
Validation of the names *Asterionellopsis lenisilicea*, *A. maritima*, *A. gyunusae* and *A. thurstonii* (Raphoneidaceae, Bacillariophyta)

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It has come to our attention that four new species names introduced in Kaczmarska *et al.* (2014) are invalid under the current International Code of Nomenclature for algae, fungi and plants (ICN; McNeill *et al.* 2012). The illustrations for each of the new names required by the Article 44.2 appeared in the Supplementary Material for Kaczmarska *et al.* (2014), which is not effectively published under Art. 30 of the ICN. According to ICN Art. 44.2 “a name of a new taxon of nonfossil algae of specific or lower rank published on or after 1 January 1958 is not validly published unless it is accompanied by an illustration or figure showing the distinctive morphological features, or by a reference to a previously and effectively published such illustration or figure”.

Furthermore, Art. 30 Note 2 specifies that “the content in external sources accessed via a hyperlink or URL (Uniform Resource Locator) embedded in text is not part of the publication; nor is associated information that does not form part of the text itself, such as page numbers (if preliminary or lacking) or watermarks. Content is that which stands alone as the version that the publisher considers final”.

Accordingly, we here validate the names by providing appropriate images from the holotype preparations. The illustrations (in part) are the same as those included in the Supplementary Material for Kaczmarska *et al.* (2014), and are included here with the kind permission of *American Journal of Botany*.

1. *Asterionellopsis lenisilicea* Mather, sp. nov., Fig. 1.

Description: Kaczmarska *et al.*, *American Journal of Botany* 101: 277, 2014.

Holotype: DMF SEM stub 245-11 deposited at Botanischer Garten und Botanisches Museum, Berlin (BGBM) as preparation No. B 40 0041327 (Fig. 1).

Type locality: near the old fishing wharf, Maces Bay, New Brunswick, Canada.

2. *Asterionellopsis maritima* MuiSe, sp. nov., Fig. 2.

Description: Kaczmarska *et al.*, *American Journal of Botany* 101: 279, 2014.

Holotype: DMF SEM stub 245-14 deposited as BGBM preparation No. B 40 0041329 (Fig. 2).

Type locality: Bedford Basin, near port of Halifax, Nova Scotia, Canada.

3. *Asterionellopsis gyunusae* Luddington, sp. nov., Fig. 3.

Description: Kaczmarska *et al.*, *American Journal of Botany* 101: 280, 2014.

Holotype: DMF SEM stub 245-13 deposited as BGBM preparation No. B 40 0041332 (Fig. 3).

Type locality: Montevideo, Uruguay.

4. *Asterionellopsis thurstonii* Ehrman, sp. nov., Fig. 4.

Description: Kaczmarska *et al.* *American Journal of Botany* 101: 280, 2014.

Holotype: DMF SEM stub 245-7 deposited as BGBM preparation No. B 40 0041334 (Fig. 4).

Type locality: Black Sea, as indicated at NCMA.

Fig.1. *Asterionellopsis lenisilicea* Mather (B 40 0041327). One of the valves on the DMF SEM stub 245-11 deposited at BGBM.

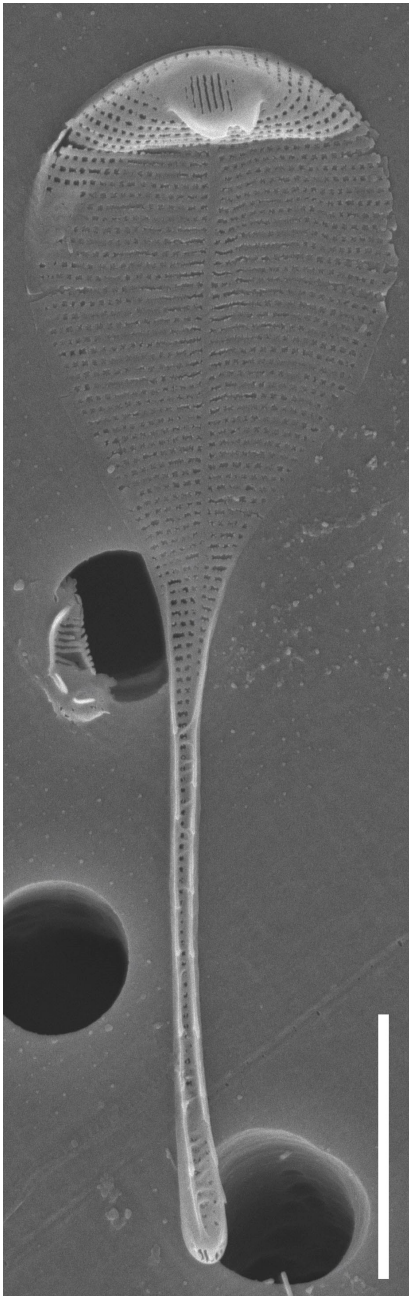


Fig. 2. *Asterionellopsis maritima* Muise (B 40 0041329). One of the valves on the DMF SEM stub 245-11 deposited at BGBM.

