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## A Revised Checklist of Polynesian Benthic Marine Algae

Claude E. Payri<sup>AC</sup> and Antoine D. R. N'Yeurt<sup>B</sup>

<sup>A</sup>Laboratoire d'Ecologie Marine, Université Française du Pacifique, B. P. 6570 Faa'a / Aéroport, Tahiti.

<sup>B</sup>Marine Studies Programme, The University of the South Pacific, P O Box 1168, Suva, Fiji.  
email: Nyeurt\_a@usp.ac.fj

<sup>C</sup>Corresponding author; email: Payri@ufp.pf

### Abstract

A revised checklist of 425 taxa of benthic marine algae is provided for the French Polynesian region, including the Society Islands, Tuamotu Archipelago, Marquesas Islands and Austral Islands. The list comprises 117 Cyanophyceae, 42 Phaeophyceae, 96 Chlorophyceae and 170 Rhodophyceae, representing 79 new additions to the last checklist a decade earlier. Included are all previously published records and some yet unpublished additions, with the systematic arrangement and nomenclature updated. The flora of Tahiti and its adjacent islands is quite well known, whereas the one from Marquesas, Austral and Gambier Islands have yet to be adequately examined. Also, such algal groups as the crustose Corallinaceae are still poorly studied.

### Introduction

#### *Geographical Context*

French Polynesia (Fig. 1) occupies about 5.5 million km<sup>2</sup> of ocean in the South Pacific between 7 and 28° S and 134 and 155° W, comprising some 118 islands (34 high islands, 84 atolls) in five distinct groups (Society, Tuamotu, Marquesas, Australs, Gambier) with a combined emerged landmass of 3430 km<sup>2</sup> (Dupont and Sodter 1993). The region includes a wide range of habitats, from high volcanic islands with fringing and barrier reefs such as Tahiti to low-lying coral atolls in the Tuamotu. There are also marked climatic differences, from equatorial conditions in the Marquesas to the sub-tropical Austral Islands.

#### *History of French Polynesian Phycology*

It was during long expeditions of exploration at the end of the eighteenth century that French Polynesian algae were first collected, although the actual study of these collections only began in the nineteenth century. The first record of marine algae from French Polynesia was made by Bory de Saint-Vincent (1827) from the 'Voyage autour du monde sur la Coquille (1822–1829)', followed by Montagne (1842, 1845) from the 'Voyage au Pole Sud et dans l'Océanie sur les corvettes l'Astrolabe et la Zélée'; Harvey and Bailey (1851) and Bailey and Harvey (1862) from the United States Exploring Expedition (1838–1842) and Grunow (1867, 1874) from the 'Reiser seiner majestat der Osterreichischen Fregate Novara'. Following other scientific explorations (e.g. Challenger, Siboga), isolated references to Polynesian algae appeared in general works or monographs such as those of J. Agardh (1887); Barton (1891, 1901); Weber-van Bosse (1898, 1910); Foslie (1906, 1929); Brand (1911a, 1911b); Gepp and Gepp (1911) and Grunow (1915, 1916).

A most important landmark was the publication of the 'Tahitian Algae' by Setchell (1926a). This work, entirely devoted to the algae of the region of Tahiti Island, mentioned 201 taxa of marine and freshwater algae (50 Cyanophyta, 63 Chlorophyta, 29 Phaeophyta and 59 Rhodophyta). Between 1930 and 1960 only six works were published with references to algae collected in French Polynesia. Since 1960, and following the creation of a field laboratory at Moorea ('Antenne du Museum d'Histoire Naturelle, Ecole Pratique des Hautes

Etudes'), thirty-seven publications reported the presence of algae in many islands of French Polynesia.

The most complete compilation of Polynesian algal records to date is by Payri and Meinesz (1985*a*, 1985*b*), listing some 346 taxa including 111 Cyanophyceae, 86 Chlorophyceae, 44 Phaeophyceae and 105 Rhodophyceae. Unfortunately, those works did not include numerous records published by Dr G. J. Hollenberg (1967, 1968*a*, 1968*b*, 1968*c*) from Tuamotu collections by M. S. Doty and J. Newhouse in the early 1950s; species reported by W. R. Taylor (1973) from the Smithsonian–Bredin Expedition to the Society and Tuamotu Islands; by Olsen-Stojkovich (1985) from collections by Setchell and Parks in 1922 and Crossland in 1928–1929 housed at the University of California Herbarium (UC); by I. A. Abbott (1986) from Huahine; and species from Moorea Island in Claude Payri's thesis (1987), which are given in the present list. In 1993, Payri and Denizot published a summary of Polynesian algal populations, noting that certain families were poorly represented as a result of geographic isolation.

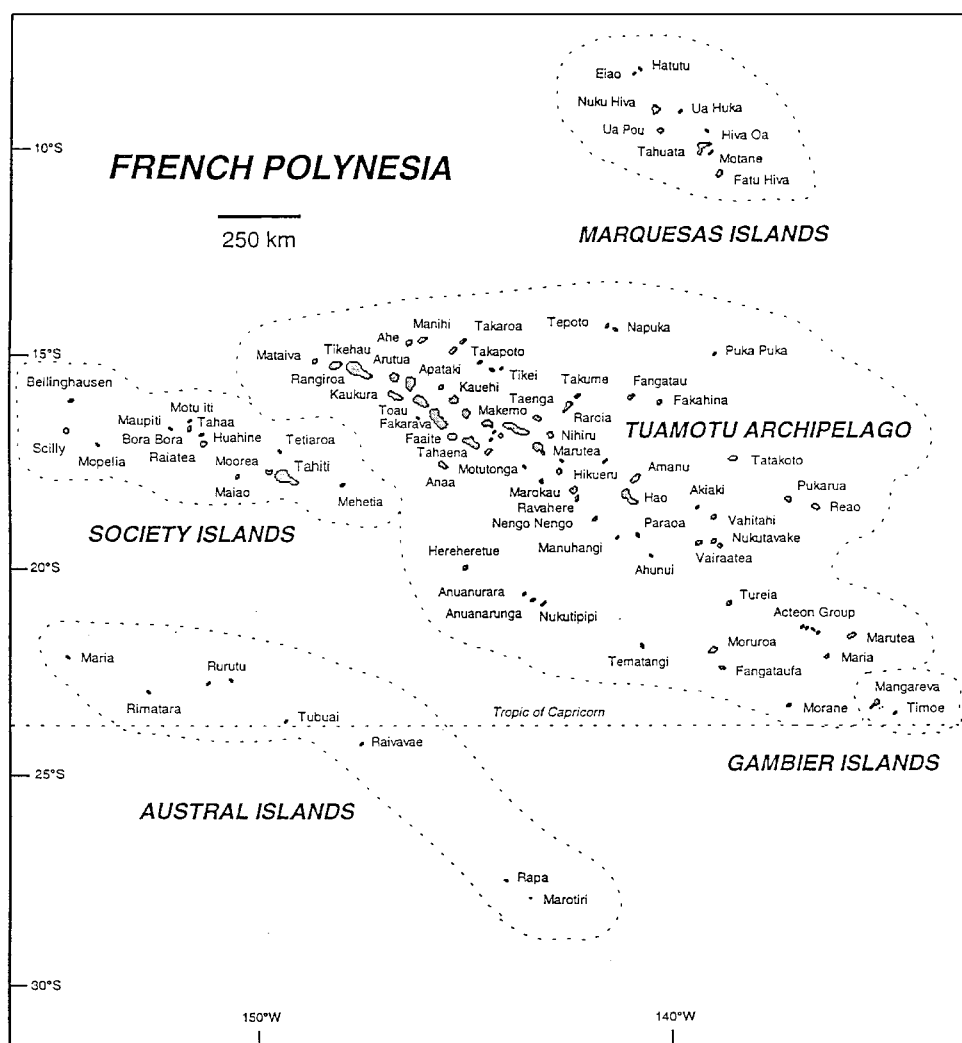


Fig. 1. Map of French Polynesia.

*Methods Used in this Checklist*

The present list attempts to take into account all published and unpublished records concerning Polynesian algae to date. The main purpose of the list is to provide an updated working basis for continuing taxonomic, floristic and biogeographical studies of Polynesian algae. It should be emphasised that the present work is only a simple checklist, and due to constraints on time and resources no effort has been made to verify all entries in this list against Type and original collections, and this is especially true of the older (possibly doubtful) records. It is expected that more complete taxonomic information will be available in the future, as a detailed illustrated flora for the region is currently in preparation by the authors. Where possible, an attempt has been made to employ the most recent nomenclature (the taxonomy generally follows that of Silva *et al.* 1987 and 1996), and accessible publications and collections have been re-examined to confirm their taxonomic accuracy. Genera are listed alphabetically within each family, and species are listed alphabetically within each genus. All valid and misapplied names are listed, and brief nomenclatural or taxonomic notes are given where required. For each basionym at the rank of species or below, the authors are given followed by chronological list of references to French Polynesia records and locations (generally islands). The islands are shown in Fig. 1 and are listed at the end of the checklist in an island reference index. Species whose type locality is in French Polynesia are indicated by an asterisk.

The catalogue lists 425 algal taxa (117 Cyanophyceae, 96 Chlorophyceae, 42 Phaeophyceae and 170 Rhodophyceae; these numbers exclude forms and varieties, as well as species of uncertain status and taxa identified only to generic level unless they are the only representative of that genus in the list). The Cyanophyta and Chlorophyta section includes all the species reported from French Polynesia, including some sublittoral, brackish or freshwater species, since the precise limit of the ecology of these algae seems unclear to the authors. The Corallinales section was revised by Dr Yvonne Chamberlain, who has examined many of the type specimens from Polynesian collections. The list of species of some groups reported from French Polynesia (particularly in the Rhodophyceae) is far from being comprehensive. Also, some of the older collections need to be re-examined in the light of present knowledge, with a few records being doubtful. Further field study and examination of collections is needed to improve and complete our knowledge of the benthic marine algal flora of French Polynesia.

*Location of Collections Referred to in this Paper*

The locations of most collections can be found by consulting the respective publications listed after species entries. Tahitian collections made by W. A. Setchell and H. E. Parks in 1920 and 1922 are housed for the most part at BISH, GH, L and UC (orig.), and those by Crossland (1928–1929) are housed at UC. Collections by Payri and Meinesz (1985*b*) are deposited at the Antenne du museum EPHE at Moorea, and the Laboratoire de Biologie et d'Ecologie Marines of the University of Nice (France). Voucher specimens from C. E. Payri's publications (1982*a*, 1987) and collections by A. D. R. N'Yeurt (1995), Payri and Chamberlain (1992) and Payri *et al.* (1995) are housed at the herbarium of the Laboratoire d'Ecologie Marine, Université Française du Pacifique, Tahiti (LEM). Wherever possible, accession numbers are given for unpublished records. Numbers referring to slide collections are preceded by the letter 'S'.

**Checklist of Polynesian Benthic Marine Algae**Division **CYANOPHYTA**

The taxonomy used in this division broadly follows that of Bourrelly (1970).

Order **Chroococcales**

Family **Chroococcaceae**Genus *Aphanothece* Nägeli (= *Coccochloris* Sprengel)*Aphanothece microscopica* Nägeli. Tilden (in Setchell 1926a): Tahiti; Setchell (1926a): Tahiti.*Aphanothece* sp.as *Coccochloris aeruginosa* (Nägeli) Drouet et Daily by Newhouse (1954): Raroia.as *Coccochloris stagnina* Sprengel by Doty and Morrison (1954): Raroia.Genus *Chroococcus* Nägeli*Chroococcus membraninus* (Meneghini) Nägeli. Setchell (1926a): Tahiti.*Chroococcus minor* (Kützing) Nägeli. Setchell (1926a): Tahiti.*Chroococcus schizodermaticus* West. Setchell (1926a): Tahiti.*Chroococcus turgidus* (Kützing) Nägeli. Setchell (1926a): Tahiti.Genus *Microcystis* Kützing (= *Anacystis* Meneghini)*Microcystis litoralis* Hansgirg. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.*Microcystis* sp.as *Anacystis dimidiata* (Kützing) Drouet et Daily by Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.as *Anacystis montana* (Lightfoot) Drouet by Doty and Morrison (1954): Raroia.Family **Entophysalidaceae**Genus *Entophysalis* Kützing*Entophysalis granulosa* Kützing. Setchell (1926a): Tahiti; Ranson (1962): Hikueru, Kaukeru; Chevalier *et al.* (1968): Moruroa; Brousse *et al.* (1974): Gambier; Payri (1987): Moorea.*Entophysalis conferta* (Kützing) Drouet et Daily. Newhouse (1954): Raroia.*Entophysalis crustacea* (J.Agardh) Drouet et Daily. Newhouse (1954), Doty and Morrison (1954), Newell (1956): Raroia.*Entophysalis* sp. Chevalier *et al.* (1979): Takapoto; Setchell (1926a): Tahiti; Leca (1992): Takapoto, Takaroa.Genus *Chlorogloea* Wille*Chlorogloea conferta* (Kützing) Setchell et Gardner. Setchell (1926a): Tahiti.*Chlorogloea* sp. Setchell (1926a): Tahiti.Order **Pleurocapsales**Family **Hyellaceae**Genus *Dermocarpa* Crouan (= *Xenococcus* Thuret)*Dermocarpa* sp.as *Xenococcus cladophaeae* (Tilden) Setchell et Gardner by Payri (1987): Moorea.Genus *Hyella* Bornet et Flahault*Hyella caespitosa* Bornet et Flahault. Setchell (1926a): Tahiti; Ranson (1962): Hikueru, Kaukura; Leca (1992): Takapoto; Mao Che (1992): Takapoto.*Hyella* sp. Mao Che (1992): Takapoto.

Order **Stigonematales**Family **Stigonemataceae**

Genus *Fischerella* (Bornet et Flahault) Gomont

*Fischerella ambigua* (Bornet et Flahault) Gomont. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

Genus *Hapalosiphon* Nägeli ex Kützing

*Hapalosiphon pumilis* Bornet et Flahault. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

Order **Nostocales** (= *Oscillatoriales*)Family **Scytonemataceae**

Genus *Plectonema* Thuret

*Plectonema calothrichoides* Gomont. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Plectonema nostocorum* Bornet. Setchell (1926a): Tahiti; Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Plectonema purpureum* Gomont. Setchell (1926a): Tahiti.

*Plectonema terebrans* Bornet et Flahault. Setchell (1926a): Tahiti; Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia; Leca (1992): Takapoto; Mao Che (1992): Takapoto.

*Plectonema wollei* Farlow f. *gracilis*. Chaine (1982): Tuamotu.

Genus *Scytonema* C.Agardh

*Scytonema coactile* Montagne. Setchell (1926a): Tahiti.

*Scytonema crustaceum* Bornet et Flahault. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Scytonema hofman-bangii* C.Agardh.

as *Scytonema hofmanii* Bornet et Flahault by Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Scytonema guyanense* (Montagne) Bornet et Flahault. Setchell (1926a): Tahiti; Newhouse (1954): Raroia.

