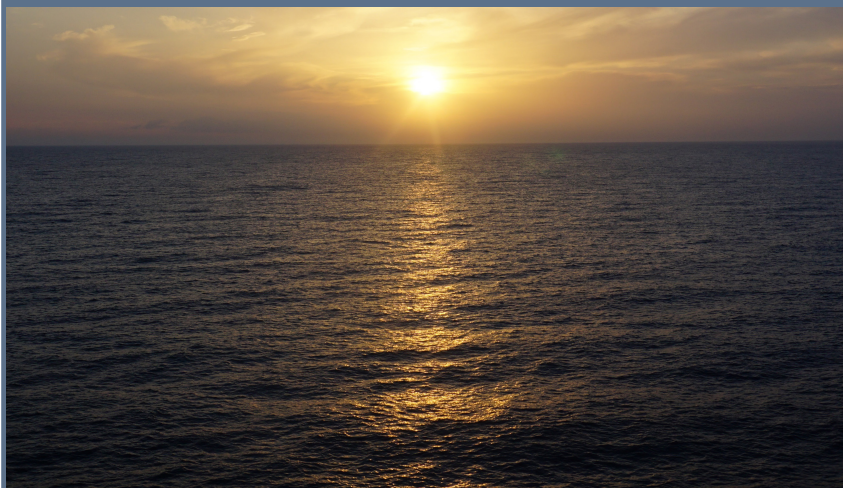




JNCC Bulletin *January 2021*

Ocean Recovery 2021



JNCC were delighted to sponsor and attend *Ocean Recovery 2021* - a major online conference organised by the Coastal Futures and Restoring Estuarine and Coastal Habitats (REACH) conference teams with WWF-UK and Sky Ocean Rescue.

The conference programme was full and varied with a great mix of speakers and presentations. Topics covered included blue carbon and nature based solutions, the UK's vision for the marine environment and the challenge of the climate emergency.

In the *Reducing the impact of our activities: plastics & noise – what can we do to make a difference?* session, JNCC's Sarah Canning and Sonia Mendes presented our work on marine mammals and noise mitigation. JNCC have established guidelines to reduce the impacts of noise to marine mammals in UK waters. They provided a high-level overview of mitigation methods that can be employed and spatial-temporal management methods adopted to manage noise in the harbour porpoise Special Areas of Conservation.

Peat mapping report



A [JNCC Science Report](#) was published demonstrating how we can monitor change in peatland condition using satellite data.

Working with partners from Forest Research, Natural England, and Welsh Government under a Copernicus User Uptake project funded by the Caroline Herschel Framework Partnership Agreement, we demonstrate how Very High Resolution (VHR) images, such as aerial photography from manned aircrafts and drones, and Sentinel-2 imagery can be used to map changes in aspects of peatland condition over time. The project focussed on four sites across England, Scotland and Wales, to quantify the amount of bare peat using time series data. Practitioners managing the sites praised the usefulness of the method and the value tools such as this can have in targeting restoration efforts and assessing the effectiveness of such interventions, leading to more effective, sustainable land management practices. The feedback also highlighted some uncertainties which would need to be addressed in order to operationalise such an approach, which are explained further in the report.

For more than 25 years JNCC has provided robust evidence and trusted advice on nature conservation to enable UK governments to achieve their policy objectives. As a public body we also work in partnership with business and society. Our people are dedicated to providing high-quality evidence and advice on the natural environment for the benefit of current and future generations. Our vision is to be a world-leading provider of innovative solutions, placing nature at the heart of sustainable wealth and wellbeing.

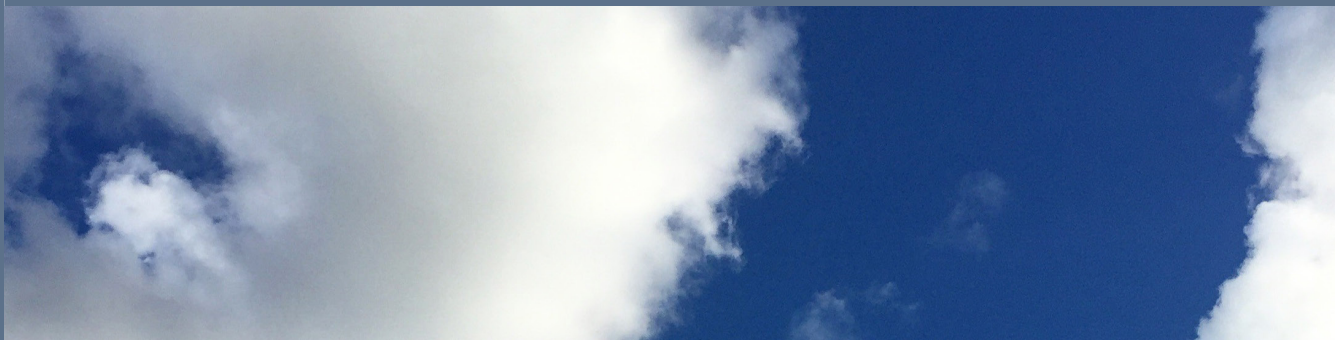
Use of resilient networks



JNCC's Catherine Duigan was invited to speak at the [Cumbrian Lakes Research Forum](#) about how Nature Networks could integrate fresh waters to improve conservation outcomes and mitigate biodiversity loss and climate change. Nature Networks are recognised as key to the future of conservation planning and their development is supported by policies and strategies across the [countries of the UK](#).

Catherine presented on how the use of resilient networks, which incorporate attributes of diversity, connectivity, extent and condition, relate to the freshwater context, highlighting the potentially vital role that freshwaters can play in establishing networked landscapes. Research priorities in this context suggest there is much more to understand about the role of networks in increasing ecological resilience and whether the current tools proposed for use can adequately capture freshwater habitats.

NERC Policy Internship Scheme at JNCC



JNCC welcomed four interns under the [NERC Policy Internship Scheme](#) "which provides the opportunity for doctoral students funded by the research councils of UK Research and Innovation to work for three months in one of a selected group of highly influential policy organisations".

Clare Brewster and Chiara Cooper joined our Nature Conservation Policy and Advice team, supporting the implementation of our air pollution projects and analysing emerging UK policy and legislation, respectively.

Andrew Twelves joined our International Advice Team to develop advice on a decision arising from the 13th Conference of the Parties of the Convention on Migratory Species relating to historic and future range state status in relation to climate change. He will develop case studies that illustrate the issues for a range of species, and a paper that can be reviewed by the CMS Scientific Council.

Niamh Esmonde joined our Marine Species Team to explore existing modelling techniques and data availability for the production of habitat suitability maps for wintering red-throated divers. These maps are important to understand the scale of effective habitat loss to this species due to factors such as the construction and operation of windfarms. Niamh is working on this project in collaboration with a masters student from Spatial and Population Ecology Group at the University of Glasgow, which will build on Niamh's initial assessments to trial modelling of habitat suitability maps.

Compensatory measures for offshore windfarms

JNCC's Karen Hall co-authored a report with colleagues from Cefas and Natural England, on behalf of Defra, to define, highlight and review key areas for consideration on the use of compensatory measures offshore and their applicability to UK offshore developments. The review looked at 19 case studies in the UK and 14 International developments where compensatory measures were implemented. In the report, 'compensatory measures' is used as an umbrella term to cover measures which are taken to sufficiently compensate for a negative impact on a designated site.



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