

Decadal variability in the North Atlantic and its subpolar gyre (SPG) has been shown to be predictable in climate models initialized with the concurrent ocean state. Numerous impacts over ocean and land have also been identified. Here we use three versions of the Met Office Decadal Prediction System (DePreSys) to provide a multi-model ensemble forecast of the SPG and related impacts. The recent cooling trend in the SPG is predicted to continue in the next five years due to a decrease in the SPG heat convergence related to a slow-down of the Atlantic Meridional Overturning Circulation (AMOC). We present evidence that the ensemble forecast is able to skilfully predict these quantities over recent decades. We also investigate the ability of the forecast to predict impacts on surface temperature, pressure, precipitation and Atlantic tropical storms, and compare the forecast to recent boreal summer climate.