

The state of birds in WALES 2010



The State of Birds in Wales 2010 is a joint publication by:



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Acknowledgements

The State of Birds in Wales 2010 is produced in partnership by RSPB Cymru, the British Trust for Ornithology (BTO), the Wildfowl & Wetlands Trust (WWT), the Welsh Ornithological Society (WOS), and the Welsh Assembly Government's Statutory Conservation Agency, the Countryside Council for Wales (CCW), who provided funding.

The organisations involved with bird monitoring in Wales are: The BTO, County Bird Recorders, Forestry Commission Wales (FCW), CCW, the Joint Nature Conservation Committee (JNCC), Local Biodiversity Officers, the National Park Authorities, the National Trust, RSPB Cymru, Wales Raptor Study Group, Welsh Kite Trust, WOS, WWT and the Welsh Wildlife Trusts.

For bibliographic purposes this report should be referred to as Johnstone IG, Thorpe RI & Noble DG (2010).

The State of Birds in Wales 2010. RSPB Cymru, Cardiff.

Front cover: little egret by Jodie Randall (rspb-images.com)

The Royal Society for the Protection of Birds (RSPB) is a registered charity:
England and Wales no. 207076, Scotland no. SC037654
830-0250-09-10

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Blackbird

Ray Kennedy (rspb-images.com)

Introduction

In 2001, the Welsh Assembly Government (WAG) set a target of halting the loss of biodiversity by 2010, the International Year of Biodiversity. It is clear that, for birds, we have missed this target by a mile.

Sometimes the losses are so major that they cannot be ignored. Think of the quintessential sounds of our countryside and what comes to mind? Perhaps the evocative song of the curlew, or the familiar call of the cuckoo, but when did you last hear either? For the first time this year, many people noticed the cuckoo by its absence, but the loss of other birds from our countryside is a gradual trickle that can go unnoticed. That is why this report is so valuable in summarising the evidence for change and efforts to understand its causes.

The picture is not one of unremitting gloom, however, and some birds are doing well. Avocets, which first bred in Wales in 2005, have successfully colonised and may spread to more sites. Most spectacular has been the rise of the little egret (featured on our cover). Since they first bred in Wales in 1996 little egrets have increased rapidly and in 2009 could be seen on estuaries and wetlands all over Wales.

There is other positive news. There is now more conservation advice available and there are more ways to


get involved in bird surveying and recording than ever before. For more information about this, see page 27.

The conservation challenge in Wales has never been greater and the role of partnerships between government and voluntary sectors never more important. Continued monitoring and research are more crucial than ever, as are the huge numbers of volunteers who make this possible – thank you to you all.

Throughout this report species are colour-coded according to *The Revised Population Status of Birds in Wales*.

Forty-five birds are red listed because they are globally threatened, or have historically or recently shown severe decline. One hundred are amber listed because they are showing recovery from historic decline, moderate decline, or are localised, rare or internationally important.

Sixty-eight other birds are green listed, including those showing further recovery.

Whenever this symbol  appears, there is a link to further information in the online section at the back of this report.

For the first time this report is accompanied by a downloadable appendix containing technical details of methods, data analyses, and source reports.

Special thank you to volunteers

Bird monitoring in Wales is led by charities such as the BTO, the RSPB and the WOS, and depends on the amazing effort and time of hundreds of volunteers.

Without our volunteers, we would not be able to produce detailed surveys on which bird conservation in Wales relies upon.

Further help is always needed. 



Skylark

Ben Hall (rspb-images.com)

The headlines

1. New data for widespread breeding birds show that seven have declined significantly since 1995, **starling** and **swift** by more than half. Fourteen have increased significantly, **great spotted woodpecker** and **stonechat** more than doubling.
2. The Wild Bird Indicator is lower than its 1994 level for the first time. The birds of farmed habitats indicator has continued its decline and is now 14% lower than its 1994 level.
3. Although seabird breeding numbers continue to hold up, there is evidence of reduced breeding success for some, such as the **kittiwake**. Some wintering waders, including **dunlins** and **bar-tailed godwits**, show declines linked to changes in weather conditions.
4. **Golden plover** declines are now likely to qualify it as a rare breeding bird, while the increasing **little egret** is no longer rare. The numbers of some other rare breeding birds such as **garganey** and **long-eared owl** remain stable. **Mediterranean gull** may soon colonise.
5. Some non-native species have increased. Canada goose numbers are at their highest, while ruddy duck numbers have declined following a cull.
6. Advice and support for land managers is better and more easily available than before.




Long-eared owl

Peter Cairns (rspb-images.com)

How are birds in Wales faring?

Seabirds

Wales supports important seabird colonies, some of which have been designated as Special Protection areas (SPAs) because of their importance in Europe (Ynys Feurig, Cemlyn Bay & The Skerries; Puffin Island; Aberdaron Coast & Bardsey Island; Grassholm; Skokholm & Skomer).

Annual monitoring, which is led by the JNCC Seabird Monitoring Programme (SMP) , allows us to chart the fortunes of some seabirds that breed at these and other sites in Wales. We provide updates for three seabirds whose different feeding behaviours represent the range of seabird lifestyles in Wales. The **kittiwake** takes small fish from just below the surface (surface dipper). The **fulmar** can catch prey by swimming further under the water (shallow diver), and will take discarded fish from boats. The **guillemot** is a specialist deep diver, taking larger fish.

The results continue to show that whilst **guillemot** numbers are increasing, **kittiwakes** seem to be faring less well. Furthermore, there are signs that the stability of **fulmar** numbers in recent years is changing to a decline. The foraging lifestyles of other seabirds that breed in Wales are shown in the table. It is unclear whether the trends in these three species are shared by the rest of their group, as information is not available.

Adult seabirds tend to have very high survival rates, with changes in current conditions better reflected by annual differences in breeding success and post-fledging survival rates. Declines in productivity and recruitment may take longer to result in changes in numbers of breeding adults. Here we present some results from SMP monitoring of seabirds' breeding success in Wales.

Kittiwakes build nests on tiny cliff ledges, often in large colonies, where they try to raise two or three chicks. The **fulmar** lays its single egg on larger ledges, which it protects by spitting its stomach contents at intruders. The colonial **guillemot** lays its solitary egg on narrow ledges where its shape may help prevent it rolling off. **Guillemot** chicks jump from their nest ledges to the sea before they are fully grown.

With around 0.7 chicks fledged per occupied nest site, the success of **guillemots** has shown no change over time. In contrast, the success of **kittiwakes** has declined significantly since monitoring started in 1986. The success of **fulmars** has also declined, but not significantly so.

Because seabirds are so long-lived, their populations are well suited to coping with periods of poor breeding success. We must continue to monitor levels of breeding success and rates of population change for signs of the alarming problems that seabird populations are facing further north and east in the UK.



Fulmars first bred in Wales in 1945. In 2000, there were 3,500 pairs.

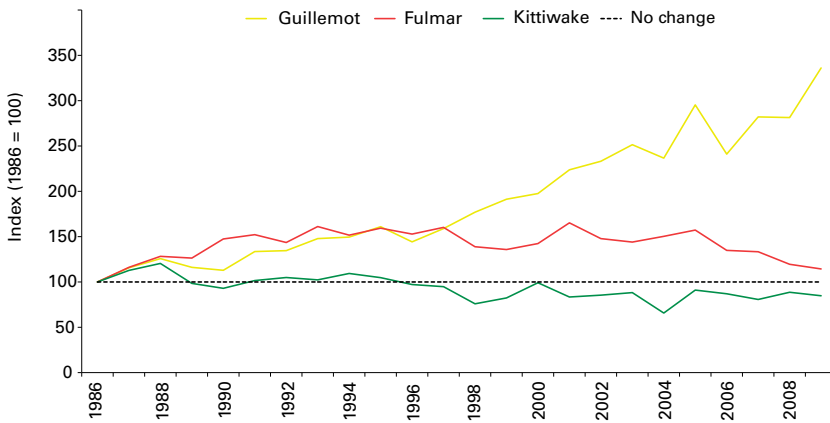
Deep divers	Shallow divers	Surface dippers
Black guillemot	Arctic tern	Black-headed gull
Cormorant	Common tern	Great black-backed gull
Guillemot	Fulmar	Herring gull
Puffin	Gannet	Kittiwake
Razorbill	Little tern	Lesser black-backed gull
Shag	Manx shearwater	Storm petrel
	Roseate tern	
	Sandwich tern	

Breeding seabirds in Wales and their foraging lifestyles

With the exception of the **kittiwake**, gulls are also found foraging on farmed land and in urban areas.

