

Supplementary Material

Summertime amino acid and carbohydrate patterns in particulate and dissolved organic carbon across Fram Strait

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Supplementary Material

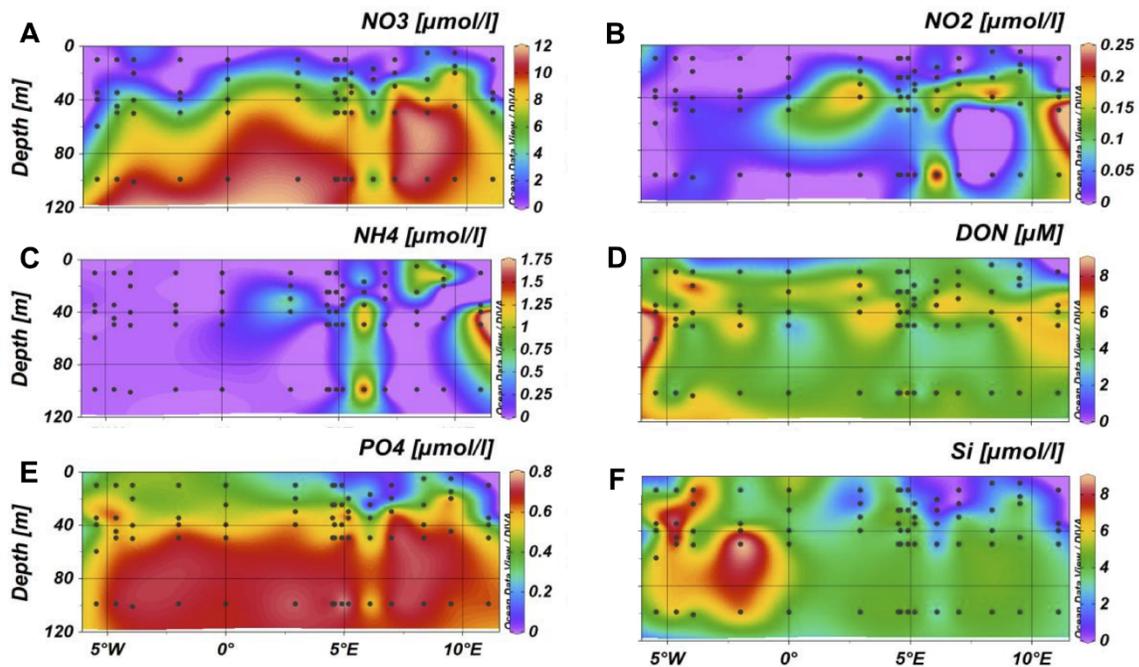


Figure S1: Distribution of nutrients along the sampling track: Nitrate (NO_3^-) (A), nitrite (NO_2^-) (B), ammonia (NH_4^+) (C), dissolved organic nitrogen (DON) (D), phosphate (PO_4^{3-}) (E) and silicate (Si(OH)_4) (F).

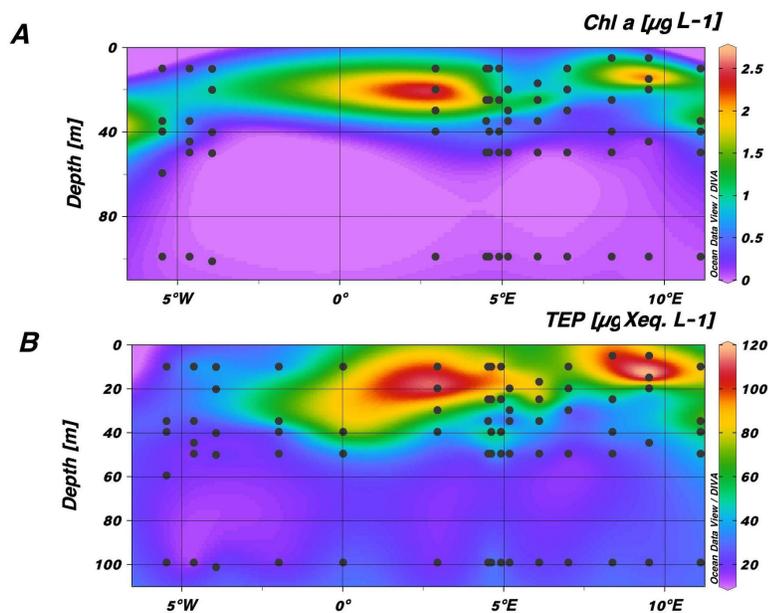


Figure S2: Distribution of chlorophyll a (A) and TEP (B) along the sampling track.

