THE STATE OF THE UK'S **BIRDS** 2004

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ENGLISH NATURE

SCOTTISH NATURAL HERITAGE

Countryside Council for Wales

Environment and Heritage Service

Andy Hay (rspb-images.com)

Kittiwakes suffered their poorest breeding season on record in 2004.
Front cover: there were more than 50 booming male bitterns in 2004.

The headlines

- The all-species, farmland and woodland wild bird indicators for the UK have all shown a slight increase over the last year. However, the farmland bird indicator remains below 60% of its 1970 value.

- Good news! Recent surveys have detected encouraging increases for four of our most vulnerable breeding species: **capercaillie**, **corncrakes**, **bitterns** and **nightjars**. A fifth species, the **hen harrier**, showed encouraging increases in the north and west but worrying declines elsewhere in its range.

- 2004 was the poorest breeding season on record for many of our seabirds, such as **kittiwakes** and **guillemots**, raising concerns about environmental changes in the seas surrounding the UK.

- Among our common breeding birds, some continue to decline alarmingly. Most noticeably, these include woodland birds such as **wood warblers**, **spotted flycatchers** and **willow tits**. Although the prospects look brighter for farmland birds in England, with the introduction of the Environmental Stewardship Scheme in 2005, **turtle doves**, **corn buntings** and **grey partridges** are still decreasing rapidly.

- The populations of a number of wintering waterbirds, such as **dunlins**, **ringed plovers** and **turnstones**, have continued to decline, and the wintering waterbird indicator dropped to its lowest level since 1993–94.

Richard Revels (rspb-images.com)

Turtle dove numbers are now down to a fifth of those in 1970.

Introduction

This is the sixth annual report on *The state of the UK's birds*. Like its predecessors, this report aims to be a 'one-stop shop' for all the latest information on the fortunes of birds throughout the UK and in its Overseas Territories. The numbers and trends of birds in the UK are monitored in virtually unparalleled detail, and in some cases monitoring datasets stretch back over 40 years. Annual survey schemes provide accurate information on a wide variety of breeding and visiting species, while periodically repeated or one-off surveys give regular bulletins on rare and localised species, as well as those of specialised habitats.

This report contains results from bird surveys as recent as 2004. In particular, we are proud that for the first time *The state of the UK's birds* contains trends from the previous year's Breeding Bird Survey (2004), rather than older data, thanks to more rapid collection, collation and analysis of the data from this survey. In other cases, reporting survey results takes longer, so some results are from 2003 or even 2002.

As in previous years, this report starts by updating recent trends in birds covered by UK Biodiversity Action Plans (UK BAPs). These are the species identified as being of the greatest concern in the UK, and are therefore subject to targeted conservation action from the Government and non-governmental organisations (NGOs), such as those that endorse this report. Recent surveys have produced encouraging news on a number of our scarcest breeding bird species.

We then report on the trends of common breeding birds, provided by the Breeding Bird Survey (BBS) since 1994 and the Common Bird Census (CBC) before that. The long-term trends, stretching back to 1970, not only allow us to track changes in the population status of individual species, but also to collate the UK wild bird indicator, which acts as a barometer of the fortunes of common breeding birds in the UK.

Every year a wide range of different surveys are conducted throughout the UK in addition to the main monitoring schemes, and we summarise the latest findings on these, from **mute swans** to **hen harriers**.


Andy Hay (rspb-images.com)

Following on from the focus on the Seabird 2000 survey in last year's report, this year we report on another aspect of seabird monitoring in the UK: breeding performance. Many of our seabirds had their poorest breeding season on record in 2004, which has heightened concerns over the condition of the seas surrounding the UK. We also report on the trends of wintering waterbirds provided by the Wetland Bird Survey and related schemes.

For the third year running, we present news from the UK's Overseas Territories, with up-to-date information on two of the most endangered species in the world for which the UK has sole responsibility. Slightly closer to home, we discuss the new *Birds in Europe II* analysis, which allows us to look at the importance of our bird populations in a European context.

Finally, we focus on what may be the greatest long-term threat to birds in the UK: climate change. We have known for some time that changes in the global climate are likely to affect the birds that breed and spend the winter in the UK, as well as those that pass through on migration. We present results from recent monitoring that demonstrate that the effects of climate change are already evident and discuss impacts likely in the future.

Throughout this report, species names 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**.

Special thanks to volunteer observers

This report is a collaborative effort between 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 many thousands of skilled volunteer ornithologists.

Our detailed knowledge of the state of UK bird populations results from the tremendous efforts of these volunteers, working in collaboration through the BTO, WWT, RSPB, bird clubs and other bird-related networks. If you are one of these volunteers, we offer a big thank you for all your hard work, skill and dedication, without which this report, and many others, would not be possible. If you are thinking of ways to help the cause of bird conservation, more volunteers are always needed and involvement in bird monitoring may be easier than you think. Please contact the appropriate organisation on the inside back page if you would like to participate in a survey.

Hen harriers have declined or are now absent from most of northern England and southern Scotland, but have increased in the north and west of the UK.

Phillip Newman (rspb-images.com)

Breeding birds

The UK 'Quality of Life' wild bird indicator

The UK government uses an annually-updated indicator based on trends in over 100 breeding bird species as one of its 20 'framework indicators' of progress towards sustainable development. Since it was first launched by the Department for Environment, Food and Rural Affairs (Defra) in 1998, the wild bird indicator has become valuable as a tool for communicating the status of bird populations in the UK to a wide audience, as a surrogate measure of the health of the environment and for recognising that contact with birds enriches people's lives.

The headline indicator is generated by combining the trends of widespread bird species (111 in the last update) across the UK, for which annual or periodically collected data on numbers are available. For species originally monitored by the Common Birds Census (CBC), which was in operation from 1962 until 2000, trends are generated by statistically combining data from the Breeding Bird Survey (BBS), which started in 1994, and the CBC. The indicators start from a value of 100 in 1970. 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.

The 2003 headline wild bird indicator showed a slight (almost 2%) increase from the last update in 2002, maintaining the overall stability that it has shown since the early 1980s and differing from the 1970 value by an overall increase of only 6%. Major winners since 1970 include scarce breeders with mainly southern distributions, such as **little ringed plovers**, **woodlarks** and **Dartford warblers**, that may be benefiting from climate change; species such as the **buzzard** and **carrion crow** that may be experiencing less persecution than in the past; and species such as the **woodpigeon** and **stock dove**, which may be benefiting from changes in agricultural cropping patterns.

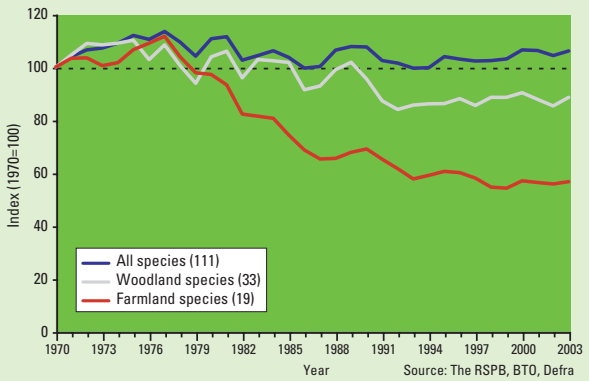
Within the relative stability of this all-species line, there are major differences in the trends shown by different groups of species. Despite encouraging signs of recovery in some of the farmland species that have seen large declines since the 1970s (eg **tree sparrows**), species such as **corn buntings** and **turtle doves** continue to decline and the farmland indicator remains at less than 60% of its 1970 value. However, the rate of decline has slowed in recent years and the 2003 farmland bird indicator is virtually unchanged (in fact, up 1.6%) from 2002. Defra is committed to a Public Service Agreement target of reversing the long-term decline in farmland birds, as measured by this indicator, by 2020. Although this target may be reached well before that date, further goals to improve the population status of individual declining species have been set in the UK BAP and will drive the future conservation of our farmland birds. The introduction of the Environmental Stewardship Scheme in England in 2005 will bring agri-environment measures to our countryside on an unprecedented scale, and with other new schemes being developed elsewhere in the UK, we are cautiously optimistic for the future.

The woodland bird indicator is about 12% lower than its value in the early 1970s, taking into account an increase of nearly 4% between 2002 and 2003. Many of the species showing the most alarming declines in the UK are woodland specialists, such as **lesser spotted woodpeckers**, **tree pipits**, **spotted flycatchers** and **willow tits**. Current research is attempting to unravel the cause of these declines and hence allow remedial measures to be identified and recovery action to be taken.

Mike McKavett (rspb-images.com)

Tree pipit – showing alarming declines.

The UK headline wild bird indicator 1970–2003



Source: The RSPB, BTO, Defra

Andy Hay (rspb-images.com)

The corn bunting is a farmland bird whose numbers continue to decline.

