Cylindrifflugia bacillariarum

(Perty) González-Miguéns et al., 2022

Most likely ID: n.a.

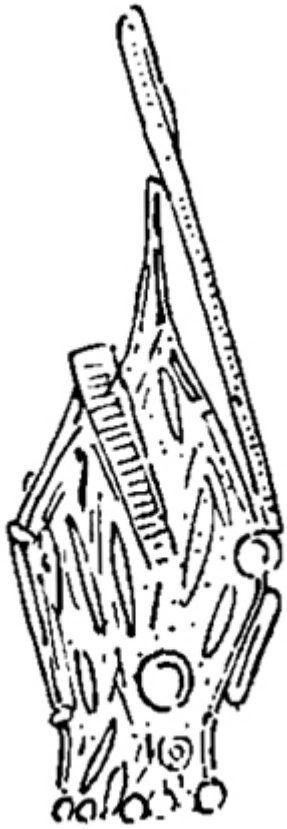
Synonym: *Difflugia bacillariarum*

Sampling location: Simmelried, Sima Moor (Austria)

Phylogenetic tree: *Cylindrifflugia bacillariarum*

Diagnosis:

- shell ovoid or spherical, with a posterior spine
- shell colorless or yellowish brown, covered with siliceus scales and diatom frustules
- length 57–133 µm
- aperture of shell circular (often covered by diatom frustules)
- nucleus spherical, located posterior



after Penard

Cylindrifflugia bacillariarum

So far I have only found *Cylindrifflugia bacillariarum* twice. The first time in April 1997 in Simmelried and the second time in Sima Moor (Austria) in June 2024. Since 1997 I have not found any further specimens in the Simmelried.

The shell of *Cylindrifflugia bacillariarum* is completely covered with empty frustules of diatoms and it has an elongated spike at the posterior end, which makes it very characteristic. Penard (1902) considered *Cylindrifflugia bacillariarum* to be a variant of *Difflugia elegans* (meanwhile *Cylindrifflugia elegans* (Penard) n. comb. González-Miguéns et al., 2022), but points out that it was declared as *Difflugia bacillariarum* by Perty (1849). In fact, the two species are very similar and have often been confused in the past. However, the shell of *Cylindrifflugia elegans* is not completely covered with diatom frustules, but also with a high proportion of mineral grains (s. Ferry Siemensma – Microworld- *Cylindrifflugia elegans*). Since the specimens in my population were completely covered with diatom frustules, they must be *Cylindrifflugia bacillariarum*.

