

BACC – BALTEX Assessment of Climate Change for the Baltic Sea basin

The purpose of BACC (BALTEX Assessment of Climate Change for the Baltic Sea basin) is to provide the scientific community and the public with an assessment of ongoing and future climate change in the Baltic Sea region. This is done by reviewing published scientific knowledge about climate change in the Baltic Sea region. BACC offers an up-to-date overview over the most recent scientific findings in regional climate research in the Baltic Sea basin, including climate changes in the recent past, climate projections until 2100 using the most sophisticated regional climate models available, and an assessment of climate change impacts on terrestrial, freshwater and marine ecosystems. This overview is authored by a consortium of more than 80 scientists from 13 countries and was published as a comprehensive text book with Springer.

The unique feature of BACC is the combination of evidence on climate change and related impacts on marine, freshwater and terrestrial ecosystems in the Baltic Sea basin (catchment and water body). It is the first systematic scientific effort for assessing climate change in the Baltic Sea region.

It is demonstrated that a warming is going on in the Baltic Sea region and it is considered plausible that this warming is at least partly related to anthropogenic factors. So far, and in the next few decades, the signal is limited to temperature and directly related variables, such as ice conditions. Later, changes in the water cycle are expected to become obvious. This regional warming will have a variety of effects on terrestrial and marine ecosystems – some predictable such as the changes in the phenology, others so far hardly predictable.