Table 2. Algal strains and sequences used

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
1	Chondrus crispus Stackhouse	NA			See reference	Outgroup	Hist	Leblanc *et al.* (1995)	NC001677	Rhodophyta	RG	See reference	NA
2	Cladostephus spongiosus (Hudson) C. Agardh	NA			See reference		Hist	Bittner *et al.* (2008)	EU681396	Sphacelariales	RG	See reference	NA
3	Saccorhiza polyschides (Lightfoot) Batters	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU_681422	Tilopteridales	RG	See reference	NA
4	Cutleria multifida (Turner) Greville	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681398	Tilopteridales	RG	See reference	NA
5	Laminaria digitata (Hudson) Lamouroux	NA			See reference		Hist	Oudot-Le Secq *et al.* (2002)	AJ344328	Laminariales	RG	See reference	NA
6	Macrocystis integrifolia Bory	NA			See reference		Hist	McDevit & Saunders (2009)	FJ409174	Laminariales	RG	See reference	NA
7	Alaria esculenta (Linnaeus) Greville	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681388	Laminariales	RG	See reference	NA
8	Saccharina latissima (Linnaeus) Lane, Mayes, Druehl et Saunders	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681420	Laminariales	RG	See reference	NA
9	Undaria pinnatifida (Harvey) Suringar	NA			See reference		Hist	Silberfeld *et al.* (2010)	GQ368267	Laminariales	RG	See reference	NA
10	Colpomenia peregrina Sauvageau	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681397	Scytosiphonaceae	RG	See reference	NA
11	Scytosiphon lomentaria (Lyngbye) Link	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681424	Scytosiphonaceae	RG	See reference	NA
12	Petalonia fascia (O.F. Müller) Kuntze	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681415	Scytosiphonaceae	RG	See reference	NA
13	Petrospongium berkeleyi (Greville) Nägeli ex Kützing	NA			See reference		Hist	Silberfeld *et al.* (2011)	EU681416	Petrospongiaceae	RG	See reference	NA
14	Spongonema tomentosum (Hudson) Kützing	NA			See reference		Hist	Silberfeld *et al.* (2011)	JF796546	Ectocarpaceae	RG	See reference	NA
15	Punctaria latifolia Greville	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681418	Chordariaceae	RG	See reference	NA

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16	Leathesia marina (Lyngbye) Decaisne	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681412	Chordariaceae	RG	See reference	NA
17	Asperococcus bullosus Lamouroux	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681392	Chordariaceae	RG	See reference	NA
18	Stictyosiphon soriferus (Reinke) Rosenvinge	KU-MACC: KU-705			Bergen, Norway, no date	ND	Hist	Kawai *et al.* (2013)	AB775232	Chordariaceae	RG	H. Kawai	H. Kawai
19	Chordaria flagelliformis (Müller) C. Agardh	ChflaSM2m	PC0534048		Schleimünde, Germany, 03 Aug 1996	GAm isolated from field SP	Hist	Peters & Ramírez (2001), Silberfeld *et al.* (2011)	JF796536	Chordariaceae	RG	AFP	AFP
20	Dictyosiphon foeniculaceus (Hudson) Greville	Dfoelm	PC0534049		Finavarra, Ireland, 08 Sep 1986	GAm isolated from field SP	Hist	Peters (1992), Silberfeld *et al.* (2011)	JF796539	Chordariaceae	RG	AFP	AFP
21	Pylaiella littoralis (Linnaeus) Kjellman	NA			See reference		Hist	Oudot-Le Secq *et al.* (2001)	AJ277126	PHF group	RG	See reference	NA
22	Pylaiella washingtoniensis C.C. Jao	NA			Churchill, Manitoba, 2006		Hist	Saunders & McDevit (2013)	JX572091	PHF group	RG	G.W. Saunders	NA
23	Hincksia granulosa (Smith) P.C. SIlva	NA			See reference		Hist	Silberfeld *et al.* (2010)	EU681410	PHF group	RG	See reference	NA
24	Sphacelaria, unidentified species 01	GR11-34		EI	14	S: ND	no ID		LM994971	Sphacelariales	MA	AFP	AFP
25	Striaria attenuata (C. Agardh) Greville	SattY9m	PC0534050		Yaldad, Chiloé, Chile, 23 Oct 1987	GAm isolated from field SP	Hist	Peters (1991a)	LM994972	Chordariaceae	RN MA	AFP	AFP
26	Myriotrichia claviformis Harvey	Mcla03m			Finavarra, Ireland, 1986	GAm isolated from field SP	Hist	Peters (1988)	LM994973	Chordariaceae	RN MA	AFP	AFP
27	Spongonema tomentosum	StomH97C			Helgoland, Germany, 1997	ND	Mor		LM994974	Ectocarpaceae	RN Ec	AFP	AFP
28	Feldmannia mitchelliae (Harvey) Kim	HmitLC12-1		EI	07	S: Chorda filum(Linnaeus) Stackhouse	Mor		LM994975	Acinetospora group	RN MA	AFP	AFP
29	Feldmannia mitchelliae	HmitPH12-1		EI	05	S: Sargassum muticum (Yendo) Fensholt	Mor		LM994976	Acinetospora group	RN MA	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
30	Feldmannia mitchelliae, Mediterranean haplotype	HmitGR11_03		EI	11	S: Base of Scytosiphon	Mor		LM994977	Acinetospora group	RN MA	AFP	AFP
31	Hincksia hincksiae (Harvey) P.C. Silva	Hhin PH12-1		EI	05	S: Saccorhiza polyschides	Mor		LM994978	PHF group	RN MA	AFP	AFP
32	Feldmannia lebellii (Areschoug) Hamel	FeldTH13-01-03		EI	06	S: Cystoseira sp.	Mor		LM994979	PHF group	RN Mi	AFP	AFP
33	Laminariocolax tomentosoides (Farlow) Kylin	LtomKi			Kiel, Baltic Sea, 1994	S: Laminaria digitata	Hist	Burkhardt & Peters (1998)	LM994980	Chordariaceae	RN Endo	AFP	AFP
34	Laminariocolax tomentosoides	LtomPH			Roscoff, Brittany, France, 1998	S: Laminaria digitata		Peters (2003)	LM994981	Chordariaceae	RN Endo	AFP	AFP
35	Laminariocolax macrocystis (Peters) Peters	Lmac_LM_3Ef	PC0534051		Valdivia, Chile, 08 Mar 1989	GAf isolated from endophytic field SP	Hist	Peters (1991b)	LM994982	Chordariaceae	RN Endo	AFP	AFP
36	Laminariocolax eckloniae Peters	EEmax-SA-22			Kommetjie, Cape Peninsula, South Africa	S: Ecklonia maxima (Osbeck) Papenfuss	Hist	Burkhardt & Peters (1998)	LM994983	Chordariaceae	RN Endo	AFP	AFP
37	Unidentifed Ectocarpales BOLD	NA			British Columbia, 2010	ND	Seq		HQ919305	Chordariaceae	RG	G.W. Saunders & K. Dixon	NA
38	Unidentifed Ectocarpales BOLD	NA			British Columbia, 2010	ND	Seq		HQ990457	Chordariaceae	RG	G.W. Saunders & D. McDevit	NA
39	Laminarionema elsbetiae Kawai et Tokuyama	ELsaHSoW15	PC0534052		Helgoland, Germany, 1997	S: Saccharina latissima	Hist	Peters & Ellertsdóttir (1996)	LM994984	Chordariaceae	RN Endo	E. Ellertsdóttir	AFP
40	Myrionema strangulans Greville	MstrME6f	PC0534053		Bear Cove, Petit Manan NWR, Steuben, Maine, USA, 26 Aug 1997	GAf isolated from unilocular field SP epiphytic on Ulva sp.	Mor		LM994985	Chordariaceae	RN Mi	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

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41	Pylaiella washingtoniensis BS virus host	PilBS1_13_3v			Saint Lawrence Island, Bering Street, Alaska, 1996	ND	Hist	Maier *et al.* (1998)	LM994986	PHF group	RN MA	H. Kawai	H. Kawai
42	Feldmannia irregularis (Kützing) Hamel, virus host	FirrCI63_3v			Isla Hierro, Canary Islands, Spain, 1991	S: Cystoseira humilis Schousboe in Kützing	Hist	Müller & Frenzer (1993)	LM994987	Acinetospora group	RN MA	D.G. Müller	D.G. Müller
43	Myrionema balticum (Reinke) Foslie	Mbal_B	PC0534054		Kühlungsborn, Baltic Sea, Germany, 01 Jul 1997	S: Zostera marina Linnaeus	Mor		LM994988	Hecatonema cluster	RN Mi	H. Seilert	AFP
