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**Table 1:** Voucher table of the specimens used in the study, with the species names for the mycobiont, and the species names of the host for the photobiont, when available; the country of origin and the voucher information; GenBank accessions of the sequences.

Mycobiont species	Reference	Country of origin and voucher in- formation	ITS	mtSSU	rsu	RPB1	cyanobacterial 16S
Degelia durietzii Arv. & D.J. Galloway	19	New Zealand		GQ259022	GQ258992	GQ259051	
Degelia plumbea (Lightf.) P.M. Jørg. & P. James	93 (ITS), 19	Norway (ITS), Portugal	AF429265	AY340491	AY340543	GQ259052	
Erioderma verruculosum Vain.	117	<i>د</i> ٠		DQ972990	DQ973041	DQ973062	
Fuscoderma applanatum (D.J. Galloway & P. M. Jørg.) P.M. Jørg & D.J. Galloway	19	New Zealand		GQ259024	GQ258994	GQ259053	
Fuscopannaria ahlneri (P.M. Jørg.) P.M. Jørg.	118 (ITS), 19	Norway (ITS), South Korea	GU570097	GQ259025	GQ258995	GQ259054	
Fuscopannaria confusa (P.M. Jørg.) P.M. Jørg	118	Norway	GU570133	GU570043			
Fuscopannaria ignobilis (Anzi) P.M. Jørg.	119 (ITS), 117	c	HQ650673	DQ917416	DQ917417	DQ986839	
Fuscopannaria leucosticta (Tuck.) P.M. Jørg.	NEW	Reunion Island, R1123 (LG)	KF704257	JX494238	JX494264	JX494284	KF704325
Fuscopannaria leucosticta (Tuck.) P.M. Jørg.	93 (ITS), 19	USA	AF429277	DQ900630	DQ900640	GQ259055	
Fuscopannaria mediterranea (Tav.) P.M. Jørg.	118(ITS), 117	Norway (ITS)	GU570131	DQ917418	DQ917419		
Fuscopannaria praetermissa (Nyl.) P.M. Jørg.	118 (ITS), 19	Norway (ITS), Sweden	GU570108	GQ259026	GQ258996	GQ259056	
Fuscopannaria praetermissa (Nyl.) P.M. Jørg.	NEW	Reunion Island, R1060 (LG)	KF704258	JX494239		JX494285	KF704346
Fuscopannaria sampaiana (Tav.) P.M. Jørg.	118	Norway		GU570030			
Joergensenia cephalodina (Zahlbr.) Passo, S. Stenroos & Calvelo	96	Argentina	EU885308	EU885329			
Kroswia crystallifera P.M. Jørg.	NEW	Madagascar, M788 (LG)	KF704254	JX494235	JX494261	JX494281	KF704343

Table 1 – continued from previous page

Mycobiont species	Reference	Country of origin and voucher in- formation	ITS	mtSSU	rsn	RPB1	cyanobacterial 16S
Kroswia crystallifera P.M. Jørg.	NEW	Reunion Island, R1055 (LG)	KF704255	JX494236	JX494262	JX494282	KF704345
Kroswia crystallifera P.M. Jørg.	NEW	Reunion Island, R1679 (LG)	KF704256	JX494237	JX494263	JX494283	KF704344
Leciophysma furfurascens (Nyl.) Gyeln.	19	Sweden		GQ259028	GQ258998	GQ259058	
Leptogidium contortum (Henssen) T. Sprib. & Muggia	34	Chile		JF938195			
Leptogidium dendriscum (Nyl.) Nyl.	34	USA, Alaska		$\rm JF938202$	JF938143		
Leptogium lichenoides (L.) Zahlbr.	119 (ITS), 114	<i>د</i> -	HQ650672	DQ923120	DQ917412	DQ917414	
Pannaria athroophylla (Stirt.) Elvebakk & Galloway	96	Argentina	EU885303	EU885325			
Pannaria calophylla (Müll. Arg.) Passo & Calvelo	96	Argentina	EU885296	EU885318			
