Lecythium granulatus Schulze, 1875

Most likely ID: n.a.

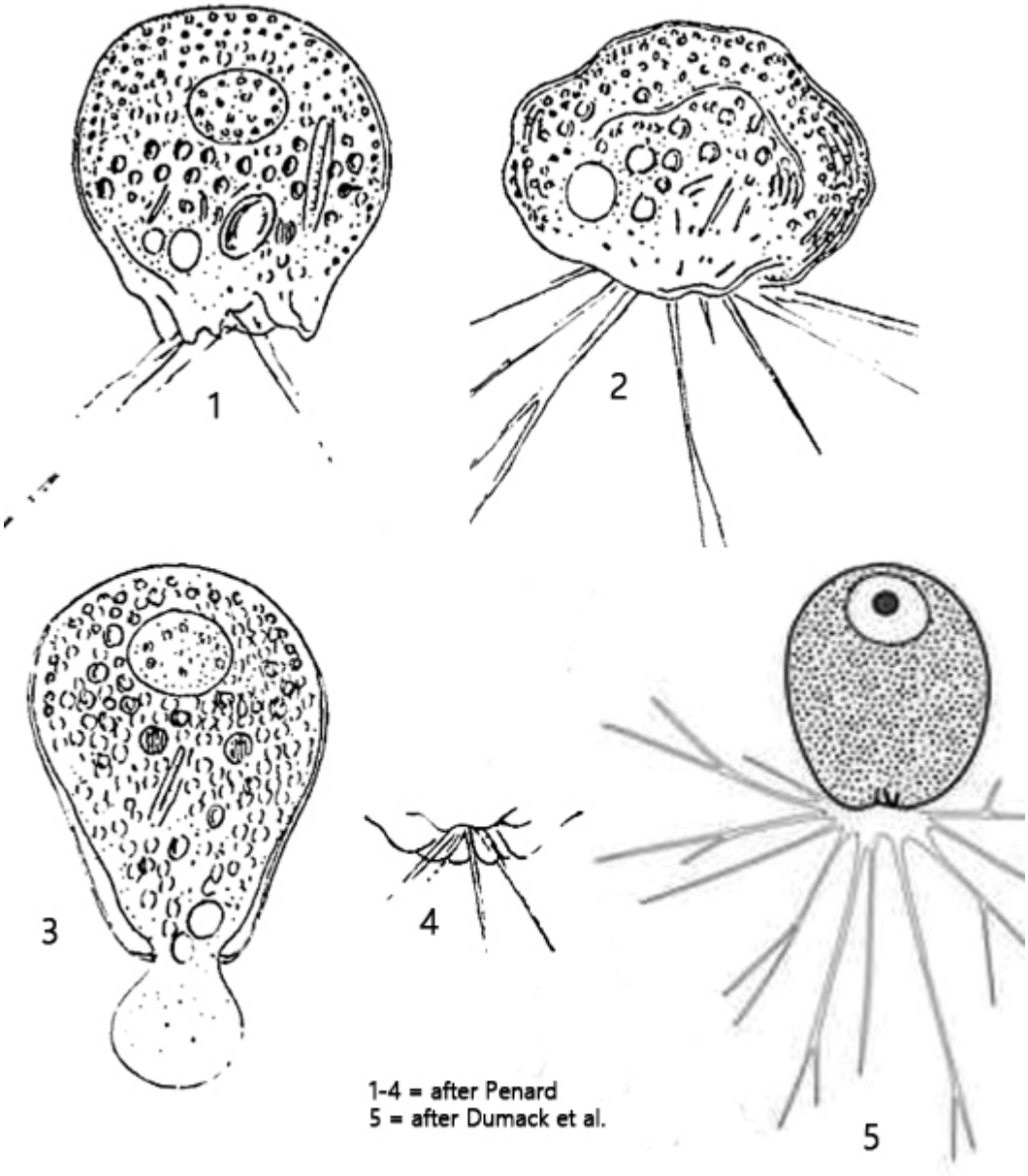
Synonym: *Gromia granulata*, *Gromia granulatus*, *Pamphagus granulatus*

Sampling location: Sima Moor (Austria)

Phylogenetic tree: n.a.

