Phacus caudatus (Hübner, 1886)

Most likely ID: n.a.

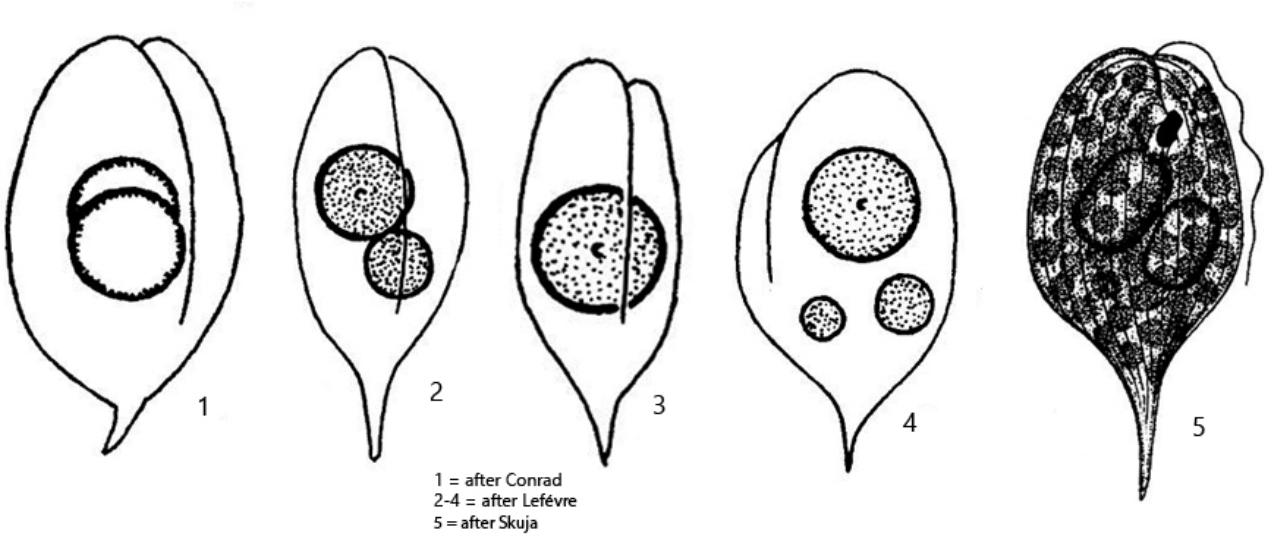
Synonym: n.a.

Sampling location: Simmelried, Ziegelhof pond

Phylogenetic tree: *Phacus caudatus*

Diagnosis:

- cell pear-shaped or ovoid, dorso-ventrally flattened
- dorsal keel with length of cell
- length 31–50 µm, width 15–27 µm
- 1–2 prominent paramylon bodies, oval or circular
- chloroplasts disc-shaped
- posterior end tapered continuously in a short caudal spine
- caudal spine, 5–11 µm long, straight or slightly curved
- one flagellum, about body length
- pellicle longitudinally striated
- eyespot present



Phacus caudatus

I find *Phacus caudatus*, but usually only isolated cells. I recognize the species mainly by the short caudal spine, which is formed by a continuous tapering of the posterior end and which is mostly straight or only slightly angled. Also, this species has a dorsal keel that is very pronounced and runs across the entire cell (s. figs. 1 b and 3 c). The cell shape is quite variable. Thus, I found slender, almost parallel-sided specimens (s. fig. 1 a-b) but also broadly oval specimens (s. fig. 3 a-c). In my population the specimens were never longer than 40 µm.

