

Wetland and Marine Research

The inland, coastal and marine waters of the UK support internationally important bird populations. BTO is at the forefront of waterbird monitoring and research, and our work has informed the designation of protected areas and helps to assess their condition.

Waterbird & Seabird Populations

We organise 3,000 Wetland Bird Survey (WeBS*) volunteers to systematically monitor the UK's non-breeding waterbirds. In collaboration with statutory agencies, we are enhancing this and other schemes to improve monitoring coverage of all UK breeding and non-breeding waterbirds and seabirds. Using data from WeBS and other surveys we report on the condition of important waterbird and seabird features in protected areas. Our research explores the key drivers of waterbird and seabird population change, including climate change, habitat loss, disturbance and the impacts of non-native species.



Please contact to discuss how BTO can help you:

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www.bto.org/science/wetland-and-marine



'Our advisory work has included assessments of the potential impacts of tidal power schemes on estuarine waterbirds and guidance on survey and Environmental Impact Assessment methodologies for offshore windfarm developments'

Renewable Energy



Tidal power options under the Strategic Environmental Assessment



*red = barrage options;
blue = lagoon options.*



Providing the Evidence Base on Marine Issues

The BTO contributes waterbird and seabird evidence on marine issues for multidisciplinary Governmental and inter-Governmental initiatives including: the Oslo-Paris Convention (OSPAR), the mechanism by which fifteen Governments of the western coasts and catchments of Europe, together with the European Community, cooperate to protect the marine environment of the north-east Atlantic; Charting Progress, a comprehensive report on the state of the UK seas, published by the UK Marine Monitoring and Assessment community, which has over 40 member organisations; and the United Kingdom Marine Climate Change Impacts Partnership (MCCIP) which brings together scientists, government, its agencies and NGOs to provide coordinated advice on climate change impacts around our coast and in our seas.

Renewable Energy

Our advisory work has included assessments of the potential impacts of tidal power schemes on estuarine waterbirds and guidance on survey and Environmental Impact Assessment methodologies for offshore windfarm developments. Our research uses new tracking technology to investigate the interaction of seabirds with offshore windfarms, and modelling to better understand factors affecting how birds use the marine environment. We currently provide strategic ornithological support services to the offshore wind industry on behalf of The Crown Estate.

The Severn Tidal Power Strategic Environmental Assessment

BTO has provided advice on the potential effects of tidal power schemes on estuarine waterbirds since the 1980s. Our involvement in the recent Severn Tidal Power Strategic Environmental Assessment included leading on the waterbirds and biodiversity topic papers informing the study. Using Wetland Bird Survey counts and modelling we provided an assessment of the potential effects of tidal power scheme options on the estuarine environment. Our understanding of the potential effects of tidal power schemes is enhanced by previous BTO research into the impacts of intertidal habitat loss on the waterbirds of Cardiff Bay.

**A partnership between the BTO, JNCC (on behalf of the Council for Nature Conservation and the Countryside, the Countryside Council for Wales, Natural England and Scottish Natural Heritage), RSPB and in association with WWT.*

Expertise Brochure

The British Trust for Ornithology (BTO) is one of the world's leading scientific research organisations specialising in birds and habitats. We are based in Thetford, Norfolk, England, with offices in Scotland, Wales and Northern Ireland.

We undertake impartial research and analysis, relating to birds, other wildlife and habitats, to advance the understanding of natural systems. The BTO provides high quality, impartial and policy-relevant data and information, relied upon for informed decision making. We work in partnership with the academic and conservation science communities, with Government Departments and Agencies, and with the private and voluntary sectors. The BTO has a unique combination of professional scientists and volunteers, and undertakes modern statistically robust surveys with web-based on-line data entry and retrieval. We add value to data through high powered analysis and a strong modelling capability.



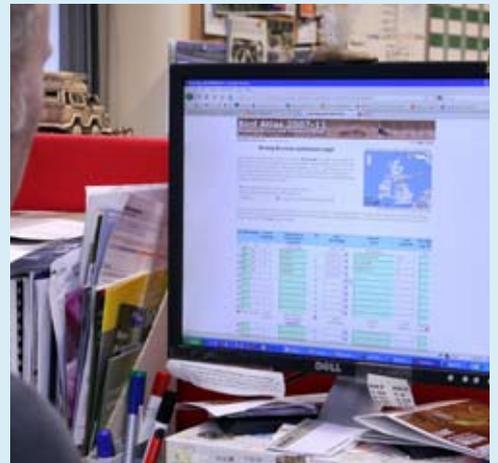
Please contact to discuss how BTO can help you:

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BTO Strategy

The BTO has a vision of a world in which nature conservation and sustainable development are founded on evidence-based decision-making, and in which society understands, values and contributes to that process. We are in a time of unprecedented awareness and acknowledgement of environmental change, and the human response to that change must be informed by knowledge and understanding of species and habitats - the ecosystems that underpin our planet's life support. The BTO has a vital role to play in the provision of that knowledge, with citizen science being core to the delivery of the BTO strategy.

BTO Science Themes

Monitoring changing bird populations

Our ability to coordinate thousands of motivated and skilled volunteers, together with professional expertise, enable us to track many aspects of birds' lives. We provide facts, figures and indicators that Government and decision-makers use to inform policy, and which is the context for measuring change in our environment.

Population dynamics and modelling

We integrate records collected by volunteers from many aspects of birds' life-cycles, through nest recording, ringing, and survey monitoring. This integrated population modelling means we are well placed to investigate the effects of environmental change on bird populations.

Ecosystems: from territories to landscapes

We are at the forefront of land-use issues in ornithology, with unique expertise of studying bird ecology in farmland, woodland, upland and urban habitats at multiple spatial scales. We employ traditional field approaches, innovative technology and state-of-the-art analytical techniques to investigate the consequences of land-use change.

Migration and the ecology of migrant birds

Understanding the ecology of migration, as birds move between habitats and countries is important if we are to understand the effects of environmental changes at a global scale. Our underpinning knowledge comes from a century of bird ringing and nest recording, and we are now using modern transmitter technology to unravel the ecology of migrant birds.

Climate change

Climate change impacts on biodiversity become apparent over long timescales, and the BTO's long-term datasets are ideally suited to understanding the underlying processes. We develop indicators and provide advice to Government, international and national bodies to inform policy.

Wetland and marine research

Inland, coastal and marine waters of the UK all hold internationally important bird populations. BTO is at the forefront of delivering information on waterbirds in response to the requirements of legislation, infrastructure development and policy development. We are actively investigating energy developments offshore.



Black-tailed Godwit being colour-marked as part of an international migration project



Dr Phil Atkinson Head of International Research demonstrating research results to, the BTO's Patron, HRH The Duke of Edinburgh KG KT during a visit to BTO HQ