

*Outstanding science  
inspiring action for a  
wildlife-rich world*

**BTO Strategy 2015-2020**



**BTO**  
Looking out for birds

*"Birdwatchers make an enormous contribution to our knowledge of bird populations in this country and it is through the BTO that the biggest contribution is made."*

Chris Packham, BTO President



# EXECUTIVE SUMMARY

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BTO science provides a powerful context for our understanding of the environmental changes affecting wildlife. The observations of 50,000 volunteers, crafted into robust scientific evidence in partnership with BTO professionals, provides the long-term knowledge needed to track and understand change in wildlife populations.

We present the results of our outstanding science in a manner that inspires our supporters, informs decision-makers and stimulates a deeper public understanding about the state of our natural world.

It is not enough to record our diminishing natural wealth. BTO is committed to interpreting data through observational and experimental research into the causes and drivers of environmental change. We will use this work to measure the consequences to the natural world – both positive and negative – of particular decisions, and thereby inform the choices of policy-makers.

Our evidence is renowned for its scientific quality and we have an excellent peer-reviewed publication record. BTO researchers have, for example, been instrumental in identifying the drivers of farmland bird declines and our ground-breaking work on migrant birds, and the way we tell stories about these intrepid global travellers, exemplify how our work makes a difference, not only to the birds but also to the public's understanding that something needs to be done.

*"The quality of their science, their independence and objectivity, and the skilful way they provide scientific support for different interest groups, is very important."*

*Professor Ian Boyd,  
Defra Chief Scientific Adviser, August 2014*



# BTO'S RELEVANCE TODAY

The BTO is more than 80 years old and we feel more vibrant, confident and young than ever! And yet the values from our birth are still at the very heart of what we do. Max Nicholson's vision, "*to realise the potential for the public to inform conservation policy*" is still very much alive and well at the BTO, with increasing numbers of volunteers gathering our all-important data, and professional scientists analysing and interpreting the results to inform effective decision-making for birds and the wider environment.

Our independence, and our impartiality, are values we uphold tenaciously, ensuring the power of our information, judgements and advice. Our long-term datasets are our currency, informing and indicating status and change of bird and other wildlife populations, as well as fuelling cutting edge research. We are committed to building on our investment in new information technologies to gather more and better data, and to share our information and knowledge widely, particularly through developing accessible and engaging scientific products.

BTO's volunteers are outstanding – contributing time and skills to undertake a wide range of structured and complementary surveys which generate critical information on UK wildlife. Growing this community is vital to our continued success. Our primary focus will always be birds, but we also want to share the skills we have developed to improve and broaden monitoring data for all wildlife.

We are now active at the global scale as well as in the UK. This requires innovation and the ability to harness the latest technology. Meeting and capitalising on society's insatiable and immediate desire for knowledge and information requires excellent communications and an inclusive approach.

As the conservation community rises to the urgent challenge of restoring and recovering nature, we intend to make the most of our enduring values to ensure BTO's excellent science plays a leading role in informing and enabling this mission.



**Work to understand Cuckoo declines has required analysis of existing BTO datasets and the collection of new information through satellite-tracking.**

# ACHIEVEMENTS 2009–2014

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We have achieved a great deal over the last five years:

## **We delivered outstanding science:**

- Distribution and abundance data are at the heart of effective conservation; completion of atlas fieldwork delivered these data to conservation partners and Government agencies.
- We saw substantial growth in our climate change and marine science programmes.
- We published *Bird Atlas 2007–11* and made the maps from 45 years of atlas work available through *Mapstore*, a free online resource.
- Sharing our experience of monitoring birds with organisations dedicated to other wildlife, we supported efforts to increase the quality of monitoring data for other taxa.
- We targeted ringing and nest-recording efforts towards more valuable project-based studies and made analytical advances by integrating demographic and population monitoring data.
- Recognising the urgent threats facing many long-distance migrant birds, we extended our technological capabilities to deliver ground-breaking tracking projects, informing our knowledge of the pressures on migrant birds.

