



THE STATE OF THE UK'S BIRDS 2011





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.

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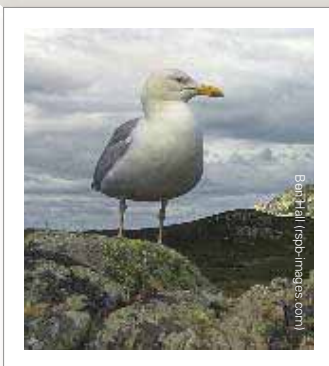
The headlines

To mark the 40th anniversary of the Ramsar Convention on wetlands, **SUKB 2011** has a particular focus on waterbirds and their conservation. We review the impact of the Convention on waterbird conservation in the UK, and report on:

- the return and spread of the **crane** as a breeding bird in the UK
- the fortunes of our rarer breeding waterbirds, most of which are thriving
- mixed fortunes for our breeding seabirds, with some – **Arctic skua**, **herring gull** and **kittiwake** amongst them – declining sharply
- how in recent years many of our wintering waterbirds have begun to show population declines following decades of recovery or increase. For many, a shift in range in response to climate change is the most likely cause, but for others there may be genuine population-level declines
- how the removal of rats from Henderson Island in the South Pacific, one of the UK's Overseas Territories, is great news for that island's breeding seabirds.

Of course, the report remains a one-stop shop for all the latest results from bird monitoring in the UK. Other headlines include:

- both farmland and woodland indicators fell to their lowest ever levels in the UK, driven by further declines in habitat specialists such as **turtle doves**, **grey partridges** and **corn buntings** (farmland) and **willow tits**, **lesser spotted woodpeckers** and **lesser redpolls** (woodland)
- we give an update on the status of birds on the UK's Biodiversity Action Plan priority species list
- new surveys of **hen harriers** and **capercaillie** reveal national populations have declined recently
- after a mammoth effort by more than 16,000 observers, fieldwork for the Bird Atlas 2007-11 is complete and the results are awaited eagerly.



Baird Hall (rspb-images.com)

▲ Although still widespread around the coast and increasingly so inland, numbers of **herring gulls** have greatly reduced in recent years.



Guy Rogers (rspb-images.com)

▲ **Lesser redpoll**, one of a number of red-listed woodland birds.

► **Arctic skua** moved straight from the green list to red in 2009.



Mark Sisson (rspb-images.com)

Introduction

This is the 12th *The state of the UK's birds* (SUKB) report. Published in 2011, it contains results from annual, periodic and one-off surveys and studies from as recently as 2010. It draws on many sources of information to give an up-to-date overview of the status of bird populations in the UK and its Overseas Territories.

The state of the UK's birds 2011 is produced by a coalition of three NGOs – the Royal Society for the Protection of Birds (RSPB), the British Trust for Ornithology (BTO) and the Wildfowl & Wetlands Trust (WWT) – and the UK Government's 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, Balmer DE, Cuthbert R, Grice PV, Hall J, Hearn RD, Holt CA, Musgrove AJ, Noble DG, Parsons M, Risely K, Stroud DA & Wotton S 2011. *The state of the UK's birds 2011*. RSPB, BTO, WWT, CCW, JNCC, NE, NIEA and SNH, Sandy, Bedfordshire.

Much of the information on which this publication is based comes from dedicated volunteers: thank you to all of them.

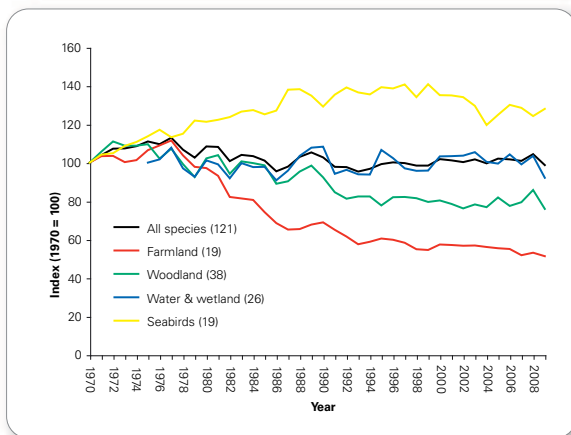
A special thank you to volunteers

Bird monitoring in the UK is led by NGOs in collaboration with the Government, but relies on the efforts of many thousands of volunteers, without whom the evidence base upon which bird conservation in the UK depends would be much poorer. *The state of the UK's birds* gives us the opportunity to recognise and celebrate the huge role of volunteers in bird monitoring, and to thank them for the time and effort they devote to the schemes described within the report. If this is you, then thank you; if not, why not consider joining one of the wide variety of schemes outlined on page 37?



Gratiana Medge (rspb-images.com)

Wild bird indicators



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 country'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 of individual species. Trends for species within the indicators can be found on pages 11-12 (common breeding birds) and 16 (seabirds).

Four out of the five breeding bird indicators fell between 2008 and 2009, with only the seabird line showing a slight increase. Alarmingly, the farmland and the woodland indicators both fell to their lowest ever levels, at 51.3% and 75.9%, respectively, of their 1970 starting values: in both indicators habitat specialists are faring considerably worse than more generalist species.

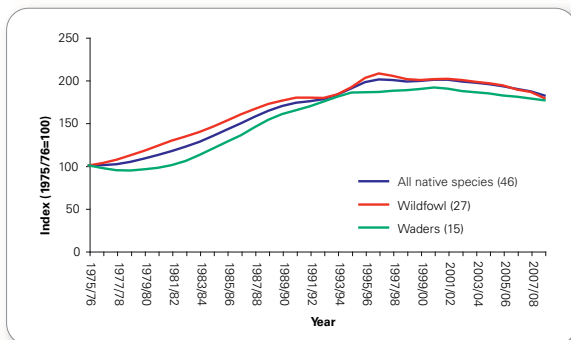
UK wintering waterbird indicator

In the winter, the UK holds internationally important populations of swans, geese, ducks and wading birds. The wintering waterbird indicator shows how numbers rose steadily from the mid 1970s to the late 1990s and then stabilised before entering a shallow decline. See pages 24-25 for trends in individual species and more discussion of the indicator.

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.

◀ **Sanderlings** pause for a moment on the tideline: like other waterbirds, the variable fortunes of the species are captured within the wintering waterbird indicator.

▲ Wild bird indicator



▲ Wintering waterbird indicator



Ray Kennedy (ispsh-images.com)



The precipitous decline of the **tree sparrow** in recent decades (numbers fell by over 90%) was one of the most noticeable aspects of the more general decline in farmland birds. Recent BBS results point to a small degree of recovery since the late 1990s.

Danny Green (ispsh-images.com)

Birds in the UK Biodiversity Action Plan

Name	Race ¹	Population	Population	Trend	Population	Year of
			trend (%)	period	size	estimate
Bewick's swan	<i>bewickii</i>	W	-44	97/98-07/08	7,000 ⁴	2005
European white-fronted goose	<i>albifrons</i>	W	-74	97/98-07/08	2,400 ⁴	2008/09
Greenland white-fronted goose	<i>flavirostris</i>	W	-40	97/98-07/08	13,000 ⁴	2009/10
Dark-bellied brent goose	<i>berniola</i>	W	-15	97/98-07/08	91,000 ⁴	2008/09
Scaup ²	-	W	29	97/98-07/08	5,200 ⁴	2008/09
Common scoter ²	-	B	-45	95-09	52 ³	2007
Red grouse	<i>scoticus</i>	B	-9	95-09	155,000 ³	2000
Black grouse	<i>britannicus</i>	B	-22	95/96-05	5,078 ⁴	2005
Capercaille	<i>urogallus</i>	B	-44	92/94-09/10	1,285 ⁴	2009/10
Grey partridge	<i>perdix</i>	B	-50	95-09	56,000 ³	2007
Black-throated diver	<i>arctica</i>	B	16	94-06	217 ³	2006
Balearic shearwater ²	-	P	Population size and trends not known			
Bittern	<i>stellaris</i>	B	383	95-10	87 ⁴	2010
Corncrake ²	-	B mig	89	97-10	1,214 ⁴	2010
Stone-curlew	<i>oediconemus</i>	B mig	124	95-10	369 ³	2010
Lapwing ²	-	B	-13	95-09	156,000 ³	2000
Black-tailed godwit	<i>limosa</i>	B mig	100	95-09	52 ³	2010
Curlew	<i>arquata</i>	B	-42	95-09	107,000 ³	2000
Red-necked phalarope ²	-	B mig	-38	97-10	26 ³	2010
Arctic skua ²	-	B mig	-34	00-10	2,100 ³	2002
Herring gull	<i>argenteus</i>	B	-38	00-10	131,000 ³	2002
	<i>argenteus</i> (& <i>argentatus</i>)	W	n/a	-	730,000 ⁴	2005/06
Roseate tern	<i>dougallii</i>	B mig	56	97-10	84 ³	2010
Turtle dove	<i>turtur</i>	B mig	-70	95-09	44,000 ³	2000
Cuckoo	<i>canorus</i>	B mig	-44	95-09	14,000 ⁴	2000
Nightjar	<i>europaeus</i>	B mig	35	92-04	4,606 ⁴	2004
Wryneck	<i>torquilla</i>	B mig	No breeding in recent years			
Lesser spotted woodpecker	<i>comminutus</i>	B	n/a	-	2,200 ³	2000
Woodlark	<i>arborea</i>	B	89	97-06	3,084 ³	2006
Skylark	<i>arvensis</i> & <i>scotica</i>	B	-11	95-09	1,785,000 ³	2000

Rows are colour-coded at the end according to Birds of Conservation Concern status, at species or sub-species level, as appropriate.

In 2007, the UK BAP priority species list was revised, and the list of priority bird species expanded from 26 to 59 races and species. A large proportion of the birds in this list are familiar conservation priorities in the UK: races belonging to the 26 former UK BAP species (on the priority species list between 1995 and 2006) are retained, and 43 of the races listed belong to species red-listed by *Birds of Conservation Concern 3* in 2009. Details of the criteria used to BAP-list species were given in *SUKB 2007*: here we give an update on recent trends, and estimates of population size, for these species.

