Checklist of the marine algae of the Netherlands

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Summary

A list of the multicellular marine algae found along the coast of the Netherlands is given, the first complete update on the "Flora van de Nederlandse Zeewieren" (Stegenga & Mol 1983). The number of recognized species has increased from 267 to 327. Of these, 229 are autochthonous, the remainder is only known from drift material [Chlorophyta: 76 autochthonous + 1 drift; Phaeophyta: 73 + 22; Rhodophyta: 80 + 75].

Additions to the flora appear to originate from neighbouring countries as well as from the North Pacific.

One new combination is made: *Colaconema dasyae* (Collins) Stegenga, Mol, Prud'homme et Lokhorst, *nov. comb.* [Basionym: *Acrochaetium dasyae* Collins, Rhodora 8: 191 (1906)].

Introduction: Recent changes in the Netherlands' marine environment

Two major areas along the Dutch coast are suitable for macroalgal growth; the interjacent "beach district" of Noord- and Zuid-Holland provinces (as well as the Frisian Wadden Islands) has little to offer in the way of benthic algae, except for the occasional harbour piers and breakwaters.

In the North, the Waddenzee is an extensive tidal area mainly characterised by saltmarsh, mudflats and sandbars, but except in the extreme West, with little hard substrate in the intertidal and subtidal.

In the South, the "Delta-area" has almost completely been remolded as a result of the measures taken after the great flood of 1953. As a consequence, there has been a compartmentalization of the area, producing sea arms and lakes with vast differences in tidal regime, salinity and degree of eutrophication. This variety of habitats appears to have produced a somewhat higher overall diversity in the algal flora than was previously known.

The main divisions are (see map of Fig. 1):

- Grevelingen: A stagnant saline lake; a high salinity, often as much as 30 ‰ is maintained by regularly exchanging water through sluices on the North Sea side of the lake.
- Oosterschelde: A tidal sea arm; special precautions have been taken to prevent large amounts of fresh water from flowing through this basin – the salinity is up to 34 ‰. The storm-surge barrier has slightly reduced the tidal amplitude, causing reduced current velocities and generally clearer water.
- Veerse Meer: A stagnant brackish water lake, eutrophicated by agricultural runoff. Salinity fluctuates between ca. 13 and 17 ‰. So far, a regime has been main-

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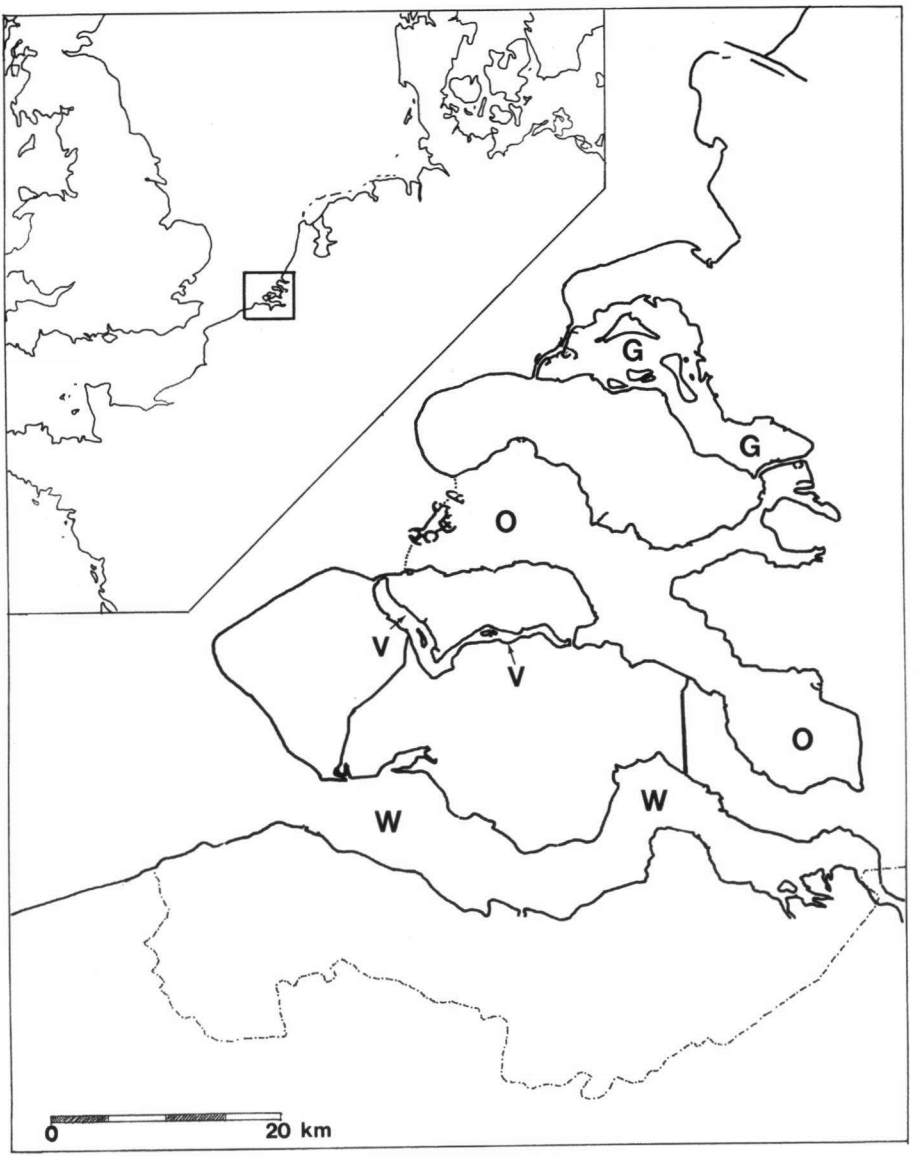

Fig. 1. Present configuration of the coastal area of the S.W. Netherlands (the inset showing its position in the southern North Sea). G = Grevelingen (Lake Grevelingen); O = Oosterschelde (Eastern Scheldt); V = Veerse Meer (Lake Veere); W = Westerschelde (Western Scheldt).

tained of higher water levels in summer than in winter, although there are plans to reintroduce a tidal regime of limited magnitude, which will increase salinity as well as reducing eutrophication levels.
- Westerschelde: The tidal lower reaches of the Schelde River, with a salinity gradient. The water carries a high silt load and rather high levels of pollution.
- Just north of the sea arms and saline lakes the Haringvliet is now a freshwater lake through which part of the run-off of the Rhine and Meuse rivers passes; the sluices at the North Sea side are opened only at low tide. A reversal of this policy has been proposed in order to restore a tidal regime with salinity gradient.

Finally, the future maintenance and strengthening of dikes in the Delta-area will guarantee continued changes in the opportunities for marine algal growth.

It is not surprising, then, to find that the algal flora has a completely different composition in the various waters; it also has undergone dramatic changes since the various dams were constructed, although the (artificial) hard substrate still dominates in the intertidal along most of the coastline and along the water level of the stagnant saline or brackish lakes.

A reinvestigation of the southwestern Netherlands (the 'Delta-area') during the years 1993 till present (1997) has revealed the presence of several algal species that were not found before.

It is this change in floristic composition that makes the production of this checklist worth-while in the first place; the numerous recent nomenclatural changes within the European algae, most of these published in the "Seaweeds of the British Isles" (Burrows 1991; Dixon & Irvine 1977; Fletcher 1987; Irvine 1983; Irvine & Chamberlain 1994; Maggs & Hommersand 1993), provide another reason to present an update on the "Flora van de Nederlandse Zeewieren" (Stegenga & Mol 1983).

In contrast with the Delta-area, the Waddenzee seems to be losing species of benthic algae, mainly in connection with the disappearance of large areas of seagrass (Nielsen et al. 1996) – although we suspect that some of the reported 'extinctions' indicate a reduced intensity of investigations rather than a real loss (see e.g. under *Isthmoplea sphaerophora, Laminaria digitata*). In any case, it shows that continued floristic monitoring of our coastal waters is not a luxury we can afford to neglect in discussions on biodiversity development.

Acknowledgements

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Format of the list

The framework for the higher taxonomic categories is, with a few exceptions, not much different from that in South & Tittley (1986) or in the "Seaweeds of the British Isles". Within families, the genera and species are arranged alphabetically.

For each species accepted name and (where different) basionym are given. The name in Stegenga & Mol (1983) is given in brackets where names have changed – this may concern an ordinary case of synonymy or a reidentification, in the latter case this will generally be addressed in the notes.

Authorities are abbreviated according to Brummitt & Powell (1992); titles of publications are standardized as in Taxonomic Literature, ed. 2 (Stafleu & Cowan 1976–1988) for books, or the Botanico-Periodicum Huntianum (Lawrence et al. 1968) and Supplement (Bridson 1991) for periodicals.

Species only known from drift material are indicated by an #. All other species have at least once been found attached and are thus considered to belong to the Dutch autochthonous seaweed flora, even if they are suspected to have become extinct in this country.

In the case where in the past different phases of a life history have received different names, we have included both in the list; in some cases one morphological phase may appear to belong in more than one life history, thus preventing formal synonymizing, see e.g. Dixon & Irvine (1977) on *Trailliella intricata* and Fletcher (1987) on *Hecatonema maculans*.

For each species at least one reference is given to a publication or a collection specifically pertaining to the Netherlands.

The other notes will primarily comment on species not mentioned in the "Flora van de Nederlandse Zeewieren" (Stegenga & Mol 1983). Most are simple additions, some were mentioned in earlier literature but left out as they were mostly restricted to brackish environments.

Vernacular names

Only about 50 fair-sized macroalgae have ever received Dutch names, some of these appear to be recent constructions for the benefit of amateur phycologists or interested beachcombers (see e.g. "Zeeboek" 1989). Earlier examples provide us with different, often somewhat more florid names, as for instance in Kops et al. (1800–1934):

- Purperkleurig watervlies, now Purperwier (*Porphyra purpurea*)
- Spiraalvormige zee-eik, now Kleine zee-eik (*Fucus spiralis*)
- Knobbelige rozenkrans, now Knotswier (*Ascophyllum nodosum*)
- Haauwdragende rozenkrans, now Hauwwier (*Halidrys siliquosa*)
- Suikergeevend zeeblad, now Suikerwier (*Laminaria saccharina*).

The names 'Sargassum van Columbus' (*Sargassum natans*) and 'Kraakbeenig kogelvruchtwier' (*Plocamium cartilagineum*) do not appear to have a modern counterpart.

Where available the Dutch names have been added, immediately after the accepted scientific name.

\# = Species only found in drift
* = Notes (pp. 42–47)
[≡ .....] = Name in Stegenga & Mol (1983)

CHLOROPHYTA

CHLOROPHYCEAE *3

ULOTRICHALES

ULOTRICHACEAE

EUGOMONTIA Kornmann, Helgoländer Wiss. Meeresuntersuch. 7: 60 (1960)

Eugomontia sacculata Kornmann, Helgoländer Wiss. Meeresuntersuch. 7: 60 (1960) *1

ULOTHRIX Kütz., Flora 16: 517 (1833)

Ulothrix flacca (Dillwyn) Thur. in Le Jol., Liste Alg. Mar. Cherbourg 56 (1863) *1
Basionym: *Conferva flacca* Dillwyn, Brit. Conferv. Pl. 49 (1805)
Ulothrix implexa (Kütz.) Kütz., Sp. Alg. 349 (1849) *4
Basionym: *Hormidium implexum* Kütz., Bot. Zeitung (Berlin) 5: 177 (1847)
Ulothrix palusalsa Lokhorst, Blumea 24: 220 (1978) *1
Ulothrix speciosa (Carmich. ex Harv.) Kütz., Sp. Alg. 348 (1849) *1
Basionym: *Lyngbya speciosa* Carmich. ex Harv. in Hook., Engl. Fl. 5: 371 (1833)
Ulothrix subflaccida Wille, Skr. Videnskab.-Selsk. Christiana, Math.-Naturvidensk. Kl. 1900(6): 27 (1901) *4

MONOSTROMATACEAE

GOMONTIA Bornet & Flahault, J. Bot. (Morot) 2: 164 (1888)

Gomontia polyrhiza (Lagerh.) Bornet & Flahault, J. Bot. (Morot) 2: 163 (1888) *1
Basionym: *Codiolum polyrhizum* Lagerh., Ofvers. Förh. Kongl. Svenska Vetensk.-Akad. 42(8): 21 (1885)

MONOSTROMA Thur., Mém. Soc. Sci. Nat. Cherbourg 2: 29 (1854)

Monostroma grevillei (Thur.) Wittr., Förs. Monogr. Monostroma 57 (1866) *1
Basionym: *Enteromorpha grevillei* Thur., Mém. Soc. Sci. Nat. Cherbourg 2: 25 (1854)
Monostroma oxyspermum (Kütz.) Doty, Farlowia 3: 12 (1947) *1
Basionym: *Ulva oxysperma* Kütz., Phycol. General. 296 (1843)

CHAETOPHORALES

CHAETOPHORACEAE

ACROCHAETE Pringsh., Abh. Königl. Akad. Wiss. Berlin 1862: 8 (1863)

Acrochaete repens Pringsh., Abh. Königl. Akad. Wiss. Berlin 1862: 8 (1863) *1

Acrochaete viridis (Reinke) R. Nielsen, Bot. Not. 132: 442 (1979) *1
Basionym: *Entocladia viridis* Reinke, Bot. Zeitung (Berlin) 37: 476 (1879)

Acrochaete wittrockii (Wille) R. Nielsen, Nordic J. Bot. 3: 692 (1983) *1
Basionym: *Entocladia wittrockii* Wille, Forh. Vidensk.-Selsk. Kristiana 1880: 3 (1880)
[≡ *Phaeophila wittrockii*]

BOLBOCOLEON Pringsh., Abh. Königl. Akad. Wiss. Berlin 1862: 8 (1863)

Bolbocoleon piliferum Pringsh., Abh. Königl. Akad. Wiss. Berlin 1862: 8 (1863) *1

PRINGSHEIMIELLA Höhn., Ann. Mycol. 18: 97 (1920)

Pringsheimiella scutata (Reinke) Marchew., Spraw. Komis. Fizjogr. 58/59: 42 (1924) *1, 6
Basionym: *Pringsheimia scutata* Reinke, Ber. Deutsch. Bot. Ges. 6: 241 (1888)

PSEUDENDOCLONIUM Wille, Skr. Vidensk.-Selsk. Christiana, Math.-Naturvidensk. Kl. 1900(6): 29 (1901)

Pseudendoclonium submarinum Wille, Skr. Vidensk.-Selsk. Christiana, Math.-Naturvidensk. Kl. 1900(6): 29 (1901) *1

SYNCORYNE R. Nielsen & P.M. Pedersen, Phycologia 16: 415 (1977)

Syncoryne reinkei R. Nielsen & P.M. Pedersen, Phycologia 16: 415 (1977) *1, 6

ULVELLA P. & H. Crouan, Ann. Sci. Nat., Bot. 12: 288 (1859)

Ulvella lens P. & H. Crouan, Ann. Sci. Nat., Bot. 12: 288 (1859) *2, 7

CHROOLEPIDACEAE

TELLAMIA Batters, Ann. Bot. (London) 9: 169 (1895)

Tellamia contorta Batters, Ann. Bot. (London) 9: 169 (1895) *1
[≡ *Tellamia intricata*]

ULVALES

ULVACEAE

BLIDINGIA Kylin, Förh. Kungl. Fysiogr. Sällsk. 17(17): 8 (1947)