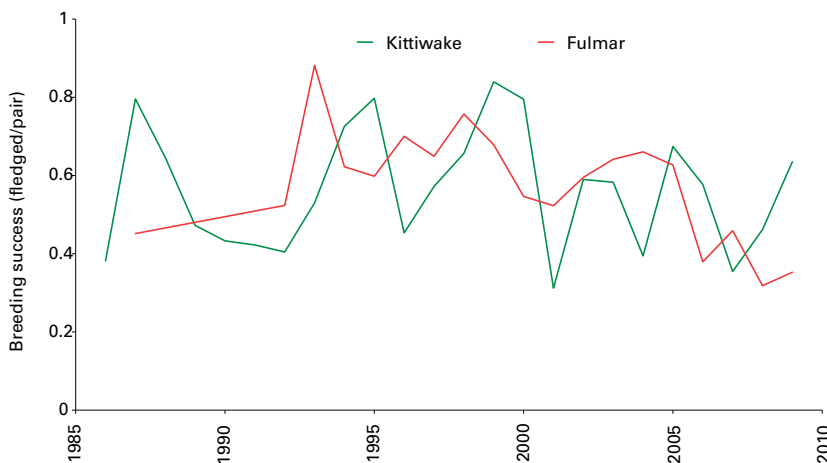
Seabird population changes

The Seabird Monitoring Programme provides an annual update on the fortunes of some seabirds in Wales. **Guillemot** numbers have increased, while numbers are stable or possibly declining for **fulmar** and **kittiwake**.



Seabird breeding success

The Seabird Monitoring Programme also provides an annual update on the breeding success of some seabirds. The success of **kittiwakes** has significantly declined. The success of **fulmars** has also declined but not significantly so.



“We must continue to monitor levels of breeding success and rates of population change for signs of the alarming problems that seabird populations are facing further north and east in the UK.”

How are birds in Wales faring?

Wintering waterbirds

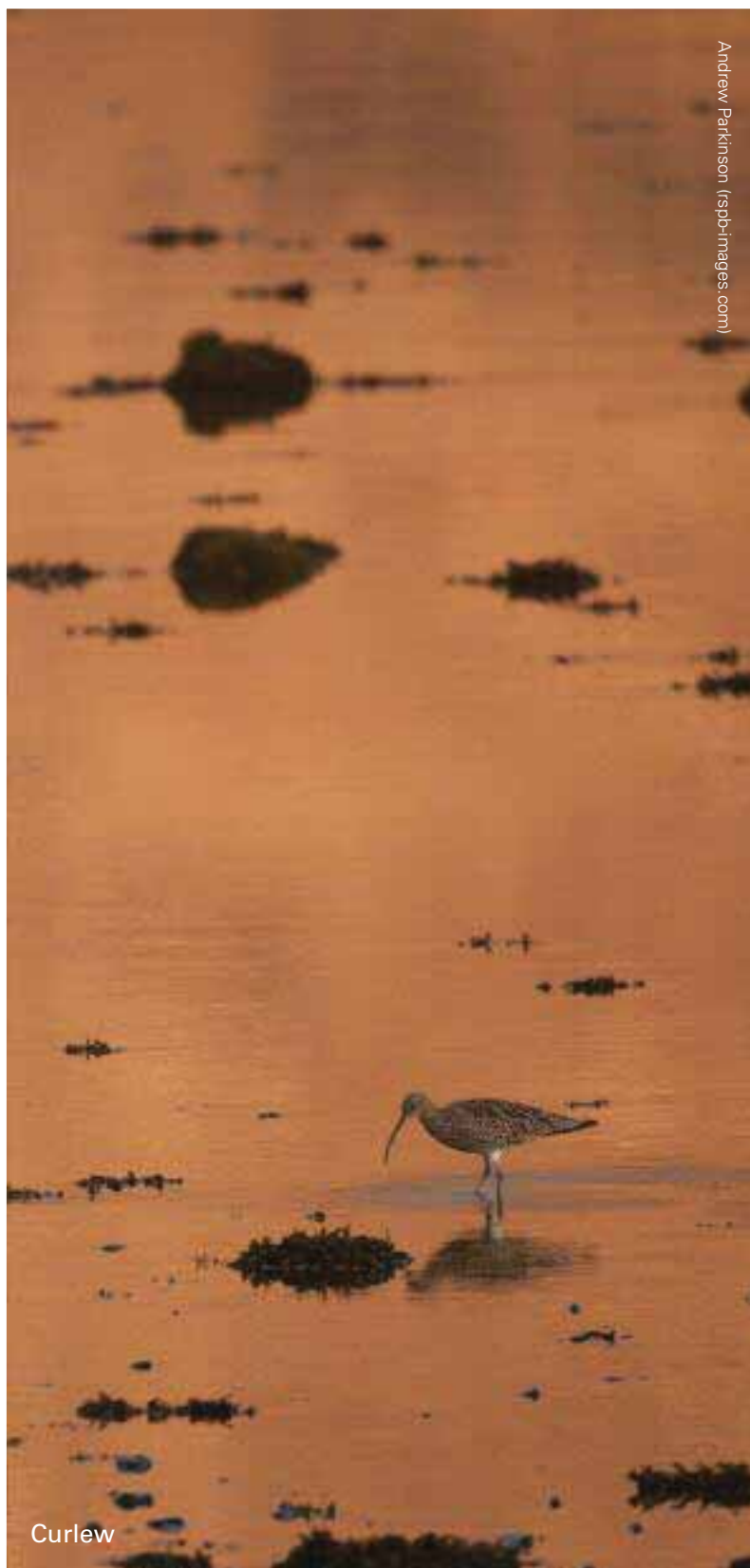
The numbers of many waterbirds that spend their winter on bays, estuaries and inland lakes and reservoirs in Wales have been monitored annually for many years by volunteers, as part of the BTO/RSPB/JNCC Wetland Bird Survey (WeBS) scheme. 🐦

Important sites covered include the SPAs (Burry Inlet; Carmarthen Bay, Dee Estuary, Dyfi Estuary, Severn Estuary, Lafan Sands and Conwy Bay).

In previous issues of *The state of birds in Wales*, we have highlighted that numbers of wintering waterfowl have showed stability in recent decades, whilst wintering waders have tended to show declines in number. For the first time we use WeBS results to chart in detail population changes in Wales for selected species since winter 1974–75.

These graphs illustrate the range of changes taking place within populations of wintering waterbirds. There is evidence that some of these changes are caused by the mild weather in recent winters. Under such conditions, some wintering waders, such as **dunlins** and **bar-tailed godwits**, prefer to live in the muddy estuaries rich in their invertebrate food that ring the North Sea, rather than the sandier estuaries predominating in Wales, as warmer winters makes life there easier.

The numbers of some other waders have been more stable. For example, **oystercatchers**, which eat shellfish, and **curlews**, which probe for worms with their long curved bills, occur in similar numbers now to those in the 1970s. It is unclear whether the decline in wintering **curlews** over the last decade is due to an eastward shift in range, or is beginning to mirror the decline in breeding numbers in Wales.

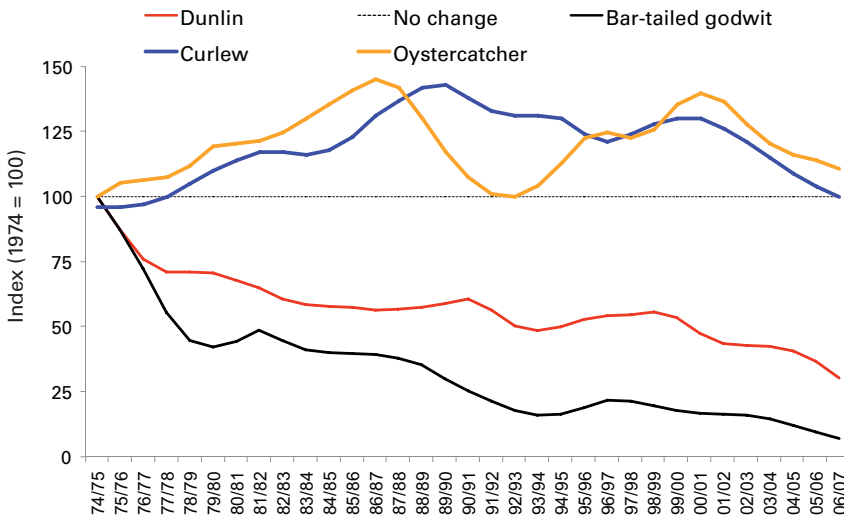


Andrew Parkinson (rspb-images.com)

