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## Nomenclatural corrections and clarifications for names of diatoms (Bacillariophyta) in two volumes of *Bibliotheca Diatomologica*

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In the two most recent volumes of *Bibliotheca Diatomologica* there were nomenclatural discrepancies relating to the publishing of homonyms or heterotypic or homotypic synonyms. The purpose of the present note is to rectify or clarify these nomenclatural matters.

In Volume 65 of *Bibliotheca Diatomologica* Liu *et al.* (2018) described 19 species new to science in the genus *Pinnularia*. Four of these names, however, are illegitimate later homonyms for other validly published names in the genus. We here propose the following new names to replace these illegitimate names.

***Pinnularia palidis*** Y.Liu, Kociolek & Q.X.Wang, *nom. nov.*

Replaced synonym: *Pinnularia elliptica* Y.Liu, Kociolek & Q.X.Wang 2018, *Bibliotheca Diatomologica* 65: 38, pl. 97: figs 1-15, *nom. illeg.*

*Non Pinnularia elliptica* Rabenhorst 1853, *Die Süßwasser-Diatomaceen (Bacillarien) für Freunde der Mikroskopie*: 42, pl. 6: fig. 23 a, b.

*Nec Pinnularia elliptica* Frenguelli 1942, *Revista del Museo de La Plata N.S. Secc. Bot.* 5(20): 146, pl. 3: fig. 27; Sar *et al.* 2009, *Diatom Monographs* Vol. 10: 339, fig. 27, *nom. illeg.*

*Nec Pinnularia elliptica* Lohman & G.W.Andrews 1968, *Geological Survey Professional Paper, Contributions to Paleontology* 593E: E19, pl. 2: figs 1, 2, *nom. illeg.*

Etymology: adjective, “of the bog”.

***Pinnularia shii*** Y.Liu, Kociolek & Q.X.Wang, *nom. nov.*

Replaced synonym: *Pinnularia parallela* Y.Liu, Kociolek & Q.X.Wang 2018, *Bibliotheca Diatomologica* 65: 31, pl. 49: figs 8-13, *nom. illeg.*

*Non Pinnularia parallela* Brun 1895, *Le Diatomiste* 2: pl. 14: fig. 7.

*Nec Pinnularia parallela* Pantocsek & Greguss in Greguss 1913, *Botanikai Közlemények* 5-6: 216, pl. 7: fig. 64, *nom. illeg.*

*Nec Pinnularia parallela* (Skvortzov) Skvortzov 2012, *Iconographia Diatomologica* 23: 788, figs 216, 217, *nom. illeg.*

Etymology: Named to honour the Chinese phycologist Dr Zhi Xin Shi (Institute of Hydrology, The Chinese Academy of Science, Wuhan, China), for his work on documenting algae, especially diatoms, from China.

***Pinnularia aquaedulcis*** Y.Liu, Kociolek & Q.X.Wang, *nom. nov.*

Replaced synonym: *Pinnularia submicrostauron* Y.Liu, Kociolek & Q.X.Wang 2018, *Bibliotheca Diatomologica* 65: 34, pl. 78: figs 1-5, *nom. illeg.*

*Non Pinnularia submicrostauron* S.Schroeter in Krammer 1992, *Bibliotheca Diatomologica* 26: 109, pl. 39, figs 16-25; Krammer 2000, *Diatoms of Europe* 1: 83, pl. 59: figs 17-24.

Etymology: adjective, occurring in freshwaters.

***Pinnularia paliobducta*** Y.Liu, Kociolek & Q.X.Wang, *nom. nov.*

Replaced synonym: *Pinnularia subsinistra* Y.Liu, Kociolek & Q.X.Wang 2018, *Bibliotheca Diatomologica* 65: 42, pl. 93: figs 1-13; pl. 94: figs 1, 2, *nom. illeg.*

*Non Pinnularia subsinistra* Van de Vijver, Chattová & Metzeltin in Van de Vijver *et al.* 2012, *Nova Hedwigia Beiheft* 141: 226, figs 210-216.

Etymology: adjective, “covering over the bog”; conjunction of the noun *palus* for bog, and *obductus*, adjective for covering.

In addition, there was a typographical error in the presentation of a new name. We are confirming the correct spelling of the name in accordance with ICN Art. 60 (Turland *et al.* 2018). That name was presented as “*Pinnularia ruquestris*” Y.Liu, Kociolek & Q.X.Wang 2018, *Bibliotheca Diatomologica* 65: 22, pl. 35: figs 1-5; pl. 36: figs 1-6 with the basionym listed as *Pinnularia aestuarii* var. “*ruquestris*” Skvortzow 1938 in Liu *et al.* 2018, *Bibliotheca Diatomologica* 65: 22. The correct spelling of both epithets is, of course, “*rupestris*” [rocky or rock-dwelling].

As *Pinnularia rupestris* is already occupied by the valid name *Pinnularia rupestris* Hantzsch (in Rabenhorst 1861, no. 1203; exsiccata label with a description in German), this name also requires replacement as follows:

***Pinnularia montium*** Y.Liu, Kociolek & Q.X.Wang, *nom. nov.*

Replaced synonym: *Pinnularia aestuarii* var. *rupestris* Skvortzov 1938, *Philippine Journal of Science*, Section C, 65(3): 274, pl. 1: figs 43, 47.

Synonym: *Pinnularia rupestris* Y.Liu, Kociolek & Q.X.Wang 2018, *Bibliotheca Diatomologica* 65: 22, pl. 35: figs 1-5; pl. 36: figs 1-6, *nom. illeg.*

Etymology: noun in apposition and non-declinable, “of the mountains.”

In early 2018, two papers, one by Rimet *et al.* (2018) in *Fottea* and the other by Stepanek & Kociolek (2018) in Volume 66 of *Bibliotheca Diatomologica*, made the same new combinations for two names in the genus *Halamphora*. According to the on-line version of the journal *Fottea*, the work by Rimet *et al.* was published on 31 March, 2018, but according to the publisher of *Bibliotheca Diatomologica*, volume 66 of *Bibliotheca Diatomologica* was published “in the beginning of May of this year [2018]”. We must therefore acknowledge that the nomenclatural acts of Rimet *et al.* (2018) have priority and must be accepted over those of Stepanek & Kociolek (2018) and the correct citations for these names are as follows:

*Halamphora semperpalorum* (Wachnicka & E.E.Gaiser) Rimet & R.Jahn in Rimet *et al.* 2018, *Fottea* 18(1): 47.

*Halamphora subtropica* (Wachnicka & E.E.Gaiser) Rimet & R.Jahn in Rimet *et al.* 2018, *Fottea* 18(1): 47.

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