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Macrozooplankton of the Arctic - The Kara Sea in relation to environmental conditions: A comment on Dvoretsky and Dvoretsky (2017)

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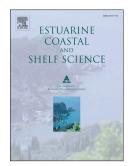
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Macrozooplankton of the Arctic - The Kara Sea in relation to environmental conditions :

a comment on Dvoretsky and Dvoretsky (2017)

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The article "Macrozooplankton of the Arctic - The Kara Sea in relation to environmental conditions" has been published recently by Vladimir G. Dvoretsky and Alexander G. Dvoretsky in the journal "Estuarine, Coastal and Shelf Science" (Dvoretsky and Dvoretsky, 2017). This publication describes distribution, abundance, biomass, and diversity of macrozooplankton in relation to oceanographic conditions in the Kara Sea (but only for one year - 2012), one of rather poorly investigated areas of the Arctic Ocean. The article could be of great interest and could provide more knowledge about the Kara Sea plankton for a wider international scientific community, considering that most studies in this area of the Arctic Ocean were conducted by the Soviet/Russian scientists whose publications are available in Russian only. Unfortunately, this publication raises a lot of questions concerning methodology, quality of results, and the authors' interpretation.

Basics of planktonology.

The authors used the term "macrozooplankton" in the title and the text, which is principally incorrect in relation to the data presented. According to up-to-date internationally established standard classification, "macrozooplankton" is a group of zooplankton organisms ranging from 2 to 20 cm, while organisms in the size range from 0.2 to 20 mm belong to "mesozooplankton" (Omori and Ikeda, 1992; Harris et al., 2000).

On the contrary on page 39 (section 2.2, the first paragraph) Dvoretsky and Dvoretsky write: «... only zooplankton >1 mm were considered as macrozooplankton in this study...». In fact, they presented the data on a mixture of organisms belonging to both size categories – meso- (>1-20 mm) and macrozooplankton (>20 mm) (see the Table 2), but regarded them as "macrozooplankton". In particular, the authors consider both large copepods *Calanus* spp. and *Metridia* spp. and even small *Pseudoclacanus* spp. as belonging to macroplankton. Essentially, by this statement Dvoretsky and Dvoretsky break the well-established standard nomenclature (Harris et al., 2000) and invent their own understanding of the term "macrozooplankton". But size classification of zooplankton does not depend on the type of gear used.

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