

Supplemental Material for

**Biomarker characterization of the North Water Polynya, Baffin Bay:
Implications for local sea ice and temperature proxies**

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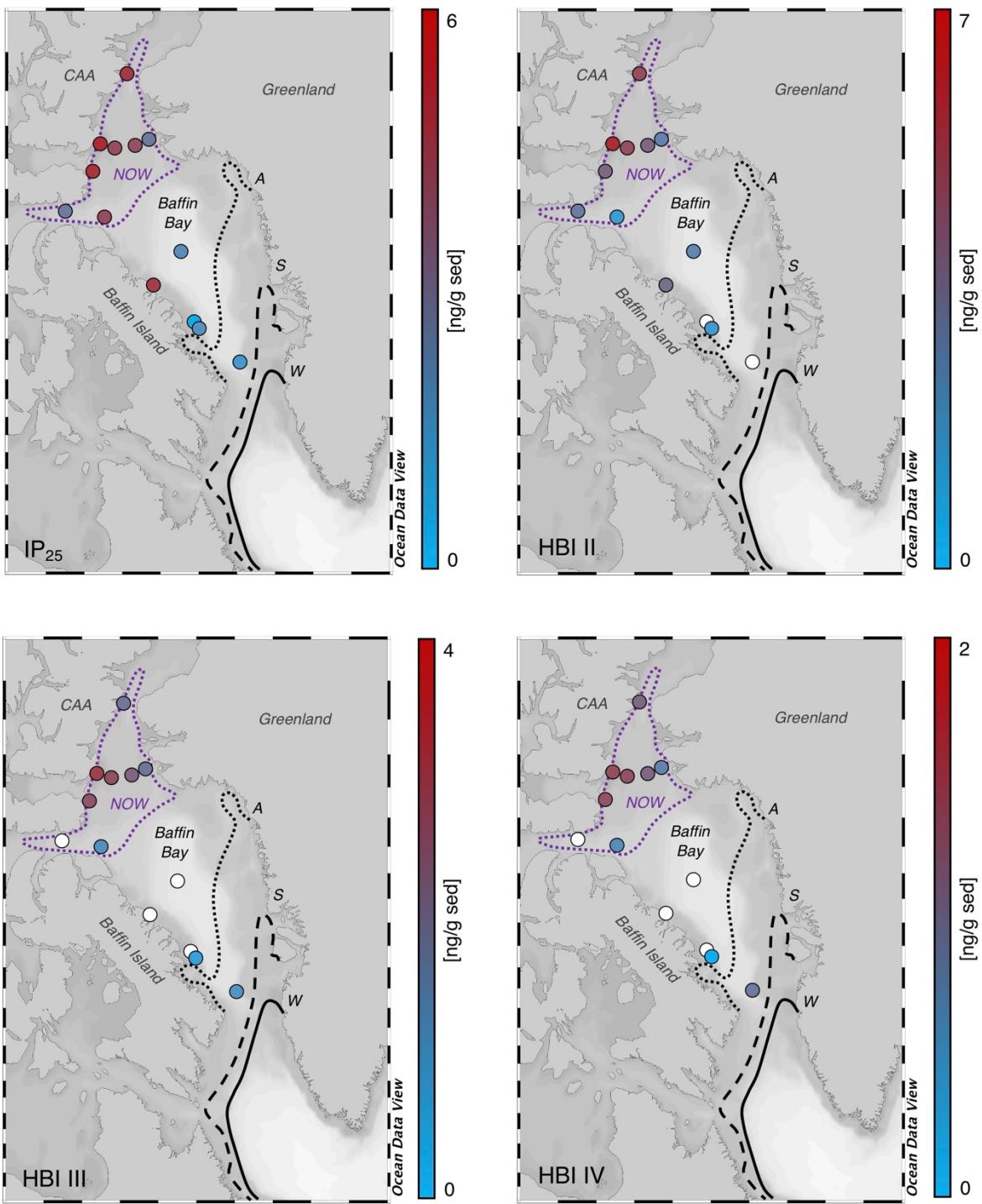


Fig. S1: Distribution of HBI concentrations in surface sediment samples. White circles indicate samples where no analyte was detected. Modern June limits of the NOW demarcated with a dashed purple line and seasonal sea ice limits shown with black dotted (autumn, A), dashed (spring, S) and solid lines (winter, W) (Cavalieri et al., 1996).

