

The National Forest Breeding Bird Survey

British Trust for Ornithology, National Forest Company



THE NATIONAL
FOREST

Introduction

The research

The National Forest Company (NFC) commissioned the British Trust for Ornithology (BTO) to undertake a Breeding Bird Survey¹ (BBS) across The National Forest in 2008². Regular monitoring of key species attracted to the main habitats in the Forest will provide a valuable indicator of the status of bird populations and the quality of wildlife habitats. It is the NFC's intention to commission regular, smaller sample surveys each year (e.g. 10% of the original sample size), with a full re-survey every fifth year.

Why do it?

The status of wild bird populations is used as an important indicator of the health of the countryside and our environment by government and wildlife organisations. The BBS is a national project that monitors changes in the breeding populations of widespread bird species in the UK. The NFC recognised the importance of breeding bird surveys, as part of its broader biodiversity monitoring, in *The National Forest: an exemplar of Sustainable Development*³. This is set within the context of recent UK trends⁴ that demonstrate how the index for both breeding farmland and woodland birds is now at a lower level than in the 1970s. The National Forest's creation has the potential to help reverse this trend, so long-term monitoring of bird populations is an important part of tracking biodiversity change across the area.



Bullfinch (© Rosie Rees)

Aims & objectives

- To provide information on the status of wild bird populations in the Forest and to compare it with populations on a regional and national level.
- To provide a baseline and template for the NFC to conduct future surveys to monitor bird population changes and trends over time.
- To provide additional survey information that contributes to the national BBS dataset.

The Project

Description

The survey covered 48 randomly selected 1 km squares (or approximately 10%) of the Forest area. The squares were distributed across the Forest's six landscape zones to get a wide representation of landscape and habitat types. The survey represents one of the most intensive BBS surveys undertaken in any area in the UK.

Approach

The NFC used its Geographic Information System to select a sample of 1 km squares, all at least 90% within the Forest boundary. The squares were also stratified within each of the landscape zones, to ensure that the proportion in each zone matched its land area.

Surveyors made two visits, one between early April and mid-May (early visit) and a second between mid-May and the end of June (late visit). At each visit surveyors walked two pre-selected transects through the 1 km square and recorded all birds that they saw or heard. The two transect lines were ideally parallel, running either north-south or east-west, 500m apart and 250m from the edge of the square. In almost all squares, however, the pattern required modification according to the nature of the terrain and the constraints of access.

Timescales

The surveys took place between April and July 2008. The results were analysed between July and September and the final report was produced in January 2009, to allow for the incorporation of additional volunteer data.

Budget

£16,400, including VAT.

Results

Outcomes

- Of the 107 different species of birds recorded in the Forest, 16 were included on the UK Red-list of species of high conservation concern (subject to a rapid decline of over 50% in the 25 years up to 1999). A further 36 species identified were Amber listed.
- Comparison of the results with BBS data for the Midlands and for England as a whole, suggested that bird populations within The National Forest are at least on a par with those nearby and elsewhere in England.
- Red-listed Tree Sparrow (farmland and scrub), Bullfinch and Willow Tit (scrub/woodland edge), Marsh Tit (mature woodland) and Grasshopper Warbler (wetland or young plantation) were all recorded more abundantly in The National Forest than in the wider Midlands region. (*Since the survey, the Red and Amber lists of birds have been updated. <http://www.jncc.gov.uk/page-4939>*). Bullfinch is now classified as an Amber listed species).
- The most abundant species recorded were Woodpigeon, followed by Blackbird, Wren, Chaffinch, Robin and Starling.
- The Charnwood landscape zone (which was particularly good for woodland and scrub species) recorded the most birds per square; the Mease Lowlands landscape zone had the highest mean counts for farmland species.



Tree sparrow (© Ron Marshall)

Applications

- Establishing a baseline survey provides the basis for continued monitoring of bird populations across the Forest area.
- Having a robust, long-term dataset will underpin the National Forest Biodiversity Action Plan and enable the NFC and conservation organisations to help monitor, and plan for, biodiversity change across the Forest.
- The approach taken, at a landscape scale, could be replicated by other large scale biodiversity projects.
- Measuring the status of wild bird populations in The National Forest will contribute towards the UK Sustainable Development Strategy.