Curlew

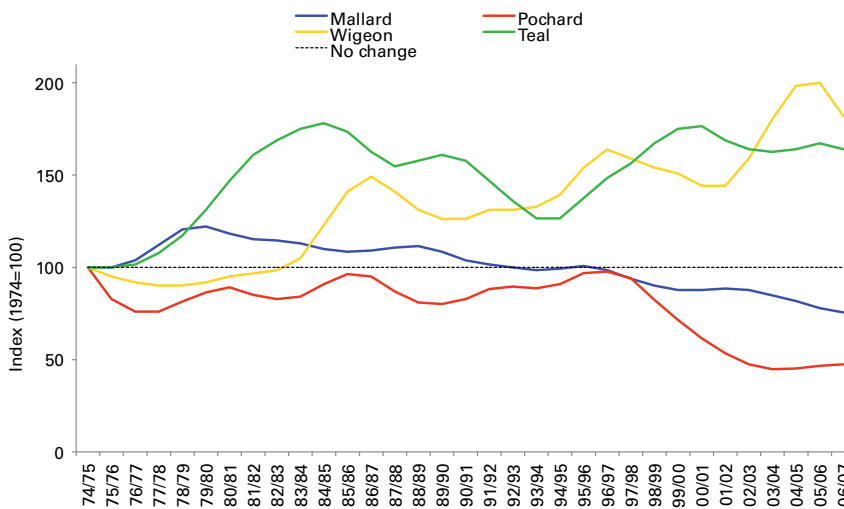
Wintering wader population changes

Arctic-breeding **dunlins** and **bar-tailed godwits** have declined in numbers. In contrast, numbers of wintering **oystercatchers** and **curlews**, which travel shorter distances to breed in Britain and Scandinavia, have remained stable. These birds eat invertebrates found on the intertidal and in some cases agricultural fields.



Wintering wildfowl population changes

Many wintering **mallards**, and most **pochards**, **wigeons** and **teals**, breed in Russia, and eastern and northern Europe, and show differing trends. These ducks feed by grazing, dabbling and diving. Only the **mallard** is a widespread breeding bird in Wales, where it shows a 19% decline since 1995.



“For the first time we use WeBS results to chart in detail population changes in Wales for selected species since winter 1974–75.”

How are birds in Wales faring?

Rare breeding birds

Over 400 bird species have been recorded in Wales. Many of these are categorised as rare and scarce migrants with fewer than five records per year.

Of the regularly occurring native breeding species, some occur in such small numbers that they are not reported on by national monitoring schemes such as the BBS.

However, it is still important to know how these populations are faring. Because of this, County Bird Recorders, WOS and the UK Rare Breeding Birds Panel collate records

of some rare species annually, with support from the JNCC, RSPB and BTO. Data are sent either directly to the Rare Breeding Bird Panel, to county bird recorders, or via BirdTrack.

The results of this largely informal monitoring are published annually in County Bird Reports and the Rare Breeding Bird Panel Reports. ~☞

From these data, we know that some rare breeding species in Wales (those with population sizes of fewer than 30) appear relatively stable in numbers (eg **long-eared owl**). ~☞

Others are heading towards becoming rare breeders (eg **golden**

plover and **dunlin**), and some species are in the process of expanding their ranges into Wales and although currently considered rare breeders, are increasing and may well exceed 30 pairs in the future (eg **avocet** and **bearded tit**).

Indeed, the populations of a few former rare breeders have already exceeded 30 pairs (the **little egret**, **hen harrier** and **Dartford warbler**).

You can submit records of rare breeding birds to add to our picture of the least known birds in Wales. Contact your County Bird Recorder, BirdTrack or the Rare Breeding Birds Panel. ~☞

Dunlins in breeding plumage. They may soon become rare breeding birds.



Rare breeding birds in Wales 2000–2009

This table updates the last review of rare breeding birds published in the journal *Welsh Birds* in 2000. Species are rare if represented by fewer than 30 pairs.

Rare in previous assessment but now >30 pairs	Rare, but increasing	Rare – numbers fluctuate	Rare and declining	Becoming rare (declining from >30 pairs)	Colonising – not yet a regular rare breeder
Dartford warbler	Avocet	Eider	Corn bunting	Dunlin	Bittern
Hen harrier	Bearded tit	Firecrest	Corncrake	Golden plover	Marsh harrier
Little egret	Black guillemot	Garganey	Roseate tern		Mediterranean gull
	Honey buzzard	Long-eared owl	Short-eared owl		Red-backed shrike
	Osprey	Pochard	Turtle dove		
		Quail	Twite		
		Spotted crake			
		Wigeon			

Rare breeding birds

Often, the coverage of suitable habitat for particular rare breeding species is incomplete. Thus, the data can only provide an indication as to the status of species.

Here we provide updates on some rare breeding bird species in Wales with quite different trends.

The golden plover: a new rare breeder?

Numbering several hundred pairs in the 1970s, the breeding golden plover population had crashed by more than 80% to 36 pairs by 2007. If this decline has continued, golden plovers may well already be rare breeders. Golden plovers nest on blanket bog where there is short open vegetation.

The corn bunting and turtle dove: declining rare breeders but not extinct

Both of these birds breed on lowland farmland in Wales, but have declined from being relatively widespread in the first half of the 20th century to just occasional breeding records in 2009.

However, neither species meets the definition of extinction (ie have not successfully bred in the previous 20 years) and both are expected to continue to breed occasionally for many years. Furthermore, the recent ranges of both species were adjacent to the border, and effective conservation management in Wales and adjacent areas of England could bring about recovery in numbers.

The corn bunting is a resident that nests on the ground in crops. The turtle dove nests in tall hedges and wood edges, and migrates to Africa for the winter.

The garganey: a rare breeder with stable numbers

The garganey is unusual among ducks in that it breeds in wetlands in Wales but migrates south to winter south of the Sahara. Evidence of breeding is difficult to get for this shy species, and probably fewer than five pairs breed annually.

Although numbers of reported breeding attempts have increased since the 1980s, it is hard to tell whether this is a real increase or due to increased searches and reporting in likely breeding habitat. Garganeys nest in dense wetland habitats and feed by dabbling for aquatic vegetation.

The black guillemot: still rare but range increasing

Black guillemots are at the southern edge of their range in the UK. A small breeding population has been present on Anglesey since at least the 1950s and have since spread to new sites.

The most recent full survey as part of Seabird 2000 found 28 pre-breeding adults on the island, compared with 26 in the mid 1980s. Black guillemots nest in holes in sea cliffs, and catch bottom-living fish in inshore waters.

The avocet: a recent colonist and rare breeder

Whilst occurring in winter, avocets bred for the first time in Wales in 2003 at Newport Wetlands National Nature Reserve (which is owned and managed by CCW). These striking black and white waders feed by filtering tiny invertebrates from shallow wetland pools using their long, thin upturned bill, and nest on the ground in nearby open areas. Breeding avocets almost became extinct in the UK in the early 1900s, but have since recovered their numbers in the south and east. By 2009 the Welsh population stood at five pairs, and it is considered an established breeding species, set to spread to other sites in Wales.

The little egret: former rare breeder and successful colonist

In the middle of the last century, the little egret was widely distributed around the Mediterranean, with the closest breeding populations being southern France.

At this time, little egrets were rare winter visitors to Wales and the UK. This was the case up to the 1970s, after which their non-breeding numbers increased following increases in numbers and the onset

of breeding in Northern France. They first bred in Wales in 1996, increasing to 37 reported pairs in 2006, which was probably an underestimate. Breeding little egrets are now found all round the coast of Wales, often nesting in existing heronries.

The Mediterranean gull: an aspiring colonist

This small gull, similar in appearance to the black-headed gull has not yet bred in Wales.


However, summering individuals are increasingly common, when they have been reported from black-headed gull colonies, which also provide suitable colonial nesting places for them.

Black guillemots nest in holes, including those in harbour walls.




How are birds in Wales faring?

Widespread breeding birds

The annual BTO/JNCC/RSPB Breeding Bird Survey (BBS) has reported on changes in the fortunes of widespread breeding birds since 1994. 

The smoothed BBS results for 1995–2008 show that, of 51 native species reported on individually, the populations of 14 had increased significantly while seven declined.

