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The ICES Report on Ocean Climate: variability in the ICES region.

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with N.P. Holliday, F. Gaillard and the ICES Working Group on Oceanic Hydrography.

The ICES Working Group on Oceanic Hydrography (WGOH) maintains, analyses, and develops coastal, shelf and deep ocean repeated stations and sections around the sub-polar North Atlantic, the Nordic Seas and adjacent shelf seas. Each year since 1999, the WGOH has generated a summary of atmospheric and hydrographic conditions in the North Atlantic and published this as an annual report, the ICES Report on Ocean Climate (IROC). The data presented in these reports are reviewed to provide a record of observed inter-annual variability in the North Atlantic over the last decade.

A number of the timeseries are long, some longer than 50 years, and this allows the conditions observed in the decade of (2000-2009) to be compared with earlier decades, putting the recent observations into context with the long term variability. Annual mean values can be useful for examining decadal scale variability, however in order to understand the impact of physical variability on the marine ecosystem changes within seasons may be more important. Seasonal data across the North Atlantic are examined looking for evidence of changes in seasonal patterns.

Over the last decade members of the WGOH have worked together in collaborative research developing new insight into climate variability and the impact on ecosystems. Some of the key findings from this research are reviewed and updated here, including observations of unusually warm and saline Atlantic Water in the Nordic Seas and a comparison of gridded data products (SST and North Atlantic gridded temperature and salinity fields) with selected time series.

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