

Frequency of occurrence of three widespread breeding birds

Indicator

Changes in the frequency of occurrence of three resident bird species, taken from the British Trust for Ornithology's (BTO) Breeding Bird Survey (BBS), based on the percentage of all 1 km squares surveyed annually in which the species occurred.

The three species are: Bullfinch, Skylark and Song Thrush.

Status



This indicator comprises population data for three species, which between them display a variety of habitat preferences. For the countryside to be in good health all habitats need to be doing well - if any one component is failing then the general health of the countryside cannot be considered as good. The performance of this indicator is therefore based on the species which is performing *least well*. The results this year show that two of the three species (bullfinch and skylark) are declining, whilst thrush has shown a small increase. The overall status for this indicator is therefore RED. The direction is DOWNWARDS, due to the decline in skylark and bullfinch numbers.

Overview

The status of wild bird populations is considered to be an important indicator of the overall health of the natural environment, as birds occupy all habitats and are near the top of the food chain.

There is a national biodiversity indicator for trends in populations of selected species of wild birds, and Defra has a Public Service Agreement (PSA) target to reverse the long term decline in farmland birds.

This indicator seeks to measure progress towards meeting one of the objectives from the Better Environment section of the Sustainable Community Strategy for Worcestershire (second edition, 2008 - 2013), which is "To enhance Worcestershire's countryside and urban greenspace and appropriate access to them while protecting the natural and historic environment". The choice of bird species aims to reflect the quality of urban and rural environments of the county.

To view the Sustainable Community Strategy website click [here](#).

Breeding Bird Survey (BBS) data from the British Trust for Ornithology is used to derive this indicator - a supporting document for the indicator describes in detail the method used to analyse the data.

Performance

Status is defined by comparing the most recent 5 year average frequency of occurrence with the 94-98 five year average, which is used as a baseline.

Species	1994 - 1998 5 yr average	2006-2010 5 year average	Difference	%age change	Indicator status
Song thrush	84.3	90.5	6.2	7.31	
Skylark	72.8	63.9	-8.9	-12.2	
Bullfinch	44.3	23.9	-20.4	-46	

A percentage change +/- 10% is the chosen threshold for a population status change assessment.

The performance of this indicator is based on the species which is performing least well. The results this year show that two of the three species are declining, therefore the overall status for this indicator is RED.

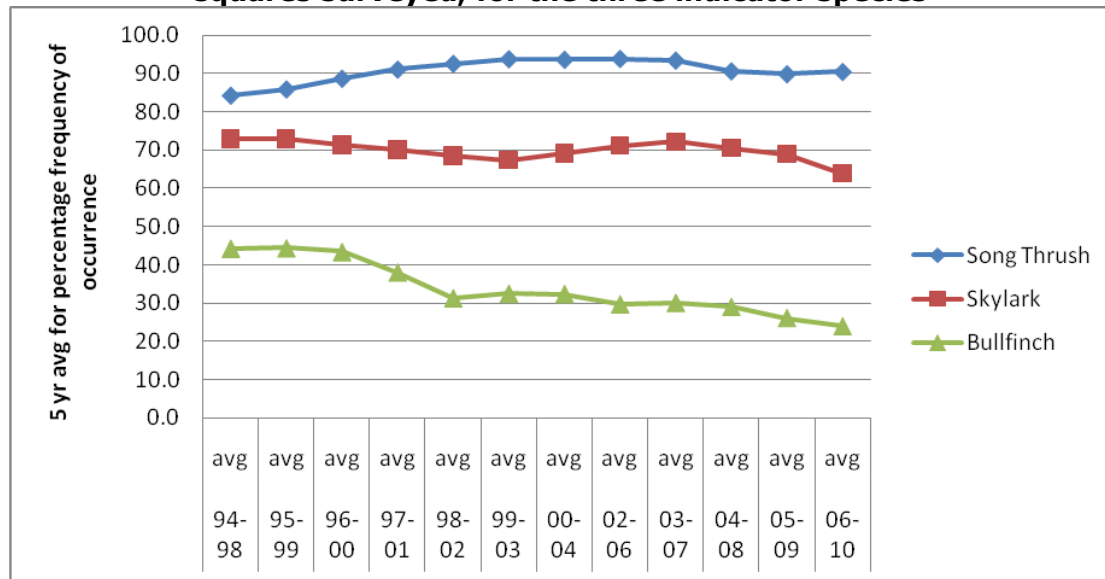
Direction of travel is indicated by the magnitude and direction of the percentage change between the latest 5 year average and the preceding 5 yr average*

