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Coupled cryoconite ecosystem structure–function relationships are revealed by comparing bacterial communities in alpine and Arctic glaciers

Edwards, Arwyn; Mur, Luis; Girdwood, Susan; Anesio, Alexandre Magno; Stibal, Marek; Edwards Rassner, Sara; Hell, Katherina; Pachebat, Justin; Post, Barbara; Bussell, Jennifer Sian; Cameron, Simon; Griffith, Gareth; Hodson, Andrew J.; Sattler, Birgit

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tel: +44 1970 62 2400
email: is@aber.ac.uk

Supplementary Information for Edwards *et al.* Comparing Alpine and Arctic glaciers reveals coupled cryoconite 1 ecosystem structure – function relationships

1 Supplementary Table and 1 Supplementary Figure

Supplementary Table 1: Taxonomic and relative abundance data for pyrosequencing reads.

Supplementary Figure 1: Abundance distribution of T-RFs demonstrating intraset correlations ≥ 0.1 in value (green) in environmental axes 1-3 against metabolite profiles versus background T-RFs (*i.e.* not selected in CCA; red) relative abundances at the regional scale (a: SV; b: GR; c: AT).

Supplementary Table 1

T-RFs with intraset correlations >0.1				Matches to Cryoconite Clone library (FN824532–FN824621; Edwards <i>et al.</i> [2011] ISME J. 5:150-150)			
TRF (bp)	EnvAxis1	EnvAxis2	EnvAxis3	Clone	Phylum/proteobacterial class	lowest rank assigned	best BLAST hit
69	0.267	0.018	0.218	ML34	Alphaproteobacteria	Rhodopila	uncultured bacterium; ERF-C4; DQ906066
80	0.143	0.119	0.047	AB35	Alphaproteobacteria	Gluconacetobacter	Gluconacetobacter sp. CC-88226; AY961985
153	-0.07	-0.085	0.073				
167	0.348	-0.057	0.055				
177	-0.013	0.007	-0.107	ML32	Alphaproteobacteria	unclassified_Acetobacteraceae	uncultured bacterium; BF0002B036; AM697086
194	-0.065	-0.192	-0.161	AB55	Alphaproteobacteria	Rhodobacter	unidentified bacterium; R-23041; AJ786815
212	0.048	0.182	0.245	VB77	Betaproteobacteria	Burkholderiales	uncultured bacterium; SRRB38; AB240512
222	0.06	-0.1	0.051	VB37	OP10	OP10_genera_incertae_sedis	uncultured bacterium; FCPT757; EF516140
233	0.323	-0.044	-0.384	AB44	Deltaproteobacteria	unclassified_Myxococcales	uncultured bacterium; 1506; AB286567
242	0.08	-0.133	0.025				
244	-0.14	-0.048	0.082	ML23	Cyanobacterium	Cyanobacteria	uncultured Antarctic bacterium LB3-53; AF076159
255	0.162	0.291	0.001	VB85	Bacteroidetes	Hymenobacter	Hymenobacter sp. 1004; EF423320
257	-0.051	-0.133	0.03				
264	0.014	0.441	0.334				
267	0.113	-0.054	0.013				
268	0.365	0.092	0.009	AB33	Planctomycetes	Planctomycetes	uncultured bacterium; JEG.d6; DQ228400
272	-0.071	-0.047	0.052				
274	-0.098	-0.093	0.378				
291	-0.113	-0.182	0.165	VB90	Alphaproteobacteria	Novosphingobium	uncultured alpha proteobacterium; SW22; AJ575705
300	0.174	0.002	0.216	ML1	Cyanobacterium	Cyanobacteria	uncultured bacterium; 2\SC\24; EU340169
301	0.121	-0.05	0.209	VB84	Cyanobacterium	Phormidium	Phormidium pristleyi ANT.LH66.1; AY493581
313	-0.183	-0.194	0.162				
314	-0.218	-0.341	0.294				
315	-0.015	0.071	0.321				
318	-0.288	-0.021	-0.179	AB47	Bacteroidetes	Terrimonas	uncultured bacterium; FFCH9723; EU133627
321	-0.137	0.564	-0.073				
322	-0.047	-0.072	0.126				
323	0.014	0.019	0.174				
380	0.122	-0.039	0.208				
392	0.223	0.006	0.345				
406	-0.19	-0.027	0.01				
407	-0.195	0.158	-0.087				
428	0.273	-0.097	0.122				
571	-0.149	-0.008	-0.035				
685	0.353	-0.079	-0.206				

