

## ***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 #1**

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**General comments** The authors provide data layer products that are based on a huge data compilation of environmental and ecological data from the Weddell Sea, used in the planning process for a Weddell Sea MPA. The data layer products can be easily accessed and downloaded from the data portal PANGAEA via provided persistent identifiers. The data format (either ESRI ArcMap packages or separate shapefiles) is common, I used ArcMap 10.3.1 to view the files. The data compilation itself is not directly accessible, the sources to all used raw data are thoroughly listed in part 2 of the paper and in Table 1 and 2. The data layer products themselves are not really described in the paper. The methods used to create the shapefiles from the compiled raw data are rather briefly stated on the respective PANGAEA sites. For further information

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on the spatial analysis a link to CCAMLR working papers is provided. Following this link, however, leads to the CCAMLR webpage where for each report a formal request has to be submitted. I did so for one report and (so far) did not receive the document. How or if the provided data layer products might be used, without access to the underlying data compilation, is not discussed.

**Specific comments** At first reading of title and abstract I was under the impression that a huge data compilation is provided with this paper, while in fact a systematic overview of all the sources to the MPA planning process is given. This should be made more clear right from the begin, so the reader knows what to expect. Usability of data: The authors should elaborate if and how the provided data and information might be used, and/or to which future work they might contribute. Can the provided data layer products directly be used by readers in some way? Is the interested reader invited to build up his own data compilation by using the provided sources? **Methods:** The authors are very precise with their raw data sources (which is best practice and would allow interested readers to repeat their compiling of data), but they don't give as much detail on the methods they used to process the data and create the respective data layers. A brief description of the provided data layers is missing in the paper, e.g. in 2.4.1 (Zooplankton) it is not mentioned that via the persistent identifiers the maps with interpolated abundances of the two krill species can be accessed, but also a map with habitat suitability. Another example is chapter 2.4.2 (Zoobenthos), here species level data sources for asteroids, ophiuroids, and holothurians are listed, but the provided map layer shows one polygon only (special echinoderm assemblage). It should be made clear in each section what data products the user can access via the links, and how they are created. In my opinion the paragraphs on data sources could be shortened, as every source is listed also in table 1 and 2. Instead I would prefer to read more about the methods (e.g. models used).

**Technical corrections** Abstract line 29: Here it is spoken of five persistent identifiers, provided are six (also in 2.2). Suggest to sort the links according to the structure in the

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paper (from abiotic to seals). p 5 line 11 f > a) b) c) in italics p 5 line 32 Possible to provide more detailed contact than institute webpage? References in text but missing in Reference section: Barthel & Gutt 1992, Timmermann 2013, Seitner et al. 2014 a, b, c (2004?)

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