44	Spermatochnus paradoxus (Roth) Kützing	Spar_S	PC0534055		Kristineberg, Sweden, 26 Jul 1983	S: Saccharina latissima	Mor		LM994989	Chordariaceae	RN MA	AFP	AFP
45	Spermatochnus paradoxus	Spar_VF_3_9			10m depth, Villefranche-sur-mer, France, 1980	ND	Hist	Müller (1981)	LM994990	Chordariaceae	RN MA	D.G. Müller	D.G. Müller
46	Stilophora tenella (Esper) P.C. Silva	StenPH13_01_01	PC0534056	EI	05; 24 Jun 2013	S: ND	Mor		LM994991	Chordariaceae	RN MA	AFP	AFP
47	Microspongium tenuissimum (Hauck) Peters	Endo_Poly_KI	PC0534057		Kiel, Baltic Sea, 04 Apr 1993	S: Polysiphonia elongata (Hudson) Sprengel	Hist	Burkhardt & Peters (1998)	LM994992	Chordariaceae	RN Endo	AFP	AFP
48	Microspongium alariae (Pedersen) Peters	Gala_US97_4c	PC0534058		Little Moose Island, Acadia Natl. Park, Maine, USA, 23 Aug 1997	S: Alaria esculenta	Hist	Peters (2003)	LM994993	Chordariaceae	RN Endo	AFP	AFP
49	Hecatonema maculans (Collins) Sauvageau	Hmac_ME_13A2	PC0534059		Bear Cove, Petit Manan NWR, Steuben, Maine, USA, 26 Aug 1997	S: Palmaria palmata (Linnaeus) Weber & Mohr	Mor		LM994994	Hecatonema cluster	RN Mi	AFP	AFP

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50	Mesogloia vermiculata (Smith) S.F. Gray	Mver_Gal_98_14			5m depth, Insua de Area, Ría de Viveiro, Galicia, Spain, 1998	S: rock	Mor		LM994995	Chordariaceae	RN MA	AFP	AFP
51	Chordaria flagelliformis	Chfla_Hel_10Jf	PC0534060		Helgoland, Germany, 11 Aug 2000	GAf isolated from field SP	Mor		LM994996	Chordariaceae	RN MA	AFP	AFP
52	Dictyosiphon chordaria Areschoug	Dcho_DK6	PC0534061		Hirsholmen, Frederikshavn, Denmark, 24 Jun 1993	S: dredged from pebbles and stones	Mor		LM994997	Chordariaceae	RN MA	R. Nielsen	AFP
53	Dictyosiphon ekmanii Areschoug	Dekm	PC0534062		Newman Sound, Terra Nova National Park, Newfoundland, Canada, 18 Jul 1984	S: Scytosiphon	Mor		LM994998	Chordariaceae	RN MA	AFP and Bob Hooper	AFP
54	Cladosiphon zosterae (J. Agardh) Kylin	Czos_BR02	PC0534063		Ile Callot, Brittany, France, 22 Sep 2002	S: Zostera marina	Mor		LM994999	Chordariaceae	RN MA	AFP	AFP
55	Liebmannia leveillei J. Agardh	GR11-39		EI	14	S: ND	Mor		LM995000	Chordariaceae	RN MA	AFP	AFP
56	Kuckuckia lineage1	KKSG-B			Split, Yugoslavia, 1992	ND	Mor, Seq		LM995001	Ectocarpaceae	RN Ec	D.G. Müller	D.G. Müller
57	Kuckuckia lineage1	KckCRO11-1	PC0534064		Anse de Dinan, Crozon, Brittany, 15 May 2011	Drift, part of macroalgal bloom	Mor, Seq		LM995002	Ectocarpaceae	RN Ec	AFP	AFP
58	Kuckuckia lineage2	Ec160			Arica, Chile, 2006	S: rope	Hist	Peters *et al.* (2010b)	LM995003	Ectocarpaceae	RN Ec	AFP	AFP
59	Kuckuckia lineage3	TOR16	PC0534065		Elberry Cove, Brixton, Torbay, UK, 2008	S: Zostera marina	Mor, Seq		LM995004	Ectocarpaceae	RN Ec	AFP	AFP

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60	Ectocarpus siliculosus (Dillwyn) Lyngbye 1a	EcVAZ11-10			05	S: Chorda filum	Mor, Seq		LM995005	Ectocarpaceae	RN Ec	AFP	AFP
61	Ectocarpus siliculosus1a	NAP12-84	PC0534066		10; 17 Mar 2012	S: Scytosiphon	Mor, Seq		LM995006	Ectocarpaceae	RN Ec	AFP	AFP
62	Ectocarpus sp.1b-CH	Ec156			Pisagua, Chile, 2006	S: Lessonia	Hist	Peters *et al.* (2010b)	LM995007	Ectocarpaceae	RN Ec	AFP	AFP
63	Ectocarpus sp.1b-PE	Ec294			San Juan de Marcona, Peru, 2006	ND	Mor, Seq	Peters *et al.* (2010b)	LM995008	Ectocarpaceae	RN Ec	AFP	AFP
64	Ectocarpus sp.1b-UK	GOS08-02			Marina, Gosport, UK, 2008	S: ponton	Mor, Seq		LM995009	Ectocarpaceae	RN Ec	AFP	AFP
65	Ectocarpus sp.1c-PE	Ec157			Pisagua, Chile, 2006	S: Lessonia	Hist	Peters *et al.* (2010b)	LM995010	Ectocarpaceae	RN Ec	AFP	AFP
66	Ectocarpus sp.1c-genome-sequenced strain	Ec32			San Juan de Marcona, Peru, 1988	S: Desmarestia peruviana Montagne	Hist	Cock *et al.* 2010	FP885846	Ectocarpaceae	RN Ec	AFP	AFP
67	Ectocarpus sp.1d-KR	Ec705; CCAP1310/317	PC0534067		Kimnjung, Jejudo, Korea, 2006	S: Sargassum fusiforme (Harvey) Setchell	Mor, Seq		LM995011	Ectocarpaceae	RN Ec	AFP	AFP
68	Ectocarpus sp.2a	NAP12-64			10	S: Scytosiphon	Mor, Seq		LM995012	Ectocarpaceae	RN Ec	AFP	AFP
69	Ectocarpus sp.2b	NAP12-12			10	S: Scytosiphon	Mor, Seq		LM995013	Ectocarpaceae	RN Ec	AFP	AFP
70	Ectocarpus crouaniorum Thuret in Le Jolis 2c	Ec318			Cherbourg, France	S: Scytosiphon	Hist	Peters *et al.* (2010a)	LM995014	Ectocarpaceae	RN Ec	AFP	AFP
71	Ectocarpus subulatus Kützing 2d	BRI08-03	PC0534068		Pill, Somerset, England, 24 Jun 2008	S: mud	Mor, Seq		LM995015	Ectocarpaceae	RN Ec Sub	AFP	AFP
72	Ectocarpus sp.3 US	Ec666			Falmouth, Massachusetts, USA, 2009	Drift	Mor, Seq		LM995016	Ectocarpaceae	RN Ec	D. Schroeder	AFP

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73	Ectocarpus sp.3 UK	SAM08-3			Dunstaffnage, Scotland, 2008	S: Scytosiphon	Mor, Seq		LM995017	Ectocarpaceae	RN Ec	AFP	AFP
74	Ectocarpus sp.4-NZ	Ec02			Kaikoura, New Zealand, 1988	GAf	Hist	Stache-Crain *et al.* (1997)	LM995018	Ectocarpaceae	RN Ec	D.G. Müller	D.G. Müller
75	Ectocarpus sp.4-AUS	Ec06			Victoria, Australia, 1988	GAm	Hist	Stache-Crain *et al.* (1997)	LM995019	Ectocarpaceae	RN Ec	D.G. Müller	D.G. Müller
76	Ectocarpus sp.5a-SCO	WIC08-12			Wick, Scotland, 2008	S: Corallina	Mor, Seq		LM995020	Ectocarpaceae	RN Ec	AFP	AFP
77	Ectocarpus sp.5a-ENG	BUT08-36			Berwick-upon-Tweed, England, 2008	S: Scytosiphon	Mor, Seq		LM995021	Ectocarpaceae	RN Ec	AFP	AFP
78	Ectocarpus fasciculatus Harvey 5b	Ec736	PC0534069		05; 21 Aug 2009	S: Saccorhiza polyschides	Mor, Seq		LM995022	Ectocarpaceae	RN Ec	AFP	AFP
79	Ectocarpus fasciculatus5b	BLZ11-02		EI	01		Seq		LM995023	Ectocarpaceae	Sub	AFP	AFP
80	Hincksia hincksiae	BLZ11-03		EI	01		Seq		LM995024	PHF group	Sub	AFP	AFP
81	Hincksia granulosa	BLZ11-05		EI	01		Seq		LM995025	PHF group	Sub	AFP	AFP
82	Punctaria latifolia	BLZ11-06		EI	01		no ID		LM995026	Chordariaceae	Sub	AFP	AFP
83	Ectocarpus fasciculatus5b	BLZ11-08		EI	01		Seq		LM995027	Ectocarpaceae	Sub	AFP	AFP
84	Hincksia granulosa	BLZ11-09		EI	01		Seq		LM995028	PHF group	Sub	AFP	AFP
85	Hincksia granulosa	BLZ11-10		EI	01		Seq		LM995029	PHF group	Sub	AFP	AFP
86	Myrionema strangulans	BLZ11-11		EI	01		Seq		LM995030	Chordariaceae	Sub	AFP	AFP
87	Chordariaceae, unidentified species 18	BLZ11-12		EI	01		no ID		LM995031	Chordariaceae	Sub	AFP	AFP
88	Hincksia granulosa	BLZ11-13		EI	02	S: rock	Mor		LM995032	PHF group	MA	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

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89	Striaria attenuata	BLZ11-15		EI	01		Seq		LM995033	Chordariaceae	Sub	AFP	AFP
90	Hincksia granulosa	BLZ11-16		EI	01		Seq		LM995034	PHF group	Sub	AFP	AFP
91	Ectocarpus fasciculatus5b	BLZ11-18		EI	01		Seq		LM995035	Ectocarpaceae	Sub	AFP	AFP
92	Ectocarpus fasciculatus5b	BLZ11-19		EI	01		Seq		LM995036	Ectocarpaceae	Sub	AFP	AFP
93	Ectocarpus fasciculatus5b	BLZ11-20		EI	01		Seq		LM995037	Ectocarpaceae	Sub	AFP	AFP
