Euglena ehrenbergii Klebs, 1883

Most likely ID: n.a.

Synonym: n.a.

Sampling location: Ulmisried, Simmelried

Phylogenetic tree: *Euglena ehrenbergii*

Diagnosis:

- body cylindrical, parallel sides, rounded ends
- length 140–296 µm, width 15–26 µm
- large plate-shaped eyespot
- pellicle distinctly striated, running clockwise
- some large paramylon grains, oblong or rod-shaped
- small paramylon grains oval or spherical
- flagellum short
- nucleus oval, central
- numerous disc-shaped chloroplasts



after Skuja

Euglena ehrenbergii

Euglena ehrenbergii is one of the largest species within the genus, which I very often find in my sampling sites. The specimens are often located between floating algae mats or on the mud layer at the bottom.

The shape and movement of *Euglena ehrenbergii* are very characteristic. The body is parallel-sided with rounded ends. The posterior end can also be truncated transversely. The movement is worm-like, with strong metabolic deformations of the body (s. fig. 1 a-d). I have not yet been able to observe actively swimming specimens. However, Gojdics (1953) reports that *Euglena ehrenbergii* is capable of swimming despite the short flagellum and takes on a spiral shape while doing so.

Another characteristic feature of *Euglena ehrenbergii* is the shape and arrangement of the paramylon grains. Above and below the centrally located nucleus, there are usually large paramylon grains, which are either regularly oblong or irregularly rod-shaped (s. fig. 5 b). Often, the rod-shaped paramylon grains show a bend or a slight kink.

The pellicle has a distinct striation that runs clockwise over the body, which is unusual for euglenids (s. fig. 4). Beneath the pellicle, the disc-shaped chloroplasts are arranged, which often lie very densely and in several layers (s. fig. 5 a).

