Meridion circulare

(Greville) Agardh, 1831

Most likely ID: n.a.

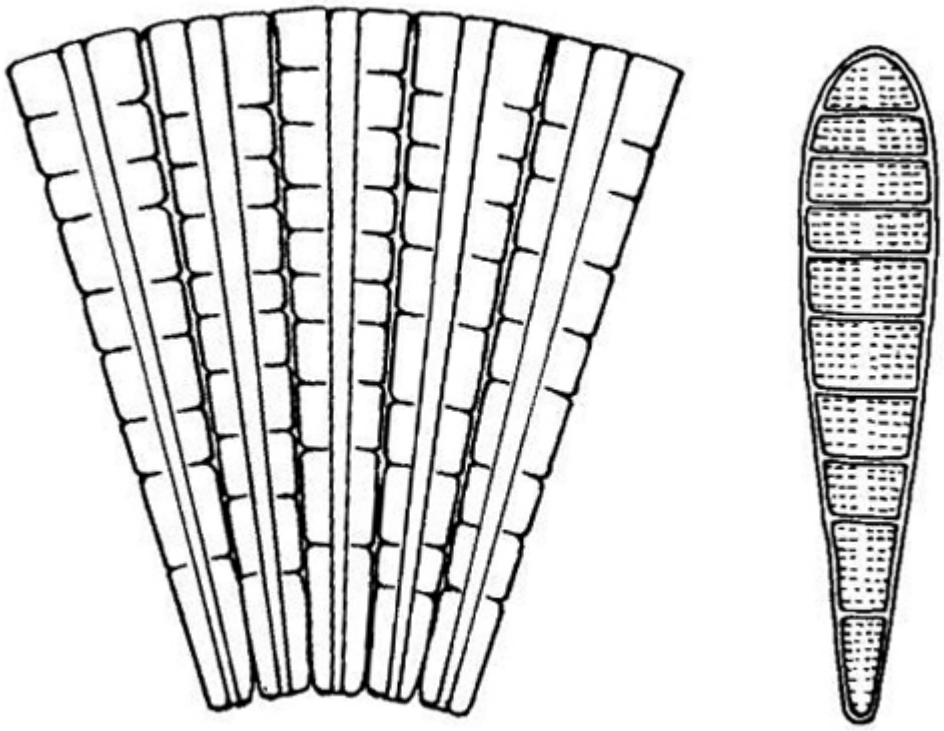
Synonym: n.a.

Sampling location: Lake Constance

Phylogenetic tree: *Meridion circulare*

Diagnosis:

- girdle view of cells wedge shaped
- valve view club-shaped
- length 12–82 µm, width 4–8 µm
- valve sides of the cells connected to each other
- formation of ring- or semicircular bands
- each cell with several disc-shaped chloroplasts
- nucleus central
- on solid surface in lakes and running waters



after Ward

Meridion circulare

Meridion circulare is very common in Lake Constance. I found *Meridion circulare* as growth on larger stones in the shore area.

In fresh samples, *Meridion circulare* is immediately recognizable because the individual cells form fan-shaped, semicircular or almost circular bands, depending on how many cells are connected to each other. However, there are no completely closed circles. The colonies then continue to grow in a spiral.

Under the cover glass, the cells can be seen almost exclusively in the girdle view. It is very difficult to detach individual cells from the colonies and turn them under the coverslip. There are approx. 7–10 disc-shaped chloroplasts in each of the wedge-shaped cells. These are golden-brown in diatoms due to their content of the xanthophyll fucoxanthin.

