Cryptomonas curvata Ehrenberg, 1838

Most likely ID: n.a.

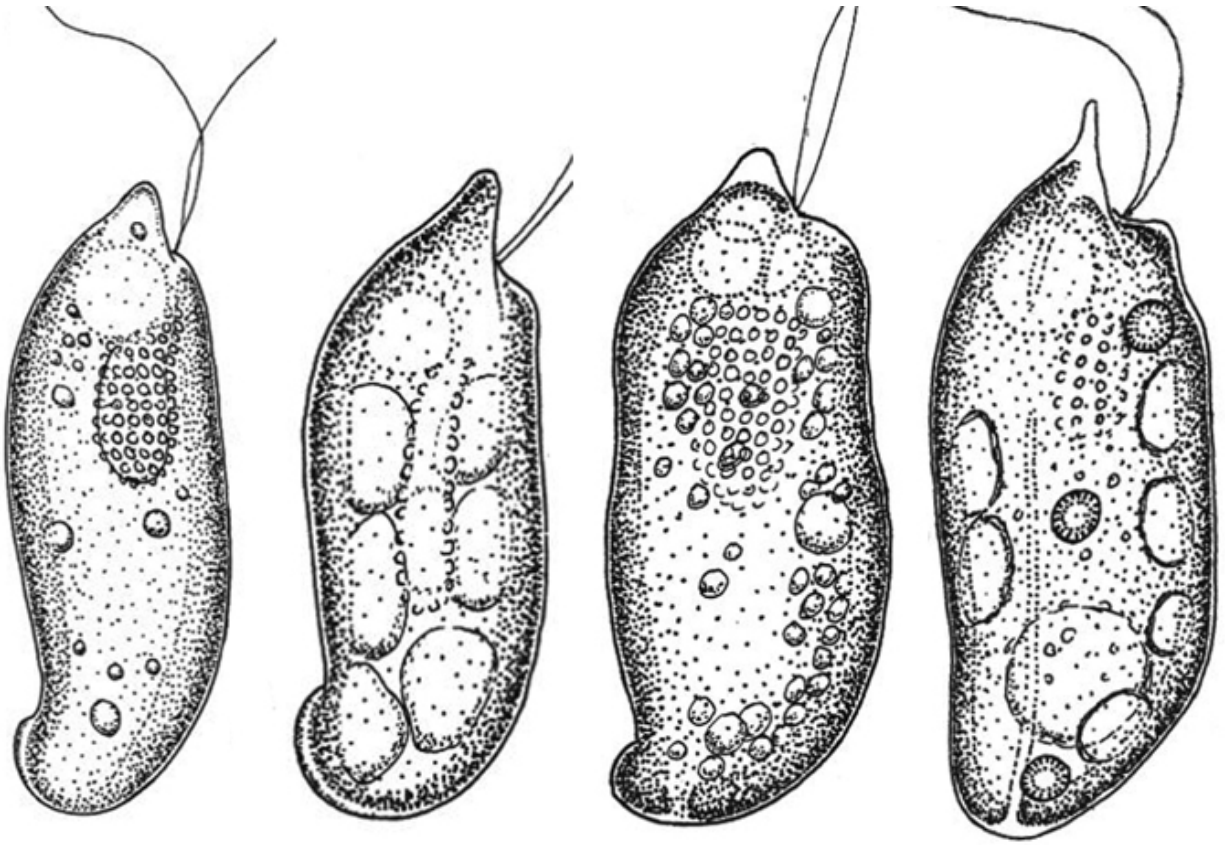
Synonym: *Cryptomonas ovata*, *Cryptomonas rostrata*, *Cryptomonas rostratiformis*, *Cryptomonas reflexa*

Sampling location: Pond of the waste disposal company Constance, Simmelried

Phylogenetic tree: *Cryptomonas curvata*

Diagnosis:

- cells elongated oval, finger-shaped rostrum, slightly S-shaped
- laterally flattened
- cells frequently deformed
- length 32–61 µm
- funnel-shaped mouth
- pharynx with ejectisomes reaches mid-body
- Maupas‘ bodies absent
- six shelled pyrenoids or more
- two chromatophores, olive-green or brownish
- two flagella
- contractile vacuole below the apical rostrum



Cryptomonas curvata

Cryptomonads have been studied in detail by Hoef-Emden & Melkonian (2003) and Javornicky (2014). Many of the species described were combined because they are synonymous. The oldest historical name was retained.

