

A Revised Checklist of the Benthic Marine Algae of the Fiji Islands, South Pacific (Including the Island of Rotuma)

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Abstract—A revised checklist of 422 taxa of benthic marine algae is provided for the Fiji Islands, South Pacific, including the island of Rotuma. The list comprises 39 Cyanophyceae, 113 Chlorophyceae, 42 Phaeophyceae and 228 Rhodophyceae. Included are all previously published records and some yet unpublished additions, with the systematic arrangement and nomenclature brought up to date. A preliminary revision of the crustose coralline algae known from Fiji is included. The flora still remains relatively poorly known, and many areas have yet to be phycologically studied, such as much of the Lau Group, and most of Vanua Levu.

Introduction

This is the first revision of the preliminary checklist of the benthic marine algae of the Fiji Islands (South & Kasahara, 1992). The list has been corrected and expanded to include records from a detailed survey of the shallow water algae of the island of Rotuma (N'Yeurt 1993a, b, 1996), published additions to the flora since 1992 (South 1992, 1993, Raj 1993; South & N'Yeurt 1993; South et al. 1993; N'Yeurt et al. 1995, 1996), numerous new records currently unpublished and housed in the South Pacific Regional Herbarium (SUVA), and the results of a detailed investigation of crustose coralline algae by D. W. Keats. The principal records from the coralline survey are included here prior to more comprehensive publications in preparation (Keats, unpubl.). This updated list records 422 taxa, a more than thirty-four percent increase over the 1992 list of 314 taxa (South & Kasahara, 1992).

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The Fiji Islands occupy a central position in Oceania, spanning the 180th meridian and lying between 177° E and 178° W, and 16° S to 20° S (Fig. 1). A land area of some 18, 276 km² is scattered over 332 islands, occupying 260, 000 km² of ocean (Fig. 1). There are four main islands in the group, Viti Levu, Vanua Levu, Taveuni and Kadavu, and three smaller island groups, the Yasawas, the Lomaiviti Group and the Lau Group. The small island of Rotuma is isolated from the rest of the Fiji group, some 465 km north of Viti Levu. Most of the islands are high islands of volcanic origin, although some low atolls are found in the east in the Lau Group. The islands are surrounded by barrier reefs, and there are many patch reefs throughout; the most significant barrier reef is the Great Astrolabe Reef, which occurs around the Kadavu islands. The climate is tropical, with mean monthly air temperatures ranging from 23–26° C and sea surface temperatures ranging from 24–28° C.

Despite the strategic position of the Fiji Islands, and their history of early exploration and colonial rule, there have been very few studies of the benthic marine algae. The earliest algal reports are those of Grunow (1874), Dickie (1876) and Askenasy (1888). Grunow (1874) described collections made by Dr. Graeffe, mainly on Ovalau Island to the east of Viti Levu, the location of the early colonial capital of Fiji. He listed 7 species of Phaeophyta (including 4 varieties) and 30 species of Rhodophyta (including 6 varieties); a total of 13 new species was included. Dickie (1876) listed nine species, including four new records for Fiji, based on collections made by Mr. Mosely, again at Ovalau, from Levuka Harbour. The list included three Chlorophyta, 4 Phaeophyta and 2 Rhodophyta. An additional ten new records were published by Askenasy (1888). His collections were made at Matuku Island during the H.M.S. "Gazelle" Expeditions. He described 6 new species, and listed a total of five Chlorophyta, one Phaeophyta and four Rhodophyta.

It was not until almost a century after these early records that additions to the known flora of Fiji were made by Chapman (1971), who published a checklist of 79 species from Fiji, including 48 new records. The collections that formed the basis of this checklist were part of a larger programme to study the biogeographical distribution of marine algae from the Kermadec Islands (New Zealand) through to Fiji, Tonga, the Cook Islands and Samoa. The Fiji collections were made by Dromgoole and Darby in 1966, mainly around Suva and on the south coast of Viti Levu Island, by Chapman from all the coasts of Viti Levu, and by Devombe, who collected around Suva. Chapman's list included a total of 2 Cyanophyta, 41 Chlorophyta (including 7 varieties), 19 Phaeophyta (including 4 varieties) and 17 Rhodophyta. Chapman added an additional 17 species to this list in 1977, based on collections made by Dr. Carlson.

Following from Chapman (1971, 1977) further additions to the Fijian algal flora were published by Kapraun & Bowden (1978), based on collections made by Bowden in 1975. A total of 43 new records were included, from collections made in Suva and Laucala Bay of Viti Levu, from Moala Island, Vanuabalavu Island, Rabi Island and Savusavu on Vanua Levu Island. Included in their list were 12 Chlorophyta, five Phaeophyta and 26 Rhodophyta. MacRaid (1978)

summarized the early history of algal collecting in Fiji, and discussed some biogeographic and ecological aspects of the flora.

In his M.Sc. thesis Kasahara (1985) reported on collections of benthic marine algae of Viti Levu and Dravuni Island (Kadavu, Great Astrolabe Lagoon). The collections had been made during two Kagoshima-Marui Expeditions to Fiji in 1982, as part of a scientific survey of the South Pacific by Kagoshima University (Enomoto & Ajisaka 1983, Itono & Ajisaka 1984). Collections were made by Dr. Hiroshi Itono and Dr. Tetsuru Ajisaka in January, and by Dr. Sachito Enomoto and Dr. Ajisaka in November. Three stations were studied, at the Suva Reef, around Sigatoka and around Dravuni Island, Great Astrolabe Lagoon. Ajisaka and Enomoto (1985) subsequently published an account of *Dictyota* species from Fiji and Solomon Islands, and Itono (1985a, b) published an account of *Galaxaura* species, and a description of a new species of *Rhodolachne* (Rhodophyta, Rhodomelaceae). In 1984, Kraft described the Rhodophyte *Callophycus serratus* from Fiji. Kasahara (1985) provided a list of all previously reported Chlorophyta and Rhodophyta from Fiji, and reported on a total of 76 Chlorophyta and Rhodophyta, including 37 new records. Four previously undescribed species were included in his report, although not formally published. Kasahara (1985) illustrated the majority of the species included in his study. He later (1988) described much more extensive collections that he made during a visit to Fiji in 1985. During this visit he collected from a total of 26 stations, between September 9th and October 29th. In his 1988 report he listed a total of 43 Chlorophyta, and provided photographs and drawings of the majority.

Garbary et al. (1991) gave numerous new distribution records of Fijian algae, based on collections made in August 1980, August 1981 and February 1982. A total of 82 species is included (9 Cyanophyta; 15 Chlorophyta; 10 Phaeophyta and 48 Rhodophyta). G.R. South (1991) reported on the marine algae of Dravuni Island, Kadavu, listing a total of seventy-one species, five of which were new records for Fiji. Later (1992), the same author published an illustrated catalogue of the *Halimeda* species reported from Fiji, and in 1993 reported on the edible seaweeds of Fiji. The most recent additions to the Fiji flora are those of South et al. (1993), South & N'Yeurt (1993) and N'Yeurt et al. (1995). N'Yeurt (1993a, b) contributed the first algal records from the remote island of Rotuma (12° 30' S, 177° 05' E), and has described a new species of *Avrainvillea* (N'Yeurt et al. 1996).

During the past three years Mark and Diane Littler (unpublished) have undertaken a major survey of the benthic marine algae of the Great Astrolabe Lagoon, Kadavu. Numerous new records for Fiji are anticipated from this work, as well as many species new to science. The results of this work will be published in due course. During 1994 one of us (D. W. Keats) made extensive collections of crustose coralline algae, principally from the Suva barrier reef, and the Great Astrolabe Reef. A preliminary listing of those species fully identified appears in this list. This group is under study at present, and more species are likely to be added in the near future. Some non-coralline algae collected by D. W. Keats, M. Knight and A. Ballou were identified by one of us (A. D. R. N'Yeurt), and appear in this list.

Figure 1. Map of the Fiji Islands (Rotuma inset), showing the main sites (numbered) where algal collections have been made. Names of principal collectors are given; collections given as in *Herb. I. A. Abbott* were made variously by D. P. Abbott, N. L. Nicholson and R. Phillips. Chapman, as well as Dromgoole and Darby (reported in Chapman, 1971) made collections at various sites around Viti Levu (sites not specified in Chapman, 1971). 1. Yasawa-i-rara *Garbary 1982* (Garbary et al. 1991); 2. Sawa-i-lau *Garbary 1982* (Garbary et al. 1991); 3. Nanuya levu *Carlson 1972* (Chapman, 1977); 4. Nanuya lailai *Villeneuve 1982* (Garbary et al. 1991); 5. Nauvacuvu *Villeneuve 1982* (Garbary et al. 1991); 6. Yanuya Island *Carlson 1972* (Chapman, 1977); 7. Plantation Resort, Mamanutha Islands *D. and D. Garbary, 1981* (Garbary et al. 1991); 8. Beachcomber Resort, off Lautoka *Villeneuve 1982* (Garbary et al. 1991); 9. Lautoka *D. and D. Garbary, 1981* (Garbary et al. 1991); 10. Regent Hotel *D. and D. Garbary 1981* (Garbary et al. 1991); 11. Sea Shell Resort *D. and D. Garbary 1981* (Garbary et al. 1991); 12. Sigatoka and district *In Herb. I. A. Abbott (UH) 1973; Ajisaka and Enomoto 1982; Kasahara 1985* (Kasahara, 1985; 1988); 13. Korolevu *R. F. and C. Scagel 1981; D. and D. Garbary 1981; Villeneuve 1982* (Garbary et al. 1991); 14. Vatulele *Carlson 1972* (Chapman, 1977); 15. Namuimada *D. and D. Garbary 1981* (Garbary et al. 1991); 16. Nanuira *Villeneuve 1982* (Garbary et al. 1991); 17. Rakiraki and district *Kasahara 1985* (Kasahara, 1988); 18. Namara Island, Great Astrolabe Lagoon *Carlson 1972* (Chapman, 1977); 19. Dravuni Island, Great Astrolabe Lagoon *Ajisaka and Itono 1982* (Kasahara, 1985); 20. Suva and district *Dromgoole and Darby 1966; Chapman 1967; Devombe 1967; Carlson 1972; Bowden 1975; Ajisaka, Enomoto and Itono 1982; In Herb. I. A. Abbott (UH)*; (Chapman 1971, 1977; Kapraun & Bowden, 1978; Kasahara, 1985); 21. Various stations in Eastern Viti Levu *Carlson 1972; Kasahara 1985*; (Chapman, 1977; Kasahara, 1988); 22. Various stations on Ovalau *Graeffe 1870s; Moseley 1870s* (Grunow, 1874; Dickie, 1876); 23. Savusavu *Bowden 1975; In Herb. I. A. Abbott (UH); Villeneuve 1982* (Kapraun & Bowden, 1978; Garbary et al. 1991); 24. Rabi Island *Bowden 1975* (Kapraun & Bowden 1978); 25. Various stations around Taveuni Island *Villeneuve 1982* (Garbary et al. 1991); 26. Moala Island *Bowden 1975* (Kapraun & Bowden 1978); 27. Matuku Island *H.M.S. Gazelle Expedition* (Askenasy 1888); 28. Vanua Balavu *Bowden 1975* (Kapraun & Bowden 1978).

