Micrasterias truncata

Brébisson ex Ralfs, 1848

Most likely ID: n.a.

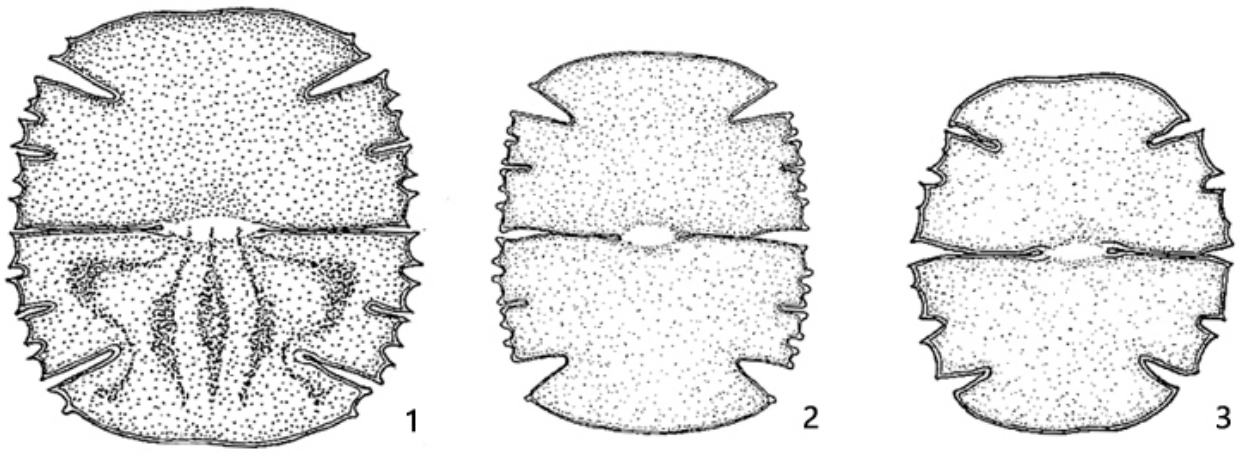
Synonym: – –

Sampling location: Simmelried, Ulmisried

Phylogenetic tree: *Micrasterias truncata*

Diagnosis:

- length 80 – 120 µm
- width 80 – 110 µm
- outline broadly elliptical
- semi-cells 5-lobed
- lateral lobes are toothed, apical lobe wide.
- surface finely dotted



1 - 3 = after Lenzenweger

Micrasterias truncata

Micrasterias truncata tends to have a high degree of shape variation and often

forms anomalies. Occasional mass development in Simmelried, especially in *Sphagnum* mosses in silting up ponds.

