

***Raphidiophrys intermedia* Penard, 1904**

Most likely ID: n.a.

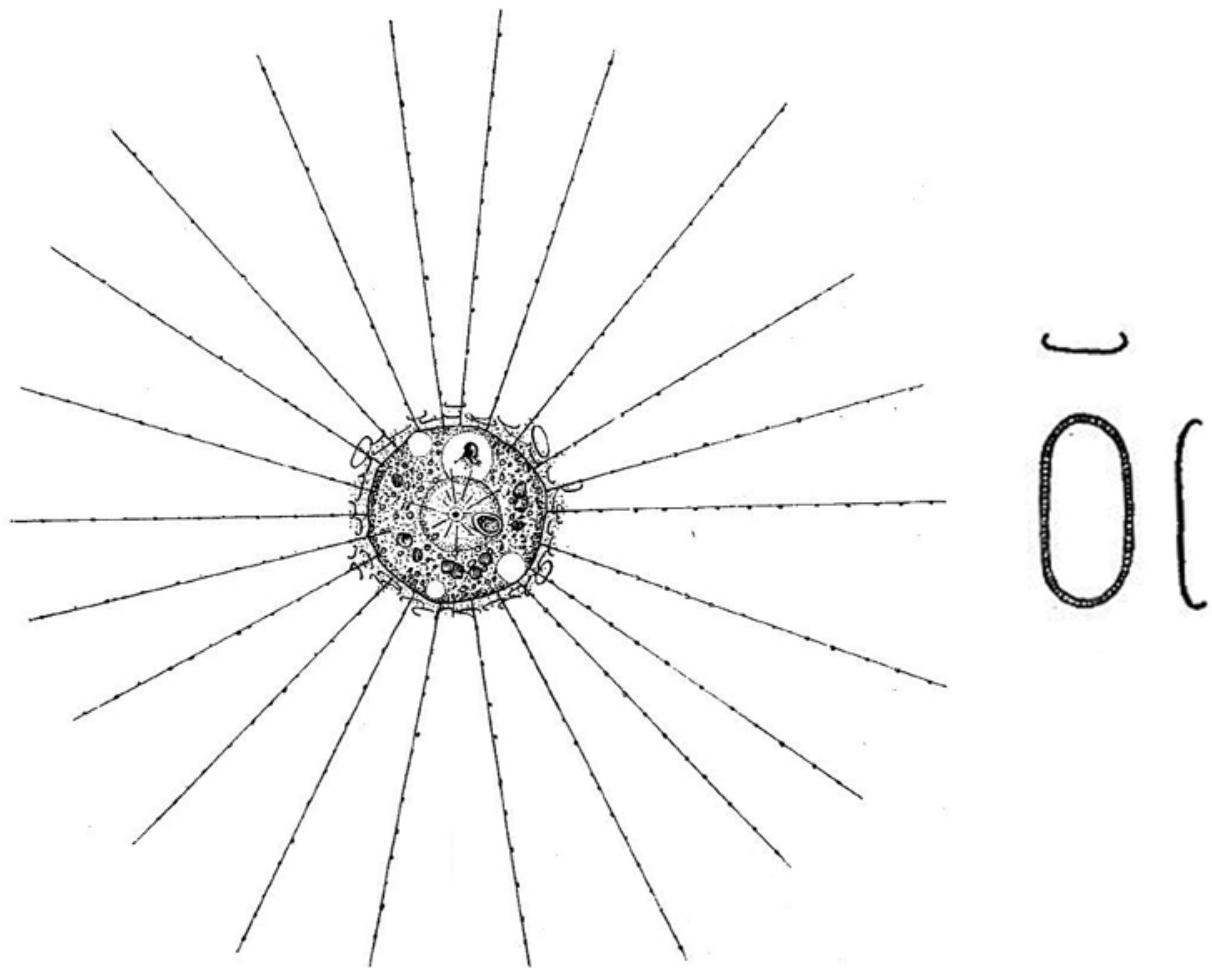
Synonym: n. a.

