Waterbirds in the UK 2010/11
The Wetland Bird Survey

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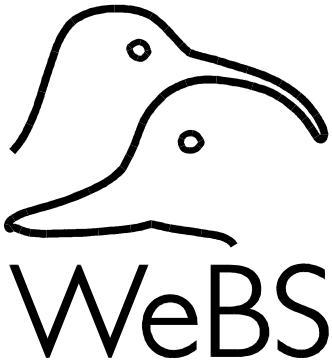

Published by

**British Trust for Ornithology,
Royal Society for the Protection of Birds
and Joint Nature Conservation Committee
*in association with***
Wildfowl & Wetlands Trust

September 2012

ISBN 978-1-906204-33-4
ISSN 1755-6384

This publication should be cited as:
Holt, C.A., Austin, G.E., Calbrade, N.A., Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. & Musgrove, A.J. 2012. *Waterbirds in the UK 2010/11: The Wetland Bird Survey.* BTO/RSPB/JNCC, Thetford.

Published by: BTO, RSPB and JNCC in association with WWT. **www.bto.org/webs**

Cover: *Winter Trio: Pintails* - Thelma Sykes.
Thelma was born in Yorkshire and now lives in Cheshire close to the Dee Estuary – a source of both inspiration and subject matter. She came to print-making without formal training, but has become one of the most respected artists in that medium. Elected to the Society of Wildlife Artists (in the Federaton of British Artists) in 1999, her prints are now held in many collections including the Mall Galleries in London. Some of Thelma's prints have also been used on BTO merchandise.

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Artwork: Jack Ashton-Booth, C.J.F. Coombs, Thelma Sykes

Produced by: BTO

Printed by: Swallowtail Print, Drayton Industrial Park, Taverham Road, Norwich NR8 6RL. www.swallowtailprint.co.uk

Available from: BTO, The Nunnery, Thetford, Norfolk IP24 2PU, UK.

This report is provided free to all WeBS counters and those who participate in the other national waterbird surveys, none of whom receive financial reward for their invaluable work. Additional feedback is provided to counters through the annual WeBS Newsletter. For further information please contact the WeBS Office at the BTO: **webs@bto.org**

ACKNOWLEDGEMENTS

This book represents the twenty-ninth report of the Wetland Bird Survey and comprises information from WeBS and complementary national and local surveys, *e.g.* goose censuses. It is entirely dependent on the many thousands of dedicated volunteer ornithologists who supply the data, and to whom we are extremely grateful. The Local Organisers who coordinate these counts deserve special thanks for their contribution.

We are also grateful to the following individuals and groups for providing technical assistance, supplementary information and additional data, or comments on draft texts:

Niall Burton, Lee Cadwell, Nigel Clark, Mark Collier, Aonghais Cook, COWRIE, Olivia Crowe, Diana de Palacio, Iain Downie, Simon Gillings, Matthew Guillemain, Colette Hall, Mark Hammond, Paul Harrup, Paul Harvey, Martin Heubeck, Maria Knight, John Marchant, Carl Mitchell, Nick Moran, Deborah Procter, Warren Read, Jim Reid, Marcia Sayer, John Shillitoe, Judith Smith, Ron Summers, Richard Thewlis, Rick Vonk, Chris Waltho, Colin Wells, Linda Wilson, Ilka Win, and Karen Wright. Many amateur observers also provide reports of their studies; these are acknowledged within the text.

Grateful thanks to all and apologies to anyone who has inadvertently been missed.

THE WETLAND BIRD SURVEY
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Organised and funded by: Wildfowl & Wetlands Trust, Joint Nature Conservation Committee and Scottish Natural Heritage.

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OTHER NATIONAL WATERBIRD SURVEYS

Details of, and contacts for, many of the other waterbird surveys used in this report and of forthcoming surveys, can be obtained via the websites of the WeBS partner organisations.

ERRATA TO PREVIOUS REPORTS

Please note the following corrections to data presented in previous reports:

Kingsbridge Estuary: The peak count of Little Egret in 2009/10 was 90 (not 13).
Langstone Harbour: Incorrect totals for Dark-bellied Brent Goose and Black-necked Grebe in 2009/10 were used in the sites tables.
Ribble Estuary: The peak count of Wigeon in 2008/09 was 97,512 (not 101,594).
Stour Estuary: Incorrect totals for Dunlin in 2008/09 and 2009/10 were used in the sites table.