Diagnosis:

- test broad elliptical or ovoid
- length 38–111 µm
- test hyaline, smooth, colorless
- apertur folded, sometimes surrounded by colloar
- vesicular nucleus posterior
- cytoplasm filled with colorless granules
- granules with central, highly refractive center
- filopodia branching and anastomosing



Lecythium granulatus

So far I have only found *Lecythium granulatus* in the Sima Moor in Austria. The species was very common there, especially in old samples.

Lecythium granulatus is a very variable species, both in terms of the shape of the test and the size. The specimens in my population mostly had an oval or pear-shaped test. The size varied between 30–50 µm. I was able to detect the folded mouth opening in all specimens, which is often recessed. This gives the impression that the aperture is surrounded by a collar. In all specimens I was able to recognize several contractile vacuoles near the aperture (s. fig. 1 a).

The cytoplasm of *Lecythium granulatus* contains numerous granules that resemble oil droplets. They are transparent and colorless. There is always a highly refractive center in the middle of these granules, which is why they resemble the shape of a fried egg in the DIC (s. fig. 2 b). Nothing is known about the nature of these granules. They are usually concentrated in the posterior half of the test, where the nucleus is also located.

More images and information on *Lecythium granulatus*:

- Ferry Siemensma-Microworld-*Lecythium granulatus* 1
- Ferry Siemensma-Microworld-*Lecythium granulatus* 2
- Ferry Siemensma-Microworld-*Lecythium granulatus* 3
- Ferry Siemensma-Microworld-*Lecythium granulatus* 4

