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Seasonal and spatial patterns of primary production in a high-latitude fjord affected by Greenland Ice Sheet run-off

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Supplementary Material for:

"Seasonal and spatial patterns of primary production in a high-latitude fjord affected by Greenland Ice Sheet run-off"- J.M. Holding et al.

Table S1. Photosynthetic parameters for each PI curve performed. PI curves were performed on each sampling day at 2 – 3 depths per station (surface and depth(s) of florescence maxiumum). P^B_m= the chlorophyll standardized maximum carbon uptake (g C g^{-1} Chl h^{-1}). α_B= the light utilization efficiency value standardized for chlorophyll (g C g^{-1} Chl mol^{-1} photons m^2). Ik- values (P^B_m / α_B) = the light level that is saturating for carbon fixation (μmol photons m^{-2} s^{-1}).

Date	Julian Day	Depth (m)	P^B_m	α_B	Ik (P^B_m / α_B)
Station 1					
Jul-14	202	1	2.470	25.97	26.4
Aug-14	213	1	0.981	12.24	22.3
Aug-14	213	10	0.099	2.19	12.5
Sep-14	251	1	0.620	11.03	15.6
Sep-14	251	18	0.247	2.25	30.4
Sep-14	263	1	0.618	8.11	21.2
Sep-14	263	20	0.514	8.51	16.8
Sep-14	270	1	0.600	28.96	5.8
Sep-14	270	20	0.434	17.75	6.8
Station 2					
Jul-14	198	1	1.101	16.33	18.7
Jul-14	198	40	0.072	0.67	29.8
Jul-14	208	1	2.619	12.76	57.0
Jul-14	208	15	0.798	7.43	29.8
Aug-14	217	1	0.709	13.17	15.0
Sep-14	249	1	0.667	3.93	47.2
Sep-14	256	1	0.556	6.39	24.2
Sep-14	256	17	0.448	9.15	13.6
Sep-14	270	1	0.083	1.00	23.0
Sep-14	270	17	1.515	16.92	24.9
Station 3					
Jul-14	192	1	0.779	16.30	13.3
Jul-14	192	5	2.269	47.49	13.3
Jul-14	200	1	0.654	3.08	59.0
Jul-14	211	1	0.573	3.52	45.2
Jul-14	211	30	0.222	2.66	23.2
Aug-14	219	1	0.610	7.31	23.2
Aug-14	219	26	0.155	2.86	15.0
Sep-14	247	1	0.508	9.12	15.5
Sep-14	247	12	0.389	4.52	23.9
Sep-14	259	1	0.598	4.60	36.0
Sep-14	259	10	0.575	2.37	67.3
Sep-14	271	1	1.141	5.88	54.0
Sep-14	271	10	0.616	4.59	37.3
Oct-14	277	1	0.601	7.16	23.3
Oct-14	277	20	0.497	10.75	12.9
Oct-14	279	1	0.567	6.82	23.1
Station 4					
Jul-14	205	1	0.521	2.29	63.1
Aug-14	215	1	0.590	4.87	33.6
Aug-14	215	30	0.398	6.48	17.1
Aug-14	222	1	0.807	13.16	17.0
Aug-14	222	24	0.182	1.38	36.7
Sep-14	254	1	0.417	5.12	22.6
Sep-14	254	25	0.229	3.45	18.5
Sep-14	261	1	0.288	2.91	27.5
Sep-14	261	30	0.152	2.37	17.9
Oct-14	275	1	0.550	6.09	25.1
Oct-14	275	20	0.429	9.27	12.8

Figure S1. Nutrient ratios at all stations and depths sampled. Nitrate + nitrite (μM) versus phosphate (μM) concentrations (red circles), and nitrate + nitrite (μM) v. silicate (μM) concentrations (blue squares). Open symbols indicate depths above the average nitracline of the data set (29m). Red and blue lines represent the 16N:1P and 15Si:16N Redfield ratios for phosphate and silicate respectively.

