Closterium dianae

Ehrenberg ex Ralfs, 1848

Most likely ID: n.a.

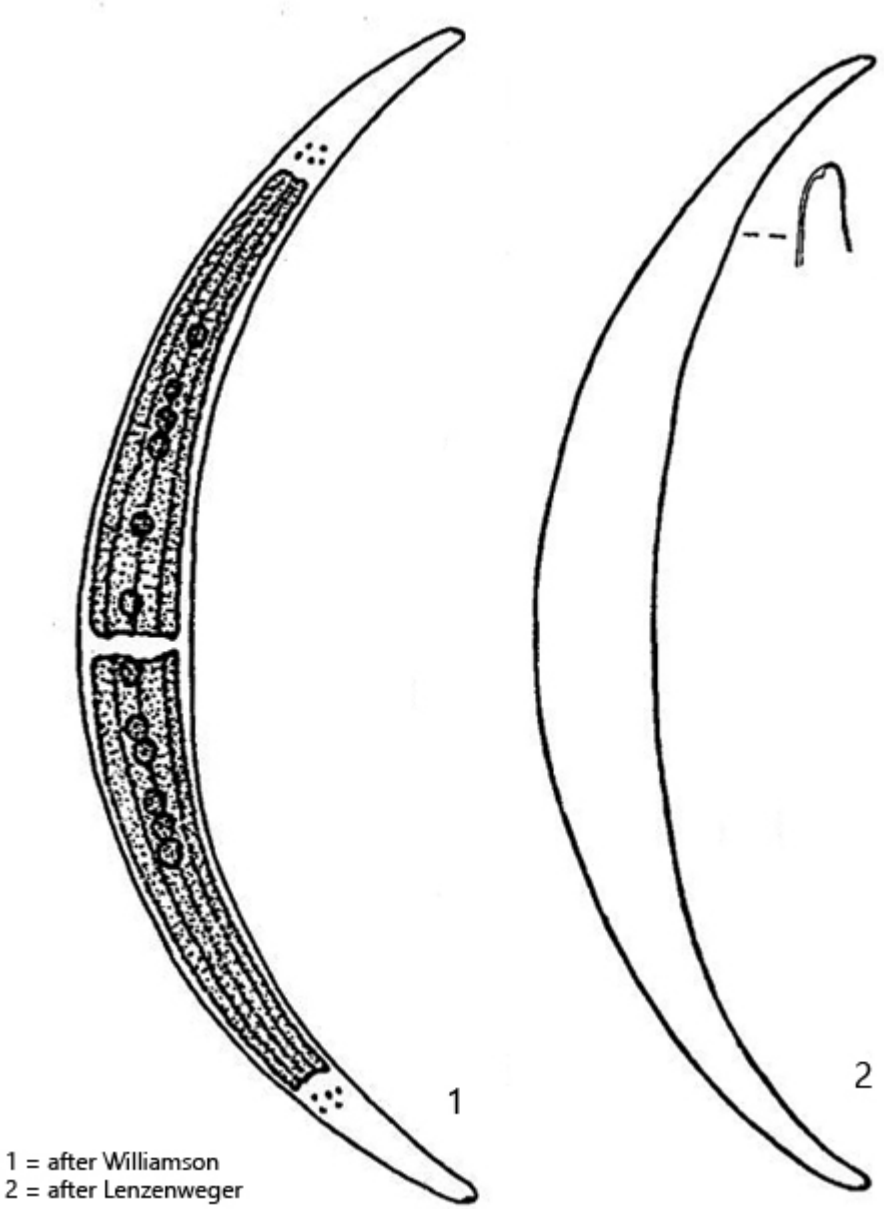
Synonym: n.a.

Sampling location: Ibmer Moor (Austria), Ulmisried, Simmelried

Phylogenetic tree: *Closterium dianae*

Diagnosis:

- cell crescent-shape 20 times longer than wide
- apices obliquely truncated with a terminal pore
- inner margin sometimes straight or slightly convex in mid-region
- length 180–300 µm, width 20–30
- cell wall smooth without striation
- two chloroplasts, each with 3–5 longitudinal ridges
- several pyrenoids arranged along cell axis
- girdle bands absent, sometimes pseudo-girdle bands
- apices with each one vacuole filled with crystals
- nucleus central



Closterium dianae

I have only rarely found *Closterium dianae* so far. The cells are slender and quite evenly curved. Essential features for identification are the pores at the apices (s. fig. 2), the smooth cell wall without striations (s. fig. 3) and the pyrenoids arranged along the longitudinal axis (s. figs. 1 a and 2).

