Epistylis procumbens Zacharias, 1897

Most likely ID: n.a.

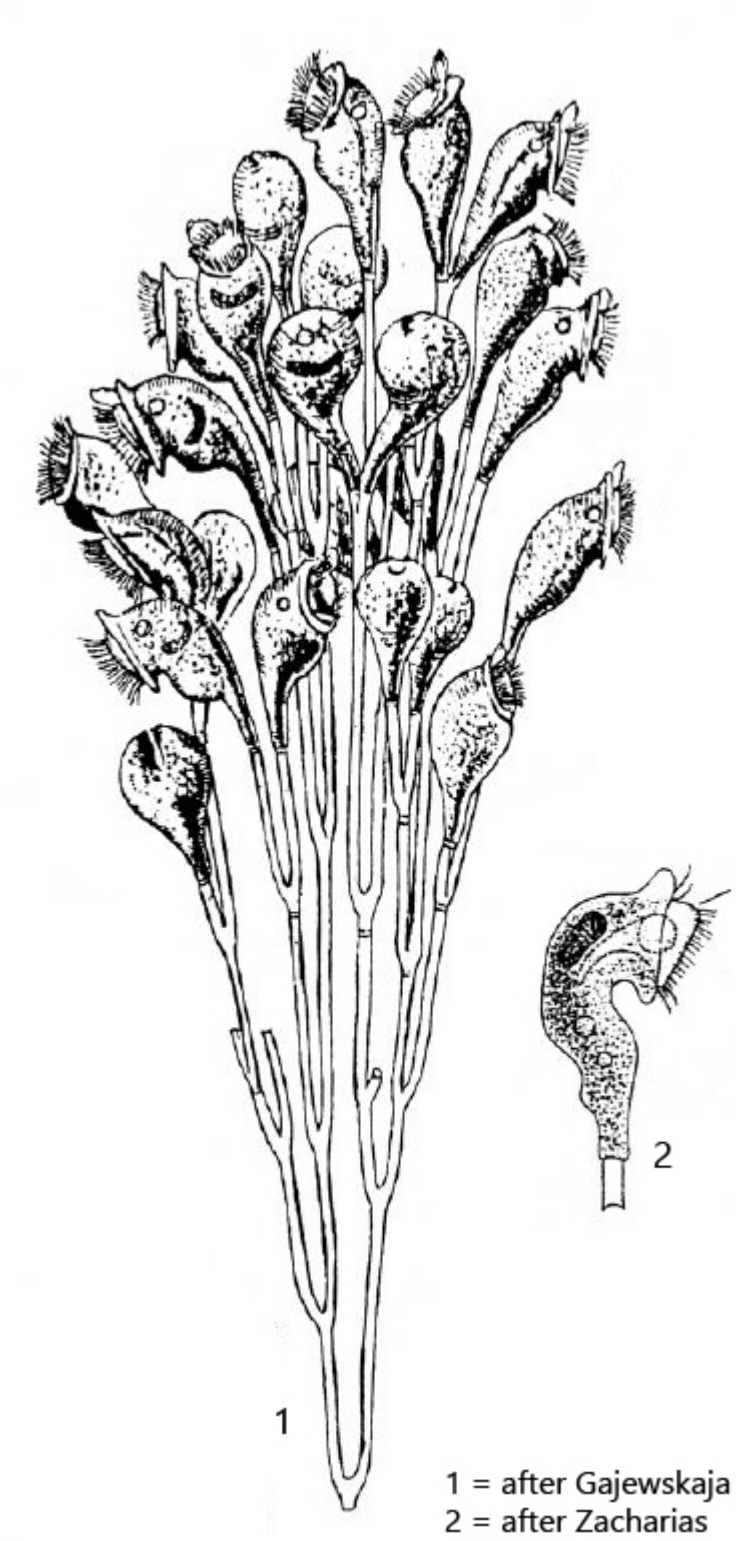
Synonym: *Epistylis rotans*

Sampling locations: Mühlhalden pond, Lake Constance

Phylogenetic tree: *Epistyis procumbens*

Diagnosis:

- zooids 60–140 µm long
- extended zooids irregularly shaped, often roughly sigmoidal
- contracted zooids pyriform and distinctly annulated in posterior half
- macronucleus reniform to semicircular in anterior half
- one micronucleus at anterior end of macronucleus
- one contractile vacuole near peristomial collar
- pellicle with about 137 transverse striae
- stalk non-contractile, dichotomously branched
- colonies up to 1 mm long
- daughter colonies are separated at prospective separation sites



