

## Checklist of marine algae of the Arabian Gulf

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### ABSTRACT

A total of 207 taxa of marine algae are reported as occurring in the Arabian Gulf. This represents a summary of taxa compiled from 16 scientific papers published over a period of 145 years. The taxa are presented in light of the current understanding of their scientific names and synonyms. Forty-two taxa are assigned to the Chlorophyta, 50 taxa to the Phaeophyta, 22 taxa to the Cyanophyta, 1 to the Xanthophyta, 1 to the Haptophyta and 91 taxa to the Rhodophyta.

### INTRODUCTION

The Arabian Gulf has probably received less attention than other oceanic bodies with regard to its marine algal flora. The reasons for this may be several. The algae of the Gulf have never been seen to be of great economic value. There have never been a large number of indigenous researchers interested in the marine algae as a field of study, the universities of the area only becoming established within the last 25 years, and there is certainly not the great diversity of taxa as is found in other seas and oceans.

In spite of the above, there have been a total of only 16 previous publications, the first dating back about 145 years, dealing with the algae of the area. The first was that of Endlicher & Diesing (1845) which listed eight species. There was then a long period until Børgesen's (1939) publication, which was only a part of the overall Danish scientific investigations of Iran. Børgesen described 103 algal taxa that had been collected in 1937 by Koie. Newton (1955a, 1955b) presented the algal floras of Kuwait (33 species) and Bahrain (59 species), respectively, as lists in Dickson's *The Wild Flowers of Kuwait and Bahrain*. Newton's specimens had been collected in 1950 by Good. Nizamuddin & Gessner listed 68 taxa in their 1970 publication which was a part of the "Meteor" expedition results. El Mohsen & Khoja (1973) presented a short paper on certain algenophytes from Saudi Arabia but failed to identify the taxa to species level. Basson (1979a, 1979b) studied the marine algal flora of the Eastern Province of Saudi Arabia and reported on 84 taxa. Kamel (1981) analyzed three species from the Kuwait coastal area for their chemical composition. In 1984, McCain and McCain *et al.* presented two publications on the marine ecology of Saudi Arabia as part of the series *Fauna of Saudi Arabia*. Jones

(1986) gave short descriptions and illustrations of 67 taxa as part of his overall *Field Guide to the seashores of Kuwait and the Arabian Gulf*. The more recent publications are those of Al-Hasan & Jones (1989), Basson (1989) and Basson *et al.* (1989). Al-Hasan & Jones, over a 37 month period, recorded 105 species from Kuwait coastal waters, 89 of which were new records for Kuwait. Basson (1989) discussed in a short note the use of some marine green algae as a bait for fish. Basson *et al.* (1989) provided descriptions of 88 taxa from the shores of Bahrain, 13 of which were new records for the Arabian Gulf even at this late date. Heiba *et al.* (1990) screened 23 algal species from Qatar for alkaloids, coumarins, flavonoids, saponins and tannins. In addition, moisture, ash, protein, lipid, carbohydrate, minerals and trace element content were determined.

It must be pointed out that no attempt has been made by the present author to verify records or identifications. The purpose of this paper then is to present a listing of the marine algae of the Arabian Gulf as compiled from the publications discussed above and presented in light of the current understanding of their scientific names and synonyms.

The genera are listed alphabetically under each family, and species are listed alphabetically under each genus. In the following list, the names of the scientific taxa given to the left are those which are currently recognized. The names given to the right of the equals (=) sign are synonyms which were previously used for certain Arabian Gulf algae. The parenthetical numbers following the species refer to their citation by the authors as they are numbered in the References section. The classification of the Cyanophyta is based on that used by Drouet (1968, 1973, 1978) and Drouet & Daily (1973). There have been a number of relatively recent publications presenting classification schemes which apply to the Cyanophyta. Although the classification of Drouet & Daily may be considered obsolete it does pull together a multitude of taxa into a smaller number. My use of their classification in no way changes the original Gulf report of the taxon.