The Welsh Assembly Government measures the health of the environment annually, and birds are included in this using a **Wild Bird Indicator** based on different groups of widespread breeding birds. Part 1 of this indicator measures the change in abundance (numbers) of native birds that can be indexed using BBS, here updated to 2009. The all-species index has declined since last year, and for the first time is lower than its 1994 level. Despite little overall change across the 15 years, the all-species index can mask important changes in individual species and species groups, with increases in generalists, which do well from current land uses, offsetting declines in specialists, for which resources have become harder to find.

This first part of the indicator must always be viewed within the context of historic change. This is provided by part 2 of the indicator that shows changes in range (geographical distribution) from 1968–1971 to 1988–91. More than half of 119 native species represented show a contraction in range.  Contraction in range is also likely to indicate decline in abundance.

Widespread breeding birds of farmed habitats

This index fell markedly in 2009 to its lowest ever value, some 16% down on when the indicator began in 1994. The historic indicator highlights the number of species for which range has declined, many of which are now too scarce for inclusion in the BBS results. For comparison with the UK, the indicator is also shown for a subset of the farmland species – those associated with lowland farmland – which was also down 16% on its 1994 value.

Smoothed indices show that four species declined significantly between 1995 and 2008 (**curlew**, **starling**, **linnet** and **yellowhammer**), and all are **Principal Biodiversity Species**, while two increased significantly (**goldfinch** and **woodpigeon**).

Widespread woodland breeding birds

Woodland birds were also less abundant in 2009, but only declined a little compared with the previous year. This index now lies 3% above its 1994 baseline value. The historic indicator shows that the ranges of most woodland birds were stable.

Smoothed BBS results show that no species declined significantly, while eight species increased significantly (**blackbird**, **blackcap**, **chiffchaff**, **duncock**, **great spotted woodpecker**, **great tit**, **robin** and **song thrush**).

“The Welsh Assembly Government measures the health of the environment annually, and birds are included in this using a Wild Bird Indicator based on different groups of widespread breeding birds.”

Other widespread breeding birds

Some birds in other groups also show notable changes over the short term.

Smoothed indices show three species have declined significantly between 1995 and 2008 (*magpie*, *cuckoo* and *swift*). The *cuckoo* is a **Principal Biodiversity Species**. Four species increased significantly (*collared dove*, *stonechat*, *swallow* and *house sparrow*).



Jodie Randal (rspb-images.com)

Stonechat

Stonechats have increased by 168% since 1995.

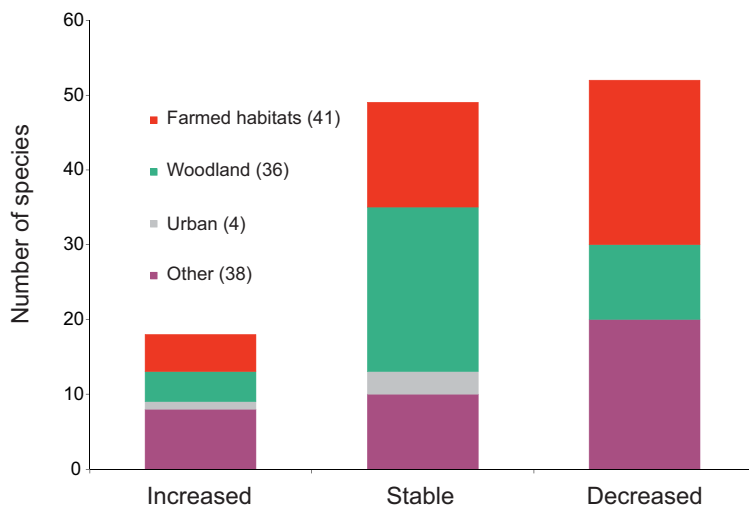
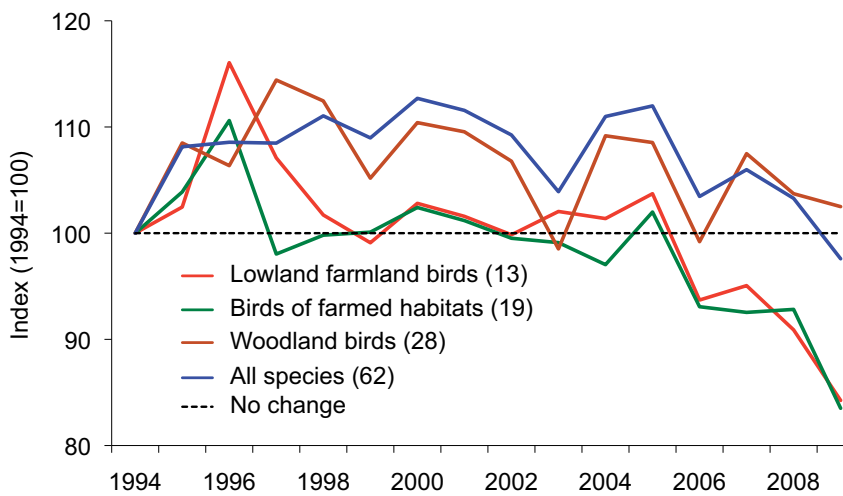
How are birds in Wales faring?

The BBS results for Wales show trends in widespread breeding bird abundance.

Species	% change 1995–2008	Direction of trend where significant
Blackbird	44	Increase
Blackcap	60	Increase
Blue tit	10	
Bullfinch	-14	
Buzzard	11	
Carrion crow	4	
Chaffinch	-10	
Chiffchaff	23	Increase
Coal tit	-19	
Collared dove	51	Increase
Cuckoo	-37	Decline
Curlew	-46	Decline
Dunnock	33	Increase
Garden warbler	-21	
Goldcrest	-41	
Goldfinch	52	Increase
Great spotted woodpecker	159	Increase
Great tit	47	Increase
Green woodpecker	-9	
Greenfinch	13	
Grey heron	3	
House martin	2	
House sparrow	74	Increase
Jackdaw	23	
Jay	31	
Linnet	-32	Decline
Long-tailed tit	13	
Magpie	-12	Decline
Mallard	-19	
Meadow pipit	-11	
Mistle thrush	1	
Nuthatch	23	
Pied wagtail	5	
Raven	28	
Redstart	-4	
Robin	13	Increase
Rook	-19	
Skylark	-15	
Song thrush	39	Increase
Starling	-58	Decline
Stonechat	168	Increase
Swallow	35	Increase
Swift	-52	Decline
Tree pipit	-29	
Treecreeper	4	
Wheatear	-23	

Species	% change 1995–2008	Direction of trend where significant
Whitethroat	-13	
Willow warbler	-15	
Woodpigeon	32	Increase
Wren	9	
Yellowhammer	-40	Decline

The wild bird indicator for Wales shows large declines in some habitats



Part one of the bird indicator for Wales is a measure of how widespread breeding bird numbers have changed since 1994 (top). Part two of the indicator shows historical changes in the geographical distribution of widespread breeding birds between 1968–72 and 1988–91 (bottom).

How are birds in Wales faring?

Non-native breeding birds

Some non-native species have established breeding populations in Wales through deliberate or accidental introductions.

Although some of these species are likely to be harmless to native species and their habitats, others could cause serious conservation and even economic problems.

Monitoring of non-native species in Wales is collated and reported by the UK Rare Breeding Bird Panel. ¹⁰ Here, the status and trends of some selected introduced species are reported on.

The little owl

Smallest of the owls occurring in Wales, the little owl was introduced to southern UK in the 19th century and became established in Wales in the 1920s. This hole-nesting species appears to be a predominantly benign addition to the Welsh avifauna in

most places. Little owls are native to Europe, with natural populations breeding just across the English Channel.

Numbers have been falling in their native range (it is of conservation concern in Europe). There is also evidence of decline in the UK as a whole, and anecdotal evidence of decline in Wales.

Across most of its range, the little owl eats earthworms, insects and small vertebrates. However, a study of the diet of little owls on Skomer Island showed they also eat **storm petrels**, and the island supports over 90% of the Welsh population of this diminutive seabird. The impact of this non-native predator on Skomer's **storm petrel** population is hard to assess without better knowledge of the prey population and further research is needed.

For example, the **storm petrel's** breeding success may be high enough to compensate for any losses

of adults to little owls. Little owls have already been removed from nearby Skokholm because of concerns for their impact on **storm petrels**.

The Canada goose

As their name suggests, Canada geese originate from Canada, from which they were first introduced to Britain in the 17th century. However, numbers in Wales did not increase until further releases in the 1950s.

