***Pyramimonas tetrarhynchus***

**Schmarda, 1849**

**Most likely ID:** n.a.

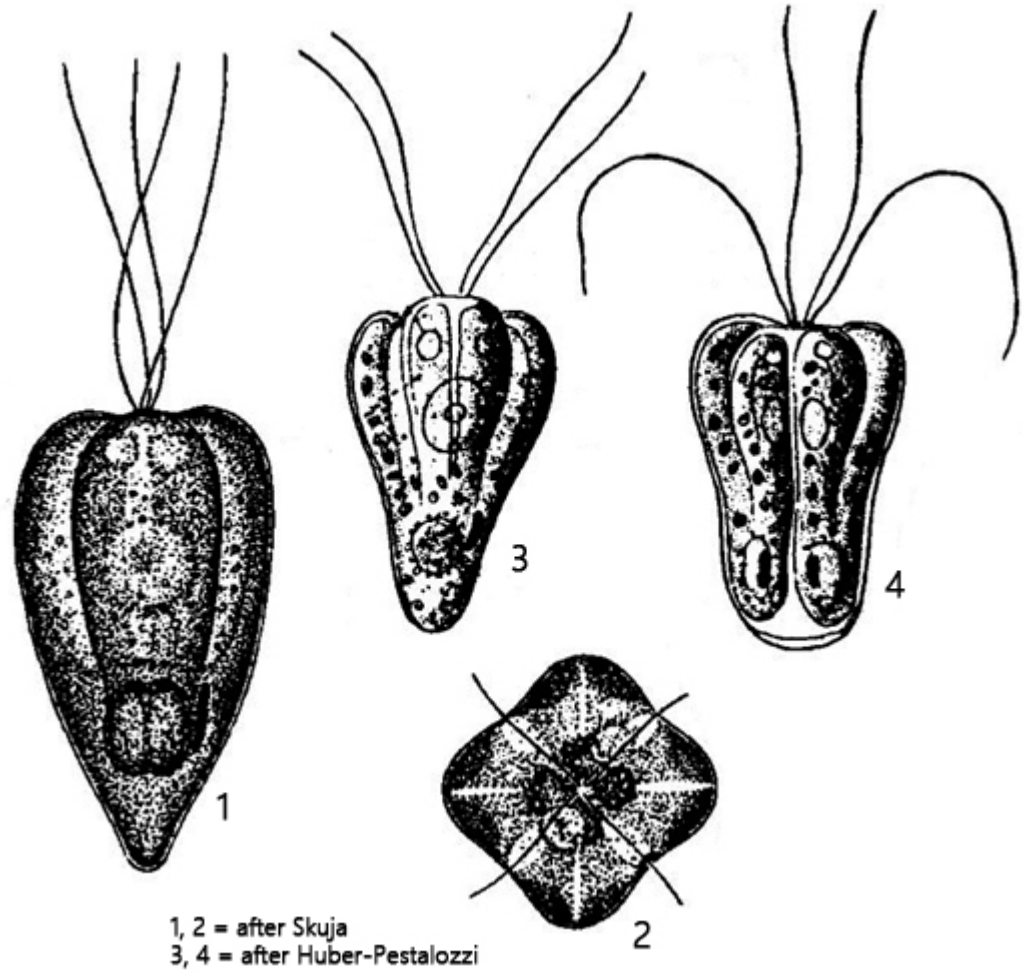
**Synonym:** *Pyramidomonas tetrarhynchos*

**Sampling location:** Simmelried

**Phylogenetic tree:** *Pyramimonas tetrarhynchos*

**Diagnosis:**

- cells obovid, heart-shaped or inversely pyramidal
- in apical view quadrangular with 4 lobes
- length 18–27 µm
- 4 apical flagella of equal length
- chloroplast cup-shaped, divided apically in 8 lobes
- one pyrenoid, located posteriorly
- one eyespot (on level of pyrenoid)
- one apical contractile vacuole




Pyramimonas tetrarhynchus

So far I have only found *Pyramimonas tetrarhynchus* in the Simmelried, where the species rarely occurs. I usually find specimens in the spring between March and April.

