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Testing changes in the food web structure using zooplankton indicators in the southern Baltic Sea.

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Results on mesozooplankton community structure dynamics provide valuable information on understanding of ecosystem functioning, changes in pelagic food webs, and contribute to the assessment of Good Environmental Status as defined in the EU Marine Strategy Framework Directive.

Zooplankton mean size and total abundance (MSTS) indicator will be applied to test changes in the pelagic food web structure in the southern Baltic Sea. This HELCOM core indicator appears to be very useful for this role: it considers the zooplankton mean size change as a consequence of an increase of small taxa biomass (impact of eutrophication) and especially a decrease in abundance of *Pseudocalanus* copepods (impact of hydrological conditions as well as predatory pressure of small pelagic fish). MSTS indicator provides estimates of the feeding conditions for sprat and herring as well as for cod larvae.

Data that are the Polish contribution to the HELCOM COMBINE Programme will be used. The longest data series (since 1979) were collected at deepwater stations in the Polish EEZ whereas those taken at more coastal ones started within the last twenty years. In most of the cases, samples were taken 5 times per year using the WP-2 net.

Keywords: zooplankton indicators, foodweb, southern Baltic Sea

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