PROPOSALS TO CONSERVE OR REJECT NAMES

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(2175) Proposal to conserve the name *Moorea* Engene & al. (*Cyanophyceae*)

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(2175) ***Moorea*** Engene & al. in Int. J. Syst. Evol. Microbiol. 62: 1176. 2012, nom. cons. prop.
Typus: *Moorea producens* Engene & al.

The generic name *Moorea* Engene, Rottacker, Kaštovský, Byrum, Hyukjae Choi, Ellisman, Komárek & Gerwick has recently been proposed (l.c. 2012) to include two species of filamentous marine cyanobacteria, the new species *Moorea producens* Engene, Rottacker, Kaštovský, Byrum, Hyukjae Choi, Ellisman, Komárek & Gerwick being designated the generitype and a second species being the transfer of *Lyngbya bouillonii* L. Hoffm. & Demoulin (in Belg. J. Bot. 124: 85. 1991) to the new genus. According to the authors, cyanobacteria referable to the new genus have often been misidentified and incorrectly reported in the literature as *Lyngbya* C.A. Agardh ex Gomont, nom. cons. (in Ann. Sci. Nat. Bot., ser. 7, 16: 95, 118. 1892), more specifically, *L. majuscula* Harv. ex Gomont (l.c.: 131). Earlier, Engene & al. (in J. Phycol. 46: 591. 2010; in Environm. Microbiol. 13: 1601. 2011) had demonstrated that *Lyngbya* was a genetically heterogeneous assemblage of species in regard to its 16S rRNA organization and its production of metabolites. *Moorea* was characterized by its very rich production of bioactive secondary metabolites and was also distinguished by the abundant presence of polyketide synthase and non-ribosomal peptide synthetase biosynthetic genes. These secondary metabolites are often associated with harmful algal blooms. The two species are benthic, occurring as mats loosely attached to seaweeds and seagrasses as well as on sandy and rocky substrates (Osborne & al. in Environm. Int. 27: 381. 2001). The mis-identified *Lyngbya majuscula* (now *Moorea producens*) is commonly reported in tropical and subtropical waters (Dittmann & al. in F. E. M. S. Microbiol. Rev. 37: 23. 2013). Exposure to these compounds has resulted in a range of biological effects, including dermatitis and eye and respiratory irritation (Osborne & al., l.c.).

The new generic name has been quickly accepted in the literature (Akey & al. in Nat. Prod. Rep. 29: 1038. 2012; O'Neil & al. in Harmful Algae 14: 313. 2012; Dittmann & al. l.c.; Shaala & al. in Phytochem. Lett. 6: 183. 2013). The problem is that this generic name is a later homonym and hence illegitimate. The name *Moorea* was first validly published by Lemaire (in Ill. Hort. 2: 14–15. 1855) for a genus of *Poaceae* and later published independently by Rolfe (in Gard. Chron., ser. 3, 8: 7. 1890) for a genus of *Orchidaceae*. [Lemaire's *Moorea* commemorated David Moore and Rolfe's his son, Frederic William Moore, both of whom were curators of the Glasnevin Botanic Garden, near Dublin, Ireland.] The name *Cortaderia* Stapf (in Gard. Chron., ser. 3, 22: 378. 1897) is conserved against *Moorea* Lem. (l.c.), both names being based on *Gynerium argenteum* Nees (≡ *C. selloana* (Schult. & Schult. f.) Asch. & Graebn.), whereas Rolfe (in Orchid Rev. 12: 30. 1905) replaced his illegitimate later homonym with *Neomoorea*.

Engene & al. (l.c. 2012) stated that they followed the provisions of the *International Code of Botanical Nomenclature*. In light of the fact that the previous publications of the name *Moorea* are not available for use, *Moorea* Lem. being rejected in favour of the homotypic *Cortaderia* and *Moorea* Rolfe being illegitimate and replaced by *Neomoorea* Rolfe, it seems reasonable to propose the conservation of the name *Moorea* Engene & al. (l.c. 2012) commemorating the distinguished natural products chemist, Professor Richard E. Moore (1933–2007) who worked extensively on cyanobacteria. As has been pointed out, the name *Moorea* of Engene & al. has quickly become used in the literature on cyanobacterial toxins despite the relatively recent introduction of this generic name to apply to this group of *Cyanobacteria* that was distinguished from *Lyngbya* s.str. on molecular grounds. It is desirable to encourage stability of nomenclature, and this proposal for conservation of *Moorea* Engene & al. would be a step in that direction. The alternative would be to propose a replacement name, and such a proposal would not move in the direction of nomenclatural stability.

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