

## ***Epistylis pygmaeum***

**(Ehrenberg, 1838) Foissner, Berger & Schaumburg, 1999**

**Most likely ID:** n.a.

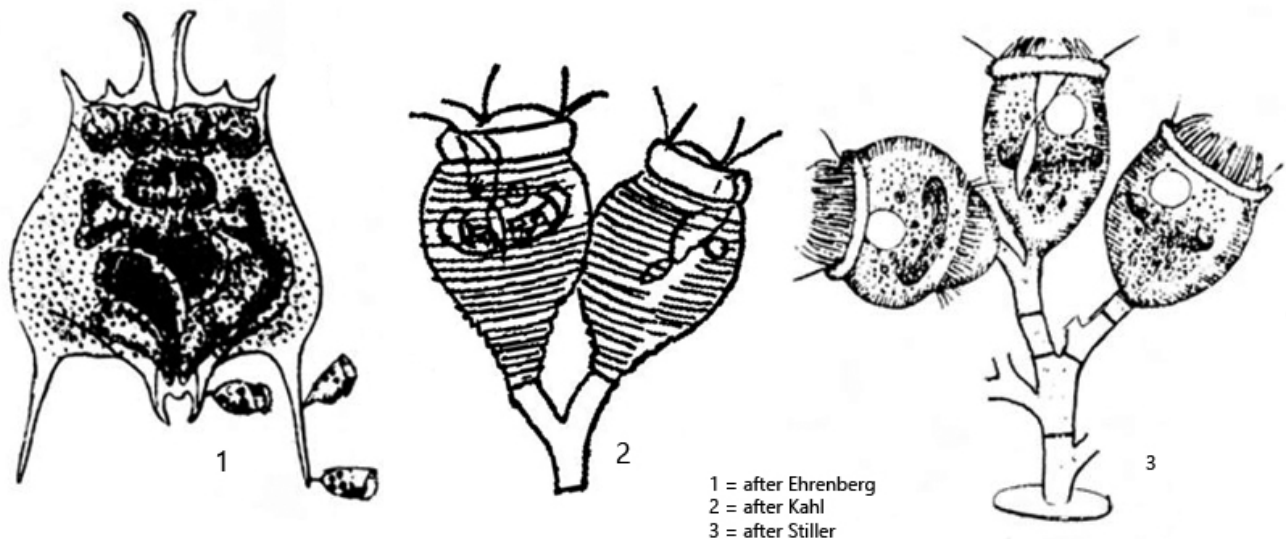
**Synonyms:** *Epistylis rotatorium*, *Vorticella pyriformis*, *Rhabdostyla ovum*, *Epistylis ovum*, *Rhabdostyla pyriformis*, *Scyphidia pyriformis*, *Carchesium pygmaeum*

**Sampling location:** [Mühlhalden pond](#)

**Phylogenetic tree:** [Epistylis pygmaeum](#)

### **Diagnosis:**

- body broadly pyriform
- length 22–50 µm, width 17–45 µm
- macronucleus horseshoe-shaped, transversely located in anterior half
- one micronucleus
- one contractile vacuole adjacent to mouth funnel
- peristomial disc slightly convex
- colonies of 2–8 zooids
- stalk short, hyaline, only in larger colonies dichotomously branched
- wide striation of the pellicle, about 30 transverse striae
- epizoic lifestyle on pelagical rotifers and crustaceans



