

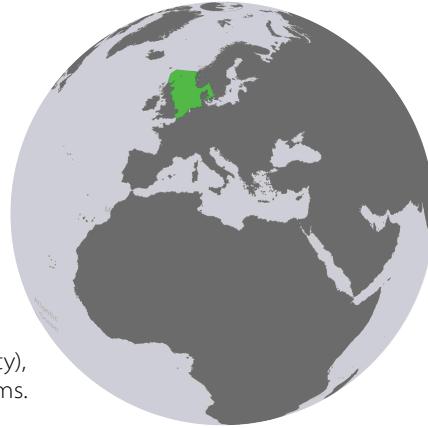
What may happen to bony fishes in the North Sea?

Climate change is predicted to change the distribution, number and composition of species of bony fishes around the world during the upcoming century. In the North Sea, these changes have been projected to 2100 based on modelled environmental conditions under the Intergovernmental Panel on Climate Change's A2 emissions scenarios. This is of relevance to Aichi Biodiversity Target 10 (Convention on Biological Diversity), showing potential climatic impacts on community composition in ecosystems.



The EU BON project seeks to build a European Biodiversity Observation Network that facilitates access to biodiversity information of relevance to policy.

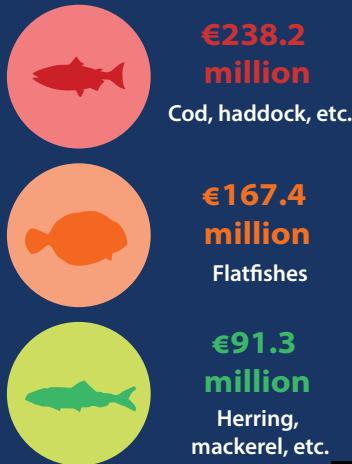
www.eubon.eu



ECONOMIC VALUE

€620.5
MILLION

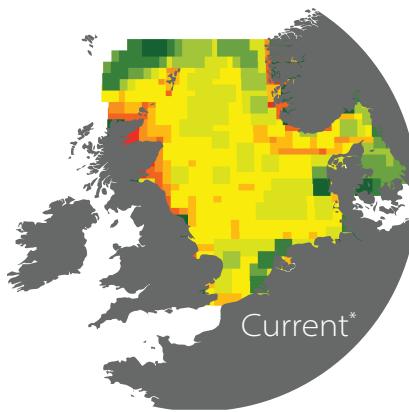
Annual total value of landings for 2006, comprising over of total fisheries landings revenue in the North Sea.
67%



SPECIES DIVERSITY

NUMBER OF SPECIES
PER GRID CELL

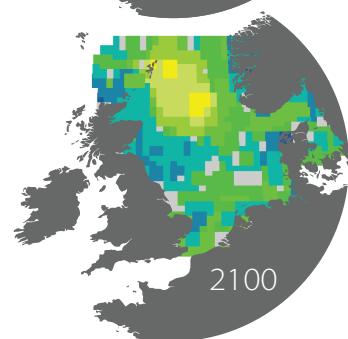
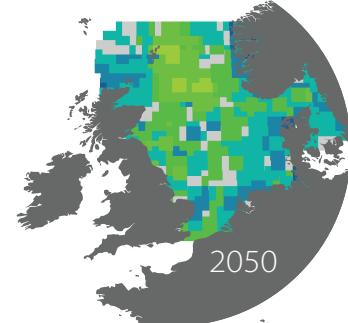
145 to 165
130 to 144
115 to 129
100 to 114
85 to 99
70 to 84
55 to 69
40 to 54
25 to 39
9 to 24



Atlantic mackerel
(*Scomber scombrus*)

NUMBER OF
SPECIES LOST
OR GAINED

45 to 64
30 to 44
15 to 29
5 to 14
1 to 4
0
-1 to -4
-5 to -14
-15 to -29
-30 to -44
-45 to -55



REFERENCES

* Time frame based on data obtained from Kaschner et al. (2016).

** All species counts based on modelled predictions.

1 Obtained from the Sea Around Us project (www.searoundus.org) at the University of British Columbia, Canada.

2 Kaschner, K., J. Kesner-Reyes, C. Garilao, J. Rius-Barile, T. Rees, and R. Froese. AquaMaps: Predicted range maps for aquatic species. World wide web electronic publication, www.aquamaps.org, version 08/2016.

Icons: Aboriginal Mapping Network's Icon Collection for Use and Occupancy Maps (version 1.1, March 2012; www.nativemaps.org; CC BY 3.0).

Suggested citation: Weatherdon LV, Garilao C, Kesner-Reyes K, and Martin CS. (2017) What may happen to bony fishes in the North Sea? (version 2.0) URL: <http://wcmc.io/North-Sea>

SPECIES COMPOSITION

AquaMaps methodology available at <http://aquamaps.org/am.pdf>.

177 SPECIES IN THE NORTH SEA**



188  **19**  **8**



194  **30**  **13**

 Number of species with >50% probability of occurrence

 Species gaining habitat

 Species losing habitat

 ≈ 5