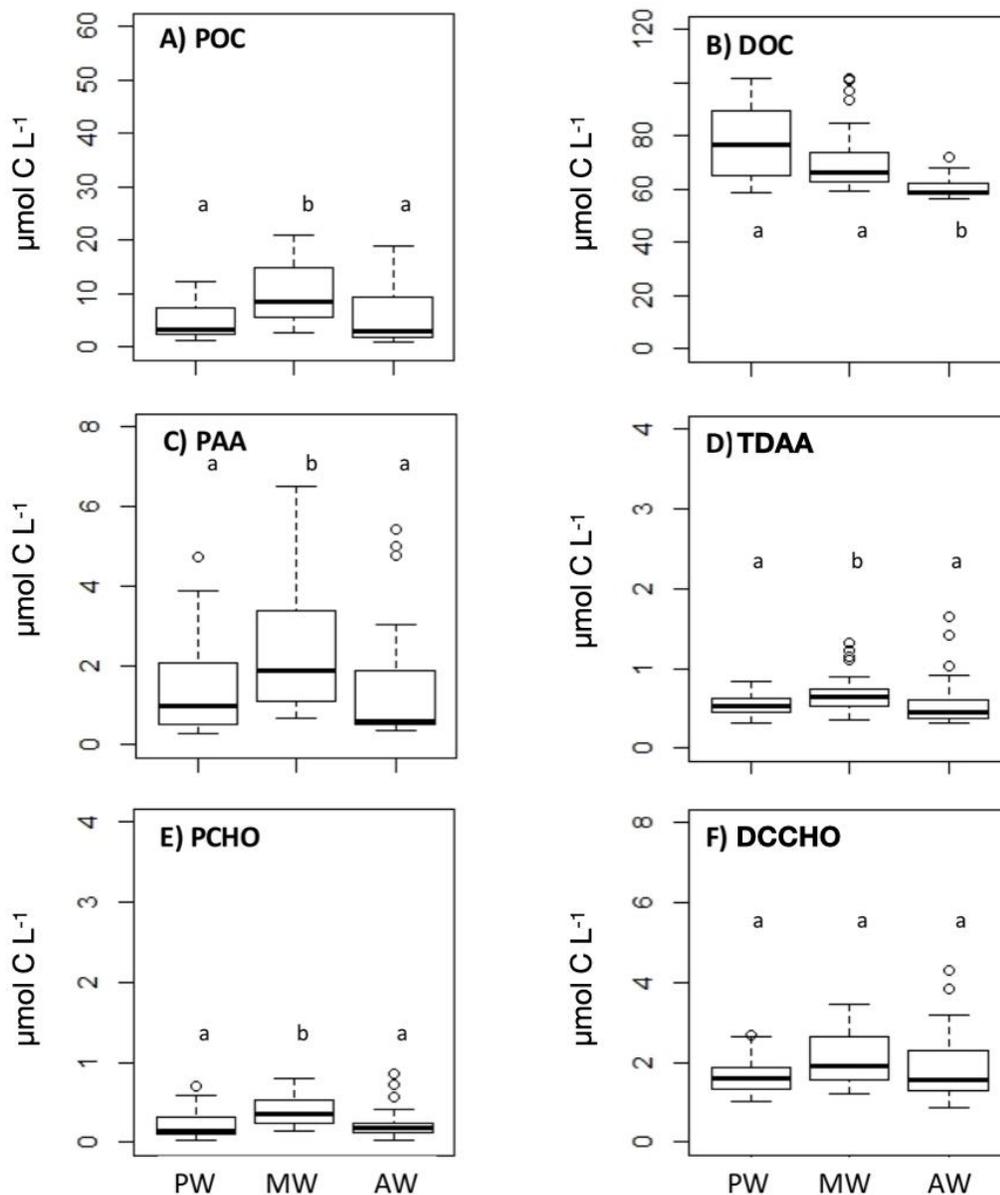


Figure S3: Boxplots show range of concentrations of particulate organic carbon (A) and dissolved organic carbon concentrations (B) and amino acid (C, D) and carbohydrate (E, F) concentrations within the POC and DOC pool separated by water mass [PW - Polar Water ($n = 25$, $n_{\text{POC}} = 17$), MW - Mixed Water ($n = 25$, $n_{\text{POC}} = 24$), AW - Atlantic Water ($n = 23$, $n_{\text{POC}} = 22$)]. POC data was missing from 2 stations, resulting in smaller sampling size indicated by n_{POC} . Within each panel, bars with different letters were significantly different, as tested by Kruskal-Wallis ANOVA followed by post-hoc comparison test (Wilcox test).

