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CHECK-LIST OF ANDALUSIA (S. SPAIN) SEAWEEDS. III. RHODOPHYCEAE

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ABSTRACT. *Check-list of Andalusia (S. Spain) seaweeds. III. Rhodophyceae.* A check-list of the Rhodophyceae from the Andalusian coast, based on literature records (from 1807 to 1996), is presented. Taxa are listed by provinces. The catalogue contains 348 species and infraspecific taxa under current taxonomy.

Key words. Andalusia, Rhodophyceae, Check-list, Iberian Peninsula, seaweeds.

RESUMEN. *Catálogo de las Rhodophyceae de Andalucía (S. España).* Se presenta el listado de las Rhodophyceae de las costas andaluzas a partir de datos bibliográficos (desde 1807 hasta 1996). Los taxa se desglosan por provincias. El catálogo contiene 348 especies y taxa infraespecíficos.

Palabras clave. Andalucía, Rhodophyceae, listado, macroalgas marinas, Península Ibérica.

INTRODUCTION

This paper presents a check-list of Rhodophyceae from Andalusian coasts, similar in scope to those previously published dedicated to Phaeophyceae (Flores-Moya *et al.*, 1995a) and Chlorophyceae (Flores-Moya *et al.*, 1995b). The present paper brings the base data of taxa up to date, standardizing the taxonomic treatment used by previous authors.

MATERIALS AND METHODS

The presence of each taxon is indicated by political province of Andalusia: Huelva (HU), Cádiz (CA), Málaga (MA), Granada (GR), and Almería (AL) (see map in Flores Moya *et al.*, 1995a). Italics have been used for accepted taxa and Roman type for rejected taxa. Numbers in parentheses correspond to notes. Synonyms used in references for Andalusian coasts are also presented. New unpublished records are shown by asterisks (*) corresponding to a paper edited in this same volume (Conde *et al.*, 1996).

Taxa are referenced by the first citation in the literature, except when a catalogue paper was published afterward. In this case, taxa are referenced by the cataloguing work. The references used to make the check-list were (numbers correspond to those shown in the check-list): 1: Agardh (1823); 2: Agardh (1824); 3: Agardh (1828); 4: Amo & Mora (1870); 5: Ardré (1970); 6: Börgesen (1929); 7: Bornet (1892); 8: Clemente (1807); 9: Colmeiro (1867); 10: Colmeiro (1889); 11:

Conde (1984); 12: Conde (1992); 13: Conde *et al.* (1990); 14: Conde & Seoane (1982); 15: Conde & Soto (1986); 16: Conde & Soto (1987); 17: Cremades & Pérez-Cirera (1990); 18: Dixon & Irvine (1977); 19: Feldmann (1939); 20: Feldmann (1942); 21: Fernández *et al.* (1983); 22: Flores-Moya *et al.* (1994); 23: Flores-Moya *et al.* (1989); 24: Giaccone (1972); 25: González-Fragoso (1886); 26: González-Fragoso (1893); 27: González-Guerrero (1955); 28: Lemoine (1915); 29: Navarro & Gallardo (1995); 30: Niell (1978); 31: Petersen (1918); 32: Rull *et al.* (1991); 33: Seoane (1965); 34: Soto (1991); 35: Soto & Conde, (1989); 36: Toni & Forti (1914); 37: Varo *et al.* (1979) and 38: Montagne *in* Webb (1853).

The taxonomic criteria from Conde (1991) are followed for Acrochaetiales. Ceramiales are arranged in accordance with Maggs & Hommersand (1993). Corallinales and Hildenbrandiales are listed according to Irvine & Chamberlain (1994), and Gigartinales according to Kraft & Robins (1985). The criteria of Irvine (1983) are followed for Rhodymeniales. Bangiales, Bonnemaisoniales, Compsopogonales, Gelidiales, Nemaliales and Porphyridiales are listed according to Woelkerling (1990), and Gracilariales according to Fredericq & Hommersand (1989).

Orders, families, genus and species are arranged alphabetically. Orders are labelled with Roman numbers corresponding to those shown in the alphabetical list of genra at end of the work, to permit an easier search for taxa of interest.

LIST OF TAXA

	PROVINCES				
	HU	CA	MA	GR	AL
RHODOPHYCEAE Rabenhorst					
I. ACROCHAETIALES Feldmann emend. Garbary et Gabrielson					
Acrochaetiaceae Fritsch ex W.R. Taylor					
Audouiniella Bory					
A. daviesii (Dillwyn)Woelkerling	29	-	-	16	35
A. endozoica (Darbishire) Dixon	-	-	-	15	-
A. leptonema (Rosenvinge) Garbary	-	-	-	-	35
A. microscopica (Nägeli) Woelkerling	29	-	-	-	35
A. moniliformis (Rosenvinge) Garbary	-	-	-	-	35
A. nemalionis (De Notaris) Dixon	-	-	-	15	35
A. parvula (Kylin) Dixon	29	-	-	34	35
A. saviana (Meneghini) Woelkerling	-	-	-	-	35
A. secundata (Lyngbye) Dixon	-	-	-	-	35
A. subpinnata (Bornet) Garbary	-	-	-	-	35
A. thuretii (Bornet) Woelkerling	22	-	-	15	-
A. trifila (Buffham) Dixon	-	-	11	34	35
A. virgatula (Harvey) Dixon	-	-	-	15	35

	HU	CA	MA	GR	AL
II. BANGIALES F. Schmitz in Engler					
Bangiaceae Engler					
Bangia Lyngbye					
B. atropurpurea (Roth) C. Agardh	27	2	11	16	35
= B. fuscopurpurea var. atropurpurea Lyngbye					
Porphyra C. Agardh					
P. leucosticta Thuret in Le Jolis	-	-	-	-	35
P. umbilicalis (Linnaeus) J. Agardh	-	33	11	16	35
Porphyropsis Rosenvinge					
P. coccinea (J. Agardh) Rosenvinge	29	-	-	-	-
III. BONNEMAISONIALES J. Feldmann et G. Feldmann					
Bonnemaisoniaceae F. Schmitz in Engler					
Asparagopsis Montagne					
A. armata Harvey [1]	-	33	11	16	35
Bonnemaisonia (Woodward) C. Agardh					
B. asparagoides (Woodward) C. Agardh	-	33	-	-	35
B. hamifera Hariot [2]	-	-	14	-	-
Trailliella Batters					
T. intricata Batters [3]	-	-	-	-	35
IV. CERAMIALES Oltmanns					
Ceramiaceae Dumortier					
Aglaothamnion Feldmann-Mazoyer [4]					
A. byssoides (Arnot ex Harvey) L'Hardy-Halos et Rueness	29	-	11	-	35
= Callithamnion byssoides Arnott ex Harvey					
A. gallicum (Nägeli) Halos ex Ardré	-	*	-	-	-
A. hookeri (Dillwyn) Maggs et Hommersand	-	*	23	15	-
= Callithamnion hookeri (Dillwyn) S. F. Gray					
A. tripinnatum (Grateloup ex C. Agardh) Mazoyer	-	*	-	15	35
= Callithamnion tripinnatum C. Agardh					
Anotrichum Nägeli					
A. barbatum (C. Agardh) Nägeli	-	-	-	-	35
A. furcellatum (J. Agardh) Baldock	29	-	-	-	-

