Thiospira dextrogyra Skuja, 1956

Most likely ID: n.a.

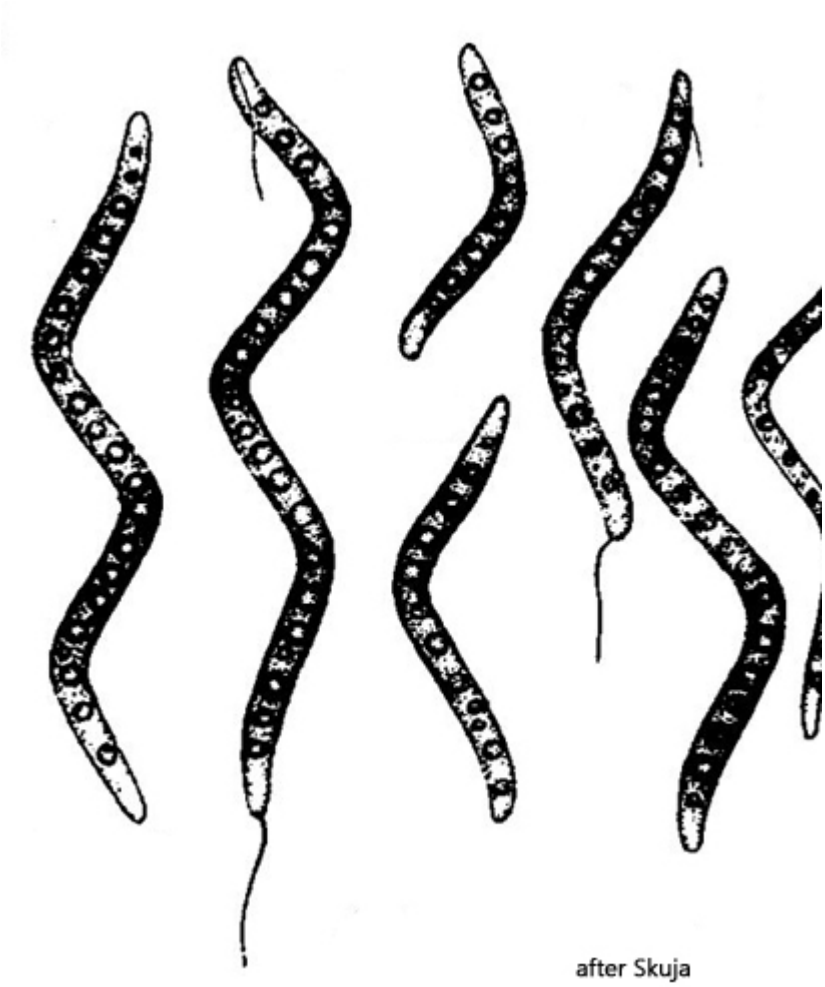
Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: n.a.

Diagnosis:

- cells rod-shaped, clockwise coiled
- length 15–35 µm, width 1.0–1.3 µm
- large sulphure globules in a row, scattered small globules
- polar flagella at one or both cell ends



Thiospira dextrogyra

So far, I have only found *Thiospira dextrogyra* once, in December 2007, in the mud of Simmelried. The only accurate description of this sulfur bacterium seems to be that provided by Skuja (1956).

The species within the genus *Thiospira* are characterized by a spiral-shaped body and sulfur globules, which are always arranged in a row in the cells. In addition, the cells have flagella at one or both ends, which are often twisted into bundles.

The individual species within the genus *Thiospira* differ mainly in terms of cell diameter and length. The cells in my population had a diameter of 1.2–1.4 µm. This rules out the species *Thiospira tenuis*, which has a diameter of 0.8–1.0 µm, and *Thiospira windradskyi*, which has a diameter of 1.5–3.5 µm. The species *Thiospira bipunctata* has two conspicuously large sulfur globules and no globules arranged in a row. This leaves the species *Thiospira dextrogyra*, which is said to have a diameter of 1.0–1.3 µm. This corresponds to the diameter of the cells in my population. However, Skuja specifies a cell length of 15–35 µm, while the cells in my

population were 28-53 µm long. Skuja also described the slightly longer variety *Thiospira dextrogyra* var. *leptosoma*, which is said to grow up to 40 µm long but has a diameter of only 0.7–0.9 µm. Although my specimens were slightly longer than those described by Skuja, the characteristics fit *Thiospira dextrogyra* better.