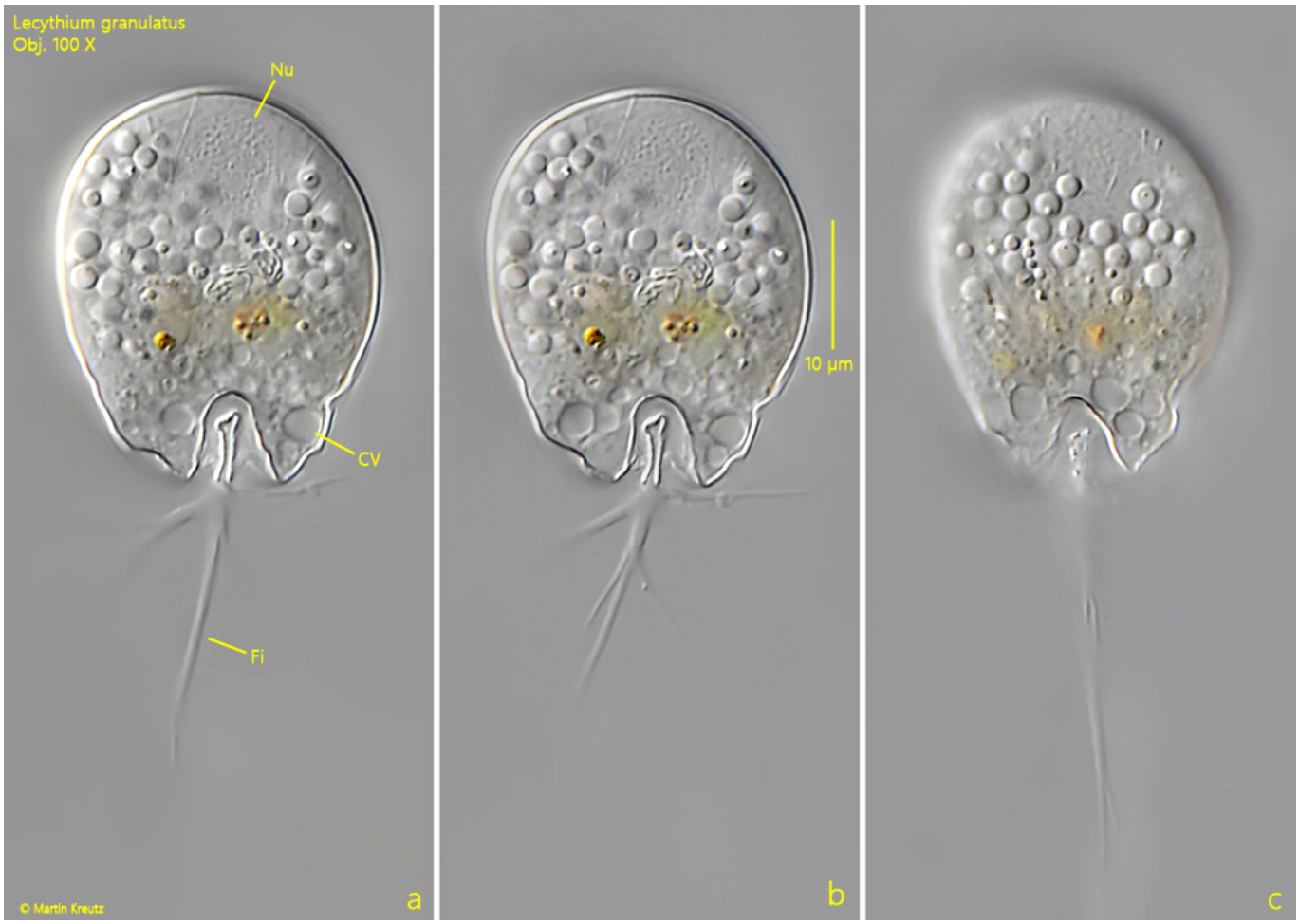


Fig. 1 a-c: *Lecythium granulatus*. L = 29 µm. Three focal planes of a small, nearly oval specimen. CV = contractile vacuole, Fi = filopodia, Nu = nucleus. Obj. 100 X.

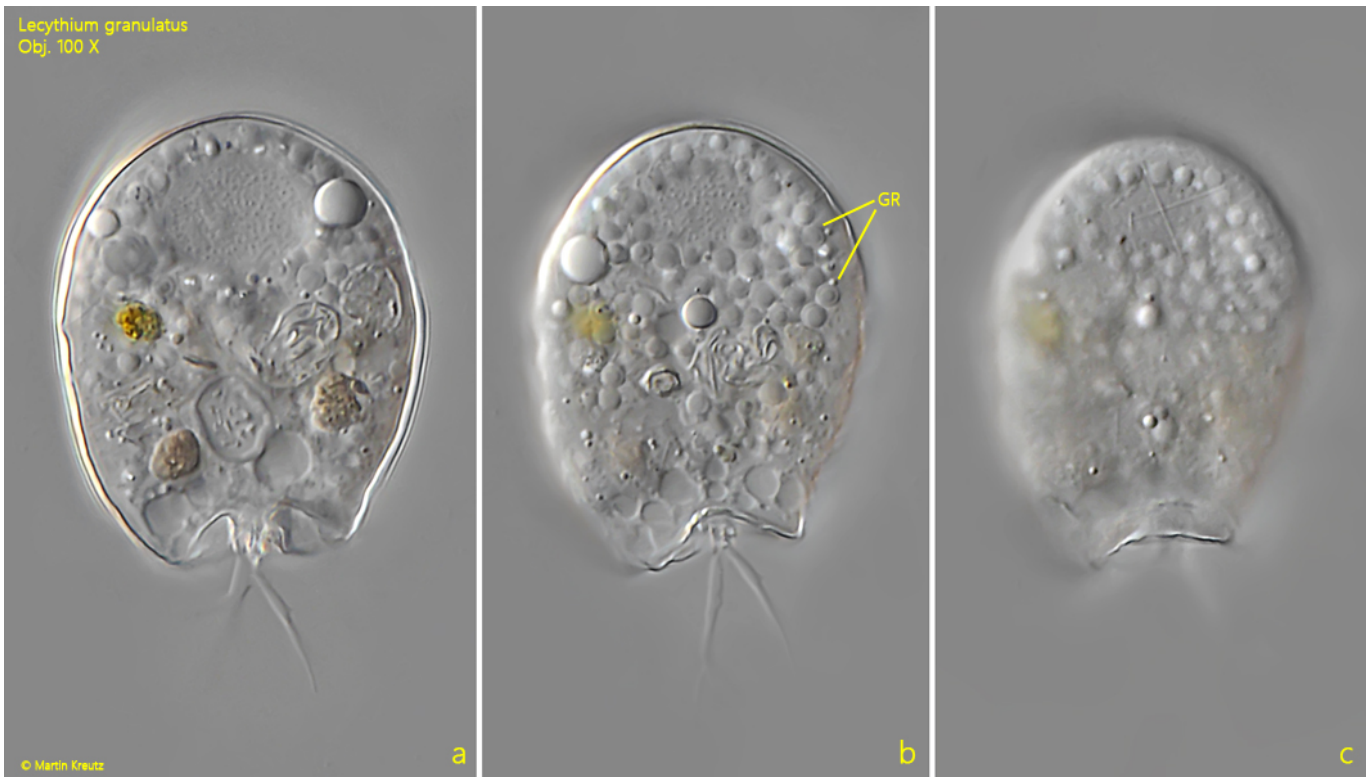


Fig. 2 a-c: *Lecythium granulatus*. L = 37 µm. Three focal planes of a second specimen. Note the transparent granules with a highly refractive center. Obj. 100 X.

