The state of the UK's birds 2012

RSPB

BTO
Looking out for birds

WWT

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Countryside Council for Wales

NATURAL ENGLAND

An Agency within the Department of the Environment
www.doeni.gov.uk
NIEA Northern Ireland Environment Agency

Scottish Natural Heritage
All of nature for all of Scotland

JNCC
Joint Nature Conservation Committee

It may seem unusual to feature a southern rockhopper penguin on the cover of a report about UK birds, but not when you consider that they are just one of many globally-threatened species found in the UK's Overseas Territories, which we have an international responsibility to care for.

Throughout this report, species are colour-coded according to their conservation status as published in *Birds of Conservation Concern 3* in 2009. The 52 species identified as being of the greatest conservation concern are red-listed, the 126 species of moderate concern are amber-listed and the 68 species of least concern are green-listed.

In a few cases where particular races are discussed, the colour-coding from a separate race level assessment is used.

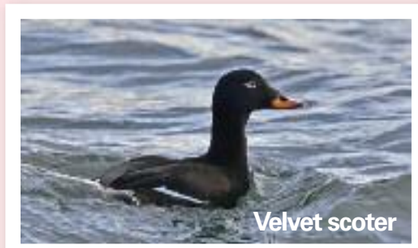
CONTENTS

Long-tailed ducks, pictured here on their Arctic breeding grounds, are declining rapidly in their European wintering quarters, raising concern for their global status.

Long-tailed ducks by Steve Knell (rspb-images.com)

Headlines

The state of the UK's birds (SUKB) 2012 reports on the latest results from bird monitoring in the UK and its Overseas Territories. Some of the headlines for this issue include...



John Anderson

Velvet scoter

Two of the UK's seaducks, velvet scoters and long-tailed ducks, are now considered threatened with extinction globally.

Grahame Madge (rspb-images.com)

Black-browed albatross

The UK's Overseas Territories (UKOTs) hold some of the world's most vulnerable birds. They face threats including fishery by-catch, oil-spills, airport expansion and volcanic eruptions.

SUKB 2012 **provides an update.**

Garden birdwatch activities and the engagement of the public in citizen science are proving very important for **collecting data and gathering support for conservation**. We report on this and the role of the **BTO's Garden BirdWatch in monitoring disease in birds.**

Andy Hay (rspb-images.com)

Volunteers

SUKB 2012 also celebrates the vital role of volunteers in bird monitoring. Their huge contribution underpins bird conservation in the UK.

- Two and a half thousand volunteers count birds in 1 km squares for the Breeding Bird Survey (BBS) each year. This allows us to track the trends in over 100 species, including the steep declines in **willow tits, turtle doves** and **wood warblers** – all down by over 60% in just 15 years.

- Volunteers collect data that allow us to produce wild bird indicators, so revealing the broader picture of trends for the UK's birds. In 2010, the farmland bird indicator fell to its lowest ever level, to just half of what it was in 1970.

- Volunteers have been counting nesting **grey herons** for the last 85 years – the longest-running monitoring of any bird species in the world!

- The Rare Breeding Birds Panel (RBBP) compiles records submitted mainly by volunteer birdwatchers through the county bird recorders network. The addition of species such as the **lesser spotted woodpecker** and **Arctic skua** to the Panel's list reflects growing concern for some woodland birds and seabirds.

- By counting 2,200 wetland sites at monthly intervals for the Wetland Bird Survey (WeBS), volunteers help to track populations of wintering waterbirds. These data have revealed the recent and worrying declines in many species, after decades of increases.

Introduction

This is the 13th *The state of the UK's birds* report. Published in 2012, it includes results from annual, periodic and one-off surveys and studies from as recently as 2011. It draws on many sources of information to give an up-to-date overview of the health of bird populations in the UK and its Overseas Territories (UKOTs).

Andy Hay (rspb-images.com)

RSPB staff and volunteers recording bird survey results

SUKB 2012 is produced by a coalition of three non-governmental organisations (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 statutory nature conservation agencies – the Countryside Council for Wales (CCW), Natural England (NE), Northern Ireland Environment Agency (NIEA), Scottish Natural Heritage (SNH) and the Joint Nature Conservation Committee (JNCC).

This report should be referenced as:

Eaton MA, Cuthbert R, Dunn E, Grice PV, Hall C, Hayhow DB, Hearn RD, Holt CA, Knipe A, Marchant JH, Mavor R, Moran NJ, Mukhida F, Musgrove AJ, Noble DG, Oppel S, Risely K, Stroud DA, Toms M & Wotton S 2012. *The state of the UK's birds 2012*. RSPB, BTO, WWT, CCW, NE, NIEA, SNH and JNCC. Sandy, Bedfordshire.

The importance of volunteers

Bird monitoring in the UK is led by NGOs in collaboration with the government, but is only possible because of the dedication of thousands of volunteers. Without them, the evidence base for UK bird conservation would be very much poorer.

Each annual *SUKB* report is also only possible because of the dedication of these skilled volunteer ornithologists. Their efforts inform most of the surveys and monitoring schemes reported in the following pages. The partnership between volunteers and the organisations who collate, analyse and present the data they collect, ensures that we maximise the benefits for conservation from bird monitoring activities. It's a working model much envied across the rest of the world.

Working together

Bird observations are useful at a local level, but the real benefits come when bird recording efforts are co-ordinated and combined. For example, the Breeding Bird Survey (BBS) and Wetland Bird Survey (WeBS) involve volunteer counters, co-ordinated by teams of local organisers, who themselves are co-ordinated by BTO staff. BTO staff are steered by groups of experts from governmental and non-governmental organisations. The co-ordination process includes using standardised methods; selecting random survey sites across the UK; creating online data management tools; analysing combined observations; interpreting the findings; and distributing the results to a wide range of users.

Volunteers help compile long-term trends

This co-ordination and consistency of approach, over many decades, means we can provide robust long-term population trends and assess results of local monitoring in a regional and national context.

A prime example of how volunteers help compile long-term trend data for birds is in the preparation of conservation priority listings. This takes place every six years or so in the UK, and most recently in 2009. Most of the individual species assessments that make up the reviews are based on data collected by volunteers.

Volunteer-based schemes like the BBS are therefore the basis on which we red-list widespread but rapidly declining species, such as **skylark, turtle dove** and **willow tit.** These data also inform the wild bird indicators (see page 6) used by Government to assess the success of some environmental policies.

Volunteer data underpins conservation delivery

The data collected for surveys like WeBS also underpin the designation of many protected sites in the UK and, in addition, they help to inform management of the site and assess the effects of proposed activities or developments. Data collected by volunteers for the BBS have recently been used to assess how well English agri-environment schemes are delivering for farmland birds (see page 13). This is informing efforts to increase the effectiveness of such schemes.

Andy Hay (rspb-images.com)

Special thanks to the volunteers who step up and devote their time and efforts to the surveys described in this report

Adding value

Whilst volunteers are the cornerstone of UK bird monitoring, the value of the data collected is magnified through the partnership of national organisations who co-ordinate and fund the monitoring schemes and surveys, and who disseminate the results to a wide range of stakeholders – the same organisations who produce SUKB. This partnership ensures decisions that affect birds and their habitats at local, national and international levels are based upon the best possible evidence.

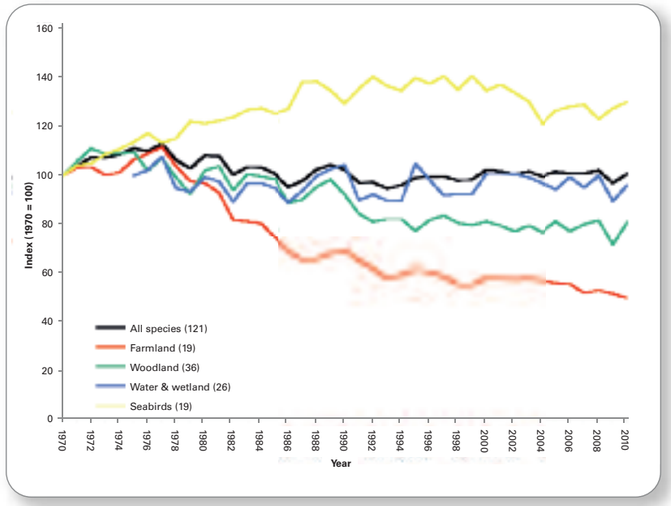
For more information about bird monitoring surveys in the UK, see page 36.

UK wild bird indicator

The UK wild bird indicator is an important high-level measure of the state of biodiversity in the UK, as well as being used to measure the nation's progress towards sustainable development goals. It shows broad trends in bird populations within four habitats (in SUKB we also show a combined "all species" line), but it should be remembered that within these lines there can be a huge variation in the trends for individual species. These individual species trends, which feed into the indicators, can be found on pages 9–10 (for common breeding birds, including those in the farmland, woodland and wetland indicators) and page 16 (for seabirds).

It is the long-term trends that really matter, but it is still pleasing to report that four of the indicators for breeding birds showed an increase between 2009 and 2010. The exception is the further decline of the farmland bird indicator, which worryingly fell to its lowest-ever level in 2010. It is now less than half of its 1970 starting value.

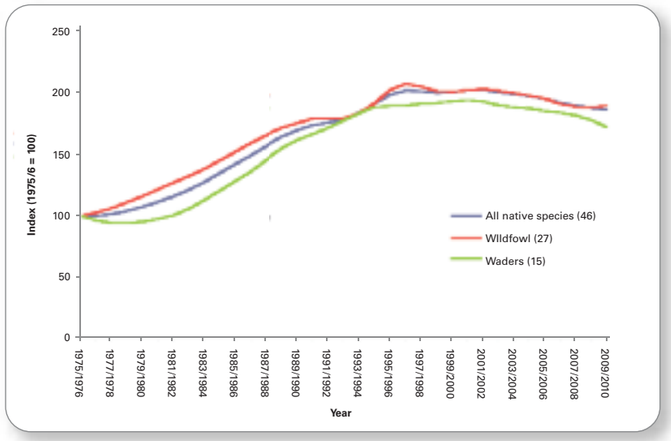
All the indicators start from a value of 100. If an index rises to 200 then, on average, populations of species in the indicator have doubled. If it falls to 50 then they have halved.



