Anisonema acinus Dujardin, 1862

Most likely ID: n.a.

Synonym: n.a.

Sampling location: Simmelried, Purren pond, Mainau pond, Bussenried, Ulmisried, Bündtlisried

Phylogenetic tree: ***Anisonema acinus***

Diagnosis:

- cell ovoid
- length 21–40 µm, width 13–17 µm
- locomotion flagellum 1.5x body length
- trailing flagellum up to 3.2x body length
- trailing flagellum running in a ventral groove, tapered at distal end
- rigid pellicle with fine striation
- contractile vacuole anterior
- gliding smoothly

after Lemmermann

Anisonema acinus

Anisonema acinus belongs to the *Euglenophyceae* and is an enormously common flagellate. The body is shaped like a grain of wheat, with a ventral furrow (s. fig. 2b). There are two flagella. The anteriorly directed flagellum provides the locomotion (traction flagellum). The posteriorly directed flagellum is much thicker and longer. After protuding the reservoir, it bends sharply backward on the ventral side and runs backward in a groove. It shows no movement during swimming, but seems to possess an adhesive property. When specimens slide along the coverglass, the trailing flagellum maintains constantly in contact with the glass. Specimens are often found with ingested large prey (algae or cryptomonads). It is unclear how phagocytosis of such large prey occurs in *Anisonema acinus*, as there is no specific organelle for feeding. Unfortunately, I could never observe phagocytosis myself.

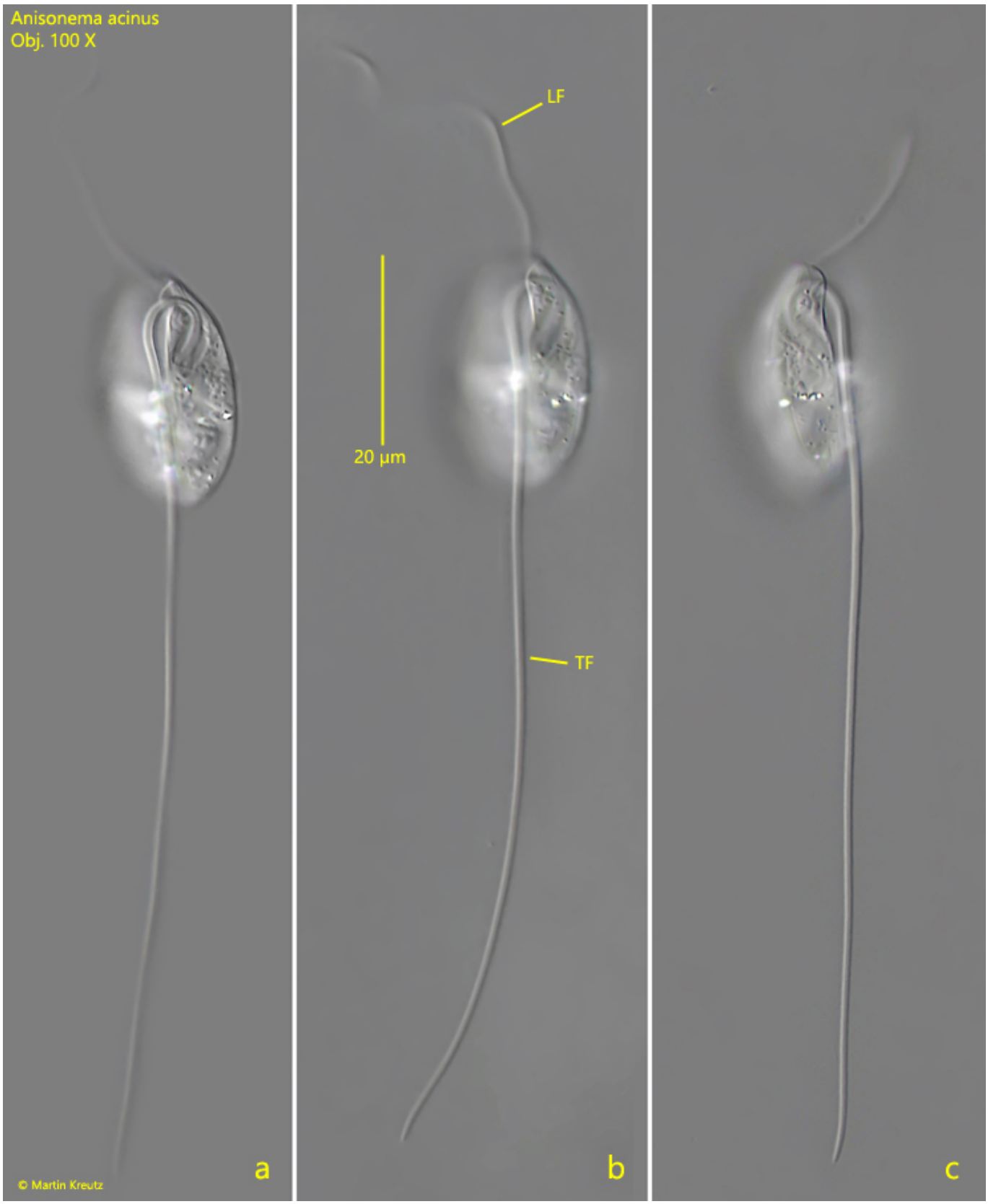

Fig. 1 a-c: *Anisonema acinus*. L = 23 µm (without flagella). Ventral view (a, b) and lateral view from left (c) of a freely swimming specimen. LF = locomotion flagellum, TF = trailing flagellum. Obj. 100 X.