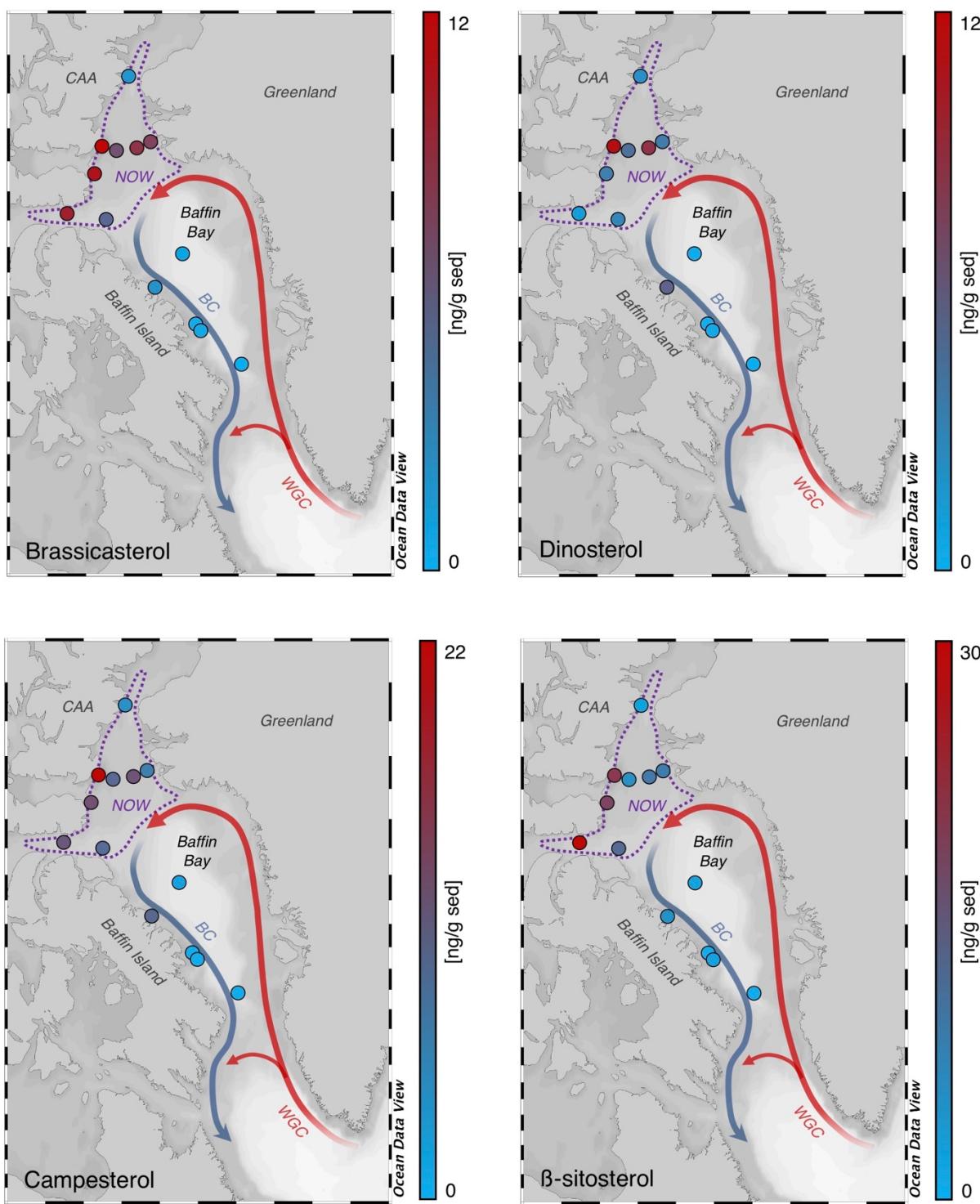


Fig. S2: Distribution of sterol concentrations in surface sediment samples. Modern June limits of the NOW demarcated with a dashed purple line and simplified ocean surface currents shown in bold red and blue lines. WGC = West Greenland Current, BC = Baffin Current.

