

Taxonomic and nomenclatural revision of an infraspecific taxon of *Micrasterias thomasiana* (Desmidiaceae, Zygnematophyceae)

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Micrasterias thomasiana W.Archer was proposed by Archer (1862: 239) from material collected from a large pool near the Old Gable, Featherbed Mountain, Dublin, Ireland. Currently, according to AlgaeBase (Guiry & Guiry 2024), *M. thomasiana* comprises 17 infraspecific taxa including varieties and taxonomic formae (including the nominal varieties and formae), some of them having, however, poorly defined taxonomic status requiring verification and review.

Micrasterias thomasiana [var. *ornata*] f. *africana* was described by Bourrelly (1961: 338) from material collected in Republic of Côte d'Ivoire, Africa. Bourrelly provided a Latin diagnosis and two figures but he did not designate the holotype from either (ICN Art. 40.1, Turland & al. 2018), so that this is an invalid designation.

The “f. *africana*” as proposed by Bourrelly (1961) is morphologically different from *Micrasterias thomasiana* var. *ornata* (F.E.Fritsch) Willi Krieger as described by Krieger (1939: 112). According to its description, *M. thomasiana* var. *ornata* f. *africana* has two additional appendages, oval wavy, and very distinct lobes as shown in figs. 1-2. Also, according to Bourrelly (1961), the “f. *africana*” resembles “*Micrasterias thomasiana* var. *evoluta* Willi Krieger” as described by Krieger (1932: 219), however, the latter taxon has a more definite ornamentation, the polar lobe is shorter and wider, and the lobes are closer together than in var. *ornata* f. *africana* (Figs. 1,3).

It is important to note that the real taxonomic value of the above three taxa should be investigated from the molecular and phylogenetic points of view, as well as other polyphasic approaches. However, at the present time, we consider that “*Micrasterias thomasiana* var. *ornata* f. *africana*” should be treated as the variety level, as a new name at a variety level of *Micrasterias thomasiana* with its formal description, measurements, illustration, and comments as provided by Bourrelly (1961).

Micrasterias thomasiana* var. *bourrellyi Bellissimo, C.B.Araújo & C.E.M.Bicudo, var. nov.

Replaced designation: “*Micrasterias thomasiana* [var. *ornata*] f. *africana* P.Bourrelly” *Bulletin de l'Institut Française d'Afrique Noire: sér. A, Science Naturelles* 23(2): 338, 358, pl. 16, figs. 4-5. 1961, nom. inval.

Description: This variety differs from var. *ornata* by having 2 additional appendages, wavy edges, and very distinct lobes. Cell 210 µm long, 250 µm wide, 60 µm apex wide.

Holotype: Bourrelly (1961: pl. 16, fig. 4), as “*Micrasterias thomasiana* var. *ornata* f. *africana* P.Bourrelly; ICN Art. 40.5, here reproduced as Fig. 1.

Type locality: Republic of Côte d'Ivoire, marshy savannah of Grand Bassam around Moossou, small shallow pools.

Registration: <http://phycobank.org/105095>

Etymology: Named in honour of Pierre Paul Charles Bourrelly (1910–1995), a prominent freshwater algal taxonomist at the Muséum National d'Histoire Naturelle, Paris.

Distribution: Republic of Côte d'Ivoire, Africa.

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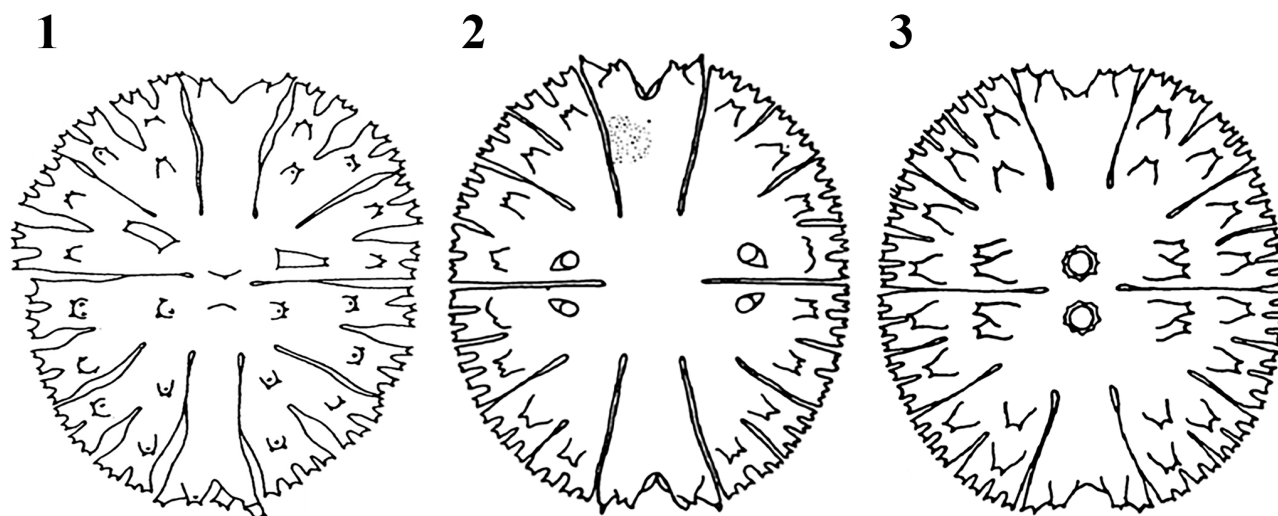


Fig. 1–3. Illustrations of infraspecific taxa (varieties) of *Micrasterias thomasiana* W.Archer. **Fig. 1.** Holotype of *Micrasterias thomasiana* var. *bourrellyi* nom. nov.: original illustration of “*Micrasterias thomasiana* [var. *ornata*] f. *africana* Bourrelly” in Bourrelly (1961: pl. 16, fig. 4). **Fig 2.** Original illustration of *Micrasterias thomasiana* var. *ornata* (Fritsch) Willi Krieger (Krieger 1939: pl. 141: fig. 1). **Fig 3.** Original illustration of *Micrasterias thomasiana* var. *evoluta* Willi Krieger (Krieger 1932: pl. 25: fig. 2).