## SYSTEMATIC LIST OF MARINE ALGAE OF THE ARABIAN GULF

### CHLOROPHYTA

#### VOLVOCALES

##### POLYBLEPHARIDACEAE

*Dunaliella salina* (Dunal) Teodoresco (1, 2, 14).

#### ULOTRICHALES

##### CHAETOPHORACEAE

*Acrochaete viridis* (Reinke) Nielsen = *Entocladia viridis* Reinke (18, 19) and *Endoderma viride* (Reinke) Lagerheim (6).

*Phaeophila dendroides* (P. Crouan et H. Crouan) Batters (6, 19).

## ULVALES

## ULVACEAE

- Blidingia minima* (Nägeli ex Kützing) Kylin (1).  
*Enteromorpha clathrata* (Roth) Greville (1, 2, 5, 6, 14, 16).  
*Enteromorpha compressa* (Linnaeus) Nees (1, 6, 14, 19).  
*Enteromorpha flexuosa* (Wulfen ex Roth) J. Agardh (1, 2, 5, 14).  
*Enteromorpha intestinalis* (Linnaeus) Nees (1, 4, 5, 14).  
*Enteromorpha prolifera* (O. F. Müller) J. Agardh (1).  
*Ulva lactuca* Linnaeus (1, 4, 5, 6, 14, 15).  
*Ulva reticulata* Forsskål (1, 4, 5, 6).  
*Ulva rigida* C. Agardh (1).

## CLADOPHORALES

## CLADOPHORACEAE

- Chaetomorpha aerea* (Dillwyn) Kützing (1, 2, 5, 6, 14, 18, 19).  
*Chaetomorpha capillaris* (Kützing) (Børgesen (1, 5, 6).  
*Chaetomorpha crassa* (C. Agardh) Kützing (1).  
*Chaetomorpha indica* Kützing (14).  
*Chaetomorpha linum* (O. F. Müller) Kützing (1, 2, 5, 6, 14, 19).  
*Chaetomorpha linum* (O. F. Müller) Kützing forma *brachyarthra* Kützing (2).  
*Cladophora coelothrix* Kützing (1, 6, 16).  
*Cladophora colabense* Børgesen (1).  
*Cladophora dalmatica* Kützing (19).  
*Cladophora echinus* (Biaioletto) Kützing (6, 19).  
*Cladophora koiei* Børgesen (2, 5, 6, 14, 16, 19).  
*Cladophora nitellopsis* Børgesen (1, 5, 6, 14, 16, 19).  
*Cladophora sericioides* Børgesen (1, 2, 5, 6, 13, 14, 16, 19, 20).  
*Rhizoclonium kernerii* Stockmayer (5, 6, 18).  
*Rhizoclonium kochianum* Kützing (2, 5, 14).

## SIPHONOCLADALES

## SIPHONOCLADACEAE

- Cladophoropsis zollingeri* (Kützing) Børgesen (1, 2, 5, 6, 14, 18).

## VALONIACEAE

- Dictyosphaeria cavernosa* (Forsskål) Børgesen (1, 2, 5, 13).  
*Siphonocladus feldmannii* Børgesen (1, 6).  
*Valonia utricularis* (Roth) C. Agardh (5, 6).

## SIPHONALES

## BRYOPSIDACEAE

- Bryopsis hypnoides* Lamouroux (1, 6, 20).  
*Bryopsis implexa* De Notaris (6).  
*Trichosolen mauritiana* (Børgesen) W. R. Taylor (2).

## CAULERPALES

## CAULERPACEAE

*Caulerpa manorensis* Nizamuddin (20).

*Caulerpa mexicana* Sonder ex Kützing = *Caulerpa crassifolia* (C. Agardh) J. Agardh (6).

*Caulerpa sertularioides* (S. G. Gmelin) Howe (1, 2, 5, 20).

