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Journal of Geophysical Research: Oceans

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Supporting Information for

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Insights into Water Mass Origins in the Central Arctic Ocean from in-situ Dissolved

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Organic Matter Fluorescence.

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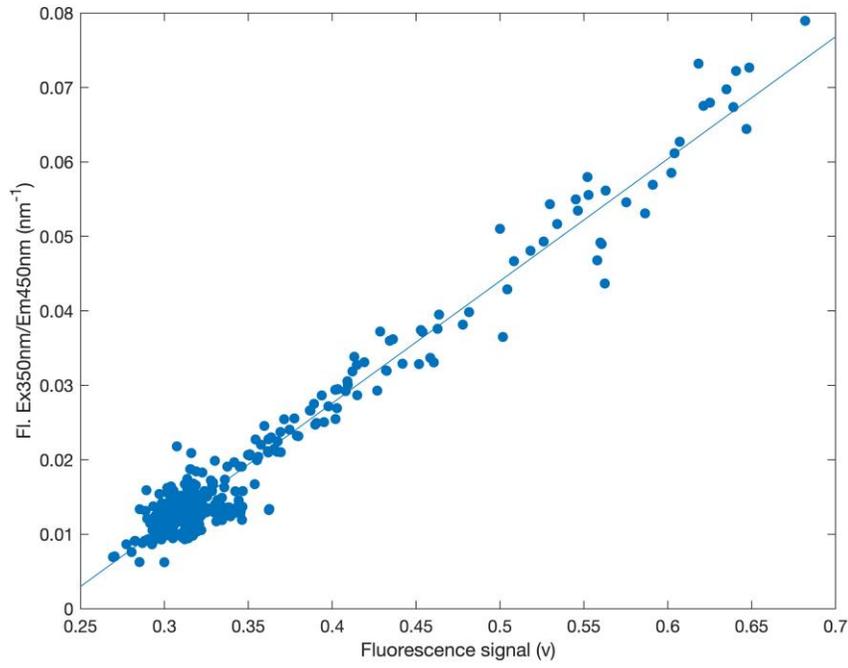