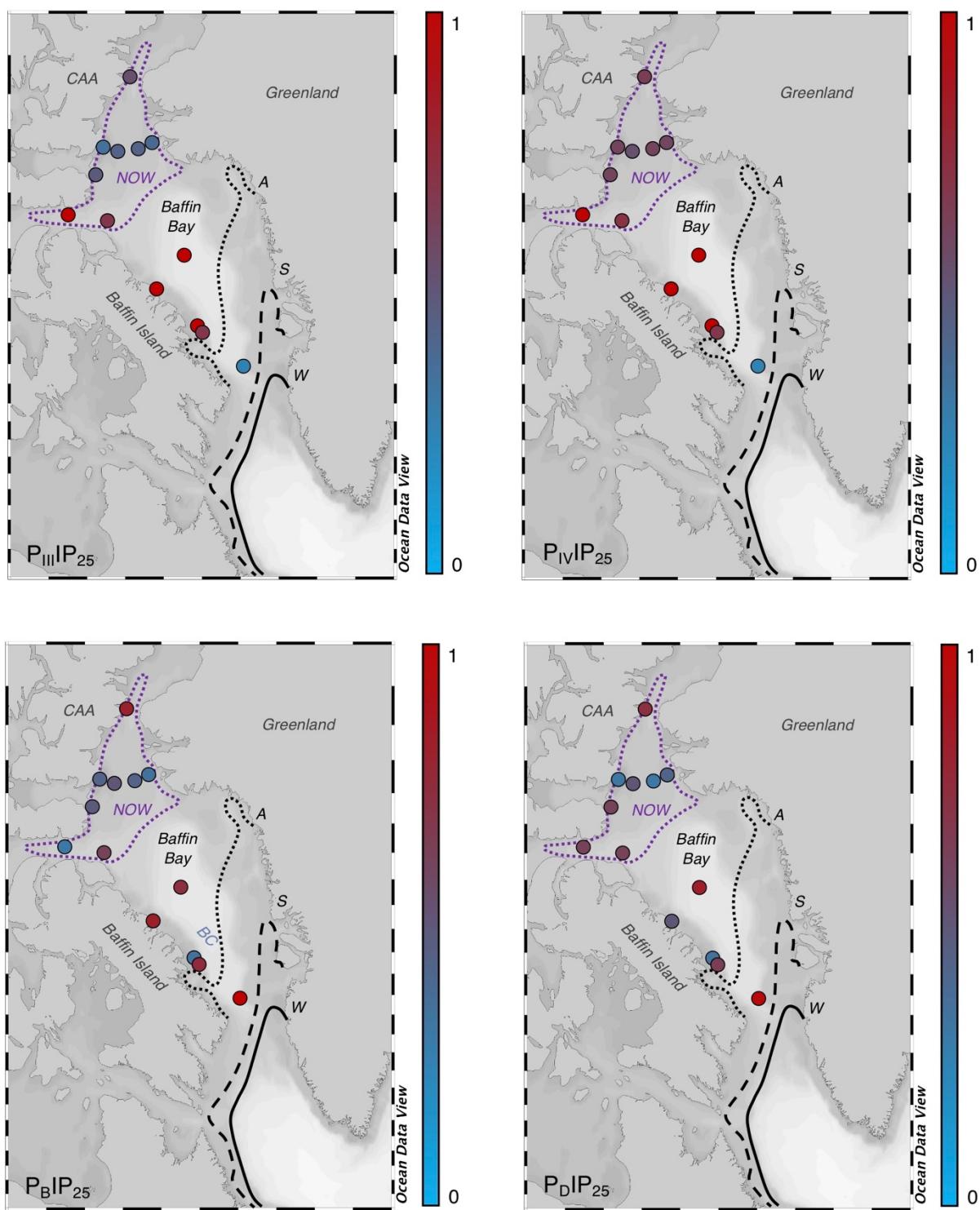


Fig. S3: Distribution of PIP₂₅ index values in surface sediment samples. Modern June limits of the NOW demarcated with a dashed purple line and seasonal sea ice limits shown with black dotted (autumn, A), dashed (spring, S) and solid lines (winter, W) (Cavalieri et al., 1996).