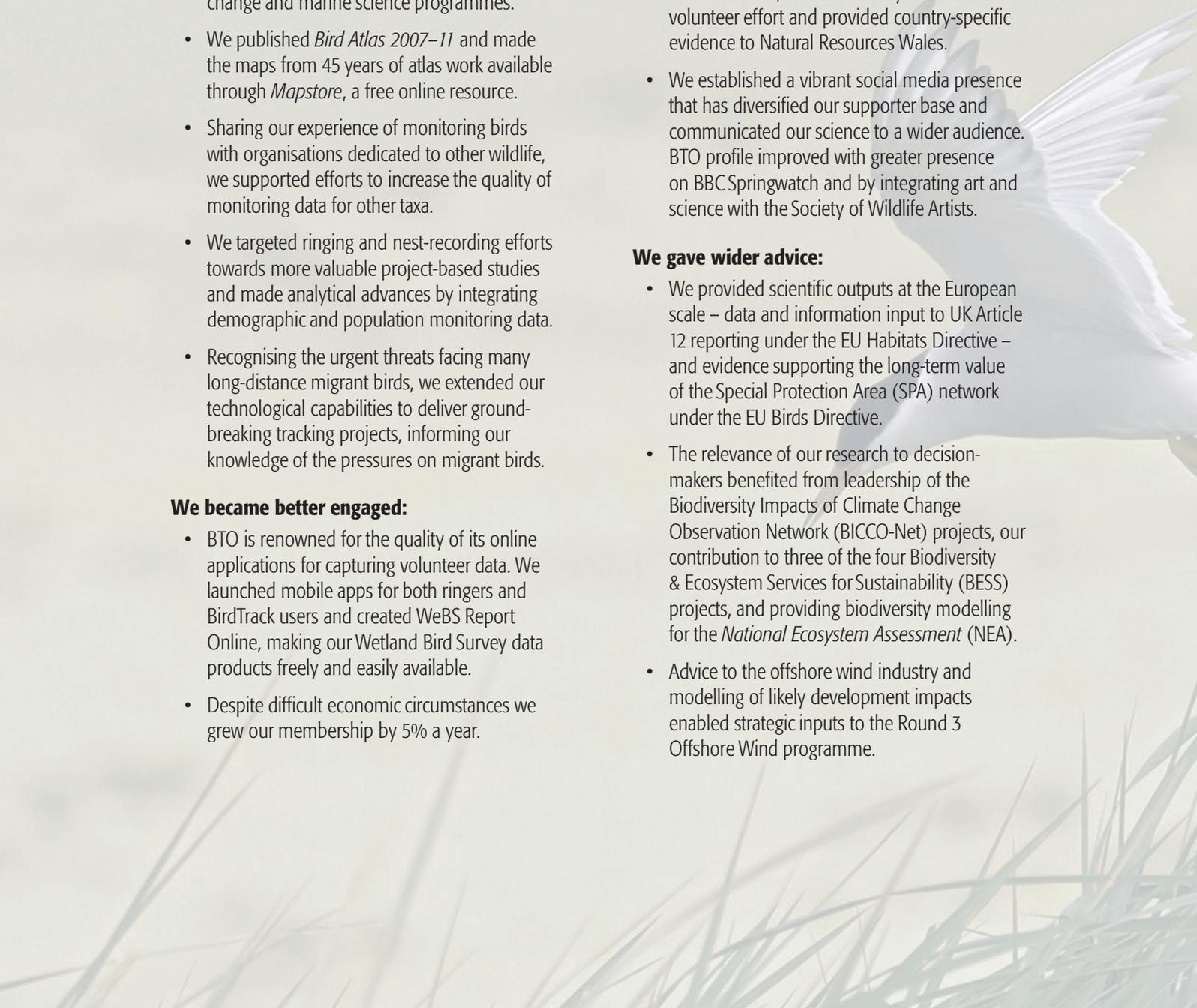
## **We became better engaged:**

- BTO is renowned for the quality of its online applications for capturing volunteer data. We launched mobile apps for both ringers and BirdTrack users and created WeBS Report Online, making our Wetland Bird Survey data products freely and easily available.
- Despite difficult economic circumstances we grew our membership by 5% a year.

- We fostered significant new relationships with partners, such as the Wildlife Trusts on monitoring Living Landscapes through *The Living Map*, and with the Cornell Lab of Ornithology to develop *Tringa*, a global repository for bird observations. Opening an office in Wales, we substantially increased BTO volunteer effort and provided country-specific evidence to Natural Resources Wales.
- We established a vibrant social media presence that has diversified our supporter base and communicated our science to a wider audience. BTO profile improved with greater presence on BBCSpringwatch and by integrating art and science with the Society of Wildlife Artists.