94	Ectocarpus fasciculatus5b	BLZ11-21		EI	01		Seq		LM995038	Ectocarpaceae	Sub	AFP	AFP
95	Ectocarpus fasciculatus5b	BLZ11-23		EI	01		Seq		LM995039	Ectocarpaceae	Sub	AFP	AFP
96	PHF cluster, unidentified species 37	BLZ11-25		EI	01		no ID		LM995040	PHF group	Sub	AFP	AFP
97	Ectocarpus siliculosus1a	BLZ11-27		EI	01		Seq		LM995041	Ectocarpaceae	Sub	AFP	AFP
98	Ectocarpus fasciculatus5b	BLZ11-28		EI	01		Seq		LM995042	Ectocarpaceae	Sub	AFP	AFP
99	Hincksia granulosa	BLZ11-29		EI	01		Seq		LM995043	PHF group	Sub	AFP	AFP
100	Hincksia granulosa	BLZ11-30		EI	01		Seq		LM995044	PHF group	Sub	AFP	AFP
101	Ectocarpus siliculosus1a	BLZ11-31		EI	01		Seq		LM995045	Ectocarpaceae	Sub	AFP	AFP
102	Pylaiella littoralis sibling sp. 1	BLZ11-32		EI	01		Seq		LM995046	PHF group	Sub	AFP	AFP
103	Hincksia hincksiae	BLZ11-33		EI	01		Seq		LM995047	PHF group	Sub	AFP	AFP
104	Laminariocolax aecidioides (Rosenvinge) Peters	BLZ11-35		EI	03		Seq		LM995048	Chordariaceae	Sub	AFP	AFP
105	Myrionema strangulans	BLZ11-36		EI	03		Seq		LM995049	Chordariaceae	Sub	AFP	AFP
106	Hincksia granulosa	BLZ11-37		EI	03		Seq		LM995050	PHF group	Sub	AFP	AFP
107	Hincksia hincksiae	BLZ11-38		EI	03		Seq		LM995051	PHF group	Sub	AFP	AFP
108	Hincksia granulosa	BLZ11-39		EI	03		Seq		LM995052	PHF group	Sub	AFP	AFP
109	Hecatonema maculans	BLZ11-41		EI	03		Seq		LM995053	Hecatonema cluster	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S;); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10,)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
110	Hecatonema maculans	BLZ11-42		EI	03		Seq		LM995054	Hecatonema cluster	Sub	AFP	AFP
111	Hecatonema maculans	BLZ11-43		EI	03		Seq		LM995055	Hecatonema cluster	Sub	AFP	AFP
112	Ectocarpus crouaniorum2c	BLZ11-44		EI	03		Seq		LM995056	Ectocarpaceae	Sub	AFP	AFP
113	Hincksia granulosa	BLZ11-45		EI	03		Seq		LM995057	PHF group	Sub	AFP	AFP
114	Ectocarpus siliculosus1a	BLZ11-47		EI	03		Seq		LM995058	Ectocarpaceae	Sub	AFP	AFP
115	Hincksia granulosa	BLZ11-48		EI	03		Seq		LM995059	PHF group	Sub	AFP	AFP
116	PHF cluster, unidentified species 37	BLZ11-49		EI	03		no ID		LM995060	PHF group	Sub	AFP	AFP
117	Chordariaceae, unidentified species 09	BLZ11-50		EI	03		no ID		LM995061	Chordariaceae	Sub	AFP	AFP
118	Ectocarpus siliculosus1a	BLZ11-51		EI	03		Seq		LM995062	Ectocarpaceae	Sub	AFP	AFP
119	Pylaiella littoralis sibling sp. 1	BLZ11-52		EI	03		Seq		LM995063	PHF group	Sub	AFP	AFP
120	PHF cluster, unidentified species 37	BLZ11-53		EI	03		no ID		LM995064	PHF group	Sub	AFP	AFP
121	Myrionema strangulans	BLZ11-54		EI	03		Seq		LM995065	Chordariaceae	Sub	AFP	AFP
122	Ectocarpus siliculosus1a	BLZ11-55		EI	03		Seq		LM995066	Ectocarpaceae	Sub	AFP	AFP
123	Hecatonema maculans	BLZ11-58		EI	03		Seq		LM995067	Hecatonema cluster	Sub	AFP	AFP
124	Hecatonema maculans	BLZ11-59		EI	03		Seq		LM995068	Hecatonema cluster	Sub	AFP	AFP
125	Hincksia granulosa	BLZ11-60		EI	03		Seq		LM995069	PHF group	Sub	AFP	AFP
126	Acinetospora cluster, unidentified species 40	BLZ11-61		EI	03		no ID		LM995070	Acinetospora group	Sub	AFP	AFP
127	Hincksia hincksiae	BLZ11-63		EI	03		Seq		LM995071	PHF group	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S.); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
128	Myrionema strangulans	BLZ11-64		EI	03		Seq		LM995072	Chordariaceae	Sub	AFP	AFP
129	Ectocarpus siliculosus1a	BLZ11-65		EI	03		Seq		LM995073	Ectocarpaceae	Sub	AFP	AFP
130	Ectocarpus fasciculatus5b	BLZ11-66		EI	03		Seq		LM995074	Ectocarpaceae	Sub	AFP	AFP
131	Hincksia granulosa	BLZ11-67		EI	03		Seq		LM995075	PHF group	Sub	AFP	AFP
132	Myrionema strangulans	BLZ11-68		EI	03		Seq		LM995076	Chordariaceae	Sub	AFP	AFP
133	Myrionema strangulans	BLZ11-69		EI	03		Seq		LM995077	Chordariaceae	Sub	AFP	AFP
134	Ectocarpus siliculosus1a	BLZ11-70		EI	03		Seq		LM995078	Ectocarpaceae	Sub	AFP	AFP
135	Hecatonema maculans	BLZ11-71		EI	03		Seq		LM995079	Hecatonema cluster	Sub	AFP	AFP
136	Microspongium tenuissimum	BLZ11-72		EI	03		Seq		LM995080	Chordariaceae	Sub	AFP	AFP
137	Hincksia granulosa	BLZ11-73		EI	03		Seq		LM995081	PHF group	Sub	AFP	AFP
138	Hincksia granulosa	BLZ11-74		EI	03		Seq		LM995082	PHF group	Sub	AFP	AFP
139	Ectocarpus fasciculatus5b	BLZ11-75		EI	03		Seq		LM995083	Ectocarpaceae	Sub	AFP	AFP
140	Myriotrichia claviformis	BLZ11-76		EI	03		Seq		LM995084	Chordariaceae	Sub	AFP	AFP
141	Hincksia granulosa	BLZ11-77		EI	03		Seq		LM995085	PHF group	Sub	AFP	AFP
142	Ectocarpus siliculosus1a	BLZ11-78		EI	03		Seq		LM995086	Ectocarpaceae	Sub	AFP	AFP
143	Hecatonema maculans	BLZ11-79		EI	03		Seq		LM995087	Hecatonema cluster	Sub	AFP	AFP
144	Hincksia granulosa	BLZ11-80		EI	03		Seq		LM995088	PHF group	Sub	AFP	AFP
145	Myrionema strangulans	BLZ11-81		EI	03		Seq		LM995089	Chordariaceae	Sub	AFP	AFP
146	Hincksia granulosa	BLZ11-83		EI	03		Seq		LM995090	PHF group	Sub	AFP	AFP
147	Hecatonema maculans	BLZ11-84		EI	03		Seq		LM995091	Hecatonema cluster	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
148	Chordariaceae, unidentified species 14	BLZ11-86		EI	03		no ID		LM995092	Chordariaceae	Sub	AFP	AFP
149	Ectocarpus fasciculatus5b	BLZ11-87		EI	03		Seq		LM995093	Ectocarpaceae	Sub	AFP	AFP
150	Microspongium tenuissimum	BLZ11-88		EI	03		Seq		LM995094	Chordariaceae	Sub	AFP	AFP
151	Hincksia granulosa	BLZ11-89		EI	03		Seq		LM995095	PHF group	Sub	AFP	AFP
152	PHF cluster, unidentified species 37	BLZ11-91		EI	03		no ID		LM995096	PHF group	Sub	AFP	AFP
153	Acinetospora cluster, unidentified species 43	BLZ11-92		EI	03		no ID		LM995097	Acinetospora group	Sub	AFP	AFP
154	Pylaiella littoralis sibling sp. 1	BLZ11-93		EI	03		Seq		LM995098	PHF group	Sub	AFP	AFP
155	Chordariaceae, unidentified species 18	BLZ11-94		EI	03		no ID		LM995099	Chordariaceae	Sub	AFP	AFP
156	Chordariaceae, unidentified species 14	BLZ11-95		EI	03		no ID		LM995100	Chordariaceae	Sub	AFP	AFP
157	Chordariaceae, unidentified species 10	BLZ11-96		EI	03		no ID		LM995101	Chordariaceae	Sub	AFP	AFP
158	Hecatonema maculans	BLZ11-97		EI	03		Seq		LM995102	Hecatonema cluster	Sub	AFP	AFP
159	Ectocarpus siliculosus1a	BLZ11-99		EI	03		Seq		LM995103	Ectocarpaceae	Sub	AFP	AFP
160	Hincksia granulosa	BLZ11-100		EI	03		Seq		LM995104	PHF group	Sub	AFP	AFP
161	Hecatonema maculans	BLZ11-101		EI	03		Seq		LM995105	Hecatonema cluster	Sub	AFP	AFP
162	Hincksia granulosa	BLZ11-102		EI	03		Seq		LM995106	PHF group	Sub	AFP	AFP
163	Chordariaceae, unidentified species 22	BLZ11-103		EI	03		no ID		LM995107	Chordariaceae	Sub	AFP	AFP
164	Hecatonema maculans	BLZ11-105		EI	03		Seq		LM995108	Hecatonema cluster	Sub	AFP	AFP
165	Hecatonema maculans	BLZ11-106		EI	03		Seq		LM995109	Hecatonema cluster	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10,)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
166	Hecatonema maculans	BLZ11-109		EI	03		Seq		LM995110	Hecatonema cluster	Sub	AFP	AFP