Epistylis procumbens

I regularly find the planktonic, peritrichous ciliate *Epistylis procumbens* in Lake Constance as well as in the Mühlhalden pond. The up to 1 mm long, slowly swimming colonies can be recognized even at very low magnification (s. fig. 1 a-b). A typical feature are the “tilted heads” of the colonies, because the zooids are bent sideways away from the longitudinal axis of the colony. In addition, the colonies are noncontractile and the stalks are dichotomously branched. Below the branching points, one often sees highly refractive separations (s. fig. 7). This is a kind of pre-

determined breaking point at which daughter colonies “break off” and can be separated.

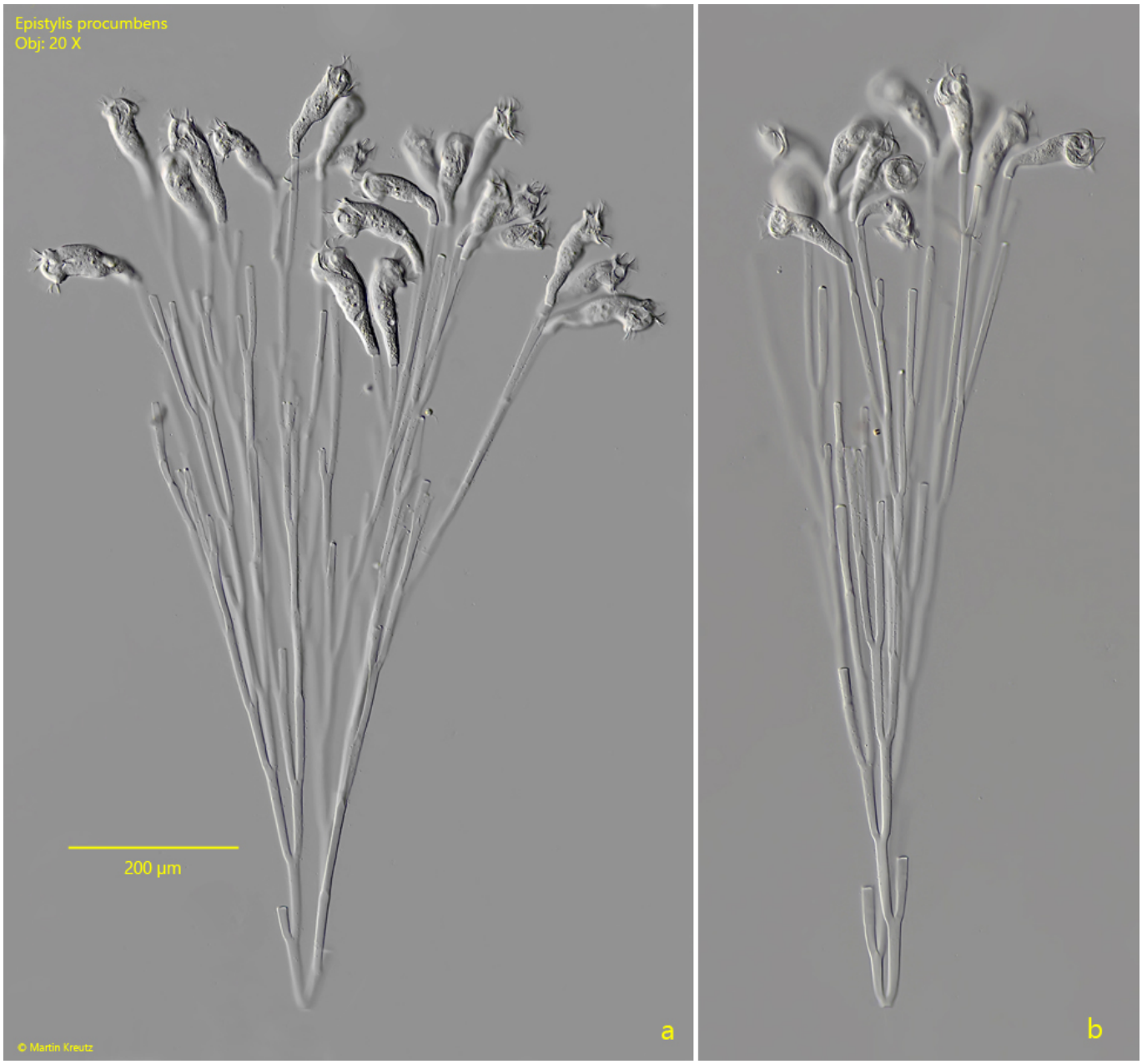


Fig. 1 a-b: *Epistylis procumbens*. Two freely swimming colonies. The colonies are 875 µm long (a) and 840 µm (b). Obj. 20 X.