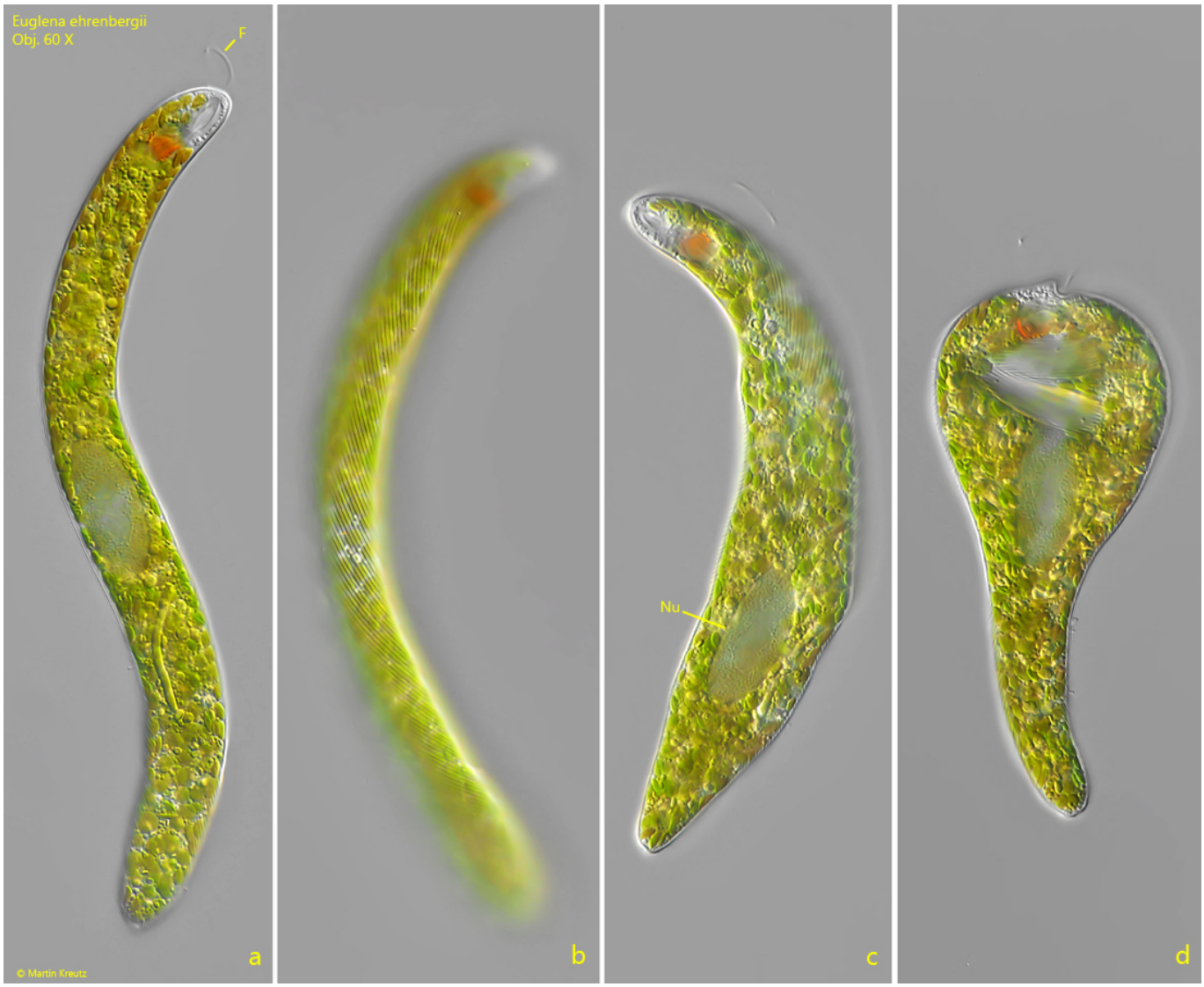


Fig. 1 a-d: *Euglena ehrenbergii*. L = 212 µm. Different phases of the euglenoid movement. Obj. 60 X.

