Treubaria triappendiculata

Bernard, 1908

Most likely ID: n.a.

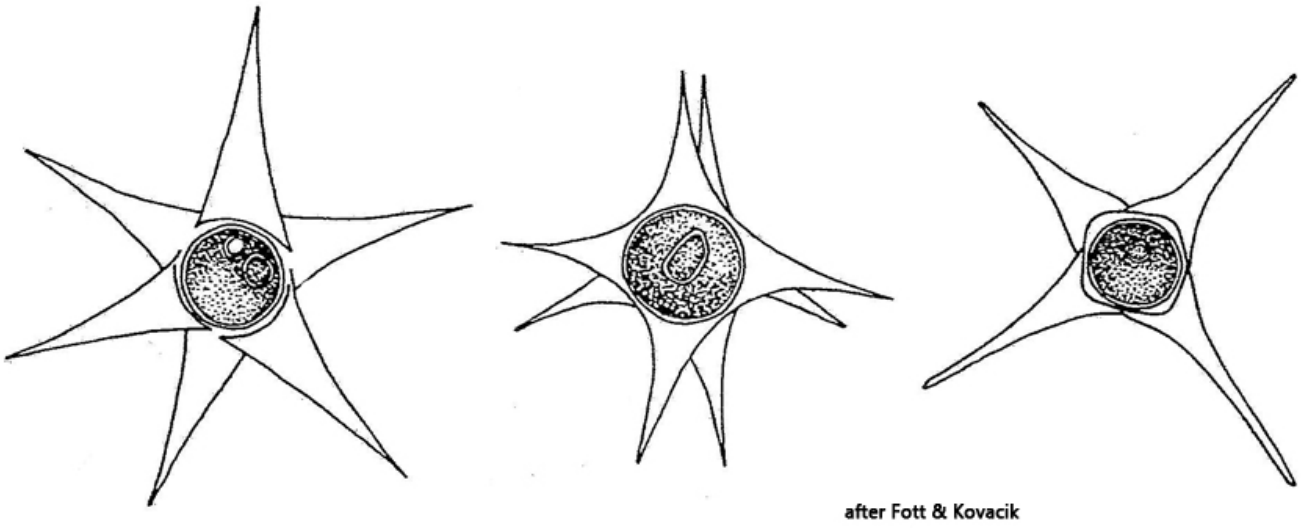
Synonym: *Treubaria euryacantha*

Sampling location: Pond of the waste disposal company Constance

Phylogenetic tree: *Treubaria triappendiculata*

Diagnosis:

- cells roundly, sometimes asymmetrical or triangular
- diameter 12–17 µm
- with 4–8 spine-shaped appendages
- length of appendages 12–40 µm
- base of appandages widened, covering the cell
- cells with 8 appendages octahedral
- 1–4 pyrenoids
- one parietal chloroplast
- planktonic lifestyle



Treubaria triappendiculata

So far, I have only found *Treubaria triappendiculata* once in August 2023 in the plankton of the pond of the waste disposal company Constance. I have not been able to find this species in any of my other sampling sites.

Most of the specimens I examined had 7 or 8 spiny appendages. Therefore it can only be *Treubaria triappendiculata*, because all other described *Treubaria* species have only 4 appendages. However, the distinction between the species seems to be in flux, because *Treubaria euryacantha*, which was described with 4 appendages, is now synonymous with *Treubaria triappendiculata*. The number of spiny appendages therefore seems to be variable. I have also noticed that the appendages can become detached very easily, which is why often specimens with an odd number of appendages can be found.

The cells in my population were all asymmetrically roundish and had a diameter of more than 15 µm. I could only recognize one pyrenoid at a time, and older cells were often opaque.