## **We gave wider advice:**

- We provided scientific outputs at the European scale – data and information input to UK Article 12 reporting under the EU Habitats Directive – and evidence supporting the long-term value of the Special Protection Area (SPA) network under the EU Birds Directive.
- The relevance of our research to decision-makers benefited from leadership of the Biodiversity Impacts of Climate Change Observation Network (BICCO-Net) projects, our contribution to three of the four Biodiversity & Ecosystem Services for Sustainability (BESS) projects, and providing biodiversity modelling for the *National Ecosystem Assessment* (NEA).
- Advice to the offshore wind industry and modelling of likely development impacts enabled strategic inputs to the Round 3 Offshore Wind programme.



# THE WORLD IN WHICH WE WORK

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The world in which we work is dynamic and fast-moving, bringing with it a range of threats and opportunities. We need to be aware of these and identify how they will affect what we do and the ways in which we do it.

## **Continuing pressure on public funds:**

We can expect further years of declining public funds as the Government sector catches up with the rest of the economy. We will need to develop a sound commercial element to our work, identify new opportunities and be successful in the pursuit of new income, all delivered through a clear and prioritised fundraising strategy.

## **Changing expectations of statutory funders:**

With more emphasis on solution-oriented results and advice, and new strategies valuing natural capital and an ecosystem approach, we have the opportunity to respond to changing policy priorities through new areas of research and the development of new partnerships.

## **Political uncertainties:**

Increasing devolution and the prospect of a changing relationship with Europe will present challenges and opportunities for the BTO. Institutional change amongst the statutory agencies, and more local decision-making, would increase the market for BTO's provision of regional and local information.

## **Societal change:**

Because many of our supporters are the recently retired 'new young', changes that mean longer working lives and less good pensions may affect their ability to gift time and money. As society becomes increasingly multi-cultural and urban we will need to expand our reach and relevance.

## **A changing communications sector:**

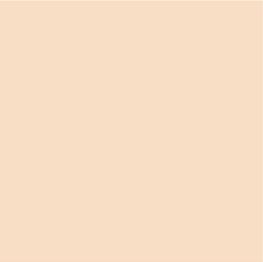
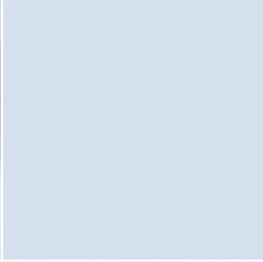
BTO is dependent on excellent communications, on strong and productive relationships with the media and a range of commentators to transmit our messages. Our public response to emerging issues increasingly needs to be rapid and authoritative, and we require an ability to adapt to new media, new communications channels, and the increasing speed of social media.

## **Competition in a fast-changing technological environment:**

Interactive data capture leads to increased expectations of rapid and engaging feedback, and the demand for more and better devices and applications to ease the process. We will build on our reputation for delivering quality products and collaborate with partners to take advantage of new technologies and the new ways in which our supporters engage with us and our datasets.

# PARTNERS AND STAKEHOLDERS

Society should benefit from BTO's science and knowledge, and there is support from those with whom we work to extend our value to a broader audience. In partnership with others we should make our science more tangible to a wider public, demonstrating the links between knowing the status of bird populations and what is driving change and identifying how to address the consequent conservation pressures. We should explore the value of birds to human well-being. Educating through training and publication, we will improve our local presence and increase the relevance of our work at the regional and local level.



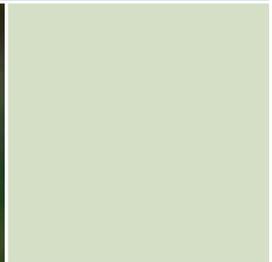
## Academic collaborations

There is a strong appetite from university academics for more collaboration; we can enable this by greater sharing of our scientific expertise and data, becoming partners in more projects and publications.

## Government partners

Our partnerships with Government deliver monitoring data and impartial scientific evidence to underpin policy decisions.