Blidingia marginata (J. Agardh) P.J.L. Dang., Compt. Rend. Hebd. Séances Acad. Sci. 246: 347 (1958) *1
Basionym: *Enteromorpha marginata* J. Agardh, Alg. Mar. Medit. 16 (1842)

Blidingia minima (Nägeli ex Kütz.) Kylin, Förh. Kungl. Fysiogr. Sällsk. 17(17) 8 (1947) – [NL: Klein darmwier] *1
Basionym: *Enteromorpha minima* Nägeli ex Kütz., Sp. Alg. 482 (1849)

CAPSOSIPHON Gobi, Trudy S.-Peterburgsk. Obschsch. Estestvoisp. 10(2): 88 (1879)

Capsosiphon fulvescens (C. Agardh) Setch. & N.L. Gardner, Univ. Calif. Publ. Bot. 7: 280 (1920) *1
Basionym: *Ulva fulvescens* C. Agardh, Spec. Alg. 1: 420 (1822)

ENTEROMORPHA Link in Nees, Horae Phys. Berol. 5 (1820) *5

Enteromorpha ahlneriana Bliding, Bot. Not. 1944: 338 (1944) *2
[≡ *Enteromorpha prolifera* p.p.]
Enteromorpha clathrata (Roth) Grev., Alg. Brit. 181 (1830) *1
Basionym: *Conferva clathrata* Roth, Catal. Bot. 3: 175 (1806)
Enteromorpha compressa (L.) Grev., Alg. Brit. 180 (1830) –
[NL: Plat darmwier] *1
Basionym: *Ulva compressa* L., Sp. Pl. 1163 (1753)
Enteromorpha crinita (Roth) J. Agardh, Acta Univ. Lund 19: 144 (1883) *1
Basionym: *Conferva crinita* Roth, Catal. Bot. 1: 162 (1797)
[≡ *Enteromorpha ramulosa*]
Enteromorpha flexuosa (Wulfen ex Roth) J. Agardh, Acta Univ. Lund 19: 126 (1883) *1
Basionym: *Conferva flexuosa* Wulfen ex Roth, Catal. Bot. 2: 188 (1800)
Enteromorpha intestinalis (L.) Link in Nees, Horae Phys. Berol. 5 (1820) –
[NL: Echt darmwier] *1
Basionym: *Ulva intestinalis* L., Sp. Pl. 1163 (1753)
Enteromorpha intestinaloides Koeman & C. Hoek, Arch. Hydrobiol. Suppl. 63: 321 (1982) *2, 5
Enteromorpha linza (L.) J. Agardh, Acta Univ. Lund 19: 134 (1883) –
[NL: Breed darmwier] *1
Basionym: *Ulva linza* L., Sp. Pl. 1163 (1753)
Enteromorpha linziformis Bliding, Bot. Not. 113: 181 (1960) *2, 5
Enteromorpha pilifera Kütz., Tab. Phycol. 6: 11 (1856) *2, 5
Enteromorpha prolifera (O.F. Müll.) J. Agardh, Acta Univ. Lund 19: 129 (1883) *1
Basionym: *Ulva prolifera* O.F. Müll., Fl. Dan. Pl. 763 (1778)
Enteromorpha pseudolinza Koeman & C. Hoek, Arch. Hydrobiol. Suppl. 63: 302 (1982) *2, 5
Enteromorpha radiata J. Agardh, Acta Univ. Lund 19: 156 (1883) *2, 5
Enteromorpha ralfsii Harv., Phycol. Brit. Pl. 282 (1846–1851) *1
Enteromorpha simplex (K.L. Vinogr.) Koeman & C. Hoek, Cryptog. Algol. 3: 42 (1982) *2, 5
Basionym: *Enteromorpha prolifera* f. *simplex* K.L. Vinogr., Ul'voye Vodorosli (Chlorophyta) Morej SSSR 99 (1974)

Enteromorpha torta (Mert.) Reinbold, Nuova Notarisia, ser. 4: 205 (1893) *1
Basionym: *Conferva torta* Mert. in Jürg., Exs. Decas XIII: 6 (1822)
Enteromorpha usneoides Bonnem. ex J. Agardh, Acta Univ. Lund 19: 159 (1883) *2, 5

PERCURSARIA Bory, Dict. Class. Hist. Nat. 4: 393 (1823)

Percursaria percursa (C. Agardh) Bory ex Papenf., Madroño 10: 179 (1950) *1
Basionym: *Conferva percursa* C. Agardh, Syn. Alg. Scand. 87 (1817)

ULVA L., Sp. Pl. 1163 (1753) *8

Ulva curvata (Kütz.) De Toni, Syll. Alg. 1: 116 (1889) *1
Basionym: *Phycoseris curvata* Kütz., Phycol. Germ. 245 (1845)
Ulva lactuca L., Sp. Pl. 1163 (1753) – [NL: Zeesla] *1
Ulva pseudocurvata Koeman & C. Hoek, Brit. Phycol. J. 16: 19 (1981) *1
Ulva rigida C. Agardh, Spec. Alg. 1: 410 (1822) – [NL: Stijve zeesla] *1, 8
Ulva scandinavica Bliding, Bot. Not. 121: 554 (1968) *1

PRASIOLALES

PRASIOLACEAE

PRASIOLA (C. Agardh) Menegh., Nuovi Saggi Imp. Regia Acad. Sci. Padova 4: 360 (1838)
Basionym: *Ulva* subg. *Prasiola* C. Agardh, Spec. Alg. 1: 416 (1822)

Prasiola stipitata Suhr ex Jess., Prasiol. Monogr. 16 (1848) *1

ROSENVINGIELLA P.C. Silva, Madroño 14: 41 (1957)

Rosenvingiella polyrhiza (Rosenv.) P.C. Silva, Madroño 14:41 (1957) *9
Basionym: *Gayella polyrhiza* Rosenv., Meddel. Grönland 3: 937 (1893)

CLADOPHORALES

CLADOPHORACEAE

CHAETOMORPHA Kütz., Phycol. Germ. 203 (1845)

Chaetomorpha aerea (Dillwyn) Kütz., Sp. Alg. 379 (1849) *1
Basionym: *Conferva aerea* Dillwyn, Brit. Conferv. Pl. 80 (1806)
Chaetomorpha linum (O.F. Müll.) Kütz., Phycol. Germ. 204 (1845) – [NL: Visdraad] *1
Basionym: *Conferva linum* O.F. Müll., Fl. Dan. Pl. 771 (1778)

Chaetomorpha mediterranea (Kütz.) Kütz., Sp. Alg. 381 (1849) *1
Basionym: *Spongopsis mediterranea* Kütz., Phycol. General. 261 (1843) [≡ *Chaetomorpha capillaris*]
Chaetomorpha melagonium (F. Weber & D. Mohr) Kütz., Phycol. Germ. 204 (1845) *1
Basionym: *Conferva melagonium* F. Weber & D. Mohr, Naturh. Reise Schweden. 194 (1804)

CLADOPHORA Kütz., Phycol. General. 262 (1843)

Cladophora albida (Huds.) Kütz., Phycol. General. 267 (1843) *1
Basionym: *Conferva albida* Huds., Fl. Angl. ed. 2: 595 (1778)
Cladophora dalmatica Kütz., Phycol. General. 268 (1843) *1
Cladophora flexuosa (O.F. Müll.) Kütz., Phycol. General. 270 (1843) *2, 10
Basionym: *Conferva flexuosa* O.F. Müll., Fl. Dan. Pl. 882 (1782) [≡ *Cladophora sericea* p.p.]
Cladophora globulina (Kütz.) Kütz., Phycol. Germ. 219 (1845) *2, 11
Basionym: *Conferva globulina* Kütz., Alg. Aq. Dulc. Germ. 20 (1833)
Cladophora hutchinsiae (Dillwyn) Kütz., Phycol. Germ. 210 (1845) *2, 12
Basionym: *Conferva hutchinsiae* Dillwyn, Brit. Conferv. 65, Pl. 109 (1809)
Cladophora laetevirens (Dillwyn) Kütz., Phycol. General. 267 (1843) *1
Basionym: *Conferva laetevirens* Dillwyn, Brit. Conferv. 66, Pl. 48 (1805)
Cladophora liniformis Kütz., Sp. Alg. 405 (1849) *1
Cladophora ruchingeri (C. Agardh) Kütz., Phycol. Germ. 211 (1845) *1
Basionym: *Conferva ruchingeri* C. Agardh, Syst. Alg. 112 (1824)
Cladophora rupestris (L.) Kütz., Phycol. General. 270 (1843) – [NL: Rotswier, Takwier] *1
Basionym: *Conferva rupestris* L., Sp. Pl. 1167 (1753)
Cladophora sericea (Huds.) Kütz., Phycol. General. 264 (1843) *1, 10
Basionym: *Conferva sericea* Huds., Fl. Angl. 485 (1762)
Cladophora vadorum (Aresch.) Kütz., Sp. Alg. 402 (1849) *1
Basionym: *Conferva vadorum* Aresch., Linnaea 17: 269 (1843)
Cladophora vagabunda (L.) C. Hoek, Rev. Eur. Sp. Cladophora 144 (1963) *1
Basionym: *Conferva vagabunda* L., Sp. Pl. 1167 (1753)

RHIZOCLONIUM Kütz., Phycol. General. 261 (1843)

Rhizoclonium implexum (Dillwyn) Kütz., Phycol. Germ. 206 (1845) *13
Basionym: *Conferva implexa* Dillwyn, Brit. Conferv. 46, Pl. B (1809)
Rhizoclonium riparium (Roth) Kütz. ex Harv., Phycol. Brit. Pl. 238 (1849) *1, 13
Basionym: *Conferva riparia* Roth, Catal. Bot. 3: 216 (1806)

WITTROCKIELLA Wille, Nyt Mag. Naturvidensk. 47: 220 (1909)

Wittrockiella paradoxa Wille, Nyt Mag. Naturvidensk. 47: 220 (1909) *14

ACROSIPHONIALES

ACROSIPHONIACEAE

SPONGOMORPHA Kütz., Phycol. General. 273 (1843)

Spongomorpha aeruginosa (L.) C. Hoek, Rev. Eur. Sp. Cladophora 225 (1963) *1
Basionym: *Conferva aeruginosa* L., Sp. Pl. 1165 (1753)
Spongomorpha arcta (Dillwyn) Kütz., Tab. Phycol. 4: 16 (1854) – [NL: Sponswier] *1
Basionym: *Conferva arcta* Dillwyn, Brit. Conferv. 67 (1809)
[incl. *Spongomorpha centralis*]
Spongomorpha sonderi (Kütz.) Kütz., Tab. Phycol. 4: 17 (1854) *1
Basionym: *Cladophora sonderi* Kütz., Phycol. Germ. 208 (1845)

UROSPORA Aresch., Nova Acta Regiae Soc. Sci. Upsal. ser. 3, 6(2): 15 (1866)

Urospora bangioides (Harv.) Holmes & Batters, Ann. Bot. (London) 5: 73 (1891) *1
Basionym: *Conferva bangioides* Harv., Man. Brit. Alg. 130 (1841)
Urospora neglecta (Kornmann) Lokhorst & Trask, Acta Bot. Neerl. 30: 385 (1981) *1
Basionym: *Hormiscia neglecta* Kornmann, Helgoländer Wiss. Meeresuntersuch. 13: 417 (1966)
Urospora penicilliformis (Roth) Aresch., Nova Acta Regiae Soc. Sci. Upsal. ser. 3, 9: 4 (1874) *1
Basionym: *Conferva penicilliformis* Roth, Catal. Bot. 3: 271 (1806)
Urospora wormskioldii (Mert. ex Hornem.) Rosenv., Bot. Tidsskr. 18: 57 (1892) *1
Basionym: *Conferva wormskioldii* Mert. ex Hornem., Fl. Dan. Pl. 1547 (1816)

DERBESIALES

BRYOPSIDACEAE

BRYOPSIS J.V. Lamour., J. Bot. (Desvaux) 2: 133 (1809)

Bryopsis hypnoides J.V. Lamour., J. Bot. (Desvaux) 2: 135 (1809) – [NL: Onregelmatig vederwier] *1
Bryopsis lyngbei Hornem., Fl. Dan. Pl. 1603 (1818) *2, 15
Bryopsis plumosa (Huds.) C. Agardh, Spec. Alg. 1: 448 (1822) – [NL: Vederwier] *1
Basionym: *Ulva plumosa* Huds., Fl. Angl. ed. 2: 571 (1778)

CODIALES

CODIACEAE

CODIUM Stackh., Nereis Brit. XVI, XXIV (1797)

Codium fragile (Suringar) Har., Miss. Sci. Cap Horn 5, Bot. 32 (1889) – [NL: Viltwier] *1, 16
Basionym: *Acanthocodium fragile* Suringar, Ann. Mus. Bot. Lugduno-Bat. 3: 258 (1867)

#***Codium tomentosum*** Stackh., Nereis Brit. XXIV (1797) *1

PHAEOPHYTA

PHAEOPHYCEAE

ECTOCARPALES

ECTOCARPACEAE

ACINETOSPORA Bornet, Bull. Soc. Bot. France 38: 370 (1891)

Acinetospora crinita (Carmich. ex Harv.) Kornmann, Helgoländer Wiss. Meeresuntersuch. 4: 205 (1953) *1
Basionym: *Ectocarpus crinitus* Carmich. ex Harv. in Hook., Engl. Fl. 5: 326 (1833)

BOTRYTELLA Bory, Dict. Class. Hist. Nat. 2: 425 (1822)

Botrytella reinboldii (Reinke) Kornmann & Sahling, Helgoländer Meeresuntersuch. 42: 7 (1988) *2, 17
Basionym: *Ectocarpus reinboldii* Reinke, Atlas Deut. Meeresalg. 61 (1892)
Botrytella spec. *1, 17, 18
[≡ *Sorocarpus micromorus*]

ECTOCARPUS Lyngb., Tent. Hydrophytol. Dan. XXXI, 130 (1819)

Ectocarpus fasciculatus Harv., Man. Brit. Alg. 40 (1841) *1
Ectocarpus siliculosus (Dillwyn) Lyngb., Tent. Hydrophytol. Dan. 131 (1819) *1
Basionym: *Conferva siliculosa* Dillwynn, Brit. Conferv. 69, Pl. E (1809)

FELDMANNIA Hamel, Bot. Not. 1939: 67 (1939)

Feldmannia globifera (Kütz.) Hamel, Bot. Not. 1939: 67 (1939) *2, 17
Basionym: *Ectocarpus globifer* Kütz., Phycol. General. 289 (1843)
Feldmannia irregularis (Kütz.) Hamel, Bot. Not. 1939: 67 (1939) *1
Basionym: *Ectocarpus irregularis* Kütz., Phycol. Germ. 234 (1845)
Feldmannia simplex (P. & H. Crouan) Hamel, Bot. Not. 1939: 67 (1939) *1
Basionym: *Ectocarpus simplex* P. & H. Crouan, Fl. Finistère 163 (1867)

GONONEMA Kuck. & Skottsb. in Skottsb., Kongl. Svenska Vetenskapsakad. Handl. 61(11): 9 (1921)

Gononema aecidioides (Rosenv.) P.M. Pedersen, Nordic J. Bot. 1: 270 (1981) *1, 19
Basionym: *Ectocarpus aecidioides* Rosenv., Meddel. Grönland 3: 894 (1893)
[≡ *Myrionema aecidioides*]

