

## Pyropia santacruzensis, nom. nov. for Porphyrella californica Hollenberg (Bangiaceae, Rhodophyta)

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*Porphyrella californica* Hollenberg was described from near Lady's Harbour, Santa Cruz Island, one of the Channel Islands off the coast of southern California where material was collected from rocks, limpets, and colonial hydrozoans in the midlittoral zone (Hollenberg 1945). This was the second described species of the genus *Porphyrella* G.M.Smith & Hollenberg (Smith & Hollenberg 1943), the generitype of which is *Porphyrella gardneri* G.M.Smith & Hollenberg.

Initially referred to *Porphyra* C.Agardh as *P. gardneri* (G.M.Smith & Hollenberg) M.W.Hawkes on morphological grounds in a comprehensive study by Hawkes (1981: 463), *Porphyrella gardneri* G.M.Smith & Hollenberg was transferred to *Pyropia gardneri* (G.M.Smith & Hollenberg) S.C.Lindstrom by Lindstrom in Sunderland & al. (2011) based on morphological and genesequencing data. *Porphyrella*, however, was subsequently reinstated by Yan & al. (2020) along with the introduction of four further new genera of *Bangiaceae*.

The justification for the "splitting" of these *Bangiaceae* genera by Yan & al. (2020) was subsequently disputed by Zuccarello & al. (2022) who strongly argued for the retention of *Pyropia sensu* Sutherland & al. (2022) to include *Neoporphyra* J.Brodie & L.-E.Yang (in Yang & al. 2020); *Neopyropia* J.Brodie & L.-E. Yang (in Yang & al. 2020), *Phycocalidia* Santiañez & M.J.Wynne 2020 [= *Calidia* E.Y.Yang & J.Brodie *nom. illeg.* in Yang & al. 2020], *Porphyrella* G.M.Smith & Hollenberg, 1943, and *Uedaea* J.Brodie & L.-E.Yang (in Yang & al. 2020). Zuccarello & al. (2022: 205) stated that these "... generic nomenclatural changes of the previously strongly supported genus *Pyropia*, do not shed light on the evolution of this group and have serious consequences in these commercially important algae, that are also governed by a plethora of regulation and by-laws that now need to be amended. We suggest that the over-splitting of groups based only on poorly produced and modestly supported phylogenies should not be accepted and that the genus *Pyropia sensu* Sutherland et al. (2011) be restored."

As the type of *Porphyrella* G.M.Smith & Hollenberg has again been included in *Pyropia* J.Agardh, the second species of the genus is presently "orphaned", thus a combination within *Pyropia* is required.

## Pyropia santacruzensis Guiry, nom. nov.

Replaced name: *Porphyrella californica* Hollenberg, *American Journal of Botany* 32: 450, 1945 Description: Hollenberg (1945: 450, no fig.).

Type locality: "near Lady's Harbour (34.05625, -119.78811), Santa Cruz Island off the coast of southern California" (Hollenberg (1945: 450).

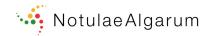
Holotype: Hollenberg 1353, April 19, 1936 (Fig. 1, US). Slides 10371-10378 at US also form part of the original material

PhycoBank Registration: <a href="http://phycobank.org/103760">http://phycobank.org/103760</a>

Etymology: Named for Santa Cruz Island, the largest of the Channel Islands, off the coast of southern California.

Distribution: Santa Cruz Islands (Hollenberg 1945), La Laguna (Abbott & Hollenberg 1976) and San Diego (Stewart 1991). Seemingly confined to southern California.

Note: The use of "*Pyropia californica*" for *Porphyrella californica* Hollenberg is not nomenclaturally permissible because of the existence of the valid name, *Pyropia californica* 



J.Agardh (1899: 149), currently referred to *Pyropia nereocystis* (C.L.Anderson) S.C.Lindstrom by Lindstrom (in Sutherland & al. 2011). Similarly, "*Pyropia hollenbergii*" is not a possible name because of the prior existence of *Pyropia hollenbergii* (E.Y.Dawson) J.E.Sutherland, L.E.Aguilar Rosas & R.Aguilar Rosas (in Sutherland & al. 2011).

Many thanks to Dr David Ballantine who kindly located the type in US.

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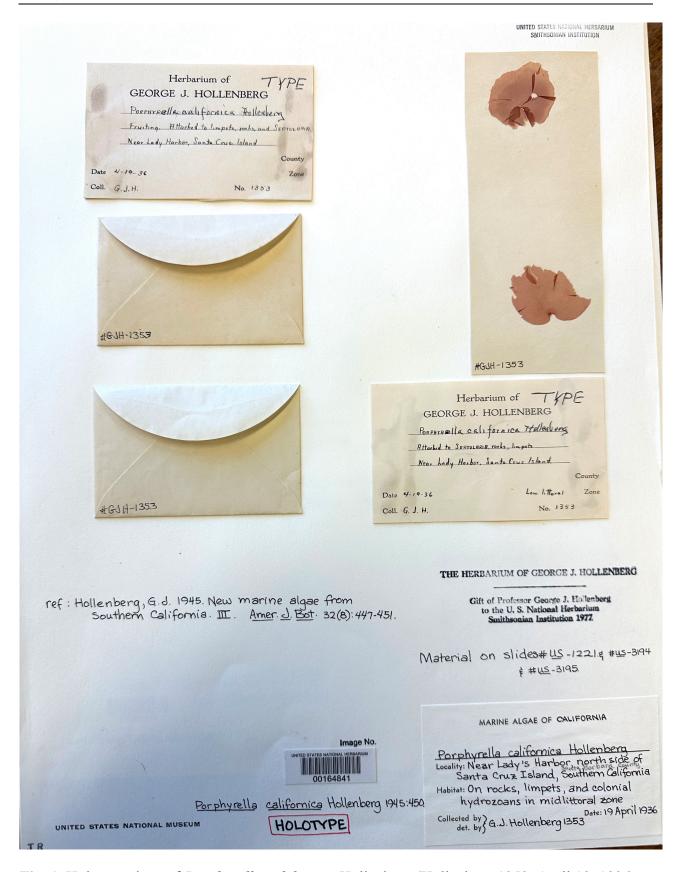


Fig. 1. Holotype sheet of *Porphyrella californica* Hollenberg (Hollenberg 1353, April 19, 1936; US)