Acineta tuberosa

(Pallas, 1766) Ehrenberg, 1833

Most likely ID: n.a.

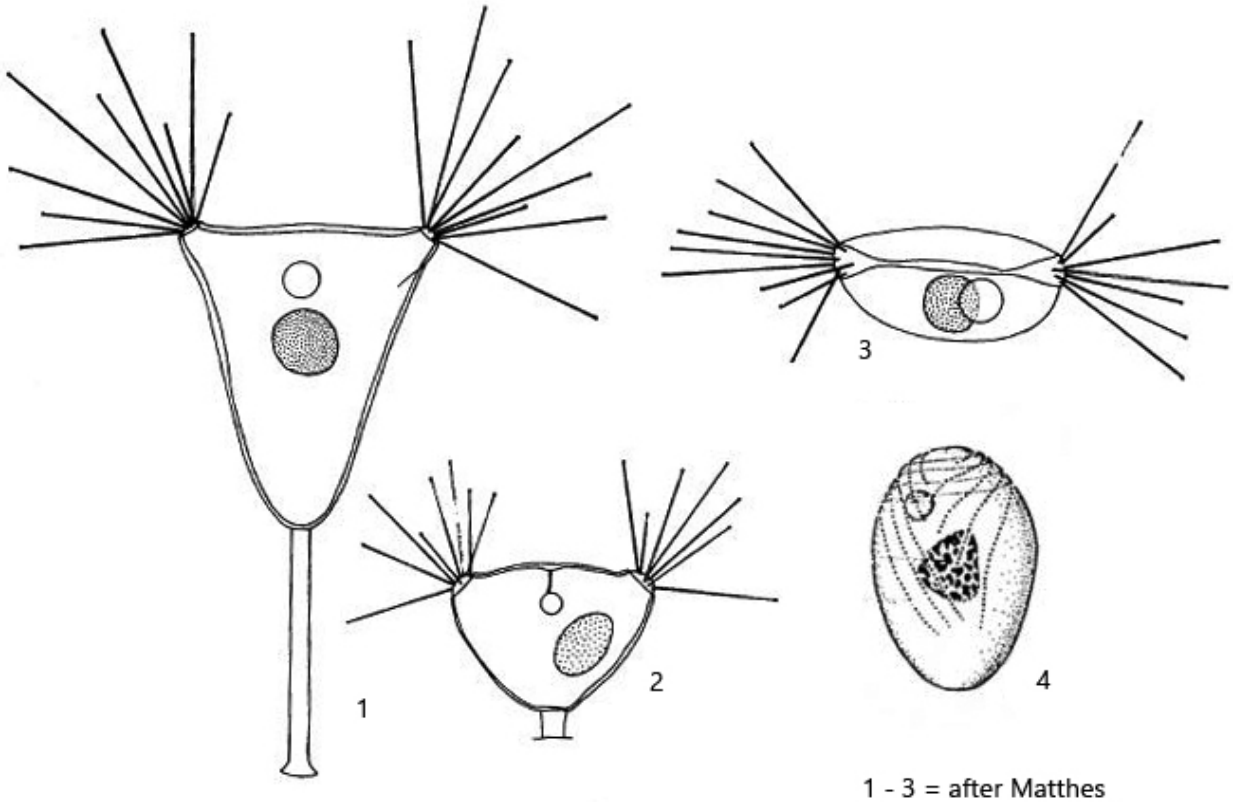
Synonyms: *Brachionus tuberosas*, *Acineta fluviatilis*

Sampling location: Mühlhalden pond

Phylogenetic tree: ***Acineta tuberosa***

Diagnosis:

- lorica 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



Acineta tuberosa

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.