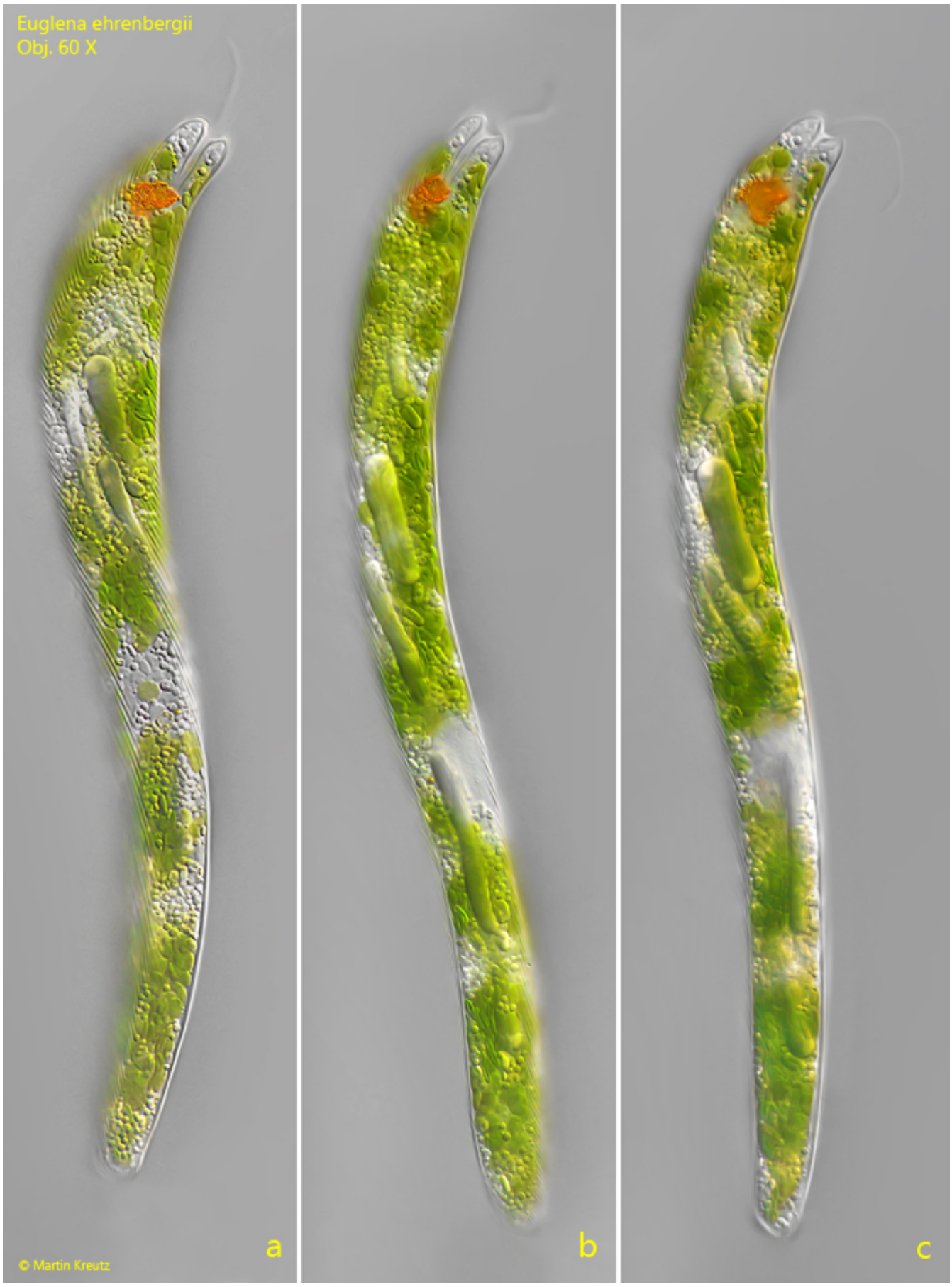


Fig. 2 a-c: *Euglena ehrenbergii*. L = 292 µm. Different focal planes of a second spcimen. Obj. 60 X.



Fig. 3 a-b: *Euglena ehrenbergii*. The pharynx in detail. CV = contractile vacuole, ES = eyespot, F = flagellum. Obj. 100 X.

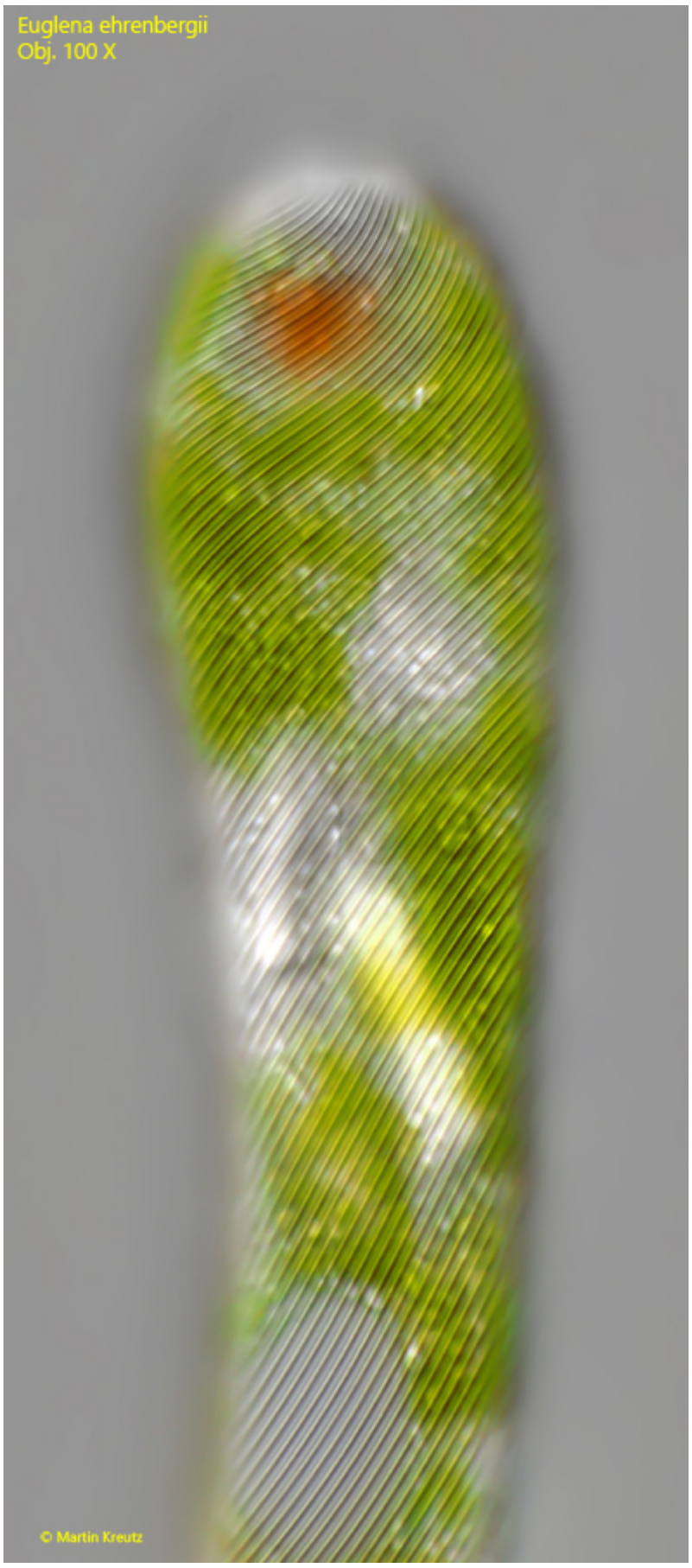


Fig. 4: *Euglena ehrenbergii*. The distinct striation of the pellicle is running clockwise of the body. Obj. 100 X.