*Caulerpa sertularioides* (S. G. Gmelin) Howe forma *farlowii* (Weber-van Bosse) Børgesen (5, 20).

## CODIACEAE

*Codium papillatum* Tseng et Gilbert (1).

## UDOTEACEAE

*Avrainvillea amadelpa* (Montagne) A. et E. S. Gepp (1, 5) = *Avrainvillea amadelpa* (Montagne) A. et E. S. Gepp forma *montagneana* A. et E. S. Gepp (2).

*Avrainvillea riukuensis* Yamada (5).

## DASYCLADALES

## DASYCLADACEAE

*Acetabularia calyculus* Quoy et Gaimard (1, 2, 5, 13, 16).

## PHAEOPHYTA

## ECTOCARPALES

## ECTOCARPACEAE

*Ectocarpus cryptophilus* Børgesen (5, 6, 14, 19, 20).

*Ectocarpus siliculosus* (Dillwyn) Lyngbye (1).

*Feldmannia indica* (Sonder) Womersley et Bailey = *Giffordia indica* (Sonder) Papenfuss et Chihara (1, 14).

*Feldmannia irregularis* (Kützing) Hamel = *Ectocarpus irregularis* Kützing (2, 14).

*Hincksia mitchelliae* (Harvey) P. C. Silva = *Ectocarpus mitchelliae* Harvey (6), *Ectocarpus Mitchellae* Harvey forma *brevicarpa* Børgesen (6) and *Giffordia mitchelliae* (Harvey) Hamel (1, 2, 16, 18, 19, 20).

## SPHACELARIALES

## SPHACELARIACEAE

*Sphacelaria novae-hollandiae* Sonder (1).

*Sphacelaria rigidula* Kützing (1) = *Sphacelaria furcigera* Kützing (2, 5, 6, 14, 18, 19).

*Sphacelaria tribuloides* Meneghini (1, 2, 5).

## DICTYOTALES

## DICTYOTACEAE

*Dictyopteris australis* Sonder in Askenasy forma *karachiensis* Nizamuddin et Saifullah (20).

- Dictyota ciliolata* Kützing (1).  
*Dictyota dichotoma* (Hudson) Lamouroux var. *intricata* (C. Agardh) Greville (2).  
*Dictyota divaricata* Lamouroux (1, 2, 5, 6, 14, 16, 19).  
*Dictyota indica* Sonder ex Kützing (14, 20).  
*Lobophora variegata* (Lamouroux) Womersley = *Zonaria variegata* (Lamouroux) C. Agardh (6) and *Pocockiella variegata* (Lamouroux) Papenfuss (2, 5).  
*Padina australis* Hauck (1) = *Padina gymnospora* (Kützing) Vickers (2, 5, 13, 14, 18).  
*Padina boryana* Thivy = *Padina commersonii* Bory de Saint-Vincent (6, 14, 18).  
*Padina tetrastromatica* Hauck (6, 14, 18).

## CHORDARIALES

## CORYNOPLOEACEAE

- Myriactula arabica* (Kützing) Feldmann (5, 6, 18, 19).

## SPERMATOCHEACEAE

- Cladosiphon occidentale* Kylin (1).  
*Nemacystus decipiens* (Suringar) Kuckuck (2, 5, 6, 14, 18, 19).  
*Stilophora iranica* Børgesen (6, 14).  
*Stilophora rhizoides* (Ehrenberg) J. Agardh (1).

## DICTYOSIPHONALES

## PUNCTARIACEAE

- Colpomenia sinuosa* (Mertens ex Roth) Derbes et Solier (1, 2, 5, 6, 13, 14, 16, 17, 20)  
 = *Asperococcus sinuosus* Bory var. *lobatus* (12) and *Colpomenia sinuosa* (Mertens ex Roth) Derbes et Solier var. *sinuosa* (18, 19).  
*Hydroclathrus clathratus* (C. Agardh) Howe (2, 5, 14, 18).  
*Iyengaria stellata* (Børgesen) Børgesen (1, 6, 16, 20).  
*Scytosiphon lomentaria* (Lyngbye) J. Agardh (1).

