

Earth Syst. Sci. Data Discuss., referee comment RC2
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Comment on **essd-2021-29**

Anonymous Referee #2

Referee comment on "A database of net zooplankton of the Far East seas and adjacent Pacific Ocean waters" by Igor V. Volvenko, Earth Syst. Sci. Data Discuss.,
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The paper of Volvenko describes a data set composed by an extensive collection of zooplankton records that have been gathered over the years (1986-2013) by the Russian Institute of Fisheries and Oceanography in several regions around the North Pacific Ocean. The data were previously published in Russian reports and used in a couple of papers recently published in English (Volvenko, 2018, Volvenko, 2020), one of which summarizing the spatio-temporal distribution of total zooplankton and of the main zooplanktonic groups (Volvenko, 2018).

As far as the database is concerned, it would have been really valuable having access to the raw zooplankton records, as this would have allowed recovering information on zooplankton composition and abundance at fine spatio-temporal scales.

The link provided instead (Volvenko, 2021) gives access to a dataset in which zooplankton records are aggregated over large geographical regions and over multiple years. This dataset appears to be substantially similar (if not the same) already published by the author in recent years.

Apart from the limited originality of the data, the paper of Volvenko lacks of clarity and proper structure, while it is characterized by numerous inconsistencies.

Some paragraphs of the introduction (see lines 49-67) should have been rather included in the methods, as they describes sampling procedures and the way in which the data were organized.

The database structure described in the text and in Fig.4 does not match the data provided. Therefore, one wonders why this figure would be needed. On the contrary the headers of the columns in the excel file with the data (Volvenko, 2021) are not always clear. For instance, what does "Ind./m³ sem" or "Mg/m³ sem" mean? What does a "whole time" periodicity mean?

Neither the text in the method session or the figures (i.e. Fig. 2 and Fig.4) clarify whether the original records, either counts or weight, were collected for individual taxa or for total zooplankton, or for both.

Besides, the procedure adopted to correct individuals' abundance and weights is very confusing (lines 137-145). The author seems to assume that the average biomass of a defined species would be constant over time (which is not necessarily true as the elemental composition of a species can significantly vary according to the seasonal period and to its physiological stage) and based on this assumption recalculates the abundance of a species with weights > 20% of the long-term mean (lines 140-145).

Other inconsistencies are in the discussion. For example it is mentioned that "the ocean area 11 was left practically understudied", while based on Fig. 5 this is a region with permanent monitoring, with numerous zooplankton records (in the excel file, 2573 records are available in regions 11).

In conclusion, considering that the data set is already published elsewhere and that the article does not enable the reader to fully understand the data, their possible use from other users other than the author seems unlikely.