

Interactive comment on “Copepod species abundance from the Southern Ocean and other regions (1980–2005) – a legacy” by Astrid Cornils et al.

Anonymous Referee #2

Received and published: 22 April 2018

General Comments This manuscript presents a series of datasets on copepod presence and abundance collected since the 1980s in various oceanic regions. These data are integrated by metadata and cruise reports and are available in PANGAEA. I like this manuscript very much because it recalls to the public attention a remarkable amount of zooplankton data that have been partially explored so far and can be further and thoroughly exploited to increase our understanding of copepod diversity and distribution. Moreover, it is the perfect example of true Open Science and a valuable tribute to the interesting research work of Sigi Schnack-Schiel, an unforgettable colleague of great scientific and human qualities. This manuscript deserves to be published in ESSD with minor amendments, in my opinion. I see the need to improve some points, as detailed

in the following.

The scope of this manuscript is clearly the presentation of a historical archive of copepod data. The abstract is basically a summary of the dataset content. I would suggest to add a few words about: 1) the biogeographic provinces explored, 2) the most visited depth layer, 3) something about the abundance distribution (e.g. Fig 4), 4) the ecological questions that may be addressed by analyzing these data (as mentioned in Introduction). All this would give additional ecological value to the dataset presentation. Introduction lacks to present a link between the Antarctic and Atlantic datasets and the Red Sea dataset. Clearly they originate from different programs, but a link should be given here. I recommend to mention the Sigi's legacy also in Abstract and Introduction.

Technical comments L31: Schminke, 2007 is reported as 2006 in References L41: Hopkins et al., 1985 is reported without "et al." in References L51-53: remove the three lines about details on CPR, not necessary here; they interrupt the flow. L92: The first sentence is useless and should be removed (Plankton...organisms). L159: Cornils, Metz and Schnack-Schiel, 2017 should be reported and Cornils et al., 2017. L180-181: individuals that could not be assigned to any family or genus should be named different from what reported here; I suggest: Calanoida n.i females, Calanoida n.i. males, Calanoida n.i. copepodites [not identified], because "Calanoida female" (not singular but plural) may be misleading and indicate total Calanoida females. L184 In Metadata, it would be interesting to report the biogeographic provinces covered by the present datasets. L200: "Parameters" refer correctly to statistical parameters, here "variables" would be here a more appropriate term. L206: "Sonic depth" is more appropriate than "elevation" L263: the sentence "all calanoid species...copepodites" can be removed because this info is already on L214. L266: "copepod species list" is repeated twice L270: Add the total number of families, i.e. "Of the XX copepod families, eleven were..." L311: remove the sentence "We have also added...sets" because the same info is given in the two following sentences. L335: It would be interesting to know which other zooplankton groups are reported in the archives. L361-363: these three

lines should be moved from Concluding remarks and placed in Introduction

Table 2: The title should be change in “List of calanoid copepod families and genera, cyclopoid families, and other orders. . . .”. I guess that “x” indicates the presence of the family (not genera), but this should be clearly stated in the table title. Table 3: More than the number of datasets, it should be more useful and interesting to indicate the datasets where the copepodite stages are reported. This is really a remarkable information that should be adequately advertised.

Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2018-36>, 2018.

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Discussion paper

