

***Cosmarium dingleyi* nom. nov. Kenins and *Cosmarium pseudolundellii* nom. nov. Kenins (Desmidiaceae): two Australian desmid species derived from later homonyms.**

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Cosmarium Corda ex Ralfs, 1848 is a large genus of over a thousand species (Guiry 2013). With such a large inventory of names, it is not unexpected that homonymy within the genus has occurred. Presented here are two such cases concerning species from Australia.

The first instance is found in Dingley (2004), who reported desmid taxa from various localities across Australia that were either new to science or newly recorded to Australia or one of its states. The published article validly described *Cosmarium asperum* M.Dingley; however, the name had already been introduced by West (1894) as *Cosmarium asperum* West [“*Cosmarium scabrum* in litt. 1891” *auct. non* Turner fig. 21] from New Galloway, Kirkcudbright, Scotland. *Cosmarium asperum* West was later cited as the basionym and was therefore legitimately transferred as a variety of *Cosmarium nasutum* Nordstedt as *Cosmarium nasutum* var. *asperum* (West) West & G.S. West in Vol. 3 of the Wests' *Monograph of the British Desmidiaceae*, p. 261. Accordingly, *Cosmarium asperum* M.Dingley is illegitimate as it is a later homonym (McNeill *et al.* 2012: Arts 53.1 and 53.4).

The second is found in Coesel & Dingley (2005) where the authors reported noteworthy taxa from the tropical north of Australia. *Cosmarium porosum* Coesel & M.Dingley was validly described but the specific epithet was already in use for a species of *Cosmarium* described from Mt Albert Edward, Papua New Guinea by Gontcharov & Wantanbe (1999) as *Cosmarium porosum* A.A.Gontcharov & M.Wantanbe. Accordingly, *Cosmarium porosum* Coesel & M.Dingley (2005) is illegitimate as it is a later homonym of *Cosmarium porosum* Gontcharov & M.Wantanbe (McNeill *et al.* 2012: Arts 53.1 and 53.4)

The following are newly proposed names to legitimise both of these species, thus far only known to occur in Australia:

***Cosmarium dingleyi* Kenins** *nomen novum pro Cosmarium asperum* M.Dingley *nom. illeg.* [McNeill *et al.* 2012 Art. 53.1 & 53.4] in *Algological Studies* 112: pg. 36, pl. 4, fig. C. 2004, not *Cosmarium asperum* West in *Journal of the Royal Microscopical Society* 1894: pg. 8, pl. I, fig. 21a, b & c. 1894. The epithet honour Michael Dingley who has contributed several important works on the Australian desmid flora *viz.* Dingley (1995, 2001a, 2001b, 2002, 2003 & 2004) and Coesel & Dingley (2005).

***Cosmarium pseudolundellii* Kenins** *nomen novum pro Cosmarium porosum* Coesel & M.Dingley *nom. illeg.* [McNeill *et al.* 2012 Art. 53.1] in *Systematics and Geography of Plants* 75: 41, figs 12 & 13. 2005, not *Cosmarium porosum* A.A.Gontcharov & M.Wanatabe in *Bulletin of the National Science Museum, Tokyo, Series B (Botany)* 25: 12, pl. IV: figs 9, 10, 11; pl. VIII: fig. 12. 1999.

The specific epithet is based on Coesel & Dingley (2005) who considered this particular species to be previously recorded from Australia under the misapplied name of *Cosmarium lundellii* Deplonte by Borge (1911) and Scott & Prescott (1958) and as *Cosmarium lundellii* var. *corruptum* (W.B.Turner) West & G.S. West by Ling & Tyler (2000).

Borge, O. (1911). *Algologische Notizen*. 6-7. *Botaniska Notiser* 1911: 197-207.

Coesel, P.F.M. & Dingley, M. (2005). Taxonomic and biogeographical notes on North Australian desmids. *Systematics and Geography of Plants* 75: 35-50.

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- Dingley, M. (2001a). Desmids (Zygnemaphyceae) from North-West Queensland, Australia with a proposed new species; *Staurastrum multigranulosum* sp. nov. *Quekett Journal of Microscopy* 39: 15-21.
- Dingley, M. (2001b). Desmids of New South Wales: New species and new records. *Telopea* 9(3): 601-637.
- Dingley, M. (2002). Desmids (Chlorophyta) recorded from wet rocks in Australia. *Algological Studies* 105: 87-94.
- Dingley, M. (2003). Desmids (Chlorophyta) from two freshwater sites in Victoria with an emphasis on new records. *The Victorian Naturalist* 120: 116-120.
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- Gontcharov, A.A., Watanabe, M. & Watanabe, M.M. (1999). Contribution to the desmid flora of Papua New Guinea. *Bulletin of the National Science Museum, Tokyo, Series B (Botany)* 25: 7-42.
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- Ling, H.U. & Tyler, P.A. (2000). *Australian Freshwater Algae*. J. Cramer: Berlin/Stuttgart.
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- West, W. & West, G.S. (1908). *A monograph of the British Desmidiaceae. III*. pp. [i]-xv, [1]-274, pl. 65-95. London: The Ray Society
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