## FUCALES

## CYSTOSEIRACEAE

- Cystoseira myrica* (S. G. Gmelin) C. Agardh (1, 2, 5, 6, 14, 18, 19) = *Cystoseira myrica* (S. G. Gmelin) C. Agardh var. *tenella* Hering et Martens in Schimper (12).  
*Cystoseira trinodis* (Forsskål) C. Agardh (1, 2, 5, 13, 14) = *Cystophyllum muricatum* (C. Agardh) J. Agardh (6, 18, 19, 20) and *Cystoseira virgata* Endlicher et Diesing (12).  
*Hormophysa cuneiformis* (J. F. Gmelin) P. C. Silva = *Hormophysa triquetra* (C. Agardh) Kützing (1, 2, 5, 6, 13, 14, 19).

## SARGASSACEAE

- Sargassum acinaciforme* Montagne (6).  
*Sargassum acutifolium* Greville (6, 19).  
*Sargassum angustifolium* C. Agardh (1, 2, 14, 18, 19, 20) = *Sargassum flexile* Greville (6).  
*Sargassum asperifolium* Hering et Martens ex J. Agardh (1, 6, 19).

- Sargassum binderi* Sonder (1, 2, 14).  
*Sargassum boveanum* J. Agardh (1, 2, 5, 6, 13, 14, 17, 19, 20).  
*Sargassum boveanum* J. Agardh var. *aterrimum* Grunow (2, 6, 14).  
*Sargassum cervicorne* Greville (5, 6, 19).  
*Sargassum crassifolium* J. Agardh (6, 19, 20).  
*Sargassum decurrens* (Turner) C. Agardh (19).  
*Sargassum denticulatum* (Forsskål) Børgesen (13).  
*Sargassum fluitans* (Børgesen) Børgesen (15).  
*Sargassum heteromorphum* J. Agardh (1, 2, 5, 13).  
*Sargassum latifolium* (Turner) C. Agardh (2, 5, 17, 19).  
*Sargassum natans* (Linnaeus) Gaillon (15).  
*Sargassum swartzii* C. Agardh (6, 19).  
*Sargassum tenuissimum* (Endlicher et Diesing) Grunow = *Sargassum vulgare* C. Agardh var. *tenuissimum* Endlicher et Diesing (12).  
*Sargassum vulgare* C. Agardh var. *angustifolium* (Turner) C. Agardh (12).  
*Sargassum vulgare* C. Agardh var. *latifolium* Endlicher et Diesing (12).
- Note: Silva *et al.* (1987) point out that the name *Sargassum vulgare* is traditionally given to a common species of the tropical Atlantic Ocean and at the time of its publication the name was superfluous and hence illegitimate. The above two varieties of *Sargassum vulgare* are included in this list since they were reported by Endlicher & Diesing (1845) as occurring at Kerek Island.
- Turbinaria conoides* (J. Agardh) Kützing = *Turbinaria conoides* (J. Agardh) Kützing var. *conoides* Taylor (2).

## XANTHOPHYTA

### VAUCHERIALES

#### VAUCHERIACEAE

- Vaucheria piloboloides* Thuret (1).

## HAPTOPHYTA

### PRYMNESIALES

#### PHAEOCYSTACEAE

- Phaeocystis pouchetii* (Hariot) Lagerheim (1).

## CYANOPHYTA

### COCCOGONALES

#### CHROOCOCCACEAE

- Anacystis aeruginosa* (Zanardini) Drouet et Daily (5) = *Chroococcus membraninus* (Meneghini) Nägeli (2, 14).  
*Anacystis marina* (Hansgirg) Drouet et Daily (19).

