Stentor muelleri Ehrenberg, 1831

Most likely ID: n.a.

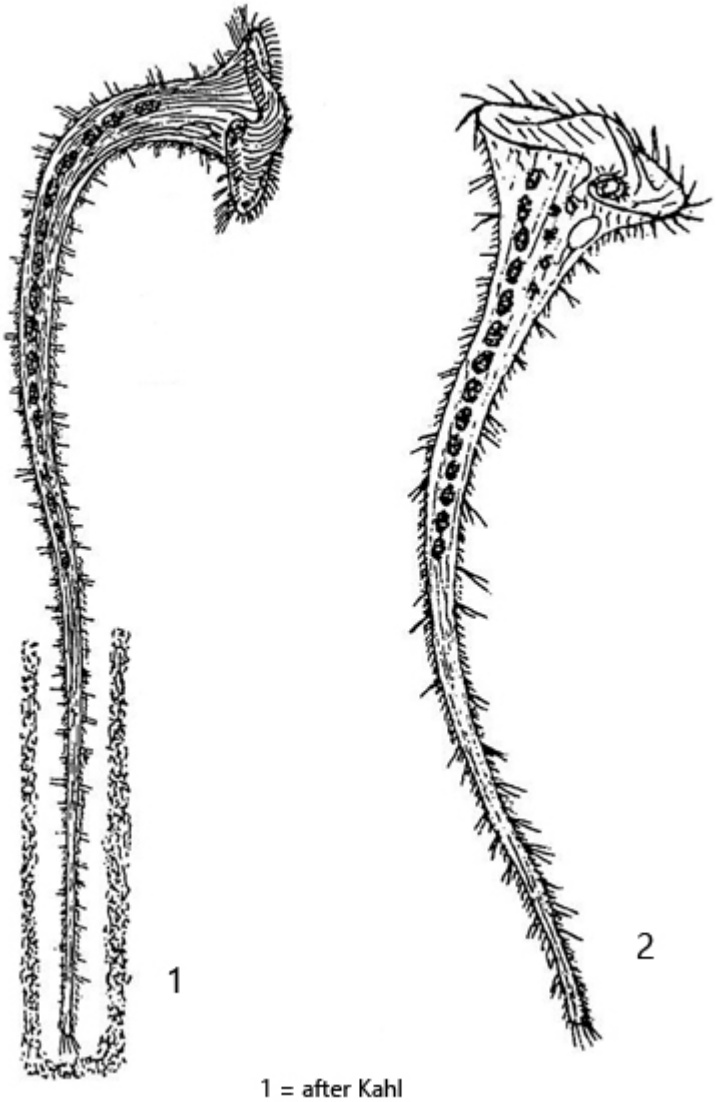
Synonym: n.a.

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

Phylogenetic tree: *Stentor muelleri*

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 direction to oral funnel
- attached with thigmotactic cilia to the substrate
- sometimes in a hyaline case
- macronucleus moniliform with 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

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 *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 usually stretch out completely after a short time. 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.