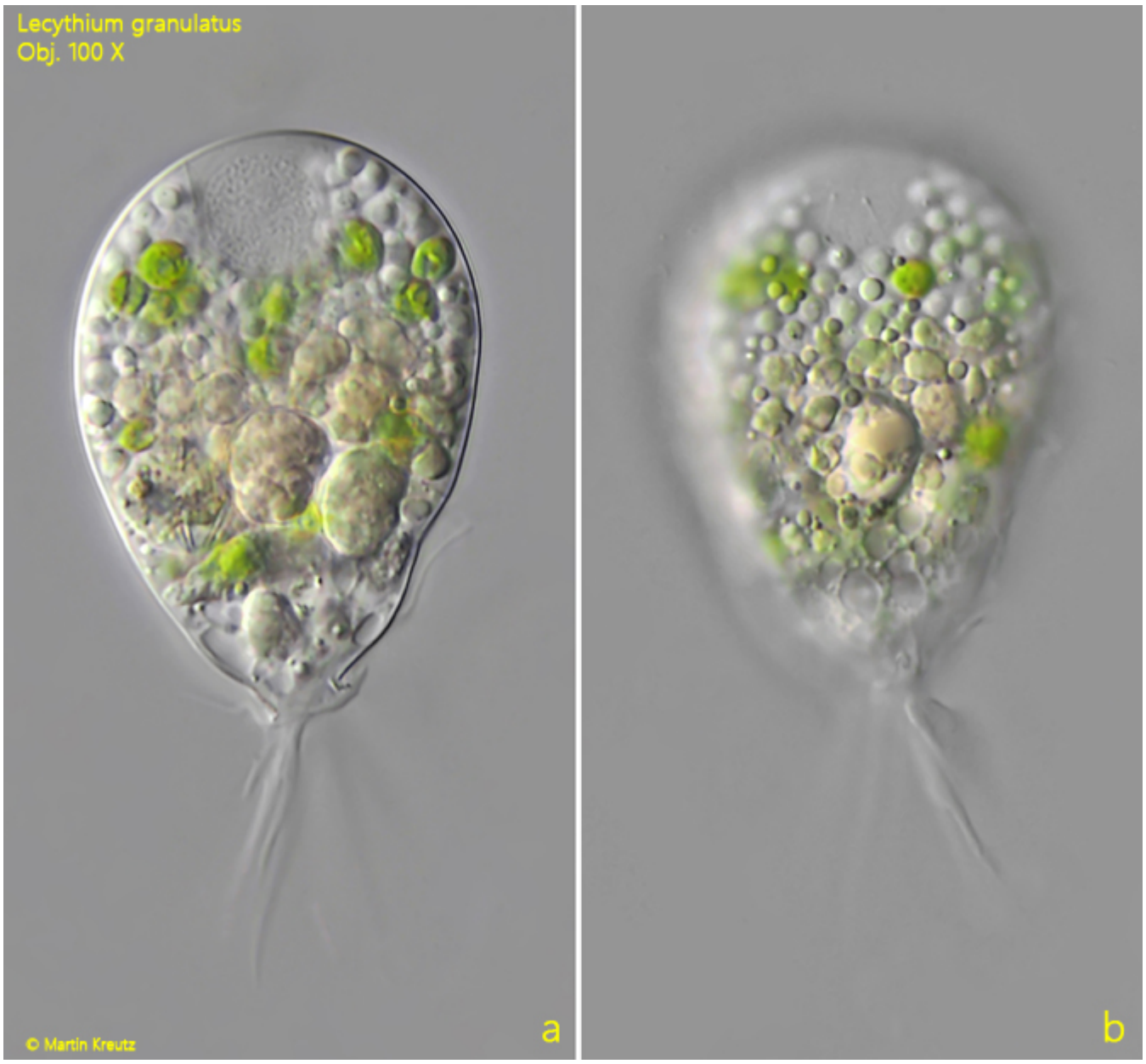


Fig. 3 a-b: *Lecythium granulatus*. L = 47 µm. A third, almost pyriform specimen. Obj. 100 X.

