

**Supplementary Information**

**Supplementary Table S1. All concentration data of all ions over study period in each study pond.**

Location	Date and Time	DON	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	Na <sup>+</sup>	K <sup>+</sup>	Mg <sup>2+</sup>	Ca <sup>2+</sup>	NH <sub>4</sub> <sup>+</sup>	NO <sub>3</sub> <sup>-</sup>
Erin	2015-05-25 12:00 PM	0.50	12.11	2.47	7.25	0.78	4.99	7.26	0.11	0.01
	2015-06-04 12:00 PM	0.39	10.41	2.16	6.26	0.62	4.45	13.00	0.03	0.01
	2015-06-17 12:00 PM	0.36	10.29	2.11	6.44	0.57	4.70	8.79	0.05	0.01
	2015-07-01 4:05 PM	0.60	12.53	2.43	7.95	0.78	6.11	10.27	0.08	0.01
	2015-07-06 4:30 PM	0.55	10.22	1.95	6.64	0.57	5.10	12.06	0.11	0.01
	2015-07-22 10:39 AM	0.65	12.10	2.27	7.88	0.78	6.42	12.28	0.07	0.01
	2015-08-05 10:16 AM	0.68	12.26	2.38	7.86	0.75	6.59	7.90	0.04	0.00
	2015-08-19 3:03 PM	0.72	13.39	2.38	8.46	0.82	7.15	7.97	0.04	0.01
	2015-09-02 3:23 PM	0.90	14.18	2.41	8.91	0.84	7.72	7.23	0.05	0.01
	2015-09-17 8:39 AM	0.76	14.62	2.60	9.38	0.89	8.46	5.95	0.06	0.01
	2015-10-03 3:37 PM	0.90	15.03	2.99	9.91	0.87	8.94	8.24	0.08	0.01
2015-10-14 10:00 AM	0.53	12.14	2.78	7.51	0.70	8.00	6.30	0.16	0.01	
Frisbee	2015-05-25 12:00 PM	0.41	35.67	7.49	19.44	1.15	6.61	18.81	0.07	0.01
	2015-06-04 12:00 PM	0.40	20.00	7.34	12.32	0.59	5.56	18.02	0.02	0.01
	2015-06-17 12:00 PM	0.72	19.39	9.17	11.65	0.45	7.30	22.04	0.07	0.01
	2015-07-01 3:52 PM	2.25	56.62	18.89	26.60	1.54	15.47	32.34	0.10	0.00
	2015-07-04 7:45 AM	1.66	31.09	10.92	14.69	0.82	10.25	24.91	0.09	0.01
	2015-07-04 2:30 PM	0.88	29.54	10.32	14.60	0.73	10.19	19.73	0.13	0.00
	2015-07-04 8:30 PM	1.02	26.75	12.03	13.61	0.70	10.16	25.50	0.06	0.02
	2015-07-05 7:45 AM	0.61	14.07	7.17	8.70	0.42	6.99	20.90	0.04	0.01
	2015-07-05 3:00 PM	0.60	13.88	6.78	8.89	0.34	6.55	19.01	0.04	0.01
	2015-07-06 7:30 AM	0.64	14.57	8.75	9.70	0.30	7.27	23.42	0.04	0.00
	2015-07-06 4:30 PM	0.89	15.97	9.83	10.08	0.32	7.18	24.40	0.04	0.00
	2015-07-22 10:25 AM	1.33	40.53	17.56	20.66	0.95	15.32	23.01	0.05	0.00
	2015-08-05 10:32 AM	1.17	36.50	14.84	18.81	0.87	15.69	17.05	0.06	0.01
	2015-08-19 3:21 PM	1.67	52.49	18.44	26.61	1.20	19.10	25.29	0.08	0.01
	2015-09-02 3:37 PM	2.36	67.82	19.31	31.20	1.49	24.55	21.60	0.05	0.00
	2015-09-17 8:57 AM	1.86	72.63	17.96	32.99	1.74	27.50	28.84	0.04	0.01
2015-10-03 3:55 PM	1.25	46.06	23.22	25.03	0.93	24.28	15.00	0.06	0.01	
2015-10-14 9:46 AM	0.46	25.27	22.57	13.80	0.59	15.86	14.87	0.20	0.01	
Larch	2015-05-25 12:00 PM	0.15	12.13	2.18	5.88	0.58	4.31	9.18	0.04	0.01
	2015-06-04 12:00 PM	0.32	15.32	5.86	10.33	0.78	8.50	11.59	0.03	0.01
	2015-06-17 12:00 PM	0.33	15.25	3.31	11.39	0.80	9.26	8.46	0.03	0.01
	2015-07-01 3:47 PM	0.43	19.44	7.18	13.40	0.85	10.90	12.24	0.05	0.01
	2015-07-06 4:30 PM	0.51	13.30	1.08	8.96	0.53	7.10	12.22	0.06	0.01