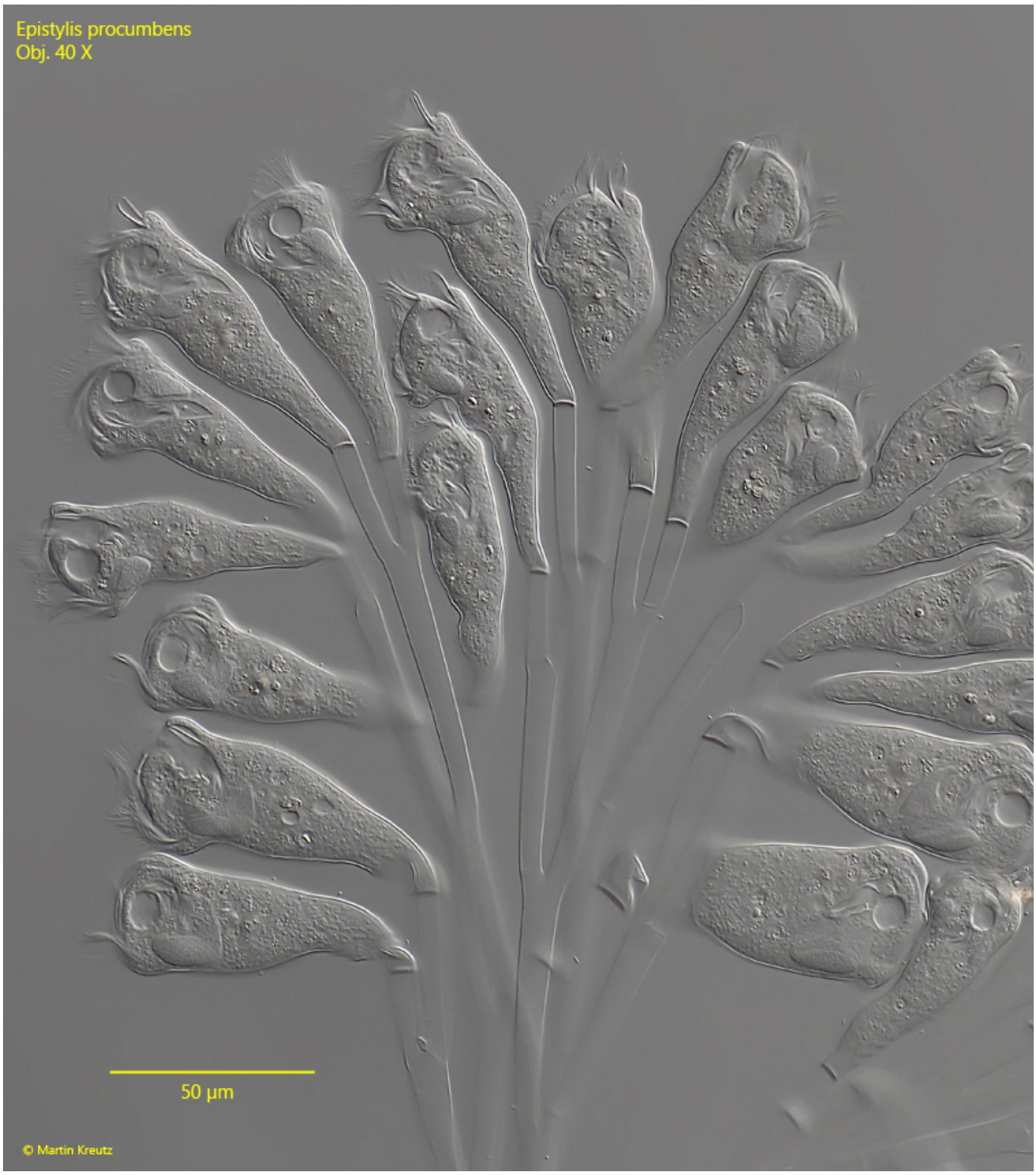


Fig. 2: *Epistylis procumbens*. L= 91–102 µm (of zooids). Some zooids of a slightly squashed colony. Obj. 40 X.

