

Supplementary Materials

Algae 2020, 35(1): 33-43

<https://doi.org/10.4490/algae.2020.35.3.6>

Open Access



Supplementary Table S1. List of specimens used in molecular analyses

Species	Voucher	Collection information	cox1	rbcL
<i>Capreolia implexa</i> Guiry & Womersley	CNU056136	Shelly Beach, Warrnambool, Australia	KM204060	KM204081
<i>Gelidiophycus freshwateri</i> G. H. Boo, J. K. Park & S. M. Boo	CNU049947	Daecheon, Boryeong, Korea	JX891571	JX891603
<i>Gelidium adriaticum</i> C. Perrone, A. Bottalico, G. H. Boo & S. M. Boo	BAGR2591	Torre a Mare, Bari, Apulia, Italy; Sep 25, 2012	KU958469	KU958475
<i>Gelidium americanum</i> (W. R. Taylor) Santelices	SP469081	Pedra do Sal, Luis Correia, Brazil; Jun 26, 2013	KX574741	KX555615
<i>Gelidium arborescens</i> N. L. Gardner	UC93582	Carmel Bay, Monterey County, California, USA; May 17, 1897	NC_031836	KX423474
<i>Gelidium asperum</i> (C. Agardh) Greville	CNU037655	Nora Creina Bay, Australia	JX891567	-
<i>Gelidium asperum</i>	PtLons2	Point Lonsdale, Victoria, Australia	-	AY350782
<i>Gelidium australe</i> J. Agardh	GausPtMac-2	Port McDonnell, South Australia, Australia	KT920391	AY350783
<i>Gelidium bernabei</i> A. J. K. Millar & D. W. Freshwater	NSW-5	Gordons Bay, Clovelly, New South Wales, Australia	KT920392	AY352419
<i>Gelidium calidum</i> Jamas, Iha & Fujii	SP469077	Jauá Beach, Camaçari, Brazil; May 23, 2013	KX574739	KX555613
<i>Gelidium capense</i> (S. G. Gmelin) P. C. Silva	CNU026109	Clovelly, False Bay, Western Cape Prov., South Africa	HM629858	HM629818
<i>Gelidium carolinianum</i> C. Perrone, D. W. Freshwater, A. Bottalico, G. H. Boo & S. M. Boo	BAGR12109	Torre a Mare, Bari, Apulia, Italy; Oct 12, 2011	KU564063	KU564068
<i>Gelidium coreanum</i> K. M. Kim, I. K. Hwang, H. S. Yoon & S. M. Boo	CNU000127	Youngjin, Gangneung, Korea	JQ340419	JQ340391
<i>Gelidium corneum</i> (Hudson) J. V. Lamouroux	CNU026111	Morocco	HM629861	HM629821
<i>Gelidium coulteri</i> Harvey	CNU026167	Agate Beach, California, USA	HM629862	HM629822
<i>Gelidium crinale</i> (Hare ex Turner) Gaillon	G6292	Sidmouth, UK	JX096542	JX096520
<i>Gelidium declerckii</i> Tronchin	S14	Nahoon Point, East London, Eastern Cape Prov., South Africa	KT920394	AY350775
<i>Gelidium elegans</i> Kützing	CNU052319	Seogechoado, Jindo, Korea	HM629869	HM629829
<i>Gelidium eucorneum</i> K. M. Kim, I. K. Hwang, J. K. Park & S. M. Boo	CNU054478	Hakdong, Geoje, Korea	HM629854	HM629815
<i>Gelidium foliaceum</i> (Okamura) E. M. Tronchin	GfoISA3	Breezy Point, Eastern Cape Prov., South Africa	HQ412456	-
<i>Gelidium foliaceum</i>	OfoBP	East London, Eastern Cape Prov., South Africa	-	AF501285