The cells of *Pyramimonas tetrarhynchus* have 4 flagella and 4 longitudinal lobes, which are separated by furrows. This can be seen in apical view. Then the cells appear cloverleaf-shaped or square with rounded corners (s. drawing 2 above). The eyespot is clearly visible and lies in the posterior third, approximately at the same height as the pyrenoid. The cup-shaped chloroplast splits into 4 lobes, which are localized in the 4 longitudinal lobes. Apically, these 4 lobes split again to a total of 8 lobes, which is hard to recognize in living specimens.

Many authors refer to *Pyramimonas rhynchomonas* as *Pyramidomonas rhynchomonas*, for example Huber-Pestalozzi (1961).


**Fig. 1:** *Pyramimonas tetrarhynchos*. L = 21–26 µm. An aggregation of several, freely swimming specimens. Obj. 100 X.

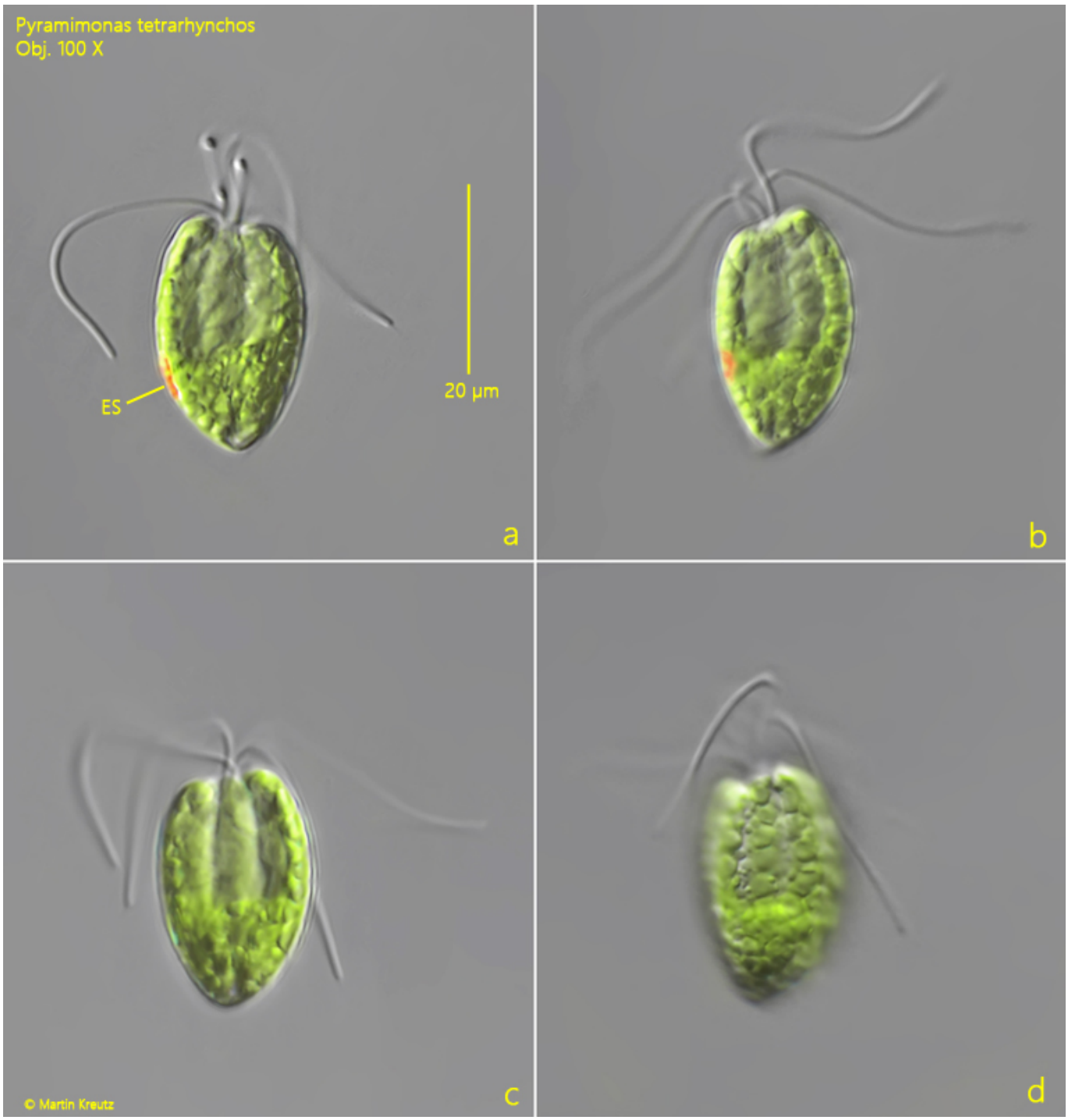



**Fig. 2 a-d:** *Pyramimonas tetrarhynchos*. L = 25 µm. Different focal planes of a freely swimming specimen. Note the 4 apical flagella and the posteriorly located eyespot (ES). Obj. 100 X.

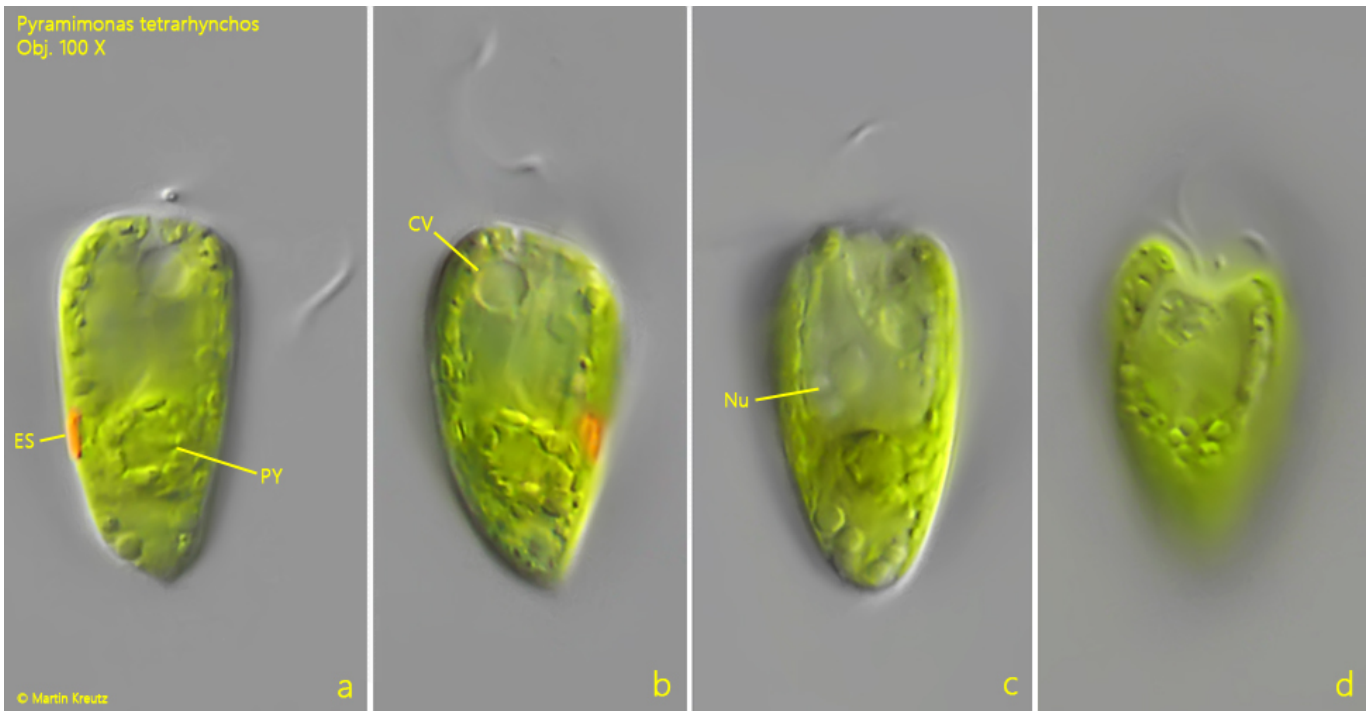



**Fig. 3 a-d:** *Pyramimonas tetrarhynchos*. L = 26 µm. A second freely swimming specimen. Note the pyrenoid (PY) on the level of the eyespot (ES). CV = contractile vacuole, Nu = nucleus. Obj. 100 X.