Opercularia nutans

(Ehrenberg, 1831) Stein, 1854

Most likely ID: n.a.

Synonym: *Epistylis nutans*

Sampling location: Simmelried

Phylogenetic tree: ***Opercularia nutans***

Diagnosis:

- zooids in elongate state spindle- or vase-shaped
- contracted zooids spindle-shaped with a distinct snout and “hanging” at distal end of stalk
- length 50–110 µm, width 25–40 µm
- macronucleus semicircular, wrapped around the mouth funnel
- one contractile vacuole at end of mouth funnel in mid-body
- pellicle narrowly striated
- stalks not contractile, about 10 µm in diameter, not hollow, conspicuously transversely striated, branching dichotomous
- colonies up to 3 mm high



1 = after Ehrenberg
2 = after Roux
3 = after Wang Chiachi & Nie Dashu

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I found *Opercularia nutans* growing on coverslips floating on samples from the Simmelried. This made it easy to observe the colonies. The species is easy to identify because it has several characteristic features. The elongated as well as the contracted zooids are spindle-shaped, whereas the contracted zooids somewhat resemble the shape of a lemon (s. figs. 2 a-b and 3). In addition, the contracted zooids droop from the distal ends of the stalks in a characteristic manner (s. fig. 2 a-b). The stalks of the colonies are noncontractile and conspicuously transversely striated. In addition, the stalks are longitudinally striated internally (s. fig. 5b). So far I could detect *Opercularia nutans* only once in February 2023. From my other sites this species is not known to me.



Fig. 1: *Opercularia nutans*. L = 74–82 µm. A colony of 9 zooids. Obj. 40 X.

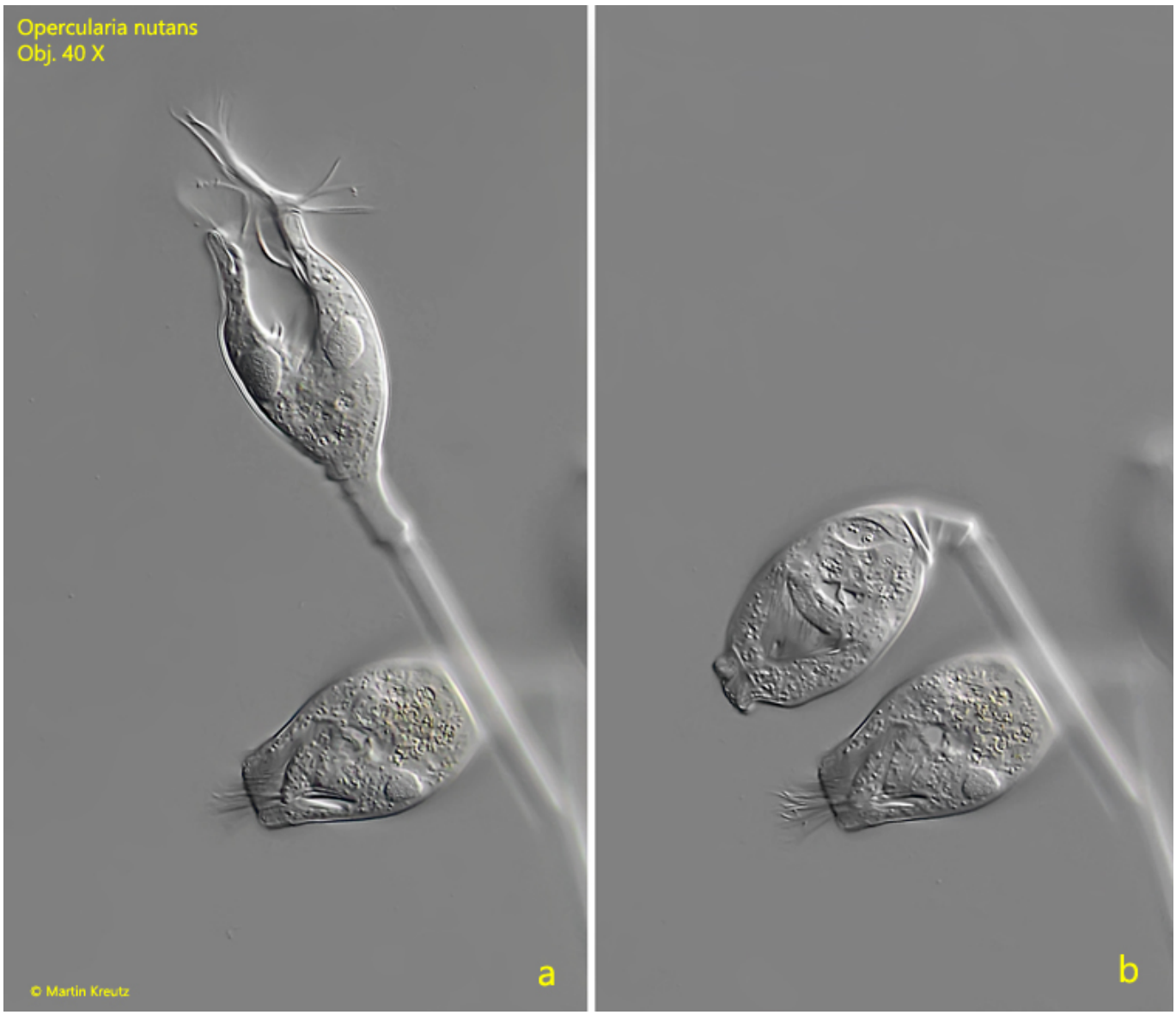


Fig. 2 a-b: *Opercularia nutans*. L = 74 µm. A fully elongated (a) and a contracted zooid (b). The contracted zooids “hang down” at the distal end of the stalks, which is a very characteristic feature of the species. Obj. 40 X.



