

ONLINE DATA SUPPLEMENT 1. Specimen voucher information and GenBank accession numbers for 63 mtSSU and 62 nuLSU sequences included in this study. Sequences in bold were generated in this study by SFB. All other sequences were retrieved from GenBank, except for unpublished sequences marked with an asterisk, which were retrieved directly from the AFToL data base.

Taxon name	Collector and voucher information	GenBank accession numbers	
		mit SSU	nu LSU
<i>Absconditella</i> sp.	Ecuador, Palice 3820 (herb. Palice)	AY300873	AY300825
<i>Absconditella sphagnum</i>	Czech Republic, 17-02-2002 Palice (herb. Palice)	AY300872	AY300824
<i>Acanthohecis aurantiaca</i>	Australia, Kalb 33945 (herb. Kalb)	DQ431965	DQ431929
<i>Acanthotrema brasilianum</i>	Cameroon, Frisch 99/Ka40 Dupl. 1999	DQ384916	DQ431928
<i>Acarosporina microspora</i>	AFTOL-ID 78	AY584612	AY584643
<i>Aulaxina quadrangula</i>	Costa Rica, Lucking s.n. (F, sample No. 66)	AY341364	AY341350
<i>Calenia monospora</i>	Costa Rica, Lucking s.n. (F, sample No. 1a)	AY341365	AY341351
<i>Carestiella socia</i>	Sweden, Gilenstam 2437a (UPS)	AY661678	AY661682
<i>Chapsa leprocarpa</i>	Australia, Lumbsch 19125k & Mangold (F)	EU075568	EU075615
<i>Coenogonium leprieurii</i>	AFTOL-ID 351	AY584698	AF465442
<i>Coenogonium luteum</i>	AFTOL-ID 352	AY584699	AF279387
<i>Coenogonium pineti</i>	Germany, 24-01-2002 Palice (herb. Palice)	AY300884	AY300834
<i>Cryptodiscus foveolaris</i>	Sweden, Gilenstam 2603a (UPS)	AY661673	AY661683
<i>Cryptodiscus gloeocapsa</i>	Czech Republic, 16-02-2002 Palice (herb. Palice)	AY300880	AF465440
<i>Cryptodiscus pini</i>	Sweden, Wedin & Baloch 26VII07 (S)	FJ904705	FJ904683
<i>Cryptodiscus tabularum</i>	Sweden, Baloch SW073 (S)	FJ904710	FJ904688
<i>Diorygma circumfusum</i>	Australia, Kalb 33922 (herb. Kalb)	DQ431963	AY640019

