***Pompholyxophrys punicea* Archer, 1869**

Most likely ID: n.a.

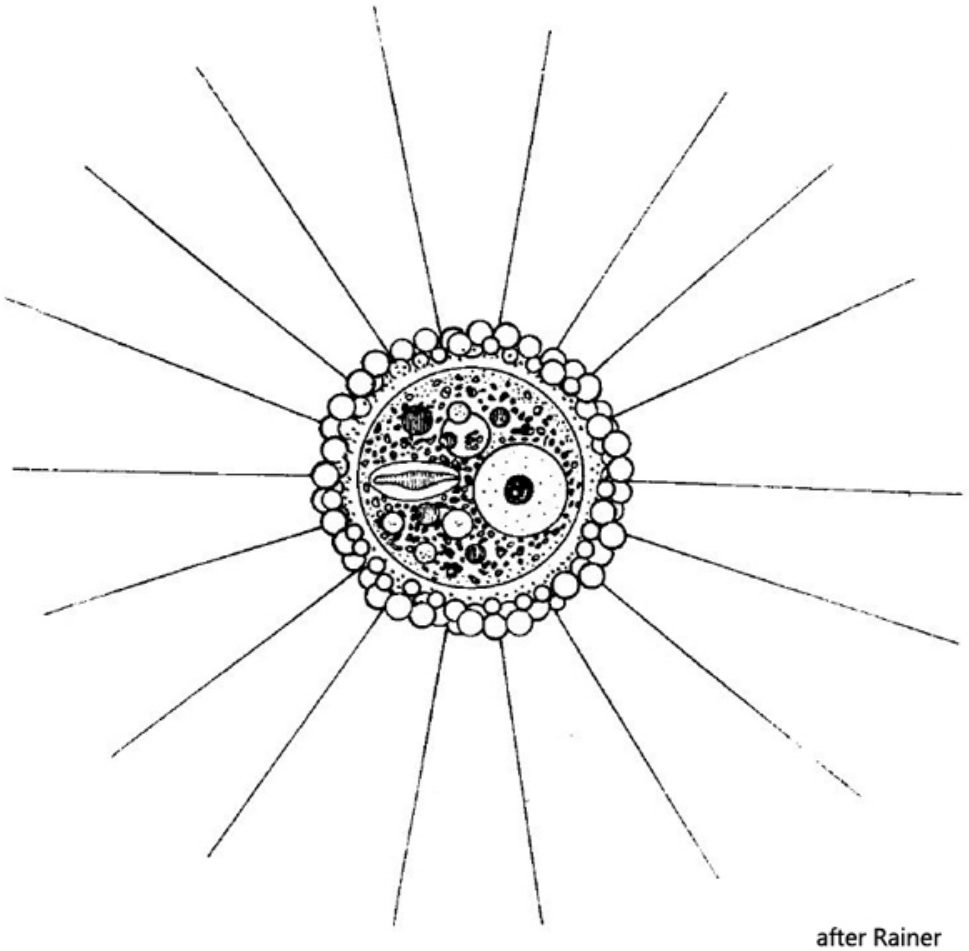
Synonym: *Hyalolampe fenestrate, Hyalolampe fenestrata*

Sampling location: Simmelried, Purren pond, Ulmisried

Phylogenetic tree: ***Pompholyxophrys punicae***

Diagnosis:

- cell spherical, covered with spherical scales
- diameter 24–65 µm (including layer auf scales)
- scales 1–7.5 µm in diameter, hollow, transparent
- cytoplasm orange or reddish with colored granules
- feeds on algae
- nucleus located eccentrically, with central nucleolus
- no contractile vacuole visible
- pseudopodia fine and short



Pompholyxophrys punicea

I find *Pompholyxophrys punicea* regularly, but never frequently in some of my sites. Mostly I find specimens at the bottom of old samples with little plant material. The cells can be recognized by their orange coloration even at low magnification. However, the beautiful pearly scales surrounding the cell body can only be seen at high magnifications. Often the spherules are arranged in multiple, concentric layers, with the smallest spherules forming the innermost layer. The spherical scales are formed by the cell itself and consist of amorphous silicium.