HERPONEMA J. Agardh, Acta Univ. Lund 17(4): 55 (1882)

Herponema solitarium (Sauv.) Hamel, Bot. Not. 1939: 68 (1939) *2, 20
Basionym: *Ectocarpus solitarius* Sauv., J. Bot. (Morot) 6: 97 (1892)

#***Herponema velutinum*** (Grev.) J. Agardh, Acta Univ. Lund 17(4): 56 (1882) – [NL: Bruin pluchewier] *1
Basionym: *Sphacellaria velutina* Grev., Scott. Crypt. Fl. 6: Pl. 350 (1828)

HINCKSIA J.E. Gray, Handb. Brit. Waterweeds 12 (1864)

Hincksia fuscata (Zanardini) P.C. Silva in P.C. Silva, Meñez & R.L. Moe, Smithsonian Contr. Mar. Sci. 27: 130 (1987) *2, 21
Basionym: *Ectocarpus fuscatus* Zanardini in Menegh., Alg. Ital. Dalmat. 381 (1846)

Hincksia granulosa (Sm.) P.C. Silva in P.C. Silva, Meñez & R.L. Moe, Smithsonian Contr. Mar. Sci. 27: 130 (1987) *1
Basionym: *Conferva granulosa* Sm. in Sm. & Sowerby, Engl. Bot. Pl. 2351 (1811)
[≡ *Giffordia granulosa*]

Hincksia hincksiae (Harv.) P.C. Silva in P.C. Silva, Meñez & R.L. Moe, Smithsonian Contr. Mar. Sci. 27: 130 (1987) *2, 20
Basionym: *Ectocarpus hincksiae* Harv., Man. Brit. Alg. 40 (1841)

Hincksia intermedia (Rosenv.) P.C. Silva in P.C. Silva, Meñez & R.L. Moe, Smithsonian Contr. Mar. Sci. 27: 130 (1987) *2, 20, 22
Basionym: *Ectocarpus ovatus* Kjellm., Bih. Kongl. Svenska Vetensk.-Akad. Handl. 4(6): 35 (1877) var. intermedius Rosenv. in Rosenv. & S.Lund, Biol. Skr. 1(4): 49 (1941)

Hincksia mitchelliae (Harv.) P.C. Silva in P.C. Silva, Meñez & R.L. Moe, Smithsonian Contr. Mar. Sci. 27: 73 (1987) *1
Basionym: *Ectocarpus mitchelliae* Harv., Smithsonian Contr. Knowl. 3(4): 142 (1852)
[≡ *Giffordia mitchelliae*]

Hincksia sandriana (Zanardini) P.C. Silva in P.C. Silva, Meñez & R.L. Moe, Smithsonian Contr. Mar. Sci. 27: 130 (1987) *1
Basionym: *Ectocarpus sandrianus* Zanardini, Sagg. Classif. Ficee 41 (1843)
[≡ *Giffordia sandriana*]

Hincksia secunda (Kütz.) P.C. Silva in P.C. Silva, Meñez & R.L. Moe, Smithsonian Contr. Mar. Sci. 27: 130 (1987) *1
Basionym: *Ectocarpus secundus* Kütz., Bot. Zeitung (Berlin) 5: 54 (1847)
[≡ *Giffordia secunda*]

KUETZINGIELLA Kornmann in Kuck., Helgoländer Wiss. Meeresuntersuch. 5: 293 (1956)

Kuetzingiella battersii (Bornet) Kornmann in Kuck., Helgoländer Wiss. Meeresuntersuch. 5: 314 (1956) *2, 20
Basionym: *Ectocarpus battersii* Bornet in Sauv., J. Bot. (Morot) 9: 351 (1895)

LAMINARIOCOLAX Kylin, Acta Univ. Lund, N.S. 43(4): 6 (1947)

Laminariocolax tomentosoides (Farl.) Kylin, Acta Univ. Lund, N.S. 43(4): 6 (1947) *1
Basionym: *Ectocarpus tomentosoides* Farl., Bull. Torrey Bot. Club 16: 11 (1889)

MIKROSYPHAR Kuck., Bot. Zeitung (Berlin) 53: 177 (1895)

Mikrosyphar polysiphoniae Kuck., Wiss. Meeresuntersuch. 2: 353 (1897) *1
Mikrosyphar porphyrae Kuck., Wiss. Meeresuntersuch. 2: 351 (1897) *1

PILAYELLA Bory, Dict. Class. Hist. Nat. 4: 393 (1823)

Pilayella littoralis (L.) Kjellm., Bidr. Skand. Ectocarp. 99 (1872) – [NL: Kwastwier] *1
Basionym: *Conferva littoralis* L., Sp. Pl. 1165 (1753)

SPONGONEMA Kütz., Sp. Alg. 461 (1849)

Spongonema tomentosum (Huds.) Kütz., Sp. Alg. 461 (1849) *1
Basionym: *Conferva tomentosa* Huds., Fl. Angl. 480 (1762)

WAERNIELLA Kylin, Acta Univ. Lund, N.S. 43(4): 26 (1947)

Waerniella lucifuga (Kuck.) Kylin, Acta Univ. Lund, N.S. 43(4): 26 (1947) *1, 23
Basionym: *Leptonema lucifugum* Kuck., Wiss. Meeresuntersuch. N.F. 2(1): 362 (1897)

CHORDARIALES

CHORDARIACEAE

CHORDARIA C. Agardh, Syn. Alg. Scand. XII (1817)

#***Chordaria flagelliformis*** (O.F. Müll.) C. Agardh, Syn. Alg. Scand. XII (1817) *1
Basionym: *Fucus flagelliformis* O.F. Müll., Fl. Dan. Pl. 650 (1775)

EUDESME J. Agardh, Acta Univ. Lund 17(4): 29 (1882)

#***Eudesme virescens*** (Carmich.ex. Berk.) J. Agardh, Acta Univ. Lund 17(4): 31 (1882) *1
Basionym: *Mesogloia virescens* Carmich. ex Berk., Glean. Brit. Alg. 44 (1833)

MESOGLOIA C. Agardh, Syn. Alg. Scand. XXXVII (1817)

#***Mesogloia vermiculata*** (Sm.) Gray, Nat. Arr. Brit. Pl. 1: 320 (1821) *1
Basionym: *Rivularia vermiculata* Sm. in Sm. & Sowerby, Engl. Bot. Pl. 1818 (1808)

ELACHISTACEAE

ELACHISTA Duby, Bot. Gall. ed. 2: 972 (1830)

#***Elachista flaccida*** (Dillwyn) Aresch., Linnaea 17: 262 (1843) *1
Basionym: *Conferva flaccida* Dillwyn, Brit. Conferv. 53, Pl. C (1809)
Elachista fucicola (Velley) Aresch., Linnaea 16: 235 (1842) – [NL: Dwergwier] *1
Basionym: *Conferva fucicola* Velley, Col. Fig. Mar. Pl. Pl. 4 (1795)
#***Elachista scutulata*** (Sm.) Duby, Bot. Gall. ed. 2: 972 (1830) *1
Basionym: *Conferva scutulata* Sm. in Sm. & Sowerby, Engl. Bot. Pl. 2311 (1811)
Elachista stellaris Aresch., Linnaea 16: 233 (1842) *1
Elachista spec. *2, 24

LEPTONEMATELLA P.C. Silva, Taxon 8: 63 (1959) *23, 25

Leptonematella fasciculata (Reinke) P.C. Silva, Taxon 8: 63 (1959) *2, 17, 23
Basionym: *Leptonema fasciculatum* Reinke, Ber. Deutsch. Bot. Ges. 6: 16, 19 (1888)

LEATHESIACEAE

LEATHESIA Gray, Nat. Arr. Brit. Pl. 1: 301 (1821)

Leathesia difformis (L.) Aresch., Nova Acta Regiae Soc. Sci. Upsal. 13: 376 (1847) *1
Basionym: *Tremella difformis* L., Fl. Suec. ed. 2: 429 (1755)
Leathesia verruculiformis Y.P. Lee & I.K. Lee, Korean J. Bot. 31: 324 (1988) *2, 26

MICROCORYNE Strömf., Notarisia 3: 382 (1888)

#***Microcoryne ocellata*** Strömf., Notarisia 3: 382 (1888) *1

MYRIACTULA Kuntze, Revis. Gen. Pl. 3(2): 74, 415 (1898)

Myriactula rivulariae (Suhr) Feldmann, Rev. Algol. 9: 274 (1937) *1, 27
Basionym: *Elachista rivulariae* Suhr in Aresch., Linnaea 16: 235 (1842)

LITHODERMATACEAE

PSEUDOLITHODERMA Sved. in Engl. & Prantl, Nat. Pflanzenfam. Nachtr. 1(2): 175 (1911)

Pseudolithoderma extensum (P. & H. Crouan) S. Lund, Meddel. Grönland 156: 84 (1959) *1
Basionym: *Ralfsia extensa* P. & H. Crouan, Fl. Finistère 166 (1867)

MYRIONEMATACEAE

MICROSPONGIUM Reinke, Ber. Deutsch. Bot. Ges. 6: 16, 20 (1888)

Microspongium globosum Reinke, Ber. Deutsch. Bot. Ges. 6: 16, 20 (1888) *2

MYRIONEMA Grev., Scott. Crypt. Fl. 5: Pl. 300 (1827)

Myrionema corunnae Sauv., Ann. Sci. Nat., Bot. sér. 8(5): 237 (1897) *1
Myrionema magnusii (Sauv.) Loiseaux, Rev. Gén. Bot. 74: 338 (1967) *1
Basionym: *Ascocyclus magnusii* Sauv., Bull. Stn. Biol. Arcachon 24: 14 (1927)
Myrionema strangulans Grev., Scott. Crypt. Fl. 5: Pl. 300 (1827) *1

PROTECTOCARPUS Kuck. ex Kornmann, Helgoländer Wiss. Meeresuntersuch. 5: 119 (1955)

Protectocarpus speciosus (Börgesen) Kuck. ex Kornmann, Helgoländer Wiss. Meeresuntersuch. 5: 120 (1955) *1
Basionym: *Myrionema speciosum* Börgesen, Bot. Faröes 2: 421 (1902)

ULONEMA Foslie, Kongel. Norske Vidensk. Selsk. Skr. (Trondheim) 1893: 131 (1894)

Ulonema rhizophorum Foslie, Kongel. Norske Vidensk. Selsk. Skr. (Trondheim) 1893: 132 (1894) *1

CUTLERIALES

CUTLERIACEAE

AGLAOZONIA Zanardini, Sagg. Classif. Ficee 15, 38 (1843)

#***Aglaozonia parvula*** (Grev.) Zanardini, Sagg. Classif. Ficee 38 (1843) *2, 28
Basionym: *Zonaria parvula* Grev., Scott. Crypt. Fl. 6: Pl. 360 (1828)

DICTYOSIPHONALES

GIRAUDIACEAE

GIRAUDIA Derbès & Solier in Castagne, Suppl. Cat. Pl. Marseille 100 (1851)

Giraudia sphacelarioides Derbès & Solier in Castagne, Suppl. Cat. Pl. Marseille 101 (1851) *1

MYRIOTRICHIACEAE

LITOSIPHON Harv., Man. Brit. Alg. ed. 2: 43 (1849)

#***Litosiphon laminariae*** (Lyngb.) Harv., Man. Brit. Alg. ed. 2: 43 (1849) *1
Basionym: *Bangia laminariae* Lyngb., Tent. Hydrophytol. Dan. 84 (1819)

POGOTRICHACEAE

POGOTRICHUM Reinke, Atlas Deut. Meeresalg. 2: 61 (1892)

Pogotrichum filiforme Reinke, Atlas Deut. Meeresalg. 2: 62 (1892) *1

PUNCTARIACEAE

ASPEROCOCCUS J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 277 (1813)

Asperococcus fistulosus (Huds.) Hook., Engl. Fl. 5: 277 *1, 29
Basionym: *Ulva fistulosa* Huds., Fl. Angl. ed. 2: 569 (1778)

HECATONEMA Sauv., Ann. Sci. Nat., Bot. sér. 8(5): 248 (1897)

Hecatonema maculans (Collins) Sauv., Ann. Sci. Nat., Bot. sér. 8(5): 248 (1897) *1, 30
Basionym: *Phycocelis maculans* Collins, Bull. Torrey Bot. Club 23: 459 (1896)

PUNCTARIA Grev., Alg. Brit. XLII, 52 (1830)

Punctaria latifolia Grev., Alg. Brit. 52 (1830) *1, 30
[incl. *Punctaria hiemalis*]
#***Punctaria plantaginea*** (Roth) Grev., Alg. Brit. 53 (1830) *1
Basionym: *Ulva plantaginea* Roth, Catal. Bot. 2: 243 (1800)
Punctaria tenuissima (C. Agardh) Grev., Alg. Brit. 54 (1830) *31
Basionym: *Zonaria tenuissima* C. Agardh, Syst. Alg. 268 (1824)

STRIARIACEAE

ISTHMOPLEA Kjellm., Nova Acta Regiae Soc. Sci. Upsal., Vol. Extr.-Ord. 12: 31 (1877)

Isthmoplea sphaerophora (Carmich. ex Harv.) Kjellm., Nova Acta Regiae Soc. Sci. Upsal., Vol. Extr.-Ord. 12: 31 (1877) *1, 29, 32
Basionym: *Ectocarpus sphaerophorus* Carmich. ex Harv. in Hook., Engl. Fl. 5: 326 (1833)

STICTYOSIPHON Kütz., Phycol. General. 301 (1843)

Stictyosiphon soriferus (Reinke) Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 9, 6(3): 9 (1935) *2, 17
Basionym: *Kjellmania sorifera* Reinke, Algenfl. Westl. Ostsee 59 (1889)

STRIARIA Grev., Scott. Crypt. Fl. 6: 44 (1828)

Striaria attenuata (C. Agardh) Grev., Scott. Crypt. Fl. 6: 44 (1828) *2, 21, 33
Basionym: *Solenia attenuata* C. Agardh, Syst. Alg. 187 (1824)

SCYTOSIPHONALES

SCYTOSIPHONACEAE

COLPOMENIA (Endl.) Derbès & Solier in Castagne, Suppl. Cat. Pl. Marseille 95 (1851)
Basionym: *Asperococcus* sect. *Colpomenia* Endl., Gen. Pl. Suppl. 3: 26 (1843)

Colpomenia peregrina (Sauv.) Hamel, Phéophyc. France 201 (1937) – [NL: Oesterdief] *1, 34
Basionym: *Colpomenia sinuosa* (Mert. ex Roth) Derbès & Solier in Castagne, Suppl. Cat. Pl. Marseille 95 (1851), var. *peregrina* Sauv., Bull. Stn. Biol. Arcachon 24: 321 (1927)

PETALONIA Derbès & Solier, Ann. Sci. Nat., Bot. sér. 3(14): 265 (1850)

Petalonia fascia (O.F. Müll.) Kuntze, Revis. Gen. Pl. 3(2): 419 (1898) – [NL: Dunsteeltje] *1, 35
Basionym: *Fucus fascia* O.F. Müll., Fl. Dan. Pl. 768 (1777)

Petalonia zosterifolia (Reinke) Kuntze, Revis. Gen. Pl. 3(2): 419 (1898) *1
Basionym: *Phyllitis zosterifolia* Reinke, Ber. Comm. Wiss. Untersuch. Deutsch. Meere. 6: 61 (1889)

