



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.

- **[New Climate Economy report offers hope for the future](#)**

'The New Climate Economy' report is a major assessment, commissioned by governments and written by world-leading experts. It considers how best to achieve prosperity and development at the same time as reducing carbon emissions and adapting to the impacts of climate change. The report concludes that, regardless of current economic status, there is the opportunity for all economies to grow while still moving to a low-carbon, climate adapted future.

- **[Scotland gains a national resilience centre](#)**

Scotland's efforts to become more resilient will get a boost from a new national centre in Dumfries. The centre will coordinate work to understand how communities and local emergency responders can best prepare for the anticipated increase in extreme weather events as a result of climate change.

- **[Climate change impacts countered by stricter fisheries management](#)**

A new study has found that implementing stricter fisheries management overcame the expected detrimental effects of climate change disturbances in coral reef fisheries badly impacted by the 1997/98 El Niño. The 17-year study led by WCS fisheries scientists found that rapid implementation of fisheries restrictions countered adverse climate effects and actually increased fisheries catches, counter to predictions and findings in other studies without stricter management. This is good news for the millions of people who depend on coral reefs fisheries,

as it provides a management solution for fisheries predicted to decline with global warming. ([McClanahan and Abunge. Marine Ecology Progress Series, 2014; 513: 201 DOI: 10.3354/meps10925](#))

- **[Climate, emerging diseases: Connections found](#)**

Climate change may affect human health directly or indirectly. In addition to increased threats of storms, flooding, droughts, and heat waves, other health risks are being identified. In particular, new diseases are appearing, caused by infectious agents until now unknown, or that are changing, especially under the effect of changes in the climate. These are so-called "emerging" or "re-emerging" infectious diseases, such as leishmaniasis, West Nile fever, etc. According to the World Health Organisation, these diseases are causing one third of deaths around the world, and developing countries are on the front line. ([Morris et al. Emerging Microbes & Infections, 2014; 3 \(8\): e56 DOI: 10.1038/emi.2014.56](#))

- **[Herring organs damaged by acidified seawater](#)**

Ocean acidification could damage the organs of Atlantic herring, as well as slow their growth and development, recent experiments show. It adds to the list of pressures currently threatening this commercially important species, including over-fishing and marine pollution.

- **[Female fish swap sex in polluted, low-oxygen water](#)**

Hypoxia – low levels of dissolved oxygen – can cause genetically female fish to develop into males, new research has found. Hypoxia in aquatic environments is often the result of eutrophication, which is caused by pollution from human activities. The findings suggest that hypoxia could cause fish populations to collapse, with consequences for entire ecosystems.

- **[PhD vacancy: Impact of climate change on Jellyfish occurrence \(University of East Anglia\)](#)**

There is much circumstantial evidence that Jellyfish blooms are occurring more frequently in recent years, deteriorating water conditions with impact on tourism, and causing damage to coastal infrastructure including power plants. Jellyfish grow very quickly in warm waters, and form blooms that can dominate the ecosystem for short periods of time (weeks). As the surface waters warm under the influence of climate change, it is expected that Jellyfish occurrence should

increase, but this is complicated and poorly understood because of multiple interactions with the environment. The PhD project will quantify the role of climate change on the occurrence of Jellyfish blooms in the world's oceans using a new database, observations and a model. Some field work to sample jellyfish as part of the CEFAS annual fish survey will also be encouraged.

- **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. New items will be added to the website next month.

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