Sporotetras polydermatica

(Kützing) Kostikov, Darienko,

Lukesová & L.Hoffmann, 2002

Most likely ID: n.a.

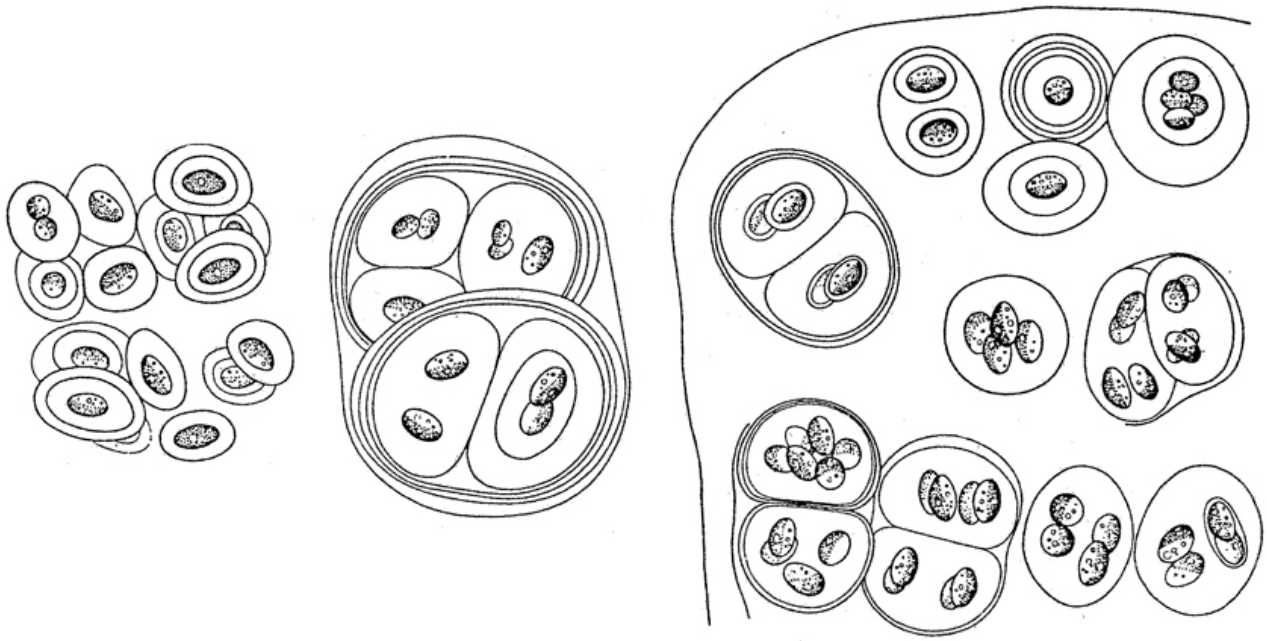
Synonym: *Gloeocystis polydermatica*

Sampling location: Simmelried

Phylogenetic tree: *Sporotetras polydermatica*

Diagnosis:

- cells ellipsoidal or oval, sometimes asymmetric
- length 6–11 µm, width 3.6–6.2 µm
- colonies irregularly shaped, amorphous and mucilaginous
- cells irregularly distributed in the colonies
- one, two or four cells in concentrically layered envelopes
- one chloroplast, cup-shaped, filling two-thirds of cell
- older cells filled with oil droplets and starch grains
- one pyrenoid



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I find *Sporotetras polydermatica* regularly but rarely in the Simmelried. The colonies are about 20 X 30 µm according to Hindák (1978). This is also about the size of the colonies in my population with diameters of 20–70 µm (not squashed). The cells in my population were mostly between 8–10 µm long and oval. The chloroplast is cup-shaped (s. fig. 4) and I could observe one pyrenoid (s. figs. 1 and 4). The cells were irregularly distributed in the colony and surrounded by a concentrically layered envelope (s. figs. 3 and 4). Thus, all features agree with the descriptions of Kostikov et al. and of Hindak (who described it as *Gloeocystis polydermatica*).