RALFSIA Berk. in Sm. & Sowerby, Engl. Bot. Suppl. 3: Pl. 2866 (1843)

Ralfsia verrucosa (Aresch.) J. Agardh, Spec. Gen. Ord. Alg. 1: 62 (1848) – [NL: Bruin korstwier] *1
Basionym: *Cruoria verrucosa* Aresch., Linnaea 17: 264 (1843)

SCYTOSIPHON C. Agardh, Spec. Alg. 1: 160 (1820)

Scytosiphon lomentaria (Lyngb.) Link, Handbuch 3: 232 (1833) – [NL: Sausijsjeswier] *1
Basionym: *Chorda lomentaria* Lyngb., Tent. Hydrophytol. Dan. 74 (1819)

STRAGULARIA Strömf., Bot. Centralbl. 26: 173 (1886)

Stragularia clavata (Harv.) Hamel, Phéophyc. France XXXI (1939) *1, 35
Basionym: *Myrionema clavatum* Harv. in Hook., Engl. Fl. 5: 391 (1833) [≡ *Ralfsia clavata*]

DESMARESTIALES

DESMARESTIACEAE

DESMARESTIA J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 43 (1813)

#***Desmarestia aculeata*** (L.) J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 45 (1813) *2
Basionym: *Fucus aculeatus* L., Sp. Pl. ed. 2: 1632 (1763)

Desmarestia viridis (O.F. Müll.) J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 45 (1813) *1
Basionym: *Fucus viridis* O.F. Müll., Fl. Dan. Pl. 886 (1782)

SPHACELARIALES

CLADOSTEPHACEAE

CLADOSTEPHUS C. Agardh, Syn. Alg. Scand. XXV (1817)

Cladostephus spongiosus (Huds.) C. Agardh, Syn. Alg. Scand. XXVI (1817) *1
Basionym: *Conferva spongiosa* Huds., Fl. Angl. 480 (1762)

SPHACELARIACEAE

SPHACELARIA Lyngb. in Hornem., Fl. Dan. Pl. 1600 (1818)

Sphacelaria cirrosa (Roth) C. Agardh, Syst. Alg. 164 (1824) *1, 36
Basionym: *Conferva cirrosa* Roth, Catal. Bot. 2: 214 (1800)
Sphacelaria nana Nägeli ex Kütz., Tab. Phycol. 5: 26 (1855) *1
Sphacelaria plumigera Holmes, Grevillea 11: 141 (1883) *1
#***Sphacelaria plumula*** Zanardini, Iconogr. Phycol. Adriat. 2: 139 (1865) *1
Sphacelaria radicans (Dillwyn) C. Agardh, Syst. Alg. 165 (1824) *1
Basionym: *Conferva radicans* Dillwyn, Brit. Conferv. 57, Pl. C (1809)
Sphacelaria rigidula Kütz., Phycol. General. 292 (1843) *1

DICTYOTALES

DICTYOTACEAE

DICTYOPTERIS J.V. Lamour., J. Bot. (Desvaux) 2: 129 (1809)

#***Dictyopteris membranacea*** (Stackh.) Batters, J. Bot. 40(suppl.): 54 (1902) *1
Basionym: *Fucus membranaceus* Stackh., Nereis Brit. 13, Pl. VI (1795)

DICTYOTA J.V. Lamour., J. Bot. (Desvaux) 2: 38 (1809)

Dictyota dichotoma (Huds.) J.V. Lamour., J. Bot. (Desvaux) 2: 42 (1809) – [NL: Gaffelwier] *1
Basionym: *Ulva dichotoma* Huds., Fl. Angl. 476 (1762)

TAONIA J. Agardh, Spec. Gen. Ord. Alg. 1: 101 (1848)

Taonia atomaria (Woodw.) J. Agardh, Spec. Gen. Ord. Alg. 1: 101 (1848) *1
Basionym: *Ulva atomaria* Woodw., Trans. Linn. Soc. London 3: 53 (1797)

LAMINARIALES

ALARIACEAE

ALARIA Grev., Alg. Brit. XXXIX, 25 (1830)

#***Alaria esculenta*** (L.) Grev., Alg. Brit. XXXIX, 25 (1830) *1
Basionym: *Fucus esculentus* L., Syst. Nat. ed. 12, 2: 718 (1767)

CHORDACEAE

CHORDA Stackh., Nereis Brit. XVI (1797)

Chorda filum (L.) Stackh., Nereis Brit. XXIV, 40, Pl. X (1797) – [NL: Veterwier] *1
Basionym: *Fucus filum* L., Sp. Pl. 1162 (1753)

LAMINARIACEAE

LAMINARIA J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 40 (1813)

Laminaria digitata (Huds.) J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 42 (1813) – [NL: Vingerwier] *1, 29, 37
Basionym: *Fucus digitatus* Huds., Fl. Angl. 474 (1762)

Laminaria saccharina (L.) J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 42 (1813) – [NL: Suikerwier] *1, 38
Basionym: *Fucus saccharinus* L., Sp. Pl. 1161 (1753)

SACCORHIZA Bach. Pyl., Fl. Terre-neuve 23 (1830)

#***Saccorhiza polyschides*** (Lightf.) Batters, J. Bot. 40(suppl.): 48 (1902) *1
Basionym: *Fucus polyschides* Lightf., Fl. Scot. 936 (1777)

FUCALES

CYSTOSEIRACEAE

BIFURCARIA Stackh., Mém. Soc. Imp. Naturalistes Moscou 2: 59 (1809)

#***Bifurcaria bifurcata*** (Velley) R. Ross, J. Linn. Soc., Bot. 55: 753 (1958) *1
Basionym: *Fucus bifurcatus* Velley in With., Bot. Arr. Brit. Pl. ed. 2, 3: 257 (1792)

CYSTOSEIRA C. Agardh, Spec. Alg. 1: 50 (1820)

#***Cystoseira baccata*** (S.G. Gmel.) P.C. Silva, Univ. Calif. Publ. Bot. 25: 280 (1952) – [NL: Vezelwier] *1
Basionym: *Fucus baccatus* S.G. Gmel., Hist. Fuc. 90, Pl. III (1768)

#***Cystoseira foeniculacea*** (L.) Grev., Alg. Brit. XXXII, 6 (1830) *1
Basionym: *Fucus foeniculaceus* L., Sp. Pl. 1161 (1753)

#***Cystoseira nodicaulis*** (With.) M. Roberts, J. Linn. Soc., Bot. 60: 254 (1968) *1
Basionym: *Fucus nodicaulis* With., Arr. Brit. Pl. ed. 3, 4: 111 (1796)
#***Cystoseira tamariscifolia*** (Huds.) Papenf., Hydrobiologia 2: 185 (1950) *1
Basionym: *Fucus tamariscifolius* Huds., Fl. Angl. 469 (1762)

HALIDRYS Lyngb., Tent. Hydrophytol. Dan. XXIX, 37 (1819)

Halidrys siliquosa (L.) Lyngb., Tent. Hydrophytol. Dan. 37 (1819) –
[NL: Hauwwier] *1, 39
Basionym: *Fucus siliquosus* L., Sp. Pl. 1160 (1753)

FUCACEAE

ASCOPHYLLUM Stackh., Mém. Soc. Imp. Naturalistes Moscou 2: 54, 66 (1809)

Ascophyllum nodosum (L.) Le Jol., Mém. Soc. Sci. Nat. Cherbourg 10: 96 (1863) – [NL: Knotswier] *1
Basionym: *Fucus nodosus* L., Sp. Pl. 1159 (1753)

FUCUS L., Sp. Pl. 1158 (1753)

Fucus ceranoides L., Sp. Pl. 1158 (1753) *1
Fucus serratus L., Sp. Pl. 1158 (1753) – [NL: Gezaagde zee-eik] *1
Fucus spiralis L., Sp. Pl. 1159 (1753) – [NL: Kleine zee-eik] *1
Fucus vesiculosus L., Sp. Pl. 1158 (1753) – [NL: Gewone zee-eik, Blaaswier] *1

PELVETIA Decne. & Thur., Ann. Sci. Nat., Bot. sér. 3, 3: 12 (1845)

Pelvetia canaliculata (L.) Decne & Thur., Ann. Sci. Nat., Bot. sér. 3, 3: 13 (1845) – [NL: Groefwier] *1
Basionym: *Fucus canaliculatus* L., Syst. Nat. ed. 13, 2: 716 (1770)

HIMANTHALIACEAE

HIMANTHALIA Lyngb., Tent. Hydrophytol. Dan. XXIX, 36 (1819)

#***Himanthalia elongata*** (L.) Gray, Nat. Arr. Brit. Pl. 1: 389 (1821) –
[NL: Riemwier] *1
Basionym: *Fucus elongatus* L., Sp. Pl. 1159 (1753)

SARGASSACEAE

SARGASSUM C. Agardh, Spec. Alg. 1: 1 (1820)

Sargassum muticum (Yendo) Fensholt, Amer. J. Bot. 42: 313 (1955) –
[NL: Japans bessenwier] *1
Basionym: *Sargassum kjellmanianum* Yendo, Bot. Mag. (Tokyo) 19: 158
f. *muticum* Yendo, Bot. Mag. (Tokyo) 19: 158 (1905)
#***Sargassum natans*** (L.) Gaillon, Dict. Sci. Nat. 53: 355 (1828) *1, 40
Basionym: *Fucus natans* L., Sp. Pl. 1160 (1753)

RHODOPHYTA

RHODOPHYCEAE

PORPHYRIDIALES

GONIOTRICHACEAE

CHROODACTYLON Hansg., Ber. Deutsch. Bot. Ges. 3: 14 (1885)

Chroodactylon ornatum (C. Agardh) Basson, Bot. Mar. 22: 67 (1979) *1
Basionym: *Conferva ornata* C. Agardh, Syst. Alg. 104 (1824)
[≡ *Asterocytis ramosa*]

STYLONEMA Reinsch, Contr. Algol. Fungol. 40 (1874/1875)

Stylonema alsidii (Zanardini) K.M.Drew, Bot. Tidsskr. 53: 72 (1956) *1
Basionym: *Bangia alsidii* Zanardini, Bibliot. Ital. Giorn. Lett. 96: 136 (1840)
[≡ *Goniotrichum alsidii*]

COMPSOPOGONALES

ERYTHROPELTIDACEAE

ERYTHROCLADIA Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 7(7): 71 (1909)

Erythrocladia irregularis Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 7(7): 72 (1909) *1, 41

ERYTHROTRICHIA Aresch., Nova Acta Regiae Soc. Sci. Upsal. 14: 435 (1850) *42

Erythrotrichia carnea (Dillwyn) J. Agardh, Acta Univ. Lund 19(3): 15 (1883) *1
Basionym: *Conferva carnea* Dillwyn, Brit. Conferv. 54, Pl. 84 (1806)

PORPHYROSTROMIUM Trevis., Sagg. Algh. Coccot. 100 (1848) *42

#***Porphyrostromium boryanum*** (Mont.) Trevis., Sagg. Algh. Coccot. 100 (1848) *1
Basionym: *Porphyra boryana* Mont. in Durieu, Expl. Sci. Algérie 150 (1846)
[≡ *Erythrotrichia boryana*]

SAHLINGIA Kornmann, Brit. Phycol. J. 24: 227 (1989)

Sahlingia subintegra (Rosenv.) Kornmann, Brit. Phycol. J. 24: 227 (1989) *1, 41
Basionym: *Erythrocladia subintegra* Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 7(7): 73 (1909)

BANGIALES

BANGIACEAE

BANGIA Lyngb., Tent. Hydrophytol. Dan. XXX, 82 (1819)

Bangia atropurpurea (Roth) C. Agardh, Syst. Alg. 76 (1824) *1
Basionym: *Conferva atropurpurea* Roth, Catal. Bot. 3: 208 (1806)

PORPHYRA C. Agardh, Syst. Alg. XXXII, 190 (1824)

Porphyra leucosticta Thur. in Le Jol., Mém. Soc. Sci. Nat. Cherbourg 10: 100 (1863) *1
Porphyra linearis Grev., Alg. Brit. 170 (1830) *1
Porphyra purpurea (Roth) C. Agardh, Syst. Alg. 191 (1824) – [NL: Purperwier] *1
Basionym: *Ulva purpurea* Roth, Catal. Bot. 1: 209 (1797)
Porphyra umbilicalis (L.) Kütz., Phycol. General. 383 (1843) –
[NL: Navelwier] *1, 43
Basionym: *Ulva umbilicalis* L., Sp. Pl. 1163 (1753)

ACROCHAETIALES *44

ACROCHAETIACEAE

ACROCHAETIUM Nägeli in Nägeli & C.E. Cramer, Pfl.-Physiol. Unters. 2: 532 (1858)

#***Acrochaetium alariae*** (Jónss.) Batters, J. Bot. 44: 3 (1906) *1
Basionym: *Chantransia alariae* Jónss., Bot. Tidsskr. 24: 132 (1901)
[≡ *Chromastrum alariae*]
Acrochaetium catenulatum M. Howe, Mem. Torrey Bot. Club 15: 84 (1914) *2, 45
Acrochaetium densum (K.M. Drew) Papenf., Univ. Calif. Publ. Bot. 18: 308 (1945) *1, 45
Basionym: *Rhodochorton densum* K.M. Drew, Univ. Calif. Publ. Bot. 14: 168 (1928)
[≡ *Chromastrum densum*]
Acrochaetium hallandicum (Kylin) Hamel, Rech. Acrochaetium 20 (1927) *1, 46
Basionym: *Chantransia hallandica* Kylin, Botaniska Studier Tillägnade F.R. Kjellman 123 (1906)
[≡ *Chromastrum hallandicum*]
Acrochaetium humile (Rosenv.) Börgesen, Dansk Bot. Ark. 3: 23 (1915) *1, 47
Basionym: *Chantransia humilis* Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 7(7): 117 (1909)
[≡ *Chromastrum humile*]

#***Acrochaetium microfilum*** C.C. Jao, Bull. Torrey Bot. Club. 63: 240 (1936) *1, 48
[≡ *Chromastrum microfilum*]

Acrochaetium moniliforme (Rosenv.) Börgesen, Dansk Bot. Ark. 3: 22 (1915) *2, 47
Basionym: *Chantransia moniliformis* Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 7(7): 99 (1909)

Acrochaetium polyblastum (Rosenv.) Börgesen, Dansk Bot. Ark. 3: 23 (1915) *1, 46
Basionym: *Chantransia polyblasta* Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 7(7): 115 (1909)
[≡ *Chromastrum polyblastum*]

Acrochaetium rhipidandrum (Rosenv.) Hamel, Rech. Acrochaetium 25 (1927) *1, 49
Basionym: *Chantransia rhipidandra* Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 7(7): 91 (1909)
[≡ *Chromastrum rhipidandrum*]

Acrohaetium secundatum (Lyngb.) Nägeli in Nägeli & C.E.Cramer, Pfl.-Physiol. Unters. 2: 532 (1858) *1, 49
Basionym: *Callithamnion dawiesii* (Dillwyn) Lyngb., Tent. Hydrophytol. Dan. 129 (1819) var. *secundatum* Lyngb., Tent. Hydrophytol. Dan. 129 (1819)
[≡ *Chromastrum secundatum*]

AUDOUINELLA Bory, Dict. Class. Hist. Nat. 3: 340 (1823)

