Staurastrum chaetoceras

(Schröder) G.M. Smith, 1924

Most likely ID: n.a.

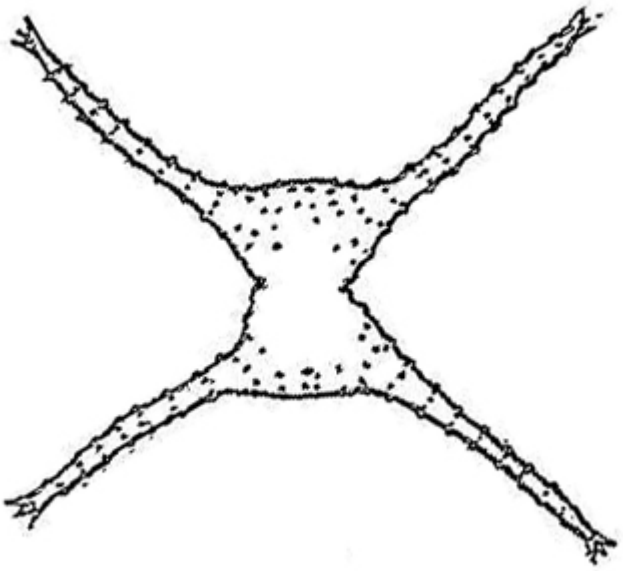
Synonym: *Staurastrum polymorphum* var. *chaetoceras*

Sampling location: Pond of the convent Hegne

Phylogenetic tree: *Staurastrum chaetoceras*

Diagnosis:

- cells 2- or 3-radiate
- semi-cell triangular
- apices flat or slightly convex
- length 14–28 µm with processes
- sinus U-shaped
- isthmus 7–10 µm wide
- cell wall smooth or with rings of tiny granules
- length of processes very variable, depending on habitat
- planktonic lifestyle



after Lenzenweger

Staurastrum chaetoceras

So far, I have found *Staurastrum chaetoceras* exclusively in the pond of the convent Hegne. Most specimens were biradiate and only a few specimens were triradiate. The specimens of my population were between 22–28 µm long (including projections), which fits well with the length data from Lenzenweger (1997). The length of the processes in this species is very variable and, according to Lenzenweger, depends on the flow velocity in the water body. In waters without current, the processes are supposed to be the shortest.

John et al. (2002) describe *Staurastrum chaetoceras* as significantly larger. According to them, specimens with processes can reach 46–94 µm in length and 50–77 µm in width. Which population was studied remains unclear. Bettighofer also found *Staurastrum chaetoceras* on the island of Fehmarn in 2014 with very similar dimensions to those in my population. Therefore, I base my description of this species on Lenzenweger's account.

More images and information on *Staurastrum chaetoceras*: Wolfgang Bettighofer-Protiststen.de-*Staurastrum chaetoceras*

