



Deep water changes in the Eurasian Basin and in the Greenland Sea

Ursula Schauer, Raquel Somavilla, Gereon Budéus, Axel Behrendt, and Benjamin Rabe
Alfred-Wegener-Institut für Polar- und Meeresforschung, Climate Systems, Bremerhaven, Germany (ursula.schauer@awi.de)

In the past decades, not only upper waters but also the deepest layers of the Arctic Ocean have been warming. Observations show that the rate of warming varies largely in the different basins with the fastest warming in the deep Greenland Sea (ca. 10-1°C per decade) and the Eurasian Basin featuring an intermediate rate of ca. 10-2°C per decade. While the warming in the Greenland Sea is due to ongoing export of warm deep waters from the Arctic Ocean and in the same time cease of deep convection of cold water, the reason of Eurasian Basin deep warming is less clear. We discuss possible causes as changes in the waters involved in slope convection or geothermal heating.