*Scytonema mirabile* (Dillwin) Bornet. Setchell (1926a): Tahiti.

*Scytonema natans* Breb. Grunow (1867): Tahiti.

*Scytonema ocellatum* Lyngbye. Setchell (1926a): Tahiti; Doty and Morrison (1954): Raroia.

*Scytonema polycystum* Bornet et Flahault. Setchell (1926a): Tahiti.

*Scytonema saleyerense* Weber-van Bosse. Setchell (1926a): Tahiti.

*Scytonema varium* Kützing. Setchell (1926a): Tahiti.

Genus *Tolypothrix* Kützing

*Tolypothrix bissoidea* (Berkeley) Kirchner

as *Hassalia byssoidea* (Berkeley) Hassall by Denizot (1980): Tubuai.

Family **Microchaetaceae**

Genus *Microchaete* Thuret

*Microchaete grisea* Thuret. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Microchaete tapahiensis* Setchell. Setchell (1926a): Tahiti.

*Microchaete vitiensis* Askenasy. Setchell (1926a): Tahiti; Chaine (1982): Tuamotu.

#### Family Rivulariaceae

Genus *Calothrix* C.Agardh

*Calothrix aeruginea* (Kützing) Thuret. Setchell (1926a): Tahiti; Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia; Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Calothrix clavata* West. Chaine (1982): Tuamotu.

*Calothrix confervicola* (Dillwyn) C.Agardh. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Calothrix crustacea* Thuret. Setchell (1926a): Tahiti; Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Calothrix fusca* (Kützing) Bornet et Flahault. Chaine (1982): Tuamotu.

*Calothrix parietina* (Nägeli ex Kützing) Thuret. Newhouse (1954): Raroia.

*Calothrix pilosa* Harvey. Setchell (1926a): Tahiti; Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Calothrix scopulorum* (Weber et Mohr) C.Agardh. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

Genus *Dichotrix* Zanardini

*Dichotrix hosfordii* (Wolle) Bornet. Setchell (1926a): Tahiti.

*Dichotrix rupicola* Collins. Chaine (1982): Tuamotu; Leca (1992): Takapoto.

Genus *Rivularia* C.Agardh

*Rivularia polyotis* (J.Agardh) Hauck. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

#### Family Nostocaceae

Genus *Anabaena* Bory de St Vincent

*Anabaena torulosa* Bornet et Flahault. Newhouse (1954): Raroia.

Genus *Cylindrospermum* Kützing

*Cylindrospermum licheniforme* (Bory) Kützing. Setchell (1926a): Tahiti.

Genus *Nodularia* Mertens

*Nodularia hawaiiensis* Tilden. Tilden (in Setchell 1926a): Tahiti

*Nodularia opumigena* Mertens var. *major* Bornet et Flahault. Chaine (1982): Tuamotu.

*Nodularia spumigena* Mertens. Leca (1992): Takapoto, Takaroa.

Genus *Nostoc* Adanson

*Nostoc commune* Bornet et Flahault. Newhouse (1954): Raroia.

*Nostoc ellipso sporum* Rabenhorst. Setchell (1926a): Tahiti.

*Nostoc linkia* (Roth) Bornet. Tilden (in Setchell 1926a): Tahiti.

*Nostoc minutissimum* Carm. Setchell (1926a): Tahiti.

*Nostoc muscorum* C.Agardh. Setchell (1926a): Tahiti.

*Nostoc rivulare* Kützing. Setchell (1926a): Tahiti.

Family **Oscillatoriaceae**Genus **Hydrocoleum** Kützing

*Hydrocoleum cantharidosmum* (Montagne) Gomont. Setchell (1926a, 1926b): Tahiti.

*Hydrocoleum coccineum* Gomont. Newhouse (1954): Raroia.

*Hydrocoleum glutinosum* (C.Agardh) Gomont. Newhouse (1954): Raroia.

*Hydrocoleum lyngbyaceum* Kützing. Setchell (1926a, 1926b): Tahiti; Newhouse (1954): Raroia.

Genus **Lyngbya** C.Agardh

*Lyngbya aestuarii* (Mertens) Lierberman. Newhouse (1954): Raroia.

*Lyngbya confervoides* C.Agardh. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Lyngbya epiphytica* Hieronimus. Setchell (1926a, 1926b): Tahiti; Chaine (1982): Tuamotu.

*Lyngbya erecta* Gardner. Chaine (1982): Tuamotu.

*Lyngbya gardnerii* (Setchell et Gardner) Geitler. Payri (1987): Moorea.

*Lyngbya gracilis* Gomont. Newhouse (1954): Raroia.

*Lyngbya holdenii* Fortran. Payri (1987): Moorea.

*Lyngbya infixa* Frémy. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Lyngbya intermedia* Gardner. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Lyngbya lutea* (C.Agardh) J.E.Areschoug. Newhouse (1954): Raroia.

*Lyngbya majuscula* (Dillwyn) Harvey. Tilden (in Setchell 1926a): Tahiti; Setchell (1926a): Tahiti; Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia; Guilcher *et al.* (1966): Mopelia; Denizot (1980): Tubuai.

*Lyngbya martensiana* Meneghini. Chaine (1982): Tuamotu.

*Lyngbya mucicola* Lemmermann. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Lyngbya nordgardii* Wille. Chaine (1982): Tuamotu.

*Lyngbya semiplena* (C.Agardh) J.Agardh. Newhouse (1954): Raroia; Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Lyngbya sordida* Gomont. Newhouse (1954): Raroia.

Genus **Microcoleus** Desmazières

*Microcoleus acutissimus* Gardner. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Microcoleus chthonoplastes* (Mertens) Zanardini. Newhouse (1954): Raroia.

*Microcoleus paludosus* (Kützing) Gomont. Setchell (1926a): Tahiti.

*Microcoleus tenerrimus* Gomont. Setchell (1926a): Tahiti; Newhouse (1954): Raroia.

*Microcoleus* sp. Denizot (1980): Tubuai.

Genus **Oscillatoria** Vaucher

*Oscillatoria bonnemaisonii* (P.Crouan et H.Crouan) P.Crouan et H.Crouan. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Oscillatoria brevis* Kützing. Setchell (1926a): Tahiti.

*Oscillatoria corallinae* (Kützing) Gomont. Newhouse (1954): Raroia.

*Oscillatoria formosa* Bory. Tilden (in Setchell 1926a): Tahiti.

*Oscillatoria laetevirens* Crouan. Payri (1987): Moorea.

*Oscillatoria limosa* C.Agardh. Sournia (1976a, 1976b): Moorea.

\**Oscillatoria maraensis* Setchell (1926a): Tahiti.

*Oscillatoria nigro-viridis* Thwaites. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Oscillatoria princeps* Vaucher. Setchell (1926a): Tahiti.

*Oscillatoria sancta* (Kützing) Gomont. Leca (1992): Takapoto, Takaroa.

*Oscillatoria sancta* var. *caldariorum* Gomont. Setchell (1926a): Tahiti; Chaine (1982): Tuamotu.

*Oscillatoria sancta* var. *tenuis* Woronine. Chaine (1982): Tuamotu.



\**Oscillatoria tahitense* Grunow (1867): Tahiti.

*Oscillatoria terebriformis* C.Agardh. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

Genus *Phormidium* Kützing

*Phormidium ambiguum* Gomont. Payri (1987): Moorea.

*Phormidium corium* Gomont var ?*capitatum* Gardner. Payri (1987): Moorea.

*Phormidium crossbyanum* Tilden. Newhouse (1954): Raroia.

*Phormidium fragile* (Meneghini) Gomont. Setchell (1926a): Tahiti.

*Phormidium ?laysanense* Lemmermann. Payri (1987): Moorea.

*Phormidium monile* Setchell et Gardner. Chaine (1982): Tuamotu; Leca (1992): Takapoto.

*Phormidium papyraceum* Gomont. Newhouse (1954): Raroia.

Genus *Porphyrosiphon* Kützing

*Porphyrosiphon fuscus* Gomont. Newhouse (1954): Raroia.

Genus *Schizothrix* Kützing

*Schizothrix guiseppi* Drouet. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Schizothrix lacustris* A.Brown. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Schizothrix longiarticulata* Gardner. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Schizothrix telephoroides* Gomont. Newhouse (1954): Raroia.

*Schizothrix* sp. Payri (1987): Moorea.

Genus *Spirulina* Turpin

*Spirulina ardissonii* Cohn. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Spirulina margaritae* Gomont. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Spirulina maxima* (Tilden) Setchell et Gardner. Payri (1987): Moorea.

*Spirulina subsalsa* Oersted. Chaine (1982): Tuamotu; Leca (1992): Takapoto, Takaroa.

*Spirulina tenerrima* Kützing. Newhouse (1954): Raroia.

Genus *Symploca* Kützing

*Symploca atlantica* Gomont. Newhouse (1954): Raroia.

*Symploca hydnoides* (Harvey) Kützing. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia; Naim (1980a, 1980b): Moorea; Naim and Amoureux (1982): Moorea.

*Symploca kieneri* Drouet. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

*Symploca laeteviridis* Gomont. Setchell (1926a): Tahiti; Newhouse (1954): Raroia.

*Symploca muralis* Gomont. Newhouse (1954): Raroia.

## Order Stigonematales

### Family Mastigocladaceae

Genus *Brachytrichia* Zanardini

\**Brachytrichia codii* Setchell (1926a): Tahiti.

*Brachytrichia maculans* Gomont. Setchell (1926a): Tahiti.

*Brachytrichia quoyi* (C.Agardh) Bornet et Flahault. Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia.

### Family Nostochopsidaceae

Genus *Mastigocoleus* Lagerheim

*Mastigocoleus testarum* (Lagerheim) Bornet et Flahault. Setchell (1926a): Tahiti; Newhouse (1954): Raroia; Doty and Morrison (1954): Raroia; Mao Che (1992): Takapoto.

## Division PHAEOPHYTA

### Order Ectocarpales

#### Family Ectocarpaceae

Genus *Ectocarpus* Lyngbye

\**Ectocarpus gonodoides* Setchell et Gardner f. *minor* Setchell (1926a): Tahiti.

*Ectocarpus vanbosseae* Setchell et Gardner. Setchell (1926a): Tahiti.

*Ectocarpus* sp. Doty and Morrison (1954): Raroia; Leca (1992): Takapoto.

Genus *Feldmannia* Hamel

*Feldmannia indica* (Sonder) Womersley et Bailey

as *Ectocarpus duchassaingianus* Grunow by Setchell (1926a): Tahiti; Payri (1987): Moorea.

as *Ectocarpus indicus* Sonder by Tilden in Setchell (1926a): Tahiti; Doty and Morrison (1954): Raroia.

as *Giffordia indica* (Sonder) Papenfuss et Chihara in Taylor (1973): Maiai, Tikehau.

Genus *Hincksia* J.E.Gray

(see Silva *et al.* 1987: 130 for taxonomic reasons to replace the genus *Giffordia* Batters by *Hincksia* J.E.Gray).

*Hincksia breviarticulata* (J.Agardh) P.C.Silva

as *Ectocarpus breviarticulatus* J.Agardh by Setchell (1926a): Tahiti; Taylor (1973): Moorea, Huahine Nui, Makatea Payri (1987): Moorea; Montaggioni *et al.* (1987): Makatea.

*Hincksia mitchelliae* (Harvey) P.C.Silva

as *Giffordia mitchelliae* (Harvey) Hamel by Naim (1980a, 1980b, 1980c): Moorea; Naim and Amoureux (1982): Moorea; Payri (1982a): Moorea.

*Hincksia* sp.

as *Giffordia* sp. by Payri (1982a): Moorea; Leca (1992): Takapoto.

#### Family Ralfsiaceae

Genus *Ralfsia* Berkeley

*Ralfsia expansa* (J.Agardh) J.Agardh. Setchell (1926a): Tahiti; Payri (1987): Moorea.

*Ralfsia* sp. Denizot (1980): Tubai.

### Order Cutleriales

#### Family Cutleriaceae

Genus *Cutleria* Greville

*Aglaozonia*-phase of *Cutleria*

as \**Aglaozonia pacifica* Setchell by Setchell (1926a, 1926b): Tahiti.

### Order Sphacelariales

#### Family Sphacelariaceae

Genus *Sphacelaria* Lyngbye

*Sphacelaria novae-hollandiae* Sonder. Payri (1987): Moorea; Leca (1992): Takapoto, Takaroa.

*Sphacelaria rigidula* Kützing

as *Sphacelaria furcigera* Kützing (see Prud'homme van Reine 1982: 203) by Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva; Leca (1992): Takapoto, Takaroa.

\**Sphacelaria taitensis* Setchell (1926a): Tahiti; Payri (1987): Moorea; Leca (1992): Takapoto, Takaroa.

*Sphacelaria tribuloides* Meneghini. Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva; Leca (1992): Takapoto, Takaroa.

*Sphacelaria* sp. Doty and Morrison (1954): Raroia.

## Order Dictyotales

### Family Dictyotaceae

Genus *Dictyopteris* Lamouroux

*Dictyopteris delicatula* Lamouroux. Payri (1982a, 1987): Moorea.

*Dictyopteris repens* (Okamura) Børgesen. *In Herb. LEM (N'Yeurt, 1995, Puna'auia, Tahiti: S50)*

Genus *Dictyota* Lamouroux

*Dictyota acutiloba* J.Agardh. Setchell (1926a): Tahiti. Payri (1987): Moorea.

*Dictyota bartayresiana* Lamouroux

as *Dictyota bartayresii* Lamouroux by Payri (1982a, 1987): Moorea.

*Dictyota divaricata* Lamouroux. Payri (1987): Moorea.

\**Dictyota friabilis* Setchell (1926a): Tahiti; Payri (1987): Moorea.

\**Dictyota hamifera* Setchell (1926a, 1926b): Tahiti; Payri (1987): Moorea.

*Dictyota pardalis* Kützing. Naim (1980a, 1980b): Moorea; Naim and Amoureux (1982): Moorea; Payri (1982a, 1987): Moorea.

*Dictyota patens* J.Agardh. Payri (1987): Moorea.

*Dictyota* sp. Setchell (1926b): Tahiti; Denizot (1980): Tubuai.

Genus *Lobophora* J.Agardh

*Lobophora variegata* (Lamouroux) Womersley

as *Lobophora* sp. by Chevalier *et al.* (1979): Takapoto; Brousse *et al.* (1980): Tubuai; Naim (1980a): Moorea.

as *Pocockiella variegata* (Lamouroux) Papenfuss (= *Zonaria variegata* (Lamouroux) Mertens) by Setchell (1926a, 1926b): Tahiti; Doty (1954a): Raroia; Guilcher *et al.* (1966): Mopelia, Bora Bora; Chevalier *et al.* (1968): Moruroa; Payri (1982a, 1987): Moorea; Harmelin (1985) Tikehau (as *Lobophora* sp.); Delesalle *et al.* (1985): Mataïva; Ricard (1985): Rangiroa; Montaggioni *et al.* (1987): Makatea; Leca (1992): Takapoto, Takaroa; Bablet *et al.* (1995): Moruroa.