167	Ectocarpus fasciculatus5b	BLZ11-110		EI	03		Seq		LM995111	Ectocarpaceae	Sub	AFP	AFP
168	Hincksia granulosa	BLZ11-112		EI	03		Seq		LM995112	PHF group	Sub	AFP	AFP
169	Hincksia granulosa	BLZ11-113		EI	03		Seq		LM995113	PHF group	Sub	AFP	AFP
170	Pylaiella littoralis sibling sp. 2	BLZ11-114		EI	03		Seq		LM995114	PHF group	Sub	AFP	AFP
171	Ectocarpus siliculosus1a	BLZ11-115		EI	03		Seq		LM995115	Ectocarpaceae	Sub	AFP	AFP
172	Ectocarpus crouaniorum2c	BLZ11-117		EI	03		Seq		LM995116	Ectocarpaceae	Sub	AFP	AFP
173	Chordariaceae, unidentified species 10	BLZ11-118		EI	03		no ID		LM995117	Chordariaceae	Sub	AFP	AFP
174	Hincksia granulosa	BLZ11-119		EI	03		Seq		LM995118	PHF group	Sub	AFP	AFP
175	Ectocarpus siliculosus1a	BLZ11-120		EI	03		Seq		LM995119	Ectocarpaceae	Sub	AFP	AFP
176	Hecatonema maculans	BLZ11-122		EI	03		Seq		LM995120	Hecatonema cluster	Sub	AFP	AFP
177	Petalonia fascia	BLZ11-124		EI	03		Seq		LM995121	Scytosiphonaceae	Sub	AFP	AFP
178	Hincksia granulosa	BLZ11-125		EI	03		Seq		LM995122	PHF group	Sub	AFP	AFP
179	Myriotrichia claviformis	BLZ11-126		EI	03		Seq		LM995123	Chordariaceae	Sub	AFP	AFP
180	Ectocarpus siliculosus1a	BLZ11-127		EI	03		Seq		LM995124	Ectocarpaceae	Sub	AFP	AFP
181	Myrionema strangulans	BLZ11-131		EI	03		Seq		LM995125	Chordariaceae	Sub	AFP	AFP
182	Ectocarpus siliculosus1a	BLZ11-132		EI	03		Seq		LM995126	Ectocarpaceae	Sub	AFP	AFP
183	Myrionema strangulans	BLZ11-133		EI	03		Seq		LM995127	Chordariaceae	Sub	AFP	AFP
184	Myriotrichia claviformis	BLZ11-134		EI	03		Seq		LM995128	Chordariaceae	Sub	AFP	AFP
185	Petalonia fascia	BLZ11-136		EI	03		Seq		LM995129	Scytosiphonaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S.); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
186	Microspongium tenuissimum	BLZ11-137		EI	03		Seq		LM995130	Chordariaceae	Sub	AFP	AFP
187	Ectocarpus crouaniorum2c	BLZ11-138		EI	03		Seq		LM995131	Ectocarpaceae	Sub	AFP	AFP
188	Punctaria latifolia	BLZ11-139		EI	03		Seq		LM995132	Chordariaceae	Sub	AFP	AFP
189	Hecatonema maculans	BLZ11-140		EI	03		Seq		LM995133	Hecatonema cluster	Sub	AFP	AFP
190	Ectocarpus fasciculatus5b	BLZ11-141		EI	03		Seq		LM995134	Ectocarpaceae	Sub	AFP	AFP
191	Ectocarpus siliculosus1a	BLZ11-142		EI	03		Seq		LM995135	Ectocarpaceae	Sub	AFP	AFP
192	Myriotrichia claviformis	BLZ11-143		EI	03		Seq		LM995136	Chordariaceae	Sub	AFP	AFP
193	Hecatonema maculans	BLZ11-144		EI	03		Seq		LM995137	Hecatonema cluster	Sub	AFP	AFP
194	Microspongium tenuissimum	BLZ11-146		EI	03		Seq		LM995138	Chordariaceae	Sub	AFP	AFP
195	Hincksia granulosa	BLZ11-147		EI	03		Seq		LM995139	PHF group	Sub	AFP	AFP
196	Pylaiella littoralis sibling sp. 1	BLZ11-148		EI	03		Seq		LM995140	PHF group	Sub	AFP	AFP
197	Chordariaceae, unidentified species 09	BLZ11-149		EI	03		no ID		LM995141	Chordariaceae	Sub	AFP	AFP
198	Ectocarpus fasciculatus5b	BLZ11-150		EI	03		Seq		LM995142	Ectocarpaceae	Sub	AFP	AFP
199	Hecatonema maculans	BLZ11-151		EI	03		Seq		LM995143	Hecatonema cluster	Sub	AFP	AFP
200	Myrionema strangulans	BLZ11-152		EI	03		Seq		LM995144	Chordariaceae	Sub	AFP	AFP
201	Hecatonema maculans	BLZ11-153		EI	03		Seq		LM995145	Hecatonema cluster	Sub	AFP	AFP
202	Microspongium tenuissimum	BLZ11-154		EI	03		Seq		LM995146	Chordariaceae	Sub	AFP	AFP
203	Hincksia hincksiae	BLZ11-155		EI	03		Seq		LM995147	PHF group	Sub	AFP	AFP
204	Myrionema strangulans	BLZ11-156		EI	03		Seq		LM995148	Chordariaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S.); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
205	Ectocarpus siliculosus1a	BLZ11-157		EI	03		Seq		LM995149	Ectocarpaceae	Sub	AFP	AFP
206	Petalonia fascia	BLZ11-159		EI	03		Seq		LM995150	Scytosiphonaceae	Sub	AFP	AFP
207	Hincksia granulosa	BLZ11-161		EI	03		Seq		LM995151	PHF group	Sub	AFP	AFP
208	Ectocarpus siliculosus1a	BLZ11-162		EI	03		Seq		LM995152	Ectocarpaceae	Sub	AFP	AFP
209	Hecatonema maculans	BLZ11-163		EI	03		Seq		LM995153	Hecatonema cluster	Sub	AFP	AFP
210	Ectocarpus fasciculatus5b	BLZ11-164		EI	03		Seq		LM995154	Ectocarpaceae	Sub	AFP	AFP
211	Hincksia granulosa	BLZ11-165		EI	03		Seq		LM995155	PHF group	Sub	AFP	AFP
212	Acinetospora cluster, unidentified species 40	BLZ11-166		EI	03		no ID		LM995156	Acinetospora group	Sub	AFP	AFP
213	Hincksia hincksiae	BLZ11-167		EI	03		Seq		LM995157	PHF group	Sub	AFP	AFP
214	Hecatonema maculans	BLZ11-168		EI	03		Seq		LM995158	Hecatonema cluster	Sub	AFP	AFP
215	Hincksia hincksiae	BLZ11-169		EI	03		Seq		LM995159	PHF group	Sub	AFP	AFP
216	Hincksia granulosa	BLZ11-170		EI	03		Seq		LM995160	PHF group	Sub	AFP	AFP
217	Myrionema strangulans	BLZ11-171		EI	03		Seq		LM995161	Chordariaceae	Sub	AFP	AFP
218	Myriotrichia claviformis	BLZ11-172		EI	03		Seq		LM995162	Chordariaceae	Sub	AFP	AFP
219	Ectocarpus siliculosus1a	BLZ11-174		EI	03		Seq		LM995163	Ectocarpaceae	Sub	AFP	AFP
220	Hecatonema maculans	BLZ11-176		EI	03		Seq		LM995164	Hecatonema cluster	Sub	AFP	AFP
221	PHF cluster, unidentified species 37	BLZ11-177		EI	03		Seq		LM995165	PHF group	Sub	AFP	AFP
222	Myrionema strangulans	BLZ11-178		EI	03		Seq		LM995166	Chordariaceae	Sub	AFP	AFP
223	Ectocarpus siliculosus1a	BLZ11-179		EI	03		Seq		LM995167	Ectocarpaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
224	Ectocarpaceae, unidentified species 05	BLZ11-180	PC0534070	EI	03; 01 Sep 2011	emerged from incubated substratum	Mor, Seq		LM995168	Ectocarpaceae	Sub	AFP	AFP
225	Myrionema strangulans	BLZ11-181		EI	03		Seq		LM995169	Chordariaceae	Sub	AFP	AFP
226	Hincksia granulosa	BLZ11-182		EI	03		Seq		LM995170	PHF group	Sub	AFP	AFP
227	Ectocarpus siliculosus1a	BLZ11-183		EI	03		Seq		LM995171	Ectocarpaceae	Sub	AFP	AFP
228	Hecatonema maculans	BLZ11-184		EI	03		Seq		LM995172	Hecatonema cluster	Sub	AFP	AFP
229	Ectocarpus siliculosus1a	BLZ11-185		EI	03		Seq		LM995173	Ectocarpaceae	Sub	AFP	AFP
230	Hincksia granulosa	BLZ11-186		EI	03		Seq		LM995174	PHF group	Sub	AFP	AFP
231	Acinetospora crinita (Carmichael) Sauvageau	BLZ11-187		EI	03		Seq		LM995175	Acinetospora group	Sub	AFP	AFP
232	Ectocarpus siliculosus1a	BLZ11-188		EI	03		Seq		LM995176	Ectocarpaceae	Sub	AFP	AFP
233	PHF cluster, unidentified species 37	BLZ11-190		EI	03		no ID		LM995177	PHF group	Sub	AFP	AFP
234	Hecatonema maculans	BLZ11-191		EI	03		Seq		LM995178	Hecatonema cluster	Sub	AFP	AFP
235	Ectocarpus fasciculatus5b	BLZ11-192		EI	03		Seq		LM995179	Ectocarpaceae	Sub	AFP	AFP
236	Myrionema strangulans	BLZ11-193		EI	03		Seq		LM995180	Chordariaceae	Sub	AFP	AFP
237	Hincksia hincksiae	BLZ11-194		EI	03		Seq		LM995181	PHF group	Sub	AFP	AFP
238	Ectocarpus fasciculatus5b	BLZ11-195		EI	03		Seq		LM995182	Ectocarpaceae	Sub	AFP	AFP
239	Hincksia hincksiae	BLZ11-196		EI	03		Seq		LM995183	PHF group	Sub	AFP	AFP
240	Hecatonema maculans	BLZ11-197		EI	03		Seq		LM995184	Hecatonema cluster	Sub	AFP	AFP
241	Myrionema strangulans	BLZ11-198		EI	03		Seq		LM995185	Chordariaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10,)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
