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Interactive comment on "GMED: Global Marine Environment Datasets for environment visualisation and species distribution modelling" *by* Zeenatul Basher et al.

F. Benedetti (Referee)

fabio.benedetti@usys.ethz.ch

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Comments for Basher et al. (2018) - ESSD Discussion

The present manuscript aims to present a novel digital atlas of environmental (meaning physical, chemical, biogeochemical) climatologies, from which scientists may download numerous environmental layers that are typically used for developing spatial statistical models, such as species distribution models (SDMs). The authors did a fine job in compiling many published datasets, and gathering all of them in a homogeneous and central atlas. Consequently, the Global Marine Environment Dataset (GMED) is the online platform with the widest range of environmental layers. The GMED proposes

environmental data at a finer spatial resolution compared to previous comparable atlases (mainly AQUAMAPS, MARSPEC and Bio-ORACLE). The GMED also supplies past and future fields for some of the environmental layers (temperature, salinity, ice cover), thus allowing the community to quickly test long-term changes in species distributions and diversity. Consequently, it might attract marine ecologists aiming to easily model the niches and distributions of marine taxa, whether those are benthic, pelagic, coastal or inhabiting offshore conditions. But that might also be an issue. In spite of the added value of the dataset might present, I have identified some major points that may help improve the completeness, the quality of the atlas and the manuscript. I will now give my step-by-step review of the manuscript and data access based on the ESSD review guidelines. Then I will detail my major concerns and comments regarding the GMED itself.

Please see my full comments in the .pdf file attached as supplementary.

Yours,

Please also note the supplement to this comment:
https://www.earth-syst-sci-data-discuss.net/essd-2018-64/essd-2018-64-RC2-supplement.pdf

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