Genus *Padina* Adanson

*Padina boryana* Thivy

as *Padina commersonii* Bory by Naim (1980a, 1980b, 1980c): Moorea; Naim and Amoureux (1982): Moorea.

as *Padina fraseri* Greville (according to Setchell 1926a) by Grunow (1874): Tahiti.

as *Padina mediterranea* Bory and as *Padina reniformis* Bory (according to Setchell 1926a) by Bory de Saint Vincent (1827): Tahiti.

as *Padina tenuis* Bory (see Silva *et al.* 1987: 77) by Setchell (1926a): Tahiti; Denizot (1980): Tubuai; Payri (1982a, 1987): Moorea; Kalifa (1994): Tahiti.

- Padina gymnospora* (Kützinger) Sonder. Payri (1987): Moorea.  
*Padina pavonica* (Linnaeus) Thivy. Bailey and Harvey (1874): Société; Montagne (1845): Mangareva; Grunow (1867): Tahiti; Tilden in Setchell (1926a): Tahiti.  
*Padina* sp. Setchell (1926b): Tahiti; Denizot (1969): Moruroa.

Genus *Spatoglossum* Kützinger

- Spatoglossum asperum* J.Agardh. Payri (1982b): Tahiti.  
*Spatoglossum macrodontum* J.Agardh. In *Herb. LEM (N'Yeurt, 1995, Puna'auia, Tahiti: 95/01)*.

Genus *Zonaria* C.Agardh

- Zonaria* sp. Doty and Morrison (1954): Raroia.

Order **Dictyosiphonales**

Family **Chnoosporaceae**

Genus *Chnoospora* J.Agardh

- Chnoospora implexa* J.Agardh. Payri (1982a, 1987): Moorea; Payri and Naim (1982): Moorea.  
*Chnoospora minima* (Hering) Papenfuss. Taylor (1973): Temoa, Makatea; Payri (1987): Moorea, Tahiti; Montaggioni *et al.* (1987): Makatea; Kalifa (1994): Tahiti.  
 as *Chnoospora fastigiata* J.Agardh var. *pacifica* J.Agardh by Grunow (1867, 1874): Tahiti.  
 as *Chnoospora pacifica* J.Agardh by Setchell (1926a): Tahiti.  
 (see Papenfuss (1956) for the taxonomic history of this species).  
*Chnoospora pannosa* J.Agardh. Bailey and Harvey (1845): Société; Grunow (1874): Tahiti.

Order **Scytosiphonales**

Family **Scytosiphonaceae**

Genus *Colpomenia* (Endlicher) Derbès et Solier

- Colpomenia sinuosa* (Mertens ex Roth) Derbès et Solier. Bailey and Harvey (1874): Société; Grunow (1874): Tahiti; Setchell (1926a): Tahiti; Payri (1982a, 1987): Moorea.  
 as *Asperococcus sinuosus* (Roth) J.Agardh f. *expansa* Saunders by Grunow (1874): Tahiti; Setchell (1926a): Tahiti.  
 as *Asperococcus sinuosus* (Roth) J.Agardh f. *tuberculata* (Saunders) Setchell and Gardner by Setchell (1926a): Tahiti.  
*Colpomenia* sp. Denizot (1980): Tubuai.

Genus *Hydroclathrus* Bory

- Hydroclathrus clathratus* (C.Agardh) Howe. Tilden in Setchell (1926a); Setchell (1926a, 1926b): Tahiti; Chevalier *et al.* (1968): Moruroa; Naim (1980a, 1980b, 1980c): Moorea; Denizot (1980): Tubuai; Naim and Amoureux (1982): Moorea; Payri (1982a): Moorea; Payri and Naim (1982): Moorea; Montaggioni *et al.* (1987): Makatea; Kalifa (1994): Tahiti.  
 as *Hydroclathrus cancellatus* Bory by Montagne (1845): Tahiti.  
 as *Hydroclathrus* sp. by Brousse *et al.* (1980): Tubuai; Denizot (1980): Tubuai.

Genus *Rosenvingea* Børgesen

- Rosenvingea intricata* (J.Agardh) Børgesen. Payri (1982a, 1987): Moorea.

Order **Fucales**Family *Cystoseiraceae*Genus *Hormophysa* Kützing*Hormophysa cuneiformis* (J.F.Gmelin) P.C.Silvaas *Hormophysa triquetra* (C.Agardh) Kützing (see Silva *et al.* 1987: 130) by Denizot (1980): Tubuai.Family **Sargassaceae**Genus *Sargassum* C.Agardh\**Sargassum boraborens* (Grunow) Setchell (1926a): Tahiti.as *Sargassum obtusifolium* J.Agardh var. *boraboraense* Grunow by Grunow (1916): Tahiti.*Sargassum cymosum* C.Agardh. Montagne (1845): Mangareva.\**Sargassum mangarevense* (Grunow) Setchell (1926a): Tahiti; Payri (1987): Moorea.as *Sargassum vulgare* C.Agardh var. *mangarevensis* Grunow by Grunow (1916): Mangareva.as *Sargassum* sp. by Naim (1980c): Moorea; Naim and Amoureux (1980): Moorea; Payri (1982a): Moorea; Payri and Naim (1982): Moorea.*Sargassum natans* (Linnaeus) Gaillonas *Sargassum bacciferum* (Turner) C.Agardh f. *chamissonis* Grunow by Grunow (1915): Tahiti.as *Sargassum bacciferum* (Turner) C.Agardh f. *latiuscula* Grunow by Grunow (1915): Tahiti.*Sargassum obtusifolium* J.Agardh. Grunow (1867) in Setchell (1926a): Tahiti.\**Sargassum sociale* (Grunow) Setchell (1926a, 1926b): Tahiti; Payri (1987): Moorea.as *Sargassum vulgare* var. *socialis* Grunow by Grunow (1916): Tahiti.as *Sargassum* sp. by Kalifa (1994): Tahiti.\**Sargassum tahitense* (Grunow) Setchell (1926a): Tahiti.as *Sargassum cheirifolium* Kützing var. *tahitense* Grunow by Grunow (1873, 1916): Tahiti.*Sargassum* sp. Setchell (1922, 1926b): Tahiti; Doty (1954b): Marqueses; Brousse *et al.* (1980): Tubuai; Denizot (1980): Tubuai.Genus *Turbinaria* Lamouroux*Turbinaria ornata* (Turner) J.Agardh. Bailey and Harvey (1874): Société; Barton (1891); Setchell (1926a, 1926b): Tahiti; Taylor (1963): Tahiti; Guilcher *et al.* (1966): Bora Bora; Brousse *et al.* (1980); Naim (1980a, 1980b, 1980c): Moorea; Naim and Amoureux (1982): Moorea; Payri (1982a, 1984): Moorea; Payri and Naim (1982): Moorea; Delesalle *et al.* (1985): Mataïva; Montaggioni *et al.* (1985): Makatea; Pirazzoli (1985): Tupai; Ricard (1985): Rangiroa; Kalifa (1994): Tahiti; Bablet *et al.* (1995): Moruroa.Misapplied name: *Turbinaria condensata* Sonder by Taylor (1973): Motu Tapu, Bora Bora; Pointe Hauré, Moorea; Temoa, Makatea.This most likely represents an environmentally-induced form of dwarfism of *T. ornata* (Turner) J.Agardh, which has been studied (Payri 1984) from some of the same localities mentioned by Taylor for *T. condensata*.as *Turbinaria* sp. by Setchell (1922): Tahiti; Denizot (1980): Tubuai.Division **CHLOROPHYTA**Order **Chlorococcales**

Family **Coccomyxaceae**Genus *Palmogloea* Kützing*Palmogloea protuberans* (Smith et Sowerby) Kützing. Chevalier *et al.* (1979): Takapoto; Leca (1992): Takapoto.Family **Scenedesmaceae**Genus *Scenedesmus* Meyen*Scenedesmus bijuga* (Turpin) Lager. Setchell (1926a): Tahiti.Order **Ctenocladales**family **Ulvellaceae**Genus *Phaeophila* Hauck*Phaeophila dendroides* (P.Crouan et H.Crouan) Batters. Mao Che (1992): Takapoto.Order **Ulvales**Family **Ulvaceae**Genus *Enteromorpha* Link*Enteromorpha chaetomorphaoides* Børgesen. Setchell (1926a): Tahiti.*Enteromorpha clathrata* (Roth) Greville. Denizot (1969; 1980): Tubuai; Naim (1980a): Moorea; Payri (1982a, 1987): Moorea; Leca (1992): Takapoto, Takaroa.*Enteromorpha flexuosa* (Wulfen) J.Agardhas *Enteromorpha tubulosa* (Kützing) Kützing by Setchell (1926a): Tahiti.*Enteromorpha lingulata* J.Agardh. Setchell (1926a): Tahiti; Leca (1992): Takapoto, Takaroa.Misapplied name: *Enteromorpha flexuosa* (Wulfen) J.Agardh by Tilden in Setchell (1926a): Tahiti.*Enteromorpha prolifera* (O.F. Müller) J.Agardhas *Enteromorpha salina* Kützing var. *polyclados* Kützing by Setchell (1926a): Tahiti.*Enteromorpha* sp. Bagnis and Denizot (1978): Marqueses; Denizot (1980): Tubuai.Genus *Ulva* Linnaeus*Ulva lactuca* Linnaeus. Montagne (1845): Tahiti.*Ulva lactuca* Linnaeus f. *lacunculata* (Kützing) Hauck. Setchell (1926a): Tahiti.as *Ulva genuia* by Tilden in Setchell (1926a): Tahiti.*Ulva rigida* C.Agardh. Taylor (1973): Temoa, Makatea.Genus *Ulvella* P.Crouan et H.Crouan*Ulvella* sp.as \**Pseudulvella rhizoclonii* Setchell (see Nielsen 1977) by Setchell (1926a): Tahiti.Order **Cladophorales**Family **Anadyomenaceae**Genus *Microdictyon* Decaisne

- Microdictyon Agardhianum* Decaisne. Bailey and Harvey (1874): Kaueki, Manihi.  
*Microdictyon okamuræ* Setchell. Doty and Morrison (1954): Raroia; Newhouse (1954): Raroia; Guilcher *et al.* (1966): Mopelia; Taylor (1973): Tikehau; Montaggioni *et al.* (1987): Makatea; *In Herb. LEM (Payri, 1992, Paraoa, Reitoru, Taiaro: 95/29; Payri et al., 1995, Kauehi, Nihiru, Tepoto Sud: 95/31).*  
*Microdictyon setchellianum* Howe. Chevalier *et al.* (1968): Moruroa.  
*Microdictyon umbilicatum* (Velley) Zanardini. Payri (1987): Moorea; *In Herb. LEM (Payri, 1992, Paraoa, Reitoru, Taiaro: 95/32; Payri et al., 1995, Kauehi, Nihiru: 95/33).*  
*Microdictyon* sp. Doty and Morrison (1954): Raroia; Denizot (1972): Puka, Rua, Tureia, Mature-Vavao, Vairatua; Chevalier *et al.* (1979): Takapoto; Denizot (1980): Tubuai, Maturei-Vavao.

#### Family Cladophoraceae

##### Genus *Chaetomorpha* Kützing

- \**Chaetomorpha basiretrorsa* Setchell (1926a): Tahiti.  
*Chaetomorpha fibrosa* Kützing. Setchell (1926a): Tahiti.  
*Chaetomorpha* sp. Denizot (1980): Tubuai.

##### Genus *Cladophora* Kützing

- Cladophora inserta* Dickie. Setchell (1926a): Tahiti.  
*Cladophora inserta* Dickie f. *ungulata* (Brand) Setchell (= *Cladophora mauritiana* var. *ungulata* Brand). Setchell (1926a): Tahiti.  
 \**Cladophora leucobryoides* Setchell. Tilden (as *Cladophora heteronema* Kützing) in Setchell (1926a): Tahiti.  
 \**Cladophora patentiramea* (Montagne) Kützing. Setchell (1926a): Tahiti.  
 as *Conferva patentiramea* Montagne by Montagne (1842, 1845): Tahiti.  
*Cladophora pellucida* (Hudson) Kützing. Payri (1982a, 1987): Moorea.  
 \**Cladophora rhadina* Setchell (1926a): Tahiti.  
 \**Cladophora socialis* Kützing. Setchell (1926a): Tahiti; Leca (1992): Takapoto, Takaroa.  
*Cladophora* sp. Setchell (1926b): Tahiti; Denizot (1969): Tahiti; Denizot (1980): Tubuai.

##### Genus *Rhizoclonium* Kützing

- Rhizoclonium africanum* Kützing  
 as *Rhizoclonium hookeri* Kützing (see Womersley and Bayley 1970: 265) by Doty and Morrison (1954): Raroia.  
*Rhizoclonium hieroglyphicum* (C.Agardh) Kützing. Setchell (1926a): Tahiti.  
*Rhizoclonium lubricum* Setchell et Gardner. Setchell (1926a): Tahiti.  
 \**Rhizoclonium samoense* Setchell f. *arrhizum* Setchell (1926a): Tahiti.

#### Order Siphonocladales

##### Family Siphonocladaceae

##### Genus *Boodlea* Murray et De Toni

- Boodlea composita* (Harvey) Brand. Taylor (1973): Motu Tapu, Bora Bora, Passe Avamoa, Huahine Nui; Payri (1987): Moorea.  
 as *Boodlea siamensis* Reinbold by Payri (1982a): Moorea; Kalifa (1994): Tahiti; Leca (1992): Takapoto, Takaroa.  
 as *Boodlea* sp. by Delesalle *et al.* (1985): Mataïva.  
*Boodlea kaeneana* Brand. Setchell (1926a): Tahiti.  
 as *Boodlea composita* (Harvey) Brand f. *irregularis* Brand by Tilden in Setchell 1926a: Tahiti.  
*Boodlea montagnei* (Harvey ex. J.E.Gray) Egerod

as *Microdictyon montagnei* Harvey ex. J.E.Gray by Setchell (1926a, 1929): Tahiti; Payri (1987): Moorea.

***Boodlea*** sp. Denizot (1967): Maturei-Vavao; Denizot (1980): Tubuai, Moorea, Maturei-Vavao.

Genus ***Cladophoropsis*** Børgesen

***Cladophoropsis herpestica*** (Montagne) Howe. Setchell (1926a): Tahiti.

***Cladophoropsis infestans*** Setchell. Setchell (1926a): Tahiti.

***Cladophoropsis membranacea*** (C.Agardh) Børgesen. Payri (1982a): Moorea.

***Cladophoropsis sundanensis*** Reinbold. Setchell (1926a): Tahiti; Taylor (1973): Temoa, Makatea.

***Cladophoropsis*** sp. Doty and Morrison (1954): Raroia; Denizot (1980): Tubuai.

Genus ***Struvea*** Sonder

***Struvea anastomosans*** (Harvey) Piccone et Grunow ex Piccone. Payri (1982a, 1987): Moorea.

***Struvea*** sp. Doty and Morrison (1954): Raroia; Denizot (1980): Tubai; *In Herb. LEM* (N<sup>o</sup>Yeurt, 1995, Moorea: 95/22).

