

## Comment on **essd-2022-198**

Georgia Grant (Referee)

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Referee comment on "The World Atlas of Last Interglacial Shorelines (version 1.0)" by Alessio Rovere et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2022-198-RC2>, 2022

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This database represents significant effort by the authors to provide a user-friendly interface that considers multiple access methods for those who wish to add data or export data. Particularly, I'm impressed by the number of fields included which allows comprehensive data analysis and review. This database is of significant value to the community and importantly, allows for future development. I congratulate the authors on including an evaluation metric, this is of considerable value. The database structure and content is very well explained.

The authors give appropriate acknowledgment to previous databases from which this has added to and developed from, and have clearly made significant effort to work with the community to include all available data. The statement starting line 97 which outlines the differences in previous compilations to WALIS would be useful earlier in Section 2, and could be added in Section 1, to highlight the contribution of WALIS upfront. Further to this point, while the manuscripts referenced in Table 2 outline the compiled data in WALIS 1.0, the following line 252 references data in WALIS 'spanning more than a century'. Can you clarify that these datasets have been included in the submissions of the Special Issue referenced in the table (if that is correct).

Phrases referencing standardization are inconsistent and therefore unclear as to whether the database applies standardization to the data itself or standardizes the approach to reporting. I infer from the manuscript, it is taken to mean standardization approach and think this should be clarified when used. Further to this point, on line 38, it would be useful when mentioning 'approaches to standardize', more explanation on what these were and how WALIS addresses these would be insightful.

It would be useful to have a definition of terms as a table or list to clarify the use of e.g. sea-level index points, sea-level reference points, sea-level indicators and sea-level proxies. Figure 2 is of significant use for this purpose, and could be combined with Fig 3 as a second panel to show the relationships. This is well-discussed until line 267.

In introducing the LIG relevance (paragraph line 56), more basic information on the importance of this period would be welcome. In particular, it would be useful for the reader to have clear examples of how sea-level change/ reconstructing sea-level has contributed to broader understanding of the climate system/ sensitivity/ processes. This speaks directly to the usefulness of this database.

Move Fig. 1 further up the manuscript - a very uesful figure.

Fig. 7 is a fantastic visualization of the limits of a sea-level index point. Does the shading represent the theoretical uncertainty/confidence? If so, please state.

Line 52, starting ' These efforts ... ' could use sentence restructure.

Line 195 term 'varchar' needs definition.

I particularly enjoyed the discussion on geographic gaps, which shows the breadth of research and understanding of the authors on this topic.