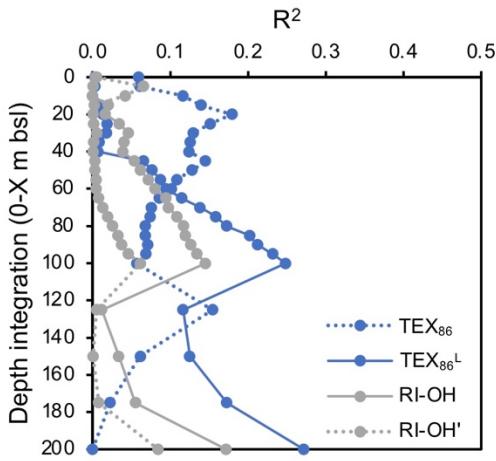


Fig. S4: Regression coefficients of GDGT-based temperature indices against WOA18 salinity (annual) at various depth integrations. WOA18 data from Zweng et al. (2018).

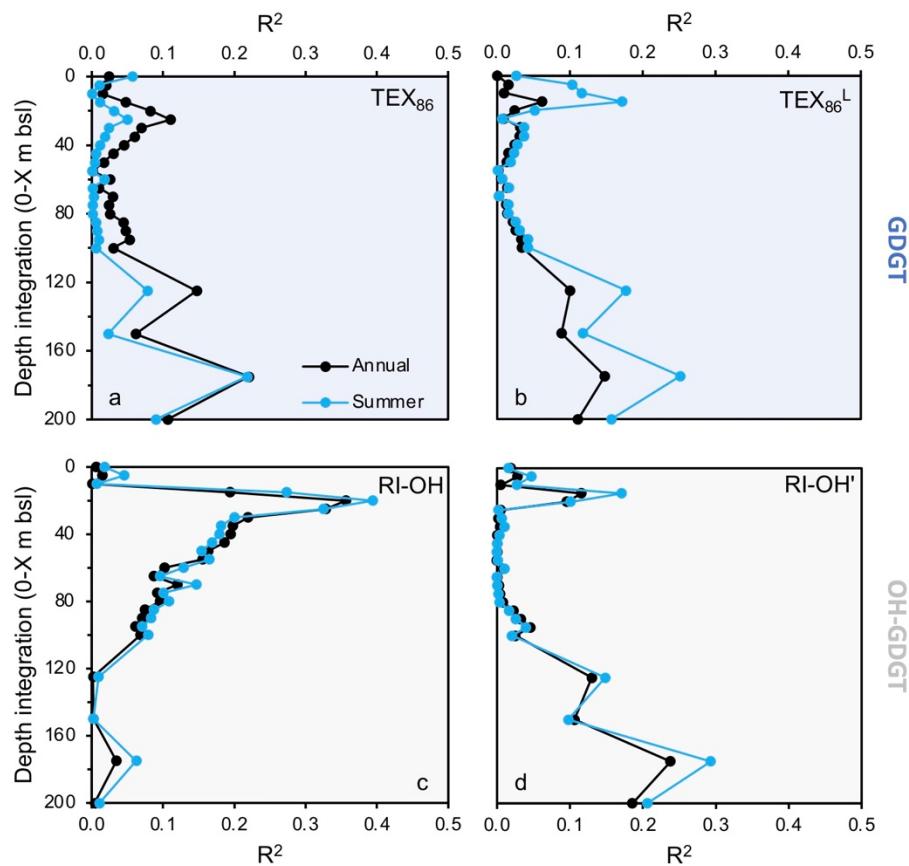


Fig. S5: Regression coefficients of GDGT-based temperature indices against WOA18 dissolved oxygen at various depth integrations and seasons. a) TEX₈₆, b) TEX₈₆^L, c) RI-OH, and d) RI-OH'. WOA18 data from Garcia et al. (2018a).