	HU	CA	MA	GR	AL
Antithamnion Nägeli					
A. antillanum Boergesen	-	-	-	-	35
A. cruciatum (C. Agardh) Nägeli	29	25	-	16	35
A. tenuissimun (Hauck) Schiffner	29	-	-	16	35
Antithamnionella Lyle					
A. elegans (Berthold) Boudouresque et Verlaque	29	-	11	16	35
= Antithamnion elegans Berthold					
A. spirographidis (Schiffner) Wollaston	29	-	-	-	-
Bornetia Thuret					
B. secundiflora (J. Agardh) Thuret	-	33	11	-	-
= Griffithsia secundiflora J. Agardh					
Callithamniella Mazoyer					
C. tingitana (Schousboe ex Bornet) G. Feldmann	-	-	-	-	35
Callithamnion Lyngbye					
C. corymbosum (Smith) Lyngbye	-	-	23	16	35
C. granulatum (Ducluzeau) C. Agardh	-	3	11	16	35
C. neglectum (G. Feldmann) Ballesteros et Romero	-	-	-	-	35
C. tetragonum (Withering) S. F. Gray	-	33	11	16	-
C. tetricum (Dillwyn) S. F. Gray	-	33	-	-	-
Centroceras Kützing					
C. clavulatum Montagne	-	33	11	-	35
Ceramium Roth					
C. callipterum Mazoyer [5]	-	5	-	-	-
C. ciliatum (J. Ellis) Ducluzeau	29	33	11	16	35
var.*robustum* (J. Agardh) Mazoyer	-	33	11	16	35
C. cingulatum Weber van Bosse	-	*	-	-	35
C. circinatum (Kützing) J. Agardh	-	-	-	-	35
C. codii (Richards) Mazoyer	-	-	-	16	35
C. diaphanum (Lightfoot) Roth	13	33	11	37	35
var. *lophophorum* Mazoyer	22	-	-	-	-
var. *zostericola* Thuret	-	-	11	16	35
f. *acrocarpum* Mazoyer	-	-	-	-	35
C. echionotum J. Agardh	-	33	-	37	35
var. *mediterraneum* Mazoyer	-	-	11	16	-
C. flaccidum (Kützing) Ardissone	29	33	11	37	35
= C. gracillimum Griffith et Harvey					
var. *byssoideum* (Harvey) Mazoyer	-	-	11	16	-
C. gaditanum (Clemente) Cremades	-	33	-	37	35
= C. flabelligerum J. Agardh					
C. nodosum (Kützing) Harvey	-	-	11	-	35
=C. tenuissimum (Roth) J. Agardh					

	HU	CA	MA	GR	AL
C. nodulosum (Lightfoot) Ducluzeau	13	33	11	16	35
= C. rubrum (Hudson) C. Agardh					
var. *barbatum* (Kützing) J. Agardh	-	-	11	16	35
var. *implexo-contortum* Solier	22	-	11	-	-
var. *tenue* C. Agardh	-	-	11	16	35
C. pallidum (Nägeli ex Kützing) Maggs et Hommersand	-	*	-	-	-
C. strictum Harvey	-	-	11	16	35
= C. diaphanum var. strictum Kützing					
C. shuttlewortianum (Kützing) Silva [6]	-	26	-	-	-
= C. acanthonotum Carmichael					
C. taylorii Dawson	29	-	-	-	-
C. tenerrinum (Martens) Okamura	-	33	11	16	-
Compsothamnion Nägeli					
C. thuyoides (Smith) F. Schmitz	-	25	11	-	-
= Callithamnion thuyoides C. Agardh					
Crouania J. Agardh					
C. attenuata (C. Agardh) J. Agardh	-	-	11	16	35
f. *bispora* (Crouan) Hauck	-	-	-	-	35
Griffithsia C. Agardh					
G. corallinoides (Linnaeus) Batters	-	8[7]	-	-	-
= Conferva corallina Linnaeus					
G. opuntioides J. Agardh	-	31	-	16	35
G. phyllamphora J. Agardh	-	-	-	15	35
G. schousboei Montagne [8]	-	4	-	-	-
Gymnothamnion J. Agardh					
G. elegans (Schouboe ex C. Agardh) J. Agardh	-	-	11	16	35
Halurus Kützing					
H. equisetifolius (Lightfoot) Kützing	-	33	-	-	-
H. flosculosus (Ellis) Maggs et Hommersand	-	33	-	-	-
= Griffithsia flosculosa (Ellis) Batters					
= G. setacea (Hudson) C. Agardh					
Lejolisia Bornet					
L. mediterranea Bornet	-	-	-	-	35
Mesothamnion Boergesen					
M. caribaeum Boergesen	-	-	-	34	-
Microcladia Greville					
M. glandulosa (Solander ex Turner) Greville	-	1	-	-	-
= Delesseria glandulosa C. Agardh					

	HU	CA	MA	GR	AL
Monosporus Solier in Castagne					
M. pedicellatus (Smith) Solier in Castagne	-	-	-	-	35
var. *tenuis* Mazoyer	-	-	-	-	35
Plenosporium Nägeli					
P. borreri (Smith) Nägeli ex Hauck	-	33	11	-	35
= Callithamnion borreri C. Agardh					
Pseudocrouania Funk					
P. ischiana Funk	-	-	-	15	-
Pterothamnion Nägeli					
P. crispum (Ducluzeau) Nägeli	29	-	-	-	-
P. plumula (J. Ellis) Nägeli	29	33	11	37	35
= Anthithamnion plumula (Ellis) Thuret					
= Platythamnion plumula (Ellis) Boudouresque et al.					
var. *bebbii* (Reinsch) Mazoyer	-	-	-	16	35
Ptilothamnium					
P. pluma (Dillwyn) Thuret in Le Jolis	-	-	-	15	35
Seirospora Harvey					
S. giraudyi (Kützing) De Toni	-	-	-	-	35
S. interrupta (Smith) F. Schmitz	-	-	-	-	35
S. sphaerospora J. Feldmann	-	-	-	-	35
Spermothamnion Areschoug					
S. flabellatum Bornet	-	-	-	16	35
S. irregulare (J. Agardh) Ardissone	-	-	11	-	-
S. repens (Dillwyn) Rosenvinge	-	4	-	-	-
= Callithamniom variabile C. Agardh					
Sphondylothamnion Nägeli					
S. multifidum (Hudson) Nägeli	-	2	23	37	-
= Griffithsia multifida C. Agardh					
Spyridia Harvey in W. J. Hooker					
S. aculeata (Schimper) Kützing	-	7	-	-	-
S. filamentosa (Wulfen) Harvey in Hooker	13	33	-	37	35
Tiffaniella Doty et Meñez					
T. capitata (Schousboe) Doty et Meñez	-	-	11	-	-
= Spermothamnion capitatum (Schousboe) Bornet					
Vickersia Karsakoff					
V. baccata (J. Agardh) Karsakoff	-	-	-	34	-