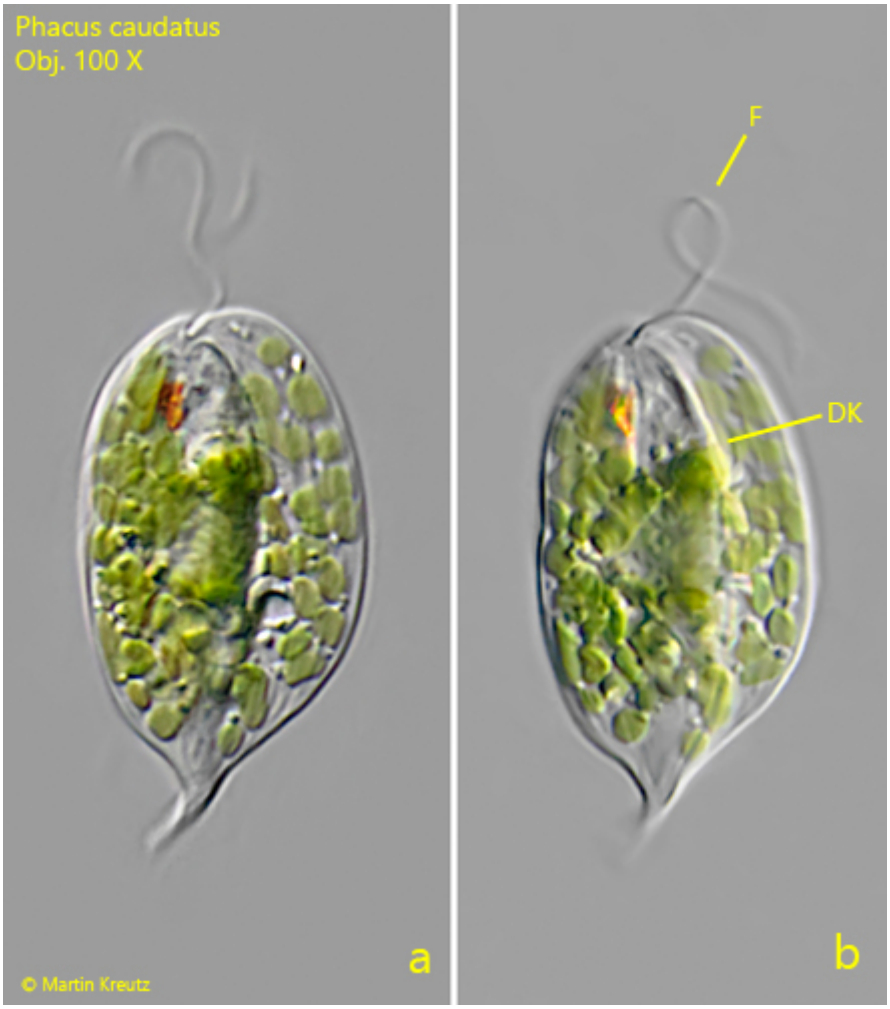


Fig. 1 a-b: *Phacus caudatus*. L = 37 µm. Two focal planes of a freely swimming specimen from dorsal. Note the dorsal keel (DK) running over the whole cell. F = flagellum. Obj. 100 X.

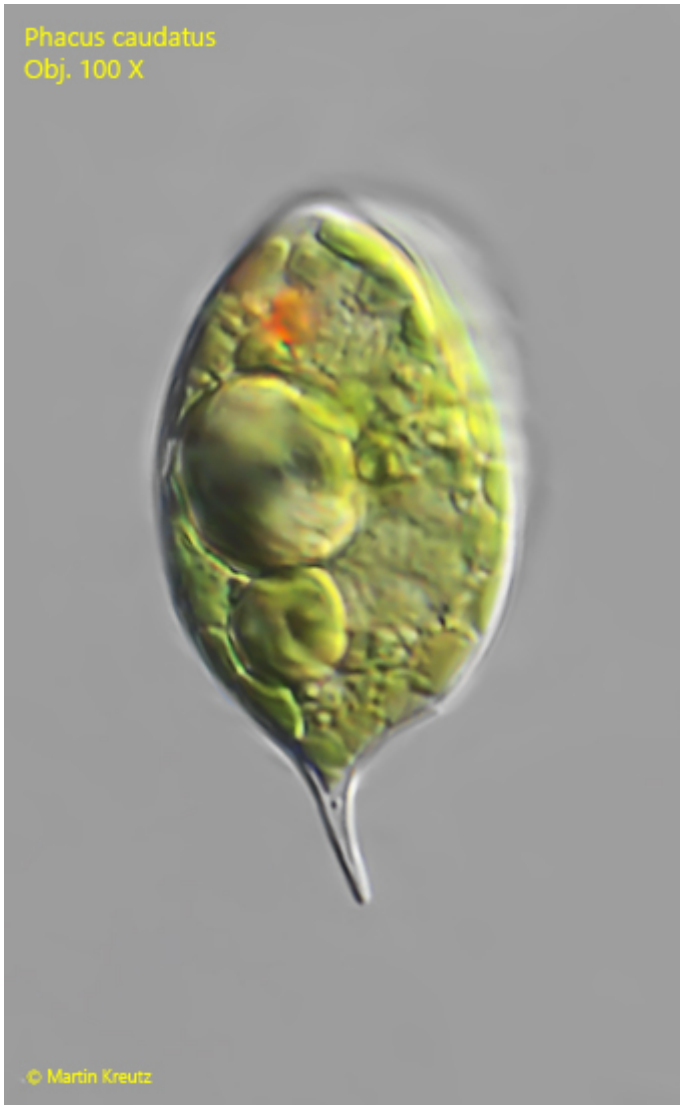


Fig. 2: *Phacus caudatus*. L = 34 µm. A second specimen from ventral. Obj. 100 X.