► **Grey partridges still struggle to find insect food for growing chicks.**



Name	Race ¹	Population	Population	Trend	Population	Year of
			trend (%)	period	size	estimate
Tree pipit	<i>trivialis</i>	B mig	-5	95-09	74,400 ⁴	2000
Yellow wagtail	<i>flavissima</i>	B mig	-52	95-09	17,500 ³	2000
Fair Isle wren	<i>fridiariensis</i>	B	n/a	-	31 ³	2010
St Kilda wren	<i>hirtensis</i>	B	n/a	-	233 ³	1957
Dunnock	<i>occidentalis</i>	B	21	95-09	2,163,000 ³	2000
Ring ouzel	<i>torquatus</i>	B mig	n/a	-	6,157 ⁴	1999
Hebridean song thrush	<i>hebridensis</i>	B	n/a	-	?	?
Song thrush	<i>clarkei</i>	B	27	95-09	1,144,000 ³	2000
Grasshopper warbler	<i>naevia</i>	B mig	24	95-09	12,300 ⁴	2000
Savi's warbler	<i>luscinioides</i>	B mig	0	95-09	2	2007
Aquatic warbler ²	-	P	Rare migrant only			
Marsh warbler ²	-	B mig	-90	95-09	3	2007
Wood warbler ²	-	B mig	-61	95-09	9,700 ³	2000
Spotted flycatcher	<i>striata</i>	B mig	-39	95-09	63,700 ³	2000
Marsh tit	<i>palustris</i> & <i>dresseri</i>	B	-18	95-09	52,800 ³	2000
Willow tit	<i>kleinschmidtii</i>	B	-73	95-09	8,500 ³	2000
Red-backed shrike	<i>collurio</i>	B mig	Now only occasional breeder			
Starling	<i>vulgaris</i>	B	-38	95-09	804,000 ³	2000
House sparrow	<i>domesticus</i>	B	-9	95-09	2,778,000 ³	2000
Tree sparrow	<i>montanus</i>	B	55	95-09	68,000 ³	2000
Linnet	<i>cannabina</i> & <i>autochthona</i>	B	-23	95-09	556,000 ³	2000
Twite	<i>pipilans</i> & <i>bensonorum</i>	B	decline	-	10,000 ³	1999
Lesser redpoll ²	-	B	3	95-09	26,900 ³	2000
Scottish crossbill ²	-	B	n/a	-	6,800 ³	2008
Bullfinch	<i>pileata</i>	B	-8	95-09	166,000 ³	2000
Hawfinch	<i>coccothraustes</i>	B	decline	-	4,800	2000
Yellowhammer	<i>citrinella</i>	B	-16	95-09	792,000 ³	2000
Cirl bunting ²	-	B	90	98-09	862 ³	2009
Reed bunting	<i>schoeniclus</i>	B	33	95-09	202,000 ³	2000
Corn bunting	<i>calandra</i> & <i>clanceyi</i>	B	-29	95-09	10,000 ³	2000

¹For eight species, more than one UK-occurring race qualified for the candidate list. However, in some cases (eg *arvensis* and *scotica* skylarks) these have been lumped together, as for conservation purposes they would be treated together, either because of current uncertainty over the taxonomy of one or both races, or practical considerations in distinguishing the two races. ²Species is monotypic: there are no races.

Population	Population size units
B breeding population	3 = Breeding pairs
B mig breeding population, migrant	4 = Singing, displaying or breeding males
P passage only	5 = Individuals
W wintering population	

The list encompasses a wide range of species, both rare and common. Many on the list are declining farmland or woodland birds, some of which are migrants breeding in the UK. There is ongoing research work into the causes of decline in sub-Saharan migrants, including work on **turtle doves, cuckoos, tree pipits** and **wood warblers** in the UK.

Sub-Saharan habitats in West Africa, which range from deserts in the north to lush tropical forest in the south, harbour a wealth of resident and migrant birds. However, there is very little information on the requirements and distribution of migrant birds using these habitats. A new research project is looking to significantly advance our

current understanding of where, when and how birds are using their West African wintering grounds, which should lead to greater understanding of the drivers of population trends in the UK's migrant breeders.

For most of the commoner breeding species in the table, populations have not been estimated since 2000. National population estimates for these species are being updated currently. Most scarce or rare breeding species have population estimates derived from Rare Breeding Bird Panel data (see page 15) and/or from periodic species surveys. In the next section we present a round-up of some of the most recent surveys.

Recent surveys



Steve Kneill (rspb-images.com)

The 2010 UK & Isle of Man hen harrier survey

▲ A female **hen harrier** returns to its nest.

It is disappointing to report that the 2010 **hen harrier** survey found that the UK and Isle of Man population has declined significantly since the last survey in 2004: it was estimated at 662 territorial pairs (95% CL 576–770), 18% fewer than in 2004. Declines of 49% and 20% were observed in the Isle of Man and Scotland, respectively, although Scotland still holds the bulk (75%) of the population. In Wales **hen harriers** increased substantially, from 43 to 57 pairs. The English population remains extremely depleted, far below the 340 pairs that England could hold, with the few pairs present restricted largely to the Forest of Bowland. Here, a partnership involving Natural England, the RSPB, United

Utilities and the neighbouring moorland managers has helped to ensure that the **hen harrier** remains an English breeding species. In recent years, between 6 and 14 pairs bred on the Bowland Fells SPA, but elsewhere in England, there were just 2-3 breeding attempts per year. There is a substantial body of evidence linking depleted populations of **hen harriers**, such as in England and the Southern Uplands and eastern Highlands of Scotland, to illegal killing. This killing is particularly prevalent in areas with high levels of management for driven grouse shooting, where **hen harriers** are considered by some to have a harmful impact on the numbers of **red grouse** available for shooting.

Trends in hen harriers within the UK between 2004 and 2010

Country/area	No. territorial pairs in 2004	No. territorial pairs in 2010	% change 2004 – 2010
England	11	12	9
Isle of Man	57	29	-49.1
Northern Ireland	63 (58-68)	59	-6.3
Scotland	633 (563-717)	505 (417-612)	-20.2
Wales	43	57	32.6
UK total	749 (675-832)	633 (547-741)	-15.5
UK & Isle of Man total	806 (732-889)	662 (576-770)	-17.9

An update on the capercaillie population

The fourth national **capercaillie** survey was conducted over the winter of 2009/10 – unfortunate timing for the surveyors, as it was the hardest winter in recorded history in Northern Scotland! However, they were able to produce a population estimate of 1,285 individuals (95% confidence limits 822–1,882). Although not statistically significantly different from the estimate of 1,980 (1,284-2,758) individuals produced in 2003/04, the new estimate certainly suggests that **capercaillie** are failing to recover from the huge declines between the 1970s and 1990s, despite the considerable conservation action targeted at the species. The removal or high-visibility marking of many miles of deer and stock fences will have reduced the mortality from collisions in flight, but cold and wet spells in recent springs (particularly in 2007 and 2008) may have depressed productivity. The decline in numbers, and contraction in range – 75% of the population is now in Strathspey – makes the **capercaillie** increasingly vulnerable despite much conservation attention.



Peter Cairns (rspb-images.com)

▲ The **capercaillie** survey was completed despite severe weather.

Cranes in the UK

Research during 2010 has given us a better understanding of the status of **cranes** in the UK. **Cranes** became extinct as UK breeders over 400 years ago, probably mainly due to hunting. However, 1981 saw the return of breeding **cranes** to the UK, in the Norfolk Broads, with the first successful breeding the following year. Over the next two decades, the population grew very slowly, and by 2000 numbers had only increased to four pairs, all in the Norfolk Broads. However, over the last 10 years the population has seen significant growth. In 2010, the national **crane** population was put at 17 pairs, of which between 13 and 14 pairs were breeding, and these fledged eight young. This represents both the largest breeding population and highest number of young fledged since recolonisation.

The nucleus of the population remains in the Norfolk Broads, but breeding **cranes** have recently colonised the north of England and the Fens. The majority of the population is resident (unlike other breeding populations in Europe, which migrate to Iberia), and between 40 and 50 birds are



typically present during the winter, mainly in the Broads. The **crane** remains a rare breeder in the UK, but if this trend continues, it should spread into new areas. This recolonisation is being aided by an ambitious project reintroducing **cranes** to the Somerset Levels; it is intended to release up to 100 juvenile **cranes**, raised from eggs taken under licence from Germany, between 2010 and 2014, to establish a healthy breeding population here. Together with the naturally re-established birds, it is hoped that they will provide the nucleus for the continued recovery of this magnificent species in the UK.

◀ **Cranes** now breed in the Fens, northern England and the Norfolk Broads.

Malcolm Hunt (rspb-images.com)

Lapwings declined by 20% on England's lowland wet grasslands between 1982 and 2009-10. However, there are encouraging signs that agri-environment schemes are beginning to benefit this species.



Mark Hamblin (rspb-images.com)

Breeding waders on lowland wet grassland in England

During 2009 and 2010, breeding waders were surveyed on 275 lowland wet grassland sites across England. Coverage was based on the 2002 Breeding Waders of Wet Meadows (BWWM) survey, of which 159 sites had been surveyed in 1982 and 179 in 2002 enabling direct comparison of numbers across the three surveys spanning nearly 30 years.

The aims of this survey were to:

- provide Site Condition Monitoring of the Sites of Special Scientific Interest (SSSIs) designated for breeding waders;
- estimate trends in population from previous surveys in 1982 and 2002;
- investigate whether the distribution of waders in 2009-10 was related to site designation and/or presence of wader-related agri-environment (AE) prescriptions; and
- investigate whether the change in wader populations between 2002 and 2009-10 was related to wader-related AE prescriptions, and sites entering (or leaving) higher-level AE schemes.

Across England's wet lowland grassland, **lapwings** declined by 20% between 1982 and 2009-10 and **snipe** declined significantly by 43% between 1982 and 2009-10, although there was a non-significant increase of 21% between 2002 and 2009-10 in the latter species. Between 1982 and 2009-10 **oystercatchers** increased significantly by 146% in lowland wet grassland; **curlews** declined by 26% and **redshanks** increased by 25% over the same period. **Lapwings, snipe** and **redshanks** became increasingly concentrated into a smaller number of sites between 1982 and 2009-10.

At the scale of individual fields, those fields within nature reserves, or within sites designated as SSSIs, were significantly more likely to hold **lapwings, snipe** and **redshanks**. These species were also more likely to be present if fields were also under specific higher level AE management (such as Higher Level Stewardship). Furthermore, the probability of occupation by waders increased in fields which were not under wader-specific AE management in 2002 but were in 2010, welcome signs that such schemes may be working for this vulnerable group of birds.

Trends in common breeding birds in the UK

Species	Long-term trend % (1970-2009)	BBS trend % (1995-2009)
Mute swan	179	23
Greylag goose	na	148
Canada goose	na	93
Shelduck	145*	2
Mallard	98	18
Tufted duck	104	47
Red grouse	na	3
Red-legged partridge	-14	27
Grey partridge	-91	-54
Pheasant	76*	34
Grey heron	21	2
Little grebe	-40	15
Great crested grebe	na	16
Red kite	na	475
Sparrowhawk	81	-8
Buzzard	435*	72
Kestrel	-39*	-28
Hobby	na	20
Moorhen	-5	14
Coot	81	37
Oystercatcher	na	-8
Golden plover	na	-4
Lapwing	-48	-20
Snipe	na	50
Curlew	-60*	-41
Redshank	na	-35
Common sandpiper	-40	-7
Feral pigeon	na	-8
Stock dove	83*	4
Woodpigeon	130	38
Collared dove	400	25
Turtle dove	-91	-74
Ring-necked parakeet	na	842
Cuckoo	-61*	-48
Barn owl	na	501
Little owl	-43	-29
Tawny owl	-32	-18
Swift	na	-31
Kingfisher	-11	-17
Green woodpecker	127*	47
Great spotted woodpecker	364	139
Lesser spotted woodpecker	-70	na
Skylark	-55*	-15
Sand martin	9	33
Swallow	21*	34
House martin	-45*	-4
Tree pipit	-75*	-13
Meadow pipit	-44*	-21
Yellow wagtail	-75	-55
Grey wagtail	-35	15
Pied wagtail	31	-5
Dipper	-32	-35

This table shows the estimated long-term (1970-2009) and short-term (1995-2009) trends for common breeding birds in the UK, based on the results of four annual bird surveys; the Common Birds Census (CBC) from 1970 to 2000, its replacement – the Breeding Bird Survey (BBS) from 1994 to 2009, the Waterways Bird Survey (WBS) from 1974 to 2009, and its replacement – the Waterways Breeding Bird Survey (WBBS) from 1998 to 2009.



