

Interactive comment on “Last interglacial (MIS 5e) sea-level proxies in southeastern South America” by Evan J. Gowan

Alejandra Rojas (Referee)

alejandra@fcien.edu.uy

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The present manuscript represents a valuable attempt to summarise the data on the sea-level proxies available for southeastern South America during the Last Interglacial. The overall quality of the preprint is correct as it contains all the expected items, and provides comments on all the localities considered. Figures are fair although some of them are too small (e.g. figure 10).

Some general comments follow: -I found some inconsistencies regarding the consideration of previous publications that should be revised by the authors. Some information is added for certain localities (for example publications dealing with the study of molluscan assemblages), while for others this information is not included even if available.

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This should be standardised. In addition, in many publications, the taphonomic and palaeoecological analysis of the molluscan assemblages support a MIS 5 assignment for the sites. Moreover, in some of them the molluscan content provides evidence for a particular substage within the MIS 5. I included some references in the comments on the pdf file.

-Also regarding information from previous publications I found some examples of missing data worth including in the manuscript, and the incorrect communication or superficial interpretation of the original results and discussion on those results. See specific comments in the pdf file but please consider this through the entire manuscript.

-An important concern is the use of mollusc shells for ESR and U/Th dating. Despite the authors provide some comments regarding the ages, I would expect a more detailed review on literature on this issue, and an explicit discussion on how much uncertainty ESR and U/Th ages represent for the main objective of this work.

-Also regarding the ages based on molluscan shells, in the database, column O or Material type should include the species name and not “mollusc shell”, “mollusc or algae”, “sea snail” or others. If this information is available in the original source it is important to include it on the database.

-I find that the authors must explain the presence of figure 11 (and related text), and why is it relevant to include a sea level plot at two points in the Holocene that was not contrasted with the corresponding sea level proxies.

Finally, I included many other detailed comments regarding the text, figures and tables in the pdf file of the preprint.

Please also note the supplement to this comment:

<https://essd.copernicus.org/preprints/essd-2020-247/essd-2020-247-RC2-supplement.pdf>

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