

## ICES input to the UN ICSP17 on “Sustainable fisheries management in the face of climate change.”

### Understanding the impacts of climate change on fisheries

ICES and an intergovernmental marine science organization focused on the north Atlantic has examined the impact of climate change on fish and fish populations for decades. Examples include the 1992 steering group on cod and climate, the partnership with the project GLOBEC in the 1990s and 2000s through the cod and climate change working group (WGCCC), the strategic initiative on climate change (SSICC) which ended in 2010, the ICES/PICES Working Group on Forecasting Climate Change WGFCCIFS which ended in 2011, and the current ICES/PICES Strategic Initiative on Climate Change Impacts on Marine Ecosystems (SICCME) which was established in 2011. This examination has been supplemented by the series of symposia on decadal variability of the North Atlantic (covering 40 years of observed change) and the four ICES/PICES/IOC/FAO symposia on the effects of climate change on the world's oceans.

Currently the ICES network is actively tackling climate change impacts on sustainable fisheries in several ways;



The Workshop on pathways to climate-aware advice ([WKCLIMAD](#))



reference points and biological limits can be either integrated into assessments or tested through climate-enhanced management strategy evaluations to elucidate the potential benefits and costs of changing management targets (Szuwalski and Hollowed, 2016).

Another key area is around Species Distribution Modelling (SDMs). Shifting species distributions has already been