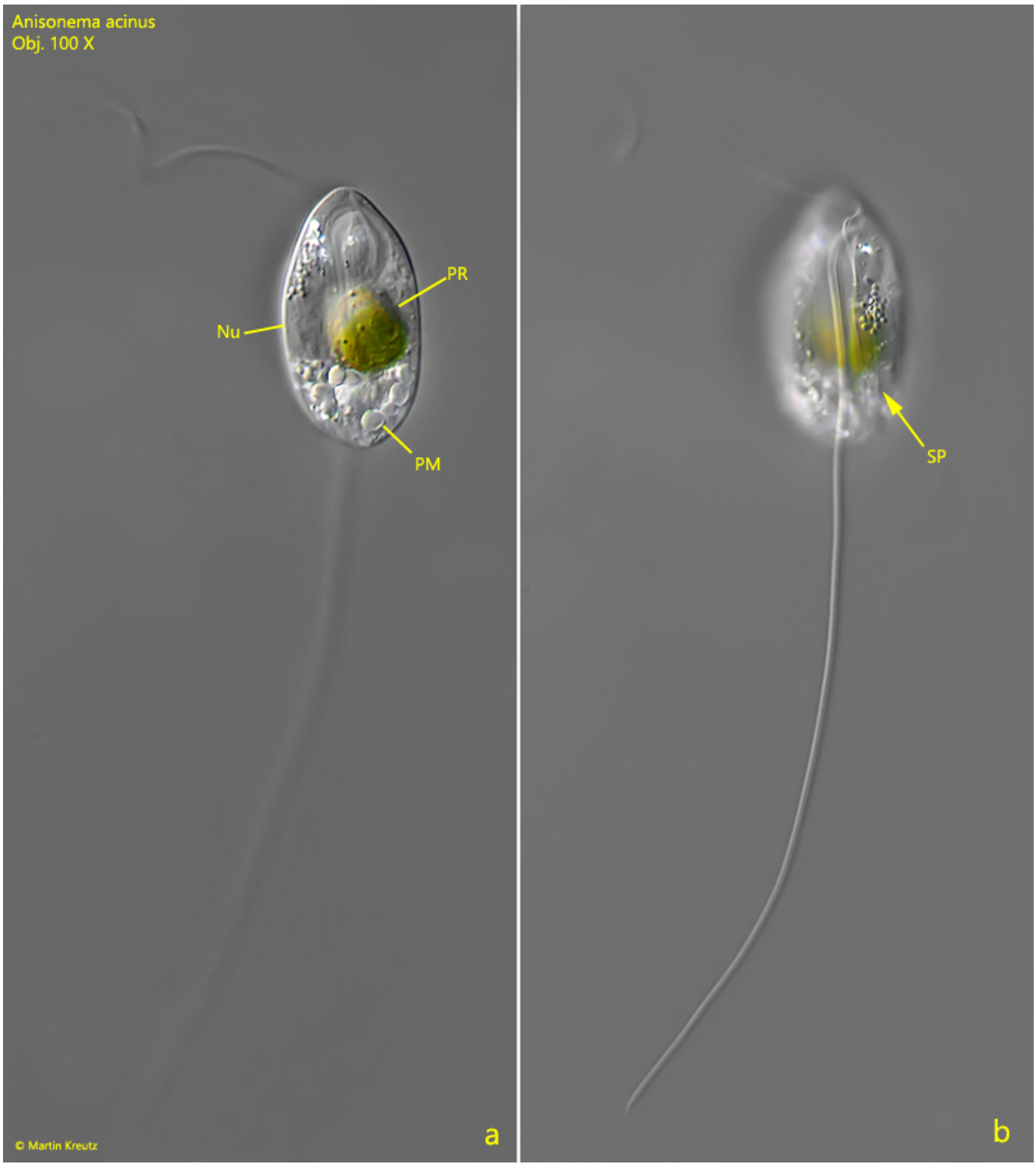

Fig. 2 a-b: *Anisonema acinus*. L = 29 µm (without flagella). Ventral view of a second freely swimming specimen. This specimen ingested shortly before likely an alga as prey (PR). Note the fine striation of the pellicle (SP). Nu = nucleus, PM = paramylon grains. Obj. 100 X.