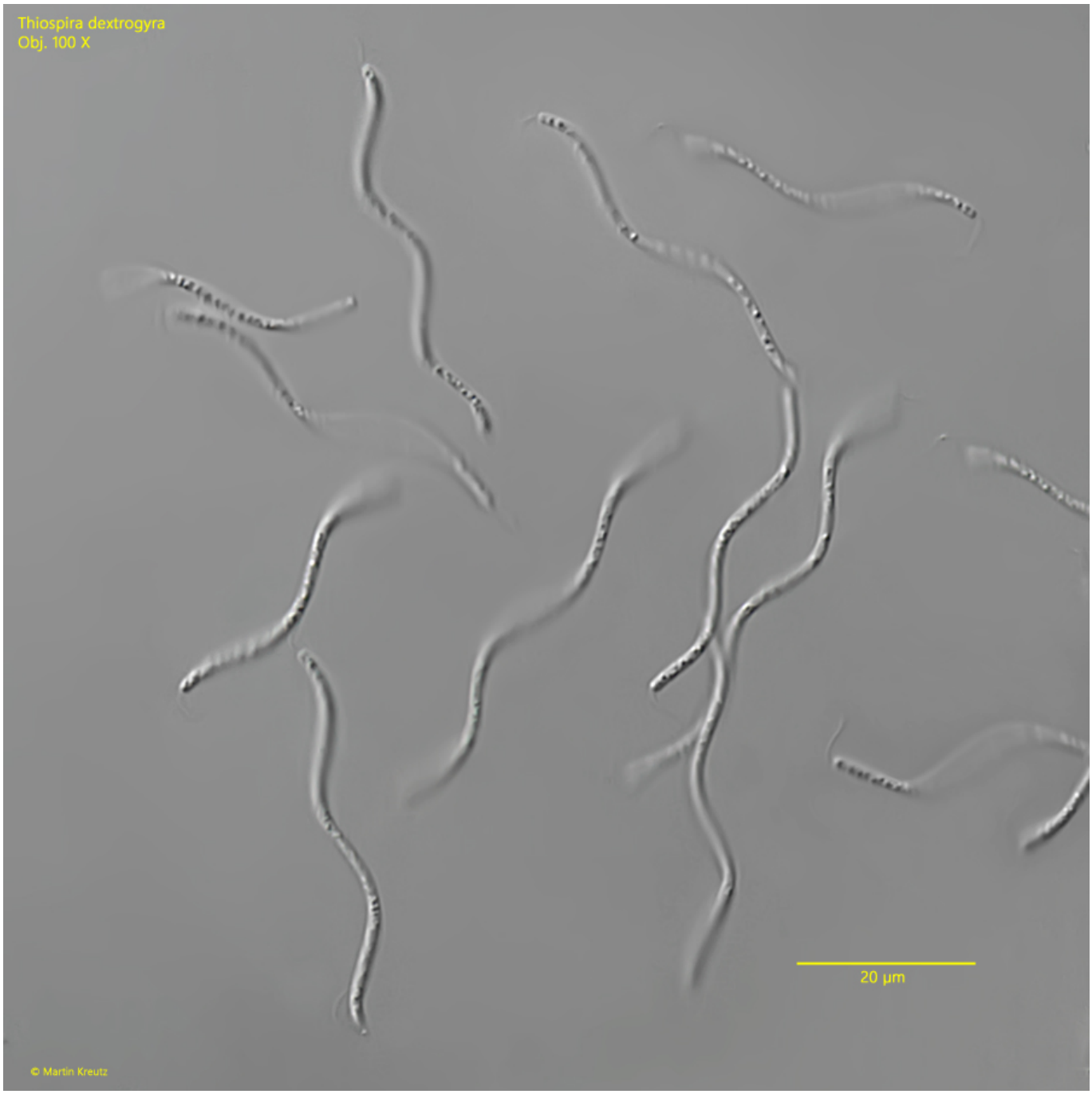


Fig. 1: *Thiospira dextrogyra*. L = 33–53 µm. Several freely swimming specimens. Obj. 100 X.

