

Earth Syst. Sci. Data Discuss., author comment AC1
<https://doi.org/10.5194/essd-2021-29-AC1>, 2021
© Author(s) 2021. This work is distributed under
the Creative Commons Attribution 4.0 License.

Reply on RC1 - Author interactive comment on "A database of net zooplankton of the Far East seas and adjacent Pacific Ocean waters" by Igor V. Volvenko

Igor Volvenko

Author 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.,
<https://doi.org/10.5194/essd-2021-29-AC1>, 2021

Dear Editors,

I would like to thank the Anonymous Referee for the high appraisal of the work I have done. He writes, "The presented data are a consequent dataset about zooplankton communities. To my knowledge, there is no such dataset in this area". That is why I undertook this work in the hope of making such a unique dataset available to the world community.

The Referee proposes to supplement the manuscript with a discussion of the relevance of Juday net choice in comparison to other nets currently used elsewhere in the world. I believe that this would unnecessarily increase the size of the article for two reasons:

- 1) Neither I nor my colleagues-planktonologists chose this particular net. We were confronted with a fait accompli – for more than 40 years in TINRO plankton samples have been taken according to a single method using the Juday net.
- 2) Comparison of the catchability of different plankton nets has been described in an extensive literature (see some references at the end of the comment). This is a separate topic, not directly related to the dataset described in the article. Moreover, the data described in the manuscript have already been recalculated per unit volume – cubic meter – and the differential catchability rates used for the recalculation are shown in the tables.

Now about the main question raised by the author of the review. This is the format for presenting data.

At link <https://doi.org/10.5281/zenodo.4448646> the tables summarizing all information are available in the generally accepted CSV format, which allows them to be imported into any database. Each CSV file contains data for one marine area in accordance with links to one of five reference books: Ber.csv – Bering Sea data (how some of the information from this file looks like in printed form – in the guide to the Bering Sea – can be found in a Supplement to the manuscript), Okh.csv – the Sea of Okhotsk data, Jap.csv – the Sea of Japan data, PGB.csv – Peter the Great Bay data, Pac.csv – Pacific Ocean data. The same data is combined in the Excel book Data.xlsx, where a separate sheet corresponds to each reservoir. Shapefiles with polygons of the standard regions by which data is summarized

are available at the same link. The polygons accompanied with information about surface areas and water volumes in each. Standard shapefiles are easily imported into any modern GIS. Those who want to receive initial information in the MS Access format should contact the VNIRO or TINRO directorate, since they are copyright holders (and I am only the author of the database and co-author of reference books, which I noticed at the end of my manuscript).

Once again, I thank the Referee for the time and work in reviewing my manuscript, and I enclose the promised list of references, which, if necessary, can easily be increased many times over. It is up to the editors to decide whether they should be added to the manuscript. I understand that this is an important topic. Perhaps it requires a literature review. However, then it should be a separate review article and probably in a more specialized planktonology journal.

Dolganova N.T., Kidokoro H. Compared catch efficiency of different plankton nets in the Japan sea // PICES. - XII Annual Meeting. - Abstr. - Seoul, Republic of Korea. - 2003. - P. 72.

Fraser J.H. Standardization of zooplankton sampling // Zooplankton sampling. - P.: UNESCO, 1968. - P. 147-174.

Gorbatenko K.M., Dolganova N.T. Comparid catch efficiency of different types of plankton nets in the Far East Seas // Izv. TINRO. - 2006. - V. 146. - P. 213-225.

Gorbatenko K.M., Dolganova N.T. Comparing the catch efficiency with different types of plankton nets in the high production zones of the Pacific Ocean // Oceanology. - 2007. V. 47. - P. 205-212.

Kulikova E.B. Comparative catchability of several types of plankton nets // Proceedings of the Institute of Oceanology of the USSR Academy of Sciences. - 1954. - V. 11. - P. 233-237.

Mikheev V.N. Age structure of populations of common species of copepods in the Peruvian upwelling. Comparison of fishing gear // Oceanology. - 1977. - V. 17. - P. 511-516.

Musaeva E.I., Nezlin N.P. Comparison of different fishing gear for zooplankton based on materials from the Bering Sea // Oceanology. - 1995. - V. 35. - P. 942-946.

Piskunov I.B. Comparative characteristics of zooplankton in catches of four different types of plankton nets // Izv. TINRO. - 2003. - V. 133. - P. 240-244.

Rudyakov Yu.A., Zeitlin V.B. Size distribution of pelagic organisms according to the combined net and bathometric data // Oceanology. - 1988. - V. 28. - P. 171-174.

Shushkina E.A., Vinogradov M.E. Comparison of zooplankton concentrations determined from the data of various nets, bottles and observations from underwater vehicles used in the Black Sea expeditions of the IO RAS. In: Complex studies of the north-eastern part of the Black Sea. - Moscow: Nauka, 2002. - P. 458-468.

Shushkina E.A., Vinogradov M.E., Lukasheva T.A. et al. Comparative use of various plankton fishing gear in monitoring long-term changes in the Black Sea communities // Oceanology. - 2003. - V. 43. - P. 744-750.

Volkov A.F., Efimkin A.Ya., Kuznetsova N.A., Slabinsky A.M. Description of the Bering Sea plankton population in the autumn of 2003 (the results of the BASIS joint Russian-Japanese-U.S. expedition) // Izv. TINRO. - 2004. - V. 139. - P. 282-307.

Best regards,

Volvenko I.V.

Please also note the supplement to this comment:

<https://essd.copernicus.org/preprints/essd-2021-29/essd-2021-29-AC1-supplement.pdf>