

Exceptional ocean surface conditions on the SE Greenland shelf during the Medieval Climate Anomaly

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Introduction

This supporting information provides the figures for modern ocean surface conditions on the SE Greenland shelf, and for the calibration datasets and transfer functions used in the sea surface temperature and sea-ice reconstructions.

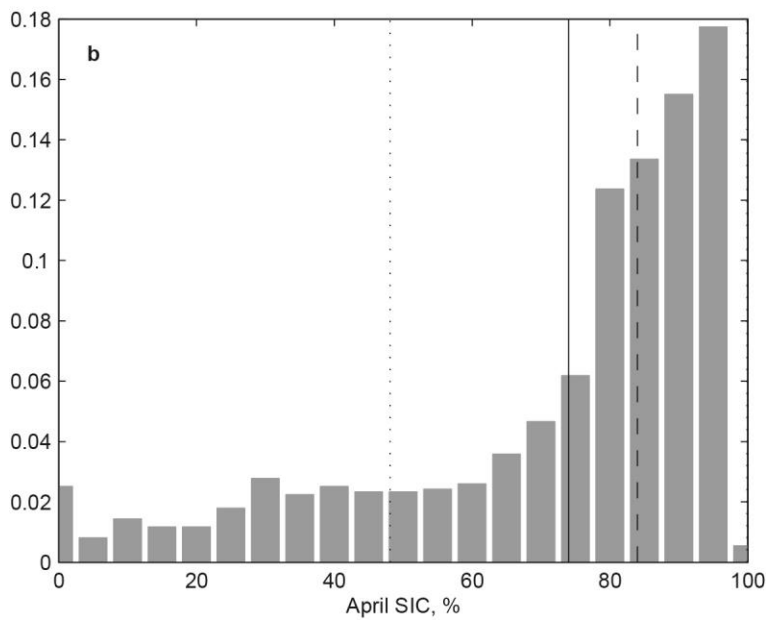
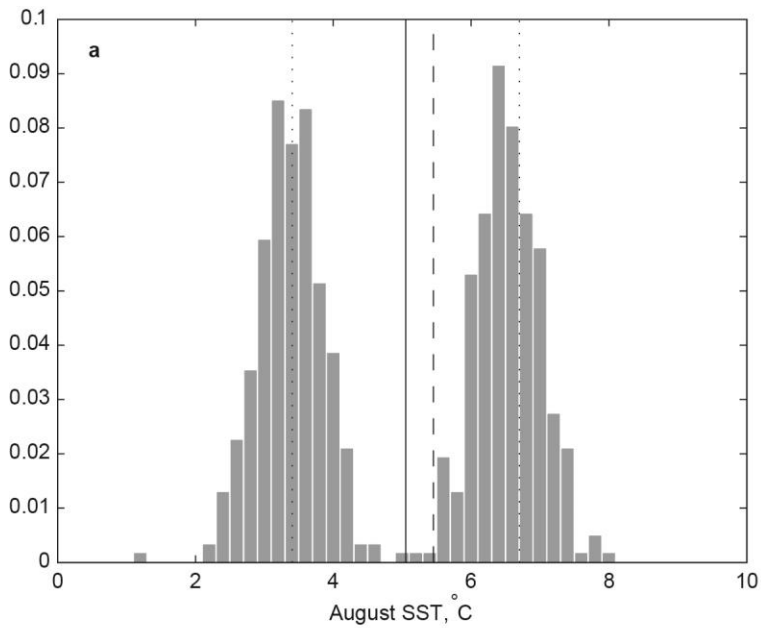


Figure S1. Modern climate conditions in the 4° by 4° latitude/longitude domain centered approximately at the core site. (a) August SST over the period of 1854–2012 from NOAA’s ERSSTv3b [Smith et al., 2008]; (b) April SSM/I sea ice concentration for 1979–2014 [Cavalieri et al., 1996]; solid and dashed vertical lines show the respective mean and median values while dotted lines outline the $\pm\sigma$ interval on the mean estimate.

