Pseudostaurastrum limneticum

(Borge) Guiry, 2021

Most likely ID: n.a.

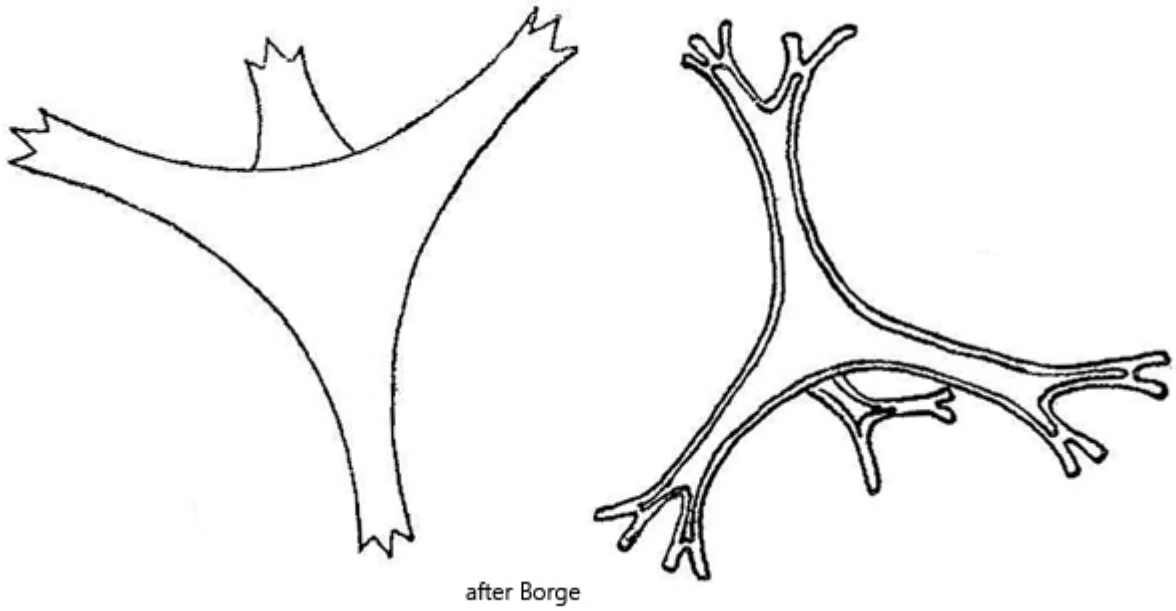
Synonym: n.a.

Sampling location: Pond of the Fliesshorn campsite

Phylogenetic tree: *Pseudostaurastrum limneticum*

Diagnosis:

- cells tetrahedral with 4 arms, deeply incised
- ends of arms dichotomously forked
- length 35-70 µm (with arms)
- ends of branches with two blunt spines each
- nucleus central
- several, disc-shaped chloroplasts
- planktonic lifestyle



Pseudostaurastrum limneticum

I have found *Pseudostaurastrum limneticum* only once so far, in a few specimens in a plankton sample from the pond at the Fliesshorn campsite in October 2026. The specimens stand out immediately in the samples because of their star shape. The 4 arms point toward the corners of a tetrahedron, although I have found that there are also flatter specimens shaped like a deformed tetrahedron. The ends of the arms are dichotomously forked. Each of the two ends bears two blunt spines.

I found the round nucleus in the central part of the cell, shifted slightly toward the margin (s. fig. 1 b). Numerous disc-shaped chloroplasts, which are yellow-green in color, lie against the cell wall (s. fig. 1 d).

Pseudostaurastrum limneticum was formerly classified among the yellow-green algae (Xanthophytes). Later, it was placed among the Eustigmatophytes, since it has only chlorophyll a, but not chlorophylls b and c.