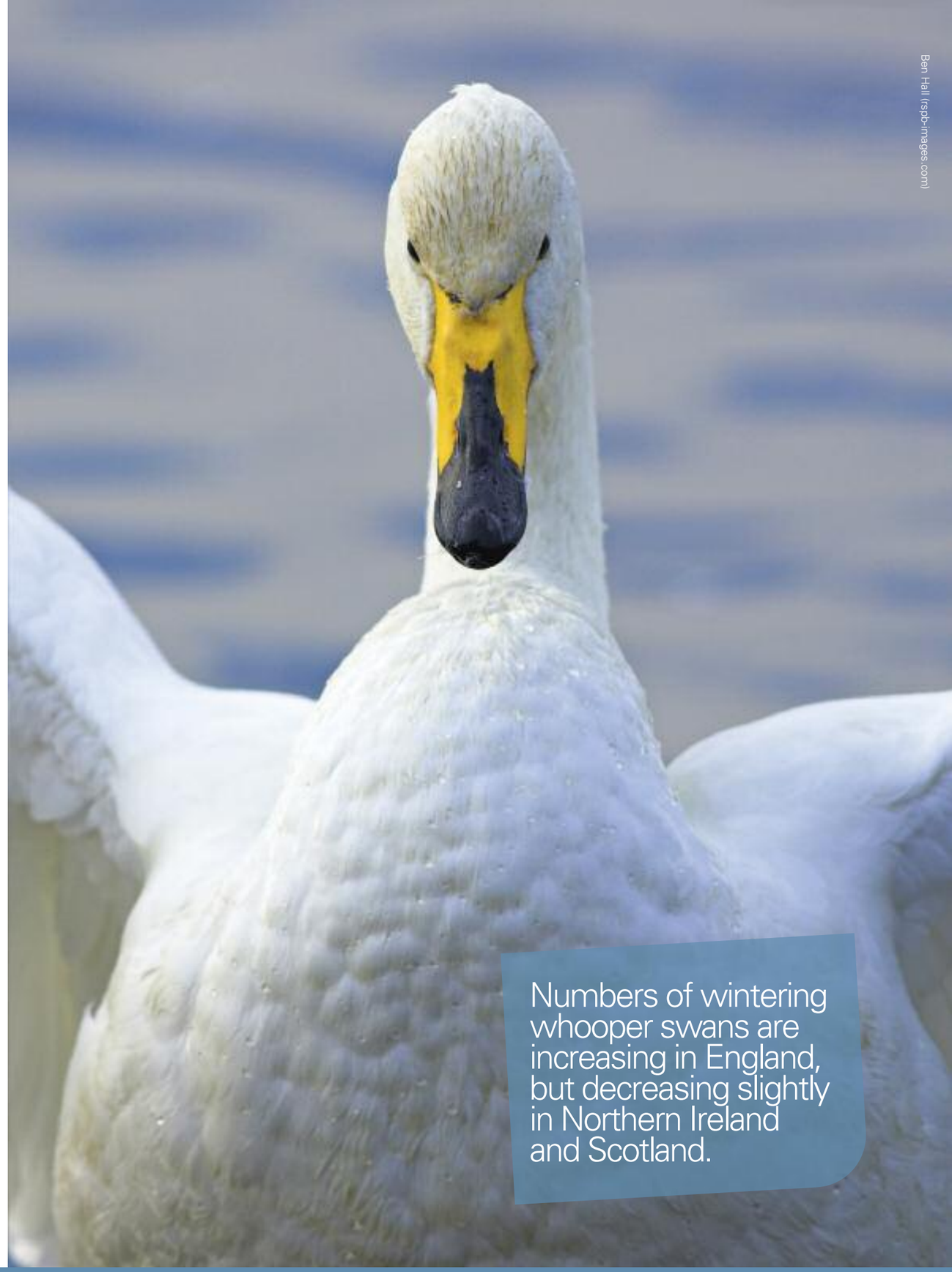
Wild bird indicator

UK wintering waterbird indicator

In the winter, the UK holds internationally important populations of swans, geese, ducks and wading birds. The wintering waterbird indicator shows how numbers of these birds rose steadily from the mid 1970s to the late 1990s, and then stabilised before entering a shallow decline. See pages 22–28 for trends in individual species and more discussion of the indicator.



Wintering waterbird indicator



Ben Hall (rspb-images.com)

Numbers of wintering whooper swans are increasing in England, but decreasing slightly in Northern Ireland and Scotland.

An update on priority species

Since the first SUKB report in 1999, we've reported on the fortunes of a special group of birds selected as priority species in the UK's Biodiversity Action Plan (BAP). These are the species receiving particular emphasis in UK conservation planning and delivery.

The first list of priority species in 1995 featured 26 birds among the 577 species of flora and fauna identified. Because of the conservation resources focused on them, a number of these 26 birds have shown significant recovery since 1995 – including **bitterns**, **corncrakes** and **nightjars**. In a review in SUKB 2010, we concluded that "...being identified as a priority for action in the UK BAP may be a contributory factor in securing positive outcomes for bird species".

In 2007, the priority species list was reviewed. It doubled in length, to 1,150 species, which included an increased number of birds: 59 races or species were included. This was the first time that a priority list of this kind had considered subspecies of birds as well as species. This increase in the number of birds on the BAP list was driven by a new array of declining species, and because none of the original BAP bird species had recovered enough to be removed from the list.

Since the 2007 review, a shift in responsibility for conservation delivery from the UK Government to the devolved administrations means that a UK-wide priority listing is less influential. As such, individual country administrations now have their own priority lists which, for the most part, are derived from the 2007 BAP list. For example, the Schedule 41 list of priority species for England includes all the UK BAP birds that occur in England plus **hen harrier**, due to the high level of concern for that species in England. The notion of "BAP species" is no longer so relevant, but "priority species" are.

SUKB will continue to pay close attention to the fortunes of the UK's most threatened and vulnerable species.

Conservation needed on a larger scale

In previous SUKB reports, we have reported on the latest surveys and status of rare and localised species, such as the **capercaillie** survey featured in SUKB 2011. However, of the 59 birds on the 2007 BAP list, 26 might be considered as widespread, and even common in some areas. This is a clear demonstration of how bird – and indeed all biodiversity – conservation in the UK has to tackle issues on a larger scale, looking at the bigger picture and not just focusing on local results. It needs to work to improve conditions across many farms, woods and wetlands. Indeed, action may need to spread even further in the future, since eight of the 10 species showing the greatest declines since the start of the BBS (see pages 9–10) are long-distance migrants. This means possible causes on migration routes or sub-Saharan wintering grounds need to be examined and considered too.

Andy Hay (rspb-images.com)

Trends in common breeding birds in the UK

This table shows the estimated long-term (1970-2010) and short-term (1995-2010) trends for common breeding birds in the UK. These are based on the results of four annual bird surveys; the Common Birds Census (CBC) from 1970 to 2000, and its replacement, the Breeding Bird Survey (BBS), from 1994 onwards; the Waterways Bird Survey (WBS) from 1974 to 2007; and its replacement, the Waterways Breeding Bird Survey (WBBS), from 1998 onwards.

All short-term trends are based on the smoothed BBS estimates of change in the UK between 1995 and 2010, except for seven riverine species (**little grebe**, **tufted duck**, **grey wagtail**, **sand martin**, **dipper**, **kingfisher** and **common sandpiper**) for which a similar measure is calculated by combining the WBS and WBBS data, and **grey heron,** which is based on the Heronries Census (see page 14).

For most species, the long-term trends are based on the smoothed estimates of change between 1970 and 2010 in a combined CBC-BBS analysis. However, for species with evidence of marked differences in the population monitored by the BBS and its predecessor the CBC (coded *), we use the CBC results until 1994, and solely the BBS from 1994 to 2010. Hence, long-term trends for these species may not be representative of the UK population prior to 1994, due to the more limited geographical and habitat coverage of the CBC (mainly farmland and woodland sites in England).

(continues on next page)

Species	Long-term trend % (1970–2010)	Short-term trend % (1995-2010)	UK population estimate (pairs, 2009)	
Mute swan	180	23	6,400	
Greylag goose	na	168	46,000	
Canada goose	na	73	57,000	
Shelduck	134*	2	15,000	
Mallard	99	20	100,000	
Tufted duck	94	46	18,000	
Red grouse	na	5	160,000	
Red-legged partridge	-14	27	82,000	
Grey partridge	-91	-55	43,000	
Pheasant	77*	35	2,300,000	
Grey heron	12	-3	13,000	
Little grebe	45	4	5,800	
Great crested grebe	na	9	5,300	
Red kite	na	572	1,600	
Sparrowhawk	100	-7	35,000	
Buzzard	439*	75	68,000	
Kestrel	-44*	-32	46,000	
Hobby	na	16	2,800	
Peregrine	na	-26	1,500	
Moorhen	-17	1	270,000	
Coot	74	32	31,000	
Oystercatcher	na	-14	110,000	
Golden plover	na	-13	67,000	
Lapwing	-56	-32	140,000	
Snipe	na	23	80,000	
Curlew	-61*	-44	68,000	
Common sandpiper	-41	-7	15,000	
Redshank	na	-39	25,000	
Feral pigeon	na	-13	550,000	
Stock dove	92*	9	260,000	
Woodpigeon	130	37	5,400,000	
Collared dove	333	23	990,000	
Turtle dove	-93	-80	14,000	
Ring-necked parakeet	na	1,012	8,600	
Cuckoo	-62*	-49	16,000	
Barn owl	na	390	4,000	
Little owl	-52	-40	5,700	
Tawny owl	-35	-23	50,000	
Swift	na	-38	87,000	
Kingfisher	-16	-33	5,100	
Green woodpecker	115	40	52,000	
Great spotted woodpecker	368	141	140,000	
Lesser spotted woodpecker	-71	na	1,500	
Magpie	97	-2	600,000	
Jay	5	15	170,000	
Jackdaw	131	44	1,400,000	
Rook	na	-16	1,100,000	
Carrion crow	89*	10	1,000,000	
Hooded crow	na	4	260,000	
Raven	na	0	7,400	

COMMON AND WIDESPREAD SPECIES

Long-term trends for the seven riverine species are based on smoothed WBS-WBBS estimates of change between 1975 and 2010. Although all data, including the most recent from 2011, are included in these analyses, we report measures of change from 1970 or 1995 to the penultimate year – 2010, to avoid unreliable effects due to smoothing at the endpoints of time series. Apart from the seven riverine species, long-term trends cover shorter time periods due to the later availability of reliable data, as follows: 1972–2010 for **collared doves**, 1975–2010 for **sparrowhawks** and 1977–2010 for **house sparrows**.

Population estimates, for the year 2009, are from the Avian Population Estimates Panel – see page 19 for more information.

Species	Long-term trend % (1970–2010)	Short-term trend % (1995-2010)	UK population estimate (2009)	
Goldcrest	-33*	-15	610,000	
Blue tit	28	7	3,600,000	
Great tit	93	46	2,600,000	
Coal tit	36	17	760,000	
Willow tit	-93	-79	3,400	
Marsh tit	-68	-22	41,000	
Skylark	-58*	-20	1,500,000	
Sand martin	40	60	110,000	
Swallow	23*	35	860,000	
House martin	-44*	-2	510,000	
Long-tailed tit	115*	27	340,000	
Wood warbler	na	-65	6,500	
Chiffchaff	67	70	1,200,000	
Willow warbler	-34*	3	2,400,000	
Blackcap	222	102	1,200,000	
Garden warbler	8	-9	170,000	
Lesser whitethroat	23	8	74,000	
Whitethroat	15	43	1,100,000	
Grasshopper warbler	na	59	16,000	
Sedge warbler	-8	14	290,000	
Reed warbler	145	36	130,000	
Nuthatch	232	80	220,000	
Treecreeper	-18	-1	200,000	
Wren	24	-2	8,600,000	
Starling	-80*	-50	1,900,000	
Dipper	-30	-36	12,000	
Blackbird	-15	23	5,100,000	
Song thrush	-54	13	1,200,000	
Mistle thrush	-57	-28	170,000	
Spotted flycatcher	-88	-50	36,000	
Robin	36	10	6,700,000	
Nightingale	na	-52	6,700	
Pied flycatcher	na	-50	18,000	
Redstart	42	19	100,000	
Whinchat	na	-57	47,000	
Stonechat	na	19	59,000	
Wheatear	na	3	240,000	
Dunnock	-30	22	2,500,000	
House sparrow	-64*	-2	5,300,000	
Tree sparrow	-91*	96	200,000	
Yellow wagtail	-72	-50	15,000	
Grey wagtail	-49	-15	38,000	
Pied wagtail	23	-11	470,000	
Tree pipit	-73*	-5	88,000	
Meadow pipit	-46*	-23	2,000,000	
Chaffinch	37	12	6,200,000	
Greenfinch	-10	-9	1,700,000	
Goldfinch	124*	91	1,200,000	
Siskin	na	55	420,000	
Linnet	-55*	-21	430,000	
Lesser redpoll	-86*	32	220,000	
Crossbill	na	68	40,000	
Bullfinch	-41	6	220,000	
Yellowhammer	-55	-15	710,000	
Reed bunting	-36	24	250,000	
Corn bunting	-90	-34	11,000	

For more details about the BBS, including *The Breeding Bird Survey 2011* report: **www.bto.org/bbs**

The yellow wagtail is one of a number of long-distance migrants with populations in steep decline.

Andy Hay (rspb-images.com)

The people behind the numbers

The trends reported in the tables on pages 9–10 provide an essential foundation for bird conservation in the UK. The actions and decisions of policymakers, scientists, conservationists and campaigners rely on these figures. It's worth remembering that this information exists largely due to the efforts of thousands of volunteer birdwatchers.

Andy Hay (rspb-images.com)

Data collected by volunteers shows that the provision of wild bird cover crops are boosting farmland bird numbers.