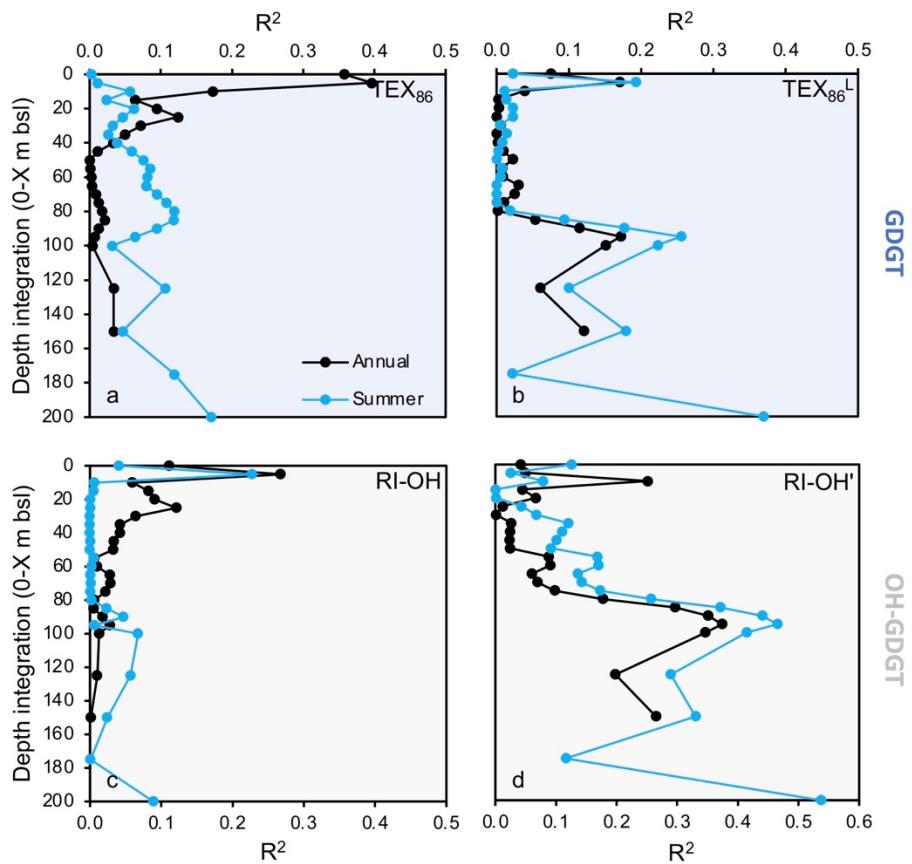


Fig. S6: Regression coefficients of GDGT-based temperature indices against WOA18 nitrate at various depth integrations and seasons. a) TEX₈₆, b) TEX₈₆^L, c) RI-OH, and d) RI-OH'. WOA18 data from Garcia et al. (2018b).

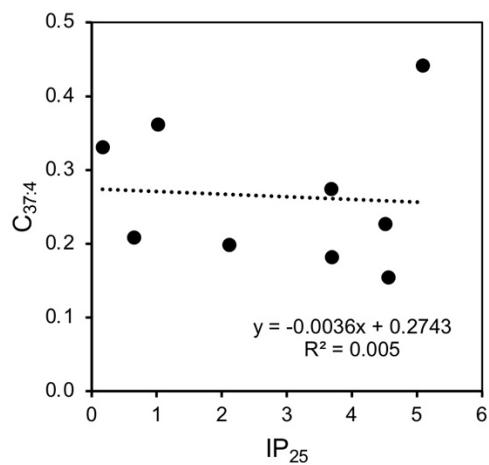


Fig. S7: Correlation between IP₂₅ and C_{37:4} in our Baffin Bay surface sediment samples.

References

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