242	Myrionema strangulans	BLZ11-199		EI	03		Seq		LM995186	Chordariaceae	Sub	AFP	AFP
243	Hincksia granulosa	BLZ11-201		EI	03		Seq		LM995187	PHF group	Sub	AFP	AFP
244	Acinetospora cluster, unidentified species 40	BLZ11-202		EI	03		no ID		LM995188	Acinetospora group	Sub	AFP	AFP
245	Punctaria latifolia	BLZ11-203		EI	03		Seq		LM995189	Chordariaceae	Sub	AFP	AFP
246	Myrionema strangulans	BLZ11-204		EI	03		Seq		LM995190	Chordariaceae	Sub	AFP	AFP
247	Ectocarpus fasciculatus5b	BLZ11-205		EI	03		Seq		LM995191	Ectocarpaceae	Sub	AFP	AFP
248	Hincksia granulosa	BLZ11-206		EI	03		Seq		LM995192	PHF group	Sub	AFP	AFP
249	Ectocarpus siliculosus1a	BLZ11-207		EI	03		Seq		LM995193	Ectocarpaceae	Sub	AFP	AFP
250	Hecatonema maculans	BLZ11-209		EI	03		Seq		LM995194	Hecatonema cluster	Sub	AFP	AFP
251	Hincksia granulosa	BLZ11-210		EI	03		Seq		LM995195	PHF group	Sub	AFP	AFP
252	Myrionema strangulans	BLZ11-211		EI	03		Seq		LM995196	Chordariaceae	Sub	AFP	AFP
253	Feldmannia globifera	BLZ11-213		EI	03		Seq		LM995197	Acinetospora group	Sub	AFP	AFP
254	Hincksia granulosa	BLZ11-214		EI	03		Seq		LM995198	PHF group	Sub	AFP	AFP
255	Hincksia hincksiae	BLZ11-215		EI	03		Seq		LM995199	PHF group	Sub	AFP	AFP
256	Ectocarpus fasciculatus5b	BLZ11-218		EI	03		Seq		LM995200	Ectocarpaceae	Sub	AFP	AFP
257	Myrionema strangulans	BLZ11-219		EI	03		Seq		LM995201	Chordariaceae	Sub	AFP	AFP
258	PHF cluster, unidentified species 37	BLZ11-220		EI	03		no ID		LM995202	PHF group	Sub	AFP	AFP
259	Ectocarpus siliculosus1a	BLZ11-221		EI	03		Seq		LM995203	Ectocarpaceae	Sub	AFP	AFP
260	Ectocarpus fasciculatus5b	BLZ11-222		EI	03		Seq		LM995204	Ectocarpaceae	Sub	AFP	AFP
261	Microspongium tenuissimum	BLZ11-223		EI	03		Seq		LM995205	Chordariaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
262	Hecatonema maculans	BLZ11-224		EI	03		Seq		LM995206	Hecatonema cluster	Sub	AFP	AFP
263	Ectocarpus siliculosus1a	BLZ11-225		EI	03		Seq		LM995207	Ectocarpaceae	Sub	AFP	AFP
264	Hincksia hincksiae	BLZ11-226		EI	03		Seq		LM995208	PHF group	Sub	AFP	AFP
265	Ectocarpus fasciculatus5b	BLZ11-227		EI	03		Seq		LM995209	Ectocarpaceae	Sub	AFP	AFP
266	Ectocarpus siliculosus1a	BLZ11-229		EI	03		Seq		LM995210	Ectocarpaceae	Sub	AFP	AFP
267	Scytosiphon lomentaria	BLZ11-231		EI	03		Seq		LM995211	Scytosiphonaceae	Sub	AFP	AFP
268	Myrionema strangulans	BLZ11-232		EI	03		Seq		LM995212	Chordariaceae	Sub	AFP	AFP
269	Myrionema strangulans	BLZ11-233		EI	03		Seq		LM995213	Chordariaceae	Sub	AFP	AFP
270	Hincksia granulosa	BLZ11-234		EI	03		Seq		LM995214	PHF group	Sub	AFP	AFP
271	PHF cluster, unidentified species 37	BLZ11-236		EI	03		no ID		LM995215	PHF group	Sub	AFP	AFP
272	Ectocarpus siliculosus1a	BLZ11-238		EI	03		Seq		LM995216	Ectocarpaceae	Sub	AFP	AFP
273	Hecatonema maculans	BLZ11-239		EI	03		Seq		LM995217	Hecatonema cluster	Sub	AFP	AFP
274	Ectocarpus crouaniorum2c	BLZ11-241		EI	03		Seq		LM995218	Ectocarpaceae	Sub	AFP	AFP
275	Hecatonema maculans	BLZ11-242		EI	03		Seq		LM995219	Hecatonema cluster	Sub	AFP	AFP
276	Chordariaceae, unidentified species 10	BLZ11-243		EI	03		no ID		LM995220	Chordariaceae	Sub	AFP	AFP
277	Hincksia granulosa	BLZ11-244		EI	03		Seq		LM995221	PHF group	Sub	AFP	AFP
278	Hincksia granulosa	BLZ11-245		EI	03		Seq		LM995222	PHF group	Sub	AFP	AFP
279	Hecatonema maculans	BLZ11-246		EI	03		Seq		LM995223	Hecatonema cluster	Sub	AFP	AFP
280	Ectocarpus siliculosus1a	BLZ11-247		EI	03		Seq		LM995224	Ectocarpaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
281	Ectocarpus siliculosus1a	BLZ11-249		EI	03		Seq		LM995225	Ectocarpaceae	Sub	AFP	AFP
282	Chordariaceae, unidentified species 20	BLZ11-250		EI	03		no ID		LM995226	Chordariaceae	Sub	AFP	AFP
283	Ectocarpus fasciculatus5b	BLZ12-01		EI	04		Seq		LM995227	Ectocarpaceae	Sub	AFP	AFP
284	Hecatonema cluster, unidentified species 26	BLZ12-02		EI	04		no ID		LM995228	Hecatonema cluster	Sub	AFP	AFP
285	Ectocarpus fasciculatus5b	BLZ12-03		EI	04		Seq		LM995229	Ectocarpaceae	Sub	AFP	AFP
286	Myrionema strangulans	BLZ12-04		EI	04		Seq		LM995230	Chordariaceae	Sub	AFP	AFP
287	Hecatonema cluster, unidentified species 26	BLZ12-06		EI	04		no ID		LM995231	Hecatonema cluster	Sub	AFP	AFP
288	PHF cluster, unidentified species 37	BLZ12-07		EI	04		no ID		LM995232	PHF group	Sub	AFP	AFP
289	Myrionema strangulans	BLZ12-08		EI	04		Seq		LM995233	Chordariaceae	Sub	AFP	AFP
290	Chordariaceae, unidentified species 10	BLZ12-09		EI	04		no ID		LM995234	Chordariaceae	Sub	AFP	AFP
291	Ectocarpus fasciculatus5b	BLZ12-10		EI	04		Seq		LM995235	Ectocarpaceae	Sub	AFP	AFP
292	Ectocarpus siliculosus1a	BLZ12-11		EI	04		Seq		LM995236	Ectocarpaceae	Sub	AFP	AFP
293	Chordariaceae, unidentified species 09	BLZ12-12		EI	04		no ID		LM995237	Chordariaceae	Sub	AFP	AFP
294	Ectocarpus crouaniorum2c	BLZ12-13		EI	04		Seq		LM995238	Ectocarpaceae	Sub	AFP	AFP
295	Chordariaceae, unidentified species 10	BLZ12-14		EI	04		no ID		LM995239	Chordariaceae	Sub	AFP	AFP
296	Hincksia granulosa	BLZ12-15		EI	04		Seq		LM995240	PHF group	Sub	AFP	AFP
297	PHF cluster, unidentified species 37	BLZ12-16		EI	04		no ID		LM995241	PHF group	Sub	AFP	AFP
298	Ectocarpus fasciculatus5b	BLZ12-17		EI	04		Seq		LM995242	Ectocarpaceae	Sub	AFP	AFP
299	Myrionema strangulans	BLZ12-18		EI	04		Seq		LM995243	Chordariaceae	Sub	AFP	AFP
300	PHF cluster, unidentified species 37	BLZ12-19		EI	04		no ID		LM995244	PHF group	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
301	Ectocarpus crouaniorum2c	BLZ12-20		EI	04		Seq		LM995245	Ectocarpaceae	Sub	AFP	AFP
302	Hincksia granulosa	BLZ12-21		EI	04		Seq		LM995246	PHF group	Sub	AFP	AFP
303	Hecatonema maculans	BLZ12-23		EI	04		Seq		LM995247	Hecatonema cluster	Sub	AFP	AFP
304	Chordariaceae, unidentified species 10	BLZ12-24		EI	04		no ID		LM995248	Chordariaceae	Sub	AFP	AFP
305	Chordariaceae, unidentified species 10	BLZ12-25		EI	04		no ID		LM995249	Chordariaceae	Sub	AFP	AFP
306	Hincksia granulosa	BLZ12-26		EI	04		Seq		LM995250	PHF group	Sub	AFP	AFP
307	Chordariaceae, unidentified species 13	BLZ12-27		EI	04		no ID		LM995251	Chordariaceae	Sub	AFP	AFP
308	Hecatonema maculans	BLZ12-28		EI	04		Seq		LM995252	Hecatonema cluster	Sub	AFP	AFP
309	Chordariaceae, unidentified species 09	BLZ12-29		EI	04		no ID		LM995253	Chordariaceae	Sub	AFP	AFP
310	Hecatonema maculans	BLZ12-30		EI	04		Seq		LM995254	Hecatonema cluster	Sub	AFP	AFP
311	Ectocarpus siliculosus1a	BLZ12-31		EI	04		Seq		LM995255	Ectocarpaceae	Sub	AFP	AFP
312	Hecatonema maculans	BLZ12-32		EI	04		Seq		LM995256	Hecatonema cluster	Sub	AFP	AFP
313	Chordariaceae, unidentified species 09	BLZ12-33		EI	04		no ID		LM995257	Chordariaceae	Sub	AFP	AFP
314	Ectocarpus siliculosus1a	BLZ12-35		EI	04		Seq		LM995258	Ectocarpaceae	Sub	AFP	AFP
315	Hecatonema maculans	BLZ12-37		EI	04		Seq		LM995259	Hecatonema cluster	Sub	AFP	AFP