Farmer examining wild bird cover.

In the case of the BBS, around 2,500 volunteers spend two mornings a year making standardised bird counts in a one kilometre square. These sites are randomly located in order to provide a representative sample of habitats. Analysis of these simple counts reveals the underlying trends in bird populations that are so important for informing conservation action.

BBS surveyors need to have a good working knowledge of their local birds in order to carry out the counts, but otherwise no special skills are required. Anyone can volunteer to survey a BBS square, and participants range from university students to birdwatchers with 60 years' experience.

The predecessor to the BBS, the Common Birds Census (CBC), began 50 years ago, intensively surveying 250–300 farmland and woodland plots every year. The arrival of the BBS represented a change towards volunteer participation, in order to make common bird monitoring more representative. When the BBS started in 1994, around 1,500 1 km squares were surveyed each year. That number has now increased to over 3,000 due to effective promotion of volunteer bird surveys to a wider audience.

However, potential surveyors are not evenly distributed across the UK; for example, far more people live in southern England than in northern parts of Scotland. Therefore, in 2011, over 2,500 BBS squares were surveyed in England, compared to 355 in Scotland, 221 in Wales and 110 in Northern Ireland. While some of this difference in coverage can be accounted for with sophisticated analyses of the data, it still means that there is more information available for birds in England than for other parts of the UK, since larger amounts of data produce more reliable population trends.

Interestingly, if the number of squares surveyed are considered relative to the number of volunteers doing the monitoring, rather than land area, these figures do show that people in less populated areas are actually more likely to take part in bird surveys. There are nearly twice as many BBS squares surveyed per head of population in Scotland and Wales than in England, with Northern Ireland falling in between. This is real testament to the willingness and dedication of volunteers to fill in gaps in species monitoring – particularly as they often have to travel considerable distances to survey randomly-located BBS squares, in remote parts of Scotland or Wales.

David Tipling

BTO volunteers

Despite the overall lower levels of coverage in Scotland, Wales and Northern Ireland, enough BBS squares are covered to produce country-specific trends for many species, as well as the UK figures given here. Country trends are important for informing policy in devolved administrations, for example, via country-specific wild bird indicators.

Country and regional trends can also reveal interesting differences in the fortunes of a particular species in different areas. For example, the overall trend of 3% for **willow warblers** hides the fact that this species has declined by 28% in England, while increasing by 33% in Scotland over the same time period. This pattern is shared by many other long-distance migrants, and BBS volunteer counts form the basis of an ongoing research programme that aims to explain these differences.

Evaluating the effects of the English Environmental Stewardship scheme

Agri-environment schemes are being used throughout the UK and Europe to address declines in farmland biodiversity. There is a need to demonstrate the benefits of these for declining but still widespread species, such as many of our farmland birds.

A recent innovative analysis of English BBS data has found strong evidence that Environmental Stewardship (ES) scheme options that provide winter food resources (stubbles and wild bird seed mixtures) have positive effects on the population growth of declining seed-eating birds. For example, eight out of 12 farmland seed-eaters showed a positive response to the provision of winter stubbles. The results for ES options aiming to provide breeding season benefits, like grassland, field margins and boundary management, showed mixed patterns of positive and negative associations.

The results for winter food options provide the first evidence for landscape-scale responses of widespread farmland biodiversity to agri-environment management. The study suggests that reversing farmland bird declines at a national scale is possible if both the quantity and quality of key options is increased sufficiently.

Grey heron monitoring: 85 years and counting

Grey herons are among the most predictable of all birds in their choice of nest site. Most nest in well-established colonies that have existed for years, sometimes decades. The nests themselves are bulky and often conspicuous structures. These features make it simple for birdwatchers to monitor nesting numbers, just by making annual counts of "apparently occupied nests" (AON).

The BTO Heronries Census (HC) began as a project for the journal *British Birds*. The Census of Heronries 1928 was initiated, organised and written up by the famous ornithologist and conservationist EM Nicholson. He was then a recent Oxford history graduate, but already a prolific author on birds. Later he went on to be the founder and first Secretary of the BTO, Director General of the Nature Conservancy and a co-founder of the World Wildlife Fund.

The 1928 survey counted 4,635 AON at 366 heronries, mainly in England and Wales, and is thought to have attracted nearly 500 contributors. The enthusiasm it engendered spilled over into annual surveys, which from 1933 were fostered by the fledgling BTO. From 1935, throughout wartime and into the 1950s, annual reports titled "The index of heron population" were published in *British Birds*.

While the North American Christmas Bird Count has run since 1900, we are not aware of any other breeding bird population in the world that has been annually monitored for as long as the UK's **grey herons**.

Alongside annual counts at as many heronries as possible, attempts to count all heronries were made in 1954, 1964, 1985 and 2003.

In recent springs, around 8,000 nests (about 60% of the UK population) have been counted annually. This is more than in any previous year, except during the complete census of 2003 when 10,414 AON were found at 795 heronries. The increase in HC volunteers allows ever more precise estimates of population.

Modelled estimates of total population, including allowances for colonies not counted or not discovered, rose to a UK peak of around 14,250 AON in 2001. Hard winters have periodically interrupted the generally upward trend, causing sharp downturns and steep recoveries. A shallow slide in numbers during the recent decade, accelerated by recent cold winters, has resulted in the population dropping back below 12,000 AON in 2011.

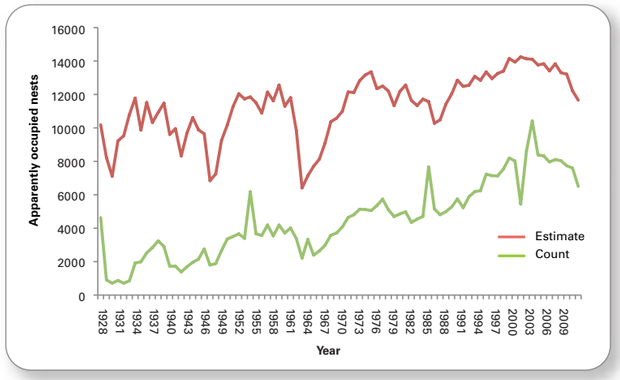

Grey heron

Tony Hamblin (rspb-images.com)

Today, it's not just herons

It was not originally anticipated that the HC would cover more than one species, but today, **little egrets**, **cattle egrets** and **spoonbills** are fully integrated into the survey. **Little egrets** first began nesting in **grey heron** colonies on the English south coast in 1996, launching a rapid increase that is only now showing signs of levelling off. **Cormorant** counts at heronries, collected by HC, have helped monitoring of the inland spread of that species, too.

Further heron and perhaps ibis species are expected to be added to the HC in the future, as these species expand northwards to the UK from the Continent. Indeed, this year **great white egrets** were confirmed to be breeding for the first time in Somerset.



Grey heron numbers since 1928

The Rare Breeding Birds Panel

Since its formation in 1973, the Rare Breeding Birds Panel (RBBP) has collated data annually on the UK's rarest breeding birds. Over the years, the list of species that the Panel covers has changed, with species both coming and going. Those changes have reflected the changing fortunes of some of our rarer breeding birds.

Names not on the list

A number of species have been dropped from the Panel's list in recent years. For some, it was recognised that other schemes were better placed to monitor their populations (such as **Leach's petrels** and **Scottish crossbills** – with populations estimated at 48,000 and 6,500 pairs, respectively, neither are really rare birds).
For others, populations have grown to the point that they are no longer rare. The **gadwall** was included for the last time in the 2010 report as the population had grown to over 1,800 pairs, and is still rising.
This increase in numbers has been matched in most other western European countries, and with numbers still low in many parts of the UK, the potential for further increase is massive.

Fleeting appearances and new species added

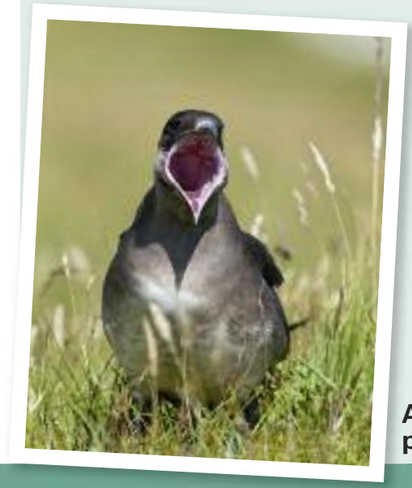
In SUKB 2011 we listed a number of new species to breed in the UK in recent years, such as **spoonbills** and **purple herons** – though it's not certain whether these will go on to become established UK breeders in the same way as **little egrets**, since their arrival here in 1996.

Over the years, the Panel has also reported on a wide range of species that have made only fleeting, singing appearances in the breeding season. Among the warbler family alone these have included **Marmora's, spectacled** and **great reed warblers** from the Mediterranean; **greenish** and **Blyth's reed warblers** from Scandinavia; and **river warblers** from Eastern Europe.

Of greater significance has been the addition to the list of species from the other direction. Not rare species arriving to breed for the first time, but commoner species getting rarer. In 2011 the RBBP added five species to its list due to concerns about their numbers, and the inability of other schemes to monitor them adequately. Three of these – the **Arctic skua**, **lesser spotted woodpecker** and **willow tit** – have been red-listed due to severe population decline. It is believed that there are now fewer than 1,500 pairs each of all the three species left in the UK. **Willow tits** have declined more than any other species since the start of the BBS, and have disappeared from large areas of the UK, with the only significant concentration left in the Midlands and Yorkshire. **Lesser spotted woodpeckers** are too rare to be monitored by the BBS at all.
The other two additions are the **long-eared** and **short-eared owls**. Elusive and hard to survey, it is hoped that encouraging amateur birdwatchers to report records of these two species may give us a better understanding of their status.


Willow tits have suffered one of the largest declines in numbers since the 1990s of any species. They have disappeared from much of the UK.

Willow tit by Mike Lane and Arctic skua by David Kjaer (rspb-images.com)


Arctic skua numbers have fallen to the point that they qualify for RBBP coverage

Monitoring seabirds

The Seabird Monitoring Programme (SMP) has co-ordinated the monitoring of breeding seabird populations in the UK since 1986.

An extensive sample of colonies is monitored each year by partner organisations and volunteers, and is supplemented with more intensive monitoring of behavioural and demographic parameters at key colonies. This information is helping us understand how the UK's internationally important seabird populations are faring.

The SMP receives data from between 200 and 250 different sites each year, monitoring 26 species. Some of these sites are monitored by partner organisations, in which volunteers play a key role, while other sites are monitored independently, by individuals and ringing groups on a voluntary or contracted basis. Abundance data from these sites are used as a measure of the state of populations, with the view of making inferences about the wider marine environment.

Since 1986, the most substantial declines have occurred in **shags**, **kittiwakes**, **roseate terns**, **Arctic skuas** and **great black-backed gulls**.

Andy Hay (rspb-images.com)

Trends in breeding seabird numbers in the UK

Species	1986–2011 trend %	2000–2011 trend %	UK population estimate (2009)[2]
Fulmar	-4	8	500,000
Gannet[1]	71	18	220,000
Cormorant	5	-11	9,000
Shag	-42	-26	27,000
Arctic skua	-72	-58	2,100
Great skua[1]	46	16	9,600
Kittiwake	-55	-41	380,000
Black-headed gull	82	78	140,000
Lesser black-backed gull	5	-32	110,000
Herring gull	-24	-33	140,000
Great black-backed gull	-35	-37	17,000
Little tern	-18	2	1,900
Sandwich tern	14	7	12,000
Common tern	-2	-14	12,000
Roseate tern	-75	74	89
Arctic tern	-6	-15	53,000
Guillemot	35	6	950,000
Razorbill	59	14	130,000

The table shows the differing fortunes of some of the species monitored by the SMP, as well as giving the most recent population estimates.

[1]trend derived from census interpolations and extrapolations

[2]pairs as estimated by Avian Population Estimates Panel (see page 19)

Annabel Knipe

Declines have continued since 2000 in all these species, with the exception of **roseate terns**, which continue their slow recovery from the large declines during the 1980s.

