

***Petalomonas quadrilineata* Penard, 1890**

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

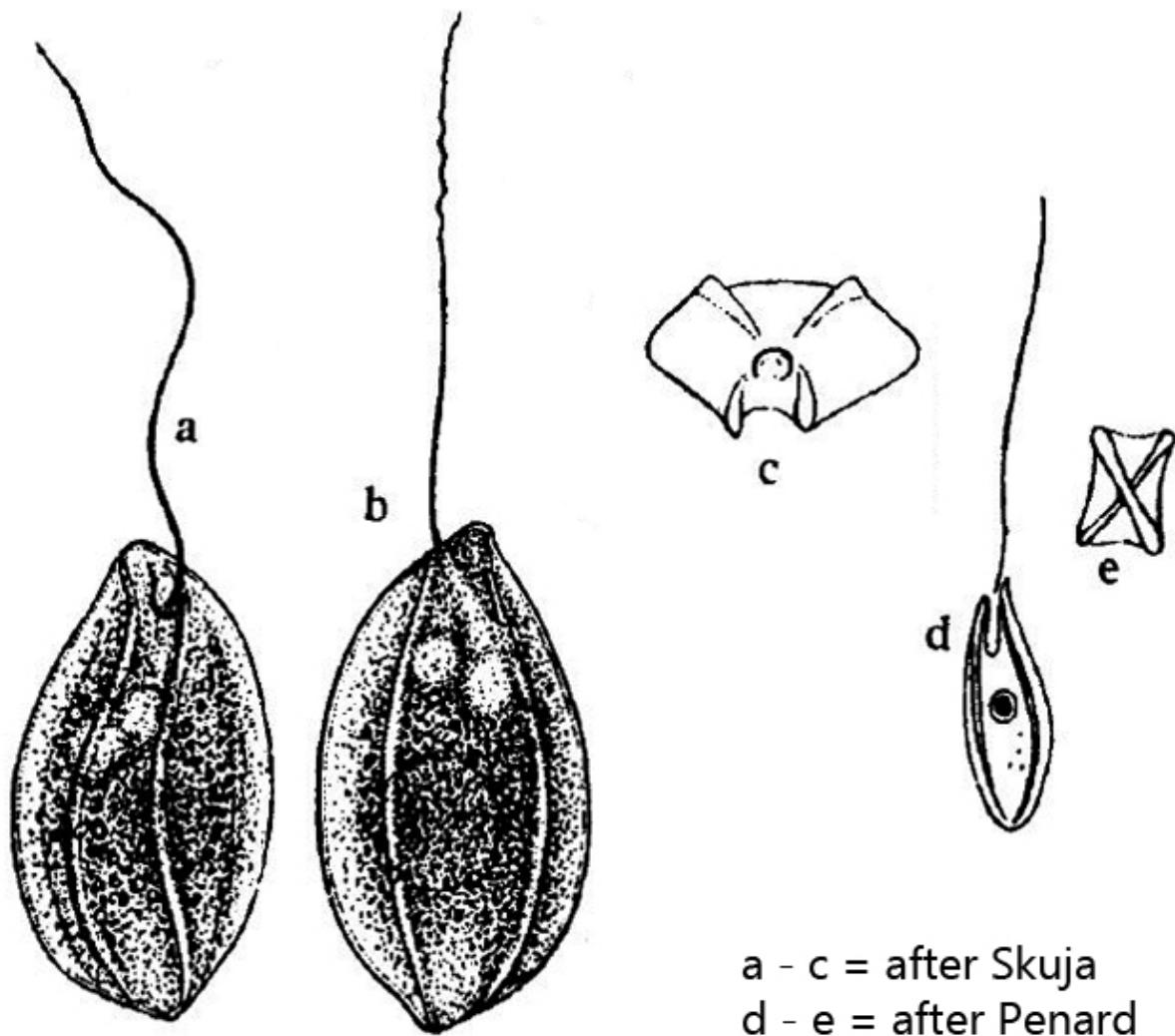
**Synonym:** n.a.

**Sampling location:** [Simmelried](#)

**Phylogenetic tree:** [\*Petalomonas quadrilineata\*](#)

**Diagnosis:**

- length 20  $\mu\text{m}$ , width 10  $\mu\text{m}$ , thickness 7  $\mu\text{m}$
- broadly spindle-shaped to ellipsoidal
- dorso-ventrally flattened
- one flagellum
- each two keels ventrally and dorsally
- the keels converge anteriorly and posteriorly
- cross shaped in apical view

