Geitlerinema splendidum

(Gomont) Anagnostidis, 1989

Most likely ID: n.a.

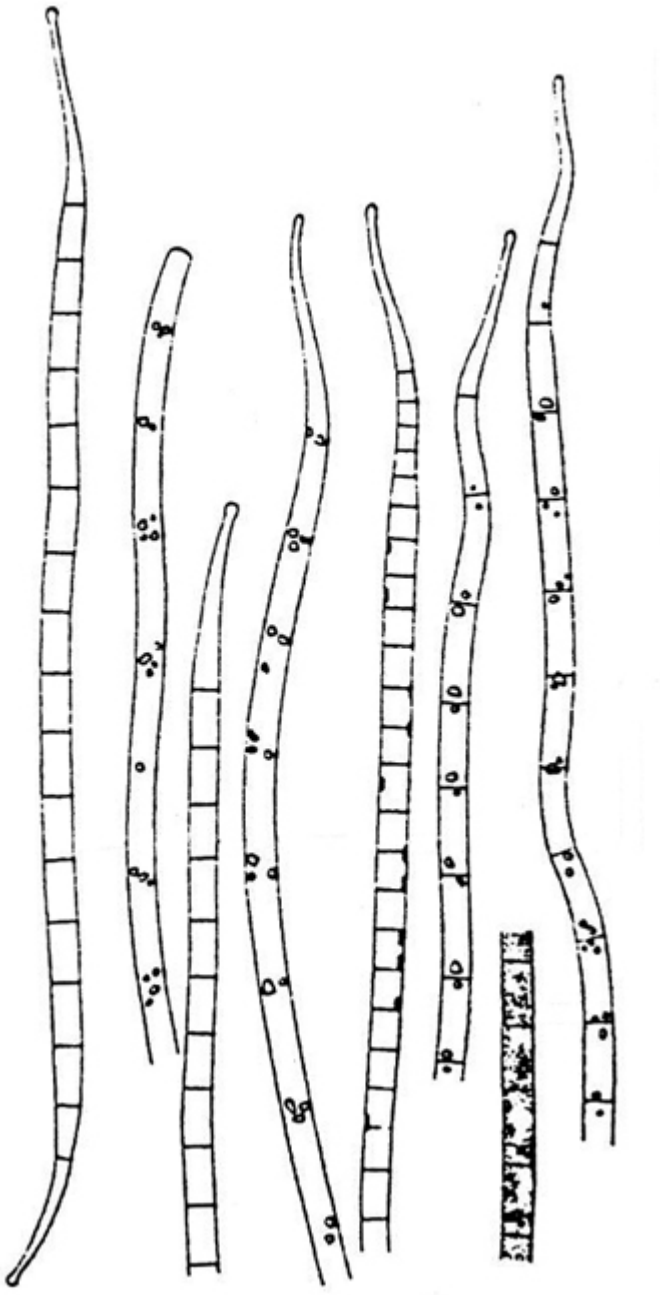
Synonyms: *Oscillatoria splendida*, *Oscillatoria leptotricha*, *Porphyrosiphon splendidus*, *Phormidium splendidum*

Sampling location: Simmelried

Phylogenetic tree: *Geitlerinema splendidum*

Diagnosis:

- colony spreading, with bundles of filaments
- trichomes motilem straight or coiled
- length of cells 3.5–8 µm, width 2–2.3 µm
- colored bright green to blue–green,
- slightly constricted at cross-walls
- trichomes up to 1 mm long
- trichomes without mucilaginous sheath
- end of trichomes attenuated and elongeted, bent, sometimes spherically capitate



after Komárek

Geitlerinema splendidum

Geitlerinema splendidum is a very common cyanobacteria in my sampling site Simmelried. It forms blue-green mats with a diameter of several centimeters.

Geitlerinema splendidum can be identified mainly by the shape of the cell ends. These are usually tapered and curved (s. fig. 5 b–d). The end often shows a slight, spherical thickening. However, some filaments end in a rounded shape without tapering (s. fig. 5 a). Another characteristic feature are small oil globules, which are located on the cross walls. There are often two, but sometimes one larger oil drop (s. fig. 4). The filaments are slightly constricted at the cross-walls.