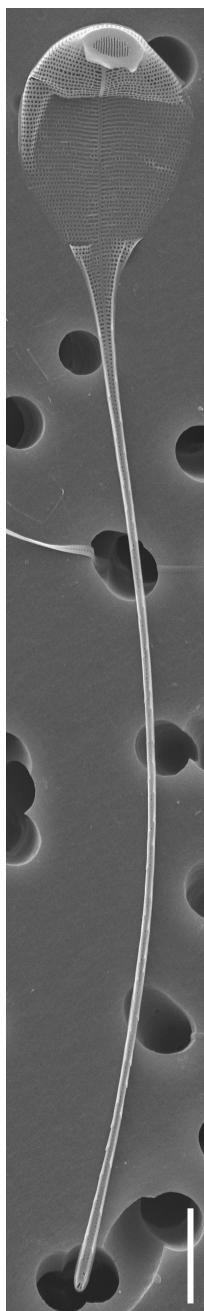


Fig. 3. *Asterionellopsis guyunusae* Luddington (B 40 0041332). One of the valves on the DMF SEM stub 245-11 deposited at BGBM.

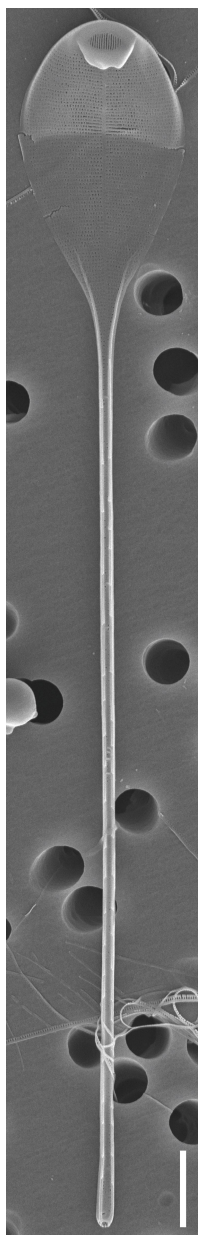
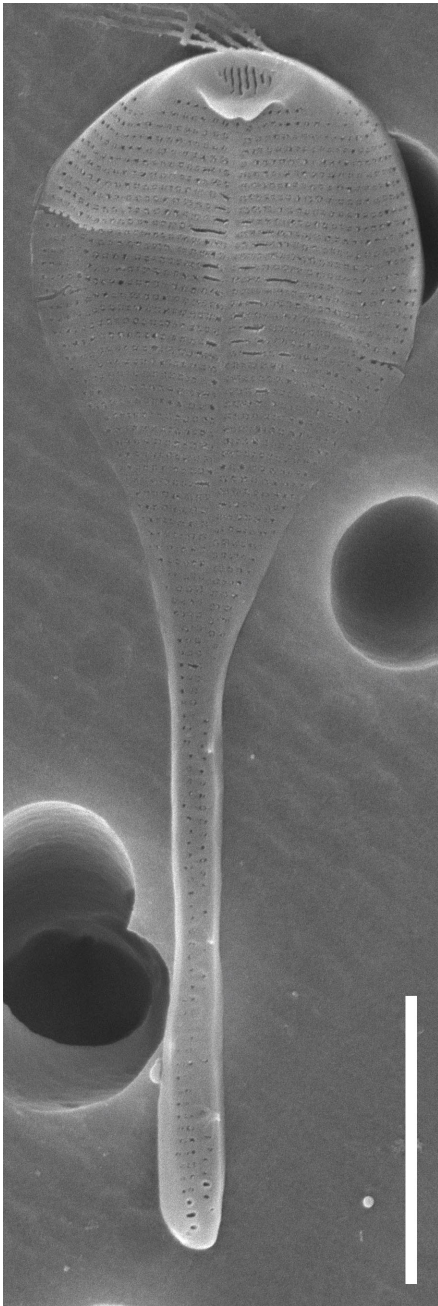


Fig. 4. *Asterionellopsis thurstonii* Ehrman (B 40 0041334). One of the valves on the DMF SEM stub 245-11 deposited at BGBM.



We are grateful to Dr. Michael Guiry (AlgaeBase) for drawing this matter to our attention.

References:

- Kaczmarska, I., Mather, L., Luddington, I.A., Muise, F. & Ehrman, J.M. (2014). Cryptic diversity in a cosmopolitan diatom known as *Asterionellopsis glacialis* (Fragilariceae): implications for ecology, biogeography, and taxonomy. *American Journal of Botany* 101: 267-286.
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