Work continues on many aspects of indicator development. The indicator for wintering waterbirds is presented on page 18. In England, Defra has commissioned the production of wild bird indicators for the nine English government office regions, based largely on BBS data since 1994. In addition, the England Biodiversity Strategy includes wild bird indicators for each of its five broad themes – farmland, woodland, towns and gardens, water and wetlands, and coasts and seas – which draw on a wide variety of sources of bird data in England. Indicators for Wales (based in the shorter term on BBS trends in Wales and over the longer term on Breeding Bird Atlas data) have been adopted by the Welsh Assembly, and in Scotland work on new wild bird indicators for the terrestrial environment has been commissioned by SNH. Similarly, in Northern Ireland, populations of wild birds have been proposed as headline indicators. Lastly, on a European scale, wild bird indicators have been assembled from data from 18 countries (including the UK) by a consortium of bird conservation organisations and adopted by the European Commission as one of its measures of biodiversity and sustainability.

Visit www.defra.gov.uk/environment/statistics/wildlife/kf/wdkf03.htm for more information on wild bird indicators.

The wood warbler could be red-listed in the future.

Mike Lane (rspb-images.com)

Mike Richards (rspb-images.com)

Scottish crossbills.

Trends in UK Biodiversity Action Plan species

Twenty-six birds are identified as priority species in the UK Biodiversity Action Plan (UK BAP), each the subject of a dedicated action plan which seeks to reverse their declines and protect vulnerable populations. Of these, 25 are breeding species in the UK; the other, the globally threatened **aquatic warbler**, is a visitor during its autumn migration. We still know little about the **Scottish crossbill**, and uncertainty remains over its taxonomic status. However, research intended to estimate the population size started in 2005.

The status of species with UK Biodiversity Action Plans

Species	Long-term trend %	Short-term trend %	Population	Year
Song thrush	-50[1]	14[1]	1,140,000[1]	1988–91
Skylark	-53[1]	-10[1]	1,785,000[1]	1997
Linnet	-48[1]	-14[1]	556,000[1]	1988–91
Reed bunting	-43[1]	4[1]	202,000[1]	1988–91
Bullfinch	-51[1]	-9[1]	166,000[1]	1988–91
Grey partridge	-87[1]	-30[1]	72,500[1]	1988–91
Spotted flycatcher	-84[1]	-35[1]	64,000[1]	1988–91
Tree sparrow	-93[1]	48[1]	68,000[1]	1988–91
Turtle dove	-80[1]	-45[1]	44,000[1]	1988–91
Corn bunting	-89[1]	-24[1]	10,400[1]	1993
Black grouse	Decline[na]	-74[2]	6,500[2]	1995/96
Nightjar	114[2]	32[3]	4,500[2]	2004
Woodlark	704[3]	544[4]	1,552[1]	1997
Capercaillie	Decline[na]	84[5]	1,980[3]	2003/04
Corncrake	14[4]	64[6]	1,059[2,4]	2004
Cirl bunting	118[4]	54[7]	697[1]	2003
Stone-curlew	-15[5]	54[8]	254[1]	2000
Roseate tern	-92[6]	57[6]	85[1]	2004
Common scoter	-29[7]	?	95[1]	1995
Bittern	-24[6]	400[6]	55[2]	2004
Red-necked phalarope	18[6]	-21[6]	33[2]	2004
Marsh warbler	-87[8]	-68[9]	10[1,4]	2004
Wryneck	Decline[na]	Extinct?	0[1]	2004
Red-backed shrike	Decline[na]	Extinct?	0[1]	2004

Long-term trends for common birds come from the Common Bird Census/Breeding Bird Survey, short-term trends from the Breeding Bird Survey. Data for scarce and rare breeding bird surveys come from special surveys and the work of the Rare Breeding Birds Panel. Population estimates for common birds are those published in *Birds in Europe II*; for scarcer species, estimates come from special surveys.

Long-term trends
1 = 1970–2003
2 = 1981–2004
3 = 1970–1997
4 = 1970–2003
5 = 1970–2000
6 = 1970–2004
7 = 1973–1995
8 = 1973–2004

Short-term trends
1 = 1994–2004
2 = 1991/92–1995/96
3 = 1992–2004
4 = 1986–1997
5 = 1998/99–2003/04 – some uncertainty over trend – see page 11
6 = 1997–2004
7 = 1995–2003
8 = 1995–2000
9 = 1995–2004

Breeding units
1 = Breeding pairs
2 = Singing, displaying or breeding males
3 = Individuals
4 = Minimum number

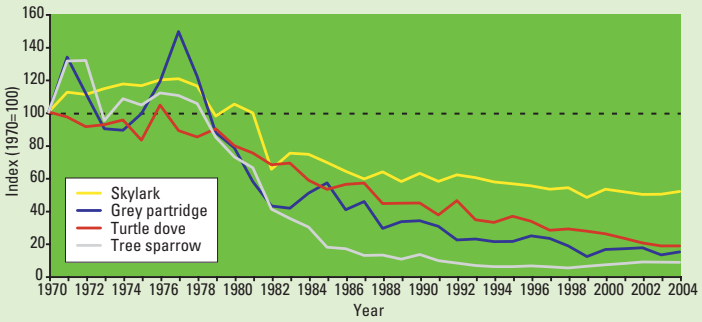
Chris Gomersall (rspb-images.com)

Grey partridges have continued to decline since 2002.

Common and widespread UK BAP species

Not all UK BAP species are great rarities: there are 10 that are still relatively widespread across the UK countryside and for which there are long-term (since 1970) and 10-year trends based on CBC and/or BBS data. Since the mid-1970s, all 10 species have declined dramatically, as shown by the long-term trends in the table (left), but there are indications that the fortunes of some of these species may be improving in the short-term. The 10-year trend for **song thrushes** shows evidence of a small recovery and **tree sparrows** have increased by 48% since 1994. While this increase is encouraging, the figure below illustrates how little effect this upturn has had on the long-term decline, as the abundance of **tree sparrows** had fallen to such a low level by the late 1990s. The recent trend for **reed buntings** is relatively stable, but the other seven species have continued to decline. The largest declines have been shown by **turtle doves**, **spotted flycatchers** and **grey partridges**: these declines have continued since the last update in 2002. Seven of the 10 widespread UK BAP species are farmland specialists, and considerable effort is being made to reverse these declines – in particular through the new Environmental Stewardship Scheme that started in England in 2005. However, **song thrushes**, **spotted flycatchers** and **bullfinches** are predominantly woodland species and the latter two continue to decline.

Trends since 1970 in grey partridges, turtle doves, skylarks and tree sparrows



Scarce and rare UK BAP species

Recent national surveys for **corncrakes**, **capercaillie**, **bitterns** and **nightjars** have all revealed encouraging increases in numbers – see the next two pages for details.

Red-necked phalarope numbers increased slightly in 2004, with up to 33 breeding males at 13 sites. There were slight increases in both the main breeding grounds – the Shetlands and the Western Isles. **Roseate terns** declined from 102 pairs in 2003 to 85 pairs in 2004, although the main UK colony on the RSPB's Coquet Island reserve in Northumberland increased to 73 pairs – 86% of the total population. Losses in Northern Ireland may be related to birds relocating to breeding sites in the Republic of Ireland, in particular to the colony at Rockabill, which grew to 677 pairs.

As many other rare species are not surveyed annually, we do not have recent updates to report. However, a national survey of **black grouse** took place in spring 2005 and we will soon be able to ascertain the current population, and the change since the 1995–96 survey. Despite signs of recovery for this species in Wales and the north Pennines, where there has been targeted and intensive habitat management, there are still serious concerns for **black grouse** in Scotland. **Woodlarks** have expanded into new areas and habitats since the last survey in 1997, but have also showed local declines. The next survey, in 2006, will be important as it will show whether the UK BAP targets, of maintaining a population in the region of 1,500 pairs plus an increase in range, have been met.

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

Bittern

Nightjars exceed target

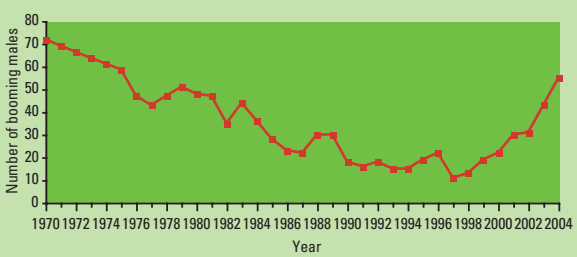
The UK survey in 2004 found about 4,500 churring male **nightjars**, a 32% increase on the 3,400 recorded by the last survey in 1992 and exceeding the UK BAP population size target. There has, however, been no overall increase in range since 1992. The population is evenly split between heathlands and forestry plantations. There were marked regional differences in the fortunes of **nightjars**; much of the increase since 1992 was in south-west England, east as far as Hampshire, and the Welsh population has also prospered. Farther north, the North York Moors' population has doubled since 1992, but the Scottish population has declined by nearly 40%. It is likely that heathland restoration and careful management of both heathland and forestry plantations has been a benefit for **nightjars** through much of the range.

Bittern numbers are booming

In 2004 we saw another dramatic increase in the number of booming male **bitterns** in the UK, with the minimum of 55 recorded being 28% up on the 43 recorded just a year before, and above the UK BAP target of 50 booming males (by 2010). Numbers have risen steadily since a low point of 11 males in 1997 and are now at their highest for 30 years. The range also expanded in 2004, with the number of occupied sites rising from 24 to 29. The increase may be due to several years of successful breeding at the established sites, and the colonisation of new areas due to management work over the last 10 years. Many of these are close to those already occupied; it is likely that birds occupying new sites had fledged nearby. However, there were several new sites well away from the core areas, and it seems likely that continental birds wintering at these sites were encouraged to stay on in the spring by the newly-created habitat.

