

Antarctic sea ice microbial communities show distinct patterns of zonation in response to algal-derived substrates

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Supplement. Bacterial community profiles and identification of RFLs using BLAST and temporal changes in nutrient concentrations

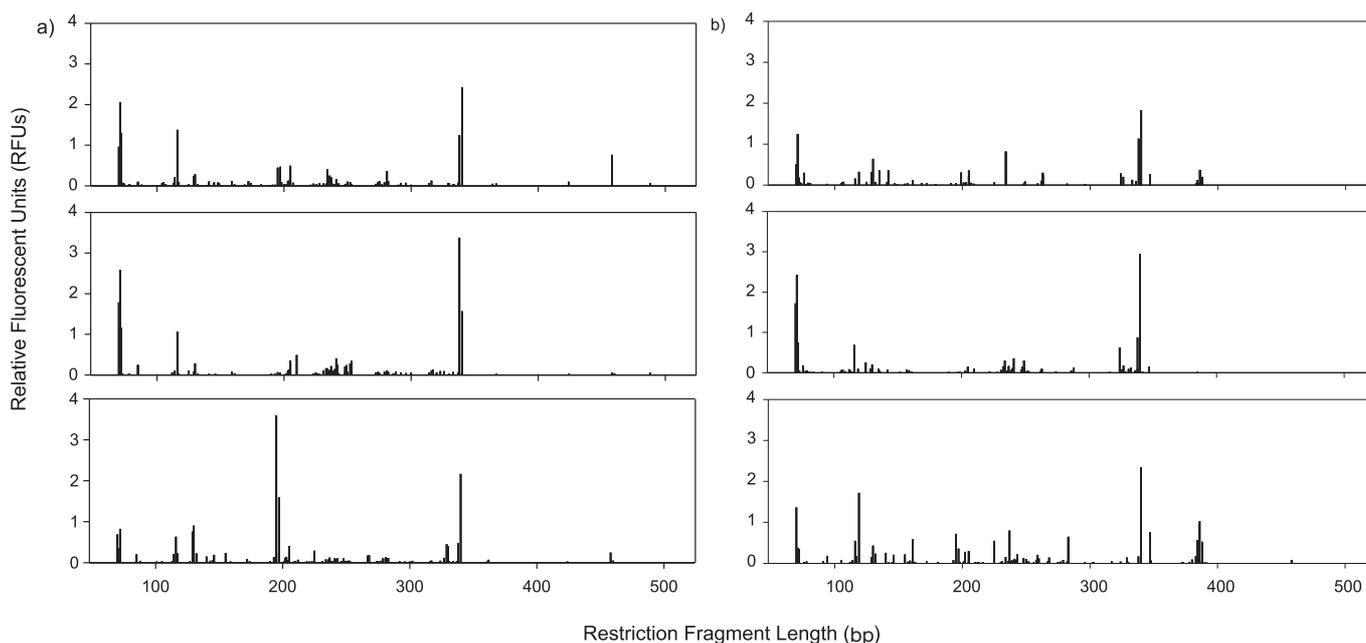


Fig. S1. The raw electropherograms showing restriction fragment lengths (RFLs) of (a) rRNA gene profiles and (b) RNA profiles from the top, middle and bottom of the sea-ice core showing the average of all 20 cores