Audouinella membranacea (Magnus) Papenf., Univ. Calif. Publ. Bot. 18: 326 (1945) *1
Basionym: *Callithamnion membranaceum* Magnus, Jahresber. Komm. Unters. Meere Kiel 2: 67 (1875)

COLACONEMA Batters, J. Bot. 34: 8 (1896)

#***Colaconema caespitosum*** (J. Agardh) Jackelman, Stegenga & J.J. Bolton, S. African J. Bot. 57: 303 (1991) *1, 50
Basionym: *Callithamnion caespitosum* J. Agardh, Spec. Gen. Ord. Alg. 2: 18 (1851)
[≡ *Acrochaetium botryocarpum*]

Colaconema dasyae (Collins) Stegenga, I. Mol, Prud'homme & Lokhorst, *nov. comb.* *1, 51, 52
Basionym: *Acrochaetium dasyae* Collins, Rhodora 8: 191 (1906)

Colaconema daviesii (Dillwyn) Stegenga, S. African. J. Bot. 51: 317 (1985) *1
Basionym: *Conferva daviesii* Dillwyn, Brit. Conferv. 73, Pl. F (1809)
[≡ *Acrochaetium daviesii*]

Colaconema nemalionis (De Not. ex L.Dufour) Stegenga, S. African. J. Bot. 51: 320 (1985) *1
Basionym: *Callithamnion nemalionis* De Not. ex L. Dufour, Erb. Critt. Ital. 20: 952
[≡ *Acrochaetium nemalionis*]

Colaconema savianum (Menegh.) R. Nielsen, Nordic J. Bot. 14: 715 (1994) *1, 52
Basionym: *Callithamnion savianum* Menegh., Flora 23: 511 (1840)
[≡ *Acrochaetium savianum*]

RHODOCHORTON Nägeli, Sitzungsber. Königl. Bayer. Akad. Wiss. München 1861(2): 326, 355 (1862)

Rhodochorton purpureum (Lightf.) Rosenv., Bot. Tidsskr. 23: 75 (1900) – [NL: Rood pluchewier] *1
Basionym: *Byssus purpurea* Lightf., Fl. Scot. 1000 (1777)

RHODOTHAMNIELLA Feldmann in T.A. Chr., Bot. Tidsskr. 73: 67 (1978)

Rhodothamniella floridula (Dillwyn) Feldmann in T.A. Chr., Bot. Tidsskr. 73: 67 (1978) *1, 53
Basionym: *Conferva floridula* Dillwyn, Brit. Conferv. 73, Pl. F (1809)
[≡ *Rhodochorton floridulum*]

NEMALIALES

NEMALIACEAE

NEMALION Duby, Bot. Gall. ed. 2: 959 (1830)

Nemalion helminthoides (Velley) Batters, J. Bot. 40(suppl.): 59 (1902) *1, 29, 54
Basionym: *Fucus elminthoides* Velley in With., Bot. Arr. Brit. Pl. ed. 2, 3: 255 (1792)

BONNEMAISONIALES

BONNEMAISONIACEAE

ASPARAGOPSIS Mont. in Webb & Berthel., Hist. Nat. Iles Canaries XV (1841)

#***Asparagopsis armata*** Harv., Trans. Roy. Irish Acad. 22: 544 (1855) *1, 55

BONNEMAISONIA C. Agardh, Spec. Alg. 1: 196 (1822)

#***Bonnemaisonia hamifera*** Har., Mém. Soc. Sci. Nat. Cherbourg 27: 223 (1891) *1, 56

FALKENBERGIA F. Schmitz in Engl. & Prantl, Nat. Pflanzenfam. 1(2): 479 (1897)

#***Falkenbergia rufolanosa*** (Harv.) F. Schmitz in Engl. & Prantl, Nat. Pflanzenfam. 1(2): 479 (1897) *1, 55
Basionym: *Polysiphonia rufolanosa* Harv., Trans. Roy. Irish Acad. 22: 540 (1855)

TRAILLIELLA Batters, J. Bot. 34: 10 (1896)

#***Trailliella intricata*** Batters, J. Bot. 34: 10 (1896) *1, 56

GELIDIALES

GELIDIACEAE

GELIDIUM J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 128 (1813)

#***Gelidium latifolium*** (Grev.) Bornet & Thur., Notes Alg. 1: 58 (1876) *1
Basionym: *Gelidium corneum* var. *latifolium* Grev., Alg. Brit. 143 (1830)

Gelidium pusillum (Stackh.) Le Jol., Mém. Soc. Sci. Nat. Cherbourg 10: 139 (1863) *1, 57
Basionym: *Fucus pusillus* Stackh., Nereis Brit. 16, Pl. VI (1795)

GRACILARIALES *58

GRACILARIACEAE

GRACILARIA Grev., Alg. Brit. LIV, 121 (1830)

Gracilaria gracilis (Stackh.) M. Steentoft, L.M. Irvine & W.F. Farnham, Phycologia 34: 115 (1995) – [NL: Knoopwier] *1, 59
Basionym: *Fucus gracilis* Stackh., Nereis Brit. 100, Pl. XVI (1801)
[≡ *Gracilaria verrucosa*, p.p.]

GRACILARIOPSIS E.Y. Dawson, Allan Hancock Found. Publ. Occas. Pap. 7: 40 (1949)

Gracilariopsis longissima (S.G. Gmel.) M. Steentoft, L.M. Irvine et W.F. Farnham, Phycologia 34: 117 (1995) *1, 59
Basionym: *Fucus longissimus* S.G. Gmel., Hist. Fuc. 134, Pl. XIII (1768)
[≡ *Gracilaria verrucosa* p.p.)

PALMARIALES

PALMARIACEAE

PALMARIA Stackh., Nereis Brit. XXXII (1801)

#***Palmaria palmata*** (L.) Kuntze, Revis. Gen. Pl. 2: 909 (1891) *1
Basionym: *Fucus palmatus* L., Sp. Pl. 1162 (1753)

RHODOPHYSEMATACEAE *60

RHODOPHYSEMA Batters, J. Bot. 38: 377 (1900)

#***Rhodophysema elegans*** (P. & H. Crouan ex J. Agardh) P.S. Dixon, Bot. Not. 117: 70 (1964) *1, 61
Basionym: *Rhododermis elegans* P. & H. Crouan ex J. Agardh, Spec. Gen. Ord. Alg. 2: 505 (1852)

HILDENBRANDIALES

HILDENBRANDIACEAE

HILDENBRANDIA [Hildbrandtia] Nardo, Isis (Oken) 27 (1834): 676 (1834)

Hildenbrandia crouanii J. Agardh, Spec. Gen. Ord. Alg. 2: 495 (1852) *2, 62

Hildenbrandia rubra (Sommerf.) Menegh., Atti Riunione Sci. Ital. 3: 426 (1841) – [NL: Wijnrood korstwier] *1
Basionym: *Verrucaria rubra* Sommerf., Suppl. Fl. Lap. 140 (1826)

CORALLINALES

CORALLINACEAE

CORALLINA L., Syst. Nat. ed. 10: 646, 805 (1758)

#***Corallina elongata*** J. Ellis & Sol., Nat. Hist. Zooph. 119 (1786) *1, 63

Corallina officinalis L., Syst. Nat. ed. 10: 805 (1758) – [NL: Koraalwier] *1, 29, 64

JANIA J.V. Lamour., Nouv. Bull. Sci. Soc. Philom. Paris 3: 186 (1812)

Jania rubens (L.) J.V. Lamour., Nouv. Bull. Sci. Soc. Philom. Paris 3: 186 (1812) *1, 29
Basionym: *Corallina rubens* L., Syst. Nat. ed. 10: 805 (1758)

MELOBESIA J.V. Lamour., Nouv. Bull. Sci. Soc. Philom. Paris 3: 186 (1812)

#***Melobesia membranacea*** (Esper) J.V. Lamour., Nouv. Bull. Sci. Soc. Philom. Paris 3: 186 (1812) *1
Basionym: *Corallina membranacea* Esper, Fortsetz. Pflanzenthiere 2: Pl. XII (1806)

MESOPHYLLUM Me. Lemoine, Bull. Soc. Bot. France 75: 251 (1928)

Mesophyllum lichenoides (J. Ellis) Me. Lemoine, Bull. Soc. Bot. France 75: 251 (1928) *1
Basionym: *Corallium lichenoides* J. Ellis, Philos. Trans. 57(1): 407 (1768)

PHYMATOLITHON Foslie, Kongel. Norske Vidensk. Selsk. Skr. (Trondheim) 1898(2): 4 (1898)

#***Phymatolithon calcareum*** (Pall.) W.H. Adey & D.L. McKibbin, Bot. Mar. 13: 100 (1970) *1
Basionym: *Millepora calcarea* Pall., Elench. Zooph. 265 (1766)

Phymatolithon lenormandii (Aresch. in J. Agardh) W.H. Adey, Hydrobiologia 28: 325 (1966) – [NL: Rose kalkkorstwier] *1
Basionym: *Melobesia lenormandii* Aresch. in J. Agardh, Spec. Gen. Ord. Alg. 2: 514 (1852)

PNEOPHYLLUM Kütz., Phycol. General. 385 (1843)

#***Pneophyllum confervicola*** (Kütz.) Y.M. Chamb., Bull. Brit. Mus. (Nat. Hist.) Bot. 11: 385 (1983) *1
Basionym: *Phyllactidium confervicola* Kütz., Phycol. General. 295 (1843)
[≡ *Fosliella minutula*]

Pneophyllum fragile Kütz., Phycol. General. 385 (1843) *1
[≡ *Fosliella lejolisii*]

TITANODERMA Nägeli in Nägeli & C.E. Cramer, Pfl.-Physiol. Unters. 2: 532 (1858)

#***Titanoderma pustulatum*** (J.V. Lamour.) Nägeli in Nägeli & C.E. Cramer, Pfl.-Physiol. Unters. 2: 532 (1858) *1
Basionym: *Melobesia pustulata* J.V. Lamour., Hist. Polyp. Corall. 315 (1816)
[≡ *Dermatolithon pustulatum*]

CRYPTONEMIALES

CHOREOCOLACACEAE

CHOREOCOLAX Reinsch, Contr. Algol. Fungol. 61 (1875)

Choreocolax polysiphoniae Reinsch, Contr. Algol. Fungol. 61, Pl. 49 (1875) *2, 65

CRYPTONEMIACEAE

GRATELOUPIA C. Agardh, Spec. Alg. 1: 221 (1822)

Grateloupia doryphora (Mont.) M.Howe, Mem. Torrey Bot. Club 15: 169 (1914) *2, 65
Basionym: *Halymenia ?doryphora* Mont. in A.D. Orb., Voy. Amér. Mérid., Bot. 7(2): 21 (1839)

#***Grateloupia filicina*** (J.V. Lamour.) C. Agardh, Spec. Alg. 1: 223 (1822) *1
Basionym: *Delesseria filicina* J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 125 (1813)

DUMONTIACEAE

DUMONTIA J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 133 (1813)

Dumontia contorta (S.G. Gmel.) Rupr., Tange Ochotsk. Meer. 295 (1851) – [NL: Rood darmwier] *1
Basionym: *Fucus contortus* S.G. Gmel., Hist. Fuc. 181, Pl. XXII (1768)

GLOIOSIPHONIACEAE

GLOIOSIPHONIA Carmich. ex Berk., Glean. Brit. Alg. 45 (1833)

Gloiosiphonia capillaris (Huds.) Carmich. ex Berk., Glean. Brit. Alg. 45 (1833) *1, 29
Basionym: *Fucus capillaris* Huds., Fl. Angl. ed. 2: 591 (1778)

KALLYMENIACEAE

CALLOPHYLLIS Kütz., Phycol. General. 400 (1843)

#***Callophyllis laciniata*** (Huds.) Kütz., Phycol. General. 401 (1843) *2, 40
Basionym: *Fucus laciniatus* Huds., Fl. Angl. 475 (1762)

PEYSSONNELIACEAE

PEYSSONNELIA Decne., Arch. Mus. Hist. Nat. 2: 168 (1841)

#***Peyssonnelia atropurpurea*** P. & H. Crouan, Fl. Finistère 148 (1867) *1
#***Peyssonnelia dubyi*** P. & H. Crouan, Ann. Sci. Nat., Bot. sér. 3, 2: 368 (1844) *1

AHNFELTIALES *66

AHNFELTIACEAE

AHNFELTIA Fr., Fl. Scan. 309, 310 (1835)

Ahnfeltia plicata (Huds.) Fr., Fl. Scan. 310 (1835) *1, 67
Basionym: *Fucus plicatus* Huds., Fl. Angl. 470 (1762)

PORPHYRODISCUS Batters, J. Bot. 35: 439 (1897)

#***Porphyrodiscus simulans*** Batters, J. Bot. 35: 439 (1897) *1, 67

GIGARTINALES

CAULACANTHACEAE

CATENELLA Grev., Alg. Brit. LXIII, 166 (1830)

Catenella caespitosa (With.) L.M. Irvine in Parke & P.S. Dixon, J. Mar. Biol. Assoc. U.K. 56: 590 (1976) – [NL: Korstmoswier] *1
Basionym: *Ulva caespitosa* With., Bot. Arr. Brit. Pl. 735 (1776)

CYSTOCLONIACEAE

CALLIBLEPHARIS Kütz., Phycol. General. 403 (1843)

#***Calliblepharis ciliata*** (Huds.) Kütz., Phycol. General. 404 (1843) *1
Basionym: *Fucus ciliatus* Huds., Fl. Angl. 472 (1762)
#***Calliblepharis jubata*** (Gooden. & Woodw.) Kütz., Phycol. General. 404 (1843) *1
Basionym: *Fucus jubatus* Gooden. & Woodw., Trans. Linn. Soc. London 3: 162 (1797)

CYSTOCLONIUM Kütz., Phycol. General. 404 (1843)

Cystoclonium purpureum (Huds.) Batters, J. Bot. 40 (suppl.): 68 (1902) *1
Basionym: *Fucus purpureus* Huds., Fl. Angl. 471 (1762)

RHODOPHYLLIS Kütz., Bot. Zeitung (Berlin) 5: 23 (1847)

#***Rhodophyllis divaricat***a (Stackh.) Papenf., Hydrobiologia 2: 190 (1950) *1
Basionym: *Bifida divaricata* Stackh., Mém. Soc. Imp. Naturalistes Moscou 2: 97 (1809)

GIGARTINACEAE

CHONDRACANTHUS Kütz., Phycol. General. 399 (1843)

#***Chondracanthus acicularis*** (Roth) Fredericq in Hommers., Guiry, Fredericq & Leister, Hydrobiologia 260/261: 117 (1993) *1, 68
Basionym: *Ceramium aciculare* Roth, Catal. Bot. 3: 114 (1806)
[≡ *Gigartina acicularis*]

#***Chondracanthus teedii*** (Roth) Kütz., Phycol. General. 399 (1843) *1, 68
Basionym: *Ceramium teedii* Roth, Catal. Bot. 3: 108 (1806)
[≡ *Gigartina teedii*]

CHONDRUS Stackh., Nereis Brit. XV (1797)

Chondrus crispus Stackh., Nereis Brit. XXIV, 63, Pl. XII (1797) –
[NL: Iers mos] *1

GIGARTINA Stackh., Mém. Soc. Imp. Naturalistes Moscou 2: 55 (1809)

#***Gigartina pistillata*** (S.G. Gmel.) Stackh., Mém. Soc. Imp. Naturalistes Moscou 2: 74 (1809) *1
Basionym: *Fucus pistillatus* S.G. Gmel., Hist. Fuc. 159, Pl. XVIII (1768)

