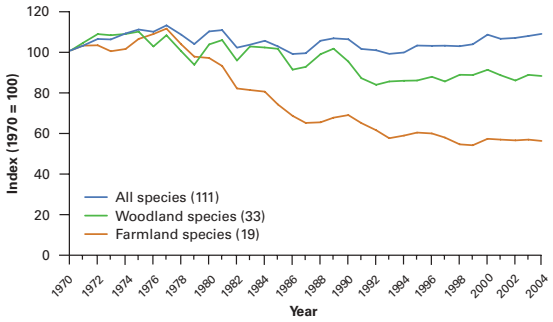
The state of the UK'S BIRDS 2005

RSPB BTO WWT ENGLISH NATURE SCOTTISH NATURAL HERITAGE DUALCHAS NADAIR NA H-ALBA

How are the UK's birds faring?

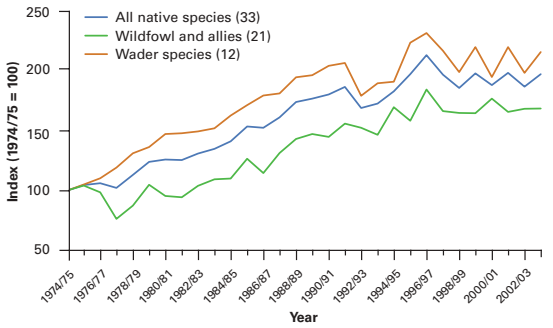
The Quality of Life indicator shows trends in common breeding birds in the UK since 1970. Whilst overall bird populations have remained stable, the indicator for farmland birds shows that they have yet to begin recovery from the large decline of the 1970s and '80s, and that for woodland birds points to a more recent decline within this habitat. More details on trends in common breeding birds can be found on pages 11–12, and further developments of breeding bird indicators are discussed on pages 25–27.

UK wild bird populations framework indicator



The indicator for wintering waterbirds shows how populations rose steadily from 1970 until the late 1990s. However, in recent years this increase slowed and has appeared to have stabilised. More details on the wintering waterbird indicator and the trends underlying it can be found on pages 19–23.

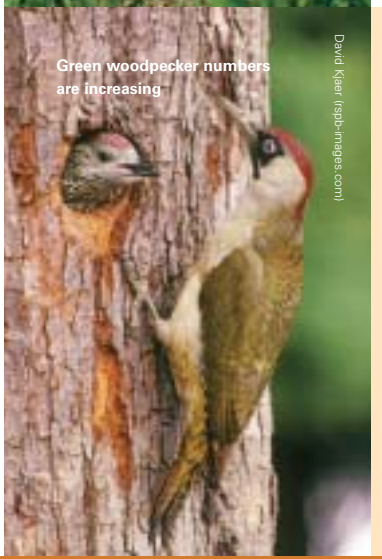
UK wintering waterbird indicator



The indicators start from a value of 100. If an index rises to 200 then, on average, populations of species in that indicator have doubled; if it falls to 50 then they have halved.


Numbers of stone-curlews are up

Mike Read (rspb-images.com)


Green woodpecker numbers are increasing

David Kjaer (rspb-images.com)

The headlines

- A review of the status of the 26 birds priority-listed in the **UK Biodiversity Action Plan** (UK BAP) has revealed mixed progress. The greatest success has come from efforts targeted at rare species; conservation action has resulted in increases for a number of species such as the **stone-curlew**, **bittern** and **corncrake**. For many of the more widespread farmland birds on the UK BAP, progress has been slower.

- The results of the **Repeat Woodland Bird Survey** revealed widely differing trends in the UK's woodland birds. While species such as the **great spotted** and **green woodpecker**, **goldcrest** and **chiffchaff** have increased since the 1980s, others, including **willow tits**, **lesser spotted woodpeckers**, **willow warblers** and **hawfinches**, have undergone severe and worrying declines.

- **Indicators** (opposite) are useful tools for communicating the state of the natural environment, and the UK has led the way in developing robust, transparent and easily understandable indicators of wild bird populations. We review some of the recent developments in wild bird indicators.

- The **UK's Overseas Territories** are extremely important for numerous species of albatrosses and petrels, which are threatened with extinction by longline fisheries. We highlight the UK's responsibility for species such as the **Tristan albatross** and **spectacled petrel**, and report on the severity of the declines in some species.

Contents

Throughout this report, species are colour-coded according to their conservation status, as assigned by *The population status of birds in the UK: birds of conservation concern*. The 40 species designated as being of the greatest conservation concern are **red-listed**, the 121 species of moderate concern are **amber-listed** and the 86 species of least concern are **green-listed**.

Introduction

The state of the UK's birds is now in its seventh year of reporting on the fortunes of birds, both common and rare, throughout the UK and its Overseas Territories. This report has results from annual, periodic and one-off surveys from as recently as 2005, giving an up-to-date overview of the health of bird populations in the UK.

The state of the UK's birds 2005 is produced by three NGOs – the Royal Society for the Protection of Birds (RSPB), the British Trust for Ornithology (BTO) and the Wildfowl & Wetlands Trust (WWT) – and the UK Government's four statutory conservation agencies – the Countryside Council for Wales (CCW), English Nature (EN), Environment & Heritage Service (Northern Ireland) (EHS) and Scottish Natural Heritage (SNH).

Bird monitoring in the UK is carried out by NGOs in collaboration with the Government and with the support of many thousands of dedicated volunteer ornithologists.

Numbers of capercaillie are probably increasing

Phillip Newman (rspb-images.com)

Andy Hay (rspb-images.com)

A special thank you to volunteers

As always, we would like to recognise the huge role of volunteer surveyors in bird monitoring, and take the opportunity to thank them for the time and effort they devote to the schemes described in this report. *The state of the UK's birds* is a celebration of the contribution that birdwatchers make to the understanding of what is happening to our birds and, by inference, to the habitats in which they live. Without the efforts of such individuals, whether they spent an hour watching birds from their kitchen window or days surveying in remote locations in inclement conditions, this report would not be possible.

Bittern numbers were down slightly in 2005 to 46 booming males, but still up massively on 1990 levels

Roger Tidman (rspb-images.com)

Birds in the UK Biodiversity Action Plan

Tree sparrows are on the up

Richard Brooks (rspb-images.com)

The 2006 UK BAP review

In 1995, 26 birds were identified as priority species in the UK Biodiversity Action Plan (UK BAP) – these species were either globally threatened and/or had experienced a population decline in the UK of at least 50% in 25 years.

Dedicated plans, including population targets and proposed actions, were published for each species. In 2005, a major review of progress against these plans was undertaken. The table (right) shows a snapshot of progress against the population targets for each of the priority species. The most recent population estimates were reported in *The state of the UK's birds 2004*.

You can see the full reports at www.ukbap-reporting.org.uk

Corncrake numbers have increased, but the range is yet to expand

Chris Gomersall (rspb-images.com)

Mixed fortunes

The overall picture is very mixed, with a small number of UK BAP species being stable or fluctuating and the rest fairly evenly split between those that are declining and those that are increasing. Most rare species have increased, while more common and widespread species have, for the large part, continued to decline. It seems that once research has been conducted to identify the causes of declines, targeted conservation action can achieve results, as it has done for **bitterns**, **woodlarks** and **nightjars**. However, it is very difficult to attain all UK BAP targets, and such success is not always guaranteed. For a number of species, such as the **cirl bunting**, **corncrake** and **stone-curlew**, conservation action has increased numbers but has so far failed to restore range.

Such targeted action is less appropriate for widespread farmland birds such as **turtle doves**, **skylarks** and **linnets**. Instead, intensive research has identified the causes of the declines that led to UK BAP-listing, and in most cases 'solutions' have been devised and are being applied on a wide scale through agri-environment schemes. However, it is likely that such measures have been put in place too recently to affect the populations of such widespread species on a national scale.

