

Kirchneriella irregularis

(G.M. Smith) Korshikov, 1953

Most likely ID: n.a.

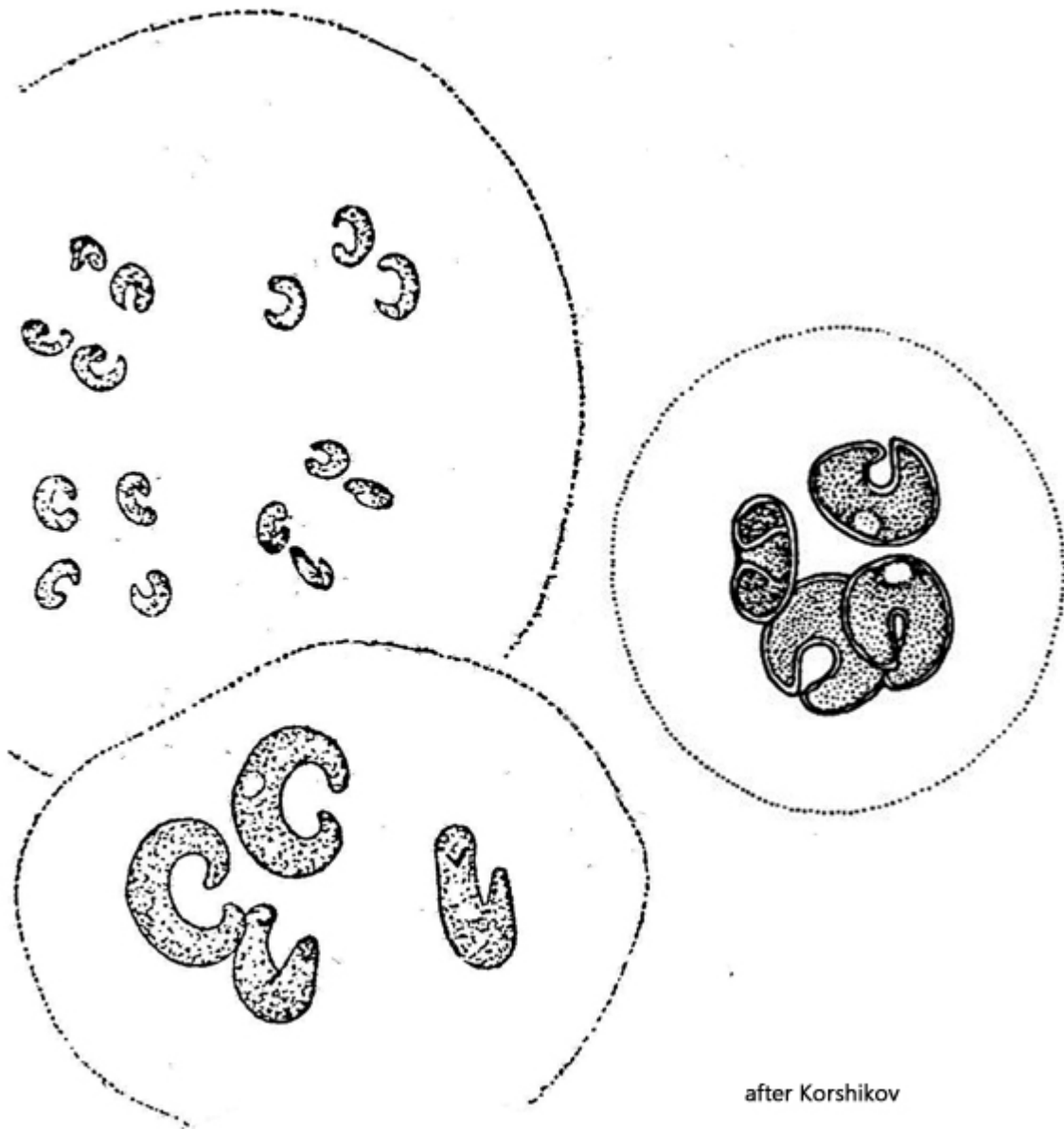
Synonym: *Kirchneriella lunaris* var. *irregularis*, *Kirchneria irregularis*

Sampling location: [Simmelried](#)

Phylogenetic tree: [Kirchneriella irregularis](#)

Diagnosis:

- cells almost circular, slightly twisted
- bluntly pointed apices
- colonies of 4-32 cells in layer of mucilage
- length 6-26 µm (of cells), usually 11 µm
- chloroplast parietal on convex side
- pyrenoid likely absent
- reproduction with 4 autospores
- nucleus central



after Korshikov

Kirchneriella irregularis

So far I have only found a few specimens of *Kirchneriella irregularis*. All specimens came from the uppermost mud layer in the [Simmelried](#).