More information and images on *Cylindrifflugia bacillariarum*: Ferry Siemensma-

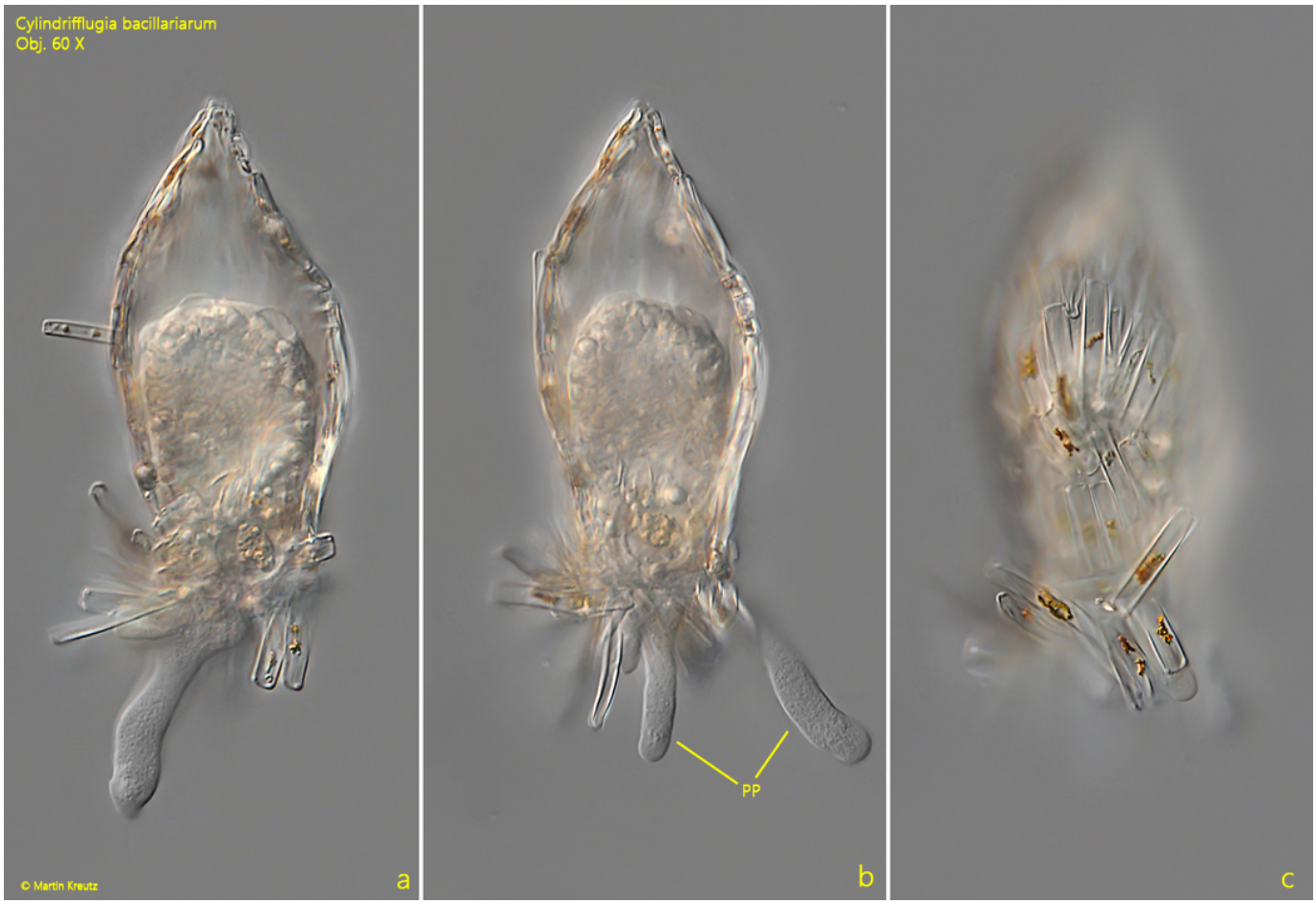


Fig. 1 a-c: *Cylindrifflugia bacillariarum*. L = 96 µm. Three focal planes of a specimen with extended pseudopodia (PP). Diatom frustules intended for assembling in the shell or for creating a daughter shell are gathered around the cytostome. Obj. 60 X.

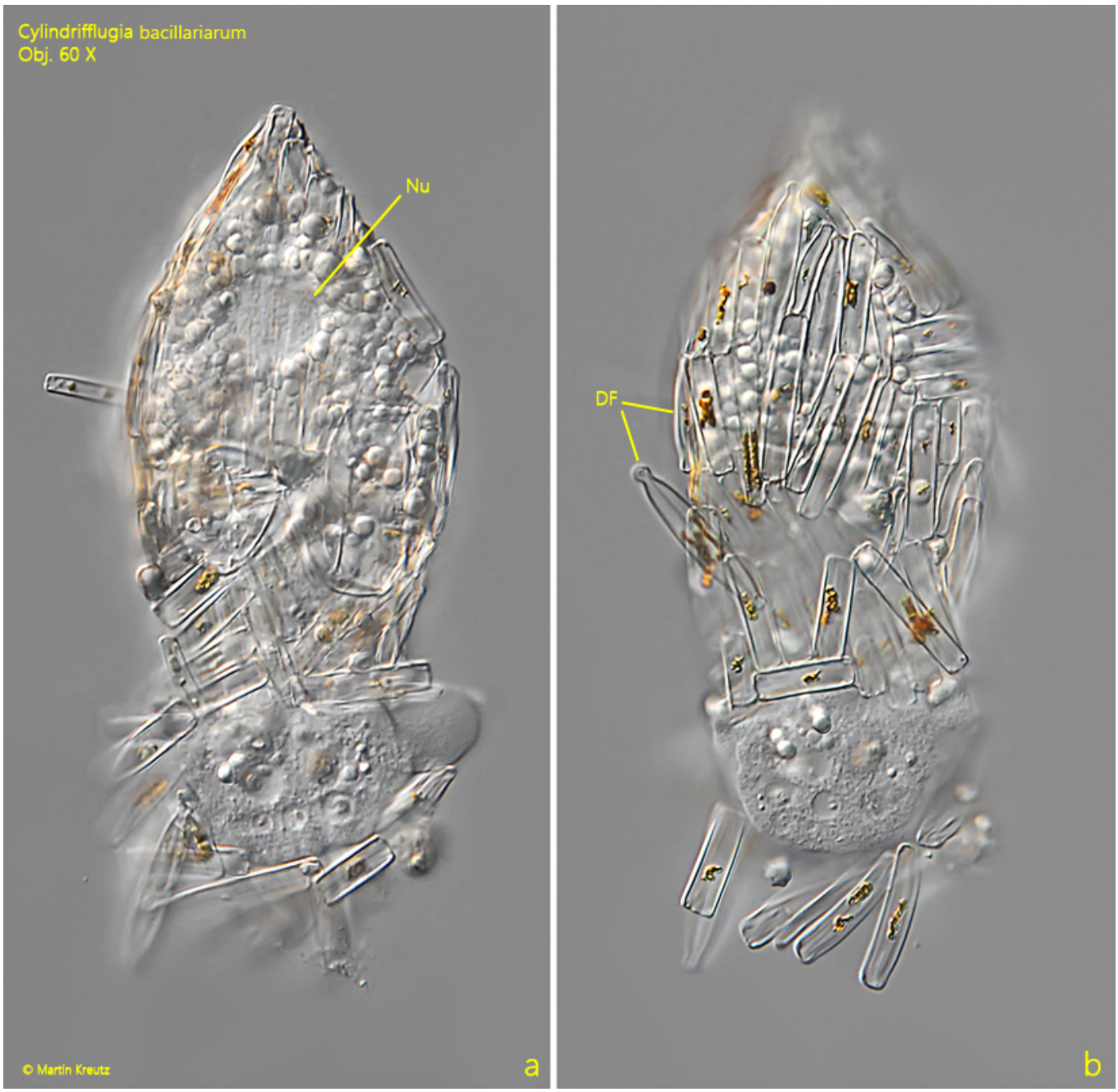


Fig. 2 a-b: *Cylindrifflugia bacillariarum*. L = 96 µm. The slightly squashed specimen as shown in fig. 1 a-c. The spherical nucleus (Nu) is located in the posterior third and the shell is exclusively covered with diatom frustules (DF). Obj. 60 X.