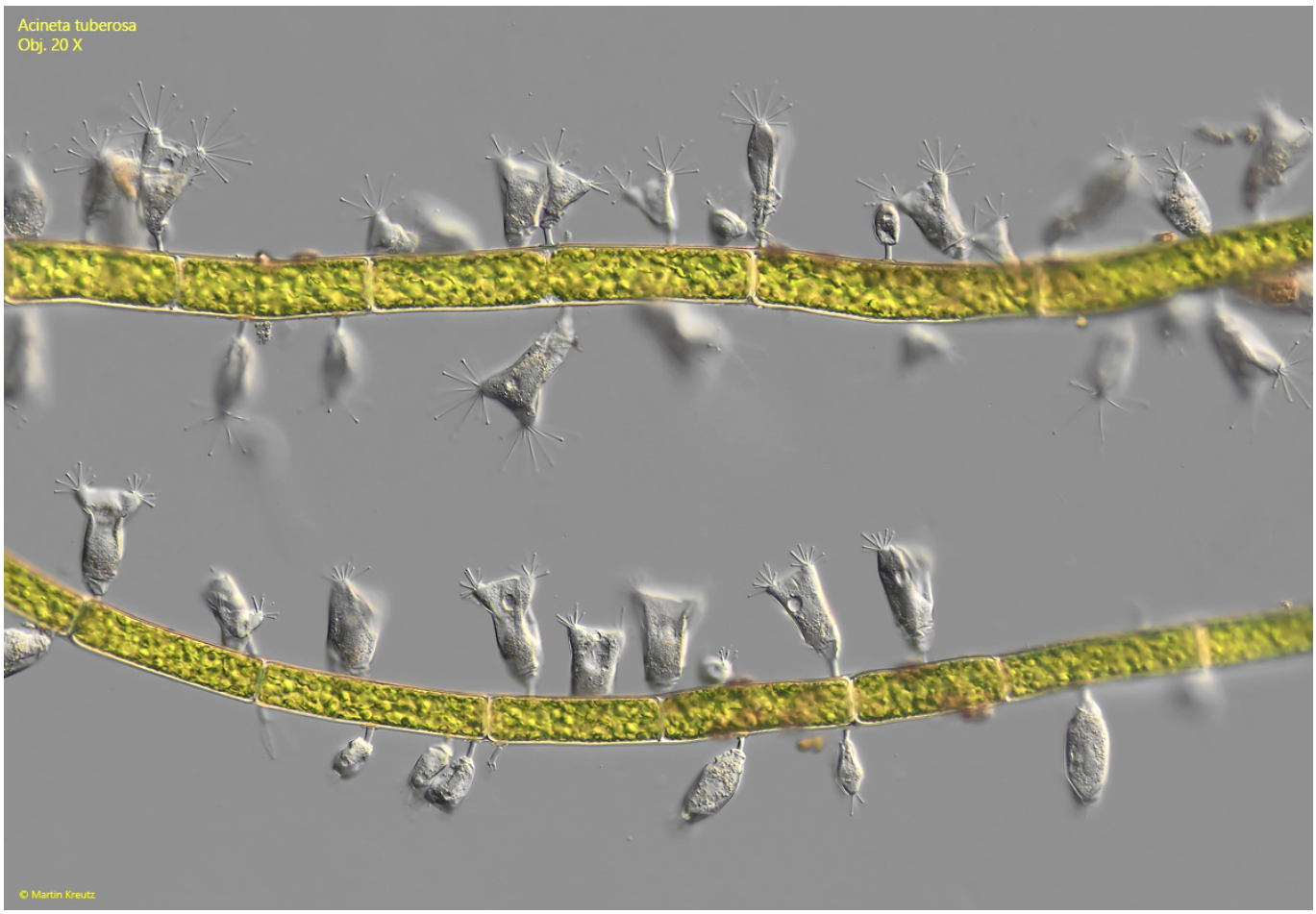


Fig. 1: *Acineta tuberosa.* A mass development on algae filaments. Obj. 20 X.



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.

