

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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Potential competing interests: No potential competing interests to declare.

This is an analysis of aspects relating to two solutions - living shorelines and coastal structures - for preventing the effects of erosion caused by tidal action, compared to each other and to the natural shoreline. The use of ANOVA to test different treatments for Hydrologic, Geomorphic, and Vegetation features, complemented with MDS and PCA revealed very interesting and useful results regarding applicability to other shorelines.

I have few suggestions to give to the two authors, apart from obviously congratulating them on the excellent quality of their work.

Suggestion 1: Identify the meaning of the abbreviations NERR in Figure 2 and YSI in Figure 3 (although it is a world-renowned manufacturer of water quality sampling and monitoring meters).

Suggestion 2: In Table 3 the Organic Matter (%) produced in sites with high energy waves is higher in LS than in NS. I expected the result to be the opposite. Would it be possible for the authors to explain what they understand by this result?

Suggestion 3: In Table 4 the percentage of Silt and Sand produced in sites with low energy waves is higher in HS than in LS. I also expected the result to be the opposite. Could you explain what you understand by this result?

Suggestion 4: Figure 5 of the MDS requires careful evaluation to identify the meaning of each of the orthogonal axes. First it will be important to identify the three shapes. Next, it would be interesting to improve the visibility of the three shapes for low energy waves. Finally, try to understand what each of the axes represents, with emphasis on the NDS1 axis, which clearly discriminated the groupings for NS, LS and HS.

Suggestion 5: Maybe it's just a coincidence, however, observing the distribution of the points in Figures 5 and 6, it seems to me that there is some similarity between the NDS1 axis of the MDS and the PC1 axis obtained in the PCA. If the authors conclude that this is not a coincidence, then we will have an explanation of what contains the NDS1 axis that I asked in the previous suggestion.