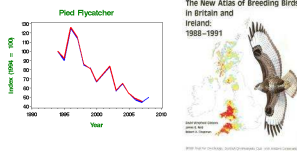


## Experience from the UK

David Noble (BTO)  
& Mark Eaton (RSPB)



## Birds of Conservation Concern: Red Lists

Avian Population Estimates Panel

Biodiversity Action Plan lists

Birds In Europe 1 & 2

Other annual round ups  
State of UK Birds  
State of Birds in Wales  
.....



Scottish Natural Heritage

## What data are required by government agencies

- **Abundance in key habitats**
  - especially farmland, uplands and woodland
- **Abundance in protected areas –**
  - e.g. National Parks
- **Abundance at Country level**
  - where possible with regional/country stratification
- **Trend data for research requirements**
  - understanding drivers of change
- **Trend data for policy development**
  - environmental stewardship, rural priorities
- **Species & assemblage data for:**
  - Education, publicity



## Key Organisations in UK 'Bird Panels'

- British Trust for Ornithology (BTO)
- Royal Society for the Protection of Birds (RSPB)
- Wildfowl Wetlands Trust (WWT)
- Game & Wildlife Conservation Trust (GWCT)
- Joint Nature Conservation Committee (JNCC) & national statutory agencies (NE, SNH, CCW, NIEA)
- and other experts if they are needed



## Contributors and endorsing organisations



## Key UK datasets

- Breeding Bird Survey and its predecessor CBC
- Wetland Bird Survey
- UK/Ireland Bird Atlases (1970, 1990, 2010)
- Rare Breeding Bird Panel
- Seabird Censuses and Seabird Monitoring Programme
- SCARABBS (Programme of periodic surveys)
- Miscellaneous datasets



## The Wetland Bird Survey - WeBS



The surveillance scheme for the UK's non-breeding waterbirds

- Core Counts – provide population estimates and trends, are used to inform on the status of designated sites and casework, and are used in waterbird indicators
- Low Tide Counts – provide information on the distributions of feeding waterbirds on estuaries
- Other special surveys aim to complement WeBS, e.g.
  - The Dispersed Waterbird Survey
  - The Winter Gull Roost Survey (*WinGS*)
  - The Non-estuarine Coastal Waterbird Survey (*NEWS*)

## WETLAND BIRD SURVEY - Winter counts



### BBS Breeding Bird Survey (BBS)

**Main source of population trends for 'widespread' terrestrial bird species in the UK**

- Over 3,000 sites across the UK surveyed each year by volunteers
- Started in 1994, replacing the Common Birds Census (ended in 2000)
- Jointly funded by BTO, JNCC and RSPB
- Run by BTO with input from partners via a Steering Group
- Population trends (from 1994) published annually for >100 species

### British / Irish Bird Atlases

- Two Breeding Atlases already published covering the periods 1968-72 and 1988-91
- One Wintering Bird Atlas published in 1976
- Third Atlas – Breeding and Wintering Birds underway with fieldwork, now complete, between 2007 and 2011
- Joint project of BTO, BirdWatch Ireland and SOC

### Atlas due out late 2013 / early 2014

### JNCC Seabird Censuses and annual Seabird Monitoring Programme

## Rare Breeding Birds Panel



- Since 1973, with RSPB & JNCC funding
- Members of ornithological bodies (RSPB, BTO, govt.) and independent members. Employs a secretary.
- Works with volunteer recording networks to collate information on 80+ scarce and rare breeding birds.
- From new colonisers to species with c.2000 breeding pairs.
- Recording coverage varies between species, depending on observer interest, distribution, habitat and detectability. Complete for some species, very poor for others.
- Problems with variable recording effort, lack of submission of full records, secrecy over data.



## Periodic Bird Surveys

SCARABBS – rolling programme for undertaking periodic national surveys, usually every 12 years but some species of particular conservation concern are surveyed on 6 year cycle

Nightjar  
Woodlark  
Hen Harrier  
Black-throated Diver  
Capercaillie  
Cirl Bunting

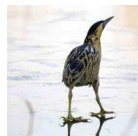


Not all species have been surveyed (Ptarmigan, Dunlin, Water Rail)

Some species have been surveyed only once – so there is no estimate of change (Snow Bunting, Crested Tit, Greenshank)



**SPECIAL SPECIES SURVEYS** – annual or periodic surveys undertaken by any of the bird organisations



- Heronries Census – includes other colonial waterbirds

- Annual counts of very rare species (Bittern, White-tailed Eagle)

- Woodcock survey coordinated every 10 years by BTO and the Game & Wildlife Conservation Trust

**RELEVANT REGIONAL or HABITAT-SPECIFIC SURVEYS** - where they cover a significant proportion of the population or where this is the only information possible (e.g. Breeding waders in lowland wet meadows)

**SITE-BASED SURVEYS OF SPAs** – design of national surveys often coordinated with need for designated sites monitoring.

## Birds of Conservation Concern (Red Listing)

Undertaken about every 6-7 years

Panel includes major bird NGOs and government departments

Process took more than a year

Much of the information was also used for other UK priority-setting initiatives such as Biodiversity Action Plans (although trends had to be updated)

Provides a template and basis for similar initiatives in the UK's constituent countries (Scotland, Wales)

### Birds of Conservation Concern 3

The population status of birds in the United Kingdom, Channel Islands and Isle of Man

Mark A. Eaton, Andy F. Brown, David G. Noble, Andy J. Macgregor, Richard D. Hearn, Nicholas J. Aebischer, David W. Gibbons, Andy Ewins and Richard D. Gregory



## Birds of Conservation Concern (Red Listing)



246 species assessed against criteria related to population trend, range trend, global and European threat status, population size, localisation and international importance

In 2009, 18 bird species were added to the UK Red List for birds and 6 were removed from it.

