Tetraedron minimum

(A. Braun) Hansgirg, 1889

Most likely ID: n.a.

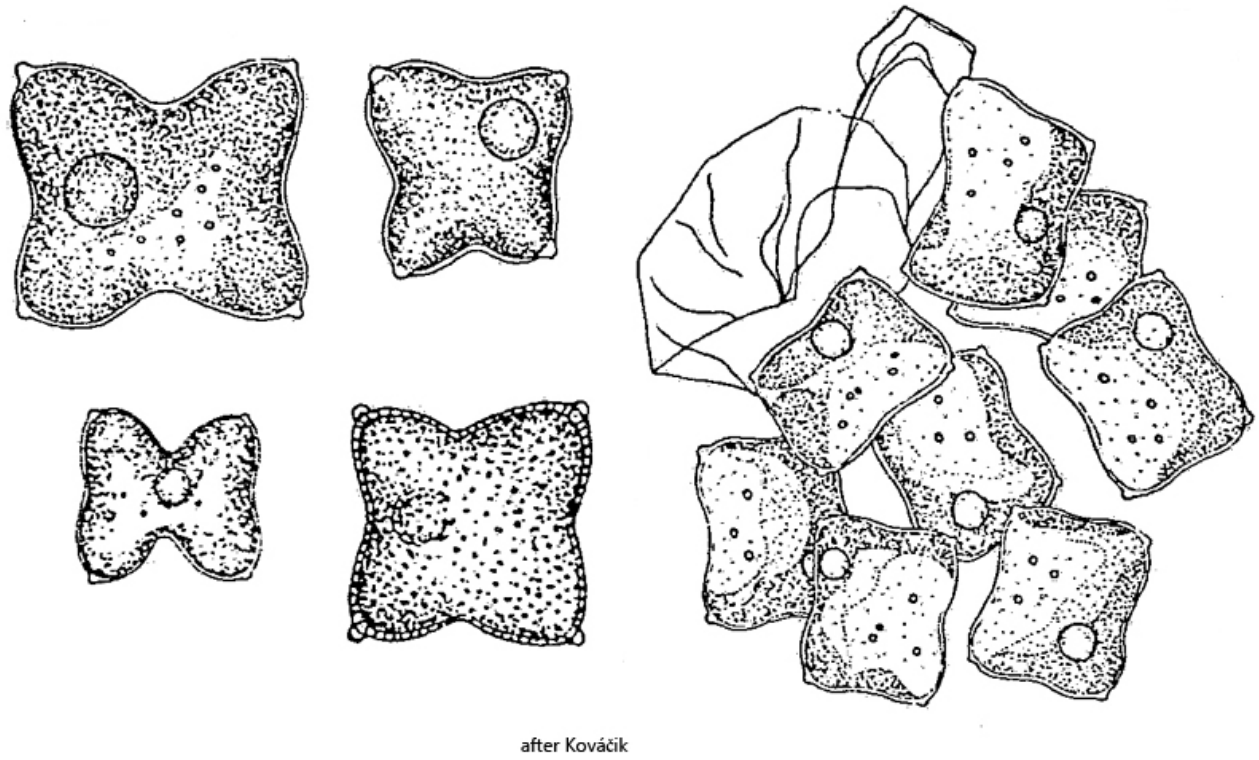
Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: *Tetraedron minimum*

Diagnosis:

- body quadrangular, flat, four corners with papillae
- sides often concave in young cell, convex in older cells
- cell wall smooth, wrinkled or with warts
- diameter 5–25 µm
- one parietal chloroplast
- one pyrenoid
- asexual reproduction with 2–4–8 autospores
- planktonic lifestyle



Tetraedron minimum

Tetraedron minimum is known as an alga with a planktonic lifestyle. However, I have so far only been able to detect this very small alga in the detritus in the Simmelried. In my population, the cells were always smaller than 10 µm. Most of the time the cells were only 5–6 µm in diameter. In addition, I only very rarely find *Tetraedron minimum*.

