Stentor roeselii Ehrenberg, 1835

Most likely ID: n.a.

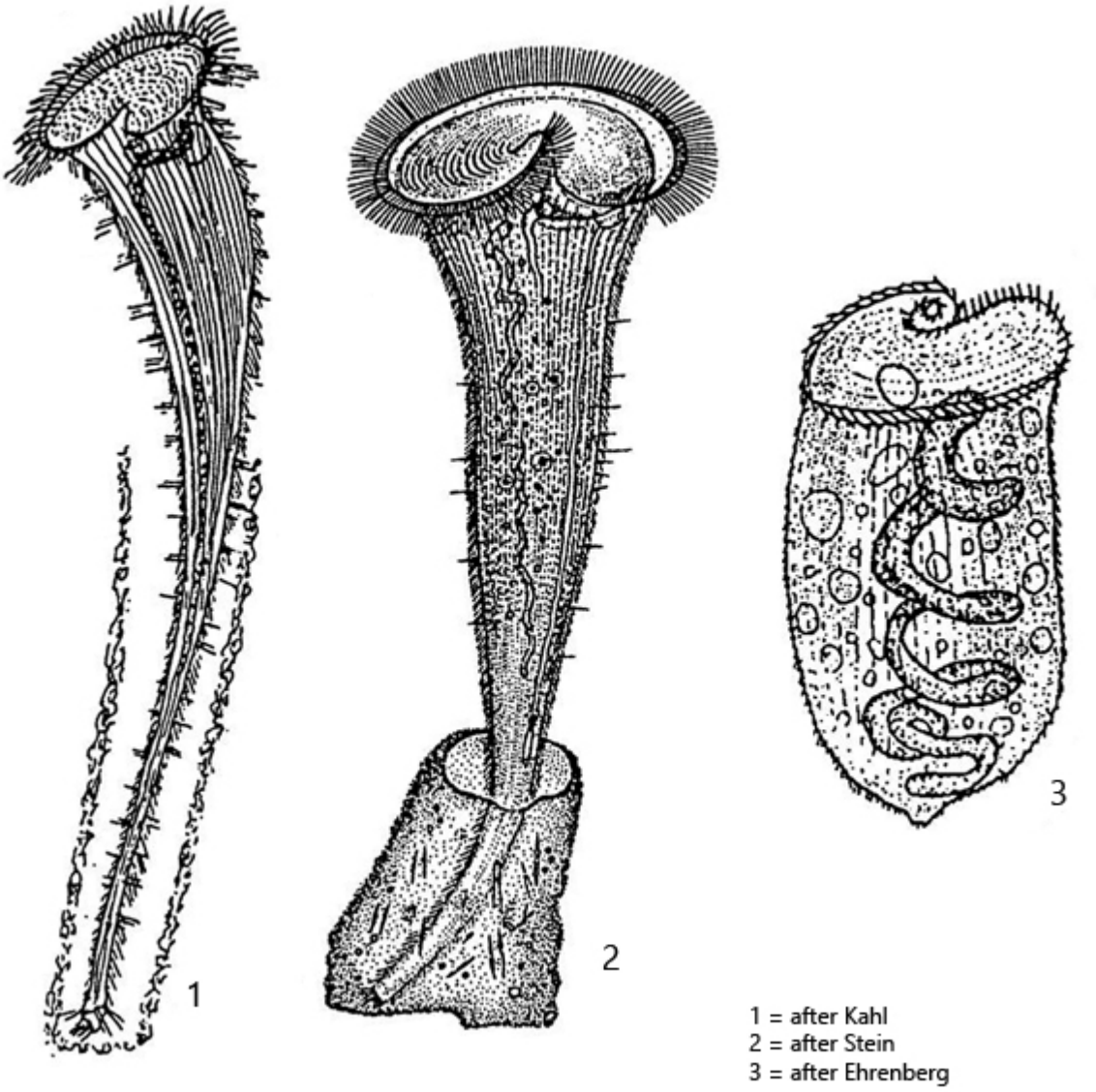
Synonym: n.a.

Sampling location: Pond of the convent Hegne, Simmelried

Phylogenetic tree: *Stentor roeselii*

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
- 7–20 spherical micronuclei adjacent to the macronucleus
- contractile vacuole on left wall of oral funnel with one collecting duct reaching posteriorly



Stentor roeselii

At low magnification, *Stentor roeselii* resembles *Stentor muelleri*, which also appears yellowish or brownish. However, *Stentor roeselii* is about 30 % smaller than *Stentor 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 *Stentor muelleri* 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).

