

## ***Cosmarium elegantissimum* Lundell, 1871**

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

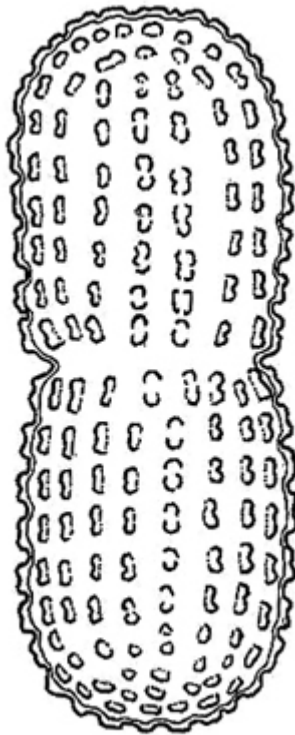
**Synonym:** *Pleurotaeniopsis elegantissima*

**Sampling location:** [Schwemm Moor \(Austria\)](#)

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

### **Diagnosis:**

- semi-cells cylindrical with broadly rounded apices
- cell circular in apical view
- length 85–95 µm, width 30–38 µm
- cell wall covered with round warts in 8–9 transverse rows
- warts on cell wall paired
- one chloroplast and one pyrenoid per semi-cell
- one branched chloroplast per semi-cell



