



## Marine Climate Change Impacts Partnership

Dear MCCIP news subscriber,

The 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](http://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.

- **[Potential spatial effects of climate change in the South and East Marine Plan Areas \(MMO1077\)](#)**

This report combines future climate data from the UK climate projections 2009 with information on current and predicted marine activities in the South and East marine plan areas to identify potential climate change impacts and benefits. It uses climate change impacts and benefits to inform marine plan policy development by reviewing, and building upon, existing climate adaptation and mitigation documents to enhance marine planning and management of climate change impacts.

- **[Species groups react to climate change in patterns: NOAA](#)**

Researchers have found that marine fishery species react similarly to changes in their environment. Their findings show yet again that climate change affects distribution in the ocean, which can have an economic impact. Researchers classify marine fishery species according to similar temperature and depth distribution and found that the groups respond similarly to climate change effects. Interactions between individual species, however, may be affected by different factors like food competition, predator-prey relationships and available habitat. [see [Kleisner et al 2016](#)]

- **[Study into climate change impact on harmful algal blooms](#)**

A group of international experts gathered at Oban's Scottish Association for Marine Science to address the global problem of harmful algal blooms, which can

cause biotoxins in seafood and lead to death in fish. Now an international steering committee is looking to help fellow researchers understand how these algal blooms affect human health and their impacts on industries, such as aquaculture, in a changing climate. The project is sponsored by the Scientific Committee on Oceanic Research and the Intergovernmental Oceanographic Commission of UNESCO.

- **[A decade of sea level rise slowed by climate-driven hydrology](#)**

How much of an effect does terrestrial groundwater storage have on sea-level rise? Reager *et al.* used gravity measurements made between 2002 and 2014 by NASA's Gravity Recovery And Climate Experiment (GRACE) satellites to quantify variations in groundwater storage. Combining those data with estimates of mass loss by glaciers revealed groundwater's impact on sea-level change. Net groundwater storage has been increasing, and the greatest regional changes, both positive and negative, are associated with climate-driven variability in precipitation. Thus, groundwater storage has slowed the rate of recent sea-level rise by roughly 15%.

- **[A vulnerability assessment of fish and invertebrates to climate change on the northeast U.S. continental shelf](#)**

Climate change is having an impact on marine fish and invertebrates worldwide and these impacts will continue for the foreseeable future. It is difficult to quantify in detail the impact of climate due to the lack of sufficient understanding and scientific infrastructure. Vulnerability assessments, however, allow evaluations of climate impacts over a broad range of species. A climate vulnerability assessment in the Northeast U.S. Shelf found that the overall climate vulnerability is high to very high for approximately half the species assessed. In addition, the majority of species included in the assessment have a high potential for a change in distribution in response to projected changes in climate. These results will inform research and management activities.

**News stories:** If there are any relevant news items or events that you would like to highlight on the MCCIP website please contact Susana Lincoln at [office@mccip.org.uk](mailto:office@mccip.org.uk). New items will be added to the website next month.

**Susana Lincoln**  
MCCIP Secretariat

The Centre for Environment, Fisheries and Aquaculture Science  
Pakefield Road, Lowestoft, Suffolk, NR33 0HT, UK  
Tel: +44(0)1502 524336 - Email: [susana.lincoln@cefas.co.uk](mailto:susana.lincoln@cefas.co.uk)

[forward to a friend](#)

*Copyright © 2015 Marine Climate Change Impacts Partnership All rights reserved.*

**Our mailing address is:**  
[office@mccip.org.uk](mailto:office@mccip.org.uk)

**Find more:** For more stories on marine climate change, follow [@MccipOrgUK](#)

[unsubscribe from this list](#) | [update subscription preferences](#)