With the development of seaweed aquaculture in Fiji, a number of publications have appeared on the subject, principally focusing on *Eucheuma* (Booth et al. 1983, Luxton et al. 1987, Prakash 1990, Foscarini & Prakash 1990, Ram 1991, Eldredge 1994). Singh et al. (1975) carried out a study of the nutritional value of some Fijian seaweeds.

In his overview of the shore ecology of the tropical Pacific, Morton (1990) describes many Fijian shores, and includes an overview of seaweed ecology and zonation. While potentially useful, this publication unfortunately includes many typographical, factual and nomenclatural errors.

One of the greatest difficulties of working with tropical Pacific marine algae is the lack of suitable floras; there is a need to refer to widely scattered literature and, for many species, there is a lack of adequate illustrations. The collections on which this checklist were based are widely scattered in herbaria in the northern hemisphere, or in New Zealand (AKU; Chapman). Some Fijian collections are housed in Dr. I. A. Abbott's personal herbarium (UH) and were reviewed in preparation of this list. Collections housed in the Bernice P. Bishop Museum Herbarium (BISH, collectors: Smith 1934, 1947, Greenwood 1941, Doty 1952, Newhouse 1952, Kondo 1968, Abbott et al. 1973, Booth 1975, 1977, Nicholson 1978) have also been examined by one of us (A. D. R. N'Yeurt), and those of Garbary et al. (1991) housed at UBC have been reviewed (G. R. South). H. Kasahara deposited a duplicate set of his Fijian collections at the Institute of Marine Resources, University of the South Pacific, and these are now housed in the South Pacific Regional Herbarium (SUVA; algae designated as USP). Some of the collections made by Carlson in 1972 and 1973, and reported in Chapman (1977), are also housed in the South Pacific Regional Herbarium.

Checklist of Benthic Marine Algae of Fiji (Including Rotuma)

ARRANGEMENT OF THE LIST

The main purpose of the list is to provide an updated working basis for continuing taxonomic, floristic and biogeographical studies of Fijian algae. Some essential notes are included and where possible an attempt has been made to employ the most recent nomenclature. The lists of Tsuda & Wray (1977) and Tsuda (1981) have been indispensable references. Unless stated otherwise, nomenclature used here follows Silva et al. (1987).

Genera are listed alphabetically within each family, and species are listed alphabetically within each genus. Brief nomenclatural or taxonomic notes are given where required, and a list of the source references follows each taxon. The distribution of known collecting sites within Fiji and Rotuma is shown (Fig. 1); since some authors do not state details of collecting sites, however, a complete distributional record of each species cannot be given until an examination of voucher specimens, particularly for the species listed in Chapman (1971, 1977), has been completed. In the longer-term, it will also be necessary to verify older records of algae from Fiji in the light of modern treatments. In the following list,

unpublished records are given with their respective herbarium accession numbers and collection data. Numbers preceded by "S" refer to slide collections.

SYSTEMATIC LIST
CYANOPHYCEAE
CHROOCOCCALES
Chroococcaceae

Aphanocapsa Nägeli

A. sp.

N'Yeurt (1993a, b), South et al. (1993)

Gomphosphaeria Kützing

G. sp.

N'Yeurt (1993a, b), South et al. (1993)

Entophysalidaceae

Entophysalis Kützing

E. sp.

N'Yeurt (1993a, b), South et al. (1993)

PLEUROCAPSALES

Hyellaceae

Pleurocapsa Thuret ex Hauck

P. sp.

N'Yeurt (1993a, b), South et al. (1993)

Dermocarpa P. Crouan et H. Crouan

D. sp.

N'Yeurt (1993a, b), South et al. (1993)

Oncobyrsa Meneghini

O. sp.

N'Yeurt (1993a, b), South et al. (1993)

CHAMAESIPHONALES

Chamaesiphonaceae

Chamaesiphon A. Braun et Grunow

C. sp.

N'Yeurt (1993a, b), South et al. (1993)

Siphononemataceae

Siphononema Geitler

S. polonicum Geitler

N'Yeurt (1993a, b), South et al. (1993)

NOSTOCALES

Nostocaceae

Anabaena Bory de St. Vincent

A. sp.

N'Yeurt (1993a, b), South et al. (1993)

Hormothamnium Grunow

H. enteromorphoides Grunow

In Herb. South Pacific Regional Herbarium, Suva [*Faloon*, 22nd Oct., 1993,
Suva Lagoon: USP S10: 17]

H. solutum Bornet et Grunow

Garbary et al. (1991)

Oscillatoriaceae

Lyngbya C. Agardh

L. aestuarii (Mertens) Lieberman

N'Yeurt (1993a, b), South et al. (1993)

L. confervoides C. Agardh

Garbary et al. (1991)

L. epiphytica Hieron

South (1991), N'Yeurt (1993a, b)

L. lutea (C. Agardh) J. E. Areschoug

Garbary et al. (1991)

L. majuscula (Dillwyn) Harvey

Askenasy (1888), Chapman (1971), Garbary et al. (1991), South (1991),
N'Yeurt (1993a, b)**Microcoleus** Desmazières

M. chthonoplastes (Mertens) Zanardini

South (1991)

M. lyngbyaceus Kützing

Garbary et al. (1991)

Oscillatoria Vaucher

O. sp.

South (1991), N'Yeurt (1993a, b), South et al. (1993)

Phormidium KützingP. sp. aff. *P. neevearum* Grunow

South (1991)

Schizothrix Kützing

S. sp.

N'Yeurt (1993a, b), South et al. (1993)

Spirulina Turpin

S. subsalsa Oersted

Garbary et al. (1991)

S. subtilissima Kützing

N'Yeurt (1993a, b), South et al. (1993)

S. tenerrima Kützing
N'Yeurt (1993a, b), South et al. (1993)

Symploca Kützing

S. sp.
N'Yeurt (1993a, b), South et al. (1993)

S. muscorum (C. Agardh) Gomont
Garbary et al. (1991)

Microchaetaceae

Microchaete Askenasy

M. vitiensis Askenasy
Askenasy (1888), Chapman (1971)

Rivulariaceae

Calothrix C. Agardh

C. sp.
South (1991), N'Yeurt (1993a, b), South et al. (1993)

C. crustacea Thuret
Garbary et al. (1991)

C. pilosa Harvey
South (1991)

Homoeothrix (Thuret) Kirchner

H. sp.
N'Yeurt (1993a, b), South et al. (1993)

Scytonemataceae

Fremyella de Toni

F. vitiensis (Askenasy) de Toni
[cf. Umezaki (1961:89) = *Microchaete vitiensis* Askenasy in Bornet & Flahault (1888)]

Kyrtuthrix Ercegovci

K. maculans (Gomont) Umezaki
In Herb. South Pacific Regional Herbarium, Suva; [South, 21st Apr., 1992, Suva Lagoon: USP 593, S8:2]

Plectonema Thuret

P. sp.
N'Yeurt (1993a, b), South et al. (1993)

Scytonema

S. hofman-bangii C. Agardh
Garbary et al. (1991)

Tolypothrix Kützing

T. sp.
N'Yeurt (1993a, b), South et al. (1993)

T. byssoidea (Berkeley) Kirchner
Garbary et al. (1991)

STIGONEMATALES

Mastigocladaceae

Brachytrichia Zanardini

- B. quoyi* (C. Agardh) Bornet et Flahault
Garbary et al. (1991)

CHLOROPHYCEAE

CTENOCLADALES

Ulvellaceae

Acrochaete N. Pringsheim

- A. viridis* (Reinke) Nielsen
Garbary et al. (1991)

Phaeophila Hauck

- P. dendroides* (P. Crouan et H. Crouan) Batters
South et al. (1993:179, fig. 2)

ULVALES

Ulvaceae

Enteromorpha Link in Nees

- E. clathrata* (Roth) Greville
Kapaun & Bowden (1978)
- E. compressa* (Linnaeus) Nees
Kasahara (1988)
- E. flexuosa* (Wulfen) J. Agardh
Kapaun & Bowden (1978), N'Yeurt (1993a, b, 1996), South et al. (1993)
- E. flexuosa* (Wulfen) J. Agardh subsp. *paradoxa* (C. Agardh) Bliding
In Herb. South Pacific Regional Herbarium, Suva [*South*, 18 Nov., 1990, Laucala Bay: USP 632]
In Herb. Bernice P. Bishop Museum, Hawaii [*Smith*, 22–26 Feb., 1934, “Fulangang”: BISH 546410 (As *E. plumosa* Kützing; see Silva et al. 1987: 92)]
- E. intestinalis* (Linnaeus) Nees
Chapman (1971)
- E. lingulata* J. Agardh
Kapaun & Bowden (1978)
- E. linza* (Linnaeus) J. Agardh
Kasahara (1985)
- E. multiramosa* Bliding
Kapaun & Bowden (1978)
- E. prolifera* (O. F. Müller) J. Agardh
Chapman (1971), Kasahara (1988), South (1991)

Ulva Linnaeus

- U. lactuca* Linnaeus
Chapman (1971), Kasahara (1985)

Monostromataceae**Monostroma** Thuret

M. nitidum Wittrock

Kasahara (1988)

M. oxyspermum Kützing

Kapraun & Bowden (1978)

[= *Gayralia oxysperma* (Kützing) Vinogradova]**CLADOPHORALES****Anadyomenaceae****Microdictyon** Decaisne

M. japonicum Setchell

Askenasy (1888), Chapman (1971), Kasahara (1985, 1988)

M. sp. aff. M. montagnei Harvey

Kasahara (1985)

M. sp.

South (1991)

Cladophoraceae**Chaetomorpha** Kützing

C. crassa (C. Agardh) Kützing

Chapman (1971), Kasahara (1985)

C. linum (O. F. Müller) Kützing

Kapraun & Bowden (1978)

C. valida (Hooker et Harvey) Kützing

Dickie (1876), Chapman (1971)

Cladophora Kützing

C. anastomosans Harvey

Chapman (1971)

C. coelothrix Kützing

In Herb. South Pacific Regional Herbarium, Suva [*South*, 18 Nov., 1990, Laucala Bay: USP 631; 20 Apr., 1993: USP 636, S8:12]

C. conferta P. Crouan et H. Crouan

N'Yeurt (1993a, b, 1996), South et al. (1993)