The cells of *Kirchneriella irregularis* are strongly curved and at the same time somewhat twisted. As a result, the apices do not meet, but overlap slightly (s. fig. 4). In frontal view the cells appear almost circular. In the literature (Huber-Pestalozzi, 1983) the presence of a pyrenoid is considered possible, but I was unable to detect one in any of the specimens in my population. Reproduction takes place by autospores with 4 daughter cells each (s. fig. 2 a-b). The length of the adult cells in my population was between 10.0-11.5 μm . The colonies were always very small. Mostly less than 8 cells, which lay in a very delicate, barely perceptible mucus envelope.

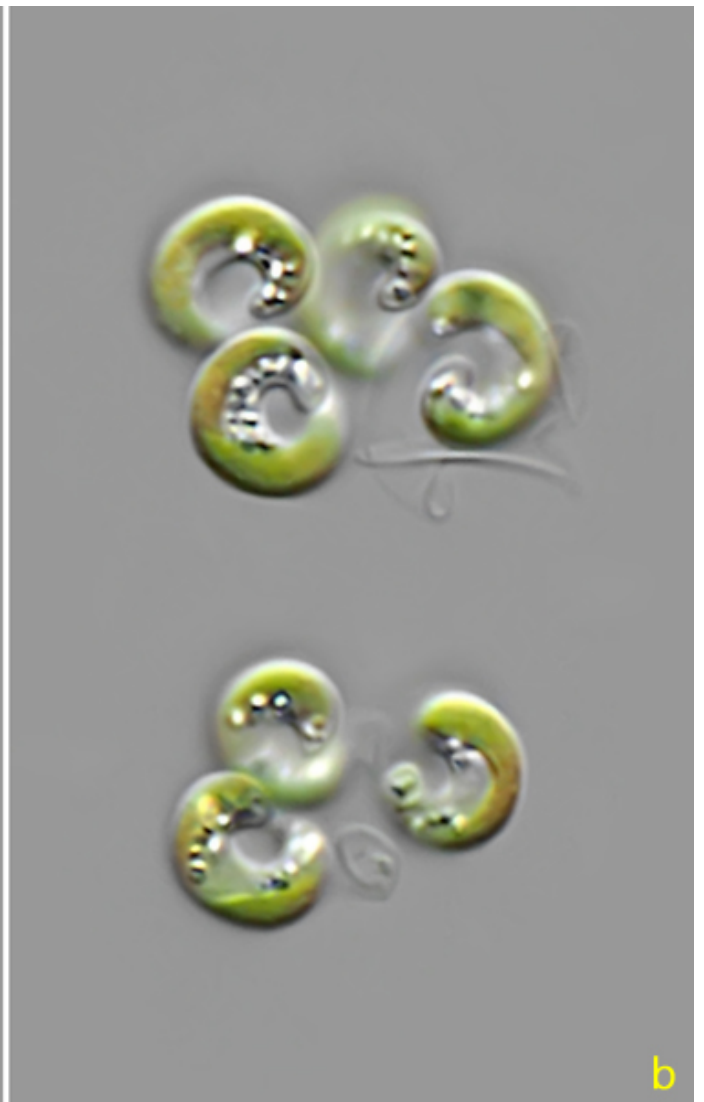
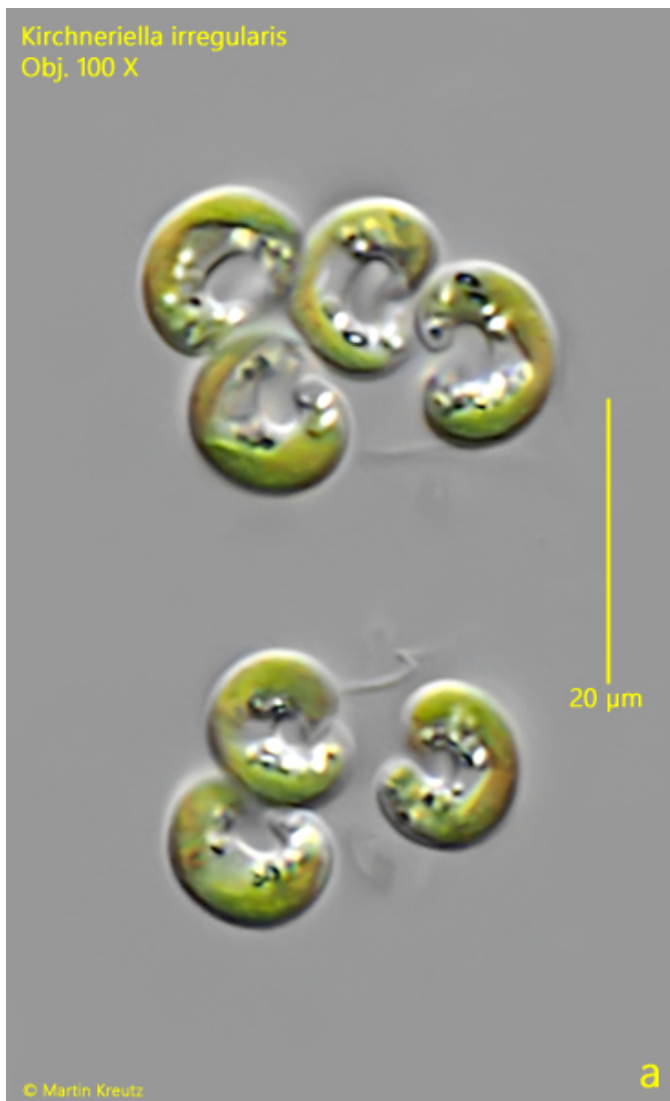