Sampling location: [Simmelried](#)

Phylogenetic tree: [*Raphidiophrys intermedia*](#)

Diagnosis:

- cells about 20-40 µm in diameter (without coat of scales)
- scales 7.2-12.7 µm x 3.2-4.8 µm, shaped oblong with parallel sides
- edges of the scales strongly inflected
- edges of the scales with a distinct striation (septa)
- scales do not cover the base of the axopodia
- cells sometimes with (symbiotic?) algae
- centroplast in the center of the cell
- nucleus in eccentric position
- 2-3 contractile vacuoles



after Rainer

Raphidiophrys intermedia

I find *Raphidiophrys intermedia* quite often. The species lives solitarily and does not form colonies like *Raphidiophrys elegans*. The two species can be distinguished by the shape of the scales. In *Raphidiophrys intermedia* the scales are oblong (with parallel sides) and about twice as long as wide. They have a striped margin. In *Raphidiophrys elegans*, however, the scales are broadly oval.

In my population of *Raphidiophrys intermedia* I often find specimens with algae in the cytoplasm (s. fig. 1 a-b). Rainer, 1968 (s. [literature](#)) mentions that the specimens may be sometimes green, but leaves open whether the green color is due to the presence of symbiotic algae. The algae in my specimens all appeared to be of the same species and placed in the periphery of the cell (s. fig. 1 a). They also did not appear to be inside food vacuoles and undergoing a digestive process. Therefore, I believe that the algae in the green specimens of *Raphidiophrys intermedia* are symbiotic algae.

More images and information about *Raphidiophrys intermedia*: [Ferry Siemensma – Microworld – *Raphidiophrys intermedia*](#)