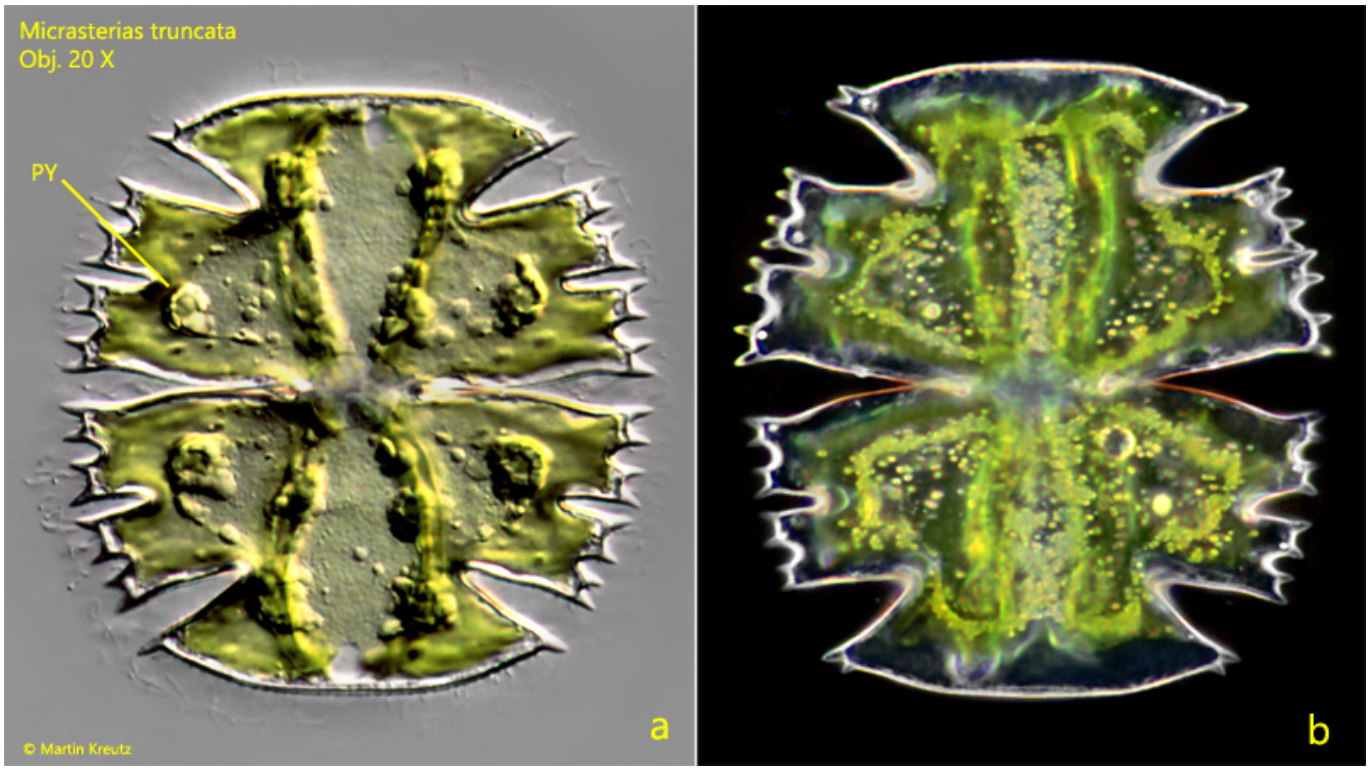


Fig. 1: *Micrasterias truncata*. L = 106. With DIC (a) and in dark field (b). PY = pyrenoid. Obj. 20 X.