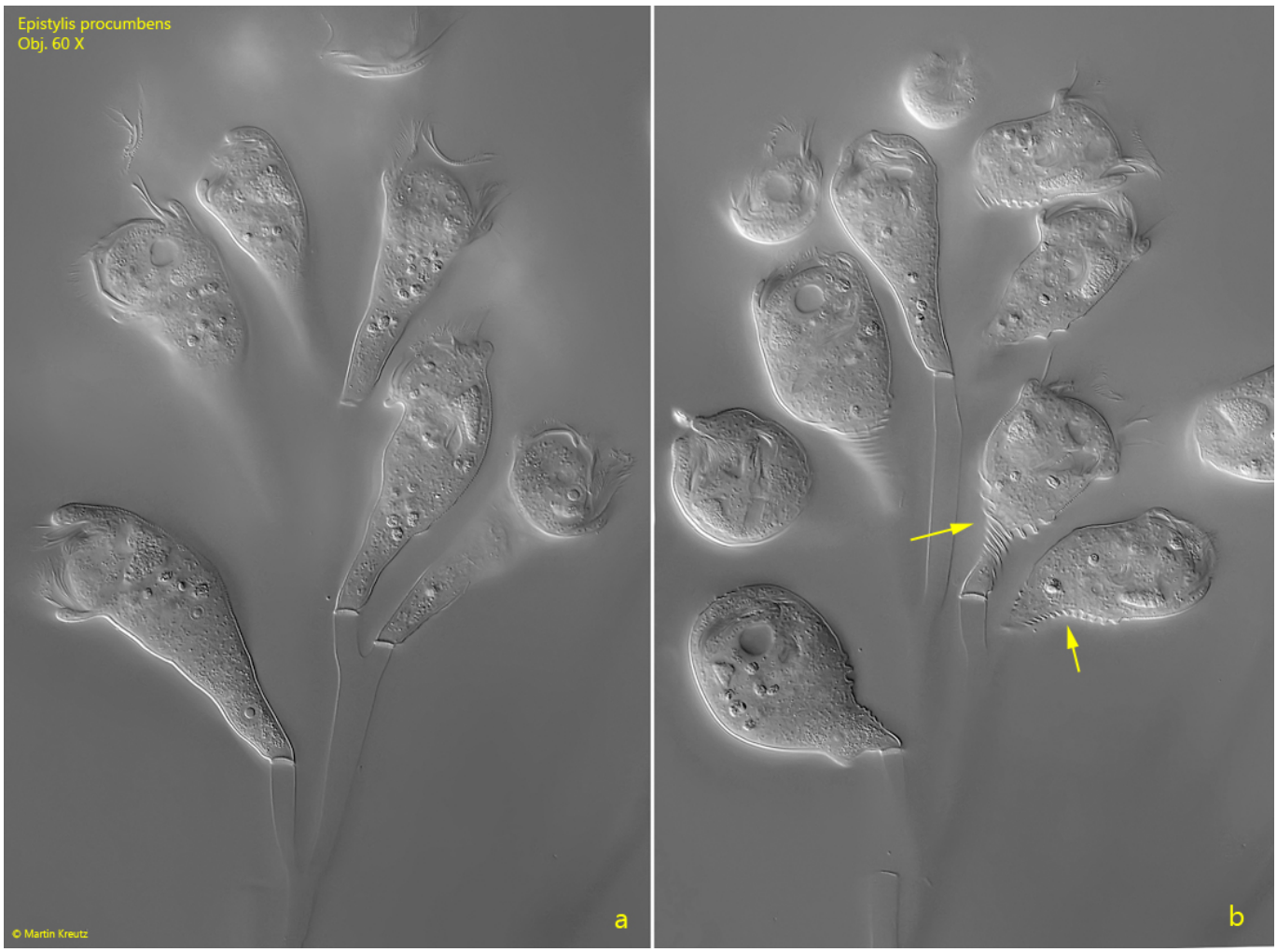


Fig. 3 a-b: *Epistylis procumbens*. L= 94–98 µm (zooids). A colony with extended (a) and contracted zooids (b). Note the annulated posterior portion of the contracted zooids (arrows). Obj. 60 X.