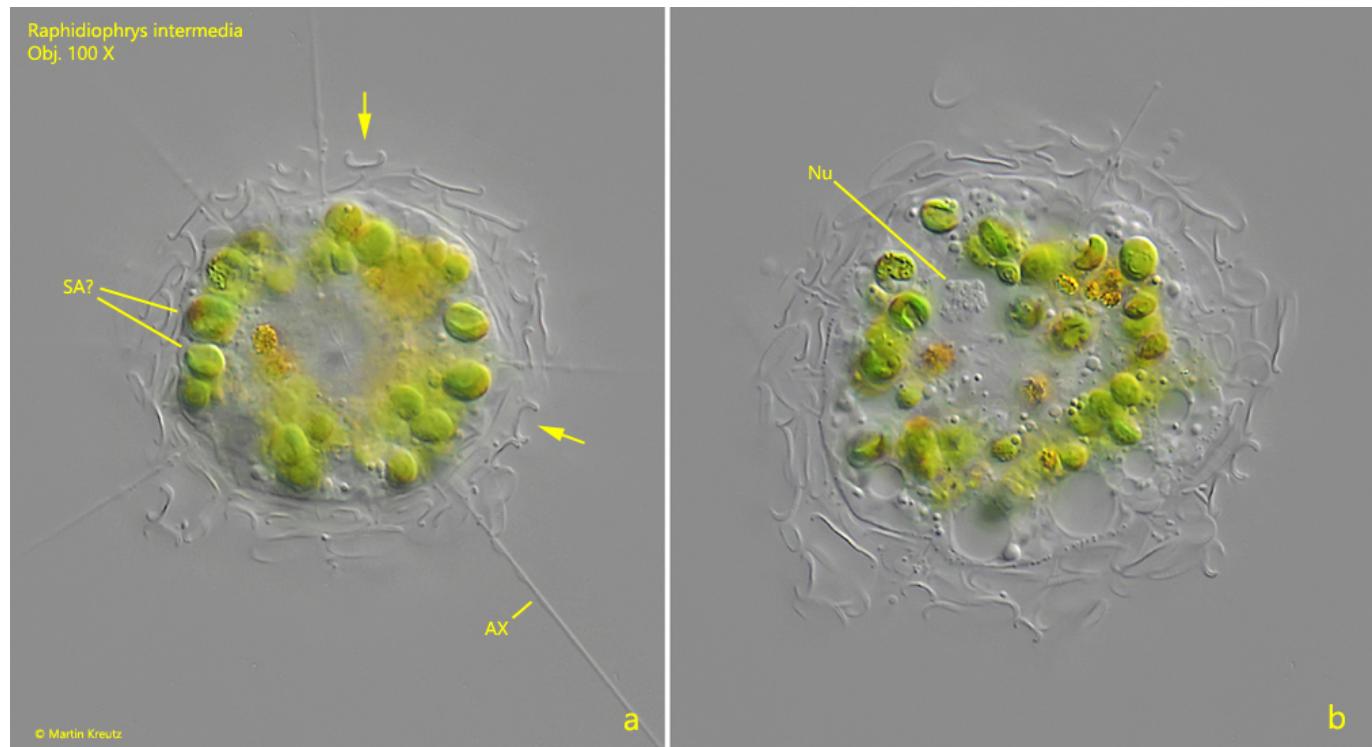


Fig. 1 a-b: *Raphidiophrys intermedia*. D = 38 μm (without coat of scales). Two focal planes of a slightly squashed specimen with (symbiotic?) algae (SA?) in the cytoplasm. The scales have the shape of a "U" when optically sectioned along the longitudinal axis (arrows, a). AX = axodopdia, Nu = nucleus, SA = likely symbiotic algae. Obj. 100 X.

Raphidiophrys intermedia
Obj. 100 X

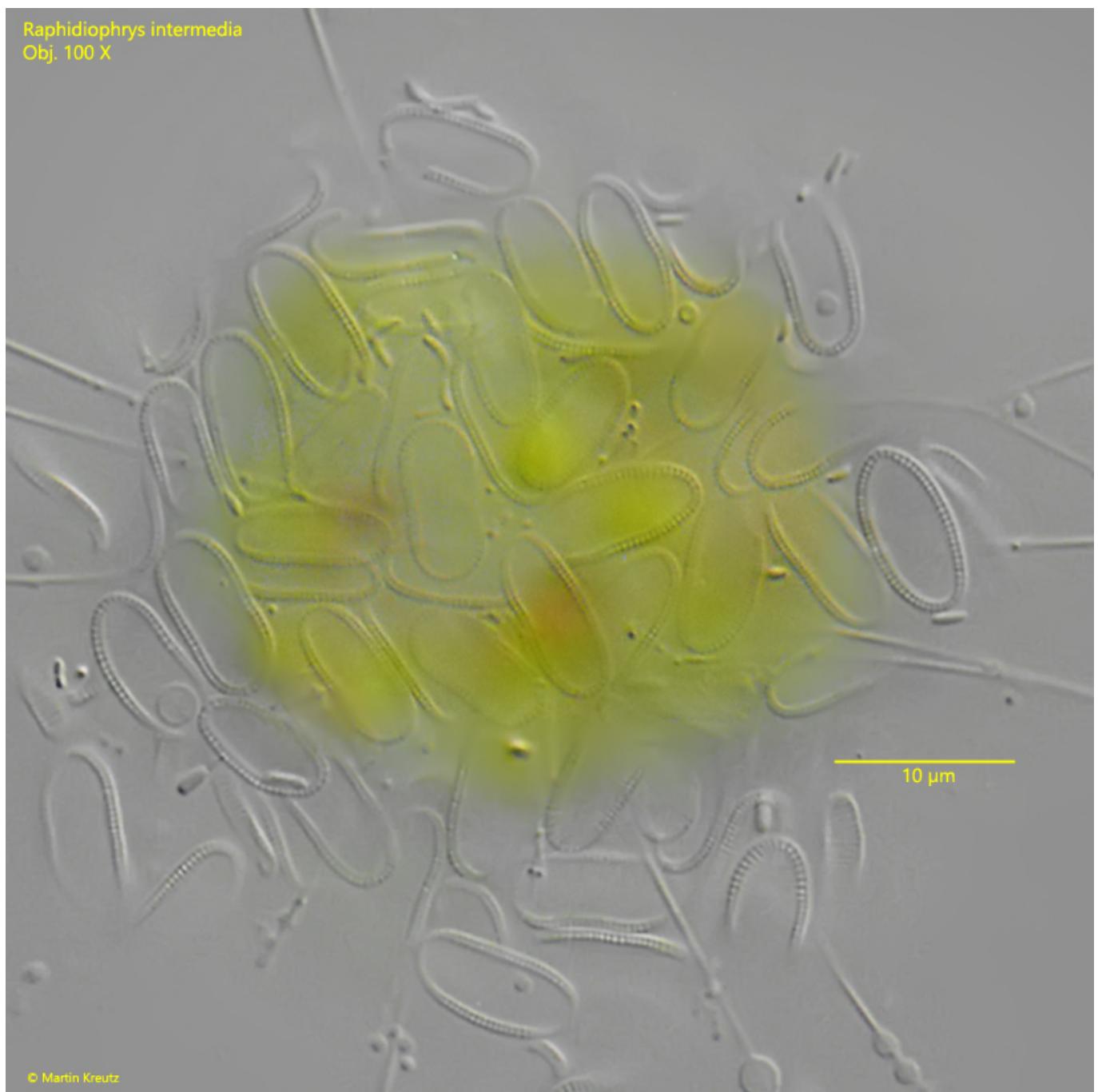


Fig. 2: *Raphidiophrys intermedia*. Focal plane on the coat of scales of the specimen shown in fig. 1 a-b. The oblong scales are about 10 μm long with a fine striation at the edges. Obj. 100 X.