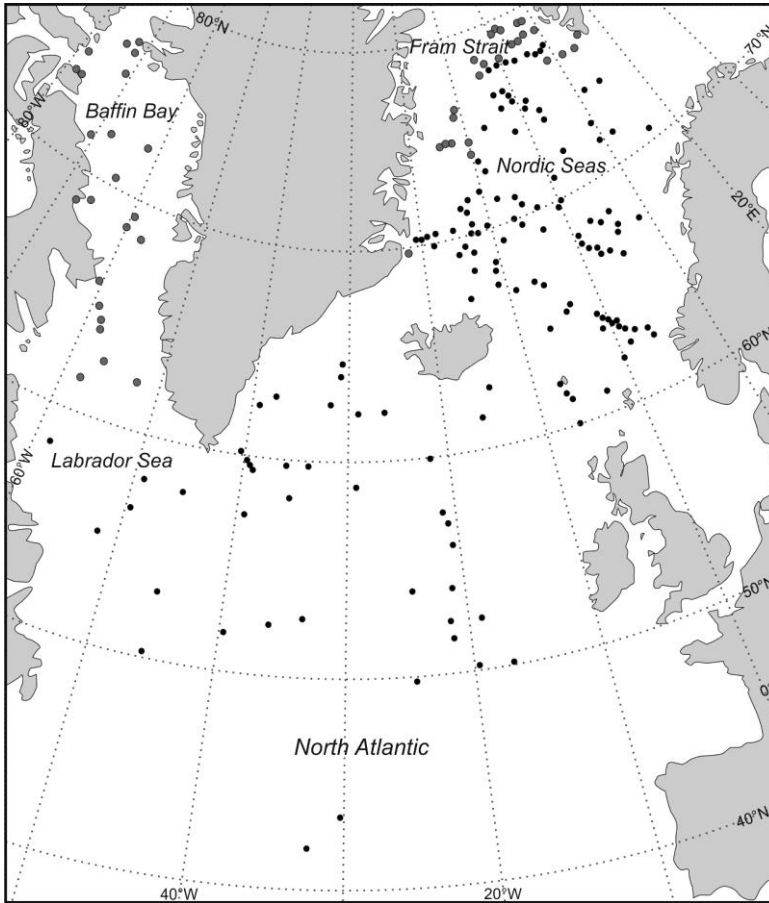


Figure S2. Location map of the surface sediment samples for the SST transfer function. Black dots [Andersen et al., 2004], grey dots (new samples of this study).

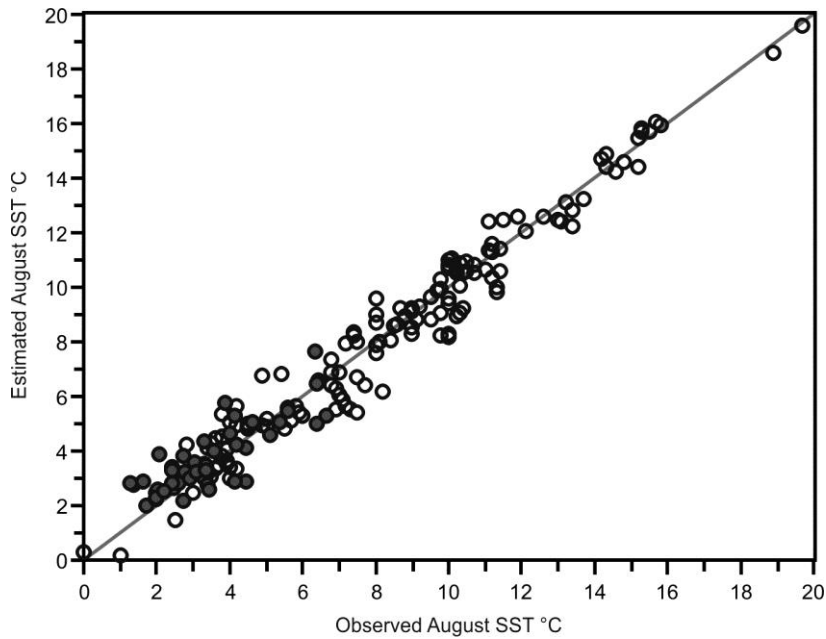


Figure S3. Regression plot of the WA-PLS SST transfer function. Empty circles [Andersen et al., 2004], grey circles (this study).