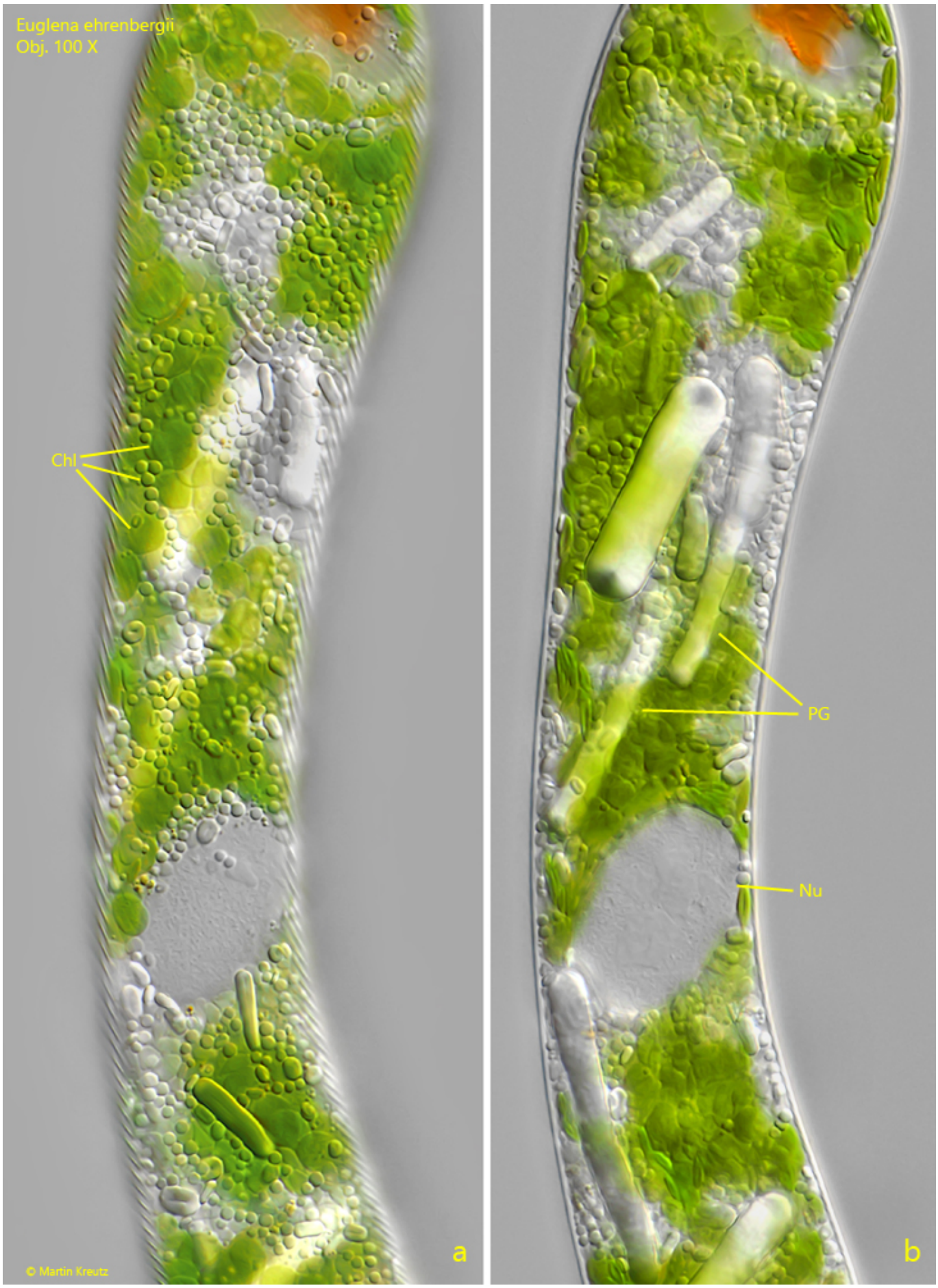

Euglena ehrenbergii
Obj. 100 X
Chl
PG
Nu
a
b
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Fig. 5 a-b: *Euglena ehrenbergii*. Two focal planes of a squashed specimen. Numerous disc-shaped chloroplasts (Chl) are arranged beneath the pellicle . The nucleus (Nu) is oval and located centrally. Above and below the nucleus, large paramylon grains (PG) are visible, which are either oblong in shape or irregularly rod-shaped. Obj. 100 X.

