

***Pseudopediastrum boryanum***

**(Turpin) Hegewald, 2005**

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

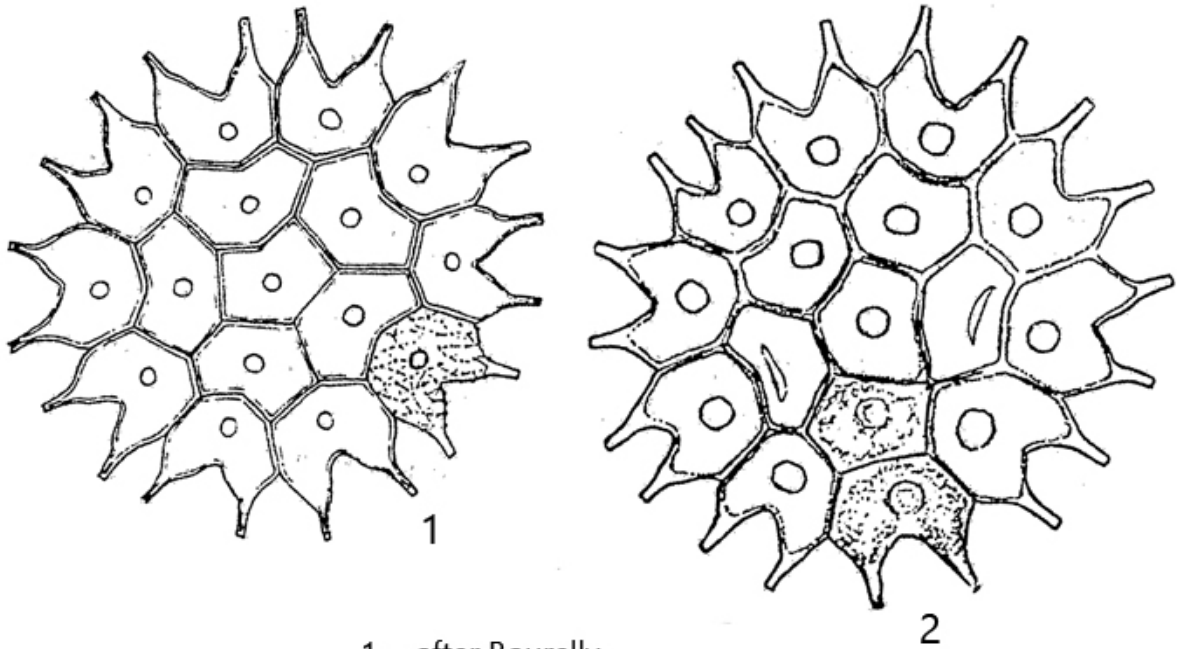
**Synonym:** *Pediastrum boryanum*

**Sampling location:** [Pond of the waste disposal company Constance](#)

**Phylogenetic tree:** [Pseudopediastrum boryanum](#)

**Diagnosis:**

- coenobium star-shaped, flat and single-layered
- diameter coenobium up to 250 µm
- coenobium of 4, 8, 16, 32 or 64 cells
- marginal cells 8–30 X 9–21 µm, cell wall smooth or finely granulated
- inner cells concentrically arranged without intercellular spaces
- marginal cells bilobed with a V-shaped notch
- marginal cells occasionally bearing tufts of mucilaginous spines at tips of lobes
- chloroplast parietal
- single pyrenoid

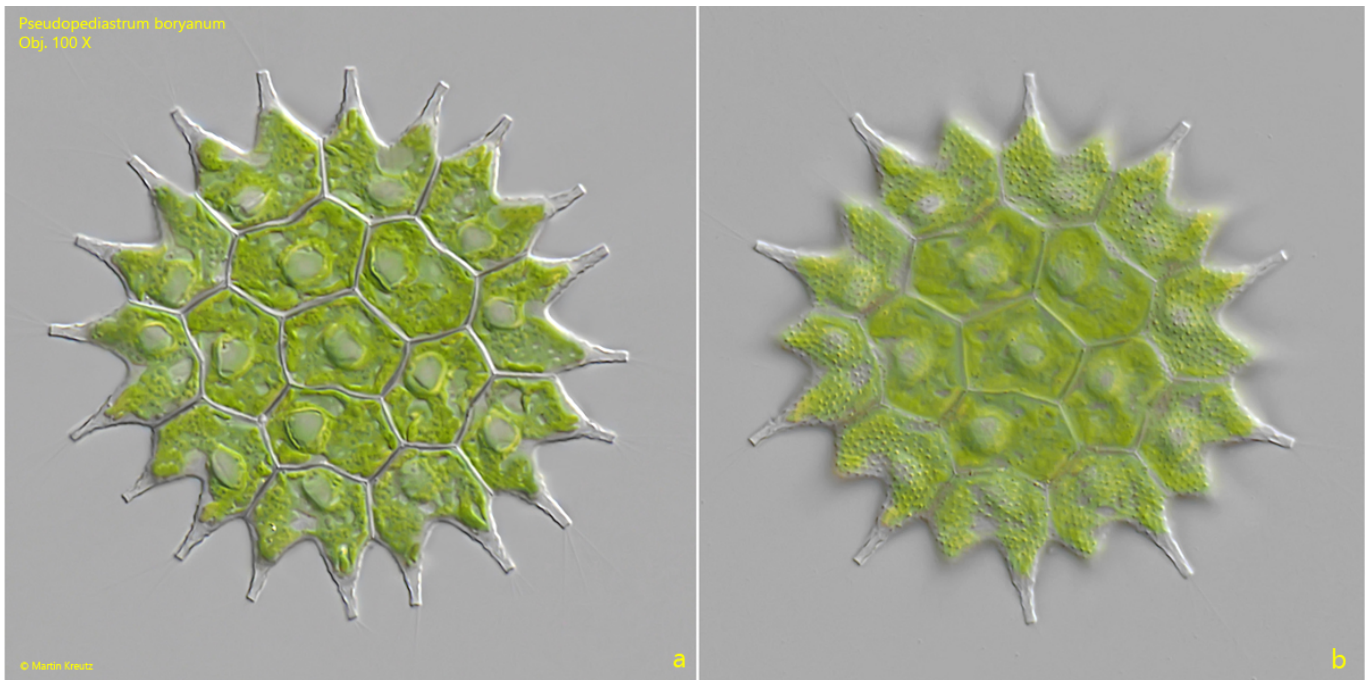


1 = after Bourelly  
2 = after Sulek

### *Pseudopediastrum boryanum*

The species *Pediastrum boryanum* was transferred to *Pseudopediastrum boryanum* by Hegewald in 2005. I found *Pseudopediastrum boryanum* in the plankton of the strongly eutrophic [pond of the waste disposal company Constance](#). This pond is fed by the purified water of the sewage plant, which is still very rich in nutrients.

*Pseudopediastrum boryanum* can be easily recognized by the lack of any intercellular spaces in the coenobium. The inner cells have a hexagonal shape and the marginal cells have a distinct V-shaped notch and two projections each. At the distal ends of the projections often tufts of thin fibers are visible, which I interpret as an adaptation to the planktonic habitat. The cell wall of *Pseudopediastrum boryanum* is finely granulated.



**Fig. 1 a-b:** *Pseudopediastrum boryanum*.  $D = 73\ \mu\text{m}$ . Two focal planes of a slightly squashed 16 cell coenobium. The cell wall is finely granulated. Obj. 100 X.