Four synonymous species were combined under *Cryptomonas curvata* (s. above). Important characteristics of *Cryptomonas curvata* are the distinct finger- or nose-shaped rostrum and a backward-curved posterior end (s. fig. 1 a-c). The two chloroplasts are equipped with 6 or more pyrenoids, which are covered with a layer of plate-shaped starch grains. They are very small and can only be seen at high magnifications (s. fig. 2).

None of the specimens in my population had Maupas‘ bodies, which otherwise glow brightly in DIC. The authors mentioned above do not mention or draw any Maupas‘ bodies either. All specimens in my population were longer than 50 µm and clearly flattened laterally.

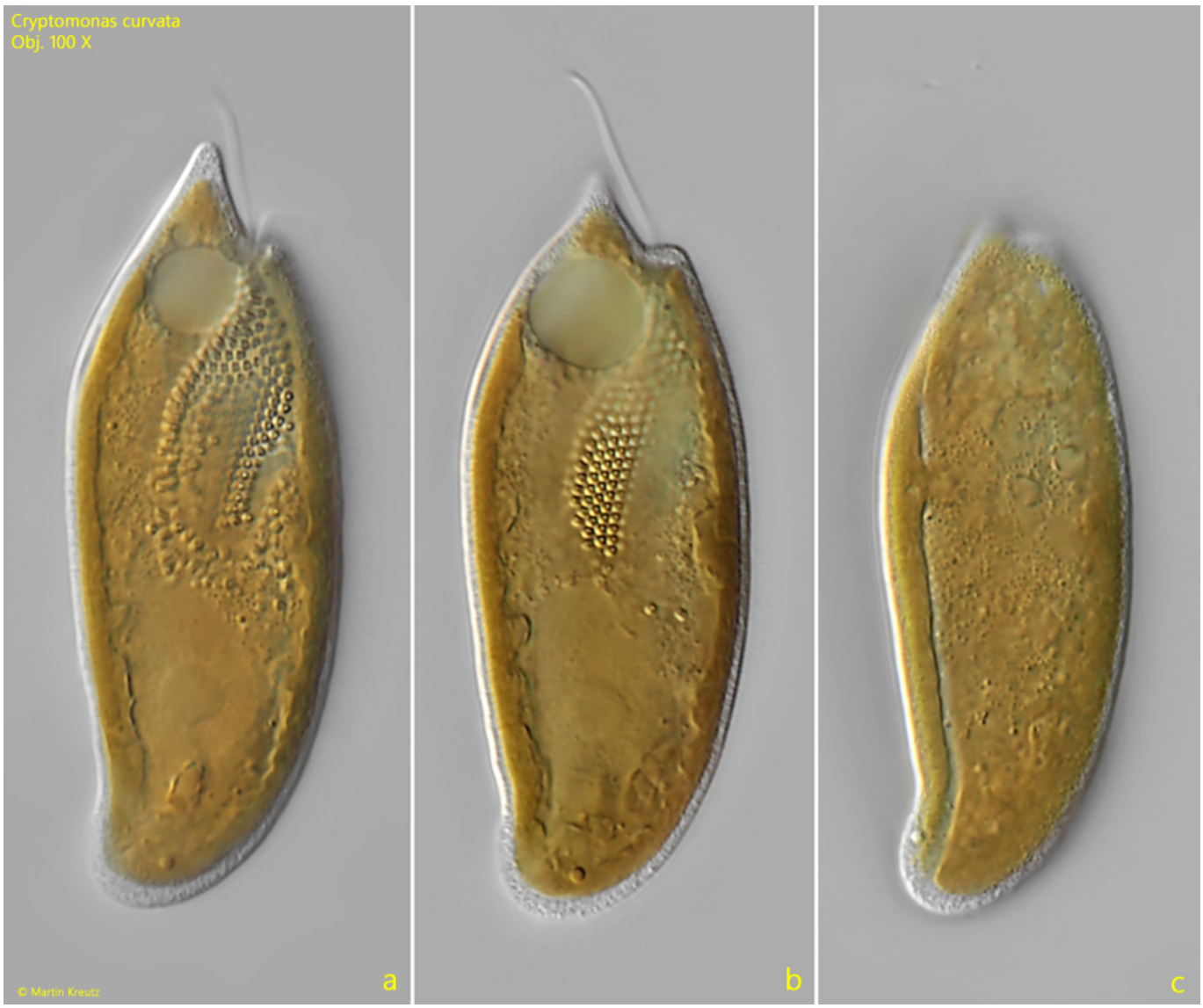


Fig. 1 a-c: *Cryptomonas curvata*. L = 60 µm. Three focal planes of a freely swimming specimen from right. Obj. 100 X.