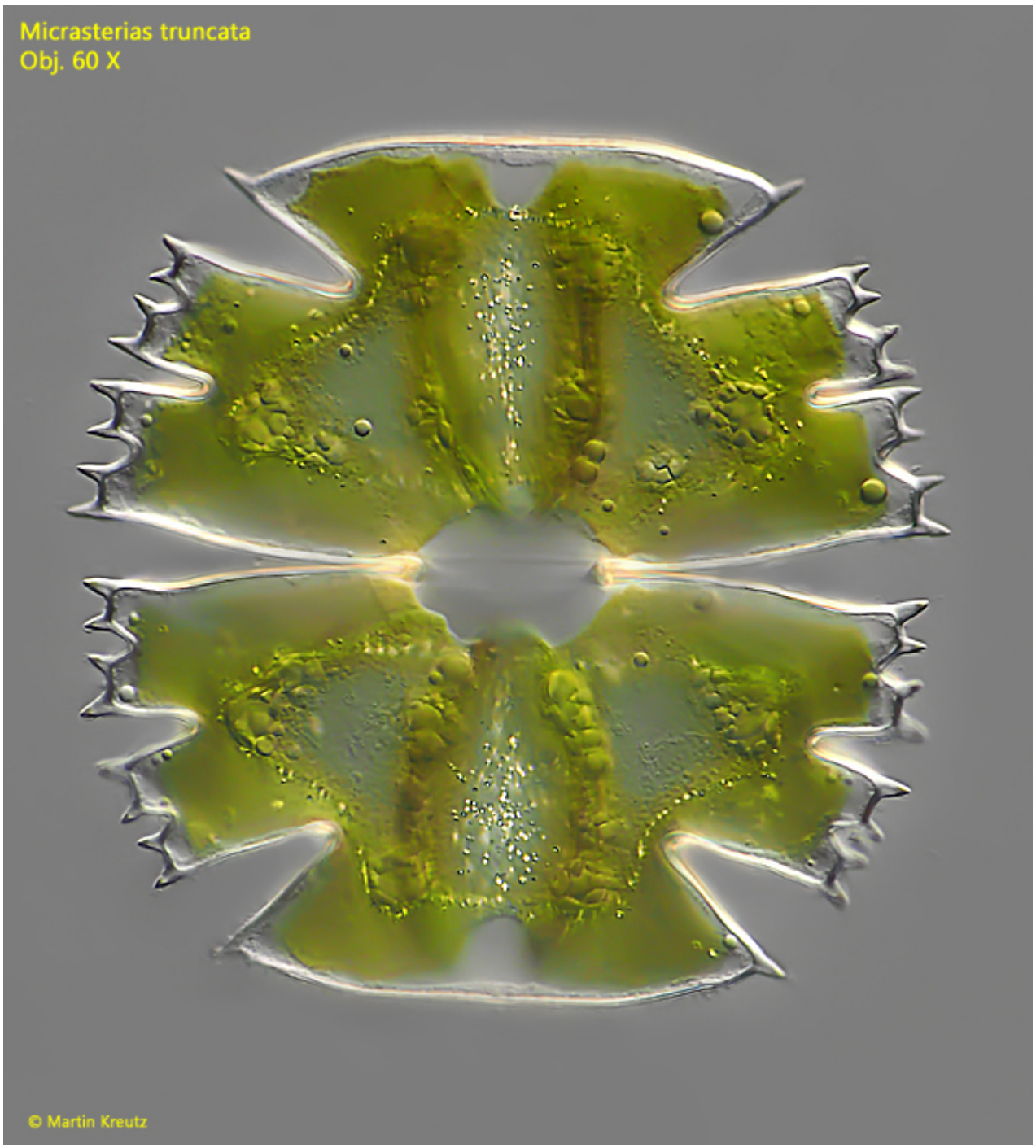


Fig. 2: *Micrasterias truncata*. L = 110 µm. Specimen from Simmelried. Obj. 60 X.

During cell division of *Micrasterias truncata*, two new half cells are formed between the parental semi-half cells. These new semi-cells are initially filled exclusively with plasma and the previously divided nuclei are localized within them (s. Fig. 3). As the new semi-cells grow to the size of the parental semi-cells, the chloroplast migrates in.

