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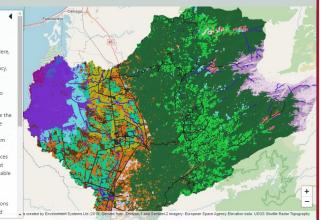
### **EO4cultivar in Colombia**

Colombia mapper

Welcome to Magdalena, Northern Colombia. Here, EO4cultivar, funded through the International Partnership Programme, run by UK Space Agency, has identified places to focus action to deliver sustainable land management within river catchments of the Zona Bananera, reaching into the Sierra Nevada de Santa Marta.

The mapping concerns local priorities to reduce the risk of flooding and soil erosion and to improve ecological concertivity. Places where a land management intervention can benefit ecosystem services (e.g. by slowing runoff or restoring habitats) are identified. Deploying action in places that deliver multiple benefits is likely to be most cost-effective. The outputs of this work are suitable for any organisations aiming to undertake environmental improvement work in the area.

INCC produced guidance on management action that utilise practical, nature-based solutions, led



Strengthening the resilience and sustainability of commercial agricultural supply chains between Colombia, Peru, Paraguay and the UK is the aim of EO4cultivar – a project funded by the UK Space Agency under its International Partnership Programme. Our experts have been working with partners from UK and international organisations, co-ordinated by Environment Systems Ltd, to deliver crop monitoring and forecasting products to increase production and landscape sustainability.

The EO4cultivar Sustainable Livelihoods work package includes two case studies co-ordinated by JNCC, one in each of the focal areas in Colombia and Peru. The <u>Colombian case study</u> looked at sustainable land management in the Magdalena region in northern Colombia. This economically important area supplies bananas and other key commodities to the UK, and the study demonstrates how, through combining Earth observation data and ecosystem service modelling with local knowledge, a better understanding of how the adoption of a more integrated natural capital approach to land management can improve ecosystem resilience. The key outputs of the case study include an interactive map which visually displays the different ecosystem services modelled within the region, a series of management guides showing how the maps can inform land management decisions, and a set of reports and accompanying data.

# Flying colours



A <u>desk-based feasibility study</u> to better understand how Black-legged Kittiwake populations will respond to potential mortality induced by offshore windfarms kicked-off this autumn.

The project, funded by the offshore wind developer Vattenfall and delivered by JNCC, was identified as a priority by the Offshore Wind Strategic Monitoring and Research Forum (OWSMRF) Pilot Year, an industryled collaborative partnership developing research on the effects of offshore wind development on marine birds.

Kittiwakes are a long-lived species, spending most of their time foraging at sea and nesting on steep coastal cliffs, so acquiring sufficient knowledge on how their colonies and populations are faring can be challenging. This project will help inform kittiwake researchers and reserve managers on how many kittiwakes need to be ringed and re-sighted, how often and where, in order to improve our confidence in understanding the possible impact of offshore windfarms on kittiwake populations.

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.

# JNCC Bulletin November 2020

## **Celebrating Wales Biodiversity**



The Wales Biodiversity Partnership brings together key players from the public, private and voluntary sectors to promote and monitor biodiversity and ecosystem action in Wales. JNCC was delighted to support the recent WBP virtual conference Responding to the crisis for nature in Wales.

JNCC's Catherine Duigan facilitated the session on nature-based solutions to address the nature and climate emergencies, and the launch of the new National Peatland Action Programme. The launch event included contributions from staff at Natural Resources Wales, and a video from the Minister for Environment, Energy and Rural Affairs, Lesley Griffiths. You can catch up with the presentation on the conference webpage.

#### **Deep-sea research**



The Earth's deep seas account for around 60% of the planet's surface, and are recognised as an important frontier of science and discovery. The vast array of habitats and species they contain, and the ecosystem services they provide, are essential to support the health not only of the oceans, but of the planet. However, large areas of the deep seas remain completely unexplored.

#### Our experts are among an international team of scientists.

spanning 45 institutions, which has published two reports calling for a dedicated programme of research to advance discovery in deep-sea regions. This programme, named Challenger 150, will generate new geological, physical, biogeochemical, and biological data through a global cooperative of science and innovation, including the application of new technology. These data will be used to understand how changes in the deep-sea impact the wider ocean and life on the planet, and to support regional, national, and international decision-making on deep-sea issues.

# MASTS joint workshop



A Marine Alliance for Science and Technology for Scotland (MASTS) Case Study Faroe-Shetland Channel & West of Scotland Marine Protected Area virtual workshop was held. A collaboration between JNCC, University of Edinburgh and Marine Scotland Science, the workshop garnered a high level of interest and attendance from the MASTS and academic community. It provided an opportunity for discussion based on four overarching themes of Data, Modelling, Natural Capital and Ecosystem Services, and Human Activities and Impacts within the case study areas.

The workshop provided a great opportunity to gather a range of expertise in the virtual room, with the sessions providing plenty of time for knowledge pooling and productive discussions. A workshop report will be available on the MASTS website in the new year, with further outputs to follow.



# Stony coral tissue loss disease training

Stony coral tissue loss disease (SCTLD), first recorded in Florida in 2014, has spread rapidly throughout the Caribbean region. Due to its high mortality rate, large numbers of species affected and broad geographic range, it poses a significant threat to coral reefs. As part of a Defra funded project, we ran an online SCTLD disease identification and treatment training session with coral disease expert, Dr Greta Aeby. The training, part of a wider project to support the Turks and Caicos Island (TCI) Government to respond to the current SCTLD outbreak, was primarily aimed at volunteers from TCI's diving community, who've signed up to help the Department of Environment and Coastal Resources with their disease response, and the wider coral reef community in the Caribbean.



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