The transfer of *Erythroglossum hyacinthinum* J.C.Kang & M.S.Kim to *Pseudopolyneura* (Delesseriaceae, Rhodophyta)

Michael J. Wynne, *University of Michigan Herbarium, Ann Arbor, Michigan 48108, U.S.A.*

Pseudopolyneura was established as a new genus by Nam & Kang (2012) and separated from other genera in the tribe Phycodryeae (subfamily Phycodryoideae) by the following combination of characteristics: growth by means of a single transversely dividing apical cell, the presence of a distinct midrib, blades monostromatic except midribs and veins, procarps with two carpogonial branches and a single sterile-cell group, cystocarps with basal fusion cell and carposporangia in chains, and tetrasporangial sori being produced in monostromatic regions between veins near blade margins or in lateral proliferations. Nam & Kang (2012) regarded their new genus as coming closest to *Polyneura* but differing from that genus because of the presence of a midrib and of transverse intercalary cell divisions in the first- and second-order cell rows.

Two species were assigned to the new genus, *Pseudopolyneura koreana* K.W.Nam & P.J.Kang, which was designated the generitype, and *Ps. japonica* (Yamada) K.W.Nam & P.J.Kang, with the basionym *Heteronema japonica* Yamada (1930). In the past, the latter species had also been assigned to *Nienburgia* by Kylin (1935) and to *Polyneura* by Mikami (1973). The range of *Pseudopolyneura japonica* includes Japan (Segawa, 1960; Chihara, 1975; Yoshida, 1998), and Korea (Nam & Kang, 2012).

Some two years after the publication of Nam & P.J.Kang's (2012) monographic treatment of Korean Delesseriaceae, J.C.Kang & Kim (2014) described a new species of *Erythroglossum* from Korea, namely, *E. hyacinthinum* J.C.Kang & M.S.Kim with a type locality of Chujado, Jeju Province, Korea (35º58'04.28"N, 126º17'08.64"E). The authors employed both morphological and molecular evidence to recognize their new species. Kang & Kim (2014) were apparently unaware of the earlier Nam & Kang (2012) publication, so they continued to recognize *Polyneura japonica* and not to include it in *Pseudopolyneura*. Their maximum likelihood tree, based on plastid-encoded *rbc*L sequence data, showed new species *Erythroglossum hyacinthinum* to fall out in a clade much more related to *Polyneura japonica* [now *Pseudopolyneura japonica*] (with a divergence of only 1.8-2.0%) than to the clade of other *Erythroglossum* species analyzed (with a divergence of 2.7-3.3%). According to Kang & Kim (2014), their molecular results showed *Polyneura japonica* to be more closely related to the genus *Erythroglossum* (especially with *E. hyacinthinum*) than to *Polyneura*. In terms of its discoid holdfast, the cylindrical stipe, di- trichotomous branching, presence of midrib and lateral veins, and blade margins with fine teeth, their *Erythroglossum hyacinthinum* was more similar to *Polyneura japonica* than other species of *Erythroglossum*. The cited morphological features correspond to those listed by Nam & Kang (2012) for their new genus *Pseudopolyneura*. Clearly, all the morphological evidence as well as the gene-sequence data as provided by Kang & Kim (2014) provide convincing evidence that *Erythroglossum hyacinthinum* should be placed in the genus *Pseudopolyneura*, and that transfer is herein effected:

***Pseudopolyneura hyacinthina* (J.C.Kang & M.S.Kim) M.J.Wynne, comb. nov.**
Basionym: *Erythroglossum hyacinthinum* J.C.Kang & M.S.Kim, *Algae* 29(1): 3, figs 1-2, 2014.

Chihara, M. (1975). *Kaiso: Gakken Chukosei Zukan-Kaiso.* [*Marine algae: illustrated compendium for study by middle & high school students*.] pp. 290. Tokyo: Gakken Co., Ltd. [In Japanese.]

Kang, J.C. & Kim, M.S. (2014). New red algal species, *Erythroglossum hyacinthinum* (Delesseriaceae, Rhodophyta) from Korea. *Algae. An International Journal of Algal Research* 29(1): 1-13.

Kylin, H. (1935). Zur Nomenklatur einiger Delesseriaceen. *Kungliga Fysiografiska Sällskapets i Lund Förhandlingar* 5(2/3): 230-234.

Mikami, H. (1973). On the systematic position of *Nienburgia japonica* (Yamada) Kylin. *Bulletin of the Japanese Society of Phycology* 21(2): 60-64.

Nam, K.W. & Kang, P.J. (2012). *Algal flora of Korea. Volume 4, Number 7 Rhodophyta: Florideophyceae: Ceramiales: Delesseriaceae: 22 genera including Acrosorium*. pp. [1-4], 1-129, figs 1-98. Incheon: National Institute of Biological Resources.

Segawa, S. (1960). *Coloured illustrations of the seaweeds of Japan.* Revised edition. pp. [i]-xviii, 1-175, pls 1-72. Osaka: Hoikusha Publishing Co. Ltd. [In Japanese.]

Yamada, Y. (1930). Notes on some Japanese algae, I. *Journal of the Faculty of Science, Hokkaido Imperial University* 1: 27-36, 2 figs, plates II-VI.

Yoshida, T. (1998). *Marine algae of Japan*. pp. [1-2], 1-25, 1-1222. Tokyo: Uchida Rokakuho Publishing Co., Ltd. [In Japanese.]