<i>Diploschistes caesioplumbeus</i>	Spain, Llimona & Fdez.-Brime, BCNLich 17182 (BCN)	HQ659170	HQ659181
<i>Diploschistes gypsaceus</i>	Spain, Llimona & Fdez.-Brime, BCNLich 17180 (BCN)	HQ659171	HQ659182
<i>Diploschistes ocellatus</i>	Spain, Llimona & Fdez.-Brime, BCNLich 17181 (BCN)	HQ659172	HQ659183
<i>Dyplolabia afzelii</i>	Dominican Republic, Kalb 33153 (herb. Kalb)	DQ431949	DQ431922
<i>Echinoplaca epiphylla</i>	Mexico, Herrera et al. s.n. (F, sample No. M13)	AY341368	AY341354
<i>Fibrillithecis halei</i>	Australia, Mangold 31g (F)	EU075573	EU075621
<i>Fissurina insidiosa</i>	AFTOL-ID 1662	DQ972995	DQ973045
<i>Gomphillus ophiosporus</i>	Costa Rica, Will-Wolf 10006a (F, sample No. 101)	AY341371	AY341357
<i>Gyalecta friesii</i>	AFTOL-ID 4926	HQ659178*	HQ659179*
<i>Gyalecta hypoleuca</i>	AFTOL-ID 380	HQ659180*	AF465453
<i>Gyalecta ulmi</i>	Scheidegger, n. 0047589 (DUKE)	AY584706	AF465463
<i>Gyalectidium imperfectum</i>	Costa Rica, Lucking s.n. (F, sample No. 2)	AY341372	AY341358
<i>Ingvariella bispora 1</i>	Portugal, Rico 3683/1, MA Lich 15288 (MA)	HQ659173	HQ659184
<i>Ingvariella bispora 2</i>	Spain, Llimona s.n., BCNLich 17183 (BCN)	HQ659174	HQ659185
<i>Ingvariella bispora 3</i>	Italy, A.Vezda Lich. Selecti Exsicc. 2206, No. 144446 (DUKE)	HQ659175	-----
<i>Leiorreuma hypomelaeneum</i>	Australia, Kalb 33916 (herb. Kalb)	DQ431971	DQ431933
<i>Myriotrema trypaneoides</i>	Australia, Lumbsch 19167v & Mangold (F)	EU075580	EU075628
<i>Ocellularia aurata</i>	Australia, Mangold 33a (F)	EU075564	EU075613
<i>Ocellularia chiriquiensis</i>	Australia, Mangold 18d (F)	EU075582	EU075629
<i>Ocellularia perforata</i>	Australia, Lumbsch 19120ja & Mangold (F)	EU075587	EU075634
<i>Ocellularia postposita</i>	Tanzania, Frisch 99/Tz1879	DQ384873	AY640008
<i>Ocellularia profunda</i>	Australia, Lumbsch 19123k & Mangold (F)	EU075590	EU075636
<i>Odontotrema sp. 1</i>	Sweden, Gilenstam 2560 (UPS)	AY661674	AY661684
<i>Odontotrema sp. 2</i>	Sweden, Gilenstam 2601b (UPS)	AY661675	AY661685

<i>Phaeographis caesioradians</i>	Australia, Kalb 33917 (herb. Kalb)	DQ431968	AY640021
<i>Phaeographis lecanographa</i>	Mexico, RLD 071 (herb. Kalb)	DQ431983	DQ431943
<i>Phlyctis agelaea</i>	AFTOL-ID 1670	HQ659176*	HQ659177*
<i>Phlyctis argena</i>	AFTOL-ID 1375	DQ986880	DQ986771
<i>Placopsis gelida</i>	Iceland, Heidmarsson 28486 (herb. Heidmarsson)	AY212859	AY212836
<i>Platygramme australiensis</i>	Australia, Kalb 33930 (herb. Kalb)	DQ431970	AY640024
<i>Platygramme caesiopruinosa</i>	Dominican Republic, Kalb 33150 (herb. Kalb)	DQ431973	AY640023
<i>Ramonia</i> sp.	Palice 2336 (herb. Palice)	AY300921	AY300871
<i>Sagiolechia rhexoblephara</i>	Sweeden, 2002 Plaice s.n. (herb. Palice)	AY853341	AY853391
<i>Sarcographa fenicis</i>	Australia, Kalb 33920 (herb. Kalb)	DQ431967	DQ431931
<i>Sarcographa ramificans</i>	Costa Rica, Luecking 16229g (B) (herb. Kalb)	DQ431981	DQ431942
<i>Schizoxylon albescens</i>	Sweden, Gilenstam 2696a (UPS)	DQ401142	DQ401144
<i>Stegobolus fissus</i>	Australia, Lumbsch 19108f & Mangold (F)	EU075594	EU075640
<i>Stegobolus subcavatus</i>	Australia, Lumbsch 19151u & Mangold (F)	EU075595	EU075641
<i>Stictis confusum</i>	Sweden, Wedin 7070 (UPS)	DQ401141	DQ401143
<i>Stictis populorum</i>	Sweden, Gilenstam 2610a (UPS)	AY527356	AY527327
<i>Stictis radiata</i>	Sweden, Gilenstam 2449a (UPS)	AY340532	AY527308
<i>Trapeliopsis flexuosa</i>	AFTOL-ID 1028	DQ986862	AF274118
<i>Thelotrema diplotrema</i>	Australia, Lumbsch 19127v & Mangold (F)	EU075599	EU075643
<i>Thelotrema lepadinum</i>	USA, Printzen 5745 (herb. Printzen)	AY300916	AY300866
<i>Topeliopsis muscigena</i>	Australia, Mangold 5d (F)	EU075611	EU075656
<i>Tricharia longispora</i>	Costa Rica, Luecking s.n. (F, sample No. 37)	AY341374	AY341360