Since seabirds are long-lived, and exhibit high adult survival rates and low levels of annual productivity, it may take several years before impacts on seabird breeding success are evident in the size of breeding populations. But measuring and presenting other demographic data, such as breeding success and survival, may provide a more sensitive way of understanding how changes in the marine environment are affecting biodiversity.

Kittiwake declines linked to sandeel declines

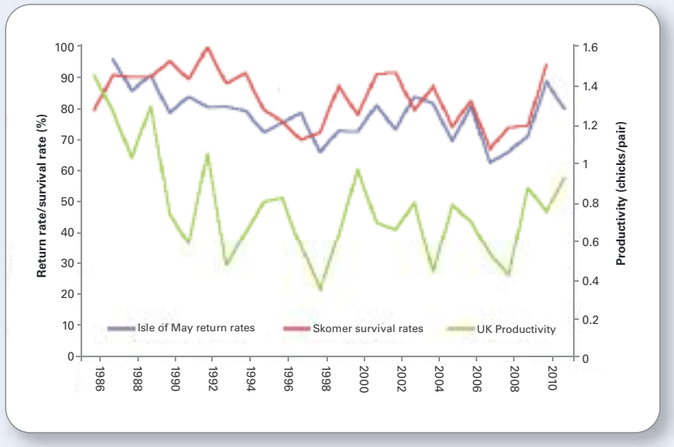
Kittiwake numbers have declined steadily since the early 1990s and in 2011 were estimated to have fallen below half their number in 1986. Productivity has also declined during this period (see figure, right). There has been a significant decrease in **kittiwake** survival on Skomer Island, one of the SMP's key sites, since the late 1970s. This correlates with return rates on the Isle of May, another key site.

In particular, large reductions in **kittiwake** survival between 1995 and 2000 coincided with a 37% decline in numbers across the UK.

Since data collection occurs at breeding colonies, **kittiwake** survival estimates represent survival between breeding seasons. With information on productivity and survival, it is possible to attribute the decline to both poorer survival at sea during the non-breeding period, and also to lower breeding success at the colony. Since both the fall in productivity and survival have been related to declines in sandeels, it would appear that reduced prey availability is at least one factor contributing to the declining numbers of **kittiwakes**.

Measuring survival of seabirds can be time consuming and practically difficult. Other than for a few species at particular study sites, our knowledge of survival rates is poor. However, data collected through the BTO national ringing scheme can provide survival estimates from marked birds – through recoveries of dead ringed birds, live re-trapping and re-sighting.

Around 60,000 seabirds are ringed annually in Britain and Ireland, largely by volunteers. It is hoped that future collaborations between the SMP and the BTO ringing scheme, such as the RAS (Retrapping Adults for Survival) programme, could increase the level of survival monitoring. This would provide valuable information on the state of the UK's seabirds and the wider marine environment.



Kittiwake productivity and survival

Now estimated at 380,000 pairs, numbers of kittiwakes in the UK have more than halved since 1986.

Mark Hamblin (rspb-images.com)

New population estimates for birds in the UK

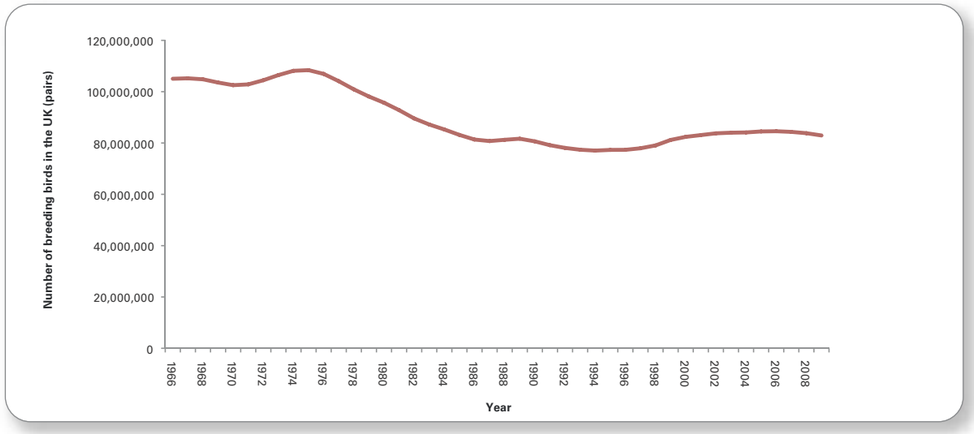
The Avian Population Estimates Panel, comprising ornithologists from the UK's main conservation and ornithological organisations, produces collations of official population estimates for our breeding and non-breeding birds. The Panel published assessments in 1997 and 2006, with a third set due to be published in *British Birds* during 2013. We are fortunate to be able to preview some of the new estimates in this year's *SUKB*. Our tables of trends for common breeding birds, seabirds and wintering waterbirds (pages 9–10, 16 and 23) also contain population estimates. These estimates range from 89 pairs of **roseate terns**, up to over eight million pairs of the UK's commonest bird, the **wren**.

Whilst the relative trends in population size are vital for informing conservation work, these estimates of absolute population size are also valuable tools. For example, they allow the sites that hold significant proportions of species' populations to be identified and designated.

On pages 20–21, *SUKB* also takes a brief look at the total numbers of birds in the UK and, by multiplying those numbers by average species weight, the total biomass of birds in the UK.

By combining new population estimates with known species trends, we can estimate how totals of birds have varied since the 1960s. As the figure below shows, the total number of breeding pairs in the UK has fallen over this period, from 105 to 83 million – a loss of 22 million pairs (21%). Numbers remained roughly stable either side of a substantial decline between the mid-1970s and mid-1980s: 27 million pairs of breeding birds were lost from the UK between 1975 and 1987.

You can find more graphics on the population sizes of UK birds online. See page 40 for the websites of all of the partners involved in *State of the UK's Birds*.



Total number of breeding birds in the UK over the last five decades.

***British Birds* publishes ground-breaking articles on identification, distribution, migration, conservation and taxonomy. It is the place to report significant ornithological sightings and events. The publication is widely regarded as the bird journal of record in Great Britain.**

NEW POPULATION ESTIMATES FOR BIRDS IN THE UK

There are over 80 million breeding pairs of birds in the UK. The bars on the right-hand side of this figure show how these break down into main species groups.

Around three-quarters of breeding pairs belong to the passerine group (perching birds). The combined biomass of all the UK's breeding birds is around 25 thousand tonnes.

The bars on the left of this figure show how the relative importance of each group changes dramatically if biomass is considered, with the pigeons and doves and gamebirds groups being the most significant, mainly due to the large numbers of **woodpigeons** and **pheasants** respectively.

Seabirds make up a further 20% of the biomass of the UK's birds, reflecting the rich (yet delicately balanced) food resources in our seas.

Key for passerine groups:

Corvida: crows
Sylvioidea: includes tits, larks, swallows and warblers.
Muscicapoidea: includes nuthatches, treecreepers, wrens, starlings, thrushes, chats and flycatchers.
Passeroidea: includes dunnocks, sparrows, wagtails, pipits, finches and buntings.

NEW POPULATION ESTIMATES FOR BIRDS IN THE UK

There are nearly two and a half million breeding pairs of non-native birds in the United Kingdom. But what impact do they make in terms of biomass? This infographic shows how native birds compare to non-native birds.

Native breeding pairs
80,468,847

Non-native breeding pairs
2,470,251

Native biomass (kg)
19,495,321

Non-native biomass (kg)
5,936,629

Even though non-native species are only a small proportion of the UK's breeding birds by number, they represent **nearly a quarter of the biomass**.

Although some non-native birds, such as **Canada geese** and **pheasants**, are common and familiar, non-native species form only around 3% of the UK's bird populations. However, as many are relatively large birds, non-natives contribute 23% of the biomass of the UK's breeding birds. This shows their potential to have a significant impact on the ecosystems into which they have been introduced. Species that contribute a relatively high proportion of the biomass to ecosystems can be key in shaping the animal and plant communities around them. In many cases, non-native species have been shown to have severe impacts on native biodiversity, for example invasive species are considered to be one of the main causes of global extinctions.

Visitors to UK wetlands

Every winter, the UK hosts internationally important numbers of migratory waterbirds. Millions visit to take advantage of our extensive wetland habitats and the relatively mild winter climate, before departing in spring to breed in areas as far afield as northern Canada and Siberia.

The critical role our wetlands play for these waterbirds means that the most important sites are designated as Special Protection Areas (SPAs) and Wetlands of International Importance (Ramsar Sites).

The wintering waterbird indicator on page 6 shows the overall trend in abundance for 46 native species/populations, primarily using data from Wetland Bird Survey (WeBS) Core Counts and the Goose & Swan Monitoring Programme (GSMP).

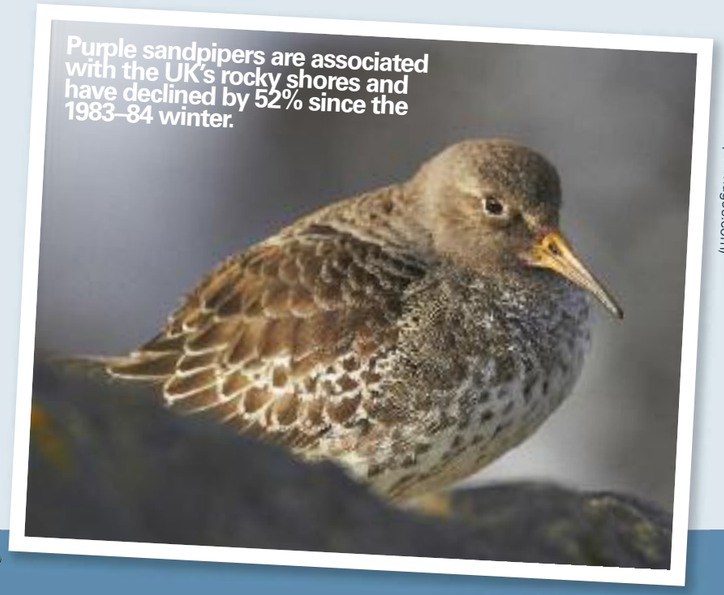
You can find more information at **www.bto.org/webs** and **http://monitoring.wwt.org.uk/goose_and_swan.php**

The indicator illustrates a steady increase in wintering waterbirds in the UK from the mid-1970s to the late 1990s. This was due in part to the establishment of a network of protected wetland sites and, for some species, a reduction in hunting pressure also contributed to their increases. However, since the mid-1990s, average waterbird numbers have levelled off, and the indicator is now starting to show a slight decline, particularly for waders.

Data from waterbird monitoring schemes in other parts of Europe have demonstrated that for some species this may be partly attributable to 'short stopping', where an increased proportion of waterbirds are able to winter further east and north due to milder winters. Whether there are negative consequences for the birds as a result of these shifts in distribution is, as yet, unknown. For other waterbird species, however, the wider international context indicates that real population declines are occurring, giving greater cause for concern.

It is important to note that indicators in bird monitoring only provide a general indication of change in overall abundance. When individual species, populations or groups of species are examined separately, very different trends can be apparent. For waterbirds, monitoring and conservation is typically carried out at a population scale, following the distinct flyways used by these migrating birds, as pressures facing one population of a species may be different from those faced by another population of the same species.

Collaboration between national waterbird monitoring schemes is therefore essential. WeBS and GSMP data contribute to the International Waterbird Census (IWC), co-ordinated by Wetlands International. The IWC is a collation of waterbird counts done in January each year in countries across the globe, and is crucial for the assessment of waterbird population status at the flyway level. There is increasing research using IWC data examining changes in the distribution and numbers of waterbirds in north-west Europe.



Purple sandpipers are associated with the UK's rocky shores and have declined by 52% since the 1983–84 winter.

Mark Sisson (rspb-images.com)

WINTERING WATERBIRDS IN THE UK

Trends in wintering waterbirds
including population estimates

Population estimates are given for the UK.

Lower coverage of some habitats (such as non-estuarine open coast, rivers and farmland) means that trends for species found largely on such habitats (such as **sanderling**, **mallard** and **lapwing**) may be less representative than those for species found in habitats with better survey coverage.