Despite **bitterns** being recorded booming at 29 sites, females were known to be present at only 18 and at some of these sites nests were not located. Reedbeds along the Suffolk coast remain the stronghold for breeding **bitterns**, but are also the most vulnerable to rising sea levels.

Numbers of booming male bitterns since 1970



Nightjar and chick

Mike Lane (rspb-images.com)

Corncrake

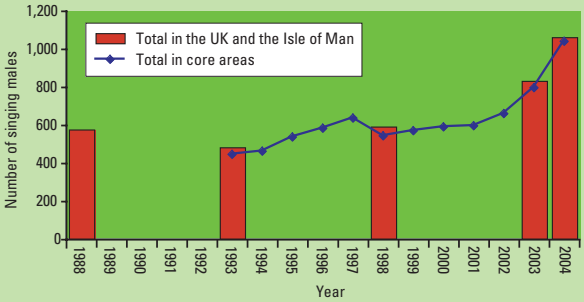
Capercaillie prospects are promising

The **capercaillie** is unusual among our breeding birds in that it is best surveyed in the winter. A survey in the 2003–04 winter produced an estimate of 1,980 individuals, an increase of 84% since the last survey in 1998–99. We have to caution against false optimism, as the degree of uncertainty in the estimates in both 1998–99 and 2003–04 means we cannot be certain of the extent of the recovery, but this does suggest that the dramatic decline found in the 1990s has been halted. The removal or marking of hundreds of miles of deer fences in the range of **capercaillie** has hopefully reduced the level of mortality caused by birds flying into these fences, and habitat management is being targeted to help **capercaillie**. However, poor productivity due to cool springs and wet summers remains a threat.

Corncrakes on the up

As we highlighted in last year's report, a full UK and Isle of Man **corncrake** survey in 2003 located 830 singing males, a pleasing increase since the 589 found in 1998. A survey in 2004 concentrated on just the core regions of the range and found an amazing 1,040 males, well over twice the numbers found in the same area in 1993. The fortunes of the **corncrake** in the UK seem to have changed around 1993 when dedicated conservation action began. For the 15 years prior to 1993, they had decreased by 3.4% per year; since 1993 they have increased by 5.7% annually. Most **corncrakes** occur in areas with land managed under conservation schemes, and it seems that the modification of mowing and grazing regimes to reduce the loss of nests and chicks and the provision of spring cover is paying dividends. However, in areas without such management schemes, there is little sign of recovery (eg Northern Ireland). A reintroduction project started in Cambridgeshire in 2003 and successful breeding occurred there in 2004.

Numbers of singing male corncrakes in the UK and the Isle of Man



Chris Gomersall (rspb-images.com)

Capercaillie

Trends in widespread and common birds

Just fewer than 100 widespread, mainly terrestrial, species are monitored annually by the BBS. With the speedier reporting of BBS results, we have 'skipped' a year of reporting; while last year's report gave results from 2002, this year's update comes from as recently as 2004. In the table below, we present trends from the first 10 years of the scheme (1994–2004) alongside long-term trends based on joint modelling of the historical CBC data from the 1960s to 2000 and the more recent BBS data. For six riverine species, the 10-year trends are from the BBS but long-term population trends are based on the Waterways Bird Survey (WBS).

Population trends for common and widespread species in the UK

Species	Long-term trend % (1970–2003)	10-year trend % (1994–2004)
Tree sparrow	-93[1]	48
Lesser redpoll	-90[1]	-21
Corn bunting	-89[2]	-24
Grey partridge	-87	-30
Willow tit	-85	-65
Spotted flycatcher	-84	-35
Turtle dove	-80	-45
Woodcock	-78[1]	n/a
Lesser spotted woodpecker	-73[1,2]	n/a
Starling	-71[1]	-30
Tree pipit	-69[1]	16
House sparrow	-64[2,7]	-3
Yellow wagtail	-62[2]	-27
Marsh tit	-57	26
Yellowhammer	-54	-22
Skylark	-53	-10
Bullfinch	-51	-9
Song thrush	-50	14
Linnet	-48	-14
Curlew	-46[1]	-34
Lapwing	-45[1]	-13
Willow warbler	-45[1]	0
Cuckoo	-44[1]	-19
Reed bunting	-43	4
Mistle thrush	-37	-2
House martin	-34[1]	31
Meadow pipit	-32[1]	0
Tawny owl	-31[1]	-38
Dunnock	-29	13
Common sandpiper	-28[5]	-15
Kestrel	-26[1]	-19
Grey wagtail	-23[5]	14
Blackbird	-17	17
Red-legged partridge	-16	53
Sedge warbler	-14	15
Sand martin	-14[5]	84
Jay	-10	1
Goldcrest	-9[1,3]	60
Dipper	-7[5]	n/a
Lesser whitethroat	-6	-30
Whitethroat	-5	39
Treecreeper	-5	7
Little owl	-4	-14
Garden warbler	-2	-4
Moorhen	1	25
Kingfisher	4[5]	-11
Swallow	11	22
Redstart	18[1,2]	30
Greenfinch	26	37
Blue tit	28	17
Chaffinch	32	9
Chiffchaff	38	76
Robin	45	15
Coal tit	46[1]	14
Tufted duck	48[5]	27
Goldfinch	49	28
Long-tailed tit	57[3]	12
Pied wagtail	58	21
Great tit	63	35
Pheasant	67[1,4]	39
Wren	68[3]	14
Crow	78	11
Jackdaw	89	19
Sparrowhawk	97[1,5]	-21
Woodpigeon	99[2]	12
Stock dove	100[1,4]	30
Magpie	101	-1
Coot	106[1]	77
Green woodpecker	108	34
Mallard	111	23
Shelduck	117[1]	-38
Reed warbler	123[1,2]	48

Species	Long-term trend % (1970–2003)	10-year trend % (1994–2004)
Blackcap	124	54
Nuthatch	137	52
Little grebe	169[1]	24
Mute swan	175[1]	0
Great spotted woodpecker	231	108
Collared dove	376[1,6]	41
Buzzard	511[1,2,4]	53
Wood warbler	n/a	-52
Siskin	n/a	-40
Pied flycatcher	n/a	-35
Swift	n/a	-22
Whinchat	n/a	-15
Red grouse	n/a	-4
Rook	n/a	3
Feral pigeon	n/a	7
Wheatear	n/a	7
Great crested grebe	n/a	38
Grasshopper warbler	n/a	59
Raven	n/a	91
Stonechat	n/a	135

Data are derived from Common Bird Census (CBC) plots from 1966 up to 2000 and the Breeding Bird Survey (BBS) from 1994 to 2004, except for long-term trends for **tufted ducks**, **sand martins**, **grey wagtails**, **dippers**, **kingfishers** and **common sandpipers**, which come from the Waterways Bird Survey (WBS 1974–2004). 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 2003 – the year prior to the last available data, except for six species covered by the WBS (trend from 1975) 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 the CBC prior to 1994 and solely on the BBS from 1994 to 2003. Further caveats related to unrepresentative habitat coverage, small sample sizes or fluctuating populations are listed below. Ten-year 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 2004.

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 2003
6 Long-term trend 1972 to 2003
7 Long-term trend 1977 to 2003

Long-term trends

The long-term measures of population change reported here for 1970–2004 differ only slightly from those for 1970–2002 presented in the last *The state of the UK's birds* report, with 18 showing declines of 50% or more. Eight species show declines of over 75%, with the **tree sparrow** the species showing the largest decline. Except for **tree sparrows**, **lesser redpolls** (for which previously-reported CBC trends were not necessarily representative of the entire UK) and **woodcocks** (for which no new information is available) – the status of the remaining seven species has worsened since 2002, as revealed by BBS trends.


Bob Glover (rspb-images.com)

Yellow wagtails declined by 62% from 1970–2003

A further 10 species show long-term declines of over 50%, including **yellow wagtail**, a species that has declined steeply since the start of the BBS and for which future red-listing is looking a possibility. **Lesser spotted woodpeckers** are also continuing to disappear from the UK. Two red-listed species – the **linnet** and **reed bunting** – have dropped out of the group of species that have halved in numbers, reflecting their relative stability as measured by the BBS since 1994.

Not all the news on our common breeding birds is bad, of course. **Collared doves**, **mute swans**, **great spotted woodpeckers** and **buzzards** have shown massive increases since 1970, the latter recovering from a population low caused by persecution, myxomatosis in their rabbit prey and pesticide contamination. Other species that have at least doubled in numbers since 1970 include the **blackcap**, **reed warbler**, **little grebe**, **magpie**, **coot**, **stock dove**, **green woodpecker**, **mallard**, **nuthatch** and **shelduck** (although the latter is showing a decline recently).

Short-term trends

The BBS was introduced in 1994 as a replacement for the CBC, in order to increase the number of sites surveyed and overcome the problem of unrepresentative habitat coverage. The 10-year trends listed in the table are for all the species for which BBS methods work and that occurred at over 40 BBS survey sites

Steve Knell (rspb-images.com)

Could what happens to spotted flycatchers in Africa in winter partly account for their declines?

