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Supplement of

Microbial nutrient limitation in arctic lakes in a permafrost landscape of southwest Greenland

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S1. Epilimnetic Water Quality and Nutrient Data for Summer 2013.

Lake	Depth (m)	June							July						
		Temp (° C)	pH	DIN (µg L ⁻¹)	TN (µg L ⁻¹)	TP (µg L ⁻¹)	DOC (mg L ⁻¹)	DIN:TP	Temp (° C)	pH	DIN (µg L ⁻¹)	TN (µg L ⁻¹)	TP (µg L ⁻¹)	DOC (mg L ⁻¹)	DIN:TP
SS10	29.4	6.1	6.0	2	215	2	4	1.0	13.3	6.5	9	280	<2	4	9.0
SS12	20	7.4	5.9	17	296	5	6	3.4	13.6	6.9	9	292	NA	7	NA
SS1381	21	10.3	6.9	5	742	6	26	0.83	15.1	7.4	20	942	NA	30	NA
SS15	32	7.9	7.2	2	236	4	6	0.50	13.5	7.0	13	243	3	6	4.3
SS1590	19	7.2	6.9	11	728	4	20	2.8	14.5	7.1	18	932	4	24	4.5
SS16	13	5.5	6.3	2	439	12	10	0.17	13.4	7.2	7	443	7	11	1.0
SS16B	9.8	9	6.4	7	580	8	9	0.88	14.1	6.4	6	610	11	10	0.55
SS18	11	10.4	6.6	6	648	4	20	1.5	17.4	6.6	16	803	6	21	2.7
SS2	12	6.2	6.6	15	627	3	24	5.0	14.4	7.6	10	709	<2	28	10
SS21	30	7.6	6.8	4	233	11	5	0.36	13.1	6.7	9	329	5	5	1.8
SS32	21	5.9	6.1	4	302	4	5	1.0	9.1	6.7	13	268	5	5	2.6
SS56	14	8.3	6.8	25	538	5	15	5.0	13.7	7.1	19	651	<2	16	19
SS57	36	7.2	6.9	6	265	<2	7	6.0	12.6	7.1	8	709	<2	8	8.0
SS66	29	5.5	6.6	2	260	<2	5	2.0	12.7	6.9	22	206	<2	5	22
SS67	8	11	5.8	4	470	<2	10	4.0	12.8	6.5	19	449	NA	11	NA
SS68	30	8.9	6.9	2	366	<2	9	2.0	15.1	7.6	11	267	4	9	2.8
SS8	11	11.6	7.2	2	892	4	31	0.50	15.6	7.2	14	1122	8	37	1.8
SS85	13	11.5	7.1	6	1042	<2	35	6.0	15.4	7.3	15	1132	<2	40	15

SS86	13	5.3	6.9	2	588	<2	13	2.0	9.5	7.3	4	902	3	13	1.3
SS901	15	7.2	6.3	5	368	4	8	1.3	13	6.9	10	442	4	8	2.5
SS903	29	6.8	6.8	2	388	10	8	0.20	12.3	7.7	13	598	7	8	1.9
SS904	18	6	6.1	2	220	3	5	0.67	13.4	6.7	7	263	10	5	0.70
SS905	20	5.7	6.3	2	178	<2	4	2.0	13.8	6.9	4	197	3	4	1.3
SS906	18	8.1	6.3	10	590	5	5	2.0	13.6	6.9	8	499	9	6	0.89

S2. Lake Nutrient Limitation and C acquisition as indicated by mean vector angle and length for both months.

Lake	Month	Epilimnia		Hypolimnia	
		Vector Angle	Vector Length	Vector Angle	Vector Length
SS10	June	-3	6.7	-1	2.5
SS10	July	NA	NA	NA	NA
SS12	June	11	40.2	15	8.2
SS12	July	-22	35.8	4	1.5
SS1381	June	35	1.6	NA	NA
SS1381	July	40	2.6	43	62.8
SS15	June	11	7.0	16	3.2
SS15	July	-21	6.3	6	7.2
SS1590	June	23	4.6	33	0.8
SS1590	July	12	3.2	31	17.3
SS16	June	18	7.4	8	6.8
SS16	July	8	2.3	20	1.4
SS16B	June	31	5.5	37	1.7
SS16B	July	15	5.0	36	3.2
SS18	June	29	2.3	38	1.1
SS18	July	4	4.5	38	2.0
SS2	June	20	9.3	26	3.5
SS2	July	36	0.5	33	0.6
SS21	June	-6	23.5	2	12.7
SS21	July	-12	5.0	-21	4.3
SS32	June	23	8.3	24	3.1
SS32	July	-26	13.4	-13	10.8
SS56	June	29	7.7	31	1.5
SS56	July	23	2.2	31	2.7
SS57	June	18	1.8	34	7.0
SS57	July	33	1.4	35	0.3
SS66	June	4	2.4	-6	3.9
SS66	July	-32	10.5	-26	7.0
SS67	June	11	3.4	24	1.9
SS67	July	-30	15.6	-30	12.7
SS68	June	3	2.8	12	3.7
SS68	July	27	0.9	27	1.8
SS8	June	33	5.8	35	1.5
SS8	July	33	0.5	36	0.3
SS85	June	41	15.5	45	0.2
SS85	July	41	58.4	42	4.8
SS86	June	30	3.2	34	3.5

SS86	July	33	0.2	37	0.2
SS901	June	12	4.8	17	3.9
SS901	July	-24	34.0	-3	3.2
SS903	June	8	8.4	17	2.4
SS903	July	22	11.8	19	7.0
SS904	June	7	11.8	8	24.8
SS904	July	-24	6.6	-5	7.8
SS905	June	0	14.5	12	8.6
SS905	July	-23	7.2	7	8.0
SS906	June	-8	15.7	-6	2.6
SS906	July	-20	0.3	-11	1.1