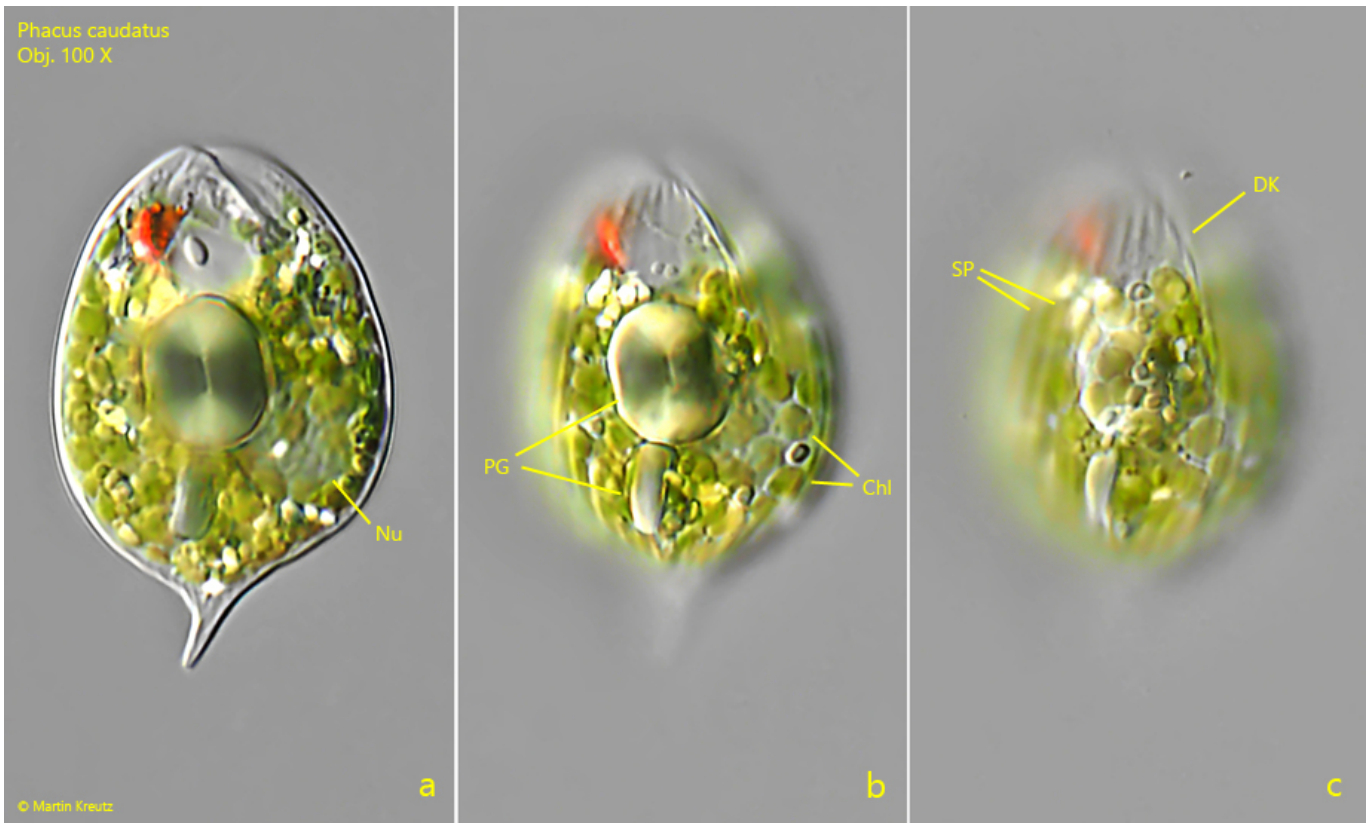


Fig. 3 a-c: *Phacus caudatus*. L = 34 µm. Three focal planes of a slightly squashed specimen from dorsal. Chl = disc-shaped chloroplasts, DK = dorsal keel, Nu = nucleus, PG = paramylon grains, SP = striation of pellicle. Obj. 100 X.