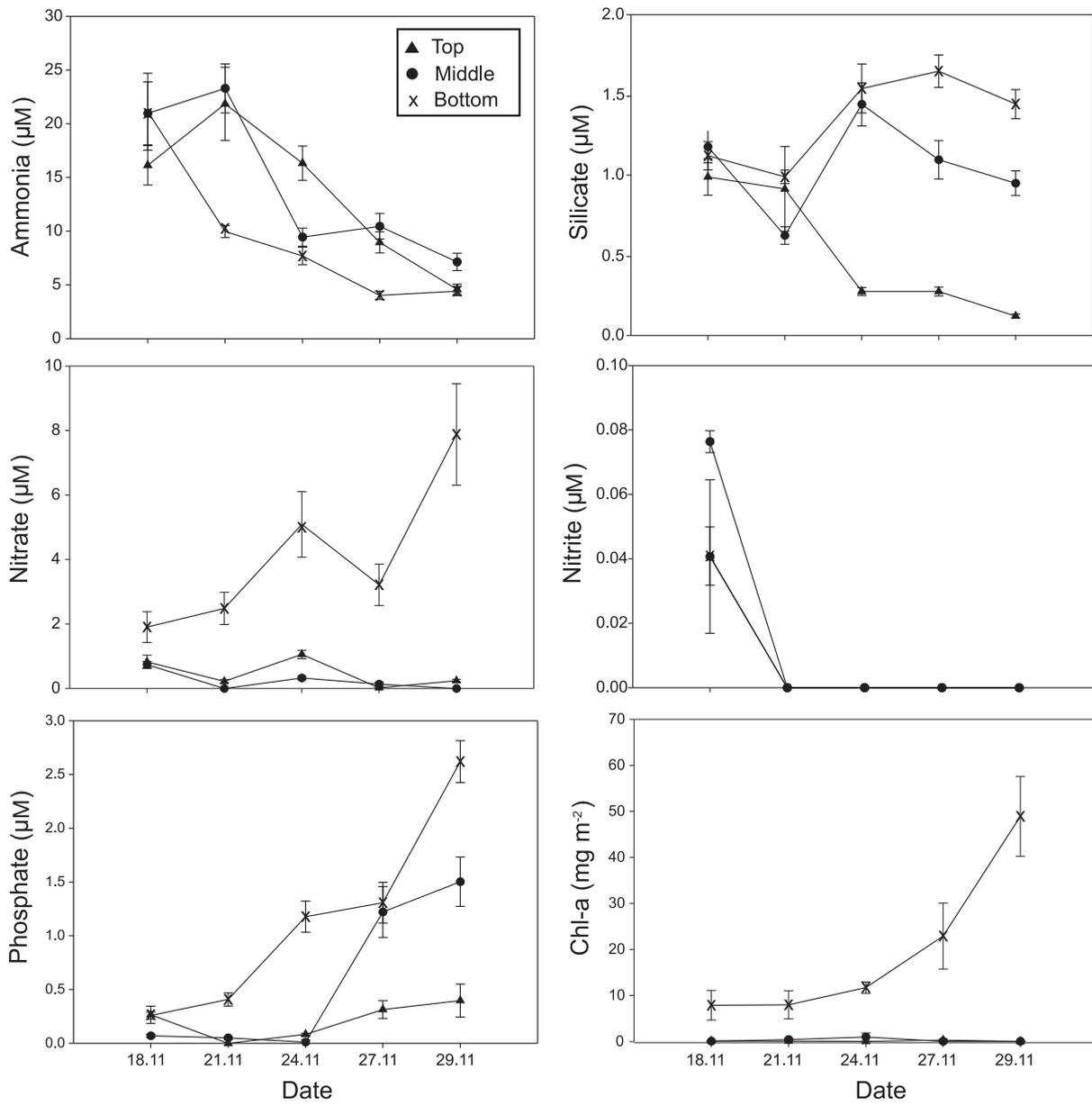


Fig. S2. Nutrient concentrations of silicate, nitrate, nitrite, ammonia, phosphate and chl *a* at Granite Harbour over time in the top, middle and bottom of the sea-ice core

Table S1. RFLs (bp) tentatively identified by their closest BLAST relative(s)

RFL	Closest relative (BLAST accession no.)	RFL	Closest relative (BLAST accession no.)
70f	<i>Psychroflexus torquis</i> (AY167320)	70r	<i>Psychroflexus torquis</i> (AY167320)
70f	<i>Glaciecola pallidula</i> (FR746107)	71r	<i>Polaribacter dokdonensis</i> (DQ481463)
71f	<i>Polaribacter dokdonensis</i> (DQ481463)	71r	<i>Psychroflexus torquis</i> (AY167320)
71f	<i>Erythrobacter</i> sp. (EF512713)	71r	<i>Psychrobacter glacialis</i> (AJ539102)
86f	<i>Psychrobacter glacialis</i> (AJ539102)	116r	<i>Glaciecola pallidula</i> (FR746107)
86f	<i>Micrococcus antarcticus</i> (FJ907955)	125r	<i>Rhodococcus</i> sp. (FN397657)
119f	<i>Rhodococcus</i> sp. (FN397657)	128r	<i>Erythrobacter</i> sp. (AY646157)
119f	Antarctic sea ice bacterium (FJ998358)	128r	<i>Pseudomonas fluorescens</i> (GU198126)
135f	<i>Erythrobacter</i> sp. (EF512713)	132r	<i>Arthrobacter</i> sp. (DQ341426)
140f	<i>Planococcus psychrotoleratus</i> (AY771711)	132r	<i>Paracoccus</i> sp. (AM275338)
142f	<i>Bacillus</i> sp. (AF414443)	161r	<i>Paracoccus</i> sp. (AM275338)
142f	<i>Planococcus psychrotoleratus</i> (AY771711)	195r	<i>Brevundimonas mediterranea</i> (AJ244706)
153f	<i>Polaribacter dokdonensis</i> (DQ481463)	205r	<i>Polaribacter dokdonensis</i> (DQ481463)
153f	<i>Erythrobacter</i> sp. (EF512713)	205r	<i>Erythrobacter</i> sp. (EF512713)
194f	<i>Psychrobacter glacialis</i> (AJ539102)	324r	<i>Paracoccus</i> sp. (AM275338)
194f	<i>Flavobacterium degerlachei</i> (AJ557886)	338r	<i>Erythrobacter</i> sp. (EF512713)
194f	<i>Paracoccus</i> sp. (AM275338)	340r	<i>Psychrobacter glacialis</i> (AJ539102)
199f	<i>Polaribacter dokdonensis</i> (DQ481463)	340r	<i>Glaciecola pallidula</i> (FR746107)
199f	Uncultured <i>Sphingobacteria</i> (FN433448)	340r	<i>Psychroflexus torquis</i> (AY167320)
202f	<i>Psychrobacter glacialis</i> (AJ539102)	347r	<i>Micrococcus antarcticus</i> (FJ907955)
202f	<i>Micrococcus</i> sp. (EU394442)	380r	<i>Erythrobacter</i> sp. (EF512713)
205f	<i>Arthrobacter</i> sp. (DQ341426)	383r	<i>Psychrobacter glacialis</i> (AJ539102)
210f	<i>Planococcus psychrotoleratus</i> (AY771711)	384r	<i>Erythrobacter</i> sp. (EF512713)
225f	<i>Granulosicoccus antarcticus</i> (AY796036)	386r	<i>Erythrobacter</i> sp. (EF512713)
234f	<i>Psychrobacter glacialis</i> (AJ539102)		
237f	<i>Micrococcus</i> sp. (EU394442)		
237f	<i>Paracoccus</i> sp. (AM275338)		
237f	<i>Rhodococcus</i> sp. (FN397657)		
237f	<i>Sphingobacteria</i> sp.(FN433448.2)		
241f	<i>Rhodococcus</i> sp. (FN397657)		
241f	<i>Planococcus psychrotoleratus</i> (AY771711)		
249f	<i>Octadecabacter antarcticus</i> (FJ998358)		
281f	<i>Granulosicoccus antarcticus</i> (AY796036)		
458f	<i>Polaribacter dokdonensis</i> (DQ481463)		