

# Review of: "Evaluating Hydrologic, Geomorphic, and Vegetation Parameters to Assess Natural, Living, and Hardened Shorelines along the Northern Gulf of Mexico"

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The authors present details of a study that has great importance. Any investigation that supports the use of natural ecosystems in the implementation of resilient and sustainable solutions is invaluable. The paper documents a series of field, laboratory and analytical activities to compare and contrast living, natural and hardened shorelines. However, the research output could be much better presented and discussed to improve readability and understanding. The overall presentation of the paper and some of the technical content could be significantly improved. There is repetition of text and ideas, as well as the inclusion of some unnecessary material, that could be reviewed to make the paper more concise. There are also some areas that could be slightly augmented to illustrate the concepts more clearly, for example the field data collection: How long was the wave record for each site? Were the lengths of the investigated shorelines the same? What were the times between surveys for geomorphic features? What were the accuracy of some of the measurements? Were there any dissimilarities between the living shoreline sites? Were there justifications for some aspects of the field studies such as locations of data collection of the various surveys? There is also the need to improve the clarity of some of the text as some sentences are not comprehensible as they are. Also, the benefit of the conceptual model presented was not immediately evident based on the paper. Some aspects of the paper also need to be reviewed to assure that generalities do not appear to be misleading. For example, my read of the paper appears to indicate that there is little to no vegetation at hardened coastal sites, but I have come across sites with coastal structures like revetments that have native plants covering the entire revetment. Possibly this is a feature at the sites that you investigated so that needs to be clear. Additionally, a tabulated compilation of relevant data for all six sites would be useful in an Appendix for ease of reference. In particular, as some of the discussion keeps referring to this dataset. I believe that some careful review and editing can significantly improve the paper and allow for a greater contribution to the ongoing discourse about living shorelines and other types of nature-based solutions.