Family **Valoniaceae**

Genus ***Dictyosphaeria*** Decaisne ex Endlicher

***Dictyosphaeria australis*** Setchell. Setchell (1926a): Tahiti; Guilcher *et al.* (1966): Mopelia; Payri (1987): Moorea.

***Dictyosphaeria cavernosa*** (Forsskål) Børgesen. Doty and Morrison (1954): Raroia; Taylor (1973): Motu Tapu, Bora Bora; Denizot (1980): Tubuai; Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataiva; Leca (1992): Takapoto, Takaroa; Bablet *et al.* (1995): Moruroa.

as *Dictyosphaeria favulosa* (C.Agardh) Decaisne by Setchell (1926a): Tahiti.

as *Dictyosphaeria* sp. by Salvat and Richard (1985): Takapoto.

***Dictyosphaeria*** sp. Doty and Morrison (1954): Raroia; Denizot (1980): Tubuai; Brousse *et al.* (1980): Tubuai.

Genus ***Valonia*** C.Agardh

***Valonia aegagropila*** C.Agardh. Payri (1987): Moorea.

***Valonia fastigiata*** Harvey ex J.Agardh. Setchell (1926a): Tahiti; Naim (1980): Moorea; Payri (1982a, 1987): Moorea.

***Valonia macrophysa*** Kützing. Payri (1987): Moorea.

***Valonia*** sp. Denizot (1980): Tubuai.

Genus ***Valoniopsis*** Børgesen

***Valoniopsis pachynema*** (Martens) Børgesen. Abbott (1986): Maeva, Huahine.

Genus ***Ventricaria*** Olsen et West

***Ventricaria ventricosa*** (J.Agardh) Olsen et West

as *Valonia ventricosa* J.Agardh (see Olsen and West 1988) by Setchell (1926a, 1926b): Tahiti; Naim (1980a): Moorea; Payri (1980, 1982a, 1987): Moorea.

Order **Bryopsidales**

Family **Bryopsidaceae**

Genus ***Bryopsis*** Lamouroux



*Bryopsis harveyana* J.Agardh. Setchell (1926a): Tahiti.

*Bryopsis pennata* Lamouroux. Doty and Morrison (1954): Raroia; Chevalier *et al.* (1968): Moruroa; Payri (1982a, 1987): Moorea.

*Bryopsis* sp. Setchell (1926b): Tahiti; Doty and Morrison (1954): Raroia; Denizot (1969).

Genus *Derbesia* Solier

*Derbesia marina* (Lyngbye) Solier. Payri (1982a, 1987): Moorea; Leca (1992): Takapoto, Takaroa.

Genus *Trichosolen* Montagne

*Trichosolen* sp. Denizot (1980): Tubuai; Payri (1982a): Moorea.

### Family Caulerpaceae

Genus *Caulerpa* Lamouroux

*Caulerpa ambigua* Okamura. Payri (1987): Moorea.

*Caulerpa bikinensis* Taylor. Doty (1954a): Raroia; Doty and Morrison (1954): Raroia; Meinesz *et al.* (1981): Takapoto; Leca (1992): Takapoto; *In Herb. LEM (Payri, 1992, Paraoa, Taiaro: 95/25; Payri et al., 1995, Kauehi, Nihiru: 95/26.*

*Caulerpa cupressoides* (Vahl) C.Agardh var. *lycopodium* Weber-van Bosse. Setchell (1926a): Tahiti

*Caulerpa cupressoides* (Vahl) C.Agardh var. *lycopodium* Weber-van Bosse f. *amicorum* (Harvey) Weber-van Bosse. Setchell (1926a): Tahiti.

*Caulerpa cupressoides* (Vahl) C.Agardh var. *lycopodium* Weber-van Bosse f. *elegans* (P. et H. Crouan) Weber-van Bosse. Setchell (1926a): Tahiti.

\**Caulerpa cupressoides* (Vahl) C.Agardh var. *mamillosa* (Montagne) Weber-van Bosse (1898): Mangareva; Weber-van Bosse (1910): Marutea, Hao, Hikueru; Seurat (1934): Marutea, Hao, Hikueru; *In Herb. LEM (Stiger, 1995, Moruroa: 95/24).*

as *Caulerpa mamillosa* Montagne by Montagne (1842, 1845): Mangareva.

\**Caulerpa pickeringii* Harvey et Bailey (1851): Kaueki, Manihi; Weber-van Bosse (1898): Tahiti, île de Wilson; Doty and Morrison (1954): Raroia; Denizot (1968b); Chevalier *et al.* (1968): Moruroa; Taylor (1973): Moorea; Jaubert *et al.* (1976): Moorea; Chevalier *et al.* (1979): Takapoto; Naim (1980a): Moorea; Meinesz *et al.* (1981): Takapoto, Moorea; Naim and Amoureux (1982); Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva; Harmelin-Vivien (1985): Tikehau; Ricard (1985): Rangiroa; Montaggioni *et al.* (1987): Makatea.

*Caulerpa prolifera* (Forsskål) Lamouroux. Montagne (1845): Mangareva.

*Caulerpa racemosa* (Forsskål) J.Agardh. Chevalier *et al.* (1968): Moruroa; Taylor (1973): Motu Tapu, Bora Bora; Chevalier *et al.* (1979): Takapoto; Naim (1980a): Moorea; Denizot; (1980): Tubuai; Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva; Harmelin-Vivien (1985): Tikehau; Ricard (1985): Rangiroa; Montaggioni *et al.* (1987): Makatea.

*Caulerpa racemosa* (Forsskål) J.Agardh var. *laetevirens* (Montagne) Weber-van Bosse. Seurat (1934): Aukena, Mangareva.

*Caulerpa racemosa* (Forsskål) J.Agardh var. *laetevirens* f. *hypocraetiformis* Weber-van Bosse (1910): Marutea, Rikitea Tearia; Seurat (1934): Marutea.

*Caulerpa racemosa* (Forsskål) J.Agardh var. *chemnitzia* (Esper) Weber-van Bosse. Naim (1980a): Moorea; Payri (1987): Moorea.

as *Caulerpa chemnitzia* Esper by Setchell (1926a): Tahiti.

*Caulerpa racemosa* (Forsskål) J.Agardh var. *clavifera* (Turner) Weber-van Bosse. Setchell (1926a): Tahiti; Meinesz *et al.* (1981): Moorea; Payri (1987): Moorea.

*Caulerpa racemosa* (Forsskål) J.Agardh var. *peltata* (Lamouroux) Eubank

as *Caulerpa peltata* Lamouroux by Setchell (1926a): Tahiti, Denizot (1980): Tubuai; Meinesz *et al.* (1981): Takapoto, Moorea; Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva.

as *Caulerpa peltata* var. *nummularia* (J.Agardh) Weber-van Bosse by Weber-van Bosse (1910): Rikitea, Maka Pou.

*Caulerpa sedoides* C.Agardh. Weber-van Bosse (1910): Rikitea; Seurat (1934): Aukena, Mangareva.

*Caulerpa selago* (Turner) C.Agardh. Montagne (1845): Mangareva.

*Caulerpa serrulata* (Forsskål) J.Agardh. Grunow (1867): Tahiti; Setchell (1926a,1926b): Tahiti; Seurat (1934): Aukena, Anaa; Doty and Morrison (1954): Raroia; Chevalier *et al.* (1968): Moruroa; Denizot (1968b); Meinesz *et al.* (1981), Naim (1980a), Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva; Harmelin-Vivien (1985): Tikehau; Kalifa (1994): Tahiti.

as *Caulerpa freycinetii* C.Agardh by Ricard (1985): Rangiroa.

*Caulerpa serrulata* (Forsskål) J.Agardh var. *boryana* (J.Agardh) Gilbert. Weber-van Bosse (1910): Tokaai, Tearia; Seurat (1934): Aukena, Mangareva.

*Caulerpa serrulata* (Forsskål) J.Agardh var. *pectinata* (Weber-van Bosse) W.R.Taylor. Meinesz *et al.* (1981): Moorea; Payri (1987): Moorea.

*Caulerpa serrulata* (Forsskål) J.Agardh f. *spiralis* (Weber-van Bosse) Gilbert. Setchell (1926a): Tahiti.

*Caulerpa sertularioides* (S.G.Gmelin) Howe. Setchell (1926a, 1926b): Tahiti; Denizot (1968b); Naim (1980a): Moorea; Denizot (1980): Tubuai.

as *Caulerpa plumaris* (Forsskål) C.Agardh by Grunow (1867) in Setchell (1926a): Tahiti.

*Caulerpa sertularioides* (S.G.Gmelin) Howe f. *brevipes* (J.Agardh) Svedelius. Meinesz *et al.* (1981): Moorea; Payri (1987): Moorea.

\**Caulerpa seuratii* Weber-van Bosse. Chevalier *et al.* (1968): Moruroa; Harmelin-Vivien (1985): Tikehau; Montaggioni *et al.* (1987): Makatea; *In Herb. LEM (Payri et al., 1995, Kauehi, Nihiru: 95/27).*

\**Caulerpa seuratii* Weber-van Bosse f. *minor* Weber-van Bosse (1910): Tokaai, Marutea; Seurat (1934): Aukena, Mangareva, Marutea; Meinesz *et al.* (1981): Takapoto

\**Caulerpa seuratii* Weber-van Bosse f. *major* Weber-van Bosse (1910): Tokaai; Seurat (1934): Aukena, Mangareva; Meinesz *et al.* (1981): Takapoto.

*Caulerpa taxifolia* (Vahl) C.Agardh f. *splenoides* Greville. Weber-van Bosse (1910): Tokaai, Tearia, Taravai, Rikitea, Hakapou; Seurat (1934): Aukena, Mangareva.

*Caulerpa urvilliana* Montagne. Montagne (1845): Tahiti; Weber-van Bosse (1910): Marutea, Hao, Hikueru; Seurat (1934): Marutea, Hikueru, Hao; Doty and Morrison (1954): Raroia; Guilcher *et al.* (1966): Mopelia; Denizot (1968b, 1972); Chevalier *et al.* (1968): Moruroa; Chevalier *et al.* (1979); Meinesz *et al.* (1981): Takapoto; Jaubert and Meinesz (1981): Takapoto; Harmelin-Vivien (1985): Tikehau; Montaggioni *et al.* (1987): Makatea; Bablet *et al.* (1995): Moruroa; *In Herb. LEM (Payri, 1992, Taiaro: 95/28; Payri et al., 1995, Kauehi: 95/29).*

*Caulerpa verticillata* J.Agardh. Meinesz *et al.* (1981): Moorea.

*Caulerpa webbiana* Montagne. Setchell (1926a, 1926b): Tahiti; Meinesz *et al.* (1981): Moorea; Payri (1982a, 1987): Moorea.

*Caulerpa* sp. Denizot (1972); Bagnis and Denizot (1978): Marqueses; Brousse *et al.* (1980): Tubuai.

## Family Codiaceae

Genus *Codium* Stackhouse

*Codium arabicum* Kützinger. Payri (1982a, 1987): Moorea.

as *Codium adhaerens* C.Agardh (see Silva *et al.* 1987: 112) by Delesalle *et al.* (1985): Mataïva.

as *Codium coronatum* Setchell and *Codium coronatum* var. *insculptum* Setchell by Setchell (1926a): Tahiti.

*Codium bulbopilum* Setchell. Setchell (1926a): Tahiti.

According to Silva *et al.* (1996), *Codium bulbopilum* is clearly a member of the *C. geppiorum* complex and further study should probably show that it does not warrant taxonomic recognition.

***Codium geppiorum*** O.C.Schmidt.

as *Codium geppii* O.C.Schmidt (see Silva *et al.* 1996) by Naim (1980a): Moorea; Payri (1982a, 1987): Moorea.

probably as *Codium taitense* Setchell (see Silva *et al.* 1996) by Setchell (1926a): Tahiti.

probably as *Codium tomentosum* Stackhouse (see Silva *et al.* 1996) by Montagne (1845): Mangareva.

*Codium geppiorum* is a complex of repent, procumbent or decumbent, anastomosing forms found throughout the Indo-Pacific region (Silva *et al.* 1996). *Codium taitense* is probably conspecific with *C. geppiorum*. The misapplication of *C. tomentosum* was noted by Børgesen (1946: 52).

***Codium*** sp. Setchell (1926b): Tahiti; Doty and Morrison (1954): Raroia; Bagnis and Denizot (1978): Marqueses; Denizot (1980): Tubuai.

## Family **Halimedaceae**

Genus ***Halimeda*** Lamouroux

***Halimeda discoidea*** Decaisne. Setchell (1926a): Tahiti; Moul (1964): Raroia; Payri (1982a): Moorea; Payri and Meinesz (1985b): Mataïva, Takapoto, Makatea, Moorea, Tahiti, Gambier.

as *Halimeda lessonii* Chauvin (see Hillis 1959) by Chauvin (1842): Society Islands.

Misapplied name: *Halimeda macroloba* Decaisne (see Payri and Meinesz 1985b) by Naim (1980a) and Naim and Amoureux (1982): Moorea; Delesalle *et al.* (1985): Mataïva

***Halimeda gracilis*** Harvey ex J.Agardh. Payri and Meinesz (1985b): Makatea.

***Halimeda incrassata*** (Ellis) Lamouroux

Barton (1901): Nuku Hiva, Rangiroa, Fakarava; Meinesz (1980b): Moorea; Payri and Naim (1982): Moorea. Payri and Meinesz (1985b): Moorea, Tahiti; Kalifa (1994): Tahiti.

Misapplied name: *Halimeda simulans* Howe by Hillis (1959): Tahiti.

\* ***Halimeda incrassata*** (Ellis) Lamouroux f. ***ovata*** (J.Agardh) Howe. J.Agardh (1887): 'Noukahiva' (Nuku Hiva); Payri and Meinesz (1985b): Moorea, Tahiti.

as *Halimeda tridens* f. *ovata* (J.Agardh) Howe by Setchell (1926a): Tahiti.

as *Halimeda tridens* var. *ovata* (Ellis et Solander) Lamouroux by Hillis (1959): Marqueses.

Misapplied name: *Halimeda tuna* (Ellis et Solander) Lamouroux (= *Halimeda platydisca* Decaisne) by Montagne (1845): Mangareva; Payri (1982a): Moorea.

Misapplied name: *Halimeda stuposa* Taylor by Naim (1980a, 1980c): Moorea; Naim and Amoureux (1982): Moorea.