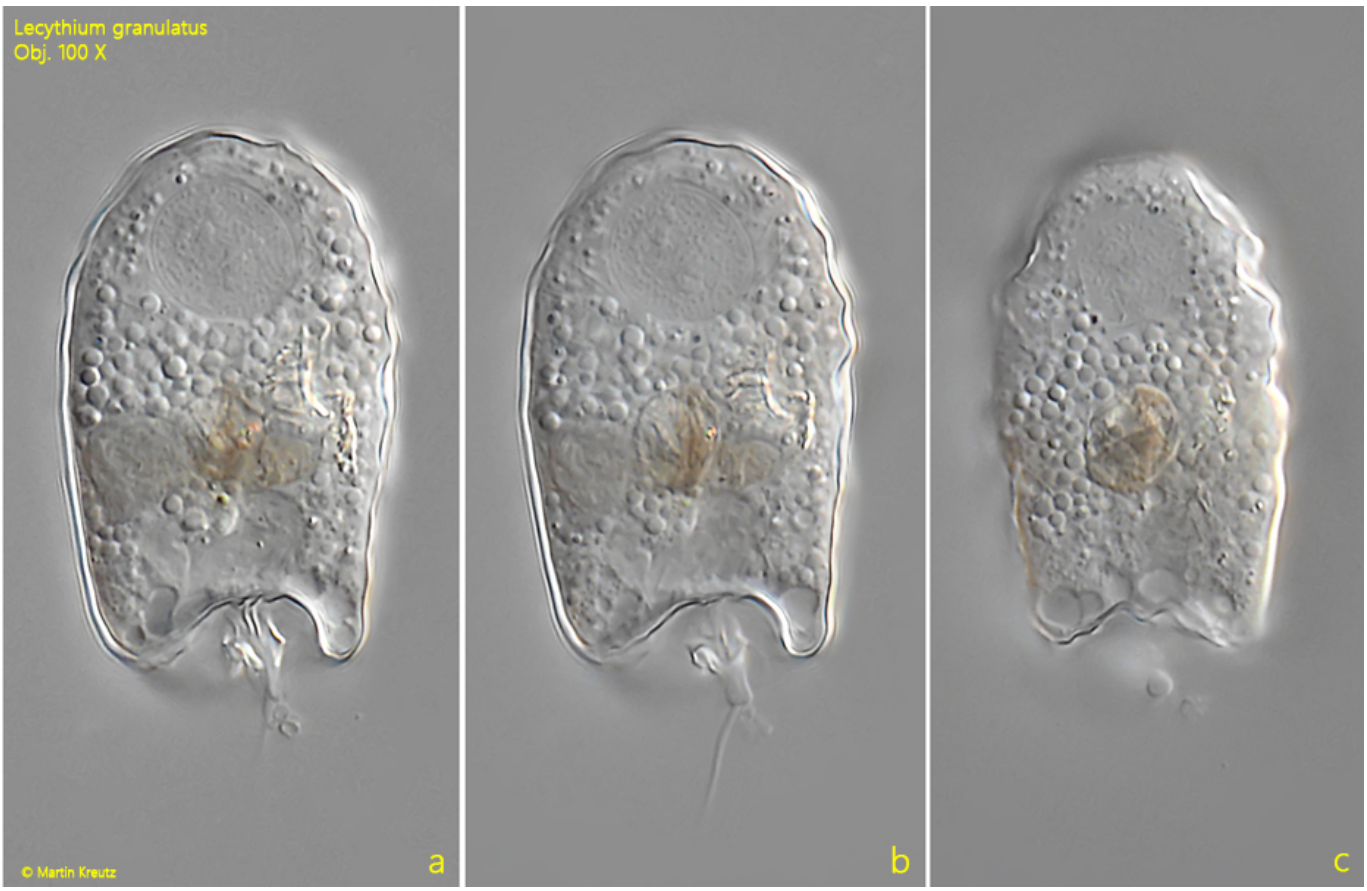


Fig. 4 a-c: *Lecythium granulatus*. L = 42 µm. A fourth specimen has a test with irregular dents. Obj. 100 X.