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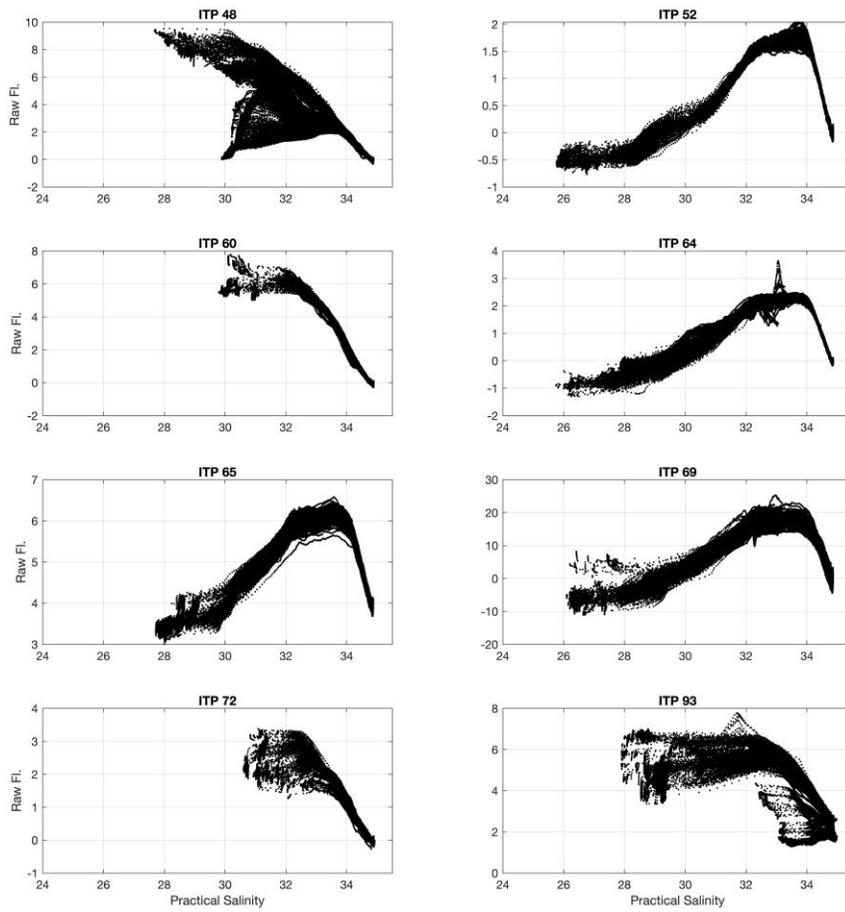
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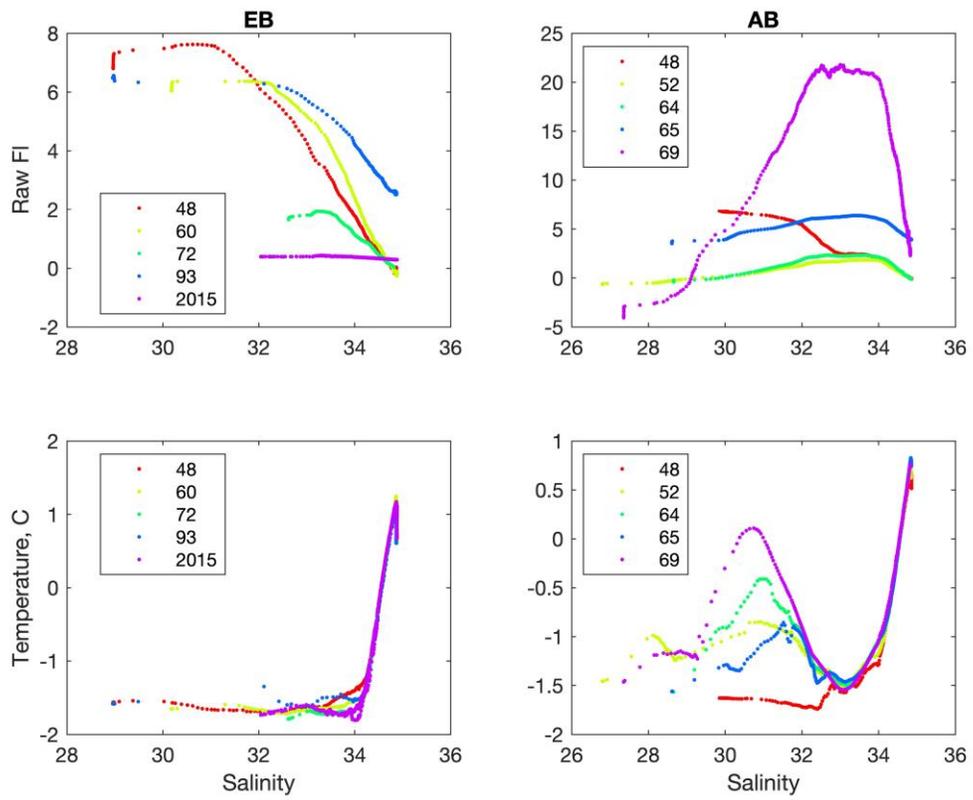
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36 **Figure S1.** Calibration of the CTD mounted fluorometer on PS94 to water samples taken and
37 measured onboard. $Fl. = V * 0.1641 - 0.0380$; $R^2 = 0.96$.

