Chlorobotrys regularis (West) Bolin, 1901

Most likely ID: n.a.

**Synonym:** n.a.

Sampling location: Simmelried

Phylogenetic tree: *Chlorobotrys regularis*

Diagnosis:

- cells spherical or sub-spherical
- in groups of 2–4–8–(16) cells
- diameter of cells 10–20 μm
- cells in a mucinlaginous envelope
- fragments of mother cell wall in mucilaginous envelope
- 1–4 parietal chloroplasts, pale yellowish green
- chloroplasts disc-shaped or cup-shaped, in older cells diffuse
- prominent red or orange oil droplet present
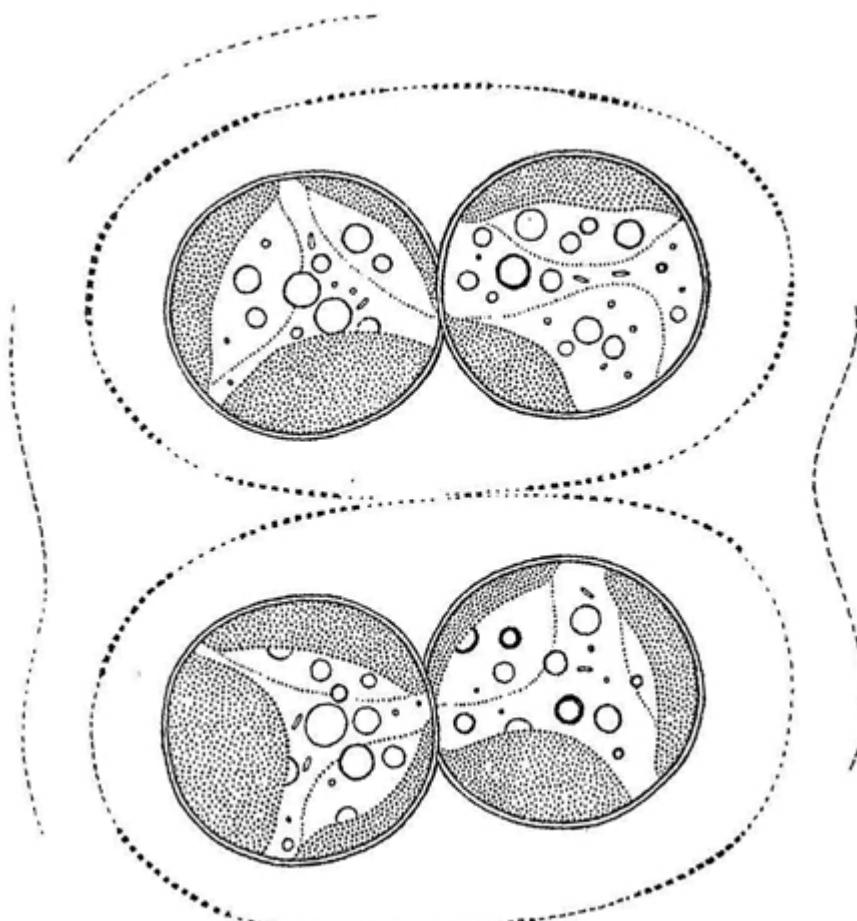
after Pascher

Chlorobotrys regularis

I regularly find *Chlorobotrys regularis* in the Simmelried. This Xanthophycee is not present in my other sampling sites.

I recognize *Chlorobotrys regularis* mainly by the yellow-green chloroplasts and the typical orange or red oil drop that can be found in most of the cells (s. fig. 4). The older cells are always spherical with a thick cell wall. They lie in a mucilaginous sheath, which also contains the remains of the mother cell wall (s. fig. 3). In my population, the cells were never larger than 16 µm.