***Halimeda lacunalis*** W.R.Taylor. Taylor (1973): Tikehau; Payri and Meinesz (1985b): Makatea.

***Halimeda macroloba*** Decaisne. Setchell (1926a): Tahiti; Seurat (1934): Aukena, Mangareva; Hillis (1959): Société; Payri and Meinesz (1985b): Tahiti; Kalifa (1994): Tahiti.

***Halimeda micronesica*** Yamada. Payri and Meinesz (1985b): Makatea, Mataïva; *In Herb. LEM* (Payri, 1990, Bora Bora: 90/03; Payri *et al.*, 1995, Kauehi: 95/23).

***Halimeda minima*** (Taylor) Colinvaux (= *Halimeda opuntia* f. *minima* Taylor). Payri and Meinesz (1985b): Moorea, Tahiti.

***Halimeda opuntia*** (Linnaeus) Lamouroux. Grunow (1867): Tahiti; J.Agardh (1887): Tahiti; Barton (1901): Tahiti; Setchell (1926a, 1926b): Tahiti; Seurat (1934): Aukena, Makarua, Koaku, Hao; Hillis (1959): Tubuai, Gambier; Chevalier *et al.* (1968): Moruroa; Denizot (1968b); Denizot (1972): Hao; Jaubert *et al.* (1976): Moorea; Naim (1980a, 1980b, 1980c): Moorea; Naim and Amoureux (1982): Moorea; Payri and Naim (1982): Moorea; Payri (1982a, 1987): Moorea; Payri and Meinesz (1985b): Gambier, Makatea, Mataïva, Moorea, Takapoto, Gambier, Tahiti; Kalifa (1994): Tahiti.

***Halimeda opuntia*** (Linnaeus) Lamouroux f. ***elongata*** (Barton) Barton. Taylor (1973): Tikehau.

*Halimeda opuntia* (Linnaeus) Lamouroux var. *hederacea* (Barton) Hillis; Payri (1982a): Moorea.

*Halimeda renschii* Hauck. *In Herb. LEM* (Payri, 1990, Bora Bora: 90/04).  
as *Halimeda* sp. by Payri (1987): Moorea.

*Halimeda simulans* Howe. Hillis (1959): Tahiti; Payri (1982a): Moorea; Payri and Meinesz (1985b): Moorea.

*Halimeda taenicola* W.R.Taylor. Moul (1964): Raroia; Guilcher *et al.* (1966): Mopelia; Payri (1982a, 1987): Moorea; Payri and Meinesz (1985b): Makatea, Mataïva, Moorea.

*Halimeda* sp. Setchell (1926b): Tahiti; Doty and Morrison (1954): Raroia; Guilcher *et al.* (1966): Bora Bora, Denizot (1967); Denizot (1972): Moruroa, Fangataufa, Hao; Brousse *et al.* (1974): Gambier; Jaubert *et al.* (1976): Moorea; Bagnis and Denizot (1978): Marqueses; Denizot (1980); Tubuai; Brousse *et al.* (1980): Tubuai.

#### Family **Ostreobiaceae**

Genus *Ostreobium* Bornet et Flahaut

*Ostreobium quekettii* Bornet et Flahaut. Mao Che (1992): Takapoto.

*Ostreobium reineekei* Bornet. Setchell (1926a): Tahiti.

#### Family **Udoteaceae**

Genus *Avrainvillea* Decaisne

*Avrainvillea amadelpa* (Montagne) A. et E.S.Gepp. Olsen-Stojkovich (1985): Pa'ea, Tahiti.

*Avrainvillea erecta* (Berkeley) A. et E.S.Gepp. Payri (1987): Moorea.

*Avrainvillea lacerata* Harvey ex J.Agardh. Setchell (1926a, 1926b): Tahiti; Naim (1980); Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva; Olsen-Stojkovich (1985): Raroia, Tahiti.

\**Avrainvillea pacifica* A. et E.S.Gepp (1911): Hikueru.

*Avrainvillea ridleyi* A. et E.S.Gepp. Olsen-Stojkovich (1985): Tahiti; Montaggioni *et al.* (1987): Makatea.

Genus *Chlorodesmis* Harvey et Bailey

*Chlorodesmis fastigiata* (C.Agardh) Ducker

as *Chlorodesmis comosa* Harvey et Bailey by Setchell (1926a, 1926b): Tahiti; Ducker (1967): Tahiti; Taylor (1973): Motu Tapu, Bora Bora; Pointe Hauré, Moorea; Naim (1980a): Moorea; Payri (1982a, 1987): Moorea; Leca (1992): Takapoto, Takaroa.

as *Rhytissiphon tahitense* Brand (= *Chlorodesmis tahitensis* Brand) by Grunow (1867): Tahiti; J.Agardh (1887): Noukahiva; Brand (1911a, 1911b): Tahiti;

*Chlorodesmis* sp. Denizot (1980): Tubuai; Brousse *et al.* (1980): Tubuai.

Genus *Rhipidosiphon* Montagne

*Rhipidosiphon javensis* Montagne

as *Udotea javensis* (Montagne) A. et E.S.Gepp (see Littler and Littler 1990) by Meinesz (1980a, 1980b): Takapoto; Denizot (1980): Tubuai; Payri (1982a, 1987): Moorea; Leca (1992): Takapoto, Takaroa.

Genus *Rhipilia* Kützing

*Rhipilia geppii* W.R.Taylor. Doty (1954a): Raroia; (1954b): Raroia, Takume; Doty and Morrison (1954): Raroia.

Genus *Rhipiliopsis* A. et E.S.Gepp

\**Rhipiliopsis moruroaensis* Farghaly and Denizot (1979): Moruroa.

Order **Chaetophorales**Family **Chaetophoraceae**Genus *Entoderma* Setchell et Gardner\**Entoderma codii* Setchell (1926a): Tahiti.Genus *Stigeoclonium* Kützing*Stigeoclonium lubricum* (Dillwin) Kützing. Setchell (1926a): Tahiti.Family **Leptosiroideae**Genus *Eugomontia* Kornmannas *Gomontia* sp. (see Kornmann 1960) by Setchell (1926a): Tahiti.Order **Dasycladales**Family **Dasycladaceae**Genus *Bornetella* Munier-Chalmas*Bornetella sphaerica* (Zanardini) Solms-Laubach. Denizot (1980): Tubuai.Genus *Neomeris* Lamouroux*Neomeris annulata* Dickie. Payri (1982a, 1987): Moorea.*Neomeris mucosa* Howe. Payri (1982a): Moorea.*Neomeris vanbosseae* Howe. Setchell (1926a): Tahiti; Guilcher *et al.* (1966): Mopelia; Chevalier *et al.* (1968): Moruroa; Naim (1980a): Moorea; Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva; Leca (1992): Takapoto; *In Herb. LEM (Payri et al., 1995, Kauehi: 95/34).**Neomeris* sp. Doty and Morrison (1954): Raroia.Family **Polyphysaceae**Genus *Acetabularia* Lamouroux*Acetabularia pusilla* (Howe) Collins. Payri (1982a): Moorea.Genus *Polyphysa* Lamarck*Polyphysa parvula* (Solms-Laubach) Schnetter et Bula-Meyeras *Acetabularia moebii* Solms-Laubach (= *Acetabularia parvula* Solms-Laubach) by Denizot (1980): Tubuai; Naim (1980a); Payri (1982a, 1987): Moorea; Delesalle *et al.* (1985): Mataïva.Division **Rhodophyta**Order **Bangiales**Family **Erythropeltidaceae**Genus *Erythrotrichia* Areschoug*Erythrotrichia carnea* (Dillwyn) J.Agardh. *In Herb. LEM (N'Yeurt, 1995, Tahiti: S52).*

Subclass **Florideophycidae**Order **Acrochaetiales**Family **Acrochaetiaceae**Genus *Acrochaetium* Nägeli*Acrochaetium* sp. Setchell (1926a): Tahiti; Leca (1992): Takapoto, Takaroa.Order **Nemaliales**Family **Dermonemataceae**Genus *Dermonema* Harvey ex Heydrich*Dermonema virens* (J.Agardh) Petroche et Arila Ortig (= *Dermonema frappieri* (Montagne et Millardet) Børgesen). Kalifa (1994) (det. Payri): Tahiti (as Nemaliales).Family **Liagoraceae**Genus *Liagora* Lamouroux*Liagora ceranoides* Lamouroux. Payri (1982a): Moorea; Harmelin-Vivien (1985): Tikehau; Montaggioni *et al.* (1987): Makatea; *In Herb.* LEM (Payri *et al.*, 1995, Nihiru: 95/18).*Liagora* sp. Doty and Morrison (1954): Raroia; Denizot (1980): Tubuai; Payri (1982a): Moorea.Genus *Nemalion* Targioni-Tozzetti*Nemalion* sp. 1. *In Herb.* LEM (*N'Yeurt*, 1995, Moorea: S82).*Nemalion* sp. 2. *In Herb.* LEM (*N'Yeurt*, 1995, Tahiti: S83).Order **Bonnemaisoniales**Family **Bonnemaisoniaceae**Genus *Asparagopsis* Montagne*Asparagopsis taxiformis* (Delile) Trevisan. Payri (1982a, 1987): Moorea; *In Herb.* LEM (*N'Yeurt*, 1995, Moorea: 95/20).as *Asparagopsis sanfordiana* Harvey (see J. Feldmann and G. Feldmann 1943: 81) by Setchell (1926a, 1926b): Tahiti.as *Asparagopsis* sp. by Seurat (1934): Aukena, Mangareva; Denizot (1969, 1980): Tubuai; Leca (1992): Takapoto.as *Falkenbergia hildenbrandii* (Bornet) Falkenberg (the sporophyte generation of *Asparagopsis taxiformis*) by Payri (1982a, 1987): Moorea; *In Herb.* LEM (*N'Yeurt*, 1995, Tahiti).Family **Galaxauraceae**Genus *Actinotrichia* Decaisne*Actinotrichia fragilis* (Forsskål) Børgesen. Naim and Amoureux (1982): Moorea; Payri (1982a, 1987): Moorea.as *Actinotrichia rigida* (Lamouroux) Decaisne by Grunow (1874): Tahiti; Setchell (1926a): Tahiti; Naim (1980a, 1980b): Moorea.

Genus *Galaxaura* Lamouroux

*Galaxaura fasciculata* Kjellman. Payri (1987): Moorea; *In Herb. LEM (N'Yeurt, 1995, Tahiti: 95/12).*

*Galaxaura filamentosa* Chou. Naim (1980a): Moorea; Payri (1987): Moorea; Bablet *et al.* (1995): Moruroa; *In Herb. LEM (Payri et al., 1995, Tepoto Sud: 95/13).*

as *Liagora hawaiiiana* Butters by Naim and Amoureux (1982): Moorea.

*Galaxaura marginata* (Ellis et Solander) Lamouroux. *In Herb. LEM (N'Yeurt, 1995, Moorea: 95/14).*

as *Galaxaura tenera* Kjellman by Naim (1980a): Moorea; Payri (1982a, 1987): Moorea; Leca (1992): Takaroa.

*Galaxaura obtusata* (Ellis et Solander) Lamouroux. Payri (1982a): Moorea.

*Galaxaura rugosa* (Ellis et Solander) Lamouroux. Montagne (1845): Mangareva; Payri (1987): Moorea.

as *Galaxaura glabriuscula* Kjellman by Setchell (1926a): Tahiti.

as *Galaxaura lapidescens* (Ellis et Solander) Lamouroux by Seurat (1934): Aukena, Mangareva; Payri (1987): Moorea.

as *Galaxaura rudis* Kjellman by Setchell (1926a): Tahiti.

Order **Gelidiales**Family **Gelidiaceae**Genus *Gelidiella* Feldmann et Hamel

*Gelidiella acerosa* (Forsskål) Feldmann et Hamel. Taylor (1973): Motu Tapu, Bora Bora; Galzin (1977): Moorea; Naim (1980a): Moorea; Kalifa (1994): Taharaa Tahiti.

as *Gelidium rigidum* (C.Agardh) Greville (see Silva *et al.* 1987: 25) by Grunow (1867): Tahiti; Setchell (1926a): Tahiti.

*Gelidiella acerosa* (Forsskål) Feldmann et Hamel var. *unilaterale* Harvey et Bailey. Bailey and Harvey (1874): Tahiti.

*Gelidiella myrioclada* (Børgesen) Feldmann et Hamel. Payri (1987): Moorea.

*Gelidiella setacea* (Feldmann) Feldmann et Hamel. Payri (1982a): Moorea.

Genus *Gelidium* Lamouroux

*Gelidium acrocarpum* Harvey. Setchell (1926a): Tahiti.

*Gelidium crinale* (Turner) Gaillon. Payri (1982a): Moorea.

*Gelidium delicatulum* (Kützing) Grunow. Setchell (1926a): Tahiti.

*Gelidium intricatum* (C.Agardh) Kützing. Setchell (1926a): Tahiti.

*Gelidium pusillum* (Stackhouse) Le Jolis. Payri (1987): Moorea.

*Gelidium pusillum* (Stackhouse) Le Jolis var. *cylindricum* Taylor. Payri (1987): Moorea.

*Gelidium pusillum* (Stackhouse) Le Jolis var. *minusculum* Weber-van Bosse. Payri (1987): Moorea.

\**Gelidium samoense* Reinbold f. *lineare* Setchell (1926a): Tahiti.

*Gelidium* sp. Doty and Morrison (1954): Raroia; Sournia (1976b): Moorea; Leca (1992): Takapoto, Takaroa.

Genus *Pterocladia* J.Agardh

*Pterocladia media* Dawson. Payri (1982a): Moorea; Delesalle *et al.* (1985): Mataiva.

*Pterocladia nana* Okamura. Taylor (1973): Temoa, Makatea.

Order **Cryptonemiales**Family **Peyssonneliaceae**Genus *Cruoriella* Crouan

*Cruoriella conchicola* Weber-van Bosse. Setchell (1926b): Tahiti.

*Cruoriella intermedia* Weber-van Bosse. Setchell (1926a): Tahiti.

*Cruoriella nitida* Weber-van Bosse. Setchell (1926a): Tahiti.

Genus *Cruoriopsis* Dufour

*Cruoriopsis reinboldii* Weber-van Bosse. Setchell (1926a): Tahiti.

Genus *Peyssonnelia* Decaisne

*Peyssonnelia calcea* Heydrich. Setchell (1926a): Tahiti; Denizot (1972): Tahiti, Gambier; Jaubert *et al.* (1976): Moorea; Naim (1980a): Moorea; *In Herb. LEM (Payri et Chamberlain, 1992, Moorea: 92/58; Tahiti: 92/128).*

*Peyssonnelia conchicola* Piccone et Grunow. Setchell (1926a): Tahiti; Leca (1992): Takapoto.

*Peyssonnelia rubra* (Greville) J.Agardh. Setchell (1926a): Tahiti; Denizot (1968b).

*Peyssonnelia* sp. Doty and Morrison (1954): Raroia; Guilcher *et al.* (1966): Mopelia.