	HU	CA	MA	GR	AL
Wrangelia C. Agardh					
W. penicillata C. Agardh	-	-	-	-	35
Dasyaceae Kützing					
Dasya C. Agardh					
D. corymbifera J. Agardh	-	-	-	-	35
D. elegans C. Agardh	-	7	-	-	-
D. hutchinsiae Harvey in Hooker	-	25	-	16	35
= D. arbuscula Harvey					
D. ocellata (Grateloup) Harvey in Hooker	-	33	-	-	35
D. punicea Meneghini in Zanardini	-	-	-	-	35
D. rigidula (Kützing) Ardissone	-	-	-	34	35
Dasyopsis Zanardini					
D. cervicornis (J. Agardh) F. Schmitz	-	7	-	-	-
D. spinella (C. Agardh) Zanardini	-	3	-	-	-
= Hutchinsia spinella C. Agardh					
Heterosiphonia Montagne					
H. crispella (C. Agardh) Wynne	-	3	-	-	35
= Callithamnion crispellum C. Agardh					
H. plumosa (J. Ellis) Batters	-	3	-	-	-
= Dasya coccinea C. Agardh					
Delesseriaceae Bory					
Acrosorium Zanardini ex Kützing					
A. venulosum (Zanardini) Kylin	-	33	11	16	35
= A. reptans (Crouan) Kylin					
= A. uncinatum (J. Agardh) Kylin					
Apoglossum (J. Agardh) J. Agardh					
A. ruscifolium (Turner) J. Agardh	-	33	-	37	35
Cottoniella Boergesen					
C. filamentosa (M. Howe) Boergesen	-	33	-	-	-
Cryptopleura Kützing					
C. ramosa (Hudson) Kylin ex L. Newton	-	33	11	-	-
= C. lacerata (S. G. Gmelin) Kützing					
Drachiella Ernst et J. Feldmann					
D. minuta (Kylin) Maggs et Hommersand	-	33	-	-	-
= Myriogramme minuta Kylin					
Haraldiophyllum Zinova					
H. bonnemaisonii (Kylin) Zinova	13	-	11	-	-
= Myriogramme bonnemaisonii Kylin					

	HU	CA	MA	GR	AL
Hypoglossum Kützing					
H. hypoglosoides (Stackhouse) Collins et Hervey	-	33	11	16	35
= H. woodwardii Kützing					
Myriogramme Kylin					
M. tristromatica (Rodriguez ex Mazza) Boudouresque	-	-	-	15	-
Nitophyllum Greville					
N. flabellatum Ercegovic	-	-	-	-	35
N. punctatum (Stackhouse) Greville	-	33	11	16	35
Phycodrys Kützing					
P. rubens (Linnaeus) Batters	-	25	-	-	-
= P. sinuosa (Goodenough et Woodward) Kützing					
Platysiphonia Boergesen					
P. delicata (Clemente) Cremades [9]	-	17	-	-	-
Polyneura (J. Agardh) Kylin					
P. bonnemaisonii (C. Agardh) Maggs et Hommersand [10]	15	-	-	-	-
= P. hilliae (Greville) Kylin					
Radicilingua Papenfuss					
R. reptans (Kylin) Papenfuss	-	-	-	34	-
Taenioma J. Agardh					
T. nanum (Kützing) Papenfuss	-	33	-	34	35
= T. macruorum Thuret					
Rhodomelaceae J. Areschoug					
Alsidium C. Agardh					
A. corallinum C. Agardh	-	-	-	-	35
A. helminthochortum (La Tourrette) Kützing	-	10	-	-	-
Aphanocladia Falkenberg					
A. stichidiosa (Funk) Ardré	-	22	-	34	-
Boergeseniella Kylin					
B. fruticulosa (Wulfen) Kylin	-	33	11	16	35
= Polysiphonia fruticulosa (Wulfen) Sprengel					
B. thuyoides (Harvey in McKay) Kylin	-	33	11	16	35
= Polysiphonia thuyoides Harvey					
= Pterosiphonia thuyoides (Harvey in McKay) F. Schmitz					
= Rytiphloea thuyoides Harvey					
Bostrychia Montagne					
B. scorpioides (Hudson) Montagne	29	33	-	-	-

	HU	CA	MA	GR	AL
Brongniartella Bory					
B. byssoides (Goodenough et Woodward) F. Schmitz	-	25	-	-	35
Chondria C. Agardh					
C. boryana (De Notaris) De Tony	-	-	-	-	35
C. capillaris (Hudson) Wynne	-	33	-	-	35
= C. tenuissima (Goodenough et Woodward) J. Agardh					
C. coerulescens (J. Agardh) Falkenberg	29	33	11	37	-
C. dasyphylla (Woodward) C. Agardh	-	1	11	-	35
C. mairei J. Feldmann	-	-	-	-	35
C. scintillans G. Feldmann	-	-	-	-	35
Ctenosiphonia Falkenberg					
C. hypnoides (Welwitsch ex J. Agardh) Falkenberg	-	33	-	-	-
Digenea C. Agardh					
D. simplex (Wulfen) C. Agardh	-	-	-	-	35
Dipterosiphonia F. Schmitz et Falkenberg					
D. dendritica (C. Agardh) F. Schmitz in Engler et Prantl	-	33	-	-	-
D. rigens (Schousboe) Falkenberg	-	20	-	-	35
Erytrocystis J. Agardh					
E. montagnei (Derbès et Solier) Silva	-	-	-	-	35
Halopithys Kützing					
H. incurvus (Hudson) Batters	-	33	11	-	35
= H. pinastroides (S. G. Gmelin) Kützing					
Herposiphonia Nägeli					
H. secunda (C. Agardh) Ambronn	29	33	11	16	35
f. *tenella* (C. Agardh) Wynne	29	33	11	16	35
= H. tenella (C. Agardh) Nägeli					
Laurencia Lamouroux					
L. hybrida (A.L.P.P. de Candolle) Lenormand ex Duby	-	33	12	-	-
= L. caespitosa Lamouroux					
L. microcladia Kützing	-	-	-	-	35
L. obtusa (Hudson) Lamouroux	-	33	11	16	35
L. paniculata (C. Agardh) J. Agardh	-	36	-	-	-
L. papillosa (Foorsskal) Greville	-	8[11]	-	-	35
= Fucus tenerrimus Clemente					
L. pinnatifida (Hudson) Lamouroux	-	33	11	16	35
L. pyramidalis Bory ex Kützing	-	-	-	-	35
= L. obtusa var. pyramidata J. Agardh					
Lophocladia F. Schmitz					
L. lallemandii (Montagne) F. Schmitz	-	-	-	-	35

