**THE ICES REPORT ON OCEAN CLIMATE 2005**

Prepared by the ICES Working Group on Oceanic Hydrography

Editors: Sarah L. Hughes and N. Penny Holliday

---

**The upper layers of the North Atlantic and Nordic Seas were warmer and more saline than the long-term average.**

**The warm surface anomaly located between UK and Iceland in 2004 moved into the Norwegian and Barents Sea.**

**The trend in the last decade (1995-2005) has been of warming and increasing salinity in the upper ocean.**

---

Annual Average Sea Surface Temperature Anomaly (°C) for 2005 – from NOAA Optimum Interpolation (OI) SST V2 data provided by the NOAA-CIRES Climate Diagnostics Centre, Boulder, Colorado. Areas with > 50% ice cover during the average period are left blank.

**SALINITY ANOMALY 2005**

Normalised annual average upper layer anomalies from WGOH in-situ data. A value of +2 indicates that the data (temperature or salinity) for that year was 2 standard deviations above normal. Normal conditions are mean values calculated from all data available in the base period 1971-2000, note that some timeseries are shorter than others. White circles indicate no data available for 2005 at the time of publication.

---

Timeseries of temperature anomaly (normalised by the standard deviation) from selected WGOH in-situ data. Thick lines with data indicate annual average anomalies. Thin lines show the decadal scale trend in the data, derived from a polynomial fit. The central map shows the location of each of the timeseries along with a schematic of the surface circulation of the North Atlantic. Blue arrows show the cooler waters of the sub-polar gyre. Red arrows indicate the movement of warmer waters in the sub-tropical gyre.