Long-term trends are the percentage changes between the smoothed index values for 1983–84 and 2008–09. Ten-year trends are the percentage changes between the smoothed index values for 1998–99 and 2008–09. Calculation of smoothed indices by use of a generalised additive model is detailed further at **www.bto.org/webs/alerts**

National indices of **Canadian light-bellied brent geese**, **little grebes**, **great crested grebes**, **coots** and **cormorants** started later than for other species, so only 10-year trends are shown.

Species/population	Long-term trend %	Ten-year trend %	UK winter population estimate	
Mute swan	117	-2	79,000	
Bewick's swan	-32	-35	7,000	
Whooper swan	267	97	15,000	
Pink-footed goose	241	44	360,000	
European white-fronted goose	-79	-69	2,400	
Greenland white-fronted goose	53	-40	13,000	
Icelandic greylag goose	14	16	88,000	
British greylag goose	416	42	140,000	
Canada goose	113	17	190,000	
Greenland barnacle goose	131	56	58,000	
Svalbard barnacle goose	230	29	33,000	
Dark-bellied brent goose	-6	-15	91,000	
Canadian light-bellied brent goose	n/a	29	27,000	
Svalbard light-bellied brent goose	284	77	3,400	
Shelduck	-3	-17	66,000	
Wigeon	63	-2	450,000	
Gadwall	312	27	25,000	
Teal	41	-3	220,000	
Mallard	-39	-20	710,000	
Pintail	-17	-13	29,000	
Shoveler	70	26	18,000	
Pochard	-50	-46	48,000	
Tufted duck	19	-11	120,000	
Scaup	83	13	12,000	
Eider (except Shetland)	-11	-15	58,000	
Eider (Shetland)	n/a	n/a	5,500	
Goldeneye	-28	-43	27,000	
Red-breasted merganser	-16	-32	9,000	
Goosander	-11	-31	12,000	
Ruddy duck	-59	-85	60	
Little grebe	n/a	19	17,000	
Great crested grebe	n/a	-5	23,000	
Cormorant	n/a	5	41,000	
Coot	n/a	-7	190,000	
Oystercatcher	-4	-14	340,000	
Avocet	>1,000	75	7,500	
Ringed plover	-24	-25	36,000	
Golden plover	321	-12	420,000	
Grey plover	72	-15	43,000	
Lapwing	97	-36	650,000	
Knot	15	11	330,000	
Sanderling	76	35	17,000	
Purple sandpiper	-52	-21	13,000	
Dunlin	-28	-34	360,000	
Black-tailed godwit	431	61	44,000	
Bar-tailed godwit	-17	-18	41,000	
Curlew	19	-20	150,000	
Redshank	15	-18	130,000	
Turnstone	-15	-10	51,000	

Waterbirds along the UK's coastline

The UK provides over a quarter of the European estuarine resource, so is of major importance for waterbirds that use this habitat, both on migration and during winter. Our estuaries are especially critical for waders: large flocks feeding across intertidal areas, or flying to high tide roosts, are an impressive sight and a very important part of our biodiversity.

It is vitally important for the vast numbers of waders that use our estuaries that such sites are fully protected, and remain unpolluted with plentiful food supplies. Many are of international importance for individual species and for all the waterbirds they support. They are also key points within networks of sites throughout the East Atlantic flyway. Rocky shores along the UK's coast provide important refuges for **turnstones** and **purple sandpipers** – both species that have shown steady declines in recent years.

East vs west

Based on WeBS core counts, the UK's top ten wetlands – eight of which are estuaries – together supported in excess of 1.75 million waders, ducks, geese and swans during the winter of 2009–10. Scrutiny of changes in average peaks at those sites provides some support for recent suggestions that numbers of waterbirds in the west of the UK, at sites like the Ribble Estuary, Morecambe Bay, the Dee Estuary and Solway Estuary, are declining more than sites in the east, like The Wash, Thames Estuary and Breydon Water. Further investigation is required to fully understand the reasons behind these changes in trends.

Research to date demonstrates that subtle north-east shifts in wintering wader distribution have involved net movements of some species away from sites in the UK, across to the near-Continent.

Dunlins in decline

Whereas numbers of **oystercatchers** and **knots** have remained relatively stable in the UK, steady declines in several other familiar estuarine waders, such as **ringed plovers**, **dunlins**, **redshanks** and **curlews**, are continuing. More encouragingly, the decreases exhibited by **grey plovers** and **bar-tailed godwits** have halted in recent years.

Overall, the wader indicator has fallen by 11% since its peak in 2000–01, and although this decrease may have been partly driven by shifting distributions of species within north-west Europe, for some, such as **dunlins** and **redshanks**, it is likely to represent genuine declines in breeding populations across their range.

In contrast, **avocets** and **black-tailed godwits** have increased notably on our estuaries. Wintering numbers of **avocets** have increased in conjunction with an expansion of the UK's breeding population. This is probably due to the combination of climate change and the improved management and increase in the extent of nature reserves around our coastline. **Black-tailed godwits** wintering in the UK originate from Iceland, where the breeding population of the race *islandica* has increased massively in the last two decades. The species remains red-listed due to the small and threatened UK breeding population of the race *limosa*.

West or east coast locations are denoted by (W) or (E). The ten-year trends are between 1999–2000 and 2009–10, and five-year trends between 2004–05 and 2009–10.

The Somerset Levels is a non-coastal site, which has benefitted in recent years from extensive wetland creation and management for biodiversity.

The numbers of wintering waterbirds at the UK's ten most important wetland sites

Species/population	Total waterbirds Five year mean	Ten-year trend %	Five-year trend %
The Wash (E)	387,024	20	16
Ribble Estuary (W)	236,881	-10	0
North Norfolk Coast (E)	203,480	43	-7
Morecambe Bay (W)	202,735	-22	-13
Thames Estuary (E)	180,681	16	2
Humber Estuary (E)	150,192	-1	-15
Dee Estuary (W)	113,182	-7	-24
Breydon Water (E)	105,070	79	31
Solway Estuary (W)	98,631	-34	-31
Somerset Levels (W)	97,880	13	-6

Some duck species are down

In addition to waders, the UK's estuaries are also very important for many ducks, geese and swans, perhaps none more so than **pintails**, which are currently showing a sharp decline in numbers wintering in the UK. It is not unusual for dabbling species to show a high degree of variation in numbers between years, as many move in response to weather conditions. Therefore, it is too early to ascertain whether this decrease, and that shown recently by **wigeons**, is the beginning of longer-term declines – such as that exhibited by **mallards**.

Of clear conservation concern are several of the seaducks that winter around Britain's coast. Recent information from elsewhere in their flyways put the large declines in British waters of species like **long-tailed ducks** and **velvet scoters** into context and highlight the need for improved monitoring and understanding of these species. See page 26 for more details.

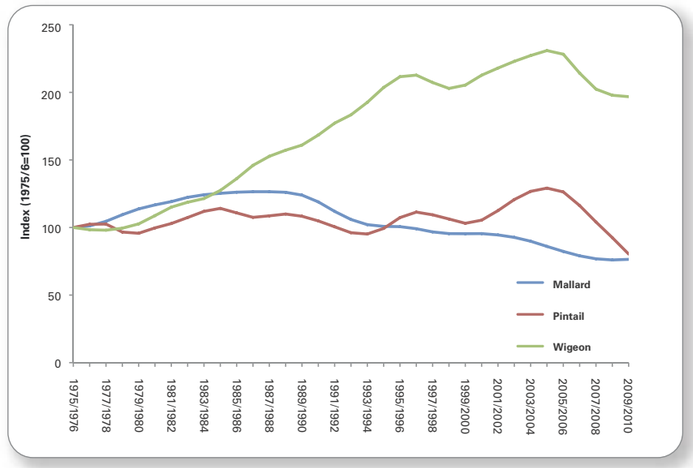
Increase in waterbirds at inland sites

In contrast to estuarine ducks, **shovelers**, **teals** and **gadwalls** – dabbling species that typically prefer freshwater sites – have all shown long-term increases in the UK.

Shovelers winter in large numbers far south of the UK, including sub-Saharan Africa. It is possible that increases in the UK are also related to a shift northwards of this population, although evidence for this is scarce due to large gaps in waterbird monitoring in Africa.

The increase of gravel pits and reservoirs in the UK countryside over the last half-century has probably been good news for diving freshwater species like the **tufted duck**, **great crested grebe**, **little grebe** and **coot**. However, it is clear from WeBS trends that **pochards** and **goldeneyes** are continuing to decline at a steady rate, particularly in Northern Ireland. Whilst large increases in **goldeneyes** in the Baltic Sea provide a strong indication that this species is short-stopping in large numbers, the evidence is less clear for **pochards**. Collaborative research across Europe is required so that we can fully understand the causes of this and other declines. It is important that genuine declines are not overlooked by assuming that shifts in distribution explain all these observed national trends.

Compared to other wader species, a large proportion of **lapwings** and **golden plovers** use inland sites in the winter, frequenting agricultural fields and river valleys. Numbers of these species can show marked fluctuations between years in response to the weather, evident during recent cold winters when numbers of both fell sharply in the UK, as they left to find milder conditions to the south and west.



Trends in mallards, pintails and wigeons

Volunteer contributions to waterbird monitoring

Effective monitoring of the UK's internationally important wintering waterbird populations owes much to the efforts of dedicated volunteers who, as part of WeBS and GSMP, undertake monthly counts of birds using wetlands across the country. Over 2,200 sites are visited, ranging from major estuaries to small ponds. The largest sites are counted by teams of birdwatchers and coverage at the county level is co-ordinated by a network of Local Organisers (themselves volunteers). The data enable analysis of population trends and can also help protect important sites from development. Data are regularly used in environmental impact assessments, and have proved to be important for public inquiries over proposed developments, such as Dibden Bay on Southampton Water.

The data also have a range of uses for more detailed research and within environmental planning. Recent examples include the examination of impacts of climate change and water quality on waders to determine causes of waterbird declines at the UK's protected areas, and a number of studies that have investigated actual or predicted effects of habitat loss on estuarine waterbirds.

Information on the distribution of foraging birds on the major estuaries is particularly important in environmental impact assessments, and this is derived from the WeBS Low Tide Count scheme, initiated 1992–93.

The changing status of seaducks

Numbers of several species of seaducks wintering in the UK have been in decline for some time. Until recently it was largely assumed these birds, predominantly Arctic breeders from the north and north-east, were wintering elsewhere; short-stopping in areas closer to their breeding grounds.

However, new evidence from the Baltic Sea, the most important wintering area in Europe for many seaducks, suggests otherwise. Counts undertaken there in 2007–09 suggest alarming downward trends for several species, particularly **long-tailed duck** and **velvet scoter**. Since previous surveys of the Baltic Sea in 1992–93, these species have apparently declined by 60% and 65%, respectively. This percentage equates to a staggering 1.8 million individual **long-tailed ducks**. As a result, both have been added to the IUCN Global Red List – **long-tailed ducks** as Vulnerable and **velvet scoters** as Endangered.

The **long-tailed duck** and **velvet scoter** are two of just five globally red-listed species to occur regularly in the UK. Large declines of 42–51% were also found for **eiders**, **common scoters** and **red-breasted mergansers**.

UK seaduck declines

In the UK, trends for most seaducks are fairly similar (see trends table on page 23), though we do not have robust trends for some, including **long-tailed ducks** and **velvet scoters**. Data from the Moray Firth, the key UK site for both, suggest the decline in the UK could be even more severe than that detected in the Baltic Sea. The number of **velvet scoters** has plummeted from several thousand birds to fewer than 100 in the past three winters and they have almost disappeared from St Andrews Bay in Fife, a former stronghold. **Long-tailed ducks** have declined dramatically from a peak of more than 10,000 to fewer than 1,000. A substantial UK decline has also occurred for **red-breasted mergansers** in the past decade, which closely matches the Baltic Sea trend.

