

The Marine Climate Change Impacts Partnership (MCCIP) launched its latest annual report card on 15th July 2010 providing the very latest updates on how climate change is affecting our seas.

Almost 100 scientists from 40 leading UK science organisations contributed to this peerreviewed report, which covers 30 marine and coastal topics. The report includes a new regional seas climate change impacts map, which highlight important differences in climate change impacts across UK regional seas. These maps show that whilst many impacts are being seen in southern UK waters, future climate change will lead to impacts across all UK regional seas.

The report also takes a first look at how the UKCP09 climate projections can aid our understanding of future marine climate change impacts, and for the first time covers air-sea exchanges of CO₂, deep-sea habitats, waterbirds and human health.

New findings in the 2010-2011 MCCIP annual report card include:

- Temperatures are generally increasing, but inter-annual variability is high; 2008 UK coastal sea surface temperatures were lower than the 2003 - 2007 mean.
- Some fish distributions have moved northwards over the past 30 years by distances ranging from around 50 to 400km, with coldwater species such as monkfish and snake blenny moving the furthest.
- Climate change has contributed to a decrease by approximately 9% in the total number of seabirds breeding in the UK between 2000 and 2008. Breeding success has also declined over the same period.
- Increasing sea temperatures may have the potential to increase the geographic range of some harmful algal bloom species associated with Paralytic Shellfish Poisoning (PSP) events.

MCCIP's future work on marine adaptation through Marine Climate Smart Working was also highlighted at the launch event. Building on the evidence base provided in the annual report cards, this new approach will provide a high profile vehicle to recognise the issues, challenges, opportunities and achievements faced by different users of the marine environment in attempting to put marine climate change adaptation in place. We want to explain for the UK what we can do and should do to maintain, sustain and enhance our ways of life despite the marine climate change impacts that are occurring and will occur in the future.

Minister for the Marine Environment, Richard Benyon, said:

"For hundreds of years our seas have supported our fishing industry that provides us with food and coastal communities a way of life, as well as the vital marine ecosystem that is home to half the world species and habitats. But the seas and oceans are changing and we are only just starting to understand what this means.

Scientific studies through partnerships such as this provide the research and knowledge that we need to understand how climate change is affecting the world's waters and what action we need to take."

Welsh Minister for Environment, Sustainability and Housing, Jane Davidson said:

"I welcome this report which highlights the wide ranging impact that climate change has on our everyday lives - from the impact on plants and wildlife to the increased risk of flooding. It provides us with a useful tool that will inform the design of our Marine Conservation Zones and our wider planning for the sustainable management of our marine areas.

I recognise that the Welsh Assembly Government has a critical role to play in leading action to tackle the causes and consequences of climate change. Alongside our firm commitment to reduce emissions by 3% per year, the Assembly Government is determined to respond to the unavoidable impacts of climate change in order to help Wales minimise the impacts of costly disruptions and safeguard the long-term wellbeing of our environment.

Later in the year I will launch Wales' Climate Change Strategy which will set our approach to adaptation and the actions we will be taking to manage our response to climate change in the years ahead as our understanding of the risks and vulnerabilities improves."

Richard Lochhead, Cabinet Secretary for Rural Affairs and Environment in the Scottish Government said:

"The far reaching effect of climate change is not an issue any government can address alone, so it is vital that partnerships such as this exist. The importance of Scotland's marine environment is reflected in our Marine Act and the research drawn together by the partnership has a key role to play in protecting this vital but vulnerable environment. Our Marine Scotland scientists have contributed to the work of the MCCIP, enhancing its relevance to our continued work to maintain a healthy, diverse and productive marine environment."

Edwin Poots, Minister for the Environment in the Northern Ireland Executive said:

"I welcome the valuable work the Marine Climate Change Impacts Partnership plays in understanding and conveying the implications of climate change in our seas. As my Department develops a new marine planning system aimed at securing sustainable development of our seas, including the long-term challenges posed by climate change, up-to-date scientific evidence will play an important role in the development of the final marine plan."

Other key findings in the report include:

- Continued range shifts are being observed in plankton species, which underpin the marine food chain.
- Whilst there are likely to be some negative effects on commercial activities, there will be others that are at least partially beneficial. For example, UK coastal tourism may grow, although this would place stress on coastal infrastructure and warm-water fisheries may expand, targeting species such as seabass, anchovy and red mullet.

Notes for news editors

1. The launch of the 2010 MCCIP annual report card was on 15th July, 2010 at the British-Irish Council meeting at Newcastle University's Dove Marine Laboratory. The chair of the MCCIP annual report card working group, Dr. Craig Wallace (NERC) and Professor Dan Laffoley (Natural England and IUCN) addressed the launch attended by all of the Defra and devolved administrations environment ministers.

2. The 12-page summary report card can be accessed at www.mccip.org.uk/arc/2010/pdf. Detailed peer-reviewed briefings on all the topics covered in the summary report card can be found on the MCCIP website (www.mccip.org.uk/arc). The MCCIP Secretariat is hosted at Cefas, Lowestoft and is contactable on **01502 524508** and office@mccip.org.uk.
3. The Marine Climate Change Impacts Partnership (MCCIP) was launched in March 2005 and is a partnership between scientists, government, its agencies, nongovernmental organisations (NGOs) and industry. The principal aim is to provide a co-ordinating framework for the UK, so as to be able to transfer high quality evidence on marine climate change impacts, and guidance on adaptation and related advice, to policy advisors and decision-makers.
4. MCCIP partner organisations are:
 - Agri-Food and Biosciences Institute, Northern Ireland
 - Centre for the Environment, Fisheries and Aquaculture Science
 - Countryside Council for Wales
 - Department of Energy and Climate Change
 - Department for Environment, Food and Rural Affairs
 - Department of the Environment, Northern Ireland
 - EDF
 - Environment Agency
 - Joint Nature Conservation Committee
 - Marine Scotland Science
 - Marine Environmental Change Network
 - Marine Institute, Ireland
 - Natural England
 - Natural Environment Research Council
 - Scottish Environment Protection Agency
 - Scottish Government
 - Scottish Natural Heritage
 - Sir Alister Hardy Foundation for Ocean Science
 - States of Guernsey
 - States of Jersey
 - The Crown Estate
 - UK Climate Impacts Programme
 - UK Met Office
 - Welsh Assembly Government
5. 5. UKCP09 are the most recent UK climate change projections produced in partnership by the UK Met Office Hadley Centre and Defra's UK Climate Impacts Programme (UKCIP). For the first time, marine climate change projections are included, alongside atmospheric changes. For more information see the UKCP09 website:<http://ukcp09.defra.gov.uk/>or www.mccip.org.uk/projections

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