Table S1.

List of the cyanobacterial isolates and respective 16S rDNA sequences used in this study. Genotypes of our own isolates are designated according to Fig.2 in the main text. Several genotypes include individual isolates from different sources and therefore are represented by several GenBank records.

Genotype	Accession	Organism	Source/Habitat	Country	Reference
I	EU022725	*Nostoc* sp. KVS1	*Blasia pusilla*, plant school, Kvaloya	Norway	This study
II	EU022732	*Nostoc* sp. KVS11	*Blasia pusilla*, plant school, Kvaloya (also found in *Gunnera magellanica*)	Norway	This study
	EU022733	*Nostoc sp.* KVSF*1*	Free-Living, Soil, Kvaloya plant school	Norway	This study
	EU022734	*Nostoc* sp. KVJ1	*Blasia pusilla*, plant school, Kvaloya	Norway	This study
	EU022735	*Nostoc* sp. KVJF15	Free-Living, Soil, Kvaloya plant school	Norway	This study
III	EU022741	*Nostoc* sp. KVSF4	Free-Living, Soil, plant school, Kvaloya	Norway	This study
IV	EU022730	*Calothrix* sp. KVSF5	Free-Living, Soil, plant school, Kvaloya (lost in culture)	Norway	This study
V	EU022720	*Anabaena* sp. KVSF 7	Free-Living, Soil, plant school, Kvaloya	Norway	This study
	EU022721	*Anabaena* sp. KVJF17	Free-Living, Soil, plant school, Kvaloya	Norway	This study
VI	EU022712	*Nostoc* sp. KVJ2	*Blasia pusilla*, plant school, Kvaloya	Norway	This study
VII	EU022722	*Nostoc* sp. KVJ3	*Blasia pusilla*, plant school, Kvaloya	Norway	This study
VIII	EU022711	*Nostoc* sp. KVJ4	*Blasia pusilla*, plant school, Kvaloya	Norway	This study
IX	EU022708	*Nostoc* sp. KVJ10	*Blasia pusilla*, plant school, Kvaloya	Norway	This study
	EU022709	*Nostoc* sp. KVJF1	Free-Living, Soil, plant school, Kvaloya	Norway	This study
X	EU022728	*Nostoc* sp.KVJ18	*Blasia pusilla*, plant school, Kvaloya	Norway	This study
	EU022729	*Nostoc* sp. KVJF16	Free-Living, Soil, plant school, Kvaloya	Norway	This study
XI	EU022731	*Nostoc* sp.KVJ20	*Blasia pusilla*, plant school, Kvaloya	Norway	This study
XII	EU022710	*Nostoc* sp.KVJF4	Free-Living, Soil, Kvaloya plant school	Norway	This study
XIII	EU022740	*Nostoc* sp. KVJF8	Free-Living, Soil, Kvaloya plant school	Norway	This study
XIV	EU022738	*Nostoc* sp. SKS1	*Blasia pusilla*, Skibotn	Norway	This study
	EU022739	*Nostoc* sp.SKSF2	Free-Living, Soil, Skibotn	Norway	This study
XV	EU022714	*Nostoc* sp. SKS2	*Blasia pusilla*, Skibotn	Norway	This study
XVI	EU022736	*Nostoc* sp. SKS3	*Blasia pusilla*, Skibotn	Norway	This study
	EU022737	*Nostoc* sp. SKJF2	Free-Living, Soil, Skibotn	Norway	This study
XVII	EU022707	*Nostoc* sp. SKS5	*Blasia pusilla*, Skibotn *(*lost in culture)	Norway	This study