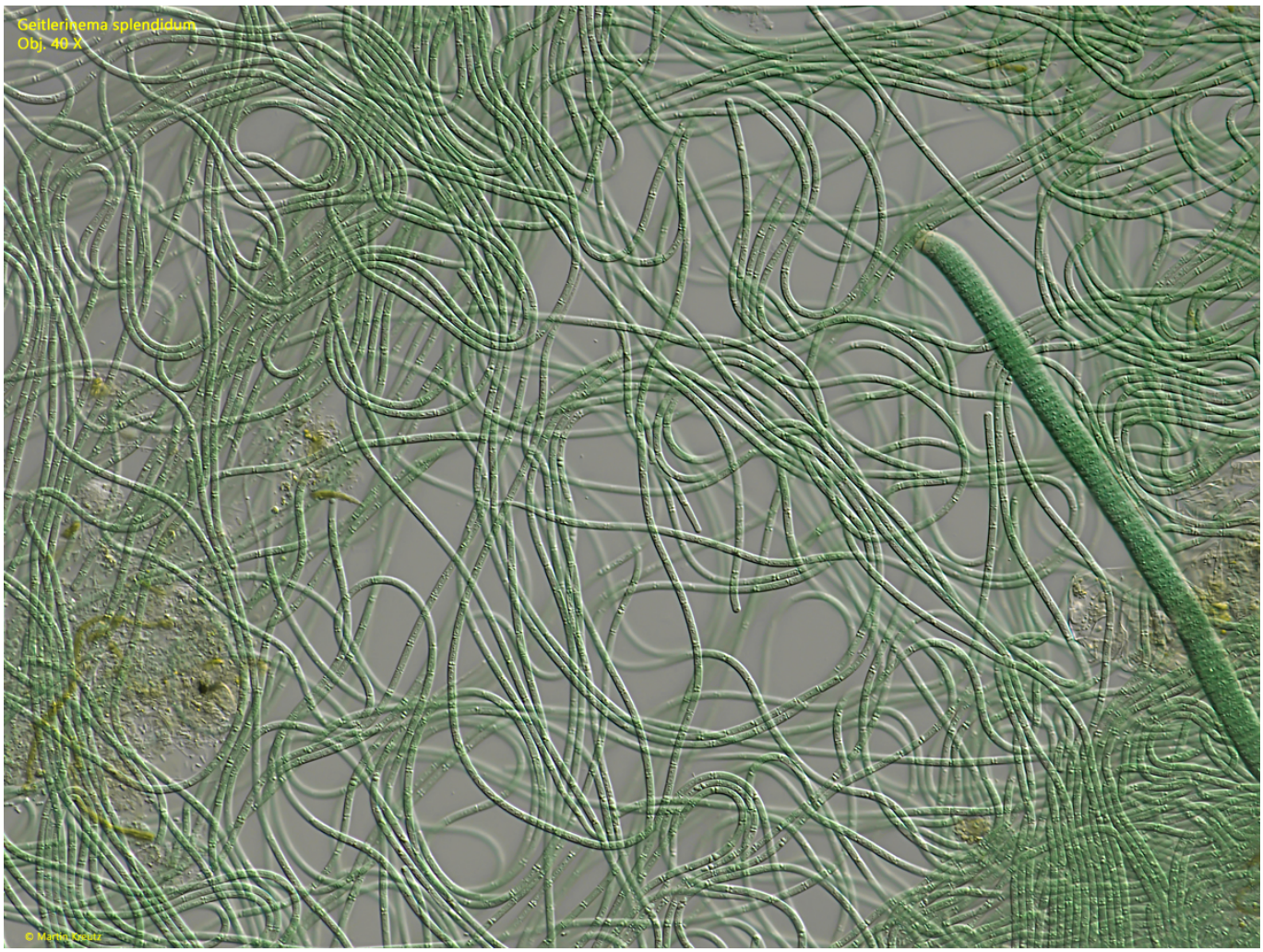


Fig. 1: *Geitlerinema splendidum*. A spreaded colony with bundles of filaments. Obj. 40 X.