316	Hecatonema cluster, unidentified species 27	BLZ12-38		EI	04		no ID		LM995260	Hecatonema cluster	Sub	AFP	AFP
317	Ectocarpus fasciculatus5b	BLZ12-39		EI	04		Seq		LM995261	Ectocarpaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
318	Chordariaceae, unidentified species 10	BLZ12-40		EI	04		no ID		LM995262	Chordariaceae	Sub	AFP	AFP
319	Ectocarpus siliculosus1a	BLZ12-41		EI	04		Seq		LM995263	Ectocarpaceae	Sub	AFP	AFP
320	Ectocarpus fasciculatus5b	BLZ12-42		EI	04		Seq		LM995264	Ectocarpaceae	Sub	AFP	AFP
321	Chordariaceae, unidentified species 10	BLZ12-43		EI	04		no ID		LM995265	Chordariaceae	Sub	AFP	AFP
322	Myrionema strangulans	PH10-74		EI	05	S: Scytosiphon	Seq		LM995266	Chordariaceae	Mi	AFP	AFP
323	Myriotrichia claviformis	PH11-45		EI	05		Seq		LM995267	Chordariaceae	Sub	AFP	AFP
324	PHF cluster, unidentified species 28	PH11-122A		EI	05	S: Scytosiphon	no ID		LM995268	PHF group	Mi	AFP	AFP
325	Acinetospora cluster, unidentified species 40	AcinetoPH13-0X		EI	05	S: Scytosiphon	no ID		LM995269	Acinetospora group	Mi	AFP	AFP
326	Pylaiella littoralis sibling sp. 2	Plit_PH13_03		EI	05		Mor		LM995270	PHF group	Sub	AFP	AFP
327	Chordariaceae, unidentified species 07	PH12-s#1-104		EI	05		no ID		LM995271	Chordariaceae	Sub	AFP	AFP
328	PHF cluster, unidentified species 28	PH12-s#1-106		EI	05		no ID		LM995272	PHF group	Sub	AFP	AFP
329	Acinetospora cluster, unidentified species 40	PH12-s#1-106A		EI	05		no ID		LM995273	Acinetospora group	Sub	AFP	AFP
330	Feldmannia globifera	PH12-s#1-134		EI	05		Seq		LM995274	Acinetospora group	Sub	AFP	AFP
331	PHF cluster, unidentified species 28	PH12-s#1-135		EI	05		no ID		LM995275	PHF group	Sub	AFP	AFP
332	Acinetospora cluster, unidentified species 40	PH12-s#1-135A		EI	05		no ID		LM995276	Acinetospora group	Sub	AFP	AFP
333	Feldmannia globifera	PH12-s#1-138A		EI	05		Seq		LM995277	Acinetospora group	Sub	AFP	AFP
334	Hecatonema maculans	PH12-s#1-162		EI	05		Seq		LM995278	Hecatonema cluster	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
335	Colpomenia peregrina	PH12-s#1-173A		EI	05		Seq		LM995279	Scytosiphonaceae	Sub	AFP	AFP
336	Punctaria latifolia	PH12-s#1-173B		EI	05		Seq		LM995280	Chordariaceae	Sub	AFP	AFP
337	Feldmannia globifera	PH12-s#1-189A		EI	05		Seq		LM995281	Acinetospora group	Sub	AFP	AFP
338	Chordariaceae, unidentified species 11	PH12-s#4-32		EI	05		no ID		LM995282	Chordariaceae	Sub	AFP	AFP
339	Ectocarpus subulatus2d	Ec243		EI	08		Seq		LM995283	Ectocarpaceae	Sub	AFP	AFP
340	Ectocarpus subulatus2d	Ec244		EI	08		Seq		LM995284	Ectocarpaceae	Sub	AFP	AFP
341	Feldmannia simplex (Crouan et Couan) Hamel	ISC12-noEc02		EI	09	S: rock	Mor, Seq		LM995285	PHF group	Mi	AFP	AFP
342	Feldmannia simplex	ISC12-noEc03	PC0534071	EI	09; 20 Mar 2012	S: rock	Mor		LM995286	PHF group	RN Mi	AFP	AFP
343	PHF cluster, unidentified species 35	ISC12-noEc05		EI	09	S: Scytosiphon	no ID		LM995287	Acinetospora group	Mi	AFP	AFP
344	Feldmannia simplex	ISC12-s#1-08		EI	09		Seq		LM995288	PHF group	Sub	AFP	AFP
345	PHF cluster, unidentified species 30	ISC12-s#1-09		EI	09		no ID		LM995289	PHF group	Sub	AFP	AFP
346	PHF cluster, unidentified species 28	ISC12-s#1-21		EI	09		no ID		LM995290	PHF group	Sub	AFP	AFP
347	PHF cluster, unidentified species 28	ISC12-s#1-24		EI	09		no ID		LM995291	PHF group	Sub	AFP	AFP
348	PHF cluster, unidentified species 29	ISC12-s#2-02		EI	09		no ID		LM995292	PHF group	Sub	AFP	AFP
349	PHF cluster, unidentified species 29	ISC12-s#2-05		EI	09		no ID		LM995293	PHF group	Sub	AFP	AFP
350	PHF cluster, unidentified species 28	ISC12-s#2-14A		EI	09		no ID		LM995294	PHF group	Sub	AFP	AFP
351	PHF cluster, unidentified species 28	ISC12-s#2-15		EI	09		no ID		LM995295	PHF group	Sub	AFP	AFP
352	Chordariaceae, unidentified species 21	ISC12-s#2-30		EI	09		no ID		LM995296	Chordariaceae	Sub	AFP	AFP
353	Chordariaceae, unidentified species 12	ISC12-s#2-42		EI	09		no ID		LM995297	Chordariaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
354	Hecatonema maculans	ISC12-s#2-48		EI	09		Seq		LM995298	Hecatonema cluster	Sub	AFP	AFP
355	Chordariaceae, unidentified species 08	ISC12-s#2-50		EI	09		no ID		LM995299	Chordariaceae	Sub	AFP	AFP
356	Kuckuckia lineage1	ISC12-s#2-07		EI	09		Seq		LM995300	Ectocarpaceae	Sub	AFP	AFP
357	Ectocarpus, unidentified species 04	ISC12-s#2-08		EI	09		no ID		LM995301	Ectocarpaceae	Sub	AFP	AFP
358	Ectocarpus, unidentified species 04	ISC12-s#2-09		EI	09		no ID		LM995302	Ectocarpaceae	Sub	AFP	AFP
359	Ectocarpus, unidentified species 04	ISC12-s#2-13		EI	09		no ID		LM995303	Ectocarpaceae	Sub	AFP	AFP
360	Ectocarpus, unidentified species 04	ISC12-s#2-14		EI	09		no ID		LM995304	Ectocarpaceae	Sub	AFP	AFP
361	Kuckuckia lineage3	ISC12-s#2-20		EI	09		Seq		LM995305	Ectocarpaceae	Sub	AFP	AFP
362	Ectocarpus, unidentified species 04	ISC12-s#2-21		EI	09		no ID		LM995306	Ectocarpaceae	Sub	AFP	AFP
363	Ectocarpus, unidentified species 04	ISC12-s#2-24		EI	09		no ID		LM995307	Ectocarpaceae	Sub	AFP	AFP
364	Kuckuckia lineage1	ISC12-s#2-28		EI	09		Seq		LM995308	Ectocarpaceae	Sub	AFP	AFP
365	Ectocarpus sp.2a	ISC12-s#2-29		EI	09		Seq		LM995309	Ectocarpaceae	Sub	AFP	AFP
366	Ectocarpus sp.2a	ISC12-s#2-35		EI	09		Seq		LM995310	Ectocarpaceae	Sub	AFP	AFP
367	Kuckuckia lineage1	ISC12-s#2-38		EI	09		Seq		LM995311	Ectocarpaceae	Sub	AFP	AFP
368	Ectocarpus, unidentified species 04	ISC12-s#2-39		EI	09		no ID		LM995312	Ectocarpaceae	Sub	AFP	AFP
369	Ectocarpus sp.2a	ISC12-s#2-40		EI	09		Seq		LM995313	Ectocarpaceae	Sub	AFP	AFP
370	Scytosiphon lomentaria	Slom_NAP12_6f		EI	10	GAf collected in nature	Mor		LM995314	Scytosiphonaceae	RN MA	AFP	AFP
371	PHF cluster, unidentified species 29	NAP12-03		EI	10	S: Mytilus	no ID		LM995315	PHF group	Mi	AFP	AFP
372	PHF cluster, unidentified species 28	NAP12-09		EI	10	S: Mytilus	no ID		LM995316	PHF group	Mi	AFP	AFP
373	Feldmannia mitchelliae, Mediterranean haplotype	NAP12-184		EI	10	S: Scytosiphon	Mor, Seq		LM995317	Acinetospora group	MA	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
374	Hecatonema maculans	NAP12-208		EI	10	S: nylon net	Seq		LM995318	Hecatonema cluster	Mi	AFP	AFP
375	Cutleria multifida	NAP12-noEc01		EI	10	GAf collected in nature	Mor		LM995319	Tilopteridales	RN MA	AFP	AFP
376	PHF cluster, unidentified species 29	NAP12-noEc03		EI	10	S: rock	no ID		LM995320	PHF group	Mi	AFP	AFP
377	PHF cluster, unidentified species 29	NAP12-noEc04		EI	10	S: rock	no ID		LM995321	PHF group	Mi	AFP	AFP
378	Feldmannia irregularis	NAP12-noEc06		EI	10	S: ponton	Seq		LM995322	Acinetospora group	MA	AFP	AFP
379	Feldmannia mitchelliae, Mediterranean haplotype	NAP12-noEc07		EI	10	S: ponton	Mor, Seq		LM995323	Acinetospora group	MA	AFP	AFP
380	Acinetospora cluster, unidentified species 39	NAP12-noEc24		EI	10	S: rope	no ID		LM995324	Acinetospora group	MA	AFP	AFP