UK BAP priority species and progress towards BAP targets

Species	Status	UK trend since 1995	Progress	Comments
Bittern	R	Increasing	Yes	Numbers and range have increased following large-scale habitat restoration and creation. See page 9.
Common scoter	R	Continuing decline	Partial	Breeding numbers have fallen but winter range maintained.
Capercaillie	S	Stable, probably increasing	Partial	Decline halted but no population expansion and some reduction on edge of range.
Black grouse	S	Continuing decline	No	Progress in Wales and England, but still declining in Scotland (where bulk of population resides). See page 10.
Grey partridge	W	Continuing decline	No	Should benefit from local recovery initiatives/ agri-environment schemes.
Corncrake	R	Increasing	Partial	Numerical target achieved but little range recovery.
Stone-curlew	R	Increasing	Partial	Already achieved 2010 numerical target (300 pairs), but only partial range recovery. See page 10.
Red-necked phalarope	R	Fluctuating	Partial	Retained as a regular breeder in the UK and some increase in recent years. See page 9.
Roseate tern	R	Increasing	Partial	Some progress towards 2008 target (200 pairs), but this is unlikely to be achieved. See page 9.
Turtle dove	W	Continuing decline	No	Should benefit from measures introduced into agri-environment schemes.
Nightjar	S	Increasing	Partial	2003 numerical target (4,000 pairs) achieved. Range increased in some areas but lost in others.
Wryneck	R	Now a sporadic breeder only	No	No longer a regular breeder in the UK.
Woodlark	S	Increasing	Yes	Numerical target (1,500 pairs) achieved and good progress with range recovery.
Skylark	W	Continuing decline	No	Measures introduced into agri-environment schemes but yet to affect breeding population.
Song thrush	W	Increasing	Yes	Partial population recovery. Should benefit from measures introduced into agri-environment schemes.
Aquatic warbler	P	Probably stable	Yes	All key passage sites are protected.
Marsh warbler	R	Continuing decline	Partial	Maintained as a UK breeding species, but still declining. See page 9.
Spotted flycatcher	W	Continuing decline	No	Studies of breeding ecology are ongoing.
Red-backed shrike	R	Now a sporadic breeder only	No	No longer a regular breeder in the UK, but sporadic breeding attempts have been successful.
Tree sparrow	W	Increasing	Partial	Local recovery initiatives are now widespread.
Linnet	W	Continuing decline	No	Should benefit from measures introduced into agri-environment schemes.
Bullfinch	W	Fluctuating, but still declining	No	May benefit from agri-environment schemes but more research is needed.
Scottish crossbill	R	Unknown	Unknown	Confirmed as a separate species and field survey method developed.
Reed bunting	W	Stable	Partial	Should benefit from measures introduced into agri-environment schemes.
Cirl bunting	R	Increasing	Partial	2005 numerical target (550 pairs) exceeded, but limited range recovery.
Corn bunting	W	Continuing decline	No	Extinct in Wales. Targeted by agri-environment schemes/local recovery initiatives in England and Scotland.

Status key: R = rare breeder, S = scarce breeder, W = widespread breeder, P = passage
Rare breeder: <1,000 pairs, scarce breeder: 1,000–10,000 pairs, widespread breeder: >10,000 pairs.

Recent trends in UK BAP species

Common and widespread UK BAP species

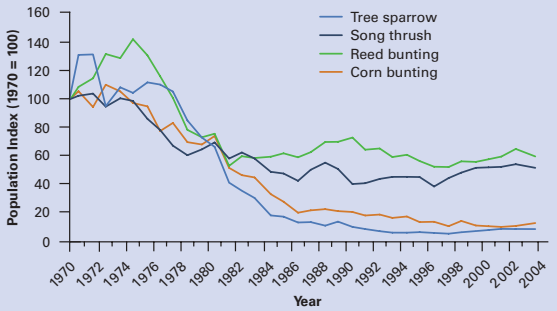
Ten of the 26 UK BAP priority species remain relatively widespread, despite having experienced substantial population declines over the last 30 years. As a consequence, the population trends of these species are monitored on an annual basis: the table on pages 11 and 12 provides their long-term and short-term trends. While it is no surprise that all these species have seen major declines since 1970 (that is why they were identified as priority species in the UK BAP), there are encouraging signs that the downward trends in some have been halted or even reversed in the last 10 years.

Most notably, **tree sparrows** have increased by 23% and **song thrushes** by 18% since 1994. However, the increase in **tree sparrows**, in particular, took place after the population was reduced to a very low level (numbers in 1998 were down to less than 5% of those in 1970). **Reed buntings** appear to have stabilised since 1994, but the remaining seven widespread species have continued to decline. Despite this, we are optimistic that the trends for some of these species should begin to turn around in the next 10 years. This is because species such as the **skylark**, **corn bunting** and **grey partridge** are now being specifically targeted by measures recently introduced into UK agri-environment schemes. However, for other species, such as the **spotted flycatcher** and **bullfinch**, the reasons for their continuing decline remain unclear and more work is needed before recovery measures can be identified and implemented.

Reed bunting numbers have stabilised

Tony Hamblin (rspb-images.com)

Trends in tree sparrows, song thrushes, reed buntings and corn buntings



Spotted flycatchers are continuing to decline

Mike Read (rspb-images.com)

Scarce and rare UK BAP species

In last year's report we brought good news on four of the rare UK BAP priority species: surveys in 2004 gave encouraging news on **bitterns**, **capercaillie**, **corncrakes** and **nightjars**. Of these, only **bitterns** were surveyed in 2005 and showed a drop in numbers to 46 booming males. Although disappointing, numbers are still up massively since the low levels in the 1990s and with more reedbed habitat being produced, and better informed management of existing reedbeds, we hope that further increases will occur in the future.

In 2005, 39–40 male **red-necked phalaropes** were recorded at 13 breeding sites in Scotland. Numbers in recent years have remained slightly above the low levels of the 1980s and '90s, but continue to fluctuate and show no sign of increasing back to historic levels. Conservation action is focused on habitat management, but there is a need for a greater understanding of the influence that climatic and meteorological conditions may have on the UK population, which lies at the southern edge of the global breeding range.

Numbers of breeding **roseate terns** increased to 103 pairs in 2005. This is the highest level since 1990, but still less than one tenth of the population at the beginning of the 1970s. The UK BAP target of 200 pairs by 2008 seems unlikely to be reached. The UK population has become increasingly concentrated at one site, the RSPB's reserve on Coquet Island in Northumberland, which had 91 pairs in 2005.

Marsh warblers had a poor year in 2005, with 6–8 pairs recorded in south-east England, and no singing birds at the key locality. There is no shortage of suitable habitat for **marsh warblers** in the UK and the key influence on the distribution of this species may be the climate in the UK and in the winter quarters.

Although both **red-backed shrikes** and **wrynecks** are virtually extinct in the UK, and therefore beyond the help of active conservation management, occasional pairs do still breed and 2005 was the first time for several years that both species bred in the UK.

You can find more information on the UK Biodiversity Action Plan at www.ukbap.org.uk

Song thrushes are up 18% since 1994

Mike Read (rspb-images.com)

Bad news on black grouse

A survey of **black grouse** was carried out in spring 2005, based on finding and counting males (blackcock) at leks, the display grounds where males compete for the attentions of visiting females. The last survey in 1995–96 indicated a dramatic decline since the beginning of the 1990s. Unfortunately, the 2005 survey revealed a continuing decline, by 22% since 1995–96, with the population now estimated at 5,078 males. While 66% of the population was found in Scotland, it was here where the birds have fared the most poorly, with a decrease of 29% overall and even more dramatic declines in some areas; numbers of blackcock declined by 49% in south-west Scotland and by 69% in south-east Scotland.

Black grouse are continuing to decline

Chris Gomersall (rspb-images.com)

Elsewhere, the effects of dedicated **black grouse** recovery projects seem to be bearing fruit. Conservation measures based on appropriate habitat management of upland farmland in the Pennines have been successful in slowing the rate of decline in England, with a non-significant change of -11% between 1995–96 and 2005. Better still, intensive forest management around the small Welsh population has resulted in an increase of 39%, to 213 lekking male **black grouse**. This demonstrates that, given the resources, it is possible to halt the decline in this species. However, without appropriate forestry management on a large scale in Scotland, the decline at the UK level will not be reversed, and UK BAP targets will not be reached.

Hard-won success with stone-curlews

There were at least 307 pairs of **stone-curlews** in the UK in 2005; the UK BAP population target of 300 pairs by 2010 has been reached ahead of schedule. This was only possible through intensive conservation action, mainly in the two core areas for this species – the East Anglian Brecks and Wessex. The success was founded on a strong partnership between farmers and dedicated field teams funded by the RSPB and English Nature.

The majority of the population breeds on arable land (the UK BAP target for 120 pairs on semi-natural grassland has not been reached) and hence needs on-the-ground action to locate breeding pairs and to liaise with farmers to ensure these pairs escape damage from agricultural operations: in a few cases chicks are actually picked up and held during farming operations. This work has proved successful in increasing productivity by over a third in agricultural areas. Additionally, an increasing proportion of the population is breeding on specially designed nesting plots, encouraged by government-funded agri-environment schemes. However, populations in semi-natural grasslands are not dependent on such intensive intervention, so the creation and management of suitable semi-natural habitat remains an important priority for **stone-curlews**. Recent research has also focused on the impact of disturbance on **stone-curlews**, and we will monitor the impact of new Open Access legislation that could increase the potential for harmful disturbance.

Trends in common breeding birds

Bullfinches are down 26% since 1994

Richard Revels (rspb-images.com)

Nearly 100 species of widespread breeding bird are monitored annually by the Breeding Bird Survey (BBS) on over 2,500 1-km squares across the UK. The table shows the trends since the beginning of the scheme in 1994, alongside long-term trends based on data from the BBS combined with that from its predecessor, the Common Bird Census (CBC). For six riverine species the long-term trends are based on data from the Waterways Bird Survey (WBS).

