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Seasonal variation in population dynamics of *Calanus finmarchicus* in the south western Norwegian Sea

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The south-western Norwegian Sea is characterized by an inflow of warm and saline Atlantic Water from the southwest, whereas cold and less saline East Icelandic Current Water, of Arctic origin, flows in from the northwest. These two water masses meet and form the dynamic Iceland Faroe Front. In this region, the copepod *Calanus finmarchicus* is the dominant zooplankton species and the key link between the higher and lower trophic levels. From July 2013 to July 2014 seasonal variations in vertical migration, reproduction, ingestion and growth rates were investigated on 7 cruises which were distributed throughout the years. These observations are linked to the oceanic environment, which may be affected by future climate change.

Keywords: *Calanus finmarchicus*, seasonal vertical migration, egg production, ingestion, growth, south-western Norwegian Sea, Atlantic Water, East Icelandic Water