381	Acinetospora cluster, unidentified species 39	NAP12-s#3-02		EI	10		no ID		LM995325	Acinetospora group	Sub	AFP	AFP
382	Acinetospora cluster, unidentified species 41	NAP12-s#3-16		EI	10		no ID		LM995326	Acinetospora group	Sub	AFP	AFP
383	Microspongium tenuissimum	NAP12-s#3-29		EI	10		Seq		LM995327	Chordariaceae	Sub	AFP	AFP
384	Halothrix lumbricalis	NAP12-s#3-30A		EI	10		Seq		LM995328	Chordariaceae	Sub	AFP	AFP
385	Punctaria latifolia	NAP12-s#3-42		EI	10		Seq		LM995329	Chordariaceae	Sub	AFP	AFP
386	Feldmannia globifera	NAP12-s#4-04		EI	10		Seq		LM995330	Acinetospora group	Sub	AFP	AFP
387	PHF cluster, unidentified species 29	NAP12-s#4-17		EI	10		no ID		LM995331	PHF group	Sub	AFP	AFP
388	Kuckuckia lineage1	NAP12-s#4-01		EI	10		Seq		LM995332	Ectocarpaceae	Sub	AFP	AFP
389	Kuckuckia lineage1	NAP12-s#4-02		EI	10		Seq		LM995333	Ectocarpaceae	Sub	AFP	AFP
390	Kuckuckia lineage1	NAP12-s#4-05		EI	10		Seq		LM995334	Ectocarpaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S;); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10,)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
391	Kuckuckia lineage1	NAP12-s#4-12		EI	10		Seq		LM995335	Ectocarpaceae	Sub	AFP	AFP
392	Kuckuckia lineage1	NAP12-s#4-13		EI	10		Seq		LM995336	Ectocarpaceae	Sub	AFP	AFP
393	Kuckuckia lineage1	NAP12-s#4-14		EI	10		Seq		LM995337	Ectocarpaceae	Sub	AFP	AFP
394	Ectocarpus sp.2a	EcNAP12-s#3-01		EI	10		Seq		LM995338	Ectocarpaceae	Sub	AFP	AFP
395	Ectocarpus sp.2a	EcNAP12-s#3-03		EI	10		Seq		LM995339	Ectocarpaceae	Sub	AFP	AFP
396	Ectocarpus sp.2a	EcNAP12-s#3-04		EI	10		Seq		LM995340	Ectocarpaceae	Sub	AFP	AFP
397	Ectocarpus sp.2a	EcNAP12-s#3-08		EI	10		Seq		LM995341	Ectocarpaceae	Sub	AFP	AFP
398	Ectocarpus sp.2a	EcNAP12-s#3-14		EI	10		Seq		LM995342	Ectocarpaceae	Sub	AFP	AFP
399	Ectocarpus sp.2b	EcNAP12-s#3-17		EI	10		Seq		LM995343	Ectocarpaceae	Sub	AFP	AFP
400	Ectocarpus sp.2a	EcNAP12-s#3-21		EI	10		Seq		LM995344	Ectocarpaceae	Sub	AFP	AFP
401	Ectocarpus siliculosus1a	EcNAP12-s#3-34		EI	10		Seq		LM995345	Ectocarpaceae	Sub	AFP	AFP
402	Ectocarpus sp.2a	EcNAP12-s#3-35		EI	10		Seq		LM995346	Ectocarpaceae	Sub	AFP	AFP
403	Ectocarpus sp.2a	EcNAP12-s#3-49		EI	10		Seq		LM995347	Ectocarpaceae	Sub	AFP	AFP
404	Ectocarpus sp.2a	EcNAP12-s#3-50		EI	10		Seq		LM995348	Ectocarpaceae	Sub	AFP	AFP
405	Ectocarpus sp.2a	EcNAP12-s#3-51		EI	10		Seq		LM995349	Ectocarpaceae	Sub	AFP	AFP
406	Ectocarpus sp.2a	EcNAP12-s#4-03		EI	10		Seq		LM995350	Ectocarpaceae	Sub	AFP	AFP
407	Ectocarpus sp.2a	EcNAP12-s#4-07		EI	10		Seq		LM995351	Ectocarpaceae	Sub	AFP	AFP
408	Ectocarpus sp.2a	EcNAP12-s#4-08		EI	10		Seq		LM995352	Ectocarpaceae	Sub	AFP	AFP
409	Ectocarpus sp.2a	EcNAP12-s#4-09		EI	10		Seq		LM995353	Ectocarpaceae	Sub	AFP	AFP
410	Ectocarpus sp.2a	EcNAP12-s#4-10		EI	10		Seq		LM995354	Ectocarpaceae	Sub	AFP	AFP
411	Ectocarpus sp.2a	EcNAP12-s#4-11		EI	10		Seq		LM995355	Ectocarpaceae	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
412	Ectocarpus sp.2a	EcNAP12-s#4-15		EI	10		Seq		LM995356	Ectocarpaceae	Sub	AFP	AFP
413	Ectocarpus sp.2a	EcNAP12-s#4-16		EI	10		Seq		LM995357	Ectocarpaceae	Sub	AFP	AFP
414	Ectocarpus sp.2a	EcNAP12-s#4-18		EI	10		Seq		LM995358	Ectocarpaceae	Sub	AFP	AFP
415	Ectocarpus sp.2a	EcNAP12-s#4-19		EI	10		Seq		LM995359	Ectocarpaceae	Sub	AFP	AFP
416	Ectocarpus sp.2a	EcNAP12-s#4-20		EI	10		Seq		LM995360	Ectocarpaceae	Sub	AFP	AFP
417	PHF cluster, unidentified species 35	GR11-01		EI	11	S: base of Polysiphonia	no ID		LM995361	Acinetospora group	Mi	AFP	AFP
418	Feldmannia irregularis	GR11-02		EI	11	S: base of Scytosiphon	Seq		LM995362	Acinetospora group	Mi	AFP	AFP
419	Kuckuckia lineage1	GR11-04		EI	11	S: Colpomenia peregrina	Seq		LM995363	Ectocarpaceae	Mi	AFP	AFP
420	PHF cluster, unidentified species 35	GR11-06		EI	11	ND	no ID		LM995364	Acinetospora group	Mi	AFP	AFP
421	Hecatonema cluster, unidentified species 23	GR11-11A		EI	12	S: drifting wood	no ID		LM995365	Hecatonema cluster	Mi	AFP	AFP
422	Hincksia granulosa	GR11-11B1		EI	12	S: drifting wood	Seq		LM995366	PHF group	Mi	AFP	AFP
423	PHF cluster, unidentified species 28	GR11-11B2		EI	12	S: drifting wood	no ID		LM995367	PHF group	Mi	AFP	AFP
424	Ectocarpus sp.2a	GR11-12A		EI	12	ND	Seq		LM995368	Ectocarpaceae	Mi	AFP	AFP
425	Acinetospora cluster, unidentified species 44	GR11-12B		EI	12	ND	no ID		LM995369	Acinetospora group	Mi	AFP	AFP
426	Acinetospora cluster, unidentified species 44	GR11-14		EI	12	S: ND	no ID		LM995370	Acinetospora group	MA	AFP	AFP
427	Feldmannia irregularis	GR11-27		EI	14	S: apex of Scytosiphon	Seq		LM995371	Acinetospora group	Mi	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
428	Ectocarpus sp.2a	GR11-28		EI	14	S: ND	Seq		LM995372	Ectocarpaceae	MA	AFP	AFP
429	Feldmannia irregularis	GR11-29A		EI	14	S: Nemacyctus flexuosus (C. Agardh) Kylin	Seq		LM995373	Acinetospora group	Mi	AFP	AFP
430	PHF cluster, unidentified species 36	GR11-29B		EI	14	S: Nemacyctus flexuosus	no ID		LM995374	Acinetospora group	Mi	AFP	AFP
431	Ectocarpus sp.2a	GR11-33		EI	14	S: stone	Seq		LM995375	Ectocarpaceae	MA	AFP	AFP
432	Ectocarpus sp.2a	GR11-36		EI	14	S: rock	Seq		LM995376	Ectocarpaceae	MA	AFP	AFP
433	Liebmannia leveillei	GR11-37		EI	14	S: Laurencia sp.	Mor		LM995377	Chordariaceae	MA	AFP	AFP
434	Ectocarpus sp.2a	GR11-38A1		EI	14	S: rock	Seq		LM995378	Ectocarpaceae	MA	AFP	AFP
435	Ectocarpus sp.2a	GR11-38B		EI	14	S: ND	Seq		LM995379	Ectocarpaceae	MA	AFP	AFP
436	Ectocarpus sp.2a	GR11-40		EI	16	S: rock	Seq		LM995380	Ectocarpaceae	MA	AFP	AFP
437	PHF cluster, unidentified species 33	GR11-41		EI	16	ND	no ID		LM995381	PHF group	Mi	AFP	AFP
438	PHF cluster, unidentified species 36	GR11-42		EI	16	S: ND	no ID		LM995382	Acinetospora group	MA	AFP	AFP
439	Hincksia granulosa	GR11-43		EI	16	S: rope	Seq		LM995383	PHF group	MA	AFP	AFP
440	PHF cluster, unidentified species 34	GR11-44		EI	16	S: Cladophora sp.; freshwater influence	no ID		LM995384	PHF group	Sub	AFP	AFP
441	Ectocarpus sp.2a	GR11-45		EI	16	S: rock	Seq		LM995385	Ectocarpaceae	MA	AFP	AFP
442	Ectocarpus sp.2a	GR11-46		EI	16	S: rock	Seq		LM995386	Ectocarpaceae	MA	AFP	AFP
443	Feldmannia irregularis	GR11-47		EI	16	S: rock	Seq		LM995387	Acinetospora group	MA	AFP	AFP
444	Ectocarpus sp.2a	GR11-48		EI	16	S: rock	Seq		LM995388	Ectocarpaceae	MA	AFP	AFP
445	Feldmannia irregularis	GR11-49		EI	16	S: base of Scytosiphon	Seq		LM995389	Acinetospora group	MA	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
446	Petalonia fascia	GR11-52A		EI	20	S: rope	Mor, Seq		LM995390	Scytosiphonaceae	MA	AFP	AFP
447	Hecatonema maculans	GR11-52B		EI	20	S: Petalonia fascia	Seq		LM995391	Hecatonema cluster	Mi	AFP	AFP
448	Halothrix lumbricalis	GR11-54		EI	20	S: base of Scytosiphon	Mor		LM995392	Chordariaceae	RN Mi	AFP	AFP
449	PHF cluster, unidentified species 36	GR11-60		EI	21	S: Gastropod	no ID		LM995393	Acinetospora group	Mi	AFP	AFP
