

Xanthidium cristatum* var. *papilliferum

Irénée-Marie, 1939

Most likely ID: n.a.

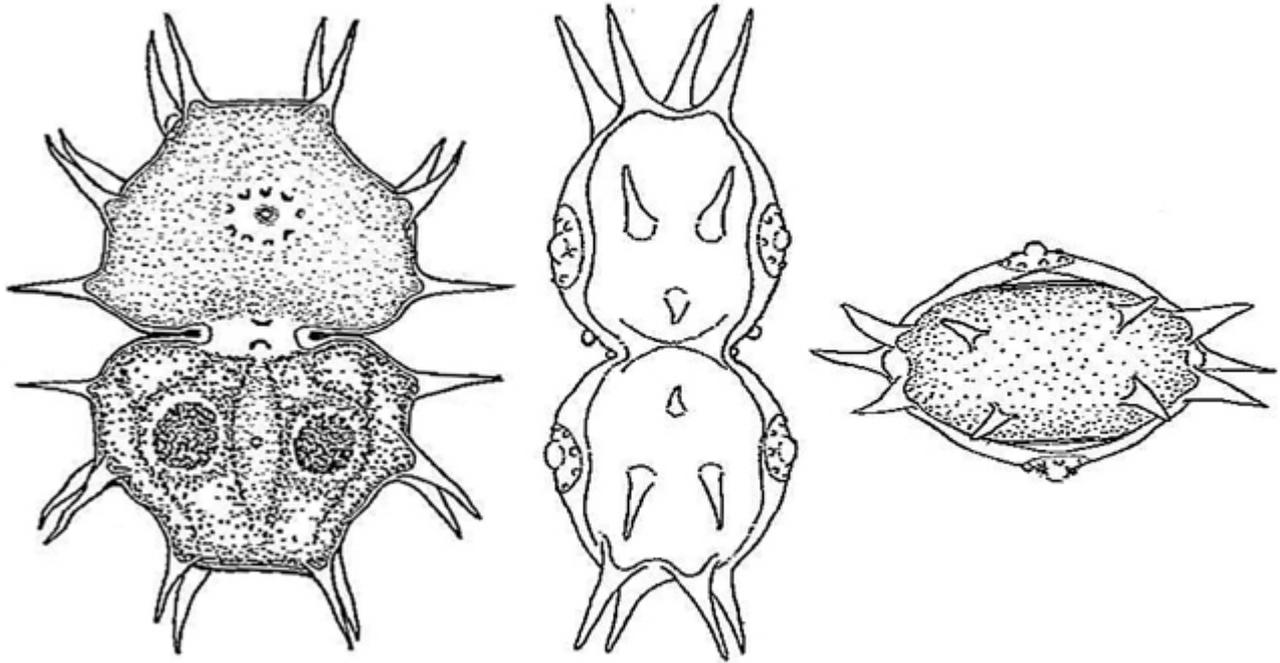
Synonym: n.a.

Sampling location: [Simmelried](#), [Paradieswiesen \(Austria\)](#)

Phylogenetic tree: [Xanthidium cristatum](#) var. [papilliferum](#)

Diagnosis:

- cells roughly octagonal
- semi-cells also octagonal with slightly convex sides and apex
- each semi-cells with 2 pairs of spines and 2 single spines
- length 45–55 μm (without spines)
- in center of semi-cells a wart surround by a ring of small warts
- on both sides of the isthmus a papilla
- one parietal chloroplast with two pyrenoids per semi-cell



after Lenzenweger

Xanthidium cristatum var. *papilliferum*

So far I have only found *Xanthidium cristatum* var. *papilliferum* in the [Simmelried](#) and in the [Paradieswiesen](#). However, it has not been found in the [Simmelried](#) since 1995 any more.

Xanthidium cristatum var. *papilliferum* stands out even at small magnifications due to its long spines and symmetrical shape. However, many subspecies have been described within the species *Xanthidium cristatum*. To determine the subspecies, the cells must be examined closely at high magnification. In the case of *Xanthidium cristatum* var. *papilliferum*, small papillae located to the left and right of the isthmus are important for identification (s. figs. 1 b and 2 b). There are therefore two papillae per semi-cell.