The similar species *Chlorobotrys polychloris* has considerably more chloroplasts and the cells are also significantly larger at 18–25 µm.
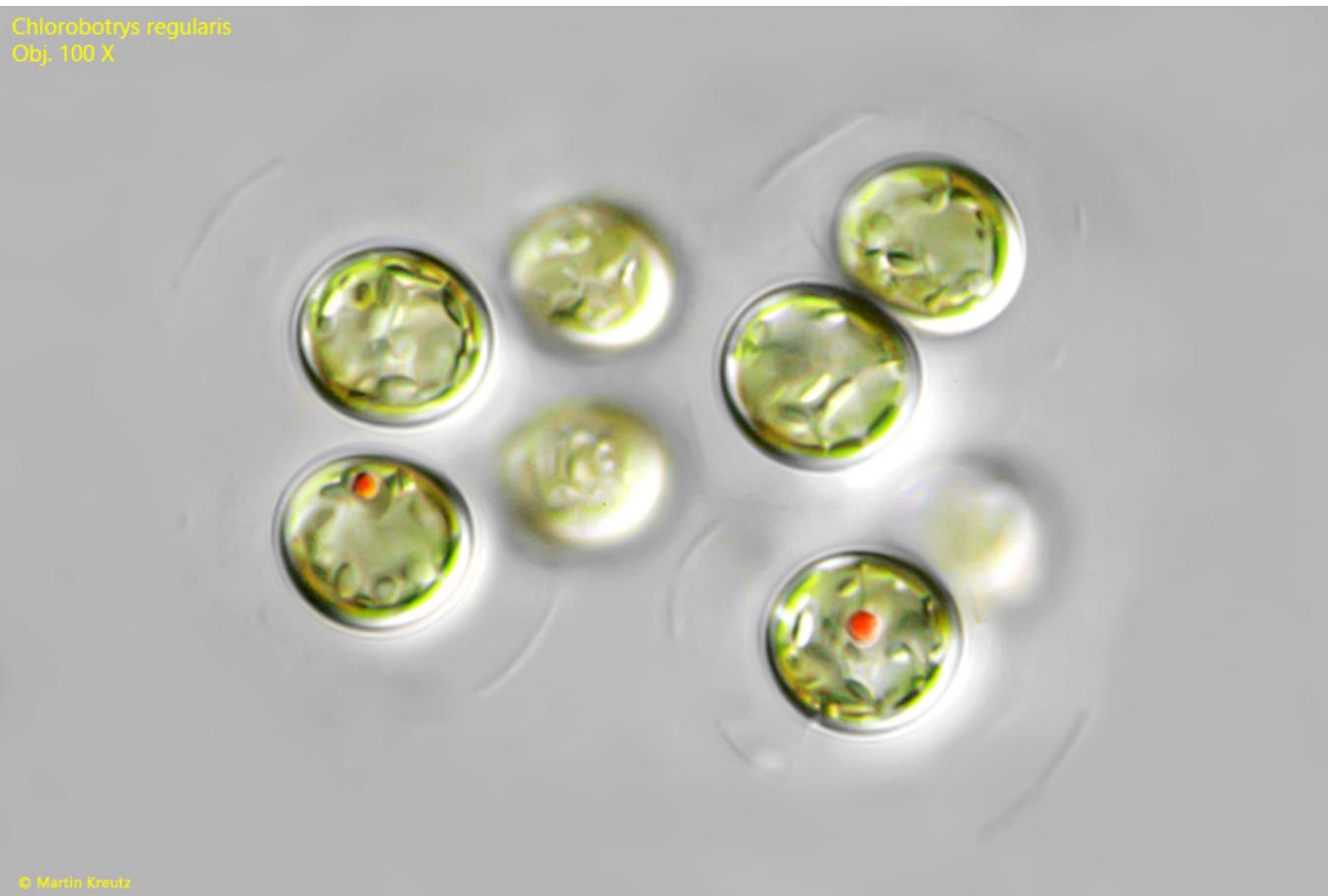
**Fig. 1:** *Chlorobotrys regularis.* D = 14–16 µm (of cells). A group of 8 cells. Obj. 100 X.
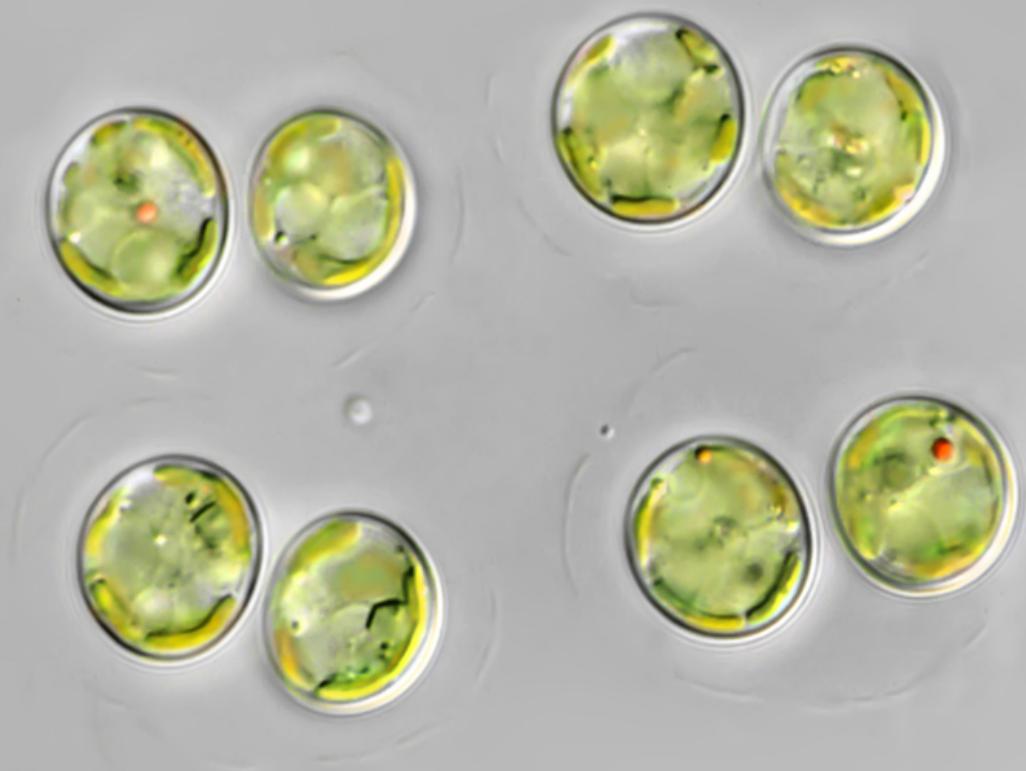