CONTENTS

*Details of WeBS survey methods, analysis, data presentation, interpretation of waterbird counts, and historical reports, are available via the WeBS website:
www.bto.org/volunteer-surveys/webs/publications/annual-reports

Summary

WeBS AND 'WATERBIRDS IN THE UK'

The Wetland Bird Survey (WeBS) is a joint scheme of the British Trust for Ornithology (BTO), Royal Society for the Protection of Birds (RSPB) and Joint Nature Conservation Committee (JNCC), in association with Wildfowl & Wetlands Trust (WWT).

The principal aims of the scheme are to identify population sizes, determine trends in numbers and distribution, and identify important sites for non-breeding waterbirds in the UK. WeBS Core Counts are made annually at approximately 2,000 wetland sites of all habitats; estuaries and large still waters predominate. Monthly coordinated counts are made mostly by volunteers, principally from September to March, with fewer observations during summer months. Data from other sources, *e.g.* roost counts of geese, are included where relevant.

This report presents total numbers counted for all species in the most recent year in Great Britain and Northern Ireland. Annual indices are provided for the more numerous species, as are monthly indices showing relative abundance during the winter. Following publication of latest waterbird population estimates (Wetlands International 2012), revised thresholds for listing sites of international importance are used in this report. Where applicable, interpretation of WeBS results is placed in the context of trends from other countries in the East Atlantic flyway.

2010/11 WeBS COVERAGE

This report summarises counts during 2010/11 and previous years (since 1960 for wildfowl, 1969 for waders, and the early 1980s/1990s for other species). In 2010/11, WeBS counters covered 4,476 count sectors at 2,422 count sites. A total of 4,409 sectors were counted at least once during the core 'winter' period of September to March, and over 2,000 were covered in all twelve months.

This represents a fantastic effort by everyone involved. A huge THANK YOU goes to all!

WeBS HEADLINES FROM 2010/11

The coldest winter for 35 years… resulted in frozen conditions across northwest Europe. Many wetlands in the UK were frozen during November 2010 to January 2011.

Responses to cold weather… The number of European White-fronted Geese was the highest in the UK for several years, and bucks a recent 'short stopping' trend. Following a record peak of 5,600+ Svalbard Light-bellied Brent Geese at Lindisfarne in autumn, an influx was noted on the east coast of Britain in response to the cold midwinter conditions in Denmark and adjacent areas. Species such as Lapwing, Grey Plover and Smew also reached notable peaks in the UK during the cold period (including a record count of 72,319 Lapwings at Somerset Levels in January). In contrast, the frozen conditions resulted in marked net decreases of some wildfowl and waders at WeBS sites; species such as Shoveler and Golden Plover probably departed the UK in search of milder areas, perhaps further south in the flyway.

Ducks declining or shifting range? Northern Ireland's wintering populations of most ducks, both dabbling and diving species, continue to decline. Reasons are not fully understood, but it may be in response to recent climate change. In Britain, Pochard and Goldeneye also declined further, despite frozen midwinter conditions across northwest Europe which, all else being equal, might have been expected to lead to an arrival of waterfowl to the UK.

Seaducks… particularly Long-tailed Duck and Velvet Scoter, appear to be in serious decline in the UK. This is in line with the situation elsewhere, including the Baltic Sea.

Ringed Plovers… have reached lowest ever wintering numbers across the UK.

Little Egrets… Following the rapid increase in the England since the mid-1990s, numbers at WeBS sites are now stable (but may be continuing to increase within the wider countryside).

2010/11 WATERBIRD SUMMARY

Swans & Geese

Numbers of **Bewick's Swan** rose slightly compared to recent winters, while **Whooper Swan** numbers were in keeping with the species' upward trend. Whereas the estimated number of **Pink-footed Geese** fell compared to the last two years, all-time peaks in terms of national index values were once again attained by both the **Svalbard** and **Canadian** populations of **Light-bellied Brent Goose**, **Svalbard Barnacle Goose**, as well as **Egyptian Goose** and **naturalised Barnacle Goose**. During the cold midwinter period, **European White-fronted Goose** showed a marked rise compared to recent years. There was further evidence that a drop in numbers of **Greenland White-fronted Goose** has bottomed out. **Canada** and **Greylag Geese** (both the **Icelandic** and **British** populations) were present in typically high numbers.

