



Marine Climate Change Impacts Partnership

Dear MCCIP news subscriber,

MCCIP website has recently been updated with new marine climate change news and events. Below is a brief summary of the new items that have been added. For more details on all of the items listed below, simply go to www.mccip.org.uk and go to the relevant links in the 'news and events' box on our homepage. Please note that the material presented in MCCIP news does not necessarily reflect the views of MCCIP.

- **[Climate change in the North Sea: Long-term studies reveal drastic changes in the marine fauna](#)**

Long-term studies have revealed obvious changes in the North Sea's biota. Studies during the past twenty years indicate that southern species increasingly expand northward. The Atlantic cod is drawn to cooler regions, while crustaceans from southern areas spread ever farther into the North Sea. The effects of the climate change can be clearly felt on the German sea coasts, as well.

[Schwinn, M. et al. \(2014\) Marine Biodiversity, doi: 10.1007/s12526-014-0217-4](#)

[Türkay, M. \(2014\) Helgoland Marine Research, doi: 10.1007/s10152-014-0388-1](#)

- **[Deep sea fish remove one million tons of carbon dioxide every year from UK and Irish waters](#)**

Deep sea fishes remove and store more than one million tons of CO₂ from UK and Irish surface waters every year, according to a new study. This natural carbon capture and storage scheme could store carbon equivalent to £10 million per year in carbon credits. Fish living in deep waters on the continental slope around the UK play an important role carrying carbon from the surface to the seafloor.

[Trueman, C.N. et al. \(2014\) Proc. R. Soc. B, 281\(1787\), 20140669](#)

- **[Coastal warning for vital Atlantic habitats](#)**

According to new research, climate change will completely alter the forests of kelp and the maerl beds of coralline algae that serve as shelter and nurseries for baby cod and juvenile scallops. 'Things are changing fast, and changing in ways that affect entire coastlines, not just localised areas,' says Professor Jason Hall-Spencer, a marine biologist at Plymouth University and one of the paper's authors. 'With problems like destructive bottom-trawling, you can try to cordon off parts of the ocean to protect them, but the global trends we're seeing now are even harder to deal with.'

[Brodie, J. et al. \(2014\) Ecology and Evolution, 4\(13\), 2787-98.](#)

- **[Climate change could stop fish finding their friends](#)**

Like humans, fish prefer to group with individuals with whom they are familiar, rather than strangers. This gives numerous benefits including higher growth and survival rates, greater defense against predators and faster social learning. However, high carbon dioxide levels, such as those anticipated by climate change models, may hinder the ability of fish to recognize one another and form groups with familiar individuals.

- **[Flood maps for Northern Ireland](#)**

DARD Rivers Agency has released a flooding resilience tool for Northern Ireland: DARD Rivers Agency Flood Maps. The maps were developed based on data from past flooding events and aim to project future flooding impacts.

- **[Met Office launches map of climate change on human dynamics](#)**

The '[Human dynamics of climate change](#)' map aims to illustrate some of the impacts of climate and population change in the context of a globalised world.

News stories: If there are any relevant news items or events that you would like to highlight on the MCCIP website please contact Georgia Bayliss-Brown at office@mccip.org.uk. New items will be added to the website next month.

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