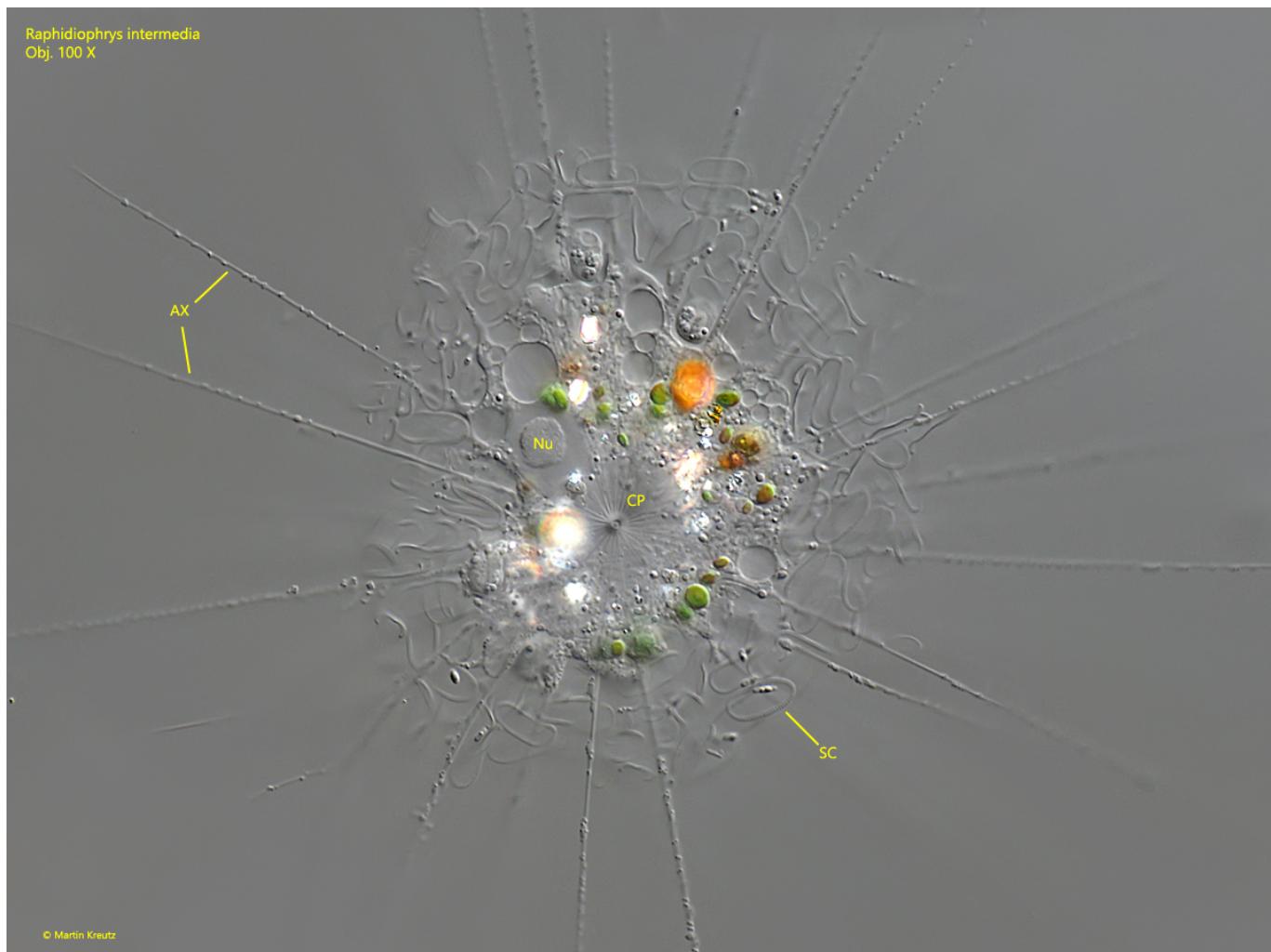


Fig. 3: *Raphidiophrys intermedia*. A strongly squashed specimen with focal plane on the centroplast (CP) in the center of the cell. AX = axopodia, Nu = nucleus, SC = scales. Obj. 100 X.