Their numbers are now at a level that could cause hygiene problems in municipal parks, sometimes be a pest in agricultural crops and could compete for grazing and nest sites with native species. Licences for the control of Canada geese have been issued on the grounds of health and safety (by the Welsh Assembly Government) and the protection of other fauna (by CCW).

The greylag goose

The greylag goose is a native breeder



Canada goose

to Northern Europe, including Scotland and England historically, and is the origin of the domestic goose. Greylag geese introduced to Wales by wildfowling have since established breeding populations. Although they are not as numerous as the Canada goose, they have the potential to cause similar problems in some places.

Ruddy duck and mandarin

In Britain, North American ruddy ducks escaped from wildfowl collections in the 1950s and by the 1970s had established a breeding population in Wales. However, introduced birds elsewhere in Europe have dispersed to Spain, where some have stayed and hybridised with the endangered white-headed duck. As a conservation measure, since 1998 ruddy ducks have been the subject of an organised eradication programme, and numbers are now falling.

Numbers shot per control visit to RSPB-owned wetlands on Anglesey have fallen from an average high of

37.5 in 2003 to just 3.2 in 2009. In Wales, ruddy ducks nested in reedbeds surrounding lakes on Anglesey and the border area of mid Wales prior to the cull.

The mandarin, whose native range is in Russia, China and Japan, has bred in Wales since the 1980s. However, unlike the ruddy duck, breeding numbers of this species have remained very low. Although its WeBS index suggests a decline in recent years, most birds winter on rivers and are not counted. The mandarin nests in hollow trees in broad-leaved woodland near ponds, lakes and slow-moving rivers.

Game birds

Common pheasants first appeared in Wales in Tudor times. Common pheasants and red-legged partridges, probably of various races from their Asian and European distributions respectively, were released for sport shooting from the 1800s and up to the present day.

Indeed, the BBS index for common pheasant suggests an increase of 51% between 1995 and 2008, although it is hard to tell if this increase is due to more nesting in the wild, or increased numbers surviving from rear and release country sport businesses.

However, two other species of pheasant have had tiny breeding populations in Wales, although their more special ecological requirements have resulted in their failure to successfully establish, despite surviving for several years.

Small populations of the golden pheasant, also from the Far East, have persisted for some years on estates on Anglesey, where they benefited from predator control and supplementary food. A small population of Lady Amherst's pheasant, from China and Tibet, was established at one site in Flintshire. However, both no longer breed.



Jodie Randall (rspb-images.com)

How are birds in Wales faring?

Future problem species

Species that establish breeding populations outside their native ranges can increase unchecked if the factors that normally limit their numbers are lacking (eg food and competition for it).

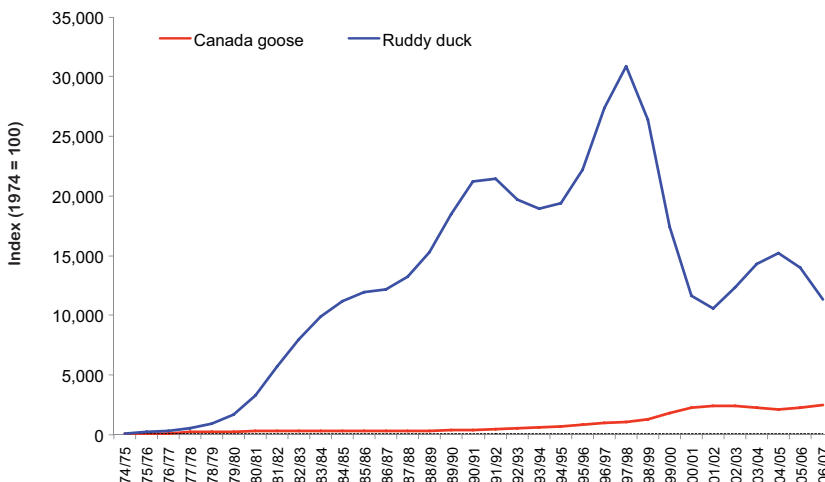
One such species that should be watched for is the rose-ringed parakeet. The species originates from North Africa and India. Escapees from captivity have now established a large population in southeast England. Although these birds do not disperse far, they are already considered an agricultural pest and could cause problems if they eventually colonise. There have been occasional records of this species in Wales, including breeding, but there is no evidence to suggest they are about to be established. Also known as the ring-necked parakeet, the rose-ringed parakeet is listed under Schedule 9 of the Wildlife and Countryside Act 1981, making it an offence to release or to allow the escape of this species into the wild. This should keep the chances of new populations establishing as low. 🖱️



Non-native breeding species in Wales

The current status of non-native species that have established breeding populations in Wales, have bred occasionally or may breed in the near future. Their native range is also given.

May soon breed, or have bred but not established	Increasing	Stable	Declining
Rose-ringed parakeet (Asia)	Canada goose (Canada)	Mandarin (Asia)	Little owl (Europe)
Reeves's pheasant (Asia)	Common pheasant (Asia)		Ruddy duck (North America)
Muscovy duck (South America)	Greylag goose (Northern Europe)		
Black swan (Australia)	Red-legged partridge (Southern Europe)		



Non-native bird population changes

Wintering numbers of both Canada geese and ruddy ducks have increased dramatically in recent decades, although numbers of the latter have fallen more recently because of an eradication project that began in 1998.



Andy Hay (rspb-images.com)

Red-legged partridge

Bird news

In this section you will find updates on some of the work being done to help birds in Wales.

The symbols show examples of bird monitoring and research, Principal Biodiversity Species, and where volunteers have helped achieve the results.



Bird monitoring and research



Principal Biodiversity Species



Volunteer action

New bilingual woodland management handbook launched

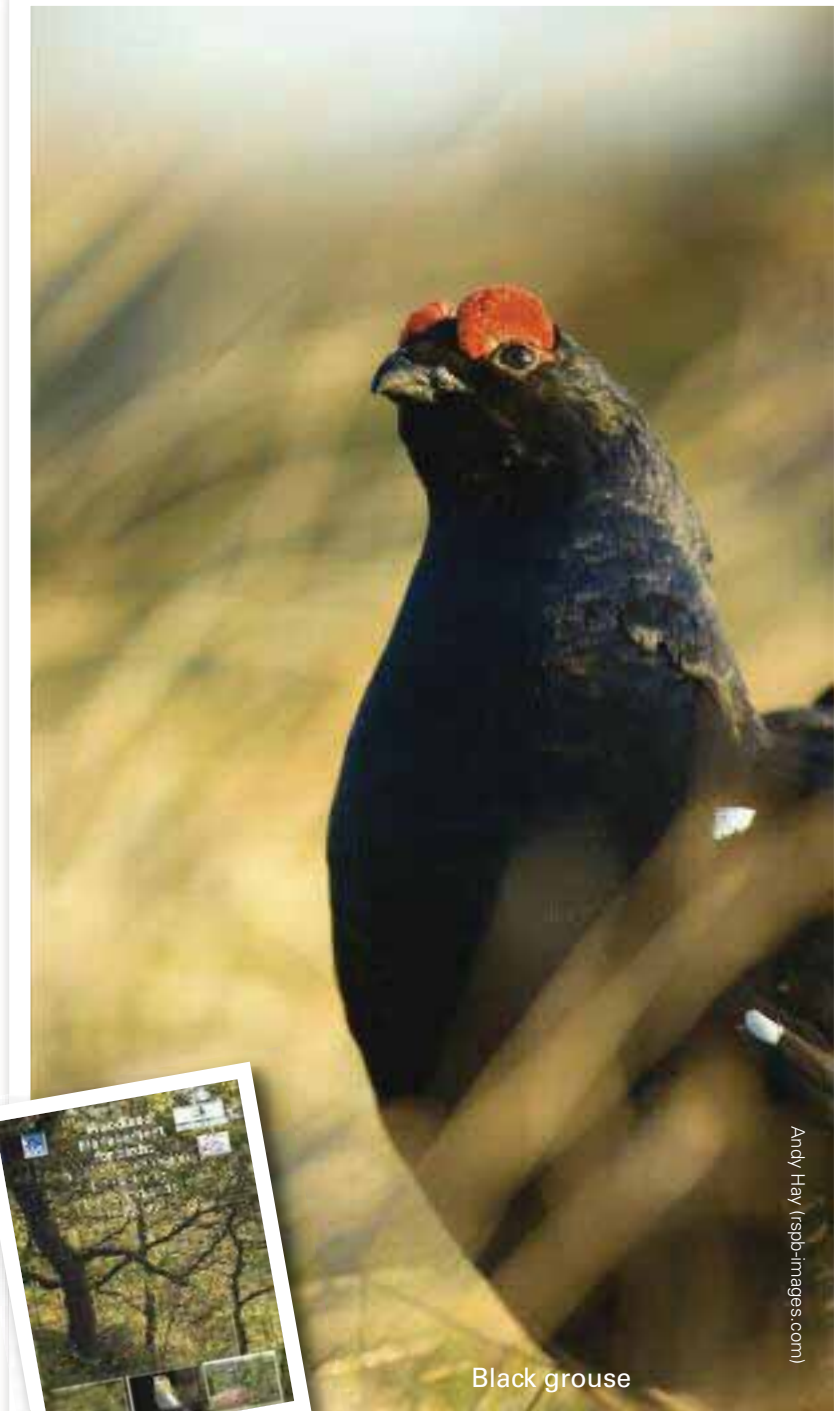
Some woodland birds are declining, and many factors may play a role. However, current research suggests that changes to woodland management may be important. Initiatives that encourage active woodland management could improve their habitats and make a vital contribution to the conservation of these birds.