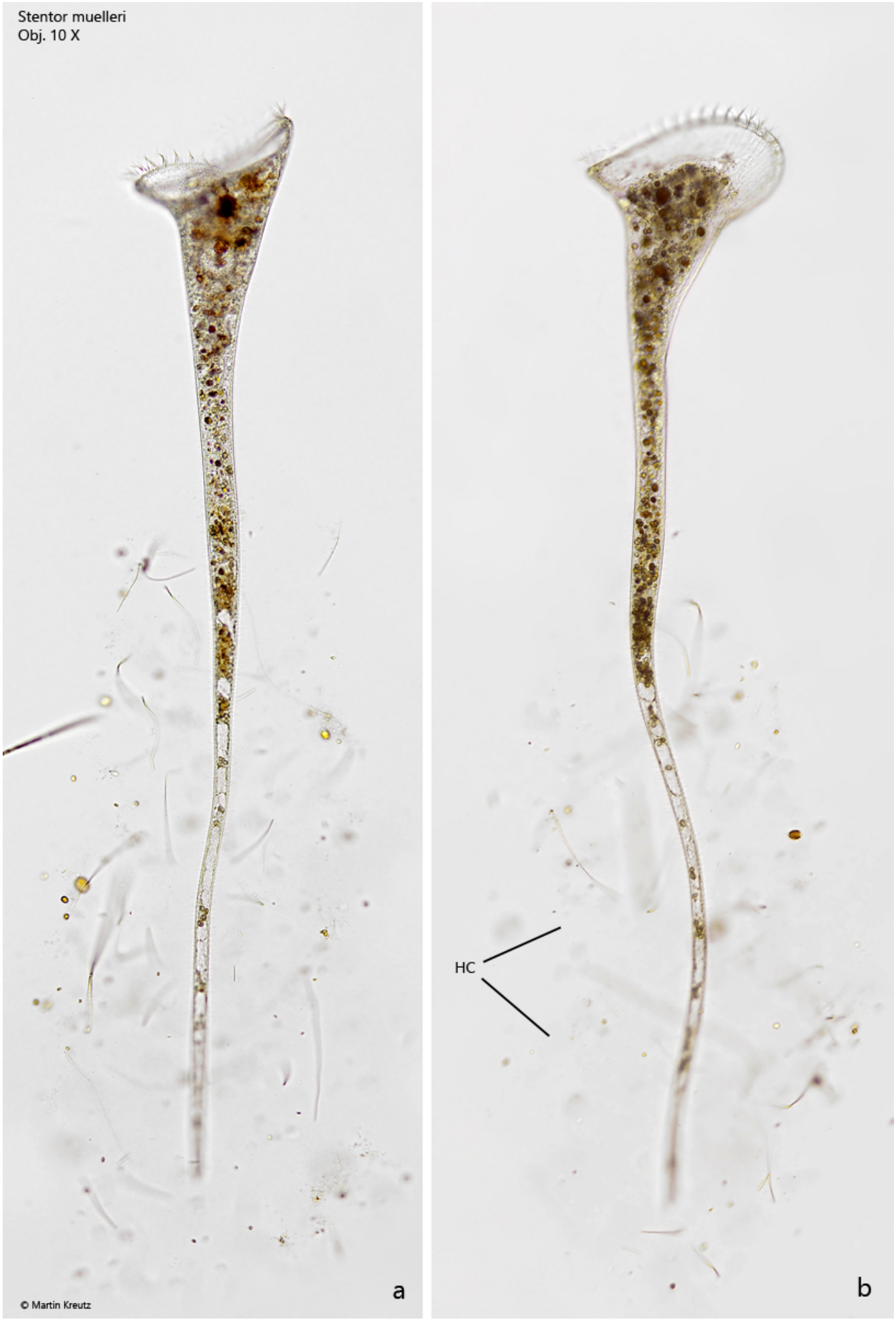

Stentor muelleri
Obj. 10 X
© Martin Kreutz
a
HC
b

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

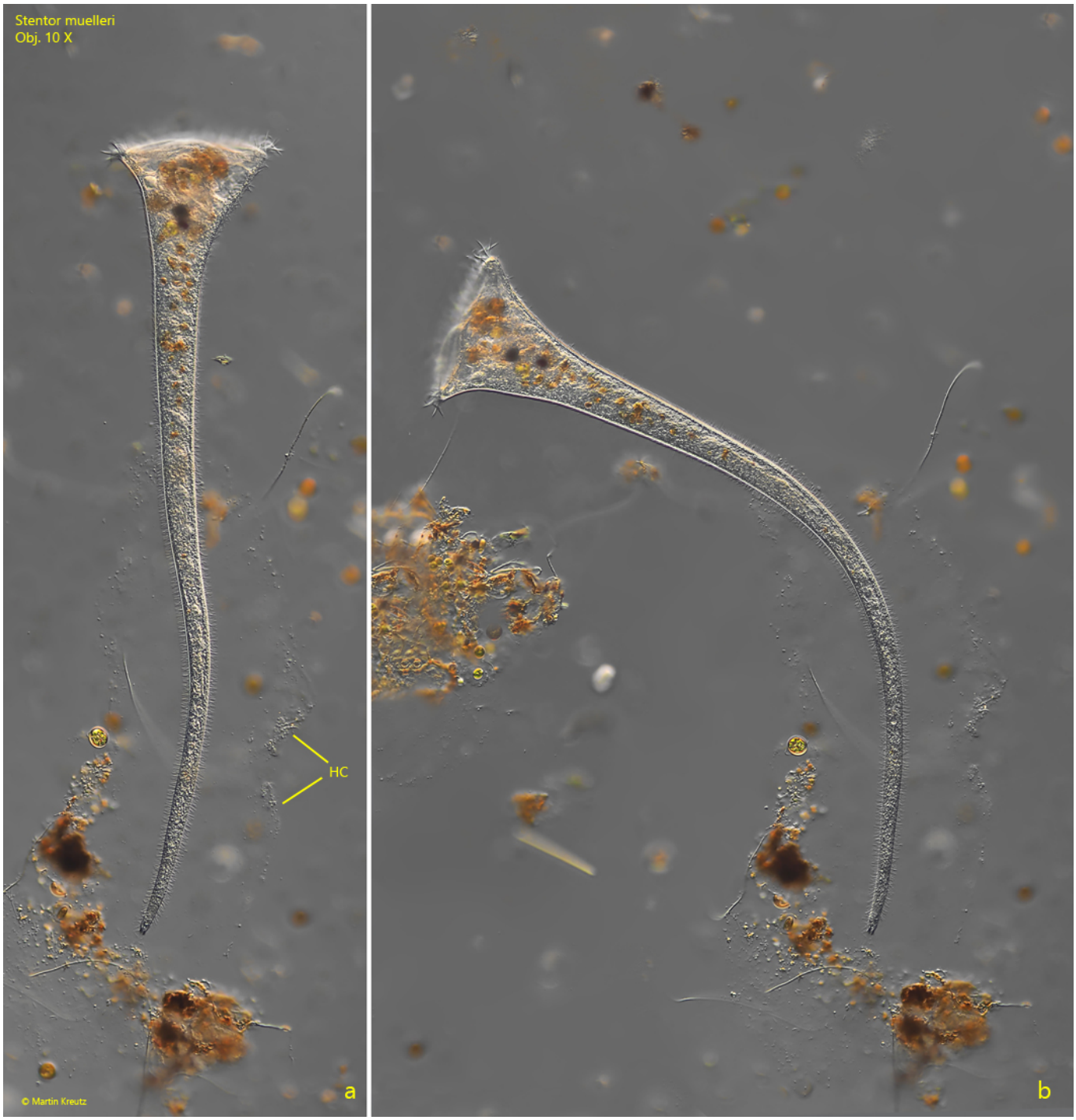


Fig. 3 a-b: *Stentor muelleri*. L = 1060 µm. A further specimen in a hyaline case (HC) visible due to attached bacteria. Obj. 10 X.