C. inserta Dickie

Garbary et al. (1991)

C. vagabunda (Linnaeus) van den Hoek

Kapraun & Bowden (1978)

Rhizoclonium Kützing

R. africanum Kützing

N'Yeurt (1993a, b, 1996), South et al. (1993)

R. grande Børgesen

N'Yeurt (1993a, b, 1996)

R. kernerii Stockmayer

In Herb. Bernice P. Bishop Museum, Hawaii [*Abbott et al.*, 13 Jul., 1973, Savusavu ("Samusamu") Bay: BISH 623622]

SIPHONOCLADALES

Boodleaceae**Boodlea** Murray et De Toni**B. coacta** (Dickie) Murray et De Toni

N'Yeurt (1993a, b, 1996), South et al. (1994b)

B. composita (Harvey) Brand

Chapman (1971), Kasahara (1985)

[= *Boodlea siamensis* Reinbold; see Børgesen (1913) and Silva *et al.*, (1987)]**Struvea** Sonder**S. anastomosans** (Harvey) Piccone et Grunow ex Piccone

Chapman (1971), Kapraun & Bowden (1978), N'Yeurt (1993a, b, 1996)

[includes *Struvea delicatula* Kützing; see Womersley & Bailey (1970)]**Siphonocladaceae****Børgesenia** J. Feldmann**B. forbesii** (Harvey) J. Feldmann

Chapman (1971), Kasahara (1985, 1988), South (1991), N'Yeurt (1993a, b, 1996)

Cladophoropsis Børgesen**C. herpestica** (Montagne) Howe*In Herb.* Bernice P. Bishop Museum, Hawaii [Abbott *et al.*, 15 Jul., 1973, Korolevu: BISH 623614]**C. membranacea** (C. Agardh) BørgesenKasahara (1985, 1988); *In Herb.* Bernice P. Bishop Museum, Hawaii [Abbott *et al.*, 13 Jul., 1973, Savusavu ("Samusamu") Bay: BISH 623612]**C. sundanensis** Reinbold

Raj (1993), N'Yeurt (1993a, b, 1996), South et al. (1993)

C. vaucheriaeformis (J. E. Areschoug) Papenfuss

Kasahara (1988)

Valoniaceae**Dictyosphaeria** Decaisne ex Endlicher**D. cavernosa** (Forsskal) Børgesen

Chapman (1971), Kapraun & Bowden (1978), Kasahara (1985, 1988), N'Yeurt (1993a, b, 1996)

[includes *Dictyosphaeria favulosa* (C. Agardh) Decaisne ex Endlicher]**D. versluysii** Weber-van Bosse

Chapman (1971), Kasahara (1985, 1988), South (1991)

Ernodesmis Børgesen**E. verticillata** (Kützing) Børgesen

Kasahara (1985)

Valonia J. Agardh**V. aegagropila** C. Agardh

Kapraun & Bowden (1978), Kasahara (1985, 1988), N'Yeurt (1993a, b, 1996)

- V. fastigiata Harvey ex J. Agardh
Kasahara (1988)
- V. utricularis (Roth) Agardh
Kasahara (1985, 1988), South (1991)
- Valoniopsis** Børgesen
- V. pachynema (Martens) Børgesen
Kasahara (1988)
- Ventricaria** Olsen et West
- V. ventricosa (J. Agardh) Olsen et West
Chapman (1971), Kasahara (1985, 1988), South (1991), N'Yeurt (1993a, b, 1996)
[= *Valonia ventricosa* J. Agardh, see Olsen & West (1988)]

BRYOPSIDALES

Bryopsidaceae

Bryopsis Lamouroux

- B. harveyana J. Agardh
Kasahara (1985, 1988), South (1991), N'Yeurt (1993a, b, 1996)
- B. plumosa (Hudson) J. Agardh
N'Yeurt (1993a, b, 1996), South et al. (1993)

Caulerpaceae

Caulerpa Lamouroux

(See South & N'Yeurt 1993)

- C. brachypus Harvey
Chapman (1971), Kasahara (1985)
[Includes *Caulerpa anceps* Harvey; see South & N'Yeurt (1994)]
var. parviflora (Harvey) Cribb
South & N'Yeurt (1993)
- C. crassifolia (C. Agardh) J. Agardh
Chapman (1971)
- C. cupressoides (Vahl) C. Agardh
Kasahara (1988), N'Yeurt (1993a, b, 1996)
- f. disticha (Weber-van Bosse) Collins
Kasahara (1985), South & N'Yeurt (1993)
- var. lycopodium Weber-van Bosse
Chapman (1971), South (1991), N'Yeurt (1993a, b, 1996), Kasahara (*in Herb.* Kyoto University, Faculty of Agriculture)f. elegans (P. Crouan et H. Crouan) Weber-van Bosse
N'Yeurt (1993a, b, 1996); South & N'Yeurt (1993)
- var. mamillosa (Montagne) Weber-van Bosse
N'Yeurt (1993a, b, 1996), South & N'Yeurt (1993)
- C. fergusonii Murray
In Herb. South Pacific Regional Herbarium, Suva [Keats, 13 Oct., 1994, Suva Reef: USP 812]

- C. filicoides* Yamada
 var. *andamanensis* Taylor
 [= *Caulerpa acuta* (Yamada) Yamada in South & Kasahara 1992; see South & N'Yeurt 1994]
- C. juniperoides* J. Agardh
 Chapman (1971)
- C. mexicana* Sonder ex Kützing
 [Includes *Caulerpa crassifolia* (C. Agardh) J. Agardh in South & Kasahara (1992); see Papenfuss (1956), Silva et al. (1987:106)]
 var. *pluriseriata* W. R. Taylor
 Kasahara (1988)
- C. microphysa* (Weber-van Bosse) J. Feldmann
 South & N'Yeurt (1993)
- C. racemosa* (Forskål) J. Agardh
 Kasahara (1988), N'Yeurt (1993a, b, 1996), South (1993)
 [Includes var. *clavifera* (Turner) Weber-van Bosse in South & Kasahara (1992); see Silva et al. (1987)]
 Chapman (1971)
 var. *laetevirens* (Montagne) Weber-van Bosse
 Kasahara (1985)
 var. *macrophysa* (Sonder ex Kützing) W. R. Taylor
 Chapman (1971), Kasahara (1985), South (1991)
 var. *occidentalis* J. Agardh
 South & N'Yeurt (1993)
 var. *peltata* (Lamouroux) Eubank
 Kasahara (1985), South (1991), N'Yeurt (1993a, b, 1996)
 [= *Caulerpa peltata* Lamouroux; includes f. *nummularia* (Harvey) Dawson in Kasahara (1988) and South & Kasahara (1992); see Silva et al. (1987); and *Caulerpa peltata* Lamouroux var. *nummularia* (Harvey) Weber-van Bosse]
 var. *turbinata* (J. Agardh) Eubank
 N'Yeurt (1993a, b, 1996), South & N'Yeurt (1993)
 var. *uvifera* (Turner) J. Agardh
 Chapman (1971), Kasahara (1985), South (1991), N'Yeurt (1993a, b, 1996)
 intermediate variety between vars. *turbinata* and *peltata*
 N'Yeurt (1993a, b, 1996), South & N'Yeurt (1993)
- C. remotifolia* Sonder
 Weber-van Bosse (1898), Chapman (1971)
- C. serrulata* (Forskål) J. Agardh
 Chapman (1971), Kasahara (1985, 1988), South (1991, as "*C. serratula* (Forskål) J. Agardh emend. Bory"), N'Yeurt (1993a, b, 1996); *In Herb.* Bernice P. Bishop Museum, Hawaii [*Abbott et al.*, 20 Jun., 1973, "Etai, off Viti Levu": BISH 623619; 13 Jul., 1973, Savusavu ("Samusamu") Bay: BISH 623625]
 var. *boryana* (J. Agardh) Gilbert
 f. *occidentalis* (Weber-van Bosse) Yamada et Tanaka
 N'Yeurt (1993a, b; 1996), South & N'Yeurt (1993)

- C. sertularioides* (S. G. Gmelin) Howe
Dickie (1876), Chapman (1971), Kasahara (1985, 1988)
- C. taxifolia* (Vahl) C. Agardh
Kasahara (1985, 1988), South (1991)
- C. urvilliana* Montagne
South (1991)
var. *vitiensis* Weber-van Bosse
Chapman (1971), Kasahara (1985, 1988)
- C. verticillata* J. Agardh
Kasahara (1988)
- C. webbiana* Montagne
Garbary et al. (1991)
- Caulerpella** Prud'homme van Reine et Lokhorst
- C. ambigua* (Okamura) Prud'homme van Reine et Lokhorst
[Includes *Caulerpa ambigua* Okamura in South & Kasahara (1992); see Prud'homme van Reine & Lokhorst (1992)]

Codiaceae

- Codium** Stackhouse
- C. arabicum* Kützing
N'Yeurt (1993a, b, 1996)
[= *C. adhaerens* in Chapman (1971); see Silva et al. (1987). Includes *C. coronatum* Setchell var. *aggregata* Børgesen in South & Kasahara (1992); see Egerod (1952); Silva et al. (1987)]
- C. bulbopilum* Setchell
Kasahara (1985), South (1991, as "*C. bolbopilum*"), N'Yeurt (1993a, b, 1996)
- C. geppii* O. C. Schmidt
Chapman (1971), Kasahara (1988)
- C. mamillosum* Harvey
In Herb. South Pacific Regional Herbarium, Suva [Keats, 10 May, 1994, Suva Reef: USP 669, 784]
- C. platyclados* Jones et Kraft
Jones & Kraft (1984)
- C. sp.*
N'Yeurt (1993a, b, 1996)
[this new peltate species of *Codium* will be described elsewhere]

Halimediaceae

- Halimeda** Lamouroux
(See South 1992)
- H. bikinensis* W. R. Taylor
Kasahara (1988), South (1992), N'Yeurt (1993a, b, 1996)
- H. copiosa* Goreau et Graham
South (1992)
[= *Halimeda hederacea* (Barton) Hillis; *H. opuntia* v. *hederacea* (Barton) Hillis]