Fig. 1 a-b: *Kirchneriella irregularis*. L = 7.5–8.8 μm . Two focal planes of a small colony of 7 cells. Obj. 100 X.

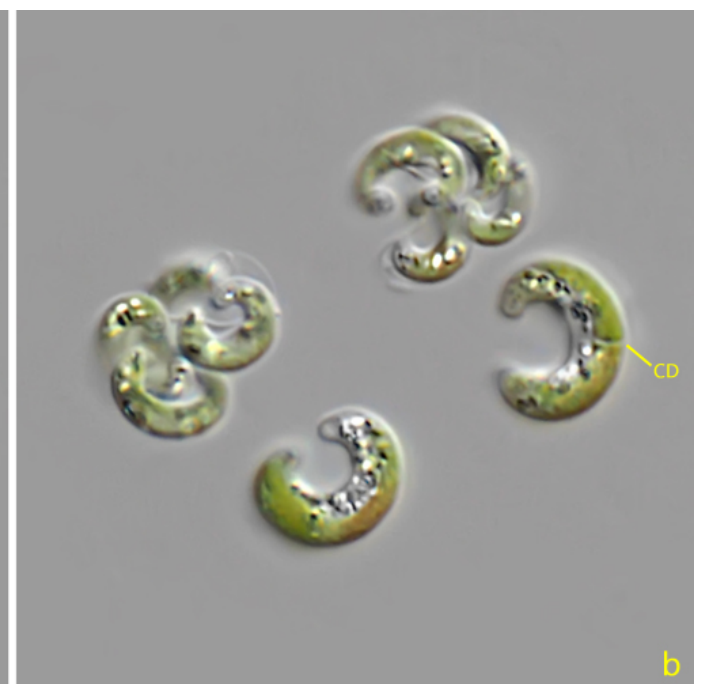
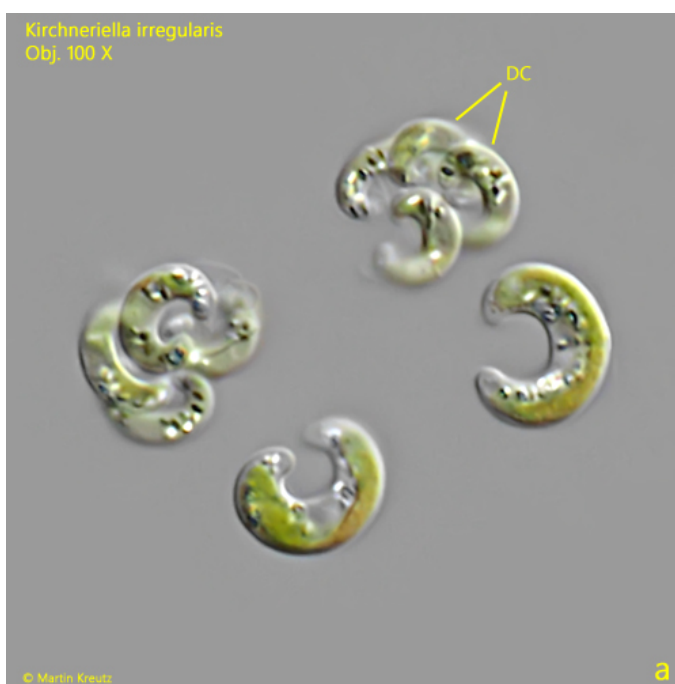