For more details on the BBS, including *The Breeding Bird Survey 2005* report, visit www.bto.org/bbs

Trends in common breeding birds

	Long-term trend % (1970–2004)	BBS trend % (1994–2005)		Long-term trend % (1970–2004)	BBS trend % (1994–2005)
Little grebe	173[1]	56	Tawny owl	-22[1]	-2
Great crested grebe	n/a	7	Swift	n/a	-21
Mute swan	177[1]	26	Kingfisher	-5[6]	-5
Shelduck	239[1]	59	Green woodpecker	111	31
Mallard	107	25	Great spotted woodpecker	253	120
Tufted duck	40[5]	38	Lesser spotted woodpecker	-75[1,2]	n/a
Sparrowhawk	101[1,5]	-2	Skylark	-53	-13
Buzzard	524[1,2,4]	60	Sand martin	-11[5]	38
Kestrel	-27[1]	-18	Swallow	17	32
Red grouse	n/a	-15	House martin	-31[1]	38
Red-legged partridge	-10	55	Tree pipit	-72[1]	-27
Grey partridge	-88	-40	Meadow pipit	-34[1]	-6
Pheasant	70[1,4]	32	Yellow wagtail	-64[2]	-33
Moorhen	0	20	Grey wagtail	-20[6]	75
Coot	103[1]	79	Pied wagtail	54	21
Lapwing	-46[1]	-21	Dipper	-6[6]	n/a
Woodcock	-77[1]	n/a	Wren	703	24
Curlew	-50[1]	-36	Dunnock	-28	22
Common sandpiper	-27[5]	-5	Robin	43	17
Feral pigeon	n/a	7	Redstart	16[1,2]	18
Stock dove	96[1,4]	9	Whinchat	n/a	-36
Woodpigeon	104[2]	19	Stonechat	n/a	227
Collared dove	392[1,5]	38	Wheatear	n/a	-4
Turtle dove	-81	-45	Blackbird	-17	22
Cuckoo	-44[1]	-29	Song thrush	-50	18
Little owl	-16	-19	Mistle thrush	-39	-7

Continued overleaf

	Long-term trend % (1970–2004)	BBS trend % (1994–2005)
Grasshopper warbler	n/a	50
Sedge warbler	-15	10
Reed warbler	123[1,2]	29
Lesser whitethroat	-8	-35
Whitethroat	-4	27
Garden warbler	-2	-8
Blackcap	132	61
Wood warbler	n/a	-65
Chiffchaff	39	30
Willow warbler	-45[1]	1
Goldcrest	-10[1,3]	71
Spotted flycatcher	-83	-26
Pied flycatcher	n/a	-30
Long-tailed tit	50[3]	0
Marsh tit	-55	33
Willow tit	-85	-65
Coal tit	49[1]	35
Blue tit	33	24
Great tit	71	44
Nuthatch	156	71
Treecreeper	-3	23
Jay	-10	-5
Magpie	100	3
Jackdaw	99	40
Rook	n/a	-7
Carrion crow	77	12
Raven	n/a	124
Starling	-72[1]	-21
House sparrow	-64[2,7]	1
Tree sparrow	-94[1]	23
Chaffinch	34	15
Greenfinch	29	43
Goldfinch	52	35
Siskin	n/a	-3
Linnet	-49	-7
Lesser redpoll	-89[1]	40
Bullfinch	-57	-26
Yellowhammer	-54	-17
Reed bunting	-39	30
Corn bunting	-89[2]	-32

Kingfishers are down 5% in the short- and long-term

Data are derived from Common Bird Census (CBC) plots from 1966 up to 2000 and the Breeding Bird Survey (BBS) from 1994 to 2005, except for long-term trends for **tufted ducks**, **grey wagtails**, **sand martins**, **dippers**, **kingfishers** and **common sandpipers**, which come from the Waterways Bird Survey (WBS 1974–2005). For long-term trends, counts were modelled using a full site by year log-linear Poisson regression model with post-hoc smoothing of the annual indices. Reported long-term population changes are the differences in the smoothed annual indices in joint CBC-BBS models from 1970 to 2004 – the year prior to the last available data, except for the six species covered by the WBS (from 1974) and for **sparrowhawks** (from 1974), **collared doves** (from 1971) and **house sparrows** (from 1976). However, for species where there is evidence of substantial and significant differences in trends within and outside England, the overall trends are based solely on CBC prior to 1994 and solely on the BBS from 1994 to 2005. Further caveats related to unrepresentative habitat coverage, small sample sizes or fluctuating populations are listed below. BBS trends are derived from counts on BBS squares analysed using a full site by year log-linear Poisson regression model, and cover the period from 1994 to 2005.

[1]The trend during the period covered solely by the CBC (prior to 1994) may be unrepresentative of the UK due to geographical or habitat-related bias.

[2]Small sample size during some part of the survey period.

[3]The species shows large natural fluctuations from year to year.

[4]Long-term trend may be biased by differences in BBS and CBC methodologies.

[5]Long-term trend 1975 to 2004.

[6]Long-term trend 1972 to 2004.

[7]Long-term trend 1977 to 2004.

The Repeat Woodland Bird Survey

Pied flycatcher:
30% decline since 1994

The trends from both CBC and BBS data, as given on the previous pages, reveal severe declines in a suite of woodland species: for example, lesser redpolls, willow tits, spotted flycatchers, woodcocks, lesser spotted woodpeckers, tree pipits and marsh tits all at least halved in numbers between 1970 and 2004. In addition, several birds characteristic of the woods of the north and west of Britain, which were poorly monitored by the CBC, have shown alarming declines during the shorter time span of the BBS: pied flycatchers and wood warblers have both declined by over 30% since 1994.

Furthermore, there are some woodland birds, such as **hawfinches** and **lesser spotted woodpeckers**, which are too scarce to monitor properly with the BBS, hence we have poor information on their population trends. The growing awareness of a widespread problem for some of our woodland birds (as evidenced by the downward trend in the headline indicator for woodland birds), together with the need for better information on poorly-monitored species, led to the development of an ambitious partnership project, the Repeat Woodland Bird Survey. The project was commissioned and funded by the BTO, Defra, English Nature, Forestry Commission, the RSPB and the Woodland Trust in 2001, and the results released in March 2006.

You can download the executive summary and full report of the survey at www.forestry.gov.uk/woodlandbirdsurvey

Repeat Woodland Bird Survey results: population changes for species showing declines or increases greater than 25% between the mid-1980s and 2003–04.

	BTO survey[1] sites (% change)	RSPB survey[1] sites (% change)
Declining species		
Lesser spotted woodpecker	-43.6	-58.9
Tree pipit	-69.7	-85.4
Redstart[2]	7.7	-54.4
Garden warbler	-25.6	-39.4
Wood warbler	-64	-55
Willow warbler	-74.2	-68.8
Spotted flycatcher	-70.4	-36.3
Willow tit	-77.5	-72.5
Lesser redpoll	-88.9	-58.7
Hawfinch[3]	-17.4	-73.5
Increasing species		
Green woodpecker	80.7	269.3
Great spotted woodpecker	69.8	123.1
Wren	56.5	91
Robin	63.5	71.3
Blackcap	57.2	79.8
Chiffchaff	154.8	190.7
Goldcrest	138.3	87.5
Coal tit	74	48.7
Blue tit	30.8	32.5
Great tit	51.2	31.8
Treecreeper	51.5	95.1

[1]The two surveys had different regional coverage, with the RSPB survey covering more sites in the north and west. This has resulted in some differences in trends, although there is general agreement for nearly all species.
[2]RSPB surveys covered more of this species' core range.
[3]BTO sample of hawfinches was very small.

Results

The main aim of the survey was to assess whether the trends for woodland birds derived from the CBC/BBS were reliable, particularly with respect to potential differences in population changes between different regions and habitats. Bird populations were surveyed in 2003 and 2004 at over 400 woodland sites, allowing comparison with similar surveys that had been carried out in the 1980s. The survey comprised two complementary elements: the RSPB conducted a re-survey of 253 sites that had been monitored using point counts in the 1980s and the BTO re-surveyed 153 former CBC sites using territory mapping, many of which have been censused since the 1960s or 1970s. Habitat surveys were also carried out in both, to allow population changes at sites with different characteristics to be compared.

Population changes since the mid-1980s indicate a mixed picture, with 11 out of the 34 species showing national increases greater than 25%, while at least eight showed decreases greater than 25% (see table on previous page). However, the winners and losers amongst these species showing the largest changes were drawn from particular groups of species. Species doing well include common resident species, such as the **coal tit**, **goldcrest**, **robin** and **wren**, whose populations often show large fluctuations in response to winter conditions. The two middle-distance migrants, the **blackcap** and **chiffchaff**, which winter mainly north of the Sahara, are doing well too. Worryingly, the survey confirmed the declines of all the long-distance migrants such as **garden**, **willow** and **wood warblers**, **redstarts**, **spotted flycatchers** and **tree pipits**. The survey also showed that several scarcer and more localised resident species, such as the **hawfinch**, **lesser spotted woodpecker**, **lesser redpoll** and **willow tit**, had also suffered substantial declines.

Redstarts are showing short-term declines

Ben Hall (rspb-images.com)

Population changes over the longer periods indicated that some species, such as the **blackcap**, **chiffchaff**, **chaffinch**, several tits, **robin**, **treecreeper** and **wren**, have all begun periods of rapid increase since the 1980s. Likewise, the declines of **marsh tits**, **spotted flycatchers**, **tree pipits**, **willow** and **wood warblers** have all occurred since the 1980s, whilst those of **hawfinches**, **lesser redpolls** and **willow tits** began a decade earlier.

