Transfer of *Porphyra katadae* var. *hemiphylla* C.K.Tseng & T.J.Chang to *Neopyropia* J.Brodie & L.-E.Yang (*Bangiales, Rhodophyta*)

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Porphyra katadae A.Miura was described by Miura (1968) (as *Porphyra 'katadai'*), based on thalli collected from Japan. Sutherland & al. (2011) transferred this species to the genus *Pyropia* J.Agardh, and subsequently Yang & al. (2020) transferred it to the genus *Neopyropia* J.Brodie & L.-E.Yang. An infraspecific taxon of the species, *Porphyra katadae* var. *hemiphylla* C.K.Tseng & T.J.Chang was described by Tseng & Chang (1978) based on thalli collected from China (as '*Porphyra katadai* var. *hemiphylla'*). This variety has not been formally transferred to either the genus *Pyropia* or to the genus *Neopyropia*.

Tamaki & al. (2019) conducted a molecular phylogenetic analysis of samples of *Neopyropia katadae* collected from 11 localities in Japan comparing these with the sequence data of *Porphyra katadae* var. *hemiphylla* from Qingdao, China (the type locality), and revealed that this variety was distributed in Japan. *Neopyropia katadae* var. *katadae* and *P. katadae* var. *hemiphylla* were able to be clearly distinguished by the molecular phylogenetic tree based on the sequence data of nrSSU and *rbcL* genes, and *N. katadae* var. *katadae* and *P. katadae* var. *hemiphylla* differed by only 11–12 of 1804 base pairs of the nrSSU gene sequenced (0.60–0.66%) and 7–8 of 1467 base pairs of *rbcL* gene (0.47–0.54%) (Tamaki & al. 2019). This level of divergence is considered to reflect intraspecific variation within taxa of the Bangiales (Lindstrom & Fredericq 2003, Lindstrom 2008, Nelson & Broom 2010, Kucera & Saunders 2012, Mols-Mortensen & al. 2012, Vergés & al. 2013, Guillemin & al. 2016). Therefore, *P. katadae* var. *hemiphylla* clearly belongs to the genus *Neopyropia* consistent with *N. katadae* var. *katadae*.

Neopyropia katadae var. hemiphylla (C.K.Tseng & T.J.Chang) N.Kikuchi & Tamaki, comb. nov. Basionym: Porphyra katadae var. hemiphylla C.K.Tseng & T.J.Chang, Oceanologia et Limnologia Sinica 9: 78, 1978.

Holotype: **MBMCAS** 56-1080, Institute of Oceanology, Chinese Academy of Sciences (Yang & al. 2017)

Note: The holotype was numbered 'AST 56-1080' in Tseng & Chang (1978); however, the herbarium code 'AST' is used for the herbarium of University of Aston, Birmingham, England. The correct acronym is **MBMCAS** (see Index Herbariorum: <u>http://sweetgum.nybg.org/science/ih/</u>)

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