Ducks

Dabbling ducks responded to freezing conditions during the midwinter period; influxes of **Wigeon**, **Teal** and **Mallard** contrasted with an exodus of **Shoveler** and another poor showing by **Pintail**. These events occurred within the context of probable longer-term shifts in core wintering range of species such as **Mallard**, **Pochard**, **Goldeneye** and **Red-breasted Merganser**, that may be at least partly in response to the longer-term trend of relatively mild winters. **Gadwall** and **Tufted Duck** both remained at high levels in 2010/11 in Britain, and **Smew** numbers were notably greater than recent years. **Eider** continue to decline slowly in Britain. In general, monitoring of seaducks through WeBS is notoriously difficult; species such as **Long-tailed Duck** and **Velvet Scoter** require more targeted surveys of favoured sites, so it is difficult to draw conclusions about the current status of these species.

Divers, Grebes, Herons & Rails

The divers and scarcer sea grebes were present in similar numbers to recent years; the assessment of which relies heavily on submission of supplementary data from sites not counted routinely through Core counts. Both **Little** and **Great Crested Grebes** decreased during the frozen conditions in December and January, and the former appears to have struggled to recover in subsequent months**.** Although **Little Egret** continued to expand both north and westward in England, the overall trend at WeBS sites is no longer one of increase. Also stable in Britain is **Coot**, but a recent marked decline is apparent in Northern Ireland. **Moorhen** shows signs of a slight drop in Britain, perhaps in response to increased mortality after two cold winters.

Waders

Golden Plover and **Lapwing**, whose numbers typically fluctuate more than other waders, have both shown recent declines; the former showed a particularly marked drop in response to the cold weather. The long-term decline of **Ringed Plover** continues, although **Dunlin** is showing some signs of stability and both **Curlew** and **Redshank** bucked recent downward trends. **Turnstone** remained close to the all-time low reached in 2009/10. There were further improved fortunes for **Grey Plover** and **Sanderling,** and **Bar-tailed Godwit** also appears to be recovering from a slump six years ago. Numbers of wintering **Black-tailed Godwit** and **Avocet** remained high and the populations of both continue to rise. **Knot** and **Purple Sandpiper** have remained stable in the last decade, but **Oystercatcher** are showing signs of a recent decline particularly in Scotland. Numbers of **Snipe** recorded were lower than normal, in response to the cold winter; the WeBS trend for this species is included for the first time.

Gulls & Terns

Gulls and terns recorded by WeBS reflect coverage as much as abundance of birds *per se*. WeBS trends for the six most regular gull species are again published in this report. The increase in **Mediterranean Gull** is again evident. Numbers of **Black-headed, Herring** and **Great Black-backed Gulls** appear to be relatively stable at WeBS sites in Britain, whereas **Common** and **Lesser Black-backed Gulls** are both showing signs of decline.

Introduction

The UK is of outstanding international importance for waterbirds. Lying on some of the major flyways for Arctic-nesting species, large numbers of waterbirds are attracted, especially during winter, by the relatively mild climate and extensive areas of wetland, notably estuaries. The UK thus has both moral and legal obligations to conserve both these waterbirds and the wetlands upon which they depend.

As a signatory to a number of international conservation conventions, and as a member of the EU, the UK is bound by international law. In particular, the 'Ramsar' Convention on Wetlands of International Importance especially as Waterfowl Habitat, the EU Birds Directive and the EU Habitats and Species Directive, between them, require the UK to identify important examples of wetland and other habitats and sites important for birds and designate them for protection. Implicit in these obligations is the need for regular monitoring to identify and manage such sites. These instruments also lay particular significance on the need to conserve migratory populations, and consequently most of the waterbird populations in the UK.

