Lagerheimia longiseta

(Lemmermann) Printz, 1914

Most likely ID: n.a.

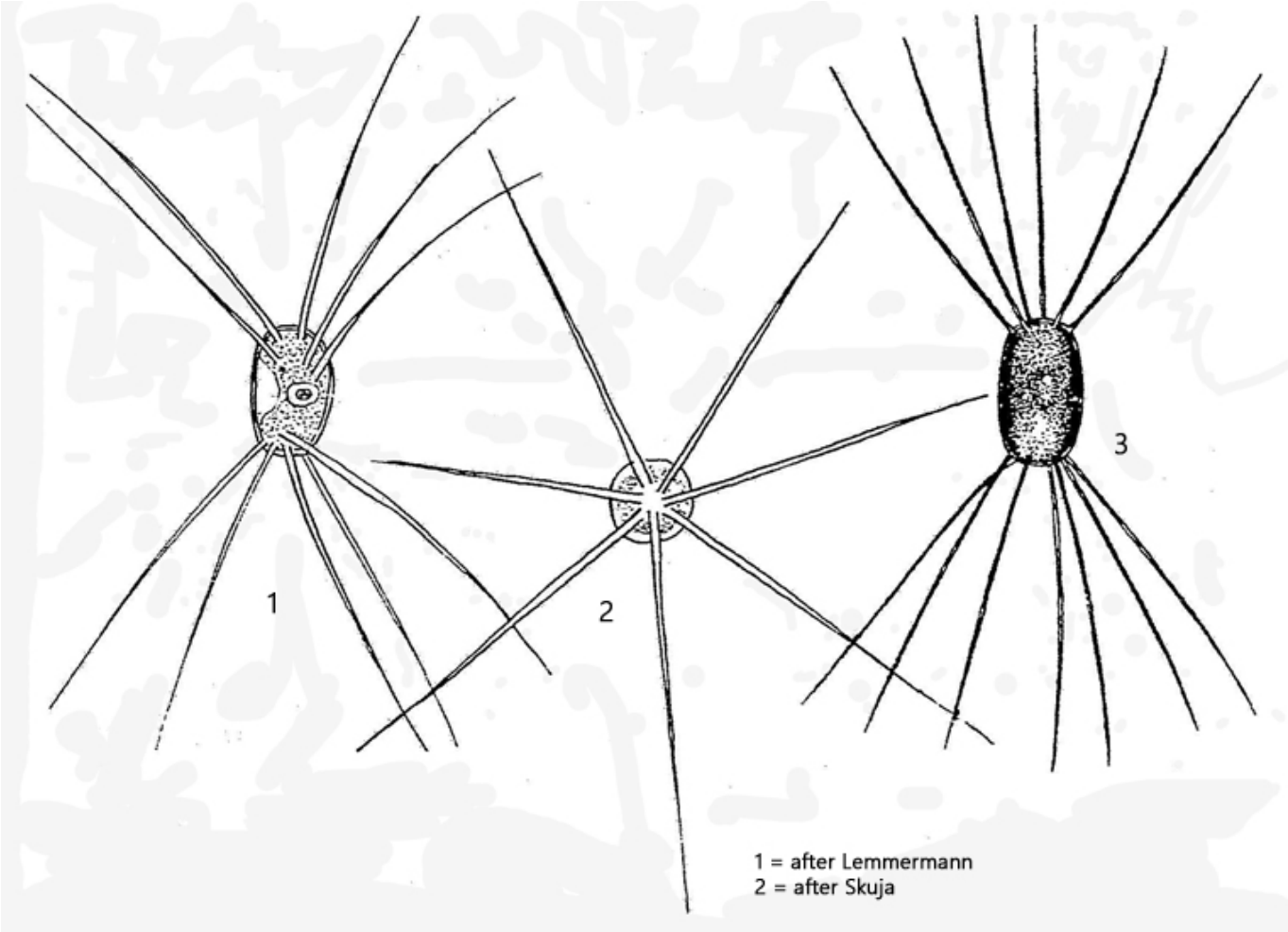
Synonym: *Chodatella longiseta*

Sampling location: Mühlweiher Litzelstetten

Phylogenetic tree: *Lagerheimia longiseta*

Diagnosis:

- cells ovoid or ellipsoidal
- length 6–22 µm, width
- each apex with 4–10 straight or slightly curved spines
- spines 40-55 µm long, rarely 80 µm
- 1–2 parietal chloroplasts with pyrenoid
- sometimes cells in gelatinous sheath
- planktonic lifestyle



Lagerheimia longiseta

So far, I have only been able to find one specimen of *Lagerheimia longiseta*, which came from the plankton of the Mühlweiher Litzelstetten. Although I have been regularly taking plankton samples there since 1992, I had not been able to detect the species there before.

