

Epitypification of *Spongites corallioides* P.Crouan & H.Crouan and transfer to *Boreolithothamnion corallioides* (P.Crouan & H.Crouan) V.Peña & P.W.Gabrielson, comb. nov. (*Hapalidiales*, *Florideophyceae*)

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Chamberlain & Irvine (1994: 177) designated a specimen in **BM** as the neotype of *Spongites corallioides* P.Crouan & H.Crouan. The specimen selected, No. 242 in the exsiccata *Algues marines du Finistère* (Crouan & Crouan 1852), was subsequently accessioned as **BM** 000530511.

Hernández-Kantún & al. (2015) were unable to amplify any DNA material from the neotype, but nuclear encoded 18S rDNA sequence was obtained (GenBank accession # JQ896261, as well as a plastid encoded *psbA* sequence (GenBank accession # JQ896234) from a topotype specimen of *Lithothamnion corallioides* (P.Crouan & H.Crouan) P.Crouan & H.Crouan (**GALW** 15750, now at **DBN**) from Rade de Brest, Finistère, France, which was morpho-anatomically identical to the neotype specimen. Both the 18S rDNA and the *psbA* trees in Hernandez-Kantun & al. (2015, figs 1 and 2, respectively) show that *L. corallioides* belongs in a clade with the generitype of the recently proposed genus *Boreolithothamnion* (Gabrielson & al. 2023), *B. glaciale* (Kjellman)

P.W.Gabrielson, Maneveldt, Hughey & V.Peña (as *Lithothamnion glaciale* Kjellman). The following new combination is therefore required.

***Boreolithothamnion corallioides* (P.Crouan & H.Crouan) V.Peña & P.W.Gabrielson, comb. nov.**

Basionym: *Spongites corallioides* P.Crouan & H.Crouan, *Algues marines du Finistère*, no. 242 (exsiccata), 1852.

Synonyms: *Lithothamnion corallioides* (P.Crouan & H.Crouan) P.Crouan & H.Crouan, 1867.

Mesophyllum corallioides (P.Crouan & H.Crouan) Me.Lemoine, 1974, *nom. inval.* [Full and direct reference to the place of publication of the basionym lacking.]

Registration (of name): <http://phycobank.org/105559>

Epitype (**designated here** for the neotype **BM** 000530511): **DBN** (**GALW** 15750, Rade de Brest, Finistère, France; leg. Jacques Grall & Jazmin Hernández-Kantún, n.d.)

Registration (of epitype designation): <http://phycobank.org/105561>

Note: The herbarium label for *Algues marines du Finistère* No. 242 did not include a description other than ecological and usage information. The name was validated by reference to the invalid pre-Linnaean polynomial “*Corallium pumilum album fere lapideum ramosus*, Ellis” (Ellis 1756: 91, pl. XXVII [27]: fig. C. Ellis’s original material has not been found (Chamberlain & Irvine (1994: 182).

Chamberlain, Y.M. & Irvine, L.M. (1994). Melobesioideae Bizzozero. In: *Seaweeds of the British Isles. Volume 1. Rhodophyta Part 2B Corallinales, Hildenbrandiales*. (Irvine, L.M. & Chamberlain, Y.M. Eds), pp. 159-234. London: HMSO.

Crouan, P.L. & Crouan, H.M. (1852). *Algues marines du Finistère*. Vol. 1-3 pp. Premier volume, Fucóïdes: 1 Apr 1852 (signed on p. [8]), p. [1]–[12], 1–112 specimens with detailed labels, [vii, index]. Deuxième volume, Floridées: 1852, p. [1]–[12], 113–322, id., [iv-xi, index]. Troisième volume, Zoospermées: 1852, p. [1]–[8], 323–4. Brest: chez Crouans frères, pharmaciens.

- Crouan, P.L. & Crouan, H.M. (1867). *Florule du Finistère* contenant les descriptions de 360 espèces nouvelles de sporogames, de nombreuses observations et une synonymie des plantes cellulaires et vasculaires qui croissent spontanément dans ce département, accompagnées de trente-deux planches où est représentée l'organographie, faite sur l'état vif, des fruits et des tissus de 198 genres d'algues avec la plante grandeur naturelle ou réduite plus une planche supplémentaire où sont figures 24 champignons nouveaux. pp. [i]-x, [1]-262, frontisp., pi. 1-31, + 1 suppl. pl., coloured liths. by H. Crouan. Paris & Brest: Friedrich Klincksieck & J.B. et A. Lefournier.
- Ellis, J. (1756). *Essai sur l'histoire naturelle des corallines*, et d'autres productions marines du même genre, qu'on trouve communément sur les cotes de la Grande-Bretagne et d'Irlande; auquel on a joint une description d'un grand polype de mer, pris auprès du Pole arctique, par des pêcheurs de Baleine, pendant l'été de 1753. pp. [i]-xvi, [i]-125, frontispiece, pl. 1-39. Gravenhage: La Haye; Pierre de Hondt.
- Gabrielson, P.W., Maneveldt, G.W., Hughey, J.R. and Peña, V. (2023). Taxonomic contributions to Hapalidiales (Corallinophycidae, Rhodophyta): *Boreolithothamnion* gen. nov., *Lithothamnion* redefined and with three new species and *Roseolithon* with new combinations. *Journal of Phycology* 59: 751-774.
- Hernández-Kantún J.J., Riosmena-Rodriguez, R., Hall-Spencer, J., Peña V., Maggs, C. & Rindi, F. (2015). Phylogenetic analysis of rhodolith formation in the Corallinales (Rhodophyta). *European Journal of Phycology* 50: 46-61.
- Lemoine, M. (1974). Contribution à l'étude du genre *Lithoporella* (Corallinacées). *Revue Algologique, Nouvelle Serie* 11: 42-57, 2 plates.
- Thiers B. 2025. (continuously updated) Index Herbariorum: A global directory of public herbaria and associated staff. World-wide electronic publication, New York Botanical Garden's Virtual Herbarium. <http://sweetgum.nybg.org/ih/>: searched on 15 February 2025.
- 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.