Pannaria conoplea (Ach.) Bory	93 (ITS), 15	Norway (ITS)	AF429281		AY424209		
Pannaria implexa (Stirt.) Passo, Calvelo & Stenroos	95	Argentina	EU885311	EU885333			
Pannaria lurida (Mont.) Nyl.	NEW	Madagascar, M786 (LG)	KF704248	JX494240	JX494265	KF704307	
Pannaria lurida (Mont.) Nyl.	NEW	Reunion Island, R1033 (LG)	KF704252	JX494247	JX494272	$\rm KF704311$	
Pannaria lurida (Mont.) Nyl.	NEW	Reunion Island, R1012 (LG)	KF704253	JX494246	JX494271	$\rm KF704312$	
Pannaria microphyllizans (Nyl.) P.M. Jørg.	93 (ITS), 96	Australia (ITS), Argentina	$\rm AF429279$	EU885322			
Pannaria multifida P.M. Jørg.	NEW	Reunion Island, R942 (LG)	KF704249	JX494241	JX494266	$\rm KF704308$	
Pannaria multifida P.M. Jørg.	NEW	Reunion Island, R960 (LG)	KF704251	JX494242	JX494267	$\rm KF704309$	
Pannaria multifida P.M. Jørg.	NEW	Reunion Island, R961 (LG)	KF704250	JX494243	JX494268	KF704310	
Pannaria pallida (Nyl.) Hue	96 (ITS, mtSSU), 87 (LSU)	Argentina	EU885301	EU885323	GQ927270		
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Mycobiont species	Reference	Country of origin and voucher information	ITS	mtSSU	rsu	RPB1	cyanobacterial 16S
Pannaria rubiginella P.M. Jørg.	19		GQ927269	GQ259037	GQ259007	GQ259074	
Pannaria rubiginosa (Thunb. ex. Ach.) Delise	19	Portugal	GQ927267	AY340513	AY340558	GQ259073	
Pannaria rubiginosa (Thunb. ex. Ach.) Delise	NEW	Reunion Island, R1008 (LG)	KF704259	JX494244	JX494269	KF704313	$\rm KF704321$
Pannaria rubiginosa (Thunb. ex. Ach.) Delise	NEW	Reunion Island, R1126 (LG)	KF704260	JX494249	JX494274	$\rm KF704315$	
Pannaria rubiginosa (Thunb. ex. Ach.) Delise	NEW	Reunion Island, R1011 (LG)	KF704261	JX494245	JX494270	KF704314	$\rm KF704323$
Pannaria sp.	NEW	Thailand, T4 (LG)	KF704247	KF704289	KF704290	KF704306	$\rm KF704333$
Pannaria sphinctrina (Mont.) Hue	96 (ITS, mtSSU), 87 (LSU)	Argentina	EU885302	EU885324	GQ927271		
Pannaria tavaresii P.M. Jørg.	96	Argentina	EU885294	EU885316			
Pannaria sp. (tripartite thallus)	NEW	Reunion Island, R969 (LG)	KF704268	KF704286		KF704299	KF704341
Parmeliella appalachensis P.M. Jørg.	117	ć.		DQ972992		DQ973064	
Parmeliella borbonica P.M. Jørg. & Schumm	NEW	Reunion Island, R1122 (LG)	KF704271	JX494259			KF704320
Parmeliella brisbanensis (C. Knight) P.M. Jørg. & D.J. Galloway	NEW	Thailand, T1 (LG)	KF704246	$\rm KF704280$		KF704292	
Parmeliella brisbanensis (C. Knight) P.M. Jørg. & D.J. Galloway	NEW	Thailand, T3 (LG)	KF704277	$\rm KF704281$		KF704294	KF704351
Parmeliella brisbanensis (C. Knight) P.M. Jørg. & D.J. Galloway	NEW	Thailand, T7 (LG)	KF704276	KF704282		KF704295	KF704352
Parmeliella brisbanensis (C. Knight) P.M. Jørg. & D.J. Galloway	NEW	Reunion Island, R1019 (LG)	KF704278	JX494255		KF704296	KF704350
Parmeliella brisbanensis (C. Knight) P.M. Jørg. & D.J. Galloway	NEW	Reunion Island, R1247 (LG)	KF704262	JX494258		KF704297	KF704347
