Crucigenia fenestrata

(Schmidle) Schmidle, 1900

Most likely ID: n.a.

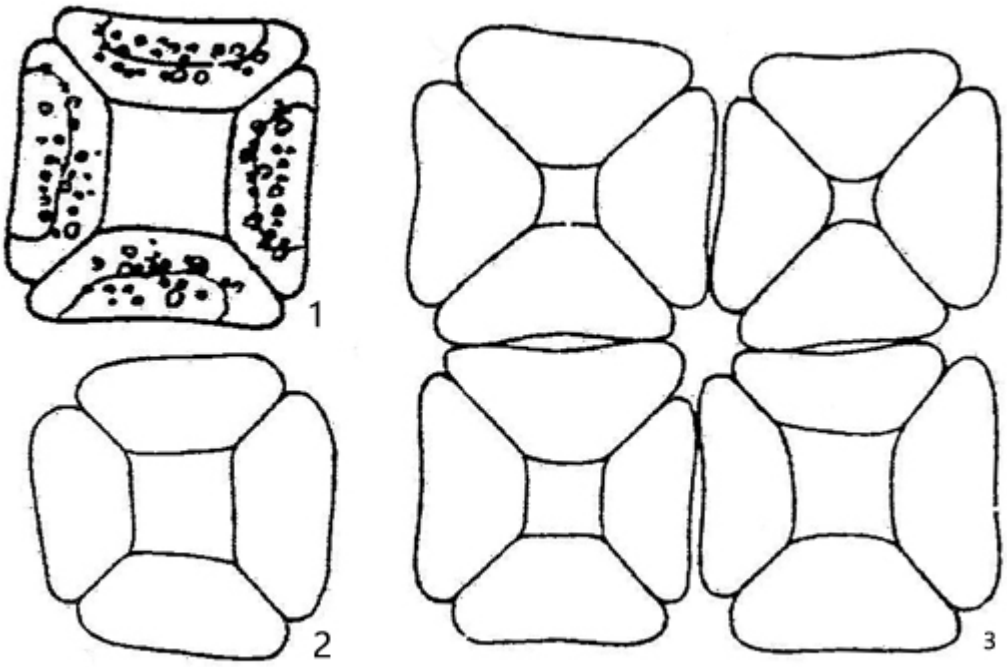
Synonym: *n.a.*

Sampling location: Pond of the convent Hegne

Phylogenetic tree: *Crucigenia fenestrata*

Diagnosis:

- coenobia of 4 cells, rhomboidal or rectangular
- forming composite syncoenobia without gelatinous sheath
- cells trapezoid, 5–12 X 2–6 µm
- chloroplast small, fills cell only partly
- pyrenoid absent
- planktonic lifestyle



1, 2 = after Komarek
3 = after Skuja

Crucigenia fenestrata

So far, I have only found *Crucigenia fenestrata* in the pond of the convent Hegne, where this small green alga is very rare.

The cenobia in my population were all approximately square and always consisted of four cells. I have not yet found any larger associations of several coenobia forming syncoenobia.

The trapezoidal cells have only one chloroplast without a pyrenoid, which is always attached to the outer cell wall. In the center, the chloroplast has a small notch where the cell nucleus is located.

