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The BALTIC and NORTH SEAS CLIMATOLOGY ($BNSC_{hydr}$) - a comprehensive, observation-based data product of hydrographic parameters

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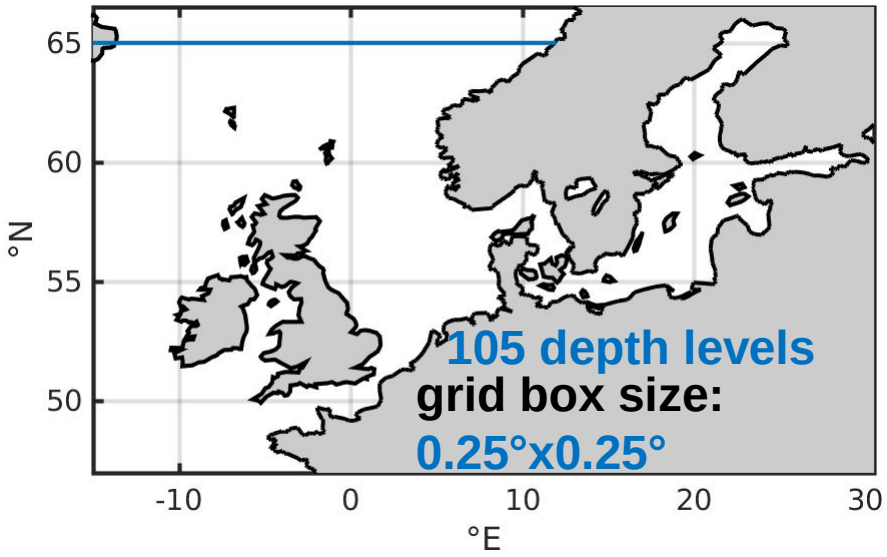
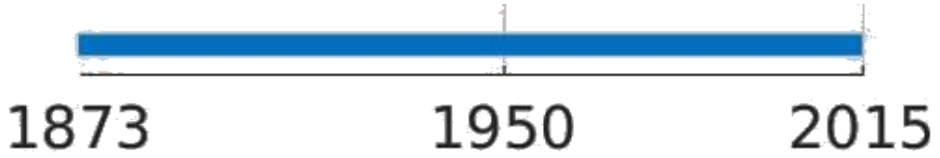
BNSC overview

spatial extent and resolutions



temporal extent and resolutions



monthly

decadal monthly

annual

available variables

water temperature

salinity

Data and Methods

Elaborate Quality Control (QC) of hydrographic data,

following data quality control strategy developed during international initiative „International Quality Controlled Ocean Database (IquOD*)“

QC checks

- depth dependant **parameter range** (overall, local climatological)
- **observed depth vs. digital bathymetry** (GEBCO**)
- **profile structure** (number of extreme values, vertical gradient, spikes, constant values)
- **max. of observed depth compliant with data type**