With cells under 20 µm, *Lagerheimia longiseta* is very small, but can already recognize in fresh plankton samples at medium magnification by its long spines, which originate in the region of the apices. The equatorial region of the cells is free of spines. Otherwise, the cell wall is smooth. In my specimen, the spines were straight or only slightly curved and up to 42 µm long. This is somewhat more than three times the cell length. This distinguishes *Lagerheimia longiseta* from the similar species *Lagerheimia ciliata*, which has distinctly curved spines that are never longer than twice the cell length, about 12–25 µm.

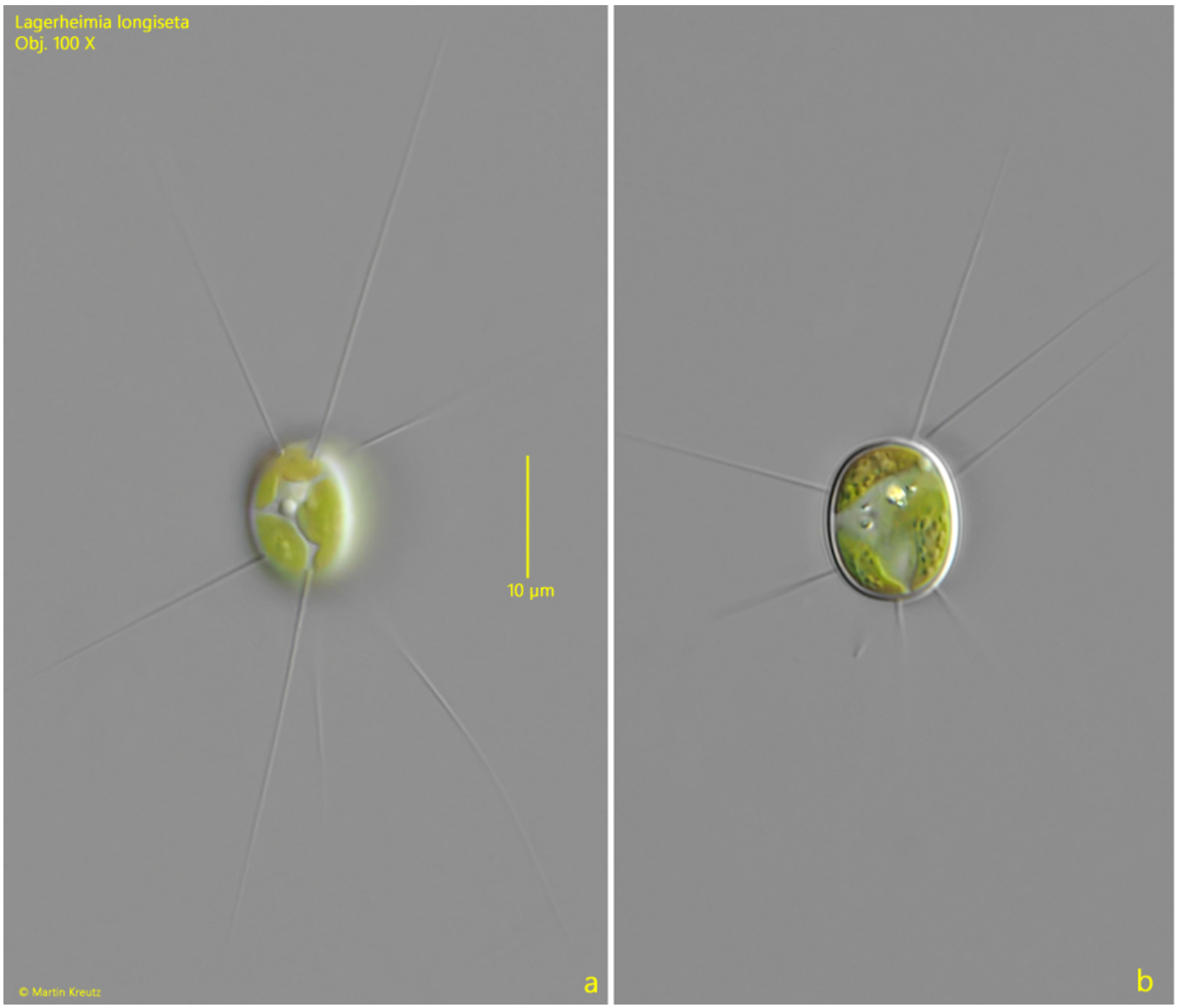


Fig. 1 a-b: *Lagerheimia longiseta*. L = 13.2 µm. Two focal planes of a specimen with about 6–8 straight spines around the apices. The spines of this specimen have a maximum length of 42 µm. Obj. 100 X.