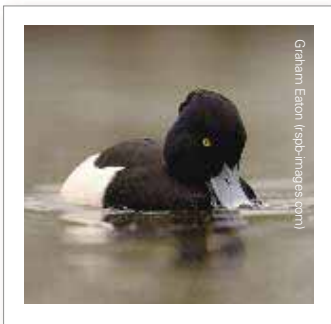
Steve Kneill (rspb-images.com)

▲ **Bullfinch**: now a localised species in many parts of the UK.



Gordon Langshur (rspb-images.com)

▲ **Kingfishers** need ice-free conditions to hunt fish and are typically affected by long spells of severe weather.



Graham Eaton (gsph-images.com)

▲ **Tufted duck** is a common, widespread and increasing breeding species over much of the UK.

All short-term trends are based on the smoothed BBS estimates of change in the UK between 1995 and 2009 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. For most species, the long term trends are based on the smoothed estimates of change between 1970 and 2009 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 2009. 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). Long-term trends for six riverine species are based on smoothed WBS-WBBS estimates of change between 1975 and 2009 and between 1978 and 2009 for **sand martin**. Although all data, including the most recent from 2010, are included in these analyses, we report measures of change from 1970 or 1995 to the penultimate year – 2009, to avoid unreliable effects due to smoothing at the endpoints of time series. Apart from the six riverine species, long-term trends cover shorter time periods due to the later availability of reliable data, as follows: 1972-2009 for **collared doves**, 1975-2009 for **sparrowhawks** and 1977-2009 for **house sparrows**.

More details on the BBS, including *The Breeding Bird Survey 2010* report, can be found at www.bto.org/bbs

Species	Long-term trend % (1970-2009)	BBS trend % (1995-2009)
Wren	44	12
Dunnock	-29	24
Robin	49	19
Nightingale	na	-60
Redstart	27	7
Whinchat	na	-55
Stonechat	na	68
Wheatear	na	1
Blackbird	-13	26
Song thrush	-49	24
Mistle thrush	-53	-21
Grasshopper warbler	na	23
Sedge warbler	-14	8
Reed warbler	135	30
Blackcap	175	73
Garden warbler	6	-10
Lesser whitethroat	19	3
Whitethroat	1	25
Wood warbler	na	-63
Chiffchaff	49	52
Willow warbler	-39*	-5
Goldcrest	-25*	-8
Spotted flycatcher	-87	-47
Pied flycatcher	na	-51
Long-tailed tit	109*	24
Blue tit	23	4
Great tit	91	45
Coal tit	30	12
Willow tit	-92	-76
Marsh tit	-68	-21
Nuthatch	203	66
Treecreeper	-22	-6
Jay	6	16
Magpie	94	-3
Jackdaw	124	39
Rook	na	-12
Carrion crow	85*	9
Hooded crow	na	3
Raven	na	0
Starling	-78*	-45
House sparrow	-66*	-6
Tree sparrow	-92*	73
Chaffinch	36	11
Greenfinch	0	2
Goldfinch	103*	73
Siskin	na	38
Linnet	-56*	-23
Lesser redpoll	-88*	16
Common crossbill	na	10
Bullfinch	-47	-4
Yellowhammer	-56	-17
Reed bunting	-33	30
Corn bunting	-90	-33

A report such as this one, designed to give an overview of all UK bird populations, needs to consider species that are rare or specialised as well as birds characteristic of the wider countryside. There is no single monitoring technique that will work for all species; common birds can be surveyed by large-scale random-sampling methods such as the BBS, but this will not pick up the less common birds, which need a more targeted approach, perhaps even counting every individual bird for very rare species, or using bespoke surveys such as those described on pages 8-10. Different survey techniques are also needed for breeding and wintering species, as wintering birds are more likely to roam across wider areas than breeding birds, which are tied to a nest site or territory. Even considering just the relatively common terrestrial breeding birds, it is important to bear in mind the survey requirements of nocturnal species, those that breed in colonies, and species that are associated with very specific habitats.

Riparian birds can only be monitored effectively by surveying their specific habitat as species such as **grey wagtail, dipper, sand martin, kingfisher** and grebes are typically found on rivers, canals and smaller waterbodies. The random site selection of the BBS may not include enough of the required habitat, so the species trends presented here are derived from the Waterways Breeding Bird Survey (WBBS). This is a transect survey with many similarities to the BBS, but the sites are randomly-selected stretches of rivers and canals (not to be confused with the Wetland Bird Survey, or WeBS, designed to monitor wintering waterbirds on larger waterbodies and which supplies trends for these species as presented on pages 24-29). Rivers and canals are often havens for wildlife, creating wildlife corridors that reach into the heart of our cities, and stretch from moorland to estuary. Specific monitoring of riverine birds has revealed that a number of species are experiencing long-term declines, including **common sandpiper, grey wagtail** and **dipper**. All of these species are dependent on waterways for breeding habitat, and declines may be due to changes in management of our waterways, the building of flood defences, or changes in water quality (eg acidification). Numbers of some other waterbirds are stable or increasing, such as **moorhens, coots, mallards** and **tufted ducks**, though these species are not so restricted to small flowing waterways.

A number of waders are monitored by the BBS; most are not closely associated with waterways, but are species of wet grasslands in both the lowlands and uplands. Changes in farmland management, such as the drainage of wet meadows, is one of the contributing factors in the breeding population declines of **redshanks** and **lapwings**.



Gordon Langshury (gsph-images.com)

▲ **Marsh tits** may be declining because of changes in woodland management and an increase in deer browsing.

The drying of woodland may be associated with the decline of the **willow tit**, as research has shown that this species favours wet scrub habitat which may have decreased in extent in recent years. Numbers have also declined least in the wet woodlands this species prefers.

For other declining woodland species, such as **lesser spotted woodpecker, marsh tit, pied flycatcher** and **wood warbler**, the causes of change may have more to do with changes in woodland management and an increase in deer browsing creating suboptimal conditions for breeding. Several declining woodland species are also long distance migrants, so may be suffering impacts during migration or on their wintering grounds in Sub-Saharan Africa.

In total, more than 100 species are monitored by the BBS, including some relatively uncommon species such as **nightingale, whinchat** and **grasshopper warbler**. Many declining species appear to be affected by changes in land management, including farmland and woodland specialists, and long-distance migrants. The more generalist species, including birds that have adapted to take advantage of food supplies in gardens, such as **goldfinches** and **siskins**, are more likely to show population increases. These large-scale population changes monitored by the BBS help us to detect the effects of changes in the management of our countryside.



Jeroen Steil (rsfb-images.com)

A huge conservation effort has been rewarded by a dramatic increase in the numbers of breeding **bitterns**.

The Rare Breeding Birds Panel

The Rare Breeding Birds Panel (RBBP) has encouraged the recording of the UK's rarest breeding birds, collated data and reported their status, since 1973. This independent body reports annually on around 80 rare and scarce breeding species.

In all, 147 species have been reported upon by the Panel over the last four decades, of which 68 might be considered regular UK breeders in recent years. Of these, 33 are birds of wetland habitats – a higher percentage (48%) than might be expected by chance, as around 30% of all our breeding species favour wetlands. Why are so many of our wetland breeding birds rare? One obvious reason would be the relative scarcity of wetland habitat, particularly for species that are dependent on a particular type of wetland, such as reedbed, or require large wetland sites of which the UK now has few. This was not always the case, however, as it is estimated that around 80% of the UK's wetlands have been lost in the last millennium. Of those remaining, many valuable coastal sites are under threat of sea level rise. But not all is doom and gloom, as recent years have seen a concerted effort to improve the condition and extent of existing wetlands as well as to create new ones.

Of the 33 wetland birds, we have population trends for 29, and 21 (72%) have increased over the last 25 years, with only four (14%) declining. A multitude of reasons lie behind these increases, including species benefiting from climate change (**little egret**, **Mediterranean gull**, **Cetti's warbler**) and recovering from historical persecution (**osprey**). However, for a number, such as **bittern**, **marsh harrier** and **avocet**, the improved management of wetlands and the creation of new sites has undoubtedly facilitated their increases.

In addition to increases amongst established wetland species, the last few years have seen the successful breeding of a number of potential new colonists from mainland Europe, including **spoonbills**, **cattle egrets**, **purple herons** and **black-winged stilts**. Although these might not establish themselves as regular breeders, their arrival does fit with predictions of northward range expansions in response to climate change. However, in recent decades, the likes of **common rosefinches** and **serins** have been heralded as "colonists" only for breeding attempts to falter: a fate that may await these waterbirds, too. As pioneering individuals arrive in the UK and find new wetland sites, such as those on the Somerset Levels and East Anglian Fens, it seems likely that some may become regular breeders, although it remains to be seen whether any replicate the remarkable expansion shown by **little egrets** since the 1990s.

▼ After returning as a regular breeder in the UK in the 1940s, **avocet** numbers have increased steadily to around 1,693 pairs in 2009, as featured in the annual report of the RBBP.



Chris Gomersall (rsfb-images.com)

Breeding seabirds in the UK

Since 1986 the Seabird Monitoring Programme (SMP) has co-ordinated the monitoring of breeding seabird populations in the UK, through an extensive sample of colonies monitored by partner organisations, supplemented with more intensive monitoring of behavioural and demographic parameters at key colonies. This information is helping us to understand how the main drivers of change are affecting the UK's internationally important seabird populations.

The table shows the differing fortunes of species monitored by the SMP. Since 1986, substantial declines have occurred in the breeding populations of **shags**, **Arctic skuas**, **herring gulls**, **kittiwakes** and **roseate terns**. Continuing declines have been seen in all these species, apart from the **roseate tern**, which continues its slow recovery from the large declines that occurred in the 1980s.