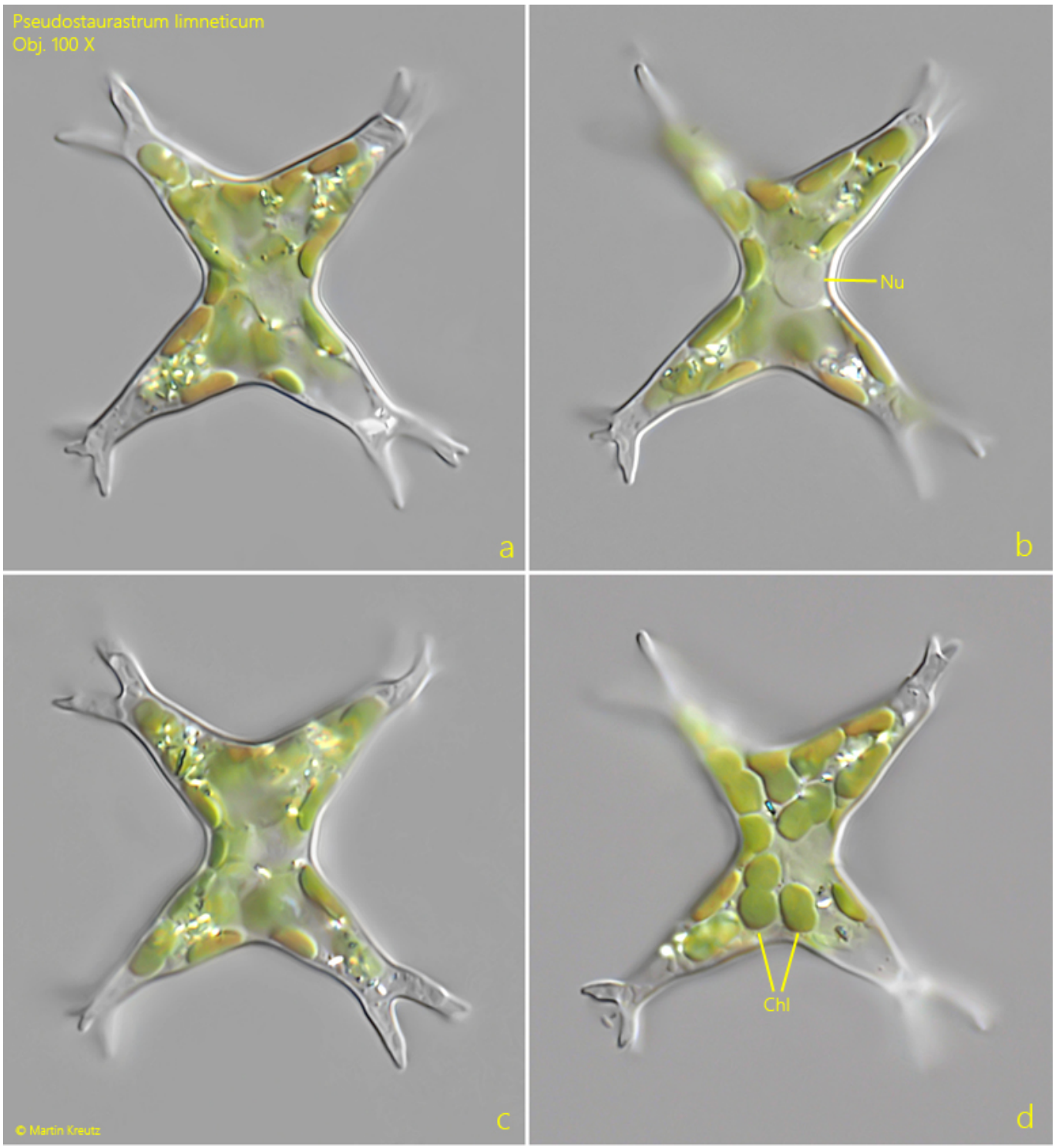


Fig. 1 a-d: *Pseudostaurastrum limneticum.* L = 42 µm. Different focal planes of a specimen found in October 2026. Note the nucleus (Nu) and the disc-shaped chloroplasts (Chl). Obj. 100 X.