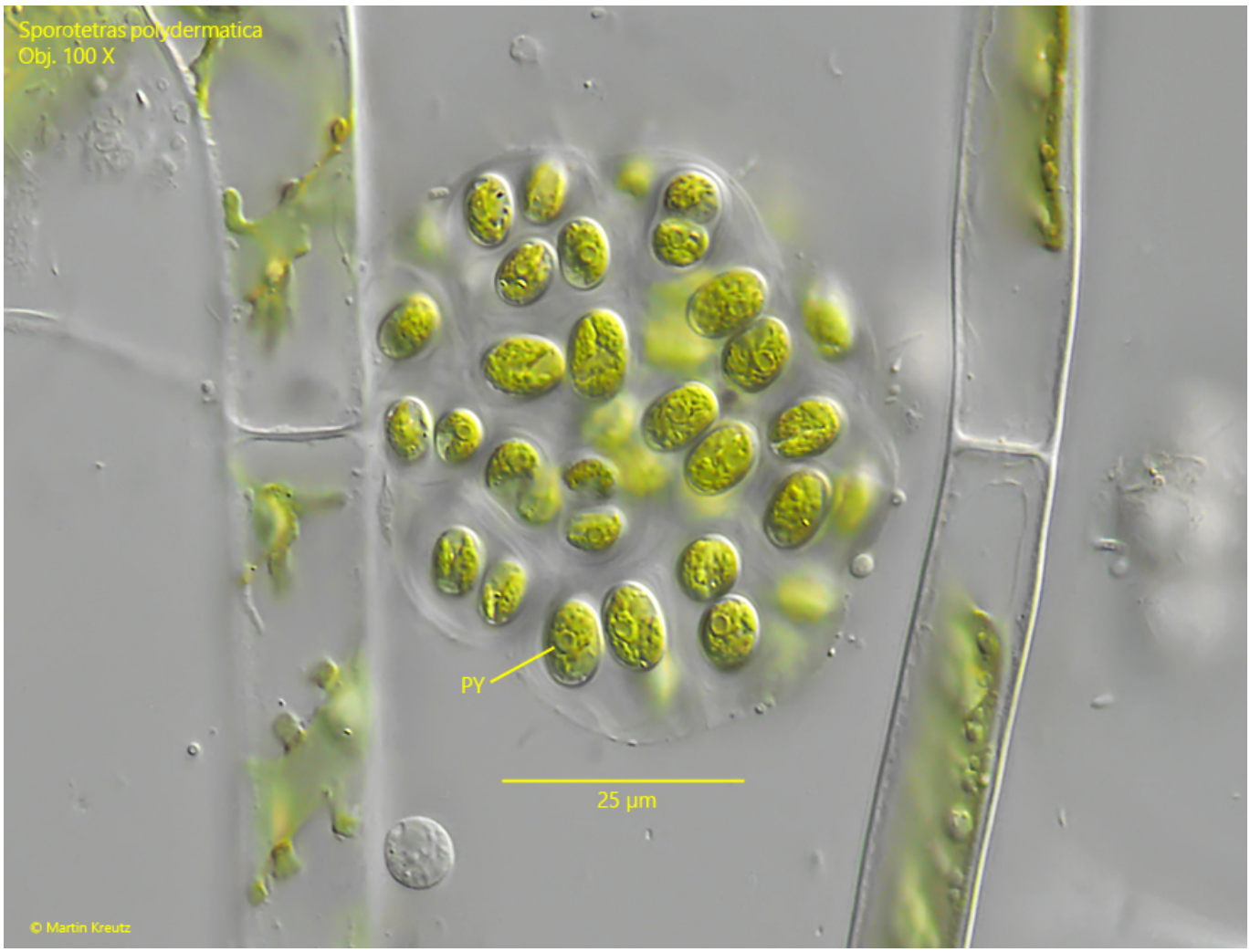

Fig. 1: *Sporotetras polydermatica.* D = 52 µm (of colony). A colony of about 50 cells. Obj. 100 X.

