# **INCC**

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#### Demonstrating nature's role in coastal resilience



JNCC works across land and sea with partners in the UK, the UK Overseas Territories and around the world. We've recently collaborated with the UK Hydrographic Office (UKHO) on a data survey. The data will be used in the development of tools designed to improve the understanding of nature's role in coastal resilience against natural disasters in the Cayman Islands.

We assessed the Islands' vulnerability to storm surge and inland flooding, along with the role and value of the natural environment (e.g. coral reefs, mangroves and seagrass beds) in mitigating the impacts.

Collaborating with UKHO on the survey specification reduced costs and cut the carbon footprint, halving the flight time for the lidar survey as well as travel for the survey team.

JNCC's work supports the Cayman Islands' Government, with assistance from the Conflict Stability and Security Fund (CSSF).

Find out more about our climate change adaptation and hurricane disaster resilience in the <u>UK Overseas Territories</u> project.

### **Breeding Bird Survey annual report**



The <u>latest annual report</u> from the Breeding Bird Survey (BBS), incorporating the Waterways Breeding Bird Survey, provides population trends of the UK's breeding birds.

The BBS is a UK-wide project, funded by the British Trust for Ornithology (BTO), Royal Society for Protection of Birds (RSPB) and JNCC, to monitor changes in the breeding populations of the UK's common bird species. In this most recent annual (2021) report, population trends for 118 bird species in the UK have been calculated.

Overall, 43 species show statistically significant long-term declines in the UK, including some internationally important breeding wader species, which are continuing to show declines. However, 39 species showed statistically significant long-term increases in the UK, including Little Egret and Red Kites.

Data sources like the BBS are key for identifying changes in nature and understanding the effects of different management decisions. The survey is carried out by over 2,500 volunteer birdwatchers throughout the UK.

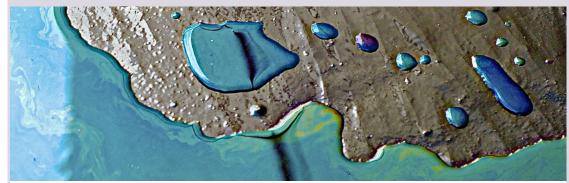
JNCC – Turning science into action for nature, people and the planet

#### Paving the way for access to standardised cetacean data



The Joint Cetacean Data Programme (JCDP) facilitates access to quality, standardised cetacean survey data collected from aerial and vessel platforms across the Northeast Atlantic. This collaborative project, managed by JNCC in partnership with the International Council for the Exploration of the Sea (ICES), and funded by Defra, could be ground-breaking in filling evidence gaps to better understand trends in cetacean abundance and distribution. The project benefits from advice and expertise from stakeholders across industry, policy, academia and NGO sectors. An online Data Portal hosted in the ICES Data Centre allows people to submit, search and download data. It's supported by the JCDP Information Hub, a 'one-stop-shop' giving information about the project, resources to help data submitters and users, and guidance on how to design high quality cetacean surveys. A data standard and advice on cetacean survey design ensure that the data are of high quality and can be collated easily. Each dataset has associated metadata records, essential for effective use of data. We're encouraging others to contribute data to this growing shared resource and be part of the movement towards open and accessible research data. For more information, contact marinemammals@jncc.gov.uk

## Enhancing knowledge and skills in oil spill response



The Interspill Conference & Exhibition is a key event in a series of international oil spill clean-up events and attracts key players from industry, government, national, international authorities and academia, all of which strive for excellence and continual improvement in oil spill preparedness and response. JNCC's Bethany Graves, Georgios Kazanidis and Lucy Jenkins attended this year's conference in Amsterdam, participating through an oral presentation and poster. The oral presentation, presented at the Premiam Conference hosted as part of Interspill, focused on developments and innovation, emerging issues and the international context in post-spill monitoring. Georgios highlighted challenges and opportunities in post-spill monitoring across multiple receptors – benthos, seabirds and mammals. The presentation received positive feedback and initiated some good discussions. Also well received was JNCC's poster "*Oil spills and marine mammals: review of potential impacts and monitoring options*" which was an outcome of collaboration with specilaists Royal HaskoningDHV.

Along with networking and work presentation, our staff participated at seminars hosted at Interspill, thereby enhancing their knowledge, skills and preparedness for addressing oil spills in the marine environment.

# Fire risk modelling

Our new report – <u>Brecon Beacons Fire Risk Modelling Tool</u> – showcases how a combination of Earth Observation derived products and information, and expert local knowledge can be used to better understand the impact of land management on fire risk. Brecon Beacons National Park Authority and Natural Resources Wales sought to understand if targeting land management measures (grazing and prescribed burning) could reduce wildfire risk at Mynydd Du. Reduced grazing on this common land led to concerns about habitat management impacts on the landscape, especially regarding controlling potential burns. A greater risk of major wildfires with prolonged periods of dry weather is predicted to increase under future climate change scenarios. An App allows users to run scenarios of land use change and explore how management factors influence their relative burn risk in the region. The modelling method can be developed to include more management options, such as regulating for water quality or biodiversity, and can be adapted to include climate change scenarios.

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