
Nomenclatural notes on two chain-forming marine diatoms described by O.F. Müller

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In 1783, Otto Friedrich Müller described and figured two species of chain-forming diatoms from marine locations in Sweden and Denmark. Both of these taxa are beset by nomenclatural issues.

Conferva armillaris O.F.Müller (1783: 84, pl. III [3]: figs 6, 7) is clearly referable from Müller's figures 6 and 7 (fig. 1) to the taxon presently known as *Achnanthes longipes* C.Agardh, an illegitimate name as C. Agardh (1824: 1) included *Conferva armillaris* O.F.Müller in synonymy along with *Conferva stipitata* J.E.Smith (1813: pl. 2488) and *Diatoma vexilla* Jürgens (as 'vexillum') (Jürgens 1818: fasc. 6, fig. 6), *nom. illeg.*

Despite its nomenclatural illegitimacy, the binomial *Achnanthes longipes* is in wide usage. The following new combination will rectify this situation.

Achnanthes armillaris (O.F.Müller) Guiry, *comb. nov.*

Basionym: *Conferva armillaris* O.F.Müller *Kongliga Svenska-Vetenskaps Akademiens Handlingar*, ser. 2 4: 84, pl. III: figs. 6, 7, 1783.

Syntype localities: Denmark: Sjaelland; Sweden: Skåne

Lectotype (here designated): *Kongliga Svenska-Vetenskaps Akademiens Handlingar*, ser. 2 vol. 4: 84, pl. III [3]: fig. 6 (Fig. 1).

Etymology: *armilla* is a first-declension Latin noun meaning a bracelet (Brown 1956: 160) The suffix '-aris' is used to give the sense of belonging to, resembling, or provided with and is used to form adjectives from nouns (Stearn 1973: 388).

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Conferva moniliformis O.F.Müller (1783: 83, pl. III [3]: figs 1-5) is clearly referable from Müller's figures 1-5 (Fig. 1) to the taxon presently known as *Melosira moniliformis* widely cited as "*Melosira moniliformis* (O.F.Müller) C.Agardh." However, *Conferva moniliformis* O.F.Müller is an illegitimate name as was a later homonym of *Conferva moniliformis* Withering (1776: 750), who cited invalid pre-Linnaean phrase names from Ray and Dillenius in synonymy, but his name is valid and legitimate. Withering's name does not appear to have been applied to any modern taxon. This problem might be easily resolved by treating *Melosira moniliformis* C.Agardh as a new name in accordance with Art. 58.1 (Turland *et al.* 2018). Unfortunately, however, *Melosira moniliformis* C.Agardh is also illegitimate as it included *Conferva inflexa* Roth (1797: 203, pl. V [5]: fig. 5) described from the North Sea near Eckwarden in Germany, which appears to be the earliest available valid and legitimate name available.

Melosira inflexa (Roth) Guiry, *comb. nov.*

Basionym: *Conferva inflexa* Roth *Catalecta botanica* fasc. 1: 203, 1797.

Type locality: "*Ad mare septentrionale Ducatus Oldenburgici prope Eckwarden*" [Eckwarden, Germany, 53.60°N, 8.26°E].

Lectotype (here designated): *Catalecta botanica* fasc. 1, pl. V [5]: fig. 5, 1797.

Etymology: Latin participle; bent, curved, bowed.

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This taxon will require epitypification in accordance with Art. 9.9 (Turland *et al.* 2018) as Roth's illustration is poor; there is, however, an extensive description.

Otto Friedrich Müller (1730-1784), a Danish naturalist with wide-ranging interest in plants and animals, died the year after this paper was published. He should not to be confused with Otto

Müller (1838-1917) the German diatomist.