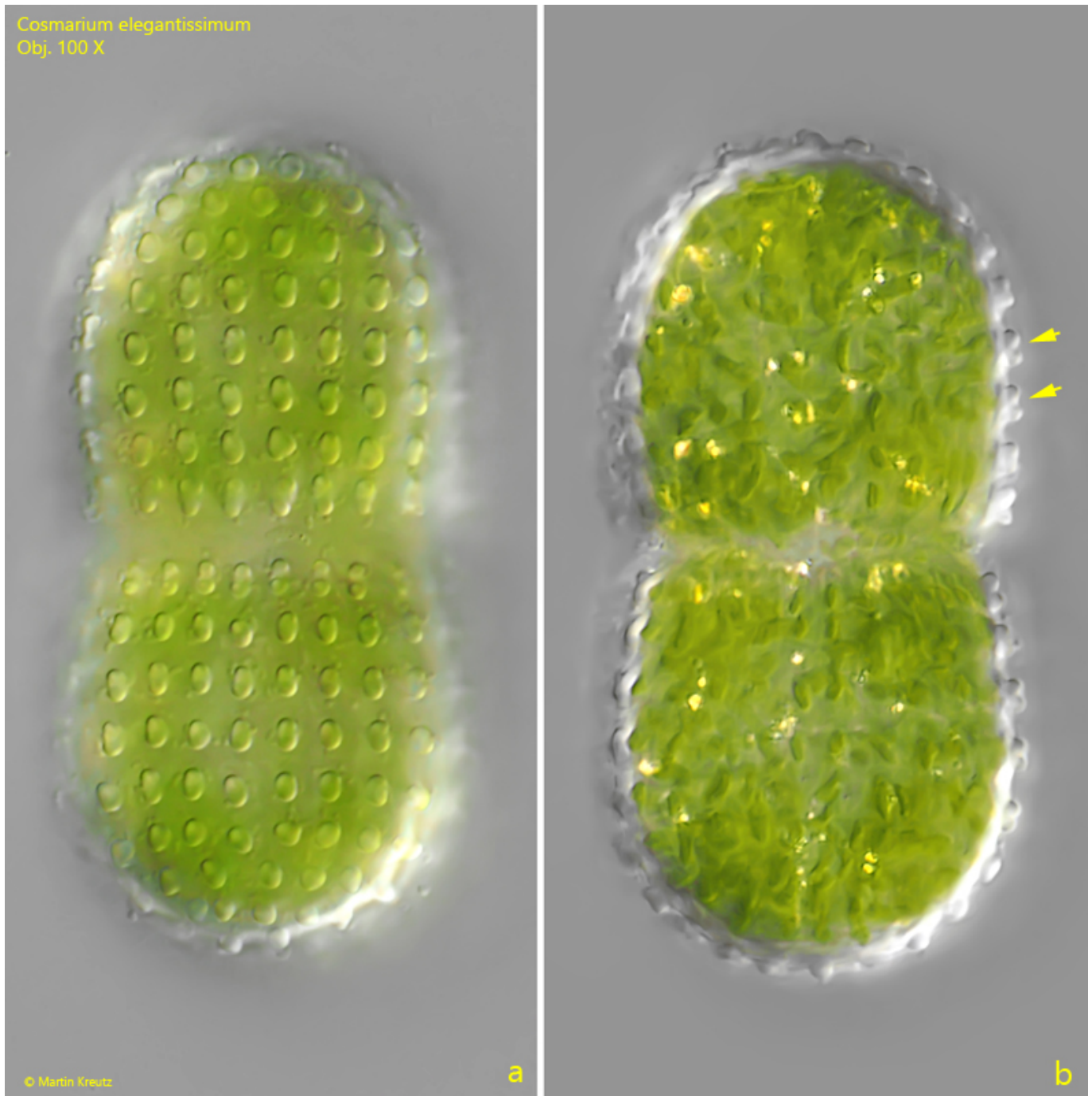
after Lenzenweger

### *Cosmarium elegantissimum*

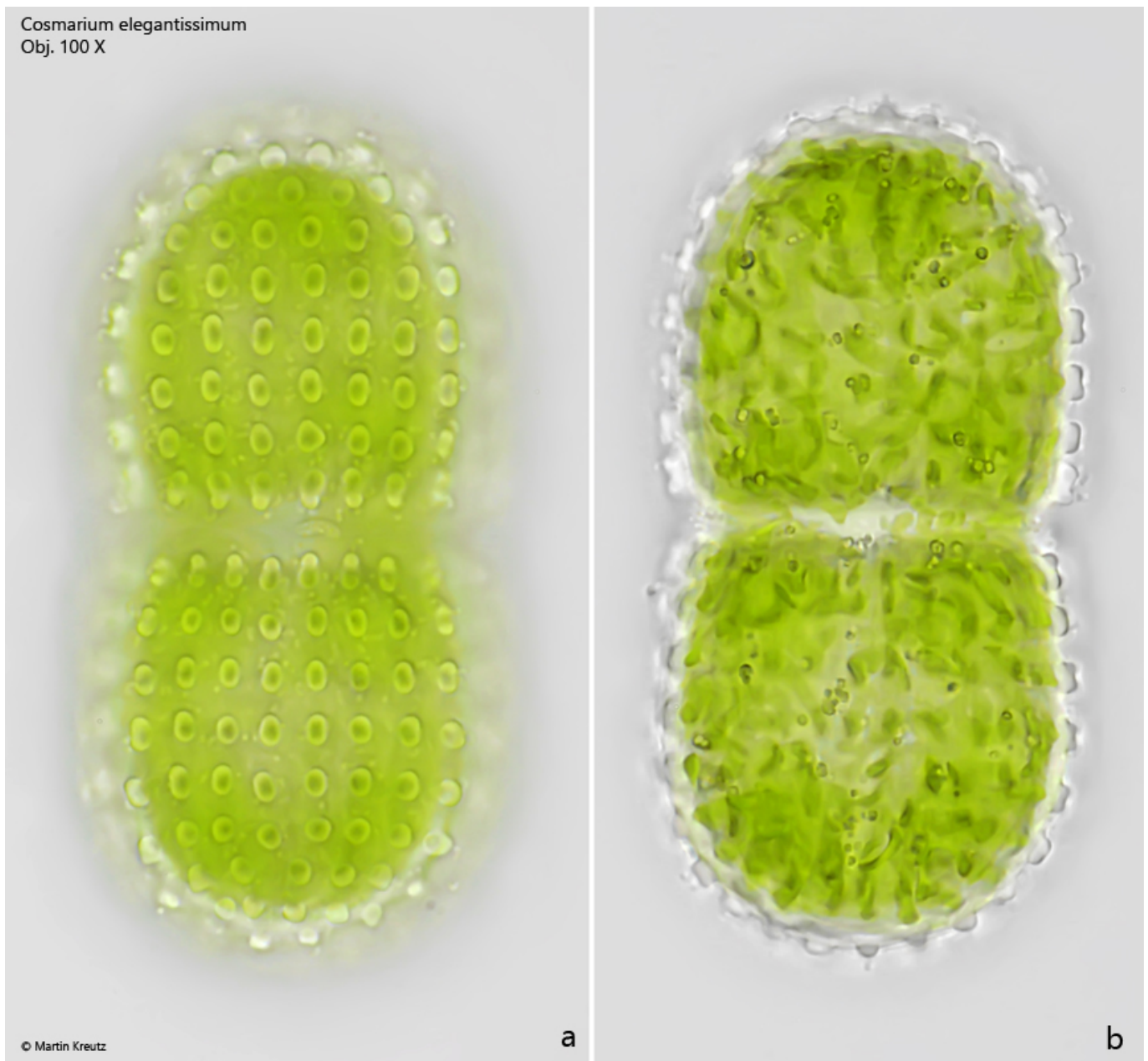
*Cosmarium elegantissimum* is described by Lenzenweger (1999) as a species that occurs only sporadically in alpine bogs. I have found it only once in June 2025 in the [Schwemm Moor](#) in Austria.

A characteristic feature of *Cosmarium elegantissimum* are the almost cylindrical semi-cells with broadly rounded apices. The cell wall of each semi-cell is covered with 8-9 transverse rows of double warts. The few specimens I found had a length between 72 and 78  $\mu\text{m}$  and were thus somewhat smaller than the 85–95  $\mu\text{m}$  given by Lenzenweger.

The similar species *Cosmarium tessellatum* is about twice as large, with a length of 130–160  $\mu\text{m}$ , and has more than 10 transverse rows of warts.



**Fig. 1 a-b:** *Cosmarium elegantissimum*. L = 74  $\mu\text{m}$ . Two focal planes of a specimen found in June 2025 in the Schwemm Moor. Note the paired warts (arrows) covering the cell wall in 9 transverse rows per semi-cell. Obj. 100 X.



**Fig. 2 a-b:** *Cosmarium elegantissimum*. L = 74  $\mu$ m. The same specimen as shown in fig. 1 a-b in brightfield illumination. Obj. 100 X.