Trends among long-distance migrants

Results from BBS in the 2003 field season revealed drops in numbers of many of the UK breeding species which undertake long distance migrations to African wintering grounds: 13 species (the **turtle dove**, **cuckoo**, **sand martin**, **redstart**, **wheatear**, **blackcap**, **lesser whitethroat**, **whitethroat**, **reed warbler**, **sedge warbler**, **grasshopper warbler**, **wood warbler** and **pied flycatcher**) had dropped by 5% or more since 2002. However, the latest BBS data reveals that numbers of most of these species had bounced back in 2004. Many long-distance migrants, such as **swifts**, the three hirundines, both flycatchers, **tree pipits**, **redstarts**, **wheatears**, and all of the common migratory warblers increased in numbers by more than 5% between 2003 and 2004, with only **yellow wagtails** continuing to decline. Even large inter-annual changes, such as those for some species between 2002, 2003 and 2004, do not necessarily reflect the underlying population trends. However, six migratory species (the **swift**, **lesser whitethroat**, **wood warbler**, **yellow wagtail**, **pied flycatcher** and **spotted flycatcher**) have declined by at least 20% since 1994 and declines in long distance migrants are also evident in other countries across Europe. It could be that conditions in Africa influence the trends both between two successive breeding seasons and over the longer term. We are beginning to look more closely at whether factors on the wintering grounds are responsible for species' declines at least in part.

from 1994 to 2004. Both woodland and farmland birds feature prominently among those showing the most alarming declines in the last 10 years. The recently red-listed **willow tit** has shown the most dramatic decline (-65%), followed closely by the **wood warbler** (-52%), with future red-listing looking possible for this species. Other woodland species such as **spotted flycatchers**, **pied flycatchers**, **siskins** and **tawny owls** have also shown considerable declines. Among our farmland birds, the 10-year trends for **turtle doves**, **grey partridges**, **corn buntings**, **yellow wagtails** and **starlings** indicate that the declines first detected in the 1970s continue. However, farmland birds (**tree sparrows**) and woodland birds (**great spotted woodpeckers** and **goldcrests**) feature among those species that have increased the most since 1994 too, demonstrating that the factors affecting birds in these habitats are complex and varied. Likewise, although some birds of urban habitats such as **swifts** and **house sparrows** continue to decline, another, the **collared dove**, has continued to increase over the last 10 years.

For more details on the BBS, visit www.bto.org/bbs/index.htm

Survey round-up

The results are now available from the 2002 **mute swan** survey, which estimated a population of 31,700 birds in the UK. This included 6,150 breeding pairs and 19,400 non-breeding individuals, which is a 23% increase since 1990. This increase is likely to be attributable largely to increased survival as a consequence of a run of mild winters in the 1990s and a reduced incidence of lead poisoning following the phasing out of lead in fishing tackle and in gunshot used over wetland habitats.

In 2003, a special survey of herons was carried out to boost the coverage achieved by the annual Heronries Census, to estimate the number of colonies missed by the annual survey and to help refine the population estimates. In all, 10,320 **grey heron** nests were counted in 782 heronries in the UK. Work is currently underway to correct the figures to account for heronries that were not detected during the survey, mainly in Scotland. The surveyors also counted 160 nests of **little egrets**: remarkable given that the first proved breeding was only in 1996. Breeding has now been recorded as far north as Lancashire. Other rare breeders on the northern edge of their ranges in the UK are also faring well: **Cetti's warblers** reached a new record total of 851 singing males in 2002, **firecrests** reached up to 112 pairs in 2002 and a pair of **bee-eaters** bred in County Durham in the same year.

Although the UK uplands hold important breeding concentrations of several bird species of conservation concern, our knowledge of the population trends of many widespread upland breeding birds in the UK is poor. However, between 2000 and 2002 the breeding bird populations in nine upland areas that had been previously surveyed between 1980 and 1991 were re-surveyed. The scope of the study was increased by including data on repeat surveys for other upland areas.

There was evidence of widespread population declines in three species of breeding wading bird – the **lapwing**, **dunlin** and **curlew**. Among the passerines, some species declined, including the **twite** and **ring ouzel**, while others showed strong gains, including the **stonechat** and **raven**. However, the trends obtained for individual species were often variable between study areas. There was a general pattern towards a greater percentage of declining species, especially waders, in the more southern study areas (see the graph below). The factors behind these population trends are likely to be complex, but may well involve changes in land use, grazing levels, predation and perhaps climate change.

There was a national **hen harrier** survey in 2004 to check on the status of one of the UK's most persecuted birds of prey. We are delighted to report that the UK population has increased to 749 pairs, up by 44% since 1998. There have been particularly notable gains in Northern Ireland, Wales and western Scotland, and a small increase to 57 pairs on the Isle of Man. However, it is depressing to note that despite good fortunes elsewhere, and an abundance of suitable habitat, the English **hen harrier** population has shrunk to just 10 pairs. Monitoring work has confirmed that illegal persecution continues to be the main factor limiting **hen harrier** breeding numbers in England. Likewise, numbers of **hen harriers** have declined in southern Scotland from 117 in 1998 to 64 in 2004. None were found on grouse moors in the Lammermuirs, Moorfoots or the Pentlands.

Tony Hamblin (rspb-images.com)

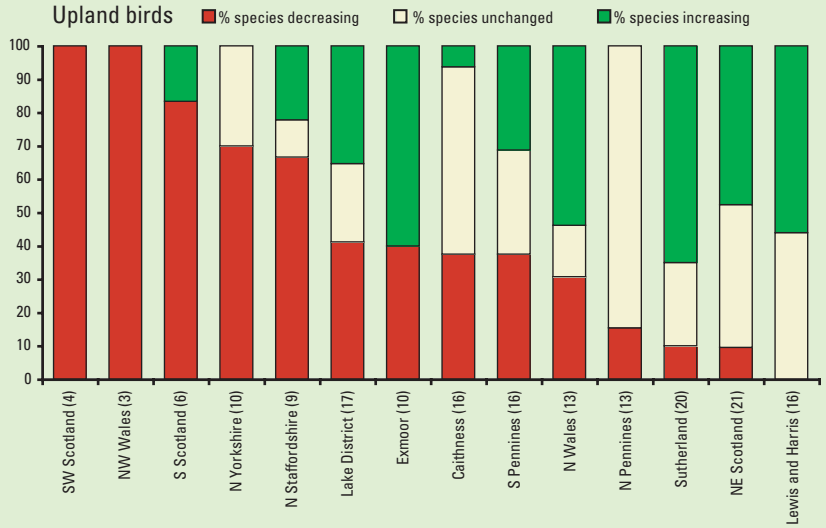
The ring ouzel, a member of the thrush family that breeds in upland areas, has declined in numbers.

Following near extinction in the UK, **red kites** are recovering rapidly in Wales and reintroduction programmes in England and Scotland have also resulted in rapid increases. The populations established by reintroduction schemes are believed to now be self-sustaining, except for the Northern Kites project in Gateshead where releases only began in 2004. There were more than 800 pairs in the UK in 2004, and more than 1,000 chicks fledged.

Monitoring of the breeding success of **barn owls** has shown a downward trend in the average brood size, from 3.43 chicks in 1987 to 3.16 in 2003. This follows a long period of increase, presumably as part of the species' recovery from the detrimental effects of organochlorine pesticides in the 1950s and 60s. The new downward trend is a result of a recent run of poor years, and might indicate that breeding season food supplies for **barn owls** are becoming less abundant.

Results of the first year (2004) of the sixth national Winter Gull Roost Survey, which targeted key inland and coastal sites, show a complex pattern of changes. Numbers of **black-headed gulls** declined throughout Great Britain between 1993 and 2004, as did **great black-backed gulls** in England – but not elsewhere. **Herring gulls** declined in Scotland and Wales over this period, but were stable in England, whereas **lesser black-backed gulls** increased in England and Scotland, but declined in Wales. **Common gull** numbers appear to be stable, since 1993, in England and Scotland, but have declined in Wales and increased in Northern Ireland.

Percentage of species decreasing, stable and increasing for each upland study area

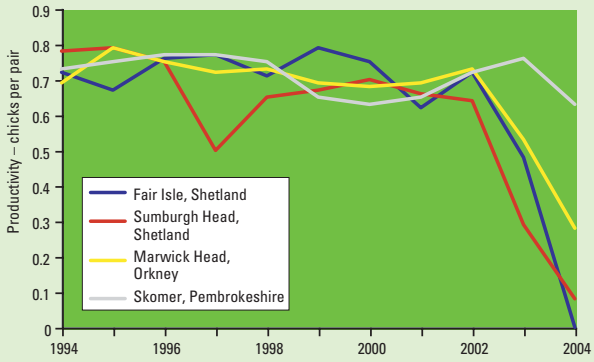


The bars show the percentage of upland bird species showing significant decreases, no change or significant increases in each study area. The number of species in each study area for which trends were available is given in brackets.

Andy Hay (rspb-images.com)

Fulmar productivity has fallen in south-east Scotland.