- Chapman (1971); Kasahara (*in Herb.* Kyoto University, Faculty of Agriculture)
- H. *cuneata* Hering
South (1992), N'Yeurt (1993a, b, 1996)
- f. *undulata* Barton
Kasahara (1985); South (1991)
- f. *digitata* Barton
Chapman (1971), Kasahara (1988), South (1992), South & Kasahara (1992)
- H. *cylindracea* Decaisne
Chapman (1971), Kasahara (1985, 1988), South (1991, 1992)
- H. *discoidea* Decaisne
Chapman (1971), Kasahara (1988), South (1992), N'Yeurt (1993a, b, 1996)
- H. *fragilis* W. R. Taylor
Kasahara (1988), South (1992)
- H. *incrassata* (Ellis) Lamouroux
Askenasy (1888), Chapman (1971), Kasahara (1985), South (1991, 1992)
- H. *macroloba* Decaisne
Chapman (1971), Kasahara (1985, 1988), South (1991, 1992)
- H. *macrophysa* Askenasy
Askenasy (1888), Chapman (1971), Kasahara (1985, 1988), South (1992), N'Yeurt (1993a, b, 1996)
- H. *micronesia* Yamada
N'Yeurt (1993a, b, 1996), South et al. (1993)
- H. *minima* (W. R. Taylor) Colinvaux
Garbary et al. (1991), South (1992)
[= *Halimeda opuntia* f. *minima* W. R. Taylor]
- H. *opuntia* (Linnaeus) Lamouroux
Askenasy (1888), Chapman (1971), Kasahara (1985, 1988), South (1991, 1992), N'Yeurt (1993a, b, 1996)
[= *Halimeda cordata* J. Agardh; see Tsuda & Wray (1977), Silva et al. (1987)]
- var. *hederacea* (Barton) Hillis
N'Yeurt (1993a, b, 1996)
- var. *macrocarpa* Askenasy
Chapman (1971)
- var. *opuntia* (Decaisne) J. Agardh
N'Yeurt (1993a, b, 1996)
- H. *renschii* Hauck
Garbary et al. (1991), South (1992)
[= *Halimeda opuntia* f. *renschii* (Hauck) Barton; see Womersley & Bailey (1970). The record requires further investigation, since the Fijian specimens at UBC are not of this species.]
- H. *simulans* Howe
Kasahara (1985, 1988), South (1992), N'Yeurt (1993a, b, 1996)
- H. *taenicola* W. R. Taylor
Garbary et al. (1991), South (1992), N'Yeurt (1993a, b, 1996)

- H. tuna* (Ellis et Solander) Lamouroux
 South (1992), N'Yeurt (1993a, b, 1996)
 f. *triloba* Barton
 Chapman (1971, 1977), Kasahara (1985, 1988)

Rhipiliopsis

- R. howensis* Kraft
In Herb. South Pacific Regional Herbarium, Suva [Keats, 27 Nov., 1994,
 Belcher Rocks (Suva Reef): USP 856, S12:2, S12:3, S12:5]
R. sp.
 Garbary et al. (1991)

Udoteaceae**Avrainvillea** Decaisne

- A. amadelpha* (Montagne) A. Gepp et E. S. Gepp
 Kasahara (1988), N'Yeurt (1993a, b, 1996)
A. asarifolia Børgesen
 Kasahara (1985)
A. erecta (Berkeley) A. Gepp et E. S. Gepp
 Kasahara (1985)
A. nigricans Decaisne
 Kapraun & Bowden (1978)
A. rotumensis N'Yeurt, D. & M. Littler
 N'Yeurt (1993a, b, 1996), N'Yeurt et al. (1996)

Chlorodesmis Harvey et Bailey

- C. fastigiata* (C. Agardh) Ducker
 Chapman (1971), Kasahara (1985, 1988), South (1991); *In Herb.* South Pacific Regional Herbarium, Suva [Carlson, 14 Jan., 1973, Suva Reef: USP 24 (as *C. comosa* Harvey et Bailey; see note below)]
 [includes *Chlorodesmis comosa* Harvey et Bailey; see Ducker (1967)]
C. hildebrandtii A. Gepp et E. S. Gepp
 Garbary et al. (1991:252, as *C. "hildebrandtii"*), N'Yeurt (1993a, b, 1996)
C. major Zanardini
 N'Yeurt (1993a, b, 1996), South et al. (1993)

Pseudochlorodesmis Børgesen

- P. furcellata* (Zanardini) Børgesen
 Garbary et al. (1991)

Rhipidosiphon Montagne

- R. javensis* Montagne
 South (1991), N'Yeurt (1993a, b, 1996)
 [= *Udotea javensis* (Montagne) A. Gepp et E. S. Gepp; see Littler & Littler (1990)] Kasahara (1985, 1988, as *Udotea javensis*)

Rhipilia Kützting

- R. orientalis* A. Gepp et E. S. Gepp
 N'Yeurt (1993a, b, 1996)

- R. tenaculosa* A. Gepp et E. S. Gepp
In Herb. South Pacific Regional Herbarium, Suva [*Keats*, 23rd Aug., 1994,
 Suva Reef: USP 786, 792]

Rhipiliella Kraft

- R. verticillata* Kraft
In Herb. South Pacific Regional Herbarium, Suva [*Keats*, 8 Oct., 1994, Suva
 Reef: USP S11: 20]

Tydemania Weber-van Bosse

- T. expeditionis* Weber-van Bosse
 Chapman (1977), Kasahara (1985, 1988), South (1991); *In Herb.* Bernice P.
 Bishop Museum, Hawaii [*Abbott et al.*, 20 Jun., 1973, "Etai, off Viti Levu":
 BISH 623623]

Udotea Lamouroux

- U. glaucescens* Harvey ex J. Agardh
 Kasahara (1988), South (1991)

DASYCLADALES

Polyphysaceae

Acetabularia Lamouroux

- A. calycus* Lamouroux
 Chapman (1971)
A. dentata Solms-Laubach
 Garbary et al. (1991)
A. exigua Solms-Laubach
 Garbary et al. (1991)

Polyphysa Lamarck

- P. clavata* (Yamada) Schnetter et Bula-Meyer
 Garbary et al. (1991), South (1991)
 [= *A. clavata* Yamada; see Schetter & Bula-Meyer (1982)]
P. parvula (Solms-Laubach) Schnetter et Bula-Meyer
 [= *A. parvula* Solms-Laubach; see Schnetter & Bula-Meyer (1982) = *Ace-*
tabularia moebii Solms-Laubach]
 Garbary et al. (1991, as *A. moebii* Solms-Laubach)

Dasycladaceae

Bornetella Munier-Chalmas

- B. capitata* (Harvey) J. Agardh
 Kasahara (1988), Garbary et al. (1991)
B. nitida (Harvey) Munier-Chalmas
 Chapman (1971), Kasahara (1985)
B. oligospora Solms-Laubach
 Kapraun & Bowden (1978), Kasahara (1985, 1988), South (1991)
B. sphaerica (Zanardini) Solms-Laubach
 Kasahara (1985), South (1991)
B. vitileviana sp. ined. H. Kasahara
 Kasahara (1988)

Neomeris Lamouroux

N. vanbosseae Howe

Chapman (1971), Kasahara (1985), South (1991), N'Yeurt (1993a, b, 1996)

PHAEOPHYCEAE**ECTOCARPALES****Ectocarpaceae****Ectocarpus** Lyngbye

E. simpliusculus C. Agardh

var. vitiensis Askenasy

Chapman (1971)

Feldmannia Hamel

F. columellaris (Børgesen) Islam

Garbary et al. (1991)

F. indica (Sonder) Womersley et Bailey

Chapman (1971), Garbary et al. (1991)

[= *Ectocarpus indicus* Sonder in Zollinger]

F. irregularis (Kützinger) Hamel

Garbary et al. (1991)

Hincksia J. E. Gray

H. breviarticulata (J. Agardh) P. C. Silva

N'Yeurt (1993a, b, 1996), South et al. (1993)

H. mitchelliae (Harvey) P. C. Silva

South (1991)

Streblonema Derbès et Solier in Castagne

S. minutulum Heydrich

South et al. (1993: 182, fig. 3)

Ralfsiaceae**Ralfsia** Berkeley in Smith et Sowerby

R. expansa J. Agardh

Garbary et al. (1991)

CUTLERIALES**Cutleriaceae****Cutleria** Greville

Aglaozonia-phase of Cutleria

In Herb. South Pacific Regional Herbarium, Suva [South, 7 Feb., 1993, Laucala Bay: USP S8:11]**SPHACELARIALES****Sphacelariaceae****Sphacelaria** Lyngbye

S. novae-hollandiae Sonder

Garbary et al. (1991), South (1991)

- S. rigidula* Kützing
N'Yeurt (1993a, b, 1996)
[Probably includes *Sphacelaria furcigera* Kützing in Garbary et al. (1991)
and South & Kasahara (1992); see Silva et al. (1987: 74)]
- S. tribuloides* Meneghini
Chapman (1971)
[Includes *S. novae-hollandae* according to Chapman (1971), but listed separately in Tsuda & Wray (1977)]

DICTYOTALES

Dictyotaceae

Dictyopteris Lamouroux

- D. repens* (Okamura) Børgesen
Garbary et al. (1991), N'Yeurt (1993a, b, 1996)

Dictyota Lamouroux

(see Ajisaka & Enomoto 1985)

- D. bartayresiana* Lamouroux
Kapraun & Bowden (1978), Ajisaka & Enomoto (1985), South (1991, as "*D. bartayresii* Lamouroux")
- D. cervicornis* Kützing
Kapraun & Bowden (1978), Ajisaka & Enomoto (1985), South (1991)
- D. dentata* Lamouroux
Ajisaka & Enomoto (1985)
- D. dichotoma* (Hudson) Lamouroux
Chapman (1971), South (1991)
var. *elongata* Kützing
Chapman (1971)
- D. divaricata* Lamouroux
Ajisaka & Enomoto (1985), Garbary et al. (1991), South (1991)
- D. friabilis* Setchell
Ajisaka & Enomoto (1985), N'Yeurt (1993a, b, 1996)
- D. patens* J. Agardh
Ajisaka & Enomoto (1985)
- Dilophus** J. Agardh
- D. radicans* Okamura
Garbary et al. (1991), N'Yeurt (1993a, b, 1996)
- Lobophora** J. Agardh
- L. variegata* (Lamouroux) Womersley
Chapman (1971), N'Yeurt (1993a, b, 1996)
- Padina** Adanson
- P. australis* Hauck
Garbary et al. (1991), South (1991)
- P. fraseri* (Greville) Greville
Chapman (1971)

- P. gymnospora* (Kützing) Sonder
Kapraun & Bowden (1978)
- P. pavonica* (Linnaeus) Thivy
Chapman (1971)
- P. tenuis* Børgesen
Kapraun & Bowden (1978), N'Yeurt (1996)
- P. minor* Yamada
Kapraun & Bowden (1978)

Dictyotopsidae

- Dictyotopsis** Troll
D. propagulifera Troll
Raj (1993), South et al. (1993)

DICTYOSIPHONALES

Chnoosporaceae

- Chnoospora** J. Agardh
C. implexa J. Agardh
In Herb. South Pacific Regional Herbarium, Suva [Carlson, 19 Oct., 1972, Suva Reef: USP 145 (as *Gracilaria* sp.); Kasahara, 17 Oct., 1985, Suva Reef: USP 678, 679; Faloon, 22 Oct., 1993, Suva Lagoon: USP 667, 746, 760]
- C. minima* (Hering) Papenfuss
N'Yeurt (1993a, b, 1996), South et al. (1993)