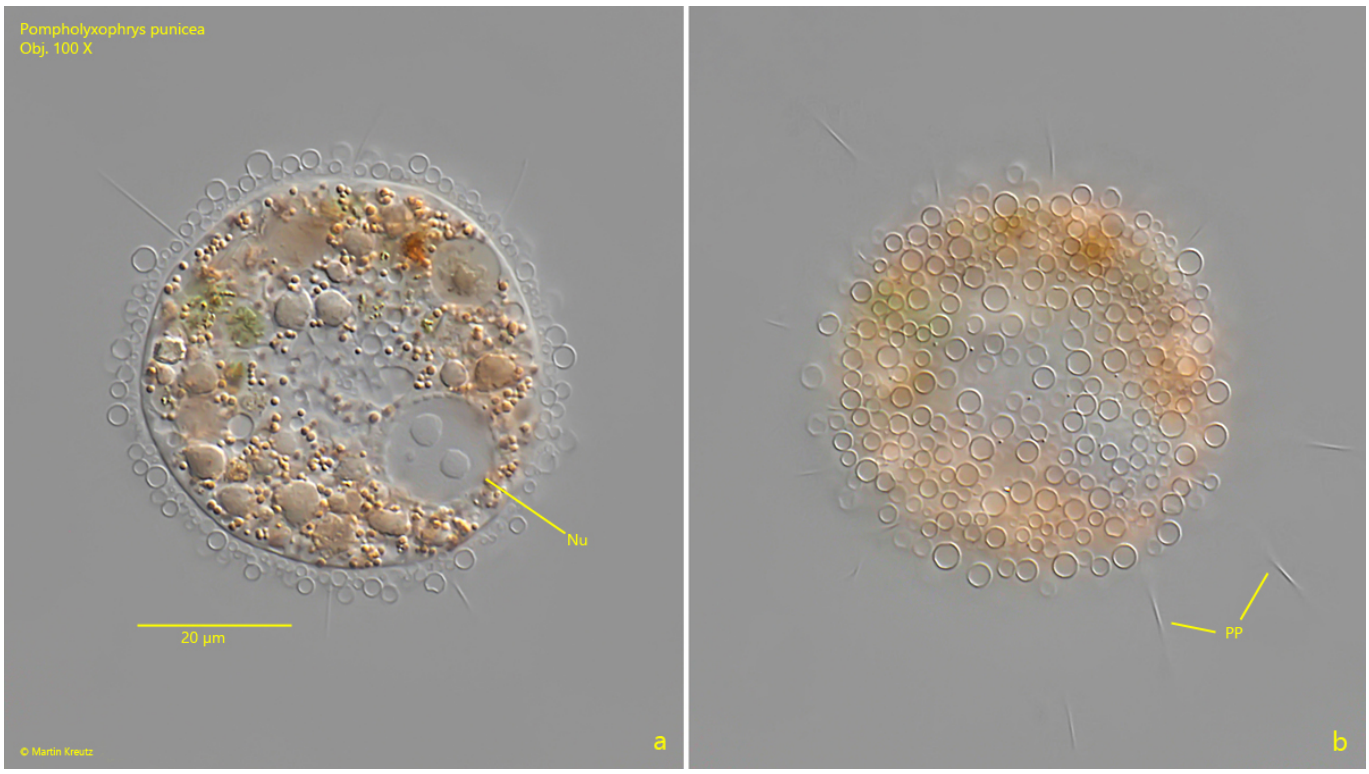


Fig. 1 a-b: *Pompholyxophrys punicea*. D = 47 µm (without scales). A squashed specimen with a pale orange color. Note the layers of transparent spherules (scales) covering the cell. Nu = nucleus, PP = pseudopodia. Obj. 100 X.

