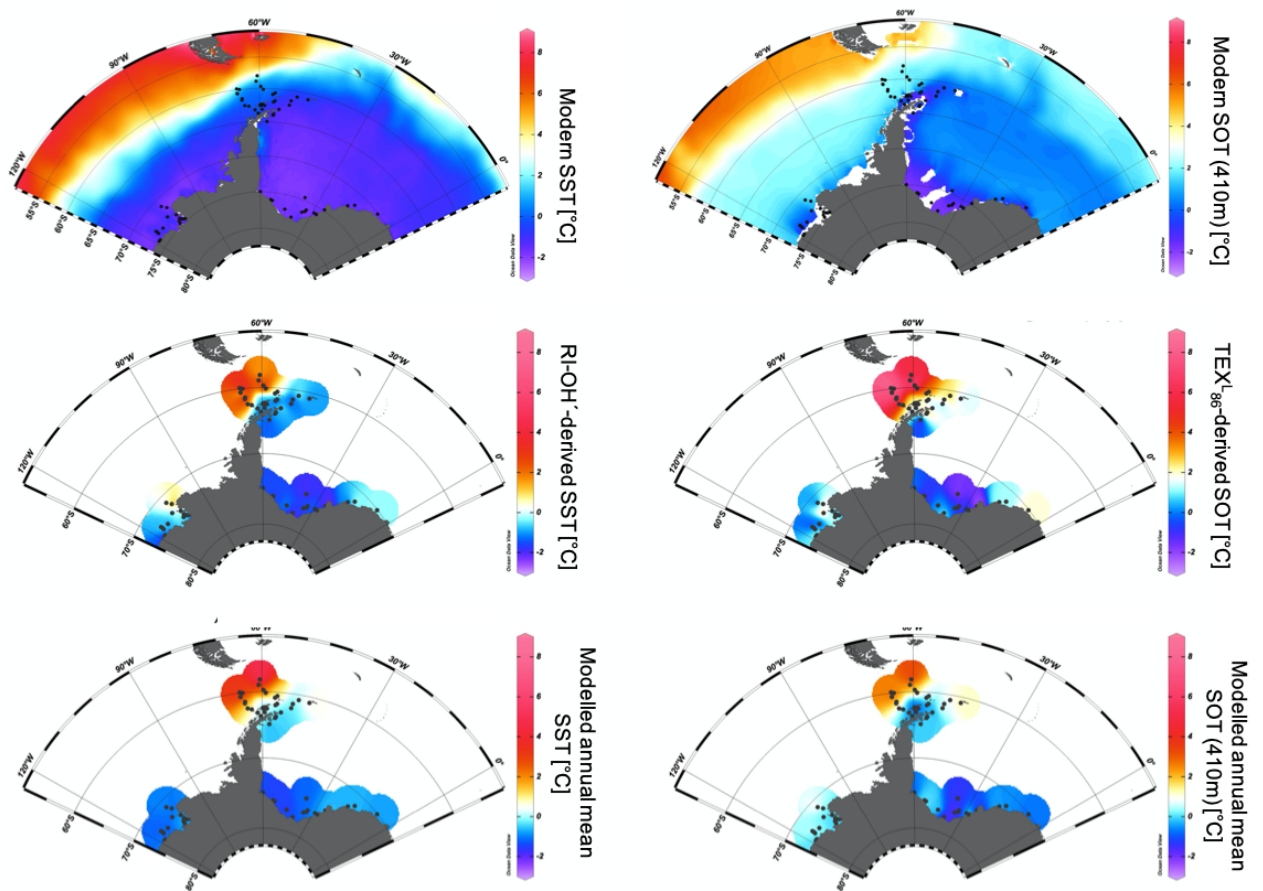


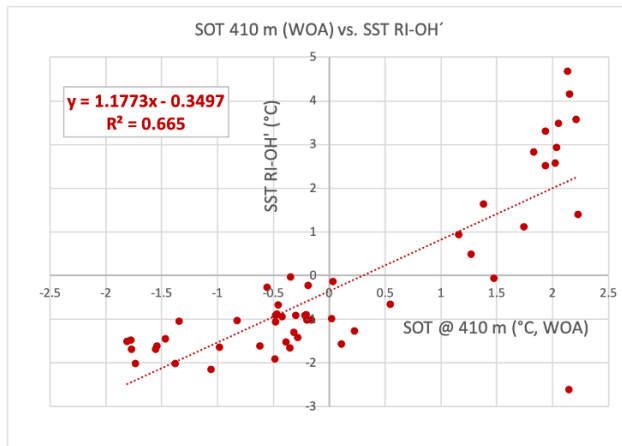
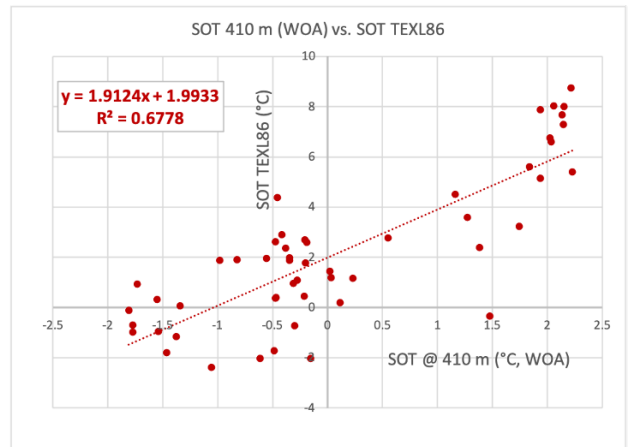
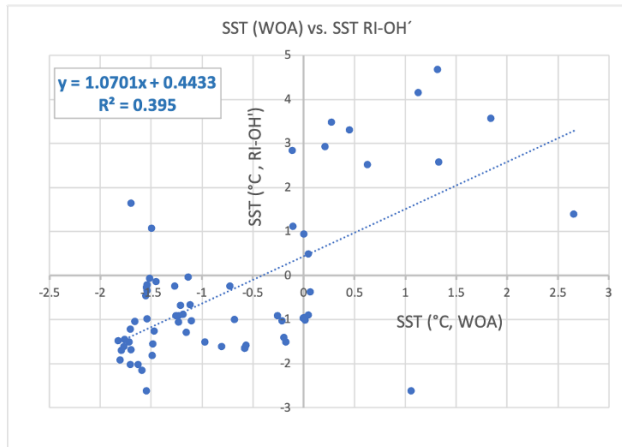
Supplementary Material



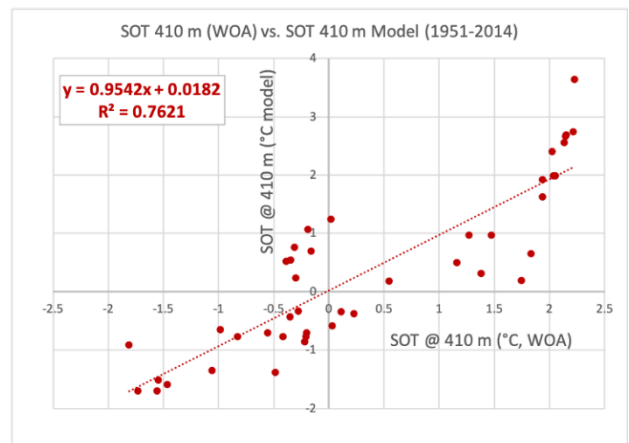
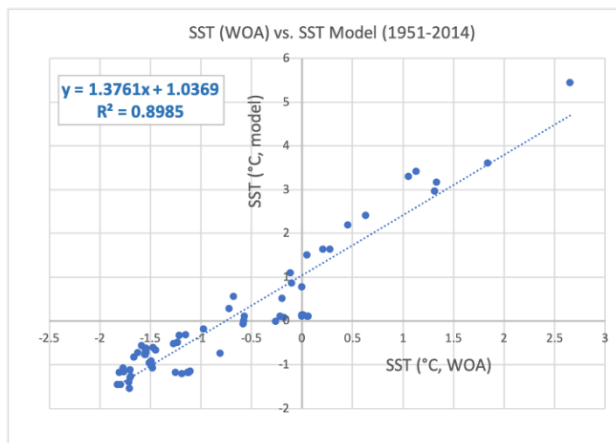
Comparison of ocean temperatures derived from the World Ocean Atlas 13 (WOA13) data base (representing averaged values for the years 1955-2012 (Locarnini et al., 2013); 0.25° resolution) for the sea surface and subsurface (410 m; upper panel), GDGT-based temperatures using RI-OH' and TEX^L₈₆ (mid panel) and modelled sea surface and subsurface (410 m) ocean temperatures.

References

Locarnini, R. A., Mishonov, A. V., Antonov, J. I., Boyer, T. P., Garcia, H. E., Baranova, O. K., Zweng, M. M., Paver, C. R., Reagan, J. R., and Johnson, D. R.: *World ocean atlas 2013. Volume 1, Temperature*, NOAA Atlas NESDIS 73, 40 pp., doi: 10.7289/V55X26VD, 2013.



Correlations of WOA-derived SSTs against RI-OH'-based temperatures (top left), WOA-derived subsurface (410 m) ocean temperatures with newly calibrated TEX_{86}^L -based temperatures (top right), WOA-derived subsurface (410 m) ocean temperatures with RI-OH'-derived temperatures (bottom left).



Correlations of WOA-derived and modelled SSTs (annual mean, 1951-2014; left) and WOA-derived subsurface (410 m) temperatures with modelled subsurface (410 m) ocean temperatures (annual mean, 1951-2014; right).