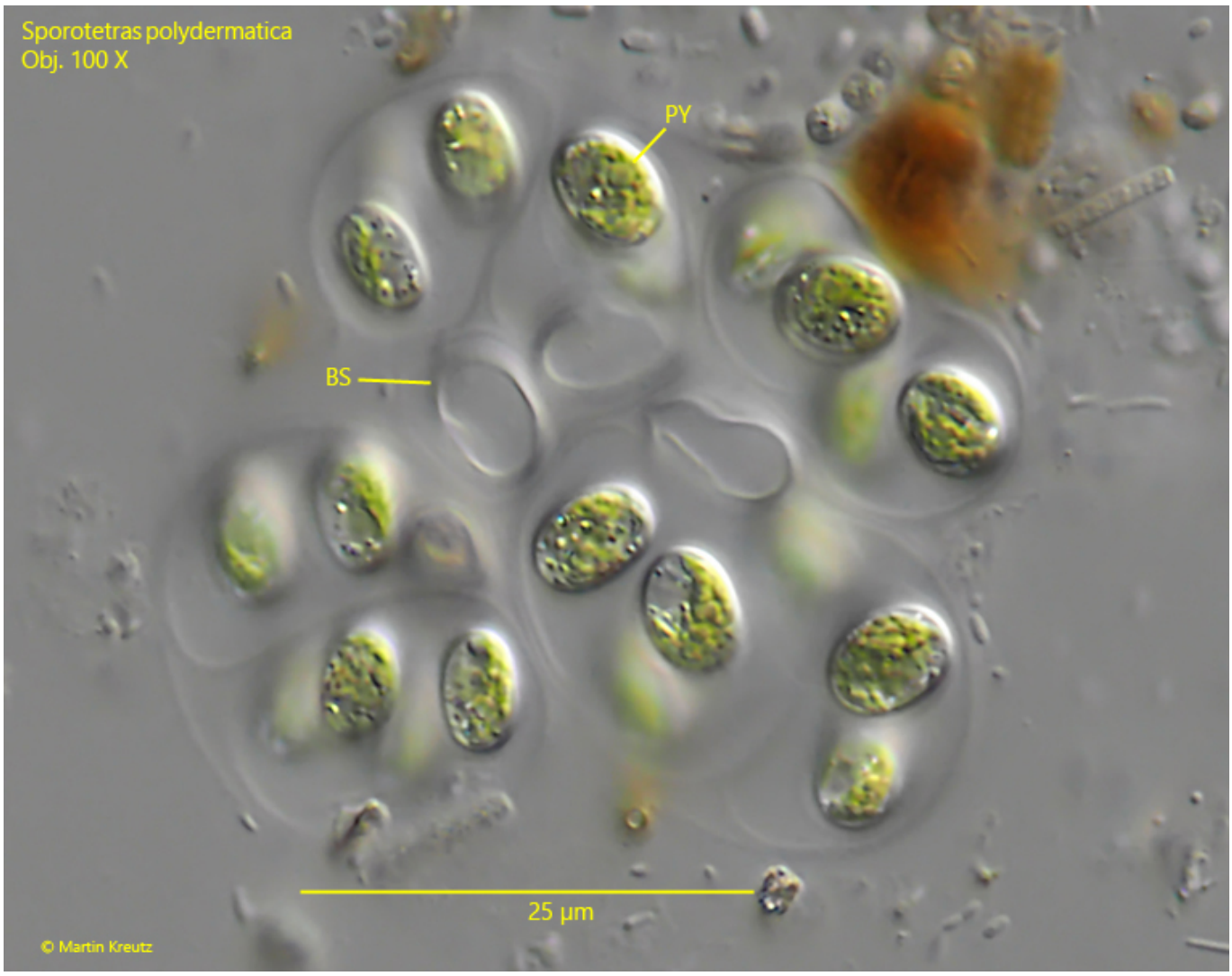

Fig. 2: *Sporotetras polydermatica.* A slightly squashed, small colony with some empty spaces (BS). Obj. 100 X.

