Acineta tuberosa

(Pallas, 1766) Ehrenberg, 1833

Most likely ID: n.a.

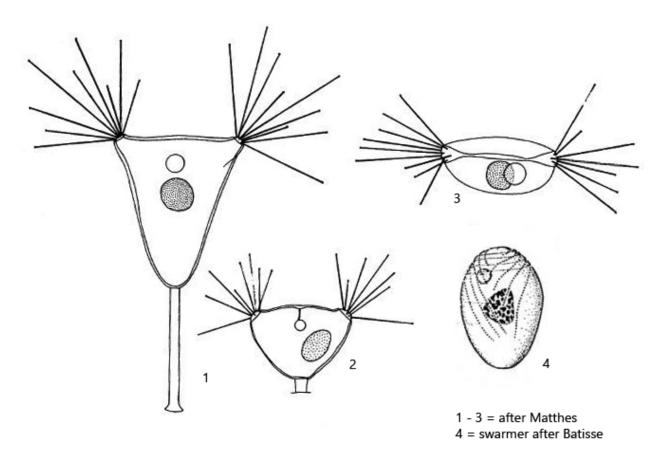
Synonyms: Brachionus tuberosas, Acineta fluviatilis

Sampling location: Mühlhalden pond

Phylogenetic tree: Acineta tuberosa

Diagnosis:

- Iorica 25-200 μm long, 25-80 μm wide
- cell slender or broadly triangular, compressed, fills the lorica
- stalk 2-4 μm in diameter, few μm to 800 μm long
- two spherical protruding ends with 3 30 tentacles each (usually 10 20)
- tentacles up to 80 μm long
- macronucleus globose or ellipsoidal in mid-body
- some attached micronuclei
- one contractile vacuole in anterior half
- swarmer ellipsoidal, 30 35 μm long, with oblique rows of cilia



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I find the suctor Acineta tuberosa exclusively in the Mühlhalden pond near the village Dettingen. This pond has an overflow in a concrete basin, where the water flows off with high velocity. In this fast flowing water long tufts of algae (e.g. Oedogonium) grow, which are densely colonized by Acineta tuberosa in huge quantities (s. fig. 1). The algal filaments from this location are colonized exclusively by this suctor. I have not found any other species on it. Acineta tuberosa can be recognized quite easily by the triangular or Y shape with the two bundles of tentacles. There is only one contractile vacuole and the cell completely fills the lorica. A completely reliable identification is possible by the swarmer (s. fig. 7 a-d). Due to the amount of individuals available I have found very many swarmers. The swarmers of Acineta tuberosa have no reduced tentacles (like the swarmers of many other species) but oblique rows of cilia.

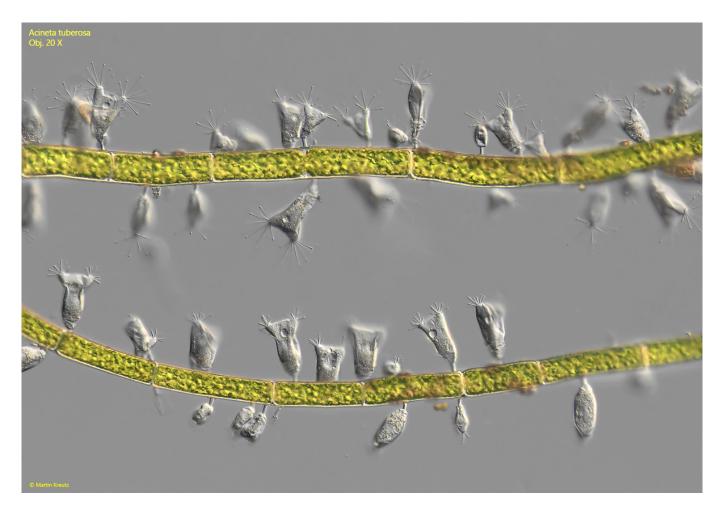


Fig. 1: Acineta tuberosa. A mass development on algae filaments. Obj. 20 X.

