The valid transfer of *Cyclotella bodanica* var. *intermedia* to *Lindavia* (Bacillariophyceae)

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The genus *Lindavia* (Schütt) De Toni & Forti (De Toni & Forti 1900: 553) was resurrected by Nakov *et al.* (2015) to accommodate a number of taxa previously placed in the genus *Cyclotella* (Kützing) Brébisson, *nom. et typ. cons.* (Brébisson 1838: 19) and the related genera *Pliocaenicus* Round & Håkansson (Round & Håkansson 1992: 116), *Handmannia* M. Peragallo in Handmann (Handmann 1913: 14), and *Puncticulata* Håkansson (Håkansson 2002: 21, 112). Support for recognizing the monophyletic genus *Lindavia* was based on valve characters associated with position of the rimoportulae (Nakov *et al.* 2015) and published molecular and morphological phylogenetic trees (Alverson *et al.* 2007). *Lindavia* specimens possess at least one rimoportula, and both internal and external openings of the rimoportulae are located on the valve face rather than on the valve face margin or mantle, a feature that is unique to the genus (Nakov *et al.* 2015).

Species of *Lindavia* frequently have a convoluted taxonomic history. An example that has recently come to our attention is *Lindavia intermedia* (Manguin) Nakov *et al.* nom. inval. (Nakov *et al.* 2015: 256). The earlier name upon which this taxon was based, *Cyclotella bodanica* var. *intermedia* Manguin (1961: 268), was invalidly introduced as a Latin description was not provided and a type was not designated. Kociolek and Reviers (1996) provided a Latin description and designated a type to validate the taxon as *Cyclotella bodanica* var. *intermedia* Manguin *ex* Kociolek & Reviers (1996: 176). However, two subsequent attempts to elevate this taxon to species rank — *Cyclotella intermedia* (Manguin) Houk *nom. inval. in* Houk *et al.* (2010: 34), and *Lindavia intermedia* (Manguin) Nakov *et al.* nom. inval. (Nakov *et al.* 2015: 256) — failed, because they did not provide a full and direct citation of the basionym by Kociolek & Reviers (1996) that validated the name (see ICN Art. 6.10, Art. 41.5). The recommended indication of the taxon’s new rank was also missing (Art. 32, Rec. 32.A.1) in the transfer proposed by Nakov *et al.* (2015). As such, a valid transfer to the genus *Lindavia* is necessary and is provided here in accordance with the ICN (McNeill *et al.* 2012; Art. 6.10, Art. 41.5, Art. 32, Rec. 32.A.1):


The genus *Lindavia* has generally gained acceptance within the phycological community (e.g., Mohan *et al.* 2016). Other researchers have offered alternative hypotheses limiting membership within the genus (Acs *et al.* 2016); however, the inclusion of *Lindavia intermedia* has not been questioned. Earlier works synonymized *Lindavia intermedia* with *Lindavia lemanensis* (Chodat) Nakov *et al.* (within the genus *Cyclotella*; Krammer and Lange-Bertalot 1991) or with *Lindavia bodanica* Eulenstein *ex* Grunow *in* Schneider (within the genus *Cyclotella*; Genkal *et al.* 2013). Other work recognises *Lindavia intermedia* as a separate species (Houk *et al.* 2010, Daniels 2012). *Lindavia intermedia* has received renewed attention in ecological studies, appearing relevant in paleolimnologic records from lakes in Montana (Spanbauer *et al.* 2016) and Alaska (Daniels...
unpublished), and having been identified as a potential nuisance-diatom in New Zealand water bodies (Saulnier-Talbot et al. 2016).

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