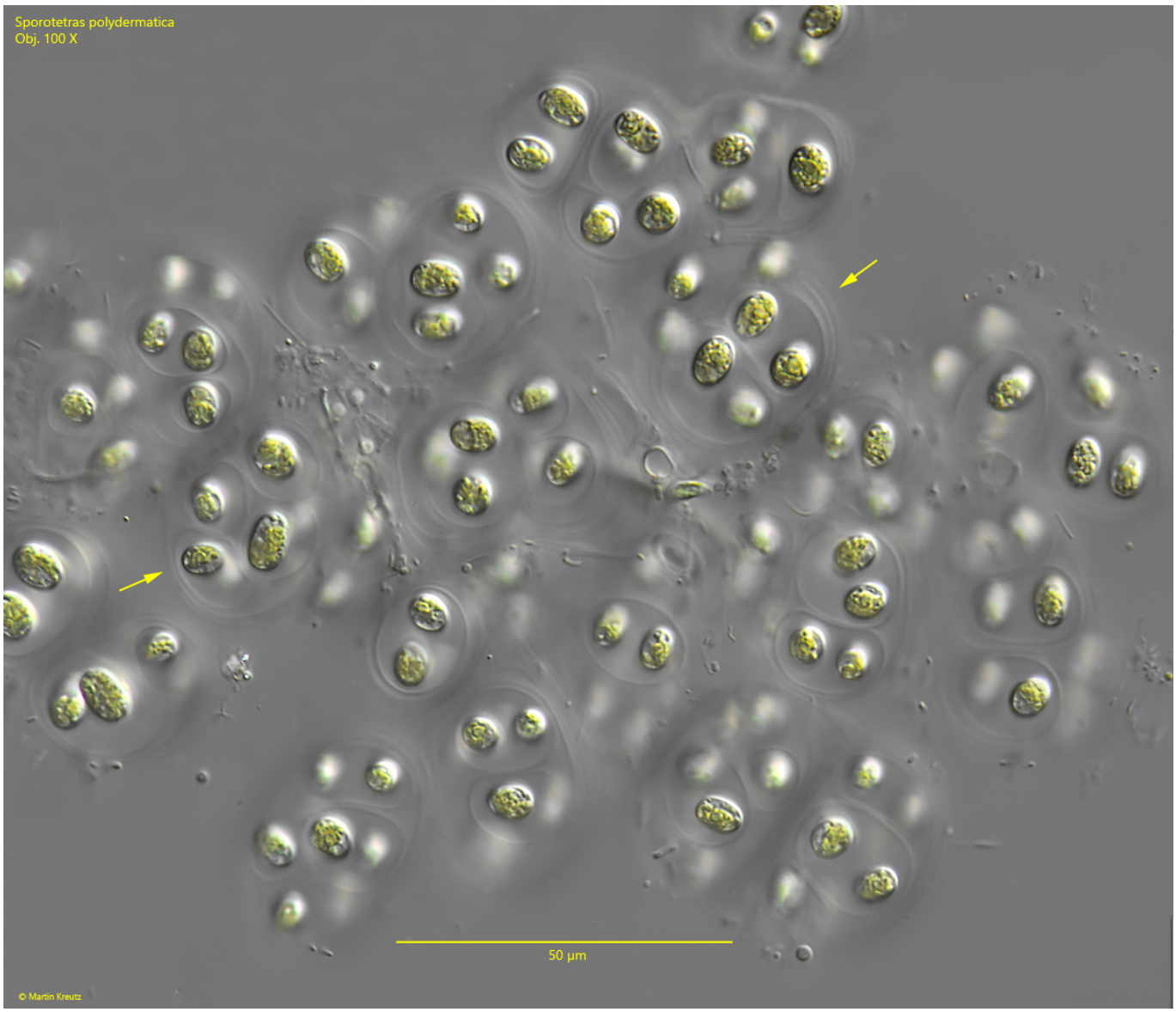

Fig. 3: *Sporotetras polydermatica.* A slightly squashed larger colony. Note the concentrically layered envelope covering the cells (arrows). Obj. 100 X.

