

The genus *Gracilariocolax* Weber Bosse and other “parasites” (*Gracilariaceae*, *Rhodophyta*)

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The parasitic genus *Gracilariocolax* Weber Bosse (1928: 393) was described for a single supposedly parasitic species, *Gracilariocolax henriettae* Weber Bosse (1928: 394, figs 144–147), occurring on *Gracilaria radicans* Hauck (1886: 165), an illegitimate later homonym of *Gracilaria radicans* (Bory) Montagne, replaced by Paul Silva in Silva, Basson & Moe (1996: 171) as *Gracilaria hauckii* P.C.Silva. The type material was from “Nusa Kembangan, côte méridionale de Java, leg. Mme Becker-La Rivière”, an island in Indonesia. Weber-van Bosse (1928: 294–5, figs 144–147) described in detail the cystocarps and spermatangia of *Gracilariocolax henriettae* and these are identical to those of *Gracilaria* as currently circumscribed. Since the original description, four additional species of the genus have been added and a single variety of one species.

It should be noted that the parasitic nature of all *Gracilariaceae* “parasites” with a structure and reproduction congruent with that of the family remains to be established; the relationship with the host probably tends towards commensalism in that such “parasites” often have chloroplasts. They are also very variable in form, and further study may reduce the number of described taxa.

The type of the further supposedly parasitic genus *Gracilariophila* Setchell & H.L.Wilson, 1910 is *Gracilariophila oryzoides* Setchell & H.L.Wilson, which was included in *Gracilariopsis* E.Y.Dawson as *Gracilariopsis oryzoides* (Setchell & H.L.Wilson) Gurgel, J.N.Norris & Fredericq by Gurgel & al. (2018: 12), remarking, “We recognize that *Gracilariophila* is congeneric with *Gracilariopsis*, and for now proposed [*sic*] its inclusion in that genus recognizing that further molecular data are needed to test their relationship and taxonomic status.” But they failed to appreciate that the name *Gracilariophila* has nomenclatural priority over *Gracilariopsis*. Wynne (2019) proposed conservation of the name *Gracilariopsis* over *Gracilariophila*, which awaits ratification by the XXth International Botanical Congress in Madrid this month.

Lyra & al. (2021) concluded from phylogenetic and other evidence that only four genera should be recognised in the family *Gracilariaceae*: *Curdiea* Harvey, *Gracilaria* Greville, *Gracilariopsis* E.Y.Dawson and *Melanthalia* Montagne, and *Gracilariocolax* Weber Bosse was included in the synonymy of *Gracilaria* Greville along with another supposedly parasitic genera *Congracilaria* Yamamoto, 1986, following Yamamoto (1986). However, combinations in the genus *Gracilaria* do not exist for the species and varieties of *Gracilariocolax*. We agree with Gurgel & al. (2018: 12) that “...further molecular data are needed to test their relationship and taxonomic status” of parasites on *Gracilaria*, and it may be that all *Gracilariaceae* parasites are referable to a single genus. We propose here to make appropriate combinations for *Gracilariocolax* and the species of *Gracilariophila* described by Weber-van Bosse.

Gracilaria henriettae* (Weber Bosse) *comb. nov.

Basionym: *Gracilariocolax henriettae* Weber Bosse, *Siboga-Expeditie Monographie* 59d: 394, figs 144–147, 1928.

Note: A “parasite” on *Gracilaria hauckii* P.C.Silva.

Gracilaria deformans* (Weber Bosse) *comb. nov.

Basionym: *Gracilariophila deformans* Weber Bosse, *Siboga-Expeditie Monographie* 59d: 442, fig. 179.

Synonym: *Gracilariocolax deformans* (Weber Bosse) Gerung & Yamamoto (2002: 211)

Note: A “parasite” on *Gracilaria salicornia* (C.Agardh) E.Y.Dawson [as *Coralloopsis salicornia* (C.Agardh) Greville].

Gracilaria infidelis (Weber Bosse) *comb. nov.*

Gracilariophila gardneri var. *infidelis* Weber Bosse, *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening i København* 81: 143, figs. 35, 36.

Synonym: *Gracilariocolax infidelis* (Weber van Bosse) Gerung & Yamamoto (2002: 212).

Note: A “parasite” on *Gracilaria salicornia* (C.Agardh) E.Y.Dawson [as *Coralloopsis salicornia* (C.Agardh) Greville].

Gracilaria setchellii (Weber Bosse) Lyra & Guiry *comb. nov.*

Basionym: *Gracilariophila setchellii* Weber Bosse *Siboga-Expeditie Monographie* 59d: 443, figs. 182, 183.

Synonyms: *Gracilariocolax setchellii* (Weber Bosse) Gerung & Yamamoto (2002: 212).

Gracilariophila setchellii var. *aggregata* Weber Bosse (1928: 444, figs. 184, 185).

Gracilariocolax setchellii var. *aggregatus* (Weber Bosse) Gerung & Yamamoto (2002: 212).

Note: Both synonyms “parasitic” on *Gracilaria salicornia* (C.Agardh) E.Y.Dawson (as *Coralloopsis salicornia* (C.Agardh) Greville).

Gracilaria sibogae (Weber Bosse) Lyra & Guiry *comb. nov.*

Basionym: *Gracilariophila sibogae* Weber Bosse *Siboga-Expeditie Monographie* 59d: 443, figs. 180–181.

Synonym: *Gracilariocolax sibogae* (Weber Bosse) Gerung & Yamamoto (2002: 212).

Note: A “parasite” on *Gracilaria arcuata* Zanardini.

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