Didinium nasutum

(Müller, 1773) Stein, 1859

Most likely ID: n.a.

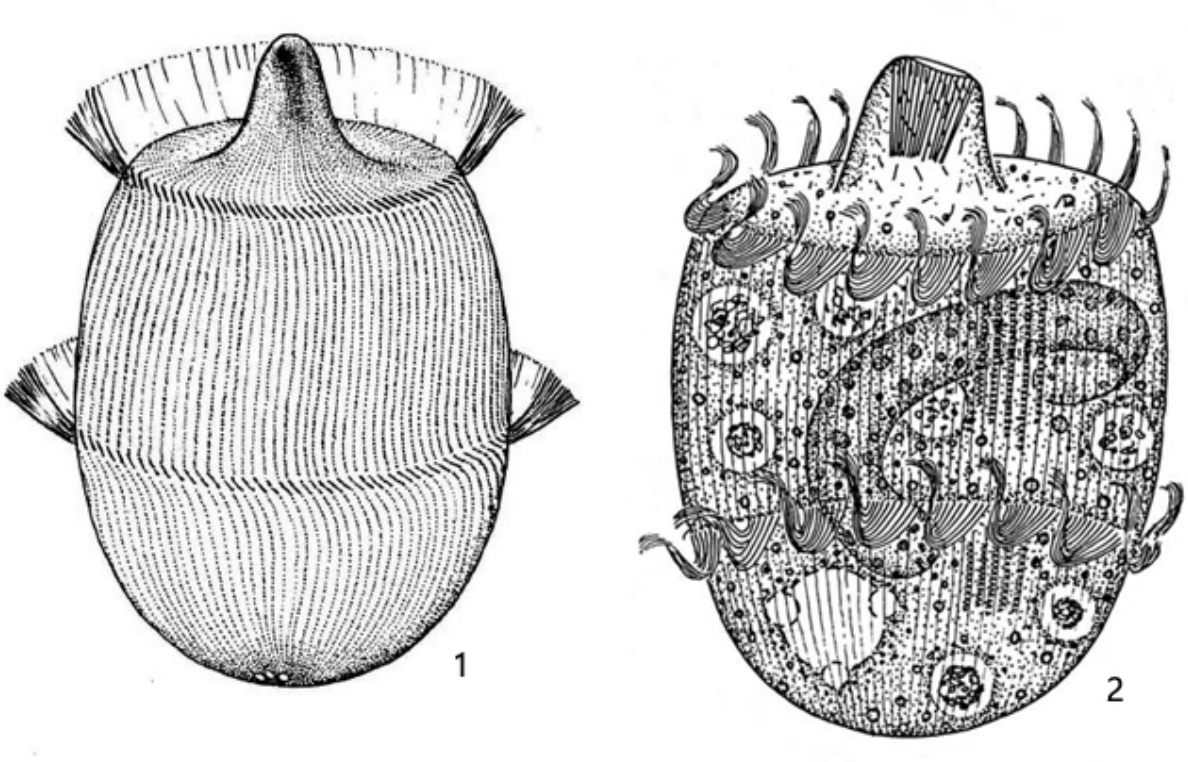
Synonym: *Didinium balbianii*

Sampling location: Simmelried

Phylogenetic tree: ***Didinium nasutum***

Diagnosis:

- body slender to broadly cup-shaped with cone-shaped snout
- length 80–200 µm, width 60–140 µm
- mouth bulge with 4 types of extrusomes (mucocysts, 7 µm long rods, 22–26 µm long rods, 10 µm long curved rods)
- two girdles of cilia at anterior end and near mid-body
- below each girdle of cilia a dorsal brush of 5 rows each
- macronucleus semi-circular with several adjacent micronuclei
- contractile vacuole terminal



1 = after Wessenberg & Antipa
2 = after Foissner

Didinium nasutum

I do not find *Didinium nasutum* frequently, but regularly in samples from the Simmelried. The ciliate is a fast swimmer and feeds mainly on other ciliates. In doing so, it can catch and swallow prey much larger than itself (e.g., *Paramecium caudatum*). If the prey touches the oral bulge, extrusomes are immediately ejected, which stun the prey and also immobilize it (s. figs. 4 and 5). Phagocytosis of the prey begins immediately, for which the mouth opening can expand very far.