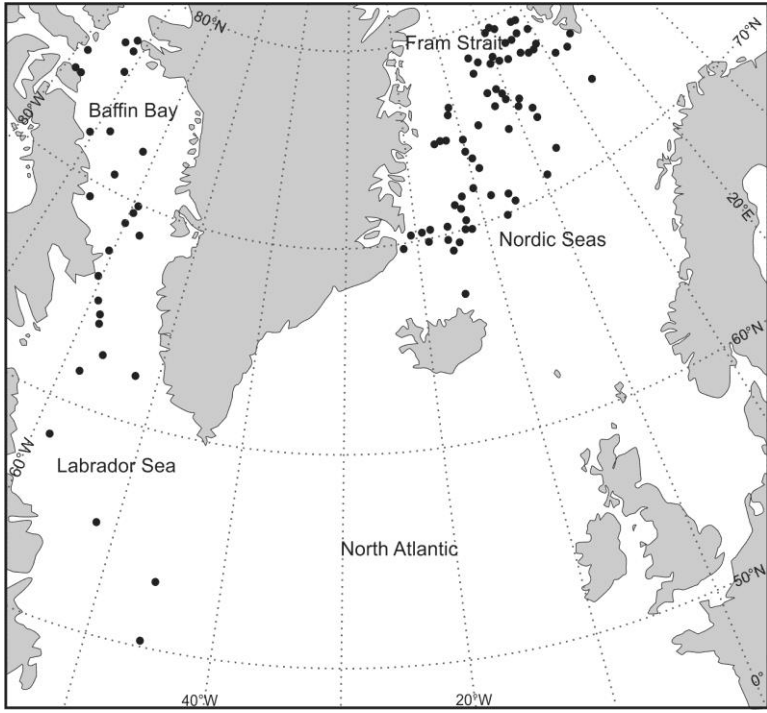


Figure S4. Location map of the surface sediment samples for the sea-ice transfer function.

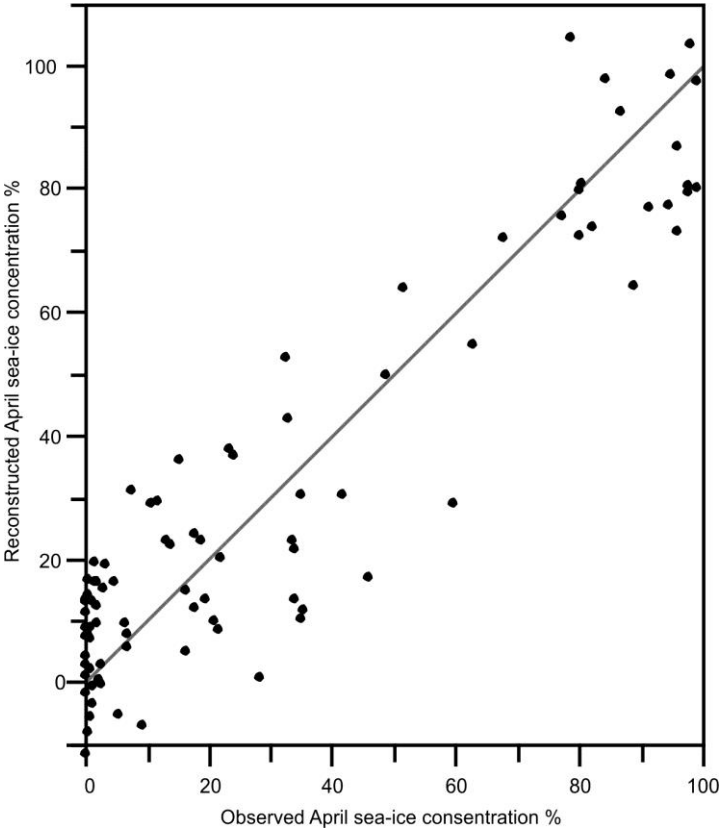


Figure S5. Regression plot of the WA-PLS sea-ice transfer function.

References

Andersen, C., N. Koç, A. Jennings, and J.T. Andrews (2004), Nonuniform response to the major surface currents in the Nordic Seas to insolation forcing: Implications for the Holocene climate variability. *Paleoceanography* 19, PA2003, doi:10.1029/2002PA000873.

Cavalieri, D., C. Parkinson, P. Gloersen, and H.J. Zwally (1996), Sea Ice Concentrations from Nimbus-7 SMMR and DMSP SSM/I-SSMIS Passive Microwave Data. Boulder, Colorado USA: NASA DAAC at the National Snow and Ice Data Center.

Smith, T.M., R.W. Reynolds, T.C. Peterson, and J. Lawrimore (2008), Improvements NOAA's Historical Merged Land–Ocean Temp Analysis (1880–2006). *Journal of Climate* 21, 2283–2296.