

The transfer of *Navicula cuspidata* var. *obtusa* to *Craticula* (Bacillariophyceae)

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The online diatom identification and ecological guide, *The Diatoms of the United States* (<http://westerndiatoms.colorado.edu>), provides taxonomic, nomenclatural, and ecological information on over 700 diatom species to date (Spaulding *et al.* 2010). In preparing species pages for the website, issues concerning identification, nomenclature and systematic position of taxa have arisen. The present note addresses one such issue, by clarifying the identification of *Navicula cuspidata* var. *obtusa* R.M.Patrick, *nom. illegit.* (in Patrick & Reimer 1966: 465) and proposing for it a new name and status within the genus *Craticula* Grunow (1867: 20).

Navicula cuspidata var. *obtusa* R.M.Patrick *nom. illegit.* was described from a single collection made near Radford Peak, Colorado, USA, and differentiated from the more common *Navicula cuspidata* (Kützing) Kützing (1844: 94) and its varieties based on size, fusiform shape, unprotracted rounded ends, and stria density. Unfortunately, Dr Patrick's name was illegitimate (McNeill *et al.* 2012; Art. 53.1) as it was a later homonym of *Navicula cuspidata* var. *obtusa* Grunow (1860: 529), a diatom earlier described from Austria.

The genus *Craticula* Grunow 1867 (T: *Craticula perrotettii* Grunow) was resurrected by Mann & Stickle (in Round *et al.* 1990) to accommodate *Navicula cuspidata*, *N. halophila* (Grunow) Cleve (1894: 109), *N. accomoda* Hustedt (1950: 446), and related species based on characteristically parallel striae comprising transversely and longitudinally aligned areolae. Most members of *Craticula* also produce three heteromorphic valve types that represent normal vegetative valves and two internal resting structures called "craticula" and "heribaudii" valves (see Kaczmarek *et al.* 2013).

We analyzed type material (Boyer A-6-15, **PH**) with light and scanning electron microscopy to study the morphology and ultrastructure of *Navicula cuspidata* var. *obtusa* R.M.Patrick. We provided full online documentation of its size range and morphological variability, and, significantly, we documented a larger size range for this entity, provided the first illustration of the heribaudii and craticula valves, and we showed that it unambiguously belongs in *Craticula* (see Edlund 2015, in prep.); we therefore propose its transfer with a new name and with species status:

Craticula coloradensis* Edlund, D.R.L.Burge & S.A.Spaulding *nom. et stat. nov.

Basionym: *Navicula cuspidata* var. *obtusa* R.M.Patrick *nom. illegit.*, in Patrick & Reimer *Diatoms of the United States*, p. 465, pl. 44: fig. 2, 1966; not *Navicula cuspidata* var. *obtusa* Grunow 1860: 529, no fig.

Etymology: the epithet *coloradensis* refers to the type locality.

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