*http://www.iquod.org/

**Weatherall et al., 2015

Data and Methods

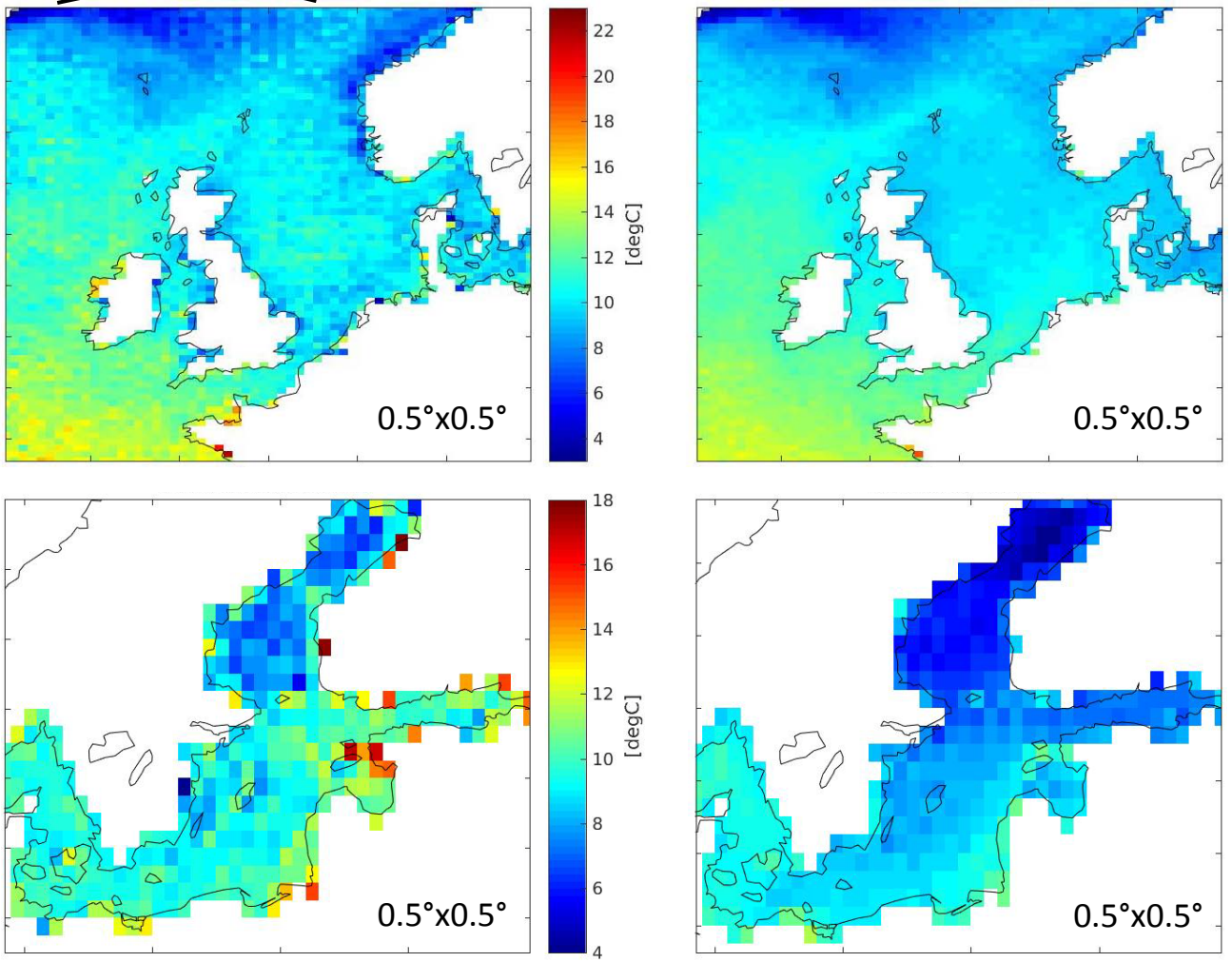
SST longterm mean (based on annual averages)

North Sea
(1890-2011)

Baltic Sea
(1898-2015)

