

Earth Syst. Sci. Data Discuss., referee comment RC2
<https://doi.org/10.5194/essd-2021-150-RC2>, 2021
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Comment on **essd-2021-150**

Anonymous Referee #2

Referee comment on "A review of last interglacial sea-level proxies in the western Atlantic and southwestern Caribbean, from Brazil to Honduras" by Karla Rubio-Sandoval et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2021-150-RC2>, 2021

Review of ESSD [essd-2021-126](https://doi.org/10.5194/essd-2021-126)

A review of Last Interglacial sea-level proxies in the Western Atlantic and Southwestern Caribbean, from Brazil to Honduras by Rubio-Sandoval, et al.

This is an interesting dataset that screened and reviewed indicators along the coasts of the Western Atlantic and Southwestern Caribbean, on a transect from Brazil to Honduras that includes the islands of Aruba, Bonaire, and Curaçao.

The work summarises 55 standardized datapoints, each assigned to one or more geochronological constraints from a variety of relative sea-level indicators including beach deposits, coral reef terraces, marine terraces, burrows, and tidal notches. Like many in this volume and in recent years the paper focuses on concerns related to age control and the accuracy of elevation measurements.

The work then concludes rather flatly with a bland finale that much more is to be done. While I agree here I think much has been done and I am fairly sure there are sea level records from Brazil that could be compared to. I was also left feeling how does this study site compare to others in the volume. How does this dataset stand up against others with more or better data?

I have one primary criticism of the work and that relates to the discussion or lack thereof regarding tectonics. The authors skim over the tectonics of the region and it is almost certain that parts of the study area ie. **Netherlands Antilles** that will have been subject to tectonic contamination. A good starting point is maybe Wang et al., Remote Sens. 2019, 11(6), 680; <https://doi.org/10.3390/rs11060680>. Perhaps a section could be added

on how to decontaminate or otherwise address sites that are clearly affected by tectonics either past or present.

In summary - the work is publishable and provides a good summary of the dataset and in particular some well thought guidelines for future work.