## Didinium nasutum

## (Müller, 1773) Stein, 1859

Most likely ID: n.a.

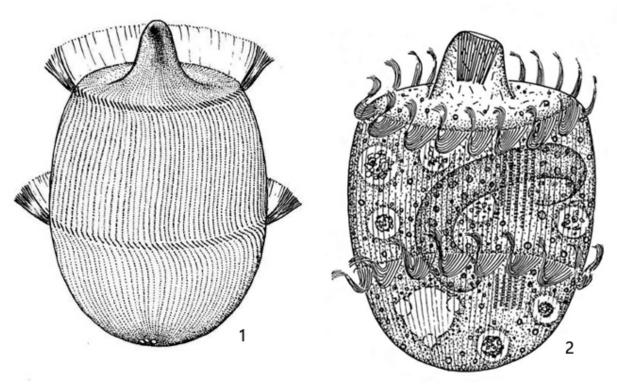
**Synonym:** Didinium balbianii

**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 <u>Simmelried</u>. 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.

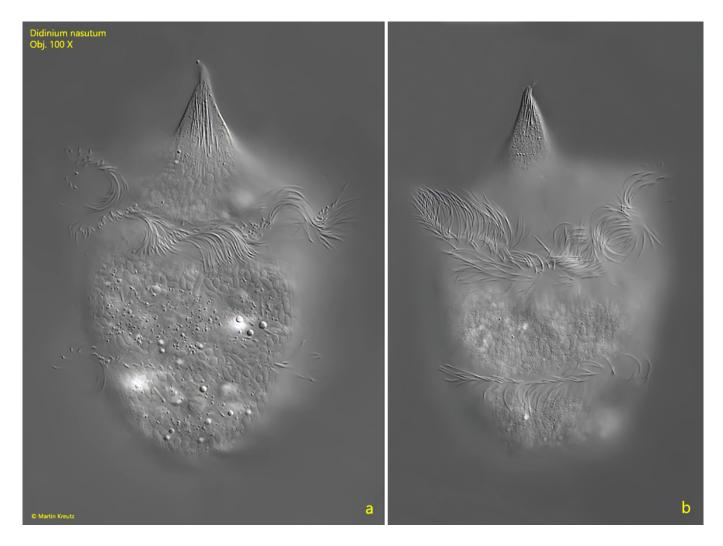


Fig. 1 a-b:  $\textit{Didinium nasutum}.\ L = 100\ \mu m.$  Two focal planes of a freely swimming specimen. Obj. 100 X.

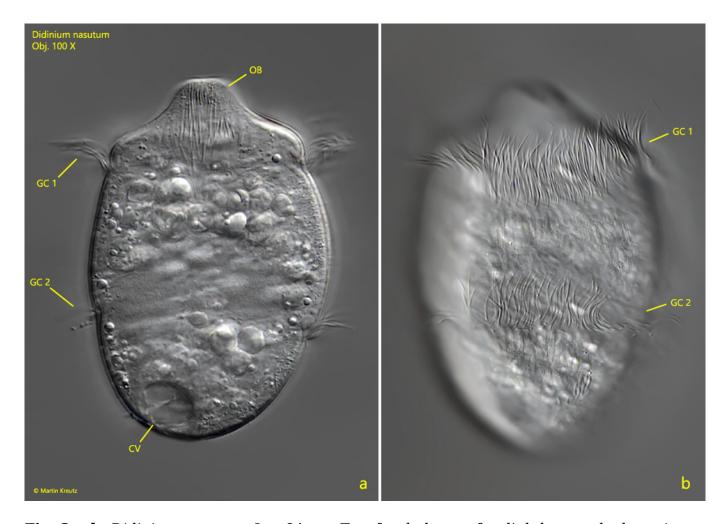


Fig. 2 a-b: Didinium nasutum.  $L=84~\mu m$ . Two focal planes of a slightly squashed specimen. CV = contractile vacuole, GC 1 = apical girdle of cilia, GC 2 = equatorial girdle of cilia, OB = oral bulge. Obj. 100 X.

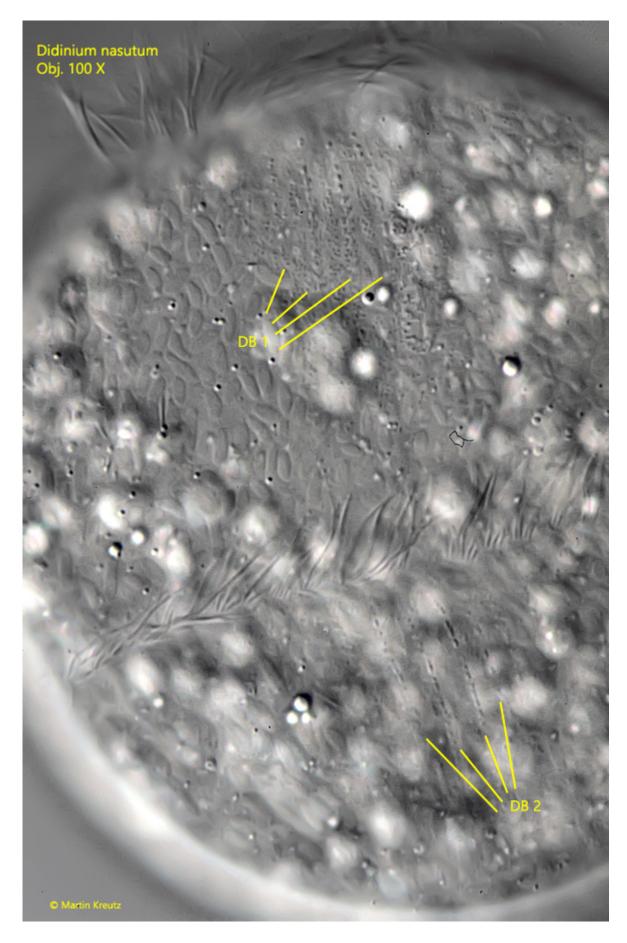


Fig. 3: Didinium nasutum. Below each girdle of cilia a dorsal brush of 5 rows each is located (DB 1, DB 2). Obj.  $100 \ \mathrm{X}$ .



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