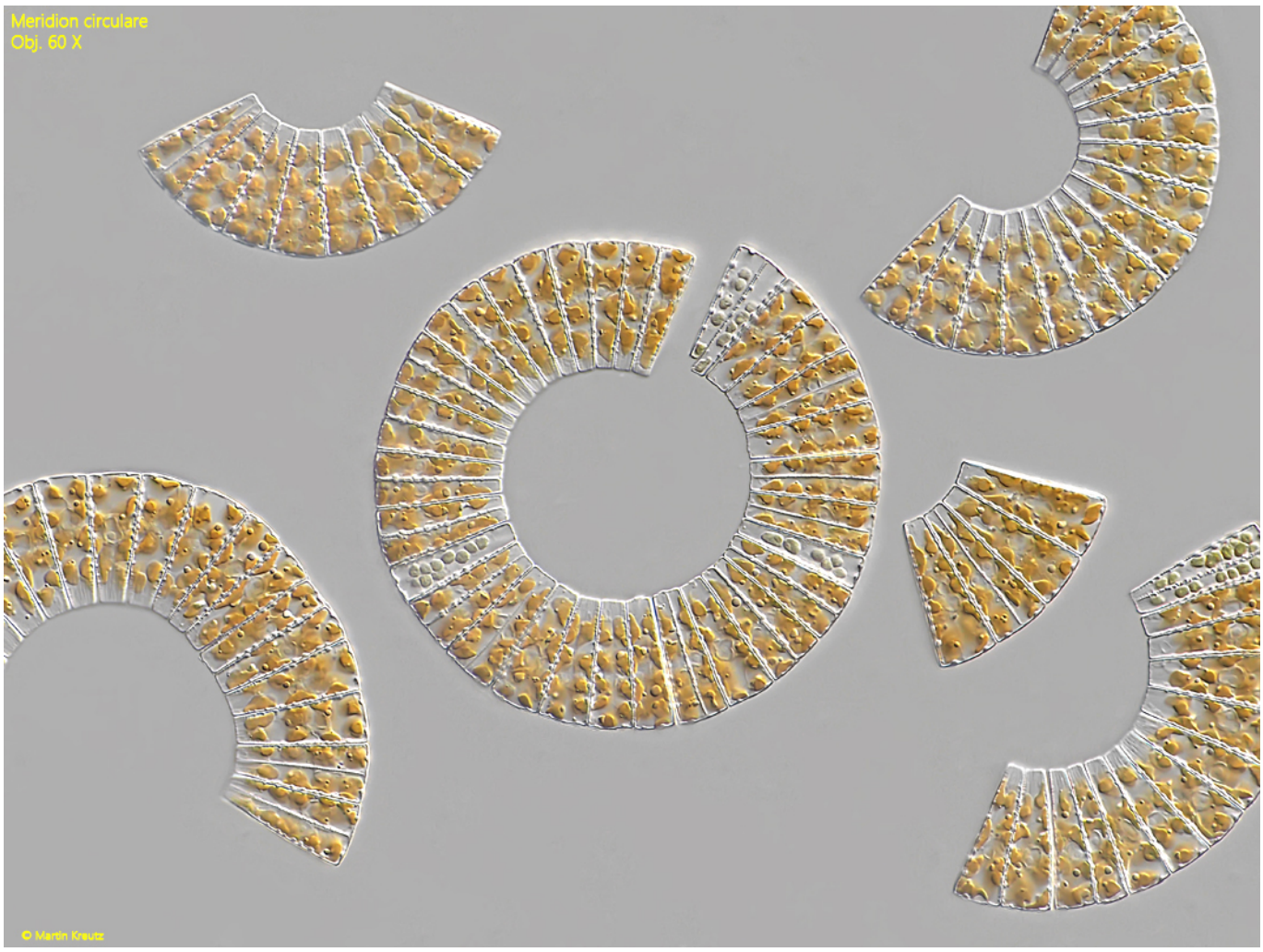


Fig. 1: *Meridion circulare*. L = 27-31 µm (of cells). Some bands of connected cells with different length. Obj. 60 X.