The cells from the population from the [Paradieswiesen](#) were about 70 µm long (without spines), about 25 % larger than indicated by Lenzenweger (1997). However, since all other characteristics correspond to the description of *Xanthidium cristatum* var. *papilliferum*, this is obviously within the usual variability of this species.

Xanthidium cristatum var. papilliferum
Obj. 100 X

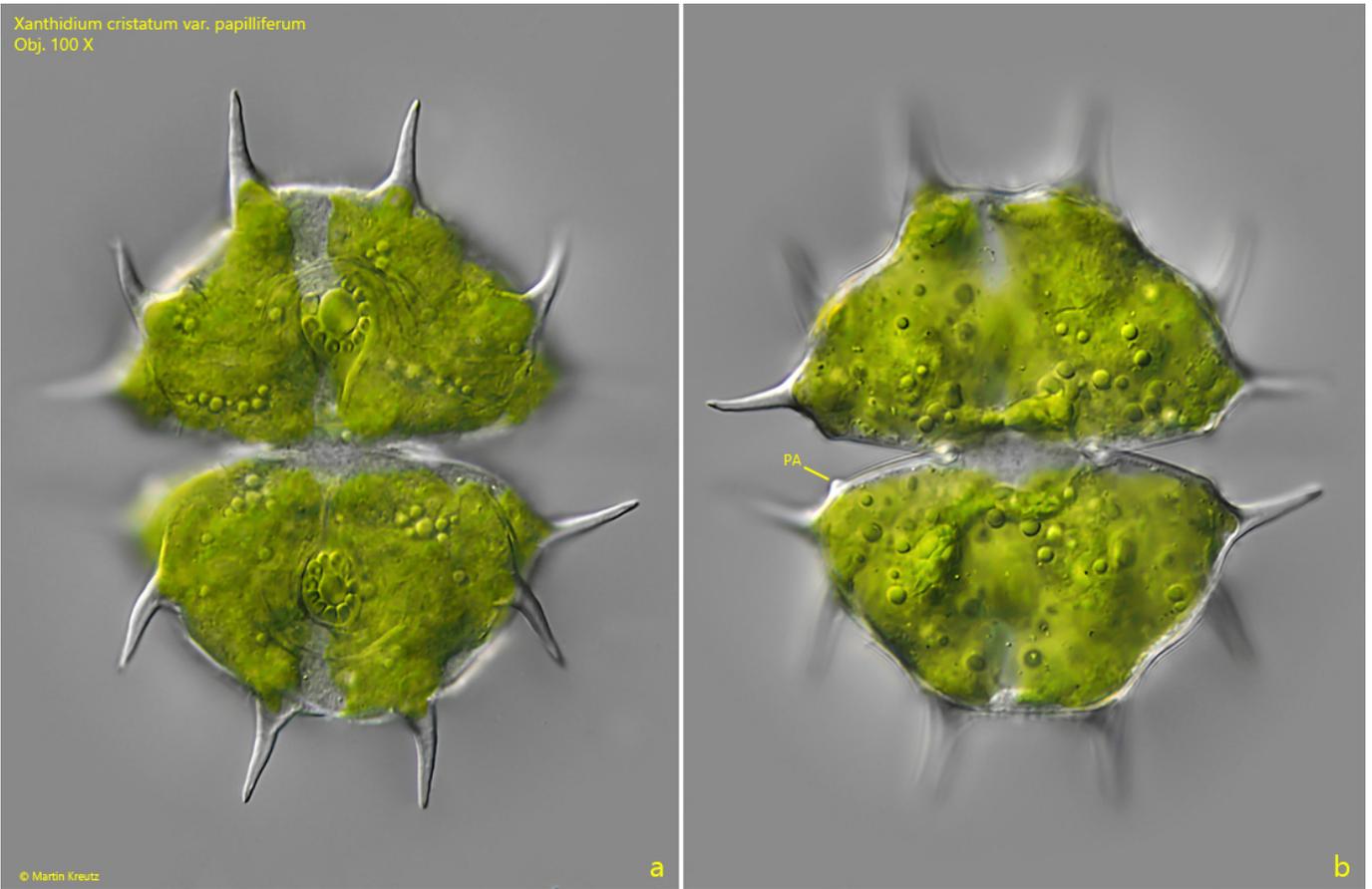


Fig. 1 a-b: *Xanthidium cristatum* var. *papilliferum*. L = 72 μm (without spines). Two focal planes of a slightly squashed specimen. Note the papilla (PA) in the sinus between the semi-cells. Obj. 100 X.