For some species, the trends in the UK and Baltic Sea are less closely related, as the birds concerned belong partially or wholly to different populations. Both **eider** populations occurring in the UK are largely sedentary, so trends in the Baltic Sea and UK are only loosely related (some Baltic **eiders** visit UK waters during the winter). This is also probably true to some extent for **common scoters**, but as our knowledge of their movements and population delineation is poor, it is difficult to be certain how much these trends are related. We also have a poor understanding of trends for **common scoters**, as most overwinter well offshore and are only counted occasionally.

Some species give us less cause for conservation concern. The **goldeneye**, which is partially marine in winter, has declined by 43% in the UK, but evidence suggests this is a result of short-stopping. Numbers in the Baltic have increased by 42%.

Reasons for declines unclear

The causes of seaduck declines are unclear, although a number of reasons have been suggested: climate change, oil pollution, by-catch in gill nets, over-harvesting (some seaducks are legal quarry elsewhere in Europe), changes in levels of eutrophication, predation and various industrial developments. However, there is insufficient knowledge about how these impact seaduck numbers – more research is needed before we understand what is driving declines.

Scaups below former levels

Scaup numbers here have increased by 13% in the past decade, and by 83% since 1983–84, though this species remains below former levels of abundance after a crash in the early 1970s. Since the early 1990s, the number of **scaups** has declined in the Baltic Sea. This reflects the different origins of these birds to those currently wintering in the UK. Those in the Baltic, and eastern areas of the UK, where numbers crashed in the 1970s (mainly the Forth Estuary), are largely from northern Scandinavia and Russia; nowadays, those in the UK are mainly from the Icelandic population. This highlights the need for continued commitment to the International Waterbird Census, so that flyway-scale status assessments can be used to put national waterbird monitoring into context. It highlights the need for concerted efforts to better monitor seaducks. Currently, resources are not available to repeat the Baltic Sea surveys; within the UK, effort is patchy and largely unco-ordinated.

Danny Green (rspb-images.com)

Swans across Europe

In January 2010, an international census of Icelandic **whooper swans** and northwest European **Bewick's swans** was undertaken. International censuses have been undertaken every five years since the mid-1980s and demonstrate a sustained growth of **whooper swans**, while **Bewick's swan** numbers have gradually declined since a peak in 1995.

The latest census produced an overall flyway population estimate for **whooper swans** of 29,232. This is an increase of 11% since the previous census in 2005 and the highest recorded to date. They were present at 192 sites in Britain, which held 41% of the overall population, with a further 25 sites (16%) in Northern Ireland. The largest concentrations were at the Ouse Washes (5,632), Martin Mere (2,052) and Loughs Neagh and Beg (1,803), collectively accounting for 32% of the population. These sites, plus an additional three in Britain and two in Northern Ireland, held numbers of international importance (210 or more) during the 2010 census.

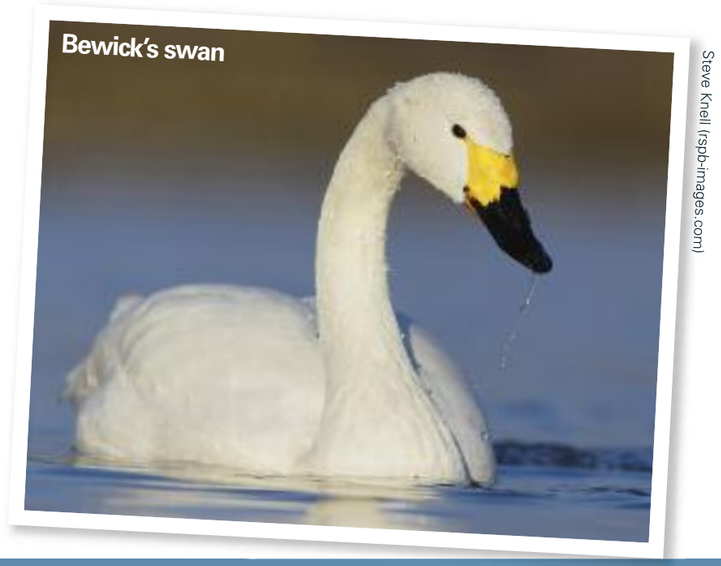
Numbers of **whooper swans** increased in all countries except Scotland, where there were 36% fewer than in 2005. It is likely that the cold and snowy weather in the UK prior to the census affected **whooper swan** distribution, forcing many birds to move south. This in turn may account for the considerable increase observed in England, where numbers were 40% higher than in 2005. However, census results have shown a gradual decrease in the proportion of **whooper swans** wintering in Northern Ireland and Scotland since 1991, while England has seen a substantial increase over time, suggesting the whole population is shifting its range south, regardless of weather conditions.

A similar trend has been shown by Icelandic **pink-footed geese**, with an increasing proportion of the population recorded in Norfolk, the most southerly region of their wintering range, where they forage on the remains of harvested sugar beet. This southerly move is in contrast to most migratory waterbirds, which tend to be shifting to the north due mainly to milder winters.

In the UK, numbers of **Bewick's swans** fell by 23% between 1990 and 1995 (when totals of 9,258 and 7,128 were recorded, respectively). Since then, numbers have remained stable, and in 2010 a total of 7,000 were recorded, of which just one swan was seen in Northern Ireland. Although 31 sites held **Bewick's swans**, the vast majority of birds (87%) were seen at just two: the Ouse Washes (5,106 birds) and nearby Nene Washes (962). These two sites, plus the Severn Estuary and Horning Marshes, each supported internationally important numbers (200 or more) during the census.

Results from elsewhere in the range are still being verified, but the provisional total of **Bewick's swans** is 19,397, 11% lower than in 2005 and the lowest count since the mid-1980s. Research has yet to determine the factors causing the decline, but possible reasons include weather and habitat changes affecting the swans' survival and breeding success, illegal hunting, and displacement from feeding areas and nest-sites by **whooper swans** (north west European population).

A **Bewick's swan** Action Plan drafted for the African-Eurasian Migratory Waterbird Agreement, and adopted at the May 2012 Meeting of Parties, will hopefully stimulate further research.



Steve Knell (rspb-images.com)

Overseas Territories

In this year's *SUKB* we provide updates on some of the species in the UK's Overseas Territories (UKOTs) which are threatened with global extinction, and that we have an international responsibility to protect.

The UKOTs hold 33 Globally Threatened birds, of which four are Critically Endangered, each named after the territory where they are found – the **St Helena plover, Montserrat oriole, Tristan albatross** and **Gough bunting** – and others, such as the **northern rockhopper penguin**, for which we have only slightly less concern. We also report on monitoring in Anguilla, another example that shows the importance of volunteers in bird monitoring.

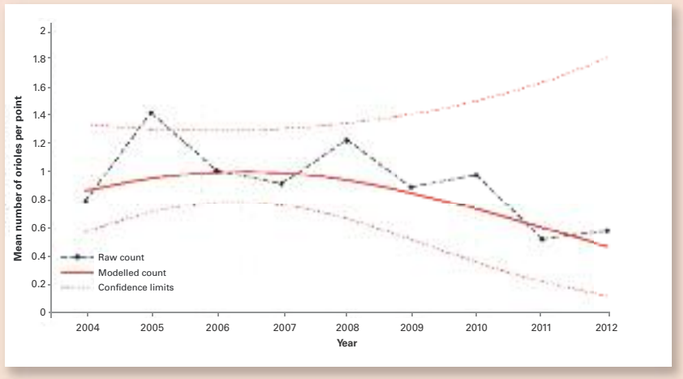
St Helena plovers

It has been a mixed year for the Critically Endangered **St Helena plover**, also known as the wirebird. The annual census, carried out by the St Helena National Trust, exceeded the 400 mark for the first time since the late 1980s, with 404 adults counted. Recent census counts have fluctuated, but they suggest that the species is stable at present. Whether or not to build an airport on St Helena has been a hot topic of conversation on the island for the past 60 years, but this year the debate is over. The airport is going ahead and construction work has started. Worryingly, the airport will be built on a key breeding site for **St Helena plovers**. However, over the past three years, work has been underway to improve the habitat conditions in other parts of the island, as a way to mitigate the impact of the airport. Work finished in 2011, but we will have to wait and see how the birds use these improved areas before we know how successful the project has been. Although the population appears stable, this species remains rare, isolated and vulnerable.
We know that low nest survival is a particular problem and, using nest cameras, several nest predators have been identified as the key threats. A joint project involving the RSPB, UK Government, St Helena National Trust and local partners is working towards reducing predator numbers at key breeding areas for the **St Helena plover**. It's early days, but it's hoped that by 2013 there will be more eggs hatching and more chicks surviving to adulthood.

Montserrat orioles

The **Montserrat oriole** is a passerine bird species endemic to the volcanic island of Montserrat in the eastern Caribbean. Deforestation over the past 200 years, a recent volcanic eruption and a major hurricane have destroyed much of the suitable habitat for the species. Following the initial volcanic eruption in 1997, the population declined dramatically. Since 2004, an annual monitoring programme has been in place to estimate population trends in the Centre Hills. However, there is uncertainty in population size and trend estimates, and a second population in a smaller forest fragment is poorly known because the area is not accessible due to volcanic hazards. The Centre Hills population fluctuates annually, and there is some indication of a downward population trend. In April 2012, the world population of **Montserrat orioles** was estimated at 765 birds.

The main threats to **Montserrat oriole** survival are the active volcano and the ongoing predation of nests and chicks by introduced rats and native **pearly-eyed thrashers**, but no practical solution exists to address these issues at a sufficiently large scale. The volcano is still active and periodically causes high mortality in adult **Montserrat orioles** when large amounts of ash fall over the Centre Hills.



Estimated population trend of Montserrat orioles in the Centre Hills, Montserrat

BIRDS IN THE UK'S OVERSEAS TERRITORIES

Threatened albatrosses in the UKOTs

Albatrosses are one of the most threatened groups of birds in the world, with 17 of the 22 species on the IUCN Global Red List. By-catch in longline and trawl fisheries has been identified as the primary threat to many species. Highest densities occur south of 25° in the Southern Hemisphere, as well as the west coast of South America (Humboldt Current), the south west coast of Africa (Benguela Current) and the North Pacific.

In this regard, the UK has a particular responsibility for its South Atlantic Overseas Territories of South Georgia, the Falkland Islands and Tristan da Cunha. Collectively, these breeding stations account for over 30% of the world's albatross populations, comprising seven of the 22 species, two of which are endemic to Tristan – the **Atlantic yellow-nosed** and **Tristan albatrosses**.

The loss of UK albatrosses from by-catch in fisheries is driven predominantly by fisheries outside UK territorial waters: by-catch in the territorial waters of South Georgia and the Falklands has already been significantly reduced. Outside the breeding season, the birds disperse widely, to South Africa and South America in particular.

BirdLife's Albatross Task Force (ATF), funded by the RSPB, has significant engagement with the fisheries in South America and South Africa to reduce the albatross mortality there.

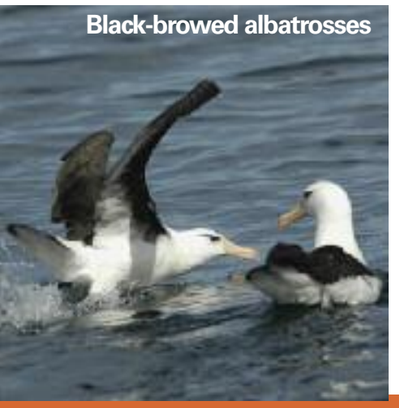
Northern rockhopper penguins at Tristan da Cunha

The **northern rockhopper penguin** is globally endangered, with over 80% of its population occurring on the UK Overseas Territory of Tristan da Cunha and Gough Island in the central South Atlantic, and remaining populations on the French Southern Territories of Amsterdam and St Paul in the Indian Ocean. Population declines in excess of 90% have been recorded at Tristan and Gough Island, and similar large-scale declines have also occurred for the closely related **southern rockhopper penguin**. Prior to these declines, "millions" (the exact number is not known) of pairs of **northern rockhoppers** were recorded on Tristan and Gough Island. While declines on Tristan are most likely a result of historical exploitation, those on Gough Island are unexplained and have occurred since the 1950s when penguins were no longer subject to any significant exploitation. Hypotheses for the cause, or causes, of the rapid declines include changes in marine productivity, food resources, disease and predation.