XVIII	EU022706	*Nostoc* sp. SKS8	*Blasia pusilla*, Skibotn	Norway	This study
XIX	EU022724	*Nostoc* sp. SKS9	*Blasia pusilla*, Skibotn (lost in culture)	Norway	This study
XX	EU022718	*Anabaena* sp. SKSF1	Free-Living, Soil, Skibotn	Norway	This study
	EU022719	*Anabaena* sp. SKJF11	Free-Living, Soil, Skibotn	Norway	This study
XXI	EU022723	*Nostoc* sp. SKSF3	Free-Living, Soil, Skibotn	Norway	This study
XXII	EU022742	*Nostoc* sp.SKJ1	*Blasia pusilla*, Skibotn	Norway	This study
XXIII	EU022717	*Nostoc* sp.SKJ2	*Blasia pusilla*, Skibotn	Norway	This study
XXIV	EU022715	*Nostoc* sp.SKJ4	*Blasia pusilla*, Skibotn	Norway	This study
XXV	EU022716	*Nostoc* sp.SKJ6	*Blasia pusilla*, Skibotn	Norway	This study
	EU022713	*Nostoc* sp.SKJF1	Free-Living, Soil, Skibotn	Norway	This study
	EU022726	*Nostoc* sp. SKSL1	*Peltigera canina*, Skibotn (was not isolated in culture)	Norway	This study
	EU022727	*Nostoc* sp. SKSL2	*Peltigera scabrosa*, Skibotn (was not isolated in culture)	Norway	This study
	AB039002	*Nodularia spumigena* PCC73104	Pasteur Culture Collection, Paris	France	1
	AF027653	*Nostoc* sp.TDI#AR94	Peltigera membranacea, Eagle Ridge, Vancouver, BC	Canada	2
	AF027655	*Nostoc punctiforme* PCC73102	Pasteur Culture Collection, originally isolated from a cycad, Paris	France	2
	AF062638	*Nostoc* sp. ATCC53789	University of Hawaii at Manoa, Honolulu	USA	3
	AF506237	cf. *Calothrix* sp.'muscicolous cyanobiont 5'	*Blasia pusilla*	Finland	4
	AJ000714	*Lyngbya aestuarii* PCC 7419	Pasteur Culture Collection, Paris	France	5
	AJ133161	*Nostoc* sp. 152	Lake Sääksjärvi	Finland	6
	AJ133169	*Planktothrix agardhii* NIVA-CYA 128	Lake Vesijärvi	Finland	6
	AJ293131	*Aphanizomenon flos-aquae* NIES-81	Lake Kasumigama	Japan	7
	AJ630449	*Nostoc esaphicum* X	Field, Chelčice	Czech Republic	8
	AJ630457	*Trichormus variabilis* str. 'GREIFSWALD'	Unknown	Germany	8
	AJ630458	*Anabaena augustumalis* str. 'SHCMIDKE JAHNKE/4a'	Rostock	Germany	8
	AM230690	*Calothrix* sp.BECID4	Brackish water, Baltic sea, Helsinki	Finland	9
	AM230702	*Calothrix* sp.BECID18	Sediment, sublittoral of the Baltic sea, Helsinki	Finland	9
	AM711527	*Nostoc* sp.0GU36S02	Stem gland of Gunnera tinctoria, Achill Island	Ireland	10
	AM711531	*Nostoc* sp.A13	Thallus of Anthoceros laevis, Tuscany	Italy	10
	AM711535	*Nostoc* sp.Ev1	Coralloid root , Emilia-Romanga, Bologna	Italy	10
	AM711536	*Nostoc* sp.Gm	Stem gland of *Gunnera manicata*, Siena, Tuscany	Italy	10
	AM711540	*Nostoc* sp.8926	Stem gland of *Gunnera hamiltonii*	New Zealand	10
	AM711545	*Nostoc* sp.Lukesova 1/86	Sample of oak forest mineral soil layer, Netolice, South Bohemia	Czech	10

			Republic	
AY328897	*Nostoc* sp.113.5	*Nephroma articum*, Helsinki	Finland	11
AY566855	*Nostoc* sp. IO-102-I	*Pannaria pezizoides* collected from mosses on a rock, Sysmä	Finland	12
AY742449	*Nostoc* sp. 8963	*Gunnera prorepens*	New Zealand	13
AY742451	*Nostoc* sp. 9229	*Gunnera monoika*	New Zealand	13
DQ185201	*Nostoc punctiforme* SAG 71.79	Soil	France	14
DQ185211	*Nostoc* sp. 'Mollenhauer 1:1-115'	*Blasia pusilla*	Germany	14
DQ185212	*Nostoc* sp. 'Mollenhauer 1:1-125'	*Blasia pusilla*	Germany	14
DQ185213	*Nostoc* sp. 'Mollenhauer 1:1-150b'	*Anthoceros* sp.2	Germany	14
DQ185244	*Nostoc* sp. '*Peltigera degeni* cyanobiont'	*Peltigera degenii*	Canada	14
DQ185245	*Nostoc* sp. '*Peltigera didactyla* 3 cyanobiont'	*Peltigera didactyla*	Poland	14
DQ185249	*Nostoc* sp. '*Peltigera rufescens* 5 cyanobiont'	*Peltigera rufescens*	Poland	14
DQ185251	*Nostoc* sp. SAG 36.92	*Stangeria paradoxa*	England	14
DQ185254	*Nostoc muscorum* SAG 57.79	Soil	France	14
DQ185255	*Nostoc punctiforme* SAG 65.79	*Blasia pusilla*	Germany	14
DQ185256	*Nostoc punctiforme* SAG 68.79	*Gunnera manicata*	Germany	14
DQ234831	*Trichormus variabilis* str. KCTC AG10178	Unknown	Korea	15
DQ279769	*Arthrospira platensis* str. Sp-9	Unknown	China	16
EF174212	*Nostoc* sp. '*Pannaria* aff.*leproloma* cyanobiont' 1a NZ	*Pannaria* sp.aff. l*eproloma*	New Zealand	17
EF568907	*Anabaena* sp. XPORK36C	Planctonic and benthic habitats, Baltic Sea, Helsinki	Finland	18
BA000019	*Nostoc* sp. PCC 7120	Robert Haselkorn, University of Chicago	USA	19
GQ443447	*Anabaena cylindrica* UTAD_A212	Rice paddy, Mondego River Basin	Portugal	20
HM623781	*Nostoc* sp. UAM308	Rock surface of calcareous river with brackish water, Amir River, Murcia	Spain	21

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