SCYTOSIPHONALES

Scytosiphonaceae

- Colpomenia** (Endlicher) Derbès et Solier in Castagne
C. sinuosa (Mertens ex Roth) Derbès et Solier
Chapman (1971); *in Herb.* Bernice P. Bishop Museum, Hawaii [Abbott et al., 15 Jul., 1973, Korolevu: BISH 623575]
- Hydroclathrus** Bory
H. clathratus (C. Agardh) Howe
Chapman (1971); *In Herb.* Bernice P. Bishop Museum, Hawaii [Newhouse, 22 Sep., 1952, "Cuvu, Singatoka, west side of Navuevu River": BISH 512119; Kondo, Aug./Sep. 1968, Ono-I-Lau: BISH 557347; Abbott et al., 20 Jun., 1973, "Etai, off Viti Levu": BISH 623576]
- Rosenvingea** Børgesen
R. orientalis (J. Agardh) Børgesen
South et al. (1993:183, fig. 4)

FUCALES

Sargassaceae

- Sargassum** C. Agardh
S. cristaefolium C. Agardh
Chapman (1971)

[= *S. duplicatum* (J. Agardh) J. Agardh; see Tsuda & Wray (1977) and Silva et al. (1987). This record (as *S. duplicatum*) uncertain, the species showing some similarity with *Sargassum fonanonense* Setchell]

S. horridulum Grönow

Chapman (1971)

[Includes *Sargassum polycystum* C. Agardh according to Chapman (1971); see, however, Silva et al. (1987)]

S. ilicifolium (Turner) J. Agardh

Garbary et al. (1991)

S. obovatum Harvey

Chapman (1971)

S. polycystum C. Agardh

Chapman (1971), Garbary et al. (1991), N'Yeurt (1993a, b, 1996); *In Herb.* Bernice P. Bishop Museum, Hawaii [*Kondo*, Aug./Sep. 1968, Ono-I-Lau: BISH 555177, 555178, 555179; *Nicholson*, 26 Jul., 1978, Nukulau (Suva Reef): BISH 512635]

[See note to *S. horridulum*, above. According to Chapman (1971) this species was recorded by earlier collectors as *S. vulgare*, an Atlantic species]

Turbinaria Lamouroux

T. conoides (J. Agardh) Kützing

Chapman (1971); *In Herb.* Bernice P. Bishop Museum, Hawaii [*Abbott et al.*, 15 Jul., 1973, Korolevu: BISH 623623]

[= *Turbinaria vulgaris* J. Agardh according to Chapman (1971), but see note in Silva et al. (1987)]

T. ornata (Turner) J. Agardh

Chapman (1971), South (1991), N'Yeurt (1993a, b, 1996).

Cystoseiraceae

Cystoseira C. Agardh

? *C. prolifera* J. Agardh

Chapman (1971)

RHODOPHYCEAE

Bangiophycidae

BANGIALES

Erythropeltidaceae

Erythrotrichia J. E. Areschoug

E. carnea (Dillwyn) J. Agardh

Garbary et al. (1991), South (1991), N'Yeurt (1993a, b, 1996)

Goniotrichaceae

Bangiopsis Smith in Smith et Hollenberg

B. humphreyi (Collins) Hamel

Kapraun & Bowden (1978)

Goniotrichopsis Smith

G. sublittoralis Smith
Garbary et al. (1991)

Stylonema Reinsch
[= *Goniotrichum* Kützing]

S. alsidii (Zanardini) Drew
Garbary et al. (1991)
[= *Goniotrichum alsidii* (Zanardini) Howe]

Florideophycidae
ACROCHAETIALES
Acrochaetiaceae

Audouinella Bory

[See nomenclatural note in Silva et al. (1987), where *Acrochaetium* Nägeli is preferred]

- A. microscopica* (Nägeli) Woelkerling
Garbary et al. (1991), South (1991)
- A. polyblasta* (Rosenvinge) J. Price, Lawson et John
N'Yeurt (1993a, b, 1996), South et al. (1993)
- A. saviana* (Meneghini) Woelkerling
South et al. (1994:185)
- A. thuretii* (Bornet) Woelkerling
Garbary et al. (1991)

BONNEMAISONIALES
Bonnemaisoniaceae

Asparagopsis Montagne

- A. taxiformis* (Delile) Trevisan
Chapman (1977), Garbary et al. (1991). Both record the probable tetrasporic phase as *Falkenbergia hillebrandii* (Bornet) Falkenberg.
South (1991)

Galaxauraceae
[= **Chaetangiaceae**; see Silva et al., 1987]

Actinotrichia Decaisne

- A. fragilis* (Forskål) Børgesen
Grunow (1874), Askenasy (1888), Chapman (1971), Kasahara (1985), South (1991), N'Yeurt (1993a, b, 1996); *In Herb.* Bernice P. Bishop Museum, Hawaii [Abbott et al., 13 Jul., 1973, Savusavu ("Samusamu") Bay: BISH 623702; 15 Jul., 1973, Korolevu: BISH 623709, 623717, 623723]

Galaxaura Lamouroux

- G. apiculata* Kjellman
Kasahara (1985), South (1991)
[Possible relationship between *G. apiculata* and *G. marginata* discussed in Kasahara 1985]

- G. fasciculata* Kjellman
Chapman (1971), Kasahara (1985)
[= *G. fascicularis* Kjellman in Tsuda & Wray, 1977]
- G. filamentosa* Chou
Kasahara (1985), Garbary et al. (1991), South (1991), N'Yeurt (1996) [includes *Galaxaura rudis* Kjellman according to Kasahara (1985) and Silva et al. (1987); but *G. rudis* included in *Galaxaura rugosa* (Ellis et Solander) Lamouroux according to Huisman & Borowitzka (1990). According to Papenfuss et al. (1982), *G. rudis* is a taxonomic synonym of *G. lapidescens* (Ellis et Solander) Lamouroux]
- G. glabriuscula* Kjellman
Itono (1985a)
- G. hystrix* Kjellman
Chapman (1971)
- G. lapidescens* (Ellis et Solander) Lamouroux
Grunow (1874)
[see note to *G. filamentosa*]
- G. marginata* (Ellis et Solander) Lamouroux
Kasahara (1985); *In Herb.* Bernice P. Bishop Museum, Hawaii [Abbott et al., 14 Jul., 1973, Korolevu: BISH 623700]
[according to Kasahara (1985) and Silva et al. (1987), includes *Galaxaura clavigera* Kjellman and *G. ventricosa* Kjellman; but see Huisman & Borowitzka (1990)]
- G. obtusata* (Ellis et Solander) Lamouroux
Grunow (1874), Chapman (1971, 1977), Kasahara (1985); *In Herb.* Bernice P. Bishop Museum, Hawaii [Abbott et al., 14 Jul., 1973, Korolevu: BISH 623718; 15 Jul., 1973: BISH 623719]
[according to Kasahara (1985) includes *Galaxaura breviararticulata* Kjellman and *G. robusta* Kjellman (cf. Chapman 1977); see, however, Huisman & Borowitzka (1990)]
- G. rugosa* (Ellis et Solander) Lamouroux
Grunow (1874), Dickie (1876), Kasahara (1985), South (1991)
[includes *Galaxaura rudis* Kjellman; see Huisman and Borowitzka (1990), and note to *G. filamentosa*]
- G. striata* Kjellman
Chapman (1971)
- G. subfruticulosa* Chou ex W. R. Taylor
Itono (1985a)
- G. stupocaula* Kjellman
Itono (1985a)
- G. subverticillata* Kjellman
Kasahara (1985)
- G. ventricosa* Kjellman
Itono (1985a)
- Scinaia** Bivona-Bernardi

S. borealis Huisman

In Herb. South Pacific Regional Herbarium, Suva [*Faloon*, 22nd Oct., 1993, Makaluwa Island (Suva Reef): USP 688, 747, 773]

Tricleocarpa Huisman et Borowitzka**T. fragilis** (Linnaeus) Huisman et Townsend

[= *Tricleocarpa oblongata* Huisman et Borowitzka, see Huisman and Townsend 1993]

[= *Galaxaura oblongata* (Ellis et Solander) Lamouroux; includes *Galaxaura fastigiata* Decaisne and *Galaxaura fragilis* Lamarck et Decaisne. See Huisman & Borowitzka (1990)]

Kasahara (1985, as *G. oblongata*)

GELIDIALES

Gelidiaceae

Gelidiella J. Feldmann et Hamel**G. acerosa** (Forsskal) J. Feldmann et Hamel

[= *Gelidium rigidum* (C. Agardh) Greville; see Silva et al. (1987:25)]

Chapman (1971), Kasahara (1985), South (1991), N'Yeurt (1993a, b, 1996); *in Herb.* Bernice P. Bishop Museum, Hawaii [*Abbott et al.*, 13 Jul., 1973, Savusavu ("Samusamu") Bay: BISH 623708, 623720; 15 Jul., 1973, Korolevu: BISH 623672; *Nicholson*, 26 Jul., 1978, Nukulau (Suva Reef): BISH 530729]; *in Herb.* South Pacific Regional Herbarium, Suva [*Carlson*, 14 Jan., 1973, Suva Reef: USP 294; 11 Aug., 1973: USP 295 (as *Gelidium rigidum* (C. Agardh) Greville)]

Gelidium Lamouroux**G. crinale** (Turner) Gaillon var. *perpusillum* Piccone et Grunow

Raj (1993), South et al. (1993)

G. pusillum (Stackhouse) Le Jolis

Chapman (1971), N'Yeurt (1993a, b, 1996)

Pterocladia J. Agardh**P. nana** Okamura

Kapraun & Bowden (1978)

NEMALIALES

Liagoraceae

Liagora Lamouroux**L. ceranoides** Lamouroux

Chapman (1971), Kasahara (1985)

[according to Kasahara (1985) includes *Liagora pulverentula* C. Agardh]

L. demelii Sonder

Grunow (1874); Chapman (1971)

L. farinosa Lamouroux

Grunow (1874); Chapman (1971)

L. setchellii Yamada

Kasahara (1985), South (1991)

- L. subarticulata* Grunow
Grunow (1874), Chapman (1971)
- L. valida* Harvey
N'Yeurt (1993a, b, 1996)
- L. viscida* (Forsskal) C. Agardh
Grunow (1874), Chapman (1971)
- Yamadaella** Abbott
- Y. caenomyce* (Decaisne) Abbott
Kasahara (1985)