Fig. 3: *Opercularia nutans*. In some contracted zooids the ribbon-shaped macronucleus (Ma) wrapped around the mouth funnel is visible as well as the

spherical micronucleus. Obj. 60 X.



Fig. 4: *Opercularia nutans*. Focal plane on the contractile vacuoles (CV) in some contracted zooids. The contractile vacuole is loacted at the end of the mouth funnel in mid-body. Obj. 60 X.

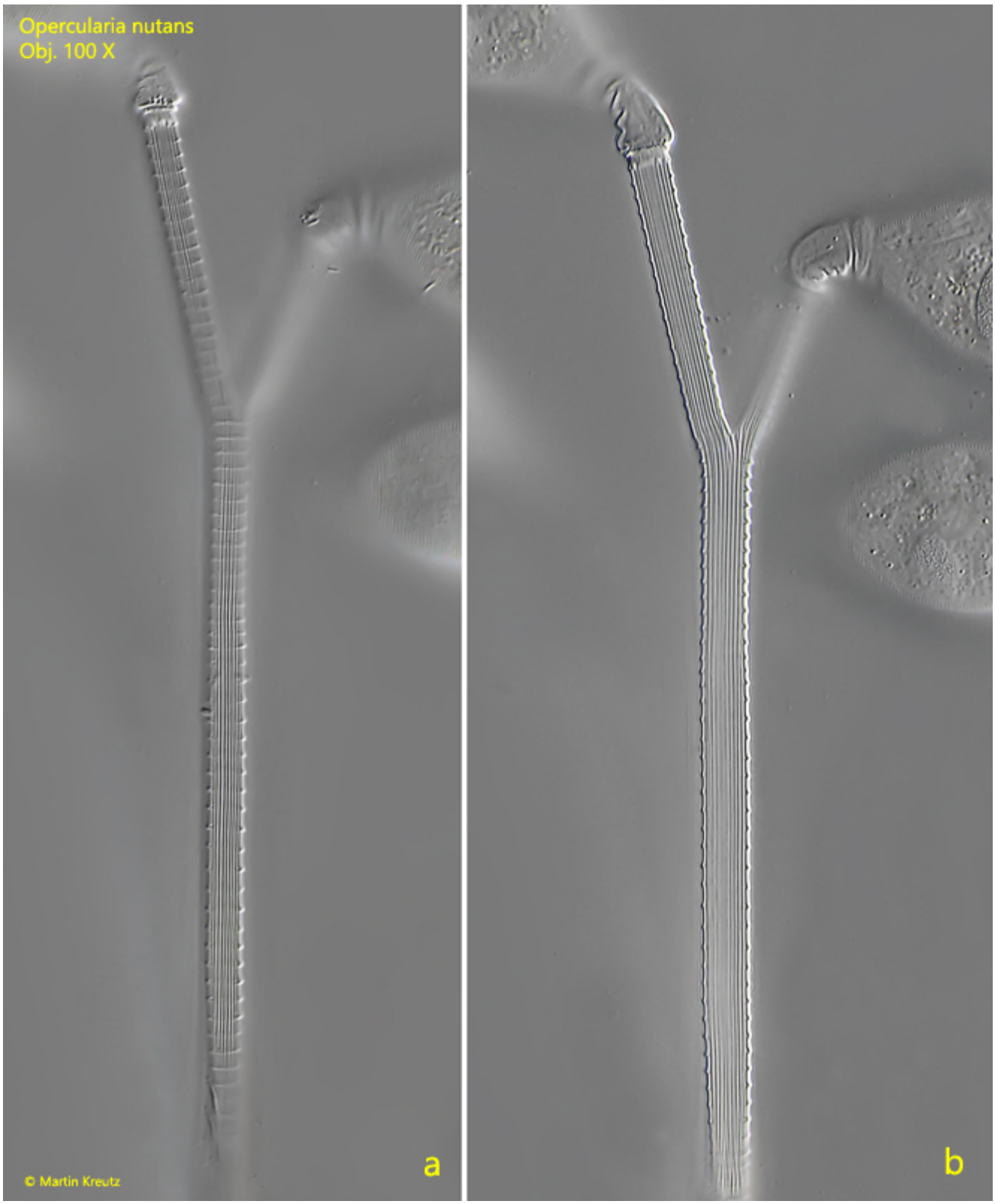


Fig. 5 a-b: *Opercularia nutans*. Two focal planes of the stalk. The surface of the stalk is transversely striated (a), while a clear longitudinal striation can be seen inside the stalk (b). Obj. 60 X.