Didinium nasutum has a dorsal brush below each girdle of cilia, which consists of 5 rows (s. fig. 3). So there are permanently two dosal brushes, even if the ciliate does not divide.

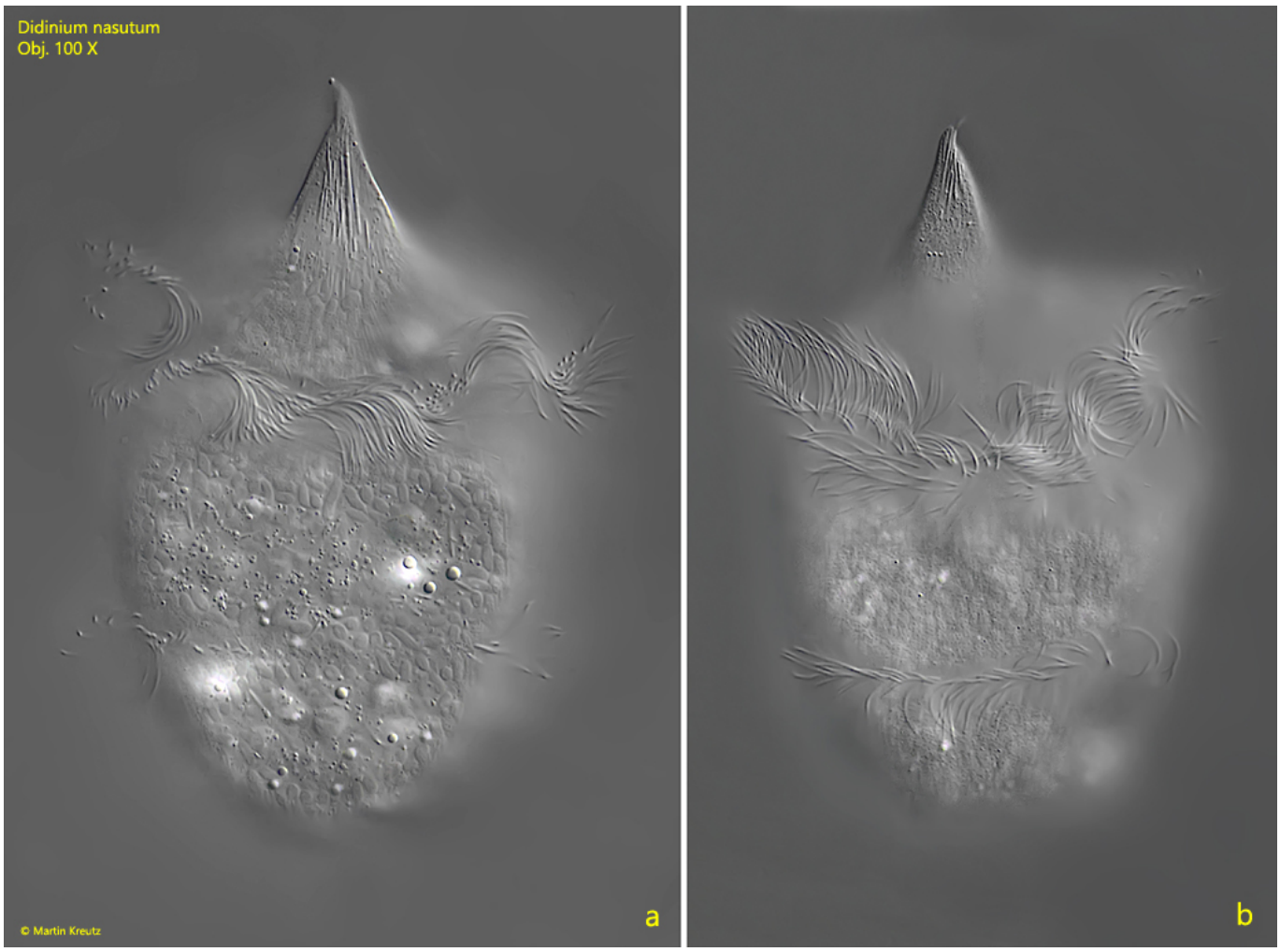


Fig. 1 a-b: *Didinium nasutum*. L = 100 µm. Two focal planes of a freely swimming specimen. Obj. 100 X.