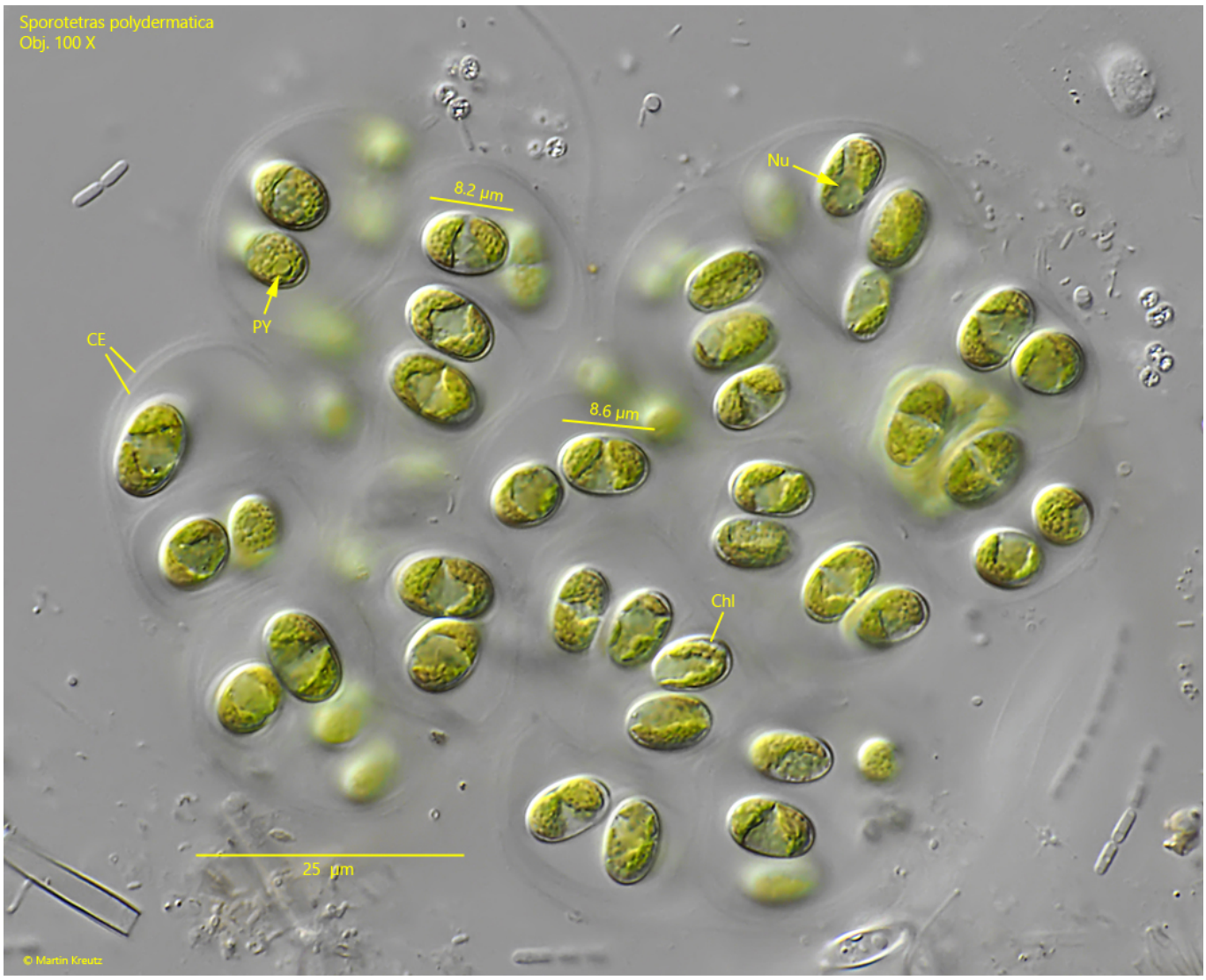

Fig. 4: *Sporotetras polydermatica.* L = 8.0–9.1 µm (of cells). A slightly squashed colony in detail. Note the cup-shaped chlorplast (Chl) of the cells. CE = concentrically layered envelope, Nu = nucleus, PY = pyrenoid. Obj. 100 X.