

Table S1: Environmental data for the annual survey carried out in Lake Redon from May 2007 to Apr 2008.

Depth (m)	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Mar-08	Apr-08
	DOC (μM)									
SML/Slush	100.0	66.6	66.6	83.3	75.0	100.0	66.6	66.6	50.0	91.7
2	83.3	58.3	66.6	75.0	66.6	83.3	/	58.3	41.7	83.3
10	58.3	66.6	58.3	58.3	83.3	83.3	/	50.0	33.3	41.7
20	50.0	58.3	50.0	58.3	58.3	75.0	/	50.0	25.0	50.0
35	58.3	50.0	50.0	50.0	50.0	50.0	/	50.0	25.0	33.3
60	50.0	50.0	58.3	50.0	41.7	41.7	/	50.0	25.0	8.3
	NH_4^+ (μM)									
SML/Slush	2.4	1.4	0.3	0.4	0.4	0.4	0.9	0.6	0.8	2.8
2	2.0	0.2	0.2	0.3	0.3	0.3	0.8	0.5	0.7	2.6
10	0.9	0.3	0.2	0.2	0.4	0.2	0.9	0.5	0.7	1.8
20	0.9	0.2	0.1	0.1	0.6	0.2	0.8	0.6	0.7	1.5
35	1.1	0.7	0.3	0.1	0.8	1.1	1.1	0.6	0.5	1.4
60	1.0	1.6	1.7	2.6	3.4	4.6	0.7	0.7	1.4	3.4
	NO_3^- (μM)									
SML/Slush	10	9	9	7	6	6	7	8	8	8
2	10	9	9	7	6	6	7	8	8	8
10	9	8	8	8	7	6	7	8	8	7
20	9	9	8	8	7	6	7	7	8	8
35	9	8	11	9	7	7	8	8	8	7
60	9	8	10	10	8	9	8	7	8	8
	NO_2^- (μM)									
SML/Slush	0.04	0.05	0.05	0.08	0.05	0.08	0.07	0.07	0.09	0.08
2	0.04	0.13	0.05	0.08	0.05	0.08	0.07	0.07	0.07	0.05
10	0.04	0.13	0.07	0.09	0.04	0.08	0.05	0.05	0.08	0.03
20	0.03	0.13	0.10	0.09	0.06	0.07	0.06	0.06	0.06	0.02
35	0.03	0.09	0.07	0.06	0.02	0.08	0.05	0.05	0.08	0.02
60	0.03	0.04	0.09	0.08	0.07	0.07	0.05	0.05	0.03	0.02
	Chla ($\mu\text{g L}^{-1}$)									
SML/Slush	0.16	0.35	1.03	1.10	1.24	1.05	1.15	0.70	0.45	0.16
2	0.21	0.97	1.12	1.20	1.31	1.13	1.37	0.93	0.50	0.22
10	0.55	2.10	1.88	1.39	1.92	1.03	1.57	1.93	0.70	0.54
20	0.34	2.02	2.08	1.23	1.36	1.22	1.43	1.62	0.50	0.17
35	0.54	1.98	3.29	4.44	2.26	1.67	1.42	1.28	0.23	0.12

60	0.21	0.57	0.91	0.70	0.53	0.40	1.19	0.98	0.16	0.07
Depth (m)	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Mar-08	Apr-08
	Temperature (°C)									
SML/Slush	4	4	13	13	12	10	4	1	0	0
2	4	9	13	13	12	10	4	2	1.6	1.9
10	3.9	8.3	11.4	12.7	12.4	9.6	4.1	1.9	2.2	2.5
20	3.9	6.7	7.4	8.2	9	9.5	4.1	2.5	2.6	2.9
35	4	4	4	4	4	5	4	3	3	3.3
60	4	4	4	4	4	4	4.1	3.2	3.4	3.7
	Oxygen (µM)									
SML/Slush	/	/	/	/	/	/	/	/	/	/
2	306	300	272	272	272	288	316	353	403	322
10	300	300	284	262	272	294	300	362	316	303
20	319	316	328	319	310	294	300	378	350	269
35	300	303	297	303	300	297	303	336	297	291
60	219	275	256	222	222	206	300	325	228	172
	Bacterial abundance (×10⁵ cell mL⁻¹)									
SML/Slush	7.2	5.9	13.4	6.4	5.2	6.0	4.6	4.8	6.4	5.1
2	5.7	3.4	15.2	6.4	5.3	5.8	6.2	4.1	2.3	3.3
10		4.9	11.6	7.3	6.3	5.1	5.7	4.9	2.6	3.7
20		3.2	20.4	11.3	12.1	5.4	5.4	4.5	2.2	3.6
35		5.6	21.5	19.2	11.4	5.1	6.4	3.7	2.1	3.3
60		9.3	14.5	16.4	8.8	7.6	7.0	5.2	2.8	4.0
	Archaeal abundance (×10³ cell mL⁻¹)									
SML/Slush	2.22	10.5	45.2	3.2	26.9	8.7	21.0	11.0	197.4	91.2
2	21.3	9.5	44.9	22.4	10.5	3.9	17.5	15.0	10.9	34.4
10		15.0	34.9	15.7	24.7	2.0	15.9	13.9	12.8	10.9
20		25.0	215.7	40.4	134.6	3.2	11.6	10.6	4.0	10.9
35		28.4	195.9	71.8	116.7	2.0	18.3	20.3	20.5	2.5
60		62.8	194.9	53.9	74.5	19.0	15.3	17.3	22.5	10.2