ONLINE DATA SUPPLEMENT 2. Specimens examined of *Ingvariella bispora*, GREECE. EAST AEGEAN ISLANDS. Nomos Samos, Ikaria Island, road along antennas on Mt. Atheras, 26° 17,2' E, 37° 38,7' N, 800 m, gneiss rocks, 15 09 2002, *Sipman & Raus 48700* (B 60 0165171); 26° 16,5' E, 37° 38,1' N, 800 m, schists, 16 09 2002, *Sipman & Raus 48821* (B 60 0165170); Frandato, W of Dafni, 26° 08,34' E, 37° 36,13' N, 510 m, gneiss rocks, 24 09 2002, *Sipman & Raus 49531* (B 60 0165169); STEREA ELLAS. Periferia Protevousis, Dimos Kifisia, N Attika, Mt. Penteli, W-side, 23° 52,66' E, 38° 04,74' N, 950 m, siliceous rocks, 05 10 2005, *Sipman & Raus 54578* (B 60 0135534); WESTERN AEGEAN ISLANDS. Nomos Evvias, Ep. & Dim. Karistos, S Evvia, mountain slope above Metochi, along road to Stavros, 24° 28,29' E, 38° 01,59' N, 550 m, schists, 25 09 2005, *Sipman & Raus 53822* (B 60 0127650); summit area of Mt. Ochi, 24° 27,9' E, 38° 03,5' N, 1370 m, schists, 26 09 2005, *Sipman & Raus 54004* (B 60 0127506); Mt. Kastanolongos, W of Andia, 24° 30,4' E, 38° 02,8' N, 820 m, schists, 28 09 2005, *Sipman & Raus 54098* (B 60 0141917); PORTUGAL. TRAS-OS-MONTES. Bragança, Serra da Nogueira, to Alimonde, 29TPG789261, 1040 m, ultrabasic rocks, 06 09 2006, *Rico 3683/1* (MAF 15288), *Rico 3683/1 dupl* (MAF 15289); SPAIN. GIRONA. Cadaqués, Mas d'en Baltre, 31TEG214804, 70 m, schists, 26 01 2010 *Llimona s.n.*, (BCNLich 17183); TENERIFE. Santiago de Teide, Teno Mts., along de road to Masca, Degollado de Cherpe, 1000 m, basalt, 29 11 1989, *Lumbsch 7212a & Mietzsch* (DUKE 0144864); IRAN. CHACHARMAHAL & BAKHTIYARI. S of Shahrekord, 50° 53,9' E, 32° 29,3' N, 1700 m, stone, 24 01 2007, *Valadbeigi 7062* (B 60 0175776); ITALY. SARDINIA, Monte Limbara Sud, 9° 11' E, 40° 47' N, 630 m, granite, 1999, *Nöske 419* (B 60 0123600); Cagliari, Giara di Gesturi, over Gesturi, 550 m, basalt, 14 07 1987, *Nimis, Tetriach & Vězda* (A. Vězda: Lichenes Selecti Exsiccatti 2206); TURKEY. TRABZON. Araklı distr., SE of Paskalar Yaylası, 40° 01,7' E, 40° 40,1' N, 2400 m, siliceous rocks, 17 08 2005, *Kinalioglu 1468* (B 60 0163237); N of Polot Yaylası, 2520 m, siliceous rocks, 04 08 2002, *Kinalioglu 1142* (B 60 0131767); N of Polot Yaylası, 2550 m, calcareous rocks, 06 08 2002, *Kinalioglu 1176* (B 60 0131768).