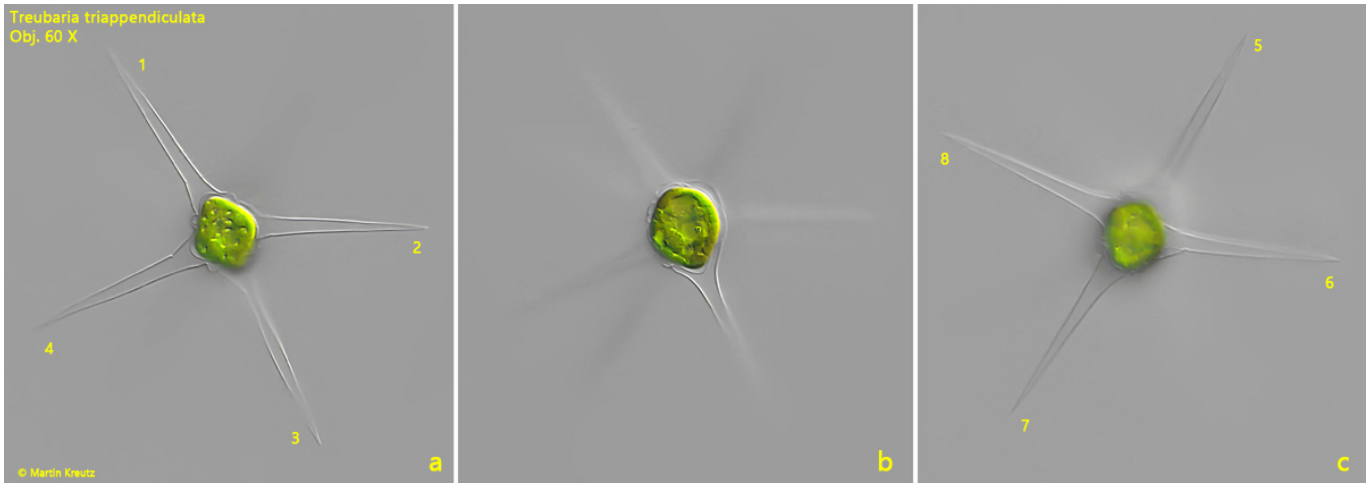


Fig. 1 a-c: *Treubaria triappendiculata*. D = 17 µm (of cell). Three focal planes of a specimen with 8 spine-shaped appendages (1-8). Obj. 60 X.

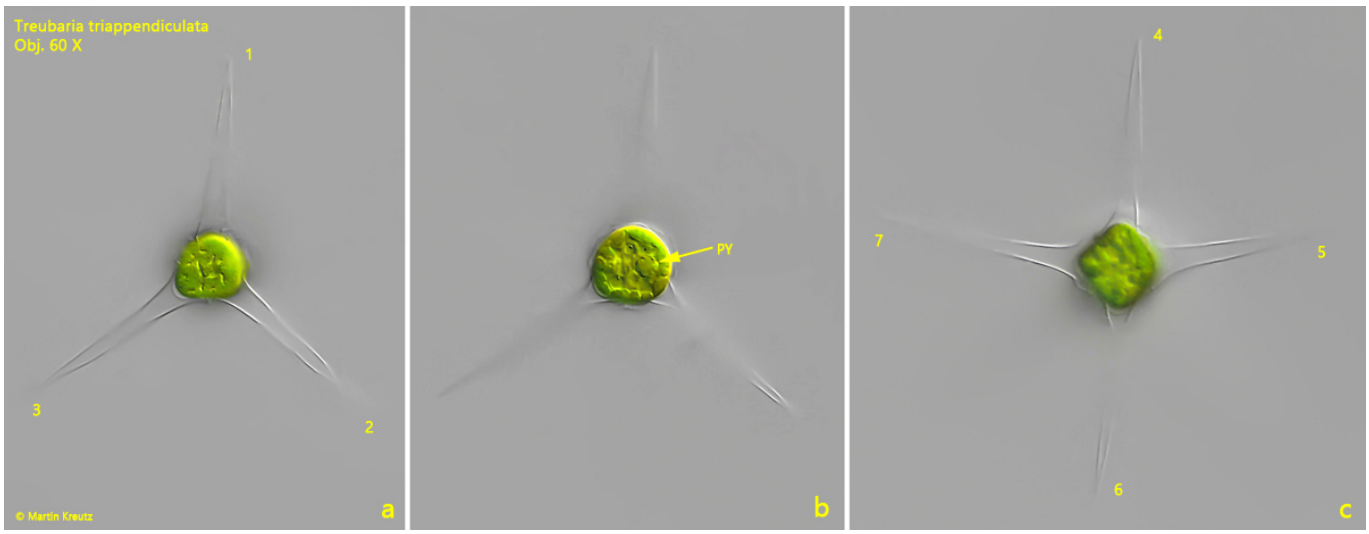


Fig. 2 a-c: *Treubaria triappendiculata*. D = 17 µm (of cell). Three focal planes of a second specimen with 7 spine-shaped appendages (1-7). PY = pyrenoid. Obj. 60 X.