Fig. 2: *Chlorobotrys regularis.* D = 13–15 µm (of cells). A second group of 8 cells. Obj. 100 X.
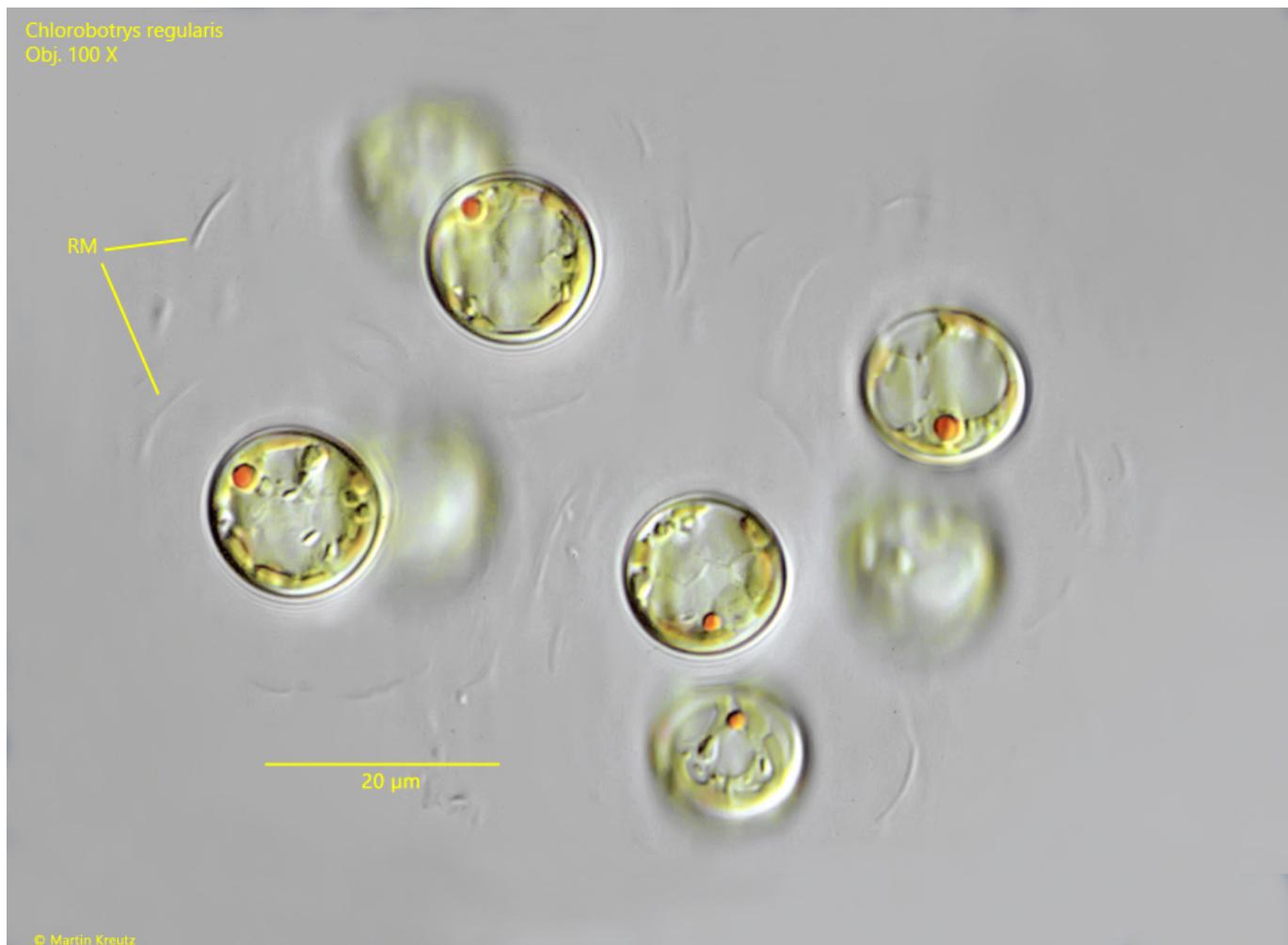
Fig. 3: *Chlorobotrys regularis.* D = 14–15 μm (of cells). A third group of 8 cells. RM = remains of mother cell. Obj. 100 X.
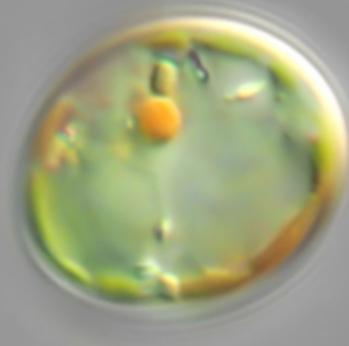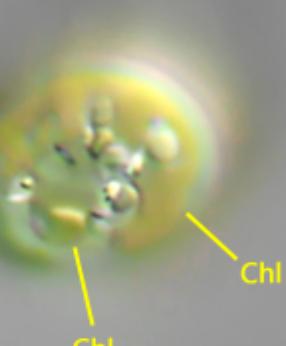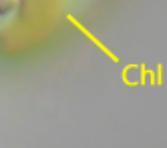
Fig. 4: *Chlorobotrys regularis.* D = 14–15 µm (of cells). Two focal planes of two young cells. Note the distinct, orange colored oil droplet (OD). Chl = parietal chloroplasts, CR = crystals. Obj. 100 X.