The UK has ratified the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) of the Bonn Convention on the Conservation of Migratory Species of Wild Animals. AEWA entered into force in 1999. It is a specific Agreement requiring nations to take coordinated measures to conserve migratory waterbirds given their particular vulnerability due to their migration over long distances and their dependence on networks that are decreasing in extent and becoming degraded through non-sustainable human activities. Article three of the Agreement requires, among other things, that sites and habitats for migratory waterbirds are identified, protected and managed appropriately, that parties initiate or support research into the ecology of these species, and exchange information and results. Explicit in this Agreement is that adequate monitoring programmes are set in place to fulfil these objectives and the Action Plan to the Agreement specifically requires that nations endeavour to monitor waterbird populations.

The Wetland Bird Survey (WeBS) aims to monitor all non-breeding waterbirds in the UK in order to provide the principal data on which the conservation of their populations is based. To this end, WeBS has three main objectives:

- to assess the size of non-breeding waterbird populations in the UK;
- to assess trends in their numbers and distribution; and
- to assess the importance of individual sites for waterbirds.

These results also form the basis for informed decision-making by conservation bodies, planners and developers and contribute to the sustainable and wise use and management of wetlands and their dependent waterbirds. The data and the WeBS report also fulfil some of the objectives of the Conventions and Directives listed above. WeBS also provides UK data to Wetlands International to assist their function of coordinating and reporting upon waterbird status at an international flyway scale.

Structure and organisation of WeBS

WeBS is a partnership scheme of the British Trust for Ornithology (BTO), Royal Society for the Protection of Birds (RSPB) and the Joint Nature Conservation Committee (JNCC) (on behalf of the Council for Nature Conservation and the Countryside), the Countryside Council for Wales (CCW), Natural England (NE) and Scottish Natural Heritage (SNH)), in association with Wildfowl & Wetlands Trust.

WeBS continues the traditions of two, long-running count schemes which formed the mainstay of UK waterbird monitoring since 1947 (Cranswick *et al.* 1997). WeBS Core Counts are carried out at a wide variety of wetlands throughout the UK. Synchronised counts are conducted once per month, particularly from September to March, to fulfil all three main objectives. In addition, WeBS Low Tide Counts are undertaken on selected estuaries with the aim of identifying key areas used during the low tide period, principally by feeding birds; areas not otherwise noted for their importance by Core Counts which are normally conducted at high tide. The success and growth of these count schemes accurately reflects the enthusiasm and dedication of the several thousands of volunteer

ornithologists who participate. It is largely due to their efforts that waterbird monitoring in the UK is held in such high regard internationally.

Aim of this report

This report presents syntheses of data collected between July 2010 and June 2011 (see *The WeBS Year*), and in previous years, in line with the WeBS objectives. Data from other national and local waterbird monitoring schemes, notably the WWT/JNCC/SNH Goose & Swan Monitoring Programme, are included where WeBS data alone are insufficient to fulfil this aim, so that the report provides a single, comprehensive source of information on waterbird status and distribution in the UK.

Species accounts provide yearly maxima for all sites supporting internationally and nationally important numbers. Sites with changed status are highlighted and significant counts are discussed. Wherever possible, counts are placed in an international context and relevant research is summarised. Waterbird totals are provided for all sites meeting criteria for international importance and species occurring in internationally important numbers on each are identified.

WeBS Low Tide Counts are carried out on selected estuaries to determine the distribution of birds during low tide, and to identify important feeding areas that may not be recognised during Core Counts that are made mostly at high tide. A summary of results for these estuaries, and distribution maps for selected species, are provided.

Waterbird totals recorded by the Irish Wetland Bird Survey (I-WeBS), a similar scheme operating in the Republic of Ireland, are also included.

Methods

Details of WeBS methodologies, included in the Introduction of the annual WeBS report until Holt *et al.* (2009), are available via the WeBS website: **www.bto.org/webs**.

WEATHER IN 2010/11

This summary of UK weather is drawn from the Meteorological Office web site at www.metoffice.gov.uk. Bracketed figures following the month refer to the Core Count priority date for the month in question.

United Kingdom

July (18) saw a west-east split in terms of weather. Temperatures and rainfall were typical across much of Scotland, Northern Ireland, Wales and western England, but it was warmer and drier than expected elsewhere particularly East Anglia.

