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Interactive comment on "Dynamic allometry in coastal overwash morphology" *by* Eli D. Lazarus et al.

Anonymous Referee #3

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The authors assess dynamic allometry relations of barrier systems overwash morphology by analyzing a set of vertical images from lab experiments and comparing the results with field imageries of Ria Formosa barriers in Portugal. I think the work is important and the results are interesting. I just have some minor suggestions that the paper could benefit from.

I strongly recommend separating the methods from sections 2 and 3 and having it under a new section as "Methods". Also, there is some useful discussion about vegetation in 3.2 that is more related to the Discussion section. Reconstructing the text for this would ease the reading.

There is no justification why the parameters used in the experiment (e.g., barrier height and infill rate) are reasonable and the results can be comparable with real case sce-

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Discussion paper

narios. Also, there is no discussion on limitations of the experiments and uncertainty of the experimental results.

Line 25: adding an example of allometry would be helpful.

Line 52: switch the order of examples to match the order of static allometry types in the previous lines.

Line 78: How can the size of the sediment used in the experiment affect the results?

Line 181: Briefly describe what Mosely and Parker (1972) work is about, what they do for those who are not familiar with their work.

Line 227: remove extra “the”

The last sentence of the first paragraph of Results is out of context.

Add h and R2 values in fig 2.

Lastly, I did not find it very useful to quote from many other literature in the second half of the paper. It was very confusing and I had to read the sentences few times to understand the points.

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