So that these are most beneficial, a new guide to help managers improve woodlands for birds was published jointly by FCW and the RSPB, with the support of CCW.

Woodland management for birds: a guide to managing woodland for priority birds in Wales incorporates the latest information about how aspects of woodland management affect different birds and other wildlife.

The guide deals, in particular, with management issues relating to the woodland birds considered priorities for conservation action, for example, the **wood warbler**, **pie d flycatcher** and **black grouse**.

Aimed at woodland managers, the full-colour guide gives information relating to the methods of managing



broadleaved, mixed or coniferous woodland to improve habitats for birds.

The guide also signposts sources of information about other aspects of woodland management, such as

woodland grant requirements and FCW guidance. Guidance on legal aspects relating to protected species likely to be influenced by woodland management is also included.

Volunteer and Farmer Alliance (V&FA) scheme

There are numerous conservation organisations that offer advice and support for the farming community. Farming is of fundamental importance for wildlife, with farmland providing breeding and feeding habitats for birds and other animals and plants.

More than 70% of the land in Wales is farmed, and food production is a vital activity on which we all depend.

The free V&FA surveys (run by RSPB Cymru) provide farmers with information about the birds on their land, and enable them to make the most of their farms for local wildlife.

The surveys are done in April, May and June, when birds are breeding, with confidential maps produced for farmers in November.

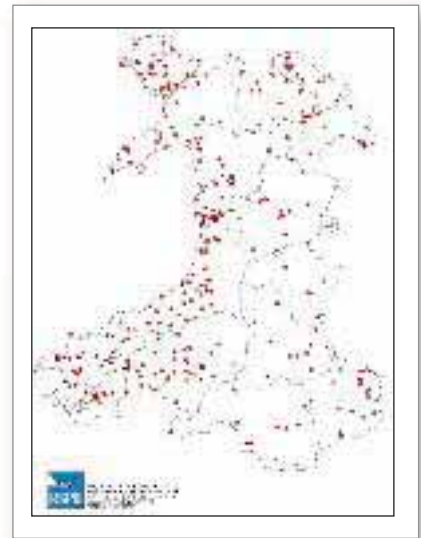
The surveys take place in the morning – when the birds are most

active – and the volunteers cover approximately 80 hectares for each farm.

The surveys provide useful information for the landholder, and for RSPB Cymru. The maps show breeding populations for birds of conservation concern, which can be used to identify areas where more work is needed to help these species.

Work is already being done around Wales to benefit some of the birds seeing the most decline, such as **yellowhammers** and **lapwings**, and collecting more data for these and other species will help further.

Additional funding from the EU LIFE+ Fund means a project officer is now employed to fully implement the scheme across Wales and increase the number of farmers able to participate. You could have your farm surveyed, or survey a participating farm near you. ~☺



298 farms have been surveyed by the Volunteer & Farmer Alliance since 2002.



Eleanor Benthal (rspb-images.com)

Bird news

Bird ringing in Wales

Bird ringing involves fitting long lasting but small metal rings to birds' legs.

Each ring carries a unique number so that if the bird is recaptured or found dead in the future, the time and location of recapture or recovery can be used to calculate time elapsed and distance travelled.

During 2008, trained ringers in Wales ringed more than 40,000 birds, with 14,000 of these having the added value of being ringed as nestlings, giving an exact age and origin. Whilst the most numerous ringed species were tits and finches, the annual total includes 4,315 **pie**d flycatchers and 1,252 **Manx** shearwaters, both over 40% of the annual total for the UK-wide BTO scheme.

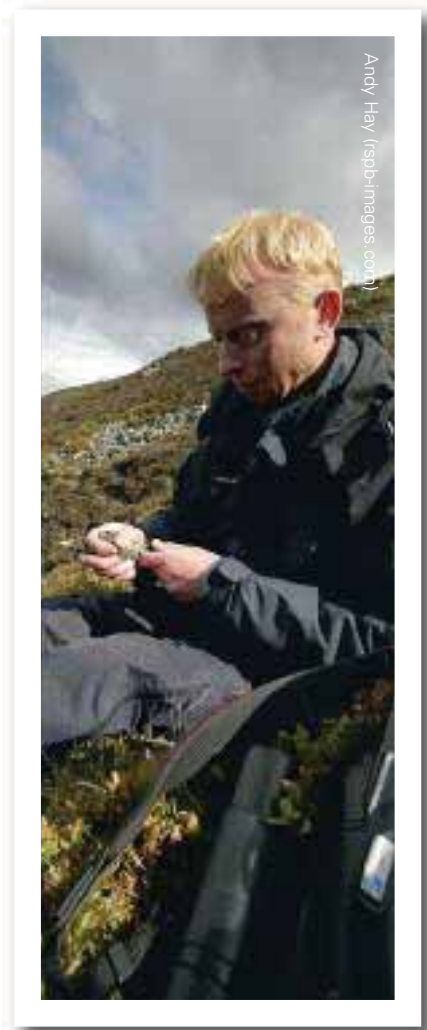
Out of the 750 ringing recoveries (found dead) and controls (caught alive and released), the most interesting include several "firsts" in the UK for **spoonbill**, **nightjar**, **sedge warbler**, **chiffchaff** and **pie**d flycatcher in the BTO Scheme in the UK (see map). Welsh birds also currently hold many BTO longevity records, particularly for waders and seabirds. The lifespans of some of these are shown in the table, although in all

cases typical lifespan is much less than this.

Ringing has widespread uses in monitoring movements and demography (the study of reproductive and survival rates). The scientifically designed Constant Effort Site (CES) and Retrapping Adults for Survival (RAS) projects help answer specific demographic questions, whilst the recoveries of these birds allows more general understanding of movements for a wide range of species.

Ringers in Wales continue to make a great contribution to the BTO's Demographic Monitoring Projects. In 2009 eight CES operated and 11 RAS projects were active across the country. The CES are well spread throughout the country and one of these, Llangorse Lake, was one of the original trial sites, running since 1981. Two new Welsh sites also joined the scheme in 2007, which has enhanced coverage in the northeast of the country.

Of the current RAS projects in Wales, five focus on **pie**d flycatchers and two of these have submitted data as far back as 1986. Other project species include **siskin**, **house sparrow**, **kittiwake**, **whinchat** and **dipper**.



Species	Longevity record (years)	Typical lifespan where known (years)
Rock pipit	5	
Whinchat	5	2
Little grebe	6	
Honey buzzard	6	
Grey wagtail	7	
House sparrow	12	3
Chough	17	7
Red kite	20	4
Turnstone	20	9
Lapwing	21	
Curlew	31	5
Razorbill	42	13
Manx shearwater	51	15

Age of ringed birds in Wales

The table (left) shows individual birds ringed in Wales that have survived long enough to set UK longevity records. This shows that some species can live many decades and witness large man-made changes to their environments.