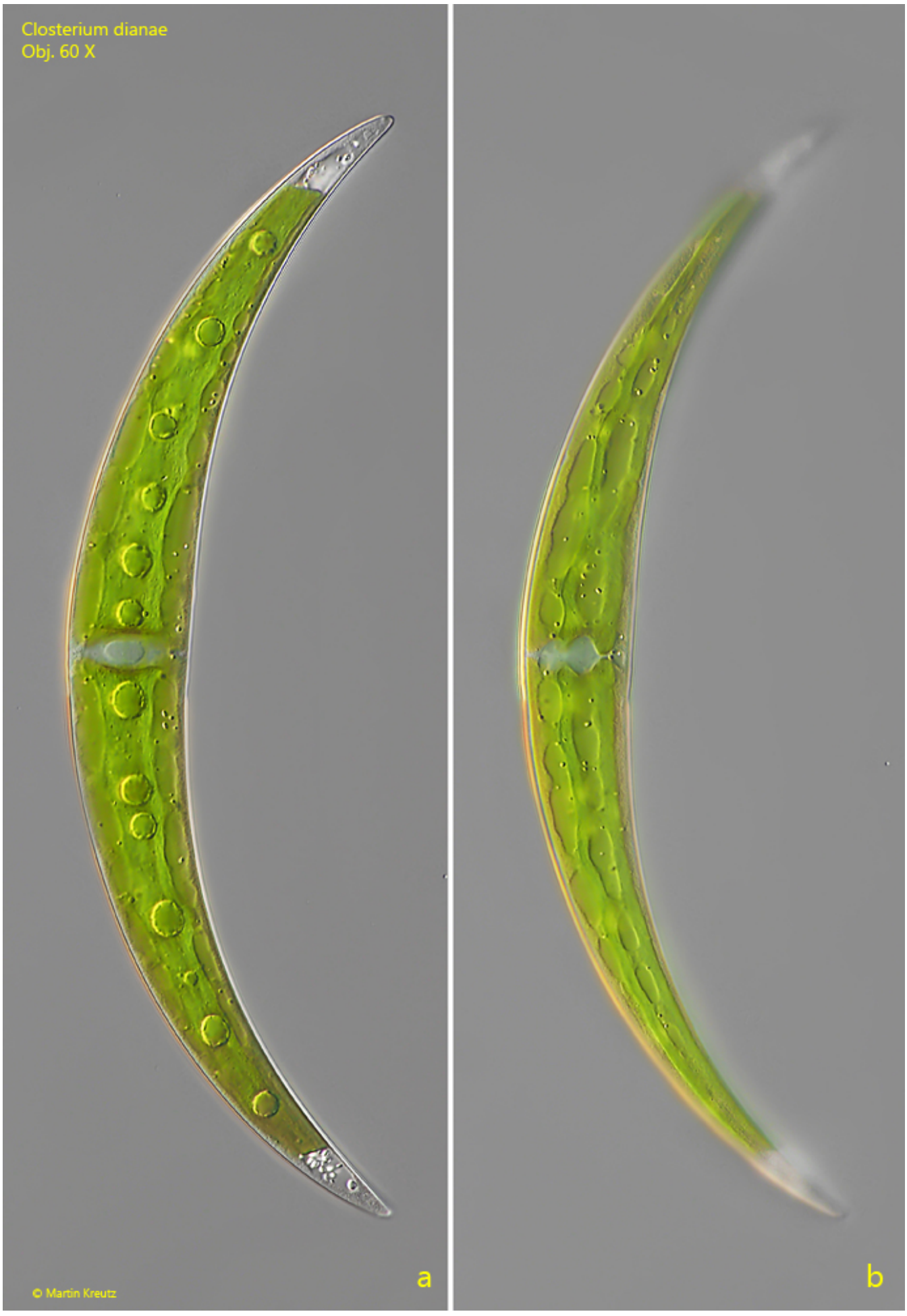

Closterium dianae
Obj. 60 X
© Martin Kreutz
a
b

Fig. 1 a-b: *Closterium dianae*. L = 220 µm. Two focal planes of a young specimen with a transparent cell wall. Obj. 60 X.