PETROCELIDACEAE

MASTOCARPUS Kütz., Phycol. General. 398 (1843)

Mastocarpus stellatus (Stackh. in With.) Guiry in Guiry, J.A. West, D.H. Kim & Masuda, Taxon 33: 56 (1984) – [NL: Kernwier] *1, 68, 69
Basionym: *Fucus stellatus* Stackh. in With., Arr. Brit. Pl. ed. 3, 4: 99 (1796)
[≡ *Gigartina stellata*]

PETROCELIS J. Agardh, Spec. Gen. Ord. Alg. 2: 489 (1852)

#***Petrocelis cruenta*** J. Agardh, Spec. Gen. Ord. Alg. 2: 490 (1852) *1, 69

PHYLLOPHORACEAE

PHYLLOPHORA Grev., Alg. Brit. LVI, 135 (1830)

Phyllophora pseudoceranoides (S.G. Gmel.) Newroth & A.R.A. Taylor, Phycologia 10: 95 (1971) *1
Basionym: *Fucus pseudoceranoides* S.G. Gmel., Hist. Fuc. 119, Pl. VII (1768)

POLYIDEACEAE

POLYIDES C. Agardh, Spec. Alg. 1: 390 (1822)

#***Polyides rotundus*** (Huds.) Grev., Alg. Brit. XLV, 70 (1830) *1
Basionym: *Fucus rotundus* Huds., Fl. Angl. 471 (1762)

SPHAEROCOCCACEAE

SPHAEROCOCCUS Stackh., Nereis Brit. XVI (1797)

#***Shaerococcus coronopifolius*** Stackh., Nereis Brit. XXIV, 83, Pl. XIV (1797) *2

PLOCAMIALES *70

PLOCAMIACEAE

PLOCAMIUM J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 137 (1813)

#***Plocamium cartilagineum*** (L.) P.S. Dixon, Blumea 15: 58 (1967) *1
Basionym: *Fucus cartilagineus* L., Sp. Pl. 1161 (1753)

RHODYMENIALES

CHAMPIACEAE

CHAMPIA Desv., J. Bot. (Desvaux) 1: 246 (1809)

#***Champia parvula*** (C. Agardh) Harv., Nereis Bor. Amer. 2: 76 (1853) *2, 40
Basionym: *Chondria parvula* C. Agardh, Syst. Alg. 207 (1824)

CHYLOCLADIA Grev. in Hook., Engl. Fl. 5: 256, 297 (1833)

#***Chylocladia verticillata*** (Lightf.) Bliding, Acta Univ. Lund. N.S. Avd. 2, 24(3): 69 (1928) *1
Basionym: *Fucus verticillatus* Lightf., Fl. Scot. 962 (1777)

GASTROCLONIUM Kütz., Phycol. General. 441 (1843)

#***Gastroclonium ovatum*** (Huds.) Papenf., Farlowia 1: 344 (1944) *1
Basionym: *Fucus ovatus* Huds., Fl. Angl. 468 (1762)

LOMENTARIACEAE

LOMENTARIA Lyngb., Tent. Hydrophytol. Dan. XXXI, 101 (1819)

#***Lomentaria articulata*** (Huds.) Lyngb., Tent. Hydrophytol. Dan. 101 (1819) *1
Basionym: *Ulva articulata* Huds., Fl. Angl. 476 (1762)

Lomentaria clavellosa (Turner) Gaillon, Dict. Sci. Nat. 53: 367 (1828) *1, 71
Basionym: *Fucus clavellosus* Turner, Trans. Linn. Soc. London 6: 133 (1801)

RHODYMENIACEAE

RHODYMENIA Grev., Alg. Brit. XLVIII, 84 (1830)

#***Rhodymenia holmesii*** Ardiss., Ric. Ist. Lomb. Sci. Lett. ser. 2, 26: 682 (1893) *1, 72
[≡ *Rhodymenia pseudopalmata*]

CERAMIALES

CERAMIACEAE

AGLAOTHAMNION Feldm.-Maz., Rech. Cér. Méd. Occ. 451 (1941)

Aglaothamnion byssoides (Arn. ex Harv.) L'Hardy-Halos & Rueness, Phycologia 29: 351 (1990) *1, 73
Basionym: *Callithamnion byssoides* Arn. ex. Harv. in Hook., Engl. Fl. 5: 342 (1833)
[≡ *Callithamnion byssoides* p.p.]

Aglaothamnion hookeri (Dillwyn) Maggs & Hommers., Seaweeds Brit. Isles 1(3A): 102 (1993) *1
Basionym: *Conferva hookeri* Dillwyn, Brit. Conferv. Pl. 106 (1809)
[≡ *Callithamnion hookeri* p.p.]

Aglaothamnion pseudobyssoides (P. & H. Crouan) L'Hardy-Halos, Cah. Biol. Mar. 6: 117 (1965) *2, 59, 73
Basionym: *Callithamnion pseudobyssoides* P. & H. Crouan, Fl. Finistère 136 (1867)
[≡ *Callithamnion byssoides* p.p.]

Aglaothamnion roseum (Roth) Maggs & L'Hardy-Halos, Taxon 42: 522 (1993) *1
Basionym: *Ceramium roseum* Roth, Arch. Bot. (Leipzig) 1(3): 47 (1798)
[≡ *Callithamnion roseum*]

#***Aglaothamnion tripinnatum*** (C. Agardh) Feldm.-Maz., Rech. Cér. Méd. Occ. 464 (1941) *1
Basionym: *Callithamnion tripinnatum* C. Agardh, Spec. Alg. 2: 168 (1828)
[≡ *Callithamnion hookeri* p.p.]

ANOTRICHIUM Nägeli, Sitzungsber. Königl. Bayer. Akad. Wiss. München 1861(2): 397 (1862)

Anotrichium furcellatum (J. Agardh) Baldock, Austral. J. Bot. 24: 560 (1976) *1, 74
Basionym: *Griffithsia furcellata* J. Agardh, Alg. Mar. Medit. 75 (1842)
[≡ *Griffithsia furcellata*]

ANTITHAMNION Nägeli, Neu. Algensyst. 200 (1847)

#***Antithamnion cruciatum*** (C. Agardh) Nägeli, Neu. Algensyst. 202 (1847) *1, 75
Basionym: *Callithamnion cruciatum* C. Agardh, Flora 10: 637 (1827)

Antithamnion villosum (Kütz.) Athanasiadis in Maggs & Hommers., Seaweeds Brit. Isles 1(3A): 10 (1993) *1, 75, 76
Basionym: *Callithamnion cruciatum* var. *villosum* Kütz., Tab. Phycol. 11: 28 (1861)
[≡ *Antithamnion tenuissimum*]

ANTITHAMNIONELLA Lyle, J. Bot. 60: 347 (1922)

Antithamnionella spirographidis (Schiffn.) E.M. Woll., Austral. J. Bot. 16: 345 (1968) *1, 77
Basionym: *Antithamnion spirographidis* Schiffn., Wiss. Meeresuntersuch., Abt. Helgoland 11: 137 (1916)
[≡ *Antithamnion spirographidis* p.p.]

#***Antithamnionella ternifolia*** (Hook.f. & Harv.) Lyle, J. Bot. 60: 350 (1922) *1, 77
Basionym: *Callithamnion ternifolium* Hook.f. & Harv., London J. Bot. 4: 272 (1845)
[≡ *Antithamnion spirographidis* p.p.]

CALLITHAMNION Lyngb., Tent. Hydrophytol. Dan. XXXI, 123 (1819)

Callithamnion corymbosum (Sm.) Lyngb., Tent. Hydrophytol. Dan. 125 (1819) *1, 29
Basionym: *Conferva corymbosa* Sm. in Sm. & Sowerby, Engl. Bot. Pl. 2352 (1811)

#***Callithamnion granulatum*** (Ducluz.) C. Agardh, Spec. Alg. 2: 177 (1828) *1
Basionym: *Ceramium granulatum* Ducluz., Essai Conferv. Montpellier 72 (1806)

#***Callithamnion tetragonum*** (With.) Gray, Nat. Arr. Brit. Pl. 1: 324 (1821) *1
Basionym: *Conferva tetragona* With., Arr. Brit. Pl. ed. 3, 4: 405 (1796)

#***Callithamnion tetricum*** (Dillwyn) Gray, Nat. Arr. Brit. Pl. 1: 324 (1821) *1
Basionym: *Conferva tetrica* Dillwyn, Brit. Conferv. Pl. 81 (1806)

CERAMIUM Roth, Catal. Bot. 1: 146 (1797)

#***Ceramium ciliatum*** (J. Ellis) Ducluz., Essai Conferv. Montpellier 64 (1806) *1
Basionym: *Conferva ciliata* J. Ellis, Phil. Trans. 57: 425 (1768)

Ceramium cimbricum H.E. Petersen in Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd., ser. 7(7): 378 (1923/1924) *1, 65

Ceramium deslongchampii Chauv. ex Duby, Bot. Gall. ed. 2: 967 (1830) – [NL: Hollands hoorntjeswier] *1

Ceramium diaphanum (Lightf.) Roth, Catal. Bot. 3: 154 (1806) *1
Basionym: *Conferva diaphana* Lightf., Fl. Scot. 996 (1777)
[incl. *Ceramium tenuissimum*]

#***Ceramium echionotum*** J. Agardh, Syst. Alg. Advers. 27 (1844) *1

#***Ceramium flaccidum*** (Harv. ex Kütz.) Ardiss., Nuovo Giorn. Bot. Ital. 3: 40 (1871) *2
Basionym: *Hormoceras flaccidum* Harv. ex Kütz., Tab. Phycol. 12: 21 (1862)

#***Ceramium gaditanum*** (Clemente) Cremades in Cremades & Pérez-Cirera, Anales Jard. Bot. Madrid 47: 489 (1990) *1
Basionym: *Conferva gaditana* Clemente, Ens. Var. Vid. Com. 322 (1807)
[≡ *Ceramium flabelligerum*]

Ceramium nodulosum (Lightf.) Ducluz., Essai Conferv. Montpellier 61 (1806) – [NL: Rood hoorntjeswier] *1, 78
Basionym: *Conferva nodulosa* Lightf., Fl. Scot. 994 (1777)
[≡ *Ceramium rubrum* p.p., *Ceramium fruticulosum*, *Ceramium recissum*]

#***Ceramium pallidum*** (Nägeli ex Kütz.) Maggs & Hommers., Seaweeds Brit. Isles 1(3A): 67 (1993) *78
Basionym: *Trichoceras pallidum* Nägeli ex Kütz., Sp. Alg. 680 (1849)
[≡ *Ceramium rubrum* p.p.]

Ceramium shuttleworthianum (Kütz.) P.C. Silva, Taxon 8: 64 (1959) *2, 79
Basionym: *Acanthoceras shuttleworthianum* Kütz., Linnaea 15: 739 (1841)

COMPSOTHAMNION Nägeli, Sitzungsber. Königl. Bayer. Akad. Wiss. München 1861(2): 326, 342 (1862)

#***Compsothamnion thuyoides*** (Sm.) Nägeli, Sitzungsber. Königl. Bayer. Akad. Wiss. München 1861(2): 344 (1862) *1, 29
Basionym: *Conferva thuioides* Sm. in Sm. & Sowerby, Engl. Bot. Pl. 2205

CROUANIA J. Agardh, Alg. Mar. Medit. 83 (1842)

#***Crouania attenuata*** (C. Agardh) J. Agardh, Alg. Mar. Medit. 83 (1842) *2, 40
Basionym: *Mesogloia attenuata* C. Agardh, Syst. Alg. 51 (1824)

GRIFFITHSIA C. Agardh, Syn. Alg. Scand. XXVIII (1817)

Griffithsia devoniensis Harv., Phycol. Brit. Pl. 16 (1846–1851) *1

HALURUS Kütz., Phycol. General. 374 (1843)

#***Halurus equisetifolius*** (Lightf.) Kütz., Phycol. General. 374 (1843) *1
Basionym: *Conferva equisetifolia* Lightf., Fl. Scot. 984 (1777)

Halurus flosculosus (J. Ellis) Maggs & Hommers., Seaweeds Brit. Isles 1(3A): 175 (1993) *1, 80
Basionym: *Conferva flosculosa* J. Ellis, Phil. Trans. 57: 425 (1768)
[≡ *Griffithsia flosculosa*]

MONOSPORUS Solier in Castagne, Cat. Pl. Marseille 242 (1845)

#***Monosporus pedicellatus*** (Sm.) Solier & Castagne, Cat. Pl. Marseille 242 (1845) *1
Basionym: *Conferva pedicellata* Sm. in Sm & Sowerby, Engl. Bot. Pl. 1817 (1808)
[≡ *Corynospora pedicellata*]

PLUMARIA F. Schmitz, Nuova Notarisia 7: 5 (1896)

#***Plumaria plumosa*** (Huds.) Kuntze, Revis. Gen. Pl. 3: 421 (1898) *1
Basionym: *Fucus plumosus* Huds., Fl. Angl. 473 (1762)
[≡ *Plumaria elegans*]

PTEROTHAMNION Nägeli in Nägeli & C.E. Cramer, Pfl.-Physiol. Unters. 1: 66 (1855)

#***Pterothamnion crispum*** (Ducluz.) Nägeli, Sitzungsber. Königl. Bayer. Akad. Wiss. München 1861(2): 376 (1862) *1
Basionym: *Ceramium crispum* Ducluz., Essai Conferv. Montpellier 47 (1806)
[≡ *Antithamnion plumula* var. *crispum*]

Pterothamnion plumula (J. Ellis) Nägeli in Nägeli & C.E. Cramer, Pfl.-Physiol. Unters. 1: 66 (1855) *1, 81
Basionym: *Conferva plumula* J. Ellis, Phil. Trans. 57: 425 (1768)
[≡ *Antithamnion plumula*]

PTILOTA C. Agardh, Syn. Alg. Scand. XIX (1817)

#***Ptilota gunneri*** P.C. Silva, Maggs & L.M. Irvine in Maggs & Hommers., Seaweeds Brit. Isles 1(3A): 39 (1993) *1
[≡ *Ptilota plumosa*]

PTILOTHAMNION Thur. in Le Jol., Mém. Soc. Sci. Nat. Cherbourg 10: 118 (1863)

#***Ptilothamnion pluma*** (Dillwyn) Thur. in Le Jol., Mém. Soc. Sci. Nat. Cherbourg 10: 118 (1863) *2
Basionym: *Conferva pluma* Dillwyn, Brit. Conferv. 72, Pl. F (1809)

SEIROSPORA Harv., Phycol. Brit. Pl. XXI (1846–1851)

Seirospora interrupta (Sm.) F. Schmitz, Ber. Deutsch. Bot. Ges. 11: 281 (1893) *2, 65
Basionym: *Conferva interrupta* Sm. in Sm. & Sowerby, Engl. Bot. Pl. 1838 (1808)

SPERMOTHAMNION Aresch., Nova Acta Regiae Soc. Sci. Upsal. 13: 334 (1847)

#***Spermothamnion repens*** (Dillwyn) Rosenv., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 8(7): 298 (1923/1924) *1
Basionym: *Conferva repens* Dillwyn, Brit. Conferv. Pl. 18 (1802)

SPYRIDIA Harv. in Hook., Engl. Fl. 5: 259, 336 (1833)