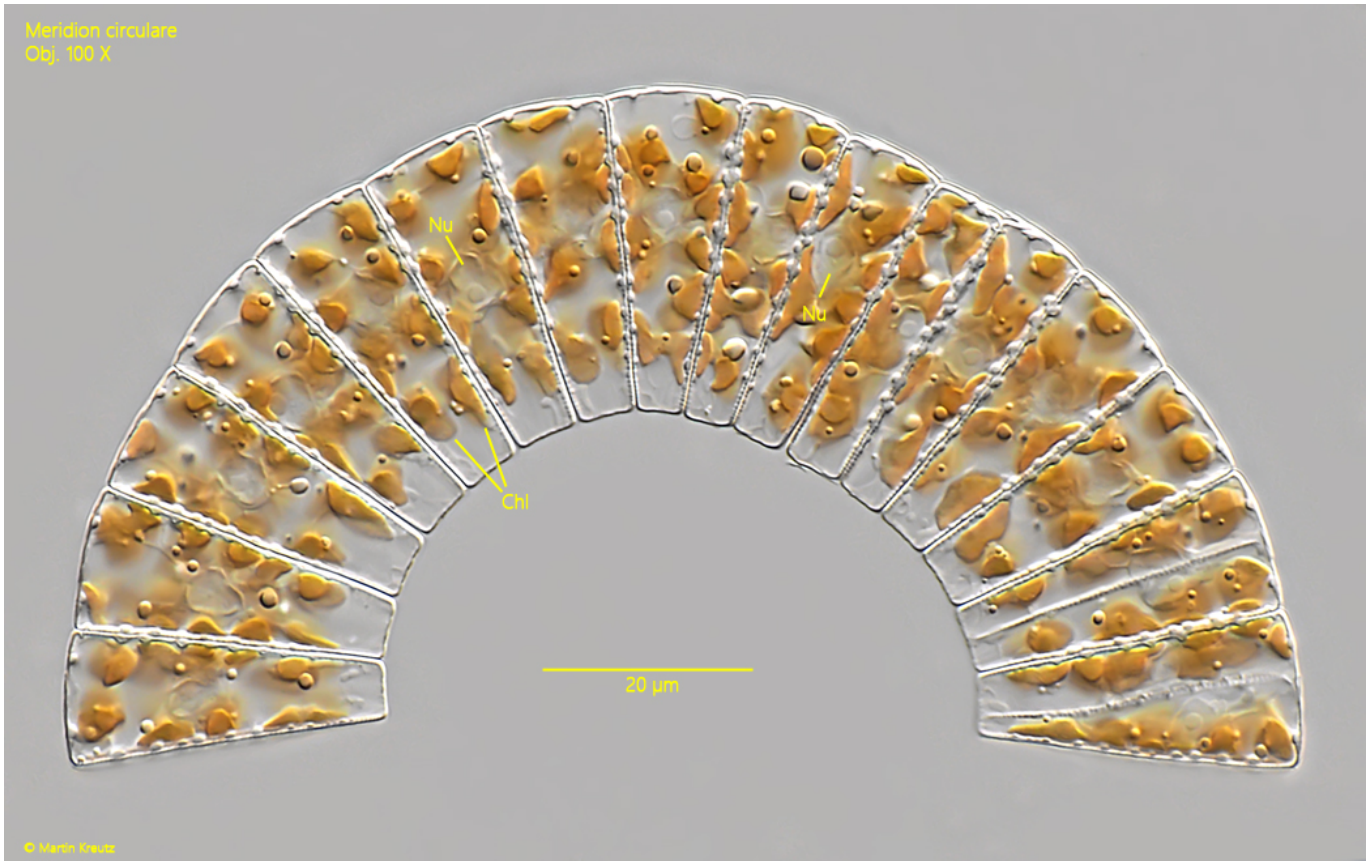


Fig. 2: *Meridion circulare*. L = 31 µm (of cells). A semicircular band of cells. Note the central nucleus (Nu) and the disc-shaped chloroplasts in the cells. Obj. 100 X.