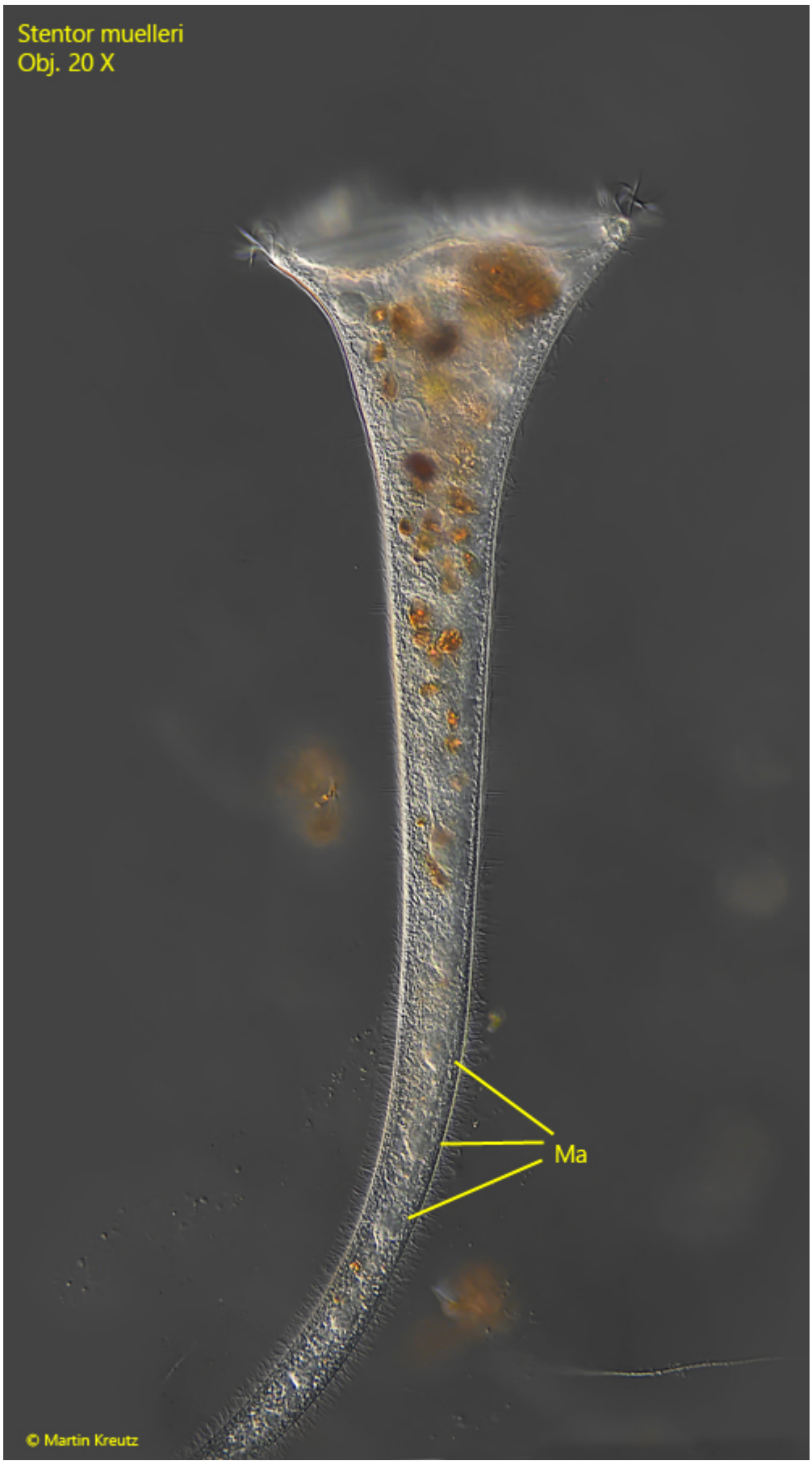


Fig. 4: *Stentor muelleri*. L = 1060 µm. The anterior half of the specimen as shown in fig. 3 a-b. Note the nodules of the moniliform macronucleus. Obj. 20 X.