Interestingly, *Tetraedron minimum* is found in large quantities in fossil layers of the “Messel Pit” (Germany). The sediments excavated there are 48 million years old. The “Messel Pit” is known worldwide for the prehistoric horses found there. However, the extraordinarily fine sediments have also preserved microscopic living creatures. Along with *Botryococcus* spec., *Tetraedron minimum* is the most common fossil algae found there.

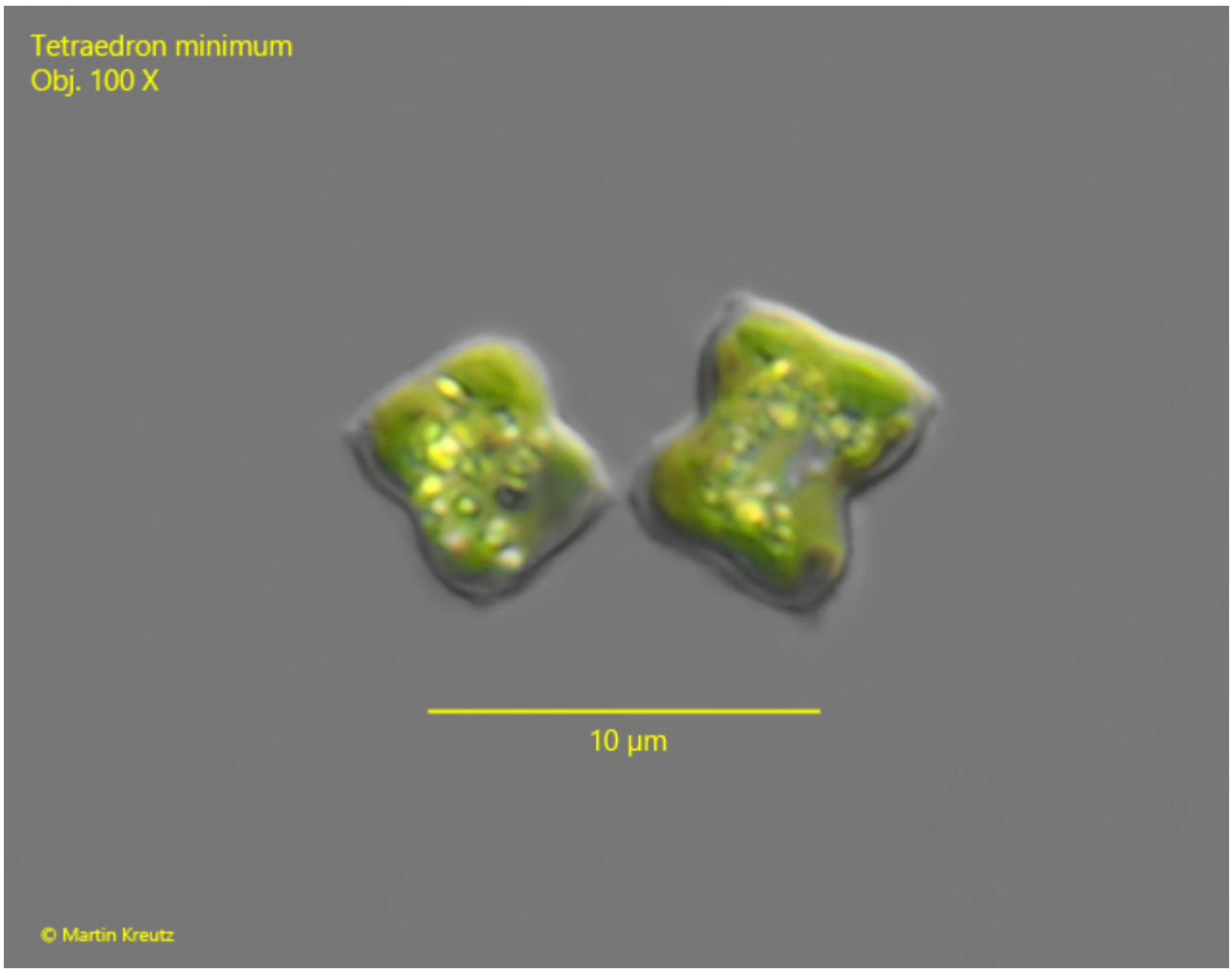


Fig. 1: *Tetraedron minimum*. L = 4.7–5.9 µm. Two young specimens with concave sides. Obj. 100 X.

