

Prognoses for 2004

Ocean climate

In 2003 the southern Barents Sea was warmer than average, but there were more sea ice than average. In 2004, we expect lower temperatures compared with last year, while the ice conditions will be approximately the same as in 2003. It is not expected that the climate conditions will be favorable for strong year-classes of fish in 2004.

In the Norwegian Sea no major changes in the main patterns for circulation or transport of heat are expected in 2004 and 2005. The Atlantic water in the eastern part is expected to be warmer in 2004 than normal. The south-western part will continue to be dominated by Arctic water. In the central and northern Norwegian Sea the influence of Atlantic water will increase.

Production of zooplankton

The zooplankton biomass in 2003 was close to the mean (7.0 g m^{-2}) for 1988-2003. Capelin is the most important predator on zooplankton in the Barents Sea. The fish stock was low in 2003 and will remain low in 2004, exerting a low grazing pressure on the zooplankton. The sea temperature is expected to decrease in 2004, reducing the production possibilities. In all, the biomass and production of zooplankton will not change much in 2004.

The capelin stock is strongly reduced, and only very good conditions for survival of the larvae will result in a good year class in 2004. The spawning stock of herring in the Norwegian Sea holds a stable and high level, and the conditions for production of a strong year class are thus present. However, the realization of a strong year class of herring is dependent on both biotic and abiotic conditions during spring and summer 2004.