Trends in breeding seabird numbers in the UK

Species	1986-2010 trend %	2000-2010 trend %
Fulmar	-17	1
Gannet ¹	77	26
Cormorant	10	-7
Shag	-33	-15
Arctic skua	-57	-34
Great skua ¹	49	18
Black-headed gull	34	29
Lesser black-backed gull	-2	-36
Herring gull	-29	-38
Great black-backed gull	-9	-14
Kittiwake	-47	-30
Little tern	-13	7
Sandwich tern	0	-7
Common tern	17	3
Roseate tern	-71	99
Arctic tern	16	7
Guillemot	49	17
Razorbill	41	1

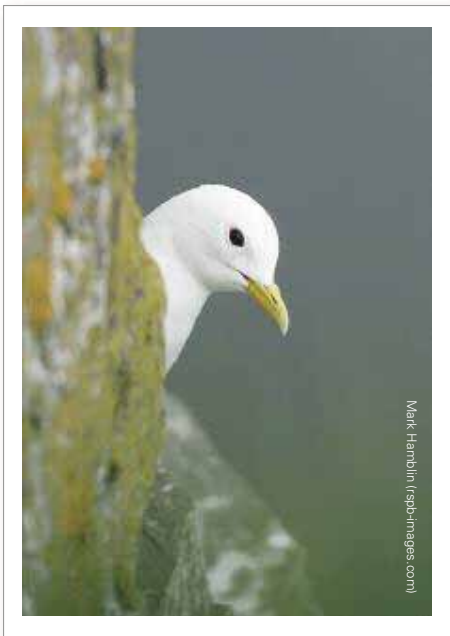
¹trend derived from census interpolations and extrapolations

Numbers of **Arctic skuas** have fluctuated at very low levels during the past five years, following severe declines since the mid 1980s. In contrast, numbers of **great skuas** – by which **Arctic skuas** tend to be outcompeted – have increased during the monitoring period, although the rate of increase has probably slowed. This slowdown has probably been fuelled by reductions in fishery discards, associated with the decline of the fishing industry, together with shortages of sandeels.

Kittiwake numbers have declined steadily since the early 1990s, with an estimated 30% decline in the last decade. Productivity approximately halved during the period 1986 to 2010; this is related to declines in their sandeel prey and, in some areas, this has been negatively correlated with sea surface temperatures, associated with climate change.

Numbers of **guillemots** are probably now higher than at any time since the first census in the late 1960s. Following signs that the rate of increase had slowed, the population index increased by 14% between 2009 and 2010. Productivity was exceptionally low in 2005-8 but increased thereafter. **Razorbill** numbers increased until 2005, then declined by 22% to 2010. Productivity has declined during the recording period.

◀ **Kittiwake** numbers have nearly halved since the mid 1980s.



Mark Hamblin (sdp-images.com)

The population index for **cormorant** increased from the mid 1980s to the mid 1990s, boosted by increases at inland colonies (largely of the race *sinensis*, originating from continental Europe). Numbers have declined since 1995 (with a temporary increase in the mid 2000s). Shooting – licensed and unlicensed – is a probable contributory factor in their recent decline, as well as possible changes in food availability. **Shag** numbers remain around their lowest level since monitoring began in the mid 1980s. The species is affected by high mortality following prolonged onshore gales, with severe events occurring in 1994 and 2005; populations appear to be very slow to recover from these events.



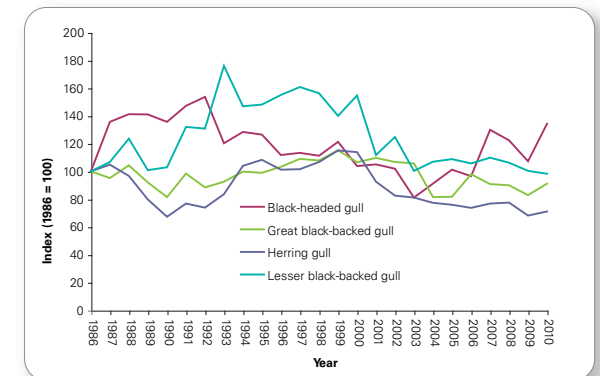
▲ Trends in cormorants and shags in the UK.

Lesser black-backed gull, **great black-backed gull** and **herring gull** have shown similar patterns: an increase up to the mid 1990s, a marked decline during the early 2000s, then smaller declines since. The causes are poorly understood. **Herring gulls** and **lesser black-backed gulls** now breed on rooftops and other man-made structures. Recent information on such breeders is incomplete, but it appears that urban nesters fare better than those in natural habitats, so the main causes of decline would appear to be at coastal colonies. **Black-headed gull** numbers have increased during the last seven years, following declines from the early 1990s. The species may have benefited – in common with many ground-nesting birds – from recent mink control and eradication measures.

Little tern numbers have increased since 2005, following a period of decline since the mid 1980s. Productivity has fluctuated from year to year with no clear trend but has often been low. Factors contributing to the low productivity include predation of chicks and eggs by foxes, **carriion crows** and **kestrels**, nest loss due to bad weather, food shortage and, chiefly, disturbance by people.

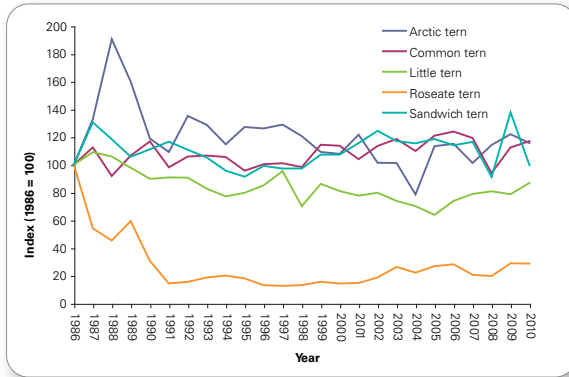
Sandwich tern breeding numbers have declined since 2002 and their productivity has declined since 2000, with fewer than one pair in three raising a chick in 2010. Predation by foxes is often a cause of failure, and fencing to exclude them is not

always successful. Because **Sandwich terns** and **little terns** nest on low-lying ground close to the tide edge, their nests are vulnerable to tidal inundation and erosion; increased storminess and sea-level rises predicted under climate change may lead to increased prevalence of such events. **Arctic tern** numbers decreased from the late 1980s (due to sandeel shortages probably caused by regional oceanographic change) to a low in 2004, but have since increased, probably helped by mink eradication in the west of Scotland.



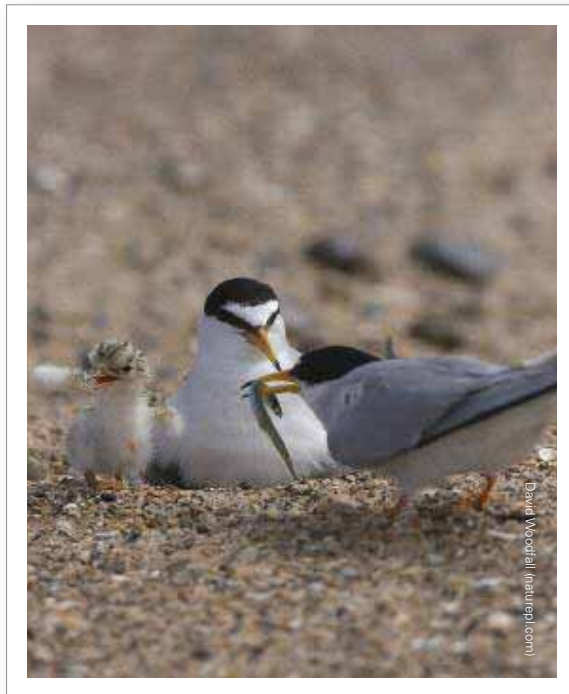
▲ Trends in four species of gull in the UK.

Ramsar at 40: the protection of wetland birds in the UK



▲ Trends in breeding terns in the UK.

▼ Although increasing since 2005, **little terns** are particularly sensitive to tidal inundation and erosion, which may become an increasing problem for the species in the future due to the impacts of climate change.



David Woodfall (naturep.com)

Seabirds and Ramsar

The Ramsar Convention, 40 years old in 2011 and described on pages 19-23, is often regarded as a tool for the conservation of wildfowl and waders. It has, however, also acted as a valuable driver for seabird conservation in the UK. The seabirds primarily benefiting from the provisions of the Convention are gulls, terns, **cormorants** and **shags**, which comprise the seabird element of “waterfowl”; one of the groups for which the Convention has identified specific site-selection criteria. These seabirds – typically being highly colonial and thus occurring at high densities in restricted areas – benefit especially from site protection measures afforded by the Convention, vulnerable as they are to mammalian nest predation, human disturbance, tidal inundation/erosion and vegetation succession. Significant proportions of UK populations are protected within the UK network of Ramsar Sites.

Ramsar Sites notable for their breeding seabirds include the Ythan Estuary and Meikle Loch in north-east Scotland (holding 5% of the GB population of **Sandwich terns**), the Isles of Scilly (with England’s only known breeding **storm petrels** and large numbers of **lesser black-backed gulls** and **shags**) and Strangford Lough in Northern Ireland (with a significant population of **common terns** and **Sandwich terns**).

Assessing the role that the Convention has had on populations of birds is problematic, not least because sometimes the drivers of change are factors influencing populations when the birds are either away from the sites concerned (eg whilst feeding at sea), and/or at different times of year (eg in winter). Additionally, it is hard to assess the “protective” consequences of site designations such as, for instance, destructive development that *didn’t* occur because the site was designated. By their nature, very often such events are unknowable.

However, there is no doubt that the Ramsar Site network has been and continues to be of great significance for the conservation of breeding seabirds in the UK.

Forty years ago, representatives of **23 countries and nine international organisations met in the Iranian town of Ramsar on the Caspian Sea coast to discuss the first modern multi-lateral environmental agreement. What was agreed – the Convention on Wetlands of International Importance especially as waterfowl habitat – is still the only such agreement to be focused on a specific biotope and marked a watershed moment for international conservation.**

For the previous decade, it had become increasingly apparent that there was a pressing need for an international treaty to help protect and manage crucially important wetlands, not just for waterbirds but since “wetlands constitute a resource of great economic, cultural, scientific and recreational value, the loss of which would be irreparable”.

Through the 1960s, technical meetings had shaped the elements eventually to be included in the “Ramsar Convention.” Whilst it is usual these days to caricature the Convention as initially being narrowly focused just on waterbirds, the reality is that the Convention has always had a holistic vision, both of the values and services provided by wetlands and in what it asks of its Contracting Parties. Indeed, it introduced the concept of wetland “wise use” decades before its synonym “sustainable use” became widespread conservation parlance.

Those drafting the Convention were “confident that the conservation of wetlands and their flora and fauna can be ensured by combining far-sighted national policies with co-ordinated international action.” UK progress to that end can be considered against each of the Convention’s three “pillars” of activity:

- the protection of wetlands of international importance through their designation as Ramsar sites;
- the wise use of all wetlands (whether or not designated); and
- international co-operation in the context of the conservation of wetlands and migratory species.



Andy Hay (rspbimages.com)

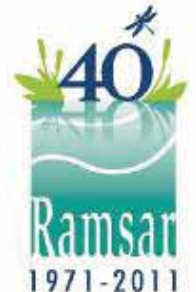
Wetlands of international importance

In 1976, the UK became the ninth Contracting Party to accede to the Convention, with the designation of 12 Ramsar sites. These initial designations were largely state-owned National Nature Reserves, such as Cors Fochno and the Dyfi Estuary, Loch Lomond, and Lindsfarne. Later designations have included some of the most ornithologically important sites in the UK, including the peatlands of the Flow Country in Caithness and Sutherland, and of Lewis, with their valuable populations of breeding waders such as **greenshanks** and **dunlins**, **red- and black-throated divers**, **wigeons** and **common scoters**; estuaries such as The Wash, Dee and Solway Firth with huge numbers of wintering waterfowl (between 2004-05 and 2008-09 the total number of waterbirds on The Wash averaged 372,964); and wet heathlands such as those in Dorset and the New Forest, which are rich in many sorts of flora and fauna including waders such as **curlews** and **snipe**.