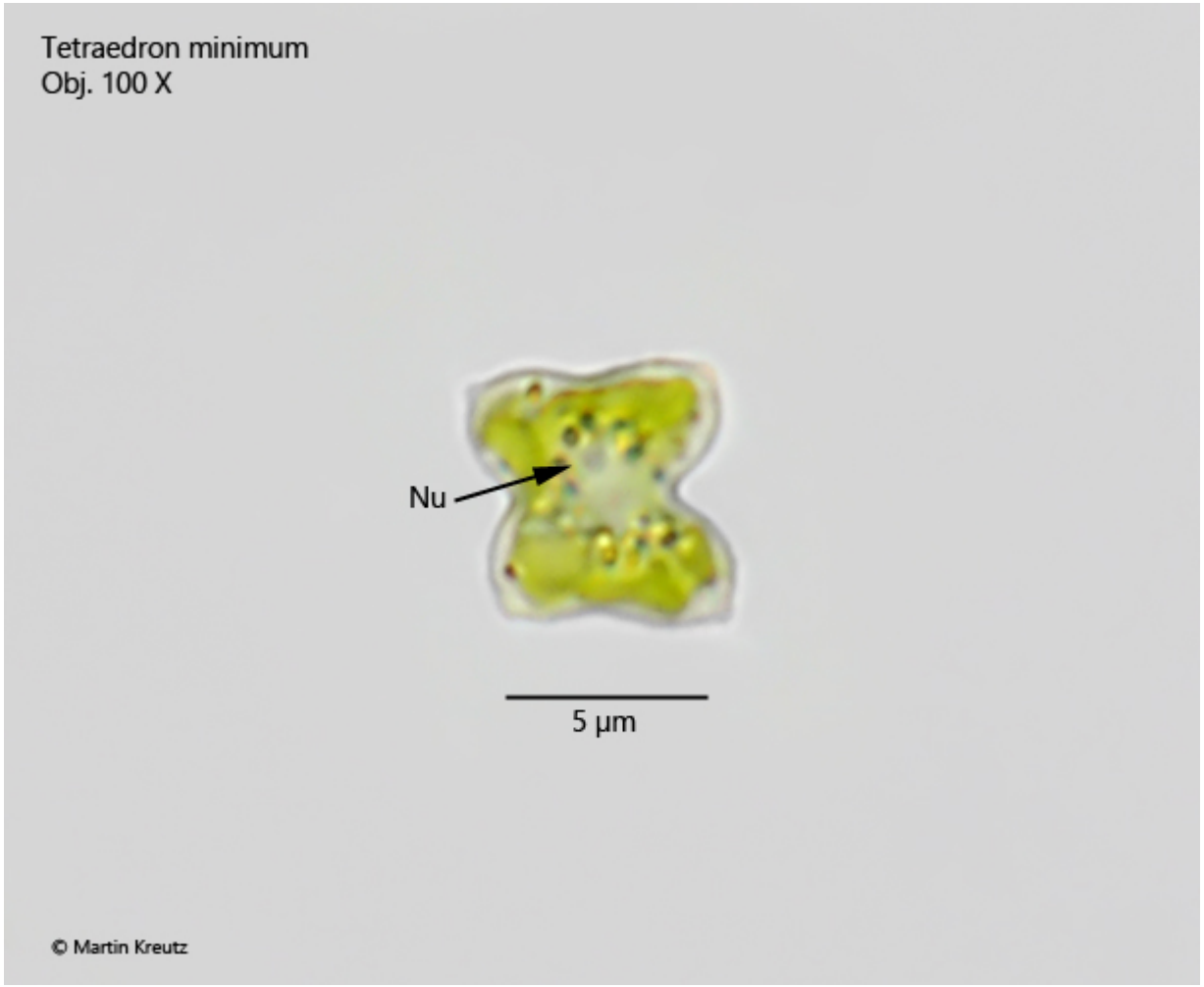


Fig. 2: *Tetraedron minimum*. L = 6.4 µm. A young specimen with concave sides in brightfield illumination. Note the nucleus (Nu) near the center of the cell. Obj. 100 X.