Parmeliella mariana (Fr.) P.M.	NEW	Reunion Island, R974 (LG)	KF704275	JX494256		KF704301	KF704330

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Mycobiont species	Reference	Country of origin and voucher information	ITS	mtSSU	LSU	RPB1	cyanobacterial 16S
Parmeliella miradorensis Vain.	12	Spain, La Gomera		HQ268592		HQ268591	
Parmeliella parvula P.M. Jørg.	118	Norway	GU570099	GU570031			
Parmeliella polyphyllina P.M. Jørg.	NEW	Reunion Island, R1021 (LG)	KF704265	JX494251	JX494276	KF704317	KF704327
Parmeliella polyphyllina P.M. Jørg.	NEW	Reunion Island, R1058 (LG)	KF704267	JX494252	JX494277	KF704319	KF704326
Parmeliella polyphyllina P.M. Jørg.	NEW	Reunion Island, R1120 (LG)	KF704266	JX494250	JX494275	KF704318	
Parmeliella sp. (mariana gr.)	NEW	Thailand, T2 (LG)		KF704283		KF704293	KF704348
Parmeliella sp. (mariana gr.)	NEW	Thailand, T6 (LG)	KF704279	KF704284		KF704304	KF704349
Parmeliella stylophora (Vain.) P.M. Jørg.	NEW	Reunion Island, R979 (LG)	KF704274	JX494257		KF704300	KF704331
Parmeliella triptophylla (Ach.) Müll. Arg.	120(ITS), 19	Finland (ITS), Sweden	HM448807	AY652623	GQ259008	GQ259075	
Parmeliella triptophylloides P.M. Jørg.	NEW	Reunion Island, R965 (LG)	KF704264	JX494253	JX494278	KF704316	KF704324
Peltigera aphthosa (L.) Willd.	121, 122	Sweden $(RPB1)$	KC437624	AY340515	AF286759	DQ915598	
Physma byrsaeum (Ach.) Tuck.	19	Tahiti		GQ259039	GQ259010	GQ259077	
Physma byrsaeum (Ach.) Tuck.	NEW	Reunion Island, R2847 (LG)	KF704272	JX494260		KF704303	KF704338
Physma byrsaeum (Ach.) Tuck.	NEW	Reunion Island, R2 (LG)	KF704273	KF704287		KF704302	KF704340
Physma byrsaeum (Ach.) Tuck.	NEW	Reunion Island, R1121 (LG)	KF704269	JX494254		KF704298	KF704337
Physma pseudoisidiatum Aptroot & Sipman	19	USA		GQ259041	GQ259012		
Physma radians Vain.	19	Japan		GQ259040	GQ259011	GQ259078	
Physma radians Vain.	NEW	Thailand, T5 (LG)	KF704270	KF704285		KF704305	KF704336

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Mycobiont species	Reference	Country of origin and voucher in- formation	ITS	mtSSU	rsu	RPB1	cyanobacterial 16S
Placynthium nigrum (Huds.) Gray	119 (ITS), 19	Sweden	HQ650699	AY340518	AF356674	GQ259079	
Protopannaria pezizoides (Weber ex. F.H. Wigg.) P.M. Jørg. & S. Ek- man	93 (ITS), 19	Sweden	AF429271	AY340519	AY340561	GQ259081	
Psoroma hypnorum (Vahl.) Gray	93 (ITS), 19	Sweden	AF429272	AY340523	AY340565	GQ259085	
Psoroma palaceum (Fr.) Nyl.	96 (mtSSU), 87	Argentina	GQ927304	EU885327	GQ927305		
Psorophorus pholidotus Elvebakk & S.G. Hong	96 (mtSSU), 87	Argentina	EU885314	EU885336	GQ927289		
Ramalodium succulentum Nyl.	19	Australia		GQ259043	GQ259013	GQ259086	
Staurolemma omphalarioides (Anzi) P.M. Jørg. & Henssen	19	Norway		GQ259044	GQ259014		
Staurolemma sp.	NEW	Reunion Island, R982 (LG)	KF704263	KF704288	$\rm KF704291$		KF704329