Most sites in metropolitan UK were designated between 1985 and 2001 (see graph on page 23), with more recent designations occurring in some of the Overseas Territories and Crown Dependencies (see page 31).

Wetland types within the network are dominated by estuaries and other “soft” coastlines comprising more than a third

▲ A high proportion of the UK’s **greenshanks** breed on Scottish peatland Ramsar sites, whilst in winter they occur on our Ramsar-designated estuaries.



Continued on page 22

This map illustrates how the protection of multiple internationally important wetlands under the Ramsar Convention is crucial for the conservation of migratory waterbirds. The migrations of these birds link countries over thousands of miles, and they depend on national Ramsar site networks to help sustain their critical habitats year-round.

Unfortunately, not all important wetlands have adequate protection, and waterbirds face many other threats as indicated. Ensuring that protected areas are well managed ensures that birds are in best condition to resist the impacts of threats and pressures outside these sites.



Andy Hay (fsph-images.com)

Knot (*islandica* race)

Breeding areas: high Arctic Canada and Greenland

Migratory staging areas: Norway and Iceland

Non-breeding areas: estuaries from UK south to Portugal

UK Ramsar sites: include Stour and Orwell Estuaries, Foulness, The Wash (England); Burry Inlet (Wales); Lough Foyle, Belfast Lough (Northern Ireland); Cromarty Firth (Scotland)

Ramsar sites in other countries: Canada, Ireland, France, Norway



Mark Hamblin (fsph-images.com)

Canadian light-bellied brent goose

Breeding areas: high Arctic Canada and NW Greenland

Migratory staging areas: Iceland

Non-breeding areas: estuaries and coasts of Ireland

UK Ramsar sites: Carlingford Lough, Lough Foyle, Larne Lough, Outer Ards, Strangford Lough (Northern Ireland)

Ramsar sites in other countries: Ireland, Canada

Some of the pressures faced

- 1 Reduced nesting success due to changed spring climate and/or competition with Canada geese in Greenland
- 2 Sea level rise impacts on wintering areas
- 3 Seabirds – marine food chains
Non-native predators

- 4 Climate change impacts on high Arctic breeding grounds and migration schedules
- 5 Loss of small wetlands on migration and wintering areas

- 6 Impacts of agricultural intensification in Europe

- 7 Illegal killing in west Africa



Andy Hay (fsph-images.com)

Greenland white-fronted goose

Breeding areas: low Arctic W Greenland

Migratory staging areas: Iceland

Non-breeding areas: grasslands and peatlands in Ireland, Scotland and Wales

UK Ramsar sites: include Eilean na Muice Duibhe/Duich Moss, Islay; Caithness Lochs, Loch Ken and River Dee Marshes, Loch Lomond (Scotland); Dyfi Estuary (Wales)

Ramsar sites in other countries: Ireland, Iceland, Greenland



Karel Zibe (fsph-images.com)

Arctic tern

Breeding areas: islands north from the UK to the Arctic

Non-breeding areas: coasts and marine areas of the east Atlantic south to Southern Africa

UK Ramsar sites: Outer Ards, Strangford Loch (N Ireland); Firth of Forth (Scotland)

Ramsar sites in other countries: Greenland, Norway, Sweden, Mauritania



Chris Gomersall (fsph-images.com)

Black-tailed godwit

(*limosa* race, western European population)

Breeding areas: temperate wet grasslands in Europe

Migratory staging areas: Portugal, Spain

Non-breeding areas: estuaries and coasts of the east Atlantic south to west Africa

UK Ramsar sites: Nene Washes, Ouse Washes (England)

Ramsar sites in other countries: Netherlands, France, Portugal, Mauritania, Senegal



Andy Hay (fsph-images.com)

Shoveler

Breeding areas: temperate and sub-Arctic wetlands across Eurasia

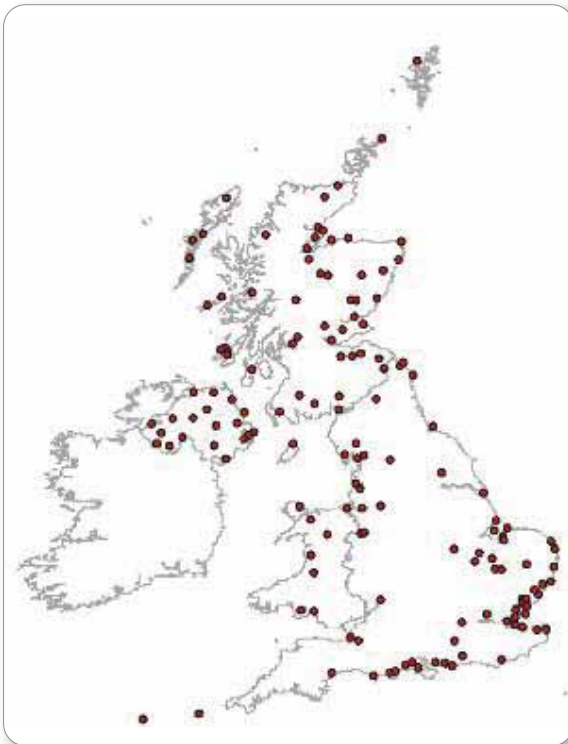
Non-breeding areas: inland and coastal wetlands across Europe and northern Africa

UK Ramsar sites: include Abberton Reservoir, Blackwater Estuary, Rutland Water (England); Burry Inlet (Wales); Lough Neagh & Lough Beg (Northern Ireland); Loch Leven (Scotland)

Ramsar sites in other countries: Russia, Poland, Denmark, Germany, Netherlands, Belgium, France, Mauritania, Senegal



▲ A frosted water meadow at Matford RSPB reserve, Exe Estuary Ramsar site.



▲ Ramsar sites in the UK.

(35%) of total extent within the UK and its Overseas Territories. Rocky shores and other coasts comprise a further 5%, whilst tropical coastal wetlands are represented by coral reefs, mangroves and sea grasses (15%). Peatlands make up nearly a quarter of the network (24%).

The relative abundance of different wetlands within Ramsar sites reflects the UK's international ornithological importance very well. The huge significance of our soft coasts, especially estuaries and associated habitats such as saltmarshes, for migratory waterbirds is well known. Likewise, UK peatlands hold diverse and internationally important bird communities.

Despite their legal protection however, Ramsar sites are not immune to development pressures. For example, in recent years damaging developments were proposed on the Lewis Peatlands, and at Solent and Southampton Water (at Dibden Bay, used by **wigeons** and **black-tailed godwits**, amongst others). Following lengthy consideration, both these proposals were rejected, with the international importance of the sites being a determining factor. It is clear that designation makes a difference.

The wise use of wetlands

Lack of a comprehensive UK wetland inventory precludes an assessment of changes in extent over the last 40 years. However, the development of government policy and legislation, including the Wildlife & Countryside Act in 1981, and more recent UK and Scottish legislation, has greatly benefited wetlands. The implementation of EU legislation, notably the 2000 Water Framework Directive and the Birds Directive, further help to regulate those processes negatively impacting on UK wetlands.

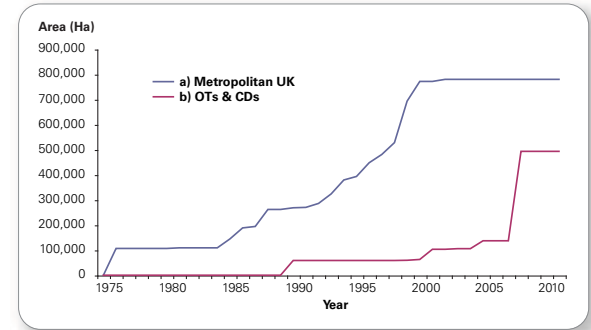
The development of thinking about ecological networks and habitat conservation at landscape-scales (exemplified in the recent *Making Space for Nature* report for England) has exciting potential, with the strategic targeting of restoration programmes giving the potential to start to reverse earlier wetland losses in the countryside.

However, the need to promote wise use continues. In 2010, Defra published research on compliance with 1999 legislation prohibiting the use of lead gunshot over some English wetlands and for shooting wildfowl and some other species of waterbird anywhere. This found that, despite significant efforts from hunting organisations and others to raise awareness, 11 years after the introduction of legislation, some 70% of a sample of 492 ducks randomly purchased from game dealers had – illegally – been killed with lead gunshot. Questionnaire surveys of the shooting community found that understanding of the spirit of the legislation was good but there was reluctance to comply for a variety of reasons. This is a very worrying finding and emphasises that, in such issues, legislative change and awareness raising alone can be insufficient to modify behaviours damaging to the environment.

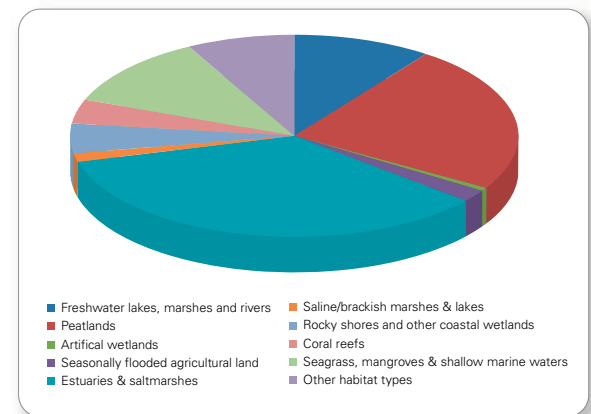
International conservation

Ramsar urges international co-operation with neighbouring Contracting Parties, especially where wetlands straddle national boundaries, as indeed so many do. The UK has always had good relations with the Irish Republic in relation to environmental management, and a range of processes and policies help regulate the management of the main transboundary wetlands in Northern Ireland, notably the shared sea-loughs of Carlingford and Foyle, and the major catchment of the River Erne.

The UK shares many of its waterbirds with other countries, a consequence of its geographic location at the intersection of several migratory flyways. The map illustrates how birds breeding from as far apart as Arctic Canada, eastern Europe and Siberia come to the UK for the winter, whilst many others pass through en route for wintering grounds to the south. In the early 1990s, more structured means of addressing the conservation needs of migratory species through internationally agreed action plans were developed. Such plans have been helpful in promoting jointly agreed conservation actions for species with other countries.



▲ Cumulative increase in extent of wetlands designated as Ramsar Sites in metropolitan UK, and the UK's Overseas Territories and Crown Dependencies.



▲ Relative extent of main wetland types occurring within the UK Ramsar Site network (metropolitan UK and UKOTs).



▲ Solway Firth at sunset.

Wintering waterbirds in the UK



The UK continues to host internationally important numbers of many waterbirds. Every winter, millions visit the UK to take advantage of our varied and extensive wetland habitats, which means that they can find sufficient food to survive. In the spring, most of these birds depart from our shores to breeding areas as far afield as northern Canada and Siberia. Due to the critical roles they play in the life cycles of so many waterbirds, the most important UK sites are designated as Special Protection Areas and Ramsar sites (ie wetlands of international importance).