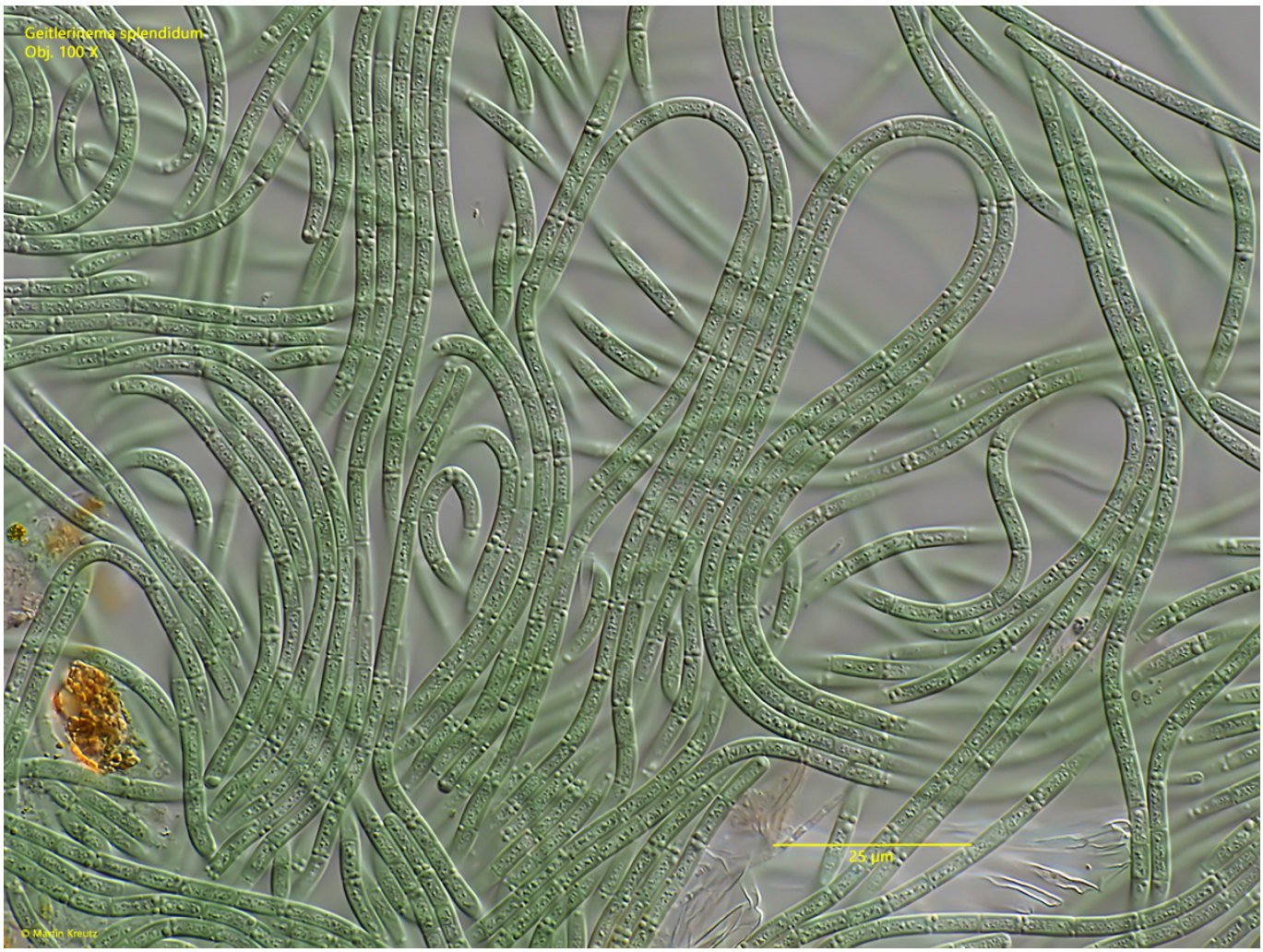


Fig. 2: *Geitlerinema splendidum*. A detail of the colony as shown in fig. 1. The filaments have a diameter of 2.3–2.5 µm. Obj. 100 X.

