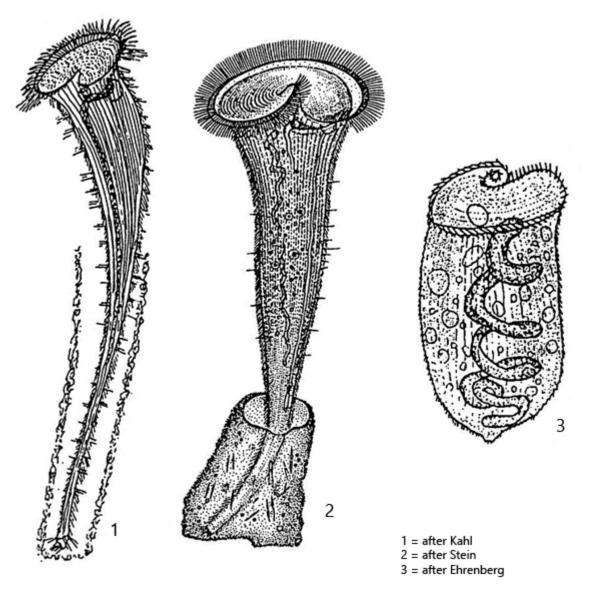
Stentor roeselii Ehrenberg, 1835

Most likely ID: n.a.
Synonym: n.a.
Sampling location: Pond of the convent Hegne, Simmelried
Phylogenetic tree: <u>Stentor roeselii</u>
Diagnosis:
• body elongated trumpet-shaped, contracted ellipsoid to club-shaped
• appears yellowish or brownish, no symbiotic algae
• length 500-1200 μm , sometimes up to 3000 μm (of elongated specimens)
adoral membranelle running in clockwise direction to oral funnel
attached with thigmotactic cilia to the substrate
• sometimes in a hyaline case, 200–300 µm long
macronucleus vermiform, along longitudinal axis of cell

 \bullet 7-20 spherical micronuclei adjacent to the macronucleus

posteriorly

• contractile vacuole on left wall of oral funnel with one collecting duct reaching



Stentor roeselii

At low magnification, Stentor roeselii resembles Stentor muelleri, which also appears yellowish or brownish. However, *Stentor roeselii* is about 30 % smaller than <u>Stentor</u> muelleri and appears somewhat plumper when fully elongated (s. fig. 1 c). The decisive distinguishing feature, however, is the shape of the macronucleus. In Stentor roesilii it is vermiform, whereas in <u>Stentor muelleri</u> it is moniliform and resembles a pearl necklace. The shape of the macronucleus can be easily recognized even in only slightly squashed specimens (s. figs. 2 and 3 b). In contrast, the small micronuclei, which are attached to the macronucleus, can only be recognized in strongly squashed specimens (s. fig. 5).



Fig. 1 a-c: Stentor roeselii. L = 710 μm (of elongated specimen). A contracted (a) and fully elongated specimen in brightfield illumination. Obj. $20~\mathrm{X}$.







Fig. 3: Stentor roeselii. $L = 730 \mu m$. A slightly squashed specimen. Note the vermiform macronucleus (Ma) arranged longitudinally in the cell. Obj. 40 X.

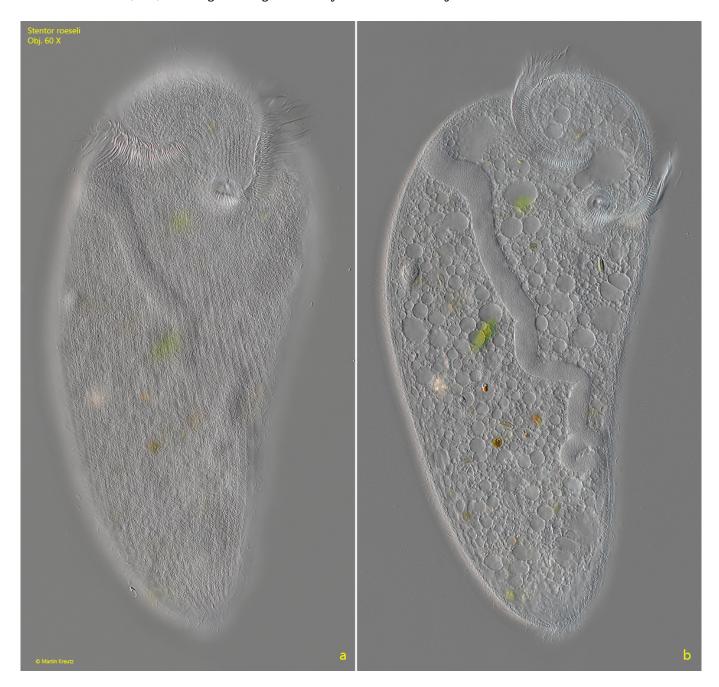


Fig. 4 a-b: Stentor roeselii. Focal plane on the pellicle with striation of colorless granules (a) and on the vermiform macronucleus (b, Ma) in a slightly squashed specimen. Obj. 60 X.