Vahliella californica (Tuck.) P.M. Jørg.	12	Canada, British Columbia		HQ268594		HQ268593	
Vahliella leucophaea (Vahl.) P.M. Jørg.	94 (ITS), 19	Sweden	AF429266	AY652621	DQ900642	GQ259090	
Vahliella saubinetii (Mont.) P.M. Jørg.	12	Croatia		HQ268602		HQ268601	
Xanthopsoroma contextum (Stirt.) Elvebakk	26	Argentina	EU885313	EU885335			
Xanthopsoroma soccatum (R. Br. ex Cromb.) Elvebakk	96, 87 (LSU)	Argentina	EU885315	EU885337	GQ927283		
Cyanobacterial species							
(or host when applicable)							
$Anabaena\ flos-aquae\ Brébisson\ ex \\ Bornet\ \&\ Flauhault$	Choi & Oh unpub- lished						DQ234825
Anabaena oryzae F.E. Fritsch	Mishra et al. unpublished	India					m HM573456
Anabaena vaginicola F.E. Fristsch & Rich	Aghashariatmadari et al. unpublished	Iran					JN873351
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Mycobiont species	Reference	Country of origin ITS and voucher in- formation	mtSSU	rsu	RPB1	cyanobacterial 16S
Blasia pusilla 1 L.	Liaimer et al. unpub- lished	Norway				EU022724
Blasia pusilla 2 L.	Liaimer et al. unpub- lished	Norway				EU022708
Blasia pusilla 3 L.	Liaimer et al. unpub- lished	Norway				EU022728
Blasia pusilla 4 L.	Liaimer et al. unpub- lished	Norway				EU022717
Chrococcus sp.	123	Italy				FR798931
Collema flaccidum (Ach.) Ach.	124	Finland				DQ265959
Collema nigrescens (Huds.) DC.	125	USA California				JN847352
Cycas revoluta Thunb.	126	Italy				AM711533
Fischerella muscicola (Thuret) Gomont	127	strain PCC 7414				AF132788
Fuscopannaria leucosticta (Tuck.) P.M. Jørg.	NEW	Reunion Island, R1009 (LG)				KF704322
Fuscopannaria leucosticta (Tuck.) P.M. Jørg.	NEW	Reunion Island, R1124 (LG)				KF704353
Gloeocapsa sp.	128	strain PCC 73106				AB039000
Gunnera prorepens Hook. f.	126	New Zealand				AM711541
Leptogium furfuraceum 1 (Harm.) Sierk	125	USA California				JN847353
Leptogium furfuraceum 2 (Harm.) Sierk	129	USA, California				JQ007761
Leptogium gelatinosum (With.) J.R. Laundon	130	USA				$\rm DQ185232$
Leptogium lichenoides 1 (L.) Zahlbr.	129	Scotland				JQ007765
Leptogium lichenoides 2 (L.) Zahlbr.	129	Scotland				JQ007766
Leptogium palmatum (Huds.) Mont.	125	USA Oregon				JN847344
Leptogium pseudofurfuraceum P.M. Jørg. & A.K. Wallace	125	USA California				JN847347
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Mycobiont species	Reference	Country of origin and voucher information	ITS	mtSSU	rsu	RPB1	cyanobacterial 16S
Leptogium saturninum (Dicks.) Nyl.	124	Finland					DQ265957
Leptogium sp.	NEW	Reunion Island, R2848 (LG)					KF704328
Leptogium sp.	NEW	Reunion Island, R2849 (LG)					${ m KF704335}$
$Leptogium\ { m sp.}$	NEW	Reunion Island, R2850 (LG)					KF704334
Lobaria pulmonaria 1 (L.) Hoffm.	125	USA Oregon					JN847345
Lobaria pulmonaria 2 (L.) Hoffm.	125	Norway					JN847357
Lobaria scrobiculata (Scop.) P. Gaertn.	129	Scotland					JQ007744