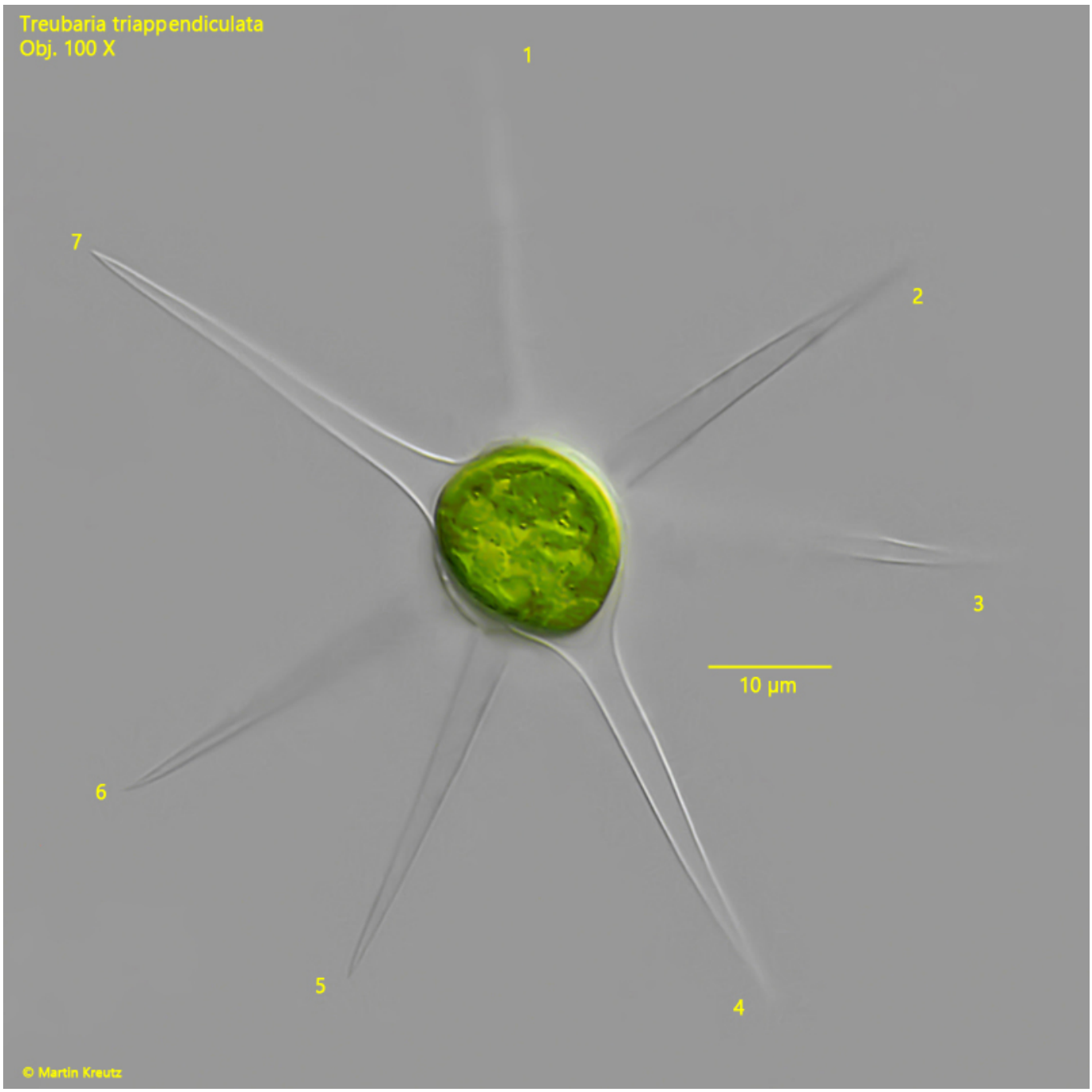


Fig. 3: *Treubaria triappendiculata*. D = 17 µm (of cell). A slightly squashed specimen with 7 spine-shaped appendages (1-7). Obj. 100 X.