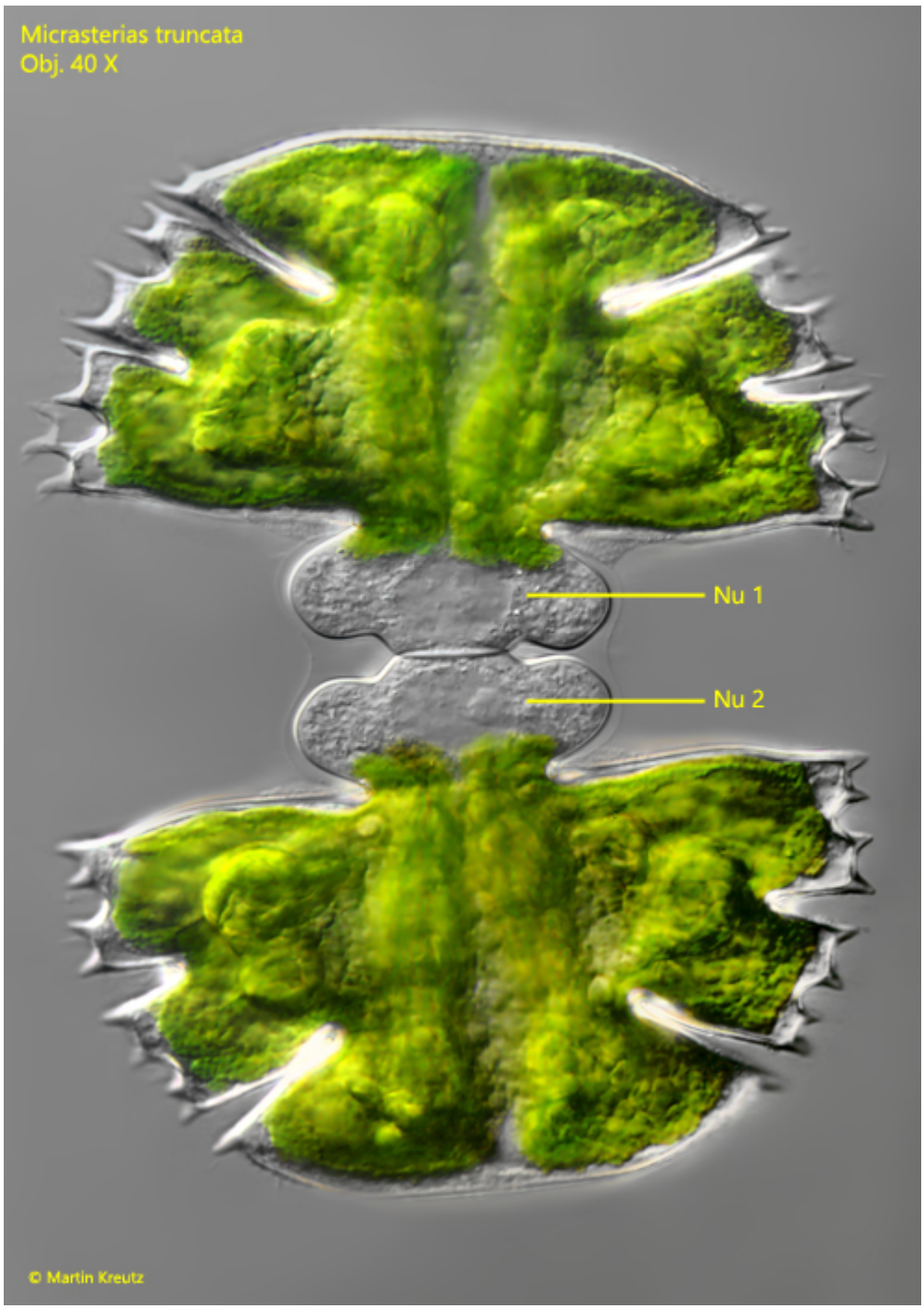


Fig. 3: *Micrasterias truncata*. L = 110 µm. Specimen during cell division. The nuclei of the new cells are located in the transparent new semi-cells. Nu 1, Nu 2 = nuclei. Obj. 40 X.