Further information

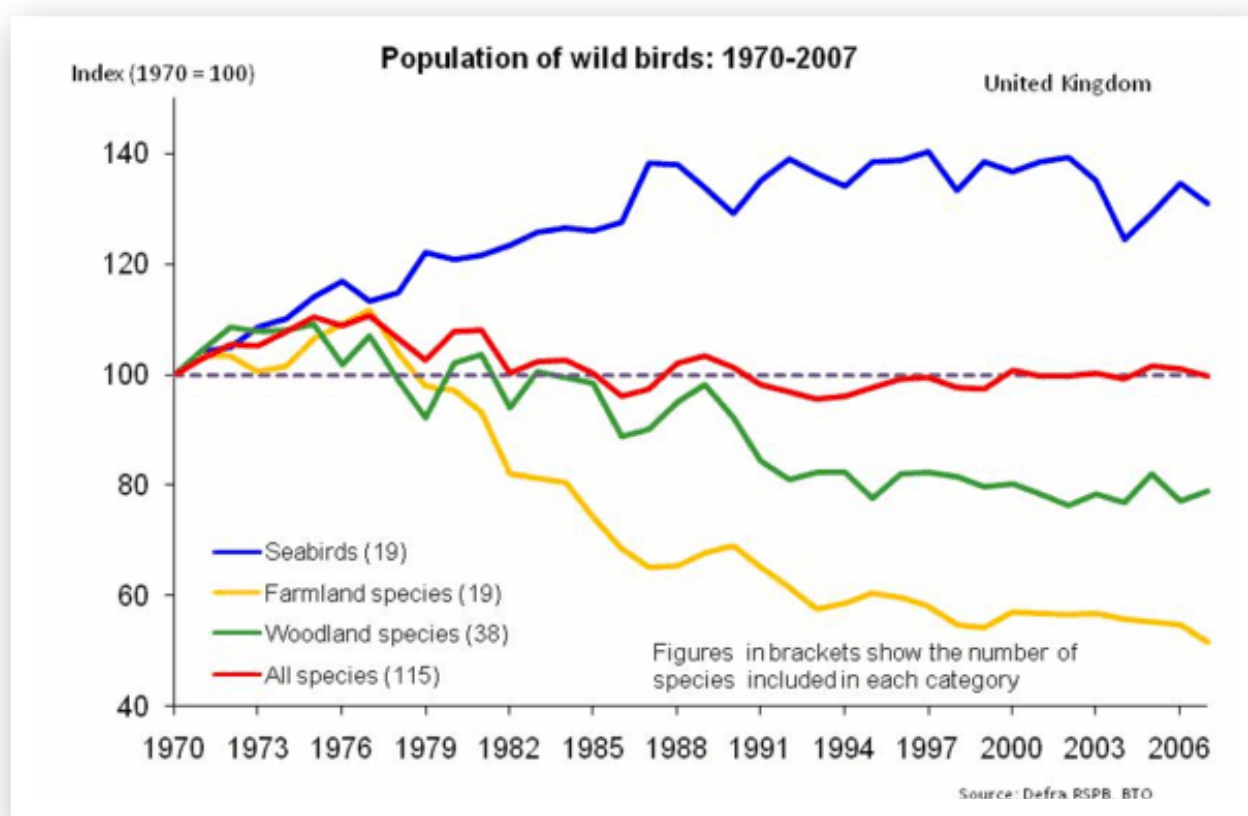
Dissemination

- The report has been promoted to conservation partner organisations and through the NFC website www.nationalforest.org
- The NFC's Forest Scene newsletter.
- NFC research review seminar 2010.

Links to published work

- ¹The BBS (<http://www.bto.org/bbs/index.htm>) is organised by the British Trust for Ornithology (BTO), and jointly funded by the BTO, the Joint Nature Conservation Committee and the Royal Society for the Protection of Birds (RSPB).
- ²A breeding bird survey of The National Forest (English Midlands) in 2008 (2009). Marchant, J.H., Noble, D.G. & Haynes, S. Research Report 520. British Trust for Ornithology, Thetford. ISBN No. 978-1-906204-50-1.
- ³The National Forest: an exemplar of sustainable development (2007). National Forest Company www.nationalforest.org/document/research/sustainability_report.pdf
- ⁴Population of wild birds: 1970-2007, a UK Government sustainable development strategy indicator. From Defra's e-Digest of Environmental Statistics, found at <http://www.defra.gov.uk/ENVIRONMENT/statistics/wildlife/kf/wdkf03.htm>

Diagram



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