	HU	CA	MA	GR	AL
Lophosiphonia Falkenberg					
L. cristata Falkenberg	-	-	-	-	35
L. reptabunda (Suhr in Kützing) Kylin	-	33	11	16	35
L. scopulorum (Harvey) Womersley	-	-	-	-	35
L. subadunca (Kützing) Falkenberg	29	-	-	-	35
Ophidocladus Falkenberg					
O. simpliciusculus (Crouan frat.) Falkenberg	-	7	11	-	-
= Polysiphonia simpliciuscula Crouan					
Osmundaria Lamouroux					
O. volubilis (Linnaeus) Norris	-	33	-	-	-
= Vidalia volubilis (Linnaeus) J. Agardh					
Polysiphonia Greville					
P. atra Zanardini	-	-	-	-	35
P. atlantica Kapraun et Norris	29	11	11	37	35
= P. macrocarpa Harvey in Mackay					
P. biformis Zanardini	-	-	-	-	35
P. breviarticulata (C. Agardh) Zanardini	-	-	-	-	35
P. brodiaei (Dillwyn) Sprengel	-	3	-	-	-
= Hutchinsia brodiaei C. Agardh					
P. cladorrhiza Ardissone	-	-	-	15	-
P. deludens Falkenberg	-	-	-	-	35
P. denudata (Dillwyn) Greville ex Harvey in Hooker	29	-	-	15	-
P. dichotoma Kützing	-	*	-	16	35
P. elongata (Hudson) Sprengel	-	2	-	-	-
= Hutchinsia elongata C. Agardh					
P. erythraea (Schousboe) J. Agardh [12]	-	7	-	-	-
P. fibrillosa (Dillwyn) Sprengel	-	25	-	-	35
= P. spinulosa Greville					
P. flexella (C. Agardh) J. Agardh	-	3	-	-	35
= Hutchinsia flexella C. Agardh					
P. flocculosa (C. Agardh) Kützing	-	3	-	-	35
= Hutchinsia subcontinua C. Agardh					
P. fucoides (Hudson) Greville	-	3	-	37	35
= P. nigrescens (Hudson) Greville in Hooker					
= P. violacea (Roth) Sprengel					
= Hutchinsia nigrescens C. Agardh					
P. furcellata (C. Agardh) Harvey in Hooker	-	-	-	-	35
P. hirta J. Agardh	-	2[13]	-	-	-
= Hutchinsia flocculosa C. Agardh var. fibrillosa C. Agardh					
P. lanosa (Linnaeus) Tandy	29	25	-	-	-
= P. fastigiata Grevile					
P. obscura (C. Agardh) J. Agardh [14]	-	3	-	-	-
= Hutchinsia obscura C. Agardh					
P. opaca (C. Agardh) Moris et De Notaris	-	-	-	16	35
P. polyspora (C. Agardh) J. Agardh [15]	-	2	-	-	-

	HU	CA	MA	GR	AL
P. ruchingeri J. Agardh	-	-	-	15	-
P. sanguinea (C. Agardh) Zanardini [16]	-	-	23	-	-
= P. fibrata (Dillwyn) Harvey in Hooker					
P. scopulorum Harvey	29	-	-	-	-
P. sertularoides (Grateloup) J. Agardh	-	7	11	-	35
P. simulans Harvey [17]	-	7	-	-	-
P. stuposa Zanardini	-	-	-	15	-
P. subulata (Dillwyn) J. Agardh	-	-	11	-	-
P. subulifera (C. Agardh) Harvey	-	-	11	-	35
P. tenerrima Kützing	-	-	-	16	35
P. tripinnata J. Agardh	-	-	-	15	-
Pterosiphonia Falkenberg in F. Schmitz et Falkenberg					
P. complanata (Clemente) Falkenberg	-	33	11	16	-
P. parasitica (Hudson) Falkenberg	-	33	11	-	-
P. pennata (C. Agardh) Falkenberg	13	33	11	37	-
= Polysiphonia pennata (Roth) Falkenberg					
Rytiphloea C. Agardh					
R. tinctoria (Clemente) C. Agardh	-	33	11	-	35

V. COMPSOPOGONALES Skuja

Erythropeltidaceae Skuja

Erythrotrichia J. Areschoug					
E. carnea (Dillwyn) J. Agardh	22	30	11	-	35
= E. investiens (Zanardini) Bornet					
= E. reflexa (H. M. et P. L. Crouan) Thuret ex De Toni					
Shalingia Kornmann					
S. subintegra (Rosenvinge) Kornmann	29	-	23	15	35
= Erythrocladia subintegra Rosenvinge					
= E. irregularis Rosenvinge					
= Erythrochloropeltis subintegra (Rosenvinge) Kornmann et Sahling					
= Erythropeltis subintegra (Rosenvinge) Kornmann et Sahling					

VI. CORALLINALES Silva et Johansen

Corallinaceae Lamouroux

Amphiroa Lamouroux					
A. beauvoisii Lamouroux	-	33	11	16	35
A. cryptarthrodia Zanardini	-	-	-	16	35
A. rigida Lamouroux	-	33	11	-	35

	HU	CA	MA	GR	AL
Choreonema F. Schmitz emend. Woelkerling					
C. thuretii (Bornet) F .Schmitz	-	-	-	16	35
Corallina Linnnaeus					
C. elongata J. Ellis et Solander	-	33	11	16	35
= C. mediterranea J. Areschoug					
C. granifera J. Ellis et Solander	-	33	11	-	35
C. officinalis Linnaeus	-	33	11	16	35
Fosliella Howe					
F. farinosa (Lamouroux) M. Howe in Britton et Millspaugh	-	33	11	16	35
= Melobesia farinosa Lamouroux					
var. *solmsiana* (Falkenberg) Foslie	-	-	-	-	35
Goniolithon Foslie					
G. papillosum (Zanardini ex Hauck) Foslie	-	-	-	-	35
Jania Lamouroux					
J. adhaerens Lamouroux	-	-	-	-	35
J. longifurca Zanardini	-	33	11	37	35
J. rubens (Linnaeus) Lamouroux	-	33	11	16	35
var. *corniculata* (Linnaeus) Yendo	-	33	11	16	35
= J. corniculata (Linnaeus) Lamouroux					
Lithophyllum Philippi					
L. expansum Philippi	-	28	-	-	35
L. incrustans Philippi	-	33	11	16	35
f. *depressa* Foslie	-	-	-	-	35
f. *flabellata* Heydrich	-	-	-	-	35
L. lichenoides Philippi [18]	-	33	-	16	-
= L. tortuosum auct. sensu Lemoine					
= Tenarea tortuosa (Esper) Lemoine					
Lithothamnion Heydrich					
L. valens Foslie	-	-	-	34	-
Melobesia Lamouroux					
M. membranacea (Esper) Lamouroux	-	33	11	16	35
= Epilithon membranaceum (Esper) Heydrich					
= Lithothamnion membranaceum Foslie					
Mesophyllum Lemoine					
M. lichenoides (J. Ellis et Solander) Lemoine	-	33	11	16	35
Phymatolithon Foslie emend W. Adey					
P. calcareum (Pallas) W. Adey et McKibbin	-	-	11	34	-
P. lenormandii (J. Areschoug) W. Adey	-	-	-	16	35

	HU	CA	MA	GR	AL
Pneophyllum Kützing					
P. confervicola (Kützing) Chamberlain	-	-	-	15	-
= Fosliella minutula (Foslie) Ganesan					
P. lejolissii (Rosanoff) Chamberlain	-	-	-	-	35
P. caulerpae (Foslie) P. Jones et Wolkerling	-	-	-	-	35
= P. zonale (Crouan frat.) Chamberlain					
Spongites Kützing					
S. dentata Kützing	-	13	15	16	35
= Lithophyllum dentatum (Kützing) Foslie					
S. fruticulosa Kützing	-	-	-	34	-
= Lithothamnion fruticulosum (Kützing) Foslie					
S. notarisii (L. Dufour) Athanasiadis	-	-	-	-	35
= Melobesia notarisii L. Dufour					
= Neogoniolithon notarisii (L. Dufour) Setchell et Mason					
S. ramulosa (Philippi) Kützing	-	-	-	24[19]	-
Titanoderma Nägeli					
T. corallinae (P. et H. Crouan) Woelkerling et al.	-	30	-	-	-
= Dermatolithon corallinae (Crouan) Foslie					
T. cystoseirae (Hauk) Woelkerling et al.	-	-	-	-	35
T. hapalidioides (P. et H. Crouan) J. Price et al.	-	-	-	-	35
T. litorale (P. et H. Crouan) Boudouresque et Perret	-	-	15	-	35
= Dermatolithon litorale (Suneson) Lemoine					
T. mediterranea (Foslie) Woelkerling	-	-	-	34	-
= Litholepis mediterranea Foslie					
T. pustulatum (Lamouroux) Nägeli	-	33	11	16	35
= Dermatolithon pustulatum (Lamouroux) Foslie					
= Lithophyllum pustulatum Foslie					