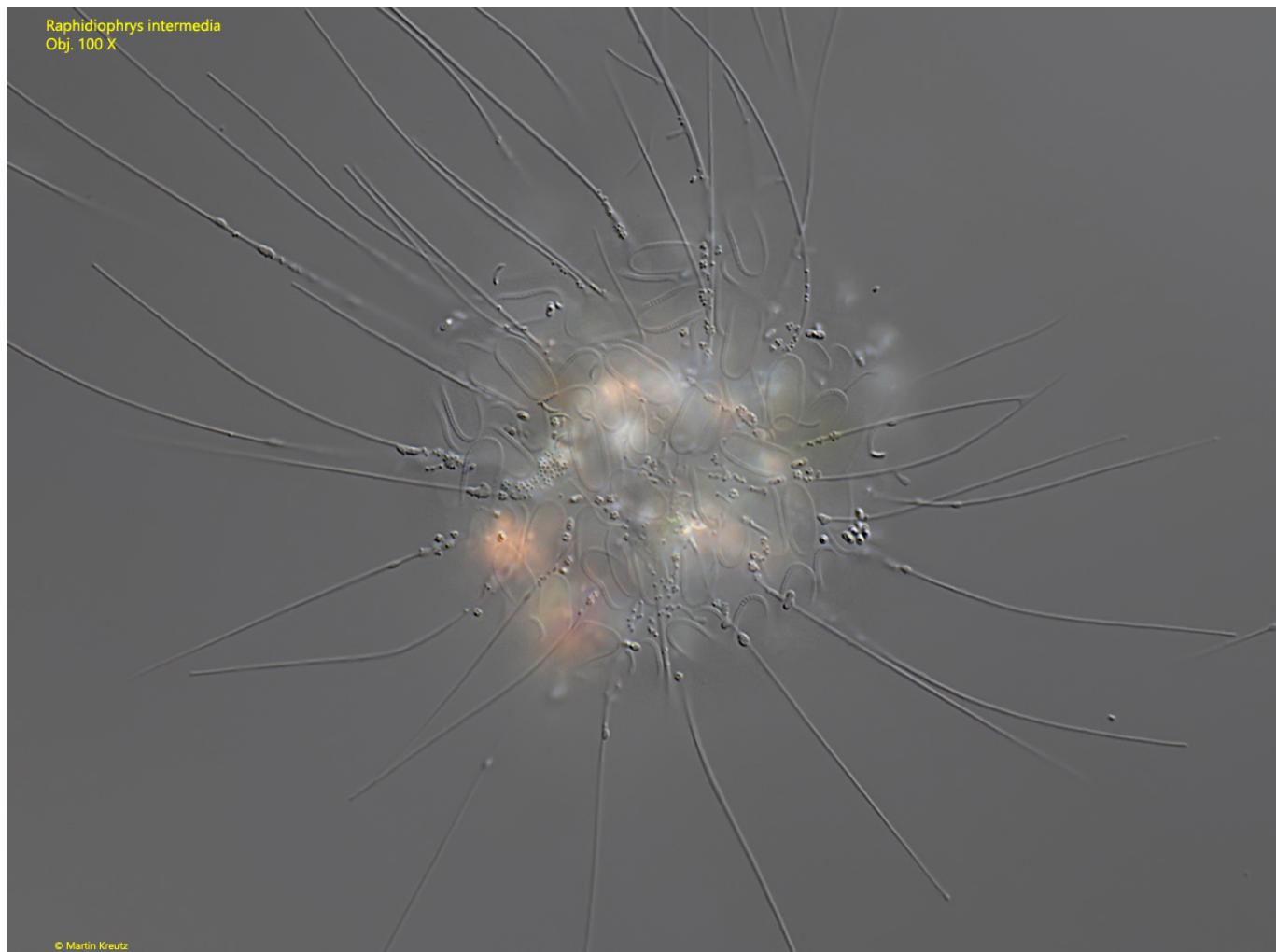


Fig. 4: *Raphidiophrys intermedia*. Focal plane on the coat of scales of the specimen shown in fig. 3. Obj. 100 X.