▲ **The UK's internationally important wintering population of dark-bellied brent geese has declined recently.**

The wintering waterbird indicator on page 4 of this report shows the overall trend in abundance for 46 native species or populations, derived from the Wetland Bird Survey (WeBS) Core Counts and the Goose & Swan Monitoring Programme. It shows that there was a steady increase in wintering waterbirds in the UK from the mid 1970s to the late 1990s, due in part to the establishment of a network of protected wetland sites. For some species, reductions in shooting pressure also contributed to increases.

However, since the mid 1990s, the indicator shows that overall waterbird numbers have levelled off, both for wildfowl and waders, and it is now starting to indicate an overall

decline. Results from waterbird monitoring schemes in other parts of Europe have demonstrated that this is likely to be partly attributable to short-stopping phenomenon, whereby an increasing proportion of waterbird populations are able to winter further east and north due to milder winters. Whether there are negative consequences for waterbirds as a result of these shifts in distribution is unknown.

It is important to note that the indicators only provide a general indication of change in the overall abundance of the UK's waterbirds since the mid 1970s. When individual species, populations, habitats, or flyway groups, are examined separately, markedly different patterns can often be seen.

It is particularly useful to assess waterbird status at the population level, as pressures facing one population on its breeding grounds may differ from those experienced by another population of the same species that uses a different geographical area to breed and/or overwinter. Overall, long term species/population trends indicate 64% of species have increased over the last 25 years. However, more recently there has been a change of fortunes, with 58% in decline over the course of the last 10 years.

Waders

Britain has over a quarter of the European estuarine resource and is therefore of particular importance for waders, both on passage and during winter. The sight of large flocks feeding across intertidal areas, or flying to high tide roosts, is not only impressive, but also a very important part of our biodiversity. Thanks to the continued efforts of WeBS volunteers, non-breeding waders are one of the most well monitored groups of birds in the UK – facilitating effective study of trends in abundance and distribution.

Overall, the wader indicator has shown an 8% decline since its peak in 2000-01, at least partly driven by changing distributions. However, for some individual species, declines in their UK index represent genuine population-level declines rather than range shifts.

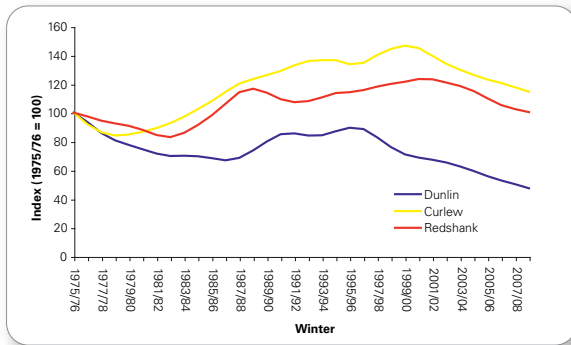
Trends in wintering waterbirds (including population estimates)

Species/population	Long-term trend %	Ten-year trend %	Britain winter population estimate	UK winter population estimate
Mute swan	126	2	74,000	79,000
Bewick's swan	-24	-44	7,000	7,000
Whooper swan	279	122	11,000	15,000
Pink-footed goose	216	27	360,000	360,000
European white-fronted goose	-81	-74	2,400	2,400
Greenland white-fronted goose	73	-40	13,000	13,000
Icelandic greylag goose	6	11	85,000	88,000
British greylag goose	527	54	140,000	140,000
Canada goose	138	23	190,000	190,000
Greenland barnacle goose	139	66	58,000	58,000
Svalbard barnacle goose	220	21	33,000	33,000
Dark-bellied brent goose	11	-15	91,000	91,000
Canadian light-bellied brent goose	n/a	14	710	27,000
Svalbard light-bellied brent goose	352	43	3,400	3,400
Shelduck	-1	-19	61,000	66,000
Wigeon	69	-2	440,000	450,000
Gadwall	310	19	25,000	25,000
Teal	33	-4	210,000	220,000
Mallard	-38	-22	680,000	710,000
Pintail	-4	-5	29,000	29,000
Shoveler	69	27	18,000	18,000
Pochard	-43	-46	38,000	48,000
Tufted duck	16	-13	110,000	120,000
Scaup	82	29	5,200	12,000
Eider (except Shetland)	-12	-13	55,000	58,000
Eider (Shetland)	n/a	n/a	5,500	5,500
Goldeneye	-17	-41	20,000	27,000
Red-breasted merganser	-15	-34	8,400	9,000
Goosander	-21	-42	12,000	12,000
Ruddy duck	-23	-71	150	150
Little grebe	n/a	23	16,000	17,000
Great crested grebe	n/a	-3	19,000	23,000
Cormorant	n/a	10	35,000	41,000
Coot	n/a	-8	180,000	190,000
Oystercatcher	0	-14	320,000	340,000
Avocet	>1,000	95	7,500	7,500
Ringed plover	-16	-26	34,000	36,000
Golden plover	403	9	400,000	unknown
Grey plover	78	-22	43,000	43,000
Lapwing	137	-23	620,000	unknown
Knot	16	8	320,000	330,000
Sanderling	81	39	16,000	17,000
Purple sandpiper	-48	-13	13,000	13,000
Dunlin	-28	-39	350,000	360,000
Black-tailed godwit	442	53	43,000	44,000
Bar-tailed godwit	-22	-29	38,000	41,000
Curlew	27	-16	140,000	150,000
Redshank	23	-13	120,000	130,000
Turnstone	3	-6	48,000	51,000

New population estimates have recently been published for the UK's wintering waterbirds, so these rounded estimates are presented for Britain and the UK, alongside the trends.

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 1982-83 and 2007-08. Ten-year trends are the percentage changes between the smoothed index values for 1997-98 and 2007-08. Calculation of smoothed indices by use of a generalised additive model is detailed further at www.bto.org/webs/alerts. National monitoring 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. British greylag geese relates to "re-established" and "North-west Scotland" populations listed separately in previous SUKBS but both now considered as a single population.



posing the question whether birds have shifted wintering range from elsewhere in Europe, or whether this is a result of shifting habitat use within the UK.

The increase in **sanderlings** is considered attributable to a rise on estuaries; however numbers have declined on non-estuarine habitats (as reported in *SUKB 2008*). The reasons for this apparent shift away from the open coast are unclear, but may be related to the effects of short-stopping. Results from WeBS also suggest recent improved fortunes in the UK for **oystercatchers** and **grey plovers**, while **knot** numbers remain largely stable.

Uncertainty on rocky shores

In addition to **sanderlings**, two other species – **ringed plover** and **purple sandpiper** – have declined on non-estuarine habitats in the last 25 years. Both declines are probably at least partly linked to shifts in distribution. A greater proportion of **ringed plovers** are considered to be wintering further east, although a proportion of the decline is probably linked to the falling UK breeding population. For **purple sandpipers**, the core of the wintering range is probably moving northwards towards breeding areas in eastern Canada, Scandinavia and Svalbard. However, there is much uncertainty regarding the processes affecting waders on our rocky shores, particularly **purple sandpipers**, whose core range in the UK is on the relatively poorly monitored northern coasts of Scotland.

Familiar estuarine waders in decline

On estuaries, several species have decreased in recent years. They include **dunlin**, **curlew** and **redshank**, the winter populations of all having been typified by slow, steady declines since the 1990s. **Dunlin** numbers provide particular cause for concern; the winter population estimate has now fallen to 350,000 (a decline of 38% since 2003). **Bar-tailed godwits** have declined markedly in the last four years; as described in *SUKB 2010*, this may be due to a greater proportion of the wintering population remaining outside the UK, particularly on the Wadden Sea in The Netherlands, Denmark and Germany.

David Osborn (fspb-images.com)

▲ Trends in three wintering waders.

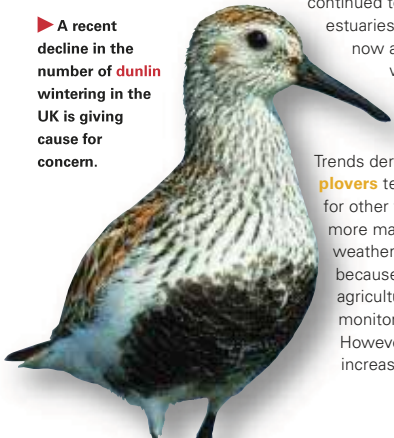
Four long-term winners

The four wader species that have increased the most since routine monitoring began are **avocet**, **black-tailed godwit**, **golden plover** and **sanderling**.

Black-tailed godwits have become an increasingly conspicuous winter sight at wetlands on the south and east coasts as a result of the rapid increase in numbers that has taken place since the early 1990s, during which time the population is estimated to have risen to 43,000 birds. These **black-tailed godwits** are almost entirely of the Icelandic race, whose numbers have risen markedly in recent years, in marked contrast to the continental race, declines in the breeding population of which are responsible for the red-listing of the species in the UK. Similarly, the wintering numbers of **avocets** have also continued to increase on southern estuaries, and the national index is now at its highest ever level, with the population estimated to be more than 7,500 birds.

Trends derived from WeBS for **golden plovers** tend to fluctuate more than for other waders – probably due to a more marked influence of cold weather on the continent, and because they tend to use agricultural fields as much as well-monitored coastal wetlands. However, wintering numbers have increased over the long term,

► A recent decline in the number of **dunlin** wintering in the UK is giving cause for concern.



Are these declines in our most familiar estuarine waders all due to range shifts, are flyway populations in decline, or are changes in habitat quality on estuaries partly responsible? Only further monitoring and close international collaboration to assess the status of whole populations will help to determine this.

Wildfowl

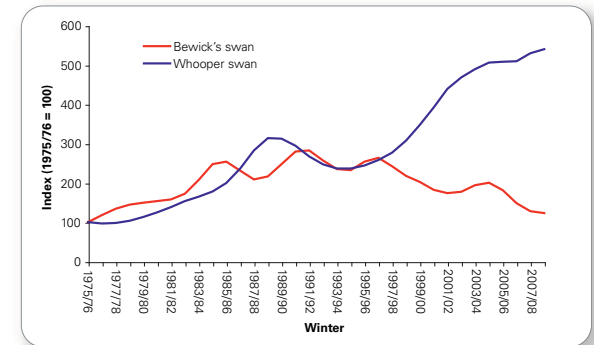
The overall abundance trend for wildfowl wintering in the UK increased from the mid 1970s to the late 1990s. Since then there have been small declines in six successive years. At the level of individual species/populations, 15 show short-term decreases.

Contributory factors behind changes in numbers of swans and geese are relatively well understood, due to the availability of detailed long-term data on breeding success and distribution. Amongst ducks, individual species are less well studied but short-term trends of several species are highly suggestive that this group is being influenced by climate change. For example, monitoring of wintering ducks in Scandinavia has shown that numbers of dabbling and diving species have increased in response to ice-free conditions in the last 20 years.