<i>Gelidium gabrielsonii</i> Hughey & G. H. Boo	UC2050580	Hopkins Marine Station, Pacific Grove, Monterey County, California, USA; Jun 8, 2017	MG922859	MG922860
<i>Gelidium galapagense</i> W. R. Taylor	UC1884224	Banks Bay, Isla Isabela, Galápagos Islands, Ecuador; Jan 13, 1934	NC_031837	KX423476
<i>Gelidium indonesianum</i> K. M. Kim, G. S. Gerung & S. M. Boo	CNU024717	Java Island, Indonesia	JF330200	JF330216
<i>Gelidium isabellae</i> W. R. Taylor	UC1884226	Albemarle, Isla Isabela, Galápagos Islands, Ecuador; Jan 12, 1934	NC_031838	KX423477
<i>Gelidium japonicum</i> (Harvey) Okamura	CNU051978	Choshi, Chiba, Japan	HM629870	HM629830
<i>Gelidium jejuense</i> K. M. Kim, I. K. Hwang, H. S. Yoon & S. M. Boo	CNU011862	Jongdal, Jeju, Korea	JQ340445	JQ340406
<i>Gelidium johnstonii</i> Setchell & N. L. Gardner	CNU002155	Munseom, Jeju, Korea	KF384128	KF381386
<i>Gelidium kathyanniae</i> G. H. Boo & Hughey	UC2026076	Dana Point, Orange County, California, USA; Dec 12, 2012	MH780743	MH780750
<i>Gelidium lineare</i> Iha & Freshwater	IBC0557	Praia dos Castelhanos, Anchieta, Espirito Santo, Brazil; May 5, 2012	KT208030	KT208118
<i>Gelidium longiramulosum</i> (Y. P. Lee & B. S. Kim) G. H. Boo	A331	Geomundo, Yeosu, Korea	HM629882	HM629842
<i>Gelidium microdon</i> Kützing	CNU025583	Tarifa, Cadiz, Spain	KT920396	KT920271
<i>Gelidium microdenticum</i> W. R. Taylor	-	Limon, Cahuita, Costa Rica	-	AF305799
<i>Gelidium microdenticum</i>	SP469069	Encantadas, Ilha do Mel, PR, Brazil; Jul 12, 2014	KX574735	KX555611
<i>Gelidium microglossum</i> A. L. Grusz & Freshwater	WNC20957	Playa Brasilito, Guanacaste, Costa Rica; Oct 5, 2000	KC288160	KC192649
<i>Gelidium microphyllum</i> (Crosby-Smith) Kylin	MATS300	Wharekauni, Chatham Island, New Zealand	KT920397	-
<i>Gelidium microphyllum</i>	-	Ringaringa Beach, Stewart Island, New Zealand; Oct 9, 1998	-	AY648022
<i>Gelidium millarianum</i> G. H. Boo, Hughey, K. A. Miller & S. M. Boo	CNU056286	Gordon's Bay, Sydney, Australia; Jan 23, 2014	KX423467	KX423484
<i>Gelidium millarianum</i>	WNC:22844	Aroyo de L'Hippodrome, Anse Vata, Noumea, New Caledonia; Sep 15, 2002	MK497729	MK497733
<i>Gelidium millarianum</i>	NSW:614432	Neds Beach, Lord Howe Island, Australia; Oct 1, 2002	MK497730	MK497732
<i>Gelidium millarianum</i>	NSW:700189 (NSW #15)	Long Reef, Collaroy Beach, New South Wales, Australia; Sep 4, 2002	MK497731	AY350779
<i>Gelidium millarianum</i>	NTOU #11x2008BBGM	Banana Bay, Pingtung County, Taiwan	-	MH194416
<i>Gelidium millarianum</i>	NTOU #13iii2008CJGM	Chao Jing, Keelung, Taiwan	-	MH194417