Nemaliaceae

- Trichogloea** Kützing
- T. requienii* (Montagne) Kützing
In Herb. South Pacific Regional Herbarium, Suva [Keats, 9 Sep., 1994, Great Astrolabe Reef (Kadavu): USP 832, 839]

CRYPTONEMIALES

Halymeniaceae

[= **Cryptonemiaceae**, see Guiry (1978)]

- Carpopeltis** Schmitz
- C. affinis* (Harvey) Okamura
Garbary et al. (1991)
- C. formosana* Okamura
[= *Corynocystis* sp. (G. T. Kraft, pers. com)]
Kasahara (1985)
- C. maillardii* (Montagne et Millardet) Chiang
Garbary et al. (1991)
- C. rigida* (Harvey ex J. Agardh) Schmitz
In Herb. Bernice P. Bishop Museum, Hawaii [Abbott et al., 15 Jul., 1973, Korolevu: BISH 623570, 623569]
- Grateloupia** C. Agardh
- G. filicina* (Lamouroux) C. Agardh
Kapraun & Bowden (1978)
- Halymenia** C. Agardh
- H. durvillaei* Bory de Saint-Vincent
Chapman (1971), Kasahara (1985)
[According to Kasahara (1985) includes *Halymenia formosa* Harvey]
- H. floresia* (Clemente y Rubio) C. Agardh
Kasahara (1985)
[According to Kasahara (1985) includes *Halymenia harveyana* J. Agardh]
- Prionitis** J. Agardh nom. cons
- P. ?angusta* (Harvey) Okamura
In Herb. South Pacific Regional Herbarium, Suva [Carlson, 25 Mar., 1973, Toberua, as "*Gracilaria eucheumoides* Harvey": USP 136 (cystocarpic); *Phycology Class*, 9 Sept., 1991, Makaluva Island (Suva Reef): USP 137; *Kasa-*

hara, 17 Oct., 1985, Makaluva Island (Suva Reef): USP 713; *Ballou*, 10 Feb., 1995, Suva Reef: USP 855]

[Note: in the absence of fertile material this identification is only tentative (S. Kawaguchi, in lit.)]

Peyssonneliaceae

Peyssonnelia Decaisne

- P. rubra* (Greville) J. Agardh
Grunow (1874), Chapman (1971)
P. sp.
N'Yeurt (1993a, b, 1996)

Squamariaceae

Hildenbrandia Nardo

- H. crouanii* (J. Agardh) J. Agardh
In Herb. South Pacific Regional Herbarium, Suva [*South*, 20 Apr., 1993,
Laucala Bay: USP 598; S7:19; S7:20; S8:1]

CORALLINALES

Sporolithaceae

Sporolithon Heydrich

- S. ptychoides* Heydrich
S. episporum (Howe) Dawson

Corallinaceae

Amphiroa Lamouroux

- A. anceps* (Lamarck) Decaisne
Garbary et al. (1991)
A. annulata Lemoine
Kasahara (1985), South (1991)
A. crassa Lamouroux
Chapman (1971), Garbary et al. (1991)
[Includes *Amphiroa godeffroyi* Grunow according to Chapman (1971)]
A. foliacea Lamouroux
Kasahara (1985)
A. fragilissima (Linnaeus) Lamouroux
Grunow (1874), Chapman (1971), Kapraun & Bowden (1978), Kasahara
(1985), Garbary et al. (1991), South (1991)
A. tribulus (Ellis et Solander) Lamouroux
Kapraun and Bowden (1978)
A. sp. aff. A. hancockii W. R. Taylor
Kasahara (1985)
A. sp.
South (1991)

Arthrocardia Decaisne

A. sp.

Garbary et al. (1991)

Cheilosporum (Decaisne) Zanardini

C. jungermannioides Ruprecht ex J. E. Areschoug
Chapman (1971)

C. spectabile Harvey

Grunow (1874), N'Yeurt (1993a, b, 1996)

Jania Lamouroux

J. adhaerens Lamouroux

Garbary et al. (1991), N'Yeurt (1993a, b, 1996)

J. capillacea Harvey

Garbary et al. (1991)

J. pumila Lamouroux

Grunow (1874)

J. rubens Lamouroux

N'Yeurt (1993a, b, 1996); *In Herb.* Bernice P. Bishop Museum, Hawaii
[Greenwood, 25 May, 1941, "Nandronga, Thuvu, near Singatoka": BISH
535460, 535461]

J. ungulata (Yendo) Yendo

Garbary et al. (1991)

J. tenella (Kützing) Grunow

Grunow (1874), Dickie (1876), Chapman (1971)

Mastophoroideae

Hydrolithon (Foslie) Foslie

H. gardineri (Foslie) Verheij et Prud'homme van Reine

H. onkodes (Heydrich) Penrose et Woelkerling

H. reinboldii (Weber-van Bosse et Foslie in Foslie) Foslie
Chapman (1977)

H. samoense (Foslie) Keats et Chamberlain

Neogoniolithon Setchell et Mason

N. frutescens (Foslie) Setchell et Mason

Chapman (1971)

[= *Goniolithon frutescens* Foslie]

Melobesioideae

Lithothamnion Heydrich

L. prolifer Foslie

L. australe Foslie

Mesophyllum Lemoine

M. erubescens (Foslie) Lemoine

M. funafutiense (Foslie) Verheij

Lithophylloideae

Lithophyllum Philippi

L. cuneatum Keats

- L. insipidum* Adey, Townsend et Boykins
L. kotschyanum Unger
L. tamiense Heydrich
 Chapman (1977, as *L. moluccense* (Foslie) Foslie f. *pygmaea* Heydrich),
 N'Yeurt (1993a, b, 1996)
L. prototypum (Foslie) Foslie
L. pustulatum (Lamouroux) Foslie
 [= *Titanoderma pustulatum* (Lamouroux) Nägeli]
 In Herb. South Pacific Regional Herbarium, Suva [Faloon, 22 Oct., 1993,
 Suva Reef: USP 774]

Species of nongeniculate coralline algae of uncertain status in Fiji

- Dermatolithon** Foslie
D. saxicolum Lemoine
 Chapman (1971)
- Heteroderma**
H. parvicarpa Dawson
 Chapman (1971)
- Hydrolithon** (Foslie) Foslie
H. coccosicum (Foslie) Penrose et Woelkerling
 [= *Porolithon coccosicum* Foslie, see Penrose & Woelkerling (1992)]
 Chapman (1971)
- H. farinosum* (Lamouroux) Penrose et Chamberlain
 [= *Fosliella farinosa* (Lamouroux) Howe, vide Penrose & Chamberlain
 (1993); also includes *Melobesia farinosa* Lamouroux]
 Grunow (1874), Chapman (1971), N'Yeurt (1993a, b, 1996) [all as *Fosliella*
 farinosa (Lamouroux) Howe]
- Mesophyllum** Lemoine
M. engelhartii Foslie
 [Chapman (1977), as *Lithothamnion engelhartii*]
- Lithothamnion** Heydrich
L. granuliferum Foslie
 Chapman (1971)
- Lithophyllum** Philippi
L. divaricatum Lemoine
 Chapman (1977)
- L. impar* Foslie
 Chapman (1971)
- L. okamurai* Foslie
 Chapman (1977)

GIGARTINALES

Rhizophyllidaceae

- Portieria** Zanardini
P. hornemannii (Lyngbye) Silva

Grunow (1874), Chapman (1971), Kasahara (1985), South (1991)
 [= *Chondrococcus hornemannii* (Lyngbye) Schmitz; see Silva et al. (1987).
 According to Chapman (1971) = *Portieria cincinnata* Montagne var. *pulvina*
nata Grunow in Grunow (1874)]

Dumontiaceae

Gibsmithia Doty

G. dotyi Kraft et Ricker

In Herb. South Pacific Regional Herbarium, Suva [*Ballou and Yeo*, 19 Feb.
 1995, Suva Lagoon: USP 908]

Gracilariaceae

Gelidiopsis Schmitz

G. acrocarpum (Harvey) Schmidt

Grunow (1874); Chapman (1971)

[= *Gelidiopsis acrocarpa* in Tsuda and Wray (1977); includes *Gelidium rad-*
icans Kützing in Grunow (1874)]

G. intricata (C. Agardh) Vickers

Kasahara (1985), N'Yeurt (1993a, b, 1996)

[= *Gelidium intricatum* (C. Agardh) Kützing in Setchell (1924: 163, fig. 31),
 according to Kasahara (1985)]

G. rigida (Vahl) Weber-van Bosse

Chapman (1971)

[= *Echinocaulon rigidum* (Vahl) Kützing in Grunow (1874) and Chapman
 (1971)]

G. variabilis (J. Agardh) Schmitz

Kapraun & Bowden (1978)

Gracilaria Greville

G. coronopifolia J. Agardh

Kapraun & Bowden (1978)

G. edulis (S. G. Gmelin) P. C. Silva

In Herb. H. Kasahara, Kyoto University, Faculty of Agriculture

[Includes *Gracilaria lichenoides* in Askenasy (1888), Chapman (1971) and
 South & Kasahara (1992). According to Silva (1952) the most common name
 for nineteenth century collections of *G. lichenoides* equates with *G. edulis*.
Gracilaria edulis also includes *Polycavernosa fastigiata* Chiang et Xia = *Hy-*
dropuntia fastigiata (Chiang et Xia) Wynne; see Abbott et al. 1991.]

G. eucheumoides Harvey

Chapman (1971)

G. furcellata Harvey

Chapman (1977)

G. mammilaris (Montagne) Howe

Kapraun & Bowden (1978)

[The occurrence of this Caribbean species in Fiji should be re-investigated.]