Fig. 2 a-b: *Kirchneriella irregularis*. L = 10.1-11.2 μm . A second small colony with two autospores with 4 daughter cells (DC) each. In one of the parent cells a cell division (CD) starts. Obj. 100 X.

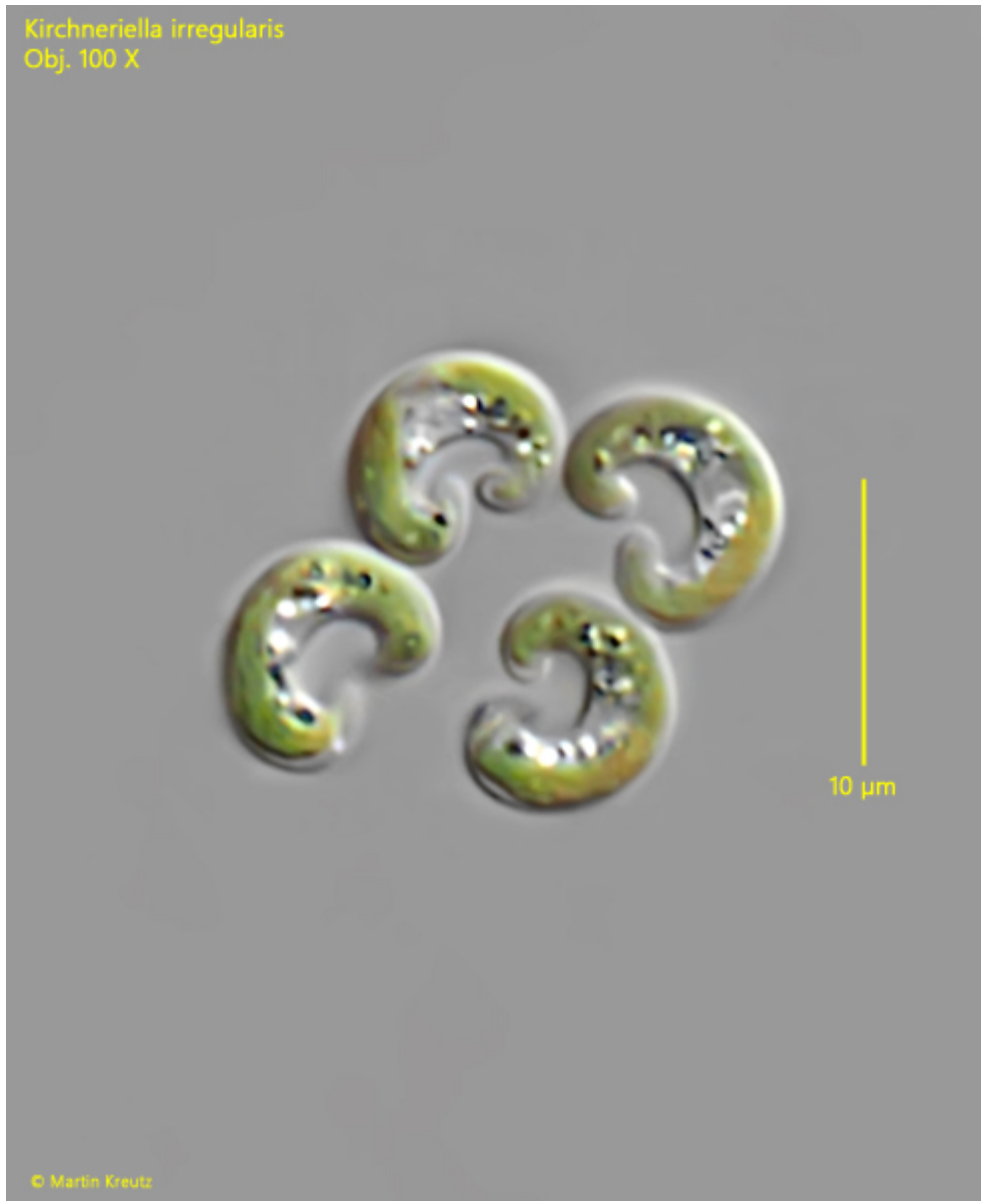


