



Recent trends in Sea ice in the southern and western Baltic and the North Sea

Jürgen Holfort, Natalija Schmelzer, and Sandra Schwegmann
BSH, German Ice Service, Rostock, Germany (juergen.holfort@bsh.de)

We analyzed sea ice charts and observations of a 50 year long period starting in 1961 to produce two climatological ice atlases, one for the western and southern Baltic and one for the German Bight and Limfjord. As the year to year variability is large we subdivided the 50 year into three overlapping 30 year periods (1961-1990, 1971-2000 and 1981-2010) to look for trends in the sea ice. In the southern and western Baltic as well as in the North Sea there was a clear decrease in the total frequency of ice occurrence. Other parameters like begin and end of the ice season, ice thickness, etc. did not show such clear signal and also showed larger regional differences. The ice conditions mainly changed in accordance with the changes in air temperature in the same period, although some more regional changes in some parameters were most probably also influenced by other factors like the deepening of fairways.