VII. GELIDIALES Kylin

Gelidiaceae Kützing

Gelidium Lamouroux					
G. latifolium (Greville) Bornet et Thuret [20]	29	33	11	16	35
var. *histrix* (J. Agardh) Hauck	-	-	-	-	35
G. melanoideum Schousboe ex Bornet	-	-	-	-	35
var. *gracile* J. Feldmann et Hamel	-	33	-	-	-
G. pectinatum Schousboe ex Montagne	-	19	11	34	-
G. pusillum (Stackhouse) Le Jolis [21]	13	33	11	16	35
var. *pulvinatum* (C. Agardh) J. Feldmann	-	33	-	37	-
G. sesquipedale (Clemente) Thuret in Bornet et Thuret	-	33	11	-	-
G. spathulatum (Kützing) Bornet	22	33	-	-	-
G. spinulosum (C. Agardh) J. Agardh	-	33	11	-	35
= G. microdon Kützing					
Pterocladia J. Agardh					
P. capillacea (S. G. Gmelin) Bornet et Thuret	-	33	11	16	35

	HU	CA	MA	GR	AL
Gelidiellaceae Fan					
Gelidiella J. Feldmann et Hamel					
G. lubrica (Kützing) J. Feldmann et Hamel	-	-	-	34	35
G. nigrescens (J. Feldmann) J. Feldmann et Hamel	-	*	-	15	-
G. pannosa (J. Feldmann) J. Feldmann et Hamel	-	-	-	-	35
VIII. GIGARTINALES Schmitz in Engler					
Caulacanthaceae Kützing					
Catenella Greville					
C. caespitosa (Withering) L. Irvine in Parke et Dixon = C. opuntia Greville = C. repens Batters	-	33	23	37	-
Caulacanthus Kützing					
C. ustulatus (Mertens) Kützing [22]	29	33	11	16	35
Choreocolacaceae Sturch					
Gelidiocolax Gardner					
G. cf *christianae* J. Feldmann et G. Mazoyer	-	-	-	-	35
Cystocloniaceae Kützing					
Calliblepharis Kützing					
C. ciliata (Hudson) Kützing = Fucus ciliatus Linnaeus	-	8	-	-	-
C. jubata (Goodenoug et Woodward) Kützing = Fucus ciliatus var. jubatus Turner	-	8	12	-	-
Cystoclonium Kützing					
C. purpureum (Hudson) Batters [23] = C. purpurascens Kützing	-	9	-	-	-
Rhodophyllis Kützing					
R. divaricata (Stackhouse) Papenfuss = Sphaerococcus bifidus C. Agardh	-	1	11	22	35
Furcellariaceae Greville					
Furcelleria Lamouroux					
F. lumbricalis (Hudson) Lamouroux [24] = F. fastigiata Lamouroux	-	25	11	-	-

	HU	CA	MA	GR	AL
Gigartinaceae Bory					
Gigartina Stackhouse					
G. acicularis (Roth) Lamouroux	29	33	11	16	35
G. pistillata (S. G. Gmelin) Stackhouse	-	33	23	-	-
G. teedii (Roth) Lamouroux	-	33	11	37	-
Mastocarpus Kützing					
M. stellatus (Stackhouse in Withering) Guiry in Guiry et al. = Sphaerococcus mamillosus C. Agardh	-	1 [25]	-	-	-
Gloiosiphoniaceae F. Schmitz					
Thuretella F. Schmitz in Engler et Prantl					
T. schousboei (Thuret) F. Schmitz in Engler et Prantl [26]	-	7	-	-	-
Gymnophlaeaceae Kützing					
Platoma F. Schmitz					
P. incrassata Schousboe [27]	-	7	-	-	-
Schizymenia J. Agardh					
S. dubyi (Chauvin ex Duby) J. Agardh	-	-	11	37	-
Halymeniaceae Bory					
Acrodiscus Zanardini					
A. vidovichii (Meneghini) Zanardini	-	-	-	-	35
Cryptonemia J. Agardh					
C. seminervis (C. Agardh) J. Agardh = C. lomation (Berthold) J. Agardh	-	33	11	37	35
Grateloupia C. Agardh					
G. doryphora (Montagne) Howe	-	-	32	-	-
G. filicina (Lamouroux) C. Agardh	-	-	11	-	-
G. lanceola (J. Agardh) J. Agardh [28]	-	-	12	-	-
Halymenia C. Agardh					
H. floresia (Clemente) C. Agardh [29]	29	33	-	-	35
H. latifolia P. et H. Crouan	-	-	11	-	-
Hypneaceae J. Agardh					
Hypnea Lamouroux					
H. cervicornis J. Agardh	-	-	-	-	35
H. coccinea (Clemente) Cremades = Fucus plicatus var. coccineus Clemente	-	17	-	-	-
H. musciformis (Wulfen) Lamouroux	29	33	11	-	35

	HU	CA	MA	GR	AL
Kallymeniaceae W. R. Taylor					
Callophyllis Kützing					
C. laciniata (Hudson) Kützing	-	8	11	-	-
= Fucus laciniatus Hudson					
Kallymenia J. Agardh					
K. microphylla J. Agardh [30]	-	7	-	-	-
K. reniformis (Turner) J. Agardh	-	-	-	34	-
K. spathulata (J. Agardh) Codomier	-	-	-	22	-
Peyssonneliaceae Denizot					
Peyssonnelia Decaisne					
P. armorica (P. et H. Crouan) Boergesen	-	-	-	-	35
P. atropurpurea P. et H. Crouan	-	-	-	37	-
P. bornetii Boudouresque et Denizot	-	-	-	15	-
P. coriacea J. Feldmann	-	33	11	37	-
P. dubyi P. et H. Crouan	-	-	-	16	35
P. harveyana P. et H. Crouan in J. Agardh	-	-	-	34	35
P. inamoena Pilger	-	-	-	-	35
P. polymorfa (Zanardini) F. Schmitz in Falkenberg	-	-	-	-	35
P. rosa-marina Boudouresque et Denizot	-	-	-	-	35
P. rubra (Greville) J. Agardh	-	-	23	-	35
P. squamaria (S. G. Gmelin) Decaisne	-	8	11	16	35
= Fucus squamarius S. G. Gmelin					
P. stoechas Boudouresque et Denizot	-	-	-	-	35
Polystrata Heydrich					
P. compacta (Foslie) Denizot	-	-	-	-	35
P. fosliei (Weber van Bosse) Denizot	-	-	-	-	35
Phyllophoraceae Nägeli					
Gymnogongrus G. Martius					
G. crenulatus (Turner) J. Agardh [31]	29	33	11	-	-
= G. norvegicus J. Agardh					
G. devoniensis (Greville) Schotter [31]	-	21	21	-	-
G. griffithsiae (Turner) G. Martius	29	33	11	37	35
G. patens J. Agardh	-	33	-	37	-
Phyllophora Greville					
P. crispa (Hudson) Dixon	-	33	11	-	35
= P. rubens (Goodenough et Woodward) Greville					
= P. epiphylla (Müller) Batters					
P. heredia (Clemente) J. Agardh	-	33	-	-	-