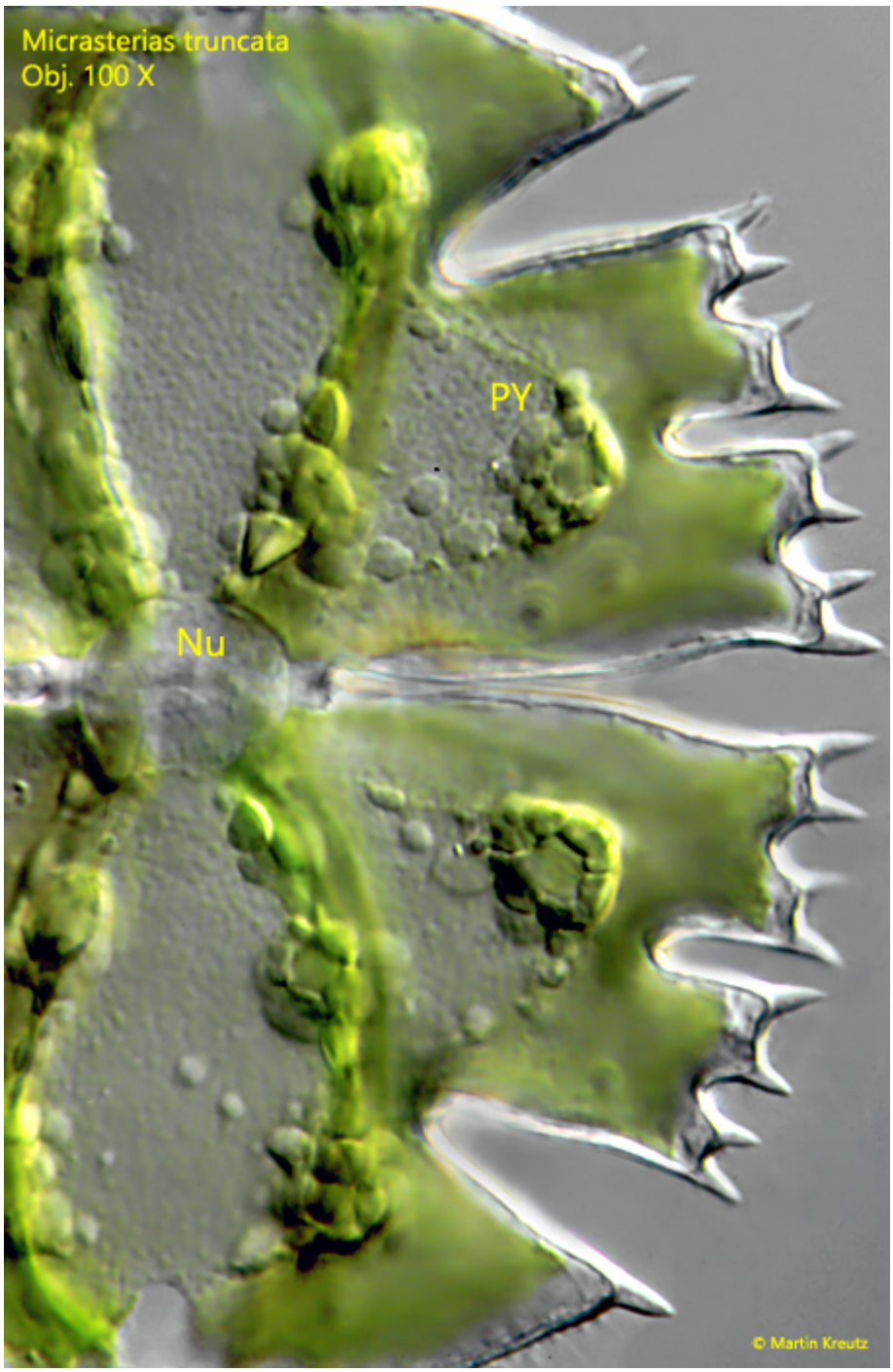


Fig. 4: *Micrasterias truncata*. Details in the semi-cells with the central nucleus (Nu) and pyrenoids (PY) in the chloroplasts. Obj. 100 X.

Micrasterias truncata secretes a gelatinous sheath. This is done by special pore apparatuses anchored in the cell wall, which can be seen as stippling of the cell surface by light microscopy. These pore apparatuses can be stained with crystal violet (s. Fig. 5). The staining also reveals which semi-cell is the older, parental half. The parental half will be stained more intensively.

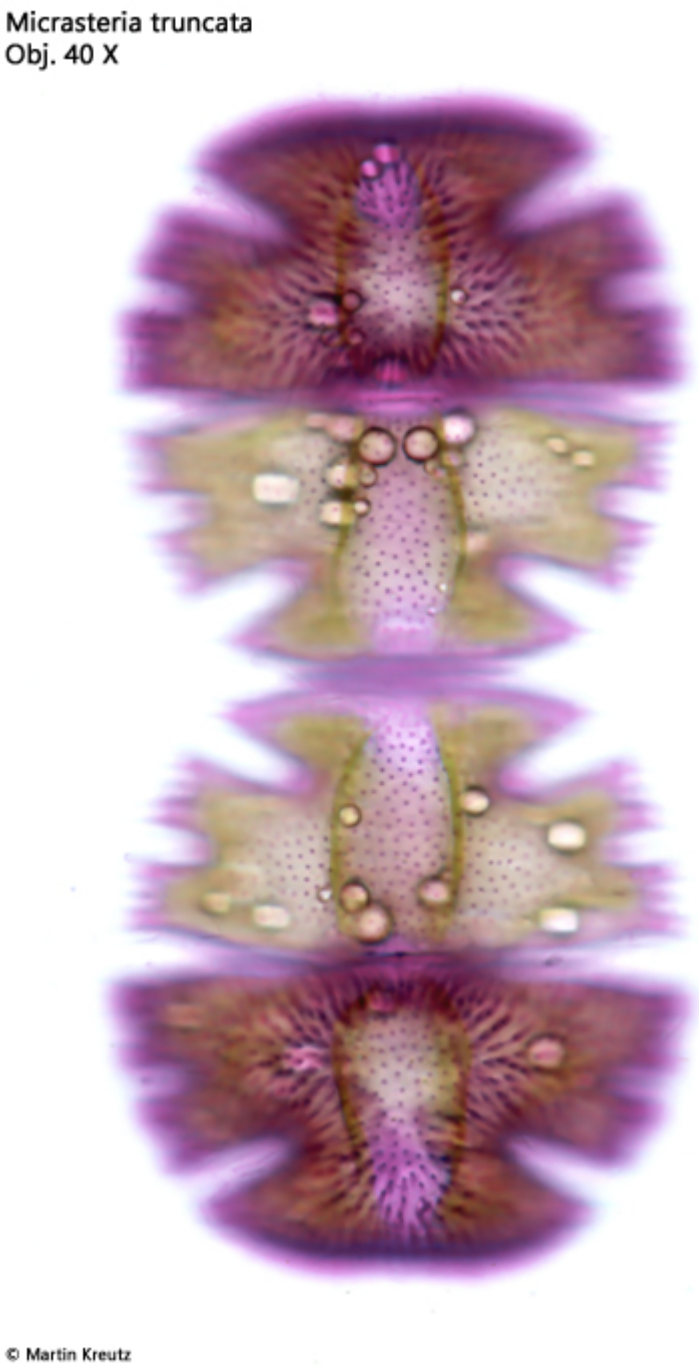


Fig. 5: *Micrasterias truncata*. The pore apparatuses located in the cell wall stained with crystal violet. Obj. 40 X.