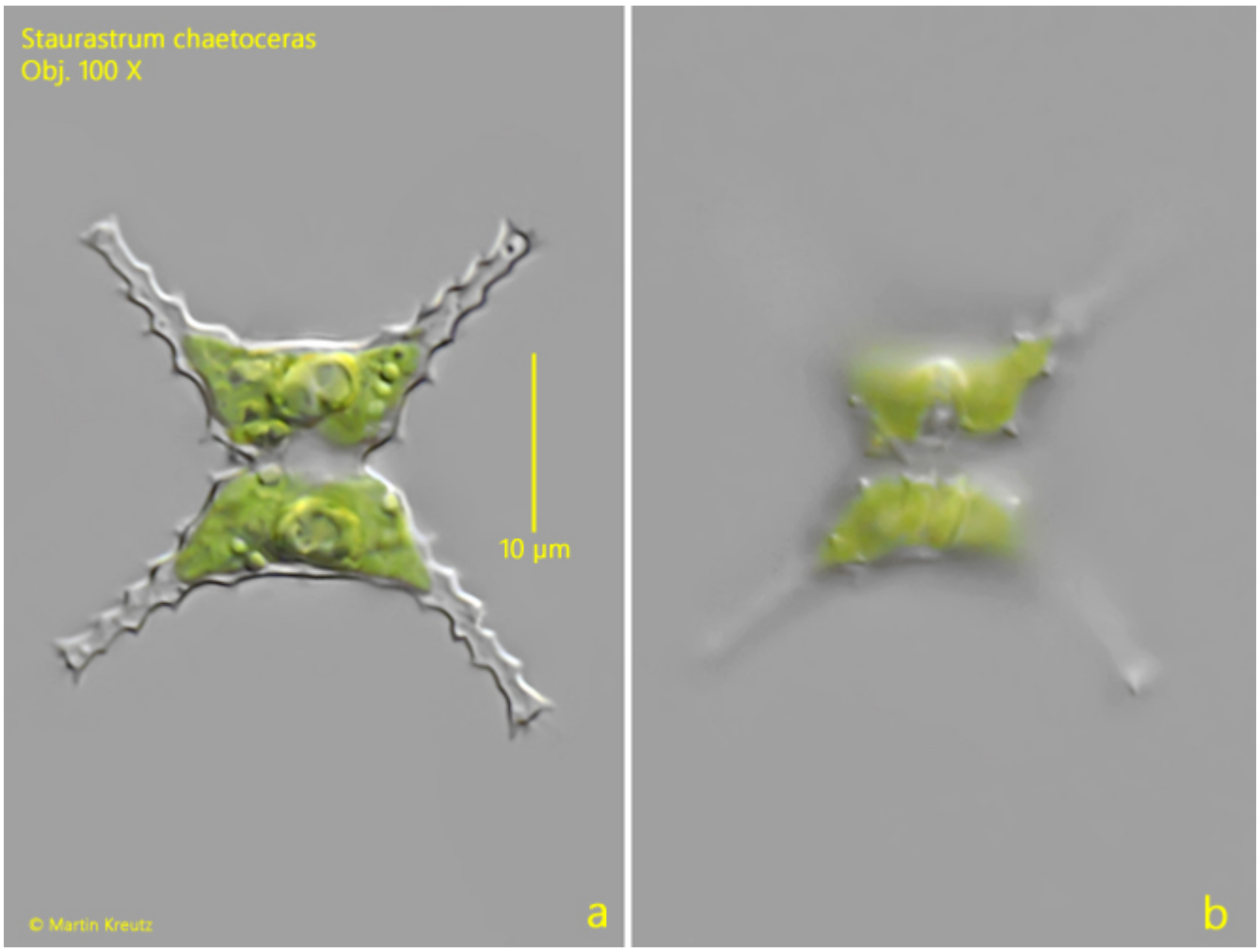


Fig. 1 a-b: *Staurastrum chaetoceras*. L = 28 (with processes). Two focal planes of a biradiate specimen. Obj. 100 X.