	HU	CA	MA	GR	AL
P. sicula (Kützing) Guiry et L. Irvine	-	-	11	-	-
P. truncata (Pallas) A. D. Zinova	-	-	11	-	-
Schottera Guiry et Hollenberg					
S. nicaensis (Lamouroux ex Duby) Guiry et Hollenberg	-	*	11	16	35
Stenogramme Harvey					
S. interrupta (C. Agardh) Montagne ex Harvey [32]	-	38	-	-	-
Plocamiaceae Kützing					
Plocamium Lamouroux					
P. cartilagineum (Linnaeus) Dixon = P. coccineum (Hudson) Lyngbye	22	33	11	16	35
P. raphelisianum (J. Agardh) P. A. Dangeard [33]	-	33	11	37	-
Polyidaceae Kylin					
Polyides C. Agardh					
P. rotundus (Hudson) Greville = Fucus rotundus S.G. Gmelin	29	8	11[34]	-	-
Rhizophyllidaceae F. Schmitz					
Contarinia Zanardini					
C. squamariae (Meneghini) Denizot	-	-	-	-	35
Rissoellaceae Kylin					
Rissoella J. Agardh					
R. verruculosa (Bertholdi) J. Agardh	-	-	11	16	-
Solieriaceae (Harvey) Hauck					
Solieria J. Agardh					
S. chordalis (C. Agardh) J. Agardh [35] = Delesseria chordalis C. Agardh	-	1	-	-	-
Sphaerococcaceae Dumortier					
Sphaerococcus Stackhouse					
S. coronopifolius Stackhouse	-	33	11	16	35
Wurdemanniaceae W. R. Taylor					
Wurdemannia Harvey					
W. miniata (Manoury) J. Feldmann et Hamel	-	-	-	-	35

	HU	CA	MA	GR	AL
IX. GRACILARIALES Fredericq et Hommersand					
Gracilariaceae (Nägeli) Kylin					
Gracilaria Greville					
G. armata (C. Agardh) J. Agardh	-	6	11	-	35
G. bursa-pastoris (S. G. Gmelin) Silva	29	26	11	-	-
= G. compressa C. Agardh					
G. cervicornis (Turner) J. Agardh	-	-	11	-	-
G. dura (C. Agardh) J. Agardh	-	1 [36]	-	-	-
= Sphaerococcus durus C. Agardh					
G. multipartita (Clemente) Harvey [37]	13	33	11	-	-
= G. foliifera (Forsskal) Boergesen					
G. verrucosa (Hudson) Papenfuss	13	8	11	16	35
= Fucus confervoides Linnaeus					
X. HILDENBRANDIALES Pueschel et Cole					
Hildenbrandiaceae Rabenhorst					
Hildenbrandia Nardo					
H. canariensis Boergesen	-	-	-	34	35
H. rubra (Sommerfelt) Meneghini	-	33	11	-	35
= H. prototypus Nardo					
XI. NEMALIALES F. Schmitz in Engler					
Chaetangiaceae Kützing					
Scinaia Bivona					
S. forcellata Bivona-Bernardi [38]	13	33	11	-	-
= S. pseudocrispa (Clemente) Wynne					
S. turgida Chemin	-	22	-	-	-
Helminthocladiaceae J. Agardh					
Helminthocladia J. Agardh					
H. stackhousei (Clemente) Cremades [39]	-	18	-	-	-
= Helminthora divaricata (C. Agardh) J. Agardh					
= H. stackhousei (Clemente) Cremades et Pérez-Cirera					
Liagora Lamouroux					
L. ceranoides Lamouroux	-	-	-	-	35
L. distenta (G. Mertens ex Roth) C. Agardh	-	33	-	-	-
L. farinosa Lamouroux	-	-	-	-	35
L. tetrasporifera Boergesen	-	-	-	-	35
L. viscida (Forsskal) C. Agardh	-	22	13	13	35

	HU	CA	MA	GR	AL
Naccariaceae Kylin					
Atractophora Crouan frat.					
A. hypnoides Crouan frat. [40]	-	33	-	-	-
Nemalionaceae (Farlow) De Toni et Levi					
Nemalion Duby					
N. helminthoides (Velley in Withering) Batters	-	33	11	16	35
XII. PORHYRIDIALES Kylin					
Goniotrichaceae G. M. Smith					
Chroodactylon Hansgirg					
C. ornatum (C. Agardh) Basson	-	-	-	-	35
Stylonema Reinsch					
S. alsidii (Zanardini) Drew	29	33	11	16	35
= Goniotrichum elegans (Chauvin) Le Jolis					
= G. alsidii (Zanardini) Howe					
S. cornu-cervi Reinsch	29	-	-	15	35
= Goniotrichum cornu-cervi (Reinsch) Hauck					
XIII. RHODYMENIALES F. Schmitz in Engler					
Champiaceae Kützing					
Champia Desvaux					
C. parvula (C. Agardh) Harvey	13	33	11	16	35
Chylocladia Greville in Hooker					
C. verticillata (Lightfoot) Bliding	13	33	11	-	35
= C. kaliformis (Goodenough et Woodward) Greville					
Gastroclonium Kützing					
G. clavatum (Roth) Ardissone	22	33	23	16	35
G. ovatum (Hudson) Papenfuss	-	12	-	37[41]	-
= Fucus ovalis Hudson					
G. reflexum (Chauvin) Kützing	29	4	-	-	-
Lomentariaceae J. Agardh					
Lomentaria Lyngbye					
L. articulata (Hudson) Lyngbye	-	33	11	16	-
L. clavaeformis Ercegovic	-	-	11	-	-
L. clavellosa (Turner) Gaillon	29	25	11	-	-
= Gigartina clavellosa Lamouroux					

	HU	CA	MA	GR	AL
L. compressa (Kützing) Kylin	-	-	-	15	-
L. ercegovicii Verlaque et al.	-	-	-	34	-
L. linearis Zanardini	-	-	-	-	35
L. verticillata Funk	-	-	-	-	35
Rhodymeniaceae Harvey					
Botryocladia Kylin					
B. botryoides (Wulfen) J. Feldmann	-	33	-	-	35
B. microphysa (Hauck) Kylin	-	-	-	34	-
Chrysimenia J. Agardh					
C. ventricosa (Lamouroux) J. Agardh = Halymenia ventricosa C. Agardh	-	1	-	-	35
Cordylecladia J. Agardh					
C. erecta (Greville) J. Agardh	-	*	-	-	-
Fauchea Bory et Montagne					
F. microspora Bornet in Rodriguez [42]	-	7	-	-	-
F. repens (C. Agardh) Montagne [43] = Sphaerococcus repens C. Agardh.	-	1	-	-	-
Rhodymenia Greville					
R. ardissonei J. Feldmann	-	-	-	-	35
R. pseudopalmata (Lamouroux) Silva = R. palmetta Greville = Fucus bifidus Hudson	-	25	11[44]	37	-

NOTES

Several records in papers prior to 40 years ago correspond to plants collected as drift, and not attached to any substratum. Thus, only the presence/absence of tha taxa, rather than their identification will be discussed.