Massalongia carnosa (Dicks.) Körb.	130	$_{ m USA}$					DQ185235
$Microcoleus\ chthonoplastes\ {\bf Thur}.$	131						DQ460700
Nephroma arcticum (L.) Torss.	129	Finland					JQ007764
Nephroma bellum 1 (Spreng.) Tuck.	120	Finland					HQ591510
Nephroma bellum 2 (Spreng.) Tuck.	120	Finland					HQ591518
$Nephroma\ laevigatum\ Ach.$	125	Norway					JN847359
Nephroma parile (Ach.) Ach.	120	Finland					HQ591521
Nephroma resupinatum (L.) Ach.	120	Finland					HQ591528
$Ne phroma\ washingtoniense\ Gyeln.$	125	USA Oregon					JN847341
Nodularia spumigena Mertens	Beer et al. unpub- lished	USA Utah					FJ546713
Nostoc commune 1 Vaucher	132						AB088405
Nostoc commune 2 Vaucher	Gachon et al. unpublished	South Africa					HE974995
Nostoc entophytum Bornet & Flahault	Seo & Yokota unpublished						AB093490
Nostoc linckia (Roth) Bornet ex Bornet & Flahault	Seo & Yokota unpub- lished						AB074503

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Mycobiont species	Reference	Country of origin and voucher in-	ITS mtSSU	su Lsu	RPB1	cyanobacterial 16S
		formation				
Nostoc linckia var. arvense C.B. Rhao	132					AB325907
Nostoc muscorum 1 C. Agardh ex Bornet & Flahault	133	Czech Republic				AJ630451
Nostoc muscorum 2 C. Agardh ex Bornet & Flahault	126	Czech Republic				AM711524
Nostoc muscorum 3 C. Agardh ex Bornet & Flahault	Mishra et al. unpub- lished	India				HM573462
Nostoc muscorum 4 C. Agardh ex Bornet & Flahault	126	Czech Republic				AM711523
Nostoc muscorum 5 C. Agardh ex Bornet & Flahault (soil)	130	France				DQ185254
Nostoc punctiforme (Kützing) Hariot Gunnera manicata	130	Germany				DQ185256
Nostoc sp. 1	Liaimer et al. unpub- lished	Norway				EU022737
Nostoc sp. 2	Suzuki et al. unpub- lished					GU062468
Nostoc sp. 3	Suzuki et al. unpub- lished					GU062469
Nostoc sp. 4(root of plant)	126	Italy				AM711532
Nostoc sp. 5	134	South Africa				AJ344563
Nostoc sp. 6	Liaimer et al. unpub- lished	Norway				EU022709
Nostoc sp. 7	Liaimer et al. unpub- lished	Norway				EU022729
Nostoc sp. 8	Mishra et al. unpublished	strain PCC 7120				HM573458
Nostoc sp. 9	132	strain PCC 7906				AB325908
Nostoc  sp.  10	Liaimer et al. unpub- lished	Norway				EU022713
Nostoc sp. 11	126	Italy				AM711549
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Mycobiont species	Reference	Country of origin and voucher information	ITS	mtSSU	rsn	RPB1	cyanobacterial 16S
Nostoc sp. 12	135	Spain					HM623782
Pannaria aff. leproloma 1	17	Chile					EF174208
Pannaria aff. leproloma 2	17	Chile					EF174213
Pannaria andina 1 P.M. Jørg. & Sipman	17	Peru					EF174233
Pannaria andina 2 P.M. Jørg. & Sipman	17	Chile					EF536022
Pannaria araneosa (C. Bab.) Hue	17	New Zealand					EF174222
Pannaria athroophylla (Stirt.) Elvebakk & Galloway	17	Chile					EF174202
Pannaria cf. allorbiza	17	New Zealand					EF174206
