

We thank Anonymous Referee #1 for their encouraging words and helpful suggestions. We have adjusted the manuscript text and figure descriptions following these suggestions. Our replies (right aligned) to their comments (left aligned) are below.

**Comment:** General comments:

The manuscript entitled “Evaluation of isotopes and elements in planktonic foraminifera from the Mediterranean Sea as recorders of seawater oxygen isotopes and salinity” by Dämmer L.K, and coauthors provide new data about the marine proxy calibrations.

The study is based on planktonic foraminifera and sea water samples collected from the Mediterranean Sea in January and February of 2016. The investigation focus on the relation between element/Ca ratios, stable oxygen isotopes of the foraminiferal species *Globigerinoides ruber* (alba) and surface seawater salinity, isotopic composition and temperature. This is an important issue in the paleoceanographic investigations. Infact, in order to accurately interpret past climate and environment, it is fundamental to have reliable proxies.

Specific comments:

It would be effective to insert in the Discussion section a short paragraph with “recommendation for the applications of the proxies” that the authors (based on this study) consider relevant for the paleo-reconstructions (i.e, using more specimens for the analyses, uncertainty in salinity estimates?, how collect the samples, etc. . .).

**Reply:** We have extended section “4.4.3 Implications for proxies” and added the suggested topics to our discussion.

**Comment:** In fig 2 ( $\delta^{18}\text{O}$  seawater versus salinity) all data are from Mediterranean sea except data from Cox (2010) that are from North Atlantic. I do not understand why the authors use the North Atlantic data, otherwise the authors can discuss this in paragraph 4.1 (when they report geographical variability, lines 173,174).

**Reply:** We agree that mixing data from different basins should be avoided for this analysis. While the publication title for the reference “Cox (2010)” is indeed “*Stable Isotopes as Tracers for Freshwater Fluxes into the North Atlantic*”, Katharine A. Cox’ publication does not only contain North Atlantic sea water isotope data, but also a number of Mediterranean Sea water isotope measurements which are presented in her Appendix D.2 “*Oxygen and Hydrogen Isotope Data analyzed at UC Davis: Table D.4: Station locations, depths, salinity data and isotopic parameters of the 2001 M51–3 water samples from Mediterranean, the 2004 JR106b water samples from Kangerdlussuaq Fjord, Denmark Strait and the 2005 D298 and 2008 D332 water samples from Cape Farewell*”, p. 138ff. From this data set we selected surface water  $\delta^{18}\text{O}$  and  $\delta\text{D}$  measurements from the Mediterranean Sea samples M51-3 to include in our analysis and Fig. 2 to compare with our own Mediterranean Sea data.

**Comment:** Technical corrections:

3.1 I suggest as title: seawater geochemistry or Mediterranean Sea geochemistry

**Reply:** We have adjusted the title of section 3.1 to “Mediterranean Sea geochemistry” following this suggestion.

**Comment:** 4.2 The analyses were performed on Na/Ca ratios measured on the carbonate shells of *G. ruber*. It is *G. ruber* (white) as reported in the paragraph 3.3?

**Reply:** Correct, all analysis was performed on the same species, as also described in section “2 Materials and Methods”. We have updated the species name throughout the manuscript to *Globigerinoides ruber albus* to reflect the recent suggestions presented by Morard et al. (2019) and to avoid any ambiguity.

**Comment:** The same observation for paragraph 4.3

**Reply:** See previous reply.

**Comment:** Line 191- Fig. 4a (add a point)

**Reply:** We have added the missing point.

**Comment:** Line 226 *G.ruber* in italic font

**Reply:** We have changed the font to italic.

**Comment:** Fig. 3, 4, 5: *G. ruber* in italic font

**Reply:** We have changed the font to italic.