(1). Including the tetrasporophyte *Falkenbergia rufolanosa* (Harvey) F. Schmitz. See Flores-Moya & Conde (1992).

(2). Considered as *taxon inquirenda*. It needs confirmation for Málaga.

(3). The tetrasporophyte of *Bonnemaisonia hamifera* Hariot.

(4). See the acceptance of the genus *Aglaothamnion in* Maggs & Hommersand (1993: 87).

(5). Considered as *taxon inquirenda* because it is the only citation for Andalusia. Colmeiro (1867: 199) cited *Ceramium cancellatum* D.C. (sub *Conferva cancellata* Clem. Ens.) but Ardré (1970: 289) pointed out that it is possible that the record from Colmeiro could be this species.

(6). Ardré (1970: 282) proposed that the Tajo river (Portugal) is the southern geographical limit for this species. Because this is the only citation is therefore considered as *taxon inquirenda* for Andalusia.

(7). The first citation corresponds to Clemente (1807: 322) (sub *Conferva corallina* Linnaeus). Bellón (1942:73) pointed out that the specific epithet proposed by Linnaeus is «corallioides» and not «corallinoides».

(8). Considered as *taxon inquirenda* becasue is the only citation for Andalusia (Amo & Mora, 1870:95). It could correspond to *Griffithsia*

opuntioides J. Agardh.

(9). *Taxon inquirenda* because no new records have been reported since the first one from Clemente (1807).

(10). Needs confirmation because it has been collected only as drift.

(11). This species inhabits the SE Iberian Peninsula (Soto & Conde: 1994). However, it has been considered as *taxon inquirenda* (see Silva, 1992).

(12). *Taxon inquirenda*. The only citation corresponds to Bornet (1892: 308). Feldmann (1981) included this species in the «*Oligosiphonia spinulosae*» group, with species not found in Andalusia.

(13). The reference from Agardh (1824:152) for Cádiz is the only one for Andalusia. However, it is included in a taxon (Breviarticulatae) with elements from the Mediterranean Sea (Feldmann, 1981:75).

(14). *Taxon inquirenda*. The only one citation correspond to Agardh (1828: 109) sub *Hutchinsia obscura*.

(15). *Taxon inquirenda*. The only citation corresponds to Agardh (1824:153).

(16). See the comments of Maggs & Hommersand (1993: 333) in relation to *Polysiphonia sanguinea* C. Agardh.

(17). *Taxon inquirenda*. The only citation correspond to Bornet (1892: 315).

(18). Cabioch *et al.* (1992) considered *Lithophyllum lichenoides* Philippi and *Tenarea tortuosa* (Esper) Lemoine as different species.

(19). Giaccone (1972:43) recorded *Neogoniolithon mamillosum* (Hauck) Setchell & Masson but Athanasiadis (1987: 39) pointed out that they are conspecific.

(20). This taxon includes *Gelidium attenuatum* (Turner) Thuret

(21). According to Dixon & Irvine (1977: 311), this species includes *Gelidium crinale* (Turner) Lamouroux. and *Gelidium pulchellum* (Turner) Kützing.

(22). Mediterranean plants could correspond to *Feldmannophycus rayssiae* (J. Feldmann et G. Feldmann) Augier et Boudouresque (Augier & Boudouresque, 1971).

(23). *Taxon inquirenda*.

(24). Could be misidentified as *Polyides rotundus* (Hudson) Greville. See Dixon & Irvine (1977: 180). See note #34.

(25). Has not been found later.

(26). This species occurs in the Mediterranean Sea but the records in Andalusia correspond to Cádiz (Atlantic Ocean) (Bornet, 1892: 336; Sauvageau,1899: 698 and Feldmann,1939: 327). It has been considered as *taxon inquirenda*.

(27). Has been found in Cádiz as drift. This species is close to *Platoma marginifera* (J. Agardh) Batters and it has a similar geographic distribution.

(28). A sheet from the Herbario de la Sociedad Malagueña de Ciencias (Conde, 1992: 37) annotated as *Schizymenia dubyi*, could be misidentified as *Grateloupia lanceola*. See Pérez-Cirera *et al.* (1989: 124, 131 and 133).

(29). See Silva (1992: 169) and Cremades (1993: 15) for taxonomic priority.

(30). *Taxon inquirenda*. Bornet (1892:278) recorded it from the herbarium Schousböe from Tangiers (Morocco).

(31). According to J. Feldmann in Schotter (1968: 47), the taxon could be a form from the synonym. However, see Dixon & Irvine (1977: 217). Fernández *et al.* (1983: 164) separated *Gymnogongrus crenulatus* (Turner) J. Agardh and *Gymnogongrus devoniensis* (Greville) Schotter.

(32). Found on the Atlantic coast, as was pointed out by Amo y Mora (1870: 183). However, the citations correspond to the 19th century. Thus, it has been considered as *taxon inquirenda*.

(33). Needs to be studied in the Andalusian coasts.

(34). *Taxon inquirenda* for Málaga. Bellón (1942: 56) pointed out that Colmeiro (1867, 1889) cited this species as collected by Clemente. However, the locality is not specificated in their work "Ensayo ... Flora Boetica". On the other hand, it could be misidentified as *Furcellaria lumbricalis* (Hudson) Lamouroux (see note #24).

(35). All citations correspond to 19th century. Ardré (1970: 240) found this species in South Portugal as drift. Therefore, it has been considered as *taxon inquirenda*.

(36). Has not been found later.

(37). See Silva (1992) and Cremades (1993) for taxonomic priority.

(38). In accordance with Silva (1992: 167) the valid name is *Sciania furcellata* (Turner) J. Agardh.

(39). See Cremades (1993: 22) for the typification of the taxon.

(40). *Taxon inquirenda*. Seoane (1965: 96) records the only citation as drift.

(41). *Taxon excludenda* for Granada (Conde & Soto, 1987: 37).

(42). *Taxon inquirenda*. All the records are from the 19th century. Sauvageau (1899: 698) reported this species in Cádiz, Tangiers and Western Mediterranean.

(43). Like note #42. See also Ardissone (1883: 207).

(44). Bellón (1942: 67) commented that this species does not occur in the Mediterranean Sea and

the possible misidentification with a few Phyllophoraceae (see also Irvine, 1983: 96). Taking into account the previous comment and the poor references, it has been considered as *taxon inquirenda* for Málaga.

TAXA EXCLUDENDA

Delesseria sanguinea (Hudson) Lamouroux. Cádiz, (González-Fragoso, 1886: 129, sub *Delesseria sanguinea* Lamouroux). Málaga, (Prolongo, 1852: 127, sub *Fucus sanguineus* Linnaeus). Ardré (1970: 317) reported that the southern limit for this species is North Portugal.

