**Climate
of the Past**

Discussions

Interactive comment on "A spatio-temporal reconstruction of sea-surface temperatures in the North Atlantic during Dansgaard-Oeschger events 5–8" *by* Mari F. Jensen et al.

Anonymous Referee #2

Received and published: 23 January 2018

The paper by Jensen and co-authors is a very interesting contribution, very well written, which I find particularly useful for the paleoclimate community. The proxy surrogate reconstruction method allows for a better understanding of the climate system beyond the spatial limitations (and variables to be reconstructed) by proxy data. I recommend the manuscript for publication, after a few corrections and some clarifications. Page 5. Data Pool. I assume the authors reconstruct SST at 10 m following methodology by Kucera et al. 2005 within the MARGO framework. However, Telford et al. 2014 demonstrated that this depth rarely is the most significant for fossil planktonic foraminifera assemblages in the North Atlantic, and more sensitive to subsurface conditions. This should be acknowledged by the authors. I may understand that for their purposes, this

is not a very important issues, but it should be at least explained how this may affect the proxy-model comparison. Page 6. L. 22. How the larger age uncertainty for cores 3,4 and 14 may affect the comparison between the surrogate and proxy time series? Could you add some sentence about this? Page 10. L. 13. r instead of r2. Figure 7. Black stars mentioned in the caption are missing in the figure. Table 3. Could you include the meaning of A in the caption? In GISP2, should be A instead of r (third column)?

Telford, R. J., Li, C., & Kucera, M. (2013). Mismatch between the depth habitat of planktonic foraminifera and the calibration depth of SST transfer functions may bias reconstructions. Climate of the Past, 9(2), 859-870.

Interactive comment on Clim. Past Discuss., https://doi.org/10.5194/cp-2017-103, 2017.