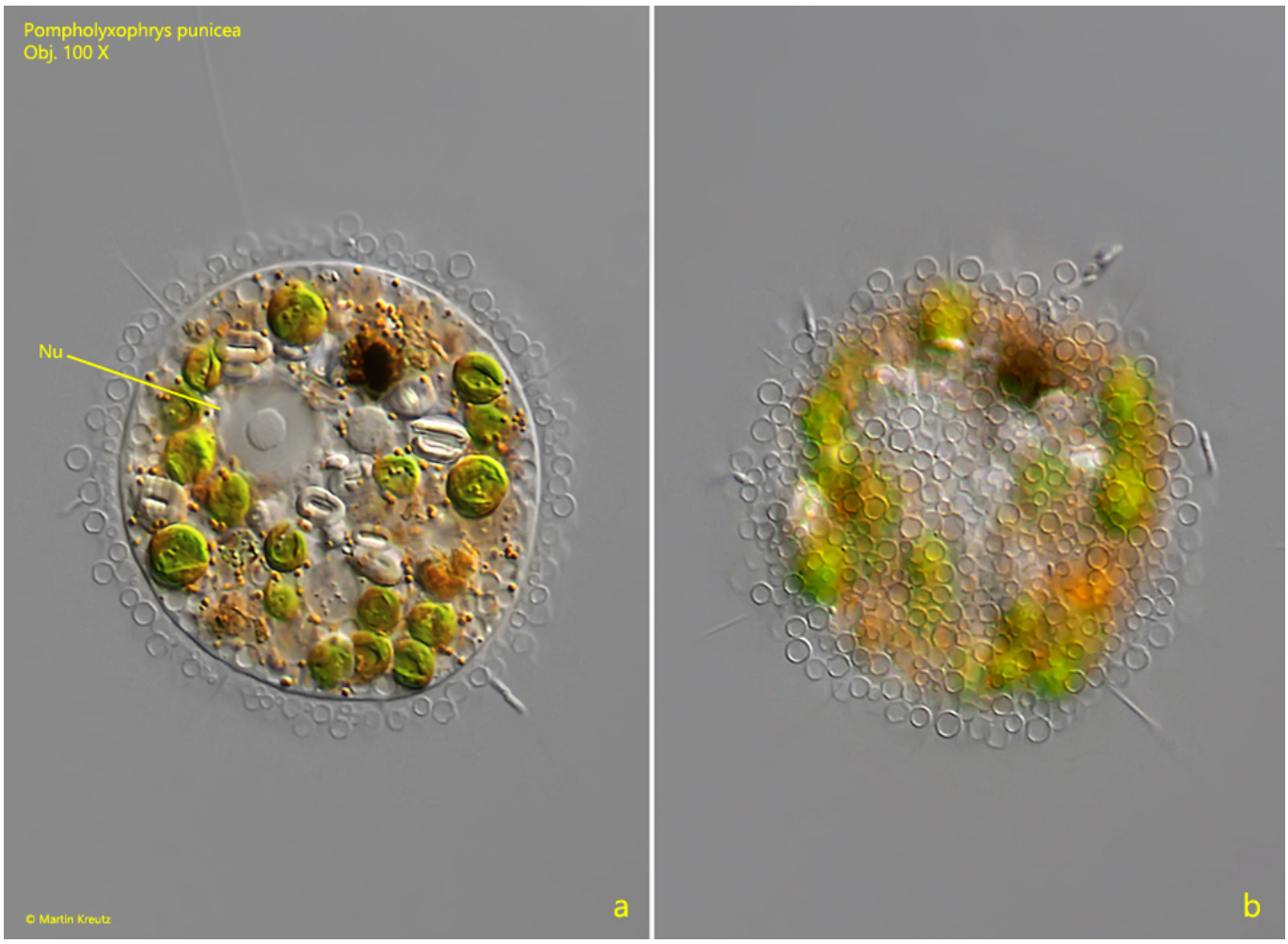


Fig. 2 a-b: *Pompholyxophrys punicea*. D = 50 µm (without scales). A second, slightly squashed specimen with a large number of ingested algae. Nu = nucleus. Obj. 100 X.

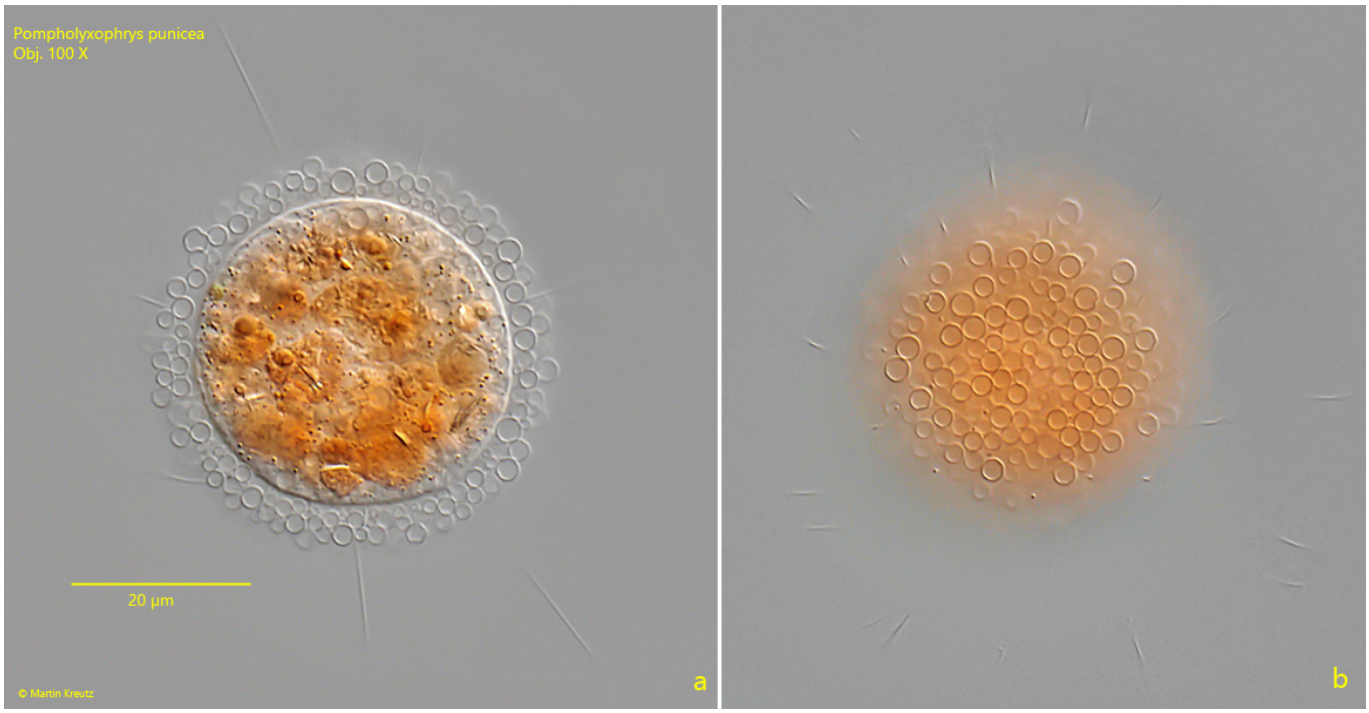


Fig. 3 a-b: *Pompholyxophrys punicea*. D = 35 µm (without scales). A third, slightly squashed specimen with extended pseudopodia. Obj. 100 X.