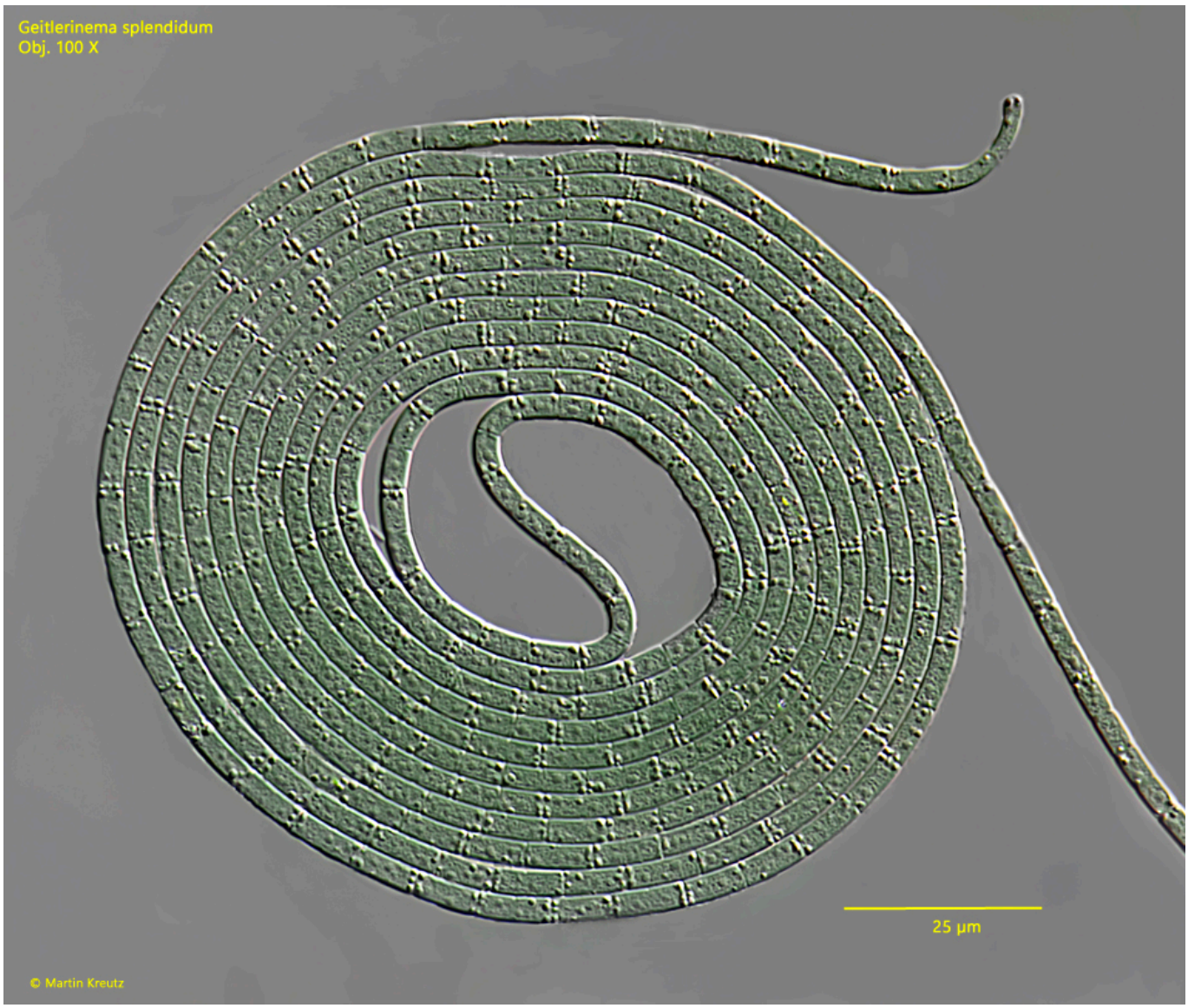


Fig. 3: *Geitlerinema splendidum*. A spiralized filament. Obj. 100 X.