Notable movements of birds to or from Wales as shown by ringing

- 1 German-ringed **spoonbill** (seen in Carmarthenshire)
- 2 Movement of a **nightjar** (Gwent-ringed bird killed by a car in France)
- 3 **Sedge warbler** to Mauritania, north Africa (ringed on Bardsey, Gwynedd)
- 4 Portuguese-ringed **chiffchaff** (recaught in Pembrokeshire on several dates)
- 5 **Pied flycatcher** to Liberia,north Africa (ringed in Glamorgan)
- 6 A Finnish-ringed **kestrel** killed by a car in Gwent
- 7 A French-ringed **woodcock** shot in Glamorgan
- 8 A **common tern** from the former county of Clwyd found injured in Ghana
- 9 **Barn owl** movements from Highland (624 km)
- 10 **Barn owl** movements from Norfolk (302 km)
- 11 **Barn owl** movements to Bedfordshire (235 km)



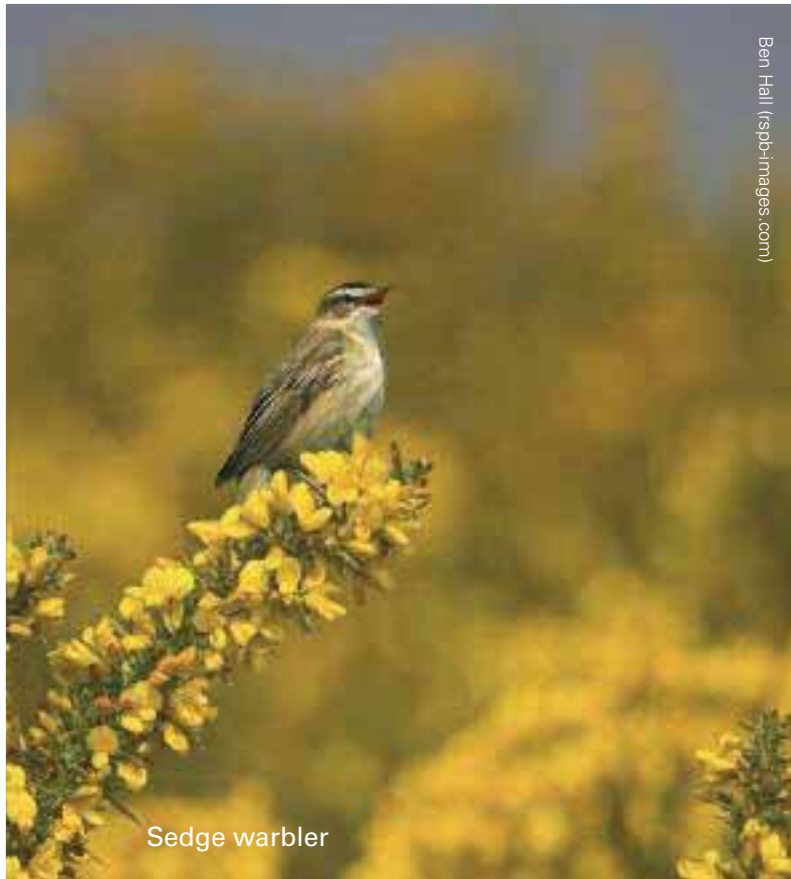
Bird news

Across the UK, the BTO's Ringing Scheme recently passed the milestone of centrally holding electronic details of 10 million ringed birds out of 36 million ringed since the scheme started in 1909. Ringers also collect and submit biometrics (measurements) of birds caught and these data are also available for analysis. Recent analyses have highlighted the impact of cold weather on body condition in estuarine waders and how birds deal with the trade-off between the risks of predation and starvation.

Ringing also has a vital role to play in the recent upsurge of interest in the winter ecology of migrants. Many of our trans-Saharan migrants are showing very worrying declines, with species such as **wood warbler** and **pied flycatcher** being recently red-listed.

Other species, including **spotted flycatcher** and **garden warbler**, also exhibit declines in Wales. Work is currently being carried out jointly between BTO, RSPB and the BirdLife partners in Ghana and Burkina Faso to monitor patterns of abundance in migrants in these countries throughout the winter.

This focuses on the use migrants make of a suite of habitats across sub-Saharan Africa, from the semi-desert Sahelian region in Burkina Faso to the lush tropical forests of Ghana. The aim is to understand how Palearctic-African migrants from breeding habitats in Wales use and move around the different vegetation zones found in West Africa.



Sedge warbler

Ben Hall (rspb-images.com)

Opportunity mapping hits the right spot

A pilot project is working to identify the best locations for corn bunting habitat management in Wales, focused on the Bettisfield area near Wrexham.

Management of this key area will aim to provide more habitat for the birds and increase their numbers both in the winter when they eat seeds, and during the breeding season when insects are fed to their chicks.

Corn buntings maintain a tenuous presence in Wales and are restricted to a small number of areas in the north east, in Flintshire. They are associated with open landscapes with extensive areas of arable (cereal), low input grassland, or preferably, a mixture of both. They nest on, or close to, the ground in the crop, and feed on seeds and grain, although invertebrates are particularly important in the breeding season as food for chicks.

The BIRDMAP Pilot Project generates land management recommendations referred to as "opportunity mapping" and is based on a geographic information system. The system streamlines the process of identifying suitable locations for habitat management by combining farm/site/landscape attributes and species/habitat information, making this stage of the conservation planning process more efficient.

The pilot project has identified parcels of land where corn bunting management can take place with the most opportunity for beneficial outcomes. Conservation organisations are now hoping to work with land managers to help integrate required species-specific habitat management with economic farm operations.

Dummies set to lure puffins ashore

Puffins became extinct on Ramsey Island in the 1800s, following the arrival of brown rats from shipwrecks, which ate their eggs and chicks.

Rats are a well-known problem for burrow-nesting seabirds, so to help **puffins** and other seabirds, the RSPB carried out a rat eradication programme on the island in the winter of 1999/2000. This was successful, and **Manx shearwaters**, which also breed in burrows on the islands, have increased in numbers since then. However, **puffins** are slow to recolonise islands and have not re-established as yet.

Following the recent success of a project on an island in Scotland, model **puffins** were used on Ramsey Island last summer. Model **puffins** were positioned in places with plenty of rabbit burrows in an attempt to lure the naturally gregarious **puffins** ashore (they already breed in large numbers on the nearby islands of Skokholm and Skomer). It may take many years, but this low-tech solution could increase the number of Welsh islands on which this charismatic seabird breeds.



New dimensions on forests and bird distributions

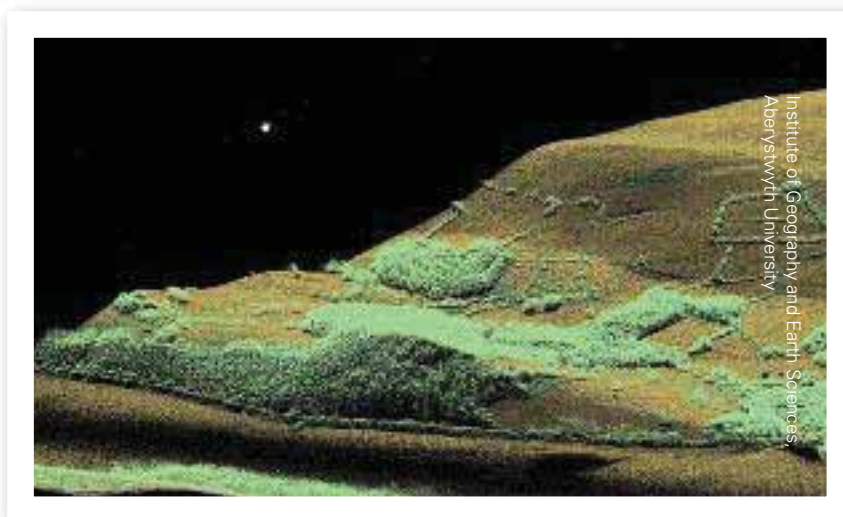
Aberystwyth University's Institute of Geography and Earth Sciences (IGES) has been exploring novel approaches to understand how bird species are distributed across wooded landscapes by using three-dimensional information on the distribution of plant material (leaves and wood) obtained from airborne Light Detection and Ranging (LiDAR).

The data was acquired by the Natural Environment Research Council Airborne Remote Sensing Facility over the coniferous, broadleaved and mixed species forests of the RSPB Lake Vyrnwy nature reserve in mid Wales.

By linking the data with Common Bird Census (CBC) data collected by RSPB Cymru, associations between a wide range of bird species, including **pie d flycatcher**, **wood warbler**, **great spotted woodpecker** and **siskin**, and different forest structures were observed.

Such knowledge can be used to inform models that can predict the distribution of bird species across a landscape, particularly when integrated with maps of the distribution of vegetation communities, as obtained using data acquired by aerial photographs or satellite sensor data.

The research is developing a new method of understanding how bird species utilise forested landscapes, which will have uses in conservation and land management.