August (15) was characterised by cool and rather cloudy weather, with showers and longer spells of rain. It was the coolest August since 1993, while in East Anglia it was the second wettest August on record.

September (19) proved to be an extremely changeable month with plenty of rain, especially across the northern half of the UK, but also some more settled spells. Overall, over the course of the month, average temperatures and rainfall levels were close to normal.

October (10) saw an opening period of unsettled weather across the UK, with copious rainfall. Colder, settled conditions mid-month were followed by the return of frontal systems and associated unsettled weather. Overall, rainfall amounts were close to normal in most areas, and it proved to be the equal-sunniest October on record in Wales.

November (14) saw temperatures well below average across most of the UK, typically by 1.5-2.0°C. Consequently, it proved to be the coldest November since 1993. The lowest temperature registered was -18°C in Powys; new November minima were set for Wales and Northern Ireland. Rainfall was generally close to normal in most areas.

Cold conditions intensified in **December** (19) and mean temperatures proved to approximately 5°C lower than normal. This rendered it the coldest December in over 100 years. There was significant snowfall in many areas and a minimum temperature of -21.3°C was recorded in Highland. Although it was cold throughout, a period of exceptionally frozen conditions occurred for ten days from mid-month, which therefore impacted WeBS coverage for the month.

In **January** (16), the very cold conditions from the previous month slowly moderated during the open fortnight. Overall, temperatures remained below average, and Scotland continued to experience snow and frozen conditions beyond mid-month. Despite a gradual thaw, some freshwater wetlands remained

frozen at the time of the mid-month WeBS Core count date.

February (13) proved to be a more typical month with Atlantic depressions bringing unsettled conditions to much of the UK. Average temperature was about 2°C higher than the recent thirty-year average; the ninth mildest February in the last 100 years and a stark contrast to the preceding two months.

March (13) proved to be largely dry and settled thorough the first half of the month, although there was a period of snowfall in Scotland during the second week. Rainfall was very low across much of England; East Anglia experienced its second driest March in 100 years.

April (17) was dominated by high pressure and most of the UK experienced warm, dry conditions. Overall, England recorded less than 10 % of expected rainfall. It was the sunniest April since 1929, and a maximum temperature of 28°C was noted in Surrey.

May (15) proved to be relatively unsettled with more rainfall than expected in the north and west, but relatively dry conditions persisted in the east. Mean temperatures were slightly above average.

After a dry start, **June** (12) proved to be wetter than expected across many parts, particularly central and southern England where it was 150% wetter than normal.

Table 1. The percentage of inland count units (lakes, reservoirs, gravel pits, rivers and canals) in the UK with any ice and with 75% or more of their surface covered by ice during WeBS counts in winter 2010/11 (England divided by a line drawn roughly between the Humber and the Mersey Estuaries).

Region	Ice	S	O	N	D	J	F	M
Northern Ireland	>0%	0	0	0	86	35	0	0
	>74%	0	0	0	66	22	0	0
Scotland	>0%	0	<1	13	75	54	10	3
	>74%	0	0	6	68	40	5	<1
N England	>0%	0	0	3	81	22	<1	<1
	>74%	0	0	<1	73	7	0	0
S England	>0%	0	<1	2	82	9	1	<1
	>74%	0	0	<1	70	4	<1	0
Wales	>0%	0	0	<1	81	7	2	0
	>74%	0	0	0	60	5	0	0

Arctic Breeding Conditions 2010

Arctic breeding conditions for birds that winter within the UK are summarised from information available from the website www.arcticbirds.ru having been collated by Soloviev & Tomkovich (2011).

Typically, there was considerable variation in summer temperatures across the Arctic region in 2010, but generally the figures were above average. This was particularly the case across most of arctic Russia, eastern Siberia, arctic Canada and Greenland – where recorded temperatures were up to 5.5°C higher than usual. An exception to this was northern Scandinavia where it was cooler than expected, particularly during the early stages of the summer.

Rodent abundance was generally low across most arctic regions in 2010, although high densities were recorded at a scattering of regularly monitored sites in arctic Russia.