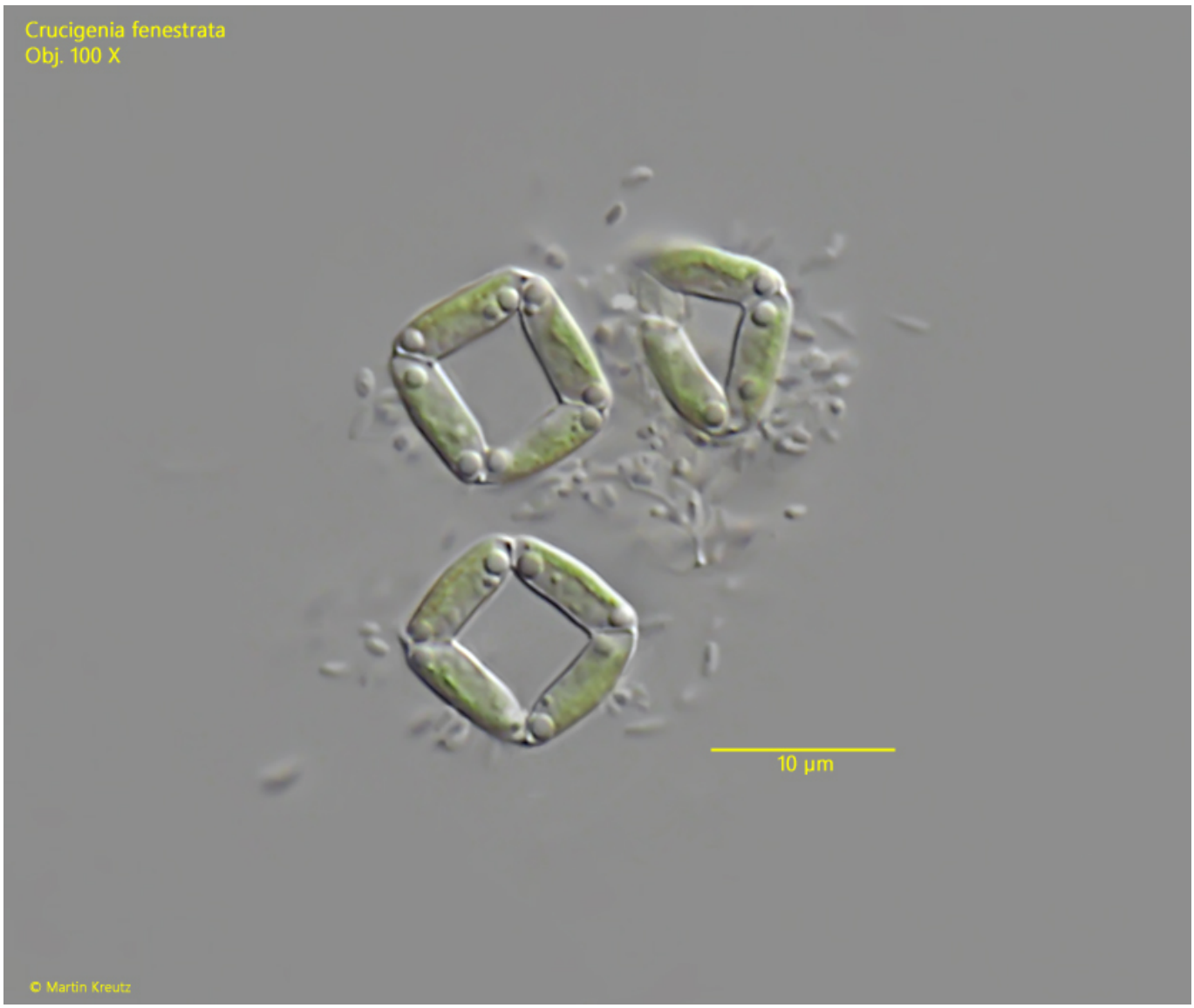


Fig. 1: *Crucigenia fenestrata*. D = L = 12.6–12.8 µm (of coenobia). Three rectangular coenobia embedded in an agglomerate of bacteria. The cells have a length of 7.7–8.7 µm. Obj. 100 X.

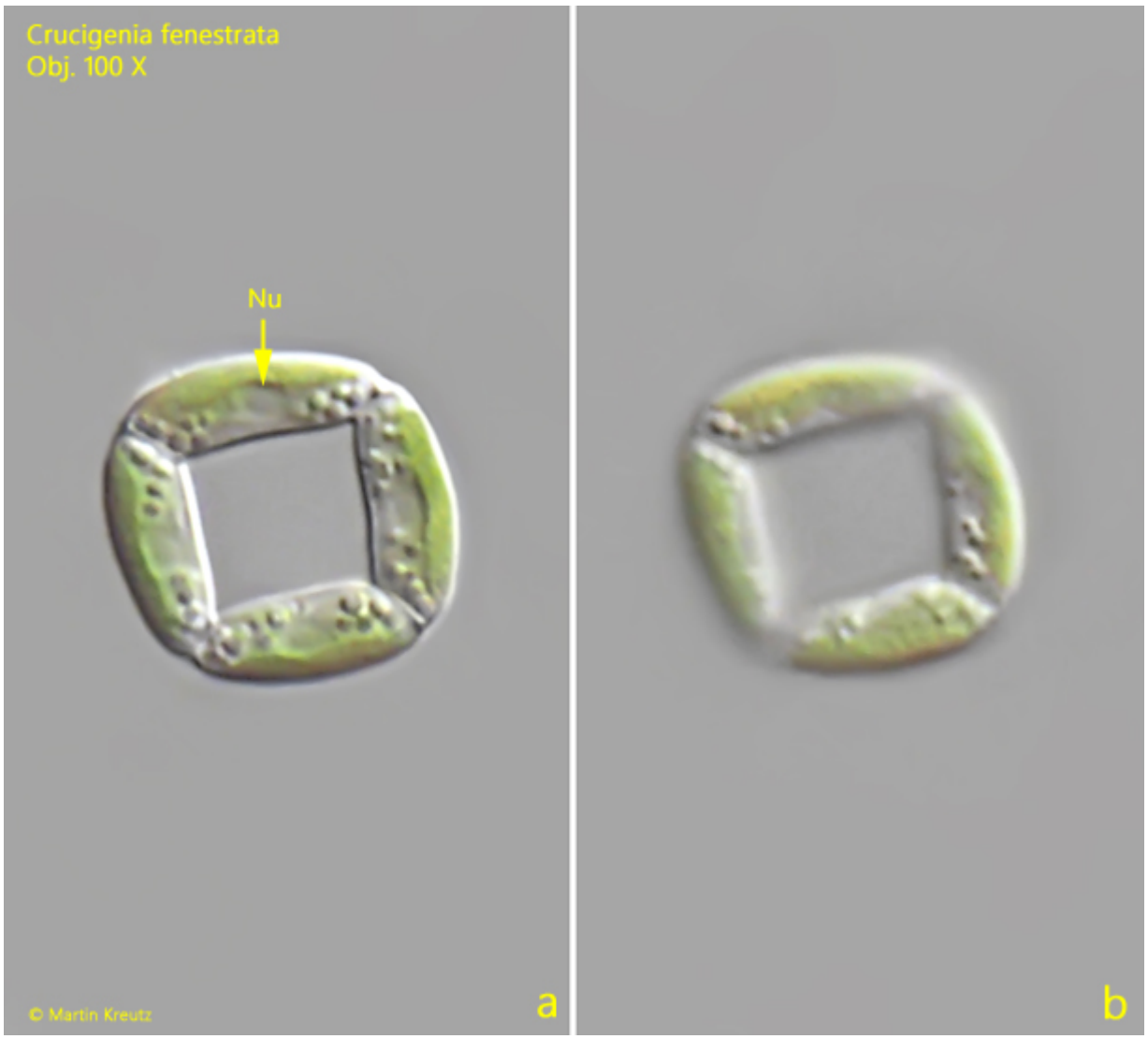


Fig. 2 a-b: *Crucigenia fenestrata*. D = 13.6 µm (of coenobium). Two focal planes of a single coenobium. Note the small nucleus (Nu) located in a notch of the chloroplast. Obj. 100 X.