Dilsea carnosa (Schmidel) O. Kuntze. Cádiz, (González-Fragoso, 1886: 126, sub *Iridaea edulis* Bory). Málaga, (Agardh, 1823: 202 and 203, sub *Halymenia edulis*). Ardré (1970: 207) proposed that the southern limit for this species is the Duero river.

Dumontia contorta (S. G. Gmelin) Ruprecht. Cádiz, (González-Fragoso, 1886: 125, sub *Dumontia filiformis* Greville). Ardré (1970: 206) pointed out that the southern limit of this species is the Duero river.

Halimenia trigona (Clemente) C. Agardh. Cádiz, (Clemente, 1807: 318, sub *Fucus trigonus*). See Cremades (1993: 25).

Phyllophora pseudoceranoides (S. G. Gmelin) Newroth & A. R. A. Taylor. Cádiz, (Clemente, 1807: 308, sub *Fucus membranifolius* Linnaeus). According to Ardré (1970: 251), it could correspond to *Phyllophora sicula* (Kützing) Guiry et L. Irvine.

Plumaria plumosa (Hudson) O. Kuntze. Cádiz, (Colmeiro, 1889: 931, sub *Ptilota plumosa* Agardh). Ardré (1970:293) pointed out that it is a mistake both from Clemente (1807: 318) and Colmeiro (1867: 200 y 1889: 930). The geographical southern limit of this species is North Portugal.

Rhodomela lycopodioides (L.) C. Agardh. Cádiz, (González-Fragoso, 1893: 162, sub *Rhodomela lycopodioides* Linnaeus). Maggs & Hommersand (1993: 297) pointed out the possible misidentification as *Rhodomela confervoides* (Hudson) Silva.

ALPHABETIC LIST OF GENRE

Roman numbers corresponds to Orders from the List of Taxa, N to the Notes and TE to Taxa Exludenda chapters. Italics has been used for accepted genra and Roman type for rejected genra.

Acrodiscus	VIII
Acrosorium	IV
Aglaothamnion	IV, N
Alsidium	IV
Amphiroa	VI
Anotrichum	IV
Anthithamnion	IV
Antithamnion	IV
Antithamnionella	IV
Aphanocladia	IV
Apoglossum	IV
Asparagopsis	III
Atractophora	XI
Audouiniella	I
Bangia	II
Bangia	II
Boergeseniella	IV
Bonnemaisonia	III, N
Bornetia	IV
Bostrychia	IV
Botryocladia	XIII
Brongniartella	IV
Calliblepharis	VIII
Callithamniella	IV
Callithamnion	IV
Callithamnion	IV
Callophyllis	VIII
Catenella	VIII
Catenella	VIII
Caulacanthus	VIII
Centroceras	IV
Ceramium	IV, N
Champia	XIII
Chondria	IV
Chondria	IV
Choreonema	VI
Chroodactylon	XII
Chrysimenia	XIII
Chylocladia	XIII
Chylocladia	XIII
Compsothamnion	IV

Conferva	IV, N
Contarinia	VIII
Corallina	VI
Cordylecladia	XIII
Cottoniella	IV
Crouania	IV
Cryptonemia	VIII
Cryptonemia	VIII
Cryptopleura	IV
Ctenosiphonia	IV
Cystoclonium	VIII
Cystoclonium	VIII
Dasya	IV
Dasyopsis	IV
Delesseria	TE
Delesseria	IV, VIII
Dermatolithon	VI
Digenea	IV
Dilsea	TE
Dipterosiphonia	IV
Drachiella	IV
Dumontia	TE
Dumontia	TE
Epilithon	VI
Erythrochloropeltis	V
Erythrocladia	V
Erythropeltis	V
Erythrotrichia	V
Erytrocystis	IV
Falkenbergia	N
Fauchea	XIII
Feldmannophycus	N
Fosliella	VI
Fosliella	VI
Fucus	IV, VIII, IX, XIII, TE
Furcelleria	VIII, N
Furcellaria	VIII
Gastroclonium	XIII
Gelidiella	VII
Gelidiocolax	VIII
Gelidium	VII, N
Gelidium	VII
Gigartina	VIII
Gigartina	XIII
Goniolithon	VI
Goniotrichum	XII
Gracilaria	IX
Gracilaria	IX
Grateloupia	VIII, N
Griffithsia	IV, N
Griffithsia	IV
Gymnogongrus	VIII, N
Gymnogongrus	VIII
Gymnothamnion	IV
Halopithys	IV
Halopithys	IV
Halurus	IV
Halymenia	VIII
Halymenia	XIII, TE
Haraldiophyllum	IV
Helminthocladia	XI
Helminthora	XI
Herposiphonia	IV
Herposiphonia	IV
Heterosiphonia	IV
Hildenbrandia	X
Hildenbrandia	X
Hutchinsia	IV, N
Hypnea	VIII
Hypoglossum	IV
Iridaea	TE
Jania	VI
Jania	VI
Kallymenia	VIII
Laurencia	IV
Laurencia	IV
Lejolisia	IV
Liagora	XI
Litholepis	VI
Lithophyllum	VI, N
Lithophyllum	VI
Lithothamnion	VI
Lithothamnion	VI
Lomentaria	XIII
Lophocladia	IV
Lophosiphonia	IV
Mastocarpus	VIII
Melobesia	VI
Melobesia	VI
Mesophyllum	VI
Mesothamnion	IV
Microcladia	IV
Monosporus	IV
Myriogramme	IV
Myriogramme	IV
Nemalion	XI
Neogoniolithon	VI, N
Nitophyllum	IV
Ophidocladus	IV
Osmundaria	IV

Peyssonnelia	VIII
Phycodrys	IV
Phyllophora	VIII
Phyllophora	VIII, TE
Phymatolithon	VI
Platoma	VIII, N
Platysiphonia	IV
Platythamnion	IV
Plenosporium	IV
Plocamium	VIII
Plocamium	VIII
Plumaria	TE
Pneophyllum	VI
Pneophyllum	VI
Polyides	VIII, N
Polyneura	IV
Polysiphonia	IV, N
Polysiphonia	IV
Polystrata	VIII
Porphyra	II
Porphyropsis	II
Pseudocrouania	IV
Pterocladia	VII
Pterosiphonia	IV
Pterosiphonia	IV
Pterothamnion	IV
Ptilota	TE
Ptilothamnium	IV
Radicilingua	IV
Rhodomela	TE
Rhodomela	TE
Rhodophyllis	VIII
Rhodymenia	XIII
Rhodymenia	XIII
Rissoella	VIII
Rytiphlaea	IV
Rytiphloea	IV
Schizymenia	VIII, N
Schottera	VIII
Scinaia	XI, N
Scinaia	XI
Seirospora	IV
Shalingia	V
Solieria	VIII
Spermothamnion	IV
Spermothamnion	IV
Sphaerococcus	VIII
Sphaerococcus	VIII, IX, XIII
Sphondylothamnion	IV
Spongites	VI
Spyridia	IV
Stenogramme	VIII
Stylonema	XII
Taenioma	IV
Tenarea	VI, N
Thuretella	VIII
Tiffaniella	IV
Titanoderma	VI
Trailliella	III
Vickersia	IV
Vidalia	IV
Wrangelia	IV
Wurdemannia	VIII

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