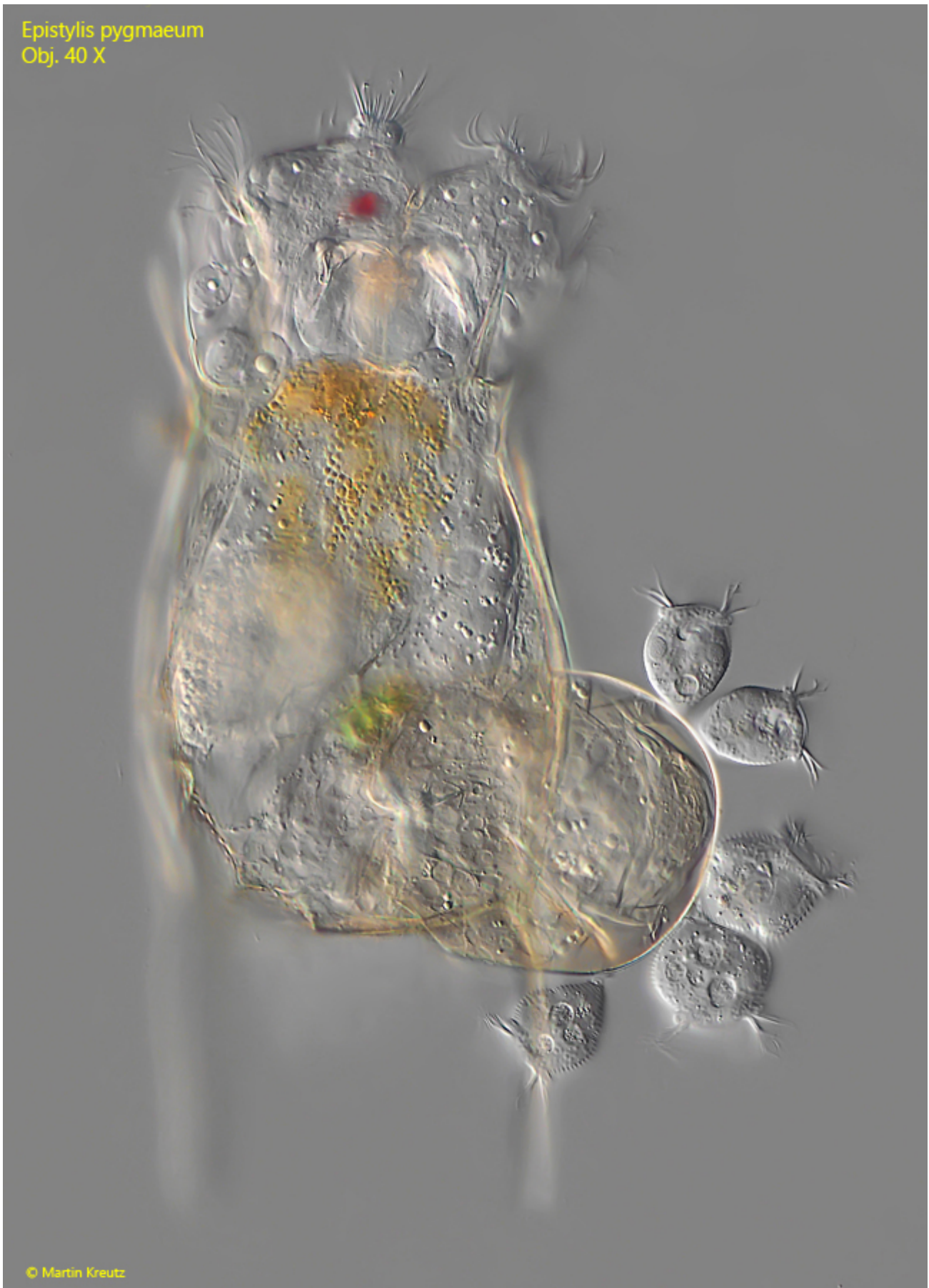
## Epistylis pygmaeum

*Epistylis pygmaeum* lives epizoically on large rotifers and crustaceans of the plankton. *Epistylis pygmaeum* is found particularly frequently on *Keratella* and *Brachionus*.

The examination of epizoic ciliates such as *Epistylis pygmaeum* is not easy because they contract or detach from the host with increasing coverslip pressure. Taking photos very quickly has proven to be the best method. To do this, I already make all the settings for the lens I want to photograph with later. After putting on the coverslip, I look for a suitable object at the lowest magnification (without changing the settings) and immediately go to the preset magnification. This does not always lead to success, but sometimes it does.

