
Validation of some invalid names for green algae introduced by P.J.L. Dangeard

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Wynne & Furnari (2014: 515) found that some of the names for genera introduced by P.J.L. Dangeard after 1 January 1958 were invalid in that types were not designated for the type species of these genera as required by ICN Art. 40.1 (Melbourne Code McNeill *et al.* 2012). The authors provided a solution for some genera but not for others.

Two genera of coccoid green algae introduced by Dangeard (1965), *Halochlorococcum* and *Halochloris*, are invalid as the type species were invalid because no types were designated as required by ICN Art. 40.1. Because the genus names are invalid all species subsequently included in these genera are also invalid.

I propose to rectify this as follows, at the same time retaining the original author(s)' names.

HALOCHLOROCOCCUM P.J.L.Dangeard ex Guiry, *gen. nov.* (*Oltmannsiellopsidaceae*)

“*Halochlorococcum*” P.J.L.Dangeard, *Botaniste* **48**: 66, 1965.

Diagnosis (Latin): Dangeard *Botaniste* **48**: 66, 1965.

T: ***Halochlorococcum marinum*** P.J.L.Dangeard ex Guiry, *sp. nov.*

“*Halochlorococcum marinum*” P.J.L.Dangeard, *Botaniste* **48**: 66, 1965.

Holotype (here designated): illustrations in Dangeard (1965, pl. I: figs 1-14).

Type locality: uncertain, but cultures are said by the author to have been obtained from Gatteville [Manche], Saint-Vast [Manche], Guéthary [Pyénées-Atlantiques] and Capbreton [*sic*, Nouvelle Aquitaine], all localities are Atlantic France.

Further type material may be in **BORD** (Bordeaux Botanical); but see Wynne & Furnari (2014: 51).

Halochlorococcum dilatatum Kornmann & Sahling ex Guiry, *sp. nov.*

“*Halochlorococcum dilatatum* Kornmann & Sahling” *Helgoländer Meeresuntersuchungen* **36**: 42, fig. 23, 1983, *nom. inval.*

Description (Latin): Kornmann & Sahling (1983: 42).

Holotype (here designated): fig. 23 in Kornmann & Sahling (1983); also selected by the authors.

Type locality: Helgoland, Germany, ‘*habitant lapides et testas Molluscorum...*’.

Halochlorococcum moorei (N.L.Gardner) Kornmann & Sahling ex Guiry, *comb. nov.*

Basionym: *Chlorochytrium moorei* N.L.Gardner, *University of California Publications in Botany* **6**: 382, 1917.

Type: distributed as *Phycotheca Boreali-Americana* No. 565, ‘*Chlorocystis Cohnii* (Wright) Reinh.’. Lectotype may have been designated in **UC**.

Type locality: Lynn, Massachusetts, USA.

Halochlorococcum operculatum Kornmann & Sahling ex Guiry, *sp. nov.*

“*Halochlorococcum operculatum* Kornmann & Sahling” *Helgoländer Meeresuntersuchungen* **36**: 40, fig. 22, 1983, *nom. inval.*

Description (Latin): Kornmann & Sahling (1983: 40).

Holotype (here designated): fig. 22 in Kornmann & Sahling (1983), also selected by the authors.

Type locality: Helgoland, Germany, ‘*cultura isolate de testa Ostrea edulis*’.

Halochlorococcum porphyrae (Setchell & N.L.Gardner) J.A.West ex Guiry, *comb. nov.*

Basionym: *Chlorochytrium porphyrae* Setchell & N.L.Gardner in N.L.Gardner *University of California Publications in Botany* 6: 379, pl. 32: fig. 6, 1917.

Description: N.L.Gardner *University of California Publications in Botany* 6: 379

Holotype: UC 205703.

Type locality: Land's End, San Francisco, California, USA.

Halochlorococcum saccatum Guillard, H.C.Bold & MacEntee ex Guiry, *sp. nov.*

“*Halochlorococcum saccatum*” Guillard, H.C.Bold & MacEntee *Phycologia* 14: 19, 21, figs 9-16, 26, 1975, *nom. inval.*

Description: 19 (English), 21 (Latin), Guillard, Bold & MacEntee, *Phycologia* 14, 1975.

Holotype (here designated): F, barcode C0172551F, deposited by the authors.

Type locality: Pinellas Point, Tampa Bay, Florida, USA.

Halochlorococcum tenue Kornmann & Sahling ex Guiry *sp. nov.*

“*Halochlorococcum tenuis* [sic]” Kornmann & Sahling, *Helgoländer Meeresuntersuchungen* 36: 39, fig. 21, 1983, *nom. inval.*

Description (Latin): Kornmann & Sahling, *Helgoländer Meeresuntersuchungen* 36: 39.

Holotype (here designated): fig. 21 in Kornmann & Sahling (1983), also selected by the authors.

Type locality: Soulac-sur-Mer, Gironde, Nouvelle-Aquitaine, France; UTEX [culture no.] 1490, currently listed as *Halochlorococcum marinum*.

HALOCHLORIS P.J.L.Dangeard ex Guiry, *gen nov.* (*Chlorococcaceae*)

Genus “*Halochloris*” P.J.L.Dangeard, *Botaniste* 48: 68, 1965.

Diagnosis (Latin): Dangeard *Botaniste* 48: 68, 1965.

T: ***Halochloris marina*** P.J.L.Dangeard ex Guiry, *sp. nov.*

“*Halochloris marina*” P.J.L.Dangeard, *Botaniste* 48: 68, 1965.

Diagnosis (Latin): Dangeard *Botaniste* 48: 68, 1965.

Holotype (here designated): illustrations in Dangeard (1965, pl. I: figs 15-25).

Further type material may be in **BORD** (Bordeaux Botanical); see Wynne & Furnari (2014: 516), although the original description was from cultures.

It is likely that these simple green algae will end up in diverse genera and families.

My thanks to Dr Michael J. Wynne for his insightful comments.

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Gardner, N.L. (1917). New Pacific coast marine algae I. *University of California Publications in Botany* 6: 377-416, pls 31-35.

Guillard, R.R.L., Bold, H.C. & MacEntee, F.J. (1975). Four new unicellular chlorophycean algae from mixohaline habitats. *Phycologia* 14: 13-24, 26 figs, 3 tables.

Kornmann, P. & Sahling, P.-H. (1983). Meeresalgen von Helgoland: Ergänzung. *Helgoländer Meeresuntersuchungen* 36: 1-65, 38 figs.

McNeill, J., Barrie, F.R., Buck, W.R., Demoulin, V., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Prado, J., Prud'homme van Reine, W.F., Smith, G.F., Wiersema, J.H. & Turland, N.J. (2012). *International Code of Nomenclature for algae, fungi and plants (Melbourne Code)* adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011. *Regnum Vegetabile*, Vol. 154. pp. [i]-xxx, 1-208. Königstein: Koeltz Scientific Books.

Wynne, M.J. & Furnari, G. (2014). A census of P.J.L. Dangeard's invalid taxa with proposals to resolve the nomenclatural problems of some of them. *Nova Hedwigia* 98(3-4): 515-527.