Productivity of guillemots at three sites in Scotland and one in Wales since 1994



Seabirds

Trends in UK seabird productivity

As most seabirds are long-lived with low annual recruitment into breeding populations, trends in breeding success can take a long time to have a noticeable effect on population size. By monitoring productivity, we can detect potential problems for our seabird species earlier than we could do by simply counting breeding adults at colonies. The productivity of selected seabird species has been monitored at key sites since 1986 as part of the annual Seabird Monitoring Programme. The trends in productivity of **fulmars**, **guillemots** and **kittiwakes** are presented here.

Productivity of **fulmars** in north-west Scotland and Shetland has fluctuated around 0.45 chicks per pair since 1986, with little evidence of a change over this period. However, in south-east Scotland, productivity fell from similar levels to approximately 0.25 chicks per pair in 1998 and has remained at this low level subsequently. **Fulmars** have enormous foraging ranges and a broad diet (that includes zooplankton, sandeels and offal discarded from fishing vessels), which allows them to switch prey and foraging sites when conditions dictate. Therefore, their productivity is relatively stable compared to other species, although the data from south-east Scotland show that their productivity can be suppressed for a number of years.

The productivity of **guillemots** has been remarkably consistent across sites and with time, at 0.7–0.8 chicks per pair until 2003 and 2004. Productivity on Skomer in south-west Wales remained at this level during these two years, but that on Orkney and Shetland declined markedly. Productivity in 2004 at these sites was the worst ever recorded for **guillemots**, with almost complete breeding failure. Breeding performance was also poor for **guillemots** farther south along the North Sea coast, at sites such as Isle of May and Bempton Cliffs. This was associated with extremely low availability of sandeels in the North Sea during the 2004 breeding season. **Guillemots** can usually compensate for poor food availability by spending more time collecting food and extending their foraging range, but in 2004 their capacity to do so was exceeded, resulting in chicks dying of starvation.

Kittiwake productivity has been markedly more variable across sites and years than for **fulmars** and **guillemots**. This reflects the fact that **kittiwakes** are surface feeders with limited capacity to extend the time they devote to foraging, resulting in their being more susceptible to changes in food availability during the breeding season. **Kittiwakes** in Shetland experienced years of poor productivity (0.2 chicks per pair or less) from 1988 to 1990, in 1998 and from 2001 to 2004. This was due to poor availability of sandeels, which caused chicks to starve, exacerbated at some sites by predation by **great skuas** that switch to seabird prey when sandeels are scarce. Immigration of larval sandeels from Orkney is an important determinant of sandeel abundance in Shetland waters. In some years, the currents responsible for these movements fail, resulting in poor recruitment of sandeels into Shetland waters. On Orkney, **kittiwake** productivity has been consistently high, at above 0.8 chicks per pair since 1986, but complete breeding failure occurred at study sites in 2004. This is particularly concerning as it suggests the sandeel stock in Orkney may also be experiencing problems, which has obvious implications for the future of the stock in Shetland. Other colonies in the North Sea also had poor breeding seasons in 2004, although some in north-east Scotland experienced good productivity, demonstrating the importance of local conditions.

The reasons for the poor availability of sandeels through much of the North Sea in 2004 remain a matter for speculation. It is unlikely to be due to industrial fisheries, since these have not been operating along the east Scottish coast since 2000, have been at a very low level in Shetland since 1990 and have never occurred in Orkney. Environmental factors are more likely to be playing a role. Climate change may be implicated, as winter sea-surface temperatures have risen in recent years, and there has been an increased intrusion of warmer Atlantic water into the North Sea. Associated with this, there has been a change in species composition and phenology of the plankton community and reduced numbers of fish species such as sandeels and cod. Although this has major implications for seabird productivity and population trends, the links are currently poorly understood.

Find more details on seabird monitoring at www.jncc.gov.uk/seabirds

Andy Hay (rspb-images.com)

Guillemots have experienced mixed fortunes in recent breeding seasons.

Wintering waterbirds

An indicator for wintering waterbirds

Due to its relatively mild winter climate and extensive network of coastal and inland wetland habitats, the UK is one of the most important countries in Europe for wintering waterbirds. Migratory swans, geese, ducks and wading birds arrive here from as far away as Arctic Canada and central Siberia to take advantage of these favourable conditions. In some cases, entire populations, such as the Svalbard **barnacle goose**, spend the winter months in the UK. The approach used to produce the Government's wild bird indicator has been applied to the UK's wintering waterbirds to produce an indicator for 33 species or populations. The graph below shows trends in overall numbers using the most recently available data, although further research is needed on the accuracy of some species trends. The indicator starts with a value of 100 in winter 1974–75 and if, for example, it rises to a value of 200 then, on average, wintering waterbird populations will have doubled since 1974–75.

The indicator suggests that there was a steady increase in the abundance of wintering waterbirds from the mid-1970s to the mid to late 1990s, with a doubling in just over 20 years. The establishment of a protected sites network, a reduction in hunting pressure (in the UK and elsewhere) and better feeding opportunities provided by agricultural intensification all contributed to these increases. In recent years, however, the indicator highlights a decline of around 14% in the overall abundance of wildfowl and wading birds. This has come about because of an increase in the number of species or populations showing declines – from nine over the long-term period to 19 in the short-term.

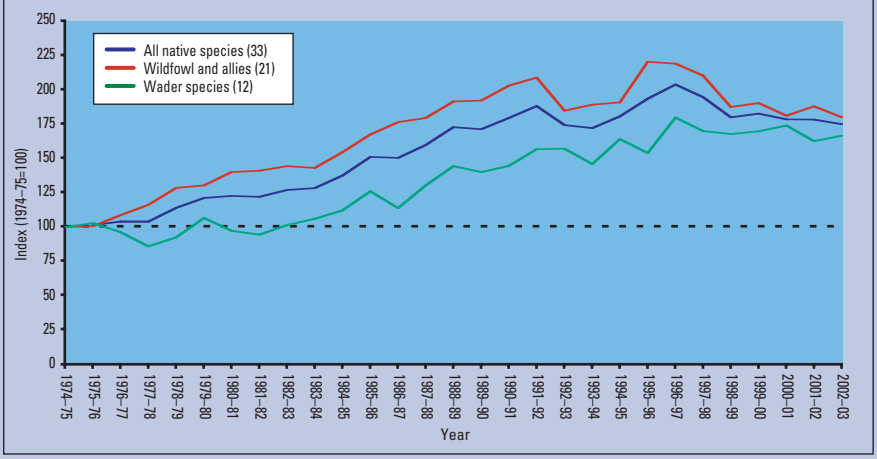
Numbers of barnacle geese are up.

The factors driving these declines are not fully understood and are likely to vary between populations. For some, such as the Icelandic **greylag goose**, it is probable that a genuine decrease in overall abundance has occurred, but for many populations there has been a marked shift in the winter distribution in western Europe that has resulted in a smaller proportion of the population visiting the UK. Climate change is implicated, and we discuss this further on page 24. This phenomenon, known as 'short-stopping', is relatively straightforward to measure in species with localised distributions, such as many geese, but is much harder to measure for more widespread species, such as ducks. Thus, while it is certain that short-stopping is a major factor causing the decrease in numbers of European **white-fronted geese** in the UK, it is not possible to be so confident that this is the reason for the declines shown by species such as **pintails** and **pochards**.

It is therefore important that the influence of short-stopping on local observed trends of waterbird abundance is better understood so we can take the most appropriate conservation action.

Greylag goose.

The wintering waterbirds indicator



Trends in wintering waterbirds

Species/population	Long-term trend %	10-year trend %
European white-fronted goose	-78	-50
Dunlin	-36	-23
Mallard	-32	-23
Ringed plover	-32	-26
Turnstone	-17	-30
Pochard	-13	-10
Redshank	-2	-1
Bewick's swan	-1	-75
Curlew	5	-17
Bar-tailed godwit	5	-2
Sanderling	7	21
Oystercatcher	8	-15
Shelduck	8	-59
Knot	11	-3
Icelandic greylag goose	23	-23
Tufted duck	36	15
Goosander	43	-20
Wigeon	53	17
Shoveler	69	-5
Pintail	80	-23
Goldeneye	86	-14
Mute swan	96	30
Whooper swan	135	22
Greenland barnacle goose	141	58
Teal	148	6
Grey plover	185	-4
Dark-bellied brent goose	206	-30
Black-tailed godwit	211	74
Red-breasted merganser	225	11
Pink-footed goose	241	16
Svalbard barnacle goose	543	93
Canada goose	568	36
Svalbard light-bellied brent goose	974	87
Gadwall	>1,000	82
Re-established greylag goose	>1,000	111
Ruddy duck	>1,000	47
Avocet	>1,000	354
Canadian light-bellied brent goose	n/a	8
Great crested grebe	n/a	17
Cormorant	n/a	19
Greenland white-fronted goose	n/a	29
Coot	n/a	30
Little grebe	n/a	72

Trend figures are derived from the Wetland Bird Survey and National Goose 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 2000–01, '01–'02 and '02–'03 for wildfowl, and between the three-year mean for the winters 1974–75, '75–'76 and '76–'77 and the winters 2000–01, '01–'02 and '02–'03 for wading birds. Ten-year trends are the percentage changes between the three-year means for the winters 1990–91, '91–'92 and '92–'93 and the winters 2000–01, '01–'02 and '02–'03. 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 10-year trends are shown.

