

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

Astrid Cornils et al.

astrid.cornils@awi.de

Received and published: 16 May 2018

Reviewer 1 Comments

This compilation of zooplankton datasets collected over a 25 year period is a unique resource and provides a fitting tribute to the work undertaken by Dr Sigrud Schnack-Schiel over many years. The Southern Ocean datasets provide an easy-to-access resource that will be useful to modellers and ecologists attempting to describe how environmental variability influences key copepod species. The addition of datasets from the Great Meteor Bank and the Red Sea does seem odd, but I assume that there was no logical place to put those one-off datasets.

C1

- As this data collection is the legacy of Dr. Sigrud Schiel we have added all her unpublished data sets on copepod abundances to make people aware that they can be used freely. We have clarified this and added a comment to the abstract and introduction as suggested by the other two reviewers.

In general the choices made regarding taxonomy seem sound, though I do wonder whether *Rhincalanus giga nauplii* were big enough to be retained by the mesh and could have been enumerated (L 305 and 306)?

- *Rhincalanus gigas nauplii* are exceptionally large. According to the ICES identification leaflets on copepod nauplii (Zooplankton sheet 63, Lovegrove 1956), the naupliar stages 3 – 6 range from 0.86 to 1.8 mm. Thus, they are larger than some of the adult copepods and can be easily separated and counted. With the mesh size used during the 4 expeditions with data on *R. gigas nauplii* mesh size ranged between 55 and 200 μm . That is sufficient to catch larger Nauplius stages quantitatively.

The presentation of the information in Table 2 is ambiguous. It appears that all genera from each family were generally present at all sites, but I am not sure if this is what you wish to convey. I think that the Xs for the locations relate to the Families only and not all the genera under each family. If this is true, then Table 2 needs to be modified to make this clear.

- The table gives an overview of the the families and the genera that have been enumerated in the data sets. Yes, the Xs refer to the families. We have clarified that in the legend of Table 2. And also added a link to the complete copepod species list.

Can you confirm whether the time data (e.g. Figure 3) is UTC or local time? This is important for any comparisons made with other regions, or within the region.

- Time recorded on RV Polarstern, during the cruises JB03 and M42/3 was UTC. I have added this information in the text. M44/2 are local times (UTC +2). For VH1094, DAE1979/1980 and M11/4 it cannot be confirmed whether UTC or local time was used

C2

in the protocols. There is no information in the protocols.

For day of year (Figure 4) can you add Jan 1 = day 1 near the bar, if this is the case.

- We have added this to Figure 2.

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