A further and unexpected threat to Tristan's **northern rockhoppers** was dramatically revealed in April 2011, when the bulk-carrier the *MS Oliva* ran aground. The subsequent spill of oil and bunker oil resulted in the loss of several thousand penguins and a massive response from the Tristan community. They were involved in cleaning and releasing hundreds of penguins, as well as corralling penguins within their breeding colonies to prevent freshly-moulted birds from going to sea and becoming oiled. These rapid actions were successful in limiting mortalities from the oil spill and counts of breeding numbers, before and after the *MS Oliva* spill, have shown no major impact on the population to date. Population monitoring is ongoing and is being conducted by the Tristan da Cunha Conservation Department in collaboration with the RSPB.

Further research has now begun to investigate the diet and foraging ecology of **northern rockhoppers** to investigate the key at-sea areas and prey that the birds are utilising, and to hopefully uncover the factors responsible for the large-scale decline of this species.

Black-browed albatross by Grahame Madge (rspb-images.com), rockhopper penguins by Richard Cuthbert and green heron by Devon Carter



Species	Breeding location	Global Red List status
Black-browed albatross	Falklands, South Georgia	Endangered
Sooty albatross	Tristan da Cunha	Endangered
Atlantic yellow-nosed albatross	Tristan da Cunha	Endangered
Tristan albatross	Tristan da Cunha	Critically Endangered
Light-mantled albatross	South Georgia	Near Threatened
Grey-headed albatross	South Georgia	Vulnerable
Wandering albatross	South Georgia	Vulnerable

Species, breeding location and status of albatrosses in UK's Overseas Territories

Bird monitoring on Anguilla

Located at the top of the northern Caribbean island chain, Anguilla, with its low-lying, windswept, but wetland-rich topography, is one of the first stops of many migratory birds flying south in the winter, and one of the last for those flying north during the spring. In an effort to better understand the value of these wetlands, their biodiversity, and their species richness, the Anguilla National Trust (ANT) launched a monthly bird monitoring programme in October 2005. Since then, and with the help of a few dedicated volunteers, the ANT has been recording the total number and species of birds observed at each of Anguilla's 25 mainland ponds every month; a demonstration of the importance of volunteer participation in bird monitoring globally.

In 2011, 50 species of bird were recorded on Anguilla, with the greatest numbers recorded in March and August (2,750 and 2,618 birds, respectively). An average of 1,805 birds were observed on the island's ponds. Since the beginning of the monitoring programme, there have been a number of interesting sightings, including the **black-bellied whistling duck**, **marbled** and **Hudsonian godwits**, and a first record for Anguilla of the **long-tailed duck**.

The counts have also supported the identification of three mainland Important Bird Areas (IBAs) – Long Salt Pond, Cove Pond and Grey Pond, all coastal ponds that support a range of waterbirds and, in particular, important breeding colonies of **least terns** (peaking at 326 pairs in June 2011). Over the years, this monitoring programme has revealed that Anguilla's mainland salt ponds act as a single connected unit with waterbirds frequently moving between them. This suggests that many more of the ponds should qualify as IBAs.

IBA status is currently being reviewed as part of the ANT's project *Building a foundation for Anguilla's wetland future*. Results of the last five years of the monitoring programme were released in a *State of Anguilla's Wetland Birds* report at the end of July 2012.

BirdTrack

It is something of a mystery how many birdwatchers there are in the UK. Estimates range from about 25,000 contributors to local bird reports, to more than one million RSPB members, depending on the definition of "birdwatcher" that is used. One thing we do know is that UK birdwatchers make lots of valuable observations.

The number of individuals submitting records to local bird reports, or publicising their sightings via the internet, exemplifies the desire of many birdwatchers to both share these records and maximise their value to conservation science.

BirdTrack is a free online bird recording system, organised by the BTO on behalf of the BTO, the RSPB, BirdWatch Ireland, the Scottish Ornithologists' Club and the Welsh Ornithological Society. It is designed to capture birdwatchers' day-to-day records and make them available to a wide range of conservation initiatives.

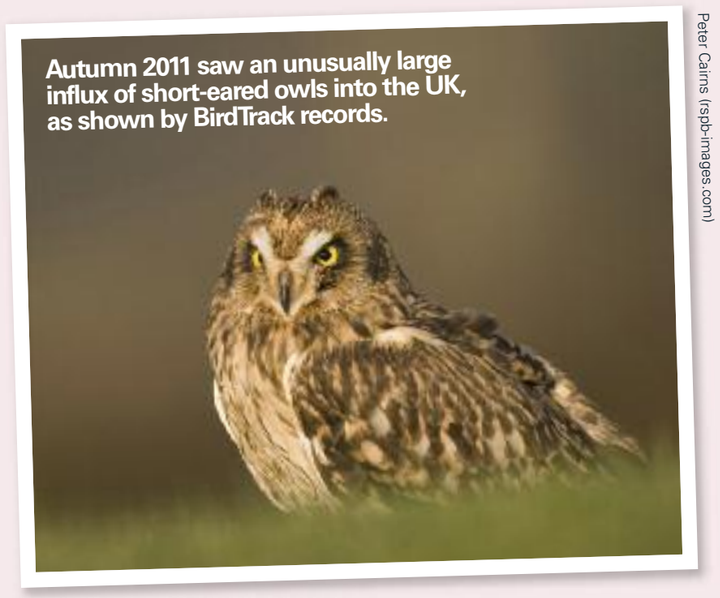
The primary scientific goal of BirdTrack's predecessor, Migration Watch (2002–04), was to gather information on a limited number of spring migrants from March to June, with a view to identifying any alterations caused by climatic change or other environmental factors.

BirdTrack, launched in August 2004, casts the net much wider, collecting records of all bird species, 365 days a year. The main scientific aims of BirdTrack are to monitor both arrival and departure dates of migratory species, facilitate distribution mapping, track movements and provide data on scarce species that are not well covered by structured surveys such as the Breeding Bird Survey. The system is fully integrated with local bird recording; the data are available to county bird recorders and local bird clubs via a user-operated online module, and continuing developments are further enhancing this facility.

For the individual birdwatcher, BirdTrack offers various tools for exploring and analysing personal records. This has proved very popular because it effectively provides birdwatchers with an "online notebook", whilst at the same time, ensuring that the records they enter are available to the relevant organisations without any extra work on the observer's part.

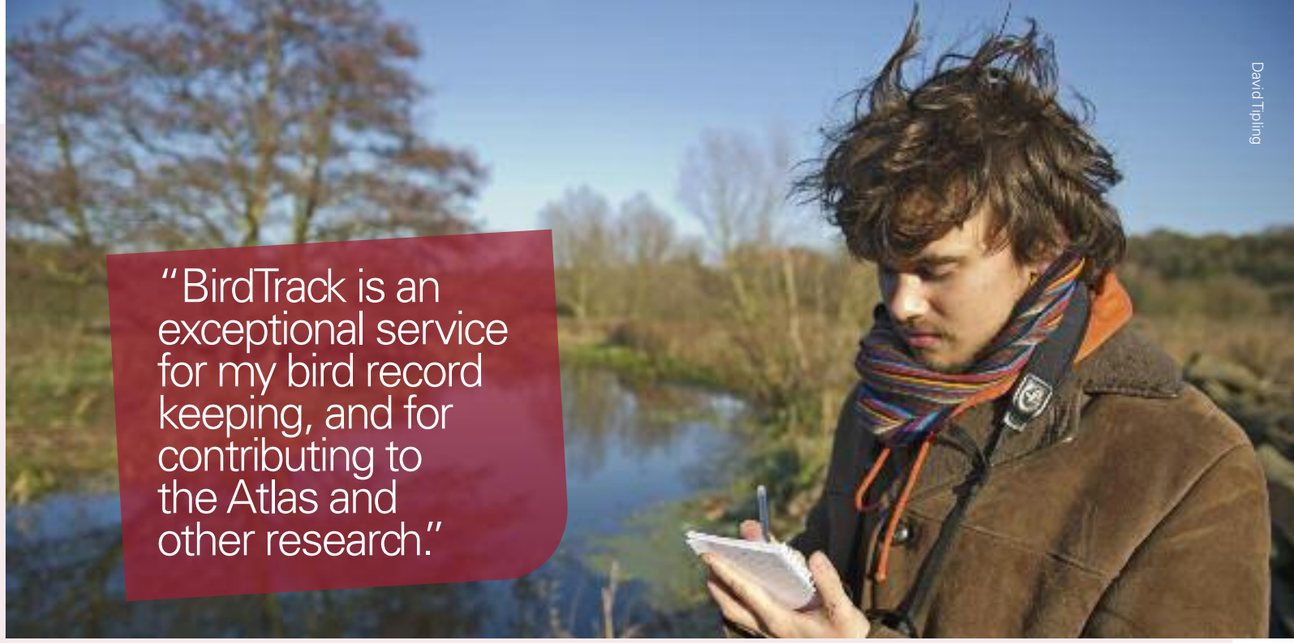
How BirdTrack data are used

Perhaps the most obvious use of BirdTrack data in conservation science to date has been the huge volume of records contributed to Bird Atlas 2007–11. This project, mapping the breeding and winter season distribution of birds across Britain and Ireland, has relied heavily on "roving records" – incidental records collected by birdwatchers going about their normal birdwatching. More than 4.5 million BirdTrack records have been made available for the Atlas, and ongoing local atlases continue to benefit from BirdTrack.



Autumn 2011 saw an unusually large influx of short-eared owls into the UK, as shown by BirdTrack records.

Peter Cairns (rspb-images.com)



"BirdTrack is an exceptional service for my bird record keeping, and for contributing to the Atlas and other research."

David Tipling

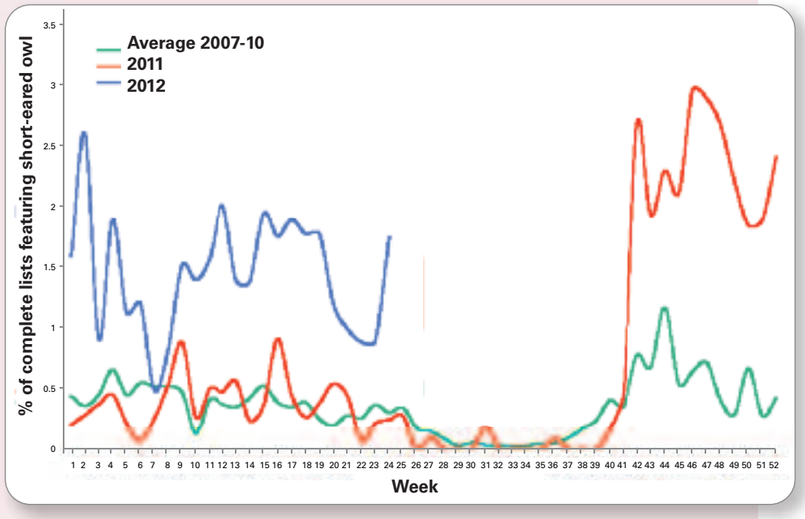
One of the main aims of BirdTrack is to provide us with a better understanding of arrival and departure dates of migratory species – analyses of the BirdTrack and Migration Watch datasets are underway to this end. Research to compare BirdTrack data with a dataset collected by the Inland Observation Points survey in the 1960s is already beginning to reveal significant changes to the arrival times of many summer migrants. It also offers a fascinating insight into the comparative changes occurring to the arrival time of species whose populations are stable or increasing, and those whose populations are in decline. We will share the findings of these analyses in a future issue of *SUKB*.

Counts of individual birds made and submitted to BirdTrack are proving valuable in assisting the monitoring of rare and scarce species. For example, the recent estimate of the number of **bitterns** spending the winter in the UK relied heavily on birdwatching records submitted via BirdTrack, BirdGuides (a birdwatchers' website) and the county bird recording network.