*Epistylis pygmaeum* can be recognized by its almost spherical body shape and that the specimens do not sit on long, branched stalks. Instead, the stalks are very short and if the specimens are close together, they can only be recognized when the layer thickness is reduced (s. fig. 3). The stalks of the genus *Epistylis* are not contractile and are usually dichotomously branched. In *Epistylis pygmaeum* they are particularly short. The macronucleus is horseshoe-shaped and lies transversely in the anterior half (s. fig. 4 a). There is only one contractile vacuole (s. fig. 3). Another important characteristic of *Epistylis pygmaeum* is the wide striation of the pellicle (s. fig. 4 b).

Epistylis pygmaeum  
Obj. 40 X

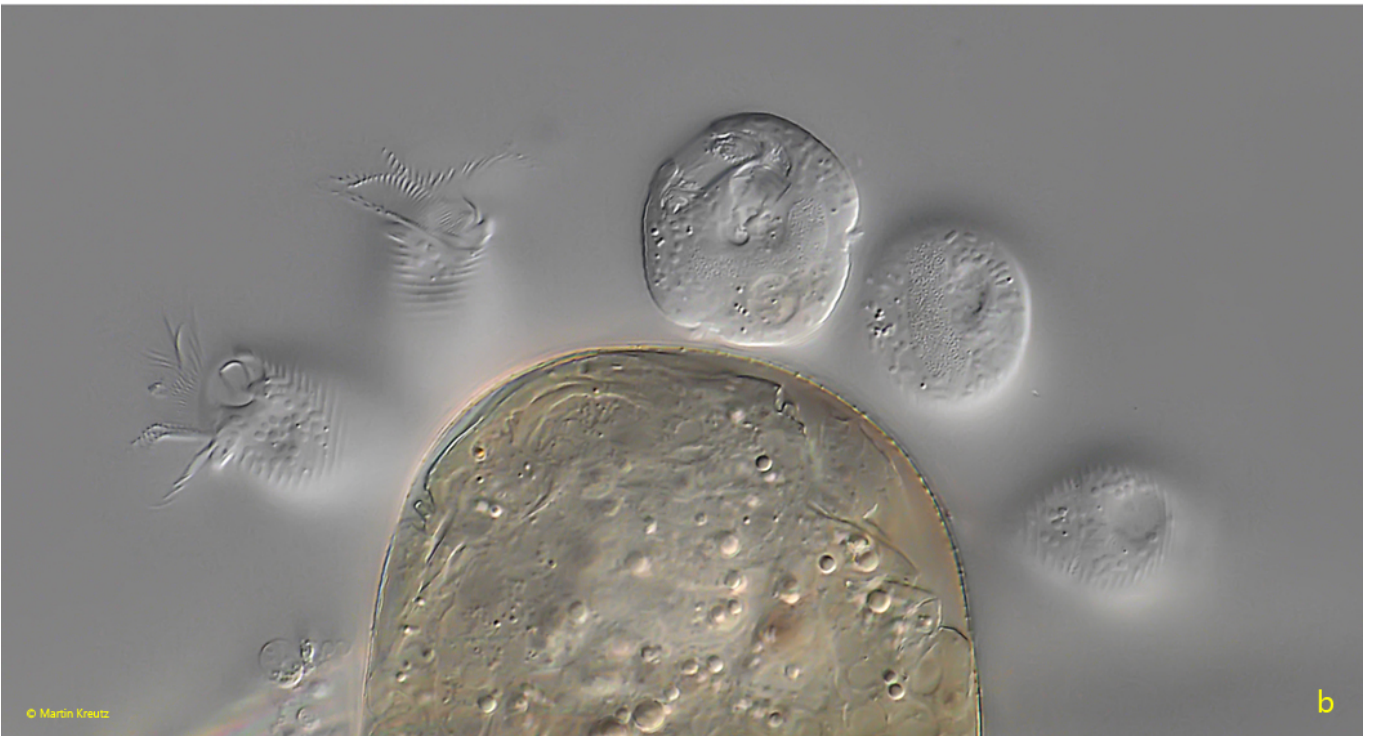
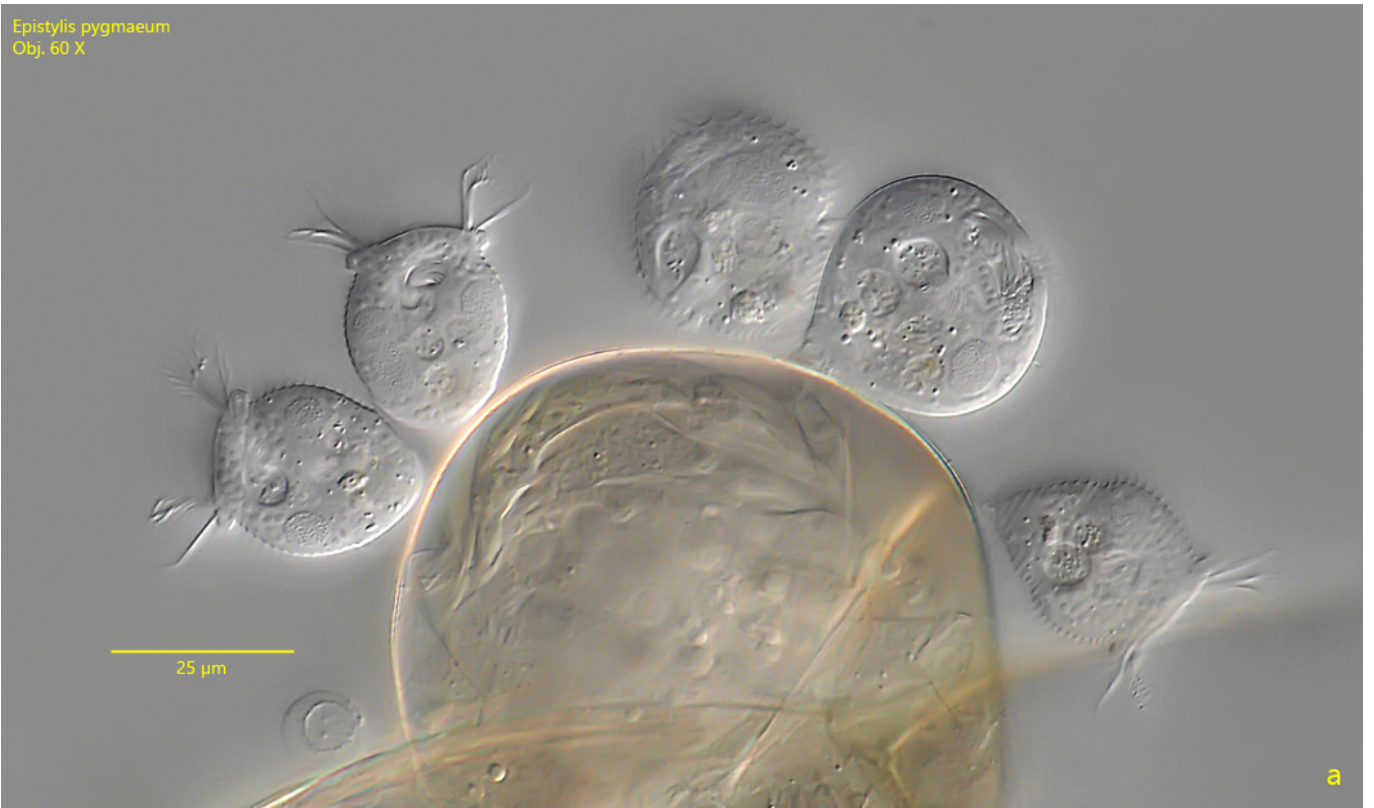