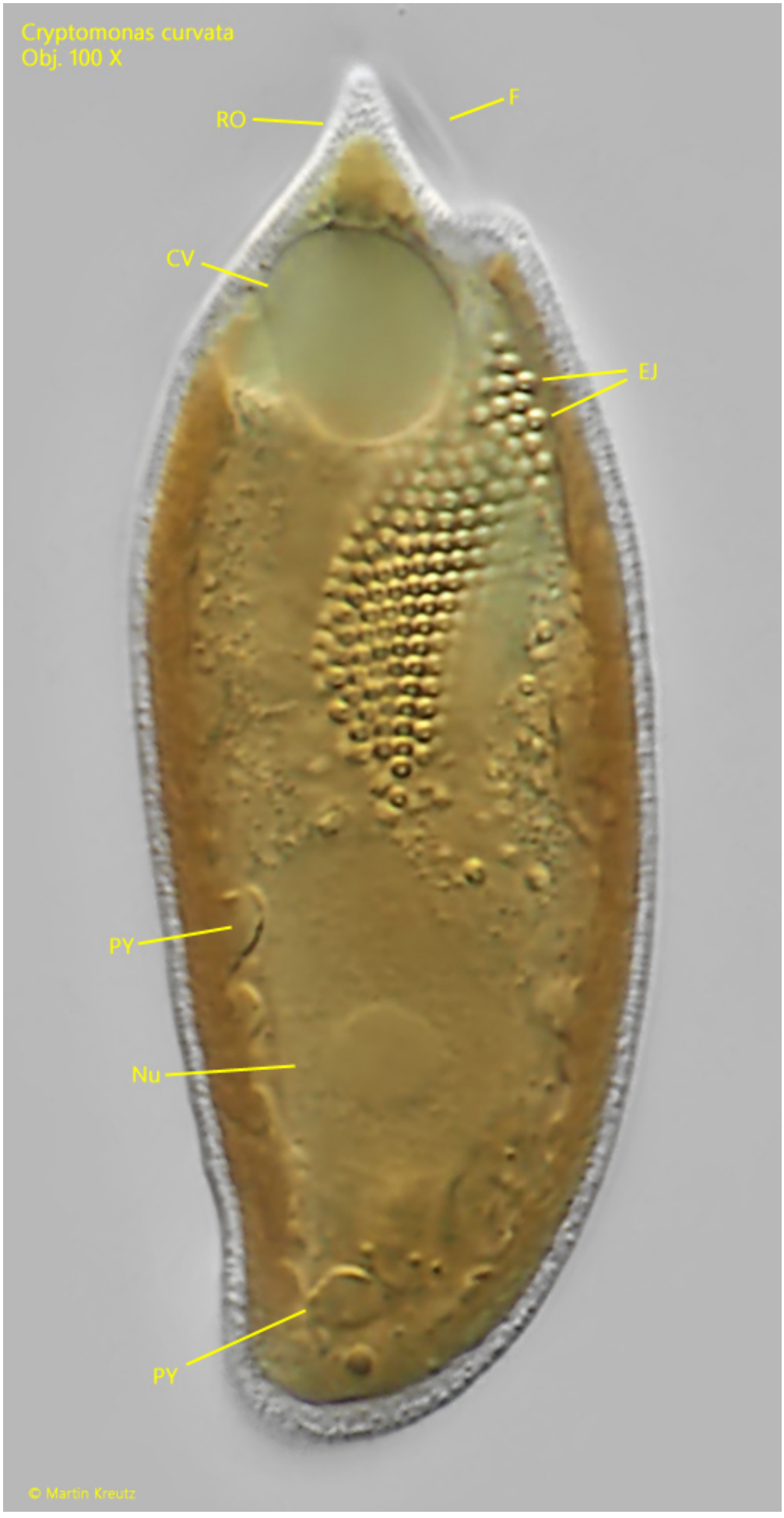

Cryptomonas curvata
Obj. 100 X
RO
F
CV
EJ
PY
Nu
PY
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Fig. 2: *Cryptomonas curvata*. L = 60 µm. The specimen as shown in fig. 1 a-c in detail. Note the small pyrenoids (PY) covered with starch grains. CV = contractile vacuole, EJ = ejectisomes, F = flagella, Nu = nucleus, RO = rostrum. Obj. 100 X.