Desmatractum plicatum

West & G.S. West, 1902

Most likely ID: n.a.

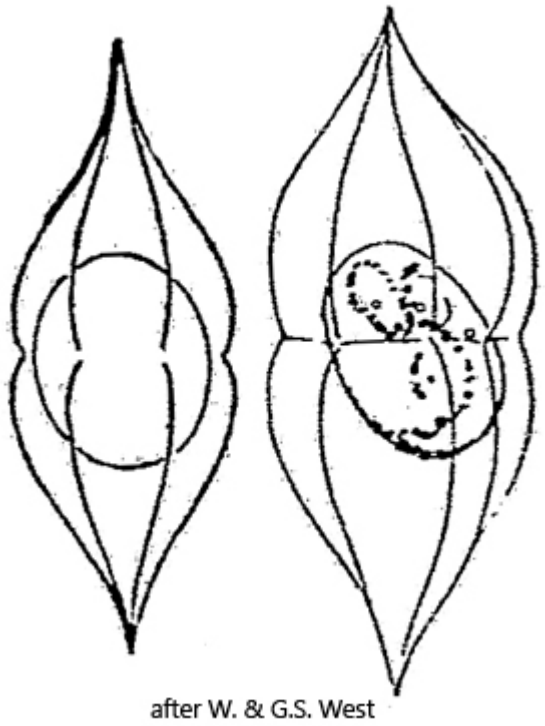
Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: *Desmatractum plicatum*

Diagnosis:

- cell envelope fusiform
- cell envelope equator clearly indented
- apices of cell envelope short spines
- 8–10 longitudinal ribs
- length up to 22 µm, width up to 9 µm (of cell envelope)
- cell spherical, much smaller than cell envelope
- cell with cup-shaped chloroplast
- one pyrenoid



Desmatractum plicatum

So far, I have found only a single specimen of *Desmatractum plicatum* in August 2024. The specimen had settled on a floating cover glass in a sample from the Simmelried.

Desmatractum plicatum was previously described only by W. & G.S. West in 1902. The authors described a population from Ceylon (= Sri Lanka). Apparently, there are no further records of this alga.

The main characteristic of *Desmatractum plicatum* is the spindle-shaped cell envelope, which has only short extended tips and a clearly indented cell equator. In addition, the cell envelope has 8–10 longitudinal ribs, which are clearly visible (s. fig. 1 c). The cell itself is spherical and sits centrally in the much larger cell envelope. In my specimen, the cell had a diameter of 5.2 µm. I could not discern the shape of the chloroplast or the pyrenoid.

The similar species *Desmatractum bipyramidatum* is significantly longer, about 30 µm in length. In addition, the cell envelope is slimmer in shape and does not have an indented equator.

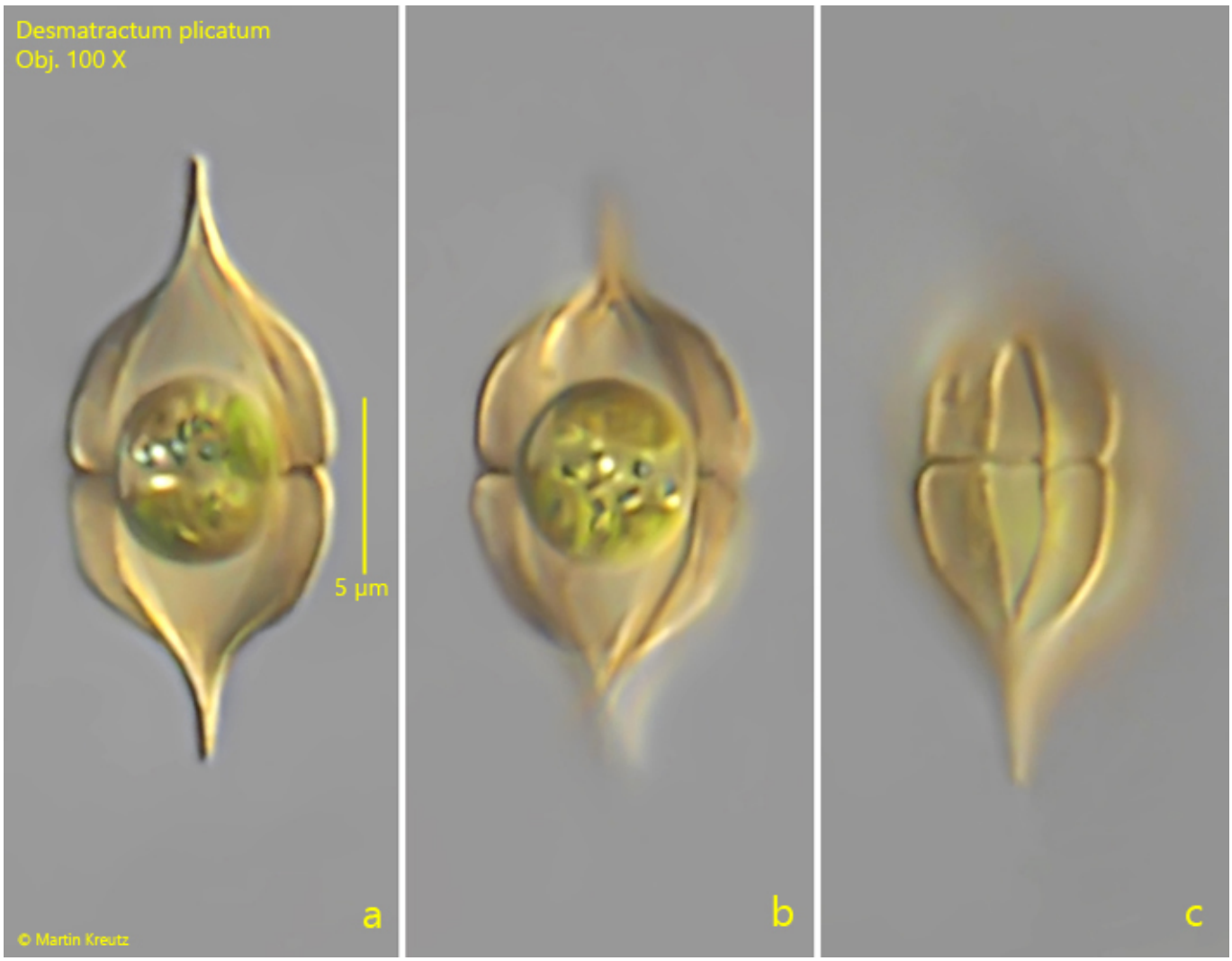


Fig. 1 a-c: *Desmatractum plicatum*. L = 17 µm. Three focal planes of yellowish colored specimen. Note the distinct constriction at the equator of the cell envelope and the longitudinal ribs. The spherical cell in the center has a diameter of 5.2 µm. Obj. 100 X.