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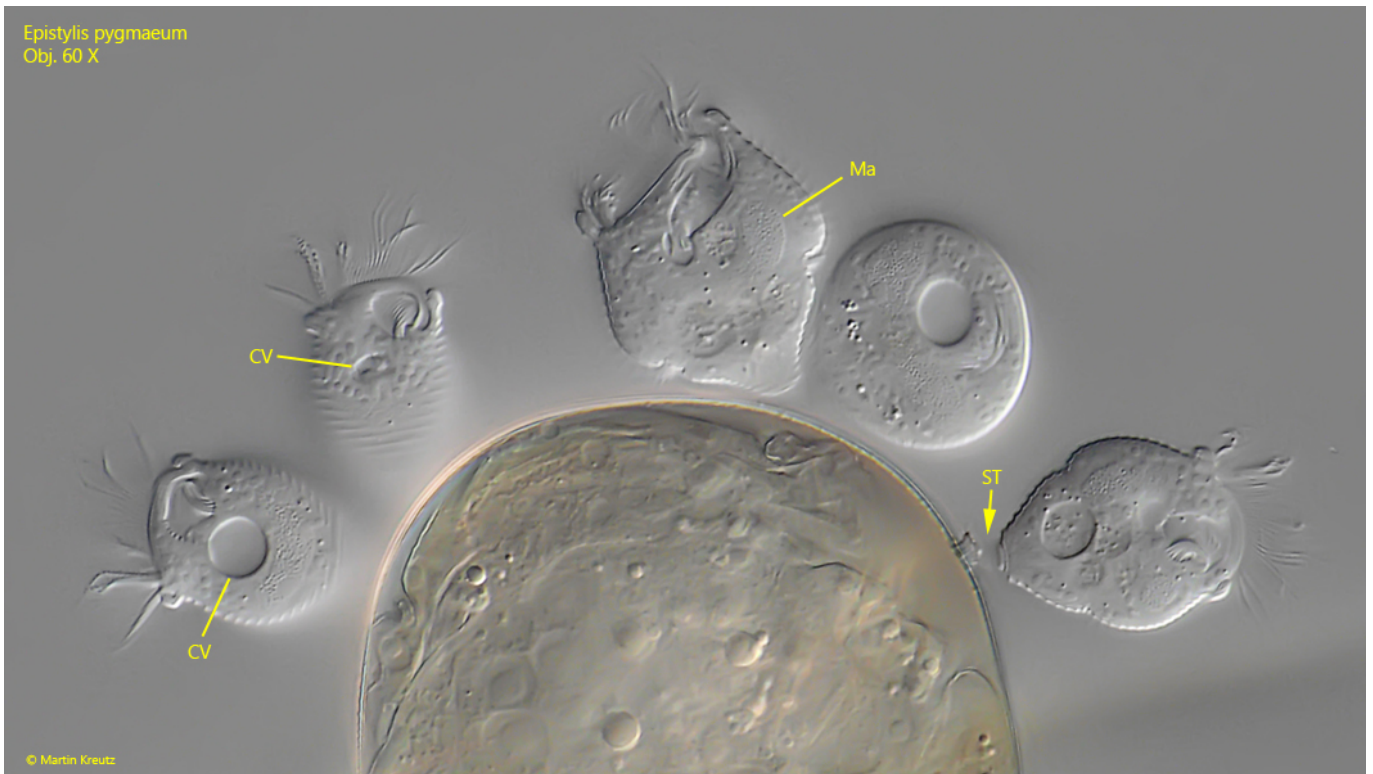
**Fig. 1:** *Epistylis pygmaeum*. L = 28–37  $\mu\text{m}$ . Five specimens attached to the amictic egg of *Keratella quadrata*. Obj. 40 X.