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Fig. 1 is on p. 3

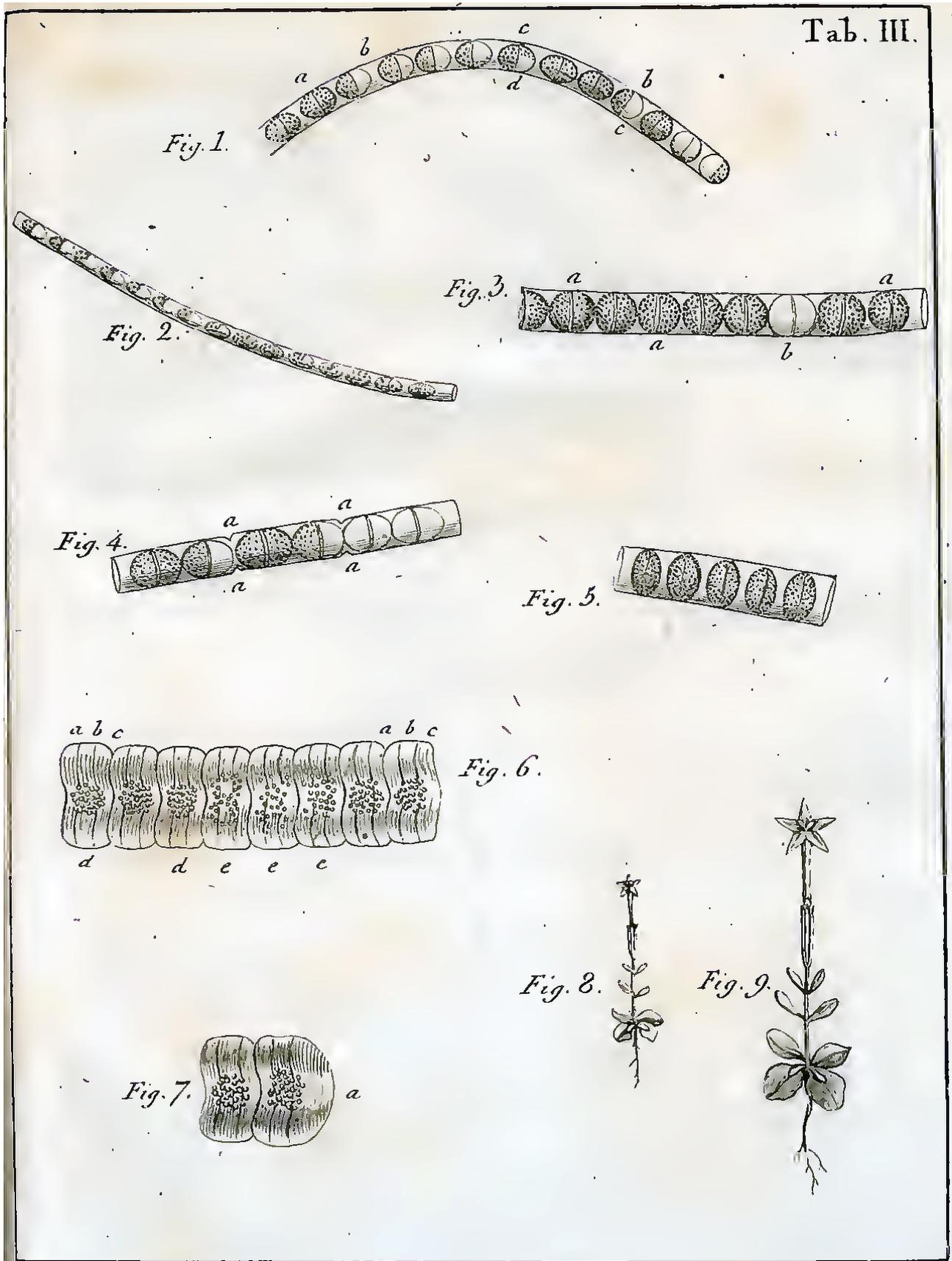


Fig. 1. Plate 3 (Tab. III) from O.F. Müller (1783) showing *Conferva moniliformis* O.F. Müller (figs 1-5) and *Conferva armillaris* O.F. Müller (figs 6, 7).