Xanthidium cristatum var. papilliferum
Obj. 100 X

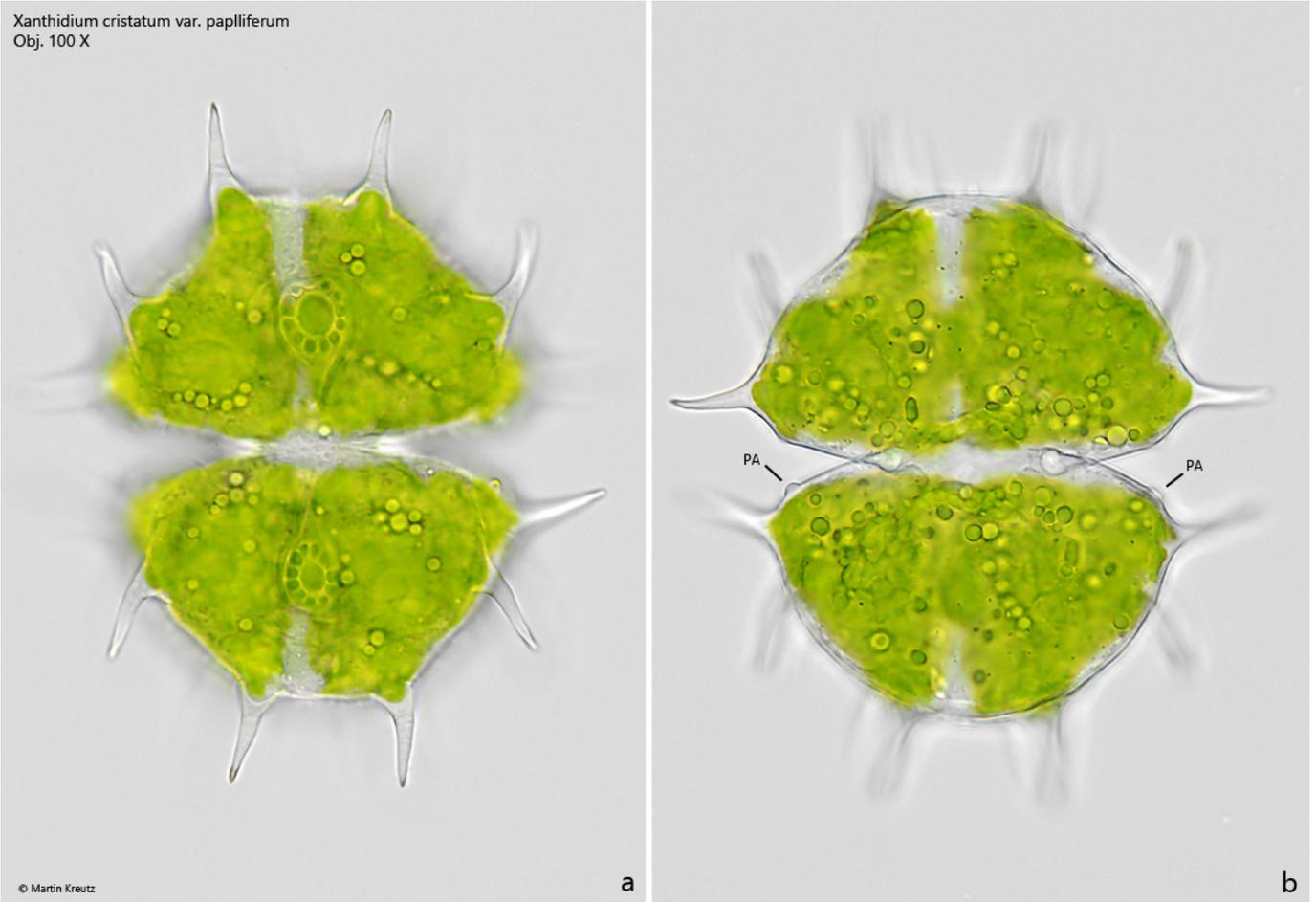


Fig. 2 a-b: *Xanthidium cristatum* var. *papilliferum*. L = 72 μ m (without spines). The same specimen as shown in fig. 1 a-b in brightfield illumination. PA = papillae on both sides of the isthmus. Obj. 100 X.