#***Spyridia filamentosa*** (Wulfen) Harv. in Hook., Engl. Fl. 5: 337 (1833) *1
Basionym: *Fucus filamentosus* Wulfen, Arch. Bot. (Leipzig) 3: 64 (1803)

DASYACEAE

DASYA C. Agardh, Syst. Alg. XXXIV, 211 (1824)

Dasya baillouviana (S.G. Gmel.) Mont. in Webb & Berthel., Hist. Nat. Iles Canaries 3: 165 (1841) *1, 82
Basionym: *Fucus baillouviana* S.G. Gmel., Hist. Fuc. 165 (1768)
#***Dasya hutchinsiae*** Harv. in Hook., Engl. Fl. 5: 335 (1833) *1

DASYSIPHONIA I.K. Lee & J.A. West, Syst. Bot. 4: 115 (1979)

Dasysiphonia spec. indet. *2, 83

HETEROSIPHONIA Mont., Prodr. Gen. Phyc. 4 (1842)

#***Heterosiphonia plumosa*** (J. Ellis) Batters, J. Bot. 40(suppl): 83 (1902) *1
Basionym: *Conferva plumosa* J. Ellis, Phil. Trans. 57: 424 (1768)

DELESSERIACEAE

ACROSORIUM Zanardini in Kütz., Tab. Phycol. 19: 4 (1869) *85

#***Acrosorium venulosum*** (Zanardini) Kylin, Acta Univ. Lund, N.S. Avd. 2, 20(6): 77 (1924) *1, 84
Basionym: *Nitophyllum venulosum* Zanardini, Mem. Reale Ist. Veneto Sc. 13: 33 (1866)
[≡ *Acrosorium uncinatum*]

APOGLOSSUM J. Agardh, Spec. Gen. Ord. Alg. 3(3): 190 (1898)

#***Apoglossum ruscifolium*** (Turner) J. Agardh, Spec. Gen. Ord. Alg. 3(3): 194 (1898) *1
Basionym: *Fucus ruscifolius* Turner, Syn. Brit. Fuci 11 (1802)

CRYPTOPLEURA Kütz., Phycol. General. 444 (1843)

#***Cryptopleura ramosa*** (Huds.) Kylin ex L.Newton, Handb. Brit. Seaweeds 332 (1931) *1, 84, 85
Basionym: *Ulva ramosa* Huds., Fl. Angl. 476 (1762)
[incl. *Acrosorium reptans*]

DELESSERIA J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 122 (1813)

#***Delesseria sanguinea*** (Huds.) J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 124 (1813) *1
Basionym: *Fucus sanguineus* Huds., Fl. Angl. 475 (1762)

HYPOGLOSSUM Kütz., Phycol. General. 444 (1843)

Hypoglossum hypoglossoides (Stackh.) Collins & Herv., Proc. Amer. Acad. Arts 53: 116 (1919) – [NL: Tongwier] *1, 86
Basionym: *Fucus hypoglossoides* Stackh., Nereis Brit. 76, Pl. XIII (1801)
[≡ *Hypoglossum woodwardii*]

MEMBRANOPTERA Stackh., Mém. Soc. Imp. Naturalistes Moscou 2: 57 (1809)

#***Membranoptera alata*** (Huds.) Stackh., Mém. Soc. Imp. Naturalistes Moscou 2: 85 (1809) *1
Basionym: *Fucus alatus* Huds., Fl. Angl. 472 (1762)

NITOPHYLLUM Grev., Alg. Brit. XLVII, 77 (1830)

#***Nitophyllum punctatum*** (Stackh.) Grev., Alg. Brit. 79 (1830) *1
Basionym: *Ulva punctata* Stackh., Trans. Linn. Soc. London 3: 236 (1797)

PHYCODRYS Kütz., Phycol. General. 444 (1843)

#***Phycodrys rubens*** (L.) Batters, J. Bot. 40(suppl): 76 (1902) *2
Basionym: *Fucus rubens* L., Sp. Pl. 1162 (1753)

RHODOMELACEAE

BOSTRYCHIA Mont. in Sagra, Hist. Phys. Cuba, Bot. Pl. Cell. 39 (1842)

Bostrychia scorpioides (Huds.) Mont. ex Kütz., Sp. Alg. 839 (1849) *1
Basionym: *Fucus scorpioides* Huds., Fl. Angl. 471 (1762)

CHONDRIA C. Agardh, Syn. Alg. Scand. XVIII (1817)

Chondria capillaris (Huds.) M.J. Wynne, Taxon 40: 317 (1991) *1
Basionym: *Ulva capillaris* Huds., Fl. Angl. ed. 2: 571 (1778)
[≡ *Chondria tenuissima*]

Chondria dasyphylla (Woodw.) C. Agardh, Spec. Alg. 1: 350 (1822) *1
Basionym: *Fucus dasyphyllus* Woodw., Trans. Linn. Soc. London 2: 239 (1794)

HALOPITHYS Kütz., Phycol. General. 433 (1843)

#***Halopithys incurvus*** (Huds.) Batters, J. Bot. 40(suppl.): 78 (1902) *1
Basionym: *Fucus incurvus* Huds., Fl. Angl. 470 (1762)

LAURENCIA J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 130 (1813) *87

#***Laurencia obtusa*** (Huds.) J.V. Lamour., Ann. Mus. Natl. Hist. Nat. 20: 130 (1813) *1
Basionym: *Fucus obtusus* Huds., Fl. Angl. ed. 2: 586 (1778)

OSMUNDEA Stackh., Mém. Soc. Imp. Naturalistes Moscou 2: 56 (1809) *87

#***Osmundea hybrida*** (DC.) K.W. Nam in K.W. Nam, Maggs & Garbary, Phycologia 33: 393 (1994) *1
Basionym: *Fucus hybridus* DC., Fl. Franç. 2, ed. 3: 30 (1815)
[≡ *Laurencia hybrida*]

#***Osmundea osmunda*** (S.G. Gmel.) K.W. Nam & Maggs in K.W. Nam, Maggs & Garbary, Phycologia 33: 394 (1994) *1, 88
Basionym: *Fucus osmunda* S.G. Gmel., Hist. Fuc. 155, Pl. XVI (1768)
[≡ *Laurencia pinnatifida* p.p.]

#***Osmundea truncata*** (Kütz.) K.W. Nam in K.W. Nam, Maggs & Garbary, Phycologia 33: 393 (1994) *1, 88
Basionym: *Laurencia truncata* Kütz., Tab. Phycol. 15: 19 (1865)
[≡ *Laurencia pinnatifida* p.p.]

POLYSIPHONIA Grev., Scott. Crypt. Fl. 2: Pl. 90 (1823/1824)

#***Polysiphonia brodiaei*** (Dillwyn) Spreng., Syst. Veg. 4(1): 349 (1827) *1
Basionym: *Conferva brodiaei* Dillwyn, Brit. Conferv. 81, Pl. 107 (1809)

Polysiphonia denudata (Dillwyn) Grev. ex Harv. in Hook., Engl. Fl. 5: 332 (1833) *1
Basionym: *Conferva denudata* Dillwyn, Brit. Conferv. 85, Pl. G (1809)

Polysiphonia devoniensis Maggs & Hommers., Seaweeds Brit. Isles 1(3A): 322 (1993) *2, 89

Polysiphonia elongata (Huds.) Spreng., Syst. Veg. 4(1): 349 (1827) –
[NL: Stijf buiswier] *1
Basionym: *Conferva elongata* Huds., Fl. Angl. 484 (1762)

Polysiphonia fibrillosa (Dillwyn) Spreng., Syst. Veg. 4(1): 349 (1827) *1, 90
Basionym: *Conferva fibrillosa* Dillwyn, Brit. Conferv. 86 (1809)
[≡ *Polysiphonia violacea* p.p.]

Polysiphonia fucoides (Huds.) Grev., Fl. Edin. 308 (1824) –
[NL: Donker buiswier] *1
Basionym: *Conferva fucoides* Huds., Fl. Angl. 485 (1762)
[≡ *Polysiphonia nigrescens*]

Polysiphonia harveyi Bailey, Amer. J. Sci. Arts ser. 2, 6: 38 (1848) –
[NL: Violet buiswier] *1, 90, 91
[≡ *Polysiphonia violacea* p.p.]

Polysiphonia lanosa (L.) Tandy, J. Bot. 69: 226 (1931) –
[NL: Klein buiswier] *1, 29
Basionym: *Fucus lanosus* L., Syst. Nat. ed. 12, 2: 718 (1767)

Polysiphonia nigra (Huds.) Batters, J. Bot. 40(suppl): 81 (1902) *1
Basionym: *Conferva nigra* Huds., Fl. Angl. 481 (1762)

Polysiphonia senticulosa Harv., J. Proc. Linn. Soc. Bot. 6: 169 (1862) *2, 92
Polysiphonia stricta (Dillwyn) Grev., Fl. Edin. 309 (1824) –
[NL: IJl buiswier] *1, 93
Basionym: *Conferva stricta* Dillwyn, Brit. Conferv. Pl. 40 (1804)
[≡ *Polysiphonia urceolata*]

PTEROSIPHONIA Falkenb. in F. Schmitz & Falkenb., Nat. Pflanzenfam. 1(2): 443 (1897)

#***Pterosiphonia parasitica*** (Huds.) Falkenb., Rhodomel. Golf. Neapel 265 (1901) *2
Basionym: *Conferva parasitica* Huds., Fl. Angl. 486 (1762)

RHODOMELA C. Agardh, Spec. Alg. 1: 368 (1822)

#***Rhodomela confervoides*** (Huds.) P.C. Silva, Univ. Calif. Publ. Bot. 25: 269 (1952) *1
Basionym: *Fucus confervoides* Huds., Fl. Angl. 474 (1762)
#***Rhodomela lycopodioides*** (L.) C. Agardh, Spec. Alg. 1: 377 (1822) *1
Basionym: *Fucus lycopodioides* L., Syst. Nat. ed. 12, 2: 717 (1767)

Notes

1. Species mentioned in Stegenga & Mol (1983); note: The AVU herbarium, frequently referred to in that publication, has now been incorporated in L.
2. Published or unpublished record since 1982. Where no further comment nor a literature reference is given, material is in L or in the personal collection of the first author.
3. The system adopted here for the Chlorophyta is essentially traditional. The taxonomy of the green algae has recently undergone great changes: Van den Hoek et al. (1995) distinguish 11 classes instead of the single class Chlorophyceae, at least five of these comprise marine taxa, for our area:
   - Ulvophyceae (including Ulotrichales, Ulvales, Chaetophorales and Acrosiphoniales as given in the present paper).
   - Cladophorophyceae (including Cladophorales).
   - Bryopsidophyceae (including Derbesiales and Codiales).
   - The position of the order Prasiolales was left uncertain.

   It should be noted that the marine "Chaetophorales" in the system of Van den Hoek et al. (l.c.) find their place in the Ulvales, while the Chaetophorales s.s. are included in the class Chlorophyceae, together with some other orders of freshwater green algae.
4. *Ulothrix implexa* and *U. subflaccida*, both brackish water species, were only mentioned in a remark aside in Stegenga & Mol (1983); see Lokhorst (1978).
5. The species of *Enteromorpha* were revised for the Netherlands by Koeman & Van den Hoek (1982a,b, 1984); they also formally divided the genus into sections for the first time. As a result the number of recognized species in our region increased from 9 to 17, some of these had been recognized as subspecific categories by Bliding (1963), others were described as new species. Other recent regional western European flora's and checklists do not recognize similarly high numbers of species (e.g. Burrows 1991, Nielsen et al. 1995).
6. According to Burrows (1991) *Pringsheimiella scutata* and *Syncoryne reinkei* may belong to the same life history.
7. Growing on *Ulva* spp. in the Oosterschelde.
8. Recently (since 1984) one of the dominant *Ulva* species seems to be aberrant from any of the species treated by Koeman & Van den Hoek (1981): its midthallus (up to 140 µm) and basal thallus (up to 500 µm) are thicker than in *U. rigida*, sofar the most robust species, while cells are larger and not well organized in rows. We suspect this may be an introduced species.
9. Den Hartog (1959) mentions this species from a number of supralittoral localities; it may be found together with *Prasiola stipitata* in winter and early spring.
10. *Cladophora flexuosa* was recognized as distinct from *C. sericea* by Jonsson et al. (1989); it tends to grow in more sheltered localities than the latter species. Records from Lake Grevelingen, often large plants, most likely concern *C. flexuosa* rather than *C. sericea*.
11. *Cladophora globulina* is basically a freshwater species, but penetrating into saline environment (Van den Hoek 1963). Superficially similar to *C. liniformis*, but with much thinner filaments; found on a saltmarsh in the Oosterschelde.

12. Now regularly found on the seaward side of Neeltje Jans, an artificial island halfway the storm surge barrier of the Oosterschelde. First detected in 1984, near De Banjaard, Noord Beveland.
13. Opinions are divided on how many species to distinguish in the local *Rhizoclonium* complex, but the majority of the material seems to fall into either of two categories of filament diameter: 10–15 µm (*R. implexum*) or 25–30 µm (*R. riparium*); other authors consider this a continuum of forms and recognize a single species (Nienhuis 1975, Burrows 1991). We have been reluctant to place either of the two species in synonymy with *R. tortuosum* (Dillwyn) Kütz. (cf. Burrows 1991): Kützing (1849) gives filament diameters for *R. tortuosum* (ca. 35–41 µm) exceeding those of both *R. riparium* and *R. implexum* as found in the Netherlands.
14. Known from saltmarsh vegetations in the Waddenzee area (Polderman 1976).
15. Material of this morphology (see e.g. Kornmann & Sahling 1977) has been collected in the Oosterschelde near Kats in 1977; it was filed under *B. plumosa* at the time.
16. In addition to *Codium fragile* subsp. *tomentosoides* (Goor) P.C. Silva (originally described from the Netherlands), now also subsp. *atlanticum* (Cotton) P.C. Silva is found, especially in Lake Grevelingen (cf. Silva 1955). Often, *C. fragile* is found only in a loose filamentous shape, forming velvety covers on stones and other algae.
17. See Stegenga & Mol (1996).
18. Reidentification of material earlier determined as *Sorocarpus micromorus*, the latter species has not positively been identified from the Netherlands.
19. For systematic position in the Ectocarpaceae rather than in the Myrionemataceae, see Pedersen (1981).
20. See Stegenga (1996).
21. See Otten & Prud'homme van Reine (1992).
22. According to Nielsen et al. (1995) synonymous with *Hincksia ovata* (Kjellm.) P.C. Silva (= *H. fuscata*).
23. Silva (1993) states that *Leptonematella* is a superfluous name, being a synonym of *Waerniella*; see Hooper et al. (1987) on alleged synonymy of *W. lucifuga* and *Pilinia rimosa* Kütz.
24. A species found frequently growing on *Sargassum muticum*; since 1993 common in Lake Grevelingen, rarely in tidepools elsewhere. It is similar to *Elachista flaccida* sensu Takamatsu (1938), but not to European *E. flaccida*, differing from the latter by its narrower filaments (reaching a maximum of 20–60(–75) µm in diameter just above the meristematic zone) and the presence of uniseriate plurilocular sporangia as the only reproductive structures. Probably introduced from the North Pacific.
25. *Leptonematella spec.* (in Stegenga & Mol 1983) was reidentified as *Giraudyopsis stellifer* Dangeard, a species of Chrysophyta.
26. A minute species, since 1994 found growing on *Sargassum muticum* in Lake Grevelingen and tidepools. Probably introduced from the North Pacific.
27. For first autochthonous record, see Perk (1983); an epi/endophyte of *Sargassum muticum*.