## Avian Population Estimates Panel

Undertaken about every 6-7 years

Currently working on 3<sup>rd</sup> version

Aim is to determine breeding population sizes (and wintering population sizes for a subset) of all UK bird species, in a regularly updated publication – that provides a clear audit trail for the estimates.

### Population estimates of birds in Great Britain and the United Kingdom

Helen Baker, David A. Stroud, Nicholas J. Aebischer, Peter A. Cranswick, Richard D. Gregory, Claire A. McSorley, David G. Noble and Mark M. Rehfisch



**ABSTRACT** In 1997, the Avian Population Estimates Panel (APEP) published its first collation of British and UK bird population estimates (Stroud et al. 1997). This paper provides the first review of these estimates, drawing on information available prior to 2002 for most species. Several major surveys have reported estimates in the intervening period, including for breeding, wintering, and wintering waterbirds. A new method of deriving estimates for red-listed species has been adopted, which relies on adjusting former estimates according to published trends, in recognition of the value of a single source of breeding population estimates. The estimates presented in this paper will be the primary reference for statutory conservation purposes and publication of the next review.

## Conflicting estimates?

Most population estimates for common terrestrial species in APEP2 were ultimately based on densities, from a territory mapping method used prior to 2000, multiplied up using square occupancy in the 1988-91 Atlas.

**Journal of Applied Ecology**

Journal of Applied Ecology 2008, 45, 1370–1378

doi: 10.1111/j.1365-2656.2008.01480.x

**Use of distance sampling to improve estimates of national population sizes for common and widespread breeding birds in the UK**

Stuart E. Newson<sup>1\*</sup>, Karl L. Evans<sup>2</sup>, David G. Noble<sup>1</sup>, Jeremy J. D. Greenwood<sup>1</sup> and Kevin J. Gaston<sup>2</sup>

<sup>1</sup>British Trust for Ornithology, The Nunnery, Thetford, Norfolk IP24 2PU, UK; and <sup>2</sup>Biodiversity & Macroecology Group, Department of Animal and Plant Sciences, University of Sheffield, Western Bank, Sheffield S10 2TN, UK

**Good correlation between the extrapolated density derived estimates and those using BBS distance sampling (standardised to time period)**

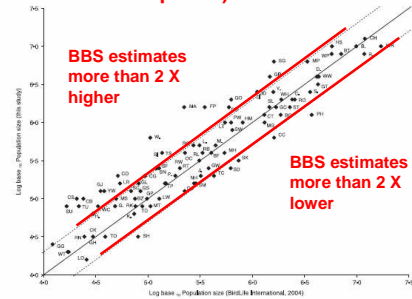


Fig. 1. Comparison between BBS-based estimates of population size for breeding birds in the UK and previous estimates for 2000 (BirdLife International 2004). Species codes are given in Table 1. The solid line is the line of equivalence, while the broken lines show where BBS estimates are twice previous estimates and vice versa.

**Solution: consider each species on a case by case basis**

For species where the old territory mapping – derived densities were likely to have been underestimated, new BBS-derived estimate are used  
e.g. Green Woodpecker, House Sparrow

For species where the new distance-derived estimates are likely to have been influenced by biases related to the counting of nonbreeders or location of routes along linear features (e.g. rivers, hedgerows), the extrapolated density-derived estimates are used.  
e.g. Wren, Moorhen

Any other relevant information is considered

Species with no reliable information

Population estimated at 10k in 1990 Atlas; but has never been censused in the UK

Only information on population trend since 1990 are game bag statistics from the Game & Wildlife Conservation Trust. However, GWCT considered this 50% decline insufficiently reliable



Panel checked independent sources, and found an estimate of 2k-15k (mean 8.5k) based on carrying capacity in suitable habitats

Conclusion: stick with 10k estimate – label poor quality

For the last UK Red List for Birds, a severe 70% decline in a significant proportion of the UK Whimbrel population (>45% occur on Shetland Islands), supported by expert opinion, triggered a red listing, in the absence of any other quantitative information



163. Recent fieldwork in parts of Shetland that held 45% of the UK breeding population of Whimbrel *Numenius phaeopus* in the last national survey (in the 1980s) has suggested a decline of up to 70%, and this alarming statistic has meant that this species was Red-listed by BTO/CJG.

Most key data sets already jointly owned; others by individual organisations represented on the panel, so all have real information to bring to the table

Good working relationships through similar initiatives already exist. Decisions due to conflicting information has to date been resolvable

All relevant NGOs and Gov't Agencies invited, other experts as needed (such as the Game & Wildlife Conservation Trust)

Same procedure envisaged for BiE3/Article12 reporting, and intention is to harmonise this with timing of next red listing assessment, and survey schedule

## **Thank you**

... And especially to co panel members:

Mark Eaton & Richard Gregory of RSPB  
Rich Hearn of WWT  
Kate Risely & Stuart Newson of BTO  
Davis Stroud of JNCC  
Nicholas Aebischer of GWCT  
and others