*Anacystis montana* (Lightfoot) Drouet et Daily forma *montana* Drouet et Daily = *Chroococcus varius* A. Braun (2, 14).

*Coccochloris stagnina* Sprengel = *Chroococcus minutus* (Kützing) Nägeli (19).

*Gomphosphaeria aponina* Kützing (5).

*Johannesbaptistia pellucida* Taylor et Drouet (5).

*Pleurococcus minor* (Kützing) Rabenhorst = *Chroococcus minor* (Kützing) Nägeli (1).

*Synechocystis* sp.

Note: Drouet & Daily (1973) have excluded *Synechocystis* from the Chroococcaceae and indicated that it may be a bacterium.

#### CHAMAESIPHONACEAE

*Entophysalis conferta* Drouet et Daily (5) = *Dermocarpa hemisphaerica* Setchell et Gardner (2) and *Xenococcus acervatus* Setchell et Gardner (6, 19).

*Entophysalis deusta* (Meneghini) Drouet et Daily = *Hyella caespitosa* Bornet et Flahault (6, 19).

#### HORMOGONALES

##### NOSTOCACEAE

*Anabaina oscillarioides* Bory (5) = *Anabaena constricta* (Szafer) Geitler in Pascher (1).

*Calothrix crustacea* Schousboe et Thuret (5) = *Calothrix confervicola* C. Agardh ex Bornet et Flahault (1, 3, 6, 14, 18, 19), *Calothrix contarenii* (Zanardini) Bornet et Flahault (14), *Calothrix scopulorum* (Weber et Mohr) C. Agardh ex Bornet et Flahault (1, 3) and *Microchaete grisea* Thuret ex Bornet et Flahault (6).

##### OSCILLATORIACEAE

*Microcoleus lyngbyaceus* (Kützing) Crouan (5) = *Lyngbya aestuarii* Lyngbye ex Gomont (1, 2, 14), *Lyngbya confervoides* C. Agardh ex Gomont (1, 2), *Lyngbya majuscula* (Dillwyn) Harvey (6, 14), *Oscillatoria corallinae* (Kützing) Gomont (6, 19) and *Oscillatoria limosa* C. Agardh ex Gomont (3).

*Microcoleus vaginatus* (Vaucher) Gomont (5).

*Oscillatoria princeps* Vaucher ex Gomont (1, 3, 14).

*Porphyrosiphon notarisii* (Meneghini) Kützing (5) = *Lyngbya ceylanica* Wille var. *constricta* Frey (1, 2, 14) and *Oscillatoria nigro-viridis* Thwaites ex Gomont (1, 3, 6, 14).

*Schizothrix arenaria* (Berkeley) Gomont = *Microcoleus chthonoplastes* Thuret et Gomont (1, 2, 14).

*Schizothrix calcicola* (C. Agardh) Gomont (5) = *Lyngbya epiphytica* Hieronymus in Kirchner in Engler et Prantl (14, 18, 19), *Lyngbya infixata* Frey (6, 19), *Oscillatoria limnetica* Lemmermann (1) and *Phormidium jenkelianum* G. Schmid (1, 3).

*Schizothrix mexicana* Gomont (5).

*Schizothrix rubella* Gomont = *Phormidium corium* (J. Agardh) Kützing ex Gomont (1, 14).

*Schizothrix tenerrima* (Gomont) Drouet (5) = *Microcoleus tenerrimus* Gomont (19).

*Spirulina subsalsa* Oersted ex Gomont (1, 3, 5) = *Spirulina labyrinthiformis* (Meneghini) Gomont (1, 3) and *Spirulina major* Kützing ex Gomont (3).

*Spirulina tenerrima* Kützing (has been assigned to the bacteria) (19).

STIGONEMATALES

NOSTOCHOPSIDACEAE

*Mastigocoleus testarum* Lagerheim (6, 19).