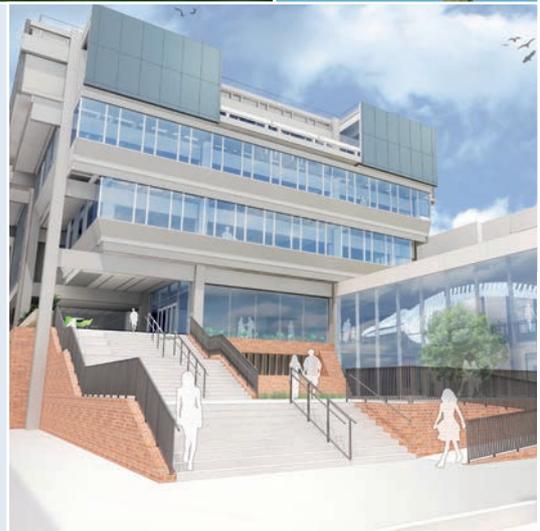
We will develop more solution-oriented products, using our expert judgement to inform our advice to the Joint Nature Conservation Committee (JNCC) and the country conservation agencies in England, Wales, Scotland and Northern Ireland.



## New opportunities with the CCI Campus

The Cambridge Conservation Initiative (CCI) campus will be fully established early in the strategy period. BTO will be one of a number of organisations occupying space within this city-centre site.

Creating stronger collaborations with academics and conservation NGOs in Cambridge will be a significant opportunity to expand our reach, whilst opening up more international perspectives for our work.





### Listening to our members and volunteers

BTO volunteers power our ability to inform society about what is happening to our birds. They are concerned that BTO is still too much of a 'best-kept secret'. We should raise the public's awareness of us, and that we should wield more influence specifically with decision-makers, politicians and through stronger NGO partnerships.

Our supporters tell us they want more and better feedback, good stories of how their work translates into benefits for birds and other wildlife, more local events engendering a community feel, and greater interaction with BTO staff. Improving our services to the Regional Network, and thereby to Regional Representatives, will enhance our standing with all our supporters.



### Partnering other NGOs

Looking out for birds is too big a job for one organisation alone, and our NGO partnerships will become increasingly valuable over the coming years.

An appetite for more collaboration, and RSPB's leadership of *State of Nature*, requires BTO to have a central role in driving better quality monitoring data for taxa other than birds

Building on *The Living Map* initiative with the Wildlife Trusts, and extending that approach through other NGO and Government schemes will be important for us.



### Working with landowners

BTO's impartial stance is a powerful differentiator, particularly in relation to controversial issues. This impartiality makes our research attractive to the landowning community, many of whom facilitate our field-based research to inform land management choices.

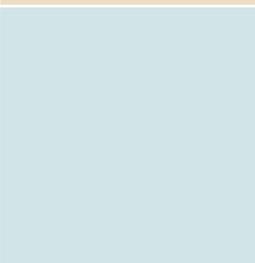


### Supporting birdwatchers

Birdwatchers, bird observatories and Bird Clubs are a key set of partnerships we should foster. With BirdTrack we aim to meet their needs for data curation and engagement better.

The *Euro Bird Portal* and the *European Breeding Bird Atlas2* are initiatives where BTO's expertise, and our online applications, can support our European partners.

Our stronger relationship with BirdLife International extends the reach of BirdTrack by providing services to BirdLife partners across the globe.



### Improving data quality and use

There is an opportunity for BTO and the National Biodiversity Network to drive improved collaboration between data-gatherers, data-users and researchers. This will enable better use of commonly held biodiversity data.

Building partnerships with a range of other taxa organisations to transfer skills around data capture, guiding volunteers and data analysis will ensure BTO's contribution to improved state of nature reporting.



*"In 2020 we will be able  
to demonstrate how our  
outstanding science inspires  
action for a wildlife-rich world."*

# THE BTO IN 2020

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The BTO of 2020 will be an even more vibrant organisation and one whose role and aims will be better understood by its growing network of supporters.

Our research outputs will have more relevance, be better communicated and more accessible.

We will be more supportive of our volunteers and staff and will work harder with our partners to increase the value of our work.

We will be able to direct more of our funding towards areas of research where our work can make the greatest difference to the conservation of birds and other wildlife.

# STRATEGIC OBJECTIVES

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We have four strategic objectives, to:

- Enable and deliver high-quality and relevant science.
- Share data, information and knowledge through excellent communications.
- Enthuse and encourage our people.
- Grow our financial independence.