G. maramae South sp. inedit.

South (1993, 1995)

- [Includes *Gracilaria* sp. aff. *G. parvispora* Abbott in South & Kasahara (1992), and *Gracilaria* sp. in South (1993)]
- G. verrucosa* (Hudson) Papenfuss
Chapman (1971)
[= *Gracilaria confervoides* (L.) Greville according to Chapman (1971). See Bird et al. (1982)]
- G.* sp. aff. *G. textorii* (Suringar) De Toni
N'Yeurt (1993a, b, 1996)

Hypneaceae

- Hypnea** Lamouroux
- H. cervicornis* J. Agardh
Kapuraun & Bowden (1978)
- H. charoides* Sonder
Kasahara (1985)
- H. cornuta* (Kützing) J. Agardh
Kapuraun & Bowden (1978)
- H. divaricata* (C. Agardh) Greville
Grunow (1874), Chapman (1971)
- H. esperi* Bory
Askenasy (1888), Chapman (1971), Kasahara (1985), South (1991)
- H. musciformis* (Wulfen) Lamouroux
var. *esperi* J. Agardh
Chapman (1971)
[see note regarding *Hypnea esperi* in Silva et al. (1987)]
- H. nidulans* Setchell
In Herb. South Pacific Regional Herbarium, Suva [*Phycology Class*, 9 Sep., 1991, Suva Reef: USP 303]
- H. pannosa* J. Agardh
Grunow (1874), Chapman (1971), Kasahara (1985), South (1991, 1993)
[According to Kasahara (1985) includes *Hypnea nidulans* Setchell]

Nemastomataceae

- Predaea** G. DeToni
- P. weldii* Kraft et Abbott
In Herb. South Pacific Regional Herbarium, Suva [*Keats*, 9 Jul. 1994, Great Astrolabe Reef, Kadavu: USP 909]
- Titanophora** (J. Agardh) J. Feldmann
- T. weberae* Børgesen
Kasahara (1985, as *T.* sp. aff. *T. pulchra* Dawson)

Phacelocarpaceae

- Phacelocarpus** Endlicher et Diesing, nom. cons.
- P. neurymenioides* N'Yeurt, Keats et R. E. Norris
N'Yeurt et al. (1995)

Solieriaceae**Callophycus** Trevisan**C. densus** (Sonder) Kraft

Grunow (1874, as *Thysanocladia densa* Sonder; see note below); *In Herb.* South Pacific Regional Herbarium, Suva [Keats, 9 Sep., 1994, Great Astrolabe Reef (Kadavu): USP 845]

[= *Thysanocladia densa* Sonder, see Kraft (1984: 58)]

C. serratus (Harvey ex Kützing) P. C. Silva

[= *Thysanocladia serrata* Harvey ex Kützing, see Kraft (1984)]

Chapman (1971, as *Thysanocladia serrata* Harvey), Kraft (1984)

Eucheuma J. Agardh

[*Eucheuma* is cultivated in Fiji, with introduced species and varieties; taxa cultivated in Fiji include *Kappaphycus alvarezii* (Doty) Doty (the most commonly cultivated), *E. striatum* Schmitz and *E. denticulatum* (N. L. Burman) Collins et Hervey (= *Eucheuma spinosum* J. Agardh). See Booth et al. (1983), Luxton et al. (1987), Prakash (1990), Foscarini & Prakash (1990), Ram (1991), and Eldredge (1994)]

E. sp.

Garbary et al. (1991)

Meristotheca J. Agardh**M. procumbens** P. Gabrielson et Kraft

N'Yeurt (1993a, b, 1995, 1996), South et al. (1993); *In Herb.* Bernice P. Bishop Museum, Hawaii [Booth, Oct. 1975, Rotuma Island: BISH 474694, 536995; 8 Aug., 1977, Rotuma Island: BISH 512057, 537010]

Solieria J. Agardh**S. robusta** (Greville) Kylin

South (1993)

PLOCAMIALES

[see Saunders and Kraft, 1994]

Plocamiaceae**Plocamium** Lamouroux**P. abnorme** Hooker et Harvey

Chapman (1971)

[= *P. botryoides* Kützing in Grunow (1874) according to Chapman (1971)]

P. cartilagineum (Linnaeus) Dixon

South et al. (1994:186, fig. 5)

RHODYMENIALES**Champiaceae****Champia** Desvaux**C. parvula** (C. Agardh) Harvey

Kapraun & Bowden (1978), N'Yeurt (1993a, b, 1996); *In Herb.* Bernice P. Bishop Museum, Hawaii [Booth, Oct. 1975, "Boka Bay, Nacula Islands, Yasawa": BISH 528448]

- C. *vieillardii* Kützing
Kasahara (1985)

Rhodymeniaceae

- Botryocladia** (J. Agardh) Kylin
B. *skottsbergii* (Børgesen) Levring
In Herb. South Pacific Regional Herbarium, Suva [*Keats*, 26 Jul., 1994, Suva Reef: USP S11:15 Aug., 1994: USP S10:20; 19 Aug., 1994: USP 788; 21 Sep., 1994: USP 811]
B. *spinulifera* W. R. Taylor et Abbott
Kasahara (1985)
Coelarthrum Børgesen
C. *boergesenii* Weber-van Bosse
N'Yeurt (1993a, b, 1996), South et al. (1993)
Coelothrix Børgesen
C. *irregularis* (Harvey) Børgesen
N'Yeurt (1993a, b, 1996)
Erythrocolon J. Agardh
E. *podagricum* J. Agardh
Chapman (1971), Kasahara (1985)
[According to Kasahara (1985) includes *Erythrocytis podagrica* Harvey and *Chylocladia podagrica* Harvey]
Halichrysis (J. Agardh) Schmitz in Schmitz et Hauptfleisch
H. *coalescens* (Farlow) R. E. Norris et A. J. K. Millar
In Herb. South Pacific Regional Herbarium, Suva [*Keats*, 30 Nov., 1994, Suva Reef: USP 857]
[= *Herpophyllum coalescens* Farlow, see Norris (1991:583)]
Rhodymenia Greville
R. *divaricata* Dawson
N'Yeurt (1993a, b, 1996), South et al. (1993)

Lomentariaceae

- Lomentaria** Lyngbye
L. *corallicola* Børgesen
In Herb. South Pacific Regional Herbarium, Suva [*Keats*, 5 Aug., 1994, Suva Reef: USP S11:15]

CERAMIALES

Ceramiaceae

- Anotrichum** Nägeli
A. *tenuis* (C. Agardh) Nägeli
[= *Griffithsia tenuis* C. Agardh in South and Kasahara (1992); see Garbary et al. (1991)]
Ardreanema Norris et Abbott
A. *seriospora* (Dawson) R. E. Norris

In Herb. South Pacific Regional Herbarium, Suva [*Keats*, 26 Jul., 1994, Suva Reef: USP S11:3; S11:4]

[= *Ardreanema farifructa* Norris et Abbott; = *Ceramium seriosporum* Dawson; see Norris (1994: 154)]

Balliella Itono et Tanaka

B. subcorticata (Itono) Itono et Tanaka

In Herb. South Pacific Regional Herbarium, Suva [*Keats*, 26 Jul., 1994, Suva Reef: USP 766, S10:18; S10:19]

[= *Antithamnion subcorticatum* Itono, see Itono & Tanaka (1973)]

Centroceras Kützing

C. apiculatum Yamada

Garbary et al. (1991), N'Yeurt (1993a, b, 1996)

C. clavulatum (C. Agardh) Montagne

[= *C. minutum* Yamada; see Ardré 1987]

Grunow (1874; as var. *hyalcanthum* Kützing), Chapman (1971), Garbary et al. (1991, as *C. minutum* Yamada), South (1991, as *C. minutum* Yamada), N'Yeurt (1993a, b, 1996)

Ceramium Roth

C. brevizonatum Peterson

Kapraun & Bowden (1978)

C. camouii Dawson

Garbary et al. (1991)

C. clarionense Setchell

Garbary et al. (1991)

C. codii (Richards) Mazoyers

N'Yeurt (1993a, b, 1996), South et al. (1993)

C. flaccidum (Harvey ex Kützing) Ardissonne

[Includes *Ceramium masonii* Dawson in Kasahara (1985), South (1991), and South & Kasahara 1992; see Womersley (1978:234) and Silva et al. (1987:54)]

C. gracillimum (Kützing) Zanardini

South (1991)

var. *byssoides* (Harvey) Feldmann-Mazoyer

Garbary et al. (1991)

C. huysmansii Weber-van Bosse

Garbary et al. (1991)

C. mazatlanense Dawson

Garbary et al. (1991), N'Yeurt (1993a, b, 1996), South et al. (1993)

C. punctiforme Setchell

In Herb. South Pacific Regional Herbarium, Suva [*South*, 20 Jan., 1992, Laucala Bay: USP 651, S8:6, S8:7]

C. serpens Setchell et Gardner

Garbary et al. (1991)

C. subverticillatum (Grunow) Weber-van Bosse

[= *Ceramium kützingianum* Grunow var. *subverticillata* Grunow; see Chapman (1971)] Grunow (1874), Chapman (1971)

- C. vagans** P. C. Silva
N'Yeurt (1993a, b, 1996)
[= *C. vagabundum* Dawson and *C. vagabunde* (sic) Dawson in Kapraun & Bowden (1978) and South & Kasahara (1992)]
- C. zaca**e Setchell et Gardner
N'Yeurt (1993a, b, 1996), South et al. (1993); *In Herb.* South Pacific Regional Herbarium, Suva [N'Yeurt, 3 Oct., 1992, Suva Point: USP S7:3]
- Crouania** J. Agardh
- C. minutissima** Yamada
Garbary et al. (1991)
- Dasyphila** Sonder
- D. plumarioides** Yendo
South et al. (1994:189, fig. 6–8)
- Griffithsia** C. Agardh
- G. metcalfii** Tseng
Garbary et al. (1991)
- G. ovalis** Harvey
Garbary et al. (1991)
- G. subcylindrica** Okamura
N'Yeurt (1993a, b, 1996)
- Haloplegma** Montagne
- H. duperreyi** Montagne
Kasahara (1985), South (1991)
- Pterothamnion** Nägeli
- P. plumula** (Ellis) Nägeli
Garbary et al. (1991)
- Spermothamnion** Areschoug
- S. sp.**
Garbary et al. (1991)
- Spyridia** Harvey
- S. filamentosa** (Wulfen) Harvey
Chapman (1971)
- S. hypnoides** (Bory) Papenfuss
Kapraun & Bowden (1978)
[= *Spyridia aculeata* (Schimper) Kützing; see Kapraun & Bowden, 1978]
- Wrangelia** C. Agardh
- W. argus** (Montagne) Montagne
Kasahara (1985), Garbary et al. (1991), South (1991), N'Yeurt (1993a, b, 1996)

Dasyaceae

- Dasya** C. Agardh
- D. sp.**
Garbary et al. (1991)
- Heterosiphonia** Montagne
- H. crispella** (C. Agardh) Wynne

- [= *Heterosiphonia wurdemanii* (Bailey) Falkenberg in South & Kasahara (1992) and Garbary et al. (1991). See Silva et al. (1987), South & Tittley (1986), and Wynne (1985)]
 var. *laxa* (Børgesen) Wynne
 N'Yeurt (1993a, b, 1996)
 Garbary et al. (1991), South (1991)
 H. *subsecunda* (Suhr) Falkenberg
 Chapman (1971), N'Yeurt (1993a, b, 1996)
 [= *Heterosiphonia callithamnion* Sonder and *Dasya callithamnion* (Sonder) Harvey; see Chapman (1971)]

Delesseriaceae

- Caloglossa** (Harvey) J. Agardh
 C. *adnata* (Zanardini) De Toni
 Chapman (1971)
 C. *leprieurii* (Montagne) J. Agardh
 Kapraun and Bowden (1978)
 C. *ogasawaraensis* Okamura
 Chapman (1971)
 C. sp. 1 inedit
 Raj (1993), South et al. (1993:189)
 C. sp. 2 inedit
 Raj (1993), South et al. (1993:189)
Hypoglossum Kützing
 H. *caloglossoides* Wynne et Kraft
 N'Yeurt (1993a, b, 1996), South et al. (1993); *In Herb.* South Pacific Regional Herbarium, Suva [*Keats*, 12 May 1994, Suva Reef: USP S9:17]
 H. *minimum* Yamada
 Garbary et al. (1991)
Martensia Hering
 M. *elegans* Hering
 South (1991), N'Yeurt (1993a, b, 1996); *In Herb.* South Pacific Regional Herbarium, Suva [*Carlson*, 10 Dec., 1972, Suva Reef: USP 313]
Myriogramme Kylin
 M. sp.
 South et al. (1993:189, figs. 9–10)
Taenioma J. Agardh
 T. *nanum* (Kützing) Papenfuss
In Herb. South Pacific Regional Herbarium, Suva [*South*, 6 May, 1993, Suva Reef: USP S8:19]
 T. *perpusillum* (J. Agardh) J. Agardh
 Garbary et al. (1991)
Vanvoorstia Harvey
 V. *coccinea* J. Agardh
 Kasahara (1985), South (1991); *In Herb.* Bernice P. Bishop Museum, Hawaii [*Abbott et al.*, 13th Jul., 1973, Savusavu ("Samusamu") Bay: BISH 623679] (as *V. spectabilis* Harvey; see note below).

