

UK Biodiversity Indicators



The 2020 update of the <u>UK Biodiversit</u> <u>Indicators</u> was published. Indicators are useful tools for summarising and communicating broad trends.

The *Indicators* are dependent on a wide variety of data, provided by government, research bodies, and the voluntary sector –

in total nearly 100 organisations are involved.

The *UK Biodiversity Indicators* set comprises 24 indicators and 52 measures. Key changes to the indicator set since the previous publication include:

- Methodological changes to the Pressure from climate change (Spring Index) indicator (B4) to allow more data to be used.
- Methodological changes to the Insects of the Wider Countryside indicator (C6), to take account of colonisation by species of new sites.
- Publication of a new Plants of the Wider Countryside indicator (C7), comprising four measures based on the National Plant Monitoring Scheme.

International partnership project



An international partnership led by JNCC has been awarded Darwin Plus funding to undertake a 3-year project in the Turks and Caicos Islands (TCI). JNCC, the TCI Government Department of Environment and Coastal Resources (DECR), and the South Atlantic Environmental Research Institute (SAERI) will be working together to improve the evidence base in the marine and coastal environments in order to support sustainable coastal and marine management approaches in the islands.

We've been working with the UK Overseas Territories for over 20 years, providing technical assistance to support their biodiversity and wider environment management strategies. Specifically, in the TCI, we have developed a focussed programme of work over the past few years and have been working with the TCI Government on a range of projects, including disaster resilience and natural capital accounting.

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.

Monitoring peatlands



A new <u>JNCC report</u> shows how Earth Observation (EO) imagery can be used to monitor threatened peatland habitats. Monitoring of peatland condition has traditionally relied on ground-based surveys; however, EO may provide a cost-effective dynamic method for large-scale assessment.

Our analysts have been exploring how this type of assessment can be best carried out at different scales, building upon previous work funded by the EO Centre of Excellence and Scottish Government, and carried out by the UK Centre for Ecology & Hydrology and the James Hutton Institute. Our new report explores the use of different types of earth observation data, the best machine learning algorithms, and how much sampling data to use in models.

Celebrating Clean Air Day



To celebrate *Clean Air Day* we showcased a number of our projects which tackle air pollution and protect nature, including:

- Publication of the <u>Nitrogen Futures</u> final reports which show how to maximise benefit for nature from local and national emission reduction approaches.
- The JNCC and CEH <u>Emission Source Attribution Project</u>
 which updates the estimate of the types of emissions
 contributing to a specific protected area or UK grid square
 on the <u>Air Pollution Information System</u> (APIS).
- The <u>De Minimis</u> project to improve evidence for risk assessment of air pollution on protected areas.
- The <u>ITAPA</u> project which aims to develop a free, online tool to support UK risk assessments of air pollution effects on ecosystems and facilitate meeting statutory reporting requirements.

Join our <u>air pollution project stakeholder list</u> for updates on project progress, information sessions and participation in workshops.

Using EO for Water Quality Monitoring



Our virtual workshop on *Using Earth Observation for Water Quality Monitoring* was a tremendous success. Attended by 174 delegates from 19 countries, the event brought together representatives from government, public and private sector organisations, academia, research institutions, and environmental NGOs. Feedback from participants was overwhelmingly positive, with delegates commenting on the high quality of the presentations, the wide range of topics, the useful focus on practical case studies, and how expertly the speakers handled questions.

The workshop was delivered as part of our Copernicus Project in order to raise awareness of how Copernicus satellite data can aid water quality monitoring in freshwater, estuarine and marine environments. The workshop videos, presentation slides and a list of useful data sources and links are available on the workshop resource page. A report of the workshop will be available later this year.

Rethinking plastic pollution

JNCC's Head of Business Development & Marketing, Professor Jason Weeks, was a co-author of the recently published report *It's the product not the polymer:* Rethinking plastic pollution.

The <u>report</u> examines how mismanaged plastic waste poses a complex threat to the environments it contaminates, and concludes that it is the product, not the polymer, that is driving the issue of plastic waste.



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