The regional pattern of changes was complex, but many species appear to be doing more poorly in the south and east than they are further north. The survey found that neither **garden** nor **willow warblers** had declined in the Scottish sites, for instance, in contrast to those in every other region. Otherwise, the most serious decliners showed decreases across all regions, with the striking exception of **spotted flycatchers** which, according to both the RSPB and BTO surveys, showed a strong increase in the south-west compared to mostly declines elsewhere.

Analyses showed that changes in woodland structure appeared to be related to many of the declines. Although factors driving these structural changes themselves are not fully understood, potential causes include the ageing of woodland, reduction in active management and increased grazing by deer. The effects of other factors, such as the abundance of potential nest predators, were not well supported although two species, the **hawfinch** and **lesser spotted woodpecker**, declined more in woods with higher numbers of grey squirrel dreys, and by implication higher numbers of grey squirrels. Further research will be needed before the relative importance of these factors, as well as the potential role of wider-scale factors such as climate and changing conditions on the wintering grounds of migrants, is fully understood.

Breeding seabirds

Seabird breeding success in 2005

In *The state of the UK's birds 2004*, we reported on the massive crash in breeding productivity of seabirds in 2004, caused by a failure in the sandeel stock in the northern waters of the UK. In 2005, there was some improvement, although the breeding season was highly unusual. Many species of seabird bred exceptionally late in 2005: guillemots were delayed by two weeks while shags, terns, skuas and kittiwakes were three weeks later than usual. This pattern was widespread throughout the North Sea, along the west coast and in the Irish Sea. This late breeding can be explained partially by unseasonally cold weather in May, but poor food availability early in the season probably also contributed.

Broadly speaking, breeding success was better in the Northern Isles and along the east coast compared to the catastrophic failures observed in 2004, but remained poor compared to the long-term average. Widespread breeding failures were observed for the first time along the west coast of Scotland, but these did not extend into the Irish Sea. Details of patterns are given below, with all figures referring to productivity expressed as the number of chicks per breeding pair. Breeding success of **shags** in Shetland, south-east and north Scotland, and north-east England was low compared to the long-term national average of 1.3. However, productivity improved moving southwards along the west coast of the UK. **Shags** in north and east Scotland also experienced population declines of approximately 40% in 2005 owing to high mortality during winter storms.

You can find more details on seabird monitoring in the UK can be found at www.jncc.gov.uk/seabirds

Regional variation in breeding success in shags

Many shags died in winter storms in 2004/05

Chris Gomersall (rspb-images.com)

Guillemot productivity was low in 2005

Andy Hay (rspb-images.com)

Razorbill

Nigel Blake (rspb-images.com)

Skuas in the Northern Isles experienced a poor breeding season, though there was an improvement on the complete breeding failures of 2004. **Arctic skua** productivity was 0.1 on Shetland and 0.3 for Orkney, and for **great skuas** it was 0.23 and 0.39 respectively, approximately half of the long-term averages. On top of this, at most colonies a large proportion (50–100%) of birds did not attempt to breed: this meant overall production was very low.

For the first time since recording began, **kittiwakes** experienced widespread breeding failures in north and north-west Scotland (0 and 0.18 respectively). Elsewhere, despite the slow start, they attained average productivity (around 0.7).

Guillemots and **razorbills** had lower than average productivity, but did better at more southerly colonies. **Puffins** fared poorly on St Kilda, but did well at the other colonies they are monitored at.

Due to the failure of the sandeel crop in 2004, there were few first-year sandeels available early in 2005. Most seabirds depend on this year class to attain laying condition and lack of this prey, combined with cold weather in May, is a likely reason for the late nesting season. Sandeels appeared to breed successfully, so by June there were enough of them for some birds to breed. This pattern is reminiscent of the 1991 season in Shetland, when seabirds bred successfully following several years of failure. This promoted successful breeding in subsequent seasons on Shetland, so the 2006 breeding season may bring improved fortunes.

The Rare Breeding Birds Panel

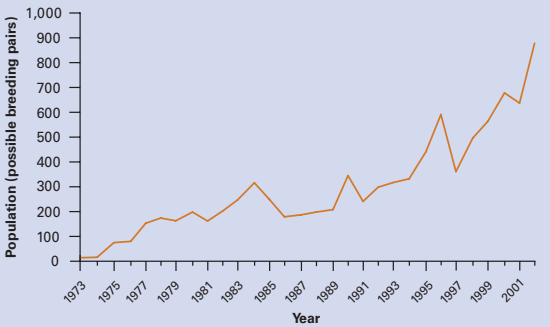
The Rare Breeding Birds Panel (RBBP) was formed in 1972 to collect, collate and report data on rare native breeding birds in the UK, and has done so annually since 1973. An independent body, the panel is funded by the RSPB, BTO and JNCC (the latter on behalf of CCW, EHS, EN and SNH) and works in collaboration with county bird clubs and societies, raptor study groups and other specialist groups. By pooling data from many sources, the panel creates the best possible record of the status of over 80 rare breeding birds, from avocets to yellow-legged gulls, including a small number of occasional breeders such as bee-eaters. Records come from both the staff of conservation organisations and volunteer birdwatchers, often via the county recorder system, and for many species the RBBP is the only source of vital national monitoring data.

The data are stored in a secure database, independent from the funding bodies, and is made available for appropriate conservation uses, such as the identification, designation and management of protected areas, species and habitat research, and species protection and management. In addition, an annual report is published in the journal *British Birds*, providing appropriate summary information on the latest status of our rarest breeding birds.

The 30-year period the RBBP has covered to date has seen some major changes in the UK's birds. A number of species now considered regular breeders were unknown as breeding species in 1973: **little egrets**, **cranes**, **yellow-legged gulls** and **parrot crossbills** amongst them. The **little egret** has shown the most striking increase – it bred for the first time in 1995 but is likely to be removed from the list of species considered by the RBBP in the near future due to its abundance. Another colonist from the south, the **Cetti's warbler**, first bred in the UK in 1972 but has now reached nearly a thousand singing males (see graph below).

However, as some species come, others have gone. The graph over the page shows the steady decline of both **red-backed shrikes** and **wrynecks** over the last 25 years. Once common and widespread, both were already very rare birds by the start of RBBP recording. Since then, reports of breeding attempts have continued to decline and now both species are sporadic breeders. Another species to have declined is the **Savi's warbler**, a bird that only returned to the UK in 1960 after over a century of absence. Following this recolonisation, numbers grew to a peak of 30 singing males in 1979.

Numbers of Cetti's warblers 1973–2002



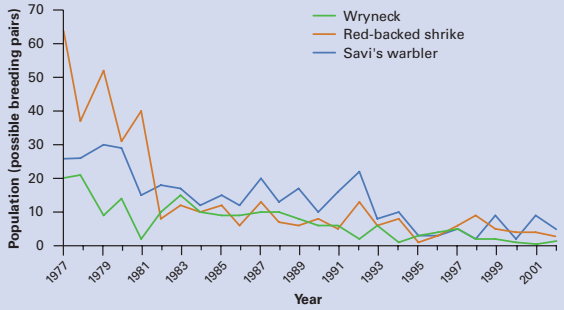
Avocet

Bob Glover (rspb-images.com)

However, this high point was followed by a slow decline, and, in several recent years, only two or three singing birds have been reported to the RBBP.

Some of the species covered by the RBBP are also subject to periodic full surveys, under the Statutory Conservation Agency and RSPB Annual Breeding Bird Scheme (SCARABBS) agreement. One such species is the **marsh harrier**, which was surveyed in 2005, 10 years after the last survey. As recently as 1971, the UK population was down to just a single pair, after a decline driven by the effects of organochlorine pesticides. Habitat loss and persecution had caused a long-term decline prior to this. Remarkably, by 1995 the population had recovered to 156 breeding females, and the new survey shows that the population has more than doubled. It is estimated that 360 female **marsh harriers** bred in 2005 (the species is polygynous, with some males pairing with more than one female, so 'breeding pair' is not an appropriate unit). This is probably the largest total for at least 200 years, and a minimum of 813 young birds fledged. Although there has been some range expansion since 1995, the majority of the population remains concentrated in eastern coastal counties, particularly Lincolnshire, Norfolk, Suffolk and Kent, with remarkably high densities being reached in a few key coastal areas.

Numbers of red-backed shrikes, wrynecks and Savi's warblers reported 1977–2002

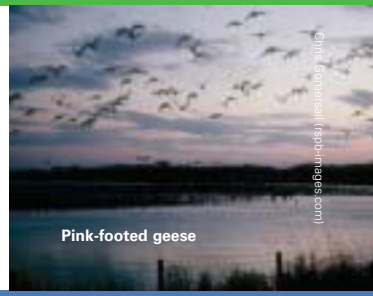


Marsh harriers are at a 200-year high

Richard Brooks (rspb-images.com)

Wintering waterbirds in the UK

The UK is widely recognised as a key wintering area for waterbirds which breed over much of the northern hemisphere, as far away as Arctic Canada and central Siberia. This is because of the extensive network of food-rich wetland habitats that remain largely ice-free at times when wetlands at similar latitudes are frozen. Many waterbird species and populations occur in numbers of international importance and, in particular, several goose populations are found nowhere else at this time, such as the pink-footed geese that breed in Greenland and Iceland.



