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TITLE: The marine copepod, *Pseudocalanus elongatus*, as a mediator between climate variability and fisheries in the Central Baltic Sea

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ABSTRACT:

Abstract *Pseudocalanus elongatus* is a key species in the pelagic zone of the deep basins of the Central Baltic Sea. The copepod serves as a major food organism for larval as well as for adult, pelagic planktivorous fish. Large interannual fluctuations in the standing stock of *P. elongatus* have been attributed to significant changes in the hydrographic environment over the last two decades. In particular, the decreasing salinity in the Baltic deep basins, a result of a change in atmospheric forcing leading to an increase in rainfall since the 1980s and of a lack of pulses of saline water intrusions from the North Sea, was found to affect reproduction and maturation of the copepod. In parallel, dramatic changes in the weight-at-age of herring, one of the most important commercial fishes of the Baltic Sea, have been observed since the late 1980s. Using time-series on herring stomach contents, as well as length and weight, we provide evidence for a chain of events relating variability in climate, salinity and *P. elongatus* abundance to changes in diet and condition of herring in the Central Baltic Sea.

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