Meridion circulare
Obj. 100 X
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a

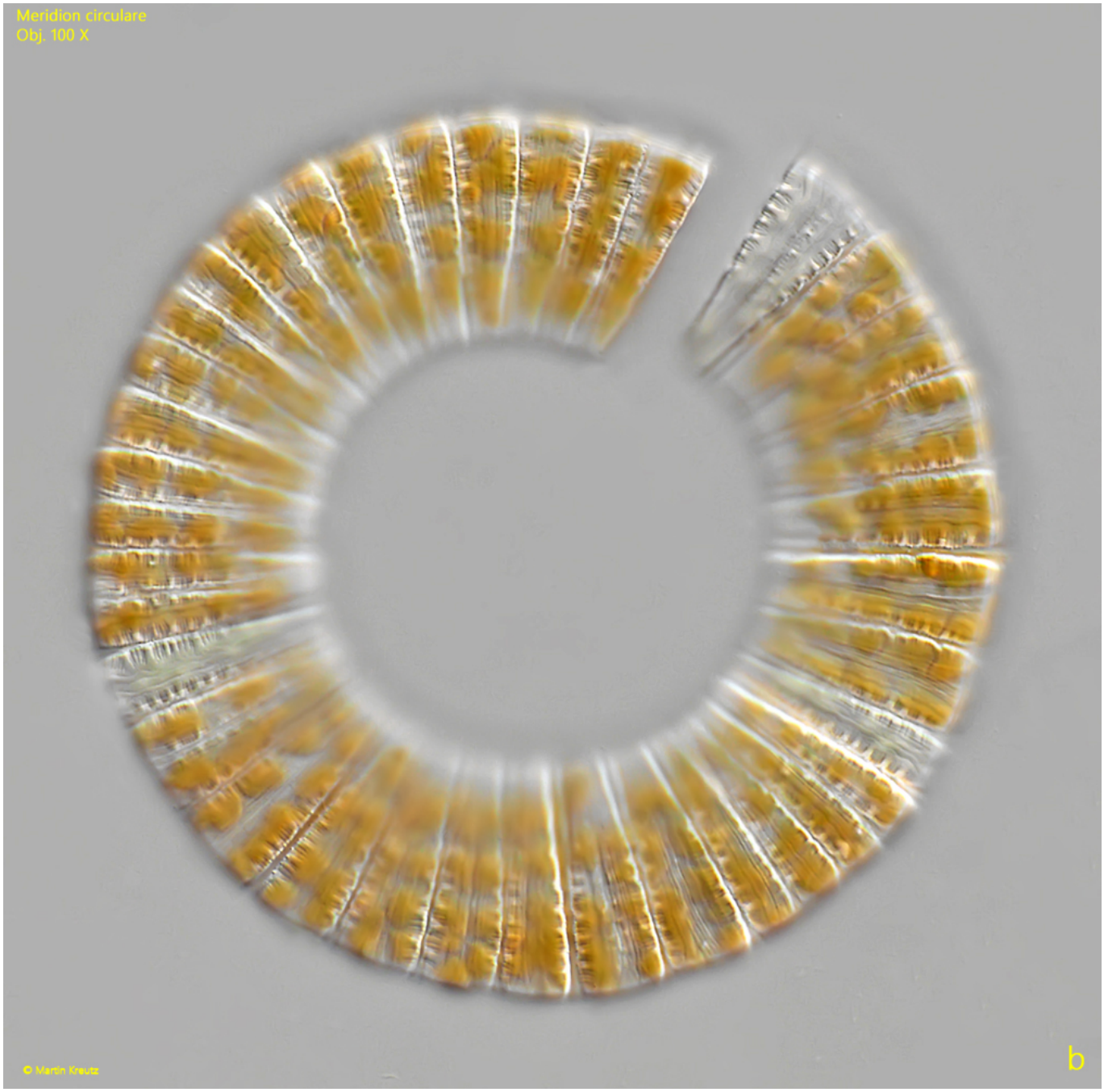


Fig. 3 a-b: *Meridion circulare*. L = 28-29 µm (of cells). Two focal planes of an almost circular band of 44 cells in girdle view. with different length. Obj. 100 X.