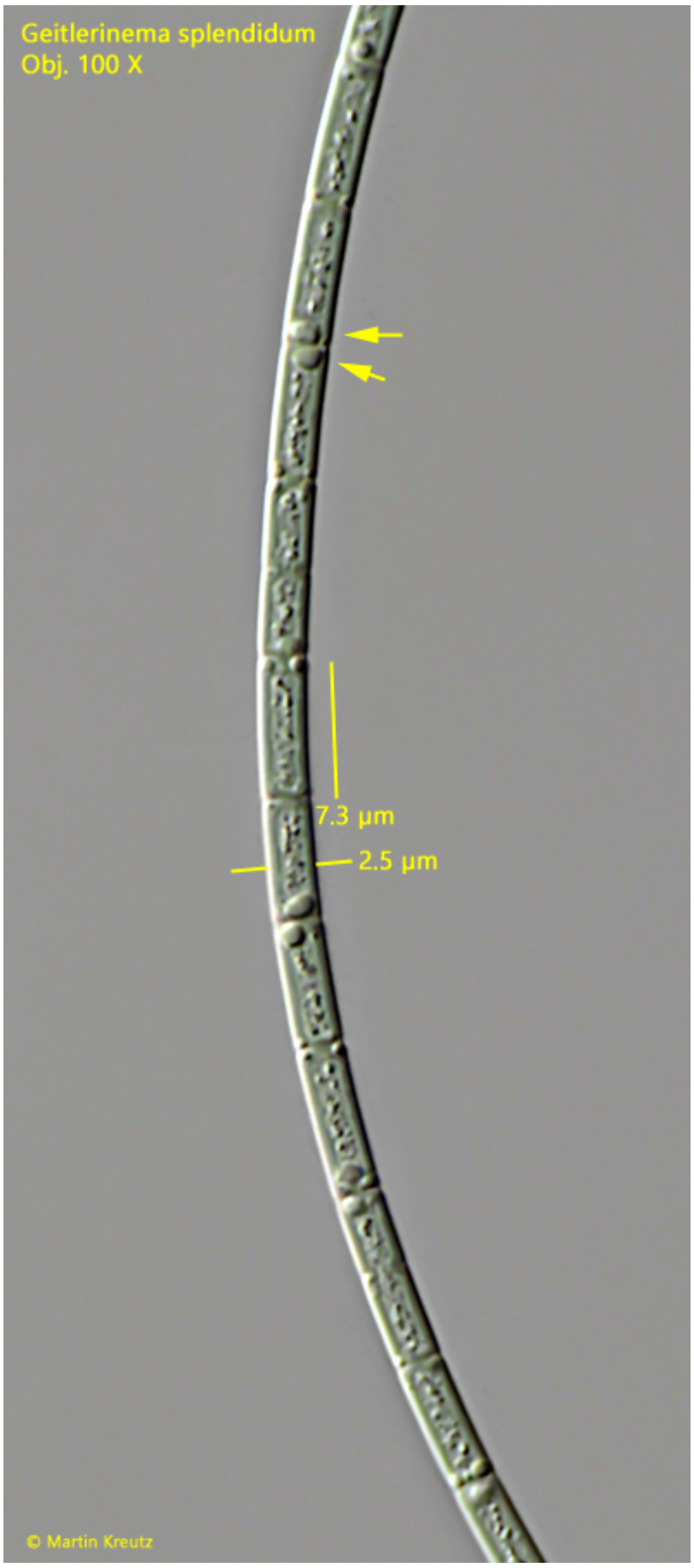


Fig. 4: *Geitlerinema splendidum*. Detail of a filament with a diameter of 2.5 µm. The cells have al length of 7–8 µm. Note the oil droplets located near the cross-walls

(arrows). Obj. 100 X.

