

Earth Syst. Sci. Data Discuss., author comment AC3
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Reply on RC2

Ciro Cerrone et al.

Author comment on "Last Interglacial sea-level proxies in the western Mediterranean" by
Ciro Cerrone et al., Earth Syst. Sci. Data Discuss.,
<https://doi.org/10.5194/essd-2021-49-AC3>, 2021

Dear Editor, we would like to thank you and Prof. Brückner for the helpful and constructive advices you provided us on our MS. These allowed us to greatly improve the MS, and to include sites that we had previously missed. Hereafter, we answer the main points raised. Please also find attached a word document containing track changes from the previous version, as well as replies to the comments made directly in the submitted PDF by Prof. Brückner. We do hope that we answered in a complete and satisfactory way, please do not hesitate to ask for further clarifications if anything is unclear or if you think our answers are not appropriate.

The main changes to the MS include:

- The addition of new sites, most of them stemming from the papers suggested by Prof. Brückner, that were sent to us privately by both him and Prof. Ulrick Radtke, who we acknowledge for the help.
- The review of previously inserted sites, with minor corrections concerning, for example, spelling errors or imprecise site coordinates. We found some sites that were ranked inconsistently with our own guidelines, so we edited their quality rankings. A new version of the database was uploaded to Zenodo.
- Update of figures to reflect the changes in the database, and stylistic changes requested by the reviewers.
- A new supplementary file summarizing the sites, their ages, paleo RSL, quality ranking and references.

Referee #2 (Collin V. Murray-Wallace)

"While the review presents a comprehensive overview of field sites, it would be good if more could be said about the nature of the preserved shelly faunas within the successions, and their relation to palaeosea level. Obviously some species may be tolerant to a range of water depths, while some species may actually be very useful sea level indicators. In a similar manner, can more be written about the taphonomic context of the fossil molluscan faunas?"

While some information about faunas has been specified mainly for core sea-level index

points, it is difficult to discuss water depths when it comes to faunas in beachrock outcrops. The depth ranges of the so-called "Senegalese fauna" are pretty wide, and do not really matter much as the faunal remains are very often found not *in situ*, eroded and transported. We added a few sentences to discuss this aspect when we first introduce the "Senegalese fauna".

"Line 146 We also note"

Done

"Line 150 gastropods"

Done

"Lines 206-207 is it still possible to access any of these hard to get references?"

Thanks to the help of Prof. Brückner we are able to get some of the missing references. There are many which are still very hard to get, but we believe we did everything we could to be have a very complete database.

"Line 667 please amend and refine the wording to avoid the use of the word 'Anyhow' (there are numerous examples of this within the manuscript)"

We accepted the advice and we have corrected the text

Line 669 Please use formal English and avoid contractions - 'did not' for didn't

Done

Line 696 perhaps 'flooded' rather than invested

Done

Line 702 needs to be reworded as molluscan faunal associations are not chronological markers per se, but biostratigraphic markers if there are distinctive species present (e.g. index fossils).

Done

Section 7 seems to be the synthesis section, which I feel can be improved. A conclusions sections, perhaps with each conclusion numbered would also enhance the document.

While we felt not too appropriate to end with a point-by-point conclusions section, we edited the "final remarks" section in order to make it more complete and give some perspectives for future works. We hope this answers the comment.