Supplementary Table S1. Continued

Species	Voucher	Collection information	cox1	rbcL
<i>Gelidium minimum</i> K. M. Kim, I. K. Hwang, H. S. Yoon & S. M. Boo	CNU002165	Beomsum, Jeju, Korea	JQ340447	-
<i>Gelidium minimum</i>	CNU011894	Beomsum, Jeju, Korea	-	JQ340411
<i>Gelidium omanense</i> M. J. Wynne	CNU000130	Raaha Bay, Dhofar, Oman	JX891569	-
<i>Gelidium omanense</i>	Wynne 1609-2000-09-36	Hatom Cove, East of Mirbat, Dhofar, Oman	-	AY346460
<i>Gelidium pacificum</i> Okamura	CNU051985	Chiba University Marine Station, Japan	HM629871	HM629831
<i>Gelidium pakistanicum</i> (Afaq-Husain & Shameel) Shahnaz & Freshwater	WNC:22843	Paradise Point, Karachi, Pakistan; Dec 20, 2014	MK497727	MK497735
<i>Gelidium palmatum</i> G. H. Boo & K. M. Kim	CNU053375	Sorokdo, Goheung, Korea; Mar 26, 2010	MN784137	-
<i>Gelidium palmatum</i>	CNU053376	Sorokdo, Goheung, Korea; Mar 26, 2010	MN784138	-
<i>Gelidium palmatum</i>	CNU059007	Donggori, Wando, Korea; Jul 14, 2014	MN784139	-
<i>Gelidium palmatum</i>	CNU059010	Donggori, Wando, Korea; Jul 14, 2014	MN784140	MN784150
<i>Gelidium palmatum</i>	CNU059011	Donggori, Wando, Korea; Jul 14, 2014	MN784141	-
<i>Gelidium palmatum</i>	CNU059012	Donggori, Wando, Korea; Jul 14, 2014	MN784142	MN784151
<i>Gelidium palmatum</i>	CNU059027	Donggori, Wando, Korea; Jul 14, 2014	MN784143	-
<i>Gelidium palmatum</i>	CNU058978	Myeongsasipri, Wando, Korea; Jul 13, 2014	MN784144	-
<i>Gelidium palmatum</i>	CNU058979	Myeongsasipri, Wando, Korea; Jul 13, 2014	MN784145	-
<i>Gelidium palmatum</i>	CNU058993	Myeongsasipri, Wando, Korea; Jul 13, 2014	MN784146	-
<i>Gelidium palmatum</i>	CNU002157	Munseom, Jeju Island, Korea; May 16, 2011	MN784147	-
<i>Gelidium palmatum</i>	CNU002158	Munseom, Jeju Island, Korea; May 16, 2011	MN784148	-
<i>Gelidium palmatum</i>	CNU053378	Pyeongdae, Jeju Island, Korea; Mar 29, 2010	MN784149	-
<i>Gelidium palmatum</i>	CNU053479	Doduri, Jeju Island, Korea; Jun 17, 2008	KX423471	KX423487
<i>Gelidium palmatum</i>	CNU053379	Geumneung, Jeju Island, Korea; Mar 30, 2010	KX423472	-
<i>Gelidium palmatum</i>	CNU054668	Geumneung, Jeju Island, Korea; Mar 30, 2010	-	KX423488
<i>Gelidium palmatum</i>	CNU052132	Gwideokri, Jeju Island, Korea; Oct 19, 2007	KX423473	KX423489
<i>Gelidium palmatum</i> (as <i>G. millarianum</i>)	NTOU #114iii2009GM	Stanley Bay, Hong Kong	-	MH194418
<i>Gelidium pluma</i> Bornet ex N. H. Loomis	ARS00824	Hawaii, USA	HQ422688	-
<i>Gelidium pluma</i>	-	Hilo, Hawaii, USA	-	AF522367
<i>Gelidium pristoides</i> (Turner) Kützing	CNU053084	Dalebrook, Flase Bay, Western Cape Prov., South Africa	HM629874	HM629834
<i>Gelidium prostratum</i> K. M. Kim, I. K. Hwang, H. S. Yoon & S. M. Boo	CNU011878	Euihang, Taean, Korea	JQ340456	-
<i>Gelidium prostratum</i>	CNU010848	Euihang, Taean, Korea	-	JQ340415
<i>Gelidium pulchellum</i> (Turner) Kützing	G6278	Ilfracombe Harbour, Ilfracombe, UK	JX891570	-
<i>Gelidium pulchellum</i>	-	Graveyard Beach, Co. Galway, Ireland	-	U01969
<i>Gelidium purpurascens</i> N. L. Gardner	CNU026162	Agate Beach, California, USA	HM629873	HM629833
<i>Gelidium pusillum</i> (Stackhouse) Le Jolis	CNU026677	Les Algues, Lion sur-mer, Caen, France	HM629872	HM629832
<i>Gelidium rex</i> Santelices & I. A. Abbott	CNU026315	Punta Lengua de Vaca, Tongoy Bay, Coquimbo, Chile	HM629875	HM629835
<i>Gelidium robustum</i> (N. L. Gardner) Hollenberg & I. A. Abbott	CNU024833	Natividad Island, Baja California Sur, Mexico	HM629876	HM629836
<i>Gelidium sanyaense</i> G. C. Wang & X. L. Wang	FCG2-1	Guaishitan, Fangchenggang, Guangxi, China; Oct 18, 2016	KY494659	KY494676
<i>Gelidium sclerophyllum</i> W. R. Taylor	UC1884229	Bahia San Francisco, Esmeraldas, Ecuador; Feb 11, 1934	NC_031839	KX423478
<i>Gelidium spinosum</i> (S. G. Gmelin) P. C. Silva	CNU025526	Muros, A Coruña, Spain	HM629877	HM629837
<i>Gelidium vagum</i> Okamura	CNU049025	Heuksando, Shinan, Korea	HM629879	HM629840
<i>Gelidium vittatum</i> (Linnaeus) Kützing	-	Lüderitz, Namibia	-	AF501289
<i>Gelidium yangmeikengense</i> G. C. Wang & X. L. Wang	SZ14-3	Yangmeikeng, Shenzhen, Guangdong, China; Apr 20, 2015	KY494661	KY494680
<i>Gelidium</i> sp. (as <i>G. isabelae</i>)	CNU025573	Torregorda, Cadiz, Spain	KT920395	KT920270
<i>Gelidium</i> sp. (as <i>G. isabelae</i>)	-	Swartklip, False Bay, Western Cape Province, South Africa	-	AY350778
<i>Gelidium</i> sp. (as <i>G. isabelae</i>)	-	KawaZulu-Natal, South Africa	-	AF305798
<i>Gelidium</i> sp. (as <i>G. isabelae</i>)	WNC:22845	Stricklands Bay, Rottneest Island, Western Australia, Australia; Aug 18, 2002	MK497728	MK497734
<i>Ptilophora spongiophila</i> G. H. Boo, L. Le Gall, I. K. Hwang, K. A. Miller & S. M. Boo	PC0171941	Cap Sainte Marie, Madagascar; May 22, 2010	MG066721	MG066747

Bold indicates sequences generated in this study, dash (-) indicates missing sequences.