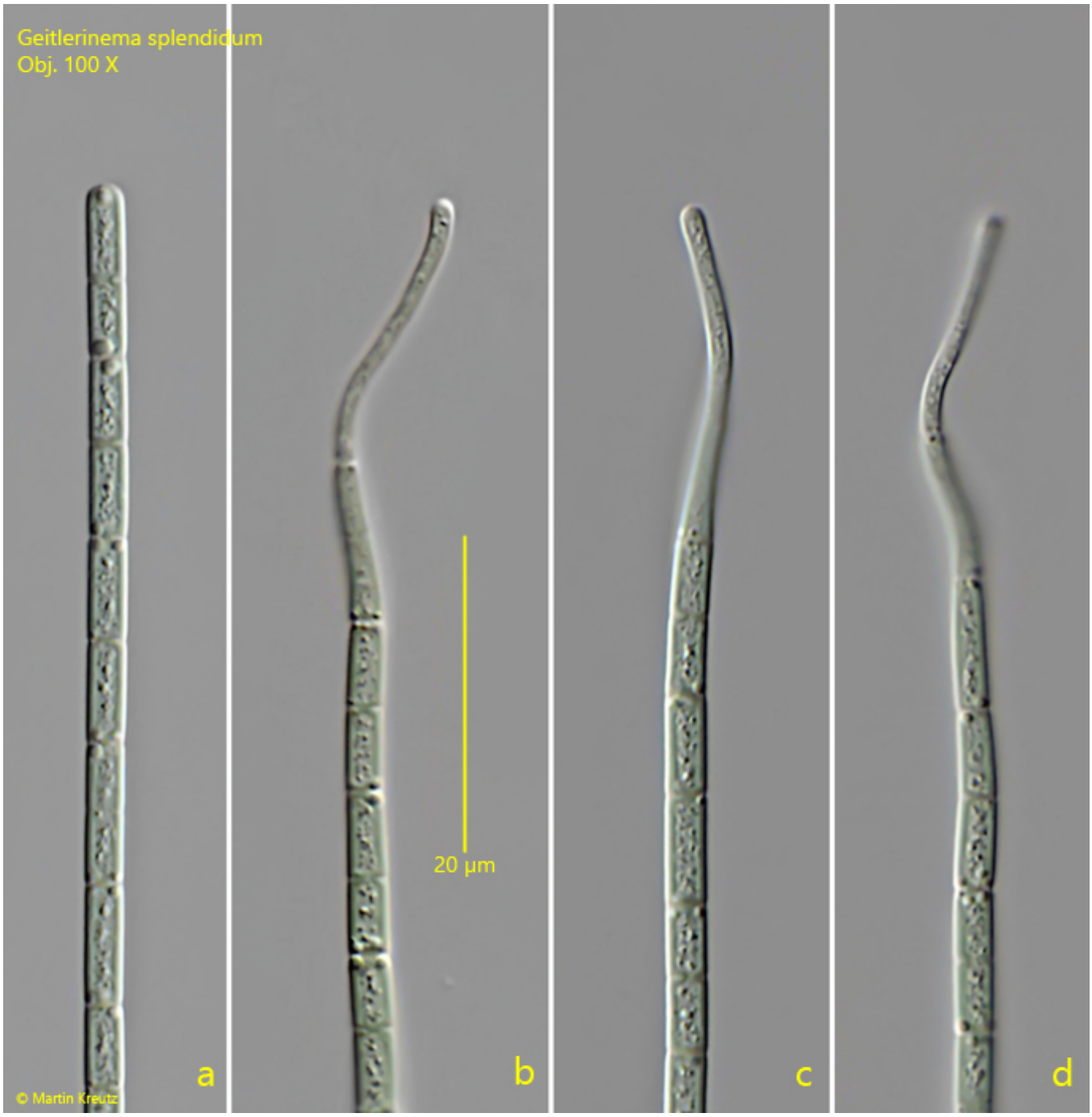


Fig. 5 a-d: *Geitlerinema splendidum*. The shape of the ends of different filaments. The ends can be rounded (a) or tapered and bent (c–d). Obj. 100 X.