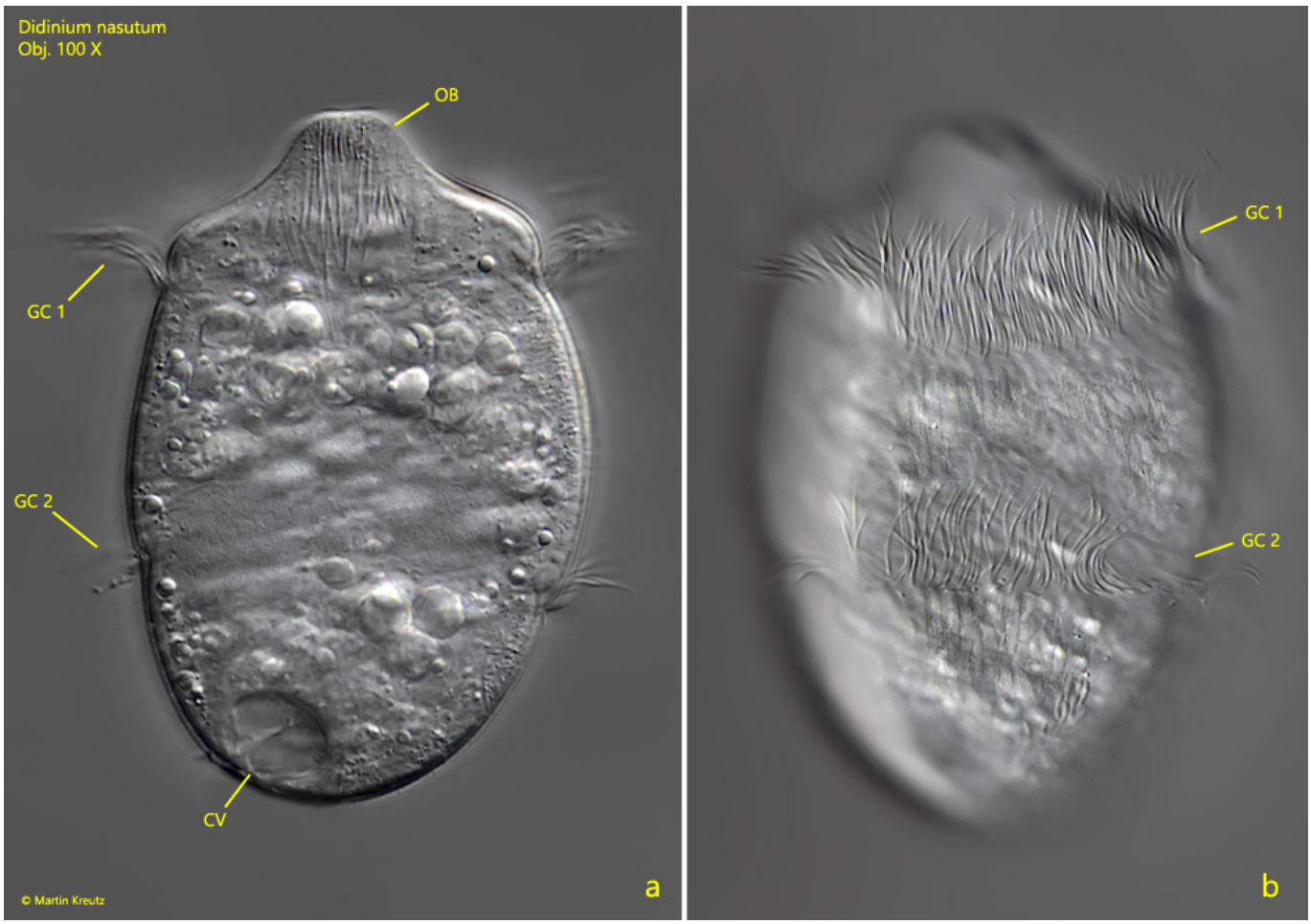


Fig. 2 a-b: *Didinium nasutum*. L = 84 µm. Two focal planes of a slightly squashed specimen. CV = contractile vacuole, GC 1 = apical girdle of cilia, GC 2 = equatorial girdle of cilia, OB = oral bulge. Obj. 100 X.