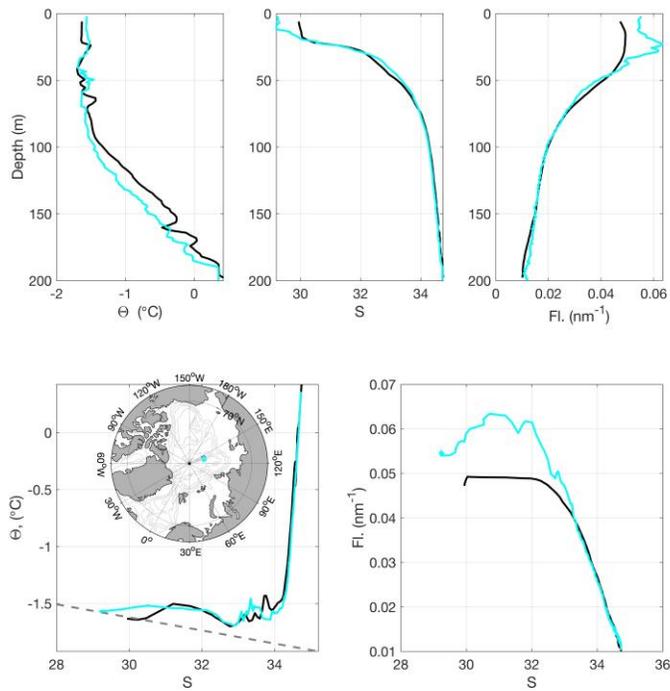
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 40 **Figure S2.** Raw fluorescence signal from the ITPs.
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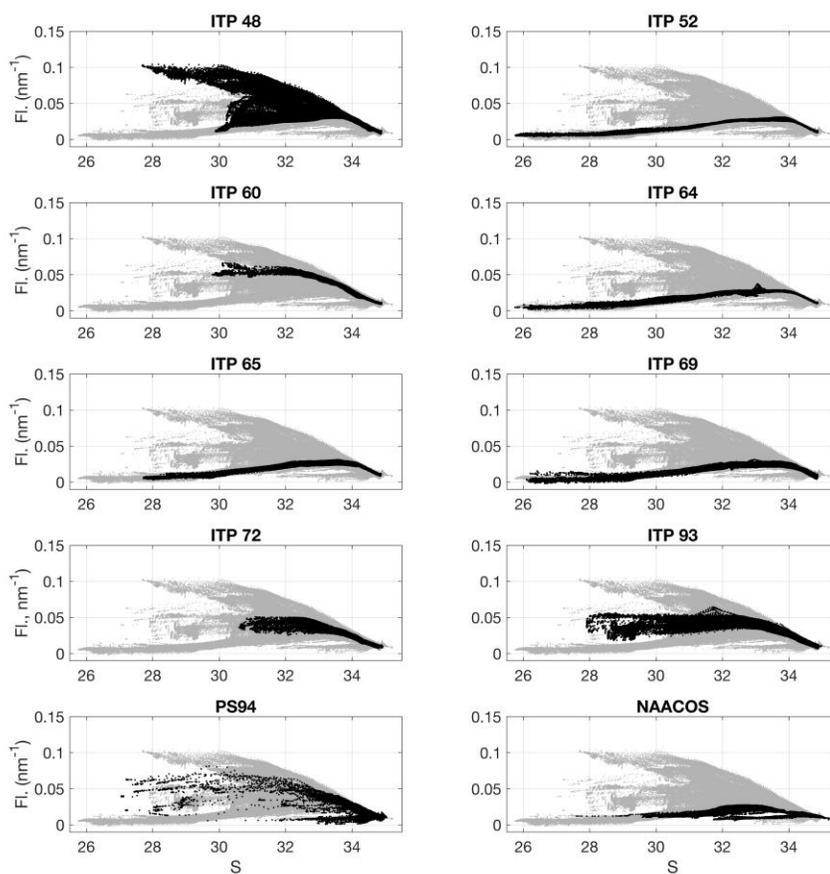


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 43 **Figure S3.** Data from selected profiles for Eurasian (EB) and Amerasian Basins (AB), where
 44 waters with common q-S were sampled and could be used to intercalibrate DOM fluorescence
 45 signal.
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Figure S4. Comparison of PS94 (blue) with ITP93 calibrated using the q-S space approach for a station where ITP93 was deployed and a ship CTD cast was also performed.



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 53 **Figure S5.** Calibrated organic matter fluorescence against practical salinity. Black data are for
 54 each specific ITP or cruise. Grey data points in the background are all data combined.