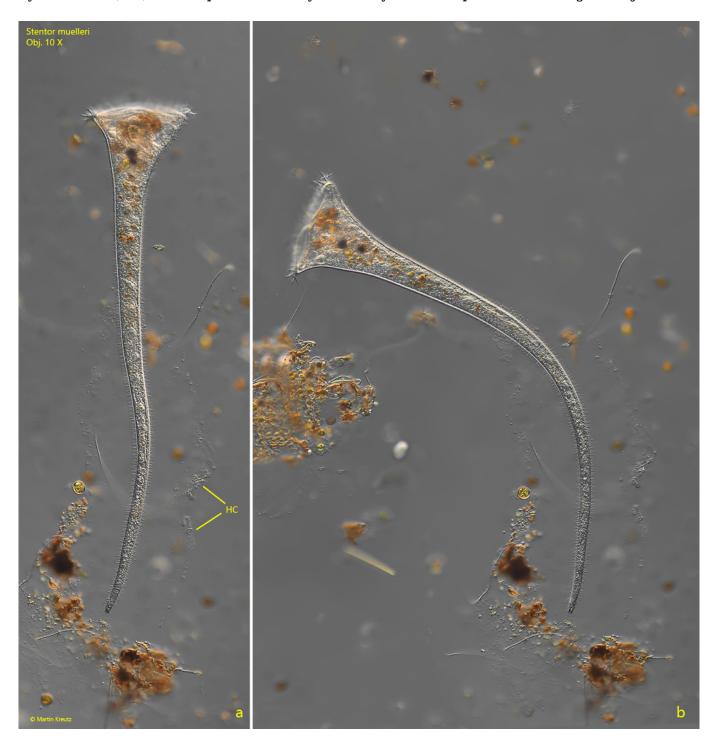
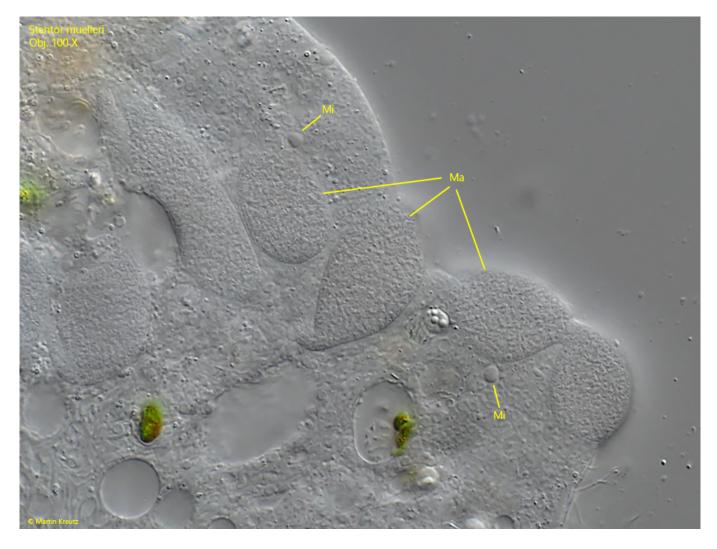


Fig. 3 a-b: Stentor muelleri. $L = 1060 \mu m$. A further specimen in a hyaline case (HC) visible by attached bacteria. Obj. 10 X.



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 $\rm X.$



 $\textbf{Fig. 5:} \ \textit{Stentor mueller} \textit{i}. \ \textbf{The nodules of the moniliform macronucleus (Ma) with the}$ adjacent micronuclei (Mi) in a strongly squashed specimen. Obj. 100 X.