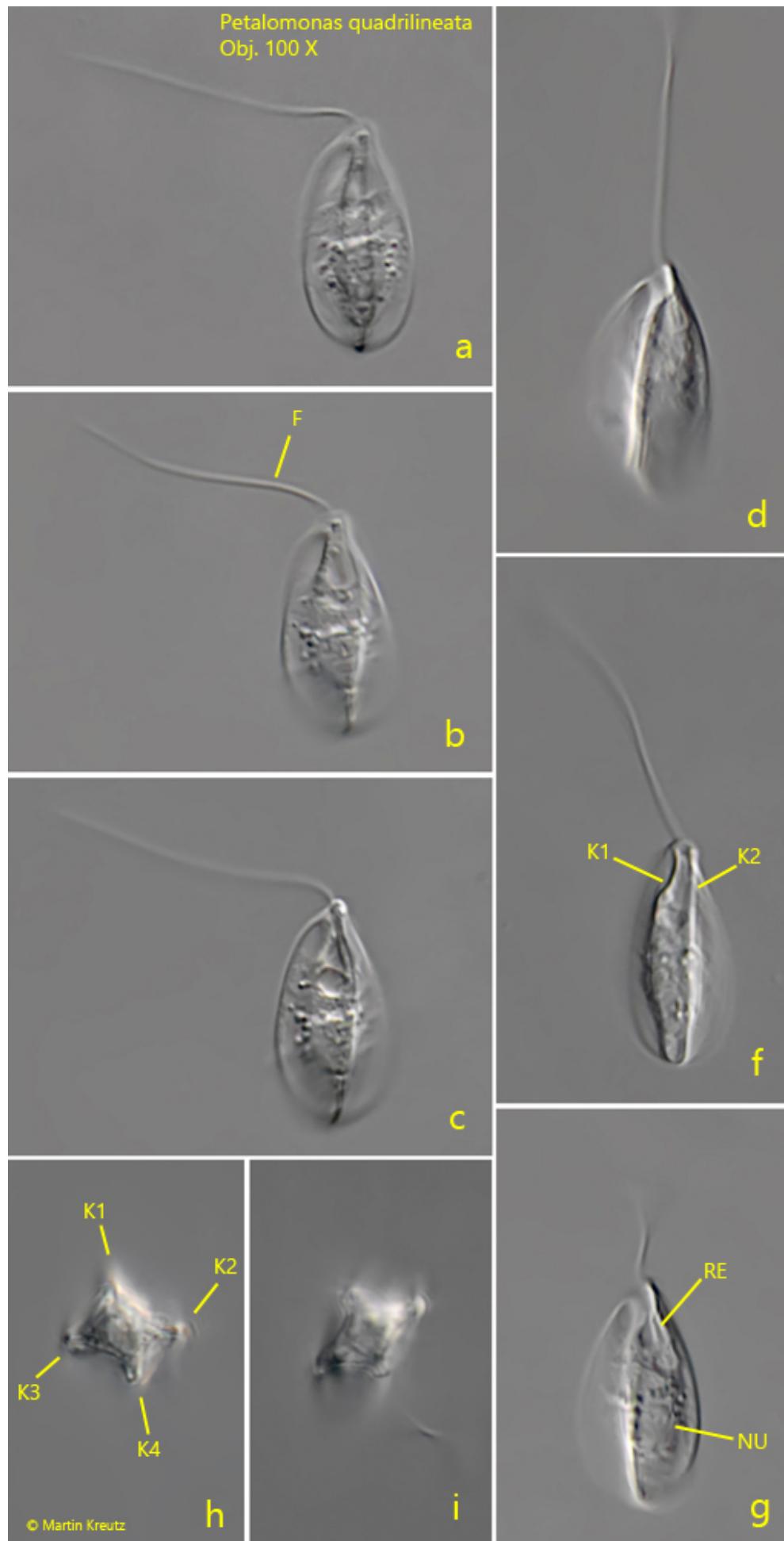


a - c = after Skuja  
 d - e = after Penard

### Petalomonas quadrilineata

I found *Petalomonas quadrilineata* in 2007 in the same sample as [\*Petalomonas mira\* var. \*bicarinata\*](#). The assignment of *Petalomonas quadrilineata* is really only possible by an apical view. Only in this way the cruciform cross section can be observed, which is caused by the 4 keels. Two of them run on the dorsal side and two on the ventral side. The dimensions are given by Penard with  $20 \times 10 \mu\text{m}$ , without naming a size range. My specimen was  $27 \mu\text{m}$  long and  $14 \mu\text{m}$  wide. The keels of the similar species *Petalomonas alata* are much higher and steeper, giving an almost X-shaped apical view, with deep depressions between the keels.

*Petalomonas quadrilineata*  
Obj. 100 X



**Fig. 1 a-i:** *Petalomonas quadrilineata*. L = 27  $\mu\text{m}$ , W = 14  $\mu\text{m}$ . A freely swimming specimen. h, i) In apical view the specimen is cross-shaped due to the 4 keels (each two dorsal and ventral). F = flagellum, K1 - K 4 = dorsal and ventral keels, NU = nucleus, RE = reservoir. Obj. 100 X.