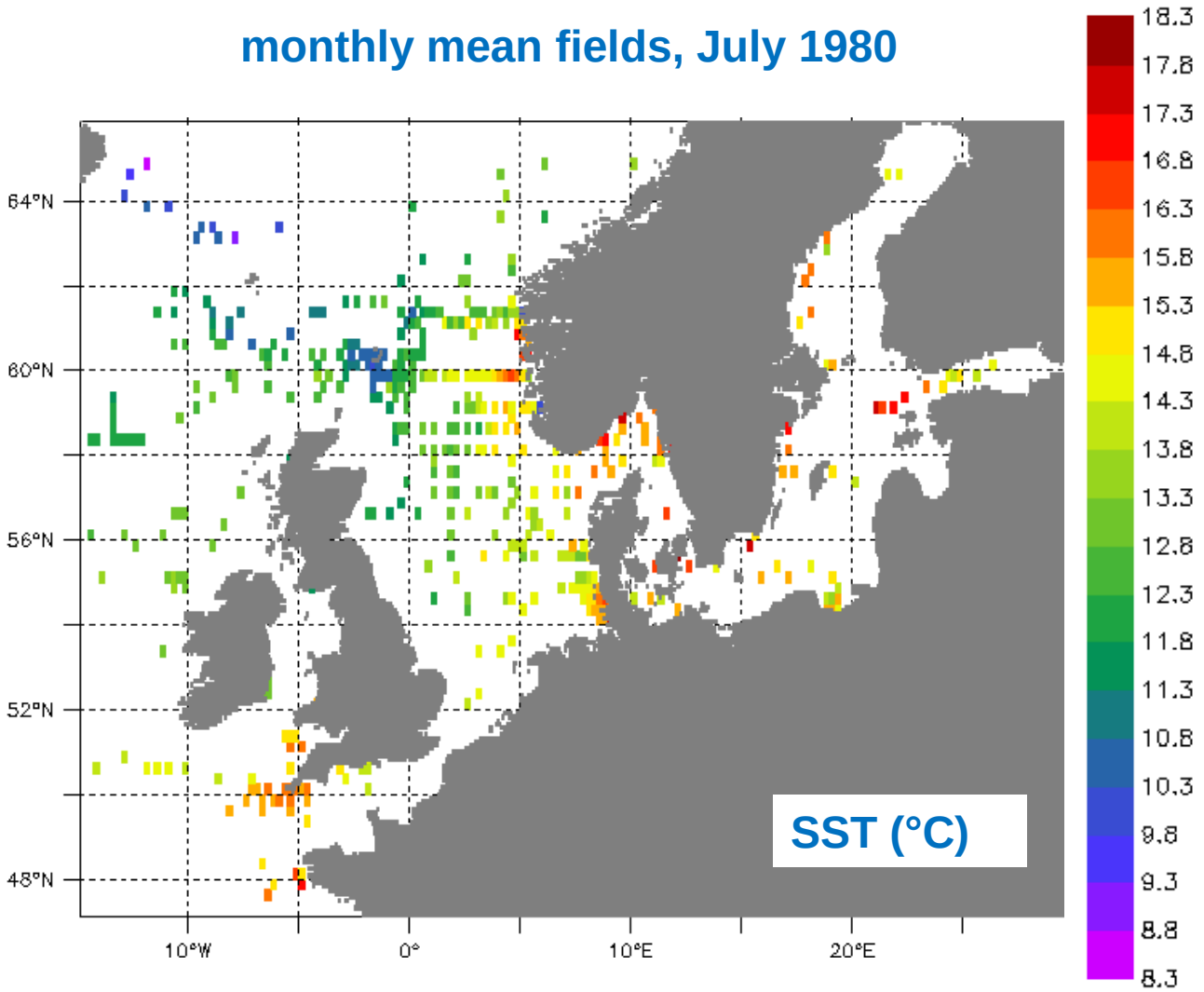
~~correction~~

correction



Data Product

monthly mean fields, July 1980

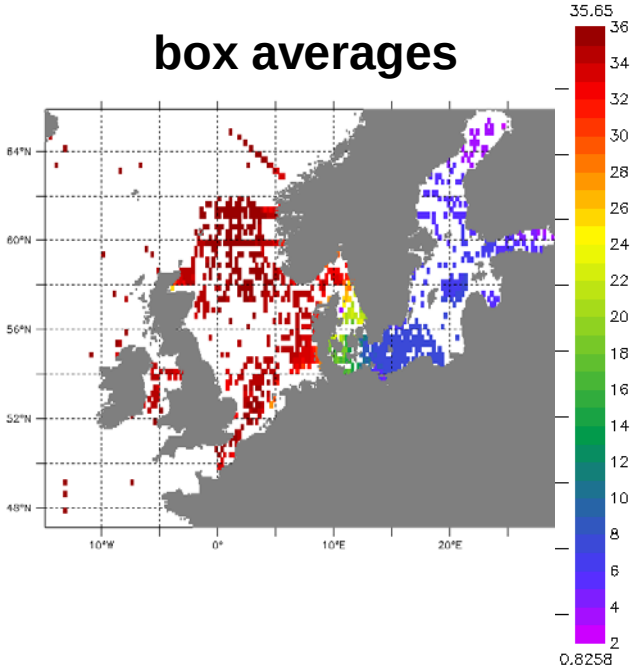


Data Product

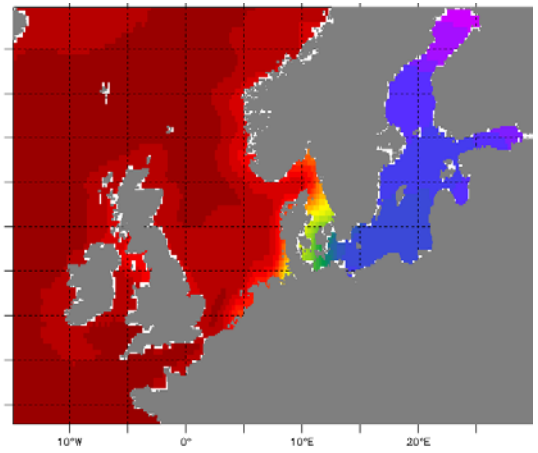
decadal monthly mean fields, e.g. 1996-2005,

sea surfacae salinity, January

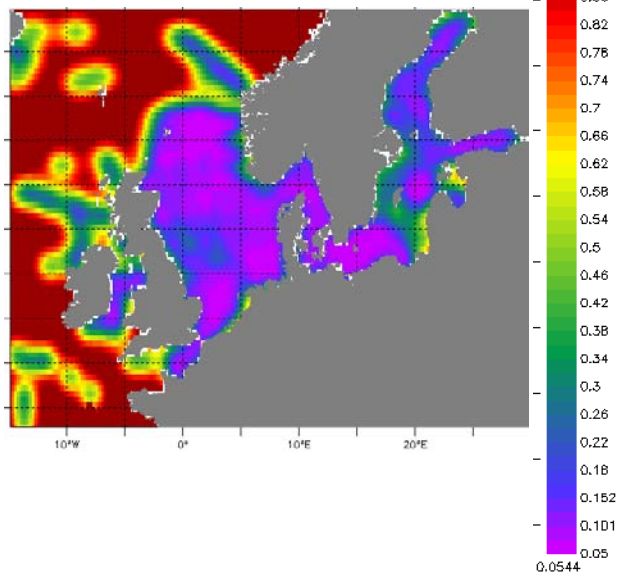
box averages



interpolated field



relative interpolation error



Quality controlled profiles