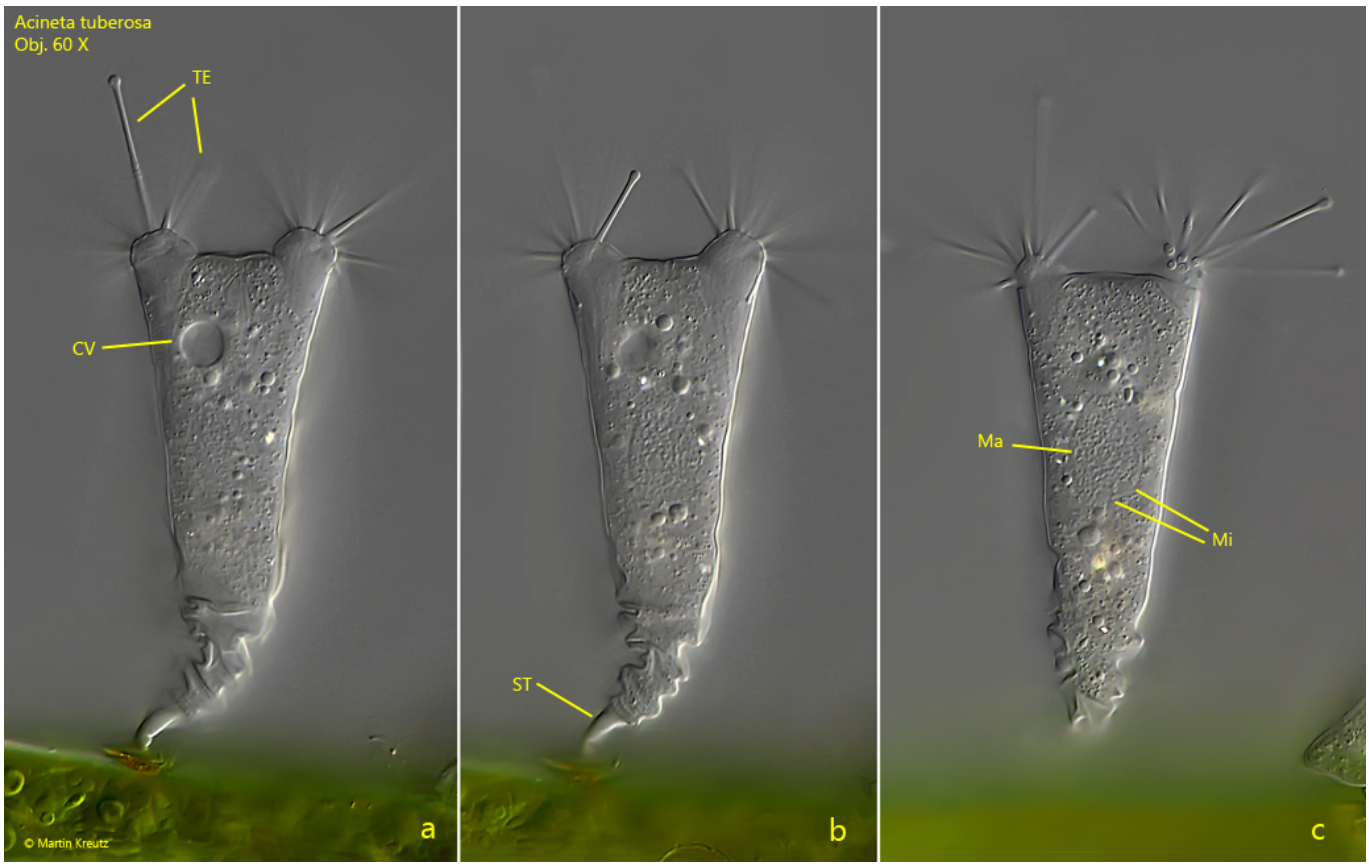


Fig. 4 a-c: *Acineta tuberosa.* L = 82 µm (without stalk). Three focal planes of an unsquashed specimen with extended tentacles (TE). CV = contractile vacuole, Ma = macronucleus, Mi = micronuclei, ST = stalk. Obj. 60 X.