Pink-footed geese

Chris Gomersall (rspb-images.com)

Trends in wintering waterbirds

Species/population	Long-term trend %	Ten-year trend %	Species/population	Long-term trend %	Ten-year trend %
Little grebe	n/a	72	Pintail	132	-7
Great crested grebe	n/a	18	Shoveler	88	10
Cormorant	n/a	32	Pochard	-12	-13
Mute swan	109	44	Tufted duck	37	18
Bewick's swan	245	-14	Goldeneye	102	-1
Whooper swan	343	155	Red-breasted merganser	204	32
Pink-footed goose	256	15	Goosander	68	-1
European white-fronted goose	-78	-58	Ruddy duck	>1,000	73
Greenland white-fronted goose	n/a	15	Coot	n/a	22
Icelandic greylag goose	23	-19	Oystercatcher	5	-10
Re-established greylag goose	>1,000	113	Avocet	>1,000	261
Canada goose	587	40	Ringed plover	-35	-23
Greenland barnacle goose	141	58	Grey plover	162	-17
Svalbard barnacle goose	580	90	Knot	-8	-19
Dark-bellied brent goose	223	-36	Sanderling	-11	22
Canadian light-bellied brent goose	n/a	19	Dunlin	-33	-9
Svalbard light-bellied brent goose	>1,000	146	Black-tailed godwit	271	101
Shelduck	3	-27	Bar-tailed godwit	8	21
Wigeon	32	13	Curlew	17	-8
Gadwall	>1,000	89	Redshank	7	3
Teal	193	17	Turnstone	-8	-27
Mallard	-34	-15			

Trend figures are derived from the Wetland Bird Survey and National Goose & Swan Monitoring Programme. Poor coverage of non-estuarine habitats means that trends for species found largely on open coastlines (eg **sanderlings**) may not be accurate.

Long-term trends are the percentage changes between the three-year mean for the winters 1968–69, '69–'70 and '70–'71 and the winters 2001–02, '02–'03 and '03–'04 for wildfowl, and between 1974–75, '75–'76 and '76–'77 and the winters 2001–02, '02–'03 and '03–'04 for wading birds. Ten-year trends are the percentage changes between the three-year means for the winters 1991–92, '92–'93 and '93–'94 and the winters 2001–02, '02–'03 and '03–'04. The use of three-year averages eliminates unrepresentative trends caused by occasional extreme annual fluctuations. National monitoring of **coots**, **great crested grebes**, **little grebes**, **cormorants**, Canadian light-bellied **brent geese** and Greenland **white-fronted geese** started later than for other species, so only ten-year trends are shown.

Black-tailed godwits are at their highest levels since monitoring began

Bob Glover (rspb-images.com)

The wintering waterbird indicator on the inside cover of this report shows trends in overall numbers using the most recently available data for 33 species or populations.

The indicator suggests that there was a sustained increase in wintering waterbirds in the UK from the mid-1970s to the mid- to late 1990s, with an approximate doubling over this period. The establishment of a network of protected sites, reductions in hunting pressure and improved feeding opportunities on agricultural land all contributed to these increases. However, in the late 1990s a decrease in waterbird abundance occurred, largely for wildfowl species. Although recently this appears to have levelled off, overall abundance remains below the peak of the mid-1990s.

Within the overall pattern of the waterbird indicator, individual species or populations show contrasting trends. A number of species, such as **ringed plovers** and **mallards**, are showing sustained declines. For some of these species, we know little about why they are decreasing in the UK; they could be experiencing reductions in reproductive success or survival, or they may be moving away from the UK, and thus not actually decreasing in number at a wider population scale, such as has been shown for European **white-fronted geese**.

Understanding the importance of these factors to the declines is a key priority for waterbird conservation, and will require the development of improved and internationally co-ordinated monitoring programmes so that the trends seen in the UK can be placed in a wider context and conservation actions more effectively targeted.

Wading birds

In winter, the UK supports over a quarter of the total East Atlantic flyway populations of 10 species of wading bird. With the exception of the **purple sandpiper**, which is found mainly along rocky coastlines, population indices of these species are produced annually from data collected as part of the Wetland Bird Survey (WeBS).

The indicator for wading birds shows that the overall abundance of the 12 constituent species has remained similar in recent winters. However, the long- and short-term trends given in the table reveal that two-thirds of these species have declined over one or both of these time periods. Of greatest concern are **ringed plovers** and **turnstones**, with **grey plovers** also showing a clear decline in recent years, although the number of the latter remains considerably higher than when monitoring of this species began.
Other species showing declining long-term or short-term trends, including the **dunlin** and **knot**, appear to be largely stable when their complete trend line is viewed (see graph below). This highlights the importance of sustained monitoring effort, as without these data it would be harder to assess the status of these species accurately.

The success stories among the wintering wading birds are **avocets** and **black-tailed godwits**, which breed in the UK and near continent, and Iceland, respectively. Both species have reached their highest level of abundance in the UK since monitoring began, with **black-tailed godwits** doing particularly well (as wintering birds: they are a rare and threatened breeder). Both species are occupying new areas and the increase in their abundance looks set to continue.

Wildfowl and allies

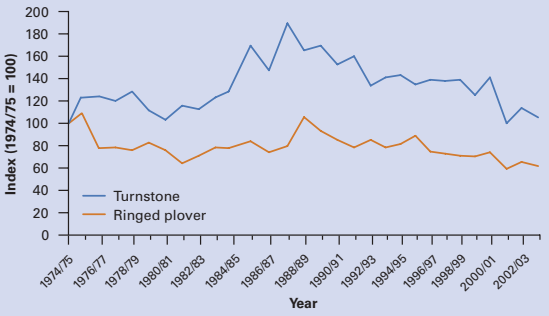
The overall health of wintering duck populations in the UK has also remained largely stable in recent winters, with the numbers of several species being relatively high in the most recent year, including the **teal**, **shoveler** and **goldeneye**.

Gadwalls continued to increase in numbers, and **tufted ducks** reached their highest level of abundance since monitoring began. **Pintail** numbers were also the highest for 11 years, and this species is showing promising signs of recovery, with a steady increase in numbers since 1999–2000. However, **pintail** abundance still remains almost half that of 20 years ago.

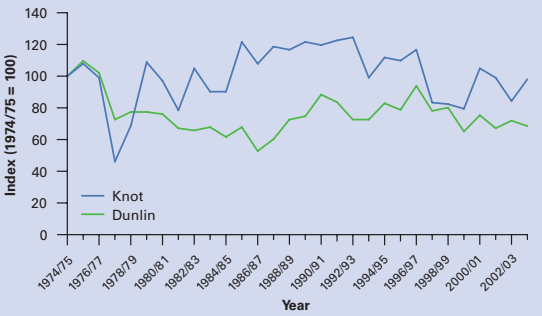
Knots

Andy Hay (rspb-images.com)

Trends in turnstones and ringed plovers



Trends in knots and dunlins



Tufted ducks are at their most abundant since records began

George McCarthy (rspb-images.com)

Other species of concern show no signs of recovery. **Mallards** and **pochards** continued to show long-term declines, reaching their lowest level of abundance since monitoring began. **Shelducks** also continued the decline that began around 7–8 years ago.

Among the swans and geese, **mute swans**, **whooper swans** and **pink-footed geese** all continued to increase, reaching their highest levels of abundance since monitoring began. In contrast, European **white-fronted geese** continued to decrease in the UK, reaching their lowest level of abundance in recent years. Monitoring elsewhere, however, shows that at a flyway level this population continues to flourish.

Dark-bellied **brent geese** declined further in 2004/05 following another poor breeding season, reaching their lowest level of abundance for over 20 years. Svalbard **barnacle geese** and Greenland **white-fronted geese** also had poor breeding seasons, but whilst numbers of the former population remain buoyant after a period of sustained increase, those of the latter population are giving cause for concern (see panel right).

For more details on the Wetland Bird Survey, visit www.bto.org/surveys/webs
For more details on the Goose & Swan Monitoring Programme, visit www.wwt.org.uk/research/monitoring/goose_and_swan.asp

Trends in waterbird productivity

The redistribution of waterbirds, exacerbated in recent years by climate change, can make the accurate assessment of a species' status problematic. This can be overcome to some extent by using other demographic information to corroborate the changes in abundance detected by surveying numbers. Estimates of breeding success are readily obtained for most geese and swans, as juvenile birds can be distinguished from adults during the winter by plumage differences. Annual monitoring of goose and swan productivity has shown that the reproductive success of Greenland **white-fronted geese** began to decrease in the early 1990s, and was followed by an overall decrease in abundance that began some 5–6 years later. The monitoring of productivity has thus allowed the demographic cause of the decline – poor productivity – to be identified, as well as providing supporting information on the validity of the decline.

Dark-bellied **brent geese** have also undergone a sustained period of poor breeding success over the past decade. In the period 1985–86 to 1994–95, annual production of young surpassed the average rate of annual mortality (15%) in five out of 10 years. In the most recent 10-year period, however, the rate of mortality has only been surpassed in one year. If mortality exceeds productivity, a population will decline. Hence, in this population we can also be confident that the lack of young birds is driving the observed decline, although our understanding of why the production of young has decreased is poor. Nevertheless, this allows conservation and research efforts to be focused on the breeding areas, rather than in the wintering grounds.