Raphidiophrys intermedia
Obj. 100 X

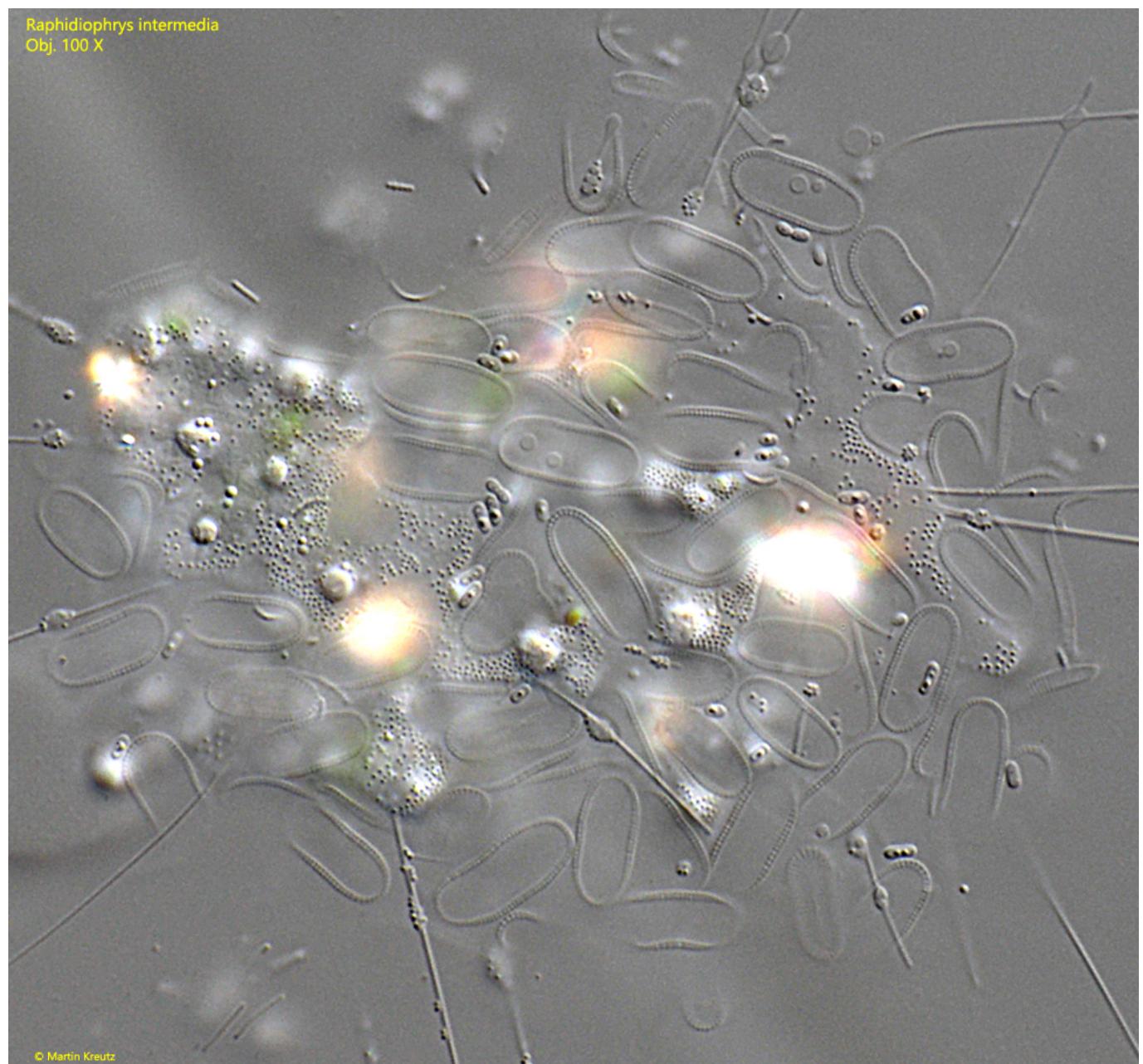


Fig. 5: *Raphidiophrys intermedia*. The scales of the specimen shown in figs. 3 and 4 in detail. Obj. 100 X.