

***Cosmarium porteanum* Archer, 1860**

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

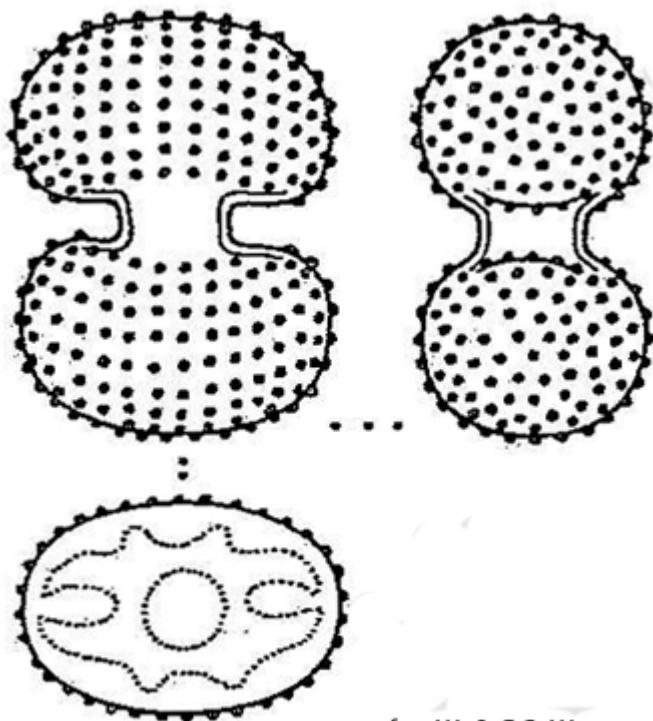
**Synonym:** *Cosmarium portianum*

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

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

**Diagnosis:**

- semi-cell transversely elliptica
- cell ellipsoid in apical view
- length 25–42 µm, width 20–30
- cell wall covered with vertical rows of granules
- one pyrenoid per semi-cell
- one furcoid chloroplast per semi-cell
- sinus deep and wide
- isthmus elongated, neck-shaped