# ENABLE AND DELIVER HIGH-QUALITY AND RELEVANT SCIENCE

Science is at the heart of the BTO's mission to increase knowledge of birds and other wildlife, and their relationships with the environment and people. BTO science is internationally recognised as providing impartial analyses to understand the causes of population change, answer policy-relevant questions about environmental issues and test conservation solutions to reverse population declines. Our surveys provide some of the most extensive and long-term distribution, abundance and demographic monitoring of birds in the world. All rely on the unique partnership of volunteer data collectors and professional scientists that characterises the BTO.

## WE WILL:

- Ensure that our science is clearly defined, explaining why the work is important and how it is being carried out.
- Be clear about how the outputs from our scientific work are used and provide examples of how they inform and support policy.
- Bring together long-term monitoring and more experimental work in order to determine the pressures facing our bird populations, enabling us to identify and test possible solutions.
- Support and develop our scientific staff to realise their potential and use external peer-review to assess the quality of our work.
- Encourage more people to collect observational data on wildlife, and explain clearly why this is important and what long-term datasets enable us to say and do.
- Be innovative in our use of technology and in our modelling capabilities.

## STRATEGIC PERFORMANCE INDICATORS

- The number of peer-reviewed publications, the number which are high-impact and the number with a BTO first author.
- The number of BTO citations in key policy-relevant publications, and the number used by key decision-makers.
- Through an external review of BTO science, achieving an excellent rating for scientific quality, impact and collaboration.

**Earth-observation data, such as that gathered by Sentinel-1, delivers imagery for Europe's Copernicus programme. These data may be used alongside our monitoring data to identify change and to inform analyses.**



# SHARE DATA AND KNOWLEDGE

BTO's information and knowledge is based primarily on data collected by volunteers, and analysed, visualised, interpreted and communicated by BTO professional staff. This resource should be used widely for conservation, for decision-making affecting the environment, and to inform society about the natural world. While ensuring that BTO science benefits from our investment in data collection, we are committed to sharing this resource as widely as possible and our open approach will place BTO's evidence at the heart of the environment sector.

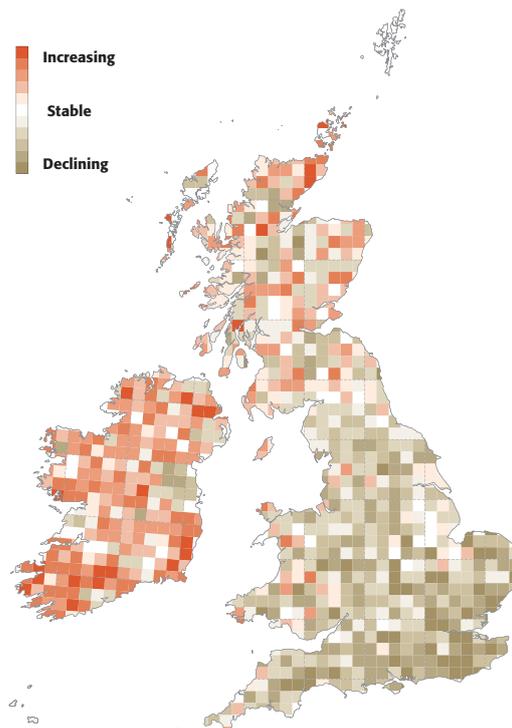
## WE WILL:

- Be outward facing and 'arms-open' in our approaches to data collection, curation, interpretation and communication.
- Deliver useful data products, high-profile academic collaborations and excellent communications.
- Increase the knowledge transfer around methods for data capture, analysis and reporting, sharing these with partners working on other taxa and in other parts of the world.
- Utilise emerging technologies to support the collection and curation of data relating to birds and, where appropriate, other wildlife.
- Grow the BTO data contribution to the National Biodiversity Network.
- Undertake a substantial refresh of the BTO's website and establish broader functionality of mobile devices for major BTO schemes.
- Deliver increasingly tailored reporting interfaces to organisations and individuals, and provide bespoke monitoring packages for other taxa organisations to enter their data.

