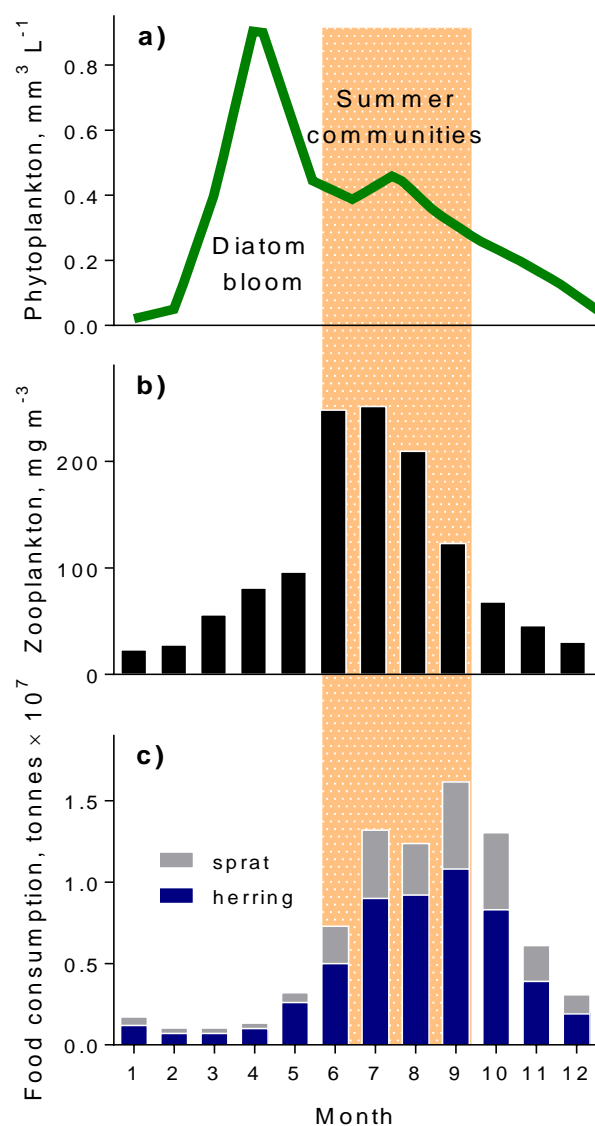


Indicator properties of Baltic zooplankton for classification of environmental status within Marine Strategy Framework Directive

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S1 Fig. Seasonal development of (a) phytoplankton biomass, (b) zooplankton biomass, and (c) estimated food consumption by zooplanktivorous fish in the Baltic Sea, northern

Baltic proper. The seasonal dynamics is shown to indicate the relative importance of the data period (June to September; highlighted in yellow) used in this study.

In spring, the diatom bloom remains largely ungrazed by zooplankton, because of the low stocks of the latter, and the diatom production settles relatively quickly to the bottom. In June–September, zooplankton stocks are at maximum exerting grazing control on summer phytoplankton communities. During the same time, the food consumption by fish is also at its maximum because of the high abundance of fish larvae after spawning in May-June. Moreover, a part of herring population spawns in August, which implies that zooplankton abundance and community structure during August-September are also important for fish recruitment. The phytoplankton and zooplankton data are long-term mean values (1992–2011) for the Askö area (station B1); the phytoplankton data were retrieved from the SHARK database (Swedish Meteorological and Hydrological Institute; www.smhi.se). The estimated food consumption by zooplanktivorous fish are from Arrhenius and Hansson (1993). The figure is modified from Karlson et al. (2015).

References

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