

Interactive comment on “Data compilation on the biological response to ocean acidification: an update” by Y. Yang et al.

Anonymous Referee #1

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This paper describes the Ocean Acidification International Coordination Centre (OA-ICC)'s effort to compile data of studies on the biological response to ocean acidification. Without a doubt, this is a very important effort, and I am glad to see this much needed paper documenting the effort come out timely. This paper gives readers some idea of the data repository in terms of taxonomic coverage, type of biological responses, geographic coverage, etc. It also describes the origin and history of the data sets and informs readers of the tags that can be used to retrieve all of the data sets from PANGAEA. This important paper will make a great contribution to future biological OA data synthesis and model effort to help better assess the vulnerability of the marine ecosystem and forecast future changes. Overall, I think the paper is well written and should be published after incorporating the below comments:

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Major comments:

It would be a big plus to the paper, if the authors could dig into these data sets and present the actual results of biological responses, i.e., whether the biological response is a positive, no effect, or negative. For example, you can consider to present a table with the type of organisms/ecosystem, its life stage, the biological process studied, and then its biological responses.

Minor comments:

Page 894, Section 2.1. Geographic coverage, please state specifically what it is? There are 3 locations for biological response OA studies: location of the water collection, location of the organism collection, and location of the lab.

Page 900, the first sentence about duplication, this would be a good opportunity to call on the community to create some kind of unique identification for biological response OA studies? This could be something like what the EXPOCODE is being used by the carbon community to detect duplication.

For future biological response OA data archiving, I do not think that data from studies with only one carbon parameter should be eliminated. Even one carbon parameter can tell us some idea of the trend of changes in the carbonic system. This is especially true considering that we can sometimes derive another parameter, such as total alkalinity from salinity.

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