Fig. 4: *Epistylis procumbens*. L = 92–97 µm (zooids). In the slightly squashed specimens the single contractile valuole (CV) as well as the reniformed

macronucleus (Ma) in the anterior half is visible. Obj. 100 X.

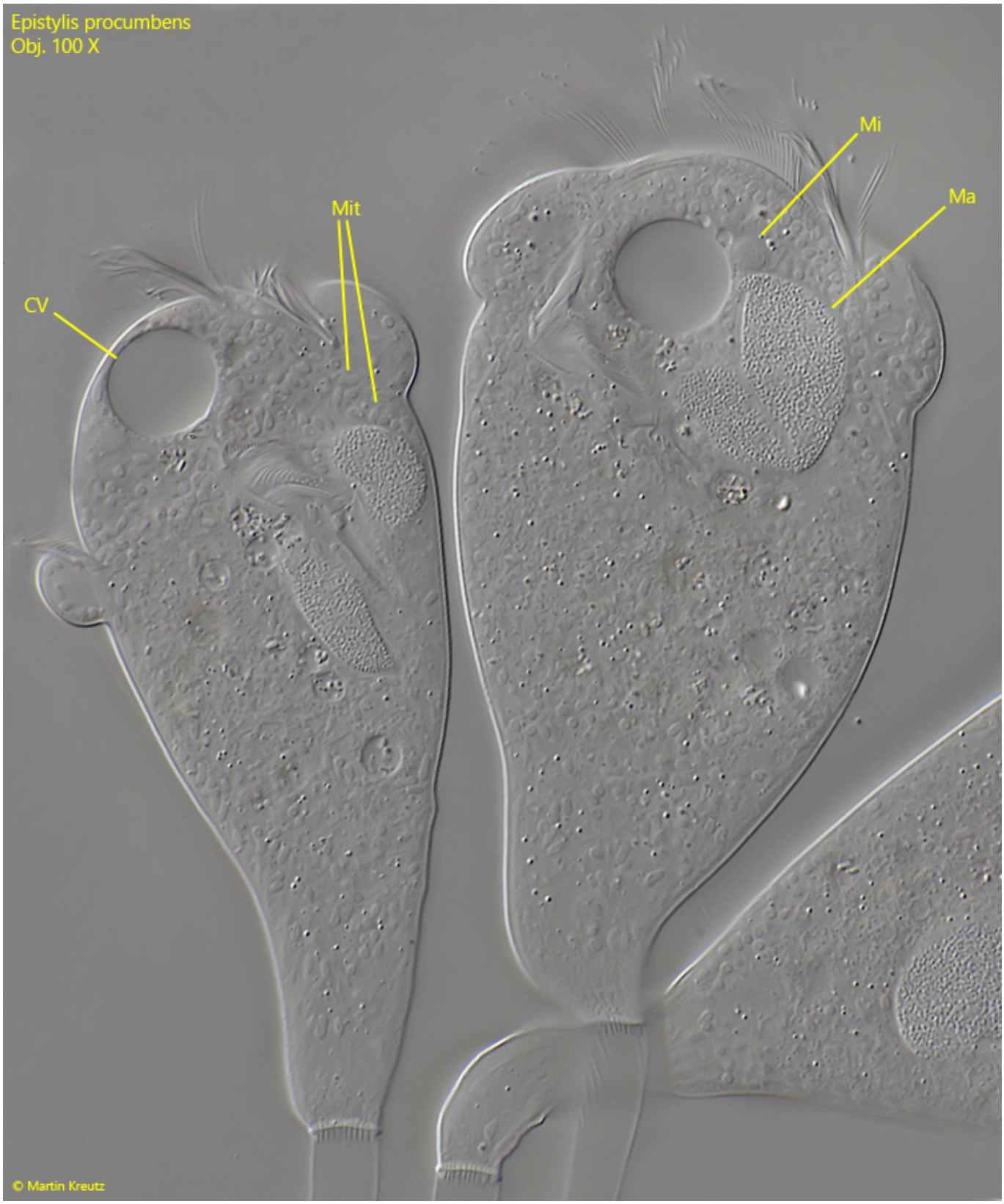


Fig. 5: *Epistylis procumbens*. In a more strongly squashed specimen the micronucleus (Mi) at the anterior end of the macronucleus (Ma) is visible. The 1–2 µm long “bubbles” are the mitochondria (Mit). CV = contractile vacuole. Obj. 100 X.