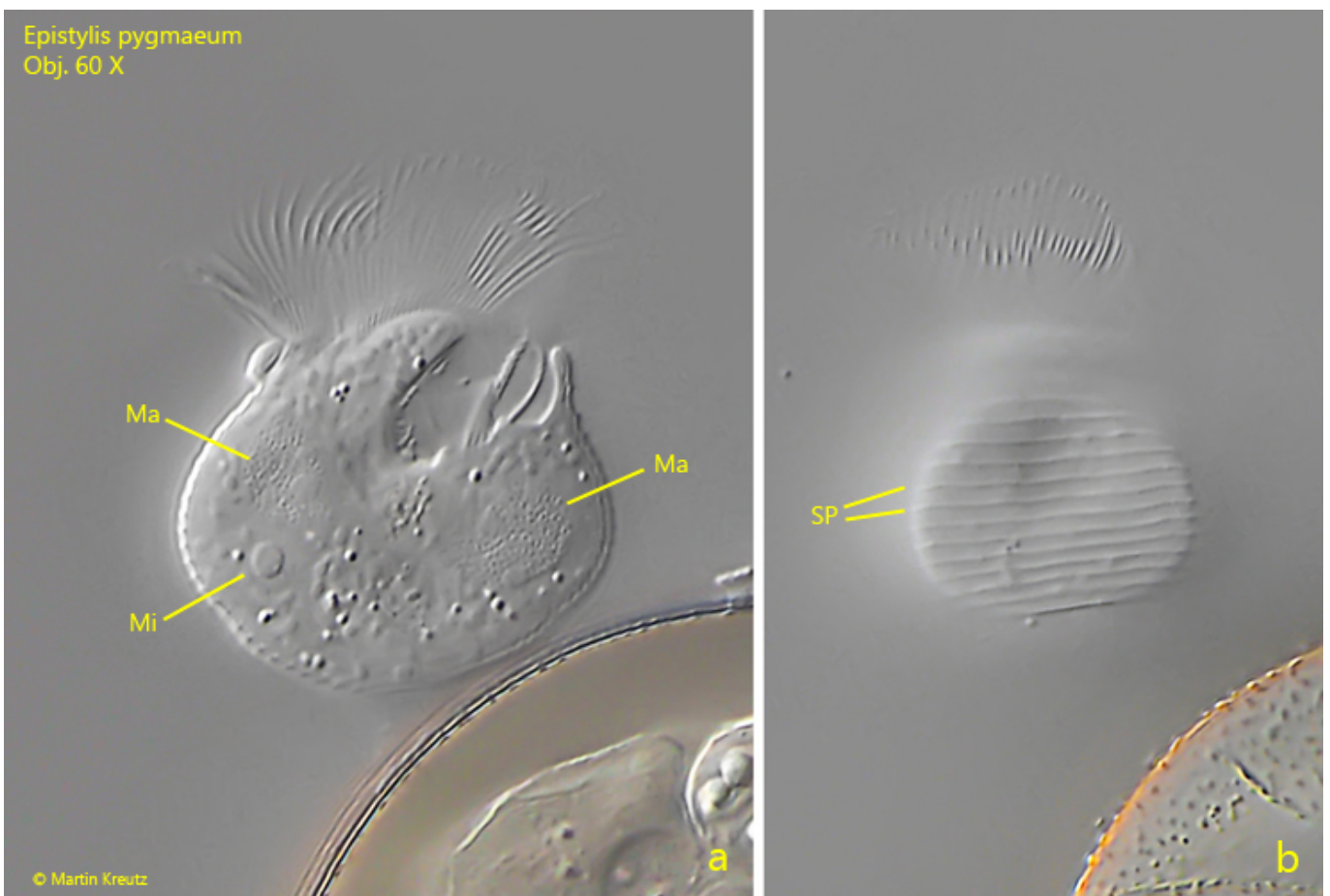
Epistylis pygmaeum  
Obj. 60 X



**Fig. 2 a-b:** *Epistylis pygmaeum*. L = 28–37  $\mu\text{m}$ . Two focal planes of the specimens. Obj. 60 X.

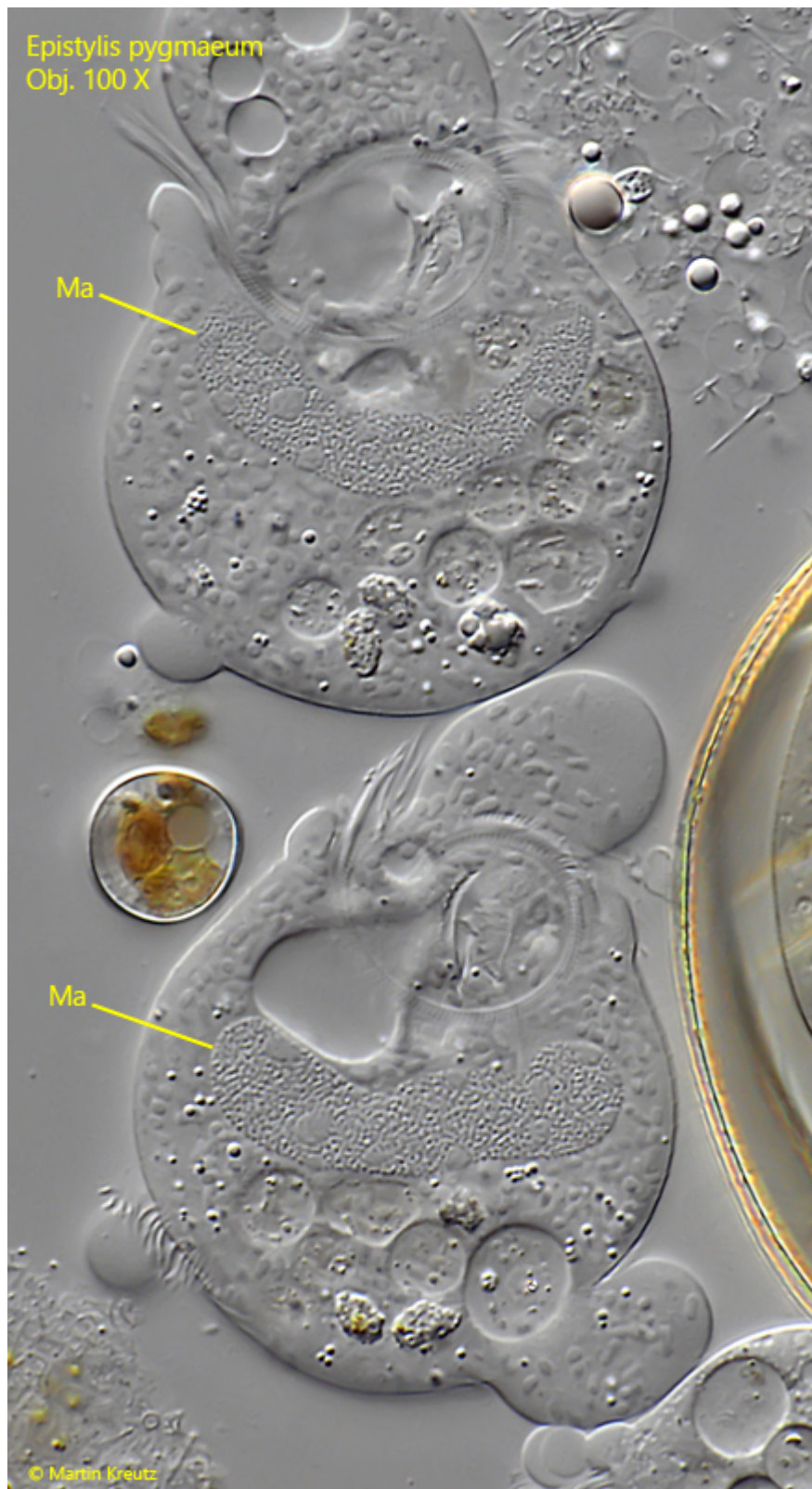


**Fig. 3:** *Epistylis pygmaeum*. L = 28–37  $\mu\text{m}$ . The same group of specimens after reduction of layer thickness. Note the short, hyaline stalk (ST). CV = contractile vacuole, Ma = macronucleus. Obj. 60 X.





**Fig. 4 a-b:** *Epistylis pygmaeum*. Two focal planes of the slightly squashed specimen. Note the wide striation of the pellicle. Ma = macronucleus, Mi = micronucleus. Obj. 60 X.



**Fig. 5:** *Epistylis pygmaeum*. Two strongly squashed specimens. Ma = macronucleus. Obj. 100 X.