BirdTrack has been one of the key sources of data for the Bird Conservation Targeting Project (BCTP) too. The BCTP helps target management and resources towards important sites for scarce and declining farmland and woodland birds, guiding expenditure on agri-environment and woodland grant schemes, and influencing woodland management.

BirdTrack can highlight events such as population crashes, movements and influxes quickly – unlike the other monitoring schemes featured in *SUKB*, which have unavoidable lags in reporting due to the need for data collation and analysis. For example, the BirdTrack reporting rate – the proportion of complete lists featuring a given species – for birds like **woodcock** has shown sharp peaks during the hard weather of recent winters, reflecting the increased visibility of such birds during periods of snow cover. Late autumn 2011 saw an unusually large arrival to the UK of **short-eared owls**, an event that was illuminated by the BirdTrack reporting rate, and early 2012 saw a notable influx of **Iceland gulls**, exemplified by an increase in January records to double that of previous years.

It is the ability to present patterns like these that make BirdTrack such an exciting project for birdwatchers, as it adds a new dimension to their birdwatching by putting their records into a national context.



BirdTrack reporting rate for short-eared owls

Citizen science begins at home

Gardens are the main reservoirs of urban biodiversity and support important numbers of several birds of high conservation concern, such as familiar birds like **song thrushes**, **starlings** and **house sparrows**.

With more of us now living within urbanised environments, there is a real need to understand how gardens are used by birds and other wildlife so that we can predict the impacts of future urban expansion, and work to improve our urban areas for biodiversity, which in turn will bring benefits for the health and well-being of the people living there.

It is difficult to monitor the changing fortunes of garden wildlife by using conventional approaches, not least because gardens are in private ownership and difficult to access. Fortunately, it is possible to tap into the enthusiasm that many people have for their gardens and, in particular, the birds that visit them. With nearly 600,000 people contributing to the RSPB's Big Garden Birdwatch in 2012 (**www.rspb.org.uk/birdwatch**) it is clear that there is a real willingness to get involved with recording garden wildlife.

Such commitment is not just a one-off, as can be seen from the 15,000 people who contribute each week, throughout the year, to the BTO Garden BirdWatch (**www.bto.org/gbw**). This survey, which also includes the recording of other wildlife, highlights the contribution that adopting a citizen science approach can deliver. Some 80 million records have been generated through the scheme, providing a detailed picture of how birds and other wildlife use gardens and how this use changes with the season, over time and in relation to weather or other variables. We know, for example, that **goldfinches** make greatest use of gardens in April, that **great spotted woodpeckers** peak in June and that **yellowhammers** and **reed buntings** turn to rural gardens late in the winter, when seed availability in farmland is at its seasonal low.

Garden-based citizen science has also been instrumental in charting the impact of an emerging infectious disease in finches. Caused by a protozoan parasite, trichomonosis has been known as a disease of pigeons and doves – with some spill-over into predatory birds – for many years. The disease was first identified in finches in 2005, and there was a significant and widespread mortality of **greenfinches** and **chaffinches** late in the following summer. At the time of the outbreak, BTO Garden BirdWatch volunteers were collecting systematic information on diseased and dead birds through the Garden Bird Health initiative (GBHi), a wider project looking at the incidence of disease in birds visiting garden feeding stations. In addition to recording evidence of dead and diseased birds, volunteers liaised with staff at nominated veterinary laboratories so that a sample of the dead birds found was available for post-mortem examination.

Information from the network of BTO volunteers was used alongside the larger series of opportunistic observations, mainly collected through the RSPB's Wildlife Enquiries Unit or via the GBHi diseased bird line, managed by staff at the Institute of Zoology in London. The systematic observations allowed researchers to model the pattern of disease spread during the initial years of the outbreak (2006–2008). By bringing in information from the BBS, it was possible to show that the 2006 outbreak brought about a 35% decline in the **greenfinch** breeding population in the region where the outbreak had been most pronounced. A 20% decline was seen in the **chaffinch** population in the same region. Something like 500,000 **greenfinches** were lost as a result of the outbreak. This is the first time that a disease of this kind has been monitored at such a scale and so effectively, all thanks to garden birdwatchers.

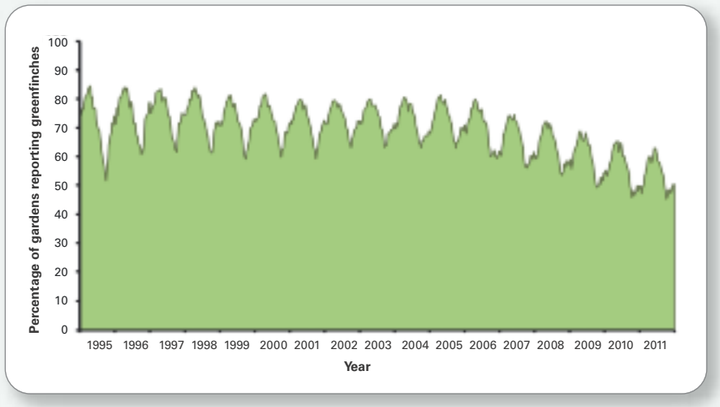
Having the network of citizen science observers in place also meant that the impact of the disease could be followed through 2007 and 2008, as the epicentre shifted from the west of England into the east, and then north into Scotland. In 2008, it was then reported from Fennoscandia and it has since spread into Germany. Knowledge of the migration patterns of those finch populations wintering in the UK, derived from the efforts of volunteer bird ringers, suggests that the disease spread from the UK to Fennoscandia via infected **chaffinches**. Wider work is now needed elsewhere across Europe to determine how the disease will affect other finch populations.

The efforts of volunteers provide information on garden wildlife, which complements that collected through other surveys of the countryside. Without their efforts, we would not fully appreciate the importance of gardens and their influence on bird populations at wider spatial scales. Fortunately, there appears to be an increasing appetite to participate in good quality citizen science projects, to engage with wildlife and to provide the information that informs and underpins conservation action.

Andy Hay (rspb-images.com)

Ben Hall (rspb-images.com)

Data from the weekly BTO Garden BirdWatch not only showed the strong seasonal pattern of garden use by greenfinches but also the impact of the trichomonosis outbreak in late summer 2006.



Trends in greenfinch reporting rates from the BTO Garden BirdWatch

Current and planned surveys

The information summarised in *The state of the UK's birds 2012* 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 listed on page 40.

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 Natural England (NE), Scottish Natural Heritage (SNH), the Countryside Council for Wales (CCW) and the Council for Nature Conservation and the Countryside (CNCC) in Northern Ireland – and the RSPB.
Contact the 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 the BTO, the RSPB and JNCC (on behalf of NE, SNH, Northern Ireland Environment Agency (NIEA) and CCW) in association with the Wildfowl & Wetlands Trust (WWT).
Contact the BTO.

The Goose & Swan Monitoring Programme (GSMP) comprises of a suite of surveys, funded under the WWT/JNCC/SNH partnership, designed to accurately assess the abundance and breeding success of geese and migratory swans in the UK during the non-breeding season. A number of these surveys, primarily for those populations where a high proportion occur in the UK, are conducted at a flyway scale.
Contact the WWT.

The Waterways Breeding Bird Survey (WBBS) has been running since 1998. This scheme and its predecessor, the Waterways Bird Survey (WBS, which ran from 1974 to 2007), aims to monitor riverside breeding birds, particularly waterway specialists, across the UK.
Contact the BTO.

The Heronries Census collects counts of apparently occupied nests each year from as many heronries as possible throughout the UK, to monitor populations of colonial waterbirds, especially **grey herons**, **little egrets** and **cormorants**.
Contact the BTO.

The Seabird Monitoring Programme gathers information on breeding numbers, breeding success and other parameters to help us understand drivers of change and to target conservation action. Co-ordinated by JNCC, it is a partnership between statutory nature conservation agencies, research and conservation organisations.
Contact the JNCC.

Research biologist ringing a juvenile ring ouzel

Andy Hay (rspb-images.com)

The Big Garden Birdwatch is the largest wildlife survey in the world – a simple design (one hour watching birds in the garden each January) means nearly 600,000 people took part in 2012. The data provide an excellent snapshot of garden bird numbers across the UK.
Contact the RSPB.

Garden BirdWatch 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 the BTO.

BirdTrack is a year-round, online bird recording system run by the BTO, the RSPB, BirdWatch Ireland, the Scottish Ornithologists' Club and the Welsh Ornithological Society. 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 the BTO/the RSPB or visit www.birdtrack.net

Ringing Scheme
The Ringing Scheme is run by BTO and covers Britain and Ireland. It is funded by a partnership of the BTO, the JNCC (on behalf of CCW, CNCC, NE and SNH), The National Parks and Wildlife Service (Ireland) and the ringers themselves. Volunteer bird ringers collect data on the survival, productivity, movements and condition of birds. Project ringing, such as the Constant Effort Sites Scheme, the Ringing Adults for Survival project, and other targeted ringing, forms an important part of the Scheme.
Contact the BTO.

Nest Record Scheme
The BTO Nest Record Scheme (NRS) gathers vital information on the breeding success of Britain's birds by asking volunteer nest recorders to find and follow the progress of individual birds' nests. The scheme is funded by a partnership of the BTO and the JNCC (on behalf of CCW, CNCC, NE and SNH).
Contact the BTO.

Statutory Conservation Agencies and RSPB Breeding Bird Scheme (SCARABBS). 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. **Ring ouzels** and **spotted crakes** were surveyed in 2012; species to be surveyed in 2013 may include **twite**, amongst others.
Contact the RSPB.

Chris Knights (rspb-images.com)

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; Anguilla National Trust; BirdWatch Ireland; British Birds; the British Trust for Ornithology; British Waterways; Centre for Ecology and Hydrology; CJ WildBird Foods; Countryside Council for Wales; Department for Environment, Food and Rural Affairs (Defra); Department of Environment, Government of Montserrat; Environment Agency; Environment Wales; European Bird Census Council; European Social Fund; European Union Life Programme; Forestry Commission; Forest Enterprise; Game and Wildlife Conservation Trust; Greenland White-fronted Goose Study; Hawk and Owl Trust; Irish Brent Goose Research Group; Joint Nature Conservation Committee; Manx BirdLife; Ministry of Defence; National Trust; National Trust for Scotland; Natural England; Northern England Raptor Forum; Northern Ireland Environment Agency; Northumbrian Water; Raptor Study Groups; Rare Breeding Birds Panel; the Royal Society for the Protection of Birds; St Helena National Trust; Scottish Government Environment and Forestry Directorate; Scottish Natural Heritage; Scottish Ornithologists' Club; Scottish Raptor Study Groups; Seabird Group; Severn Trent Water; Shetland Oil Terminal Environmental Advisory Group; Thames Water; Tristan Conservation Department; University of Cambridge; University of Exeter Centre for Ecology and Conservation; Wales Raptor Study Group; Welsh Kite Trust; the Wildfowl & Wetlands Trust; the Wildlife Trusts; and the Woodland Trust.

In particular, we would like to thank the landowners and their agents, tenants and employees who have allowed surveyors to visit their land to count birds.

Genevieve Leaper (rspb-images.com)

Adult kittiwake with chick

About us

The *state of the UK's birds 2012* is also available online from the websites of the BTO, the RSPB and WWT (see addresses below).

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www.rspb.org.uk
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http://jncc.defra.gov.uk

Natural England:
Foundry House, 3 Millsands, Riverside Exchange, Sheffield S3 8NH
Tel: 0845 600 3078
www.naturalengland.org.uk

Northern Ireland Environment Agency:
Klondyke Building, Cromac Avenue, Gasworks Business Park, Lower Ormeau Road, Malone Lower, Belfast BT7 2JA
Tel: 0845 302 0008
www.ni-environment.gov.uk

Scottish Natural Heritage:
Great Glen House, Leachkin Road, Inverness, IV3 8NW
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www.snh.gov.uk

David Tipling (rspb-images.com)

Numbers of pink-footed geese wintering in Norfolk have increased substantially in recent years.

Front cover image: southern rockhopper penguin on the Falkland Islands by David Osborn (rspb-images.com).

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