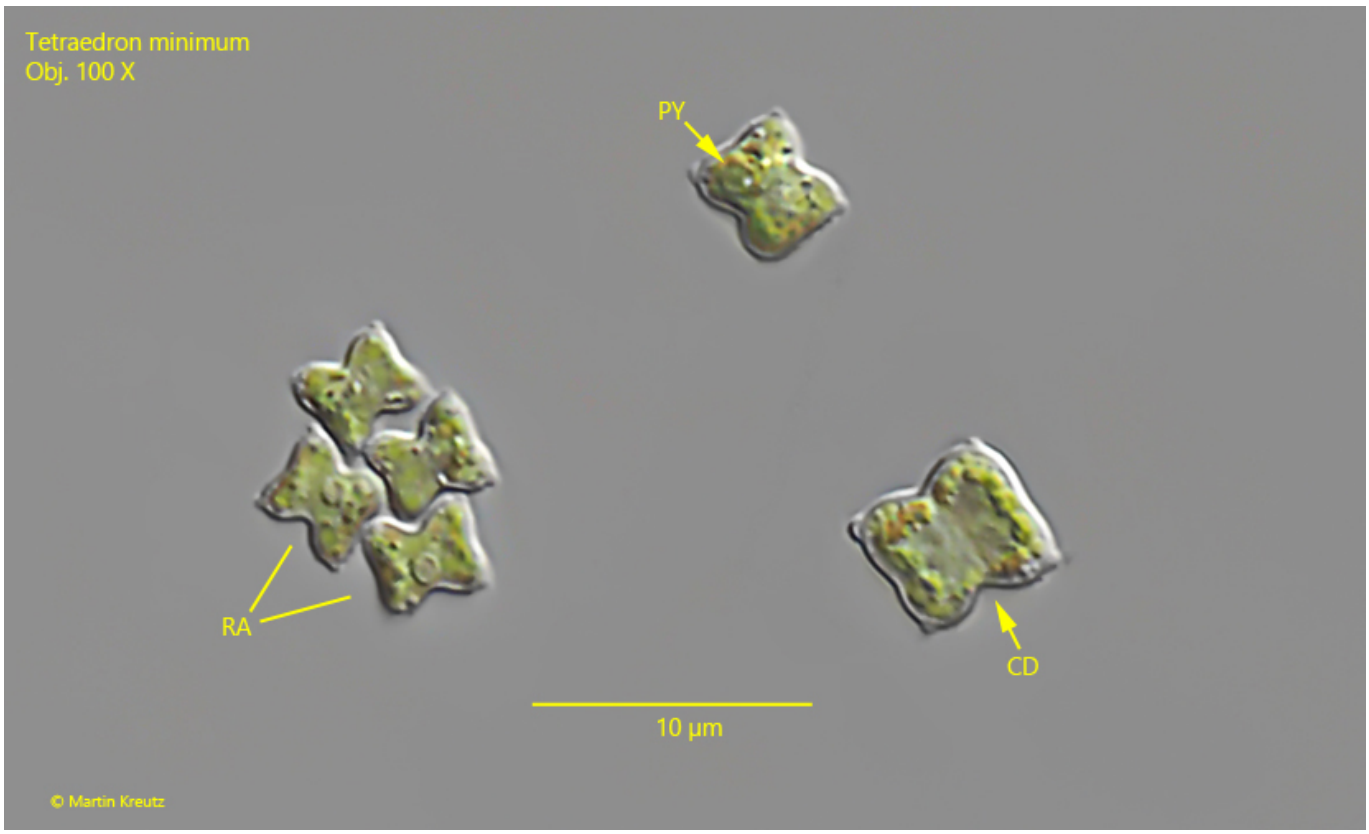


Fig. 3: *Tetraedron minimum*. At the left side 4 released autospores (AS). In cell at the right side a cell division (CD) has started. Above a vegetative, young cell. PY = pyrenoid. Obj. 100 X.