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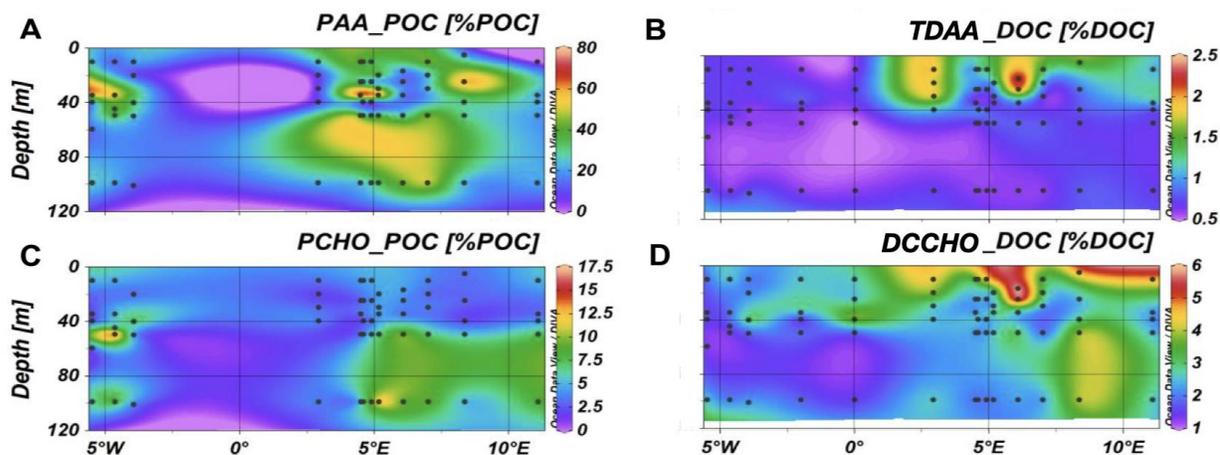


Figure S4: Contribution of amino acid carbon (A, B) and carbohydrate carbon (C, D) to POC and DOC in %. Note differences in scale.

Table S1: Ratios of AA carbon and CHO carbon at different stations and in different size fractions

Size Fraction (Average)	EG 3	<i>n</i>	N5	<i>n</i>	HG1	<i>n</i>	All stations	<i>n</i>
PAA:PCHO > 10 μ m [mol C:mol C]	3.37 \pm 1.22	5	5.20 \pm 3.08	5	5.47 \pm 2.34	5	4.68 \pm 2.52	15
PAA:PCHO 0.7 – 10 μ m [mol C:mol C]	3.21 \pm 1.87	5	5.05 \pm 2.47	5	3.58 \pm 1.75	5	3.95 \pm 2.20	15
PAA:PCHO 0.2 – 0.7 μ m [mol C:mol C]	0.56 \pm 0.20	5	1.04 \pm 0.40	5	0.88 \pm 0.52	5	0.83 \pm 0.44	15