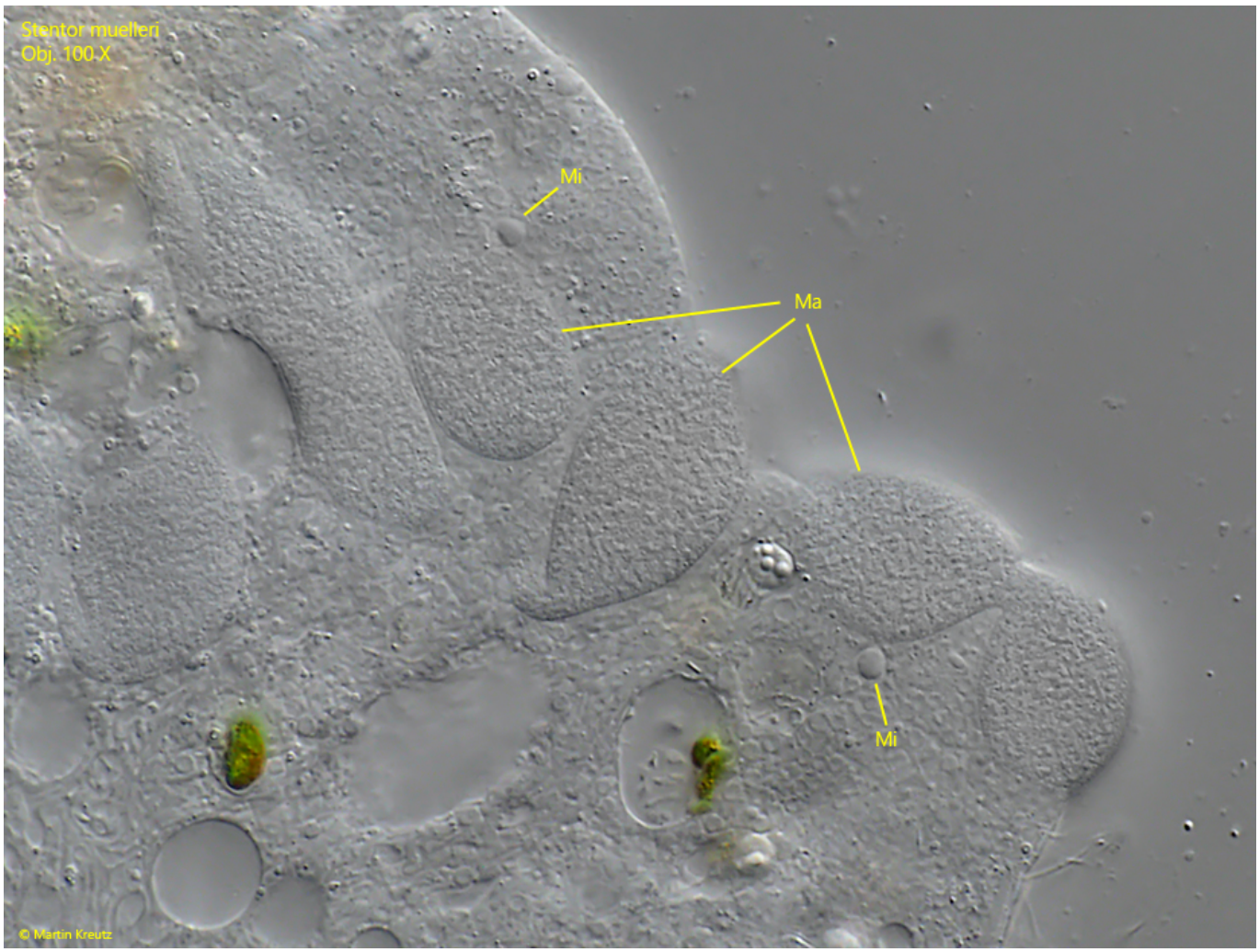


Fig. 5: *Stentor muelleri*. The nodules of the moniliform macronucleus (Ma) with the adjacent micronuclei (Mi) in a strongly squashed specimen. Obj. 100 X.