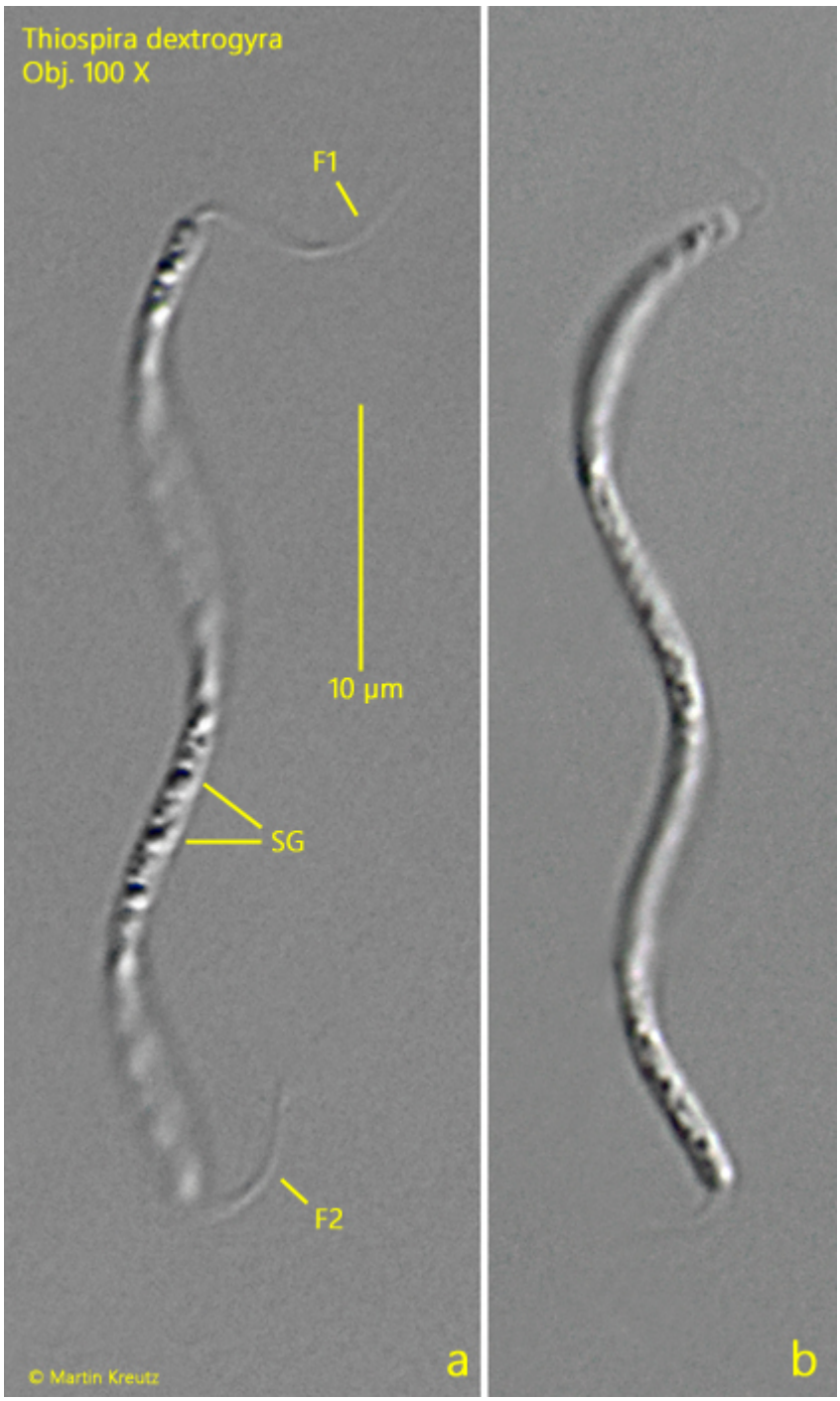


Fig. 1: *Thiospira dextrogyra*. L = 38–39 µm. Two specimens in detail. The specimens have a bundle of flagella at both ends (F1, F2). SG = sulphur globules. Obj. 100 X.