

The influence of biotic and abiotic factors on the growth of sprat (



We analysed spatial and temporal patterns of condition factor (CF) of sprat (*Sprattus sprattus*) between 1986 and 2000 in different areas of the Baltic proper. Results showed a moderate increase in CF between 1986 and 1989. Afterwards, an abrupt decrease in CF, between 22% and 29%, occurred in all the areas of the Baltic proper. However, from 1998 and onwards, CF increased compared to the previous years. Weight-at-age and CF of Baltic herring showed a similar pattern in the same period. Several factors affecting variability of sprat CF were evaluated. Data showed that sprat CF was density-dependent and possibly related to the pelagic fish abundance and individual food intake. Temperature did not influence sprat CF while salinity seemed to affect variability of sprat CF in the northern Baltic proper. Changes in salinity levels may shape pelagic fish growth rates both indirectly changing the zooplankton community structure and abundance and/or directly via fish physiology and metabolisms.

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