RHODOPHYTA

GONIOTRICHALES

GONIOTRICHACEAE

*Chroodactylon ornatum* (C. Agardh) Basson (1, 3, 5, 14) = *Asterocytis ornata* (C. Agardh) Hamel (6, 18, 19).

BANGIALES

ERYTHROPELTIDACEAE

*Erythrocladia irregularis* Rosenvinge (3, 5).

*Erythrotrichia carnea* (Dillwyn) J. Agardh (1, 3, 5, 6).

*Sahlingia subintegra* (Rosenvinge) Kornmann = *Erythrocladia subintegra* Rosenvinge (6, 20).

BANGIACEAE

*Bangia atropurpurea* (Roth) C. Agardh (1).

ACROCHAETIALES

ACROCHAETIACEAE

*Acrochaetium bahreinii* Børgesen (1, 3, 5, 6, 18, 19).

*Acrochaetium robustum* Børgesen (3).

*Acrochaetium savianum* Meneghini (3).

NEMALIALES

HELMINTHOCLADIACEAE

*Liagora ceranoides* Lamouroux (5, 6, 19).

*Liagora distenta* (Mertens) J. Agardh (14).

BONNEMAISONIALES

BONNEMAISONIACEAE

*Asparagopsis taxiformis* (Delile) Trevisan (1) = *Falkenbergia hillebrandii* (Bornet) Falkenberg (20).

Note: Only the asexual, tetrasporic stage (*Falkenbergia hillebrandii*) has been found in the Arabian Gulf.

GALAXAURACEAE

*Galaxaura lapidescens* (Ellis et Solander) Lamouroux = *Galaxaura flagelliformis* (Kjellman) emend. Børgesen (6).



## GELIDIALES

## GELIDIACEAE

- Gelidiella acerosa* (Forsskål) J. Feldmann *et* Hamel (5, 6).  
*Gelidiella myriocladia* (Børgesen) J. Feldmann *et* Hamel (3).  
*Gelidium crinale* (Turner) Gaillon (1, 6, 14).  
*Gelidium heteroplatos* Børgesen (1).  
*Gelidium pusillum* (Stackhouse) Le Jolis (1, 16).  
*Gelidium pusillum* (Stackhouse) Le Jolis var. *pulvinatum* (C. Agardh) Feldmann (6).

## CRYPTONEMIALES

## PEYSSONNELIACEAE

- Peyssonnelia simulans* Weber-van Bosse (1).

## CRYPTONEMIAACEAE

- Grateloupia comorinii* Børgesen (20).

## CORALLINALES

## CORALLINACEAE

- Amphiroa fragilissima* (Linnaeus) Lamouroux (3, 13).  
*Fosliella farinosa* (Lamouroux) Howe (3, 5, 14, 16) = *Melobesia farinosa* Lamouroux (6, 12, 18, 19).  
*Jania pumila* Lamouroux (1, 5, 6, 19).  
*Jania rubens* (Linnaeus) Lamouroux (3, 5, 6, 16, 19).  
*Lithothamnion* sp. (3, 14, 16, 17).  
*Pneophyllum lejolisii* (Rosanoff) Y. Chamberlain (1) = *Melobesia lejolisii* Rosanoff (6).

## GIGARTINALES

## GRACILARIACEAE

- Gracilaria corticata* (J. Agardh) J. Agardh (1, 6).  
*Gracilaria foliifera* (Forsskål) Børgesen (1, 6, 14, 20).  
*Gracilaria salicornia* (C. Agardh) Dawson (1) = *Corallopsis cacalia* J. Agardh (6).

## SOLIERIACEAE

- Sarconema filiforme* (Sonder) Kylin (6) = *Sarconema furcellatum* Zanardini (5).  
*Solieria robusta* (Greville) Kylin (1).

## HYPNEACEAE

- Hypnea musciformis* (Wulfen) Lamouroux (6).  
*Hypnea pannosa* J. Agardh (6).  
*Hypnea valentiae* (Turner) Montagne (3, 5, 6, 14, 18, 19) = *Hypnea cornuta* (Kützting) J. Agardh (1, 3, 5, 14, 16).