An airborne LiDAR image of woodland and farmland at Lake Vyrnwy shows variation in the height and 'roughness' of vegetation.

Bird news

Thirty years of the Big Garden Birdwatch

2009 marked the 30th anniversary of the RSPB's Big Garden Birdwatch. It was a record-breaking year with more than 33,000 people taking part across Wales.

The **long-tailed tit** flew into the top ten for the first time in the survey's 30-year history. Numbers of this highly sociable species nearly doubled compared to the year before.

Small, insect-eating birds such as **long-tailed tits** are particularly susceptible to the cold, as the food they rely on is hard to come by in frosts and snow, so colder weather early in 2009 may have driven more into gardens with feeders.

Over the last 10 years, the **long-tailed tit** has also adapted to feeding on seeds and peanuts at bird tables and from hanging feeders. This behaviour has spread as they have learnt from each other that tables and feeders offer a wide variety of food.

Numbers of all but one of the top ten birds increased slightly since the year before. Only **starling** numbers dropped, although they retained the number two slot.

Surveys like this one not only help conservation organisations identify problems with the more common birds, but are the first step in helping them and aiding their recovery. For those who have taken part in the Big Garden Birdwatch survey every year – thank you, please keep up the good work.



This table shows the average number of Wales's 2009 top 10 species of birds recorded per garden across Wales, and compares this with the results from the 2008 and 1979 surveys.

Species	2009 rank	2009 average per garden	2008 rank	2008 average per garden	% change 2008-2009	% change 1979-2009	1979 average per garden
House sparrow	1	3.7	1	3.6	2.8	-63	10.0
Starling	2	3.21	2	3.44	-6.7	-79	15.0
Blackbird	3	2.84	3	2.45	15.9	-29	4.0
Blue tit	4	2.45	4	2.29	7.0	0.4	2.44
Chaffinch	5	2.01	5	2.15	-6.5	-33	3.0
Woodpigeon	6	1.85	6	1.53	20.9	825	0.2
Collared dove	7	1.44	7	1.43	0.7	414	0.28
Great tit	8	1.4	9	1.25	12.0	56	0.9
Robin	9	1.36	8	1.26	7.9	-32	2.0
Long-tailed tit	10	1.34	14	0.71	88.7	-	-

Tree sparrow stronghold reveals its secrets

The **tree sparrow** is a principal biodiversity species with a highly localised distribution in Wales following long-term decline. One of the largest remaining populations is centred on the Tywi Valley, Carmarthenshire. Based on best knowledge of limiting factors, a project run by bird ringers John Loyd, Richard Facey and Julian Friese provided seed food during winter, and safe nest sites (boxes) for breeding, and used ringing and other techniques to find out more about their ecology. The results of this study have recently been published in the journal *Welsh Birds*.

Tree sparrows are elusive and difficult to survey during breeding. Nevertheless, up to 80 pairs nested in boxes during the project. Their young were colour-ringed, and the low numbers of ringed breeding birds seen nesting in boxes in subsequent years suggests there are many more pairs breeding in natural nest sites in the area (holes in trees). Indeed, the total population could number 200-400 pairs. Alternatively this could signify a smaller population with low first year survival.

Analysis of faecal samples from chicks showed three groups of aquatic insects contribute around a third of their diet (mosquitoes, midges and damselflies). This highlights the importance of floodplain habitats to breeding **tree sparrows**, an association that has been shown for populations elsewhere.

Also in common with studies of **tree sparrows** elsewhere is their highly sedentary nature, with the maximum of five movements being just 1.8 km. However, the discovery of a dead bird ringed in Yorkshire, some 300 km away, highlights that even this apparently isolated and sedentary population has links with **tree sparrows** elsewhere. If regular, the resulting out-breeding helps keep the population viable.

The protection of suitable wet feeding sites during breeding (eg vegetated ditches), and the availability of seed in winter, either from feeders or arable crops, seems essential to maintaining this population, and both volunteer action and agri-environment schemes such as Glastir have a role to play.



What goshawks eat

The **goshawk** became extinct in Wales before 1800, and became re-established through deliberate releases, probably using birds of European origin. **Goshawks** have long been contentious birds through their suspected impact on game interests and possibly species of conservation interest.

However, as part of a study of **goshawks** in mid and north Wales, by

bird ringers Dick Squires, Jack Grasse and the late Chris Falshaw, the remains of 297 prey items from 27 nests were collected and analysed. They found that 38% of prey was woodpigeons or feral pigeons, with a further 31% being made up of crows. Although 6% were mistle or song thrushes, these species are stable or increasing in Wales.

Although these results are from a relatively small sample of nests of limited geographic spread, and do not exclude the possibility that some individual **goshawks** specialise on prey of conservation interest, such as **black grouse**, they do provide evidence that **goshawks** are not generally preying on species of conservation importance. These results have been published in the 2009 edition of the ornithological journal *Welsh Birds*.



Tree sparrows never disperse very far from their nest site.



Andy Hay (rspb-images.com)

Tree sparrow

Looking forward

2010 hen harrier survey

The **hen harrier**, a Principal Biodiversity Species that breeds on heather moor and eats small mammals and birds, is surveyed every six years as part of the SCARABBS programme.

Outside Wales, **hen harrier** numbers have failed to recover from historic declines, and this is thought to be due to continued illegal persecution.


In Wales, however numbers increased from 27 to 43 breeding pairs between 1988–89 and 2004. The survey in 2010 will be looking to see if their recovery has continued, and whether they are expanding their range. The results will be reported in the next issue of *The State of Birds in Wales*.

Do your bit for the BTO Bird Atlas and regional atlases

Volunteers to visit all parts of Wales are still needed to take part in Bird Atlas 2007–2011, to produce the best possible maps of distribution and abundance.

Fieldwork, which has become known as “atlasing”, is taking place in winter 2010–11 and in the 2011 breeding season.

Two complementary fieldwork methods are used to gather data. Roving Records help make distribution maps as comprehensive as possible, while counts from Timed Tetrad Visits are used to map the relative abundance of species in each of the 278 10x10 km map squares in Wales.

If you would like to submit roving records, or request a tetrad (2x2 km map square) that still needs visiting, please contact the Atlas. 

Hen harrier numbers have increased from 27 to 43 breeding pairs – will this continue?



Andy Hay (rspb-images.com)

Hen harrier

Bird conservation online

Many organisations provide useful information via their respective websites, including details of how to get involved in bird surveys and practical land management advice to benefit birds in Wales. Whilst not an exhaustive list, the following suggestions are a good place to begin.

Bird surveys and reporting rare birds

www.birdatlas.net and **www.northwalesbirdatlas.co.uk** – get involved with the current Bird Atlas.

www.bto.org – includes details of how to take part in a range of surveys such as the Breeding Bird Survey, the Wetland Bird Survey and the Common Bird Census, in addition to current and historic reports.

www.birdtrack.net – the online bird recording scheme to increase the personal, local and national value of your sightings.

www.rspb.org.uk – includes details of farmland bird surveys, as part of the Volunteer & Farmer Alliance, and the annual Big Garden Birdwatch which takes place every January and Make your Nature Count which takes place over the summer months.

www.nbn.org.uk – a source of data from a wide range of bird surveys in Wales that can be viewed on maps.

www.birdsinwales.org.uk – tells you who your local County bird recorder is, how to contact them, and how to obtain copies of annual County Bird Reports. The society's journal *Welsh Birds* can also be obtained through this website.

www.rbbp.org.uk – provides information about which species the Rare Breeding Birds Panel collates information on and how to submit records. Annual reports on rare breeding birds and non-native birds are available to download.

www.rspb.org.uk/v&fa – how to get the birds on your farm surveyed and how to help survey a participating farm near you.

Advice

www.rspb.org.uk/landmanagement – advisory materials for land managers.

www.ccw.gov.uk – includes information regarding protected marine and terrestrial sites.

www.forestry.gov.uk/forestry/INFD-7ZWGSA – download a copy of *Woodland management for birds*.

Local biodiversity

Unitary authorities in Wales produce Local Biodiversity Action Plans, which can be downloaded from their websites. To locate the relevant website for each area, visit **www.direct.gov.uk** and click on 'Find your council'.

International

This website provides information about projects looking at the ecology of migrants in their wintering grounds.

www.migrantbirdsinafrica.blogspot.com

Technical appendix

www.rspb.org.uk/wales – further details of the methods and analyses used to produce the results presented in this report.





Chris Gomersall (spb-images.com)

Song thrushes are up by 39%