28. The *Cutleria multifida* phase of *Aglaozonia parvula* is not known from our shores.
29. Considered (probably) extinct in the Waddenzee area (Nielsen et al. 1996).
30. *Hecatonema maculans* probably a phase in the life history of (amongst others?) *Punctaria latifolia.*
31. Fletcher (1987) retained this as a separate species, although synonymy with *P. latifolia* was held possible. Under the name *Desmotrichum undulatum* (J. Agardh) Reinke reported from the Waddenzee (Den Hartog 1959).
32. Recent records of *Isthmoplea sphaerophora* exist from Texel (Perk 1983) and from the exposed intertidal of Westkapelle (1984, 1997 – unpublished).
33. Material of *Striaria attenuata* collected near Goes in the 1840's is present in L.
34. For first autochthonous record see De Graaf (1989); now common in Lake Grevelingen and some inland saline canals, as well as in tidepools.
35. *Stragularia clavata* (syn.: *Ralfsia clavata*) probably a phase in the life history of *Petalonia fascia.*
36. Autochthonous material formerly known from the Waddenzee (Van Goor 1923).
37. Recently (1993) still abundant in the Den Helder/Huisduinen area, rare on Texel.
38. Now disappeared from most former sites in the Oosterschelde.
39. The single known population (at Strijenham, Oosterschelde) now disappeared.
40. See Mol (1984).
41. *Erythrocladia irregularis* and *Sahlingia subintegra* (as *Erythrocladia subintegra*) were united under the first name in Stegenga & Mol (1983); for discussion, see Kornmann (1989).
42. For discussion on generic delimitation of *Erythrotrichia* and *Porphyrostromium*, see Kornmann (1984) and Wynne (1986).
43. John et al. (1979) argue that J. Agardh, 1883 may be the correct authority for *Porphyra umbilicalis* .
44. The ordinal status of the Acrochaetiales, already recognized by Chemin (1937), has recently gained more acceptance (e.g. Schneider & Searles 1991). Generic definitions and nomenclature follow Stegenga (1985), rather than the commonly used monogeneric concept (e.g. Dixon & Irvine 1977, Garbary 1987).
45. *Acrochaetium catenulatum* and *A. densum* are phases of a single life history. The gametophyte (*A. catenulatum*) is now irregularly found on *Ulva* and *Enteromorpha* spp.
46. *Acrochaetium hallandicum* and *A. polyblastum* are phases of a single life history.
47. *Acrochaetium humile* and *A. moniliforme* are phases of a single life history. The gametophyte (*A. moniliforme*) only recently found in the stagnant Lake Grevelingen and Lake Veere.
48. Material of *Acrochaetium microfilum* doubtfully distinct from juvenile *A. catenulatum* or *A. moniliforme.*
49. *Acrochaetium rhipidandrum* and *A. secundatum* are phases of a single life history; the gametophyte (*A. rhipidandrum*) is very rare in the field. The tetrasporophyte shows a great deal of variation: only the long-celled virgate form, often distinguished as a separate species *Acrochaetium virgatulum* (Harv.) J. Agardh, does ever form tetrasporangia in the field and completes its life history in culture.
50. Bidoux & Magne (1989) believe this species is best placed under *Rhodothamniella.*

51. The transfer of this entity to *Colaconema* necessitates a new nomenclatural combination, see also Summary.
52. *Colaconema dasyae* and *C. savianum* are phases of a single life history.
53. Saunders et al. (1995) erected a family Rhodothamniellaceae for this species, which they believe is closer related to the Palmariales than to the Acrochaetiales.
54. For the possible occurrence of the acrochaetioid form of this species, see Stegenga & Mol (1983).
55. *Asparagopsis armata* and *Falkenbergia rufolanosa* form part of a single life history.
56. *Bonnemaisonia hamifera* and *Trailliella intricata* form part of a single life history.
57. *Gelidium pusillum* has recently become a common and locally even dominant species in the intertidal of the Delta area.
58. For distinction and systematic affinities of the order Gracilariales, see Fredericq & Hommersand (1989a).
59. For distinction of two genera and species in the former "*Gracilaria verrucosa*", see Fredericq & Hommersand (1989b) and Steentoft et al. (1995). Both species have been found in fertile condition in the S.W. Netherlands; in a vegetative condition they remain difficult to distinguish, although we have indications that especially *Gracilariopsis longissima* serves as a host to *Aglaothamnion pseudobyssoides*.
60. Family Rhodophysemataceae erected by Saunders & McLachlan (1989).
61. Genus transferred to Palmariales on basis of its sexual reproductive structures (DeCew & West 1982).
62. First found in 1997 in the intertidal of the Oosterschelde near Zierikzee.
63. Irvine & Chamberlain (1994) quote *Corallina granifera* as a possible synonym of *C. elongata*, while drawing attention to the frequent mix-up of both with species of *Haliptilon*. The scarce (drift) material preserved in L does not allow firm conclusions on its identity.
64. Once reported as an autochthonous species for the Oosterschelde (Slager 1985).
65. See Stegenga & Otten (1997).
66. Order Ahnfeltiales erected by Maggs & Pueschel (1989).
67. *Ahnfeltia plicata* and *Porphyrodiscus simulans* are phases of a single life history.
68. See Hommersand et al. (1993) for taxonomy and nomenclatural changes in (former) *Gigartina* species.
69. *Mastocarpus stellatus* and *Petrocelis cruenta* are phases of a single life history (Guiry & West 1983).
70. Order Plocamiales distinguished by Saunders & Kraft (1994) on basis of molecular evidence.
71. For first autochthonous records, see Perk (1986); now a regular, albeit not abundant, component of algal vegetations in the sublittoral fringe of the Oosterschelde.
72. The scarce material present in L. belongs to *R. holmesii* (syn.: *Rhodymenia pseudopalmata* var. *ellisiae* (Duby) Guiry in Guiry & Hollenberg), rather than to *R. pseudopalmata*, see Irvine (1983).
73. For differences between *Aglaothamnion byssoides* and *A. pseudobyssoides*, see Maggs & Hommersand (1993). Although the majority of plants (on *Gracilariopsis longissima*) belongs to *A. pseudobyssoides*, we tentatively assign plants from *Codium fragile* to *A. byssoides*.

74. Doubts have been expressed on the generic placement of this species (Stegenga 1988)
75. Autochthonous material formerly assigned to *Antithamnion cruciatum* probably all belongs to *A. villosum.*
76. On the identity of our autochthonous material, see Athanasiadis (1990) – as *Antithamnion cruciatum* var. *scandinavicum* Athanasiadis; *A. tenuissimum* is a Mediterranean species.
77. *Antithamnionella spirographidis* and *A. ternifolia* (syn: *A. sarniensis* Lyle) are no longer regarded as conspecific. The autochthonous material all belongs to *A. spirographidis*; established since 1975, it is now common in the Oosterschelde.
78. Most autochthonous material of "*Ceramium rubrum*" belongs to *C. nodulosum*, which also includes the records of *C. fruticulosum* (Kütz.) J. Agardh and *C. recissum* Kylin. *Ceramium pallidum*, also belonging in the "*C. rubrum*-group" (Maggs & Hommersand 1993), has positively been detected in drift material.
79. First finds in 1996, on wooden piling in the wave-exposed intertidal at Westkapelle.
80. In recent years a common and locally abundant species in the Oosterschelde.
81. For varieties of *Pterothamnion plumula*, see Athanasiadis (1996).
82. Recently abundant in Lake Veere, but now also occurring in the tidal Oosterschelde.
83. Probably an undescribed species of uncertain taxonomic affinities. Morphological characters indicate a position between *Dasya* and *Dasysiphonia.* For a brief description, see Stegenga (1997). Found since 1994, it is now abundant in the Oosterschelde and also occurring in Lake Grevelingen. Apparently an introduction from the North Pacific – identical material from Japan (in L) was filed under *Heterosiphonia japonica* Yendo.
84. The name *Acrosorium venulosum* replaces *A. uncinatum* as Wynne (1989) considered the type of the latter to belong to *Cryptopleura ramosa.*
85. *Acrosorium reptans*, recognized in Stegenga & Mol (1983), is probably a form of *Cryptopleura ramosa* (Wynne 1989).
86. See Perk (1985) and Otten (1986) on frequent occurrence of marginal proliferations.
87. Part of *Laurencia* was transferred to *Osmundea* (Nam et al. 1994). None of the species of both genera was ever found attached, and drift material is often too scant to allow accurate identification.
88. The material with compressed complanate thalli probably belongs to *Osmundea osmunda* and *O. truncata*, rather than to *O. pinnatifida* (Huds.) Stackh.
89. Found in a saline canal near Goes, 1996.
90. *Polysiphonia fibrillosa* is the correct name for "*P. violacea* sensu Harvey" (Maggs & Hommersand 1993), the overwhelming majority of the material found nowadays belongs to *P. harveyi*, however. *P. fibrillosa* is definitely present in some older collections at L.
91. *Polysiphonia harveyi* is believed to be an introduced species from Atlantic North America, although there is difference of opinion on the date of first settlement in Europe: Maggs & Hommersand (1993) – 1908, Farnham (1994) – 1976.

92. Settled since 1993, now a regularly occurring species in the eastern half of the Oosterschelde. Probably introduced from the North Pacific.
93. Material assigned to *Polysiphonia macrocarpa* (Stegenga & Mol 1983) probably belongs to *P. stricta*.

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Alphabetical index to the genera and species

The following Gorteria Supplements have been published. For ordering, see the inside of the front cover.

Gorteria Supplement 1 (1992)

F.T. de Vries, R. van der Meijden & W.A. Brandenburg: Botanical Files. A study of the real chances for spontaneous gene flow from cultivated plants to the wild flora of the Netherlands. 100 pp. – Dfl. 20.00.

Summary

Separate 'Botanical files' have been made for 42 species of cultivated plants. Each file gives information about the cultivated plant itself (use, origin, etc.), its wild relatives in the Netherlands, a report on actual hybridization and/or crossing (indicating gene flow by pollen), and observations on escapes from the field to nature (indicating gene flow by diaspores); the information is summarized to a conclusion and a numerical code, indicating the possible ecological effects of the cultivated plant on the wild flora of the Netherlands. This study was especially undertaken for questions regarding biosafety research on Genetically Modified Organisms (GMO's). The source are the herbarium collections of the State Herbarium at Leiden, floristic archives and botanical literature, as well as expert judgment on the flora of the Netherlands and crop plants. An important consideration is that the *absence* of certain hybrids in the State Herbarium can be interpreted as a decisive indication that such a hybrid does not occur in the wild in the Netherlands. The botanical files show that in *c. 50%* of the cases no gene flow is expected; in *c. 15%* of the cases small, often local-scale effects are expected; in *c. 25%* of the cases considerable gene flow to the wild is expected; in *c. 10%* of the cases further research should be done before a definite conclusion can be drawn (most of the cases need further taxonomic research).

Gorteria Supplement 2 (1994)

F.T. Frietema de Vries, R. van der Meijden & W.A. Brandenburg:
Botanical Files on Lettuce (*Lactuca sativa*).
On the chance for gene flow between wild and cultivated Lettuce (*Lactuca sativa* L. including *L. serriola* L., Compositae) and the generalized implications for risk-assessments on genetically modified plants.
44 pp. – Dfl. 15.00.

Summary

In Botanical Files, a study of the real chances for gene flow from cultivated plants to the wild a system of dispersal codes (D_{pdf}) was introduced. They are indications of already occurring gene flow from cultivated plants to the wild flora, as can be deduced from herbarium collections and floristic archives. These codes apply to the Netherlands only.

One of the crops of which the real chances for gene flow could not be determined, because of uncertainties regarding the relationship between the cultivated plant and its wild relatives, is Lettuce (*Lactuca sativa* L.) Its relationship with the wild *L. serriola* L. is accepted to be very close, but the species are considered to be distinguishable. In a field trial, using 350 specimens from 67 genetically different populations, the distinction between the two species proved to depend largely on character states usually connected to domestication, like absence or presence of prickles, retention of achenes, leaf texture and colour.

The consequences are that both wild and cultivated lettuce must be considered to belong to the same species. The finding of some 'domesticated' character states in 'wild' lettuces indicates an already ongoing gene flow between cultivated lettuce and the wild flora, and the D_{pdf}-code is adapted accordingly, indicating a **substantial chance for gene flow** from cultivated lettuce to its wild relative in the Netherlands.

If the scope of Dispersal codes as in Botanical Files is extended to Europe, European D_{pdf}-codes are needed. In this report a model is proposed using a plant geographical division of Europe into six vegetational regions. For each species six D_{pdf}-codes, summarizing the chances for gene flow to each of the regions, should be developed. For the major part of the species this can be done using the information already present in national herbarium collections.

Gorteria Supplement 3 (1996)

H. Duistermaat: Monograph of Arctium L. (Asteraceae).
Generic delimitation (including Cousinia Cass. p.p.), revision of the species, pollen morphology, and hybrids. 143 pp. – Dfl. 45.00.

Summary

The subject of this thesis is a monograph of the genus *Arctium*, now including also five species formerly placed into *Cousinia*. Based on herbarium material and some field observations, this study presents new insights on three subjects: a) the generic delimitation of *Arctium*, b) the species delimitation within the *A. minus*-complex, and c) the occurrence of hybridisation.

It soon became clear, rather surprisingly, that five species of *Cousinia* possess hooked involucral bracts like *Arctium* in its classical concept. The study became focussed then on the relation between *Arctium* in its classical delimitation and the large Asian genus *Cousinia*. From a macromorphological point of view the five 'arctioid' species of *Cousinia* should be placed in the extended genus *Arctium*. The pollen morphological study showed that most species of *Cousinia* have a pollen type which is different from the *Arctium* type. However, 30 species of *Cousinia* (all species of the subgenera *Cynaroides* and *Hypacanthoides*), including the five 'arctioid' species, share their pollen type with *Arctium*. In the phylogenetic analysis, including both macro- and pollen morphological characters, the arguments to rearrange *Arctium* against *Cousinia* got strong support. It was concluded that there were good reasons for a formal redescription of *Arctium*, now comprising 11 species belonging to 4 sections. *Arctium* section *Arctium* comprises all species of *Arctium* in its classical delimitation. The following 3 sections are new combinations: sect. *Pseudarctium* [with 3 species: *A. (C.) amplissimum, A. (C.) pseudarctium* (comb. nov.), and *A. (C.) umbrosum*], sect. *Nanarctium* [*A. (C.) arctioides*], and sect. *Lappaceae* [*A. (C.) lappaceum*].

Especially troublesome was the specific delimitation in the *Arctium minus*-complex, resulting in the delimitation of three species: *A. atlanticum, A. minus* and *A. nemorosum*; *A. pubens* and *A. chaberti* are treated as synonyms of *A. minus*. Within the classical delimitation of the genus three more species are recognized, *A. lappa, A. palladini* and *A. tomentosum*. These six species are all included in *Arctium* sect. *Arctium*.

Regarding the question on hybridisation in the genus *Arctium* the following was observed. Contrary to current opinion, hybrids appeared to be rare. They often have a higher percentage of abortive achenes than the parents. The hybrid between *A. minus and A. palladini* (*A. ×semiconstrictum* hybr. nov.) is recorded for the first time.