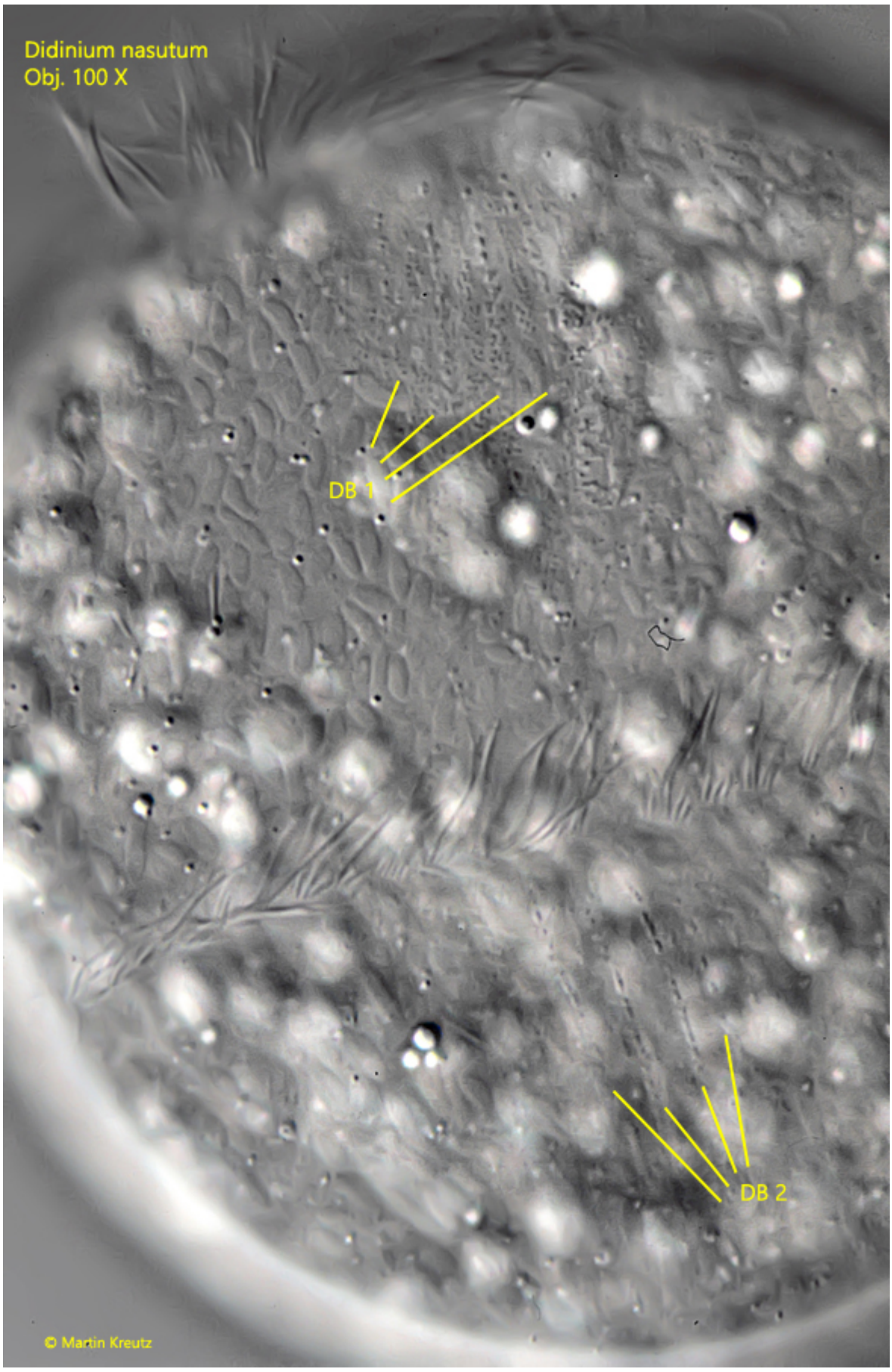


Fig. 3: *Didinium nasutum*. Below each girdle of cilia a dorsal brush of 5 rows each is located (DB 1, DB 2). Obj. 100 X.

Fig. 4: *Didinium nasutum*. L = 128 µm. This specimen caught prey (likely *Coleps hirtus*) and ejected extrusomes to immobilize and hold the prey. Obj. 60 X.


Didinium nasutum
Obj. 60 X
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Fig. 5: *Didinium nasutum*. L = 128 µm. The prey (likely *Coleps hirtus*) is immobilized by a bundle of ejected extrusomes. Obj. 60 X.