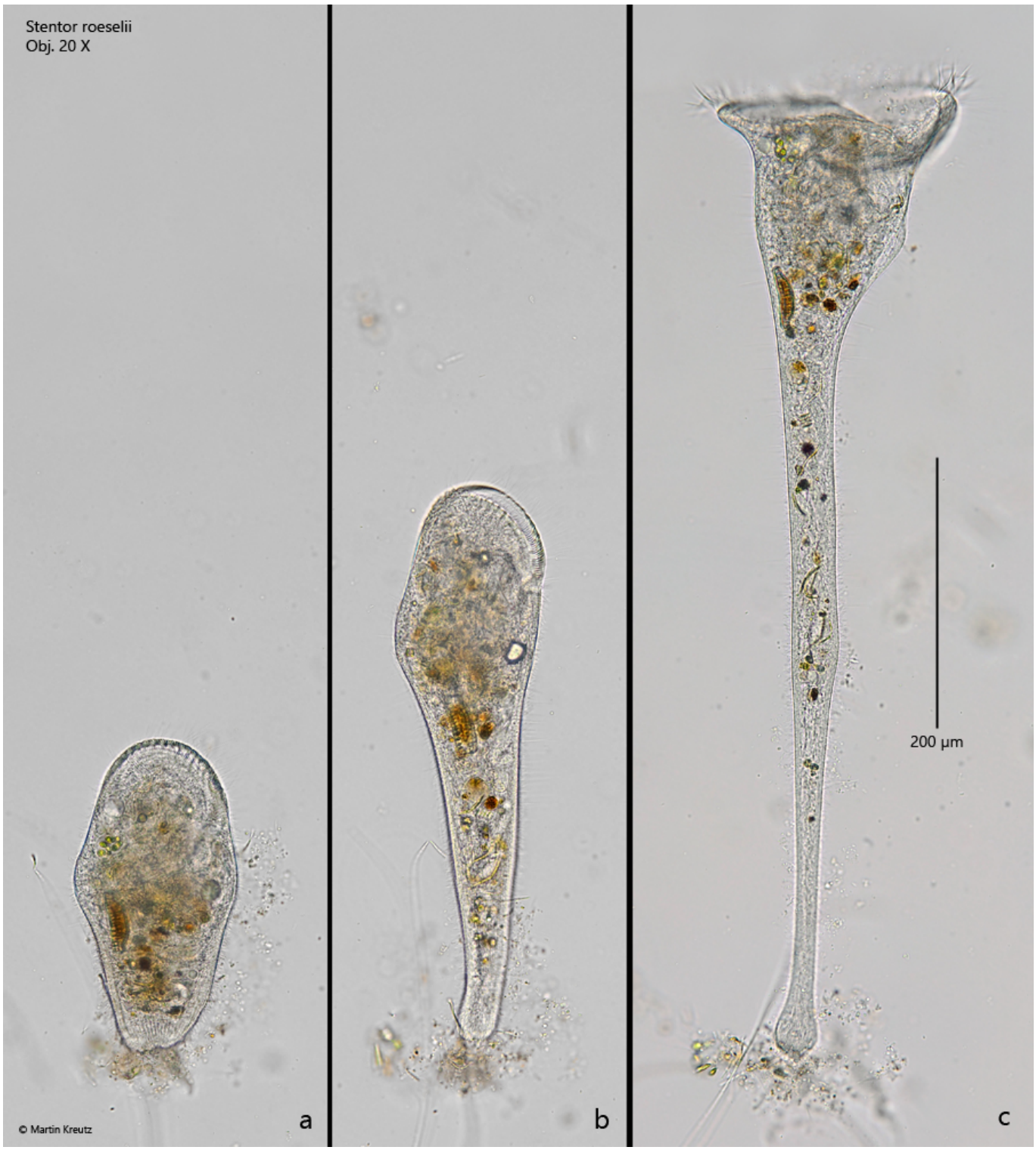


Fig. 1 a-c: *Stentor roeselii*. L = 710 µm (of elongated specimen). A contracted (a) and fully elongated specimen in brightfield illumination. Obj. 20 X.


Stentor roeselii
Obj. 20 X
© Martin Kreutz

Fig. 2: *Stentor roeselii*. L = 710 µm. The same specimen as shown in fig. 1 a-c in DIC. Obj. 20 X.