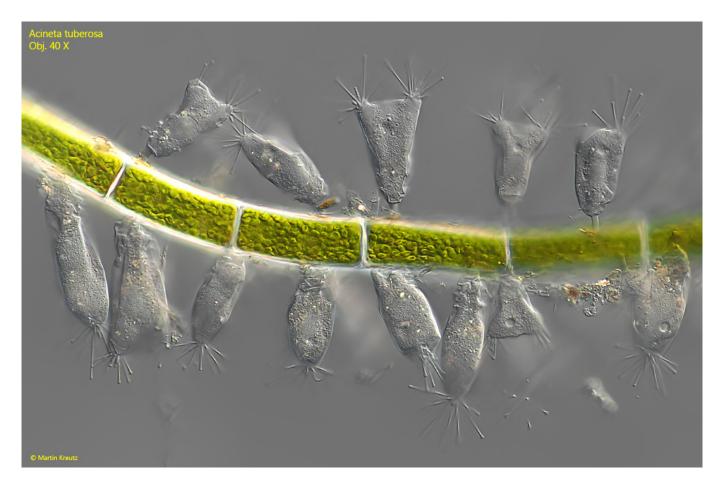


Fig. 2: Acineta tuberosa. A group of individuals on an alga filment. Obj. 40 X.



Fig. 3: Acineta tuberosa. A group of specimens on an algae filament. Obj. 60 X.



Fig. 4 a-c: Acineta tuberosa. $L = 82 \mu m$ (without stalk). Three focal planes of an unsquashed specimen with extended tentacles (TE). CV = contractile vacuole, Ma = contractile vacuolemacronucleus, Mi = micronuclei, ST = stalk. Obj. 60 X.



Fig. 5: Acineta tuberosa. L = 55 μm (without stalk). A second unsquashed specimen in detail. Obj. 100 X.

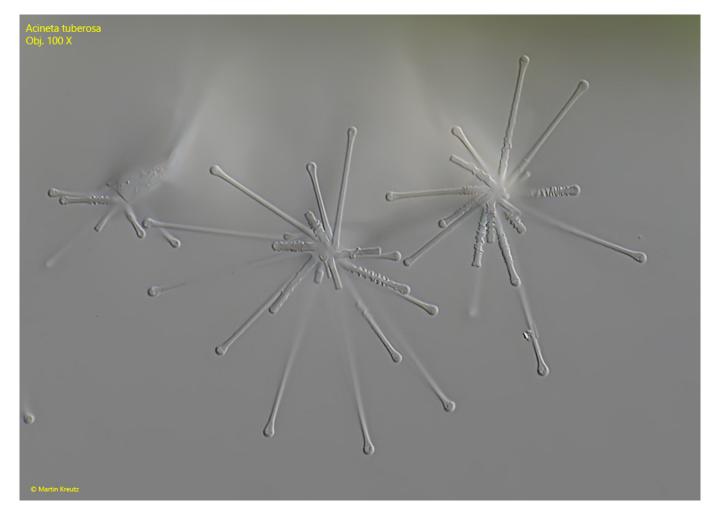


Fig. 6: Acineta tuberosa. Apical view of the extended tentacles of a specimen. Obj. 100 X.

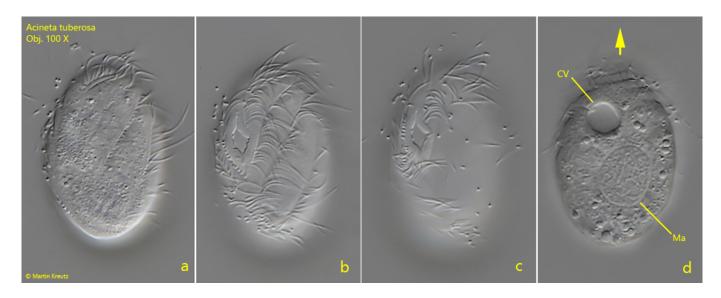


Fig. 7 a-d: Acineta tuberosa. Four focal planes of a freely swimming swarmer. The swarmer is 31 μ m long. Note the obliquely running ciliary rows (a, b). arrow = swimming direction, CV = contractile vacuole, Ma = macronucleus. Obj. 100 X.