[According to Kasahara (1985) = *Vanvoorstia spectabilis* (non Harvey)* in Okamura, (1936)]

Rhodomelaceae

Acanthophora Lamouroux

A. *pacifica* (Setchell) G. T. Kraft

In Herb. South Pacific Regional Herbarium, Suva [Kasahara, 15 Oct., 1985, Suva Reef: USP 875, 876; Keats, 23 Aug., 1994, Fish Patch: USP 790].

A. *spicifera* (Vahl) Børgesen

Grunow (1874), Chapman (1971); *In Herb.* Bernice P. Bishop Museum, Hawaii [Anon, 20th May, 1966, "Veiuto, Suva": BISH 525934]

[Includes *Acanthophora muscoides* Bory and *A. orientalis* J. Agardh; see Tsuda and Wray (1977)]

Bostrychia Montagne

B. *binderi* Harvey

Garbary et al. (1991)

B. *moritziana* (Sonder ex Kützing) J. Agardh

Chapman (1971)

B. *radicans* (Montagne) Montagne

Chapman (1971)

B. *simpliciuscula* Harvey ex J. Agardh

Raj (1993), South et al. (1993)

B. *tenella* (Lamouroux) J. Agardh

Kapraun & Bowden (1978), N'Yeurt (1993a, b, 1996); *In Herb.* Bernice P. Bishop Museum, Hawaii [Doty, 9 Jun., 1952, "Between Nadi and Suva": BISH 458108 + jar, 458113 + jar]

Chondria C. Agardh

C. *armata* (Kützing) Okamura

Garbary et al. (1991)

C. *dasyphylla* (Woodward) C. Agardh

Garbary et al. (1991), N'Yeurt (1993a, b, 1996)

C. *minutula* Weber-van Bosse

Garbary et al. (1991)

C. *sedifolia* Harvey

N'Yeurt (1993a, b, 1996), South et al. (1993)

C. *simpliciuscula* Weber-van Bosse

N'Yeurt (1993a, b, 1996)

Herposiphonia Nägeli

H. *parca* Setchell

Hollenberg (1968b), South (1991)

H. *secunda* (C. Agardh) Ambronn

f. *tenella* (C. Agardh) Wynne

Garbary et al. (1991), South (1991), N'Yeurt (1993a, b, 1996)

[= *Herposiphonia tenella* (C. Agardh) Schmitz; see Silva et al. (1987)]

H. *subdisticha* Okamura

- Garbary et al. (1991)
- Laurencia** Lamouroux
- L. botryoides (Turner) Gaillard
Chapman (1971)
- L. cartilaginea Yamada
Garbary et al. (1991)
- L. columellaris Børgesen
Kapraun & Bowden (1978)
- L. corymbosa J. Agardh
Garbary et al. (1991)
- L. distichophylla J. Agardh
Kapraun & Bowden (1978)
- L. intermedia Yamada
Kapraun & Bowden (1978)
- L. obtusa (Hudson) Lamouroux
In Herb. Bernice P. Bishop Museum, Hawaii [*Greenwood*, May, 1941,
"Thuvu, near Singatoka": BISH 536205]
- var. gracilis Kützing
Grunow (1874), Chapman (1971)
- var. racemosa Kützing
Grunow (1874), Chapman (1971)
- L. panniculata (C. Agardh) Le Jolis
In Herb. South Pacific Regional Herbarium, Suva [*Seeto*, 24 Dec., 1991, Nas-
ese (Suva): USP 307]
- L. papillosa (C. Agardh) Greville
var. thyrsoides Kützing
Grunow (1874), Chapman (1971)
- L. parvipapillata Tseng
Kasahara (1985)
- L. patentiramea (Montagne) Kützing
Garbary et al. (1991)
[= *Laurencia paniculata* (C. Agardh) J. Agardh in Garbary et al. (1991); see
Silva *et al.*, (1987)]
- L. venusta Yamada
N'Yeurt (1993a, b, 1996), South et al. (1993)
- L. yamadana Howe
Kasahara (1985)
[= *Laurencia amabilis* Yamada et Segawa according to Kasahara (1985)]
- Leachiella** Kugrens
- L. sp.
[Parasitic on *Polysiphonia scopulorum* Harvey; previously known only from
western N. America; see Kugrens (1982) and Garbary et al. (1991)]
- Leveillea** Decaisne
- L. jungermannioides (Hering et Martens) Harvey
Kasahara (1985), Garbary et al. (1991)

Lophosiphonia Falkenberg

L. cristata Falkenberg

Hollenberg (1968c)

L. reptabunda (Suhr) Jaasund

Kapraun & Bowden (1978)

Melanamansia R. E. Norris

M. glomerata (C. Agardh) R. E. Norris

[= *Amansia glomerata* C. Agardh, see Norris (1995:67)]

All the following records as *Amansia glomerata* Lamouroux: Askenasy (1888), Chapman (1971), Kasahara (1985), South (1991), N'Yeurt (1993a, b, 1996); *In Herb.* Bernice P. Bishop Museum, Hawaii [*Newhouse*, n.d., "Viti Levu": BISH 512071; *Abbott et al.*, 15th Jul., 1973, Korolevu: BISH 623676]

Murrayella Schmitz

M. pericladus (C. Agardh) Schmitz

Kapraun & Bowden (1978)

Neurymenia J. Agardh

N. fraxinifolia (Mertens ex Turner) J. Agardh

In Herb. South Pacific Regional Herbarium, Suva [*Carlson*, 1972, Suva Reef: USP 699; *Keats*, 18 May, 1994, Suva Reef: USP 714; 8 Oct, 1994: USP 816-818; 13 Oct., 1994: USP 819-822]

Polysiphonia Greville

P. herpa Hollenberg

Garbary et al. (1991)

P. howei Hollenberg

Garbary et al. (1991)

P. mollis J. Hooker et Harvey

Kapraun & Bowden (1978)

var. tongatensis (Harvey ex Kützing) Hollenberg

Garbary et al. (1991)

[= *Polysiphonia tongatensis* Harvey ex Kützing]

P. scopulorum Harvey

Kapraun & Bowden (1978), South (1991)

var. scopulorum (Harvey) Hollenberg

N'Yeurt (1993a, b, 1996)

P. setacea Hollenberg

Hollenberg (1968a)

P. sphaerocarpa Børgesen

Kasahara (1985), Garbary et al. (1991)

[May include *Polysiphonia pulvinata* (Roth) J. Agardh *sensu* Segi (1951) according to Kasahara (1985)]

P. upolensis (Grunow) Hollenberg

Hollenberg (1968a)

Rhodolachne Wynne

R. radicata Itono

Itono (1985b)

Stictosiphonia King et Puttock

S. kelanensis (Grunow ex Post) King et Puttock

Chapman (1971)

[= *Bostrychia kelanensis* Grunow ex Post in Chapman (1971); see King & Puttock (1989)]

Tolypiocladia Schmitz

T. calodictyon (Harvey ex Kützing) P. C. Silva

Kapraun & Bowden (1978)

T. glomerulata (C. Agardh) Schmitz

Garbary et al. (1991), South (1991)

FAMILIA INCERTAE SEDIS

Wurdemanniaceae

[see Silva et al. (1987)]

Wurdemannia Harvey

W. miniata (Sprengel) J. Feldmann et Hamel

Kapraun & Bowden (1978)

Acknowledgements

A. D. R. N'Yeurt gratefully acknowledges financial support from the University of the South Pacific (URC grant # 0713-9106) and from the International Centre for Ocean Development (ICOD; Canada). G. R. South thanks the Natural Sciences and Engineering Research Council (Canada), the International Centre for Ocean Development (Canada), the Canadian International Development Agency (CIDA), and the University of the South Pacific for support. D. W. Keats acknowledges Sabbatical support, Core, and University Development grants from the Foundation for Research Development (South Africa), as well as from the International Ocean Institute Operational Centre at the University of the South Pacific (IOI-South Pacific). Dr I. A. Abbott, University of Hawaii, and Mr. Jack Fisher, curator at the Herbarium of the Bernice P. Bishop Museum, Honolulu, Hawaii kindly made algal collections available for study, while Julie Oliveira assisted with collections at the University of British Columbia. Gunnu Pillai, School of Pure and Applied Sciences, University of the South Pacific provided the map of the Fiji Islands. Johnson Seeto, Fiu Manueli, John Faloon, Mark Knight and Anne Ballou are thanked for help with some collections.

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Received 31 Oct. 1995.

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Addendum

RHODOPHYTA GIGARTINALES

Dumontiaceae

Dudresnaya Crouan et Crouan

D. hawaiiensis R.K.S. Lee

In Herb. South Pacific Regional Herbarium, Suva [Keats, 7 Sep., 1994, Great Astrolabe Reef, Kadavu: USP 912]

Sebdeniaceae

Sebdenia (J. Agardh) Berthold

S. yamadae Okamura et Segawa

In Herb. South Pacific Regional Herbarium, Suva [Keats, 1 Dec. 1994, Suva Reef: USP 913]

RHODOGORGONALES
(See Fredericq and Norris, 1995)

Rhodogorgonaceae

Rhodogorgon J. Norris et Bucher

R. ramosissima J. Norris et Bucher

In Herb. South Pacific Regional Herbarium, Suva [Carlson, 19 Dec., 1995,
Beqa Reef: USP 911].