## AHNFELTIALES

## AHNFELTIACEAE

- Ahnfeltia plicata* (Hudson) Fries (20).

## RHODYMENIALES

## RHODYMENIACEAE

*Halichrysis peltata* (W. R. Taylor) P. Huve et H. Huve = *Fauchea peltata* W. R. Taylor (20).

## LOMENTARIACEAE

*Lomentaria corallicola* Børgesen (6).

## CHAMPIACEAE

*Champia globulifera* Børgesen (5).

*Champia indica* Børgesen (1).

*Champia kotschyana* Endlicher et Diesing (1, 6, 12, 18).

*Champia parvula* (C. Agardh) Harvey (1, 6).

## CERAMIALES

## CERAMIACEAE

*Aglaothamnion cordatum* (Børgesen) Feldmann-Mazoyer = *Callithamnion cordatum* Børgesen (20).

*Anotrichium tenue* (C. Agardh) Nägeli (5) = *Griffithsia tenuis* (C. Agardh) Harvey (1, 6, 16).

*Antithamnion cruciatum* (C. Agardh) Nägeli var. *radicans* Collins et Harvey (20).

*Centroceras clavulatum* (C. Agardh) Montagne (1, 3, 5, 6, 14, 16, 18, 19).

*Ceramium codii* (Richards) Feldmann-Mazoyer (5).

*Ceramium cruciatum* Collins et Harvey (3, 5, 6, 16).

*Ceramium fastigiatum* (Wulfen ex Roth) Harvey (20).

*Ceramium fastigiatum* (Wulfen ex Roth) Harvey forma *flaccidum* (Petersen) Børgesen (3, 5).

*Ceramium flaccidum* (Harvey ex Kützing) Ardisson = *Ceramium masonii* Dawson (1) and *Ceramium transversale* (Collins et Harvey (3, 5, 20).

*Ceramium luetzelbergii* Schmidt (1, 3, 5, 14, 20).

Note: Wynne (personal communication) has noted that *Ceramium luetzelburgii* is a Brazilian species and the report of its occurrence in the Gulf should be suspect.

*Ceramium maryae* Weber-van Bosse (3, 6, 16).

*Ceramium subverticillatum* (Grunow) Weber-van Bosse (3, 6, 19).

*Crouania attenuata* (C. Agardh) J. Agardh (5).

*Griffithsia globulifera* Harvey ex Kützing (20).

*Spyridia filamentosa* (Wulfen) Harvey (1, 3, 5, 6, 13, 14, 16, 19).

## DELESSERIAACEAE

*Hypoglossum spathulatum* (Sonder) Kützing (20).

Note: Wynne (personal communication) has pointed out that the alga recorded as *H. spathulatum* from the Arabian Gulf is probably a good *Hypoglossum*, but that it should no longer be assigned to *spathulatum* since that species has been assigned to *Apoglossum*.

*Myriogramme okhaensis* Børgesen (20).

## DASYACEAE

*Dasya baillouiana* (S. G. Gmelin) Montagne (1) = *Dasya pedicellata* C. Agardh (3, 5).

*Dasya ocellata* (Grateloup) Harvey (3, 14, 20).

*Eupogodon pilosus* (Weber-van Bosse) P. G. Silva = *Dasyopsis pilosa* Weber-van Bosse (1, 3, 5).

*Heterosiphonia crispella* (C. Agardh) Wynne (1) = *Heterosiphonia wurdemannii* (Bailey ex Harvey) Falkenberg in Schmitz et Hauptfleisch (6, 16, 20).

## RHODOMELACEAE

*Acanthophora muscoides* (Linnaeus) Bory de Saint-Vincent (1).

*Acanthophora najadiformis* (Delile) Papenfuss = *Acanthophora delilei* Lamouroux (6, 18).