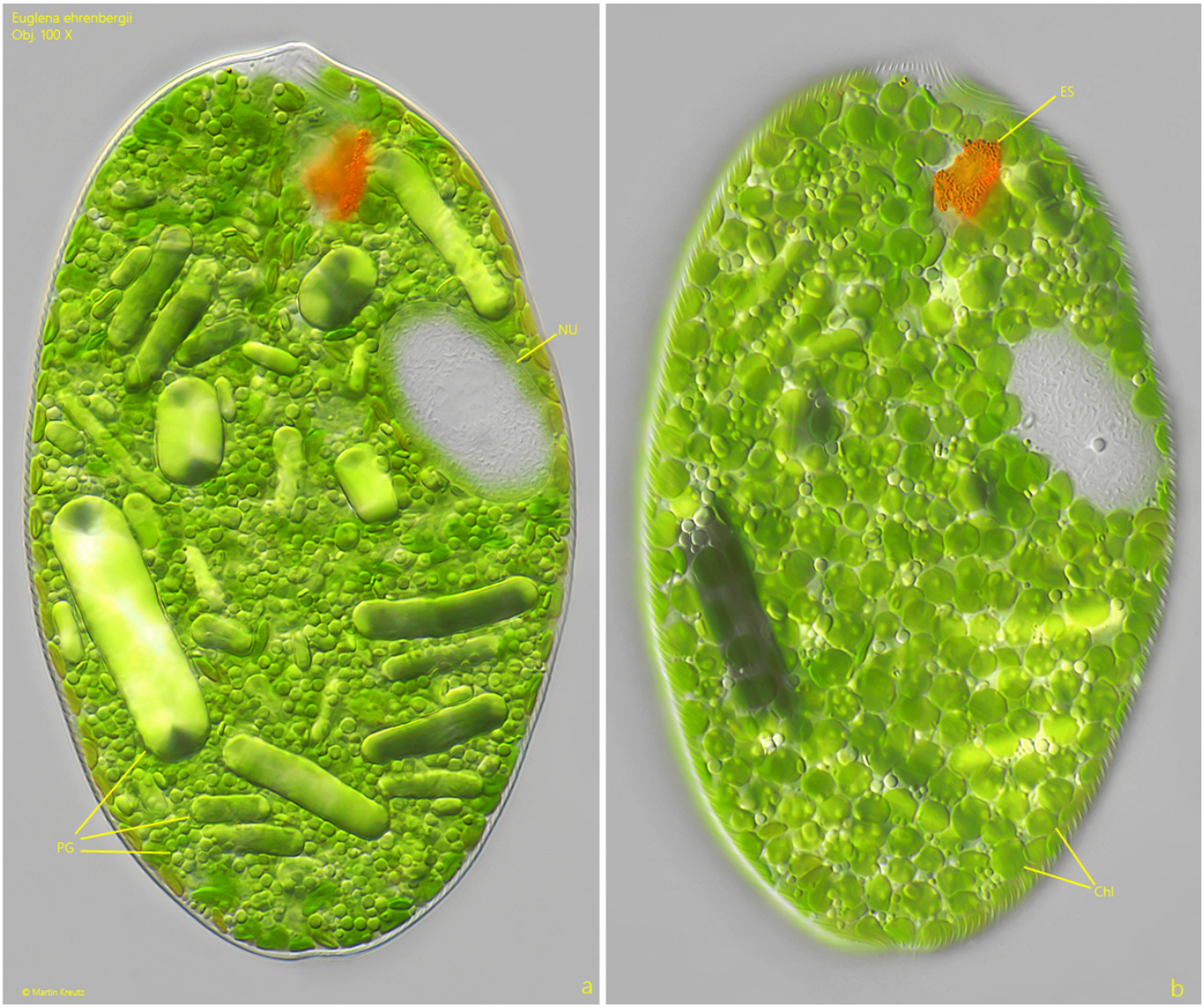


Fig. 6 a-b: *Euglena ehrenbergii*. Two focal planes of a strongly squashed specimen. Chl = disc-shaped chloroplasts, ES = eyespot, Nu = nucleus, PG = paramylon grains of different sizes. Obj. 100 X.