Species	2000-2004 5 year average	2006-2010 5 year average	Difference	%age change	Direction of travel
Song thrush	93.7	90.5	-3.2	-3.4	↔
Skylark	69.2	63.9	-5.3	-7.65	↓
Bullfinch	32.4	23.9	-8.5	-26.15	↓

A percentage change of +/- 5% is the chosen threshold for a population trend change assessment.

The results show that two of the three species are declining, therefore the overall direction for this indicator is DOWNWARDS.

Graph showing rolling 5 year average for frequency of occurrence in squares surveyed, for the three indicator species



Geographical Context

One of the national biodiversity indicators is "[Populations of selected species \(birds\)](#)", which includes trends relating to breeding farmland and woodland birds. The latest data on this indicator (from UK Biodiversity Indicators in your pocket 2011) describes both farmland and woodland birds as 'declining', although there have been recent increases to the numbers of woodland breeding birds. The results from our local indicator broadly reflect the national picture, in that the species more dependent on farmland features (skylark and bullfinch) are faring worse and declining whereas song thrush, which has a broader range of habitat preferences has a stable population.

Actions

1. Tracking this indicator depends upon the sustained voluntary effort by the many local recorders who undertake surveys. It is desirable that their valued contributions to the county state of the environment reporting are acknowledged and feedback provided.

2. The broad conclusions from the data for the three species are as follows:

The **song thrush**, a generalist species of towns, gardens and wooded habitats is doing well, as its basic habitat requirements are maintained.

The **skylark**, a bird of arable land and locally, unenclosed grasslands and commons, has previously shown an increase in population numbers, but now appears to be declining. The increase had been attributable to the habitat provided by arable set-aside and the considerable investment in farmland bird conservation practices through local uptake of agri-environment schemes. No match of breeding records to schemes has been done to confirm this however, and the ending of

compulsory set aside in 2009, may mean the removal of much skylark nesting habitat. Winter survival rates, which have already been reduced by the change from spring to autumn cereal sowing, may have been further impacted by the colder winter of 2009/10 and 2010/11. The onus is on farmers, their representative bodies, Natural England and Defra to take effective measures to offset further population declines.

The **bullfinch**, a specialist of woodland edges, mature scrub and thick hedgerows, has been in long term decline, with indications of a recent levelling off. Contributory factors are likely to be the harsh management of wood edges and hedgerows, including the replacement of tall and thick hedges with short flailed hedges, and the decline in traditional orchards. A specific look at the actual habitat changes in the surveyed squares would be instructive.

3. Ideally, a breeding bird representative of healthy rivers and wetlands such as the reed bunting would be included in this indicator. This requires more coverage of BBS squares containing these habitats, to allow valid comparison.

4. The indicator is capable of refinement to address bird abundance (population size) as well as frequency of distribution, and this will be explored.

*data collection restricted in 2001 due to foot and mouth disease, so comparison is based on the preceding 5 year average.

Further Information

For Breeding Bird Survey details and results visit the British Trust for Ornithology (BTO) website www.bto.org

For information on the national biodiversity indicators and Public Service Agreements visit the DEFRA website:
<http://www.defra.gov.uk/wildlife-countryside/biodiversity/indicator.htm>