Indications from sites across the Arctic were of good avian breeding success across the majority of regions in 2010. Typically however, some stations did not conform to this trend; for example, results from the small number of monitoring stations located in Greenland and northern Canada were more mixed, and in some cases there success was considered to be poor.

Turnstone chicks *(Jack Ashton-Booth)*

COVERAGE

WeBS Core Counts

Coordinated, synchronous counts are advocated to prevent double-counting or birds being missed. Priority dates are recommended nationally (Table 2). Due to differences in tidal regimes around the country, counts at some estuaries were made on other dates to match the most suitable conditions. Weather and counter availability also result in some counts being made on alternative dates.

Standard Core counts were received from 2,422 sites for July 2010 to June 2011 (5% increase compared to previous year), comprising 4,476 count sectors (sub-divisions of large sites for which separate counts are provided).

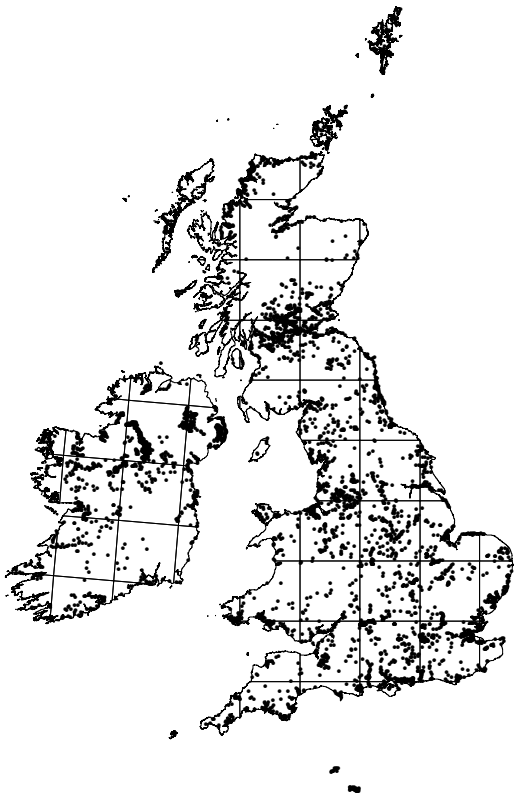

Figure 1. Position of all locations counted for standard WeBS and I-WeBS counts between July 2010 and June 2011.

WeBS and I-WeBS coverage in 2010/11 is shown in Figure 1. The location of each count sector is shown using only its central grid reference. The grid references of principal WeBS count sites mentioned in the Principal Sites table (Table 6.) are given in Table A2, Appendix 2 and are shown in Figure A1, Appendix 2.

Table 2. WeBS Core Count priority dates in 2010/11

18 July	16 January
15 August	13 February
19 September	13 March
10 October	17 April
14 November	15 May
19 December	12 June

Areas with few wetlands (*e.g.* inland Essex/ Suffolk) or low population density (*e.g.* much of Scotland) are apparent on the map as areas with little coverage. Although poorly covered compared to most areas, Northwest Scotland was again covered by the RAF Ornithological Society in 2010/11. Northern Ireland remains relatively poorly covered away from the major sites, and further volunteers from there or indeed anywhere in the UK are always welcome.

Goose censuses

In 2010/11, counts of Taiga Bean Geese were submitted by the Bean Goose Action Group (Slamannan Plateau) and the RSPB (Middle Yare Marshes). Surveys of Pink-footed and Icelandic Greylag Geese were undertaken at, primarily, roost sites in October to December 2010 as part of the Icelandic-breeding Goose Census. A census of Greylag Geese at key sites in Northwest Scotland was carried out in August 2010 and February 2011 by the Uist Greylag Goose Management Committee and other groups. Counts of Greenland White-fronted Geese were undertaken by the Greenland White-fronted Goose Study. Greenland Barnacle Geese were counted regularly by SNH and others on Islay and other key locations, while Svalbard Barnacle Geese on the Solway were counted regularly by WWT staff and volunteers. Data were also provided by the International Light-bellied Brent Goose census.

Seaduck surveys

Monthly aerial and/or land-based counts of Common Scoter in Carmarthen Bay were carried out in January to March 2010 (CCW/APEM 2012).