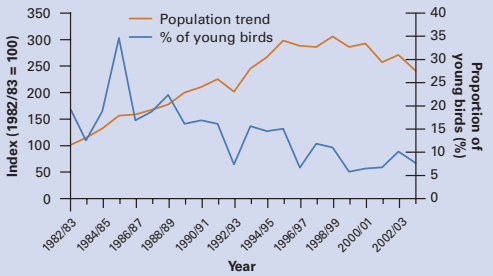
White-fronted geese are declining

Chris Knights (rspb-images.com)

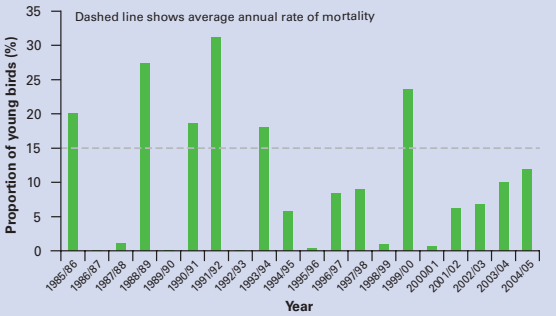
Managed re-alignment can help compensate for lost waterbird habitat

Intertidal habitats in the UK are currently under threat from sea-level rise, as well as development. Estimates suggest that approximately 100 ha of saltmarsh are currently being lost per year in the UK. These losses may be compensated for at least partially by creation of intertidal habitats through managed re-alignment and regulated tidal exchange, which involves opening up existing sea defences to allow inundation of previously reclaimed land behind the seawall.

Greenland white-fronted goose productivity and abundance



Trends in dark-bellied brent goose population and productivity



Oystercatcher

Tom Marshall (rspb-images.com)

The development of wild bird indicators

Monitoring of managed re-alignment sites such as at Tollesbury and Orplands in Essex and Havergate Island in Suffolk has provided an excellent opportunity to record how wildlife colonises new realignment sites.

Numbers of waders tend to be low during the first year following inundation, probably because of a lack of invertebrate prey. Numbers increase thereafter, and after five years or so bird populations are broadly similar to those of surrounding mudflats and saltmarshes.

However, there are notable exceptions. For example, while numbers of **dunlins** and **redshanks**, waders that prey on the early colonising ragworms and laver spire shells, rapidly build up in re-alignment sites, numbers of **oystercatchers** and **knots**, which feed on more slowly colonising bivalves, are slower to appear. At Tollesbury, knots only started to use the site after 4–5 years, once their major prey item, the Baltic tellin (a bivalve), had appeared.

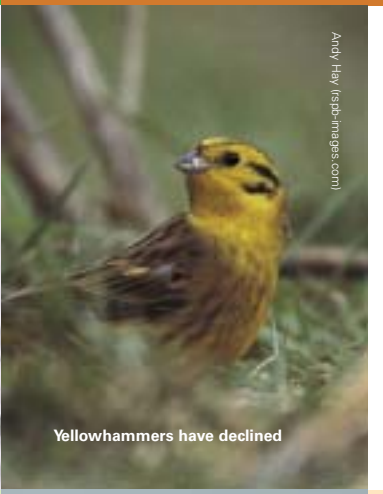
Other managed re-alignment sites have not been so successful and, even decades after inundation, can hold lower densities of waterbirds and other taxa, especially if small, enclosed and poorly drained. If managed realignment is to be used to provide compensation for habitat loss or as adaptation to climate change, reliable methods should be developed to predict the likelihood of success of proposed sites.

Andy Hay (rspb-images.com)

Redshanks suffered after being displaced when the Cardiff barrage was built

Habitat loss and increased waterbird mortality

In November 1999, following impoundment by a barrage, the intertidal mudflats of Cardiff Bay were inundated with freshwater and so lost completely as a wader habitat. As a result of this loss of habitat, some 300 **redshanks** and many other waterbirds were displaced to adjacent habitat at Rhymney, on the Severn Estuary. By individually colour-marking 454 birds and monitoring them following their displacement, it was possible to assess the impact of habitat loss on these individuals. Displaced **redshanks** were in poor body condition in the first winter after the impoundment: adults displaced from Cardiff Bay were lighter than those already at Rhymney. The annual survival of displaced adults fell from 85% in the two years pre-barrage closure to 78% in the three following years because of a decline in winter survival. There was no decrease in the survival of Rhymney adults, or at a North Wales control site, clearly indicating that the increase in winter mortality of Cardiff Bay birds resulted from their displacement. These results provide the first conclusive evidence that habitat loss can impact on individual fitness in a bird population. Adult **redshanks** displaced from Cardiff Bay experienced a 44% increase in annual mortality – without an increase in the number of first-winter birds, such a change is likely to substantially reduce the local population size. This information has already been used at public inquiries to help inform the Government and planners of the effects of developments on animal populations.



Andy Hay (rspb-images.com)

Yellowhammers have declined

Chris Gomersall (rspb-images.com)

Corn bunting: down 89% since 1970

What do indicators do?

Changes in nature can be complex, difficult to measure and even harder to communicate in a simple manner. Yet there is a real need for such information; to allow the state of our natural environment to be gauged, to detect changes for better or worse, and to ensure that these changes can be communicated to conservation policymakers and the public. By taking detailed monitoring information from a variety of the schemes featured in this report (most notably the CBC and BBS) and combining data on many species, it is possible to produce indicators that report on the health of bird populations overall, whether across the whole of the UK or in particular regions or habitats. As well as reporting on the health of the bird populations themselves, birds are good indicators of the general state of the environment; they reflect changes in other animals and plants, they are responsive to change, good data exist and are collected annually for many species, and birds are popular with the public, giving the indicators greater resonance.

The headline indicator

Since the outset of *The state of the UK's birds* series, we have reported the health of the UK's birds using the *UK wild bird populations* framework indicator, featured on the inside cover of this report. This indicator has been produced annually since 1998, by the BTO and the RSPB for the Department for Environment, Food and Rural Affairs (Defra), and is now one of 20 framework indicators supporting the UK Government's Sustainable Development Strategy. This indicator takes annually-updated indices for over 100 species of common and widespread breeding birds (species with over 500 breeding pairs in the UK) and combines them into a single indicator line. It shows that since 1970, as a whole, breeding bird populations have fared well in the UK. The indicator also features two disaggregated indicators, for farmland and woodland birds. The farmland bird indicator has fallen to less than half of its 1970 level, a fall driven by declines in red-listed and UK BAP priority species such as **corn buntings**, **reed buntings** and **turtle doves**. The woodland indicator has declined more recently and is 12% down on its 1970 level; declines in woodland birds are discussed on pages 13–14. In 2005, the indicator also featured a coastal bird indicator, although we have not included that in this report, as it is to undergo further development.

There has been very little change in the indicator since we reported in *The state of the UK's birds 2004*: between 2003 and 2004 there were very slight decreases in the farmland and woodland indicators and a slight increase in the all-species indicator.

Indicators for different habitats

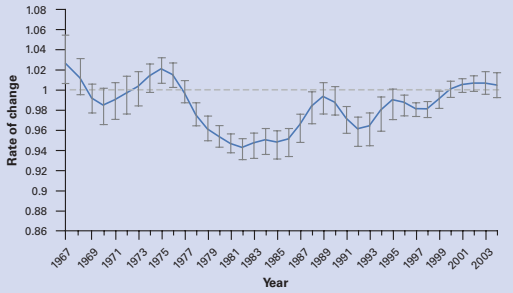
The UK government has adopted a target for England as part of its Public Service Agreement, to 'care for our living heritage and preserve natural diversity by reversing the long-term decline in the number of farmland birds by 2020, as measured annually by underlying trends'. Progress towards this target is measured using an indicator based on farmland bird trends within England, with the goal being for this indicator to start moving upwards after many years of decline. The figure (right) shows the year-on-year change in the indicator (the ratio between the indicator values for a year and the previous year: if the value is above 1, the indicator increased between years, below 1 and it decreased). The bars show the 95% confidence limits on the change: when the lower 95% confidence limits exceeds 1, the indicator will be regarded as showing a genuine increase in farmland bird numbers. The recent improvement in the indicator has been driven by increases since 2000 in the indices for 12 of the 19 species featured, including welcome upturns for the likes of **tree sparrows** and **linnets**. However, five of the nine red-listed species in the indicator have continued to decline (**grey partridge**, **turtle dove**, **skylark**, **starling** and **yellowhammer**).

As well as farmland and woodland indicators, recent work has produced indicators for birds in other habitats in England: breeding birds of water and wetlands, towns and gardens (shown below), and seas and coast, with further work being planned to revise the latter. In Scotland, indicators have been developed for farmland, woodland, upland and coastal birds, and there are Welsh indicators for woodland and farmed habitats.

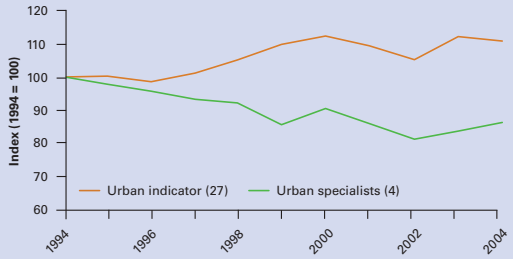
The town and garden indicator shows that populations in these habitats have increased by 10% over 10 years. However, the trend for the four urban specialists (**collared dove**, **house martin**, **house sparrow** and **swift**) has declined by 14% over the same period.