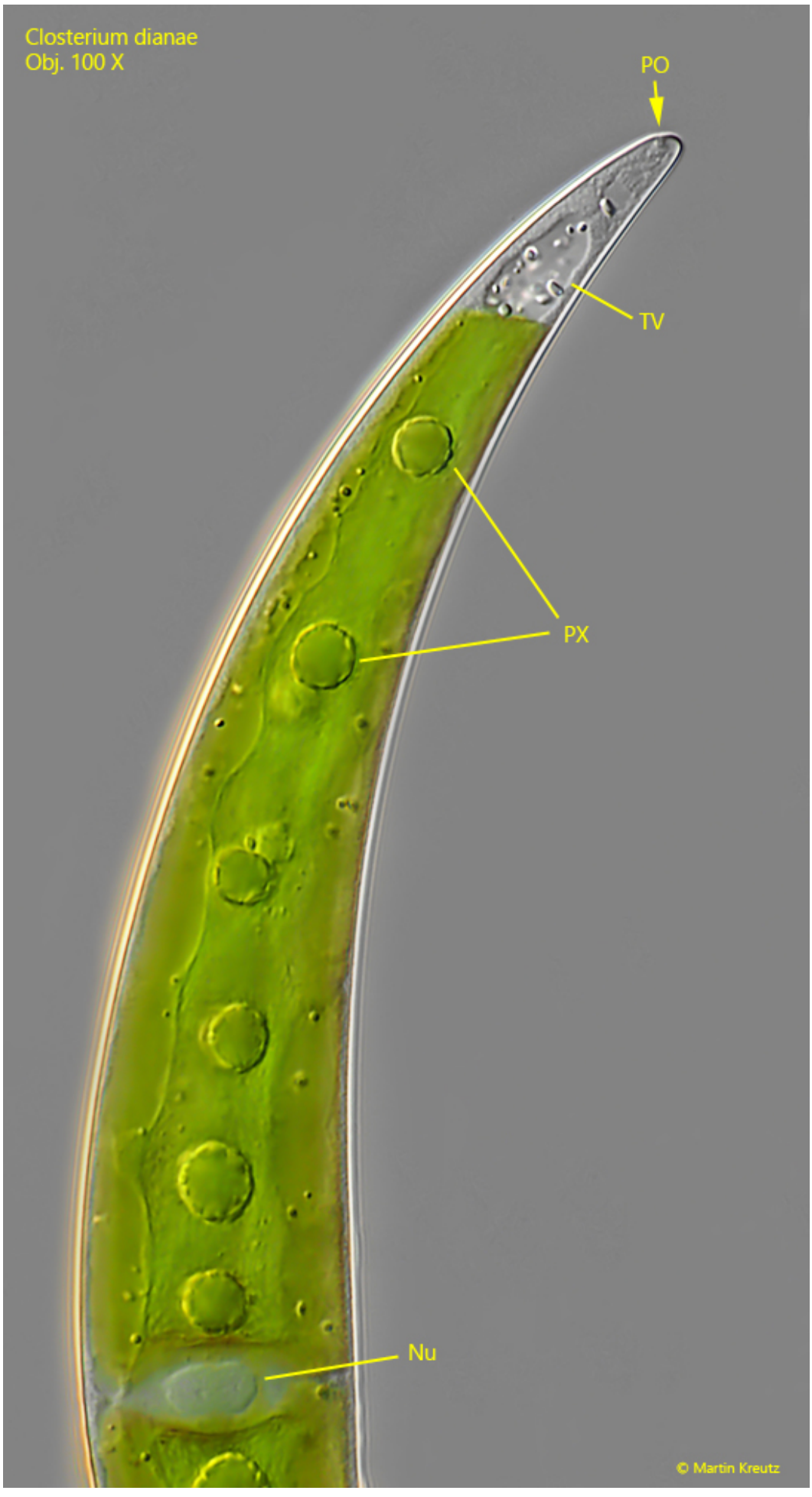

Closterium dianae
Obj. 100 X
PO
TV
PX
Nu
© Martin Kreutz

Fig. 2: *Closterium dianae*. Focal plane on one of the apices with the terminal vacuole (TV) filled with bariumsulfate crystals and the porus (PO). Nu = nucleus, PY = pyrenoids. Obj. 100 X.


Closterium dianae
OBj. 100 X
© Martin Kreutz

Fig. 3: *Closterium dianae*. The cell wall is smooth without a striation. Obj. 100 X.

Fig. 4: *Closterium dianae*. The porus (PO) in the apex of a second specimen. Obj. 100 X.

Fig. 5: *Closterium dianae*. The granulated cell wall of a second specimen. Obj. 100 X.