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Dynamics of abundance, species and length composition of euphausiids in the Barents Sea under recent warm period

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Based on data from the Russian autumn-winter survey in the Barents Sea, changes in euphausiids communities in recent warm period (2007-2013) were investigated. Total abundance of euphausiids had increased from 2007 to 2009 for account of local cold-water species *Thysanoessa inermis* and *Thysanoessa raschii*, and decreased in 2010-2013. At the same time abundance of warm-water Atlantic species *Meganyctiphanes norvegica* and *Thysanoessa longicaudata* advected from the Norwegian Sea, had increased from 2007 to 2013. Spatial distribution of these two groups of species was different and related to water masses. Local euphausiids species mainly distributed in the northern, central and eastern Barents Sea, while advected species distributed in the western and coastal areas. 0-group individuals of *T. inermis* and *T. raschii* (total length up to 15 mm) distributed mainly in central and eastern Barents Sea. Their portion has decreased from 2007 to 2013 and reached the level of older groups, that might indicate poor reproduction of local species. 0-group individuals of advected species *T. longicaudata* occurred in the north-western and western and *M. norvegica* in the western, coastal and eastern areas. Their abundance was quite stable as a result of constant inflow from the Norwegian Sea.

Keywords: Barents Sea, euphausiids, abundance, length composition

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