after W. & G.S. West

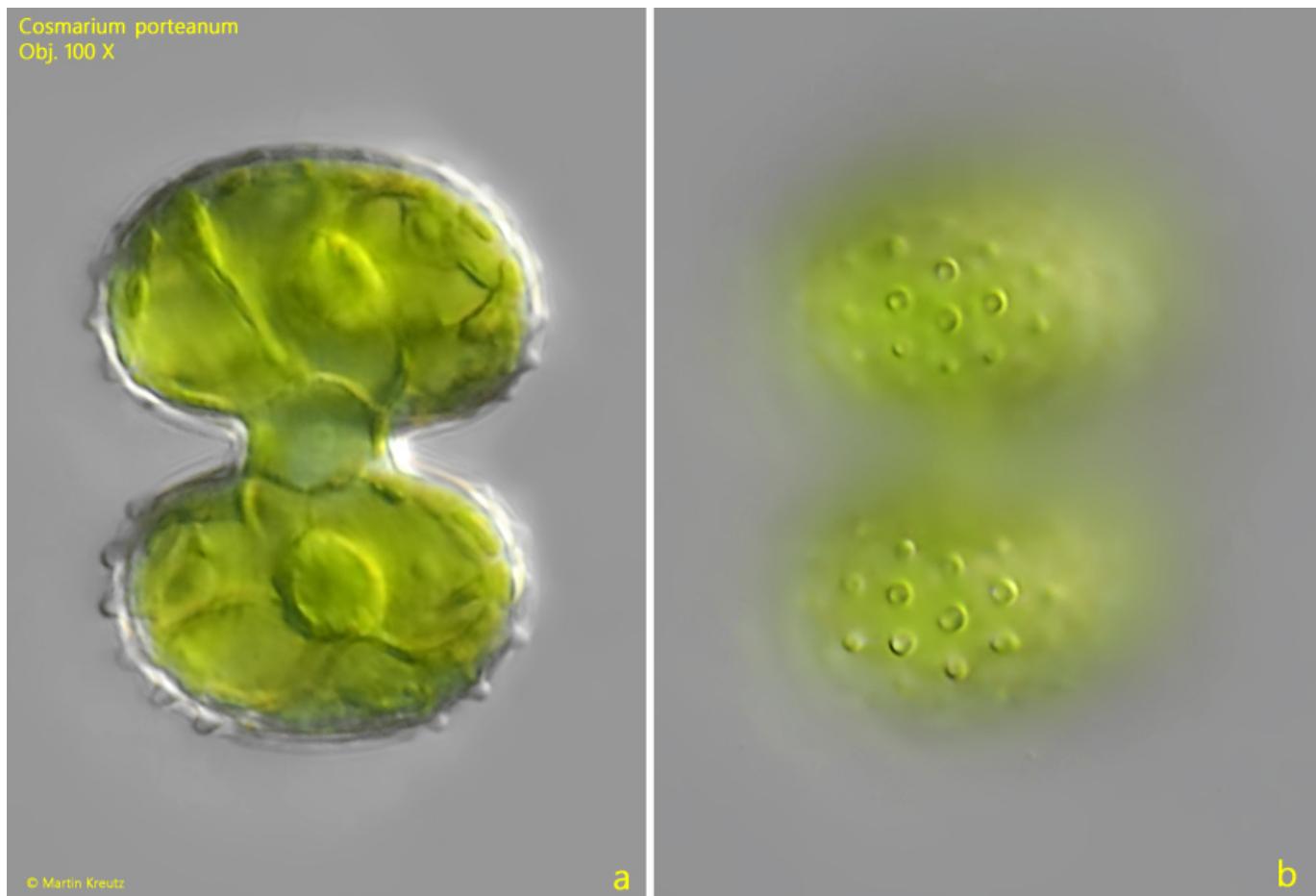
### *Cosmarium porteanum*

I have only ever found *Cosmarium porteanum* in the [Sima Moor](#) in Austria. The alga was only found sporadically in the samples. The most striking feature of *Cosmarium porteanum* is the neck-like elongated isthmus. This makes the semi-cells appear clearly separated from each other. The cell wall is evenly covered with granules.

The name *Cosmarium portianum* is often found in the literature and on the Internet. However, the species was named after George Porte, which is why *Cosmarium porteanum* is the correct name.

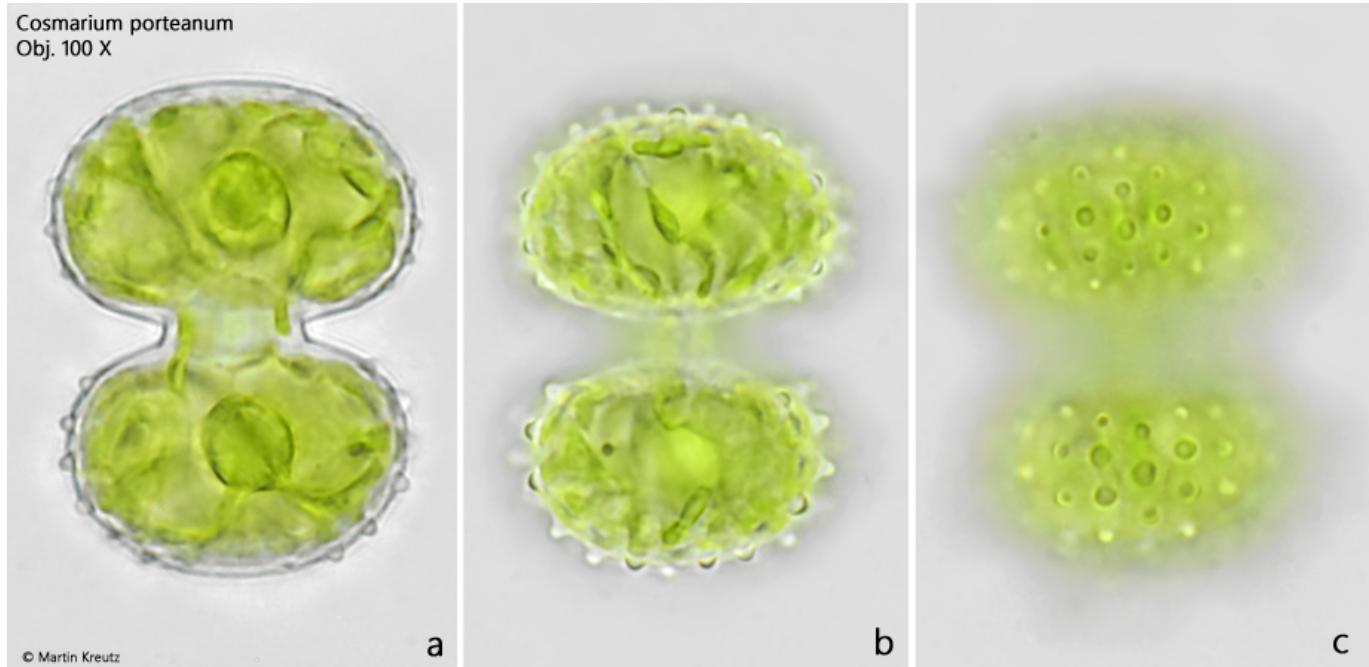
The similar species *Cosmarium reniforme* var. *apertum* also has a slightly elongated isthmus and the cell wall is also granulated. However, there are two pyrenoids in each of the semi-cells of *Cosmarium reniforme* var. *apertum* and the species is considerably larger than *Cosmarium porteanum* with a length of 44–46 µm.

*Cosmarium porteanum*  
Obj. 100 X



**Fig. 1 a-b:** *Cosmarium porteanum*. L = 35  $\mu$ m. Two focal planes of a slightly squashed specimen. Obj. 100 X.

*Cosmarium porteanum*  
Obj. 100 X



**Fig. 2 a-c:** *Cosmarium porteanum*. L = 35  $\mu$ m. Three focal planes of the same specimen as shown in fig. 1 a-b in brightfield illumination. Obj. 100 X.