The approach used to generate indicators for breeding birds has also been applied to non-breeding populations of birds, and *The state of the UK's birds* has published the UK indicator for wintering waterbirds for several years; this year's update is given on the inside cover and discussed on page 20.

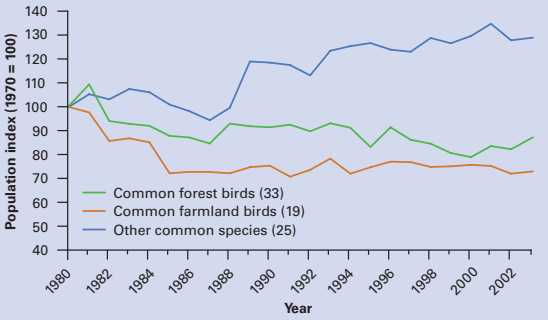
The Public Service Agreement farmland bird indicator for England



The town and garden bird indicator for England



The wild bird indicator for Europe



Further afield – European indicators

The development and success of wild bird indicators within the UK as powerful tools for communicating the health of wild bird populations and the wider environment, has led to the development of a wild bird indicator for Europe by the Pan-European Common Bird Monitoring Scheme, a partnership led by the European Bird Census Council (EBCC), the RSPB, BirdLife International and Statistics Netherlands. This is the first genuinely policy-relevant indicator of biodiversity for Europe, and the farmland bird indicator has been adopted by the European Union as a Structural and Sustainable Development indicator. The indicator (above) takes data from annual common bird monitoring programmes across Europe and combines them, firstly to produce pan-European indices of individual species and then to produce multi-species indices. Presently, 18 different countries contribute to the indicator and this number will continue to grow with the ongoing establishment of monitoring schemes in countries such as Portugal, Bulgaria and Romania.

The indicator includes species that are widespread across Europe, although not necessarily present in every nation; the 19 species in the farmland indicator include the **woodchat shrike** and **black-tailed godwit** as well as **skylark** and **linnet**, the 33 in the woodland indicator include the **golden oriole** and **collared flycatcher** alongside **nuthatch** and **chiffchaff**.

The indicator shows that between 1980 and 2003 common farmland birds fell by 28% and common forest birds fell by 13%, although common breeding birds in other habitats increased by 28%. The decline in farmland birds was greatest between 1980 and 1990, which reflects the widespread intensification of farming, and the subsequent degradation of its value for wildlife during this period.

There are notably different trends between countries in west and east Europe. Common farmland bird populations in west Europe declined by 57% over the period of the indicator, whereas populations in the east rose by 5%. Similarly, common forest birds declined by 18% in the west but increased by 2% in the east. These differences are probably due to the different rates of development across Europe.

You can find more details on the indicators and the work of the EBCC, including *The state of Europe's common birds 2005* at www.ebcc.info

Birds in the UK's Overseas Territories

In recent years, there has been much publicity about the plight of albatrosses and petrels, whose populations are declining because of mortality around longline fishing operations. Foraging birds attempt to eat the baits, become hooked and then drown, or target the fish in trawl nets, and then are pulled under by trawl cables.

One very important step towards saving these species is the Agreement on the Conservation of Albatrosses and Petrels (ACAP), which came into force in 2004. ACAP lists 28 species of albatross, giant-petrel and *Procellaria* petrel which are threatened by longline fishing. The Agreement aims to encourage conservation actions among states that support populations of ACAP species, and which host fishing fleets that interact with them. Eight countries have ratified the convention so far. The UK is a very important member of ACAP, because its three South Atlantic Overseas Territories (OTs) – Falkland Islands, South Georgia and South Sandwich Islands and Tristan da Cunha – are major breeding sites for many ACAP species, and their waters include key feeding (and fishing) sites.

For most populations at South Georgia and Falklands, good data are available (exceptions being **light-mantled albatrosses** at South Georgia and **white-chinned petrels** at South Georgia and Falklands). The same is not true for Tristan da Cunha, where there are large gaps in monitoring coverage, which make it difficult to make effective conservation recommendations.

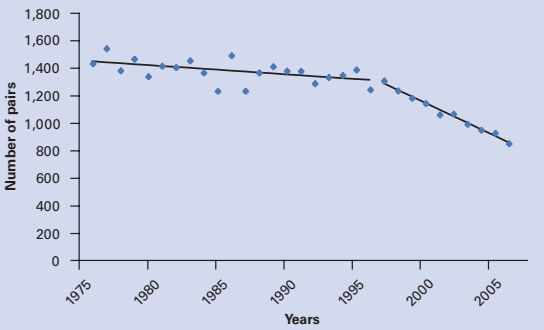
Two points are immediately obvious from the table below. Firstly, the three South Atlantic OTs are of absolutely critical importance for albatross and petrel conservation: of the 28 ACAP species, three are endemic to the UK OTs, and a further eight have their most important sites in UK OTs. Secondly, the species are facing ongoing declines. The graphs, left, show how steady declines of a few per cent per year, caused mainly by high adult mortality, lead to massive population declines over a few decades.

Status of populations of ACAP species in UK Overseas Territories

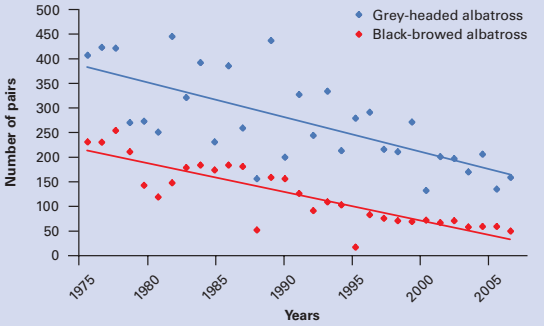
Species	Territories with breeding populations	Global importance of population	Global threat status[1]	Latest estimated trend
Wandering albatross	South Georgia	2nd largest	Vu	-4.7% per annum
Tristan albatross	Tristan da Cunha (Gough and Inaccessible)	Endemic	En	-3 to -5% per annum
Grey-headed albatross	South Georgia	Largest	Vu	-3.1% per annum
Atlantic yellow-nosed albatross	Tristan da Cunha	Endemic	En	-1.2% per annum
Black-browed albatross	Falkland Islands South Georgia	Largest 2nd largest	En	-1% per annum -5% per annum
Sooty albatross	Tristan da Cunha (all main islands)	Largest	En	-3% per annum on Gough
Light-mantled albatross	South Georgia	Largest	NT	Unknown
Southern giant-petrel	Falkland Islands South Georgia Tristan da Cunha (Gough only)	Largest 3rd largest Very small	Vu	Increasing +0.3% per annum Increasing
Northern giant-petrel	South Georgia	Largest	NT	+2.3% per annum
Spectacled petrel	Tristan da Cunha (Inaccessible only)	Endemic	Cr	Increasing, c7% pa
White-chinned petrel	Falkland Islands South Georgia	Very small Largest	Vu	Unknown -1.8% per annum
Grey petrel	Tristan da Cunha	Largest	NT	Unknown

[1]IUCN threat status. Cr – Critically Endangered, En – Endangered, Vu – Vulnerable, NT – Near Threatened.

Trends in wandering albatrosses in a sample of colonies on Bird Island, South Georgia



Trends in grey-headed and black-browed albatrosses in a sample of colonies on Bird Island



The largest population of black-browed albatrosses is on the Falkland Islands

Giant-petrels, however, appear to be doing well. The first full survey in the Falkland Islands revealed a far bigger population of **southern giant-petrels** than estimated – almost 20,000 pairs, and, although detailed figures are lacking, the population has expanded recently. The South Georgia populations of both giant-petrel species are also on the up.

While longline fishing is the major threat to most of the ACAP species in the OTs, it is by no means the only one. The mice of Gough Island (Tristan da Cunha), and their massive impact on **Tristan albatrosses** has been well-documented. Rats on Tristan da Cunha probably also have a negative impact on some species. In the Falkland Islands, trawl fishing is thought to cause lots of albatross deaths. There is also the threat of changes in food supply caused by overfishing and climate change.

Overall, while rapid progress is being made on data gathering to inform conservation managers, and the development of techniques to reduce bycatch of seabirds at fishing operations, the tide has not yet begun to turn in favour of the UK OT's albatrosses and petrels.

What you can do to help

A dead whooper swan with H5N1 avian flu was found in Scotland in early 2006

Laurie Campbell (rspb-images.com)

Avian influenza

An unusually virulent strain of the avian influenza virus (bird flu), H5N1, has spread from south-east Asia across Asia and into Africa and Europe since 2003. Transmission of H5N1 has occurred through the unrestricted movement of poultry and poultry products, the trade in wild-caught birds, and the movements of infected wild birds.