**Patterns of change in the breeding abundance of migrant passerines over the period 1988–91 to 2008–11 reveal losses from the south-east and gains in the north-west, underlining the value of projects like *Bird Atlas 2007–11*.**

## STRATEGIC PERFORMANCE INDICATORS

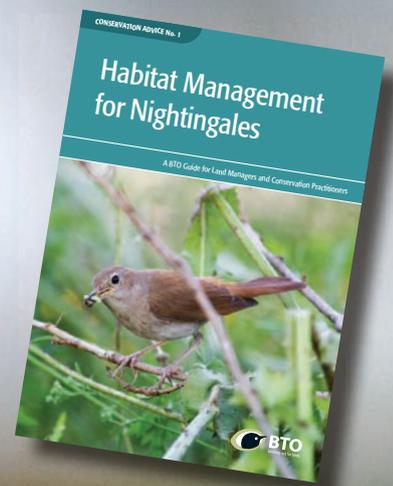
- Review external perceptions of BTO data-sharing and information provision amongst our key audiences.
- Measure the number of conservation organisations who are using BTO web applications to deliver data services to volunteers and survey participants.
- Establish Memoranda of Understanding to deliver monitoring services with other taxa organisations.





*Birdwatchers are a key audience for the BTO, contributing to our surveys and giving voice to our scientific findings. Over this strategy period we will deliver more training opportunities and better tools and products to support birdwatchers as they seek to develop their interests in birds. At the same time, we will recognise the role that birds play in the lives of a wider public, striving to make our work more relevant and accessible to new audiences.*

*Our data, information and expertise has great relevance to other researchers and academics studying bird populations and their ecology. We will develop existing partnerships and establish new ones to increase the use and value of the information that we hold. By doing so we will recognise the aspirations of our volunteers, who wish to see their observations used for research and conservation.*



*In addition to our role in the collection, interpretation and communication of long-term monitoring data, we will make our datasets relevant and accessible, informing solutions to conservation problems and supporting new approaches.*



# ENTHUSE AND ENCOURAGE OUR VOLUNTEERS, SUPPORTERS & STAFF

Our volunteers, supporters and staff are what make the BTO and we need to ensure that their efforts, goodwill and enthusiasm are nurtured and celebrated. A vibrant Regional Network, coupled with a growing network of local survey organisers and other ambassadors, will see more local focus to the BTO's work, more local events and a growing sense of community. Extending our relevance and interaction with young birdwatchers to engage them closely in the work of the BTO will secure the future of active participation in recording birds and other wildlife.

## WE WILL:

- Support our staff through an improved management culture, a mentoring programme and a well-resourced and effective HR team.
- Increase diversity in senior positions and within our governance. Develop and deliver the strategy for engaging young people as active supporters of BTO.
- Develop our Regional Network to encourage a sense of local community for our supporters, growing our presence alongside Bird Clubs and improving links between volunteers and staff.
- Establish more training courses and volunteer mentoring across a wider geographical area.
- Provide individuals, groups and partners with the tools and training needed to support their own survey and monitoring activities.
- Continue to increase both volunteer and member numbers.

**Training courses and mentoring support our volunteers as they develop their birdwatching and surveying skills. By running more courses we will be able to deliver more opportunities.**

## STRATEGIC PERFORMANCE INDICATORS

- Improve overall staff satisfaction and engagement with the organisation.
- Deliver growth in membership and maintain retention.
- Measure and improve levels of volunteer satisfaction and engagement.
- See desired growth in the number of county recorders and Bird Clubs using BirdTrack.



# GROWING OUR FINANCIAL INDEPENDENCE

The development of more strategic funding partnerships with the statutory sector will support key components of our research work, while a new and broader fundraising strategy will bring additional funds into the organisation and allow us to deliver research outputs and information to new audiences. The development of a commercial consultancy and broadened fundraising efforts will also increase the levels of funds available to support our research programmes.

## WE WILL:

- Develop a strategy for more and better engagement with corporate business.
- Negotiate a further multi-year term for the BTO-JNCC Partnership Agreement.
- Establish Combined Ecology to drive growth in the commercial application of our data, knowledge and scientific expertise at home and internationally.
- Seek larger project finance from Trusts, European funding mechanisms and international partnerships.
- Grow the number of BTO members and income from membership by 5% per year.
- Secure significant funds to support volunteer science here and abroad.

