

Table S2. Values of environmental variables measured at 13 first-year sea ice stations, Canadian Arctic Archipelago. nd - no data

region	Station	Ice thickness	Ice type	Snow cover	Total Chl <i>a</i>		Chl <i>a</i> > 5 μm		Sea ice Bacterial numbers		NO ₂	NO ₃	PO ₄	SiOH ₄	underlying sea water			
	#	(cm)		(cm)	(mg m ⁻²)	(mg m ⁻³)	(mg m ⁻²)	(mg m ⁻³)	(10 ¹² cells m ⁻²)	(10 ¹⁴ cells m ⁻³)	(mmol m ⁻³)	(mmol m ⁻³)	(mmol m ⁻³)	(mmol m ⁻³)	NO ₂	NO ₃	PO ₄	SiOH ₄
Barrow Strait	1	77	drift pack ice	5	0.8	38.9	0.73	35.8	6.4	3.2	nd	2.1	0.7	2.3	0.06	3.3	0.8	7.9
	2	133		6	0.6	28.9	0.50	22.9	5.2	2.4	0.08	1.1	0.5	2.7	0.13	1.0	1.0	5.0
	3	103		5	1.5	64.9	0.73	30.8	5.0	2.1	0.07	0.3	1.0	1.5	0.20	1.2	1.0	5.1
Cornwallis Island	4	144	land-fast ice	15	59.5	2072.8	52.89	1842.0	89.6	31.2	nd	nd	nd	nd	0.07	7.6	1.2	13.5
	5	142		25	18.9	901.2	3.73	178.1	78.9	37.6	nd	nd	nd	nd	0.08	8.2	1.2	14.3
	6	140		16	28.2	1791.6	27.95	1778.3	80.9	51.5	0.03	nd	5.5	2.4	0.08	7.8	0.9	13.8
	7	150		8	19.1	1216.4	20.26	1289.1	73.5	46.7	0.07	5.9	7.7	9.1	0.08	9.3	1.3	15.1
	8	164		4	27.8	1011.5	27.82	1219.7	170.8	62.1	nd	9.4	15.2	21.0	0.08	8.7	1.2	14.5
	9	189		2	22.2	1057.2	22.16	1062.4	108.1	51.6	0.09	7.7	13.8	6.6	0.12	8.0	1.2	13.9
	10	140		14	43.4	2438.8	42.17	2367.2	136.5	76.6	nd	nd	12.6	nd	0.07	8.1	1.2	15.3
	11	138		21	51.7	2244.4	53.54	2322.1	113.4	49.2	nd	nd	6.4	5.1	0.05	8.4	1.2	14.3
	12	141		5	10.3	392.7	10.05	355.7	35.6	13.6	0.03	6.9	2.6	2.9	0.05	9.3	1.3	15.9
	13	155		7	13.5	513.9	12.27	468.5	60.3	23.0	0.04	3.8	3.6	4.7	0.08	9.0	1.2	15.6