

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

Opercularia nutans

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.

Opercularia nutans
Obj. 40 X



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

Opercularia nutans
Obj. 40 X



a



b

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Fig. 2 a-b: *Opercularia nutans*. L = 74 μ m. 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.

Opercularia nutans
Obj. 60 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 located at the end of the mouth funnel in mid-body. Obj. 60 X.

Opercularia nutans
Obj. 100 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.