**The development of Combined Ecology will enable us to deliver more commercial work, the profits from which will support BTO research.**

## STRATEGIC PERFORMANCE INDICATORS

- Solvency as measured by positive cash balances, no disinvestment, and reserves maintained at 9–12 weeks' costs.
- See growth in the income we can direct towards the work that is core to our strategic objectives.
- Increase the profitability and efficiency of our fundraising activities.
- Deliver a surplus from Combined Ecology commercial contracts to BTO.





# OUR SCIENTIFIC PRIORITIES

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BTO science focuses on three over-arching questions which together encompass the relationships between birds, other wildlife and the environment:

- What is the status of bird and wildlife populations and what are the causes of changes?
- What processes explain observed ecological patterns amongst birds and other biodiversity?
- What is required to manage species and habitats sustainably?

While the strategic research programmes focus our immediate priorities, the space in which BTO science operates covers a wide range of topics:

- monitoring;
- species ecology and interactions;
- flyways ecology;
- population and range dynamics;
- climate change;
- habitat relationships and testing interventions;
- birds and human values.

This breadth enables flexibility, responsiveness and relevance in a rapidly evolving policy environment.

The following priorities indicate where BTO will initially increase effort, recognising that ongoing research on, for example, farmland birds and climate change impacts, will continue:

- Developing mechanistic and predictive models of population and range changes.
- The ecology, population dynamics and migration strategies of Afro-Palearctic migrants, and of waterbirds wintering in the UK.
- The development of appropriate adaptation strategies in response to the impacts of climate change upon biodiversity.
- Impacts of land management on birds and other biodiversity in the uplands.
- The consequences for biodiversity of urbanisation and infrastructure development.
- The ecology, population dynamics, migration strategies and impacts of development on seabirds.
- The ecology of predators and non-native species, and their impacts on other species and the environment.



# OUR WORK IN CONTEXT

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Biodiversity is in crisis and we are experiencing unprecedented environmental change. Globally, one in eight bird species is threatened with extinction, while 70% of UK birds are included on the Red and Amber lists of conservation concern. Recent conservation successes usually involve managing or protecting populations of rare or specialised species; continuing pressures on the countryside mean that reversing population declines in commoner widespread birds is much more challenging. BTO science plays a crucial role in understanding these declines and how to address them.

Although the BTO is not a campaigning organisation, and does not lobby for particular interventions, our impartial evidence and advice provide vital support to a wide range of decision-makers. We use this work to measure the consequences for the natural world of particular policy or management decisions, thereby informing the choices of NGOs, governments and industries. Our evidence is renowned for its scientific quality and impartiality, supported by a strong peer-reviewed publication record. It can also be inspirational, deepening the public's understanding of the need for conservation action. And it is the BTO's 50,000 volunteers whose observations of birds and other wildlife contribute to making our world a better place.





**IMAGES:** Grey Wagtail, Edmund Fellowes; Releasing a Dunlin, Cathy Ryden; BBS volunteers, David Tipling; Cuckoo, Edmund Fellowes; Arctic Terns, Colin Brown; Waxwing, Black-tailed Godwit, Siskin, Snipe, Spoonbill, Tufted Duck, Goldfinch and Siskin, Great Black-backed Gull, Guillemot, Edmund Fellowes; Woodcock nest, Greg Conway; Goldfinch ringing, birdwatchers, David Tipling; Small Skipper, Common Toad, nest recorders, Mike Toms; Student wavebreakmedia – Shutterstock.com; upland, Anne Carrington-Cotton; Birdwatchers, upland stream, Dawn Balmer; Nightingale with tag, Chas Holt; CCI Campus approach, Nicholas Hare Architects; Wheatear, Shoveler, Edmund Fellowes; Sentinel-1 Radar Vision, ESA/ATG medialab; BirdTracker, David Tipling; Young birdwatchers at Annual Conference, Mike Brown; Academic, Brandon Blinkenberg – Shutterstock.com; Nightingale, Roger Tidman – Nature Photographers Ltd; Ringing Peregrines, Ed Drewitt; Barnacle Geese, Dotterel, Edmund Fellowes; Lapwings, Allan Drewitt; Atlas map reproduced from *Bird Atlas 2007–11*, which is a joint project between BTO, BirdWatch Ireland and the Scottish Ornithologists' Club.



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