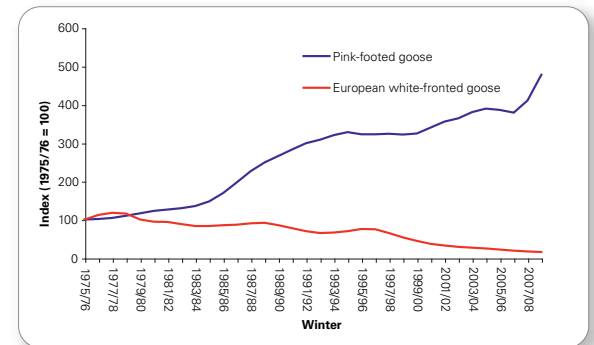
Contrasting fortunes among swans and geese

Recent years have seen contrasting population trends for **whooper swans** and **Bewick's swans**, the revised British population estimates of which are now 11,000 and 7,000, respectively. There has also been a mixture of fortunes for our wintering goose populations, the most worrying of which are the continued decline of **European white-fronted geese**, and the depleted abundance of **Greenland white-fronted geese**. The decline of the latter was discussed in *SUKB 2008*; however, since then numbers have stabilised and it seems that the cessation of legal hunting in Iceland is having a positive effect. Although good

► The numbers of **Bewick's swans** wintering in the UK have nearly halved in the last 10 years.



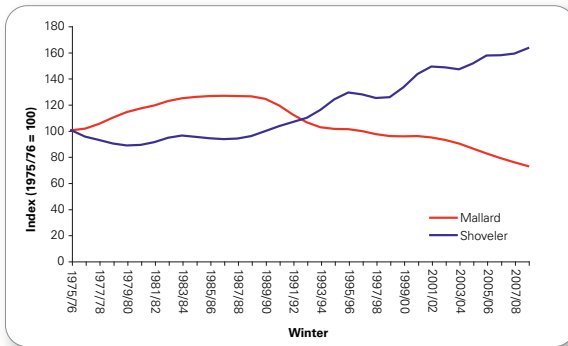
▲ Trends in Bewick's and whooper swans



▲ Trends in pink-footed and European white-fronted geese



Tony Hamilton (fspb-images.com)



Northern Ireland. In stark contrast, the **mallard** has now reached an all-time low (at least at sites monitored through WeBS), and **teal** has declined steadily over the past five years.

Taking a dive

In contrast to the dabblers, the wintering populations of most diving ducks are showing greater signs of significant decrease. Coastal diving ducks are a particular cause for concern. For example, **eiders**, **red-breasted mergansers** and **goldeneyes** are all experiencing steady declines, although **eider** numbers at monitored sites in Northern Ireland are steadily increasing. It is thought that for some species these changes are at least partly in response to climate change, but data are sparse and it is vitally important that we maintain, and indeed improve, monitoring of the British coastline and offshore waters where these seaducks occur.

An exception to these downward trends is the **scaup**, which is increasing in Ireland and some other localities around the Irish Sea, where the birds are predominantly from the growing Icelandic breeding population. However, away from this area, where wintering **scaups** are predominantly of Russian origin, numbers remain much reduced compared to levels in the 1970s.

At inland wetlands, the rapid decline in numbers of wintering **pochards** continues throughout the UK, reaching an all-time low. However, the trend for wintering **tufted ducks** remains stable in Britain, though in rapid decline in Northern Ireland. Both these species could well benefit from reduced winter ice cover on the continent, which means that a reduced proportion of the population are dependent on water bodies in Britain and Ireland.

Use of Wetland Bird Survey data

WeBS data are not only used for direct conservation purposes through monitoring of individual species trends and the condition of the UK's network of Ramsar sites and Special Protection Areas. They also have a wide range of uses in terms of more detailed

research and within environmental planning. Some recent examples of work which have used WeBS data include the examination of impacts of climate change and water quality on waders, determining causes of waterbird declines in the UK's protected areas, and assessing the impacts of habitat loss and disturbance on waterbirds.

As well as deriving peak numbers of waterbirds using a site close to high tide through the WeBS Core Count scheme, information on the distribution of foraging birds on the most important estuaries is derived through the Low Tide Count scheme, initiated in the 1992-93 winter.

Low Tide Counts are particularly important in providing information on how different areas of an estuary are used by different species. Potentially, these areas could be affected by human activities, such as dock developments, recreational activities, tidal power barrages, marinas and housing schemes, all of which can affect the extent or value of intertidal habitats. Data from both the WeBS Core Count and Low Tide Count schemes have been important in the past in ensuring that the importance for waterbirds of key wetland sites is recognised and thus protected.

A comparison in the map, above right, of the valuable information produced by the methodologies employed by the two WeBS schemes shows the low tide (blue dots) and high tide (red dots) distributions of **golden plovers** at The Wash in eastern England. It helps to illustrate the typical behaviour of this species; flocks roosting on intertidal mudflats at low tide and utilising high-water sectors and adjacent agricultural fields at high tide.

Co-operation between nations

The interpretation of wintering waterbird trends is best carried out at a population scale, rather than for national sub-populations. By doing so, for example, we now know that some of the observed declines in UK winter abundance result from shifts in distribution of some of the population because concurrent increases in numbers have occurred elsewhere on the



▲ Map of golden plover distribution on The Wash

flyway. This short-stopping is considered to have driven marked declines in numbers of several species wintering in the UK, including **European white-fronted geese**, and some diving ducks and common estuarine waders. An understanding of such issues is important as it may affect decisions about the nature and importance of subsequent management and conservation action.

Collaboration between national schemes, particularly those in neighbouring countries, is therefore of real importance. In the UK, WeBS works closely with I-WeBS in the Republic of Ireland, and also with the Dutch national scheme co-ordinated by SOVON. Typically, annual reports of all these monitoring schemes use information from the others to assist in the interpretation of their own results.

Furthermore, WeBS data contribute significantly to the *International Waterbird Census (IWC)*, co-ordinated by Wetlands International. The IWC represents a collation of waterbird counts undertaken in January each year in countries throughout the world, and is therefore of vital importance in assessing the waterbird population status at the flyway level.

More details on WeBS, including the latest *Waterbirds in the UK* report, can be found at www.bto.org/webs

▲ Trends in mallard and shoveler.

breeding seasons in 2009 and 2010 give cause for hope, the lack of clear recovery in numbers gives continued cause for concern for the population. By contrast, numbers of both Svalbard **barnacle geese** and **pink-footed geese** are now at record levels.

Dabbling up

As well as many geese, several species of ducks have increased in recent years. Among dabbling duck species, **gadwalls** and **shovelers** continue to rise steadily, to varying degrees, in Britain. However, numbers of both species have decreased in

▼ A male shoveler: numbers of this handsome duck have been increasing steadily.





The Henderson fruit-dove, one of many endemic species found on UKOTs such as Henderson Island, giving the UKOTs a conservation value outstripping that of the UK itself.

Michael Brooke

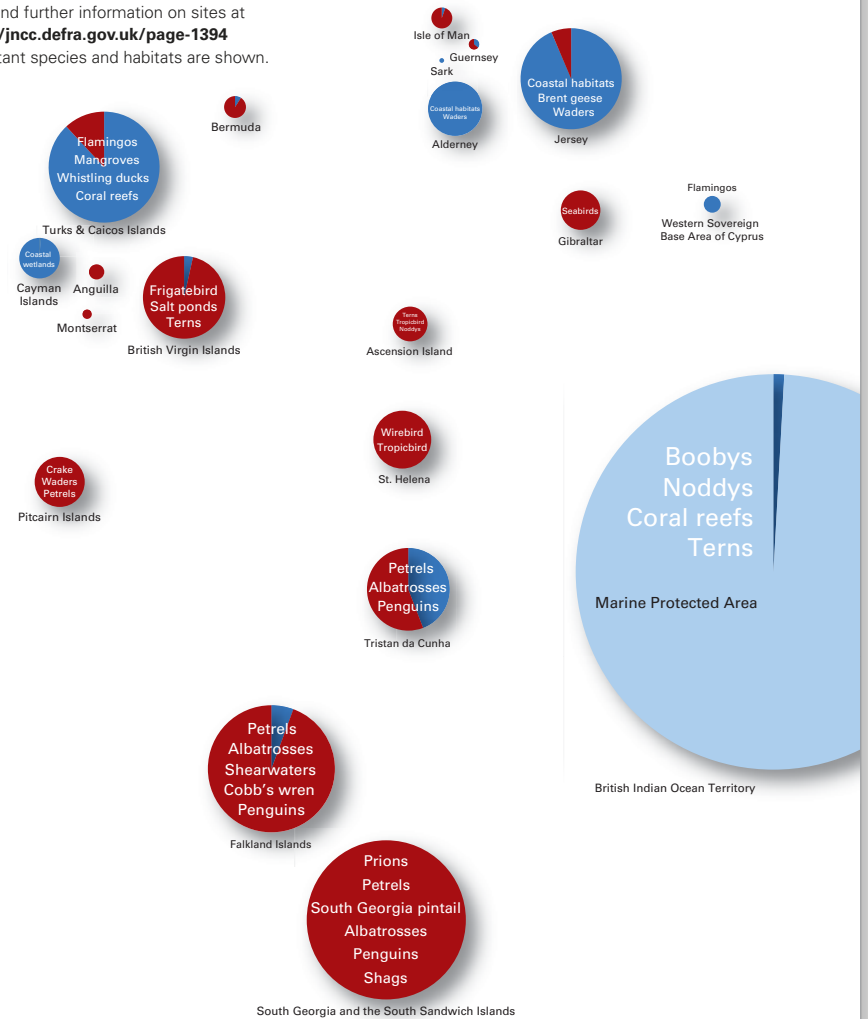
Birds in the UK's Overseas Territories

The UK's Overseas Territories and Crown Dependencies hold wetlands of major international importance and some have made good progress in protecting these as Ramsar sites.

Area of circles are roughly proportionate to the total extent of internationally important wetland.

Blue = designated Ramsar sites red = proposed Ramsar sites

Data and further information on sites at <http://jncc.defra.gov.uk/page-1394>
Important species and habitats are shown.





Ava Harrison

The UK's Overseas Territories and Crown Dependencies are small, but hold extremely valuable bird populations; on a global scale, these are of far greater conservation concern than those found in the UK itself. In each SUKB we try to highlight some element of this precious avifauna. In SUKB 2006 we touched on the threats posed to the birds of Henderson Island by introduced rats, and in this year's report we return to find out what is being done to address this.

Henderson Island

Henderson Island, in the South Pacific, is one of the most remote islands on the planet. At 37 sq km, it is the largest island in the Pitcairn group, a UK Overseas Territory. Uninhabited, and with almost no human influence at all, this raised coral limestone island is home to four endemic land birds found nowhere else on earth: the **Henderson lorikeet**, **Henderson fruit-dove**, **Henderson rail** and **Henderson reed-warbler**. A global stronghold for gadfly petrels (*Pterodroma* spp.), it is also the only known breeding site of the endangered **Henderson petrel**.

▲ Henderson petrels are currently classified as Endangered.

