

***Crucigenia fenestrata***  
**(Schmidle) Schmidle, 1900**

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

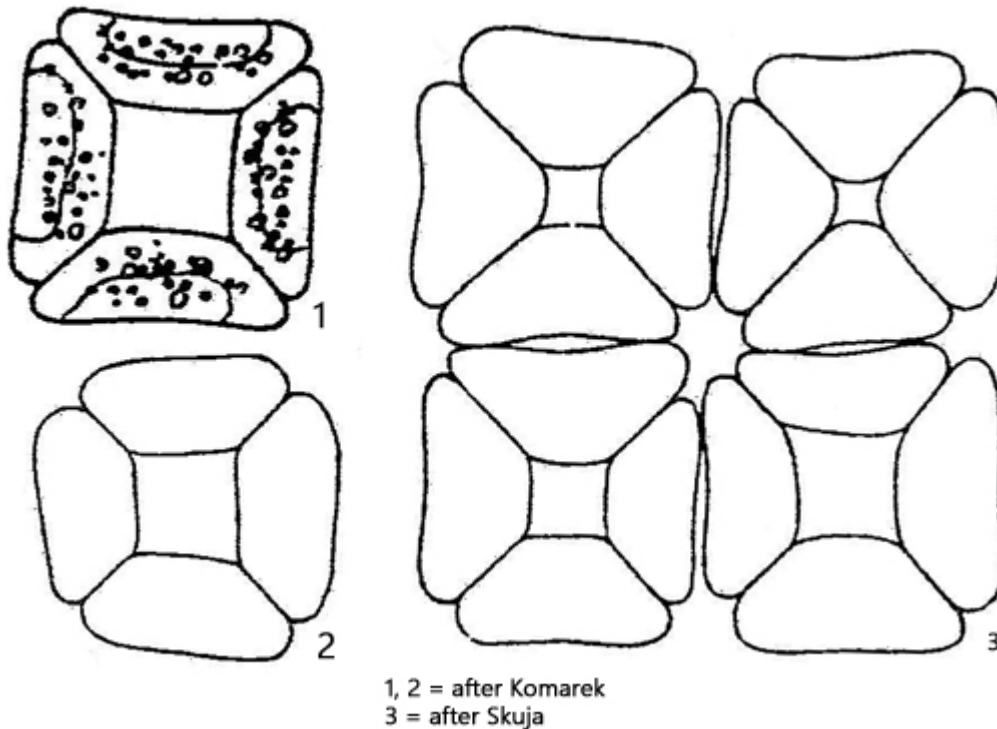
**Synonym:** *n.a.*

**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

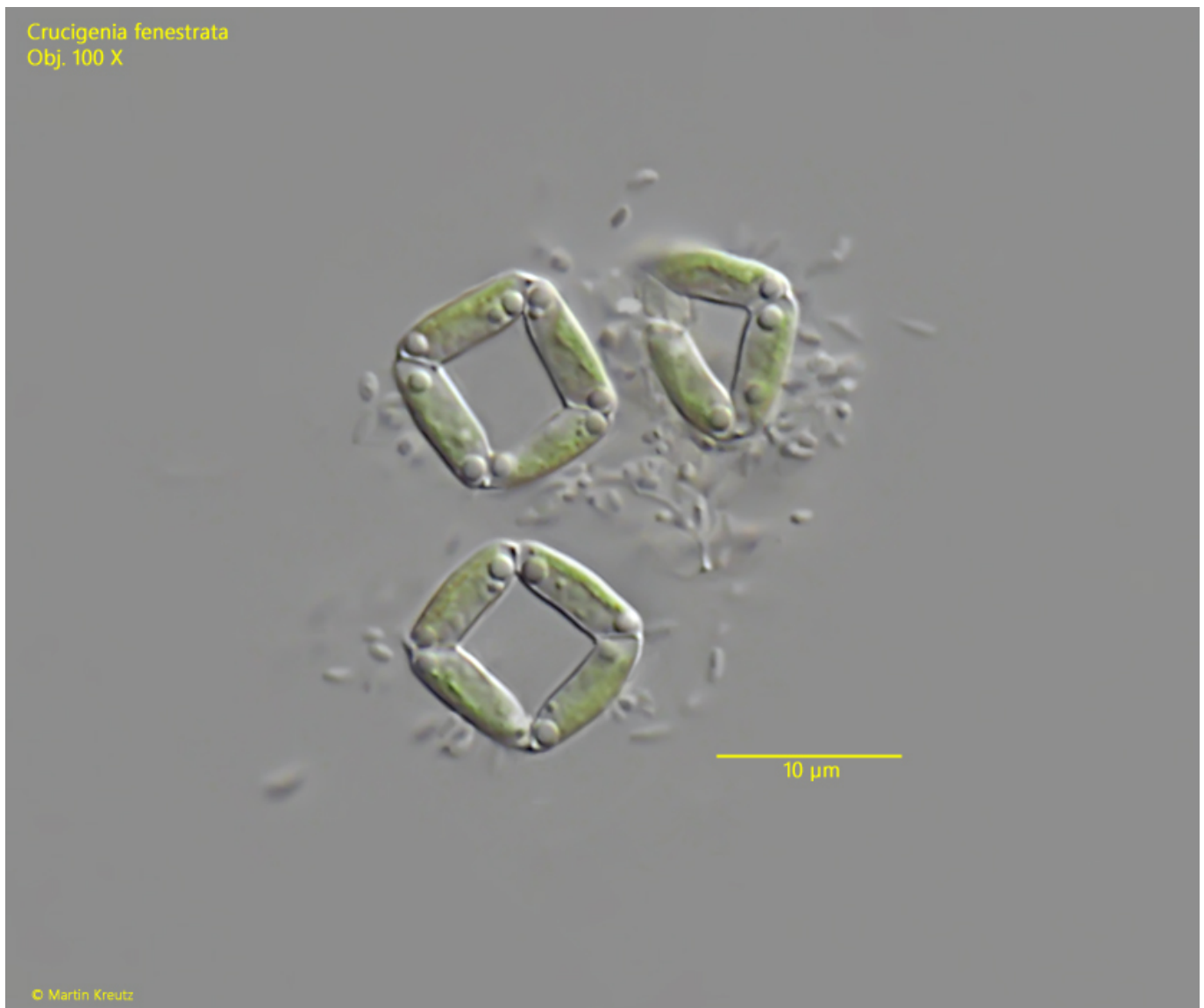


### Crucigenia fenestrata

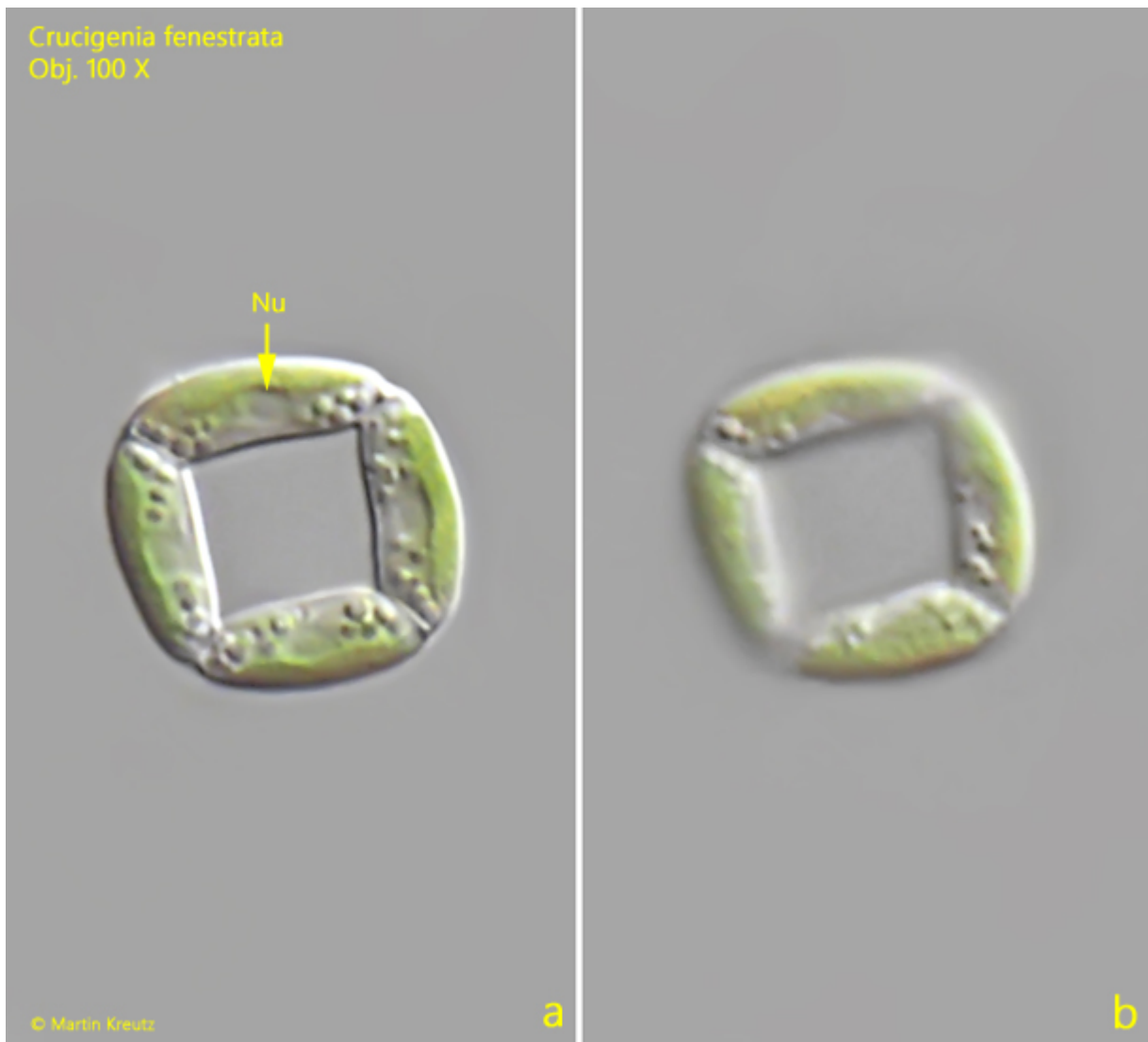
So far, I have only found *Crucigenia fenestrata* in the [pond of the convent Hegne](#), where this small green alga is very rare.

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*.  $D = L = 12.6\text{--}12.8\text{ }\mu\text{m}$  (of coenobia). Three rectangular coenobia embedded in an agglomerate of bacteria. The cells have a length of  $7.7\text{--}8.7\text{ }\mu\text{m}$ . Obj. 100 X.



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