

Interactive comment on “An integrated data compilation for the development of a marine protected area in the Weddell Sea” by Katharina Teschke et al.

Anonymous Referee #2

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General comments

This paper provides a comprehensive data compilation of abiotic and biotic features of the Weddell Sea, relevant for the understanding of diverse ecosystem components that assist in the ongoing process for the development of an MPA in the region (hereafter WSMPA).

The paper is very well organized into major biodiversity groups of importance for the Weddell Sea region. It is also well written, clear, concise and short allowing the reader to focus on the most relevant aspects. The compilation of these data into a single manuscript is original and very useful for the process of developing a WSMPA and

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for uses beyond it, as mentioned by the authors. Data is easily accessible in various formats, including high technical extensions (e.g. shapefiles, rasters; I used QGIS 3.2.3) and simple images, which make maps available for a larger audience. However, in my view, some information is missing, in particular related to metadata and methods description. These modifications could improve data accessibility, consistency with the text, geospatial information/outcomes accuracy and transparency of the wider WSMPA process.

Specific comments

1) Include further description of Methods used to analyze each data set and to develop each map. This could potentially be done in the paper itself as an Annex or in the Supplement section (including the maps), within the metadata file (adding an easier cross-link to the paper), and/or as a footnote/bigger caption in each available map. CCAMLR Working Groups or Workshops papers such as those submitted to EMM/SAM/WS are not generally available for the general public (login is required) so further information included therein should be available elsewhere for the interested reader. 2) In the description of the Methods, it could be good to include how the methods in each case were chosen (e.g. agreed by international community, based on specific paper, etc.) so it adds to the openness and transparency of the process. 3) It is not clear why only maps for 2.3 Environmental data are included at the end of the paper. I would suggest including maps (and methods) for 2.4 Biological data as well, for an easier and more comprehensive visualization 4) Avoid duplication of information in the text about data sources, references and cruise reports already included in the tables. 5) Most readers would probably be unfamiliar with CCAMLR. I would suggest adding a few general maps, including the CCAMLR Convention Area and the division in MPA Planning Domains (mentioned in the text) for contextualization. 6) In the 3. Outlook section, there is some mentioning to the development of a storage management system for this data. I would suggest also mentioning the CCAMLR MPA Information Repository (CMIR) that is under development by the CCAMLR Secretariat, as an additional suitable storage

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space.

Technical corrections

i. Include CRS and projections information in each metadata file (common and thematic layers) for each shapefile and raster. ii. Provide clear cross-reference links between metadata description and available maps (names do not always coincide and it is hard to keep track to which description fits which map) iii. If possible, allow for the zip data to keep a clear file name referenced to the data they contain for easier identification when downloaded in folders (in particular for the “Data shapefile raster”). iv. Map legends in Figure 3 are very hard to read – make sure high definition maps are provided in final draft or make maps bigger. v. In section 2.2 Data availability, paragraph 10, there is the mention to five persistent identifiers. However, six of those are provided. Be aware that the same happens in the Abstract.

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