The major threat to Henderson's unique biodiversity is the presence of introduced Pacific rats. These have had a devastating impact on the island since colonising Henderson with Polynesian settlers approximately 800 years ago. The island's seabirds are particularly affected, with more than 95% of **Murphy's petrel** chicks predated within one week of hatching, and more than 25,000 chicks estimated to be killed each year among all four gadfly petrel species. Based on the current estimated rate of decline of the **Henderson petrel**, overall numbers of breeding gadfly petrels have dropped from possibly five million pairs to just 40,000 pairs today. Due to the inexorable population decline, the **Henderson petrel** (c16,000 pairs) is threatened with extinction unless the devastating impact of rats can be addressed.

The RSPB therefore commenced an ambitious plan to eradicate rats from Henderson Island in August 2010. Henderson will be the largest tropical or sub-tropical island to be cleared of rodents. Rat species have, however, been successfully cleared from at least 284 other islands around the world, and the RSPB will use the advanced aerial

eradication techniques which have been pioneered by New Zealand conservationists. These involve helicopters spreading poison bait methodically across the island, guided by GPS to ensure precise flight lines are maintained. An expedition to the island in 2009 carefully assessed the risks to non-target bird species, in particular to the flightless and endemic **Henderson rail**, and gave the green light for the eradication to proceed. Bait pellets are dyed green so as to reduce their attractiveness to bird species.

The consequences of a successful eradication will be dramatic. The island's ecosystem will almost certainly change from one driven by rats to the natural state of one driven by the seabirds importing huge amounts of marine-derived nutrients into the ecosystem. Breeding success of the ground-nesting petrels will increase immediately from the current unsustainable levels, with population growth rates of 5-7% a year likely for all four petrel species. Populations are predicted to increase by two orders of magnitude (ie to >1.6 million pairs for the **Henderson petrel**) within 70-100 years. The future of the **Henderson petrel** will therefore be assured, and the island's status as a seabird breeding station of worldwide importance will be enhanced. All four of Henderson's endemic landbirds are also likely to benefit from a reduction in rat predation and competition, whilst locally extirpated seabirds, such as **phoenix petrels**, **black-winged petrels** and **wedge-tailed shearwaters**, may recolonise the island.

The consequences of eradicating rats will be profound and leave a lasting ecological legacy on Henderson Island. Monitoring these changes in the island's avifauna and ecology will be an important component of the project and will provide a long-term data-set for evaluating its success.



Michael Brooke

▲ Less than 5% of Murphy's petrel chicks survive to fledge currently; rat eradication will make a dramatic difference

Birds of conservation importance on Henderson

Species of concern on Henderson	Estimated population on Henderson	IUCN Red List Status (2010)	Population trend
Henderson rail	3,000-6,000 individuals	Vulnerable	Probably stable, but suppressed by rat predation and competition
Henderson lorikeet	720-1,820 individuals	Vulnerable	
Henderson fruit-dove	c. 3,200 individuals	Vulnerable	
Henderson reed-warbler	c. 10,000 individuals	Vulnerable	
Henderson petrel	16,000 pairs	Endangered	Population decline of 0.8% p.a. due to rat predation*
Herald petrel	11,100 pairs (c. 20% of world pop.)	Least Concern	Declining; only 17.5% of eggs produce fledglings due to rat predation**
Kermadec petrel	10,000 pairs (c. 20% of world pop.)	Least Concern	Declining; <10% of eggs produce fledglings due to rat predation**
Murphy's petrel	2,500 pairs (c. 1% of world pop.)	Near Threatened	Declining; <5% of eggs produce fledglings due to rat predation**

* Data from Brooke *et al.* (2010) *Endangered Species Research* 11, 47-59.

** Figures taken from 1991/92 Research Expedition to Henderson Island.

Bird Atlas 2007–11

Fieldwork for the Bird Atlas 2007-11 is now complete. Thanks to more than 16,000 dedicated volunteers, coverage across Britain and Ireland has been excellent. The breeding season has been a tough challenge as the organisers tried to ensure that species lists for all 10-km squares were comprehensive and that the highest level of breeding evidence for all species in a square was recorded.

Through the complementary methods of Roving Records (casual records) and Timed Tetrad Visits (timed counts in 2 x 2-km squares), together with extra information from a wide range of sources including bird clubs, BTO and BWI surveys and the RSPB, the Atlas has all the information needed to map the distribution and relative abundance of birds in both the winter and breeding

seasons. Before the start of the last breeding field season, the Atlas had logged records from more than 166,000 Timed Tetrad Visits, 3.3 million Roving Records and 3.7 million BirdTrack records (www.birdtrack.net). More than 580 different species (including subspecies) have been recorded and we are pleased that non-native species have been well documented. As an example, **black swans** have been recorded in 267 10-km squares in winter and 221 10-km squares in the breeding season (2008-10, including 28 10-km squares where breeding was confirmed).

The results of the Atlas will have a strong emphasis on change. We are fortunate to have previous atlases carried out in the winter (1981-84) and breeding seasons (1968-72 and 1988-91), so there is the opportunity to assess changes in range over the last 30-40 years. Provisional results

▼ **Changes in the distribution of non-native species like the black swan will be captured by the Atlas.**

Provisional results from the Bird Atlas 2007-11 show an accelerated range contraction for the **lesser spotted woodpecker** since the 1988-91 breeding atlas.

Lesser spotted woodpecker by Steve Kral (rspb-images.com)



Gailian Eaton (naturepl.com)



What you can do to help

Current and planned surveys

The information summarised in *The state of the UK's birds 2011* is drawn from the annual and periodic monitoring programmes described below and from the work of individual ornithologists. Anyone interested or wishing to take part in these surveys should contact the relevant organisations at the addresses 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 Northern Ireland Environment Agency (NIEA) – and the RSPB [Contact BTO].

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

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

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

▼ **Bird monitoring in the UK relies largely on the efforts of skilled volunteers.**

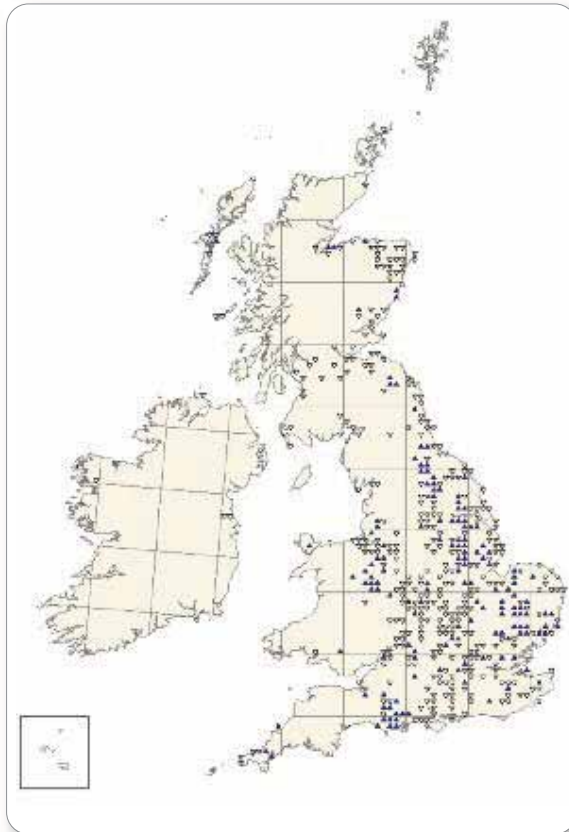


suggest substantial losses in the numbers of 10-km squares occupied for species such as **willow tit**, **lesser spotted woodpecker**, **capercaillie** and **corn bunting**. The map shows changes in 10-km square occupancy in the winter for **corn buntings** and depicts a mix of gains and losses across Britain (with an overall loss of around 25%).

The Atlas will also highlight winners; species which have increased in range for example, following natural colonisation, or re-introductions. These include **little egrets**, **red kites**, **avocets** and **Cetti's warblers**.

Bird Atlas 2007-11 is organised by BTO, BirdWatch Ireland and the Scottish Ornithologists' Club, who work closely with a network of regional Atlas Organisers across Britain and Ireland. We would like to express our sincere thanks to all fieldworkers, regional organisers and helpers (validators, square stewards etc) for their time, commitment and enthusiasm.

▼ **Provisional results of the 2007-11 Bird Atlas show a marked range contraction for the corn bunting in both summer and winter.**



▲ Change in 10-km square occupancy in winter between the Winter Atlas of 1981-84 and Bird Atlas 2007-11 for **corn bunting**. Blue upward pointing triangles show a gain and open downward pointing triangles show a loss – squares occupied in both atlases are not shown.



Acknowledgements



Genevieve Leaper (rspb-images.com)

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 the statutory nature conservation agencies, research and conservation organisations; see www.jncc.defra.gov.uk/page-1550

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

The **Big Garden Birdwatch** is the largest wildlife survey in the world – a simple design (one hour watching birds in the garden each January) means over 600,000 people took part in 2011. The data provide an excellent snapshot of garden bird numbers across the UK [Contact the RSPB].

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

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

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. A Montane Bird Survey (focusing on **dotterels** and **snow buntings**) was conducted in 2011; species to be surveyed in 2012 may include **spotted crane**, **ring ouzel** and **twite** [Contact the RSPB].

▲ Many of the UK's internationally important seabird colonies are covered in the Seabird Monitoring Programme.

▼ The first ever national survey of **snow buntings** was carried out in 2011: results will be featured in next year's SUKB.



Andrew Parkinson (rspb-images.com)

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; BirdWatch Ireland; *British Birds*; British Trust for Ornithology; British Waterways; Centre for Ecology and Hydrology; Countryside Council for Wales; Department for Environment, Food and Rural Affairs (Defra); 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; Scottish Executive Rural Affairs Department; Scottish Natural Heritage; Scottish Ornithologists' Club; Scottish Raptor Study Groups; Seabird Group; Severn Trent Water; Shetland Oil Terminal Environmental Advisory Group; Thames Water; University of Cambridge; Wales Raptor Study Group; Welsh Kite Trust; the Wildfowl & Wetlands Trust; the Wildlife Trusts; Woodland Trust.

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

▼ Watching **pink-footed geese** coming into roost; a great way to end a winter's day surveying.



Ernie Jarvis (rspb-images.com)

About us

The *state of the UK's birds 2011* is also available online on the websites of the BTO, the RSPB and WWT (see addresses below).

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www.naturalengland.org.uk

Northern Ireland Environment Agency:

Klondyke Building, Cromac Avenue, Lower Ormeau Road, Belfast, BT7 2JA
Tel: 0845 302 0008

www.ni-environment.gov.uk

Scottish Natural Heritage:

Great Glen House, Leachkin Road, Inverness, IV3 8NW
Tel: 01463 725000

www.snh.org.uk

The barn owl is the subject of a dedicated monitoring programme, which can detect short-term fluctuations caused by variation in prey levels and harsh winters.

This diagram represents the scale of declines of common terrestrial bird species monitored by large-scale annual surveys. The size of the name represents the size of the decrease of the species since 1970. The species names are colour-coded according to their conservation status: red, amber or green-listed; those in black are introduced.



This diagram represents the scale of the increases of common terrestrial bird species monitored by large-scale annual surveys. The size of the name represents the size of the increase of the species since 1970 (on a log scale to take account of the very large increases shown by some species). The species names are colour-coded according to their conservation status: red, amber or green-listed; those in black are introduced.





Front cover: eider by Peter Cairns (rspb-images.com)

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