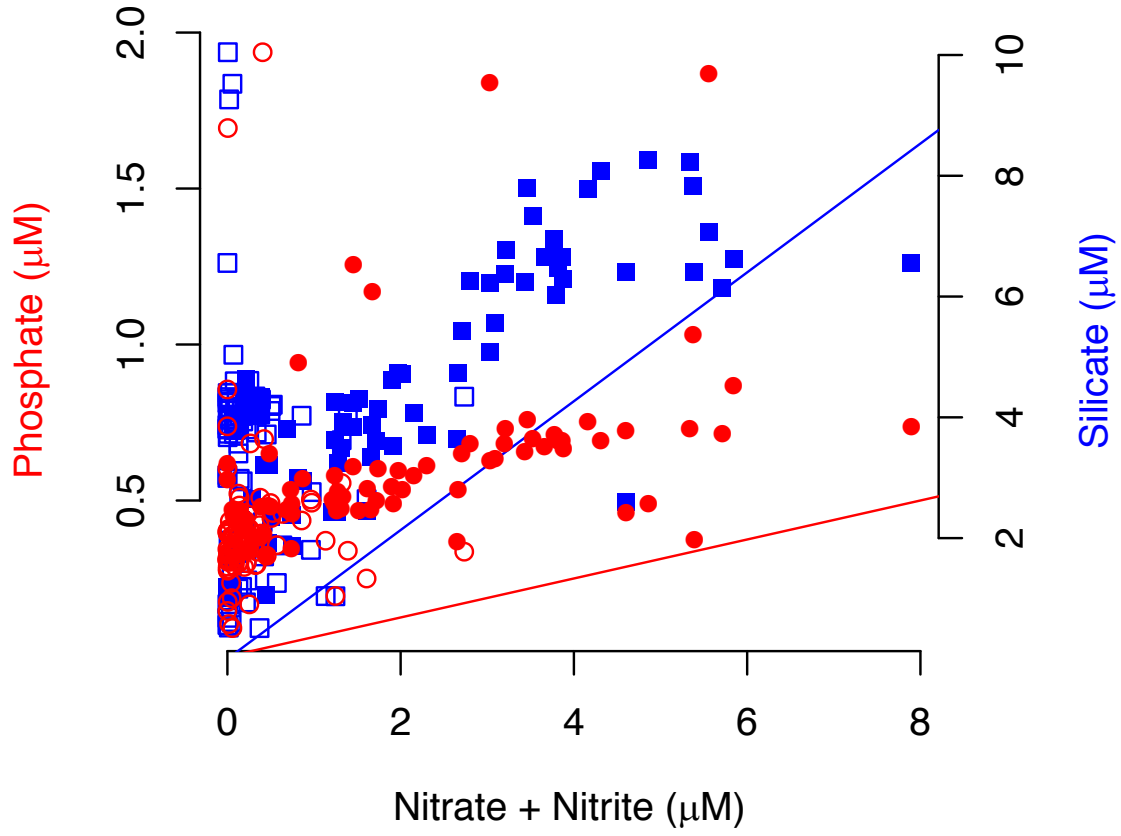

Figure S2. Vertical distribution of chlorophyll *a* profiles overtime for each station. Colors in legend indicate julian day for each profile.

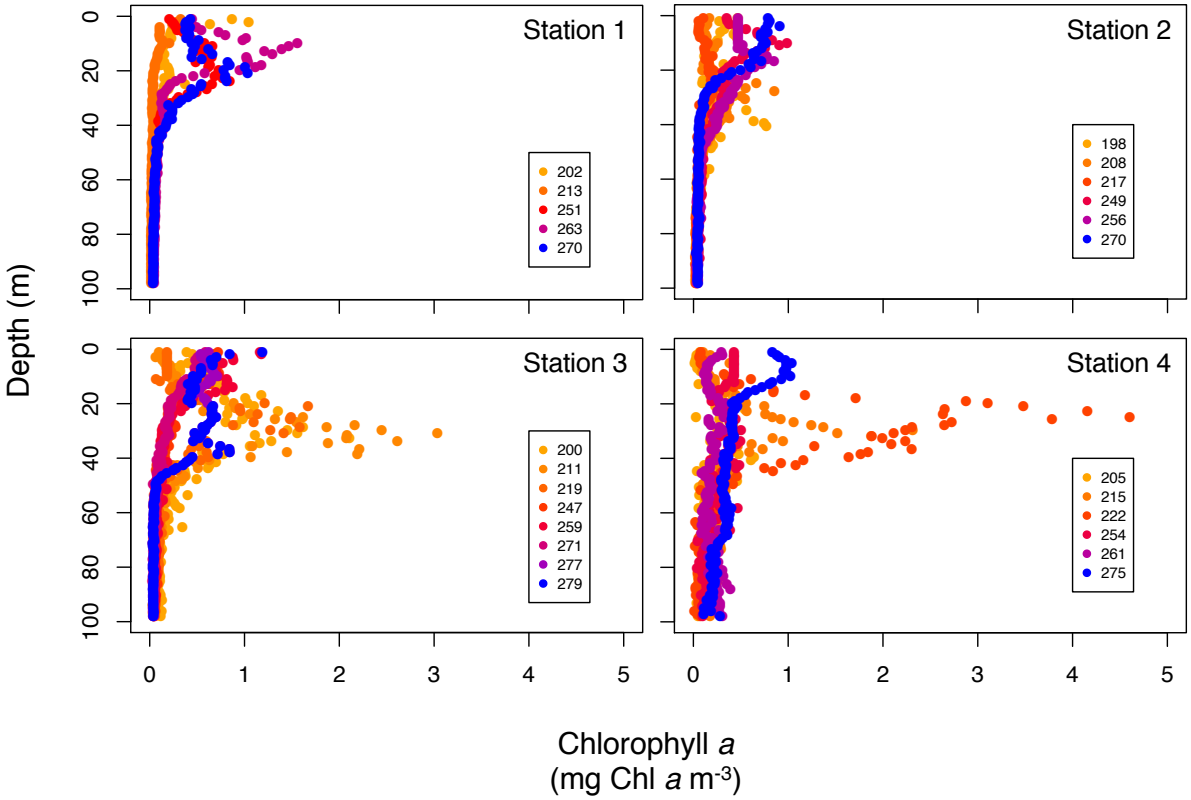

Figure S3. Vertical distribution of primary production profiles overtime for each station. Colors in legend indicate julian day for each profile.