#### Family **Cryptonemiaceae**

Genus *Cryptonemia* J.Agardh

*Cryptonemia umbraticola* Dawson. *In Herb. LEM (N'Yeurt, 1995, Moorea: 95/07; Payri, 1990, Bora Bora (det. Kraft): 90/02).*

as *Carpopeltis* sp. by Payri (1982a): Moorea.

as *Cryptonemia lomation* (Bertolomi) J.Agardh by Payri (1987): Moorea.

#### Order **Corallinales**

This section was revised by Dr Yvonne Chamberlain.

#### Family **Corallinaceae**

Genus *Amphiroa* Lamouroux

*Amphiroa annulata* Lemoine. Doty and Morrison (1954): Raroia.

*Amphiroa beauvoisii* Lamouroux. Payri (1987): Moorea.

*Amphiroa fragilissima* (Linnaeus) Lamouroux. Setchell (1926a): Tahiti; Payri (1982a, 1987): Moorea.

*Amphiroa rigida* Lamouroux. Taylor (1973): Passe Avamoa, Huahine Nui; Naim (1980a): Moorea; Naim and Amoureux (1982): Moorea; Payri (1982a, 1987): Moorea.

*Amphiroa valonioides* Yendo. Payri (1987): Moorea.

*Amphiroa* sp. Seurat (1934): Aukena, Mangareva.

Genus *Cheilosporum* (Decaisne) Zanardini

\**Cheilosporum jungermannioides* Ruprecht ex J.E.Areschoug. Setchell (1926a): Tahiti; Payri (1987): Moorea; Kalifa (1994): Tahiti.

*Cheilosporum sagittatum* (Lamouroux) J.E.Areschoug. Payri (1982a): Moorea.

Genus *Chevaliericrusta* Denizot

\**Chevaliericrusta polynesiae* Denizot (1968a): Tahiti, Tuamotu; Chevalier *et al.* (1968): Moruroa; Chevalier and Denizot (1979): Takapoto; Leca (1992): Takapoto, Takaroa.

Misapplied name (*fide* Denizot 1968a): as *Polystrata dura* Heydrich (= *Cruoriella dura* (Heydrich) Weber-van Bosse) by Setchell (1926a): Tahiti.

Genus *Choreonema* Schmitz

*Choreonema* sp. Setchell (1926a): Tahiti.

Genus *Corallina* Linnaeus

*Corallina gracilis*. Doty and Morrison (1954): Raroia.



Genus *Jania* Lamouroux

*Jania adhaerens* Lamouroux. Setchell (1926a, 1926b) Tahiti; Leca (1992): Takaroa; *In Herb. LEM* (Payri *et al.*, 1995, Kauehi, Nihiru: 95/17).

*Jania corniculata* (Linnaeus) Lamouroux. Setchell (1926a, 1926b): Tahiti.

*Jania pumila* Lamouroux. Taylor (1973): Pointe Hauré, Moorea.

*Jania rubens* (Linnaeus) Lamouroux. Guilcher *et al.* (1966): Bora Bora; Taylor (1973): Motu Tapu, Bora Bora; Passe Avamoa, Huahine Nui.

*Jania tenella* (Kützing) Grunow. Naim (1980a): Moorea; Payri (1982a): Moorea.

*Jania* sp. Doty and Morrison (1954): Raroia; Guilcher *et al.* (1966): Rangiroa; Bagnis and Denizot (1978): Marquises; Chevalier *et al.* (1979): Takapoto.

## Family Mastophoroideae

Genus *Hydrolithon* (Foslie) Foslie

*Hydrolithon farinosum* (Lamouroux) Penrose et Chamberlain

as *Fosliella farinosa* (Lamouroux) Howe (= *Melobesia farinosa* Lamouroux; see Penrose and Chamberlain 1993) by Setchell (1926a, 1926b): Tahiti; Leca (1992): Takapoto, Takaroa; *In Herb. LEM* (Payri and Chamberlain, 1992, Moorea: 92/80).

*Hydrolithon gardineri* (Foslie) Verheij et Prud'homme van Reine

as *Porolithon gardineri* (Foslie) Foslie by Doty and Morrison (1954): Raroia; Newell (1956); Ranson (1962): Hikueru.

*Hydrolithon onkodes* (Heydrich) Penrose et Woelkerling. *In Herb. LEM* (Payri and Chamberlain, 1992, Moorea: 92/30, 92/67, 92/71, 2; Tahiti: 92/124, 5; Takapoto: 92/81-4, 92/86, 92/89, 92/94, 92/97, 8, 92/106, 7, 92/109, 10).

as *Porolithon onkodes* (Heydrich) Foslie by Doty and Morrison (1954): Raroia; Setchell (1926a, 1926b): Tahiti; Newhouse (1954): Raroia; Doty (1954a): Raroia, Newell (1956); Ranson (1962): Hikueru; Guilcher *et al.* (1966): Mopelia, Bora Bora, Rangiroa; Chevalier *et al.* (1968): Moruroa ; Denizot (1968b, 1971); Chevalier and Denizot (1979): Takapoto; Brousse *et al.* (1980): Tubuai; Denizot (1980): Tubuai; Delesalle *et al.* (1985): Mataïva; Payri (1987): Moorea; Montaggioni *et al.* (1987): Makatea; Leca (1992): Takapoto, Takaroa; Bablet *et al.* (1995): Moruroa, Fangataufa.

*Hydrolithon reinboldii* (Weber-van Bosse et Foslie in Foslie) Foslie. Payri (1987): Moorea; *In Herb. LEM* (Payri and Chamberlain, 1992, Moorea: 92/34, 92/37, 92/52, 92/56, 92/63-6, 92/76).

as *Goniolithon reinboldii* (Foslie) Foslie by Setchell (1926a): Tahiti.

*Hydrolithon samoëense* (Foslie) Keats et Chamberlain. *In Herb. LEM* (Payri and Chamberlain, Tahiti: 92/121; Takapoto: 92/91).

as *Lithophyllum samoëense* Foslie by Foslie (1906): Tahiti; Setchell (1926a): Tahiti.

*Hydrolithon* sp. *In Herb. LEM* (Payri and Chamberlain, 1992, Moorea: 92/69).

Genus *Mastophora* Decaisne

*Mastophora pacifica* (Heydrich) Foslie. *In Herb. LEM* (Payri and Chamberlain, 1992, Moorea: 92/49; Tahiti: 92/117, 8).

*Mastophora* sp. *In Herb. LEM* (Payri and Chamberlain, 1992, Moorea: 92/62).

## Family Lithophylloideae

Genus *Lithophyllum* Philippi

*Lithophyllum chamberlainianum* Woelkerling et Campbell. *In Herb. LEM* (Payri and Chamberlain, 1992, Moorea: 92/43).

*Lithophyllum kotschyianum* Unger. *In Herb. LEM* (Payri and Chamberlain, 1992, Moorea: 92/33, 92/42, 92/55, 92/78).

as *Lithophyllum kaiserii* (Heydrich) Heydrich by Setchell (1926a; 1926b): Tahiti; Guilcher *et al.* (1966): Rangiroa; Chevalier *et al.* (1968): Moruroa; Denizot (1968b, 1980).

***Lithophyllum pustulatum*** (Lamouroux) Foslie (= *Titanoderma pustulatum* (Lamouroux) Nägeli). *In Herb. LEM (N'Yeurt*, 1995, Ua Huka: S106; *Payri and Chamberlain*, 1992, Moorea: 92/63; Tahiti: 92/124, 5).

as *Dermatolithon rasile* (Foslie) Foslie by Payri and Meinesz (1985a).

as *Lithophyllum rasile* Foslie by Foslie (1906, 1929): Tahiti.

***Lithophyllum*** sp.

Setchell (1926a): Tahiti; Doty and Morrison (1954): Raroia; Denizot (1972); Brousse *et al.* (1980): Tubuai; Denizot (1980): Tubai; Montaggioni *et al.* (1987): Makatea.

Genus ***Lithoporella*** (Foslie) Foslie

***Lithoporella melobesoides*** (Foslie) Foslie. Setchell (1926a): Tahiti.

Genus ***Neogoniolithon*** Setchell et Mason

***Neogoniolithon frutescens*** (Foslie) Setchell et Mason. Sournia (1976b): Moorea; Payri (1987): Moorea; *In Herb. LEM (Payri and Chamberlain*, 1992, Moorea: 92/39, 92/47, 92/68, 92/70).

***Neogoniolithon megalocystum*** (Foslie) Setchell et Mason

as *Goniolithon megalocystum* Foslie by Setchell (1926a): Tahiti.

***Neogoniolithon*** sp. *In Herb. LEM (Payri and Chamberlain*, 1992, Moorea: 92/38, 92/44–6, 92/60, 1; Tahiti: 92/122).

as *Goniolithon hariotii* Foslie by Foslie (1906, 1929): Mangareva.

as *Goniolithon laccadivicum* Foslie f. *armata* Foslie by Foslie (1929): Mangareva.

Genus ***Pneophyllum*** Kützing

***Pneophyllum conicum*** (Dawson) Keats, Chamberlain et Baba. *In Herb. LEM (Payri and Chamberlain*, 1992, Moorea: 92/32, 92/36, 92/48, 92/51, 92/59; Takapoto: 92/89).

***Pneophyllum*** sp. *In Herb. LEM (Payri and Chamberlain*, 1992, Takapoto: 92/111).

## Family **Melobesioideae**

Genus ***Lithothamnion*** Heydrich

***Lithothamnion*** sp. A. Foslie. *In Herb. LEM (Payri and Chamberlain*, 1992, Moorea: 92/35, 92/40, 92/53).

***Lithothamnion*** sp. B. Doty (1954a): Raroia; *In Herb. LEM (Payri and Chamberlain*, 1992, Moorea: 92/73).

Genus ***Mesophyllum*** Lemoine

***Mesophyllum erubescens*** (Foslie) Lemoine

possibly as *\*Lithothamnion thelostegium* Foslie by Foslie (1929): Rikitea; Setchell (1926a): Tahiti.

***Mesophyllum fragilissimum*** (Foslie) Lemoine

possibly as *Lithothamnion fragilissimum* Foslie by Setchell (1926a): Tahiti.

***Mesophyllum funafutiense*** (Foslie) Verheij. *In Herb. LEM (Payri and Chamberlain*, 1992, Moorea: 92/74).

as *Lithothamnion purpurascens* Foslie by Foslie (1929): Tahiti.

***Mesophyllum siamense*** (Foslie) Adey

as *Lithothamnion siamense* Foslie by Setchell (1926a): Tahiti.

***Mesophyllum simulans*** (Foslie) Lemoine

as *Lithothamnion simulans* (Foslie) Foslie by Setchell (1926a): Tahiti.

Family **Sporolithaceae**Genus *Sporolithon* Heydrich*Sporolithon episporedion* (Adey, Townsend et Boykins) Verheij. *In Herb. LEM (Payri and Chamberlain, 1992, Takapoto: 92/95, 92/103, 4,**Sporolithon ptychoides* Heydrich. *In Herb. LEM (Payri and Chamberlain, 1992, Moorea: 92/31, 92/67, 92/75, 92/77, 92/79; Takapoto: 92/88, 92/90, 92/102, 92/108).*as *Archaeolithothamnion erythraeum* (Roth) Foslie by Setchell (1926a): Tahiti.*Sporolithon* sp. *In Herb. LEM (Payri and Chamberlain, 1992, Takapoto: 92/109).*Order **Gigartinales**Family **Rhizophyllidaceae**Genus *Portieria* Zanardini*Portieria hornemannii* (Lyngbye) P.C.Silva. *In Herb. LEM (Payri, 1990, Bora Bora (det. N'Yeurt): 90/01, S95).*as *Chondrococcus harveyi* (J.Agardh) De Toni (= *Desmia harveyi* J.Agardh; see Silva *et al.* 1987: 129) by Setchell (1926a): Tahiti.Family **Dumontiaceae**Genus *Gibsmithia* Doty*Gibsmithia hawaiiensis* Doty. Bou Karam Kerimian (1976): Moorea; Payri (1982a): Moorea; *In Herb. LEM (N'Yeurt, 1995, Moorea: 95/16; Tahiti: 95/15).*as *Gibsmithia* sp. by Brousse *et al.* (1980): Tubuai; Denizot (1980): Tubuai.*Gibsmithia* ?sp. nov. *In Herb. LEM (N'Yeurt and Orepuller, 1995, Moorea: 95/06).*This may represent a new species of *Gibsmithia*, which will be described elsewhere.Family **Nemastomataceae**Genus *Predaea* De Toni*Predaea* ?sp. nov. Payri (1987, as Nematiales n°177): Moorea; *In Herb. LEM (N'Yeurt and Orepuller, 1995, Moorea: 95/19).*This may represent a distinct new species of *Predaea*, to be described elsewhere. It is identical in structure and habit to the 'unknown red alga' on p. 166 of Littler *et al.*'s (1989) Caribbean guide, and was further confirmed as such by personal examination of the specimen by D. S. and M. M. Littler. Specimens of the same alga have also been found in Fiji (A. D. R. N'Yeurt, unpub. data).Genus *Titanophora* (J.Agardh) J.Feldmann*Titanophora weberae* Børgesen. *In Herb. LEM (Payri, 1987, Moorea (det. N'Yeurt): 95/11).*Family **Gracilariaceae**Genus *Gelidiopsis* Schmitz*Gelidiopsis intricata* (C.Agardh) Vickers. Payri (1982a): Moorea.*Gelidiopsis pannosa* (Grunow) Schmitz. Payri (1987): Moorea.*Gelidiopsis repens* (Kützting) Weber-van Bosse

as *Gelidiopsis acrocarpa* (Harvey) De Toni (see Silva *et al.* 1996) by Payri (1987): Moorea.

***Gelidiopsis scoparia*** (Montagne et Millardet) De Toni. Payri (1987): Moorea.

Misapplied name: *Bostrychia exigua* Setchell (see King and Puttock 1989: 60) by Setchell (1926a): Tahiti.

Genus ***Gracilaria*** Greville

***Gracilaria*** sp. Payri (1982a): Moorea.

#### Family **Solieriaceae**

Genus ***Meristotheca*** J. Agardh

***Meristotheca*** sp.

as *Tylotus* sp. by Payri (1982a): Moorea.

as *Kallymenia* sp. 1, *Kallymenia* sp. 2, *Halymenia* sp. by Payri (1987): Moorea.

