

***Penium spirostriolatum* Barker, 1869**

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

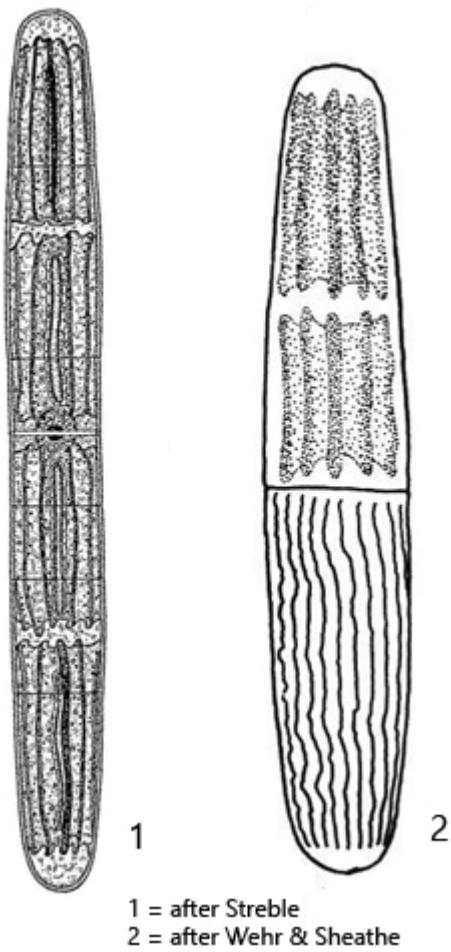
**Synonym:** n.a.

**Sampling location:** Ibmer Moor (Austria)

**Phylogenetic tree:** [\*Penium spirostriolatum\*](#)

**Diagnosis:**

- cells cylindrically, attenuating gradually to truncate or rounded apices
- length 80–400 µm
- cell wall with spiralized ridges
- 2–4 chloroplasts per cell
- chloroplasts with 6–7 longitudinal ridges and 1–3 pyrenoids
- pyrenoids sometimes elongated
- girdle bands present
- nucleus central
- terminal vacuoles in the apices absent



1 = after Streble  
2 = after Wehr & Sheath

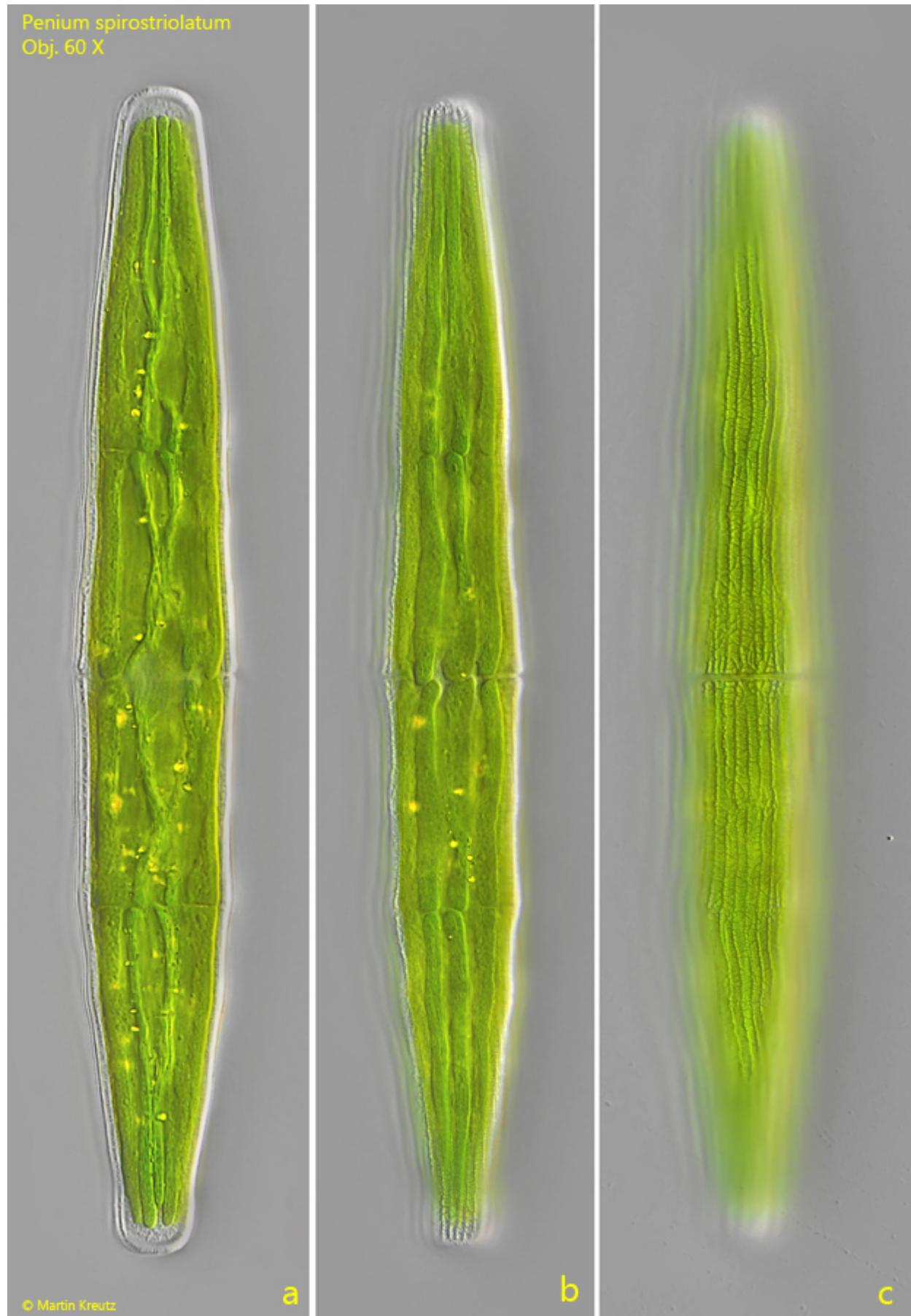
### Penium spirostrialatum

I found *Penium spirostrialatum* in June 1995 in the Ibmer Moor (Austria) and in 2025 in the [Schwemmoor](#) (Austria). The alga is not present in my local sites.

*Penium spirostrialatum* can easily be recognized by the 4 chloroplasts per cell, which are separated from each other by transverse gaps (s. fig. 1 b). The chloroplasts have 6–7 longitudinal ridges, making them appear star-shaped in cross-section. The pyrenoids in the chloroplasts can sometimes have an elongated, stretched shape.

The similar species *Cladophora closteroides* var. *intermedium* can also have 4 chloroplasts, which are separated by transverse gaps. However, this species has clear terminal vacuoles at the apices, in which crystals are visible, as is typical for the genus *Cladophora*.

*Penium spirostriolatum*  
Obj. 60 X



**Fig. 1 a-b:** *Penium spirostriolatum*. L = 210  $\mu\text{m}$ . Three focal planes of a specimen from the [Schwemm Moor](#) (Austria). Obj. 60 X.

*Penium spirostrolatum*  
Obj. 100 X

20  $\mu$ m

**Fig. 2:** *Penium spirostriolatum*. The network structure of the cell wall in detail. Obj. 60 X.