Mark Hamblin (rspb-images.com)

Pintail numbers are down in the short-term.

Nigel Blake (rspb-images.com)

Purple sandpipers are present in important numbers in the UK.

Wading birds

In winter, the UK supports over 25% of the 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.

These indices highlight the worsening UK status of several of these species. **Ringed plovers**, **dunlins** and **turnstones** have all declined over both the long-term and 10-year periods. While **dunlin** abundance does appear to fluctuate more than these other species, with evidence of greater long-term stability, **ringed plovers** and **turnstones** have shown steady declines over the past 15–20 years. Index values also suggest that the **grey plover** has declined steadily over the past six years, taking it to its lowest level of abundance since the mid-1980s.

Most other wading birds have shown generally stable population trends over both long-term and 10-year periods. These include **knots**, **grey plovers** and **redshanks**. In recent years, there has also been concern over the status of the **bar-tailed godwit**, but the latest trends suggest a small increase over the short-term and a greater long-term increase as well. Overall, its status appears to have been generally stable during the past 25–30 years.

The two most successful species of wintering wading bird currently are the **avocet**, whose numbers and distribution continue to increase rapidly in line with the UK breeding population, and the **black-tailed godwit**, which is now showing signs of stabilising after a sustained period of growth which was due to increases in the Icelandic breeding population that winters in the UK.

Wildfowl and allies

The overall health of wildfowl populations in the UK has deteriorated in recent years, with two additional populations this year showing downward trends over the previous 10 years, bringing the total number to 11.

European **white-fronted geese** continue to show the most serious rate of long-term decline but, as reported previously, this does not reflect the overall trend of this population at a flyway scale. In contrast, Greenland **white-fronted geese** have experienced a decline in their entire population in recent years, although this is not yet reflected in the 10-year trend in the UK. This decrease is linked to a succession of poor breeding years, although the reasons for this low productivity have not yet been fully explained. Most other geese are faring well, although both the Icelandic **greylag goose** and the dark-bellied **brent goose** remain in short-term decline. While these populations remain more abundant than they were 30–40 years ago, these fluctuations highlight the need for continued vigilance and an understanding of the factors influencing levels of abundance.

Andy Hay (rspb-images.com)

Cormorant

Of increasing concern is the recent rapid decline in the number of **Bewick's swans**. Numbers in the past five winters have been considerably lower than in any year since the mid-1970s, and a slight decline is evident over the long-term trend period. While short-stopping is affecting this trend to some degree, evidence suggests that there has also been a decline in overall abundance for this population. The results of the most recent international swan census, which took place in January 2005, are therefore eagerly awaited, as they will provide a better understanding of the relative effect of these two factors on the trends seen in the UK.

Of the other wildfowl populations showing declines, many are ducks that arrive predominantly from breeding grounds to the east. It is thus possible that the observed declines of **pintails**, **mallards**, **pochards** and **shovelers** are also at least in part caused by short-stopping.

Shelducks and **goosanders** have also shown worrying trends over the last 10 years, although the number of **shelducks** appears to have stabilised after a rapid decline in the mid-1990s. Furthermore, this has followed an equally rapid increase during the late 1980s, and numbers are now similar to those in the late 1960s and early 1970s. **Goosanders** have also shown a similar pattern, with a rapid but short-lived increase during the mid-1990s.

For more details on the Wetland Bird Survey, visit www.bto.org/survey/webs

Better monitoring of cormorants

The popular perception of **cormorants** is of a rapidly increasing species facing increasing conflict with inland fisheries. However, the evidence for recent increases in **cormorant** numbers throughout Europe largely originates from censuses of breeding colonies, and comparatively little is known about winter abundance and distribution. Therefore, the first of what is planned to become a regular international survey took place in January 2003 and involved counts of night roosts throughout Europe and North Africa.

In the UK, 74 roosts not previously recorded were identified during the course of this survey. The majority (67%) were located inland and seemed to be a result of infilling, rather than expansion of the wintering range. The number of **cormorants** recorded in England was 9,866, with 1,193 in Scotland and 490 in Wales, giving a total count of 11,549. This represents 71% of the peak count recorded by WeBS in winter 2000–01 and 50% of the estimated population size for Great Britain. Although coverage was incomplete, the total number of birds counted suggests that a full national survey of roost sites would result in a higher count than currently obtained through WeBS.

This indicates that dusk roost counts are an effective method of monitoring **cormorant** abundance. Improved long-term monitoring is essential to ensure that the impacts of site-based control measures do not compromise the conservation status of this species.

Andy Hay (rspb-images.com)

The linnet is now a species of European conservation concern.

Further afield

The European conservation status of the UK's birds

Information collected by birdwatchers from across Europe has recently been published in *Birds in Europe: population estimates, trends and conservation status* (BiE2) by BirdLife International. It is the second review of wild birds in Europe, from Greenland to the Urals, Svalbard to the Canaries. Building on the first assessment 10 years previously, BiE2 identifies priority species of European conservation concern (SPECs) so that conservation action can be taken to improve their status. Considerably more data were available than for the previous assessment, reflecting the encouraging growth in population monitoring and bird conservation organisations throughout the continent.

Of the 524 species assessed, 226 (43%) have an unfavourable conservation status in Europe, an increase on the 195 species (38% of the 511 species assessed) in 1994. Forty-five species have been added to the SPEC list and only 14 removed.

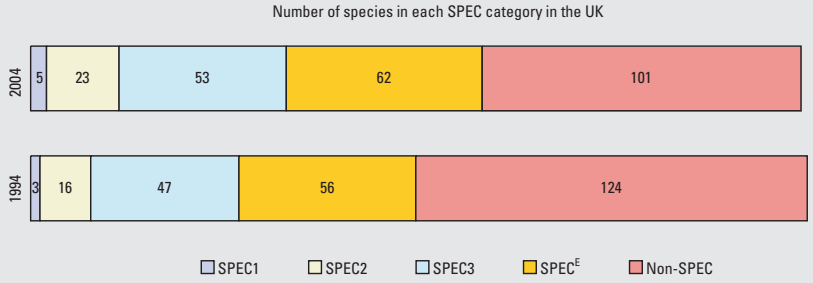
The analysis shows that birds in Europe continue to be threatened by widespread environmental change, and many populations are now in deeper trouble than a decade ago. Since 1990, birds such as **lapwings**, **snipe**, **marsh tits**, **starlings**, **house sparrows**, **tree sparrows**, **linnets** and **corn buntings** have declined at a similar rate across Europe to that witnessed in the UK the previous decade. By contrast, some species subject to special protection or recovery programmes, such as **gannets**, **peregrines** and **avocets**, have a more favourable status.

In the UK

Of the 246 species assessed that occur regularly in the UK, 81 (33%) have an unfavourable conservation status in Europe, and a further 62 (25%) have a favourable conservation status but their world population is concentrated in Europe, making them potentially vulnerable to wide-scale environmental change. Three species of global conservation concern (SPEC1) breed in the UK – **white-tailed eagles**, **corncrakes** and the endemic **Scottish crossbill** – and a further two occur on migration: **sooty shearwaters** and **aquatic warblers**.

Those species that occur in the UK whose SPEC status has changed are listed in the table right. The SPEC assessments from 1994 were integrated into the latest review of the *Population status of the UK's birds: birds of conservation concern,* which generated the red, amber and green lists used in UK bird conservation. The new SPEC assessments could lead to some changes in the listings. The only potential new UK red-listing resulting from BiE2 is the **sooty shearwater**, which is globally near-threatened (and thus automatically SPEC1). Breeding on the sub-Antarctic islands in the Southern Ocean, many **sooty shearwaters** feed off south-west England, in late summer prior to their return passage.

SPEC status of birds in the UK in 1994 and 2004



SPEC1: European species of global concern (ie threatened or near-threatened on the IUCN Red List).
SPEC2: Species concentrated in Europe, with an unfavourable conservation status.
SPEC3: Species not concentrated in Europe, with an unfavourable conservation status.
SPEC^{E}: Species concentrated in Europe, with a favourable conservation status.
Non-SPEC: Species not SPEC-listed, not of priority conservation concern.

Chris Gomersall (rspb-images.com)

White-tailed eagles are doing well in the UK, but are of increased conservation concern in Europe.

Peter Ryan

Ringeye Valley on Tristan da Cunha – the main breeding site of the spectacled petrel.

Four other UK green-listed species that have declined across Europe could qualify as amber-listed: **tufted ducks**, **common sandpipers**, **wheatears** and **crested tits**. Two species currently UK amber-listed, **peregrines** and **stonechats**, could move to the green list, as they were included solely on their old SPEC status. Encouragingly, the recovery of the **peregrine** since the 1970s has been reflected across most of Europe.

As birds are good indicators of environmental change, the ongoing decline of so many species sends clear signals about the state of European biodiversity and the health of the wider environment. Given the scale of the problem, action must be taken immediately – not only to stop the continuing loss of Europe's once rich and abundant bird populations, but also to show serious commitment to halting biodiversity loss by 2010.