Genus ***Rhabdonia*** Hooker et Harvey

***Rhabdonia*** sp. Payri (1982a): Moorea.

#### Family **Hypneaceae**

Genus ***Hypnea*** Lamouroux

***Hypnea nidifica*** J. Agardh. Payri (1982a): Moorea.

***Hypnea nidulans*** Setchell. Setchell (1926a): Tahiti; Kalifa (1994): Tahiti.

***Hypnea pannosa*** J. Agardh. Taylor (1973): Motu Tapu, Bora Bora.

***Hypnea saidana*** Holmes. *In Herb. LEM (N'Yeurt, 1995, Ua Huka: 95/03).*

***Hypnea spinella*** (C. Agardh) Kützing. Grunow (1867): Tahiti; Payri (1982a): Moorea.

#### Order **Rhodymeniales**

##### Family **Rhodymeniaceae**

Genus ***Botryocladia*** (J. Agardh) Kylin

***Botryocladia skottsbergii*** (Børgesen) Levring. Payri (1987): Moorea.

as *Botryocladia pyriformis* (Børgesen) Kylin by Payri (1982a): Moorea.

***Botryocladia*** sp. Denizot (1980): Tubuai.

Genus ***Chamaebotrys*** Huisman

***Chamaebotrys boergesenii*** (Weber-van Bosse) Huisman

as *Coelarthurum boergesenii* Weber-van Bosse (see Huisman 1996) by Payri (1987): Moorea (as f. *minima* Weber-van Bosse).

Genus ***Coelothrix*** Børgesen

***Coelothrix irregularis*** (Harvey) Børgesen. Payri (1982a, 1987): Moorea; *In Herb. LEM (Payri et al., 1995, Tepoto Sud: 95/21).*

Genus ***Chrysymenia*** J. Agardh

?***Chrysymenia glebosa*** Abbott et Littler. Payri (1987): Moorea.

Genus ***Halichrysis*** (Schousboe ex J. Agardh) Schmitz

*Halichrysis coalescens* (Farlow) R.E.Norris et A.J.K.Millar. *In Herb. LEM (N'Yeurt, 1995, Moorea: 95/09).*

as *Drouetia coalescens* (Farlow) J.De Toni (see Norris 1991); as *Maripelta rotata* (Dawson) Dawson; as *Tylotus* sp., and as *Drouetia* sp. by Payri (1982a, 1987): Moorea.

#### Family Lomentariaceae

Genus *Lomentaria* Lyngbye

*Lomentaria corallicola* Børgesen. *In Herb. LEM (N'Yeurt, 1995, Tahiti: S78, 79).*

#### Family Champiaceae

genus *Champia* Desvaux

*Champia parvula* (C.Agardh) Harvey. Payri (1982a, 1987): Moorea; *In Herb. LEM (N'Yeurt, 1995, Moorea, Tahiti, Tikehau: S19–24).*

as *Champia* sp. by Payri (1987): Moorea.

*Champia vieillardii* Kützing. *In Herb. LEM (N'Yeurt, 1995, Moorea).*

as *Champia compressa* Harvey by Payri (1987): Moorea.

*Champia vieillardii* was synonymised with the temperate-water *C. compressa* by Silva *et al.* (1987) but is more likely to be retained as a separate tropical species as advocated by Cribb (1983: 70), Millar (1990: 372), Price and Scott (1992) and others. The Moorea specimens agree well with the description of the species in Millar (1990).

#### Order Ceramiales

##### Family Ceramiaceae

Genus *Anotrichium* Nägeli

*Anotrichium tenue* (C.Agardh) Nägeli

as *Griffithsia tenuis* C.Agardh by Payri (1982a, 1987): Moorea.

Genus *Antithamnion* Nägeli

*Antithamnion antillanum* Børgesen. *In Herb. LEM (N'Yeurt, 1995, Moorea, Tikehau: S1).*

*Antithamnion breviramorosus* var. *simplex* Dawson. *In Herb. LEM (N'Yeurt, 1995, Tepoto Sud: S2).*

Genus *Bornetia* Thuret

*Bornetia binderiana* (Sonder) Zanardini

as *Griffithsia binderiana* Sonder (see Silva *et al.* 1996) by Payri (1987): Moorea.

genus *Centroceras* Kützing

*Centroceras clavulatum* (C.Agardh) Montagne. Setchell (1926a): Tahiti; Doty and Morrison (1954): Raroia; Payri (1982a, 1987): Moorea.

Misapplied name: *Centroceras bellum* Setchell et Gardner by Payri (1987): Moorea.

as *Centroceras* sp. by Guilcher *et al.* (1966): Bora Bora, Mopelia.

*Centroceras* sp. Denizot (1972); Chevalier and Denizot (1979): Takapoto.

Genus *Ceramium* Roth

*Ceramium affine* Setchell et Gardner. Payri (1987): Moorea.

*Ceramium avalonae* Dawson. Doty and Morrison (1954): Raroia.

*Ceramium clarionense* Setchell et Gardner. *In Herb. LEM (N'Yeurt, 1995, Tahiti: S7).*

*Ceramium codii* (Richards) Mazoyer. In *Herb. LEM (N'Yeurt, 1995, Tikehau: S8; Payri, 1981, Moorea).*

as *Ceramothamnion codii* Richards by Setchell (1926a): Tahiti.

*Ceramium flaccidum* (Kützing) Ardissonne. In *Herb. LEM (N'Yeurt, 1995, Tahiti: S9).*

as *Ceramium gracillimum* (Kützing) Zanardini var. *byssodeum* Mazoyer by Payri (1987): Moorea.

*Ceramium macrotrichum* Feldmann-Mazoyer. In *Herb. LEM (N'Yeurt, 1995, Temae Reef, Moorea: S107).*

*Ceramium mazatlanense* Dawson. Payri (1987): Moorea.

*Ceramium sympodiale* Dawson. In *Herb. LEM (N'Yeurt, 1995, Moorea, Tahiti: S10).*

*Ceramium vagans* P.C.Silva

as *Ceramium vagabundum* Dawson (= *C. vagabunde* Dawson, see Silva *et al.* 1987: 56) by Payri (1987): Moorea.

*Ceramium* sp. Guilcher *et al.* (1966): Mopelia; Denizot (1972); Chevalier and Denizot (1979): Takapoto; Denizot (1980): Tubuai.

Genus *Corallophila* Weber-van Bosse

*Corallophila apiculata* (Yamada) R.E.Norris (= *Centroceras apiculatum* Yamada, see Norris 1993). In *Herb. LEM (N'Yeurt, 1995, Tahiti: S3, 4; Tikehau: S5).*

as *Ceramiella atlantica* Joly (see Ardré 1987) by Payri (1982a, 1987): Moorea.

*Corallophila huysmansii* (Weber-van Bosse) R.E.Norris

as *Ceramium huysmansii* Weber-van Bosse (see Norris 1993) by Payri (1987): Moorea.

*Corallophila kleiwegii* Weber-van Bosse. Leca (1992): Takaroa (det. *I. A. Abbott*).

Genus *Crouania* J.Agardh

*Crouania attenuata* (C.Agardh) J.Agardh. Grunow (1867): Tahiti.

*Crouania capricornica* Saenger et Wollaston. In *Herb. LEM (N'Yeurt, 1995, Tahiti: S41).*

as *Crouania minutissima* Yamada (see Cribb 1983: 90) by Payri (1982b): Moorea.

*Crouania* sp. Guilcher *et al.* (1966): Mopelia.

Genus *Griffithsia* C.Agardh

*Griffithsia ovalis* Harvey. In *Herb. LEM (N'Yeurt, 1995, Kauehi: S59; Tahiti: S61; Tikehau: S60).*

as *Griffithsia pacifica* Kylin by Payri (1982a): Moorea.

*Griffithsia subcylindrica* Okamura. In *Herb. LEM (Payri et al., 1995, Kauehi: S62; N'Yeurt, 1995, Tahiti, Tikehau: S63, 64).*

Genus *Haloplegma* Montagne

*Haloplegma duperreyi* Montagne. Payri (1987): Moorea.

Genus *Seirospora* Harvey

*Seirospora occidentalis* Børgesen. In *Herb. LEM (N'Yeurt, 1995, Moorea: S108).*

Genus *Spermothamnion* Areschoug

*Spermothamnion* sp. 1. Payri (1987): Moorea.

*Spermothamnion* sp. 2. Payri (1987): Moorea.

Genus *Spyridia* Harvey

*Spyridia filamentosa* (Wulfen) Harvey. Payri (1987): Moorea.

*Spyridia hypnoides* (Bory) Papenfuss. In *Herb. LEM (N'Yeurt, 1995, Tahiti).*

as *Spyridia velasquezii* Trono by Payri (1980): Moorea.

Genus *Wrangelia* C.Agardh

*Wrangelia argus* (Montagne) Montagne. Payri (1987): Moorea.

Family *Delesseriaceae*Genus *Hypoglossum* Kützing

*Hypoglossum simulans* Wynne, Price et Ballantine. *Herb.* LEM (*N'Yeurt*, 1995, Moorea, Tahiti).

as *Caloglossa* sp., and as *Hypoglossum* sp. by Payri (1982a, 1987): Moorea.

Genus *Myriogramme* Kylin

*Myriogramme ?bombayensis* Børgesen

as *Myriogramme* spp. 1 and 2 by Payri (1987): Moorea.

*Myriogramme carnea* (Rodriguez) Kylin. *In Herb.* LEM (*N'Yeurt*, 1995, Moorea, Tahiti, Tikehau).

as *Myriogramme variegata* Yamada by Payri (1982a): Moorea.

Family *Dasyaceae*Genus *Dasya* C.Agardh

*Dasya baillouviana* (S.G.Gmelin) Montagne. *In Herb.* LEM (*Payri et al.*, 1995, Kauehi (det. *N'Yeurt*): S43, 44).

*Dasya iyengarii* Børgesen. *In Herb.* LEM (*Payri et al.*, 1995, Kauehi (det. *N'Yeurt*): S45, 46).

as *Dasya* sp. by Payri (1982a): Moorea (det. *N'Yeurt*): LEM 84/07.

*Dasya mollis* Harvey. *In Herb.* LEM (*Payri et al.*, 1995, Kauehi (det. *N'Yeurt*): S47, 48).

*Dasya pilosa* (Weber-van Bosse) Millar. *In Herb.* LEM (*N'Yeurt*, 1995, Tahiti: 95/05).

as *Dasyopsis anastomosans* Weber-van Bosse (see *Silva et al.* 1987: 129) by Payri (1982a, 1987): Moorea.

(= *Eupogodon anastomosans* (Weber-van Bosse) P.C.Silva, = *Eupogodon pilosus* (Weber-van Bosse) P.C.Silva, = *Dasyopsis pilosa* Weber-van Bosse; see Millar 1996 for taxonomic treatment).

Genus *Heterosiphonia* Montagne

*Heterosiphonia crispella* (C.Agardh) Wynne

as *Heterosiphonia wurdemanii* (Bailey ex Harvey) Falkenberg in Schmitz et Hauptfleisch (see *Silva et al.* 1987: 60) by Payri (1982a, 1987): Moorea; Leca (1992): Takapoto.

Family *Rhodmelaceae*Genus *Abbottella* Hollenberg

\**Abbottella concinna* Hollenberg (1967): Raroia.

Genus *Acanthophora* Lamouroux

\**Acanthophora pacifica* (Setchell) G.T.Kraft. *In Herb.* LEM (*N'Yeurt*, 1995, Moorea: 95/10).

as *Cladhymenia pacifica* Setchell (see Kraft 1979) by Setchell (1926a): Tahiti; Payri (1987): Moorea (as specimen n°185).

*Acanthophora spicifera* (Vahl) Børgesen. Payri (1982a, 1987): Moorea; Kalifa (1994): Tahiti.

Genus *Chondria* C.Agardh

*Chondria dangeardii* Dawson. *In Herb.* LEM (*N'Yeurt*, 1995, Tahiti: 95/02).

*Chondria minutula* Weber-van Bosse. *In Herb.* LEM (*N'Yeurt*, 1995, Tahiti: S27, 28; Tikehau: S25, 26, 29–31).

*Chondria simpliciuscula* Weber-van Bosse. *In Herb. LEM (N'Yeurt, 1995, Tahiti; Payri et al., 1995, Kauehi).*

as *Laurencia* sp. by Payri (1987): Moorea.

*Chondria* ?sp. nov. *In Herb. LEM (Payri et al., 1995, Nihiru (det. Wynne): S37, 38).*

This distinct *Chondria* has characteristic exserted cortical cells, and may represent a new species (M. J. Wynne, pers. comm.). It will be described elsewhere once fertile material is found.

Genus *Dawsoniella* Hollenberg

\**Dawsoniella bulborhiza* Hollenberg (1967): Raroia.

Genus *Dipterosiphonia* Schmitz et Falkenberg

*Dipterosiphonia dendritica* (C.Agardh) Schmitz. *In Herb. LEM (N'Yeurt, 1995, Tahiti: S51).*

Genus *Herposiphonia* Nägeli

*Herposiphonia delicatula* Hollenberg. Payri (1987): Moorea.

*Herposiphonia dendroidea* Hollenberg. Hollenberg (1968b): Raroia; Payri (1987): Moorea.

*Herposiphonia dendroidea* Hollenberg var. *minor* Hollenberg. Hollenberg (1968b): Raroia.

*Herposiphonia filifera* Hollenberg. Payri (1987): Moorea.

*Herposiphonia pacifica* Hollenberg. Hollenberg (1968b): Raroia.

\**Herposiphonia parca* Setchell (1926a): Tahiti; Hollenberg (1968b): Arue Point Tahiti; Galzin (1977): Moorea; Naim (1980a): Moorea.

*Herposiphonia secunda* (C.Agardh) Ambronn. Payri (1982a, 1987): Moorea; Leca (1992): Takapoto, Takaroa.

as *Herposiphonia tenella* (C.Agardh) Schmitz f. *secunda* (C.Agardh) Hollenberg (see Silva *et al.* 1987: 64) by Hollenberg (1968b): Raroia.

*Herposiphonia secunda* (C.Agardh) Ambronn f. *tenella* (C.Agardh) Wynne

as *Herposiphonia tenella* (C.Agardh) Nägeli by Doty and Morrison (1954): Raroia; Guilcher *et al.* (1966): Bora Bora.

as *Heterosiphonia tenella* (C.Agardh) Ambronn by Payri (1982a): Moorea.

*Herposiphonia variabilis* Hollenberg. Hollenberg (1968b): Raroia.

*Herposiphonia* sp. Chevalier and Denizot (1979): Takapoto.

Genus *Laurencia* Lamouroux

*Laurencia distichophylla* J.Agardh. Payri (1982a): Moorea.

\**Laurencia flexilis* Setchell (1926a, 1926b): Tahiti; Payri (1987): Moorea; Kalifa (1994): Tahiti.

*Laurencia ?obtusa* (Hudson) Lamouroux. Payri (1987): Moorea.

*Laurencia parvipapillata* Tseng. Payri (1987): Moorea.

*Laurencia perforata* (Bory) Montagne. Payri (1982a): Moorea.

*Laurencia succisa* Cribb. *In Herb. LEM (N'Yeurt, 1995, Moorea; Tahiti: 95/04).*

*Laurencia* sp. Doty and Morrison (1954): Raroia; Denizot (1980): Tubuai; Payri (1982a): Moorea.