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

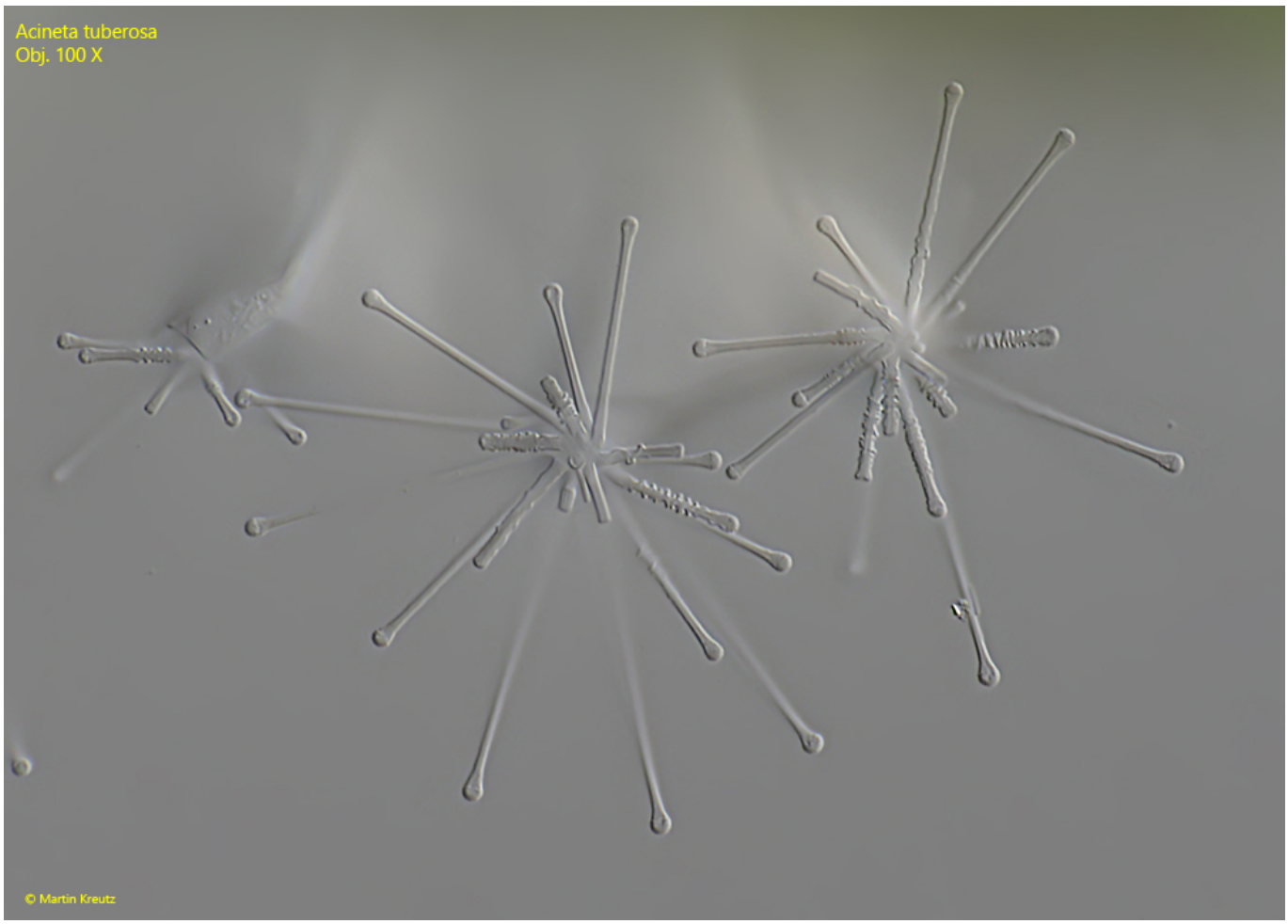


Fig. 6: *Acineta tuberosa.* Apical view of the extended tentacles of a specimen. Obj. 100 X.

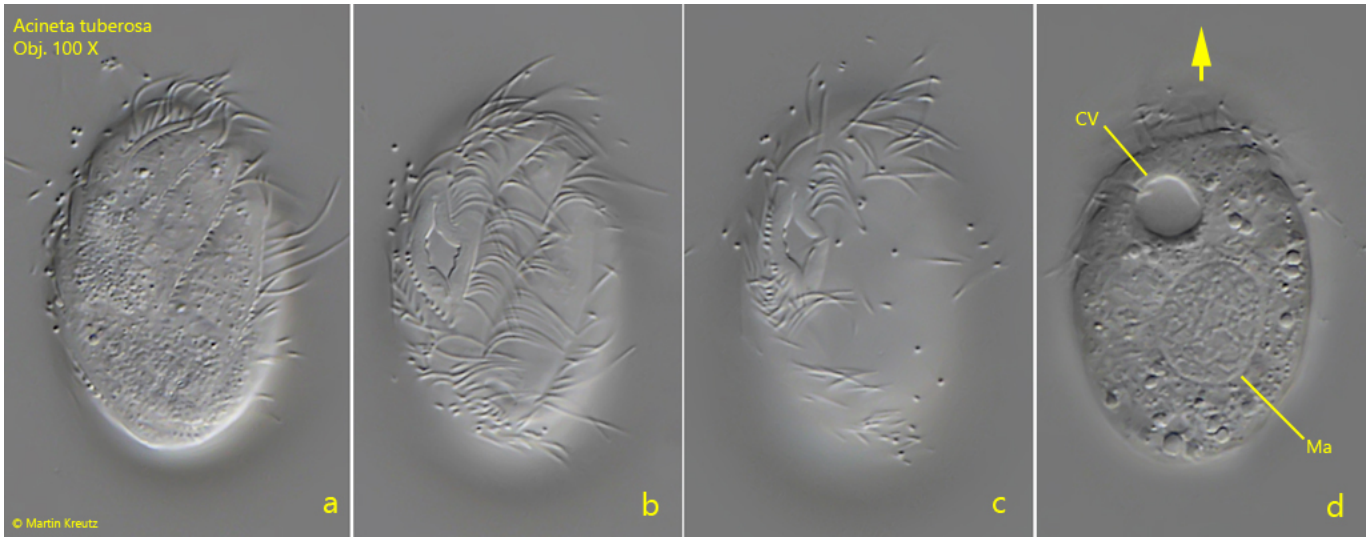


Fig. 7 a-d: *Acineta tuberosa.* Four focal planes of a freely swimming swarmer. The swarmer is 31 µm long. Note the obliquely running ciliary rows (a, b). arrow = swimming direction, CV = contractile vacuole, Ma = macronucleus. Obj. 100 X.