Stentor roeselii
Obj. 40 X
Ma
© Martin Kreutz

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

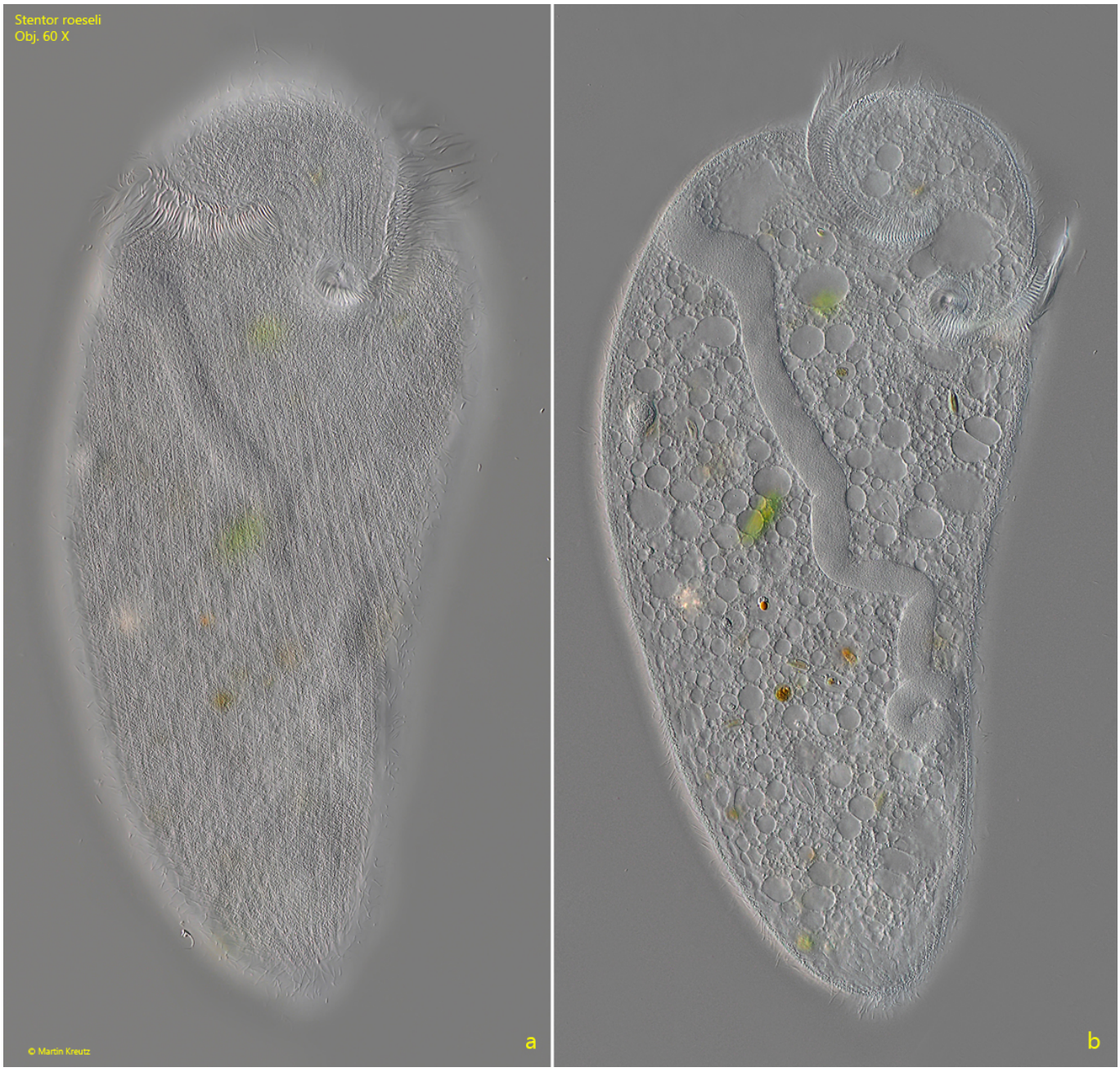


Fig. 4 a-b: *Stentor roeselii*. Focal plane on the pellicle with striation of colorless granules (a) and on the vermiform macronucleus (b, Ma) in a slightly squashed specimen. Obj. 60 X.


Stentor roeselii
Obj. 100 X
Mi
Mi
Ma
100 µm
© Martin Kreutz

Fig. 5: *Stentor roeselii*. The vermiform macronucleus (Ma) in a strongly squashed specimen. Two micronuclei (Mi) are in the focal plane. Obj. 100 X.