

***Cosmarium carniolicum***  
**(Lütkemüller) Kouwets, 2025**

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

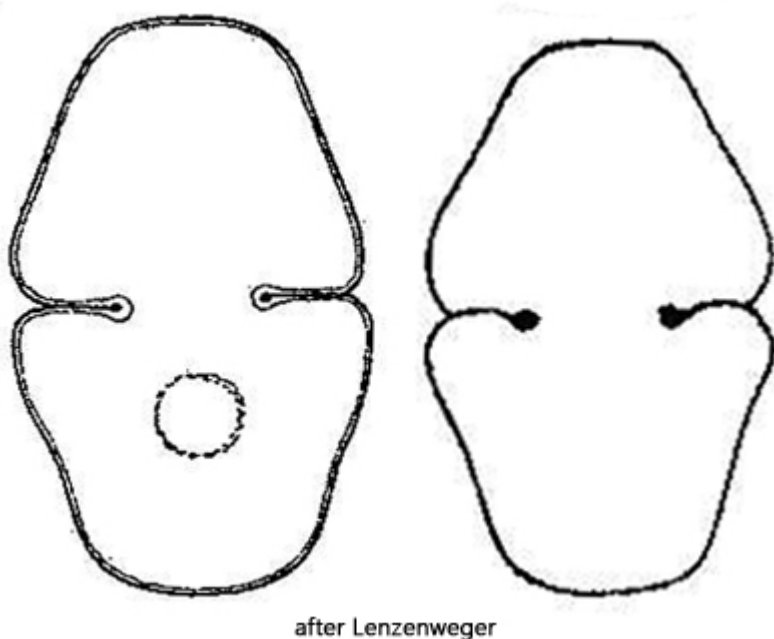
**Synonym:** *Cosmarium pseudopyramidatum* var. *carniolicum*

**Sampling location:** [Paradieswiesen \(Austria\)](#)

**Phylogenetic tree:** [Cosmarium carniolicum](#)

**Diagnosis:**

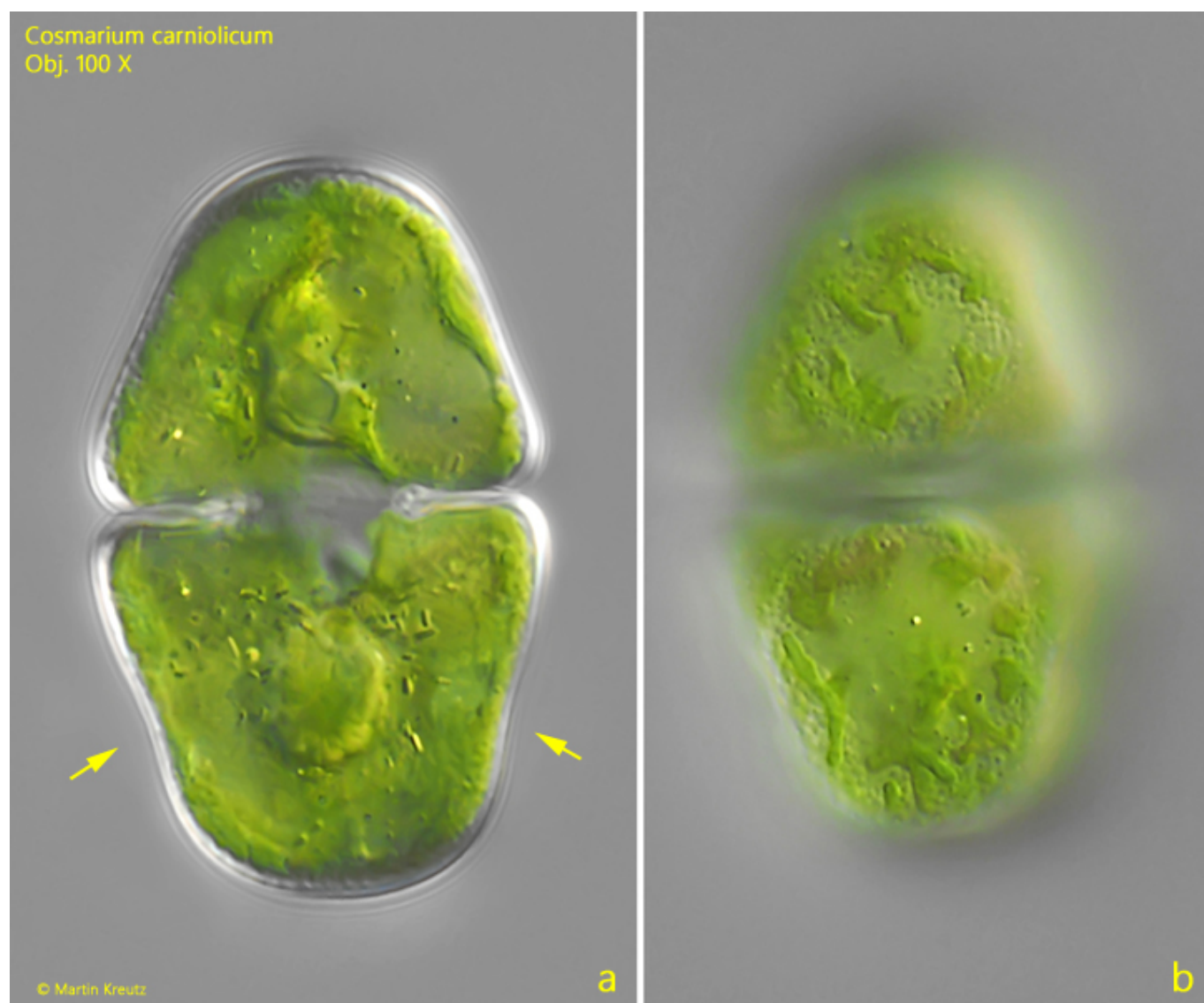
- semi-cells truncate-pyramidates
- lateral margins slightly concave
- length 48-60 µm, width 20-23 µm
- sinus deep, straight, internally dilated
- cell wall smooth, punctate
- one pyrenoid per semi-cell



*Cosmarium carniolicum*

*Cosmarium carniolicum* was originally described by Lütkemüller (1900) as *Cosmarium pseudopyramidatum* var. *carniolicum*. It was not until 2025 that Kouwets elevated it to a separate species.

I found *Cosmarium carniolicum* for the first time in June 2024 in the [Paradieswiesen](#) in Austria. This *Cosmarium* species is quite inconspicuous in samples, as it is relatively small at approx. 50 µm and has no striking shape or ornamentation. It is much more similar to *Cosmarium pseudopyramidatum*. However, this species is slightly larger (approx. 70 µm) and its lateral margins are convex, whereas those of *Cosmarium carniolicum* are slightly concave (s. fig. 1 a).



**Fig. 1 a-b:** *Cosmarium carniolicum*. L = 48 µm. Two focal planes of a specimen found in the [Paradieswiesen](#) (Austria). Note the concave lateral margins (arrows), what is characteristic for the species. Obj. 100 X.