*Acanthophora spicifera* (Vahl) Børgesen (1, 3, 5, 14, 16, 20).

*Chondria collinsiana* Howe (13).

*Chondria cornuta* Børgesen (5).

*Chondria dasyphylla* (Woodward) C. Agardh (1, 3, 5, 6, 13, 14, 16, 18, 19).

*Chondria hypnoides* Børgesen (6, 16).

*Digenea simplex* (Wulfen) C. Agardh (1, 5, 6, 13, 19).

*Endosiphonia horrida* (C. Agardh) P. Silva = *Endosiphonia clavigera* Falkenberg (18).

*Herposiphonia dendroidea* Hollenberg (1, 3).

*Herposiphonia secunda* (C. Agardh) Falkenberg forma *tenella* (C. Agardh) Wynne (5) = *Herposiphonia tenella* (C. Agardh) Falkenberg (6, 19).

*Laurencia majuscula* (Harvey) Lucas = *Laurencia obtusa* (Hudson) Lamouroux var. *majuscula* Harvey (6).

*Laurencia obtusa* (Hudson) Lamouroux (1, 19, 20).

*Laurencia papillosa* (C. Agardh) Greville (1, 5, 6, 13, 14, 18).

*Laurencia patentiramea* (Montagne) Kützing = *Laurencia glandulifera* (Kützing) Kützing (5), *Laurencia paniculata* (C. Agardh) J. Agardh (3, 6, 13, 14).

*Leveillea jungermannioides* (Hering et Martens) Harvey (3, 5, 6).

*Lophocladia lallemandii* (Montagne) Schmitz (6).

*Lophosiphonia subadunca* (Kützing) Falkenberg (6, 16).

*Murrayella pericladus* (C. Agardh) Schmitz (1).

*Polysiphonia brodiei* (Dillwyn) Sprengel (as *brodiae*) (13, 14, 20).

*Polysiphonia coacta* Tseng (1).

*Polysiphonia crassicolis* Børgesen (1, 3, 5, 6, 13, 14, 18, 19, 20).

*Polysiphonia ferulacea* Suhr ex J. Agardh (13, 20).

*Polysiphonia kampsaxii* Børgesen (5, 6, 13, 14, 19).

*Polysiphonia platycarpa* Børgesen (1).

*Polysiphonia scopulorum* Harvey var. *villum* (J. Agardh) Hollenberg (5) = *Lophosiphonia villum* (J. Agardh) Setchell et Gardner (3, 16).

*Polysiphonia tuticorinensis* Børgesen (3).

*Polysiphonia variegata* (C. Agardh) Zanardini (1, 3, 5, 20).

*Tolypocladia glomerulata* (C. Agardh) Schmitz = *Roschera glomerulata* (C. Agardh) Weber-van Bosse (20).

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## قائمة بأنواع الطحالب البحرية في الخليج العربي

فيليب باسون  
قسم الأحياء بجامعة البحرين  
ص . ب . ٣٢٠٣٨ مدينة عيسى ، البحرين

### خلاصة

في هذا البحث نورد ٢٠٧ وحدة تصنيفية من الطحالب البحرية سبق تسجيلها في الخليج العربي . وهذا العدد يمثل خلاصة الوحدات التصنيفية التي سبق تسجيلها في ١٦ بحث علمي نشرت على مدى ١٤٥ عاما ، وقد تم عرضها في ضوء المفاهيم المعاصرة لأسانئها العلمية وأسانئها المرادفة . وتضم القائمة ٤٢ نوعا من الطحالب الخضراء ، وخمسين نوعا من الطحالب البنية ، واثنين وعشرين نوعا من الطحالب الخضراء المزرقة ، ونوعا واحدا من كل من الطحالب الخضراء المصفرة والطحالب الذهبية البنية ، وواحدا وتسعين نوعا من الطحالب الحمراء .