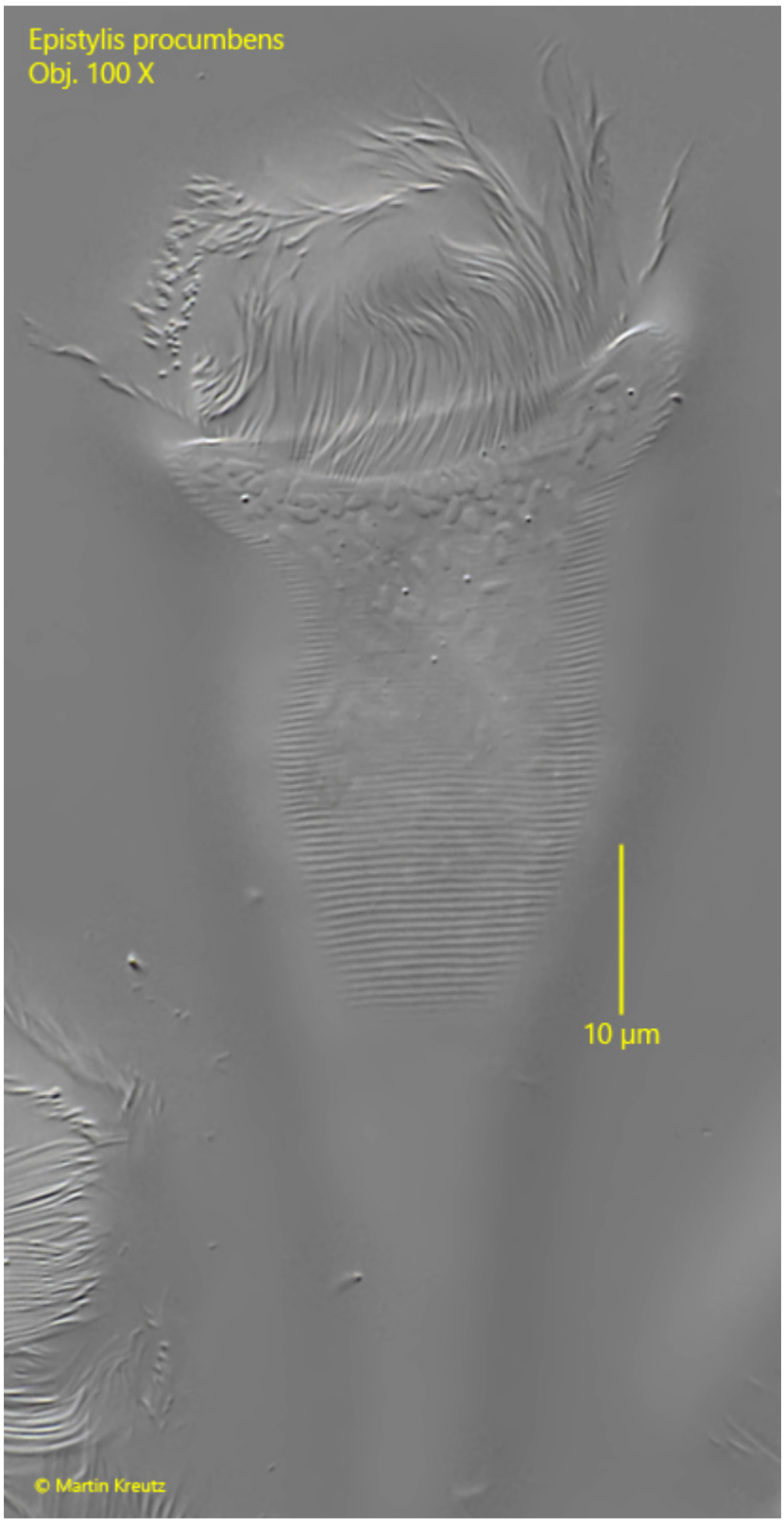


Fig. 6: *Epistylis procumbens*. The transverse striation of the pellicle. There are 17 lines per 10 µm. Obj. 100 X.



Fig. 7: *Epistylis procumbens*. Details of the stalks. Daughter colonies can be separated from the parent colony at the prospective separation sites (PS). Obj. 100

X.