Validation of the designation Aliinostoc bakau Merican & al. (Nodulariaceae, Cyanobacteria)

Faradina Merican¹, Nur Afiqah Abdul Rahim¹, Paul Broady², Peter Convey³ & Narongrit Muangmai⁴

¹School of Biological Sciences, Universiti Sains Malaysia, Minden, Penang, Malaysia (correspondence: <u>faradina@usm.my</u>)

²School of Biological Sciences, University of Canterbury, Christchurch, New Zealand

³British Antarctic Survey, NERC, High Cross, Madingley Road, Cambridge

⁴Department of Fishery Biology, Faculty of Fisheries, Kasetsart University, Chatuchak, Bangkok

Merican & al. (2023: 5, pl. 2: figs 1A–1E) described and illustrated a new species of the genus *Aliinostoc* Bagchi & al. (2017), thus adding knowledge on the biodiversity of this genus from an estuarine habitat in a mangrove at Pulau Betung, Penang, Malaysia.

This designation was not validly published in accordance with the International Code of Nomenclature (ICN, Turland & al. 2018). The designated type was a culture, but it was not stated if it was deposited in a metabolically inactive state as required by Art. 40.8. "For the name of a new species or infraspecific taxon published on or after 1 January 2019 of which the type is a culture, the protologue must include a statement that the culture is preserved in a metabolically inactive state." Additionally, two sites of deposition were designated for the "holotype".

Aliinostoc bakau Merican, Rahim, Broady, Convey & Muangmai, sp. nov.

Replaced designation: "*Aliinostoc bakau*" In, Merican & al. *Diversity* 16(1): 5, pl. 2: figs 1A–1E, 2023, *nom. inval.*

Description and illustrations: Merican & al. (2023: 5, pl. 2: figs 1A-1E).

Holotype: Strain USMNA, collected by M. Faradina & A.R. Nur Afiqah. Material in a metabolically inactive state is preserved at the School of Biological Sciences Herbarium, Universiti Sains Malaysia, Malaysia,

Isotype: similarly preserved material at the Faculty of Fisheries, Kasetsart University, Thailand. Type locality: Malaysia: Penang, 5°18'23.3" N, 100°1202.4" E. A microbial mat sample was

collected from a rotting tree trunk in the intertidal zone of an estuarine mangrove area in Kampung Pulau Betung, Penang.

Phycobank registration: http://phycobank.org/104267

- Etymology: the epithet "*bakau*" is derived from a Malay word for a mangrove, referring to the origin of the strain from the mangrove environment. It is a noun in apposition and thus non-declinable.
- Bagchi, S.N., Dubey, N. & Singh, P. (2017). Phylogenetically distant clade of *Nostoc*-like taxa with the description of *Aliinostoc* gen. nov. and *Aliinostoc morphoplasticum* sp. nov. *International Journal of Systematic and Evolutionary Microbiology* 67(9): 3329-3338, 4 fig., 2 tables.
- Merican F., Abdul Rahim, N.A., Zaki, S., Siti Azizah, M.N., Broady, P., Convey, P., Lim, B. & Muangmai, N. (2023) *Aliinostoc bakau* sp. nov. (Cyanobacteria, Nostocaceae), a new microcystin producer from mangroves in Malaysia. *Diversity*. 2024; 16(1): 1-16. Published: 27 December 2023.
- Turland, N.J., Wiersema, J.H., Barrie, F.R., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Kusber, W.-H., Li, D.-Z., Marhold, K., May, T.W., McNeill, J., Monro, A.M., Prado,

J., Price, M.J. & Smith, G.F., editors (2018). *International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code)* adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile*, Vol. 159. pp. [i]–xxxviii, 1–253. Glashütten: Koeltz Botanical Books.