Fig. 3: *Kirchneriella irregularis*. L = 5.0-5.2 μm . Four young daughter cells. Obj. 100 X.

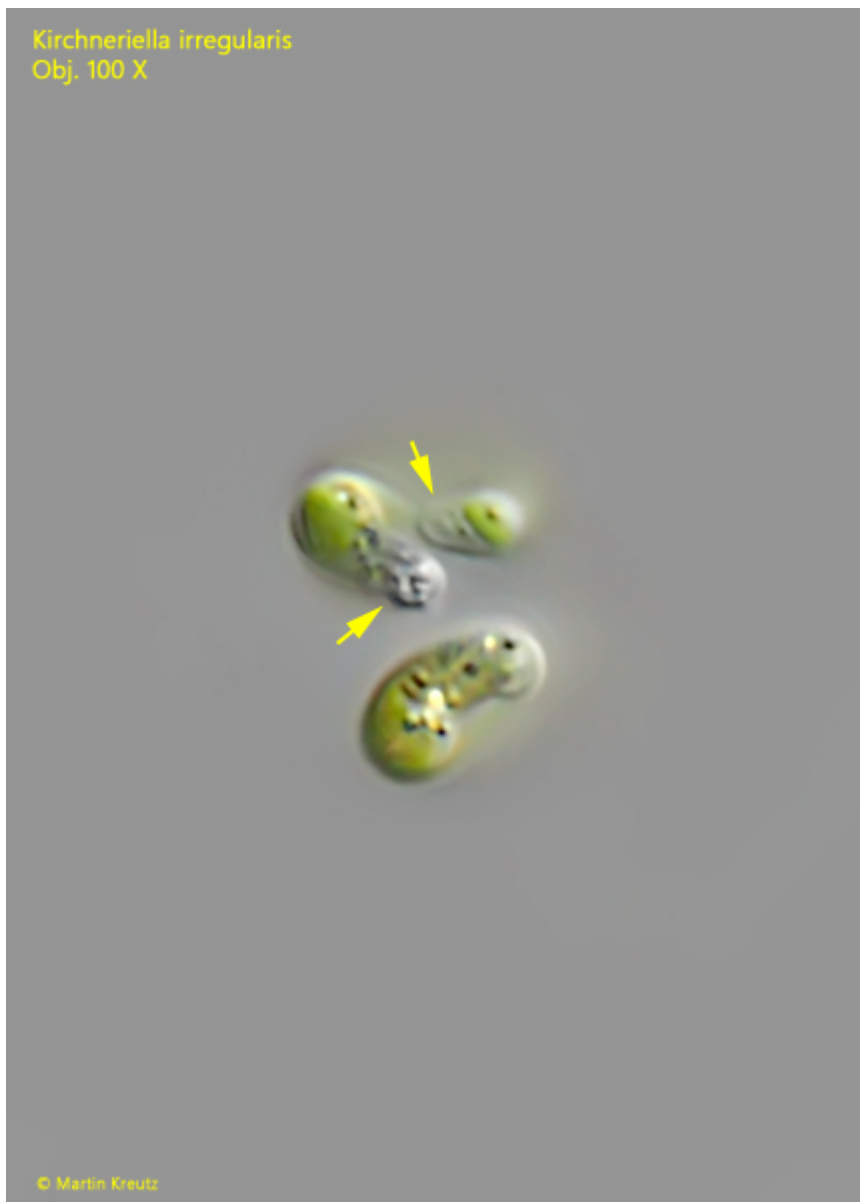


Fig. 4: *Kirchneriella irregularis*. Two cells that are perpendicular to the focal plane. As the cells are slightly twisted, the two apices overlap slightly (arrows). Obj. 100 X.