Pannaria conoplea (Ach.) Bory	17	Norway					EF174221
Pannaria durietzii (P. James & Henssen) Elvebakk & D.J. Galloway	17	New Zealand					EF174227
Pannaria elixii P.M. Jørg. & D.J. Galloway	17	New Zealand					EF174230
Pannaria fulvescens (Mont.) Nyl.	17	New Zealand					EF174231
Pannaria isabellina 1 (Vain.) Elvebakk & Bjerke	17	Chile					EF174226
$Pannaria\ isabellina\ 2\ (Vain.)\ Elvebakk\ \&\ Bjerke$	17	Chile					EF174223
Pannaria obscura Müll. Arg.	17	Australia					EF174232
Pannaria patagonica (Malme) Elvebakk & D.J. Galloway	17	Chile					EF174204
Pannaria rubiginella P.M. Jørg.	1.7	Chile					EF536024
Pannaria rubiginosa (Thunb. ex. Ach.) Delise	17	Norway					EF174220
Pannaria sphinctrina Zahlbr.	17	Chile					EF174205
Parmeliella triptophylla (Ach.) Müll. Arg.	125	Norway					JN847361

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Mycobiont species	Reference	Country of origin and voucher information	ITS	mtSSU	LSU	RPB1	cyanobacterial 16S
Peltigera aphthosa (L.) Willd.	130	Switzerland					DQ185253
Peltigera canina 1 (L.) Willd.	130	$_{ m USA}$					DQ185230
Peltigera canina 2 (L.) Willd.	Liaimer et al. unpub- lished	Norway					EU022726
Peltigera didactyla (With.) J.R. Laundon	130	Poland					DQ185245
Peltigera evansiana Gyeln.	129	USA, Oregon					JQ007784
Peltigera leucophlebia 1 (Nyl.) Gyeln.	136	Finland					FJ815321
Peltigera leucophlebia 2 (Nyl.) Gyeln.	129	Svalbard					JQ007783
Peltigera malacea (Ach.) Funch	137	Finland					EF102280
Peltigera rufescens 1 (Weiss) Humb.	130	Germany					DQ185219
Peltigera rufescens 2 (Weiss) Humb.	130	Germany					DQ185215
Peltigera scabrosa Th. Fr.	Liaimer et al. unpub- lished	Norway					EU022727
Peltigera sp.	129	Argentina					JQ007785
Physma byrsaeum (Ach.) Tuck.	NEW	Reunion Island, R1 (LG)					KF704342
Physma byrsaeum (Ach.) Tuck.	NEW	Reunion Island, R2846 (LG)					KF704339
Protopannaria pezizoides (Weber ex. F.H. Wigg.) P.M. Jørg. & S. Ek- man	124	Finland					DQ265953
$Pseudocyphellaria  gilva  \text{(Ach.)} \\ \text{Malme}$	17	Chile					EF536023
$Pseudocyphellaria\ {\tt sp.}$	125	USA California					JN847355
Pseudocyphellaria sp.	NEW	Reunion Island, R2332 (LG)					KF704332
Scytonema cf. fritschii	138	New Zealand					JN565281
Scytonema hyakinum 1 Gardner	139	$_{ m USA}$					AF334698
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Mycobiont species	Reference	Country of origin ITS and voucher information		mtSSU	LSU	RPB1	cyanobacterial 16S
Scytonema hyalinum 2 Gardner	139	$_{ m USA}$					AF334700
$Scytonema~{ m sp.}~1$	140	Mexico					EU818953
Scytonema sp. 2	140	Costa Rica					EU818954
$Scytonema~{ m sp.3}$	140	Costa Rica					EU818950
Stereocaulon fronduliferum I.M. Lamb.	124	New Zealand					DQ265951
Stereocaulon ramulosum Raeusch.	124	Hawaii					DQ265949
Sticta limbata (Sm.) Ach.	125	USA California					JN847351