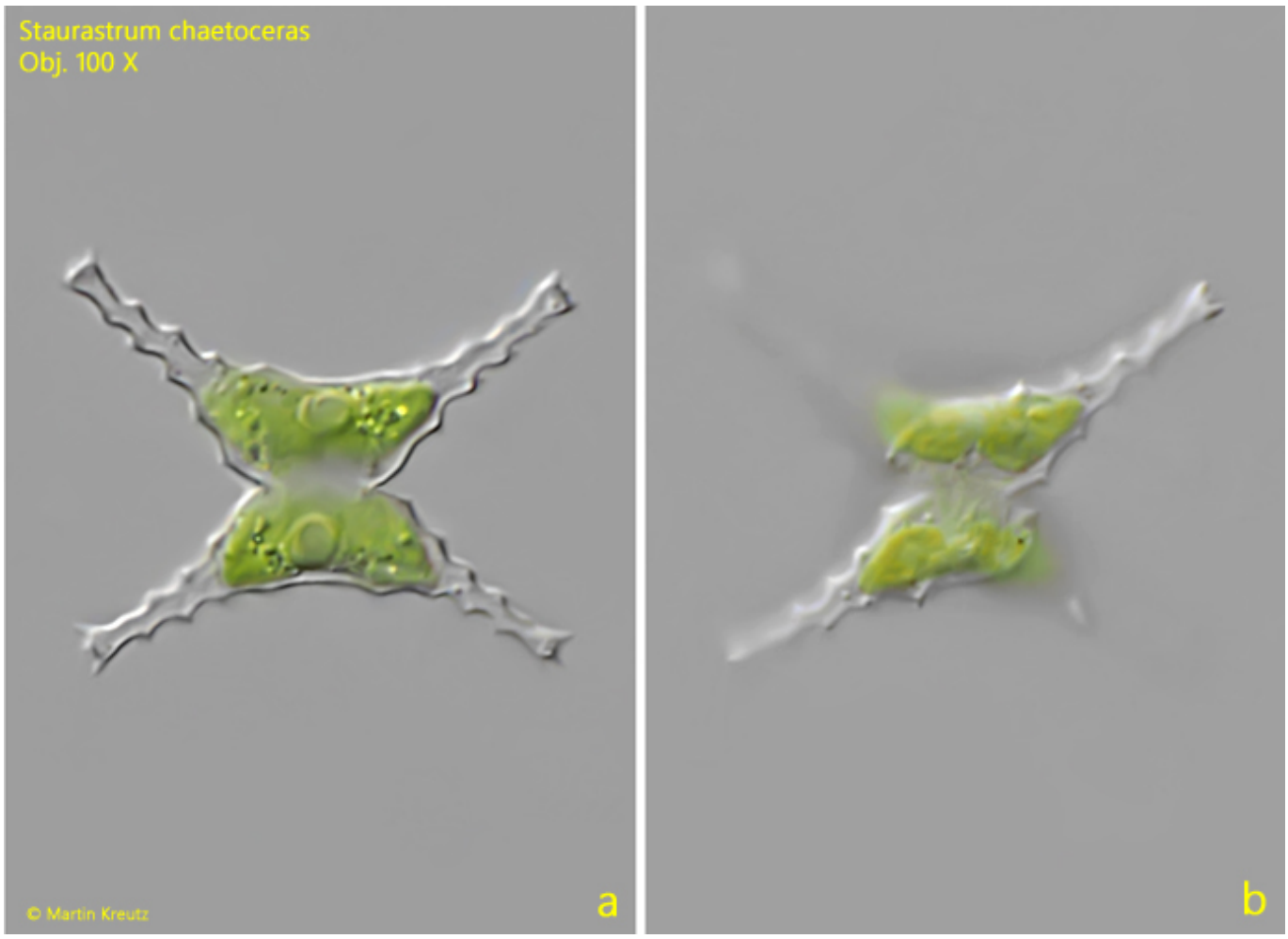


Fig. 2 a-b: *Staurastrum chaetoceras*. L = 23 (with processes). Two focal planes of a second, biradiate specimen. Obj. 100 X.

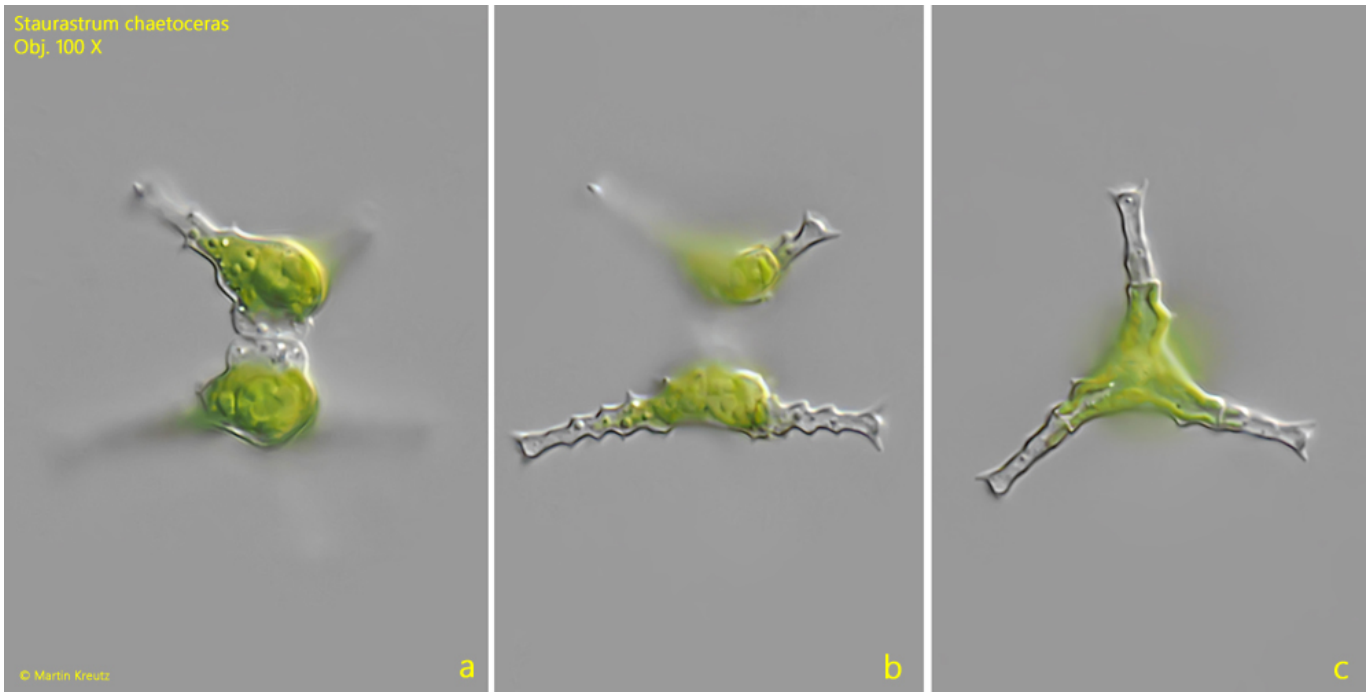


Fig. 3 a-b: *Staurastrum chaetoceras*. L = 26 (with processes). A triradiate

specimen from the same sampling site as the biradiates specimen shown above. Obj. 100 X.