Visit www.birdlife.org to find out more.

UK Overseas Territories

At the end of 2004, censuses of the two critically endangered bird species that occur in the UK Overseas Territories were completed. Both gave remarkably encouraging results. During November, a census of **spectacled petrels** was conducted at the only known breeding site for the species – Inaccessible Island in the Tristan da Cunha group. This large petrel was last censused in 1999, when a population of 3,000 to 4,000 pairs was estimated to be nesting in peat bogs on the island's high plateau, with 5,900 burrows counted. Its critically endangered status is due to this relatively small population, combined with estimates of over 700 birds killed per year in longline fisheries off the coast of Brazil: there was no information on population trends prior to the 2004 census.

To considerable surprise, the population appears very likely to have increased – possibly substantially – over the last five years. Nearly 9,000 burrows were counted in 2004, a 50% increase over the previous count. Accounting for uncounted burrows and incomplete burrow occupancy, the breeding population is likely to be in the order of 9,500 pairs.

The 1999 and 2004 censuses, despite deploying identical count protocols and the same observers, are not directly comparable: the first was completed late in incubation, whereas the second was conducted in early incubation – a more favourable time for ongoing monitoring. It is therefore frustratingly difficult to quantify population change precisely. Nevertheless, the raw estimate of 'burrows counted' shows a strong increase, and is subject to relatively little bias, although it is in part accounted for by the discovery of some new nesting areas. The population seems likely to have increased by around 40% in five years.

UK bird species with changed SPEC status at the latest revision

Worsened status			Improved status
SPEC 1	SPEC 2	SPEC 3	Non-SPEC
Sooty shearwater	Pochard	Slavonian grebe	Peregrine
White-tailed eagle	Red kite	Shoveler	Avocet
	Crane	Tufted duck	Bar-tailed godwit
	Lapwing	Snipe	Stonechat
	Ruff	Spotted redshank	
	Curlew	Common sandpiper	
	Wood warbler	Hoopoe	
	Crested tit	House martin	
	Linnet	Wheatear	
	Corn bunting	Marsh tit	
		Starling	
		House sparrow	
		Tree sparrow	

The table shows all species occurring regularly in the UK that received a changed SPEC status in the BiE2 assessment in 2004, compared with BiE1 in 1994. Category definitions are as for the figure left.
The European status of all other species occurring regularly in the UK remains unchanged.


Chris Bowden (RSPB)

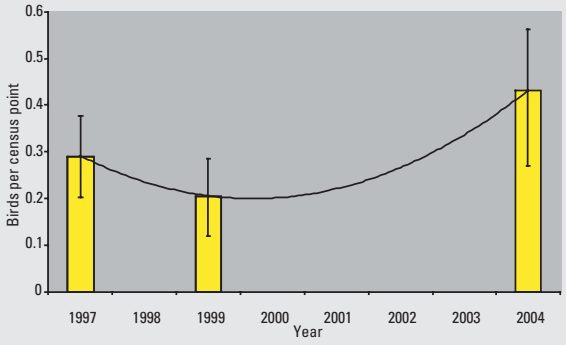
This is a remarkable rate of increase for any petrel species, but particularly extraordinary for a species thought to be suffering high mortality at sea. Further investigations will allow us to understand the apparent change. It is possible that an undiscovered breeding population exists or that there is considerable between-year variation in the numbers choosing to breed. In addition, a new assessment suggests that the breeding population may have been in long-term recovery since the extermination of pigs from the island in the early 20th century. Nevertheless, with a small population confined to a single island and a known vulnerability to longlines, the **spectacled petrel** remains at risk.

In December, a census of the **Montserrat oriole** (above) was conducted in the Centre Hills of the volcanic island of Montserrat. Point-counts were conducted at 149 locations in the Centre Hills, in an exact repeat of censuses conducted in 1997 and 1999. Results are highly encouraging. After a period of rapid decline during 1997–2001, the oriole appears to be bouncing back, with numbers substantially higher than in the two previous censuses.

The high 2004 counts are partly a reflection of a good 2004 breeding season, with nearly two fledglings per pair produced, but more frequent monitoring of a subset of points supports the suggestion of a more general recovery since the low point three years ago. Research has shown that, apart from the volcanic eruption, predator numbers (rats and **pearly-eyed thrashers**) and rainfall are key influences on the oriole population. Treading a fine line between the volcanic eruptions, dry-season drought, tropical storms and periodic rat plagues, the outlook for the oriole appears substantially brighter than it did three years ago.

It is good news that quantitative censuses were successfully carried out for these two key species in rapid succession. It is even better news that both species may even warrant downlisting from their critically endangered status if the present favourable trends continue.

Population trends of the Montserrat oriole



Climate change

The impact on birds in the UK

Mean annual global temperatures have increased by 0.6˚C since 1900, making the 1990s the warmest decade in the century. The Intergovernmental Panel on Climate Change (IPCC), in its third assessment report (2002), stated that 'most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations' and that there was 'new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities'. Climatic models for the next 75 years predict that winters in the UK will become warmer and wetter, while summers will become hotter and drier. The frequency of extreme events, such as storms, droughts and floods, is also predicted to increase and sea levels will continue to rise.

A number of responses of birds to climate change in the UK have been well documented. They include changes in breeding success, possibly including those for **guillemots** and **kittiwakes** (see page 16). Phenological changes are widely apparent – egg-laying dates of a wide range of UK breeding species have advanced seasonally since the 1970s, the time that summer migrants arrive has become earlier and short-distance migrants may have delayed their departure to the wintering grounds. For some species, migration patterns are changing as well as timing. An increasing number of short-distance (intra-European) migrants from continental breeding populations, such as **blackcaps**, are now spending the winter in the UK rather than moving to their more traditional wintering grounds in the Mediterranean Basin.

Changes in bird distributions as a result of climate change

Climatic warming is likely to lead to northward shifts in breeding species' distributions and these may lead to the colonisation of the UK by new species from the continent. If the northward range expansion of European species such as **black kites**, **cattle egrets** and **great reed warblers** continues, there is a strong possibility that they will colonise the UK during the present century. A 1˚C rise in mean temperatures may bring Kent and Sussex within the breeding range of **zitting cisticolas**.

More worryingly, climate warming may also lead to the loss of species restricted to breeding either at high altitudes, such as **ptarmigans** and **snow buntings**, or in northern Scotland, such as **whooper swans**, **Arctic skuas** and **greenshanks**. The **Scottish crossbill**, the UK's only endemic bird, has been identified as being potentially at risk of extinction owing to climate warming. By the end of the 21st century, the climate 'envelope' occupied by **Scottish crossbills** might only be found in Iceland and so they will either have to move (which seems highly unlikely), adapt to new conditions in Scotland or face extinction.

The species likely to be at the most immediate risk of extinction in the UK are those that breed in the moss and lichen-dominated Arctic-alpine habitat found in the Cairngorms and a few other high-altitude areas in northern Scotland, such as **snow buntings** and **dotterels**. As temperatures increase, so plant species from lower altitudes will begin to move up-slope and encroach on this already scarce habitat. As there is no higher altitude ground to move to, the total area of Arctic-alpine habitat in the UK will start to decrease and by 2050 it may have disappeared altogether.

Climate change and waterbirds

The UK is particularly important internationally for its populations of wintering waterbirds. Since the mid-1980s, the distributions of seven out of nine common species of wading bird that spend the winter on estuaries have shifted from the warmer west to the colder east in the UK. These birds represent a high proportion of various populations from breeding grounds as far apart as Greenland in the west to high-Arctic Russia in the east. During this period, the average minimum winter temperatures across the UK have increased by about 1.5°C, with the temperatures on the east coast during recent winters being similar to those of the west coast during the mid-1980s. On average, estuaries on the east and south coasts of the UK have muddier sediments than those on the west coast and so support a higher biomass of the invertebrate prey of wading birds. It is suggested that with global warming, the advantage gained by waders wintering in the milder west to avoid mortality from cold weather is diminished. Consequently, more choose to spend the winter in the east and thus benefit from better foraging opportunities (short-stopping). It is the smaller species – **ringed plovers**, **sanderlings**, **knots** and **dunlins** – that have changed their distribution most. This is as expected, as smaller species have a higher relative surface area and therefore are most affected by the cold.

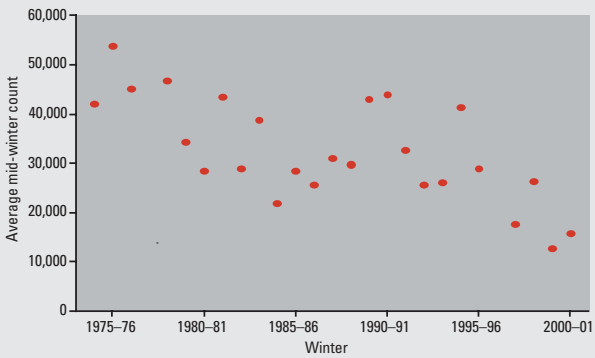
Between 1984/85 and 1997/98, the distributions of eight out of nine species of wading bird commonly wintering along the open coasts of the UK also changed. These eight species moved at least in part either eastwards or northwards. These changes in distribution broadly coincide with a shift towards the species' respective breeding grounds and are correlated with the local winter weather over the period: increasingly mild temperatures and changes in rainfall and wind speed. Based on the scenarios for the UK's climate in 2020 and 2080, it is predicted that the distributions of the waders will move farther away from the west. The UK presently holds high proportions of the flyway populations of **ringed plovers**, **sanderlings**, **purple sandpipers** and **turnstones**, but these species are all expected to show major continuing declines in the UK. Research is needed to determine the mechanisms that are leading to the observed changes in distributions; whether, for example, it could be due to changes in the number of juveniles arriving on wintering sites.