Genus *Lophosiphonia* Falkenberg

*Lophosiphonia cristata* Falkenberg. Payri (1987): Moorea.

*Lophosiphonia prostrata* (Harvey) Falkenberg. Hollenberg (1968c): Raroia.

*Lophosiphonia* sp. Doty and Morrison (1954): Raroia; Galzin (1977): Moorea; Chevalier and Denizot (1979): Takapoto.

Genus *Melanamansia* R. E. Norris

*Melanamansia glomerata* (C.Agardh) R.E.Norris. *In Herb. LEM (N'Yeurt, 1995, Moorea: 95/08).*



as *Amansia glomerata* C.Agardh (see Norris 1995) by Naim (1980): Moorea; Payri (1982a, 1982b, 1987): Moorea, Tahiti.

The Moorea and Tahiti specimens have distinct pseudo-pericentral cells, and thus agree with the description of the genus by Norris (1995). The genus *Amansia* seems to be restricted at present to the Indian Ocean region, and it is likely that all previous records of *Amansia glomerata* in the Pacific in fact should belong to *Melanamansia*. This calls for a re-examination of collections of this species in the region (R. E. Norris, pers. comm.).

#### Genus *Murrayella* Schmitz

*Murrayella squarrosa* (Harvey) Schmitz. Setchell (1926a): Tahiti.

#### Genus *Polysiphonia* Greville

*Polysiphonia delicatula* Hollenberg. Hollenberg (1968a): Otetou, Raroia.

*Polysiphonia dotyi* Hollenberg. *In Herb. LEM (N'Yeurt, 1995, Tikehau: S84, 85).*

*Polysiphonia hawaiiensis* Hollenberg. Hollenberg (1968a): Arue Point, Tahiti.

\**Polysiphonia herpa* Hollenberg (1968a): Otetou, Raroia.

*Polysiphonia mollis* J.Hooker et Harvey. Hollenberg (1968a): Tahiti.

as *Polysiphonia tongatensis* Harvey by Setchell (1926a): Tahiti.

*Polysiphonia poko* Hollenberg. Hollenberg (1968a): Raroia.

*Polysiphonia savatieri* Hariot. Hollenberg (1968a): Otetou, Raroia.

*Polysiphonia scopulorum* Harvey. Hollenberg (1968a): Nuku Hiva, Raroia, Tahiti;

Payri (1987): Moorea; Leca (1992): Takapoto, Takaroa.

as *Polysiphonia sertularioides* (Grateloup) J.Agardh by Payri (1982a): Moorea.

\**Polysiphonia scopulorum* Harvey var. *macrotrichia* Hollenberg (1968a): Raroia.

*Polysiphonia scopulorum* Harvey var. *minima* Hollenberg. Hollenberg (1968a): Raroia.

*Polysiphonia scopulorum* Harvey var. *villum* (J.Agardh) Hollenberg. Hollenberg (1968a): Raroia, Moorea; Payri (1987): Moorea.

*Polysiphonia setacea* Hollenberg. Hollenberg (1968a): Tahiti.

\**Polysiphonia sparsa* (Setchell) Hollenberg (1968a): Tahiti.

as *Lophosiphonia sparsa* Setchell by Setchell (1926a): Tahiti; Payri (1987): Moorea.

*Polysiphonia sphaerocarpa* Børgesen. Hollenberg (1968a): Raroia.

*Polysiphonia subtilissima* Montagne. Hollenberg (1968a): Marquesas.

*Polysiphonia upolensis* (Grunow) Hollenberg. Hollenberg (1968a): Moorea, Raroia, Tahiti.

*Polysiphonia* sp. Setchell (1926b): Tahiti; Doty and Morrison (1954): Raroia; Payri (1982a): Moorea.

#### Family *Wurdemanniaceae*

##### Genus *Wurdemannia* Harvey

*Wurdemannia miniata* (Sprengel) Feldmann et Hamel. Sournia (1976b): Moorea; Payri (1982a, 1987): Moorea.

#### Species of Uncertain Status in Polynesia

These include records in the literature which could not be verified but seem doubtful, and normally temperate-water species which may have been part of the drift or have been brought attached to the hull of ships.

#### Division *Chlorophyta*

*Boergesenia forbesii* (Harvey) Feldmann

as *Valonia forbesii* Harvey by Grunow (1867, 1868): Tahiti.

\**Phyllactidium marinum* Grunow (1867): Tahiti.

*Valoniopsis* sp. Payri (1980): Moorea.

#### Division Phaeophyta

*Dictyota ciliata* J.Agardh. Grunow (1867): Tahiti.

*Durvillea antarctica* (Chamissa in Choris) Hariot

as *Durvillea utilis* Bory by Grunow (1867): Tahiti (doubtful in Polynesia according to Setchell 1926a).

*Lessonia nigrescens* Bory. Grunow (1867): Tahiti (doubtful in Polynesia according to Setchell 1926a).

*Lessonia suhrrii* J.Agardh. Grunow (1867): Tahiti (doubtful in Polynesia according to Setchell 1926a).

*Macrocystis angustifolia* Bory. Grunow (1867): Tahiti (doubtful in Polynesia according to Setchell 1926a).

*Sargassum biserrula* f. *pacifica* (Bory) Grunow (= *Sargassum pacificum* Bory). Grunow (1915): Tahiti.

*Sargassum gracile* J.Agardh var. *pseudogranuliferum* Grunow. Grunow in Setchell (1926a): floating between Tahiti and New Zealand ('*granulifera*').

*Turbinaria decurrens* Bory. Bory de Saint Vincent (1827); Montagne (1845): Tahiti.

#### Division Rhodophyta

*Goniolithon myriocarpum* Foslie. Setchell (1926a): Tahiti.

*Goniolithon myriocarpum* Foslie f. *confragosa* Foslie. Foslie (1906, 1929): Tahiti.

*Goniolithon* sp. Doty (1954a): Raroia; Doty and Morrison (1954): Raroia.

*Iridaea micans* Bory. Grunow (1867): Tahiti. (Floating; doubtful in Polynesia according to Setchell 1926a).

\**Litholepis accola* Foslie (1906, 1929): Hao; Setchell (1926a): Tahiti.

*Lithophyllum byssoides* (Lamarck) Foslie. Denizot (1980): Tubuai.

\**Lithothamnion imbricatum* Dickie (1877 in Setchell 1926a): Tahiti; Foslie (1903 in Setchell 1926a): Tahiti; Foslie (1929): Tahiti (possibly a mastophoroid *vide* Chamberlain, who has examined the type).

\**Lithothamnion tahiticum* Foslie

as *Lithothamnion japonicum* f. *tahitica* Foslie by Foslie (1906, 1929): Tearia.

*Mastophora macrocarpa* Montagne var. *condensata* Foslie. Setchell (1926a): Tahiti.

*Neogoniolithon fosliei* (Heydrich) Setchell et Mason

as *Goniolithon fosliei* (Heydrich) Foslie by Setchell (1926a): Tahiti.

This species is currently under revision (Y. Chamberlain, pers. comm.).

*Polysiphonia pecten-veneris* Harvey f. *minutulae*. Grunow (1874): Tahiti.

*Porolithon aequinoctiale* (Foslie) Foslie. Doty and Morrison (1954): Raroia.

*Porolithon craspedium* (Foslie) Foslie. Lemoine (1911 in Setchell 1926a): Takaroa; Setchell (1926b): Tahiti; Seurat (1934): Marutea; Ranson (1962): Hikueru; Guilcher *et al.* (1966): Mopelia, Bora Bora, Rangiroa; Chevalier *et al.* (1968): Moruroa; Denizot (1968b); Chevalier and Denizot (1979): Takapoto; Brousse *et al.* (1980): Tubuai; Denizot (1980): Tubuai.

*Porolithon* sp. Denizot (1972); Bagnis and Denizot (1978): Marqueses; Brousse *et al.* (1980): Tubuai.

*Spyridia clavata* Kützing. Montagne (1845): Tahiti.

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### Island Reference Index (see Fig. 1)

Principal collectors and publication dates follow the island names.

**Anaa:** Seurat (1934).

**Aukena:** Seurat (1934).

**Bora Bora:** Guilcher *et al.* (1966); Taylor (1973); Payri (1990): *In Herb.* LEM.

- Fangataufa:** Denizot (1972); Bablet *et al.* (1995).  
**Fakarava:** Barton (1901).  
**Gambier:** Brousse *et al.* (1974); Payri and Meinesz (1985b).  
**Hakapou:** Weber-van Bosse (1910).  
**Hao:** Weber-van Bosse (1910); Seurat (1934); Denizot (1972).  
**Hikueru:** Weber-van Bosse (1910); Seurat (1934); Ranson (1962); Gepp and Gepp (1911).  
**Huahine Nui:** Taylor (1973); Abbott (1986).  
**Kaukeru:** Ranson (1962).  
**Kauehi:** Harvey and Bailey (1851); Bailey and Harvey (1845); Payri *et al.* (1995): *In Herb.* LEM.  
**Koaku:** Seurat (1934).  
**Maka Pou :** Weber-van Bosse (1910).  
**Makaroa:** Seurat (1934).  
**Makatea:** Taylor (1973); Payri and Meinesz (1985b); Montaggioni *et al.* (1987).  
**Mangareva:** Montagne (1842, 1845); Grunow (1916); Weber-van Bosse (1898); Foslie (1906,1929), Seurat (1934).  
**Manihi:** Bailey and Harvey (1845); Harvey and Bailey (1851).  
**Marquises:** Doty (1954b); Hollenberg (1968a); Bagnis and Denizot (1978); N'Yeurt (1995): *In Herb.* LEM.  
**Marutea:** Weber-van Bosse (1910); Seurat (1934).  
**Mataïva:** Delesalle *et al.* (1985); Payri and Meinesz (1985b).  
**Maturei:** Denizot (1967, 1972, 1980).  
**Moorea:** Hollenberg (1968a); Taylor (1973); Sournia (1976a, 1976b); Jaubert *et al.* (1976); Galzin (1977); Naim (1980a, 1980b, 1980c); Denizot (1980); Meinesz (1980b); Meinesz *et al.* (1981); Naim and Amoureux (1982); Payri (1982a, 1984, 1987); Payri and Naim (1982); Payri and Meinesz (1985b); N'Yeurt (1995), N'Yeurt and Orepuller (1995): *In Herb.* LEM.  
**Mopelia:** Guilcher *et al.* (1966).  
**Moruroa (= Mururoa):** Chevalier *et al.* (1968); Denizot (1969, 1972); Farghaly and Denizot (1979); Bablet *et al.* (1995).  
**Nihiru:** Payri *et al.* (1995): *In Herb.* LEM.  
**Nuku Hiva (= Noukahiva):** J.Agardh (1886); Barton (1901).  
**Pararoa:** Payri (1992, Coll. Galzin): *In Herb.* LEM.  
**Puka Rua :** Denizot (1972).  
**Rangiroa:** Barton (1901); Guilcher *et al.* (1966); Ricard (1985).  
**Raroia:** Newhouse (1954); Doty (1954a,1954b); Doty and Morrison (1954); Moul (1964); Hollenberg (1968a); Olsen-Stojkovich (1985).  
**Reitoru:** Payri (1992, coll. Galzin): *In Herb.* LEM.  
**Rikitea:** Weber-van Bosse (1910).  
**Société:** Chauvin (1842); Bailey and Harvey (1845).  
**Taiaro:** Payri (1992, coll. Galzin): *In Herb.* LEM.  
**Takapoto:** Chevalier *et al.* (1979); Chevalier and Denizot (1979); Meinesz (1980a, 1980b). Meinesz *et al.* (1981); Jaubert and Meinesz (1981); Payri and Meinesz (1985b); Richard et Salvat (1985); Leca (1992); Payri and Chamberlain (1992): *In Herb.* LEM.  
**Takaroa:** Lemoine (1911 in Setchell 1926a); Leca (1992).  
**Takume:** Doty (1954b).  
**Tahiti:** Bory de Saint Vincent (1827); Montagne (1845); Grunow (1867, 1874, 1915, 1916); J.Agardh (1886); Foslie (1906, 1929); Brand (1911a, 1911b); Setchell (1922, 1926a, 1926b, 1929); Taylor (1963); Ducker (1967); Denizot (1968a; 1969; 1972); Hollenberg (1968a); Payri (1982); Payri and Meinesz (1985b); Olsen-Stojkovich (1985); Payri and Chamberlain (1992): *In Herb.* LEM; Kalifa (1994); N'Yeurt (1995): *In Herb.* LEM.  
**Taravai:** Weber-van Bosse (1910).  
**Tearia:** Foslie (1906, 1929); Weber-van Bosse (1910).  
**Tepoto Sud:** Payri *et al.* (1995): *In Herb.* LEM.  
**Tikehau:** Taylor (1973); Harmelin-Vivien (1985); N'Yeurt (1995): *In Herb.* LEM.  
**Tokaai:** Weber-van Bosse (1910).  
**Tuamotu:** Denizot (1968a); Chaîne (1982).  
**Tureia:** Denizot (1972).  
**Tupai:** Pirazzoli (1985).  
**Tubuai:** Denizot (1980); Brousse *et al.* (1980).  
**Ua Huka:** N'Yeurt (1995): *In Herb.* LEM.  
**Vairatua:** Denizot (1972).  
**Vavao:** Denizot (1967, 1972, 1980).



### Taxonomic Index

Synonyms and misapplied names are given in italics

Abbottella concinna	.896	Caulerpa bikinensis	.882
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<i>Acetabularia parvula</i>	.886	amicorum	.882
Acetabularia pusilla	.886	Caulerpa cupressoides var. lycopodium	.882
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<i>Amansia glomerata</i>	.898	<i>Caulerpa peltata</i>	.882
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Amphiroa fragilissima	.889	<i>Caulerpa plumaris</i>	.883
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<i>Anacystis montana</i>	.870	Caulerpa racemosa var. <i>laetevirens</i>	.882
Anotrichium tenue	.894	Caulerpa racemosa var. <i>laetevirens</i>	.882
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Antithamnion breviramis var. <i>simplex</i>	.894	Caulerpa racemosa var. <i>peltata</i>	.882
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<i>Avrainvillea ridleyi</i>	.885	Caulerpa seuratii f. <i>minor</i>	.883
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<i>Boodlea composita</i> f. <i>irregularis</i>	.880	Caulerpa urvilliana	.883
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Calothrix fusca	.872	<i>Ceramium vagabundum</i>	.894
Calothrix parietina	.872	Ceramium vagans	.894
Calothrix pilosa	.872	<i>Ceramothamnion codii</i>	.894
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<i>Chlorogloea conferta</i> .....	870	<i>Dasya baillouviana</i> .....	896
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<i>Chnoospora implexa</i> .....	877	<i>Dasya mollis</i> .....	896
<i>Chnoospora minima</i> .....	877	<i>Dasya pilosa</i> .....	896
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<i>Chnoospora pannosa</i> .....	877	<i>Dasyopsis pilosa</i> .....	896
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