450	Chordariaceae, unidentified species 17	GR11-64		EI	21	ND	no ID		LM995394	Chordariaceae	Mi	AFP	AFP
451	Ascocyclus orbicularis (J. Agardh) Kjellman	GR11-68		EI	21	S: green Posidonia oceanica leaf	Mor		LM995395	Hecatonema cluster	RN Mi	AFP	AFP
452	Chordariaceae, unidentified species 06	GR11-70		EI	20	S: base of Scytosiphon	no ID		LM995396	Chordariaceae	Mi	AFP	AFP
453	Chordariaceae, unidentified species 19	GR11-72		EI	22	S: Dictyota	no ID		LM995397	Chordariaceae	Mi	KT	AFP
454	PHF cluster, unidentified species 34	GR11-75		EI	22	ND	no ID		LM995398	PHF group	Mi	KT	AFP
455	PHF cluster, unidentified species 33	GR11-77		EI	23	S: Cystoseira	no ID		LM995399	PHF group	Mi	FCK	AFP
456	Feldmannia simplex	GR11-s#1-1		EI	13		Seq		LM995400	PHF group	Sub	AFP	AFP
457	Sphacelaria, unidentified species 02	GR11-s#2-3		EI	14		no ID		LM995401	Sphacelariales	Sub	AFP	AFP
458	PHF cluster, unidentified species 32	GR11-s#2-4		EI	14		no ID		LM995402	PHF group	Sub	AFP	AFP
459	PHF cluster, unidentified species 36	GR11-s#2-5		EI	14		no ID		LM995403	Acinetospora group	Sub	AFP	AFP
460	PHF cluster, unidentified species 28	GR11-s#2-6		EI	14		no ID		LM995404	PHF group	Sub	AFP	AFP
461	Acinetospora crinita	GR11-s#3-2		EI	15		Mor		LM995405	Acinetospora group	RN Sub	FCK	AFP
462	PHF cluster, unidentified species 33	GR11-s#4-1		EI	17		no ID		LM995406	PHF group	Sub	AFP	AFP
463	PHF cluster, unidentified species 29	GR11-s#4-2		EI	17		no ID		LM995407	PHF group	Sub	AFP	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
464	Liebmannia leveillei	GR11-s#4-6		EI	17		Seq		LM995408	Chordariaceae	Sub	AFP	AFP
465	PHF cluster, unidentified species 32	GR11-s#5-1		EI	18		no ID		LM995409	PHF group	Sub	FCK	AFP
466	Cutleria multifida	GR11-s#5-2B		EI	18		Seq		LM995410	Tilopteridales	Sub	FCK	AFP
467	PHF cluster, unidentified species 29	GR11-s#5-3		EI	18		no ID		LM995411	PHF group	Sub	FCK	AFP
468	Stictyosiphon soriferus	GR11-s#5-4		EI	18		Seq		LM995412	Chordariaceae	Sub	FCK	AFP
469	Striaria attenuata	GR11-s#5-6		EI	18		Seq		LM995413	Chordariaceae	Sub	FCK	AFP
470	Discosporangium mesarthrocarpum (Meneghini) Hauck	GR11-s#5-7		EI	18		Mor, Seq		LM995414	Discosporangiales	RN Sub	FCK	AFP
471	Stictyosiphon soriferus	GR11-s#6-4		EI	19		Seq		LM995415	Chordariaceae	Sub	FCK	AFP
472	PHF cluster, unidentified species 32	GR11-s#7-2		EI	22		no ID		LM995416	PHF group	Sub	FCK	AFP
473	Chordariaceae, unidentified species 15	GR11-s#7-4		EI	22		no ID		LM995417	Chordariaceae	Sub	FCK	AFP
474	Chordariaceae, unidentified species 16	GR11-s#7-5		EI	22		no ID		LM995418	Chordariaceae	Sub	FCK	AFP
475	PHF cluster, unidentified species 32	GR11-s#8-1		EI	23		no ID		LM995419	PHF group	Sub	KT	AFP
476	Striaria attenuata	GR11-s#8-2		EI	23		Seq		LM995420	Chordariaceae	Sub	KT	AFP
477	Verosphacela silvae Alongo, Cormaci et Furnari	GR11-s#8-3		EI	23		Mor, Seq		LM995421	Choristocarpales	RN Sub	KT	AFP
478	Asperococcus bullosus	GR11-s#8-4		EI	23		Seq		LM995422	Chordariaceae	Sub	KT	AFP
479	Chordariaceae, unidentified species 17	GR12-01		EI	27	S: Posidonia oceanica (Linnaeus) Delile, forming large mats at 20m depth	no ID		LM995423	Chordariaceae	Sub	FCK	AFP
480	Kuckuckia lineage1	GR12-02		EI	25	S: ND	Seq		LM995424	Ectocarpaceae	MA	FCK	AFP
481	Acinetospora crinita	GR12-03		EI	26	S: Sphacelaria tribuloides	Seq		LM995425	Acinetospora group	Mi	FCK	AFP

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Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence; MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
482	Acinetospora crinita	GR12-04		EI	25	S: ND	Seq		LM995426	Acinetospora group	MA	FCK	AFP
483	Feldmannia irregularis	GR12-05		EI	27	S: Posidonia oceanica (Linnaeus) Delile, forming large mats at 20m depth	Seq		LM995427	Acinetospora group	MA	FCK	AFP
484	Chordariaceae, unidentified species 17	GR12-06		EI	27	S: Posidonia oceanica (Linnaeus) Delile, forming large mats at 20m depth	no ID		LM995428	Chordariaceae	Sub	FCK	AFP
485	Chordariaceae, unidentified species 16	GR12-08		EI	28		no ID		LM995429	Chordariaceae	Sub	FCK	AFP
486	Striaria attenuata	GR12-09		EI	24	S: Cladosiphon mediterraneus Kützing	Seq		LM995430	Chordariaceae	Sub	FCK	AFP
487	Acinetospora cluster, unidentified species 42	GR12-10		EI	24	S: Cladosiphon mediterraneus	no ID		LM995431	Acinetospora group	Sub	FCK	AFP
488	Chordariaceae, unidentified species 17	GR12-12		EI	29		no ID		LM995432	Chordariaceae	Sub	FCK	AFP
489	Ectocarpaceae, unidentified species 03	CY12-01		EI	31		Mor, Seq		LM995433	Ectocarpaceae	Sub	FCK	AFP
490	Ectocarpaceae, unidentified species 03	CY12-03	PC0534072	EI	32; 06 Apr 2012	emerged from incubated substratum	Mor, Seq		LM995434	Ectocarpaceae	Sub	FCK	AFP
491	PHF cluster, unidentified species 31	CY12-04		EI	32		no ID		LM995435	PHF group	Sub	FCK	AFP
492	PHF cluster, unidentified species 32	CY12-05		EI	32		no ID		LM995436	PHF group	Sub	FCK	AFP
493	Cutleria multifida	CY12-06		EI	32		Seq		LM995437	Tilopteridales	Sub	FCK	AFP
494	Ectocarpaceae, unidentified species 03	CY12-07		EI	30		Mor, Seq		LM995438	Ectocarpaceae	Sub	FCK	AFP

Table 2. Algal strains and sequences used *(continued)*

Nr	Identity (according to present study)	Strain code	Herbarium specimen accession in PC	Environmental isolate (EI) obtained in present work; empty fields represent either public sequences or those of cultures available from previous collections	Collecting site/date (cf. Table 1 for site/date numbers for new environmental samples); NA=not applicable	Generation (GA=gametophyte, SP=sporophyte) and sex (f, m); substratum (S:); other comments	Evidence for identity: Hist=identified in previous works, Mor=morphological, Seq=by sequence comparison, no ID=no identification	Reference (for strains or sequences used in previous studies)	COI sequence accession; those beginning with LM are new	Classification (cf. Figs 4-10.)	Morphology of field thalli or other category. RG=Reference sequence from public data base; RN=new reference sequence: MA=macroscopic, Mi=microscopic, Endo=endophytic field thallus; RN Ec=new reference sequence from Ectocarpaceae; Sub=strain emerging from incubated substratum	Collector (initials if author of this paper)	Isolator (initials if author of this paper)
495	Acinetospora cluster, unidentified species 38	FCKJ11-01		EI	33		no ID		LM995439	Acinetospora group	Sub	FCK	AFP
496	Acinetospora cluster, unidentified species 42	FCKJ11-03		EI	33		no ID		LM995440	Acinetospora group	Sub	FCK	AFP
497	Ecklonia cava Kjellman	FCKJ11-04		EI	33		Seq		LM995441	Laminariales	Sub	FCK	AFP
498	Chordariaceae, unidentified species 06	FCKJ11-05		EI	33		no ID		LM995442	Chordariaceae	Sub	FCK	AFP
499	Hecatonema cluster, unidentified species 24	FCKJ11-09		EI	33		no ID		LM995443	Hecatonema cluster	Sub	FCK	AFP
500	Hecatonema cluster, unidentified species 25	FCKJ11-10		EI	33		no ID		LM995444	Hecatonema cluster	Sub	FCK	AFP