Avian influenza may pose a threat to the conservation of birds worldwide. It is estimated that between 5 and 10% of the global population of **bar-headed geese** may have already died from the disease and other species could be at risk from outbreaks, such as the **red-breasted geese** that congregate in just a few winter roost sites in Bulgaria, Romania and Ukraine, all countries affected by H5N1. A more insidious impact may be inappropriate responses of people to the perceived risk of catching avian influenza, such as the culling of birds or destruction of their habitat; we are aware of incidents of **white stork** and **lesser kestrel** nests being destroyed in Europe. There are also reports of the destruction of **swallow** and **house martin** nests from several countries. In fact, the risk of transmission from wild bird to human is remote; almost all human cases have been the result of very close contact with sick or dead poultry.

Although avian influenza did not reach the UK in 2005, a dead **whooper swan** found in Scotland early in 2006 tested positive for the virus, although it is not known whether this bird reached Scotland alive. The keys to controlling the disease are surveillance, biosecurity, good public information, effective border control and swift action to contain outbreaks through culls of infected poultry flocks. The volunteer network of birdwatchers who contribute to the schemes featured in *The state of the UK's birds* has a crucial role to play in monitoring for signs of the disease in 2006 and beyond, and reporting any unusual cases of sick or dead birds to the authorities. Information on what to do in such circumstances can be found on the websites of all the organisations behind this report. Readers should be assured that there is no danger in continuing to feed birds, or allowing birds to breed where they live (indeed, destroying active nests is a criminal offence). As always, good personal hygiene should be employed when filling or washing feeders.

The value of volunteers in monitoring birds in the UK

Bird monitoring in the UK is supported by the time and effort of thousands of volunteers who participate in the surveys that provide the data that *The state of the UK's birds* reports upon. This information is of vital importance in identifying priorities, directing conservation action, and assessing the success of such action.

Fortunately, the fact that so much bird monitoring was set up in the 1960s and '70s has given us the background figures against which to view current populations and the perspective needed for conservation planning. Studies reported upon elsewhere within these pages build upon these early surveys, often with more rigorous methods that put greater demands upon birdwatchers, especially where they are asked to collect data on habitats as well as birds.

Given that 2005 was the Year of the Volunteer, it seems appropriate to quantify just how much volunteer effort goes into modern-day survey work. The figures below only reflect the surveys reported within this publication. They exclude one-off projects, such as the Scarce Woodland Bird Survey, work with landowners such as the Volunteer & Farmer Alliance, garden bird surveys, records collected by local bird clubs and studies of migration, phenology and productivity that involve bird ringers and nest recorders.

It is hard to put a financial value on the contribution that volunteers make to *The state of the UK's birds* and to bird monitoring in the UK as a whole. But even rough calculations suggest a value into the millions of pounds: this monitoring, and the benefits it brings for bird conservation, simply would not be possible without the generous contribution of time, effort and expertise by volunteer birdwatchers throughout the UK.

Volunteer hours contributed to the annual monitoring schemes featured in *The state of the UK's birds 2005*

Scheme	Number of volunteers	Total volunteer hours in 2005
Breeding Bird Survey	2,260	14,690
Goose & Swan Monitoring Programme	400	3,000
Waterways Bird Survey & Waterways Breeding Bird Survey	360	6,080
Wetland Bird Survey	3,000	50,390
Total hours		74,160

Current and planned surveys

The information summarised in *The state of the UK's birds 2005* is drawn from the annual and periodic monitoring programmes described below and from the work of individual ornithologists. Anyone interested or wishing to take part in these surveys should contact the relevant organisations at the addresses given on the last page.

The **Breeding Bird Survey** (BBS) is the monitoring scheme for common and widespread breeding land birds throughout the UK and aims to provide data on population trends to inform and direct conservation action. It is a partnership between the British Trust for Ornithology (BTO), the Joint Nature Conservation Committee (JNCC) – on behalf of English Nature (EN), Scottish Natural Heritage

Swallow

Tom Marshall (rspb-images.com)

(SNH), the Countryside Council for Wales (CCW) and the Environment and Heritage Service (EHS) – and the RSPB [contact BTO].

The **Wetland Bird Survey** (WeBS) is the monitoring scheme for non-breeding waterbirds in the UK, which aims to provide the principal data for the conservation of their populations and wetland habitats. It is a partnership between BTO, the Wildfowl & Wetlands Trust (WWT), the RSPB and JNCC (on behalf of EN, SNH, CCW and EHS) [contact BTO].

Goose and swan data are collected by WWT **Goose & Swan Monitoring Programme**, funded under the WWT/JNCC partnership [contact WWT].

The **Waterways Bird Survey** (WBS) and the Waterways Breeding Bird Survey (WBBS) have been running since 1974 and 1998 respectively. These schemes aim to monitor riverside breeding birds, particularly waterway specialists, across the UK [contact BTO].

The **Barn Owl Monitoring Programme** was started in 2000 to monitor populations, through standardised recording at a set of **barn owl** sites representative of the distribution in the UK [contact BTO].

The RSPB's **Big Garden Birdwatch** is the largest wildlife survey in the world – a simple design (one hour watching birds in the garden each January) means up to 475,000 people have taken part each year. The data provide an excellent snapshot of garden bird numbers across the UK [contact the RSPB].

Garden Bird Watch is a year-round scheme recording the weekly occurrence and numbers of birds in participants' gardens. The data collected provide valuable information on changes in bird use of rural and urban habitats that can be related to population trends in the wider countryside [contact BTO].

BirdTrack is a year-round online bird recording system run by BTO, the RSPB and BirdWatch Ireland. The collection of list data from a large number of observers will enable the fulfilment of a range of national research and monitoring objectives [contact BTO/the RSPB or see **www.birdtrack.net**].

A programme of UK-wide surveys of priority breeding species has been established under the Statutory Conservation Agencies and RSPB Breeding Bird Scheme (**SCARABBS**) Agreement. **Dartford warblers**, **woodlarks** [contact the RSPB or BTO], **red-throated divers** and **black-throated divers** [contact the RSPB] were surveyed in 2006; **merlins**, **common scoters** and **Scottish crossbills** are likely to be surveyed in 2007 [contact the RSPB].

January 2007 will see a repeat of the 1998 **Non-estuarine Coastal Waterbird Survey**. The survey aims to determine whether the decline noted in the UK's internationally important populations of **ringed plovers**, **sanderlings**, **purple sandpipers** and **turnstones** has continued. Its secondary aim will be to assess whether the species' distributions are still changing with climate change. The **Winter Golden Plover and Lapwing Survey** 2006/07 plans to document the current distribution and estimate the current wintering population size of these two species. The survey, run in partnership between BTO and JNCC, will run from October 2006 to February 2007 [contact the BTO for both surveys].

Surveys of breeding **little ringed** and **ringed plovers** in the UK are planned for spring 2007. These will aim to produce new population estimates for the species, updating results last obtained in 1984. Also in 2007, the BTO will be running a UK survey of breeding **great crested grebes**, a species last surveyed nationally in 1975 [contact the BTO].

Distribution Atlas, 2007–2011. Twenty years since the last breeding atlas, and 30 years on from the last winter atlas, the BTO, Scottish Ornithologists' Club and BirdWatch Ireland are teaming up to produce the next landmark atlas to document the changing distribution of Britain's and Ireland's avifauna. This atlas will combine winter and breeding season fieldwork and will start in the winter of 2007/08 and the breeding season of 2008. More details can be found at **www.birdatlas.net**

About us

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The state of the UK's birds 2005 is also available online on the websites of the BTO, the RSPB and WWT (see addresses on next page).

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Monitoring of birds in the UK, such as that covered in this report, involves a broad partnership of government agencies, NGOs, sponsors and independent ornithologists, including:

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Turnstone

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The population of wandering albatrosses in South Georgia has fallen by nearly 5% a year in recent years

Michael Gore (rspb-images.com)

The RSPB is the UK charity working to secure a healthy environment for birds and wildlife, helping to create a better world for us all. We belong to BirdLife International, the global partnership of bird conservation organisations.

The BTO is dedicated to research on wild birds in the UK. Through its volunteer network, it monitors populations by organising long-term surveys such as the Breeding Bird Survey, the ringing scheme and the nest records scheme, and carries out research related to bird conservation.

The Wildfowl & Wetlands Trust (WWT) is dedicated to conserving wetlands and their biodiversity worldwide. WWT has organised national waterbird monitoring schemes for over 50 years.

The Countryside Council for Wales champions the environment and landscapes of Wales and its coastal waters as sources of natural and cultural riches, as a foundation for economic and social activity, and as a place for leisure and learning opportunities. We aim to make the environment a valued part of everyone's life in Wales.

English Nature is the statutory advisor to the government on the conservation of wildlife and geology in England. From October 2006, it will form part of Natural England, a new agency responsible for protecting the value, beauty and enjoyment of England's natural environment.

The aim of **Environment and Heritage Service (Northern Ireland)** is to protect and conserve the natural and built environment and to promote its appreciation for the benefit of present and future generations.

The task of **Scottish Natural Heritage** is to secure the conservation and enhancement of Scotland's unique and precarious natural heritage – the wildlife, the habitats and the landscapes which have evolved in Scotland through the long partnership between people and nature.

We would like to thank *Birdwatch* for assisting in the distribution of this report. *Birdwatch* is an independent monthly magazine dedicated to serving the interests of keen birders and amateur ornithologists in Britain and more than 30 countries worldwide. Visit **www.birdwatch.co.uk** for more details.

Front cover: hawfinches by David Kjaer (rspb-images.com)

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