Already changing waterbird distributions are affecting the numbers of individuals found on Special Protection Areas (SPAs) and other protected sites designated as being important for the species. The Severn Estuary SPA, on the west coast of the UK, used to hold 4% of the international population of **dunlins**, but there has been a considerable decline in recent years and it is feasible that numbers of **dunlins** could dip below the 'internationally important' threshold in the future. However, the Severn will remain important for the assemblage of wintering species it holds, including **dunlins**, and it and other west coast sites will continue to serve as vital refuges for birds from more easterly wintering grounds in the event of prolonged cold periods. If, as is likely, bird distributions continue to change, this needs to be reflected in how we implement conservation to protect these species.


Chris Gomersall (rspb-images.com)

More dunlins are spending the winter on the east coast now that it is warmer.

Average winter numbers of dunlins on the Severn Estuary SPA




Chris Gomersall (rspb-images.com)

The UK is important for ringed plovers.

What you can do to help

How surveys help to conserve the UK's birds

Information provided by surveys forms the cornerstone for conservation action for birds in the UK. Survey results can alert conservation organisations to species that are experiencing problems and so should be the subject of further investigation and perhaps dedicated conservation action. Subsequent surveys also allow the success of any actions taken to be assessed. For example, the recent drive to conserve farmland birds through agri-environment schemes would not have happened without the data supplied by the CBC which highlighted the steep declines in a number of species – this prompted research into the needs of these species, which has been used to design agri-environment measures. The CBC's successor, BBS, is being used to assess whether the Government's targets for conserving farmland birds are met.

Survey information also plays a vital role in safeguarding important areas for birds. Bird survey data underpins the designation of sites of national and international significance as SSSIs and SPAs, and is central to their subsequent management, allowing the impacts of proposed activities or developments to be assessed. For example, the UK's world importance for non-breeding waterbirds is heavily dependent upon the state of a network of coastal and inland wetland sites. Data from the Wetland Bird Survey has been instrumental in, firstly, identifying these sites, and, subsequently, ensuring that they are not adversely affected by changes in management.

In short, the information collected through surveys provides an essential element of the evidence/knowledge-based approach to bird conservation followed in the UK. A massive contribution to these surveys comes from thousands of volunteers, giving up time to contribute to schemes such as the BBS and WeBS. We encourage all readers to read the section below and consider whether there is any way they could contribute to the monitoring of birds in the UK. Anyone interested or wishing to take part in these surveys should contact the relevant organisations at the addresses shown opposite.

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

The **Wetland Bird Survey** 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, WWT, the RSPB and JNCC (on behalf of EN, SNH, CCW and EHS) [contact BTO].

Goose data are collected by the Wildfowl & Wetlands Trust (WWT) **Goose Monitoring Programme**, jointly funded by WWT and JNCC [contact WWT].

The **Seabird Monitoring Programme** has been monitoring the numbers and breeding success of seabirds in the UK since 1986. The SMP is co-ordinated by the JNCC in partnership with EN, SNH, CCW, EHS, the RSPB, the Seabird Group and Shetland Oil Terminal Advisory Group [contact JNCC].

The national **Winter Gull Roost Survey** (WinGS), funded by JNCC, EN, SNH, CCW, EHS and Northumbrian Water, is running from 2003–04 to 2005–06 [contact BTO].

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** began in 2000, monitoring populations, through standardised recording, at a set of **barn owl** sites representative of the UK distribution [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 400,000 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, currently more than 15,000. The data collected provides valuable information on changes in bird use of rural and urban habitats [contact BTO].

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

The first year of the two-year **Scarce Woodland Bird Survey** is now underway, with volunteers registering more than 1,300 sites throughout the UK. This survey aims to collect information on the occurrence and habitat of scarce woodland species such as **tree pipits**, **lesser spotted woodpeckers** and **hawfinches** [contact BTO]. Another upcoming survey is of **tawny owls** in autumn 2005 [contact BTO].

An advance programme of UK-wide surveys of other 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] are among the species being surveyed in 2006.

For bibliographic purposes this report should be referred to as: Eaton MA, Noble DG, Hearn RD, Grice PV, Gregory RD, Wotton S, Ratcliffe N, Hilton GM, Rehfisch MM, Crick HQP and Hughes J. 2005. *The state of the UK's birds 2004*. BTO, RSPB, WWT, CCW, EN, EHS and SNH, Sandy, Bedfordshire.

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

Acknowledgements

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:

Anglian Water; BirdLife International; BirdWatch Ireland; *British Birds*; British Trust for Ornithology; Broads Authority; Cambridge University; Centre for Ecology and Hydrology; CJ WildBird Foods; Countryside Council for Wales (CCW); Department for Environment; Food and Rural Affairs (Defra); Department for International Development (DFID); Durham University; English Nature (EN); Environment Agency; Environment and Heritage Service (Northern Ireland) (EHS); Environment Wales; Essex and Suffolk Water; European Bird Census Council; European Union Life Programme; Forestry Commission; Forest Enterprise; Forest and Environment Division; Montserrat; Foreign & Commonwealth Office; Game Conservancy Trust; Greenland White-fronted Goose Study; Hawk and Owl Trust; Irish Brent Goose Research Group; Joint Nature Conservation Committee (JNCC); Lake District National Park Authority; Manx Bird Atlas Project; Ministry of Defence; Montserrat National Trust; National Trust; National Trust for Scotland; Norfolk Wildlife Trust; Northumbrian Water; Raptor Study Groups; Rare Breeding Birds Panel; the Royal Society for the Protection of Birds (RSPB); Scottish Chough Study Group; Scottish Crofter's Union; Scottish Executive Rural Affairs Department; Scottish Natural Heritage (SNH); Scottish Ornithologists' Club; Scottish Raptor Study Groups; Seabird Group; Sheepdrove Trust; Shetland Oil Terminal Environmental Advisory Group; Suffolk Wildlife Trust; Thames Water; Tristan da Cunha Natural Resources Department; University of Cape Town; Wales Raptor Study Group; Welsh Kite Trust; the Wildfowl & Wetlands Trust; the Wildlife Trusts; Woodland Trust.

In particular, we thank the landowners and their agents, tenants and employees who have allowed surveyors to visit their land to count birds. Finally, we would like to thank all the companies and other organisations that have sponsored or taken part in work on priority bird species in support of the UK Biodiversity Action Plan.

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BTO Scotland, School of Biological and Environmental Sciences, Cottrell Building, University of Stirling, Stirling FK9 4LA
Tel: 01786 466560
www.bto.org Registered charity no 216652

The WWT:
WWT, Slimbridge, Gloucestershire GL2 7BT
Tel: 0870 334 4000 Fax: 01453 891901
www.wwt.org.uk Registered charity no 1030884

The RSPB:
UK Headquarters, The Lodge, Sandy, Bedfordshire SG19 2DL
Tel: 01767 680551 Fax: 01767 692365

Northern Ireland Headquarters, Belvoir Park Forest, Belfast BT8 7QT
Tel: 028 9049 1547 Fax: 028 9049 1669

Scotland Headquarters, Dunedin House, 25 Ravelston Terrace, Edinburgh EH4 3TP
Tel: 0131 311 6500 Fax: 0131 311 6569

Wales Headquarters, 2nd Floor, Sutherland House, Castlebridge, Cowbridge Road East, Cardiff CF11 9AB
Tel: 029 2035 3000 Fax: 029 2035 3017
www.rspb.org.uk Registered charity no 207076

Countryside Council for Wales:
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Tel: 0845 130 6229 Fax: 01248 355782
www.ccw.gov.uk

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Northminster House, Peterborough PE1 1UA
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www.english-nature.org.uk

Environment and Heritage Service (Northern Ireland):
Commonwealth House, 35 Castle Street, Belfast BT1 1GU
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www.ehsni.gov.uk

Scottish Natural Heritage:
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Oystercatcher

John Harding (BTO)

Carrion crow

David Gray (BTO)

Willow tit

Chris Gomersall (rspb-images.com)

Shelduck

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THE STATE OF THE UK'S **BIRDS** 2004

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 a charity dedicated to conserve wetlands and their biodiversity worldwide. WWT has organised national waterbird monitoring schemes for over 50 years.

The Countryside Council for Wales is the statutory adviser to the Government on sustaining natural beauty, wildlife and the opportunity for outdoor enjoyment in rural Wales and its inshore waters.

English Nature is the statutory adviser to the Government on the conservation of wildlife and geology in England. By 2007, 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 precious 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: bittern by George Reszeter (Ardea.com)

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