	2015-07-22 10:20 AM	0.47	15.45	2.86	11.19	0.65	9.83	8.93	0.09	0.00	
	2015-08-05 10:26 AM	0.58	16.32	2.90	12.03	0.73	11.19	8.99	0.06	0.01	
	2015-08-19 3:15 PM	0.58	17.80	3.00	14.80	0.94	13.58	7.98	0.04	0.01	
	2015-09-02 3:30 PM	0.65	19.25	3.27	13.42	0.91	12.68	7.56	0.04	0.01	
	2015-09-17 8:46 AM	0.59	20.25	3.12	14.47	1.02	14.15	7.81	0.14	0.01	
	2015-10-03 3:48 PM	0.57	19.38	2.81	13.66	0.99	13.31	6.99	0.07	0.00	
	2015-10-14 9:42 AM	0.55	17.70	2.09	12.15	0.91	11.58	8.81	0.19	0.01	
Left	2015-05-25 12:00 PM	0.35	14.73	2.68	9.31	1.09	6.37	8.51	0.06	0.01	
	2015-06-04 12:00 PM	0.45	14.47	1.36	12.77	0.98	9.34	10.70	0.07	0.01	
	2015-06-17 12:00 PM	0.39	23.38	6.40	14.87	1.00	11.14	10.67	0.03	0.01	
	2015-07-01 4:00 PM	1.07	38.83	9.58	22.44	1.52	14.52	13.21	0.10	0.01	
	2015-07-06 4:30 PM	0.75	23.17	5.10	13.99	0.82	10.33	17.34	0.00	0.00	
	2015-07-22 10:48 AM	0.90	32.89	7.14	18.70	1.18	13.25	14.78	0.08	0.01	
	2015-08-05 10:48 AM	0.89	36.20	6.97	20.41	1.21	14.88	12.98	0.03	0.00	
	2015-08-19 2:53 PM	1.10	48.32	11.11	26.63	1.33	16.68	10.70	0.07	0.01	
	2015-09-02 3:57 PM	1.12	57.11	13.73	31.64	1.28	20.64	12.02	0.05	0.01	
	2015-09-17 9:07 AM	1.03	73.92	19.65	40.34	1.42	28.88	13.89	0.16	0.01	
	2015-10-03 4:16 PM	0.72	57.13	17.92	32.88	1.43	24.25	10.29	0.03	0.01	
	2015-10-14 10:14 AM	0.54	45.56	14.68	25.39	1.82	18.04	9.63	0.04	0.01	
	Sandwich	2015-05-25 12:00 PM	0.26	8.70	0.65	5.82	0.55	4.21	8.87	0.16	0.01
		2015-06-04 12:00 PM	0.35	14.36	1.31	9.45	0.69	7.25	8.16	0.05	0.01
		2015-06-17 12:00 PM	0.55	15.32	3.55	9.44	0.67	7.54	10.42	0.25	0.01
2015-07-01 3:43 PM		0.60	17.43	1.06	11.38	0.90	8.56	10.19	0.13	0.01	
2015-07-06 4:30 PM		0.53	13.04	0.95	8.73	0.50	7.15	15.01	0.04	0.01	
2015-07-22 10:17 AM		0.57	14.08	1.04	9.86	0.55	8.34	8.02	0.16	0.01	
2015-08-05 10:24 AM		0.73	15.14	1.04	10.69	0.60	9.34	8.13	0.05	0.01	
2015-08-19 3:11 PM		0.76	17.10	0.87	12.12	0.69	9.86	7.34	0.03	0.00	
2015-09-02 3:27 PM		0.77	18.82	0.88	13.28	0.74	11.27	13.65	0.04	0.01	
2015-09-17 8:45 AM		0.72	20.04	0.83	14.50	0.76	12.77	9.59	0.06	0.01	
2015-10-03 3:45 PM		0.75	20.11	0.90	13.80	0.77	11.77	6.65	0.04	0.01	
2015-10-14 9:39 AM	0.48	19.14	0.81	12.49	0.70	10.98	5.97	0.05	0.01		
Strange	2015-05-25 12:00 PM	0.41	12.47	4.11	8.56	1.29	5.68	8.33	0.03	0.01	
	2015-06-04 12:00 PM	0.26	13.53	4.42	9.89	1.40	7.35	14.76	0.07	0.01	
	2015-06-17 12:00 PM	0.32	13.74	4.93	10.36	1.38	7.90	13.95	0.06	0.01	
	2015-07-01 3:56 PM	0.74	17.42	7.13	12.51	1.71	9.50	12.51	0.04	0.01	
	2015-07-03 2:30 PM	0.83	17.77	6.76	12.58	1.74	9.68	15.16	0.03	0.01	
	2015-07-04 7:45 AM	0.67	15.52	5.79	11.43	1.53	9.32	15.40	0.03	0.01	
	2015-07-04 2:30 PM	0.85	15.95	5.96	11.57	1.53	9.36	10.97	0.04	0.01	
	2015-07-04 8:30 PM	0.71	15.48	5.93	11.43	1.51	9.37	10.51	0.05	0.01	
	2015-07-05 7:45 AM	0.55	13.85	5.30	10.38	1.29	8.93	19.89	0.04	0.01	
2015-07-05 3:00 PM	0.57	12.99	4.63	10.02	1.17	8.48	18.69	0.06	0.01		

2015-07-06 7:30 AM	0.49	11.83	4.32	9.71	1.08	8.42	15.23	0.06	0.01
2015-07-06 4:30 PM	0.50	12.10	5.14	9.79	1.15	8.52	17.65	0.04	0.01
2015-07-22 10:33 AM	0.49	14.87	6.42	12.31	1.37	10.85	12.06	0.03	0.01
2015-08-05 10:37 AM	0.66	15.95	6.49	13.22	1.43	12.01	8.53	0.04	0.01
2015-08-19 3:26 PM	0.72	19.57	8.16	15.84	1.45	13.17	8.42	0.10	0.01
2015-09-02 3:42 PM	0.77	25.40	10.77	18.96	1.57	15.77	8.16	0.08	0.01
2015-09-17 8:55 AM	0.65	49.87	18.58	28.18	2.13	24.31	10.89	0.05	0.01
2015-10-03 4:02 PM	0.51	32.37	14.39	22.93	1.82	19.33	7.53	0.03	0.01
2015-10-14 9:52 AM	0.25	24.95	12.30	18.92	1.84	16.96	6.65	0.05	0.01